

**Lincoln County, Colorado**  
**Big Sandy Creek Bridge Rehabilitation**  
**CDOT Project Number: BRO C330-013**  
**CDOT Subaccount Number: 26222**

The Colorado Department of Transportation 2023 Standard Specifications for Road and Bridge Construction controls construction of this project. The following special provisions supplement or modify the Standard Specifications and take precedence over the Standard Specifications and plans.

**PROJECT SPECIAL PROVISIONS**

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**STANDARD SPECIAL PROVISIONS**

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**NOTICE TO BIDDERS**

The Proposal guaranty shall be a certified check, cashier's check or bid bond in the amount of 5 percent of the Contractor's total bid.

Pursuant to subsections 102.04 and 102.05, it is recommended that bidders on this project review the work site and plan details with an authorized Department representative. Prospective bidders shall contact one of the following listed authorized Department representatives at least 12 hours in advance of the time they wish to go over the project.

Project Manager/Engineer:

Jacob Piper, Lincoln County Administrator  
Email: lcadmin@lincolncountyco.us

The above referenced individuals are the only representatives of the Department with authority to provide any information, clarification, or interpretation regarding the plans, specifications, and any other contract documents or requirements.

A pre-bid conference is scheduled on the date contained in the Request for Bids. Bids will only be accepted from CDOT prequalified contractors.

All questions shall be directed to the County contact listed above no later than the date and time listed in the Request for Bids.

**END OF SECTION**

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**COMMENCEMENT AND COMPLETION OF WORK**  
**(WORKING DAY)**

The Contractor shall commence work under the Contract on or before the 15th day following Contract execution or the 30th day following the date of award, whichever comes later, unless such time for beginning the work is changed by Lincoln County in the "Notice to Proceed." The Contractor shall complete all work within 100 working days per the "Notice to Proceed."

**END OF SECTION**

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**DISADVANTAGED BUSINESS ENTERPRISE (DBE) CONTRACT GOAL**

This is a federally-assisted construction project. As described in the CDOT DBE Standard Special Provision, the Bidder shall make good faith efforts to meet the following contract goal:

11.5% DBE Participation

**END OF SECTION**

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**ON THE JOB TRAINING CONTRACT GOAL**

The Department has determined that On the Job Training shall be provided to trainees with the goal of developing full journey workers in the types of trade or classification involved. The contract goal for On the Job Trainees working in an approved training plan in this Contract has been established as follows:

Minimum number of total On the Job Training required 640 hours

**END OF SECTION**

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**REVISION OF SECTION 105  
CONFORMITY TO ROADWAY SMOOTHNESS CRITERIA**

**Section 105 of the Standard Specifications is hereby revised for this project as follows:**

**Subsection 105.07 (d) after the first sentence the following sentence is added:**

Incentives for pavement smoothness shall not be paid on this project.

**END OF SECTION**

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**REVISION OF SECTION 106  
HOT MIX ASPHALT – CHECK TESTING PROGRAM  
(LESS THAN 5000 TONS)**

**Revise Section 106 of the Standard Specifications for this project as follows:**

**Subsection 106.05 shall include the following:**

(d) *Check Testing Program (CTP)*. Before, or in conjunction with, placing the first 500 tons of asphalt pavement, under the direction of the Engineer, a CTP will be conducted between acceptance testing and process control testing programs. The CTP will consist of testing for asphalt content, theoretical maximum specific gravity, HMA 4.75 mm (#4) sieve, HMA 2.36 mm (#8) sieve, HMA 0.075 mm (#200) sieve, in-place density, and joint density per CP 13. If volumetric verification is required for the project, check testing shall also include testing for air voids and voids in the mineral aggregate. The CTP will be continued until the acceptance and process control tests are within the acceptable limits shown in Table 13-1 of CP 13. For joint density, the initial check test will be a comparison of the seven cores tested by CDOT and the seven cores tested by the Contractor. These are the cores from the compaction test section used for nuclear gauge calibration and test section payment.

During production, a split sample check will be conducted at the frequency shown in Table 106-1. Except for joint density, the split samples will be from an acceptance sample obtained per subsection 106.05(b). The acceptance test result will be compared to the process control test result obtained by the Contractor using the acceptable limits shown in Table 13-1 of CP 13. For joint density, the comparison sample for testing by the Contractor will be obtained by taking a second core adjacent to the joint density acceptance core. The acceptance test result will be compared to the process control test result obtained by the Contractor using the acceptable limits as shown in Table 13-1 of CP 13 and following the check testing procedure given in CP 13. If production has been suspended and then resumed, the Engineer may order a CTP between process control and acceptance testing persons to assure the test results are within the acceptable limits shown in Table 13-1 of CP 13. Check test results shall not be included in process control testing. The Region Materials Engineer shall be called upon to resolve differences if a CTP shows unresolved differences beyond the values shown in Table 13-1 of CP 13.

**END OF SECTION**



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**REVISION OF SECTION 107  
LEGAL RELATIONS AND  
RESPONSIBILITY TO PUBLIC**

**Section 107 of the Standard Specifications is hereby revised for this project as follows:**

**Subsection 107.25 Water Quality Control (c) Stormwater Construction Permit shall be deleted and replaced with:**

*(c) Stormwater Construction Permit.* A Colorado Discharge Permit System Stormwater Construction Permit (CDPS-SCP) will be obtained from CDPHE by Lincoln County. The Contractor and Lincoln County will be co-permittees. The Contractor shall coordinate with Lincoln County to become the Operator permittee of the respective permit upon award of the Contract. The Contractor shall provide a copy of permit certification as the Operator to the Engineer before or at the Pre-construction Conference. No work shall begin until the CDPS-SCP permit with Owner and Operator has been approved by CDPHE. A copy of the permit shall be placed in the project SWMP. The Contractor is legally required to obtain all other permits associated with specific activities within or outside of the right of way, such as borrow pits, concrete or asphalt plant sites, waste disposal sites, or other facilities. Staging areas within a quarter mile, but not within Lincoln County right of way shall be considered a common plan of development and permits for these facilities require permitting in the Contractor's name as Owner and Operator. These permits include local agency, federal, or other stormwater permits. The Contractor shall consult with the Engineer and contact the CDPHE or other appropriate federal, state, or local agency to determine the need for any permit.

When a Utility Company has obtained a CDPS-SCP within a Lincoln County project area, before the Contractor being on-site, the Contractor shall coordinate with the Engineer and the Utility Company to transfer or reassign the permit area within the project's Limits of Construction to the Contractor and Lincoln County before work commencing. The Contractor shall not commence construction until CDPHE issues a new CDPS-SCP identifying the Contractor as the Operator, and the permit is put in the SWMP.

To initiate acceptance of the stormwater construction work (including seeding and planting required for erosion control), the Contractor shall request in writing a Stormwater Completion Walkthrough. The Engineer will set up the walkthrough. It will include the Engineer or designated representative, Superintendent or designated representative, Stormwater Management Plan (SWMP) Administrator, and the County representative. Unsatisfactory and incomplete stormwater and sediment/erosion control work will be identified in this walkthrough and will be summarized by the Engineer in a punch list.

The completed action items associated with the corrective work will be shown as completed on the punch list. Upon completion of all items shown, the Contractor shall notify the Engineer. Upon written agreement that the punch list is completed from the Engineer, the Contractor shall submit the appropriate form to the CDPHE such that Lincoln County becomes the Operator permittee of the CDPS-SCP.

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**REVISION OF SECTION 107  
LEGAL RELATIONS AND  
RESPONSIBILITY TO PUBLIC**

Until the transfer of the permit has been approved by the CDPHE, the Contractor shall continue to adhere to all permit requirements. Requirements shall include erosion control inspections, control measure installation, control measure maintenance, control measure repair including seeded areas, and temporary control measure removal. All documentation shall be submitted to the Engineer and placed in the SWMP.

All costs associated with the Contractor applying for, holding, and transferring the CDPS-SCP permit between parties will not be measured and paid for separately, but shall be included in the work per subsection 107.02.

**END OF SECTION**

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**REVISION OF SECTION 201**  
**CLEARING AND GRUBBING**

**Section 201 of the Standard Specifications is hereby revised for this project as follows:**

**Subsection 201.02, second paragraph, shall include the following:**

The contractor shall perform mowing of existing wetlands in the clearing and grubbing area designated on the project plans as detailed on the detour typical section. The mowed area shall be 6 inches or less in height.

**END OF SECTION**

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**REVISION OF SECTION 202  
REMOVAL OF PORTIONS OF PRESENT STRUCTURE**

**Revise Section 202 of the Standard Specifications for this project to include the following:**

**DESCRIPTION**

This work consists of removal of asphalt mat, existing corrugated steel deck, steel edge dams, steel edge plates, expansion devices, guardrail, and dirt and debris from abutment and pier caps.

**CONSTRUCTION REQUIREMENTS**

**At least 10 working days before beginning removal, the Contractor shall submit a method statement to the Engineer with details of the removal operations, including the means, methods, sequence of removal, tools, and equipment to be used. The Engineer must approve all removal operations, methods, and equipment prior to the commencement of work.**

**The Contractor's method statement shall include proposed methods used to:**

- (1) Prevent debris from falling into the channel below the structure,**
- (2) Remove existing asphalt mat and corrugated steel deck,**
- (3) Protect the traveling public using and adjacent to the structure from airborne debris generated by the removal operations.**

The Contractor shall conduct removal operations to protect the traveling public and to minimally interfere with the traveling public on the detour adjacent to the structure.

The work shall be done per these Special Provisions, subsection 202, in conformity with the plans or as directed by the Engineer.

Prepare the existing steel girders to remain to fit the new construction and protect them from damage. Any damage caused by the Contractor to any portion of the structure not intended for repair shall be repaired in kind by the Contractor at the Contractor's expense using means and methods approved by the Engineer with no allowance for contract time extension.

**The Contractor is responsible for disposing of all removed material and debris.**

All materials removed from the existing structure shall become the Contractor's property; dispose of it per regulations off-site at the Contractor's expense.

Thoroughly clean all areas of the prepared surface contaminated by oil or other materials detrimental to bonding, using a method approved by the Engineer.

Within 24 hours before new concrete is placed, the entire surface upon which new concrete bonds shall be sandblasted to roughen the surface and remove all loose particles to promote good bond with the new concrete.

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**REVISION OF SECTION 202  
REMOVAL OF PORTIONS OF PRESENT STRUCTURE**

**METHOD OF MEASUREMENT**

Removal of Portions of Present Structure will be measured by the area completed and accepted.

Cleaning of prepared surfaces contaminated by oil or other materials detrimental to bonding will not be measured and paid for separately but shall be included in the work.

**BASIS OF PAYMENT**

Planned rehabilitation quantities are approximate. The accepted quantities will be paid for at the contract unit price.

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Removal of Portions of Present Structure	Square Yard

Payment for Removal of Portions of Present Structure will be total compensation for:

- All labor, materials, tools, equipment, and incidentals required to perform the removals.
- Methods to prevent debris from falling from the structure; and
- Methods to protect the traveling public adjacent to the structure from airborne debris.

Saw cutting will not be paid for separately but shall be included in the work.

Disposal of removed materials and debris will not be paid for separately but shall be included in the work.

**END OF SECTION REVISION**

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**REVISION OF SECTION 202  
REMOVAL OF DETOUR**

**Section 202 of the Standard Specifications is hereby revised for this project as follows:**

**Subsection 202.02 shall include the following:**

The Contractor shall remove the detour at the locations and to the limits shown on the plans. This work shall include the following:

- Removal of Asphalt
- Removal of Aggregate Base Course
- Removal of Embankment
- Removal of Shoring
- Removal of Pipe
- Removal of Barrier
- Removal of Geotextile (Erosion Control) (Class 1) without damaging the wetland vegetation underneath.

Embankment shall be removed to the existing grade prior to the erection of detour and reshaping the old terrain surface. The contractor shall remove the detour in a manner that allows for drainage.

**BASIS OF PAYMENT**

**Subsection 202.12 shall include the following:**

<b>Pay Item</b>	<b>Pay Unit</b>
Removal of Detour	Lump Sum

Payment for Removal of Detour will be total compensation for all labor, materials, tools, equipment, and incidentals required to perform the removals. Transporting and handling the excess embankment will not be measured and paid for separately, but shall be included in the work.

**END OF SECTION REVISION**

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**REVISION OF SECTION 203  
EMBANKMENT MATERIAL**

**Section 203 of the Standard Specifications is hereby revised for this project as follows:**

**Subsection 203.03, first paragraph, shall include the following:**

Embankment material shall meet the requirement for resistance value of 40 on the Hveem Stabilometer:

**END OF SECTION REVISION**

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**REVISION OF SECTION 214  
EXTENDED LANDSCAPE PRESERVATION**

**Revise Section 214 of the Standard Special Provision for this project as follows:**

**Subsection 214.01 shall include the following:**

This work consists of maintaining all plant material and seeded areas in a healthy and vigorous growing condition and ensuring vigorous vegetation. This includes performing landscape preservation work.

**Subsection 214.03 shall include the following:**

*(j) Record Keeping.* The contractor shall create and keep a Preservation Binder, which shall be brought to each of the inspections and copies of the information shall be provided to the Engineer upon request. The Preservation Binder shall contain the following information.

- (1) Approved preservation plan prepared by the contractor.
- (2) A diary documenting all landscape preservation activities including type of work, locations, equipment and time spent.
- (3) Licensing documentation from the Colorado Department of Agriculture for all commercial pesticide applicators working on the project.

**Delete subsection 214.04 and replace with the following:**

**214.04 Extended Landscape Preservation.** After all landscaping is completed, an inspection shall be held including the Contractor and Engineer to determine acceptability of final stabilization efforts. During the inspection, an inventory of rejected material will be made, and corrective and necessary cleanup measures will be determined. A Notice of Substantial Landscape Completion will be issued by the Engineer when all landscaping in the Contract have been planted and all work under Sections 212, 213, 214 and 623, except Extended Landscape Preservation, has been performed and accepted.

The Contractor shall perform landscape preservation work in accordance with Table 214-1 for a period of 24 months starting immediately after receiving acceptance of the Notice of Substantial Landscape Completion. The site shall be maintained in a similar condition of the landscape improvements were in when the project received the acceptance of the Notice of Substantial Landscape Completion from the Engineer.

Contractor access to private property for the landscape preservation work will not be granted.

*(a) Submittals.* Within the first two weeks of the Extended Landscape Preservation period the Contractor shall provide the following to the Engineer until written acceptance is provided:



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**REVISION OF SECTION 214  
EXTENDED LANDSCAPE PRESERVATION**

(1) A Landscape Preservation plan, which includes details and suggested changes to the requirements of Table 214-1 to the Engineer for approval. At a minimum, the plan shall provide a schedule showing the number of hours or days personnel will be present, the type of work to be performed, supervision, and equipment to be used. The plan shall provide the person to contact for emergency work and the inspection schedule.

(2) Product submittals and Safety Data Sheets (SDS) for all fertilizers, herbicides and pesticides.

(3) A plan for safe access into and route through the site during the preservation period to the Engineer for approval. The plan shall include permits or permissions for access to and from public roads or adjacent properties. Access and route shall avoid areas protected during construction (i.e., Wetlands, riparian zones, threatened and endangered species, etc.).

(b) *Contractor Qualifications.* The work shall be performed by a landscaping subcontractor having at least 5-years of experience with maintaining a project of similar size and scope.

**Table 214-1  
Work to be performed during Extended Landscape Preservation**

Work Item	Function	Function by Month												Notes
		J	F	M	A	MY	JN	JL	A	S	O	N	D	
Inspections	Inspections: The Engineer or a designated representative, and a representative from the contractor will be required to attend each inspection.		X		X	X	X	X	X	X	X		X	Inspections shall be once monthly, April through October, and every other month, November through March.  Before each inspection is to occur, the Contractor shall notify the Engineer at least 72 hours in advance.

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**REVISION OF SECTION 214**  
**EXTENDED LANDSCAPE PRESERVATION**

Mowing of areas w/ native seed	Can be mowed as a weed management plan to control re-seeding of weeds. Mowing shall only be recommended when the grasses reach a height of 18" and mowed no shorter than 6".												All mowing must be approved by the Engineer.
Weed control of areas having native seed	Areas shall be kept free of harmful insects, disease weeds. Chemical applications are anticipated in the following months (if needed).			X	X	X			X	X			Weed management strategies shall be discussed during inspections All chemical applications will require approval by the Engineer.
Reseeding of areas having native seed	All areas that have been eroded or damaged based on conditions outside of the control of the Contractor shall be assessed during the monthly inspection for soil conditioning, seeding and mulching applications.	X	X	X	X	X				X	X	X	Areas shall be evaluated during each of the inspections and if reseeding is determined necessary the Contractor shall provide an estimate to the Engineer. No repair work shall take place until written approval is provided.

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**REVISION OF SECTION 214  
EXTENDED LANDSCAPE PRESERVATION**

Removal of temporary sediment and erosion control measures	The Engineer or a designated representative at the end of the preservation period will determine which control measures should be removed										Contractor shall coordinate at the end of the landscape preservation period.
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Variations to Table 214-1 shall be included in the Landscape Preservation Plan for approval.

(c) *Final acceptance.* Upon completion of 24 months of Landscape Preservation, the Contractor shall request a walkthrough of the project site. The walkthrough shall include the Engineer and the designated representative of the Contractor. During the inspection, the Engineer will identify on a punch list any necessary repairs or replacements, which shall be made at the Contractor’s expense.

All plants shall be healthy and in flourishing condition. During the growing season plants must bear foliage of normal density, size and color. At the end of the preservation period, the seeded areas as shown in the plans shall contain no ‘A’ list noxious weeds and no more than 10% (by individual plant density) all other weeds growing on the project. All temporary access and route shall be reclaimed and seeded in accordance with applicable seeding and planting requirements. Upon completion and re-inspection of full repairs or replacements necessary the Engineer will issue a notice of final acceptance of the landscape preservation period. The contract performance bond, as required in subsection 103.03, shall include all required work involved during the Nursery Stock Warranty Period.

**Subsection 214.05 shall include the following:**

The following items will not be included in Extended Landscape Preservation:

- (1) Herbicide
- (2) Seeding
- (3) Mulching

Extended Landscape Preservation will not be measured but will be paid as a lump sum in installments as follows:

- (1) 90 percent of the lump sum amount shall be divided by the number of months in the contract and will be paid this amount each of the months.
- (2) The remaining 10 percent will be paid upon completion of the work.

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**REVISION OF SECTION 214  
EXTENDED LANDSCAPE PRESERVATION**

**Subsection 214.06 shall include the following:**

<b>Pay Item</b>	<b>Pay Unit</b>
Extended Landscape Preservation	Lump Sum

Water used for Extended Landscape Preservation will not be measured and paid for separately but shall be included in the work.

Additional slow-release organic fertilizer for Extended Landscape Preservation will not be measured and paid for separately but shall be included in the work.

Herbicide shall be measured and paid for in accordance with Section 217.

Seeding shall be measured and paid for in accordance with Section 212.

Mulching shall be measured and paid for in accordance with Section 213.

Required replacement control measures along with maintenance of control measures (sediment removal and disposal) shall be measured and paid for in accordance with Section 208.

Mobilization required for Extended Landscape Preservation will not be measured and paid for separately but shall be included in the work.

Mowing as an method of noxious weed management for Extended Landscape Preservation will not be measured and paid for separately but shall be included in the work.

**END OF SECTION REVISION**

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**REVISION OF SECTION 217  
 HERBICIDE TREATMENT**

**Section 217 of the Standard Specifications is hereby revised for the project as follows:**

**DESCRIPTION**

**Delete Subsection 217.01 and replace with the following:**

All areas to be disturbed within the project area, regardless of final disposition, shall be treated with herbicide before disturbance. After seeding and near the end of the project, if noxious weed species persist, seeded areas shall receive an additional application of herbicide. All applications shall target noxious weeds designated by the Colorado Department of Agriculture including List A, B, and C species. Recommended treatments for noxious weeds identified in the project area are summarized in the following table. Additional recommended treatments for noxious weeds including those not listed in the table below, can be found on the Colorado Department of Agriculture’s website at <https://www.colorado.gov/pacific/agconservation/noxious-weed-species>

<b>Noxious Weed</b>	<b>Plant Growth Characteristics</b>	<b>State List<sup>1</sup></b>	<b>Recommended Treatments</b>
Canada thistle ( <i>Cirsium arvense</i> )	Aggressive rhizomatous perennial of moist/wet sites; seeds and plant parts easily transported by construction equipment.	B	<p><b>Mechanical Control:</b> Due to the species’ extensive root system, hand-pulling and tilling stimulate the growth of new plants and are not recommended. Mowing every 10 to 21 days during the growing season can be effective.</p> <p><b>Herbicide Control:</b> Aminopyralid (Milestone), Clopyralid + Triclopyr, Amiocyclopyrachlor + chlorosulfur, or Picloram applied in spring before flowering and/or during fall regrowth.</p> <p><b>Cultural Control:</b> Reseed with native seed mix and prevent bare ground.</p>
Common Mullein ( <i>Verbascum thapsus</i> )	Deep-rooted biennial that spreads by seed. Emerges in the spring. Flowers and produces seeds June to August.	C	<p><b>Mechanical Control:</b> Hand pull or dig when soil is moist, prior to flowering and seed set.</p> <p><b>Herbicide Control:</b> Chlorsulfuron: Apply to rosette stages in spring and/or in fall prior to bolting.                      2,4-D                      Picloram: Apply to rosette stages in spring and/or in fall prior to bolting.                      Metsulfuron: Apply to rosette stages in spring and/or in fall.</p> <p><b>Cultural Control:</b> Reseed with native seed mix. Continually monitor after seeding.</p>

\*Continued on next page

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**REVISION OF SECTION 217  
HERBICIDE TREATMENT**

<b>Noxious Weed</b>	<b>Plant Growth Characteristics</b>	<b>State List<sup>1</sup></b>	<b>Recommended Treatments</b>
Downy Brome ( <i>Bromus tectorum</i> )	Annual or winter annual that reproduces solely by seed. Germinates in the fall, overwinters, and bolts in spring.	C	<p><b>Mechanical Control:</b> Fire, tillage, mowing, and grazing can reduce established populations.</p> <p><b>Herbicide Control:</b>                      Imazapic: Apply in fall prior to a hard freeze or during early spring growth.                      Glyphosate: Apply in fall or early spring.</p> <p><b>Cultural Control:</b> Reseed with native seed mix and prevent bare ground.</p>

<sup>1</sup>**List A** Species in Colorado that are designated by the Commissioner for eradication.

**List B** Species are species for which the Commissioner, in consultation with the state noxious weed advisory committee, local governments, and other interested parties, develops and implements state noxious weed management plans designed to stop the continued spread of these species.

**List C** Species are species for which the Commissioner, in consultation with the state noxious weed advisory committee, local governments, and other interested parties, will develop and implement state noxious weed management plans designed to support the efforts of local governing bodies to facilitate more effective integrated weed management on private and public lands.

*Dicamba may injure woody plants.*

*Glyphosate may be used in riparian areas*

*2,4-D and Transline should not be used in riparian areas or near water.*

*Picloram is persistent in the soil and should not be used in areas to be re-seeded.*

**CONSTRUCTION REQUIREMENTS**

**Section 217.03 shall include the following:**

The Contractor shall comply with the following best management practices in all construction areas to prevent the spread of noxious weeds and minimize potential effects from treatment:

- Minimization of soil disturbance to the greatest extent possible
- Clean all construction-related equipment thoroughly before off-loading at the project site and after working with weed-contaminated soils
- Coordination of weed management efforts with adjacent landowners to the extent possible
- Avoidance of non-target injury to passing pedestrians and motorists, adjacent native plant communities, landscaping, sensitive wildlife habitat (prairie dogs), and nearby beekeeping operations (if present)

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**REVISION OF SECTION 217  
HERBICIDE TREATMENT**

- Herbicides can be used immediately adjacent to wetlands, riparian areas, and/or water bodies only if the label indicates its use is appropriate for such areas
- Application of herbicides immediately adjacent to active prairie dog colonies will not be permitted
- Noxious weeds observed in and near the construction area will be treated with herbicides or mechanically removed prior to the start of construction to minimize spread
- Monitor all areas treated for noxious weeds during construction and re-treat, if necessary, to prevent re-establishment of noxious weeds

**Delete the last paragraph in Subsection 217.03, “Herbicides shall not be...”**

**METHOD OF MEASUREMENT**

**Delete Subsection 217.04 and replace with the following:**

Herbicide Treatment shall be measured by the number of person-hours required to apply herbicide, as approved by the Engineer.

Mechanical control shall be included in the cost of Clearing and Grubbing.

Seeding shall be included in the cost of 212 Seeding (Native).

**BASIS OF PAYMENT**

**Section 217.05 shall include the following:**

Payment shall be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Herbicide Treatment	Hour

**END OF SECTION REVISION**

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**REVISION OF SECTION 240  
PROTECTION OF MIGRATORY BIRDS  
BIOLOGICAL WORK PERFORMED BY THE CONTRACTOR'S BIOLOGIST**

**Section 240 of the Standard Specifications is hereby revised for this project as follows:**

**DESCRIPTION**

**Subsection 240.01 shall include the following:**

This work consists of protecting migratory birds during construction. This work consists of protecting migratory birds during construction work on structures.

**MATERIALS AND CONSTRUCTION REQUIREMENTS**

**Subsection 240.02 shall include the following:**

The Contractor shall schedule clearing and grubbing operations and work on structures to avoid taking (pursue, hunt, take, capture, or kill; attempt to take, capture, kill or possess) migratory birds protected by the Migratory Bird Treaty Act (MBTA). The Contractor shall retain a qualified wildlife biologist for this project. The wildlife biologist shall have a minimum of three years' experience conducting migratory bird surveys and implementing the requirements of the MBTA. The Contractor shall submit documentation of the biologist's education and experience to the Engineer for acceptance. A biologist with less experience may be used by the Contractor subject to the approval of the Engineer based on review of the biologist's qualifications.

The wildlife biologist shall record the location of each protected nest, bird species, the protection method used, and the date installed. A copy of these records shall be submitted to the Engineer.

The Contractor shall schedule construction activity, including clearing and grubbing operations and work on structures, to avoid taking (pursue, hunt, take, capture, or kill; attempt to take, capture, kill or possess) migratory birds or their nests protected by the Migratory Bird Treaty Act (MBTA). If construction activity is to occur between April 1 and August 31, then the following specifications must be followed and the Contractor shall retain a qualified wildlife biologist to determine where nest removal may occur or will be required during construction. The wildlife biologist shall have a minimum of three years' experience conducting migratory bird surveys and implementing the requirements of the MBTA. The Contractor shall submit documentation of the biologists' education and experience to the Engineer for acceptance. A biologist with less experience may be used by the Contractor subject to the approval of the Engineer based on review of the biologist's qualifications. If all construction activities occur after August 31 and before April 1, then the requirements set forth in this specification are not required.

The wildlife biologist shall record the location of each protected nest, bird species, the protection method used, and the date installed. A copy of these records will be submitted to the Engineer.



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**REVISION OF SECTION 240  
PROTECTION OF MIGRATORY BIRDS  
BIOLOGICAL WORK PERFORMED BY THE CONTRACTOR'S BIOLOGIST**

- (a) *Vegetation Removal.* When possible, vegetation shall be cleared before the time when active nests are present. Vegetation removal activities shall be timed to avoid the migratory bird breeding season which begins on April 1 and runs to August 31. All areas scheduled for clearing and grubbing between April 1 and August 31 shall first be surveyed within the work limits for active migratory bird nests. The Contractor's wildlife biologist shall also survey for active migratory bird nests within 50 feet outside work limits. Contractor personnel shall enter areas outside CDOT right of way only if a written, signed document granting permission to enter the property has been obtained from the property owner. The Contractor shall document all denials of permission to enter property. The Contractor shall avoid all active migratory bird nests. The Contractor shall avoid the area within 50 feet of the active nests or the area within the distance recommended by the biologist until all nests within that area have become inactive. Inactive nest removal and other necessary measures shall be incorporated into the work as follows:

When possible, vegetation shall be cleared prior to the time when active nests are present. Vegetation removal activities shall be timed to avoid the migratory bird breeding season which begins on April 1 and runs to August 31. All areas scheduled for clearing and grubbing between April 1 and August 31 shall first be surveyed by the wildlife biologist within 50 feet of the work limits for active migratory bird nests. Contractor personnel shall enter areas only if a written, signed document granting permission to enter the property has been obtained from the property owner. The Contractor shall document all denials of permission to enter property. The Contractor shall avoid all migratory bird nests. The Contractor shall avoid the area within 50 feet of the active nests or the area within the distance recommended by the biologist until all nests within that area have become inactive. Inactive nest removal and other necessary measures shall be incorporated into the work as follows.

1. *Tree and Shrub Removal or Trimming.* Tree and shrub removal or trimming shall occur before April 1 or after August 31 if possible. If tree and shrub removal or trimming will occur between April 1 and August 31, a survey for active nests shall be conducted by the wildlife biologist within the seven days immediately before the beginning of work in each area of tree and shrub removal or trimming. The survey shall be conducted for each phase of tree and shrub removal or trimming. *Tree and Shrub Removal or Trimming.* Tree and shrub removal or trimming shall occur before April 1 or after August 31 if possible. If tree and shrub removal or trimming will occur between April 1 and August 31, a survey for active nests shall be conducted by the wildlife biologist within the seven days immediately prior to the beginning of work in each area of tree and shrub removal or trimming. The survey shall be conducted for each phase of any tree or shrub removal or trimming.

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**REVISION OF SECTION 240  
PROTECTION OF MIGRATORY BIRDS  
BIOLOGICAL WORK PERFORMED BY THE CONTRACTOR'S BIOLOGIST**

If an active nest containing eggs or young birds is found, the tree or shrub containing the active nest shall remain undisturbed and protected until the nest becomes inactive. The nest shall be protected by placing fence (plastic) a minimum distance of 50 feet from each nest to be undisturbed. This buffer dimension may be changed if determined appropriate by the wildlife biologist and approved by the Engineer. Work shall not proceed within the fenced buffer area until the young have fledged or the nests have become inactive.

If the fence is knocked down or destroyed by the Contractor, the Engineer will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor's expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges but will be charged as contract time.

If an active nest containing eggs or young birds is found, the tree or shrub containing the active nest shall remain undisturbed and protected until the nest becomes inactive. The nest shall be protected by placing fence (plastic) a minimum distance of 50 feet from each nest to be undisturbed. This buffer dimension may be changed if determined appropriate by the wildlife biologist and approved by the Engineer. Work shall not proceed within the fenced buffer area until the young have fledged or the nests have become inactive. If the fence is knocked down or destroyed by the Contractor, the Engineer will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor's expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges, but will be charged as contract time.

2. *Grasses and Other Vegetation Management.* Due to the potential for encountering ground nesting birds' habitat, if work occurs between April 1 and August 31, the area shall be surveyed by a wildlife biologist within the seven days immediately before ground disturbing activities.

The undisturbed ground cover to 50 feet beyond the planned disturbance, or to the right of way line, whichever is less, shall be maintained at a height of 6 inches or less beginning April 1 and continuing until August 31 or until the end of ground disturbance work, whichever comes first.

If birds establish a nest within the survey area, an appropriate buffer of 50 feet will be established around the nest by the CDOT biologist. This buffer dimension may be changed if determined appropriate by the CDOT biologist and approved by the Engineer. The Contractor shall install fence (plastic) at the perimeter of the buffer. Work shall not proceed within the buffer until the young have fledged or the nests have become inactive.

If the fence is knocked down or destroyed by the Contractor, the Engineer will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor's expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges but will be charged as contract time.

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**REVISION OF SECTION 240  
PROTECTION OF MIGRATORY BIRDS  
BIOLOGICAL WORK PERFORMED BY THE CONTRACTOR'S BIOLOGIST**

1. *Grasses and Other Vegetation Management.* Due to the potential for encountering ground nesting birds' habitat, if work occurs between April 1 and August 31, the area shall be surveyed by a wildlife biologist within the seven days immediately prior to ground disturbing activities.

The undisturbed ground cover to 50 feet beyond the planned disturbance, or to the right-of-way line, whichever is less, shall be maintained at a height of 6 inches or less beginning April 1 and continuing until August 31 or until the end of ground disturbance work, whichever comes first.

If birds establish a nest within the survey area, an appropriate buffer of 50 feet will be established around the nest by the wildlife biologist. This buffer dimension may be changed if determined appropriate by the wildlife biologist and approved by the Engineer. The Contractor shall install fence (plastic) at the perimeter of the buffer. Work shall not proceed within the buffer until the young have fledged or the nests have become inactive.

If the fence is knocked down or destroyed by the Contractor, the Engineer will suspend the work, wholly or in part, until the fence is satisfactorily repaired at the Contractor's expense. Time lost due to such suspension will not be considered a basis for adjustment of time charges, but will be charged as contract time.

- (b) *Work on structures.* The Contractor shall prosecute work on structures in a manner that does not result in a taking of migratory birds protected by the Migratory Bird Treaty Act (MBTA). The Contractor shall not prosecute the work on structures during the primary breeding season, April 1 through August 31, unless he takes the following actions:
  - (1) The Contractor shall remove existing nests before April 1. If the Contract is not awarded before to April 1 and CDOT has removed existing nests, then the monitoring of nest building shall become the Contractor's responsibility upon Notice to Proceed.
  - (2) During the time that the birds are trying to build or occupy their nests, between April 1 and August 31, the Contractor shall monitor the structures at least once every three days for any nesting activity.
  - (3) If the birds have started to build any nests, they shall be removed before the nest is completed. Water shall not be used to remove the nests if nests are located within 50 feet of any surface waters.

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**REVISION OF SECTION 240  
PROTECTION OF MIGRATORY BIRDS  
BIOLOGICAL WORK PERFORMED BY THE CONTRACTOR'S BIOLOGIST**

If an active nest become established, i.e., there are eggs or young in the nest, all work that could result in abandonment or destruction of the nest shall be avoided until the young have fledged or the nest is unoccupied as determined by the wildlife biologist and approved by the Engineer. The Contractor shall prevent construction activity from displacing birds after they have laid their eggs and before the young have fledged.

If the project continues into the following spring, this cycle shall be repeated.

- (c) *Taking of a Migratory Bird.* The taking of a migratory bird shall be reported to the Engineer. The Contractor shall be responsible for all penalties levied by the U. S. Fish and Wildlife Service (USFWS) for the taking of a migratory bird.
- (a) *Work on Structures.* The Contractor shall conduct work on structures in a manner that does not result in a taking of migratory birds protected by the Migratory Bird Treaty Act (MBTA). The Contractor shall not conduct the work on structures during the primary birding season, April 1 through August 31, unless the Contractor takes the following actions:
- (1) The Contractor shall remove existing nests prior to April 1.
  - (2) During the time that the birds are trying to build or occupy their nests, between April 1 and August 31, the Contractor shall monitor the structures at least once every three days for any nesting activity.
  - (3) If the birds have started to build any nests, the nests shall be removed before they are completed. Water shall not be used to remove the nests if nests are located within 50 feet of any surface waters.

If an active nest becomes established, i.e., there are eggs or young in the nest, all work that could result in abandonment or destruction of the nest shall be avoided until the young have fledged or the nest is unoccupied as determined by the Contractor's biologist and approved by the Engineer. The Contractor shall prevent construction activity from displacing birds after they have laid their eggs and before the young have fledged. If the project continues into the following spring, this cycle shall be repeated.

taking of a migratory bird shall be reported to the Engineer. The Contractor shall be responsible for all penalties levied by the U. S. Fish and Wildlife Service (USFWS) for the taking of a migratory bird.

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**REVISION OF SECTION 240  
PROTECTION OF MIGRATORY BIRDS  
BIOLOGICAL WORK PERFORMED BY THE CONTRACTOR’S BIOLOGIST**

**METHOD OF MEASUREMENT**

**Subsection 240.03 shall include the following:**

Wildlife Biologist will be measured by the actual authorized number of hours a wildlife biologist is on site performing the required tasks.

Removal of nests will be measured by the actual number of man-hours spent removing inactive nests just before and during the breeding season, April 1 through August 31. During this period, the Contractor shall submit to the Engineer each week for approval a list of the workers who removed nests and the number of hours each one spent removing nests.

Wildlife Biologist will be full compensation for all work and materials required to complete the item, including wildlife biologist, wildlife survey, and documentation (record of nest location and protection method).

Clearing and grubbing will be measured and paid for in accordance with Section 201. Mowing will not be measured and paid for separately, but shall be included in the work. Removal and trimming of trees will be measured and paid for in accordance with Section 202.

Fence needed to protect migratory birds and nests will be measured and paid for in accordance with Section 607.

**BASIS OF PAYMENT**

**Subsection 240.04 shall include the following:**

The accepted quantities measured as provided above will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule.

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Wildlife Biologist	Hour
Removal of Nests	Hour

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**REVISION OF SECTION 240  
PROTECTION OF MIGRATORY BIRDS  
BIOLOGICAL WORK PERFORMED BY THE CONTRACTOR’S BIOLOGIST**

Payment for Wildlife Biologist will be full compensation for all work and materials required to complete the item, including wildlife biologist, wildlife survey, and documentation (record of nest location and protection method)

Payment for Removal of Nests will be full compensation for all work and material required to complete the work.

Clearing and grubbing will be measured and paid for per Section 201. Mowing will not be measured and paid for separately but shall be included in the work.

Removal and trimming of trees will be measured and paid for per Section 202.

Fence (Plastic) will be measured and paid for per Section 607

<b>Pay Item</b>	<b>Pay Unit</b>
Wildlife Biologist	Hour

**END OF SECTION REVISION**

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**REVISION OF SECTION 403  
 HOT MIX ASPHALT**

**Section 403 of the Standard Specifications is hereby revised for this project as follows:**

**MATERIALS**

**Subsection 403.02 shall include the following:**

The design mix for hot mix asphalt shall conform to the following:

<b>Table 403-1</b>			
<b>Property</b>	<b>Test Method</b>	<b>Value For Grading</b>	
		SX(75)	SX(75)
Air Voids, percent at: N (design)	CPL 5115	3.5 – 4.5	3.5 – 4.5
Lab Compaction (Revolutions): N (design)	CPL 5115	75	75
Stability, minimum	CPL 5106	28	28
Aggregate Retained on the 4.75 mm (No. 4) Sieve for S, SX and SG with at least 2 Mechanically Induced fractured faces, % minimum*	CP 45	60	60
Accelerated Moisture Susceptibility Tensile Strength Ratio (Lottman), minimum	CPL 5109 Method B	80	80
Minimum Dry Split Tensile Strength, kPa (psi)	CPL 5109 Method B	205 (30)	205 (30)
Grade of Asphalt Cement, Top Layer		PG 64-22	PG 64-28
Grade of Asphalt Cement, Layers below Top		PG 64-22	
Voids in the Mineral Aggregate (VMA) % minimum	CP 48	See Table 403-2	See Table 403-2
Voids Filled with Asphalt (VFA), %	AI MS-2	65-80	65-80
Dust to Asphalt Ratio			
Fine Gradation	CP 50	0.6 – 1.2	0.6 – 1.2
Coarse Gradation		0.8 – 1.6	0.8 – 1.6
Note: AI MS-2 = Asphalt Institute Manual Series 2 Note: Mixes with gradations having less than 40% passing the 4.75 mm (No. 4) sieve shall be approached with caution because of constructability problems. Note: Gradations for mixes with a nominal maximum aggregate size of one-inch or larger are considered a coarse gradation if they pass below the maximum density line at the #4 screen. Gradations for mixes with a nominal maximum aggregate size of 3/4" to 3/8" are considered a coarse gradation if they pass below the maximum density line at the #8 screen. Gradations for mixes with a nominal maximum aggregate size of #4 or smaller are considered a coarse gradation if they pass below the maximum density line at the #16 screen. *Fractured face requirements for SF may be waived by RME depending on project conditions.			

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**REVISION OF SECTION 403  
HOT MIX ASPHALT**

All mix designs shall be run with a gyratory compaction angle of 1.25 degrees and properties must satisfy Table 403-1. Form 43 will establish construction targets for Asphalt Cement and all mix properties at Air Voids up to 1.0 percent below the mix design optimum. CDOT will establish the production asphalt cement and volumetric targets based on the Contractor’s mix design and the relationships shown between the hot mix asphalt mixture volumetric properties and asphalt cement contents on the Form 429. CDOT may select a different AC content other than the one shown at optimum on the Contractor’s mix design in order to establish the production targets as contained on the Form 43. Historically, Air Voids adjustments typically result in asphalt cement increases from 0.1 to 0.5 percent. Contractors bidding the project should anticipate this change and factor it into their unit price bid.

**Table 403-2**

Nominal Maximum Size*, mm (inches)	Minimum Voids in the Mineral Aggregate (VMA)			
	***Design Air Voids **			
	3.5%	4.0%	4.5%	5.0%
37.5 (1½)	11.6	11.7	11.8	N/A
25.0 (1)	12.6	12.7	12.8	
19.0 (¾)	13.6	13.7	13.8	
12.5 (½)	14.6	14.7	14.8	
9.5 (¾)	15.6	15.7	15.8	
4.75 (No. 4)	16.6	16.7	16.8	16.9
	* The Nominal Maximum Size is defined as one sieve larger than the first sieve to retain more than 10%. ** Interpolate specified VMA values for design air voids between those listed. *** Extrapolate specified VMA values for production air voids beyond those listed.			

The Contractor shall prepare a quality control plan outlining the steps taken to minimize segregation of HMA. This plan shall be submitted to the Engineer and approved prior to beginning the paving operations. When the Engineer determines that segregation is unacceptable, the paving shall stop and the cause of segregation shall be corrected before paving operations will be allowed to resume.

CDOT approved Warm Mix Asphalt (WMA) may be allowed on this project in accordance with CP 59. Unique requirements for WMA design, production and acceptance testing as documented during CDOT WMA approval shall be submitted and approved prior to creation of the Form 43 and before any WMA production on the project. Delays to the project due to WMA submittal and review will be considered within the Contractor’s control and will be non-excusable.

A minimum of 1 percent hydrated lime by weight of the combined aggregate shall be added to the aggregate for all hot mix asphalt.



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**REVISION OF SECTION 403  
 HOT MIX ASPHALT**

Acceptance samples shall be taken at the location specified in either Method B or C of CP 41, as determined by the Region Construction and Materials personnel.

**CONSTRUCTION REQUIREMENTS**

**Subsection 403.03 shall include the following:**

The Contractor shall construct the work such that all roadway pavement placed prior to the time paving operations end for the year, shall be completed to the full thickness required by the plans. The Contractor's Progress Schedule shall show the methods to be used to comply with this requirement.

**BASIS OF PAYMENT**

**Delete subsection 403.05 and replace with the following:**

**403.05** The accepted quantities of hot mix asphalt will be paid for in accordance with subsection 401.22, at the contract unit price per ton for the bituminous mixture.

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Hot Mix Asphalt (Grading SX) (75) (PG 64-22)	Ton
Hot Mix Asphalt (Grading SX) (75) (PG 64-28)	Ton

Aggregate, asphalt recycling agent, asphalt cement, additives, hydrated lime, and all other work and materials necessary to complete each hot mix asphalt item will not be paid for separately, but shall be included in the unit price bid. When the pay item includes the PG binder grade, any change to the submitted mix design optimum asphalt cement content to establish production targets on the Form 43 will not be measured and paid for separately, but shall be included in the work. No additional compensation will be considered or paid for any additional asphalt cement, plant modifications and additional personnel required to produce the HMA as a result in a change to the mix design asphalt cement content.

Historically, typical asphalt cement increases reflected on the Form 43 are from 0.1 to 0.5 percent. However, the Contractor should anticipate the AC increases typical of his mixes. Contractors bidding the project should anticipate this change and factor it into their unit price bid.

When the pay item does not include the PG binder grade, asphalt cement will be measured and paid for in accordance with Section 411. Asphalt cement used in Hot Mix Asphalt (Patching) will not be measured and paid for separately, but shall be included in the work.

Excavation, preparation, and tack coat of areas to be patched will not be measured and paid for separately, but shall be included in the work.

**END OF SECTION REVISION**

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**REVISION OF SECTION 509**  
**STEEL STRUCTURES**

**Revise Section 509 of the Standard Specifications for this project as follows:**

**Replace subsection 509.08 with the following:**

**509.08 High Strength Bolts.** All bolts used in fastening structural steel connections shall conform to the requirements of AASHTO M 164 (ASTM A 325), commonly known as High Strength Structural Bolts (HS). Heavy Hex Structural or Tension Control Bolts with suitable Heavy Hex Nuts and Plain Hardened Washers shall be provided. Type 1 bolts shall be provided for painted and Type 3 bolts for weathering (AASHTO M 222) structural steel. The length of bolts shall be such that the end of bolt will be flush with or outside the face of the nut when properly installed. Sufficient thread shall be provided to prevent the nut from encountering thread runout.

When the plans require bolts for structural steel connections to conform to the requirements of AASHTO M 164M (ASTM A 325M), bolts shall be substituted as outlined in the following table:

AASHTO M 164M	AASHTO M 164
Bolt Diameter, mm	Bolt Diameter, Inch (mm)
M16	5/8 (15.9)
M20	7/8 (22.2)
M22	7/8 (22.2)
M24	1 (25.4)

The hardness for bolt diameters of 1/2 inch (12.7 mm) to 1 inch (25.4 mm) inclusive shall conform to the following:

HARDNESS NUMBER	Minimum	Maximum
BRINELL	248	311
ROCKWELL C	24	33

Bolt proof load tests (ASTM F 606, Method 1) and wedge tests (ASTM F 606) on full size bolts are required. Minimum frequency of testing shall be as specified in AASHTO M 164.

All nuts shall be Heavy Hex and conform to the requirements of AASHTO M 292 (ASTM A 194), heat treated grade 2H, or AASHTO M 291 (ASTM A 563), heat treated grade DH. Proof load tests of all nuts in accordance with the requirements of ASTM F 606 are required. Minimum frequency of testing shall be as specified in AASHTO M 291 or AASHTO M 292.

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**REVISION OF SECTION 509**  
**STEEL STRUCTURES**

All washers shall conform to the requirements of AASHTO M 293 (ASTM F 436).

Compressible-Washer-Type Direct Tension Indicators, if used, shall conform to the requirements of ASTM F 959.

Rotational capacity (Lubrication) tests are required and shall be performed on all bolt, nut, and washer assemblies by the manufacturer or distributor prior to shipment to the project. Washers are required as part of the test. The rotational capacity tests shall be performed in accordance with the procedure defined in AASHTO M 164 and the following:

- (a) Each combination of bolt production lot, nut lot, and washer lot shall be tested as an assembly.
- (b) A rotational capacity lot number shall be assigned to each combination of lots tested.
- (c) The minimum frequency of testing shall be two assemblies per rotational capacity lot.
- (d) The bolt, nut, and washer assembly shall be tested in a Skidmore-Wilhelm Calibrator or an acceptable equivalent device.
- (f) The minimum rotation, from a snug tight condition (10% of the specified proof load), shall be:
  - (1) 240 degrees (2/3 of a turn) for bolt lengths less than 4 diameters.
  - (2) 360 degrees (1 turn) for bolt lengths greater than 4 diameters and less than 8 diameters.
  - (3) 480 degrees (1 1/3 turns) for bolt lengths greater than 8 diameters.
- (g) The tension reached at the above rotation shall be equal to or greater than 1.15 times the required installation tension. The installation tension and the tension for the turn test are shown below:

Diameter Inch (mm)	Installation Tension (kN)      Kips	Turn Test Tension (kN)      Kips
1/2 (12.7)	12 (56.5)	14 (62.3)
5/8 (15.8)	19 (84.5)	22 (97.9)
3/4 (19.1)	28 (124.5)	32 (142.3)
7/8 (22.2)	39 (173.5)	45 (200.2)
1 (25.4)	51 (226.8)	59 (262.4)

- (h) After the required installation tension listed above has been exceeded, one reading of tension and torque shall be taken and recorded. The torque value shall conform to the following:

Torque = 0.25 PD

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**REVISION OF SECTION 509  
STEEL STRUCTURES**

Where:

- Torque = Measured Torque (foot-pounds)
- P = Measured Bolt Tension (pounds)
- D = Bolt Diameter (feet)

Bolts which are too short to be tested in the Skidmore-Wilhelm Calibrator may be tested in a steel joint. The Installation Tension requirements need not apply. The maximum torque shall be computed using a value of P equal to the Turn Test Tension.

Bolts, nuts, and washers (where required) from each rotational capacity lot shall be shipped in the same container. Each container shall be permanently marked with the rotational capacity lot number such that identification is possible at any stage prior to installation.

The Division's QA Inspector shall be provided with the following documents prior to shipment of structural steel to the project:

- (a) Certified Mill Test Reports for all mill steel used in the manufacture of the bolts, nuts, and washers. The mill test report shall indicate where the material was melted and manufactured.
- (b) Certified Laboratory Test Reports for the following:
  - (1) Bolt Hardness tests.
  - (2) Bolt proof load tests.
  - (3) Bolt wedge tests.
  - (4) Nut proof load tests.
  - (5) Rotational capacity tests.

**Subsection 509.10 shall be replaced with the following:**

**509.10 Anchor Bolts.** All anchor bolts with suitable hex nuts and plain hardened washers shall conform to the requirements of ASTM A 449 and shall be galvanized in accordance with the requirements of AASHTO M 232 (Class C) or zinc coated in accordance with ASTM B 695, Class 50.

**Subsection 509.19(c) shall include the following:**

Stiffeners shall not be mechanically forced into position.

**Subsection 509.20(a) shall include the following:**

Trapezoidal steel box girder fabrication:

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**REVISION OF SECTION 509  
STEEL STRUCTURES**

- (1) The exterior web to flange welds on trapezoidal box members, in which the included angle is less than 90 degrees, shall be welded using the flux cored arc welding process (FCAW).
- (2) The interior web to flange welds, which have included angles greater than 90 degrees, may be welded by either the submerged arc welding process (SAW) or the flux cored arc welding process.

**Subsection 509.21 shall include the following:**

The field connections of all members (girders and diaphragms) of plate girder systems with a radius of less than 800 feet and steel box girder systems shall be assembled in the shop and the holes match drilled while the connections are assembled.

Shop assembly may be complete structure assembly or progressive structure assembly at the fabricator's option:

- (a) Complete structure assembly shall consist of assembling all of the structural steel for the superstructure of the bridge.
- (b) Progressive structure assembly shall consist of initially assembling part of two adjacent girder lines simultaneously. Each girder line shall consist of at least three girders. While blocked in position, the diaphragm and girder field splices shall be fitted, and match drilled. At least one shop section shall be added at the advancing end of a girder line and the next girder line started before any section is removed from the rearward end.

All girders shall be oriented upright and blocked simultaneously in the position they will occupy on the bridge's substructure. All holes shall be drilled while the girders are blocked in this position. Marking holes to be drilled after the girders are moved is not allowed.

After the holes are drilled, all splice plates shall be positioned in their respective locations and pinned/bolted to demonstrate that the hole alignment through the multiple plate thicknesses is in accordance with the specifications. The Division's QA inspector shall be notified prior to disassembly to verify splice hole alignment. Verification of splice hole alignment shall not relieve the Contractor of the responsibility for proper fit up of the structural steel.

Quality Control shall measure flatness of the bottom flange at the bearing area. The bottom flange shall conform to the requirements of the Subsection 509.19(j). The Contractor's Quality Control Report shall list each bearing measurement.

Connecting parts assembled in the shop for field connections shall be match-marked, and two copies of a diagram showing each match-marked piece and defining how to use the marking system shall be provided to the Engineer 10 days prior to beginning structural steel erection.

The gap of abutting joints between members in a connection shall not exceed 3/8 of an inch.

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**REVISION OF SECTION 509  
STEEL STRUCTURES****Subsection 509.22 shall include the following:**

The QA Inspector will perform Rotational Capacity and Verification Tests in accordance with the procedures outlined in the Report " High-Strength Bolts for Bridges" (Report No. FHWA-SA-91-031 May 1991, revised April 1992) on all lots used for shop connections. Any rotational capacity lot that fails to conform to the requirements shall be rejected. Rotational capacity lots that fail may, at the Contractor's option, be reprocessed and submitted for retest.

Bolt assemblies shall be installed in accordance with the procedures defined in Report No. FHWA-SA-91-031 May 1991, as revised April 1992.

**Delete subsection 509.24 (c) and replace with the following:**

(c) Paint System. All structural steel, with the exception of weathering (AASHTO M 222), shall be painted with the two coat system defined in Subsection 708.03. Painting shall include a coat of primer on splice plates, faying surfaces of girders and diaphragms, and the interior surfaces of steel box girders. The primer and topcoat shall be applied in the structural steel fabrication shop prior to shipment of the steel to the project site. The primer and topcoat, color as defined in the plans, shall have a dry film thickness of 3.0 mils each. The Volatile Organic Content (VOC) of the paint shall not exceed 2.8 pounds per gallon (340 gm per liter). The QA Inspector shall be provided with a materials data sheet for all paint used on the project.

Paint shall be stored, mixed, strained, and applied in accordance with the manufacturer's application instructions. Quality Control inspections and tests shall be performed in accordance with the listed test. The Quality Control Inspector shall maintain a checklist of the pieces tested. Only deficiencies require measurement records. These records shall be forwarded to the QA Inspector.

The Contractor shall perform the test procedure ASTM D 4285 once every four operating hours to assure the absence of oil and moisture in the compressed air lines used to blast and paint.

The profile of surfaces to be painted shall be tested once every 2000 square feet (185 square meters). The procedure shall conform to ASTM D 4417.

The thinner used shall be that indicated in the Manufacturer's Technical Data Sheet. No material shall be substituted without approval. The maximum volume used in dilution shall not exceed the amount specified in the Technical Data Sheet.

The dry film thickness shall be measured to the frequency and using the procedure listed in The Structural Steel Paint Council Specification SSPC PA-2, with exception of diaphragms, bearings, and ancillary items. Ten percent of internal diaphragms in box girders, external diaphragms on all bridge girders, and ancillary items shall be spot measured (average to three readings). The Quality Control Inspector shall maintain a checklist of the members tested.

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**REVISION OF SECTION 509  
STEEL STRUCTURES**

**Replace subsection 509.28 with the following:**

**509.28 Connections Using High Strength Bolts.**

- (a) Field Connections. Only Heavy Hex Structural Bolts with Compressible-Washer-Type Direct Tension Indicators or Tension Control Bolts conforming to the requirements of Subsection 509.08 shall be used in structural steel connections.
- (b) Bolted Parts. Bolted parts shall fit solidly together when assembled and shall not be separated by gaskets or any other interposed compressible material. All joint faying surfaces, when assembled, shall be free of scale; dirt; burrs; drilling/cutting lubricants; other foreign material; and other defects that may prevent solid seating of the parts. Contact surfaces within joints shall be free of oil, paint (except primer coat), lacquer, or rust inhibitor.
- (c) Rotational Capacity and Verification Tests. The Division will perform Rotational Capacity and Verification Tests in accordance with the procedures outlined in the Report " High-Strength Bolts for Bridges" (Report No. FHWA-SA-91-031 May 1991, revised April 1992) on all lots used for field connections. Any rotational capacity lot that fails to conform to the requirements shall be rejected. Rotational capacity lots that fail may, at the Contractors option, be reprocessed and submitted for retest.
- (d) Installation. Bolt assemblies of appropriately assigned lot numbers shall be assembled together when installed in a joint. Fasteners and contact surfaces of splices shall be protected from dirt, moisture, and oil at the project site. Only as many fasteners as are anticipated to be installed and tightened during a work shift shall be taken from protected storage. Fasteners not used shall be returned to protected storage at the end of the shift. Fasteners shall not be cleaned of lubricant that is required to be present in as-delivered condition. Bolt assembly lots which are improperly stored, lack lubrication, or accumulate rust, dirt, or other contaminants shall be cleaned, relubricated, and submitted for retest as defined in Subsection 509.28(c).

Bolt assemblies shall be installed in and tensioned to the minimum tension specified in the following table:

Bolt Diameter Inch (mm)	Required Minimum Bolt Tension Kips (kN)
1/2 (12.7)	13 (57.8)
5/8 (15.8)	20 (89.0)
3/4 (19.1)	29 (129.0)
7/8 (22.2)	41 (182.4)
1 (25.4)	54 (240.2)

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**REVISION OF SECTION 509  
STEEL STRUCTURES**

Bolt assemblies shall be installed in accordance with the procedures defined in the Report "High-Strength Bolts for Bridges" (Report No. FHWA-SA-91-031 May 1991, as revised April 1992.

(e) Inspection. The Contractor shall provide an acceptable platform from which the Engineer can inspect the bolt tension and determine whether the work meets the specification requirements. The Engineer will inspect a sufficient number of fasteners to assure that the minimum bolt tension has been attained. All undertensioned bolt assemblies shall be brought into compliance.

(f) Painting of Connections. Structural steel connections in which all bolt assemblies have been satisfactorily tensioned shall be cleaned to remove the lubricant from the exposed portions of the fasteners and any other contaminants. The bolts and splice plates shall then be painted as defined in Subsection 509.24.

(g) Repair of Painted Surfaces. The Contractor shall repaint "touch up", all areas in which the paint has been damaged. Tie downs and dunnage shall be cushioned to protect painted surfaces during transit. Repainting shall include all damage incurred during transit, handling, erection of structural steel, and forming and casting the deck. Paint shall conform to Subsection 708.03. Repainting will not be measured and paid for separately but shall be included in the work.

**END OF SECTION REVISION**



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**REVISION OF SECTION 513  
BRIDGE DRAIN**

**Add Section 513 to the Standard Specifications for this project as follows:**

**DESCRIPTION**

**513.01** This work shall consist of furnishing and placing bridge drains in accordance with the details shown on the plans and the specifications.

**MATERIALS**

**513.02** Pipe for bridge drains shall meet the requirements of ASTM A53 and shall be standard weight.

Down spout pipe shall be hot dipped galvanized after fabrication. Galvanizing shall meet the requirements of AASHTO M111.

Metal used in the manufacture of castings shall meet the requirements of ASTM A48 Class 35B.

**CONSTRUCTION REQUIREMENTS**

**513.03** Bridge drains shall be placed and secured at the locations shown on the plans prior to placement of concrete.

Prior to fabrication of this item, two sets of working drawings which comply with the requirements of Section 105 shall be submitted to the Engineer for information only. The working drawings will not be approved or returned.

**METHOD OF MEASUREMENT**

**513.04** Bridge drains are to be measured will be the number of bridge drains used and accepted.

**BASIS OF PAYMENT**

**513.05** The accepted quantities of bridge drains will be paid for at the contract unit price per each.

Payment will be made under:

<u><b>Pay Item</b></u>	<u><b>Pay Unit</b></u>
Bridge Drain (Special)	Each

**END OF SECTION REVISION**

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**REVISION OF SECTION 515  
CONCRETE SEALER (CALCIUM NITRITE)**

**Revise Section 515 of the Standard Specifications for this project as follows:**

**Subsection 515.01 shall include the following:**

This work consists of applying a penetrating corrosion inhibitor to finished surfaces of existing concrete or to cut surfaces of existing concrete prior to placement of new concrete. The corrosion inhibitor shall be placed under the direction of a manufacturer's representative in accordance with the manufacturer's instructions and as described.

**Subsection 515.02 shall include the following:**

The corrosion inhibitor shall consist of calcium nitrite and liquid carriers or penetrating vehicles, or organic inhibitors such as amino alcohols. The corrosion inhibitor shall conform to AASHTO M194, except for the requirements in tables 1, and 2, and sections 11 through 17. The corrosion inhibitor shall be one on the approved products list of the Division. If there are no approved products on the list the corrosion inhibitor shall be a product approved by the Engineer. If the plans specify the use of a calcium nitrite inhibitor, the inhibitor shall be calcium nitrite, if the plans specify the use of an organic inhibitor, an organic inhibitor shall be used. If the plans do not specify the type of inhibitor, either or both types of inhibitor may be used either individually or in combination, provided that the combination use is in accordance with the manufacturer's recommendations.

**Subsection 515.05 (a) shall include the following:**

Prior to the application of the corrosion inhibitor, surfaces to be treated shall be cleaned by air, sand, or water blasting and flushed with water until all material and contaminants which may interfere with the inhibitor's penetration have been removed.

**Subsection 515.05 (b) shall include the following:**

The corrosion inhibitor shall be applied when the surface to be treated has been dry for at least 24 hours and above a temperature of 40F, or within a more restrictive temperature range if recommended by the manufacturer.

**Subsection 515.05 (c) shall include the following:**

After the exposed surfaces have been prepared and allowed to dry, coats of corrosion inhibitor shall be applied in accordance with the manufacturer's recommendations. Each coat shall be evenly applied. Each application shall be allowed to dry prior to making the next application. Exposed surfaces shall be protected from precipitation and heavy dew during and after the application of the penetrating inhibitor. Traffic shall not be allowed on the treated surface until the corrosion inhibitor has penetrated the concrete and the liquid corrosion inhibitor is no longer visible on the surface. The Contractor shall follow all manufacturer's recommendations, including penetration time, prior to opening treated surfaces to traffic or completing the work.

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**REVISION OF SECTION 515  
CONCRETE SEALER (CALCIUM NITRITE)**

Enough coats shall be applied so that each square yard of treated surface shall have absorbed 0.12 lb. of calcium nitrite or organic inhibiting agent. When treating areas from which deteriorated concrete has been removed, lap the treated area onto the adjacent surface at least 2 feet beyond the removal.

**Subsection 515.06 shall include the following:**

Concrete sealer will be measured for by the number of square yards of concrete surface covered, except when the corrosion inhibitor is used only under patches. The area measured under patches shall be the area of the patches and shall not include the treatment required for 2 feet around the patch in 515.05 (c). The pay area for each discrete location (a contiguous treated area not touching other treated areas) shall be rounded up to the next whole square yard.

**Subsection 519.07 Basis of Payment, shall include the following:**

The accepted quantity of concrete sealer will be paid for at the contract unit price per square yard complete in place. Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Concrete Sealer (Calcium Nitrite)	Square Yard

Payment will be full compensation for all work and materials required to complete the item including preparation, furnishing and applying the coats of penetrating corrosion inhibitor.

**END OF SECTION REVISION**

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**REVISION OF SECTION 518  
CONTRACTOR SUBMITTAL AND BRIDGE EXPANSION DEVICE**

**Revise Section 518 of the Standard Specifications for this project as follows:**

**In subsection 518.04, delete the second paragraph and replace with the following:**

The device shall consist of a continuous premolded elastomeric expansion joint seal (also called neoprene gland) and steel extrusions as shown on the plans, required by the manufacturer, or specified herein for attaching the elastomeric expansion joint seal to the anchored steel extrusions. The expansion device shall have a rated range of movement of 4 inches including rotations.

**In subsection 518.04, delete the fourth paragraph and replace with the following:**

Structural steel extrusions for strip seal expansion devices shall conform to the specifications of ASTM A709 Grade 36 or Grade 50W, steel extrusions for modular expansion devices and cover plates shall conform to the specifications of ASTM A709 Grade 50 or Grade 50W, whereas other structural steel shall conform to the specifications of ASTM A709 Grade 36, Grade 50 or Grade 50W. Fabrication and welding of structural steel shall conform to the requirements of Section 509. The material designations for all steel components shall be shown in the Contractor's shop drawings.

**In subsection 518.09, delete the first and second paragraph and replace with the following:**

Where applicable according to the plans, details of the expansion device through cover plates, and connections shall be shown on the shop drawings.

**Subsection 518.09 shall include the following:**

The installation of the new bridge expansion device shall conform to the staged construction required by the Lane Closure Policy unless otherwise directed or approved by the Engineer.

**Subsection 518.13 shall include the following:**

The cost for the technical representative of the manufacturer shall be included in the work.

**END OF SECTION REVISION**

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**REVISION OF SECTION 630  
TRAFFIC SIGNAL (TEMPORARY)**

**Section 630 of the Standard Specifications is hereby revised for projects as follows:**

**In subsection 630.01 shall include the following:**

This work consists of installing two temporary, portable traffic signals to control one lane alternating traffic as shown on the plans. The work includes labor, and materials to install and maintain a complete and operational system that accommodates the variations in traffic flow and removal of the installation.

**Subsection 630.04 shall include the following:**

The Contractor shall test the Traffic Signal to ensure that it is in satisfactory operating condition by operating the system prior to closing the road to one lane of traffic. The Contractor shall maintain and replace the Traffic Signal (Temporary) if the unit has been damaged or fails to operate immediately. The unit shall be kept in satisfactory operating condition during the duration of its use. The unit shall remain in place or remain available until all the work is completed or as directed by the Engineer.

**Subsection 630.10 shall include the following:**

Flaggers shall control traffic during the initial turn on of the signals. The flaggers shall remain on standby for 2 hours after the signal is turned on and operating properly or as directed by the Engineer.

**Subsection 630.15 shall include the following:**

Traffic Signal (Temporary) will be measured as the number of pairs of portable traffic signals installed and shall include 24 inches x 36 inches signs for malfunction notification and include all work necessary to provide and maintain, operate and troubleshoot a complete and operational system, as described herein, that accommodates the traffic flow.

**Subsection 630.16 shall include the following:**

<b>Pay Item</b>	<b>Pay unit</b>
Traffic Signal (Temporary)	Lump Sum

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**FORCE ACCOUNT ITEMS**

**DESCRIPTION**

This special provision contains the Department’s estimate for force account items included in the Contract. The estimated amounts marked with an asterisk will be added to the total bid to determine the amount of the performance and payment bonds. Force Account work shall be performed as directed by the Engineer.

**BASIS OF PAYMENT**

Payment will be made in accordance with subsection 109.04. Payment will constitute full compensation for all work necessary to complete the item.

Force account work valued at \$5,000 or less, that must be performed by a licensed journeyman in order to comply with federal, state, or local codes, may be paid for after receipt of an itemized statement endorsed by the Contractor.

<u>Force Account Item</u>	<u>Estimated Quantity</u>	<u>Amount</u>
F/A Minor Contract Revisions	F.A.	\$ 50,000*
F/A Asphalt Pavement Incentive	F.A.	\$ 850
F/A Fuel Cost Adjustment	F.A.	\$ 2500
F/A Asphalt Cement Cost Adjustment	F.A.	\$ 2500
F/A On-The-Job Trainee	F.A.	\$ 6400
F/A Erosion Control	F.A.	\$ 500

F/A Minor Contract Revisions – This work consists of minor work authorized and approved by the County which is not included in the contract plans or specifications, and which is necessary to accomplish the scope of work of this contract.

F/A Asphalt Pavement Incentive – Incentive/disincentive will be made in accordance with Section 106.

F/A Fuel Cost Adjustment – Contract cost adjustments will be made to reflect increases and decreases in the monthly average prices of gasoline, diesel, and other fuels from the average price for the month preceding the month in which bids were received for the contract. These cost adjustments are not changes to the Contract unit prices bid. Adjustments will be made in accordance with Section 109.

F/A Asphalt Cement Cost Adjustment - Contract cost adjustments will be made to reflect increases and decreases in the monthly average price of asphalt cement from the average price for the preceding month in which bids were received for the Contract. These cost adjustments are not changes to the contract unit prices bid. Adjustments will be made in accordance with Standard Special Provision - Asphalt Cement Cost Adjustment.

F/A On-the-Job Trainee – Cost of maintaining on-the-job pilot training program in accordance with the Standard Special Provision.

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**FORCE ACCOUNT ITEMS**

F/A Erosion Control – This work consists of erosion control items directed to be furnished and installed by the Engineer that is not included in the plans and specifications.

**END OF SECTION REVISION**

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## TRAFFIC CONTROL PLAN - GENERAL

The key elements of the Contractor's method of handling traffic (MHT) are outlined in subsection 630.10(a).

The components of the TCP for this project are included in the following:

- (1) Subsection 104.04 and Section 630 of the specifications.
- (2) Standard Plan S-630-1, Traffic Controls for Highway Construction and Standard Plan S-630-2.
- (3) Schedule of Construction Traffic Control Devices.
- (4) Signing Plans for this project.
- (5) Construction phasing details for this project.
- (6) Detour Details for this project.
- (7) Manual on Uniform Traffic Control Devices (MUTCD), latest edition, Part 6 et al

Unless otherwise approved by the Engineer, the Contractor's equipment shall follow normal and legal traffic movements. The Contractor's ingress and egress of the work area shall be accomplished with as little disruption to traffic as possible. Traffic control devices shall be removed by picking up the devices in a reverse sequence to that used for installation. This may require moving backwards through the work zone. When located behind barrier or at other locations shown on approved traffic control plans, equipment may operate in a direction opposite to adjacent traffic.

The County may have entered into operating agreements with one or more law enforcement organizations for cooperative activities. Under such agreements, at the sole discretion of the County, law enforcement personnel may enter the work zone for enforcement purposes and may participate in the Contractor's traffic control activities. The responsibility under the Contract for all traffic control resides with the Contractor and any such participation by law enforcement personnel in Contractor traffic control activities will be referenced in either the Special Provisions or General Notes of the plans depending on whether the Contractor is to hire local law enforcement or if the County is contracting with Colorado State Patrol for uniformed traffic control. Nothing in this Contract is intended to create an entitlement, on the part of the Contractor, to the services or participation of the law enforcement organization.

Special Traffic Control Plan requirements for this project are as follows:

- (1) During the construction of this project, traffic shall use the present traveled roadway unless identified on the plans or approved by the Engineer.
- (2) The Contractor shall not have construction equipment or materials in the lanes open to traffic at any time, unless approved by the Engineer.
- (3) During the work, only one lane may be closed to traffic at any time unless approved by the Engineer. Traffic shall not be delayed for more than 20 minutes or as directed by the Engineer.
- (4) At least one week before starting construction, the Contractor shall notify the County of the date the Contractor intends to start construction.

All costs incidental to the foregoing requirements shall be included in the original contract prices for the project.

**END OF SECTION REVISION**



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UTILITIES**

The known utilities within the limits of this project are:

<b>UTILITY COMPANY</b>	<b>CONTACT NAME EMAIL</b>	<b>PHONE</b>
Black Hills Energy – Gas	Alvin Kelly	1-800-303-0752
Eastern Slope Rural Tele – Fiber & Telco	Brian Miller	719-743-2441
KC Electric Association – Electric	Darren Fox	719-743-2431
Town of Hugo – Water & Sewer	Jeremy Forristall	719-306-2598

The work described in these plans and specifications requires full cooperation between the Contractor and the utility owners in accordance with subsection 105.11 in conducting their respective operations, to complete the utility work with minimum delay to the project.

All new underground facilities, including laterals up to the structure or building being served, installed as part of this project must be electronically locatable when installed, in compliance with Colorado Revised Statutes, Title 9, Article 1.5.

**PART 1 - CONTRACTOR SHALL PERFORM THE WORK LISTED BELOW:**

Coordinate project construction with the performance by the utility owner of each utility work element listed in Part 2 below. Perform preparatory work specified below for necessary utility work elements. Provide an accurate construction schedule that includes all utility work elements to the owner of each impacted utility.

Provide each utility owner with periodic updates to the schedule. Conduct necessary utility coordination meetings and provide other necessary accommodations as directed by the Engineer. Notify each utility owner in writing, with a copy to the Engineer, prior to the time each utility work element is to be performed by the utility owner. Provide notice, as specified in Part 2, immediately prior to the time the utility work must begin to meet the project schedule.

Provide traffic control, as directed by the Engineer, for any utility work performed by the utility owner within the project limits expected to be coordinated with construction of this project. However, traffic control for utility work outside of typical project work hours or project limits shall be the responsibility of the utility owner.

Protect existing facilities.

Perform each utility work element for every utility owner listed in Part 1. Notify each utility owner at least 30 days in advance of any work being done by the Contractor to its facility, so that the utility owner can coordinate its inspections for final acceptance of the work with the Engineer. Obtain written acceptance from the utility owner for work performed by Contractor.

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**UTILITIES**

The Contractor shall verify the location and depth of existing facilities for potential utility conflicts, and coordinate with the utility owner if a relocation or adjustment to raise/lower lines is needed. If a conflict is determined, the Contractor shall expose the utility owner's line if requested by the utility owner so that the utility owner can relocate or adjust to raise/lower as needed. For relocations/adjustments that are expected to be done prior to construction, the Contractor shall coordinate with the utility owner regarding the status of the work and receive as-built information from the utility owner upon completion.

The Contractor shall verify with the utility owner if an abandoned facility has been abandoned prior to any removal work. The Contractor shall remove abandoned utility facilities as necessary to accommodate construction of proposed work.

The Contractor shall follow the utility standards of the Colorado Department of Transportation (CDOT) and Lincoln County, as applicable. In cases where there are discrepancies between the standards, the more stringent standard shall apply.

The Contractor shall protect in place all utility lines and appurtenances as noted on the plans.

**Project Limits – All Utility Owners**

Prior to removals, pile driving (including pre-drilling), and guardrail installation, the Contractor shall positively locate (through potholing if necessary) all potential conflicts with existing underground utilities and proposed construction, as determined by the Contractor according to proposed methods and schedule of construction. The Contractor may modify construction plans to avoid existing underground facilities if needed, but shall be approved by the Engineer. Please note that UNCC marks only its members' facilities – other facilities, such as ditches and drainage pipes may exist, and it is the Contractor's responsibility to investigate, locate, and avoid such facilities.

The Contractor shall verify the depth and location of all utilities that may be impacted by construction via potholing/test holes and coordinate with respective Utility Owners.

The Contractor shall contact each utility company a minimum of two (2) business days, unless otherwise noted, prior to working in the utility company's area so that the utility company can provide an inspector and/or complete any necessary adjustments or relocations.

If a need for utility work by either the Contractor or a Utility Company arises, the following shall apply:

The Contractor shall be responsible for coordinating the adjustment of utilities on this project. The Contractor shall keep each utility company advised of any work being performed in the vicinity of their facilities, so that each utility company can coordinate any needed locates, adjustments or inspections. The Contractor shall provide the appropriate utility company ample notice, but not less than two (2) working days, prior to commencing activities in the vicinity of their facilities. Any additional work performed by the Contractor on behalf of the impacted utility company shall not be paid for by Lincoln County, but shall be paid by the utility company requiring the work, unless otherwise agreed to in writing by the County Engineer.

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**UTILITIES**

**PART 2 – UTILITY OWNERS SHALL PERFORM THE WORK LISTED BELOW:**

Although the Contractor shall provide traffic control for utility work expected to be coordinated with construction, traffic control for utility work outside of typical project work hours or outside of project limits shall be the responsibility of the utility owner. The utility owner shall prepare and submit to the Engineer a Method of Handling Traffic for utility work to be performed outside typical project work hours or project limits. The utility owner shall obtain acceptance of the Method of Handling Traffic from the Engineer prior to beginning the utility work to be performed outside typical project work hours or outside of project limits.

This work will be performed by the utility owners as necessary to avoid conflicts with construction activities. New locations shall be as indicated in the plans, and changes or new locations shall be coordinated with the Contractor and Engineer. Utility owners shall comply with schedule requirements of the Contractor and make every effort not to impact the overall construction schedule.

Utility owners shall follow the utility standards of the Colorado Department of Transportation (CDOT) and the County, as applicable. In cases where there are discrepancies between the standards the more stringent standard shall apply.

Utility owners are responsible for obtaining all necessary permits from Lincoln County and CDOT, as required.

**GENERAL**

Utilities are depicted on these plans in accordance with their achieved “Quality Level” as defined in the American Society of Civil Engineer’s document ASCE 38, “Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data. Reliance upon these data for risk management purposes during bidding does not relieve the excavator or utility owner from following all applicable utility damage prevention statutes, policies, and/or procedures during excavation.

The Contractor shall comply with Article 1.5 of Title 9, CRS ("Excavation Requirements") when excavating or grading is planned in the area of underground utility facilities. The Contractor shall notify all affected utilities at least two (2) business days, not including the actual day of notice, prior to commencing such operations. The Contractor shall contact the Utility Notification Center of Colorado (UNCC) at phone no. 811 or 1-800-922-1987, to have locations of UNCC registered lines marked by member companies. All other underground facilities shall be located by contacting the respective company. Utility service laterals shall also be located prior to beginning excavation or grading.

The locations of utility facilities as shown on the plan and profile sheets were obtained from the best available information. No warranty is made for the adequacy or accuracy of subsurface information provided. The Contractor shall cooperate with the utility owners in their relocation operations as provided in subsection 105.11 of the Standard Specifications for Road and Bridge Construction. No guarantee is made that utility conflicts will be resolved prior to construction activities and any delays resulting from utility relocation work shall be dealt with in accordance with subsection 108.08 of the Standard Specifications for Road and Bridge Construction as amended.

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**UTILITIES**

All costs incidental to the foregoing requirements will not be paid for separately but shall be included in the work.

**END OF SECTION REVISION**

Revision Of Sections  
101 - Definitions  
106 - Control of Materials

**Revise Section 101 of the Standard Specifications as follows:**

**Delete and replace the following definitions in subsection 101.02:**

**Subcontractor.** An individual, firm, corporation, or other legal entity at any tier to whom the Contractor sublets part of the Contract. A subcontractor shall include an individual, firm, corporation, or other legal entity who meets one or both of the following criteria:

- (a) Establishes a fabricating process or facility exclusively for the use of the Project, whether on or off the site of work per 29 CFR 5.2 Site of Work (1)(i)(ii)(iii).
- (b) Performs work that is incorporated within the Project limits.

**Supplier:** An individual, firm, or corporation who meets all of the following criteria:

- (a) Sells manufactured materials as a broker, distributor, dealer, manufacturer, or wholesaler who may or may not deliver the materials to the site of work.
- (b) The manufacturing of the materials, articles, supplies, or equipment used for the contract that is being supplied shall come from a facility or facilities that:
  - (1) Is not located on, nor does itself constitute, the project or contract's primary construction site or secondary construction site as defined in 29 CFR 5.2; and
  - (2) Either was established before opening of bids on the contract, or is not dedicated exclusively, or nearly so, to the performance of the contract.
- (c) The supplier's only obligations for activity on the contract is the delivery of materials, articles, supplies, or equipment, which may include pickup of the same in addition to, but not exclusive of, delivery, and which may also include activities incidental to such delivery and pickup, such as loading, unloading, or waiting for materials to be loaded or unloaded; and
- (d) If an entity, in addition to being engaged in the activities specified in paragraph (c) of this definition, also engages in other construction, prosecution, completion, or repair on the site of the work, then this entity is not a supplier but a contractor.

Revision Of Sections  
101 - Definitions  
106 - Control of Materials

**Revise Section 106 of the Standard Specifications as follows:**

**Delete and replace subsection 106.01 with the following:**

**106.01 Source of Supply and Quality Requirements.** All materials used shall meet all quality requirements of the Contract. The Contractor shall comply with the requirements of the special notice to contractors contained in the Department's Field Materials Manual, including notifying the Engineer of the proposed sources of materials at least two weeks before delivery.

When alternative materials are permitted for an item in the Contract, the Contractor shall state at the Pre-construction Conference the material that will be furnished for that item.

Reference in the Contract to a particular product or to the product of a specific manufacturer, followed by the phrase "or approved equal", is intended only to establish a standard of quality, durability, and design, and shall not be construed as limiting competition. Products of other manufacturers will be acceptable provided such products are equal to that specified.

All rental equipment companies and all entities who meet the Supplier definition, as outlined in 101.02, in which the written agreement exceeds \$10,000, shall have the following requirements for the Contract:

- (a) Rental equipment companies and Suppliers shall create an account in the B2GNow software system.
- (b) The Contractor shall submit a completed Form 1425 in the B2GNow software system at such time that the \$10,000 amount is known to be exceeded and/or before the following occurs on the Contract:
  - the Supplier's upper tier begins work, or
  - rental equipment is being used, or
  - incorporating materials into the Contract

Failure to comply with the requirements of this subsection shall be grounds for withholding of progress payments.

Revision of Sections 101 and 106  
Buy America and Build America, Buy America Requirements for Projects  
Containing \$500,000 or More in Federal-Aid Highway Funding

Sections 101 and 106 of the Standard Specifications shall be revised as follows:

Add the following to Subsection 101.02:

**Build America, Buy America (BABA) Requirements:** Division G, title IX, subtitle A, parts I-II, sections 70901 through 70927 of the Infrastructure Investment and Jobs Act (Pub. L. 117-58) and 2 CFR Parts 184 and 200. The “domestic content procurement preference” set forth in section 70914 of the Build America, Buy America Act, requires that all construction materials and manufactured products incorporated into the project are produced in the United States.

**Buy America (BA) Requirements:** FHWA Buy America statutory provisions are in 23 U.S.C.313 and the regulatory provisions are in 23 CFR 635.410, which requires that all of the steel and iron incorporated into the project is produced in the United States. For other policy and guidance links, see the FHWA Construction Program Guide.

**Buy America Preferences for Infrastructure Projects:** Requirements for federal-aid funded highway projects as outlined and encompassed in 2 CFR Part 184.

**Component:** An article, material, or supply, whether manufactured or unmanufactured, incorporated directly into: (i) a manufactured product; or, where applicable, (ii) an iron or steel product.

**Construction Material:** Includes an article, material, or supply that consist of only one of the following items listed means articles, materials, or supplies that consist of only one of the items listed in paragraph (1) of this definition, except as provided in paragraph (2). To the extent one of the items listed in paragraph (1) contains as inputs other items listed in paragraph (1), it is nonetheless a construction material.

(1) The listed items are:

- i. Non-ferrous metals;
- ii. Plastic and polymer-based products (including polyvinylchloride [PVC], composite building materials, and polymers used in fiber optic cables);
- iii. Glass (including optic glass);
- iv. Fiber optic cable (including drop cable);
- v. Optical fiber;
- vi. Lumber;
- vii. Engineered wood; and
- viii. Drywall.

Revision of Sections 101 and 106  
Buy America and Build America, Buy America Requirements for Projects  
Containing \$500,000 or More in Federal-Aid Highway Funding

- (2) Minor additions of articles, materials, supplies, or binding agents to a construction material do not change the categorization of the construction material.

**Cost of Components for Manufactured Products:** In determining whether the cost of components for manufactured products is greater than 55 percent of the total cost of all components, use the following instructions:

- (i) or components purchased by the manufacturer, the acquisition cost, including transportation costs to the place of incorporation into the manufactured product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or
- (ii) or components manufactured by the manufacturer, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (i) of this section, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the manufactured product.

**Infrastructure Project:** Includes, at a minimum, the structures, facilities, and equipment for, in the United States, roads, highways, and bridges; public transportation; dams, ports, harbors, and other maritime facilities; intercity passenger and freight railroads; freight and intermodal facilities; airports; water systems, including drinking water and wastewater systems; electrical transmission facilities and systems; utilities; broadband infrastructure; and buildings and real property. Infrastructure includes facilities that generate, transport, and distribute energy.

**Iron or Steel Product:** Articles, materials, or supplies that consists wholly or predominantly of iron or steel or a combination of both. Typical iron and steel products subject to Buy America preferences include, but is not limited to, structural and reinforcing steel incorporated into pavements, bridges, and buildings (such as maintenance facilities); steel rail; and other equipment.

**Manufactured Product:**

- (1) Articles, materials, or supplies that have been:
  - i. Processed into a specific form and shape; or
  - ii. Combined with other articles, materials, or supplies to create a product with different properties than the individual articles, materials, or supplies.



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- (2) If an item is classified as an iron or steel product, a construction material, or a section 70917(c) material under the definitions set forth in this section, then it is not a manufactured product. However, an article, material, or supply classified as a manufactured product under paragraph (1) of this definition may include components that are construction materials, iron or steel products, or section 70917(c) materials.

**Manufacturer:** The entity that performs the final manufacturing process that produces a manufactured product.

**Predominantly of iron or steel or a combination of both:** Means that the cost of the iron and steel content exceeds 50 percent of the total cost of all its components. The cost of iron and steel is the cost of the iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the product and a good faith estimate of the cost of iron or steel components.

**Produced in the United States:**

- (1) Steel or Iron Products: All manufacturing processes, from the initial melting/smelting stage through the application of coatings, occurred in the United States.
- (2) Manufactured Products:
- i. The product was manufactured in the United States; and
  - ii. The cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard that meets or exceeds this standard has been established under applicable law or regulation for determining the minimum amount of domestic content of the manufactured product.
- (3) Construction materials: All manufacturing processes for the construction material occurred in the United States per 106.11(f) of this specification.

**Section 70917(c) Materials:** Cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives. See section 70917(c) of the Build America, Buy America Act.

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Delete Section 106.11 of the Standard Specifications and replace with the following:

**106.11 Buy America (BA) and Build America, Buy America (BABA) Requirements**

- (a) *Contractual Documents.* This specification shall be used in conjunction with the applicable version of the Special Notice to Contractors Section of the CDOT Field Materials Manual (FMM), and the requirements therein, in effect at the time of bidding. The Special Notice to Contractors Section of the FMM, and the requirements therein, shall be considered a contractual document when this specification is included.
- (b) *Categorization of articles, materials, and supplies.*
- (1) An article, material, or supply should only be classified into one of the following categories:
    - i. Iron or steel products;
    - ii. Manufactured products;
    - iii. Construction materials; or
    - iv. Section 70917(c) materials.
  - (2) An article, material, or supply should not be considered to fall into multiple categories. In some cases, an article, material, or supply may not fall under any of the categories listed in paragraph (b)(1) of this section. The classification of an article, material, or supply as falling into one of the categories listed in paragraph (b)(1) must be made based on its status at the time it is brought to the work site for incorporation into an infrastructure project. In general, the work site is the location of the infrastructure project at which the iron, steel, manufactured products, and construction materials will be incorporated.
  - (3) An article, material, or supply incorporated into an infrastructure project must meet the Buy America Preference for only the single category in which it is classified.
- (c) *Steel or Iron Products.* All manufacturing processes, including the application of a coating, for all steel or iron products permanently incorporated in the work shall have occurred in the United States of America. All manufacturing processes include the processes that change the raw ore or scrap metal into a finished steel or iron product.

The Contractor shall obtain and maintain on file Buy America certifications that every process from either the original smelting or melting operation, including

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the application of a coating, performed on steel or iron products either has or has not been carried out in the United States of America. These Buy America certifications apply to every steel and iron product that requires pre-inspection, pretesting, certified test results, or a certificate of compliance. Shipping invoices, bar lists, and mill test reports shall accompany the Buy America certifications. These Buy America certifications shall be obtained from each supplier, distributor, fabricator, and manufacturer that has handled each steel or iron product. These Buy America certifications shall create a chain of custody trail for every supplier, distributor, fabricator, and manufacturer that handled the steel or iron product and shall include certified mill test reports with heat numbers from either the original smelting or melting operation. Prior to the permanent incorporation or payment for the steel or iron products, the Contractor shall also provide a copy of these certifications to the Project Engineer. The Contractor shall allow the State, FHWA, and their representatives access to the Buy America certifications including supporting documentation upon request. The lack of these certifications will be justification for rejection of the steel or iron product.

Before the permanent incorporation into the project and before payment for steel or iron products, the Contractor shall also provide the following for every iron or steel product that is delivered:

- (i) *Contractor Compliance Certification.* The compliance certification document shall certify in writing that the Contractor has received and reviewed the Buy America certifications and supplied them to the Project Engineer; the certification(s) and supporting documentation is on file and complies with the Buy America requirements; and when requested, the Contractor has submitted the required documentation to FHWA or other CDOT representatives.
- (ii) *Monthly Summary of Buy America Certifications.* The Contractor shall also maintain a document that summarizes the date and quantity of all steel and iron material delivered to the project. This summary document shall include the pay item, quantity of material delivered to the project, delivered cost of the pay item, and the quantity of material installed by the monthly progress payment cutoff date. The summary document shall reconcile the pay item for the material delivered to the project to the Buy America certifications. The summary document shall also include the delivered cost of all foreign steel or iron delivered and permanently incorporated into the project, if applicable. The Contractor shall also submit a summary document for each month that no steel or iron products

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are incorporated into or delivered to the project. The Contractor shall submit the summary document to the Engineer by the monthly progress payment cutoff date.

The Contractor shall obtain and maintain on file Buy America certifications that every process from either the original smelting or melting operation, including the application of a coating, performed on steel or iron products either has or has not been carried out in the United States of America. These Buy America certifications apply to every steel and iron product that requires pre-inspection, pretesting, certified test results, or a certificate of compliance. Shipping invoices, bar lists, and mill test reports shall accompany the Buy America certifications. These Buy America certifications shall be obtained from each supplier, distributor, fabricator, and manufacturer that has handled each steel or iron product. These Buy America certifications shall create a chain of custody trail for every supplier, distributor, fabricator, and manufacturer that handled the steel or iron product and shall include certified mill test reports with heat numbers from either the original smelting or melting operation. Prior to the permanent incorporation or payment for the steel or iron products, the Contractor shall also provide a copy of these certifications to the Project Engineer. The Contractor shall allow the State, FHWA, and their representatives access to the Buy America certifications including supporting documentation upon request. The lack of these certifications will be justification for rejection of the steel or iron product.

This requirement will not prevent a minimal use of foreign steel or iron, provided the total cost, including delivery to the project, of all such steel and iron products does not exceed 1/10 of one percent (i.e., 0.1%) of the total contract cost or \$2,500, whichever is greater. When there is foreign steel or iron permanently incorporated into the project, the Contractor shall provide documentation of the project delivered cost of that foreign steel or iron to the Project Engineer.

- (d) *Manufactured Products.* The FHWA's 1983 Buy America Final Rule, (see <https://www.fhwa.dot.gov/construction/contracts/831125.cfm>) waive the application of Build America, Buy America requirements for manufactured products that do not include steel and iron components. However, Buy America requirements apply to steel or iron components of manufactured products (i.e. steel wire mesh or steel reinforcing components of precast reinforced concrete products).

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- (e) *Glass Beads for Pavement Marking.* All post-consumer and industrial glass beads for pavement marking shall have been manufactured from North American glass waste streams in the United States of America. The bead manufacturer shall submit a COC in accordance with subsection 106.12 confirming that North American glass waste streams were used in the manufacture of the glass beads.
- (f) *Construction Materials.* Build America, Buy America (BABA) requirements apply to the following construction materials incorporated into infrastructure projects. Each listed construction material is followed by material-specific manufacturing process criteria that is necessary to be considered “produced in the United States.”
1. Non-ferrous metals. All manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly, occurred in the United States;
  2. Plastic and polymer-based products (including polyvinylchloride [PVC], composite building materials, and polymers used in fiber optic cables). All manufacturing processes, from initial combination of constituent plastic or polymer-based inputs, or, where applicable, constituent composite materials, until the item is in its final form, occurred in the United States;
  3. Glass (including optic glass). All manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting, occurred in the United States. See section 106.11(d) of the CDOT Specifications for additional requirements related to glass beads for pavement marking;
  4. Fiber optic cable (including drop cable). All manufacturing processes, from the initial ribboning (if applicable), through buffering, fiber stranding and jacketing, occurred in the United States. All manufacturing processes also include the standards for glass and optical fiber, but not for non-ferrous metals, plastic and polymer-based products, or any others;
  5. Optical fiber. All manufacturing processes, from the initial preform fabrication stage through the completion of the draw, occurred in the United States;
  6. Lumber. All manufacturing processes, from initial debarking through treatment and planing, occurred in the United States;
  7. Engineered wood. All manufacturing processes from the initial combination of constituent materials until the wood product is in its final form, occurred in the United States; and
  8. Drywall. All manufacturing processes, from initial blending of mined or

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synthetic gypsum plaster and additives through cutting and drying of sandwiched panels, occurred in the United States.

Except as specifically provided, only a single standard under paragraph (f) of this section should be applied to a single construction material.

Before the permanent incorporation into the project and before payment for all eligible construction materials, the Contractor shall obtain a certification from each supplier, distributor, fabricator, and manufacturer that has handled the construction material and submit it to the Project Engineer. This certification shall identify that every material-specific manufacturing process as listed above either has or has not been carried out in the United States of America and shall attest specifically to Build America, Buy America compliance.

In the case that eligible construction materials are permanently incorporated into the project, the Contractor shall maintain and submit on a monthly basis, CDOT Form #1600, Contractor's Certificate of Compliance summarizing the Item Description, CDOT Bid Item Number, Manufacturer Name, Date, and Quantity Received, Date and Quantity Installed, Bid Item Unit, and delivered cost of all eligible construction materials. The completed Form #1600(s) shall be kept in the project files and shall be submitted as part of the material final documentation package.

In the case that no eligible construction materials are permanently incorporated into the project, the Contractor shall maintain and submit on a monthly basis, CDOT Form #1610, Non-Applicable Projects: Build America, Buy America (BABA), certifying that no construction materials subject to Build America, Buy America requirements as defined in this section will be permanently incorporated into the project. The completed Form #1610(s) shall be kept in the project files and shall be submitted as part of the material final documentation package.

Form #1600 or Form #1610 does not relieve the Contractor of providing the necessary Build America, Buy America supplier certifications prior to permanent incorporation into the project or before payment for the material. The Contractor shall allow the State, FHWA, and their representatives access to the Buy America and Build America, Buy America certifications and supporting documentation upon request. The lack of these certifications will be justification for rejection of the construction material.

- (i) This requirement will not prevent a minimal use of foreign construction

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materials, provided the total cost of non-compliant materials, including delivery to the project, of all such construction materials does not exceed \$1,000,000 or five percent of the total applicable project costs, whichever is lesser. Total applicable project costs are defined as the cost of materials (including the cost of any manufactured products) used in the project that are subject to Buy America and/or Build America, Buy America requirements. When there are foreign construction materials permanently incorporated into the project, the Contractor shall provide documentation of the project delivered cost of the non-compliant materials to the Project Engineer before permanent incorporation or payment. Form #1600 shall be used to track the total applicable project cost of all materials subject to Buy America and/or Build America, Buy America requirements. The foreign construction material minimal use threshold percentage of five percent shall not be exceeded in any given month.

- (g) Section 70917(c) materials including cement and cementitious materials; aggregates such as stone, sand, or gravel; and aggregate binding agents or additives are not subject to Build America, Buy America requirements.
- (h) *Project Level Waivers*. The Federal Highway Administration is responsible for processing and approving all waivers, including waivers requested by recipients and on behalf of subrecipients. More information on Buy America waivers can be found in the Field Materials Manual Special Notice to Contractors.

If a Contractor desires to pursue a waiver they shall notify the CDOT Project Engineer in writing who will then submit it to the CDOT Materials & Geotechnical Services Unit, Pavement Design and Documentation Services Program. The Pavement Design and Documentation Services Program will review it and forward it to the FHWA Division Office for consideration.

A Contractor's decision to pursue any waivers on the project shall not waive or otherwise nullify any provisions of the Contract. In addition, the time to obtain a waiver shall be considered a non-excusable, non-compensable delay and Liquidated Damages (per Subsection 108.09) will be enforced should the Contract Time (original or as amended) expire due to the approval or non-approval of a waiver.

The Contractor will not be entitled to an extension of contract time due to the approval or non-approval of a waiver and no such claim will be considered.

**October 1, 2023**

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**Revision of Section 105  
Construction Drawings**

**Section 105 of the Standard Specifications is hereby revised for this project as follows:**

**Delete subsection 105.02(f).**



October 1, 2023

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## Revision of Section 105 Control Of Work

**Revise Section 105 of the Standard Specifications as follows:**

**Revise Paragraphs 4, 5 and 6 of Subsection 105.20 as follows:**

If damage occurs to an existing structure through improper maintenance per 105.19, the Contractor shall submit a repair procedure to the Engineer to repair the defect(s).

The repair categories and requirements are defined as follows:

- a) *“In-kind” repairs*. In-kind repairs are repairs where the As-Built or Advertised plans are utilized to replace or repair damaged components with identical dimensions and materials used plans and where no plan modifications are made. In-kind repair procedures shall be reviewed and accepted by the Engineer before any repair. The use of approved repair grouts or doweled reinforcing with epoxy adhesive is permitted in in-kind repairs. Doweled reinforcing shall meet or exceed the strength requirements of the original design.
- b) *“Modified repairs”*. Modified repairs are those which deviate in dimensions and/or materials from the As-Built or Advertised plans or where plans are not available. Modified repair procedure submittals shall include calculations, independent design calculations, shop drawings, and/or working drawings per 105.02, and any other applicable section of the specifications for the needed repair. The Contractor’s Engineer shall electronically seal Modified repair submittals.

Damage to new structures or modified structures, shall be repaired per the contract documents.

The Engineer of Record shall be notified and review all corresponding submittals before any repairs.

**REVISION OF SECTIONS OF 105  
DISPUTE REVIEW BOARD AND  
CLAIMS FOR UNRESOLVED DISPUTES**

**Revise Section 105 of the Standard Specifications as follows:**

**Delete and replace Section 105.23 (i) with the following:**

- (i) *Dispute Review Board Recommendation.* The DRB shall issue a Recommendation per the following procedures:
1. The DRB shall not make a recommendation on the dispute at the meeting. Before the closure of the hearing, the DRB members and the Contractor and CDOT together will discuss the time needed for analysis and review of the dispute and the issuance of the DRB's recommendation. The maximum time shall be 30 days unless otherwise agreed to by both parties.
  2. After the meeting has been closed, the DRB shall prepare a written Recommendation signed by each member of the DRB. In the case of a three member DRB where one member dissents, that member shall prepare a written dissent and sign it. The DRB's recommendation shall include the following:
    - (a) A summary of the issues and factual evidence presented by the Contractor and CDOT concerning the dispute.
    - (b) Recommendations concerning the validity of the dispute.
    - (c) Recommendations concerning the value of the dispute as to cost impacts if the dispute is determined to be valid.
    - (d) The contractual and factual bases supporting the recommendation(s) made including an explanation as to why each and every position was accepted or rejected.
    - (e) Detailed and supportable calculations which support any recommendation(s).
  3. The chairperson shall transmit the signed Recommendation and any supporting documents to both parties.

**105.24 Claims for Unresolved Disputes delete and replace with the following:**

**105.24 Claims for Unresolved Disputes.** The Contractor may file a claim only if the disputes resolution process described in subsections 105.22 and 105.23 has been exhausted without resolution of the dispute. Other methods of nonbinding dispute resolution, exclusive of litigation, can be used if agreed to by both parties.

This subsection applies to any unresolved dispute or set of disputes between CDOT and the Contractor with an aggregate value of more than \$15,000. Unresolved disputes with an aggregate value of more than \$15,000 from subcontractors, materials suppliers or any other entity not a party to the Contract shall be submitted through the Contractor per this subsection as a pass-through claim. Review of a pass-through claim does not create privity of Contract between CDOT and any other entity.

Subsections 105.22, 105.23 and 105.24 provide both contractual alternative dispute resolution

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processes and constitute remedy- granting provisions pursuant to Colorado Revised Statutes (CRS) which must be exhausted in their entirety.

Litigation proceedings must commence within 180-calendar days of the Chief Engineer's decision, absent written agreement otherwise by both parties.

The venue for all unresolved disputes with an aggregate value \$15,000 or less shall be the County Court for the City and County of Denver.

Non-binding Forms of alternative dispute resolution such as Mediation are available upon mutual agreement of the parties for all claims submitted per this subsection.

The cost of the non-binding ADR process shall be shared equally by both parties with each party bearing its own preparation costs. The type of nonbinding ADR process shall be agreed upon by the parties and shall be conducted within the State of Colorado at a mutually acceptable location. Participation in a nonbinding ADR process does not in any way waive the requirement that litigation proceedings must commence within 180-calendar days of the Chief Engineer's decision, absent written agreement otherwise by both parties.

*(a) Notice of Intent to File a Claim.* Within 30 days after rejection of the Dispute Resolution Board's Recommendation issued per subsection 105.23, the Contractor shall provide the Region Transportation Director (RTD) with a written notice of intent to file a claim. The Contractor shall also send a copy of this notice to the Resident Engineer. For the purpose of this subsection, Region Transportation Director shall mean the Region Transportation Director or the Region Transportation Director's designated representative. CDOT will acknowledge in writing receipt of Notice of Intent within seven days.

*(b) Claim Package Submission.* Within 60 days after submitting the notice of intent to file a claim, the Contractor shall submit to the RTD five copies of a complete claim package representing the final position the Contractor wishes to have considered. All claims shall be in writing and in sufficient detail to enable the RTD to ascertain the basis and amount of claim. The claim package shall include all documents supporting the claim, regardless of whether such documents were provided previously to CDOT.

If requested by the Contractor, the 60-day period may be extended by the RTD in writing before final acceptance. At a minimum, the following information shall accompany each claim:

1. A claim certification containing the following language, as appropriate:

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A. For a direct claim by the Contractor:

CONTRACTOR'S CLAIM CERTIFICATION

Under penalty of law for perjury or falsification, the undersigned, (name) \_\_\_\_\_, (title) \_\_\_\_\_, of \_\_\_\_\_ (company) \_\_\_\_\_, hereby certifies that the claim of \$\_\_ for extra compensation and \_\_\_\_\_ Days additional time, made for work on this Contract is true to the best of my knowledge and belief and supported under the Contract between the parties.

This claim package contains all available documents that support the claims made and I understand that no additional information, other than for clarification and data supporting previously submitted documentation, may be presented by me.

Dated \_\_\_\_\_/s/ \_\_

Subscribed and sworn before me this day of \_\_\_\_\_

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NOTARY PUBLIC

My Commission Expires: \_\_\_\_\_

B. For a pass-through claim:

PASS-THROUGH CLAIM CERTIFICATION

Under penalty of law for perjury or falsification, the undersigned, (name) \_\_\_\_\_, (title) \_\_\_\_\_, of \_\_\_\_\_ (company) \_\_\_\_\_, hereby certifies that the claim of \$\_\_ for extra compensation and \_\_\_\_\_ Days additional time, made for work on this Project is true to the best of my knowledge and belief and supported under the Contract between the parties.

This claim package contains all available documents that support the claims made and I understand that no additional information, other than for clarification and data supporting previously submitted documentation, may be presented by me.

— Dated \_\_\_\_\_/s/ \_\_

Subscribed and sworn before me this day of \_\_\_\_\_

NOTARY PUBLIC

My Commission Expires: \_\_\_\_\_

Dated \_\_\_\_\_/s

The Contractor certifies that the claim being passed through to CDOT is passed through in good faith and is accurate and complete to the best of my knowledge and belief.

— Dated \_\_\_\_\_/s/ \_\_

Subscribed and sworn before me this day of \_\_\_\_\_

NOTARY PUBLIC

My Commission Expires: \_\_\_\_\_

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2. A detailed factual statement of the claim for additional compensation, time, or both, providing all necessary dates, locations, and items of work affected by the claim. The Contractor's detailed factual statement shall expressly describe the basis of the claim and factual evidence supporting the claim. This requirement is not satisfied by simply incorporating into the claim package other documents that describe the basis of the claim and supporting factual evidence.
3. The date on which facts were discovered which gave rise to the claim.
4. The name, title, and activity of all known CDOT, Consultant, and other individuals who may be knowledgeable about facts giving rise to such claim.
5. The name, title, and activity of all known Contractor, subcontractor, supplier and other individuals who may be knowledgeable about facts giving rise to such claim.
6. The specific provisions of the Contract, which support the claim and a statement of the reasons why such provisions support the claim.
7. If the claim relates to a decision of the Project Engineer, which the Contract leaves to the Project Engineer's discretion, the Contractor shall set out in detail all facts supporting its position relating to the decision of the Project Engineer.
8. The identification of any documents and the substance of all oral communications that support the claim.
9. Copies of all known documents that support the claim.
10. The Dispute Review Board Recommendation.
11. If an extension of contract time is sought, the documents required by subsection 108.08(d).
12. If additional compensation is sought, the exact amount sought and a breakdown of that amount into the following categories:
  - A. These categories represent the only costs that, if applicable, are recoverable by the Contractor. All other costs or categories of costs are not recoverable:
    - (1) Actual wages and benefits, including FICA, paid for additional labor.
    - (2) Costs for additional bond, insurance, and tax.
    - (3) Increased costs for materials.
    - (4) Equipment costs calculated per subsection 109.04(c) for Contractor owned equipment and based on certified invoice costs for rented equipment.
    - (5) Costs of extended job site overhead (only applies if the dispute also includes a time extension).
    - (6) Salaried employees assigned to the project (only applies if the dispute also includes a time extension or if the dispute required salaried employee(s) to be added to the Project).
    - (7) Claims from subcontractors and suppliers at any level (the same level of detail as specified is required for all such claims).

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- (8) An additional 16 percent will be added to the total of items (1) through (7) as compensation for items for which no specific allowance is provided, including profit and home office overhead.
- (9) Interest shall be paid per CRS 5-12-102 beginning from the date of the Notice of Intent to File Claim.

B. In adjustment for the costs as allowed above, the Department will have no liability for the following items of damages or expense:

- (1) Profit in excess of that provided in 12.A.(8) above.
- (2) Loss of Profit.
- (3) Additional cost of labor inefficiencies in excess of that provided in A. above.
- (4) Home office overhead in excess of that provided in A. above.
- (5) Consequential damages, including but not limited to loss of bonding capacity, loss of bidding opportunities, and insolvency.
- (6) Indirect costs or expenses of any nature in excess of that provided in A. above.
- (7) Attorney's fees, claim preparation fees, and expert fees.

(c) *Region Transportation Director Decision.* When the Contractor properly files a claim, the RTD will review the claim and render a written decision to the Contractor to either affirm or deny the claim, in whole or in part, per the following procedure.

The RTD may consolidate all related claims on a project and issue one decision, provided that consolidation does not extend the time period within which the RTD is to render a decision. Consolidation of unrelated claims will not be made.

The RTD will render a written decision to the Contractor within 90 days after the receipt of the claim package or receipt of the audit whichever is later. In rendering the decision, the RTD: (1) will review the information in the Contractor's claim; (2) will conduct a hearing if requested by either party; and (3) may consider any other information available in rendering a decision.

The RTD will assemble and maintain a claim record comprised of all information physically submitted by the Contractor in support of the claim and all other discoverable information considered by the RTD in reaching a decision. Once the RTD assembles the claim record, the submission and consideration of additional information, other than for clarification and data supporting previously submitted documentation, at any subsequent level of review by anyone, will not be permitted.

The RTD will provide a copy of the claim record and the written decision to the Contractor describing the information considered by the RTD in reaching a decision and the basis for that decision. If the RTD fails to render a written decision within the 60-day period, or within any extended time period as agreed to by both parties, the Contractor shall either: (1) accept this as a denial of the claim, or (2) appeal the claim to the Chief Engineer, as

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described in this subsection.

If the Contractor accepts the RTD decision, the provisions of the decision shall be implemented per subsections 108.08, 109.04, 109.05, or 109.10 and the claim is resolved.

If the Contractor disagrees with the RTD decision, the Contractor shall either: (1) accept the RTD decision as final, or (2) file a written appeal to the Chief Engineer within 30 days from the receipt of the RTD decision. The Contractor hereby agrees that if a written appeal is not properly filed, the RTD decision is final.

- (d) *Chief Engineer Decision.* When a claim is appealed, the RTD will provide the claim record to the Chief Engineer. Within 15 days of the appeal either party may submit a written request for a hearing with the Chief Engineer or duly authorized Headquarters delegates. The Chief Engineer or a duly authorized Headquarters delegate will review the claim and render a decision to affirm, overrule, or modify the RTD decision per the following.

The Chief Engineer will render a written decision within 60 days after receiving the written appeal. The Chief Engineer will not consider any information that was not previously made a part of the claim record, other than clarification and data supporting previously submitted documentation.

The Contractor shall have 30 days to accept or reject the Chief Engineer's decision. The Contractor shall notify the Chief Engineer of its acceptance or rejection in writing.

If the Contractor accepts the Chief Engineer's decision, the provisions of the decision will be implemented per subsections 108.08, 109.04, 109.05, or 109.10 and the claim is resolved.

If the Contractor disagrees with the Chief Engineer's decision, the Contractor shall either (1) pursue an alternative dispute resolution process per this specification or (2) initiate litigation per subsection 105.24(f).

If the Chief Engineer does not issue a decision as required, the Contractor may immediately initiate litigation per subsection 105.24(f).

For the convenience of the parties to the Contract it is mutually agreed by the parties that any merit binding or De Novo litigation shall be brought within 180-calendar days from the date of the Chief Engineer's decision. The parties understand and agree that the Contractor's failure to bring suit within the time period provided, shall be a complete bar to any such claims or causes of action.

- (e) *De Novo Litigation* If the Contractor disagrees with the Chief Engineer's decision, the Contractor may initiate de novo litigation to finally resolve the claim that the Contractor submitted to CDOT. Such litigation shall be strictly limited to those claims that were previously submitted and decided in the contractual dispute and claims processes outlined. This does not preclude the joining in one litigation of multiple claims from the same project provided that each claim has gone through the dispute and claim process specified in subsections 105.22 through 105.24. The parties may agree, in writing, at any time, to pursue some other form of alternative dispute resolution.

Any offer made by the Contractor or the Department at any stage of the claims process,

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CLAIMS FOR UNRESOLVED DISPUTES**

as set forth in this subsection, shall be deemed an offer of settlement pursuant to Colorado Rule of Evidence 408 and therefore inadmissible in any litigation.

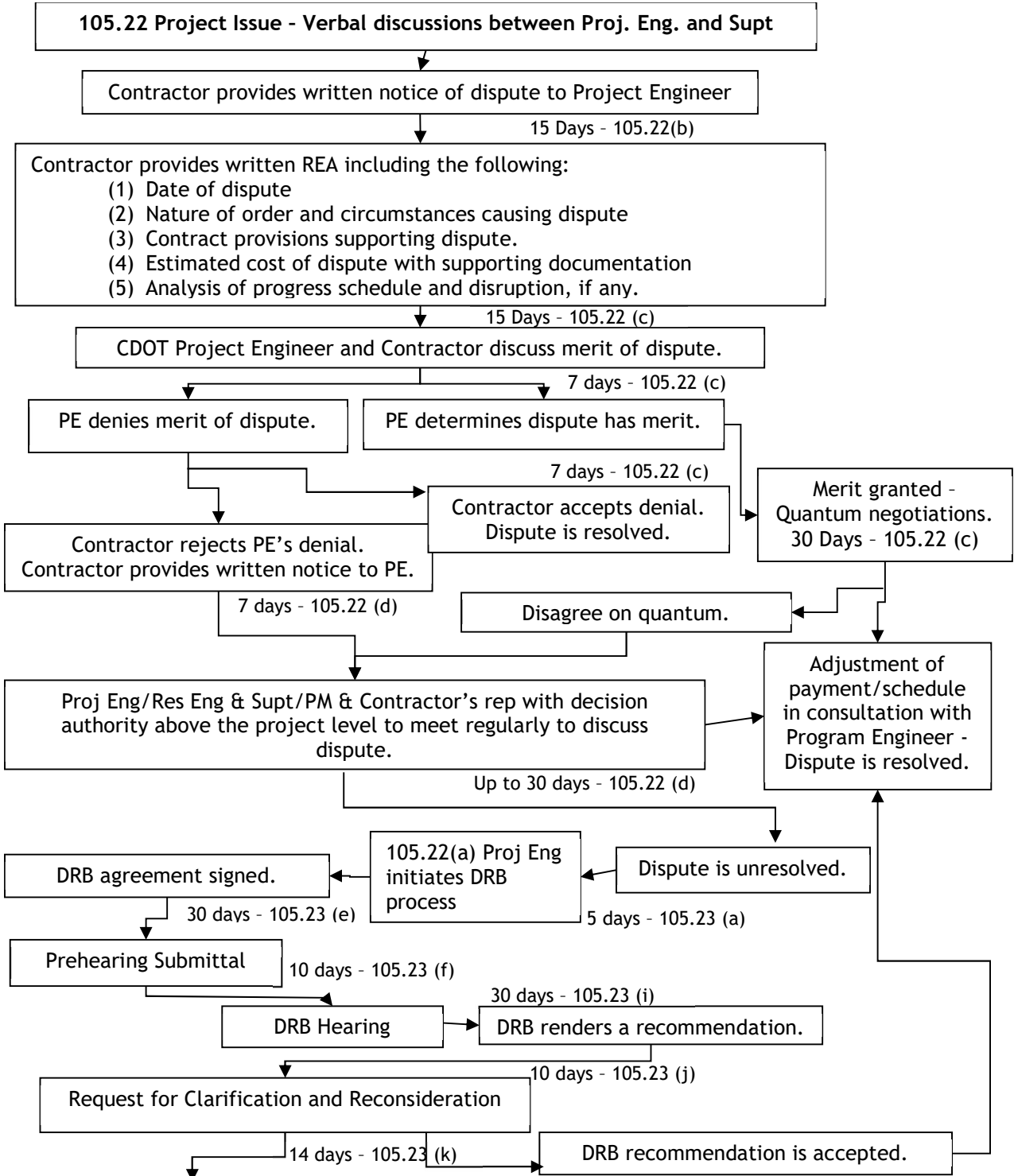
If the Contractor selected litigation, then de novo litigation shall proceed per the Colorado Rules of Civil Procedure and the proper venue is the Colorado State District Court in and for the City and County of Denver.



# REVISION OF SECTIONS OF 105 DISPUTE REVIEW BOARD AND CLAIMS FOR UNRESOLVED DISPUTES

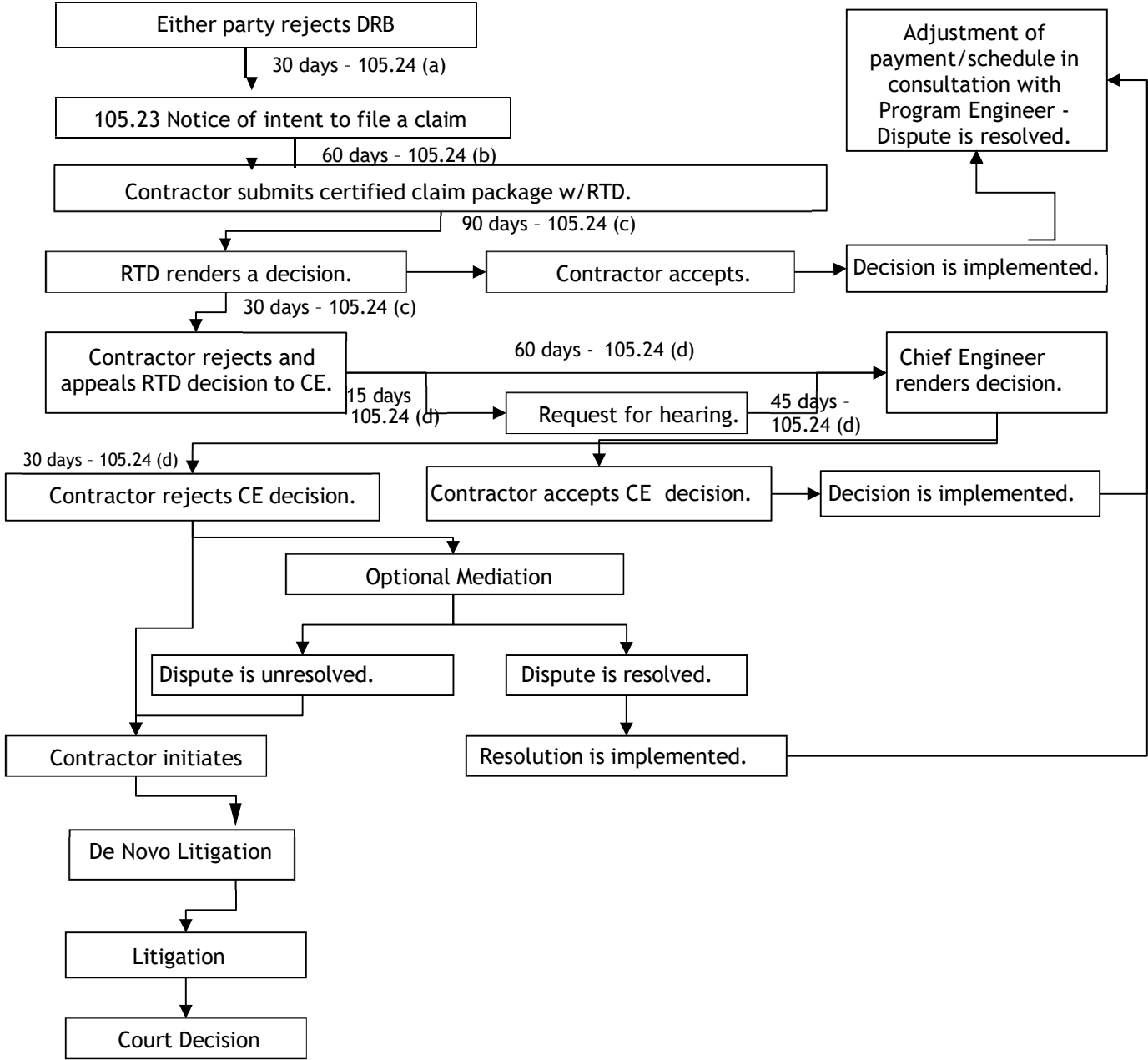
Figure 105-1 DISPUTES AND CLAIMS FLOW CHART

(Note: If an audit is to be performed, durations in this flow chart are extended accordingly)



# REVISION OF SECTIONS OF 105 DISPUTE REVIEW BOARD AND CLAIMS FOR UNRESOLVED DISPUTES

Figure 105-1  
(continued)



January 8, 2024

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## Revision Of Section 105 E-Signature

**Revise Section 105 of the Standard Specifications as follows:**

**Add the following to Subsection 105.08:**

**105.08 Document Management and Professional Engineer and Professional Land Surveyor Electronic Seals.** Where the specifications require the Contractor to submit or return documents either in writing or the format is not specified, an electronic file is preferred. The Contractor shall submit the schedule native file, video recordings, photographs, image files, and other media formats in their native file formats. When the document format is not specified, the contractor shall submit electronic documents in PDF. When a submittal requires multiple copies, one electronic document shall satisfy the requirement.

Where a signature is needed, an electronic signature is acceptable. An original signature is a signature signed in ink. Where original signatures or original documents are required a scan shall satisfy the requirement.

The Department will issue Contract Modification Orders (Form 90) and Form 105s that authorize additional work for signature via AdobeSign.

CDOT forms and records shall be signed with an electronic signature that includes the signer's name, date, and time the document was signed, in addition to locking the appropriate portions after signing. This guidance does not change the approval process or the content requirements for Buy America, COC, and CTR documentation, rather it allows the documentation to either be all electronically signed or a Scanned Original Wet Signature.

An electronic seal is when a Contractor's Engineer, a Professional Engineer or a Professional Land Surveyor affix their electronic signature and seal to plans or documents prepared under their responsible charge or control. The electronic seal needs to meet State of Colorado Architects, Professional Engineers, and Professional Land Surveyors Rules and Regulations, 4 CCR 730-1 requirements, lock the document after signature and shall have a non-expiring transaction identification number that can be used to view the final locked and signed document online.

## Revision of Section 105 Pavement Smoothness

Revise Section 105 of the Standard Specifications for this project as follows:

Delete subsection 105.07 and replace with the following:

**105.07 Conformity to Roadway Smoothness Criteria.** Roadway smoothness testing and corrective work shall be performed as described below. The pavement smoothness category shall be MRI Category A unless shown otherwise on the plans.

At least two weeks prior to the Pre-paving Conference the Contractor may request a change to the pavement smoothness category based on the [CDOT's Design Bulletin guidelines](#) for assigning pavement smoothness categories. The Contractor shall not assume a change will be granted and shall be prepared to build the pavement according to the assigned smoothness category. Once paving operations have been started, a change in pavement smoothness category will not be made.

*(a) Smoothness Process Control Testing.*

1. The Contractor shall perform Smoothness Process Control (SPC) testing. The test results shall be submitted to the Engineer within 48 hours of completion. SPC test results shall show the Mean Roughness Index (MRI) for each 0.10 mile.

All traffic control costs associated with SPC testing will be paid for in accordance with Section 630.

SPC testing shall be performed on the first 2,000 tons for the final layer of HMA or each day's paving within 24 hours after the concrete has achieved sufficient strength for PCCP. SPC testing on SMA will be tested after the sheen has been worn off. The Contractor may continue paving at his own risk. The Contractor shall not perform the SPC testing until after the concrete has attained a compressive strength of 1,000 psi if a lightweight profiler is used or 2,000 psi if a high speed profiler is used.

SPC testing shall be performed using the Contractor's inertial profiler, pursuant to the methods described in subsection 105.07(b). The Contractor's Inertial Profiler and Operator shall be certified according to CP 78. See CDOT's list of [certified profilers and operators](#).

Production shall be suspended if SPC testing indicates that corrective work is required in accordance with subsection 105.07(e). If the SPC data becomes available after production has started for the day, suspension will begin at the end of that production day for HMA. Production will remain suspended until the problem is identified and corrected. Each time production is suspended, corrective actions shall be proposed in writing by the Contractor. Production shall not resume until the proposed corrective actions have been accepted by the Engineer in writing.

## Revision of Section 105 Pavement Smoothness

When production resumes, the Contractor shall profile the first 2,000 tons of HMA or each day's paving within 24 hours after the concrete has achieved sufficient strength for PCCP. The conditions described above for suspension of work will apply.

Corrective work may be performed by the Contractor prior to initial SA testing.

2. The finished transverse and longitudinal surface elevation of the pavement shall be measured using a 10-foot straightedge. Areas to be measured will be directed by the Engineer. The Contractor shall furnish an approved 10-foot straightedge, depth gauge, and operator to aid the Engineer in testing the pavement surface. Areas showing high spots of more than 3/16 inch in 10 feet shall be marked and diamond ground until the high spot does not exceed 3/16 inch in 10 feet.

*(b) Initial Smoothness Acceptance Testing.* The Contractor shall perform Smoothness Acceptance Testing (SA) which will be used for locating corrective work. If no corrective work is required, it will be considered the final SA testing and shall be used for acceptance and calculation of incentive adjustments.

The Contractor shall submit a Method for Handling Traffic (MHT) to the Engineer for approval at least five days in advance of SA testing. The MHT shall detail the methods for traffic control that will allow for continuous non-stop profiling of each lane to be profiled at a minimum speed of 15 mph and for the placement of triggers. The Contractor shall provide the traffic control in accordance with the approved MHT. SA testing shall not be performed without traffic control using the approved MHT.

The Contractor shall notify the Engineer in writing and the Department by e-mail at [DOT\\_Profiles@state.co.us](mailto:DOT_Profiles@state.co.us) at least five working days in advance of his intention to perform SA testing. The Contractor shall profile the project within 14 days after the completion of paving operations. The Department will determine if Smoothness Verification Testing (SV) will be performed. If SV testing will be performed, it will be performed at the same time as the SA testing.

The Engineer will witness the SA profiling. Within 24 hours after each profile is collected, the Contractor shall submit the data electronically along with a SA data submittal form to the Department at [DOT\\_Profiles@state.co.us](mailto:DOT_Profiles@state.co.us), and to the Engineer.

All traffic control costs associated with SA testing will be paid for in accordance with Section 630.

Pavement surfaces shall be tested and accepted for longitudinal smoothness as described herein.

1. Testing Procedure (General). The longitudinal surface smoothness of the final pavement surface shall be tested by the Contractor in accordance with CP 74 and

### Revision of Section 105 Pavement Smoothness

using the Contractor's inertial profiler (profiler). The Contractor's Profiler and Operator shall be certified according to CP 78. See CDOT's list of [certified profilers and operators](#).

The profiler's instrumentation shall be verified in accordance with CP 74 prior to measurements. The Contractor shall lay out a distance calibration site. The distance calibration site shall be located no more than 10 miles from the project limits. The distance calibration site shall be 1056.0 feet long and shall be on a relatively flat, straight section of pavement as approved by the Engineer. The site shall have a speed limit equal to the project's highest speed limit that allows for the profiler to operate uninterrupted. The limits of the site shall be clearly marked, and the distance shall be measured to an accuracy of +/- 1 inch. The Contractor shall provide in writing the site location to the Engineer. The cost of the distance calibration site will not be measured and paid for separately but shall be included in the work.

The entire length of each through lane, climbing lane and passing lane including bridge approaches, bridge decks and intersections from the beginning to the end of the project shall be profiled in their planned final configuration and direction. Shoulders with a width of 12 feet or greater, ramps, tapers, turn slots, acceleration lanes and deceleration lanes shall be profiled, but will not be subject to incentive adjustments. The profile of the entire length of a lane shall be taken at one time. However, a lane profile may be broken into sections to accommodate project phasing. At the Pre-paving Conference, the Contractor shall submit a plan for breaking the project profiling into phases for approval by the Engineer.

Shoulders less than 12 feet in width and medians will not be profiled and will not be subject to incentive adjustments. Shoulders less than 12 feet in width and medians constructed as part of the project shall be measured in accordance with subsection 105.07(a).

Pavement 25 feet outside of a traffic circle and traffic circles will not be profiled and will not be subject to incentive adjustments. Traffic circles shall be measured in accordance with subsection 105.07(a).

A sufficient distance shall be deleted from the profile to allow the profiler to obtain the testing speed, plus a 300 foot distance to stop and start when required. The distance deleted from a profile shall be minimized by reducing testing speed as necessary. Incentive adjustments will not be made for this area. The final surface of these areas shall be tested in accordance with subsection 105.07(a).

The profile shall include transverse joints when pavement is placed on both sides of the joint. When pavement is placed on only one side of the joint, the profile shall start and stop 25 feet outside project paving limits.

## Revision of Section 105 Pavement Smoothness

The section of pavement 25 feet outside the paving limits to 5 feet inside the paving limits will be evaluated in accordance with subsection 105.07(a) and will not be subject to incentive adjustments.

The profile of the area 25 feet each side of every expansion joint, railroad crossing, cattle guard, bus pad, manhole, gutter pan and intersection (where there is a planned breakpoint in the profile grade line in the direction of traffic) shall be deleted from the profile before the MRI is determined. Incentive adjustments will not be made for these areas. Areas deleted from the profile shall be tested in accordance with subsection 105.07(a).

The profile of the area 25 feet each side of the bridge deck shall be deleted from the profile before the MRI is determined. Incentive adjustments will not be made for this area. When both pavement and a bridge or bridge pavement are being constructed on the project, areas deleted from the profile shall be tested in accordance with subsection 105.07(a). Corrective work required in these areas will not be measured and paid for separately but shall be included in the work. For all other projects, the profile of the area 25 feet each side of the bridge deck shall be deleted from the profile before the MRI is determined. If the Engineer determines that corrective work is required in this area, payment will be made in accordance with subsection 109.04.

2. Smoothness Testing Procedures. The Contractor shall mark the profiling limits and excluded areas. The Engineer will verify that the Contractor's marks are located properly. The Contractor shall use traffic cones with reflective tape or reflective tape on the pavement at the beginning and end of each lane for triggering the start and stop locations on the profiler and at any other location, where portions of the profile are being excluded. GPS triggering shall not be used. These locations shall be marked with temporary paint so that the final SA testing uses the same triggering locations.

The ambient temperature shall be at least 34 °F for the profiler to operate.

The Contractor shall clear the lanes to be tested of all debris before profiling.

Each lane shall be profiled at least once. Profiling shall be at a constant speed (+/- 5 mph of the distance calibration speed) with a minimum speed of 15 mph and a maximum speed of 70 mph. Shoulders with a width of 12 feet or more, ramps, tapers, turn slots, acceleration lanes and deceleration lanes shall be profiled once. The profile shall be taken in the planned direction of travel. The left and right wheel paths shall be profiled simultaneously. Triggers for the start of the profile, the end of the profile and the locations of each exclusion shall be collected during each run. The collected profiles shall be electronically submitted to the Department and Engineer to be analyzed using CP 74.

## Revision of Section 105 Pavement Smoothness

The Department will determine an MRI for each 0.1-mile section or fraction thereof of completed pavement. Sections will terminate at the beginning of an exclusion and a new section starts at the end of exclusion. The MRI consists of the left and right wheel path's profile passed through the International Roughness Index (IRI) filter. The IRI for the left and right wheel paths are averaged to determine MRI.

The Contractor's SA test results will be available within ten working days of the completion of SA testing. The Engineer will give the Contractor a report that will include the lane profiled, the MRI in 0.10-mile increments and a summary of areas requiring corrective work. Areas requiring corrective work shall be addressed per 105.07(e) and the entire length of the lane(s) identified with corrective work shall be re-profiled and re-submitted as outlined in this section.

Areas requiring corrective work will be determined according to subsection 105.07(e).

Sections less than 0.005 miles in length shall not be subject to corrective work as specified by Table 105-10. Sections less than 0.005 miles in length shall be evaluated in accordance with subsection 105.07(a).

(c) *MRI Category D.* For MRI Category D pavements, the following shall be used for acceptance:

An MRI for each 0.1-mile section shall be determined on the original pavement surface prior to beginning the work in accordance with subsection 105.07(b) without exclusions.

An MRI for each 0.1-mile section shall be determined on the pavement surface after the work is complete in accordance with subsection 105.07(b) without exclusions.

The original and final profile lengths shall have a difference in the length of each lane less than 0.2 percent. When the profile length difference exceeds 0.2 percent, the final testing shall be repeated.

When a 0.1-mile section has a final MRI greater than 92.0 inches/mile and the final MRI is greater than the MRI prior to performing the work, that 0.1-mile section shall be corrected by a method approved in writing by the Engineer. Corrective work shall be such that the resulting final MRI is equal to or less than the initial MRI or 92.0 in/mile, whichever is greater. All costs associated with corrective work shall be at the Contractor's expense, including but not limited to traffic control, additional hot mix asphalt, grinding and milling.

When the Contractor fails to collect the profile of the original pavement surface prior to beginning the work, the final pavement surface will be evaluated for corrective work in accordance with the criteria for Category C pavement smoothness.



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**Revision of Section 105  
Pavement Smoothness**

Incentive adjustments for smoothness will not be made for MRI Category D.

Pavements evaluated for MRI Category D that will be overlaid with a surface seal shall be evaluated for pavement smoothness prior to application of the surface seal (e.g., chip seal).

(d) *Acceptance and Incentive Adjustments.* Acceptance and incentive adjustments for pavement smoothness will be made on a square yard basis in accordance with the following:

Incentive adjustments will be based on the MRI for each 0.1-mile section or fraction thereof. Incentive adjustments for Pavement Smoothness will be made in accordance with Table 105-12 or 105-13. No incentive payments will be made until all sections requiring corrective work have been completed.

Final acceptance and incentive adjustments for pavement smoothness will be made on a square yard basis based on the MRI for each 0.1-mile section or fraction thereof from the Contractor’s Final SA testing. Those sections requiring corrective work adjustments indicated by the initial SA testing will be re-evaluated.

**Table 105-12  
HMA Pavement Smoothness (Inches/Mile)  
Mean Roughness Index**

<b>Pavement Smoothness Category</b>	<b>Maximum Incentive Payment (\$/sq.yd.)</b>	<b>Incentive Payment (\$/sq.yd.)</b>	<b>No Incentive</b>	<b>Corrective Work Required (0.10-mile sections)</b>
<b>A</b>	MRI ≤ 40.0 I = \$1.28	MRI > 40 and < 55.0 I = 4.6933 - 0.0853*MRI	MRI ≥ 55.0 and ≤ 70.0	MRI > 70.0
<b>B</b>	MRI ≤ 45.0 I = \$1.28	MRI > 45.0 and < 60.0 I = 5.1200 - 0.0853*MRI	MRI ≥ 60.0 and ≤ 75.0	MRI > 75.0
<b>C</b>	MRI ≤ 50.0 I = \$1.28	MRI > 50.0 and < 65.0 I = 5.5467 - 0.0853*MRI	MRI ≥ 65.0 and ≤ 80.0	MRI > 80.0

**Revision of Section 105  
Pavement Smoothness**

**Table 105-13  
PCCP Smoothness (Inches/Mile)  
Mean Roughness Index**

Pavement Smoothness Category	Maximum Incentive Payment (\$/sq.yd.)	Incentive Payment (\$/sq.yd.)	No Incentive	Corrective Work Required (0.10-mile sections)
A	MRI ≤ 40.0 I = \$2.80	MRI > 40 and < 55.0 I=10.2670 - 0.1867*MRI	MRI ≥ 55.0 and ≤ 70.0	MRI > 70.0
B	MRI ≤ 45.0 I = \$2.80	MRI > 45.0 and < 60.0 I=11.2000 - 0.1867*MRI	MRI ≥ 60.0 and ≤ 75.0	MRI > 75.0
C	MRI ≤ 50.0 I = \$2.80	MRI > 50.0 and < 65.0 I= 12.1330 - 0.1867*MRI	MRI ≥ 65.0 and ≤ 80.0	MRI > 80.0

**Table 105-14  
Corrective Work Criteria (Inches/Mile)  
0.005 To 0.10 Mile Sections  
Mean Roughness Index**

Pavement Smoothness Category	Corrective Work Required D = Section Length (miles)
A	MRI = 106.84 - 368.42 * D
B	MRI = 114.87 - 394.74 * D
C	MRI = 122.11 - 421.05 * D

(e) *Corrective Work.* The Department will analyze the initial and final SA testing for acceptance and indicate areas requiring corrective work in accordance with subsection 105.07(b). Corrective work shall be proposed in writing by the Contractor. Corrective work shall not be performed until approved in writing by the Engineer. The Contractor shall perform corrective work in the areas indicated by the SA testing.

The criteria for determining if a 0.1-mile section requires corrective work is specified in Table 105-12 or 105-13. The criteria for determining if a section less than 0.10-miles in

## Revision of Section 105 Pavement Smoothness

length and greater than 0.005 miles in length requires corrective work is specified in Table 105-14.

Shoulders with a width of 12 feet or more, ramps, tapers, turn slots, acceleration lanes and deceleration lanes will be evaluated for MRI and shall require corrective work if a 0.10-mile section exceeds an MRI greater than 100.0 in/mile. Sections greater than 0.005 mile, but less than 0.1 miles shall not exceed  $MRI = 152.63 - 526.32 * D$ , where D is section length in miles.

Corrective work shall consist of diamond grinding, an approved overlay, or removal and replacement. Corrective work shall conform to one of the following conditions:

1. HMA Removal and Replacement. The pavement requiring corrective work shall be removed, full width of the lane and the full thickness of the layer in accordance with subsection 202.09.

The removal area shall begin and end with a transverse butt joint, which shall be constructed with a transverse saw cut perpendicular to centerline. Replacement material shall be placed in sufficient quantity, so the finished surface conforms to grade and smoothness requirements. Sections removed and replaced shall be at least 0.20 miles in length.

2. HMA Overlay. The overlay shall cover the full width of the pavement including shoulders and adjacent lanes. The area overlaid shall begin and end with a transverse butt joint, which shall be constructed with a transverse saw cut and asphalt removal. All material shall be approved hot bituminous mixtures that meet all contract requirements. The overlay shall be placed so that the finished surface conforms to grade and smoothness requirements. The overlay area shall be compacted to the specified density. The overlay thickness shall be equivalent to that of the final layer in accordance with the Contract. Sections overlaid shall be at least 0.20 miles in length.
3. Diamond Grinding. Grinding shall be performed using diamond blades mounted on a self-propelled machine designed for grinding and texturing pavement. The equipment shall weigh a minimum 17,000 pounds including the grinding head and be of a size that will grind a strip at least 3 feet wide in a single pass. The effective wheelbase of the machine shall be at least 12 feet. Grinding equipment that causes raveling, aggregate fractures or disturbance to the joints shall not be permitted. The equipment shall be maintained to ensure it is in proper working order, including the roundness of the match and depth of control wheels. Any wheels found to be out of round shall be immediately replaced. The Engineer may approve smaller equipment for areas that the above equipment cannot reach.

## Revision of Section 105 Pavement Smoothness

Grinding equipment that causes raveling, aggregate fractures or disturbance to the joints shall not be permitted.

All grinding shall be parallel to the longitudinal joints. Adjacent passes shall be overlapped by a maximum of 2 inches.

The grinding process shall produce a pavement surface that is true to grade and uniform in appearance. The grooves shall be evenly spaced. Any ridges on the outside edge next to the shoulder, auxiliary, or ramp lanes greater than 3/16-inch high shall be feathered out to the satisfaction of the Engineer in a separate, feather pass operation. No adverse drainage conditions shall be caused by the grinding operations.

Grinding shall not reduce planned pavement thickness by more than 0.3 inches. Diamond grinding shall be the full width of a wheel path. The wheel path is from the stripe to the center of the lane.

The pavement surface after grinding shall have no depressions or misalignment of slope in the longitudinal direction exceeding 1/8 inch in 12 feet when measured with a 12-foot straightedge placed parallel to the centerline. All areas of deviation shall be reground at no additional cost.

The equipment shall have a positive means of vacuuming the grinding residue from the pavement surface, leaving the surface in a clean, near-dry condition. The slurry and residue resulting from the grinding operation shall not be allowed to flow across lanes occupied by the traffic and shall be continuously removed during the grinding operation, leaving the pavement in a clean condition. The Contractor shall haul the grinding residue to a suitable location at an approved location at no additional cost.

Cores shall be taken to verify that minimum pavement thicknesses have been maintained. A minimum of one core shall be taken every 100 cumulative feet or fraction thereof per lane of diamond grinding, as directed by the Engineer. Coring shall be at the Contractor's expense.

For HMA pavements, the entire ground area of the final pavement surface shall be covered with a Tack Coat conforming to Section 407 (CSS-1h at 0.1 gallons per square yard of diluted emulsion; the emulsion shall be diluted with water at the rate of 50 percent water and 50 percent emulsion) when grinding is complete after corrective work has been completed.

When any grinding on concrete pavement occurs where a core for determining pavement thickness has been previously taken, another core shall be taken after the grinding has been completed and shall replace the original core in the calculation of pavement thickness incentive and disincentive. Joint sealant that has been damaged

## Revision of Section 105 Pavement Smoothness

by grinding on concrete pavement shall be repaired or replaced at the Contractor's expense in accordance with Standard Plan M-412-1 and subsection 412.18.

For PCCP, diamond ground surface texture will be considered acceptable when the average texture depth (ATD) of the panel is greater than 0.05 inch. The Contractor will perform surface texture testing in accordance with CP 77 Method B. Each area in a lane that required diamond grinding will be tested at least once. Areas in a lane with more than 500 continuous feet of grinding will be tested at a frequency of one test per 500 linear feet. Areas with deficient surface texture shall be diamond ground and retested.

- (f) *Final Smoothness Acceptance Testing.* After the Contractor has completed all required corrective work, the Contractor shall retest the pavement in accordance with subsection 105.07(b). Final SA testing shall only be required on lanes with sections requiring corrective work. Final SA testing shall start and stop at the same locations as the Initial SA testing. If additional corrective work is identified in the Final SA testing, the Contractor shall perform the corrective work and perform additional Final SA Testing. Time count will be charged pursuant to contract requirements during the time period required for all Final SA Testing. Delays associated with additional Final SA Testing will be considered non-excusable and non-compensable.

The Contractor shall notify the Engineer and the Department by e-mail at [DOT\\_Profiles@state.co.us](mailto:DOT_Profiles@state.co.us) at least 5 working days in advance of his intention to perform final SA testing. The Department will determine if Smoothness Verification Testing (SV) will be performed. If SV testing will be performed, it will be performed at the same time as the SA testing.

The Initial SA and Final SA profile lengths shall have a difference in the length of each lane less than 0.2 percent. When the profile length difference exceeds 0.2 percent, the Final SA testing shall be repeated.

- (g) *Department Smoothness Verification Testing (SV).* The Department may elect to perform smoothness verification testing using the Department's inertial profiler, with the methods described in subsection 105.07(b). The Engineer will notify the Contractor of the Department's intention to perform SV testing. The Contractor shall coordinate with the Department and his profiler to schedule SA and SV to occur at the same time.

The Department will randomly select scheduled Contractor Smoothness Acceptance Testing to verify. A minimum of 25 percent of each scheduled Contractor Smoothness Acceptance Testing by an individual profiler will be verified. The Engineer may also request verification for any Smoothness Acceptance Testing.

**Revision of Section 105  
Pavement Smoothness**

The Contractor's SA test results will be compared to the Department's SV test results. The Contractor's SA test results will be considered acceptable and will be used for incentive payment if the following criteria are met:

- (1) The difference in MRI for a 1/10-mile section is less than 6.1 inches/mile for a minimum of 90 percent of the 1/10-mile sections for each lane.
- (2) The difference in average MRI for each lane is less than 6.1 inches/mile.
- (3) The difference in the length of each lane is less than 0.2 percent.

When the Contractor's SA test results are not considered acceptable, the Department's SV test results will be used for incentive payment and the Contractor's profiler certification will be suspended and evaluated pursuant to CP 78. The Contractor shall schedule with the Department within 10 working days to perform this evaluation or the profiler will be required to be re-certified in accordance with CP 78.

**Revision Of Section 106  
Conformity to the Contract of Hot Mix Asphalt  
(Less Than 5000 Tons)**

Section 106 of the Standard Specifications is hereby revised for this project as follows:

**Delete subsection 106.05 and replace with the following:**

**106.05 Sampling and Testing of Hot Mix Asphalt.** All hot mix asphalt, Item 403, except Hot Mix Asphalt (Patching) and temporary pavement shall be tested in accordance with the following program of process control testing and acceptance testing:

The Contract will specify whether process control testing by the Contractor is mandatory or voluntary.

*(a) Process Control Testing.*

1. **Mandatory Process Control.** When process control testing is mandatory the Contractor shall be responsible for process control testing on all elements and at the frequency listed in Table 106-1. Process control testing shall be performed at the expense of the Contractor.

After completion of compaction, in-place density tests for process control shall be taken at the frequency shown in Table 106-1. The results shall be reported in writing to the Engineer on a daily basis. Daily plots of the test results with tonnage represented shall be made on a chart convenient for viewing by the Engineer. All of the testing equipment used for in-place density testing shall conform to the requirements of acceptance testing standards, except nuclear testing devices need not be calibrated on the Department's calibration blocks.

For elements other than in-place density, results from process control tests need not be plotted, or routinely reported to the Engineer. This does not relieve the Contractor from the responsibility of performing such testing along with appropriate plant monitoring as necessary to assure that produced material conforms to the applicable specifications. Process control test data shall be made available to the Engineer upon request.

2. **Voluntary Process Control.** The Contractor may conduct process control testing. Process control testing is not required but is recommended on the elements and at the frequency listed in Table 106-1.

All of the testing equipment used for in-place density testing shall conform to the requirements of acceptance testing standards, except nuclear testing devices need not be calibrated on the Department's calibration blocks.

*(b) Acceptance Testing.* Acceptance testing is the responsibility of the Department. For acceptance testing the Department will determine the locations where samples or measurements are to be taken and as designated in Section 403. The maximum quantity of material represented by each test result, the elements, the frequency of testing and the minimum number of test results will be in accordance with Table 106-1. The location or time of sampling will be based on the stratified random procedure as described in CP

**Revision Of Section 106  
Conformity to the Contract of Hot Mix Asphalt  
(Less Than 5000 Tons)**

75. Acceptance sampling and testing procedures will be in accordance with the Schedule for Minimum Materials Sampling, Testing and Inspection in the Department’s Field Materials Manual. Samples for project acceptance testing shall be taken by the Contractor in accordance with the designated method. The samples shall be taken in the presence of the Engineer. Where appropriate, the Contractor shall reduce each sample to the size designated by the Engineer. The Contractor may retain a split of each sample which cannot be included as part of the Contractor’s process control testing. Dispute of the acceptance test results in accordance with CP-17 will not be allowed unless a provision for check testing has been included in the Contract and it has been successfully completed. All materials being used are subject to inspection and testing at any time prior to or during incorporation into the work.

**Table 106-1  
Schedule for Minimum Sampling and Testing for HMA**

<b>Element</b>	<b>Process Control</b>	<b>Acceptance *</b>
Asphalt Content	1/500 tons	1/1000 tons
Theoretical Maximum Specific Gravity	1/1000 tons, minimum 1/day	1/1000 tons, minimum 1/day
Gradation #	1/Day	1/2000 tons
In-Place Density	1/500 tons	1/500 tons
Joint Density	1 core/2500 linear feet of joint	1 core /5000 linear feet of joint
Aggregate Percent Moisture ◀	1/2000 tons or 1/Day if less than 2000 tons	1/2000 tons
Percent Lime ▶	1/Day	Not applicable

Notes:

\* The minimum number of in-place density tests for acceptance will be 5.

# Process control tests for gradation are not required if less than 250 tons are placed in a day. The minimum number of process control tests for gradation shall be one test for each 1000 tons or fraction thereof.

◀ Not to be used for incentive/disincentive pay. Test according to CP-33 and report results from Form 106 or Form 565 on Form 6.

▶ Verified per Contractor’s PC Plan.



**Revision Of Section 106  
Conformity to the Contract of Hot Mix Asphalt  
(Less Than 5000 Tons)**

(c) *Reference Conditions.* Three reference conditions can exist determined by the Moving Quality Level (MQL). The MQL will be calculated in accordance with the procedure in CP 71 for Determining Quality Level (QL). The MQL will be calculated using only acceptance tests. The MQL will be calculated on tests 1 through 3, then tests 1 through 4, then tests 1 through 5, then thereafter on the last five consecutive test results. The MQL will not be used to determine pay factors. The three reference conditions and actions that will be taken are described as follows:

1. Condition green will exist for an element when an MQL of 90 or greater is reached, or maintained, and the past five consecutive test results are within the specification limits.
2. Condition yellow will exist for all elements at the beginning of production or when a new process is established because of changes in materials or the job-mix formula, following an extended suspension of work, or when the MQL is less than 90 and equal to or greater than 65. Once an element is at condition green, if the MQL falls below 90 or a test result falls outside the specification limits, the condition will revert to yellow or red as appropriate.
3. Condition red will exist for any element when the MQL is less than 65. The Contractor shall be notified immediately in writing and the process control sampling and testing frequency increased to a minimum rate of 1/250 tons for that element. The process control sampling and testing frequency shall remain at 1/250 tons until the process control QL reaches or exceeds 78. If the QL for the next five process control tests is below 65, production will be suspended.

If gradation is the element with MQL less than 65, the Department will test one randomly selected sample in the first 1250 tons produced in condition red. If this test result is outside the tolerance limits, production will be suspended. (This test result will not be included as an acceptance test.)

After condition red exists, a new MQL will be started. Acceptance testing will stay at the frequency shown in Table 106-1. After three acceptance tests, if the MQL is less than 65, production will be suspended.

Production will remain suspended until the source of the problem is identified and corrected. Each time production is suspended, corrective actions shall be proposed in writing by the Contractor and approved in writing by the Engineer before production may resume.

Upon resuming production, the process control sampling and testing frequency for the elements causing the condition red shall remain at 1/250 tons. If the QL for the next five process control tests is below 65, production will be suspended again. If gradation is the element with MQL less than 65, the Department will test one randomly selected sample in the first 1250 tons produced in condition red. If this test result is outside the tolerance limits, production will be suspended.

## Revision of Section 107 Water Quality Control

**Revise Subsection 107.25 of the Standard Specifications as follows:**

**107.25 Water Quality Control.** The project work shall be performed using practices that minimize water pollution during construction. All the practices listed in (b) below shall be followed to minimize the pollution of any state waters, including wetlands.

*(a) Definitions.*

1. **Areas of Disturbance (AD).** Locations where any activity has altered the existing soil cover or topography, including vegetative and non-vegetative activities during construction.
2. **Limits of Construction (LOC).** The project area defined by the Colorado Discharge Permit System Stormwater Construction Permit (CDPS-SCP). The LOC is typically the same as the construction site boundary or project limits.
3. **Discharge of Pollutants.** One or more pollutants leaving the LOC or entering state waters or other conveyances.
4. **Limits of Disturbed Area (LDA).** Proposed limits of ground disturbance as shown on the Plans.
5. **Pollutant.** Dredged spoil, dirt, slurry, solid waste, incinerator residue, sewage, sewage sludge, garbage, trash, chemical waste, biological nutrient, biological material, radioactive material, heat, wrecked or discarded equipment, rock, sand, or any industrial, municipal, or agricultural waste, as defined in the Colorado Code of Regulations (CCR) [5 CCR 1002-61, 2(76)].
6. **Pollution.** Man-made, man-induced, or natural alteration of the physical, chemical, biological, and radiological integrity of water [25-8-103 (16), CRS].
7. **State waters.** Defined in section 101.
8. **Owner.** The party that has overall control of the activities and that has funded the implementation of the construction plans and specifications. This is the party with ownership of, a long-term lease of, or easements on the property where the construction activity is occurring (CDOT).
9. **Operator.** The party that has operational control over day-to-day activities at a project site that are necessary to ensure compliance with the CDPS-SCP. This party is authorized to direct individuals at a site to carry out activities required by the CDPS-SCP (Contractor).
10. **Construction Activities Associated with Water Quality.** Per the CDPS-SCP, construction activities are defined as ground surface disturbing and associated activities (land disturbance), which include, but are not limited to, clearing, grading, excavation, demolition, installation of new or improved haul roads and access roads, staging areas, stockpiling of fill materials, and borrow areas.

## Revision of Section 107 Water Quality Control

### *(b) Construction Requirements.*

1. The Contractor shall comply with the “Colorado Water Quality Control Act” (Title 25, article 8, CRS), the “Protection of Fishing Streams” (Title 33, Article 5, CRS), the “Clean Water Act” (33 USC 1344), regulations promulgated, certifications or permits issued, and to the requirements listed below. In the event of conflicts between these requirements and water quality control laws, rules, or regulations of other Federal, or State agencies, the more restrictive laws, rules, or regulations shall apply.
2. If the Contractor determines construction of the project will result in a change to the permitted activities or LDA, the Contractor shall detail the changes in a written report to the Engineer. Within five days after receipt of the report, the Engineer, after coordination with Region Planning and Environmental Manager (RPEM), will approve or reject in writing the request for change, or detail a course of action including revision of existing permits or obtaining new permits.
3. If construction activities result in noncompliance of any permit requirement, the project will be suspended and the permitting agency notified, if required. The project will remain suspended until the Engineer receives written approval by the permitting agency.

The Contractor is legally required to obtain all permits associated with specific activities within, or off the right of way, such as borrow pits, concrete or asphalt plant sites, waste disposal sites, or other facilities. It is the Contractor’s responsibility to obtain these permits. The Contractor shall consult with the Engineer and contact the Colorado Department of Public Health and Environment Water Quality Control Division (CDPHE-WQCD) or other appropriate federal, state, or local agency to determine the need for any permit.

4. The Contractor shall conduct the work in a manner that prevents pollution of any adjacent state waters. Erosion control work shall be performed per Section 208, this subsection, and all other applicable parts of the Contract.
5. Before the Environmental Pre-construction Conference, the SWMP Administrator, identified in subsection 208.03(c), shall identify and describe all potential pollutant sources, including materials and activities, and evaluate them for the potential to contribute pollutants to stormwater discharges associated with construction activities. The list of potential pollutants shall be continuously updated during construction. At a minimum, each of the following shall be evaluated for the potential for contributing pollutants to stormwater discharges and identified in the SWMP, if found to have such potential:
  - (1) All exposed and stored soils.
  - (2) Vehicle tracking of sediments.
  - (3) Management of contaminated soils.
  - (4) Vehicle and equipment maintenance and fueling.
  - (5) Outdoor storage activities (building materials, fertilizers, chemicals, etc.).
  - (6) Significant dust or particle generating processes.

## Revision of Section 107 Water Quality Control

- (7) Routine maintenance involving fertilizers, pesticides, detergents, fuels, solvents, oils, etc.
- (8) On-site waste management practices (waste piles, dumpsters, etc.).
- (9) Dedicated asphalt and concrete batch plants.
- (10) Concrete and masonry equipment wash water, including byproducts from the concrete truck chute and associated fixtures and equipment.
- (11) Concrete and masonry placement and finishing tool cleaning.
- (12) Non-industrial waste sources that may be significant, such as worker trash and portable toilets.
- (13) Loading and unloading operations.
- (14) Reclaimed and potable water used in construction activities, including water used as a dust palliative.
- (15) Other areas or procedures where spills could occur.

The SWMP Administrator shall record the location of potential pollutants on the site map. Descriptions of the potential pollutants shall be added to the SWMP.

At or before the Environmental Pre-construction Conference the Contractor shall submit a Spill Response Plan for any petroleum products, chemicals, solvents, or other hazardous materials in use, or in storage, at the work site. See subsection 208.06(c) for Spill Response Plan requirements. Work shall not be started until the plan has been submitted to and approved by the Engineer.

On-site above ground bulk storage containers with a cumulative storage shell capacity greater than 1,320 U.S. gallons, or storage containers having a “reasonable expectation of an oil discharge” to state waters, are subject to the Spill Prevention, Control and Countermeasure Plan (SPCC) Rule. Oil of any type and in any form is covered, including, but not limited to petroleum; fuel oil; sludge; oil refuse; oil mixed with wastes other than dredged spoil. EPA Region 8 is responsible for administering and enforcing the SPCC plan requirements in Colorado. Before start of work, the Contractor shall submit an SPCC Form that has been approved by the EPA for the project.

- 6. The Contractor shall obtain a Construction Dewatering (CDW) Permit from CDPHE-WQCD anytime uncontaminated groundwater, including groundwater that is commingled with stormwater or surface water, is encountered during construction activities and the groundwater or commingled water needs to be discharged to state waters. If contaminated groundwater is encountered, a Remediation permit may be needed from CDPHE-WQCD per Section 250.

## Revision of Section 107 Water Quality Control

7. Water from dewatering operations shall not be directly discharged into any state waters, unless allowed by a permit. Water from dewatering shall not be discharged into a ditch unless:
- (1) Written permission is obtained from the owner of the ditch.
  - (2) It is covered in the approved CDW or Remediation Permit that allows the discharge.
  - (3) A copy of this approval is submitted to the Engineer. A copy of the CDW or Remediation Permit shall be submitted to the Engineer before dewatering operations commence.

Construction Dewatering may be discharged to the ground on projects where CDPHE-WQCD's Low Risk Guidance Document for Discharges of Uncontaminated Groundwater to Land are met. The conditions of this guidance are:

- i. The source of the discharge is solely uncontaminated groundwater or uncontaminated groundwater combined with stormwater and does not contain pollutants in concentrations that exceed water quality standards for groundwater referenced above.
- ii. Discharges from vaults or similar structures shall not be contaminated. Potential sources of contamination include process materials used, stored, or conveyed in
- iii. the structures or introduced surface water runoff from outside environments that may contain oil, grease, and corrosives.
- iv. The groundwater discharge does not leave the LOC where construction is occurring.
- v. Land application is conducted at a rate and location that does not allow for any runoff into state waters or other drainage conveyance systems, including but not limited to streets, curb and gutter, inlets, borrow ditches, open channels, etc.
- vi. Land application is conducted at a rate that does not allow for any ponding of the groundwater on the surface, unless the ponding is a result of implementing control measures that are designed to reduce velocity flow. If the control measures used result in ponding, the land application shall be done in an area with a constructed containment, such as an excavation or berm area with no outfall. The constructed containment shall prevent the discharge of the ponding water offsite as runoff.
- vii. A visible sheen is not evident in the discharge.
- viii. Control measures are implemented to prevent any sediment deposited during land application from being transported by stormwater runoff to surface waters or other conveyances.

## Revision of Section 107 Water Quality Control

- ix. All control measures used shall be selected, installed, implemented, and maintained according to good engineering, hydrologic, and pollution control practices. The selected control measures shall provide control for all potential pollutant sources associated with the discharge of uncontaminated groundwater to land. The discharge shall be routed in such a way that it will not cause erosion to land surface. Energy dissipation devices designed to protect downstream areas from erosion by reducing the velocity of flow (such as hose attachments, sediment and erosion controls) shall be used when necessary to prevent erosion.

All dewatering operations shall be recorded in the SWMP as follows:

- (1) The source is identified in the SWMP and updated by the SWMP Administrator.
- (2) The SWMP describes and locates the practices implemented at the site to control stormwater pollution from the dewatering of groundwater or stormwater.
- (3) The SWMP describes and locates the practices to be used that will ensure that no groundwater from construction dewatering is discharged from the LOC as surface runoff or to surface waters or storm sewers.
- (4) Groundwater and groundwater combined with stormwater do not contain pollutants in concentrations exceeding the State groundwater standards in Regulations 5 CCR 1002-41 and 42.

If surface waters are diverted around a construction area and no pollutants are introduced during the diversion, a CDW Permit is not required. If the diverted water enters the construction area and contacts pollutant sources (e.g., disturbed soil, concrete washout, etc.), the Contractor shall obtain a CDW Permit for the discharge of this water to state waters or to the ground.

8. At least 15 days before commencing dredging or fill operations in a watercourse, the Contractor shall provide written notification to owners or operators of domestic or public water supply intakes or diversion facilities, if these facilities are within 20 miles downstream from the dredging or fill operations. Notification shall also be given to Owners or operators of other intakes or diversions that are located within five miles downstream from the site of the project. Identities of downstream owners and operators can be obtained from Colorado Division of Water Resources, Office of the State Engineer.
9. Temporary fill into wetlands or streams will not be allowed, except as specified in the Contract and permits. If such work is allowed, upon completion of the work all temporary fills shall be removed in their entirety and disposed of in an upland location outside of flood plains unless otherwise specified in the Contract.
10. Construction operations in waters of the United States as defined in 33 CFR Part 328.3, including wetlands, shall be restricted to areas and activities authorized by the U.S. Army Corps of Engineers as shown in the Contract. Forging waters will be allowed only as authorized by the U.S. Army Corps of Engineers 404 Permit.

## Revision of Section 107 Water Quality Control

11. Wetland areas outside of the permitted limits of disturbance shall not be used for storage, parking, waste disposal, access, borrow material, or any other construction support activity.
12. Pollutant byproducts of highway construction, such as concrete, asphalt, solids, sludges, pollutants removed in the course of treatment of wastewater, excavation or excess fill material, and material from sediment traps shall be handled, stockpiled, and disposed of in a manner that prevents entry into state waters, including wetlands. Removal of concrete and masonry waste and washout water from mixer trucks, concrete and masonry finishing tools, concrete saw, and all concrete and masonry materials removed in the course of construction operations or cleaning shall be performed in a manner that prevents waste material from entering state waters and shall not leave the site as surface runoff. A minimum of 10 days before the start of the construction activity, the Contractor shall submit in writing a Method Statement for Containing Pollutant Byproducts to the Engineer for approval.  

The use of chemicals such as soil stabilizers, dust palliatives, herbicides, growth inhibitors, fertilizers, deicing salts, etc., shall be per the manufacturer's recommended application rates, frequency, and instructions.
13. All materials stored on-site shall be stored in a neat, orderly manner, in their original containers, with the original manufacturer's label. Materials shall not be stored in a location where they may be carried into state waters at any time.
14. Spill prevention and containment measures conforming to subsection 208.06 shall be used at storage and equipment fueling and servicing areas to prevent the pollution of any state waters, including wetlands. All spills shall be cleaned up immediately after discovery or contained until appropriate cleanup methods can be employed. Manufacturer's recommended methods for spill cleanup shall be followed, along with proper disposal methods. When required by the Colorado Water Quality Control Act, Regulation 5 CCR 1002-61, spills shall be reported to the Engineer and CDPHE-WQCD in writing.
15. The Contractor shall prevent construction activities from causing grass or brush fires.
16. The construction activities shall not impair Indian tribal rights, including, but not limited to, water rights, and treaty fishing and hunting rights.
17. Before start of work, the Contractor shall certify in writing to the Engineer that construction equipment has been cleaned before initial site arrival. Vehicles and equipment shall be free of soil and debris capable of transporting noxious weed seeds or invasive species onto the site. Additional equipment required for construction shall also be certified before being brought onto the project site.
18. Vehicles that have been certified by the Contractor as having been cleaned before arrival on site may be cleaned on site at an approved area where wash water can be properly contained. Vehicles leaving and reentering the project site shall be recertified.

## Revision of Section 107 Water Quality Control

19. At the end of each day, the Contractor shall collect all trash and dispose of it in appropriate containers.
20. Construction waste that is considered a pollutant or contaminant shall be collected and disposed of in appropriate containers. This material may be stockpiled on the project when it is contained or protected by an appropriate control measure.
21. Contractors are authorized to discharge stormwater associated with construction activity and specified non-stormwater associated with construction activity to state waters.
  - A. Allowable Stormwater Discharges:
    - (1) Stormwater discharges associated with construction activity.
    - (2) Stormwater discharges associated with producing earthen materials, such as soils, sand, and gravel dedicated to providing material to a single contiguous site, or within 1/4 mile of a construction site (i.e., borrow or fill areas).
    - (3) Stormwater discharges associated with dedicated asphalt, concrete batch plants and masonry mixing stations. (Coverage under the CDPS-SCP is not required if alternative coverage has been obtained.)
  - B. Allowable Non-Stormwater Discharges if identified in the SWMP with appropriate control measures:
    - (1) Discharges from uncontaminated springs that do not originate from an area of land disturbance.
    - (2) Discharges to the ground of concrete and masonry washout water associated with the washing of concrete and masonry tools or mixer chutes. Discharges of concrete and masonry washout water shall not leave the site as surface runoff or reach receiving waters.
    - (3) Discharges of landscape irrigation return flow.
    - (4) Discharges to the ground of water used to wash vehicles, equipment, and external buildings. Wash waters with added soaps, solvents, and detergents shall be contained and disposed of properly.
    - (5) Discharges resulting from emergency firefighting activities.

Discharges authorized by the CDPS-SCP shall not cause, have the reasonable potential to cause, or measurably contribute to an exceedance of any applicable water quality standard, including narrative standards for water quality.

All construction site wastes shall be properly managed to prevent potential pollution of state waters. The CDPS-SCP does not authorize on-site waste disposal.



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22. The Contractor shall reclaim pollutants that discharge outside of the LOC. If discharging outside CDOT ROW, the Contractor shall coordinate access with the Project Engineer.

(c) *Stormwater Construction Permit.* A Colorado Discharge Permit System Stormwater Construction Permit (CDPS-SCP) will be obtained from CDPHE-WQCD by CDOT. The Contractor and CDOT will be co-permittees. The Contractor shall coordinate with CDOT to become the Operator permittee of the respective CDPS-SCP upon award of the Contract. The Contractor shall provide a copy of CDPS-SCP certification as the Operator to the Engineer before or at the Environmental Pre-construction Conference. No work shall begin until the CDPS-SCP with Owner and Operator has been approved by CDPHE-WQCD. A copy of the CDPS-SCP and permit certification shall be placed in the project SWMP.

The Contractor is legally required to obtain all other permits associated with specific activities within or outside of the right of way, such as borrow pits, concrete or asphalt plant sites, waste disposal sites, or other facilities. Staging areas within a quarter mile, but not within CDOT right of way shall be considered a common plan of development and permits for these facilities require permitting in the Contractor's name as Owner and Operator. These permits include local agency, federal, or other stormwater permits. The Contractor shall consult with the Engineer and contact CDPHE-WQCD or other appropriate federal, state, or local agency to determine the need for any permit.

When a Utility Company has obtained a CDPS-SCP within a CDOT project area, before the Contractor being on-site, the Contractor shall coordinate with the Engineer and the Utility Company to transfer or reassign the permit area within the project's Limits of Construction to the Contractor and CDOT before work commencing. The Contractor shall not commence construction until CDPHE-WQCD issues a new CDPS-SCP identifying the Contractor as the Operator, and the CDPS-SCP is put in the SWMP.

To initiate acceptance of the stormwater construction work (including seeding and planting required for erosion control), the Contractor shall request in writing a Stormwater Completion Walkthrough. The Engineer will set up the walkthrough. It will include the Engineer or designated representative, Superintendent or designated representative, Stormwater Management Plan (SWMP) Administrator, Region Water Pollution Control Manager (RWPCM), Landscape Architect, and CDOT Maintenance. Unsatisfactory and incomplete stormwater and sediment/erosion control work will be identified in this walkthrough and will be summarized by the Engineer in a punch list.

The completed action items associated with the corrective work will be shown as completed on the punch list. Upon completion of all items shown, the Contractor shall notify the Engineer. Upon written agreement that the punch list is completed from the Engineer, the Contractor shall submit the appropriate form to CDPHE-WQCD such that CDOT Maintenance becomes the Operator permittee of the CDPS-SCP.

Until the transfer of the CDPS-SCP has been approved by CDPHE-WQCD, the Contractor shall continue to adhere to all CDPS-SCP requirements. Requirements shall include

## Revision of Section 107 Water Quality Control

erosion control inspections, control measure installation, control measure maintenance, control measure repair including seeded areas, and temporary control measure removal. All documentation shall be submitted to the Engineer and placed in the SWMP.

All costs associated with the Contractor applying for, holding, and transferring the CDPS-SCP between parties will not be measured and paid for separately, but shall be included in the work per subsection 107.02.

### *(d) Measurement and Payment.*

1. All the work listed in 107.25(b) and 107.25(c), including but not limited to dewatering, erosion control for dewatering, and disposal of water resulting from dewatering operations, including all costs for CDPHE-WQCD concurrences and permits, will not be measured and paid for separately, but shall be included in the work.
2. The Contractor shall be liable for any penalty (including monetary fines) applied to the Department caused by the Contractor's noncompliance with any water quality permit or certification. Monetary fines shall be deducted from any money due to the Contractor. If the monetary fine is in excess of all the money due to the Contractor, then the Contractor shall pay to the Department the amount of such excess.
3. The Contractor will not receive additional compensation, or time extensions, for any disruption of work or loss of time caused by any actions brought against the Contractor for failure to comply with good Engineering, hydrologic and pollution control practices.
4. If a spill occurs as a direct result of the Contractor's actions or negligence, the cleanup of such spill shall be performed by the Contractor at the Contractor's expense.
5. Areas exposed to erosion by fire resulting from the Contractor's operations shall be stabilized per Section 208 by the Contractor and at the Contractor's expense.

**Revision of Section 109  
Asphalt Cement Cost Adjustment  
(Asphalt Cement Included in the Work)**

Section 109 of the Standard Specifications is hereby revised for this project as follows:

**Delete subsection 109.06 (j) and replace with the following:**

- (j) *Asphalt Cement Cost Adjustments.* Contract cost adjustments will be made to reflect increases or decreases in the monthly average price of asphalt cement from the average price for the month preceding the month in which bids were received for the Contract. These cost adjustments are not a change to the contract unit prices bid. When bidding, the Contractor shall specify on the Form 85 whether the cost adjustment will apply to the Contract. After bids are submitted, the Contractor will not be given the opportunity to accept or reject this adjustment. If the Contractor fails to indicate a choice on the Form 85, the cost adjustment will not apply to the Contract. If the asphalt cement cost adjustment is accepted by the Contractor, the adjustment will be made in accordance with the following criteria:

**Abbreviations and Terms**

1. Estimate Price for asphalt (EP) - Average Asphalt Cement price index for the calendar month prior to the calendar month in which the partial estimate pay period ends.
  - A. On the first Monday of each month, the Department determines the EP using price values from the most recent **Poten & Partners Asphalt Weekly** and the **Argus Americas Asphalt Report**. The Department averages values for the following, eliminating the single highest and single lowest values, before averaging.

The high reported selling price (per ton) of typical non-modified paving grades of asphalt from the **Poten and Partners Asphalt Weekly Monitor**.

- Colorado
  - Colorado Springs Area
- Montana
  - Eastern markets
  - Western markets
- Nebraska
  - Western markets
- New Mexico
  - Northern
  - Southern
- Utah
  - Salt Lake City area
- Wyoming
  - Northern markets
  - Southern markets

**Revision of Section 109  
Asphalt Cement Cost Adjustment  
(Asphalt Cement Included in the Work)**

The high reported selling price (per ton) of typical non-modified paving grades of asphalt from the **Argus Americas Asphalt Report**.

- Denver
- Kansas City
- Omaha
- Salt Lake City
- Wyoming

This average value is then averaged with values obtained in the same manner for the previous three weekly reports to establish the EP.

B. The EP remains in effect until the first Monday of the following month and is used for regular partial estimates closed before the first Monday of the following month.

- (1) Base Price for asphalt (BP) - Average Asphalt Cement price index for the calendar month prior to the calendar month in which bids are opened.
- (2) Asphalt cost adjustment (ACCA) - Asphalt Cement Cost Adjustment. <https://www.codot.gov/business/designsupport/cdot-construction-specifications/2022-construction-specifications/acca>

2. Cost adjustments will be made on a monthly basis subject to the following conditions:

A. Adjustment will be based on the pay quantities on the monthly partial pay estimate for the following two pay items when measured by the ton and asphalt cement is included in the pay items:

Item No.	Item	Pay Unit
403*	Hot Mix Asphalt (Grading __) (Asphalt)	Ton
403	Stone Matrix Asphalt (Grading __) (Asphalt)	Ton

\*Hot Mix Asphalt (Patching) is not subject to asphalt cement cost adjustment.

**Revision of Section 109  
Asphalt Cement Cost Adjustment  
(Asphalt Cement Included in the Work)**

- B. A cost adjustment will be made only when the EP asphalt cement price index varies by more than 10 percent from the BP asphalt cement price index, and only for that portion of the variance in excess of 10 percent. Cost adjustments may be either positive or negative dollar amounts. The maximum allowable monthly and final price adjustment to the Contractor or rebate to The Department is limited to a (EP/BP) ratio of 1.6 and 0.4, respectively.
- C. Asphalt cement cost adjustments will not be made for any partial estimate falling wholly after the expiration of contract time.

D. Adjustment formula:

EP greater than BP:

$$ACCA = (EP - 1.10 BP) (PA) (Q)$$

EP less than BP:

$$ACCA = (EP - 0.90 BP) (PA) (Q)$$

Where:

**BP** = Average Asphalt Cement price index for the calendar month prior to the calendar month in which bids are opened

**EP** = Average Asphalt Cement price index for the calendar month prior to the calendar month in which the partial estimate pay period ends

**ACCA** = Asphalt Cement Cost Adjustment

**PA** = Percent of the paving mixture that is asphalt cement. Asphalt Cement content will be determined by the weighted average of all asphalt cement content percentages obtained from the field acceptance tests for that item (Use decimal in formula, e.g.: 0.053). If Reclaimed Asphalt Pavement (RAP), Reclaimed Asphalt Shingles (RAS), or both is used, the percent of Virgin Asphalt Cement added to the mix will be determined by subtracting the percent of asphalt cement in the RAP, RAS, or both from the percent of asphalt cement in the mix as calculated from Revision of Section 401, Reclaimed Asphalt Pavement and Revision of Section 401 Reclaimed Asphalt Shingles.

**Q** = Pay quantity for all 403 items shown above on the monthly partial pay estimate in Tons.

Example: Bids are opened on July 16. The BP will be the average of the weekly postings for June 1 through June 30. For an estimate cut-off date selected by the Contractor at the Pre-Construction Conference of the 20<sup>th</sup> of the month a February estimate will include HMA quantities measured from the 21<sup>st</sup> of January through the 20<sup>th</sup> of February, and the EP index used to calculate ACCA will be the average of the weekly

**Revision of Section 109  
Asphalt Cement Cost Adjustment  
(Asphalt Cement Included in the Work)**

prices for January 1 through January 31 as established by CDOT.

- E. Cost adjustment will not be made for the quantity of any item that is left in place at no pay or for material removed and replaced at the Contractor's expense.
- F. Cost adjustments will not be made to items of work added to the Contract by Change Order after the award of the Contract.
- G. The asphalt cement cost adjustment will be the sum of the individual adjustments for each of the pay items shown above. No adjustment will be made for asphalt cement costs on items other than those shown above.
- H. Asphalt cement cost adjustments resulting in an increased payment to the Contractor will be paid for under the planned force account item: Asphalt Cement Cost Adjustment. Asphalt cement cost adjustments resulting in a decreased payment to the Contractor will be deducted from monies owed the Contractor.

October 1, 2023

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**Revision of Section 109  
Prompt Payment  
(Local Agency)**

**Section 109 of the Standard Specifications is hereby revised for this project as follows:**

**Delete subsection 109.06(e) and replace with the following:**

*(e) Prompt Payment.* The Contractor shall pay subcontractors and suppliers for all work which has been satisfactorily completed within seven calendar days after receiving payment for that work from the Local Public Agency (LPA). For the purpose of this section only, work shall be considered satisfactorily complete when the LPA has made payment for the work. The Contractor shall include in all subcontracts a provision that this requirement for prompt payment to subcontractors and suppliers must be included in all subcontracts at every tier. The Contractor shall ensure that all subcontractors and suppliers at every tier are promptly paid. If the Contractor or its subcontractors fail to comply with this provision, the Engineer will not authorize further progress payment for work performed directly by the Contractor or the noncompliant subcontractor until the required payments have been made. The Engineer will continue to authorize progress payments for work performed by compliant subcontractors.

**Delete subsection 109.06(f)5 and replace with the following:**

5. In determining whether satisfactory completion has been achieved, the Contractor may require the subcontractor to provide documentation such as certifications and releases, showing that all laborers, lower-tiered subcontractors, suppliers of material and equipment, and others involved in the subcontractor's work have been paid in full. The Contractor may also require any documentation from the subcontractor that is required by the subcontract or by the Contract between the Contractor and the LPA or by law such as affidavits of wages paid, material acceptance certifications and releases from applicable governmental agencies to the extent that they relate to the subcontractor's work.

**Delete subsection 109.06(f)8 and replace with the following:**

8. If additional quantities of a particular item of work are required at a later date after final measurement has been made, the Contractor shall perform this work in accordance with Contract requirements and at unit bid prices.

For this subsection only, satisfactory completion of all work described on CDOT Form No. 205 is when all tasks called for in the subcontract as amended by changes directed by the Engineer have been accomplished and documented as required by the LPA.

October 1, 2023

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**Revision of Section 109  
Prompt Payment  
(Local Agency)**

The requirements stated above do not apply to retainage withheld by the LPA from monies earned by the Contractor. The LPA will continue to process the release of that retainage based upon the completion date of the project as defined in the Commencement and Completion of Work special provision.

**Delete subsection 109.06(f)9 and replace with the following:**

9. If during the prosecution of the project a portion of the work is partially accepted in accordance with subsection 105.21(a), the Contractor shall release all subcontractors' retainage on the portion of the partially accepted work performed by subcontractors. Prior to the LPA releasing the Contractor's retainage on work that has been partially accepted in accordance with subsection 105.21(a), the Contractor shall submit to the Engineer a certified statement for each subcontractor that has participated in the partially accepted work. The statement shall certify that the subcontractor has been paid in full for its portion of the partially accepted work including release of the subcontractor's retainage. The statement shall include the signature of a legally responsible official for the Contractor, and the signature of a legally responsible official for the subcontractor.

**Delete subsection 109.06(g) and replace with the following:**

- (g) *Good Cause Exception.* If the Contractor has "good cause" to delay or withhold a subcontractor's progress payment, the Contractor shall notify the LPA and the subcontractor in writing within seven calendar days after receiving payment from the LPA. The notification shall specify the amount being withheld and provide adequate justification for withholding the payment. The notice shall also clearly state what conditions the subcontractor must meet to receive payment. "Good cause" shall include but not be limited to the failure of the subcontractor to make timely submission of required paperwork.

**Delete subsection 109.06(h) and replace with the following:**

- (h) *Monthly Reporting.* On a monthly basis, the Contractor shall submit the Form 1418, Monthly Payment Report, to the Engineer along with the project schedule updates, in accordance with subsections 108.03(g). Failure to submit a complete and accurate Form 1418 shall be grounds for CDOT to withhold subsequent payments or retainage from the Contractor.



## Revision of Section 207 Topsoil

Delete Section 207 of the Standard Specifications for this project and replace it with the following:

### Description

**207.01** This work consists of salvaging topsoil from onsite locations, stockpiling, maintaining, and preparing the subsoils for the placement of the topsoil at locations shown on the plans. It also includes creating seeding media by amending subsoils, and importing offsite topsoil when shown on the plans.

Substitutions from this specification will not be allowed unless submitted in writing to the Engineer and approved by the Region or Headquarters Landscape Architect.

### Materials

**207.02 General.** Topsoil shall be salvaged onsite, imported, or produced as shown on the plans. Topsoil shall be free of refuse and litter along with noxious weed seed and reproductive plant parts, as listed in current State of Colorado A and B Noxious Weed List and local agency weed lists. Topsoil shall not include heavy clay, hard clods, toxic substances, pathogens, or other material, which would be detrimental to growing native vegetation. All required amendments shall be thoroughly incorporated to parent material, onsite. All amendments shall conform to Section 212. Topsoil and parent material shall be free of clods, sticks, stones, debris, concrete, and asphalt in excess of 4 inches in any dimension for all material used within the designed clear zone for the project. Topsoil outside of the clear zone may contain rock larger than 4 inches in any dimension. For slopes with no structures being used to protect areas from falling rocks the Contractor shall remove or secure any rocks deemed unstable and could pose a safety hazard.

Topsoil shall be generated from one or more of the following as shown on the plans:

- (a) *Topsoil (Onsite)*. Topsoil shall consist of the upper 6-inch layer of the A horizon, as defined by the Soil Science Society of America, or at the depths and locations shown on the Stormwater Management Plan (SWMP). It shall consist of loose friable soil, salvaged from onsite and stockpiled or windrowed. Litter and duff (layer of partially decomposed plant material) shall be collected as part of the salvaging of topsoil unless specified to be removed and hauled offsite on the plans.
- (b) *Topsoil (Wetland)*. Wetland topsoil shall consist of moist, organic soil obtained from delineated wetlands, including any existing wetland vegetation and seeds. Wetland topsoil shall be extracted from the project site at locations shown on the plans or as directed, to a minimum depth of 12 inches or at the depths as shown on the plans.

**Revision of Section 207  
Topsoil**

- (c) *Seeding Media*. Seeding Media shall consist of one or all of the following approved materials: sub-soil, overburden, or material generated from rock. Contractor shall select onsite or offsite locations to generate material that meet the requirements of Table 207-1. The Contractor shall provide a Certified Test Report (CTR) in accordance with subsection 106.13, excluding lot, heat, and batch confirming that the excavated material conforms to Table 207-1.
- (d) *Topsoil (Offsite)*. The Contractor shall submit a CTR for Topsoil (Offsite) for approval a minimum of 60 days prior to import in accordance with subsection 106.13. The Contractor shall include with the CTR a complete Soil Nutrient Analysis for the properties listed in Table 207-2 from an independent laboratory that participates in the National Association for Proficiency Testing (NAPT). If topsoil nutrient analysis is deficient, an Amendment Protocol shall be submitted by the Contractor for approval. The Amendment Protocol shall contain a complete list of amendments and associated quantities to produce topsoil that conforms to Table 207-2.

The Contractor shall submit a Certificate of Compliance (COC) for Topsoil (Offsite) for approval a minimum of 60 days prior to import that the source has controlled noxious weeds in accordance with the State of Colorado Noxious Weed Act 35-5.5-115.

## Revision of Section 207 Topsoil

**Table 207-1  
Physical Properties of Seeding Media**

Property	Range	Test
Soil pH (s.u.)	5.6 - 7.5	ASA Mono. #9, Part 2, Method 10-3.2 or TMECC 04.11-A
Soil Electrical Conductivity (EC) (mmhos/cm or ds/m)	< 5.0	ASA Mono. #9, Part 2, Method 10-3.3
Soil SAR (s.u.)	0 - 10	ASA Mono. #9, Part 2, Method 10-3.4
Rock Content (%)	$\leq 25$	USDA NRCS Rock Fragment Modifier Usage
Trace Contaminants (Arsenic, Cadmium, Copper, Mercury, Selenium, Zinc, Nickel, and Lead)	Meets US EPA, 40 CFR 503 Regulations	TMECC 04.06 or EPA6020/ASA (American Society of Agronomy)
Rock Content (%) greater than 3" diameter	$\leq 25$	USDA NRCS Rock Fragment Modifier Usage
USDA Soil Texture	No more than 70% clay, silt, and sand by percentage volume of topsoil.	ASA Monograph #9, Part 1, Method 15-4 or ASA 1 43-5
All Particle Sizes	< 6 Inches	
Physical contaminants (man-made inerts) (%)	< 1	TMECC 03.08-C
C:N ratio	<20	TMECC 05.02-A
* Fines % when manufacturing material from rock	>25% material passing through #4 sieve	ASTM D6913

Amendments to the base imported material shall have the quantities of material verified onsite prior to incorporation into parent material, either at the stockpiles or after placement of parent material. Topsoil amended at the stockpiles shall be distributed to the site within seven days. \* Substitute this requirement for USDA Soil Texture requirement when project are approved to use material manufactured from native rock material on site.

## Revision of Section 207 Topsoil

**Table 207-2  
Topsoil (Offsite) Properties**

Property	Range	Test Methods
Soil pH (s.u)	5.6 - 7.5	ASA Mono. #9, Part 2, Method 10-3.2 or TMECC 04.11-A
Salt by Electrical Conductivity (EC) (mmhos/cm or ds/m)	< 2.0	ASA Mono. #9, Part 2, Method 10-3.3
Soil SAR (s.u.)	0 - 10	ASA Mono. #9, Part 2, Method 10-3.4
Soil OM (%)	3 - 5	Methods of Soil Analysis, Part 3, Method 34
Soil N (NO <sub>3</sub> -n, ppm)	≥ 20.0	Methods of Soil Analysis, Part 3. Chemical Methods. Ch. 38 Nitrogen - Inorganic Forms
Soil P (ppm)	≥ 13.0	ASA Mono. #9, Part 2, Method 24-5.4 or others as required based on soil pH
Soil K (ppm)	≥ 80	ASA Mono. #9, Part 2, Method 13-3.5
Rock Content (%) greater than 3" diameter	≤ 25	USDA NRCS Rock Fragment Modifier Usage
Bioassay (seedling emergence and relative vigor)	> 80% of control	TMECC 05.05-A or Approved Germination Test
Soil Texture	No more than 70% clay, silt and sand by percentage volume of topsoil	ASA Mono. #9, Part 1, Method 15-4
Physical contaminants (man-made inerts) (%)	< 1	TMECC 03.08-C
Trace Contaminants (Arsenic, Cadmium, Copper, Mercury, Selenium, Zinc, Nickel, and Lead)	Meets US EPA, 40 CFR 503 Regulations	TMECC 04.06 or EPA6020/ASA (American Society of Agronomy)
All Particle Sizes	< 6 Inches	
C:N ratio	<20	TMECC 05.02-A

## Revision of Section 207 Topsoil

The Contractor shall utilize a rod penetrometer for determining subgrade soil preparation and determining looseness of soil after ripping. The penetrometer shall have a psi pressure gage, and shall meet the following requirements:

- (1) Steel rod with a minimum diameter of  $\frac{1}{2}$  inch with graduations (tick marks) every 6 inches.
- (2) The rod shall be made of stainless steel or other metal that will not bend when weight is applied.
- (3) The end of the rod shall have a 30-degree cone tip.
- (4) The diameter of the cone at its tip shall be no more than 0.1 inch.
- (5) The top of the rod shall be a T-handled configuration.

### CONSTRUCTION REQUIREMENTS

**207.03 Site Pre-vegetation Conference.** Prior to the start of the initial Subgrade Soil Preparation for the project, the Contractor shall request a Site Pre-vegetation Conference. The Engineer will set up the conference and will include: the Engineer or designated representative, the Superintendent or designated representative, the sub-contractor(s) performing the subgrade soil preparation and soil amendments, and the CDOT Landscape Architect representing the Region. Only one meeting is required for the project unless a new sub-contractor is brought on that did not attend the previous meeting.

The Agenda of the Pre-vegetation Conference can be found in Appendix A of the Construction Manual and includes the following:

- (1) Final review of the Topsoil (Offsite) Amendment Protocol
- (2) Review of the Method Statement detailing the equipment which will be used for the subgrade soil preparation operations
- (3) Review of rod penetrometer which will be used to determine subgrade soil preparation of topsoil
- (4) Permanent Stabilization Phasing Plan (identify strategies and site management measures to protect de-compacted, topsoil amended, seeded, and blanketed areas from foot, vehicle loads, and other disturbances).
- (5) Seeding. See subsection 212.03 for submittal requirements.
- (6) Meeting attendee sign-in log

## Revision of Section 207 Topsoil

**207.04 Topsoil Stockpiling.** Stockpiles of topsoil shall be created as shown on the plans or as approved by the Engineer. All Stockpiles of topsoil which are scheduled to remain in place for 14 days or more shall receive interim stabilization in accordance with subsection 208.04. All topsoil stockpiles shall be identified using white pin flags with "TOPSOIL" printed in black letters and shall have their locations shown on the SWMP Plans. Each individual stockpile shall require at least one flag, and one additional flag for each 10 cubic yards of salvaged topsoil. The contractor shall provide only perimeter flags for stockpile larger than 100 cubic yards with a minimum spacing of 25 feet.

Topsoil may be placed in stockpiles or windrowed at the edge of the disturbance. Windrowed topsoil shall not be used as perimeter erosion control or extensively compacted. When topsoil is windrowed, all stockpile requirements still apply.

(1) Upland Topsoil. If included on the plans, stockpiles shall be treated with herbicide, in accordance with Section 217, or as directed.

(2) Wetland Topsoil. Wetland stockpiles shall not be treated with herbicide. Weeds shall be hand pulled.

Wetland topsoil shall be placed within 24 hours from excavation, unless otherwise approved by the Engineer. Wetland topsoil shall not be stockpiled for more than six months.

**207.05 Subgrade Soil Preparation.** Before placement of topsoil, the subgrade shall be ripped to a minimum depth of 14 inches. Subgrade shall be mostly dry and friable. Subgrade shall crumble without sticking together, yet not be so dry and hard that it does not break apart easily.

Underground utilities shall be located prior to soil preparation.

Subgrade soil preparation equipment shall meet the requirements for either winged tip or parabolic shanks. Operation shall be performed to fracture the soil uniformly without lifting or furrowing the surface excessively. The Contractor shall submit a method statement for subgrade soil preparation other equipment will be considered.

1. Winged tip shanks (dozer equipment) shall be a minimum of 6 inches wide and have 2 inches of vertical profile change on the blade with a 40 - 60-degree sweep angle.

The Contractor shall calibrate the subgrade soil preparation equipment using a minimum 30 linear feet of the initial pass. The Contractor shall utilize the rod penetrometer to verify that that de-compaction was successfully done. The Contractor shall take penetration measurements every 6 inches across a transect perpendicular to the direction of the tractor and spanning the width of the subgrade soil preparation. Depths of penetration shall confirm that a minimum of 12 inches can be achieved without reaching 300 psi on the rod penetrometer pressure gage (approximately 30 pounds of pressure on the T-handle).

Existing subgrade shall be de-compacted to a depth of 14 inches. If multiple passes are needed, the subsequent passes shall be positioned so that the ripping equipment (subsoilers)

## Revision of Section 207 Topsoil

from the previous pass are split by the subsequent pass. Following ripping, the Contractor shall remove all sticks, stones, debris, clods, and all other substances greater than 6 inches in diameter. The Contractor shall restrict motorized vehicle and foot traffic from passing over the ripped area since this would recompact the areas that received subgrade soil preparation.

The first 4 feet from the edge of pavement shall be ripped to a depth of 6 inches. If the project is going to use aggregate base course or recycled asphalt as a shouldering technique, those areas will not require subgrade soil preparation. Depth of soil ripping for the subgrade soil preparation shall be checked with the rod penetrometer.

The Contractor shall verify adequate de-compaction of the entire area to have topsoil placed using a rod penetrometer in the presence of the Engineer. Tests shall be performed at a minimum of ten random locations per each acre as selected by the Engineer. The Test shall verify that a depth of 12 inches of penetration into the soil can be achieved without reaching 300 psi on the rod penetrometer pressure gage (approximately 30 pounds of pressure on the T-handle). If this depth cannot be achieved for 80 percent of the penetrations, the Contractor shall re-rip the area at no additional cost to the Department.

**207.06 Placement of Topsoil and Seeding Media.** Topsoil and Seeding Media shall be hauled and placed at the locations disturbed and will be re-vegetated or as shown on the plans. The contractor shall place a minimum thickness of 6 inches and should only be handled when it is dry enough to work without damaging soil structure. Topsoil and Seeding Media shall be placed a minimum depth of twelve (12) inches when placed over riprap as required on the plans. No Topsoil or Seeding Media shall be placed below ordinary high water mark except as otherwise specified in bio-stabilization bank treatments.

Salvaged topsoil placement deeper than 6 inches is allowed if additional approved material is on-site.

Contractor shall place topsoil in a method that does not re-compact subgrade material using low ground-contact pressure equipment, or by excavators and/or backhoes operating adjacent to it.

The final grade shall be free of all materials greater than 4 inches in diameter within the designed clear zone for the project. Equipment not required for revegetation work will not be permitted in the areas of placed topsoil.

Soil amendments, seedbed preparation, and permanent stabilization mulching shall be accomplished within four working days of placing the topsoil on the de-compacted civil subgrades. If placed topsoil is not mulched with permanent stabilization mulch within four working days, the Contractor shall complete interim stabilization methods in accordance with subsection 208.04(e), at no additional cost to the Department. Time to perform the work may be extended for delays due to weather.

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Topsoil**

**Method of Measurement**

**207.07** Topsoil material will be measured by the actual number of cubic yards of topsoil placed and accepted.  
Subgrade soil preparation will be measured by the square yards of subgrade which is ripped and accepted for adequate de-compaction.

**Basis of Payment**

**207.08** The accepted quantities measured will be paid for at the Contract unit price for each of the pay items listed below that appear in the bid schedule.

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Topsoil (Onsite)	Cubic Yard
Seeding Media	Cubic Yard
Topsoil (Offsite)	Cubic Yard
Topsoil (Wetland)	Cubic Yard
Subgrade Soil Preparation	Square Yard

Amendments for Topsoil (Onsite) and Seeding Media will be measured and paid for in accordance with Section 212.

Amendments for Topsoil (Offsite) will not be measured and paid for separately, but shall be included in the work.

Noxious Weed Management will be measured and paid for in accordance with Section 217.

Stockpiling or windrowing of topsoil will not be measured and paid for separately, but shall be included in the work.

Testing of Seeding Media and Topsoil (Offsite) will not be measured and paid for separately but shall be included in the work.

Rod penetrometer and associated verification testing of random locations will not be measured and paid for separately, but shall be included in the work.

The Site Pre-vegetation Conference will not be paid for separately, but shall be included in the work.

Additional passes with the ripping equipment to achieve the desired de-compaction will not be measured and paid for separately, but shall be included in the work.



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Topsoil**

Removing of clods, sticks, stones, debris, concrete, and asphalt in excess of 4 inches in any dimension for all topsoil and Seeding Media used within the designed clear zone for the project will not be measured and paid for separately, but shall be included in the work.

**Revision of Sections 208, 213, and 216  
Construction Permit Water Quality**

**Revise Section 208 of the Standard Specifications as follows:**

**Revise 208.01, in the first and second paragraph as follows:**

**208.01** This work consists of constructing, installing, maintaining, and removing when required, control measures during the life of the Contract to prevent or minimize erosion, sedimentation, and pollution of any state waters as defined in subsection 101, including wetlands.

Stormwater runoff from all disturbed areas and soil storage areas, must flow to at least one control measure to minimize sediment in the discharge. This shall be accomplished through filtering, settling, or straining. The control measure shall be selected, designed, installed, and adequately sized per good engineering, hydrologic, and pollution control practices. The control measures shall contain or filter flows in order to prevent the bypass of flows without treatment and shall be appropriate for stormwater runoff from disturbed areas and for the expected flow rate, duration, and flow conditions (i.e., sheet or concentrated flow).

The Contractor shall coordinate the construction of temporary control measures with the construction of permanent control measures to assure economical, effective, and continuous erosion and sediment control throughout the construction period.

When a provision of Section 208 or an order by the Engineer requires that an action be immediate or taken immediately, it shall be understood that the Contractor shall at once begin affecting completion of the action and pursue it to completion in a manner acceptable to the Engineer, and per the Colorado Discharge Permit System Stormwater Construction Permit (CDPS-SCP) requirements.

**Revise 208.02 (i), first paragraph, as follows:**

*(i) Erosion Logs.* Erosion logs, also known as sediment control logs, shall be one of the following types unless otherwise shown on the plans:

**Revise 208.02 (k), as follows:**

*(k) Concrete Washout Structure.* The Contractor shall construct a washout structure that will contain washout from concrete and masonry placement, construction equipment

## Revision of Sections 208, 213, and 216 Construction Permit Water Quality

**Revise 208.02 (l) 1, as follows:**

- (l) *Prefabricated Concrete Washout Structure.* Prefabricated Concrete Washout Structures shall be one of the following types unless otherwise shown on the plans:
1. Prefabricated Concrete Washout Structure (Type 1). Type 1 portable bins shall be used only when specified in the Contract. It shall consist of a watertight multi-use container designed to contain liquid concrete and masonry washout wastewater, solid residual concrete waste from washout operations, and residue from saw cutting, coring, grinding, grooving, and hydro-concrete demolition. Minimum capacity including freeboard shall be 440 gallons. Prefabricated Concrete Washout Structure (Type 2). Type 2 portable bins shall be used only when specified in the Contract. It shall consist of a watertight one-time use container designed to contain liquid concrete washout wastewater, solid residual concrete waste from washout operations, and residue from saw cutting, coring, grinding, grooving, and hydro-concrete demolition. The structure shall have a system to secure to the ground. Minimum capacity including freeboard shall be 50 gallons.

**Revise 208.03, in the second paragraph, under the list, as follows:**

**208.03 Project Review, Schedule, and Erosion Control Management.** Before construction, an on-site Environmental Preconstruction conference shall be held. The conference shall be attended by:

- (1) The Engineer.
- (2) The Superintendent.
- (3) The Contractor's Stormwater Management Plan (SWMP) Administrator. The SWMP Administrator is equivalent to the CDPS-SCP Qualified Stormwater Manager.
- (4) Supervisors or Foremen of subcontractors working on the project.
- (5) The Region Water Pollution Control Manager (RWPCM).
- (6) CDOT personnel (e.g., CDOT Landscape Architect) who prepared or reviewed the Stormwater Management Plan (SWMP).

At this conference, the attendees shall discuss the SWMP, CDPS-SCP, sensitive habitats on-site, wetlands, other vegetation to be protected, and the enforcement mechanisms for not meeting the requirements of this specification.

**Revise 208.03, in the fifth, sixth and seventh paragraphs, as follows:**

The SWMP Administrator shall review existing inlets and culverts to determine if inlet protection is needed due to water flow patterns. Before beginning construction, inlets and culverts needing protection shall be protected and the location of the implemented control measure added to the SWMP Site Map (Site Map).

### Revision of Sections 208, 213, and 216 Construction Permit Water Quality

Before construction, the Contractor shall implement appropriate control measures for protection of wetlands, sensitive habitat, and existing vegetation (vegetative buffers) from ground disturbance and other pollutant sources, per the approved project schedule as described in subsection 208.03(b). Upgradient control measures shall be installed immediately adjacent to vegetative buffers.

When additional control measures are required and approved by the Engineer, the Contractor shall implement the additional control measures and the SWMP Administrator shall record and describe them on the Site Map. The approved control measures will be measured and paid for per subsections 208.11 and 208.12.

**Revise 208.03, (b), Erosion and Sediment Control Activities, (c) Erosion Control Management, (d) Documentation Available on the Project, and (e) Weekly meetings, as follows:**

*(b) Erosion and Sediment Control Activities.* The erosion and sediment control activities shall be included in the weekly meeting update. The project schedule shall specifically indicate the sequence of clearing and grubbing, earthwork operations, and construction of temporary and permanent erosion control features and stabilization. Temporary control measures shall be installed prior to commencing construction activities associated with water quality. The project schedule shall include erosion and sediment control work for haul roads, borrow pits, storage and asphalt or concrete batch sites, and all areas within the LOC. If during construction the Contractor proposes changes that would affect the Contract's control measures, the Contractor shall propose revised control measures to the Engineer for approval in writing. If necessary, the SWMP Administrator shall update proposed sequencing of major activities in the SWMP. Revisions shall not be implemented until the proposed measures have been approved in writing by the Engineer.

*(c) Erosion Control Management (ECM).* Erosion Control Management for this project shall consist of SWMP administration and assessment of site conditions. All ECM staff shall have working knowledge and experience in construction and shall hold a current Transportation Erosion Control Supervisor Certification (TECS) as provided by the Department. The Superintendent cannot serve in an ECM role. The Erosion Control Inspector (ECI) and the SWMP Administrator may be the same person in projects with not more than 40 acres of disturbed area. The ECI and the SWMP Administrator are equivalent to the CDPS-SCP Qualified Stormwater Manager.

ECM staff shall implement and maintain control measures in effective operating condition. At any time, regardless of the inspection schedule, CDOT or the Contractor shall identify control measures requiring corrective action. Identified noncompliance shall be corrected immediately, but no later than 2 calendar days from the time of observation. Discharges outside of the LOC or spills occurring within the project shall be addressed upon observation.

## Revision of Sections 208, 213, and 216 Construction Permit Water Quality

1. SWMP Administration. The SWMP Administrator shall maintain the SWMP. Record the name of the SWMP Administrator on the SWMP. The SWMP Administrator shall have full responsibility to maintain and update the SWMP and identify to the Superintendent critical action items needed to conform to the CDPS-SCP as follows:
  - A. Complete the SWMP as described in subsection 208.03(d). Initial and date changes to the SWMP.
  - B. Participate in the Environmental Pre-construction Conference.
  - C. Attend weekly meetings.
  - D. Attend all Department-led Monthly Audit Reports (MARs). The Contractor and the Contractor's SWMP Administrator will be notified a minimum of five days in advance of each MAR.
  - E. Coordinate with the Superintendent to implement necessary actions to reduce anticipated or presently existing water quality or erosion problems resulting from construction activities.
  - F. Coordinate with the Superintendent to ensure that all labor, material, and equipment needed to install, maintain, and remove control measures are available as needed.
  - G. During construction, update the Site Map to reflect current site conditions, initial, date, and describe changes. Site Maps shall include, at a minimum, the following:
    - (1) Limits of Construction (LOC).
    - (2) Areas of Disturbance (AD), including areas of borrow and fill.
    - (3) Limits of Disturbed Area (LDA).
    - (4) Areas used for storage of construction materials, equipment, soils, or wastes.
    - (5) Location of dedicated asphalt, concrete batch plants, and masonry mixing machines.
    - (6) Location of field offices and staging areas.
    - (7) Location of work access routes during construction.
    - (8) Location of waste storage areas, including areas for liquid, concrete, masonry, and asphalt.
    - (9) Location of daily, temporary, and permanent stabilization.
    - (10) Location of outfalls.
    - (11) Flow arrows that depict stormwater flow directions on-site and runoff direction.
    - (12) Location of structural and non-structural control measures.
    - (13) Location of springs, streams, wetlands, diversions, and other state waters, within or bordering the site, including areas that require pre-existing vegetation be maintained within 50 horizontal feet of a receiving water, unless infeasible.
    - (14) Location of stream crossings located within the LOC.

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- (15) A clear and legible map legend or control measure key with symbology that applies uniformly across all Site Maps.
- (16) Protected trees, shrubs, mature vegetation, and cultural resources.
- (17) Locations of pumped stormwater including intake and discharge points.
- (18) Locations of dewatering activities covered under the CDPS-SCP, low risk guidance, or other dewatering permit.
- H. The SWMP shall reflect the site conditions and shall be amended to reflect control measures, including the following:
  - (1) A change in design, construction, operation, or maintenance of the site that would require the implementation of new or revised control measures; or
  - (2) Changes when the SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with construction activity.
  - (3) Changes when control measures are no longer necessary and are removed.
- I. Complete vegetative survey transects when required per CDOT Erosion Control and Stormwater Quality Guide.
- J. Start a new Site Map before the current one becomes illegible. All Site Maps shall remain as part of the SWMP.
- K. Document all inspections and corrective actions. Keep the SWMP and documentation on the project site.
- L. Add a narrative when adding or revising control measures in the SWMP, including drawings, dimensions, installation information, materials, implementation processes, control measure-specific inspection expectations, and maintenance requirements of the control measure. Non-standard details must be approved by the Engineer prior to installation.
- M. If using existing topography (landform), vegetation, etc. as a control measure, label it as such on the Site Map; add a narrative as to when, where, why, and how the control measure is being used.
- N. Indicate control measures in use or not in use by recording them on Standard Plans M-208-1 and M-216-1 in the SWMP.
- O. Record on the SWMP the approved Method Statement for Containing Pollutant Byproducts.
- P. Update the potential pollutants list in the SWMP and Spill Response Plan throughout construction.

## Revision of Sections 208, 213, and 216 Construction Permit Water Quality

### 2. Erosion Control Inspector.

One ECI is required for every 40 acres of total disturbed area that is currently receiving daily and temporary stabilization as defined in subsection 208.04(e). An ECI shall not be responsible for more than 40 acres in the project. Accepted permanent stabilization methods as defined in subsection 208.04(e) will not be included in the 40 acres.

Coordinate with the SWMP Administrator on the results of Form 1176 Inspections.

The ECI duties include the following inspection responsibilities:

#### A. Form 1176 Inspections

The ECI shall conduct Form 1176 Inspections every seven days at a minimum. Form 1176 Inspections shall be conducted before commencing construction activities associated with water quality. Inspection types include:

- (1) Routine Form 1176 Inspection. Conduct with the Superintendent and the Engineer, or their designated representatives, all areas noted in subsection 208.03(c)2.B.

When a MAR is conducted that meets all requirements of subsection 208.03(c)2.B, it may be counted as a Routine Form 1176 Inspection. If any portion of the requirements listed in subsection 208.03(c)2.B are not met by the MAR, a Routine Form 1176 Inspection shall be conducted to address the remaining requirements. The ECI shall document in the Corrective Action Log of the Form 1176 that a MAR occurred.

- (2) Winter Conditions. Routine Form 1176 Inspections are not required at sites when all of the following conditions are met:

- i Construction activities associated with water quality are temporarily halted
- ii Snow cover exists over the entire site for an extended period (i.e. high-elevation winter season)
- iii Melting conditions posing a risk of surface erosion do not exist.

The winter conditions exception is applicable only during the period where melting conditions do not exist and applies to the Form 1176 Inspections. When this inspection exclusion is implemented, the following information must be documented on Form 1176: dates when snow cover existed, date when construction activities ceased, and date melting conditions began.

## Revision of Sections 208, 213, and 216 Construction Permit Water Quality

### B. Form 1176 Inspection Points

(1) Form 1176 Inspections and post-storm inspections shall include inspection of the following areas for evidence of, or the potential for, pollutants leaving the LOC, entering the stormwater drainage system, or discharging to state waters:

- i Construction site perimeter.
- ii All disturbed areas, including areas that are temporarily stabilized.
- iii Designated haul routes.
- iv Material and waste storage areas exposed to precipitation.
- v Locations where stormwater has the potential to discharge offsite.
- vi Locations where vehicles exit the site.
- vii Locations of pumped stormwater, including all intake and discharge points.
- viii Staging Areas.

(2) While inspecting, evaluate and document on the Form 1176:

- i Visually verify whether all implemented control measures are in effective operational condition and are working as designed in their specifications to minimize pollutant discharges.
- ii Determine if there are new potential sources of pollutants.
- iii Assess the adequacy of control measures at the site to identify areas requiring new or modified control measures to minimize pollutant discharges.
- iv Identify all areas of non-compliance with the CDPS-SCP requirements and, if necessary, implement corrective action per the CDPS-SCP.
- v When pumped stormwater discharges offsite, assess the adequacy of control measures for pumped stormwater (for example, sediment plume, suspended solids, unusual color, decreased clarity, presence of odor or foam, or other evidence of pollutants).

### C. Inspection Documentation

Form 1176 (Stormwater Field Inspection Report - Active Construction) shall be used for all Form 1176 Inspections. The ECI shall fill out the Form 1176 in full.

During inspection, the ECI shall note any findings on the Form 1176's Corrective Action Log. The Corrective Action Log shall note in the appropriate column: findings, location, control measure being assessed, finding type (additional, repair, or remove), and a description of the corrective action needed. When additional line items for multiple findings are needed, print out additional Correction Actions Logs from the Form 1176.



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Any finding not completed from the previous Form 1176 Inspection shall be noted on the current Form 1176 as a current action item.

Compliance Certification on Form 1176 shall be signed when all corrective actions are noted as corrected or if no findings are noted on the Form 1176 Inspection.

### D. Corrective Actions and Interim Responses

When addressing findings noted in section 208.03(c)2.C, note all corrective actions on the Form 1176 Corrective Action Log.

- (1) Corrective Action Response Time. All findings noted on Form 1176 shall be corrected immediately, but no later than 2 calendar days from the time of observation. Findings associated with discharges outside of the LOC or spills occurring within the project shall be addressed immediately upon observation. The ECI shall document the completion date of each corrective action on the Form 1176 Corrective Action Log.
- (2) When a finding cannot be completed immediately within the Corrective Action Response Time of 2 calendar days, an Interim Action Response Plan shall be submitted to the Engineer for each finding under consideration. The Interim Action Response Plan shall include:
  - i Individual finding that is being requested for Interim Action Response
  - ii Reason why each finding cannot be corrected within the Corrective Action Response Time
  - iii Additional control measures to be implemented until each finding is corrected and accepted.
  - iv Milestones to measure progress toward completion and projected corrective completion dates for each finding.

The Department will discuss the Interim Action Response Plan request and may meet with the Superintendent to recommend modifications to the plan. The Engineer will initial and date each line item on the Form 1176's Corrective Action Log when the plan is accepted.

Preparation of Interim Action Response Plan documentation and additional materials, including additional control measures, required to complete the plan shall be at the Contractor's expense. The Corrective Action Response Time in 208.03(c)2.D.1 must be met unless the Interim Action Response Plan is approved.

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E. Noncompliance Reporting. The Contractor shall immediately report the following circumstances to the CDOT Project Engineer. The Department will notify the Contractor if the incident requires reporting to CDPHE-WQCD. When directed by the Department to report, the Contractor shall notify CDPHE-WQCD immediately, but no later than 24 hours from the time of observation. The Contractor shall be responsible for all follow-up correspondence, requirements, and timelines noted within the CDPS-SCP. Reportable circumstances include:

- (1) Noncompliance that may endanger health or the environment, regardless of the cause of the incident.
- (2) Unanticipated bypass that exceeds any effluent limitations per the CDPS-SCP.
- (3) Upset conditions that causes an exceedance of any effluent limitation per the CDPS-SCP.
- (4) Daily maximum violations for any of the pollutants limited by the CDPS-SCP. This includes any toxic pollutant or hazardous substance, or any pollutant specifically identified as the method to control any toxic pollutant or hazardous substance.

F. Upon observation, spills, leaks, or overflows must immediately be contained and disposed of properly. Document spills, leaks, or overflows that result in the discharge of pollutants. The ECI shall record the time and date, weather conditions, reasons for spill, and how it was remediated.

(d) *Documentation Available on the Project.* The following Contract documents and references will be made available for reference at the CDOT field office during construction:

1. SWMP. The Engineer will provide an approved SWMP design at the Pre-construction Conference, which shall remain the property of CDOT. The SWMP shall be available upon request to CDPHE-WQCD, EPA, or CDOT. Before construction, CDOT will provide the documentation for SWMP Tabs (1) through (4), and (18) as listed below. The Contractor shall provide the contents required for items (5) through (17). The SWMP shall be stored in the CDOT field office or at another on-site location approved by CDPHE-WQCD. The SWMP Administrator shall modify and update the SWMP as needed to reflect actual site conditions, within two calendar days of the change. The following Contract documents and reports shall be kept, maintained, and updated in the SWMP under the appropriate items by the SWMP Administrator:

A. (Tab 1) SWMP Plan Sheets - Notes, tabulation, site description. The SWMP site description shall include, at a minimum, the following:

- (1) The nature of the construction activity at the site, including if it is a public emergency related site.
- (2) The proposed schedule for the sequence for major construction activities and the planned implementation of control measures for each phase (clearing, grading, utilities, vertical, etc.).

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- (3) Estimates of the total acreage of the site, and the acreage expected to be disturbed by clearing, excavation, grading, or any other construction activities.
  - (4) A description of the erodibility of identified soil types and a summary of any existing data used in the development of the construction site plans or SWMP that describe the soil or existing potential for soil erosion.
  - (5) A description of the percent of existing vegetative ground cover relative to the entire site and the method for determining the percentage, per CDOT Erosion Control and Stormwater Quality Guide.
  - (6) A description of any allowable non-stormwater discharges at the site, including those being discharged under a CDPHE-WQCD low risk discharge guidance policy.
  - (7) A description of areas receiving discharge from the site. Including a description of the immediate source receiving the discharge. If the stormwater discharge is to a municipal separate storm sewer system (MS4), the name of the entity owning the system, the location of the storm sewer discharge, and the ultimate receiving water(s).
  - (8) A description of all stream crossings located within the LOC.
- B. (Tab 2) Site Maps and Project Plan Title Sheet.
  - C. (Tab 3) Specifications - Standard and project special provisions related to stormwater and erosion control.
  - D. (Tab 4) Standard Plans M-208-1 and M-216-1.
  - E. (Tab 5) Control Measure Details not in Standard Plan M-208-1 or M-216-1- Non-standard details.
  - F. (Tab 6) Weekly meeting sign-in sheet and weekly meeting notes.
  - G. (Tab 7) Calendar of Inspections - Calendar of inspections marking when all Form 1176 Inspections and MARs take place.
  - H. (Tab 8) Contractor Stormwater Field Inspection Reports (Forms 1176 and 1177).
  - I. (Tab 9) All Monthly Audit Reports (MAR) and Form 105(s) relating to Water Quality.
  - J. (Tab 10) Description of Inspection and Maintenance Methods - Description of inspection and maintenance methods implemented at the site to maintain all control measures identified in the SWMP and items not addressed in the design.
  - K. (Tab 11) Spill Response Plan - Reports of reportable spills submitted to CDPHE-WQCD.
  - L. (Tab 12) List and Evaluation of Potential Pollutants - List of potential pollutants as described in subsection 107.25 and approved Method Statement for Containing Pollutant Byproducts.

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- M. (Tab 13) Other Correspondence including agreements with other MS4s, approved deferral request, CDPHE-WQCD audit documentation, Water Quality Permit Transfer to Maintenance Punch List, and other miscellaneous documentation such as documented use agreements for areas outside of the permitted area.
- N. (Tab 14) TECS Certifications of the SWMP Administrator and all ECIs, kept current through the life of the project.
- O. (Tab 15) Environmental Pre-construction Conference - Conference agenda with a certification of understanding of the terms and conditions of the CDPS-SCP and SWMP. All attendees shall sign the certification. A certification shall also be signed by all attendees of meetings held for new subcontractors beginning work on the project that could adversely affect water quality after the Environmental Pre-construction Conference has been held.
- P. (Tab 16) Project Environmental Permits - All project environmental permits and associated applications and certifications, including: CDPS-SCP, USACE 404, temporary stream crossings, dewatering, biological opinions, emergency projects, low risk discharge guidance, and all other permits applicable to the project, including any separate CDPS-SCP obtained by the Contractor for staging areas on private property, asphalt or concrete batch plants.
- Q. (Tab 17) Photographs Documenting Existing Vegetation - Project photographs shall include the following information with the record: project number, project code, name of the person who took the picture, date and time the picture was taken, and location and approximate station number or mile marker. The Contractor shall submit photographs documenting existing vegetation, before construction commencing, on paper with a maximum of four colored images per side of 8 1/2 inch by 11-inch sheet or a digital copy on CD-ROM/Flash Drive (JPG format) as directed by the Engineer.
- R. (Tab 18) Permanent Water Quality Plan Sheets - Plan sheets and specifications for permanent water quality structures and riprap.

The Engineer will incorporate the documents and reports available at the time of award. The Contractor shall provide and insert all other documents and reports as they become available during construction. The SWMP Administrator shall finalize the SWMP for CDOT Maintenance use upon completion of the project. The Engineer shall approve SWMP completeness. Corrections to the SWMP shall be made at the Contractor's expense.

- 2. Reference Materials. The following Reference materials shall be used:
  - (1) CDOT Erosion Control and Stormwater Quality Guide.
  - (2) CDOT Erosion Control and Stormwater Quality Field Guide.

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(e) *Weekly Meetings*: The Engineer, the Superintendent, and the SWMP Administrator shall conduct a weekly meeting with supervisors involved in construction activities associated with water quality. The meeting shall follow an agenda prepared by the Engineer, or a designated representative, and have a sign-in sheet recording the names of all attendees. The SWMP Administrator shall take notes of water quality comments and action items at each weekly meeting and place the agenda and sign-in sheet in the SWMP. At this meeting the following shall be discussed and recorded in Tab 6 of the SWMP:

- (1) Recalcitrant, chronic, and severe MAR findings.
- (2) Unresolved issues from previous Form 1176 Inspections and/or MARs.
- (3) Requirements of the SWMP.
- (4) Problems that may have arisen in implementing the site specific SWMP or maintaining control measures.
- (5) Control measures that are to be installed, removed, modified, or maintained, and associated SWMP modifications.
- (6) Planned activities that will affect stormwater in order to proactively phase control measures.

All subcontractors not in attendance at the Environmental Pre-construction Conference shall be briefed on the project by the Engineer, Superintendent, and the SWMP Administrator before start of work. The SWMP Administrator shall record the names of these subcontractors as an addendum to the list of attendees and add it to the SWMP.

**Revise 208.04, in the second, third and fourth paragraphs, and in (b), (c), (e), and (f) third paragraph, as follows:**

**208.04 Control Measures for Stormwater.** The SWMP Administrator shall modify the SWMP to clearly describe and locate all control measures implemented at the site to control potential sediment discharges.

Vehicle tracking pads shall be used at all vehicle and equipment exit points from the site to prevent sediment exiting the LOC of the project site. Access shall be provided only at locations approved by the Engineer. The SWMP Administrator shall record vehicle tracking pad locations on the Site Map.

New inlets and culverts shall be protected during their construction. Appropriate protection of each culvert and inlet shall be installed immediately. When riprap is called for at the outlet of a culvert, it shall be installed within 24 hours of completion of each pipe. The Contractor shall remove sediment, millings, debris, and other pollutants from within the newly constructed drainage system per the CDPS-SCP, before use, at the Contractor's expense. All removed sediment shall be disposed of outside the LOC per all applicable regulations.

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Concrete or masonry products wasted on the ground during construction including, but not limited to, excess concrete removed from forms, spills, slop, and all other unused concrete or masonry are potential pollutants that shall be removed from the site or contained at a preapproved containment area that has been identified in the SWMP. The concrete or masonry shall be picked up and recycled per 6 CCR 1007-2 (CDPHE Regulations Pertaining to Solid Waste Sites and Facilities) at regular intervals, as needed, or as directed by the Engineer. The uses of recycled concrete from permitted recycling facilities shall be per Section 203.

- (b) *Other Agencies.* If CDPHE-WQCD, US Army Corps of Engineers (USACE), the Environmental Protection Agency (EPA), or a Local Agency reviews the project site and requires additional measures to prevent and control erosion, sediment, or pollutants, the Contractor shall cease and desist activities resulting in pollutant discharge and immediately implement these measures. If the work may negatively affect another MS4, the Contractor shall cease and desist activities resulting in the discharge and shall implement appropriate measures to protect the neighboring MS4, including installing additional measures. Implementation of these additional measures will be paid for at contract unit prices.
- (c) *Work Outside the Right of Way.* Disturbed areas, including staging areas, that are outside CDOT ROW and outside easements acquired by CDOT for construction, are the responsibility of the Contractor. These areas shall be subject to a separate CDPS-SCP and all other necessary permits, as they are considered a common plan of development if within a 1/4 mile of the construction site. The Contractor shall acquire these permits and submit copies to the Engineer before any disturbance. These permits shall be acquired, and all erosion and sediment control work performed at the Contractor's expense. These areas are subject to audits by CDOT or any other agency, as agreed upon in writing. A documented use agreement between the permittee and the owner or operator of any control measures located outside of the LOC that are utilized by the permittee's construction site for compliance with the CDPS-SCP, but not under the direct control of the permittee shall be placed in the project's SWMP.
- (e) *Stabilization.* Once earthwork has started, the Contractor shall maintain erosion control measures until permanent stabilization of the area has been completed and accepted. Failure to properly maintain erosion control and stabilization methods, either through improper phasing or sequencing will require the Contractor to repair or replace sections of earthwork at the Contractor's expense. The Contractor shall schedule and implement the following stabilization measures during the course of the project:
1. *Daily Stabilization.* At the end of each working day, the Contractor shall stabilize disturbed areas by surface roughening, vertical tracking, or a combination thereof. Disturbed areas are locations where actions have been taken to alter the existing vegetation or underlying soil of a site, such as clearing, grading, roadbed preparation, soil compaction, and movement and stockpiling of sediment and materials. Designated topsoil distributed on the surface or in stockpiles shall not receive daily stabilization.

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Other stabilization measures may be implemented, as approved. The maximum area of daily stabilization (excluding areas of designated topsoil) shall not exceed 20 acres.

2. Temporary Stabilization. Temporary stabilization shall be implemented for earth disturbing activities on any portion of the site where construction activities associated with water quality have permanently or temporarily ceased for more than 14 calendar days. These areas shall be stabilized using one or more of the following methods:
  - A. Application of 1.5 tons per acre of mechanically crimped certified weed free hay or straw in combination with an approved organic mulch tackifier.
  - B. Placement of bonded fiber matrix per Section 213.
  - C. Placement of mulching (hydraulic) wood cellulose fiber mulch with tackifier, per Section 213.
  - D. Application of spray-on mulch blanket per Section 213. Magnesium Chloride, Potassium Chloride, and Sodium Chloride or other salt products shall not be used as a stabilization method.
  - E. Topsoil stockpiles shall receive temporary stabilization unless specified per Section 207 as a different material than the other disturbed areas on-site.
3. Summer and Winter Stabilization. Summer and winter stabilization is defined as stabilization during months when seeding is not permitted. As soon as the Contractor knows shutdown is to occur, temporary stabilization shall be applied to the disturbed area. Protection of the temporary stabilization method is required. Reapplication of temporary stabilization may be required as directed.
4. Permanent Stabilization. Permanent stabilization is defined as the covering of disturbed areas with topsoil, seeding, mulching with tackifier, soil retention coverings, and such non-erodible methods as riprap, road shouldering, etc., or a combination as required by the Contract. Other permanent stabilization techniques may be proposed by the Contractor, in writing, and shall be used if approved in writing by the Engineer. Permanent stabilization requirements shown on the plans shall be completed within four working days of the placement of the topsoil per Section 207.
5. Final Stabilization. Final stabilization is achieved when all ground-disturbing activities at the site have been completed, and uniform vegetative cover has been established with an individual plant density of at least 70 percent of predisturbance levels, or equivalent permanent physical erosion reduction methods have been employed.

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*(f) Maintenance.*

**Second Paragraph:**

Maintenance of erosion and sediment control devices shall include replacement of such devices upon the end of their useful service life as recommended by the Contractor and approved by the Engineer. Maintenance of rock check dams and vehicle tracking pads shall be limited to removal and disposal of sediment or addition of aggregate. Damages resulting from failure to maintain control measures shall be repaired at the Contractor's expense.

**Third paragraph:**

Complete site assessment shall be performed as part of comprehensive inspection and maintenance procedures to assess the adequacy of control measures at the site and the necessity of changes to those control measures to ensure continued effective performance. Where site assessment results in the determination that new or replacement control measures are necessary, the control measures shall be installed to ensure continuous effectiveness. When identified, control measures shall be maintained, added, modified or replaced per 208.03(a)2.D.

**Revise 208.05 (e), (g), (l), ((n), (o), and (q) as follows:**

**208.05 Construction of Control Measures.** Control measures shall be constructed per Standard Plans M-208-1 and M-216-1, and with the following:

- (e) Temporary Diversion.* Diversions shall be constructed to the dimensions shown in the Contract and graded to drain to a designated outlet. The berm shall be sufficiently compacted to prevent erosion or failure. If the diversion erodes or fails, it shall be repaired or replaced upon observation at the Contractor's expense.
- (g) Silt Berm.* Before installation of silt berms, the Contractor shall prepare the surface of the areas where the berms are to be installed such that they are free of materials greater than 2 inches in diameter and are suitably smooth for the installation of the silt berms, as approved. Silt berms shall be secured with spikes. The Contractor shall install the silt berm in a manner that will prevent water from going around or under the silt berm. Silt berms shall be installed on top of soil retention blanket or turf reinforcement mat.

the trap and shall be disposed of per subsection 208.04(f).

- (l) Erosion Logs.* Erosion logs, also known as sediment control logs, shall be embedded 2 inches into the soil. Stakes shall be embedded so that the top of the stake does not extend past the top of the erosion log more than 2 inches, at the discretion of the Engineer, a shallower stake depth may be permitted if adverse site conditions are encountered, such as rock or frozen ground.

The Contractor shall maintain the erosion logs during construction to prevent sediment from passing over or under the logs.



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(n) *Concrete Washout Structure.* The concrete washout structure shall meet or exceed the dimensions shown on the plans. Work on this structure shall not begin until the Engineer provides written acceptance of location.

Implement control measures designed for concrete and masonry washout waste. If the bottom of the excavated structure is within 5 feet of anticipated high ground water elevation or the soil does not have adequate buffering capacity to meet water quality standards, an impermeable synthetic liner shall be installed with the minimum properties shown in Table 208-8 or use a prefabricated washout.

Meet the following requirements:

1. The structure shall contain all washout water.
2. Stormwater shall not carry wastes from washout and disposal locations.
3. The structure shall be located a minimum of 50 horizontal feet away from state waters and shall meet all requirements for containment and disposal as defined in subsection 107.25.
4. The structure shall be signed as "Concrete Washout."
5. The structure shall be accessible to appropriate vehicles.
6. Freeboard capacity shall be included in the structure design to reasonably ensure the structure will not overtop during or because of a precipitation event.
7. The Contractor shall prevent tracking of washout material out of the washout structure.
8. Do not add soaps, solvents, detergents, flocculants, and acid to wash water.
9. Surround the structure on three sides by a compacted berm.
10. The structure shall be fenced with orange plastic construction fencing to provide a barrier to construction equipment and to aid in identification of the concrete washout structure.
11. Concrete and masonry waste, liquid and solid, shall not exceed  $\frac{2}{3}$  the storage capacity of the washout structure.

(o) *Prefabricated concrete washout structures (Type 1 and Type 2).* Structures and sites shall meet the following requirements:

1. Structure shall contain concrete and masonry washout water. If bins are determined to be leaking, the Contractor shall replace the bin onsite and clean up the spilled material.
2. Structure shall be located a minimum of 50 horizontal feet away from state waters and shall be confined so that no potential pollutants will enter state waters and other sensitive areas as defined in the Contract. Locations shall be as approved by the Engineer. Sign the prefabricated structure as "Concrete Washout". Sign can be on portable bin.
3. The structure shall be accessible to appropriate vehicles.

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4. Washout bins shall be covered with a tarp tied down to the structure or staked to the ground when a storm event is anticipated.
  5. Do not add soaps, solvents, detergents, flocculants, and acid to wash water.
  6. Concrete and masonry waste, liquid and solid, shall not exceed  $\frac{2}{3}$  the storage capacity of the washout structure.
  7. Do not move prefabricated structures when they contain liquid, unless otherwise approved.
  8. The concrete washout structure shall be installed and ready for use before concrete placement operations.
  9. Check and maintain washout areas as required. Do not allow on-site permanent disposal of concrete washout waste.
  10. All liquid and solid wastes, including contaminated sediment and soils generated from concrete washout shall be hauled away from the site and disposed of properly at the Contractor's expense.
  11. Delivery to the site shall not occur until written acceptance is provided by the Engineer for both the product and the concrete waste disposal facility.
- (q) *Detention Pond*. Permanent detention ponds shown on the plans may be used as temporary control measures if the following conditions are met:
1. The pond is designated as a construction control measure in the SWMP.
  2. The pond outfall and outlet are designed and implemented for use as a control measure during construction per good engineering, hydrologic, and pollution control practices. The stormwater discharges from the outfall shall not cause degradation or pollution of state waters and shall have control measures as appropriate.
  3. All silt shall be removed, and the pond returned to the design grade and contour, before project acceptance.

**Add 208.05 (u), as follows:**

- (u) *Topographical (Landform) Controls*. Topographical controls consist of existing or created landforms that minimize sediment from entering or leaving the areas of disturbance. If a landform directs flow of water to a concentrated outfall point, the outfall point shall be protected to prevent erosion and withdraw water from or near the surface.

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Revise 208.06 as follows:

**208.06 Materials Handling and Spill Prevention.** The SWMP Administrator shall clearly describe and record on the SWMP, all practices implemented at the site to minimize impacts from procedures or significant material that could contribute pollutants to runoff. Areas or procedures where potential spills can occur shall have a Spill Response Plan in place as specified in subsections 107.25(b) or 208.06(c). Any spilled materials shall be cleaned using dry cleanup methods. Construction equipment, fuels, lubricants, and other petroleum distillates shall not be stored or stockpiled within 50 horizontal feet of any state waters or more if the Contractor determines necessary. Equipment fueling and servicing shall occur only within approved designated areas.

- (a) *Bulk Storage Structures.* Bulk storage structures for petroleum products and other chemicals shall have impervious secondary containment or equivalent adequate protection to contain all spills and prevent any spilled material from entering state waters. Secondary containment shall be capable of containing the combined volume of all the storage containers plus at least 10 percent freeboard. For secondary containment that is used and may result in accumulation of stormwater within the containment, a plan shall be implemented to properly manage and dispose of all accumulated stormwater deemed to be contaminated (has an unusual odor or sheen).
- (b) *Lubricant Leaks.* The Contractor shall inspect equipment, vehicles, and repair areas daily to ensure petroleum, oils, and lubricants (POL) are not leaking onto the soil or pavement. Absorbent material or containers approved by the Engineer shall be used to prevent leaking POL from reaching the soil or pavement. The Contractor shall have onsite approved absorbent material or containers of sufficient capacity to contain any POL leak that can reasonably be foreseen. The Contractor shall inform Spill Response Coordinators per the Spill Response Plan if unforeseen leakage is encountered. All materials resulting from POL leakage control and cleanup shall become the property of the Contractor and shall be removed from the site. Control, cleanup, and removal of by-products resulting from POL leaks shall be performed at the Contractor's expense.
- (c) *Spill Response Plan.* A Spill Response Plan shall be developed and implemented to establish operating procedures for handling potential pollutants and preventing spills.

The Response Plan shall contain the following information:

1. Identification and contact information of each Spill Response Coordinator.
2. Locations of areas on the project site where equipment fueling and servicing operations are permitted.
3. Location of clean-up kits.
4. Quantities of chemicals and locations stored on-site.
5. Label system for chemicals and Safety Data Sheets (SDS) for products.

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6. Clean-up procedures to be implemented in the event of a spill that does not enter state waters or ground water.
7. Procedures for spills of any size that enter surface waters or ground water or have the potential to do so.
8. A summary of the employee training provided.

Information in items (1) through (8) shall be updated in the SWMP when they change.

*(d) Equipment Washing.* When washing applicators and containers used for paint, form release oils, curing compounds, or other similar construction materials, the wash water must be directed into a leak-proof container. Liquid and hardened wastes shall be removed from the site and disposed of properly.

**Revise 208.07, first paragraph, as follows:**

**208.07 Stockpile Management.** Material stockpiles shall be located 50 horizontal feet away from state waters and shall be confined so that no potential pollutants will enter state waters and other sensitive areas as defined in the Contract. Locations shall be approved by the Engineer.

**Revise 208.08 as follows:**

**208.08 Limits of Disturbed Area (LDA).** The Contractor shall limit construction activities to those areas within the LDA shown on the plans and cross-sections. Construction activities, in addition to the Contract work, shall include the on-site parking of vehicles or equipment, on-site staging, on-site batch plants, haul roads or work access, and all other activities that would disturb existing soil conditions. Staging areas within the LDA shall be as approved by the Engineer. Construction activities beyond the LDA due to Contractor negligence shall be restored to the original condition by the Contractor at the Contractor's expense. The SWMP Administrator shall tabulate additional disturbances not identified in the CDPS-SCP application and indicate changes to locations and quantities on the SWMP. The Contractor shall report the changes and additional disturbances to the Engineer, CDPHE-WQCD, and all other involved agencies.

The Contractor shall pursue stabilization of all disturbances to completion.

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**Revise 208.09 as follows:**

**208.09 Regulatory Mechanism for Water Quality** The Department will identify and document findings not in compliance with the Water Quality Specifications, as specified in subsection 208.09(a)7, during MARs. The Engineer will immediately notify the Contractor of these findings by issuing Form 105, which will be tracked in ESCAN/CARL software. Failure by the Contractor to clarify a finding location with the Engineer shall not interrupt the timelines noted in subsection 208.09(b).

Timelines noted in subsection 208.09(b) do not indemnify the Contractor from failing to comply with CDPS-SCP timelines for corrective actions. Corrective actions must be addressed in accordance with subsection 208.03(c)2.D.

*(a) Definitions.*

1. Compliance Assistance. A low-risk event as determined by the Region Water Pollution Control Manager (RWPCM). Compliance assistance events are not considered Findings and not subject to the Regulatory Mechanism noted in subsection 208.09(b).
2. Deferment. A request from the Contractor to the Engineer to delay implementation of corrective actions for Regular Findings pertaining to Water Quality Specifications. Deferments may only be granted due to extraordinary circumstances. However, it is at the Department's discretion to approve or reject these requests.
3. Finding. An incident discovered through a MAR, which is noncompliant with the Water Quality Specifications. A Finding will be classified as one of the following:
  - A. Regular Finding. A situation upon inspection that is in noncompliance with the Water Quality Specifications.
  - B. Severe Finding. A discharge outside the project's Limits of Construction (LOC), subsection 107.25(a), to state waters or to a live inlet where the pollutant cannot be reclaimed.
  - C. Chronic Finding. A Chronic Finding is assessed when the same Regular Finding at the same location is documented twice in the last three MARs. Engineer observed findings outside these MARs will not apply.
4. Inspection Form 105. The Form 105 issued by the Engineer documenting findings from the MAR.

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**Revise 208.09 (b) Liquidated Damages and Stop Work Orders, 2. A. and B., as follows:**

2. Severe Finding. In response to a Severe Finding, the Engineer will issue Inspection Form 105 and immediately assess Liquidated Damages of \$3,500 per Severe Finding. Severe Findings shall not be eligible for the seven-day grace period (subsection 208.09(b)1). Liquidated damages will accrue at \$3,500 per Severe Finding per calendar day beginning at 11:59 PM of day the Inspection Form 105 is issued.
  - A. If the Severe Finding is a discharge to state waters, the Contractor shall prevent any further discharge and shall reclaim discharge that has not yet entered state waters. The Contractor shall report the discharge to CDPHE-WQCD per CDPS-SCP requirements.
  - B. If the Severe Finding is a discharge outside the LOC that does not enter state waters, the Contractor shall fully reclaim the discharge before it enters state waters and implement relevant CDPS-SCP noncompliance notification procedures.

**Revise 208.09 (e) 1., 2., 3., and 4. as follows:**

- (e) Exemptions.* The Engineer will exempt from subsection 208.09(b) situations of Compliance Assistance, Documented Upset Conditions, Documented Reportable Spills and Documented Winter Exemptions. Release from subsection 208.09(b) does not exempt the Contractor from compliance with the CDPS-SCP.
1. Documented Upset Condition. The Contractor shall report, both verbally and in writing, the Upset Condition to CDPHE-WQCD per CDPS-SCP Part II.N and subsection 208.03(c) and provide written documentation to the Engineer. The Engineer will issue a Form 105 and recognize the exemption to the Regulatory Mechanism. The Contractor shall also update the SWMP with the Form 105 and the documented Upset Condition.
  2. Documented Reportable Spills. The Contractor shall report, both verbally and in writing, the Reportable Spill to CDPHE-WQCD per subsection 107.25(b) and provide written documentation to the Engineer. The Engineer will issue a Form 105 and recognize the exemption to the Regulatory Mechanism. The Contractor shall also update the SWMP with the Form 105 and the documented Reportable Spill.
  3. Winter Exemptions. The Contractor is unable to address findings noted on the MAR due to:
    - A. Snow covers the entire site for an extended period,
    - B. No construction activity, and

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C. Melting conditions posing a risk of surface erosion do not exist.

The Contractor shall request a Winter Exemption to the Department. If approved, the Engineer will issue a Form 105 and recognize the exemption to subsection 208.09(b). The Contractor shall also update the SWMP with the Form 105 and the documented Winter Exemption. Liquidated Damages, if assessed, will only accrue up to the point where the Winter Exemptions are approved.

4. Compliance assistance during MARs. The RWPCM will record compliance assistance in ESCAN/CARL software.

**Revise 208.10 (c), second paragraph, as follows:**

*(c) Locations of Temporary Control Measures.* The Engineer will identify locations where modification, cleaning, or removal of temporary control measures are required and will provide these in writing to the Contractor. Upon completion of work required, the SWMP Administrator shall modify the SWMP to provide an accurate depiction of control measures to remain on the project site.

Complete and approve all punch list and walkthrough items by the Engineer and CDOT Maintenance.

**Revise 208.11 first paragraph, as follows:**

**208.11** Erosion Control Management will be measured as the actual number of days of ECM work performed, regardless of the number of personnel required for SWMP Administration and Form 1176 Inspection, including Form 1176 Inspections, documentation, meeting participation, SWMP Administration, and the preparation of the SWMP. If the combined hours of SWMP Administration and Form 1176 Inspection is four hours or less in a day, the work will be measured as a half day. If the combined hours of SWMP Administration and Form 1176 Inspection is more than four hours in a day, the work will be measured as one day. Pay the total combined hours of ECM work exceeding eight hours in a day as one day.

**Revise 208.12, in the details under the Pay Item table, as follows:**

**First paragraph:**

Payment for Erosion Control Management (ECM) will be full compensation for all labor, materials and equipment necessary for the SWMP Administrator and Erosion Control Inspectors to perform all the work described in this specification. This includes assembling Tabs 5 to 18 in subsection 208.03(d)1 and required updates to the SWMP.

**Revision of Sections 208, 213, and 216  
Construction Permit Water Quality**

**Fourth paragraph:**

Surface roughening and vertical tracking (daily stabilization) will not be measured and paid for separately but shall be included in the work. Payment for each control measure item will be full compensation for all work and materials required to furnish, install, maintain, and remove the control measure when directed.

**Ninth paragraph:**

Spray-on mulch blankets required by the Contract, including those used in both temporary and final stabilization, will be measured and paid for per Section 213.

**Revise Section 213 of the Standard Specifications as follows:**

**Revise 213.01, in the second paragraph as follows:**

**213.01** This work consists of mulching the seeded areas, furnishing and placing wood chip mulch in the planting beds and plant saucers, furnishing and applying hydromulch with tackifier on roadway ditches and slopes, furnishing and placing tackifier on mulch or soil on roadway ditches or slopes, and furnishing and installing metal landscape border for the separation of planting beds, per the Contract or as directed. Mulching may be accomplished by the crimping method using straw or hay, by the hydraulic method using wood cellulose fiber mulch, or by other approved methods with approved materials. When a specific mulching method is required, it will be designated in the Contract.

This work includes furnishing and applying spray-on mulch blanket or bonded fiber matrix on top of rock cuts and slopes after seeding or as daily stabilization as shown on the plans or as directed by the Engineer.



**Revision of Sections 208, 213, and 216  
Construction Permit Water Quality**

**Revise Section 216 of the Standard Specifications as follows:**

**Revise 216.01 as follows:**

**216.01** This work consists of furnishing, preparing, applying, placing, and securing soil retention blankets and turf reinforcement mats (TRM) for erosion control on roadway slopes or channels as designated in the Contract.

**Revise 216.02 first paragraph, as follows:**

**216.02** Soil retention covering shall be either a soil retention blanket or a TRM as specified in the Contract. It shall be one of the products listed on CDOT's Approved Products List and shall conform to the following:

**Revise 216.04, under Slope Application, fifth paragraph, as follows:**

**Slope Application.** Soil retention coverings shall be installed on slopes as follows:

The upslope end shall be buried in a trench 3 feet beyond the crest of the slope if possible. Trench depth shall be a minimum of 6 inches unless required by the manufacture to be deeper. Before backfilling begins, staples shall be placed across the width of the trench. The trench shall then be backfilled to grade with soil amended with soil conditioning or topsoil, compacted by foot tamping, and seeded. Fabric shall be brought back over trench and secured with staples or earth anchors at 1 foot on center.

There shall be an overlap wherever one roll of fabric ends, and another begins, with the uphill covering placed on top of the downhill covering. Staples shall be installed in the overlap.

There shall be an overlap wherever two widths of covering are applied side by side. Staples shall be installed in the overlap.

Staple checks shall be installed on the slope length at a maximum of every 35 feet. Each staple check shall consist of two rows of staggered staples.

The down slope end shall be buried in a trench 3 feet beyond the toe of slope. Before backfilling begins, staples shall be placed across the width of the trench. The trench shall then be backfilled to grade with soil amended with soil conditioning or topsoil, compacted by foot tamping, and seeded. Fabric shall be brought back over the trench and secured with staples or earth anchors. If a slope runs into state waters or cannot be extended 3 feet beyond the toe of slope, the end of covering shall be secured using a staple check as described above.

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**Revision of Section 212  
Soil Amendments, Seeding, and Sodding**

**Delete Section 212 of the Standard Specifications for this project and replace it with the following:**

**Description**

**212.01** This work consists of application of fertilizer, soil amendments, seedbed preparation, and placing seed and sod.

Substitutions from this specification will not be allowed unless submitted in writing to the Engineer and approved by the Region or Headquarters Landscape Architect.

**Materials**

**212.02** Seed, Fertilizers, Soil Conditioners, Mycorrhizae, Elemental Sulfur, and Sod.

(a) *Seed.* Seed shall be delivered to the project site in sealed bags tagged by a registered seed supplier conforming to the requirements of the Colorado Seed Act, CRS 35-27-111(1). Seed used on the project shall not be in the Contractor's possession for more than 30 days from the date of pickup or delivery on the seed vendors packing slip. Bags which have been opened or damaged before Engineer inspection will be rejected. The State required legal tags shall remain on the bag until opened and the seed is placed in either the drill or hydraulic seeders in the presence of the Engineer. The Engineer shall remove all tags after seed has been planted. Each seed tag shall clearly show the following:

- (1) Name and address of the supplier
- (2) Botanical and common name for each species
- (3) Lot numbers
- (4) Percent by weight of inert ingredients
- (5) Guaranteed percentage of purity and germination
- (6) Pounds of Pure Live Seed (PLS) of each seed species
- (7) Total net weight in pounds of PLS in the sealed bag
- (8) Calendar month and year of test date

Seeds shall be free from all noxious weed seeds per Colorado Seed Act (CRS 35-17)

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**Revision of Section 212  
Soil Amendments, Seeding, and Sodding**

prohibited noxious weed seed list.

Weed seed content shall not exceed the requirements in part 7.2 of the Colorado Department of Agriculture's Seed Act Rules and Regulations.

Seed which has become wet, moldy, or damaged in transit or in storage will not be accepted.

Seed and seed labels shall conform to all current State regulations and to the testing provisions of the Association of Official Seed Analysis. Computations for quantity of seed required on the project shall include the percent of purity and percent of germination.

The Contractor shall store seed under dry conditions, at temperatures between 35°F to 90°F, under low humidity and out of direct sunlight. The Contractor shall provide the location of where seed is stored and access to stored seed locations to the Engineer. Seed stored by the Contractor for longer than 30 days will be rejected.

(b) *Organic Fertilizer*. Fertilizer derived directly from plant or animal sources shall conform to Colorado Revised Fertilizer Rules 8 CCR 1202-4. Fertilizer shall be uniform in composition and shall be delivered to the site in the original, unopened containers, each bearing the manufacturer's name, address, and nutrient analysis. Fertilizer bags (containers) which arrive at the project site opened, damaged, or lacking a label will be rejected. The Contractor shall only use bulk shipments such as tote bags or super sacks that have a manufacturer's original label and sealed at the manufacturing facility. Fertilizer which becomes caked or damaged will not be accepted. Fertilizer shall be stored according to manufacturer's recommendations in a dry area where the fertilizer will not be damaged.

Organic fertilizer formulation being submitted for use must be registered with the Colorado Department of Agriculture.

Verification tests may be conducted by CDOT on grab samples of organic fertilizer delivered to the site to determine the reliability of bag label analysis and for ingredients which are injurious to plants. If a product of any supplier is found to consistently deviate from the bag level analysis, the acceptance of that product will be discontinued. Copies of the failing test reports will be furnished to the Colorado State Board of Agriculture for appropriate action under the "Colorado Fertilizer Law".

Fertilizer shall be supplied in one of the following physical forms:

- (1) A dry free-flowing granular fertilizer, suitable for application by agricultural fertilizer spreader.
- (2) A homogeneous pellet, suitable for application by agricultural fertilizer spreader.

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**Soil Amendments, Seeding, and Sodding**

Pellet size shall be 2-3 mm. Smaller may be allowed when Seeding (Native) Hydraulic is shown on the plans.

- (3) A soluble form that will permit complete suspension of insoluble particles in water, suitable for application by power sprayer.

The application rate of the organic fertilizer shall be either as high or low nitrogen (N) fertilizer as shown on the plans.

High N organic fertilizer chemical analysis shall conform to Table 212-1.

**Table 212-1**  
**Chemical Analysis for High N Fertilizer**

Ingredient	Range	Test Method
Nitrogen (N) (%)	6 - 10	AOAC Official Method 993.13 Nitrogen (Total) in Fertilizers Combustion Method
Phosphorus (P) (%)	1 - 8	AOAC Official Method 960.03 Phosphorus (Available) in Fertilizers
Potassium (K) (%)	1 - 8	AOAC Official Method 983.02 Potassium in Fertilizers

Low N organic fertilizer chemical analysis shall conform to Table 212-2.

**Table 212-2**  
**Chemical Analysis for Low N Fertilizer**

Ingredient	Range	Test Method
Nitrogen (N) (%)	2 - 5	AOAC Official Method 993.13 Nitrogen (Total) in Fertilizers Combustion Method
Phosphorus (P) (%)	3 - 8	AOAC Official Method 960.03 Phosphorus (Available) in Fertilizers
Potassium (K) (%)	1 - 8	AOAC Official Method 983.02 Potassium in Fertilizers

Organic fertilizers shall conform to Table 212-3.

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**Table 212-3**  
**Organic Fertilizer Properties**

Criteria	Range
Moisture content by weight	< 6%

(c) *Compost (Mechanically Applied)*. Compost shall be suitable for use in Erosion Log (Type 2) and permanent seeding applications. Compost shall not contain visible refuse, other physical contaminants, or substances considered harmful to plant growth. Compost shall be used per all applicable EPA 40 CFR 503 standards for Class A biosolids including the time and temperature standards. Materials that have been treated with chemical preservatives as a compost feedstock will not be permitted.

The Contractor shall provide material that has been aerobically composted in a commercial facility. Compost shall be from a producer that participates in the United States Composting Council’s (USCC) Seal of Testing Assurance (STA) program. The Department will only accept STA approved compost that is tested per the USCC Test Methods for Examining of Composting and Compost (TMECC) manual.

Verification tests may be conducted by CDOT on grab samples of compost delivered to the site to determine the gradation and physical properties. Testing may be done for indication of ingredients which are injurious to plants. Sampling procedures will follow the STA 02.01 Field Sampling of Compost Materials and 02.01-B Selection of Sampling Locations for Windrows and Piles. If a product is found to consistently deviate from the gradation and property analysis, the acceptance of that product will be discontinued. Copies of the failing test reports will be furnished to the USCC.

Compost for permanent seeding soil conditioner locations onsite and application rates shall be as shown on the plans.

Organic matter in compost shall be no more than 2 inches in length.

Compost (Mechanically Applied) for permanent seeding shall meet the gradation and physical properties as shown in Table 212-4 and Table 212-5. The Contractor shall provide a written explanation for compost tested parameters not within the acceptable requirements for review and consideration.

The Contractor shall provide documentation from the composting facility confirming that the material has been tested per USCC TMECC.

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**Soil Amendments, Seeding, and Sodding**

**Table 212-4**  
**Gradation for Permanent Seeding Compost**  
**(Test Method TMECC 02.02-B,**  
**“Sample Sieving for Aggregate Size Classification”)**

Sieve Size	Minimum, Percent Passing	Maximum, Percent Passing
25.0 mm (1")	100	
19.0 mm (3/4")	90	100
6.25 mm (1/4")	70	100

Note: Compost shall be from a producer that participates in the USCC STA program.

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**Soil Amendments, Seeding, and Sodding**

**Table 212-5**  
**Properties for Permanent Seeding Compost**

<b>Compost Parameters</b>	<b>Reported as</b>	<b>Requirements</b>	<b>Test Method</b>
pH	pH units	6.0 - 8.5	TMECC 04.11-A
Soluble Salts (Electrical Conductivity)	dS/m (mmhos/cm)	< 5.0	TMECC 04.10-A
Moisture Content	%, wet weight basis	25% - 50%	TMECC 03.09-A
Organic Matter Content	%, dry weight basis	20% - 50%	TMECC 05.07-A
Organic Matter Content	pounds per cubic yard	>240	
Carbon to Nitrogen Ratio (C:N)		< 15:1	
Manufactured Inert Contamination (Plastic, concrete, ceramics, metal)	%, dry weight basis	< 1%	TMECC 03.08-A
Stability (respirometry)	mg CO <sub>2</sub> -C per g TS per day mg CO <sub>2</sub> -C per g OM per day	8 or below	TMECC 05.08-B
Select Pathogens and weed free	(PASS/FAIL) Limits: Salmonella < 3 MPN/4 grams of TS, or Coliform Bacteria < 1000 MPN/gram	Pass	TMECC 07.01-B Fecal Coliforms, or 07.02 Salmonella
Trace Metals	(PASS/FAIL) Limits (mg kg <sup>-1</sup> , dw basis): Arsenic (As) 41, Cadmium (Cd) 39, Copper (Cu)1500, Lead (Pb) 300, Mercury (Hg) 17, Nickel (Ni) 420, Selenium (Se) 100, Zinc (Zn) 2800	Pass	TMECC 04.06

Use the STA Lab bulk density lb/cu ft as received, multiplied by organic matter % as received, multiplied by 27 to calculate pounds per cubic yard of organic matter.

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1. Compost for Erosion Log (Type 2) shall meet the gradation and physical properties as shown in Table 212-6 and Table 212-7.

**Table 212-6  
Gradation for Erosion Log (Type 2) Compost  
(Using Test Method TMECC 02.02-B,  
“Sample Sieving for Aggregate Size Classification”)**

Sieve Size	Percent Passing, Minimum	Percent Passing, Maximum
75.0 mm (3")	100	
25.0 mm (1")	90	100
9.5 mm (3/8")	10	50

Note: Organic matter for erosion log compost shall be no more than 4 inches in length. Compost shall be from a producer that participates in the USCC STA program.



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**Soil Amendments, Seeding, and Sodding**

**Table 212-7**  
**Properties for Erosion Log (Type 2) Compost**

Compost Parameters	Reported as	Requirements	Test Method
pH	pH units	6.0 - 8.5	TMECC 04.11-A
Soluble Salts (Electrical Conductivity)	dS/m (mmhos/cm)	< 5.0	TMECC 04.10-A
Moisture Content	%, wet weight basis	< 60%	TMECC 03.09-A
Organic Matter Content	%, dry weight basis	25% - 100%	TMECC 05.07-A
Manufactured Inert Contamination (plastic, concrete, ceramics, metal)	%, dry weight basis	< 0.5%	TMECC 03.08-A
Stability (respirometry)	mg CO <sub>2</sub> -C per g TS per day mg CO <sub>2</sub> -C per g OM per day	N/A	TMECC 05.08-B
Select Pathogens and weed free	(PASS/FAIL) Limits: Salmonella < 3 MPN/4 grams of TS, or Coliform Bacteria < 1000 MPN/gram	Pass	TMECC 07.01-B Fecal Coliforms, or 07.02 Salmonella
Trace Metals	(PASS/FAIL) Limits (mg kg <sup>-1</sup> , dw basis): Arsenic (As) 41, Cadmium (Cd) 39, Copper (Cu)1500, Lead (Pb) 300, Mercury (Hg) 17, Nickel (Ni) 420, Selenium (Se) 100, Zinc (Zn) 2800	Pass	TMECC 04.06

(d) *Biotic Soil Amendments (Hydraulically Applied)*. Soil amendments shall be a combination of natural fibers, growth stimulants, and other biologically active material designed to improve seed germination and vegetation establishment as shown in Table 212-8. Biotic soil amendments shall be pre-packaged in ultraviolet and weather resistant packaging and labeled from the manufacturer. Bags (containers) which arrive at the project site opened, damaged, or lacking a label will be rejected. Bulk shipments such as tote bags will be rejected. Biotic soil amendments shall be stored in locations not exceeding 80 °F. Acceptance of material shall be subject to the requirements of the Department’s Approved Product List (APL).

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The application rate of the biotic soil amendments shall be per the rates shown on the plans. Use of mulch tackifier (*Plantago Insularis* or pre-gelatinized corn starch polymer) shall be per Section 213. It shall be used as a wetting agent at a rate of 30 pounds per acre. Biotic soil amendments shall provide a continuous and uniform cover and shall consist of one of the components in Table 212-8 and all of the performance and physical properties in Table 212-9.

**Table 212-8**  
**Required Percentage Ranges of Biotic Soil Amendments**

Components	Units	Requirement
Professional grade sphagnum peat moss, professional grade reed sedge peat moss or compost that meets the Seal of Testing Assurance Program of the US Composting Council	%, dry weight basis	> 41%
Mechanically processed straw consisting of weed free agricultural straw, flexible flax fiber or rice hulls	%, dry weight basis	< 57%

**Table 212-9**  
**Performance and Physical Requirements of Biotic Soil Amendments**

Parameters	Reported as	Requirement	Test Method
pH	pH units	5.0 - 7.5	ASTM D1293
Moisture Content	%, wet weight basis	10% - 50%	ASTM D 2974
Organic matter content	%, dry weight basis	> 85%	ASTM D586
Carbon Nitrogen Ratio	Ratio C:N	< 38:1	ASTM E1508
Manufactured inert contamination	%, dry weight basis	< 1.0%	
Acute Toxicity	(Pass/Fail)	Pass (non-toxic)	ASTM E729-96(2014) or EPA Method 2021.0 or EPA Method 2002.0
Vegetative Minimum		> 400%	ASTM 7322

The Contractor shall provide a CTR with independent laboratory analysis for the required

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parameters per subsection 106.13.

(e) *Humate*. The Contractor shall provide a screened dry granular form of organic humic and fulvic acid substance. Humate shall be pre-packaged and labeled from the manufacturer. Bags (containers) which arrive at the project site opened, damaged, or lacking label will be rejected. The Contractor shall only use bulk shipments such as tote bags or super sacks that have a manufacture’s original label and sealed at the manufacturing facility. Humate shall be stored in locations not exceeding 80°F. Humate shall be provided per the rates shown on the plans. Product shall conform to the parameters in Table 212-10 and Table 212-11.

**Table 212-10**  
**Screened Size Requirements for Humate**

Seeding Method	Reported as	Requirement
Seeding (Native) Drill, Hydraulic and Broadcast	inches	< 1/4

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**Table 212-11**  
**Performance and Physical Requirements of Humate**

Parameters	Reported as	Requirement	Test Method
Organic Matter	%, dry weight basis	>70%	
Fines (material that is finer than the No. 200 (75-µm) sieve)	%, dry weight basis	<2%	ASTM D7928
pH	pH units	3.0 - 4.5	ASTM D1293
Acute Toxicity	Pass / Fail	Non Toxic	ASTM 7101 or EPA Method 2021 or 2002
Humic and Fulvic Acids	%, dry weight basis	> 70%	A & L Western method; total alkali extractable
Carbon Content	%, dry weight basis	40% - 50%	
Moisture Content	%, dry weight basis	< 20%	
Heavy Metal / Ash Content	%, dry weight basis	< 15%	

The Contractor shall provide a CTR with independent laboratory analysis for the required parameters per subsection 106.13.

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(f) *Mycorrhizae*. Mycorrhizae shall arrive onsite in original and undamaged packaging. Handling of this material shall follow manufacturer’s safety recommendations. Mycorrhizae shall be stored onsite in such a way as to avoid exposure to direct sunlight for more than four hours and to prevent package temperatures to rise above 85 °F. The endo mycorrhizal inoculum shall provide at least 60,000 propagules per pound and shall contain all of the following species and conform to the parameters in Table 212-12:

- (1) *Glomus intraradices* (a.k.a. *Rhizophagus intraradices*)
- (2) *Glomus mosseae* (a.k.a. *Funneliformis mosseae*)
- (3) *Glomus aggregatum* (a.k.a. *rhizophagus aggregatus*)
- (4) *Glomus etunicatum* (a.k.a. *Claroideoglomus etunicatum*)

**Table 212-12**  
**Physical Requirements of Endo Mycorrhizae**

Parameters	Reported as	Requirement	Test Method
Acute Toxicity	Pass or Fail	Non Toxic	ASTM 7101 or EPA Method 2021 or 2002

The Contractor shall provide a CTR with independent laboratory analysis for the required parameters per subsection 106.13.

The following rates shall be used for Seeding Methods:

- (1) For Seeding (Native) Drill, the mycorrhizae product shall be provided as a dry free-flowing granular material, suitable for application by agricultural drill seeder. Application rate shall be 8 pounds per acre.
- (2) For Seeding (Native) Hydraulic, the mycorrhizae product shall be provided as a fine granular (< 2 mm) or powdered form (particle size less than 300 microns) that will permit complete suspension and used with hydro-seeder equipment. Application rate shall be 20 pounds per acre.
- (3) For Seeding (Native) Broadcast, the mycorrhizae product shall be provided as a dry free-flowing granular material, suitable for application by fertilizer spreader. Application rate shall be 20 pounds per acre.

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(g) *Elemental Sulfur*. The Contractor shall provide a free-flowing granular material consistent in size suitable for application by agricultural spreader and conform to the parameters in Table 212-13. Elemental sulfur shall arrive onsite in original and undamaged packaging.

**Table 212-13**  
**Physical Requirements of Elemental Sulfur**

Parameters	Reported as	Requirement
Guaranteed Analysis of Elemental Sulfur (S)	%	> 90
Bulk Density	Lb per cu. ft.	> 75

(h) *Sod*. Sod shall be nursery grown and 99 percent weed free. Species shall be as shown on the plans. The 1 percent allowable weeds shall not include undesirable perennial or annual grasses or plants defined as noxious by current State statute or county noxious weed list. Soil thickness of sod cuts shall not be less than ¾ inch or more than 1 inch. Sod shall be cut in uniform strips with minimum dimensions of 18 inches in width and 48 inches in length. The Contractor shall submit a sample of the sod proposed for use, which shall serve as a standard if approved. Sod furnished, whether in place or not, that is not up to the standard of the sample will be rejected. CDOT will reject all sod that was cut more than 72 hours before installation.

Each load of sod shall be accompanied by a certificate from the grower stating the type of sod and the date and time of cutting. The Contractor shall submit the certificate to the Engineer before application of the sod. Only sod that is accompanied by the certificate from the grower will be accepted and paid for.

**Construction Requirements**

**212.03 Submittals.** The Contractor shall provide the name and contact information of the seeding contractor 30 days before start of seeding work. The Contractor shall provide two copies of items (1) - (14) listed below to the Pre-vegetation Conference per Section 207. When the Contractor provides resubmittals to meet Contract requirements, the Region or Headquarters Landscape Architect shall be copied on all correspondence.

(1) Written confirmation from the registered seed supplier, on the Contractor’s letterhead, that the Contract specified seed has been secured. No substitutions of the contract specified seed will be permitted unless evidence is submitted, from one of the registered seed suppliers that the Contract specified seed is not available and will not become available during the anticipated construction period.

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- (2) Seed vendor's "seed dealer" endorsement.
- (3) A copy of each seed species germination report of analysis that verifies the lot has been tested by a recognized laboratory for seed testing within 13 months before the date of seeding.
- (4) A copy of each seed species purity laboratory report of analysis that verifies that the lot has been tested by a recognized laboratory for seed testing. The report shall list all identified species, seed count, and date of test.
- (5) Manufacturer's documentation stating that the fertilizer meets the Contract requirements.
- (6) Organic fertilizer documentation showing manufacturer and chemical analysis.
- (7) Permit issued from CDPHE confirming that the vendor can produce or sell compost per House Bill (HB) 1181.
- (8) Documentation from the compost manufacturer that it is a participating member of in the U.S. Composting Council's Seal of Testing Assurance Program (STA).
- (9) Results of compost testing on an STA Compost Technical Data Sheet confirming all required test methods are met using the STA Program.
- (10) Sample of physical compost (at least one cubic foot of material).
- (11) Manufacturer's documentation confirming that biotic soil amendment meets the required physical and performance criteria based on independent testing by the manufacturer.
- (12) Manufacturer's documentation confirming that humate meets the required physical and performance criteria based on independent testing by the manufacture.
- (13) Manufacturer's documentation confirming that mycorrhizae meet the physical criteria based on independent testing and that the minimum required species is provided.
- (14) Pictures and descriptions of seeding equipment proposed to be used on the project. Based on the seeding methods required at a minimum this should include the drill seeder, hydraulic seeder, cultipacker or seed bed roller implements.
- (15) Instructions and documentation on how seeders will be calibrated onsite, per subsection 212.05(a).

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**212.04 Seeding Seasons.** Seeding in areas that are unirrigated shall be restricted according to the parameters in Table 212-14.

**Table 212-14**  
**Seeding Seasons**

**Areas other than the Western Slope**

<b>Zone</b>	<b>Spring Seeding</b>	<b>Fall Seeding</b>
Below 6000'	Spring thaw to June 1	September 15 until consistent ground freeze
6000' - 7000'	Spring thaw to June 1	September 1 until consistent ground freeze
7000' - 8000'	Spring thaw to July 15	August 1 until consistent ground freeze
Above 8000'	Spring thaw to consistent ground freeze	

**Western Slope**

<b>Zone</b>	<b>Spring Seeding</b>	<b>Fall Seeding</b>
Below 6000'	Spring thaw to May 1	August 1 until consistent ground freeze
6000' - 7000'	Spring thaw to June 15	September 1 until consistent ground freeze
Above 7000'	Spring thaw to consistent ground freeze	

- (1) "Spring thaw" is the earliest date in a new calendar year in which seed can be buried 1/2 inch into the surface soil (topsoil) through normal drill seeding methods.
- (2) "Consistent ground freeze" is the time during the fall months in which the surface soil (topsoil), due to freeze conditions, prevents burying the seed 1/2 inch through normal drill seeding operations. Seed shall not be sown, drilled, or planted when the surface soil or topsoil is in a frozen or crusted state.

Seeding accomplished outside the time periods listed above will be allowed only when the Contractor's request is approved by the Engineer in writing, with coordination from the Region Landscape Architect. If requested by the Contractor, the Contractor must agree to perform the following work at no cost to the Department: reseed, remulch, and



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repair areas which fail to produce species indicated in the Contract.

If seeding is ordered by the Engineer outside the time periods listed above, the cost to repair areas that fail to produce species will be paid for by the Department.

**212.05 Native Seeding Methods.** Areas to be seeded shall be installed per SWMP Permanent Stabilization Plan.

All amendments and seeding shall be applied based on the seeding method and rates specified on the plans.

The Contractor shall complete the Amendments Verification Prerequisite for each of the seeding methods described herein. This shall be done by completing a Seed and Amendment Quantities Worksheet for each work area. This worksheet shall have a list of all amendments and the seed labels for each of the areas to be worked on. The State required legal tags shall remain on the bag until opened and the seed placed in either the drill or hydraulic seeders in the presence of the Engineer. Seeding work shall not begin until written approval of the worksheet has been received from the Engineer.

In determining the weight of seed required for each work area, the Contractor shall use the Pure Live Seed (PLS) weight shown on each bag of seed. Calculations based on net weight will not be accepted.

The Contractor shall submit a proposed Permanent Stabilization Phasing Plan to the Engineer before the Pre-revegetation Conference for approval showing how the SWMP Permanent Stabilization Plans will be implemented to minimize traffic loading damage to subgrade soil prepared and seeded areas. The proposed sequencing shall consider and identify strategies and site management control measures to protect seeded areas from foot, vehicle, and other disturbances. The strategic planning of the permanent seeding and mulch shall consider all other phasing of construction activities including traffic management and utility work. Areas damaged due to the Contractor's failing to protect the seeded areas shall be repaired at no cost to the Department. Seeded areas damaged due to circumstances beyond the Contractor's control shall be repaired and reseeded as ordered. Payment for corrective work, when ordered, shall be at the Contract prices shown and per subsection 109.04.

The following seeding application methods shall not be implemented during winds which are consistently higher than 20 MPH, or when the ground is frozen, excessively wet, or otherwise untillable. The Engineer may test to see if the moisture level in the soil is acceptable to work the soil by performing a Soil Plasticity Test as described in the Construction Manual. Multiple seeding operations shall be anticipated, based on acceptable seeding conditions. The seeding methods to be implemented shall be one or more of the following, as shown on the plans:

## Revision of Section 212 Soil Amendments, Seeding, and Sodding

### (a) Seeding (Native) Drill.

1. Fertilizer, Compost, Humates and Elemental Sulfur. The Contractor shall uniformly apply compost and elemental sulfur on the surface of the topsoil using an agricultural spreader at the rate of application specified on the plans. All competitive, non-native vegetation shall be uprooted and hauled offsite before spreading amendments. Before starting incorporation of compost and elemental sulfur, the Contractor shall receive written acceptance from the Engineer on the Seed and Amendment Quantities Worksheet. Verification Prerequisite for this method also requires documentation on the Permanent Stabilization SWMP Site Maps with the approved areas outlined, signed, and dated by the Engineer to track progress. If SWMP Site Maps are not included in the Contract, the Contractor shall use the Contract grading or roadway plan sheets.

Once the Quantities Verification Prerequisite is completed for an area, the Contractor shall homogenously incorporate the compost and elemental sulfur into the top 6 inches of topsoil. Tillage of the amendments shall be completed using a disc and harrow, field cultivator, vibra-shank, or other method suitable to site conditions. For small areas tillage shall be completed using rotary tillers. No measurable depth of organic amendment shall be present on the surface.

The shanks on the back of a grader or dozer shall not be used for tillage. Tillage may take multiple passes to achieve the desired harmonious incorporation. If multiple passes are required, the Contractor shall cross till the soil with the second pass occurring at a 30-degree angle to the first pass. On slope areas, all tillage shall be parallel to the contour. For project that will utilize aggregate or recycled asphalt shouldering material amendments, tillage is not required under shouldering material. Projects seeding up to the edge of pavement, tillage is not required for first 12 inches from the edge of pavement.

Once incorporation of compost and elemental sulfur is approved, the Contractor shall uniformly apply fertilizer and humates on the surface of the topsoil using an agricultural spreader, as shown in the Contract documents.

2. Seedbed Preparation. Amended topsoil shall be cultivated to a firm but friable seedbed using cultipacker or seed bed roller implements. Crusted hard soils shall be broken up and all areas shall be free of clods, sticks, stones, debris, concrete, and asphalt in excess of 4 inches in any dimension per Section 207. Areas shall be left in a rough and uncompacted condition with a surface variance of 2 to 4 inches.
3. Seed and Mycorrhizae. Before seeding, the finished grade of the soil shall be 1 inch below the top of all curbs, junction and valve boxes, walks, drives and other structures. Seeding shall be done within two days of seedbed preparation efforts (tilling or scarifying). If a rain event occurs that compacts or erodes the seedbed before performing seeding, the seedbed shall be re-prepared as directed by the

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## Revision of Section 212 Soil Amendments, Seeding, and Sodding

Engineer.

Areas shall be seeded by mechanical power drawn drills suitable for area soils, topography, and size followed by packer wheels. Mechanical power drawn drills shall have furrow openers and depth bands set to maintain a planting depth of at least 1/4 inch and not more than 1/2 inch and shall be set to space the rows not more than 8 inches apart. Seeding equipment shall have a double disk opener, seed box agitator, and seed metering device.

The seeder shall be calibrated by collecting seed from a single drop tube in the presence of the Engineer based on the following procedure. The Contractor shall provide the tape measure, scale, collection cup, and seed bag with complete label from the supplier. The Contractor may submit an alternative method for approval at the site Pre-vegetation Conference.

- A. Measure the total width (W) of the drill seeder in feet.
- B. Count the number of drill rows (N) on the seeder.
- C. On drill seeders that the tire drives the seeding mechanism, measure the tire circumference (C) in feet.
- D. Calculate the number of rotations the tire will complete per acre using the following equation:
  - A = one acre or 43,560 square feet (SF)
  - A / W = feet (F) the drill seeder needs to travel for each acre
  - F / C = number of rotations (R) of the tire per acre
- E. Reduce the amount of tire rotations by one tenth.
  - .90R = # Tire rotations to calibrate seeder (RCS)
- F. Find the seeding rate (LBS PLS / Acre) on the Stormwater Management Plan.
- G. Using the information from the seed tag, convert the PLS seed rate to a bulk seeding rate using the following equations:
  - % PLS = (% purity (in decimal form) from seed label) x (% germination (in decimal form) from seed label)
  - (LBS PLS / Acre) from the SWMP / % PLS = Required bulk seed per acre in LBS
- H. Reduce the required bulk seed per acre based on the number of seeder tubes.
  - Required bulk seed per acre / N = Weight in LBS of bulk seed from one tube
- I. Reduce the required bulk seed rate from the tube by one tenth.
  - 0.90 x Weight of bulk seed from one tube = Collected bulk seed weight (CBS) in LBS
- J. Set the drill seeder to the correct seeding rate using the manufacturer's recommendation.
- K. With the collection cup under one tube and the driving wheel jacked up, rotate the tire the RCS number of times. Use the value stem to count the rotations.
- L. Using the scale, weigh the seed in the collection cup.
- M. Adjust the drill calibration until the weight of bulk seed in the collection cup equals the CBS in LBS.

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Soil Amendments, Seeding, and Sodding**

Drill seeders shall be recalibrated every time the drill is mobilized onsite. The Contractor shall submit a written statement that the equipment is calibrated and shall provide the correct depth based on conditions before seeding actions are initiated. The Contractor shall continuously monitor equipment to ensure that it is providing a uniform seed application.

If mycorrhizae are called for on the plans, the granules shall be included with the seed in the drill seeder such that the mycorrhizae are placed at or below the seed.

The distance between furrows produced using the drill shall not be more than 8 inches. If rows on the drill exceed 8 inches, the Contractor shall drill the areas twice (if achievable at 30-degree angles to each other) at no additional cost to the Department.

After seeding, the furrows that were created by the drill shall be maintained in place. Construction traffic, other than what is needed to mulch the areas, shall not be permitted on the areas completed.

Permanent stabilization mulching shall be accomplished within 24 hours of drill seeding.

*(b) Seeding (Native) Hydraulic.*

This method utilizes water as the carrying agent and mixes biotic soil amendments, seed, organic fertilizer, humates, mycorrhizae and elemental sulfur into a single slurry for hydraulic application. The Contractor shall furnish and place combined slurry with a hydro-seeder that will maintain a continuous agitation and apply homogenous mixture through a spray nozzle. The pump shall produce enough pressure to maintain a continuous, non-fluctuating spray that will reach the extremities of the seeding area. Water tanks shall have a means of measuring volume in the tank. Seed shall be added to the slurry onsite, no more than 60 minutes before starting application. Slurry shall be applied from a minimum of two opposing directions to achieve complete soil coverage.

The application of the single slurry shall be applied within four hours of adding Mycorrhizae.

The Contractor shall prevent seed, fertilizer, and mulch from falling or drifting onto areas occupied by rock base, rock shoulders, plant beds, or other areas where grass is detrimental. The Contractor shall remove material that falls on plants, roadways, gravel shoulders, structures, and other surfaces where material is not specified.

A. *Seedbed Preparation.* All areas shall be loosened to at least 6 inches, leaving the surface in rough condition with a surface variance of 6 to 8 inches. On steep slopes, tillage shall be accomplished with appropriate equipment as the slope is constructed.

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Soil Amendments, Seeding, and Sodding**

Soil areas shall be tilled to produce loose and friable surfaces with crusted hard soils broken up. All slopes shall be free of clods, sticks, stones, debris, concrete, asphalt and all other materials in excess of 4 inches in any dimension. All competitive, non-native vegetation shall be uprooted and hauled offsite before spreading amendments. Under no circumstances shall the ground surface be smooth and compacted.

- B. *Biotic Soil Amendment, Fertilizer, Humate, Mycorrhizae and Seed.* The Contractor shall assemble all materials for proposed areas to hydro-seed and review quantities with area of coverage with the Engineer as the Quantities Verification Prerequisite for this method. Before mixing in the tank, the Contractor shall receive written acceptance from the Engineer on the Seed and Amendment Quantities Worksheet that the correct quantities are onsite. This quantities verification prerequisite also requires documentation on the Permanent Stabilization SWMP Site Maps with the approved areas outlined, signed, and dated by the Engineer to track progress. If SWMP Site Maps were not included in the Contract, grading or roadway plan sheets shall be used. For the verification process, the Contractor shall provide the Engineer with all documentation for materials in unopened packaging.

After the Quantities Verification Prerequisite has been approved, the hydro-seeder shall be filled with water to 1/3 of its required volume. Following this, water and biotic soil amendments shall be added to the hydro-seeder at a consistent rate. The ratio of water to Biotic Soil Amendments shall be per manufacturer's recommendations. Fertilizer, humates and mycorrhizae shall then be added until the tank has reached 3/4 of its required volume. The tank shall then be filled with water to the required volume. Uniform slurries shall be agitated or mixed for a minimum of ten minutes after all water and materials are in the tank.

Hydraulic seeding equipment shall include a pump capable of being operated at 100 gallons per minute and at 100 pounds per square inch pressure. The equipment shall have a nozzle adaptable to hydraulic seeding requirements. Storage tanks shall have a means of estimating the volume used or remaining in the tank.

Seed shall be added to the slurry onsite no more than 60 minutes before starting application. The Contractor shall increase the Seed Plan rates (LBS PLS / Acre) as shown on the plans by 1.5 times at no additional cost to the Department. The Contractor may be required to apply slurry using multiple hoses to ensure uniform application to all areas of the site. Coverage rates shall be based on the volume of material in the tank, as verified by the Engineer. Areas of lighter applications (covering more area than what is calculated) will require additional application, as directed.

An appropriate curing period shall be per manufacturer's recommendations and shall consider forecasted weather conditions.

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Permanent stabilization mulching shall be accomplished within 24 hours of hydraulic application of native seed.

(c) Seeding (Native) Broadcast.

This method utilizes hand equipment to broadcast spread amendments and seed over prepared seedbeds.

A. *Fertilizing, Compost, Humate and Elemental Sulfur.* The Contractor shall uniformly apply compost and elemental sulfur on the surface of the placed topsoil using an agricultural spreader at the rate of application specified on the plans. All competitive non-native vegetation shall be uprooted and hauled offsite before spreading amendments. Before starting incorporation, the Contractor shall receive written acceptance from the Engineer on the Seed and Amendment Quantities Worksheet that the correct quantities will be applied. The Quantities Verification Prerequisite for this method also requires documentation on the Permanent Stabilization SWMP Site Maps with the approved areas outlined, signed, and dated by the Engineer to track progress. If SWMP Site Maps are not included in the Contract, the grading or roadway plan sheets shall be used.

Once the Quantities Verification Prerequisite is completed for an area, the Contractor shall homogenously incorporate the Compost into the top 6 inches of soil. Tillage of the amendments shall be completed using appropriate tools depending on the size of the area to be worked. Contractor shall use hand tillers or approved small space implements.

Once incorporation of compost and elemental sulfur is approved, the Contractor shall uniformly apply organic fertilizer and humates on the surface of the topsoil using an agricultural spreader.

B. *Seedbed Preparation.* Amended topsoil shall be cultivated to a firm but friable seedbed using tractor implements. Crusted hard soils shall be broken up and all areas shall be free of clods, sticks, stones, debris, concrete, and asphalt in excess of 4 inches in any dimension per Section 207. Areas shall be left in a rough condition with a surface variance of 2 to 4 inches. Under no circumstances shall the ground surface be smooth and compacted.

C. *Seed and Mycorrhizae.* Before seeding, the finished grade of the soil shall be 1 inch below the top of all curbs, junction and valve boxes, walks, drives and other structures. Seeding shall be accomplished within two days of seedbed preparation efforts (tilling or scarifying) to make additional seedbed preparation unnecessary. If a rain event occurs that compacts or erodes the seedbed before performing seeding, the seedbed shall be re-prepared as directed.

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Areas shall be seeded by broadcast-type seeders (cyclone or approved mechanical seeders). The Contractor shall increase the Seed Plan rates (LBS PLS / Acre) as shown on the plans by 1.5 times at no additional cost to the Department.

After seeding, mycorrhizae shall be evenly hand-distributed across the area. Seed and mycorrhizae shall be covered by hand raking and covering with ¼ to ½ inch of topsoil. To ensure seeds have a firm contact with the soil the Contractor shall use a heavy roller as approved in the Site Pre-vegetation Conference. Mycorrhizae shall not be exposed to sunlight for more than four hours. Using equipment with continuous cleat tracks (cat-tracking) to cover seed is not permitted.

Permanent stabilization mulching shall be accomplished within 24 hours of broadcast seed application of native seed.

**212.06 Seeding (Temporary).** Areas of topsoil shall be seeded with annual grasses per SWMP Interim Site Maps or as directed by the Engineer.

Seeding may take place at any time during the year as long as the ground is not covered in snow and topsoil is not frozen. Topsoil may be placed in a stockpile or distributed on-grade after receiving subgrade soil preparation.

Interim stabilization for areas that receive temporary seeding shall be per subsection 208.04(e)2. Seed shall not be included with interim hydraulic mulch applications.

The Contractor shall wait to amend topsoil until the area is ready for permanent seeding with native seed mix shown on the SWMP. The Contractor shall use either the drill, hydraulic, or broadcast method of seeding. Seeding rates (LBS PLS / Acre) shall be increased by 1.5 times for hydraulic and broadcast methods at no additional cost to the Department.

Seed shall meet the requirements of 212.02(a) and shall be selected from Table 212-1 based on the application time.

**Table 212-15**  
**Temporary Seed Mixes**

Common Name	Botanical Name	Application Time	Seeding Rates (LBS PLS / Acre)	Planting Depth (inches)
Oats	Avena sativa	October 1 - May 1	35	1 - 2
Foxtail Millet	Setaria italica	May 2 - September 30	30	1/2 - 3/4

The Contractor shall restrict motorized vehicle and foot traffic from areas that have received temporary seeding.

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Soil Amendments, Seeding, and Sodding**

**212.07 Seeding (Lawn).** Lawn grass seeding shall be accomplished in the seeding seasons per subsection 212.03.

(a) *Fertilizing and Soil Conditioning.* The first application of fertilizer, soil conditioner, or both shall be incorporated into the soil immediately before seeding, and shall consist of a soil conditioner, commercial fertilizer, or both as designated in the Contract. Fertilizer called for on the plans shall be worked into the top 4 inches of soil at the rate specified in the Contract. Biological nutrient, culture, or humate based material called for on the plans shall be applied in a uniform application onto the soil surface. Organic amendments shall be applied uniformly over the soil surface and incorporated into the top 6 inches of soil.

The second application of fertilizer shall consist of a fertilizer having an available nutrient analysis of 20-10-5 applied at the rate of 100 pounds per acre. It shall be uniformly broadcast over the seeded area three weeks after germination or emergence. The area shall then be thoroughly soaked with water to a depth of 1 inch.

Fertilizer shall not be applied when the application will damage the new lawn.

(b) *Seedbed Preparation.* In preparation of seeding lawn grass, irregularities in the ground surface, except the saucers for trees and shrubs, shall be removed. Measures shall be taken to prevent the formation of low places and pockets where water will stand.

Immediately before seeding, the ground surface shall be tilled or hand worked into an even and loose seedbed to a depth of 6 inches, free of clods, sticks, stones, debris, concrete, and asphalt in excess of 2 inches in any dimension and brought to the desired line and grade.

(c) *Seeding.* Seed shall be drilled with mechanical landscape type drills. Broadcast type seeders or hydraulic seeding will be permitted only on small areas not accessible to drills. Seed shall not be drilled or broadcast during windy weather or when the ground is frozen or untillable.

**212.08 Sodding.**

(a) *Fertilizing and Soil Conditioning.* Before laying sod, the 4 inches of subsoil underlying the sod shall be treated by tilling in fertilizer, compost, or humates as specified on the plans. Amendments shall be applied uniformly over the soil surface and incorporated into the top 6 inches of soil.

After laying the sod, it shall be fertilized with a fertilizer having a nutrient analysis of 20-10-5 at the rate of 200 pounds per acre. Fertilizer shall not be applied when the application will damage the sod.



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(b) *Soil Preparation.* Before sodding, the ground shall be tilled or hand worked into an even and loose sod bed to a depth of 6 inches, and irregularities in the ground surface shall be removed. Sticks, stones, debris, clods, asphalt, concrete, and other material more than 2 inches in any dimension shall be removed. Depressions or variances from a smooth grade shall be corrected. Areas to be sodded shall be smooth before sodding occurs.

(c) *Sodding.* Sod shall be placed by staggering joints with all edges touching. On slopes, the sod shall run approximately parallel to the slope contours. Where the sod abuts a drop inlet, the subgrade shall be adjusted so that the sod shall be 1-½ inches below the top of the inlet.

Within one hour after the sod is placed and fertilized it shall be watered. After watering, the sod shall be permitted to dry to the point where it is still wet enough for effective rolling. The Contractor shall roll the sod in two directions with a lawn roller capable of applying between 50 - 80 pounds per square inch of surface pressure to eliminate air pockets.

**Method of Measurement**

**212.09** The quantities of lawn seeding, and the three native seeding types will not be measured but shall be the quantities designated in the Contract, except that measurements will be made for revisions requested by the Engineer, or for discrepancies of plus or minus five percent of the total quantity designated in the Contract.

The quantity of sod will be by the actual number of square feet, including soil preparation, water, fertilizer, and sod, completed and accepted.

Organic Fertilizer, Compost (Mechanically Applied), Humates, Mycorrhizae soil amendments for Seeding (Native) methods drill, hydraulic, and broadcast will be measured by the actual quantity of material applied and accepted.

Measurement for acres will be by slope distances.

**Basis of Payment**

**212.10** The accepted quantities of lawn seeding, native seeding, soil conditioning, and sod will be paid for at the contract unit price for each of the pay items listed below that appear in the bid schedule. Rejected seed that has been stored longer than 30 days shall be re-ordered at the expense of the Contractor.

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Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Organic Fertilizer	Pound
Compost (Mechanically Applied)	Cubic Yard
Biotic Soil Amendments (Hydraulic Applied)	Pound
Humate	Pound
Mycorrhizae	Pound
Elemental Sulfur	Pound
Seeding (Native) Drill	Acre
Seeding (Native) Hydraulic	Acre
Seeding (Native) Broadcast	Acre
Seeding (Wetland) Drill	Acre
Seeding (Wetland) Hydraulic	Acre
Seeding (Wetland) Broadcast	Acre
Seeding (Temporary)	Acre
Seeding (Lawn)	Acre
Sod	Square Foot

Topsoil preparation including incorporating and applying amendments, seedbed preparation, water, and seed mix (LBS PLS / Acre) will not be measured and paid for separately but shall be included in the work.

Calibrating, adjusting, or readjusting seeding or fertilizing equipment will not be measured and paid for separately but shall be included in the work.

No additional cost will be accepted for approved substitution of specified seed mix.

No payment will be made for areas seeded using one of the seeding methods without receiving signed Seed and Amendment Quantities Worksheet from the Engineer.

Additional seedbed preparation before seeding to correct compaction or erosion from storm events will not be measured and paid for separately but shall be included in the work.

Additional mobilizations as needed to complete seeding within allowed seeding seasons will not be measured and paid for separately but shall be included in the work.

Removal of all competitive, non-native vegetation before spreading amendments will not be measured and paid for separately but shall be included in the work.

January 8, 2024

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## Revision Of Section 401 Plant Mix Pavements - General

Section 401 of the Standard Specifications shall be revised as follows:

**Delete Subsection 401.17 of the Standard Specifications and replace with the following:**

**401.17 Compaction.** The hot mix asphalt shall be compacted by rolling. Both steel wheel and pneumatic tire rollers will be required. The number, weight, and type of rollers furnished shall be sufficient to obtain the required density while the mixture is in a workable condition. Compaction shall begin immediately after the mixture is placed and be continuous until the required density is obtained. When the mixture contains unmodified asphalt cement (PG 58-28 or PG 64-22) or modified (PG 58-34), and the surface temperature falls below 185 °F, further compaction effort shall not be applied unless approved, provided the Contractor can demonstrate that there is no damage to the finished mat. If the mixture contains modified asphalt cement (PG 76-28, PG 70-28 or PG 64-28) and the surface temperature falls below 230 °F, further compaction effort shall not be applied unless approved, provided the Contractor can demonstrate that there is no damage to the finished mat.

Warm Mix Asphalt compaction requirements shall conform to CP 59.

All roller marks shall be removed with the finish rolling. Use of vibratory rollers with the vibrator on will not be permitted during surface course final rolling and will not be permitted on any rolling on bridge decks covered with waterproofing membrane.

SMA shall be compacted to a density of 93 to 98 percent of the daily theoretical maximum specific gravity, determined according to CP 51. All other HMA shall be compacted to a density of 92 to 98 percent of the daily theoretical maximum specific gravity, determined according to CP 51. If more than one theoretical maximum specific gravity test is taken in a day, the average of the theoretical maximum specific gravity results will be used to determine the percent compaction. Field density determinations will be made per CP 44 or 81.

The longitudinal joints shall be compacted to a density of 90 to 98 percent of the theoretical maximum specific gravity. The theoretical maximum specific gravity used to determine the joint density will be the average of the daily theoretical maximum specific gravities for the material that was placed on either side of the joint. Density (percent relative compaction) will be determined per CP 44.

The Contractor shall obtain one 6-inch diameter core at a random location within each longitudinal joint sampling section for determination of the joint density. The Contractor shall mark and drill the cores at the location directed by the Engineer and in the presence of the Engineer. The Engineer will take possession of the cores for

## Revision Of Section 401 Plant Mix Pavements - General

testing. The Contractor may take additional cores at his own expense. Coring locations shall be centered on the visible line where the joint between the two adjacent lifts abuts the surface. The center of all joint cores shall be within 1 inch of this visible joint line. Core holes shall be repaired by the Contractor using materials and methods approved by the Engineer. PC and OA joint coring shall be completed within five calendar days of joint construction.

Longitudinal joint coring applies to all pavement layers. When constructing joints in an echelon paving process, the joints shall be clearly marked to ensure consistent coring location. In small areas, such as intersections, where the Engineer prescribes paving and phasing methods, the Engineer may temporarily waive the requirement for joint density testing.

Incentive or disincentive payment determined for joint density per subsection 105.05 will apply to the HMA on each side of the joint. If a layer of pavement has joints constructed on both sides, incentive or disincentive payment for each of those joints will apply to one half of the pavement between the joints.

Along forms, curbs, headers, walls, and all other places not accessible to the rollers, the mixture shall be thoroughly compacted with mechanical tampers.

Any mixture that becomes loose and broken, mixed with dirt, or is in any way defective, shall be immediately removed and replaced with fresh hot mixture, and compacted to conform to the surrounding area.

The Contractor shall construct a compaction pavement test section (CTS) for each job mix where 2,000 or more tons are required for the project. The CTS will be used to evaluate the number of rollers and the most effective combination of rollers and rolling patterns for achieving the specified densities. Factors to be considered include, but are not limited to, the following:

- (1) Number, size, and type of rollers.
- (2) Amplitude, frequency, size and speed of vibratory rollers.
- (3) Size, speed, and tire pressure of rubber tire rollers.
- (4) Temperature of mixture being compacted.
- (5) Roller patterns.

The CTS shall be constructed according to the following procedures:

The CTS shall be constructed to provide the nominal layer thickness specified. The first 500 tons of hot mix asphalt on the project location shall constitute the CTS. The production and placement rates of the CTS shall closely approximate the anticipated

### **Revision Of Section 401 Plant Mix Pavements - General**

production and placement rates for the remainder of the Contract.

Compaction of the CTS shall commence immediately after the hot mix asphalt has been spread and shall be continuous and uniform over the entire CTS. For the CTS, compaction shall continue until no discernible increase in density is obtained by additional compactive efforts. All compaction shall be completed before the surface temperature of the mixture drops below 185 °F.

Approved types of rollers shall be used to achieve the specified density. The Contractor shall determine what methods and procedures are to be used for the compaction operation. The compaction methods and procedures shall be used uniformly over the entire last 200 tons. The Contractor shall record the following information and a copy of this data shall be furnished to the Engineer.

- (1) Type, size, amplitude, frequency, and speed of roller.
- (2) Tire pressure for rubber tire rollers, and whether the pass for vibratory rollers is vibratory or static.
- (3) Surface temperature of mixture behind the laydown machine and subsequent temperatures and densities after each roller pass.
- (4) Sequence and distance from laydown machine for each roller, and number of passes of each roller to obtain specified density.

Two sets of random cores shall be taken within the last 200 tons of the CTS. Each set shall consist of seven random cores. The Engineer will determine the coring locations using a stratified random sampling process. The locations of these cores will be such that one set can serve as a duplicate of the other. One set of these cores shall be immediately submitted to the Engineer. This set will be used for determining acceptance of the CTS and determining density correction factors for nuclear density equipment. Densities of the random samples will be determined by cores according to CP 44. Density correction factors for nuclear density equipment will be determined according to CP 81. Coring shall be performed under CDOT observation. Coring will not be measured and paid for separately but shall be included in the work. For SMA, a CTS is not used. The Contractor shall follow the requirements for the demonstration control strip per the Revision of Section 403, Stone Matrix Asphalt Pavement.

The CTS meets requirements if the Quality Level of the random samples is greater than or equal to 75. The Quality Level will be determined according to CP 71. Once constructed and accepted, the CTS shall remain in place and become part of the hot mix asphalt on the project.

When the Quality level is less than 75 the Contractor shall construct an additional test

## **Revision Of Section 401 Plant Mix Pavements - General**

section, utilizing different rollers, or roller positions, or roller patterns as required. A written proposal detailing the changes in methods and procedures that will be used to obtain density is to be submitted to the Engineer for review before constructing the additional test section.

If the Quality Level of a CTS is less than 75 and greater than or equal to 44, the Engineer may accept the material at a reduced price per Section 105.

If the Quality Level of a CTS is less than 44, the Engineer may:

- (1) Require complete removal and replacement with specification material at the Contractor's expense.
- (2) Where the finished product is found to be capable of performing the intended purpose and the value of the finished product is not affected, as determined by the Engineer, permit the Contractor to leave the material in place with a pay factor, but not more than 75 percent of the bid price.

Each CTS shall be 500 tons. If in-place densities of the CTS, as determined by nuclear density equipment before determining density of the cores, meet the CTS density requirements, the Contractor may begin production paving and continue to place hot mix asphalt pavement under the following conditions:

- (1) The period during which the Contractor continues to pave without test results from cores shall not exceed one workday.
- (2) Construction proceeds at the Contractor's risk. If correlation with the cores reveals that the densities do not meet the CTS requirements, the hot mix asphalt pavement placed subsequently will be subject to price reduction or removal and replacement.

After production paving work has begun, a new CTS shall be required for different layers of pavement, unless otherwise approved by the Engineer. Each additional CTS shall be constructed and documented as specified herein, and shall be sampled, tested, and accepted or rejected as described herein.

All additional costs associated with construction of the CTS shall be at the Contractor's expense. The hot mix asphalt placed in the CTS will be paid for per subsection 401.22, at the contract price for the hot mix asphalt.

If the Contractor requests changes to the roller pattern that was established during the CTS, the Contractor must perform a Roller Pass Study to demonstrate that the specified density is obtained with the new roller pattern before proceeding with the paving operation with Engineer Approval.

**Revision of Section 601  
Concrete Acceptance**

**Revise Section 601 of the Standard Specifications for this project as follows:**

**Delete Sub-Sections 601.17 (c) and 601.17 (d) and replace with the following:**

*(c) Strength (When Specified).*

The concrete will be considered acceptable when the running average of three consecutive strength tests per mix design for an individual structure is equal to or greater than the specified strength and no single test falls below the specified strength by more than 450 psi. A test is defined as the average strength of three test cylinders cast in plastic molds from a single sample of concrete and cured under standard laboratory conditions before testing. If the compressive strength of any one test cylinder differs from the average by more than 10 percent, that compressive strength will be deleted and the average strength will be determined using the compressive strength of the remaining two test cylinders.

When the average of three consecutive strength tests is below the specified strength, the individual low tests will be used to determine the pay factor per Table 601-3. If less than three strength tests are available the individual low tests, if any, will be used to determine the pay factor per Table 601-3. The pay factor will be applied to the quantity of concrete represented by the individual low test.

When the compressive strength test is below the specified strength by more than 450 psi but not more than 1,000 psi, the concrete represented will be evaluated by the Department for removal, corrective action, or acceptance at a reduced price. All costs of the evaluation shall be at the Contractor's expense.

When the compressive strength test is below the specified strength by more than 1,000 psi, the concrete represented will be rejected.

The Contractor may take cores at its own expense and per Colorado Procedure 65 within 10 working days of being notified of a price reduction or up to 45 days after placement, whichever is later, to provide an alternative determination of strength. When cored, price reduction for strength will be based on the corresponding cores' strength. If the core compressive strength is at least 90 percent of the specified field compressive strength, the concrete represented by the cores will be accepted with no price reduction.

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When the Contractor fails to provide proper curing or cold weather protection, the Engineer may use cores to determine acceptance or rejection of a part of the structure instead of acceptance cylinders with the following procedure:

1. The Engineer will notify the Contractor in writing that CDOT will core the structure. The location of the coring will be directed by the Engineer. Coring and testing will be performed at the expense of the Department regardless of the result. Cores will be taken and tested per AASHTO T24 between 28 days and 45 days after concrete placement. Cores will be a minimum of 4 inches in diameter unless otherwise approved by the Engineer. A minimum of three cores in a two-square-foot area will be obtained for locations of the structure that are suspect. If the compressive strength of any one core differs from the average by more than 10 percent, that compressive strength will be deleted and the average strength will be determined using the compressive strength of the remaining two cores. If the compressive strength of more than one core differs from the average by more than 10 percent, the average strength will be determined using all three compressive strengths of the cores. If the average core compressive strength is greater than or equal to 85 percent of the specified 28-day compressive strength, the concrete represented by the cores will be accepted.
2. If the average core compressive strength is less than 85 percent of the specified 28-day compressive strength, the structure will be evaluated by the Department according to subsection 105.03 for removal and replacement. Pay factors will not be based on cores taken by the Engineer. If the concrete represented by the cores is accepted, all costs associated with the repair of the core holes, including preparation and submittal of the repair method, will be measured, and paid for separately.
3. After the Department performs additional core testing as described above, the Contractor may make one request that the structure be cored by the Contractor, tested, and re-evaluated by the Department within 45 days after concrete placement. Coring and testing costs will be at the expense of the Contractor regardless of the result. Cores shall be taken at the same area of the structure as those obtained by the Engineer. The Engineer will approve the location of the cores before the Contractor coring the structure. All costs associated with the repair of these core holes including preparation and



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submittal of the repair method, will not be measured, and paid for separately but shall be included in the work.

If the concrete in the structure is found to be sufficient resulting time delays will be considered excusable. If the concrete in the structure is still found to be deficient, resulting time delays will be considered non-excusable for this evaluation. Compensation for time delays will be evaluated by the Engineer per subsection 108.08.

The Contractor shall submit a proposed repair method for the core holes for approval before coring. The method shall use an approved non-shrink concrete patching material with a minimum compressive strength of 4,500 psi. The Contractor shall submit the manufacturer's recommendations along with the repair method. The Engineer will review and approve the proposed methodology before patching.

The Engineer will distribute electronically to the concrete supplier all compressive strength Owner Acceptance (OA) data for the concrete supplied to the project. The Engineer will distribute the OA compressive strength data within two business days of the 7-day and 28-day compressive strength testing. The data will include the compressive strength and batch ticket number at a minimum. The Contractor shall not have a valid dispute or claim as a result of any action or inaction by the Department related to the distribution of test results.

(d) *Pay Factors.* The pay factor for concrete that is allowed to remain in place at a reduced price shall be determined according to Table 601-3 and shall be applied to the unit price bid for the Item.

If deviations occur in air content and strength within the same batch, the pay factor for the batch shall be the product of the individual pay factors.

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Table 601-3  
PAY FACTORS FOR DEVIATIONS ON  
CONCRETE AIR CONTENT AND STRENGTH

Below Specified Strength (psi)	Pay Factor (Percent) *See Note
1 - 100	98
101 - 200	96
201 - 300	92
301 - 400	84
401 - 450	75
451-1000	Evaluate by Department
451 - 600	65***
601 - 700	54***
701 - 800	42***
801 - 900	29***
901 - 1000	15***
Over 1000**	Reject

Deviations From Specified Air (Percent)	Pay Factor (Percent) *See Note
0.0 - 0.2	98
0.3 - 0.4	96
0.5 - 0.6	92
0.7 - 0.8	84
0.9 - 1.0	75
Over 1.0	Reject

\* Concrete represented by out-of-spec tests will only be priced reduced with the lowest pay factor, not for each pay factor.

\*\* After coring.

\*\*\* Concrete represented by this set is rejected for being more than 450 psi below specification. The concrete represented by this set can only be price reduced and left in place if a structural evaluation by the Structural Engineer of Record is completed and the structural evaluation indicates the structure is structurally sound.

**AFFIRMATIVE ACTION REQUIREMENTS  
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**A. AFFIRMATIVE ACTION REQUIREMENTS**

Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)

1. The Bidder’s attention is called to the “Equal Opportunity Clause” and the “Standard Federal Equal Employment Opportunity Construction Contract Specifications” set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor’s aggregate workforce in each trade on all construction work in the covered area are as follows:

**Goals and Timetable for Minority Utilization**

Timetable - Until Further Notice			
Economic Area	Standard Metropolitan Statistical Area (SMSA)	Counties Involved	Goal
157 (Denver)	2080 Denver-Boulder	Adams, Arapahoe, Boulder, Denver, Douglas, Gilpin, Jefferson.....	13.8%
	2670 Fort Collins	Larimer.....	6.9%
	3060 Greeley	Weld.....	13.1%
	Non SMSA Counties	Cheyenne, Clear Creek, Elbert, Grand, Kit Carson, Logan, Morgan, Park, Phillips, Sedgwick, Summit, Washington & Yuma.....	12.8%
158 (Colo. Spgs. - Pueblo)	1720 Colorado Springs	El Paso, Teller.....	10.9%
	6560 Pueblo	Pueblo.....	27.5%
	Non SMSA Counties	Alamosa, Baca, Bent, Chaffee, Conejos, Costilla, Crowley, Custer, Fremont, Huerfano, Kiowa, Lake, Las Animas, Lincoln, Mineral, Otero, Prowers, Rio Grande, Saguache.....	19.0%
159 (Grand Junction)	Non SMSA	Archuleta, Delta, Dolores, Eagle, Garfield, Gunnison, Hinsdale, La Plata, Mesa, Moffat, Montezuma, Montrose, Ouray, Pitkin, Rio Blanco, Routt, San Juan, San Miguel	10.2%
156 (Cheyenne - Casper WY)	Non SMSA	Jackson County, Colorado.....	7.5%
<b>GOALS AND TIMETABLES FOR FEMALE UTILIZATION</b>			
Until Further Notice.....			6.9% --
Statewide			

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These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Par 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.
4. As used in this specification, and in the contract resulting from this solicitation, the "covered area" is the county or counties shown on the Invitation for Bids and on the plans. In cases where the work is in two or more counties covered by differing percentage goals, the highest percentage will govern.

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**B. STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS**

Standard Federal Equal Employment Opportunity Construction Contract Specifications  
(Executive Order 11246)

1. As used in these Specifications:
  - a. “Covered area” means the geographical area described in the solicitation from which this contract resulted;
  - b. “Director” means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
  - c. “Employer identification number” means the Federal Social Security number used on the Employer’s Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
  - d. “Minority” includes;
    - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
    - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
    - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
    - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required

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to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractor toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any office of Federal Contract Compliance Programs Office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following;
  - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with

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specific attention to minority or female individuals working at such sites or in such facilities.

- b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its union have employment opportunities available, and maintain a record of the organization's responses.
- c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source of community organization and of what action was taken with respect to each individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
- d. Provide immediate written notification to the Director when the union with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc., by specific review of the policy with all management personnel and with all minority and female employees at least once a year, and by posting the Contractor's EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

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- g. Review, at least annually, the Contractor's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foreman, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc. such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- n. Ensure that all facilities and Contractor's activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.



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- o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
  - p. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligation.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goal and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

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- 13 The Contractor in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form, however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

**C. SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES.**

1. *General.*

- a. Equal employment opportunity requirements not to discriminate and to take affirmative action to assure equal employment opportunity as required by Executive Order 11246 and Executive Order 11375 are set forth in Required Contract. Provisions (Form FHWA 1273 or 1316, as appropriate) and these Special Provisions which are imposed pursuant to Section 140 of Title 23, U.S.C., as established by Section 22 of the Federal-Aid highway Act of 1968. The requirements set forth in these Special Provisions shall constitute the specific affirmative action requirements for project activities under this contract and supplement the equal employment opportunity requirements set forth in the Required Contract provisions.
- b. The Contractor will work with the State highway agencies and the Federal Government in carrying out equal employment opportunity obligations and in their review of his/her activities under the contract.
- c. The Contractor and all his/her subcontractors holding subcontracts not including material suppliers, of \$10,000 or more, will comply with the following minimum specific requirement activities of equal employment opportunity: (The equal

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employment opportunity requirements of Executive Order 11246, as set forth in Volume 6, Chapter 4, Section 1, Subsection 1 of the Federal-Aid Highway Program Manual, are applicable to material suppliers as well as contractors and subcontractors.) The Contractor will include these requirements in every subcontract of \$10,000 or more with such modification of language as is necessary to make them binding on the subcontractor.

2. *Equal Employment Opportunity Policy.* The Contractor will accept as his operating policy the following statement which is designed to further the provision of equal employment opportunity to all persons without regard to their race, color, religion, sex, or national origin, and to promote the full realization of equal employment opportunity through a positive continuing program;

It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, or national origin. Such action shall include; employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training.

3. *Equal Employment Opportunity Officer.* The Contractor will designate and make known to the State highway agency contracting officers and equal employment opportunity officer (herein after referred to as the EEO Officer) who will have the responsibility for an must be capable of effectively administering and promoting an active contractor program of equal employment opportunity and who must be assigned adequate authority and responsibility to do so.
4. *Dissemination of Policy.*

- a. All members of the Contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the Contractor's equal employment opportunity policy and contractual responsibilities to provide equal employment opportunity in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum;

- (1) Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the Contractor's equal employment opportunity policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.
- (2) All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer or other knowledgeable company official,

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covering all major aspects of the Contractor's equal employment opportunity obligations within thirty days following their reporting for duty with the Contractor.

- (3) All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer or appropriate company official in the Contractor's procedures for locating and hiring minority group employees.
- b. In order to make the Contractor's equal employment opportunity policy known to all employees, prospective employees and potential sources of employees, i.e., schools, employment agencies, labor unions (where appropriate), college placement officers, etc., the Contractor will take the following actions:
  - (1) Notices and posters setting forth the Contractor's equal employment opportunity policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.
  - (2) The Contractor's equal employment opportunity policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

### 5. *Recruitment.*

- a. When advertising for employees, the Contractor will include in all advertisements for employees the notation; "An Equal Opportunity Employer." All such advertisements will be published in newspapers or other publications having a large circulation among minority groups in the area from which the project work force would normally be derived.
- b. The Contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants, including, but not limited to, State employment agencies, schools, colleges and minority group organizations. To meet this requirement, the Contractor will, through his EEO Officer, identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the Contractor for employment consideration.

In the event the Contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the Contractor's compliance with equal employment opportunity contract provisions. (The U.S. Department of Labor has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the Contractor to do the same, such implementation violates Executive Order 11246, as amended.)

- c. The Contractor will encourage his present employees to refer minority group applicants for employment by posting appropriate notices or bulletins in areas accessible to all such employees. In addition, information and procedures with regard to referring minority group applicants will be discussed with employees.

### 6. *Personnel Actions.* Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken

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without regard to race, color, religion, sex, or national origin. The following procedures shall be followed;

- a. The Contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
- b. The Contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
- c. The Contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the Contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
- d. The Contractor will promptly investigate all complaints of alleged discrimination made to the Contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the Contractor will inform every complainant of all of his avenues of appeal.

*7. Training and Promotion.*

- a. The Contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.
- b. Consistent with the Contractor's work force requirements and as permissible under Federal and State regulations, the Contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.
- c. The Contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.
- d. The Contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

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8. *Unions.* If the Contractor relies in whole or in part upon unions as a source of employees, the Contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women with the unions, and to effect referrals by such unions of minority and female employees. Actions by the Contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:
- a. The Contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.
  - b. The Contractor will use best efforts to incorporate an equal employment opportunity clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, or national origin.
  - c. The Contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the Contractor, the Contractor shall so certify to the State highway department and shall set forth what efforts have been made to obtain such information.
  - d. In the event the union is unable to provide the Contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the Contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex or national origin; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The U.S. Department of Labor has held that it shall be no excuse that the union with which the Contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the Contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such Contractor shall immediately notify the State highway agency.
9. *Subcontracting.*
- a. The Contractor will use his best efforts to solicit bids from and to utilize minority group subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of minority-owned construction firms from State highway agency personnel.
  - b. The Contractor will use his best efforts to ensure subcontractor compliance with their equal employment opportunity obligations.

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10. *Records and Reports.*

- a. The Contractor will keep such records as are necessary to determine compliance with the Contractor's equal employment opportunity obligations. The records kept by the Contractor will be designed to indicate:
  - (1) The number of minority and nonminority group members and women employed in each work classification on the project.
  - (2) The Progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and women (applicable only to contractors who rely in whole or in part on unions as a source of their work force).
  - (3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees, and
  - (4) The progress and efforts being made in securing the services of minority group subcontractors or subcontractors with meaningful minority and female representation among their employees.
- b. All such records must be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the State highway agency and the Federal Highway Administration.
- c. The Contractors will submit an annual report to the State highway agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form PR 1391.

October 1, 2023

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## CERTIFIED PAYROLL REQUIREMENTS FOR CONSTRUCTION CONTRACTS

All applicable contractors subject to Davis-Bacon and Related Acts (DBRA) requirements shall submit all payrolls weekly (at least every seven days), related to Form FHWA 1273, *Required Contract Provisions for Federal-Aid Construction Contracts*, and the Colorado Senate Bill 19-196. The Contractor, all subcontractors, and applicable suppliers required to submit certified payrolls shall follow all DBRA requirements, including sections 5.5, 3.5, and 3.6 of the 29 CFR. Contractors shall upload a completed Contractor Fringe Benefit Statement (CFBS) into LCPtracker at least once per project, utilizing the following web link:

<https://prod-cdn.lcptracker.net/login/login>

The CFBS shall include benefit details for employees who perform work on the project. The CFBS shall provide an overview of the bona fide benefits provided by the employer. If a contractor's fringe benefits change during the project's life, a revised CFBS shall be submitted to reflect the changes accurately. Note other deductions by type and amount. Attach required supporting documentation in the LCPtracker system. Contractors, subcontractors, and applicable suppliers shall establish and utilize a process that allows all employees to verify the number of hours and classifications submitted to pay wages and benefits.

The Contractor, subcontractors, and applicable suppliers shall submit payrolls directly into LCPtracker for approval by the Contractor. The prime approver for the Contractor shall approve or reject payrolls within seven days after submission into LCPtracker.



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**1. Definitions.**

Terms not defined in this special provision shall have the meaning provided in the *CDOT Standard Specifications for Road and Bridge Construction*.

- A. *CDOT Form 1414 Anticipated DBE Participation Plan*. Document that lists all of the bidder's DBE Commitments and submitted with the bid.
- B. *CDOT Form 1415 Commitment Confirmation*. Document confirming the bidder's Commitments and submitted post-bid.
- C. *CDOT Form 1416 Good Faith Effort Report*. Document that details the actions taken to meet the Contract Goal.
- D. *CDOT Form 1417 Approved DBE Participation Plan*. Document that lists the bidder's approved Commitments at the time of Contract award.
- E. *CDOT Form 1432 Commercially Useful Function Questionnaire*. Document that records and verifies each DBE's CUF for Eligible Participation.
- F. *Commitment*. A portion of the Contract, identified by dollar amount and work area, designated by the bidder or Contractor for participation by a particular DBE. Commitments are initially submitted to CDOT via Form 1414 and/or Form 1415.
- G. *Commercially Useful Function (CUF)*. Responsibility for the execution of the work and carrying out such responsibilities by actually performing, managing and supervising the work per Section 8 of this special provision.
- H. *Contract Goal*. The percentage of the Contract designated by CDOT for DBE participation as specified by the Project Special Provision *Disadvantaged Business Enterprise (DBE) Contract Goal*. For determining whether the Contract Goal was met before award, the Contract Goal will be based upon the proposal amount excluding force account items. In the event a Contract Modification Order increases the amount of the Contract, as described in Section 6 of this special provision, the Contract Goal shall be based on the Total Earnings Amount.
- I. *DBE Program Manual*. The manual maintained by the Civil Rights & Business Resource Center (CRBRC) detailing CDOT's policies and procedures for administering the DBE program.
- J. *Disadvantaged Business Enterprise (DBE)*. A Colorado-certified Disadvantaged Business Enterprise listed on the Colorado Unified Certification Program (UCP) DBE Directory.

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- K. *Eligible Participation.* Work by a DBE which counts as valid DBE participation on the Contract and may be used towards fulfillment of a Commitment.
- L. *Good Faith Efforts.* All necessary and reasonable steps to meet the Contract Goal which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if not fully successful. Good Faith Efforts are evaluated before award and throughout performance of the Contract. For guidance on Good Faith Efforts, see Section 4 of this special provision below.
- M. *Joint Check.* A check issued by the Contractor or one of the Contractor's subcontractors to a DBE firm and a material supplier or other third party for materials or services to be incorporated into the work.
- N. *Race-Neutral.* DBE Participation on the Contract obtained through customary competitive procedures.
- O. *Reduction.* Lessening the Commitment amount to a DBE. A Reduction constitutes a partial termination and includes, but is not limited to, instances in which a Contractor seeks to perform work originally designated for a DBE with the Contractor's own forces or to have that work performed by a business entity other than the committed DBE.
- P. *Subcontractor.* An individual, firm, corporation or other legal entity to whom the Contractor sublets part of the Contract, as per Section 101 in the *Standard Specifications for Road and Bridge Construction*. For purposes of this special provision, the term Subcontractor includes suppliers.
- Q. *Substitution.* When a Contractor seeks to find another DBE to perform work on the Contract as a result of a Reduction or Termination.
- R. *Termination.* When a Contractor no longer intends to use a DBE for fulfillment of a Commitment.
- S. *Total Earnings Amount:* Amount of the Contract earned by the Contractor, including approved Contract Modification Orders and approved force account work performed, but not including deductions for liquidated damages, price reduced material, work time violations, overweight loads or liens. The amount of the Contract earned does not include plan force account items (i.e. OJT, pavement incentives, etc).
- T. *Work Code.* A code to identify the work that a DBE is certified to perform as a DBE. A work code includes a six digit North American Industry Classification System (NAICS) number plus a descriptor. Work Codes are listed on a firm's profile on the UCP DBE Directory. The Contractor may contact the CRBRC to receive guidance on whether a work code covers the work to be performed.

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2. **Overview.** The Disadvantaged Business Enterprise (DBE) Program is a federally-mandated program that seeks to ensure non-discrimination in the award of U.S. Department of Transportation (DOT)-assisted contracts and to create a level playing field on which DBEs can compete fairly for DOT-assisted contracts. When a Contract Goal for DBE participation is set pursuant to the U.S. Department of Transportation's DBE Program, the apparent low responsible bidder must show that they have committed to DBE participation sufficient to meet the Contract Goal or has otherwise made Good Faith Efforts to do so in order to be awarded the Contract.

The Contractor's progress towards the Contract Goal will be monitored throughout the Contract to ensure the fulfillment of the Contractor's DBE Commitments. Modifications to the Commitments must receive prior approval. If the amount of the Contract increases during the performance of the Contract, the Contractor must make Good Faith Efforts to obtain additional DBE participation to meet the Contract Goal. Final payment to the Contractor may be reduced if the Contractor has failed to fulfill Commitments and/or make Good Faith Efforts to meet the Contract Goal following an increase in the amount of the Contract. The Contractor may be subject to the withholding of payment and/or other contractual remedies if the Contractor does not comply with the requirements of this special provision.

For general assistance regarding the DBE program and compliance, contact CDOT's CRBRC or the CDOT Region Civil Rights Office overseeing the project. For project specific issues, contact the Engineer or CDOT Regional Civil Rights Office.

All forms referenced by this special provision can be found on the CDOT website in the CDOT Forms Catalog: <http://www.codot.gov/library/forms>.

3. **Contract Assurance.** By submitting a proposal for this Contract, the bidder agrees to the following assurance and shall include the following paragraph verbatim in all subcontracts including those with non-DBE firms:

The Contractor, subrecipients of DOT-assistance through CDOT, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as CDOT deems appropriate, which may include, but is not limited to: (1) Withholding monthly progress payments; (2) Assessing sanctions; (3) Liquidated damages; and/or (4) Disqualifying the contractor from future bidding as non-responsible.

4. **Good Faith Efforts.** Good Faith Efforts may be required before award and/or during Contract performance. Good Faith Efforts should include, but are not limited to, reaching out to DBEs that could perform subcontracting opportunities on the Contract, breaking out contract work items into economically feasible units (e.g., smaller tasks or

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quantities) to facilitate DBE participation even when the bidder/Contractor might otherwise self-perform these items, negotiating in good faith with DBEs and not refusing to utilize a DBE for price alone, and other efforts to obtain DBE participation on the Contract. For additional guidance on making Good Faith Efforts see 49 CFR Part 26 Appendix A.

- (a) *Bidding Requirements*. When a Contract Goal is established, the Contract may not be awarded until the apparent low responsible bidder has demonstrated Good Faith Efforts to meet the Contract Goal by either
- Documenting sufficient Commitments to meet the Contract Goal, or
  - Documenting adequate Good Faith Efforts to meet the Contract Goal even though they did not obtain enough Commitments to do so.

A Commitment may be made to a firm at any tier. The apparent low responsible bidder must have received a quote from a DBE in order to claim a Commitment to a DBE.

- (1) *Anticipated Participation Plan*. All bidders shall submit Form 1414 listing Commitments obtained from DBEs, with their proposal, even if such Commitments do not meet the Contract Goal. If the apparent low responsible bidder has not obtained any Commitments or if the Contract Goal is 0% and the apparent low responsible bidder is electing not to make voluntary Commitments, they shall still submit Form 1414 documenting zero anticipated participation. Failure to submit a signed Form 1414 shall result in rejection of the proposal and the apparent low responsible bidder deemed non-responsive. The apparent low responsible bidder shall ensure that Commitments, and the resulting estimated Eligible Participation, have been properly calculated before submitting their proposal. If the apparent low responsible bidder is a DBE seeking Eligible Participation credit for self-performance, the apparent low responsible bidder shall include themselves in Form 1414, list the work to be self-performed, and the amount that the bidder intends to count as Eligible Participation.

- (2) *Utilization Plan*.

- a. *CDOT Advertised Projects*. These projects will require the submission of a DBE Utilization Plan (UP) via B2GNow. The apparent low responsible bidder shall submit the UP within five days of bid opening. In order to complete the UP, the apparent low responsible bidder shall obtain and upload in B2GNow a completed Form 1415 for each DBE listed on Form 1414. If the total Eligible Participation submitted on the Form 1414 and/or confirmed on Form 1415 did not meet the Contract Goal, the

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apparent low responsible bidder shall also submit Form 1416 with the UP in B2GNow. The Form 1416 should include any supporting documentation which the apparent low responsible bidder would like to be considered as evidence of their Good Faith Efforts. If a non-DBE was selected in lieu of a DBE, the apparent low responsible bidder shall include all quotes from the non-DBE and DBE firms.

The apparent low responsible bidder shall complete Section 1 of the Form 1415 and the DBE shall complete Section 2 of Form 1415. The Commitment in Form 1415 shall be consistent with the Commitment listed on Form 1414. If a Commitment is made to second tier or lower DBE subcontractor, the apparent low responsible bidder maintains responsibility for the fulfillment of the Commitment and shall sign the Form 1415. The apparent low responsible bidder shall not Terminate, Reduce, or Substitute a Commitment listed on Form 1414 without following the procedures outlined in Section 5 below. Increases in the Commitment amount do not require CDOT approval per the procedures in Section 5 below.

- b. *Projects Not Advertised by CDOT.* The apparent low responsible bidder shall submit to the project owner a completed Form 1415 for each DBE listed on the Form 1414 by 4:30 pm on the fifth day after bid opening. If the total Eligible Participation submitted on the Form 1414 and/or Form 1415 does not meet the Contract Goal, the apparent low responsible bidder shall also submit Form 1416 along with any supporting documentation of the apparent low responsible bidder's Good Faith Efforts. If a non-DBE was selected in lieu of a DBE, the apparent low responsible bidder shall include all quotes from the non-DBE and DBE firms.

The apparent low responsible bidder shall complete Section 1 of the Form 1415 and the DBE shall complete Section 2 of Form 1415. The Commitment in Form 1415 shall be consistent with the Commitment listed on Form 1414. If a Commitment is made to second tier or lower DBE subcontractor, the apparent low responsible bidder maintains responsibility for the fulfillment of the Commitment and shall sign the Form 1415. The apparent low responsible bidder shall not Terminate, Reduce, or Substitute a Commitment listed on Form 1414 without following the

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procedures outlined in Section 5 below. Increases in the Commitment amount do not require approval per the procedures in Section 5 below.

- (3) *Good Faith Effort Review Before Award.* The Forms 1414, 1415, and UP (for CDOT advertised projects) will be evaluated to ensure that each Commitment is valid and all Eligible Participation has been properly calculated. The apparent low responsible bidder may be required to provide additional information in order to confirm the accuracy of a Commitment.

If the apparent low responsible bidder's Forms 1414, 1415, and UP (for CDOT advertised projects) claimed that the Contract Goal was met but the total estimated Eligible Participation of the Commitments does not meet the Contract Goal, the apparent low responsible bidder will be given two working days to amend their Commitments by submitting amended Form(s) 1415 and UP (for CDOT advertised projects). If the total Eligible Participation on the amended Commitments do not meet the Contract Goal, the apparent low responsible bidder shall submit Form 1416 and provide documentation of their Good Faith Efforts.

When the total estimated Eligible Participation of the Commitments does not meet the Contract Goal, the Form 1416 and all supporting documentation will be evaluated per Appendix A of 49 CFR Part 26. The apparent low responsible bidder will be deemed to not have made Good Faith Efforts if a Commitment lists a DBE for a work area for which the DBE is not certified and the apparent low responsible bidder cannot establish a reasonable basis for the error. Commitments made after submission of the bid will only be considered for acceptance if the bidder demonstrates that (1) Good Faith Efforts were made before submission of the bid, and (2) there is reasonable justification for not obtaining sufficient Commitments before submission of the bid.

The apparent low responsible bidder will be notified in writing if CRBRC determines that Good Faith Efforts to meet the Contract Goal were not demonstrated. The apparent low responsible bidder may request administrative reconsideration as outlined in subsection 4(a)(4) of this special provision. CDOT will include instructions on how to request administrative reconsideration in the written Good Faith Effort determination.

- (4) *Administrative Reconsideration.* The apparent low responsible bidder will be provided an opportunity to request administrative

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reconsideration if the CRBRC determines that the apparent low responsible bidder did not demonstrate Good Faith Efforts to meet the Contract Goal. The independent Administrative Reconsideration Official is the CDOT Chief Engineer or designee, provided that such designee did not participate in the original determination. The CRBRC will provide the Administrative Reconsideration Official with a copy of the Good Faith Effort notice issued to the apparent low responsible bidder. The apparent low responsible bidder shall have five working days from the date of the Good Faith Effort determination notice to submit a written request for administrative reconsideration. The written request shall include the apparent low responsible bidder's basis for reconsideration, including any supporting documentation which they would like to be considered. The written request shall also include a statement as to whether the apparent low responsible bidder would like an in-person or telephonic hearing before the Administrative Reconsideration Official. If the apparent low responsible bidder does not specify a hearing request, the right to a hearing will be waived and administrative reconsideration will be based on the available record, as well as any written documentation provided by the apparent low responsible bidder. If the apparent low responsible bidder requests a hearing, the Administrative Reconsideration Official will establish a date and time for the hearing and send written notice at least two working days in advance of the hearing. The Administrative Reconsideration Official may waive the two-day requirement if holding the hearing sooner is determined to be in the public interest. The Administrative Reconsideration Official may request additional documentation. A copy of all requests and responses shall be provided to all parties. The Administrative Reconsideration Official will issue the final determination as to whether the apparent low responsible bidder demonstrated Good Faith Efforts to meet the Contract Goal. The determination of the Administrative Reconsideration Official is final.

(5) *Approval*. Upon a determination that the apparent low responsible bidder has demonstrated Good Faith Efforts to meet the Contract Goal, the apparent low responsible bidder will be issued Form 1417 or an approved UP in B2GNow (for CDOT advertised projects), documenting the approved Commitments on the Contract.

5. **Commitment Modifications**. The Contractor shall fulfill Commitments unless the Contractor obtains approval for Termination, Reduction, or Substitution. Unless approved, the Contractor will not be entitled to payment for the work or materials

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pertaining to an unapproved Termination, Reduction, or Substitution. During the performance of the Contract, the Contractor shall use Form 1420, *DBE Participation Plan Modification Request* to communicate all requests for Termination, Reduction, and/or Substitution. One Form 1420 may include multiple Commitment modification requests and must be submitted to CDOT at the time of the occurrence or, if that is not possible, within a reasonable time of the occurrence requiring Termination, Reduction, and/or Substitution. Failure by the Contractor to carry out the requirements of this section is a material breach of the Contract and may result in the termination of the Contract or other established remedies.

(a) *Good Cause Requirement.* Termination, Reduction, and/or Substitution will not be approved unless the Contractor has Good Cause to modify the Commitment. Good Cause includes, but is not limited to

- i. The DBE fails or refuses to execute a written contract;
- ii. The DBE fails or refuses to perform the work of their subcontract consistent with normal industry standards, provided that such failure is not the result of bad faith or discriminatory actions of the Contractor or one of their subcontractors;
- iii. The DBE fails to meet reasonable, nondiscriminatory bond requirements;
- iv. The DBE becomes bankrupt, insolvent, or exhibits credit unworthiness;
- v. The DBE is ineligible to work because of suspension or debarment proceedings or other state law;
- vi. The DBE is not a responsible contractor;
- vii. The DBE voluntarily withdraws from the project and provides written notice;
- viii. The DBE is ineligible to receive DBE credit for the work required;
- ix. The DBE owner dies or becomes disabled and is unable to complete the work;
- x. The DBE ceases business operations or otherwise dissolves; or
- xi. Other documented Good Cause that compels termination.

Good Cause does not exist if the Contractor seeks Termination so that the Contractor can self-perform the work for which the DBE was engaged or solely so that the Contractor can Substitute another DBE or non-DBE contractor after Contract award. When work Committed to a DBE is eliminated or reduced and such change is not due to and/or initiated by the Contractor, the change shall be Good Cause for Termination or Reduction. Upon approval of a Termination and/or Reduction, the Contractor will be subject to the Substitution requirements of subsection 5(d) of this special provision.



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(b) *Notice to the DBE.* The Contractor shall notify the DBE in writing of the Contractor's intent to Terminate, Reduce, or Substitute, and the underlying reason(s) before submitting the Form 1420 requesting the proposed Commitment modification. In the notice of intent, the Contractor shall provide the DBE at least five days to respond to the notice and inform the Contractor of the reasons, if any, why the DBE objects to the proposed Commitment modification. The Contractor is not required to provide the five days written notice in cases where the DBE in question has provided written notice they are withdrawing from their subcontract or purchase order. The notice period may be reduced if determined to be in the public interest by the project owner.

Following the notice period, the Contractor shall submit a Form 1420 to request approval of the proposed Commitment modification, along with written documentation of the notice given to the DBE.

(c) *Determination.* The Contractor will be notified in writing of the Good Cause determination and whether the modification request is approved or denied.

(d) *Substitution Requirement.* When a Commitment is Terminated or Reduced (including when a DBE withdraws), the Contractor shall make Good Faith Efforts to find another DBE to Substitute for the original DBE. These Good Faith Efforts shall be directed at finding another DBE to perform at least the same amount, but not necessarily the same type, of work under the Contract as the participation that was Terminated or Reduced up to the Contract Goal. To make a Substitution, the Contractor may:

- i. Make a new Commitment to any unperformed work on the Contract by providing a completed Form 1415, *Commitment Confirmation* for each new DBE Commitment;
- ii. Increase the amount of an existing Commitment for any unperformed work on the Contract by submitting a revised Form 1415 for that Commitment; or
- iii. Utilize any Race-Neutral Eligible Participation on the Contract performed before the Form 1420 submission as part of their Good Faith Efforts pursuant to this subsection by submitting a completed Form 1420.

If the Contractor has not obtained sufficient Substitutions up to the Contract Goal, the Contractor shall submit evidence of Good Faith Efforts to Substitute via the Form 1416 *Good Faith Effort Report*. The Contractor shall have seven days from the submission date of the Commitment modification request (Form 1420) to submit documentation of Substitutions and/or Form 1416 evidencing

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Good Faith Efforts to obtain sufficient Substitutions despite failing to do so.  
This period may be extended at the discretion of CDOT.

6. **Contract Modification Orders.** When one or more Contract Modification Orders, as defined in CDOT's *Standard Specifications for Road and Bridge Construction*, adds new work items or increases the total dollar amount of the Contract, the Contractor is required to make Good Faith Efforts to obtain additional Eligible Participation sufficient to meet the Contract Goal on the Total Earnings Amount. Under this section, the Contractor may obtain additional Eligible Participation by:
- i. Making a new Commitment to any unperformed work on the Contract by providing a completed Form 1415, *Commitment Confirmation* for each new DBE Commitment;
  - ii. Increasing the amount of an existing Commitment for any unperformed work on the Contract by submitting a revised Form 1415 for that Commitment;
  - iii. Utilizing other Eligible Participation on the Contract as part of Good Faith Efforts pursuant to this Section by submitting a completed Form 1420.

When the Contractor elects to obtain additional Eligible Participation under subpart (iii), such Eligible Participation does not need to be included as part of an approved Commitment. However, the Contractor is responsible to provide a completed Form 1420 documenting all additional Eligible Participation obtained under subpart (iii) before, or at the time of, Contract finalization.

If the Contractor determines they will be unable to obtain additional Eligible Participation sufficient to meet the Contract Goal on the Total Earnings Amount following a Contract Modification Order(s), the Contractor shall provide documentation of Good Faith Efforts to obtain additional DBE participation by submitting a completed Form 1416, along with any supporting documentation which they would like considered as evidence of Good Faith Efforts. The Form 1416 must be submitted within a reasonable time of the Contractor's initial determination that they will be unable to obtain additional Eligible Participation sufficient to meet the Contract Goal on the Total Earnings Amount. The Contractor may be required to provide additional documentation. The Contractor's Good Faith Efforts to obtain additional Eligible Participation, or lack thereof, will be considered when assessing any potential payment reductions to the Contractor per Section 9 of this special provision.

When one or more Contract Modification Orders, as defined under subsection 101.18 of CDOT's *Standard Specifications for Road and Bridge Construction*, reduces work items or decreases the total dollar amount of the Contract, any approved Commitments on the

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Contract continue to be binding on the Contractor unless Good Cause is established to Substitute, Terminate, and/or Reduce the Commitment per Section 5 of this special provision.

7. **Counting.** In order for work performed by a DBE to count as Eligible Participation, the following criteria must be met:

(a) *DBE Certified to Perform the Work.* The DBE must be certified by the Colorado UCP in the work to be performed. DBEs are certified in particular areas of work which are designated by a Work Code. Each DBE's Work Codes can be found on their profile on the Colorado UCP DBE Directory.

The DBE must be certified to perform the work, and not under suspension, upon submission of the Commitment and upon execution of the DBE's subcontract. When a Commitment has been made, but upon review of the Form 205, *Sublet Permit Application*, or Form 1425, *Supplier Application Approval Request*, the DBE is no longer certified in the Work Code which covers the work to be performed, the Contractor may not use the DBE's participation as Eligible Participation. The Contractor shall Terminate the DBE Commitment and seek Substitution(s) per subsection 5(d) of this special provision. However, a DBE's work will continue to count as Eligible Participation if the DBE was certified upon approval of the Form 205 or Form 1425 but the certification status changes during the performance of the work. Suppliers must be certified upon execution of the purchase order.

(b) *Work Included in Commitment and/or Verified via Form 205 or Form 1425.* The work performed by the DBE must be reasonably construed to be included in the work area and Work Code identified by the Contractor in an approved Commitment or verified via Form 205 or Form 1425. The work identified on a Form 1425 shall not count against the Contractor's 30 percent as required under CDOT's *Standard Specifications for Road and Bridge Construction*.

If the Contractor intends to use a DBE for work in order to fulfill an existing Commitment to that DBE but the work was not listed in the original Commitment (Form 1415), the Contractor shall submit a request for modification per Section 5 of this special provision to include the new area of work to be performed. Unapproved work may count as Eligible Participation on the Contract but may not be used towards the fulfillment of the original Commitment to the DBE. A DBE Commitment cannot be modified to include work for which the DBE was not certified at the time of the approval of the original Commitment unless such work is in addition to the original Commitment.

Form 205 will be reviewed to determine whether the work being sublet is consistent with the Contractor's Commitments. Approval of the sublet request may be withheld if the Contractor has Reduced, Terminated, or otherwise modified the

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type or amount of work to be performed by a DBE without seeking advanced approval.

- (c) *Work Performed by DBE.* The work must be actually performed by the DBE with their own forces. For purposes of this specification, work performed by the DBE with their own forces includes work by temporary employees, provided such employees are under the control of the DBE; the cost of supplies and materials obtained by the DBE for their work on the Contract, provided that such supplies are not purchased or leased from the Contractor or a subcontractor that is subletting to the DBE; the cost of any equipment leased by the DBE, provided that such equipment is not leased from the Contractor or a subcontractor that is subletting to the DBE.

When a DBE subcontracts part of the work, the value of the subcontracted work shall be counted as Eligible Participation only if the subcontractor is a DBE and meets the criteria of this special provision. Performance of subcontracted work by non-DBE subcontractors, including non-DBE trucking firms and owner-operators, is not Eligible Participation and may not be used towards the fulfillment of a Commitment, the Substitution requirements under Section 5(d) of this special provision, and/or additional Eligible Participation under Section 6 of this special provision.

- (d) *Payment Received for Work.* The DBE must receive payment, including the release of their retainage, in order for the work to count as Eligible Participation.
- (e) *Special Calculations for Suppliers.* When a DBE supplies goods or materials for a project, the DBE may be classified as a manufacturer, dealer or broker. The DBE's status as a manufacturer, dealer or broker is determined on a contract-by-contract basis, based upon the actual work performed, per 49 CFR Part 26.55(e). When a DBE is deemed to be acting as a manufacturer, 100 percent of the cost of the materials and/or supplies will count as Eligible Participation. When a DBE is deemed to be acting as a regular dealer (non-manufacturer supplier), only 60 percent of the cost of the materials and/or supplies will count as Eligible Participation. When a DBE is deemed to be acting as a broker, only the reasonable brokerage fee will count as Eligible Participation.
- (f) *Service Fees.* For a DBE firm providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a DOT-assisted contract, the fees and commissions charged by the DBE shall count as Eligible Participation, provided the fees are not excessive as compared with fees customarily allowed for similar services. In the case of DBE temporary employment placement agencies, only the placement fee for a temporary employee that will be specifically and exclusively used for work on the contract shall count as Eligible Participation; the hourly fee

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does not count as Eligible Participation unless the firm is also certified in the work to be performed.

- (g) *Joint Venture Calculation.* When a DBE is a participant in a joint venture, the DBE must submit Form 893, *Information for Determining DBE Participation when a Joint Venture Includes a DBE*, to determine how much of the work performed by the joint venture may be considered Eligible Participation. To ensure sufficient time for review, Form 893 shall be submitted to CDOT no less than ten days before the submission of the bid or, if requested during the Contract, the point at which the DBE will begin work.
- (h) *Commercially Useful Function.* Upon a determination that a DBE has not performed a Commercially Useful Function (CUF) on the project, no participation by such DBE is Eligible Participation. DBE performance on the Contract will be monitored to ensure each DBE is performing a CUF. The DBE, Contractor, and any other involved third parties may also be subject to additional enforcement actions as described in Section 9 of this special provision.

The amount of work subcontracted, industry practices, the amount the firm is to be paid compared to the work performed and eligible participation claimed, and any other relevant factors will be considered in evaluating whether a DBE is performing a CUF. With respect to material and supplies used on the Contract, the DBE must be responsible for negotiating price, determining quality and quantity, ordering the material, installing the material, if applicable, and paying for the material itself in order to perform a CUF.

With respect to trucking, the DBE trucking firm must own and operate at least one fully licensed, insured, and operational truck used on the Contract in order to perform a CUF. Additionally, the DBE trucking firm must be responsible for the management and supervision of their entire trucking operation on the Contract. Work by a DBE trucking firm will count as Eligible Participation only if the work was performed (i) with trucks owned and insured by the DBE trucking firm and those trucks were operated by drivers employed by the DBE trucking firm or (ii) with trucks leased by the DBE trucking firm from another DBE firm including owner operators who are certified DBEs. The DBE who leases trucks from another DBE receives credit for the transportation services the lessee DBE provides on the contract.

A DBE does not perform a CUF when their role is limited to that of an extra participant in a transaction, contract or project through which funds are passed in order to obtain the appearance of DBE participation. Similar transactions involving non-DBEs will be evaluated in order to determine whether a DBE is an extra participant. If a DBE does not perform or exercise responsibility for at least 30 percent of the total cost of their contract or subcontract with their own work force, or the DBE subcontracts a greater portion of the work than would be

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expected on the basis of normal industry practice for the type of work involved, CDOT will presume the DBE is not performing a CUF. The DBE may present evidence to rebut this presumption.

CUF will be evaluated using Form 1432 per Section 8(a) below.

- (i) *Joint Checks.* All Joint Checks must be approved before they are used in payment to a DBE. Joint Checks used in payments to DBEs will be monitored closely to ensure the DBE is performing a CUF and the Joint Checks are not being used in a discriminatory manner. The Contractor shall request approval for the use of a Joint Check in a written letter signed by the DBE and the Contractor, stating the reason for the Joint Checks and the approximate number of checks that will be needed. Failure to receive approval of a Joint Check may result in not counting such payment as Eligible Participation.

## 8. Contract Finalization

- (a) *Form 1432.* In order to have work performed and/or supplies provided by a DBE on the Contract count as Eligible Participation, the Contractor must submit a Form 1432 for that DBE. The Form 1432 must be signed by the DBE, Contractor and Project Engineer. Work performed and/or supplies provided on the Contract by a DBE Commitment will not count as Eligible Participation without a corresponding Form 1432 and the Contractor may be subject to a payment reduction as described in subsection 8(b) of this special provision.

- (b) *Payment Reduction.* The Contractor's retainage will not be released until a determination is made as to whether the Contractor will be subject to a payment reduction. The Contractor will be subject to a payment reduction for any unapproved Termination, Reduction, and/or Substitution. Additionally, the Contractor will be subject to a payment reduction for any portion of a Commitment that was not fulfilled. The Contractor will not be subject to duplicate payment reductions for the same offense. The amount of the payment reduction may be adjusted if the Contractor demonstrates that a failure to fulfill a Commitment or otherwise meet their obligations under this special provision was due to circumstances outside of their control.

- 9. **Other Enforcement.** As necessary, participants may be reviewed or investigated. All participants, including, but not limited to, DBE firms and applicants for DBE certification, complainants, and contractors using DBE firms to meet contract goals, are required to cooperate fully and promptly with compliance reviews, certification reviews, investigations, and other requests for information.

Participants shall not intimidate, threaten, coerce, or discriminate against any individual or firm for the purpose of interfering with any right or privilege secured by the DBE

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program or because the individual or firm has made a complaint, testified, assisted, or participated in any manner in an investigation, proceeding, or hearing under the DBE program. Failure to comply with this paragraph shall be a ground for appropriate action against the party involved (with respect to recipients, a finding of noncompliance; with respect to DBE firms, denial of certification or removal of eligibility, and/or suspension and debarment; with respect to a complainant or appellant, dismissal of the complaint or appeal; with respect to a contractor which uses DBE firms to meet goals, findings of non-responsibility for future contracts and/or suspension and debarment).

Upon a determination that a Contractor or subcontractor was a knowing and willing participant in any intended or actual subcontracting arrangement contrived to artificially inflate DBE participation or any other impermissible business arrangement, or if the Contractor engages in repeated violations, falsification or misrepresentation, any fraudulent or misrepresented DBE participation shall not count as Eligible Participation, progress payments may be withheld from the Contractor commensurate with the violation, the Contractor's prequalification status may be suspended, the matter may be referred to the Office of Inspector General of the U.S. Department of Transportation for investigation and/or any other available contractual remedy may be sought.

<b>Decision Nos. CO20240011</b> dated January 5, 2024 supersedes <b>Decision Nos. CO20230011</b> dated January 6, 2023.		<b>Modifications</b>			<b>ID</b>
		<b>MOD Number</b>	<b>Date</b>	<b>Page Number(s)</b>	
When work within a project is located in two or more counties and the minimum wages and fringe benefits are different for one or more job classifications, the higher minimum wages and fringe benefits shall apply throughout the project.		1	8/2/24	1 & 4	1
General Decision No. CO20240011 applies to the following counties: Cheyenne, Kit Carson, Lincoln, Logan, Morgan, Phillips, Sedgwick, Washington, and Yuma counties.					
General Decision No. CO20240011 <b>The wage and fringe benefits listed below reflect collectively bargained rates.</b>					
Code	Classification	Basic Hourly Rate	Fringe Benefits	Last Mod	
	<b>POWER EQUIPMENT OPERATOR:</b>				
	<b>Power Broom/Sweeper</b>				
1422	Under 70 hp	34.14	15.20	1	
1423	70 hp and over	35.03	15.20	1	
	<b>Drill Rig Caisson</b>				
1425	Smaller than Watson 2500 and similar	35.03	15.20	1	
1426	Watson 2500 similar or larger	35.41	15.20	1	
	<b>Asphalt Screed</b>				
1427	Kit Carson	35.03	15.20	1	
	<b>Crane</b>				
1428	50 tons and under	35.78	15.20	1	
1429	51 - 90 tons	35.41	15.20	1	
1430	91 - 140 tons	37.34	15.20	1	
	<b>LABORER:</b>				
	<b>Common or General</b>				
1431	Kit Carson	20.84	7.04		



General Decision No. CO20240011				
<b>The wage and fringe benefits listed below do not reflect collectively bargained rates.</b>				
Code	Classification	Basic Hourly Rate	Fringe Benefits	Last Mod
	<b>CARPENTER:</b>			
1433	Excludes Form Work	18.96	3.18	
	<b>Form Work Only</b>			
1434	Cheyenne, Kit Carson, Logan, Morgan, Phillips, Sedgwick, Washington, Yuma	20.28	4.50	
1435	Lincoln	20.98	3.89	
	<b>CEMENT MASON/CONCRETE FINISHER:</b>			
1436	Cheyenne, Logan, Morgan, Phillips, Sedgwick, Washington, Yuma	19.22	2.74	
1437	Kit Carson	17.98	2.53	
1438	Lincoln	21.00	1.40	
1439	<b>ELECTRICIAN</b>	28.06	8.76	
	<b>HIGHWAY/PARKING LOT STRIPING:</b>			
1440	Truck Driver (Line Striping Truck)	14.60	3.49	
1441	Painter	12.90	3.07	
	<b>IRONWORKER:</b>			
1443	Reinforcing	21.12	3.89	
1444	Structural	16.76	6.01	
	<b>LABORER:</b>			
	<b>Asphalt Raker</b>			
1445	Cheyenne, Kit Carson, Lincoln, Logan, Morgan, Phillips, Washington, Yuma	17.02	5.79	
1446	Sedgwick	15.79	4.87	
1447	Asphalt Spreader	22.67	8.72	
	<b>Common or General</b>			
1448	Cheyenne, Lincoln, Logan, Morgan, Phillips, Sedgwick, Washington, Yuma	12.44	3.53	
1449	<b>Concrete Saw (Hand Held)</b>	16.00	6.14	
1450	Landscape and Irrigation	12.81	3.16	
1451	Mason Tender - Cement/Concrete	14.71	3.29	

General Decision No. CO20240011				
<b>The wage and fringe benefits listed below do not reflect collectively bargained rates.</b>				
<b>Code</b>	<b>Classification</b>	<b>Basic Hourly Rate</b>	<b>Fringe Benefits</b>	<b>Last Mod</b>
	<b>LABORER (con't):</b>			
	<b>Traffic Control</b>			
1452	Flagger	9.42	3.21	
1453	Sets Up/Moves Barrels, Cones, Installs signs, Arrow Boards and Place Stationary Flags, (Excludes Flaggers)	12.39	3.20	
1454	<b>PAINTER (Spray Only)</b>	17.54	3.52	
	<b>POWER EQUIPMENT OPERATOR:</b>			
1455	Asphalt Laydown	24.56	6.68	
1456	Asphalt Paver	22.67	8.72	
1457	Asphalt Plant	21.13	2.16	
	<b>Asphalt Roller</b>			
1458	Cheyenne, Kit Carson, Lincoln, Logan, Morgan, Phillips, Washington, Yuma	23.79	7.59	
1459	Sedgwick	23.92	9.22	
1460	Asphalt Spreader	23.19	7.66	
	<b>Backhoe/Trackhoe</b>			
1461	Cheyenne, Lincoln, Logan, Morgan, Phillips, Sedgwick, Washington, Yuma	25.88	4.18	
1462	Kit Carson	28.64	1.40	
1463	Bobcat/Skid Loader	20.79	5.36	
1464	Bulldozer	29.99	2.90	
1465	Chipper	22.04	8.26	
1466	Drill	20.49	2.66	
1467	Forklift	18.30	2.01	
1468	Grader/Blade	19.02	4.20	
1469	Guardrail/Post Driver	16.07	4.41	
	<b>Loader (Front End)</b>			
1470	Cheyenne, Kit Carson, Lincoln, Logan, Morgan, Phillips, Washington, Yuma	27.22	5.85	
1471	Sedgwick	27.48	4.87	

General Decision No. CO20240011				
<b>The wage and fringe benefits listed below do not reflect collectively bargained rates.</b>				
Code	Classification	Basic Hourly Rate	Fringe Benefits	Last Mod
	<b>POWER EQUIPMENT OPERATOR (con't.):</b>			
	<b>Mechanic</b>			
1472	Cheyenne, Lincoln, Logan, Morgan, Phillips, Washington, Yuma	20.52	5.49	
1473	Kit Carson	16.74	4.20	
1474	Sedgwick	21.09	4.87	
1475	Oiler	22.54	9.22	
1476	<b>Roller/Compactor</b> (Dirt and Grade Compaction)	16.52	4.87	
1477	Scraper	19.93	5.38	
	<b>Screed</b>			
1478	Cheyenne, Kit Carson, Lincoln, Logan, Morgan, Phillips, Sedgwick, Washington, Yuma	21.30	6.40	
1479	Tractor	16.83	2.95	
	<b>TRUCK DRIVER:</b>			
1480	Distributor	17.98	5.27	
	<b>Dump Truck</b>			
1481	Cheyenne, Logan, Morgan, Phillips, Washington, Yuma	18.52	5.96	
1482	Lincoln	14.15	3.83	
1483	Sedgwick	18.92	6.19	
	Kit Carson			
1816	6 cu. yds. and under	26.35	4.82	<b>1</b>
1817	7 – 14 cu. yds.	26.50	4.82	<b>1</b>
1818	15 – 29 cu. yds.	26.84	4.82	<b>1</b>
1819	30 – 38 cu. yds.	27.18	4.82	<b>1</b>
1820	39 – 54 cu. yds.	27.46	4.82	<b>1</b>
1821	55 – 79 cu. yds.	27.75	4.82	<b>1</b>
1822	80 – 104 cu. yds.	28.02	4.82	<b>1</b>
1823	104 cu. yds. and over	28.31	4.82	<b>1</b>

General Decision No. CO20240011				
<b>The wage and fringe benefits listed below do not reflect collectively bargained rates</b>				
Code	Classification	Basic Hourly Rate	Fringe Benefits	Last Mod
	<b>TRUCK DRIVER (con't.):</b>			
1484	Lowboy Truck	18.29	4.87	
1485	Mechanic	17.79	3.51	
1486	Multi-Purpose Specialty & Hoisting Truck	18.79	3.49	
1487	Pickup and Pilot Car	14.04	3.49	
	<b>Semi Truck</b>			
1488	Cheyenne, Kit Carson, Lincoln, Morgan	17.58	4.67	
1489	Logan, Phillips, Sedgwick, Washington, Yuma	15.80	4.67	
1490	Water Truck	14.88	2.07	

**WELDERS** - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

## Wage Determination Appeals Process

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program.

If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7).

Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

**End of General Decision No. CO20240011**

## On The Job Training

This On-the-Job Training (OJT) special provision is an implementation of 23 U.S.C, 140(a), a federal requirement to provide equal opportunity and training on federal-aid construction projects. The Contractor shall meet the requirements of the FHWA 1273 for all apprentices and trainees. For additional guidance, please look at the OJT Contractor Manual.

### 1. Goal Setting

CDOT will set OJT goals for every federally-assisted project. Goals for the projects will be set based on the criteria that is outlined in the 23 CFR Part 230, Appendix B to Subpart (A):

- A. Availability of minorities, women, and disadvantaged persons for training;
- B. The potential for effective training;
- C. Duration of the contract;
- D. Dollar value of the contract;
- E. Total normal workforce that the average bidder could be expected to use;
- F. Geographic location;
- G. Type of work;
- H. The need for journey-level workers in the area;
- I. Recognition of the state’s goal;
- J. A satisfactory ratio of trainees to journeymen expected to be on the workforce.

The number of required training hours will be identified in the Contract. The following chart provides guidelines based on contract value, but the required number of hours will be determined by CDOT after consideration of the aforementioned variables.

Contract dollar value	Training hours to be provided on the project
Up to 1 million	0
>1 - 2 million	320
>2 - 4 million	640
>4 - 6 million	1280
>6 - 8 million	1600
>8 - 12 million	1920
>12 - 16 million	2240
>16 - 20 million	2560
For each increment of \$5 million, over \$20 million	1280

## On The Job Training

### 2. Training Plan Options

CDOT accepts the following training programs:

- A. CDOT's pre-approved classifications utilization program (PAC-UP);
- B. A registered U.S. Department of Labor training program or apprenticeship program;
- C. Approved programs through workforce centers and through specific groups like Colorado Contractors Association (CCA) and Western Colorado Contractors Association (WCCA);
- D. A Contractor specific plan approved by CDOT and the Federal Highway Administration (FHWA).

The minimum length and type of training for each skilled craft shall be as established in the training program selected by the Contractor.

When one or more approved plans are chosen, the Contractor shall submit the OJT Contractor Commitment to Meet OJT Requirements, CDOT Form 1337 to the Engineer. Additional pre-approved training programs and/or additional apprentices/trainees may be utilized at any point throughout the project. The plan option(s) that the Contractor chooses will be effective for the duration of the project.

### 3. Journey-Level Worker to Apprentice/Trainee Ratio

The OJT goal requirement shall be met through approved trainee(s)/apprentice(s) working on the CDOT project under the supervision of a journey-level worker. For the CDOT Pre-Approved Classification Training Programs (PAC-UP), the apprentice/trainee ratio to journey-level worker shall not exceed a one to one ratio for all classifications, and the Contractor shall not exceed 25 percent of the workforce as trainees/apprentices at any time. Furthermore, it is at CDOT's discretion that a stricter ratio guideline may be imposed as outlined in the specific training classification. For all other approved programs, the apprentice/trainee ratio shall be as outlined in the specific program. When apprentices/trainees are on the job without proper supervision as outlined above, they shall be paid full Davis-Bacon wages.

### 4. Trainee Selection

Two components must be considered when choosing a trainee:

- A. The intent of this program is for Contractors to recruit and train entry-level individuals or individuals who will be working within new classifications and guide them toward journey-level status in that specific classification. A trainee will not be approved in any classification for which they have already obtained journey-level status.
- B. Another intent of the OJT program is the primary consideration for the Contractor to use minorities, women, and disadvantaged persons to fulfill the trainee roles, and as such, the Contractor shall make every effort to enroll such individuals in the program by using "systematic and direct recruitment through public and private sources."

## On The Job Training

The consideration to include women and minorities is based on the regulation; however, it will not be used to systematically deny any one person or group from the opportunity to be a part of the OJT program. CDOT may reject non-minority male trainees for entry into the program if it is determined that a Contractor failed to make sufficient good faith efforts (GFE) to hire minorities or female trainees and/or the Contractor failed to document or submit evidence of its GFE to do so. CDOT will consider a Contractor's documentation of all GFE on a case-by-case basis and will take into account the items listed in the goal setting section of this specification. For more information, please see Section 11 of this specification.

### 5. OJT Apprentice/Trainee Approval

As a condition of the OJT program, the Contractor will:

- A. Notify all employees at the start of employment and at a minimum of at least once per year regarding the available training programs, positions, and eligibility requirements. The Contractor shall document that this information was conveyed to and received by employees.
- B. Provide each trainee with a copy of his or her enrollment form (if applicable) and the training program within a month of starting the chosen plan.

The OJT submittals (CDOT Form 1337, Contractor Commitment to Meet OJT Requirements; CDOT Form 832, Trainee Status and Evaluation; CDOT Form 838, OJT apprentice/trainee Record) shall be filled out completely and approved or rejected by CDOT. If the apprentice/trainee is working within the proposed classification before approval is granted, full Davis-Bacon prevailing wages shall be paid to the individual.

The Regional Civil Rights Office must approve the CDOT Form 838 prior to any of the hours counting toward the OJT goal. If there is a CDOT delay that is completely outside of the Contractor's responsibility for approval of the apprentices/trainees, and if approval is ultimately granted, the date that will be utilized will be ten business days after the date that the CDOT Form 838 was submitted.

The Contractor shall retain full responsibility for meeting the training requirements imposed by this special provision.

### 6. Eligible Work Activities that Count Toward the Training Goal

The work hours that are completed on the site of work and per the training documents for approved apprentices/trainees in approved classifications and programs will apply toward the project goal. Hours for work performed outside the individual's approved training classification will not count toward the project OJT goal and the individual shall be paid full applicable prevailing wage.

Job shadowing can apply toward the project goal if it is written into the specific training plan. If the Contractor is using CDOT's PAC-UP training program, job shadowing can apply toward the project goal when the approved employee is performing within the "Observation" component of the plan (hours vary by classification). Non-CDOT project hours will not be accepted toward the project goal.

Although US DOL apprenticeship programs can use the reduced wages for any CDOT job (with or without an OJT goal) with approval, none of these "additional" hours may be



## On The Job Training

banked or included for use as part of the required special provisions on any project other than that for which it was approved.

The Contractor may count OJT hours accomplished by a subcontractor with an approved plan. The subcontractor's trainee or apprentice, who is enrolled in any of the approved OJT programs and is contributing toward meeting a project's OJT goal hours, can count toward the project's OJT goal to satisfy the requirement of this specification. A subcontractor who chooses to participate in meeting the OJT goal shall follow the same process as the Contractor in terms of approving apprentices/trainees, submitting forms, etc. The Contractor retains the full responsibility for meeting the training requirements imposed by this special provision.

### **7. Contractor Training and Trainee Monitoring**

The Contractor's representative (supervisor, manager, or other designee) will evaluate progress for the apprentice/trainee monthly and will provide a copy to the apprentice/trainee of the submitted CDOT Form 832 within 30 calendar days. This evaluation will include documentation of the apprentice/trainee's performance including what was done well and what needs to be improved. The Contractor training and monitoring will be evaluated through CDOT's use of the CDOT Form 200 Interview.

### **8. Wages**

The Contractor may pay apprentice/trainee wages at a reduced rate for those that are in an approved program according to the following guidelines:

#### **US DOL Apprenticeship Programs**

Rates (at minimum) will be paid according to the scaled adjustments for a registered US DOL Apprentice. Fringe benefits (either in cash and/or bona fide benefits in lieu of cash) will be paid in full and as outlined by the bargained agreement. If fringe benefits are not mentioned as part of a bargained agreement or if there is no collectively bargained agreement, full fringe benefits will be paid as outlined through the US DOL wage decision. Approved US DOL apprenticeship programs can use the reduced wages for any CDOT project.

If the project does not have a training goal and the Contractor is seeking to pay apprenticeship rates as part of a registered US DOL Apprenticeship Program, the following documentation is required to ensure wages are being paid correctly: apprenticeship program registration, OA (formerly BAT) certificates, and collective bargaining agreement including the wage sheet.

#### **Other Approved Programs**

For all other OJT wage reductions, reduced percentages are allowed for the project if there is a goal greater than zero as outlined in the 23 CFR Appendix B to Subpart A of Part 230 (as described in this section), in the collectively bargained agreement, or as outlined in the specific plans. If the Contractor chooses to pay the trainee rates, the reduced percentage shall be based only on the base rate of pay. Fringe benefits shall be paid at 100 percent of the journey-level wage. If the apprentice/trainee is working

## On The Job Training

within the proposed classification before approval is granted, full Davis-Bacon prevailing wages shall be paid to the apprentice/trainee.

The minimum trainee wage (base and fringe) shall be no less than \$13.00 per hour.

Trainees shall be paid at minimum:

First half of the training period -- at least 60 percent of the appropriate minimum journey-level rate

Third quarter of the training period - at least 75 percent of the appropriate minimum journey-level rate

Last quarter of the training period -- at least 90 percent of the appropriate minimum journey-level rate

### 9. Contractor Reporting

The Contractor shall keep all data associated with the trainees and the project for a period of at least three years from the closing date of the Contract.

### 10. Reimbursement to Contractors

For the purposes of reimbursement, the Contractor will have satisfied its responsibilities under this specification if CDOT has determined that it has fulfilled the acceptable number of training hours. Contractors will be reimbursed at a rate of \$10.00 per hour per (approved) trainee for all OJT hours worked in approved classifications up to the project goal.

The Contractor will be reimbursed for no more than the amount outlined in the OJT Force Account budget.

### 11. OJT Good Faith Efforts (GFE)

CDOT recognizes two explanations of good faith efforts: (1) The Contractor will be required to prove an effort has been made to achieve a diversified workforce, but it has not yet been accomplished, or (2) The attempt has been made to meet the number of required OJT hours by using approved trainees or apprentices in approved classification(s) utilizing approved plans, but the Contractor cannot meet the required number of hours. In either case, a GFE will be required, and the Region Civil Rights Office will make the determination.

- A. If the Contractor does not meet its OJT project goal with the inclusion of some female and/or minority trainees, the Contractor may be requested to produce documentation of adequate good faith efforts taken to fill that position with a minority or female applicant. Good faith efforts are designed to achieve equal opportunity through positive, assertive, and continuous result-oriented measures. Good faith efforts should be taken as hiring opportunities arise.
- B. If the Contractor does not meet its OJT project goal, the Contractor may submit a CDOT Form 1336, Waiver Request for Contract's OJT Hours. On the form, the Contractor shall outline and submit all good faith efforts made when it is believed that the required number of training hours will not be met. If GFE is not demonstrated and approved, The Contractor will be subject to payment reductions outlined in the Disincentive Section.

## On The Job Training

If a good faith effort has been denied by CDOT, the Contractor may ask for reconsideration by the Region Civil Rights Manager and the Resident Engineer for the region where work is being performed. Additionally, if requested by the Contractor, the Region Civil Rights Office and the Project Engineer will meet with the Contractor to discuss the Contractor's initial Good Faith Effort determination.

### 12. Disincentive

A failure to provide the required training without the demonstration and approval of GFE to meet the project OJT goal may result in the Region Civil Rights Office assigning the following disincentive: A sum representing the total number of hours not met in the contract shall be multiplied by the journey worker hourly wages plus fringe benefits [(hours not met) x (dollar per hour + fringe benefits) = disincentive amount].

In order to obtain the disincentive amount, the journey worker wages will be figured using the prevailing wages for the classifications outlined on the CDOT Form 1337. If a single classification is noted on the submitted CDOT Form 1337, then that one wage will be used to figure the monetary amount owed. If multiple classifications are used, then the journey worker wages of all classifications will be used to determine an average wage rate. If the Contractor does not submit any documentation toward the OJT goal, the disincentive rate will be calculated at \$30.00 per hour. CDOT will provide the Contractor a written notice at the final acceptance stage of the project informing them of the noncompliance with this specification which will include a calculation of the disincentive(s) to be assessed.

October 23, 2023

## **Required Contract Provisions Federal-Aid Construction Contracts**

Attached is Form FHWA 1273 titled *Required Contract Provisions Federal-Aid Construction Contracts*. As described in Section I. General, the provisions of Form FHWA 1273 apply to all work performed under the Contract and are to be included in all subcontracts with the following modification:

For TAP (Transportation Alternatives Program) funded Recreational Trails projects, Section I (4) regarding convict labor and all of Section IV of the FHWA 1273 do not apply.

**Required Contract Provisions  
Federal-Aid Construction Contracts**

- I. General
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**ATTACHMENTS**

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

**I. GENERAL**

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

**II. NONDISCRIMINATION** (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

**1. Equal Employment Opportunity:** Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

**2. EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

**3. Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

**4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

**5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

#### **6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

**7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

**8. Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

**9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

#### **10. Assurances Required:**

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

**11. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

### III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

### IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

#### 1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act ([29 CFR part 3](#))), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;



(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to [DBAconformance@dol.gov](mailto:DBAconformance@dol.gov). The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to [DBAconformance@dol.gov](mailto:DBAconformance@dol.gov), refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division

under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

## 2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901–3907](#).

### 3. Records and certified payrolls (29 CFR 5.5)

*a. Basic record requirements (1) Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

*(2) Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

*(3) Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

*(4) Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

*b. Certified payroll requirements (1) Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting

agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

*(2) Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker ( e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

*(3) Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in [29 CFR part 3](#); and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

*(4) Use of Optional Form WH-347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under [18 U.S.C. 1001](#) and [31 U.S.C. 3729](#).

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access (1) Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address

of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

#### **4. Apprentices and equal employment opportunity (29 CFR 5.5)**

a. *Apprentices (1) Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

**6. Subcontracts.** The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

**7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

**9. Disputes concerning labor standards.** As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

**10. Certification of eligibility.** a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

**11. Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

## V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

**1. Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

**2. Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)\* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

\* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

### 3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

**4. Subcontracts.** The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the

event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

**5. Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

- a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;
- b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;
- c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or
- d. Informing any other person about their rights under CWHSSA or this part.

### VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;

- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

## **VII. SAFETY: ACCIDENT PREVENTION**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and

health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

## **VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

**IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)**

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

**X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

**1. Instructions for Certification – First Tier Participants:**

- a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.
- d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

\* \* \* \* \*

**2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

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**3. Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily



excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

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#### **4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:**

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

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#### **XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or

cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

#### **XII. USE OF UNITED STATES-FLAG VESSELS:**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS  
PREFERENCE FOR APPALACHIAN DEVELOPMENT  
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS  
ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.