Colorado Department of Transportation
Special Provisions
US 550 MP 88.68 Wall Repair & MP 90.84 L-06-P Tunnel Maintenance

The 2025 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
-1-

Colorado Department of Transportation
Special Provisions
US 550 MP 88.68 Wall Repair & MP 90.84 L-06-P Tunnel Maintenance

Standard Special Provisions

Notice To Bidders

-1-

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.

Program Engineer -	Kevin Curry, PE Office Phone: (970) 385-1436 E-mail: kevin.curry@state.co.us
Resident Engineer –	Beaux Kemp, PE Cell Phone: (970) 946-5815 E-mail: beaux.kemp@state.co.us
Project Engineer -	Jeff Reichle Cell Phone: (970) 799-1959 E-mail: jeffrey.reichle@state.co.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 mandatory on-site pre-bid meeting will be held on April 23, 2026 beginning at 10am. Bids will be accepted only from pre-qualified bidders who attend the mandatory pre-bid meeting. Contact Beaux Kemp (see above for contact info) by 5pm on Tuesday April 21, 2026 to confirm participation in the meeting. If weather is determined to be a concern for meeting on-site, Beaux will send a link to a virtual meeting as an alternative. That link will only go to contractors who have confirmed participation by 5pm on Tuesday April 21, 2026.

Questions received from bidders along with CDOT responses will be posted in the CDOT Business Management System (B2Gnow) as they become available. To access questions and answers in B2Gnow, login to the system via the website address below. From the home page click on the "View" tab and select "My Bid Solicitations" from the dropdown menu to view current posted bid Solicitation documents for the project.
https://cdot.dbesystem.com/

If the bidder has a question or requests clarification that involves the bidder's innovative or proprietary means and methods, phasing, scheduling, or other aspects of construction of the project, the Project Engineer will direct the bidder to contact the Resident Engineer directly to address the question or clarification. The Resident Engineer will keep the bidder's innovation confidential and will not share this information with other bidders.

Notice To Bidders
-2-

The Resident Engineer will determine whether questions are innovative or proprietary in nature. If the Resident Engineer determines that a question does not warrant confidentiality, the bidder may withdraw the question. If the bidder withdraws the question, the Resident Engineer will not answer the question and the question will not be documented on the CDOT web site. If the bidder does not withdraw the question, the question will be answered, and both the question and CDOT answer will be posted on the web site. If the Resident Engineer agrees that a question warrants confidentiality, the Resident Engineer will answer the question, and keep both question and answer confidential. CDOT will keep a record of both question and answer in their confidential file.

All questions shall be directed to the CDOT contacts listed above no later than 7:00 A.M. Monday of the week of bid opening. Final questions and answers will be posted no later than Tuesday morning of bid opening week.

Questions and answers shall be used for reference only and shall not be considered part of the Contract.

Commencement and Completion of Work
(Floating Start Date)

The Contractor shall select the date that contract time begins for this project, subject to the following conditions:

(a) The earliest date shall be July 13, 2026.

(b) The latest date shall be July 27, 2026.

(c) The Contractor shall notify the Engineer, in writing, at least 5 days before the proposed beginning date.

(d) The date that contract time begins shall be subject to the Region Transportation Director's approval. A different date may be authorized in writing by the Chief Engineer in the "Notice to Proceed."

The Contractor shall complete all work within 47 working days in accordance with the "Notice to Proceed."

If materials stockpiling begins before the beginning date, contract time will not be charged for the stockpiling effort. Stockpiling of materials before the beginning date is subject to the Engineer's approval. If such approval is given, stockpiled material will be paid for in accordance with Sections 109 and 626.

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: 160 hours

Revision of Section 102
Project Plans and Other Data

Section 102 of the Standard Specifications is hereby revised for this project as follows:

Subsection 102.05 shall include the following:

The following information will be available for review upon request of the office of the Resident Engineer listed in the Notice to Bidders:

Structure inspection reports and limited as-built drawings for the following structures:

(1) R550B088685LRA
(2) L-06-P

Revision of Section 105
Cooperation Between Contractors
-1-

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

Subsection 105.12 shall include the following:

The Contractor has the responsibility of coordinating the work with the construction operations of other contractors working in the vicinity, Towns of Silverton and Ouray, Ouray County, CDOT Maintenance, and utility companies to ensure the construction of all projects occur with minimal disruption to the traveling public. The Contractor is responsible for determining and addressing all construction and other potential coordination issues that may impact the project. The Contractor is not entitled for compensation for delays caused by other construction activity.

The Contractor shall take into consideration the other project work when determining the best source of materials and construction duration as traffic delays are anticipated when passing through other projects.

All traffic control conflicts that arise between the needs of the various Contractors and other agencies or parties shall be brought to the attention of the Engineer. The Engineer will decide the method of resolution.

A Cooperation between Contractors Plan that includes communication and coordination of work schedules shall be submitted for review and acceptance by the Engineer 5 days prior to the start of work. As a minimum, the plan shall address the following:

- Coordination of emergency vehicles through the projects and the implementation of an Emergency Vehicle Access Plan.
- Coordination of work to not exceed the maximum traffic delays specified in the contract.
- Coordination of road closures to minimize delay to the traveling public.
- Communication with the local emergency responders and law enforcement agencies.
- Communication with City, County, and Forest Service Projects.

Updates to the Emergency Vehicle Access Plan shall be posted by the Public Information Manager. This shall include updated information to be maintained on the local number Public Information line and on the CDOT internet website. Updates shall be posted weekly or whenever changes have been approved by CDOT.

The Contractor shall schedule and coordinate all traffic lane closures and MHT’s at least five days prior to the lane closure or MHT taking effect. All other phasing sequencing shall be submitted to the Engineer for approval prior to its implementation.

Revision of Section 105
Cooperation Between Contractors
-2-

Contractor representatives shall meet with CDOT Staff and other entities as often as necessary to maintain coordination of construction activities.

The cost of the coordination and communication equipment shall be included in the work with no separate payment.

Revision of Section 108
Payment Schedule (Single Calendar Year)

Section 108 of the Standard Specifications is hereby revised for this project as follows:

Delete Subsection 108.04, and replace with the following:

108.04 Payment Schedule. The Contractor shall prepare a payment schedule which shall show the dollar amount of work the Contractor expects to be complete monthly within a single calendar year. The schedule shall cover the period from the commencement of work to the expected completion date as shown on the Contractor's progress schedule. The payment schedule shall be prepared using standard spreadsheet software such as MS Excel and submitted in electronic format.

(a) Initial Payment Schedule. The Contractor shall submit the payment schedule at the preconstruction conference. The payment schedule shall show the total dollar amount of work expected to be completed by each month's progress estimate date and a total for the State's Fiscal Year. The amounts shown shall include planned force account work and other incentive payments as detailed in the specifications.

(b) Payment Schedule Updates. Once each month the Contractor shall submit a payment schedule update to the Project Engineer. The schedule update shall be in the same format as the initial schedule and shall be submitted to the Project Engineer by the first day of each month. In each payment schedule update, estimated monthly dollar amounts shall be revised to match actual progress payments made to the Contractor to date. Each payment schedule update shall show corrected dollar amounts of work to be completed each month through the expected completion date as shown on the Contractor's progress schedule.

(c) Failure to Submit Payment Schedule. If the Contractor fails to submit the initial payment schedule or a payment schedule update by the required date, the Project Engineer will withhold progress payments until such time as the Contractor has submitted a current payment schedule.

Revision of Section 108
Limitations of Operations

Section 108 of the Standard Specifications is hereby revised for this project as follows:

Subsection 108.03 shall include the following:
The Contractor shall provide a weekly work schedule to the Project Engineer by the Wednesday proceeding the scheduled week. The schedule shall not vary without permission from the Project Engineer. This schedule will assist CDOT to coordinate their operations with the project. The weekly work schedule shall include work tasks and time of work from start to end.

Subsection 108.05 shall include the following:
Work will not be allowed on Saturdays or Sundays unless otherwise approved by the Project Engineer.

Work shall take place at one structure at a time unless otherwise approved by the Project Engineer.

The Contractor will not be allowed to work on any day of the following holidays, unless otherwise approved by the Project Engineer.

For this project:

- Independence Day is observed as Friday July 3 – Sunday July 5
- Labor Day is observed as noon on Friday Sept 4 – Monday Sept 7
- Thanksgiving is observed as noon on Wednesday Nov 25 – Sunday Nov 29

Lane Closure Variances from the Regional Lane Closure Strategy:

R550B088685LRA: R5 Traffic has allowed a variance at this location for this project. One lane is allowed to be closed at the wall to complete all the work required at this structure. Any traffic stops shall not back up traffic for more than 20 minutes. The Contractor shall maintain one lane of traffic with a minimum 12’ width at all times. If the Contractor proposes a method that justifies a full closure and receives approval from the Construction Project Engineer in writing, night work will be permitted for up to six nights for soil nail installation. If approved, these closures shall be restricted to weeknights between 9pm to 5am.

L-06-P: R5 Traffic has allowed a variance at this location for this project. If work can be completed while maintaining at least one open lane of traffic with a minimum 12’ width, that work is permitted to take place during daylight hours. Any traffic stops shall not back up traffic for more than 20 minutes. If any portion of the work requires a full closure and is previously approved in writing by the Project Engineer, such work shall be restricted to weeknights between the hours of 9pm and 5am and is limited to a total of seven nights.

Revision of Section 202
Clean Culvert (Special)

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

Subsection 202.10, first paragraph, shall include the following:

The interior of the (3) 6” diameter perforated PVC drain pipes shown on the plans shall be inspected pre and post cleaning by the Contractor using visual media methods, as approved by the Engineer. The completed inspections shall certify that the cleaning has been performed in accordance with these specifications and that the pipes have not been damaged during the cleaning process. A copy of the certification report, including any electronic documentation, shall be submitted to the Engineer prior to project acceptance. Format of the electronic documentation shall be as approved by the Engineer.

Cleaning of the 6” diameter drainage pipes shall use non-mechanical methods such as water jetting. Mechanical means such as chain knockers or rotor rooters are prohibited. Water pressure of cleaning operation if applicable shall be closely monitored and controlled as to not cause damage to the existing pipes. Contractor shall not damage the geotextile drainage strips that tie into the 6” diameter perforated pipes during the cleaning operations.

All water used to clean the culverts shall not be discharged into the Uncompahgre River or Bear Creek, but shall be captured and disposed of offsite in accordance with Section 107.25 Water Quality Control per CDOT Standard Specifications.

Any damage done to the pipe that has occurred during cleaning, as evidenced by the pre and post- cleaning inspections, shall be repaired by the Contractor at no additional cost to the Project. Any existing damage to the pipes, as evidenced by the pre-cleaning inspection, shall be reported to the Project Engineer prior to cleaning.

Basis of Payment

The accepted quantities of Clean Culvert (Special) will be paid for at the contract unit price per ‘Each’ pipe run, as specified in the Plans.

Payment will be made under:

Pay Item	**Pay Unit**
Clean Culvert (Special)	Each

Inspection work and capturing and disposing water off-site shall be included in the cost of Item 202 Clean Culvert (Special).

Revision of Section 202
Removal of Portions of Present Structure
-1-

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

Description

This work consists of saw cutting, removing, and disposing of existing deteriorated, spalled, and unsound concrete as shown in the plans.

It also consists of removing corroded steel, sandblasting reinforcing steel or welded wire fabric that remains, and sandblasting the newly exposed concrete surfaces at the removal locations.

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 before the work begins.

The Contractor's method statement shall include proposed methods used to:
(1) Determine the locations and limits of deteriorating concrete,
(2) Prevent debris from falling to the ground below the structure,
(3) Protect the traveling public using and adjacent to the structure from airborne debris generated by the removal operations.

Conduct removal operations to protect the traveling public and to minimally interfere with the traveling public on or below the structure.

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

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.

Remove the existing concrete as shown on the plans or as directed by the Engineer, but to a minimum depth to provide a 1-inch clear space around all existing reinforcing steel in the removal area or to sound concrete, whichever is deeper. Removal operations shall not occur before the Engineer's acceptance. The Contractor shall saw cut along the removal limits before removal. Saw the concrete to a true line, with a vertical face, unless otherwise specified. Feathered edges will not be acceptable. The depth of the saw cut shall be approximately 3/4-inch.

Revision of Section 202
Removal of Portions of Present Structure
-2-

The Contractor shall minimize spalling on the face of the existing concrete adjacent to the removal boundaries. Do not use pneumatic hammers heavier than the nominal 15-pound class for removals adjacent to the removal boundaries. Use hand tools such as hammers and chisels to remove particles of loose, unbonded concrete. Sandblast exposed concrete surfaces within the removal limits to remove all final fractured or loose particles. 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 shall prevent cutting or otherwise damaging reinforcing steel or welded wire fabric intended to remain in place. Any reinforcing damaged by the Contractor's operation shall be repaired or replaced at the Contractor's expense using means and methods approved by the Engineer with no allowance for contract time extension.

After removing the concrete, straighten all exposed non-epoxy reinforcing steel to remain in place as required and thoroughly clean to sound metal by sandblasting per subsection 202. Do not sandblast epoxy-coated reinforcing steel, if present, but clean with hand tools. Repaint epoxy coating on reinforcing steel, if damaged, with epoxy paint before placing the concrete.

Following sandblasting, the Engineer will inspect the condition of all exposed reinforcing. If, in the Engineer's opinion, the loss of the original cross-sectional area of the bar due to deterioration is 25 percent or more, the Contractor shall add additional bars as approved by the Engineer. Lap splice newly added bars as shown in the plans. Use a mechanical splice if the required lap splice length cannot be used. The mechanical splice shall develop at least 125 percent of the specified yield strength of the bar. Maintain all minimum clearances as defined in the plans. Payment for the mechanical splice will be as the weight of reinforcing steel for the designated lap splice for that bar size. As an alternative, the Contractor may remove additional sound concrete to achieve the required lap length. Payment for additional removals and repairs will be based on the unit price for the appropriate removal and repair method class.

Secure all reinforcing steel to adjacent bars as provided in subsection 602.

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

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.

Revision of Section 202
Removal of Portions of Present Structure
-3-

Method of Measurement

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

Removal and repairs beyond the minimum required lap length of reinforcing steel will not be measured or paid for separately but will be at the Contractor's expense.

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:

Pay Item	**Pay Unit**
Removal of Portions of Present Structure	Square Foot

Payment for Removal of Portions of Present Structure will be total compensation for:
- All labor, materials, tools, equipment, and incidentals required to perform the neat line removals to the required depth.
- Methods to prevent debris from falling from the structure; and
- Methods to protect the traveling public using or adjacent to the structure from airborne debris.

Payment for the new reinforcement steel will be made per Section 602. Payment for the Mechanical splice will be the weight of reinforcing steel for the designated lap splice for that bar size.

Cleaning, straightening, and repairing epoxy coating of existing reinforcing steel will not be paid for separately but shall be included in the work.

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

Sounding, marking repair area limits, and disposal of removed materials and debris will not be paid for separately but shall be included in the work.

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

Revision of Section 202
Sandblasting Reinforcing Steel

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

Description

Sandblasting shall consist of cleaning exposed non-epoxy reinforcing steel designated to remain in place, and roughening the surface and removing all fractured particles from the entire existing concrete surface against which new concrete is to be placed.

Construction Requirements

Sandblasting equipment shall be capable of removing rust scale and concrete fragments or laitance from reinforcing steel, roughening the existing surface, and removing all fractured particles from the existing concrete surface.

After removing adjacent concrete, clean all exposed non-epoxy reinforcing steel designated to remain in place to sound steel by sandblasting. Sound steel is defined as free of oil, dirt, concrete fragments, or laitance, loose rust scale, and other coatings of any character that would limit or inhibit the bond with the new concrete. Do not sandblast epoxy-coated steel. If damaged, repaint the epoxy coating on reinforcing steel with epoxy paint before placing the concrete.

Rust that may form on the reinforcing steel within seven calendar days following the accepted sandblasting will not be cause for rejection of the steel.

When acceptable reinforcing steel is exposed to the elements for more than seven calendar days before encasement in concrete, adequate measures shall be taken by the Contractor, as approved by the Engineer, to protect the steel from contamination or corrosion. Reinforcing steel contaminated or corroded shall be re-sandblasted at the Contractor’s expense. No adjustment in Contract time will be made for re-sandblasting.

Basis of Payment

Sandblasting, including labor, materials, tools, equipment, and incidentals, will not be measured and paid for separately but shall be included in the work.

Revision of Section 240
Protection of Migratory Birds
Biological Work Performed by the Contractor's Biologist
-1-

Section 240 is hereby added to the Standard Specifications for this project as follows:

Description

240.01: This work consists of protecting migratory birds during construction.

Materials and Construction Requirements

240.02: 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.

a) *Vegetation Removal.* 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 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:

   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

Revision of Section 240
Protection of Migratory Birds
Biological Work Performed by the Contractor's Biologist
-2-

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 tree and shrub removal or trimming.

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 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 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

Revision of Section 240
Protection of Migratory Birds
Biological Work Performed by the Contractor's Biologist
-3-

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) *Raptor Nesting.* The wildlife biologist shall conduct raptor nest surveys within 0.5 mile of the construction site prior to the start of construction and prior to each construction phase for construction activities occurring from February 15 to July 15. This survey can be done with binoculars. If construction activities are located within the Colorado Parks and Wildlife (CPW) recommended buffer zone for specific raptors, "NO WORK" zones shall be established around active sites during construction according to the CPW standards or as recommended by the wildlife biologist in consultation with the CPW. The "NO WORK" zone shall be marked with either fencing or signing. Work shall not proceed within a "NO WORK" zone until the wildlife biologist has determined that the young have fledged or the nest is unoccupied.

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.

Method of Measurement

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

Basis of Payment

240.04 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:

Pay Item	Pay Unit
Wildlife Biologist	Hour

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).

Revision of Section 240
Protection of Migratory Birds
Biological Work Performed by the Contractor's Biologist
-4-

Clearing and grubbing will not be measured and paid for separately but shall be included in the cost of the work. Mowing will not be measured and paid for separately but shall be included in the work.

Removal and trimming of trees will not be measured and paid for separately but shall be included in the cost of the work.

Fence (Plastic) will not be measured and paid for separately but shall be included in the cost of the work.

Revision of Section 519
Epoxy Resin (Injection)
-1-

Add Section 519 to the Standard Specifications as follows:

Description

519.01 This work consists of furnishing and injecting existing concrete cracks with epoxy resin on an existing structure. All work shall be in accordance with these specifications and in conformity with the plans or as directed by the Engineer.

Materials

519.02 If the epoxy is used in conjunction with a Fiber Reinforced Polymer (FRP) composite system, the epoxy shall be compatible with the FRP composite system selected for this project.

The Epoxy shall be a two-part type, low viscosity epoxy adhesive material containing 100% solids and shall meet or exceed the following characteristics when tested in accordance with the following standards:

(a) Characteristics of Components:

1) Component A - shall be a blend of modified epoxy resins.

2) Component B - shall be a blend of modified amine curing agents.

(b) Test Method Requirements:

1) Component A - Brookfield RVT, 700 maximum; Viscosity @ 77 +/- 3 degrees F., cps; Spindle No. 2 @ 20 rpm.

2) Component B - Brookfield RVT, 240 maximum; Viscosity @ 77 +/- 3 degrees F, cps; Spindle No. 2. @ 20 rpm.

(c) Properties of Combined Components: When mixed in the ratio of two parts Component A to one part Component B by volume; or 100 parts Component A to 44 parts Component B by weight, shall be:

1) Potlife, 60g @ 77 +/- 3 degrees F., minutes; 25 minutes maximum.

(d) Properties of the Cured Adhesive: When cured for seven days @ 77 +/- 3 degrees F., unless otherwise specified, shall be:

Revision of Section 519
Epoxy Resin (Injection)
-2-

1) Ultimate Tensile Strength, psi: ASTM D638; 8000 minimum.

2) Compressive Yield Strength, psi: ASTM D695*; 15,000 minimum.

3) Heat Deflection Temperature: ASTM D648*; 130 F. minimum.

Test specimens must be cured in a manner such that the peak exothermic temperature of the adhesive does not exceed 77 degrees F.

The Contractor shall submit a Manufacturer's Certificate of Compliance to the Engineer, in accordance with Section 106.12, confirming that they conform to the material properties specified above and are compatible with the FRP system if applicable.

Construction Requirements

519.03 General. See plans for definition of cracks that require epoxy resin (injection) repair. Cracks requiring repair shall be pressure injected with epoxy in accordance with ACI 224.1R-07. Crack width determination shall be taken a minimum of 1/8 inch below the concrete surface using a measuring device capable of penetrating into the crack.

519.04 Equipment.

(a) *Type*. The equipment used to meter and mix the two injection adhesive components and inject the mixed adhesive into the crack shall be portable, positive displacement type pumps with interlock to provide positive ratio control of exact proportions of the two components at the nozzle. The pumps shall be electric, or air powered and shall provide in-line metering and mixing. The same manufacturer shall be used for both the injection equipment and the epoxy resin adhesive.

(b) *Discharge Pressure*. The injection equipment shall have automatic pressure control capable of discharging the mixed adhesive at any pre-set pressure up to 200 psi + 5 psi and shall be equipped with a manual pressure control override. For injection of gel epoxies, the equipment shall be equipped with the above features and be able to pump at up to 5,000 psi.

(c) *Ratio Tolerance*. The equipment shall have the capability of maintaining the volume ratio for the injection adhesive prescribed by the manufacturer of the adhesive within a tolerance of + 5% by volume at any discharge pressure up to 200 psi. For gel epoxies, the ratio will be checked by weight at up to 5,000 psi.

Revision of Section 519
Epoxy Resin (Injection)
-3-

(d) *Automatic Shut-Off Control.* The injection equipment shall be equipped with sensors on both the Component A and B reservoirs that will automatically stop the machine when only one component is being pumped to the mixing head.

519.05 Surface Preparation.
Surfaces adjacent to cracks or construction joints or other areas of application shall be cleaned of dirt, dust, grease, oil or other foreign matter detrimental to the bond of the epoxy injection surface seal system.

Installation of crack or construction joint surface sealers shall not proceed until contaminants capable of interfering with their adhesion are removed from joint substrates.

Surface seal material shall be applied to the face of the crack or construction joint or end. For through cracks or construction joints, surface seal shall be applied to both faces. Both sides of the crack shall be sealed with an epoxy mortar or oil-free clay, leaving small holes (entry ports) through which epoxy resin shall be injected. 1/8" to 1/4" diameter tubing may be used to form holes. Entry ports shall be 2"-4" long and shall be provided along the crack or construction joint at intervals of not less than the thickness of the concrete member at that location.

Enough time for the surface seal material to gain adequate strength shall pass before proceeding with the injection.

519.06 Installation and Application.

Injection of epoxy adhesive shall begin at lower entry port and continue until there is an appearance of epoxy adhesive at the next entry port adjacent to the entry port being pumped.

When epoxy adhesive travel is evident by appearance at the next adjacent port, injection shall be discontinued on the entry port being pumped, and epoxy injection shall be transferred to next adjacent port where epoxy adhesive has appeared.

Epoxy adhesive injection shall be continuously performed until cracks are completely filled.

If port to port travel of epoxy adhesive is not evident, the Contractor shall stop work immediately and notify the Engineer.

When cracks or joints are completely filled, epoxy adhesive shall be cured for sufficient time for the epoxy adhesive to set prior to removal of injection or port sealing devices.

Revision of Section 519
Epoxy Resin (Injection)
-4-

519.07 Storage and Handling. Storage and handling of all components of the epoxy system shall conform to Sections 106.08 and 106.09, and shall be in accordance with the manufacturer's instructions, and as approved by the Engineer.

All materials shall be used and installed before the shelf life expiration date. All materials for which the shelf life date has been reached and surpassed shall be removed from the project site.

Method of Measurement

519.08 Epoxy Resin (Injection)will be measured by the actual length of cracks injected and accepted. Injection length will be the minimum distance between the ends of the crack along each face to be sealed. Epoxy Resin (Injection)of any cracks with a width less than 0.060 inches will not be measured or paid for.

Basis of Payment

519.09 The accepted quantities of Epoxy Resin (Injection) will be paid at the contract unit price.

Payment will be made under:

Pay Item	Pay Unit
Epoxy Resin (Injection)	Linear Foot

Payment for Epoxy Resin (Injection) will be full compensation for all labor, equipment, materials, tools, and all incidentals necessary to prepare the surfaces, seal the surfaces, install and remove ports and complete the epoxy injection.

Revision of Sections 601 and 708
Structural Concrete Stain
-1-

Sections 601 and 708 of the Standard Specifications are hereby revised for this project as follows:

Description

Subsection 601.01 shall include the following:

This work consists of: (1) Preparing unfinished or gunned surface finish shotcrete facing to receive Concrete Stain; (2) furnishing and applying an opaque structural concrete stain to all concrete surfaces designated in the Contract documents; and (3) furnishing and applying up to 5 gallons of pre-mixed touch-up paint in aerosol spray cans.

The color of the structural concrete stain shall be as noted on the plans and shall be approved by the Region 5 Environmental and the Engineer from test panels provided by the Contractor.

The structural concrete stain shall be one of the following products:

(1) RAINSTOPPER RS400 – Semi Transparent Stain
Textured Coatings of America
Distributed by: Pro-Coat Systems, Inc.
5775 Stapleton Drive North
Denver, CO 80216
303-322-9009

(2) “Acrylic” Structural Concrete Stain
Anchor Paint Co. of Denver, Inc.
641 South Jason
Denver, CO 80223-2305
303-744-2361

(3) Bridge and Highway Concrete Sealer, B97-Series
The Sherwin-Williams Company
543A Santa Fe Drive
Denver, Colorado 80204
303-893-1303

Materials

Subsection 601.03 shall include the following:

Structural concrete stain as specified in subsection 708.08.

Revision of Sections 601 and 708
Structural Concrete Stain
-2-

Construction Requirements

In subsection 601.14(a) delete the third paragraph and replace with the following:

Structural concrete stain shall be the final finish for all concrete surfaces designated on the plans and in these specifications.

Delete subsection 601.14(b)4 and replace with the following:

Unless otherwise shown on the plans, the structural concrete stain shall be applied to all exposed concrete elements of the structure above the ground line. Curbs, barriers, guardrail, and other components not to receive stain shall be masked or otherwise protected to prevent structural concrete stain from coming into contact with them.

The color of the structural concrete stain shall have the written approval of the Engineer prior to final batching and application on the project. The final color of the structural concrete stain shall be determined as follows:

(1) Two 2 foot by 2 foot samples of the colors required by the Contract, shall be submitted to the Engineer for approval. The stain samples shall be applied to a surface similar in texture to the concrete surface on which the stain will be applied on the project. The stain samples shall be applied by the same methods to be used in field application.

(2) At least three weeks prior to beginning of the application of the structural concrete stain, 100 square foot test panels shall be prepared for the final color approved by the Engineer. The test panels shall be produced on the actual concrete surface on which the final product will be placed, at a location designated by the Engineer. The stain shall be applied to the test panels by the same methods to be used in the final field application. The Engineer shall be allowed one week after application to the test panels for review and approval.

Shotcrete shall be at least 28 days old prior to the application of the stain unless approved in writing by the stain manufacturer.

Shotcrete surface to receive the stain shall be the gunned unfinished surface. Preparation of the shotcrete surface prior to stain application shall be as follows. Within 24 hours prior to applying structural concrete stain, the concrete surface to be coated shall be cleaned by water blasting at a minimum pressure of 3,000 psi and at a rate of 4 to 14 gallons/minute, to remove dust, dirt, and other materials that would inhibit bonding of the coating. If the surface is contaminated before application of the coating, it shall be recleaned as required prior to application of the stain.

Two applications of stain shall be applied. Each application shall be applied at a rate of 200 to 250 square feet per gallon (approximately 3 mils dry film thickness). The second application shall not be applied until at least 12 hours after the first application. If the surface is contaminated between applications, it shall be recleaned as stated above prior to the next application. The stain shall be mixed mechanically and applied by spraying. Workmanship shall be such that the final stained surface is colored uniformly and presents a pleasing appearance. All areas determined by the Engineer to be insufficiently stained shall be re-stained.

The stain shall be applied only when the ambient temperature is between 40 °F and 90 °F, and is anticipated to remain above 40 °F for a minimum of 24 hours. The surface to be stained shall be dry and free of frost.

Method of Measurement

Subsection 601.19 shall include the following:

Structural concrete stain will not be re-measured, but will be the quantity shown on the plans. Measurements will be made when field changes are ordered, or for an error of plus or minus 5 percent of the plan quantity.

Basis of Payment

Subsection 601.20 shall include the following:

Payment will be made under:

Pay Item	Pay Unit
Structural Concrete Stain	Square Yard

Payment for structural concrete stain shall be full compensation for all work necessary to complete the item and shall include sample preparation, test panels, high pressure water blasting, including detergents, abrasive blasting if applicable, structural concrete stain and application, and furnishing up to 5 gal. touch-up stain.

Delete subsection 708.08 and replace with the following:

Structural Concrete Stain. The stain shall be a one-component, non-vapor barrier, solvent based acrylic resin. No sand or other texturing agents will be permitted.

<u>MINIMUM PHYSICAL PROPERTIES</u>

Solids by Weight:	51 percent, plus or minus 2 percent
Solids by Volume:	34 percent, plus or minus 2 percent

A material safety data sheet (MSDS) prepared in accordance with Federal Standard 313 and a complete set of manufacturer's mixing and application instructions shall be submitted to the Engineer before the Contractor begins applying the stain.

Revision of Section 601
Concrete (Patching) for Tunnel Lining Repair
-1-

If using Concrete (Patching) as an alternative to Shotcrete (Tunnel), revise Section 601 of the Standard Specifications for this project as follows:

Subsection 601.01 shall include the following:

If using Concrete (Patching) as an alternative to Shotcrete (Tunnel), this work consists of furnishing and placing material in accordance with these specifications and in conformity with the lines, grades and dimensions as shown on the plans or established.

Subsection 601.03 shall include the following:

Materials for concrete patching shall be from the list shown on the department's Approved Product List, category: concrete, repair/patching, rapid set, vertical & overhead or an approved equal. This list may be viewed at the following internet link: https://apps.codot.gov/apl/AplSearch.cfm.

Concrete patching material as an alternative to Shotcrete (Tunnel) shall have an average compressive strength of 4500 psi at 28 days.

Concrete patching material as an alternative to Shotcrete (Tunnel) may be extended only in accordance with the manufacturer's recommendations. The Contractor shall submit a report consisting of the mix proportions and compressive strength information. Compressive strength measurements shall be taken at one hour, three hours, six hours, 24 hours, 7 days and 28 days according to ASTM C 39 Compressive Strength of Cylindrical Concrete Specimens. Test results shall be the average of at least three specimens molded according to AASHTO T 126 Making and Curing Concrete Test Specimens in the Laboratory.

Subsection 601.12 (a) shall include the following:

Concrete patching material shall be placed in the repair areas before the expiration date of the material.

Concrete patching material shall be placed and consolidated to fill voids left at removed existing concrete. The surface of concrete patching material shall be smooth and match the surrounding concrete surfaces. Concrete patching material shall not extend above a waterproofing membrane.

Concrete patching material minimum and maximum thickness shall be per recommendation of the material manufacturer.

Revision of Section 601
Concrete (Patching) for Tunnel Lining Repair
-2-

Concrete patching material site preparation, batching, extending with aggregate, mixing, placement, placement during cold temperatures, consolidation, and curing shall be in accordance with the manufacturer’s recommendations.

A mix may be extended up to 90 percent of the manufacturer’s maximum extension.

Subsection 601.19 shall include the following:

Concrete (Patching) as an alternative to Shotcrete (Tunnel) will be measured in square yards and paid for as the actual quantity placed and accepted by the Engineer and will be paid for as Shotcrete (Tunnel)

Subsection 601.20 shall include the following:

Pay Item	Pay Unit
Shotcrete (Tunnel)	SY

Payment for Concrete (Patching) as an alternative to Shotcrete (Tunnel) will be full compensation for all the work, materials, tools, equipment, and incidentals required to replace removed concrete from structures. Furnishing, calibrating, and use of rebound hammers and other appurtenances including the molding, curing, and breaking of cylinders for calibration will not be measured and paid for separately, but shall be included in the work.

Revision of Section 620
Field Facilities
-1-

Section 620 of the Standard Specifications is hereby revised for this project as follows:

Delete subsection 620.02 (1)

Delete subsection 620.02 (2) and replace with the following:

Copy Machine: The Contractor shall provide a self-feeding plain paper copying machine, which is capable of making at least 20 copies per minute. The copy machine must be capable of producing 2-sided 8.5 x 11 inch copies and 11 x 17 inch copies, as well as printing and scanning operations. The copy machine shall be configured to allow printing and scanning from a CDOT PC, including all necessary cards and cabling, and shall be able to export scanned files to a USB drive or via WIFI and Bluetooth. The Contractor shall supply all necessary supplies (including paper), cords and a rolling stand (if necessary). The Contractor shall maintain all furnished equipment in good working condition and shall provide replacement equipment due to breakage, damage, or theft within three working days.

Delete subsection 620.02 (3)

Add subsection 620.02 (4):

The Contractor shall provide satellite based internet with Wi-Fi calling capability and Wi-Fi for computers, smartphones, tablets, and any other devices used by the Department's staff. The internet service shall have a minimum download speed of 40 MBps and an upload speed of 10 MBps at all times. The Contractor shall also provide Cat6 Ethernet patch cables of sufficient length with RJ-45 end connections. The Contractor will be responsible for running these cables through the office such that each workstation and the conference room will have a computer connection available. The Contractor shall provide computer broadband services for the entire duration that the Field Office is in use by Department personnel. The router (or other) needs to have an appropriate bandwidth for the specified maximum number of people detailed above, including computers, devices, and other devices in the office such as the smart TV and copy machine. Broadband service speed shall be periodically tested by CDOT staff to determine if sufficient connection speeds are maintained. Consistently tested speed results below 20 MBps will be recorded and will be justification for a Stop Work Order. Implementation of this service must be coordinated with Region 5 IT Office. Non-CDOT PCs are NOT allowed to connect to the CDOT equipment.

Add subsection 620.02 (5):

The Contractor shall supply a 5 watt, FM band handheld radio, capable of transmitting and receiving on three frequencies as required for traffic and safety control, to the Project Engineer, Traffic

Revision of Section 620
Field Facilities
-2-

Control Supervisor, each flagger, and other personnel as required. The radios shall be equipped with battery chargers and rechargeable batteries.

Subsection 620.05:

The sanitary facility shall be located at the same location of where the field office is placed.

Subsection 620.06 shall include the following:

The Contractor shall locate the field office where high-speed service is available and within a reasonable distance to the project limits as directed by the Project Engineer. Placing a field office with a portable generator may be necessary if the project location is remote enough to get within a reasonable distance to the project limits as directed by the Project Engineer.
Reasonable distance shall be within 2 miles of the project limits unless otherwise approved by the Project Engineer.

As an option for the field office, the Contractor may be allowed to select and utilize an existing building or facility nearby the project site with prior approval from the Project Engineer.

The field office and sanitary facility shall be in place and fully functioning 1 week prior to the start of the work and shall remain in place for 1 week after project acceptance, unless otherwise authorized by the Project Engineer.

Subsection 620.08 shall include the following:

High-speed internet, electricity, fuel for the generator (if required), copy machine, connections, repair services, trash service, drinking water, microwave, paper towels and all other necessary appurtenances will not be measured and paid for separately, but shall be included in the cost of Item 620, Field Office (Class 2).

Revision of Section 626
Public Information Management (Tier III)

Revise Section 626 of the Standard Specifications for this project to include the following:

Description

This work consists of providing Public Information Management for the duration of the project. The Contractor shall submit all documentation associated with the Public Information Management item to the Project Engineer. Before approval, the Engineer will coordinate review and approval with the Region Communications Manager (RCM).

This Project will take place just south of Ouray in Ouray County on US Highway 550, at two locations - retaining wall at MP 88.6 and Bear Creek Tunnel at MP 90.84. The project will consist of repairs to each of the structures.

Anticipated communications issues on this project include:

a. Consistent and regular communication required with local towns and county governments
b. Work at the tunnel will require potential night time work and full closure of the highway
c. This is a heavily traveled corridor, with construction taking place during time periods of local commuter traffic and tourist traffic
d. Consistent communication is required with law enforcement and emergency responders along this corridor
e. Accuracy and timeliness of communications, as well as full transparency on any setbacks, will be key to a successful project

Construction Requirements

(a) Public Information Manager (PIM). The PIM shall perform all activities associated with Public Information Management for this project. In the event the PIM is not available, the Backup PIM shall perform the required activities. The PIM shall not be the Project Superintendent.

Within ten days of the Notice to Proceed date or five days before the Pre-construction Conference, whichever is later, and at least 14 days before starting PIM work, the Contractor shall submit the name, contact information, and resume of the PIM and the Backup PIM to the Engineer. The PIM and Backup PIM shall have a minimum of five years of professional experience in public or media relations, marketing, or other related field and appropriate verbal and written communication skills. Experience in administrative or business office duties is not a related field.

(b) Activities of the PIM. The PIM duties are:

Revision of Section 626
Public Information Management (Tier III)
-2-

(1) Project Onboarding/Offboarding Request Form. The PIM shall complete and update the Project Onboarding/Offboarding Communications Intake Form www.codot.gov/topcontent/webrequestform every month or as requested by the Engineer. The form will assist the PIM and CDOT with tracking required activities and deliverables.

(2) Project Name. The PIM shall collaborate with the RCM to develop an appropriate Project Name to be used and easily identified by the traveling public and stakeholders. The Project Name shall contain the highway number, an identifiable landmark and work being performed (i.e. US 550 Red Mountain Wall and Tunnel Repairs). The Project Name shall be used in the deliverables (webpage, press releases, flyers/factsheets, project business cards, travel alerts, project updates, etc.).

(3) On-Call. The PIM shall be available or on-call each day there is work on the project and shall be available upon the Engineer's request outside of normal working hours. The PIM and the Contractor shall participate with CDOT in all meetings requested by the Engineer.

(4) Public Information Office. The PIM shall establish a public information office equipped with a telephone, a local telephone number with voicemail, which becomes the Project Hotline, and an email address. Acceptable locations for the project's public information office include the project office, off-site within the Contractor's office or the PIM's office. The PIM shall update the Project Hotline telephone message greeting weekly at a minimum and include the project's anticipated completion date and forthcoming activities for the update period. The PIM shall answer calls, listen to voicemail, and check email throughout each day that construction operations are in effect. The PIM, and when necessary, the Engineer, shall respond to all inquiries with a phone call, a voicemail message, or an email within one day. The PIM shall document the contact's name, contact phone number or email address and the action taken to resolve the issue. Within two days of receiving the message, the PIM shall enter message details and follow-up action into an electronic reporting system shared with the project team, Engineer and RCM.

(5) Project Meetings. The PIM shall participate in the weekly project meetings, discuss communication issues, and provide a status on the items in this specification.

(6) Lane Closure Reporting.

Revision of Section 626
Public Information Management (Tier III)
-3-

(i) Electronic Reporting System. Before the Pre-construction Conference and at least 14 days before the project start, the PIM shall submit a request for access to the electronic reporting system through the Communications Intake Form www.codot.gov/topcontent/webrequestform. At least once per week, the PIM shall enter project information into the electronic reporting system.

(ii) Weekly Lane Closures. The Superintendent or PIM shall notify the Engineer one week in advance of all planned “no work” periods and planned lane closures. The PIM shall enter the planned weekly lane closures and updates into the electronic reporting system for the upcoming work period, Sunday through Saturday, by Thursday at 12:00 P.M. The Engineer will approve the Lane Closure and Updates by Friday at 3:00 P.M. Each Monday by 12:00 P.M., the PIM shall review www.cotrip.org and verify that the lane closure and update information is accurate. If corrections are necessary, the PIM shall coordinate with the Engineer to make necessary corrections to www.cotrip.org.

(iii) Real-Time Lane Closure Changes. The Superintendent shall notify the PIM and the Engineer at least 24 hours in advance on approved Lane Closure changes. The Engineer will notify the PIM when the electronic reporting system is available for changes. After completing the changes, the PIM shall notify the Engineer that the changes are ready for review and approval.

(7) Public Information Plan. The PIM shall submit a Public Information Plan (PIP) within five days of the Pre-construction Conference. The PIP shall be specific to the project. The PIP shall include public information strategies for affected road users using the Public Information Collateral, the expected work zone impacts and closure details, commuter alternatives, community, government and business relations, media relations, identification of public information issues, proposed outreach strategies, approach to crisis communications, the Stakeholder List, and the Public Information Management Contact Sheet. The PIM shall update the plan when necessary and as directed by the Engineer. The PIP is a component of subsection 630.10 Transportation Management Plan.

(8) Public Information Collateral. The PIM shall develop a variety of Public Information Collateral to share project information for project milestones such as long-term closures or impactful construction activities. The PIM shall ensure all public-facing deliverables are accessible to individuals with disabilities and to ensure nondiscrimination against persons with disabilities. For more information go to the CDOT Accessibility webpage: www.codot.gov/topcontent/accessibility. Collateral includes the following:

(i) Photographs and Video Recordings. The PIM shall take (or arrange with the project team) digital photographs and video recordings at regular intervals and submit them to the Engineer. A cell phone camera may be used. Photographs and video recordings shall capture various work activities and other areas of work as identified by the Contractor or the Engineer. Public Information Collateral shall include these photographs and video recordings. The PIM shall submit a minimum of two digital photographs or video recordings of the project activities and progress each month. Each photograph and video recording shall include the project number, project code, date, time, location and station or milepost, and name of the person taking the photograph or video recording.

(ii) Maps and Graphics. The PIM shall develop maps, detour maps, and graphics for use in Public Information Collateral.

(iii) Web Page Updates. The PIM shall submit information about the project through the Communications Intake Form www.codot.gov/topcontent/webrequestform to develop a project webpage. The webpage shall be created and completed so that the online web link can be included in the media release. The information will include the project cost, Contractor name, duration, location, scope, construction phasing or work schedule, potential traffic impacts, and summary of project benefits. The PIM shall provide a link to the COtrip.org website mapping system's "Construction Layer." The PIM shall visit and perform a weekly quality control check of the webpage to ensure the site is functioning correctly. The PIM shall provide updates with pertinent changes in schedule information, new photos, contact information, etc.

(iv) Stakeholder List. The PIM shall submit a Stakeholder List, specific to this project, as a component of the Public Information Plan with each stakeholder's name, telephone number, email address, and notes on communication needs for the project.

(v) Emergency Management Contact Sheet. The PIM shall prepare and update an Emergency Management Contact Sheet with the names and contact information of the individuals pertinent to the project's public information. At a minimum, the Contact Sheet shall include the Resident Engineer, Project Engineer, RCM, CDOT website administrator, the electronic reporting system administrator, PIM, Backup PIM, Contractor Superintendent, and Traffic Control Supervisor. The contact sheet shall include the applicable Traffic Management Centers. (Joint Operations Center-Golden, Joint Operations Area-Eisenhower Johnson Memorial Tunnel, Joint Operations Center-Pueblo, and Joint Operations

Center-Hanging Lake Tunnels.) The Public Information Plan shall include the Emergency Management Contact Sheet.

(vi) Project Flyers. The PIM shall develop a digital project flyer using the CDOT project flyer template available in the PIM Resources Folder.(Request access from the RCM.) The PIM shall allow the Engineer at least three days to review and approve the flyer before distribution. Email distribution of the project flyer shall happen at least one week before the Project's start.

This project requires one project flyers at the following milestones:

1. Initial project start

The initial project start flyer shall provide the project start and end dates, project location, description of work, benefits, traffic impacts, scheduled work hours and workdays, the Project Hotline telephone number, email address, web address, project map or photo of the project area, and a construction safety message as defined by CDOT.

(vii) Project Business Cards. The PIM shall create and print Project Business Cards. The cards shall provide the Project Name, Project Hotline telephone number, email address and web address. The cards shall be distributed to key project personnel who are on-site of the Project. (Project Engineer, Project Manager, Contractor Superintendent, Flagging Personnel). The approximate number of cards to be printed is 100.

(viii) Media Relations. At least 14 days before the start of work or a milestone, the PIM shall prepare media releases using the CDOT media release template available in the PIM Resources Folder. The PIM shall allow the Engineer at least three days to review and approve the media release before distribution. CDOT will distribute media releases.

The PIM shall prepare a media release announcing the project, summarizing the project scope, construction phasing, construction activities that affect traffic, the project end date, summary of project benefits and at least one potential quote. The PIM shall develop additional media releases for major construction milestones, traffic control or lane shifts, closures, project completion, and as directed by CDOT. The releases shall also include maps or other graphics.

This project requires press releases at the following milestones:

1. Initial project start

Revision of Section 626
Public Information Management (Tier III)
-6-

2. Project completion

CDOT will address all media inquiries and media requests. The PIM shall immediately notify the Engineer of any project and on-site situations involving the media. When the media contacts the PIM or Contractor staff, the PIM shall provide the media the RCM's contact information.

(ix) Traffic Advisories and Project Updates. The PIM shall develop weekly project updates describing the progress of work (completed work, the upcoming week's traffic impacts and work that remains to be completed). The CDOT project update templates are available in the PIM Resources Folder. The Engineer will approve project updates before distribution. The PIM shall email project updates to the stakeholder list by Thursday of each week to announce the upcoming week's project activity. The emailed update may come from the project email box or CDOT's automated distribution platform. A Mailchimp account is available through CDOT.

(c) Response Protocol to CDOT and the Public. The PIM shall follow Table 626-1 in responding to correspondence from stakeholders and the public:

Table 626-1 - Response Timing

Type	Timing
Project Hotline calls and voice messages	Answer calls and check messages throughout each day. Respond within one day. Enter details into the electronic reporting system within two days.
Email messages	Respond within one day. For high-volume situations, respond within two days. Enter details into the electronic reporting system within two days.
Calls from CDOT Staff	Respond as soon as possible and within 24 hours.
Web page inquiries	Respond within one day. For high-volume situations, respond within two days.

Method of Measurement

The Engineer will monitor the PIM and all public information services. When the PIM provides acceptable public information services per these specifications, partial payments

Revision of Section 626
Public Information Management (Tier III)
-7-

for the pay item Public Information Services will be made as the work progresses. Failure to provide acceptable public information services will result in a withholding of payment for this item. These partial payments will be made as follows:

Partial payments for public information services will be made once each month as work progresses. The monthly partial payments will be determined by pro-rating the lump sum bid amount by the number of months in the actual construction schedule.

Basis of Payment

Payment will be made under:

Pay Item	Pay Unit
Public Information Services (Tier III)	LS

Payment for Public Information Services will be full compensation for all work, materials, and equipment to provide public information throughout the project per this specification.

If the Contractor fails to complete construction within the approved contract time, Payment will not be made for Public Information Management for the period of time after expiration of the approved contract time. These items shall be provided at the Contractor’s expense.

Construction Signs will be measured and paid for per Section 630.

Revision of Section 630
Traffic Control Management
-1-

Section 630 of the Standard Specifications is hereby revised for this project as follows:

Subsection 630.11 shall include the following:

The Contractor's Superintendent and Traffic Control Manager (TCM) shall be equipped with a mobile telephone unit at all times that has a local number for contact with one another, the Project Engineer or emergency response dispatchers when emergency services are required. The TCM shall make immediate contact with emergency personnel as required to assist accident victims, expedite the removal of broken-down vehicles and maintain the smooth flow of traffic.

The Contractor shall supply, at a minimum, a 5-watt, FM band hand-held radio, capable of transmitting and receiving on three separate frequencies as required for traffic and safety control, to the Project Engineer, Traffic Control Supervisor, each flagger, and other personnel as required. The radios shall be equipped with battery chargers and rechargeable batteries.

Prior to the start of the project the Contractor shall demonstrate that the supplied radios are capable of reliable communication from all locations within the project limits to satisfy proper and clear communications between all flaggers, pilot car driver(s) and TCS(s) within any work zone of all lengths that may be utilized by the Contractor. If the Project Engineer determines that the radios are not capable of reliable broadcasting and communication, then the Contractor shall provide better radios or implement a radio relay service/device to boost the existing radios signals.

Mobile telephone units, hand-held radios and radio relay service/devices will not be measured and paid for separately, but shall be included in the cost of the work.

Subsection 630.14, shall include the following:

While actively flagging, the flagger shall not engage in cell phone usage, with exception for emergency purposes.

Subsection 630.14, second paragraph, delete the second sentence and replace with the following:

Safety apparel shall be labeled as meeting the most recent ANSI standard performance for Class 3 risk exposure.

Subsection 630.14, third paragraph, delete the first sentence and replace with the following:
Nighttime flagging stations shall be illuminated by an overhead light source conforming to the requirements outlined in the Revision of Section 632 – Night Work Lighting.

Revision of Section 630
Traffic Control Management
-2-

Subsection 630.18, shall include the following:

The flagging station hours shall commence when the flagger turns the flagger symbol toward traffic and shall end when the flagger turns the flagger symbol away from traffic.

If the Contractor elects to pre-set up traffic control devices on a non-working day prior to a working day, then this day will not be paid as a TCM but will be paid only as a TCI.

On non-working days; moving, changing messages and turning off Portable Message Sign Panel(s) shall be included in the cost of the Item: Portable Message Sign Panel. Work related to the Portable Message Sign Panel shall be considered as a TCI and not a TCM during non-working days.

Regarding portable traffic signal systems: A TCI will only be paid for observation, maintenance and troubleshooting, including timing plan adjustments and queue dissipation by manual override of the portable traffic signal systems during no work days (weather days, weekends and holidays). If the portable traffic signal system malfunctions and becomes inoperable, there will be no additional compensation for providing flagger control and TCM to control the single lane alternating traffic while the portable traffic signal system is repaired or replaced during no work days (weather days, weekends and holidays) and shall be included in the cost of the work.

Revision of Section 630
Portable Message Sign Panel
-1-

Subsection 630.01 shall include the following:

This work includes furnishing, operating, and maintaining a portable message sign panel.

Add Subsection 630.031 immediately following Subsection 630.03 as follows:

630.31 Portable Message Sign Panel. Portable message sign panel shall be furnished as a device fully self- contained on a portable trailer, capable of being licensed for normal highway travel and shall include leveling and stabilization jacks. The panel shall display a minimum of three – eight character lines. The panel shall be a dot- matrix type with an LED legend on a flat black background. LED signs shall have a pre-default message that activates before a power failure. The sign shall be solar powered with independent back-up battery power. The sign shall be capable of 360 degrees rotation and shall be able to be elevated to a height of at least five feet above the ground measured at the bottom of the sign. The sign shall be visible from one-half mile under both day and night conditions. The message shall be legible from a minimum of 750 feet. The sign shall automatically adjust its light source to meet the legibility requirements during the hours of darkness.

The sign enclosure shall be weather tight and provide a clear polycarbonate front cover. Solar powered message signs shall be capable of operating continuously for ten (10) days without any sun. All instrumentation and controls shall be contained in a lockable enclosure. The sign shall be capable of changing and displaying sign messages and other sign features such as flash rates, moving arrows, etc.

Each sign shall also conform to the following:

1. In addition to the onboard solar/generator power operation with battery back-up, each sign shall be capable of operating on a hard wire, 100-110 V AC, external power source.
2. All electrical wiring, including connectors and switch controls necessary to enable all required sign functions shall be provided with each sign.
3. Each sign shall be furnished with an operating and parts manual, wiring diagrams, and trouble- shooting guide.
4. The portable message sign shall be capable of maintaining all required operations under Colorado mountain-winter weather conditions.
5. Each sign shall be furnished with an attached license plate and mounting bracket.
6. Each sign shall be wired with a 7-prong male electric plug for the brake light wiring system.

Subsection 630.13 shall include the following:

The portable message sign panel shall be on the project site at least seven (7) days prior to the start of active roadway construction. Maintenance, storage, operation, relocation to different sites during the project and all repairs of portable message sign panels shall be the responsibility of the Contractor.

Revision of Section 630
Portable Message Sign Panel
-2-

Subsection 630.18 shall include the following:

Portable message sign panels shall be measured by the maximum number of approved units in use on the project at any one time.

Subsection 630.19 shall include the following:

Pay Item	Pay Unit
Portable Message Sign Panel	Each

Revision of Section 630
Impact Attenuator (Temporary)
-1-

Section 630 of the Standard Specifications is hereby revised for this project to include the following:

Description

This work consists of furnishing, installing, certifying, moving, repairing, maintaining, and removing temporary impact attenuators in accordance with these specifications and in conformity with the lines and details shown on the plans or established.

Materials

Each impact attenuator shall be selected from the Crash Cushion and End Treatment Application Chart as listed in the *Safety Selection Guide* on the CDOT Design and Construction Project Support web site. Impact attenuators shall conform to the requirements of the manufacturer and be capable of bi-directional shielding of the objects detailed and located on the plans. Due to limited space, a sand barrel array will not be permitted.

If the posted speed limits of the construction zone are 45 miles per hour or less, the impact attenuator shall comply with the crash test requirements contained in NCHRP Report 350 (only applicable for impact attenuators developed prior to 2011) or MASH (acceptable for all impact attenuators), TL-2. For posted speed limits in the construction zone greater than 45 miles per hour, the attenuator shall meet the requirements of TL-3.

Construction Requirements

The site shall be prepared to receive the impact attenuator by filling, excavating, smoothing, constructing the paved foundation pad, installing approved transition and anchoring, and all other work necessary for the proper installation of the attenuator.

The impact attenuator shall be fabricated and installed in accordance with the manufacturer's recommendations. The Contractor shall provide a copy of the manufacturer’s installation instructions and parts list to the Project Engineer prior to installation of the device.

Each installation shall be supervised and certified as correct upon completion by a representative of the device manufacturer or by an employee of the Contractor who is a certified installer. The certified installer shall have completed device training and shall be registered with the manufacturer as a certified installer. The Contractor shall submit all appropriate documentation to validate that the certified installer has completed device training and has been registered with the manufacturer as a certified installer.

Revision of Section 630
Impact Attenuator (Temporary)
-2-

Method of Measurement

Impact Attenuator (Temporary) will be measured by the number of attenuators shown on the plans, installed, certified, and accepted; or the actual number of authorized 24-hour periods that the attenuator is used.

Basis of Payment

If the pay unit is “day” there will be no incremental payment for the device. If the pay unit is “each” the item will be paid incrementally in accordance with subsection 630.19.

The accepted quantities will be paid for at the contract unit price for the pay item listed below:

Payment will be made under:

Pay Item	Pay Unit
Impact Attenuator (Temporary)	Each

Payment will be full compensation for all work and materials required to furnish, install, certify, move, repair, maintain, and remove the impact attenuator. Site preparation, foundation pad, epoxy painting, and all necessary hardware including anchors and transitions will not be paid for separately, but shall be included in the work.

Revision of Section 630
Connected Devices
Portable Traffic Signal (CWZ)
-1-

Revise Section 630 of the Standard Specifications for this project to include the following:

Revise Section 630.01 to include:

Description

Connected devices are portable, temporary Intelligent Transportation System (ITS) devices that assess real-time traffic conditions to generate actionable intelligence for improving safety and mobility in a work zone, as well as any supplemental hardware and software elements required to detect, store, and disseminate real-time traffic conditions. All connected devices shall remain operational 24 hours per day, seven days per week, during the designated construction period.

This work consists of furnishing, installing, relocating, operating, maintaining, servicing, removing, and reporting connected devices per the requirements of this special provision, throughout the duration of the project. This work shall include submitting and approving a Connected Device Plan to meet the deployment requirements in the Plans.

The Contractor shall be responsible for meeting all requirements outlined. The Contractor may employ an experienced Vendor to meet these requirements. A Vendor is defined as the supplier of connected devices and, if applicable, CWZ/SWZ data processing software.

Revise Section 630.09 to include:

This work includes all potential connected devices, related licenses and fees, and all work necessary to install these devices.

All materials shall be compliant with the National Transportation Communications for ITS Protocol (NTCIP - https://www.ntcip.org/document-numbers-and-status/), National Electrical Manufacturers Association (NEMA) TS5, and Colorado Information Security Policies (CISPs - https://oit.colorado.gov/standards-policies-guides/technical-standards-policies), as applicable. All materials shall be compliant with the most recent version of the Manual on Uniform Traffic Control Devices (MUTCD), as applicable. The majority of connected devices are Category IV work zone devices, as defined by the FHWA, and are exempt from crash testing standards.

All non-Category IV devices shall satisfy standards as defined by the National Cooperative Highway Research Program (NCHRP) Report 350 and the Manual for Assessing Safety Hardware (MASH). The Contractor shall perform due diligence to determine which connected devices shall be crashworthy.

Revision of Section 630
Connected Devices
Portable Traffic Signal (CWZ)
-2-

The Contractor shall protect non-compliant devices with a MASH-approved device if placed within the clear zone.

(a) *Security.* All connected devices shall be physically and digitally secure to prevent tampering or damage. The Contractor shall meet the following minimum requirements:
 (1) Secure devices with a padlock, chain, or other physical security measure.
 (2) Change all default passwords if not already changed by default.
  1. Passwords shall have a minimum length of 8 characters with at least 1 uppercase, 1 lowercase, 1 number, and 1 special character. Passphrases are preferred and encouraged over passwords.
 (3) Utilize devices with field-hardened components that prohibit, disable, or restrict unused physical ports, as applicable.
 (4) Use the most recent firmware, operating system, and software patches for all materials. Document all known vulnerabilities, so risks are known.

(b) *Device Mounting.* All connected devices shall be mounted on a field device trailer or portable MASH-tested cart system, unless otherwise documented in the Connected Device Plan and approved by the respective asset owner. The Contractor may co-locate devices on a trailer, considering appropriate sizing and configuration requirements. Each field device trailer shall:
 (1) Have a trailer number that is visible across all lanes of traffic.
 (2) Must be designed for wind loads and gusts for 80 miles per hour wind speeds.
 (3) Be minimally equipped with an SAE Class II, 2-inch ball-type hitch.
 (4) Be equipped with safety breakaway chains.
 (5) Have the trailer, axle, and tires rated at an appropriate Gross Vehicle Weight Rating (GVWR) for the load carried.
 (6) Be constructed of metal decking and equipped with four jacks for adjustable leveling, and have full-width fenders over all portions of the wheel above deck level.
 (7) Meet FHWA requirements for stop, tail, turn, marker lights, and reflectors.

(c) *Power.* All connected devices shall be powered for continuous operations 24 hours per day, seven days per week, during the designated construction period via solar, battery, or other power supply. All connected devices shall be independent of all local or regional power unless otherwise documented in the Connected Device Plan and approved by the Engineer. Additionally, all connected devices that utilize solar technology shall satisfy the following power supply requirements:
 (1) Display a visible real-time solar charge.

Revision of Section 630
Connected Devices
Portable Traffic Signal (CWZ)
-3-

(2) Be equipped with solar panels properly sized for continuous operations.
(3) Have the capacity to operate the device continuously for ten days during periods of darkness or inclement weather with insufficient solar coverage.
(4) Autonomously restart in case of a power failure of the device inside the construction limits.

(d) Connectivity. All devices shall be connected, which is defined as capable of receiving and transmitting data remotely via cellular modem, satellite, radio, or other communication method. Connected devices may receive and transmit data either to other connected devices, CWZ/SWZ data processing software, or both. The Contractor shall ensure that data network capacity and coverage supports continuous operation for all connected devices. Each connected device shall:
(1) Update the global positioning system (GPS) coordinates within a 30-foot radius of its true location.
(2) Provide current operational status with a time-stamp.
(3) Refresh all data, every 30 minutes, except the WZD-x feed data, see WZDx section for requirements.
(4) Contain a modem configured with Internet Protocol (IP) whitelisting to restrict access from unapproved parties, a private IP, or a virtual private network with all SNMP community names changed from default for read-write access.
(5) If a cellular network is utilized, the following minimum requirements shall be satisfied:
1. Manage the network for firmware updates, password resets, network monitoring, and emergencies.
2. Have a backhaul connection from a provider with 4G accessibility at the project site. The Contractor shall use 5G connectivity whenever available.

(e) *CWZ/SWZ Data Processing Software*. CWZ/SWZ data-processing software shall be provided to manage connected devices. The CWZ/SWZ data processing software shall meet the following minimum requirements:
(1) Maintain an uptime of 99 percent.
(2) Provide a web-based graphical user interface (GUI) that complies with Google Chrome standards, meets all CISPs, complies with WCAG 2.1 Level A and AA, and does not require software installation.
(3) Allow for user account creation with specific role-based permissions to fit the authorizations required for the project. Least privileged methodology shall be used when configuring user accounts. Limit the use of built-in root or administrative accounts.

Revision of Section 630
Connected Devices
Portable Traffic Signal (CWZ)
-4-

(4) Use a centralized authentication source with individual accounts for device access, if applicable.

If centralized authentication is not possible, add general accounts such that dedicated logins can be used for system access, and user access accounts can be used for configuration and maintenance.

(5) Allow users to reset their username, password, and other profile settings. Multi-factor authentication shall be used for privileged accounts. Provide automatic account lockout after several failed authentication attempts.

(6) Provide a full-color map, using Google Maps or a CDOT-approved equivalent, with pan and zoom capabilities that depict the project area with real-time locations of all connected devices.

1. Device data shall be collected and processed once an hour.
2. The GUI map shall automatically refresh every 60 seconds.
3. The GUI map shall be supplemented by a tabular display of real-time data.

(7) Communicate independently with all deployed connected devices to collect data.

(8) Assess all types of malfunctions that have occurred, such as communication disruption, improper positioning, loss or lapse in data, anomaly in data, loss of device power, or low device battery.

(9) Be capable of sending real-time alerts to the Engineer and all other designated project staff of all malfunctions. Alerts shall be sent via text message, email, or both.

(10) Allow appropriate staff, as designated by the Engineer, full permission to override errant messages on all units manually. Allow the ability to cancel this override and re-initiate the software’s automated messaging feature.

(11) Prohibit, disable, or restrict all unsecure and unnecessary protocols as well as physical interfaces, where applicable. The Contractor shall request any need to use unsecure protocols in writing to the Engineer with documented use cases and potential risk of system breach.

(f) *Work Zone Data Exchange (WZDx)*. The Contractor shall coordinate with CDOT to furnish a connected device API data feed to CDOT per FHWA’s WZDx Device Feed Specification. The Contractor shall meet the following minimum requirements:

1. Export the Device Feed in Geographic JavaScript Object Notation (GeoJSON) format. Per the WZDx Device Feed Specification, the feed shall provide the current location, status, and any other relevant metadata about field devices deployed on the roadway in the work zone.

Revision of Section 630
Connected Devices
Portable Traffic Signal (CWZ)
-5-

2. Update the feed within 2 months of a minor WZDx Specification release and within 4 months of a major WZDx Specification release or CWZ Feed release.
3. Publish an WZDx-compliant API feed to CDOT to the CDOT-provided secure, encrypted endpoint.
4. Maintain a Data Feed refresh rate of 60 seconds.

(g) *Additional Connected Devices.* The following devices shall be included on any Method for Handling Traffic (MHT), integrated with all standard traffic control devices, and identified in a Connected Device Plan. All modifications to these device specifications must be approved in writing by the Engineer. The requirements listed under each connected device are the minimum requirements acceptable to CDOT.

Portable Traffic Signal (CWZ). The portable traffic signal shall:

1. Comply with the most recent MUTCD, specifically Chapter 4D and Part 6.
2. Conform to the requirements of the Section 630 subsection, Temporary Traffic Signals.
3. The portable traffic signal consists of a portable traffic signal system capable of radio communication, microwave, or video vehicle detection for actuation, hardwire or CDOT-approved interconnect method, multiple timing plans, and manual operation. The Contractor shall maintain one operating and parts manual, wiring diagrams, and a troubleshooting guide for each system. The portable traffic signal system shall be capable of maintaining operations at a temperature range of -4 degrees Fahrenheit to 167 degrees Fahrenheit.
4. The portable traffic signal shall be fully autonomous for the intended duration of use, and each component shall feature remote communications.
5. Shall have the ability to receive and transmit its GPS coordinates (latitude and longitude) within a 30-foot diameter of its true location.
6. Comply with NEMA TS-5 Standards.

Subsection 630.10 (a) shall include the following:

MHTs detailing the portable traffic signals for one-lane alternating traffic shall include provisions for the Contractor to be on-site during initial operation until traffic is serviced to the satisfaction of the Engineer. The signal systems shall also be checked a minimum of once a day for proper operation.

Vehicle queue lengths shall not exceed 1,000 feet, and queued vehicles should clear the signal within two cycles. The Contractor shall be on-site during weekday a.m. and p.m. peak hours, or as directed by the Engineer, during one-lane alternating traffic for observation, maintenance, and

Revision of Section 630
Connected Devices
Portable Traffic Signal (CWZ)
-6-

troubleshooting, including timing plan adjustments and queue dissipation by manual override. The Contractor shall place two individual signs (24 inches x 36 inches) near each signal; they will provide a 7-day, 24-hour number that can be called if the signal malfunctions. Contractor shall be traveling to respond to signal malfunctions within 1 hour and arrive on-site within 2 hours of notification.

The Contractor shall provide an alternate MHT and immediate traffic control, including Uniformed Law Enforcement, as required.

Flaggers shall control traffic during the initial turn-on of the signal. The flaggers shall remain on standby for 2 hours after the signal is turned on and operating properly.

Driveway access shall only be allowed between the portable traffic signals if approved Residential Driveway Temporary Signal (RDTs) are used at each driveway, RDTs and portable traffic signals are interoperable and comply with the MUTCD 2025 RDTS Interim Approval.

Revise Section 630.13 to include:

The Contractor shall provide equipment, supplies, materials, and labor to operationalize all connected devices.

(a) *Operational Testing Procedure*. Once all connected devices are installed, they shall undergo a five-day continuous operational test. The operational test shall include all connected devices in operation, with appropriate traffic control measures to address safety concerns during physical access to each device. The operational test ensures that all connected devices are fully functional per the Connected Device Plan. The Contractor shall provide for complete operations support from the Vendor, if applicable, during the operational test, and the Contractor shall verify that the reported data accurately reflects actual field conditions.

The operational test shall include testing the WZDx-compliant API feed to CDOT at the CDOT-provided secure, encrypted endpoint. Refer to the Materials section, subsection F, WZDx, for all integration details.

If a connected device is offline or malfunctions for a cumulative period of four hours or more during this operational test on any day, no credit will be given for that day for the operational test period, and the five-day operational test will restart.

Revision of Section 630
Connected Devices
Portable Traffic Signal (CWZ)
-7-

Records must be maintained for stoppages and resumptions during the operational test for submission to the Engineer. An operational test report must be submitted to provide accurate date and time of all activity, as well as:

(1) Specific device or set of devices where work was performed.
(2) Cause of device malfunction, if known.
(3) Description of the type of work performed.
(4) Time required to complete the repair.
(5) Any issues about publishing the sample WZDx Device Feed, with resolution.

The operational test report must be submitted to the Engineer for approval no later than five days after the completion of the test. An initial payment for setup of all connected devices will be rendered after approval of the operational test report. No per-unit payment will be rendered for the operational testing period. No field construction activity can commence until approval of the operational test report.

(c) *Connected Device Installation*. All installations of the connected devices shall be temporary and require no drilling or excavation, unless otherwise approved by the Engineer. Whenever possible, the Contractor shall consider co-location of devices for sharing communications and power to minimize the installation cost. The CWZ shall provide full functionality when devices are relocated and shall be field-adjusted as needed to provide real-time traffic data.

The Contractor shall adjust the spacing and location of the connected devices as needed for visibility or data capture during the various construction phases. The Contractor shall adjust spacing or relocate connected devices within an allowable time frame of no less than one hour as designated by the Engineer to avoid pay deductions. The Contractor shall ensure all connected devices remain in place and operational until devices are removed from the project, at the direction of the Engineer.

(d) *Connected Device Maintenance*. The Contractor shall assume all responsibility for damaged equipment due to, but not limited to, crashes, vandalism, or adverse weather that occurs during the connected device deployment and operation. The Contractor shall maintain an inventory of spare parts to support maintenance and repair of all connected devices within CDOT-defined response times.

(e) *Project Deliverables*. The Contractor shall submit the following to the Engineer for information, acceptance, or approval per the specified timeframes.

Revision of Section 630
Connected Devices
Portable Traffic Signal (CWZ)
-8-

Table 630-1
Project Deliverables

Deliverable	Information, Acceptance, or Approval	Schedule
Operational Test Report	Acceptance	5 days after completion of the test

Revise Section 630.17 to include:

Method of Measurement

The setup and configuration of connected devices with the CWZ/SWZ Data Processing Software shall be incidental and not measured for payment.

All connected devices shall be measured by month, as specified by the Pay Unit. The device measurement shall include all submittals, materials, equipment, tools, labor necessary to complete the work, and support required to make the device functional and operational. Monthly partial payments will be determined by pro-rating the month unit cost by the number of days the device is used within that month.

The Contractor shall identify and make all necessary corrections or repairs to a connected device that is deemed non-operational by the Engineer. A non-operational device is defined as an offline device, physically malfunctioning, improperly positioned, reporting inaccurate data, interfering with construction activity, or inhibiting the performance of other connected devices. A connected device is also considered non-operational if it is not communicating with the CWZ/SWZ data processing software.

No pay deduction will occur for a non-operational device if hardware and software corrections are made within 24 hours of notification and any device relocations are made within the time frame, no more than one hour, as designated by the Engineer. Otherwise, a pay deduction equal to the prorated daily unit cost of the connected device will be imposed for each day it is non-operational. There shall be no limit on this penalty.

If a connected device is defective or damaged and unable to be repaired, the Engineer may require that a similar device from a less critical location within the project be reset to replace the defective device. No payment will be rendered for the defective device; however, the entire CWZ shall be deemed operable upon the replacement. The Engineer reserves the right to permanently

Revision of Section 630
Connected Devices
Portable Traffic Signal (CWZ)
-9-

remove a connected device if they determine that the device is not performing per this specification, at which point no further payment will be made for the removed device.

Revise Section 630.18 to include:

Basis of Payment

Payment is considered full compensation for all work, signs, materials, labor, incidentals related to the operation, testing, maintaining, stowing, servicing, reporting, removing, cleaning, repairing, and providing insurance for the device; for troubleshooting device deficiencies; and responding to incidents with the unit, and for furnishing the software, assigning and configuring user accounts, integrating and testing devices, operating and managing device data and control, monitoring and reporting digital device records, furnishing a WZDx-compliant API data feed, and troubleshooting software deficiencies.

Portable Traffic Signal (CWZ) will be measured as the number of portable traffic signal systems (a “system” includes two signals) installed and shall include 24 inch x 36 inch signs for malfunction notification and include all work necessary to provide and maintain, operate, and troubleshoot a complete and operational system that accommodates the variations in traffic flow. Only one pair of Portable Traffic Signals (CWZ) will be paid on this project, and payment shall commence after the operational test report is approved.

Pay Item	Pay Unit
Portable Traffic Signal (CWZ)	Month

Revision of Section 632
Night Work Lighting
-1-

Section 632 is hereby added to the Standard Specifications for this project as follows:

Description

632.01 This work consists of furnishing, installing, operating, maintaining, moving, adjusting, and removing lighting to illuminate construction work spaces for night work. Night work will be defined as work performed between 30 minutes before sunset and 30 minutes after sunrise.

Materials and Equipment

632.02 The Contractor shall provide lighting for night work in the activity area work space where construction equipment, workers on foot, or both are present. The work space is that portion of the roadway closed to road users, or outside of the roadway, set aside for workers, equipment and materials performing contract work. The work space may be stationary or may move as the work progresses.

Illumination may be accomplished by using a combination of portable lights, floodlights, equipment mounted lights, or other lighting methods that will provide the required minimum lighting intensity. Light fixtures that are mounted on the construction equipment shall have a secure connection to minimize vibration and ensure that the view of the equipment operator is not obstructed. Portable lights shall be aimed either generally parallel or perpendicular to the roadway, aimed downward towards the work to avoid glare to oncoming drivers. Existing street and highway lighting shall not eliminate the need for the Contractor to provide work area lighting. Vehicle headlights shall not be permitted as the sole means of illumination while working.

632.03 Portable Generator and Inverter Generator. The Contractor shall provide a portable generator, inverter generator, or both as needed to power the added equipment mounted lights on motorized equipment if the existing power supply on the equipment is insufficient to power the added lights. Fuel tank capacity and availability of fuel on site shall be sufficient to permit uninterrupted operation throughout the planned shift. All power sources shall be equipped with a ground-fault circuit interrupter. The generator shall be placed or temporarily mounted on the equipment without obstructing access onto the equipment or the view of the operator.

632.04 Light Meter. The Contractor shall furnish a light meter for use by the Engineer. The meter shall have a digital display calibrated to NIST standards, shall be cosine and color corrected with an accuracy of +/- 5 percent. The light meter shall remain the property of the Contractor after final acceptance.

Revision of Section 632
Night Work Lighting
-2-

Construction Requirements

632.05 Lighting for night work shall include:

(1) Minimum lighting intensity of 5 foot candles for work space illumination.

(2) Illuminate the stationary work space as stated in (1) above where construction equipment, workers on foot or both are present.

(3) Light sources shall be positioned not to interfere with or impede traffic in any direction and not cause glare for motorists or onto adjacent properties whenever possible. The Contractor shall make adjustments, use visors or shields, or both to minimize glare.

(4) Illumination for mobile operations within a closed travel lane with traffic control devices will be defined as 20 feet in front of and behind and 5 feet to each side of each piece of moving equipment.

(5) The Contractor shall provide portable lights for Engineer's and contractor personnel performing materials testing for either mobile or stationary operations to illuminate the testing work space as stated in (1) above. For concrete operations at night, the Contractor shall illuminate the designated concrete truck washout location including the access and the wash out site.

(6) Workers on foot, performing work within a moving work space (i.e. striping layout/installation, surveying, etc.) shall wear ANSI approved high visibility apparel and headwear for Class 3 risk exposure including vest, Class E pants or leg gaiters, and reflective tape on hard hats. Workers may use portable lighting that can be worn on the hard hats that provide 360 degree visibility.

(7) Portable light towers and lights mounted on stands shall be sturdy and free-standing without the aid of guy wires or bracing. Minimum illumination levels as stated in (1) above shall be maintained at a distance of 5 feet on all sides of stationary equipment with either equipment mounted or free standing lights.

(8) The Contractor shall ensure that all pieces of equipment have operating lights to illuminate operator's controls, backhoe and loader buckets, and illuminate the equipment reach limits around rotating equipment (i.e. the paving machine shall have illumination for the hopper, auger, and screed areas).

(9) The TCS vehicle shall have the rear of the truck illuminated while installing, maintaining, and removing traffic control devices unless sufficient lighting levels exist with stationary lights.

Revision of Section 632
Night Work Lighting
-3-

(10) The Contractor shall maintain a uniformity ratio no greater than 5:1 over the stationary work space. Uniformity ratio is the ratio of average to minimum horizontal illuminance within the work space. The uniformity ratio shall be determined by dividing the average of all light meter measurements by the light meter measurement at the darkest spot within the illuminated area.

632.06 Night Work Lighting Plan. The Contractor shall submit a lighting plan to the Engineer for review signed by the Contractor's designated person three days in advance of the Preconstruction Conference. The lighting plan shall appropriately describe the work and include the following:

(1) Layout drawing and supplemental narrative showing light locations, equipment mounted lights, and configuration including both typical spacing and lateral placement for each work activity.

(2) Tabulation of lights for those lights that are included within the Night Work Lighting pay item. Lights included in the tabulation such as tower lights, lights mounted on stands and lighting mounted to mobile equipment (not original equipment lights) but those additional equipment mounted lights or portable lights that provide the 20 feet in front and behind illumination zone shall have catalog cuts giving the specific brand names, model numbers, lamp type and wattage.

(3) Narrative description of those operations where workers will be on foot in a moving work space.

(4) Details of hoods, visors, louvers, shields or other means to be used to minimize glare.

The plan shall be revised and updated by the Contractor as requested by the Engineer during the progress of the work to accommodate changes to the work.

632.07 Inspection of Lighting. Lighting inspection by the Engineer will be performed jointly with the Contractor's designated person on a drive through the project to include (1) observation of the lighting setup to evaluate glare potential for drivers and workers and (2) light meter measurements to determine minimum illumination levels. The Contractor shall make adjustments to the lighting as needed based on the Engineer's inspection. In the event of any failure of the lighting system, the Engineer may determine to discontinue work until the required level of illumination is restored. Delays due to insufficient lighting levels are the responsibility of the Contractor. Any corrections and deficiencies needed to provide the minimum illumination levels shall be addressed by the start of the next work shift.

Revision of Section 632
Night Work Lighting
-4-

The Engineer will take light meter measurements to verify the minimum lighting levels using a light meter provided by the Contractor during the night work shift. Light meter readings will be taken within the work space where work is being performed, in a horizontal plane, light sensor part of the meter held parallel to the ground with the sensor aimed upward, 3 feet above the pavement or ground surface. Meter readings will be taken at the source at 5 foot intervals out to the illuminated work space perimeter. These measurements will be documented and filed in the project records.

632.08 Lighting for Flagger Stations. For nighttime flagging, flagger stations shall be illuminated by an overhead light source providing a minimum lighting intensity level of 5 foot candles measured 1 foot out from the flagger's chest. The flagger station light shall illuminate the station area with a radius of at least the width of the lane plus 5 feet, and be centered on the flagger in the initial flagging position. The size of the illuminated area shall be increased to account for flagger movements required to control traffic. The flagger station lighting shall be maintained at an adequate height above the pavement and be capable of being shielded through the use of visors, hoods, louvers, or screens as needed to minimize glare to approaching traffic and spilling over onto adjacent properties.

Method of Measurement

632.09 Lighting for night work will not be measured but will be paid for as a single lump sum.

Basis of Payment

632.10 Payment for lighting as shown on the Night Work Lighting Plan will include all labor, materials, and equipment necessary to complete and maintain the work. Payment for lighting will include portable 360° visibility lighting worn on hard hats.

Progress payments will be made based on the lump sum price bid as follows: 20 percent when the Lighting for Night Work Plan has been submitted, accepted, and satisfactory lighting of nighttime operations has begun; the remaining 80 percent will be paid in equal monthly progress payments for the remaining time lighting is required for the night work operations.

Payment will be made under:

Pay Item	Pay Unit
Night Work Lighting	Lump Sum

Flagger station lighting, designated person, light meters, and additional power sources (generator and inverter) will not be measured and paid for separately but shall be included in the work.

Revision Of Section 641
Shotcrete (Flash Coat)

Revise Section 641 of the Standard Specifications for this project to include the following:

Description

641.01 This work consists of constructing a flash coat of shotcrete over the existing segmental block wall facing. A shotcrete flash coat is a sacrificial, unreinforced, minimal thickness of shotcrete used to fill voids in the block wall facing and protect the facing from damage and degradation during drilling operations. Thickness of the flash coat from the front face of the block wall facing shall not exceed 1 inch.

Method of Measurement

641.07 Shotcrete (flash coat) is incidental to the Shotcrete (Wall) item. All work required to complete the Shotcrete (flash coat) work including materials, and equipment required to complete the item including test panels, test specimens, samples, and fibers will be included in the cost of 641-10000 Shotcrete (Wall).

Force Account Items
Description
-1-

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.

Force Account Item	Estimated Quantity	Amount
F/A Minor Contract Revisions	F.A.	$125,000*
F/A On-The-Job Trainee	F.A.	$1,600
F/A Project First Program	F.A.	$1,000
F/A Erosion Control	F.A.	$1,000

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

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

F/A Project First Program – Cost of participating in a Project First Program between the Contractor and the Department in accordance with the Standard Special Provision.

F/A Erosion Control – Supplemental erosion control measures suggested by the Erosion Control Supervisor, but not provided for in the contract plans or specifications. All items shall be approved by the Engineer prior to installation or they will be at no cost to the project.

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.
(5) Construction phasing details.
(6) Detour Details.

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.

CDOT may have entered into operating agreements with one or more law enforcement organizations for cooperative activities. Under such agreements, at the sole discretion of CDOT, 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 CDOT 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:

During the construction of this project, traffic shall use the present traveled roadway unless identified on the plans or approved by the Engineer.

The Contractor shall not have construction equipment or materials in the lanes open to traffic at any time, unless approved by the Engineer.

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

Utilities
-1-

No utility relocation or construction conflicts anticipated for the completion of the project work. Area utilities include:

UTILITY	CONTACT/EMAIL	PHONE/FAX/CELL
San Miguel Power Association 720 N. Railroad St. Ridgway CO 81432	Jeremy Fox Jeremy@smpa.com	(970) 626-5549 (ext 202) (970) 729-1547 (cell)

The work described in these plans and specifications may require coordination between the Contractor and the utility companies in accordance with subsection 105.11 of the Standard Specifications in conducting their respective operations as necessary.

The work listed below will be performed by the Contractor in accordance with the plans and specifications, and as directed by the Engineer. The Contractor shall keep the utility company(s) advised of any work being done to their facility, so that the utility company(s) can coordinate inspections for final acceptance of the work with the Engineer.

For:

All Utility Companies

The Contractor will 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. If needed, or as directed by the Project Engineer, the Contractor shall provide traffic control for utility work to be coordinated with the project's construction, in accordance with an approved Method of Handling Traffic (MHT). Any additional work performed by the Contractor on behalf of the impacted utility company shall not be paid for by the State, but shall be paid by the utility company requiring the work, unless otherwise provided herein, or agreed to in writing by the Project Engineer.

Utilities
-2-

San Miguel Power Association (SMPA):

No contractor coordination anticipated. SMPA has overhead transmission facilities located a safe distance upslope from both work locations. No utility relocation or construction conflicts anticipated for the completion of the project work.

The work listed below will be performed by the utility owners or their agents:

All Utility Companies

Where applicable, each utility company shall relocate and adjust their facilities and appurtenances to avoid construction conflicts at no cost to the project.

No utility relocation or construction conflicts anticipated for the completion of the project work.

General:

The Contractor shall comply with Article 1.5 of Title 9, CRS ("Excavation Requirements") when excavation or grading is planned in the area of underground utility facilities. The Contractor shall notify all affected utilities at least two (2) business days prior to commencing such operations. The Contractor shall contact the Utility Notification Center of Colorado (UNCC) to have locations of UNCC registered lines marked by member companies. Calls originating outside the Denver area must use 1-800-922-1987. All other underground facilities shall be located by contacting the respective company or owner. Utility service laterals shall also be located prior to beginning any excavating or grading.

In accordance with Article 9-1.5-103(c), Colorado Revised Statutes, as amended, CDOT certifies that it has not performed QL B subsurface utility engineering (SUE) design work as there are no known utilities located within the limits of construction. No utility survey was performed and no utility plans were developed for the completion of this project work. Information pertaining to existing utility facilities and facility ownership within the limits of the project work was obtained from existing written records and/or verbal recollections – Quality Level D.

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.

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

Revision of Section 101
General Provisions

Section 101 of the Standard Specifications is revised for this project as follows:

In Subsection 101.02 Definitions, alphabetically, add the following definition:

Approved Water Source. In Colorado, all water use is managed under the "Prior Appropriation System." This determines:

- who can use the water,
- where the water is diverted from its source,
- how much can be used,
- what can it be used for, and
- when it can be accessed.

This means that ground or surface water cannot be used unless the proper water rights have been legally obtained. Approved sources of water include supplies from the contractor's yard or water that has been purchased or provided with the landowner's permission. Ground or surface water found on or near the project site is not an approved source unless those legal rights have been obtained.

Revision of Section 105
Project First Program

Revise Section 105 of the Standard Specifications as follows:

Replace the following in Subsection 105.10, "Cooperation by the Contractor", as shown:

Project First Program. Project First is required on all projects with an Engineer's Estimate of over one million dollars, is optional and is highly recommended for all other projects. The Project First Program shall not take precedence over any other Contract requirement and shall only apply to contracts with the Department.

Project First is a project partnering that focuses on managing risks, facilitating communication, and working together to achieve common goals within the guidelines and parameters established by the Contract. The Project First Program is structured to draw on the strengths of the Contractor and the Department to identify and achieve mutual goals. Project First is a scalable program that supports effective and efficient contract performance and is performed with reciprocal cooperation. The goal is a project completed within budget, on schedule, and per the Contract. The Project Engineer and the Superintendent are the lead representatives to address the issues promptly and at the appropriate level. Executives from both organizations are encouraged to be active supporters and to visit with the Project Teams. The Project First Program includes the Project Team, consisting of the Department and the Contractor, developing tools to identify and manage project risks and facilitate communication. The tools are developed and updated for the project's duration in formal Workshops and project meetings.

Nothing in this Section or Project First Program waives or extinguishes any defenses, rights, or obligations set forth in the Contract and/or the Contract Documents, or at law in equity, including, but not limited to, any notice and/or disclosure requirements set forth in Sections and/or Subsections 104.02, 104.03, 105.22, 105.23, 105.24, 106.05, 106.06, 108.08(a), and 108.08(d) and/or the Disputes Resolution Process.

Project First Workshops

(a) Workshop Facilitation. All costs related to Project First shall be included in the work and shall not be paid for separately, except for the actual costs for the use

Revision of Section 105
Project First Program

of a third-party workshop facilitator. If the parties mutually agree to use a third-party workshop facilitator, payment will be made for the actual costs incurred. The cost for a workshop facilitator shall be agreed upon before engagement. The Project Team shall equally share the facilitation costs. The Contractor shall contract directly with the third party, and payment will be made per subsection 109.04.

(b) *Initial Workshop.* The Project Team shall conduct an in-person initial workshop before the Preconstruction Conference. The Project Engineer and the Superintendent shall jointly agree on the individuals to invite to the initial workshop. They shall invite the members from their respective teams. The Region Transportation Director or the Program Engineer, the Resident Engineer, the Project Engineer, and other project personnel shall attend the initial workshop. The Contractor owner, executive, or representative, the Superintendent, project supervision personnel, and key subcontractors shall attend the initial workshop. The Engineer and the Superintendent shall jointly determine if other stakeholders shall attend. At the initial workshop, the parties will each discuss their planned approach to the project and develop the Project First Tools.

(c) *Follow-up Workshops and Closeout Workshop*. The Project Team shall conduct follow-up workshops at least once every two months, unless the Project Engineer and the Superintendent jointly determine that the frequency of these meetings can be reduced, and one final closeout workshop. When there are open items on the Project Risk Assessment Tool, workshops shall continue during no-work periods. Workshops are not required during landscape establishment periods. The Project Team shall conduct the closeout workshop before Final Acceptance.

The Resident Engineer, the Project Engineer, the Superintendent, and project supervision personnel shall attend the follow-up workshop and closeout workshop. The Region Transportation Director or Program Engineer, the Contractor owner, executive, or representatives are not required to attend the follow-up workshops and closeout workshop. The subcontractors or stakeholders with open risk items and incomplete work shall attend the follow-up workshop and closeout workshop. The Project Engineer and the Superintendent shall jointly determine if other stakeholders shall attend.

Revision of Section 105
Project First Program

In the follow-up workshops, the parties will update Risk Assessment Tool risks, including adding any new risks and closing completed risks. The parties shall resolve all remaining risks and document lessons learned before or by the closeout workshop. The Project Team should also celebrate the project successes.

Project First Tools

(a) Project Risk Assessment Tool. The Project Team shall develop and update a Project Risk Assessment Tool. This Project Risk Assessment Tool shall support risk identification, analysis, response strategy, monitoring, and control. All parties shall use the Project Risk Assessment Tool to document and manage the project risks. A risk for Project First is an unexpected known event or potential future event that may positively or negatively affect the project costs, schedule, scope, or relationship. The Project Team may modify the Project Risk Assessment Tool to suit the project.

(b) Project First Escalation Ladder. Use the Escalation Ladder to communicate major or repeated concerns to the next person in the supervisory chain. The Escalation Ladder is a list that includes the name, title, and contact information of the individuals in the supervisory chain for the Contractor's project organization and for the Department's project organization. The Contractor and the Department shall keep the Escalation Ladder up to date. The Project Team shall use the Escalation Ladder when the following types of concerns occur to maintain project communication and resolve issues at the lowest level:

- Bad Faith: When an individual is knowingly or willingly dishonest, not fulfilling legal or contractual obligations, misleads others, enters into an agreement without the intention or means to fulfill it, and/or violates basic standards of honesty in dealing with others.
- Administration Performance: When an individual is not responsive in administrative performance, such as resolving requests for information, developing partial payments, submitting required documentation, delays in progressing issues, and in negotiations. When an individual is unable to or is not competent in performing construction administration duties.
- Defiance: When an individual disregards Contract requirements or the direction of the Project Engineer.

Revision of Section 105
Project First Program

- Professionalism: When an individual acts in an unprofessional manner, including disrespectful, vulgar, and/or aggressive behavior.

Project First may be utilized to communicate concerns and issues at the project level prior to the submission of a Dispute as defined pursuant to Subsection 105.22 of the Dispute Resolution Process. Although these concerns may contribute to the issues described in subsection 105.22, they are different and addressed separately. This subsection and the referenced Project First Escalation Ladder shall not be used to circumvent or replace the escalation process detailed in Subsection 105.22 Dispute Resolution. Subsection 105.22 is the Contract escalation process for Issues that may result in Disputes related to items included in but not limited to Subsections 104.02, 104.03, 106.05, 106.06, 108.08(a), and 108.08(d) for merit and quantum as described and detailed in Subsection 105.22.

(c) Project First Charter. The establishment of a Project First charter is optional. A Project First Charter shall not change the legal relationship of the parties to the Contract, nor act as a waiver of, nor supersede the terms of the Contract. If a Project First Charter is developed, the Project Team shall develop the Project First Charter jointly.

Revision of Section 105
Dispute Resolution

Revise Section 105 of the Standard Specifications as follows:

Remove and replace Subsections 105.22, "Dispute Resolution"; 105.23, "Dispute Review Board"; and 105.24, "Claims for Unresolved Disputes", as follows:

105.22 Dispute Resolution. Subsections 105.22, 105.23, and 105.24 detail the process through which the parties (CDOT and the Contractor) agree to resolve any issue that may result in a Dispute. The process intends to resolve issues early, efficiently, and as close to the project level as possible. Figure 105-1 outlines the process. Specified time frames may be extended by mutual agreement of the Engineer and the Contractor. In these subsections, when a time frame ends on a Saturday, Sunday, or holiday, the time frame shall be extended to the next scheduled workday.

Definitions:

Issue. A disagreement concerning contract price, contract time, interpretation of the Contract, or a combination thereof between the parties at the project level regarding or relating to the Contract. Issues include, but are not limited to, a disagreement resulting from a delay, a change order, another written order, or an oral order from the Project Engineer, including any direction, instruction, interpretation, or determination by the Project Engineer, interpretations of the Contract provisions, plans, or specifications or the existence of alleged differing site conditions.

Dispute. An Issue that the Contractor and CDOT have not been able to resolve, and for which the Contractor submits a written formal notice of Dispute per subsection 105.22(c).

Claim. A Dispute not resolved at the Resident Engineer level or resolved after a DRB recommendation.

Merit. Refers to the right of a Contractor to recover on a Claim or Dispute, irrespective of Quantum, based on the substance, elements, and grounds of that Claim or Dispute.

Quantum. Refers to the quantity or amount of compensation or time (or both), if any, that may be granted to the Contractor when a Dispute or Claim is found to have Merit.

The Contractor shall bring the Issue(s) to the Project Engineer's attention, in writing, within 15 days of the Contractor being aware of the Issue(s). Written notice must take the form of a stand-alone, non-chain e-mail or letter, addressed and delivered to the Project Engineer. If a Contractor provides written notice outside of the 15-day deadline, it shall be presumed that CDOT suffered prejudice. Where the Contractor failed to provide the required notice, the failure to provide notice may be treated as a separate and threshold Dispute to be resolved before other related Dispute(s) are submitted, addressed, or resolved.

Disputes from subcontractors, material suppliers, or any other entity not party to the Contract shall be submitted through the Contractor. The review of a pass-through Dispute does not create privity of Contract between CDOT and the subcontractor.

An audit may be performed by the Department for any Dispute or Claim. All audits will be completed within 90 days of the request for an audit, provided the Contractor allows the auditors reasonable and timely access to the Contractor's books and records.

If CDOT does not respond within the specified timelines, the Contractor may advance the Dispute to the next review level in the dispute resolution process.

When the Project Engineer is a Consultant Project Engineer, actions, decisions, and determinations specified as made by the Project Engineer shall be made by the Resident Engineer.

The dispute resolution process set forth in this subsection shall be exhausted in its entirety before initiation of litigation. Failure to comply with the requirements set forth in this subsection, including notice requirements, shall bar either party from any further administrative, equitable, or legal remedies. Subject to the rebuttable presumption of prejudice to CDOT set forth above, if a deadline is missed that does not prejudice either party, further relief shall be allowed.

All written notices of Dispute shall be submitted within 30 days of the date of the Project Engineer's Final Acceptance letter; see subsection 105.21(b).

When a project has a landscape maintenance period, the Project Engineer will grant partial acceptance per subsection 105.21(a). This partial acceptance will be the project acceptance of all the construction work performed before this partial acceptance.

All Disputes and Claims related to the work in which this partial acceptance is granted shall be submitted within 30 days of the Project Engineer's partial acceptance.

Should the Contractor's Dispute use the Total Cost approach for calculating damages, damages will be determined by subtracting the contract amount from the total cost of performance. Should the Contractor's Dispute use the Modified Total Cost approach for calculating damages, if the Contractor's bid was unrealistic in part, or some of its costs were unreasonable or some of its damages were caused by its own errors, those costs and damages will be deducted from the total cost of performance to arrive at the Modified Total Cost. The Total Cost or Modified Total Cost basis for calculating damages shall not be available for any Disputes or Claims seeking damages where the

Contractor could have kept separate cost records at the time the Dispute arose as described in subsection 105.22(a).

(a) *Document Retention*. The Contractor shall keep full and complete records of the costs and additional time incurred for each Dispute for a period of at least three years after the date of final payment or until the Dispute is resolved, whichever is longer. The Contractor, subcontractors, and lower-tier subcontractors shall provide adequate facilities, acceptable to the Project Engineer, for an audit during normal business hours. The Contractor shall permit the Project Engineer or Department auditor to examine and copy those records and all other records required by the Project Engineer to determine the facts or contentions involved in the Dispute. The Contractor shall identify and segregate any documents or information that the Contractor considers particularly sensitive, such as confidential or proprietary information.

Throughout the Dispute, the Contractor and the Project Engineer shall keep complete daily records of extra costs and time incurred, per the following procedures:

1. Daily records shall identify each operation affected, the specific locations where work is affected, and the potential effect to the project's schedule. Such records shall also reflect all labor, material, and equipment applicable to the affected operations.

2. On the first workday of each week following the date of the written notice of Dispute, the Contractor shall provide the Project Engineer with the daily records for the preceding week. If the Contractor's records indicate costs greater than those kept by the Department, the Project Engineer will meet with the Contractor and present CDOT's records to the Contractor at the meeting. The Contractor shall notify the Engineer in writing within three workdays of any inaccuracies noted in, or disagreements with, the Department's records.

(b) *Initial Dispute Resolution Process.* To initiate the Dispute resolution process, the Contractor shall provide a written notice of Dispute to the Project Engineer upon the failure of the Parties to resolve the Issue through negotiation. Disputes will not be considered unless the Contractor has first complied with specified Issue resolution processes such as those specified in subsections 104.02, 106.05, 108.08(a), and 108.08(d).

The Contractor shall supplement the written notice of Dispute within 15 days with a written Request for Equitable Adjustment (REA) providing the following:

(1) The date of the Dispute.

(2) The nature of the circumstances that caused the Dispute.

(3) A detailed explanation of the Dispute, citing specific provisions of the Contract and any basis, legal or factual, that supports the Dispute.

(4) If any, the estimated Quantum, calculated per the methods set forth in subsection 105.24(b)12, with supporting documentation.

(5) An analysis of the progress schedule showing the schedule change or disruption, if the Contractor is asserting a schedule change or disruption. This analysis shall meet the requirements of subsection 108.08(d).

The Contractor shall submit as much information on the Quantum and impacts to the Contract time as is reasonably available with the REA and then supplement the REA as additional information becomes available. If the Dispute escalates to the DRB process, neither party shall provide or present to the DRB any Issue or any information that was not contained in the REA and fully submitted in writing to the Project Engineer and Resident Engineer during the subsection 105.22 process.

(c) Project Engineer Review. Within 15 days after receipt of the REA, the Project Engineer will meet with the Contractor to discuss the Merits of the Dispute. Within seven days after this meeting, the Project Engineer will issue a written decision on the Merits of the Dispute.

The Project Engineer will either deny the Merits of the Dispute or notify the Contractor that the Dispute has Merit. This determination will include a summary of the relevant facts, Contract provisions supporting the determination, and an evaluation of all scheduling issues that may be involved.

If the Dispute is determined to have Merit, the Contractor and the Project Engineer will determine the adjustment in payment, schedule, or both within 30 days. When a satisfactory adjustment is determined, it shall be implemented per subsections 106.05, 108.08, 109.04, 109.05, or 109.10, and the Dispute is resolved.

If the Contractor accepts the Project Engineer's denial of the Merits of the Dispute, the Dispute is resolved, and no further action will be taken. If the Contractor does not respond in seven days, it will be assumed he has accepted the denial. If the Contractor rejects the Project Engineer's denial of the Merits of the Dispute or a satisfactory adjustment of payment or schedule cannot be agreed upon within 30 days, the Contractor may further pursue resolution of the Dispute by providing written notice to the Resident Engineer within seven days, according to subsection 105.22(e).

(d) Resident Engineer Review. Within seven days after receipt of the Contractor's written notice to the Resident Engineer of unsatisfactory resolution of the Dispute, the Project Engineer and Resident Engineer will hold at least one meeting (or more than one meeting upon mutual agreement of the parties) with the Contractor.

Meetings shall continue weekly for a period of up to 30 days. Meetings shall include a Contractor's representative with decision authority above the project level to discuss the Dispute. When the Project Engineer is a Consultant and the Resident Engineer rendered the Project Engineer's written decision, the Program Engineer will render the Resident Engineer's written decision. Within 7 days after this meeting, the Resident Engineer will issue a written decision on the Merits of the Dispute.

If these meetings result in the resolution of the Dispute, the resolution will be implemented per subsections 108.08, 109.04, 109.05, or 109.10, and the Dispute is resolved.

If these meetings do not result in a resolution or the participants mutually agree that they have reached an impasse, the Dispute shall be presented to the Dispute Review Board per subsection 105.23.

105.23 Dispute Review Board. A Dispute Review Board (DRB) is an independent third party that will provide specialized expertise in technical areas and the administration of construction contracts. The DRB will assist in and facilitate the timely and equitable resolution of Disputes between CDOT and the Contractor in an effort to avoid animosity and construction delays, and to resolve Disputes as close to the project level as possible. The DRB shall be established and operate as provided and shall serve as an independent and impartial board. A DRB member shall not be called as a witness for future litigation.

There are two types of DRBs: the "On Demand DRB" and the "Standing DRB". The DRB shall be an "On Demand DRB" unless a "Standing DRB" is specified in the Contract. An On Demand DRB may be established at any time during the project to assist with Issue and Dispute resolution and when the Project Engineer initiates a DRB review per subsection 105.23(a). A Standing DRB, when specified in the Contract, shall be established at the beginning of the project.

(a) *Initiation of Dispute Review Board Review*. When a Dispute has not been resolved per subsection 105.22, the Project Engineer will initiate the DRB review process within five days after the period described in subsection 105.22(e).

(b) *Formation of Dispute Review Board*. DRBs will be established per the following procedures:

1. CDOT, in conjunction with the Colorado Contractors Association (CCA), will maintain a statewide list of pre-approved DRB candidates experienced in construction processes and the interpretation of contract documents, and the resolution of construction Disputes. Only individuals who have completed training (currently titled DRB Administration and Practice Training) through the Dispute Resolution Board Foundation or otherwise approved by CDOT can be a

DRB member. DRB nominees shall be selected from the list of pre-approved candidates. When a DRB is formed, the parties shall execute the agreement set forth in subsection 105.23(m).

2. If the Dispute has a value of $250,000 or less, the On Demand DRB shall have one member. The Contractor and CDOT shall select the DRB member and execute the Three-Party Agreement within 30 days of initiating the DRB process. If the parties do not agree on the DRB member, each shall select five candidates. Each party shall numerically rank their list using a scale of one to five, with one being their first choice and five being their last choice. If common candidates are listed, but the parties cannot agree, the common candidate with the lowest combined numerical ranking shall be selected. If there is no common candidate, the lists shall be combined, and each party shall eliminate three candidates from the list. Each party shall then numerically rank the remaining candidates, with Number 1 being the first choice. The candidate with the lowest combined numerical ranking shall be the DRB member. The CDOT Project Engineer will be responsible for having all parties execute the agreement.
3. If the Dispute has a value over $250,000, the On Demand DRB shall have three members. The Contractor and CDOT shall each select a member, and those two members shall select a third. Once the third member is approved, the three members will nominate one of them to be the Chair and execute the Three-Party Agreement within 45 days of initiating the DRB process.
4. The Standing DRB shall always have three members. The Contractor and CDOT shall each select a member, and those two members shall select a third member. Once the third member is approved, the three members will nominate one of them to be the Chair. The Contractor and CDOT shall submit their proposed Standing DRB members within five days of execution of the Contract. The third member shall be approved before the Pre-construction Conference. The third member shall be selected within 15 days of the execution of the Contract. Before construction starts, the parties shall execute the Three-Party Agreement. The CDOT Project Engineer will be responsible for having all parties execute the agreement. The Project Engineer will invite the Standing DRB members to the Pre-construction and any Project First conferences.
5. DRB members shall not have been involved in the administration of the project under consideration. CDOT and the Contractor shall inform their selected DRB member who the major firms/people are on the project and request their selected DRB member to review the CDOT disclosure requirements and Canon of Ethics and then submit a disclosure statement, which shall also be submitted to the other party. DRB candidates shall complete the DRB Disclosure

Requirements and DRB Nominee Disclosure Form and disclose to the parties the following relationships:

(1) Prior employment with either party

(2) Prior or current financial interests or ties to either party

(3) Prior or current professional relationships with either party

(4) Anything else that might bring into question the impartiality or independence of the DRB member.

(5) Before agreeing to serve on a DRB, members shall notify all parties of any other CDOT DRB's they are serving or that they will be participating in another DRB.

If either party objects to the selection of the chair or other DRB members based on the disclosures, or based on information not disclosed, which might bring into question the impartiality, independence, or performance of the potential member, that potential member shall not be placed on the Board.

6. There shall be no ex parte communications with the DRB at any time.
7. The service of a Board member may be terminated only by written agreement of both parties.

(c) If a Board member resigns, is unable to serve, or is terminated, a new Board member shall be selected within 30 days in the same manner as the Board member who was removed was originally selected.

(d) *Additional Responsibilities of the Standing Disputes Review Board*

1. General. No later than 10 days after the Three-Party Agreement has been signed by the Chief Engineer, the DRB will coordinate with the parties on the date and location of the initial DRB meeting.

(1) Obtain copies of the Contract documents and the Contractor's schedules for each of the Board members.

(2) Agree on the location of future meetings, which shall be reasonably close to the project site.

(3) Establish an address and telephone number for each Board member for the purposes of Board business.

2. Regular meetings. Regular meetings of the Board shall be held approximately every 120 to 180 days throughout the life of the Contract, except that this schedule may be modified to suit developments on the job as the work

progresses. Regular meetings shall be attended by representatives of the Contractor and the Department.

3. The Board shall establish an agenda for each meeting, which will cover all items that the Board considers necessary to keep it abreast of the project, such as construction status, schedule, potential problems and solutions, status of past Claims and Disputes, and potential Claims and Disputes. Copies of each agenda shall be submitted to the Contractor and the Department at least seven days before the meeting date. Oral or written presentations or both shall be made by the Contractor and the Department as necessary to give the Board all the data the Board requires to perform its functions. The Board will prepare minutes of each meeting, circulate them to all participants for comments and approval, and issue revised minutes before the next meeting. As a part of each regular meeting, a field inspection trip of all active segments of the work at the project site may be made by the Board, the Contractor, and the Department.

4. Advisory Opinions

   (1) Advisory opinions are typically used soon after the parties find they have a potential Dispute and have conducted preliminary negotiations, but before expenditure of additional resources and hardening their positions. Advisory opinions provide quick insight into the DRB's likely assessment of the Dispute. This process is quick and may be entirely oral, and does not prejudice the opportunity for a DRB hearing.

   (2) Both parties must agree to seek an advisory opinion and notify the chairperson. The procedure for requesting and issuing advisory opinions should be discussed with the DRB at the first meeting with the parties.

   (3) The DRB shall issue a one-page written opinion within 5 days of the hearing.

   (4) The opinion is only advisory and does not require acceptance or rejection by either party. If the Dispute is not resolved and a hearing is held, the oral presentations and advisory opinion are completely disregarded, and the DRB hearing procedure is followed.

   (5) Advisory opinions should be limited to Merit Issues only.

(e) Arranging a Dispute Review Board Hearing. When the Project Engineer initiates the DRB review process, the Project Engineer will:

1. Contact the Contractor and the DRB to coordinate an acceptable hearing date and time. The hearing shall be held at the Resident Engineer's office unless an alternative location is agreed to by both parties. Unless otherwise agreed to by both parties, an On Demand DRB hearing will be held within 30 days after the Three-Party Agreement is signed by the CDOT Chief Engineer. Unless

otherwise agreed to by both parties, a Standing DRB hearing will be held within 30 days after the DRB has been requested per subsection 105.23(a).

2. Ensure DRB members have copies of all documents previously prepared by the Contractor and CDOT pertaining to the Dispute, the DRB request, the Contract documents, and the special provisions at least two weeks before the hearing.

(f) *Pre-Hearing Submittal.* All Pre-hearing Submittals shall include only arguments, supporting documentation, Quantum, and other information as previously submitted in writing and as previously disputed in the formal Dispute process covered in subsections 105.22(b), (c), (d), and (e). All Pre-hearing Submittals planned to be used at the hearing shall be submitted to the other party 35 days before the hearing for review for compliance with this requirement. If either party contends there are new arguments, supporting documents, new Quantum, or any new information in a pre-hearing Submittal, and the other party objects to this information being presented to the DRB, the objecting party shall submit its objections in writing to the other party within 10 days. The parties shall meet within five days to reconcile the objection before the submittal is submitted to the DRB. If the parties cannot reconcile the objection, but the new argument, supporting documentation, new Quantum, or new information does not change either party's position on Merit or Quantum, the information shall be allowed in the Pre-hearing submittal and presented to the DRB. If the parties cannot reconcile the objections within the five days allowed, each party shall submit a one-page brief on their objections, but not the actual information objected to, to the DRB for a decision on the use of the documents. The DRB shall not approve any information simply because it is relevant to the Dispute or referenced during the Dispute. Neither party shall attempt to present anything to the DRB that they did not present to the other party during the Dispute process. The Dispute process shall be delayed while this determination is being made and a new hearing date set, if necessary. Pre-hearing Submittals to the DRB are as follows:

1. Joint Statement: At least 20 days before the hearing, the Joint Statement(s) shall be submitted to the DRB. The parties shall make every attempt to agree upon a Joint Statement of the Dispute. If the parties cannot agree on the Joint Statement, each party's independent statement shall be submitted to the DRB. The Joint Statement shall summarize, in a few sentences, the nature of the Dispute(s) and the scope of the desired decision.

2. Position Paper: At least 15 days before the hearing, CDOT and the Contractor shall submit by email to the DRB Chairperson their party's Position Paper. The DRB Chairperson shall simultaneously distribute by email the Position Papers to

all parties and other DRB members, if any. The Position Paper shall contain the following:

(1) The basis and justification for the party's position, with reference to specific contract language and the supporting documents of each element of the Disputes.

(2) A list of proposed attendees for the hearing. In the event of any objection by a party, the DRB shall make a final determination as to who attends the hearing.

(3) When the scope of the hearing includes Quantum, full cost details will be calculated per the methods set forth in subsection 105.24(b)12. The Scope of the hearing will not include Quantum if CDOT has requested an audit that has not been completed.

3. Supporting Documents: At least 15 days before the hearing, each party shall submit a copy of all its supporting documents to the DRB and the other party. Supporting documents include any presentations, visuals, or handouts planned to be used at the hearing. To minimize duplication and repetitiveness, the parties are encouraged to identify a common set of documents that will be referred to by both parties and submit them in a separate package to the DRB at least 20 days before the hearing. Common documents are communications between parties, speed memos, change orders, schedules, request for equitable adjustment, correspondence, and any document used in the subsection 105.22 process. CDOT shall submit the common set of documents to the Board and the Contractor.

4. If relevant to the Dispute and requested by the Board, the Engineer shall provide to the DRB either website links, electronic PDFs, or hard copies of pertinent contract documents such as plans, specifications, and M and S Standards.

(g) Pre-Hearing Phone Conference. A pre-hearing phone conference with all Board members and the parties shall be conducted as soon as a hearing date is established, but no later than 10 days before the hearing. The DRB Chairperson shall explain the specifics of how the hearing will be conducted, including how the two parties will present their information. (Ex. Each party makes a full presentation of their positions, or presentations will be made on a "point by point" basis, with each party making a presentation only on the individual dispute issue before moving onto the next Issue.)

If the pre-hearing position papers and documents have been received by the DRB before the conference call, the Chairperson shall discuss the estimated hours of review and activities for the Disputes (such as time spent evaluating and preparing a recommendation on specific Issues presented to the DRB). If the pre-hearing position papers and documents have not been received by the Board before the conference call, another conference call will be scheduled during the initial conference call to discuss the estimated hours of review. The Engineer shall coordinate the conference call.

(h) *Dispute Review Board Hearing.* The DRB shall preside over a hearing. The chairperson shall control the hearing and conduct it as follows:

1. An employee of CDOT presents a brief description of the project and the status of construction on the project.
2. The party that requested the DRB presents the Dispute in detail as supported by previously submitted information and documentation in the pre-hearing position paper. No new information or Disputes will be heard or addressed by the DRB. Rebuttals of the other party's arguments shall not be presented at this time.
3. The other party presents its position in detail as supported by previously submitted information and documentation.
4. The party that requested the DRB presents their rebuttals, followed by the other party's rebuttals.
5. Upon completion of their presentations and rebuttals, both parties and the DRB will be provided the opportunity to exchange questions and answers. Questions from the parties shall be directed to the Chairperson. Attendees may respond only when board members request a response.
6. Employees of each party are responsible for leading presentations at the DRB hearing.
7. Attorneys shall not participate in the hearing unless the DRB specifically addresses an Issue to them or unless agreed to by both parties. Should the parties disagree on attorney participation, the DRB shall decide on what, if any, participation will be permitted. Attorneys representing the parties are permitted to attend the hearing, provided their presence has been noted in the pre-hearing submittal.
8. Either party may use experts only if the expert has previously presented to the other party before the DRB process. A party intending to offer an outside expert's analysis at the hearing shall disclose such intention in the pre-hearing position paper. The expert's name and a general statement of the area of the Dispute that will be covered by his presentation shall be included in the disclosure. The other party may present an outside expert to address or respond to those Issues that may be raised by the disclosing party's outside expert.

9. If both parties approve, the DRB may retain an outside expert. The DRB chairperson shall include the cost of the outside expert in the DRB's regular invoice. CDOT and the Contractor shall equally bear the cost of the services of the outside expert employed by the DRB.
10. If either party attempts to present an argument, documentation, Quantum, or new information that the other party feels was not in the Pre-hearing submittals, the chairperson shall require the party to demonstrate where in the Pre-hearing submittals the information in question resides.
11. If either party fails to timely deliver a position paper, the DRB may reschedule the hearing one time. On the final date and time established for the hearing, the DRB shall proceed with the hearing using the information that has been submitted.
12. If a party fails to appear at the hearing, the DRB shall proceed as if all parties were in attendance.

(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 that support any recommendation(s).

3. The chairperson shall transmit the signed Recommendation and any supporting documents to both parties.

(j) *Clarification and Reconsideration of Recommendation.* Either party may request in writing clarification or reconsideration of a decision within 10 days following receipt of the Recommendation. Within 10 days after receiving the request, the DRB shall provide written clarification or reconsideration to both parties.

Requests for clarification or reconsideration shall be submitted in writing simultaneously to the DRB and the other party.

The Board shall not accept requests for reconsideration that amount to a renewal of a prior argument or additional argument based on facts available at the time of the hearing. The Board shall not consider any documents or arguments that have not been made a part of the pre-hearing submittal, other than clarification and data supporting previously submitted documentation.

Only one request for clarification or reconsideration per Dispute from each party will be allowed.

(k) *Acceptance or Rejection of Recommendation.* CDOT and the Contractor shall submit their written acceptance or rejection of the Recommendation, in whole or in part, concurrently to the other party and the DRB within 14 days after receipt of the Recommendation or following receipt of responses to requests for clarification or reconsideration.

If the parties accept the Recommendation or a discreet part thereof, it will be implemented per subsections 108.08, 109.04, 109.05, or 109.10 and the Dispute is resolved.

If either party rejects the Recommendation in whole or in part, it shall give a written explanation to the other party and the DRB within 14 days after receiving the Recommendation. When the Recommendation is rejected in whole or in part by either party, the other party may either abandon the Dispute or pursue a formal Claim per subsection 105.24.

If either party fails to submit its written acceptance or rejection of the Dispute Board's recommendation, according to these specifications, such failure shall constitute that party's acceptance of the Board's recommendation.

(l) *Admissibility of Recommendation.* Recommendations of a DRB issued per subsection 105.23 are admissible in subsequent proceedings but shall be prefaced with the following paragraph:

This Recommendation may be taken under consideration with the understanding that:

1. The DRB Recommendation was a proceeding based on presentations by the parties.
2. No fact or expert witnesses presented sworn testimony or were subject to cross-examination.
3. The parties to the DRB were not provided with the right to any discovery, such as the production of documents or depositions.
4. There is no record of the DRB hearing other than the Recommendation.

(m) *Cost and Payments.*

1. General Administrative Costs. The Contractor and the Department shall equally share the entire cost of the following to support the Board's operation:

   (1) Copies of the Contract and other relevant documentation
   (2) Meeting space and facilities
   (3) Secretarial services
   (4) Telephone
   (5) Mail
   (6) Reproduction
   (7) Filing

2. The Department and the Contractor shall bear the costs and expenses of the DRB equally. Each DRB board member shall be compensated at an agreed rate of $1,200 per day if time spent on-site per meeting is greater than four hours. Each DRB board member shall be compensated at an agreed rate of $800 per day if the time spent on-site per meeting is less than or equal to four hours. The time spent traveling to and from each meeting shall be reimbursed at $50 per hour if the travel distance is more than 50 miles. The agreed daily and travel time rates shall be considered full compensation for on-site time, travel expenses, transportation, lodging, time for travel of more than 50 miles, and incidentals for each day, or portion thereof, that the DRB member is at an authorized DRB meeting. No additional compensation will be made for time spent by DRB members in review and research activities outside the official DRB meetings unless that time (such as time spent evaluating and preparing recommendations on specific Issues presented to the DRB) has been specifically agreed to in advance by the Department and Contractor. Time away from the project that has been specifically agreed to in advance by the parties will be compensated at an agreed rate of $125 per hour. The agreed amount of $125 per hour shall include all incidentals. Members serving on more than one DRB, regardless of the number of meetings per day, shall not be paid more than the all-inclusive rate per day or rate per hour for an individual project.

Revision of Section 105
Dispute Resolution

3. Payments to Board Members and General Administrative Costs. Each Board member shall submit an invoice to the Contractor for fees and applicable expenses incurred each month following a month in which the Board members participated in Board functions. Such invoices shall be in the format established by the Contractor and the Department. The Contractor shall submit to the Department copies of all invoices. No markups by the Contractor will be allowed on any DRB costs. The Department will split the cost by authorizing a 50 percent payment on the next progress payment. The Contractor shall make all payments in full to Board members within seven calendar days after receiving payment from the Department for this work.

(m) Dispute Review Board Three Party Agreement.

DISPUTE REVIEW BOARD
THREE PARTY AGREEMENT
COLORADO PROJECT NUMBER

THIS THREE-PARTY AGREEMENT, made as of the date signed by the Chief Engineer below, by and between: the Colorado Department of Transportation, hereinafter called the “Department”; and

____
____________________________,

hereinafter called the “Contractor”; and

____
_______,

____
_______,

____
_______, and

____
_______,

hereinafter called the “Dispute Review Board” or “Board”.

WHEREAS, the Department is now engaged in the construction of the

__________________________[Project Name]__________________________
____

and

WHEREAS, the Contract provides for the establishment of a Board in accordance with subsections 105.22 and 105.23 of the specifications.

NOW, THEREFORE, it is hereby agreed:

ARTICLE I

DESCRIPTION OF WORK AND SERVICES

The Department and the Contractor shall form a Board in accordance with this agreement and the provisions of subsection 105.23.

ARTICLE II

COMMITMENT ON THE PART OF THE PARTIES HERETO

The parties hereto shall faithfully fulfill the requirements of subsection 105.23 and the requirements of this agreement.

ARTICLE III

COMPENSATION

The parties shall share equally in the cost of the Board, including general administrative costs (meeting space and facilities, secretarial services, telephone, mail, reproduction, and filing) and the member's individual fees. Reimbursement of the Contractor's share of the Board expenses for any reason is prohibited.

The Contractor shall make all payments in full to the Board members. The Contractor shall submit to the Department an itemized statement for all such payments, and the Department will split the cost by including a 50 percent payment on the next progress payment. The Contractor and the Department will agree to accept invoiced costs prior to payment by the Contractor.

Board members shall keep all fee records pertaining to this agreement available for inspection by representatives of the Department and the Contractor for a period of three years after the termination of the Board members' services.

Payment to each Board member shall be at the fee rates established in subsection 105.23 and agreed to by each Board member, the Contractor, and the Department. In addition, reimbursement will be made for applicable expenses.

Each Board member shall submit an invoice to the Contractor for fees incurred each month following a month in which the member participated in Board functions. Such invoices shall be in the format established by the Contractor and the Department.

Payments shall be made to each Board member within 60 days after the Contractor and Department have received all the applicable billing data and verified the data submitted by that member. The Contractor shall make payment to the Board member within seven calendar days of receipt of payment from the Department.

DISPUTE REVIEW BOARD

THREE PARTY AGREEMENT PAGE 2

COLORADO PROJECT NUMBER

ARTICLE IV

ASSIGNMENT

Board members shall not assign any of the work to be performed by them under this agreement. Board members shall disclose any conflicts of interest, including but not limited to any dealings with either party in the previous five years other than serving as a Board member under other contracts.

ARTICLE V

COMMENCEMENT AND TERMINATION OF SERVICES

The commencement of the services of the Board shall be in accordance with subsection 105.23 of the specifications and shall continue until all assigned Disputes under the Contract, which may require the Board's services, have been heard and a Recommendation has been issued by the Board as specified in subsection 105.23. If a Board member is unable to fulfill his responsibilities for reasons specified in subsection 105.23(b)7, he shall be replaced as provided therein, and the Board shall fulfill its responsibilities as though there had been no change.

ARTICLE VI

LEGAL RELATIONS

The parties hereto mutually agree that each Board member in performance of his duties on the Board is acting as an independent contractor and not as an employee of either the Department or the Contractor. Board members will guard their independence and avoid any communication about the substance of the Dispute without both parties being present.

The Board members are absolved of any personal liability arising from the Recommendations of the Board. The parties agree that members of the Dispute review board panel are acting as mediators for purposes of C.R.S. § 13-22-302(4) and, as such, the liability of any Dispute review board member shall be limited to willful and wanton misconduct as provided for in C.R.S. § 13-22-305(6).

Board members shall not be called as witnesses for future litigation.

IN WITNESS HEREOF, the parties hereto have caused this agreement to be executed the day and year written below.

BOARD MEMBER:____.

BY:____.

BOARD MEMBER: ____.

BY: ____.

BOARD MEMBER:____.

BY:____.

CONTRACTOR:____.

BY:____

______________________________.
TITLE: ______________________________
COLORADO DEPARTMENT OF TRANSPORTATION
BY:______________________________
______________________________. DATE: ______________________,
TITLE: CHIEF ENGINEER

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 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 a written agreement otherwise by both parties.

The venue for all unresolved Disputes with an aggregate value of $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.

Revision of Section 105
Dispute Resolution

(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 the 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 the 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:

   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_______________________________________.

____

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 certify 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 this 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: ________________________

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 that 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 contractors, subcontractors, suppliers, and other individuals who may be knowledgeable about facts giving rise to such Claim.

Revision of Section 105
Dispute Resolution

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 per subsection 108.08(d), along with a statement defining if any liquidated damages should be released, if applicable.
12. If additional compensation beyond the Contract Amount 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).
        - (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 those 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. Within 15 days of the appeal, either party may submit a written request for a hearing with the RTD or duly authorized Region delegates.

The RTD will render a written decision to the Contractor within 45 days after the receipt of the Claim package or receipt of the audit, or after the hearing, 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 45-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 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 45 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(e).

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

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, 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.

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.

Figure 105-1 summarizes the disputes and claims process described in subsections 105.22, 105.23, and 105.24.

Note: If an audit is to be performed, durations in this flowchart are extended accordingly.

Revision of Section 105
Dispute Resolution

Figure 105-1 Disputes and Claims Flowchart

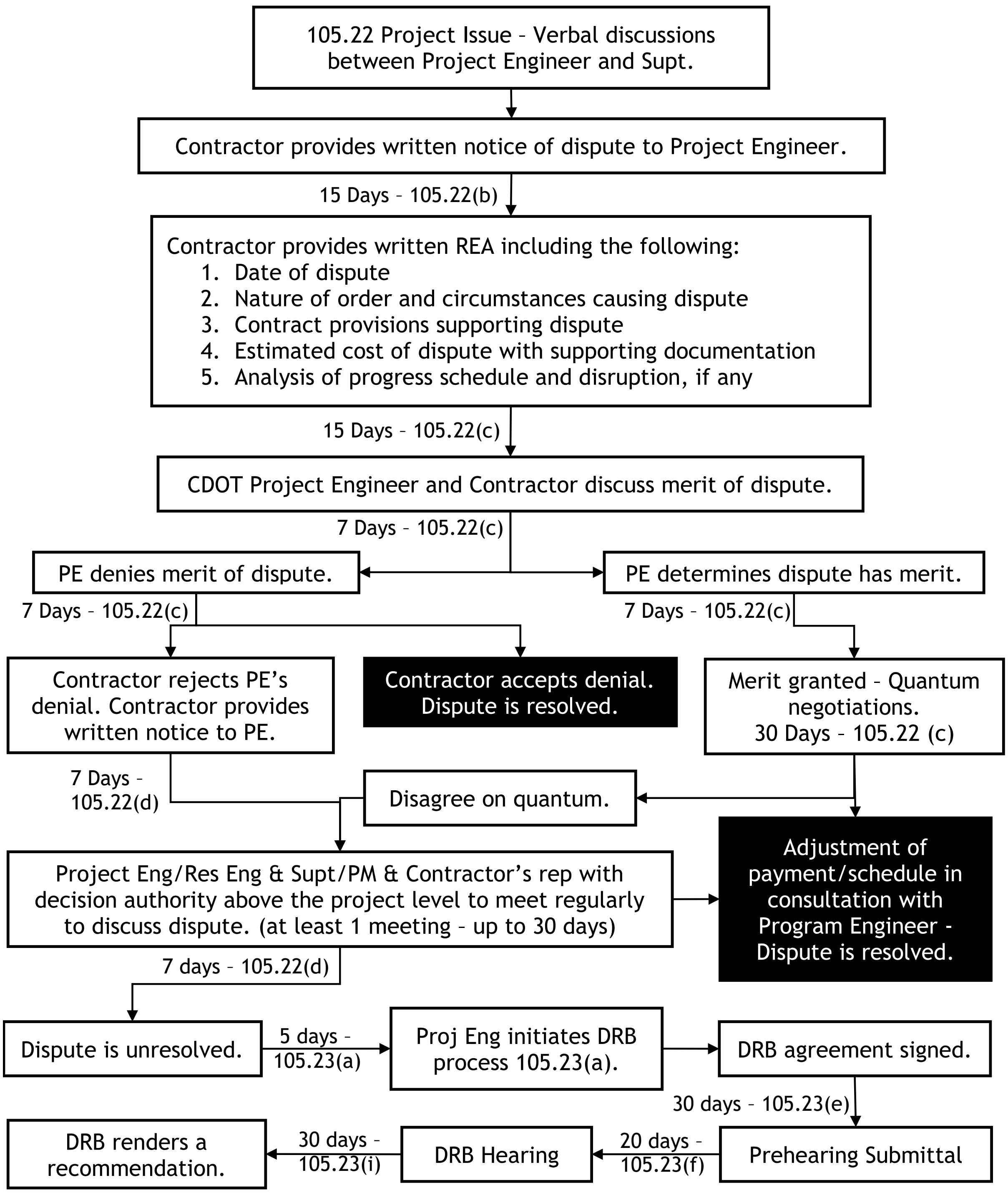
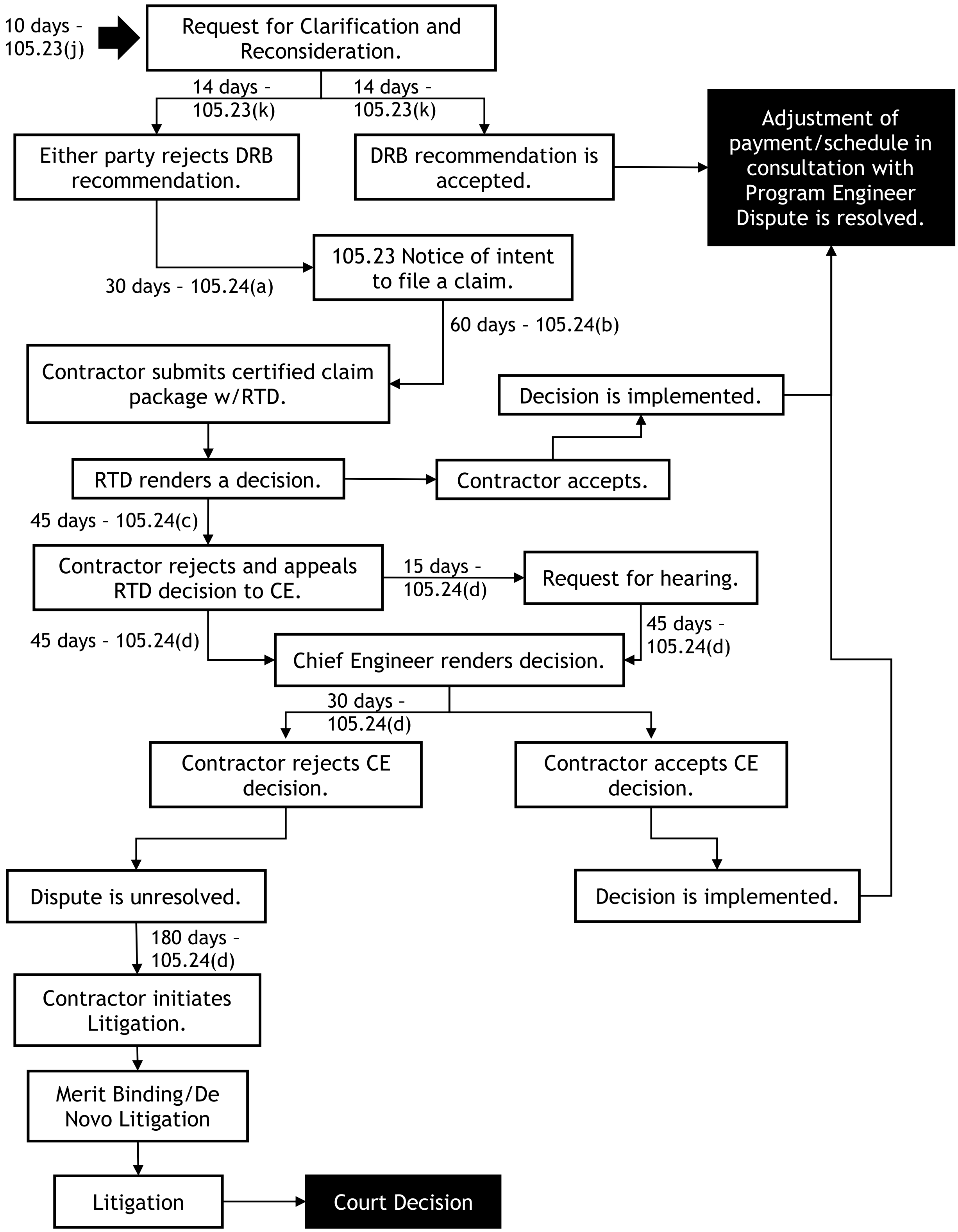


Figure 105-1 continued on next page

Revision of Section 105
Dispute Resolution



Revision of Section 106
Buy America (BA) and Build America Buy America (BABA) Requirements – Projects with more than $500,000 in Federal-Aid Highway Funding

Section 106 of the Standard Specifications shall be revised as follows:

Delete Section 106.11(a) of the Standard Specifications and replace it with the following:

(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.

Delete Section 106.11(d) of the Standard Specifications and replace it with the following:

d. Manufactured Products. Manufactured products used and permanently incorporated shall be produced in the United States. The manufactured product must meet the following:

1. Buy America requirements apply to any steel or iron component of a manufactured product, regardless of the overall composition of the manufactured product.
2. Final assembly of the manufactured product must have occurred in the United States.

Before the permanent incorporation into the project and before payment for all manufactured products, the Contractor shall obtain a certification from the Manufacturer of the product, who has performed the final assembly of the product, and submit it to the Project Engineer. The certification shall attest that any iron/steel utilized in the manufactured product is compliant with Buy America requirements, and that the final assembly of the product occurred in the United States.

Revision of Section 107
Water Quality Control
(Under One Acre of Disturbance)

Section 107.25 of the Standard Specifications is hereby deleted and replaced as follows:

107.25 Water Quality Control. The project work shall be performed using practices (including but not limited to those listed below) that 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) Construction Site Boundary/Limits of Construction (LOC). The project area defined by the Environmental Clearance document.

(3) Discharge of Pollutants. One or more pollutants leaving the Limits of Construction (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.

(b) Construction Requirements

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.

If the Contractor determines construction of the project will result in a change to the activities or LDA, the Contractor shall detail the changes in a written report to the Engineer. Upon receipt of the report, the Engineer will coordinate with the Region Planning and Environmental Manager (RPEM) regarding the change. The Engineer, within five days after receipt of the report, will approve or reject in writing the request for change. If approved, the Engineer will detail a course of action including revision of existing permits or obtaining new permits.

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 project specific water quality 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 (CDPHE) or other appropriate federal, state, or local agency to determine the need for any permit.

The Contractor shall conduct the work in a manner that prevents pollution of any adjacent State waters, as defined in section 101. Erosion control work shall be performed in accordance with Section 208, this subsection, and all other applicable parts of the Contract.

Prior to construction, the Stormwater Management Plan (SWMP) Administrator, identified in Section 208, 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, as described in Section 208:

(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.

(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 truck and equipment washing, including the concrete truck chute and associated fixtures and equipment.

(11) Concrete 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) Other areas or procedures where spills could occur.

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

Prior to construction 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 Section 208 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. Prior to start of work, the Contractor shall submit a SPCC Form, if applicable, which has been approved by the EPA for the project.

The Contractor shall obtain a Construction Dewatering (CDW) permit from CDPHE 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 in accordance with Section 250.

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 Permit shall be submitted to the Engineer prior to dewatering operations commencing.

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

1. 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.

2. Discharges from vaults or similar structures shall not be contaminated. Potential sources of contamination include process materials used, stored, or conveyed in the structures, or introduced surface water runoff from outside environments that may contain oil, grease, and corrosives.

3. The groundwater discharge does not leave the project boundary limits where construction is occurring.

4. 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.

5. 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.

6. A visible sheen is not evident in the discharge.

7. Control measures are implemented to prevent any sediment deposited during land application from being transported by stormwater runoff to surface waters or other conveyances.

8. 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 Contractor.

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.

At least 15 days prior to 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.

Temporary fill into wetlands or streams shall 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.

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. Fording waters shall be allowed only as authorized by the U.S. Army Corps of Engineers 404 Permit. 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.

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 waste and washout water from mixer trucks, concrete finishing tools, concrete saw, and all concrete material 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 ten days prior to 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 in accordance with the manufacturer's recommended application rates, frequency, and instructions.

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.

Spill prevention and containment measures conforming to Section 208 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 in writing.

The Contractor shall prevent construction activities from causing grass or brush fires.

The construction activities shall not impair Indian tribal rights, including, but not limited to, water rights, and treaty fishing and hunting rights.

Prior to start of work, the Contractor shall certify in writing to the Engineer that construction equipment has been cleaned prior to 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 prior to being brought onto the project site.

Vehicles which have been certified by the Contractor as having been cleaned prior to 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.

At the end of each day the Contractor shall collect all trash and dispose of it in appropriate containers.

All construction site wastes shall be properly managed to prevent potential pollution of State waters. 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.

Discharges from the project area 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.

Stormwater Construction Permit. A Colorado Discharge Permit System Stormwater Construction Permit (CDPS-SCP) is not required for this project. A CDPS-SCP will be obtained from CDPHE, if any of the following activities apply:

(1) Construction sites that will disturb one acre or more; or

(2) Construction sites that are part of a common plan of development or sale; or

(3) It is specified in the contract; or

Stormwater discharges that are designated by the division as needing a stormwater permit because the discharge:

1. Contributes to a violation of a water quality standard; or
2. is a significant contributor of pollutants to State waters.

Dewatering, erosion control for dewatering, and disposal of water resulting from dewatering operations, including all costs for permits, will not be measured and paid for separately, but shall be included in the work.

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.

The Contractor shall 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.

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.

Areas exposed to erosion by fire resulting from the Contractor's operations shall be stabilized in accordance with Section 208 by the Contractor, at the Contractor's expense.

Revision of Section 108
Liquidated Damages

Revise Section 108.09 of the Standard Specifications as follows:

In subsection 108.09 delete the schedule of Liquidated Damages and replace it with the following:

Original Contract Amount ($)		Liquidated Damages per Calendar Day ($)
From More Than	To And Including	
0	1,000,000	1,300
1,000,000	2,000,000	2,300
2,000,000	5,000,000	3,100
5,000,000	10,000,000	6,800
10,000,000	25,000,000	8,800
25,000,000	-----	9,700

Revision of Section 208
Erosion Control
(Under One Acre of Disturbance)

Delete Section 208 of the Standard Specifications and replace it with the following:

Description

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 Section 101.

Stormwater runoff from all disturbed areas and soil storage areas for which permanent or interim stabilization is not implemented, 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 in accordance with 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.

Materials

208.02 Erosion control materials are subject to acceptance in accordance with Section 106. Erosion control materials shall be subject to the following approval process:

Material	Approval Process	Notes:
Erosion Bales (Weed Free)	COC	The Contractor shall provide a transit certificate number or a copy of the transit certificate as supplied from the producer.
Silt Fence	COC	
Silt Berm	APL	
Erosion Log (Type 1, Type 2, and Type 3)	COC	
Silt Dikes	COC	
Pre-fabricated Concrete Washout Structures (above ground)	APL	
Pre-fabricated Vehicle Tracking Pad	APL	
Aggregate Bag	COC	
Storm Drain Inlet Protection (Type I, II, and III)	APL	

COC = Certificate of Compliance; APL= Approved Product List

The material for control measures shall conform to the following:

(a) *Erosion Bales*. Material for erosion bales shall consist of Certified Weed Free hay or straw. The hay or straw shall be certified under the Colorado Department of Agriculture Weed Free Forage Certification Program and inspected as regulated by the Weed Free Forage Act, Title 35, Article 27.5, CRS. Each certified weed free erosion bale shall be identified by blue and orange twine binding the bales.

The Contractor shall not place certified weed free erosion bales or remove their identifying twine until the Engineer has inspected them.

The Contractor may obtain a current list of Colorado Weed Free Forage Crop Producers who have completed certification by contacting the:

Colorado Department of Agriculture, Weed Free Forage Program, 305 Interlocken Pkwy, Broomfield, CO 80021

Contact the Weed Free Forage Coordinator at (303) 869-9038. Also available at www.colorado.gov/ag/csd.

Bales shall be approximately 5 cubic feet of material and weigh at least 35 pounds. Stakes shall be wood and shall be 1.5 inch by 1.5 inch by 30 inch actual.

(b) *Silt Fence*. Silt fence posts shall be wood with a minimum length of 46 inches. Wood posts shall be 1.5-inch width by 1.5-inch thickness actual dimensions with 1/8-inch tolerance. Geotextile shall be attached to wood posts with three or more staples per post.

Silt fence geotextile shall conform to the following requirements:

Physical Requirements for Silt Fence Geotextiles

Property	Wire Fence Supported Requirements	Self-Supported Requirements Geotextile Elongation <50%	Test Method
Grab Strength, lbs.	90 minimum	124 minimum	ASTM D4632
Permittivity sec-1	0.05	0.05	ASTM D4491
Ultraviolet Stability	Minimum 70% Strength Retained	Minimum 70% Strength Retained	ASTM D4355

Silt Fence (Reinforced). Silt fence posts shall be metal "studded tee" T-post with a minimum length of 66 inches. Metal posts shall be “studded tee” with 0.095-inch minimum wall thickness. Wire fabric reinforcement for the silt fence geotextile shall be a minimum of 14 gauge with a maximum mesh spacing of 6 inches. Geotextile shall be attached to welded wire fabric with ties or nylon cable ties at 12 inches on center at top, middle and bottom wire. Welded wire fabric shall be attached to the post with a minimum three 12-gauge wire ties per post. Vinyl or rubber safety caps shall be installed on all T-post.

(c) *Temporary Berms*. Temporary berms shall be constructed out of compacted embankment (subsoil) and not out of salvaged topsoil.

(d) *Temporary Slope Drains*. Temporary slope drains shall consist of fiber mats, plastic sheets, stone, concrete or asphalt gutters, half round pipe, metal or plastic pipe, wood flume, flexible rubber, or other materials suitable to carry accumulated water down the slopes. Outlet protection riprap shall conform to Section 506. Erosion control geotextile shall be a minimum Class 2, conforming to Section 712.

(e) *Silt Berm*. Silt berm shall consist of permeable multi-use material consisting of ultraviolet (UV) stabilized high-density polyethylene or other approved material effective in reducing water velocity. Designed and tested system shall be installed on a Turf Reinforcement Mat or Soil Retention Blanket in accordance with Section 216. The segment shall be secured to the ground with either metal or wood stakes. Minimum requirements for securing stakes shall be in accordance with the plans. Dimensions of individual segments shall meet the following criteria:

Width	Height	Weight	Percent Open Area
6 - 11 inches	6 - 10 inches	> 0.25 lbs./sq. ft.	20 – 50%

(f) *Rock Check Dam*. Rock Check dams shall be constructed of stone. Stone shall meet the requirements of Section 506.

(g) *Sediment Trap*. In constructing an excavated sediment trap, excavated soil may be used to construct the dam embankment, provided the soil meets the requirements of Section 203. Outlet protection riprap shall be the size specified in the Contract and shall conform to Section 506. Erosion control geotextile shall be a minimum Class 1, conforming to Section 712.

(h) *Erosion Logs*. Erosion logs shall be one of the following types unless otherwise shown on the plans:

(1) Erosion Log (Type 1) shall consist of cylinder casings filled with curled aspen wood excelsior with a consistent width of fibers evenly distributed throughout the log. The casing shall be seamless, photo-degradable tube netting. The curled aspen wood excelsior shall be fungus free, resin free, and free of growth or germination inhibiting substances.

(2) Erosion Log (Type 2) shall consist of cylinder casings filled with Erosion Log (Type 2) Compost in accordance with Section 212. The compost-wood chip blend may be pneumatically shot into a geotextile cylindrical casing or be pre-manufactured. The geotextile casing shall consist of high density polyethylene (HDPE) or polypropylene mesh (knitted, not extruded) with openings of ⅛ to ⅜ inch and contain the compost-wood chip material while not limiting water infiltration.

(3) Erosion Log (Type 3) shall consist of cylinder casings filled with curled aspen wood excelsior with a consistent width of fibers evenly distributed throughout the log. The casing shall be seamless, 100 percent natural fiber cylinder netting (compostable) and shall have minimum dimensions as shown in Table 208-1, based on the diameter of the log shown on the plans. Netting shall be a woven cotton or cellulose base mesh that has an approval to compost certification with a maximum mesh size of 0.075 inches and index values as shown in Table 208-2. The curled aspen wood excelsior shall be fungus free, resin free, and free of growth or germination inhibiting substances.

Natural compostable fiber netting shall not contain any synthetic material woven into the netting such as polypropylene, nylon, polyethylene, or polyester dyes. Oxo-degradable or oxo-biodegradable petrochemical-based fiber shall not be part of the netting material. Burlap netting material shall not be used for Erosion Log (Type 3).

Erosion Log (Type 1, Type 2, and Type 3) shall have minimum dimensions as shown in Table 208-1, based on the specified diameter of the log.

Table 208-1
Dimensions of Erosion Logs

Diameter Type 1 & 3 (Inches)	Diameter Type 2 (Inches)	Min. Length (ft)	Max. Length (ft)	Weight (minimum) (pounds/foot)	Stake Dimensions (Inches)
9	8	10	180	1.6	3/4 thickness by 3/4 width by 18 long
12	12	10	180	2.5	1.5 thickness by 1.25 width by 24 long
20	18	10	100	4.0	1.5 thickness by 1.25 width by 30 long

Wood stake acceptable tolerance +/- 1/8 inch.

Table 208-2
Index Values for Natural Fiber Netting

Property	Requirement	Test Method
Fabric Tensile Strength	>70 lbs.	ASTM D3822
Biodegradable	100%	ASTM D5988
Mesh Pattern	Rib	

Stakes to secure erosion logs shall consist of pinewood or hardwood.

(i) *Silt Dikes*. Silt dikes shall be pre-manufactured flexible sediment barrier that will fully rebound when driven over by heavy equipment. Material shall consist of outer geotextile fabric covering closed cell urethane or polyethylene foam core. The geotextile fabric aprons shall extend beyond the foam core a minimum of 8 inches on both sides.

Table 208-3
Geotextile Requirements

Property	Requirement	Test Method
Water Flow Rate	100-150 gallons per minute/square foot	ASTM D4491
Grab Breaking Load	200 lbs. minimum in each direction	ASTM D4632
Ultraviolet Degradation	70% of original unexposed grab breaking load after 500 hours	ASTM D4595

Each silt dike segment shall have the following dimensions:

Dimension	**Length**
Vertical height after installation	>5 inches
Geotextile sleeve section to interlock segments	>8 inches

Silt dike segments shall be anchored down using the minimum requirements shown in Table 208-4.

Table 208-4
Silt Dike Segment Requirements

Surface	Nail	Washers
Soil Surface	Installed in 4 inch deep trench with 6 inch nails no more than 4 feet O.C. (on center)	1 inch washers
Hard Surface	1 inch concrete nails no more than 4 feet O.C.	1 inch washers and solvent-free adhesive

(j) *Concrete Washout Structure*. The Contractor shall construct a washout structure that will contain washout from concrete placement, construction equipment cleaning operations, and residue from cutting, coring, grinding, grooving, and hydro-concrete demolition. Embankment required for the concrete washout structure may be excavated material, provided that this material meets the requirements of Section 203 for embankment. 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 208-5.

Table 208-5
Impermeable Synthetic Liner Requirements

Tested Property	Test Method	Units	Value
Thickness	ASTM D5199	mil	>30 +/- 1.5
Tear Strength	ASTM D1004	lbs.	>8
Low Temperature Impact	ASTM D1790	°F	Pass at -20

(k) *Pre-Fabricated Concrete Washout Structure*. Pre-Fabricated Concrete Washout Structures shall be one of the following types unless otherwise shown on the plans:

(1) Pre-Fabricated 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 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.

(2) Pre-Fabricated 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.

(l) *Vehicle Tracking Pad (VTP)*. Aggregate for the vehicle tracking pad shall be crushed natural aggregate with at least two fractured faces that meets the following graduation requirements:

Sieve size	Percent by weight Passing Square Mesh Sieves
75 mm (3 inch)	100
50 mm (2 inch)	0 to 25
19.0 mm (3/4 inch)	0 to 15

Recycled crushed concrete or asphalt shall not be used for vehicle tracking pads.

Erosion control geotextile shall be a minimum Class 2, conforming to Section 712.

Pre-Fabricated or manufactured vehicle tracking pads shall only be used if specified in the Contract. Multi-use pads shall consist of industrial grade materials and shall be designed to minimize sediment leaving the project.

Minimum dimensions of the modular systems shall be:

Width	Length of pad
12 feet	35 feet

To accommodate construction traffic turning radii between the tracking pad and a stabilized surface, additional flared sections of approved pads or aggregate in accordance with this specification shall be used at no additional cost to CDOT.

Weight (min.) (lbs./sq. ft.)	Crush strength (min.) (psi)
8	400

A thin layer of stone, geotextile, or other stable surface may be required to stop rutting under the pad or area where the vehicles mount or dismount the manufactured trackout control device.

(m) *Aggregate Bag*. Aggregate bags shall consist of crushed stone or recycled rubber filled fabric with the following properties:

Diameter (inches)	**Weight (minimum) (pounds per foot)**
6-8	6
10	10
12	15

Rubber used in bags shall be clean, 95 percent free of metal and particulates.

Crushed stone contained in the aggregate bags shall conform to Table 703-1 for Coarse Aggregate No. 6.

The aggregate bag shall consist of a woven geotextile fabric with the following properties:

Property	Requirement	Test Method
Grab Tensile Strength	90 lbs. min.	ASTM D4632
Trapezoid Tear Strength	25 lbs. min.	ASTM D4533
Mullen Burst	300 psi	ASTM D3786
Ultraviolet Resistance	70%	ASTM D4355

(n) Storm Drain Inlet Protection. Storm drain inlet protection shall consist of aggregate filled fabric with the following dimensions:

Storm Drain Inlet Protection Properties	Protection Type I*	Protection Type II#	Protection Type III ◂
Diameter	4 in.	4 in.	N/A
Minimum Section Length	7 ft.	5 ft.	5 ft.
Apron Insert	---	30 in. or sized to grate	30 in or sized to grate

*Type I protection shall be used with Inlet Type R.
#Type II protection shall be used with Combination Inlet. Option A or B
◂ Type III protection shall be used with Vane Grate Inlet only. Option A or B
Note: Options A and B are shown on Standard Plan M-208-1.

The Storm Drain Inlet Protection (Type I, II and III) shall consist of a woven geotextile fabric with the following properties:

Property	Test Method	Unit	Requirement
Grab tensile strength	ASTM D4632	lbs.	minimum 150X200
Mullen Burst Strength	ASTM D3786	lbs.	400
Trapezoid Tear Strength	ASTM D4533	lbs.	minimum 60X60
Percent Open Area	COE-22125-86	%	≥20
Water Flow Rate	ASTM D4491	gal./min./sq. ft.	≥100
Ultraviolet	ASTM D4355	%	≥70

Property	Test Method	Unit	Requirement
Resistance			

Curb roll for Storm Drain Inlet Protection (Type I and II) shall have a weight >4 pounds per linear foot of device. The device shall be capable of conforming to the shape of the curb. Aggregate contained in the storm drain inlet device shall consist of gravel or crushed stone conforming Table 703-1 for Coarse Aggregate No. 6.

CONSTRUCTION REQUIREMENTS

208.03 Project Review, Schedule, and Erosion Control Management. Prior to construction the Contractor shall implement control measures in accordance with the approved project schedule as described in this section.

At the Pre-Construction Conference, the attendees shall discuss the Stormwater Management Plan (SWMP), maintaining water quality standards, sensitive habitats on-site, wetlands, other vegetation to be protected, and the enforcement mechanisms for not meeting the requirements of this specification.
Prior to beginning construction, the Contractor shall evaluate the project site for storm water draining into or through the site. When such drainage is identified, control measures shall be used if possible to divert stormwater from running on-site and becoming contaminated with sediment or other pollutants. The diversion may be accomplished with a temporary pipe or other conveyance to prevent water contamination or contact with pollutants. Run-on water that cannot be diverted shall be treated as construction runoff and adequate control measures shall be employed.

The SWMP Administrator shall evaluate all non-stormwater coming onto the site, such as springs, seeps, and landscape irrigation return flow. If such flow is identified, control measures shall be used to protect off-site water from becoming contaminated with sediment or other pollutants.

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

Prior to construction, the Contractor shall implement appropriate control measures for protection of wetlands, sensitive habitat, and existing vegetation from ground disturbance and other pollutant sources, in accordance with the approved project schedule as described in Section 208.

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 SWMP site map. The approved control measures will be measured and paid for in accordance with Section 208.

(a) *Project Review.* The Contractor shall submit modifications to the Contractor's control measures or SWMP in a written proposal to the Engineer. The written proposal shall include the following information:

(1) Reasons for changing the control measures.

(2) Diagrams showing details and locations of all proposed changes.

(3) List of appropriate pay items indicating new and revised quantities.

(4) Schedules for accomplishing all erosion and sediment control work.

(5) Effects on certifications caused by the proposed changes.

The Engineer will approve or reject the written proposal in writing within seven days after receipt of the submittal. The Engineer may require additional control measures prior to approving the proposed modifications. Additional modifications and additional control measures will be paid for at the Contract Unit Price for the specific items involved. If no items exist, they will be paid for as extra work in accordance with Section 109.

(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. The project schedule shall include erosion and sediment control work for haul roads, borrow pits, storage, asphalt or concrete batch sites, and all areas within the project limits. If during construction the Contractor proposes changes which would affect the Contract's control measures, the Contractor shall propose revised control measures to the Engineer for approval in writing. If necessary, the Contractor 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 Erosion Control Inspection. All ECM staff shall have working knowledge and experience in construction, and shall have successfully completed the Transportation Erosion Control Supervisory Certificate Training (TECS) as provided by the Department. The Superintendent may be permitted to serve in an ECM role, unless otherwise specified in the contract.

1. SWMP Administration. The SWMP shall be maintained by a SWMP Administrator. The name of the SWMP Administrator shall be recorded on the SWMP. The SWMP Administrator shall have full responsibility to maintain and update the SWMP and identify all critical action items needed to maintain water quality standards:

   (1) Complete the SWMP as described in Section 208.

   (2) Participate in the Pre-Construction Conference.

   (3) Attend erosion and sediment control meetings.

   (4) Implement necessary actions to reduce erosion or water quality problems, anticipated or presently existing, resulting from construction activities.

   (5) Ensure that all labor, material, and equipment needed to install, maintain, and remove control measures are available as needed.

   (6) During construction, the SWMP site map shall be updated to reflect current field conditions and include, at a minimum, the following if applicable:

      (i) Limits of Construction (LOC).

      (ii) Areas of disturbance (AD), including areas of borrow and fill.

      (iii) Limits of Disturbance (LDA).

      (iv) Areas used for storage of construction materials, equipment, soils, or wastes.

      (v) Location of dedicated asphalt, concrete batch plants, and masonry mixing stations.

      (vi) Location of construction offices and staging areas.

      (vii) Location of work access routes during construction.

      (viii) Location of waste accumulation areas, including areas for liquid, concrete, masonry, and asphalt.

      (ix) Location of temporary, interim and permanent stabilization.

(x) Location of outfalls.

(xi) Flow arrows that depict stormwater flow directions on-site and runoff direction.

(xii) Location of structural and non-structural control measures.

(xiii) Location of springs, streams, wetlands, and other State waters, including areas that require pre-existing vegetation be maintained within 50 horizontal feet of a receiving water, unless infeasible.

(xiv) Location of stream crossings located within the construction site boundary.

(7) Start a new site map before the current one becomes illegible. All site maps shall remain as part of the SWMP.

(8) Install control measures according to Standard Plans M-208-1, M-216-1, and M-615-1.

(9) Record in the SWMP, the approved Method Statement for Containing Pollutant Byproducts.

(10) Update the Potential Pollutants list in the SWMP and Spill Response Plan throughout construction.

2. Erosion Control Inspector (ECI).

The SWMP Administrator shall complete the duties of the ECI.

(1) ECI duties shall be as follows:

(i) Inspect initial placement and adherence to approved SWMP and SWMP site plan control measures

(ii) Assess the adequacy of control measures at the site to identify areas requiring new or modified control measures to minimize pollutant discharges.

(iii) Identify all areas of concern that may impact water quality and, if necessary, implement corrective actions.

(iv) Ensure all other agency Stormwater and inspection requirements are followed unless a waiver or other agreement has been made.

(2) The ECI shall immediately report to the Contractor and Engineer the following instances:

(i) Noncompliance which may endanger health or the environment, regardless of the cause of the incident.

(ii) Spills or discharges which exceeds any water quality standards.

(iii) Upset conditions which cause an exceedance of any water quality standards.

(3) 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 shall be made available for reference at the CDOT field office during construction:

1. SWMP. The Engineer will provide an approved SWMP design (includes items (1) through (4) as listed below) at the Pre-construction Conference, which is and shall remain the property of CDOT. The following Contract documents and reports shall be included or kept maintained, (as applicable), and updated in the SWMP under the appropriate items by the SWMP Administrator:

(1) SWMP Plan Sheets – Notes, tabulation, site description, sequence of major activities, area of disturbance, existing soil data, existing vegetation percent cover, potential pollutant sources, receiving water, non-stormwater discharges and environmental impacts.

(2) SWMP Site Maps and Project Plan Title Sheet, if included in the original contract.

(3) Specifications – Standard and project special provisions related to stormwater and erosion control.

(4) Standard Plans M-208-1, M-216-1 and M-615-1.

(5) Control measure Details not in Standard Plan M-208-1 – project specific non-standard details.

(6) All Water Quality Audit Reports and Form 105(s) relating to Water Quality, if applicable.

(7) Spill Response Plan – Reports of reportable spills submitted to CDPHE.

(8) List and Evaluation of Potential Pollutants – List of potential pollutants as described in Section 107 and approved Method Statement for Containing Pollutant Byproducts.

(9) Other Correspondence including agreements with other Municipal Separate Storm Sewer System (MS4s), approved deferral request, CDPHE audit documentation.

(10) TECS Certifications of the SWMP Administrator, kept current through the life of the project.

(11) Pre-construction Conference – Conference agenda with a certification of understanding for maintaining water quality standards and SWMP. The certification shall be signed by all attendees. 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 Pre-construction Conference has been held, if applicable.

(12) All Project Environmental Permits – All project environmental permits and associated applications and certifications, including, water quality standards, Senate Bill 40, USACE 404, temporary stream crossings, dewatering, biological opinions, and all other permits applicable to the project, including any separate permits obtained by the Contractor for staging area on private property, asphalt or concrete batch plant, etc.

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.

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.

(e) *Weekly Meetings*: If applicable, the Contractor shall conduct a weekly meeting with the Engineer and subcontractors to discuss construction activities that could adversely affect water quality, including the following:

(1) Unresolved issues from observations.

(2) Requirements of the SWMP.

(3) Problems that may have arisen in implementing the site specific SWMP or maintaining control measures.

(4) Control measures that are to be installed, removed, modified, or maintained, and associated SWMP modifications.

(5) Planned activities that will affect stormwater in order to proactively phase control measures.

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 limits of construction (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 SWMP 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, prior to use, at the Contractor's expense. All removed sediment shall be disposed of outside the project limits in accordance with all applicable regulations.

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

(a) *Unforeseen Conditions*. The Contractor shall design and implement erosion and sediment control measures for correcting conditions unforeseen during the design of the project, or for emergency situations that develop during construction. The Department's Erosion Control and Stormwater Quality Guide shall be used as a reference document for the purpose of designing erosion and sediment control measures. Measures and methods proposed by the Contractor shall be reviewed and approved in writing by the Engineer prior to installation.

(b) *Other Agencies*. If CDPHE, 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, which are outside CDOT ROW and outside easements acquired by CDOT for construction, are the responsibility of the Contractor.

(d) *Construction Implementation*. The Contractor shall incorporate control measures into the project as outlined in the accepted schedule.

(e) *Stabilization*. Once earthwork has started, the Contractor shall maintain erosion control measures until permanent stabilization of the area has been completed and accepted. Clearing, grubbing and slope stabilization measures shall be performed regularly to ensure final stabilization. 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. Temporary Stabilization. At the end of each 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, road bed preparation, soil compaction, and movement and stockpiling of sediment and materials. Designated topsoil distributed on the surface or in stockpiles shall not receive temporary stabilization. Other stabilization measures may be implemented, as approved.

2. Interim Stabilization. As soon as it is known with reasonable certainty that work will be temporarily halted for 14 days or more, sediment and material stockpiles and disturbed areas shall be stabilized using one or more of the specified following methods:

(1) Application of 1.5 tons per acres of mechanically crimped certified weed free hay or straw in combination with an approved organic mulch tackifier.

(2) Placement of bonded fiber matrix in accordance with Section 213.

(3) Placement of mulching (hydraulic) wood cellulose fiber mulch with tackifier, in accordance with Section 213.

(4) Application of spray-on mulch blanket in accordance with Section 213. Magnesium Chloride, Potassium Chloride and Sodium Chloride, or other salt products, shall not be used as a stabilization method.

(5) Topsoil stockpiles shall receive interim stabilization in accordance with Section 207, unless specified 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 will not be permitted. As soon as the Contractor knows shutdown is to occur, interim stabilization shall be applied to the disturbed area. Protection of the interim stabilization method is required. Reapplication of interim 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 thereof as required by the Contract. Other permanent stabilization techniques may be proposed by the Contractor, in writing, and shall be used when approved in writing by the Engineer. All permanent stabilization requirements shown on the plans shall be completed within four working days of the placement of the topsoil in accordance with 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 pre-disturbance levels, or equivalent permanent physical erosion reduction methods have been employed.

(f) *Maintenance*. Erosion and sediment control practices and other protective measures identified in the SWMP as control measures for stormwater pollution prevention shall be maintained in effective operating condition until final acceptance of the project. Control measures shall be continuously maintained in accordance with good engineering, hydrologic, and pollution control practices, including removal of collected sediment when silt depth is 50 percent or more of the effective height of the erosion control device. When possible, the Contractor shall use equipment with an operator rather than labor alone to remove the sediment.

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.

Site assessments shall be performed 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 as soon as possible, immediately in most cases.

Approved new or replaced control measures will be measured and paid for in accordance with this section. Devices damaged due to the Contractor's negligence shall be replaced at the Contractor’s expense.

From the time seeding and mulching work begins until project acceptance the Contractor shall maintain all seeded areas. Damage to seeded areas or to mulch materials shall be immediately restored. If damage is due to Contractor negligence, it shall be restored at the Contractor’s expense. Restoration of other damaged areas will be measured and paid for under the appropriate bid item.

Temporary control measures may be removed prior to final acceptance of the project, as determined by the Engineer. If removed, the area in which these control measures were constructed shall be returned to a condition similar to that which existed prior to its disturbance. Removed control measures shall become the property of the Contractor. Maintenance shall be notified of the locations of any control measures left in place.

If the Contractor fails to complete construction within the approved contract time, the Contractor shall continue erosion and sediment control operations at its expense until acceptance of the work.

Sediment removed during maintenance of control measures and material from street sweeping may be used in or on embankment, provided it meets the requirements of Section 203 and is distributed evenly across the embankment.

Whenever sediment collects on the paved surface, the surface shall be cleaned.

Street washing will not be allowed. Storm drain inlet protection shall be in place prior to shoveling, sweeping, or vacuuming. Sweeping shall be completed with a pickup broom or equipment capable of collecting sediment. Sweeping with a kick broom will not be allowed.

Material from pavement saw cutting operations shall be cleaned from the roadway surface during operations using a vacuum. A control measure, such as a berm, shall be placed to contain slurry from joint flushing operations until the residue can be removed from the soil surface. Aggregate bags, erosion logs or other permeable control measures shall not be used. Residue shall not flow into driving lanes. It shall be removed and disposed of in accordance with Section 107. Material containment and removal will not be paid for separately, but shall be included in the work.

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

(a) *Seeding, Mulching, Sodding, Soil Retention Blanket*. Seeding, mulching, sodding, and soil retention blanket installation shall be performed in accordance with Sections 212, 213, and 216.

(b) *Erosion Bales*. The bales shall be anchored securely to the ground with wood stakes. Erosion Bales shall be entrenched 4 inches minimum into the soil, tightly abutted with no gaps, staked, and backfilled around the entire outside perimeter. Erosion Bales cannot be used for Check Dams.

(c) *Silt Fence*. Silt fence shall be installed in locations as per M standard plans 208-1 and as specified in the Contract.

(d) *Temporary Berms*. Berms shall be constructed to the dimensions as per M 208-1 standard plans and as shown in the Contract, and sufficiently compacted to prevent erosion or failure. If the berm erodes or fails, it shall be immediately repaired or replaced at the Contractor's expense. Berms must be at least 18 inches tall or high enough to prevent overtopping. Berms must have a minimum of 4 to 6-foot base. Gradient of all receiving area above berm must be less than 2:1, or flatter. Outlets of anticipated flow from captured water behind berms must be designed with additional control measures suitable to control concentrated flow. Maximum drainage area for each outlet must be limited to 2 acres.

(e) *Temporary Diversion*. Diversions shall be constructed to the dimensions as per M standard plans 208-1 and as 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 immediately repaired or replaced at the Contractor's expense.

(f) *Temporary Slope Drains*. Temporary slope drains shall be installed prior to installation of permanent facilities or growth of adequate ground cover on the slopes. All temporary slope drains shall be securely anchored to the slope. The inlets and outlets of temporary slope drains shall be protected to prevent erosion. Ensure drainage area for every slope drain is smaller than 5 acres. Ensure pipe or channel is properly sized, and for drainage areas larger than 1 acre the pipe size must be designed by an Engineer to ensure the drainage structure can accommodate the runoff resulting from a 2-year, 24-hour storm event. The use of prefabricated flared inlet sections is recommended.

(g) *Silt Berm*. Prior to installation of silt berms, the Contractor shall prepare the surface of the areas in which the berms are to be installed such that are they free of materials greater than 2 inches in diameter and are suitably smooth for the installation of the silt berms, as approved. See M standard 208-1 for details. 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 blanket.

(h) *Rock Check Dam*. Rock shall be installed at locations shown on the plans. Rock check dams shall conform to the dimensions shown on the plans. The Geotextile Erosion Control shall be Class 2 and conform to the requirements of Section 712, and shall extend up ⅔ of the riprap height with 6inch minimum cover over geotextile. Rock Check Dam shall be installed within a ditch sub excavated 6 inches below the flow line. The ends of the rip rap check dam shall be a minimum of 6 inches higher than the center of the check dam. Stone shall meet the requirements of Section 506. Larger rocks with larger void spaces should be used on top. See M standard 208-1 for details.

(i) *Riprap Outlet Protection*. Geotextile used shall be protected from cutting or tearing. Overlaps between two pieces of geotextile shall be 1-foot minimum. Riprap size shall be in accordance with Section 506 and as shown on the plans.

(j) *Storm Drain Inlet Protection*. Prior to installation, the Contractor shall sweep the surface of the area in which the storm drain inlet protection devices are to be installed such that the pavement is free of sediment and debris. The ends of the inlet protection Type 1 and Type 2 shall extend a minimum of 1 foot past each end of the inlet.

The Contractor shall remove all accumulated sediment and debris from the surface surrounding all storm drain inlet protection devices after each rain event or as directed. The Contractor shall remove accumulated sediment from each Type II and III containment area when it is more than one third full of sediment, or as directed.

The Contractor shall protect storm drain facilities adjacent to locations where pavement cutting operations involving wheel cutting, saw cutting, sand blasting, or abrasive water jet blasting are to take place.

(k) *Sediment Trap*. Sediment traps shall be installed to collect sediment laden water and to minimize the potential of pollutants leaving the project site. Locations shall be in accordance with M standard 208-1 and as shown on the plans or as directed.

Sediment traps shall be constructed prior to disturbance of upslope areas and shall be placed in locations where runoff from disturbed areas can be diverted into the trap.

The area under the embankment shall be cleared, grubbed, and stripped of any vegetation and roots.

Fill material for the embankment shall be free of roots or other vegetation, organic material, large stones, and other objectionable material.

Sediment shall be removed from the trap when it has accumulated to one half of the wet storage depth of the trap and shall be disposed of in accordance with Section 208.

(l) *Erosion Logs*. Erosion 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 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, e.g. rock or frozen ground.

The Contractor shall maintain the erosion logs during construction to prevent sediment from passing over or under the logs. See M standard 208-1 for details.

(m) *Silt Dikes*. Prior to installation of silt dikes, the Contractor shall prepare the surface of the areas in which the silt dikes are to be installed such that they are free of materials greater than two inches in diameter and are suitably smooth for the installation of the silt dikes, as approved by the Engineer.

(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 written acceptance of location is provided by the Engineer. See M standard 208-1 for details.

Control measures designed for concrete washout waste shall be implemented. 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 208-5 or use a prefabricated washout.

The following requirements shall be met:

(1) The structure shall contain all washout water.

(2) Stormwater shall not carry wastes from washout and disposal locations.

(3) The site 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 Section 107.

(4) The site shall be signed as “Concrete Washout”.

(5) The site 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) Solvents, flocculants, and acid shall not be added to wash water.

(9) The structure shall be surrounded on three sides by a compacted berm.

(10) The structure shall be fenced with orange plastic construction fencing conforming to Section 607, to provide a barrier to construction equipment and to aid in identification of the concrete washout area.

(11) Concrete waste, liquid and solid, shall not exceed ⅔ the storage capacity of the washout structure.

(12) A concrete washout sign shall have letters at least 3 inches high and conform to Section 630.

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

(1) Structure shall contain all washout water. If bins are determined to be leaking,

the Contractor shall replace the bin on-site and clean up the spilled material and dispose of it properly.

(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. The pre-fabricated structure shall be signed as “Concrete Washout”. Sign can be on portable bin.

(3) The site shall be accessible to appropriate vehicles.

(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) Solvents, flocculants, and acid shall not be added to wash water.

(6) Concrete waste, liquid and solid, shall not exceed ⅔ the storage capacity of the washout structure.

(7) Prefabricated structures cannot be moved when they contain liquid, unless otherwise approved.

(8) The concrete washout structure shall be installed and ready for use prior to concrete placement operations.

(9) Washout areas shall be checked and maintained as required. On-site permanent disposal of concrete washout waste is not allowed.

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.

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.

(p) Vehicle Tracking Pad (VTP). Vehicle tracking pads shall be constructed to the minimum dimensions shown in the Contract, unless otherwise directed by the Engineer. Construction of approved vehicle tracking pads shall be completed before any disturbance of the area.

The Contractor shall maintain each vehicle tracking pad during the entire time that it is in use for the project. The vehicle tracking pad shall be removed at the completion of the project unless otherwise directed by the Engineer. Additional aggregate may be required for maintenance and will be paid for under Pay Item, Maintenance Aggregate (Vehicle Tracking Pad).

(q) *Detention Pond.* Permanent detention ponds shown on the construction plans may be used as temporary control measures if all 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 in accordance with 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 prior to project acceptance.

(r) *Aggregate Bag.* Aggregate bags shall be placed on a stable surface, consisting of hardscape or compacted gravel. If approved by the Engineer, the aggregate bag may be placed on compacted dirt areas, where bags conform to the surface and can effectively minimize sediment transport. Aggregate bags can be used on frozen ground when other control measures cannot be trenched or staked, but only until the ground is capable of being trenched and staked. Aggregate bags shall not be placed in concentrated flow areas, other than gutter pans. Aggregate bags shall be placed to conform to the surface without gaps to ensure that discharge water does not cause erosion. See M standard 208-1 for details.

(s) *Surface roughening.* Surface roughening creates horizontal grooves along the contour of the slope. Roughening may be accomplished by furrowing, scarifying, ripping, or disking the soil surface to create a 2 to 4-inch minimum variation in soil surface.

(t) *Vertical Tracking.* Vertical tracking involves driving a tracked vehicle up and down the soil surface and creating horizontal grooves and ridges along the contour of the slope. Sandy soils or soils that are primarily rock need not be tracked.

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 Section 107 or Section 208. 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 so as 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 which is deemed to be contaminated (e.g., 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 all Spill Response Coordinators in accordance with 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 Coordinators.

(2) Locations of areas on the project site where equipment fueling and servicing operations are permitted.

(3) Location of cleanup kits.

(4) Quantities of chemicals and locations stored on site.

(5) Label system for chemicals and Safety Data Sheets (SDS) for products.

(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. CDOT's Erosion Control and Stormwater Quality Guide contains spill notification contacts and phone numbers required in the Spill Response Plan.

(8) A summary of the employee training provided.

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

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.

Erodible stockpiles (including topsoil) shall be contained with acceptable control measures at the toe (or within 20 feet of the toe) throughout construction. Control measures shall be approved by the Engineer. The SWMP Administrator shall describe, detail, and record the sediment control devices on the SWMP.

208.08 Limits of Disturbance. The Contractor shall limit construction activities to those areas within the limits of disturbance 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 which would disturb existing soil conditions. Staging areas within the LDA shall be as approved by the Engineer. Construction activities beyond the limits of disturbance 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 SWMP. If the disturbance at any time exceeds 1 acre (including as part of a common plan of development), the Contractor will need to apply for a Colorado Discharge Permit System- Stormwater Construction Permit (CDPS-SCP) and comply with all of CDOT's over one acre specifications.

The Contractor shall pursue stabilization of all disturbances to completion.

208.09 Regulatory Mechanism for Water Quality. Failure to implement the Stormwater Management Plan is a violation of the Colorado Water Quality Control Act. Penalties may be assessed to the Contractor by the appropriate agencies. All fines assessed to the Department for the Contractor's failure to implement the SWMP will be deducted from monies due the Contractor.

The Contractor shall be subject to liquidated damages for incidents of failure to perform erosion control as required by the Contract. Liquidated damages will be applied for failure to comply with these specifications, including the following:

(1) Failure of the Contractor to implement necessary actions required by the Engineer as required by this section.

(2) Failure to construct or implement erosion control or spill containment measures required by the Contract, or failure to construct or implement them in accordance with the Contractor's schedule.

(3) Failure to stabilize disturbed areas as required by this section.

(4) Failure to replace or perform maintenance on an erosion control feature after notice from the Engineer to replace or perform maintenance as required by this section.

(5) Failure to remove and dispose of sediment from control measures as required.

(6) Failure to install and properly utilize a concrete washout structure for containing washout from concrete placement operations.

(7) Failure to perform permanent stabilization as required by this section.

(8) Failure to prevent discharges not composed entirely of stormwater from leaving the construction site.

(9) Failure to provide the survey of Permanent Water Quality features when required on the project in accordance with this section.

The Engineer will immediately notify the Contractor of each incident of failure to perform erosion control in accordance with any water quality standards, specifications, including items (1) through (9) above by issuing a Form 105. Correction shall be made as soon as possible, immediately in most cases, but no later than 48 hours from the date of notification to correct the failure. The Contractor will be charged liquidated damages in the amount of $970 for each day after the 48-hour period has expired that one or more of the incidents of failure to perform the requirements for each Form 105 remains uncorrected. Liquidated damages will begin at Midnight of the date on which the 48 hours has expired.

This deduction will not be considered a penalty, but will be considered liquidated damages based on estimated additional construction engineering costs. The liquidated damages will accumulate, for each cumulative day that one or more of the incidents remain uncorrected. The number of days for which liquidated damages are assessed will be cumulative for the duration of the project; that is: the damages for a particular day will be added to the total number of days for which liquidated damages are accumulated on the project. The liquidated damages will be deducted from any monies due the Contractor.

If all other failures are not corrected within 48 hours after liquidated damages have begun to be assessed, the Engineer will issue a Stop Work Order in accordance with Section 105. Work shall not resume until the Engineer has approved a written corrective action plan submitted by the Contractor that includes measures to prevent future violations and a schedule for implementation.

If the Contractor requires more than 96 hours to perform the corrective work from the date on the Form 105, the Contractor shall submit a request for deferment. The deferment request shall be in writing and shall include the specific failure, temporary measures until final correction is made, the methodology which will be employed to make the correction, and interim milestones to completing the work. The Region Water Pollution Control Manager (RWPCM), Engineer, the SWMP Administrator, and the Contractor shall concur on this deferral and set a proposed date of completion. If approved, the Contractor shall complete the corrective measures by Midnight of the proposed completion date. If corrective work is not corrected by the completion date the Engineer will issue a Stop Work Order. Liquidated Damages will apply retroactively back to the 48 hours after the Form 105 date of notification. Liquidated Damages will be assessed until the corrective work has been completed and accepted.

Deferment of work to correct failures to perform erosion control will not affect the Contractor's other contractual responsibilities, notifications for other non-compliance, nor the final completion date of the project. Liquidated Damages for other non-compliance notifications will continue to apply during the deferment period in addition to liquidated damages associated with the deferment.

Based on the submittal date of the approved deferment, Liquated Damages and a Stop Work Order may not be mandated to the Contractor.

Disagreements regarding the suggested corrective action for a control measure compliance issue between the Project Engineer, SWMP Administrator, and Superintendent, shall be discussed with the Resident Engineer and Region Water Pollution Control Manager. If after the discussions, the Project Engineer and the Contractor are still in disagreement and the Contractor believes that additional compensation is owed, the Contractor shall follow the decision of the Project Engineer, keep track of the costs and negotiate further with the Project Engineer. If after pursuing the issue, the Contractor is unable to reach an agreement with the Project Engineer, then the Contractor can follow the dispute process outlined in Section 105.

If the Contractor's corrective action plan and schedule are not submitted and approved within 96 hours of the initial notice, the Engineer will issue a Stop Work Order and have an on-site meeting with the Superintendent, SWMP Administrator, and the Superintendent's supervisor. This meeting will also be attended by the Resident Engineer, the Region Water Pollution Control Manager, and the Region Program Engineer. This meeting will identify and document needed corrective actions and a schedule for completion. If after the meeting, the unacceptable work is not remedied within the schedule as agreed to in the meeting, the Engineer will take action to effect compliance with the Contract and these specifications by utilizing CDOT Maintenance personnel or other non-Contractor forces and deduct the cost from any monies due or to become due to the Contractor pursuant to Section 105. Delays due to these Stop Work Orders shall be considered non- excusable. The Stop Work Order shall be in place until the project is in compliance.

If the Contractor remains non-responsive to requirements of the on-site meeting, the Engineer will start default or Contract termination procedures in accordance with Section 108. CDOT will proceed with corrective or disciplinary action in accordance with the Rules for Prequalification, Debarment, Bidding and Work on Transportation, Road, Highway and Bridge Public Projects.

When a failure meets any one of the following conditions, the Engineer will immediately issue a Stop Work Order in accordance with Section 105 irrespective of any other available remedy:

(1) It may endanger health or the environment.

(2) It consists of a spill or discharge of hazardous substances or oil which may cause pollution of the waters of the state.

(3) It consists of a discharge which may cause a violation of water quality standards.

208 Items to Be Completed Prior to Requesting Partial Acceptance of Water Quality Work.

(a) *Reclamation of Washout Areas.* After concrete operations are complete, washout areas shall be reclaimed in accordance with this section at the Contractor's expense.

(b) *Survey.* When Permanent Water Quality (PWQ) control measures are required on the project and once built, the Contractor shall survey the control measures to confirm that the PWQ control measures conform to the configuration, grade, and volume shown on the plans. The survey shall conform to Section 625. The results of the survey shall be submitted in accordance with CDOT's Survey Manual (AutoCAD to GIS and TMOSS Codes), or GIS with attribute tables, showing both designed and final elevations and configurations. Paper versions of the drawings shall be submitted with the stamp and seal of the Contractor's Surveyor.

PWQ control measures that do not meet the Contract requirements will be identified in writing by the Engineer, and shall be repaired or replaced at the Contractor's expense. Correction surveys shall be performed at the Contractor's expense to confirm the locations, dimensions, and volume certification (for water quality capture volume structures only) of each PWQ control measure. The Engineer, CDOT Hydraulics Engineer for the region, Headquarters Permanent Water Quality Manager, and Headquarters Maintenance staff will perform a walkthrough of the PWQ control measures to confirm conformance to material requirements, locations, and dimensions. Before the walkthrough, the Contractor shall provide the corrected survey to the Engineer, Regional, and Headquarters Permanent Water Quality Managers.

(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.

All punch list and walkthrough items shall be completed and approved by the Engineer and Maintenance.

Method of Measurement

208.11 Erosion Control Management on projects having less than one acre of total disturbed area will not be measured and paid for separately but shall be included in the work, unless otherwise specified in the contract (bid schedule). If contracted, ECM work will be measured as the actual number of days of ECM work performed, regardless of the number of personnel required for SWMP Administration and Erosion Control Inspection, including erosion control inspections, documentation, meeting participation, SWMP Administration, and the preparation of the SWMP. If the combined hours of SWMP Administration and Erosion Control Inspection is four hours or less in a day, the work will be measured as ½ day. If the combined hours of SWMP Administration and Erosion Control Inspection is more than four hours in a day, the work will be measured as one day. Total combined hours of ECM work exceeding eight hours in a day will still be paid as one day.

Erosion bales and rock check dams will be measured by the actual number installed and accepted.

Silt fence, silt berms, erosion logs, aggregate bags, silt dikes, temporary berms, temporary diversions, and temporary slope drains, will be measured by the actual number of linear feet that are installed and accepted. Measured length will not include required overlap.

Concrete washout structure will be measured by the actual number of structures that are installed and accepted.

Pre-fabricated concrete washout structures will be measured by the actual number of structures delivered to the site. It shall not include structures moved on-site.

Storm drain inlet protection will be measured by linear foot or actual number of devices that are installed and accepted.

Sediment trap quantities will be measured by the actual number installed and accepted.

Removal of trash that is not generated by construction activities will be measured by the actual number of hours that Contractor workers actively remove trash from the project. Each week the Contractor shall submit to the Engineer a list of workers and the hours spent collecting such trash.

Removal of accumulated sediment from traps, basins, areas adjacent to silt fences and erosion bales, and other clean out excavation of accumulated sediment, and the disposal of such sediment, will be measured by the number of hours that equipment, labor, or both are used for sediment removal.

Vehicle tracking pads will be measured by the actual number constructed and accepted.

Additional aggregate required for maintaining vehicle tracking pads will be measured as the actual number of cubic yards installed and accepted.

Pre-fabricated vehicle tracking pads will be measured by the actual number of pads delivered to the site and set up to the minimum dimensions. It shall not include pads moved on-site.

Basis of Payment

208.12 Control measures will be paid for at the Contract unit price for each of the items listed below that appear in the contract. Erosion Control management (ECM) duties on projects having less than one acre of total disturbed area will not be measured and paid for separately but shall be included in the work, unless otherwise specified in the contract.

Payment will be made under:

Pay Item	Pay Unit
Aggregate Bag	Linear Foot
Concrete Washout Structure	Each
Erosion Bales (Weed Free)	Each
Erosion Control Management	Day (If in the contract)
Erosion Log (Type 1) (_____ Inch)	Linear Foot
Erosion Log (Type 2) (______Inch)	Linear Foot
Erosion Log (Type 3) (______Inch)	Linear Foot
Pre-Fabricated Concrete Washout Structure (Type 1)	Each
Pre-Fabricated Concrete Washout Structure (Type 2)	Each
Pre-Fabricated Vehicle Tracking Pad	Each
Maintenance Aggregate (Vehicle Tracking Pad)	Cubic Yard
Removal and Disposal of Sediment (Equipment)	Hour
Removal and Disposal of Sediment (Labor)	Hour
Removal of Trash	Hour
Rock Check Dam	Each
Sediment Basin	Each
Sediment Trap	Each
Silt Berm	Linear Foot
Silt Dike	Linear Foot
Silt Fence	Linear Foot
Silt Fence (Reinforced)	Linear Foot
Storm Drain Inlet Protection (Type__)	Linear Foot
Storm Drain Inlet Protection (Type__)	Each
Sweeping (Sediment Removal)	Hour
Temporary Berm	Linear Foot
Temporary Diversion	Linear Foot
Temporary Slope Drain	Linear Foot
Vehicle Tracking Pad	Each

Modifications to the SWMP due to construction errors or survey errors by the Contractor shall be made at the Contractor’s expense.

Surface roughening and vertical tracking (temporary 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.

Payment for Removal and Disposal of Sediment (Equipment) will be full compensation for use of the equipment, including the operator. Payment for Removal and Disposal of Sediment (Labor) will be full compensation for use of the labor.

Payment for concrete washout structure, whether constructed or prefabricated, will be full compensation for all work and materials required to install, maintain, and remove the item. Maintenance and relocation, as required, of these structures throughout the duration of the project will not be measured and paid for separately, but shall be included in the work.

Silt berm spikes and wood spikes will not be measured and paid for separately, but shall be included in the work. When required, soil retention blankets will be measured and paid for in accordance with Section 216.

Compost and wood stakes for Erosion Log (Type 2) will not be measured and paid for separately, but shall be included in the work.

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

Payment for storm drain inlet protection will be full compensation for all work, materials, and equipment required to complete the item, including surface preparation, maintenance throughout the project, and removal upon completion of the work. Aggregate will not be measured and paid for separately, but shall be included in the work.

Sweeping, when used as a control measure as shown in the Contract, will be measured by the number of hours that a pickup broom or equipment capable of collecting sediment, authorized by the Engineer, is used to remove sediment from the roadway or other paved surfaces. Each week the Contractor shall submit to the Engineer a statement detailing the type of sweeping equipment used and the number of hours it was used to pick up sediment. The operator will not be measured and paid for separately, but shall be included in the work.

Stakes, anchors, connections, geotextile, riprap, and tie downs used for temporary slope drains will not be measured and paid for separately, but shall be included in the work.

Payment for vehicle tracking pad will be full compensation for all work, materials and equipment required to construct, maintain, and remove the entrance upon completion of the work. Aggregate and geotextile will not be measured and paid for separately, but shall be included in the work. If additional aggregate for maintenance of vehicle tracking pads is required, it will be measured by the cubic yard in accordance with Section 304 and will be paid for under this Section as Maintenance Aggregate (Vehicle Tracking Pad).

Seeding, sod, mulching, soil retention blanket, and riprap will be measured and paid for in accordance with Sections 212, 213, 216, and 506.

All work and materials required to perform the permanent control measure survey and furnish the electronic files shall be included in the original unit price bid for surveying. Surveying will be measured and paid for in accordance with Section 625.

Payment will be made for control measures replaced as approved by the Engineer. Temporary erosion and sediment control measures required due to the Contractor’s negligence, carelessness, or failure to install permanent controls as a part of the work as scheduled or ordered by the Engineer or for the Contractor's convenience, shall be performed at the Contractor’s expense. If the Contractor fails to complete construction within the contract time, payment will not be made for Section 208 pay items for the period of time after expiration of the contract time. These items shall be provided at the Contractor's expense.

Revision Of Section 504
Walls

Revise Section 504.30, Paragraph (b), as shown:

Submittals. The following documents shall be submitted

(b) Personnel. At least 14 calendar days before starting soil nail work, the soil nailing Contractor shall identify on-site supervisors and drill operators assigned to the project and submit a summary of each individual's experience. Only those individuals designated as meeting the qualifications requirements shall be used for the project. The soil nailing Contractor shall not substitute for any of these individuals without written approval by the Engineer. The Engineer will review the soil nailing Contractor qualifications and staff within 15 working days after receipt of the submission. The Engineer may suspend the work if the soil nailing Contractor substitutes unqualified personnel for qualified personnel during construction. If work is suspended due to the substitution of unqualified personnel per subsection 504.29, the Contractor shall be fully liable for additional costs resulting from the suspension of work and no adjustment in contract time resulting from the suspension of the work will be allowed.

Revise Section 504.33, Paragraph 4, as shown:

504.33 Excavation: The Contractor shall be responsible for providing the necessary survey and alignment control during the excavation for each lift.

Excavation of the next-lower lift shall not proceed until soil nail installation, initial shotcrete face placement, attachment of bearing plates and nuts, and soil nail testing have been completed and accepted per subsection 504.40 in the current lift. Soil nail grout and shotcrete shall have achieved a compressive strength of at least 1000 psi before excavation of the next underlying lift.

Revise Section 504.34, second paragraph as shown:

504.34 Soil Nail Installation: Soil nail length and drill hole diameter used shall be those necessary to develop the specified load capacity to satisfy the acceptance criteria.

Holes shall be drilled for the soil nails at the locations, elevations, orientations, and minimum lengths shown on the plans. Drilling equipment and methods shall be suitable for the ground conditions and conform to the installation methods submitted by the soil nailing Contractor. Drilling muds or other fluids shall not be used to remove cuttings. If caving ground is encountered, cased drilling methods shall be used to support the sides of the drill holes. Self-drilling soil nail bars (also known as hollow, self-grouting or pressure grouted soil nail bars) shall not be used unless indicated on the plans. Soil nail bars shall be as shown on the plans. Provide centralizers per Section 504.26 (e).

Revise Section 504.38, third paragraph as shown:

504.38 Verification Testing of Sacrificial Soil Nails. The total number and location of tests shall be determined and spaced to evaluate soil nail performance in each soil strata encountered along the total length of the wall. A minimum of two verification tests shall be performed on sacrificial test soil nails at…

Verification test soil nails shall have both bonded and unbonded lengths. Along the unbonded length, the soil nail bar shall not be grouted. The unbonded length of the test soil nails shall be at least 3 feet as measured from the back of the bearing plate to the top of the grout.

Verification tests shall be conducted according to the loading schedule of Table 504-4. Each load increment shall be held for at least 10 minutes. The Contractor shall record soil nail movements at each load increment and the time intervals shown in the table for each load step. Creep tests shall be performed at 0.75 VTL. The alignment load (AL) should be the minimum load required to align the testing apparatus and shall not exceed 5 percent of the VTL. The dial gauges shall be set to “zero” after applying the alignment load. Following application of the maximum load, the load shall be reduced to the alignment load and the dial gauge readings recorded as the permanent set.

Revise Section 504.39, second paragraph as shown:

504.39 Proof Testing of Production Soil Nails. Successful proof testing shall be performed on 5 percent of the production soil nails in each soil nail row or a minimum of one per row. Verification tests shall not be included in the 5 percent; except that the Engineer may allow the verification tests to be included based on the plans and site conditions. The Engineer will determine the locations and number of proof tests before soil nail installation in each row unless otherwise shown on the plans. Production proof test soil nails shall have both bonded and temporary unbonded lengths. Fully grouted test soil nails shall not be proof tested. The Contractor shall maintain the stability of the hole for the temporary unbonded test length for subsequent grouting. If the unbonded test length of production proof test soil nails cannot be satisfactorily grouted subsequent to testing, the proof test soil nail shall become sacrificial and shall be replaced with an additional production soil nail installed at the Contractor's expense. The temporary unbonded length of the test soil nail shall be at least 3 feet as measured from the back of the bearing plate to the top of the grout.

Proof tests shall be conducted according to the loading schedule of Table 504-5.

Unless the soil is susceptible to creep per subsection 504.38, each load increment shall be held until readings are stable as defined by three readings within 0.005 inches taken one per minute over three minutes. The Contractor shall record soil nail movements at each load increment and the time intervals shown in the table for each load step. Creep tests shall be performed at 1.00 PTL. The alignment load (AL) shall be the minimum load required to align the testing apparatus and shall not exceed 5 percent of the PTL. Set dial gauges to "zero" after applying the alignment load. Following application of the maximum load, reduce the load to the alignment load and record the permanent set.

Revise Section 504.43 (c) as shown:

504.43 Initial Shotcrete Facing. The initial shotcrete facing shall be installed per Section 641. Membrane curing compound shall not be used. Maturity meters shall be used to monitor all shotcrete per subsection 641.05.

(a) *Initial Face Finish.* Shotcrete finish shall be either an undisturbed gun finish as applied from the nozzle or a rod, broom, wood float, rubber float, steel trowel or rough screeded finish as shown on the Plans.

(b) *Attachment of Soil Nail Head Bearing Plate and Nut.* Bearing plate, washers, and nut *shall* be attached to each soil nail head as shown on the plans. While the initial shotcrete facing is still plastic and before its initial set, the plate shall be uniformly seated on the shotcrete by hand-wrench tightening the nut. Where uniform contact between the plate and the shotcrete cannot be provided, the plate shall be set in a bed of grout. After grout has set for 24 hours, the nut shall be hand-wrench tightened. Bearing plates and headed studs shall be located within the tolerances shown on the Plans.

(c) *Shotcrete Facing Tolerances.* Construction tolerances for the shotcrete facing from plan location and plan dimensions shall be as shown in Table 504-6.

Revision of Section 601
Structural Concrete

Revise Section 601, Structural Concrete, of the Standard Specifications as follows:

Revise Section 601.08 as follows:

601.08: Air Content Adjustment. When a batch of concrete delivered to the project does not conform to the minimum specified air content, an air-entraining admixture listed on the approved mix design may be added per subsection 601.17. After the admixture is added, the concrete shall be re-mixed for a minimum of 20 revolutions of the mixer drum at mixing speed. The concrete shall then be re-tested by PC.

Revision of Section 601
Low Strength Evaluation

Section 601 of the Standard Specification is revised for this project as follows:

In Subsection 601.17 (c), in the first paragraph add as the last sentence, as follows:

If the compressive strength of more than one cylinder differs from the average of the three-cylinder set by more than 10 percent, all three cylinders will be used to determine the compressive strength.

Delete Subsection 601.17 (c) 1., and replace it with the following:

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 a single core has a compressive strength 10 percent or more below the average of the three-core set, that core will be discarded, and the average will be determined using the compressive strengths of the remaining two cores. If two individual cores have a compressive strength 10 percent or more below the average of the three-core set, all core results will be discarded, and the structure will be re-cored. 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.

Revision of Section 601
Low Strength Evaluation

In Subsection 601.17 *(f)*, delete the last paragraph, and replace it with the following:

The Contractor may choose at their own expense to core the structure represented by the maturity meter, as approved by the Project Engineer. Cores shall be obtained and tested according to CP 65. Cores shall be a minimum of 4 inches in diameter. A minimum of three cores in a two-square-foot area shall be obtained. If a single core has a compressive strength 10 percent or more below the average of the three-core set, that core will be discarded, and the average will be determined using the compressive strengths of the remaining two cores. If two individual cores have a compressive strength 10 percent or more below the average of the three-core set, all core results will be discarded, and the structure shall be re-cored. The average compressive strength of the cores shall achieve the specified compressive strength of the structure. A structure may only be cored and evaluated once for removing forms, removing falsework, backfilling against structures, or loading the structure.

Revision to Section 630
Traffic Control Management

Section 630 of the Standard Specifications is revised for this project as follows:

In Subsection 630.11 delete the sixth and seventh paragraph and replace them with the following:

Each designated TCS shall have a TCS Trainee assigned to them to assist in their duties at all times as a TCS/TCS trainee pair. The TCS trainee shall have a current flagger certification from an authorized entity. The TCS Trainee shall not be allowed to give breaks to other flaggers, unless approved by the Engineer. The TCS Trainee shall not act as a flagger except in an emergency or in relief for short periods of no more than 15 minutes per hour for scheduled flagger breaks and not concurrently if the TCS is giving a break.

The duties of the TCS Trainee in assisting a TCS shall be limited to:

- Assisting in TCS duties 1, 3, 5, 6, 7, 8, and 9 listed above.
- Assisting in revising and implementing each required MHT, per the traffic control plan.
- Performing as a spotter for the TCS.

  The TCS Trainee cannot perform any other TCS duties and cannot assist without a TCS present.

In Subsection 630.17, delete the 6th paragraph and replace it with the following:

The quantity to be measured for Traffic Control Management will be the number of authorized 24-hour days of active TCM performed by the TCS/TCS Trainee pair or another representative certified as a work site traffic control supervisor. Payment will be made for one day of Traffic Control Management regardless of the number of TCSs required to adequately control the work. An authorized 24-hour day of TCM is each calendar day active traffic control occurs per an approved MHT. This includes activities such as flagging operations, pilot car operations, and setting up or removal of construction zones, shoulder closures, lane closures or detours.

Revision to Section 630
Traffic Control Management

In Subsection 630.17 delete the 8th paragraph and replace it with the following:

The quantity to be measured for Traffic Control Inspection will be the number of authorized 24-hour days of traffic control inspection (TCI) performed by the TCS/TCS Trainee pair or another representative certified as a worksite traffic control supervisor. An authorized 24-hour day of TCI is each calendar day that traffic control devices, as shown in the MHT that are in use, masked, or turned away from traffic on the project, and the only traffic control activity is the inspection of traffic control devices. Maintenance and inspection of traffic control devices that are left in place during non-working hours, including configurations such as lane closures, temporary channelization or detours, are paid for by authorized 24-hour day of TCI.

1
AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY

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%
GOALS AND TIMETABLES FOR FEMALE UTILIZATION			
Until Further Notice...6 .9% -- Statewide			

2

AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY

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 form 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.

3
AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY

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

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 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 he 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.

AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY

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.

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 thought 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.

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 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,

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 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 Contract 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.

12
AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY

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 thorough 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 he 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.

13
AFFIRMATIVE ACTION REQUIREMENTS
EQUAL EMPLOYMENT OPPORTUNITY

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.

1
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.

6ecision Nos. CO20260012 dated January 9, 2026, supersedes **Decision Nos. CO20250012** dated December 12, 2025.	**Modifications** **MOD Number** **Date** **Page Number(s)**	**ID**
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.		
General Decision No. CO20260012 applies to the following counties: Alamosa, Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Fremont, Gunnison, Hinsdale, La Plata, Mineral, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan, and San Miguel counties.		

General Decision No. CO20260012

The wage and fringe benefits listed below reflect collectively bargained rates.

Code	Classification	Basic Hourly Rate	Fringe Benefits	Last Mod
1491	**CARPENTER** (Excludes Form Work)	33.11	12.17	
	POWER EQUIPMENT OPERATOR:			
	Drill Rig Caisson			
1492	Smaller than Watson 2500 and similar	35.41	15.20	
1493	Watson 2500 similar or larger	35.41	15.20	
	Mechanic			
1494	La Plata County	35.58	15.20	

General Decision No. CO20260012

The wage and fringe benefits listed below do not reflect collectively bargained rates.

Code	Classification	Basic Hourly Rate	Fringe Benefits	Last Mod
	CARPENTER:			
	Form Work Only			
1495	Alamosa, Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Fremont, Gunnison, Hinsdale, Mineral, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel	18.57	5.38	
1496	La Plata	18.60	5.38	
	CEMENT MASON/CONCRETE FINISHER:			
1497	Alamosa, Archuleta, Conejos, Custer, Delta, Dolores, Fremont, Gunnison, Hinsdale, Mineral, Montezuma, Ouray, Rio Grande, Saguache, San Juan, San Miguel	17.67	2.85	

General Decision No. CO20260012

The wage and fringe benefits listed below do not reflect collectively bargained rates.

Code	Classification	Basic Hourly Rate	Fringe Benefits	Last Mod
	CEMENT MASON/CONCRETE FINISHER (con't.):			
1498	Chaffee	15.55	2.85	
1499	La Plata	18.99	2.85	
1500	Montrose	16.95	2.85	
1501	**ELECTRICIAN**	28.06	8.76	
1502	**GUARDRAIL INSTALLER**	12.78	3.31	
	HIGHWAY/PARKING LOT STRIPING:			
1503	Truck Driver (Line Striping Truck)	14.60	3.49	
1504	Painter	12.90	3.07	
	IRONWORKER:			
1505	Reinforcing (Excludes Guardrail Installation)	16.94	6.77	
1506	Structural (Excludes Guardrail Installation)	16.76	6.01	
	LABORER:			
	Asphalt Raker			
1507	Alamosa	17.53	3.75	
1508	Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Fremont, Gunnison, Hinsdale, San Juan, San Miguel	16.43	3.42	
1509	La Plata	15.38	3.12	
	Common or General			
1510	Alamosa, Chaffee, Montezuma, Montrose	12.44	3.53	
1511	Archuleta, Conejos, Custer, Delta, Dolores, Gunnison, Hinsdale, Ouray, Rio Grande, Saguache, San Miguel	13.70	3.53	
1512	Fremont	15.19	3.00	
1513	La Plata	14.07	3.53	
1514	Mineral	14.84	3.53	
1515	San Juan	13.73	3.53	
1516	**Concrete Saw** (Hand Held)	16.00	6.14	

General Decision No. CO20260012

The wage and fringe benefits listed below do not reflect collectively bargained rates.

Code	Classification	Basic Hourly Rate	Fringe Benefits	Last Mod
	LABORER (con't):			
	Landscape and Irrigation			
1517	Alamosa, Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Fremont, Gunnison, Hinsdale, Mineral, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel	14.02	3.16	
1518	La Plata	13.54	3.16	
	Mason Tender - Cement/Concrete			
1519	Alamosa, Archuleta, Conejos, Custer, Delta, Dolores, Fremont, Gunnison, Hinsdale, Mineral, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel	14.59	3.10	
1520	Chaffee	12.44	3.10	
1521	La Plata	15.67	3.10	
	Traffic Control			
1522	Flagger	9.42	3.21	
1523	Sets Up/Moves Barrels, Cones, Installs signs, Arrow Boards and Place Stationary Flags, (Excludes Flaggers)	12.39	3.20	
1524	**PAINTER** (Spray Only)	17.54	3.52	
	POWER EQUIPMENT OPERATOR:			
	Asphalt Laydown			
1525	Alamosa, La Plata	22.67	8.72	
1526	Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Fremont, Gunnison, Hinsdale, Mineral, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel	23.13	8.64	
1527	Asphalt Paver	22.67	8.72	
1528	Asphalt Plant	17.23	4.07	
	Asphalt Roller			
1529	Alamosa	21.67	8.22	
1530	Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Fremont, Gunnison, Hinsdale, Mineral, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel	22.77	8.36	
1531	La Plata	22.68	7.30	
1532	Montezuma	22.67	8.72	
1533	Asphalt Spreader	22.67	8.72	

General Decision No. CO20260012
The wage and fringe benefits listed below do not reflect collectively bargained rates.

Code	Classification	Basic Hourly Rate	Fringe Benefits	Last Mod
	POWER EQUIPMENT OPERATOR (con't):			
	Backhoe/Trackhoe			
1534	Alamosa	21.03	3.75	
1535	Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Fremont, Gunnison, Hinsdale, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel	19.75	3.75	
1536	La Plata	19.79	5.13	
1537	Mineral	19.17	5.53	
1538	Montezuma	16.42	4.42	
	Bobcat/Skid Loader			
1539	Alamosa, Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Fremont, Gunnison, Hinsdale, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel	18.20	4.54	
1540	La Plata	19.98	4.88	
1541	Mineral	17.94	4.62	
	Broom/Sweeper			
1542	Alamosa	20.67	9.22	
1543	Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Fremont, Gunnison, Hinsdale, La Plata, Mineral, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel	21.70	9.22	
	Bulldozer			
1544	Alamosa, Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Gunnison, Hinsdale, Mineral, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel	23.28	9.22	
1545	Fremont	23.67	9.22	
1546	La Plata	23.57	8.72	
1547	Chipper	22.04	8.26	
	Crane			
1548	Alamosa, Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Fremont, Gunnison, Hinsdale, Mineral, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel	25.01	8.22	
1549	La Plata	25.21	8.22	

General Decision No. CO20260012

The wage and fringe benefits listed below do not reflect collectively bargained rates.

Code	Classification	Basic Hourly Rate	Fringe Benefits	Last Mod
	POWER EQUIPMENT OPERATOR (con't.):			
1550	Drill	20.84	2.66	
1551	Forklift	18.30	5.01	
1552	Grade Checker	23.91	7.89	
	Grader/Blade			
1553	Alamosa, Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Gunnison, Hinsdale, Mineral, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel	16.39	4.20	
1554	Fremont	19.68	3.37	
1555	La Plata	19.83	4.20	
1556	Guardrail/Post Driver	16.07	4.41	
	Loader (Front End)			
1557	Alamosa, Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Gunnison, Hinsdale, Mineral, Montrose, Ouray, Rio Grande, Saguache, San Juan	23.38	8.22	
1558	Fremont	23.67	9.22	
1559	La Plata	23.36	7.09	
1560	Montezuma	22.82	8.72	
1561	San Miguel	23.82	9.22	
	Mechanic			
1562	Alamosa, Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Gunnison, Hinsdale, Mineral, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel	16.74	4.20	
1563	Fremont	18.79	3.51	
	Oiler			
1564	Alamosa, Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Gunnison, Hinsdale, Mineral, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan,	22.97	7.88	
1565	Fremont	22.97	8.56	
1566	La Plata	24.08	5.49	
1567	San Miguel	22.97	9.22	

General Decision No. CO20260012

The wage and fringe benefits listed below do not reflect collectively bargained rates.

Code	Classification	Basic Hourly Rate	Fringe Benefits	Last Mod
	POWER EQUIPMENT OPERATOR (con't.):			
	Roller/Compactor (Dirt and Grade Compaction)			
1568	Alamosa, Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Gunnison, Hinsdale, Mineral, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel	19.24	4.96	
1569	Fremont	16.52	5.28	
1570	La Plata	18.33	2.98	
1571	Rotomill	16.28	4.41	
1572	Scraper	17.62	2.96	
	Screed			
1573	Alamosa	20.33	6.81	
1574	Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Fremont, Gunnison, Hinsdale, Mineral, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel	19.58	4.96	
1575	La Plata	17.86	2.75	
1576	Tractor	15.08	2.95	
	TRAFFIC SIGNALIZATION:			
1577	Groundsman	17.04	2.28	
	TRUCK DRIVER:			
	Distributor			
1578	Alamosa	18.40	4.51	
1579	Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Fremont, Gunnison, Hinsdale, La Plata, Mineral, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel	17.62	5.27	
1580	Montezuma	15.80	5.27	

General Decision No. CO20260012

The wage and fringe benefits listed below do not reflect collectively bargained rates.

Code	Classification	Basic Hourly Rate	Fringe Benefits	Last Mod
	TRUCK DRIVER (con't.):			
	Dump Truck			
1581	Alamosa	14.15	3.83	
1582	Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Gunnison, Hinsdale, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel	16.56	4.03	
1583	Fremont	16.55	4.34	
1584	La Plata	16.90	3.83	
1585	Mineral	16.97	4.61	
1586	Lowboy Truck	17.25	5.84	
1587	Mechanic	17.79	3.51	
1588	Multi-Purpose Specialty & Hoisting Truck	14.60	3.49	
	Pickup and Pilot Car			
1589	Alamosa, Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Fremont, Gunnison, Hinsdale, Mineral, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel	14.04	3.49	
1590	La Plata	15.47	3.49	
	Semi Truck			
1591	Alamosa, Archuleta, Chaffee, Gunnison, Mineral, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel	19.42	5.41	
1592	Conejos, Custer, Delta, Dolores, Fremont, Hinsdale, La Plata	17.25	5.41	
	Water Truck			
1593	Alamosa	17.58	3.75	
1594	Archuleta, Chaffee, Conejos, Custer, Delta, Dolores, Gunnison, Hinsdale, Mineral, Montrose, Ouray, Rio Grande, Saguache, San Juan, San Miguel	16.75	3.04	
1595	Fremont	16.15	3.14	
1596	La Plata	17.67	3.43	
1597	Montezuma	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:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to: davisbaconinfo@dol.gov, or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to: BCWD-Office@dol.gov, or by mail 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 an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to: dba.reconsideration@dol.gov, or by mail 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 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.

End of General Decision No. CO2026 0012

1
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

2
On The Job Training

2. <u>Training Plan Options</u>

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. <u>Journey-Level Worker to Apprentice/Trainee Ratio</u>

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. <u>Trainee Selection</u>

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."

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 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 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.

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.

July 1, 2025

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

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*. 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*, 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 reprocurement 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 reprocurement 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.

* * * * *

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.

* * * * *

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.

* * * * *

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.

1
Special Construction Requirements
Fire Protection Plan

(a) *Fire Protection Plan*. Prior to start of work, the Contractor shall submit a Fire Control Plan in writing to the Engineer for approval. The plan shall include the following:

(1) The name and contact information of a Fire Control Coordinator who shall be assigned to the project.

(2) A list of numbers to call in case of a fire, including 911 (or the equivalent in the area).

(3) A complete list, including storage locations, of all tools and equipment the Contractor will use in the event of a fire within project limits.

(4) Methods that will be employed if a fire is encountered or started during construction activities within the project limits.

(5) Specific fire prevention precautions, and the required firefighting equipment, for every activity which has the potential for starting a fire. At a minimum the plan shall address prevention planning related to use of heavy equipment, vehicles, hand tools, storage and parking areas.

(6) Specific precautions for fueling operations.

(7) Provisions for field safety meetings. The Contractor shall conduct field safety meetings (also known as toolbox or tailgate meetings) at least once per week. The Contractor shall encourage participation by all persons working at the project site. Participants shall discuss specific fire prevention precautions for construction activities.

(b) *Equipment and Procedures*.

(1) Fire Boxes. Fire boxes shall contain tools and equipment that shall be used exclusively for controlling or suppressing fires which occur due to construction activities on project sites. Each fire box shall contain, as a minimum, the following:

(1) five round-pointed shovels,
(2) two double-bitted axes,
(3) three pulaskis or mattocks, and
(4) two backpack pumps

(2) Welding. If welding at field locations is required, the welding shall be done at a location where all flammable material has been cleared away for a distance of 16 feet around the area.

(3) Spark Arrestors. All diesel and gasoline powered engines, both mobile and stationary, shall be equipped with serviceable spark arrestors.

(4) Power Saws. Each gasoline power saw shall be provided with a spark screen and a muffler in good condition. Spill-proof metal safety cans shall be used for refueling.

(5) Storage and Parking Areas. Batch plant areas, equipment service areas, parking areas, gas and oil drum storage areas, and explosive storage areas shall be cleared of all flammable materials for a distance of 50 feet. Small stationary engine sites shall be cleared of all flammable material for distance of 17 feet. Other mitigation methods may be used as approved by the Engineer.

(c) *Fire Control Coordinator Responsibilities.* The Fire Control Coordinator shall:

(1) Implement the Fire Control Plan.

(2) Monitor, manage, and adjust the Fire Control Plan as needed as construction work progresses.

(3) Document in a letter to the Engineer changes to the Fire Control Plan.

(4) Immediately contact firefighting authorities when a fire is started due to construction activities within project limits.

(5) Coordinate fire control and suppression activities until authorities arrive, including the evacuation of staff.

(6) When the Fire Control Coordinator cannot be on the project site, he shall designate a person who is on site to serve as the Fire Control Coordinator. The Fire Control Coordinator, or his designee, shall be on site at all times that work is being performed.

(d) *Costs.* All costs associated with the preparation and implementation of the Plan and compliance with all fire protection provisions and requirements will not be measured and paid for separately, but shall be included in the work.