PROJECT SPECIAL PROVISIONS
Elbert Bridge Deck Replacement Project

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* For review and approval
of special provisions 202 & 509

Benjamin Kenney P.E. Digitally signed by Benjamin Kenney P.E.
Date: 2021.04.05 16:31:10 -06'00'

COLORADO LICENSED BENJAMIN C. KENNEY JR 48342 PROFESSIONAL ENGINEER

* FOR REVIEW; APPROVAL OF PROJECT SPECIAL PROVISIONS AS INITIALED ABOVE. JEI 27 APRIL 2021

COLORADO LICENSED JENNIFER ELIZABETH IRVINE 27 APRIL 2021 38515 PROFESSIONAL ENGINEER

DISADVANTAGED BUSINESS ENTERPRISE (DBE) CONTRACT GOAL

This is a federally-assisted construction project. As described in the CDOT "Disadvantaged Business Enterprise (DBE) Requirements" Standard Special Provision, the Contractor shall make good faith efforts to meet the following contract goal:

- Zero Percent (0%) DBE participation

REVISION OF SECTION 101 DEFINITIONS AND TERMS

Certain terms utilized in the Specifications referred to above shall be interpreted to have different meanings (where applicable) within the scope of this Contract. When used in reference to compliance with laws and regulations, or the source of specifications or drawings, the terms shall retain their original meaning. A summary of redefinitions follows:

The following sections are amended for purposes of identification of the Owner and responsible parties for control of the construction of this project.

CONTRACT MODIFICATION ORDER: In addition to the definition given in the STANDARD SPECIFICATIONS, the term "Contract Modification Order" shall also include and be synonymous with the term "Change Order".

PROJECT ENGINEER: This term shall mean the El Paso County Engineer, El Paso County Department of Public Works.

OWNER: The term "OWNER" shall refer to the El Paso County Department of Public Works, acting through and on behalf of the El Paso County Board of County Commissioners.

Other additional terms that may be utilized in the Standard Specifications shall be interpreted to have different meanings within the scope of this Contract. A summary of redefinitions follows:

a. "Central Laboratory" shall mean El Paso County, Colorado or their designated representative.
b. "Chief Engineer": shall mean the El Paso County Engineer or designated representative.
c. "County" shall mean El Paso County, Colorado.
d. "Department" shall mean El Paso County, Colorado, Department of Public Works, Engineering Division.
e. "Department Of Transportation" shall mean El Paso County, Department of Public Works, Engineering Division.
f. "District Engineer" shall mean the County Engineer, El Paso County, Colorado or designated representative.
g. "Division" shall mean the El Paso County Department of Public Works, Engineering Division.
h. "Division of Highways, State of Colorado" shall mean El Paso County, Colorado.
i. "Engineer" shall mean the County Engineer, El Paso County, Colorado, or his designated representative.
j. "Regional Transportation Director" shall mean the El Paso County Department of Public Works, Engineering Division.
k. "Staff Construction Engineer" shall mean the County Engineer, El Paso County, Colorado, or his designated representative.

"State, State Of Colorado, or State Department of Transportation or CDOT" shall mean El Paso County, Colorado (where applicable).

REVISION OF SECTION 102
BIDDING REQUIREMENTS AND CONDITIONS

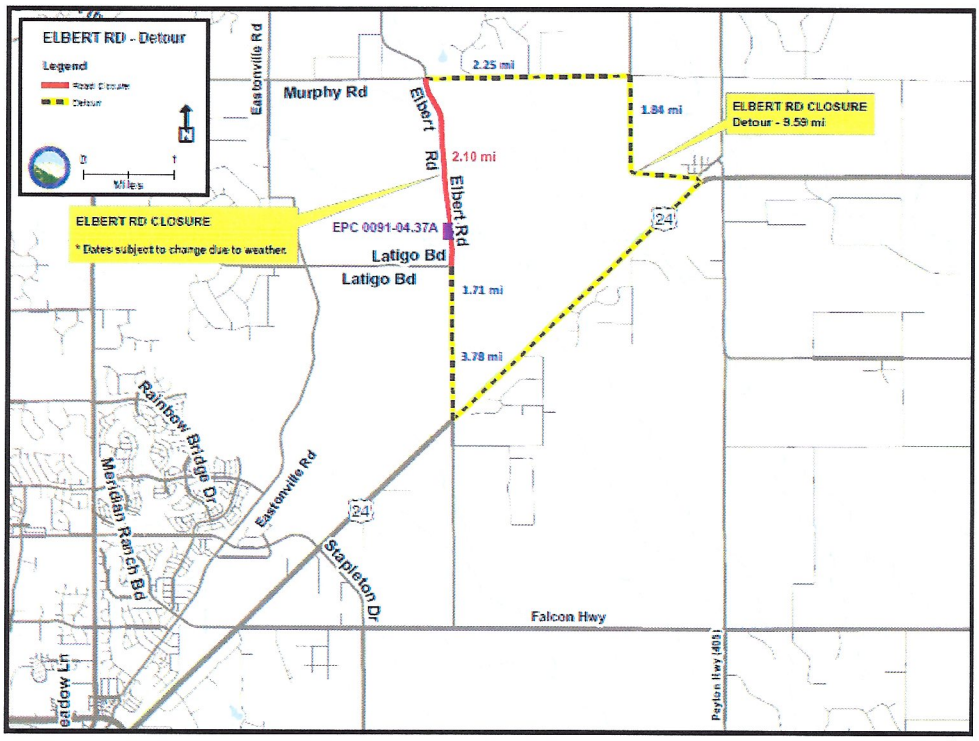
Section 102 of the Standard Specifications is hereby revised for this project as follows:

Subsection 102.01 - Pre-Qualification of Bidders, is deleted in its entirety.

Subsection 102.05 shall include the following:

The following information will be available on USB Drive through the El Paso County Contracts & Procurement Division office, 210 S. Tejon St., # 138, Colorado Springs, CO 80903, (719) 520-6392:

- Material quantities are as shown on the Bid form for Elbert Bridge just North of latigo
- Project Map (Project Area)



The awarded Contractor may obtain from El Paso County, at no cost, five (5) sets of this list (Bid Form), project special provisions; CDOT standard special provisions and the project site map. Additional sets and other available data may be purchased on a cash sale basis from the County at current reproduction prices. Subcontractors and suppliers may obtain plans and other data from the successful bidder or they may purchase copies on a cash sale basis from the County at current reproduction prices.

REVISION OF SECTION 103
AWARD AND EXECUTION OF CONTRACT

Section 103 of the Standard Specifications is hereby revised for this project as follows:

Add Subsection **103.05 Contract Duration** and include the following:

The contract will remain open until all work has been completed and accepted by the County, all permit requirements have been met, and all permits have been closed. If agreed upon by the Contractor and the Engineer, the project may be deemed substantially complete and retainage maybe released after all work is satisfactorily complete to the County.

REVISION OF SECTION 105
CONTROL OF WORK

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

Subsections 105.10 and 105.11 shall include the following:

Other contractors, public and private utility agencies, and private developers may be working in areas near or adjacent to the project.

The Contractor shall conduct the work so as not to interfere with or hinder the progress or completion of the work being performed by other agencies or Contractors. Traffic Control conflicts that arise between the needs of the various construction contractors and other agencies, shall be brought to the attention of the Engineer. The Engineer will decide the method of resolution. It is agreed that the Contractor will coordinate his/her respective Traffic Control subcontractor resources, MHTs, and Traffic Control Plans

and Phasing elements to assure the most efficient, direct, safe, and smooth flow of traffic throughout the entire project work zone.

REVISION OF SECTION 107
LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

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

Subsection 107.02 shall include the following:

Unless otherwise specified, the Contractor shall procure all permits and licenses; pay all charges, fees, and taxes, including permits procured for this project by others; and give all notices necessary and incidental to the due and lawful prosecution of the work.

Subsection 107.07 shall include the following:

The El Paso County noise ordinances shall be strictly enforced. The Contractor shall take necessary measures to control noise from construction equipment and operations when in proximity to sensitive noise receptors such as residences, churches and schools. Noise mitigation measures shall include noise blankets or other muffling devices, quiet use generators or other similar measures.

All construction activities shall be completed during daytime hours between 7:00 am and 7:00 pm. Nighttime construction work will be considered provided that the Contractor submits request a minimum of 2 weeks prior to the nighttime activities. The submittal shall include a noise mitigation plan identifying the measures to be implemented by the Contractor to mitigate construction noise.

Noise mitigation measures will not be measured and paid for separately but shall be included in the Work.

Add Subsection **107.26 Noxious Weed Mediation** and include the following:

The Contractor shall ensure that all equipment moved onto the Project is free of soil, seeds, vegetative matter, or other debris that could contain or hold noxious weed seeds. The Engineer may inspect all equipment prior to it being placed into service and may reject equipment that does not meet this specification.

REVISION OF SECTION 108
PROSECUTION AND PROGRESS

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

Subsection 108.01 shall be revised to include the following:

Neither incentives nor disincentives will apply to this contract.

Subsection 108.02 shall be replaced with the following:

The Contractor shall not commence work prior to the issuance of a "Notice To Proceed". Construction of the project is anticipated to begin late spring 2021 or early summer 2021. The "Notice to Proceed" will be issued to allow the awarded Contractor to order materials in advance of construction as required. The Contractor shall begin construction under the contract within 15 days following the date specified in the "Notice To Proceed". The Contractor shall complete all work within the specified workable working days in the IFB documents. The Contractor shall complete all work within **60 workable working days.**

Subsection 108.03 shall include the following:

A critical path method (CPM) schedule will be required for this project. Schedules submitted for this bid shall assume a start date within 15 days of the award (TBD and as described within the IFB documents)

Salient features to be shown on the Contractor's progress schedule are:

1. Apply for permits
2. Mobilization
3. Signing (MHT)
4. Road Closure
5. Erosion Control Measures
6. Containment
7. Demolition
8. Engineer Inspection
9. Construct Bridge Deck
10. Sandblast, Prime and Paint
11. Prepare roadway for new paving **(OPTIONAL)**
12. Bridgerail & Guardrail upgrades
13. Pave asphalt surface **(OPTIONAL)**
14. Stripe **(OPTIONAL)**
15. Seeding, Mulching, and Final Cleanup (any newly disturbed area)
16. Open roadway to traffic

Note: **(OPTIONAL) designates optional work that may be done by others – see bid form**

Subsection 108.03(c) (3) shall include the following:

The Contractor shall submit an electronic copy and pdf copy of the critical path schedule and method statement to the Engineer each month, ten (10) days prior to the estimated cut-off date. Payment of the estimate will be released after review and acceptance of the updated schedule and method statement. Minimum review time will be ten (10) days. The electronic copy shall be submitted on Microsoft Project, 2003 version or newer (or approved Primavera).

REVISION OF SECTION 202
REMOVAL OF STRUCTURES AND OBSTRUCTIONS

Section 202 is revised as follows:

Add the following language to Section 202:

The Contractor shall be wholly responsible for removal of all materials for new construction or maintenance items and shall haul those materials to the appropriate location. All removed materials shall become the property of the Contractor.

a. Bridge Deck Demolition – Removal of the existing bridge deck as necessary to properly install the new bridge deck. All demolition that is required to properly install the new bridge deck is the responsibility of the contractor. All temporary shoring, bracing and other that may be required to properly demolish the bridge deck is the responsibility of contractor during the entirety of the construction period. The cost to fully remove shall be included in pay item 202-Bridge Deck Demolition and paid for as Lump Sum
    - Provide a certification letter that is stamped by a professional structural engineer stating the demolition plan including any and all temporary bracing, shoring and

rigging requirements.

b. Bridgerail – Removal of bridgerail. The bridgerail shall be removed and disposed of by the Contractor. The cost of removal shall be included in pay item *202*- Bridge Deck Demolition and paid for as Lump Sum.
c. Saw cutting of asphalt – Is required where proposed or removal/replacement of asphalt is necessary adjacent to asphalt. The asphalt shall be sawcut as designated by El Paso County designated representative and disposed of by the Contractor. The cost of saw cutting shall be included in pay item *202*- Bridge Deck Demolition *and* paid for as Lump Sum.
d. All other demolition items shall be considered incidental and included in the cost to fully remove Bridge deck and Bridgerail materials in pay item 202-Bridge Deck Demolition and paid for as Lump Sum.

Note: all demolition items specified and all other associated and incidental demolition items that may be required to properly demolish and dispose of the existing bridge deck to fully prepare for the construction of the new proposed bridge deck as per Elbert Bridge Deck plans shall be included in pay item *202 – Bridge Deck Demolition – all required for new deck* and paid for as lump sum.

See Bridge Deck Rehab 2/28/2020 Section 202 Special Provisions (by Bridge Design Engineer and according to the Bridge plans)

Note: these pay items shall be included in 202 – Bridge Deck Demolition

EPC0091-04.37A Bridge Deck Rehab 02/28/2020
Section 202 Special Provisions

SECTION 202
REMOVAL OF PORTIONS OF PRESENT STRUCTURE

Section 202 of the Standard Specifications is hereby revised for this project to include the following:

DESCRIPTION

This work consists of removal and disposal of existing asphalt-filled corrugated metal deck, bridge rails, rail transitions, and portions of the existing sheet pile abutments as shown in the plans.

CONSTRUCTION REQUIREMENTS

a) General:

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 Contractor's Method Statement shall also include proposed methods used to:

(1) Prevent debris from falling to the ground or waterways below the structure
(2) Protect the traveling public using the structure, and adjacent to the structure, from airborne debris generated by the removal operations.

The Contractor shall control dust and run-off in accordance with applicable governmental agencies. The Contractor is responsible for the proper disposal of all material removed, including but not limited to, material collected by vacuuming the deck.
The existing asphalt-filled corrugated metal deck shall be removed in a manner that ensures no damage occurs to the existing steel girders. The existing W8x28 backing beam that attaches the rail post to the exterior girder web via an all-around fillet weld shall not be removed from the structure.
The contractor shall take all steps necessary to prevent damage to any existing elements to remain when removing the existing deck and bridge rail, including but not limited to diaphragms, girders, sheet piling. 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.

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REVISION OF SECTION 202
REMOVAL OF PORTIONS OF PRESENT STRUCTURE

Removal of Portions of Present Structure shall consist of removing the entire existing asphalt-filled corrugated metal deck, bridge rails, and rail transitions. Cutting of the sheet pile abutments shall be in accordance with the plans.
The Contractor shall implement a containment system that prevents debris from falling to the ground or waterways below the structure.
The Contractor is responsible for the disposal of all removed material and debris.

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REVISION OF SECTION 202
REMOVAL OF PORTIONS OF PRESENT STRUCTURE
METHOD OF MEASUREMENT

Removal of Portions of Present Structure will be measured on a lump sum basis.

BASIS OF PAYMENT

Payment will be made under:

Pay Item	**Pay Unit**
Removal of Portions of Present Structure	LS

Payment for Removal of Portions of Present Structure will be full compensation for all labor, materials, tools, equipment and incidentals required to complete the item including removal of the asphalt-filled corrugated metal deck, bridge rails, rail transitions, portions of the sheet piling, and disposal of removed materials and debris.
Methods to prevent debris from falling from the structure, and methods to protect the traveling public using the structure, or adjacent to the structure, from airborne debris will not be paid for separately, but shall be included in
the work.

REVISION OF SECTION 208
EROSION CONTROL

Section 208 of the Standard Specifications is hereby revised for this project as follows:

Subsection 208.01 shall include the following:

The Contractor is responsible for Erosion Control that is anticipated to be mainly temporary construction BMP's such as silt fence, erosion control logs, traffic control pad, concrete washout, etc ... to prevent any construction debris from entering the nearby drainage way.

A SWMP (type plan) shall be provided to El Paso County by contractor for review indicating all proposed and maintained temporary construction BMP's during the entirety of the project.

Any newly disturbed areas due to construction shall be the contractor's responsibility to fully revegetate

as required that may include top soil, seeding, mulching and or blanketing as necessary

Section 208.12 Basis of Payment, Pay Items Only shall be deleted and replaced with the following;

Basis of payment

All required construction BMP's pay items shall be paid for as LS

All other Section 208.12 verbiage in CDOT Standard Specification (latest edition) remains as is (unchanged)

REVISION OF SECTION 210
RESET STRUCTURES

Add the following language to Subsection 210.07:

Traffic Control Signs

The Contractor shall coordinate with the Engineer to arrange for signs that could need to be temporarily reset and remain visible from the same direction of travel during construction.

The Contractor shall coordinate with the Engineer to establish temporary sign locations. The Contractor shall submit a plan to the Engineer for approval. The plan should include a method to minimize relocation during the construction phase and to insure that relocated signs meet all MUTCD and CDOT Standards for typical ground sign placement S-614-1 and breakaway requirements for installation.

Removal and relocation of signs is the responsibility of the Contractor. If any signs are damaged by construction operations or during bridge deck construction activities, the Contractor will be required to repair or replace the signs. The Contractor shall reset the signs to the final locations as specified in the plans within two (2) days of accepted construction within the specific area.

Add the following language to Subsection 210.13:

Basis of Payment

Delete entirety of Basis of Payment and add the following;

Cost associated with this work is considered incidental to Traffic Control and

Shall be paid as LS included in Section 630 Traffic Control

REVISION OF SECTION 240
PROTECTION OF MIGRATORY BIRDS
BIOLOGICAL WORK PERFORMED BY A CONTRACTOR BIOLOGIST

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).

(a) *Vegetation Removal.* When possible, vegetation shall be cleared prior to the time 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 by a Contractor biologist for active migratory bird nests. The Contractor biologist will also survey for active migratory bird nests within 50 feet outside of the work limits. Project personnel shall enter areas outside right of way only if a Form 730, *Permission to Enter Property*, has been signed by the property owner. 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 removal or trimming will occur between April 1 and August 31, a survey for active nests will be conducted by the Contractor biologist within the seven days immediately prior to the beginning of work in each area or phase of tree and shrub removal or trimming. The Contractor shall notify the Engineer at least ten working days in advance of the need for the Contractor biologist to perform the survey.

   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 Contractor 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 the Contractor biologist within the seven days immediately prior to ground disturbing activities. The Contractor shall notify the Engineer at least ten working days in advance of the need for the Contractor biologist to perform the survey.

   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.

SECTION 240
PROTECTION OF MIGRATORY BIRDS
BIOLOGICAL WORK PERFORMED BY A CONTRACTOR BIOLOGIST

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

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

(b) *Work on structures*. The Contractor shall prosecute work on structures in a manner that does not result in a taking of migratory birds protected by the Migratory Bird Treaty Act (MBTA). The Contractor shall not prosecute the work on structures during the primary breeding season, April 1 through August 31, unless he takes the following actions:

(1) The Contractor shall remove existing nests prior to April 1. If the Contract is not awarded prior to April 1 and Contractor has removed existing nests, then the monitoring of nest building shall become the Contractor's responsibility upon the Notice to Proceed.

(2) During the time that the birds are trying to build or occupy their nests, between April 1 and August 31, the Contractor shall monitor the structures at least once every three days for any nesting activity.

(3) If birds have started to build any nests, the nests shall be removed before they are completed. Water shall not be used to remove the nests if nests are located within 50 feet of any surface waters.

(4) Installation of netting may be used to prevent nest building. The netting shall be monitored and repaired or replaced as needed. Netting shall consist of a mesh with openings that are ¾ inch by ¾ inch or less.

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

If the project continues into the following spring, this cycle shall be repeated. When work on the structure is complete, the Contractor shall remove and properly dispose of netting used on the structure.

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

Netting will be measured by the square yard of material placed to keep birds from nesting on the structure. Square yards will be calculated using the length of netting measured where it is attached to the ground and the average height of the netting where it is attached to the structure.

SECTION 240
PROTECTION OF MIGRATORY BIRDS
BIOLOGICAL WORK PERFORMED BY A CONTRACTOR BIOLOGIST

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**
Removal of Nests	Hour
Netting	Square Yard
Contractor Biologist	Lump Sum

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

Payment for netting will be full compensation for all work and material required to complete the item. Overlaps of netting will not be measured and paid for separately, but shall be included in the work. Maintenance and replacement, removal, and disposal of netting will not be measured and paid for separately, but shall be included in the work.

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

Removal and trimming of trees will be measured and paid for in accordance with Section 202.

Fence (Plastic) will be measured and paid for in accordance with Section 607.

REVISION OF SECTION 403
HOT MIX ASPHALT
(OPTIONAL)

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

ASPHALT PATCHING: Asphalt includes all work necessary to complete the patching and preparation work. Preparation work shall include dig-out, placing aggregate base course, and patching with HMA as directed by the Engineer. Asphalt mix shall be Grade SX 75 PG 58-28. The work shall be performed in accordance with Section 1.004.K of the *Pikes Peak Region Asphalt Paving Specifications* (version 5, March 2019). For estimating purposes, 9 inches of full-depth asphalt has been used. Areas requiring preparation work will be identified by the Engineer. It is the Contractor's responsibility to stay in close contact with the Engineer to determine the depth of excavation necessary for the preparation work. The Contractor shall provide traffic control in accordance with the *Manual on Uniform Traffic Control Devices*. Prior to starting fieldwork, a Method of Handling Traffic (MHT) plan shall be submitted by the Contractor and approved by El Paso Department of Public Works. Tack oil, reconditioning, and removal of any existing subgrade shall be included in the cost of Asphalt Patching.

TACK COAT

Contractor is responsible for application of CSS-1h tack coat as required. The tack coat shall be applied in accordance with Section 1.004.J of the Pikes Peak Region Asphalt Paving Specifications; however the diluted emulsified asphalt shall be applied at the minimum rate of 0.08 gallons per square yard. The pay quantity of emulsified asphalt is considered incidental to the 403 Hot Mix Asphalt pay item.

REVISION OF SECTION 509
PAINT EXISTING STRUCTURE

Section 509 of the Standard Specifications is hereby revised for this project to include the following:

DESCRIPTION

Prepare steel surfaces for painting and apply paint.

MATERIALS

a) General:

Provide the paint system (surface preparation, primer, intermediate, and appearance coats as required) in accordance with CDOT Standard Specifications subsection 708.03. Use differing colors for each individual coat with enough contrast between colors to distinguish the various steps in the painting process, including differing the color of the stripe coat relative to the primer and intermediate coat.

b) Paint System:
Provide paint in accordance with CDOT Standard Specifications subsection **708.03, "Structural Steel Bridge Paint."**

EQUIPMENT

a) **General**:

Ensure spray equipment:

- Has adequate capacity and sufficient gauges, filters, agitators, regulators, and moisture separators to ensure delivery of clean dry air at the proper pressure and volume;
- is adequate for the type of paint being used;
- has spray heads that provide a smooth, uniform coat of paint;
- will remove moisture from air stream in contact with the paint; and
- has no dried coatings, solvents, or other foreign matter on surfaces that paint is likely to contact.

Maintain all equipment and accessories in good working order.

Keep paint pots no more than 20 ft. above or below the level of spray application of paint during painting operations. Do not allow fluid hoses to sag more than 10 ft. below the level of the bottom of the paint pot or actual spraying operations, whichever is the lowest point. Keep hoses serviceable with no cracks or deterioration. Equip paint pots (or other containers from which the paint is dispensed) with agitators that operate whenever paint is in the pot.

b) Airless Spray Equipment:

Use regulator and air or fluid pressure gauges. Use fluid hoses with at least 1/4-in. inside diameter (I.D.) and a maximum length of 75 ft.

c) Conventional Spray Equipment:

Use independent fluid pressure and atomization pressure regulators and gauges. Use fluid and air hoses with at least 1/2-in. I.D. and a maximum length of 75 ft.

EPC0091-04.37A Bridge Deck Rehab 02/28/2020
Section 509 Special Provisions

CONSTRUCTION REQUIREMENTS

a) **Qualification**:

Certification of SSPC QP 1 is required for labor involving the removal or application of coatings. Additionally, submit to the Engineer documentation verifying SSPC QP 2 Cat A certification when work requires removal of coatings containing hazardous materials. Maintain certifications throughout the project. No work may be

performed without current and active certifications unless otherwise shown on the plans.

The Engineer may waive certification requirements, when stated on the plans, for the purpose of qualification in the SSPC QP program if the SSPC has accepted the project as a qualification project as part of the process for obtaining SSPC QP1 or QP2 Cat A certification. Submit SSPC QP applications and proof of acceptance before beginning work or provide SSPC QP 7 certification when required on the plans.

Inform the Engineer within 1 business day of all scheduled or unannounced inspections or audits by SSPC, OSHA, EPA, or other agencies or organizations. Furnish the Engineer a complete copy of all inspection and audit reports and any SSPC DAC actions within 7 days of receipt.

b) Responsibility for Hazards:

Comply with CDOT Standard Specifications, Section 250, "Environmental, Health and Safety Management." Handle all paints and cleaning products in accordance with the information provided by the manufacturer and all applicable federal and state regulations.

c) Access

Provide safe access to all parts of the work for proper inspection. Do not place rigging, scaffolds, etc., in contact with previously painted surfaces until the previously applied coating has fully cured. Protect previously painted and cured surfaces with an approved padding to minimize damage when rigging, scaffolds, etc., will be placed on or hung from those surfaces. Avoid and minimize coating damage to the extent possible. Repair all coating damaged as a result of rigging or scaffolding as directed.

Remove tree limbs, bushes, grass, and other items that will interfere with the cleaning and painting operations as directed. Remove vertical clearance signs, and erect and maintain temporary ground-mounted

signs matching the content and letter size on the existing sign unless otherwise directed. Re-attach permanent clearance signs as directed.

d) Steel to be Painted:

Clean and paint all superstructure structural steel except weathering steel that is to remain unpainted, unless otherwise shown on the plans. Structural steel includes all main members, bearing apparatus, diaphragms, floor beams, rivets, bolts, lateral bracing, etc., where applicable. Paint the rolling faces of rockers and base plates, all surfaces of bearing plates, and all surfaces of iron or steel castings, whether or not the surfaces are milled unless otherwise shown on the plans or exempted in this Item. Perform the initial cleaning and application of required prime and intermediate coatings on new steel before shipment of the steel to the jobsite unless otherwise provided in the Contract or approved in writing.

e) Cleaning and Painting Existing Steel.

1. **Hold Points:** No work may proceed beyond the listed hold point until the Engineer has reviewed or inspected the existing steel and given provisional to move forward in the priming and painting process.
   - Following cleaning of the existing steel,
   - Following any surface preparation,
   - immediately before each coating application,

2. **Containment:** Provide containment during all cleaning and painting operations of existing steel structures. Obtain approval of the constructed containment system before beginning cleaning and painting.

Unless otherwise shown on the plans, construct and maintain a structure meeting the following minimum requirements:

- SSPC Guide 6, Class 1A, Level 1 Emissions;
- ability to withstand winds up to 30 mph;
- enclosure of all sides of area with air-impenetrable walls;
- illumination meeting SSPC Guide 12;
- rigid, watertight floor formed from minimum 20 gauge steel;
- overlapping seams and entryways; and
- exhaust air filtration system capable of creating negative pressure inside the enclosure causing the sides of the containment to have a concave appearance and demonstrating minimum 100 ft. per minute cross draft air flow and minimum 50 ft. per minute downdraft air flow in all areas within the containment.

In place of a full containment structure, a modified containment system may be proposed for the following situations:

- when using abrasive blasting equipment equipped with negative pressure able to contain all blast refuse. Demonstrate, for approval, the equipment's ability to contain all blast refuse.
- when using hand tools for spot cleaning only, provide a system that will contain all removed paint, rust, and other debris. Place an airtight membrane below the member being cleaned to collect all falling debris.
- when using power hand tools for spot cleaning only that are equipped with high-efficiency particulate air (HEPA) filter vacuums that will capture all removed paint, rust, and other debris. Otherwise, provide an airtight membrane below the member being cleaned to collect all falling debris.

Provide a system meeting SSPC Guide 6, Class 1W, when using water blasting.

Use a skimmer when cleaning and painting over bodies of water. Remove any blast or paint material the skimmer collects the day the release occurs. Correct the containment problem that allowed the release before continuing work.

Ensure air is clear of dust and remove all blast refuse from cleaned members before the inspector enters the containment to inspect the cleaned surfaces. Remove all blast refuse from the containment before ending work for the day.

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3. Preparation of Surfaces:

a. Prepare surfaces before applying paint.

i. **General Preparation**: Clean far enough into any shop-applied paint to ensure removal of all contaminants. Feather edges of sound paint around cleaned areas.

Ensure all surfaces to be painted are completely free of oil, grease, moisture, dirt, sand, overspray, welding contamination (slag or acid residue); loose or flaking mill scale, rust, or paint; weld spatter; and any other conditions that will prevent the paint from forming a continuous, uniform, tightly adhering film. Remove all hackles, splinters weld spatter, sharp edges, fins, slag, or other irregularities which may interfere with proper paint adhesion to the steel. Remove all steel splinters (hackles) raised or evident during

cleaning. Reblast areas from which hackles are removed when abrasive blast cleaning is required.

Before other cleaning operations, remove grease-like contaminants with clean petroleum solvents or other approved methods. Contain solvents and removed material as approved. Dispose of properly or reuse solvents as approved. This requirement applies to all coats.

When abrasive blast cleaning is required, blast all flame-cut edges to produce a visible anchor pattern over the entire flame-cut surface.

Completely remove, as directed, the protective coating on machined surfaces and pins.

Do not damage adjacent materials such as concrete during surface preparation or painting.

Feather all sound, tightly adhered coating edges surrounding cleaned or repaired areas a minimum of 1 in. and ensure a smooth, blended transition.

Round all corners and edges to a 1/16-in. radius. Reblast as needed. Remove pack rust to depth of at least 0.5 in.

ii. **Classes of Cleaning**: Use an approved abrasive for abrasive blasting. Do not use steel shot. Use an abrasive recycling system with an approved recyclable abrasive when abrasive blast cleaning is used to remove existing paint containing lead or chromium. Abrasive will be considered recyclable if it is separated from the dust and paint debris before being reused. All abrasives must meet SSPC-AB1, AB2, or AB3 as appropriate.

All paint systems require water blasting to remove contaminants before any other surface preparation. All paint systems require abrasive blast cleaning unless otherwise shown on the plans.

a) **Abrasive Blast Cleaning**: Meet the surface preparation requirements of SSPC-SP 10 unless otherwise shown on the plans. Ensure a minimum profile of 1.5 mils. Do not add depth to existing profile when the surface profile exceeds 4.0 mils. Measure surface profile in accordance with ASTM D4417, Method C, "Standard Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel." Containment mounting points and other repair areas under 1 sq. ft. may be tool-cleaned to SSPC SP-11 with at least a minimum 2 mil profile when approved by the Engineer.

b) **Tool Cleaning**: Meet the requirements of SSPC-SP2 or SP3 unless otherwise shown on the plans. Probe the perimeter of peeled areas of paint with a putty knife to ensure remaining paint is tightly adhered.

c) **Water Blasting**: Meet the requirements of SSPC-SP WJ-4. Tight mill scale and tightly adhered rust and paint are permitted. Probe the perimeter of peeled area of paint with a putty knife to ensure remaining paint is tightly adhered.

d) **Tape Test**: Perform the tape test, as necessary to determine cleanliness, on any surface before painting as follows:

- Press a strip of filament tape onto the surface by rubbing with moderate thumb pressure 4 times, leaving approximately 2 in. of one end of the tape free from the surface.
- Grasp the free end and remove the tape from the surface with a sharp pull.

The surface will be considered to be contaminated and not adequately cleaned if visible particles cling to the tape.

4. **Paint Systems**: See CDOT Standard Specifications, Subsection 708.03 for Structural Steel Bridge Paint requirements.

5. **Application**: See CDOT Standard Specifications, Subsection 509.29 for requirements for paint application.

METHOD OF MEASUREMENT

This Item will be measured by the lump sum.

BASIS OF PAYMENT

Payment will be made under:

Pay Item	Pay Unit
Paint Existing Structure	LS

This price is full compensation for paint; prepping, cleaning, and painting; removal of vegetative obstructions; containment systems; traffic protection and scaffolding; disposal of waste; and materials, equipment, labor, tools, and incidentals.

REVISION OF SECTION 620
FIELD FACILITIES

Section 620 is revised as follows:

Subsection of 620.05 includes the following:

Contractor shall provide a sanitary facility for worker usage at each active worksite that will be used for more than one (1) consecutive workable working day. Active work shall include, but is not limited to, paving, concrete, milling, and shouldering.

REVISION OF SECTION 630
CONSTRUCTION ZONE TRAFFIC CONTROL

Section 630.18 is revised after second full paragraph as follows:

All traffic control devices, materials, MHT plans, Management, inspection and configuration including, but not limited to: signs, panels, channelizing devices, concrete barriers, barricades, flashing beacons, portable message signs, temporary pavement marking paint, and impact attenuators, construction fence and signage, as well as all flagging, traffic control management (for each MHT required configuration change as a minimum), and traffic control inspection (Daily) will not be measured and paid for separately, but shall be included in the cost for *630 Traffic Control (Lump Sum)*.

The Contractor shall be responsible for reviewing this information and the intent of the documents and shall submit detailed plans of the approach (MHT) to this element of work. Reference is made to the Traffic Control-General specification, CDOT Standard Specifications, and MUTCD Manuals, latest editions.

Contractor shall provide all signage, TCP management and inspection, and maintenance for the entire project as necessary to properly close and detour traffic as per the proposed detour map (see attached detour map in bid package documents). TCP shall include a minimum of 8 concrete barriers (Type 7) to securely barricade the roadway and completely close the bridge securely. Also include two variable message signs from the time NTP is give and until Traffic Control plan is fully in place (a minimum of two full weeks prior to beginning construction).

Construction Traffic Control will be paid for by lump sum.

Subsection 630.18 shall include the

Basis of Payment

Unit	Pay
Traffic Control	Lump Sum

REVISION OF SECTION 703 (OPTIONAL)
AGGREGATES

Section 703 is revised as follows:

Subsection 703.03 is revised as

follows:

Aggregate base course shall conform to the specifications of CDOT's *Standard Specifications for Road and Bridge Construction* Table 703-2, 2017 Edition, Class 6 aggregate for bases. The base shall be moisture conditioned to a workable moisture content, finish graded, and compacted to at least 95 percent of the maximum dry density determined in accordance with AASHTO T180. Aggregate base course will be paid for by the ton (for work that is in addition to 6 inches of depth of soil preparation that is otherwise considered incidental to the work such as Asphalt patching).

Basis of Payment

Section 703 shall be considered incidental to Section 304 Aggregate Base Course (class 6)

Unit Payment shall be CY

REVISION OF SECTION 713
TRAFFIC CONTROL MATERIALS

Section 713 of the Standard Specifications is hereby revised for this project as follows:

TRAFFIC CONTROL PLAN – GENERAL

The key elements of the Contractor's Method of Handling Traffic (MHT) are outlined in subsection 630.10. The components of the Traffic Control Plan (TCP) for this project are included in the following:

- Subsection 104.04 and Section 630 of the Specifications
- Standard Plan S-630-1, Traffic Controls for Highway Construction
- Phasing/Traffic Control Plans (if necessary)

The following documents shall control the preparation of the Method of Handling Traffic (MHT) Plans and are listed in the order of precedence:

- Special Provisions for this project
- *Manual on Uniform Traffic Control Devices* (MUTCD)
- El Paso County *Engineering Criteria Manual*
- Colorado Department of Transportation Standard Specifications
- Colorado Department of Transportation M & S Standards

The Contractor shall notify the following one (1) week prior to the beginning of construction and 48 hours prior to changing traffic patterns:

El Paso County Transportation Division
Emergency Responders (Fire, Law Enforcement, Ambulance Services, etc.)
Local School Districts

The Contractor shall submit, in writing, the proposed Method of Handling Traffic (MHT) for the initial phase of construction. When a different MHT is required for a subsequent construction phase, it must be submitted one (1) week prior to starting that phase. All proposed MHTs shall be approved, in writing, by the Engineer. Approval of the proposed MHT does not relieve the Contractor of liability specifically assigned to him/her under the Contract.

The Contractor shall not perform any work on the roadways on Saturdays, Sundays, holidays and non-daylight hours on all other days, unless approved by the Engineer.

Work that interferes with traffic on holidays, any day of a three-day or four-day holiday weekend, or the day before any holiday or holiday weekend will not be permitted. Holidays on which this restriction applies shall be those holidays recognized by the State of Colorado listed in the first paragraph of subsection 101.36.

The Contractor shall install construction traffic control devices where they do not block or impede other existing traffic control devices.

The Contractor shall coordinate with property owners at least seven (7) days prior to any construction activities adjacent to or within easements on their property. The Contractor shall maintain access to all private driveways at all times, unless otherwise directed by the Engineer. The Contractor may negotiate temporary closures of access with individual property owners to facilitate various operations, such as paving. All closures shall have written property owner consent and shall be approved in advance by the Engineer.

The Contractor shall develop an Access Maintenance Plan in coordination with, and based on the requirements of the affected property owners and tenants, and submit it to the Engineer. This plan shall detail all barricades, ramps, signs, and temporary means of access required by the property owners or tenants. Five (5) working days prior to commencing any work which affects access to a property, the Access Maintenance Plan for that property must be submitted and incorporated in the MHT.

The Access Maintenance Plan shall include documentation of this coordination, including the approval signature of each affected owner or tenant. Should the Contractor be unable to obtain approval and signatures, documentation of the efforts made to obtain said approval and signatures must be submitted. All access shall be maintained on traversable surfaces approved by the Engineer.

The Contractor's and/or subcontractors' personnel, suppliers, etc. shall not access the work areas by crossing roadways open to traffic unless proper traffic control is provided and approved by the Engineer. Suitable transportation to the work site for personnel whose vehicles are parked off-site shall be provided by the Contractor.

All construction vehicle ingress/egress to the limits of the project shall be along approved routes. Prior to construction, the Contractor shall submit site access plans for approval to the Engineer. Direct access to the work zone from the roadway shall only be permitted when no other approach is available and shall be properly controlled, with adequate auxiliary lanes and traffic control devices. Direct access from multiple, uncontrolled and informal access points shall be prohibited.

All construction vehicles shall be equipped with flashing amber lights. Equipment to be used at night shall also be equipped with flashing amber lights. Flashing amber lights on vehicles and equipment shall be visible from all directions. The Contractor shall not have construction equipment or materials in the lanes open to traffic at any time, unless directed by the Engineer. All personal vehicle parking will be prohibited where it conflicts with safety, access, or the flow of traffic. The Contractor shall not store material or allow personal vehicle parking on private property or construction easements. Landscaped areas and roadway shoulders shall be kept clear of all parking.

The Contractor shall leave the construction site clean and remove all debris. If the Engineer determines that the Contractor did not exercise reasonable care to protect existing features from unnecessary damage while

accomplishing the work, the Contractor will be required to restore the damaged items to their original condition at the Contractor's expense. The Contractor shall not operate trucks and equipment or store equipment and supplies on private property unless he/she has obtained written permission.

The Contractor shall have no vertical drop-off immediately adjacent to traffic, greater than one (1) inch in height, left unprotected. The Contractor shall:

Place a wedge of material along the edge of any drop-off. The wedge shall consist of stable material placed at a 60-degree or flatter slope. Channelizing devices shall also be used in these circumstances.

or

Install concrete barrier (temporary) with a minimum 2'-buffer between the barrier face and the traveled way. An acceptable crashworthy terminal or flared barriers shall be installed at the upstream end of the section.

The Contractor is responsible for coordination with all adjacent construction projects including, but not limited to, utility relocation work associated with this project, to ensure that traffic control devices do not overlap and/or provide conflicting or confusing direction to the traveling public.

The Contractor shall provide traffic control as necessary for the utility relocation work performed by utility companies within the project limits (it is not anticipated at this time but if coordination should be required).

The Contractor shall submit the final striping plan if applicable to the Engineer for approval, prior to beginning the work.

During non-construction periods (evenings, weekends, holidays, time-count suspensions, etc.) all work shall be adequately protected to ensure the safety of vehicular and pedestrian traffic. Excavations or holes shall be filled in and surfaced with traversable and maintained gravel or temporary asphalt or fenced when unattended. This will not be measured and paid for separately, but shall be included in cost of the work.

All costs incidental to the foregoing requirements, including any additional traffic control items required for haul routes into the project, will not be measured or paid for separately, but shall be included in the original price for traffic control.

All costs incidental to maintenance of access shall not be paid for separately, unless otherwise provided, but shall be included in the work. Utilization of materials to be incorporated into the work may be permitted. However, any degradation or other contamination or destruction shall be corrected at the Contractor's expense prior to acceptance.

The Contractor shall provide the Project Superintendent and Traffic Control Supervisor with cellular phones for project communication in addition to other communication devices specified in other provisions. All traffic control personnel shall also be equipped with cellular phones or two-way radios to maintain effective communications as determined by the Engineer. The radios shall have sufficient range to communicate throughout the entire project. Cellular phones shall be provided prior to Contract work beginning and shall not be paid for separately, but shall be included in the price of the work. The cellular phones shall be maintained by the Contractor, and shall remain the property of the Contractor after completion of the project.

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

All roads except the Elbert Road Bridge road (Detour) shall remain open unless otherwise approved by the Engineer. The Contractor shall maintain 11- foot minimum lane widths along the road at all times, unless otherwise approved by the Engineer.

Traffic shall be maintained on a traversable paved or gravel surface, as approved by the Engineer.

An MHT shall be approved by the Engineer prior to implementing any lane closure. Request for each lane closure shall be made at least 72 hours in advance of the time the lane closure is to be implemented. Lane closures will not be allowed to remain unless utilized continuously for the intended purpose for which they are set up.

FORCE ACCOUNT ITEMS

Description
This special provision contains the Department's estimate for force account items included in the Contract. The estimated amounts marked with an asterisk will be added to the total fee 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	FA	$ see bid form*

*This work consists of the Engineer's estimate for force account items that will be added to the total fee to determine the amount of the performance and payment bonds. Force Account work shall be performed as directed by the Engineer and only if directed by the Engineer.

UTILITIES

If any utility conflicts are found during construction, the Contractor shall contact the Project Manager and or Project Engineer immediately to determine how to proceed. If relocations or adjustments are deemed necessary in the field, the Contractor shall schedule and coordinate his/her work with the utility companies to facilitate and expedite the relocations. This includes adjusting traffic control plans to accommodate utility relocation in conjunction with the roadway construction.

General
There are no known utility conflicts at this time however should any conflicts be discovered the contractor shall immediately contact the appropriate agency and the Project Engineer. The Contractor shall be responsible for the location and protection of all utilities located within his/her working area, regardless of whether or not their existence or location is shown or noted.

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 three (3) business days prior to commencing such operations. Contact the Utility Notification Center of Colorado (UNCC) at 811 to have locations of UNCC-registered lines marked by member companies. All other underground facilities shall be located by contacting the respective company. Utility service laterals shall also be located prior to beginning excavation or grading. The Contractor shall also immediately notify the utility company if damage occurs, or if conflicts and/or emergencies arise during work.

The Contractor shall keep each utility company advised of any work being done near their facilities, so that each utility company can coordinate their inspections for final acceptance with the Engineer. The Contractor will comply with any special construction or safety requirements of each utility company as it may affect his/her work. The Contractor will adjust valves, manholes, and other miscellaneous utility appurtenances to final grades as necessary.

If any potholing is needed to confirm utility depths, it shall be included in the cost of the work and not paid for separately.