El Paso County Department of Public Works
Special Provisions

North Gate Boulevard / Struthers Road Drainage and Permanent Water Quality Pond Project

July 31, 2025

CDOT Project No. C040-042 (21233)
Wilson Project No. 15-100-081-00

El Paso County Department of Public Works
Special Provisions
for the

North Gate Boulevard / Struthers Road Drainage and Permanent Water Quality Pond Project

The 2025 *Standard Specifications for Road and Bridge Construction*, Department of Transportation, State of Colorado, controls the construction of this project. The following Project Special Provisions supplement or modify the "CDOT Standard Specifications" and/or the "Pikes Peak Asphalt Paving Specifications" and take precedence over the Standard Specifications and construction drawings. A copy of the "Pikes Peak Asphalt Paving Specifications" can be obtained from the Contracts & Procurement Division or downloaded from https://epc-assets.elpasoco.com/wp-content/uploads/sites/13/Documents/Pikes-Peak-Region-Asphalt-Paving-Specs-Version-6-March-2022.pdf

When specifications or special provisions contain both English units and SI units, the {English} units apply and are the specification requirement.

Project Special Provisions

Project Special Provisions (Continued)

Standard Special Provisions

Notice to Bidders

The below 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.

El Paso County Engineer: Joshua Palmer (719) 520-6806

El Paso County Project Engineer: John Lantz (719) 208-5913

CDOT Program Engineer: John Hall (719) 227-3205

Disadvantaged Business Enterprise (DBE) Contract Goal

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

Two Percent (2%) DBE participation.

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 500 hours

Commencement and Completion of Work (Working Days)

The "Notice to Proceed" will stipulate the date that the contract time commences. The Contractor shall complete all work within **120** working days in accordance with the notice to proceed.

Asphalt paving shall not be performed between **October 15** and **April 15**. As temperatures allow, paving outside this window can be accomplished if the Engineer approves.

The Contractor's Schedule (see Section 108) shall indicate activities for the work to be completed. Salient features to be shown on the Contractor's Progress Schedule are:

1) Permitting
2) Construction Surveying
3) Mobilization
4) Clearing and Grubbing
5) Pond Site Underdrain Construction
6) Pond Site Excavation and Embankment
7) Pond Appurtenances Construction
8) Storm Sewer Construction
9) Roadway Patching
10) Work in Prebles Meadow Jumping Mouse Habitat
11) Planting and Seeding
12) Project Completion

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.
l) "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:

Delete subsection 102.01 and replace with the following:
The bidder will not be required to follow the prequalification and bidding procedures contained in the Rules for Prequalification, Debarment, Bidding and Work on Colorado Department of Transportation's Road, Highway, and Bridge Public Projects, 2 CCR 601-10, ("Rules"). The County requires the bidders be listed in the System for Award Management (SAM) and not have an exclusion record.

https://www.sam.gov/

Delete subsection 102.02 Contents of Proposal Forms

-1-

Revision of Section 103
Award and Execution of Contract

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

Add subsection 103.05 to include the following:
103.05 Contract Duration: 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 may be released before the Colorado Discharge Permit System - Stormwater Construction Permit (CDPS-SCP) is closed. The Contractor will remain responsible for meeting all permit requirements, including but not limited to: inspections, maintenance, and additional work as approved by the Engineer, until the permit has been closed.

Add subsection 103.06 Trimble Unity Construct Project Management:

103.6 Trimble Unity Construct Project Management: The selected contractor shall utilize the Trimble Unity Construct software platform for project management and administration throughout the term of the contract. The Contractor shall conduct Project operations, outlined by the County's Project Manager or as defined in these special provisions, utilizing the web-based Trimble Unity Construct platform. El Paso County will provide access to the platform; no additional software will be required. The Project Manager shall be responsible for coordinating initial and project specific training on Trimble Unity Construct with the Contractor, as well as providing assistance and ongoing training as needed.

The Contractor shall be required to log in and view the Trimble Unity Construct Project page on a daily basis, and as necessary to be kept fully apprised of Project status and developments, for formal correspondence, assigned tasks, and formal reporting, and for other matters that transpire on the site, which may include but are not limited to:

- Contracts/Agreements (including all associated documents, exhibits, and amendments)
- Scheduling
- Permitting
- Invoicing
- Submittal Packages / Requests for Information (RFI)
- Contract Modification Orders (CMO)
- Meeting Minutes
- Daily Logs
- Reporting
- Public Information Services
- Punch Lists
- As-built data, exhibits, and logs

-2-

Revision of Section 103
Award and Execution of Contract

All supporting project data and documentation shall be submitted in digital format via Trimble Unity Construct. The Contractor shall be responsible for uploading/downloading all necessary or requested data before the Project reaches final acceptance. All documents shall be converted or scanned into the .pdf format or approved equivalent before upload.

Trimble Unity Construct Terms And Definitions:

Terms and definitions that may be utilized in the Standard Specifications or within these Project Special Provisions shall be interpreted to have different meanings within the scope of the Trimble Unity Construct platform. A summary of these redefinitions follows:

a. "Commitment" shall mean the Contracted amount with the vendor selected by El Paso County as shown on the Purchase Order.
b. "Process" shall refer to the automated procedures built into the Trimble Unity Construct platform. Processes follow a defined workflow utilizing a series of steps that require inputs or actions from all parties involved in the Trimble Unity Construct Project. Certain permissions are associated with each process and step that may impact Contractor ability to initiate or act on specific processes.

Revision of Section 104
Scope of Work

Section 104 of the Standard Specifications is hereby revised for this project as follows:

Subsection 104.02 shall include the following:
El Paso County has provided design sheets for the feasible approach to temporary erosion control. These plans were developed for the primary purpose of providing reasonable estimates of quantities for the purpose of bidding. The Contractor is ultimately responsible for the implementation of temporary erosion control. The contractor shall submit any proposed changes to the Contract temporary erosion control plans on 11”x 17” sheets for review and approval. The Contractor shall also prepare Construction Traffic Control Plans for review and approval. The construction traffic control plans must be signed by a professional engineer registered in the State of Colorado. Erosion Control plans must be prepared by qualified personnel. Allow 10-15 days for review of these documents.

The Contractor will not be reimbursed for any work and materials necessary to prepare these documents and comply with these requirements.

Subsection 104.04 first paragraph shall include the following:

The contractor shall maintain at least 1 lane of traffic in both directions and all pre-construction allowable turn movements. The Contractor shall perform the work in an efficient manner that minimizes the number of and duration of lane closures and inconvenience to the traveling public to the extent practical.

-1-

Revision of Section 105
Control of Work

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

Delete Subsection 105.04 and replace with the following:
All asphalt binders used for hot mix asphalt shall meet the requirements outlined in the *Pikes Peak Region Asphalt Paving Specifications, Version 6.*

Delete Subsection 105.05 and replace with the following:
All hot mix asphalt, Item 403, except hot mix asphalt used for patching and temporary pavement, shall be tested for smoothness in accordance with the *Pikes Peak Region Asphalt Paving Specifications, Version 6.*

Delete Subsection 105.09 and replace with the following:
105.09 Coordination of Plans, Specifications, Supplemental Specifications, and Special Provisions.

These specifications, the plans, Project Special Provisions, CDOT Standard Special Provisions, and all supplementary documents are essential parts of the Contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work.

In case of discrepancy the order of precedence is as follows:

(1) Project Special Provisions
(2) Project Plans
(3) Standard Specifications
    A. *Pikes Peak Region Asphalt Paving Specifications, Version 6*
    B. CDOT Standard Special Provisions
    C. CDOT *Standard Specifications for Road and Bridge Construction 2022*
    D. El Paso County *Engineering Criteria Manual Revision 6*
(4) Standard Drawings
    A. CDOT *M&S Standard Plans 2019*

The Contractor shall not take advantage of any apparent error or omission in the Contract. If the Contractor discovers an error or omission, the Contractor shall immediately notify the Engineer. The Engineer will make corrections and interpretations as necessary to fulfill the intent of the Contract.

Subsection 105.11 shall include the following at the end of the second paragraph:
The contractor shall provide the required excavation and backfill for the required utility relocations by the utility owners. To the extent practical, the contractor shall provide notice to the utility owners at least 30 days in advance of a utility relocation or adjustment being required.

Delete Paragraph 2 of Subsection 105.12 and replace with the following:
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

-2-

Revision of Section 105
Control of Work

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 Contractors shall coordinate their respective Traffic Control subcontractor resources, MHT's, and TC Plans and Phasing elements to assure the most efficient, direct, safe and smooth flow of traffic throughout the entire project work zone(s).

Additionally, there are two construction efforts in the area that need to be highlighted. There is an ongoing adjacent City of Colorado Springs project on the south end of the North Gate Boulevard - Struthers Road intersection. This is establishing a new entrance to Mining Museum. Additionally, the City plans to resurface the road on and around this intersection as well as west past the existing entrance. This work overlaps a portion of the stormdrain construction. The County has been coordinating with the City to determine best timing for storm pipe installation in this area. This will require the Contractor to continue coordination with the City and may require schedule workarounds and adjustments to reduce any requirement to disrupt any recent paving. The second effort is an in-house effort by the County to reconstruct pavement in both directions on Struthers Road between Shepherd Heights and North Gate Boulevard. The County and the Contractor will likewise work together ensure best timing for any excavation in the area for storm pipe construction.

Subsection 105.14 shall include the following:
The Contractor shall include the County in all correspondence with other agencies including but not limited to CDOT and utilities and shall not act on any direction from such agencies without concurrence from the County.

Work performed by the Contractor, outside the scope of the project plans and specifications as determined by the County, and not directed by the County, will not be compensated by the County.

Revision of Section 106
Control of Material

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

Delete Section 106.05 and replace with the following:
All hot mix asphalt, Item 403, except hot mix asphalt used for temporary pavement, shall be tested in accordance with the *Pikes Peak Region Asphalt Paving Specifications, Version 6*.

-1-

Revision of Section 107
Legal Relations and Responsibility to Public

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

Delete the first paragraph of Subsection 107.02 and replace with 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. Copies of the fully executed permits shall be furnished to the engineer upon request. Contractor provided permits may include, but are not limited to:

- General Permit for Stormwater Discharge for Construction Activities (CDPHE)
- Erosion Storm Water Quality Control Permit (El Paso County)
- Construction Dewatering Permit (CDPHE)
- Construction Activity Permit (El Paso County Health Department)
- Construction General Permit and Storm Water Polllution Prevention Plan (SWPPP) (EPA)
- El Paso County Right of Way Permit (El Paso County)
- CDOT Right of Way Use Permit (CDOT)
- City of Colorado Springs Concrete and Excavation Permits (City of Colorado Springs)

The Contractor shall comply with all permit provisions and requirements. The costs of these permits will not be paid for separately, but shall be included in the work.

Subsection 107.06 (d) Competent Persons shall include the following:

(20) Traffic Control

Subsection 107.07 shall include the following:
All construction activities shall be completed Monday through Friday between the hours of 7:00 am and 7:00 pm or during daylight hours, unless otherwise approved by the Engineer. The Contractor shall not perform any work on Saturdays, Sundays, Holidays and non-working hours on all other days, unless approved by the Engineer. A change in the working hours must be submitted 48 hours in advance for approval by the Engineer. 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.

Work that interferes with traffic on holidays or the day before any holiday or holiday weekend or high-traffic special events on the USAFA such as graduation and football games will not be permitted. Holidays on which this restriction applies shall be those holidays recognized by the State of Colorado listed in subsection 101.02.

-2-

Revision of Section 107
Legal Relations and Responsibility to Public

The first sentence of Subsection 107.16 (b) is hereby revised as follows:

El Paso County shall be named as additional insured party on all insurance policies, with a 30-day cancellation notification.

Subsection 107.19 shall include the following:
An El Paso County Work in the Right of Way Permit shall be obtained by the Contractor before performing work within El Paso County Right of Way. A Right of Way Use Permit shall be obtained by the Contractor from CDOT before performing work in the CDOT Right of Way. Concrete and Excavation Permits shall be obtained by the Contractor from the City of Colorado Springs for work in the City of Colorado Springs Right of Way. Additional permitting may be required for work in the USAFA given that the CDOT Right-of Way is located within the grounds of the USAFA. El Paso County will obtain a license to construct for the project from USAFA.

Subsection 107.25 (b) 6, shall include the following:
Excavation for construction or installation of stormwater pipes, inlets and manholes may require dewatering. The Contractor shall secure applicable permits and shall submit to the Engineer his proposed dewatering plan and methods in accordance with regulatory and permit requirements. It is not anticipated that any contaminated groundwater will be encountered at this site, however dewatering operations shall be monitored to ensure any evidence of contamination does not exist.

Dewatering operations, including infiltration ponds (if required) shall be included in the cost of the work. Costs associated with analytical work and disposal of contaminated groundwater, if encountered, will be paid for as Force Account under Minor Contract Revisions.

Subsection 107.25(c) shall include the following:
The Colorado Discharge Permit System Stormwater Construction Permit (CDPS-SCP) shall be obtained by The Contractor.

Subsection 107.25 (d) 6, shall be added as follows:
The project shall require a Colorado Discharge Permit System Stormwater Construction Permit (SCP) and an El Paso County Erosion and Stormwater Quality Control Permit (ESQCP). The contractor shall apply for and obtain the permits upon award of the Contract. A Stormwater Management Plan (SWMP) is required to be submitted to El Paso County for review prior to issuing the ESQCP. The project will also require a Construction General Permit from the EPA. A Storm Water Pollution Prevention Plan (SWPPP) is required to be prepared by the Contractor and submitted to USAFA for review and approval in the process of obtaining the EPA Construction General Permit. The process of obtaining the Construction General Permit is expected to take 4 to 6 weeks. The Contractor shall not commence construction until the SCP, ESQCP and Construction General Permit have been obtained. Copies of the permits shall be placed in the project SWMP and SWPPP notebooks.

-3-

Revision of Section 107
Legal Relations and Responsibility to Public

Subsection 107.26 shall be added as follows:

107.26 Noxious Weeds. Noxious weeds may persist on or adjacent to the project location. All weed species on the State Weed Law List A and B shall be addressed according to State Statute. Information regarding noxious weeds is available through the CDOT Region 2 Environmental Office. CDOT Standard Specifications and BMPs shall be followed to reduce the spread of noxious weeds, including the following:

(1) Soil disturbance shall be minimized to the extent possible.

(2) Weed management efforts shall be coordinated with CDOT, USAFA, local jurisdictional agencies, and adjacent landowners to the extent possible.

(3) Herbicide may be used immediately adjacent to wetlands and/or water bodies only if the label indicates that its use is appropriate for such areas.

(4) Noxious weeds observed in and near the construction area will be treated with herbicides or mechanically removed prior to the start of construction to minimize spread.

(5) All disturbed areas will be re-seeded with a certified weed-free seed mix within seven days of completion of work during the growing season.

(6) Use of Fertilizer shall be in compliance with the September 2024 USAFA Revegetation and Erosion Control Standards.

(7) The upper 3” of existing Topsoil within the area to be disturbed within the pond site shall be carefully excavated, exported from the site, and disposed of in an appropriate facility to minimize the potential for post-construction noxious weed growth.

(8) Topsoil shall be engineered in accordance with Section 207 and the September 2024 USAFA Revegetation and Erosion Control Standards to minimize the potential for post-construction noxious weed growth.

(9) All areas treated for noxious weeds during construction will be monitored and re-treated, if necessary, to prevent the establishment of noxious weeds.

(10) Any compost or mulch used shall be weed-free.

Except as otherwise defined, the costs to implement measures to reduce the spread of noxious weeds will not be paid separately and shall be included in the cost of the work.

Subsection 107.27 shall be added as follows:

107.27 Aquatic Invasive Species. 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 seed. The Engineer may inspect all equipment prior to it being placed into service and may reject equipment that does not meet this specification. If heavy equipment used on this project has previously been used in another stream, river, lake, reservoir, pond, or wetland, one of the following disinfection practices shall be used prior to construction to prevent the spread of

-4-
Revision of Section 107
Legal Relations and Responsibility to Public

aquatic invasive species. The Contractor shall clean hand tools, boots, and other equipment that will be used in the water with one of the following options as well:

(1) Remove all mud, plants, and debris from equipment (tracks, turrets, buckets, drags, teeth, etc) and spray/soak equipment in a 1:15 solution of Sparquat Clearing and water or Super HDQ Neutral Institutional Cleaner and water (keep equipment moist for at least ten minutes, or:

(2) Remove all mud, plants, and debris from equipment (tracks, turrets, buckets, drags, teeth, etc) with water greater than 140 degrees Fahrenheit for at least ten minutes.

Equipment shall be dry before use. The Contractor shall not move water from one water body to another. The costs to inspect and clean equipment will not be paid separately and shall be included in the cost of the work.

-1-

Revision of Section 107
Safety, Health, and Sanitation and Performance of Safety Critical Work

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

Replace the text in Subsection 107.07 that is under the heading **"Performance of Safety Critical Work"** with the following:

Performance of Safety Critical Work. The following work elements are considered safety critical work for this project:

1. Work requiring the use of cranes or other heavy lifting equipment.
2. Work under the I-25 highway bridge
3. Temporary work: Shoring that exceeds 5' in height

The Contractor shall submit, for review, an initial, detailed construction plan that addresses safe construction methods for each of the safety critical elements applicable to this project. The Engineer's review will be for general conformance with the plans, specifications, best management practices regarding safety of the operation and industry standards. When the specifications already require an erection plan, a bridge removal plan, or a removal of portion of bridge plan, it shall be included as a part of this plan. The detailed construction plan shall be submitted two weeks prior to the safety critical element conference described below. The construction plan shall be stamped "Approved for Construction" and signed by the Contractor. The construction plan will be reviewed for acceptance by the Engineer.

The Construction Plan shall include the following:

1. Safety Critical Element for which the plan is being prepared and submitted.

2. Contractor or subcontractor responsible for the plan preparation and the work.

3. Schedule, procedures, equipment, and sequence of operations, that comply with the working hour limitations.

4. Temporary work required: falsework, bracing, shoring, etc.

5. Underground, above grade, and overhead utilities identification and protective steps taken.

6. Communication plan as necessary with stakeholders, media, and the public.

7. Additional actions that will be taken to ensure that the work will be performed safely.

8. Names and qualifications of workers who will be in responsible charge of the work:
    a. Years of experience performing similar work
    b. Training taken in performing similar work
    c. Certifications earned in performing similar work

-2-
Revision of Section 107
Performance of Safety Critical Work

9. Names and qualifications of workers operating cranes or other lifting equipment
    a. Years of experience performing similar work
    b. Training taken in performing similar work
    c. Certifications earned in performing similar work

10. The construction plan shall address how the Contractor will handle contingencies such as:
    a. Unplanned events (storms, traffic accidents, work accidents, etc.)
    b. Structural elements that don't fit or line up
    c. Work that cannot be completed in time for the roadway to be reopened to traffic
    d. Replacement of workers who don't perform the work safely
    e. Unexpected absence of critical management team
    f. Equipment failure
    g. Other potential difficulties inherent in the type of work being performed

11. Name and qualifications of Contractor's person designated to determine and notify the Engineer in writing when it is safe to open a route to traffic after it has been closed for safety critical work.

12. Erection plan or bridge removal plan when submitted as required elsewhere by the specifications. Plan requirements that overlap with above requirements may be submitted only once.

A safety critical element conference shall be held two weeks prior to beginning construction on each safety critical element. The Engineer, the Contractor, the safety critical element subcontractors, and the Contractor's Engineer shall attend the conference. Required pre-erection conferences or bridge removal conferences may be included as a part of this conference. Communications staff (Contractor or County) shall also attend in order to address any public/media needs.

After the safety critical element conference, and prior to beginning work on the safety critical element, the Contractor shall submit a final construction plan to the Engineer for record purposes only. The Contractor's Engineer shall sign and seal temporary works related to construction plans for the safety-critical elements, Traffic signal mast arm construction and Temporary Works. The final construction plan shall be stamped "Approved for Construction" and signed by the Contractor.

-3-

Revision of Section 107
Performance of Safety Critical Work

The Contractor shall perform safety critical work only when the Engineer, or an authorized representative, is on the project site. The Contractor's Engineer shall be onsite to inspect and provide written approval of safety-critical work for which he provided signed and sealed construction details. Unless otherwise directed or approved, the Contractor's Engineer need not be onsite during the actual performance of safety-critical work, but shall be present to conduct inspection for written approval of the safety-critical work.

When ordered by the Engineer, the Contractor shall immediately stop safety critical work that is being performed in an unsafe manner or which will result in an unsafe situation for the traveling public. Prior to stopping work, the Contractor shall make the situation safe for work stoppage. The Contractor shall submit an acceptable plan to correct the unsafe process before the Engineer will authorize resumption of the work.

When ordered by the Engineer, the Contractor shall remove workers from the project that are performing the safety critical work in a manner that creates an unsafe situation for the public in accordance with subsection 108.06.

Should an unplanned event occur, or the safety critical operation deviate from the submitted plan, the Contractor shall immediately cease operations on the safety critical element, except for performing any work necessary to ensure worksite safety, and provide proper protection of the work and the traveling public. If the Contractor intends to modify the submitted plan, he shall submit a revised plan to the Engineer prior to resuming operations.

All costs associated with the preparation and implementation of each safety critical element construction plan will not be measured and paid for separately, but shall be included in the work.

The Contractor shall not be relieved from ultimate liability for unsafe or negligent acts or receive a waiver of the Colorado Governmental Immunity Act on behalf of the County.

-1-

Revision of Section 108
Prosecution and Progress

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

Delete the last sentence of Subsection 108.02 and replace 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 in the fall of 2025. The "Notice to Proceed" will be issued to allow the awarded Contractor to order materials in advance of construction and complete permitting as required. The "Notice to Proceed" will specify the date on which contract time commences. The Contractor shall begin construction under the contract on or before the tenth (10^{th}) day following the date specified in the "Notice to Proceed." The Contractor shall complete all work within 120 workable working days.

Subsection 108.03 shall include the following:
A critical path method (CPM) schedule will be required. Schedules submitted with this bid shall assume a start date in accordance with instructions in the invitation to bid

Delete the first paragraph of Subsection 108.03(b) and replace with the following:
The Contractor's progress schedule shall be a Critical Path Method (CMP) schedule, developed and managed using Microsoft Project, 2003 version or newer. Such schedule shall be submitted via e-Builder/TUC (see section 103). The Contractor shall establish a regular schedule for working hours and working days per week for concurrence by the Engineer. Changes to this schedule shall be coordinated with the Engineer at least two weeks in advance of a change to provide the Engineer with sufficient time to organize staff. Salient features to be shown on the Contractor's Progress Schedule are:

1) Permitting
2) Construction Surveying
3) Mobilization
4) Clearing and Grubbing
5) Pond Site Underdrain Construction
6) Pond Site Excavation and Embankment
7) Pond Appurtenances Construction
8) Storm Sewer Construction
9) Roadway Patching
10) Work in Prebles Meadow Jumping Mouse Habitat
11) Planting and Seeding
12) Project Completion

-2-

Revision of Section 108
Prosecution and Progress

Delete Subsection 108.03(F) and replace with 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, 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. The minimum review time will be 10 days. The electronic copy shall be submitted using Microsoft Project, 2003 version or newer. A large-scale schedule shall be posted in the construction trailer at the beginning of the project and will be updated periodically, as directed by the Engineer.

Revision of Sections 201 and 202
Clearing and Grubbing and Removal of Trees
Protection of Migratory Birds

Section 201 and 202 of the Standard Specifications is hereby revised for this project as follows:

Subsection 201.01 and 202.01 shall include the following:
The work shall consist of protecting migratory birds. The contractor shall coordinate clearing and grubbing and tree removal operations to avoid impacts to migratory birds protected by the Migratory Bird Treaty Act.

Subsections 201.02 and 202.02 shall include the following:
Vegetation removal (i.e., clearing and grubbing and tree removal) activities will be timed to the extent possible to avoid the migratory bird breeding season (April 1 to August 31). All areas scheduled for clearing and grubbing or tree removal between April 1 and August 31 shall be surveyed for active migratory bird nests by a qualified biologist in accordance with subsection 240 – Protection of Migratory Birds.

The Contractor shall remove only those trees necessary to complete the work and shall not remove any trees or mature vegetation unless approved by the Engineer.

All costs incidental to the foregoing requirements shall be included in the work. Section 202.12 shall be revised to include the following:

Removal of trees and shrubs with trunks less than 4” in diameter will not be paid separately but shall be included in item 201 Clearing and Grubbing.

Revision of Section 202
Removal of Structures and Obstructions

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

Subsection 202.03 Salvable Material shall include:
All removed items designated to remain the property of El Paso County as shown on these plans or identified in these specifications shall be delivered to the El Paso County offices located at 3275 Akers Drive, Colorado Springs, CO, unless otherwise directed by the Engineer.

All items designated on the plans for removal shall become the property of the Contractor and be disposed of properly.

Subsection 202.11 shall include:
Sawing and cutting asphalt to a neat line shall not be measured and paid for separately but shall be included in the work.

Subsection 202.11 fifth paragraph shall include:
The entire length of the existing 42” RCP from the manhole on the north side of North Gate Boulevard to the outfall at Smith Creek shall be considered one culvert.

-1-

Revision of Section 203
Excavation and Embankment Material

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

Subsection 203.03, first paragraph, shall include the following:
Embankment material shall meet the following requirements for Atterberg limits and gradation:

- Maximum liquid limit =20%
- Maximum plasticity index = 10%
- A maximum of 35 percentage of material by dry weight passing the No. 200 sieve.

The upper 2 feet of embankment material below the subgrade elevation below pavements shall have a resistance value of at least R=50 when tested by the Hveem Stabilometer or the equivalent resilient modulus.

Subsection 203.02(a) shall include the following:
Excavation, export, and disposal offsite at an appropriate disposal site of the 3" of existing topsoil from all of the disturbance areas within the pond site (the disturbance area in the median of I-25) shall be included in unclassified excavation.

Subsection 203.02 (c) shall include the following:
Embankment material containing significantly more than optimum moisture that would become stable if dried shall not be unsuitable material.

In subsection 203.03, first paragraph, after the second sentence add the following:
Embankment material utilized for construction shall not contain Reclaimed Asphalt Pavement (RAP) materials in any percentage.

-2-

Revision of Section 203
Excavation and Embankment Material

In subsection 203.03, second paragraph, under 1. Soil Embankment add the following material requirements:

Soil Type 1	USCS and AASHTO Classification	Acceptable Locations for Placement
On-site sand soils	SM, SP, SW-SM, SC A-1 through A-3	The on-site sand soils are considered acceptable for use as engineered fill. A-1 soils are not to be used in the pond dam embankment unless blended with other materials to reduce permeability.
On-site highly plastic clays	CH A-6 and A-7	Highly plastic clay soils should not be reused as engineered fill below pavements but may be used to construct the proposed pond.
On-site claystone, siltstone, and sandstone bedrock	N/A	Claystone, siltstone, and sandstone bedrock, if encountered, are not considered suitable for reuse as engineered fill.
Imported soils	Varies	Imported soils meeting the gradation outlined herein can be considered suitable for use as structural and/or general fill.

1. Engineered fill should consist of approved materials free of organic matter and debris. Frozen material should not be used, and fill should not be placed on a frozen subgrade. A sample of each material type should be submitted to the Geotechnical Engineer for evaluation prior to use on this site.

Imported soils for use as engineered fill should conform to the following:

Gradation	Percent finer by weight (ASTM C136)
1”	100
No. 4 Sieve	50 - 80
No. 200 Sieve	<35

Soil Properties	Value
R-Value (below pavements)	50 (min.)
Liquid Limit	20 (max)
Plastic Index	10 (max)
Expansive Potential [1] (below pavements)	0 percent (max)

-3-

Revision of Section 203
Excavation and Embankment Material

In subsection 203.03, fourth paragraph, delete the first sentence and replace with the following:
Inclusion of recycled asphalt will not be allowed in the embankment fill. If recycled concrete is to be incorporated into embankment fill, the maximum dimension permitted for concrete is 6 inches.

Subsection 203.05 (g) shall include the following:
(g) Pond Site Topsoil. The top 3" of existing topsoil shall be carefully excavated and exported and disposed of in an appropriate offsite disposal site from areas that will be disturbed on the pond site (the disturbed area in the median of I-25) to minimize the potential for postconstruction weed growth.

Subsection 203.06 shall include the following:
Prior to placing engineered fill for the proposed pond dam construction, the subgrade soils should be scarified a minimum of 12 inches, moisture conditioned and compacted. After preparing the pond embankment subgrade, the area of the embankment should be proof-rolled in order to identify soft, loose or unstable soils. If unstable soils are encountered, stabilization efforts will be required prior to construction of the embankment and placement of engineered fill. If unstable soil conditions are encountered during construction, the Project Geotechnical Engineer should be contacted to provide site specific stabilization recommendations at that time.

Delete subsection 203.07(c) and replace with the following:
Use of Recycled Concrete: Recycled concrete may be incorporated into embankment material only if it meets the requirements for soil embankment materials included above. If allowed, it shall be processed, placed, and compacted in accordance with subsection 203.07(a) or (b), depending on the overall classification of the embankment material once the recycled material is incorporated. Recycled concrete shall not contain any rebar or reinforcing steel. Recycled concrete shall not be placed in the upper 2 feet of the final subgrade elevation or within 2 feet of the final finished side slopes unless otherwise noted in the Contract. Recycled or Reclaimed Asphalt Pavement will not be allowed in the new embankment materials.

Replace Subsection 203.11 (f) Proof Rolling with the following:
203.11 (f) Proof Rolling. Proof rolling will be considered incidental to the Unclassified Excavation (CIP) work and will not be measured and paid for separately.

Subsection 203.12 shall include the following:
The disposal of unsuitable material and replacement of embankment will not be measured and paid for separately, but shall be included in the work.

The Contractor's Process Control efforts will not be measured and paid for separately but shall be included in the work.

Export and disposal of excess excavated material at an appropriate disposal site shall be considered part of the work necessary to complete Unclassified Excavation (CIP) and will not be paid for separately.

Revision of Section 203
Excavation and Embankment Material

Delete the paragraph of Subsection 203.12 that begins with “Payment for replacement of unsuitable material.”

Revision of Section 206
Excavation and Backfill for Structures

Section 206 of the Standard Specifications is hereby revised for this project as follows:

Subsection 206.03 Delete all references to payment from the first paragraph.

Subsection 206.07 shall include the following:
Structure Excavation and Backfill will not be measured and paid for separately but shall be included in the work to install the pipe, appurtenances, and structures.

-1-
Revision of Section 207
Topsoil

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

207.01 Description

This work consists of amending on-site soil to serve as Engineered Topsoil. Testing, amendments and topsoil properties shall be in accordance with the requirements of the September 2024, USAFA Revegetation and Erosion Control Standards.

207.02 General

The top 3" of existing topsoil within areas to be disturbed on the pond site (disturbance area in the median of I-25) shall be carefully stripped from the site, exported and disposed of off-site in an appropriate disposal site. The purpose of this is to minimize the potential for noxious weed growth after construction. Engineered topsoil to support revegetation of the areas disturbed by the project will be produced by blending soil amendments with suitable on-site soils.

207.03 Engineered Topsoil Properties

The finished topsoil shall have the following characteristics:

- pH Range: 6.0 - 8.0
- Soil Texture:
  - Sand: thirty percent (30%) – fifty percent (50%)
  - Silt: thirty percent (30%) – fifty percent (50%)
  - Clay: five percent (5%) – thirty percent (30%)
- Particle Size: 1-inch (1") or smaller
- Cation Exchange Capacity: 10-30 MEQ/100G
- Soluble Salts: 1.0 mmhos/cm or less
- Organic Matter: 2 – 4%
- Nitrogen: < 15 ppm
- Phosphorus: if pH is <= to 7.1 (20-40 ppm); if pH is > 7.1 (10-25 ppm)
- Potassium: 150-250 ppm

207.04 Sampling and Testing

Soil conditions can play a major role in the success of a project's revegetation efforts. Because of this, soil testing should be completed as early as possible during the construction phase to guide plant selection and to determine the appropriate soil amendment needs. Depending on the scale and techniques of earth movement, soil chemistry can also change throughout the construction period and additional soil testing shall be completed during construction to verify the type and quantity of soil amendments.

The Contractor, in coordination with the Engineer shall collect soil samples following the below protocol for the purpose of understanding soil quality for subsoil and topsoil resources.

Soil Sample Collection Protocol

Soil sampling should be done once rough grading is completed. It should be assumed that results will require 7-10 business days, so plan accordingly to avoid disruption to construction schedules.

1. A Minimum of ten (10) composite samples shall be collected and tested. Samples shall be collected randomly throughout the disturbed areas to receive native seeding. Provide a site plan of the sampling locations to the Engineer for approval, prior to sampling.
2. Procedures and Depth of Samples: Collect composite samples to a depth of six inches (6") and combine them in a clean plastic container to create a composite soil sample. At least four grab samples, spaced at least 20 feet (20') apart, shall be used to create one composite sample.
3. Mixing of Samples: Mix grab samples together thoroughly, removing plant debris and breaking up clods.
4. Labeling: Label each composite sample with the date, location keyed to a site plan or other location system, visible soil condition, and sampling depth.

Soil Testing Laboratories

Testing Agency: Retain an Agricultural Laboratory Testing Association accredited or university- operated laboratory experienced in soil science, soil testing, and plant nutrition.

Testing Requirements

Soil samples should be tested for the following parameters and shall be submitted as part of the Environmental Deliverables List for evaluation of the topsoil's compliance with the Standards:

1. Soil Texture: Soil-particle, size-distribution analysis by the following methods according to SSSA's "Methods of Soil Analysis – Part 1 – Physical and Mineralogical Methods":
   a) Sieving Method: Report sand-gradation percentages for very coarse, coarse, medium, fine, and very fine sand; and fragment-gradation (gravel)
   b) percentages for fine, medium, and coarse fragments; according to USDA sand and fragment sizes.
   c) Hydrometer Method: Report percentages of sand, silt, and clay.
2. Fertility Testing: Soil-fertility analysis shall include the following:
   a) Percentage of organic matter
   b) Cation exchange capacity (CEC), calcium percent of CEC, and magnesium percent of CEC
   c) Soil reaction (acidity/alkalinity pH value)

d) Buffered acidity or alkalinity
e) Lime Estimate
f) Soil texture estimate
g) Nitrogen ppm
h) Phosphorous ppm
i) Potassium ppm
j) Manganese ppm
k) Zinc ppm
l) Iron ppm
m) Boron ppm
n) Copper ppm
o) Sodium ppm
p) Sodium absorption ratio (SAR)
q) Soluble-salts ppm
r) Presence and quantities of problem materials including salts and metals cited in the Standard protocol. If such problem materials are present, provide additional recommendations for corrective action
s) Other deleterious materials, including their characteristics and content of each

207.05 Soil Amendments

When considering soil amendment approaches, it is important to consider how to build up soil health and create functioning nutrient cycles in the soil. Soil is a complex ecosystem with microscopic organisms, fungi, and bacteria that influence soil and plant health. If these biotas are not cared for or considered when planning for revegetation actions, an opportunity to reduce long-term maintenance may be missed. Soil organisms need organic matter to complete their lifecycles, so soils shall have adequate amounts (2-4%) of organic matter prior to planting. This will help form a basis for proper nutrient cycling as well as help with infiltration rates, soil moisture capacity, and nutrient retention. Organic matter can be increased by the incorporation of weathered wood chips, humate, and or compost. It is important to understand the seed bank, soil texture, and nutrient quality of site soils before using compost as this product can cause a flush of nutrients that will benefit weedy species more than native species.

Manipulating soil chemistry using appropriate soil amendments can have long-lasting positive benefits for revegetated areas. A multitude of soil amendment products can be used, and approaches can be taken to support revegetation establishment objectives. However, misapplied, or excess fertilization can have long-lasting negative impacts.

Compost and fertilizers shall not be applied to areas within 50 horizontal feet (50’) from waterbodies to avoid impacts to water quality.

Soil amendment quantities shall be verified by reviewing the area of ground

disturbance requiring revegetation after initial construction efforts. The disturbance area shall be calculated in acres by tape/wheel measurement or GPS mapping performed by the Contractor and verified by the Government Representative(s). Soil amendment quantities may be modified if additional disturbance is incurred passed the original area determined. Soil amendments not listed in these Standards must be approved by the Engineer prior to application.

Fertilizer

Fertilizers, which can be inorganic or organic, are used to increase the nutrient content of soils. All fertilizers shall be a standard commercial product of uniform composition and shall conform to applicable local, state, and federal laws. Fertilizers shall be used for soils with adequate organic matter (2-4%) but inadequate macro- or micronutrient levels based on the soil testing analysis.

No fertilizer shall be applied within 50 feet of the banks of Smith Creek.

Compost

Compost is used to increase organic matter and nutrient content of soils. Compost shall be stable, well decomposed, and free of viable noxious or invasive weed seeds. Compost shall not contain more than one percent non-decomposable material. Compost shall be tested by a STA Compost- Certified Laboratory and test results shall represent the compost source to be used onsite. Compost test results shall be provided to the Engineer and approved prior to procurement. Compost shall have the following characteristics:

- pH Range: 5.5 - 8.0
    - Moisture Content: 35 – 55%
    - Particle Size: 1-inch (1”) or smaller
    - Stability: Stable – Highly Stable
- Maturity: >80% Seedling Vigor
- Soluble Salts: 2.5 mmhos/cm or less
    - Organic Matter: 30 – 70%

The minimum amount of compost to be applied is 3cy/1,000sf on this project.

-5-
Revision of Section 207
Topsoil

Humate

Humate is used to add cation exchange capacity to the soil, improve water retention, encourage seed germination, increase nutrient availability, and stimulate root growth. Humate soil conditioners shall have the following characteristics:

- pH Range: 3 - 5
- Humic Acids: >50%
- Organic Matter: >85%
- Nitrogen: 1 - 3%
- Phosphorus (P2O5): <0.1%
- Potassium (K20): <0.1%
- Mountain peat, aspen humus, gypsum, and sand will not be accepted.

207.06 Soil Mixing

Thoroughly blend amendments with on-site soil in accordance with the landscape plan requirements.

207.07 Basis of Measurement and Payment

Topsoil and amendments and work to produce it, other than compost, will not be measured and paid for separately but shall be considered incidental to Soil Preparation (Special)(For Native Seeding).

The quantity of Compost (Mechanically Applied) will not be measured on the site but will be paid for based on the bid form quantity. Load tickets shall be provided to the Engineer to document delivery of the required quantity. Payment will be based on the bid form quantity multiplied by the bid unit price for the item.

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 and Stormwater Management for this project. An initial Erosion Control Plan is provided in the plan set to give the Contractor guidance for bidding and conducting this work. The Contractor is responsible for reviewing this information and preparing a site-specific Stormwater Management Plan consistent with CDPHE requirements, plan notes, and plan specifications. The Stormwater Management Plan prepared by the Contractor shall be submitted to the Engineer for review at least five (5) days before beginning the work.

The project shall require a Colorado Discharge Permit System Stormwater Construction Permit (CDPS-SCP) and an El Paso County Erosion and Stormwater Quality Control Permit (ESQCP). The contractor shall apply for and obtain the permits upon award of the Contract. A Stormwater Management Plan (SWMP) is required to be submitted to El Paso County for review prior to issuing the ESQCP. The Contractor is also responsible for preparing a Storm Water Pollution Plan (SWPPP) and obtaining a Construction General Permit from the EPA. The SWPPP is to be submitted to USAFA for review and approval prior to applying for the EPA permit. The process time to obtain the Construction General permit is estimated to be 4 to 6 weeks. The Contractor shall not commence construction until these permits have been obtained. Copies of the permits shall be placed in the project SWMP and SWPPP notebook.

-1-

CDOT's Revision of Sections 208 and 625
Permanent Water Quality Survey
April 2, 2024

Revise Section 625 of the Standard Specifications as follows:

Revise 625.04, Contractor Surveying, under the last paragraph, add "Permanent Water Quality As-Constructed Survey" as follows:
(Last paragraph) The Contractor shall check all Department established Primary horizontal and vertical control points per the CDOT Survey Manual Chapter 6 and verify and document in the survey records their horizontal accuracy tolerance per the CDOT Survey Manual Chapter 5 and their vertical accuracy tolerance per the CDOT Survey Manual Chapter 6, for a CDOT Class A, Primary Survey before using them for construction surveying control.

Permanent Water Quality As-Constructed Survey. The Contractor shall complete an as-constructed survey of each Permanent Water Quality (PWQ) control measure (CM). Surveys are conducted on all PWQ CM for two reasons:

1. To provide initial location information for CDOT PWQ CM inventory, and
2. To provide necessary data for completion of the Pond Information Certification (PIC) for PWQ CM designed using the Water Quality Capture Volume (WQCV) Standard (Extended Detention Basin (EDB), Retention Pond, etc.)

The Contractor shall submit the as-constructed survey to the Project Engineer. The electronic as-constructed survey shall conform to the requirements of Section 625, use Terrain Modeling Survey System (TMOSS) codes, and shall include the following information:

1. The Contractor's Professional Land Surveyor's (PLS) digital terrain model with the electronically sealed field-collected information report.
2. The PWQ survey shall include all horizontal and vertical reference points for all PWQ features as determined by the Contractor's surveyor.
3. The contours shall be shown at 1-foot intervals with major contours labeled at 5-foot increments.
4. The bottom of the EDB elevations along the toe of embankment slope and top and bottom of trickle channel elevations, to verify positive drainage throughout the basin with labels of features, elevation, and the WQCV elevation as shown on the plans.
5. The top of wall or dam elevation on the survey to verify freeboard (distance between high- water mark and top of wall or dam elevation) along the EDB, and the top width of the embankment along the perimeter of the EDB.

-2-
CDOT's Revision of Sections 208 and 625
Permanent Water Quality Survey
April 2, 2024

6. A detail of each forebay located at the outfall of each incoming storm drain into the EDB, including plan dimensions with tops of walls, tops of slabs, pipe invert elevations, and pipe diameters.
7. The basin location related to property lines (measured distances), right-of-way lines, buildings, roads, access paths, and other easements.
8. The details of the outlet control structure, including labels of features and elevations, and notes indicating if the features are the same as the design plan, or the reason they are different in the as-constructed survey.
9. The details, including labels and elevations of all grates, racks, screens, and any other materials intended to prevent clogging of the outlet structure orifices by debris of any kind. Label all features and elevations on the as-constructed deliverable CADD 3D model and Survey report.
10. The access and maintenance easements per the ROW plans around the EDB, including the maximum slope of the access easement.
11. The submitted CADD 3D model shall include the following:
    a. All control marks set per item 2, and other Project Controls as shown on the sealed Project Control diagram; ensure that contour lines are continuous, closed, unbroken polylines.
    b. Grade spot elevations and break lines used to create the contours.
    c. Elevations for all applicable items listed in 2-10 above.
    d. Correct contours.
    e. Initial /EDB volume calculation report sealed by the PLS of the data collection.
    f. Geocoordinate system that conforms to project datum.
    g. Survey information shall be compatible with the latest 3D digital modeling software.

Submit the as-constructed survey, including field survey data, survey report, and electronic model files as a complete package to the Engineer. Allow 10 days for CDOT review of the field survey data.

If the field survey data, survey report or electronic model files indicate the control measure was incorrectly constructed, the Contractor shall perform necessary corrective work to the PWQ CM to ensure compliance with design, at no cost to the project, as directed by the Engineer.

The Contractor shall clean all Permanent Water Quality Control Measures before the PWQ Survey, final walkthrough and final acceptance.

-3-
CDOT's Revision of Sections 208 and 625
Permanent Water Quality Survey
April 2, 2024

Payment for the as-constructed survey of EDBs and associated items, including creating the electronic 3D CADD model and report, shall be included in Item 625 Construction Surveying.

Revision of Section 210
Reset Structures

Section 210 of the Standard Specifications is hereby revised for this project as follows:

Subsection 210.12 Add the following:
Adjust MH (Special) shall include all work and material necessary to locate a manhole that is buried and raise it to above the proposed grade at its location in accordance with the CDOT standard plans. Removal and disposal of any existing manhole parts removed and not reused shall be incidental to the work.

Revision of Section 212
Seeding, Fertilizer, Soil Conditioner, and Sodding

Section 212.01 shall include the following:

Seeding, fertilizer, and soil conditioner shall meet the requirements of Section 207, the plans, and the September 2024, USAFA Revegetation and Erosion Control Standards.

No Fertilizer or compost shall be placed within 50 linear feet of the backs of Smith Creek.

The Plant Material Warrantee/landscape establishment period shall be as stated in the Landscape Plans.

-1-

Addition of Section 218
Water Control and Dewatering

Section 218 is added to the Standard Specifications as follows:

218.01 This work consists of controlling and dewatering groundwater, controlling channel flows, and controlling storm flows during construction.

The Contractor shall be responsible for the project and shall take such precautions as may be necessary to construct the project in a dry condition and provide for drainage, dewatering, and control of all surface and subsurface water, and shall erect any necessary temporary structures or other facilities at his expense. The Contractor is advised that a small portion of the project is located in a drainage channel subject to intermittent and potentially extensive runoff conditions. Other portions of the project are located within the flow paths for local drainage. The Contractor is also advised that geotechnical borings indicate that the groundwater levels are above the level of facilities to be constructed in portions of the project area.

218.02 General

Dewatering permits are required for this project. The Contractor is responsible for obtaining the required permits in accordance with Revision of Section 107.

The Contractor shall develop and submit a Water Control and Dewatering Plan for approval by the Engineer. The plan shall show the phasing of the construction and channel improvements, including all methods and devices (indicated in each phase) used to control water and dewatering of excavations. In addition, all temporary control devices shall also be shown on these plans.

For all work, the Contractor shall provide suitable equipment and labor to remove water and shall keep the excavations dewatered so that construction can be carried on under dewatered conditions. Water control shall be accomplished so that no damage is done to adjacent infrastructure, banks, or structures. The Contractor is responsible for investigating and familiarizing himself with all site conditions that may affect the work, including surface water, level of groundwater, and the time of year the work is to be done. All excavations made as part of dewatering operations shall be backfilled with the same type of material as was removed and compacted in accordance with Section 203 and Revisions, except where replacement by other materials is specified.

At all times outside of performing construction activities, Contractor shall not leave construction equipment and materials within or near the flow paths of surface water. Damage to the Contractor’s equipment and materials will be at the Contractor’s expense.

218.03 Surface Water Control:

Surface water control generally falls into the following categories:

1. Normal range of flows along Smith Creek expected during the construction period.

Smith Creek Flood Discharge Estimates at the Existing 42" Storm Sewer Outfall	
2-year	64 CFS
10-yr	160 CFS
100-yr	990 CFS

   These discharge estimates are based on information published in the October 2016 Monument Creek Watershed Restoration Master Plan for Smith Creek at I-25.

2. Local surface runoff and inflows not conveyed by pipelines or culverts.

The Contractor shall coordinate, evaluate, design, construct, and maintain temporary water control conveyance systems. These systems shall not significantly alter major flow paths, increase sedimentation, or cause erosion or flooding of adjacent areas.

The Contractor will be responsible for diverting the quantity of surface flow around or through the construction area so that the excavation for pipes, riprap, and other project elements remain free of surface water for the time it takes to install these items, and the time required for curing of any concrete. The Contractor is cautioned that the minimum quantity of water to be diverted is for erosion control and construction purposes and not for general protection of the construction site. It shall be the Contractor's responsibility to determine the quantity of water which shall be diverted to protect his work from damage caused by storm water.

The Contractor shall, at all times, maintain the flow channel for Smith Creek and other surface flows at the construction site. Temporary structures such as pipes, shoring, berms, sandbags, pumps, etc. shall be permitted for the control of creek flow, as long as such measures are not a major obstruction to flood flows, do not worsen flooding, or alter historic flow routes, or extend beyond the project limits of disturbance as shown on the plans.

The Contractor shall isolate or divert flows so construction equipment, materials, and earthwork are not exposed to flow.

218.04 Groundwater Control:

The Contractor shall install adequate measures to maintain the level of groundwater below the foundation subgrade elevation and maintain sufficient bearing capacity for structures, pipes, earthwork, and riprap. Such measures may include, but are not limited to, installation of perimeter sub drains, pumping from

drilled holes or by pumping from sumps excavated below the subgrade elevation, and phasing the work such that the proposed underdrain and special trench foundation treatment may assist in the effort. The foundation bearing surfaces are to be kept dewatered and stable until the structures or other types of work are complete and backfilled. Disturbance of foundation subgrade by Contractor operations shall not be considered as originally unsuitable foundation subgrade and shall be repaired at Contractor's expense.

Section 218.05 Measurement and Payment

All work, materials, and permitting associated with Water Control and Dewatering shall be considered incidental to construction items included in the bid schedule and will not be otherwise be measured and paid for.

-1-

Addition of Section 240
Protection of Migratory Birds
Biological Work Performed by the Contractor's Biologist

Add Section 240 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 before the time when active nests are present. Vegetation removal activities shall be timed to avoid the migratory bird breeding season which begins on April 1 and runs to August 31. All areas scheduled for clearing and grubbing between April 1 and August 31 shall first be surveyed within the work limits for active migratory bird nests. The Contractor's wildlife biologist shall also survey for active migratory bird nests within 50 feet outside work limits. Contractor personnel shall enter areas outside CDOT right of way only if a written, signed document granting permission to enter the property has been obtained from the property owner. The Contractor shall document all denials of permission to enter property. The Contractor shall avoid all active migratory bird nests. The Contractor shall avoid the area within 50 feet of the active nests or the area within the distance recommended by the biologist until all nests within that area have become inactive. Inactive nest removal and other necessary measures shall be incorporated into the work as follows:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

240.03 Work performed by the Contractor's Wildlife Biologist, work required to remove nests, and work and materials required to keep birds from nesting including but not limited to netting, mowing, and trimming as required by this special provision, shall not be measured and paid separately but shall be considered incidental to item 201-00000 Clearing and Grubbing.

-1-

Addition of Section 241
Environmental Commitments

Section 241 is hereby added to the Standard Specifications for this Project as follows:

Description

241.01 This work consists of minimizing and mitigating impacts to the Preble's Meadow Jumping Mouse (PMJM) habitat caused by constructing the Project. The materials and construction requirements below are committed to in the Draft Environmental Assessment(EA) for North Gate/Struthers Permanent Water Quality Pond, February 15, 2024. This document is available from the County upon request.

Construction Requirements

241.02 Requirements outlined below are taken from the reference listed in 241.01 and are some of the commitments made and incorporated into the plans. The text in *italics* describe minor variations from the EA text due to the issuance of the September 2024, USAFA, Revegetation and Erosion Control Standards.

Conservation Measures

- Implementation of PMJM habitat restoration and creation will be supervised by a qualified ecologist/biologist experienced in habitat restoration. This includes implementation of an approved integrated weed management plan.
- A qualified ecologist or landscape architect shall provide a briefing to the contractor prior to ground disturbance to discuss the Project and ensure understanding of avoidance and minimization measures.
- In the unlikely event a PMJM or any other federally listed species is killed or injured during project activities, notify the U.S. Fish and Wildlife Service's Colorado Ecological Services Field Office in Lakewood ((303) 236-4773) within ten (10) days.
- If feasible, riparian vegetation in the "permanent impact" areas will be mowed or cut to a height of 4-6" above the ground during the active season, while Preble's are still active and can move away (May-August). This will create a less desirable habitat for hibernation, which usually starts by late September.
- Areas of temporary disturbance will be reseeded with the attached seed mixes. provided by USAFA. (*USAFA revised seed mixes to the ones shown in the project landscape plans)*
- Habitat areas, specifically high-quality Preble's habitat such as dense willow areas will be identified and impacts to these areas will be minimized to the fullest extent feasible.
- Native seed mixes and vegetation will be used in all revegetation efforts to reduce erosion and replace habitat value, and the site will be promptly revegetated.
- The contractor will limit areas where bare ground exists. If these areas are temporary impacts, reseeding will be promptly initiated.
- Noxious weeds will be controlled by the contractor in all impacted habitat areas until 0 percent of Colorado Noxious Weed Act (Colorado Revised Statutes [CRS] 35-5.5-1011-119) List A species and less than 5 percent of List

B or 10 percent of list C species are found in overall plant cover from transects or plot data.
    - Noxious weeds control will be implemented through the contracted warranty period, or until the USAFA and USFWS consider the mitigation successful.
    - After the warranty period, CDOT will be responsible for noxious weed control on the site.
- Erosion and sediment will be controlled by the use of silt fencing and erosion logs or other acceptable industry BMPs.
- Construction access in Preble's habitat will be confined to areas identified as impact areas.
- No construction staging will be allowed in high-quality Preble's habitat (see project construction plans and figures in EA).
- Preble's habitat adjacent to construction zones will be fenced to prevent construction equipment and other disturbances from occurring in these areas.
- Erosion, stormwater, and pollution control BMPs will be implemented during construction to minimize direct impacts to wetlands, streams and riparian areas through erosion and sediment discharge.
    - Installation of erosion and sediment devices, such as silt fence, to minimize surface runoff in impacted areas.
    - Placement of vehicle tracking control devices at the site entrance(s).
    - Placement of concrete washout areas, equipment refueling, and staging areas in upland areas at least 100 feet away from wetlands, creeks, and riparian areas. These areas will be located outside any Preble's habitat. The contractor will have a spill prevention plan.
    - Revegetation of all temporarily impacted areas with native seed mixes to reduce erosion.
    - Use of soil retention blankets (biodegradable coconut blanket with at least two-year longevity for erosion protection) on newly seeded, steep slopes to control erosion and promote vegetation establishment.

<u>Success Criteria</u>

Temporarily disturbed areas are vegetated according to the following specifications:

- Site preparation for seeding and planting will use a high-quality topsoil and/or similar amendments (no fertilizer will be applied to the site). (*The September 2024 USAFA Revegetation and Erosion Control Standards eliminated the "no fertilizer" requirement except for within 50 linear feet of Smith Creek.)*
- At least 80 percent total cover of the planted mitigation area is established with native plant species and growing without showing signs of stress or the continued need for irrigation. This requirement is independent of the

stormwater construction permit.
- Noxious weeds and other invasive species will be controlled in restored and enhanced areas and weed control will be done for five years or until it is considered successful when 0 percent of Colorado Department of Agriculture (CDA) designated List A species and less than 5 percent of List B species and 10 percent of list C are found in overall plant cover from ocular estimates.
- Absolute vegetative cover will be consistent with the surrounding undisturbed habitats.

Performance Monitoring

Mitigation monitoring will occur within the following parameters:

- A qualified ecologist or landscape architect will supervise the implementation of restoration and enhancement.
- Annual mitigation monitoring would be conducted by El Paso County during the growing season and an annual mitigation monitoring report will be submitted to USAFA and USFWS (Project stakeholders or regulators) before December 1 of each year and will extend for five years after completion of the mitigation installation or until Project regulators determine that the success criteria have been met.
- Problems that could prevent or interfere with the establishment of the mitigation area will be brought to the attention of the Project Engineer and Project regulators.
- The Project Engineer will review and approve alterations to mitigation area design necessary for successful mitigation.
- All recommended remedial actions will be communicated to the Project team and will be implemented after they have been approved by the Project regulators.

Measurement and Payment

241.03 The items included herein shall be paid for as identified elsewhere in the plans and specifications. There will not be any separate payment made as a result of this specification.

Revision of Section 304
Aggregate Base Course

Section 304 of the Standard Specifications is hereby revised for this project as follows:

Subsection 304.02 shall include the following:
Materials for the base course shall be Aggregate Base Course (Class 6) meeting the requirements shown in subsection 703.03. Reclaimed asphalt material (RAP) shall not be used.

The aggregate base course (Class 6) must meet the gradation requirements and have a resistance value of at least 50 when tested by the Hveem Stabilometer method.

The aggregate base course used for constructing exposed features such as maintenance roads must have a brown-tone color that aesthetically blends well with the on-site soils and new riprap, boulders and colored concrete. Samples must be provided to the Engineer for review and approval prior to importing material.

Revision of Section 401
Plant Mix Pavements – General

Section 401 of the Standard Specifications is hereby revised for the project as follows:

Delete Section 401 and replace it with Version 6 of the Pikes Peak Region Asphalt Paving Specifications.

Revision of Section 403
Hot Mix Asphalt

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

Delete Subsection 403.02 and replace it with the following:
The materials shall conform to the requirements described in Version 6 of the Pikes Peak Region Asphalt Paving Specifications.

Delete the first sentence of Subsection 403.03 and replace it with the following:
The construction requirements shall be as described in Version 6 of the Pikes Peak Region Asphalt Paving Specifications.

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

Delete Subsection 403.04 and replace it with the following:
Hot mix asphalt will be measured as described in Version 6 of the Pikes Peak Region Asphalt Paving Specifications. The pay item shall be 403-34722 HMA (GR SX)(75)(PG 58-28) (6” thick) and the unit shall be square yards.

Delete Subsection 403.05 and replace it with the following:
The accepted quantities of hot mix asphalt will be paid for in accordance with Version 6 of the Pikes Peak Region Asphalt Paving Specifications.

Revision of Section 407
Prime Coat, Tack Coat, and Rejuvenating Agent

Section 407 of the Standard Specifications is hereby revised for the project as follows:

Delete Subsection 407.02 and 407.09 and replace it with the following:
407.02 Bituminous Material. The type and grade of bituminous material used for tack coating will meet the specifications described in Version 6 of the Pikes Peak Region Asphalt Paving Specifications. The bituminous material for prime coating shall meet the requirements of Section 702. The rejuvenating agent shall be accepted before loading into the distributor.

Subsection 407.09 shall include the following:
Tack coat will not be measured and paid for separately, but shall be included in the cost of 403 Hot Mix Asphalt.

Revision of Section 411
Asphalt Materials

Section 411 of the Standard Specifications is hereby revised for the project as follows:

Delete Subsections 411.04 and 411.05 and replace with the following:
Asphalt materials shall be measured and paid for as described in Version 6 of the Pikes Peak Region Asphalt Paving Specifications, except as otherwise noted in the plans and these specifications.

Revision of Section 506
Riprap

Add the following sections for Soil Riprap following **Section 506.10**

506.11 Soil Riprap shall conform to the following requirements:

(a) Rock requirements are to comply with Section 506.02. Color of the rock shall be brown-tones that will aesthetically blend with on-site soils and proposed colored concrete. A sample of the riprap shall be provided to the Engineer for review and approval prior to any riprap being imported to the site.

(b) The soil material shall be native or topsoil.

(c) The riprap and soil blend shall be approximately 65 percent (65%) riprap and thirty five percent (35%) soil.

(d) Soil riprap shall consist of a uniform mixture of soil and riprap without voids.

(e) Adjacent stockpiles of riprap and soil shall be created and mixing done at the stockpile location, not at the location where soil riprap is to be placed.

(f)The mixture shall be consolidated by large vibratory equipment or backhoe bucket to create a tight, dense interlocking mass. The soil shall then be further wetted to encourage void filling with soil.

Method of Measurement

506.12 Soil Riprap of the sizes specified in the Contract will be measured by the cubic yard. Cubic yards will be calculated by the method of average end areas based on the dimensions shown on the plans.

Basis of Payment

506.13 The accepted quantities of Soil Riprap will be paid for at the contract unit price per cubic yard.

-1-

Revision of Section 507
Slope and Ditch Paving

Section 507 of the Standard Specifications and Standard Special Provisions is hereby revised for this project as follows:

Add the following to Subsection 507.13:

Reinforcement and color, as called for on the plans shall be included in the pay item for concrete slope and ditch pavement (reinforced)(colored).

Add the following sections for Grouted Boulders following **Section 507.14**

507.15 Grouted Boulders shall conform to the following requirements:

507.16 Materials

a. The specific gravity of the boulders shall be 2.5 or greater.
b. Minimum density for acceptable boulders shall be 156 pounds per cubic foot. The specific gravity shall be according to the bulk-saturated, surface-dry basis, AASHTO T85.
c. The maximum ratio of largest to smallest rock dimension of individual boulders shall be 1.50.
d. The nominal size of boulders shall be as shown in the construction drawings. The range in smallest dimension of individual rock boulders shall be +- 6% of the nominal size. Control of gradation will be by visual inspection. However, in the event the Owner determines the boulders to be unacceptable, the Owner will pick 2 random truck loads to be dumped and checked for gradation. Mechanical equipment and labor needed to assist in checking gradation shall be provided by the Contractor at no additional cost to the Owner if the boulders do not meet the specified gradation. If the boulders do meet the gradation specified, the Owner shall pay for the equipment and labor required for checking.
e. The color of boulders shall be brown-tones that aesthetically blend with on-site soils, riprap rocks and colored concrete and shall be approved by the Engineer prior to delivery to the project site.
f. The boulders shall have a percentage loss of not more than 10 percent after 5 cycles when tested in accordance with AASHTO Test T104 for ledge rock using sodium sulfate.
g. The boulders shall have a percentage loss of not more than 10 percent after 12 cycles of freezing and thawing when tested in accordance with AASHTO Test T103 for ledge rock, procedure A.
h. Rock shall be free of calcite intrusions. Rhyolite rock shall not be used for any grouted boulders.
i. The boulders shall have a percentage loss of not more than forty percent (40%) after five hundred (500) revolutions when tested in accordance with AASHTO T96.

j. Grout: Concrete for the grout shall be an approved batch meeting the following requirements: All concrete grout shall develop 3,200 psi compressive strength within 28 days; the cement shall be Type VI; the stone aggregate shall have a maximum diameter of ½ inch; and the slump shall be within a range of 4 inches to 6 inches. One cubic yard of grout shall contain a minimum of six (6) sacks of Type V cement. Aggregate for the grout shall consist of 70% natural sand (fines) and 30% 3/8-inch rock (coarse). Use of a stiffer mix or other measures may be allowed as approved by the **Engineer** for steeper slopes or for vertical joints. The water/cement ratio by weight shall not exceed 0.48 and air entrainment shall be 6.0% ± 1.5%. The maximum allowable substitute of Fly Ash (Class C) is 25%. Add 1.5 pounds per cubic yard of synthetic fiber reinforcement per manufacturer's instructions. Contractor shall submit a mix design in writing to the Engineer for approval prior to placement of any grout. The visible portions of the grout shall be colored with Davis Colors Omaha Tan 5084.

507.17 Construction

a. The sub-grade within 12" below grouted boulders shall be free of un-suitable materials and compacted to a minimum of 95% maximum dry density standard proctor per ASTM D698 at 3% plus or minus optimum moisture. If present, unsuitable/unstable material shall be removed and replaced with approved material compacted in a maximum of 8 inch loose lifts to a minimum of 95% maximum dry density standard proctor per ASTM D698, to re-establish the sub-grade for the boulders. Moisture content shall be within a range of ±3% optimum moisture content. Unstable material shall be removed from the project site and disposed of by the Contractor. Care shall be taken during compaction to avoid disturbing and/or damaging the integrity of the adjacent structure.

   The top elevation of all boulders shall be as indicated on the Drawings. The elevation of sub-grades for boulders will be determined from the height of each boulder used.

b. (Around the perimeter of grouted boulder structures, where the top face of the grouted boulder surface and boulders are required to be flush, the boulders shall be carefully picked and arranged so that adjacent rock surfaces match within 2 inches in top elevation. Boulders shall be placed such that adjacent boulders "touch" each other and voids do not exceed 4 inches. It is the intent of construction to minimize voids and grout placed between boulders.
c. Prior to placing the grout, any type of debris, fines, smaller rock or silt shall be removed from around or under or on the boulders.
   i. Dewatering shall be implemented to guarantee that the grout will not be placed in water or submerged in water for a period of 24 hours after the grout has been placed.

ii. Keep boulders receiving grout wet at all times prior to receiving grout. The concrete grout shall be placed by injection methods by pumping under low pressure, through a 2-inch maximum diameter hose to ensure complete penetration of the grout into the void area as detailed on the Drawings. Grout will be placed up to the depth shown on the plans. Operator shall be able to stop the flow and will place grout in the voids and not on the surface of the rocks.

iii. Grout should be troweled out and finished to minimize visibility. Clean and wash any spillage before the grout sets. The visual surfaces of boulders will be free of grout to provide a clean natural appearance. If washing does not clean off grout residue, the ***Contractor*** shall wash off any grout residue with muratic acid and water, using a brush to scrub off the residue. A "pencil" vibrator shall be used to make sure all voids are filled between the boulders. The intent is to fill all voids from the sub-grade level around the boulders to a depth as shown on the Drawings. The "pencil" vibrator may be used to smooth the appearance of the surface, but the ***Contractor*** shall use a wood float to smooth and grade the grout around the boulders. The grout mix shall be stiffened and other measures taken to retain the grout between the boulders.

d. The Contractor shall, if deemed necessary, support the boulders from falling over before and during the placement of riprap, grout, backfill, and compaction work on either side of the boulder.

e. Grout shall receive cold weather protection in accordance with Section 601.12 of these Specifications. Grout shall not be placed when the temperature of boulders is less than 40 degrees F.

f. The Contractor shall coordinate with the Engineer so that a visual inspection can be made at the following stages in the installation:

- Boulder selection and placement
- Subgrade compaction
- Grout installation and finishing

If the material cannot be visually inspected and measured, it shall be up to the Engineer’s discretion as to what material needs to be removed so that accurate measurements and verification can be obtained.

507.18 Grouted Boulder Edging of the sizes specified in the Contract will be measured by the linear foot as shown in the plans.

507.19 The accepted quantities of Grouted Boulder Edging will be paid for at the contract unit price per linear foot.

Revision of Section 601
Structural Concrete

Section 601 of the Standard Specifications and Standard Special Provisions is hereby revised for this project as follows:

Subsection 601.18 is hereby deleted and replaced with the following:

(a) Construction Tolerances. Unless otherwise stated in the plans or specifications, tolerances for concrete construction and materials shall be in accordance with ACI 117.

(b) Sampling and Testing. The Engineer or his/her designee shall obtain samples of concrete from the chute of mixer trucks after all field adjustments to the load are made by the Contractor. No additional modifications to the load will be permitted after the sample has been obtained.

Add the following to Section 601.20:

Reinforcement, as called for on the plans shall be included in the pay item for Concrete Class D (wall)(special).

Revision of Section 602
Reinforcing Steel

Section 602 of the Standard Specifications and Standard Special Provisions is hereby revised for this project as follows:

Subsection 602.08 is hereby deleted and replaced with the following:

Concrete Reinforcement, as called for on the plans shall be included in the pay item for the associated concrete item and will not be measured and paid for separately.

Revision of Section 603
Culverts and Sewers

Section 603 of the Standard Specifications and Standard Special Provisions is hereby revised for this project as follows:

Add the following to Subsection 603.13:
All excavation and backfill associated with construction of the storm sewer items Concrete Reinforcement, as called for on the plans shall be included in the pay item for the associated concrete item and will not be measured and paid for separately but will be included in the work.

If pre-approved in writing by the Engineer, the “Special Foundation Zone Treatment” as shown in the plans for wet and unstable area, will be measured and paid for as “8” horizontal drain” by the linear foot. All excavation, backfill, labor and materials associated with the item shall be included in the work.

Delete the second to last paragraph that starts “Structure excavation and structure backfill will”.

Revision of Section 605
Subsurface Drains

Section 605 of the Standard Specifications and Standard Special Provisions is hereby revised for this project as follows:

Add the following to Subsection 605.03:
At the point that the underdrain crosses under the proposed 48" RCP storm sewer, the gravel of the underdrain and the gravel of the special foundation gravel under the storm sewer shall be bedded together with filter fabric wrapping the outside of the intersection but not between the two beds of gravel. This will allow any water collected in the special bedding to flow into the underdrain.

Add the following to Subsection 605.07:
All excavation, backfill, labor, and materials associated with the pipe underdrain required for the project including the connection to the existing storm sewer shall be included in the linear foot price for the underdrain.

Revision of Section 610
Median Cover Material

Section 610 of the Standard Specifications is hereby revised for this project as follows:

Subsection 610.02 shall include the following:
Concrete for colored median shall meet the requirements of Class B Concrete.

Colored wax-curing compound and the hardener-enhancing compound shall be as approved by the Engineer and shall meet the requirements of ASTM C 309. Color shall match adjacent median cover material (Davis Sangria #1117).

Subsection 610.03 shall include the following:
The Contractor shall place colored concrete, color hardener, and colored wax-curing compound on a 4-foot by 4-foot test panel for approval by the Engineer prior to commencing the work. If the test panel is unacceptable to the Engineer, the Contractor shall construct additional test panels until the correct color and finish are approved by the Engineer. Workmen and equipment used on the test panel shall be the same as that used in the final construction of the colored concrete.

Colored hardener, if desired by the Engineer, shall be applied evenly to the concrete surface while it is in the "plastic" stage by the "dry-shake" method. Each application rate shall be a minimum of 60 pounds of hardener per 100 square feet of surface. Color hardener shall have two applications and be wood floated after each application, using a trowel on the final float.

The colored wax-curing compound, thinned in the proportion of 4 parts wax to 3 parts mineral spirits (paint thinner) shall be applied uniformly with a roller or motor-driven power sprayer. The coverage shall be 600 to 650 square feet per gallon of unthinned curing compound. The surface shall be broom finished prior to the application of the colored wax compound.

Subsection 610.04 shall include the following:
Plowable median nose will be paid as a lump sum item including all labor and material required to construct the item in accordance with the City of Colorado Springs standard detail for the item.

Revision of Section 625
Construction Surveying

Section 625 of the Standard Specifications is hereby revised for this project as follows:

Subsection 625.01 shall include the following:

The Contractor shall complete an as-constructed survey of the project. At a minimum, the following items shall be surveyed:

1. Final earthwork grades
2. Storm sewer/culvert inverts
3. Manhole rims and Inverts
4. Drainage inlet rims and inverts
5. Replaced curb and gutter flow lines and top of curbs
6. Permanent erosion control measures
7. Permanent Water Quality Control Measures as described in CDOT's April 2, 2024 Revision of Sections 208 and 625 as included in these Special Provisions

The As-Constructed information for items 1 through 6 shall be included as red-lines on a set of As-Constructed Plans. The As-Constructed information for Item 7 Permanent Water Quality Control Measures shall be provided in accordance with CDOT's April 2, 2024 Revision of Sections 208 and 625 Permanent Water Quality Survey.

Subsection 625.13 shall include the following:

All work associated with as-constructed surveys shall be included in the Lump Sum price for Item 625-00000 Construction Surveying.

-1-

Revision of Section 626
Public Information Services

Section 626 of the Standard Specifications is hereby revised for this project to include the following:

No specific meetings with the public are included in this project, however; the Contractor shall maintain communications with stakeholders, including but not limited to, businesses, individual residences, emergency services, USAFA, CDOT, City of Colorado Springs, and utilities that are directly adjacent to and/or affected by the Project. The Contractor should also expect to receive inquiries from adjacent property owners and the public. The Contractor shall send/forward/redirect all inquiries to the Project Engineer, or their designee, immediately upon receipt and shall provide responses, as applicable, to the County for review.

The Contractor shall provide a Public Relations Officer (PRO) for this Project who will support the County and coordinate with the Engineer and Construction Manager in outreach and communications for the Project. The PRO shall be responsive on a daily basis Monday through Friday to the County and available at the request of the County at other than normal Working hours. The Contractor shall also identify any other personnel capable of filling in for the PRO in the event the PRO is not available due to travel, illness, or other event that will be longer than one week in length. The PRO will be familiar with the construction schedule and assist in continued community outreach and shall incorporate these into periodic project updates ready for publishing on the El Paso County website. The Contractor shall also be ready to provide information for press releases in accordance with project outreach and communication efforts.

The Contractor shall establish a Public Information Line (PIL) that will consist of a local telephone number capable of recording messages from the caller. The PRO shall record a greeting on the PIL that includes the Project's name, office hours, expected completion date, and any forthcoming activities including workdays and hours, expected traffic delays, and anticipated closures. This message will be updated as necessary depending on changes to the work schedule, activities, or traffic impacts, and shall be approved by the Project Engineer. The PRO shall check the PIL's voicemail every calendar day, including weekends, and shall send/forward/redirect all inquiries to the Project Engineer, or their designee, immediately upon receipt.

The PRO shall track inquiries made by citizens and businesses, including names, addresses, phone numbers, date of contact, date responded, the contact's comments, and the action taken by the PRO and subsequent action taken during construction. These inquiries shall be entered into a database, spreadsheet, or similar provided by the Contractor, and a copy shall be provided to the Engineer each week.

The PRO shall identify key stakeholders impacted by the Project and maintain communications with them, including but not limited to, businesses, individual residences, emergency services, USAFA, CDOT, City of Colorado Springs,and utilities that are directly adjacent to and/or affected by the Project. The Contractor shall

notify stakeholders about the Project two weeks prior to beginning any lane restrictions or project activities. Depending on Project impacts, contact with stakeholders may be required daily, weekly, or periodically throughout the duration of the Project. Communication tools could include face to face interaction, hand flyers, door hangers, newsletters, mailers, email distribution, etc. All public information correspondence and subsequent updates must be approved by the Engineer 48 hours before distribution, and shall contain contact information including: PRO's name, PIL number, and EPC's Project website address with EPC logo. Phone numbers and email addresses shall be included as appropriate. The communication shall include the description of work, lane restrictions, a detour map if warranted, anticipated start and completion dates, work schedule, hours of operation, and a Slow for the Cone Zone message.

Seven (7) days prior to construction, the Contractor shall coordinate with property owners regarding any construction activities adjacent to their property.

The Contractor shall provide documentation of the required coordination, including the approval signature of each affected owner or tenant. Should the Contractor be unable to obtain approval or signatures, documentation of the efforts made to obtain said approval and signatures must be submitted.

Public Information Services will not be paid for separately but shall be included in the Work.

-1-

Revision of Section 630
Construction Zone Traffic Control

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

Subsection 630.02, sixth and seventh paragraphs, including Table 630-1, shall be deleted, and replaced with the following:
Retroreflective sheeting shall be Type IV for all signs.

Subsection 630.10 shall include the following:
The key elements of the Contractor's Method of Handling Traffic (MHT) are outlined in subsection 630.10(a). The components of the Traffic Control Plan (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
3. Standard Plan S-630-2, Barricades, Drums, Concrete Barriers (Temp), & Vertical Panels
4. MUTCD Part 6 (2009 edition)

The following documents shall control the preparation of the MHT Plans and are listed in the order of precedence:

1. Plans, Specifications and Special Provisions for this project
2. *Manual on Uniform Traffic Control Devices* (MUTCD) latest version
3. El Paso County *Engineering Criteria Manual* (latest version and July 2019 Revision)
4. Colorado Department of Transportation *Standard Specifications* (2023 edition)
5. Colorado Department of Transportation M&S Standards (2023 edition and updates)

Due to the project crossing through multiple jurisdictions, review times will be longer than normal. The Contractor shall submit, in writing, the proposed MHT for the initial phase of construction at least two weeks prior to the start of construction. When a different MHT is required for a subsequent construction phase, it must be submitted a minimum of two weeks prior to approval to start that phase. Quality Assurance (EPC) MHT review times will be two weeks per submittal. The Contractor shall follow all requirements included in the TMP prior to implementing an MHT. All proposed MHTs shall be signed by the TCS and Contractor and shall be approved, in writing, by the Engineer. Approval of an MHT does not constitute approval to deploy traffic control devices. Approval of the proposed MHT does not relieve the Contractor of liability specifically assigned to him/her under the Contract.

-2-
Revision of Section 630
Construction Zone Traffic Control

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

The Contractor and subcontractors shall equip their construction vehicles with flashing amber lights. Flashing amber light bars on vehicles and equipment shall be visible from all directions.

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 cost of maintaining access will not be paid for separately but shall be included in the Work.

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. The Access Maintenance Plan for that property must be submitted and incorporated in the MHT five (5) working days prior to commencing any work which affects access to a property.

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, unless otherwise approved by the Engineer.

-3-

Revision of Section 630
Construction Zone Traffic Control

The Contractor shall provide a Transportation Operations Plan (TO)that includes at a minimum the following:

1. Procedures to respond to traffic incidents that may occur in the activity area or Work zone required to restore normal project operations. Describe the interface between Fire and Rescue, Public Information, Hazmat, Law Enforcement by Jurisdiction, Courtesy Patrol Services (CSP), etc.
2. Contact Lists: Agency Contact Lists, Traffic Control, El Paso County.
3. Procedures for coordinating with traffic incident management partners including: The project TCS, construction superintendent, law enforcement, fire and rescue, emergency medical services, public information personnel to support the traffic incident management plan within the corridor.
4. Alternative route information and other TO elements that may change during the course of the Work.
5. Details of the process to review incidents for the purpose of identifying elements of the TCP needed to reduce the frequency and severity of such accidents if not included in the Project Safety Plan.
6. A post incident evaluation report shall be completed by the Contractor and submitted to the Engineer.
7. Procedures for these types of incidents if not included in the Project Safety Plan:

    a. Traffic slowdowns, delays or road closures caused by third party traffic accidents within the corridor not associated with construction activities.
    b. Traffic slowdowns and delays of 30, 45, and 60 minutes caused by construction traffic ingress and egress or nightly lane closures
    c. 3rd party property damage as a result of construction activity

Failure to follow the approved public information, traffic control plans or correct traffic control safety deficiencies identified by either quality control or quality assurance may result in the Project Engineer issuing a Stop Work Order per Standard Specification 107.06. If a safety stop Work provision has been initiated officially by CDOT's Form 105 it will remain in place until the project is brought back into compliance without exception. No additional time will be granted for failure to comply with TMP requirements.

The Contractor shall revise the Project Safety Plan or Transportation Operation Plan (TO) to be consistent with revision to TCPs/MHT's during the course of Work. The revised Safety Plan or TO shall be submitted to the Engineer for approval.

-4-

Revision of Section 630
Construction Zone Traffic Control

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

Project Specific Working Times and Traffic Control Plan Requirements

a) *Project Specific Working Time*. The Contractor shall perform any Work requiring traffic control devices on the roadway (traveled way and shoulder) within the hours of 7:00 am and 7:00 pm or during daylight hours, whichever is more restrictive or as directed or approved by the Engineer. The Contractor shall not perform any work on the roadways on Saturdays, Sundays, holidays, nor non-daylight hours on all other days, unless approved by the Engineer. Requests to Work on Saturday and/or Sunday shall be submitted to the Engineer in writing at least four (4) working days prior to the requested work. Weekend work will not be permitted unless it has been approved in writing by the Engineer.

   Work that interferes with traffic on holidays, any day of a three-day or four-day holiday weekend, the day before any holiday or holiday weekend, or special events on the USAFA, such as graduation and football games, will not be permitted. Holidays on which this restriction applies shall be those holidays recognized by the State of Colorado listed subsection 101.02.

b) *Variance Process for Project Specific Working Time*. Contractor will have 10 working days to submit a variance request through the Engineer in advance of planned work requiring a proposed variance for review. At minimum, variance submittal request shall include: Current Project Schedule, Proposed Project Schedule (based on variance request), Proposed Working Times, MHT's and supportive reasoning narrative for variance request.

c) *Project Specific Traffic Control Requirements*. Any full roadway closures shall require a written justification from the Contractor submitted to the Engineer for review stating reasoning, dates scheduled, working times of operation, and applicable MHTs or TCPs that will be utilized.

   The Contractor shall notify the Engineer a minimum of one (1) week prior to the date and time that construction is scheduled to begin or as directed by the Engineer.

   The Contractor shall notify the Engineer of the date the Contractor intends to start at least two (2) weeks prior to starting the installation of advanced warning signs. Temporary poles, signs and placement for advanced warning will require preapproval. All advanced warning signs and devices shall be located in accordance with the details shown in the plans, specifications or approved MHT's and meet minimum performance criteria for the project duration unless otherwise approved.

   Unless otherwise approved by the Project 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 and shall be shown or noted on

MHT's. Traffic control devices shall be removed by picking up the devices in a reverse sequence to that used for installation. This may require moving backward through the Work zone. When located behind a barrier or at other locations shown on approved traffic control plans, equipment may operate in a direction opposite to adjacent traffic. All devices shall be removed from the 14' temporary traffic control clear zone when not in use unless approved by the Project Engineer. During extended non-Working hours, the roadways shall be restored to a safe travel condition for the free flow of traffic.

ATSSA Quality Guidelines for Temporary Traffic Control will be used to qualify and accept all devices. Marginal devices shall be replaced within 24 hours or as approved by the Engineer. Failure to replace out of specification devices may result in a Stop Work Order as determined by the Engineer.

TCS diaries shall include all requirements per CDOT Standard Specifications for Road and Bridge Construction, Section 630. The Engineer may require additional information for specific tasks or construction activities if they are not included in the Project Safety Plan.

Any device damaged due to the Contractor's operations shall be replaced in kind or repaired by the Contractor at no additional cost to the project.

Vertical cuts or fills greater than 1 inch resulting from construction operations adjacent to traffic lanes unless approved by the Engineer shall be temporarily sloped at a 4:1 or a flatter slope and also be delineated immediately after removal operations to safeguard the traveling public. Material will not be measured and paid for separately.

When the Contractor removes, obliterates, or overlays any pavement markings, the Contractor shall replace them on a daily basis prior to opening the affected areas to traffic. All temporary pavement markings shall fully comply with the Standard Specifications and Special Provisions.

Any maintenance required to restore the roadways to this condition, including pavement patching and grading, shall be done prior to opening the areas to traffic or completing Work for the day.

Buffer zones shall be considered and dimensioned on all MHT's. Both the posted speed limit and TMA vehicle weights shall be used in determining Roll Ahead Distances (RAD) per the manufacturer's recommendations.

The Contractor shall not place tack coat on any surface to be paved where traffic will be forced to travel upon prior to bituminous material application.

-6-
Revision of Section 630
Construction Zone Traffic Control

d) *Reduction in Speed Limits*. The Contractor may request a reduction in speed limits. The request must be submitted, approved, and signed by the Engineer whenever the speed limit is reduced on a construction project, even if the speed limit reduction is shown on the plans.
The Contractor is required to submit the TMP for approval by the Engineer. The complete request must be submitted a minimum of 10 Working days prior to the proposed implementation date indicated on the form.

The Contractor is restricted from storing materials, equipment, or construction traffic control devices (signs, cones, etc.) in the shoulder (clear zone).

The Contractor shall notify the Engineer within 48 hours of anticipated schedule change.

The Contractor shall notify all identified stakeholders, as directed by the Engineer, on all lane closure submittals.

The Contractor shall refer to Public Information Management Project Special Provision in the contract for list of identified stakeholders needed to identify and notify of construction impacts, operation activities, etc., as directed by the Engineer. Other stakeholder groups if not previously identified in Public Information Management Project Special Provisions:

El Paso County Maintenance Tim Stickel

Phone: (719) 337-2837

Email: timstickel@elpasoco.com

El Paso County Josh Palmer

Phone: (719) 520-6898

Email: joshuapalmer@elpasoco.com

El Paso County John Lantz

Phone: (719) 208-5913

Email: johnlantz@elpasoco.com

EMS & Fire

Phone: (719) 683-7211

Oversized/Overweight

Phone: (719) 339-9264

Delete Paragraphs 6, 7, 8, 11, and 12 of Subsection 630.17, and replace 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 or another representative certified as a work site traffic 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 active TCM will be every calendar day on which active traffic control occurs in accordance with 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. Traffic control devices that are left in place during non-Working hours, including configurations such as lane closures, temporary channelization, or detours, are not considered active traffic control.

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 or another representative certified as a Work site traffic supervisor. An authorized 24-hour day of TCI shall be every calendar day that traffic control devices as shown in the MHT 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.

Payment will be made for either Traffic Control Management or Traffic Control Inspection for every calendar day that traffic control devices as shown in the MHT are in use, masked, or turned away from traffic on the project.

Payment will not be made for both items for the same calendar day. Work on a night shift that begins before midnight and ends after midnight will be considered as occurring on the calendar day on which the shift ends.

The quantity to be measured for flagging will be the total number of actual flagging hours that are used as authorized in accordance with an approved MHT. Payment will not be made for time spent by flaggers to set up and take down construction traffic control devices.

Subsection 630.18 shall include the following:
Temporary traffic control devices, materials, and equipment including but not limited to temporary pavement marking paint, barricades, vertical panels, County supplied signs, lighting, drum channelizing devices, temporary concrete barrier, traffic cones, and construction traffic signs will not be measured and paid for separately but shall be included in the Lump Sum bid price for Construction Traffic Control. The actual quantity of devices necessary to construct the project is dependent on the phasing and scheduling developed by the Contractor and the MHTs approved by the Engineer.

All costs incidental to the requirements as listed in this specification shall be included in the 630 pay items contract prices for the project and will not be paid for separately.

Payment will be made under:

Pay Items	Pay Unit
Traffic Control (Special) LS	Lump Sum
Flagging	Hour
Traffic Control Management (TCM)	Day
Traffic Control Inspection (TCI)	Day

-8-

Revision of Section 630
Construction Zone Traffic Control

The following, but not limited to the following, will not be measured and paid for separately but shall be included in the Work:

1. Flagger hand devices
2. Electrical power, including batteries, for all temporary lighting or warning devices
3. Temporary masking signs, including the covering materials and fastening devices
4. Placement, unmasking, removal, and masking of reduced speed limit and double fines signs
5. Preparation and implementation of the Traffic Management Plan
6. Vehicles necessary for temporary traffic control
7. Permitting and necessary forms, including CDOT forms
8. Coordination with CDOT and Colorado State Patrol
9. Coordination with the Engineer
10. General maintenance and basic repair of control measures (Rev.208.12)

-1-

Revision of Section 630
Portable Message Sign Panel

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

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:

630.031 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 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 power operation with battery back-up, each sign shall be capable of operating on a hard wire, 100-110 VAC, 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.

-2-
Revision of Section 630
Portable Message Sign Panel

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) calendar 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.

Subsection 630.18 shall include the following:
Portable message sign panels will 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 703
Aggregates

Section 703 of the Standard Specifications is hereby revised for the project as follows:

Delete Subsection 703.03 and replace it with Version 6 of the Pikes Peak Region Asphalt Paving Specifications.

Revision of Section 712
Miscellaneous

Section 712 of the Standard Specifications is hereby revised for the project as follows:

Delete Subsection 712.03 and replace it with Version 6 of the Pikes Peak Region Asphalt Paving Specifications.

Revision of Section 713
Traffic Control Materials

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

Subsection 713.14 (a) shall be revised to include the following:
Material shall meet the requirements of the current edition of the Manual on Uniform Traffic Control Devices for Streets and Highways. The thermoplastic material shall conform to AASHTO designation M249-79 (98).

Subsection 713.14 (b) 1. shall be revised to include the following:
The markings shall be a resilient white or yellow thermoplastic material with uniformly distributed glass beads throughout the entire cross sectional area.

Subsection 713.14 (b) 6, Conformability, shall be added:

6. Conformability. Marking shall be capable of conforming to pavement contours, breaks, and faults etc. Marking shall be capable of withstanding the actions of traffic at normal pavement temperatures. Marking shall have resealing characteristics such that it is capable of fusing with itself and previously applied thermoplastic pavement markings when heated with the torch.

Subsection 713.14 (b) 7, Adhesion, shall be added:

7. Adhesion. Material such as lines, legends, or symbols shall be capable of being affixed to bituminous and/or Portland cement concrete pavements by the use of the normal heat of a propane torch.

The top surface of the stencils (the same side as the factory applied surface beads) shall have an indicator system for the contractor to properly gauge the correct amount of heat to apply during installation. The indicator system shall have a positive visual indication, such as beads changing color or indents closing together, when the material has reached the correct installation temperature. The indicator system must also provide a positive, visual indication if the material has not reached the correct installation temperature.

Subsection 713.14 (b) 8, Retro-reflectance, shall be added:

8. Retro-reflectance. Marking, when applied in accordance with manufactures recommendations, shall demonstrate a uniform level of sufficient night time retro-reflection when tested in accordance to ASTM E1710-97. The applied material must have an initial minimum intensity reading of 500 mcd·m2·1x-1 for white and 300 mcd·m-2·1x-1 for yellow as measured with a retro- reflectometer.

-1-

Force Account Items

Description

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

Basis of Payment

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

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

Force Account Item	Quantity	Estimated Amount
F/A Minor Contract Revisions	LS	$300,000
F/A Post Construction Stabilization	LS	$20,000

F/A 01 Minor Contract Revisions: This work consists of minor work authorized and approved by the Engineer which is not included in the contract drawings or specifications, and which is necessary to accomplish the scope of work on the contract.

F/A 02 Post Construction Stabilization: This work consists of Post Construction Stabilization authorized and approved by the Engineer which is not included in the contract drawings or specifications, and which may be determined to be necessary to achieve final stabilization. This work shall not include work required by the contract drawings or specifications and work required for maintenance and or replacement of vegetation throughout the warranty period.

-1-

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, Case 4; Standard Plan S-630-1, Traffic Controls for Highway Construction, Case 24; Standard Plan S-630-2, Barricades, Drums, Concrete Barriers (Temp), & Vertical Panels
(3) MUTCD Figure 6H-6. Shoulder Work with Minor Encroachment (TA-6)

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.

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

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 two weeks prior to starting that phase. The MHT shall have signature lines for the TCS, Prime Contractor and the Engineer. All proposed MHT’s shall be approved, in writing, by the Engineer. Approval of the proposed MHT is intended to indicate those items for which payment is to be made. Such approval does not relieve the Contractor of liability specifically assigned to him under the contract.

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

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

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

3. 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.

4. Except for construction equipment necessary to complete the work, the Contractor will be allowed to park only the following vehicles within the roadway construction limits: one vehicle for the Project Superintendent and one vehicle for each Traffic Control Supervisor. These vehicles shall be designated in advance of construction by the Contractor. All parking of equipment shall be outside of the clear zone.

5. Workers shall not access the work areas by crossing roadways unless proper traffic control or other necessary precautions are provided. Suitable transportation to the work site for personnel whose vehicles are parked off site shall be provided by the Contractor.

6. Restricted Work Times. This project includes restrictions to work times and days that affect traffic during holidays, holiday eves, holiday weekends, special events, and other circumstances as described later in the special provision. Wherever other laws, ordinances, regulation, or orders are more restrictive, they shall take precedence over these requirements.

   Restrictions are as follows:

   i Work is restricted to the hours of 7:00 a.m to 7:00 p.m., Monday through Friday or as directed and approved by the Engineer.

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

7. Request for each lane closure shall be made at least 48 hours in advance of the time the lane closure is to be implemented. Lane closures will not be allowed to remain unless being utilized continuously for the purpose for which they were set up.

8. The Contractor shall coordinate and cooperate fully with the Department, utility owners, and other contractors, to assure adequate and proper traffic control is provided. The Contractor shall coordinate and cooperate fully with others providing traffic control for other operations to assure that work or traffic control devices do not interfere with the free flow of traffic except as allowed by the approved Method of Handling Traffic.

9. The Traffic Control Supervisor shall be responsible for preparing the final TCP and MHTs for all phases of construction. The following design criteria shall be incorporated into the diversion plan:

    a. Minimum 11’ lane widths.
    b. Minimum 4’ shoulder (2’ shoulder/2’ Type 7 barrier).
    c. Maximum 2:1 foreslopes.
    d. Design speed 25 mph.
    e. The Contractor shall maintain one lane open for each direction of travel through the duration of the project unless otherwise otherwise approved by Engineer.

10. Construction Access Plan. The Contractor shall prepare and submit a construction access plan as part of the method of handling traffic, which shall be approved by the Engineer prior to beginning work. This plan shall contain, but not be limited to a diagram showing the access to and from each affected roadway, location and duration of each signing and flagger position, and a narrative explanation.

    Access Maintenance Plan. The Contractor shall maintain access to all adjacent properties at all times, unless otherwise directed by the Engineer. The Contractor shall prepare and submit an Access Maintenance Plan as part of the method of handling traffic, which shall be approved by the Engineer prior to beginning work. The Access Maintenance Plan shall be developed in coordination with, and based on the requirements of the affected property owners and tenants.

    Seven days prior to construction, the Contractor shall coordinate with property owners regarding any construction activities adjacent to their property.

    This plan shall detail all barricades, ramps, signs, and temporary means of access required for the property owners or tenants. Five working days prior to commencing any work which affects access to a property, the Access Maintenance Plan must be submitted for the affected properties and incorporated in the MHT.

    The Access Maintenance Plan shall detail the work necessary to provide continued access to the mailboxes by the postal service. The Contractor shall establish a temporary mailbox position any time an access is repositioned. The Contractor shall be responsible for coordinating any new location of a mailbox with the property owner(s) and the post office.

    The Access Maintenance Plan shall include documentation of the required 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.

-4-
Traffic Control Plan - General

All accesses shall be maintained on surfaces equal to or better than those existing at the time the access is first disturbed. Utilization of materials to be incorporated permanently 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.

All costs incidental to the maintenance of access will not be paid for separately, but shall be included in the work unless otherwise specified.

11. Maintenance of Travel Ways. The contractor shall maintain aspects of the roadway as follows:

i The Contractor shall remove and reset all existing signs prior to performing any work that affects or obstructs those signs.

ii Whenever the Contractor removes, obliterates, or covers in any way, any pavement markings, they shall be replaced on a daily basis prior to opening affected areas to traffic. All pavement markings shall be placed in accordance with the Contract.

iii Traffic shall be carried on a paved surface at all times unless otherwise approved by the Engineer.

iv During non-working hours, the roadways shall be restored to safe travel conditions for the free flow of traffic. All maintenance required to restore the roadways to this condition, including pavement patching and grading, shall be done prior to opening the areas to traffic or completing work for the day.

v The Contractor is responsible for maintenance of open public roadways and access to driveways within the project limits during construction. The Contractor shall be responsible for snow removal for all other areas within the project limits.

vi All accesses shall be maintained on surfaces equal to or better than those existing at the time the access is first disturbed, unless approved by the Engineer.

All costs incidental to the foregoing requirements shall be included in the original contract prices for the project, including any additional traffic control items required for haul routes into or away from the project.

-1-
Utilities

There are existing underground utilities that cross or are located immediately adjacent to the proposed project facilities. A Subsurface Utility Engineering investigation, in accordance with Colorado Senate Bill 18-167, was performed and is available for the Contractor. A utility plan indicating numerous underground utility relocations and adjustments required to resolve conflicts with proposed facilities is included in the plan set. Existing utilities and conflicts are also noted on the proposed storm sewer plans.

Except as noted on the plans, the utility relocations and adjustments are to be performed by the utility owners concurrent with the Contractors construction of proposed facilities The contractor shall provide excavation and backfill for utility relocations and adjustments by utility owners that are required for construction of the proposed project facilities. This excavation and backfill shall be considered incidental to the work to install storm sewers, appurtenances, and structures and will not be paid for separately under Force Account items or other items.

Known utilities and contacts within the limits of this project are:

Utility Contacts			
Utility Company	**Contact Name**	**Telephone**	**Email**
Academy District 20	Zach Mather	719-234-1502	TBD
AT&T	Alex Cornett	918-232-0877	AC4957@att.com
CSU* – Electric	Jim Bradbury	719-668-3243	JBradbury@csu.org
CSU* – Gas	Timothy Wendt	719-668-4962	TWendt@csu.org
CSU* – Water/ Sanitary	Rockie Wiley	719-668-4675	RWiley@csu.org
CSU* – Fiber	Chance Daves	719-668-3913	CDaves@csu.org
Colorado Springs Traffic	Bryan Curtis	719-385-7603	Bryan.Curtis@coloradosprings.gov
Comcast	Steve Creighton	719-746-8489	Steve_Creighton@comcast.com
Donala Water and Sanitation District	Ronny Wright	719-499-8256	RonnyW@donalawater.com
Falcon Broadband/ Stratus IQ	Mark Kinman	719-678-1055	MKinman@stratusiq.com
Lumen	Diane Murphy	719-597-1452	Diane.Murphy@lumen.com
Lumen	Robert Mcleod	303-949-2187	RMclead@congruex.com
MCI	Lane Grady	303-827-9756	Lane.Grady@verizon.com
Mountain View Electric Association (MVEA)	Les Ulfers	719-494-2682	Les.u@mvea.coop
Sprint	Russell Mix	TBD	Russel.Mix@T-Mobile.com
Zayo Group	R.D. Bishop	801-897-2503	RdBishop@Cobbfindley.com
Zayo Group	N/A	N/A	Zayo.relo.colorado.com

*CSU – Colorado Springs Utilities

-2-
Utilities

The work described in these plans and specifications requires coordination between the Contractor and the utility companies in accordance with subsection 105.11 in conducting their respective operations as necessary to complete the utility work with minimum delay to the project.

GENERAL:

The Contractor shall comply with Article 1.5 of Title 9, CRS ("Excavation Requirements") when excavation or grading is planned around underground utility facilities. The Contractor shall notify all affected utilities at least two (2) business days, not including the day of notification, prior to commencing such operations.

Where known conflicts exist, the Contractor shall notify the owner of the conflicting utility at least 30 days in advance of progressing work at the conflict location. The Contractor shall contact the Utility Notification Center of Colorado (UNCC) at (8-1-1) or 1-800-922-1987 to have locations of UNCC registered lines marked by member companies. All other underground facilities shall be located by contacting the respective company. Utility service laterals shall also be located prior to beginning excavating or grading.

The location of utility facilities as shown on the plan and profile sheets, and herein described, were obtained from the best available information.

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