



INVITATION FOR BID

Construction

B24-001MZ

Date issued: January 3, 2024

SINTON TRAIL SOUTH DOUGLAS CREEK REPAIRS

THE CITY OF COLORADO SPRINGS

The City of Colorado Springs hereby solicits Firm Fixed Price (FFP) (or Fixed Unit Price (FUP)) Bids, as detailed in this Invitation For Bids (IFB), for Sinton Trail South Douglas Creek Repairs

This IFB is posted to BidNet Direct and the City of Colorado Springs' Procurement Services Website. It is available for all vendors free of charge, following free registration, at the BidNet Direct website.

SUBMITTALS FOR THIS PROJECT WILL ONLY BE ACCEPTED ON THE BIDNET DIRECT PLATFORM.

Please login to the following website to register (Free Registration) to submit a bid for this project. All required documents will be uploaded to the BidNet website. The City of Colorado Springs belongs to BidNet's Rocky Mountain e-Purchasing Group within BidNet.

<https://www.bidnetdirect.com/>

BIDNET Direct Support

800-835-4603

Estimated Project Magnitude: \$900,000.00 - \$1,500,000.00

SECTION I – BID INFORMATION

1.0 BID INFORMATION

Section I provides general information to potential Bidders, such as bid submission instructions and other similar administrative elements. This Invitation for Bid (IFB) is available on BidNet (www.bidnetdirect.com). All addenda or amendments shall be issued through BidNet and may not be available through any other source.

1.1 SPECIAL TERMS

Please note the following definitions of terms as used herein:

The term “City” means the City of Colorado Springs.

The term “Contractor” or “Consultant” means the Bidder whose offer is accepted and is awarded the contract to provide the products or services specified in the IFB.

The term “Offer” or “Bid” means a bid submitted in response to this IFB.

The term “Offeror” or “Bidder” means the person, firm, or corporation that submits a formal bid or offer and that may or may not be successful in being awarded the contract.

The term “Project” refers to Sinton Trail South Douglas Creek Repairs Project.

The term “Invitation for Bid” or “IFB” means this solicitation of formal, competitive, sealed bids from prospective bidders in which the intent is to award a contract to the resultant lowest responsible and responsive bidder.

1.2 BID ISSUE DATE

Invitation for Bid (IFB) Number B24-001MZ is being issued and posted on www.bidnetdirect.com on January 3, 2024

1.3 SUBMISSION OF BIDS

- A. Bids are to be submitted electronically on BidNet Direct (www.bidnetdirect.com). Please review the submission requirements **well in advance** of submission date and time, and allow for ample time to upload each required document. It is recommended that Offerors begin the submission process at least one (1) day in advance of the proposal deadline.

Offerors are solely responsible to ensure all required bid documents are uploaded and submitted correctly, and that a **confirmation number** is obtained upon successful submission. Customer support for BidNet Direct may be reached at (800) 835-4603.

- B. Bids shall be received on or before: 2:00PM January 31, 2024. A public opening will be held via Microsoft Teams at that time. Web access and dial in information is below:

Microsoft Teams meeting
Join on your computer, mobile app or room device

[Click here to join the meeting](#)

Meeting ID: 270 567 500 679

Passcode: h82wcp

[Download Teams](#) | [Join on the web](#)

Or call in (audio only)

[+1 720-617-3426,,843852651#](#) United States, Denver

Phone Conference ID: 843 852 651#

C. Bid bond is required if total bid exceeds \$50,000.00. (Also see 1.22)

D. The cost of Bid preparation is not a reimbursable cost. Bid preparation shall be at the Bidder's sole expense and is the Bidder's total and sole responsibility.

1.4 PRE-BID CONFERENCE

A pre-bid meeting will be held via Microsoft Teams on January 11, 2024 at 2:00PM. This meeting is highly encouraged but not mandatory. Please use the link below to attend this meeting:

Microsoft Teams meeting

Join on your computer, mobile app or room device

[Click here to join the meeting](#)

Meeting ID: 279 293 455 802

Passcode: Nn6adk

[Download Teams](#) | [Join on the web](#)

Or call in (audio only)

[+1 720-617-3426,,937965437#](#) United States, Denver

Phone Conference ID: 937 965 437#

1.5 LATE BIDS/LATE MODIFICATIONS OF BIDS

Bids, withdrawals or modifications of Bids received after the time set for opening, as designated in 1.3 above, are considered "late bids", and will not be accepted by the City, except as provided for in the City of Colorado Springs Procurement Rules and Regulations and approved by the Procurement Services Manager. Bidders are solely responsible for insuring their bids arrive on time and to the place specified in this Invitation for Bid.

1.6 MISTAKES IN BIDS - CONFIRMATION OF BID

If it appears from a review of a Bid that a mistake has been made, the Bidder may be requested to confirm its Bid in writing. Situations in which the confirmation may be requested include obvious, apparent errors on the face of a Bid or a Bid unreasonably lower than the other Bids submitted. All mistakes in Bids will be handled in accordance with the City of Colorado Springs Procurement Rules and Regulations.

1.7 PROCUREMENT RULES AND REGULATIONS

All formal IFBs advertised by the City of Colorado Springs are solicited in accordance with the City's Procurement Rules and Regulations. The City's Procurement Rules and Regulations can be reviewed and/or downloaded from the City's Procurement Services Division website at

www.coloradosprings.gov. Any discrepancies or conflicting statements, decisions regarding bidding irregularities, or clarifications regarding clauses or specifications will be rectified utilizing the City's Procurement Rules and Regulations, when applicable. It is the Bidder's responsibility to advise the Contracts Specialist listed in this IFB of any perceived discrepancies, conflicting statements, or problems with clauses or specifications prior to the Bid opening date and time.

1.8 MINOR INFORMALITIES/IRREGULARITIES IN BIDS

- A. A minor informality or irregularity is one that is merely a matter of form and not of substance. It also pertains to some immaterial defect in a Bid or variation of a Bid from the exact requirements of the invitation that can be corrected or waived without being prejudicial to other Bidders. The defect or variation is considered immaterial when the effect on price, quantity, quality, or delivery is negligible when contrasted with the total cost or scope of the goods and/or services being acquired.
- B. If the City Procurement Services Division determines that a Bid submitted contains a minor informality or irregularity, then the Procurement Services Manager shall either give the Bidder an opportunity to cure any deficiency resulting from the minor informality or irregularity or waive the deficiency, whichever is to the advantage of the City. In no event will the Bidder be allowed to change the Bid amount. Examples of minor informalities or irregularities include but are not limited to the following:
 - 1. Bidder fails to sign the Bid, but only if the unsigned Bid is accompanied by other material evidence, which indicates the Bidder's intention to be bound by the unsigned Bid (such as Bid security, or signed cover letter which references the Bid Number and amount of Bid).
 - 2. Bidder fails to acknowledge an Amendment, although this may be considered a minor informality only if the Amendment, which was not acknowledged, involves only a matter of form or has either no effect or merely a negligible effect on price, quantity, quality, or delivery of the item or services bid upon.

1.9 REJECTION OF BIDS

The Procurement Services Manager has the authority to reject any Bid based on, but not limited to, the following:

- A. Any Bid that fails to conform to the essential requirements of the Invitation for Bids shall be rejected.
- B. Any Bid that does not conform to the applicable specifications shall be rejected unless the IFB authorizes the submission of alternate bids and the items or services offered as alternates meet the requirements specified in the IFB.
- C. A Bid that fails to conform to the specified delivery schedule.
- D. A Bid shall be rejected when the Bidder imposes conditions that would modify requirements of the IFB or limit the Bidder's liability to the City, since to allow the Bidder to impose such conditions would be prejudicial to other Bidders.

For example, Bids shall be rejected in which the Bidder:

- 1. Protects against future changes in conditions, such as increased costs, if total possible

- costs to the City cannot be determined. This includes failure to completely fill out required bid schedule.
2. Fails to state a price and indicates that price shall be "price in effect at time delivery".
 3. States a price but qualifies it as being subject to "price in effect at time of delivery".
 4. Takes exceptions to the IFB terms and conditions.
 5. Inserts the Bidder's terms and conditions.
 6. Limits the rights of the City under any Contract/Invitation for Bid clause.
- E. Any Bid in which the price is considered to be unreasonable or is over budget.
- F. Any Bid if the prices are determined to be unbalanced.
- G. Bids received from any person or contractor that is suspended, debarred, proposed for debarment, or under investigation for fraud, including failure to pay federal, state, local or city taxes.
- H. When a bid guarantee is required and the bidder fails to furnish the guarantee in accordance with the requirements of the IFB.
- I. Low Bids received from bidders who are determined to be non-responsible in accordance with the City's Procurement Rules and Regulations.
- J. Any Bid that was prepared and submitted by a vendor who has been determined by the Procurement Services Manager to have an unfair advantage over other Bidders. Examples of an unfair advantage include, but are not limited to, the following:
1. A previous or prior employee who in the last six (6) months was directly involved in the design or specification preparation of the competed procurement.
 2. A vendor who was directly involved in design or specification preparation of the competed project either for pay or voluntarily.

1.10 ESTIMATED QUANTITIES

If the Bid Form (Schedule A) herein contains estimated quantities, this provision is applicable. The quantities listed for each of the items in the Bid Form are only estimated quantities. Contractors are required to bid a firm unit price for each item specified. The actual quantities ordered may fluctuate up or down. The unit prices proposed by each Bidder will remain firm and will not be re-negotiated if the estimated quantities are not met or are exceeded. This clause will take precedence over any/all other estimated quantity clauses that conflict with this clause.

For bidding purposes, if there is a conflict between the extended total of an item and the unit price, the unit price shall prevail and be considered as the amount of the Bid. All unit prices shall include all necessary overhead and profit. Items not listed in the Bid Form such as overhead, profit, mobilization, de-mobilization, bonding, etc. shall be distributed throughout the Bidder's Unit Prices for the items listed on the Bid Form.

1.11 NUMBER OF COPIES

Bidders shall submit one electronic copy of each required document on the BidNet Direct Procurement Platform (www.bidnetdirect.com). Upon submission, all Bid documents shall become and remain the property of the City.

1.12 IDENTIFICATION OF BID

Bids must be submitted to the BidNet Direct Procurement Platform (www.bidnetdirect.com). The solicitation number and Offeror name must be clearly marked within the Bid.

Bid No.: B24-001MZ

Due Date and Time: January 31, 2024 2:00PM

1.13 SALES TAX

The successful Offeror, if awarded a contract, shall apply to the Colorado Department of Revenue for a tax-exempt certificate for this project. The certificate does not apply to City of Colorado Springs Sales and Use Tax which shall be applicable and should be included in all bids and proposals. The tax exempt project number and the exemption certificate only apply to County, PPRTA (Pikes Peak Rural Transportation Authority), and State taxes when purchasing construction and building materials **to be incorporated into this project**.

Furthermore, the exemption **does not** include or apply to the purchase or rental of equipment, supplies or materials that **do not become a part of the completed project or structure**. In these instances, the purchase or rental is subject to full taxation at the current taxation rate.

The Offeror and all subcontractors shall include in their Offer City of Colorado Springs Sales and Use Tax on the work covered by the offer, and all other applicable taxes. Any increase in applicable sales or use tax occurring after the contract has been let shall be borne by the contractor and not passed through to the City.

Forms and instructions can be downloaded at the City of Colorado Springs Website: <https://coloradosprings.gov/sales-tax/page/additional-sales-tax-forms?mlid=30771>. Questions can be directed to the City Sales Tax Division at (719) 385-5903 or Construction_SalesTax@ColoradoSprings.gov.

Our Registration Numbers are as follows:

City of Colorado Springs

Federal I.D.: 84-6000573

Federal Excise: A-138557

State Sales Tax: 98-03479

1.14 PREPARATION OF BID OFFER

- A. Bidders are expected to examine the drawings, specifications, bid documents, proposed contract forms, terms and conditions, and all other instructions and solicitation documents. Bidders are expected to visit the job-site to determine all requirements and conditions that will affect the work. Failure to do so will not relieve a Bidder from their responsibility to know what is contained in this Invitation for Bid, or site conditions affecting the work.
- B. The Bidder certifies that it has checked all of its figures and understands that the City will not be responsible for any errors or omissions on the part of the Bidders in preparing its Bid.
- C. All items, (unless the invitation specifically states otherwise) including any additive or deductive alternates on the Bid Form, must be completely filled out or the Bid will be determined non-responsive and ineligible for consideration for award.

- D. The Bidder declares that the person or persons signing this Bid is/are authorized to sign on behalf of the firm listed and to fully bind the Bidder to all the requirements of the IFB.
- E. The Bidder certifies that no person or firm other than the Bidder or as otherwise indicated has any interest whatsoever in the Bid or the contract that may be entered into as a result of the Bid and that in all respects the Bid is legal and firm, submitted in good faith without collusion or fraud.
- F. By submitting a Bid the Bidder certifies that it has complied and will comply with all requirements of local, state, and federal laws, and that no legal requirements have been or will be violated in making or accepting this Bid. Bidders are expected to review the City's Procurement Rules and Regulations, which will be used when determining whether a Bidder is responsive and responsible and awarding contracts in the best interest of the City.
- G. If there is a discrepancy between the unit price and the total price, the unit price shall be used to determine the applicable total price. Bidders are responsible for including profit and overhead associated with the project when determining their unit prices.

1.15 BASIS OF AWARD

- A. The City of Colorado Springs intends to award a contract to the lowest responsive and responsible Bidder whose Bid meets the requirements and the criteria set forth in the Invitation for Bids and is determined to be in the best interest of the City.
- B. The City reserves the right to reject any or all Bids and to waive informalities and/or irregularities in a Bid. Whether or not a contract is awarded as a result of this Invitation for Bid, as stated above, Bid preparation costs are not reimbursable.
- C. Total Bid will be evaluated and awarded as follows: It is the City's intent to award this bid based on the TOTAL BASE BID, not on a line item by line item basis.

1.16 PERIOD OF ACCEPTANCE

The Bidder agrees that its Bid shall remain open for acceptance by the City for a period of sixty (60) calendar days from the date specified in the IFB for receipt of Bids.

1.17 CONTRACT AWARD

The signature of the Bidder indicates that within ten (10) calendar days from acceptance of its Bid, it will execute a contract with the City and, if indicated in this IFB, furnish a project specific Certificate of Insurance naming the City as Additional Insured, furnish Performance, Labor and Materials, Payment and Maintenance Bonds and any other documents required by the Specifications or Contract Documents.

1.18 NOTICE TO PROCEED

Work may not start under any awarded contract until a written notice to proceed is issued by the City. The City may issue the Notice to Proceed any time after the contract is signed and, if required, insurance and bonds have been provided in accordance with 1.22 below.

1.19 AMENDMENTS TO THE SOLICITATION

Amendments are also referred to as addendum or addenda; and these terms shall be considered synonymous. It is the Bidder's responsibility to contact the Contracts Specialist listed in 1.21 below to confirm the number of Amendments which have been issued.

- A. If this solicitation is amended, then all specifications, terms and conditions, which are not specifically amended, remain unchanged.
- B. Bidders shall acknowledge receipt of any amendment to this solicitation by signing and returning the amendment and by identifying the amendment number and date in the space provided on the form for submitting a Bid.
- C. Acknowledged amendments must be received prior to Bid opening. Bidders are encouraged to include signed addenda or initialed acknowledgment with returned Bids.

1.20 EXPLANATIONS TO PROSPECTIVE OFFERORS

Any prospective Bidder desiring an explanation or interpretation of the IFB documents, drawings, specifications, etc., must request it in writing within ten days of the Bid due date to allow enough time for a reply to reach all prospective offerors before the time for submission of offers. Oral explanations or instructions given before the opening of Bids will not be binding. Any information provided to a prospective Bidder during the Bid preparation stage will be promptly furnished to all other prospective Bidders as an amendment to the solicitation, if that information is necessary in submitting Bids or if the lack of it would be prejudicial to other prospective Bidders.

1.21 QUESTIONS AND OTHER REQUESTS FOR INFORMATION

All questions must be submitted in writing to the following Contracts Specialist. All questions must be submitted via email and must be received no later than **1:00PM January 17, 2024.**

Requests for Information, support and questions shall be directed to:

CONTRACT SPECIALIST NAME Mike Zeller

CONTRACT SPECIALIST EMAIL michael.zeller@coloradosprings.gov

DO NOT CONTACT ANY OTHER INDIVIDUAL AT THE CITY OF COLORADO SPRINGS
REGARDING THIS SOLICITATION.

1.22 SECURITY REQUIREMENTS

A. Bid Security

1. If the total amount of the accumulative Bid is more than \$50,000, or a bond is required elsewhere in this IFB, the Bidder is required to furnish with their Bid a bid security in the form of a bank certified check, bank cashier's check or a one-time bid bond underwritten by a company licensed to issue bonds in the State of Colorado and acceptable to the City in an amount equal to at least 5% of the total amount of the Bid payable without condition to the City.
2. The Bid security shall guarantee that the Bid will not be withdrawn or modified for a period of sixty (60) calendar days after the time set for the receipt of Bids, and, if the Bid is

accepted within those sixty (60) calendar days, that the person, firm or corporation submitting same shall within ten (10) calendar days after being notified of the acceptance of its Bid, enter into a Contract and furnish the required bonds and all insurance certificates called for under this Invitation for Bid.

3. The Bid bonds of unsuccessful Bidders will not be returned to the respective Bidders unless a self-addressed, stamped envelope is provided along with a written request for bid bond return. However, if a certified check or a cashier's check is submitted as Bid security, it will be returned as soon as possible after the lowest responsive and responsible Bidder is determined and a contract is executed.
4. In the event the Bidder whose Bid is accepted fails to enter into the contract and/or furnish the required contract bonds, its certified check, cashier's check or bid bond will be forfeited in full to the City.

B. Performance, Labor and Materials Payment, and Maintenance Bonds

1. For contracts in excess of \$50,000, the Contractor shall furnish to the City each of the following: a Performance Bond, a Labor and Materials Payment Bond, and a Maintenance Bond. Each such bond shall be in the amount of one hundred percent (100%) of the contract price. Bonds shall be submitted within ten (10) calendar days after notification of award of a Contract. The cost of all bonds shall be included in Contractor's Bid.
2. Bonds shall:
 - a. Be for the full amount of the Contract price.
 - b. Guarantee the Contractor's faithful performance of the work under the Contract, and the prompt and full payment for all labor and materials involved therein.
 - c. Guarantee protection to the City against liens of any kind.
 - d. Be from a surety company operating lawfully in the state of Colorado and accompanied by an acceptable "Power-of-Attorney" form attached to each bond copy.
 - e. Be issued from a surety company that is acceptable to the City.
 - f. Be submitted using the forms in the Exhibit section of this IFB or such forms as are approved by the City Attorney's Office.

1.23 SPECIFICATIONS AND DRAWINGS

No Fee solicitations: Specifications and Drawings are normally included in the IFB. If Specifications and Drawings are too large to be included in the IFB, all interested Bidders may obtain one copy of the Project Specifications and a set of the Project Drawings for use in preparing Bids from the City Procurement Services Division office. If the Bidder requires additional sets, it is the Bidder's responsibility to duplicate any additional copies, at its own expense.

1.24 TYPE OF CONTRACT

As a result of this Invitation for Bids, it is the City's intention to award a fixed unit price Contract based on the prices offered by the lowest responsive and responsible bidder. Contract prices shall remain firm and fixed throughout the Contract performance period.

1.25 F.O.B. DESTINATION

Unless otherwise specified in the Invitation for Bid, all goods, materials, supplies, equipment or services covered by this IFB shall be delivered F.O.B. Destination shall be the location indicated in the awarded Contract or Purchase Order.

1.26 BID RESULTS

The City does not mail Bid results or tabulations. However, Bid tabulations are posted and can be downloaded from BidNet. Bidders submitting Bids in response to this solicitation may also request the Bid tabulation for this solicitation via email to the Contracts Specialist indicated as the point of contact for this solicitation.

1.27 APPROPRIATION OF FUNDS

- A. In the event funds are not appropriated in whole or in part sufficient for performance of the City's obligations under this IFB, or appropriated funds may not be expended due the City Charter spending limitations, then the City, without compensation to Bidders, may terminate or cancel this IFB or not award any contracts under this IFB.
- B. In accordance with the Colorado Constitution and City Charter, performance of the City's obligations under any resultant Contract will be expressly subject to appropriations of funds by the City Council, and, in the event the budget or other means of appropriation for any year of the Contract fails to provide funds in sufficient amounts to discharge such obligations, such failure (i) shall act to terminate the Contract at such time as the then-existing and available appropriations are depleted, and (ii) neither such failure nor termination shall constitute a default or breach of the Contract, including any sub-agreement, attachment, schedule, or exhibit thereto, by the City.

1.28 PERIOD OF PERFORMANCE

The Contractor shall complete all work within **100 Calendar Days** after the Notice to Proceed. The Contractor shall start work promptly after receipt of the Notice to Proceed and Pre-Construction Meeting and continue to work diligently until all work is completed and accepted by the City.

1.29 BID DOCUMENTS

The following comprise this Invitation for Bid.

Schedule A – Bid Form
Schedule B – General Construction Terms and Conditions
Schedule C – Special Provisions
Schedule D – Technical Provisions
Schedule E – Scope of Work
Schedule F – Measurement and Payment
Schedule G – Grading & Erosion Control Plan
Schedule H – Construction Plan Set
Schedule I – Insurance Requirements
Schedule J - Exhibits

The following listed documents **must** be included with your Bid in order for your Bid submittal to be considered responsive.

Schedule A – Bid Form
Schedule I – Insurance Requirements
Exhibit 3 – Qualification Statement

Exhibit 4 – Bid Certification and Representations and Certifications
Exhibit 5 – Bid Bond if applicable (see 1.23)
Acknowledged Addenda, if issued

SECTION II – SCHEDULES

Schedule A – Bid Form
Schedule B – General Construction Terms and Conditions
Schedule C – Special Provisions
Schedule D – Technical Provisions
Schedule E – Scope of Work
Schedule F – Measurement and Payment
Schedule G – Grading & Erosion Control Plan
Schedule H – Construction Plan Set
Schedule I – Insurance Requirements
Schedule J – Exhibits

SCHEDULE A – BID TAB

**PLEASE SUBMIT SCHEDULE A – BID TAB IN BIDNET AND SUBMIT TOTAL BASE BID
COST IN BIDNET PRICE SHEET**

SCHEDULE B – GENERAL CONSTRUCTION TERMS AND CONDITIONS

Schedule B -- General Construction Terms and Conditions, Version 100316 are hereby incorporated by reference, with the same force and effect as if they were given in full text. Upon request, the City will make their full text available. Also, the full text of a clause may be accessed electronically at this address:

<https://www.coloradosprings.gov/finance/page/procurement-regulations-and-documents>

The referenced General Construction Terms and Conditions will be incorporated in the resultant Contract.

SCHEDULE C – SPECIAL PROVISIONS
FOLLOWS THIS PAGE

SCHEDULE C - SPECIAL PROVISIONS

C.0 SPECIAL PROVISIONS

This section contains any Special Provisions or revisions to the General Provisions that are applicable on the subject project. In the event that the Special Provisions conflict with the "City of Colorado Springs Engineering Division Standard Specifications", latest revision, the Special Provisions listed herein will take precedence.

C.1 DESCRIPTION OF WORK

The work to be done by the Contractor shall consist of performing all operations necessary for the construction of this work as described in the plans and specifications, including restoration of all areas disturbed by the construction activities to a condition better than the pre-construction condition.

The Contractor shall obtain and pay for all permits, except the City will waive the fees for Traffic Control, Concrete, and Excavation permits that must be obtained from the City of Colorado Springs. The Contractor shall furnish all transportation, materials, tools, equipment, labor and supplies necessary to complete in a workmanlike manner the improvements as shown and specified in these documents.

The Contractor shall be responsible for verification and acceptance of the existing site conditions prior to proposing on the project. The Contractor shall notify the Engineer 48 hours prior to the commencement of construction activities.

The Contractor shall be responsible for all work, whether it be performed by himself or by others under a subcontract agreement.

All work required to construct all items in this contract shall be performed in a safe, careful, and orderly manner with due consideration given to protection of adjoining property, the public, and workmen. Any damage to streets, utilities, public or private property, or the bench marks and construction staking due to the negligence of the Contractor, shall be repaired and restored to its original condition by the Contractor at his expense to the satisfaction of the Engineer. It will be the Contractor's responsibility to ensure that areas not in conflict with new work are not disturbed or damaged during the construction process.

C.2 PRECONSTRUCTION CONFERENCE

Within 10 calendar days after issuance of the Notice of Award, or as otherwise established by the Owner and Engineer, a preconstruction conference shall be held for review of the construction schedule, the Contractor's list of Subcontractors and suppliers, project contracts, Traffic Control Plan with Supervisor name and telephone number and certifications, procedures for handling shop drawings, processing Applications for Payment, and other pertinent items. The Contractor (and Subcontractor) should address any construction problems which may be foreseen in the execution of the project work at the preconstruction conference.

C.3 DRAINAGE AND EROSION CONTROL

The Contractor shall provide for the drainage of storm water and such water as may be applied or discharged on the site in performance of the work. Drainage facilities shall be adequate to prevent damage to the work, the site and adjacent property.

The Contractor shall prevent the pollution of drains and watercourses by sanitary waste, sediment, debris, contaminated ground water or other substances resulting from this work. The Contractor shall be required to clean up, treat and/or isolate such materials on a continuing basis to prevent risk of washing into such drainage ways.

The Contractor shall be responsible for capturing and properly disposing of contaminated groundwater.

The Contractor shall obtain a copy of and follow the language of the MS4 permit and all other state and local permits.

The Contractor shall be responsible for preparing a Stormwater Management Plan (SWMP) and obtaining all required state and local storm water discharge permits. The Stormwater Management Plan shown in the contract documents is provided as a guide for the completed condition of the project for the contractor to bid on the project and may be used by the contractor as a portion of the project SWMP or the Contractor may elect to modify or prepare a new SWMP. The approved SWMP must include a Stormwater Management Plan for all phases throughout construction. When a modified or new SWMP is prepared, it must be prepared by a licensed engineer in the State of Colorado and submitted to the Engineer for review and approval prior to applying for permits. The SWMP used to obtain the permits, and any modifications to the SWMP as directed by the permitting agencies, shall be considered the approved SWMP. An approved SWMP shall be submitted to the Engineer with a copy of permit notice prior to beginning construction.

The Contractor shall be responsible for maintaining erosion control and preparing a SWMP for all phases of the project and shall be submitted to the Engineer for review and approval prior to beginning construction.

C.4 CONSTRUCTION PHOTOGRAPHS

The contractor shall provide construction photographs on an ongoing basis throughout the duration of the project as described below:

1. Preconstruction photographs will be required on the project.
2. Construction photographs shall be digital photographs taken with a good quality camera with a minimum of 10 megapixels. The digital photographs shall be submitted to the Engineer on a CD with digital photos properly identified and in the JPEG format. The CD shall be accompanied by an 8 ½" x 11" printout on good quality matte photo paper. A maximum of six photos shall be on each sheet.
3. Photographs shall be taken a minimum of once per week and in sufficient number to document the condition of the site and ongoing work including traffic control.
4. Each photograph (digital and printouts) shall be marked with a date, description and identification number. The identification number shall be referenced in an index with a description of the photos.
5. Each photograph (digital and printouts) must indicate a reference to where it was taken, including whether it is of the northbound or southbound side, span #, and include the direction the photo is taken.
6. The preconstruction photographs shall be delivered to and approved by the Engineer, prior to beginning of construction.
7. The first set of photographs shall be taken before the Contractor moves on the site and the last shall be taken after completion.
8. Construction photographs will not be paid for separately, but will be considered subsidiary to the work.

C.5 PROJECT INFORMATION SIGNS

N/A

C.6 CONSTRUCTION WORK HOURS

The Contractor shall conduct normal activities between the hours of 7:00 a.m. and 7:00 p.m., Monday through Saturday. Work outside that time shall be considered night work and will only be

allowed with the permission of the Engineer. Work on Sunday will only be allowed with the permission of the Engineer.

C.7 WORK SITE RESTRICTIONS

The Contractor shall confine the work activities to the area shown in the construction drawings. The Engineer will furnish the contractor with copies of all executed ROW and easement documents for the project. The established work zone shall be marked and secured with an appropriate fence. The fence type shall be preapproved by the Engineer based on discussions with individual property owners/tenants. Approved temporary fences are required at all locations that require removal of an existing fence. Temporary fences are to be considered incidental to the work and will not be paid for separately. Temporary easements on private property are not to be used for stockpiling or storage of materials or equipment. Any additional work area required within adjoining private properties must be acquired by the Contractor by written permission from the property owner. The Contractor shall restore any damage or disruption to other properties utilized in the performance of this project to an equal or better than pre- construction condition at no cost to the City. The Contractor shall hold the City harmless from any claims to damage or disruption of private property.

Contractor personnel shall not unnecessarily enter upon private property without the express written consent of the landowner. The Contractor shall provide the Engineer with a copy of the written permission. The City will be held harmless of Contractor negligence in matters of trespassing.

C.8 COORDINATION WITH PROPERTY OWNERS

The Contractor shall be responsible for notifying the Property Owners and Tenants at least 48 hours in advance of any construction that may affect access, parking and/or existing structures, including fences, adjacent to that property. The Contractor shall also be responsible for notifying property owners and tenants at least one week prior to any major shifts in traffic patterns. Suitable access and parking will be maintained at all times. Relocating of fences and structures shall be coordinated with owners and shall include miscellaneous items including, but not limited to, temporary fence, sod replacement, sprinkler system modifications, etc. These items are considered to be incidental to the work and are to be included in the unit prices.

The Contractor shall coordinate the relocation of fencing, landscaping, sprinklers, control boxes, utility services, street signs and mail boxes and the salvaging of any materials suitable for re-use with the City Inspector and, if on private property, with the respective property owners.

The Contractor shall notify and coordinate the closing and construction of the driveways, curb, gutter and sidewalks with the Project Engineer and the adjoining property owners and tenants in advance of work in writing. Any restrictions on street parking or traffic movement shall be coordinated with the City Traffic Engineer. The Contractor shall make every effort to minimize the inconvenience to the traveling and pedestrian public.

C.9 CONSTRUCTION TRAFFIC RESTRICTIONS

Construction traffic control shall conform to Section 800 of the City of Colorado Springs Standard Specifications as revised herein and the Manual on Uniform Traffic Control Devices and the Supplement for the City of Colorado Springs.

C.10 BUSINESS AND RESIDENTIAL ACCESS

The Contractor shall maintain access to all businesses and residences throughout the project and shall provide at a minimum 48 hours written notice to each business or residence prior to any work on or partial closure of access drives. Access may be limited to half the existing driveway width for limited periods of 48 hours or less during concrete driveway and street construction. Access must at all times accommodate emergency services vehicles. Additional coordination with emergency services is required if the access location to the property is relocated from the existing location. An additional verbal notice shall be provided to each business or residence 30 minutes prior to the actual access drive partial closure. This supersedes City Standard Specification 805.08.

C.11 SOIL CONDITIONS

The Contractor assumes all risks connected with the surface and subsurface conditions actually encountered by him in performing the work, even though such actual conditions may result in the Contractor performing more or less work than he originally estimated.

The Contractor shall perform whatever exploratory excavations and tests he deems necessary to determine the site conditions.

The Contractor shall utilize all suitable excavated material as approved by the Engineer for raising grades and backfilling the new construction. Additional imported material shall be a well graded non-expansive inorganic soil or as herein after specified.

C.12 UTILITIES

The size and location of all existing utilities as known to the Engineer have been noted on the plans for the information and guidance of the Contractor. The Contractor shall be responsible for the location and protection of all utilities located within his working area regardless of whether or not their existence or location is shown or noted on the drawings.

All overtime costs for observation and inspection by Colorado Springs Utilities staff shall be at the Contractor's expense and will be billed directly from Colorado Springs Utilities to the Contractor. Overtime shall be defined as time outside of regular (non City holiday) working hours (M-F 7:00 am – 3:30 pm) at an average rate of \$80/hour. These overtime costs include, but are not limited to, overtime for Colorado Springs Utilities staff to observe and inspect bypass pumping operations.

It is the Contractor's responsibility to complete required work and to schedule inspections during normal working hours. The Contractor is responsible for contacting each affected utility for their inspectors' working hours. The Contractor is responsible to request an inspection two (2) working days in advance of the inspection. In the case of an overtime inspection, the request must be in writing. The City will not entertain any requests for time extensions for delays caused by the Contractor's failure to properly notify the affected utility of a required inspection or the Contractor's failure to complete the required work by the time of the scheduled inspection.

The accuracy of information furnished in the contract documents with respect to underground utilities is not guaranteed. The Contractor shall make his own investigations, including exploratory excavations, to determine the locations and type of existing mains and service laterals or appurtenances.

The Contractor shall notify all utility companies who may have installations in the area where the work is to be performed and solicit their aid in locating horizontally and vertically utilities prior to any excavation. All utilities encountered must be kept in operation by the Contractor and must be protected and/or repaired at the Contractor's expense.

City of Colorado Springs Utilities

Utility Problems or Questions	(719) 448-4800
Gas and Electric Inspections	(719) 668-5638
Utility Notification Center of Colorado (UNCC)	800-922-1987

Miscellaneous Utility Services

Utility Notification Center of Colorado (UNCC)	800-922-1987
Engineering Division for Inquiries	(719) 385-5918

At least forty-eight (48) hours prior to commencing excavation, the Contractor shall call UNCC at 1-800-922-1987 between the hours of 7:30 A.M. and 4:30 P.M., Monday through Friday, for information concerning the location of buried utilities in the area of construction.

Below is a Pre-Excavation Checklist which the Contractor shall follow prior to commencing construction on the project.

Pre-Excavation List

Utility Notification Center of Colorado (UNCC) called at least two (2) business days prior to construction at: 1-800-922-1987

- | | | |
|--|----|--|
| | 10 | Utilities marked and located on the ground |
| | 11 | Employees briefed and knowledgeable on marking and color codes* |
| | 12 | Employees trained on excavation and safety procedure for Natural Gas Lines |
| | 13 | When excavation approaches gas lines, employees expose lines by careful probing and hand digging |

Standard Utility Marking Color Code

Natural Gas	Yellow
Electric	Red
Water	Blue
Wastewater	Green
Communications	Orange

"The Contractor shall be responsible for coordination and cost of all utility relocations indicated on the plans and not specified to be done by others. Utility locations shown on the plans are approximate."

The contractor shall coordinate work with various Utility companies and other construction taking place within project limits. Notify applicable Utility companies and other Contractors prior to commencing work, if damage occurs, or if conflicts or emergencies arise during work. No schedule extensions will be granted to the Contractor due to utility coordination issues. It is the responsibility of the Contractor to coordinate with utilities in advance to prevent impacts to the project schedule. The following utility companies are believed to have facilities within or near the project limits:

Gas: Colorado Springs Utilities

Contact Person: Ginny Halvorson
Telephone: (719) 668-5567

Water: Colorado Springs Utilities

Contact Person: Adam Baker
Telephone: (719) 668-4737

Wastewater: Colorado Springs Utilities

Contact Person: Adam Baker
Telephone: (719) 668-4737

Electrical Distribution: Colorado Springs Utilities

Contact Person: Ginny Halvorson
Telephone: (719) 668-5567
Inspections: (719) 668-5564

Electrical Transmission: Colorado Springs Utilities

Contact Person: Ginny Halvorson
Telephone: (719) 668-5567
Inspections: (719) 668-5564

Communications: Century Link

Contact Person: Patti Moore
Telephone: (719) 636-6096

Television Cable: Comcast

Contact Person: Dale Stewart
Telephone: (719) 306-2767

Traffic Signal Communication/Fiber Optic: City of Colorado Springs

Contact Person: Rob Helt
Telephone: (719) 385-7603

School District 11:

Contact Person: Kris Garnhart
Telephone: (719) 477-6013

The work described in the plans and specifications will require full coordination between the Contractor and Utility Companies while performing their respective operations, so the utility work can be completed with minimum delays to all parties concerned.

The Contractor shall coordinate with residences and businesses affected by any sanitary sewer, electric, gas, or water service shut downs at least 48 hours prior to shut down.

The Contractor shall be responsible for coordinating the adjustment of all utilities on this project. The Contractor shall keep each utility company advised of any work being done to their facilities, so that each utility company can coordinate their inspections for final acceptance with the Engineer.

For utility work that is to be performed by a utility company, Contractor shall provide notice to the utility company that the site is ready for the utility work. The written notice, with a copy to the Engineer, shall be given a minimum of four weeks prior to the requested start of the utility work.

The Contractor shall provide, in the bid proposal, a detailed description of the proposed utility coordination program for the project. The program will describe the steps that will be taken to avoid delays in the event that unknown or differing conditions are encountered during construction. The program shall address both public and private utilities. The program shall be submitted to both the affected utilities and the Engineer immediately following the Notice to Proceed for review and approval.

C.13 PUBLIC RELATIONS

The Contractor is required to have both letter and personal contact with residents and owners or operators of the buildings and businesses that are adjacent to the construction area. The Contractor will furnish a list of those contacted to the Engineer.

C.14 SCHEDULE

General Provision Section 104 of the City of Colorado Springs Engineering Division Standard Specifications is hereby revised for this project as follows:

In General Provision 104.02 Schedule, the software requirements in the first paragraph shall be revised as follows:

All CPM schedules submitted for review by the Project Engineer shall include capability of being read and manipulated by Microsoft Project.

General Provision 104.02 Schedule shall include the following:

Upon approval of the baseline schedule by the Engineer, no changes to schedule task durations or schedule logic ties shall be permitted without prior written approval by the Engineer.

C.15 LANDS TO BE USED FOR WORK

General Provision Section 105 of the City of Colorado Springs Engineering Division Standard Specifications is hereby revised for this project as follows:

In General Provision Subsection 105.01 Lands to be Used for Work, add the following sentence to paragraph B:

The storage of materials shall not at anytime disrupt or impact area businesses. Locations of storage, heights of storage, and length of time materials will be stockpiled near businesses shall be approved in writing by the Engineer prior to use.

C.16 PROTECTION OF UTILITIES

General Provision Section 108 of the City of Colorado Springs Engineering Division Standard Specifications is hereby revised for this project as follows:

In General Provision Subsection 108.09 Protection of Utilities, delete the first sentence in paragraph B and replace with the following:

Before any excavation is begun in the vicinity of existing utilities or structures, each utility company, department, agency or company concerned shall be notified in advance of such excavation, and such excavation shall not be made until an authorized representative of the utility concerned is at the site.

In General Provision Subsection 108.09 Protection of Utilities, delete paragraph K and replace with the following:

Comcast: The television utilities are to be protected and supported in place. If relocation is determined to be necessary, television utilities shall be relocated by the utility owner, Comcast. The Contractor shall coordinate the work with Comcast.

General Provision Subsection 108.09 Protection of Utilities shall include the following paragraphs:

L. Natural Gas: All work in close proximity to any natural gas facility shall be coordinated in advance with the Colorado Springs Utilities Gas Department. Any gas facilities, unless otherwise noted, are to be protected and supported in place. Where relocation is noted or determined necessary, gas facilities shall be relocated or modified by the Colorado Springs Utilities Gas Department. The Contractor shall coordinate the work with the Gas Department and the Gas Department's Contractor.

M. Century Link: Any Century Link facilities, unless otherwise noted, are to be protected and supported in place. If relocation is determined to be necessary, Century Link facilities shall be relocated or modified by Century Link. The Contractor shall coordinate the work with Century Link and Century Link's Contractor.

N. Electrical Distribution and Transmission: Any electrical distribution and/or transmission facilities, unless otherwise noted, are to be protected and supported in place. If relocation is determined to be necessary, electrical distribution and/or transmission facilities shall be relocated or modified by the Colorado Springs Utilities Electrical Department. The Contractor shall coordinate the work with the Electrical Department and the Electrical Department's Contractor.

C.17 STAKING WORK

General Provision Section 108 of the City of Colorado Springs Engineering Division Standard Specifications is hereby revised for this project as follows:

In General Provision Subsection 108.16 Staking Work, paragraph A shall include:

Staking requirements shall include all structures, underground construction including storm drain and utilities, structures, retaining walls, barriers, fences, and vaults.

Contractor is wholly responsible for the correct horizontal and vertical location of all project items. Items not constructed in the proper location will be removed and replaced in the correct location without additional cost to the project or time to the schedule.

C.18 SHOP DRAWINGS AND SUBMITTALS

The Contractor shall use a system to track various types of submittals. This system shall be submitted to the Engineer for approval at the pre-construction meeting. The system used shall have the information shown below, at a minimum.

- Unique identification # for each submittal and resubmittal
- Date submitted
- Date response required
- Reference to design plan or specification
- Description
- Supplier
- Action
- Date returned

This system will be used by the selected contractor, consultant and City staff to post, review, track, and approve items such as:

- Schedules
- Requests for Information (RFI's),
- Submittals
- Shop drawings
- Change orders
- Materials testing data
- Project pay estimates
- Project photos
- Meeting agenda and minutes

General Provision Section 108 of the City of Colorado Springs Engineering Division Standard Specifications is hereby revised for this project as follows:

In General Provision Subsection 108.19 Shop Drawings and Submittals, delete the first sentence in paragraph A and replace with the following:

The Contractor shall submit to the Engineer all shop drawings, working drawings, and submittals in a timely manner, considering the 14-day review period for shop drawings. Colorado Springs Utilities review of submittals requires a minimum of 21 days. At no time shall shop drawings be submitted less than 30 days prior to anticipated construction of that element. The Contractor shall submit to the Engineer all project schedules within 21 calendar days of Notice of Award for review. The Contractor shall include Engineer review time in the work schedule. Failure of the Contractor to deliver submittals in sufficient time for the Engineer's review shall not constitute a delay on the part of the City. Submittals which may require a review beyond the first submittal shall not constitute a delay on the part of the City. Shop drawings and submittals shall be at a minimum of those items listed in Table 108-1 and 108-2 and any other additional submittals which may be required by the Engineer. The submittals shown in the tables are not all inclusive. Other submittals may be required.

In General Provision Subsection 108.19 Shop Drawings and Submittals, delete the first sentence of paragraph B and replace with the following:

If submittals are made in the form of hard copies, then the Contractor shall submit a minimum of five copies. One of these will be returned to the Contractor after review. If the Contractor wants more than one copy returned he shall submit the desired number of additional copies.

The Contractor may elect to make submittals electronically. If this is done, the submittals shall be made in clear, readable color electronic files in the PDF format. If this is done, the reviewed submittals will be returned in the same format.

The Contractor shall not begin work until shop drawings and schedules are approved by the Engineer.

General Provision Subsection 108.19 Shop Drawings and Submittals shall include the following:

Shop Drawings, Working Drawings, Other submittals, and Construction Drawings.

A. Shop drawings, Working Drawings, and Other Submittals -General. All work shall be performed in accordance with the plans, reviewed shop drawings, working drawings, or other submittals. Specific requirements for the required shop drawings, working drawings, and other submittals for this project are contained in the specifications.

The Contractor shall be responsible for the accuracy of all dimensions and quantities shown on the shop drawings, working drawings, and other submittals. The Contractor shall correlate all information in the Contract, in the submittals, and in all revisions at the project site to insure that there are no conflicts and that the work can be constructed as shown. The Contractor shall be responsible for all information that pertains to the fabrication processes and methods of construction.

Shop drawings, working drawings, and other submittals shall be delivered to the Engineer. The Contractor shall notify the Engineer, in writing, at the time of submittal of shop drawings, working drawings, and other submittals, of any information submitted that deviates from the requirements of the plans and specifications. In addition, specific notation of the deviations or changes from the plans and specifications shall be placed on the shop drawing, working drawing, or other submittal.

The first sheet or page of each set of shop drawings, working drawings, and other submittals shall be reviewed by the Contractor for conformance with the other work on the project, and stamped with a stamp indicating his review of the submittal. Submittals shall be made in complete packages which will allow the Engineer to properly review them for general compliance with the Contract and to effectively evaluate the proposed methods of construction. The allowed time for review shall not begin until such submittals are complete.

The format of the shop drawings, working drawings, and other submittals shall be as follows:

1. All manually drafted shop drawings and working drawings shall be either 34 inches long by 22 inches wide overall, or 17 inches long by 11 inches wide overall. There shall be a 2-inch margin on the left side of the sheet and a 1/2 inch margin on the other three sides. A blank space, 4 inches long by 3 inches wide, shall be left available near the lower right-hand corner of shop drawings, for the Engineer's review stamp.
2. A title block shall be located in the lower right-hand corner of each sheet, and shall show the project number, structure name, contents of the sheet, designer/engineer, sheet number, and revision number.
3. Design notes, calculations, lists, reports, descriptions, catalog cuts, and other on-drawing submittals shall be submitted on 8 1/2 inch by 11 inch sheets.
4. The shop drawings, working drawings, other submittals and all revisions shall be signed and sealed for the Contractor, by a professional engineer registered in the state of

Colorado when required by the specifications. Submittals without the required signature and seal will not be accepted and will be returned to the Contractor without action.

Table 108-1 summarizes the minimum required submittals and is included at the end of this subsection. Table 108-1 lists submittals in one location for information. The table clarifies the type of submittal and whether the Contractor's Engineer must sign and seal the submittal. Table 108-1 may not be all inclusive. The Contractor shall provide all submittals required by the Contract, including those not listed in the table.

B. Shop Drawings. The Contractor shall provide shop drawings to adequately control the work. The Contractor shall submit shop drawings to the Engineer for formal review.

The Engineer will review the shop drawings to evaluate that general conformance with the design concept and that general compliance with the information given in the plans and specifications has been achieved. The review does not extend to accuracy of dimensions, means, methods, techniques, sequences, schemes, procedures of construction, or to safety precautions. The review by the Engineer is not a complete check. Review of the shop drawings does not relieve the Contractor of the responsibility for the correctness of the shop drawings. All work done prior to the Engineer's review of shop drawings shall be at the Contractor's sole risk.

The Engineer may request additional details and require the Contractor to make changes in the shop drawings which are necessary to conform to the provisions and intent of the plans and specifications without additional cost to the project.

After review, the Engineer will return three sets of shop drawings, for use by the Contractor and the Fabricator or Supplier. Returned shop drawings will be stamped with the Engineer's review stamp to indicate one of the following:

Reviewed, no exception taken	Shop drawings or submittals have been reviewed and do not require resubmittal.
Reviewed, revise as noted	Shop drawings or submittals have been reviewed and the Contractor shall incorporate the comments noted in the shop drawings into the work. The shop drawings do not require resubmittal.
Resubmit, revise as noted	Shop drawings or submittals require correction or redrawing and shall be resubmitted for review. Corrections shall be made and the shop drawings shall be resubmitted by the Contractor in the same manner as the first submittal. Specific notation shall be made on the shop drawing to indicate the revisions.
Rejected	Submittal may or may not have been reviewed, but does not meet the minimum requirements for a review. Rejected submittals shall be repackaged and resubmitted after the submittal meets minimum requirements for review.
Submit Specified Item	Shop drawings or submittals have been reviewed and are not approved without the submittal of the specified item. Engineer is not responsible for project delays when additional items are required for approval.

The time required for the Engineer's review of each submittal will not exceed 14 days after a complete submittal of shop drawings is received by the Engineer, except reviews performed by Colorado Springs Utilities which will not exceed 21 days. It is the intent of these specifications that no more than one submittal of shop drawings shall be required for anyone particular item. If additional submittals are required by actions of the Contractor, resulting delays shall be the responsibility of the Contractor. If additional submittals are required by the Engineer's actions or if

shop drawing review is delayed by the Engineer, and if the resulting delay is material to the project schedule critical path, the Contractor may request an extension of time equal to the number of days exceeding the 14 or 21 day review per submittal for review performed by the Engineer.

All revisions made to the shop drawings after the Engineer's initial review process require re-submittal and will be required to follow time frames as set forth for the initial submittal.

C. Working Drawings. The Contractor shall supplement the plans with working drawings to detail the construction or to provide the Engineer with information on the proposed methods of construction. Unless otherwise specified, the Contractor shall submit six sets of working drawings to the Engineer for information only, who after acknowledging receipt of the working drawings, will retain three copies and return three copies to the Contractor. These drawings will not be formally reviewed by the Engineer. The Contractor shall submit working drawings to the Engineer 21 days before the start of work.

D. Other Submittals. Other submittals shall be prepared and submitted by the Contractor as defined for working drawings. Unless otherwise specified, two copies shall be submitted to the engineer for information only. The plans or specifications will indicate which submittals require formal review by the Engineer. One record set of all design work performed by the Contractor's Engineer shall be submitted to the Project Engineer.

E. Construction Drawings. The Contractor shall keep one set of plans, reviewed shop drawings, working drawings, and other submittals available on the project site at all times. This set shall be defined as the construction drawings." The Contractor shall note on these construction drawings all changes and deviations from the work shown on the plans, shop drawings, working drawings, and other submittals. The construction drawings shall be kept current as the work progresses and notations shall be made within seven days of the change or deviation. Requests for Information (RFIs) and the answer/response shall be attached to the construction drawings.

At the completion of the project, the first sheet or page of each set of construction drawings shall be stamped "As Constructed" and signed by the Contractor.

Upon completion of the work and prior to final payment, the construction drawings shall be submitted to the Engineer.

F. Furnishing the shop drawings, working drawings, construction drawings, and other submittals will not be measured and paid for separately, but shall be included in the work.

G. Failure of the Contractor to comply with the requirements for shop drawings, working drawings, other submittals, and construction drawings may be considered unsatisfactory contract progress. Monthly progress payments maybe withheld until the requirements are met.

H. Except as specifically noted, all time required for review of shop drawings, working drawings, and other submittals shall be included in the work and shall not be the basis for any claim for a time extension or monetary adjustment except as provided for herein.

Table 108-1
Summary of Contractor Submittals (not all-inclusive)

SPEC SECTION	DESCRIPTION	TYPE	CONTRACTOR P.E. SEAL REQUIRED?
206	Structure Backfill	Certification/Testing	No
206	Controlled Low-Strength Material (CLSM)	Certification/Testing	No
300	Aggregate Base Course	Certification/Testing	No
400	Asphalt Concrete Pavement	Certification/Testing	No
601	Structural Concrete	Mix Designs, Material Certifications, Testing	No
602	Reinforcing Steel	Shop Drawing, Material Certifications	No
Ch. 4, <i>Water LESS</i>	Water pipe, appurtenances and associated materials	Product Data, Shop Drawing, Material Certifications	No
Ch. 4, <i>Wastewater LESS</i>	Wastewater pipe, appurtenances and associated materials	Product Data, Shop Drawing, Material Certifications	No
33 01 37	Cured-In-Place Pipe	Product Data, Material Certifications Liner Design	Yes

* A PE seal is required where the Contractor has provided the design for the item, or performed engineering to modify the details shown on the plans. The PE seal is not required where complete details are provided on the plans.

C.19 PAYMENTS AND RETAINAGE

General Provision Section 109 of the City of Colorado Springs Engineering Division Standard Specifications is hereby revised for this project as follows:

Delete General Provision Subsection 109.01 Payments, and replace with the following:

Payments will be made, and required retainage withheld if applicable, in accordance with this section as the work progresses at the end of each month or as soon thereafter as practicable in compliance with Title 24, Article 91, Section 103 and Section 110, Colorado Revised Statutes, on statements made and approved by the Engineer.

Payment for work performed by the Contractor under these contract documents will be made at the approved unit price or lump sum price for each of the several items as listed in the bid and measured as hereinafter specified. Such payment shall compensate the Contractor for all costs in connection with furnishing all labor, equipment and material required and performing the operations necessary to complete the item in accordance with the contract documents. All incidental work essential to the completion of the project in a workmanlike manner, and including cleanup and disposal of waste or surplus material, shall be accomplished by the contractor without additional cost to the City. The cleanup and disposal of waste or surplus material shall be performed during construction or as soon after as is reasonably possible in order to better maintain the aesthetics and safety of the construction area. The quantities listed in the bid are estimated quantities, and are listed only for convenience in comparing bids. Payment will be made for the actual quantities constructed or installed, unless otherwise noted in these contract documents. However, any changes to plan quantity must be approved through proper change order procedures, said quantities being measured as specified in the contract documents.

1. If the contract exceeds ONE HUNDRED FIFTY THOUSAND DOLLARS (\$150,000.00), and is for the construction, alteration, or repair of any highway, public work, or public improvement, structure, and; the contractor has provided Performance, and Payment Bonds: the City of Colorado Springs shall authorize partial progress payments of the amount due under this contract monthly, or as soon thereafter as practicable, to the contractor, if the contractor is satisfactorily performing the contract. If the City of Colorado Springs finds that satisfactory progress is being achieved during any period for which progress is to be made, the City of Colorado Springs may authorize payment to be made in full without withholding retainage. However, if satisfactory progress has not been made, the City of Colorado Springs may retain a maximum of ten percent (10%) of the amount of the requested payment until satisfactory progress is achieved. When the work is substantially complete, the City of Colorado Springs may retain from the remaining unpaid balance that amount the City Contracting Manager, at the advice of the City's project manager, considers adequate for protection of the City, suppliers and subcontractor's, and shall release to the Contractor all the remaining funds associated with completed and acceptable work.

The withheld percentage of the contract price of any such work, improvement, or construction shall be retained on an invoice-to-invoice basis and shall not be cumulative. In other words, if the contractor is not performing satisfactorily the City of Colorado Springs will hold ten percent (10%) of what is actually due to the contractor. for example, if the contractor is behind schedule and has successfully completed fifty percent (50%) of the work, the City of Colorado Springs will only pay forty percent (40%) of the invoice, withholding ten percent (10%) of what is due until the contractor gets back on schedule. Once the City of Colorado Springs determines that satisfactory progress is being made in all phases of the contract, then no retainage will be held on successfully completed work.

2. Whenever a contractor receives payment pursuant to this section, the contractor shall make payments to each of the subcontractors of any amount actually received which were included in the contractor's request for payment to the City for such subcontracts. The contractor shall make such payments within seven (7) calendar days of receipt of payments from the City in the same manner as the City is required to pay the contractor under this section if the subcontractor is satisfactorily performing under the contract with the contractor. The subcontractor shall pay all suppliers, sub-subcontractors, laborers, and any other persons who provide goods, materials, labor, or equipment to the subcontractor any amounts actually received which were included in the subcontractor's request for payment to the contractor for such persons, in the same manner set forth in this subsection (2) regarding payments by the contractor to the subcontractor. If the subcontractor fails to make such payments in the required manner, the subcontractor shall pay

those suppliers, sub-subcontractors, and laborers interest in the same manner set forth in this subsection (2) regarding payments by the contractor to the subcontractor.

At the time a subcontractor submits a request for payment to the contractor, the subcontractor shall also submit to the contractor a list of the subcontractor's suppliers, sub-subcontractors and laborers. The contractor shall be relieved of the requirements of this subsection (2) regarding payment in seven (7) days and interest payment until the subcontractor submits such list. If the contractor fails to make timely payments to the subcontractor as required by this section, the contractor shall pay the subcontractor interest as specified by contract or at the rate of fifteen percent (15%) per annum, whichever is higher, on the amount of the payment which was not made in a timely manner. The interest shall accrue for the period from the required payment date to the date on which payment is made. Nothing in this subsection (2) shall be construed to affect the retention provisions of any contract.

3. CONTRACTS UNDER ONE HUNDRED FIFTY THOUSAND DOLLARS: If the contractor is not progressing in accordance with the project schedule or not performing quality work in accordance with the specifications, the Project Manager may, at that point start withholding retainage up to and including ten percent (10%) of the total contract amount.

General Provision Subsection 109.03 Payments Withheld Prior to Final Acceptance of Work shall include the following:

E. Failure by the Contractor to submit all record drawings.

C.20 FINAL INSPECTION AND ACCEPTANCE

General Provision Section 109 of the City of Colorado Springs Engineering Division Standard Specifications is hereby revised for this project as follows:

General Provision Subsection 109.04 shall include the following:

Upon written notice that the Contractor considers all work complete, the Engineer shall make a final inspection with the Owner and Contractor and shall notify the Contractor in writing of incomplete or defective work revealed by the inspection. The Contractor shall promptly remedy such deficiencies.

After the Contractor has remedied all deficiencies to the satisfaction of the Engineer and delivered all construction records, as-built drawings, maintenance and operating instructions. schedules, guarantees, bonds, certificates of inspection and other documents (all as required by the Contract Documents), the Owner and Contractor shall be promptly notified in writing by the Engineer that the work is acceptable.

Final Acceptance shall be obtained no more than 90 days after the date of Material Completion as defined in the RFP. If Final Acceptance is not obtained within 90 days of Material Completion, Liquidated Damages, as set forth in General Provision Section 108.02 of the City of Colorado Springs Engineering Division Standard Specifications, shall be applied for each calendar day over 90 days that the contractor has not received Final Acceptance.

C.21 LATE COMPLETION OF THE WORK DISINCENTIVE

If the number of calendar days required to complete the work is in excess of the total number of calendar days in the Contractor's Proposal, a disincentive will be deducted from payments made to the Contractor. This disincentive (D) will equal the actual number of calendar days required to complete the work (C) minus the number of calendar days in the proposal (P) multiplied by the daily cost of \$2,900.00.

$$D = (C - P) \times (\$2,900.00)$$

The disincentive shall apply in addition to any liquidated damages assessed to the Contractor on the project pursuant to Schedule D, Section 108.02.

SCHEDULE D – TECHNICAL PROVISIONS
FOLLOWS THIS PAGE

CLEARING AND GRUBBING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. This WORK consists of clearing, grubbing, removing, and disposing of vegetation and debris within the limits of the PROJECT site as shown on the DRAWINGS and as required by the WORK. Vegetation and objects designated to remain shall be preserved free from injury or defacement.

1.02 RELATED SECTIONS

- A. The following is a list of SPECIFICATIONS which may be related to this section:
 - 1. N/A
 - 2. Section 622, Channel Embankment and Fill; City of Colorado Springs.
 - 3. Section X, Erosion and Stormwater Quality Control; City of Colorado Springs

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.01 GENERAL

- A. OWNER will designate all trees, shrubs, plants, and other objects to remain. Any object that is designated to remain and is damaged shall be repaired or replaced as directed by OWNER, at CONTRACTOR's expense.
- B. No material or debris shall be disposed of within the PROJECT limits.

3.02 CONSTRUCTION

- A. Clearing and grubbing shall extend to the toe of fill or the top of cut slopes or as designated on the DRAWINGS.
- B. All surface objects, trees, stumps, roots, and other protruding obstructions not designated to remain shall be cleared and grubbed, including mowing, as required.
- C. Undisturbed stumps, roots, and nonperishable solid objects located two (2) feet or more below subgrade or embankment slope may remain in place.
- D. In areas to be rounded at the tops of backslopes, stumps shall be removed to at least two (2) feet below the surface of the final slope line.
- E. CONTRACTOR shall scalp the areas within the excavation or embankment grading limits. Scalping shall include the removal from the ground surface of sawdust, and other vegetation matter.

- F. Except in areas to be excavated, all holes resulting from the removal of obstructions shall be backfilled with suitable material and compacted in accordance with Section 31 23 00, Excavation and Fill.
- G. All cleared timber shall be removed from the PROJECT and shall become the property of CONTRACTOR.
- H. Branches on trees or shrubs shall be removed as directed. All trimming shall be done in accordance with good tree surgery practices.

END OF SECTION

SECTION 31 37 00

RIPRAP, BOULDERS, AND BEDDING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. The WORK includes excavation, grading, and installation of riprap, boulders, soil riprap, void-filled riprap, and bedding placed at the locations shown on the DRAWINGS. The materials to be used and the construction of such structures shall be as specified herein.

1.02 RELATED SECTIONS

- A. The following is a list of SPECIFICATIONS, which may be related to this section:

1. N/A
2. Section 622, Channel Embankment and Fill; City of Colorado Springs
3. Section 621.04, Dewatering; City of Colorado Springs.
4. Section 206, Compaction of Utility Trenches; City of Colorado Springs
5. Section X, Erosion and Stormwater Quality Control; City of Colorado Springs
6. Section 31 37 19, Grouted Boulders, Stacked Grouted Boulders, and Grouted Rock Retaining Walls; MHFD

1.03 REFERENCES

- A. The following is a list of standards which may be referenced in this section:

1. American Association of State Highway and Transportation Officials (AASHTO):
 - a. T85, Standard Method of Test for Specific Gravity and Absorption of Coarse Aggregate.
 - b. T96, Standard Method of Test for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.
 - c. T103, Standard Method of Test for Soundness of Aggregates by Freezing and Thawing.
 - d. T104, Standard Method of Test for Soundness of Aggregate by Use of Sodium Sulfate or Magnesium Sulfate.
 - e. T248, Reducing Field Samples of Aggregate Test Size.

2. ASTM International (ASTM): D698, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12 400 ft-lbf/ft³ (600 kN-m/m³)).

1.04 SUBMITTALS

- A. CONTRACTOR shall cooperate with ENGINEER in obtaining and providing samples of all specified materials.
- B. CONTRACTOR shall submit certified laboratory test certificates for all items required in this section.

PART 2 PRODUCTS

2.01 MATERIALS

A. RIPRAP

1. Riprap used shall be the type designated on the DRAWINGS and shall conform to Table 1.

Table 1: Riprap Gradation

Riprap Designation	% Smaller Than Given Size By Weight	Intermediate Rock Dimension (inches)	d₅₀* (inches)
Type VL	70 - 100 50 - 70 35 - 50 2 - 10	12 9 6 2	6**
Type L	70 - 100 50 - 70 35 - 50 2 - 10	15 12 9 3	9**
Type M	70 - 100 50 - 70 35 - 50 2 - 10	21 18 12 4	12**
Type H	70 - 100 50 - 70 35 - 50 2 - 10	30 24 18 6	18
Type VH	70 - 100 50 - 70 35 - 50 2 - 10	41 33 24 9	24
*d ₅₀ = Mean Particle Size			
**Mix VL, L and M riprap with 35% topsoil (by volume) and bury it with 4 to 6 inches of topsoil, all vibration compacted, and revegetate.			

2. The riprap designation and total thickness of riprap shall be as shown on the DRAWINGS. The maximum stone size shall not be larger than the thickness of the riprap.
3. Neither width nor thickness of a single stone of riprap shall be less than one-third (1/3) of its length.
4. The specific gravity of the riprap shall be two and one-half (2.5) or greater.
5. Riprap specific gravity shall be according to the bulk-saturated, surface-dry basis, in accordance with AASHTO T85.
6. The bulk density for the riprap shall be 1.3 ton/cy or greater.
7. The riprap shall have a percentage loss of not more than forty percent (40%) after five hundred (500) revolutions when tested in accordance with AASHTO T96.
8. The riprap shall have a percentage loss of not more than ten percent (10%) after five (5) cycles when tested in accordance with AASHTO T104 for ledge rock using sodium sulfate.
9. The riprap shall have a percentage loss of not more than ten percent (10%) after twelve (12) cycles of freezing and thawing when tested in accordance with AASHTO T103 for ledge rock, procedure A.
10. Rock shall be free of calcite intrusions.
11. Gradation:
 - a. Each load of riprap shall be reasonably well graded from the smallest to the largest size specified.
 - b. Stones smaller than the two to ten percent (2 to 10%) size will not be permitted in an amount exceeding ten percent (10%) by weight of each load.
 - c. Control of gradation shall be by visual inspection. However in the event ENGINEER determines the riprap to be unacceptable, ENGINEER shall pick two (2) random truckloads to be dumped and checked for gradation.
 - 1) Mechanical equipment and labor needed to assist in checking gradation shall be provided by CONTRACTOR at no additional cost.
12. Color:
 - a. The color of the riprap shall approved by ENGINEER prior to delivery to the PROJECT site.
 - b. Color shall be consistent on the entire PROJECT and shall match the color of rock to be used for all other portions of the WORK.

13. Broken concrete or asphalt pavement shall not be acceptable for use in the WORK.
14. Rounded riprap (river rock) is not acceptable, unless specifically designated on the DRAWINGS.

B. BOULDERS

1. Boulders used shall be the type designated on the DRAWINGS and shall conform to Table 2.

Table 2: Boulder Properties

Boulder Classification	Nominal Size (inches)	Range in Smallest Dimension of Individual Rock Boulders (inches)	Maximum Ratio of Largest to Smallest Rock Dimension of Individual Boulders
B24	24	20 - 28	1.50
B30	30	26 - 34	1.50
B36	36	32 - 40	1.50
B42	42	38 - 46	1.50
B48	48	44 - 52	1.50

2. The specific gravity of the boulders shall be two and one-half (2.5) or greater.
3. Boulder specific gravity shall be according to the bulk-saturated, surface-dry basis, in accordance with AASHTO T85.
4. The bulk density for the boulder shall be 1.3 ton/cy or greater.
5. 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.
6. The boulders shall have a percentage loss of not more than ten percent (10%) after five (5) cycles when tested in accordance with AASHTO T104 for ledge rock using sodium sulfate.
7. The boulders shall have a percentage loss of not more than ten percent (10%) after twelve (12) cycles of freezing and thawing when tested in accordance with AASHTO T103 for ledge rock, procedure A.
8. Rock shall be free of calcite intrusions.
9. Color:
 - a. The color of the boulders shall approved by ENGINEER prior to delivery to the PROJECT site.

- b. Color shall be consistent on the entire PROJECT and shall match the color of rock to be used for all other portions of the WORK.

C. SOIL RIPRAP

1. Rock requirements are to comply with riprap as specified in Article Materials.
2. The soil material shall be native or topsoil and mixed with sixty-five percent (65%) riprap and thirty five percent (35%) soil by volume.
3. Soil riprap shall consist of a uniform mixture of soil and riprap without voids.

D. VOID-FILLED RIPRAP

1. Rock requirements are to comply with riprap material specifications in Paragraph A.
2. Samples of riprap and void-fill materials shall be submitted for the review and approval of the ENGINEER prior to construction.
3. Where "Void-Filled Riprap" is designated on the DRAWINGS, riprap shall be mixed with the materials and associated proportions listed in Table 3 and Table 4 to fill the voids of the riprap.
4. If specified, an alternate void-filled riprap mix that includes river cobble shall be used; this mix appears in Table 5 and Table 6.
5. Mix proportions and material gradations in Tables 3 through 6 are approximate and are subject to adjustment by the ENGINEER. No adjustment in unit price for void-filled riprap will be allowed based on modifications to the mix proportions.

Table 3: Mix Requirements for Type VL and L Void-Filled Riprap without River Cobble

Approximate Proportions (loader buckets)	Material Type	Material Description
6	Riprap	Type VL or L
1	Void-fill material	VTC (Vehicle Tracking Control) rock (crushed rock with 100% passing 4-inch sieve, 50-70% passing 3-inch sieve, 0-10% passing 2-inch sieve)
1	Void-fill material	4-inch minus pit run surge (round river rock and sand, well graded, 90-100% passing 4-inch sieve, 70-80% passing 1.5-inch sieve, 40-60% passing 3/8-inch sieve, 10-30% passing #16 sieve).
1	Void-fill material	Type II bedding
½ to 1	Void-fill material	Native topsoil

Note: Mix proportions and material gradations are approximate and are subject to adjustment by the ENGINEER.

Table 4: Mix Requirements for Type M and H Void-Filled Riprap without River Cobble

Approximate Proportions (loader buckets)	Material Type	Material Description
6	Riprap	Type M or H
2	Void-fill material	7-inch minus crushed rock surge (100% passing 7-inch sieve, 80-100% passing 6-inch sieve, 35-50% passing 3-inch sieve, 10-20% passing 1.5-inch sieve)
1	Void-fill material	VTC (Vehicle Tracking Control) rock (crushed rock with 100% passing 4-inch sieve, 50-70% passing 3-inch sieve, 0-10% passing 2-inch sieve)
1	Void-fill material	4-inch minus pit run surge (round river rock and sand, well graded, 90-100% passing 4-inch sieve, 70-80% passing 1.5-inch sieve, 40-60% passing 3/8-inch sieve, 10-30% passing #16 sieve).
1	Void-fill material	Type II bedding
½ to 1	Void-fill material	Native topsoil

Note: Mix proportions and material gradations are approximate and are subject to adjustment by the ENGINEER.

Table 5: Mix Requirements for Type VL and L Void-Filled Riprap with River Cobble

Approximate Proportions (loader buckets)	Material Type	Material Description
6	Riprap	Type VL or L
1	Void-fill material	2 to 4-inch cobble (round washed river rock that is well-graded, 100% passing 6-inch sieve, 35-50% passing 3-inch sieve, 5-20% passing 2-inch sieve)
1	Void-fill material	4-inch minus pit run surge (round river rock and sand, well graded, 90-100% passing 4-inch sieve, 70-80% passing 1.5-inch sieve, 40-60% passing 3/8-inch sieve, 10-30% passing #16 sieve).
1	Void-fill material	Type II bedding
½ to 1	Void-fill material	Native topsoil
Top layer	Top dressing	Additional 4 to 12-inch cobbles (round washed river rock that is well graded, 80-100% passing 12-inch sieve, 35-50% passing 6-inch sieve, 5-20% passing 4-inch sieve) shall be mixed in on the surface of exposed sections of void-filled riprap (covering approximately 15% of the surface) prior to compaction of the void-filled riprap. Cobbles shall be fully embedded into the mass of the void-filled riprap.

Note: Mix proportions and material gradations are approximate and are subject to adjustment by the ENGINEER.

Table 6: Mix Requirements for Type M and H Void-Filled Riprap with River Cobble

Approximate Proportions (loader buckets)	Material Type	Material Description
6	Riprap	Type M or H
2	Void-fill material	7-inch minus crushed rock surge (100% passing 7-inch sieve, 80-100% passing 6-inch sieve, 35-50% passing 3-inch sieve, 10-20% passing 1.5-inch sieve)
1	Void-fill material	2 to 4-inch cobble (round washed river rock that is well-graded, 100% passing 6-inch sieve, 35-50% passing 3-inch sieve, 5-20% passing 2-inch sieve)
1	Void-fill material	4-inch minus pit run surge (round river rock and sand, well graded, 90-100% passing 4-inch sieve, 70-80% passing 1.5-inch sieve, 40-60% passing 3/8-inch sieve, 10-30% passing #16 sieve).
1	Void-fill material	Type II bedding
½ to 1	Void-fill material	Native topsoil
Top layer	Top dressing	Additional 4 to 12-inch cobbles (round washed river rock that is well graded, 80-100% passing 12-inch sieve, 35-50% passing 6-inch sieve, 5-20% passing 4-inch sieve) shall be mixed in on the surface of exposed sections of void-filled riprap (covering approximately 15% of the surface) prior to compaction of the void-filled riprap. Cobbles shall be fully embedded into the mass of the void-filled riprap.

Note: Mix proportions and material gradations are approximate and are subject to adjustment by the ENGINEER.

E. BEDDING:

1. Gradation for granular bedding shall conform to Table 7.
2. Granular bedding designation and total thickness of bedding shall be as shown on the DRAWINGS.
3. Granular bedding shall meet the same requirements for specific gravity, absorption, abrasion, sodium sulfate soundness, calcite intrusion, and freeze-thaw durability as required for riprap.
 - a. Broken concrete asphalt pavement or sledge, shall not be acceptable for use in the WORK. Rounded river rock is not acceptable unless specifically designated on the DRAWINGS.

- b. The requirements for the wear test in AASHTO T96 shall not apply.

Table 7: Granular Bedding Gradation

	Percent by Weight Passing Square-Mesh Sieves	
U.S. Standard Sieve Size	Type I (CDOT Sect. 703.01)	Type II (CDOT Sect. 703.09 Class A)
3 inches	-	90 - 100
1½ inches	-	-
¾ inch	-	20 - 90
⅜ inch	100	-
No. 4	95 - 100	0 - 20
No. 16	45 - 80	-
No. 50	10 - 30	-
No. 100	2 - 10	-
No. 200	0 - 2	0 - 3

F. FEATURE BOULDERS:

1. Feature Boulders shall consist of the same material as boulders, differing only by size.
2. Feature Boulders shall meet the same requirements for specific gravity, absorption, abrasion, sodium sulfate soundness, calcite intrusion, and freeze-thaw durability as required for boulders
3. Feature Boulders shall have a minimum dimension of four (4) feet, or as shown on the DRAWINGS.

PART 3 EXECUTION**3.01 PREPARATION**

- A. Channel slope, bottom, or other areas that are to be protected with riprap, boulders, soil riprap, or void-filled riprap shall be free of brush, trees, stumps, and other objectionable material and be graded to a smooth compacted surface as shown on the DRAWINGS.
- B. CONTRACTOR shall excavate areas to receive riprap to the subgrade as shown on the DRAWINGS accounting for granular bedding.
- C. CONTRACTOR shall excavate areas to receive boulders, soil riprap, or void-filled riprap to the specified depth (bedding material is not required for boulders, soil riprap, or void-filled riprap).
- D. Subgrade Materials:

1. The subgrade materials shall be stable.
2. If unsuitable materials are encountered, they shall be removed and replaced as Muck Excavation in accordance with Section 31 23 00, Excavation and Fill, for subgrade that has been excavated in undisturbed soil.

E. Additional Compaction:

1. Additional compaction shall not be required unless specified by ENGINEER.
2. When subgrade is built up with embankment material it shall be compacted to ninety five percent (95%) maximum density (ASTM D698).

F. Bedding:

1. After an acceptable subgrade is established, bedding shall be immediately placed and leveled to the specified elevation on the DRAWINGS.
2. Immediately following the placement of the bedding material, the riprap shall be placed.
3. If bedding material is disturbed for any reason, it shall be replaced and graded at CONTRACTOR's expense.
4. Contamination:
 - a. In-place bedding materials shall not be contaminated with soils, debris or vegetation before the riprap is placed.
 - b. If contaminated, the bedding material shall be removed and replaced at CONTRACTOR's expense.

3.02 PLACEMENT

A. RIPRAP

1. Following acceptable placement of granular bedding, riprap placement shall commence as follows:
 - a. Machine Placed Riprap:
 - 1) Riprap shall be placed on the prepared slope or channel bottom areas in a manner which will produce a reasonably well graded mass of stone with the minimum practicable percentage of voids.
 - 2) Riprap shall be machine placed, unless otherwise stipulated in the DRAWINGS or SPECIFICATIONS.
 - 3) It is the intent of these SPECIFICATIONS to produce a fairly compact riprap protection in which all sizes of material are placed in their proper proportions. Unless otherwise authorized by ENGINEER, the riprap protection shall be

placed in conjunction with the construction of embankment or channel bottom with only sufficient delay in construction of the riprap protection, as may be necessary, to allow for proper construction of the portion of the embankment and channel bottom which is to be protected.

b. Slope Placement:

- 1) When riprap is placed on slope, placement shall commence at the bottom of the slope working up the slope.
- c. The entire mass of riprap shall be placed on either channel slope or bottom so as to be in conformance with the required gradation mixture and to line, grade, and thickness shown on the DRAWINGS.
- d. Riprap shall be placed to full course thickness at one operation and in such a manner as to avoid displacing the underlying bedding material. Placing of riprap in layers, or by dumping into chutes, or by similar methods shall not be permitted.
- e. All material used for riprap protection for channel slope or bottom shall be placed and distributed such that there shall be no large accumulations of either the larger or smaller sizes of stone. Some hand placement may be required to achieve this distribution.
- f. The basic procedure shall result in larger materials flush to the top surface with faces and shapes arranged to minimize voids, and smaller material below and between larger materials.
- g. Surface grade shall be a plane or as indicated, but projections above or depressions under the finished design grade by more than ten percent (10%) of the rock layer thickness shall not be allowed.
- h. Smaller rock shall be securely locked between the larger stone. It is essential that the material between the larger stones not be loose or easily displaced by flow or by vandalism.
- i. The stone shall be consolidated by the bucket of the backhoe or other means that will cause interlocking of the material.
- j. All rock is to be placed in a dewatered condition beginning at the toe of the slope or other lowest point.
- k. CONTRACTOR shall maintain the riprap protection until accepted. Any material displaced for any reason shall be replaced to the lines and grades shown on the DRAWINGS at no additional cost to OWNER. If the bedding materials are removed or disturbed, such material shall be replaced prior to replacing the displaced riprap.

2. Hand Placed Riprap:

- a. Hand placed riprap shall be performed during machine placement of riprap and shall conform to all the requirements of PART 2, above.
 - b. Hand placed riprap shall also be required when the depth of riprap is less than two (2) times the nominal stone size, or when required by the DRAWINGS or SPECIFICATIONS.
 - c. After the riprap has been placed, hand placing or rearranging of individual stones by mechanical equipment shall be required to the extent necessary to secure a flat uniform surface and the specified depth of riprap, to the lines and grades as shown on the DRAWINGS.
3. Soil Replacement Over Riprap:
- a. Where riprap is designated to be buried, place onsite excavated material that is free from trash and organic matter in riprap voids by washing and rodding.
 - b. Prevent excessive washing of material into stream.
 - c. When voids are filled and the surface accepted by ENGINEER, place a nominal six (6) inches of topsoil over the area, or as designated on the DRAWINGS.
 - d. Fine grade, seed, and mulch per the SPECIFICATIONS.

B. BOULDERS

1. Following excavation and acceptance of subgrade by ENGINEER Boulder placement shall commence as follows:
 - a. Boulders shall be placed on the prepared subgrade in a manner which will minimize voids.
 - b. Voids between boulders exceeding 4" shall be chinked.
2. If Boulders are to be grouted, boulders shall be installed according to Section 31 37 19, Grouted Boulders, Stacked Grouted Boulders and grouted Boulder Retaining Walls.

C. SOIL RIPRAP

1. 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.
2. Mix thirty-five percent (35%) soil by volume with stockpiled riprap, using additional moisture and control procedures that ensure a homogenous mixture; where the soil fills the inherent voids in the riprap without displacing riprap.

3. With prior approval of ENGINEER, layering the riprap and soil instead of premixing may be allowed if the native soil is granular.
4. Place a first layer of smaller soil riprap of approximate d_{50} thickness. Then place the top layer with surface rocks that are largely d_{50} or greater, filling voids as necessary with smaller planted riprap. Create a smooth plane as described in Paragraph A.
5. The mixture shall be consolidated by large vibratory equipment or backhoe bucket to create a tight, dense interlocking mass.
6. The soil shall be further wetted to encourage void filling with soil.
7. Any large voids shall be filled with rock and small voids filled with soil.
8. Excessively thick zones of soil prone to washing away shall not be created (for example, no thicknesses greater than six (6) inches).
9. For buried soil riprap, the top surface shall be covered with four (4) inches of topsoil such that no rock points are protruding.
10. The final surface shall be thoroughly wetted for good compaction, smoothed and compacted by vibrating equipment; the surface shall then be hand raked to receive planting or seeding.

D. VOID-FILLED RIPRAP

1. The ENGINEER and/or CONSTRUCTION INSPECTOR shall observe mixing and placing of the material.
2. Approved individual component materials of void-filled riprap mix shall be delivered to site in separate marked stockpiles. Mixing shall be accomplished using a front end loader or other approved means to add the specified number of "loader buckets" of each material to a mixing stockpile. Ensure that each loader bucket comprises an approximately equal volume. If the loader operator is only able to fill the bucket partially full with large riprap (due to the force required to push the bucket into the pile), but uses full buckets of finer material, the mix proportions will not be correct. Avoid picking up excessive amounts of native soil from the subgrade under the stockpiled materials during the loader bucket mixing operations. The ENGINEER may reduce or eliminate the volume of topsoil added to the mixture based on the amount of native soil was incorporated during the bucket mixing operation.
3. Once all the materials have been added to the mixing stockpile in the specified proportions, thoroughly mix the pile using a loader, large track-hoe excavator, or other approved means to fill the voids of the riprap **without displacing the riprap** or creating pockets of finer material absent of riprap.
4. Segregation of materials shall be minimized when hauling from the stockpile to the installation location. Remixing shall occur as necessary to correct for any segregation as the material is placed.

5. The loose material shall be placed in a single lift of sufficient height such that final grade will be achieved upon compaction. Additional mixing with a track excavator shall be required after initial placement to ensure that the void-filled riprap is thoroughly mixed and no segregation or excessive amount of smaller void-fill material is present on the surface. The mixing and placement process shall result in larger riprap (D_{50} size or larger) flush to the top surface with faces and shapes arranged to minimize voids, and smaller material between and below larger materials.
6. If the top of the compacted material is below final grade, placement of only the smaller void-fill materials to achieve final grade will not be permitted. Additional void-filled riprap shall be added and the entire section mixed with a track excavator to eliminate the presence of smaller void-fill material on the surface.
7. Avoid segregation of materials and remix any section where the combined material consists primarily of the void-fill materials. The density and interlocking nature of riprap in the mixed material shall essentially be the same as if the riprap was placed without filling the voids. This requires care and persistence on the part of the CONTRACTOR to install the work and on the part of the ENGINEER to assure that the work is installed correctly.
8. At the direction of the ENGINEER, a 50:50 mixture of pit run and Type II bedding shall be sprinkled on the surface of the void-filled riprap and washed-in with water using a high pressure hose to fill-in small voids. This shall be done just prior to compaction of the void-filled riprap.
9. If specified as part of the cobble mix, the top dressing of cobbles shall also be mixed in on the surface of exposed sections of void-filled riprap material prior to compaction of the riprap material.
10. Compaction of the void-filled riprap shall be performed by running over the void-filled riprap with a large, heavy duty track excavator or dozer. The moisture content of the mixture shall be at optimum conditions prior to compaction and water shall be added, as necessary, at the direction of the ENGINEER. Compaction of void-filled riprap shall be reviewed and approved by the ENGINEER.
11. Where indicated on the DRAWINGS, a surface layer of 4 to 6 inches moist topsoil shall be placed over the void-filled riprap. The topsoil surface layer shall be compacted to approximately 85% of maximum density and within two percentage points of optimum moisture in accordance with ASTM D698. Topsoil shall be added to any areas that settle.
12. CONTRACTOR shall install a test section of at least 100 square feet of void-filled riprap for the review and approval of the ENGINEER prior to installation of the remaining void filled-riprap.
13. Elevation tolerance for the void-filled riprap shall be 0.10 feet. Thickness of void-filled riprap shall be no less than thickness shown and no more than 2-inches greater than the thickness shown.

E. FEATURE BOULDERS

1. Feature Boulders serve an aesthetic function and as such shall be placed and rotated into final position as directed by ENGINEER in order to achieve the desired result.

3.03 REJECTION OF WORK AND MATERIALS:

- A. ENGINEER will reject placed riprap, boulders, soil riprap and bedding that do not conform to this section. CONTRACTOR shall immediately remove and re-lay the riprap, boulders, soil riprap, void-filled riprap, and bedding to conform to SPECIFICATIONS.
- B. Riprap, boulders, soil riprap, void-filled riprap and bedding that do not conform to this section shall be rejected, whether delivered to the job site or placed.
- C. Rejected riprap, boulders, soil riprap and bedding shall be removed from the PROJECT site by CONTRACTOR at CONTRACTOR's expense.

END OF SECTION

SECTION 31 37 19

GROUTED BOULDERS, STACKED GROUTED BOULDERS, AND GROUTED BOULDER RETAINING WALLS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. This WORK shall consist of subgrade preparation, installing grouted boulders, stacked grouted boulders, and grouted rock retaining walls constructed at the location (s) shown on the DRAWINGS.

1.02 RELATED SECTIONS

- A. The following is a list of SPECIFICATIONS which may be related to this section:
 - 1. N/A
 - 2. Section 600, Structural Concrete; City of Colorado Springs
 - 3. Section 624.02, Grouting; City of Colorado Springs
 - 4. Section 622, Channel Embankment and Backfill; City of Colorado Springs
 - 5. Section 621.04, Dewatering; City of Colorado Springs
 - 6. Section 206, Compaction of Utility Trenches; City of Colorado Springs
 - 7. Section X, Erosion and Stormwater Quality Control; City of Colorado Springs
 - 8. Section 31 37 00, Riprap, Boulders, and Bedding; MHFD

1.03 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
 - 1. American Association of State Highway and Transportation Officials (AASHTO):
 - a. T85, Standard Method of Test for Specific Gravity and Absorption of Coarse Aggregate.
 - b. T103, Standard Method of Test for Soundness of Aggregates by Freezing and Thawing.
 - c. T104, Standard Method of Test for Soundness of Aggregate by Use of Sodium Sulfate or Magnesium Sulfate.
 - 2. ASTM International (ASTM):
 - a. C39, Standard Test Method for Compressive Cylindrical Concrete Specimens.

- b. C150, Standard Specification for Portland Cement.
- c. D698, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12 400 ft-lbf/ft³ (600 kN-m/m³)).

1.04 DEFINITIONS

- A. Terms "boulders" and "rock" may be used interchangeably in this section.

1.05 SUBMITTALS

- A. CONTRACTOR shall submit a mix design in writing to ENGINEER for approval prior to placement of any grout.
- B. CONTRACTOR shall cooperate with ENGINEER in obtaining and providing samples of all specified materials.
- C. CONTRACTOR shall submit certified laboratory test certificates for all items required in this section.

1.06 QUALITY ASSURANCE

- A. Mock-up:
 - 1. Prior to the construction of any grouted rock walls, CONTRACTOR or SUBCONTRACTOR who is constructing the walls for CONTRACTOR shall show ENGINEER an example of similar rock walls that they had constructed previously.
 - 2. After acceptance of this previous WORK, CONTRACTOR or SUBCONTRACTOR shall construct approximately one hundred (100) square feet of grouted rock wall as shown on the DRAWINGS for approval by ENGINEER.
 - 3. If the construction is approved, CONTRACTOR or SUBCONTRACTOR shall construct the rest of the grouted rock wall. If the construction is not approved, CONTRACTOR shall make any changes required by OWNER and ENGINEER to obtain approval, and construct the remainder of the wall as approved.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Boulders
 - 1. Boulders shall meet the requirements of Section 31 37 00 Riprap, Boulders, Soil Riprap and Bedding
 - 2. Rhyolite rock shall not be used for any DISTRICT work.
 - 3. Gradation:

- a. Each load of boulders shall conform to the dimensions specified on the DRAWINGS and in Section 31 37 00 Riprap, Boulders, and Bedding
 - b. Boulders for a boulder edge shall have a maximum ratio of largest to smallest rock dimension shall be 1.5 or as shown on the DRAWINGS. Grouted walls shall be constructed of rock size specified on DRAWINGS.
 - c. Control of gradation will be by visual inspection.
 - 1) In the event ENGINEER determines the boulders to be unacceptable, ENGINEER will pick two random truckloads to be dumped and checked for gradation.
 - 2) Mechanical equipment and labor needed to assist in checking gradation shall be provided by CONTRACTOR at no additional cost to OWNER.
 - 4. Color:
 - a. The color of boulders shall meet the requirements of Section 31 37 00, Riprap, Boulders, and Bedding.
- B. Grout:
- 1. Concrete for the grout shall be an approved batch meeting the following requirements:
 - a. All grout shall have a minimum 28-day compressive strength equal to 3,200 psi.
 - b. One cubic yard of grout shall contain a minimum of six (6) sacks of Type II Portland cement.
 - c. A maximum of 25% Type F Fly Ash may be substituted for the Portland cement.
 - d. Aggregate for the grout shall consist of 70% natural sand (fines) and 30% 3/8-inch rock (coarse).
 - e. Slump shall be four (4) inches to six (6) inches.
 - f. Air entrainment shall be 5.5% - 7.5%.
 - g. Grout shall contain one and one-half (1-1/2) pounds of Fibermesh, or approved equivalent, per cubic yard of grout.
 - h. Color Additive in required amounts shall be used when so specified by contract.

PART 3 EXECUTION**3.01 GROUTED BOULDERS AND STACKED GROUTED BOULDERS**

- A. Grouted boulders shall be placed at the locations as shown on the DRAWINGS and installed with the following requirements:
1. Subgrade:
 - a. The subgrade to receive each boulder shall be excavated and any unstable material shall be removed and replaced to achieve a stable subgrade.
 - b. Grouted Boulders shall be placed on subgrade without granular bedding or riprap unless approved by ENGINEER. Boulders shall not be perched on any material in order to meet design grade; appropriate boulder dimension is required.
 - c. Material approved by ENGINEER shall be placed and compacted in a minimum of six-inch (6") compacted lifts to ninety five percent (95%) of Maximum Standard Proctor Density (ASTM D698) and tested every foot to re-establish the subgrade of each boulder.
 - d. Unstable material shall be removed from the PROJECT site and disposed of by CONTRACTOR. Removal and replacement of unstable material shall only be completed at the direction of ENGINEER and shall be paid for under Muck Excavation. Failure to provide adequate water control measures shall not be cause for CONTRACTOR to apply Muck Excavation.
 - e. Subgrade shall be excavated a minimum of 6" to a maximum of 12" behind boulders.
 - f. Backfill behind boulders shall be compacted to ENGINEER's satisfaction. Care shall be taken during compaction to avoid disturbing and/or damaging the integrity of the boulder channel edge.
 - g. Finished grades and subgrade for boulders shall be determined from the height of each boulder used.
 2. Boulders
 - a. The top of all boulders shall be as indicated on the DRAWINGS.
 - b. The boulders shall be carefully picked and arranged so that adjacent rock surfaces match within two (2) inches in top elevation and two (2) inches along the vertical exposed face or channel side of rock.
 - c. Boulders shall be placed such that adjacent boulders are one and one-half (1-1/2) to three and one-half (3-1/2) inches away and voids do not exceed four (4) inches to allow grout to penetrate and lock boulders in. It is the intent of construction to minimize voids and grout placed between boulders.

- d. CONTRACTOR shall, if deemed necessary, support the boulders from falling over before and during the placement of grout, backfill, and completing compaction WORK on either side of the boulder.
 - e. Smaller rocks shall be “chinked in” to fill all voids behind the boulders. Smaller rocks shall also be used to "chink in gaps larger than four (4) inches. Placement shall be approved by ENGINEER prior to grouting.
 - f. Subsequent lifts of boulders should be battered no more than four (4) to six (6) inches back from the lower boulder level face.
 - g. Boulders shall be installed a minimum of twelve (12) inches below the final channel invert elevation, unless specified differently.
 - h. Subsequent lifts of boulders may not be perched on riprap or chinking rock, however, one or two smaller pieces of riprap may be used to help level the edge of a boulder so that the top surface is relatively flat.
3. Grouting:
- a. Prior to placing the grout, any type of debris, fines, smaller rock, or silt shall be removed from around or under and on the boulders.
 - b. Dewatering shall be implemented to guarantee that the grout will not be placed in water and for a period of twenty-four (24) hours after the grout has been placed.
 - c. Keep grout contact surfaces on boulders wet at all times prior to receiving grout.
 - d. The concrete grout shall be placed by injection methods by pumping under low pressure, to ensure complete penetration of the grout into the void area as detailed on the DRAWINGS. The grout mix shall be stiffened and other measures taken to retain the grout between the boulders. A vibrator shall not be used to “move” grout horizontally.
 - e. Grout placement shall begin at the bottom of the lowest boulder and proceed upward to ensure no air voids exist between the grout, subbase, and boulders.
 - f. Grout shall be placed up to a height of two-thirds (2/3) of the diameter of the top row of boulders or as directed by ENGINEER and shall be placed in the voids and behind the boulders and not on the surface of the rocks.
 - g. A “pencil” vibrator shall be used to make sure all voids are filled between the boulders from the subgrade and around the boulders to a depth as shown on the DRAWINGS. CONTRACTOR shall use a wood float or brush, when approved by ENGINEER, to smooth and grade the grout around the boulders.

- h. Grout between boulders shall be recessed one third (1/3) the diameter of the boulders on the side facing the channel.
 - i. Grout should be raked out and finished to minimize visibility.
 - j. Clean and wash any spillage before the grout sets so the visual surfaces of boulders will be free of grout to provide a clean, natural appearance, or if washing does not clean off grout residue, CONTRACTOR shall wash off any grout residue with a wire brush or muriatic acid and water, using a brush to scrub off the residue.
 - k. Grout shall receive cold or hot weather protection in accordance with Section 03 31 00, Structural Concrete.
4. Cold Joints:
- a. No cold joints shall be allowed in the basin area.
 - b. A piece of #4 rebar, three feet (3') long, shall be installed between each boulder embedded 18" into the initial pour.
 - c. The cold joint shall have a roughened edge and be cleaned of all dirt and debris to allow the pours to bond.
 - d. All cold joints on cutoff walls must have a keyway formed in the top of the initial pour that shall be two inches (2") deep and four inches (4") wide and shall have #4 rebar placed every two feet (2') horizontally, which extends a minimum of 12 inches from the initial pour height.
 - e. CONTRACTOR shall leave the cold joint in a non-linear, jigsaw manner.

3.02 GROUTED BOULDER RETAINING WALLS

- A. Grouted boulder retaining walls shall be placed at locations as shown on the DRAWINGS and installed with the following requirements:
 - 1. The grouted boulder walls shall be constructed to the dimensions shown on the DRAWINGS and shall be constructed with a one (1) horizontal to four (4) vertical batter on the front and back face, with a minimum width of one (1) foot at the top of the wall.
 - 2. The stone of the wall shall be laid to form substantial masonry presenting a neat, finished appearance.
 - 3. Headers shall hold the heart of the wall to the face and shall occupy at least twenty percent (20%) of the area and they shall be evenly distributed.
 - 4. The length of stretchers shall not exceed three (3) times their rise.
 - 5. Spalls and pinnars shall be used in the backing only where necessary and will not be allowed in the face.

6. Face Stones:

- a. Face stones shall be laid to break joints so that each rock laid rests on two beneath it.
- b. Rock shall be hand graded so that only the larger stones are used in the face.
- c. All face stones shall be pitched to a string line on straight walls or laid to batter stakes for curved walls such that the batter is consistent with respect to all parts of the wall and shall meet the minimum requirements set forth in the detail.
- d. The degree of roughness on the exposed face shall be measured with a six-foot (6') straightedge supported between adjacent projections and stone face.
- e. Variations in excess of three (3) inches, measured from the straight edge to the extreme depression in the stone, will not be permitted.
- f. Rear faces shall present approximately plane surfaces and shall in general conform to the detail.

7. Grouting:

- a. Prior to placing the grout, any type of debris, fines, smaller rock, or silt shall be removed from around or under and on the boulders.
- b. Dewatering shall be implemented to guarantee that the grout will not be placed in water and the area will remain dewatered for a period of twenty-four (24) hours after the grout has been placed.
- c. The grout contact surfaces on boulders shall be wet at all times prior to receiving grout.
- d. Grout shall be placed to fill all voids between, under, and throughout the boulder walls and shall be recessed approximately one-third (1/3) the diameter of the boulders from the face of the wall in order to give a "dry stacked" appearance. This may require a gloved finish to accomplish.
- e. A "pencil" vibrator shall be used to make sure all voids are filled between the boulders from the subgrade and around the boulders to a depth as shown on the DRAWINGS. CONTRACTOR shall use a wood float or brush, when approved by ENGINEER, to smooth and grade the grout around the boulders.
- f. Any "loose" rocks shall be regouted by machine or hand methods.
- g. Clean and wash any spillage before the grout sets on the outside face and top of walls such that the visual surfaces of the rocks are free of grout to provide a clean natural appearance, or, if washing does not clean off grout residue, then CONTRACTOR shall wash off any

grout residue with muriatic acid and water, using a brush to scrub off the residue.

- h. Grout shall receive cold or hot weather protection in accordance with Section 600, Structural Concrete.

8. Cold Joints:

- a. A piece of #4 rebar, three (3) feet long, shall be installed between each boulder embedded 18" into the initial pour.
- b. For top row, cut bar length to provide three (3) inches of grout cover over bar.
- c. The cold joint shall have a roughened edge and be cleaned of all dirt and debris to allow the pours to bond.

END OF SECTION

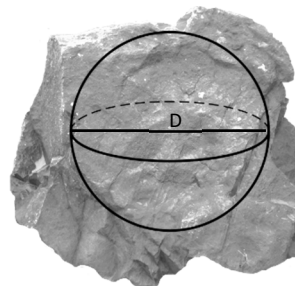
Permanent boulders shall meet the following specifications:

Table 1:
Boulder Dimensions

Boulder Nominal Size (inches)	Height		Length and Width	
	Minimum (inches)	Maximum (inches)	Minimum (inches)	Maximum (inches)
24	22	30	20	36
30	27	38	24	45
36	32	45	28	54
42	38	53	32	63
48	43	60	36	72

Notes:

1. Maximum ratio of length and width shall be 1.5 for all boulders.
2. Boulder bulk must fill a sphere with a diameter (D) equal to the minimum required dimension for length and width as specified in Table 1. Example:



3. Boulders shall be roughly cube shaped.
4. The bulk specific gravity (SSD) of the boulders shall be greater than 2.55 AASHTO T85 or ASTM C 127.
5. The boulders shall have a less than 10 percent loss after 12 cycles of freeze/thaw when tested in accordance with AASHTO T-103 for ledge rock, procedure A, or 35 cycles of ASTM D5312M is acceptable as an alternative.
6. The boulders shall have a loss of not more than 10 percent after 10 cycles when tested in accordance with AASTHO T-104 or ASTM D5240 using magnesium sulfate.
7. Rock shall be free of calcite intrusions.
8. Rock shall be free of rhyolite.

SECTION 216 SOIL RETENTION COVERING

DESCRIPTION

216.01 This work consists of furnishing, preparing, applying, placing, and securing soil retention blankets and turf reinforcement mats for erosion control on roadway slopes or channels as designated in the Contract.

MATERIALS

216.02 Soil retention covering shall be either a soil retention blanket or a turf reinforcement mat as specified in the Contract. It shall be one of the products listed on CDOT's Approved Products List and shall conform to the following:

- (a) *Soil Retention Blanket*. Soil retention blanket shall be composed of degradable natural fibers mechanically bound together between two slowly degrading synthetic or natural fiber nettings to form a continuous matrix and shall conform to the requirements of Tables 216-1 and 216-2. The blanket shall be of consistent thickness with the fiber evenly distributed over the entire area of the mat.

When specified, lightweight polypropylene netting shall be 1.5 pounds per 1000 square feet; heavyweight netting shall be 2.9 pounds per 1000 square feet.

When biodegradable blanket is specified, the thread shall be 100 percent biodegradable; polypropylene thread is not allowed.

When photodegradable netting is specified, the thread shall be polyester, biodegradable or photodegradable.

Blankets and nettings shall be non-toxic to vegetation and shall not inhibit germination of native seed mix as specified in the Contract. The materials shall not be toxic or injurious to humans. Class 1 blanket shall be an extended term blanket with a typical 24 month functional longevity. Class 2 blanket shall be a long term blanket with a typical 36 month functional longevity. The class of blanket is defined by the physical and performance characteristics.

1. *Soil Retention Blanket (Straw-Coconut)*. Soil Retention Blanket (Straw-Coconut) shall be a machine produced mat consisting of 70 percent certified weed free agricultural straw or Colorado native grass straw and 30 percent coconut fiber. The blanket shall be either biodegradable or photodegradable. Blankets shall be sewn together on a maximum 2 inch centers.

Netting shall be as follows:

When biodegradable netting is specified, the top and bottom netting shall be 100 percent biodegradable organic jute fiber. Netting shall be constructed using a weave unattached at intersections which allows the strands of the net to move independently of each other.

When photodegradable netting is specified, the bottom side shall be lightweight polypropylene. The top side shall be heavyweight or lightweight polypropylene.

2. *Soil Retention Blanket (Excelsior)*. Soil Retention Blanket (Excelsior) shall consist of a machine produced mat of 100 percent curled wood excelsior, 80 percent of which shall be 6 inches or longer in fiber length. It shall be either biodegradable or photodegradable. Blankets shall be sewn together at a maximum of 4 inch centers.

Netting shall be as follows:

When biodegradable netting is specified, the top and bottom netting shall be 100 percent biodegradable organic jute fiber. Netting shall be constructed using a weave unattached at intersections which allows the strands of the net to move independently of each other.

When photodegradable netting is specified, the bottom side shall be lightweight polypropylene. The top side shall be heavyweight or lightweight polypropylene.

3. *Soil Retention Blanket (Coconut)*. Soil Retention Blanket (Coconut) shall be a machine produced mat consisting of 100 percent coconut fiber. It shall be either biodegradable or photodegradable.

Netting shall be as follows:

When biodegradable netting is specified, the top and bottom netting shall be 100 percent biodegradable organic jute fiber. Netting shall be constructed using a weave which is unattached at the intersections, and which allows the strands of the net to move independently of each other.

When photodegradable netting is specified, the bottom and top side shall be heavyweight polypropylene.

**Table 216-1
PHYSICAL REQUIREMENTS
FOR SOIL RETENTION BLANKET –
PHOTODEGRADABLE OR BIODEGRADABLE BLANKETS**

Photo/Bio Degradable Class	Minimum Roll Width	Minimum Thickness ASTM D6525	Acceptable Matrix Fill Material	Min. Mass per Unit Area ASTM D6475	Size of Net Opening	
					Photo-degradable	Bio-degradable
1	6.5 ft.	250 mils	Straw/Coconut	8 oz/sy	Minimum: 0.50"x0.50"	Minimum: 0.50"x0.50"
					Maximum: 0.75"x0.75"	Maximum: 0.5"x1.0"
1	6.5 ft.	250 mils	Excelsior	8 oz/sy	Minimum: 0.50"x0.50"	NONE
					Maximum: 1.0"x2.0"	
2	6.5 ft.	200 mils	Coconut	8oz/sy	Minimum: 0.50" x0.5"	Minimum: 0.50"x0.50"
					Maximum: 0.75"x0.75"	Maximum: 0.5"x1.0"

**Table 216-2
PERFORMANCE REQUIREMENTS
FOR SOIL RETENTION BLANKET –
PHOTODEGRADABLE OR BIODEGRADABLE BLANKETS**

Photo/Bio Degradable Class	Slope Application "C" Factor ¹ ASTM D6459	Minimum Tensile Strength MD ² ASTM D6818
1	< 0.10 at 3:1	8.33 lbs/in
2	< 0.10 at 3:1	10.42 lbs/in
Notes: ¹ "C" Factor is calculated as ratio of soil loss from soil retention blanket protected slope (tested at specified or greater gradient, 3H:1V) to ratio of soil loss from unprotected (control) plot in large-scale testing. ² MD is for machine direction testing (along the length of the roll).		

Blankets shall be tested for physical properties and have published data from an independent testing facility.

Large scale testing of Slope Erosion Protection ("C" factor) shall be performed by an independent testing facility.

- (b) *Turf Reinforcement Mat.* Turf reinforcement mat (TRM) shall be a rolled mat consisting of UV stabilized, corrosion resistant, non-degradable synthetic fibers, filaments, or nets processed into a permanent three-dimensional matrix of the thickness specified in Tables 216-3 and 216-4. TRMs shall provide sufficient thickness, strength and void space to permit soil filling and retention, and the development of vegetation within the matrix. The class of TRM is defined by the physical and performance characteristics as specified in the following tables.

**Table 216-3
PHYSICAL REQUIREMENTS¹
FOR TURF REINFORCEMENT MAT**

Product Class	Minimum Roll Width	Minimum Thickness ASTM D6525	Acceptable Matrix Fill Material ²	Size of Net Opening ²
1	6.5 ft.	250 mils	Excelsior, Straw/Coconut, Coconut, or Polymer fibers	Minimum: 0.50"x0.50"
				Maximum: 0.75"x0.75"
2	6.5 ft.	250 mils	100% UV Stabilized Synthetic or Coconut Fibers	Maximum 0.50" x 0.50"
3	6.5 ft.	250 mils	100% UV Stabilized Synthetic Fibers	Maximum 0.50"x 0.50"
Notes: ¹ For TRMs containing degradable components, all property values shall be obtained on the non-degradable portion of the matting alone. ² For TRMs with nets and fill material. Netted TRMs shall be sewn together on a maximum 2 inch centers.				

**Table 216-4
PERFORMANCE REQUIREMENTS
FOR TURF REINFORCEMENT MAT**

Product Class	Tensile Strength MD ASTM D6818	Minimum UV Stability at 500 Hours ASTM D4355	Minimum Permissible Shear Stress ¹ (Unvegetated) ASTM D6460
1	125 lbs/ft	80%	1.8 lbs/sf
2	150 lbs/ft	80%	2.5 lbs/sf
3	175 lbs/ft	80%	3.1 lbs/sf
Notes: ¹ Permissible shear stress is the minimum shear stress that a product must be able to sustain when placed on a channel un-vegetated without physical damage or excess soil loss. Failure is defined as ½ inch of soil loss during a 30 minute flow event in large scale testing.			

TRMs shall be tested for physical properties and have published data from an independent testing facility.

Large scale testing of Permissible Shear Stress shall be performed by an independent testing facility.

- (c) *Staples.* Staples shall be made of ductile steel wire, 0.165 inches in diameter, 8 inches long and have a 1 inch crown. "T" shaped staples will not be permitted.

A sample of the staples and a Certificate of Compliance (COC) including the manufacturer's product data showing that the product meets the Contract requirements shall be submitted for approval at the Environmental Pre-construction Conference. Installation of the blanket will not begin until approval has been received from the Engineer in writing.

- (d) *Earth Anchors.* The mechanical earth anchor shall be composed of a load bearing face plate, a tendon rod or wire rope, and a locking head or percussion anchor. Each element of the anchor shall be composed of corrosion resistant materials. The anchor and wire rope shall have a breaking strength of 9,500 pounds utilizing standard tensile testing and ASTM A1007-07. The anchor shall have a minimum 1,000 pounds ultimate holding strength in normal soil and a manufacturer's recommended

minimum driven depth of 3.5 feet.

A sample of the anchors and a Certificate of Compliance (COC) including the manufacturer's product data showing that the product meets the Contract requirements shall be submitted for approval at the Environmental Pre-construction Conference. Installation of the blanket will not begin until approval has been received from the Engineer in writing.

CONSTRUCTION REQUIREMENTS

216.03 The Contractor shall install soil retention coverings in accordance with Standard Plan M-216-1 and the following procedure:

- (1) Prepare soil in accordance with subsection 212.06(a).
- (2) Apply topsoil or soil conditioning as directed in the Contract to prepare seed bed.
- (3) Place seed in accordance with the Contract.
- (4) Unroll the covering parallel to the primary direction of flow.
- (5) Ensure that the covering maintains direct contact with the soil surface over the entirety of the installation area.
- (6) Do not stretch the material or allow it to bridge over surface inconsistencies.
- (7) Staple the covering to the soil such that each staple is flush with the underlying soil.
- (8) Ensure that staples or earth anchors are installed full depth to resist pull out. No bent over staples will be allowed. Install anchor trenches, seams, and terminal ends as shown on the plans.

The Contractor shall install TRMs using the following procedure:

- (1) Place 3 inches of topsoil or soil amended with soil conditioning.
- (2) Apply half of the specified seed at the broadcast rate and rake it into the soil.
- (3) Install TRM.
- (4) Place 1 inch of topsoil or soil amended with soil conditioning into the matrix to fill the product thickness.
- (5) Apply the remaining half of the specified seed at the broadcast rate and rake it into the soil.
- (6) Install soil retention blanket (Photodegradable or Biodegradable Class 1) over the seeded area and TRM.

When applicable, the covering shall be unrolled with the heavyweight polypropylene netting on top and the lightweight polypropylene netting in contact with the soil.

216.04 Slope Application. Soil retention coverings shall be installed on slopes as follows:

The upslope end shall be buried in a trench 3 feet beyond the crest of the slope if possible. Trench depth shall be a minimum of 6 inches unless required by the manufacture to be deeper. Before backfilling begins, staples shall be placed across the width of the trench. The trench shall then be backfilled to grade with soil amended with soil conditioning or topsoil, compacted by foot tamping, and seeded. Fabric shall be brought back over trench and secured with staples or earth anchors at 1 foot on center.

There shall be an overlap wherever one roll of fabric ends and another begins with the uphill covering placed on top of the downhill covering. Staples shall be installed in the overlap.

There shall be an overlap wherever two widths of covering are applied side by side. Staples shall be installed in the overlap.

Staple checks shall be installed on the slope length at a maximum of every 35 feet. Each staple check shall consist of two rows of staggered staples.

The down slope end shall be buried in a trench 3 feet beyond the toe of slope. Before backfilling begins, staples shall be placed across the width of the trench. The trench shall then be backfilled to grade with soil amended with soil conditioning or topsoil, compacted by foot tamping, and seeded. Fabric shall be brought back over the trench and secured with staples or earth anchors. If a slope runs into State waters or cannot be extended 3 feet beyond the toe of slope, the end of covering shall be secured using a staple check as described above.

Coverings shall be securely fastened to the soil by installing staples or earth anchors at the minimum rate shown on the Standard Plan M-216-1. Staple or earth anchor spacing shall be reduced where required due to soil type or steepness of slope.

216.05 Channel Application. Soil retention coverings shall be installed as follows on a channel application:

Coverings shall be anchored at the beginning and end of the channel across its entire width by burying the end in a trench. Trench depth shall be a minimum of 6 inches, unless a larger depth is specified by the manufacturer's recommendations. Before backfilling begins, staples shall be placed across the width of the trench. The trench shall then be backfilled to grade with soil amended with soil conditioning or topsoil and compacted by foot tamping, and seeded. Fabric shall be brought back over the trench and stapled.

Covering shall be unrolled in the direction of flow and placed in the bottom of the channel first. Seams shall not be placed down

the center of the channel bottom or in areas of concentrated flows when placing rolls side by side.

There shall be an overlap wherever one roll of covering ends and another begins with the upstream covering placed on top of the downstream covering. Two rows of staggered staples shall be placed.

There shall be an overlap wherever two widths of covering are applied side by side. Staples shall be placed in the overlap.

The covering shall have a channel check slot every 30 feet along the gradient of the flowline. Check slots shall extend the entire width of the channel. The covering shall be buried in a trench. Before backfilling begins, staples shall be placed across the width of the trench. The trench shall then be backfilled to grade with soil amended with soil conditioning or topsoil, compacted by foot tamping, and seeded. Fabric shall be brought back over the trench and continued down the channel.

Coverings shall be securely fastened to the soil by installing staples at the minimum rate shown on the plans. Staple spacing shall be reduced where needed due to soil type or high flows.

216.06 Maintenance. The Contractor shall maintain the soil retention coverings until all work on the Contract has been completed and accepted. Maintenance shall consist of the repair of areas where damage is due to the Contractor's operations. Maintenance shall be performed at the Contractor's expense. Repair of those areas damaged by causes not attributable to the Contractor's operations shall be repaired by the Contractor and will be paid for at the contract unit price. Areas shall be repaired to reestablish the condition and grade of the soil and seeding prior to application of the covering.

METHOD OF MEASUREMENT

216.07 Soil retention coverings, including staples, complete in place and accepted, will be measured by the square yard of finished surface, excluding overlap, which is installed and accepted. Earth anchors will be measured by the actual number of earth anchors complete in place and accepted.

BASIS OF PAYMENT

216.08 The accepted quantities of soil retention coverings will be paid for at the contract unit price per square yard. The accepted quantities of earth anchors will be paid for at the contract unit price for each installed.

Payment will be made under:

Pay Item	Pay Unit
Soil Retention Blanket () (Photodegradable Class)	Square Yard
Soil Retention Blanket () (Biodegradable Class)	Square Yard
Turf Reinforcement Mat (Class)	Square Yard
Earth Anchors	Each

Preparation of seedbed, fertilizing, and seeding will be measured and paid for in accordance with Section 212.

Placing and preparation of seedbed, fertilizing, and seeding of soil under the TRM layer will be measured and paid for in accordance with Section 212.

Topsoil or amended soil and seed placed on the TRM will be measured and paid for in accordance with Sections 207 and 212.

Staples will not be measured and paid for separately, but shall be included in the work.

SCHEDULE E – SCOPE OF WORK

THE CONTRACTOR WILL HAVE 90 CALENDAR DAYS TO COMPLETE ALL ASPECTS OF THE PROJECT. CONSTRUCTION SHALL START AS SOON AS POSSIBLE ONCE CONTRACTS HAVE BEEN SIGNED IN ORDER TO AVOID HAVING TO DEAL WITH MAJOR RAIN RUNOFF DURING CONSTRUCTION ACTIVITIES. RAIN/SNOW EVENTS MAY STILL OCCUR DURING THE CONSTRUCTION PERIOD AND THE CONTRACTOR WILL BE LIABLE FOR DEWATERING ACTIVITIES DURING CONSTRUCTION.

E.1 SCOPE OF SERVICES

The project is located within South Douglas Channel just downstream of Highway I-25 in-between Sinton Rd and Mark Dabling Dr. The project will be accessed through a City owned property to the east of Sinton Rd as shown on the project plans. The work to be done by the Contractor shall consist of removal of existing riprap protection, sheetpile driving, substantial grading work inside and outside of the channel, installing riprap and grouted boulders throughout the project extents, installation of a proposed 4' grouted boulder drop structure 3 tiered, and other misc. work. This work is within the highly erodible South Douglas Channel. The Contractor will be responsible for obtaining all necessary permits for the project which include City Concrete, City Excavation, City Grading and Erosion Control (Approved Plans and Narrative have been provided for Contractor's use), CDPHE WQ Construction Permit (for both disturbing an acre of land and also for dewatering activities), and a Parks and Trails Permit (if the Contractor plans on closing Sinton Trail to the north side of the project).

SCHEDULE F – MEASUREMENT AND PAYMENT

The provisions for measurement and payment contained in this section replace and take precedence over the measurement and payment provisions contained in the standard specifications.

Payment for work performed by the Contractor under these Contract Documents will be made at the approved unit price or lump sum price for each of the items as listed in the bid proposal and measured as hereinafter specified. Such payment shall compensate the Contractor for all costs in connection with furnishing all labor, equipment and material required and performing the operations necessary to complete the item in accordance with the contract documents.

Any items of work which are called out in the plans and/or the specifications or are typical for the type of construction being accomplished and do not have a specific line item in the bid proposal but which are necessary to complete the work in accordance with the requirements of good and standard practice, such as sub-grade preparation and grading are to be considered as incidental to the construction of the project and the Contractor's cost for such work shall be included in the bid price for the related item of work.

The Contractor shall accomplish all incidental work essential to the completion of the project, including cleanup and disposal of waste or surplus material without additional cost to the Owner. The cleanup and disposal of waste or surplus material shall be performed during construction or as soon after as is reasonably possible in order to better maintain the safety and aesthetics of the construction area.

The estimated quantities shown in the bid form are estimates only, being given only as the basis for tabulation and evaluation of the bid, and the City does not warrant, expressly or by implication, that the actual amount of work will correspond therewith. The right to increase or decrease the amount of any class or portion of the work or to make changes in the work required as may be deemed necessary is reserved by the City as provided elsewhere in these specifications. Unless otherwise noted in the following bid items descriptions, the basis of payment will be the plan/bid form quantity. The contractor should perform an independent estimate of quantities and bring large discrepancies to the attention of the Engineer before completion of their bid. It should be noted that certain bid items may be included in the Bid Form to establish a unit price should the use of those items become necessary during construction. Allowance will not be made for loss of anticipated profits of additional compensation should the use of these items be deemed unnecessary.

F.1 ITEMS DESCRIPTIONS:

Bid Item No. 1: Mobilization

(LS)

a. Item Description

- See Section 915 – Mobilization of the Standard Specifications.

b. Measurement

Mobilization consists of preparatory work and operations necessary for: the movement of personnel, equipment, supplies, and incidentals to the Project site, temporary signage, all permits and preparation of various construction operation plans, project administration including the specifically documented project meetings for utility locates including coordination with utilities and potholing to confirm utility line locations as needed and other facilities necessary for the Work, for premiums on bond and insurance for the Work, and for other operations performed or costs incurred before the beginning of Work. Mobilization also includes demobilization as Work concludes, including movement of all personnel, equipment, supplies, and incidentals off of the Project site, and reestablishing the surrounding area to preconstruction condition.

c. Payment

Payment will be according to the following schedule:

When 5% of the original contract amount is earned, 20% of the amount Proposal for mobilization will be paid.

When 20% of the original contract amount is earned, 50% of the amount Proposal for mobilization will be paid.

When 35% of the original contract amount is earned, 60% of the amount Proposal for mobilization will be paid.

When 75% of the original contract amount is earned, 100% of the amount Proposal for mobilization will be paid.

Payment for the Proposal Item shall include but is not limited to full compensation for all labor, equipment, tools and materials necessary to mobilize and obtain permitting, and all other costs incurred or labor and operations which must be performed prior to beginning the other items under the contract. Payment shall be made at the applicable contract unit price for the Proposal Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work, and no additional compensation will be allowed therefore.

Bid Item No. 2: Water Control and Dewatering

(LS)

a. Item Description

This work consists of all temporary measures needed to meet the requirements of Section 2.19 of these Special Provisions and Section 920 of the Project Special Technical

Specifications during construction of the project. This bid item includes all the costs for labor, equipment, tools, and materials associated with the work.

b. Payment

Payment for this item will be based on the lump sum bid price and will be in accordance with the following schedule:

One-third of the lump sum price shall be paid after satisfactory completion of one-quarter of the total project work.

The second one-third of the lump sum price shall be paid after satisfactory completion of one-half of the total project work.

The final one-third of the lump sum price shall be paid after satisfactory completion of the total project work.

Bid Item No. 3: Clearing and Grubbing (LS)

a. Measurement

The quantity of clearing and grubbing to be paid for as a lump sum after the work is accepted by the Owner's Representative as complying with the plans and specifications. Clearing and grubbing shall be in accordance with City of Colorado Springs Public Works Standard Specifications.

b. Payment

Payment shall be made at the applicable contract unit price for the Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for clearing and grubbing shall include scalping, topsoil striping and stockpiling, removal and off-site disposal of vegetation and all sized trees, shrubs and debris within the limits of the project. All holes left behind shall be filled with suitable material to existing grade as directed by the Owner's Representative, and no additional compensation will be allowed therefore.

Bid Item No. 4: Survey and Red-Line Drawings (LS)

a. Item Description

Surveying will be performed in accordance with section 108.16 of the Standard Specifications as modified by Project Special Technical Specification section 950.

b. Payment

Payment for surveying will be the contract lump sum bid and will be full compensation for all surveying work necessary to complete the project as shown on the Plans, to include all resetting of stakes, marks, monuments, Secondary and Primary Control points, and preparing supplemental or amended project control diagrams. Partial payment for surveying will be made as work progresses. Copies of survey records for all completed survey work and a current set of red-line drawings shall be submitted to the Engineer prior to payment of pay requests including partial payment for survey and red-line drawings. Before final payment is made, all survey records, red-line drawings, and as-constructed survey & on-demand “proof” shots, stamped and sealed by a PLS shall be submitted to the Engineer for review.

Bid Item No. 5: Earthwork – Unclassified Excavation

(CY)

a. Item Description

The measurement for payment for this item will be based on the actual number of cubic yards of earthen material excavated from the project site. All material that is not placed on site will be hauled off site, but it is expected that all excavated material will be able to be placed back within the project limits. Unclassified excavation shall be in accordance with Section 203 of the CDOT Standard Specifications for Road and Bridge Construction

b. Payment

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for Excavation shall include but not limited to any excavation and embankment necessary to form the embankment and storage area, placement of excess excavated materials onsite, dewatering, temporary stockpiling, compaction and debris disposal. All holes left behind shall be filled with suitable material to existing grade as directed by the Owner’s Representative, and no additional compensation will be allowed therefore.

Bid Item No. 6: Earthwork – Embankment Material

(CY)

a. Item Description

See Section 620- Drainage Channels of the Standard Specifications

The measurement for payment for this item will be based on the actual number of cubic yards of earthen material excavated and used for embankment material from the project site. All material that is not placed on site will be hauled off site, but it is expected that all excavated material will be able to be placed back within the project limits. Contractor shall work with Project Manager to validate quantities and methods used to calculate the quantities prior to excavation activities taking place. The calculated quantity shall be a comparison of the finished grade at the completion of construction activities to the existing conditions base topography shown in the plans. Contractor and Project Manager shall come to consensus regarding any discrepancies between the actual site conditions and

the base topography prior to backfill activities taking place. Additional or updated topography, if required, shall be collected by the Project Manager prior to excavation activities taking place. The quantity is based on the neat lines shown on the drawings and does not account for shrinkage or swell and does not include structural backfill or pre-backfill required to install other items.

b. Payment

Payment shall be made at the applicable contract unit price for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work. Payment for Excavation shall include but not limited to any excavation and embankment necessary to form the embankment and storage area, placement of excess excavated materials onsite, dewatering, temporary stockpiling, compaction and debris disposal. All holes left behind shall be filled with suitable material to existing grade as directed by the Owner's Representative, and no additional compensation will be allowed therefore. Suitable fill material shall be agreed upon by the Owners Representative and Contractor per standards of the specifications, and no additional compensation will be allowed therefore.

Bid Item No. 7: Removal of Existing Riprap and Stockpile for Reuse (CY)

a. Measurement

The quantity of removal of existing riprap and stockpile for future use to be paid for by cubic yard after the work is accepted by the Owner's Representative as complying with the plans and specifications. There is about 400 tons of riprap within the project limits that was placed for emergency stabilization until this project construction commenced and it will be removed and stored on site for use on the improvements.

b. Payment

Payment shall be made at the applicable Bid Item quantity and shall include full compensation for all labor, equipment, tools, hauling, proper disposal and materials necessary to complete the removal and stockpile riprap at the locations shown on the drawings, and no additional compensation will be allowed therefore.

Bid Item No. 8: Riprap – Type H 18" (CY)

a. Item Description

This item includes all materials, equipment, and labor associated with constructing riprap as shown in the Plans. The work shall be performed in accordance with the Standard Specifications as modified by the Project Special Technical Specifications.

b. Payment

Payment shall be made at the bid price per cubic yard as measured for the item, and shall include full compensation for all labor, equipment, tools, and materials necessary to construct the structures. Payment for riprap shall include all subgrade preparation and fine grading to prepare the site for placement; riprap, placed to the satisfaction of the Engineer, compaction testing to meet plan requirements, and hauling and placement of materials as required.

Bid Item No. 9: 48" Grouted Boulders (SY)

a. Item Description

This item includes all materials, equipment, and labor associated with constructing grouted boulders as shown in the Plans. The work shall be performed in accordance with the Standard Specifications as modified by the Project Special Technical Specifications.

b. Payment

Payment shall be made at the bid price per square yard as measured in plan view for the item, and shall include full compensation for all labor, equipment, tools, and materials necessary to construct the structures with the following exception. Riprap and steel sheet pile will be measured and paid separately. Payment for 4' Grouted Boulders shall include all subgrade preparation and fine grading to prepare the site for boulder placement; boulders, placed to the satisfaction of the Engineer, weep drain construction, compaction testing to meet plan requirements, all grout, including grout trench, and hauling and placement of materials as required.

Bid Item No. 10: Soil Riprap – Type M (CY)

c. Item Description

This item includes all materials, equipment, and labor associated with constructing riprap as shown in the Plans. The work shall be performed in accordance with the Standard Specifications as modified by the Project Special Technical Specifications.

d. Payment

Payment shall be made at the bid price per cubic yard as measured for the item, and shall include full compensation for all labor, equipment, tools, and materials necessary to construct the structures. Payment for riprap shall include all subgrade preparation and fine grading to prepare the site for placement; riprap, placed to the satisfaction of the Engineer, compaction testing to meet plan requirements, and hauling and placement of materials as required.

Bid Item No. 11: Cutoff Sheet Pile, Steel (PZ-22) (LF)

a. Item Description

These items include all materials, equipment, and labor associated with constructing steel sheet pile as shown in the Plans and details. The work shall be performed in accordance with the Standard Specifications as modified by the Project Special Technical Specifications.

b. Payment

Payment shall be made at the bid price per frontal square foot for the sheet pile installed based on pile driving logs, and shall include full compensation for all labor, equipment, tools, and materials necessary to install the sheet pile. Payment for steel sheet pile shall include all equipment, labor, surveying, pile driving reports; and hauling and placement of materials as required.

Bid Item No. 12: Concrete Encasement (Sheetpile Cap) (LF)

c. Item Description

These items include all materials, equipment, and labor associated with constructing concrete encasement as shown in the Plans and details. The work shall be performed in accordance with the Standard Specifications as modified by the Project Special Technical Specifications.

d. Payment

Payment shall be made at the bid price per linear foot for the sheet pile encasement installed based on concrete placed and shall include full compensation for all labor, equipment, tools, and materials necessary to install the cap. Payment for encasement shall include all equipment, labor, surveying, materials; and placement of materials as required.

Bid Item No. 13: Topsoil (CY)

a. Measurement

The quantity of topsoil to be paid for will be determined by measurement of the quantity of units furnished, installed, and accepted by the Owner's Representative as complying with the plans and specifications.

b. Payment

Payment shall be made at the applicable contract unit price per cubic yard for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work and to install the topsoil at the locations shown on the drawings, and no additional compensation will be allowed therefore.

Bid Item No. 14: Construction Fencing

(LF)

a. Measurement

The quantity of construction fencing to be paid for will be determined by measurement of the lineal feet of construction fencing furnished, installed, and accepted by the Owner's Representative as complying with the plans and specifications. Construction fencing shall be in conformance with Volume II of the City of Colorado Springs Drainage Criteria Manual and all project documents.

b. Payment

Payment shall be made at the applicable contract unit price per lineal feet for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work and to install the fencing at the locations shown on the drawings, and no additional compensation will be allowed therefore.

Bid Item No. 15: Concrete Washout Area

(EA)

a. Measurement

The quantity of concrete washout to be paid for will be determined by measurement of the quantity of concrete washouts furnished, installed, and accepted by the Owner's Representative as complying with the plans and specifications. Inlet protection shall be in conformance with Volume II of the City of Colorado Springs Drainage Criteria Manual and all project documents.

b. Payment

Payment shall be made at the applicable contract unit price each for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work and to install and maintain the concrete washout at the location selected by the contractor throughout the period of construction and no additional compensation will be allowed therefore.

Bid Item No. 16: Check Dam

(EA)

a. Measurement

The quantity of check dam to be paid for will be determined by measurement of the quantity of check dams furnished, installed, and accepted by the Owner's Representative as complying with the plans and specifications.

b. Payment

Payment shall be made at the applicable contract unit price each for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work and to install the check dam at the locations shown on the drawings, and no additional compensation will be allowed therefore.

Bid Item No. 17: Stabilized Construction Entrance

(EA)

a. Measurement

The quantity of stabilized construction entrance to be paid for will be determined by measurement of the quantity of units furnished, installed, and accepted by the Owner's Representative as complying with the plans and specifications. Inlet protection shall be in conformance with Volume II of the City of Colorado Springs Drainage Criteria Manual and all project documents.

b. Payment

Payment shall be made at the applicable contract unit price each for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work and to install and maintain the stabilized entrance at the location selected by the contractor throughout the period of construction and no additional compensation will be allowed therefore.

Bid Item No. 18: Seeding Native with Soil Preparation

(AC)

a. Measurement

The quantity of seeding to be paid for will be determined by measurement of the acres of property seeded and furnished, installed, and accepted by the Owner's Representative as complying with the plans and specifications. Seeding shall be in conformance with Volume II of the City of Colorado Springs Drainage Criteria Manual and the project documents. Contractor shall maintain and establish meadow by watering, weeding, mowing, trimming, replanting, and other operations. Roll, regrade, and replant bare and eroded areas and mulch. Watering: Provide and maintain temporary piping, hoses, and turf-watering equipment to convey water from sources and to keep meadow uniformly moist. Contractor is responsible for regrowth of site to obtain 70% or preconstruction vegetation and the City Grading and Erosion Control Permit will not be closed until this requirement is met as stated within the project documents and City DCM.

b. Payment

The accepted quantities will be paid for at the Contract price for this Item. Payment will be considered full compensation for all materials and labor necessary to complete the seeding including soil preparation, fertilizing, soil, seed, drilling, spreading, conditioning, signs, tilling and raking. The installation of weed-free straw or wood-strand erosion control

mulch is incidental to the work and required over all seeded areas that do not include erosion control blanket, and no additional compensation will be allowed therefore.

Bid Item No. 19: Willow Stakes

(EA)

a. Measurement

The quantity of willow stakes to be paid for will be determined by measurement of the quantity of willow stakes furnished, installed, and accepted by the Owner's Representative as complying with the plans and specifications.

a. Payment

Payment shall be made at the applicable contract unit price each for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work and to install the willow stakes at the locations shown on the drawings, and no additional compensation will be allowed therefore.

Bid Item No. 20: Mulching (Weed Free)

(AC)

a. Measurement

The quantity of mulching to be paid for will be determined by measurement of the quantity of mulch furnished, installed, and accepted by the Owner's Representative as complying with the plans and specifications.

b. Payment

Payment shall be made at the applicable contract unit price each for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work and to install the mulch at the locations shown on the drawings, and no additional compensation will be allowed therefore.

Bid Item No. 21: Mulch Tackifier

(LB)

a. Measurement

The quantity of mulch tackifier to be paid for will be determined by measurement of the quantity of tackifier furnished, installed, and accepted by the Owner's Representative as complying with the plans and specifications.

b. Payment

Payment shall be made at the applicable contract unit price each for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to

complete the work and to install the tackifier at the locations shown on the drawings, and no additional compensation will be allowed therefore.

Bid Item No. 22: Soil Retention Blanket (SY)

a. Measurement

The quantity of erosion control blanket to be paid for will be determined by measurement of the square yards of erosion control blanket furnished, installed, and accepted by the Owner's Representative as complying with the plans and specifications. Erosion control blanket shall be in conformance with Volume II of the City of Colorado Springs Drainage Criteria Manual and the project documents.

b. Payment

Payment shall be made at the applicable contract unit price per square yard for Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work and to install the erosion control blanket at the locations shown on the drawings, and no additional compensation will be allowed therefore.

Bid Item No. 23: F/A Minor Contract Revisions (LS)

a. Measurement

The quantity of Field Orders to be paid for will be determined by number of approved changes found in the field by the Contractor or the City. The field order bid item shall be used for the City's use to expedite any field orders made during construction. The use of the field order bid item is at the City's discretion and any amount of such item not used during construction will be removed from the contract amount at the end of the project. Contractor will need written approval from the City prior to moving forward with any field order change along with the approved amount and the Contractor is not guaranteed any amount of the bid item if the City does not approve of any field orders during construction.

b. Payment

Payment shall be made at increments within the applicable contract price for Field Orders Bid Item and shall include full compensation for all labor, equipment, tools, and materials necessary to complete the work.

SCHEDULE G – GRADING & EROSION CONTROL PLAN
FOLLOWS THIS PAGE



NOTES:

1. NO CLEARING, GRADING, EXCAVATION, OR OTHER LAND DISTURBING ACTIVITIES SHALL BE ALLOWED (EXCEPT FOR WORK DIRECTLY RELATED TO THE INSTALLATION OF INITIAL CONTROL MEASURES) UNTIL A CITY GEC PERMIT HAS BEEN ISSUED.
2. ALL LAND DISTURBING ACTIVITIES MUST BE PERFORMED IN ACCORDANCE WITH THE APPROVED GEC PLAN AND CSWMP.
3. INITIAL CONTROL MEASURES SHALL BE INSTALLED AND INSPECTED PRIOR TO ANY LAND DISTURBANCE ACTIVITIES TAKING PLACE. AN INITIAL SITE INSPECTION WILL NOT BE SCHEDULED UNTIL A CITY GEC PERMIT HAS BEEN "CONDITIONALLY APPROVED". CALL CITY STORMWATER INSPECTIONS, 385-5980, AT LEAST 48 HOURS PRIOR TO CONSTRUCTION TO SCHEDULE AN INITIAL INSPECTION AND OBTAIN FULL PERMIT APPROVAL.
4. INDIVIDUALS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS) AND THE "CLEAN WATER ACT" (33 USC 1344), INCLUDING REGULATIONS PROMULGATED AND CERTIFICATIONS OR PERMITS ISSUED, IN ADDITION TO REQUIREMENTS INCLUDED IN THE CITY'S MS4 PERMIT, STORMWATER CONSTRUCTION MANUAL. IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND WATER QUALITY CONTROL LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL OR STATE AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
5. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS.
6. ALL CONSTRUCTION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION MEASURES ARE IMPLEMENTED. TEMPORARY CONSTRUCTION CONTROL MEASURES MUST BE REMOVED PRIOR TO PERMIT CLOSEOUT.
7. CONCRETE WASH WATER SHALL NOT BE DISCHARGED TO OR ALLOWED TO RUNOFF TO STATE WATERS OR ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES..
8. BUILDING, CONSTRUCTION, EXCAVATION, OR OTHER WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONSTRUCTION CONTROL MEASURES MAY BE REQUIRED BY THE GEC INSPECTOR IF DEEMED NECESSARY BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES (E.G., ESTIMATED TIME OF EXPOSURE, SEASON OF THE YEAR, ETC.).
9. ALL WASTES COMPOSED OF BUILDING MATERIALS MUST BE REMOVED FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
10. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN THE STORM SEWER OR OTHER DRAINAGE CONVEYANCE SYSTEM AS A RESULT OF CONSTRUCTION ACTIVITIES.
11. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE SORTED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS. MATERIALS SHALL NOT BE STORED IN A LOCATION WHERE THEY MAY BE CARRIED BY STORMWATER RUNOFF INTO THE STORM SEWER SYSTEM AT ANY TIME.
12. SPILL PREVENTION AND CONTAINMENT MEASURES SHALL BE USED AT ALL STORAGE, EQUIPMENT REFUELING, AND EQUIPMENT SERVICING AREAS SO AS TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIAL FROM ENTERING THE MS4, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITY. BULK STORAGE STRUCTURES FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS SHALL HAVE SECONDARY CONTAINMENT OR EQUIVALENT ADEQUATE PROTECTION. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY, OR CONTAINED UNTIL APPROPRIATE CLEANUP METHODS CAN BE EMPLOYED. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE FOLLOWED, ALONG WITH PROPER DISPOSAL METHODS.

CITY OF COLORADO SPRINGS GRADING and EROSION CONTROL REVIEW

THIS GRADING AND EROSION CONTROL PLAN OR CSWMP IS FILED IN ACCORDANCE WITH CITY CODE, THIS PLAN IS REVIEWED IN ACCORDANCE WITH THE STORMWATER CONSTRUCTION MANUAL; LATEST REVISIONS.

SWENT MANAGER _____ DATE _____

NOTES: _____

ENGINEER'S STATEMENT

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. IF SUCH WORK IS PERFORMED IN ACCORDANCE WITH THE GRADING AND EROSION CONTROL PLAN, THE WORK WILL NOT BECOME A HAZARD TO LIFE AND LIMB, ENDANGER PROPERTY, OR ADVERSELY AFFECT THE SAFETY, USE, OR STABILITY OF A PUBLIC WAY, DRAINAGE CHANNEL, OR OTHER PROPERTY.

AUTHORIZED SIGNATURE _____ PHONE _____

PRINTED NAME _____ DATE _____

SEAL

13. SEDIMENT (MUD AND DIRT) TRANSPORTED ONTO A PUBLIC ROAD, REGARDLESS OF THE SIZE OF THE SITE, SHALL BE CLEANED AS SOON AS POSSIBLE AFTER DISCOVERY.
14. NO CHEMICALS ARE TO BE ADDED TO THE DISCHARGE UNLESS PERMISSION FOR THE USE OF A SPECIFIC CHEMICAL IS GRANTED BY THE STATE. IN GRANTING THE USE OF SUCH CHEMICALS, SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
15. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN FOURTEEN (14) CALENDAR DAYS AFTER FINAL GRADING OR FINAL LAND DISTURBANCE HAS BEEN COMPLETED. DISTURBED AREAS WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN FOURTEEN (14) DAYS SHALL BE ROUGHENED, MULCHED, TACKIFIED, OR STABILIZED WITH TARPS WITHIN FOURTEEN (14) DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN SIXTY (60) DAYS SHALL ALSO BE SEEDED, UNLESS AN ALTERNATIVE STABILIZATION MEASURE IS ACCEPTED AT THE INSPECTOR'S DISCRETION. ALL TEMPORARY CONSTRUCTION CONTROL MEASURES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION IS ACHIEVED.
16. THE GEC PLAN WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY THE STORMWATER ENTERPRISE SHOULD ANY OF THE FOLLOWING OCCUR: GRADING DOES NOT COMMENCE WITHIN TWELVE (12) MONTHS OF THE CITY'S ACCEPTANCE OF THE PLAN; THE CONSTRUCTION SITE IS IDLE FOR TWELVE (12) CONSECUTIVE MONTHS; A CHANGE IN PROPERTY OWNERSHIP OCCURS; THE PLANNED DEVELOPMENT CHANGES; OR ANY OTHER MAJOR MODIFICATIONS ARE PROPOSED AS DEFINED IN THE STORMWATER CONSTRUCTION MANUAL.
17. IT IS NOT PERMISSIBLE FOR ANY PERSON TO MODIFY THE GRADE OF THE EARTH ON ANY UTILITY EASEMENT OR UTILITY RIGHT-OF-WAY WITHOUT WRITTEN APPROVAL FROM THE UTILITY OWNER. CITY ACCEPTANCE OF THE GEC PLAN AND CSWMP DOES NOT SATISFY THIS REQUIREMENT. THE PLAN SHALL NOT INCREASE OR DIVERT WATER TOWARDS UTILITY FACILITIES. ANY CHANGES TO EXISTING FACILITIES TO ACCOMMODATE THE PLAN MUST BE APPROVED BY THE AFFECTED UTILITY OWNER PRIOR TO IMPLEMENTING THE PLAN. THE COST TO RELOCATE OR PROTECT EXISTING UTILITIES OR TO PROVIDE INTERIM ACCESS SHALL BE AT THE APPLICANT'S EXPENSE.
18. APPLICANT REPRESENTS AND WARRANTS THAT THEY HAVE THE LEGAL AUTHORITY TO GRADE AND/OR CONSTRUCT IMPROVEMENTS ON ADJACENT PROPERTY. THE CITY HAS NOT REVIEWED THE DEVELOPER'S AUTHORITY TO MODIFY ADJACENT PROPERTY. AN APPROVED GEC PERMIT DOES NOT PROVIDE APPROVAL FOR THE APPLICANT TO PERFORM WORK ON ADJACENT PROPERTY.
19. STREET SWEEPING WILL TAKE PLACE ON VONDELPARK DRIVE AND NORTH CHESTNUT STREET TO ENSURE ALL CONSTRUCTION SEDIMENT IS CAPTURED AND DISPOSED OF PROPERLY.
20. THE PROJECT IS LOCATED ON CITY PROPERTY AND ADJACENT AREAS WILL NOT BE AFFECTED BY CONSTRUCTION.
21. 'NO-BUILD' AREAS ARE NOT LOCTADE WITHIN THE PROJECT LIMITS.
22. THERE ARE NO ASPHALT/CONCRETE BATCH PLANTS, NOR MASONRY MIXING STATIONS WITHIN THE PROJECT LIMITS.

CITY PROJECT MANAGER'S STATEMENT

I HEREBY CERTIFY THAT THE DRAINAGE, GRADING, AND EROSION CONTROL FOR SOUTH DOUGLAS CREEK SHALL BE CONSTRUCTED ACCORDING TO THE DESIGN PRESENTED IN THIS GRADING AND EROSION CONTROL PLAN. I FURTHER UNDERSTAND THAT FIELD CHANGES MUST BE REVIEWED BY SWENT REVIEW ENGINEER TO ENSURE CONFORMANCE WITH THE ORIGINAL DESIGN INTENT. I AM EMPLOYED BY AND PERFORM ENGINEERING SERVICES SOLELY FOR THE CITY OF COLORADO SPRINGS, AND THEREFORE AM EXEMPT FROM COLORADO REVISED STATUTE TITLE 12, ARTICLE 25, PART 1 ACCORDING TO § 12-25-103(1), C.R.S.

AUTHORIZED SIGNATURE _____ DATE _____

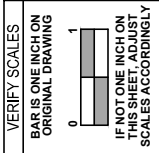
NAME OF CITY REPRESENTATIVE _____

NOTES: _____

SCHEDULE G - GEC PLAN

Sheet List Table

Sheet No.	Sheet Name
1	Erosion Control Notes
2	Erosion Control Plan
3	Revegetation Plan
4	Erosion Control Details



STORMWATER ENTERPRISE
SOUTH DOUGLAS CREEK
SINTON TRAIL

EROSION CONTROL NOTES

SCALE HORIZ: AS SHOWN VERT: N/A
FILENAME SOUTH DOUGLAS CREEK SOUTHERN SITE.DWG
SHEET 1 76 1 OF 4

1/2/2024



1. STAGING AREA, STOCKPILE AREA AND TEMPORARY DISPOSAL AREAS WILL BE DETERMINED BY THE CONTRACTOR.
2. ALL DISTURBED AREAS OUTSIDE OF ROADWAYS SHALL BE SEEDED.
3. PLACE SOIL RETENTION BLANKET ON ALL SLOPES STEEPER THAN 3:1 OR WHERE SHOWN ON PLANS
4. ALL OTHER DISTURBED AREAS OUTSIDE OF ROADWAYS SHALL BE MULCHED UNLESS BLANKET IS SPECIFIED.
5. EROSION LOG - 12"Ø x 10'
6. ESTIMATED CONSTRUCTION START: JANUARY 2024.
7. ESTIMATED CONSTRUCTION FINISH: APRIL 2024.
8. EXPECTED FINAL STABILIZATION: MAY 2024.
9. RECEIVING WATERS: SOUTH DOUGLAS CREEK and MONUMENT CREEK.
10. AREA OF DISTURBANCE = 23,921 SF

LEGEND

STABILIZED CONSTRUCTION ENTRANCE.....VTC

EROSION CONTROL BLANKET.....ECB

GROUTED RIPRAP.....

GROUTED BOULDERS.....

SEEDING & MULCHING.....SM

EXISTING CONTOURS.....6185

PROPOSED CONTOURS.....6185

CHECK DAM.....CD

CONCRETE WASHOUT STRUCTURE.....CWA

LIMITS OF CONSTRUCTION/DISTURBANCE (DAYLIGHT)

CONSTRUCTION FENCE.....CF

GESC...XX DIRECTION OF FLOW... 100 YEAR FLOODPLAIN...

PROJECT MANAGER	BT	DESIGNED BY	HDR	DRAWN BY	KWD	CHECKED BY	PROJECT NUMBER	2021-309
REV. No.		REVISION						
BY		DATE						

VERIFY SCALES

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STORMWATER ENTERPRISE

STORMWATER ENTERPRISE SOUTH DOUGLAS CREEK SINTON TRAIL

EROSION CONTROL PLAN

SCALE

HORIZ: AS SHOWN

VERT: N/A

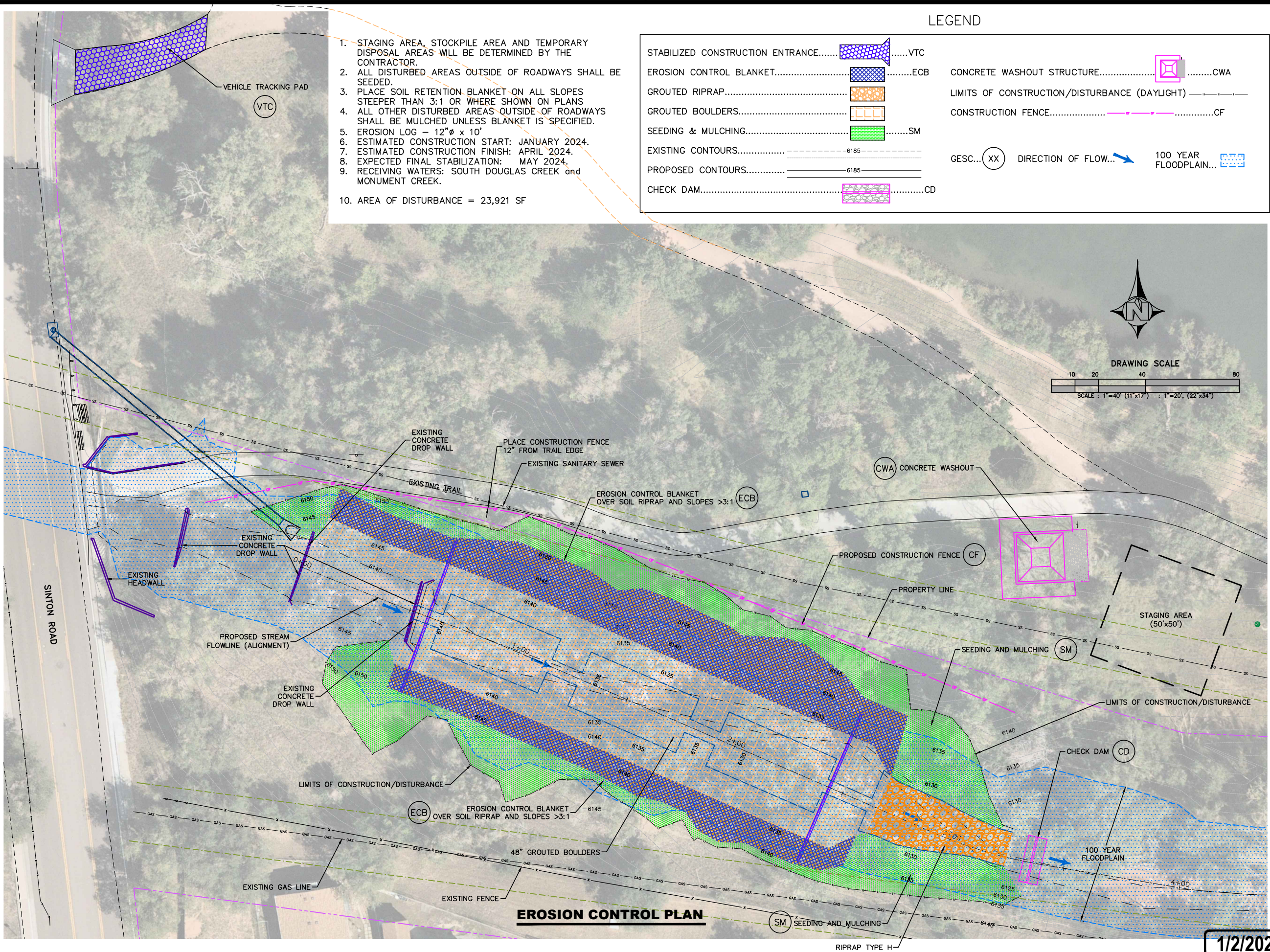
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SINTON TRAIL-COS.DWG

SHEET

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77 2 OF 4

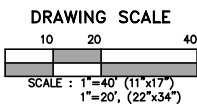
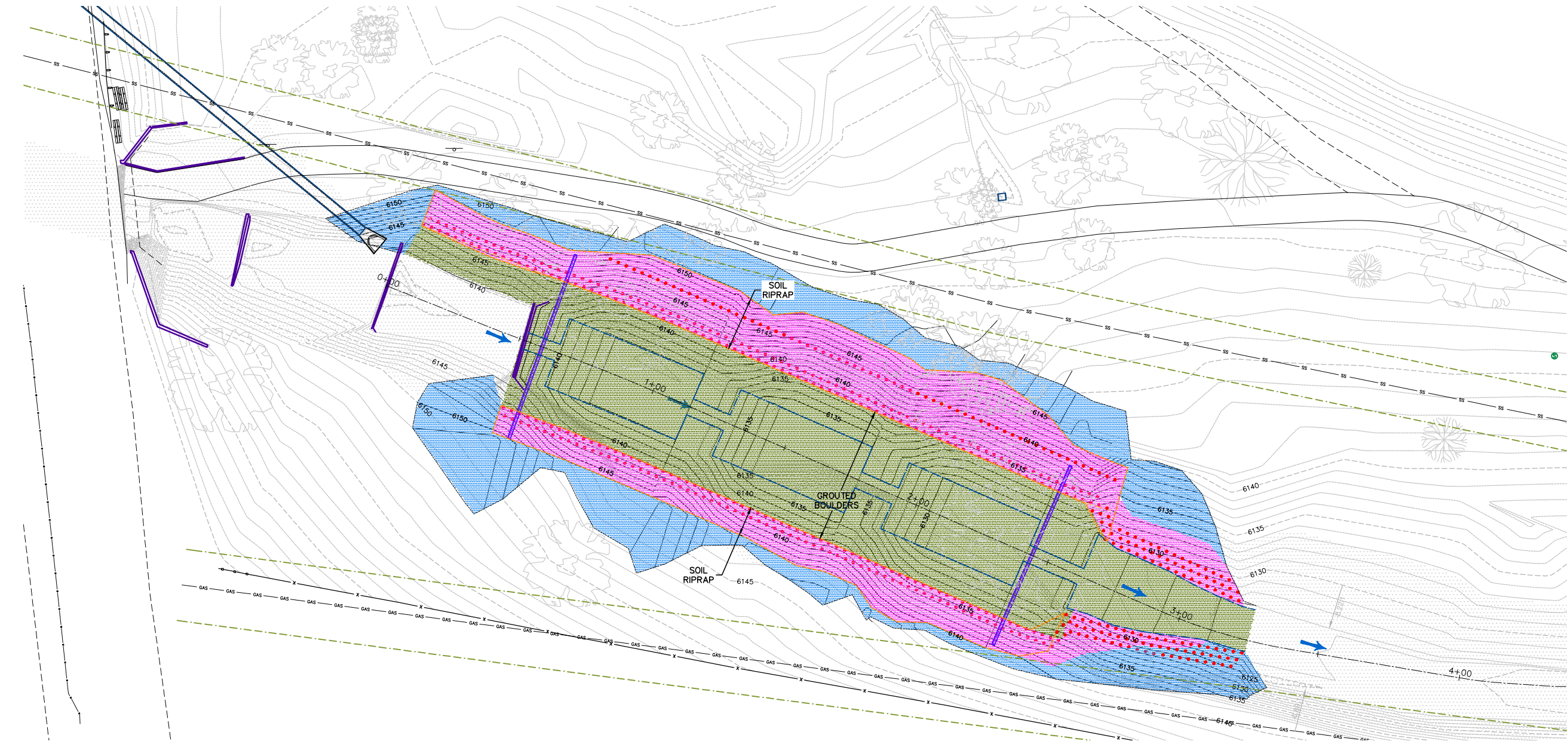


EROSION CONTROL PLAN

1/2/2024

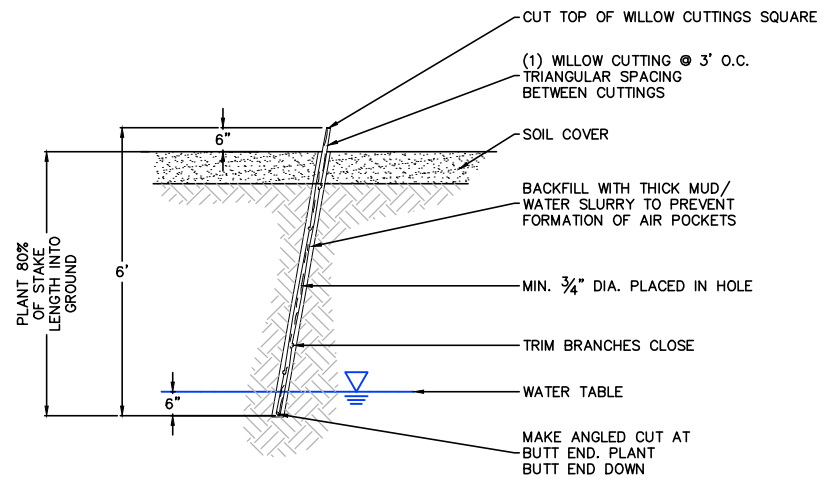


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Drawing: E:\PROJECTS\2021-309 SINTON TRAIL IMPROVE\02 DESIGN\CAAD DESIGN\SINTON TRAIL-COS.DWG - Layout: REVEGETATION



LEGEND	
ZONE A – RIPARIAN SEED.....	
ZONE B – UPLAND SEED.....	
ZONE X – NO SEED.....	
WILLOW STAKING.....	

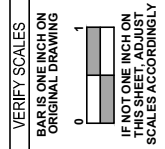
- TOPSOIL STOCKPILING:**
1. TOPSOIL SHALL BE PROTECTED DURING CONSTRUCTION TO RETAIN ITS STRUCTURE, AVOID COMPACTION, AND TO PREVENT EROSION/CONTAMINATION.
 2. TOPSOIL MUST NOT BE STRIPPED DURING UNDESIRABLE WORKING CONDITIONS (I.E. DURING WET WEATHER OR WHEN SOILS ARE SATURATED).
 3. PILES SHOULD BE STORED IN AN AREA AWAY FROM MACHINERY, CONSTRUCTION OPERATIONS, SWALES, AND AREAS OF POOR DRAINAGE.
- SEEDBED PREPARATION AND SOIL AMENDMENTS:**
1. AREAS OF GENERAL CONSTRUCTION MUST BE SCARIFIED TO A DEPTH OF 12-INCHES TO BREAK UP COMPACTED LAYERS AND PROVIDE A BLENDING ZONE BETWEEN SOIL LAYERS.
 2. AREAS TO BE REVEGETATED SHALL HAVE AT LEAST 4-INCHES OF SUITABLE TOPSOIL TO SUPPORT PLANT GROWTH.
- EROSION CONTROL BLANKET & MULCH:**
1. HYDROMULCH (WOOD CELLULOSE FIBERS MIXED WITH WATER) SHALL BE APPLIED AT A RATE OF 2,500 POUNDS PER ACRE, WITH A TACKIFIER AT A RATE OF 100 POUNDS PER ACRE.
- SEEDING:**
1. SEED SHOULD BE DRILL-SEEDED WHENEVER POSSIBLE TO A DEPTH OF 1/3 TO 1/2 INCH.
 - a. BROADCAST OR HYDROSEEDING WITH TACKIFIER MAY BE SUBSTITUTED ON SLOPES GREATER THAN 3:1 OR ON OTHER AREAS NOT PRACTICAL TO DRILL SEED.
 - b. SEEDING RATES MUST BE DOUBLED FOR BROADCAST SEEDING OR INCREASED BY 50% IF USING A BRILLION DRILL OR HYDROSEEDER.



WILLOW PLANTING DETAIL
SCALE: NTS

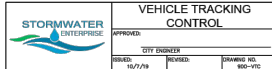
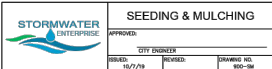
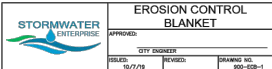
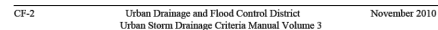
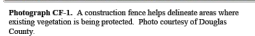
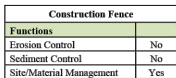
1/2/2024

PROJECT MANAGER	BT	REV. No.	REVISION	BY	DATE
DESIGNED BY	HDR				
DRAWN BY	KWD				
CHECKED BY					
PROJECT NUMBER	2021-309				



**STORMWATER ENTERPRISE
SOUTH DOUGLAS CREEK
SINTON TRAIL
REVEGETATION PLAN**

SCALE	HORIZ: AS SHOWN VERT: N/A
FILENAME	SINTON TRAIL-COS.DWG
SHEET	3 78 3 OF 4



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SCHEDULE H – CONSTRUCTION PLAN SET
FOLLOWS THIS PAGE



SCHEDULE H

CITY OF COLORADO SPRINGS
STORMWATER ENTERPRISE

CONSTRUCTION BID PLANS FOR PROPOSED



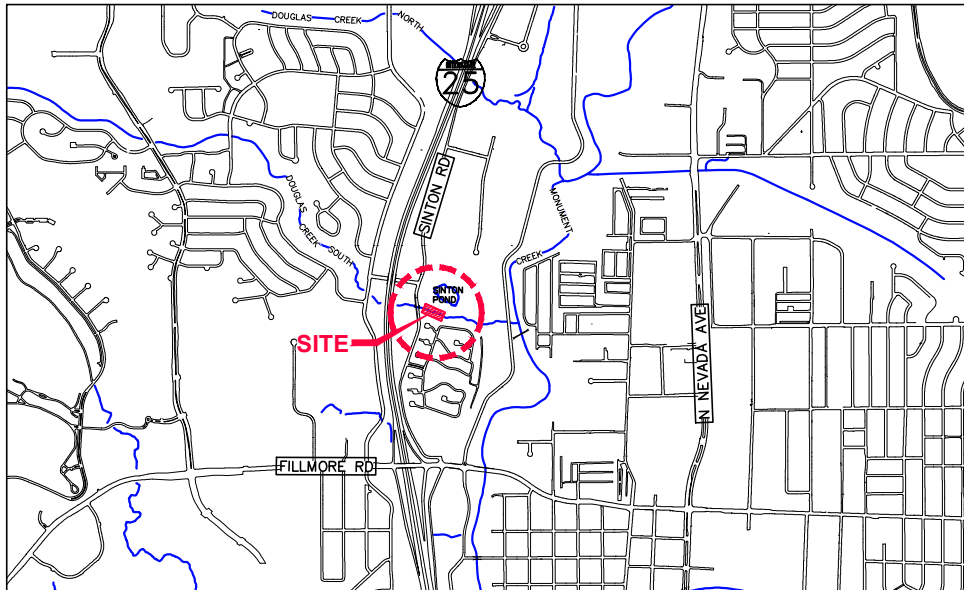
Sheet List Table

Sheet No.	Sheet Name
1	Title Sheet
2	General Notes
3	Horizontal Control Plan
4	Demolition Plan
5	Plan & Profile
6	Drop Structures
7	Details
8-12	Cross Sections

GENERAL NOTES:

1. NO WORK IS TO BEGIN UNTIL ALL PERMITS HAVE BEEN OBTAINED.
2. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR MINIMIZING DEPOSITION OF ONSITE SEDIMENTS ONTO SURROUNDING PUBLIC STREETS DURING CONSTRUCTION.
3. PROPERTY LINE IS A GRAPHICAL REPRESENTATION AND IS FOR INFORMATIONAL PURPOSES ONLY.
4. ALL DISTURBED AREAS SHALL BE REVEGETATED PER SECTION 900 OF THE CITY OF COLORADO SPRINGS STANDARD SPECIFICATIONS
5. ALL UTILITY LOCATIONS SHOWN ARE TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
6. WHERE A PROPOSED POST IMPACTS AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLES OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

SINTON TRAIL CHANNEL IMPROVEMENTS
PROJECT NO: 2021-309
CHANNEL DESIGN REPORT No. (STM-REV23-0992)



VICINITY MAP

SCALE: NTS



SUMMARY OF APPROX. QUANTITIES			
No.	ITEM	UNIT	PLAN QUANTITY
100-00000	MOBILIZATION	LS	1
100-10000	CLEARING AND GRUBBING	AC	0.64
202-00000	UNCLASSIFIED EXCAVATION	CY	2,021
203-00000	EMBANKMENT MATERIAL (*FACTOR 1.2)	CY	662
220-00028	REMOVAL/STOCKPILE OF RIPRAP	LS	1
624-00180	RIPRAP (TYPE H, 18-INCH)	CY	177
624-01299	48" GROUTED BOULDERS	SY	1,187
624-07120	SOIL RIPRAP (12" TYPE M)	CY	811
626-01000	CUT-OFF SHEETPILE, STEEL (PZ-22)	LF	137
700-100000	CONCRETE ENCASEMENT (SHEETPILE CAP)	LF	137
825-00000	CONSTRUCTION SURVEYING	LS	1
900-00205	TOPSOIL	CY	206
900-00500	CONSTRUCTION FENCE	LF	370
901-00045	CONCRETE WASHOUT STRUCTURE	EA	1
901-00046	CHECK DAM	EA	1
901-00070	STABILIZED CONSTRUCTION ENTRANCE	EA	1
902-00006	SEEDING (NATIVE) WITH SOIL PREPARATION	AC	0.17
902-01016	WILLOW STAKE	EA	500
903-00003	MULCHING (WEED FREE)	AC	0.17
903-00061	MULCH TACKIFIER	LB	17
906-00002	SOIL RETENTION BLANKET (CLASS 2)	SY	811
990-70010	F/A MINOR CONTRACT REVISIONS	LS	\$50,000.00

ENGINEER'S STATEMENT

THIS REPORT AND PLAN FOR THE DRAINAGE DESIGN OF THE SINTON TRAIL CHANNEL IMPROVEMENTS WAS PREPARED BY ME (OR UNDER MY DIRECT SUPERVISION) AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. SAID REPORT AND PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE CITY OF COLORADO SPRINGS DRAINAGE CRITERIA MANUAL AND IS IN CONFORMITY WITH THE MASTER PLAN OF THE DRAINAGE BASIN. I UNDERSTAND THAT THE CITY OF COLORADO SPRINGS DOES NOT AND WILL NOT ASSUME LIABILITY FOR DRAINAGE FACILITIES DESIGNED BY OTHERS. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS REPORT.

AUTHORIZED SIGNATURE

DATE

COLORADO P.E. No.

CITY PROJECT MANAGER'S STATEMENT

I HEREBY CERTIFY THAT THE DRAINAGE FACILITIES FOR THIS PROJECT SHALL BE CONSTRUCTED ACCORDING TO THE DESIGN PRESENTED IN THESE PLANS. I FURTHER UNDERSTAND THAT FIELD CHANGES MUST BE REVIEWED BY THE CITY REVIEW ENGINEER TO ENSURE CONFORMANCE WITH THE ORIGINAL DESIGN INTENT. I AM EMPLOYED BY AND PERFORM ENGINEERING SERVICES SOLELY FOR THE CITY OF COLORADO SPRINGS, AND THEREFORE AM EXEMPT FROM COLORADO REVISED STATUTE TITLE 12, ARTICLE 25, PART 1 ACCORDING TO § 12-25-103(1), C.R.S.

AUTHORIZED SIGNATURE

DATE

NAME OF CITY REPRESENTATIVE

NOTES:

CITY OF COLORADO SPRINGS REVIEW STATEMENT

THIS GRADING PLAN IS FILED IN ACCORDANCE WITH SECTION 7.7.906 OF THE CODE OF THE CITY OF COLORADO SPRINGS, 2001, AS AMENDED.

FOR CITY REVIEW ENGINEER

DATE

NAME OF CITY REPRESENTATIVE

CONDITIONS:

SUMMARY OF EARTHWORK QUANTITIES

DESCRIPTION	UNITS	TOTALS
EMBANKMENT MATERIAL (COMPLETE-IN-PLACE)	CU YD	662
STRUCTURE BACKFILL (CLASS 1)	CU YD	
TOTAL		662
FOR INFORMATION ONLY		
MUCK EXCAVATION	CU YD	0
UNCLASSIFIED EXCAVATION (COMPLETE-IN-PLACE)	CU YD	2,021
TOTAL		2,021
EARTHWORK QUANTITIES BALANCE		
TOTAL EXCAVATION	CU YD	2,021
TOTAL EMBANKMENT *FACTOR (1.2)	CU YD	794
TOTAL EXPORT		-1,227

1/2/2024

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GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF COLORADO SPRINGS, ENGINEERING DIVISION, GENERAL PROVISIONS, STANDARD SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS, LATEST REVISION.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL WORK IS PERFORMED IN ACCORDANCE WITH APPLICABLE STANDARDS AND REGULATIONS AS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A.).
3. NO FIELD CHANGES SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE PROJECT MANAGER.
4. SUBMITTALS SHALL BE MADE FOR ALL MATERIALS TO BE INCORPORATED INTO THIS PROJECT.
5. UTILITY LINES SHOWN ON THE PLAN SHEETS ARE PLOTTED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION AND PROTECTION OF ALL UTILITIES IN PLACE.
6. THE CONTRACTOR SHALL CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO AT 1-800-922-1987 TWO BUSINESS DAYS IN ADVANCE OF ANY EXCAVATION OR GRADING. FOR A LIST OF SPECIFIC CONTACTS SEE SPECIFICATIONS.
7. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL UTILITIES AND STRUCTURES AFFECTED BY THE WORK, AND ANY DAMAGE SHALL BE REPAIRED AND RESTORED TO THE SATISFACTION OF THE CITY OF COLORADO SPRINGS. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UTILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE ALL UTILITY RELOCATIONS AS NECESSARY. THE CITY ENGINEERING INSPECTIONS AND UTILITY DEPARTMENTS SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK WHERE THESE DEPARTMENTS MAY BE AFFECTED.
8. THE CONTRACTOR SHALL NOTIFY THE GAS DIVISION INSPECTOR (636-5736) AT LEAST 48 HOURS IN ADVANCE OF CONSTRUCTION NEAR ANY GAS FACILITIES. THE GAS DIVISION WILL RELOCATE THE GAS SERVICES REQUIRED ON AN AS NEEDED BASIS.
9. EXCAVATION AT GAS LINES: TEMPORARY COVER DURING CONSTRUCTION SHALL BE AT LEAST 18 INCHES OVER THE GAS CONDUIT. FINISH GRADE MUST BE AT LEAST 2 FEET AND NO MORE THAN 6 FEET OVER THE GAS CONDUIT.
10. IN SOME OF THE PROPOSED AREAS OF CONSTRUCTION EXISTING UNDERGROUND TELEPHONE AND CABLE TELEVISION FACILITIES MAY BE LOCATED IN CLOSE PROXIMITY TO THE WORK. THE CONTRACTOR MAY, IF NECESSARY TEMPORARILY DISPLACE THE CABLES DURING CONSTRUCTION AND REINSTALL THEM IN ACCORDANCE WITH THE APPROPRIATE TELEPHONE OR CABLEVISION COMPANY'S GUIDELINES. COORDINATION WITH BOTH THE TELEPHONE AND CABLE TELEVISION COMPANY IS REQUIRED TO BE DONE BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL OBTAIN AN APPROVED TRAFFIC CONTROL PLAN PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.
12. THE PHYSICAL FEATURES WITHIN THE LIMITS OF THE PROJECT HAVE BEEN SHOWN BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME OF THE DESIGN. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE FEATURES SHOWN. THE CONTRACTOR SHALL REVIEW AND VERIFY EXISTING PHYSICAL FEATURES AND ELEVATIONS THE THEMSELVES OF THE CONDITIONS TO BE ENCOUNTERED DURING CONSTRUCTION.
13. THE CONTRACTOR SHALL LIMIT ALL WORK AND STORAGE AREAS TO THE PUBLIC RIGHT-OF-WAYS AND EASEMENTS. USE OF ANY PRIVATE AREAS FOR THIS PROJECT BY THE CONTRACTOR MUST BE APPROVED IN WRITING BY THE PROPERTY OWNER WITH A COPY OF THIS APPROVAL PROVIDED TO THE ENGINEER PRIOR TO USAGE.
14. ALL CONSTRUCTION IS TO INCLUDE COMPACTION AND FINISH GRADING IN THE UNIT PRICE OF RELATED WORK ITEM.
15. ALL WORK SHALL BE DONE TO THE LINES, GRADES, SECTIONS, AND ELEVATIONS SHOWN ON THE PLANS UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER.
16. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF COLORADO SPRINGS AND THE ENGINEER.
17. THE ENGINEER SHALL BE NOTIFIED WITHIN 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.
18. PAYMENT, DIMENSIONS AND RADII ARE SHOWN TO THE FLOWLINE UNLESS OTHERWISE NOTED.
19. THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AND/OR TOES OF SLOPE AS SHOWN ON THE PLANS AND CROSS SECTIONS. ANY DISTURBANCE BEYOND THESE LIMITS SHALL BE RESTORED TO ORIGINAL CONDITIONS BY THE CONTRACTOR AT HIS/HER OWN EXPENSE. CONSTRUCTION PARKING OF VEHICLES OR EQUIPMENT, DISPOSAL OF LITTER AND ANY OTHER ACTION WHICH WOULD ALTER EXISTING CONDITIONS.
20. THE CONTRACTOR SHALL NOT REMOVE AND SHALL PROTECT FROM DAMAGE ALL TREES, BUSHES AND EXISTING IMPROVEMENTS INSIDE AND OUTSIDE THE LIMITS OF WORK. SPECIFIC PROVISIONS ARE SHOWN ON PLANS.
21. NO TREES SHALL BE REMOVED OR TRIMMED WITHOUT PRIOR ACKNOWLEDGEMENT OF THE PROPERTY OWNER AND/OR PROJECT MANAGER.
22. THE CONTRACTOR SHALL PROTECT THE EXISTING DRAINAGE STRUCTURES AND REROUTE ANY RUNOFF AS NECESSARY DURING CONSTRUCTION ACTIVITIES TO PREVENT EROSION AND DAMAGE.
23. THE CONTRACTOR SHALL PROVIDE SAFE PEDESTRIAN ACCESS AT ALL TIMES DURING THE PROJECT.
24. THE CONTRACTOR SHALL CLOSELY MONITOR ACCESS FOR HEAVY CONSTRUCTION EQUIPMENT THROUGH THE PROJECT AND RESIDENTIAL AREAS

25. SHOULD THE CONSTRUCTION ACTIVITY CONTINUE PAST 7:00 P.M., THE CONTRACTOR SHALL ENSURE THAT THE NOISE LEVEL DOES NOT EXCEED THE LIMITS SPECIFIED IN THE CITY ORDINANCE.
26. WATER SHALL BE USED AS A DUST PALLIATIVE WHERE REQUIRED. LOCATION SHALL BE AS ORDERED. THE COST OF WATER SHALL BE INCIDENTAL TO OTHER BID ITEMS.
27. THE PHYSICAL FEATURES REQUIRING REMOVAL OR OBLITERATION WITHIN THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND ASPHALT SHALL BE DISPOSED OF OFF-SITE. THE EXCEPTION IS TRAFFIC CONTROL DEVICES, WHICH SHALL BE SALVAGED FOR CITY MAINTENANCE.
28. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING ANY MONUMENT, RANGE POINTS, TIES, BENCHMARKS AND/OR SURVEY CONTROL POINTS WHICH MAY BE DISTURBED OR DESTROYED BY CONSTRUCTION. SUCH POINTS SHALL BE REFERENCED AND REPLACED WITH APPROPRIATE MONUMENT BY A REGISTERED PROFESSIONAL LAND SURVEYOR AUTHORIZED TO PRACTICE LAND SURVEYING IN THE STATE OF COLORADO.
29. THE CONTRACTOR SHALL HAVE A COPY OF ALL APPLICABLE STANDARDS ON SITE FOR THE DURATION OF THE PROJECT.
30. THE CONTRACTOR SHALL NOT STOCKPILE MATERIAL WITHIN 10 FEET OF THE EDGE OF TRAVELED WAY.
31. STORM INLET STATIONING AND INLET REFERENCE TOP FRONT MIDDLE OF THE BOX. STORM MANHOLE STATIONING REFERENCE CENTER OF MANHOLE.
32. THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN TEMPORARY TRAFFIC CONTROL DEVICES NECESSARY THROUGHOUT THE DURATION OF THE CONSTRUCTION. THE CONTRACTOR SHALL CONTACT TRAFFIC ENGINEERING 48 HOURS IN ADVANCE FOR ANY REQUIRED MODIFICATION TO TRAFFIC SIGNALS WITHIN THE CONSTRUCTION AREA AS NECESSARY TO MAINTAIN SAFE OPERATIONS.
33. EXISTING AND PROPOSED JUNCTION BOX LIDS, WATER VALVES, SANITARY SEWERS, OR STORM SEWER MANHOLE LIDS SHALL BE RAISED TO MATCH PROPOSED NEW GRADE. ALL ADJUSTMENTS OR MATERIALS REQUIRED FOR THE ADJUSTMENT SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
34. ALL WORK DONE ON OR AROUND WATER RESOURCES DEPARTMENT FACILITIES MUST BE INSPECTED BY THE WATER RESOURCES DEPARTMENT INSPECTOR. THE CONTRACTOR IS REQUIRED TO NOTIFY THE WATER RESOURCES DEPARTMENT PIPELINE INSPECTION SECTION (638-5654 TWO WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION. IF THIS PROJECT INVOLVES A TAP, DO NOT CALL TO SCHEDULE TAP UNTIL THE PIPELINE INSPECTION NOTIFICATION. INSPECTION REQUIRED AFTER WORKING HOURS MUST BE COORDINATED WITH THE PIPELINE INSPECTOR IN ADVANCE AND WILL BE SUBJECT TO OVERTIME CHARGES PER W.R.D. SPECIFICATIONS.
35. THE CONTRACTOR SHALL, AT THEIR EXPENSE, SUPPORT AND PROTECT ALL WATER MAINS SO THAT THEY WILL FUNCTION CONTINUOUSLY DURING CONSTRUCTION EXCEPT THOSE DESIGNATED TO BE TEMPORARILY SHUT DOWN. TEMPORARY WATER SERVICE DISRUPTION SHALL BE DONE TO MINIMIZE THE EFFECTS ON COLORADO SPRINGS UTILITIES CUSTOMERS. SHOULD A WATER MAIN FAIL AS A RESULT OF THE CONTRACTOR'S OPERATIONS, IT WILL BE REPAIRED IMMEDIATELY BY EITHER THE CONTRACTOR OF THE WATER RESOURCES DEPARTMENT AT THE FULL COST OF LABOR AND MATERIALS TO THE CONTRACTOR.
36. ANY DISCREPANCY WITHIN THESE PLANS SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND WORK SHALL STOP UNTIL THE DISCREPANCY IS DISCUSSED AND DECISIONS/AGREEMENTS HAVE BEEN MADE.
37. REFER TO THE PROJECT MANUAL FOR PAY ITEM DESCRIPTIONS AND MEASUREMENTS. ALL WORK WITHOUT A SPECIFIC BID ITEM IS INCIDENTAL TO OTHER PAY ITEMS.
38. APPROVAL OF THESE PLANS BY THE CITY ENGINEER DOES NOT AUTHORIZE ANY WORK TO BE PERFORMED UNTIL ALL PERMITS HAVE BEEN ISSUED.
39. THE APPROVAL OF THESE PLANS OR ISSUANCE OF A PERMIT BY THE CITY OF COLORADO SPRINGS DOES NOT AUTHORIZE THE OWNER OR CONTRACTOR TO VIOLATE ANY FEDERAL, STATE OR LOCAL CITY LAWS, ORDINANCES, REGULATIONS OR POLICIES.

STANDARD GRADING, EROSION AND STORMWATER QUALITY CONTROL PLAN

1. ANY LAND DISTURBANCE BY ANY OWNER, DEVELOPER, BUILDER, CONTRACTOR, OR OTHER PERSON SHALL COMPLY WITH THE BASIC GRADING, EROSION AND STORMWATER QUALITY CONTROL REQUIREMENTS AND GENERAL PROHIBITIONS NOTED IN THE DRAINAGE CRITERIA MANUAL VOLUME II.
2. NO CLEARING, GRADING, EXCAVATION, FILLING, OR OTHER LAND DISTURBING ACTIVITIES SHALL BE PERMITTED UNTIL SIGNOFF AND ACCEPTANCE OF THE GRADING PLAN AND EROSION AND STORMWATER QUALITY CONTROL PLAN IS RECEIVED FROM EDRD.
3. THE INSTALLATION OF THE FIRST LEVEL OF TEMPORARY EROSION CONTROL FACILITIES AND BMP'S SHALL BE INSTALLED AND INSPECTED PRIOR TO ANY EARTH DISTURBANCE OPERATIONS TAKING PLACE. CALL CITY STORMWATER INSPECTIONS, 385-5980, 48 HOURS PRIOR TO CONSTRUCTION.
4. SEDIMENT (MUD AND DIRT) TRANSPORTED ONTO A PUBLIC ROAD, REGARDLESS OF THE SIZE OF THE SITE, SHALL BE CLEANED IMMEDIATELY.
5. CONCRETE WASH WATER SHALL NOT BE DISCHARGED TO OR ALLOWED TO RUNOFF TO STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
6. SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN TWENTY-ONE (21) CALENDAR DAYS AFTER FINAL GRADING OR FINAL EARTH DISTURBANCE HAS BEEN COMPLETED. DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN THIRTY (30) DAYS SHALL ALSO BE MULCHED WITHIN TWENTY-ONE (21) DAYS AFTER INTERIM GRADING, AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN SIXTY (60) DAYS SHALL ALSO BE SEEDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMP'S SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED.
7. THE GRADING AND EROSION CONTROL PLAN WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY EDRD SHOULD ANY OF THE FOLLOWING OCCUR: GRADING DOES NOT COMMENCE WITHIN TWELVE (12) MONTHS OF THE CITY ENGINEER'S ACCEPTANCE OF THE PLAN; A CHANGE IN PROPERTY OWNERSHIP; PROPOSED DEVELOPMENT CHANGES; OR PROPOSED GRADING REVISIONS.
8. THE PLAN SHALL NOT SUBSTANTIALLY CHANGE THE DEPTH OF COVER, OR ACCESS TO EXISTING UTILITY LINES. ACCEPTANCE OF THIS PLAN DOES NOT CONSTITUTE APPROVAL TO GRADE IN ANY UTILITY EASEMENT OR RIGHT-OF-WAY. APPROVALS TO GRADE WITHIN UTILITY EASEMENTS MUST BE OBTAINED FROM THE APPROPRIATE UTILITY COMPANY. IT IS NOT PERMISSIBLE FOR ANY PERSON TO MODIFY THE GRADE OF THE EARTH ON ANY COLORADO SPRINGS UTILITY EASEMENT OR UTILITY RIGHT-OF-WAY WITHOUT THEIR WRITTEN APPROVAL. THE PLAN SHALL NOT INCREASE OR DIVERT WATER TOWARDS UTILITY FACILITIES. ANY CHANGES TO EXISTING UTILITY FACILITIES TO ACCOMMODATE THE PLAN MUST BE APPROVED BY THE AFFECTED UTILITY OWNER PRIOR TO IMPLEMENTING THE PLAN. THE COST TO RELOCATE OR PROTECT EXISTING UTILITIES OR TO PROVIDE INTERIM ACCESS IS THE APPLICANT'S EXPENSE.

EARTHWORK

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LEGAL DISPOSAL OF ANY EXCESS SOIL, DEBRIS AND WASTE MATERIAL OFF OF THE PROJECT SITE.
2. ANY SOIL LYING BELOW THE SUBGRADE ELEVATION WHICH IS DISTURBED BY CONSTRUCTION OPERATIONS SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL IN ACCORDANCE WITH SPECIFICATION REQUIREMENTS.
3. ANY MATERIAL NOT SUITABLE FOR BACKFILL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF, BY AND AT THE EXPENSE OF THE CONTRACTOR.

BENCHMARK AND SURVEY CONTROL

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION STAKING OF BOTH HORIZONTAL AND VERTICAL LAYOUT ON THIS PROJECT. COORDINATES ARE REFERENCED IN THE COORDINATE LIST SHOWN ON THESE PLANS. THE CONTRACTOR SHALL COORDINATE WITH THE PROJECT ENGINEER FOR INTERPRETATION AND INFORMATION IN STAKING OF THE PROJECT FOR CONSTRUCTION.
2. PRIOR TO COMPLETION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY PROPERTY MONUMENTATION DISTURBED OR REMOVED BY CONSTRUCTION OPERATIONS. THIS WORK SHALL BE PERFORMED BY A LAND SURVEYOR LICENSED IN THE STATE OF COLORADO. PROPERTY CORNERS WHICH FALL WITHIN NEW CONCRETE FLATWORK SHALL BE DURABLE AND SET FLUSH. THIS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

TRAFFIC GENERAL NOTES

1. BEFORE EXCAVATING, CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND UTILITIES.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONUMENTATION AND/OR BENCHMARKS WHICH WILL BE DISTURBED OR DESTROYED BY CONSTRUCTION. SUCH POINTS SHALL BE REFERENCED AND REPLACED WITH APPROPRIATE MONUMENTATION BY A REGISTERED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING.
3. APPROVAL OF THESE PLANS BY THE CITY ENGINEER DOES NOT AUTHORIZE ANY WORK TO BE PERFORMED UNTIL A PERMIT HAS BEEN ISSUED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NEW, TEMPORARY AND EXISTING TRAFFIC SIGNS FROM THE START OF THE CONSTRUCTION PROJECT UNTIL ACCEPTANCE BY CITY TRAFFIC ENGINEERING.
5. ALL TRAFFIC SIGNS, PAVEMENT MARKINGS AND TRAFFIC SIGNALS SHALL MEET OR EXCEED M.U.T.C.D. STANDARDS.
6. THE CONTRACTOR SHALL NOT REMOVE ANY EXISTING SIGNS, PAVEMENT MARKINGS OR TRAFFIC SIGNALS DURING THE PROJECT WITHOUT SIGNED AUTHORIZATION OF THE CITY ENGINEERING INSPECTOR ASSIGNED TO THE PROJECT.
7. CONTRACTOR SHALL PREPARE A DETAILED TRAFFIC CONTROL PLAN, SUBMIT TO CITY TRAFFIC ENGINEERING FOR APPROVAL, AND OBTAIN APPROPRIATE PERMITS IN ACCORDANCE WITH THE "TRAFFIC CONTROLS FOR STREET CONSTRUCTION, UTILITY WORK AND MAINTENANCE OPERATIONS", MUTCD SUPPLEMENT FOR THE CITY OF COLORADO SPRINGS, AUGUST 1992.
- 8 THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC CONTROL. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING AND MAINTAINING THE TEMPORARY TRAFFIC CONTROL DEICES THROUGHOUT THE DURATION OF THE PROJECT.

NPDES DRAINAGE WATER QUALITY NOTES

1. THE CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL REMOVE ALL SEDIMENTS, MUD, AND CONSTRUCTION DEBRIS THAT MAY ACCUMULATE IN THE FLOWLINES AND PUBLIC RIGHTS-OF-WAY AS A RESULT OF THIS CONSTRUCTION PROJECT. SAID REMOVAL SHALL BE CONDUCTED IN A TIMELY MANNER.
2. THE CLEANING OF CONCRETE TRUCK DELIVERY CHUTES IS PROHIBITED AT THE JOB SITE. THE DISCHARGE OF WATER CONTAINING WASTE CONCRETE TO THE STORM SEWER IS PROHIBITED.
3. THE CONTRACTOR SHALL PROTECT ALL STORM SEWER FACILITIES ADJACENT TO ANY LOCATION WHERE PAVEMENT CUTTING OPERATION, INVOLVING WHEEL CUTTING, SAW CUTTING OR ABRASIVE WATER JET CUTTING ARE TO TAKE PLACE. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL WASTE PRODUCTS GENERATED BY SAID CUTTING OPERATIONS ON A DAILY BASIS. THE DISCHARGE OF ANY WATER CONTAMINATED BY WASTE PRODUCTS FROM CUTTING OPERATIONS TO THE STORM SEWER IS PROHIBITED.
4. THE CONTRACTOR MUST KEEP ALL POLLUTANTS, INCLUDING TRENCH BACKFILL MATERIAL, FROM WASHING INTO THE STORM SEWER SYSTEM.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A STORM WATER MANAGEMENT PLAN PERMIT FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, IF THE PROJECT MEETS THE MINIMUM REQUIREMENTS FOR A PERMIT.
6. THE CONTRACTOR SHALL LEVEL ALL DISTURBED WITH TOPSOIL, AND HAND-RAKE TO A UNIFORM APPEARANCE. THE AREA SHALL BE SEEDED WITH PROTECTIVE STRAW MAT COVER DURING WINTER MONTHS OR SODDED ALL OTHER TIMES. THIS WORK IS TO BE CONSIDERED AN INCIDENTAL ITEM.

GENERAL CONSTRUCTION NOTES

1. PAY ITEMS LISTED IN THE BID SCHEDULE ARE THE ONLY PAY ITEMS FOR THE PROJECT. ANY OTHER ITEMS NECESSARY FOR A COMPLETE PROJECT, BUT NOT SHOWN IN THE BID SCHEDULE SHALL BE CONSIDERED AN INCIDENTAL ITEM AND ITS COST TO BE INCLUDED IN OTHER ITEMS. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO BIDDING PROJECT, ALL UTILITY LOCATIONS SHOWN ARE APPROXIMATE, EXCEPT AS NOTED.
2. ANY CONTRACTOR-CAUSED DAMAGE TO UTILITY AND/OR SERVICE LINES, SHOWN OR NOT SHOWN ON THE PLANS SHALL BE REPAIRED OR REPLACED AT NO COST TO THE CITY OF COLORADO SPRINGS AND SHALL BE ACCOMPLISHED BY THE CONTRACTOR, SUBCONTRACTOR OR AS APPROVED BY THE CITY ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO COMMENCING WORK IN THE PROJECT AREA. LIKEWISE, THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS WORK AND THAT OF THE INVOLVED UTILITIES IN THE PROJECT AREA.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL LABOR, MATERIAL, EQUIPMENT AND INCIDENTAL ITEMS NEEDED TO PROVIDE ADEQUATE CONSTRUCTION SIGNING, BARRICADES, TRAFFIC CONTROL DEVICES AND OTHER RELATED ITEMS FOR THE PROJECT AREA, DURING THE CONSTRUCTION PERIOD. THIS WORK SHALL BE INCLUDED IN THE TRAFFIC CONTROL PAY ITEM.
4. THE CONTRACTOR SHALL CAREFULLY REMOVE, STORE AND REINSTALL ALL CITY-OWNED SIGNS WHOSE REMOVAL IS REQUIRED BY THE CONSTRUCTION WORK IN THE PROJECT AREA. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR THE CITY TO INSPECT ALL SIGNS SCHEDULED FOR REMOVAL PRIOR TO THEIR REMOVAL.ONCE SAID SIGNS HAVE BEEN REMOVED, IT WILL BE ASSUMED THAT THEY WERE IN GOOD CONDITION AT THE TIME OF REMOVAL. ANY SIGNS DAMAGED OR LOST BY THE CONTRACTOR SHALL BE REPLACED AT NO COST TO THE CITY.MATERIALS SHALL BE APPROVED BY THE PROJECT ENGINEER. ALL POST-MOUNTED SIGNS SHALL BE RESET AT THE PROPER HEIGHT AND LOCATION (CITY TO PROVIDE LOCATION OR AS SHOWN ON THE ENCLOSED PLAN)
5. ALL SIDEWALK AND PAVED DRIVEWAY REMOVALS SHALL BE BOUNDED BY JOINTS OR SAWCUTS. SAWCUTS ARE TO BE CONSIDERED AN INCIDENTAL ITEM AND THE COST OF THIS ITEM IS TO BE INCLUDED IN OTHER PAY ITEMS.
6. PROPERTY OWNERS WILL BE NOTIFIED BY THE CITY, PRIOR TO CONSTRUCTION, THAT IT WILL BE THE OWNER'S RESPONSIBILITY TO REMOVE TREES, SHRUBS OR OTHER PROPERTY WHICH THEY INTEND TO KEEP. IF THE ITEMS ARE NOT REMOVED AT THE TIME OF CONSTRUCTION AND ARE WITHIN THE PROPOSED SIDEWALK CONSTRUCTION AREA, THE MISCELLANEOUS ITEMS AND/OR VEGETATION REMOVED SHALL BE PLACED ON THE PROPERTY OWNER'S LAND OR DISPOSED OF OFF SITE AS DIRECTED BY THE PROJECT ENGINEER. FENCES SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR UNIT PRICE FOR FENCES AS DIRECTED BY THE PROJECT ENGINEER. TREES MARKED TO BE TRIMMED IN THE PLANS SHALL BE DONE AT THE DIRECTION OF THE PROJECT ENGINEER. THIS WORK SHALL BE INCLUDED IN THE CLEARING AND GRUBBING PAY ITEM.
7. THE CONTRACTOR SHALL TAKE SPECIAL CARE NOT TO DAMAGE TREES AND SHRUBS UNLESS SO DIRECTED BY THE PROJECT ENGINEER.
8. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO START OF WORK. THIS WORK IS TO BE CONSIDERED AN INCIDENTAL ITEM AND THE COST OF THIS ITEM IS TO BE INCLUDED IN OTHER PAY ITEMS.
9. ANY SURPLUS EXCAVATION TO INCLUDE BUT NOT LIMITED TO THE REMOVAL OF LANDSCAPING FOR SIDEWALK INSTALLATION SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND DISPOSAL SHALL BE THE CONTRACTOR'S RESPONSIBILITY AT NO ADDITIONAL COST.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SURVEYING AND CONSTRUCTION STAKING FOR THE PROJECT. ALL GRADING AND SURFACING SHALL BE IN ACCORDANCE WITH THE PLAN SHEETS AND THE CITY OF COLORADO SPRINGS STANDARD SPECIFICATIONS.
11. THE CONTRACTOR SHALL REMOVE ALL SALVAGED TOPSOIL TO BE USED LATER AS BACKFILL BEHIND CURBS AND DRIVES OR IN RESTORATION OF DISTURBED AREAS. THIS WORK IS TO BE CONSIDERED AN INCIDENTAL ITEM AND THE COST OF THIS ITEM IS TO BE INCLUDED IN OTHER PAY ITEMS.

DATE					
BY					
REVISION					
REV. No.					
PROJECT MANAGER	BT	DESIGNED BY	BT	DRAWN BY	KWD
CHECKED BY					
PROJECT NUMBER					2021-309

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

STORMWATER ENTERPRISE

STORMWATER ENTERPRISE SOUTH DOUGLAS CREEK SINTON TRAIL

GENERAL NOTES

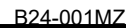
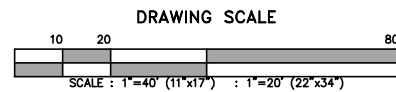
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FILENAME
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SHEET
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82

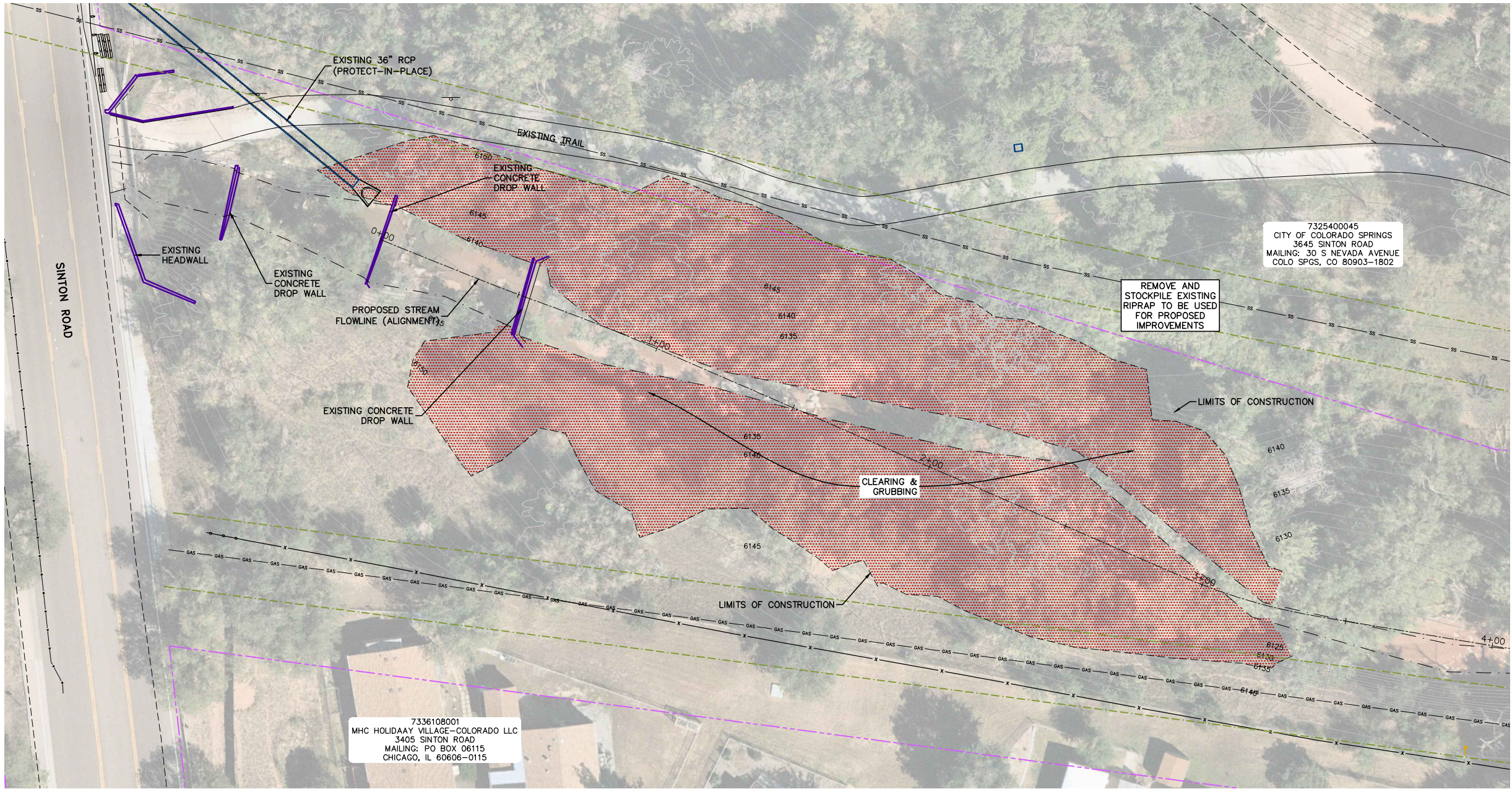
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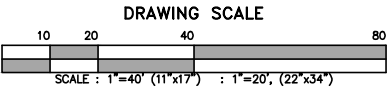
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1/2/2024

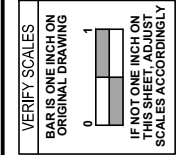
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DEMOLITION PLAN



PROJECT MANAGER	BT	REV. No.	REVISION	BY	DATE
DESIGNED BY	HDR				
DRAWN BY	KWD				
CHECKED BY					
PROJECT NUMBER	2021-309				



STORMWATER ENTERPRISE
SOUTH DOUGLAS CREEK
SINTON TRAIL

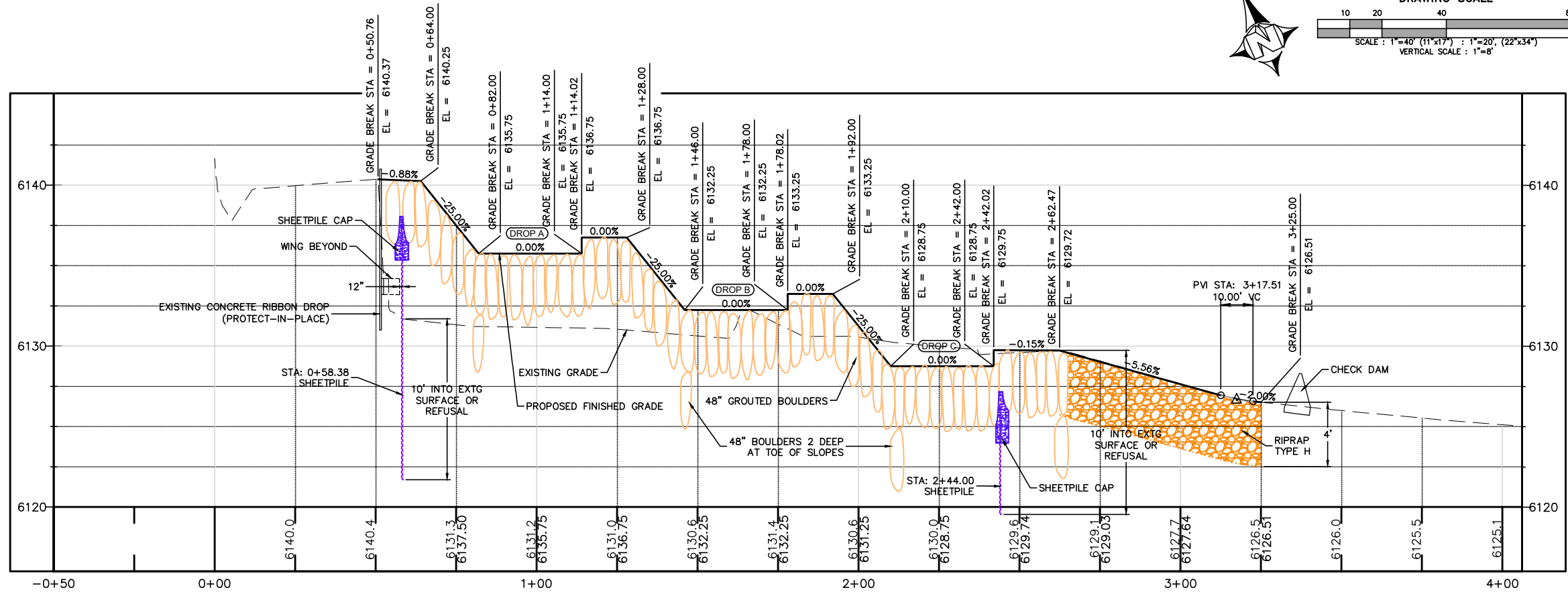
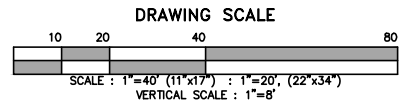
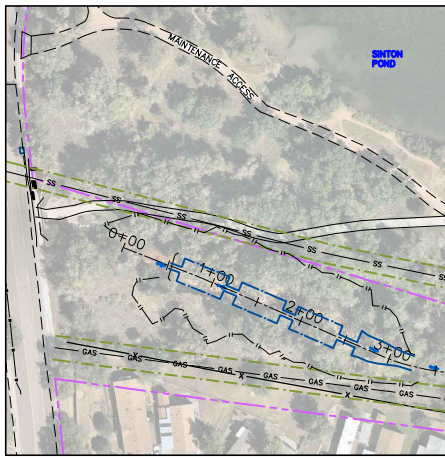
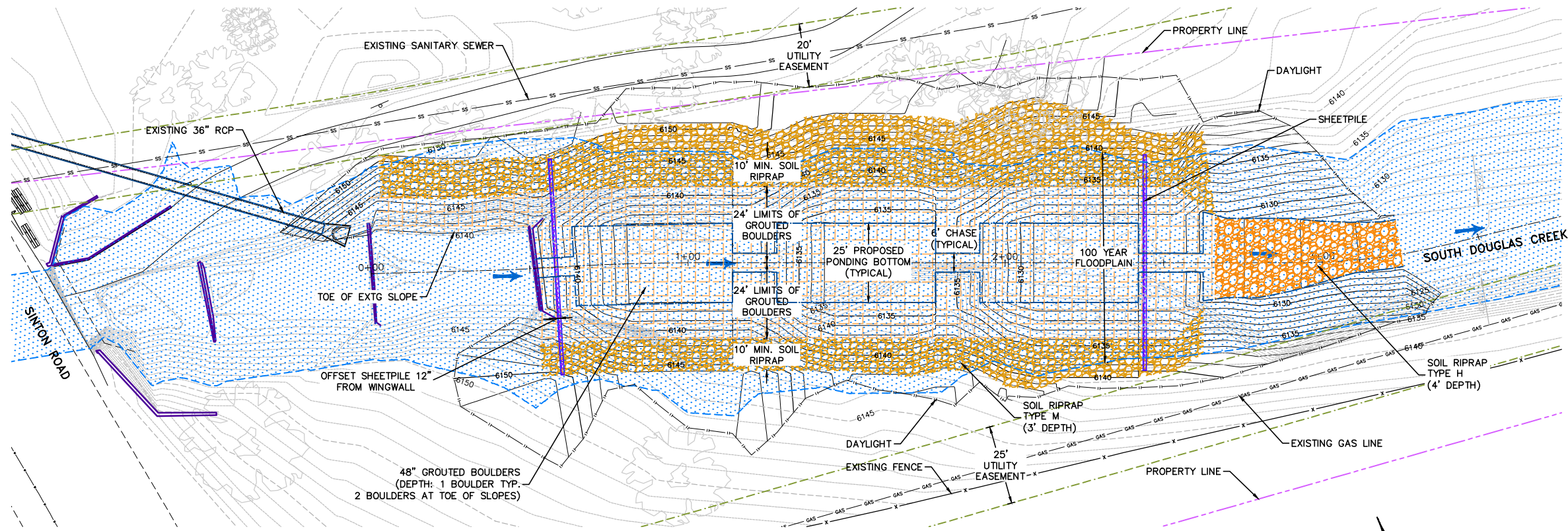
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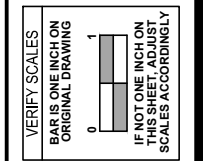
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SINTON
TRAIL-COS.DWG

SHEET
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84

1/2/2024



PROJECT MANAGER	BT	DESIGNED BY	HR	DRAWN BY	KWD	CHECKED BY	PROJECT NUMBER
							2021-309

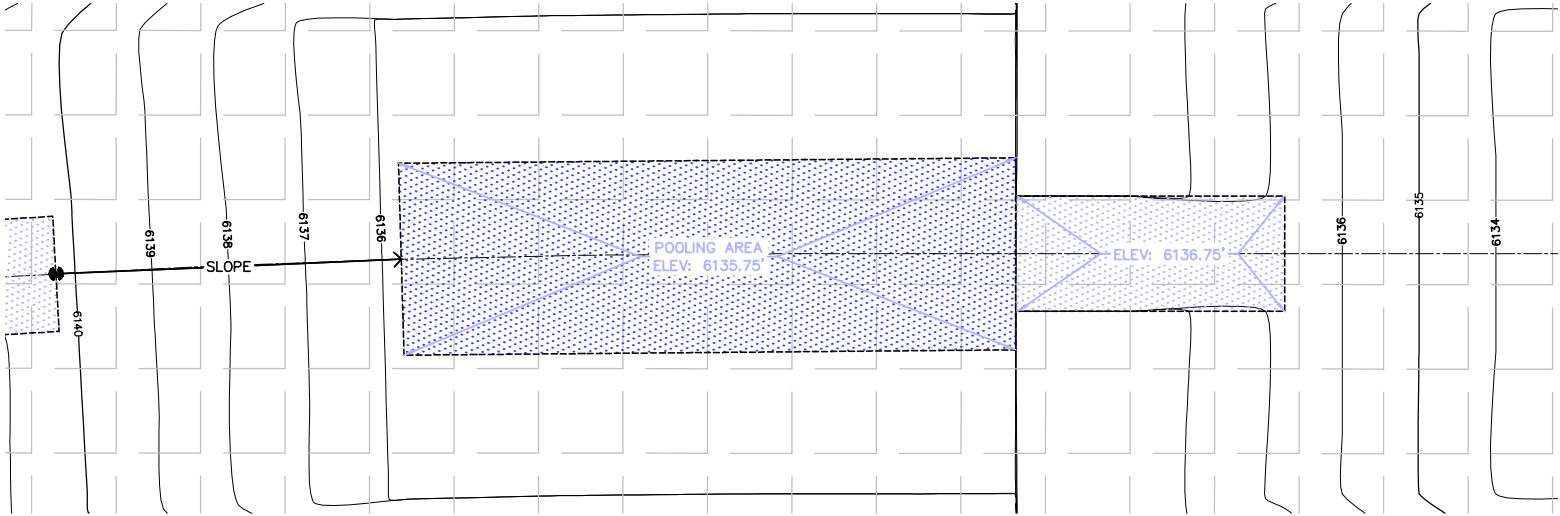


STORMWATER ENTERPRISE
SOUTH DOUGLAS CREEK
SINTON TRAIL
CHANNEL PLAN & PROFILE

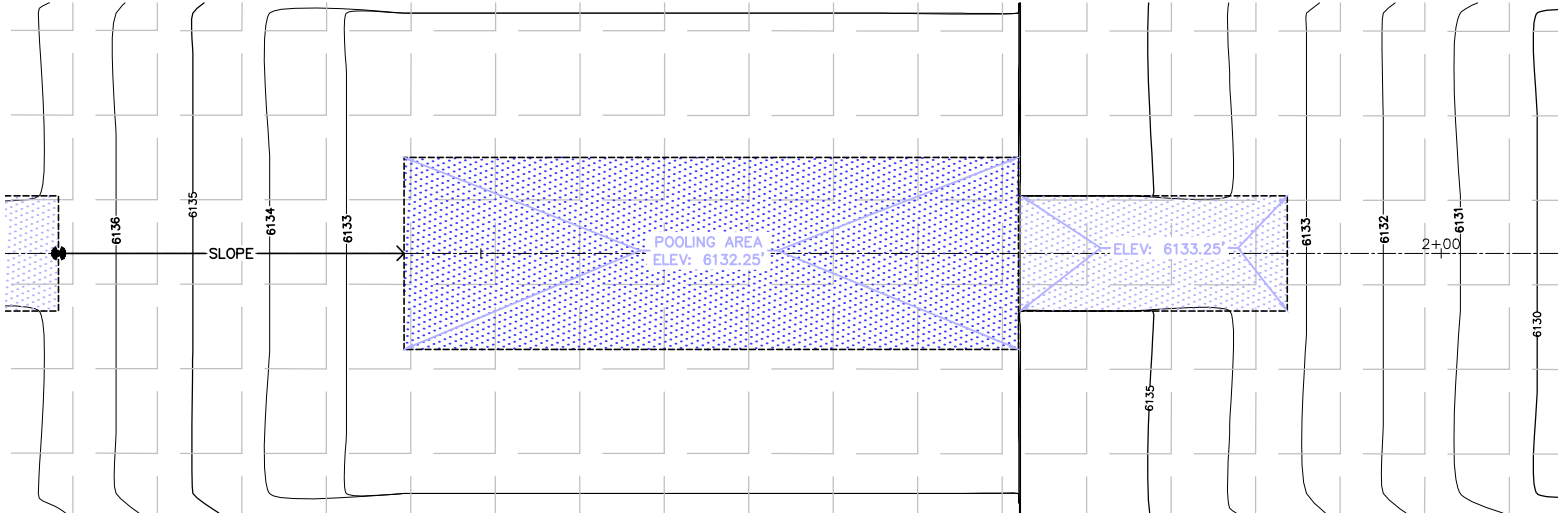
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1/2/2024

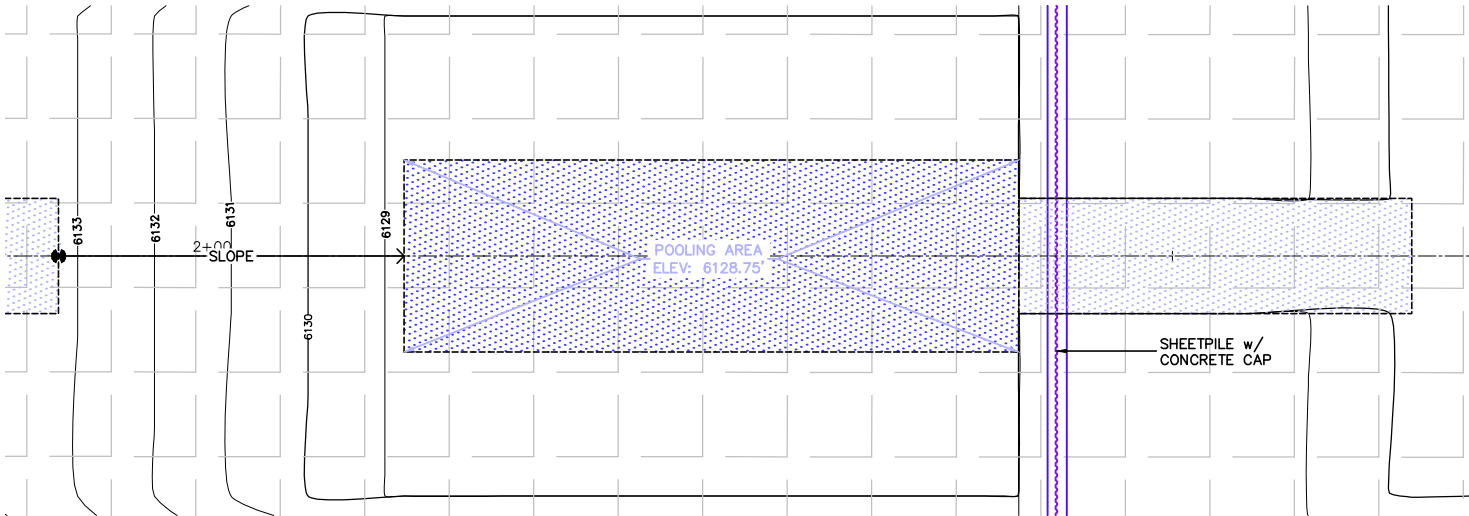
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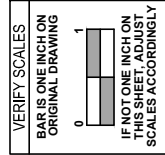
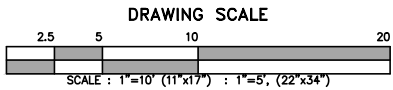
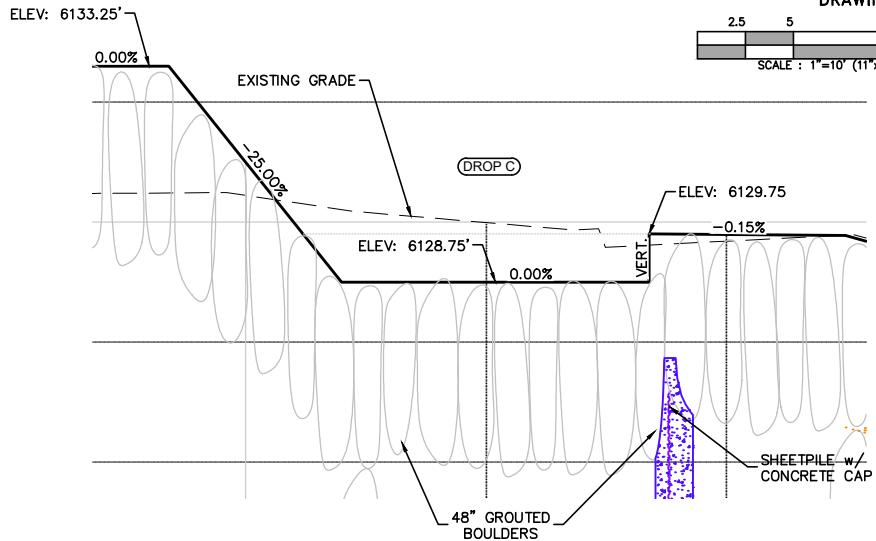
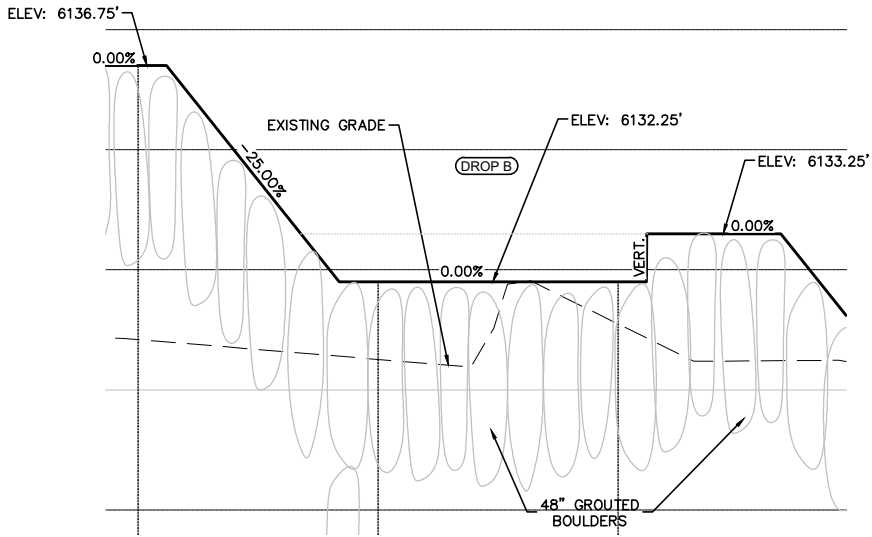
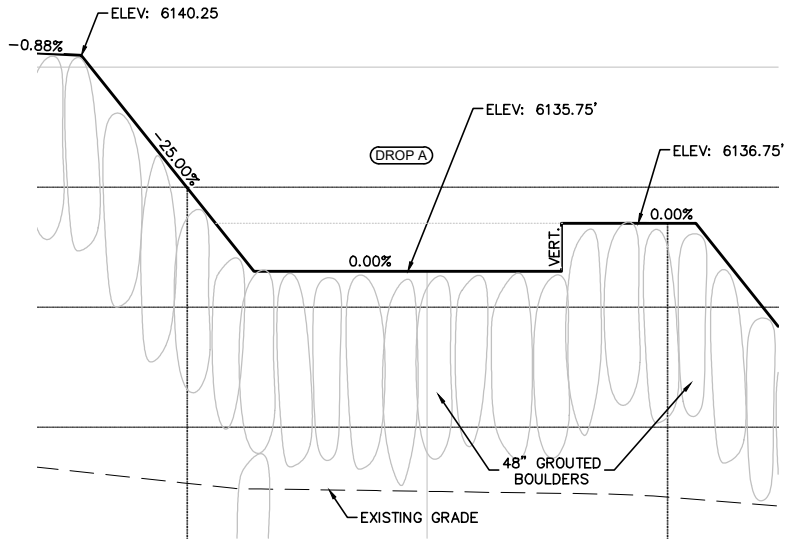
DROP A



DROP B



DROP C



STORMWATER ENTERPRISE
SOUTH DOUGLAS CREEK
SINTON TRAIL

DROP STRUCTURES

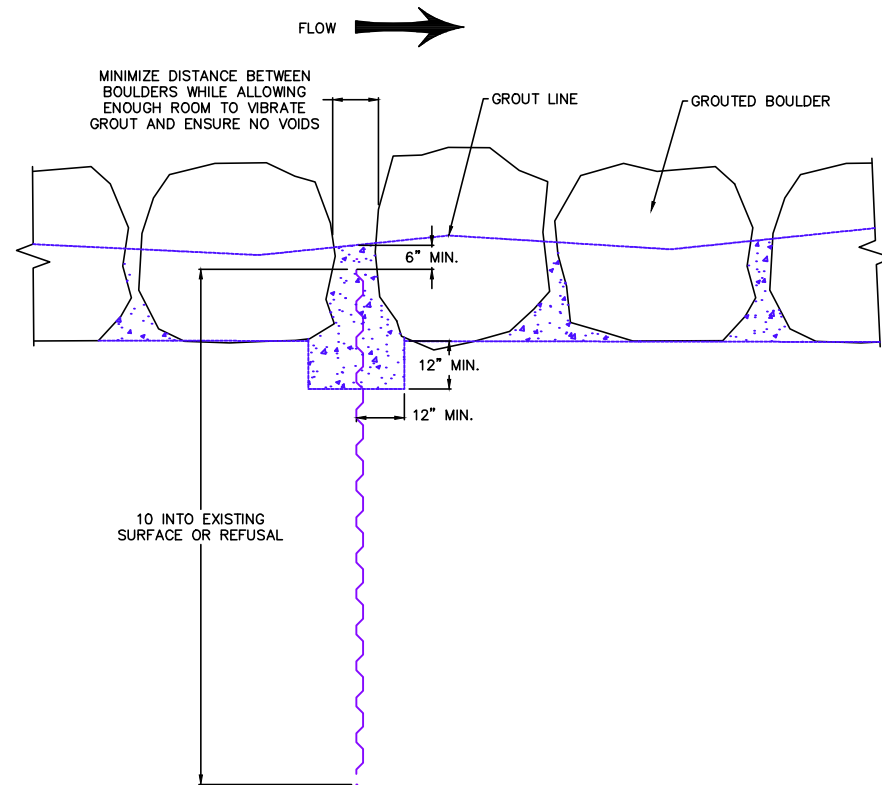
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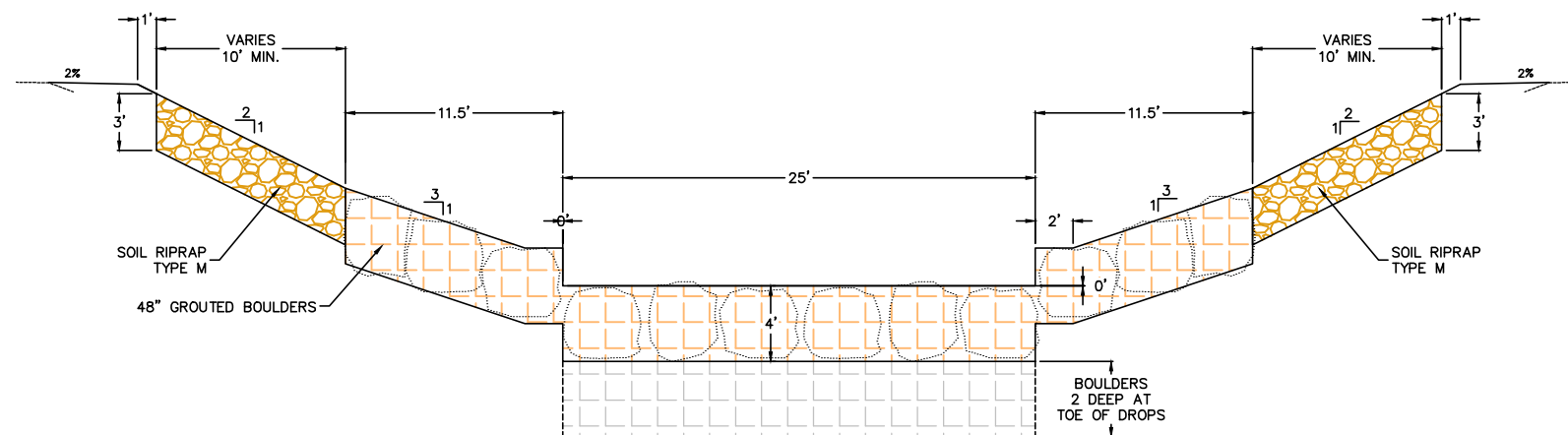
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1/2/2024

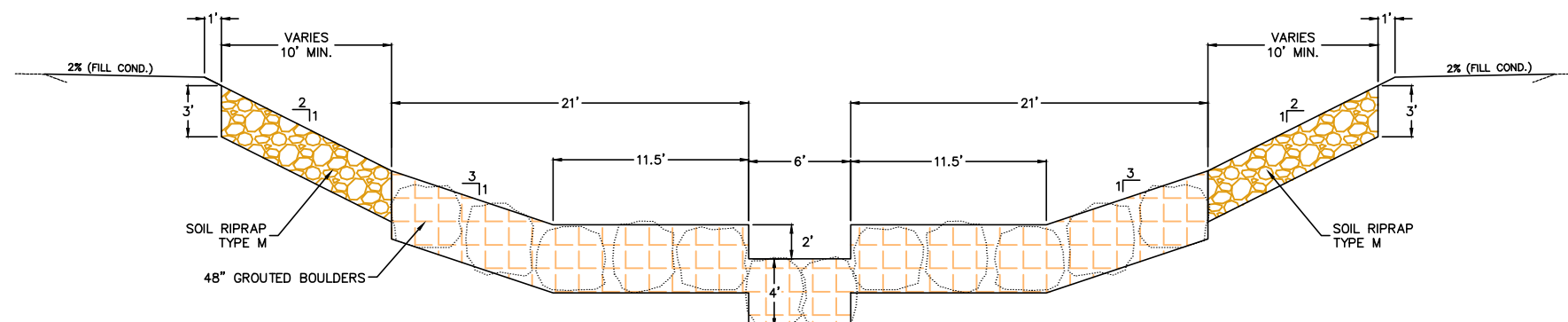
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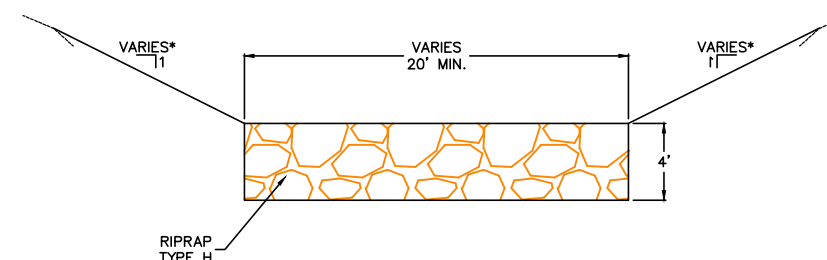
SHEETPILE CAP/BOULDER GROUTING
SCALE: NTS




TYPICAL CHANNEL SECTION PONDING AREA
SCALE: NTS



TYPICAL CHANNEL SECTION SILL AREA
SCALE: NTS



TYPICAL CHANNEL SECTION DOWNSTREAM TIE-IN
SCALE: NTS

<div>STORMWATER ENTERPRISE SOUTH DOUGLAS CREEK SINTON TRAIL</div>		<div>STORMWATER ENTERPRISE</div> 		<div>VERIFY SCALES</div> <div>BAR IS ONE INCH ON ORIGINAL DRAWING</div> <div>1</div> <div>0</div> <div>IF NOT ONE INCH ON THIS SHEET, USE FOLLOWING SCALES ACCORDINGLY</div>		<div>PROJECT MANAGER</div> <div>DESIGNED BY</div> <div>DRAWN BY</div> <div>CHECKED BY</div> <div>PROJECT NUMBER</div>		<div>BT</div> <div>HDR</div> <div>KWD</div> <div></div> <div>2021-309</div>		<div>REVISION</div> <div></div> <div></div> <div></div> <div></div>		<div>BY</div> <div></div> <div></div> <div></div> <div></div>		<div>DATE</div> <div></div> <div></div> <div></div> <div></div>	
<div>SCALE</div> <div>HORIZ: AS SHOWN</div> <div>VERT: N/A</div>		<div>FILENAME</div> <div>SINTON TRAIL-COS.DWG</div>		<div>SHEET</div> <div>7</div> <div>87</div>											

0+52.24

6160

6150

6140

6130

6125

60

-40

-20

0

20

40

6125

2%

SOIL BLANKET

SOIL RIPRAP

TYPE M

PROPOSED GRADE

EXISTING GRADE

48" GROUTED BOULDERS

100' RS FLOODPLAIN
OFFSET: 35.00 LT
EL. 6151.02

OFFSET: 24.00 LT
EL. 6146.52

OFFSET: 14.50 LT
EL. 6142.35

OFFSET: 3.00 LT
EL. 6143.00

OFFSET: 3.00 RT
EL. 6142.35

OFFSET: 14.50 RT
EL. 6142.35

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100' RS FLOODPLAIN
OFFSET: 35.00 RT
EL. 6151.02

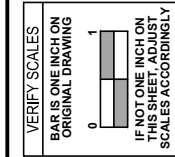
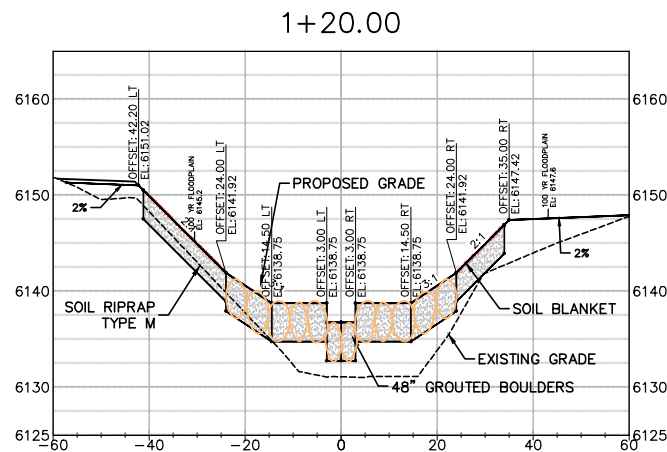
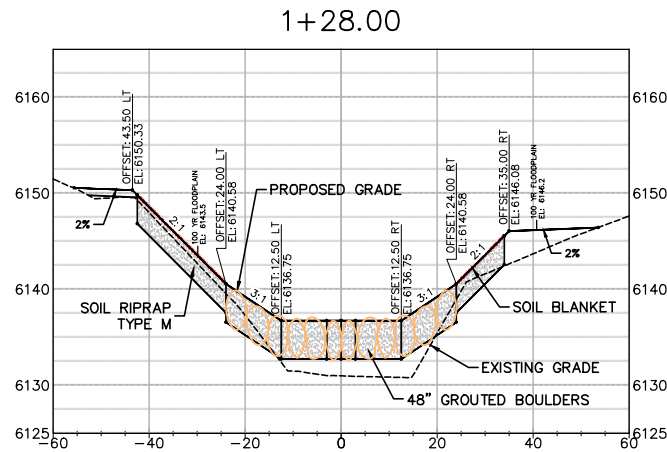
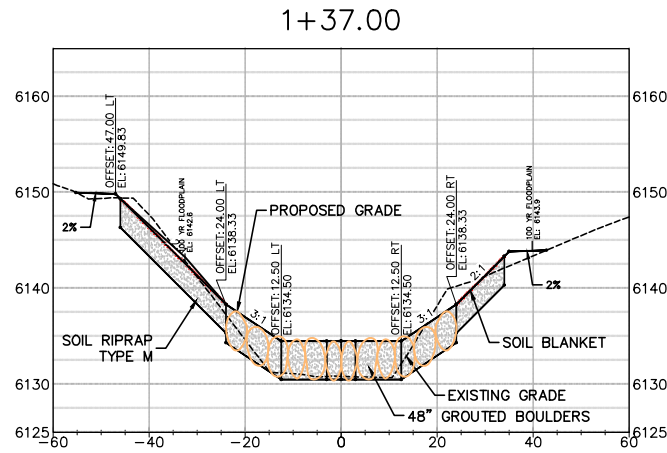
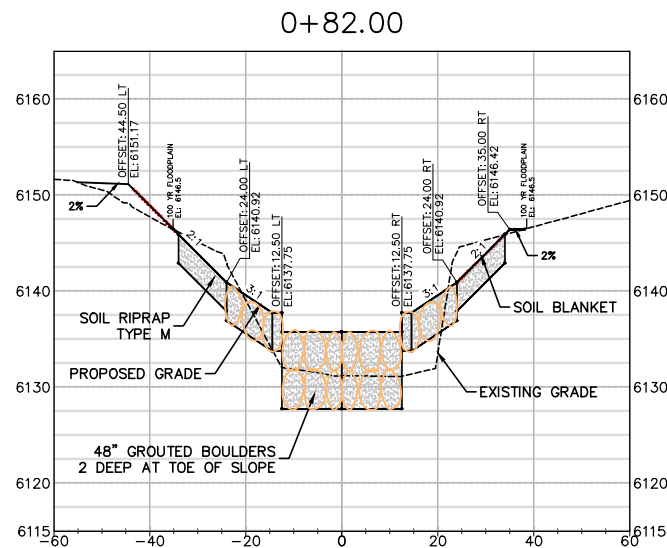
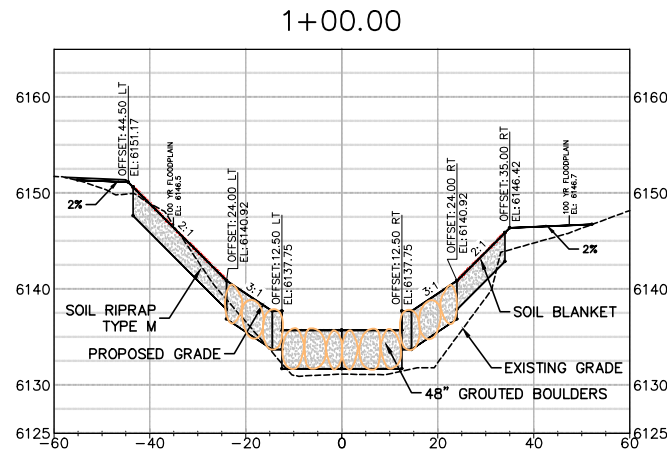
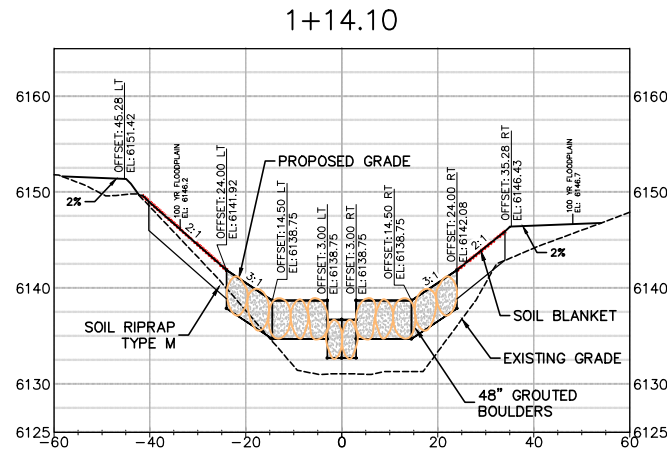
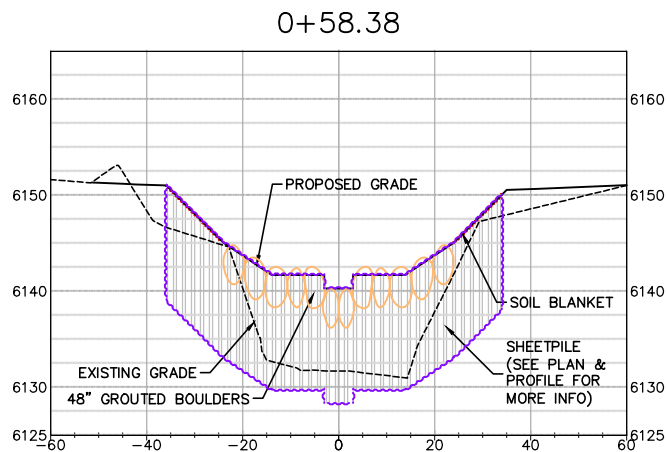
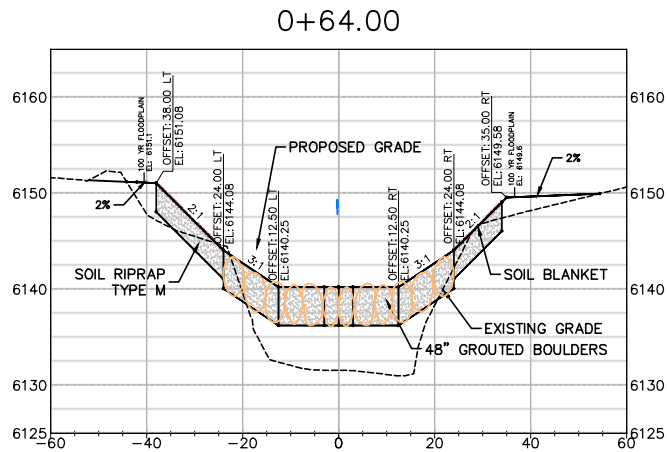
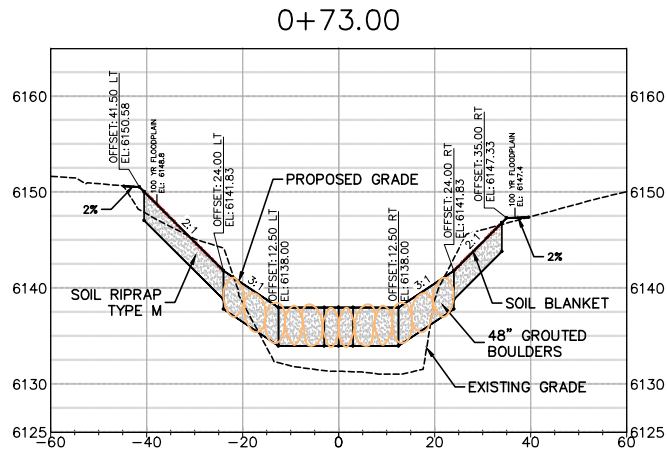
SHEET 8
88 1 OF

PROJECT MANAGER	BT		REV. No.	REVISION	BY	DATE
DESIGNED BY	HDR					
DRAWN BY	KWD					
CHECKED BY						
PROJECT NUMBER	2021-309					

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Drawing: E:\PROJECTS\2021-309 SINTON TRAIL IMPROVE\02 DESIGN\CADD DESIGN\SINTON TRAIL-COS.DWG - Layout_MODEL

B24-001M7

MATERIAL THICKNESSES:	
SOIL RIPRAP, TYPE M.....	3 FOOT DEPTH
GROUTED BOULDERS.....	~4 FOOT DEPTH (TYPICAL)
TOPSOIL.....	~8 FOOT DEPTH AT BASE OF DROPS
	4 INCH DEPTH



STORMWATER ENTERPRISE
SOUTH DOUGLAS CREEK
SINTON TRAIL
CROSS SECTIONS

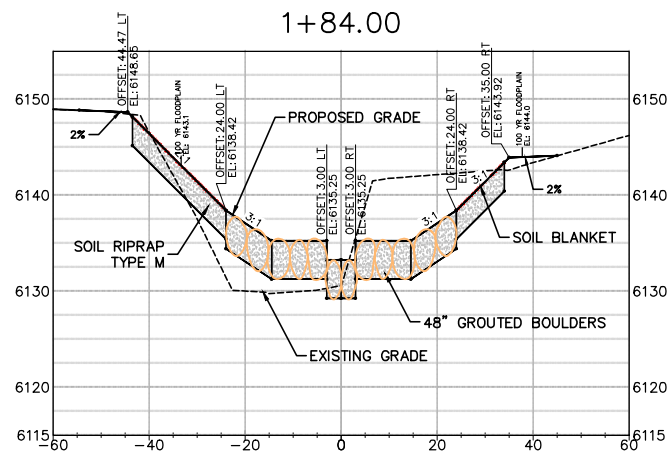
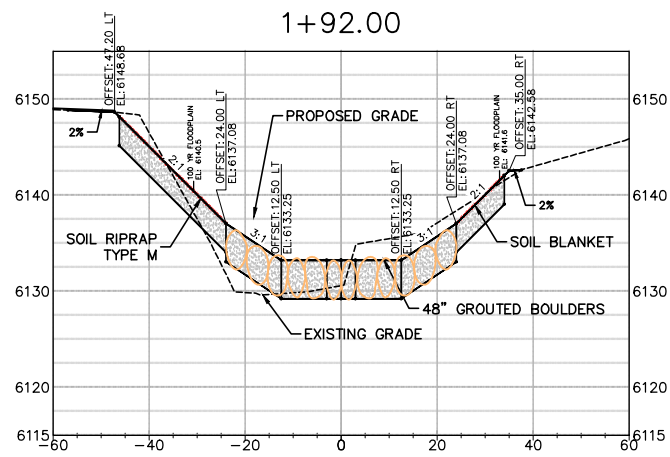
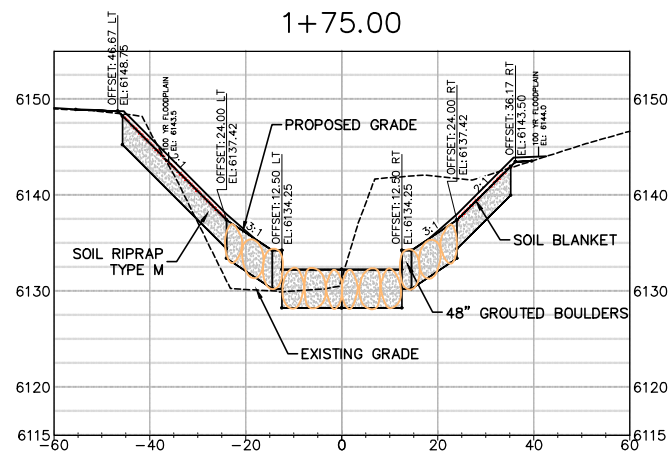
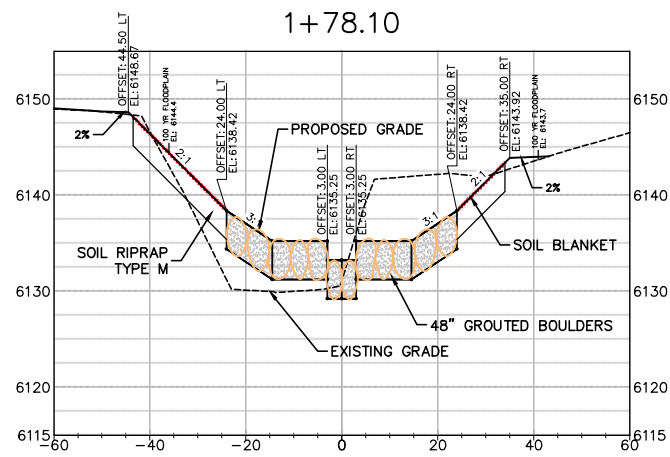
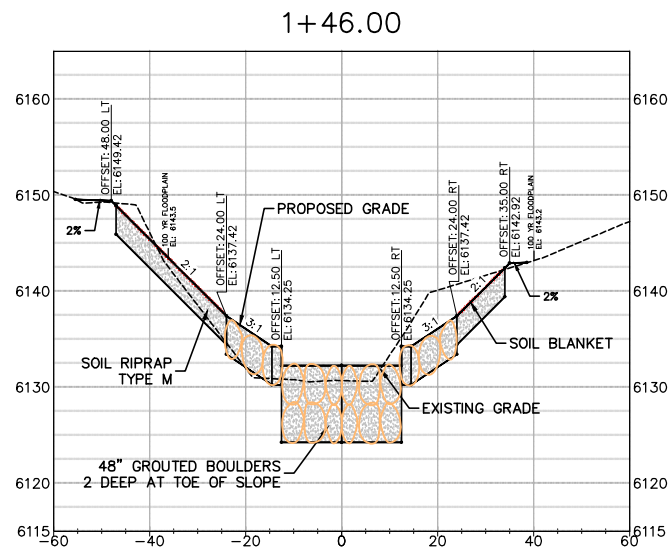
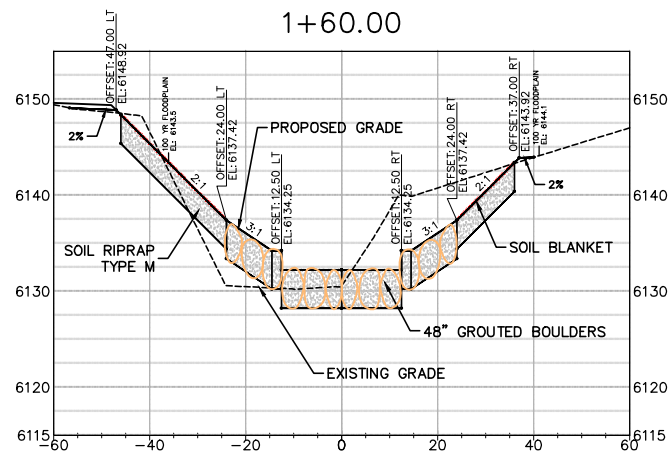
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PROJECT MANAGER	BT	REV. No.	REVISION	BY	DATE
DESIGNED BY	HDR				
DRAWN BY	KWD				
CHECKED BY					
PROJECT NUMBER	2021-309				

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B24-001M7

MATERIAL THICKNESSES:	
SOIL RIPRAP, TYPE M.....	3 FOOT DEPTH
GROUTED BOULDERS.....	~4 FOOT DEPTH (TYPICAL)
TOPSOIL.....	~8 FOOT DEPTH AT BASE OF DROPS
	4 INCH DEPTH



STORMWATER ENTERPRISE
SOUTH DOUGLAS CREEK
SINTON TRAIL
CROSS SECTIONS

SCALE	HORIZ: AS SHOWN
	VERT: N/A
FILENAME	SINTON TRAIL-COS.DWG
SHEET	10
	90 3 OF 5

1/2/2024

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
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0
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

PROJECT MANAGER	BT	REV. No.	REVISION	BY	DATE
DESIGNED BY	HDR				
DRAWN BY	KWD				
CHECKED BY					
PROJECT NUMBER	2021-309				

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B

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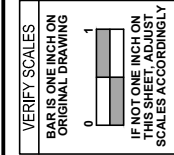
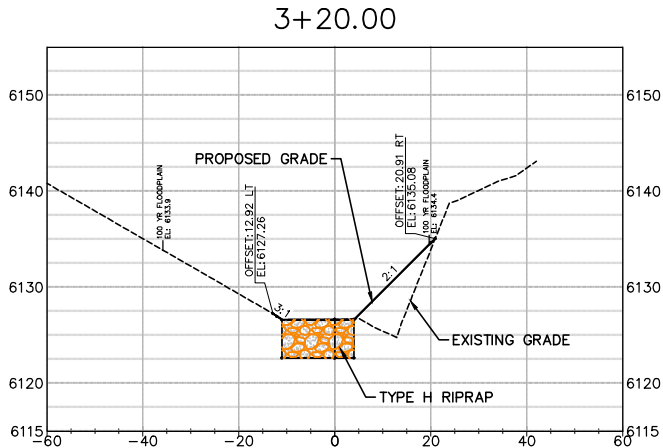
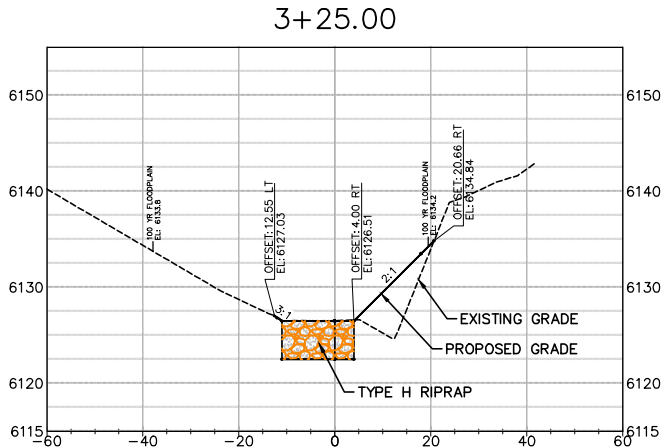
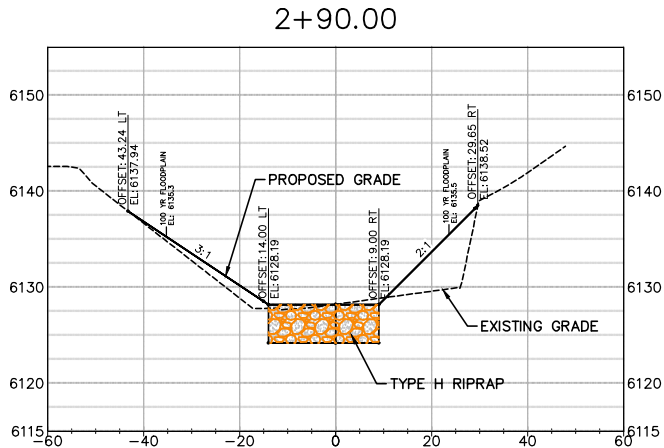
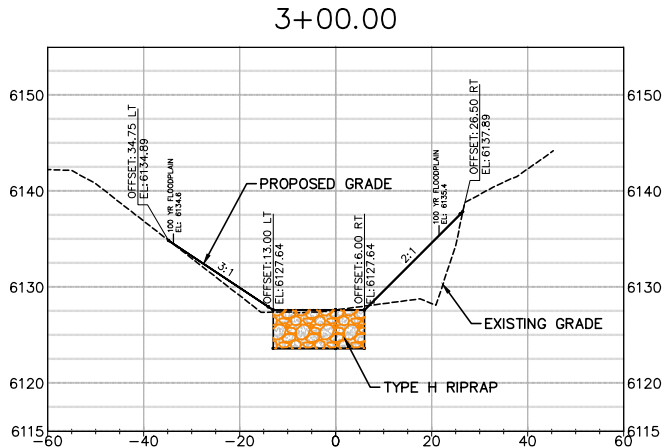
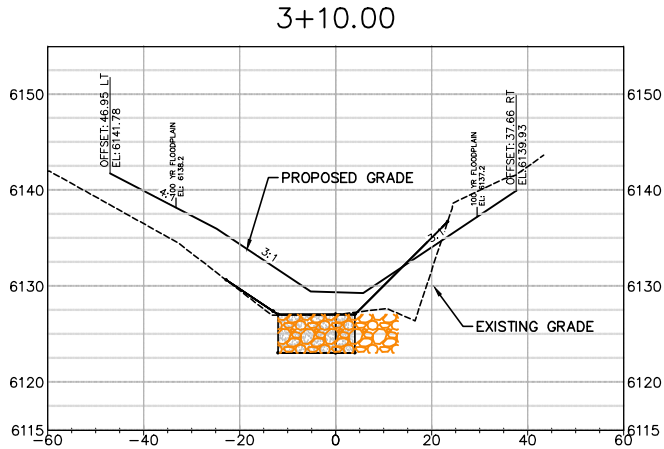


STORMWATER ENTERPRISE SOUTH DOUGLAS CREEK SINTON TRAIL		VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING  IF NOT ONE INCH ON PLOT, REFER TO LIST OF SCALES ACCORDINGLY	PROJECT MANAGER BT DESIGNED BY HDR DRAWN BY KWD CHECKED BY PROJECT NUMBER 2021-309	REV. No. REVISION BY DATE
		CROSS SECTIONS		
		SCALE HORIZ: AS SHOWN VERT: N/A		
		FILENAME SINTON TRAIL-COS.DWG		
		SHEET 11 91 4 OF 5		

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B24-001M7

MATERIAL THICKNESSES:	
SOIL RIPRAP, TYPE M.....	3 FOOT DEPTH
GRAUTED BOULDERS.....	~4 FOOT DEPTH (TYPICAL)
TOPSOIL.....	~8 FOOT DEPTH AT BASE OF DROPS
	4 INCH DEPTH



STORMWATER ENTERPRISE
SOUTH DOUGLAS CREEK
SINTON TRAIL
CROSS SECTIONS

SCALE	HORIZ: AS SHOWN
	VERT: N/A
FILENAME	SINTON TRAIL-COS.DWG
SHEET	12
	92 5 OF 5

1/2/2024

PROJECT	MANAGER	BT	REV. No.	REVISION	BY	DATE
DESIGNED BY	HDR					
DRAWN BY	KWD					
CHECKED BY						
PROJECT NUMBER	2021-309					

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SCHEDULE I – INSURANCE REQUIREMENTS

The following listed minimum insurance requirements shall be carried by all contractors and consultants unless otherwise specified in the City's solicitation package, Special Provisions, or Standard Specifications.

1.	X	Workers' Compensation and Employers Liability as required by statute. Employers Liability coverage is to be carried for a minimum limit of \$100,000.
2.	X	Automobile Liability covering any auto (including owned, hired, and non-owned autos) with a minimum of \$1,000,000 each accident combined single limit.
3.	X	Commercial General Liability for limits not less than \$1,000,000 combined single limit for bodily injury and property damage for each occurrence. Coverage shall include blanket contractual, broad form property damage, products and completed operations and contractors protective endorsements.

Except for workers' compensation and employer's liability insurance, the **City of Colorado Springs must be named as an additional insured**. Certificates of Insurance must be submitted before commencing the work and provide 30 days' notice prior to any cancellation, non-renewal, or material changes to policies required under the contract.

All coverage furnished by contractor is primary, and any insurance held by the City of Colorado Springs is excess and non-contributory.

The undersigned certifies and agrees to carry and maintain the insurance requirements indicated above throughout the contract Period of Performance.

(Name of Company)

(Signature)

(Date)

SCHEDULE J – EXHIBITS

- Exhibit 1 Sample Contract
- Exhibit 2 RESERVED
- Exhibit 3 Qualification Statement
- Exhibit 4 Bid Certification and Representations and Certifications
- Exhibit 5 Bid Bond

EXHIBIT 1 – SAMPLE CONTRACT

CONSTRUCTION CONTRACT

Contract Number:		Project Name/Title	
Vendor/Contractor			
Contact Name:		Telephone:	
Email Address:			
Address:			
Federal Tax ID #		Please check one:	<input type="checkbox"/> Corporation <input type="checkbox"/> Individual <input type="checkbox"/> Partnership
City Contracting Specialist		City Dept Rep	
NOT TO EXCEED Contract Amount:		City Account #	
Contract Type:	Fixed Unit Price	Period of Performance:	

1. INTRODUCTION

THIS Fixed Unit Price CONTRACT ("Contract") is made and entered into this XXX day of XXX, 2022 by and between the City of Colorado Springs, a Colorado municipal corporation and home rule city, in the County of El Paso, State of Colorado, (the "City"), and _____ (the "Contractor").

THE CITY AND THE CONTRACTOR HEREBY AGREE AS FOLLOWS:

The City has heretofore prepared the necessary Contract Documents for the following Activity: XXXX.

The Contractor did on the XXX day of XXX, 2022 submit to the City the Contractor's written offer and proposal to do the work therein described under the terms and conditions therein set forth and furnish all materials, supplies, labor, services, transportation, tools, equipment, and parts for said work in strict conformity with the accompanying Contract Documents, which are attached hereto and incorporated herein by this reference, including the following:

1. This Contract
2. Schedule A – Price Sheet
3. Schedule B – General Construction Terms and Conditions
4. Schedule C – Special Contract Terms and Conditions
5. Schedule D – General Specifications
6. Schedule E – Special and Technical Specifications
7. Schedule F – Scope of Work
8. Exhibit 1 – Performance, Labor and Material Payment, and Maintenance Bonds
9. Exhibit 2 – Minimum Insurance Requirements

2. COMPENSATION/CONSIDERATION

THIS FIXED UNIT PRICE CONTRACT is established at the Not to Exceed amount of \$xxxxxxx.

Subject to the terms and conditions of the Contract Documents, Contractor agrees to furnish all materials and to perform all work as set forth in its proposal and as required by the Contract Documents.

All pricing is in accordance with the fixed unit prices found in Schedule A, as proposed by the Contractor. Payment made for actual quantities as set forth in Schedule B, General Construction Terms and Conditions. At no time shall the total obligation of the City exceed the not to exceed amount of this Contract.

3. TERM OF CONTRACT

Contractor will start work promptly after the Notice to Proceed and continue to work diligently until completed. The Contractor shall complete all work on an as ordered basis throughout the Contract period which is **the date of Notice to Proceed through April 30, 2022** ("Period of Performance") as per the specifications and drawings. The Contractor shall provide a two-year guarantee on all work performed under this Contract after the job has been completed and accepted.

4. INSURANCE

The Contractor shall provide and maintain acceptable Insurance Policy(s) consistent with the Minimum Insurance Requirements attached as Exhibit 2, which includes Property, Liability, and as otherwise listed in Exhibit 2. The City of Colorado Springs shall be reflected as an additional insured on the Property and Liability policy(s).

Further, Contractor understands and agrees that Contractor shall have no right of coverage under any existing or future City comprehensive, self, or personal injury policies. Contractor shall provide insurance coverage for and on behalf of Contractor that will sufficiently protect Contractor, or Contractor's agents, employees, servants or other personnel, in connection with the services which are to be provided by Contractor pursuant to this Contract, including protection from claims for bodily injury, death, property damage, and lost income. Contractor shall provide worker's compensation insurance coverage for Contractor and all Contractor personnel. Contractor shall file applicable insurance certificates with the City and shall also provide additional insurance as indicated in this Contract. ***A CURRENT CERTIFICATE OF INSURANCE IS REQUIRED PRIOR TO COMMENCEMENT OF SERVICES LISTING THE CITY AND XXXX AS ADDITIONALLY INSURED.***

5. RESPONSIBILITY OF THE CONTRACTOR

- A. The Contractor shall be responsible for the professional quality, technical accuracy, and the coordination of all Scope of Work services furnished by the Contractor under this Contract. The Contractor shall, without additional compensation, correct or revise any errors or deficiencies in services provided under this Contract to the satisfaction of the City.
- B. The City's review, approval of, acceptance of, or payment for the services required under this Contract shall not be construed to operate as a waiver of any rights under this Contract or of any cause of action arising out of the performance of this Contract, and the Contractor shall be and remain liable to the City for any and all damages to the City caused by the Contractor's negligent performance of any of the services furnished under this Contract.

- C. The rights and remedies of the City provided for under this Contract are in addition to any other rights and remedies provided by law.
- D. If the Contractor is comprised of more than one legal entity, each such entity shall be jointly and severally liable hereunder.

6. WORK OVERSIGHT

- A. The extent and character of the work to be done by the Contractor shall be subject to the general approval of the City's delegated Project Manager.
- B. If any of the work or services being performed does not conform with Contract requirements, the City may require the Contractor to perform the work or services again in conformity with Contract requirements, at no increase in Contract amount. When defects in work or services cannot be corrected by re-performance, the City may (1) require the Contractor to take necessary action to ensure that future performance conforms to Contract requirements and (2) reduce the Contract price to reflect the reduced value of the work or services performed.
- C. If the Contractor fails to promptly perform the defective work or services again or to take the necessary action to ensure future performance is in conformity with Contract requirements, the City may (1) by Contract or otherwise, perform the services and charge to the Contractor any cost incurred by the City that is directly related to the performance of such work or service or (2) terminate the Contract for breach of contract.

7. SUBCONTRACTORS, ASSOCIATES, AND OTHER CONTRACTORS

- A. Any subcontractor, outside associates, or other contractors used by the Contractor in connection with Contractor's work under this Contract shall be limited to individuals or firms that are specifically identified by the Contractor in the Contractor's proposal and agreed to by the City. The Contractor shall obtain the City's Project Manager's written consent before making any substitution of these subcontractors, associates, or other contractors.
- B. The Contractor shall include a flow down clause in all of its subcontracts, agreements with outside associates, and agreements with other contractors. The flow down clause shall cause all of the terms and conditions of this Contract, including all of the applicable parts of the Contract Documents, to be incorporated into all subcontracts, agreements with outside associates, and agreements with other contractors. The flow down clause shall provide clearly that there is no privity of contract between the City and the Contractor's subcontractors, outside associates, and other contractors.

8. KEY PERSONNEL

The key personnel listed in the proposal and/or below will be the individuals used in the performance of the work. If any of the listed key personnel leave employment or are otherwise not utilized in the performance of the work, approval to substitute must be obtained by the Contractor from the City's Project Manager. Any substitute shall have the same or a higher standard of qualifications that the key personnel possessed at the time of Contract award.

9. START AND CONTINUANCE OF WORK

It is further agreed that the Contractor will start work promptly and continue to work diligently until this Contract is completed.

10. APPROPRIATION OF FUNDS

This Contract is expressly made subject to the limitations of the Colorado Constitution and Section 7-60 of the Charter of the City of Colorado Springs. Nothing herein shall constitute, nor be deemed to constitute, the creation of a debt or multi-year fiscal obligation or an obligation of future appropriations by the City Council of Colorado Springs, contrary to Article X, § 20, Colo. Const., or any other constitutional, statutory, or charter debt limitation. Notwithstanding any other provision of this Contract, with respect to any financial obligation of the City which may arise under this Agreement in any fiscal year after the year of execution, in the event the budget or other means of appropriation for any such year fails to provide funds in sufficient amounts to discharge such obligation, such failure (i) shall act to terminate this Contract at such time as the then-existing and available appropriations are depleted, and (ii) neither such failure nor termination shall constitute a default or breach of this Contract, including any sub-agreement, attachment, schedule, or exhibit thereto, by the City. As used herein, the term "appropriation" shall mean and include the due adoption of an appropriation ordinance and budget and the approval of a Budget Detail Report (Resource Allocations) which contains an allocation of sufficient funds for the performance of fiscal obligations arising under this Contract.

11. CHANGES

The Contractor and the City agree and acknowledge as a part of this Contract that no change order or other form or order or directive may be issued by the City which requires additional compensable work to be performed, which work causes the aggregate amount payable under the Contract to exceed the amount appropriated for this Contract as listed above, unless the Contractor has been given a written assurance by the City that lawful appropriations to cover the costs of the additional work have been made or unless such work is covered under a remedy-granting provision of this Contract. The Contractor and the City further agree and acknowledge as a part of this Contract that no change order or other form or order or directive which requires additional compensable work to be performed under this Contract shall be issued by the City unless funds are available to pay such additional costs, and, regardless of any remedy-granting provision included within this Contract, the Contractor shall not be entitled to any additional compensation for any change which increases or decreases the Contract completion date, or for any additional compensable work performed under this Contract, and expressly waives any rights to additional compensation, whether by law or equity, unless, prior to commencing the additional work, the Contractor is given a written change order describing the change in Contract completion date or the additional compensable work to be performed, and setting forth the amount of compensation to be paid, and such change order is signed by the authorized City representative, as defined below. The amount of compensation to be paid, if any, shall be deemed to cover any and all additional, direct, indirect or other cost or expense or profit of the Contractor whatsoever. It is the Contractor's sole responsibility to know, determine, and ascertain the authority of the City representative signing any change order under this Contract.

No change, amendment, or modification to this Contract shall be valid unless duly approved and issued in writing by the City of Colorado Springs Procurement Services Division. The City shall not be liable for any costs incurred by the Contractor resulting from work performed for changes not issued in writing by the City of Colorado Springs Procurement Services Division.

The following personnel are authorized to sign changes, amendments, or modifications to this Contract.

The Project Manager: Changes up to \$14,999.99

The City of Colorado Springs Chief of Staff: Changes up to \$499,999.99

The Mayor of the City of Colorado Springs: Unlimited

12. ECONOMIC PRICE ADJUSTMENT

- A. The Contractor shall notify the City of Colorado Springs Procurement Services Division if, at any time during contract performance, the rate of pay for labor or the unit prices for material shown in Schedule A experiences a significant increase. A change in price shall be considered significant when the unit price of an item increases by 10% from the execution date of this Contract. The Contractor shall furnish notice of this increase within 60 days after the increase, or within any additional period that the City Procurement Services Division may approve in writing, but not later than the date of final payment under this Contract. The notice shall include the Contractor's proposal for an adjustment in the Contract unit prices to be negotiated under paragraph (b) of this clause, and shall include, in the form required by the City Procurement Services Division, supporting data explaining the cause, effective date, and amount of the increase and the amount of the Contractor's adjustment proposal.
- B. Promptly after the City Procurement Services Division receives the notice and data under paragraph (a) of this clause, the City Procurement Services Division and the Contractor shall negotiate a price adjustment in the contract unit prices and its effective date. However, the City Procurement Services Division may postpone the negotiations until an accumulation of increases in the labor rates (including fringe benefits) and unit prices of material shown in Schedule A results in an adjustment allowable under paragraph (c)(3) of this clause. The City Procurement Services Division shall modify this contract (1) to include the price adjustment and its effective date and (2) to revise the labor rates (including fringe benefits) or unit prices of material as shown in Schedule A to reflect the increases resulting from the adjustment. The Contractor shall continue performance at current rates pending agreement on, or determination of, any adjustment and its effective date.
- C. Any price adjustment under this clause is subject to the following limitations:
 - 1. Any adjustment shall be limited to the effect on unit prices of the increases in the rates of pay for labor (including fringe benefits) or unit prices for material shown in Schedule A. There shall be no adjustment for:
 - (i) Supplies or services for which the production cost is not affected by such changes;
 - (ii) Changes in rates or unit prices other than those shown in Schedule A; or
 - (iii) Changes in the quantities of labor or material used from those shown in Schedule A for each item.
 - 2. No upward adjustment shall apply to supplies or services that are required to be delivered or performed before the effective date of the adjustment, unless the Contractor's failure to deliver or perform according to the delivery schedule results from causes beyond the Contractor's control and without its fault or negligence, within the meaning of the Default clause.
 - 3. There shall be no adjustment for any change in rates of pay for labor (including fringe benefits) or unit prices for material which would not result in a net change of at least 3 percent of the then-current total contract price. This limitation shall not apply, however, if, after final delivery of all line items, either party requests an adjustment under paragraph (b) of this clause.

4. The aggregate of the increases in any contract unit price made under this clause shall not exceed 10 percent of the original unit price.

13. ASSIGNMENT

No assignment or transfer by the Contractor of this Contract or any part thereof or of the funds to be received thereunder by the Contractor will be recognized unless such assignment has had the prior written approval of the City and the surety has been given due notice of such assignment. Such written approval by the City shall not relieve the Contractor of the obligations under the terms of this Contract. In addition to the usual recitals in assignment contracts, the following language must be included in the assignment:

It is agreed that the funds to be paid to the assignee under this assignment are subject to a prior lien for services rendered or materials supplied for the performance of the work called for in said contract in favor of all persons, firms, or corporations rendering such services or supplying such materials.

14. CHOICE OF LAW

This Contract is subject to and shall be interpreted under the law of the State of Colorado, and the Charter, City Code, Ordinances, Rules and Regulations of the City of Colorado Springs, Colorado, a Colorado home rule city. Court venue and jurisdiction shall be exclusively in the Colorado District Court for El Paso County, Colorado. The Parties agree that the place of performance for this Contract is deemed to be in the City of Colorado Springs, El Paso County, State of Colorado. The Contractor shall ensure that the Contractor and the Contractor's employees, agents, officers and subcontractors are familiar with, and comply with, applicable Federal, State, and Local laws and regulations as now written or hereafter amended.

15. WORKERS' COMPENSATION INSURANCE

Contractor shall take out and maintain during the Period of Performance, Colorado Worker's Compensation Insurance for the Contractor and all employees of the Contractor. If any service is sublet by the Contractor, the Contractor shall require the subcontractor to provide the same coverage for the subcontractor and subcontractor's employees. Workers' Compensation Insurance shall include occupational disease provisions covering any obligations of the Contractor in accord with the provisions of the Workers' Compensation Act of Colorado.

16. INDEMNIFICATION

Contractor agrees that the Contractor shall indemnify, defend and hold harmless the City, its officers, employees and agents, from and against any and all loss, damage, injuries, claims, cause or causes of action, or any liability whatsoever resulting from, or arising out of, or in connection with the Contractor's obligations or actions under this Contract caused by any willful or negligent error, omission or act or a failure to observe any applicable standard of care by the Contractor or any person employed by it or anyone for whose acts the Contractor is legally liable. In consideration of the award of this Contract, to the extent damages are covered by insurance, the Contractor agrees to waive all rights of subrogation against the City, its subsidiary, parent, associated and/or affiliated entities, successors, or assigns, its elected officials, trustees, employees, agents, and volunteers for losses arising from the work performed by the Contractor for the City. The indemnification obligation shall survive the expiration or termination of this Contract

17. INDEPENDENT CONTRACTOR

In the performance of the Contractor's obligations under this Contract, it is understood, acknowledged and agreed between the parties that the Contractor is at all times acting and performing as an independent contractor, and the City shall neither have nor exercise any control or direction over the manner and means by which the Contractor performs the Contractor's obligations under this Contract, except as otherwise stated within the Contract terms. The City shall not provide any direction to the Contractor on the work necessary to complete the project. Contractor understands that it is an independent contractor responsible for knowing how to perform all work or tasks necessary to complete project. The Contractor understands and agrees that the Contractor and the Contractor's employees, agents, servants, or other personnel are not City employees. The Contractor shall be solely responsible for payment of salaries, wages, payroll taxes, unemployment benefits or any other form of compensation or benefit to the Contractor or any of the Contractor's employees, agents, servants or other personnel performing services or work under this Contract, whether it is of a direct or indirect nature. Further in that regard, it is expressly understood and agreed that for such purposes neither the Contractor nor the Contractor's employees, agents, servants or other personnel shall be entitled to any City payroll, insurance, unemployment, worker's compensation, retirement or any other benefits whatsoever.

18. APPLICABLE LAW AND LICENSES

In the conduct of the services or work contemplated in this Contract, the Contractor shall ensure that the Contractor and all subcontractors comply with all applicable state, federal and City and local law, rules and regulations, technical standards or specifications. The Contractor shall qualify for and obtain any required licenses prior to commencement of work.

19. PRIOR AGREEMENTS

This is a completely integrated Contract and contains the entire agreement between the parties. Any prior written or oral agreements or representations regarding this Contract shall be of no effect and shall not be binding on the City. This Contract may only be amended in writing, and executed by duly authorized representatives of the parties hereto.

20. INTELLECTUAL PROPERTY

The Parties hereby agree, and acknowledge, that all products, items writings, designs, models, examples, or other work product of the Contractor produced pursuant to this Contract are works made for hire, and that the City owns, has, and possesses any and all ownership rights and interests to any work products of the Contractor made under this Contract, including any and all copyright, trademark, or patent rights, and that compensation to the Contractor for Agreement and acknowledgment of this intellectual property right section of this Contract is included in any compensation or price whatsoever paid to the Contractor under this Contract. It is the intent of the parties that the City shall have full ownership and control of the Contractor's work products produced pursuant to this Contract, and the Contractor specifically waives and assigns to the City all rights which Contractor may have under the 1990 Visual Artists Rights Act, federal, and state law, as now written or later amended or provided. In the event any products, items writings, designs, models, examples, or other work product produced pursuant to this Contract is deemed by a court of competent jurisdiction not to be a work for hire under federal copyright laws, this intellectual property rights provision shall act as an irrevocable assignment to the City by the Contractor of any and all copyrights, trademark rights, or patent rights in the Contractor's products,

items writings, designs, models, examples, or other work product produced pursuant to this Contract, including all rights in perpetuity. Under this irrevocable assignment, the Contractor hereby assigns to the City the sole and exclusive right, title, and interest in and to the Contractor's products, items writings, designs, models, examples, or other work product produced pursuant to this Contract, without further consideration, and agrees to assist the City in registering and from time to time enforcing all copyrights and other rights and protections relating to the Contractor's products, items writings, designs, models, examples, or other work product in any and all countries. It is the Contractor's specific intent to assign all right, title, and interest whatsoever in any and all copyright rights in the Contractor's products, items writings, designs, models, examples, or other work product produced pursuant to this Contract, in any media and for any purpose, including all rights of renewal and extension, to the City. To that end, the Contractor agrees to execute and deliver all necessary documents requested by the City in connection therewith and appoints the City as Contractor's agent and attorney-in-fact to act for and in Contractor's behalf and stead to execute, register, and file any such applications, and to do all other lawfully permitted acts to further the registration, prosecution, issuance, renewals, and extensions of copyrights or other protections with the same legal force and effect as if executed by the Contractor; further, the parties expressly agree that the provisions of this intellectual property rights section shall be binding upon the parties and their heirs, legal representatives, successors, and assigns.

21. WAIVERS

No waiver of default by the City of any of the terms, covenants, and conditions hereof to be performed, kept, and observed by the Contractor shall be construed, or shall operate, as a waiver of any subsequent default of any of the terms, covenants, or conditions herein contained to be performed, kept, and observed by the Contractor.

22. THIRD PARTIES

It is expressly understood and agreed that enforcement of the terms and conditions of this Contract, and all rights of action relating to such enforcement, shall be strictly reserved to the Parties hereto, and nothing contained in this Contract shall give or allow any such claim or right of action by any other or third person or entity on such Contract. It is the express intention of the Parties hereto that any person or entity, other than the Parties to this Contract, receiving services or benefits under this Contract shall be deemed to be incidental beneficiaries only.

23. TERMINATION

A. Termination for Convenience.

By signing this Contract, Contractor represents that it is a sophisticated business and enters into the Contract voluntarily, has calculated all business risks associated with this Contract, and understands and assumes all risks of being terminated for convenience, whether such risks are known or not known. Contractor agrees that the City may terminate this Contract at any time for convenience of the City, upon written notice to the Contractor. Contractor expressly agrees to and assumes the risk that the City shall not be liable for any costs or fees of whatsoever kind and nature if termination for convenience occurs before Contractor begins any work or portion of the work. Contractor further expressly agrees and assumes the risks that the City shall not be liable for any unperformed work, anticipated profits, overhead, mobilizations costs, set-up, demobilization costs, relocation costs of employees, layoffs or severance costs, administrative costs, productivity costs, losses on disposal of equipment or materials, cost associated with the

termination of subcontractors, costs associated with purchase orders or purchases, or any other costs or fees of any kind and nature, if Contractor has started or performed portions of the Contract prior to receiving notice from the City. The City shall be liable only for the portions of work Contractor actually satisfactorily completed up to the point of the issuance of the Notice of Termination for convenience. Upon receipt of this notice the Contractor shall immediately: discontinue all services affected (unless the notice directs otherwise), and deliver to the City all data, drawings, specifications, reports, estimates, summaries, and other information and materials accumulated in performing this Contract, whether completed or in process.

B. Termination for Cause: The occurrence of any one or more of the following events ("Event of Default") will justify termination for cause:

1. Contractor's failure to perform the work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule as adjusted from time to time.
2. Contractor's disregard of the laws or regulations of any public body having jurisdiction.
3. Contractor's disregard of the authority of Project Manager.
4. Contractor's violation in any material provision of the Contract Documents.
5. Contractor's failure to make prompt payments to its subcontractors, and suppliers of any tier, or laborers or any person working on the work by, through, or under the Contractor or any of them, any all of their employees, officers, servants, members, and agents.
6. Contractor files a petition commencing a voluntary case under the U.S. Bankruptcy Code, or for liquidation, reorganization, or an arrangement pursuant to any other U.S. or state bankruptcy Laws, or shall be adjudicated a debtor or be declared bankrupt or insolvent under the U.S. Bankruptcy Code, or any other federal or state laws relating to bankruptcy, insolvency, winding-up, or adjustment of debts, or makes a general assignment for the benefit of creditors, or admits in writing its inability to pay its debts generally as they become due, or if a petition commencing an involuntary case under the U.S. Bankruptcy Code or an answer proposing the adjudication of Contractor as a debtor or bankrupt or proposing its liquidation or reorganization pursuant to the Bankruptcy Code or any other U.S. federal or state bankruptcy laws is filed in any court and Contractor consents to or acquiesces in the filing of that pleading or the petition or answer is not discharged or denied within sixty (60) Calendar Days after it is filed.
7. A custodian, receiver, trustee or liquidator of Contractor, all or substantially all of the assets or business of Contractor, or of Contractor's interest in the Work or the Contract, is appointed in any proceeding brought against Contractor and not discharged within sixty (60) Calendar Days after that appointment, or if Contractor shall consent to or acquiesces in that appointment.
8. Contractor fails to commence correction of defective work or fails to correct defective work within a reasonable period of time after written notice.

If one or more of the events identified in Paragraphs 1-8 above occur, City may give Contractor written notice of the event and direct the event be cured. Any such Notice to Cure will provide Contractor a minimum of ten (10) calendar days to prepare and submit to the Project Manager a plan to correct the Event of Default. If such plan to correct the Event of Default is not submitted to the Project Manager within ten (10) days after the date of the written notice or such plan is unacceptable to the City, the City may, give Contractor (and the Surety, if any) written notice that Contractor's services are being terminated for cause. Upon delivery of the termination notice, City may terminate the services of Contractor in whole or in part, exclude Contractor from the site, and take possession of the work and of all Contractor's tools, appliances, construction equipment, and machinery at the project site, and use the same to

the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion), incorporate in the work all materials and equipment stored at the site or for which City has paid Contractor but which are stored elsewhere, and finish the work as City may deem expedient. In such case, Contractor shall not be entitled to receive any further payment until Certificate of Completion of the work. In the event City terminates this Contract for Cause and the cost of completing the work exceeds the unpaid balance of the Contract price, Contractor shall pay City for any costs of completion which exceed the Contract price when combined with all amounts previously paid to Contractor. When exercising any rights or remedies under this paragraph City shall not be required to obtain the lowest price for the work performed. Should the cost of such completion, including all proper charges, be less than the original Contract price, the amount so saved shall accrue to the City. Neither the City nor any officer, agent or employee of the City shall be in any way liable or accountable to the Contractor or the Surety for the method by which the completion of the said work, or any portion thereof, may be accomplished or for the price paid.

Where Contractor's services have been so terminated by City, the termination will not affect any rights or remedies of City against Contractor or Surety then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by City will not release Contractor from liability.

- C. Termination Notice. Upon receipt of a termination notice, whether for convenience or cause, the Contractor shall immediately: discontinue all services affected (unless the notice directs otherwise), and deliver to the City all data, drawings, specifications, reports, estimates, summaries, and other information and materials accumulated in performing this Contract, whether completed or in process.
- D. Removal of Equipment. Except as provided above, in the case of termination of this Contract before completion from any cause whatever, the Contractor, if notified to do so by the City, shall promptly remove any part or all of Contractor's equipment and supplies from the property of the City, failing which the City shall have the right to remove such equipment and supplies at the expense of the Contractor.

24. BOOKS OF ACCOUNT AND AUDITING

The Contractor shall make available to the City if requested, true and complete records, which support billing statements, reports, performance indices, and all other related documentation. The City's authorized representatives shall have access during reasonable hours to all records, which are deemed appropriate to auditing billing statements, reports, performance indices, and all other related documentation. The Contractor agrees that it will keep and preserve for at least seven years all documents related to the Contract which are routinely prepared, collected or compiled by the Contractor during the performance of this Contract.

The City's Auditor and the Auditor's authorized representatives shall have the right at any time to audit all of the related documentation. The Contractor shall make all documentation available for examination at the Auditor's request at either the Auditor's or Contractor's offices, and without expense to the City.

25. COMPLIANCE WITH IMMIGRATION REFORM AND CONTROL ACT OF 1986

Contractor certifies that Contractor has complied with the United States Immigration Reform and Control Act of 1986. All persons employed by Contractor for performance of this Contract have completed and signed Form I-9 verifying their identities and authorization for employment.

26. LABOR

The Contractor shall employ only competent and skilled workmen and foremen in the conduct of work on this Contract. The Contractor shall at all times enforce strict discipline and good order among Contractor's employees. The Project Manager shall have the authority to order the removal from the work of any person, including Contractor's or any subcontractor's employees, who refuses or neglects to observe any of the provisions of these Plans or Specifications, or who is incompetent, abusive, threatening, or disorderly in conduct and any such person shall not again be employed on the Project.

In accord with the Keep Jobs in Colorado Act, codified at sections 8-17-101, et seq., C.R.S., Colorado labor shall be employed to perform the work to the extent of not less than eighty percent (80%) of each type or class of labor in the several classifications of skilled and common labor employed on this Project et seq.; provided however, that this paragraph shall not apply if the Project receives federal funding.

In no event shall the City be responsible for overtime pay.

27. GRATUITIES

- A. This Contract may be terminated if the Mayor, the Mayor's designee, and/or the Procurement Services Manager determine, in their sole discretion, that the Contractor or any officer, employee, agent, or other representative whatsoever, of the Contractor offered or gave a gift or hospitality to a City officer, employee, agent or Contractor for the purpose of influencing any decision to grant a City contract or to obtain favorable treatment under any City contract.
- B. The terms "hospitality" and "gift" include, but are not limited to, any payment, subscription, advance, forbearance, acceptance, rendering or deposit of money, services, or anything of value given or offered, including but not limited to food, lodging, transportation, recreation or entertainment, token or award.
- C. Contract termination under this provision shall constitute a breach of contract by the Contractor, and the Contractor shall be liable to the City for all costs of reletting the contract or completion of the project. Further, if the Contractor is terminated under this provision, or violates this provision but is not terminated, the Contractor shall be subject to debarment under the City's Procurement Regulations. The rights and remedies of the City provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

28. NON-DISCRIMINATION

- A. In accord with section 24-34-402, C.R.S., Title VII of the Civil Rights Act of 1964, Americans with Disabilities Act of 1990 as amended, all applicable federal and state laws, the Contractor will not discriminate against any employee or applicant for employment because of disability, race, creed, color, sex, sexual orientation, gender identity, gender expression, religion, age, national origin, or ancestry.

- B. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- C. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to disability, race, creed, color, sex, sexual orientation, gender identity, gender expression, religion, age, national origin, or ancestry.

29. ORDER OF PRECEDENCE

Any inconsistency in this Contract shall be resolved by giving precedence in the following order:

- A. This Contract document with its terms and conditions
- B. Specific Construction Terms and Conditions
- C. General Construction Terms and Conditions
- D. The Statement of Work
- E. Specific Specifications
- F. General Specifications
- G. Other Appendices, Attachments, Exhibits, or Schedules

30. HEADINGS

The section headings contained in this Contract are for reference purposes only and shall not affect the meaning or interpretation of this Contract.

31. DISPUTES

- A. All administrative and contractual disputes arising from or related to this Contract other than those arising under Unanticipated Circumstances provisions (in section 107.27 of Schedule B General Construction Terms and Conditions) shall be addressed in the following manner:
 - 1. If either Party disputes or disagrees with a Contract term or the other Party's interpretation of a Contract term or has any other administrative or contractual dispute not addressed in the Unanticipated Circumstances provisions, such Party shall promptly give the other Party written notice of said dispute.
 - 2. The Parties shall hold a meeting as soon as reasonably possible, but in no event later than thirty (30) calendar days from the initial written notice of the dispute, attended by persons with decision-making authority regarding the dispute, to attempt in good faith to negotiate a resolution of the dispute; provided, however, that no such meeting shall be deemed to vitiate or reduce the obligations and liabilities of the Parties or be deemed a waiver by a Party of any remedies to which such Party would otherwise be entitled unless otherwise agreed to by the Parties in writing.
 - 3. If, within thirty (30) calendar days after such meeting, the Parties have not succeeded in negotiating a resolution of the dispute, they agree to submit the dispute to non-binding mediation and to bear equally the costs of the mediation.
 - 4. The Parties will jointly appoint a mutually acceptable mediator. If they fail to do so within twenty (20) calendar days from the conclusion of the negotiation period, they shall each select a mediator. The two mediators will then appoint a third mediator who shall conduct mediation for the Parties as the sole mediator.
 - 5. The Parties agree to participate in good faith in the mediation and negotiations for a period of thirty (30) calendar days. The substantive and procedural law of the State of Colorado

shall apply to the proceedings. If the Parties are not successful in resolving the dispute through mediation, then the Parties shall be free to pursue any other remedy afforded by the laws of the State of Colorado.

6. Until final resolution of any dispute hereunder, the Contractor shall diligently proceed with the performance of this Contract as directed by the City. For purposes of this Contract, termination for convenience shall not be deemed a dispute. The City of Colorado Springs and the Contractor agree to notify each other in a timely manner of any claim, dispute, or cause of action arising from or related to this Contract, and to negotiate in good faith to resolve any such claim, dispute, or cause of action. To the extent that such negotiations fail, the City of Colorado Springs and the Contractor agree that any lawsuit or cause of action that arises from or is related to this Contract shall be filed with and litigated only by the Colorado District Court for El Paso County, CO.

32. DELIVERY

The City may cancel this Contract or any portion thereof if delivery is not made when and as specified, time being of the essence in this Contract. Contractor shall pay the City for any loss or damage sustained by the City because of failure to perform in accordance with this Contract.

33. PAYMENTS

All invoices shall be sent to the Project Manager identified in this Contract.

The City will pay the Contractor, upon submission of proper invoices, the prices stipulated in the Contract for services rendered and accepted, less any deductions provided in this Contract within 30 days (Net 30). The City will not pay late fees or interest. Any discount payment terms offered on the invoice may be taken by the City.

All payments for Construction will be made in accordance with the Payment provisions found in Schedule B – General Construction Terms and Conditions.

Each invoice must contain at least the following information:

Contract number, issued purchase order number, invoice number, invoice date, timeframe covered by invoice, type and amount of labor and materials used for that time period, dollar amount in unit price, extended price, and total value of invoice.

34. INSPECTION OF SERVICES

The Contractor is responsible for performing or having performed all inspections and tests necessary to substantiate that the services furnished under this Contract conform to Contract requirements, including any applicable technical requirements for specified manufacturers' parts. This clause takes precedence over any City inspection and testing required in the Contract's specifications, except for specialized inspections or tests specified to be performed solely by the City.

- A. Definition of "services", as used in this clause, includes services performed, workmanship, and material furnished or utilized in the performance of services.
- B. The Contractor shall provide and maintain an inspection system acceptable to the City covering the services under this Contract. Complete records of all inspection work performed

by the Contractor shall be maintained and made available to the City during Contract performance and for as long afterwards as the Contract requires.

- C. The City has the right to inspect and test all services called for by the Contract, to the extent practicable at all times and places during the term of the Contract. The City will perform inspections and tests in a manner that will not unduly delay the work.
- D. If the City performs inspections or test on the premises of the Contractor or a subcontractor, the Contractor shall furnish, and shall require subcontractors to furnish, at no increase in Contract price, all reasonable facilities and assistance for the safe and convenient performance of these duties.

35. SECURITY

The City maintains security requirements regarding access to City buildings and other City workplaces and worksites on City property. All Contractor personnel accessing City buildings, workplaces, or worksites, may be required to produce a valid, Government issued picture identification. Contractor personnel lacking such identification may not be allowed access to such sites. No costs incurred by the Contractor due to City security requirements shall be allowable or payable under this Contract.

36. TIME IS OF THE ESSENCE

In as much as the Contract concerns a needed or required service, the terms, conditions, and provisions of the Contract relating to the time of performance and completion of work are of the essence of this Contract. The Contractor shall begin work on the day specified and shall prosecute the work diligently so as to assure completion of the work within the number of calendar days or date specified, or the date to which the time for completion may have been extended.

37. EMPLOYMENT OF LABOR

The Contractor shall comply with, and defend and hold the City harmless from any violation of all laws and lawful rules and regulations, both of the State of Colorado and of the United States, relating to Workmen's Compensation, unemployment compensation, Social Security, payment for overtime, and all other expenses and conditions of employment under this Contract.

38. SALES TAX

The Contractor must have a tax-exemption certificate from the Colorado Department of Revenue for this project. The certificate does not apply to City of Colorado Springs Sales and Use Tax which shall be applicable. The tax exempt project number and the exemption certificate only applies to County, PPRTA (Pikes Peak Rural Transportation Authority), and State taxes when purchasing construction and building materials **to be incorporated into this project**.

Furthermore, the exemption **does not** include or apply to the purchase or rental of equipment, supplies or materials that **do not become a part of the completed project or structure**. Such purchases and rentals are subject to full applicable taxation.

All contracts with subcontractors must include the City of Colorado Springs Sales and Use Tax on the work covered by the Contract, and other taxes as applicable.

Note: For all equipment, materials and supplies incorporated into the work purchased from vendors or suppliers not licensed to collect City Sales Tax (i.e. out of state suppliers, etc.), City Use Tax is due and payable to the City. The Contractor shall execute and deliver, and shall cause the Contractor's subcontractors to execute and deliver to the City Sales Tax Office, ST 16 forms listing all said equipment, materials and supplies and the corresponding use tax due, along with payment for said taxes. Any outstanding taxes due may be withheld from the final payment due the Contractor and may result in suspension of Contractor from bidding on City projects.

Forms and instructions can be downloaded at <https://coloradosprings.gov/cat/government/tax-information/sales-tax>. Questions can be directed to the City Sales Tax Division at (719) 385-5903.

Our Registration Numbers are as follows:
City of Colorado Springs
Federal I.D.: 84-6000573
Federal Excise: A-138557
State Sales Tax: 98-03479

The Contractor's payment or exemption of State of Colorado, El Paso County and City Sales and Use Taxes shall be as specified herein.

39. SEVERABILITY

If any terms, conditions, or provisions of this Contract shall be held unconstitutional, illegal, or void, such finding shall not affect any other terms, conditions, or provisions of this Contract.

40. LIABILITY OF CITY EMPLOYEES

All authorized representatives of the City are acting solely as agents and representatives of the City when carrying out and exercising the power or authority granted to them under the Contract. There shall not be any liability on them either personally or as employees of the City.

41. USE OF CITY NAME OR LOGO

Except as otherwise provided in this Contract, the Contractor shall not refer to this Contract or the City of Colorado Springs in any advertising or promotions in such a manner as to state or imply that the product or service provided is endorsed or preferred by the City of Colorado Springs, its employees, or its Departments, or is considered by these entities to be superior to other products or services. Any use of the name or logo of the City of Colorado Springs in advertising or promotions must be approved in writing by the City of Colorado Springs Contracts Specialist assigned to the Contract prior to such use.

42. TRAVEL

If travel expenses are included as a line item in this Contract, all travel expenses incurred and billable by the Contractor are subject to City approval. Air travel shall be limited to the round trip "economy coach" fare. Travel from the Colorado Springs Airport is encouraged. Unless there are extenuating circumstances, the Contractor should take advantage of lower airfares by purchasing tickets more than 14 days in advance of travel. In-state travel by air must be more economical than travel by private vehicle. Use of a private vehicle may be reimbursed per mile at the current rate published by the IRS annually. Short-term parking, long-term parking or cab fare associated

with airport departure and arrival may be allowable expenses. Valet parking will not be allowed unless it is the least expensive or only option. Car rental rates may be reimbursed for car rentals no greater than the intermediate or standard classification. The City will not reimburse any other travel methods or expenses. The City will pay for lodging, meals, and miscellaneous expenses on a per diem basis only, in accordance with the current per diem rates published by the IRS annually. The City will not pay for Contractor expenses exceeding the per diem rates. Receipts for all reimbursable expenses must be provided with the Contractor's invoice.

43. ELECTRONIC SIGNATURE

This Agreement and all other documents contemplated hereunder may be executed using electronic signature with delivery via facsimile transmission, by scanning and transmission of electronic files in Portable Document Format (PDF) or other readily available file format, or by copy transmitted via email, or by other electronic means and in one or more counterparts, each of which shall be (i) an original, and all of which taken together shall constitute one and the same agreement, (ii) a valid and binding agreement and fully admissible under state and federal rules of evidence, and (iii) enforceable in accordance with its terms

44. APPENDICES

The following Appendices are made a part of this Agreement:

1. Schedule A – Price Sheet
2. Schedule B – General Construction Terms and Conditions
3. Schedule C – Special Contract Terms and Conditions
4. Schedule D – General Specifications
5. Schedule E – Special and Technical Specifications
6. Schedule F – Scope of Work
7. Exhibit 1 – Performance, Labor and Material Payment, and Maintenance Bonds
8. Exhibit 2 – Minimum Insurance Requirements

CONTRACT SIGNATURE PAGE

IN WITNESS WHEREOF, the parties have caused these presents to be executed on the day and the year first above written.

This Contract is executed in one (1) original copy.

THE CITY OF COLORADO SPRINGS, COLORADO:

SECOND PARTY:	
Corporate Name	
Signature	Date
Title	

EXHIBIT 2 – RESERVED

EXHIBIT 3 – QUALIFICATION STATEMENT

This statement will provide information which will enable the City to evaluate the qualifications of your firm and staff with regard to the requirements of this Invitation for Bid. Please complete this form in its entirety and submit it (in the number of copies requested) along with the other required proposal documents. If a request in the Qualification Statement is contained in the Bid, indicate the section in the Bid where that information can be found.

(PRINT)

FIRM NAME: _____

ADDRESS: _____

CITY STATE ZIP: _____

AUTHORIZED REPRESENTATIVE: _____

TITLE: _____

AUTHORIZED SIGNATURE: _____

PHONE: _____ FAX: _____

E-MAIL ADDRESS: _____

1. TYPE OF BUSINESS _____

2. TYPE OF LICENSE AND LOCATION

CORPORATION ☐ INDIVIDUAL ☐

PARTNERSHIP ☐ JOINT VENTURE ☐

OTHER: _____

3. TYPE OF SERVICE TO BE PROVIDED FOR IFB: _____

4. NUMBER OF YEARS IN BUSINESS: _____

5. ON A SEPARATE SHEET PROVIDE A BRIEF HISTORY OF YOUR FIRM, STAFF SIZE AND EXPERIENCE. SUBMIT A RESUME FOR THE PROJECT MANAGER AND EACH KEY PERSONNEL ASSIGNED TO THIS PROJECT.

6. WHAT OTHER NAME(S) HAS YOUR COMPANY OPERATED UNDER:

7. HAVE YOU OR YOUR FIRM EVER FAILED TO COMPLETE ANY WORK AWARDED TO YOU? YES ☐ NO ☐ IF "YES", EXPLAIN:

8. HAS ANY OFFICER OR PARTNER OF YOUR ORGANIZATION EVER BEEN AN OFFICER OR PARTNER OF ANOTHER ORGANIZATION THAT FAILED TO COMPLETE A CONTRACT WITHIN THE LAST FIVE (5) YEARS? YES ☐ NO ☐
IF "YES", EXPLAIN:

9. HAS YOUR FIRM OR ANY PARTNERS OR OFFICERS EVER BEEN INVOLVED IN ANY BANKRUPTCY ACTION? YES ☐ NO ☐ IF "YES", EXPLAIN:

10. ARE YOU PRESENTLY INVOLVED IN ANY LITIGATION WITH ANY GOVERNMENT AGENCY? YES ☐ NO ☐ IF "YES", EXPLAIN TYPE, KIND, PLAINTIFF, DEFENDANT, ETC., AND STATE THE CURRENT STATUS:

11. BANK REFERENCE:

ADDRESS:

CONTACT:

PHONE:

12. LIST THREE (3) SIMILAR PROJECTS (LOCAL OR STATE-WIDE) **FROM LAST FIVE (5) YEARS**-INCLUDE LOCATION OF PROJECT, SIZE OF PROJECT (CONTRACT AMOUNT), CONTACT NAME, ADDRESS, TELEPHONE NUMBERS

NOTE: DETAILED INFORMATION ON THESE PROJECTS MAY ALSO BE REQUESTED IN THE IFB PACKAGE.

1. Location of Project:

Size of Project:

Contract Amount:

Contact Name and Title:

Contact Address:

Contact telephone and FAX Numbers:

2. Location of Project:

Size of Project:

Contract Amount:

Contact Name:

Contact Address:

Contact telephone and FAX Numbers:

3. Location of Project:

Size of Project:

Contract Amount:

Contact Name:

Contact Address:

Contact telephone and FAX Numbers:

13. LIST **CURRENT** SIMILAR PROJECTS (LOCAL OR STATE-WIDE) UNDER CONTRACT- INCLUDE LOCATION OF PROJECT, SIZE OF PROJECT (CONTRACT AMOUNT) CONTACT NAME, ADDRESS, TELEPHONE NUMBERS.

NOTE: DETAILED INFORMATION ON THESE PROJECTS MAY ALSO BE REQUESTED IN THE IFB PACKAGE.

1. Location of Project:

Size of Project:

Contract Amount:

Contact Name and Title:

Contact Address:

Contact telephone and FAX Numbers:

2. Location of Project: _____
 Size of Project: _____
 Contract Amount: _____
 Contact Name and Title: _____
 Contact Address: _____
 Contact telephone and FAX Numbers: _____

3. Location of Project: _____
 Size of Project: _____
 Contract Amount: _____
 Contact Name and Title: _____
 Contact Address: _____
 Contact telephone and FAX Numbers: _____

14. LIST OF SUB-CONTRACTORS TO BE USED FOR THIS PROJECT:
 (INCLUDE NAME, ADDRESS, TELEPHONE NUMBER, TYPE OF WORK)
1. Name: _____
 Address: _____
 Telephone Number: _____
 Type of Work: _____
2. Name: _____
 Address: _____
 Telephone Number: _____
 Type of Work: _____
3. Name: _____
 Address: _____
 Telephone Number: _____
 Type of Work: _____

IF ADDITIONAL INFORMATION IS PROVIDED ON A SEPARATE SHEET FOR ANY OF THE ITEMS, CLEARLY SPECIFY WHERE IT CAN BE LOCATED IN YOUR BID PACKAGE.

EXHIBIT 4 – BID CERTIFICATION AND REPRESENTATIONS AND CERTIFICATIONS

Check or Mark the space after each number to indicate compliance.

1. _____ Address of Offeror's Principal Place of Business:

Does Offeror have an established office or facility in Colorado Springs?

Yes _____ No _____

If yes, indicate address below if different than Principal Place of Business.

Colorado Springs Facility - Year established _____

Address of Colorado Springs Facility:

Percent of Work to be Performed from Principal Place of Business? _____

Percent of Work to be Performed from Colorado Springs Facility? _____

2. _____ Indicate your ability to provide a certificate of insurance evidencing the required coverage types and limits specified in Minimum Insurance Requirements Exhibit. (The certificate of insurance must reflect the City of Colorado Springs as an Additional Insured, as applicable.)

Indicate your ability to comply with the following requirements:

The City shall be added as an Additional Insured to all liability policies:

Yes _____ No _____

Your property and liability insurance company is licensed to do business in Colorado:

Yes _____ No _____

Provide the name of your property and liability insurance company here:

Name: _____

Your property and liability insurance company has an AM best rating of not less than B+ and/or VII:

Yes _____ No _____

Worker's Compensation Insurance is carried for all employees and covers work done in Colorado:

Yes _____ No _____

3. _____ Provide one (1) copy of current financial statements (if required). Enclose financial information in a separate envelope; do not bind with the other proposal copies. If review of the information is to be restricted to the City's financial officer, it must be marked accordingly.
4. _____ Provide the completed and signed bid. (Bids must be identified as specified in this IFB document). All required Exhibits are attached.

By signing below, the Offeror certifies that no person or firm other than the Offeror or as otherwise indicated has any interest whatsoever in this offer or any Contract that may be entered into as a result of this offer and that in all respects the offer is legal and firm, submitted in good faith without collusion or fraud. The undersigned additionally declares that it has carefully examined the Bid information and the complete Solicitation prior to submitting a Bid. The Bidder's signature will be considered the Bidder's acknowledgement of understanding and ability to comply with all items in the solicitation.

Offeror has appointed _____ as the Offeror's representative and contact for all questions or clarifications in regard to this Offeror.

Telephone: (____) _____

Email: _____

The undersigned acknowledges and understands the terms, conditions, Specifications and all Requirements contained and/or referenced and are legally authorized by the Offeror to make the above statements or representations.

(Name of Company)

(Signature)

(Address)

Date

(City, State and Zip)

(Telephone Number)

(Name typed/Printed)

(Title)

(E-Mail Address)

FEDERAL TAX ID # _____

This Company Is: Corporation____ Individual____ Partnership____ LLC____

Offeror hereby acknowledges receipt of the following amendments, if applicable. Offeror agrees that it is bound by all Amendments identified herein.

AMENDMENT #1_____ DATED:_____

AMENDMENT #2_____ DATED:_____

AMENDMENT #3_____ DATED:_____

Please Note: the following Representations and Certifications must be initialed by Offeror in the spaces provided and returned with this certification.

1. INSURANCE REQUIREMENTS

Offeror shall comply with all insurance requirements and will submit the Insurance Certificates prior to performance start date. If limits are different from the stated amounts, Offeror shall explain variance. Certain endorsements and "additionally insured" statements may require further clarification and specific statements on a project specific basis and should have been described in the Offeror's Bid.

Initials for 1

2. ETHICS VIOLATIONS

- A. The Offeror shall have in place and follow reasonable procedures designed to prevent and detect possible violations described in this clause in its own operations and direct business relationships.
- B. Offeror certifies the Offeror has not violated or caused any person to violate, and shall not violate or cause any person to violate, the City's Code of Ethics contained in Article 3, of Chapter 1 of the City Code and in the City's Procurement Rules and Regulations
- C. When the Offeror has reasonable grounds to believe that a violation described in this clause may have occurred, the Offeror shall promptly report the possible violation to the City Contracts Specialist in writing.
- D. The Offeror must disclose with the signing of this Bid, the name of any officer, director, or agent who is also an employee of the City and any City employee who owns, directly or indirectly, an interest of ten percent (10%) or more in the Offeror's firm or any of its branches.
- E. In addition, the Offeror must report any conflict or apparent conflict, current or discovered during the performance of the Contract, to the City Contracts Specialist.
- F. The Offeror shall not engage in providing gifts, meals or other amenities to City employees. The right of the Offeror to proceed may be terminated by written notice issued by City Contracts Specialist if Offeror offered or gave a gratuity to an officer, official, or employee of the City and intended by the gratuity to obtain a contract or favorable treatment under a contract.
- G. The Offeror shall cooperate fully with the City or any agency investigating a possible violation on behalf of the City. If any violation is determined, the Offeror will properly compensate the City.
- H. The Offeror agrees to incorporate the substance of this clause (after substituting "Contractor" for "Offeror") in all subcontracts under this offer.

Initials for 2

3. COOPERATION WITH OTHER CONTRACTORS

Other City activities/contracts may be in progress or start during the performance of this contract. The Offeror shall coordinate the work harmoniously with the other contractors or City personnel, if applicable.

Initials for 3

4. INTERNET USE

Should the Offeror require access to City Internet resources in the performance of this requirement, a "Contractor's Internet Use Agreement" form must be separately signed by each individual having access to the City Network. The completed Contractor's Internet Use Agreement will be maintained with this agreement. Inappropriate use of the City Network will be grounds for immediate termination of any awarded contract.

Initials for 4

5. LITIGATION

If awarded a contract, Offeror shall notify the City within five (5) calendar days after being served with a summons, complaint, or other pleading in any matter which has been filed in any federal or state court or administrative agency. The Offeror shall deliver copies of such document(s) to the City's Procurement Services Manager. The term "litigation" includes an assignment for the benefit of creditors, and filings of bankruptcy, reorganization and/or foreclosure.

Initials for 5

6. CONTRACTOR'S REGISTRATION INFORMATION

Offeror's firm verifies and states that they are (check all that apply):

_____ Large Business (i.e. do not qualify as a small business or non-profit)

_____ Nonprofit

_____ Small Business

_____ Minority Owned Business/Small Disadvantaged Business

_____ Woman Owned Business

_____ Veteran Owned Business

_____ Service-Disabled Veteran Owned Business

_____ HUBZone Business

Note: The City accepts self-certification for these categories in accordance with Small Business Administration (SBA) standards. The SBA size standards are found on the SBA website <https://www.sba.gov/content/am-i-small-business-concern>.

Initials for 6

7. CONTRACTOR PERSONNEL

- A. The Offeror shall appoint one of its key personnel as the "Authorized Representative" who shall have the power and authority to interface with the City and represent the Offeror in all administrative matters concerning this Bid and any awarded contract, including without limitation such administrative matters as correction of problems modifications, and reduction of costs.
- B. The Authorized Representative shall be the person identified in the Offeror's Bid, unless the Offeror provides written notice to the City naming another person to serve as its Authorized Representative. Communications received by the City Contracts Specialist from the Authorized Representative shall be deemed to have been received from the Offeror.

The individual, _____ (Name)

with position, _____ (Title)

Can be reached at _____

Work telephone number: _____

Home telephone number: _____
Cellular telephone number: _____
E-mail address: _____

Initials for 7

8. OFFEROR's CERTIFICATION

The undersigned hereby affirms that:

- A. He/She is a duly authorized agent of the Offeror;
- B. He/She has read and agrees to the City's standard terms and conditions attached.
- C. The offer is presented in full compliance with the collusive prohibitions of the City of Colorado Springs. The Offeror certifies that no employee of its firm has discussed, or compared the offer with any other offeror or City employee and has not colluded with any other offeror or City employee.
- D. The Offeror certifies that it has checked all of its figures, and understands that the City will not be responsible for any errors or omissions on the part of the Offeror in preparing its Bid.
- E. By submitting an offer the Offeror certifies that it has complied and will comply with all requirements of local, state, and federal laws, and that no legal requirements have been or will be violated in making or accepting this solicitation.
- F. If awarded the contract, the Offeror agrees to execute and enter into a contract with the City, and furnish the necessary security within ten (10) days of receipt of the "Notice of Award", and to begin the work within ten (10) day from the date of the receipt of the "Notice to Proceed", and to complete the Work with the above specifications.
- G. I hereby certify that I am submitting the Bid based on my company's capabilities to provide quality products and/or services on time.

Initials for 8

9. OFFEROR CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS:

- A. The Offeror certifies to the best of its knowledge and belief, that (i) the Offeror and/or any of its Principals
 - 1. Are (), Are not () presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;
 - 2. Have (), Have not (), within a three year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, local) contract or subcontract; violation of Federal or state antitrust statutes relation to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statement, tax evasion, or receiving stolen property; and
 - 3. Are (), Are not () presently indicated for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in any paragraphs above.
- B. The Offeror shall provide immediate written notice to the City Contracts Specialist if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reasons of changed circumstances.
- C. The certification in paragraph 1. above, is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the City, the City Contracts Specialist may terminate the contract resulting from this solicitation for default. Termination for default may result in additional charges being levied for the costs incurred by the City to initiate activities to replace the awarded Contractor.

Initials for 9

10. ACCEPTANCE OF CITY CONTRACTS SPECIALIST'S SOLE AUTHORITY FOR CHANGES

Unless otherwise specified in the Contract, the Offeror hereby agrees that any changes to the scope of work, subsequent to the original contract signing, shall be generated in writing and an approval signature shall be obtained from the City Contracts Specialist prior to additional work performance.

Initials for 10

11. CITY CONTRACTOR SAFETY PROGRAM

The Offeror hereby agrees to adhere to a worker safety program for contractor employees on a City job site or location. By initialing below, the Offeror has reviewed the information and will abide by the City Policy which is available for review:

<https://coloradosprings.gov/finance/page/procurement-regulations-and-documents>

Initials for 11

12. ACCEPTANCE OF CITY ENVIRONMENTALLY PREFERRED PURCHASING (EPP) POLICY

The City of Colorado Springs is committed to buying more environmentally preferable goods and services, as long as they meet performance needs, are available within a reasonable time and at a reasonable cost. The Offeror hereby acknowledges review of this policy by initialing below.

<https://coloradosprings.gov/finance/page/procurement-regulations-and-documents>

Initials for 12

13. FRAUD, WASTE, AND ABUSE

Everyone has a duty to report any suspected unlawful act impacting the City of Colorado Springs operations and its enterprises. Anyone who becomes aware of the existence or apparent existence of fraud, waste, and abuse in City of Colorado Springs is encouraged to report such matters to the City Auditor's Office in writing or on the telephone hotline 385-2387 (ADTR). Written correspondence can be mailed to:

City Auditor
P.O. Box 2241
Colorado Springs CO 80901

Or via email FraudHotline@coloradosprings.gov. Any of these mechanisms allow for anonymous reporting. For more information, please go to the website <https://coloradosprings.gov/cityfraud>.

Initials for 13

Name of Company: _____

Federal Tax ID Number: _____

DUNS Number: _____

Principal Place of Business: _____

Signature of Authorized Representative

Printed Name: _____

Title: _____

Date: _____

EXHIBIT 5 – CITY OF COLORADO SPRINGS BID BOND

1. KNOW ALL MEN BY THESE PRESENTS, THAT:

(Name) _____ As Principal, hereinafter called Principal, and

(Address)

(SURETY Name) _____ a corporation organized and existing under
the laws of the State of:

(SURETY Address)
and AUTHORIZED TO DO BUSINESS IN THE STATE OF COLORADO, as Surety, hereinafter called Surety, are
held firmly bound to the CITY OF COLORADO SPRINGS, COLORADO, as Obligee, hereinafter called the Obligee,
in the sum of: (Insert Bid Amount in Words) _____ (\$ _____ DOLLARS),

lawful money of the United States of America, for payment of which sum well and truly to be made, the Principal and
the Surety bind themselves, their heirs, executors, successors and assigns, jointly and severally, firmly by these
presents.

2. WHEREAS, the Principal has submitted to the Obligee,

a contract bid dated the _____ day of _____ For the following contract:

3. NOW THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH THAT, If Principals bid is accepted by
Obligee and Principal is awarded the contract in whole or in part, and the Principal shall enter into the contract with
the Obligee in accordance with the terms of such bid, and give such Payment, Performance, and Maintenance
bond or bonds as may be specified in the bidding or contract documents with good and sufficient surety for the
faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution
thereof, or in the event of the failure of the Principal to enter such contract and give such bond or bonds, if the
Principal shall promptly pay to the Obligee the amount of this bond as set forth herein above, then this obligation
shall be null and void, otherwise this obligation to remain in full force and effect.

Signed and sealed on the dates set forth below:

(Witness) FOR: _____
(Principals Name)

BY: _____

ITS: _____

(Seal) This _____ day of _____

(Witness) FOR: _____
(Surety's Name)

BY: _____

ITS: _____

(Seal) This _____ Day of _____

Bond # _____ This Bond ☐ (is) _____ (is not) a SBA Guaranteed Bond.