



Boulder County Purchasing
1325 Pearl Street
Boulder, CO 80302
purchasing@bouldercounty.org

INVITATION TO BID
COVER PAGE

BID Number: **7236-21**

BID Title: **Bridge Repair – Magnolia Drive over Boulder Creek**

BID Questions Due: July 8, 2021 – 2:00 p.m. MDT

Submittal Due Date: August 3, 2021 – 2:00 p.m. MDT

Email Address: purchasing@bouldercounty.org

Documents included in this package:

- Bid Instructions
- Terms and Conditions
- Specifications
- Plans
- Insurance and W-9 Requirements
- Submittal Checklist
- Bid Tab Section
- Signature Page
- Sample Contract



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INSTRUCTIONS

1. Purpose/Background

The project consists of the repair of erosion and abutment deterioration at the Magnolia Drive Bridge over Boulder Creek. Work includes removal and replacement of guardrail, asphalt milling and paving, removal of portions of concrete walls, installation of concrete toe walls and wall patching, built rockery wing wall extensions, storm culvert and traffic control.

2. Written Inquiries

All inquiries regarding this BID will be submitted via email to the Boulder County Purchasing Office at purchasing@bouldercounty.org on or before 2:00 p.m. **July 8, 2021**. A response from the county to all inquiries will be posted and sent via email no later than **July 15, 2021**.

Please do not contact any other county department or personnel with questions or for information regarding this solicitation.

3. Submittal Instructions

BIDs are due at the email box only, listed below, for time and date recording on or before 2:00 p.m. Mountain Time on **August 3, 2021**. A bid opening will be conducted at 3:00 p.m. via email by sending a copy of the bid tab to all who have submitted a bid.

Please note that email responses to this solicitation are limited to a maximum of 50MB capacity.

NO ZIP FILES OR LINKS TO EXTERNAL SITES WILL BE ACCEPTED. THIS INCLUDES GOOGLE DOCS AND SIMILAR SITES. ALL SUBMITTALS MUST BE RECEIVED AS AN ATTACHMENT (E.G. PDF, WORD, EXCEL).

Electronic Submittals must be received in the email box listed below. Submittals sent to any other box will NOT be forwarded or accepted. This email box is only accessed on the due date of your questions or proposals. Please use the Delivery Receipt option to verify receipt of your email. It is the sole responsibility of the proposer to ensure their documents are received before the deadline specified above. Boulder County does not accept responsibility under any circumstance for delayed or failed email or mailed submittals.

Email purchasing@bouldercounty.org; identified as **BID # 7236-21** in the subject line.

All BIDs must be received and time and date recorded by authorized county staff by the above due date and time. Sole responsibility rests with the bidder to see that their BID response is received on time at the stated location(s). Any BIDs received after due date and time will be returned to the bidder.

The Board of County Commissioners reserves the right to reject any and all BIDs, to waive any informalities or irregularities therein, and to accept the proposal that, in the opinion of the Board, is in the best interest of the Board and of the County of Boulder, State of Colorado.

Americans with Disabilities Act (ADA): If you need special services provided for under the Americans with Disabilities Act, contact the ADA Coordinator or the Human Resources office at (303) 441-3525 at least 48 hours before the scheduled event.



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TERMS AND CONDITIONS

1. Bidders are expected to examine the drawing, specifications, schedule of delivery, and all instructions. Failure to do so will be at the bidder's risk.
2. Each bidder will furnish the information required in the Invitation to Bid.
3. The Contract/Purchase Order will be awarded to that responsible bidder whose submittal, conforming to the Invitation to Bid, will be most advantageous to the County of Boulder, based on best value not only price.
4. The County of Boulder reserves the right to reject any or all bids and to waive informalities and minor irregularities in bids received, and to accept any portion of or all items proposed if deemed in the best interest of the County of Boulder to do so.
5. No submittal will be withdrawn for a period of thirty (30) days subsequent to the opening of bids without the consent of the County Purchasing Agent or delegated representative.
6. A signed purchase order or contract furnished to the successful bidder results in a binding contract without further action by either party.
7. Late or unsigned bids will not be accepted or considered. It is the responsibility of bidders to ensure that the bid arrives at the Administrative Services Information Desk prior to the time indicated in the "Invitation to Bid."
8. The proposed price will be exclusive of any Federal or State taxes from which the County of Boulder is exempt by law.
9. Any interpretation, correction or change of the bid documents will be made by Addendum. Interpretations, corrections and changes of the bid documents made in any other manner will not be binding, and bidder will not rely upon such interpretations, corrections and changes. The County's Representative will not be responsible for oral clarification.
10. Confidential/Proprietary Information: Bids submitted in response to this "Invitation to Bid" and any resulting contract are subject to the provisions of the Colorado Open Records Act, 24-72-201 et seq., C.R.S., as amended. Any restrictions on the use or inspection of material contained within the bid or resulting contract will be clearly stated in the bid and contract

itself. Confidential/proprietary information must be readily identified, marked and separated/packaged from the rest of the bid. Co-mingling of confidential/proprietary and other information is NOT acceptable. Bids that do not properly identify confidential/proprietary information may be released in their entirety. Pricing totals contained in a bid are not considered confidential.

The Boulder County Attorney's Office retains sole authority for determining whether the Colorado Open Records Act requires or permits Boulder County to disclose proposal or bid documents, or any information contained therein, pursuant to an open records request.

11. Boulder County promotes the purchase/leasing of energy efficient, materials efficient and reduced toxic level products where availability, quality and budget constraints allow. Bidders are expected whenever possible to provide products that earn the ENERGY STAR and meet the ENERGY STAR specifications for energy efficiency with power management features enabled. Bidders are encouraged to offer products and equipment with post-consumer recycled-content materials. Products should be packaged and delivered with a minimum amount of recycled packaging that adequately protects the product, but is not excessive.
12. Bid Security: Boulder County may require, at its discretion, bid security for construction contracts when the price is expected to exceed \$50,000 and for any other contracts as determined by Boulder County to be in its best interest. Bid security provides assurance to Boulder County that the bidder will, upon award, fulfill its bonding and contracting obligations as required by the instructions to bidders. When bid security is required, as indicated in the instructions to bidders, the following terms apply:
 - Bid security must be for an amount equal to 10 percent of the amount bid, unless otherwise stipulated in the instructions to bidders.
 - Bid security must be in the form of a bond, issued by a surety company authorized to do business in Colorado, or a bank cashier's check made payable to Boulder County.
 - Bidders should scan and submit a copy of the bid security instrument with their bid submittal AND mail to Boulder County the actual bid security instrument, postmarked no later than the date of the bid deadline.
 - Bidder noncompliance with bid security requirements requires that the bid be rejected as nonresponsive.
 - The bid security is submitted as a guarantee that the bid will be maintained in full force and effect for a period of thirty (30) days after the opening of the bids. Accordingly, after bids are opened, they shall be irrevocable for a period of thirty (30) days.
 - If a bidder is permitted to withdraw his bid before award, at Boulder County's sole discretion, no action shall be had against the bidder or the bid security.
 - Following award, if a contractor fails to deliver the required performance and payment bonds or refuses to enter into a contract with Boulder County under the terms of its winning bid, the contractor's bid shall be rejected and its bid security will be enforced by Boulder County to the extent of actual damages.



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SPECIFICATIONS

The project consists of the repair of erosion and abutment deterioration at the Magnolia Drive Bridge over Boulder Creek. Work includes removal and replacement of guardrail, asphalt milling and paving, removal of portions of concrete walls, installation of concrete toe walls and wall patching, built rockery wing wall extensions, storm culvert and traffic control.

Please see the specifications beginning on the next page.

BOULDER COUNTY PUBLIC WORKS DEPARTMENT

**PROJECT NO. BR-132-0.1-BO
 MAGNOLIA DRIVE AT BOULDER CREEK BRIDGE REPAIR**

The Colorado Department of Transportation 2019 Standard Specifications for Road and Bridge Construction controls the construction of this project. The following special provisions supplement or modify the Standard Specifications and take precedence over the Standard Specifications and plans.

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CDOT STANDARD SPECIAL PROVISIONS

CDOT Standard Special Provisions Index	Date	No. of Pages
Revision of Section 104 – Scope of Work	(January 20, 2021)	1
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Revision of Section 105 – Control of Work (105.03)	(December 28, 2020)	2
Revision of Section 105 – Control of Work (105.08)	(January 20, 2021)	1
Revision of Section 105 – Control of Work (105.22)	(May 18, 2021)	2
Revision of Section 106 – Buy America Requirements	(October 1, 2019)	1
Revision of Section 107 – Legal Relations and Responsibility to the Public	(January 20, 2021)	1
Revision of Section 107 – Performance of Safety Critical Work	(March 30, 2021)	3
Revision of Section 107 – Water Quality Control	(December 20, 2020)	6
Revision of Section 206 – Excavation and Backfill for Structures	(January 20, 2021)	1
Revision of Section 207 – Topsoil	(July 9, 2020)	6
Revision of Section 401 – Plant Mix Pavements	(October 1, 2019)	1
Revision of Section 504 – Walls	(January 20, 2021)	2
Revision of Section 601 – Structural Concrete	(October 4, 2019)	17
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Revision of Section 601 – Structural Concrete (601.05)	(January 20, 2021)	1

NOTICE TO BIDDERS

NOTICE: The proposal guaranty shall be a certified check, cashier's check or bid bond in the amount of 10% of the Contractor's total bid.

Both a payment and a performance bond are required for this project and must equal 100% of the proposed cost. Please include the cost of this bonding into the total proposed cost.

Contractor hereby proposes to furnish all labor, machinery, equipment, materials and supplies, and to sustain all the expense incurred in doing the work per the proposal schedule, and in pursuance of a certain advertisement of the County Commissioners, County of Boulder, of the State of Colorado, and in accordance with the full details, Plans, and Specifications as prescribed by said County Engineer.

The Boulder County Transportation Department is seeking bids for the Magnolia Drive at Boulder Creek Bridge Repair project. The intent of this work is to perform repairs to a number of elements on the existing bridge including construction of a boulder wingwall, construction of toe walls at both abutment footings, spall repairs to both abutments, waterproofing and repaving of the bridge deck and installation of guardrail and other work as shown on the plans.

Qualifications. submit the following with the Bid:

- (a) References citing satisfactory completion of at least three (3) rockeries of similar height and face area.
- (b) A summary of the experience of the primary equipment operator responsible for placement of base, facing, and caprocks.

COMMENCEMENT AND COMPLETION OF WORK

The Contractor shall commence work under the Contract on or before the 5th day following the Contract execution unless such time for beginning the work is changed by the Project Engineer in the "Notice to Proceed." The Contractor shall complete all work (excluding punch list items) within 35 -working days in accordance with the "Notice to Proceed" and the punch list items shall be completed within 15-working days. Once work begins, the work shall continue without interruption until its completion. Punch list work shall be done efficiently and effectively so as not to unnecessarily delay work.

The contractor shall notify the County a minimum of 30 days in advance of their desired construction start date.

GENERAL INFORMATION

1. The Colorado Department of Transportation “Standards Specifications for Road and Bridge Construction 2019 (hereafter referred to as the “Standard Specifications”) are made a part of this Contract by this reference except as revised herein.
2. The Contractor shall have a copy of the “Standard Specifications” on the project at all times.
3. Boulder County reserves the right to change quantities by up to 33% without constituting a material change to the character of the work: such changes shall not be considered an extra to the Contract because of the Change.
4. The contractor is required to obtain a Boulder County Storm and Water Quality Permit (SWQP).
5. Permits obtained by Boulder County for this project include: A Boulder County Floodplain Development Permit, U.S. Army Corps 404 permit, and CDOT Special Use Permit. The Contractor is responsible to follow permit conditions.
6. The Contractor is responsible to obtain any additional permits, licenses and/or certification required by the County or State agencies required to complete the work included in the Contract Documents.
7. The contractor is responsible for preparation of redline As-Built drawings. The As-Built drawings shall be provided to the county within 30 days of completion of the project.
8. The contractor is specifically cautioned that the location and/or elevation of existing utilities, as shown on these plans, are based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied upon as being exact or complete. The contractor is required to pothole existing utilities prior to any excavation.
9. The contractor shall call for utility locations (preferred (7) working days) prior to any excavation at the utility notification center of Colorado at 1-800-922-1987 or 811. Also, notify individual utilities 48-hours prior to any excavation.
10. The contractor is responsible for protecting utilities, including all active irrigation facilities during construction and shall hold the County harmless for damage arising from failure to adequately protect utilities. The contractor shall be responsible for all means required to protect existing utilities and/or work around such utilities. This includes, but is not limited to, supporting and shoring of existing utilities.

11. The contractor shall coordinate and cooperate with Boulder County and all utility companies involved, regarding relocations, extensions, and rearrangements of existing utilities during construction and to assure that the work is accomplished in a timely fashion and with a minimum disruption of service. The contractor shall be responsible for contacting all parties, in advance, affected by any disruption of service as well as the utility companies.

REVISION OF SECTION 101 DEFINITIONS AND TERMS

Certain terms utilized in the latest edition of the Colorado Department of Transportation Standard Specifications for Road and Bridge Construction shall be interpreted to have different meanings within the scope of this Contract. A summary of redefinitions is as follows:

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

Subsection 101.22 "Contractor" shall mean prefabricator and/or contractor as described in subsection 101.23

Subsection 101.28 "Department" shall mean Boulder County, Colorado (where applicable).

Subsection 101.29 "Engineer" shall mean County Engineer, Boulder County, Colorado or designated representative (where applicable).

Subsection 101.36 shall include:

Additional holidays recognized by Boulder County are:

New Year's Eve Day, Starting at Noon, if falls on Tuesday through Thursday

Full Day New Year's Eve, only if day falls on Monday.

President's Day

Election Day (Even years)

Day after Thanksgiving Day

Christmas Eve, Starting at Noon, if falls on Tuesday through Thursday

Full Day Christmas Eve, only if day falls on Monday

Subsection 101.39 "Laboratory" shall mean Boulder County, Colorado or their designated representative.

Subsection 101.51 "Project Engineer" shall mean Boulder County's duly authorized representative who may be a Boulder County employee or an employee of a consulting engineer (consultant) under contract to Boulder County. (where applicable)

Subsection 101.51 (a) "CDOT Project Engineer" shall be replaced with "Project Engineer" within these specifications. When applicable and when these documents reference a CDOT engineer, this reference shall be construed to mean Project Engineer.

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**REVISION OF SECTION 101
DEFINITIONS AND TERMS**

Subsection 101.51 (b) shall be replaced with the following:

“Consultant Project Engineer”. The consultant employee under the responsible charge of the consultant’s Professional Engineer who is in direct charge of the work and is responsible for the administration and satisfactory completion of the project. The Consultant Project Engineer’s duties are delegated by the Project Engineer in accordance with the scope of work in the consultant’s contract with Boulder County. The Consultant Project Engineer is not authorized to sign or approve Contract Modification Orders.

Subsection 101.58 “Region Transportation Director” shall mean Boulder County Engineer, Boulder County, Colorado or designated representative (where applicable).

Subsection 101.76 “State” shall mean Boulder County, Colorado (where applicable).

**REVISION OF SECTION 102
PROJECT PLANS AND OTHER DATA**

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

Subsection 102.05 shall include the following:

Boulder County will provide electronic files of drawings, the sample contract document, the project technical specifications in PDF format, online at the designated internet bid advertisement site, and they will be considered as the official bid set and record set.

**REVISION OF SECTION 104
MAINTAINING TRAFFIC**

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

Subsection 104.04 shall include the following:

Employee vehicle parking is prohibited where it conflicts with safety, access or flow of traffic. The Contractor is responsible for obtaining, coordinating and maintaining acceptable parking and staging areas for the duration of the construction activities. This shall not be paid for separately but shall be included in the work.

**REVISION OF SECTION 105
CONTROL OF WORK**

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

Subsection 105.11, Cooperation with Utilities, delete the first paragraph and include the following:

There are no anticipated conflicts with underground utilities. There is an overhead telephone line south of the bridge crossing diagonally over Magnolia Drive.

The Contractor shall comply with Article 1.5 of Title 9, CRS ("Excavation Requirements") when excavating or grading is planned in the area of underground utility facilities. The Contractor shall notify **all** affected utilities at least two (2) business days, not including initial day of contact, prior to commencing such operations. Contact the Utility Notification Center of Colorado (UNCC) by dialing 811 to have locations of UNCC registered lines marked by member companies. All other underground facilities shall be located by contacting the respective company. Utility service laterals shall also be located prior to beginning work.

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

The owners and contact persons for the utilities are not listed but shall be the Contractor's responsibility to determine.

**REVISION OF SECTION 106
CONTROL OF MATERIAL**

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

Subsection 106.03 shall include the following:

For projects not funded with State or Federal Highway Administration (FHWA) monies, sampling and testing will be done in accordance with Boulder County Public Work Department's Minimum Guideline for Sampling and Testing.

The Contractor will be responsible for establishing, documenting, and implementing a Quality Control Plan. The Quality Control Plan shall include all procedures necessary for the Contractor to control the quality of its production processes to meet the requirements of the Contract. The Contractor's Quality Control Plan shall include a testing and inspection schedule to control the production processes.

Boulder County will provide a qualified Construction Quality Assurance team to perform Quality Assurance (QA) testing, auditing and acceptance testing. The QA staff shall remain independent from the Contractor's production and Quality Control (QC). The Boulder County Construction Inspection team and/or testing firm will perform on-site inspection and testing of the construction elements of the work to verify that all work has been constructed in conformance with the Contract requirements.

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

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

Subsection 107.06 shall be revised to include the following:

The Contractor and any subcontractor shall not require any laborer or mechanic employed in performance of the Contract to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health or safety, as determined under construction safety and health standards (Rules and Regulations of the Federal Occupational Safety and Health Act of 1970 (OSHA) and as amended).

All facilities and work conditions shall comply with Colorado and local Health Department Regulations and with OSHA requirements.

Subsection 107.07, shall include the following:

The Boulder County Public Information Officer is to notify fire department, sheriff department, residents and businesses within the work area, one week in advance, concerning the hours and dates of the work.

The Contractor will be responsible for coordinating with the property owner/tenants adjacent the project site. Owners/tenants must be kept up to date on the construction schedule and any inconvenience to their driveways, ingress, egress, etc.

Subsection 107.12 shall include the following:

The Contractor shall perform all the work in such a manner that the least environmental damage will result. Any questionable areas or items shall be brought to the attention of the Engineer for approval prior to vegetation removal or any damaging activity. Damaged or destroyed trees, shrubs, or wetlands, which could have been saved, shall be replaced at the expense of the Contractor.

Subsection 107.17, shall include the following:

The Contractor shall be responsible for any damage to their work arising from running water from either a natural source or from landscape watering at no additional cost to the contract.

The Contractor shall be responsible for any damages done by the contractor including to irrigation facilities, landscaping or private property.

**REVISION OF SECTION 107
AIR QUALITY CONTROL**

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

Subsection 107.24 shall include the following:

Equipment Emissions. Boulder County projects shall meet or exceed current Colorado Air Quality standards. The project work shall be performed using practices that minimize air quality detriments during construction. All the standards below shall be followed to improve air quality related to this project:

(a) Emissions standards:

- (1) Optimally, electric or hybrid powered equipment or vehicles will be used on all projects.
- (2) Equipment engines shall be compliant with the most recent Environmental Protection Agency (EPA) requirements.
- (3) Contractors are required to maintain a minimum emissions level for diesel fueled equipment at a Tier 3 level.
- (4) Contractors shall provide certification of compliance with diesel emissions standards. Failure to do so will result in immediate stoppage of work and is a non-excusable delay per subsection 108.08(c)2.
- (5) All diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel (B20) blend approved by the original engine manufacturer with sulfur content of 15 ppm or less.

(b) Proximity. Any project within 1000 linear feet of a residence or regular gathering location of multiple people (i.e., schools, parks, places of worship, commercial buildings, etc.) is required to have either electric, hybrid or Tier 4 diesel powered equipment or vehicles.

(c) Exemption. Emergency equipment is exempt from this specification. All reasonable effort will be made to replace equipment placed in service at the beginning of the emergency work with equipment as specified above as soon as possible.

(d) Definition. Vehicle, for the purposes of this specification, is defined as any diesel-powered company owned car or truck. It does not apply to personal vehicles.

(e) Cost. Unless shown otherwise in the bid tabulation for this project, costs to achieve this specification will be included in the overall cost of the project.

**REVISION OF SECTION 107
PERFORMANCE OF SAFETY CRITICAL WORK**

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

Add **Subsection 107.061** immediately following Subsection 107.06 as follows:

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

- (1) Abutment repairs
- (2) Work requiring the use of cranes or other equipment near overhead utility lines. Also when construction materials are being lifted that may fall onto active traffic lanes. There is an overhead telephone line that has a minimum clearance above the roadway surface of about 18-feet. The safety plan shall address where cranes or other equipment, will be set up to avoid damage to the overhead line. No portion of the crane shall be positioned closer than 7-feet from the rockery wall or existing stone or abutment walls. The crane shall also be positioned where it will not interfere with active traffic. Contractor shall also review overhead powerlines relative to construction of guardrail posts.
- (3) Excavation and embankment adjacent to the roadway, especially if it requires shoring
- (4) Work operations such as pile driving and jack hammering which may create vibration and cause debris to fall into traffic.

The Contractor shall submit, for record purposes only, an initial detailed construction plan that addresses safe construction of each of the safety critical elements. When the specifications already require an erection plan, a bridge removal plan, or a removal of portion of bridge plan, it shall be included as a part of this plan. The detailed construction plan shall be submitted two weeks prior to the safety critical element conference described below. The construction plan shall be stamped "Approved for Construction" and signed by the Contractor. The construction plan will not be approved by the Engineer.

The Construction Plan shall include the following:

- (1) Safety Critical Element for which the plan is being prepared and submitted.
- (2) Contractor or subcontractor responsible for the plan preparation and the work.
- (3) Schedule, procedures, equipment, and sequence of operations, that comply with the working hour limitations
- (4) Temporary works required: falsework, bracing, shoring, etc.
- (5) Additional actions that will be taken to ensure that the work will be performed safely.
- (6) Names and qualifications of workers who will be in responsible charge of the work:
 - A. Years of experience performing similar work

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**REVISION OF SECTION 107
PERFORMANCE OF SAFETY CRITICAL WORK**

- B. Training taken in performing similar work
- C. Certifications earned in performing similar work
- (7) Names and qualifications of workers operating cranes or other lifting equipment
 - A. Years of experience performing similar work
 - B. Training taken in performing similar work
 - C. Certifications earned in performing similar work
- (8) The construction plan shall address how the Contractor will handle contingencies such as:
 - A. Unplanned events (storms, traffic accidents, etc.)
 - B. Structural elements that don't fit or line up
 - C. Work that cannot be completed in time for the roadway to be reopened to traffic
 - D. Replacement of workers who don't perform the work safely
 - E. Equipment failure
 - F. Other potential difficulties inherent in the type of work being performed
- (9) Name and qualifications of Contractor's person designated to determine and notify the Engineer in writing when it is safe to open a route to traffic after it has been closed for safety critical work.
- (10) Erection plan or bridge removal plan when submitted as required elsewhere by the specifications. Plan requirements that overlap with above requirements may be submitted only once.

A safety critical element conference shall be held two weeks prior to beginning construction on each safety critical element. The Engineer, the Contractor, the safety critical element subcontractors, and the Contractor's Engineer shall attend the conference. Required pre-erection conferences or bridge removal conferences may be included as a part of this conference.

After the safety critical element conference, and prior to beginning work on the safety critical element, the Contractor shall submit a final construction plan to the Engineer for record purposes only. The Contractor's Engineer shall sign and seal temporary works, such as falsework, shoring etc., related to construction plans for the safety critical elements, (2) Removal of Bridge, (4) Excavation and embankment adjacent to the roadway. The final construction plan shall be stamped "Approved for Construction" and signed by the Contractor.

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**REVISION OF SECTION 107
PERFORMANCE OF SAFETY CRITICAL WORK**

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

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

When ordered by the Engineer, the Contractor shall remove workers from the project that are performing the safety critical work in a manner that creates an unsafe situation for the public in accordance with subsection 108.05.

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

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

Nothing in the section shall be construed to relieve the Contractor from ultimate liability for unsafe or negligent acts or to be a waiver of the Colorado Governmental Immunity Act on behalf of the Department.

REVISION OF SECTION 107 FIRE PROTECTION PLAN

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

Subsection 107.18 shall be deleted and replaced with the following:

107.18 Fire Protection Plan. The following work elements are considered safety critical work for this project:

- (a) *Fire Protection Plan.* Prior to start of work, the Contractor shall submit a Fire Control Plan in writing to the Engineer and Local Fire Authority for approval. The plan shall include the following:
- (1) The name and contact information of a Fire Control Coordinator who shall be assigned to the project.
 - (2) A 24-hour Emergency Contact List which, at a minimum, includes Project Superintendent, Project Foreman and Project Traffic Control Supervisor.
 - (3) A complete list, including storage locations, of all tools and equipment the Contractor will use in the event of an emergency within project limits.
 - (4) Methods that will be employed if a fire is encountered or started during construction activities within the project limits.
 - (5) Specific fire prevention precautions, and the required fire mitigation equipment, for every activity which has the potential for starting a fire. At a minimum the plan shall address prevention planning related to use of heavy equipment, vehicles, hand tools, storage and parking areas.
 - (6) Specific precautions for fueling operations.
 - (7) Provisions for field safety meetings. The Contractor shall conduct field safety meetings (also known as toolbox or tailgate meetings) at least once per week to include a local Fire Authority Representative. The Contractor shall encourage participation by all persons working at the project site. Participants shall discuss specific fire prevention precautions for construction activities.
- (b) *Open Burn Exemption.* A BURN EXEMPTION may be requested by the Contractor from the Boulder County Sheriff's Office if current fire restrictions are in place. The fire restrictions Prohibit:
- (1) Building, maintaining, attending, or using an open fire, campfire or stove fire (including charcoal barbecues and grills) on public land;
 - (2) Use of all personal fireworks;
 - (3) Shooting or discharging firearms for recreational purposes, except for hunting with a valid and current hunting license on public land;

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**REVISION OF SECTION 107
FIRE PROTECTION PLAN**

- (4) Smoking, except in an enclosed vehicle or building, a developed recreation site, or while stopped in an area at least three feet in diameter that is barren or cleared of all flammable materials;
- (5) Operating a chainsaw without a USDA or SAE-approved spark arrester properly installed and in effective working order. A chemical, pressurized fire-extinguisher must be kept with the operator, and at least one round-point shovel with an overall length of at least 35 inches must be readily available for use;
- (6) Welding or operating acetylene or other open-flame torches, except in cleared areas of at least 10 feet in diameter, and with a chemical, pressurized fire-extinguisher immediately available for use; and
- (7) Using an explosive.

(c) Equipment and Procedures.

Fire Boxes. If required by the local Fire Authority shall contain tools and equipment that shall be used exclusively for controlling or suppressing fires which occur due to construction activities on project sites. Each fire box shall contain, as a minimum, the following:

- (1) Five round-pointed shovels,
- (2) Two double-bitted axes,
- (3) Three Pulaskis or mattocks,
- (4) Two backpack pumps, and
- (5) Four large fire extinguishers as prescribed by the local Fire Authority.

Welding/Torching/Cutting/Drilling. If work at field locations is required, the work shall be done at a location where all flammable material has been cleared within a 30-foot radius and approved by the local Fire Authority.

Spark Arrestors. All diesel and gasoline powered engines, both mobile and stationary, shall be equipped with serviceable spark arrestors each gasoline power saw shall be provided with a spark screen and a muffler in good condition. Spill-proof metal safety cans shall be used for refueling. Approved and inspected by the local Fire Authority.

Storage and Parking Areas. Batch plant areas, equipment service areas, parking areas, gas and oil drum storage areas, and explosive storage areas shall be cleared of all flammable materials for a distance of 50 feet. Small stationary engine sites shall be cleared of all flammable material for distance of 20 feet. Other mitigation methods may be used as approved by the Engineer and applicable codes.

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**REVISION OF SECTION 107
FIRE PROTECTION PLAN**

(d) *Fire Control Coordinator Responsibilities.* The Fire Control Coordinator shall:

- (1) Be the primary contact for the local Fire Authority and Project Engineer
- (2) Implement the Fire Control Plan.
- (3) Monitor, manage, and adjust the Fire Control Plan as needed as construction work progresses.
- (4) Document in a letter to the Engineer and Local Fire Authority changes to the Fire Control Plan.
- (5) Contact local firefighting authorities 3 days in advance when a hazardous operation is scheduled. Inspection due to construction activities within project limits may be required.
- (6) Coordinate fire control, mitigation and possible suppression activities until authorities arrive, including the evacuation of staff.

When the Fire Control Coordinator cannot be on the project site, he shall designate a person who is on site to serve as the Fire Control Coordinator. The Fire Control Coordinator, or his designee, shall always be on site while work is performed.

(e) *Open Burning During Weather Events.* **During any of the following weather events, open burning is not permitted in unincorporated Boulder County from time of issuance until midnight in which the event expires: Red Flag Warning, High Wind Warning, High Wind Watch and Fire Danger Warning.** Check the local forecast for up to date information issued by the National Weather Service. This is per Boulder County Ordinance 2018-1, "An Ordinance Repealing and Replacing Boulder County Ordinance 2006-2 and Authorizing the Declaration of Open Fire Bans by the Board of County Commissioners or the County Sheriff."

The National Weather Service issues weather statements to inform area firefighting and land use management agencies that conditions are ideal for wildland fire ignition and propagation (Red Flag Warning, High Wind Warning, High Wind Watch, Fire Danger Warning).

For this standard special provision, smoking is an open flame and shall be included in the definition of open burning, which is not permitted for the above listed weather events. Any smoking or lighting of items outside or within a vehicle with open windows is not permitted on the project site or within 500 feet of the project's limits of disturbance. With the approval of the Engineer, who consults with the local Fire Authority, a designated smoking area may be established.

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**REVISION OF SECTION 107
FIRE PROTECTION PLAN**

No additional payment or compensation will be paid to the Contractor during any weather events associated with open burning and include Red Flag Warning, High Wind Warning, High Wind Watch, Fire Danger Warning. Delays may be counted as an excusable delay per Standard Specification 108.08 or at the discretion of the Engineer.

- (f) *Costs.* All costs associated with the preparation and implementation of the Plan and compliance with all fire protection provisions and requirements will not be measured and paid for separately but shall be included in the work.

**REVISION OF SECTION 107
RESPONSIBILITY OF DAMAGE CLAIMS, INSURANCE TYPES AND COVERAGE**

Subsection 107.15 shall be revised to include the following:

All insurance policies in this section shall name Boulder County, and Alfred Benesch & Company as additional insured.

Subsection 107.15 (a) insurance kinds and amounts shall be replaced (when applicable) as follows:

General Liability

- \$1,000,000 Each Occurrence
- \$2,000,000 General Aggregate
- \$2,000,000 Products Completed Operations Aggregate
- Two (2) year Products/Completed Operations

Excess or Umbrella

- \$3,000,000 Following Form

Automobile Liability

- \$1,000,000 Each Accident
- *Including Hired & Non-Owned auto

Worker's Compensation and Employer's Liability

- Statutory limits

Pollution Liability

- \$1,000,000 per Loss
- \$1,000,000 Aggregate
- Coverage maintained or extended discovery for three (3) years.

Note that the above insurance amounts are the minimum required for this project. Proof of current insurance must be provided with your bid in the form of a sample certificate. If you require a waiver of insurance requirements (e.g. Workers' Comp and sole proprietorships) you may request one in your response with an explanation.

New certificates will be requested **if the contract process takes more than 30 days after an award.**

The Contractor shall provide a Certificate of Insurance to Boulder County demonstrating that the insurance requirements have been met prior to the commencement of Work under

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**REVISION OF SECTION 107
RESPONSIBILITY OF DAMAGE CLAIMS, INSURANCE TYPES AND COVERAGE**

this Contract. Boulder County and Alfred Benesch & Company shall be named as an additional insured for General Liability and Pollution Liability, as designated in the contract. Additional insured shall be endorsed to the policy.

REVISION OF SECTION 108 PROSECUTION AND PROGRESS

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

Subsection 108.03 shall include the following:

The Contractor shall submit a CPM baseline schedule to the Engineer at least three (3) working days prior to the preconstruction meeting. This CPM baseline schedule shall show the major salient features of the project through completion.

The minimum salient features to be shown on the Contractor's CPM Schedule are:

- (1) Erosion Control, Mobilization
- (2) Construction Surveying
- (3) Traffic Control Phasing
- (4) Creek Diversion Installation/Removal
- (5) Concrete Patching
- (6) Boulder Wall Construction
- (7) Asphalt Removal/Milling
- (8) Deck Waterproofing
- (9) Hot Mix Asphalt Placement
- (10) Removal and Placement of Guardrail
- (11) Signing and Striping
- (12) Site Restoration

Meetings will be required to review progress and plan upcoming activities. The Erosion Control Supervisor, other representatives, as appropriate, the Contractor and all active subcontractors shall attend the meetings. Such meetings will be required on a weekly basis at a time to be determined by the Engineer and the Contractor.

At the weekly progress meetings, the Contractor shall submit a written statement of planned activities and anticipated inspection, testing, and surveying requirements for the upcoming three (3) weeks. The Contractor shall provide a twenty-four-hour notice to the Engineer if the Contractor elects to change a planned activity.

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**REVISION OF SECTION 108
PROSECUTION AND PROGRESS**

Subsection 108.05 shall include the following:

All work performed by the Contractor or any of his agents shall be accomplished during the established working hours of 8:00 A.M. and 4:30 P.M., Monday through Friday. Neither the Contractor nor his agents shall work outside of the daily working hours without prior approval by the Engineer.

If the Contractor receives approval to work additional hours for his convenience, the Contractor shall reimburse the County for the cost of providing additional engineering and inspection services. The reimbursement to the County will be at a rate of \$125.00 per hour for each County employee and \$175.00 per hour for each consultant required to be on the job site. This cost will be deducted from any money due the Contractor.

**REVISION OF SECTION 109
MEASUREMENT AND PAYMENT**

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

Subsection 109.07 – Payment for Material on Hand (Stockpiled Material). Delete and replace with the following:

Partial monthly payments to the Contractor for completed work will include payment only for materials actually incorporated in the Work.

**REVISION OF SECTION 201
CLEARING AND GRUBBING**

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

In **Subsection 201.02** delete the second paragraph and replace with the following:

Clearing and grubbing shall be within the limits of the project, as identified in the plans. All other areas of clearing and grubbing shall be as directed by the Engineer. Removal of trees will be performed by others. No other tree removal will be permitted.

**REVISION OF SECTION 202
REMOVAL OF ASPHALT MAT**

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

Section 202.09 shall be revised to include the following:

The asphalt mat shall be completely removed from the bridge deck and partially removed on the roadway approaches to the bridge, as shown on the plans. The thickness of the asphalt mat on the bridge is variable (approximately 4" to 6" thick). The contractor shall perform a field survey to determine the thickness at various points on the bridge deck. The asphalt mat shall be removed from the deck in such a manner that no damage to the concrete deck results. This can be performed by scraping off the asphalt or by a combination of milling and scraping. If milling is used, no milling of asphalt will be permitted within one (1) inch of the concrete bridge deck surface.

The Contractor shall repair any damage caused by its operations, to the satisfaction of Boulder County, at no additional cost.

Prior to starting the asphalt removal process, the contractor shall submit the following to the Engineer for review and acceptance:

- a. The results of the asphalt thickness field survey. This survey shall be performed along both curb lines and along the centerline of the bridge and, at a minimum, shall include asphalt thickness measurements at both abutments and at mid-span along all three lines.
- b. A method statement clearly describing how the Contractor intends to remove the asphalt overlay.

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

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

Subsection 202.01 shall include the following:

This work shall include the removal and disposal of all unsound, delaminated, deteriorated or damaged concrete from the existing abutments and wingwalls and the preparation of the remaining concrete surface and reinforcing steel for concrete patching, or other repairs. Removal of sound concrete as required to square off removal areas is also included. The work shall be in accordance with these specifications and in conformity with the details, dimensions, lines and grades shown on the plans or established.

As required by the plans, initial removal operations shall be coordinated with the Engineer. The initial removal operations shall remove only loose and delaminated concrete. After this has been done, the Engineer and Contractor shall perform a joint inspection to determine additional removal requirements and limits.

Subsection 202.02 shall include the following:

At least ten (10) working days before beginning concrete removal, the Contractor shall submit for approval to the Engineer details of the removal operations showing the methods and sequence of removal and equipment to be used. The review by the Engineer will be performed within 7 days. Concrete removal shall be accomplished using pneumatic chipping hammers weighing no more than 15 pounds, unless approved otherwise. The Engineer shall approve, prior to the beginning of work, all methods and equipment used to accomplish this item or work.

No demolition debris shall be permitted to fall into Boulder Creek when working on any portion of the structure. The Contractor shall develop a plan to prevent debris from entering the creek or creek bed. This plan shall be submitted to the Engineer and must be approved prior to beginning the work.

Deteriorated or damaged concrete shall be removed to sound concrete, as directed by the Engineer. The removal limits shown on the plans were determined during a prior field study and are only considered to be approximate. The actual areas and depths of removal shall be based on actual field conditions, as determined by the Contractor and as directed and approved by the Engineer.

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

After concrete is removed, all exposed reinforcing steel designated to remain in place shall be cleaned by blast cleaning to sound steel that is free of oil, dirt, concrete fragments or laitance, all rust scale, and other coatings that would destroy or inhibit the bond with new concrete or repair mortar.

When acceptable reinforcing steel is exposed to the elements for more than seven calendar days prior to encasement in concrete/mortar, adequate measures shall be taken by the Contractor, as approved by the Engineer, to protect the steel from contamination or corrosion. Reinforcing steel contaminated as a result of the Contractor's failure to provide adequate protection as stipulated herein, shall be re-blast cleaned at the Contractor's expense with no allowance for contract time extension.

Within 24 hours before new concrete/mortar is placed, the entire concrete surface upon which new concrete/mortar will be placed shall be sandblasted to roughen the surface and remove all fractured or loose particles in order to promote good bond with the new concrete/mortar. The Contractor shall be responsible for inspecting the finished prepared surface area to ensure the surface is free of all fractured concrete lenses which are considered unsound concrete.

The Engineer shall review and approve the concrete removal work prior to the start of any concrete patching or other repair work.

In **Subsection 202.02** delete the sixth paragraph and replace with the following:

A saw cut approximately $\frac{3}{4}$ inch deep shall be made to a true line along the limits of removal. A $\frac{3}{4}$ inch deep saw cut shall also be made along the limits of removal on all faces of monolithic concrete elements which may be visible in the completed work. Saw cutting shall not damage existing reinforcing steel or other appurtenances unless specifically directed by the engineer. Saw cutting shall not be paid for separately but shall be included in the unit price for concrete removal.

**REVISION OF SECTION 206
EXCAVATION AND BACKFILL FOR STRUCTURES**

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

Section 206.03 shall include the following:

Excavation necessary for the construction of the toe walls at the abutments and wingwalls shall be performed only when the Engineer or the Engineer's representative is present. While performing this excavation, if boulders larger than 6 inches (nominally) are encountered, the Engineer will make a determination if they should be removed or remain in place. Where the Contractor is directed to leave boulders in place, preventing the toe wall from achieving the full dimensions shown on the plans, the toe wall shall be formed and constructed around said boulders.

Section 206.07 shall include the following:

Removal of stream bed material, stockpiling, and placement necessary for the construction of the toe walls at each abutment is considered incidental to the work and will not be measured or paid separately.

REVISION OF SECTION 207 TOPSOIL

Section 207 of the Standard Specification is hereby revised as follows:

Subsection 207.01, shall include the following:

All topsoil shall be either secured from the site or imported and shall be approved by Boulder County at the source prior to import.

Subsection 207.03, paragraph two, shall include the following:

Topsoil Removal: After the construction area and its access have been delineated, the vegetation should be mowed to a maximum height of four (4) inches over the area to be disturbed. If the amount of vegetation exceeds what can be incorporated into the soil without interfering with establishing a proper seedbed, then excess vegetation shall be removed.

Topsoil should be removed by a front-end loader (preferred method) or grader. **Under no circumstances should upland topsoil be removed under wet soil moisture conditions.** The depth of the topsoil layer may vary. Topsoil may be delineated from the subsoil by a higher organic matter content (usually, but not always, indicated by a darker color) **and** a relatively loose and friable soil structure. Typically, topsoil is between four (4) and eight (8) inches in depth.

Under no circumstances shall subsoil be mixed with topsoil, and subsoil shall not be placed on top of the topsoil. If necessary, salvaged topsoil shall be cordoned off to delineate the topsoil from subsoil or other materials. The topsoil shall be protected from contamination by subsoil material, weeds, etc. and from compaction by construction equipment and vehicles.

Relieving Compaction: Areas to receive topsoil that have been compacted by heavy equipment shall be ripped or chiseled **prior to redistribution of topsoil.** Construction areas and other compacted areas will be chiseled to a minimum depth of 10 inches, with no more than a 10 inch interval between chiseled furrows. Two passes with a chiseler may be necessary, with the second pass chiseling between the first furrows, or perpendicular to original furrows.

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**REVISION OF SECTION 207
TOPSOIL**

Subsection 207.03, paragraph four, shall include the following:

Redistribution of Topsoil and Application of Soil Conditioning: The topsoil should be redistributed uniformly over the disturbed areas, minimizing compaction by equipment. **Topsoil redistribution shall not occur under wet soil conditions.** When applicable, fertilizer or soil conditioning shall be incorporated evenly throughout the topsoil as described in Specification.

**REVISION OF SECTION 208
EROSION CONTROL**

Section 208 of the Standard Specification is hereby revised as follows:

Subsection 208.02(h) shall include the following:

All erosion logs shall be biodegradable unless otherwise approved by the Engineer.
Photodegradable will not be accepted.

Subsection 208.02 (k) shall include the following:

Prior to the initial arrival onto the project site, all equipment shall be thoroughly power washed, including the undercarriages and tires. Equipment must be clean of mud, vegetative matter, and other debris to prevent importation of non-native and noxious weed seeds from other project sites.

**REVISION OF SECTION 209
DUST PALLIATIVES**

Section 209 of the Standard Specifications is hereby revised as follows:

Subsection 209.05 shall include the following:

The contractor shall be responsible for controlling vehicle and equipment speeds within the project site to keep dust to a minimum. The Contractor shall monitor activities daily for dust. If excessive dust is being generated by construction speeding vehicles or equipment, the contractor shall immediately take corrective action to ensure operators and drivers control speeds, thereby, assisting in dust suppression.

REVISION OF SECTION 211 DEWATERING

Section 211 is hereby added to the Standard Specifications of this project as follows:

Subsection 211.01 - This work consists of dewatering temporary excavations to facilitate construction activities.

MATERIALS

Subsection 211.02 - The Contractor shall provide all required materials and equipment to facilitate dewatering activities.

CONSTRUCTION REQUIREMENTS

Subsection 211.03 - The Contractor's method of dewatering and water disposal, including pumping and discharge equipment, must be approved by the Engineer prior to implementation. The Contractor shall submit a dewatering plan for review and approval 10 calendar days prior to implementation in accordance with Subsection 105.02. Water Disposal shall be in accordance with Subsection 107.25—"Plans, Shop Drawings, Working Drawings, Other submittals, and Construction Drawings". The diversion plan shall include the following:

- (1) a method statement addressing all requirements including copies of relevant permits required for stream diversion.
- (2) Plans and design calculations, sealed and signed by a professional engineer registered to the state of Colorado supporting the diversion plan including but not limited to:
 - a. Method for determining design flow
 - b. Surface water profiling and conveyance calculations, and
 - c. Phasing plans.

Contractor shall obtain all necessary permits and submit copies to the Engineer prior to commencing any dewatering activities. The Contractor will be responsible for the maintenance and protection of the dewatering equipment. Damage and/or repairs caused from the Contractor's activities or from the creek flows shall be the responsibility of the Contractor.

METHOD OF MEASUREMENT

Subsection 211.04 - Dewatering work and work will be measured as a single lump sum for all dewatering necessary to complete the work.

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**REVISION OF SECTION 211
DEWATERING**

BASIS OF PAYMENT

Subsection 211.05 - Dewatering will be paid at the contract price as a single lump sum for Item 211-03005.

**REVISION OF SECTION 212
SEEDING, FERTILIZER, SOIL CONDITIONER, AND SODDING**

Section 212 of the Standard Specification is hereby revised as follows:

Subsection 212.02 (a) shall include the following:

Maximum crop and weed content shall follow the Colorado Seed Certification Standards for certified seed:

- (1) Prohibited (Primary) Noxious Weeds (List A): None,
- (2) Restricted (Secondary) Noxious Weeds (List B): Less than 0.1%, and
- (3) Total Other Crop Seed: Less than 1.0%.

Seed shall be free of Prohibited (Primary) Noxious Weeds (List A) including, but not limited to, Canada thistle, diffuse knapweed, spotted knapweed, Russian knapweed, field bindweed, hoary cress, jointed goat grass, leafy spurge, musk thistle, and yellow toadflax. The Contractor shall be responsible for replacing any refused seed at no additional cost to the project.

If specified type or variety of seed is not available, substitutions must be submitted and approved by the Engineer.

Subsection 212.02 (b) 1 shall be replaced with the following.

(b) Fertilizer, Soil Conditioners and Biochar

1. Fertilizer: Fertilizer may only be used if directed by the project specific documents.

Fertilizer shall meet the following description; a slow release organic fertilizer composed of dried granulated fungal and bacterial biomass. The nutrient source shall be derived from fermented plant material along with nutrients such as cottonseed meal, soybean meal and trace elements all under sterile conditions. It shall not contain urea or sewage material.

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**REVISION OF SECTION 212
 SEEDING, FERTILIZER, SOIL CONDITIONER AND SODDING**

The fertilizer shall meet the following minimum requirements:

Criteria	Requirement
Nutrient Content (N-P-K)	7-2-1 <ul style="list-style-type: none"> • Nitrogen (total) >7% • Nitrogen (water soluble) <0.5% • Phosphorus (P205) 2-4%, • Potassium (K20) 1%
Phosphorous Content	3-6-3, 4-6-4, 3-7-4, or comparable
pH level	6.5-7.5
Organic Material	>75%

Subsection 212.02 (b) 2 shall be replaced with the following:

2. Soil Conditioner: Soil conditioner shall consist of compost, biological nutrient, biological culture or humic acid-based material. Compost shall be used as a soil conditioner unless otherwise specified in the project specific documents.

Humic acid-based material (Humate) shall be mined from fresh water, sand matrix source and shall include the following:

- (1) A pH 3.5 to 4.0.
- (2) Maximum 15 percent inert ingredients.
- (3) Minimum 85 percent organic material with 50 percent minimum humic acid.

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**REVISION OF SECTION 212
SEEDING, FERTILIZER, SOIL CONDITIONER AND SODDING**

Compost shall be weed-free, organic compost derived from a variety of feed stocks including agricultural, biosolids, forestry, food, leaf and yard trimmings, manure, tree wood with no substance toxic to plants. Material shall be aerobically composted in a facility permitted by the Colorado Department of Public Health and Environment (CDPHE) to produce or sell compost in accordance with House Bill (HB) 1181. The Contractor shall submit a copy of this permit to the Engineer for approval and the project records. The compost shall be tested in accordance with the U.S. Composting Council's Test Methods for Examining of Composting and Compost (TMECC) manual.

The compost manufacturer shall be a participating member of in the U.S. Composting Council's Seal of Testing Assurance Program (STA). The Contractor shall provide a participation certificate and test data on a Compost Technical Data Sheet. The Contractor shall provide a participation certificate and test data showing the lab analysis on a Compost Technical Data sheet that verifies that the compost meets the requirements. The Contractor shall submit documentation showing the feedstock amount by percentage in the final compost product. Compost feedstock may include, but is not limited to, leaves and yard trimmings, food scraps, food-processing residuals, manure or other agricultural residuals, forest residues, bark, and paper. Biosolids (from sewage treatment facilities) are not considered suitable feedstock.

Compost shall consist of a carbon to nitrogen ratio between 10:1 and 20:1. Compost may consist of one or more of the following, or include other appropriate composts:

- (1) Well-aged dairy cattle manure,
- (2) Well-aged poultry manure, or
- (3) Composted yard wastes.

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**REVISION OF SECTION 212
 SEEDING, FERTILIZER, SOIL CONDITIONER AND SODDING**

Compost shall have the following physical properties:

Compost Parameters	Reported As	Requirement	Test Method
pH	pH units	6.0 – 8.5	TMECC 04.11-A
Soluble Salts (Electrical Conductivity)	dS m ⁻¹ or mmhos cm ⁻¹	Maximum 10dS/m	TMECC 04.10-A
Moisture Content	%, wet weight basis	30 – 60%	TMECC 03.09-A
Organic Matter Content	%, dry weight basis	30 – 65%	TMECC 05.07-A
Particle Size (sieve sizes)	%, dry weight basis for each sieve fraction	Passing 1 inch – 100% 1/2 inch – 95%	TMECC 02.02-B
Man-made Inert Contamination	%, dry weight basis	< 1%	TMECC 03.08-A
Stability (Respirometry)	mg CO ₂ -C per g TS per day mg CO ₂ -C per g OM per day (PASS/FAIL) Limits:	8 or below	TMECC 05.08-B
Select Pathogens	Salmonella <3 MPN/4grams of TS, or Coliform Bacteria <1000 MPN/gram (PASS/FAIL) Limits:	Pass	TMECC 07.01-B Fecal Coliforms, or 07.02 Salmonella
Trace Metals	(PASS/FAIL) Limits (mg kg ⁻¹ , dw basis): As 41, Cd 39, Cu 1500, Pb 300, Hg 17, Ni 420, Se 100, Zn 2800	Pass	TMECC 04.06
Maturity (Bioassay) Percent Emergence Relative Seedling Vigor	%, (average) %, (average)	> 80% > 80%	TMECC 05.05-A
The Contractor shall provide a CTR in accordance with subsection 106.13 confirming that the material has been tested in accordance with TMECC.			

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**REVISION OF SECTION 212
SEEDING, FERTILIZER, SOIL CONDITIONER AND SODDING**

3. Biochar: Biochar shall be a USDA Certified Biobased Product. Biochar shall be made in a slow pyrolysis process and exceed 70% carbon content in the delivered product. The size of an individual piece of char shall range between 0.25 inches to 1.25 inches.

Mycorrhizae: Supplemental mycorrhizae, Quantum Growth VSC:

- (1) 1.32% humic acid (from peat humus)
- (2) 0.50% *Rhodopsuedomonas palustris*..... 1.0 E+6 cfu/ml
- (3) 0.25% *Bacillus amyloliquefaciens*..... 5.0 E+5 cfu/ml
- (4) 0.25% *Bacillus licheniformis*..... 3.0 E+5 cfu/ml
- (5) 0.25% *Bacillus megaterium*..... 1.0 E+5 cfu/ml
- (6) 0.25% *Bacillus subtilis*..... 2.0 E+5 cfu/ml

Supplemental mycorrhizae, Quantum Growth Light:

- (1) 0.5% *Rhodopsuedomonas palustris*.....5.0 E+6 cells/ml
- (2) 99.5% de-ionized water

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**REVISION OF SECTION 212
SEEDING, FERTILIZER, SOIL CONDITIONER AND SODDING**

Subsection 212.06 (a) shall be replaced with the following:

(a) *Soil Preparation.* Following redistribution of topsoil, the disturbed areas shall be chiseled again to a minimum depth of 12 inches, with no more than a 10-inch interval between chiseled furrows. Slopes flatter than 2:1, shall be tilled to a well settled, firm, and friable seedbed four (4) inches deep. Slopes 2:1 or steeper shall be left in a roughened condition. Slopes shall be free of soil clods, sticks, stones, and debris more than four (4) inches in any dimension and be brought to the desired grade and line. Uneven grading of the soil surface is acceptable and encouraged to prevent further compaction from excess heavy machinery operation. All slopes shall be free of concrete and asphalt. No soil preparation for seeding shall occur when soil is frozen or in an extreme wet or dry condition.

Subsection 212.06 (b) shall be replaced with the following:

(c) *Fertilizing and Soil Conditioning.* Prior to seeding, fertilizer, soil conditioner, or both shall be applied evenly throughout the topsoil.

1. Fertilizing. Apply approved product at 800 to 1,300 lbs. per acre. Fertilizers shall be incorporated into the top four (4) inches of soil after broadcasting seed.
2. Compost. Biological nutrient, culture or humic based material called for on the plans shall be uniformly applied at three (3) cubic yards per 1000 square feet onto the soil service. Organic amendments shall be applied uniformly over the soil surface and incorporated into the top six (6) inches of soil. No measurable quantity of organic amendment shall be present on the surface after incorporation.
3. Biochar. Supplemental mycorrhizae – Quantum Growth VSC applied at 2 gal/acre and Quantum Growth Light applied at 1 gal/acre.

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**REVISION OF SECTION 212
SEEDING, FERTILIZER, SOIL CONDITIONER AND SODDING**

Subsection 212.06 (c) shall be replaced with the following:

- (c) *Seeding.* Seeding shall be accomplished within 24 hours of tilling or scarifying to make special seed bed preparation unnecessary. The seeding application rate shall be as designated in the Contract. All slopes flatter than 2:1 shall be seeded with grass or no-till drills followed by packer wheels. Drag chains are not allowed. Drills shall have depth bands set to maintain a planting depth between $\frac{1}{2}$ and $\frac{3}{4}$ inch and shall be set to space the rows not more than seven (7) inches apart. Packer wheels that firm the soil over the drill row are required. Seed that is extremely small shall be sowed from a separate hopper adjusted to the proper rate of application. The Contractor shall notify the Engineer 24 hours in advance and request inspection of seeding areas prior to installation.

Seed must be applied with a grass or no-till drill that is specifically designed to accommodate variability in size and physical characteristic of native grass seeds.
Seed drills must be clean of seed from previous seeding jobs before any seeding begins.

If strips greater than seven (7) inches between the rows have been left unplanted or other areas skipped, the Engineer will require additional seeding at the Contractor's expense.

When requested by the Contractor and approved by the Engineer, seeding may be accomplished by broadcast or hydraulic type seeders at twice the rate specified in the Contract at no additional cost to the project.

All seed sown by broadcast-type seeders shall be "raked in" or covered with soil to a depth of at least $\frac{1}{4}$ inch. Broadcasting seed will be permitted only on small areas not accessible to machine methods. Broadcast seeding shall proceed on freshly disturbed (raked or harrowed) soil surface and broadcast seed shall be immediately raked or harrowed into the surface. Raking shall be accomplished using metal-tined garden or landscape rakes; no plastic leaf rakes shall be allowed. If harrowing is used, an English harrow or its equivalent shall be required.

Hydraulic seeding will not be accepted.

Seeded areas damaged due to circumstances beyond the Contractor's control shall be repaired and reseeded as ordered. Payment for this corrective work, when ordered, shall be at the contract prices.

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**REVISION OF SECTION 212
SEEDING, FERTILIZER, SOIL CONDITIONER AND SODDING**

Areas not requiring seeding that have been damaged due to the seeding operation shall be required as ordered. Payment for this corrective work, when ordered, shall at the contract prices.

Multiple seeding operations shall be anticipated as portions of job are completed to take advantage of growing conditions and to comply with Section 208 and subsection 212.03.

Application of various types of seeding are as follows:

1. Seeding (Upland). Prior to seeding, the soil conditioner shall be applied at 3 CY per 1000 SF and incorporated into the top eight (8) inches of soil.
Seed shall be applied at the percent of mix (% of mix) and application rate (PLS/Acre) that is designated on the plans under Seeding (Upland). Seed shall be applied to Seeding (Upland) areas shown on plans.
2. Seeding (Riparian). Prior to seeding, the soil conditioner shall be applied at 6 CY per 1000 SF and incorporated into the top eight (8) inches of soil.
Seed shall be applied at the percent of mix (% of mix) and application rate (PLS/Acre) that is designated on the plans under Seeding (Riparian). Seed shall be applied to Seeding (Riparian) and Perennial (Tublings) areas shown on plans.
3. Combined Seeding. Prior to seeding, the soil conditioner shall be applied at three cubic yards per 1000 SF and incorporated into the top eight (8) inches of soil.
Seed shall be made up of 70% Seeding (Upland) and 30% Seeding (Riparian). Combined seeding shall be applied at the percent of mix (% of mix) and application rate (PLS/Acre) that is designated on the plans under both Seeding (Upland) and Seeding (Riparian).

Subsection 212.07, paragraph four, shall include the following:

The Contractor shall furnish the Engineer with delivery tickets or bag weight tickets prior to placing any soil conditioner. Any soil conditioner placed by the Contractor without the Engineer's approval will not be paid for.

Tags attached to bags of seed will not be removed until the bag is opened on site at the time of seeding.

REVISION OF SECTION 216 SOIL RETENTION COVERING

Section 216 of the Standard Specifications is hereby replaced as follows:

DESCRIPTION

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

MATERIALS

216.02 Soil retention covering shall be a soil retention blanket as specified in the Contract. All soil retention coverings shall be biodegradable. Photodegradable will not be accepted. It 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 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 biodegradable blanket is specified, the thread shall be 100 percent biodegradable; polypropylene thread is not allowed.

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) (Biodegradable)*. 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.

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.

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**REVISION OF SECTION 216
 SOIL RETENTION COVERING**

2. *Soil Retention Blanket (Coconut) (Biodegradable)*. Soil Retention Blanket (Coconut) (Biodegradable) shall be a machine produced mat consisting of 100 percent coconut fiber that is biodegradable.

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.

**TABLE 216-1
 PHYSICAL REQUIREMENTS FOR
 SOIL RETENTION BLANKET – BIODEGRADABLE BLANKET**

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
1	6.5 ft.	250 mils	Straw/ Coconut	8oz/sy	Minimum 0.50"x0.50"
					Maximum 0.50"x1.00"
2	6.5 ft.	300 mils	Coconut*	8oz/sy	Minimum 0.50"x0.5"
					Maximum 0.5"x1.00"

*Minimum Open Area, 36%

**TABLE 216-2
 PERFORMANCE REQUIREMENTS FOR
 SOIL RETENTION BLANKET – BIODEGRADABLE BLANKET**

Biodegradable Class	Slope Application "C" Factor ¹ ASTM D6459	Minimum Tensile Strength MD ² ASTM D6818	Minimum Tensile Strength ASTM D4595
1	<0.1 at 3:1	8.33 lbs/in	
2	<0.1 at 3:1	10.42 lb/in	1968 lb/ft

1. "C" Factor is calculated as ratio of soil loss from soil retention blanket protected slope (tested as 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).

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REVISION OF SECTION 216 SOIL RETENTION COVERING

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) *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.

- (c) *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.

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**REVISION OF SECTION 216
SOIL RETENTION COVERING**

- (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.

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 six 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 one 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.

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**REVISION OF SECTION 216
SOIL RETENTION COVERING**

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.

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**REVISION OF SECTION 216
SOIL RETENTION 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 (Straw-Coconut) (Biodegradable Class 1)	Square Yard
Soil Retention Blanket (Coconut) (Biodegradable Class 2)	Square Yard

**REVISION OF SECTION 403
 HOT MIX ASPHALT**

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

Subsection 403.02 shall include the following:

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

Table 403-1

Property	Test Method	Value for Grading		
		S(75)	SX(75)	Patching
Air Voids, percent at: N (design)	CPL 5115	3.5 – 4.5	3.5 – 4.5	3.5 – 4.5
Lab Compaction (Revolutions): N (design)	CPL 5115	75	75	75
Stability, minimum	CPL 5106	28	28	28
Aggregate Retained on the 4.75 mm (No. 4) Sieve with at least 2 Mechanically Induced fractured faces, % minimum	CP 45	60	60	60
Accelerated Moisture Susceptibility Tensile Strength Ratio (Lottman), minimum	CPL 5109 Method B	80	80	80
Minimum Dry Split Tensile Strength, psi	CPL 5109 Method B	30	30	30
Grade of Asphalt Cement, Top Layer			PG 58-28	
Grade of Asphalt Cement, Layers below Top		PG 58-28		PG 58-28
Voids in the Mineral Aggregate (VMA) % minimum	CP 48	See Table 403-2	See Table 403-2	See Table 403-2
Voids Filled with Asphalt (VFA), %	AI MS-2	65-80	65-80	65-80
Dust to Fine Gradation Asphalt Ratio: Coarse Gradation	CP 50	0.6 – 1.2 0.8 – 1.6	0.6 – 1.2 0.8 – 1.6	0.6 – 1.2 0.8 – 1.6
<ul style="list-style-type: none"> • AI MS-2 = Asphalt Institute Manual Series 2 • The current version of CPL 5115 is available from the Region Materials Engineer. • Mixes with gradations having less than 40% passing the 4.75 mm (No. 4) sieve shall be approached with caution because of constructability problems. • Gradations for mixes with a nominal maximum aggregate size of one-inch or larger are considered a coarse gradation if they pass below the maximum density line at the #4 screen. • Gradations for mixes with a nominal maximum aggregate size of ¾ inch or smaller are considered a coarse gradation if they pass below the maximum density line at the #8 screen. 				

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**REVISION OF SECTION 403
 HOT MIX ASPHALT**

All mix designs shall be run with a gyratory compaction angle of 1.25 degrees and properties must satisfy Table 403-1. The job mix formula (Form 43) will establish construction targets for asphalt cement and all mix properties at Air Voids up to 1.0 percent below the mix design optimum.

Table 403-2

Minimum Voids in the Mineral Aggregate (VMA)			
Nominal Maximum Size*, mm (inches)	***Design Air Voids **		
	3.5%	4.0%	4.5%
37.5 (1½)	11.6	11.7	11.8
25.0 (1)	12.6	12.7	12.8
19.0 (¾)	13.6	13.7	13.8
12.5 (½)	14.6	14.7	14.8
9.5 (¾)	15.6	15.7	15.8
* The Nominal Maximum Size is defined as one sieve larger than the first sieve to retain more than 10%. ** Interpolate specified VMA values for design air voids between those listed. *** Extrapolate specified VMA values for production air voids beyond those listed.			

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

The hot mix asphalt will include reclaimed asphalt pavement (RAP) per revised Standard section 401.

Hot mix asphalt for patching shall conform to the gradation requirements for Hot Mix Asphalt (Grading S) (75) (PG 58-28).

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

Acceptance samples shall be taken according to CP-41.

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**REVISION OF SECTION 403
 HOT MIX ASPHALT**

Subsection 403.03 shall include the following:

A material transfer device will be required for the placement of asphalt on the top lift of paving.

Prior to placing tack coat and beginning overlay work, the surface to be tack coated shall be swept to remove accumulations of loose gravel, vegetation and debris.

All patching shall be completed prior to any mill/planning process and before the heating and scarifying process.

Subsection 403.05 shall include the following:

Payment will be made under:

Pay Item	Pay Unit
Hot Mix Asphalt (Grading SX) (75) (PG 58-28)	Ton
Hot Mix Asphalt (Patching) (Asphalt)	Ton

Aggregate, asphalt recycling agent, additives, hydrated lime, and all other work necessary to complete each hot mix asphalt item will not be paid for separately but shall be included in the unit price bid. When the pay item includes the PG binder grade, the asphalt cement will not be measured and paid for separately but shall be included in the work. Asphalt cement will not be measured and paid for separately but shall be included in the work. Asphalt cement used in Hot Mix Asphalt (Patching) will not be measured and paid for separately but shall be included in the work.

Hot Mix Asphalt (Patching) (Asphalt) shall include, neat line cutting around the perimeter of the patch area, the removal and disposal of existing pavement and underlying material six (6) inches in depth below top of pavement to achieve the desired patch section, mechanical compaction of subgrade, placement of emulsified asphalt (CSS-1H) tack coat, and the haul, placement, and compaction of six (6) inches of full depth Hot Mix Asphalt.

**REVISION OF SECTION 504
 RETAINING WALL (ROCKERY)**

Section 504 of the Standard Specifications is hereby revised for this project as follows:

DESCRIPTION

Subsection 504.01 shall be replaced in its entirety with the following:

504.01 This work consists of constructing a boulder retaining structure (a rockery) at the location and to the dimensions shown on the plans. The rockery shall be formed of interlocking, dry-stacked rocks without reinforcing steel, mortar, or concrete.

MATERIALS

Section 504.02 shall be replaced in its entirety with the following:

504.02 Materials used in the construction of the rockery retaining wall shall conform to the following Subsections:

Aggregate Base Course: used for foundation fill for the rockery shall be in conformance with CDOT Section 703.03, Aggregate for Bases, Class 1. Aggregate base course shall consist entirely of crushed rock. Recycled asphalt pavement material (RAP) shall not be permitted.

Granular Rock: shall be in conformance with CDOT Section 703.02 – Coarse Aggregate No. 57.

Base, facing, and cap rocks shall be in conformance with the following:

Rock for Rockeries - furnish hard, angular, and durable rock that consists of a solid mass without open fractures, foliation, or other planes of weakness that are generally cubical, tabular, or rectangular in shape. Do not furnish crushed river rock or rock with rounded surfaces. Conform to the following:

- | | |
|--|----------------------|
| (a) Apparent specific gravity, AASHTO T 85 | 2.50 min. |
| (b) Absorption, AASHTO T 85 | 4.0 percent max. |
| (c) Los Angeles abrasion, AASHTO T 96 | 50 percent max. |
| (d) Durability index (course), AASHTO T 210 | 52 min. |
| (e) Soundness of aggregate using sodium sulfate, AASHTO T 104 (5 cycles) | 12 percent loss max. |

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**REVISION OF SECTION 504
RETAINING WALL (ROCKERY)**

(f) Size and shape.	
Rock length	See plans
Rock breadth and thickness	At least one-third of rock length
Rock dimension	18 in min.
Cap rock mass	200 lb min.

Sections 504.04 to Section 504.08 shall be deleted in their entirety.

CONSTRUCTION REQUIREMENTS

Sections 504.09 to 504.19 shall be deleted in their entirety and replace with the following:

504.09 Qualifications. submit the following:

- (c) References citing satisfactory completion of at least three (3) rockeries of similar height and face area.
- (d) A summary of the experience of the primary equipment operator responsible for placement of base, facing, and cap rocks.

504.10 General. Perform Construction Surveying and Staking, and verify the limits of the rockery installation.

The following definitions apply to rockery construction:

- (a) **Base Rock:** The base rock is the lowermost rock in the rockery, and bears directly on the soil/rock subgrade.
- (b) **Facing Rock:** The facing rocks comprise the bulk of the rockery and are stacked above the base rock.
- (c) **Cap Rock:** The cap rock is the uppermost rock in the rockery section and "caps" the rockery.

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**REVISION OF SECTION 504
RETAINING WALL (ROCKERY)**

504.11 Rockery Construction.

- (a) Rockery Foundation Excavation.** Excavate a foundation trench as shown on the plans, running the full length of the proposed rockery. Excavate the foundation to include the granular rock backdrain behind the rockery.

Exercise care during excavation of the back cut. Stability of temporary cut slopes is the responsibility of the Contractor.

- (b) Rock Placement.** Place the first course of rock (base rock) on firm, unyielding soil or bedrock with full contact between the rock and the subgrade. Excavate any loose, soft or otherwise unsuitable material present at foundation grade and replace with foundation fill as shown in the plans. Compact the foundation fill according to Section 206. As the rockery is constructed, place the rocks so that there are no continuous joints in either the vertical or lateral direction.

Stockpile a sufficient number of rocks to provide a good selection for placement. To obtain a better fit, place rocks which do not match the spaces offered by the previous course in a different location.

Avoid placing rocks which have shapes that create voids with a linear dimension greater than 12 inches.

Except in isolated cases, place each rock so that it bears on at least two rocks below it. Locate at least one bearing point a distance no greater than 6 inches from the average face of the rockery.

The allowable tolerance for base rock widths is 6 inches; however, do not place two or more consecutive base rocks with a width less than specified on the plan.

Slope the top surface of each rock towards the back of the rockery at an inclination of at least five (5) percent.

The minimum rockery thickness is based on minimum base rock width, as specified on the plans, and allowable face batter.

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REVISION OF SECTION 504 RETAINING WALL (ROCKERY)

Securely place facing rocks so that the rocks are unable to be moved with a pry bar after the rockery is complete.

(c) Voids. Where voids with a minimum dimension of 6 inches or greater exist in the face of the rockery, chink the voids with smaller rock.

- (1)** If there is no rock contact within the rockery thickness, chink the void with a smaller piece of rock.
- (2)** Chinking rocks do not provide primary structural support for the overlying rock.
- (3)** Chinking rocks cannot be moved or removed by hand after rockery is complete. Reset loose chinking rocks until securely placed or grouted in place. Do not allow grout to be readily visible from the face of rockery.

(d) Rockery Drainage. Install the granular rock backdrain between the rockery and the back cut face being supported. The granular rock backdrain layer is at least 12 inches thick, measured horizontally from the back of the base rock to the face of the back cut. Place granular rock backdrain concurrent with rockery so that at no time is either more than 24 inches higher than the other.

- (1)** Separate the crushed rock from the back cut by a CDOT Class 3 non-woven geotextile. Overlap the non-woven geotextile at least 12 inches at all seams.
- (2)** Place 4 inch diameter perforated drain pipe as shown in the plans. Surround the pipe on all sides by at least 4 inches of granular rock.
- (3)** Connect the perforated drain pipe to a non-perforated outlet pipe and drain to daylight as called for on the plans.
- (4)** Cap the granular rock backdrain with at least 12 inches of native, relatively impermeable soil. Place non-woven geotextile between the soil cover and the granular rock backdrain.

METHOD OF MEASUREMENT

Replace **Section 504.20** in its entirety with the following:

504.20 Measure rockeries by the square feet of rockery front face. Measure the rockery front face vertically from the bottom of the base rock elevation to the top of the cap rock. Compute the area using rockery heights measured at changes in number of courses.

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**REVISION OF SECTION 504
RETAINING WALL (ROCKERY)**

Granular rock backdrain, 4 inch drainage pipes (perforated and non-perforated), geotextile, and non-woven geotextile will not be measured for payment and are considered incidental to the rockeries.

BASIS OF PAYMENT

Replace **Section 504.21** in its entirety and replace with the following:

504.21 The accepted quantities, measured as provided above, will be paid at the contract price per unit of measurement for the pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section.

**REVISION OF SECTION 506
RIPRAP**

Section 506 of the Standard Specifications is hereby revised for this project as follows:

Subsection 506.02 shall be revised to include the following:

New riprap shall be grey granite type rock. A sample of the proposed riprap shall be submitted to the Engineer for approval prior to ordering.

Subsection 506.03 shall be revised to include the following:

Riprap locations shall be dewatered during excavation, placement of riprap. All dewatering work shall comply with subsection 107.25, Water Quality Control and Section 211 Dewatering.

REVISION OF SECTION 601 STRUCTURAL CONCRETE

Section 601 of the Standard Specifications is hereby revised for this project to include the following:

Section 601.01 shall be revised to include the following:

This work shall include the reconstruction of a portion of the northwest wing wall, construction of a toe wall along both abutments and wing walls and the restoration of deteriorated concrete by the application of a repair mortar by forming and pouring or by hand placement. Refer to Revision of Section 202 Concrete Removal for required preparatory work.

Section 601.02 shall be revised to include the following:

The material used for restoration of the abutment walls, to be approved by the Engineer, shall be a prepackaged cementitious, fast-setting mortar that is formulated for application by hand/trowel or pouring/pumping into formwork.

Repair mortar applied by the form and pour method shall be Sikacrete 211 SCC Plus as manufactured by the Sika Corporation, Lyndhurst, NJ or Engineer approved equal.

Repair mortar applied by hand placement shall be SikaTop 123 Plus as manufactured by the Sika Corporation, Lyndhurst, NJ or Engineer approved equal.

Helical anchors shall be Helifix DryFix 304 Stainless Steel 8mm X 155mm Ties or Engineer approved equal.

The Contractor shall submit a list of proposed materials and the manufacturer's written recommendations and specifications to the Engineer for review and approval. The submittal shall be made a minimum of ten (10) working days before the work is scheduled to begin. The Contractor shall receive the Engineer's approval before materials and equipment are ordered for the project if any materials other than those specified are proposed.

Section 601.12 shall be revised to include the following:

The Engineer shall approve the concrete removal and surface preparation prior to the start of concrete patching. The surface shall be prepared according to the manufacturer's literature or as required in the plans and specifications. In the case of a conflict, the more stringent shall apply.

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**REVISION OF SECTION 601
STRUCTURAL CONCRETE**

Helical anchors shall be installed in all areas where patching is required. Helical anchors shall be installed the patterns shown on the plans and as directed by the Engineer. Helical anchors shall

be installed in accordance with the manufacturer's recommendations and these contract documents.

Helical anchors shall have a minimum embedment into sound concrete of 2.5" and shall have a minimum pull-out capacity of 300 pounds.

After the anchors are installed in the concrete, a 90 degree bend shall be made such that there will be 1" of cover after the concrete patching material has been placed. The anchor shall be cut such that the bent portion is approximately 1" long.

Prior to patching, areas where unsound concrete has been removed, as well as areas where the original concrete surface is intact, shall cleaned by abrasive blasting prior to application to remove all weathered concrete, laitance and other corrosion inhibiting substances.

Patched areas may be sounded by the Engineer during and after patching operations. Patched areas that are not well bonded or exhibit signs of voids or delamination shall be removed and replaced at no additional cost.

After the repaired areas have cured, a protective coating shall be applied in accordance with the manufacturer's recommendations. Prior to application of the approved protective coating, all curing compound material that may inhibit proper bond of the protective coating shall be completely removed by either high pressure water blasting or abrasive blasting.

**REVISION OF SECTION 615
EMBANKMENT PROTECTOR (SPECIAL)**

Section 615 of the Standard Specifications is hereby revised for this project to include the following:

Section 615.01 shall be revised to include the following:

This work consists of construction of embankment protectors according to these specifications and the details shown in the plans.

Section 615.02 shall be revised to include the following:

Embankment protector surfacing shall utilize bituminous slope and ditch paving in accordance with Section 507.

Section 615.05 shall be revised to include the following:

Payment will be made under:

Pay Item	Pay Unit
Embankment Protector (Special)	Each

Payment for Embankment Protector (Special) shall include excavation, backfill and modification of any other pay items necessary to complete the work. Bituminous slope and ditch paving will be paid for according to Section 507. Curb will be paid for according to Section 609.

**REVISION OF SECTIONS 627 AND 713
GLASS BEADS FOR PAVEMENT MARKING**

Sections 627 and 713 of the Standard Specifications are hereby revised for this project as follows:

Subsection 627.05, shall include the following:

Contractor shall sweep excess glass beads within 24 hours once the modified epoxy pavement marking is dry.

Subsection 627.05, delete the last paragraph and replace with the following:

Modified epoxy pavement marking and beads shall be applied within the following limits:

**Application Rate or Coverage
Per Gallon of Modified Epoxy Pavement Marking**

	Minimum	Maximum
16 – 18 mil marking	90 sq. ft.	100 sq. ft.
Beads	18 lbs.	20 lbs.

Subsection 713.08 (8) delete and replace with the following:

A minimum of 40 percent of the total weight shall be manufactured using a molten kiln direct melt method. All molten kiln direct melt glass beads shall be above the 600 µm (#30) sieve.

REVISION OF SECTION 627 PAVEMENT MARKING

Section 627 of the Standard Specifications is hereby revised for this project as follows:

Subsection 627.03 shall include the following:

Full-compliance pavement markings by means of temporary or final markings shall be in place at the end of the day following placement of the upper asphalt lift both for detour pavement and permanent pavement.

- (f) *Pre-striping and Marking Construction Meeting.* A pre-striping and marking construction meeting shall be held prior to the layout to confirm the pavement marking plan. At a minimum, attendees shall include the Contractor, the Striping Contractor or Subcontractor and Department representative(s).

Any striping or marking detail or minor modification shall be provided by the Department in advance of layout. Minor changes shall be addressed in the Pre-striping and Marking Construction Meeting and vetted for constructability and cost.

Any significant modification shall be addressed by an approved change modification order with the Engineer prior the Pre-striping and Marking Construction Meeting.

Control Points and layout shall be done by the Contractor no less than 48 hours prior to striping and marking, and the Department shall review and approve the layout prior to the work whether temporary or final. Layout of all pavement marking, whether temporary or final, is included in the work.

Subsection 627.05 shall include the following:

The Contractor shall clean up excess beads from the roadway, shoulders and adjacent facilities. When used, Contractor shall leave all "Highway Striping" "next __miles" construction warning signs in place until excess glass beads have been cleared from the facilities.

Subsection 627.06 shall include the following:

Crosswalk bars shall be two feet wide and nine feet long unless otherwise noted.

Thermoplastic pavement marking arrows shall be the elongated type.

The Contractor shall clean up excess beads from the roadway, shoulders and adjacent facilities. Clean up of excess beads shall be included in the work.

-2-

**REVISION OF SECTION 627
PAVEMENT MARKING**

Subsection 627.13 shall include the following:

Clean up of excess beads shall be included in the cost of the work.

**REVISION OF SECTION 630
CONSTRUCTION ZONE TRAFFIC CONTROL**

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

Subsection 630.11 shall include the following:

The Contractor's Superintendent and Traffic Control Supervisor (TCS) shall always be equipped with a mobile telephone unit that has a local number for contact with one another, the Engineer, and emergency response dispatchers when emergency services are required. The TCS shall make immediate contact with emergency personnel as required to assist accident victims, expedite the removal of broken-down vehicles, and maintain the smooth flow of traffic. This shall not be paid for separately but shall be included in the work items under Section 630.

BOULDER COUNTY TRANSPORTATION DEPARTMENT ENGINEERING DIVISION

APPROVED FOR CONSTRUCTION:

MICHAEL A. THOMAS, P.E. DATE:
COUNTY ENGINEER

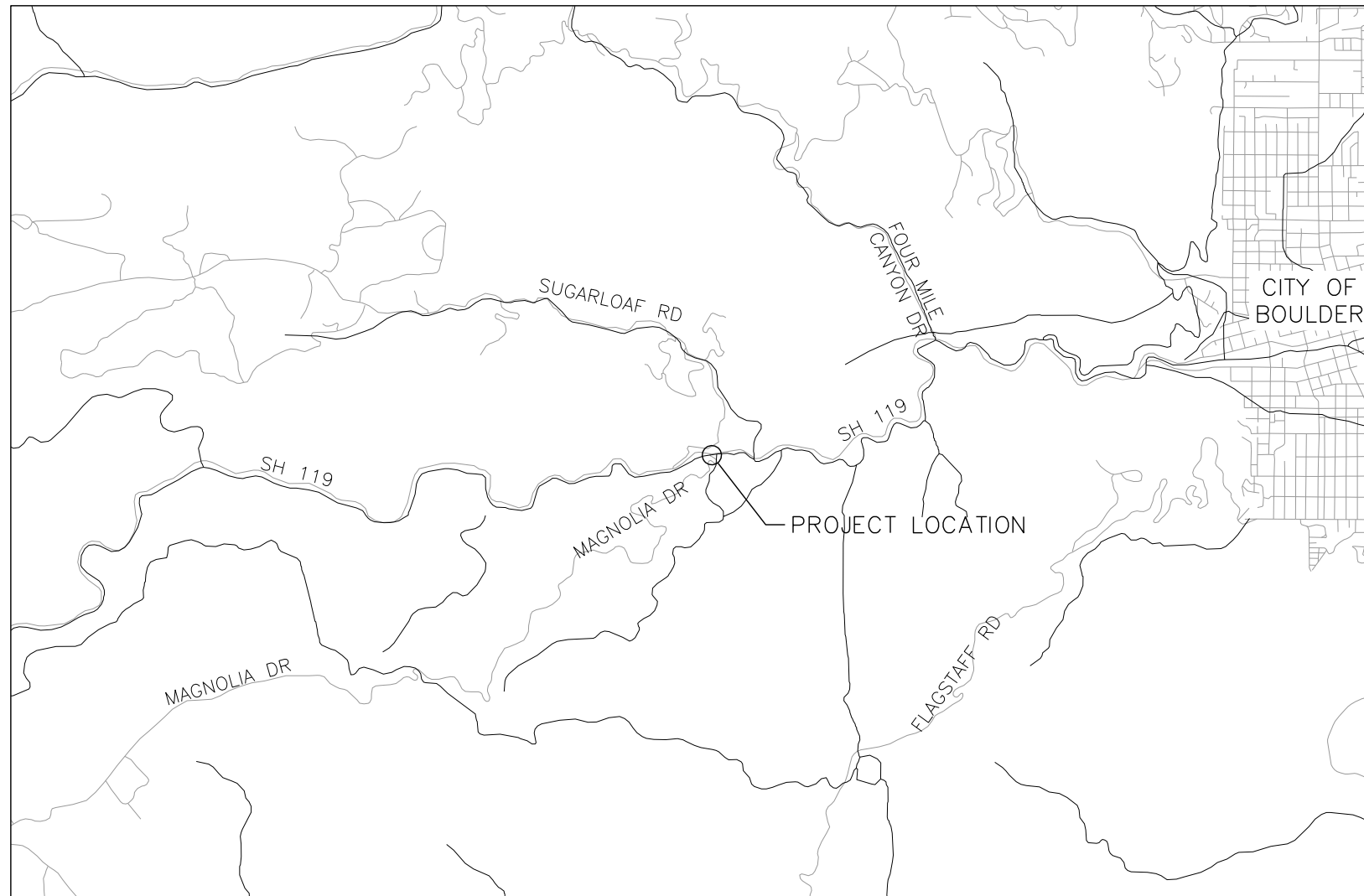


MAGNOLIA DRIVE AT BOULDER CREEK BRIDGE REPAIR PROJECT - BR-132-0.1-BO

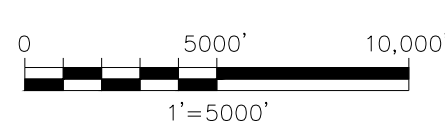
MAGNOLIA DRIVE BRIDGE REPAIR - PROJECT SCOPE OF WORK:

PROJECT CONSISTS OF THE REPAIR OF EROSION AND ABUTMENT DETERIORATION AT THE MAGNOLIA DRIVE BRIDGE OVER BOULDER CREEK. WORK INCLUDES REMOVAL AND REPLACEMENT OF GUARDRAIL, ASPHALT MILLING AND PAVING, REMOVAL OF PORTIONS OF CONCRETE WALLS, INSTALLATION OF CONCRETE TOE WALLS AND WALL PATCHING, ROCK WING WALL EXTENSION, STORM CULVERT AND TRAFFIC CONTROL.

DESIGN DATA	MAGNOLIA DRIVE
MINIMUM RADIUS OF CURVE	N/A
MINIMUM S.S.D. HORIZONTAL	>155 FT
DESIGN SPEED	25 MPH
2016 TRAFFIC	860 ADT
CLEAR ZONE	14 FEET



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SHEET NO.	SHEET TITLE
1	TITLE SHEET
2	M&S STANDARD PLANS LIST
3	GENERAL NOTES
4	SUMMARY OF APPROXIMATE QUANTITIES
5	ROADWAY PLAN
6	REPAVING DETAILS
7	DRAINAGE & UTILITY PLAN
8	CULVERT PLAN & PROFILE
9	GENERAL LAYOUT
10	NORTH ABUTMENT REPAIR DETAILS
11	SOUTH ABUTMENT REPAIR DETAILS
12	WINGWALL REPAIR DETAILS
13	WINGWALL EXTENSION DETAILS
14	SLOPE REPAIR DETAILS
15	TRAFFIC CONTROL PLAN
16	EROSION CONTROL PLAN



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BID SET	811	CALL UTILITY NOTIFICATION CENTER OF COLORADO CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES	REVISIONS:	NO. DATE	REVISION DESCRIPTION:	BOULDER COUNTY TRANSPORTATION DEPARTMENT ENGINEERING DIVISION		DESIGNED: SB	CAD: MS	CHECKED: SB	DATE: 10/23/18	MAGNOLIA DRIVE TITLE SHEET
	PROJECT NO: BR-132-0.1-BO	SHEET NO: 1										

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COLORADO
 DEPARTMENT OF TRANSPORTATION
M&S STANDARDS PLANS LIST
 July 31, 2019
 Revised on February 16, 2021

ALL OF THE M&S STANDARD PLANS, AS SUPPLEMENTED AND REVISED, APPLY TO THIS PROJECT WHEN USED BY DESIGNATED PAY ITEM OR SUBSIDIARY ITEM.

THE M&S STANDARD PLANS USED TO DESIGN THIS PROJECT ARE INDICATED BY A MARKED BOX AND WILL BE ATTACHED TO THE PLANS. ALL THE OTHER M&S STANDARD PLANS ARE STILL ELIGIBLE FOR CONSTRUCTION IF APPROVED BY AN APPROPRIATE CDOT ENGINEER.

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GENERAL NOTES

- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE CDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION 2019, EXCEPT AS MODIFIED BY THE DESIGN DOCUMENTS.
- EXCEPT AS SHOWN IN THE PLANS, STRUCTURE EXCAVATION AND BACKFILL SHALL BE IN ACCORDANCE WITH M-206-1 FOR CAST-IN-PLACE RETAINING WALLS.
- STRUCTURE EXCAVATION AND BACKFILL SHALL BE AS SHOWN ON THE PLANS, EXCEPT SHORING MAY BE REQUIRED FOR EXCAVATION ADJACENT TO THE EXISTING ROADWAY. TEMPORARY EXCAVATION SUPPORT SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK.
- EXPANSION JOINT MATERIAL SHALL MEET AASHTO SPECIFICATION M213.
- GRADE 60 REINFORCING STEEL IS REQUIRED.
- ALL REINFORCING STEEL SHALL BE EPOXY COATED UNLESS OTHERWISE NOTED.
- N DENOTES NON-COATED REINFORCING STEEL.
- CONCRETE SULFATE EXPOSURE IS CLASS 0
- WHERE GALVANIZED METALS ARE DAMAGED IN THE FIELD (DUE TO WELDING OR OTHER CIRCUMSTANCES) THE GALVANIZING SHALL BE REPAIRED IN ACCORDANCE WITH ASTM A 780 USING A SPRAY ON COLD GALVANIZING COMPOUND. THE COMPOUND SHALL HAVE A METALLIC ZINC CONTENT OF 95% BY WEIGHT IN DRY FILM, A SOLIDS CONTENT OF 52% BY VOLUME AND SHALL BE APPLIED 1.5 MILS DRY FILM THICKNESS PER COAT WITH TWO COATS APPLIED. REPAIRING GALVANIZED METALS SHALL NOT BE PAID FOR SEPARATELY.
- STATIONS, ELEVATIONS, AND DIMENSIONS CONTAINED IN THESE PLANS ARE CALCULATED FROM A RECENT FIELD SURVEY. THE CONTRACTOR SHALL VERIFY ALL DEPENDENT DIMENSIONS IN THE FIELD BEFORE ORDERING OR FABRICATING ANY MATERIAL.
- ALL LONGITUDINAL AND TRANSVERSE DIMENSIONS ARE MEASURED HORIZONTALLY AND INCLUDE NO CORRECTION FOR GRADE.

THE FOLLOWING TABLE GIVES THE MINIMUM LAP SPLICE LENGTH FOR EPOXY COATED REINFORCING BARS PLACED IN ACCORDANCE WITH SUBSECTION 602.06. THESE SPLICE LENGTHS SHALL BE INCREASED BY 25% FOR BARS SPACED AT LESS THAN 6" ON CENTER.

BAR SIZE	#4	#5	#6	#7	#8	#9	#10	#11
SPLICE LENGTH FOR CLASS B&D CONCRETE	1'-3"	1'-6"	2'-5"	2'-10"	3'-9"	4'-8"	5'-11"	7'-4"

WHEN THE CONTRACTOR ELECTS TO SUBSTITUTE EPOXY COATED REINFORCEMENT FOR BLACK REINFORCING BARS, THE MINIMUM LAP SPLICE SHALL BE AS DESCRIBED BELOW.

THE FOLLOWING TABLE GIVES THE MINIMUM LAP SPLICE LENGTH FOR BLACK REINFORCING BARS PLACED IN ACCORDANCE WITH SUBSECTION 602.06. THESE SPLICE LENGTHS SHALL BE INCREASED BY 25% FOR BARS SPACED AT LESS THAN 6" ON CENTER.

BAR SIZE	#4	#5	#6	#7	#8	#9	#10	#11
SPLICE LENGTH FOR CLASS B & D CONCRETE	1'-1"	1'-4"	1'-7"	1'-11"	2'-6"	3'-2"	4'-0"	4'-11"

- THE CONTRACTOR SHALL CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION. CALL 811.
- NO WET CONCRETE SHALL BE PERMITTED TO COME IN CONTACT WITH WATER FLOWING IN BOULDER CREEK AT ANY TIME.
- THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER FOR APPROVAL, A STORMWATER MANAGEMENT PLAN THAT COMPLIES WITH THE REQUIREMENTS OF SECTION 1300 OF THE BOULDER COUNTY STORM DRAINAGE CRITERIA MANUAL. SEE SHEETS 3 AND 15 FOR NOTES AND OTHER REQUIREMENTS REGARDING THE STORMWATER MANAGEMENT PLAN.

BEST MANAGEMENT PRACTICES

- A STORMWATER QUALITY PERMIT (SWQP) IS REQUIRED FOR CONSTRUCTION PROJECTS THAT:
 - DISTURB MORE THAN ONE ACRE OR MORE,
 - ARE LESS THAN ONE ACRE AND CONSTRUCTION ACTIVITY IS PART OF A LARGER COMMON PLAN OF DEVELOPMENT THAT WILL ULTIMATELY DISTURB ONE ACRE OR MORE, EVEN IF MULTIPLE, SEPARATE, AND DISTINCT LAND DEVELOPMENT ACTIVITIES MAY TAKE PLACE AT DIFFERENT TIMES, OR
 - ARE WITHIN 100 HORIZONTAL FEET OF A PERMANENT PERENNIAL STREAM OR A MAIN IRRIGATION DITCH.

FOR MORE INFORMATION ON QUALIFYING WATERWAYS AND PROJECTS, REFER TO GUIDANCE FOR SMALL CONSTRUCTION PROJECTS AVAILABLE ON THE BOULDER COUNTY TRANSPORTATION DEPARTMENT WEBSITE:
[HTTPS://WWW.BOULDERCOUNTY.ORG/TRANSPORTATION/ PERMITS/STORMWATER-QUALITY-PERMIT.COM](https://www.bouldercounty.org/transportation/permits/stormwater-quality-permit.com)
- CONTRACTOR/PERMITTEE SHALL PERIODICALLY INSPECT ALL INSTALLED BMPS, PROVIDE MAINTENANCE, AND MAKE REPAIRS AS NECESSARY TO PREVENT THEIR FAILURE.

- SILT FENCE OR AN EQUIVALENT SHALL BE PLACED AS PERIMETER CONTROL ON ALL CONSTRUCTION ACTIVITIES THAT OCCUR ON LAND. UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS, OR OTHERWISE REQUESTED, REMOVE PERIMETER CONTROLS WITHIN 30 DAYS AFTER THE DATE OF WARRANTY PERFORMANCE OF THE WORK OR IN ACCORDANCE WITH BMPS.
- VEHICLE TRACKING CONTROLS SHALL BE USED AT ALL VEHICLE AND EQUIPMENT ACCESS POINTS TO THE SITE TO PREVENT SEDIMENT EXITING THE PROJECT SITE ONTO PAVED PUBLIC ROADS. ACCESS SHALL BE PROVIDED ONLY AT LOCATIONS APPROVED BY THE ENGINEER. VEHICLE TRACKING CONTROL LOCATIONS SHALL BE RECORDED ON THE SWMP SITE MAP. NO SEPARATE PAYMENT WILL BE MADE FOR VEHICLE TRACKING CONTROLS.
- ALL INLETS AND CULVERTS SHALL BE PROTECTED DURING ONSITE CONSTRUCTION ACTIVITIES. INLET PROTECTION LOCATIONS SHALL BE RECORDED ON THE SWMP SITE MAP.
- CONCRETE WASTED IN DESIGNATED DEWATERING AREAS SHALL BE COLLECTED, REMOVED FROM THE PROJECT SITE, AND DISPOSED OF PROPERLY. WASTED CONCRETE ALSO INCLUDES EXCESS CONCRETE REMOVED FROM FORMS, SPILLS, SLOP, AND ALL OTHER UNUSED CONCRETE THAT ENDS UP ON THE GROUND.
- THE CONTRACTOR/PERMITTEE MUST MAINTAIN A SPILL KIT ON SITE WHEN WORKING AROUND SURFACE WATERS. IF POLLUTANTS ARE SPILLED INTO ANY SURFACE WATERS DURING THE COURSE OF CONSTRUCTION ACTIVITIES, THE CONTRACTOR/PERMITTEE MUST NOTIFY THE OWNER'S REPRESENTATIVE OR ENGINEER IMMEDIATELY.
- ALL EXISTING MATURE TREES WITHIN THE DESIGNATED PROJECT AREA ARE TO BE FENCE PROTECTED IN PLACE AT DRIPLINE UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PRIOR TO THE INITIATION OF WORK, THE ENGINEER SHALL MARK ANY TREES AND/OR LARGE SHRUBS TO BE REMOVED AS PART OF CONSTRUCTION ACTIVITIES. AREAS OF TREE REMOVAL SHALL BE DETERMINED AND MARKED IN COLLABORATION BETWEEN THE CONTRACTOR/PERMITTEE AND THE ENGINEER.
- ALL EXCAVATION ACTIVITIES OCCURRING WITHIN 10 FEET OF THE DRIPLINE SHALL BE PERFORMED BY HAND AND IF NECESSARY ROOTS SHALL BE CLEANLY CUT NOT TORN OR RIPPED. IF EXPOSED, TREE ROOTS SHALL BE BACKFILLED AND WATERED ON THE SAME DAY OF CUTTING AND APPROVED ROOT STIMULATOR SHALL BE APPLIED. SOILS SHALL NOT BE COMPACTED WITHIN THE DRIPLINE OF MATURE TREES UNLESS OTHERWISE APPROVED BY THE ENGINEER.

WASTE MANAGEMENT

- THE CONTRACTOR/PERMITTEE SHALL NOT BURN, BURY, OR OTHERWISE DISCHARGE CONSTRUCTION OR DEMOLITION WASTE ON THE SITE UNLESS SPECIFIED OTHERWISE.
- THE CONTRACTOR/PERMITTEE SHALL PROVIDE A PORTABLE TOILET AND ASSOCIATED MAINTENANCE SCHEDULE FOR THE CONSTRUCTION AREA SUFFICIENT TO ACCOMMODATE THE CONSTRUCTION CREW AND ALL OTHER AUTHORIZED PERSONS TO BE ONSITE DURING CONSTRUCTION ACTIVITIES.

HAZARDOUS MATERIALS

- THE CONTRACTOR/PERMITTEE SHALL TRANSPORT, USE, AND STORE HAZARDOUS MATERIALS IN ACCORDANCE WITH ALL REGULATORY REQUIREMENTS. SPILLED HAZARDOUS MATERIALS, INCLUDING HAZARDOUS LIQUID WASTES, SHALL BE REMOVED FROM THE SITE AND THE PROPERTY RESTORED TO ITS PRE-SPILL STATE IN ACCORDANCE WITH REGULATORY REQUIREMENTS.
- THE CONTRACTOR/PERMITTEE SHALL IMMEDIATELY REPORT SPILLS TO THE PROPER REGULATORY AUTHORITY AND SHALL IMMEDIATELY NOTIFY THE ENGINEER.
- HANDLING OF CONSTRUCTION FUELS AND LUBRICANTS:
 - THE CONTRACTOR/PERMITTEE SHALL EMPLOY PERSONS QUALIFIED TO HANDLE CONSTRUCTION EQUIPMENT FUELS AND LUBRICANTS.
 - THE CONTRACTOR/PERMITTEE SHALL REFUEL AND SERVICE EQUIPMENT AWAY FROM FLOODPLAINS OF RIVERS, STREAMS AND OTHER BODIES OF WATER. THE CONTRACTOR/PERMITTEE SHALL ENSURE EQUIPMENT THAT ENTERS THE WATER IS FREE FROM EXTERNAL GREASE, OIL, AND MUD.
 - THE CONTRACTOR/PERMITTEE SHALL PREVENT HANDLING AND FUELING OPERATIONS FROM CONTAMINATING THE GROUND, SURFACE WATER, AND GROUND WATER. THE CONTRACTOR/PERMITTEE SHALL USE CONTAINMENT BERMS AND AN IMPERMEABLE BASE COURSE OR OTHER SYSTEM TO CONTAIN SPILLED FUEL.

GENERAL CARE OF WATER

CARE OF WATER SHALL INCLUDE THE DESIGN OF ALL TEMPORARY CARE OF WATER PROVISIONS INCLUDING COFFER DAMS, SUMPS, PUMPING SYSTEMS, PIPELINES, CHANNELS, FLUMES, DRAINS, AND OTHER PROTECTIVE AND DEWATERING WORKS TO ALLOW FOR WORK TO BE PERFORMED UNDER DRY CONDITIONS.

- NO CONSTRUCTION EQUIPMENT SHALL BE OPERATED BELOW THE EXISTING WATER SURFACE UNLESS SPECIFICALLY AUTHORIZED BY THE STORMWATER QUALITY PERMIT ISSUED BY BOULDER COUNTY, AND ANY OTHER APPLICABLE LOCAL, STATE OR FEDERAL LICENSE OR PERMIT.
- THE CONTRACTOR/PERMITTEE IS RESPONSIBLE FOR ALL CARE OF WATER INCLUDING BUT NOT LIMITED TO DESIGNING, SUPPLYING, CONSTRUCTING, OPERATING, AND REMOVING ALL CARE OF WATER PROVISION INCLUDING COFFER DAMS AND SEDIMENT REMOVAL SYSTEMS; DESIGNING, SUPPLYING, INSTALLING, MAINTAINING, AND REMOVING PROTECTIVE WORKS FOR WINTER OPERATIONS OF CARE OF WATER SYSTEMS.
- THE CONTRACTOR/PERMITTEE SHALL COMPLY WITH ALL USACE 404 PERMIT REQUIREMENTS INCLUDING ANY SPECIAL CARE REQUIREMENTS ISSUED FOR THIS PROJECT.
- WHEN REQUIRED THE CONTRACTOR/PERMITTEE SHALL DESIGN TEMPORARY STREAM

- DIVERSIONS TO FACILITATE UPSTREAM FISH PASSAGE. INSTREAM VELOCITIES SHALL BE LIMITED TO 7 FT/SEC WHEN THIS PROVISION IS REQUIRED.
- CARE OF WATER SHALL INCLUDE PROVISIONS FOR HANDLING GROUNDWATER, RAINSTORM RUNOFF, SNOW, SNOWMELT, AND ICE THAT MAY ENTER THE WORK AREA.
- PROTECTIVE WORKS SHALL BE DESIGNED BY THE CONTRACTOR/PERMITTEE AS NECESSARY TO INCLUDE ENCLOSURES, INSULATION, AND HEATING SYSTEMS TO ENSURE THAT DEWATERING SYSTEMS OPERATE CONTINUOUSLY AND DO NOT BECOME FROZEN DURING COLD WEATHER.
- THE CONTRACTOR/PERMITTEE SHALL PROVIDE AND MAINTAIN SEDIMENT PONDS OR OTHER MEANS, REMOVE SEDIMENT FROM WATERS COLLECTED WITHIN ACTIVE CONSTRUCTION AREAS PRIOR TO ALLOWING IT TO ENTER OR RETURN INTO THE WATERCOURSE. CONTRACTOR/PERMITTEE SHALL DISPOSE OF SEDIMENTS IN A SUITABLE OFF-SITE WASTE DISPOSAL FACILITY.
- THE CONTRACTOR/PERMITTEE SHALL MONITOR WATER TURBIDITY DURING CONSTRUCTION ACTIVITIES AND SHALL SHUT DOWN WORKS AT TIMES OF EXCESS TURBIDITY IN ORDER TO ALLOW THE WATER TO CLEAR PRIOR TO RE-COMMENCEMENT OF IN-STREAM WORK.
- TURBIDITY IS EXPECTED DURING PLACEMENT AND REMOVAL OF WATER CONTROL. IF WATERS BECOME NOTICEABLY TURBID, CONTRACTOR/PERMITTEES SHOULD PROMPTLY HALT OPERATIONS TO ALLOW WATERS TO CLEAR PRIOR TO RESUMING OPERATIONS. FURTHERMORE, SHUTDOWNS FOR SILTY OR TURBID WATER MAY BE SPECIFIED BY THE ENGINEER OR THE OWNER'S REPRESENTATIVE, AT THEIR DISCRETION.
- IN THE EVENT OF UNSCHEDULED CONSTRUCTION ACTIVITY THAT RESULTS IN A VISUALLY CONSPICUOUS PLUME OF SEDIMENT, CONTRACTOR/PERMITTEE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND UNDERTAKE MITIGATION ACTIONS NECESSARY TO COMPLY WITH THE SPECIFIED CLEAN WATER CRITERIA.

COFFER DAMS

- THE CONTRACTOR/PERMITTEE IS RESPONSIBLE FOR THE FINAL LAYOUT, CONFIGURATION, MAINTENANCE, AND REMOVAL IN THEIR ENTIRETY OF ALL COFFER DAMS TO BE CONSTRUCTED WITHIN THE PROJECT SITE.
- THE CONTRACTOR/PERMITTEE IS RESPONSIBLE FOR THE RECLAMATION, TO ORIGINAL OR BETTER CONDITION, OF ALL AREAS IMPACTED BY THE CONSTRUCTION OF COFFER DAMS. RECLAMATION MAY INCLUDE BUT IS NOT LIMITED TO THE RESTORATION OF STABLE SLOPES TYPICALLY EQUAL TO OR LESS THAN 3H:1V, INSTALLATION OF APPROVED EROSION CONTROL FABRIC, AND INSTALLATION OF AN APPROVED NATIVE SEED MIX.
- COFFERDAMS LOCATED IN THE WATERWAY SHALL BE PLACED IN A MANNER TO PREVENT THEIR EROSION FROM NORMAL OR EXPECTED HIGH FLOWS. FURTHERMORE, THEY SHOULD BE PLACED TO A SUFFICIENT ELEVATION TO PREVENT THEIR OVERTOPPING DURING REASONABLY ANTICIPATED FLOOD EVENTS THAT MAY COMPROMISE THE DESIGN AND PERFORMANCE OF THE COFFERDAM.
- THE USE OF RIPRAP OR OTHER PROTECTION MEASURES ON THE SURFACES OF THE COFFERDAM, INCLUDING THE TOE OF COFFERDAM SLOPES EXPOSED TO HIGH VELOCITIES, IS REQUIRED.
- ALL TEMPORARY FILLS MUST BE REMOVED IN THEIR ENTIRETY FOLLOWING CONSTRUCTION ACTIVITIES AND AFFECTED AREAS GRADED TO PROPOSED CONDITIONS. COFFER DAMS SHALL PROVIDE A BYPASS WATERWAY THAT IS ARMORED AND OF THE MINIMUM DIMENSIONS SHOWN IN THE TYPICAL WATER CONTROL CHANNEL DETAIL.
- ANY COFFER DAM FAILURES OR OTHER WORKS EFFORTS THAT CAUSE A PLUME OF TURBID WATER TO FLOW DOWNSTREAM SHALL BE REPORTED TO THE ENGINEER.

HEAVY EQUIPMENT OPERATIONS AND MAINTENANCE

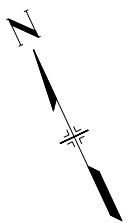
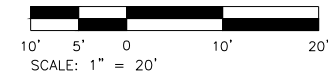
- EQUIPMENT OPERATED BELOW THE ORDINARY HIGH WATER MARK OF THE CREEK CHANNEL, MUST BE INSPECTED AND CLEAN OF FUEL, LUBRICANT LEAKS, AND INVASIVE AQUATIC SPECIES.
- TO MINIMIZE THE SPREAD OF INVASIVE SPECIES, ALL EQUIPMENT SHALL BE POWER-WASHED AND FREE OF WEEDS PRIOR TO ITS DELIVERY TO THE PROJECT AREA. IF EQUIPMENT WAS USED IN ANOTHER WET AREA WITHIN 10 DAYS OF INITIATING WORK, DECONTAMINATION PRACTICES SHOULD BE EMPLOYED TO MINIMIZE THE SPREAD OF DIDYMOSEPHIA, NEW ZEALAND MUD SNAILS, WHIRLING DISEASE, ZEBRA MUSSELS, AND OTHER AQUATIC HITCHHIKERS.
- EQUIPMENT OPERATING WITHIN OR ADJACENT TO ANY SURFACE WATERS SHALL BE FREE OF FLUID LEAKS. BIODEGRADABLE HYDRAULIC FLUIDS SHALL BE UTILIZED FOR ALL EQUIPMENT OPERATING IN SURFACE WATERS. THE CONTRACTOR/PERMITTEE SHALL SUBMIT A LIST OF EQUIPMENT OPERATING WITH CERTIFIED NON-TOXIC, BIODEGRADABLE HYDRAULIC FLUIDS TO THE ENGINEER PRIOR TO USE. ALL FUELING, OILING, OR MAINTENANCE OF EQUIPMENT SHALL BE PERFORMED IN DESIGNATED UPLAND LOCATIONS, WITH ADEQUATE BMPS TO CONTAIN POTENTIAL SPILLS.

BID SET	CALL UTILITY NOTIFICATION CENTER OF COLORADO CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">NO.</th> <th style="width: 10%;">DATE</th> <th style="width: 85%;">REVISION DESCRIPTION:</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	NO.	DATE	REVISION DESCRIPTION:										BOULDER COUNTY TRANSPORTATION DEPARTMENT ENGINEERING DIVISION	DESIGNED: DB CAD: DB CHECKED: SB DATE: 10/23/18	MAGNOLIA DRIVE GENERAL NOTES PROJECT NO: BR-132-0.1-BO SHEET NO: 3
NO.	DATE	REVISION DESCRIPTION:															

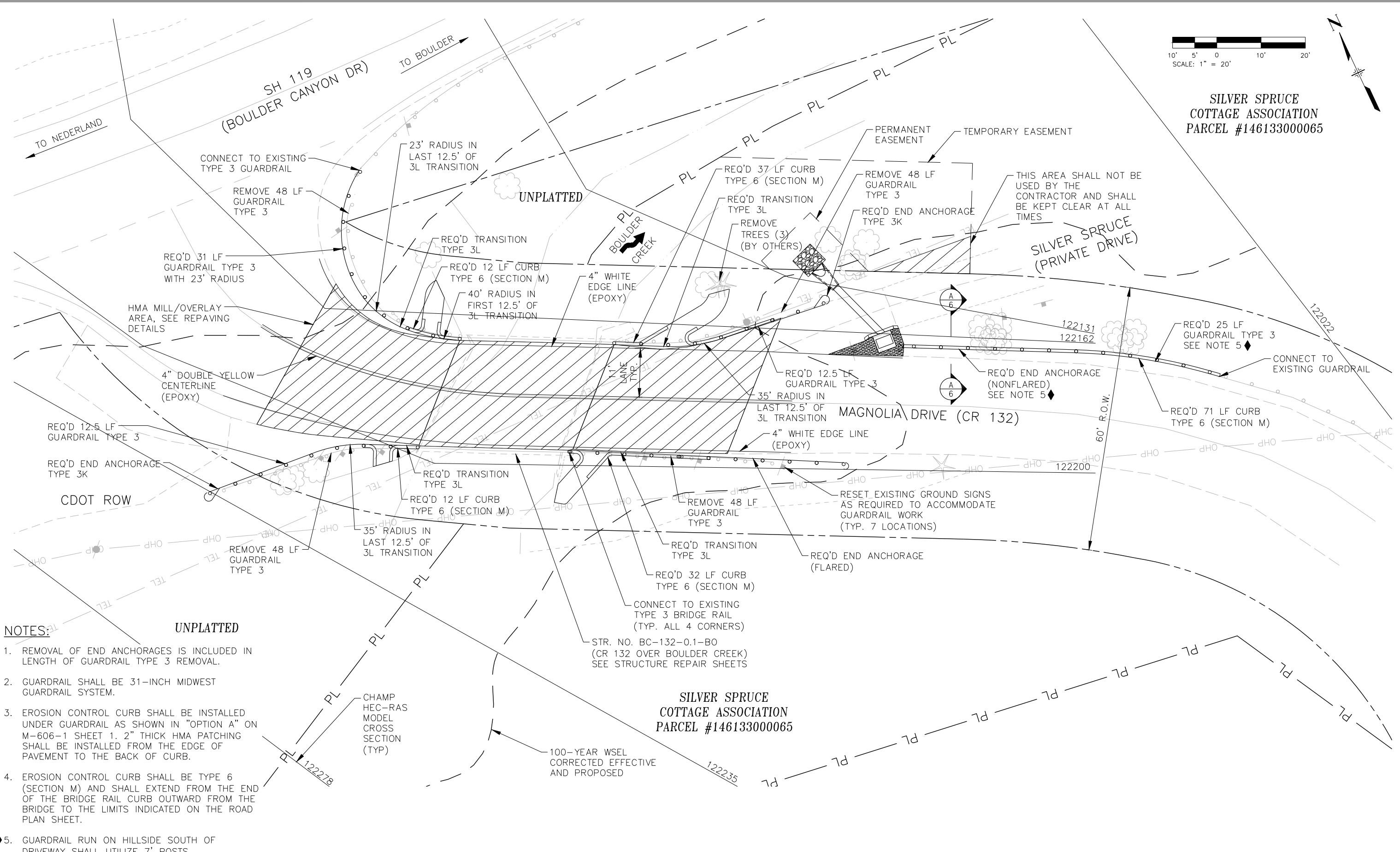
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CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	ROADWAY		BRIDGE BR-132-0.1-BO						PROJECT TOTALS	
			PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
201-00000	Clearing and Grubbing	LS	1								1	
202-00240	Removal of Asphalt Mat (Planing)	SY	204		94						298	
202-00506	Removal of Portions of Present Structure (Type 1 Repairs)	SF			40						40	
202-00507	Removal of Portions of Present Structure (Type 2 Repairs)	SF			15						15	
202-01130	Removal of Guardrail Type 3	LF	192								192	
206-00000	Structure Excavation	CY			68						68	
206-00050	Granular Rock	CY			20						20	
206-00200	Structure Backfill (Class 2)	CY			40						40	
206-00510	Filter Material (Class A)	CY	1								1	
207-00205	Topsoil	CY	25								25	
208-00002	Erosion Log Type 1 (12 Inch)	LF	500								500	
208-00045	Concrete Washout Structure	EACH	1								1	
208-00303	Temporary Diversion (Special)	LS			1						1	
210-00810	Reset Ground Sign	EACH	7								7	
211-03005	Dewatering	LS			1						1	
212-00006	Seeding (Native)	ACRE	0.03								0.03	
213-00002	Mulch (Weed Free Hay)	ACRE	0.01								0.01	
213-00061	Mulch Tackifier	LB	1								1	
216-00021	Soil Retention Blanket (Class 1) (Biodegradeable)	SY	119								119	
304-01005	Aggregate Base Course (Class 1)	CY			7						7	
403-00720	Hot Mix Asphalt (Patching) (Asphalt)	TON	6								6	
403-34721	Hot Mix Asphalt (Grading SX)(75)(PG 58-28)	TON	23		11						34	
420-00114	Geotextile (Drainage)(Class 3)	SY	120								120	
504-03411	Retaining Wall (Rockery)	SF			250						250	
506-00206	Riprap (6 Inch)	CY	1								1	
506-00209	Riprap (9 Inch)	CY	1		7						8	
507-00400	Bituminous Slope and Ditch Paving (Asphalt)	TON	8								8	
515-00120	Waterproofing (Membrane)	SY			95						95	
601-03000	Concrete Class D	CY	2		8						10	
601-06150	Concrete (Patching)	SF			40						40	
602-00000	Reinforcing Steel	LB	65		1,400						1,465	
602-00210	Welded Wire Fabric	SY			2						2	
602-00001	Drill and Grout Dowels (Toe Walls)	EACH			200						200	
602-00002	Drill and Grout Dowels (Wall Repair - All Types)	EACH			23						23	
602-00003	Helical Anchors	EACH			70						70	
603-01185	18 Inch Reinforced Concrete Pipe (Complete In Place)	LF	15								15	
603-05018	18 Inch Reinforced Concrete End Section	EACH	1								1	
604-13005	Inlet Type 13 (5 Foot)	EACH	1								1	
606-00301	Guardrail Type 3 (6-3 Post Spacing)	LF	81								81	
606-01390	End Anchorage (Type 3K)	EACH	2								2	
606-01395	Transition Type 3L	EACH	4								4	
606-02003	End Anchorage (Nonflared)	EACH	1								1	
606-02005	End Anchorage (Flared)	EACH	1								1	
609-60011	Curb Type 6 (Section M)	LF	164								164	
609-71000	Curb (Special)	LF	8								8	
615-00150	Embankment Protector (Special)	EACH	4								4	
620-00020	Sanitary Facility	EACH	1								1	
625-00000	Construction Surveying	LS	1								1	
626-00000	Mobilization	LS	1								1	
627-00005	Epoxy Pavement Marking	GAL	2								2	
630-00000	Flagging	HOUR	560								560	
630-00007	Traffic Control Inspection	DAY	14								14	
630-00012	Traffic Control Management	DAY	35								35	
630-80341	Construction Traffic Sign (Panel Size A)	EACH	18								18	
630-80344	Construction Traffic Sign (Special)	SF	4								4	
630-80360	Drum Channelizing Device	EACH	10								10	
630-80370	Concrete Barrier (Temporary)	LF	200								200	
630-80380	Traffic Cone	EACH	12								12	
700-70010	F/A Minor Contract Revisions	F/A	1								1	

BID SET	 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES	REVISIONS:	NO.	DATE	REVISION DESCRIPTION:	 BOULDER COUNTY TRANSPORTATION DEPARTMENT ENGINEERING DIVISION		DESIGNED: SB	CAD: MS	CHECKED: SB	DATE: 10/31/18	MAGNOLIA DRIVE SUMMARY OF APPROX. QUANTITIES PROJECT NO: BR-132-0.1-BO SHEET NO: 4



SILVER SPRUCE
COTTAGE ASSOCIATION
PARCEL #146133000065

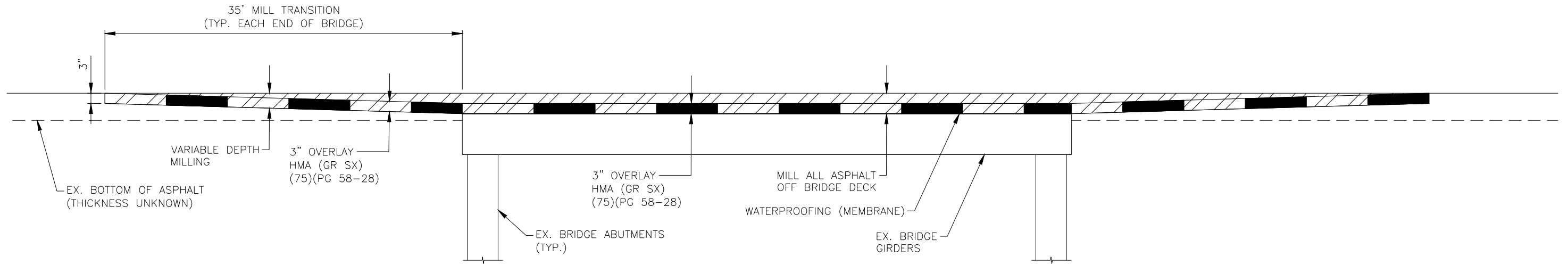


- NOTES:**
1. REMOVAL OF END ANCHORAGES IS INCLUDED IN LENGTH OF GUARDRAIL TYPE 3 REMOVAL.
 2. GUARDRAIL SHALL BE 31-INCH MIDWEST GUARDRAIL SYSTEM.
 3. EROSION CONTROL CURB SHALL BE INSTALLED UNDER GUARDRAIL AS SHOWN IN "OPTION A" ON M-606-1 SHEET 1. 2" THICK HMA PATCHING SHALL BE INSTALLED FROM THE EDGE OF PAVEMENT TO THE BACK OF CURB.
 4. EROSION CONTROL CURB SHALL BE TYPE 6 (SECTION M) AND SHALL EXTEND FROM THE END OF THE BRIDGE RAIL CURB OUTWARD FROM THE BRIDGE TO THE LIMITS INDICATED ON THE ROAD PLAN SHEET.
 5. GUARDRAIL RUN ON HILLSIDE SOUTH OF DRIVEWAY SHALL UTILIZE 7' POSTS.
 6. SILVER SPRUCE (PRIVATE DRIVE) SHALL BE KEPT CLEAR AND ACCESSIBLE FOR RESIDENTS AT ALL TIMES.

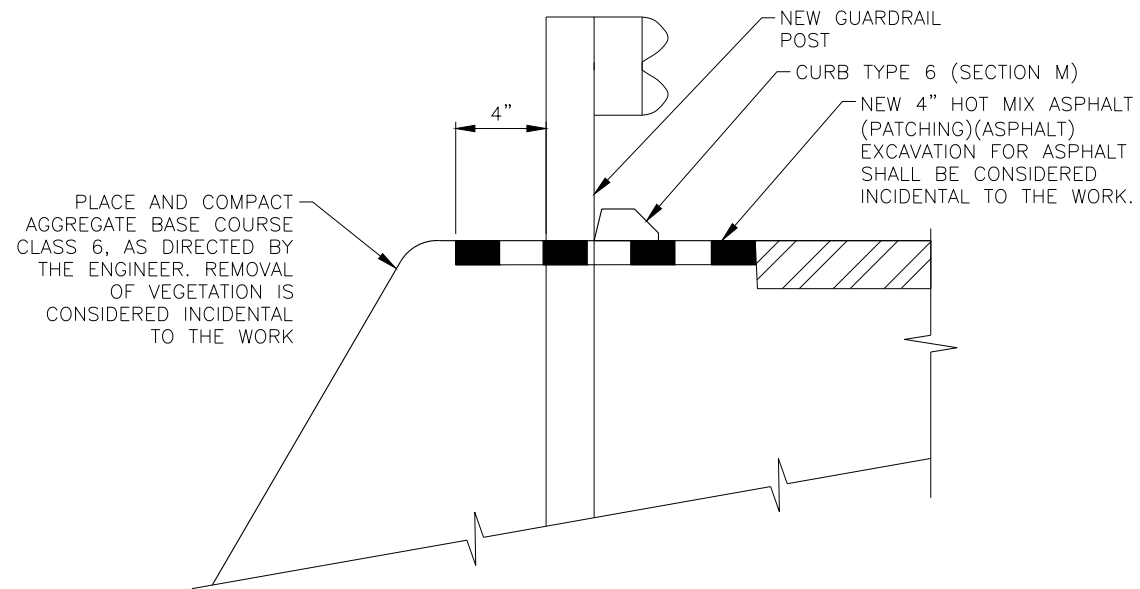
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		DESIGNED: MS	CAD: MS	CHECKED: SB	DATE: 10/31/18	PROJECT NO: BR-132-0.1-B0	SHEET NO: 5		

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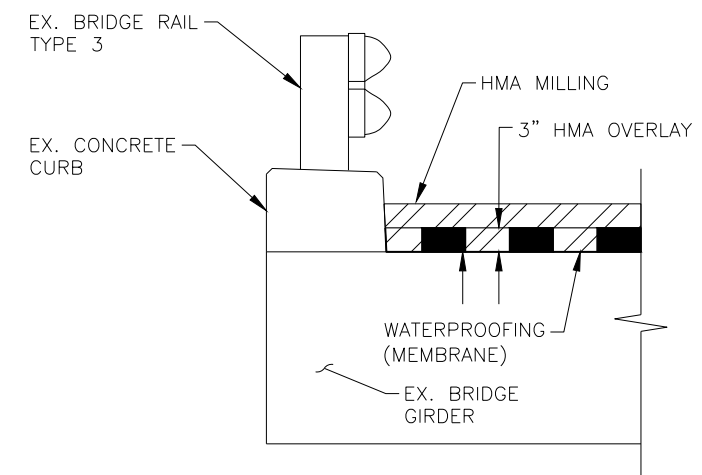
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REPAVING DETAILS – BRIDGE DECK AND APPROACH
PROFILE VIEW
N.T.S.



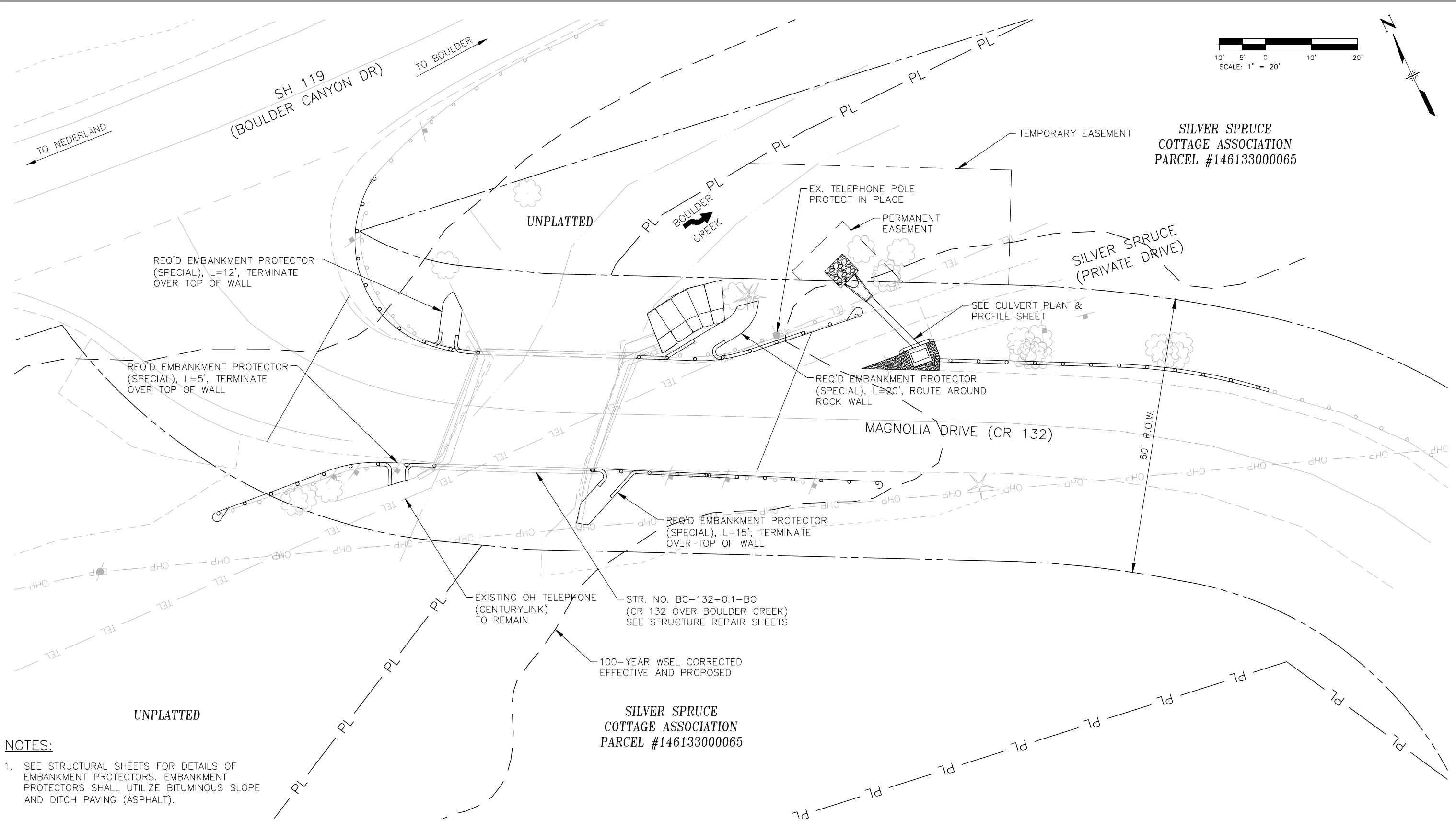
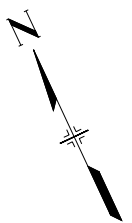
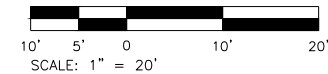
SECTION $\text{\textcircled{A}}$
5
POST PAVING SECTION
N.T.S.



DETAIL OF REPAVING ALONG BRIDGE RAIL
N.T.S.

BID SET	 CALL UTILITY NOTIFICATION CENTER OF COLORADO CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES	NO.	DATE	REVISION DESCRIPTION:	 BOULDER COUNTY TRANSPORTATION DEPARTMENT ENGINEERING DIVISION	DESIGNED: SB	CAD: MS	CHECKED: SB	DATE: 10/23/18	MAGNOLIA DRIVE REPAVING DETAILS PROJECT NO: BR-132-0.1-B0 SHEET NO: 6							
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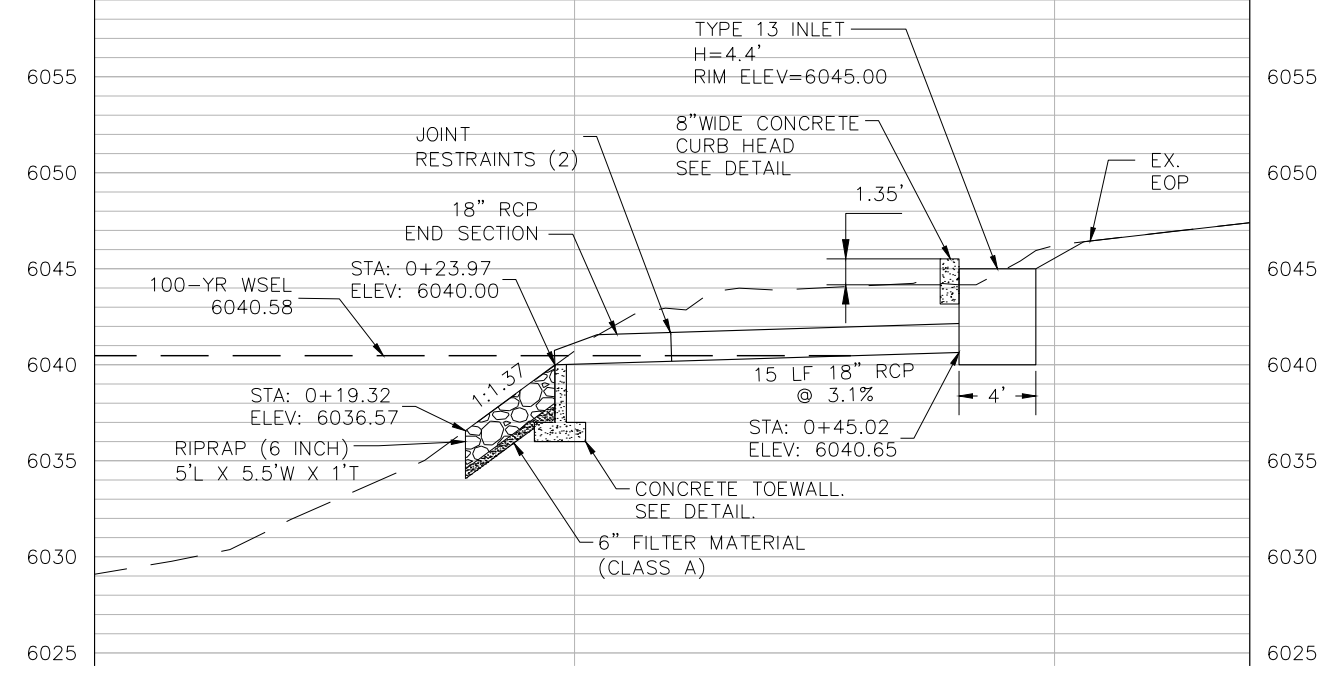
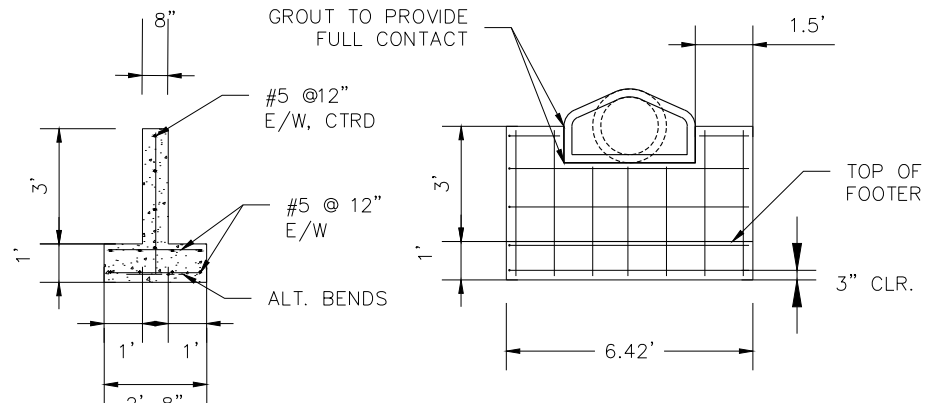
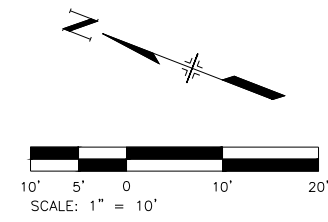
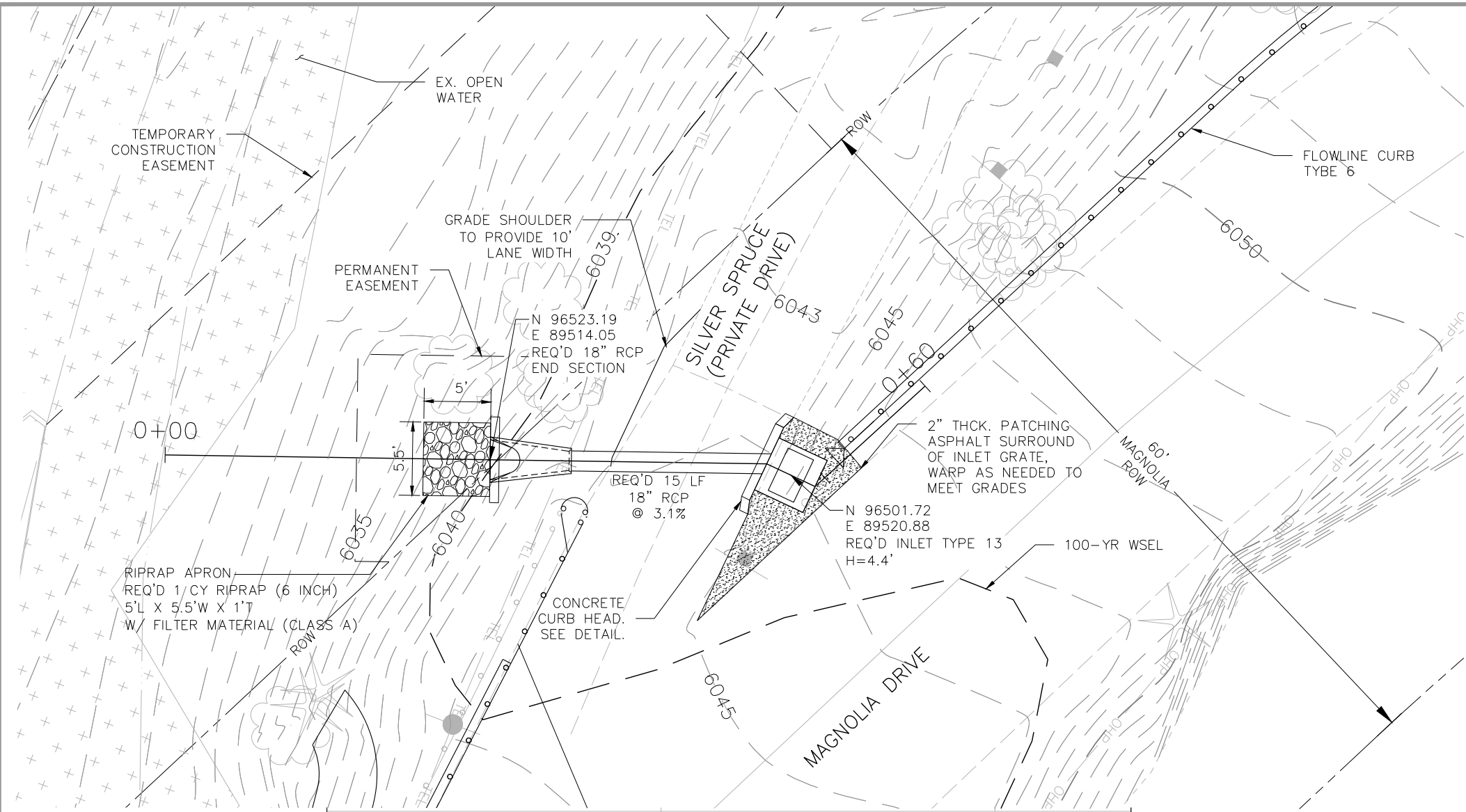
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- NOTES:**
- SEE STRUCTURAL SHEETS FOR DETAILS OF EMBANKMENT PROTECTORS. EMBANKMENT PROTECTORS SHALL UTILIZE BITUMINOUS SLOPE AND DITCH PAVING (ASPHALT).

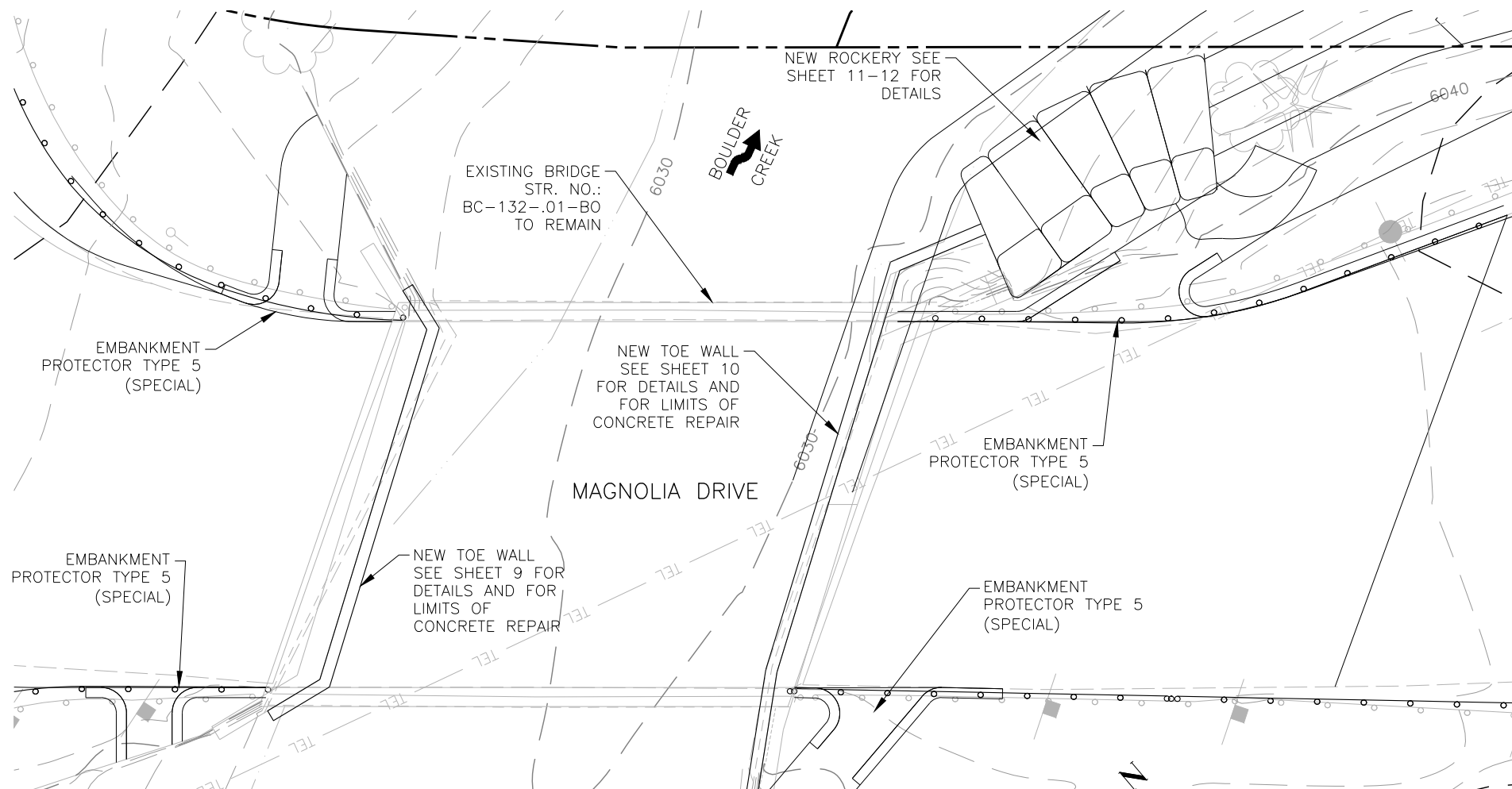
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		CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES					benesch		DESIGNED: MS	CAD: MS	CHECKED: NB	DATE: 10/23/18

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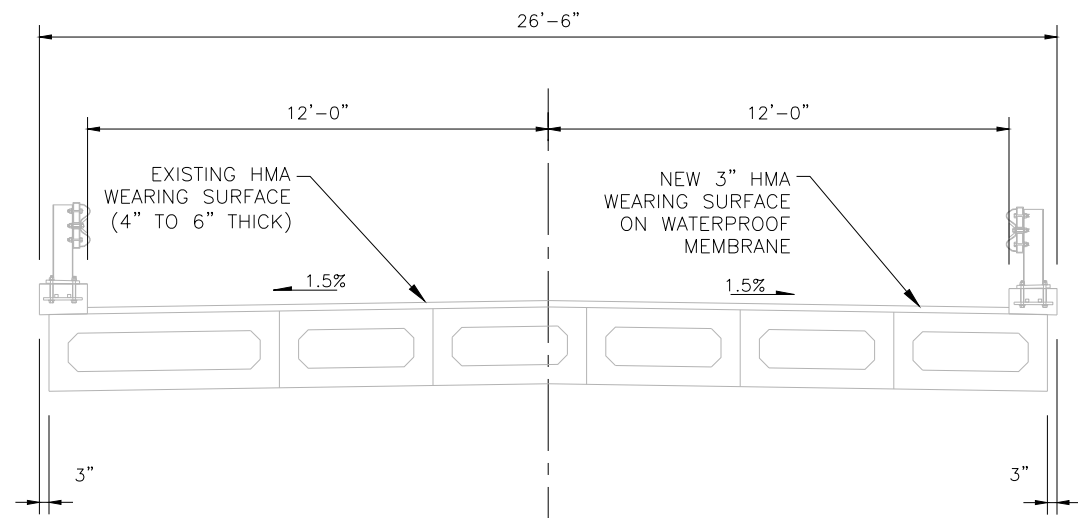
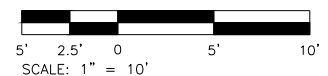


- NOTES:**
- PIPE STRUCTURE EXCAVATION AND BACKFILL WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PIPE.
 - JOINT RESTRAINTS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PIPE.
 - INLET IS CALLED OUT AT CENTERLINE OF GRATE.
 - CONCRETE FOR TOEWALL AND CURB HEAD SHALL BE CONCRETE CLASS D.

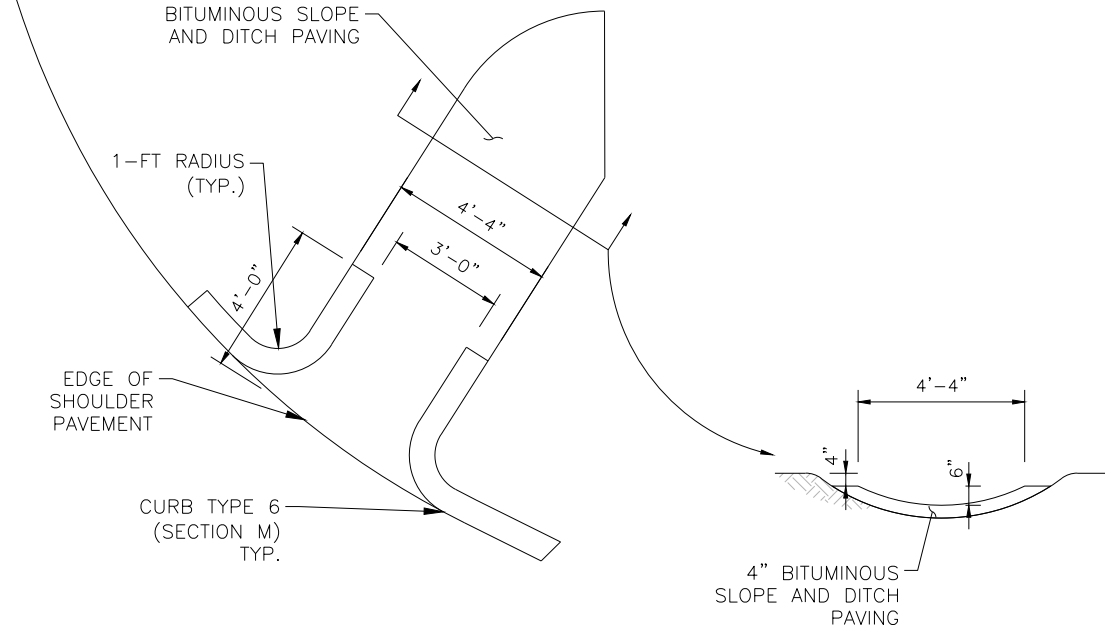
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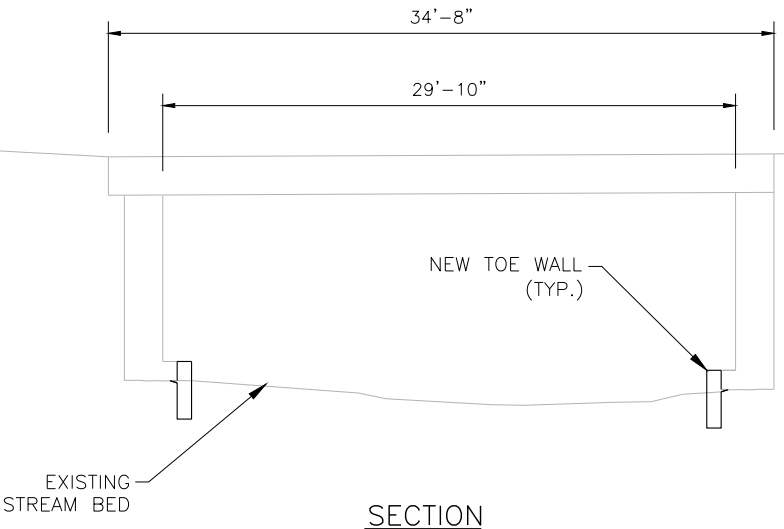
PLAN VIEW



TYPICAL SECTION



EMBANKMENT PROTECTOR TYPE 5 (SPECIAL)

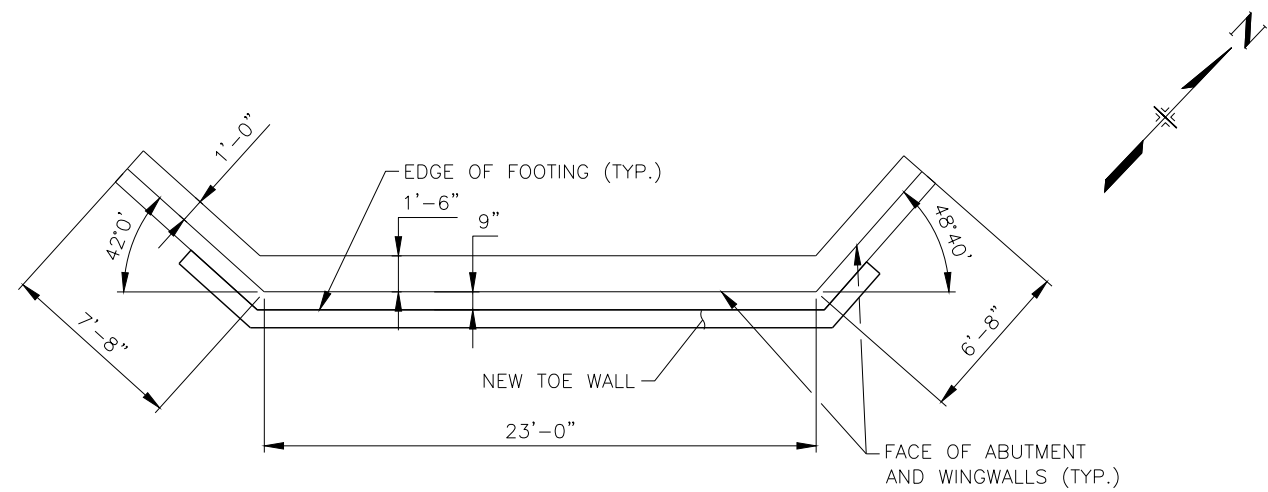


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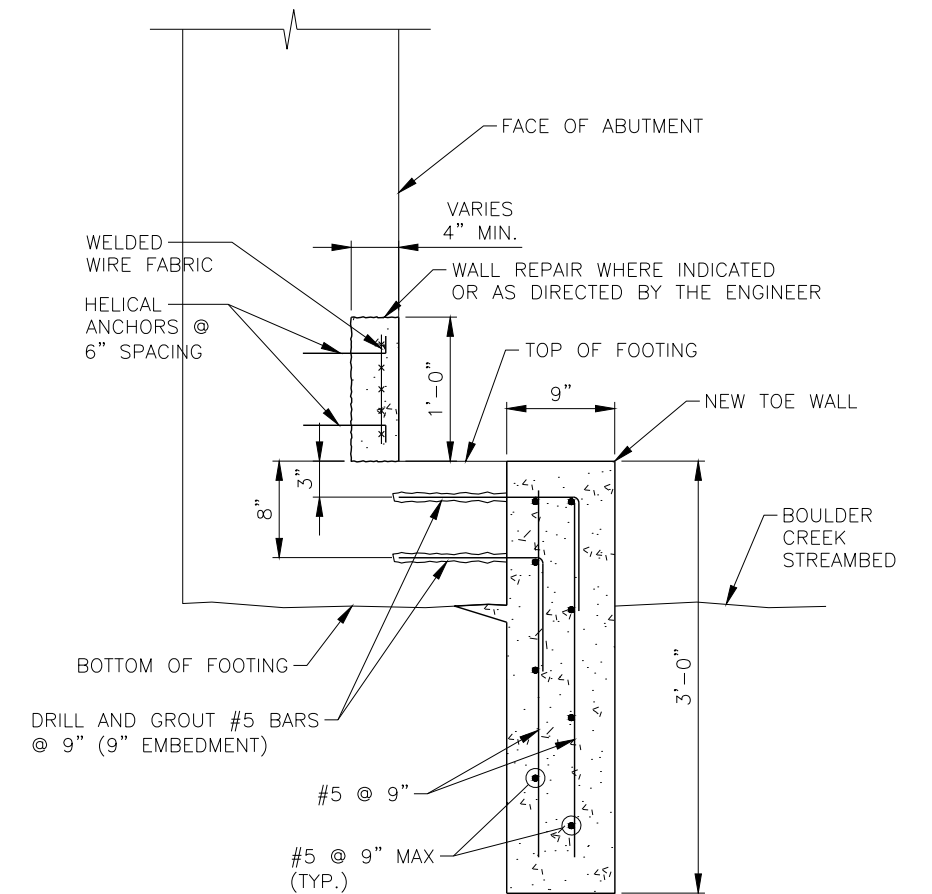
NOTES:

1. SEE REPAVING DETAILS SHEET FOR APPROXIMATE PROFILE.
2. ASPHALT SHALL BE REMOVED FROM DECK BY SCRAPING OR A COMBINATION OF SCRAPING AND MILLING.
3. IF MILLING, LEAVE AT LEAST 1" OF ASPHALT AND SCRAPE TO THE TOP OF THE PRECAST BOXES. USE CAUTION TO AVOID DAMAGE TO THE TOP SURFACE OF THE EXISTING PRECAST BOXES.
4. EMBANKMENT PROTECTOR TYPE 5 (SPECIAL) SHALL INCLUDE EMBANKMENT MATERIAL, STRUCTURE EXCAVATION AND ANY EXTRA WORK REQUIRED TO MODIFY OTHER PAY ITEMS AS NECESSARY TO CONSTRUCT THE EMBANKMENT PROTECTOR.
5. WHEN INSTALLING GUARDRAIL POSTS NEAR EXISTING ABUTMENTS, WINGWALLS OR RETAINING WALLS, CONTRACTOR SHALL EXCAVATE AT LEAST 2- FEET AND REPORT TO THE ENGINEER ANY EXISTING STRUCTURES OR OBSTRUCTIONS ENCOUNTERED THAT WOULD HINDER INSTALLATION OF THE POSTS. 7-FOOT POSTS SHALL BE USED WHERE EMBANKMENT SLOPES STEEPER THAN 4 TO 1 START CLOSER THAN 2 FEET FROM BACK OF POST.

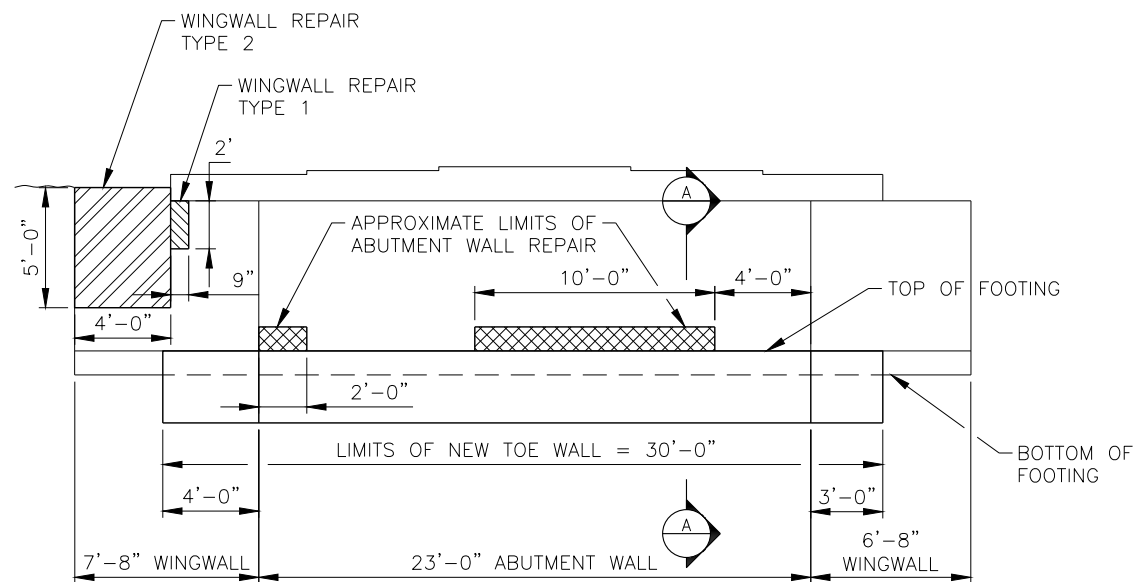
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PLAN – NORTH ABUTMENT AND WINGWALLS
SCALE: 1/8" = 1'

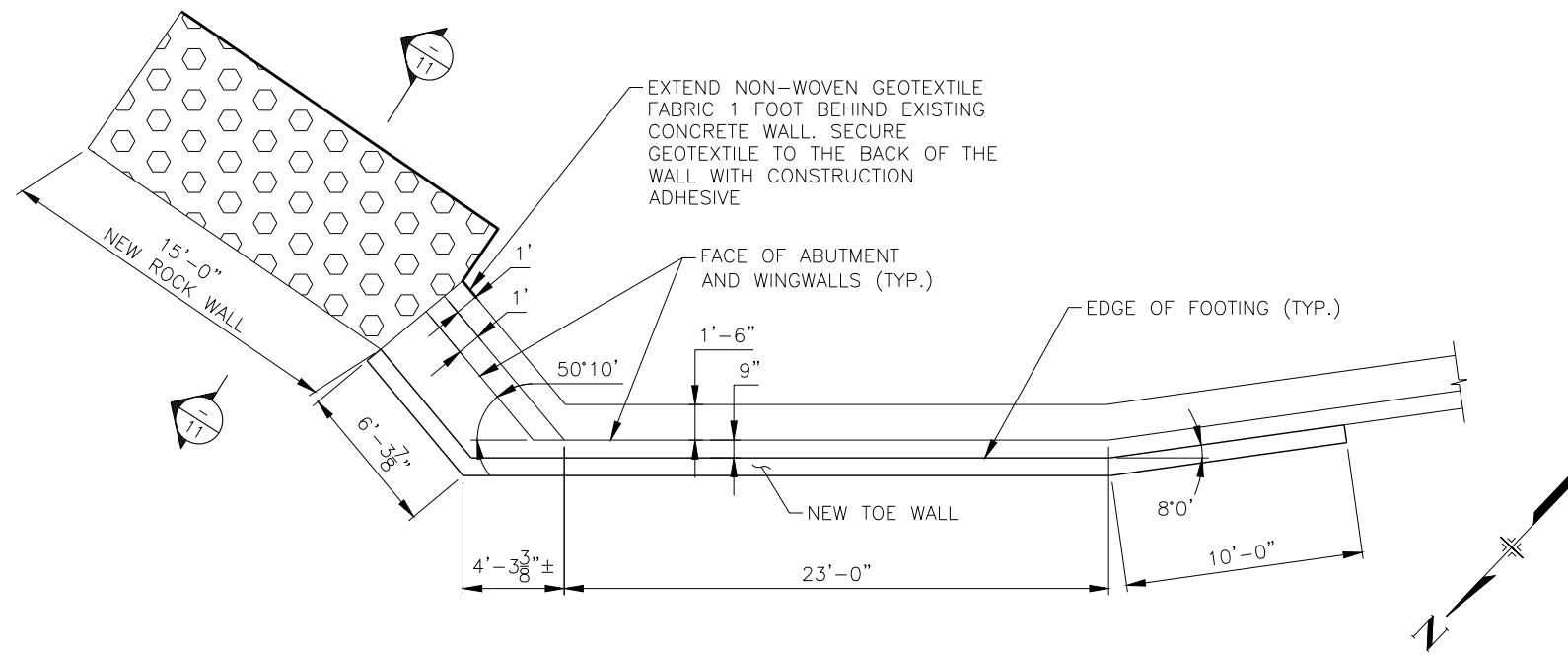


SECTION A
WALL & FOOTING SECTION
SCALE: 3/4" = 1'

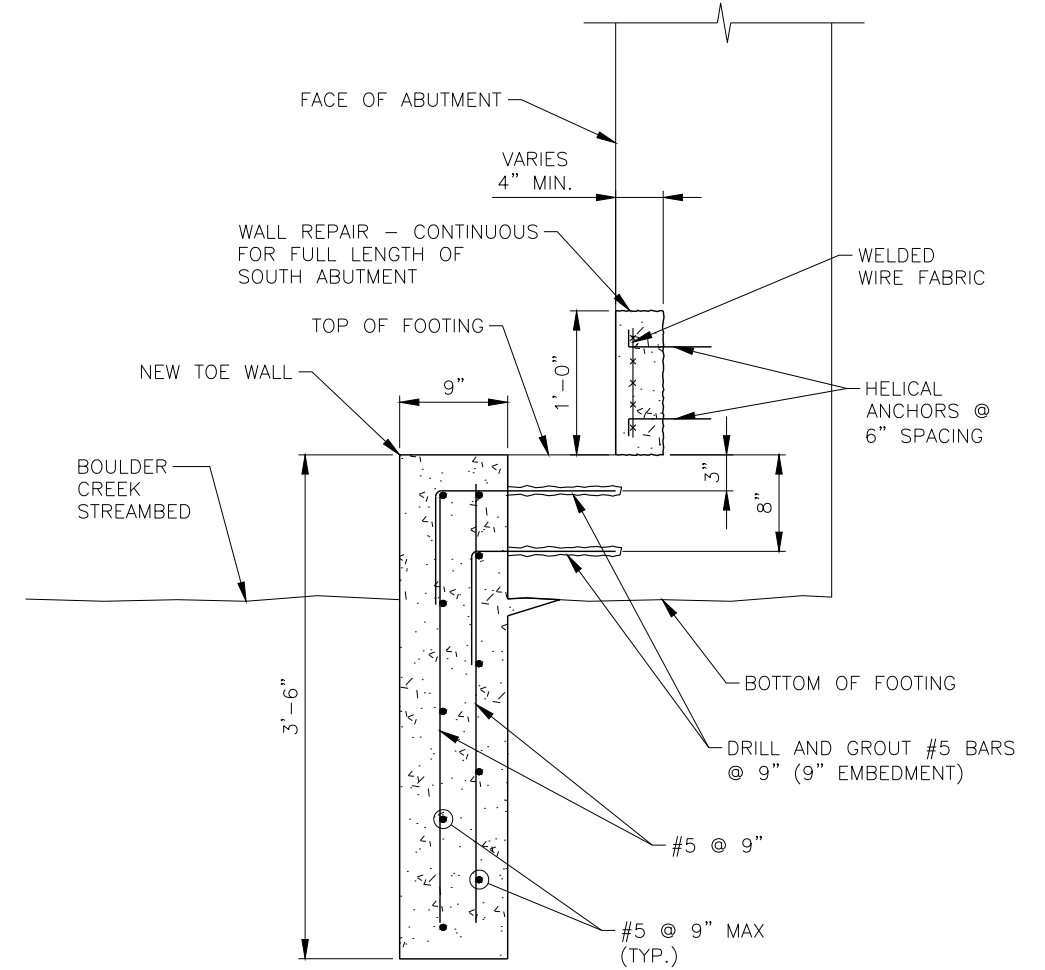


ELEVATION – NORTH ABUTMENT AND WINGWALLS
SCALE: 1/8" = 1'

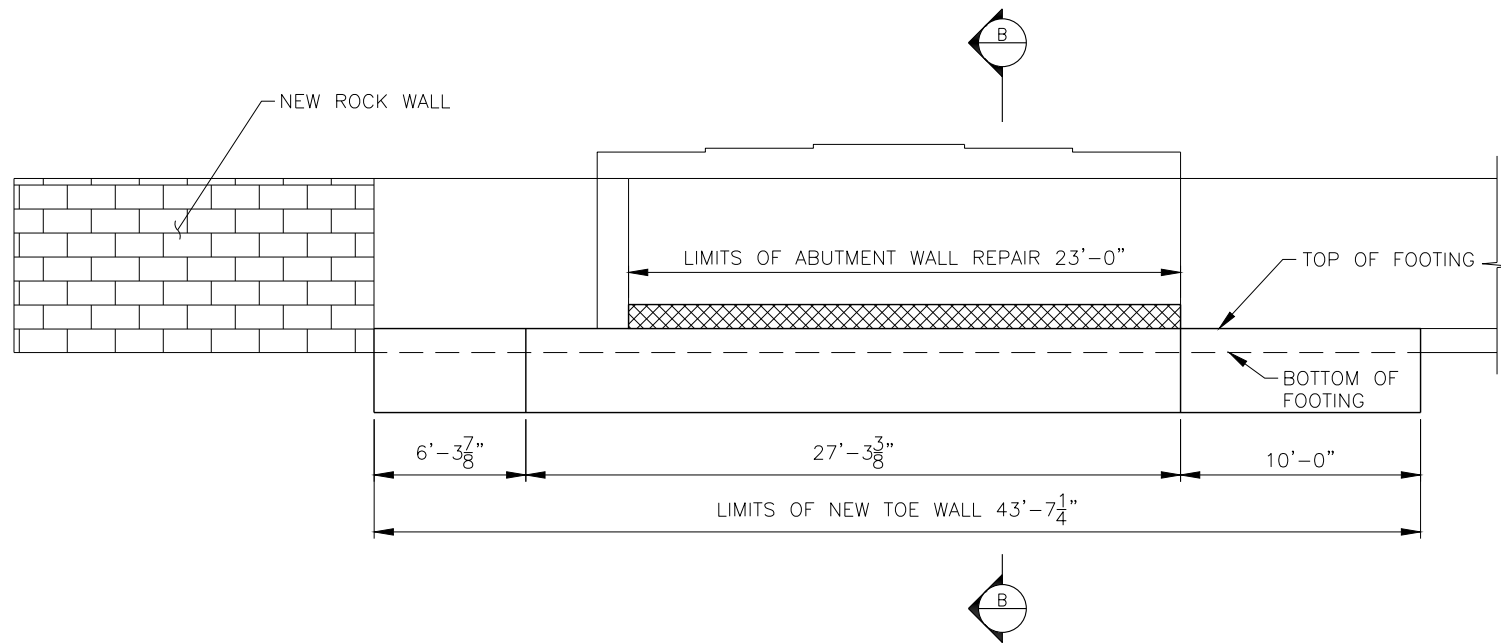
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PLAN - SOUTH ABUTMENT AND WINGWALLS
SCALE: 1/8" = 1'

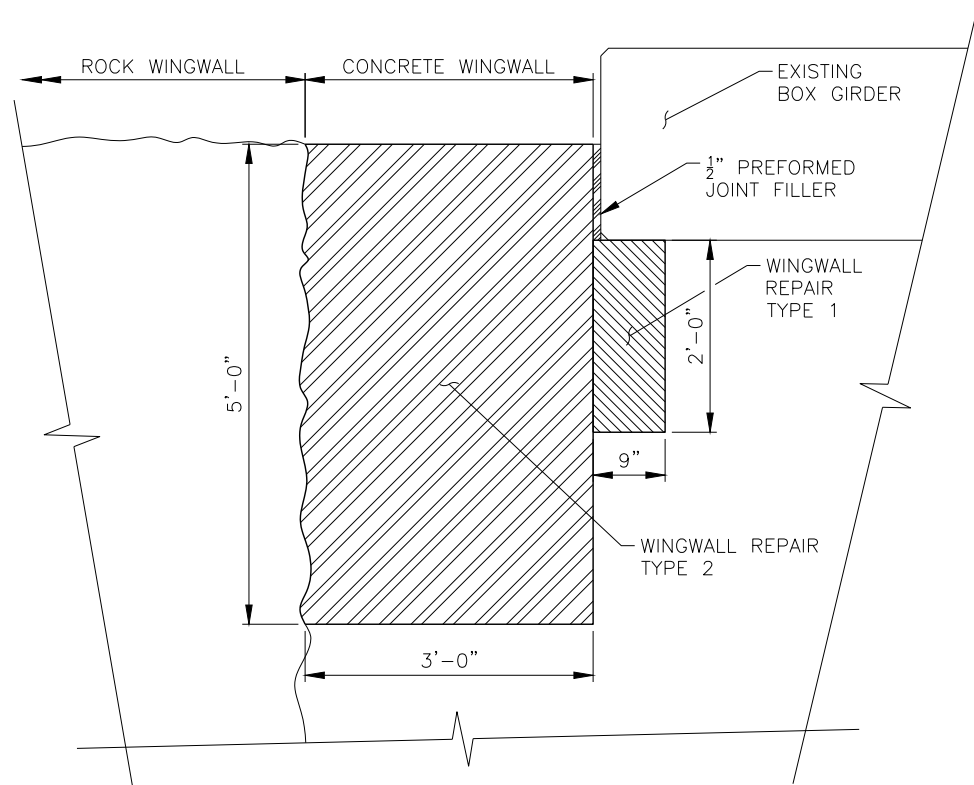


SECTION B
WALL & FOOTING SECTION
SCALE: 3/4" = 1'



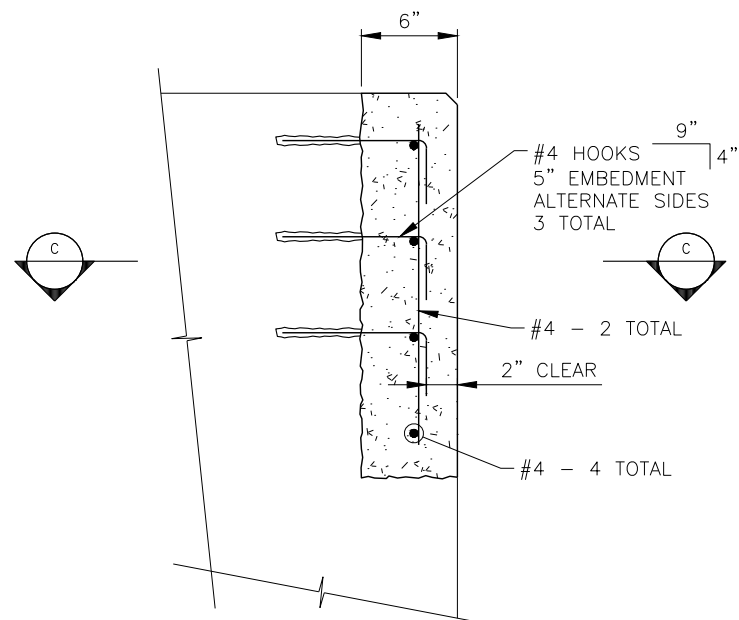
ELEVATION - SOUTH ABUTMENT AND WINGWALLS
SCALE: 1/8" = 1'

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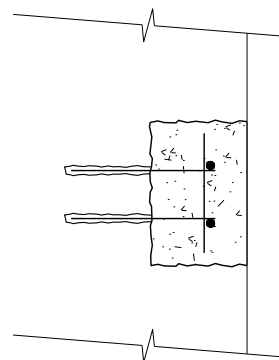
NORTHWEST WINGWALL REPAIRS

SCALE: 1/2" = 1'



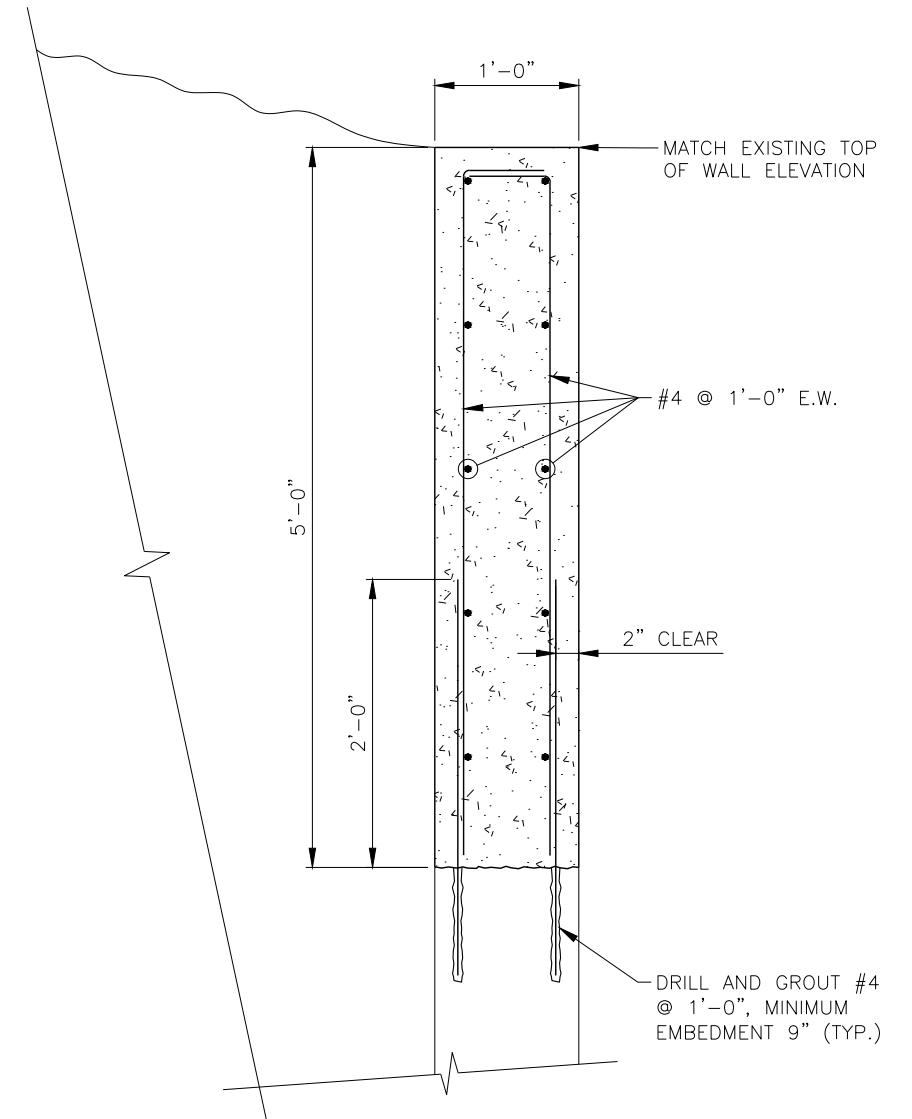
WINGWALL REPAIR - TYPE 1

SCALE: 1" = 1'



SECTION C

SCALE: 1" = 1'



WINGWALL REPAIR - TYPE 2

SCALE: 3/4" = 1'

BID SET



CALL UTILITY NOTIFICATION CENTER OF COLORADO
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

REVISIONS:	NO.	DATE	REVISION DESCRIPTION:



BOULDER COUNTY TRANSPORTATION DEPARTMENT ENGINEERING DIVISION

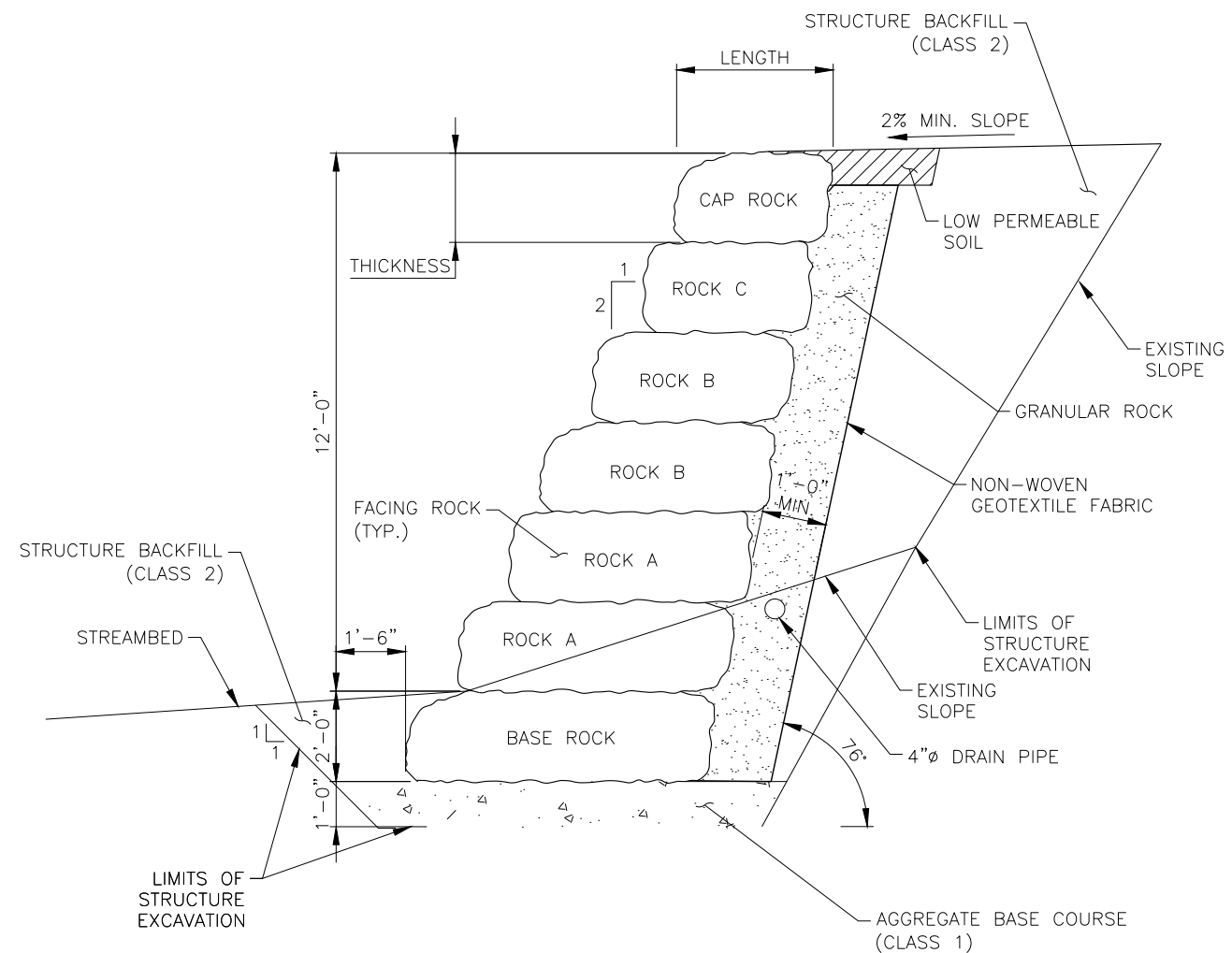


DESIGNED: SB	CAD: MS	CHECKED: SB	DATE: 10/23/18
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MAGNOLIA DRIVE
WINGWALL REPAIR DETAILS

PROJECT NO: BR-132-0.1-BO SHEET NO: 12

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TYPICAL SECTION - SOUTHEAST WINGWALL REPAIR
SCALE: 1/4" = 1'

ROCKERY DESIGN TABLE			
ROCK ID	THICKNESS (FT)	LENGTH (FT)	# OF COURSES
CAP ROCK	2	3	1
ROCK C	2	4	1
ROCK B	2	5	2
ROCK A	2	6	2
BASE ROCK	2	7	1

EXPOSED HEIGHT (FT) = 12
TOTAL HEIGHT (FT) = 14
EMBEDMENT DEPTH (FT) = 2

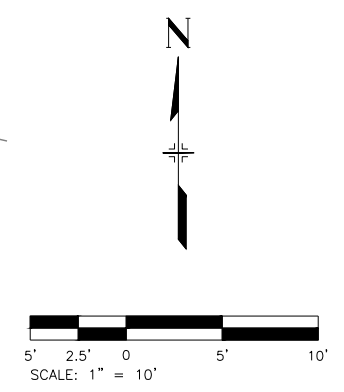
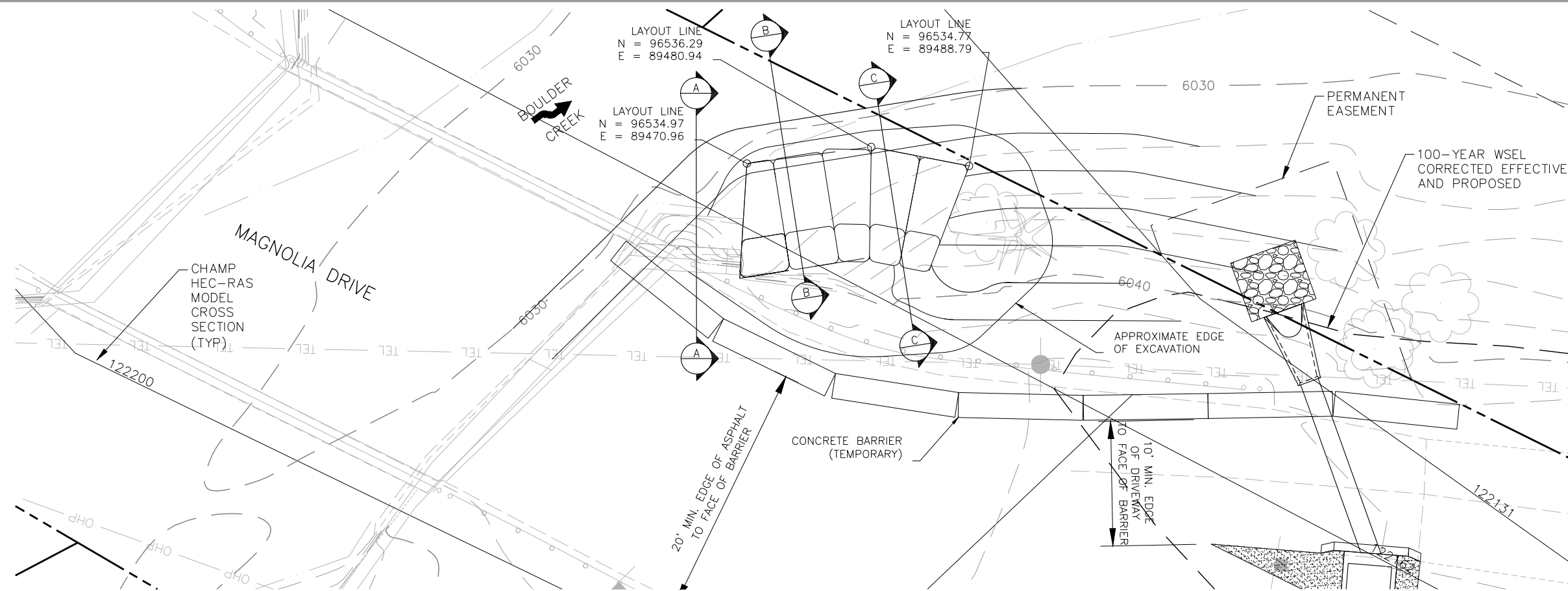
NOTES:

- FACING ROCKS SHALL HAVE A MINIMUM SPECIFIC GRAVITY OF 2.5, SEE THE PROJECT SPECIAL PROVISION FOR ADDITIONAL REQUIREMENTS.
- GRANULAR ROCK SHALL MEET THE GRADATION (AASHTO M 43) FOR NO. 57 AGGREGATE (SEE CDOT TABLE 703-1). LOW PERMEABLE SOIL SHALL BE INCLUDED IN THE COST FOR GRANULAR ROCK.
- NONWOVEN GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS FOR CLASS 3 SURVIVABILITY IN ACCORDANCE WITH AASHTO M 288. GEOTEXTILE FABRIC SHALL BE PAID FOR AS GEOTEXTILE (DRAINAGE)(CLASS 3).
- DRAIN PIPE SHALL MEET THE REQUIREMENTS OF CDOT SECTION 605. THE DRAIN PIPE SHALL BE PERFORATED WHEN PLACED BEHIND THE ROCK WALL AND UNPERFORATED, RUN TO DAYLIGHT (1% MIN SLOPE), BEYOND THE WALL. DRAIN PIPE SHALL NOT BE PAID FOR SEPARATELY.
- THE COLOR AND APPEARANCE OF ROCK SHALL MATCH ON-SITE ROCK. THE CONTRACTOR SHALL PROVIDE A SAMPLE TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING ROCK.

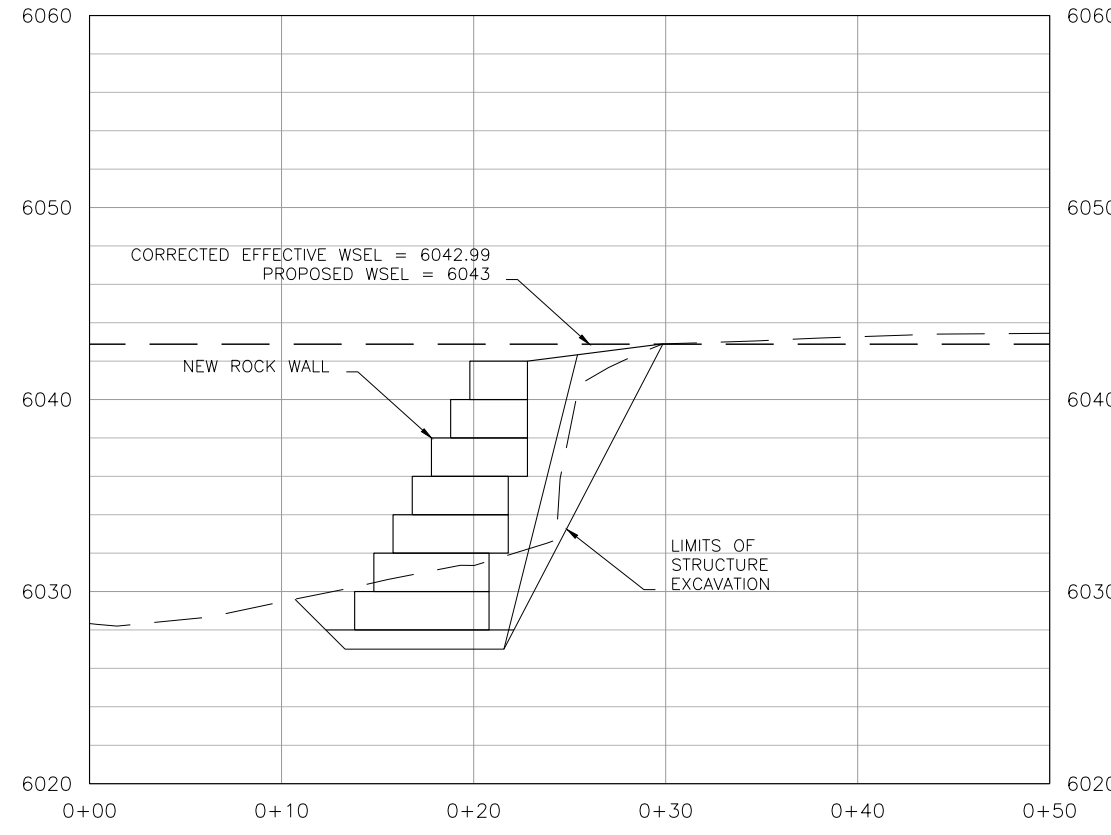
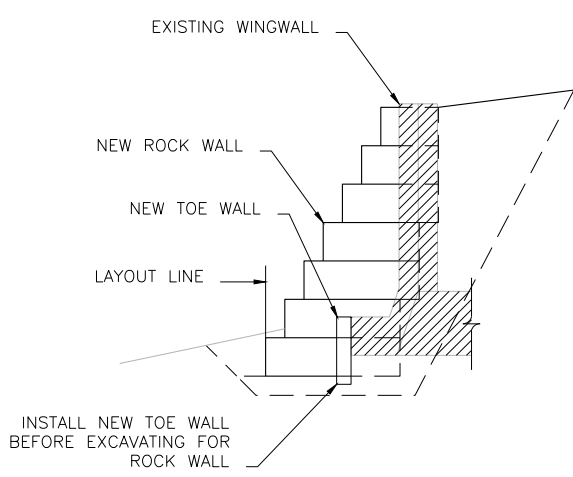
ROCKERY SUMMARY OF APPROXIMATE QUANTITIES

ITEM #	DESCRIPTION	UNIT		TOTAL
206	STRUCTURE EXCAVATION	CY		68
206	GRANULAR ROCK	CY		20
206	STRUCTURE BACKFILL (CLASS 2)	CY		40
304	AGGREGATE BASE COURSE (CLASS 1)	CY		7
504	RETAINING WALL (ROCKERY)	SF		250

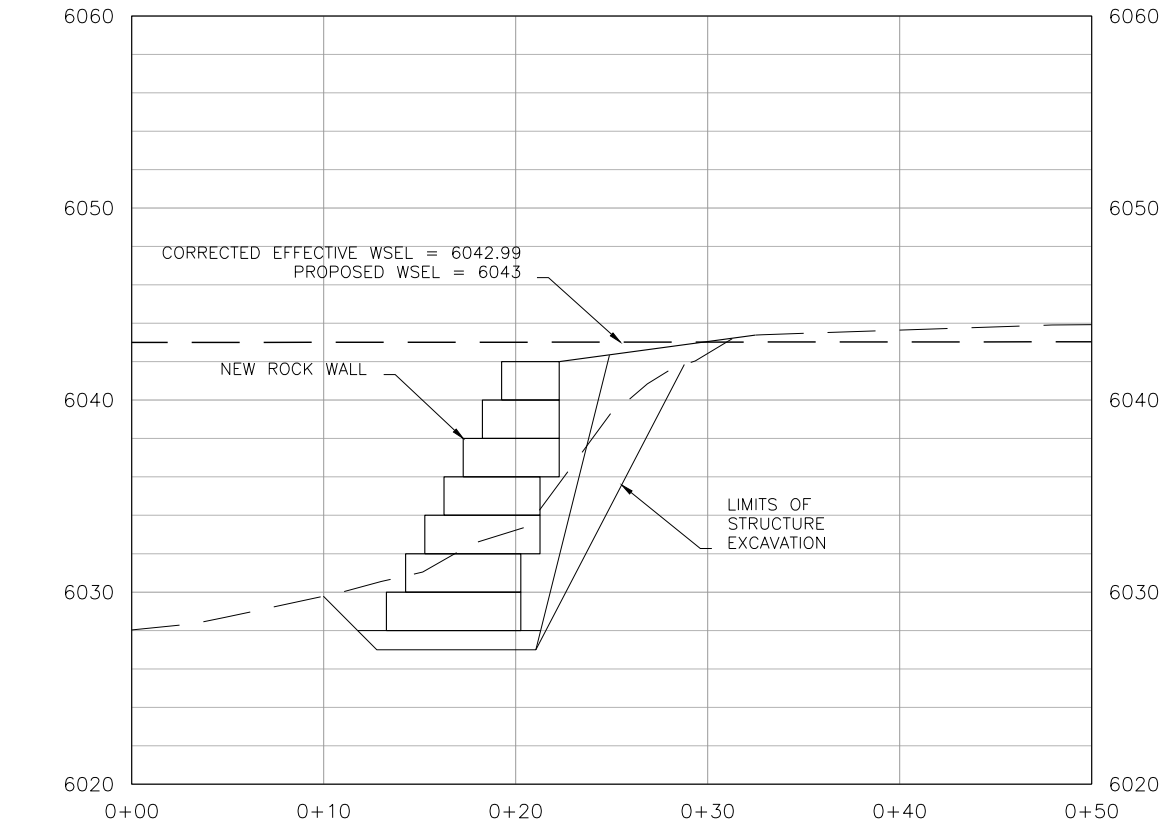
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NOTES:
 1. PROVIDE CONCRETE BARRIER (TEMPORARY) ADJACENT TO EXCAVATION AND AT ANY CORNER WHEN GUARDRAIL HAS BEEN REMOVED.



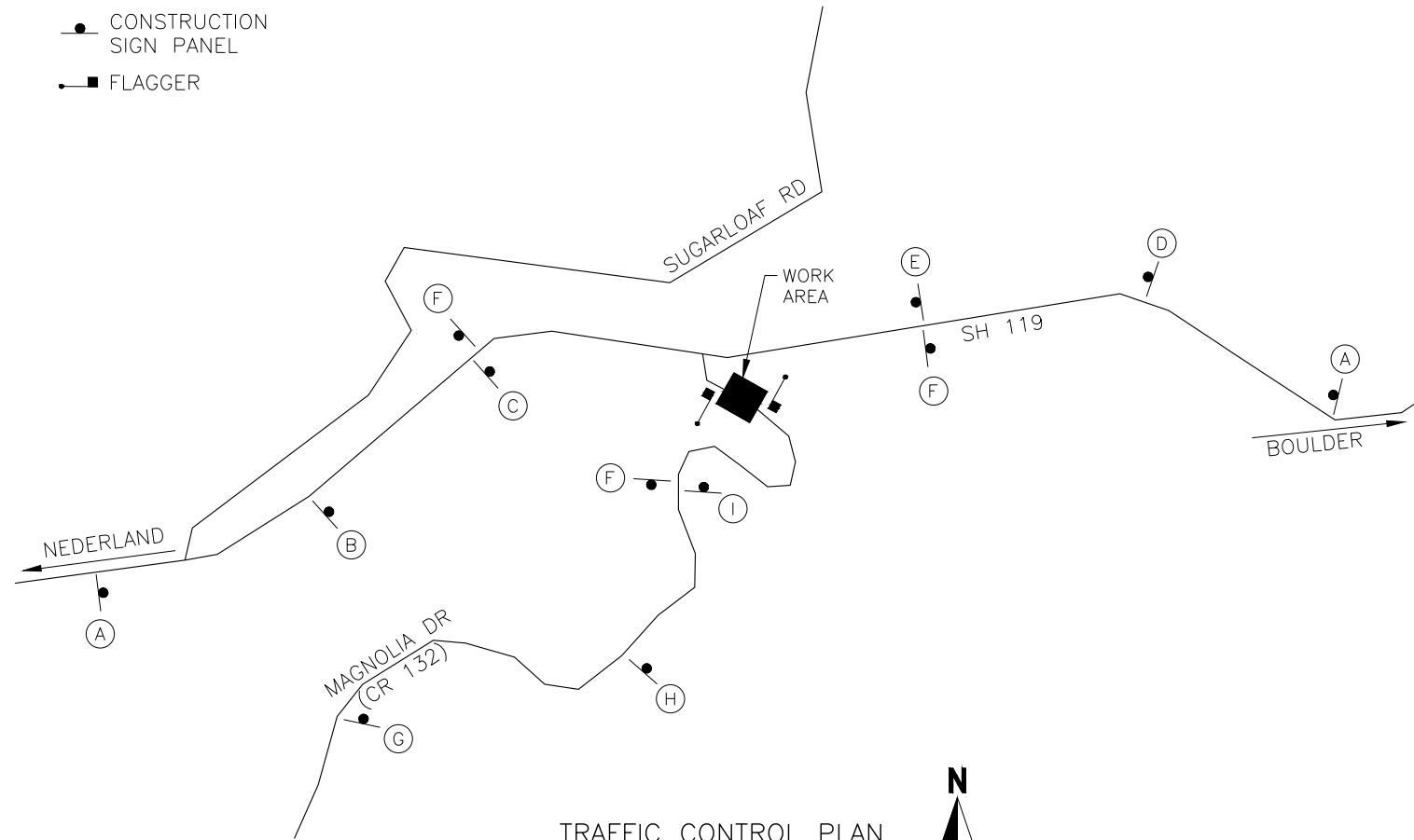
SECTION A



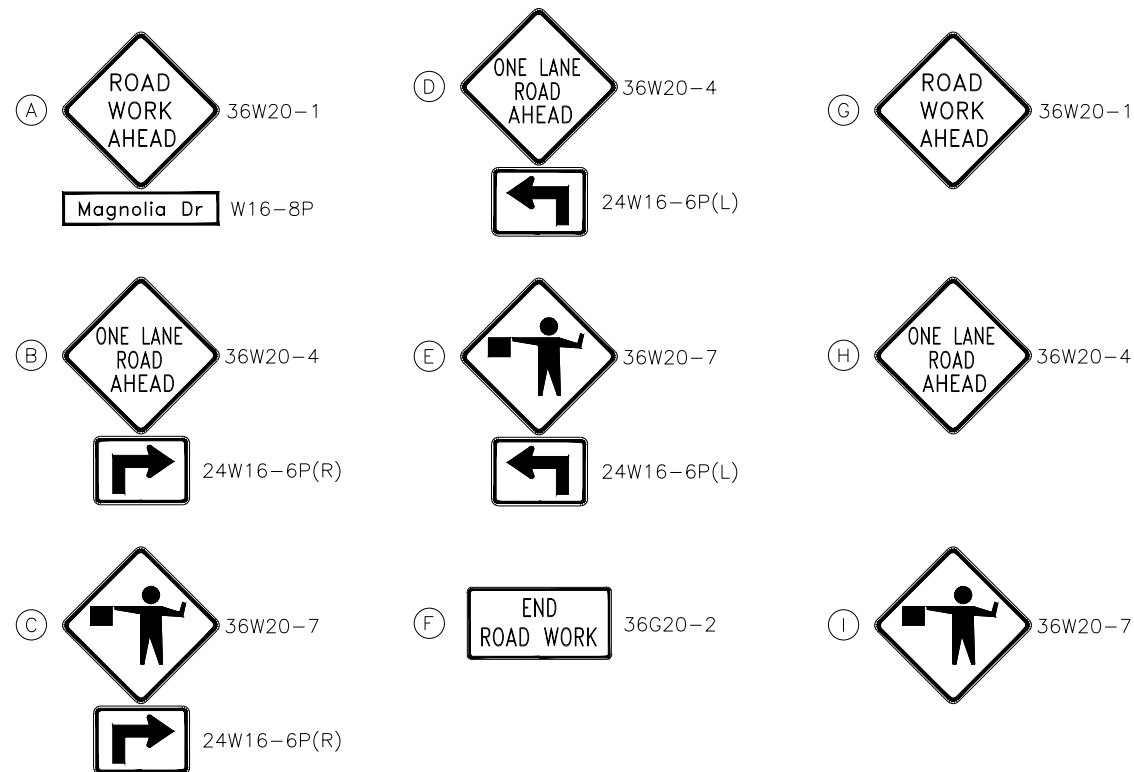
SECTION B

LEGEND

- CONSTRUCTION SIGN PANEL
- FLAGGER



**TRAFFIC CONTROL PLAN
ADVANCE SIGNING**



SUMMARY OF CONSTRUCTION TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN LEGEND	DIMENSION W X H (IN)	PANEL SIZE	PANEL SIZE TOTALS	
				A	SPECIAL
				EACH	SF
36G20-2	END ROAD WORK	36X18	A	3	
36W8-15	GROOVED PAVEMENT	36X36	A	2	
24W16-6P(L)	ADVANCE ARROW LEFT	24X18	A	2	
24W16-6P(R)	ADVANCE ARROW RIGHT	24X18	A	2	
36W20-1	ROAD WORK AHEAD	36X36	A	3	
36W20-4	ONE LANE ROAD AHEAD	36X36	A	3	
36W20-7	FLAGGER SYMBOL	36X36	A	3	
30W16-8P	Magnolia Dr	30X8	SPECIAL		4
PROJECT TOTALS				18	4

TABULATION OF CONSTRUCTION TRAFFIC CONTROL DEVICES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
630	FLAGGING	HOUR	560
630	TRAFFIC CONTROL INSPECTION	DAY	14
630	TRAFFIC CONTROL MANAGEMENT	DAY	35
630	CONSTRUCTION TRAFFIC SIGN (PANEL SIZE A)	EACH	18
630	CONSTRUCTION TRAFFIC SIGN (SPECIAL)	EACH	4
630	DRUM CHANNELIZING DEVICE	EACH	10
630	CONCRETE BARRIER (TEMPORARY)	LF	200
630	TRAFFIC CONE	EACH	12

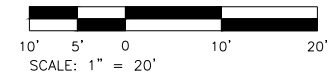
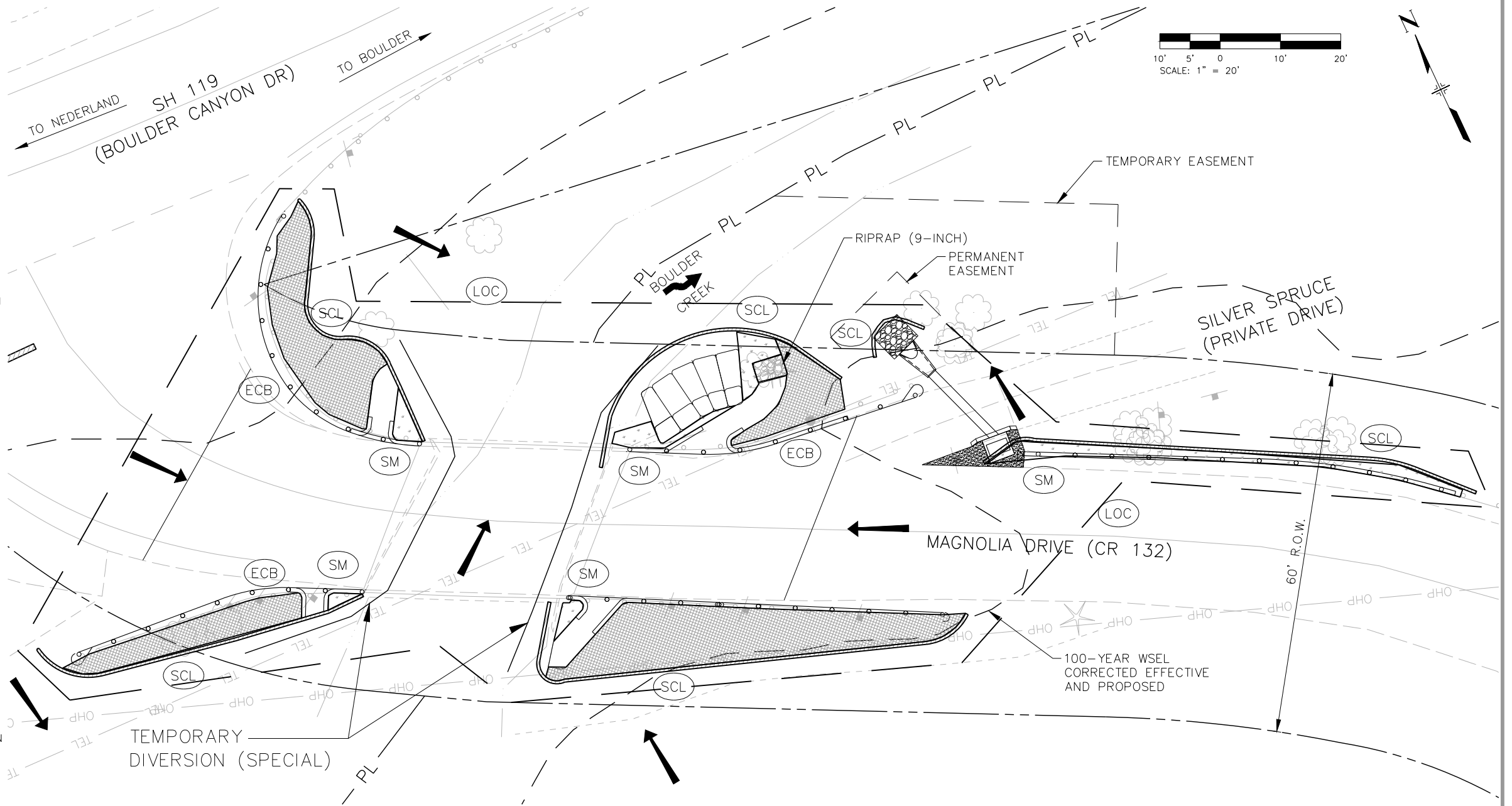
TRAFFIC CONTROL PLAN GENERAL NOTES

- FINAL DEVICE PLACEMENT SHALL BE ACCORDING TO THE MUTCD AND STANDARD S-630-1 OF THE CDOT M&S STANDARD PLANS. THE CONTRACTOR IS DIRECTED TO CASE 17 OF S-630-1.
- ALL LANES SHALL BE A MINIMUM OF 10' WIDE FOR EACH PHASE OF CONSTRUCTION, UNLESS OTHERWISE INDICATED IN THE PLANS.
- SIGN SPACING IS 500' TYPICAL.
- ALL SIGNS, INCLUDING EXISTING SIGNS AND CONSTRUCTION SIGNS FROM OTHER PHASES, WHICH CONFLICT WITH CONDITIONS OF THE CURRENT PHASE, SHALL BE COVERED, TURNED OR REMOVED. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCIDENTAL TO OTHER TRAFFIC CONTROL ITEMS.
- ALL TRAFFIC CONTROL ITEMS SHALL BE CRASH TESTED IN ACCORDANCE WITH NCHRP 350 REQUIREMENTS.
- VERIFY BURIED UTILITIES PRIOR TO PLACING ANY BELOW-GROUND POSTS.
- SIGN AND DEVICE PLACEMENT SHOWN ON THE PLAN IS SCHEMATIC ONLY. DEVICE PLACEMENT SHALL BE AS REQUIRED BY PHASING AND FIELD CONDITIONS, AND AS DIRECTED BY THE ENGINEER.
- CONCRETE BARRIER (TEMPORARY) SHALL BE UTILIZED TO PROTECT CORNERS OF THE BRIDGE WHEN GUARDRAIL IS NOT PRESENT. RESETTING OF BARRIER WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK.

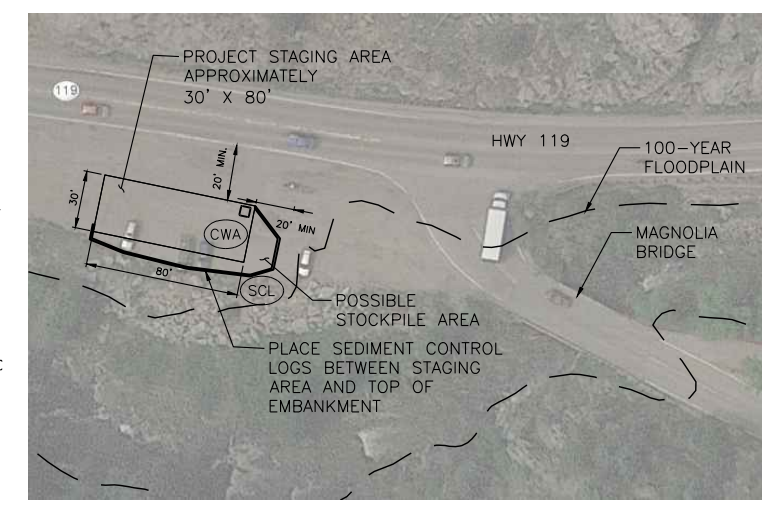
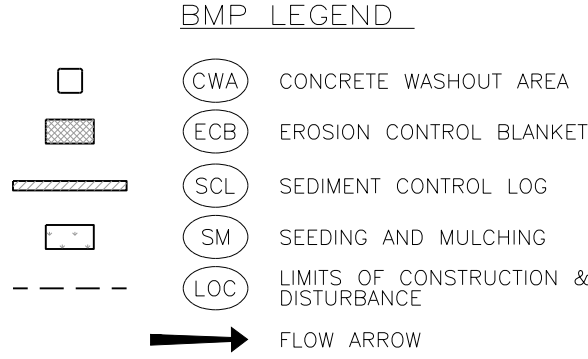
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EROSION CONTROL NOTES:

- ALL EROSION CONTROL DEVICES AND BMP'S SHALL BE MAINTAINED IN ACCORDANCE WITH SUBSECTION 208.04.
- SEEDING SHALL BE COMPLETED ACCORDING TO THE SCHEDULE IN SECTION 212.03.
- FERTILIZER SHALL BE IN ACCORDANCE WITH SECTION 212 AND SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK.
- ALL AREAS TO BE SEEDED AND MULCHED SHALL HAVE NATIVE TOP SOIL OR APPROVED SOIL AMENDMENTS SPREAD TO A DEPTH OF AT LEAST 6 INCHES (LOOSE DEPTH). COMPACTED AREAS SHALL BE LOOSENEED TO A DEPTH OF 6 INCHES PRIOR TO SPREADING TOPSOIL.
- SOIL IS TO BE THOROUGHLY LOOSENEED TO A DEPTH OF 6 INCHES PRIOR TO SEEDING. THE TOP 6 INCHES OF THE SEED BED SHALL BE GENERALLY FREE OF ROCKS GREATER THAN 4 INCHES AND SOIL CLODS GREATER THAN 2 INCHES. SEEDING OVER ANY COMPACTED AREAS THAT HAVEN'T BEEN THOROUGHLY LOOSENEED SHALL BE REJECTED.
- SEEDS TO BE LIGHTLY RAKED INTO TOPSOIL BEFORE APPLYING MULCH AND MULCH TACKIFIER.
- MULCH SHALL BE WEED FREE HAY. MULCH TACKIFIER SHALL BE USED TO STABILIZE MULCH.
- SEED AND MULCHED AREAS SHALL BE ACCEPTED UNDER THE FOLLOWING CONDITIONS:
 - 70% OF THE EXISTING / PRE-CONSTRUCTION CONDITION
 - FREE OF ERODED AREAS
 - FREE FROM INFESTATION OF NOXIOUS WEEDS.
- RILL AND GULLY EROSION SHALL BE FILLED WITH TOPSOIL PRIOR TO RESEEDING.
- FOR AREAS WHERE EROSION CONTROL BLANKET IS INDICATED, THE EXISTING COMPACTED SOIL SHALL BE LOOSENEED TO A DEPTH OF 6 INCHES, FOLLOWED BY PLACEMENT OF 6 INCHES OF TOPSOIL, SEEDING, AND PLACEMENT OF EROSION CONTROL BLANKET.
- EROSION CONTROL BLANKET SHALL BE CLASS 1, BIODEGRADABLE STRAW/COCONUT.
- EROSION CONTROL LOGS SHALL BE BIODEGRADABLE.
- A CONSTRUCTION STAGING AREA IS DESIGNATED ON THIS PLAN. THIS STAGING AREA IS PART OF A CDOT SPECIAL USE PERMIT AND MUST BE RETURNED TO ITS ORIGINAL CONDITION AT THE END OF THE PROJECT. ANY IMPROVEMENTS TO THE STAGING AREA THAT THE CONTRACTOR DEEMS NECESSARY, E.G. FENCING, SHALL BE INCLUDED IN THE WORK AND NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK. THE DESIGNATED STAGING AREA IS OUTSIDE THE 100-YEAR FLOODPLAIN. NO MATERIAL OR EQUIPMENT SHALL BE STORED WITHIN THE LIMITS OF THE 100-YEAR FLOODPLAIN.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY WORK SITE DIRT AND DEBRIS FROM PUBLIC ROADWAYS. THIS WORK IS INCLUDED IN THE WORK AND SHALL NOT BE PAID FOR SEPARATELY.
- DEWATERING PLAN SHALL BE ACCORDANCE WITH THE BOULDER COUNTY WATER QUALITY REQUIREMENTS.
- WATER MUST BE DIVERTED SUCH THAT ALL CONSTRUCTION RELATING TO CEMENT RELATED ACTIVITIES AND WALL CONSTRUCTION OCCUR "IN THE DRY" WITH NO WATER FLOWING THROUGH ACTIVE CONSTRUCTION AREA.
- CONTRACTOR SHALL SUBMIT DIVERSION PLAN FOR REVIEW AND APPROVAL BY THE ENGINEER TEN (10) DAYS PRIOR TO IMPLEMENTATION IN ACCORDANCE WITH SUBSECTION 105.02.
- THE DIVERSION PLAN SHALL INCLUDE THE FOLLOWING:
 - METHOD STATEMENT ADDRESSING ALL REQUIREMENTS INCLUDING COPIES OF RELEVANT PERMITS REQUIRED FOR STREAM DIVERSION
 - PLANS AND DESIGN CALCULATIONS, SEALED AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED TO THE STATE OF COLORADO SUPPORTING THE DIVERSION PLAN INCLUDING BUT NOT LIMITED TO:
 - METHOD FOR DETERMINING DESIGN FLOW,
 - SURFACE WATER PROFILING AND CONVEYANCE CALCULATIONS, AND
 - PHASING PLANS.



MOUNTAIN SEED MIX			
SPECIES	BOTANICAL NAME	VARIETY	LBS. PLS PER ACRE
BLUE GRAMA	BOUTELOUS GRAILIS	NATIVE, ALMA, OR HACHITA	0.84
CANADA WILD RYE	ELYMUS CANADENSIS	NATIVE	3.03
THICKSPIKE WHEATGRASS	ELYMUS LANCEOLATUS	CRITANA	5.58
SLENDER WHEATGRASS	ELYMUS TRACHYCAULUS	SAN LUIS	5.48
JUNE GRASS	KOELERIA MACRANTHA	NATIVE	0.15
SANDBERG'S BLUEGRASS	POA SECUNDA	NATIVE	0.38
TOTAL			15.46



STAGING AREA PLAN

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Boulder County Purchasing
1325 Pearl Street
Boulder, CO 80302
purchasing@bouldercounty.org

INSURANCE AND W-9 REQUIREMENTS

PAYMENT & PERFORMANCE BONDS

Both a payment and a performance bond are required for this project and must each equal 100% of the proposed cost. Please include the cost of this bonding into the total proposed cost.

INSURANCE REQUIREMENTS

Commercial General Liability

Coverage should be provided on an Occurrence form, ISO CG0001 or equivalent. The policy shall be endorsed to include Additional Insured Owners, Lessees or Contractors endorsements CG 2038 (or equivalent), Designated Construction Project(s) General Aggregate Endorsement CG2503 (or equivalent) and Additional Insured Completed Operations for Owners, Lessees or Contractors CG 2037 (or equivalent). Minimum limits required of \$1,000,000 Each Occurrence, \$2,000,000 General Aggregate and \$2,000,000 Products/Completed Operations Aggregate. The County requires the Products/Completed Operations coverage to be provided 3 years after completion of construction. An endorsement must be included with the certificate.

Automobile Liability

Bodily Injury and Property Damage for any owned, hired, and non-owned vehicles used in the performance of the Contract. Minimum limits \$1,000,000 Each Accident.

Workers' Compensation and Employer's Liability

Workers' Compensation must be maintained with the statutory limits. Employer's Liability is required for minimum limits of \$100,000 Each Accident/\$500,000 Disease- Policy Limit/\$100,000 Disease-Each Employee.

Umbrella / Excess Insurance

Umbrella/Excess Liability insurance in the amount \$3,000,000.00, following form.

Professional Liability (Errors and Omissions)

Professional liability coverage with minimum limits of \$1,000,000 Per Loss and \$1,000,000 Aggregate. Professional Liability provisions indemnifying for loss and expense resulting from

errors, omission, mistakes or malpractice is acceptable and may be written on a claims-made basis. The contractor warrants that any retroactive date under the policy shall precede the effective date of this Contract; and that either continuous coverage will be maintained or an extended discovery period will be exercised for a period of two (2) years beginning at the time work under this Contract is completed.

Pollution Liability

Coverage pay for those sums the Contractor becomes legally obligated to pay as damages because of Bodily Injury, Property Damage or environmental Damage arising out of a pollution incident caused by the Contractor's work including Completed Operations. Coverage shall include emergency response expenses, pollution liability during transportation (if applicable) and at Non-Owned Waste Disposal Site (if applicable). The Minimum limits required are \$1,000,000 Per Occurrence/Loss and \$1,000,000 Policy Aggregate. If the coverage is written on a claims-made basis, the Contractor warrants that any retroactive date applicable to coverage under the policy precedes the effective date of this Contract; and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of three (3) years beginning from the time that work under this contract is completed. County shall be named as an additional insured for ongoing operations and completed operations.

Boulder County as Additional Insured: Boulder County shall be named as an additional insured for General Liability, Umbrella/Excess Liability, and Pollution Liability, as designated in this Contract. Additional insured shall be endorsed to the policy.

THE ADDITIONAL INSURED WORDING SHOULD BE AS FOLLOWS: *County of Boulder, State of Colorado, a body corporate and politic, is named as Additional Insureds.*

***In regards to General Liability, Umbrella/Excess Liability, and Pollution Liability:**

If any or all of these coverages are required above, additional insured status will be required at the time a contract is executed.

Note that the above insurance amounts are the minimum required for this project. Proof of current insurance must be provided with your proposal in the form of a sample certificate. You are NOT required to include additional insured status until the time a contract is executed.

If you require a waiver of insurance requirements you may request one in your response with an explanation.

W-9 REQUIREMENT

Provide a copy of your business's W-9 with your proposal.



Boulder County Purchasing
1325 Pearl Street
Boulder, CO 80302
purchasing@bouldercounty.org

SUBMITTAL SECTION

The bidder's attention is especially called to the items listed below, which must be submitted in full as part of the BID. Failure to submit any of the documents listed below as a part of your BID, or failure to acknowledge any addendum in writing with your BID, or submitting a bid on any condition, limitation or provision not officially invited in this Invitation to Bid (BID) may be cause for rejection of the BID.

THIS CHECKLIST MUST BE SUBMITTED AS PART OF YOUR BID PACKAGE: Bidder will check each box indicating compliance:

INCLUDED	ITEM
	Name and Address of the Partners and Subcontractors if applicable
	A detailed project schedule
	Completed Bid Tab with total cost
	State your compliance with the Terms and Conditions in the Sample Contract contained in this BID. Specifically list any deviations and provide justification for each deviation.
	Submit three references for similar projects your company has completed within the last three years and contact information
	Insurance Certificate
	W-9
	Signature Page
	Addendum Acknowledgement(s) (If Applicable)



Boulder County Purchasing
1325 Pearl Street
Boulder, CO 80302
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BID TAB

ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL UNITS	UNIT COST	TOTAL COST
201-00000	Clearing and Grubbing	LS	1.00	_____	_____
202-00240	Removal of Asphalt Mat (Planing)	SY	298.00	_____	_____
202-00506	Removal of Portions of Present Structure (Type 1 Repairs)	SF	40.00	_____	_____
202-00507	Removal of Portions of Present Structure (Type 2 Repairs)	SF	15.00	_____	_____
202-01130	Removal of Guardrail Type 3	LF	192.00	_____	_____
206-00000	Structure Excavation	CY	68.00	_____	_____
206-00050	Granular Rock	CY	20.00	_____	_____
206-00200	Structure Backfill (Class 2)	CY	40.00	_____	_____
206-00510	Filter Material (Class A)	CY	1.00	_____	_____
207-00205	Topsoil	CY	25.00	_____	_____
208-00002	Erosion Log Type 1 (12 Inch)	LF	500.00	_____	_____
208-00003	Aggregate Bags	LF	200.00	_____	_____
208-00045	Concrete Washout Structure	EACH	1.00	_____	_____
208-00303	Temporary Diversion (Special)	LS	1.00	_____	_____
210-00810	Reset Ground Sign	EACH	7.00	_____	_____
211-03005	Dewatering	LS	1.00	_____	_____
212-00006	Seeding (Native)	ACRE	0.03	_____	_____
213-00002	Mulch (Weed Free Hay)	ACRE	0.01	_____	_____

213-00061	Mulch Tackifier	LB	1.00		
216-00021	Soil Retention Blanket (Class 1) (Biodegradeable)	SY	119.00		
304-01005	Aggregate Base Course (Class 1)	CY	7.00		
403-00720	Hot Mix Asphalt (Patching) (Asphalt)	TON	6.00		
403-34721	Hot Mix Asphalt (Grading SX)(75)(PG 58-28)	TON	34.00		
420-00114	Geotextile (Drainage)(Class 3)	SY	120.00		
504-03411	Retaining Wall (Rockery)	SF	250.00		
506-00206	Riprap (6 Inch)	CY	1.00		
506-00209	Riprap (9 Inch)	CY	8.00		
507-00400	Bituminous Slope and Ditch Paving (Asphalt)	TON	8.00		
515-00120	Waterproofing (Membrane)	SY	95.00		
601-03000	Concrete Class D	CY	10.00		
601-06150	Concrete (Patching)	SF	40.00		
602-00000	Reinforcing Steel	LB	1465.00		
602-00210	Welded Wire Fabric	SY	2.00		
602-00001	Drift and Grout Dowels (Toe Walls)	EACH	200.00		
602-00002	Drift and Grout Dowels (Wall Repair - UI Types)	EACH	23.00		
602-00003	Helical Anchors	EACH	70.00		
603-01185	18 Inch Reinforced Concrete Pipe (Complete In Place)	LF	15.00		
603-05018	18 Inch Reinforced Concrete End Section	EACH	1.00		
604-13005	Inlet Type 13 (5 Foot)	EACH	1.00		
606-00301	Guardrail Type 3 (6-3 Post Spacing)	LF	81.00		
606-01390	End Anchorage (Type 3K)	EACH	2.00		
606-01395	Transition Type 3L	EACH	4.00		
606-02003	End Anchorage (Nonflared)	EACH	1.00		
606-02005	End Anchorage (Flared)	EACH	1.00		
609-60011	Curb Type 6 (Section M)	LF	164.00		

609-71000	Curb (Special)	LF	8.00		
615-00150	Embankment Protector (Special)	EACH	4.00		
620-00020	Sanitary Facility	EACH	1.00		
625-00000	Construction Surveying	LS	1.00		
626-00000	Mobilization	LS	1.00		
627-00005	Epoxy Pavement Marking	GAL	2.00		
630-00000	Flagging	HOUR	560.00		
630-00007	Traffic Control Inspection	DAY	14.00		
630-00012	Traffic Control Management	DAY	35.00		
630-80341	Construction Traffic Sign (Panel Size A)	EACH	18.00		
630-80344	Construction Traffic Sign (Special)	SF	4.00		
630-80360	Drum Channelizing Device	EACH	10.00		
630-80370	Concrete Barrier (Temporary)	LF	200.00		
630-80380	Traffic Cone	EACH	12.00		
FORCE ACCOUNT					
700-70010	MINOR CONTRACT REVISIONS	F/A	1	<u>\$45,000.00</u>	<u>\$45,000.00</u>
TOTAL					<u> </u>



Boulder County Purchasing
1325 Pearl Street
Boulder, CO 80302
purchasing@bouldercounty.org

SIGNATURE PAGE

Contact Information	Response
Company Name including DBA	
List Type of Organization (Corporation, Partnership, etc.)	
Name, Title, and Email Address of Person Authorized to Contract with Boulder County	
Company Address	
Company Phone Number	
Company Website	

By signing below I certify that:

I am authorized to bid on my company's behalf.

I am not currently an employee of Boulder County.

None of my employees or agents is currently an employee of Boulder County.

I am not related to any Boulder County employee or Elected Official.

(Sole Proprietorships Only) I am not a Public Employees' Retirement Association (PERA) retiree.

**Signature of Person Authorized to Bid on
 Company's Behalf**

Date

Note: If you cannot certify the above statements, please explain in a statement of explanation.

BOULDER COUNTY SAMPLE CONTRACT

THIS CONTRACT ("Contract") is entered into by and between the County of Boulder, State of Colorado, a body corporate and politic, acting by and through its Board of County Commissioners for the benefit of the [Department] ("County") and [Supplier] ("Contractor"). County and Contractor are each a "Party," and collectively the "Parties."

In consideration of the mutual covenants contained in this Contract, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. Incorporation into Contract: The **Details Summary** is incorporated into this Contract. The **Contract Documents** are incorporated into this Contract by reference, except to the extent that the Proposal, if any is incorporated, contains any obligations placed upon County and not otherwise contained in this Contract.
2. Work to be Performed: Contractor will provide all labor and equipment and do all tasks necessary and incidental to performing the work as described in the **Details Summary** and **Contract Documents** (the "Work"). Contractor will perform the Work (a) in a good and workmanlike manner, (b) at its own cost and expense, (c) in accordance with recognized industry standards of care, skill and diligence for the type of work being performed, and (d) in strict accordance with the Contract.
3. Term of Contract: The **Contract Term** begins on the **Start Date** and expires on the **Expiration Date**, unless terminated sooner. All the Work must be performed during the **Contract Term**.
4. Payment for Work Performed: In consideration of the Work performed by Contractor, and subject to conditions contained in this Contract, County will pay an amount not to exceed the **Contract Amount** to Contractor in accordance with the **Contract Documents**.
5. Invoicing: Contractor will promptly provide a copy of its Form W-9 and invoice template to County upon request. Contractor must submit an invoice to the County by the fifteenth (15th) day of the month following completion of the Work. All invoices submitted require the following components: Contractor's name and address (submitted W-9 address must match remit address), detailed description of services, dates of services, itemization of labor and materials costs, "Bill to: Boulder County" language, payment remittance address, payer, name and address, date of invoice, unique invoice number, and total amount due. Contractor must send all completed invoices to the **Invoice Contact** in the **Details Summary**. Email delivery is preferred by the County; County may require delivery of invoices by email. Failure to submit invoices in a timely manner and in accordance with the terms of this Contract may cause a delay in payment. County may recoup any damages incurred because of Contractor's failure to submit invoices pursuant to the terms of this paragraph. County's acceptance or payment of an invoice will not constitute acceptance of any Work performed under this Contract.
6. Extra Time to Complete the Work: If Contractor cannot complete the Work by the **Expiration Date**, Contractor may request extra time to complete the Work. County, in its sole discretion, may grant Contractor additional time to complete the Work and, if so, will provide Contractor with written notice of the amount of extra time granted. County granting extra time to complete the Work will not entitle Contractor to additional compensation from County. This Contract will remain in full force and effect during any time period that Contractor is permitted to finish completing the Work.
7. Extension of Contract Term (Additional Work): Upon mutual agreement of the Parties, this Contract may be extended until the **Final End Date**. During any extended **Contract Term**, the terms of this Contract will remain in full force and effect, unless otherwise amended in writing by the Parties. Where the Contractor will provide additional services for additional compensation beyond the initial **Contract Amount**, the Parties must execute a written amendment before the then-current **Expiration**

Date. If necessary, the written amendment will incorporate an updated Scope of Work and updated Fee Schedule as exhibits. Contractor must provide a current Certificate of Insurance to the County that complies with the **Insurance Requirements** of this Contract, if any, prior to any extended **Contract Term**.

8. Schedule of Work: County may designate the hours (on a daily or weekly basis) during which Contractor can perform the Work, strictly for the purposes of minimizing inconvenience to the County and interference with County operations. Contractor will otherwise set its own work schedule.

9. Indemnity: Contractor will be liable for any damages to persons or property caused by or arising out of the actions, obligations, or omissions of Contractor, its employees, agents, representatives or other persons acting under Contractor's direction or control in performing or failing to perform the Work under this Contract. Contractor will indemnify and hold harmless County, its elected and appointed officials, and its employees, agents and representatives (the "indemnified parties"), from any and all liability, claims, demands, actions, damages, losses, judgments, costs or expenses, including attorneys' fees, which may be made or brought or which may result against any of the indemnified parties as a result or on account of the actions or omissions of Contractor, its employees, agents or representatives, or other persons acting under Contractor's direction or control. This indemnification obligation will extend to claims based on Contractor's unauthorized use or disclosure of confidential information and intellectual property infringement. County will not be obligated to indemnify or defend Contractor under any circumstances. Contractor's obligations under this provision shall survive expiration or termination of this Contract.

10. Nondiscrimination: Contractor will comply with the letter and spirit of the Colorado Anti-Discrimination Act, C.R.S. § 24-34-401, et seq., as amended, and all applicable local, State and Federal laws concerning discrimination and unfair employment practices. County prohibits unlawful discrimination on the basis of race, color, religion, gender, gender identity, national origin, age 40 and over, disability, socio-economic status, sexual orientation, genetic information, or any other status protected by applicable Federal, State or local law. Contractor must require that its subcontractors, if any, similarly comply with all applicable laws concerning discrimination and unfair employment practices.

11. Information and Reports: Contractor will provide to authorized County, State, and Federal government representatives all information and reports that may be required for any purpose authorized by law. Contractor will permit access to such representatives to Contractor's facilities, books, records, accounts, and any other relevant sources of information. Where information required by a representative is in the exclusive possession of a person or entity other than Contractor, Contractor must so certify to the County and explain what efforts it has made to obtain the information.

12. Independent Contractor: Contractor is an independent contractor for all purposes in performing the Work. Contractor is not an employee of the County for any purpose, including the Federal Insurance Contribution Act, the Social Security Act, the Federal Unemployment Tax Act, the provisions of the Internal Revenue Code, the Colorado Workers' Compensation Act, the Colorado Unemployment Insurance Act, and the Public Employees Retirement Association. Accordingly, County will not withhold or pay any income tax, payroll tax, or retirement contribution of any kind on behalf of Contractor or Contractor's employees. As an independent contractor, Contractor is responsible for employing and directing such personnel and agents as it requires to perform the Work. Contractor will exercise complete authority over its personnel and agents and will be fully responsible for their actions.

13. Termination for Non-Appropriation: The other provisions of this Contract notwithstanding, the County is prohibited by law from making commitments beyond the current fiscal year. Payment to Contractor beyond the current fiscal year is contingent on the appropriation and continuing availability of funding in any subsequent year. County has reason to believe that sufficient funds will be available for the full **Contract Term**. Where, however, funds are not allocated for any fiscal period beyond the current fiscal year, County may terminate this Contract without penalty by providing seven (7) days' written notice to Contractor.

14. Termination for Breach: Either Party's failure to perform any of its material obligations under this Contract, in whole or in part or in a timely or satisfactory manner, will be a breach. The institution of proceedings under any bankruptcy, insolvency, reorganization or similar law, by or against Contractor, or the appointment of a receiver or similar officer for Contractor or any of its property, which is not

vacated or fully stayed within thirty (30) days after the institution of such proceeding, will also constitute a breach. In the event of a breach, the non-breaching Party may provide written notice of the breach to the other Party. If the notified Party does not cure the breach, at its sole expense, within thirty (30) days after delivery of notice, the non-breaching Party may exercise any of its remedies provided under this Contract or at law, including immediate termination of this Contract.

15. Termination for Convenience: County may terminate this Contract, in whole or in part, for any reason, upon seven (7) days' advance written notice to Contractor.

16. Remedies for Non-Performance: If Contractor fails to perform any of its obligations under this Contract, County may, at its sole discretion, exercise one or more of the following remedies, which shall survive expiration or termination of this Contract:

a. Suspend Performance: County may require that Contractor suspend performance of all or any portion of the Work pending necessary corrective action specified by the County and without entitling Contractor to an increase in compensation or extension of the performance schedule. Contractor must promptly stop performance and incurring costs upon delivery of a notice of suspension by the County.

b. Withhold Payment Pending Corrections: County may permit Contractor to correct any rejected Work at the County's discretion. Upon County's request, Contractor must correct rejected work at Contractor's sole expense within the time frame established by the County. Upon completion of the corrections satisfactory to the County, County will remit payment to Contractor.

c. Deny Payment: County may deny payment for any Work that does not comply with the requirements of the Contract or that Contractor otherwise fails to provide or complete, as determined by the County in its sole discretion. Upon County request, Contractor will promptly refund any amounts prepaid by the County with respect to such non-compliant Work.

d. Removal: Upon County's request, Contractor will remove any of its employees or agents from performance of the Work, if County, in its sole discretion, deems any such person to be incompetent, careless, unsuitable, or otherwise unacceptable.

17. Binding Arbitration Prohibited: County does not agree to binding arbitration by any extra-judicial body or person.

18. Conflicts of Interest: Contractor must not engage in any business or personal activities or practices or maintain any relationships that conflict in any way with the full performance of Contractor's obligations.

19. Notices: All notices provided under this Contract must be in writing and sent by Certified U.S. Mail (Return Receipt Requested), electronic mail, or hand-delivery to the other Party's **Contact** at the address specified in the **Details Summary**. For certified mailings, notice periods will begin to run on the day after the postmarked date of mailing. For electronic mail or hand-delivery, notice periods will begin to run on the date of delivery.

20. Statutory Requirements: This Contract is subject to all statutory requirements that are or may become applicable to counties or political subdivisions of the State of Colorado generally, including but not limited to: C.R.S. § 38-26-107, which requires withholding funds where the County receives a claim for payment from a supplier or subcontractor of Contractor upon notice of final settlement (required for public works contracts that exceed \$150,000); C.R.S. § 8-17-101 et seq.; C.R.S. § 18-8-301, et seq.; and C.R.S. § 18-8-401, et seq.

21. Public Contracts for Services (C.R.S. §§ 8-17.5-101, et seq.): Contractor hereby certifies, warrants, and agrees that it does not knowingly employ or contract with an illegal alien who will perform work under this Contract and further certifies that it will confirm the employment eligibility of all employees who are newly hired for employment to perform work under this Contract by participating in the E-Verify Program established under Pub. L. 104-28 or the department verification program established under C.R.S. § 8-17.5-102(5)(c). Contractor (i) shall not knowingly employ or contract with an illegal alien to perform work under this Contract; (ii) shall not enter into a contract with a

subcontractor that fails to certify to the contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Contract; (iii) has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this Contract through participation in the E-Verify program or department program; (iv) is prohibited from using either the E-Verify program or department program procedures to undertake preemployment screening of job applicants while this Contract is being performed; and (v) shall comply with any reasonable request by the department made in the course of an investigation that the Colorado Department of Labor and Employment is undertaking pursuant to the authority established in C.R.S. § 8-17.5-102(5). If Contractor obtains actual knowledge that a subcontractor performing work under this Contract knowingly employs or contracts with an illegal alien, Contractor shall (a) notify the subcontractor and County within three (3) days that Contractor has actual knowledge that subcontractor is employing or contracting with an illegal alien; and (b) terminate the subcontract if, within three (3) days of receiving notice hereunder, subcontractor does not stop employing or contracting with the illegal alien; except that Contractor shall not terminate the contract with the subcontractor if during such three (3) days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien. Contractor's violation of this provision will constitute a material breach of this Contract, entitling the County to terminate the contract for breach. If this Contract is so terminated, Contractor shall be liable for actual and consequential damages to the County.

22. Entire Agreement/Binding Effect/Amendments: This Contract represents the complete agreement between the Parties and is fully binding upon them and their successors, heirs, and assigns, if any. This Contract terminates any prior agreements, whether written or oral in whole or in part, between the Parties relating to the Work. This Contract may be amended only by a written agreement signed by both Parties.

23. Assignment/Subcontractors: This Contract may not be assigned or subcontracted by Contractor without the prior written consent of the County. If Contractor subcontracts any of its obligations under this Contract, Contractor will remain liable to the County for those obligations and will also be responsible for subcontractor's performance under, and compliance with, this Contract.

24. Governing Law/Venue: The laws of the State of Colorado govern the construction, interpretation, performance, and enforcement of this Contract. Any claim relating to this Contract or breach thereof may only be brought exclusively in the Courts of the 20th Judicial District of the State of Colorado and the applicable Colorado Appellate Courts.

25. Breach: The failure of either Party to exercise any of its rights under this Contract will not be deemed to be a waiver of such rights or a waiver of any breach of the Contract. All remedies available to a Party in this Contract are cumulative and in addition to every other remedy provided by law.

26. Severability: If any provision of this Contract becomes inoperable for any reason but the fundamental terms and conditions continue to be legal and enforceable, then the remainder of the Contract will continue to be operative and binding on the Parties.

27. Third-Party Beneficiary: Enforcement of the terms and conditions and all rights and obligations of this Contract are reserved to the Parties. Any other person receiving services or benefits under this Contract is an incidental beneficiary only and has no rights under this Contract. Notwithstanding, where the beneficiary **Department** is led by an Elected Official, such Elected Official shall be considered a third-party beneficiary.

28. Colorado Open Records Act: County may disclose any records that are subject to public release under the Colorado Open Records Act, C.R.S. § 24-72-101, et seq.

29. Conflict of Provisions: If there is any conflict between the terms of the main body of this Contract and the terms of any of the **Contract Documents**, the terms of the main body of the Contract will control.

30. Governmental Immunity: Nothing in this Contract shall be construed in any way to be a waiver of the County's immunity protection under the Colorado Governmental Immunity Act, C.R.S. § 24-10-101, et seq., as amended.

31. Representations and Warranties: Contractor represents and warrants the following:

- a. Execution of this Contract and performance thereof is within Contractor's duly authorized powers;
 - b. The individual executing this Contract is authorized to do so by Contractor;
 - c. Contractor is authorized to do business in the State of Colorado and is properly licensed by all necessary governmental and public and quasi-public authorities having jurisdiction over the Work and the Contractor; and
 - d. Contractor and its subcontractors, if any, are financially solvent, able to pay all debts as they mature, and have sufficient working capital to complete the Work and perform all obligations under the Contract.
32. Legal Compliance: Contractor assumes full responsibility for obtaining and maintaining any permits and licenses required to perform the Work. Contractor's performance under this Contract and the Work itself will comply with all Federal, State, and local laws, regulations, ordinances and codes.
33. Litigation Reporting: Contractor is not currently involved in any action before a court or other administrative decision-making body that could affect Contractor's ability to perform the Work. Contractor will promptly notify the County if Contractor is served with a pleading or other document in connection with any such action.
34. Tax Exemption: County is exempt from payment of Federal, State, and local government taxes. Contractor shall collect no tax from the County, and the County shall not be liable to pay any taxes imposed on Contractor. County shall provide its tax exemption status information to Contractor upon request.
35. Delegation of Authority: The Parties acknowledge that the Board of County Commissioners has delegated authority to the Department Head or Elected Official that leads the beneficiary **Department** and their designees to act on behalf of the County under the terms of this Contract, including but not limited to the authority to terminate this Contract.
36. Ownership of Work Product: All work product, property, data, documentation, information or materials conceived, discovered, developed or created by Contractor pursuant to this Contract ("Work Product") will be owned exclusively by the County. To the extent possible, any Work Product will be deemed to be a work made for hire. Contractor unconditionally and irrevocably transfers and assigns to the County all right, title and interest in and to any Work Product.
37. Publicity Releases: Contractor will not refer to this Contract or the County in commercial advertising without prior written consent of the County. This provision shall survive expiration or termination of this Contract.
38. Execution by Counterparts; Electronic Signatures: This Contract may be executed in multiple counterparts, each of which will be deemed an original, but all of which will constitute one agreement. The Parties approve the use of electronic signatures, governed by the Uniform Electronic Transactions Act, C.R.S. §§ 24 71.3 101 to 121. The Parties will not deny the legal effect or enforceability of this Contract solely because it is in electronic form or because an electronic record was used in its creation. The Parties will not object to the admissibility of this Contract in the form of electronic record, or paper copy of an electronic document, or paper copy of a document bearing an electronic signature, because it is not in its original form or is not an original.
39. Limitation on Public Statements and Lobbying Activity. During the term of this Contract, Contractor may receive from the County its confidential data, work product, or other privileged or confidential information that is protected by law. To maintain the fact and appearance of absolute objectivity, Contractor shall not, without the prior written consent of the County, which shall not be unreasonably withheld, do any of the following: (a) disclose information obtained because of this contractual relationship to any third party; (b) lobby any State or Federal agency on any pending matter while this Contract is effective; or (c) make any public statements or appear at any time to give testimony at any public meeting on the subject matters regarding which Contractor is or was retained by the County. County may set reasonable conditions on any disclosure authorized by the County under this provision. Notwithstanding, Contractor may make disclosures as required by law, and to law enforcement officials in connection with any criminal justice investigation.
40. Sustainability: County encourages Contractor to consider the procurement and use of

environmentally preferable products and services while performing services under this Contract. "Environmentally preferable purchasing" means making purchasing choices for products and services that have a lesser or reduced adverse effect on human health and the environment when compared with competing products and services that serve the same purpose. Environmentally preferable purchasing is consistent with the County's commitment to protecting our air, water, soil, and climate for current and future generations. County encourages Contractor to incorporate the following actions into Contractor's performance of the Work: environmentally preferable supplies and services; conservation of water; efficient energy use; waste prevention; reuse and recycle construction and de-construction materials in a manner that maximizes reuse of materials; sustainable transportation choices, including consideration to business communication software such as Skype alternative to air travel and public transit or carpooling for in-person meetings; pollution prevention; low toxicity for public health & safety; and reduced emissions to address climate change.

41. **Insurance Requirements:** Prior to commencing the Work, Contractor will provide a Certificate of Insurance to the County demonstrating adequate insurance coverage as required by this paragraph. All policies evidencing coverage required by the Contract will be issued by insurance companies satisfactory to the County. Contractor will forward Certificates of Insurance directly to the **County Department** and **Contact** listed in the **Details Summary**.

a. For the entire duration of this Contract including any extended or renewed terms, and longer as may be required by this Contract, Contractor shall procure and maintain at its own expense, and without cost to the County, the following kinds and minimum amounts of insurance to insure the liability risks that Contractor has assumed under this Contract:

i. **Commercial General Liability**

Non-Construction contracts use the following language:

This coverage should be provided on an Occurrence Form, ISO CG001 or equivalent, with Minimum limits of \$1,000,000 Each Occurrence, \$2,000,000 General Aggregate and \$2,000,000 Products Completed Operations Aggregate.

Construction Contracts only – include the following paragraph:

Coverage should be provided on an Occurrence form, ISO CG0001 or equivalent. The policy shall be endorsed to include Additional Insured Owners, Lessees or Contractors endorsements CG 2038 (or equivalent), Designated Construction Project(s) General Aggregate Endorsement CG2503 (or equivalent) and Additional Insured Completed Operations for Owners, Lessees or Contractors CG 2037 (or equivalent). Minimum limits required of \$1,000,000 Each Occurrence, \$2,000,000 General Aggregate and \$2,000,000 Products/Completed Operations Aggregate. The County requires the Products/Completed Operations coverage to be provided 3 years after completion of construction. An endorsement must be included with the certificate.

ii. **Automobile Liability**

Bodily Injury and Property Damage for any owned, hired, and non-owned vehicles used in the performance of the Contract. Minimum limits \$1,000,000 Each Accident.

This coverage may not be required if Contractor is not using a vehicle as part of its performance under the contract. Contact Risk Management with any questions.

iii. **Workers' Compensation and Employer's Liability**

Workers' Compensation must be maintained with the statutory limits. Employer's Liability is required for minimum limits of \$100,000 Each Accident/\$500,000 Disease-Policy Limit/\$100,000 Disease-Each Employee.

This coverage may not be required if contractor is not mandated under State law to maintain this coverage. A waiver is available on the contracts routing website.

iv. **Umbrella / Excess Insurance**

Umbrella/Excess Liability insurance in the amount \$[X],000,000.00, following form.

This insurance is a broad, high-limit policy, which acts more than the underlying primary insurance policy. This coverage is designed to provide additional liability limits beyond the primary insurance limits and is triggered upon the underlying limits becoming exhausted. Umbrella / Excess insurance is most commonly required when an exposure to the County could potentially create liabilities in excess of the basic insurance limits. The most common limits for these policies range from \$2,000,000 to \$5,000,000.

Please consult with Risk Management if you feel this coverage should be required.

IN ADDITION TO THE ABOVE, ONE OR MORE OF THE FOLLOWING FOUR (4) INSURANCE COVERAGES MAY BE REQUIRED. CONTACT RISK MANAGEMENT IF YOU HAVE QUESTIONS ABOUT WHICH INSURANCE COVERAGE TO INCLUDE. DELETE THIS INSTRUCTION (AND ANY INAPPLICABLE INSURANCE PARAGRAPHS) WHEN FINALIZING THE CONTRACT:

v. **Professional Liability (Errors and Omissions)**

All contractors required to be professionally certified by the State of Colorado (i.e., architects, engineers, doctors, nurses, etc.) and/or any consultants whose errors in judgment, planning, design, etc. could result in economic loss to the County must provide proof of professional liability coverage. This also applies to anyone managing or overseeing construction.

Professional liability coverage with minimum limits of \$1,000,000 Per Loss and \$1,000,000 Aggregate. Professional Liability provisions indemnifying for loss and expense resulting from errors, omission, mistakes or malpractice is acceptable and may be written on a claims-made basis. The contractor warrants that any retroactive date under the policy shall precede the effective date of this Contract; and that either continuous coverage will be maintained or an extended discovery period will be exercised for a period of two (2) years beginning at the time work under this Contract is completed.

vi. **Pollution Liability**

This coverage is required whenever work under the contract involves pollution risk to the environment or losses caused by pollution conditions (including asbestos) that may arise from the operations of the Contractor described in the Contractor's scope of services.

Coverage pay for those sums the Contractor becomes legally obligated to pay as damages because of Bodily Injury, Property Damage or environmental Damage arising out of a pollution incident caused by the Contractor's work including Completed Operations. Coverage shall include emergency response expenses, pollution liability during transportation (if applicable) and at Non-Owned Waste Disposal Site (if applicable). The Minimum limits required are \$1,000,000 Per Occurrence/Loss and \$1,000,000 Policy Aggregate. If the coverage is written on a claims-made basis, the Contractor warrants that any retroactive date applicable to coverage under the policy precedes the effective date of this Contract; and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of three (3) years beginning from the time that work under this contract is completed. County shall be named as an additional insured for ongoing operations and completed operations.

vii. **Third Party Commercial Crime Insurance / Third Party Fidelity Bond**

Crime / Third Party Fidelity covers the contractor and the contractor's employees when engaged in work for a client on behalf of the County. This coverage is for employee dishonesty, theft, embezzlement, forgery and alteration. Coverage is required when the contractor will be handling money or collecting fees on behalf of the County or when the contractor has access to client's personal property and/or documentation

The Crime limit shall be \$1,000,000 Per Loss and include an endorsement for "Employee Theft of Client Property". In order to provide coverage to County during the course of this contract, Commercial Crime policies must be endorsed to cover Third Party Fidelity. Third party fidelity covers the vendor's employees when engaged in work for a client. In addition, the County will be listed as loss payee on the commercial crime coverage. This third-party coverage can also be provided by obtaining a third-party fidelity bond.

viii. **Privacy / Cyber Liability Insurance**

As a provider of a service which *may* require the knowledge and retention of personal identifiable information including but not limited to, names, dates of birth, social security numbers, usernames, and passwords, and/or HIPAA sensitive personal information of clients served, the following minimum insurance limits are required:

Contractors with 10 or fewer County clients:	\$50,000
Contractors with 11 – 15 County clients:	\$500,000
Contractors with more than 25 County clients:	\$1,000,000

If the scope does not pertain to clients directly, contact Risk Management for appropriate language.

ix. **Sexual Abuse and Molestation Coverage**

As a provider of a service which has contact with individuals that are part of a sensitive population and are in a position of trust the following minimum insurance limits are required:

Contractors with 5 or fewer County clients:	\$100,000
Contractors with 6-10 County clients:	\$250,000
Contractors with 11-15 County clients:	\$500,000
Contractors with 16 or more County clients:	\$1,000,000

If the number of clients increases during the contract period, the required coverage limit will increase to correspond accordingly.

If the scope does not pertain to clients directly, contact Risk Management for appropriate language.

THE STATED INSURANCE LIMITS FOR ALL COVERAGES ARE MINIMUM AMOUNTS; DEPENDING ON THE CONTRACT, HIGHER LIMITS MAY BE REQUIRED OR ADVISABLE. CONTACT RISK MANAGEMENT IF YOU HAVE ANY QUESTIONS ABOUT MINIMUM LIMITS. DELETE THIS PARAGRAPH WHEN FINALIZING THE CONTRACT.

b. Boulder County as Additional Insured: Boulder County shall be named as an additional insured for General Liability, Umbrella/Excess Liability, and Pollution Liability, as designated in this Contract. Additional insured shall be endorsed to the policy.

THE ADDITIONAL INSURED WORDING SHOULD BE AS FOLLOWS: *County of Boulder, State of Colorado, a body corporate and politic, is named as Additional Insured.*

c. Notice of Cancellation: Each insurance policy required by this Contract shall provide the required coverage and shall not be suspended, voided or canceled except after thirty (30) days' prior written notice has been given to the County except when cancellation is for non-payment of premium, then ten (10) days' prior notice may be given. If any insurance company refuses to provide the required notice, Contractor or its insurance broker shall notify the County any cancellation, suspension, or nonrenewal of any insurance policy within seven (7) days of receipt of insurers' notification to that effect.

d. Insurance Obligations of County: County is not required to maintain or procure any insurance coverage beyond the coverage maintained by the County in its standard course of business. Any insurance obligations placed on the County in any of the **Contract Documents** shall be null and void.

e. Deductible: Any and all deductibles contained in any insurance policy shall be

assumed by and at the sole risk of Contractor.

f. Primacy of Coverage: Coverage required of Contractor and its subcontractors, if any, shall be primary over any insurance or self-insurance program carried by the County.

g. Subrogation Waiver: All insurance policies in any way related to this Contract secured or maintained by Contractor as required herein shall include clauses stating that each carrier shall waive all rights of recovery, under subrogation or otherwise, against County, its organizations, officers, agents, employees, and volunteers.

[Signature Page to Follow]

IN WITNESS WHEREOF, the Parties have executed and entered into this Contract as of the latter day and year indicated below.

SIGNED for and on behalf of Boulder County		SIGNED for and on behalf of Contractor	
Signature:		Signature:	
Name:		Name:	
Title:		Title:	
Date:		Date:	
<i>↓↓For Board-signed documents only↓↓</i>			
Attest:		<i>Initials</i>	
Attestor Name:			
Attestor Title:			