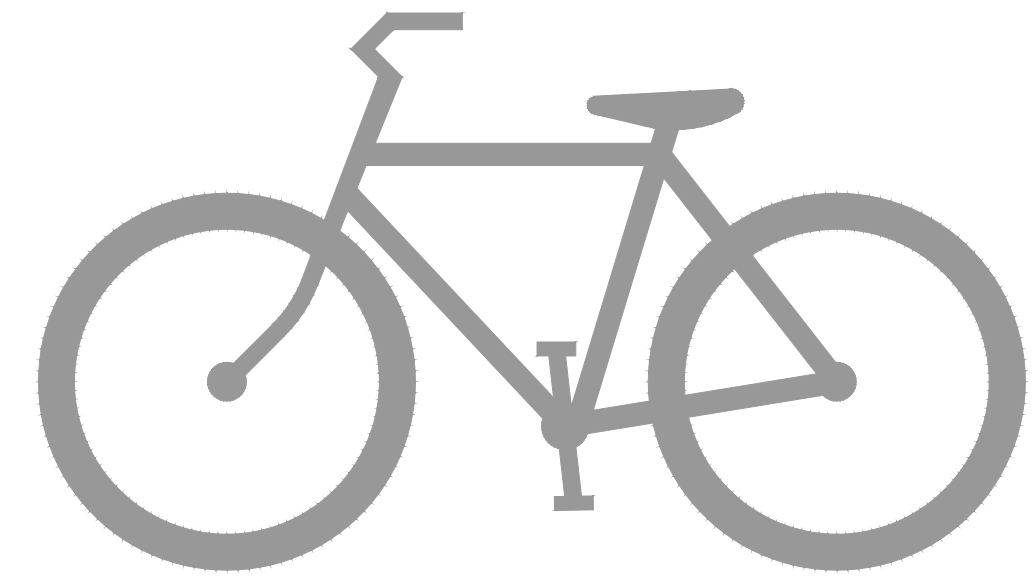


EPC STORMWATER REVIEW COMMENTS  
IN ORANGE BOXES WITH BLACK TEXT

STATE OF COLORADO  
DEPARTMENT OF TRANSPORTATION  
CITY OF COLORADO SPRINGS  
Parks, Recreation and Cultural Services Department  
CAPITAL IMPROVEMENT PROJECT  
TRAIL IMPROVEMENT PROGRAM  
COMBINED FEDERAL AID PROJECT No. TAP M240-162, SubAccT. No.20391  
**GRADING AND EROSION CONTROL**  
PLAN of the ROCK ISLAND MULTI-USE TRAIL  
SAND CREEK TO CONSTITUTION AVENUE  
COLORADO SPRINGS & EL PASO COUNTY, COLORADO



21 JULY 2024

SHEET INDEX	
G1	COVER SHEET
G2	STANDARD NOTES & DETAILS
GEC 1	STA 08+00 TO STA 17+50
GEC 2	STA 17+50 TO STA 21+50
GEC 3	STA 21+50 TO STA 47+50
GEC 4	STA 47+50 TO STA 75+00
GEC 5	STA 75+00 TO STA 102+00
GEC 6	STA 102+00 TO STA 117+50
GEC 7	EROSION CONTROL DETAILS
GEC 8	EROSION CONTROL DETAILS

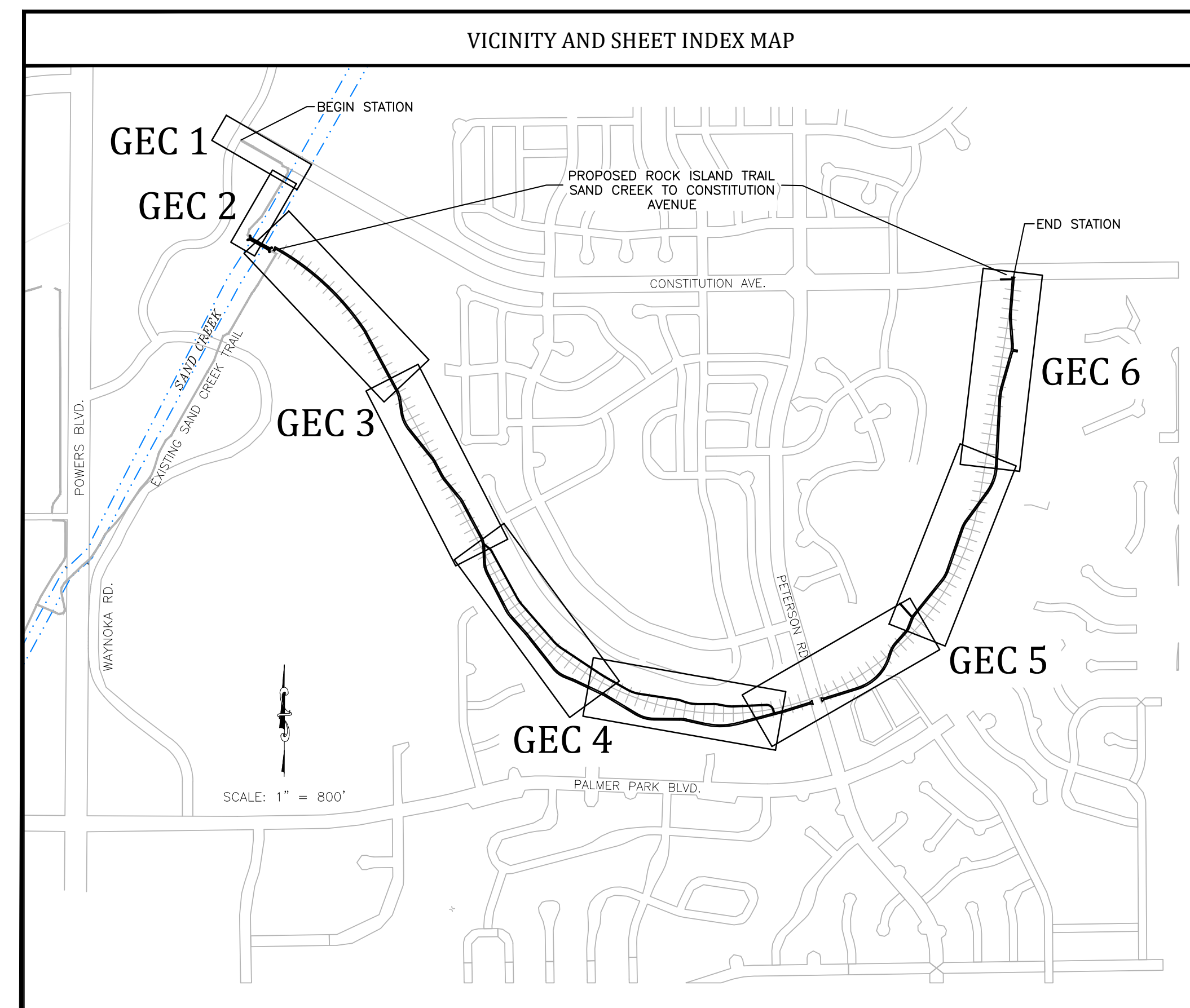
TRAIL DATA DESIGN	
BEGIN STATION ROCK ISLAND TRAIL	8+00
END STATION ROCK ISLAND TRAIL	106+15
MAXIMUM GRADE	8.33%
MINIMUM HORIZONTAL CURVE	25'
MINIMUM WIDTH	8'
TYPICAL WIDTH	10' (+ 2' Shoulder)
MAXIMUM WIDTH	12' (+ 2' Shoulder)
CROSS-SLOPE	2% (towards drainage)
LENGTH SAND CREEK TRAIL	10,900 LF
SITE AREA	36.8 ACRES
AREA OF DISTURBANCE	18.2 ACRES
CONSTRUCTION AREA	18.2 ACRES

BENCHMARK: FIMS MONUMENT SR10 IS A 2-INCH DIAMETER ALUMINUM CAP STAMPED "CSU FIMS CONTROL SR10" ON TOP OF THE NORTH CURB OF CONSTITUTION AVENUE AT THE NORTHWEST CORNER OF THE BRIDGE OVER SAND CREEK.

\*A.G.A./A.P.W.A. STANDARD UTILITY MARKING COLOR CODE

NATURAL GAS	YELLOW
ELECTRIC	RED
WATER	BLUE
WASTEWATER	GREEN

**Know what's below.  
Call before you dig.**



APPROVAL SIGNATURES			
TITLE	NAME	SIGNATURE	DATE
DIRECTOR, PARKS, REC. & CULT. SVS PARKS	BRITT HALEY	_____	_____
OPERATION & DEVELOPMENT MANAGER		_____	_____
CITY FORESTER		_____	_____
REG. SUPERVISOR, PARKS, TRAILS & OPEN SPACE	SCOTT ABBOTT	_____	_____
CONSTRUCTION PROJECT MANAGER	EMILY DUNCAN	_____	_____
COLORADO DEPARTMENT OF TRANSPORTATION		_____	_____
EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS	JENNIFER IRVINE, PE	_____	_____

STATEMENTS	
<b>Engineer's Statement:</b>	
This Grading and Erosion Control Plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. Said Plan has been prepared according to the criteria established by the County for Grading and Erosion Control Plans. I accept responsibility for any liability caused by any negligent acts or omissions on my part in preparing this Plan.	
_____ Engineer of Record signature	_____ Date
<b>Owner's Statement:</b>	
I, the owner/developer have read and will comply with the requirements of this Grading and Erosion Control Plan.	
_____ Signature	_____ Date
<b>El Paso County:</b>	
County Plan review is provided only for general conformance with County Design Criteria. The County is not responsible for the accuracy and adequacy of the design, dimensions, and/or elevations which shall be confirmed at the job site. The County through the approval of this document assumes no responsibility for completeness and/or accuracy of this document.	
Filed in accordance with the requirements of the El Paso County Land Development Code, Drainage Criteria Manual Volumes 1 and 2, and Engineering Criteria Manual as amended.	
In accordance with ECM Section 1.12, these construction documents will be valid for construction for a period of 2 years from the date signed by the El Paso County Engineer. If construction has not started within those 2 years, the Plans will need to be resubmitted for approval, including payment of review fees at the Planning and Community Development Director's discretion.	
_____ County Engineer/ECM Administrator	_____ Date

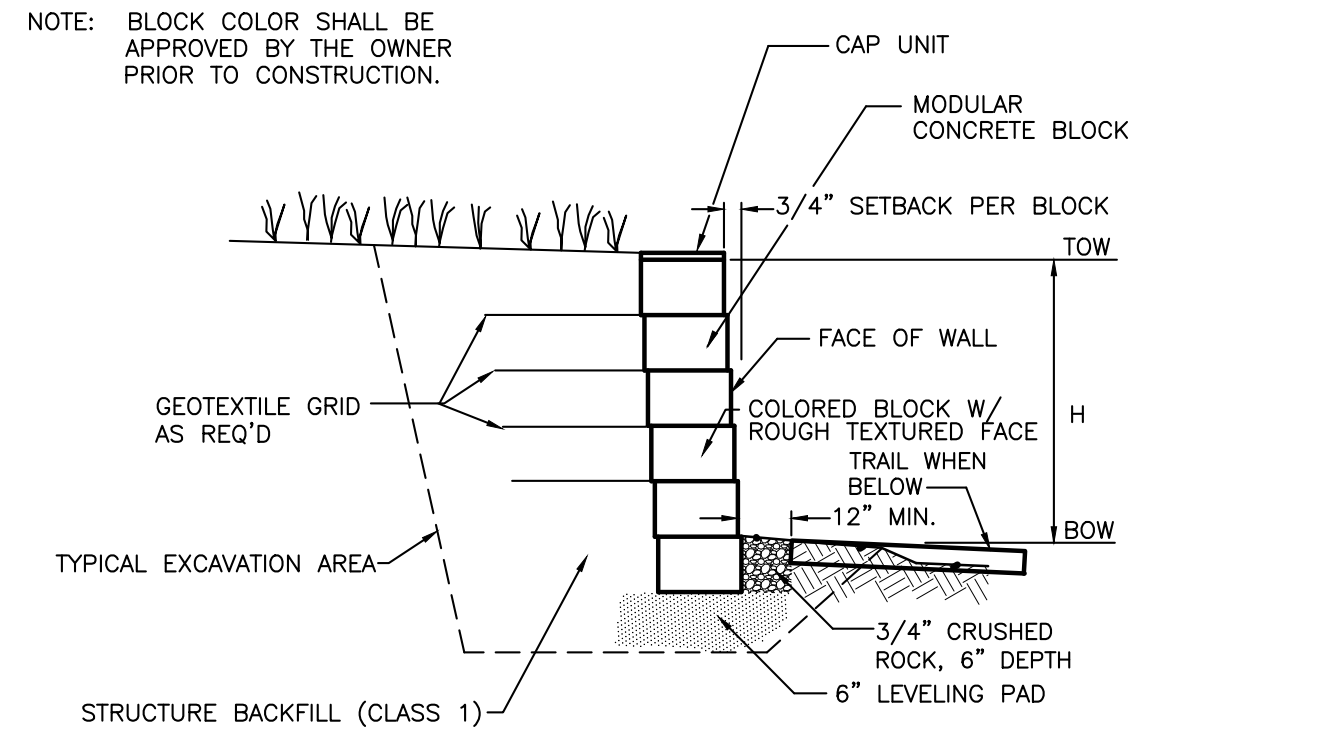
	<b>IN PROGRESS NOT FOR CONSTRUCTION</b>	 <small>Celebrating 30 years</small> 1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342	Sheet Revisions _____ _____ _____ _____	90% BID SET No Revisions: Revised: Void:	<b>ROCK ISLAND TRAIL GRADING AND EROSION CONTROL PLAN COVER SHEET</b> Designer: RNW Detailer: RNW Date: 08/06/2024	Kiowa Proj. No. 16028 TAP M240-162 SubAccT No. 20391 Sheet Number G1
--	---	---	---	---	---	---

EL PASO COUNTY STANDARD NOTES FOR GRADING & EROSION CONTROL PLANS
<ol style="list-style-type: none"> <li>Stormwater discharges from construction sites shall not cause or threaten to cause pollution, contamination, or degradation of state waters. All work and earth disturbance shall be done in a manner that minimizes pollution of any on-site or off-site waters, including wetlands.</li> <li>Notwithstanding anything depicted in these plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards, including the Land Development Code, the Engineering Criteria Manual, the Drainage Criteria Manual, and the Drainage Criteria Manual Volume 2. Any deviations from regulations and standards must be requested, and approved, in writing.</li> <li>A separate Stormwater Management Plan (SMWP) for this project shall be completed and an Erosion and Stormwater Quality Control Permit (ESQCP) issued prior to commencing construction. Management of the SWMP / CSWMP during construction is the responsibility of the designated Qualified Stormwater Manager or Certified Erosion Control Inspector. The SWMP / CSWMP shall be located on-site at all times during construction and shall be kept up to date with work progress and changes in the field.</li> <li>Once the ESQCP is approved and a "Notice to Proceed" has been issued, the contractor may install the initial stage erosion and sediment control measures as indicated on the approved GEC. A preconstruction meeting between the contractor, engineer, and El Paso County will be held prior to any construction. It is the responsibility of the applicant to coordinate the meeting time and place with County staff.</li> <li>Control measures must be installed prior to commencement of activities that could contribute pollutants to stormwater. Control measures for all slopes, channels, ditches, and disturbed land areas shall be installed immediately upon completion of the disturbance.</li> <li>All temporary sediment and erosion control measures shall be maintained and remain in effective operating condition until permanent soil erosion control measures are implemented and final stabilization is established. All persons engaged in land disturbance activities shall assess the adequacy of control measures at the site and identify if changes to those control measures are needed to ensure the continued effective performance of the control measures. All changes to temporary sediment and erosion control measures must be incorporated into the stormwater management plan.</li> <li>Temporary stabilization shall be implemented on disturbed areas and stockpiles where ground disturbing construction activity has permanently ceased or temporarily ceased for longer than 14 days.</li> <li>Final stabilization must be implemented at all applicable construction sites. Final stabilization is achieved when all ground disturbing activities are complete and all disturbed areas either have a uniform vegetative cover with individual plant density of 70 percent of pre-disturbance levels established or equivalent permanent alternative stabilization method is implemented. All temporary sediment and erosion control measures shall be removed upon final stabilization and before permit closure.</li> <li>All permanent stormwater management facilities shall be installed as designed in the approved plans. Any proposed changes that effect the design or function of permanent stormwater management structures must be approved by the ECM Administrator prior to implementation.</li> <li>Earth disturbances shall be conducted in such a manner so as to effectively minimize accelerated soil erosion and resulting sedimentation. All disturbances shall be designed, constructed, and completed so that the exposed area of any disturbed land shall be limited to the shortest practical period of time. Pre-existing vegetation shall be protected and maintained within 50 horizontal feet of a Waters of the State unless shown to be infeasible and specifically requested and approved.</li> <li>Compaction of soil must be prevented in areas designated for infiltration control measures or where final stabilization will be achieved by vegetative cover. Areas designated for infiltration control measures shall also be protected from sedimentation during construction until final stabilization is achieved. If compaction prevention is not feasible due to site constraints, all areas designated for infiltration and vegetation control measures must be loosened prior to installation of the control measure(s).</li> <li>Any temporary or permanent facility designed and constructed for the conveyance of stormwater around, through, or from the earth disturbance area shall be a stabilized conveyance designed to minimize erosion and the discharge of sediment off-site.</li> <li>Concrete wash water shall be contained and disposed of in accordance with the SWMP / CSWMP. No wash water shall be discharged to or allowed to enter state waters, including any surface or subsurface storm drainage system or facilities. Concrete washouts shall not be located in an area where shallow groundwater may be present, or within 50 feet of a surface water body, creek or stream.</li> <li>During dewatering operations, uncontaminated groundwater may be discharged on-site, but shall not leave the site in the form of surface runoff unless an approved state dewatering permit is in place.</li> <li>Erosion control blanketing or other protective covering shall be used on slopes steeper than 3:1.</li> <li>Contractor shall be responsible for the removal of all wastes from the construction site for disposal in accordance with local and state regulatory requirements. No construction debris, tree slash, building material wastes or unused building materials shall be buried, dumped, or discharged at the site.</li> <li>Waste materials shall not be temporarily placed or stored in the street, alley, or other public way, unless in accordance with an approved Traffic Control Plan. Control measures may be required by El Paso County Engineering if deemed necessary, based on specific conditions and circumstances.</li> <li>Tracking of soils and construction debris off-site shall be minimized. Materials tracked off-site shall be cleaned up and properly disposed of immediately.</li> <li>The owner/developer shall be responsible for the removal of all construction debris, dirt, trash, rock, sediment, soil, and sand that may accumulate in roads, storm drains and other drainage conveyance systems and stormwater appurtenances as a result of site development.</li> <li>The quantity of materials stored on the project site shall be limited, as much as practical, to that quantity required to perform the work in an orderly sequence. All materials stored on-site shall be stored in a neat, orderly manner, in their original containers, with the original manufacturer's labels.</li> </ol>

EL PASO COUNTY STANDARD NOTES FOR GRADING & EROSION CONTROL PLANS (cont)
<ol style="list-style-type: none"> <li>No chemical(s) having the potential to be released in stormwater are to be stored or used on-site unless permission for the use of such chemical(s) is granted in writing by the ECM administrator. In granting approval for the use of such chemical(s), special conditions and monitoring may be required.</li> <li>Bulk storage of allowed petroleum products or other allowed liquid chemicals in excess of 55 gallons shall require adequate secondary containment protection to contain all spills on-site and to prevent any spilled materials from entering state waters, any surface or subsurface storm drainage system or other facilities.</li> <li>No person shall cause the impediment of stormwater flow in the curb and gutter or ditch except with approved sediment control measures.</li> <li>Owner/developer and their agents shall comply with the "Colorado Water Quality Control Act" (Title 25, Article 8, CRS), and the "Clean Water Act" (33 USC 1344), in addition to the requirements of the Land Development Code, DCM Volume II and the ECM Appendix I. All appropriate permits must be obtained by the contractor prior to construction (1041, NPDES, Floodplain, 404, fugitive dust, etc.). In the event of conflicts between these requirements and other laws, rules, or regulations of other federal, state, local, or county agencies, the most restrictive laws, rules, or regulations shall apply.</li> <li>All construction traffic must enter/exit the site only at approved construction access points.</li> <li>Prior to construction the permittee shall verify the location of existing utilities.</li> <li>A water source shall be available on-site during earthwork operations and shall be utilized as required to minimize dust from earthwork equipment and wind.</li> <li>The soils report for this site has been prepared by Kumar &amp; Assoc., 3/29/11 and shall be considered a part of these plans.</li> <li>At least ten (10) days prior to the anticipated start of construction, for projects that will disturb one (1) acre or more, the owner or operator of construction activity shall submit a permit application for stormwater discharge to the Colorado Department of Public Health and Environment, Water Quality Division. The application contains certification of completion of a Stormwater Management Plan (SWMP / CSWMP), of which this Grading And Erosion Control Plan may be a part. For information or application materials contact:  Colorado Department of Public Health and Environment Water Quality Control Division WQCD - permits 4300 Cherry Creek Drive South Denver, CO 80246-1530 Attn: permits unit</li> </ol>

PROJECT SPECIFIC NOTES
<ol style="list-style-type: none"> <li>Where El Paso County and Colorado Springs notes contradict, El Paso County notes shall supersede.</li> <li>The SWMP and CSWMP are the same document, one document.</li> <li>ANTICIPATED START 10/01/2024</li> <li>ANTICIPATED CONSTRUCTION END 10/31/2025</li> <li>ANTICIPATED STABILIZATION 8/01/2025</li> <li>RECEIVING WATER SAND CREEK</li> <li>SITE IS NATIVE GRASS AND WILL REMAIN NATIVE GRASS</li> <li>There are no on site asphalt or concrete batch plants anticipated.</li> </ol>

COLORADO SPRINGS STANDARD GRADING & EROSION CONTROL PLAN NOTES
<ol style="list-style-type: none"> <li>No clearing, grading, excavation, or other land disturbing activities shall be allowed (except for work directly related to the installation of Initial Control Measures) until a City GEC Permit has been issued.</li> <li>All land disturbing activities must be performed in accordance with and the approved GEC Plan and CSWMP.</li> <li>Initial Control Measures shall be installed and inspected prior to any land disturbance activities taking place. An initial site inspection will not be scheduled until a City GEC Permit has been "conditionally approved." Call City Stormwater Inspections, 385-5980, at least 48 hours prior to construction to schedule an initial inspection and obtain full permit approval.</li> <li>Individuals shall comply with the "Colorado Water Quality Control Act" (Title 25, Article 8, CRS) and the "Clean Water Act" (33 USC 1344), including regulations promulgated and certifications or permits issued, in addition to the requirements included in the City's MS4 Permit, Stormwater Construction Manual. In the event of conflicts between these requirements and water quality control laws, rules, or regulations of other Federal or State agencies, the more restrictive laws, rules, or regulations shall apply.</li> <li>Stormwater discharges from construction sites shall not cause or threaten to cause pollution, contamination, or degradation of State Waters.</li> <li>All Construction Control Measures shall be maintained until permanent stabilization measures are implemented. Temporary Construction Control Measures must be removed prior to permit closeout.</li> <li>Concrete wash water shall not be discharged to or allowed to runoff to State Waters or any surface or subsurface storm drainage system or facilities.</li> <li>Building, construction, excavation, or other waste materials shall not be temporarily placed or stored in the street, alley, or other public way, unless in accordance with an approved Traffic Control Plan. Construction Control Measures may be required by the GEC Inspector if deemed necessary based on specific conditions and circumstances (e.g., estimated time of exposure, season of the year, etc.).</li> <li>All wastes composed of building materials must be removed from the construction site for disposal in accordance with local and state regulatory requirements. No building material wastes or unused building materials shall be buried, dumped, or discharged at the site.</li> <li>The permittee shall be responsible for the removal of all construction debris, dirt, trash, rock, sediment, and sand that may accumulate in the storm sewer or other drainage conveyance system as a result of construction activities.</li> <li>The quantity of materials stored on the project site shall be limited, as much as practical, to that quantity required to perform the work in an orderly sequence. All materials stored on-site shall be stored in a neat, orderly manner, in their original containers, with original manufacturer's labels. Materials shall not be stored in a location where they may be carried by stormwater runoff into the storm sewer system at any time.</li> <li>Spill prevention and containment measures shall be used at all storage, equipment fueling, and equipment servicing areas so as to contain all spills and prevent any spilled material from entering the MS4, including any surface or subsurface storm drainage system or facility. Bulk storage structures for petroleum products and other chemicals shall have secondary containment or equivalent adequate protection. All spills shall be cleaned up immediately after discovery, or contained until appropriate cleanup methods can be employed. Manufacturer's recommended methods for spill cleanup shall be followed, along with proper disposal methods.</li> <li>Sediment (mud and dirt) transported onto a public road, regardless of the size of the site, shall be cleaned as soon as possible after discovery.</li> <li>No chemicals are to be added to the discharge unless permission for the use of a specific chemical is granted by the State. In granting the use of such chemicals, special conditions and monitoring may be required.</li> <li>Control Measures for all slopes, channels, ditches, or any disturbed land area shall be completed within fourteen (14) calendar days after final grading or final land disturbance has been completed. Disturbed areas which are not at final grade but will remain dormant for longer than fourteen (14) days shall be roughened, mulched, tackified, or stabilized with tarps within fourteen (14) days after interim grading. An area that is going to remain in an interim state for more than sixty (60) days shall also be seeded, unless an alternative stabilization measure is accepted at the Inspector's discretion. All temporary Construction Control Measures shall be maintained until final stabilization is achieved.</li> <li>The GEC Plan will be subject to re-review and re-acceptance by the Stormwater Enterprise should any of the following occur: grading does not commence within twelve (12) months of the City's acceptance of the plan, the construction site is idle for twelve (12) consecutive months, a change in property ownership occurs, the planned development changes, or any other major modifications are proposed as defined in the Stormwater Construction Manual.</li> <li>It is not permissible for any person to modify the grade of the earth on any utility easement or utility right-of-way without written approval from the utility owner. City acceptance of the GEC Plan and CSWMP does not satisfy this requirement. The plan shall not increase or divert water towards utility facilities. Any changes to existing utility facilities to accommodate the plan must be approved by the affected utility owner prior to implementing the plan. The cost to relocate or protect existing utilities or to provide interim access shall be at the applicant's expense.</li> <li>Applicant represents and warrants that they have the legal authority to grade and/or construct improvements on adjacent property. The City has not reviewed the developer's authority to modify adjacent property. An approved GEC Permit does not provide approval for the Applicant to perform work on adjacent property.</li> </ol>

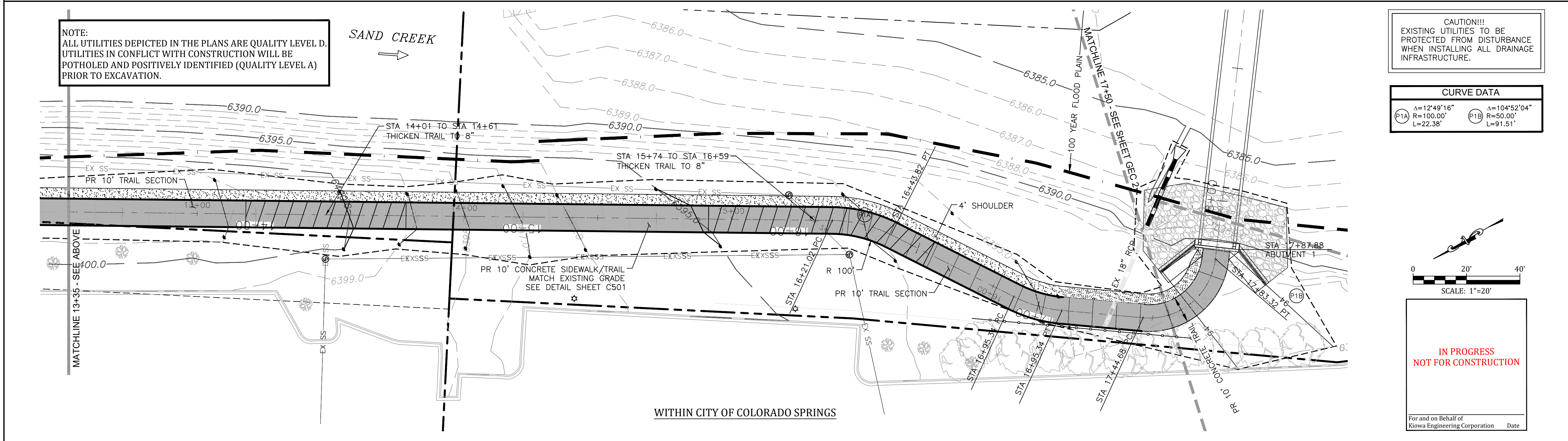
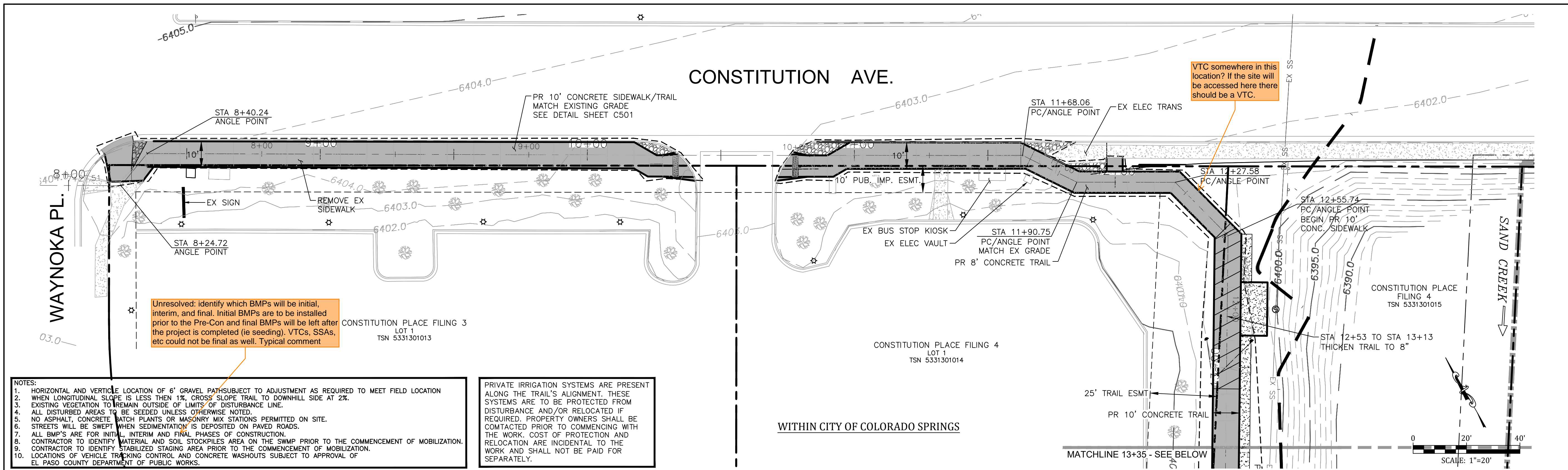


2 CONCRETE BLOCK FACING MSE WALL CROSS SECTION  
NOT TO SCALE

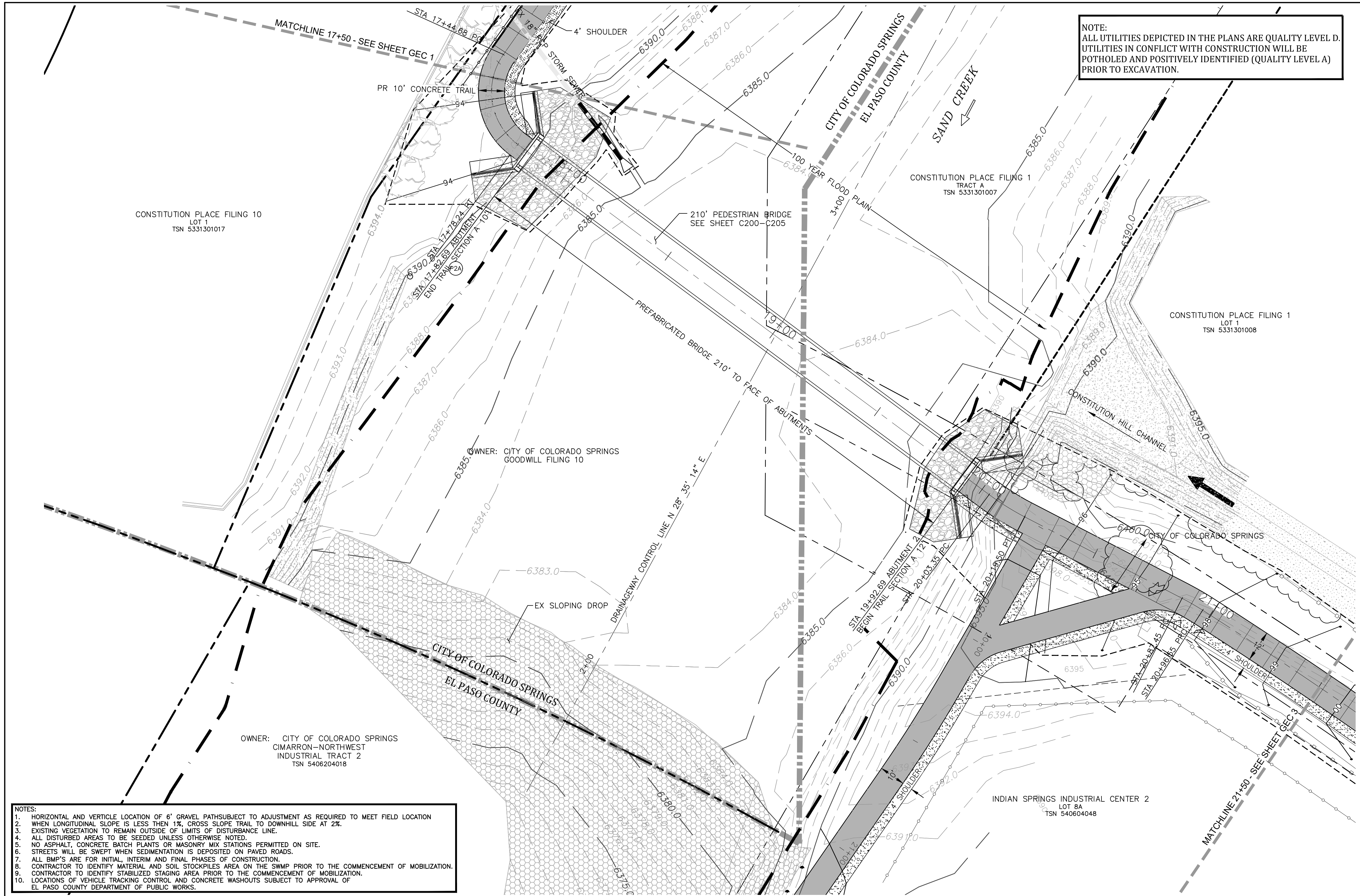
- WALL NOTES:
- SHOP DRAWINGS DEPICTING THE DESIGN OF BLOCK WALL SHALL BE SUBMITTED TO ENGINEER PRIOR TO CONSTRUCTION PER THE PROJECT SPECIFICATIONS. DESIGN SHALL BE COMPLETED UNDER THE DIRECT SUPERVISION OF A PROPERLY REGISTERED PROFESSIONAL ENGINEER WITH THE STATE OF COLORADO. FINAL CONSTRUCTION DRAWINGS SHALL BEAR HIS/HER SEAL AND SIGNATURE.
  - BUILDING PERMITS FOR THE INSTALLATION OF THE MSE WALL MAY BE REQUIRED THROUGH THE PIKES PEAK REGIONAL BUILDING DEPARTMENT.
  - CONTRACTOR TO OBTAIN EPC-DPW ROAD CUT WORK PERMIT FOR WORK IN RIGHT-OF-WAY.
  - CONTRACTOR TO SUPPLY TO EPC-DPW CONSTRUCTION TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL PRIOR TO COMMENCING WITH ANY WORK WITHIN THE PETERSON ROAD RIGHT-OF-WAY.

	<p style="color: red; text-align: center;">IN PROGRESS NOT FOR CONSTRUCTION</p>	<p>1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342</p>		Sheet Revisions	90% BID SET	<b>ROCK ISLAND TRAIL</b> GRADING AND EROSION CONTROL PLAN <b>STANDARD NOTES &amp; DETAILS</b>		Kiowa Proj. No. 16028
				No Revisions:				TAP M240-162
				Revised:		Designer: RNW	SubAcct No. 20391	
				Void:		Detailer: RNW Date: 08/06/2024	Sheet Number G2	

These construction sheets should also have BMPs, VTC, etc. These sheets don't appear to showing erosion control items. All items including flow arrows, cut/fill, BMPs, etc should be on all areas of disturbance.



<p><b>IN PROGRESS NOT FOR CONSTRUCTION</b></p> <p>For and on Behalf of Kiowa Engineering Corporation Date</p>	<p>Celebrating 30 years</p> <p>1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342</p>	Sheet Revisions	90% BID SET	ROCK ISLAND TRAIL GRADING AND EROSION CONTROL PLAN STA 8+00 TO 17+50		Kiowa Proj. No. 16028
			No Revisions:	Designer: RNW		TAP M240-162
			Revised:	Detailer: RNW		SubAcct No.20391
			Void:	Date: 08/06/2024		Sheet Number GEC 1



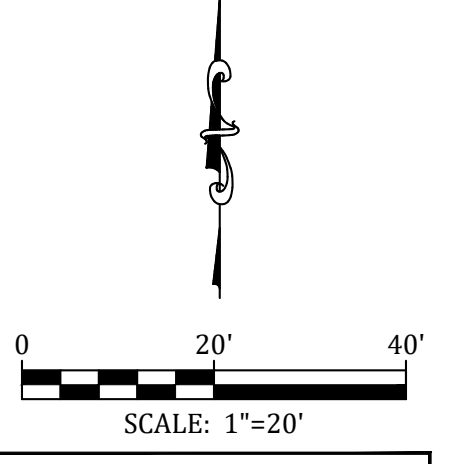
NOTE:  
ALL UTILITIES DEPICTED IN THE PLANS ARE QUALITY LEVEL D.  
UTILITIES IN CONFLICT WITH CONSTRUCTION WILL BE  
POTHOLED AND POSITIVELY IDENTIFIED (QUALITY LEVEL A)  
PRIOR TO EXCAVATION.

CAUTION!!!  
EXISTING UTILITIES TO BE  
PROTECTED FROM DISTURBANCE  
WHEN INSTALLING ALL DRAINAGE  
INFRASTRUCTURE.

CURVE DATA	
$\Delta=104^{\circ}52'04''$	
$R=50.00'$	
$L=91.51'$	



FOR LAYOUT OF ROCK ISLAND  
BRIDGE & DRAINAGEWAY  
IMPROVEMENTS, SEE SHEET C205

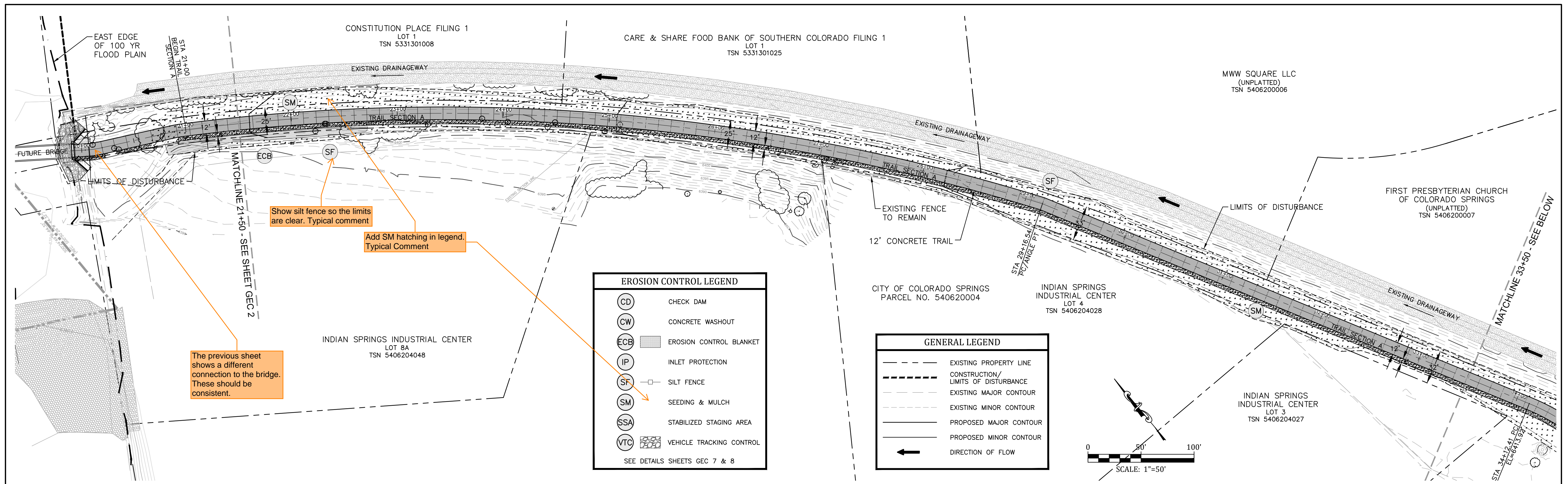
- NOTES:
- HORIZONTAL AND VERTICLE LOCATION OF 6" GRAVEL PATHS SUBJECT TO ADJUSTMENT AS REQUIRED TO MEET FIELD LOCATION
  - WHEN LONGITUDINAL SLOPE IS LESS THEN 1%, CROSS SLOPE TRAIL TO DOWNHILL SIDE AT 2%.
  - EXISTING VEGETATION TO REMAIN OUTSIDE OF LIMITS OF DISTURBANCE LINE.
  - ALL DISTURBED AREAS TO BE SEEDDED UNLESS OTHERWISE NOTED.
  - NO ASPHALT, CONCRETE BATCH PLANTS OR MASONRY MIX STATIONS PERMITTED ON SITE.
  - STREETS WILL BE SWEEPED WHEN SEDIMENTATION IS DEPOSITED ON PAVED ROADS.
  - ALL BMP'S ARE FOR INITIAL, INTERIM AND FINAL PHASES OF CONSTRUCTION.
  - CONTRACTOR TO IDENTIFY MATERIAL AND SOIL STOCKPILES AREA ON THE SWMP PRIOR TO THE COMMENCEMENT OF MOBILIZATION.
  - CONTRACTOR TO IDENTIFY STABILIZED STAGING AREA PRIOR TO THE COMMENCEMENT OF MOBILIZATION.
  - LOCATIONS OF VEHICLE TRACKING CONTROL AND CONCRETE WASHOUTS SUBJECT TO APPROVAL OF EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS.



**IN PROGRESS  
NOT FOR CONSTRUCTION**

For and on Behalf of  
Kiowa Engineering Corporation Date

 <b>COLORADO SPRINGS</b>	<b>IN PROGRESS NOT FOR CONSTRUCTION</b>	 <b>Kiowa Engineering Corporation</b> 1604 South 21st Street, Colorado Springs, Colorado 80904 (719) 630-7342	Sheet Revisions <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 20px; border: 1px solid black; margin-right: 5px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-right: 5px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-right: 5px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-right: 5px;"></div> </div>	90% BID SET No Revisions: Revised: Void:	<b>ROCK ISLAND TRAIL</b> GRADING AND EROSION CONTROL PLAN <b>STA 17+50 TO 21+50</b>	Designer: RNW Detailer: RNW Date: 08/06/2024	Kiowa Proj. No. 16028 TAP M240-162 SubAcct No.20391 Sheet Number GEC 2
			For and on Behalf of Kiowa Engineering Corporation Date				



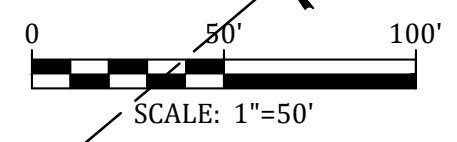
Show silt fence so the limits are clear. Typical comment

Add SM hatching in legend. Typical Comment

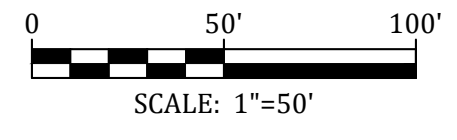
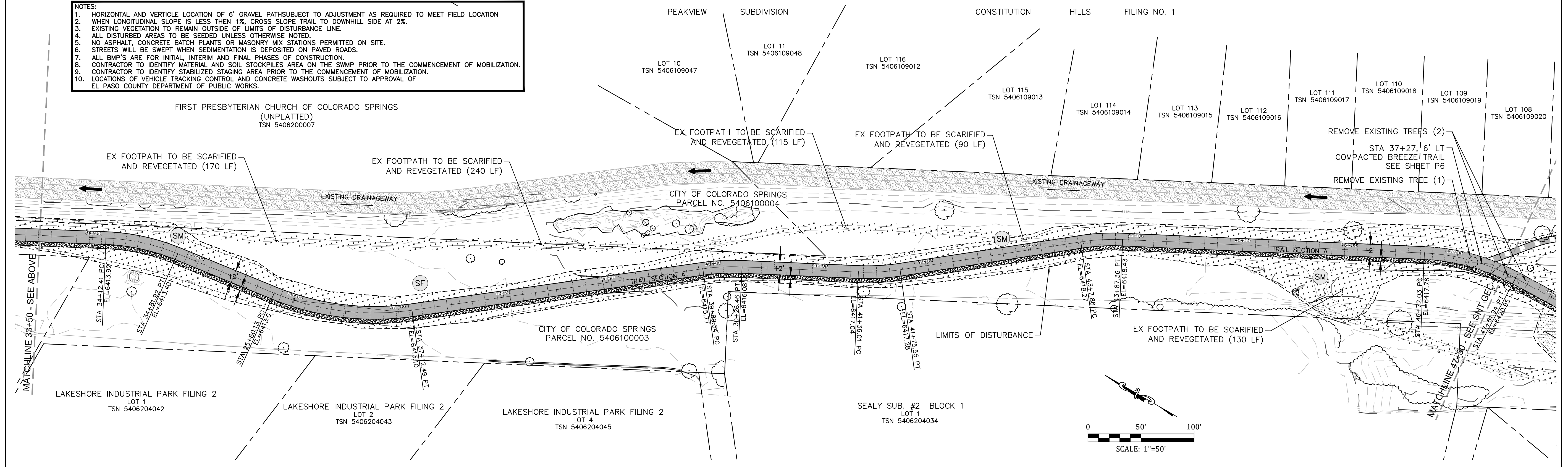
The previous sheet shows a different connection to the bridge. These should be consistent.

EROSION CONTROL LEGEND	
(CD)	CHECK DAM
(CW)	CONCRETE WASHOUT
(ECB)	EROSION CONTROL BLANKET
(IP)	INLET PROTECTION
(SF)	SILT FENCE
(SM)	SEEDING & MULCH
(SSA)	STABILIZED STAGING AREA
(VTC)	VEHICLE TRACKING CONTROL
SEE DETAILS SHEETS GEC 7 & 8	

GENERAL LEGEND	
---	EXISTING PROPERTY LINE
---	CONSTRUCTION/ LIMITS OF DISTURBANCE
---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
---	PROPOSED MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
←	DIRECTION OF FLOW



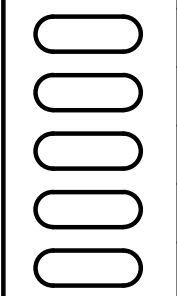
- NOTES:
- HORIZONTAL AND VERTICLE LOCATION OF 6" GRAVEL PATHS SUBJECT TO ADJUSTMENT AS REQUIRED TO MEET FIELD LOCATION
  - WHEN LONGITUDINAL SLOPE IS LESS THEN 1%, CROSS SLOPE TRAIL TO DOWNHILL SIDE AT 2%.
  - EXISTING VEGETATION TO REMAIN OUTSIDE OF LIMITS OF DISTURBANCE LINE.
  - ALL DISTURBED AREAS TO BE SEEDED UNLESS OTHERWISE NOTED.
  - NO ASPHALT, CONCRETE BATCH PLANTS OR MASONRY MIX STATIONS PERMITTED ON SITE.
  - STREETS WILL BE SWEEPED WHEN SEDIMENTATION IS DEPOSITED ON PAVED ROADS.
  - ALL BMP'S ARE FOR INITIAL, INTERIM AND FINAL PHASES OF CONSTRUCTION.
  - CONTRACTOR TO IDENTIFY MATERIAL AND SOIL STOCKPILES AREA ON THE SWMP PRIOR TO THE COMMENCEMENT OF MOBILIZATION.
  - CONTRACTOR TO IDENTIFY STABILIZED STAGING AREA PRIOR TO THE COMMENCEMENT OF MOBILIZATION.
  - LOCATIONS OF VEHICLE TRACKING CONTROL AND CONCRETE WASHOUTS SUBJECT TO APPROVAL OF EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS.



**IN PROGRESS  
NOT FOR CONSTRUCTION**

For and on Behalf of  
Kiowa Engineering Corporation Date

Celebrating 30 years  
**Kiowa**  
Engineering Corporation  
1604 South 21st Street  
Colorado Springs, Colorado 80904  
(719) 630-7342



Sheet Revisions

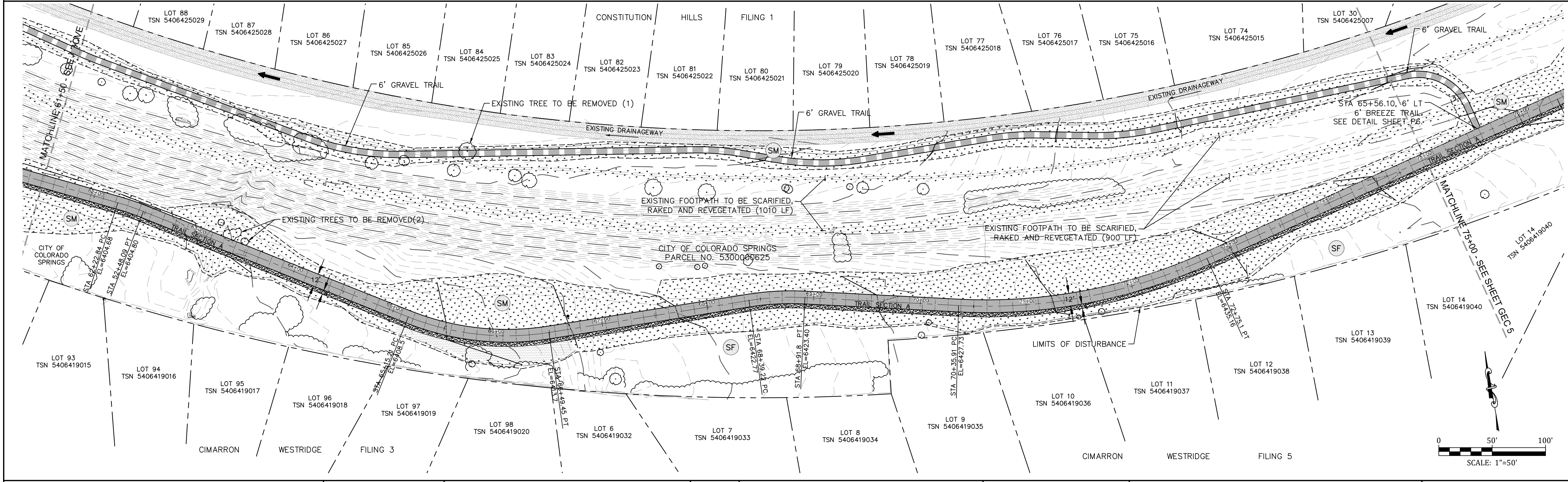
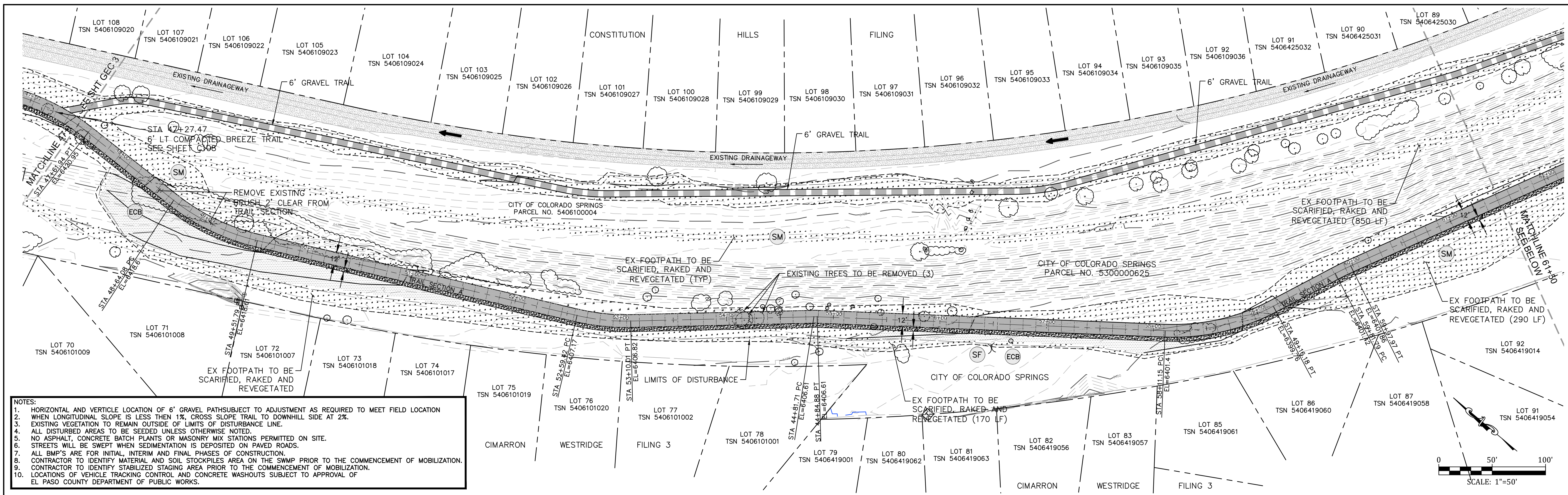
90% BID SET

No Revisions:  
Revised:  
Void:

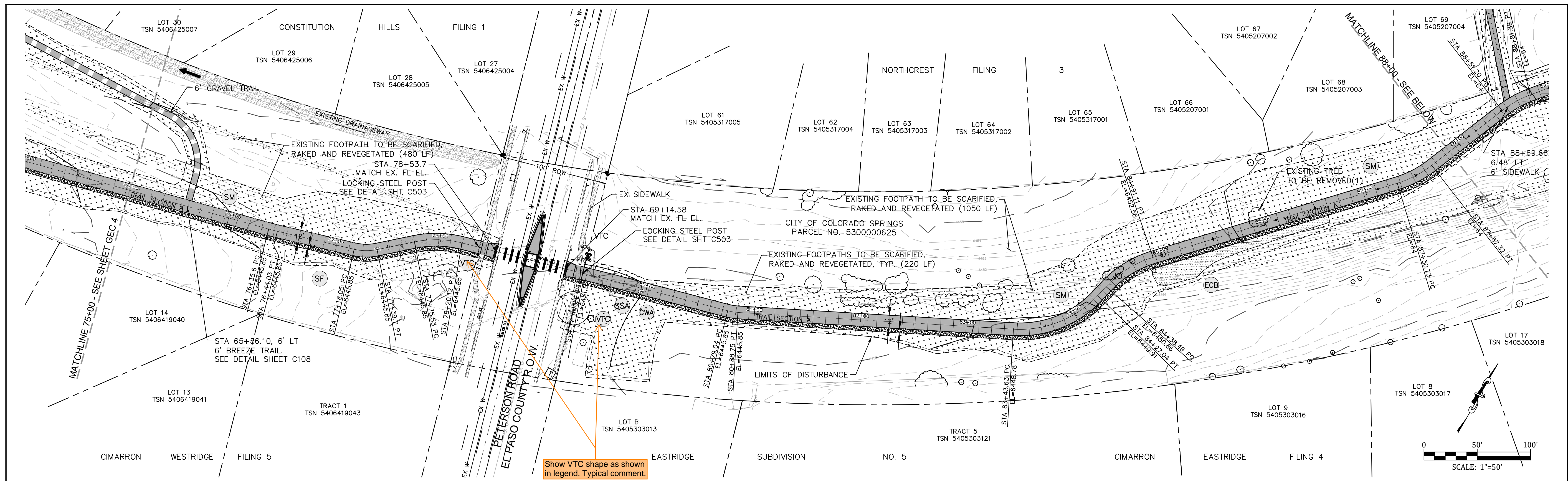
**ROCK ISLAND TRAIL  
GRADING AND EROSION CONTROL PLAN  
STA 21+50 TO 47+50**

Designer: RNW  
Detailer: RNW  
Date: 08/06/2024

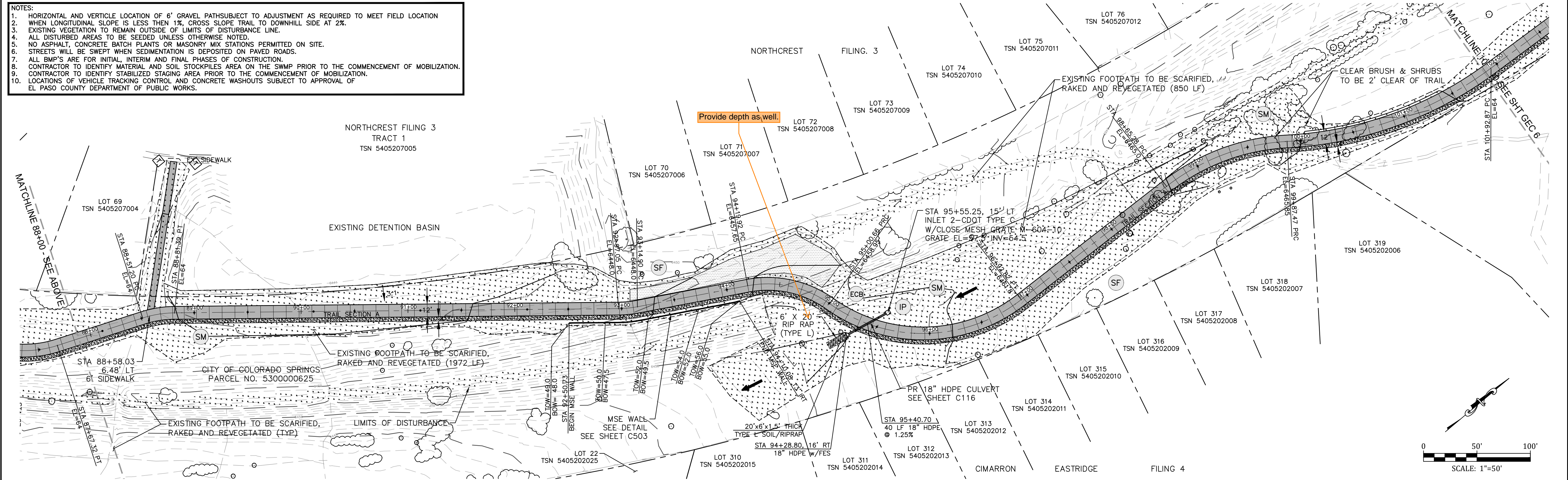
Kiowa Proj. No. 16028  
TAP M240-162  
SubAcct No.20391  
Sheet Number GEC 3



	<p><b>IN PROGRESS NOT FOR CONSTRUCTION</b></p> <p>For and on Behalf of Kiowa Engineering Corporation Date</p>	<p>1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342</p>	<p>Sheet Revisions</p>		<p>90% BID SET</p>		<p><b>ROCK ISLAND TRAIL</b> GRADING AND EROSION CONTROL PLAN STA 47+50 TO 75+00</p>		<p>Kiowa Proj. No. 16028</p>	
			<p>0000</p>		<p>No Revisions:</p>		<p>Designer: RNW</p>		<p>TAP M240-162</p>	
			<p>0000</p>		<p>Revised:</p>		<p>Detailer: RNW</p>		<p>SubAcct No.20391</p>	
			<p>0000</p>		<p>Void:</p>		<p>Date: 08/06/2024</p>		<p>Sheet Number GEC 4</p>	



- NOTES:
- HORIZONTAL AND VERTICLE LOCATION OF 6" GRAVEL PATHS SUBJECT TO ADJUSTMENT AS REQUIRED TO MEET FIELD LOCATION
  - WHEN LONGITUDINAL SLOPE IS LESS THEN 1%, CROSS SLOPE TRAIL TO DOWNHILL SIDE AT 2%.
  - EXISTING VEGETATION TO REMAIN OUTSIDE OF LIMITS OF DISTURBANCE LINE.
  - ALL DISTURBED AREAS TO BE SEEDED UNLESS OTHERWISE NOTED.
  - NO ASPHALT, CONCRETE BATCH PLANTS OR MASONRY MIX STATIONS PERMITTED ON SITE.
  - STREETS WILL BE SWEEPED WHEN SEDIMENTATION IS DEPOSITED ON PAVED ROADS.
  - ALL BMP'S ARE FOR INITIAL, INTERIM AND FINAL PHASES OF CONSTRUCTION.
  - CONTRACTOR TO IDENTIFY MATERIAL AND SOIL STOCKPILES AREA ON THE SWMP PRIOR TO THE COMMENCEMENT OF MOBILIZATION.
  - CONTRACTOR TO IDENTIFY STABILIZED STAGING AREA PRIOR TO THE COMMENCEMENT OF MOBILIZATION.
  - LOCATIONS OF VEHICLE TRACKING CONTROL AND CONCRETE WASHOUTS SUBJECT TO APPROVAL OF EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS.



IN PROGRESS  
NOT FOR CONSTRUCTION

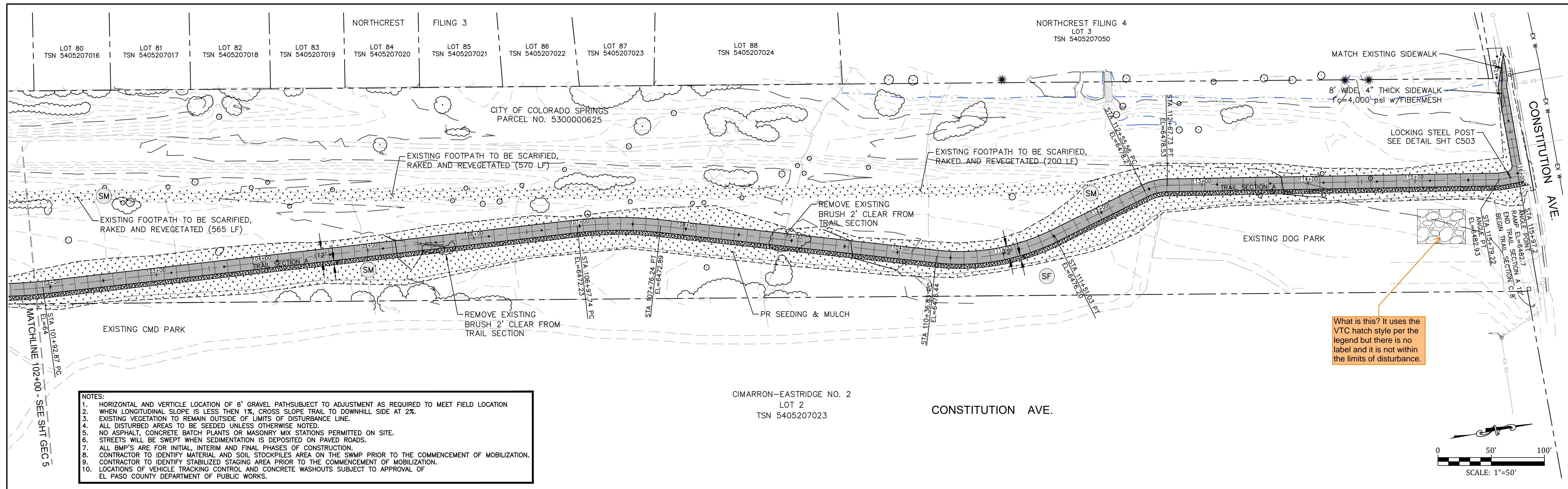
Celebrating 30 years  
**Kiowa**  
Engineering Corporation  
1604 South 21st Street  
Colorado Springs, Colorado 80904  
(719) 630-7342

Sheet Revisions	90% BID SET
	No Revisions:
	Revised:
	Void:

**ROCK ISLAND TRAIL**  
GRADING AND EROSION CONTROL PLAN  
STA 75+00 TO 102+00

Designer: RNW  
Detailer: RNW  
Date: 08/06/2024

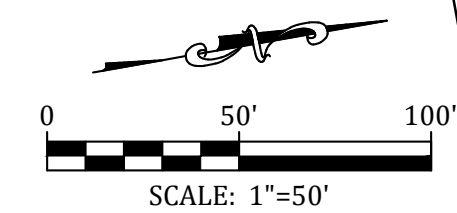
Kiowa Proj. No. 16028  
TAP M240-162  
SubAcct No.20391  
Sheet Number GEC 5



- NOTES:**
1. HORIZONTAL AND VERTICLE LOCATION OF 6" GRAVEL PATHS SUBJECT TO ADJUSTMENT AS REQUIRED TO MEET FIELD LOCATION
  2. WHEN LONGITUDINAL SLOPE IS LESS THEN 1%, CROSS SLOPE TRAIL TO DOWNHILL SIDE AT 2%.
  3. EXISTING VEGETATION TO REMAIN OUTSIDE OF LIMITS OF DISTURBANCE LINE.
  4. ALL DISTURBED AREAS TO BE SEEDED UNLESS OTHERWISE NOTED.
  5. NO ASPHALT, CONCRETE BATCH PLANTS OR MASONRY MIX STATIONS PERMITTED ON SITE.
  6. STREETS WILL BE SWEEPED WHEN SEDIMENTATION IS DEPOSITED ON PAVED ROADS.
  7. ALL BMP'S ARE FOR INITIAL, INTERIM AND FINAL PHASES OF CONSTRUCTION.
  8. CONTRACTOR TO IDENTIFY MATERIAL AND SOIL STOCKPILES AREA ON THE SWAMP PRIOR TO THE COMMENCEMENT OF MOBILIZATION.
  9. CONTRACTOR TO IDENTIFY STABILIZED STAGING AREA PRIOR TO THE COMMENCEMENT OF MOBILIZATION.
  10. LOCATIONS OF VEHICLE TRACKING CONTROL AND CONCRETE WASHOUTS SUBJECT TO APPROVAL OF EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS.

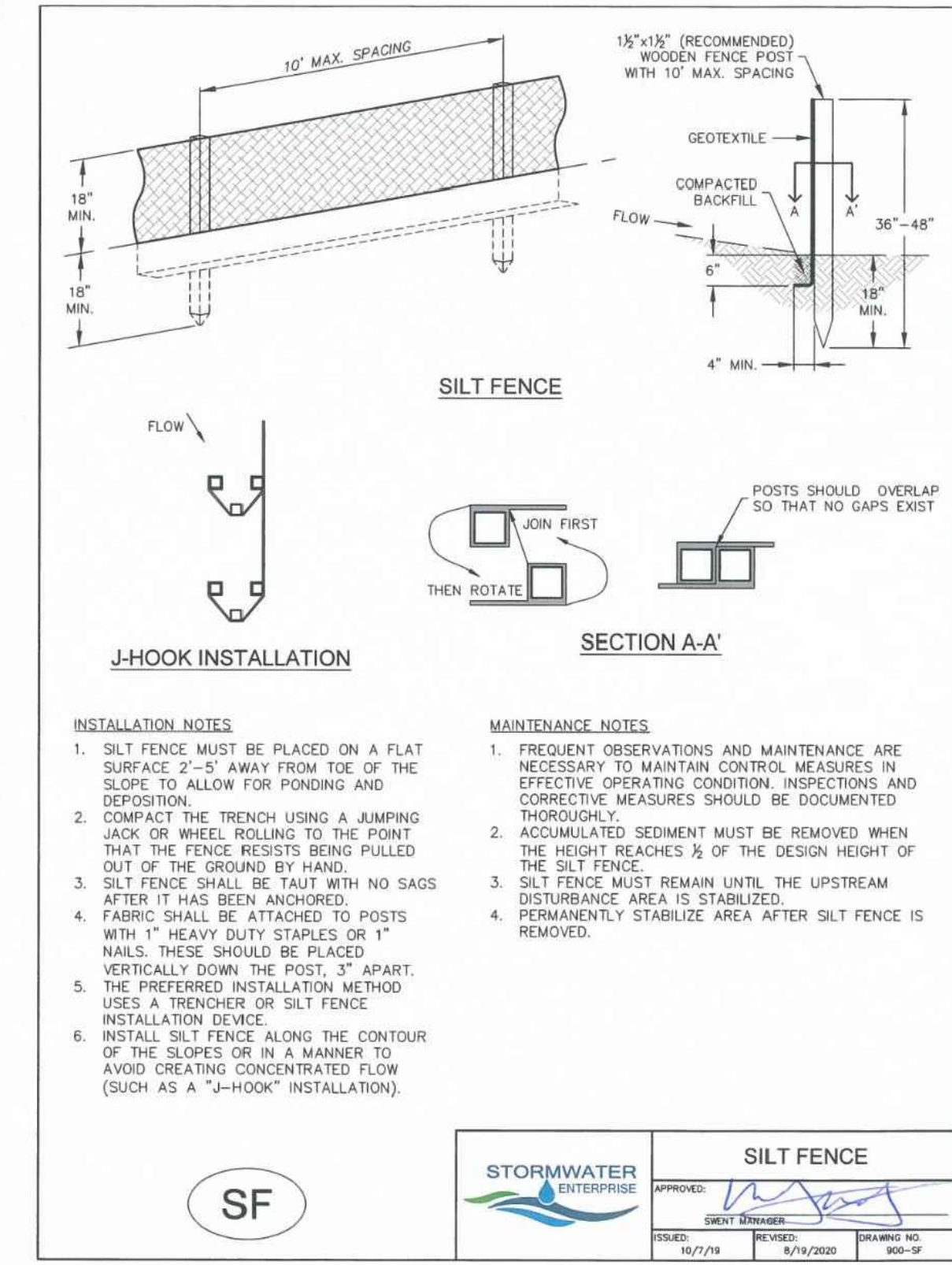
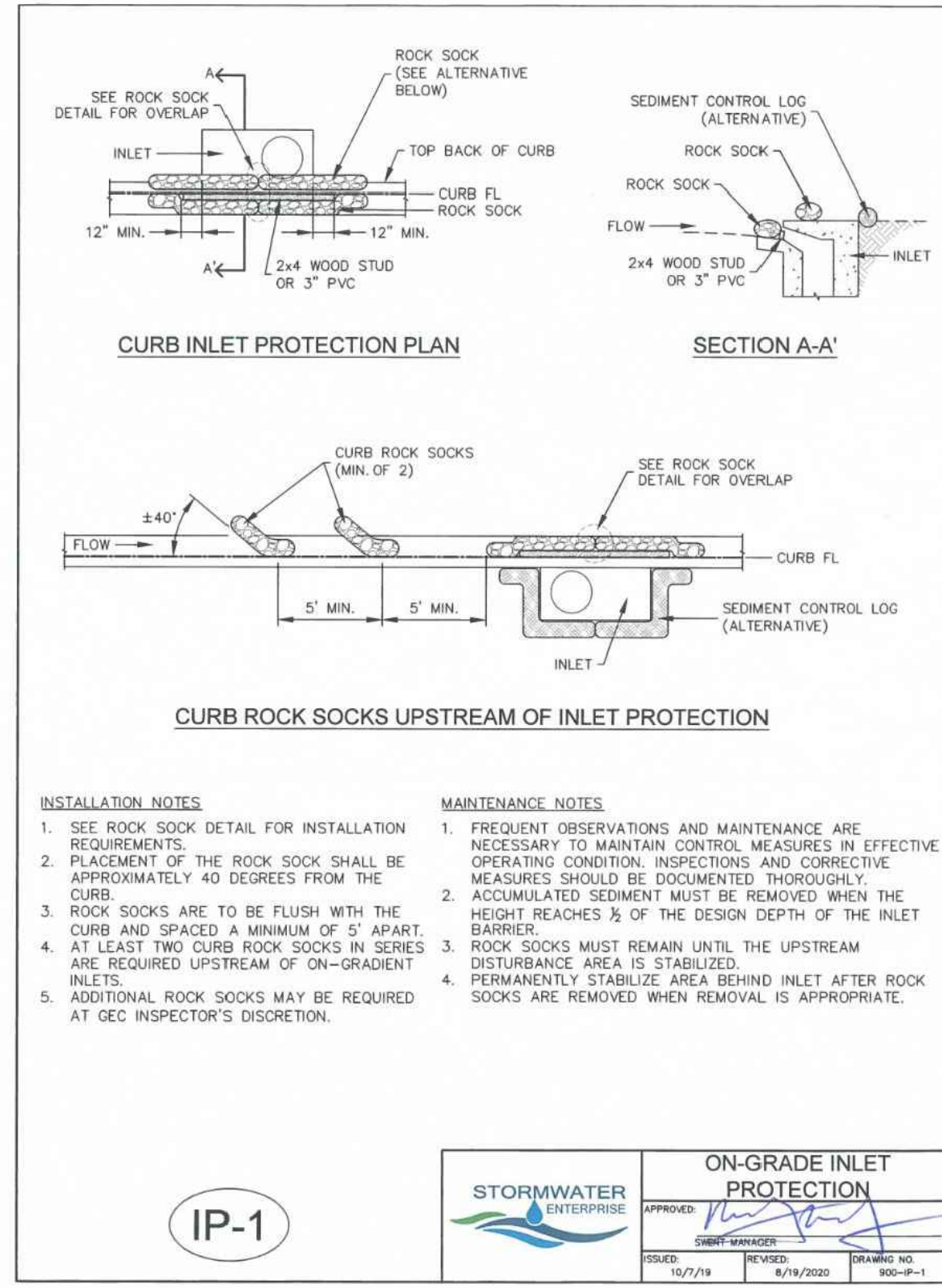
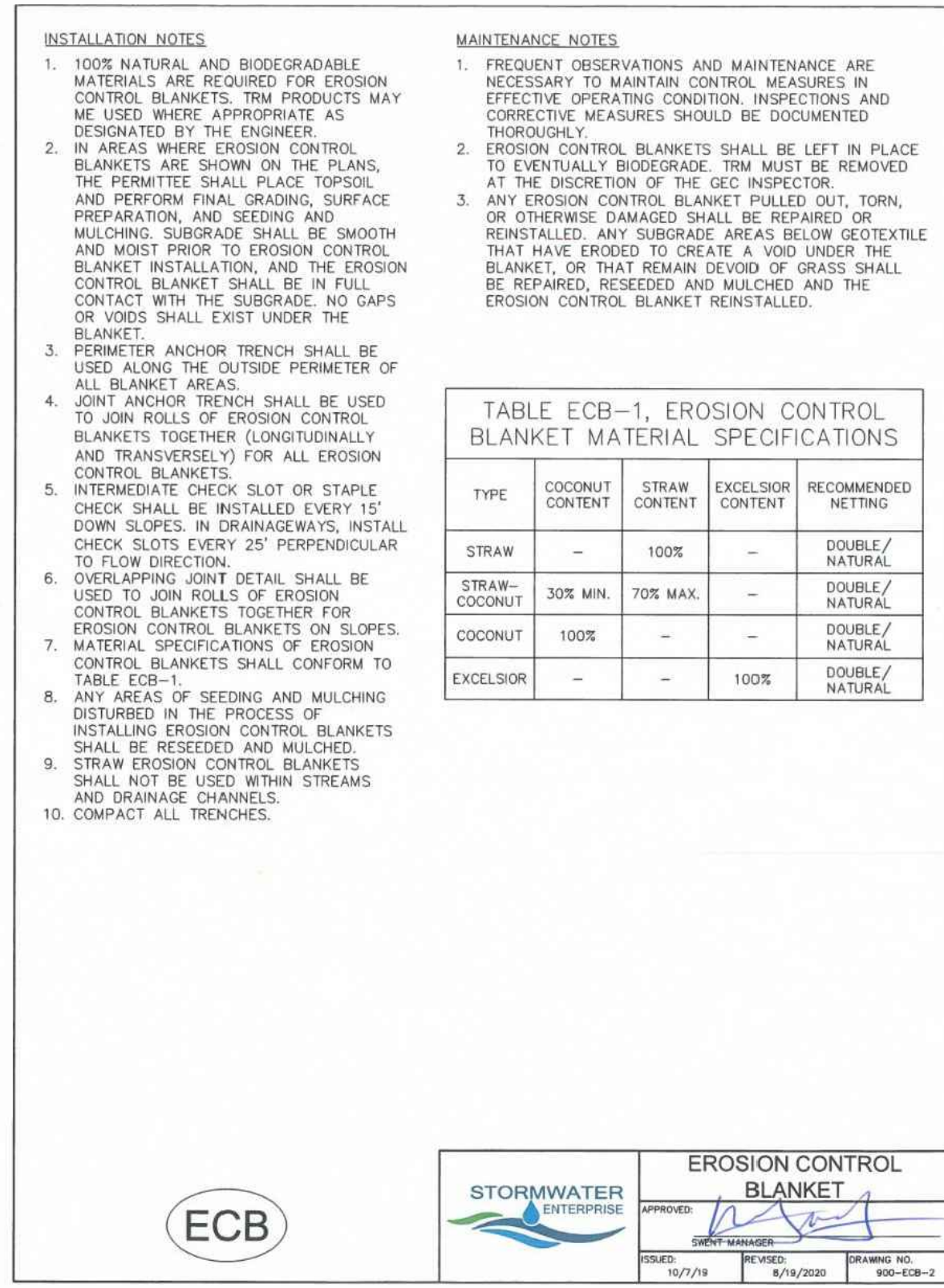
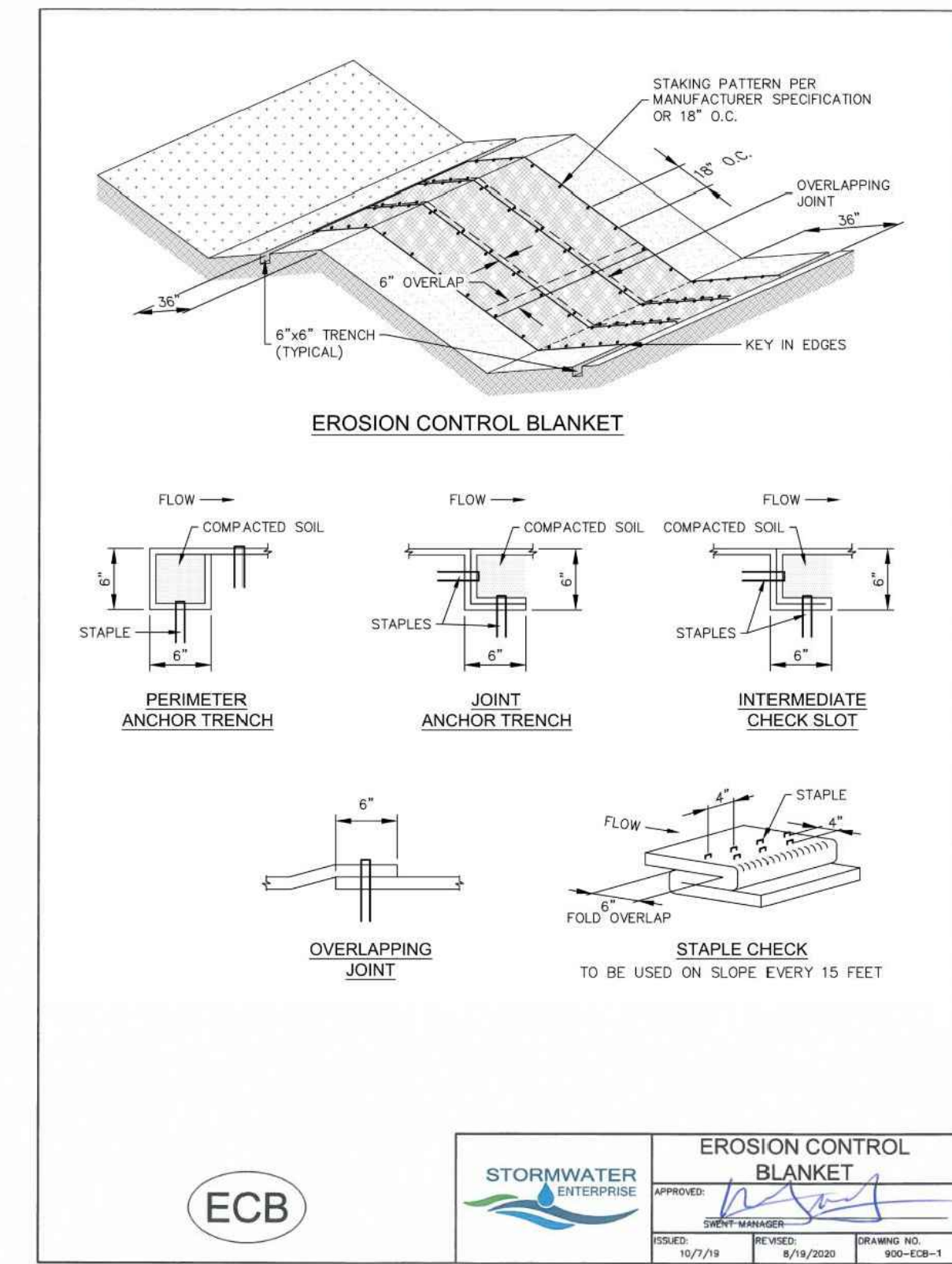
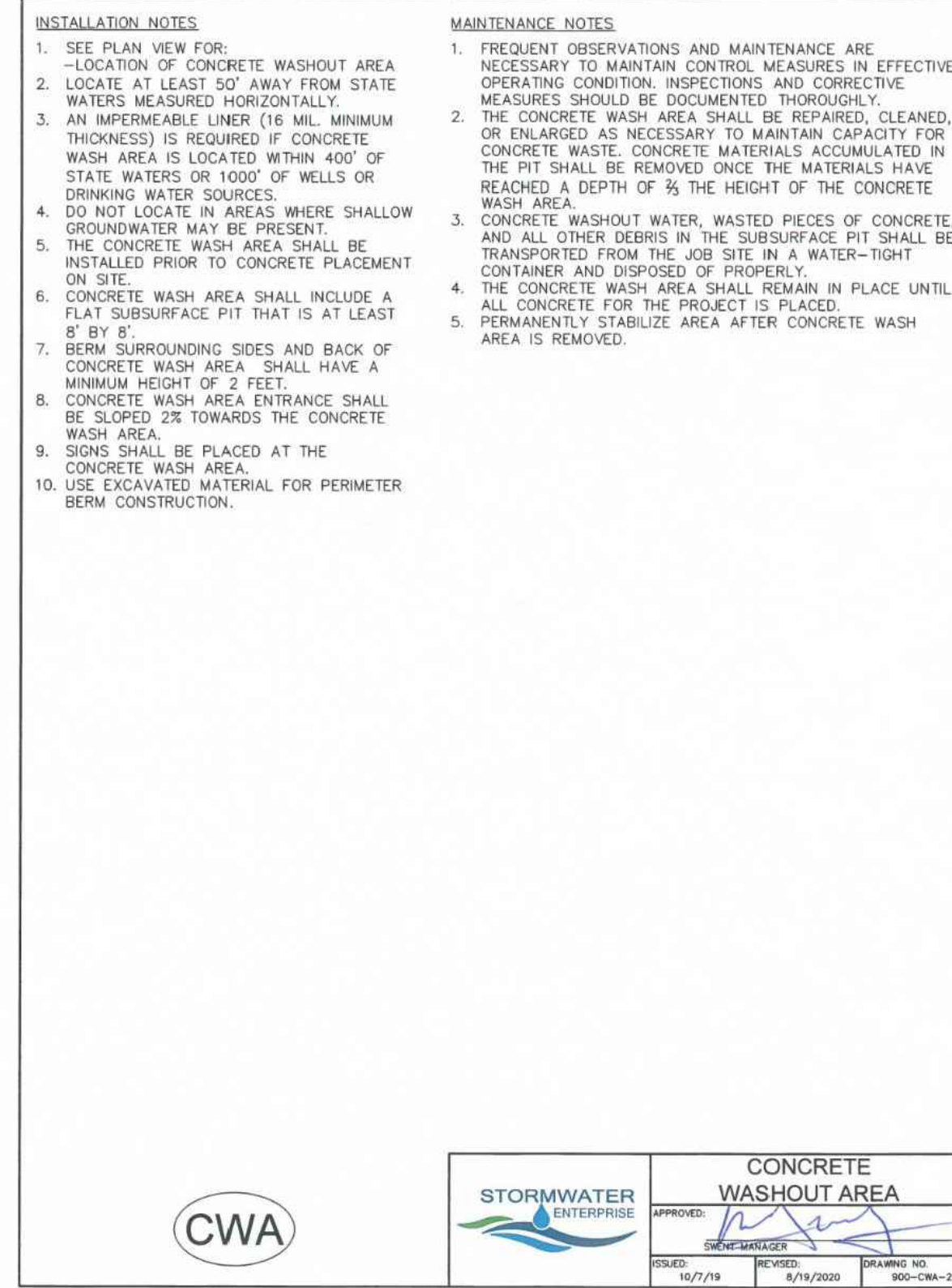
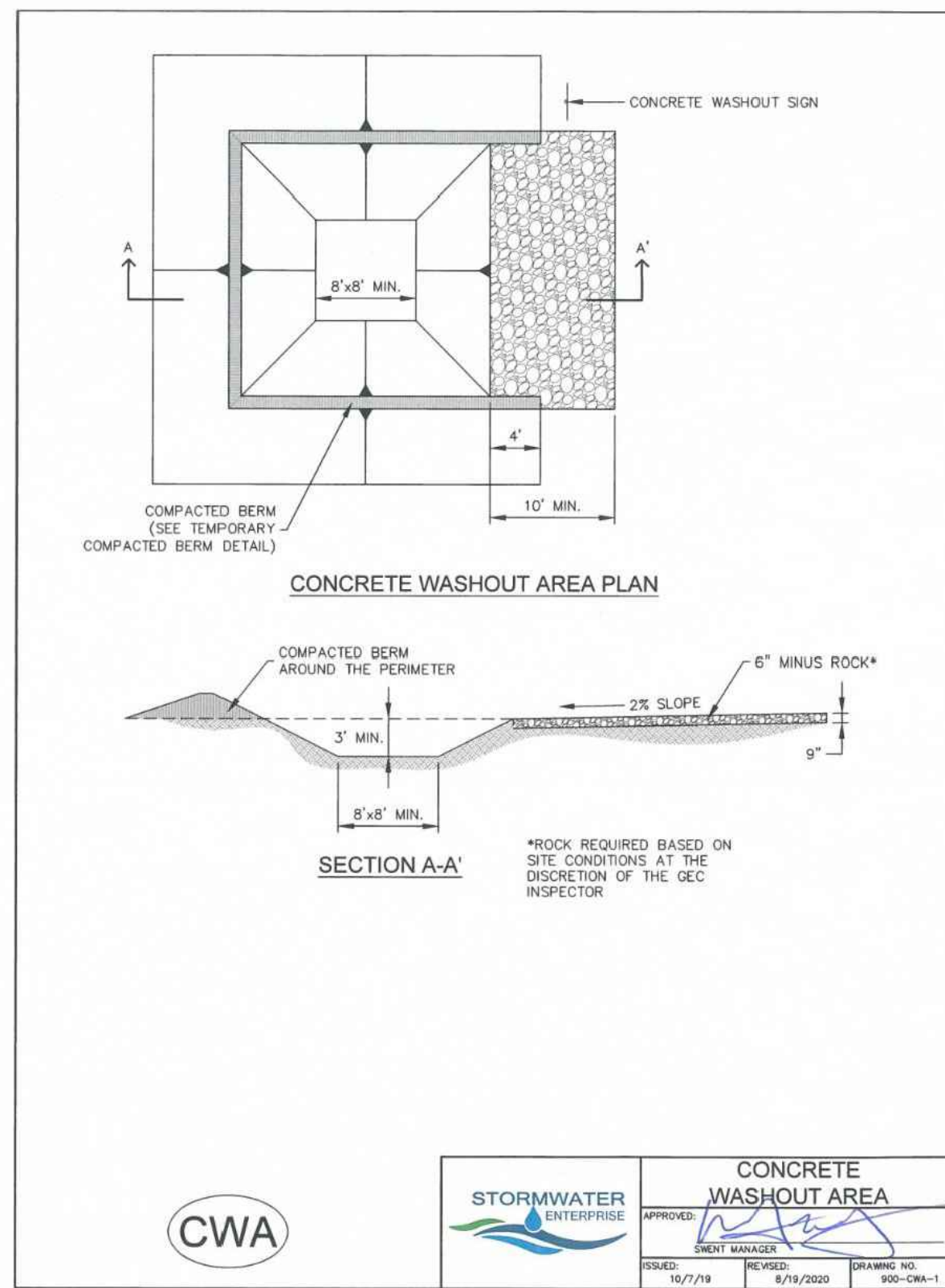
CIMARRON-EASTRIDGE NO. 2  
LOT 2  
TSN 5405207023

CONSTITUTION AVE.



	<p style="text-align: center;"><b>IN PROGRESS</b> NOT FOR CONSTRUCTION</p>	<p style="text-align: center;">Celebrating 30 years <b>Kiowa</b> Engineering Corporation 1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342</p>		<p style="text-align: center;">Sheet Revisions</p>	<p style="text-align: center;">90% BID SET</p>	<p style="text-align: center;"><b>ROCK ISLAND TRAIL</b> GRADING AND EROSION CONTROL PLAN STA 102+00 TO 117+50</p>		<p>Kiowa Proj. No. 16028</p>
				<p>No Revisions:</p>	<p>Revised:</p>	<p>Designer: RNW</p>	<p>Detailer: RNW</p>	<p>SubAcct No.20391</p>
				<p>Void:</p>	<p>Date: 08/06/2024</p>			<p>Sheet Number GEC 6</p>





IN PROGRESS  
 NOT FOR CONSTRUCTION



Sheet Revisions

90% BID SET
No Revisions:
Revised:
Void:

ROCK ISLAND TRAIL GRADING AND EROSION CONTROL PLAN EROSION CONTROL DETAILS	
Designer:	RNW
Detailer:	RNW
Date:	08/06/2024

Kiowa Proj. No. 16028
TAP M240-162
SubAcct No.20391
Sheet Number GEC 7

**SEEDING & MULCHING**

ALL SOIL TESTING, SOILS AMENDMENT AND FERTILIZER DOCUMENTATION, AND SEED LOAD AND BAG TICKETS MUST BE ADDED TO THE CSWMP.

**SOIL PREPARATION**

- IN AREAS TO BE SEEDDED, THE UPPER 6 INCHES OF THE SOIL MUST NOT BE HEAVILY COMPACTED, AND SHOULD BE IN FRABLE CONDITION. LESS THAN 85% STANDARD PROCTOR DENSITY IS ACCEPTABLE. AREAS OF COMPACTION OR GENERAL CONSTRUCTION ACTIVITY MUST BE SCARIFIED TO A DEPTH OF 6 TO 12 INCHES PRIOR TO SPREADING TOPSOIL TO BREAK UP COMPACTED LAYERS AND PROVIDE A BLENDING ZONE BETWEEN DIFFERENT SOIL LAYERS.
- AREAS TO BE PLANTED SHALL HAVE AT LEAST 4 INCHES OF TOPSOIL SUITABLE TO SUPPORT PLANT GROWTH.
- THE CITY RECOMMENDS THAT EXISTING AND/OR IMPORTED TOPSOIL BE TESTED TO IDENTIFY SOIL DEFICIENCIES AND ANY SOIL AMENDMENTS NECESSARY TO ADDRESS THESE DEFICIENCIES. SOIL AMENDMENTS AND/OR FERTILIZERS SHOULD BE ADDED TO CORRECT TOPSOIL DEFICIENCIES BASED ON SOIL TESTING RESULTS.
- TOPSOIL SHALL BE PROTECTED DURING THE CONSTRUCTION PERIOD TO RETAIN ITS STRUCTURE AVOID COMPACTION, AND TO PREVENT EROSION AND CONTAMINATION. STRIPPED TOPSOIL MUST BE STORED IN AN AREA AWAY FROM MACHINERY AND CONSTRUCTION OPERATIONS, AND CARE MUST BE TAKEN TO PROTECT THE TOPSOIL AS A VALUABLE COMMODITY. TOPSOIL MUST NOT BE STRIPPED DURING UNDESIRABLE WORKING CONDITIONS (E.G. DURING WET WEATHER OR WHEN SOILS ARE SATURATED). TOPSOIL SHALL NOT BE STORED IN SWALES OR IN AREAS WITH POOR DRAINAGE.

**SEEDING**

- ALLOWABLE SEED MIXES ARE INCLUDED IN THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. ALTERNATIVE SEED MIXES ARE ACCEPTABLE IF INCLUDED IN AN APPROVED LANDSCAPING PLAN.
- SEED SHOULD BE DRILL-SEED WHENEVER POSSIBLE.
- SEED DEPTH MUST BE 3/8 TO 3/4 INCHES WHEN DRILL-SEEDING IS USED.
- BROADCAST SEEDING OR HYDRO-SEEDING WITH TACKIFIER MAY BE SUBSTITUTED ON SLOPES STEEPER THAN 3:1 OR ON OTHER AREAS NOT PRACTICAL TO DRILL SEED.
- SEEDING RATES MUST BE DOUBLED FOR BROADCAST SEEDING OR INCREASED BY 50% IF USING A BRILLION DRILL OR HYDRO-SEEDING.
- BROADCAST SEEDING MUST BE LIGHTLY HAND-RAKED INTO THE SOIL.

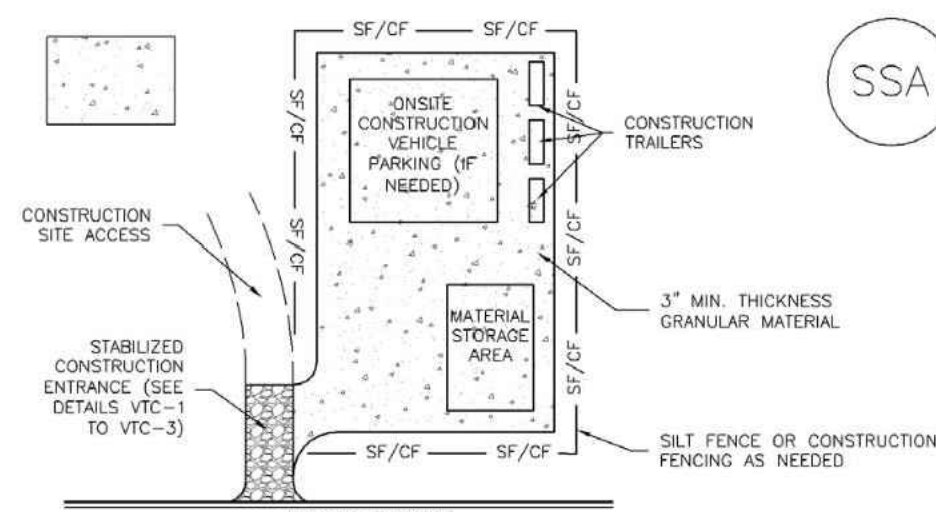
**MULCHING**

- MULCHING SHOULD BE COMPLETED AS SOON AS PRACTICABLE AFTER SEEDING, HOWEVER PLANTED AREAS MUST BE MULCHED NO LATER THAN 14 DAYS AFTER PLANTING.
- MULCHING REQUIREMENTS INCLUDE:
  - HAY OR STRAW MULCH
    - ONLY CERTIFIED WEED-FREE AND CERTIFIED SEED-FREE MULCH MAY BE USED. MULCH MUST BE APPLIED AT 2 TONS/ACRE AND ADEQUATELY SECURED BY CRIMPING AND/OR TACKIFIER.
    - CRIMPING MUST NOT BE USED ON SLOPES GREATER THAN 3:1 AND MULCH FIBERS MUST BE TUCKED INTO THE SOIL TO A DEPTH OF 3 TO 4 INCHES.
    - TACKIFIER MUST BE USED IN PLACE OF CRIMPING ON SLOPES STEEPER THAN 3:1.
  - HYDRAULIC MULCHING
    - HYDRAULIC MULCHING IS AN OPTION ON STEEP SLOPES OR WHERE ACCESS IS LIMITED.
    - IF HYDRO-SEEDING IS USED, MULCHING MUST BE APPLIED AS A SEPARATE, SECOND OPERATION.
    - WOOD CELLULOSE FIBERS MIXED WITH WATER MUST BE APPLIED AT A RATE OF 2,000 TO 2,500 POUNDS/ACRE, AND TACKIFIER MUST BE APPLIED AT A RATE OF 100 POUNDS/ACRE.
  - EROSION CONTROL BLANKET
    - EROSION CONTROL BLANKET MAY BE USED IN PLACE OF TRADITIONAL MULCHING METHODS.



	SEEDING & MULCHING		
	ISSUED: 10/7/19	REVISIONS: 8/19/2020	DRAWING NO. 900-SM

**Stabilized Staging Area (SSA) SM-6**



SSA-1. STABILIZED STAGING AREA

**STABILIZED STAGING AREA INSTALLATION NOTES**

- SEE PLAN VIEW FOR:
  - LOCATION OF STAGING AREA(S).
  - CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
- STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE, OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
- STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
- THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
- UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.
- ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

**STABILIZED STAGING AREA MAINTENANCE NOTES**

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SSA-3

**SM-6 Stabilized Staging Area (SSA)**

**STABILIZED STAGING AREA MAINTENANCE NOTES**

- STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
  - THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.
- NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

SSA-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

Unresolved: County requires 75' VTC

**AGGREGATE VEHICLE TRACKING CONTROL**

**SECTION A-A'**

**INSTALLATION NOTES**

- A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHOULD BE LOCATED AT ALL POINTS WHERE VEHICLES EXIT THE CONSTRUCTION SITE TO ADJACENT ROADWAY.
- STABILIZED CONSTRUCTION ENTRANCE/EXITS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
- RADIUS MUST BE ADEQUATE FOR INTENDED CONSTRUCTION VEHICLE TURNING.
- ROCK SHOULD CONSIST OF 6" MINUS ROCK.
- INSTALL CONSTRUCTION FENCE ON BOTH SIDES OF VEHICLE TRACKING CONTROL PAD WHEN NEEDED OR REQUIRED BY INSPECTOR.

**MAINTENANCE NOTES**

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- SEDIMENT TRACKED ONTO THE ADJACENT ROAD SHALL BE REMOVED DAILY, BY SWEEPING OR SHOVELING, AND NEVER WASHED DOWN STORM DRAINS.
- ROUGHEN, REPLACE AND/OR ADD ROCK AS NEEDED TO MAINTAIN CONSISTENT DEPTH AND TO PREVENT SEDIMENT TRACKING ONTO ADJACENT STREET.
- PERMANENTLY STABILIZE AREA AFTER VEHICLE TRACKING CONTROL IS REMOVED.

**VEHICLE TRACKING CONTROL**

	VEHICLE TRACKING CONTROL		
	ISSUED: 10/7/19	REVISIONS: 8/19/2020	DRAWING NO. 900-VTC

VTC



IN PROGRESS  
NOT FOR CONSTRUCTION

For and on Behalf of  
Kiowa Engineering Corporation Date

Celebrating 30 years  
**Kiowa**  
Engineering Corporation  
1604 South 21st Street  
Colorado Springs, Colorado 80904  
(719) 630-7342

Sheet Revisions	90% BID SET
	No Revisions:
	Revised:
	Void:

**ROCK ISLAND TRAIL**  
GRADING AND EROSION CONTROL PLAN  
**EROSION CONTROL DETAILS**

Designer:	RNW
Detailer:	RNW
Date:	08/06/2024

Kiowa Proj. No. 16028  
TAP M240-162  
SubAcct No.20391  
Sheet Number GEC 8