



3275 Akers Drive
 Colorado Springs, CO 80922
 Phone 719-520-6460
 Fax 719-520-6879
 www.elpasoco.com

Y - Satisfies criteria
N - Needs to be addressed

EL PASO COUNTY GRADING AND EROSION CONTROL PLAN CHECKLIST

EPC Project Number:

Revised: October 2021

| | | Applicant | EPC |
|--|--|-----------|-----|
| 1. GRADING AND EROSION CONTROL PLAN (complete form using Y, N, N/A in the "Applicant" column) | | | |
| a | Vicinity map | | Y |
| b | Adjacent city/town/jurisdictional boundaries, subdivision names, and property parcel numbers labeled | | Y |
| c | North arrow and acceptable scale (1"=20' to 1"=100') | | Y |
| d | Legend for all symbols used in the plan | | Y |
| e | Existing and proposed property lines. Proposed subdivision boundary for subdivision projects | | Y |
| f | All existing structures | | Y |
| g | All existing utilities | | Y |
| h | Construction site boundaries | | Y |
| i | Existing vegetation (notes are acceptable in cases where there is no notable vegetation, only grasses/weeds, or site has already been stripped) | | Y |
| j | FEMA 100-yr floodplain | | Y |
| k | Existing and proposed water courses including springs, streams, wetlands, detention ponds, stormwater quality structures, roadside ditches, irrigation ditches and other water surfaces. Show maintenance of pre-existing vegetation within 50 feet of a receiving water | | Y |
| l | Existing and proposed contours 2 feet or less (except for hillside) | | Y |
| m | Limits of disturbance delineating all anticipated areas of soil disturbance | | Y |
| n | Identify and protect areas outside of the construction site boundary with existing fencing, construction fencing or other methods as appropriate | | Y |
| o | Off-site grading clearly shown and called out | | Y |
| p | Areas of cut and fill identified | | Y |
| q | Conclusions from soils/geotechnical report and geologic hazards report incorporated in grading design (slopes, embankments, materials, mitigation, etc.) | | Y |
| r | Proposed slopes steeper than 3:1 with top and toe of slope delineated. Erosion control blanketing or other protective covering required | | Y |
| s | Stormwater flow direction arrows | | Y |
| t | Location of any dedicated asphalt / concrete batch plants | | N/A |
| u | Areas used for staging, storage of building materials, soils (stockpiles) or wastes. The use of construction office trailers requires PCD permitting | | Y |
| v | All proposed temporary construction control measures, structural and non-structural. Temporary construction control measures shall be identified by phase of implementation to include "initial," "interim," and "final" or shown on separate phased maps identifying each phase | | Y |
| w | Vehicle tracking provided at all construction entrances/exits. Construction fencing, barricades, and/or signage provided at access points not to be used for construction | | Y |
| x | Temporary sediment ponds provided for disturbed drainage areas greater than 1 acre | | Y |



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| y | Dewatering operations to include locations of diversion, pump and discharge(s) as anticipated at time of design | | N/A |
| z | All proposed temporary construction control measure details. Custom or other jurisdiction's details used must meet or exceed EPC standards | | Y |
| aa | Any off-site stormwater control measure proposed for use by the project and not under the direct control or ownership of the Owner or Operator | | Y |
| bb | Existing and proposed permanent storm water management facilities, including areas proposed for stormwater infiltration or subsurface detention | | Y |
| cc | Existing and proposed easements (permanent and construction) including required off-site easements | | Y |
| dd | Retaining walls shall not to be located in County ROW unless approved via license agreement. A building permit from Regional Building Department is required for walls greater than or equal to 4 feet in height, series of walls, or walls supporting a surcharge and must be design by P.E. | | N/A |
| ee | Plan certified by a Colorado Registered P.E., with EPC standard signature blocks for Engineer, Owner and EPC | | Y |
| ff | <p>Engineer's Statement (for standalone GEC Plan): 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, errors or omissions on my part in preparing this plan.</p> <p>_____ Date</p> <p>Engineer of Record Signature</p> | | Y |
| gg | <p>Engineer's Statement (for GEC Plan within Construction Drawing set): These detailed plans and specifications were prepared under my direction and supervision. Said plans and specifications have been prepared according to the criteria established by the County for detailed roadway, drainage, grading and erosion control plans and specifications, and said plans and specifications are in conformity with applicable master drainage plans and master transportation plans. Said plans and specifications meet the purposes for which the particular roadway and drainage facilities are designed and are correct to the best of my knowledge and belief. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparation of these detailed plans and specifications.</p> <p>_____ Date</p> <p>Engineer of Record Signature</p> | | N/A |
| hh | <p>Owner's Statement (for standalone GEC Plan): I, the owner/developer have read and will comply with the requirements of the Grading and Erosion Control Plan.</p> <p>_____ Date</p> <p>Owner Signature</p> | | Y |
| ii | <p>Owner's Statement (for GEC Plan within Construction Drawing set): I, the owner/developer have read and will comply with the requirements of the grading and erosion control plan and all of the requirements specified in these detailed plans and specifications.</p> <p>_____ Date</p> <p>Owner Signature</p> | | N/A |



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| 3. STANDARD NOTES FOR EL PASO COUNTY GRADING AND EROSION CONTROL PLANS | | | |
| 1 | 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. | | Y |
| 2 | 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. | | Y |
| 3 | 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 during construction is the responsibility of the designated Qualified Stormwater Manager or Certified Erosion Control Inspector. The SWMP 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. | | Y |
| 4 | 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. | | Y |
| 5 | 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. | | Y |
| 6 | 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. | | Y |
| 7 | 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. | | Y |
| 8 | 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. | | Y |
| 9 | 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. | | Y |



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| 10 | 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. | | Y |
| 11 | 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). | | Y |
| 12 | 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. | | Y |
| 13 | Concrete wash water shall be contained and disposed of in accordance with the SWMP. 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. | | Y |
| 14 | 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. | | Y |
| 15 | Erosion control blanketing or other protective covering shall be used on slopes steeper than 3:1. | | Y |
| 16 | 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. | | Y |
| 17 | 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. | | Y |
| 18 | Tracking of soils and construction debris off-site shall be minimized. Materials tracked off-site shall be cleaned up and properly disposed of immediately. | | Y |
| 19 | 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. | | Y |
| 20 | 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. | | Y |
| 21 | 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. | | Y |
| 22 | 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. | | Y |



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| 23 | No person shall cause the impediment of stormwater flow in the curb and gutter or ditch except with approved sediment control measures. | | Y |
| 24 | 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. | | Y |
| 25 | All construction traffic must enter/exit the site only at approved construction access points. | | Y |
| 26 | Prior to construction the permittee shall verify the location of existing utilities. | | Y |
| 27 | 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. | | Y |
| 28 | The soils report for this site has been prepared by Matrix Design Group, July 2021 and shall be considered a part of these plans. | | Y |
| 29 | 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), 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 | | Y |
| 4. APPLICANT COMMENTS | | | |
| a | | | |
| b | | | |
| c | | | |



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| 5. CHECKLIST REVIEW CERTIFICATIONS | | | |
|---|---|--|--|
| a | <p>Engineer of Record: The Grading and Erosion Control Plan was prepared under my direction and supervision and is complete and 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.</p> <div style="display: flex; justify-content: space-between; align-items: flex-end; margin-top: 20px;"> <div style="text-align: center;"> _____ Engineer of Record Signature </div> <div style="text-align: center;"> _____ Date </div> <div style="text-align: center;"> </div> </div> | | |
| b | <p>Review Engineer: The Grading and Erosion Control Plan was reviewed and found to meet the checklist requirements except where otherwise noted or allowed by an approved deviation request.</p> <div style="display: flex; justify-content: space-between; align-items: flex-end; margin-top: 20px;"> <div style="text-align: center;"> _____ Review Engineer </div> <div style="text-align: center;"> _____ Date </div> </div> | | |

BENCHMARK:

SITE BM NO. 1: CENTER OF SANITARY SEWER MANHOLE LOCATED 242 FEET SOUTH OF THE SOUTH EDGE OF ASPHALT OF HIGHWAY 24 AND 9 FEET EAST OF THE EAST EDGE OF ASPHALT OF OLD MERIDIAN ROAD NAVD88 DATUM ELEVATION 6825.51.

SITE BM NO. 2: CENTER OF SANITARY SEWER MANHOLE LOCATED 861 FEET SOUTH OF THE SOUTH EDGE OF ASPHALT OF HIGHWAY 24 AND 3 FEET EAST OF THE EAST EDGE OF ASPHALT OF OLD MERIDIAN ROAD NAVD88 DATUM ELEVATION 6816.71.

BASIS OF BEARINGS:

ALL BEARINGS ARE BASED ON THE SOUTH LINE OF THE SOUTHEAST 1/4 OF SECTION 12 AS MONUMENTED BY A 3-1/4 INCH ALUMINUM CAP STAMPED "EL PASO COUNTY DPW T13S S12/S7/S13/S18 R65W R64W 1982 LS 17496" AT THE SOUTHEAST CORNER OF SECTION 12 AND BY A 3-1/4 INCH ALUMINUM CAP STAMPED "SURVCON INC. T13S R65W 1/4 S12 S13 2003 PLS 30829" AT THE SOUTH 1/4 CORNER OF SECTION 12, SAID LINE BEARS N89°50'28"W.

ENGINEER'S STATEMENT:

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. 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, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS PLAN.

BY: _____ DATE: _____

NICOLE SCHANEL, PE #52434
FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC.

EL PASO COUNTY:

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 DIRECTORS DISCRETION.

JENNIFER IRVINE, P.E. _____ DATE _____
COUNTY ENGINEER / ECM ADMINISTRATOR

OWNER/DEVELOPER:

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

ZOE PERICAK _____ DATE _____
LAND DEVELOPMENT CONSULTANTS
950 S. CHERRY STREET, SUITE 512
DENVER, CO 80246

CONTACT LIST

OWNER
CIRCLE K STORES INC.
5500 S. QUEBEC STREET, SUITE 100
GREENWOOD VILLAGE, CO 80111
PHONE: (720) 758-6223

LAND SURVEYOR
RUBINO SURVEYING
3312 AIRPORT ROAD
BOULDER, COLORADO 80301
PHONE: (303) 464-9515

FIRE
FALCON FIRE PROTECTION DISTRICT
7030 OLD MERIDIAN ROAD
FALCON, CO 80831
PHONE: (719) 495-4050

DEVELOPER
LAND DEVELOPMENT CONSULTANTS, LLC
950 S. CHERRY ST., SUITE 512
DENVER, CO 80246
SOFIA HERNANDEZ
PHONE: (303) 717-3305
SOFIA@LDCAZ.COM

GEOTECHNICAL ENGINEER
TERRACON CONSULTANTS, INC.
4172 CENTER PARK DRIVE
COLORADO SPRINGS, CO 80916
PHONE: (719) 597-2116

STORM SEWER
EL PASO COUNTY PUBLIC SERVICES
3275 AKERS DR.
COLORADO SPRINGS, COLORADO 80922
PHONE: (719) 520-6460

CIVIL ENGINEER/ LANDSCAPE ARCHITECT
MATRIX DESIGN GROUP
2435 RESEARCH PARKWAY, SUITE 300
COLORADO SPRINGS, CO 80920
NICOLE SCHANEL/ JASON ALWINE
PHONE: (719) 575-0100
NICOLE.SCHANEL@MATRIXDESIGNGROUP.COM

ELECTRICAL SERVICE
MOUNTAIN VIEW ELECTRIC ASSOCIATION
11140 E. WOODMEN ROAD
PEYTON, COLORADO 80831
PHONE: (719) 495-2283

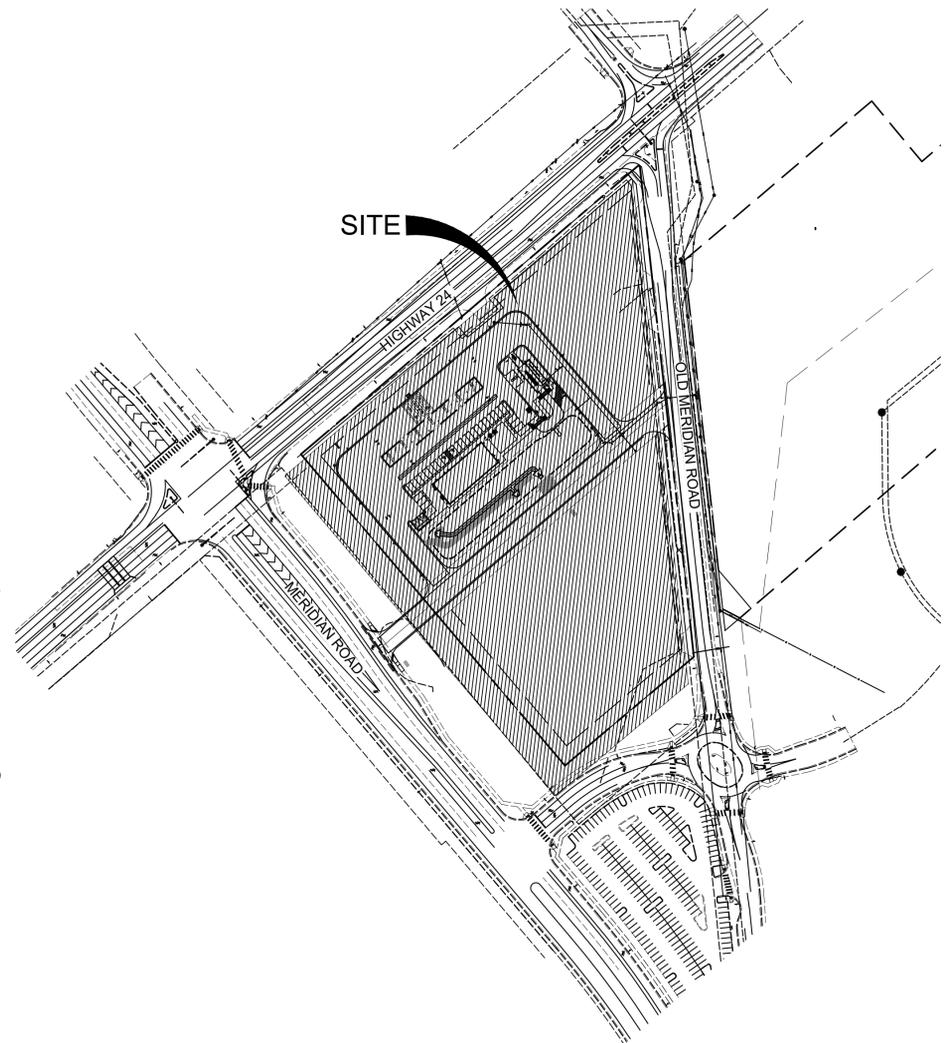
GAS
COLORADO SPRINGS UTILITIES
7710 DURANT DRIVE
COLORADO SPRINGS, COLORADO 80920
TIM BENEDICT
PHONE: (719) 668-3574

ARCHITECT
GREENBERG FARROW
30 EXECUTIVE DRIVE, SUITE 100
IRVINE, CA 92614
DOUG COUPER
PHONE: (949) 296-0450

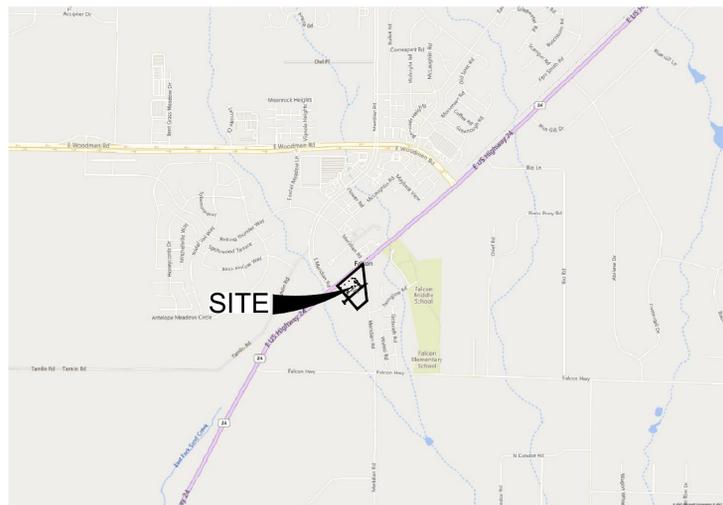
WATER & SANITARY
WOODMEN HILLS METRO DISTRICT
8046 EASTONVILLE ROAD
FALCON, CO 80831
PHONE: (719) 495-2500

CIRCLE K AT HIGHWAY 24 & MERIDIAN ROAD GRADING & EROSION CONTROL PLANS

EL PASO COUNTY, CO
SEPTEMBER 2022



SITE MAP
1" = 150'



VICINITY MAP
1" = 2,000'

| SHEET INDEX | | |
|-------------|--|--------------|
| SHEET TITLE | SHEET DESCRIPTION | SHEET NUMBER |
| TS01 | TITLE SHEET | 1 |
| GN01 | GENERAL NOTES | 2 |
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| GEC02 | INTERIM/FINAL GRADING & EROSION CONTROL PLAN | 4 |
| ECN01 | EROSION CONTROL NOTES | 5 |
| ECN02 | EROSION CONTROL NOTES | 6 |
| ECN03 | EROSION CONTROL NOTES | 7 |

COUNTY PLANNING CERTIFICATION

THESE CONSTRUCTION DOCUMENTS HAVE BEEN REVIEWED AND FOUND TO BE IN ACCORDANCE WITH EL PASO COUNTY LAND DEVELOPMENT CODE.

DIRECTOR, PLANNING AND COMMUNITY DEVELOPMENT DATE



Matrix
Excellence by Design
2435 RESEARCH PARKWAY, SUITE 300
COLORADO SPRINGS, CO 80920
PHONE: (719) 575-0100

LAND DEVELOPMENT
CONSULTANTS, LLC
950 S. CHERRY ST., SUITE 512
DENVER, CO 80246

OWNER/DEVELOPER:

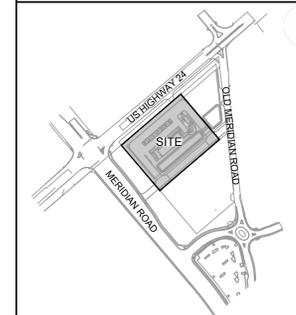


ROCKY MOUNTAINS DIVISION
5500 S QUEBEC STREET, SUITE 100
GREENWOOD VILLAGE, CO 80111
PHONE: (720) 758-6223

SEAL

FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC

VICINITY MAP:



PROJECT:

CIRCLE K STORES INC.

GRADING & EROSION CONTROL PLANS
HIGHWAY 24 & MERIDIAN ROAD
FALCON, CO

REVISION HISTORY:

| NO. | DATE | DESCRIPTION | BY |
|-----|------|-------------|----|
| | | | |
| | | | |
| | | | |
| | | | |

DRAWING INFORMATION:

PROJECT NO.: 21.1207.037

DRAWN BY: LCB

CHECKED BY: NMS

DESIGNED BY: NMS

SHEET TITLE:

TITLE SHEET

SHEET 1 OF 7
TS01

THIS FINAL GRADING PLAN IS AN ACCURATE REPRESENTATION OF THE GENERAL DRAINAGE PATTERNS ON THE SITE, BUT IS NOT A COMPREHENSIVE DETAILED GRADING PLAN THAT ADDRESSES ALL CONDITIONS THAT MAY OCCUR. THE GRADING SHOULD BE CHECKED BY THE BUILDER TO ENSURE THAT DRAINAGE WILL NOT BE COMPROMISED ON THE PROPERTY OR THE ADJACENT PROPERTIES. CONTRACTOR TO CONTACT DESIGN ENGINEER IF FIELD CONDITIONS DIFFER FROM WHAT IS SHOWN WITHIN THESE PLANS.

GENERAL CONSTRUCTION NOTES:

- 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.
- 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.
- 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. DURING CONSTRUCTION THE SWMP IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP 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.
- 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.
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- 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 PRIOR TO IMPLEMENTATION.
- 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. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE STABILIZED.
- 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 PLAN 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.
- ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DEFINED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE HYDROLOGY OR HYDRAULICS OF A PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- ANY EARTH DISTURBANCE 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 INFEASIBLE.
- 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 SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED.
- 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.
- CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO RUNOFF TO STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUT SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY.

- DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER 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.
- EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- 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.
- 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.
- TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- 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.
- 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.
- 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.
- 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.
- NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- 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.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
- PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- 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.
- THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY TERRACON CONSULTANTS, INC., DATED NOVEMBER 30, 2018 AND SHALL BE CONSIDERED A PART OF THESE PLANS.
- 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), 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

NPDES NOTES:

- THE CONTRACTOR SHALL REMOVE ALL SEDIMENT, MUD, AND CONSTRUCTION DEBRIS THAT MAY ACCUMULATE IN THE FLOWLINES AND PUBLIC RIGHTS OF WAYS AS A RESULT OF THIS CONSTRUCTION PROJECT. SAID REMOVAL SHALL BE CONDUCTED IN A TIMELY MANNER, OR AS DIRECTED BY THE ENGINEER.
- THIS CONSTRUCTION ACTIVITIES STORMWATER MANAGEMENT PLAN (SWMP) HAS BEEN SUBMITTED AS PART OF AN APPLICATION FOR AN EROSION AND SEDIMENT CONTROL PERMIT FILED WITH THE CITY OF COLORADO SPRINGS AND AS INCLUSION BY REFERENCE TO THE CDPHE CONSTRUCTION ACTIVITY PERMIT. THE SWMP IS A LIVING DOCUMENT AND ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE CONTRACTOR DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS PLAN SHALL BE THE OBLIGATION OF THE LAND OWNER AND/OR HIS SUCCESSORS OR HEIRS; UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED, MODIFIED, OR VOIDED.
- THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR REMEDIATION OF ANY ADVERSE IMPACTS TO ADJACENT WATERWAYS, WETLANDS, ETC., RESULTING FROM WORK DONE AS PART OF THIS PROJECT.
- THE CONTRACTOR SHALL PREVENT SEDIMENT, DEBRIS AND ALL OTHER POLLUTANTS FROM ENTERING THE STORM SEWER SYSTEM DURING ALL DEMOLITION, EXCAVATION, TRENCHING, BORING, GRADING OR OTHER CONSTRUCTION OPERATIONS THAT ARE PART OF THIS PROJECT.
- A LAYER OF SUITABLE MULCH SHALL BE APPLIED TO ALL DISTURBED PORTIONS OF THE SITE WITHIN 21 DAYS OF THE COMPLETION OF GRADING. SAID MULCH SHALL BE APPLIED AT A RATE OF 2 TONS PER ACRE AND SHALL BE TACKED OR FASTENED BY AN APPROVED METHOD SUITABLE FOR THE TYPE OF MULCH USED. ROUGH-CUT STREETS SHALL BE MULCHED UNLESS A LAYER OF AGGREGATE ROAD BASE OR ASPHALT PAVING IS TO BE APPLIED TO SAID ROUGH-CUT STREETS WITHIN THE 21 DAY PERIOD AFTER COMPLETION OF OVERLOT GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THEN SIXTY (60) DAYS SHALL ALSO BE SEEDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMP'S SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED.
- THE CONTRACTOR SHALL LOCATE, INSTALL, AND MAINTAIN ALL EROSION CONTROL AND WATER QUALITY "BEST MANAGEMENT PRACTICES" AS INDICATED IN THE APPROVED CONSTRUCTION ACTIVITIES STORMWATER MANAGEMENT PLAN. BMP'S SHALL BE MAINTAINED AND KEPT IN GOOD REPAIR FOR THE DURATION OF THIS PROJECT.
- AT A MINIMUM, THE CONTRACTOR SHALL INSPECT, AND KEEP A LOG OF, ALL BMP'S WEEKLY AND AFTER SIGNIFICANT PRECIPITATION EVENTS. ALL NECESSARY MAINTENANCE AND REPAIR SHALL BE COMPLETED IN A TIMELY MANNER. ACCUMULATED SEDIMENT AND DEBRIS SHALL BE REMOVED FROM A BMP WHEN THE SEDIMENT LEVEL REACHES ONE-HALF THE HEIGHT OF THE BMP, OR, AT ANY TIME THAT SEDIMENT OR DEBRIS ADVERSELY IMPACTS THE FUNCTIONING OF THE BMP.
- THE CONTRACTOR SHALL PROPERLY COVER ALL LOADS OF CUT AND FILL MATERIAL IMPORTED TO OR EXPORTED FROM THIS SITE TO PREVENT LOSS OF THE MATERIAL DURING TRANSPORT WITHIN PUBLIC RIGHTS OF WAY.
- THE USE OF REBAR, STEEL STAKES, OR STEEL FENCE POSTS TO STAKE DOWN STRAW OR HAY BALES; OR TO SUPPORT SILT FENCING USED AS AN EROSION CONTROL MEASURE; IS PROHIBITED. THE USE OF OSHA APPROVED COLORED WARNING CAPS ON REBAR OR FENCE POSTS USED WITH EROSION CONTROL MEASURES IS NOT ACCEPTABLE.
- SOILS THAT WILL BE STOCKPILED FOR MORE THAN 30 DAYS SHALL BE MULCHED AND SEEDED WITH A TEMPORARY OR PERMANENT GRASS COVER WITHIN 21 DAYS OF STOCKPILE CONSTRUCTION. IF STOCKPILES ARE LOCATED WITHIN 100 FEET OF A DRAINAGEWAY, ADDITIONAL SEDIMENT CONTROLS SUCH AS TEMPORARY DIKES OR SILT FENCE SHALL BE REQUIRED.
- MODIFICATION OF AN ACTIVE EROSION AND SEDIMENT CONTROL PERMIT BY THE CONTRACTOR SHALL REQUIRE TIMELY NOTIFICATION OF AND APPROVAL BY THE CITY OF COLORADO SPRINGS. TERMINATION OF AN ACTIVE EROSION AND SEDIMENT CONTROL PERMIT UPON COMPLETION OF THE PROJECT REQUIRES NOTIFICATION OF AND APPROVAL BY THE CITY OF COLORADO SPRINGS.
- UNLESS CONFINED IN A PREDEFINED, BERMED CONTAINMENT AREA, THE CLEANING OF CONCRETE TRUCK DELIVERY CHUTES IS PROHIBITED AT THE JOB SITE. THE DISCHARGE OF WATER CONTAINING WASTE CEMENT TO THE STORM SEWER SYSTEM IS PROHIBITED.
- THE CONTRACTOR SHALL PROTECT ALL STORM SEWER FACILITIES ADJACENT TO ANY LOCATION WHERE PAVEMENT CUTTING OPERATIONS INVOLVING WHEEL CUTTING, SAW CUTTING OR ABRASIVE WATER JET CUTTING ARE TO TAKE PLACE. THE DISCHARGE OF ANY WATER CONTAMINATED BY WASTE PRODUCTS FROM CUTTING OPERATIONS TO THE STORM SEWER SYSTEM IS PROHIBITED. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL WASTE PRODUCTS GENERATED BY SAID CUTTING OPERATIONS ON A DAILY BASIS.
- LOCATION OF STAGING, STORAGE, EQUIPMENT MAINTENANCE, TEMPORARY DISPOSAL, VEHICLE TRACKING CONTROL AND CONCRETE TRUCK WASHOUT AREAS WILL BE DETERMINED IN THE FIELD AT THE START OF CONSTRUCTION ACTIVITY AND DELINEATED ON THIS PLAN.

NRCS SOIL SURVEY FOR EL PASO COUNTY

| SOIL ID NO. | SOIL TYPE | HYDROLOGIC CLASSIFICATION |
|-------------|--|---------------------------|
| 9 | BLAKELAND-FLUVAQUENTIC HAPLAQUOLLS | A |
| 19 | COLUMBINE GRAVELLY SANDY LOAM (0%-3% SLOPES) | A |

TIMING

ANTICIPATED STARTING AND COMPLETION TIME PERIOD OF SITE GRADING:
OCT 2022 THRU FEBRUARY 2023

EXPECTED DATE ON WHICH THE FINAL STABILIZATION WILL BE COMPLETED:
FEBRUARY 2024

AREAS

TOTAL AREA: 5.00 ACRES

RECEIVING WATERS

NAME OF RECEIVING WATERS
CHICO CREEK (ULTIMATE)

ENGINEER'S NOTES:

THE EXISTING VEGETATION CONSISTS OF NATIVE GRASSES AND SCRUB OAK WITH AREAS OF FARM TILLAGE.

ABBREVIATIONS

| | | | |
|-------------|--|-----------|---|
| AD | ALGEBRAIC DIFFERENCE | MID | MIDDLE or MIDPOINT |
| ASSY | ASSEMBLY | MIN | MINIMUM |
| ASTM | AMERICAN SOCIETY OF TESTING AND MATERIALS | MJ | MECHANICAL JOINT |
| APPROX | APPROXIMATE or APPROXIMATELY | MSL | MEAN SEA LEVEL |
| AVE | AVENUE | NC | NORMAL CROWN |
| AVG | AVERAGE | NIC | NOT IN CONTRACT |
| B/C | BACK OF CURB | NO | NUMBER |
| ± or B/L | BASELINE | NOM | NOMINAL |
| BLVD | BOULEVARD | NTS | NOT TO SCALE |
| BTM | BOTTOM | OC | ON CENTER |
| CI | CAST IRON | O/S | OFFSET |
| CEN | CENTER | P | PROPOSED |
| ± or CL | CENTERLINE | PC | POINT OF CURVATURE |
| CFS | CUBIC FEET PER SECOND | PCC | POINT OF COMPOUND CURVE |
| CLR | CLEAR | PCR | POINT OF CURB RETURN |
| CMP | CORRUGATED METAL PIPE | PE | PLAIN END |
| CONC | CONCRETE | PIE | PUBLIC IMPROVEMENT EASEMENT |
| CONST | CONSTRUCTION | PGL | PROFILE GRADE LINE |
| CONT | CONTINUOUS | ± or P/L | PROPERTY LINE |
| DIA | DIAMETER | PRC | POINT OF REVERSE CURVE |
| DN | DOWN | PT | POINT OF TANGENCY |
| DWG | DRAWING | PVC | POINT OF VERTICAL CURVE or POLYVINYL CHLORIDE |
| EA | EACH | PVI | POINT OF VERTICAL INTERSECTION |
| EGL | ENERGY GRADE LINE | PVMT | PAVEMENT |
| ELEV or EL | ELEVATION | PVT | POINT OF VERTICAL TANGENT |
| ELL | ELBOW | R OR RAD | RADIUS |
| ESMT | EASEMENT | RC | REVERSE CROWN |
| EW | EACHWAY | RCP | REINFORCED CONCRETE PIPE |
| EX or EXIST | EXISTING | RED | REDUCER |
| FES | FLARED END SECTION | REF | REFERENCE |
| FIN | FINISHED | REINF | REINFORCING |
| ± or FL | FLOWLINE | REQ | REQUIRED |
| FLG | FLANGE | REV | REVISION |
| FT | FOOT / FEET | ROW | RIGHT-OF-WAY |
| FRP | FIBERGLASS REINFORCED PIPE | RT | RIGHT |
| GAL | GALLON | SCH | SCHEDULE |
| GALV | GALVANIZED | SD | STORM SEWER |
| GAU | GAUGE (MATERIAL) | SQ | SQUARE |
| GV | GATE VALVE | ST | STREET |
| GW | GROUNDWATER | STA | STATION |
| HBP | HOT BITUMINOUS PAVEMENT | STD | STANDARD |
| HERCP | HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE | STL | STEEL |
| HGL | HYDRAULIC GRADE LINE | SS OR SAN | SANITARY SEWER |
| HP | HIGH POINT | SW OR S/W | SIDEWALK |
| HORIZ | HORIZONTAL | TAN | TANGENT |
| HCL | HORIZONTAL CONTROL LINE | TB | THRUST BLOCK |
| HR | HR | TBC | TOP BACK OF CURB |
| INV | INVERT | TFC | TOP FACE OF CURB |
| K | VERTICAL CURVE FACTOR | THD | THREADED |
| LBS | POUNDS | THK | THICKNESS |
| LF | LINEAR FEET | TYP | TYPICAL |
| LN | LANE | UG | UNDERGROUND |
| LP | LOW POINT | UTIL | UTILITY |
| LS | LANDSCAPING | VC | VERTICAL CURVE |
| LT | LEFT | VERT | VERTICAL |
| MAX | MAXIMUM | W | WIDTH |
| MFG | MANUFACTURER | W/ | WITH |
| MH | MANHOLE | | |

SYMBOLS

| | | | | |
|--|--------------------------------|--|----|------------------------------|
| | PROPOSED CENTERLINE | | UT | EXISTING UNDERGROUND UTILITY |
| | EXISTING FENCE | | UE | EXISTING UNDERGROUND UTILITY |
| | RIGHT OF WAY/PROPERTY BOUNDARY | | G | EXISTING WATER |
| | EXISTING EASEMENT | | W | EXISTING WATER |
| | PROPERTY LINE/TRACT A BOUNDARY | | H | EXISTING HYDRANT |
| | EXISTING CURB & GUTTER | | V | EXISTING WATER VALVE |
| | PROPOSED CURB & GUTTER | | SS | EXISTING SANITARY |
| | EXISTING CONTOUR | | | |
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2435 RESEARCH PARKWAY, SUITE
300 COLORADO SPRINGS, CO 80920
PHONE: (719) 575-0100



LAND DEVELOPMENT
CONSULTANTS, LLC

950 S. CHERRY ST., SUITE 512
DENVER, CO 80246

OWNER/DEVELOPER:

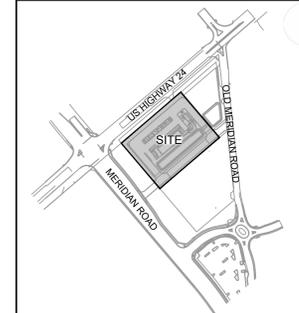


ROCKY MOUNTAINS DIVISION
5500 S. QUEBEC STREET, SUITE 100
GREENWOOD VILLAGE, CO 80111
PHONE: (720) 758-6223

SEAL

FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC

VICINITY MAP:



PROJECT:

CIRCLE K STORES INC.

**GRADING & EROSION CONTROL
PLANS
HIGHWAY 24 & MERIDIAN ROAD
FALCON, CO**

REVISION HISTORY:

| NO. | DATE | DESCRIPTION | BY |
|-----|------|-------------|----|
| | | | |
| | | | |
| | | | |

DRAWING INFORMATION:

PROJECT NO: 21.1207.037

DRAWN BY: LCB

CHECKED BY: NMS

DESIGNED BY: NMS

SHEET TITLE:

**INTERIM/FINAL
GRADING &
EROSION
CONTROL PLAN**

**SHEET 4 OF 7
GEC02**

ISSUE DATE: SEPTEMBER 2022

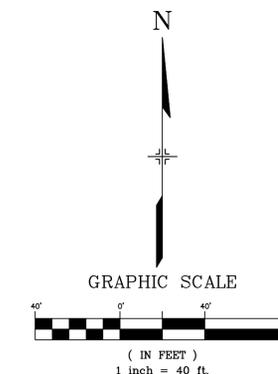
EROSION CONTROL LEGEND

- ST SLOPE TRACKING
- SR SURFACE ROUGHENING
- SF SILT FENCE
- ECB EROSION CONTROL BLANKET
- TM TEMPORARY MULCHING AND SEEDING
- SCL SEDIMENT CONTROL LOG
- CD CHECK DAM
- RS ROCK SOCK
- VTC VEHICLE TRACKING CONTROL
- TSB TEMPORARY SEDIMENT BASIN
- CWA CONCRETE WASHOUT
- SM STOCKPILE MANAGEMENT / STABILIZED STAGING AREA
- SSA STOCKPILE MANAGEMENT / STABILIZED STAGING AREA
- CIP CULVERT INLET PROTECTION / OUTLET PROTECTION
- IP INLET PROTECTION
- HP HIGH POINT / LOW POINT
- LP HIGH POINT / LOW POINT
- PROPOSED CONTOURS
- EXISTING CONTOURS
- DRAINAGE SWALE
- SLOPE LABEL
- OVERLAND FLOW
- LIMITS OF DISTURBANCE/ CONSTRUCTION SITE BOUNDARY
- PROPERTY LINE
- OVERFLOW ROUTE
- CUT / FILL LINE
- OFFSITE CONSTRUCTION LIMITS

NOTES:

- ALL DRAINAGE SWALES SHALL HAVE A MINIMUM LONGITUDINAL SLOPE OF 0.5%, MINIMUM 1.5' DEPTH, AND MAXIMUM 3:1 SIDE SLOPES.
- ALL EROSION CONTROL BLANKET SHALL BE INSPECTED 24-MONTHS AFTER INSTALLATION. EROSION CONTROL BLANKET MAY BE REQUIRED TO RE-INSTALLED PER MANUFACTURER SPECIFICATIONS.
- CONTRACTOR TO USE SLOPE TRACKING OR EROSION CONTROL BLANKET ON SLOPES 3:1 OR GREATER

| BMP SEQUENCING | |
|-----------------|--|
| INITIAL | SILT FENCE, CONSTRUCTION FENCE, VEHICLE TRACKING, TEMP STREAM CROSSINGS, CHECK DAMS |
| INTERIM / FINAL | SEDIMENT CONTROL LOGS, INLET PROTECTION, STOCKPILES, STAGING, EROSION CONTROL BLANKETS, SEEDING & MULCHING |



OWNER: FARMERS STATE BANK OF CALHAN
1500 8TH ST. CALHAN CO, 80808
PUD
PARCEL #5312407001

EASEMENT PE-7
REC. #219142201

OWNER: IBS
ENTERPRISES LLC
6550 GUN CLUB TRAIL
COLORADO SPRINGS,
CO 80908
CC
PARCEL #4307303007

EXISTING
WATER MAIN

EXISTING
SANITARY
MAIN

EXISTING
SANITARY
FORCE MAIN

Bring esmt linetype to
front, I can't see it.
Is it behind that
gray line?

REFER TO OFF-SITE CONSTRUCTION
DOCUMENTS BY MATRIX DESIGN GROUP
FOR OFF-SITE INFORMATION

OWNER: RANDY L GIBBS
6810 N. MERIDIAN RD,
PEYTON CO, 80831
RR-5
PARCEL #5312405003
(TO BE REZONED)

TRIBUTARY SEDIMENT BASIN
TRIBUTARY AREA = 3.74 AC
REQUIRED VOLUME = 24,160 CF
PROVIDED VOLUME = 57,662 CF
BTM ELEV=6819.84
8 ROWS, 2 COLUMNS
9/16" HOLES, 6" RISER PIPE

OWNER: BRIAN M MOODY -
BETTER LAND LLC
8605 EXPLORER DR, SUITE 250
COLORADO SPRINGS, CO 8092
R/C/R SS
PARCEL #5312400017

FILE LOCATION: S:\CIRCLE K HWY 24 & MERIDIAN\DWG\PLAN SET\SITE DEVELOPMENT\PLANS\GEC02.DWG



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CONSULTANTS:



2435 RESEARCH PARKWAY, SUITE 300 COLORADO SPRINGS, CO 80920 PHONE: (719) 575-0100



LAND DEVELOPMENT CONSULTANTS, LLC

950 S. CHERRY ST., SUITE 512 DENVER, CO 80246

OWNER/DEVELOPER:

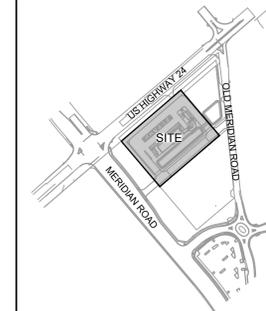


ROCKY MOUNTAINS DIVISION 5500 S QUEBEC STREET, SUITE 100 GREENWOOD VILLAGE, CO 80111 PHONE: (720) 758-6223

SEAL

FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC

VICINITY MAP:



PROJECT:

CIRCLE K STORES INC.

GRADING & EROSION CONTROL PLANS

HIGHWAY 24 & MERIDIAN ROAD

FALCON, CO

REVISION HISTORY:

Table with 4 columns: NO., DATE, DESCRIPTION, BY. Contains one row with empty cells.

DRAWING INFORMATION:

PROJECT NO: 21.1207.037

DRAWN BY: LCB

CHECKED BY: NMS

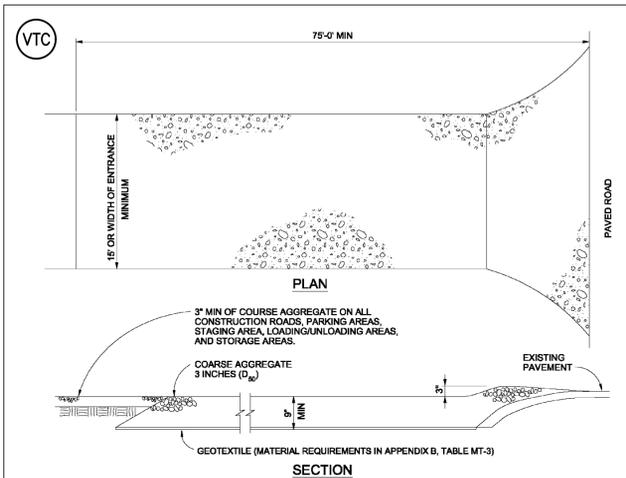
DESIGNED BY: NMS

SHEET TITLE:

EROSION CONTROL NOTES

SHEET 5 OF 7 ECN01

ISSUE DATE: SEPTEMBER 2022



VEHICLE TRACKING

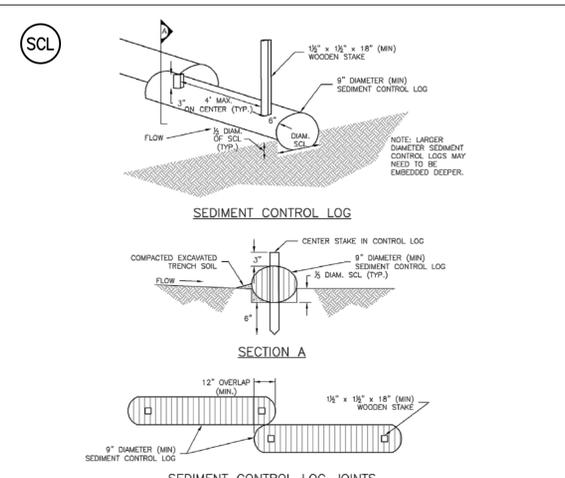
INSTALLATION REQUIREMENTS:

- 1. ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING.
2. CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC...
3. AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.
4. CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.
5. CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADES...

MAINTENANCE REQUIREMENTS:

- 1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.
2. STONES ARE TO BE REAPPLIED PERIODICALLY AND WHEN REPAIR IS NECESSARY.
3. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING...
4. STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.
5. OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.

Figure VT-2 Vehicle Tracking City of Colorado Springs Stormwater Quality



SEDIMENT CONTROL LOG

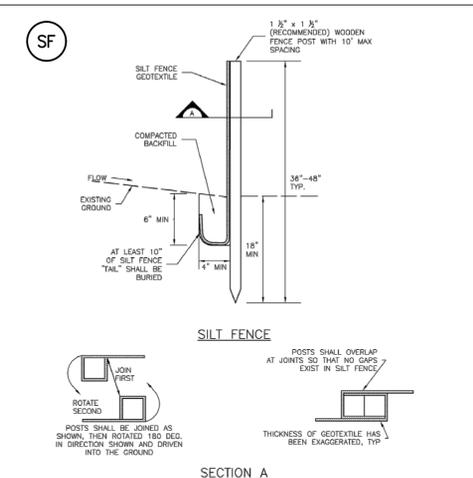
INSTALLATION NOTES:

- 1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.
2. SEDIMENT CONTROL LOGS THAT ACT AS PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADED LAND-DISTURBING ACTIVITIES.
3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELISOR OR COCONUT FIBER...
4. SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES...
5. IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY 1/3 THE DIAMETER OF THE LOG...
6. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL THAT IS FREE OF ROCKS AND DEBRIS...
7. FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING...

MAINTENANCE NOTES:

- 1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP.
5. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION...
6. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL...
7. FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING...

Figure SC-2 Sediment Control Log Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3



SILT FENCE NOTES

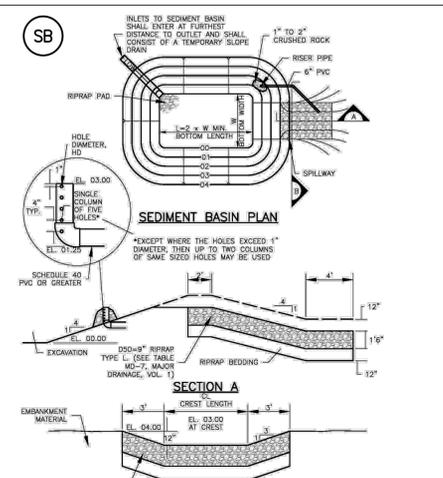
SILT FENCE INSTALLATION NOTES:

- 1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING.
2. A UNIFORM 6" x 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE...
3. COMPACT ANCHOR TRENCH BY HAND OR WITH A 'JUMPING JACK' OR BY WHEEL ROLLING...
4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES...
5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS...
6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR...
7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES:

- 1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP.
5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGN OF WEAR...
6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED...
7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOP SOIL...

Figure SC-1 Silt Fence Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3



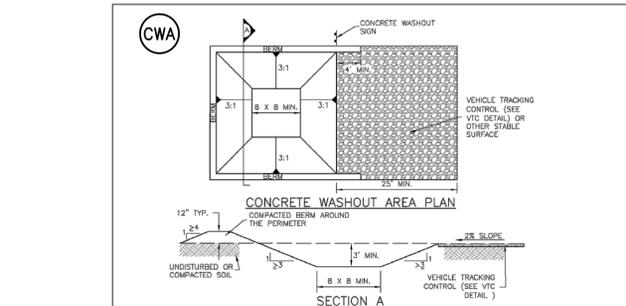
SEDIMENT BASIN

Table SB-1 Sizing Information for Standard Sediment Basin with columns for Upstream Drainage Area, Basin Bottom Width, Spillway Crest Length, and Hole Diameter.

SEDIMENT BASIN INSTALLATION NOTES:

- 1. SEE PLAN VIEW FOR:
- LOCATION OF SEDIMENT BASIN.
- TYPE OF BASIN (STANDARD BASIN OR NONSTANDARD BASIN).
- FOR STANDARD BASIN, BOTTOM WIDTH W, CREST LENGTH CL, AND HOLE DIAMETER, HD.
- FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RISER HEIGHT H, NUMBER OF COLUMNS N, HOLE DIAMETER HD AND PIPE DIAMETER D.
2. FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.
3. SEDIMENT BASINS INSTALLED PRIOR TO ANY OTHER LAND-DISTURBING ACTIVITY THAT RELIES ON BASINS AS A STORMWATER CONTROL.
4. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES...
5. EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY...
6. PIPE SCH 40 OR GREATER SHALL BE USED.

Figure SC-7 Sediment Basin Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

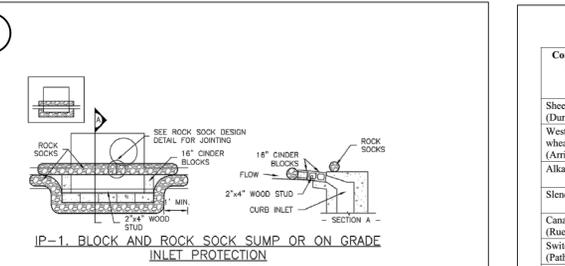


CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES:

- 1. SEE PLAN VIEW FOR:
- CWA INSTALLATION LOCATION
2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATER BODY.
3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
4. THE CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8'.
5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE A MINIMUM HEIGHT OF 1'.
6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE...
8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

Figure CWA-3 Concrete Washout Area Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3



TEMPORARY INLET PROTECTION IP-1

INSTALLATION NOTES:

- 1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
2. CONCRETE 'CINDER' BLOCKS SHALL BE LAID ON THEIR SIDES AROUND THE INLET...
3. GRAVEL BAGS SHALL BE PLACED AROUND CONCRETE BLOCKS...

Figure IP-1 Temporary Inlet Protection Urban Drainage and Flood Control District

Table 14-10. Recommended Seed Mix for Transition Areas. Columns include Common Name, Scientific Name, Growth Season, Growth Form, Seeds/Lb, PLS/Acre Drilled, and Lbs Broadcast or Hydroseeded.

SEED MIX NOTES:

A MIXTURE DEVELOPED FOR ELEVATIONS 3,000 TO 8,000 FEET TO PROVIDE NATURAL COVER UNDER DRYLAND CONDITIONS...

CHARACTERISTICS:

GROWS 30-60 INCHES WITH AVERAGE RAINFALL.

SEEDING RATE:

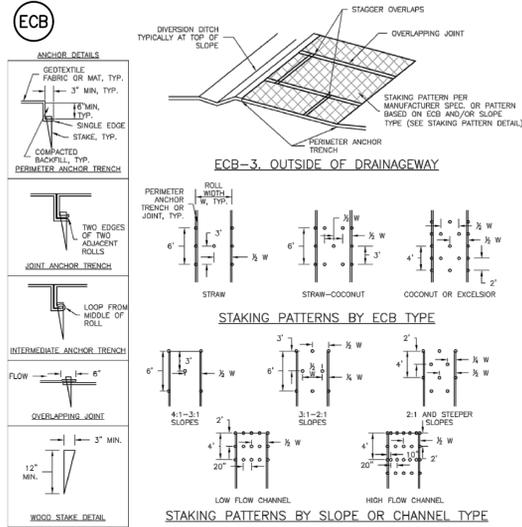
BROADCAST: 20-25 LBS/ACRE
DRILLED: 15-20 LBS/ACRE
OVERSEEDING BROADCAST: 10-15 LBS/ACRE
DRILLED: 5-10 LBS/ACRE

MIX CONTAINS:

Table with 4 columns: KIND AND VARIETY, PURE, GERM, ORIGIN. Lists various grass and clover species.

*For side slopes or between wet and dry areas.
*Substitute 1.7 lbs PLS/Acre of inland saltgrass (Distichlis spicata) in salty soils.

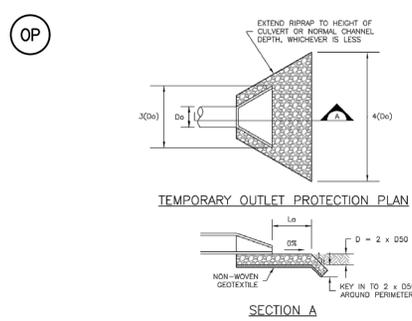
FILE LOCATION: S:\CIRCLE K\HWY 24 & MERIDIAN\DWG\PLAN\SECSITE DEVELOPMENT PLANS\ECN01.DWG



| TYPE | COCONUT CONTENT | STRAW CONTENT | EXCELSIOR CONTENT | RECOMMENDED NETTING* |
|---------------|-----------------|---------------|-------------------|----------------------|
| STRAW* | - | 100% | - | DOUBLE/NATURAL |
| STRAW-COCONUT | 30% MIN | 70% MAX | - | DOUBLE/NATURAL |
| COCONUT | 100% | - | - | DOUBLE/NATURAL |
| EXCELSIOR | - | - | 100% | DOUBLE/NATURAL |

- INSTALLATION NOTES:**
- SEE PLAN VIEW FOR:
 - LOCATION OF ECB
 - TYPE OF ECB (STRAW, STRAW-COCONUT, COCONUT, EXCELSIOR)
 - AREA A, IN SQUARE YARDS OF EACH TYPE OF ECB
 - 100% NATURAL AND BIODEGRADABLE MATERIALS ARE PREFERRED FOR RECPs, ALTHOUGH SOME JURISDICTIONS MAY ALLOW OTHER MATERIALS IN SOME APPLICATIONS.
 - IN AREAS WHERE ECBs ARE SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING AND MULCHING SUBGRADE SHALL BE SMOOTH AND MOIST PRIOR TO ECB INSTALLATION AND THE ECB SHALL BE IN FULL CONTACT WITH SUBGRADE. NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
 - PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL BLANKET AREAS.
 - JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL ECBs EXCEPT STRAW WHICH MAY USE AN OVERLAPPING JOINT.
 - INTERMEDIATE ANCHOR TRENCH SHALL BE USED AT SPACING OF ONE-HALF ROLL LENGTH FOR COCONUT AND EXCELSIOR ECBs.
 - OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER FOR ECBs ON SLOPES.
 - MATERIAL SPECIFICATIONS OF ECBs SHALL CONFORM TO TABLE ECB-1.
 - ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING ECBs SHALL BE RESEED AND MULCHED.
 - DETAILS ON DESIGN PLAND FOR MAJOR DRAINAGEWAY STABILIZATION WILL GOVERN IF DIFFERENT FROM THOSE SHOWN HERE.
- 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.
 - ECBs SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE, UNLESS REQUESTED TO BE REMOVED BY THE LOCAL JURISDICTION.
 - ANY ECB PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW THE GEOTEXTILE THAT HAVE ERODED TO CREATE A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEED AND MULCHED AND THE ECBs REINSTALLED.

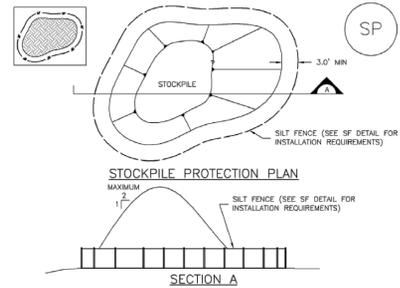
Figure EC-6
Rolled Erosion Control Product
Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3



| PIPE DIAMETER, D _p (INCHES) | DISCHARGE, Q (CFS) | APRON LENGTH, L _a (FT) | RIPRAP D ₅₀ DIAMETER MIN (INCHES) |
|--|--------------------|-----------------------------------|--|
| 8 | 2.5 | 5 | 4 |
| | 5 | 10 | 6 |
| 12 | 5 | 10 | 4 |
| | 10 | 12 | 6 |
| | 10 | 10 | 6 |
| | 20 | 16 | 9 |
| | 30 | 22 | 12 |
| | 40 | 26 | 16 |
| 18 | 30 | 16 | 9 |
| | 40 | 26 | 9 |
| | 50 | 26 | 12 |
| | 60 | 30 | 16 |
| 24 | 30 | 16 | 9 |
| | 40 | 26 | 9 |
| | 50 | 26 | 12 |
| | 60 | 30 | 16 |

- TEMPORARY OUTLET PROTECTION**
- INSTALLATION NOTES:**
- SEE PLAN VIEW FOR:
 - LOCATION OF OUTLET PROTECTION
 - DIMENSIONS OF OUTLET PROTECTION
 - DETAIL IS INTENDED FOR PIPES WITH SLOPE $\leq 10\%$. ADDITIONAL EVALUATION OF RIPRAP SIZING AND OUTLET PROTECTION DIMENSIONS REQUIRED FOR STEEPER SLOPES.
 - TEMPORARY OUTLET PROTECTION INFORMATION IS FOR OUTLETS INTENDED TO BE UTILIZED LESS THAN 2 YEARS.
- 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.
- Figure EC-8
Temporary Outlet Protection
Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3

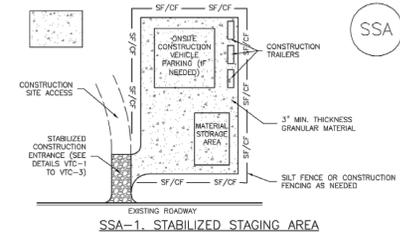
Stockpile Management (SP) MM-2



- SP-1. STOCKPILE PROTECTION**
- INSTALLATION NOTES:**
- SEE PLAN VIEW FOR:
 - LOCATION OF STOCKPILE
 - TYPE OF STOCKPILE PROTECTION
 - INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOSS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FALING BY THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.
 - STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOIL STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).
 - FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNDRAG CONTROL, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

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

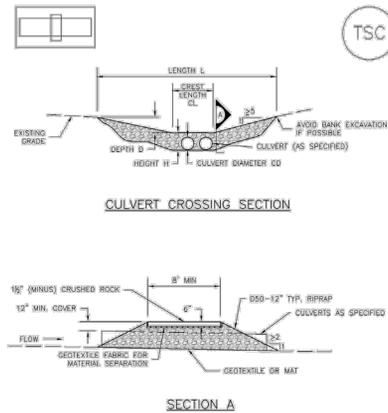
Stabilized Staging Area (SSA) SM-6



- SSA-1. 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. CROSSING 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 SPEC #703, MASHED #3 COARSE AGGREGATE OR 8" (MINUS) ROCK.
 - ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.
- 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 REPLACED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

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Urban Storm Drainage Criteria Manual Volume 3 SSA-3

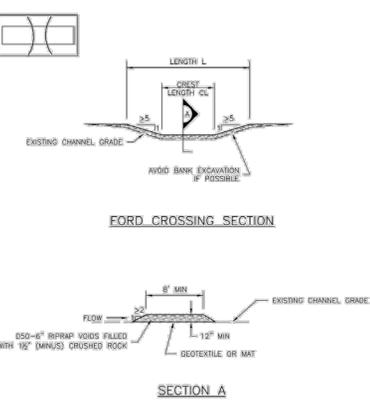
TSC SM-10 Temporary Stream Crossing (TSC)



TSC-1. CULVERT CROSSING

June 2012 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3 TSC-3

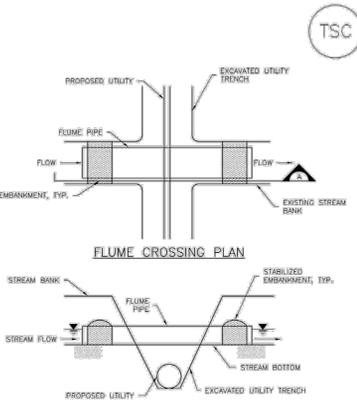
TSC SM-10 Temporary Stream Crossing (TSC)



TSC-2. FORD CROSSING

TSC-4 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3 June 2012

TSC SM-10 Temporary Stream Crossing (TSC)



TSC-3. FLUME CROSSING

June 2012 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3 TSC-5

TSC SM-10 Temporary Stream Crossing (TSC)

- TEMPORARY STREAM CROSSING INSTALLATION NOTES:**
- SEE PLAN VIEW FOR:
 - LOCATIONS OF TEMPORARY STREAM CROSSINGS
 - STREAM CROSSING TYPE (FORD, CULVERT, OR FLUME)
 - FOR FORD CROSSING: LENGTH (L), CREST LENGTH (CL), AND DEPTH (D)
 - FOR CULVERT CROSSING: LENGTH (L), CREST LENGTH (CL), CROSSING HEIGHT (H), DEPTH (D), CULVERT DIAMETER (CD), AND NUMBER, TYPE AND CLASS OR GRADE OF CULVERTS
 - TEMPORARY STREAM CROSSING DIMENSIONS, D₅₀, AND NUMBER OF CULVERTS INDICATED FROM CULVERT CROSSING SHALL BE CONSIDERED MINIMUM DIMENSIONS. ENGINEER MAY ELECT TO INSTALL LARGER FACILITIES. ANY DAMAGE TO STREAM CROSSING OR EXISTING STREAM CHANNEL DURING BASEFLOW OR FLOOD EVENTS SHALL BE PROMPTLY REPAIRED.
 - SEE MAJOR DRAINAGE CHAPTER FOR RIPRAP GRADATIONS.
 - WHERE FAILURE OF A STREAM CROSSING CAN RESULT IN SIGNIFICANT DAMAGE OR HARM IT MUST BE DESIGNED BY A STRUCTURAL ENGINEER.
- TEMPORARY STREAM CROSSING 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.
 - REMOVE SEDIMENT ACCUMULATED UPSTREAM OF CROSSING AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE CROSSING.
 - STREAM CROSSINGS ARE TO REMAIN IN PLACE UNTIL NO LONGER NEEDED AND SHALL BE RESEED PRIOR TO THE END OF CONSTRUCTION.
 - WHEN STREAM CROSSINGS ARE REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOPSOIL, SEED AND MULCHED AND COVERED WITH GEOTEXTILE OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM LISTED STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.
- DETAIL ADAPTED FROM BOULDER COUNTY, COLORADO AND CITY OF JARVIS, COLORADO (SEE TSCs), NOT AVAILABLE IN PDF(S)

TSC-6 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3 June 2012



CONSULTANTS:
Matrix
Excellence by Design
2435 RESEARCH PARKWAY, SUITE
300 COLORADO SPRINGS, CO 80920
PHONE: (719) 575-0100

LAND DEVELOPMENT
CONSULTANTS, LLC
950 S. CHERRY ST., SUITE 512
DENVER, CO 80246

OWNER/DEVELOPER:
CIRCLE K
ROCKY MOUNTAINS DIVISION
5500 S QUEBEC STREET, SUITE 100
GREENWOOD VILLAGE, CO 80111
PHONE: (720) 758-6223

SEAL

FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC



PROJECT:
CIRCLE K STORES INC.

GRADING & EROSION CONTROL
PLANS
HIGHWAY 24 & MERIDIAN ROAD
FALCON, CO

REVISION HISTORY:

| NO. | DATE | DESCRIPTION | BY |
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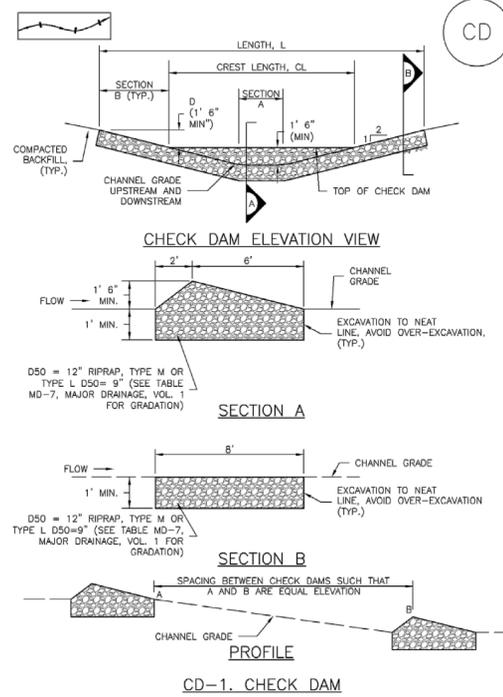
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PROJECT NO: 21.1207.037
DRAWN BY: LCB
CHECKED BY: NMS
DESIGNED BY: NMS

SHEET TITLE:

EROSION CONTROL NOTES

SHEET 6 OF 7
ECN02

ISSUE DATE: SEPTEMBER 2022



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

EC-12 Check Dams (CD)

CHECK DAM INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - LOCATION OF CHECK DAMS.
 - CHECK DAM TYPE (CHECK DAM OR REINFORCED CHECK DAM).
 - LENGTH (L), CREST LENGTH (CL), AND DEPTH (D).
- CHECK DAMS INDICATED ON INITIAL SWMP SHALL BE INSTALLED AFTER CONSTRUCTION FENCE, BUT PRIOR TO ANY UPSTREAM LAND DISTURBING ACTIVITIES.
- RIPRAP UTILIZED FOR CHECK DAMS SHOULD BE OF APPROPRIATE SIZE FOR THE APPLICATION. TYPICAL TYPES OF RIPRAP USED FOR CHECK DAMS ARE TYPE M (D50 12") OR TYPE L (D50 9").
- RIPRAP PAD SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1'.
- THE ENDS OF THE CHECK DAM SHALL BE A MINIMUM OF 1' 6" HIGHER THAN THE CENTER OF THE CHECK DAM.

CHECK DAM 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.
 - SEDIMENT ACCUMULATED UPSTREAM OF THE CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS WITHIN 1/2 OF THE HEIGHT OF THE CREST.
 - CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
 - WHEN CHECK DAMS ARE REMOVED, EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACKFILL. DISTURBED AREA SHALL BE SEEDED AND MULCHED AND COVERED WITH GEOTEXTILE OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.
- (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)
- 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.

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

Mulching (MU)

Description

Mulching consists of evenly applying straw, hay, shredded wood mulch, rock, bark or compost to disturbed soils and securing the mulch by crimping, tackifiers, netting or other measures. Mulching helps reduce erosion by protecting bare soil from rainfall impact, increasing infiltration, and reducing runoff. Although often applied in conjunction with temporary or permanent seeding, it can also be used for temporary stabilization of areas that cannot be reseeded due to seasonal constraints.

Mulch can be applied either using standard mechanical dry application methods or using hydromulching equipment that hydraulically applies a slurry of water, wood fiber mulch, and often a tackifier.

Appropriate Uses

Use mulch in conjunction with seeding to help protect the seedbed and stabilize the soil. Mulch can also be used as a temporary cover on low to mild slopes to help temporarily stabilize disturbed areas where growing season constraints prevent effective reseeding. Disturbed areas should be properly mulched and tacked, or seeded, mulched and tacked promptly after final grade is reached (typically within no longer than 14 days) on portions of the site not otherwise permanently stabilized.

Standard dry mulching is encouraged in most jurisdictions; however, hydromulching may not be allowed in certain jurisdictions or may not be allowed near waterways.

Do not apply mulch during windy conditions.

Design and Installation

Prior to mulching, surface-roughen areas by rolling with a crimping or punching type roller or by track walking. Track walking should only be used where other methods are impractical because track walking with heavy equipment typically compacts the soil.

A variety of mulches can be used effectively at construction sites. Consider the following:

| Mulch | |
|--------------------------|----------|
| Functions | |
| Erosion Control | Yes |
| Sediment Control | Moderate |
| Site/Material Management | No |

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EC-4 Mulching (MU)

- Clean, weed-free and seed-free cereal grain straw should be applied evenly at a rate of 2 tons per acre and must be tacked or fastened by a method suitable for the condition of the site. Straw mulch must be anchored (and not merely placed) on the surface. This can be accomplished mechanically by crimping or with the aid of tackifiers or nets. Anchoring with a crimping implement is preferred, and is the recommended method for areas flatter than 3:1. Mechanical crimpers must be capable of tucking the long mulch fibers into the soil to a depth of 3 inches without cutting them. An agricultural disk, while not an ideal substitute, may work if the disk blades are dull or blunted and set vertically; however, the frame may have to be weighted to afford proper soil penetration.
- Grass hay may be used in place of straw; however, because hay is comprised of the entire plant including seed, mulching with hay may seed the site with non-native grass species which might in turn out-compete the native seed. Alternatively, native species of grass hay may be purchased, but can be difficult to find and are more expensive than straw. Purchasing and utilizing a certified weed-free straw is an easier and less costly mulching method. When using grass hay, follow the same guidelines as for straw (provided above).
- On small areas sheltered from the wind and heavy runoff, spraying a tackifier on the mulch is satisfactory for holding it in place. For steep slopes and special situations where greater control is needed, erosion control blankets anchored with stakes should be used instead of mulch.
- Hydraulic mulching consists of wood cellulose fibers mixed with water and a tackifying agent and should be applied at a rate of no less than 1,500 pounds per acre (1,425 lbs of fibers mixed with at least 75 lbs of tackifier) with a hydraulic mulcher. For steeper slopes, up to 2000 pounds per acre may be required for effective hydroseeding. Hydromulch typically requires up to 24 hours to dry; therefore, it should not be applied immediately prior to inclement weather. Application to roads, waterways and existing vegetation should be avoided.
- Erosion control mats, blankets, or nets are recommended to help stabilize steep slopes (generally 3:1 and steeper) and waterways. Depending on the product, these may be used alone or in conjunction with grass or straw mulch. Normally, use of these products will be restricted to relatively small areas. Biodegradable mats made of straw and jute, straw-coconut, coconut fiber, or excelsior can be used instead of mulch. (See the ECM/TRM BMP for more information.)
- Some tackifiers or binders may be used to anchor mulch. Check with the local jurisdiction for allowed tackifiers. Manufacturer's recommendations should be followed at all times. (See the Soil Binder BMP for more information on general types of tackifiers.)
- Rock can also be used as mulch. It provides protection of exposed soils to wind and water erosion and allows infiltration of precipitation. An aggregate base course can be spread on disturbed areas for temporary or permanent stabilization. The rock mulch layer should be thick enough to provide full coverage of exposed soil on the area it is applied.

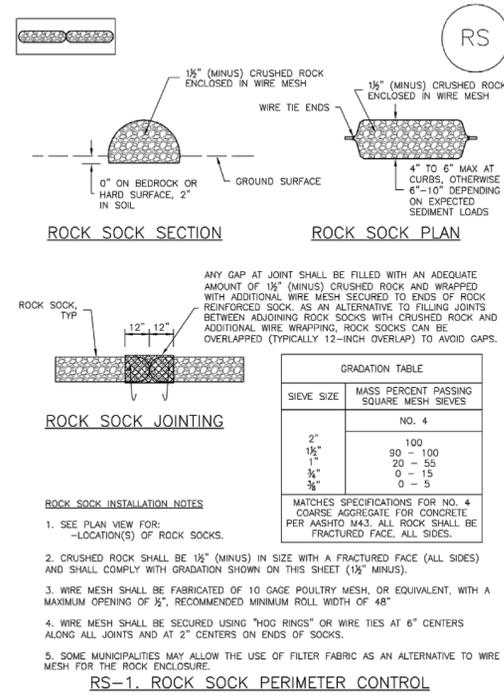
Maintenance and Removal

After mulching, the bare ground surface should not be more than 10 percent exposed. Reapply mulch, as needed, to cover bare areas.

MU-2 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 June 2012

SC-5

Rock Sock (RS)



RS-2 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

Rock Sock (RS) SC-5

ROCK SOCK 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 SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.
 - SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE ROCK SOCK.
 - ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
 - WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.
- (DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)
- 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.
- NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF ROCK SOCK INSTALLATION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY OTHER SIMILAR PROPRIETARY PRODUCTS ON THE MARKET. UDFCD NEITHER ENDORSES NOR DISCOURAGES USE OF PROPRIETARY PROTECTION PRODUCTS; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

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



CONSULTANTS:
Matrix
 Excellence by Design
 2435 RESEARCH PARKWAY, SUITE 300
 COLORADO SPRINGS, CO 80920
 PHONE: (719) 575-0100

LAND DEVELOPMENT
 CONSULTANTS, LLC
 950 S. CHERRY ST., SUITE 512
 DENVER, CO 80246

OWNER/DEVELOPER:

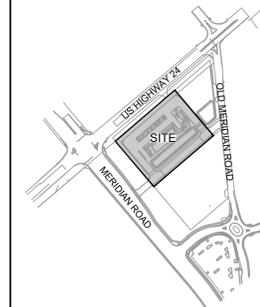


ROCKY MOUNTAINS DIVISION
 5500 S QUEBEC STREET, SUITE 100
 GREENWOOD VILLAGE, CO 80111
 PHONE: (720) 758-6223

SEAL

FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC

VICINITY MAP:



PROJECT:

CIRCLE K STORES INC.

GRADING & EROSION CONTROL PLANS
 HIGHWAY 24 & MERIDIAN ROAD
 FALCON, CO

REVISION HISTORY:

| NO. | DATE | DESCRIPTION | BY |
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CHECKED BY: NMS

DESIGNED BY: NMS

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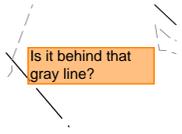
EROSION CONTROL NOTES

SHEET 7 OF 7
 ECN03

ISSUE DATE: SEPTEMBER 2022

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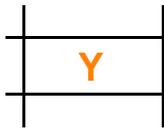
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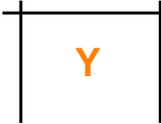
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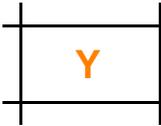
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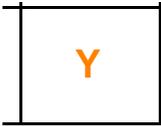
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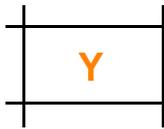
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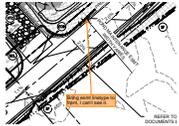
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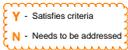
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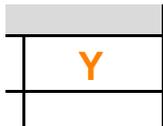
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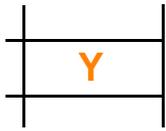
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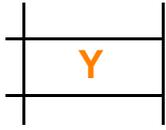
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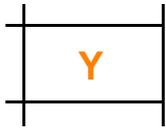
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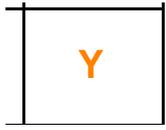
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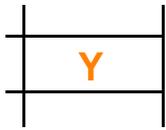
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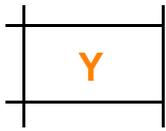
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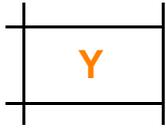
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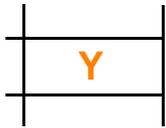
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