

**GRADING AND EROSION CONTROL 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
- 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.
- 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. 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.
- 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.
- 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.
- 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
- 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.
- 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 LOOSENEED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- 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 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.
- 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.
- 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 ENTECH ENGINEERING, INC., DATED 3/25/2024 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 (SMWP), 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

# ROLLING THUNDER BUSINESS PARK, LOT 12

## 10701 MALTESE POINT

### EL PASO COUNTY, PEYTON, CO

EPC STORMWATER REVIEW COMMENTS IN ORANGE BOXES WITH BLACK TEXT

**CONTACTS**

**OWNER**  
WT HOLDINGS, LLC  
30 E. UINTAH ST.  
COLORADO SPRINGS, CO 80903  
BILL TIBBITT  
(719) 465-2519  
BTIBBITT@WDCONSTRUCT.COM

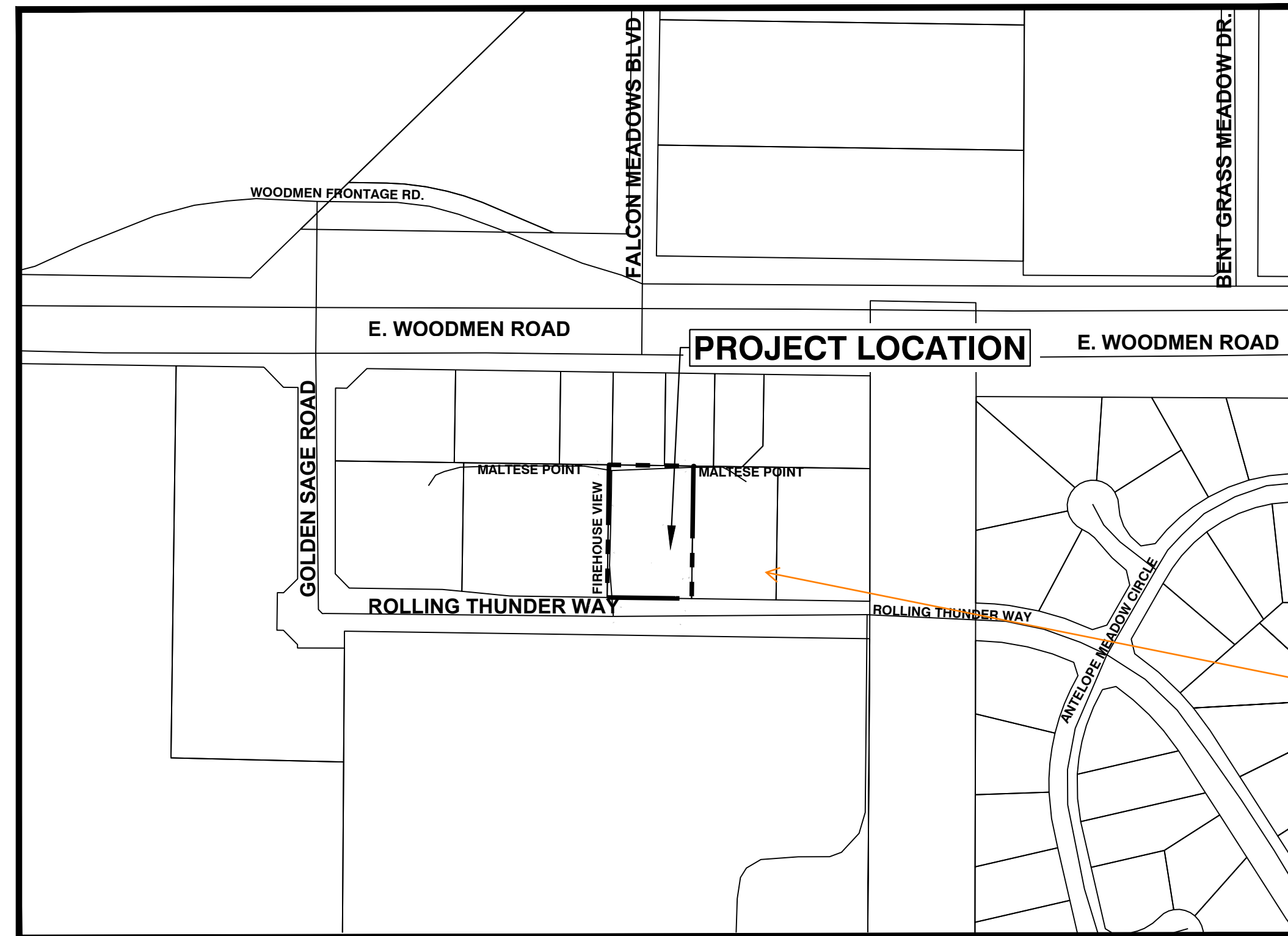
**CIVIL ENGINEER**  
SK DESIGN GROUP, INC.  
333 PERRY ST. SUITE 209  
CASTLE ROCK, CO 80104  
AUROM MAHOBIAN, P.E.  
(913) 451-1818  
AMAHOBIAN@SKDG.COM

**ENGINEERING DIVISION**  
EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT  
2880 INTERNATIONAL CIRCLE, SUITE 110,  
COLORADO SPRINGS, CO 80910  
**JENNIFER IRVINE, P.E.**  
(719) 520-6300

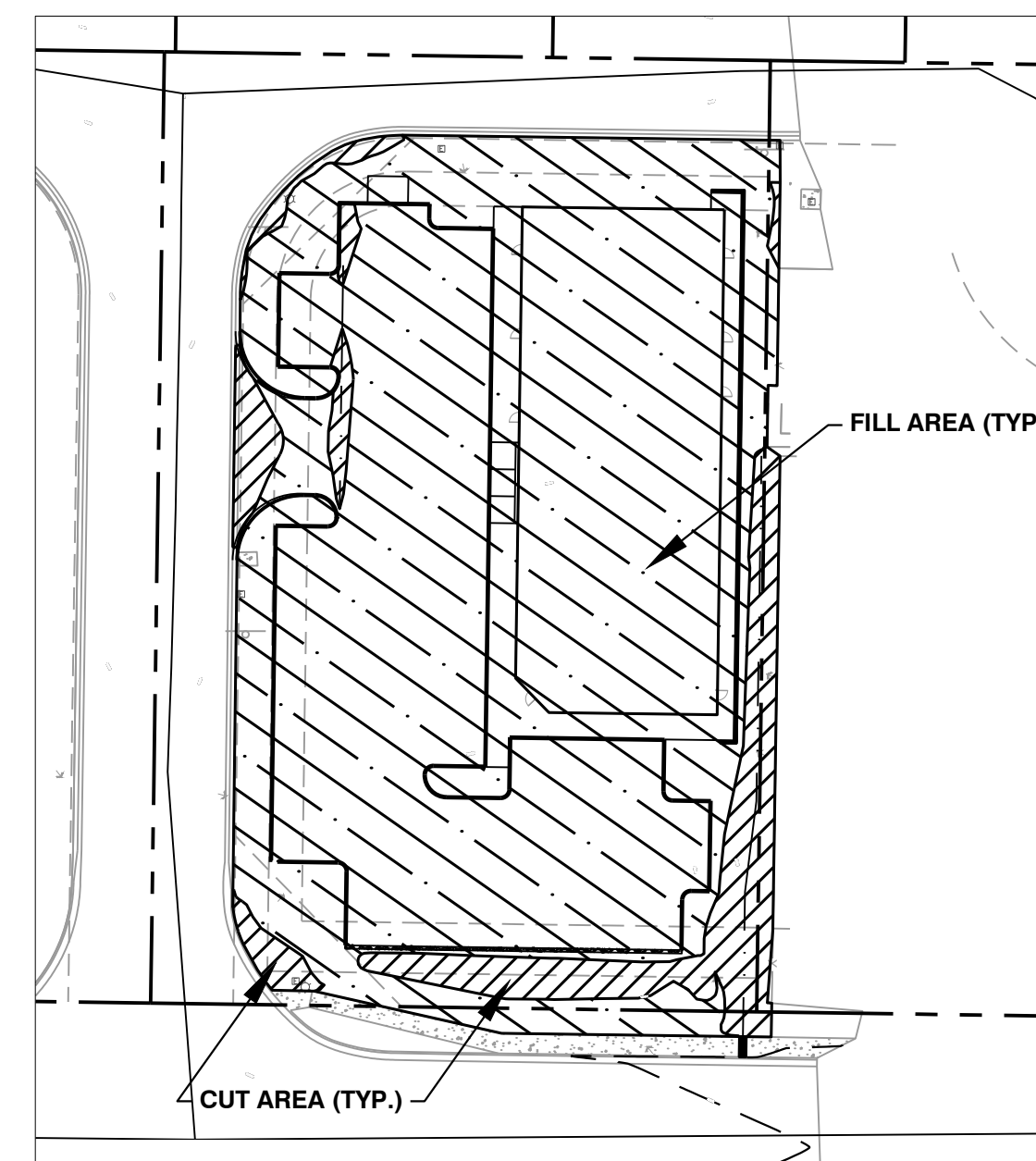
**WATER AND WASTEWATER**  
CHEROKEE METROPOLITAN DISTRICT  
6250 PALMER PARK BLVD.  
COLORADO SPRINGS, CO 80915  
(719) 597-5080

**FIRE DEPARTMENT**  
CIMARRON HILLS FIRE DEPARTMENT  
1835 TUSKEGEE PL.  
COLORADO SPRINGS, CO 80915  
(719) 591-0960

**TELEPHONE COMPANY**  
U.S. WEST COMMUNICATIONS (LOCATORS)  
(800) 922-1987  
  
AT&T (LOCATORS)  
(719) 635-3674



**LOCATION MAP**



**CUT-FILL AREA MAP**  
N.T.S.



Know what's below.  
Call before you dig.

**LEGAL DESCRIPTION:**

LOT 12, ROLLING THUNDER BUSINESS PARK, COUNTY OF EL PASO, STATE OF COLORADO.

**BENCHMARK:**

FIMS MONUMENT BL74 BEING A 3.25" FIMS CAP IN A RANGE BOX LOCATED AT THE NORTHWEST CORNER OF E. WOODMEN FRONTAGE ROAD AND FALCON MEADOWS BLVD. ELEVATION 6908.88 NAVD83

48 HOURS BEFORE YOU DIG,  
CALL UTILITY LOCATORS  
**811**  
UTILITY NOTIFICATION CENTER OF COLORADO IT'S THE LAW

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

**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.

ENGINEER                                                                 
SASSAN MAHOBIAN, PE. DATE

**OWNER'S STATEMENT**

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

OWNER SIGNATURE                                            
DATE

**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 OR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTOR'S DISCRETION.

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

Joshua Palmer, P.E.  
Contact has been updated. -SKDG

Show approximate location of existing Tank Pond (SF07019)

Approx. location of Tank Pond is now shown on location map. -SKDG

Contact has been updated. -SKDG

Project number has been added. -SKDG

PPR2414

ROLLING THUNDER BUSINESS PARK - LOT 12	REVISIONS	DATE	BY	SHEETS
10707 MALTESE PT. PEYTON, CO				
<p>SK Design Group, Inc. 333 Perry St. Suite 209 Castle Rock, Colorado 80104 Phone: 913-451-1818 Fax: 913-451-7599</p>				
SK JOB NUMBER: 24-105	DESIGNED: AM	CHECKED: SM	APPROVED:	
DATE: 02-22-2024	DETAILED: EP			
<p><b>GESC COVER SHEET</b></p> <p><b>SHEET 1 OF 3</b></p>				

PARCEL NO.  
5311101004

PARCEL NO.  
5311101005

PARCEL NO.  
5311101006

PARCEL NO.  
5311101007

**GESC LEGEND:**

- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPERTY LINE
- ROADWAY CENTERLINE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING SANITARY MANHOLE
- EXISTING STREET LIGHT
- EXISTING SIGN
- PROPOSED EPC TYPE A CURB
- PROPOSED EPC TYPE B CURB
- PROPOSED SPILL CURB & LEVEL SPREADER
- PROPOSED RETAINING WALL (MAX HEIGHT 1.5')
- DRAINAGE CHANNEL FLOW LINE
- PROPOSED DOWNSPOUT & PVC STORM DRAIN
- PROPOSED CONCRETE DRAINAGE CHANNEL
- PROPOSED SIDEWALK CHASE
- PROPOSED CONCRETE CURB STOP
- PROPOSED REINFORCED CONCRETE
- PROPOSED SAW CUT
- EROSION CONTROL BLANKET (4,400 SF) (FINAL)
- TEMPORARY/PERMANENT SEEDING (12,420 SF) (FINAL)
- CONCRETE WASHOUT AREA (INITIAL, FINAL)
- STABILIZED STAGING AREA (625 SF) (INITIAL, FINAL)
- VEHICLE TRACKING CONTROL (INITIAL, FINAL)
- SILT FENCE (655 LF) (INITIAL, FINAL)
- ROCK SOCK (FINAL)
- LIMITS OF CONSTRUCTION

**NOTES:**

1. THERE IS NO EXISTING NOTABLE VEGETATION. ONLY NATIVE GRASSES/WEEDS.

**ABBREVIATIONS:**

- |      |                |
|------|----------------|
| EX   | EXISTING       |
| PROP | PROPOSED       |
| FF   | FINISHED FLOOR |
| TC   | TOP OF CURB    |
| FL   | FLOW LINE      |
| TW   | TOP OF WALL    |
| BW   | BOTTOM OF WALL |

Please provide a name/number to the PBMP and then update all submitted text and drawings accordingly with consistent labeling throughout (example: "Pond A" or "Pond 1").

Pond name has been created and is now shown on all relevant sheets and is referenced in the report. -SKDG

The infiltration basin will require an O&M manual, see EDARP comment. In that manual discuss 3:1 side slopes and document if that will pose any issue to performing maintenance.

O&M manual will be provided with discussion related to 3:1 side slopes in relation to maintenance. -SKDG

Provide emergency spillway, riprap, and details. Since this pond is only for WQCV storage and infiltration, large storms are going to overtop and we would be looking to see a localized location for bypass flows to release at.

Grading has been revised to show emergency spillway, riprap has been added and spillway has been sized to convey the 100-yr flow from tributary basins to the drainage channel to the east. -SKDG

Provide riprap or other erosion protection at concentrated inflow points.

Riprap is now shown at concentrated inflow/outflow points. -SKDG

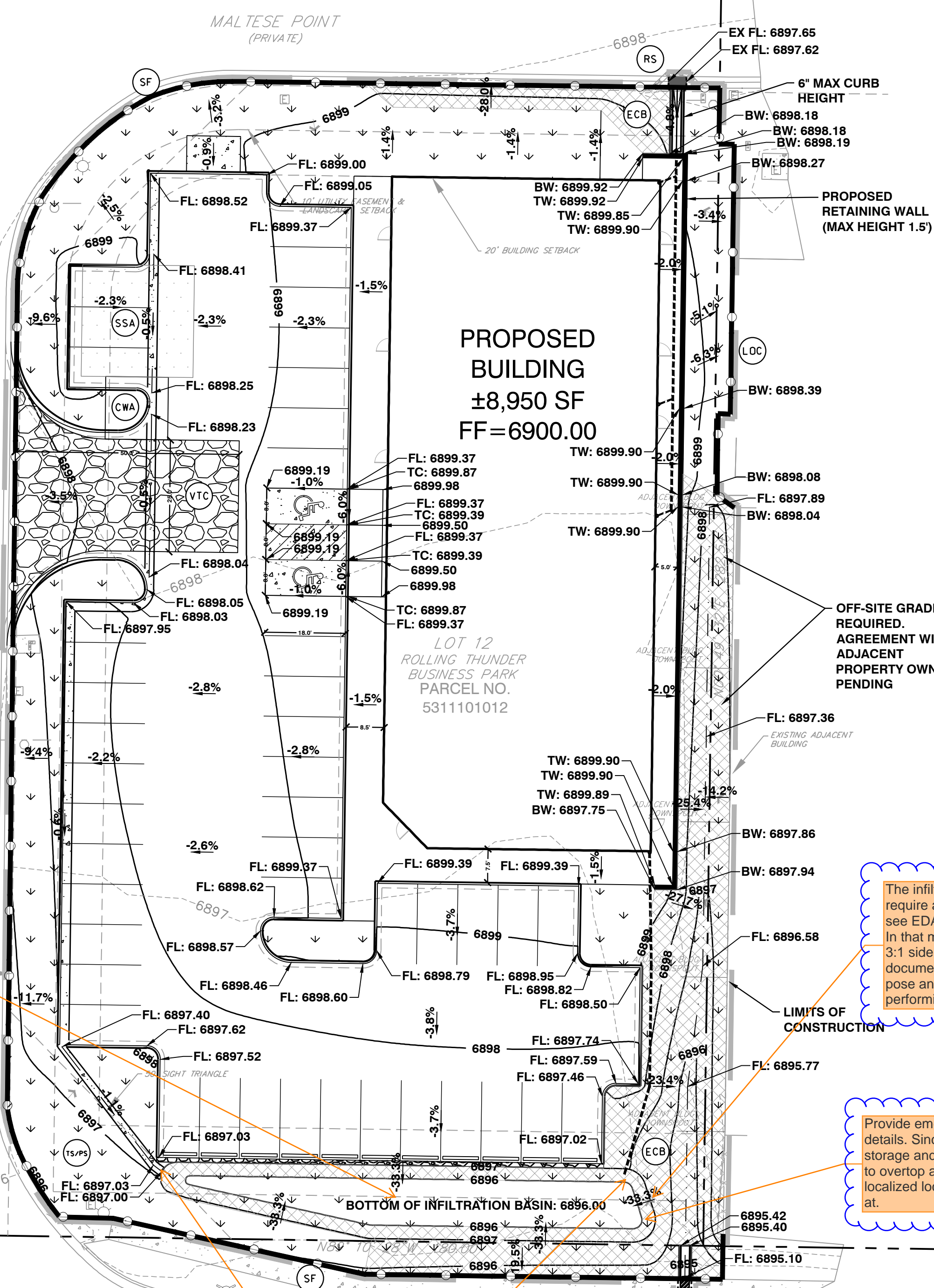
Note: all sheets will need to be stamped/signed prior to approval as will the cover sheet.

Acknowledged. -SKDG

LOT 11  
ROLLING THUNDER  
BUSINESS PARK  
PARCEL NO. 5311101011

LOT 12  
ROLLING THUNDER  
BUSINESS PARK  
PARCEL NO.  
5311101012

LOT 13  
ROLLING THUNDER  
BUSINESS PARK  
PARCEL NO. 5311101013

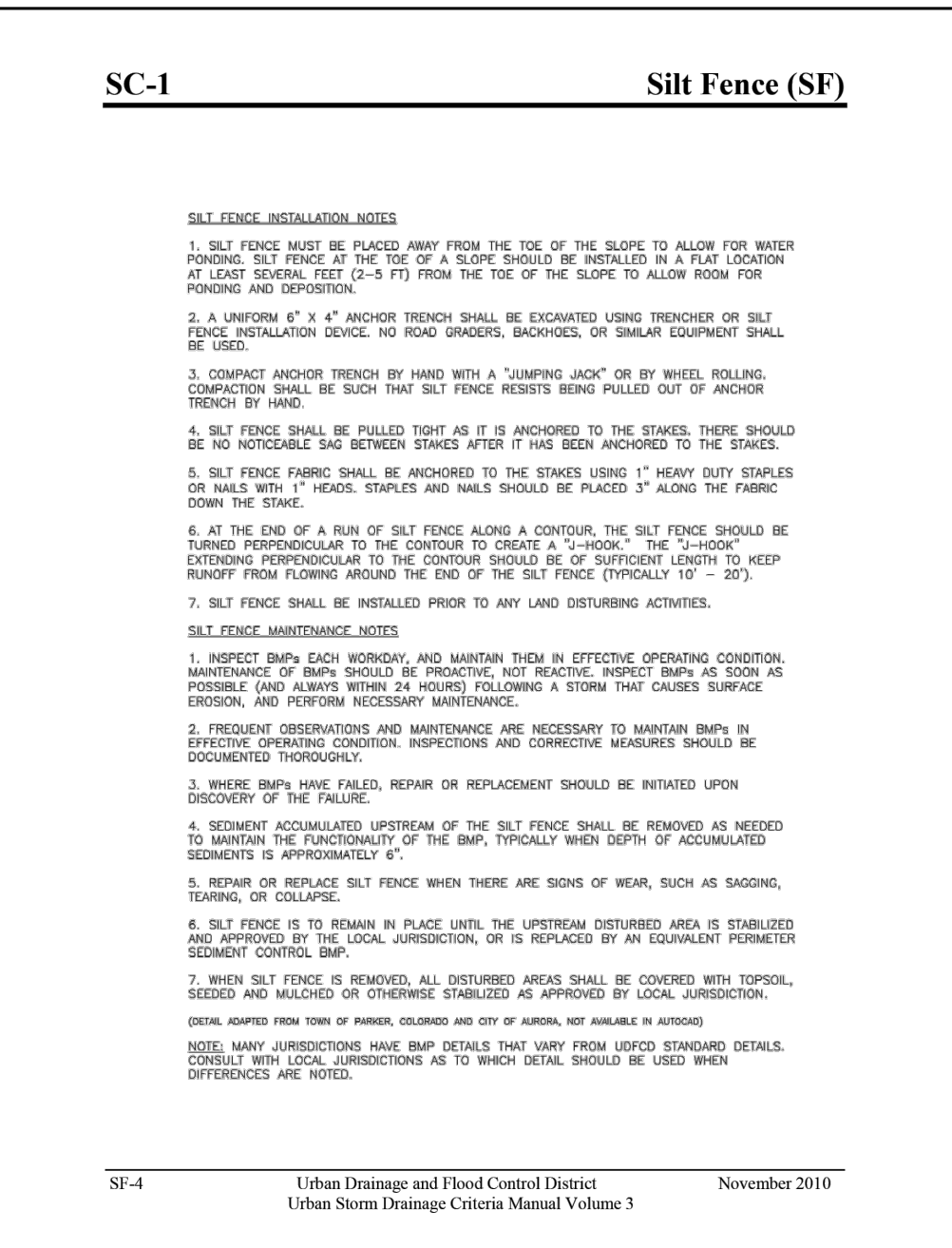
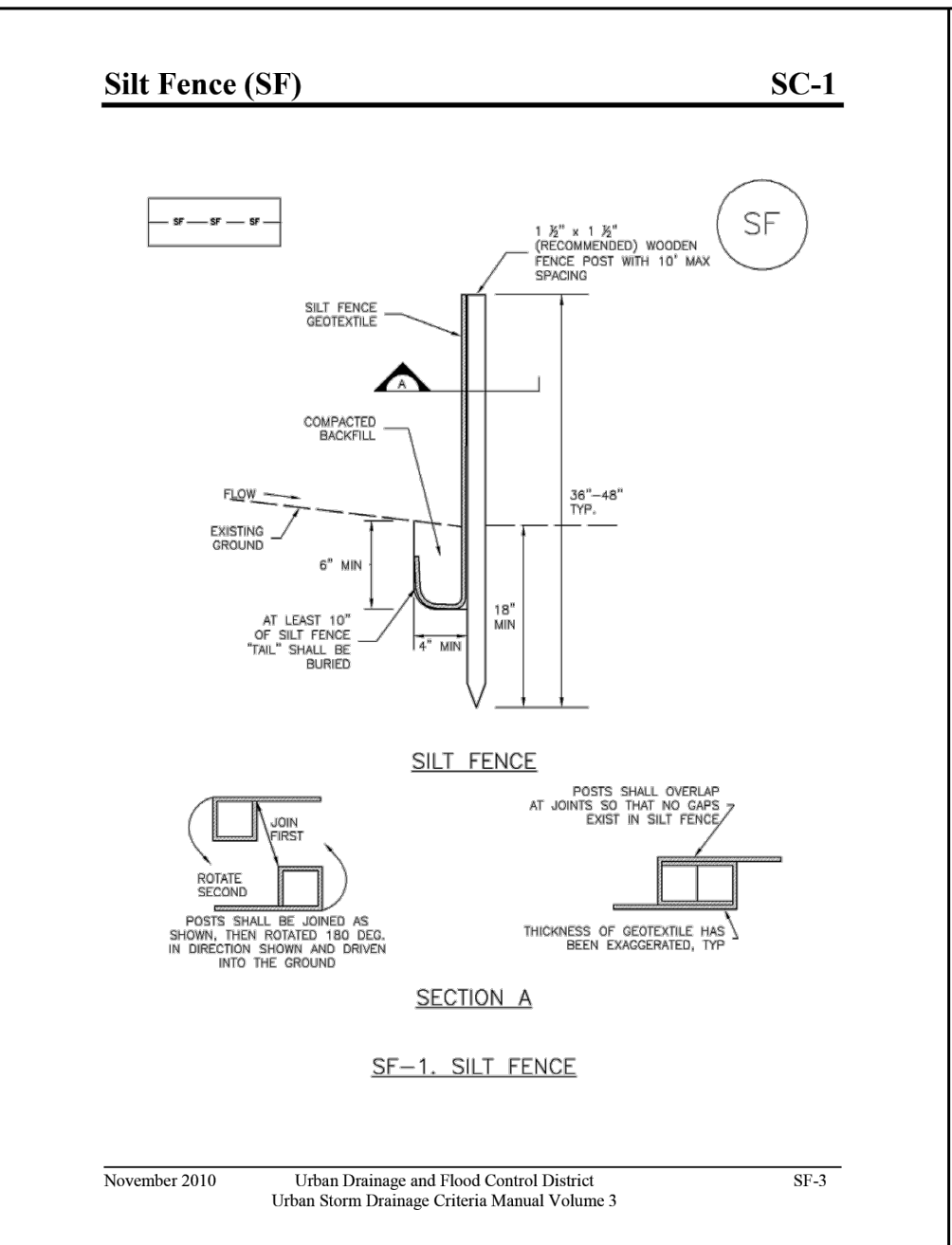
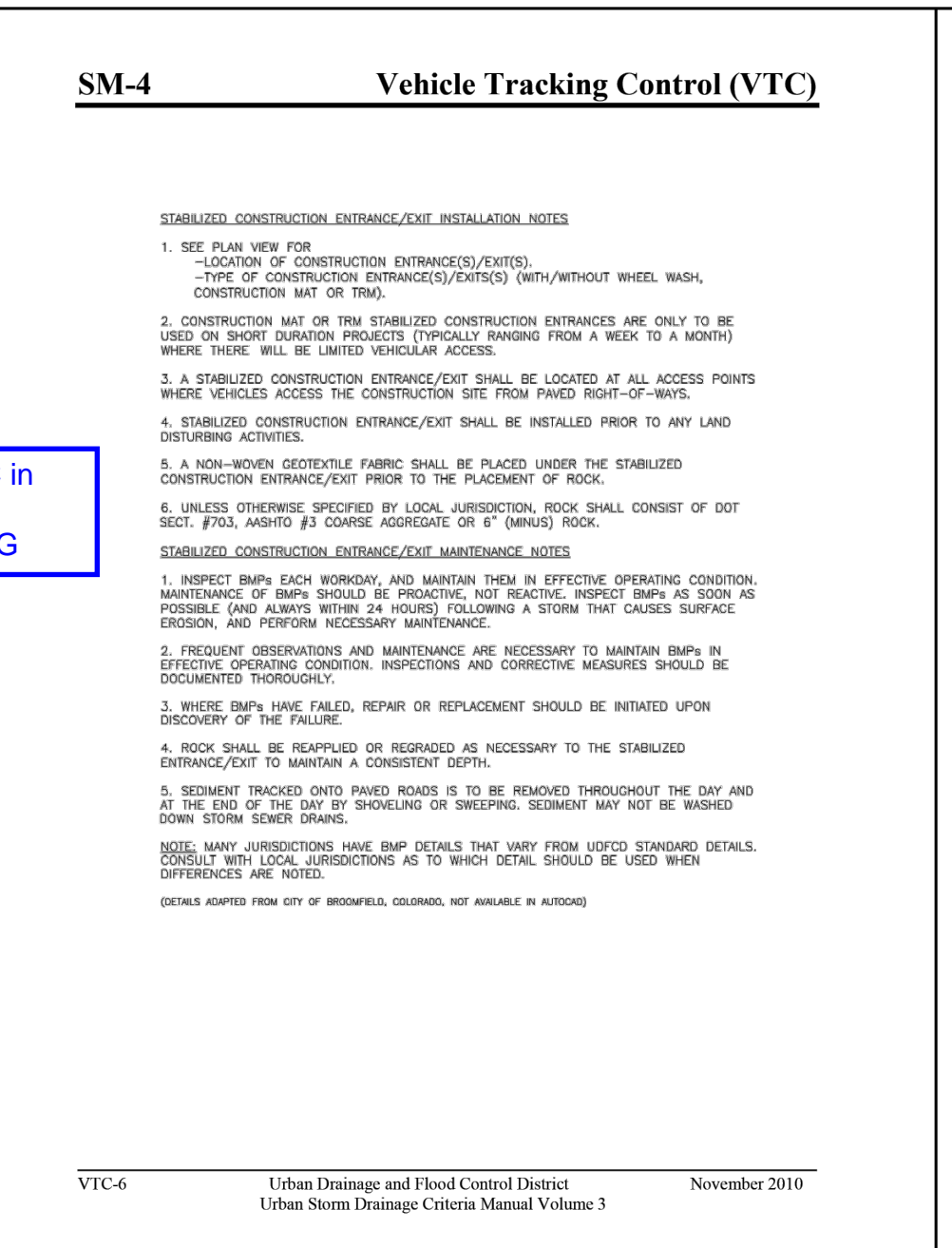
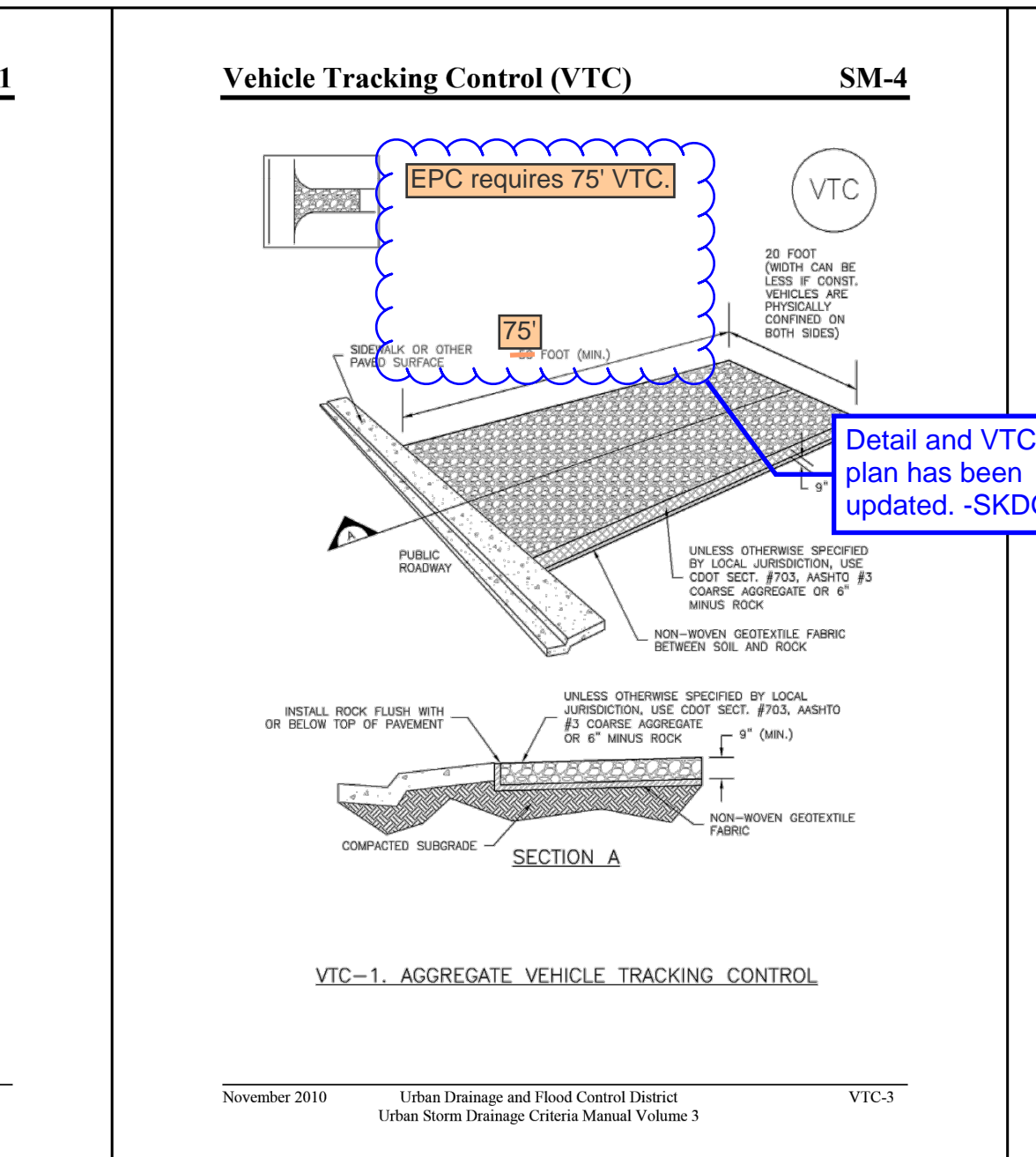
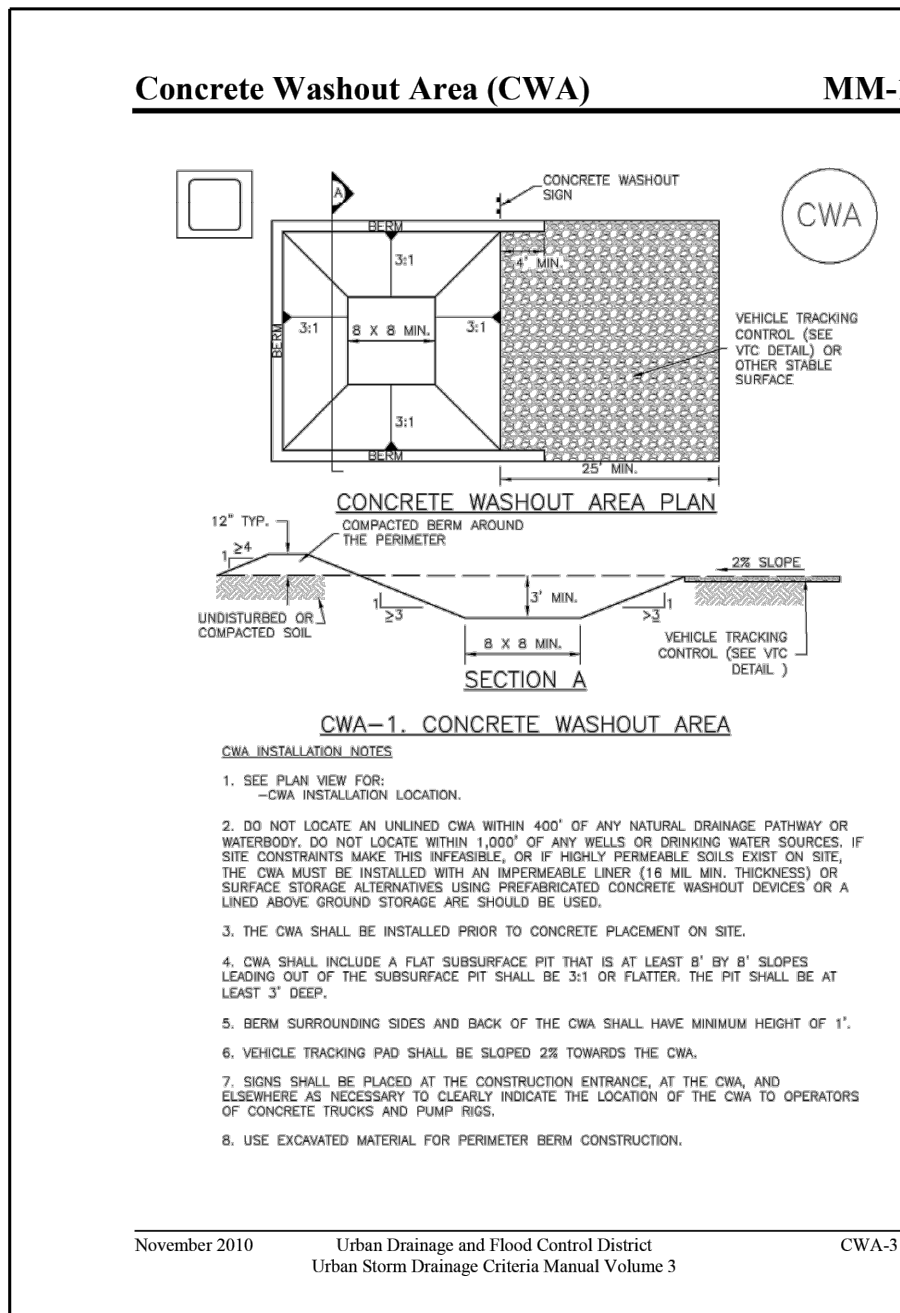


**ROLLING THUNDER BUSINESS PARK - LOT 12**  
10707 MALTESE PT. PEYTON, CO



SK JOB NUMBER:	24-105
DATE:	02-22-2024
DESIGNED:	AM
CHECKED:	SM
DETAILED:	EP
APPROVED:	

**GESC PLAN**



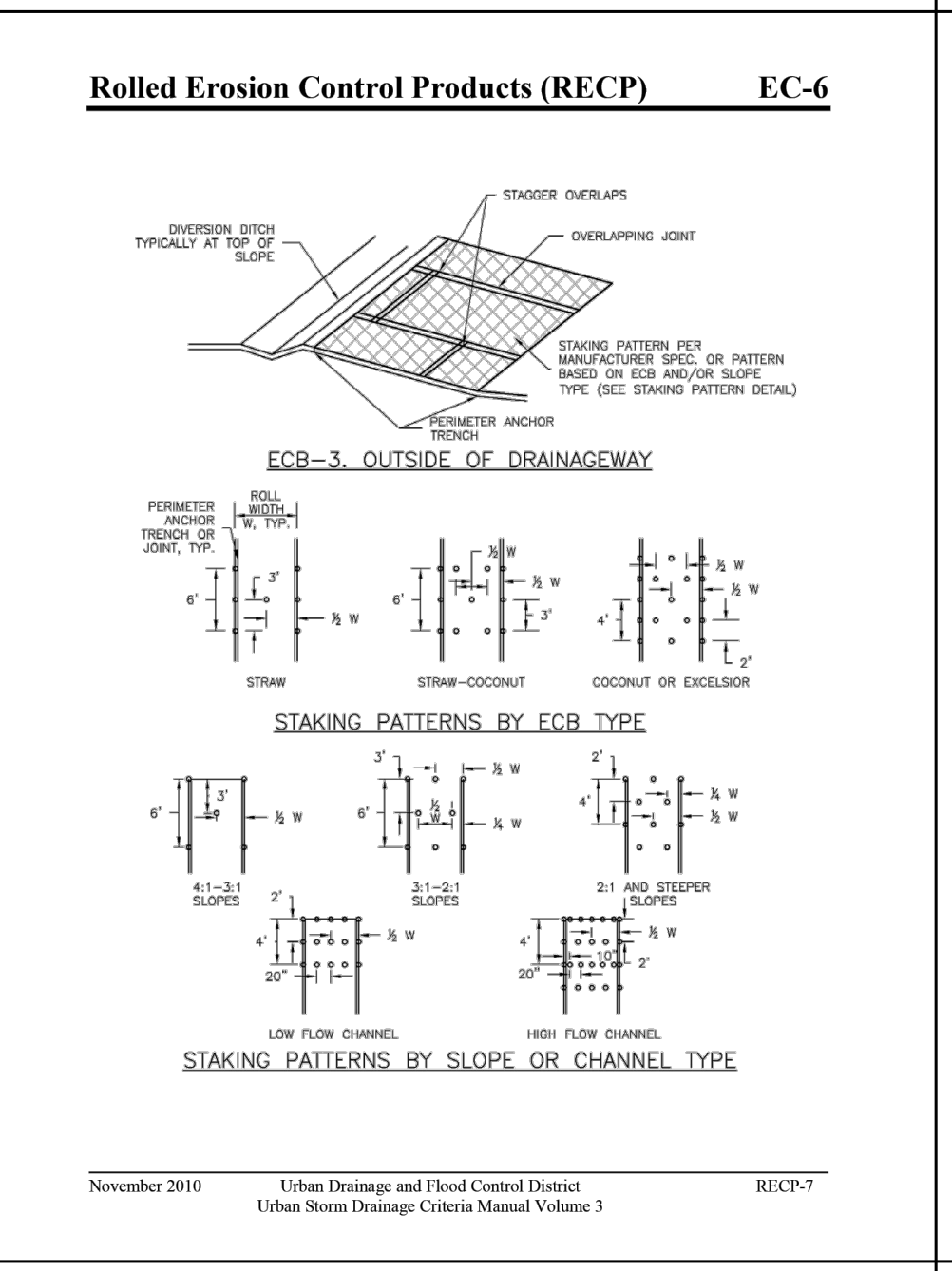
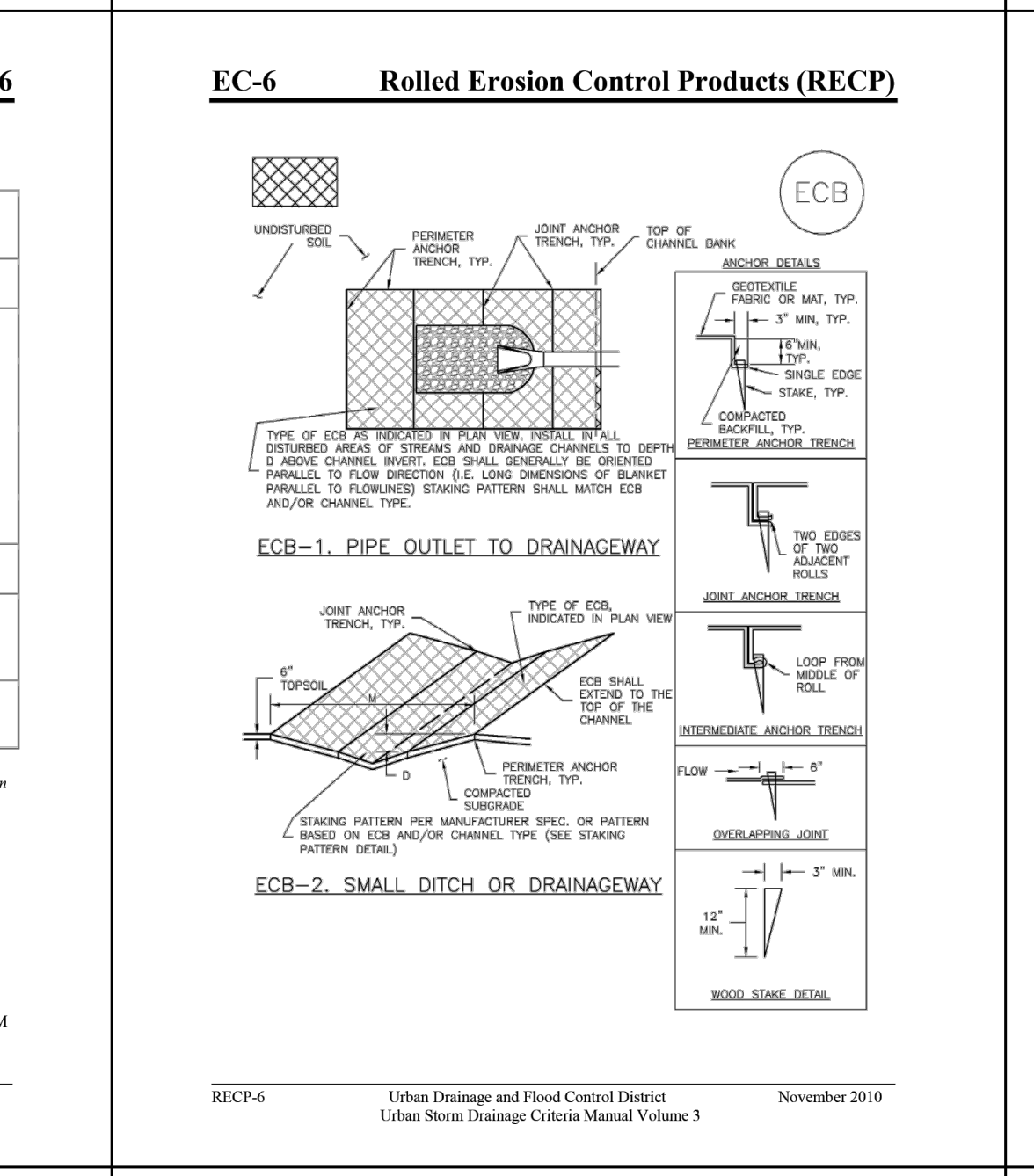
### Rolled Erosion Control Products (RECP) EC-6

**Table RECP-1. ECTC Standard Specification for Temporary Rolled Erosion Control Products**  
(Adapted from Erosion Control Technology Council 2005)

Product Description	Slope Application*	Channel Application*	Minimum Tensile Strength	Expected Longevity
Mulch Control Mats	5:1 (H:V)	<math>S:1</math>	0.25 lbs/ft <sup>2</sup> (12 Pa)	5 lbs/ft (0.073 kN/m)
Netless Rolled Erosion Control Blankets	4:1 (H:V)	<math>S:1</math>	0.5 lbs/ft <sup>2</sup> (24 Pa)	5 lbs/ft (0.073 kN/m)
Single-seal Erosion Control Blankets & Open Weave Textiles	3:1 (H:V)	<math>S:1</math>	1.5 lbs/ft <sup>2</sup> (72 Pa)	50 lbs/ft (0.73 kN/m)
Double-seal Erosion Control Blankets	2:1 (H:V)	<math>S:1</math>	1.75 lbs/ft <sup>2</sup> (84 Pa)	75 lbs/ft (1.09 kN/m)
Mulch Control Mats	5:1 (H:V)	<math>S:1</math>	0.25 lbs/ft <sup>2</sup> (12 Pa)	24 months
Erosion Control Blankets & Open Weave Textiles (slowly degrading)	1.5:1 (H:V)	<math>S:1</math>	2.00 lbs/ft <sup>2</sup> (90 Pa)	100 lbs/ft (1.45 kN/m)
Erosion Control Blankets & Open Weave Textiles	1:1 (H:V)	<math>S:1</math>	2.25 lbs/ft <sup>2</sup> (108 Pa)	125 lbs/ft (1.82 kN/m)

\* C Factor and shear stress for mulch control settings must be obtained with netting used in conjunction with pre-applied mulch material. (See Section 3.3 of Chapter 7 Construction BMPs for more information on the C Factor.)  
\* Minimum Average Roll Values, Machine direction using ECTC Mod. ASTM D 5035.  
\* C Factor calculated as ratio of soil loss from RECP protected slope (tested at specified or greater gradient, H:V) to ratio of soil loss from unprotected control plot at large-scale testing.  
\* Required minimum shear stress RECP (vegetated) can sustain without physical damage or excess erosion (<math>127 \text{ mm } (0.5 \text{ m}) \text{ soil loss}</math> during a 30-minute flow event in large-scale testing.  
\* The potential shear stress levels established for each performance category are based on historical experience with products characterized by Manning's roughness coefficients in the range of 0.01 - 0.05.  
\* Acceptable large-scale test methods may include ASTM D 6499, or other independent testing deemed acceptable by the engineer.  
\* For the engineer's discretion, recommended acceptable large-scale testing protocol may include ASTM D 6460, or other independent testing deemed acceptable by the engineer.

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 EC-6



### Rolled Erosion Control Products (RECP) EC-6

**Table ECG-1. ECG MATERIAL SPECIFICATIONS**

TYPE	COGNATE CONTENT	STRAW CONTENT	EXCELLENT NETTING*	RECOMMENDED NETTING*
STRAW**	-	100%	-	DOUBLE / NATURAL
STRAW**	30%	70%	-	DOUBLE / NATURAL
COGNATE**	100%	-	-	DOUBLE / NATURAL
EXCELLENT**	-	100%	-	DOUBLE / NATURAL

\*\* Straw and Cognate must be used in a ratio of 30% straw to 70% cognate.  
\* Netting must be used in a ratio of 30% straw to 70% cognate.  
\* Netting must be used in a ratio of 30% straw to 70% cognate.

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 EC-6

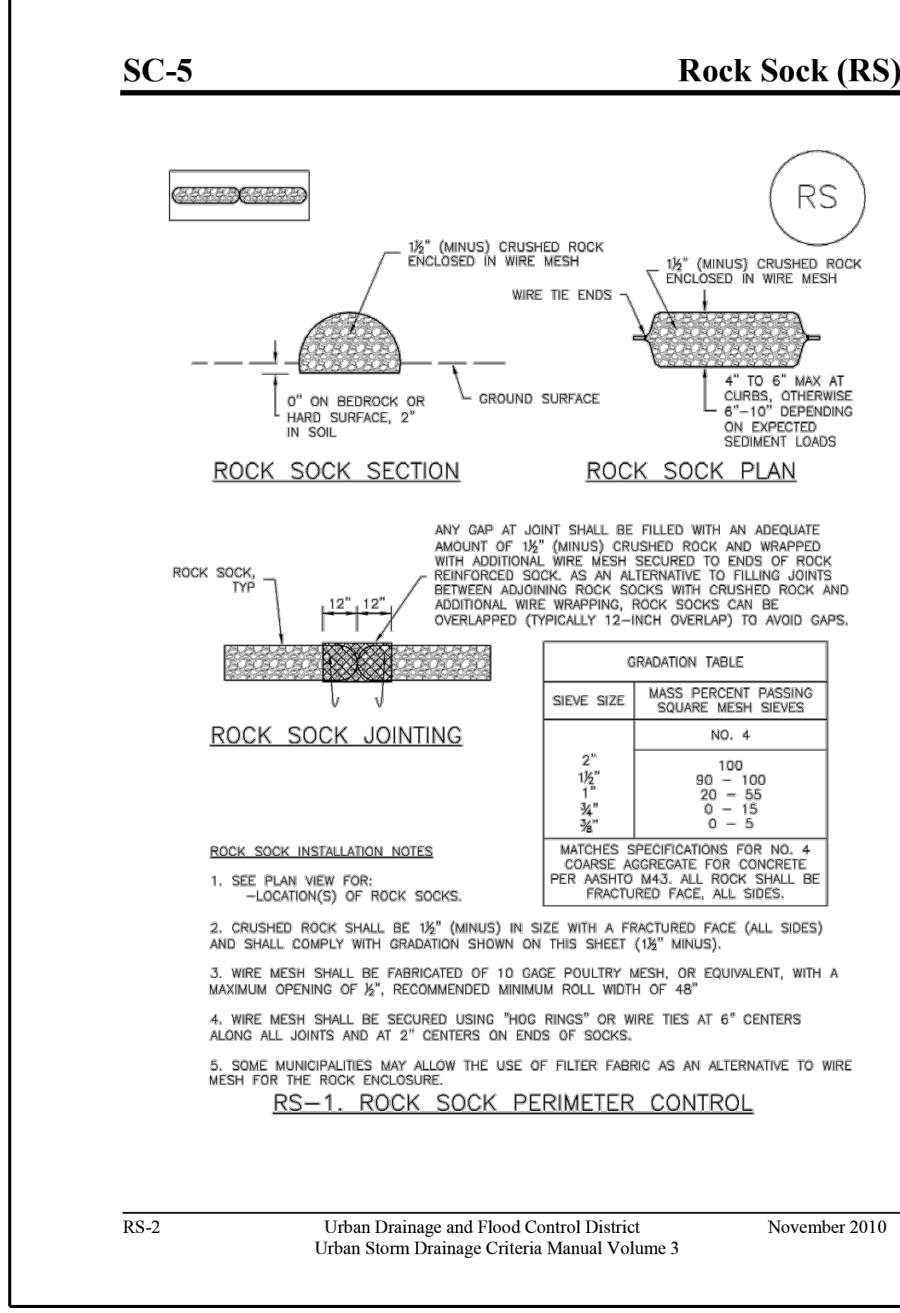
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Single-seal Erosion Control Blankets & Open Weave Textiles	3:1 (H:V)	<math>S:1</math>	1.5 lbs/ft <sup>2</sup> (72 Pa)	50 lbs/ft (0.73 kN/m)
Double-seal Erosion Control Blankets	2:1 (H:V)	<math>S:1</math>	1.75 lbs/ft <sup>2</sup> (84 Pa)	75 lbs/ft (1.09 kN/m)
Mulch Control Mats	5:1 (H:V)	<math>S:1</math>	0.25 lbs/ft <sup>2</sup> (12 Pa)	24 months
Erosion Control Blankets & Open Weave Textiles (slowly degrading)	1.5:1 (H:V)	<math>S:1</math>	2.00 lbs/ft <sup>2</sup> (90 Pa)	100 lbs/ft (1.45 kN/m)
Erosion Control Blankets & Open Weave Textiles	1:1 (H:V)	<math>S:1</math>	2.25 lbs/ft <sup>2</sup> (108 Pa)	125 lbs/ft (1.82 kN/m)

\* C Factor and shear stress for mulch control settings must be obtained with netting used in conjunction with pre-applied mulch material. (See Section 3.3 of Chapter 7 Construction BMPs for more information on the C Factor.)  
\* Minimum Average Roll Values, Machine direction using ECTC Mod. ASTM D 5035.  
\* C Factor calculated as ratio of soil loss from RECP protected slope (tested at specified or greater gradient, H:V) to ratio of soil loss from unprotected control plot at large-scale testing.  
\* Required minimum shear stress RECP (vegetated) can sustain without physical damage or excess erosion (<math>127 \text{ mm } (0.5 \text{ m}) \text{ soil loss}</math> during a 30-minute flow event in large-scale testing.  
\* The potential shear stress levels established for each performance category are based on historical experience with products characterized by Manning's roughness coefficients in the range of 0.01 - 0.05.  
\* Acceptable large-scale test methods may include ASTM D 6499, or other independent testing deemed acceptable by the engineer.  
\* For the engineer's discretion, recommended acceptable large-scale testing protocol may include ASTM D 6460, or other independent testing deemed acceptable by the engineer.

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 EC-6



### Temporary and Permanent Seeding (TS/PS) EC-2

**Table TS/PS-1. Minimum Drill Seeding Rates for Various Temporary Annual Grasses**

Species* (Common name)	Growth Season*	Pounds of Pure Live Seed (PLS)/acre <sup>2</sup>	Planting Depth (inches)
1. Oats	Cool	35 - 50	1 - 2
2. Spring wheat	Cool	25 - 35	1 - 2
3. Spring barley	Cool	25 - 35	1 - 2
4. Annual ryegrass	Cool	10 - 15	1/2
5. Millet	Warm	3 - 15	1/2 - 1
6. Winter wheat	Cool	20 - 35	1 - 2
7. Winter barley	Cool	20 - 35	1 - 2
8. Winter rye	Cool	20 - 35	1 - 2
9. Trifoliate	Cool	25 - 40	1 - 2

\* Successful seeding of annual grasses resulting in adequate plant growth will usually produce enough dead plant residue to provide protection from wind and water erosion for a residential year. This assumes that the cover is not disturbed or mowed closer than 8 inches.  
\* Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1 or when access limitations exist. When hydraulic seeding is used, hydraulic mulching should be applied as a separate operation, when practical, to prevent the seeds from being encapsulated in the mulch.  
\* See Table TS/PS-2 for seeding dates, irrigation, if consistently applied, may extend the use of cool season species during the summer months.  
\* Seeding rates should be doubled if seed is broadcast, or increased by 50 percent if done using a tillage drill or by hydraulic seeding.

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

### Temporary and Permanent Seeding (TS/PS) EC-2

**Table TS/PS-2. Seeding Dates for Annual and Perennial Grasses**

Seeding Dates	Annual Grasses		Perennial Grasses	
	Warm	Cool	Warm	Cool
January 1 - March 15			✓	✓
March 16 - April 30		1, 2, 3	✓	✓
May 1 - May 15			✓	✓
May 16 - June 30	5		✓	✓
July 1 - July 15	5			
July 16 - August 31				
September 1 - September 30	6, 7, 8, 9			
October 1 - December 31				

**Mulch**  
Cover seeded areas with mulch or an appropriate rolled erosion control product to promote establishment of vegetation. Anchor mulch with irrigation, netting or use of a non-toxic tackifier. See the USDOCM Volume 2 Revegetation Chapter and Volume 3 Mulching BMP Fact Sheet (EC-04) for additional guidance.  
**Maintenance and Removal**  
Monitor and observe seeded areas to identify areas of poor growth or areas that fail to germinate. Re-seed and mulch those areas as needed.  
If a temporary annual seed was planted, the area should be seeded with the desired perennial mix when there will be no further work in the area. To minimize competition between annual and perennial species, the annual mix needs time to mature and die before seeding the perennial mix. To increase success of the perennial mix, it should be seeded during the appropriate seeding dates the second year after the temporary annual mix was seeded. Alternatively, if this timeline is not feasible, the annual mix seed heads should be removed and then the area seeded with the perennial mix.  
An area that has been permanently seeded should have a good stand of vegetation within one growing season if irrigated and within three growing seasons with or without irrigation. Re-seed portions of the site that fail to germinate or remain bare after the first growing season.  
Seeded areas may require irrigation, particularly during extended dry periods. Targeted weed control may also be necessary.  
Protect seeded areas from construction equipment and vehicle access.

January 2021 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 EC-2

