Storm Water Management Plan
Les Schwab Tire Center

7105 Old Meridian RD.
Falcon Colorado

Prepared For:

Les Schwab Tire Center
P.O. Box 5350 20900 Cooley RD.
Bend, OR 97701

Prepared By:

Cushing Terrell

Zack Graham, PE
411 E Main ST #101
Bozeman, MT 59715
(406) 922-7137
www.cushingterrell.com

COLORADO LICENSED
ZACHARY W. GRAHAM
39039
PROFESSIONAL ENGINEER
Date: 2021.04.19 14:55:26-06'00'

Cushing Terrell Project No. LSCO_20FAL

April, 16, 2021

Add text:

PCD Filing No.:
PPR-21-023

Please sign electronically so that all pages of the form do not have to be scanned. It is much easier for us if the form is in the original state (ie: still a searchable pdf and not skewed from scanning). Or only scan the page that gets stamped. This applies to all documents including the GEC/SWMP Checklists, PBMP Form, etc.

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1.0 CONTACT INFORMATION

1.1 Owner:

George Bunting
SFP-E, LLC
P.O. Box 5350 20900 Cooley RD.
Bend, OR 97701
(541) 416-5241

1.2 SWMP Preparer:

Zack Graham, PE
Cushing Terrell
411 E Main ST #101
Bozeman, MT 59715
(406) 922-7137

1.3 Qualified Stormwater Manager:

TBD

1.4 Contractor:

TBD

2.0 SITE DESCRIPTION

The project site is located at 7105 Old Meridian Rd, Falcon, Colorado and falls within El Paso County. The parcel is part of the larger Meridian Crossing Development which includes the existing stormwater system infrastructure, including the treatment pond to the south. The site is located on the northeast side of the intersection of Meridian Rd and Old Meridian Rd. A vicinity map for this project can be found in appendix A.

The existing site consists of an undeveloped 2.48 acre lot covered with native grasses and shrubs. In areas taken from the ALTA Survey the site consists of roughly 12% impervious road and sidewalk area with the remaining 88% being the native vegetation. There are no stream crossings or significant waterways located within the area being developed by this project. The site is accessed via the existing private roads that are centered on the north east and south east property lines of the site. These roads will provide means of vehicular ingress and egress.

The topography of the existing site consists of a roughly consistent grade which directs flow from the north of the site towards the south at slopes ranging from 2-5%. There is an existing storm line that runs west to east along the southern edge of the site before crossing Old Meriden Rd. that ultimately connects to the adjacent detention pond. The site is not located in a floodway or flood plain and is designated as area of minimal flood hazard (Zone X).

Update this description per how you updated in the FDR:
Revise to discuss PLD and label detention pond as Pond WU.

Address checklist Items 10, 13, 15, 21, 22, 23.

Update this description per how you updated in the FDR:
Revise to discuss PLD and label detention pond as Pond WU.

3.0 NARRATIVE DESCRIPTION OF CONSTRUCTION ACTIVITIES

The proposed projected will include the construction of a new Les Schwab Tire Center (LSTC) tire and automotive service center building, walled tire storage area, landscaping, parking lot, and drive aisles. The building will be located on the center of the site with the tire storage area to its north east and the parking lot to its west.

Drainage flows will be directed to proposed storm inlets and then directed into the underground storm system, ultimately out-falling to the adjacent Meridian Crossing detention pond. Some landscaped areas will maintain historic flow paths to the to the south. Offsite flows will be maintained at or below historic levels. For more detail regarding the existing storm infrastructure, please reference the "Meridian Crossing Final Drainage Report" which is recorded with El Paso County record number 280417. For more information regarding the proposed storm water improvements, reference the "Storm Water Report for Les Schwab Tire Center".

There are no anticipated offsite flows or non-stormwater discharges for this site.

Item 8. Include soil erosion potential and impacts on discharge

3.1 Soil Erosion Potential

Using the Web Soil Survey tool provide by USDA the site was found to contain soils with an A hydrologic soil group which is associated with a high infiltration rate and low runoff potential. Based on this rating the determination was made that standard construction, BMPs will be sufficient for runoff control during construction. These BMPs are listed in section 4 of this report.

3.2 Disturbed Area

The proposed disturbance area by this project is 2.29 acres. This value is to be updated by the Qualified Stormwater Manager during to construction to account for any unexpected disturbed areas.

Update per latest drawing revisions if necessary.

3.3 Project Phasing

The project phasing for this site will take place in three major phases:

- Initial Development: Installing the erosion control BMPs and mobilizing on site.
- Interim Development: once initial BMPs are in place building construction and site paving may begin.
- Final Development: Only once all finalized stormwater measures are in place can the erosion control BMPs be removed from the site.

3.4 Project Sequence

This section includes an estimated schedule for the work on this project. This schedule is approximate and should be updated by the Qualified Stormwater Manager during construction of the project to reflect the evolving nature of the project.

- Clearing (August - September 2021)
- Mass Grading (September - October 2021)

- Utility Installation (October - November 2021)
- Paving Construction (November - December 2021)
- Final Stabilization (December - January 2021)

revise to 2022

4.0 PROPOSED BMPS

The following BMPs are shown in plan view and as details in appendix B. The following summary of BMPs is to be updated by the Qualified Stormwater Manager during construction to provide a complete list of the measures used.

4.1 Concrete Washout Area

The concrete washout area serves as a designated space to wash vehicles, tools, or other equipment that has accumulated concrete debris. This stabilized area prevents the concrete from leaving the site and allows for it to be collected in one area for easier collection and disposal. The washout area consists of a depressed area surrounding by a berm on 3 sides and vehicle tracking pad on the other to allow access.

4.2 Inlet Protection

Inlet protection prevents the excess sedimentation generated by construction from entering the stormwater system. The protection measures consist of creating a barrier of rock socks surrounding the inlet to filter out the sediment generated in a storm event.

4.3 Rock Sock

A rock sock is a tube of wire mesh containing 1 ½" gravel. The purpose of this BMP is to allow stormwater to flow through the rock sock causing it to lose velocity, as well as filter out trash and sediment. Typically, these are used to protect storm inlets or in curbs adjacent to the construction.

4.4 Silt Fence

Silt fence is a perimeter control measure that should be placed to surround the disturbed area. The fence intercepts flows leaving the site and allows water to slowly pass through while filtering out sedimentation. The fence is constructed of a geotextile fabric attached to stakes. When installed a minimum of 10 inches of the geotextile "tail" should be buried to prevent stormwater from running under the fence.

4.5 Stabilized Staging Area

This is area consist of a 3" pad of thick granular material surrounded by silt fence and should be located adjacent to the construction entrance. The purpose of this area is to serve as the construction staging area where high equipment traffic and parking can be expected.

Item 13. Discuss inspection procedure for checking waste disposal bins for leaks and overflowing capacity. And discuss frequency that they will be emptied (or at what level of capacity would trigger the need to be emptied)

Discuss the use of portable toilets on site. Include the following details:
Portable toilets will be located a minimum of 10ft from stormwater inlets and 50ft from state waters. They will be secured at all four corners to prevent overturning and cleaned on a weekly basis. They will be inspected daily for spills.

4.6 Stockpile Area

This area is surrounded by silt fence and serves as a location where topsoil, fill, and other construction materials can be stored on site. The material stockpile should not exceed a 2:1 slope to maintain stability.

4.7 Temporary and Permanent Seeding

When a disturbed area will be not be impacted by construction for an extended period, temporary seeding can be used as a measure to prevent additional erosion. For permanent seeding, reference the Landscape drawings and specifications.

4.8 Vehicle Tracking Control

A vehicle tracking control pad should be installed where vehicles are entering or leaving the site. This pad removes the sediment that has accumulated on the vehicles tires while on site. The pad consists of a 50-foot by 20-foot minimum pad of #3 aggregate or 6" minus rock sitting atop a non-woven geo-textile. As the pad is worn by vehicle traffic it should be regraded and have rock added as needed to maintain the 9" thickness.

4.9 Material Handling and Spill Prevention

Material handling and spill prevention consists of a series of measures that should be implemented to ensure the proper handling of materials on site. In general material handling and spill prevention measures fall in the following three categories:

1. Training Prevention methods
    a. Train employees on potential sources of pollution and provide clear and common-sense prevention practices.
    b. Identify equipment that may be impacted by stormwater leading to leaks or unintended discharge.
    c. Perform regular maintenance and inspection of equipment with an eye on leaks or evidence of discharge.
    d. Designate a fueling area away from storm inlets and clean up all spills with dry methods.
    e. Where possible, use indoor or covered storage for equipment.
2. Material Handling Procedures
    a. Keep bulk solid materials (sand, gravel, etc.) covered to prevent erosion.
    b. Where possible, store materials on impervious surfaces.
    c. Store hazardous materials according to all federal state and local requirements.
    d. Use less toxic materials when possible.
    e. Store fragile or easily punctured materials away from high vehicle traffic areas.
    f. Use waste capture materials, such as collection pans for lubricating fluids.
3. Spill Response Procedures
    a. Containment and cleanup should begin promptly after a spill.
    b. Sweep up small quantities of dry chemical or solids to reduce exposure to runoff.
    c. Absorbents should be readily accessible in fueling areas or other high-risk areas.

Item 12. Note that this project does not anticipate utilizing batch plants in the SWMP text

d. Install drip pans beneath minor equipment leaks and properly dispose of material until repair can be made.

Identify QSM in the SWMP and provide documentation of their credentials and/or state: "The QSM will be sufficiently qualified for the required duties per the ECM Appendix I.5.2.A"

5.0 SWMP REVISION PROCEDURE

Following the assignment of a Qualified Stormwater Manager for this project the SWMP document will be transferred to them. It is the responsibility of the designated Qualified Stormwater Manager or Certified Erosion Control Inspector to maintain and update this document. The SWMP shall always be located on site during construction and shall be kept up to date with work progress and changes in the field. Inspection logs should also be maintained and attached to this document as part of the record keeping procedure.

6.0 OPERATIONS AND MAINTENANCE GUIDELINE

The Qualified Stormwater Manager for this project is responsible for the inspection of stormwater BMPs and their maintenance as required. It is the responsibility of the Qualified Stormwater Manager to create, complete, and sign inspection logs of the stormwater BMPs and maintain the records onsite. The stormwater BMP's should be inspected at a minimum every 7 days and following each storm event. In general, the following items should be inspected and corrected as needed:

add "or snowmelt event that causes surface erosion"

- Check stormwater inlets and manholes for trash and debris.
- Inspect construction BMP placement and condition, and repair any damage caused by construction activities.
- Inspect inlet protection and placement.
- Replace rock socks or inlet protection if they become heavily soiled.
- Inspect silt fence and reinstall where fence may have collapsed or is showing signs of wear, such as sagging or tears in the fence material.
- Reapply rock to vehicle tracking pad where wear is apparent.

Item 21. Add text stating that the SWMP should be viewed as a "living document" that is continuously being reviewed and modified as a part of the overall process of evaluating and managing SW quality issues at the site. The QSM shall amend the SWMP when there is a change in design, construction, O&M of the site which would require the implementation of new or revised BMPs or if the SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in SW discharges associated with construction activity or when BMPs are no longer necessary and are removed.

Item 26. Add a note stating that this project does not rely on control measures owned or operated by another entity.

Cushing Terrell

APPENDIX A: VICINITY MAP

0 125 250 500

SCALE: 1" = 250'

NORTH

Cushing Terrell

DENVER, CO
720.305.1416

7105 OLD MERIDIAN RD.
FALCON, CO

VICINITY MAP

01/04/21
LSCO_20FAL

DRAWN BY
WALKER
CHECKED BY
WHITE

SHEET NAME
VIC-MAP

Cushing Terrell

APPENDIX B: GESC PLANS

LES SCHWAB TIRE CENTER
GRADING AND EROSION CONTROL PLAN
7105 OLD MERIDIAN ROAD
FALCON, COLORADO 80831

DEVELOPER/OWNER CONTACT

OWNER/DEVELOPER
SFP-E, LLC
GEORGE BUNTING
PO BOX 5350
20900 COOLEY RD.
BEND, OR 97701

JURISDICTIONAL CONTACTS

EL PASO COUNTY
PLANNING DEPARTMENT
JOHN GREEN
2880 INTERNATIONAL CIRCLE #110
COLORADO SPRINGS, CO 80910
(719) 520-6442

UTILITY COMPANY

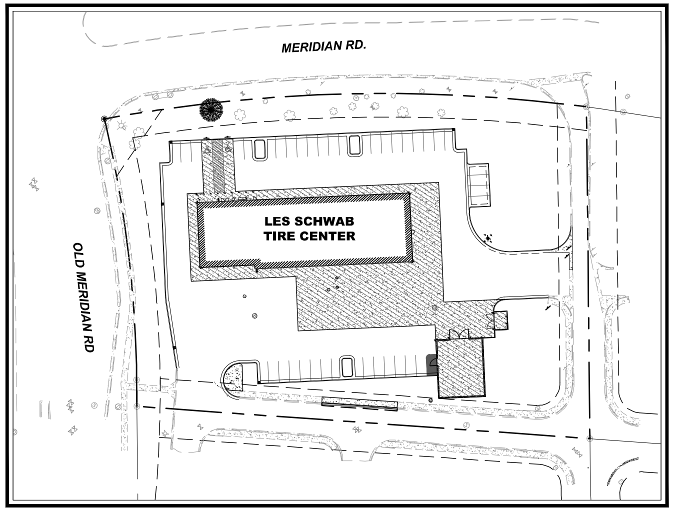
SANITARY SEWER
WOODMAN HILLS METRO DISTRICT
8046 EASTON RD.
FALCON, CO 80831
(719) 295-2500

WATER
FALCON HIGHLANDS METRO DISTRICT
111 S. TEJON ST. #705
COLORADO SPRINGS, CO 80903
(719) 635-0330

GAS
COLORADO SPRINGS UTILITIES
111 S. CASCADE AVE.
COLORADO SPRINGS, CO 80903
(719) 448-4808

POWER
MOUNTAIN VIEW ELECTRIC
11140 E WOODMEN ROAD
FALCON, CO 80831
(800) 388-9881

PHONE/CABLE
CONTRACTOR TO COORDINATE SERVICE PROVIDER WITH OWNER



SITE MAP

1" = 50'
NORTH

LEGAL DESCRIPTION

(THE FOLLOWING LEGAL DESCRIPTION WAS TAKEN FROM FIRST AMERICAN TITLE INSURANCE COMPANY COMMITMENT NO, NCS-975191-X17-OR1 WITH A COMMITMENT DATE OF OCTOBER 24, 2019 AT 5:00 P.M.)

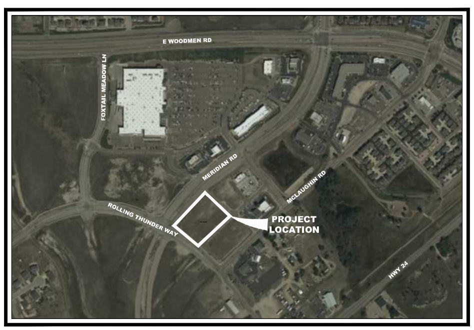
PARCEL A:

LOT 1, MERIDIAN CROSSING FILING NO. 1A, ACCORDING TO THE PLAT RECORDED OCTOBER 3, 2018 AT RECEPTION NO. 218714221, COUNTY OF EL PASO, STATE OF COLORADO .

PARCEL B:

NON EXCLUSIVE EASEMENTS FOR CROSS ACCESS, INGRESS AND EGRESS AS SET FORTH AND GRANTED IN THE MERIDIAN CROSSING MAINTENANCE AGREEMENT AND DECLARATION OF COVENANTS CONDITIONS AND RESTRICTIONS RECORDED SEPTEMBER 8, 2008 AT RECEPTION NO. 208099925 AND FIRST AMENDMENT THERETO RECORDED APRIL 8, 2009 AT RECEPTION NO. 20935924.

FOR INFORMATIONAL PURPOSES ONLY: APN: 5312114001



VICINITY MAP

NTS

CONSULTANT TEAM

ARCHITECT
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BOZEMAN, MT 59715
(406) 922-7137

ELECTRICAL ENGINEER
CUSHING TERRELL
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MISSOULA, MT 59802
(406) 728-9522

LANDSCAPE ARCHITECT
CUSHING TERRELL
ANGELA HANSEN
800 W MAIN ST. STE 800
BOISE, ID 83702
(208) 336-4900

GEOTECHNICAL ENGINEER
PICKERING, COLE, & HIVNER
GLEN D. OHLSEN, PE
1070 WEST 124TH AVE. SUITE 300
WESTMINSTER, CO 80234
(208) 323-9520

SHEET LIST

CIVIL
C010 COVER SHEET
C011 GESC NOTES
C012 INITIAL GESC PLAN
C013 INTERIM/FINAL GESC PLAN
C014 GESC DETAILS
C015 GESC DETAILS
C016 GESC DETAILS
C017 CUT / FILL GESC EXHIBIT

ENGINEERS 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 OF RECORD SIGNATURE ____ DATE ____

OWNERS STATEMENT

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.

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

COUNTY PROJECT ENGINEER SIGNATURE ____ DATE ____

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

NOT FOR CONSTRUCTION - PRELIMINARY DESIGN

Cushing Terrell.
cushingterrell.com
800.757.9522

LES SCHWAB TIRE CENTER
7105 OLD MERIDIAN RD.
FALCON, CO

SITE DEVELOPEMENT PLANS

04.16.2021
DRAWN BY | WALKER
CHECKED BY | GRAHAM
REVISIONS

GRADING AND EROSION CONTROL COVER SHEET

C010

4/19/2021 9:56 AM | L:\LesSchwab\New\LSCO_20FAL\MCAD\Civil\LSCO_20FAL_C010.dwg

LEGEND

EXISTING | PROPOSED

- ASPHALT
- CONCRETE
- HEAVY DUTY ASPHALT
- HEAVY DUTY CONCRETE
- GRAVEL
- LANDSCAPE
- LANDSCAPE
- WATER MAIN
- FIRE SERVICE
- DOMESTIC WATER SERVICE
- STORM DRAIN
- SANITARY SEWER
- BURIED POWER
- OVERHEAD POWER
- BURIED TELEPHONE
- BURIED GAS
- BURIED FIBER OPTIC
- FENCE - CHAINLINK
- FENCE - WOODEN
- FENCE - BARBED WIRE
- BUILDING
- BUILDING ROOF OVERHANG
- VERTICAL CURB
- CURB AND GUTTER
- CURB AND GUTTER - CATCH
- CURB AND GUTTER - SPILL
- VEGETATION EXTENTS
- PROPERTY LINE - SUBJECT
- PROPERTY LINE - ADJACENT
- EASEMENT
- CONTROL POINT
- FOUND PROPERTY CORNER AS NOTED
- FIRE HYDRANT/ CONTROL POINT HYDRANT
- WATER VALVE
- WATER SHUTOFF
- WATER METER
- STORM DRAIN MANHOLE
- STORM DRAIN INLET STRUCTURE
- STORM DRAIN CURB INLET
- STORM DRAIN OUTLET STRUCTURE
- STORM DRAIN ROOF DOWNSPOUT
- STORM DRAIN CLEANOUT (existing: OCO)
- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEANOUT
- UTILITY POLE
- GUY WIRE
- LIGHT POLE (ONE LIGHT AND DIRECTION)
- LIGHT POLE
- TRANSFORMER
- POWER METER OR POWER HANDHOLE
- GAS METER
- TELEPHONE PEDESTAL
- IRRIGATION CONTROL VALVE
- POLE SIGN AND DOUBLE POLE SIGN
- BOLLARD (OR AS NOTED)
- PARKING STALL COUNT
- DECIDUOUS TREE
- CONIFEROUS TREE
- BUSH

NOTE: ALL EXISTING LAYERS SUBJECT TO DEMOLITION TO BE SHOWN DARKER THAN INDICATED IN THIS LEGEND.

4/15/2021 9:39 AM | L:\LesSchwab\New\LSCO_20FAL\BIM\CAD\Dwf\LSCO_20FAL_C011.dwg

STANDARD NOTES FOR EL PASO COUNTY GESC PLAN

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.
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.
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
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.
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
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.
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.
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.
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.
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.
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).
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.
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.
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.
15. EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
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.
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
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.
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.
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.
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.
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.
23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
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.
25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
26. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
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.
28. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY PICKERING, COLE & HIVNER, LLC. DATED SEPTEMBER 27TH, 2016 AND SHALL BE CONSIDERED A PART OF THESE PLANS.
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 FORSTORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITYDIVISION. 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

ABBREVIATIONS

@	AT	LT	LEFT
AB	ABANDONED	MEG	MATCH EXISTING GRADE
AHJ	AUTHORITIES HAVING JURISDICTION	MH	MANHOLE
APPROX	APPROXIMATE	MTR	METER
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	NTS	NOT TO SCALE
BC	BACK OF CURB	OC	ON CENTER
BCR	BACK OF CURB RADIUS	OH, OHP	OVERHEAD, OVERHEAD POWER
BM	BENCHMARK	OHU	OVERHEAD UTILITIES
BOT	BOTTOM	PB	PULL BOX
BP	BURIED POWER	PC	POINT OF CURVATURE
BT	BURIED TELEPHONE	PIP	PROTECT IN PLACE
BW	BOTTOM OF WALL	℘, PL	PROPERTY LINE
C&G	CURB & GUTTER	PP	POWER POLE
CATV, TV	CABLE TELEVISION	PRC	POINT OF REVERSE CURVE
CI	CAST IRON	PT	POINT OF TANGENCY
CIPP	CURED IN PLACE PIPE	PVC	POLYVINYL CHLORIDE PIPE
℄, CL	CENTERLINE	RCP	REINFORCED CONCRETE PIPE
CMP	CORRUGATED METAL PIPE	RIM	RIM OF MANHOLE LID OR GRATE
CO	CLEANOUT	ROW	RIGHT OF WAY
D, DIA	DIAMETER	SF	SQUARE FOOT, SQUARE FEET
DG	DECOMPOSED GRANITE	SP	SPECIAL PROVISIONS
DI	DUCTILE IRON	SS	SANITARY SEWER
DIP	DUCTILE IRON PIPE	SSMH	SANITARY SEWER MANHOLE
DOM	DOMESTIC WATER	ST	STORM DRAIN
DW	DRIVEWAY	STA	STATION
DWG	DRAWING	STCB	STORM CATCH BASIN
EG	EXISTING GRADE	STCI	STORM CURB INLET
ELEC, E	ELECTRIC	STD	STANDARD
EL, ELEV	ELEVATION	STMH	STORM MANHOLE
EOP, EP	EDGE OF PAVEMENT	STYD	STORM YARD DRAIN
ESCP	EROSION AND SEDIMENT CONTROL PLAN	SW	SIDEWALK
EX	EXISTING	SWPPP	STORMWATER POLLUTION PREVENTION PLAN
FC	FACE OF CURB	SY	SQUARE YARD
FG	FINISHED GRADE	T, TEL	TELEPHONE
FH, HYD	FIRE HYDRANT	TA	TOP OF ASPHALT
FL	FLOW LINE	TBC	TOP BACK OF CURB
FT	FOOT, FEET	TC	TOP OF CONCRETE
G	GAS	TEMP	TEMPORARY
GM	GAS METER	TRANS	TRANSITION
GV	GAS VALVE	TW	TOP OF WALL
GW	GUY WIRE	TYP	TYPICAL
HP	HIGH PRESSURE	VCP	VITRIFIED CLAY PIPE
IE	INVERT ELEVATION	WM	WATER MAIN
INT	INTERSECTION	WV	WATER VALVE
IRR	IRRIGATION	W/	WITH
L	LENGTH	Δ	DELTA
LF	LINEAL FOOT, LINEAR FEET		
LS	LANDSCAPING		

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

NOT FOR CONSTRUCTION - PRELIMINARY DESIGN

Cushing Terrell.
cushingterrell.com
800.757.9522

Tires LES SCHWAB

7105 OLD MERIDIAN RD.
FALCON, CO
LES SCHWAB TIRE CENTER

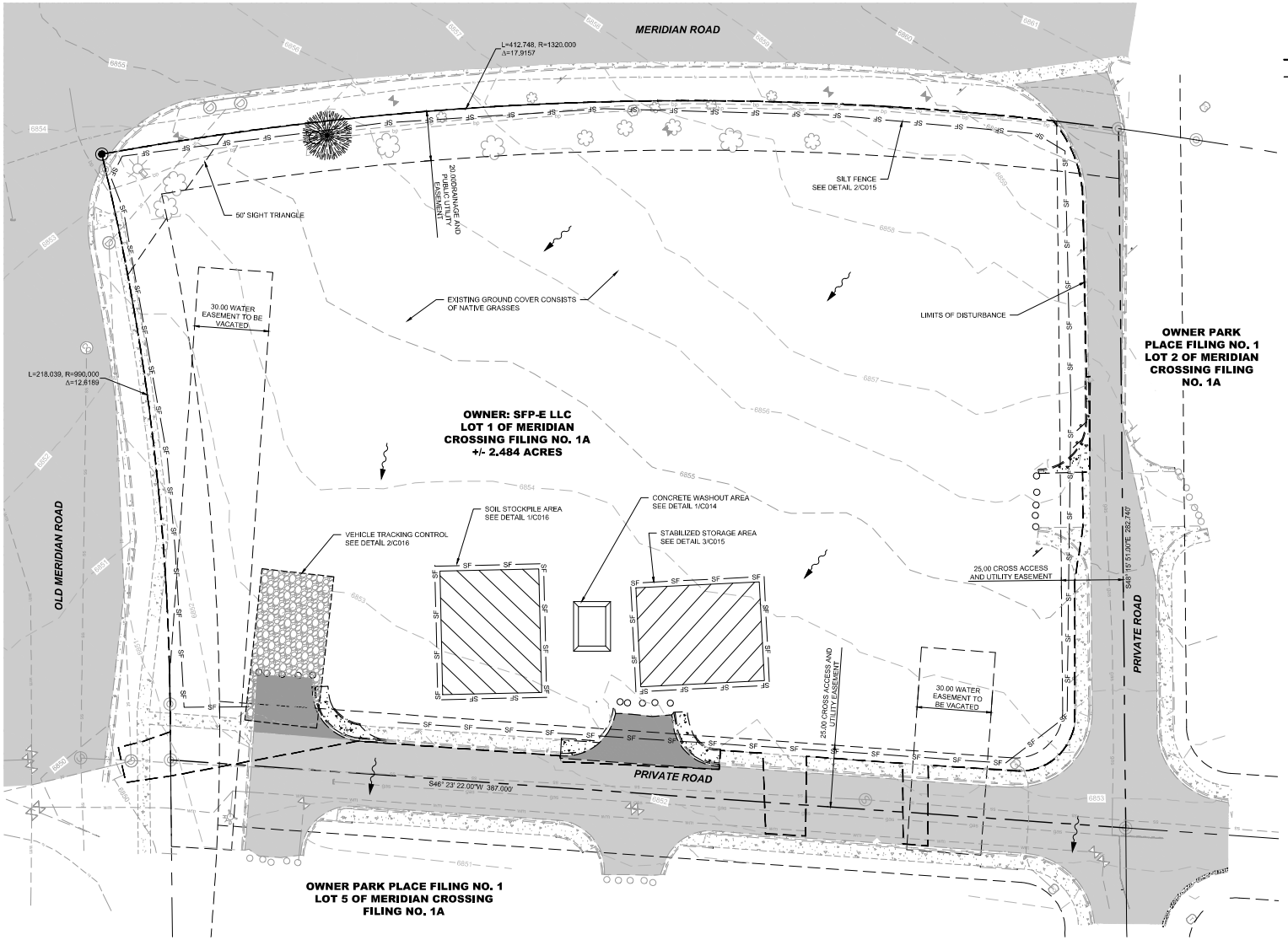
COLORADO LICENSED ZACHARY W. GRAHAM 38030 PROFESSIONAL ENGINEER

SITE DEVELOPEMENT PLANS

04.16.2021
DRAWN BY | WALKER
CHECKED BY | GRAHAM
REVISIONS

GESC NOTES

C011



1 C012 INITIAL GESC PLAN

NORTH

0 10 20 40

SCALE: 1" = 20'

EROSION CONTROL PLAN LEGEND

- FLOW ARROW
- LIMITS OF DISTURBANCE
- SF — SF — SILT FENCE
- CONSTRUCTION ENTRANCE
- RS — ROCK SOCK
- IP — INLET PROTECTION
- SOIL STOCKPILE
- CONCRETE WASHOUT

GESC NOTES

1. THE PROJECT SITE FALLS OUTSIDE FEMA DESIGNATED FLOODPLAIN AND IS DESIGNATED ZONE X AREA OF MINIMAL FLOOD HAZARD

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[redacted]
[redacted]

Les Schwab Tires

7105 OLD MERIDIAN RD.
FALCON, CO

LES SCHWAB TIRE CENTER

SITE DEVELOPEMENT PLANS

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REVISIONS
-

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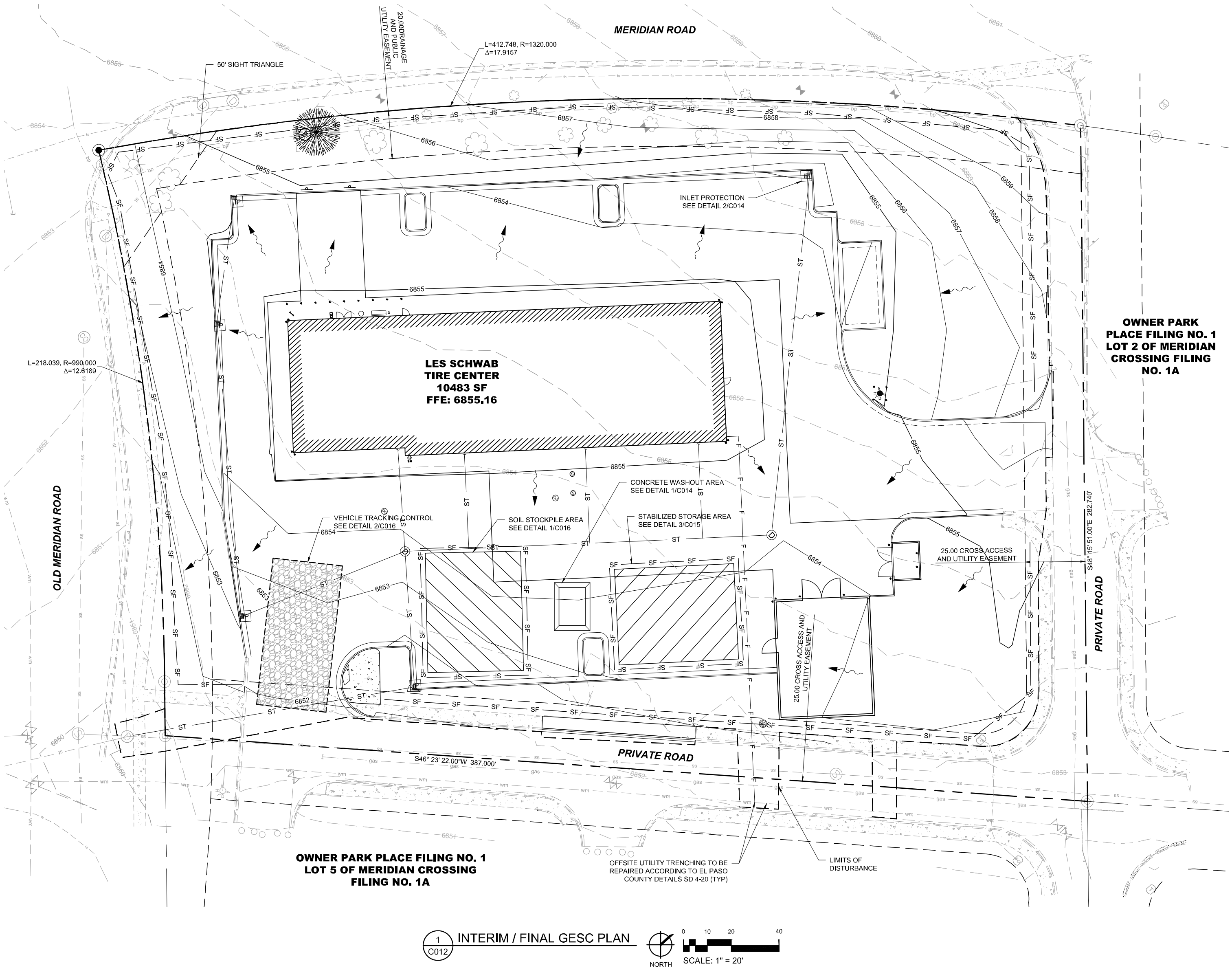
INITIAL GESC PLAN

C012



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COLORADO LICENSED ZACHARY W. GRAHAM 39030 PROFESSIONAL ENGINEER

SITE DEVELOPEMENT PLANS

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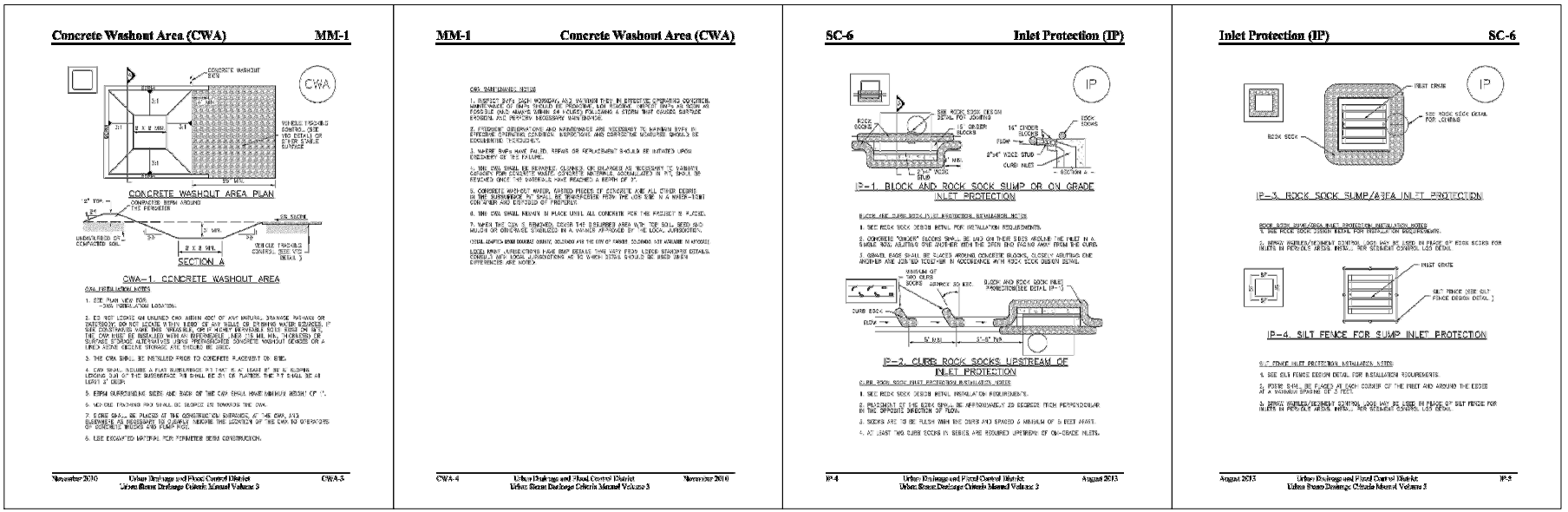
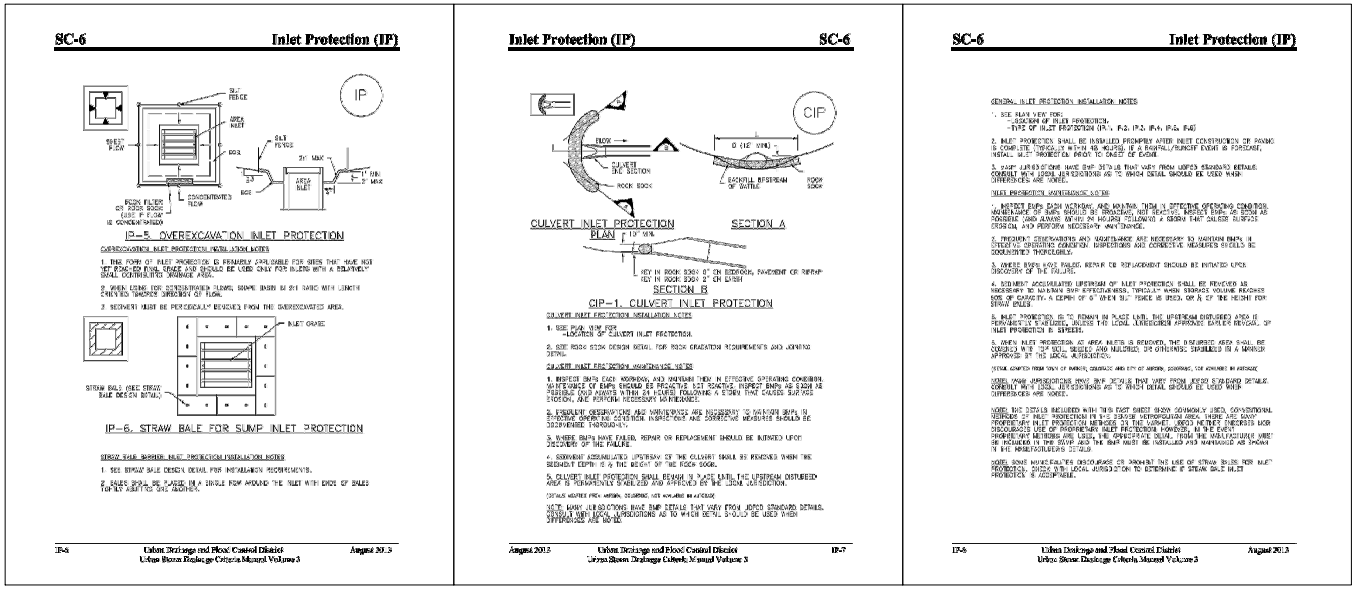
INTERIM / FINAL GESC PLAN

C013



1 C014 CONCRETE WASHOUT AREA

2 C014 INLET PROTECTION



2 C014 INLET PROTECTION (CONT.)

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Cushing Terrell

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LES SCHWAB TIRE CENTER

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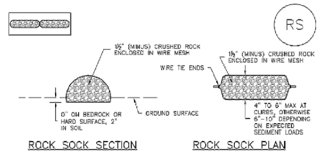
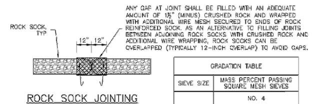
GESC DETAILS

C014

SC-5 Rock Sock (RS)





GRADATION TABLE	
SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	NO. 4
2"	100
1½"	90 – 100
1"	20 – 55
¾"	0 – 15
⅜"	0 – 5
MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.	

ROCK SOCK INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   -LOCATION(S) OF ROCK SOCKS.

2. CRUSHED ROCK SHALL BE 1½" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1½" MINUS).

3. WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF ½", RECOMMENDED MINIMUM ROLL WIDTH OF 48".

4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.

5. SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE.

RS–1. ROCK SOCK PERIMETER CONTROL

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

1. 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.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.

5. 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 ½ OF THE HEIGHT OF THE ROCK SOCK.

6. ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

7. 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)

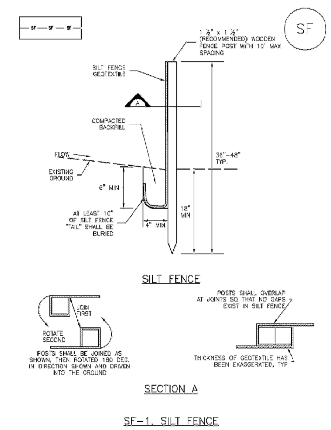
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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 NDORSES 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

1 C015 ROCK SOCK

Silt Fence (SF) SC-1



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

SC-1 Silt Fence (SF)

SILT FENCE INSTALLATION NOTES

1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2–5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.

2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.

3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.

4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.

5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.

6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J–HOOK." THE "J–HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' – 20').

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. 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.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

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 THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".

5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.

6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.

7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

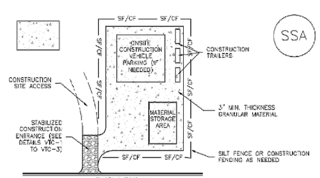
(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN AUTOCAD)

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.

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

2 C015 SILT FENCE

Stabilized Staging Area (SSA) SM-6



SSA–1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   -LOCATION OF STAGING AREA(S).
   -CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.

2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.

3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.

4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.

5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

1. 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.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

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

SM-6 Stabilized Staging Area (SSA)

STABILIZED STAGING AREA MAINTENANCE NOTES

5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.

6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE–ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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

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

3 C015 STABILIZED STAGING AREA

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

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

Species[a] (Common name)	Growth Season[b]	Pounds of Pure Live Seed (PLS)/acre[c]	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	½
5. Millet	Warm	3 - 15	½ - ¾
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. Triticale	Cool	25–40	1 - 2

[a] Successful seeding of annual grass resulting in adequate plant growth will usually produce enough dead-plant residue to provide protection from wind and water erosion for an additional 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 where 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.

[b] See Table TS/PS-2 for seeding dates. Irrigation, if consistently applied, may extend the use of cool season species during the summer months.

[c] Seeding rates should be doubled if seed is broadcast, or increased by 50 percent if done using a Brillion Drill or by hydraulic seeding.

TS/PS-4 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 January 2021

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

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

	Annual Grasses (Numbers in table reference species in Table TS/PS-1)		Perennial Grasses	
Seeding Dates	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 by crimping, netting or use of a non-toxic tackifier. See the USDCM 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. Reseed and mulch these areas, as needed.

If a temporary annual seed was planted, the area should be reseeded 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 without irrigation in Colorado. Reseed 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 TS/PS-5

4 C015 TEMPORARY AND PERMANANT SEEDING

NOT FOR CONSTRUCTION - PRELIMINARY DESIGN

Cushing Terrell.
cushingterrell.com
800.757.9522

LES SCHWAB TIRE CENTER
7105 OLD MERIDIAN RD.
FALCON, CO

SITE DEVELOPEMENT PLANS

04.16.2021
DRAWN BY | WALKER
CHECKED BY | GRAHAM
REVISIONS

GESC DETAILS
C015

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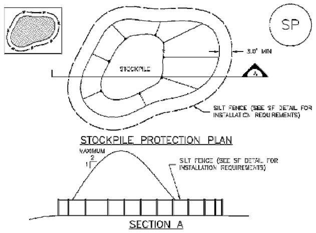
Stockpile Management (SP) — MM-2



SP-1. STOCKPILE PROTECTION

STOCKPILE PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION OF STOCKPILES.
   - TYPE OF STOCKPILE PROTECTION.

2. 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 LOGS 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 IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.

3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED 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).

4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

MM-2 — Stockpile Management (SM)

STOCKPILE PROTECTION MAINTENANCE NOTES

1. 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.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

STOCKPILE PROTECTION MAINTENANCE NOTES

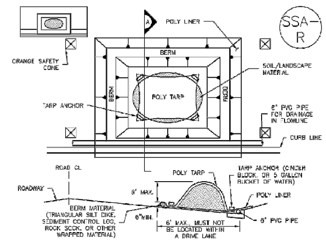
4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.

5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

(DETAILS ADAPTED FROM PARKER, 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.

Stockpile Management (SP) — MM-2



SP-2. MATERIALS STAGING IN ROADWAY

MATERIALS STAGING IN ROADWAYS INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   - LOCATION OF MATERIAL STAGING AREA(S).
   - CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.

2. FEATURE MUST BE INSTALLED PRIOR TO EXCAVATION, EARTHWORK OR DELIVERY OF MATERIALS.

3. MATERIALS MUST BE STATIONED ON THE POLY LINER. ANY INCIDENTAL MATERIALS DEPOSITED ON PAVED SECTION OR ALONG CURB LINE MUST BE CLEANED UP PROMPTLY.

4. POLY LINER AND TARP COVER SHOULD BE OF SIGNIFICANT THICKNESS TO PREVENT DAMAGE OR LOSS OF INTEGRITY.

5. SAND BAGS MAY BE SUBSTITUTED TO ANCHOR THE COVER TARP OR PROVIDE BERMING UNDER THE BASE LINER.

6. FEATURE IS NOT INTENDED FOR USE WITH WET MATERIAL THAT WILL BE DRAINING AND/OR SPREADING OUT ON THE POLY LINER OR FOR DEMOLITION MATERIALS.

7. THIS FEATURE CAN BE USED FOR:
   - UTILITY REPAIRS.
   - WHEN OTHER STAGING LOCATIONS AND OPTIONS ARE LIMITED.
   - OTHER LIMITED APPLICATION AND SHORT DURATION STAGING.

MM-2 — Stockpile Management (SM)

MATERIALS STAGING IN ROADWAY MAINTENANCE NOTES

1. 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.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. INSPECT PVC PIPE ALONG CURB LINE FOR CLOGGING AND DEBRIS. REMOVE OBSTRUCTIONS PROMPTLY.

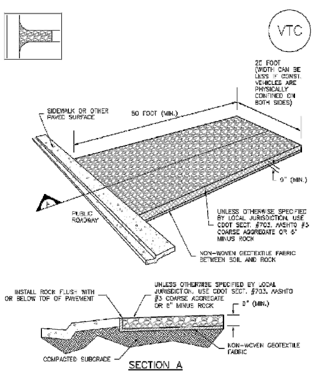
5. CLEAN MATERIAL FROM PAVED SURFACES BY SWEEPING OR VACUUMING.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM AURORA, COLORADO)

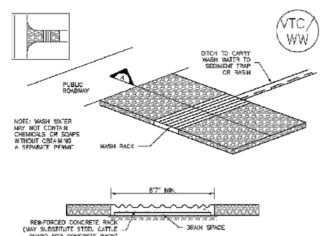
1 / C016 STOCKPILE AREA

Vehicle Tracking Control (VTC) — SM-4



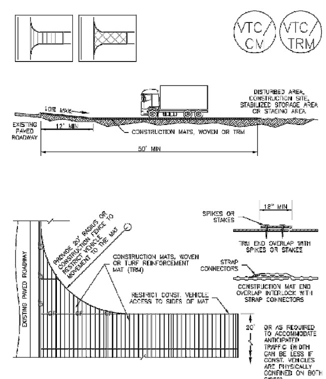
VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

SM-4 — Vehicle Tracking Control (VTC)



VTC-2. AGGREGATE VEHICLE TRACKING CONTROL WITH WASH RACK

Vehicle Tracking Control (VTC) — SM-4



VTC-3. VEHICLE TRACKING CONTROL W/ CONSTRUCTION MAT OR TURF REINFORCEMENT MAT (TRM)

SM-4 — Vehicle Tracking Control (VTC)

STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   - LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S).
   - TYPE OF CONSTRUCTION ENTRANCE(S)/EXITS(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM).

2. CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH) WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.

3. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS.

4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

5. A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.

6. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES

1. 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.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.

5. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM CITY OF BROOMFIELD, COLORADO, NOT AVAILABLE IN AUTOCAD)

2 / C016 VEHICLE TRACKING CONTROL

Cushing Terrell
cushingterrell.com
800.757.9522

LES SCHWAB TIRE CENTER
7105 OLD MERIDIAN RD.
FALCON, CO

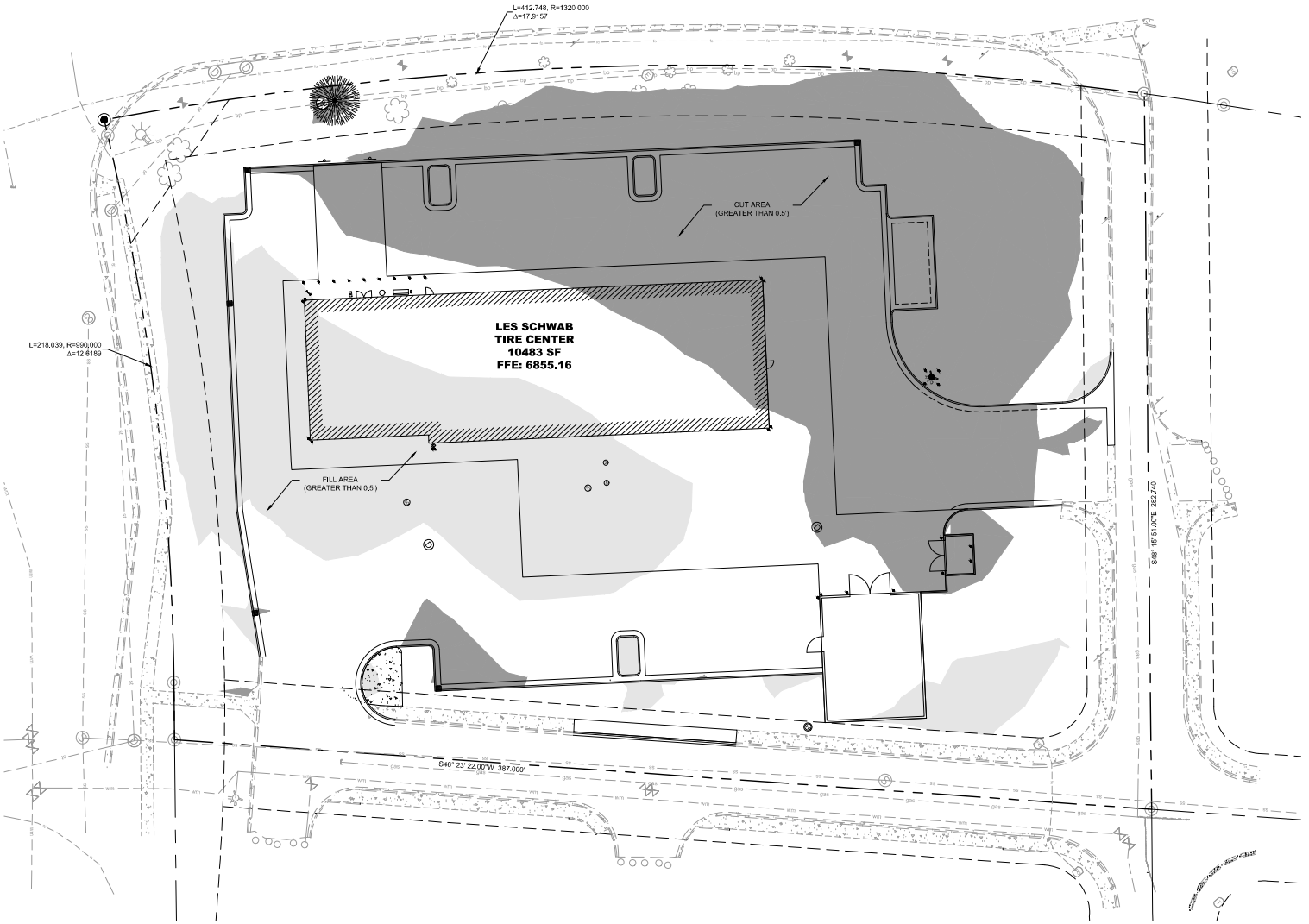
SITE DEVELOPEMENT PLANS

04.16.2021
DRAWN BY | WALKER
CHECKED BY | GRAHAM
REVISIONS

NOT FOR CONSTRUCTION - PRELIMINARY DESIGN

GESC DETAILS

C016



1 C017 CUT FILL GESC EXHIBIT

NORTH

0 10 20 40

SCALE: 1" = 20'

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Cushing Terrell

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Tires LES SCHWAB

NOT FOR CONSTRUCTION - PRELIMINARY DESIGN

7105 OLD MERIDIAN RD.
FALCON, CO

LES SCHWAB TIRE CENTER

COLORADO LICENSED ZACHARIAH W. WALLKER 38259 PROFESSIONAL ENGINEER

SITE DEVELOPEMENT PLANS

04.16.2021
DRAWN BY | WALLKER
CHECKED BY | GRAHAM
REVISIONS
-

CUT / FILL GESC EXHIBIT

C017

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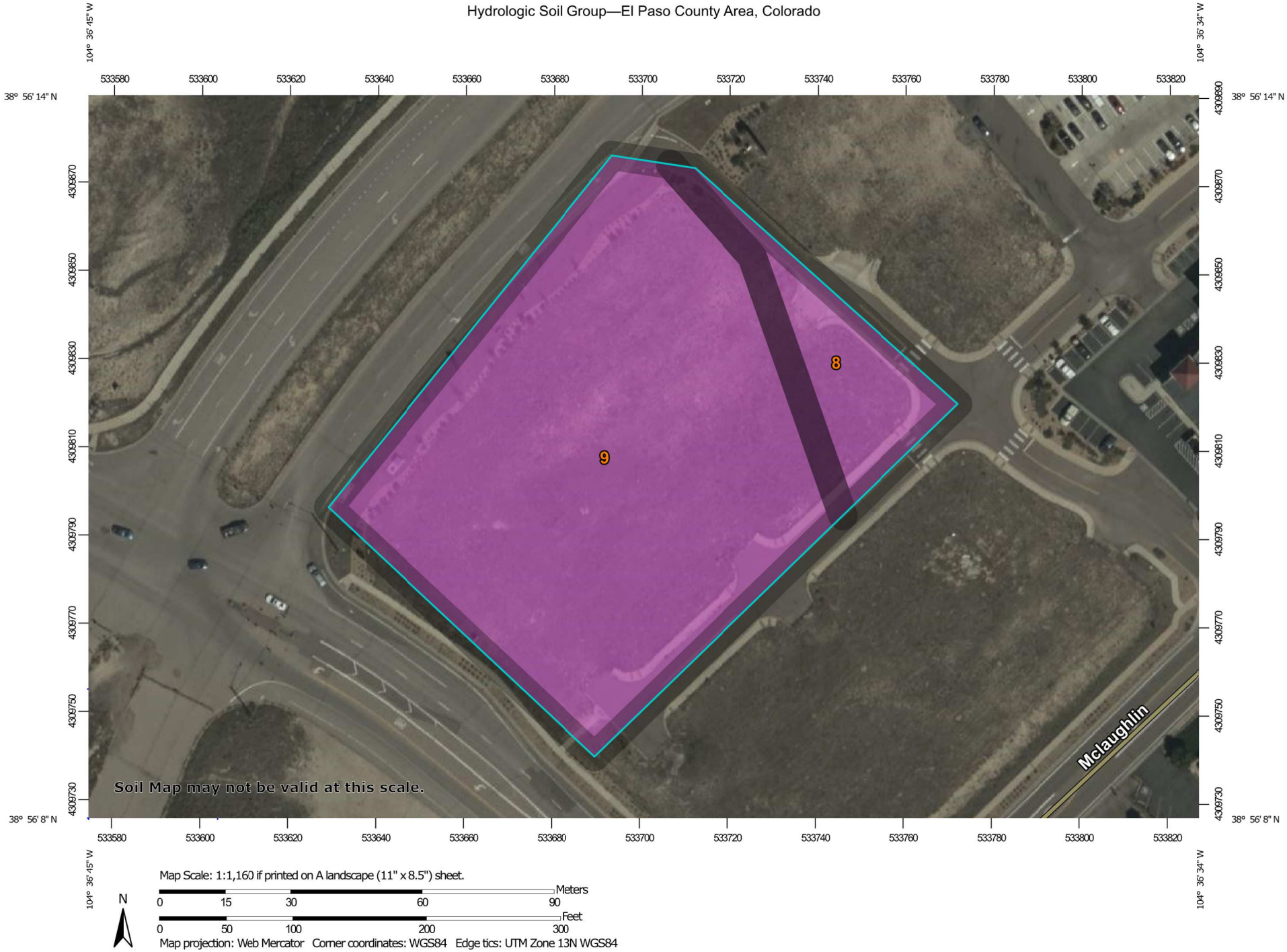
APPENDIX C: WEB SOIL SURVEY



Map Scale: 1:1,160 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 15 30 60 90

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: El Paso County Area, Colorado
Survey Area Data: Version 18, Jun 5, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 11, 2018—Oct 20, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
8	Blakeland loamy sand, 1 to 9 percent slopes	A	0.3	13.1%
9	Blakeland-Fluvaquentic Haplaquolls	A	2.2	86.9%
Totals for Area of Interest			**2.5**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher