MVEA VOLLMER TIES

EL PASO COUNTY, CO

GRADING, EROSION, & SEDIMENT CONTROL PLAN

JULY 2022

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.

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 affect the design or function of permanent stormwater management structures must be approved by the ECM Administrator prior to

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 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.

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 onsite 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 onsite 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.

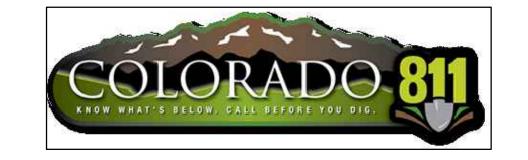
27. A water source shall be available on site during earthwork operations and shall be utilized as required to minimize dust from earthwork equipment and wind.

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

MEADOWS BLVD.





GENERAL NOTES

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ALONG THE SITE. THE OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NON-EXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.

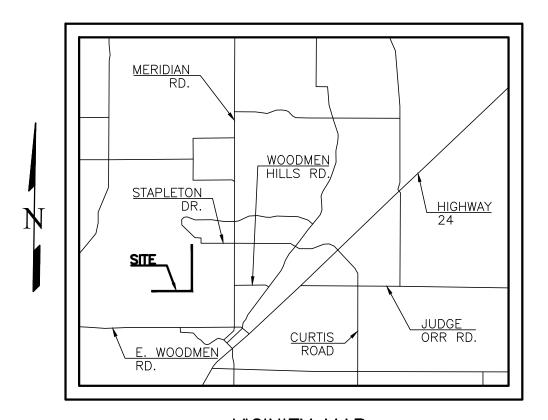
2. THE CONTRACTOR WILL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES, BUILDINGS, FENCES, AND ROADWAYS FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE ABOVE WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.

3. AS DETERMINED BY THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL #'S 08041C0551G, 08041C0535G, & 08041C0553G, EFFECTIVE DATES DECEMBER 7, 2018, NO PORTION OF THIS SITE IS LOCATED WITHIN A DESIGNATED 100-YEAR

4. NO BATCH PLANTS ARE PROPOSED FOR THIS PROJECT.

<u>EROSION CONTROL COST OPINION</u>

1.	140 LF-SEDIMENT CONTROL LOGS \$2.75/LF	\$ 385	
2.	6.65 AC-SEEDING & MULCH @ \$785/AC	\$ 5,220	
3.	1 EAFUEL SPILL KIT @ \$200.00/EA	\$ 200	
4.	3 EAVEHICLE TRACKING CONTROL @ \$1325.00/EA	\$ 3,975	
5.	40% MAINTENANCE AND REPLACEMENT	\$ 3,912	
	TOTAL	\$ 13,692	



VICINITY MAP

DESCRIPTION OF ACTIVITIES:

THE DEVELOPER PROPOSES TO INSTALL UNDERGROUND ELECTRIC UTILITIES AS WELI AS ASSOCIATED ELECTRIC VAULTS FROM AN AREA BEGINNING CLOSE TO WHERE STAPLETON DRIVE DEAD ENDS NEAR ITS INTERSECTION WITH TOWNER AVENUE AND CONTINUING SOUTH WITHIN AN UPLATTED TRACT OF LAND FOR ABOUT ONE MILE. APPROXIMATELY 800' OF THIS WILL BE INSTALLED BY DIRECTIONAL BORE AND THE REST WILL INSTALLED BY OPEN CUT. THE INSTALLATION WILL THEN CONTINUE WEST FOR APPROXIMATELY ONE MILE THROUGH THREE UNPLATTED LOTS AND WILL ALL BE INSTALLED BY OPEN CUT, ENDING AT RAYGOR ROAD. THE SITE CONSISTS OF APPROXIMATELY 6.65 ACRES OF UNDEVELOPED PRAIRIE LOCATED IN EL PASO

THE SITE CURRENTLY CONSISTS OF NATIVE GRASSES WITH AN ESTIMATED COVERAGE AREA OF APPROXIMATELY 70% BASED ON A SITE VISIT.

EROSION CONTROL MEASURES SHALL BE IMPLEMENTED IN A MANNER THAT WILL PROTECT PROPERTIES AND PUBLIC FACILITIES FROM THE ADVERSE EFFECTS OF EROSION AND SEDIMENTATION AS A RESULT OF CONSTRUCTION AND EARTHWORK NEAR THE BEGINNING OF THE SITE, AT THE END OF WOODMEN HILLS DRIVE NEAR THE NEAR THE END OF THE NORTH/SOUTH INSTALLATION, AND AT RAYGOR ROAD WHERE THE INSTALLATION ENDS. THESE WILL BE THE THREE LOCATIONS USED FOR ACCESS TO THE SITE. THE STAGING AREA FOR THIS PROJECT WILL BE LOCATED OFFSITE. IT IS ANTICIPATED THAT CONSTRUCTION ACTIVITIES WILL OCCUR BETWEEN SUMMER OF 2022 AND FALL OF 2022, AT WHICH POINT IT WILL BE CONSIDERED

CONSTRUCTION PHASING IS ANTICIPATED TO OCCUR AS FOLLOWS:

PRIOR TO START OF CONSTRUCTION, INITIAL EROSION CONTROL MEASURES TO BE INSTALLED INCLUDE SEDIMENT CONTROL LOG (SCL) ALONG THE DOWNHILL SIDE OF DISTURBED AREA. ALSO INCLUDED IN THIS PHASE WILL BE INSTALLATION OF SEDIMENT CONTROL LOG (SCL) AROUND THE BASE OF ANY DIRT STOCKPILE AREAS. UNTIL THE STOCKPILE HAS BEEN REMOVED, THE SEDIMENT CONTROL LOG SHALL REMAIN IN PLACE AND BE MAINTAINED IN SUCH A WAY AS TO REDUCE TRANSFERENCE OF SEDIMENTATION OVER THE SITE.

ALL PREVIOUSLY INSTALLED BMP'S SHALL REMAIN IN PLACE UNTIL A LATER PHASE.

ANY AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL BE SEEDED IN ORDER TO ESTABLISH A VEGETATIVE COVER UNTIL THE FINAL LANDSCAPING IS INSTALLED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMP'S SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND VEGETATION HAS BEEN ESTABLISHED TO 70% ON AREAS NOT COVERED BY GRAVEL. ONCE VEGETATIVE COVER HAS BEEN ESTABLISHED AT 70% OF THE DISTURBED AREAS, SEDIMENT CONTROL LOG WILL BE REMOVED FROM ANY DIRT STOCKPILE AREAS. THE DIRT STOCKPILES (SP) WILL BE REMOVED AND RE-VEGETATED AS PART OF THIS PHASE.

FINAL CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED AT THIS POINT. THE PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

THE SOILS ON THIS SITE ARE NOTED AS ABOUT 65% COLUMBINE GRAVELLY SANDY LOAM (19), 3% TO 8% SLOPES, ABOUT 25% BLAKELAND LOAMY SAND (8), 1% TO 9% SLOPES, AND ABOUT 10% PRING COARSE SANDY LOAM (29), 3% TO 8% SLOPES. HE BLAKELAND SOIL IS IN HYDROLOGIC SOIL GROUP A, THE PRING COARSE SOIL IS IN HYDROLOGIC SOIL GROUP B, AND THE COLUMBINE SOIL IS IN HYDROLOGIC SOIL GROUP A. THEREFORE, THERE ARE LOW TO MODERATE RUNOFF POTENTIALS. THERE ARE NO WETLANDS ON THIS SITE.

THE SITE CONSISTS OF UNDEVELOPED LAND THAT HAS NATURAL VEGETATIVE COVER OF ABOUT 70% CONSISTING OF NATIVE GRASSES BASED ON A SITE VISIT.

THIS SITE IS WITHIN BOTH THE FALCON AND SAND CREEK DRAINAGE BASINS.

THERE ARE NO POTENTIAL POLLUTANTS EXISTING OR PROPOSED FOR STORAGE ON

DRAINAGE TYPICALLY FLOWS FROM THE NORTH TOWARDS THE SOUTH ON THIS SITE. THE PROPERTY OWNER OR OWNERS REPRESENTATIVE IS RESPONSIBLE FOR INSPECTING AND MAINTAINING THE SITE ON A REGULAR BASIS. INITIAL CRITERIA FOR

ONCE EVERY 14 DAYS OR AFTER ANY PRECIPITATION OR SNOWMELT EVENT THAT SIGNIFICANT ENOUGH TO CAUSE SURFACE EROSION. A WRITTEN RECORD OF INSPECTIONS SHALL BE KEPT BY THE OWNER OR OWNERS REPRESENTATIVE AND MADE AVAILABLE TO THE COUNTY UPON REQUEST. THIS WILL CONTINUE UNTIL THE SITE IS STABILIZED AND THE STOCKPILE IS NO LONGER

THE OCCURRENCE OF INSPECTIONS IS AS FOLLOWS:

SHEET INDEX

COVER SHEET SITE PLAN EROSION AND SEDIMENT CONTROL PLAN 3 OF 7 EROSION AND SEDIMENT CONTROL PLAN 4 OF 7 EROSION AND SEDIMENT CONTROL PLAN 5 OF 7 EROSION CONTROL DETAILS 6 OF 7 **EROSION CONTROL DETAILS** 7 OF 7

SITE DATA

OWNER/PETITIONER: MOUNTAIN VIEW ELECTRIC ASSOCIATION 11140 E. WOODMAN RD PEYTON, CO 80931 MR. DAVID WALDNER, (719) 495-2283

PREPARER: TERRA NOVA ENGINEERING, INC. 721 S 23RD STREET COLORADO SPRINGS, CO 80904 (719) 635-6422 OFFICE (719) 499-2255 MOBILE

TOTAL AREA TO BE CLEARED, EXCAVATED, GRADED OR DISTURBED IS 6.65± ACRES.

VOLUME

EARTHWORK VOLUMES: N/A

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 CCEPT RESPONSIBILITY FOR ANY LIABILITY GRADING AND EROSION CONTROL CAUSED BY ANY NEGLIGENT OMISSIONS ON MY PART IN PREPARING THIS REPORT.

FOR AND ON BEHALF OF

OWNER'S STATEMENT

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

OWNER NAME: Amy Carlsen DATE: _07/25/2022

EL PASO COUNTY APPROVAL

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

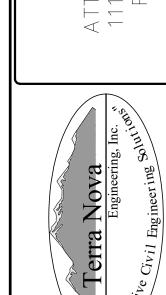
FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

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

COUNTY ENGINEER / ECM ADMINISTRATOR

APPROVED **Engineering Department** 08/10/2022 7:23:09 AM **EPC Planning & Community**

PCD FILE NO. CDR-22-010



S. K

VOLLMER

SIGNED BY JF RAWN BY HECKED BY LD

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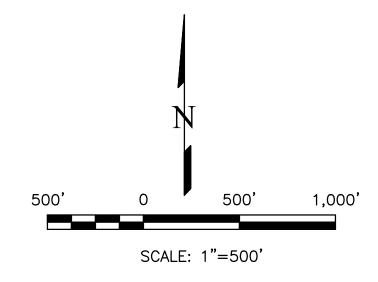
Water Quality Control Division WQCD -Permits 4300 Cherry Creek Drive South Denver, CO 80246-1530 Attn: Permits Unit

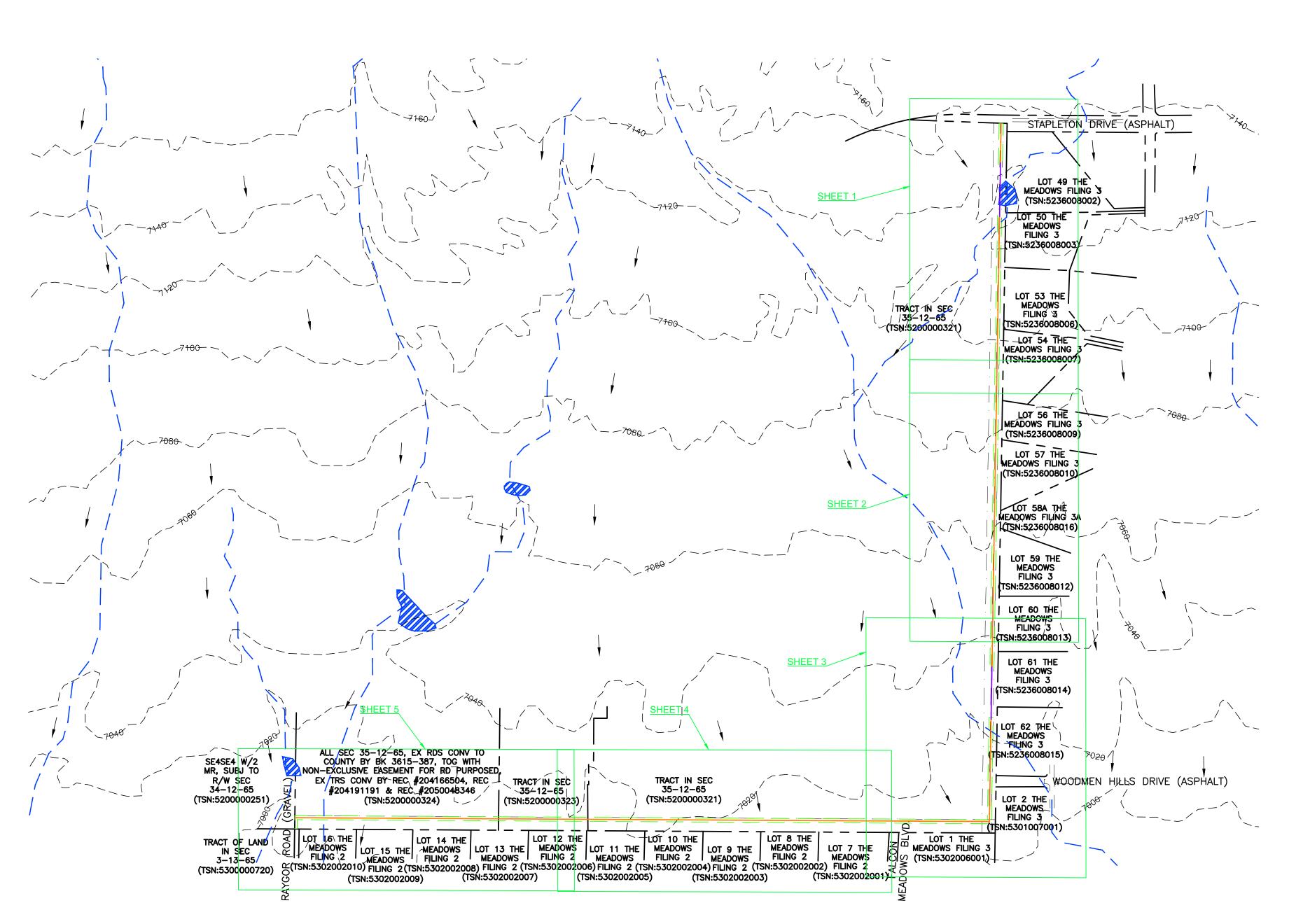
MVEA VOLLMER TIES EL PASO COUNTY, CO GRADING, EROSION, & SEDIMENT CONTROL PLAN JULY 2022

GRADING PLAN NOTES

- 1 PROJECT LOCATION IS IN EL PASO COUNTY COLORADO APPROXIMATE SITE LOCATION IS AT LATITUDE 38 9688° LONGITUDE -104 6261°
- Z. ALL MEASUREMENTS ARE IN FEET, UNLESS SPECIFIED OTHERWISE. 2. EINAL STADILIZATION DECLUDEMENTS SHALL BE BASED ON THE DECLUDEMENTS OF THE STORM WATER DOLLLITION DREVENTION D
- 4. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, UTILITIES AND CULVERTS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL INFORM THE ENGINEER
 OF ANY DISCREPANCIES BETWEEN THE EXISTING CONDITIONS AND THE PLANS.
- 5. CONTRACTOR TO PROTECT EXISTING UTILITIES AND MAINTAIN EXISTING DRAINAGE PATTERNS AT ALL TIMES.
- 6. CONTRACTOR TO VERIFY RIGHT OF WAY LIMITS PRIOR TO CONSTRUCTION.
- 7. EXISTING FEATURES (FENCE, MAILBOX, SIGN, ETC.) THAT ARE DISTURBED AS PART OF THE TEMPORARY IMPROVEMENT SHALL BE REINSTALLED OR REPLACED IN A
- CONDITION EQUAL TO OR BETTER THAN THE PRECONSTRUCTION CONDITION.

 2. CONTRACTOR SHALL CALL 811 ONE CALL ENTITIES DRIOR TO CONSTRUCTION, ALL HAZARDS SHALL BE ASSESSED BRIOR TO CONSTRUCTION.
- 8. CONTRACTOR SHALL CALL 811, ONE CALL ENTITIES PRIOR TO CONSTRUCTION. ALL HAZARDS SHALL BE ASSESSED PRIOR TO CONSTRUCTION.
 9. EXCAVATED SOIL SHALL BE PLACED ON THE LIPSTREAM SIDE OF THE TRENCH.
- 10. WORK ALONG THE N/S LINE WILL BE DONE WITHIN A 20' MVEA EASEMENT AND AN ADDITIONAL 10' PORTION OF A TRI-STATE EASEMENT. WORK ALONG THE E/W LINE WILL BE DONE WITHIN THE NORTHERN PORTION OF A 100' MVEA FASEMENT
- 11. SOIL WILL BE PLACED RESIDE THE TRENCH WHEN IT IS DUIG LIP AND PLACED BACK IN THE TRENCH ONCE WORK IN THAT AREA IS COMPLETED.
- 12 STAGING AREA WILL BE LOCATED OFFSITE





<u>LEGEND</u>

-- $\frac{7260}{}$ EXISTING 20' CONTOUR

PROPOSED U/G ELECTRIC BY OPEN CUT EXCAVATION

EXISTING FLOW DIRECTION

PROPOSED U/G ELEC BY DIRECTIONAL BORE (APPROXIMATE LOCATIONS)

LIMITS OF DISTURBANCE/CONSTRUCTION

— — — EXISTING PROPERTY LINE/ROW

— — — EXISTING EDGE OF ASPHALT

EXISTING EASEMENT

EPC 8/10/22

THIS DESIGN WAS PREPARED UNDER NOTE SUPERVISION FOR AND ON BEHALF OF TERRA NOTE SUPERVISION 32339

L DUCETT, P.E.

COLORADO P.E. NO. 32339

ESIGNED BY JF
RAWN BY JF
HECKED BY LD

V-SCALE NA

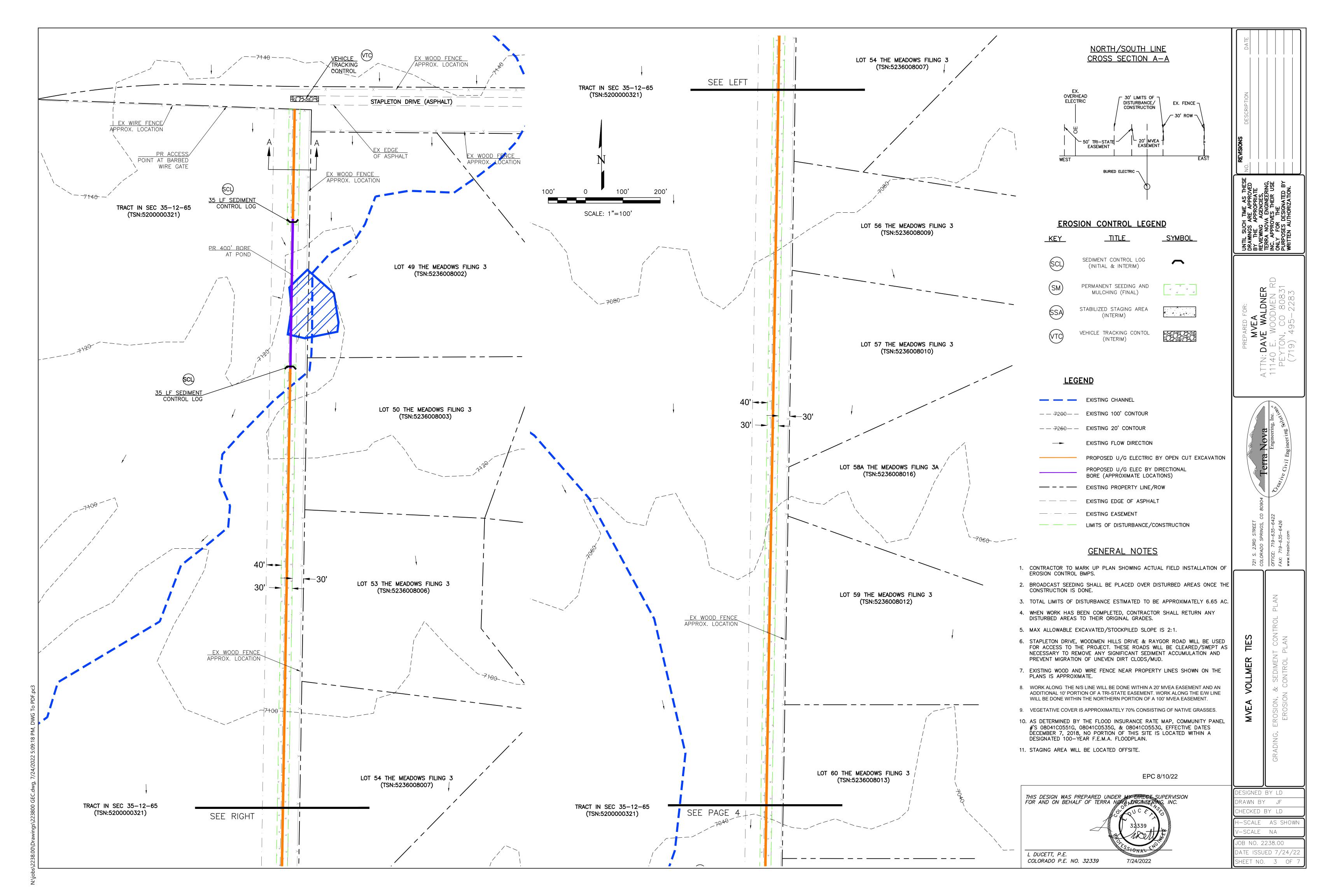
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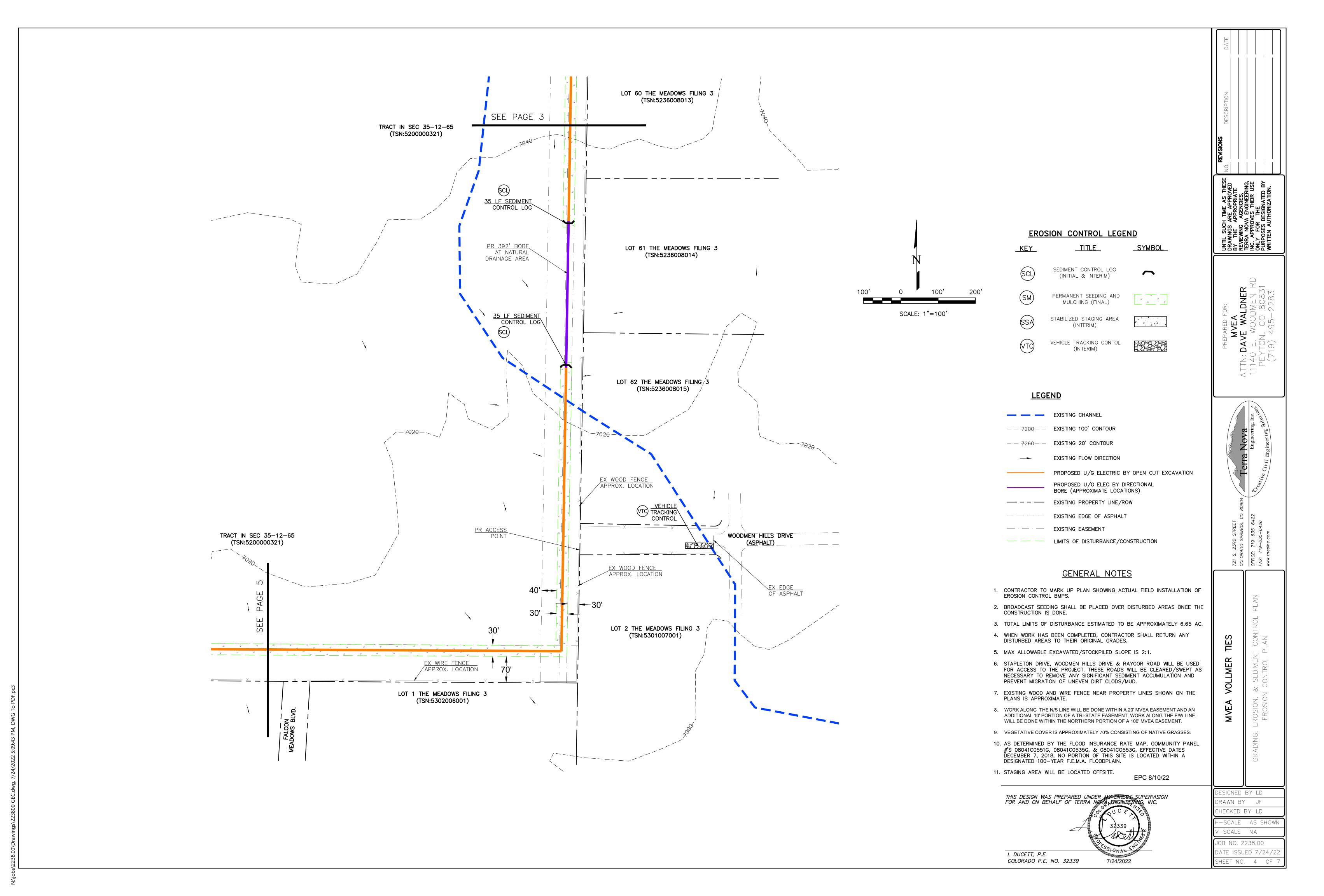
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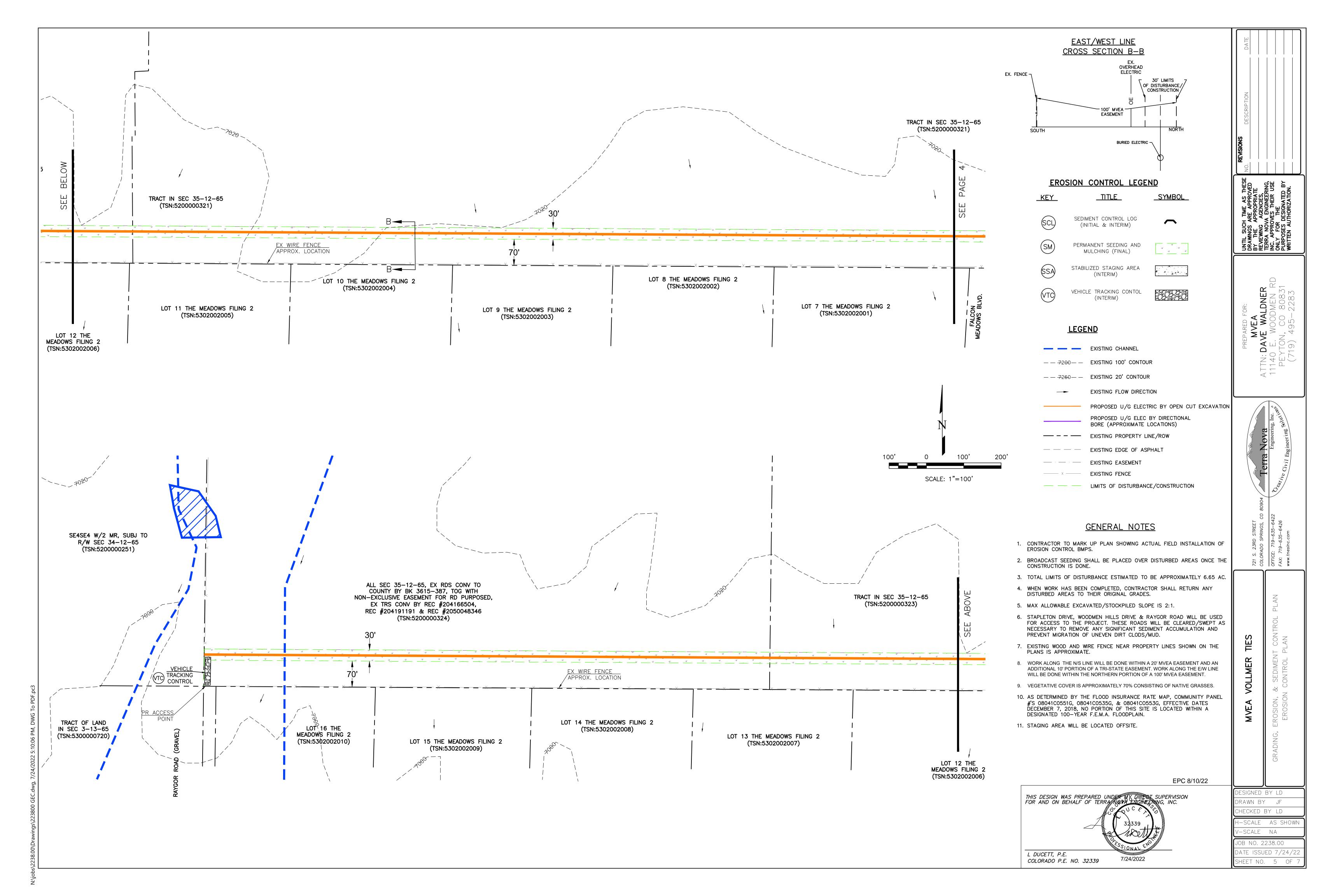
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Stabilized Staging Area (SSA)

STABILIZED STAGING AREA MAINTENANCE NOTES

SM-6

SSA-4

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)

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. November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SC-2 **Sediment Control Log (SCL)** - scl-scl - scl-1½" x 1½" x 18" (MIN) WOODEN STAKE " DIAMETER (MIN) SEDIMENT CONTROL LOG NOTE: LARGER DIAMETER SEDIMENT CONTROL LOGS MAY NEED TO BE EMBEDDED DEEPER. SEDIMENT CONTROL LOG CENTER STAKE IN CONTROL LOG 9" DIAMETER (MIN) COMPACTED EXCAVATED TRENCH SOIL SEDIMENT CONTROL LOG - 1/3 DIAM. SCL (TYP.) SECTION A 1½" x 1½" x 18" (MIN) WOODEN STAKE 9" DIAMETER (MIN) SEDIMENT CONTROL LOG JOINTS SCL-1. SEDIMENT CONTROL LOG

1. SEE PLAN VIEW FOR:

Stockpile Management (SP) MM-2**Stockpile Management (SM)** MM-2STOCKPILE PROTECTION MAINTENANCE NOTES EROSION, AND PERFORM NECESSARY MAINTENANCE. STOCKPILE DOCUMENTED THOROUGHLY. SILT FENCE (SEE SF DETAIL FOR DISCOVERY OF THE FAILURE. INSTALLATION REQUIREMENTS) STOCKPILE PROTECTION MAINTENANCE NOTES STOCKPILE PROTECTION PLAN PERIMETER CONTROLS BY THE END OF THE WORKDAY. SILT FENCE (SEE SF DETAIL FOR STOCKPILE HAS BEEN USED. INSTALLATION REQUIREMENTS) (DETAILS ADAPTED FROM PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD) SECTION A SP-1. STOCKPILE PROTECTION STOCKPILE PROTECTION INSTALLATION NOTES -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).

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 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON 4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE 5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE 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. SP-4 Urban Drainage and Flood Control District November 2010 Urban Storm Drainage Criteria Manual Volume 3

Sediment Control Log (SCL)

SEDIMENT CONTROL LOG INSTALLATION NOTES

1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.

2. SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADIENT LAND-DISTURBING ACTIVITIES.

SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.

4. SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS OR HIGH VELOCITY DRAINAGE

5. IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY & OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST

6. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAWN ROLLER.

7. FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING. IF MANUFACTURERS' INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND. 3" OF THE STAKE SHALL PROTRUDE FROM THE TOP OF

THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED. SEDIMENT CONTROL LOG 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

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, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.

5. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION. IF DISTURBED AREAS EXIST AFTER REMOVAL, THEY SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL (DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, JEFFERSON COUNTY, COLORADO, DOUGLAS COUNTY, 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.

November 2010

SCL-3

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SCL-5

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THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERMS WOVA BY GIVERING, INC. L DUCETT, P.E. COLORADO P.E. NO. 32339 7/24/2022

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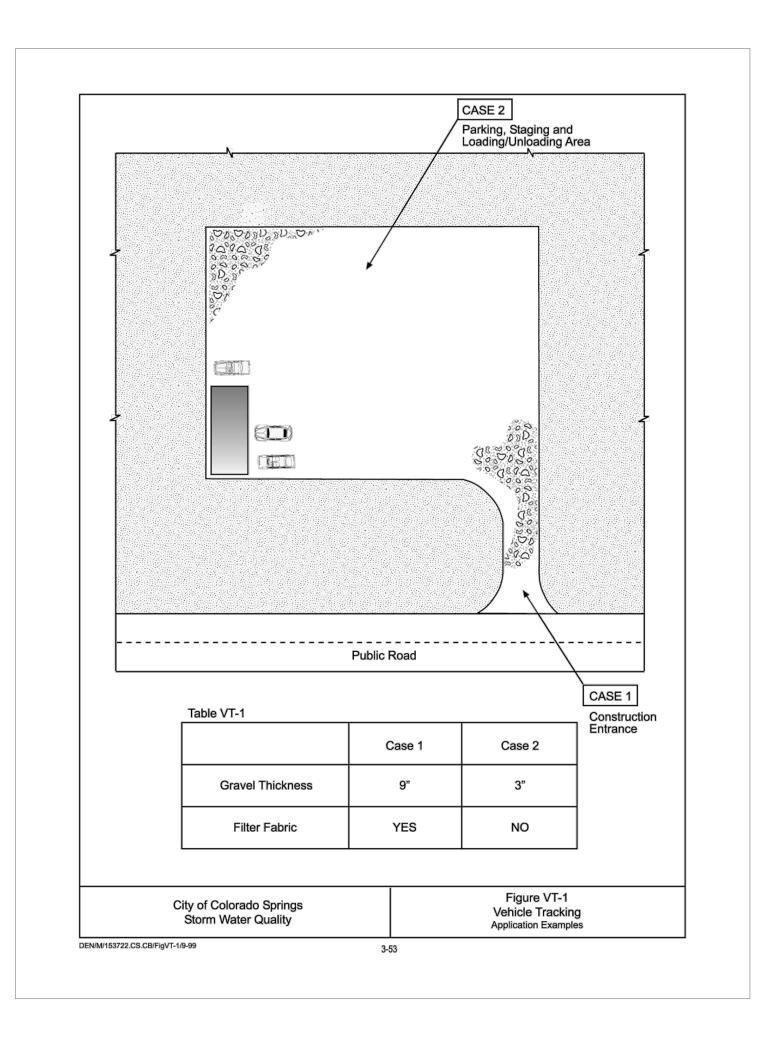
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November 2010

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Urban Storm Drainage Criteria Manual Volume 3

November 2010



Revegetation Chapter 14

or irrigation to wet and settle the seed bed. Firming of the seedbed following seeding will improve results during dry or warm seeding times.

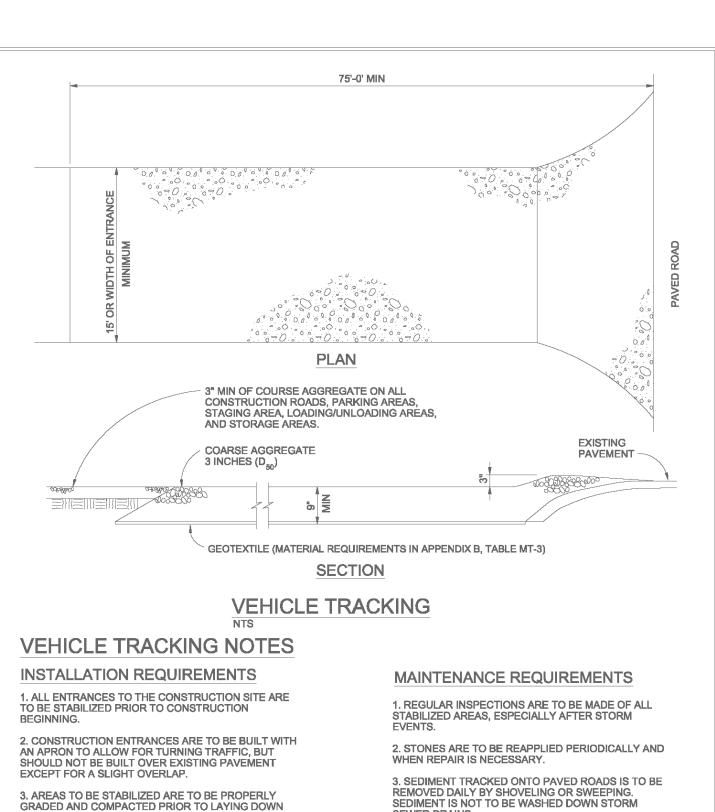
Table 14-9. Recommended Seed Mix for High Water Table Conditions¹

Common Name (Variety)	Scientific Name	Growth Season	Growth Form	Seeds/Lb	Lbs PLS/ Acre Drilled	Lbs PLS/Acre Broadcast or Hydroseeded
Redtop ²	Agrostis alba	Warm	Sod	5,000,000	0.1	0.2
Switchgrass (Pathfinder)	Panicum virgatum	Warm	Sod/ Bunch	389,000	2.2	4.4
Western wheatgrass (Arriba)	Pascopyrum smithii	Cool	Sod	110,000	7.9	15.8
Indian saltgrass	Distichlis spicata	Warm	Sod	520,000	1.0	2.0
Wooly sedge	Carex lanuginose	Cool	Sod	400,000	0.1	0.2
Baltic rush	Juncus balticus	Cool	Sod	109,300,000	0.1	0.2
Prairie cordgrass	Spartina pectinata	Cool	Sod	110,000	1.0	2.0
Annual rye	Lolium multiflorum	Cool	Cover crop	227,000	10.0	20.0
	33.85%			TOTAL	22.4	44.8
Wildflowers						
Nuttall's sunflower	Helianthus nuttallii			250,000	0.10	0.20
Wild bergamot	Monarda fistulosa	3 200	2 	1,450,000	0.12	0.24
Yarrow	Achillea millefolium	.=	S 	2,770,000	0.06	0.12
Blue vervain	Verbena hastata	1 7-347 5	1 - 		0.12	0.24
or portions of facilities		3		TOTAL	0.40	0.80

For portions of facilities located near or on the bottom or where wet soil conditions occur. Planting of potted nursery stock wetland plants 2-foot on-center is recommended for sites with wetland hydrology.

May 2014

City of Colorado Springs Drainage Criteria Manual, Volume 1 14-21



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

Application Examples

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, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADES THAT ARE

City of Colorado Springs

Stormwater Quality

EXCESSIVELY STEEP.

Revegetation	Chapter 1

Table 14-10. Recommended Seed Mix for Transition Areas¹

Common Name (Variety)	Scientific Name	Growth Season	Growth Form	Seeds/Lb	Lbs PLS/Acre Drilled	Lbs PLS/Acre Broadcast or Hydroseeded
Sheep fescue (Durar)	Festuca ovina	Cool	Bunch	680,000	1.3	2.6
Western wheatgrass (Arriba)	Pascopyrum smithii	Cool	Sod	110,000	7.9	15.8
Alkali sacaton	Spolobolus airoides	Warm	Bunch	1,758,000	0.5	1.0
Slender wheatgrass	Elymus trachycaulus	Cool	Bunch	159,000	5.5	11.0
Canadian bluegrass (Ruebens) ¹	Poa compressa	Cool	Sod	2,500,000	0.3	0.6
Switchgrass (Pathfinder)	Panicum virgatum	Warm	Sod/ Bunch	389,000	1.3	2.6
Annual rye	Lolium multiflorum	Cool	Cover crop	227,000	10.0	20.0
	00			TOTAL	26.8	53.6
Wildflowers						
Blanket flower	Faillardia aristata	7/ <u>04/4-3</u> %	<u> </u>	132,000	0.25	0.50
Prairie coneflower	Ratibida columnaris	(PAR)	<u> </u>	1,230,000	0.20	0.40
Purple prairie clover	Petalostemum purpurea	(1 1111-1 1)	*****	210,000	0.20	0.40
Gayfeather	Liatris punctata	12 11201 21	 :	138,000	0.06	0.12
Flax	Linum lewisii	88-1-2-3		293,000	0.20	0.40
Penstemon	Penstemon strictus	(IMMEL)	t u na	592,000	0.20	0.40
Yarrow	Achillea millefolium	8 1545 3	(2006/ 3)	2,770,000	0.03	0.06
				TOTAL	1.14	2.28

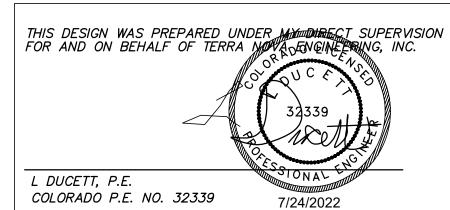
For side slopes or between wet and dry areas. ²Substitute 1.7 lbs PLS/acre of inland saltgrass (*Distichlis spicata*) in salty soils.

14-22 City of Colorado Springs Drainage Criteria Manual, Volume 1 May 2014

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