

K:\COS\_LA\196114000 - Peerless Farms\CADD\PlanSheets\CD\_CV.dwg - Petik, Grant 9/12/2024 2:22 PM  
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NO. DATE APPR

# PEERLESS FARMS GRADING AND EROSION CONTROL PLANS

## 16975 FALCON HWY PEYTON, CO 80831

### SITUATED IN A PORTION OF THE NORTHWEST QUARTER OF SECTION 13, TOWNSHIP 13 SOUTH, RANGE 64

### WEST OF THE 6TH P.M., COUNTY OF EL PASO, STATE OF COLORADO

### PCD FILING NO.: SP-21-7

#### STANDARD NOTES FOR EL PASO COUNTY GRADING AND EROSION CONTROL PLANS

- 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 WATERS, INCLUDING WETLANDS.
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED IN WRITING.
- A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) 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 IN THE FIELD.
- ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRE-CONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
- TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
- FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLAN DENSITY OF 70% OF PRE-DISTURBED LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
- ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT AFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENEED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.
- CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK, OR STREAM.
- DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
- EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS, AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
- NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED 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.
- 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.
- NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
- PRIOR TO CONSTRUCTION THE PERMITEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- THE GEOTECHNICAL EVALUATION FOR THIS SITE HAS BEEN PREPARED BY ROCKY MOUNTAIN GROUP ENGINEERING (RMG) AND DATED APRIL 14, 2021 (REVISED JUNE 29, 2023), WHICH SHALL BE CONSIDERED A PART OF THESE PLANS.
- AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OF MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT  
WATER QUALITY CONTROL DIVISION  
WQCD - PERMITS  
4300 CHERRY CREEK DRIVE SOUTH  
DENVER, CO 80246-1530  
ATTN: PERMITS UNIT  
https://cdphe.colorado.gov/cor400000-stormwater-discharge

CONSTRUCTION DOCUMENTS	
Sheet Number	Sheet Title
C2.0	COVER SHEET
C2.1	INITIAL & INTERIM EROSION CONTROL PLAN
C2.2	INTERIM & FINAL EROSION CONTROL PLAN
C2.3	DETAILS
C2.4	DETAILS
C2.5	DETAILS



#### LAND AREA:

40.01 ACRES MORE OR LESS

#### LEGAL DESCRIPTION

TRACT IN NW4 SEC 13-13-64 DES AS FOLS, COM AT NW COR OF SD SEC, TH S 00<31'50" W ALG W LN 60.01 FT FOR POB, N 89<21'32" E ON LN PARA TO N SEC LN 1779.95 FT, S 00<38'28" E 992.0 FT, N 89<28'10" W 1779.86 FT, TH N 00<31'50" E 955.39 FT TO POB

#### FEMA CLASSIFICATION

THIS SITE IS PARTIALLY WITHIN A DESIGNATED F.E.M.A. FLOODPLAIN AS DETERMINED BY FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 08041C0567G EFFECTIVE DATE DECEMBER 7, 2018 AND IS LABELED AS A ZONE "X" AREA, OR AREA OF MINIMAL FLOOD HAZARD AND ZONE "A" AREA, OR WITHIN BASE FLOOD ELEVATION.

#### SOIL TYPE

THE SOIL ON SITE IS CLASSIFIED WITH THE USCS AS MOSTLY GRAVELLY SANDY LOAM CLASSIFIED AS HYDROLOGIC SOIL GROUP A.

#### BASIS OF BEARING:

BEARINGS ARE BASED UPON A LINE LYING 30' WESTERLY AND PARALLEL OF THE EAST LINE OF SOUTHEAST QUARTER OF SECTION 1, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE 6TH P.M. AS SHOWN OF THE PLAT OF FALCON MARKETPLACE, MONUMENTED AT THE NORTH END WITH A #5 REBAR AND YELLOW PLASTIC CAP STAMPED "PLS 31548" AND MONUMENTED AT THE SOUTH END WITH A MAG NAIL AND WASHER STAMPED "PLS 31548", AND IS ASSUMED TO BEAR N 00<29'40" W, A DISTANCE OF 1137.83'.

#### BENCHMARK:

ELEVATIONS ARE BASED UPON THE COLORADO SPRINGS UTILITIES FACILITIES INFORMATION MANAGEMENT SYSTEM (FIMS) MONUMENT BLT167 (ELEVATION = 6873.18 NVGD29)

#### CONTACTS:

**OWNER/DEVELOPER:**  
ROBERT S WILLIAMS  
4075 GOLF CLUB DR.  
COLORADO SPRINGS, CO 80922  
TEL: (406) 438-1874  
CONTACT: ROBERT S WILLIAMS  
EMAIL: STUINGO@PROTONMAIL.COM

**ENGINEER:**  
KIMLEY-HORN AND ASSOCIATES, INC.  
2 NEVADA NORTH AVE., SUITE 300  
COLORADO SPRINGS, CO 80903  
TEL: (719) 453-0180  
CONTACT: MITCHELL HESS, P.E.  
EMAIL: MITCHELL.HESS@KIMLEY-HORN.COM

**SURVEYOR:**  
CENTENNIAL LAND SURVEYING, LLC  
16115 NORTHCLIFF SQ.  
ELBERT, CO 80106  
TEL: (719) 492-6540  
CONTACT: MICHAEL J. MUIRHEAD, PLS  
EMAIL: MIKE@CENTENNIALLANDSURVEYING.COM

#### PROJECT NOTES:

- THE INTENT OF THIS PLAN IS TO IDENTIFY THE EROSION CONTROL PRACTICES RECOMMENDED. THE CONTRACTOR SHALL REFERENCE ADDITIONAL CONSTRUCTION PLANS FOR DEMOLITION OF EXISTING AND CONSTRUCTION OF PROPOSED IMPROVEMENTS.
- ADJACENT STREETS SHALL BE KEPT CLEAN AND FREE OF SEDIMENT AND/OR DEBRIS AT ALL TIMES.
- TEMPORARY STABILIZATION (TS) SHALL BE IMPLEMENTED WITHIN THE DISTURBED PORTIONS OF THE PROJECT SITE NO LATER THAN 14 DAYS FOLLOWING THE CEASE OF CONSTRUCTION ACTIVITIES WITHIN THE DISTURBED AREAS.
- PERMANENT STABILIZATION (PS) MAY BE USED WITHIN AREAS OF TEMPORARY STABILIZATION (TS) AT THE CONTRACTOR'S DISCRETION. STABILIZATION SHALL BE APPLIED IN ACCORDANCE WITH APPLICABLE TEMPORARY STABILIZATION SEQUENCING REQUIREMENTS.
- CONTRACTOR SHALL UTILIZE ROLLED EROSION CONTROL PRODUCTS ON ALL SLOPES 3H:1V OR GREATER TO ACHIEVE REQUIRED STABILIZATION.
- CONTRACTOR SHALL MAINTAIN ACCEPTABLE EROSION CONTROL PRACTICES WITHIN THE ANTICIPATED LIMITS OF CONSTRUCTION IDENTIFIED HEREIN. BEST MANAGEMENT PRACTICES AND STABILIZATION SHALL BE COMPLETED AS IDENTIFIED HEREIN IN ACCORDANCE WITH OWNER REQUIREMENTS.
- SILT FENCE TO BE INSTALLED PRIOR TO COMMENCEMENT OF ONSITE GRADING AND CONSTRUCTION ACTIVITIES.
- NO BATCH PLANTS ARE TO BE USED THROUGHOUT THE DURATION OF THE PROJECT.
- THE EXISTING SITE IS MOSTLY VACANT WITH SPARSE NATIVE SHRUBS AND GRASSES COVERING APPROXIMATELY 85% OF THE SITE, AS DETERMINED BY A SITE VISIT.

#### OWNER'S SIGNATURE BLOCK

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

DocuSigned by:  
**ROBERT S WILLIAMS**  
AF402D51A07948D  
ROBERT S WILLIAMS Owner 9/13/2024  
NAME, TITLE DATE  
N/A 16975 Falcon Hwy  
BUSINESS NAME ADDRESS

#### ENGINEER'S SIGNATURE BLOCK

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.

*Michael J. Muirhead* 9/12/2024  
MITCHELL HESS, P.E. NO. 3916 DATE  
KIMLEY-HORN AND ASSOCIATES, INC.

#### EL PASO COUNTY REVIEW STATEMENT

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, DIMENSION, 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 A CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF THE 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.

JOSHUA PALMER, P.E. DATE  
COUNTY ENGINEER/ ECM ADMINISTRATOR

**Kimley-Horn**  
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274 Nevada Avenue, Suite 900  
Colorado Springs, CO 80903 (719) 453-0180

DESIGNED BY: MOH  
DRAWN BY: JWM  
CHECKED BY: MOH  
DATE: 09/12/2024

PEERLESS FARMS  
EL PASO COUNTY, COLORADO  
COVER SHEET  
CONSTRUCTION DOCUMENTS



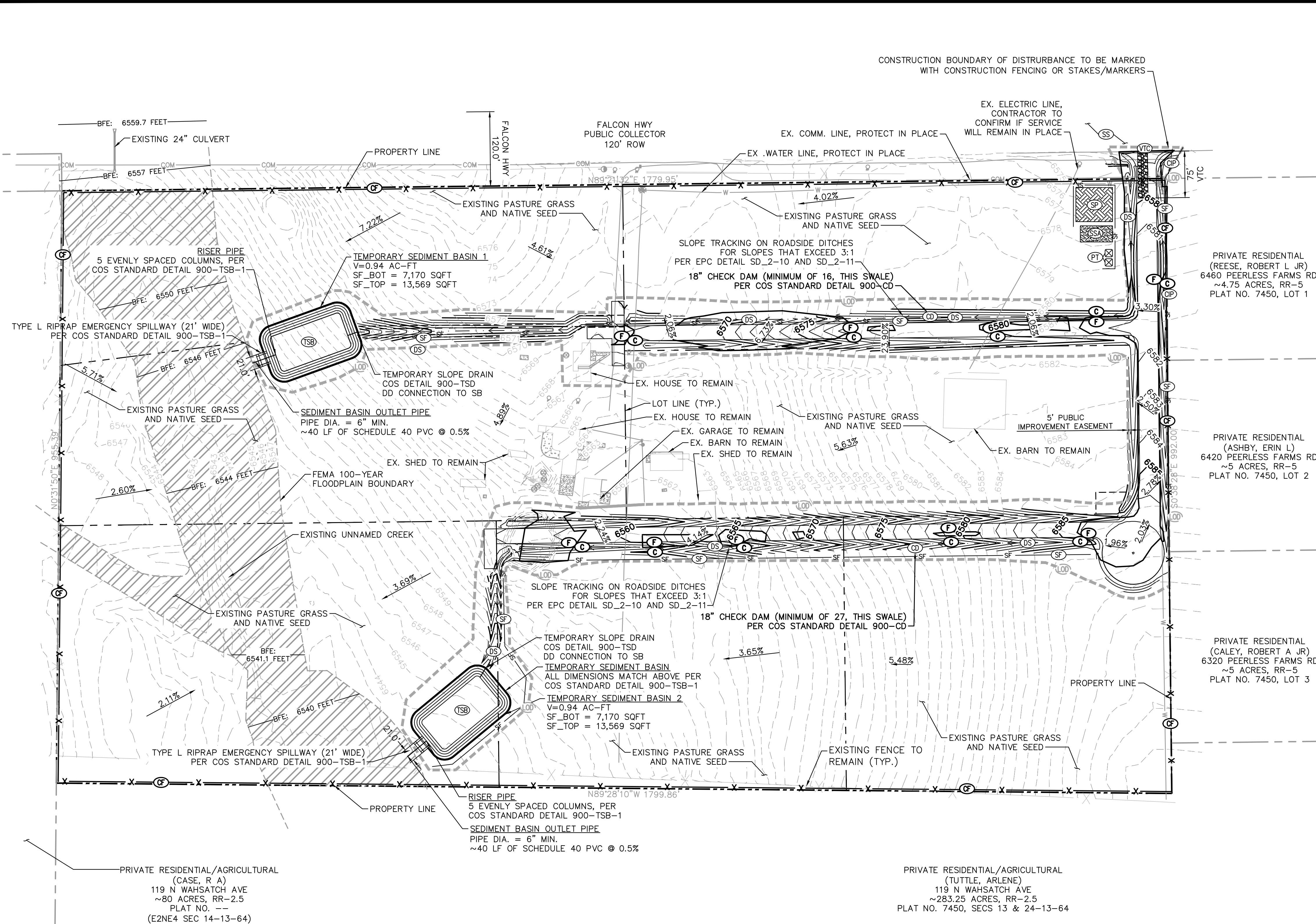
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196114000

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C2.0



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### LEGEND

— BFE: XXXX —	PROPERTY LINE
---	BASE FLOOD ELEVATION
---	(LOD) CONSTRUCTION BOUNDARY/LIMITS OF DISTURBANCE (±7.20 AC)
---	(SF) SILT FENCE (INITIAL/INTERIM)
---	(CF) CONSTRUCTION FENCE (INIT/INTR)
---	WATER LINE
---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
---	UNDERGROUND COMM. LINE
---	FEMA 100-YR FLOODPLAIN
(SP)	SOIL STOCKPILE
(SSA)	STABILIZED STAGING AREA
(VTC)	VEHICLE TRACKING CONTROL (INITIAL/INTERIM)
(DS)	DRAINAGE SWALE (INITIAL/INTERIM)
(SS)	STREET SWEEPING (INITIAL/INTERIM)
(ST)	SLOPE TRACKING (INTERIM)
(CD)	CHECK DAM (INTERIM/FINAL)
(PT)	PORTABLE TOILET (INTERIM)
(TSB)	TEMPORARY SEDIMENT BASIN (INITIAL/INTERIM)
(CIP)	CULVERT INLET PROTECTION (INTERIM)
(C)	CUT AREA
(F)	FILL AREA
(R)	PHONE RISER
(W)	WATER VALVE / WATER METER
X.X%	EXISTING GRADE SLOPE

- ### GENERAL NOTES
- PLEASE REFER TO SD\_2-11 ON SHEET C2.4 FOR THE DITCH/SWALE CROSS-SECTIONS.
  - CHECK DAMS ARE A TEMPORARY CONSTRUCTION CONTROL MEASURE AND ARE TO BE REMOVED AFTER FINAL STABILIZATION.


### EXISTING SOIL TYPE

BLAKELAND LOAMY SAND: 7%  
 BLAKELAND-FLUVAQUENTIC HAPLAQUOLLS: 40% OF SITE  
 TRUCKTON LOAMY SAND: 53% OF SITE

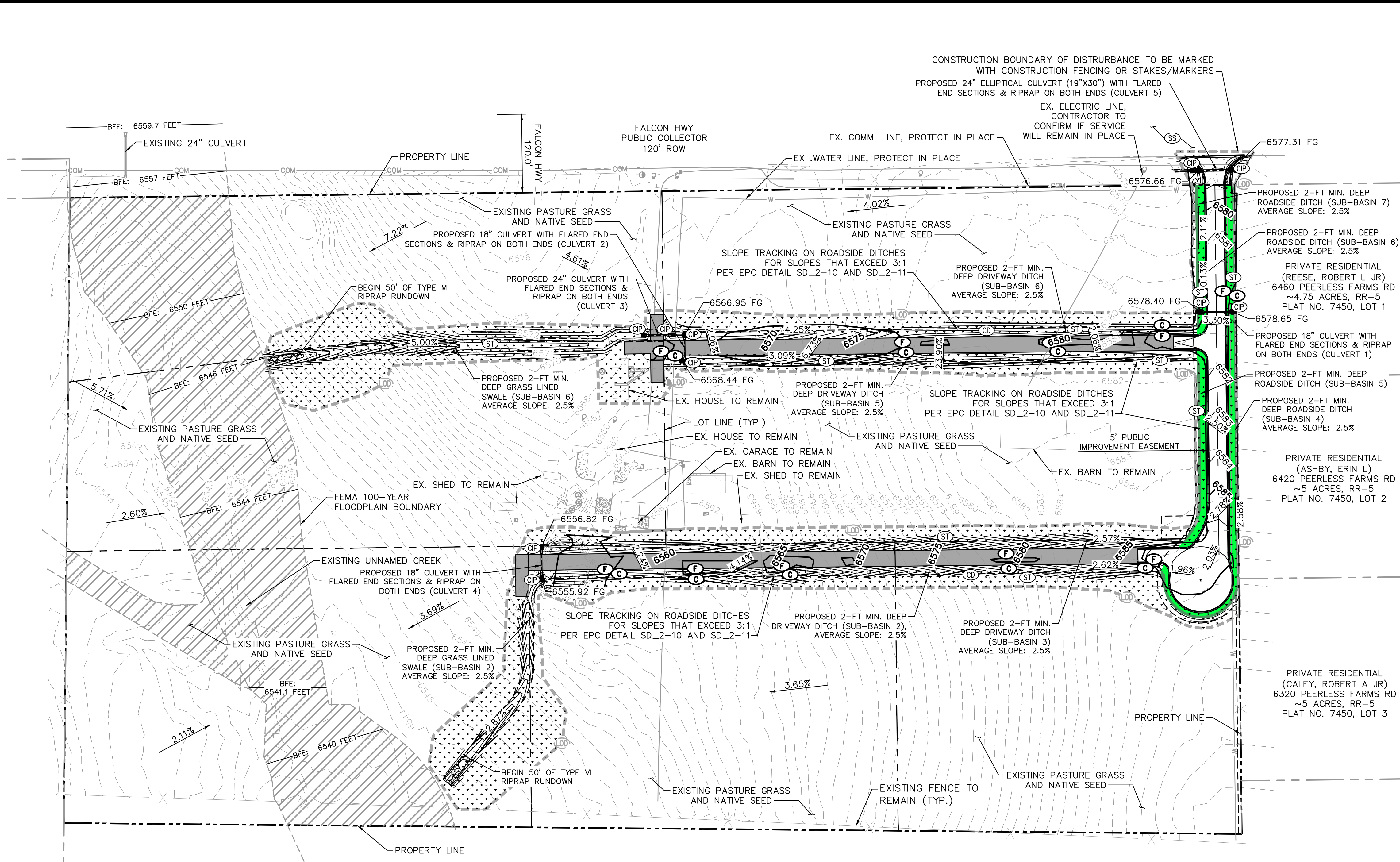
GRAPHIC SCALE IN FEET  
 0 45 90 180

NORTH

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

BY: DATE: APPR:
NO.
<b>Kimley-Horn</b> <small>© 2024, KIMLEY-HORN AND ASSOCIATES, INC.      2 N Nevada Avenue, Suite 900      Colorado Springs, CO 80903 (719) 453-0180</small>
DESIGNED BY: MOH DRAWN BY: JWM CHECKED BY: MOH DATE: 09/12/2024
<b>PEERLESS FARMS</b> EL PASO COUNTY, COLORADO INITIAL & INTERIM EROSION CONTROL PLAN CONSTRUCTION DOCUMENTS

PROJECT NO. 196114000
DRAWING NAME CD_GEC
C2.1

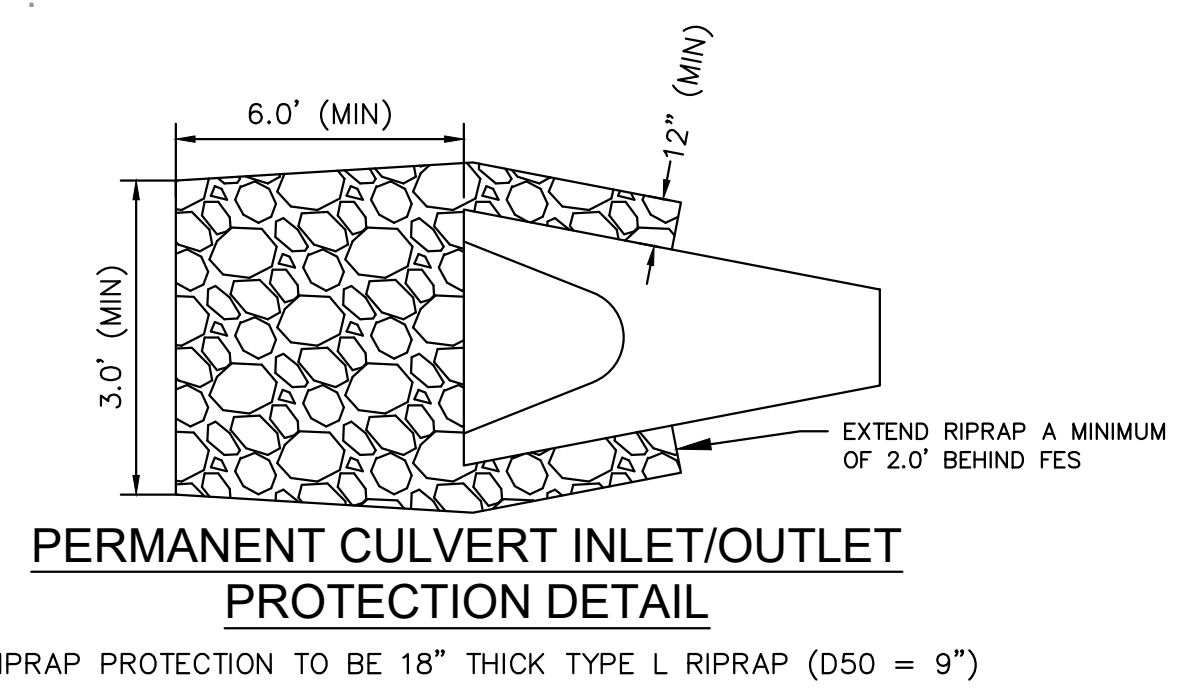
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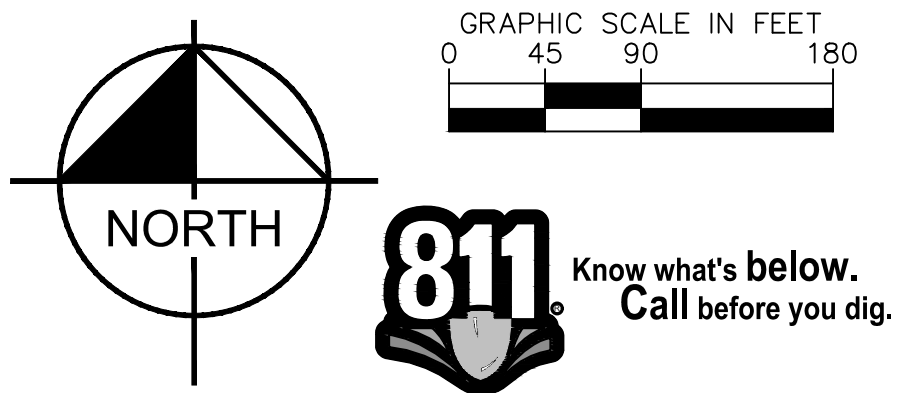
### LEGEND

---	PROPERTY LINE
---	BASE FLOOD ELEVATION
---	CONSTRUCTION BOUNDARY/LIMITS OF DISTURBANCE (±7.20 AC)
---	WATER LINE
---	PROPOSED MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
---	UNDERGROUND COMM. LINE
---	EXISTING FENCE
SS	STREET SWEEPING (INTERIM)
ST	SLOPE TRACKING (INTERIM)
CD	CHECK DAM (INTERIM/FINAL)
CP	INLET PROTECTION (INTERIM)
C	CUT AREA
F	FILL AREA
[Pattern]	GRAVEL ROAD (FINAL)
[Pattern]	PAVED ROAD (FINAL)
[Pattern]	SEED & MULCH (FINAL)
[Pattern]	FEMA 100-YR FLOODPLAIN
[Pattern]	RECEIVING PERVIOUS AREA
[Pattern]	SEPARATE PERVIOUS AREA
X.X%	PROPOSED GRADE SLOPE

- ### GENERAL NOTES
- PLEASE REFER TO SD\_2-11 ON SHEET C2.4 FOR THE DITCH/SWALE CROSS-SECTIONS.
  - CHECK DAMS ARE A TEMPORARY CONSTRUCTION CONTROL MEASURE AND ARE TO BE REMOVED AFTER FINAL STABILIZATION.
  - RECEIVING PERVIOUS AREAS REQUIRE A VEGETATIVE UNIFORM DENSITY OF AT LEAST 80%.
  - RECEIVING PERVIOUS AREAS AND SEPARATE PERVIOUS AREAS ARE SHOWN FOR THE PUBLIC RIGHT-OF-WAY INFRASTRUCTURE, AND NOT PRIVATE INFRASTRUCTURE.
  - DRAINAGE DITCHES SHALL BE PLANTED WITH BERMUDAGRASS.
- ### EXISTING SOIL TYPE
- BLAKELAND LOAMY SAND: 7%  
BLAKELAND-FLUVAQUENTIC HAPLAQUOLLS: 40% OF SITE  
TRUCKTON LOAMY SAND: 53% OF SITE



BY: DATE: APPR
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DESIGNED BY: MOH DRAWN BY: JWM CHECKED BY: MOH DATE: 09/12/2024
<b>PEERLESS FARMS</b> EL PASO COUNTY, COLORADO & FINAL EROSION CONTROL PLAN INTERIM CONSTRUCTION DOCUMENTS
PROJECT NO. 196114000
DRAWING NAME CD_GEC
C2.2



### SEEDING & MULCHING

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

**SOIL PREPARATION**

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

**SEEDING**

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

**MULCHING**

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

SM

STORMWATER ENTERPRISE

**SEEDING & MULCHING**

APPROVED: *[Signature]*

ISSUED: 10/7/19    REVISED: 8/19/2020    DRAWING NO: 900-SM

### SILT FENCE

**J-HOOK INSTALLATION**

**SECTION A-A**

**INSTALLATION NOTES**

- SILT FENCE MUST BE PLACED ON A FLAT SURFACE 2'-5" AWAY FROM TOE OF THE SLOPE TO ALLOW FOR PONDING AND DEPOSITION.
- COMPACT THE TRENCH USING A JUMPING JACK OR WHEEL ROLLING TO THE POINT THAT THE FENCE RESISTS BEING PULLED OUT OF THE GROUND BY HAND.
- SILT FENCE SHALL BE TAUT WITH NO SAGS AFTER IT HAS BEEN ANCHORED.
- FABRIC SHALL BE ATTACHED TO POSTS WITH 1" HEAVY DUTY STAPLES OR 1" NAILS. THESE SHOULD BE PLACED VERTICALLY DOWN THE POST, 3" APART.
- THE PREFERRED INSTALLATION METHOD USES A TRENCHER OR SILT FENCE INSTALLATION DEVICE.
- INSTALL SILT FENCE ALONG THE CONTOUR OF THE SLOPES OR IN A MANNER TO AVOID CREATING CONCENTRATED FLOW (SUCH AS A "J"-HOOK INSTALLATION).

**MAINTENANCE NOTES**

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 2/3 OF THE DESIGN HEIGHT OF THE SILT FENCE.
- SILT FENCE MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
- PERMANENTLY STABILIZE AREA AFTER SILT FENCE IS REMOVED.

SF

STORMWATER ENTERPRISE

**SILT FENCE**

APPROVED: *[Signature]*

ISSUED: 10/7/19    REVISED: 8/19/2020    DRAWING NO: 900-SF

### PORTABLE TOILET

**PORTABLE TOILET PLAN**

**ISOMETRIC**

**INSTALLATION NOTES**

- PORTABLE TOILETS SHALL BE PLACED A MINIMUM OF 10 FEET BEHIND ALL CURBS, SIDEWALKS, AND OTHER IMPERVIOUS AREAS; 50 FEET FROM STORM INLETS, AND 100 FEET FROM WATERWAYS.
- PORTABLE TOILETS IN THE RIGHT-OF-WAY ARE REQUIRED TO BE PLACED ON MOBILE TRAILERS AND MUST BE ANCHORED OR WEIGHTED DOWN. PORTABLE TOILETS MAY BE INSTALLED IN ACCORDANCE WITH NOTE #1 IN STAGING AREAS/HARDS.
- PORTABLE TOILETS SHALL BE SECURELY ANCHORED TO THE GROUND USING U-SHAPED REBAR STAKES, OR OTHER EFFECTIVE ANCHORING.
- ANCHORING SHALL BE POSITIONED ON AT LEAST TWO OPPOSING (DIAGONAL) CORNERS OF THE CONTAINMENT PANS.
- TOILET CONTAINMENT PANS MAY BE USED IN PLACE OF A TRAILER AT THE GEC INSPECTOR'S DISCRETION. TOILET CONTAINMENT PANS MUST BE ANCHORED IN PLACE AND MUST NOT BE USED WITHIN THE CITY R.O.W.

**MAINTENANCE NOTES**

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- PORTABLE TOILETS SHALL BE SERVICED AT THE NECESSARY INTERVALS TO ELIMINATE THE POSSIBILITY OF OVERTFLOW.
- WHEN THE PORTABLE TOILETS ARE REMOVED, ANY DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE TOILETS MUST BE PERMANENTLY STABILIZED.

PT

STORMWATER ENTERPRISE

**PORTABLE TOILET**

APPROVED: *[Signature]*

ISSUED: 2/19/19    REVISED: 8/19/2020    DRAWING NO: 900-PTW

### CASE 2

Parking, Staging and Loading/Unloading Area

Public Road

**Table VT-1**

	Case 1	Case 2
Gravel Thickness	9"	3"
Filter Fabric	YES	NO

Figure VT-1 Vehicle Tracking Application Examples

City of Colorado Springs Storm Water Quality

STORMWATER ENTERPRISE

### CASE 1

75'-0" MIN

**VEHICLE TRACKING NOTES**

**INSTALLATION REQUIREMENTS**

- ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING.
- CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAP.
- AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.
- CONSTRUCTION ROADS, PARKING AREAS, LOADING/LOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.
- CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADES THAT ARE EXCESSIVELY STEEP.

**MAINTENANCE REQUIREMENTS**

- REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.
- STONES ARE TO BE REPLACED PERIODICALLY AND WHEN REPAIR IS NECESSARY.
- SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS.
- STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.
- OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.

City of Colorado Springs Stormwater Quality

STORMWATER ENTERPRISE

### Stabilized Staging Area (SSA)

**SSA-1. STABILIZED STAGING AREA**

**STABILIZED STAGING AREA INSTALLATION NOTES**

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

**STABILIZED STAGING AREA MAINTENANCE NOTES**

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

SSA

STORMWATER ENTERPRISE

### Stabilized Staging Area (SSA)

**STABILIZED STAGING AREA MAINTENANCE NOTES**

- STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
- THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDDED 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)

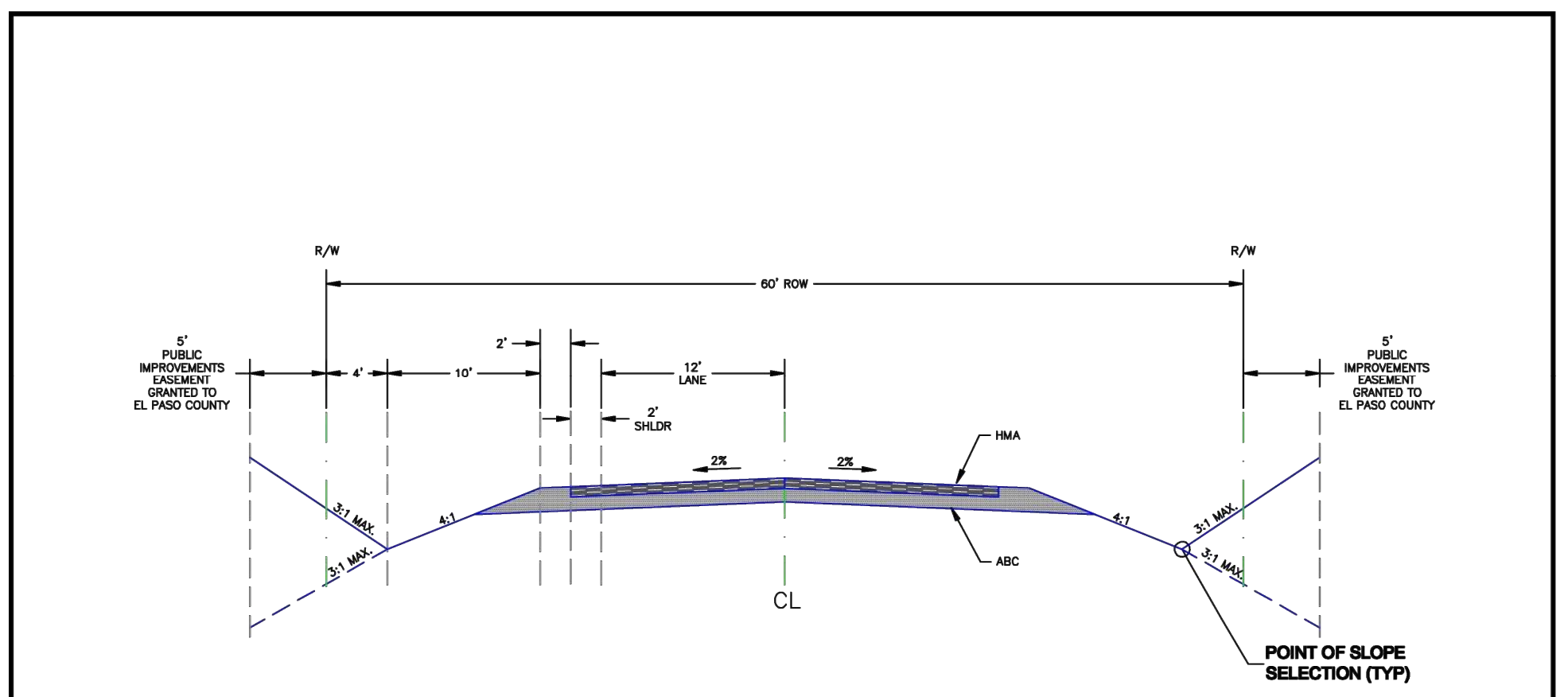
City of Colorado Springs Stormwater Quality

STORMWATER ENTERPRISE

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	BY: DATE: APPR:
	NO.
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<p>PEERLESS FARMS EL PASO COUNTY, COLORADO DETAILS CONSTRUCTION DOCUMENTS</p>	
<p>PROJECT NO. 196114000</p> <p>DRAWING NAME CD_EC_DT</p> <p>C2.3</p>	

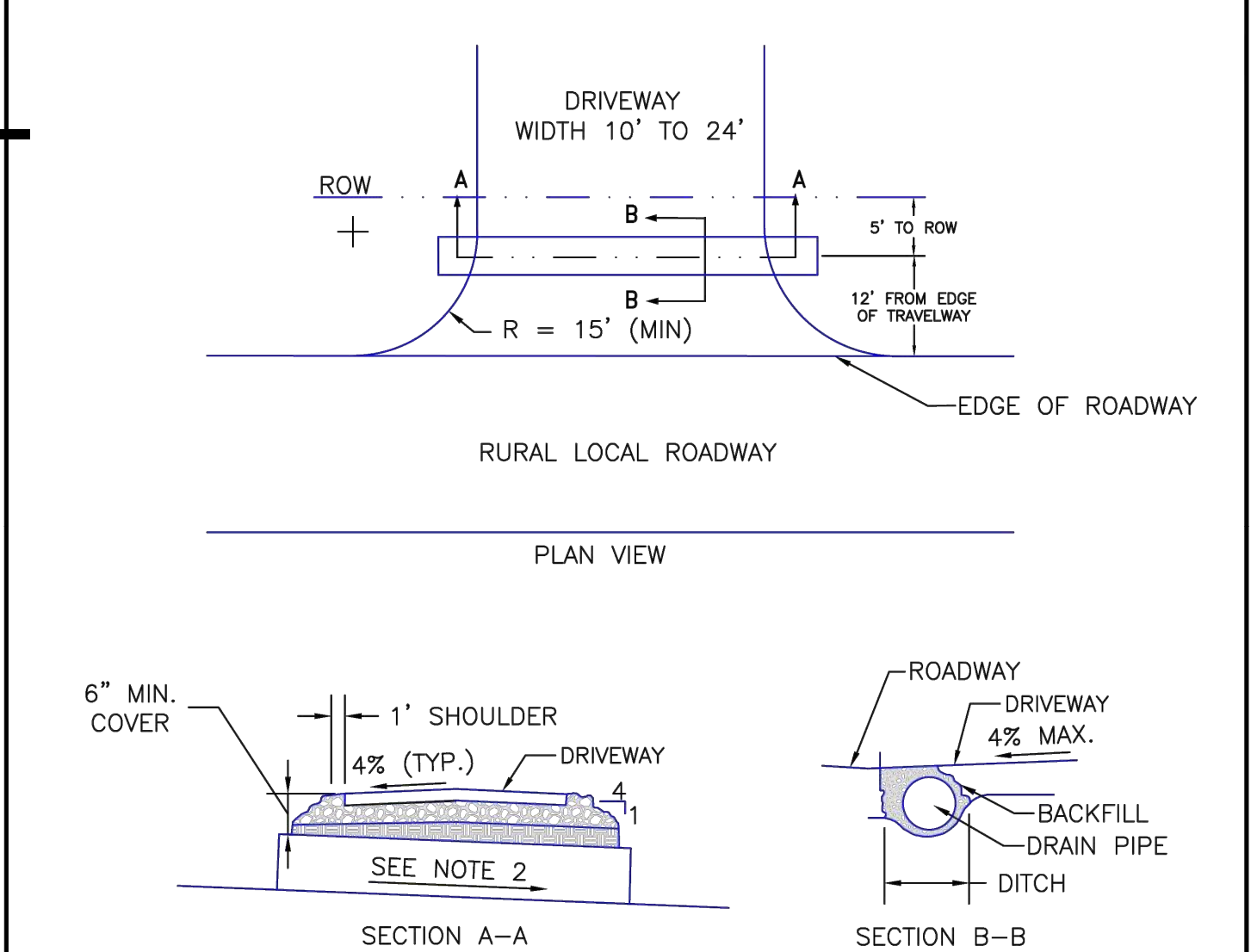
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**Roadway Design Parameters**  
 Design Speed: 30 mph  
 Posted Speed: 30 mph  
 Maximum ADT: 750  
 Design Vehicle: WB-50

SCALE: NOT TO SCALE

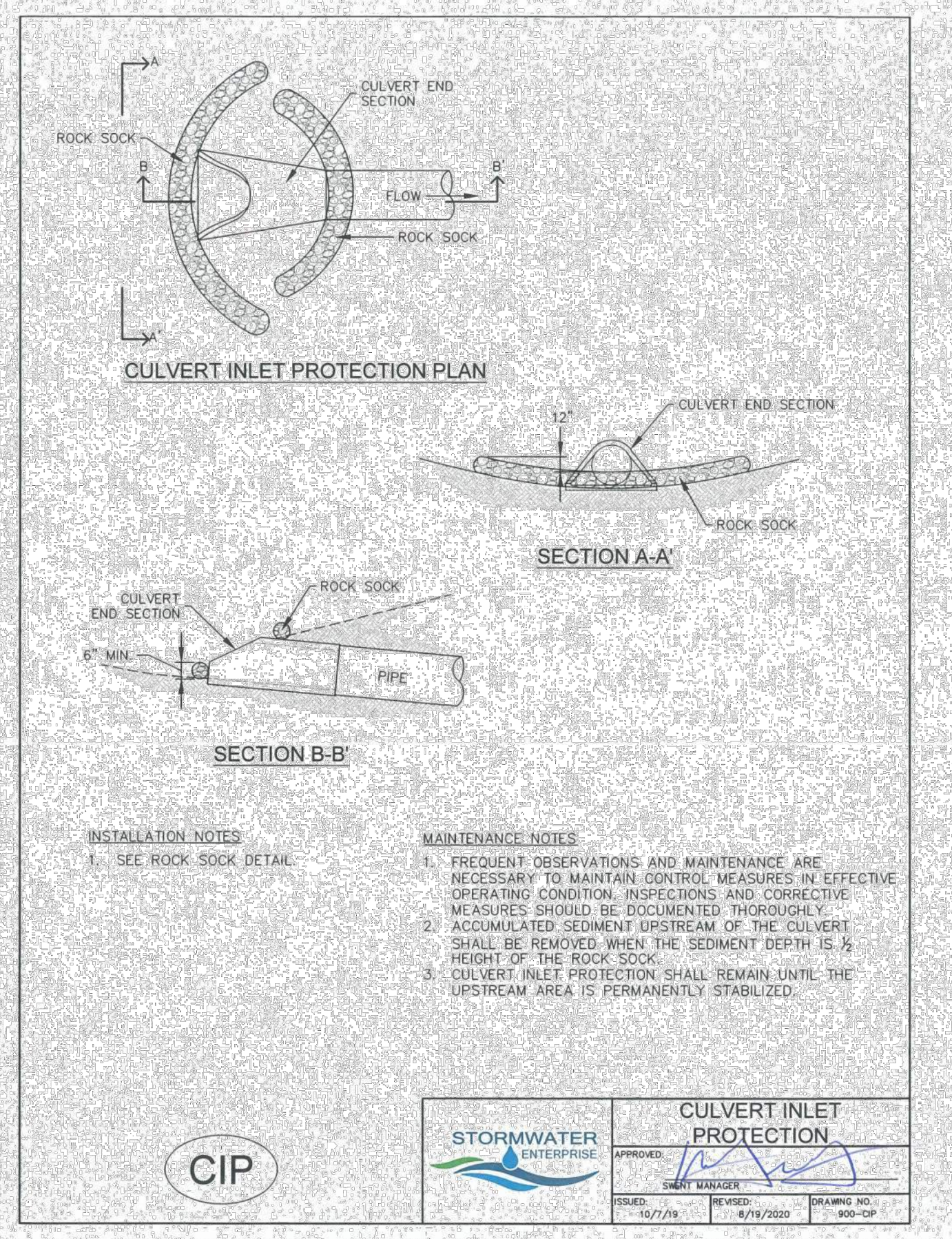
DATE APPROVED: 12/31/05	Rural Local Roadway	
APPROVED: John A. McCarty	REVISION DATE: 12/22/05	FILE NAME: SD_2-11
DEPARTMENT OF TRANSPORTATION		



- NOTES
1. SURFACE TREATMENT OF DRIVEWAY TO MATCH SURFACE TREATMENT OF ROAD WITHIN THE ROW.
  2. DRAIN PIPE TO BE 18" DIAMETER CMP MINIMUM.
  3. PIPE SLOPE TO BE CONSISTENT WITH FLOWLINE OF DITCH, MINIMUM OF 1% PREFERRED.
  4. ALL DRIVEWAYS SHALL HAVE A 4 PERCENT CROWN.
  5. WHEN SLOPING TOWARDS ROAD, DRIVEWAYS SHALL HAVE A MAXIMUM GRADE OF 4 PERCENT FOR A MINIMUM OF 20 FEET WHERE THE SITE ALLOWS.

SCALE: NOT TO SCALE

DATE APPROVED: 8/11/11	Driveway Access on Rural Local Roadway Standard Drawing	
APPROVED: André P. Brackin	REVISION DATE: 12/8/15	FILE NAME: SD_3-14
DEPARTMENT OF TRANSPORTATION		



- INSTALLATION NOTES
1. SEE ROCK SOCK DETAIL.

- MAINTENANCE NOTES
1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
  2. ACCUMULATED SEDIMENT UPSTREAM OF THE CULVERT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS  $\frac{1}{2}$  HEIGHT OF THE ROCK SOCK.
  3. CULVERT INLET PROTECTION SHALL REMAIN UNTIL THE UPSTREAM AREA IS PERMANENTLY STABILIZED.

CIP

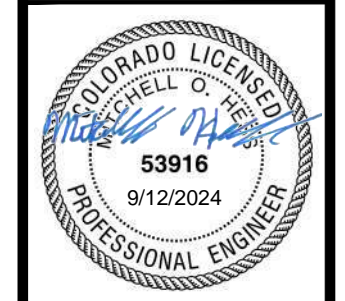
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ISSUED: 10/7/19	REVISION: 8/19/2020	DRAWING NO.: 900-108-2P

NO.	BY	DATE	APPR.

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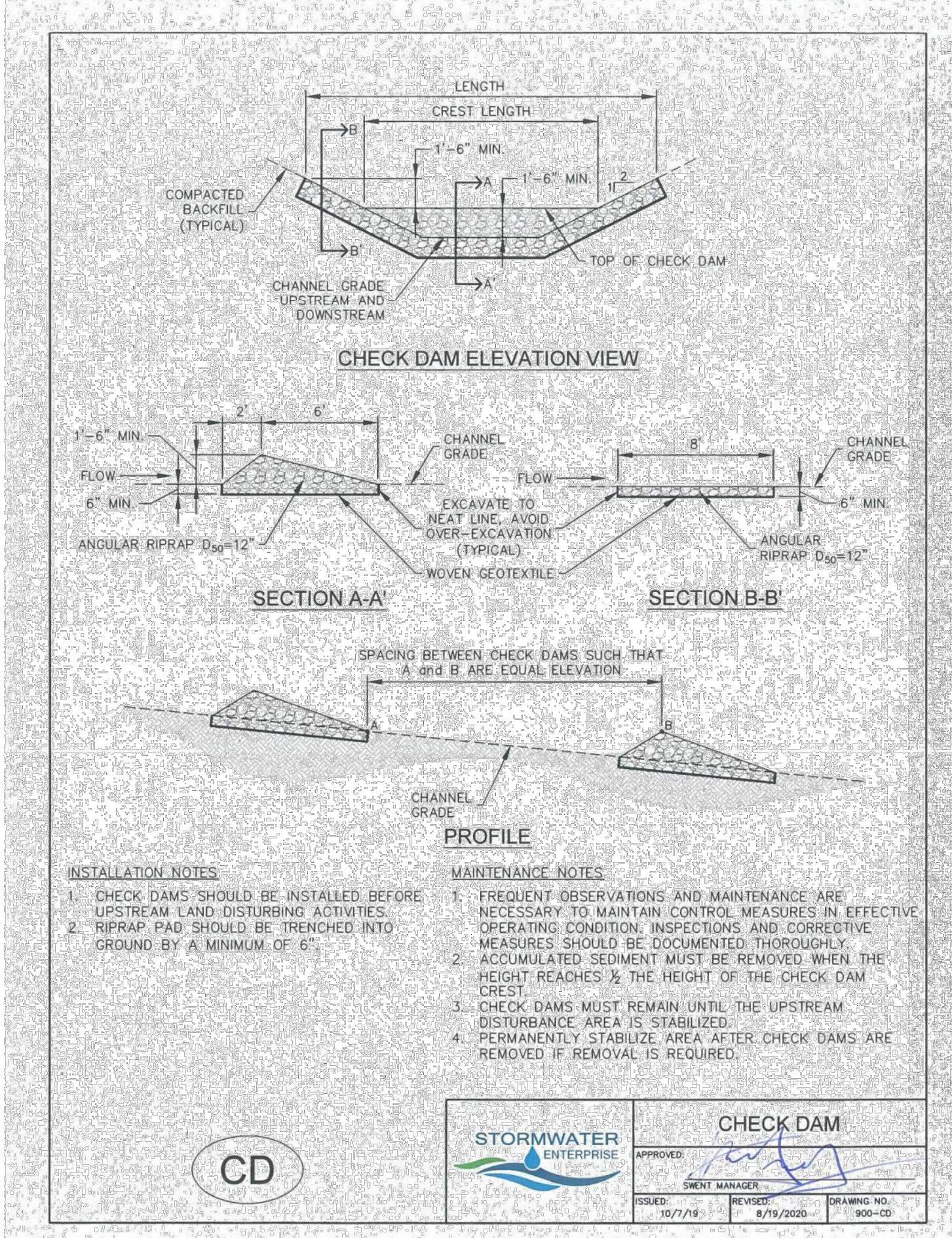
DESIGNED BY: MOH  
 DRAWN BY: JWM  
 CHECKED BY: MOH  
 DATE: 09/12/2024

PEERLESS FARMS  
 EL PASO COUNTY, COLORADO  
 DETAILS  
 CONSTRUCTION DOCUMENTS



PROJECT NO. 196114000
DRAWING NAME CD_EC.DWG

C2.4

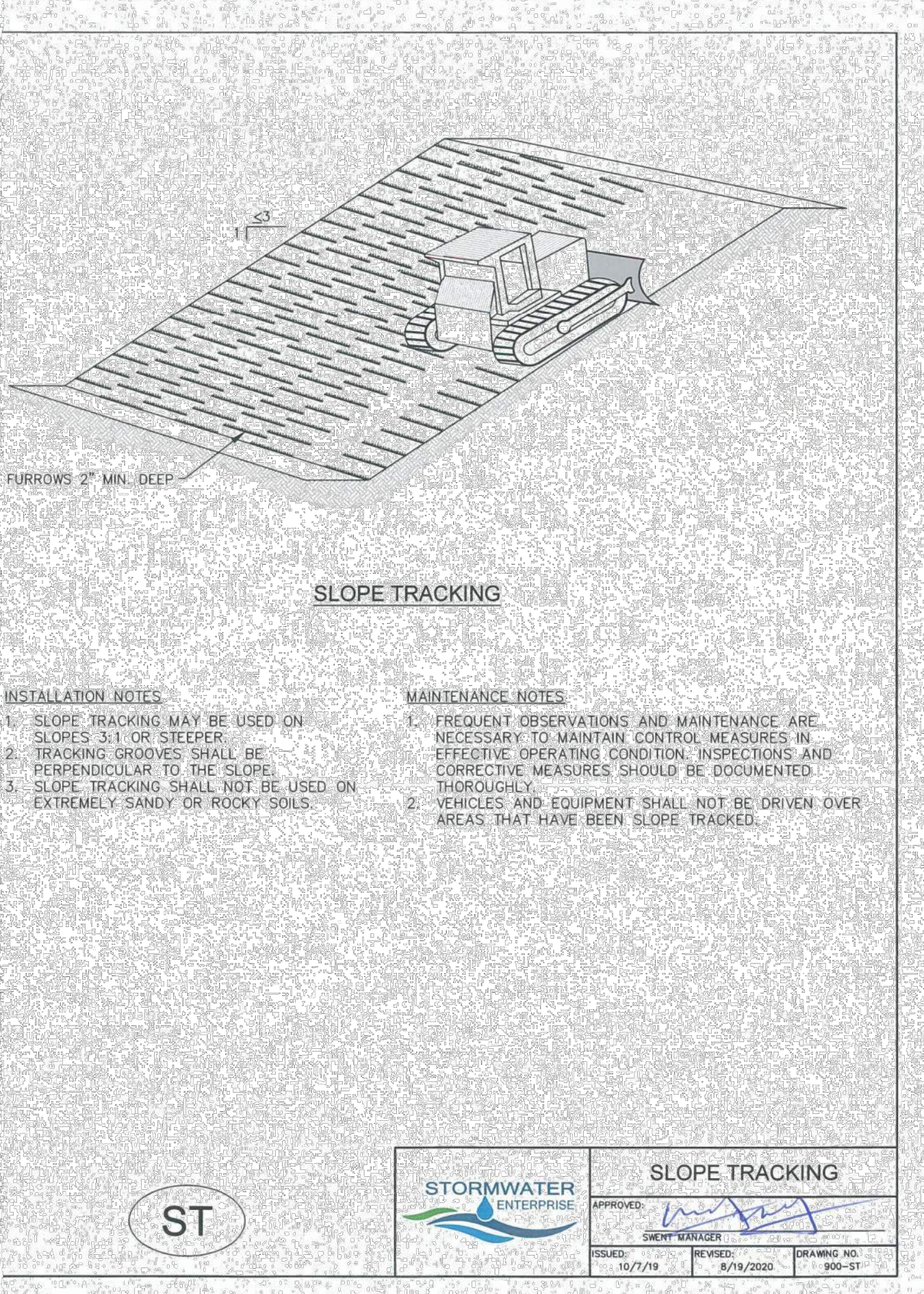


- INSTALLATION NOTES
1. CHECK DAMS SHOULD BE INSTALLED BEFORE UPSTREAM LAND DISTURBING ACTIVITIES.
  2. RIPRAP PAD SHOULD BE TRENCHED INTO GROUND BY A MINIMUM OF 6".

- MAINTENANCE NOTES
1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
  2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES  $\frac{1}{2}$  THE HEIGHT OF THE CHECK DAM CREST.
  3. CHECK DAMS MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
  4. PERMANENTLY STABILIZE AREA AFTER CHECK DAMS ARE REMOVED IF REMOVAL IS REQUIRED.

CD

STORMWATER ENTERPRISE	APPROVED: [Signature]	CHECK DAM
ISSUED: 10/7/19	REVISION: 8/19/2020	DRAWING NO.: 900-109

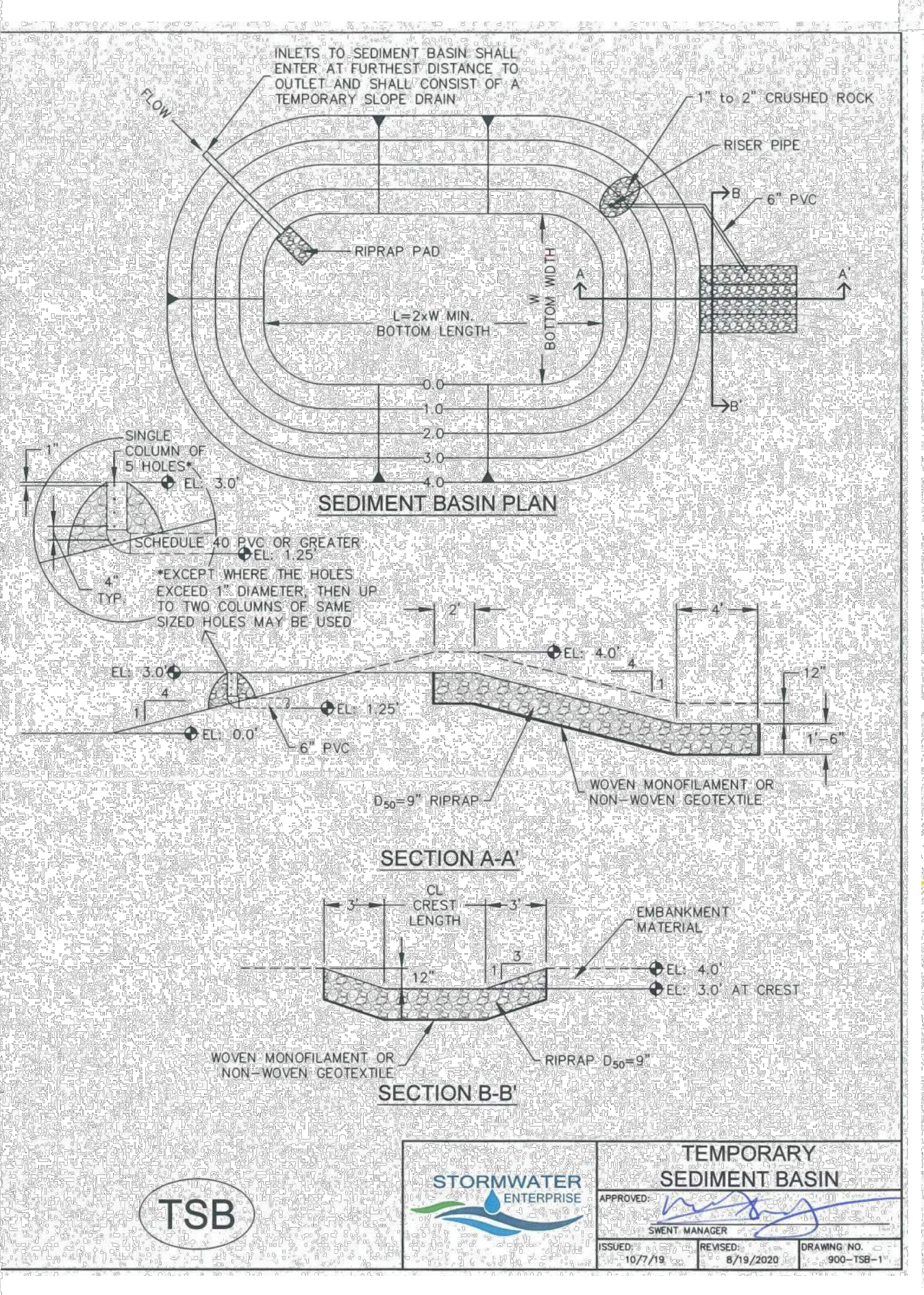


- INSTALLATION NOTES
1. SLOPE TRACKING MAY BE USED ON SLOPES 3:1 OR STEEPER.
  2. TRACKING GROOVES SHALL BE PERPENDICULAR TO THE SLOPE.
  3. SLOPE TRACKING SHALL NOT BE USED ON EXTREMELY SANDY OR ROCKY SOILS.

- MAINTENANCE NOTES
1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
  2. VEHICLES AND EQUIPMENT SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SLOPE TRACKED.

ST

STORMWATER ENTERPRISE	APPROVED: [Signature]	SLOPE TRACKING
ISSUED: 10/7/19	REVISION: 8/19/2020	DRAWING NO.: 900-101



- INSTALLATION NOTES
1. INLETS TO SEDIMENT BASIN SHALL ENTER AT FURTHEST DISTANCE TO OUTLET AND SHALL CONSIST OF A TEMPORARY SLOPE DRAIN.
  2. SINGLE COLUMN OF 24 HOLES.
  3. SCHEDULE 40 PVC OR GREATER.
  4. EXCEPT WHERE THE HOLES EXCEED 1" DIAMETER, THEN UP TO TWO COLUMNS OF SAME SIZED HOLES MAY BE USED.

TSB

STORMWATER ENTERPRISE	APPROVED: [Signature]	TEMPORARY SEDIMENT BASIN
ISSUED: 10/7/19	REVISION: 8/19/2020	DRAWING NO.: 900-108-1

UPSTREAM DRAINAGE AREA (ROUNDED TO NEAREST ACRE), (AC)	Basin Bottom Width (W), (FT)	Spillway Crest Length (CL), (FT)	Hole Diameter (HD), (IN)
1	125	2	3/4
2	21	2	3/4
3	28	5	3/4
4	335	8	3/4
5	385	8	3/4
6	43	9	3/4
7	475	11	3/4
8	51	12	3/4
9	55	13	3/4
10	595	15	3/4
11	61	16	3/4
12	64	17	3/4
13	675	19	1 1/4
14	705	21	1 1/4
15	735	22	1 1/4

\*\*V=0.94 AC-FT

INSTALLATION NOTES

1. FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.
2. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE, GREATER THAN 3 INCHES, AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE No. 200 SIEVE.
3. EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D-698.
4. PIPE SCHEDULE 40 OR GREATER SHALL BE USED.
5. THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASIN(S) FOR DRAINAGE AREAS LESS THAN 15 ACRES. SEE CONSTRUCTION DRAWINGS FOR EMBANKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS LARGER THAN 15 ACRES. DESIGN CALCULATIONS MUST BE APPROVED PRIOR TO IMPLEMENTATION.

MAINTENANCE NOTES

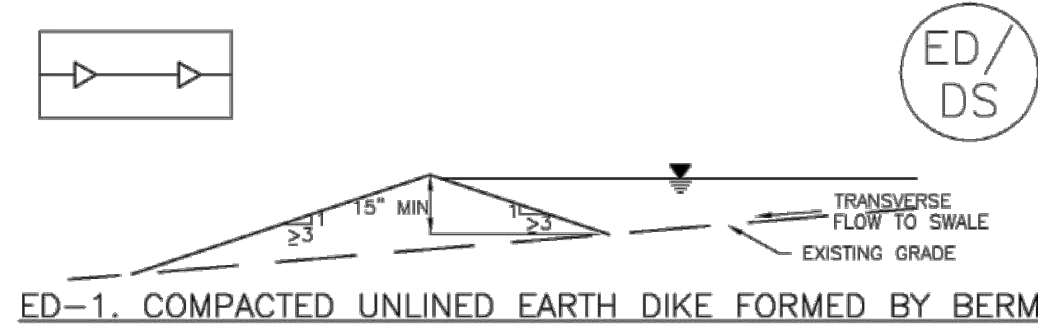
1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. SEDIMENT ACCUMULATED IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN CONTROL MEASURE EFFECTIVENESS, TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (IE, TWO FEET BELOW SPILLWAY CREST).
3. SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED.
4. PERMANENTLY STABILIZE AREA AFTER SEDIMENT BASIN REMOVAL.

\*\*EACH TSB HAS BEEN SIZED TO ACCOMMODATE 11 ACRES OF UPSTREAM DRAINAGE AREA

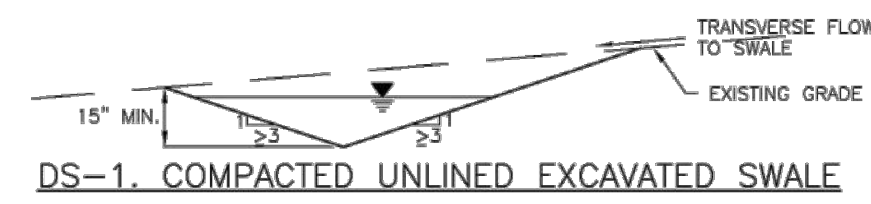
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STORMWATER ENTERPRISE	APPROVED: [Signature]	TEMPORARY SEDIMENT BASIN
ISSUED: 10/7/19	REVISION: 8/19/2020	DRAWING NO.: 900-108-2

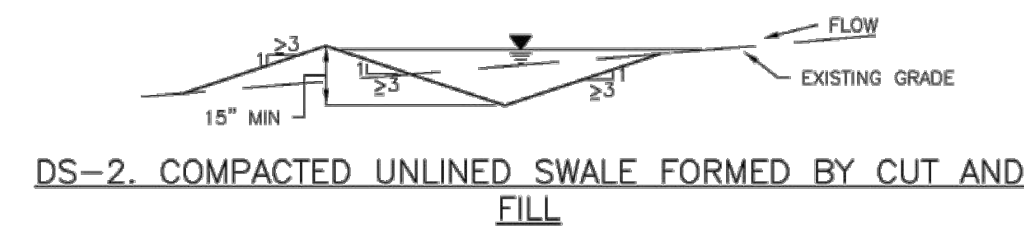
**Earth Dikes and Drainage Swales (ED/DS) EC-10**



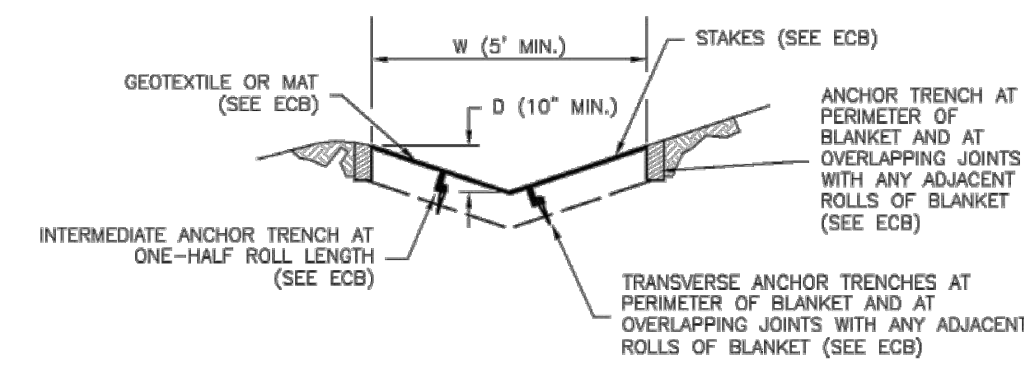
**ED-1. COMPACTED UNLINED EARTH DIKE FORMED BY BERM**



**DS-1. COMPACTED UNLINED EXCAVATED SWALE**



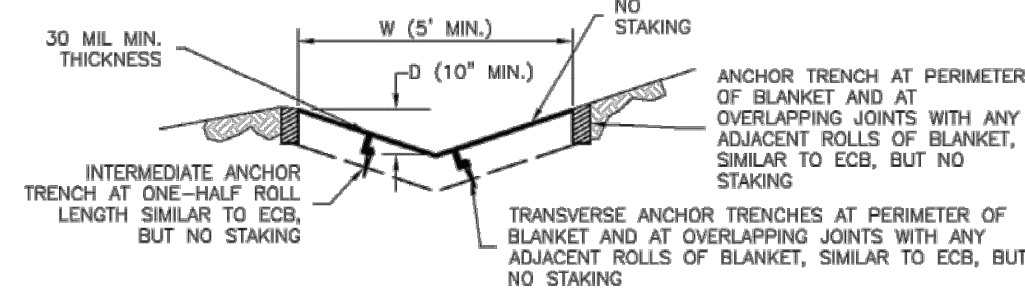
**DS-2. COMPACTED UNLINED SWALE FORMED BY CUT AND FILL**



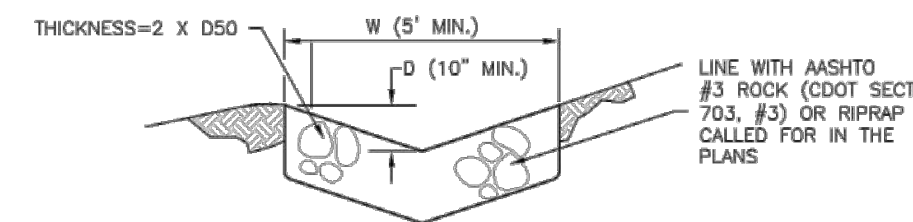
**DS-3. ECB LINED SWALE (CUT AND FILL OR BERM)**

November 2010 Urban Drainage and Flood Control District ED/DS-3  
Urban Storm Drainage Criteria Manual Volume 3

**EC-10 Earth Dikes and Drainage Swales (ED/DS)**



**DS-4. SYNTHETIC LINED SWALE**



**DS-5. RIPRAP LINED SWALE**

**EARTH DIKE AND DRAINAGE SWALE INSTALLATION NOTES**

- SEE SITE PLAN FOR:
  - LOCATION OF DIVERSION SWALE
  - TYPE OF SWALE (UNLINED, COMPACTED AND/OR LINED)
  - LENGTH OF EACH SWALE
  - DEPTH, D, AND WIDTH, W, DIMENSIONS
  - FOR ECB/TRM LINED DITCH, SEE ECB DETAIL
  - FOR RIPRAP LINED DITCH, SIZE OF RIPRAP, D50
- SEE DRAINAGE PLANS FOR DETAILS OF PERMANENT CONVEYANCE FACILITIES AND/OR DIVERSION SWALES EXCEEDING 2-YEAR FLOW RATE OR 10 CFS.
- EARTH DIKES AND SWALES INDICATED ON SWMP PLAN SHALL BE INSTALLED PRIOR TO LAND-DISTURBING ACTIVITIES IN PROXIMITY.
- EMBANKMENT IS TO BE COMPACTED TO 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D698.
- SWALES ARE TO DRAIN TO A SEDIMENT CONTROL BMP.
- FOR LINED DITCHES, INSTALLATION OF ECB/TRM SHALL CONFORM TO THE REQUIREMENTS OF THE ECB DETAIL.
- WHEN CONSTRUCTION TRAFFIC MUST CROSS A DIVERSION SWALE, INSTALL A TEMPORARY CULVERT WITH A MINIMUM DIAMETER OF 12 INCHES.

ED/DS-4 Urban Drainage and Flood Control District November 2010  
Urban Storm Drainage Criteria Manual Volume 3

**Earth Dikes and Drainage Swales (ED/DS) EC-10**

**EARTH DIKE AND DRAINAGE SWALE MAINTENANCE NOTES**

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
  - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
  - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
  - SWALES SHALL REMAIN IN PLACE UNTIL THE END OF CONSTRUCTION; IF APPROVED BY LOCAL JURISDICTION, SWALES MAY BE LEFT IN PLACE.
  - WHEN A SWALE IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.
- (DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF COLORADO SPRINGS, 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 Urban Drainage and Flood Control District ED/DS-5  
Urban Storm Drainage Criteria Manual Volume 3

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**PEERLESS FARMS**  
EL PASO COUNTY, COLORADO  
DETAILS  
CONSTRUCTION DOCUMENTS

PROJECT NO.  
196114000

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