

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 RELEVANTLY ADOPTED EASE COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, ENGINEERING 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 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 DEC. 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 SHOWING 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 LOOSENEED 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. DRAINAGE DOWNGRADES 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 DOWNGRADE 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), SPECIFIC 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 ECOM 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 ENTECH ENGINEERING, INC. ON SEPTEMBER 13, 2021 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 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

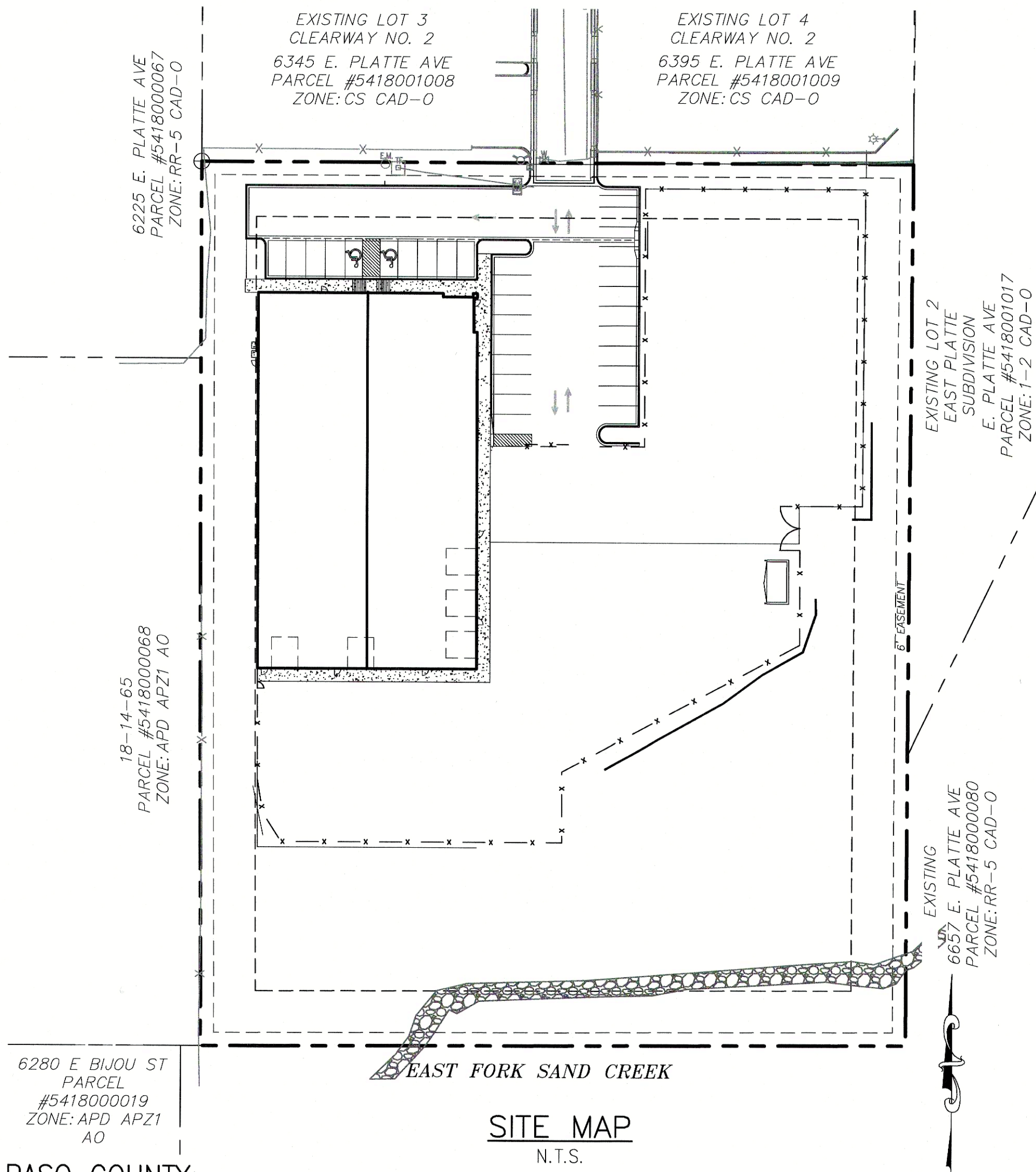


SHEET 1	TITLE SHEET
SHEET 2	DETAILED GRADING PLAN
SHEET 3	GRADING PLAN DETAILS
SHEET 4	INITIAL GRADING & EROSION CONTROL PLAN
SHEET 5	FINAL GRADING & EROSION CONTROL PLAN
SHEET 6	GEC DETAILS
SHEET 7	GEC DETAILS
SHEET 8	GEC DETAILS
SHEET 9	GEC DETAILS
SHEET 10	GEC DETAILS
SHEET 11	GEC DETAILS

TIMING:	FALL 2022-FALL 2023
ANTICIPATED STARTING AND COMPLETION TIME PERIOD OF SITE GRADING:	FALL 2023
EXPECTED DATE ON WHICH THE FINAL STABILIZATION WILL BE COMPLETED:	
AREAS	2.97 AC
TOTAL AREA OF THE SITE TO BE CLEARED, EXCAVATED OR GRADED:	
RECEIVING WATERS:	SAND CREEK

1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD LOCATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO SPRINGS.
3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOLOGICAL REPORT AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIME INCLUDING THE FOLLOWING:
  - 3.1 EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
  - 3.2 CITY OF COLORADO SPRINGS/EL PASO COUNTY ENGINEERING CRITERIA MANUAL VOLUMES 1 AND 2.
  - 3.3 COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARDS SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION.
  - 3.4 CDOT M&S STANDARDS.
4. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITION BOTH ONSITE AND OFFSITE ON THE CONSTRUCTION PLANS. ANY MODIFICATION NECESSARY DUE TO CONFLICT OMISSIONS OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPERS RESPONSIBILITY TO RECTIFY.
5. ONCE THE ESOPC HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL BMPs AS INDICATED ON THE 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 PCD INSPECTIONS STAFF.
6. IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORM WATER QUALITY CONTROL PERMIT (ESOPC), US ARMY CORPS OF ENGINEER ISSUED 401 AND/OR 404 PERMITS AND COUNTY AND STATE FUGITIVE DUST PERMITS.
7. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE CONSTRUCTION SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
8. ANY TEMPORARY SIGNAGE AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DPW AND MUTCD CRITERIA.
9. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRE BY EL PASO COUNTY DPW INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
10. THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFFSITE DISTURBANCE GRADING, OR CONSTRUCTION.
11. NOTWITHSTANDING ANYTHING DEPECTED IN THESE PLANS IN WORDS OF 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, NY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER--THE-FACT WILL BE ENTIRELY TO DEVELOPERS RESPONSIBILITY TO RECTIFY.
12. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
13. ALL STORM DRAIN PIP SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD.
14. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AN PAVEMENT.
15. SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.

## AUGUST 2023



OWNER: WIRENUT HOME SERVICES  
6395 E PLATTE AVE.  
COLORADO SPRINGS, CO 80915  
TRENT URBAN (719) 227-0500

CIVIL ENGINEER: M & S CIVIL CONSULTANTS, INC.  
212 N WASHATCH AVE., SUITE 305  
COLORADO SPRINGS, CO 80903  
VIRGIL A. SANCHEZ P.E. (719) 955-5485

COUNTY ENGINEERING: EL PASO COUNTY PLANNING  
AND COMMUNITY DEVELOPMENT  
2880 INTERNATIONAL CIRCLE, SUITE 110  
COLORADO SPRINGS, CO 80910  
(719)-520-6300

TRAFFIC ENGINEERING: EL PASO COUNTY PUBLIC SERVICES & TRANS. DEPT.  
3275 AKERS DRIVE  
COLORADO SPRINGS, CO 80922  
JOSHUA PALMER, P.E. (719) 520-6460

WATER RESOURCES: CHEROKEE METRO DISTRICT  
6250 PALMER PARK BLVD.  
COLORADO SPRINGS, CO 80915  
(719) 597-5080

GAS DEPARTMENT: COLORADO SPRINGS UTILITIES  
7710 DURANT DR.  
COLORADO SPRINGS, CO 80947  
TIM WENDT (719) 668-3556

ELECTRIC DEPARTMENT: COLORADO SPRINGS UTILITIES  
7710 DURANT DR.  
COLORADO SPRINGS, CO 80920  
SARAH LABARRRE (719) 668-4933

COMMUNICATIONS: QWEST COMMUNICATIONS  
(U.N.C.C. LOCATORS) (800) 922-1987  
AT&T (LOCATORS) (719) 635-3674


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 NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS PLAN.



VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160  
FOR AND ON BEHALF OF M&S CIVIL CONSULTANTS, INC.

10-10-23  
DATE

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

  
TRENT URBAN UPG, LLC

10/11/23

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

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

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

STAGING AREA TO BE DETERMINED BY CONTRACTOR IN THE FIELD. THE LOCATIONS SHALL BE  
DELINEATED ON THIS PLAN BY THE CONTRACTOR.

THE EROSION CONTROL DELINEATED ON THIS PLAN SHALL BE REGULARLY UPDATED BY THE CONTRACTOR.

EXISTING SITE TERRAIN GENERALLY SLOPES FROM NORTH TO SOUTHWEST AT GRADE RATES THAT VARY BETWEEN 1% TO 2:1.

THERE ARE NO BATCH PLANTS ON SITE.

AREAS LEFT OPEN FOR 30 DAYS OR MORE, OTHER THAN FOR UTILITY AND DRAINAGE CONSTRUCTION SHALL BE SEEDED AND/OR MULCHED.

A PORTION OF THIS PROPERTY IS LOCATED WITHIN A DESIGNATED FEMA 100 YEAR FLOODPLAIN IN ACCORDANCE WITH FLOOD INSURANCE RATE MAPS (FIRM) 08041C0754G, EFFECTIVE DATE DECEMBER 7, 2018. NO DEVELOPMENT IS LOCATED WITHIN THE FLOODPLAIN.

THE SITE IS SPARSELY VEGETATED WITH GROUND COVER CONSISTING OF NATIVE PRAIRIE GRASSES AND SHRUBS RANGING IN DENSITY FROM MODERATE TO GOOD. NO OTHER NATURAL VEGETATION EXISTS. THE PROPOSED DEVELOPMENT WILL CONSIST OF AN ASPHALT PARKING AREA, AN OFFICE/WAREHOUSE BUILDING, CRUSHED ASPHALT STORAGE AREA AND AN ACCESS ROAD. FOR LOCATIONS OUTSIDE OF THESE AREAS, THE GROUND SHOULD BE RESEED PER EPC CRITERIA AS SHOWN ON THE GRADING AND EROSION CONTROL PLAN. THE VEGETATION SHOULD BE VISUALLY INSPECTED TO EXCEED THE AMOUNT OF VEGETATION THAT EXISTS IN NON-DISTURBED AREAS AROUND THE SITE.

THE EASTERLY LINE OF LOTS 2 AND 3, OF "CLEARWAY NO 2" PLAT NO 10231 OF THE RECORDS OF EL PASO COUNTY, COLORADO, BEING MONUMENTED AT THE SOUTH END BY A 1.5" ALUMINUM CAP STAMPED PLS 38658, FROM WHICH A NAIL & WASHER, EL: 6267.44 BEARS N00°00'00"W, A DISTANCE OF 300.02 FEET.

THE ENGINEER'S SIGNATURE MUST BE PLACED IN THE SPACE PROVIDED FOR THE ENGINEER'S SIGNATURE. THE ENGINEER'S SIGNATURE MUST BE PLACED IN THE SPACE PROVIDED FOR THE ENGINEER'S SIGNATURE.

FOR AND ON  
BEHALF OF  
M&S CIVIL  
CONSULTANTS,  
INC.



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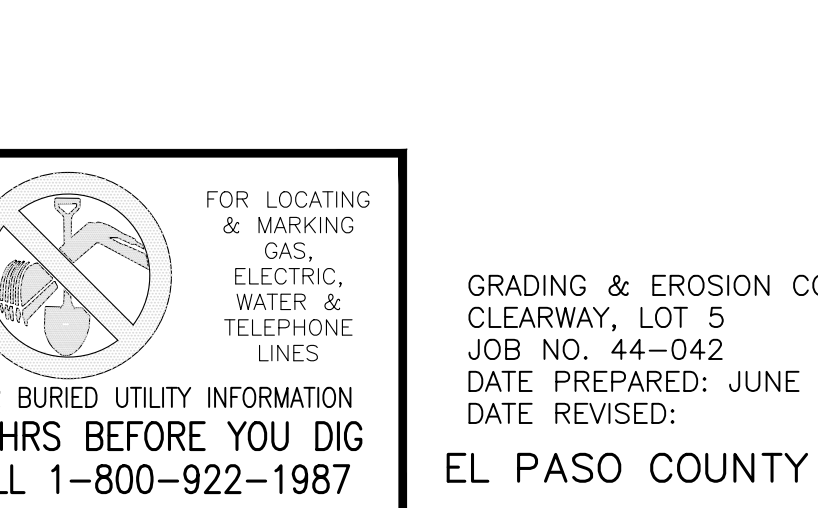
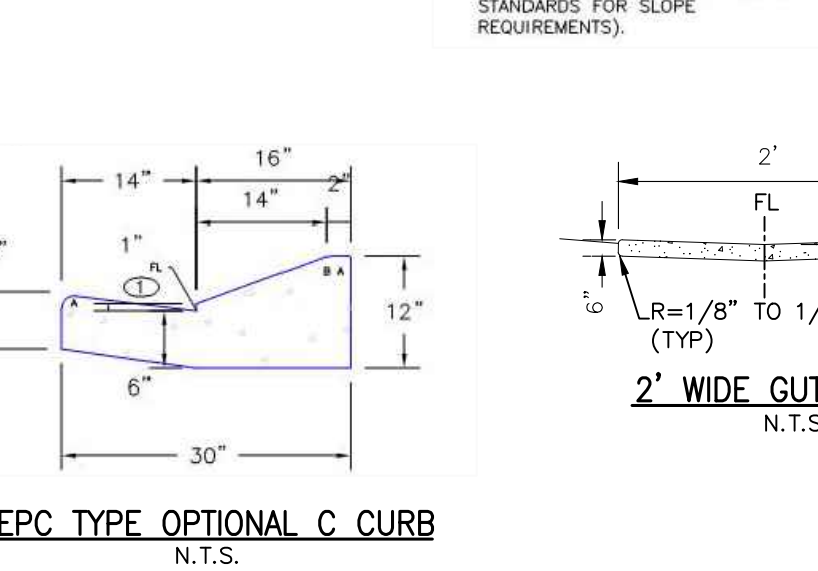
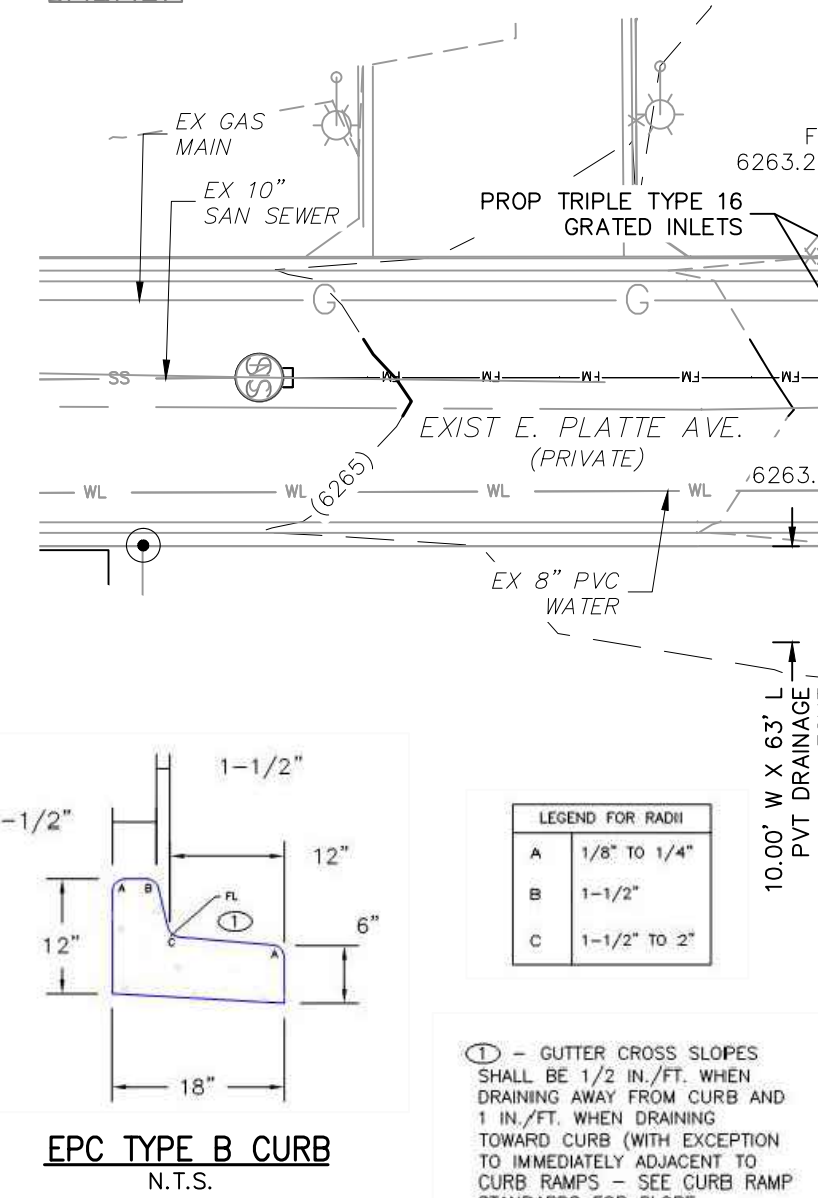
REVISION	DATE	THE ENGINEER UNAUTHORIZED MUST
NO.		
		CAUTION



LEGEND

- LIMITS OF DISTURBANCE / CONSTRUCTION BOUNDARY
- - - CUT/FILL LINE
- (6920) - EXISTING MAJOR CONTOUR
- - (6918) - EXISTING MINOR CONTOUR
- 6920 — PROPOSED MAJOR CONTOUR
- 6918 — PROPOSED MINOR CONTOUR
- EXISTING 100 YEAR FEMA FLOODPLAIN
- FILING BOUNDARY (PROPERTY LINE)
- PROPERTY LINE
- PROP SWALE
- EASEMENT LINE

- PROPOSED STORM SEWER PIPE
- PROPOSED INLET
- EXISTING FLOW DIRECTION ARROW
- EMERGENCY OVERFLOW DIRECTION
- 2.1% FLOW DIRECTION & SLOPE
- FLARED END SECTION
- H.P. HIGH POINT
- L.P. LOW POINT
- TSB TEMPORARY SEDIMENT BASIN INITIAL/FINAL STAGES
- EXISTING RIPRAP FROM PREVIOUS CLEARWAY SUBDIVISION IMPROVEMENTS
- PROPOSED RIPRAP/SOIL RIPRAP



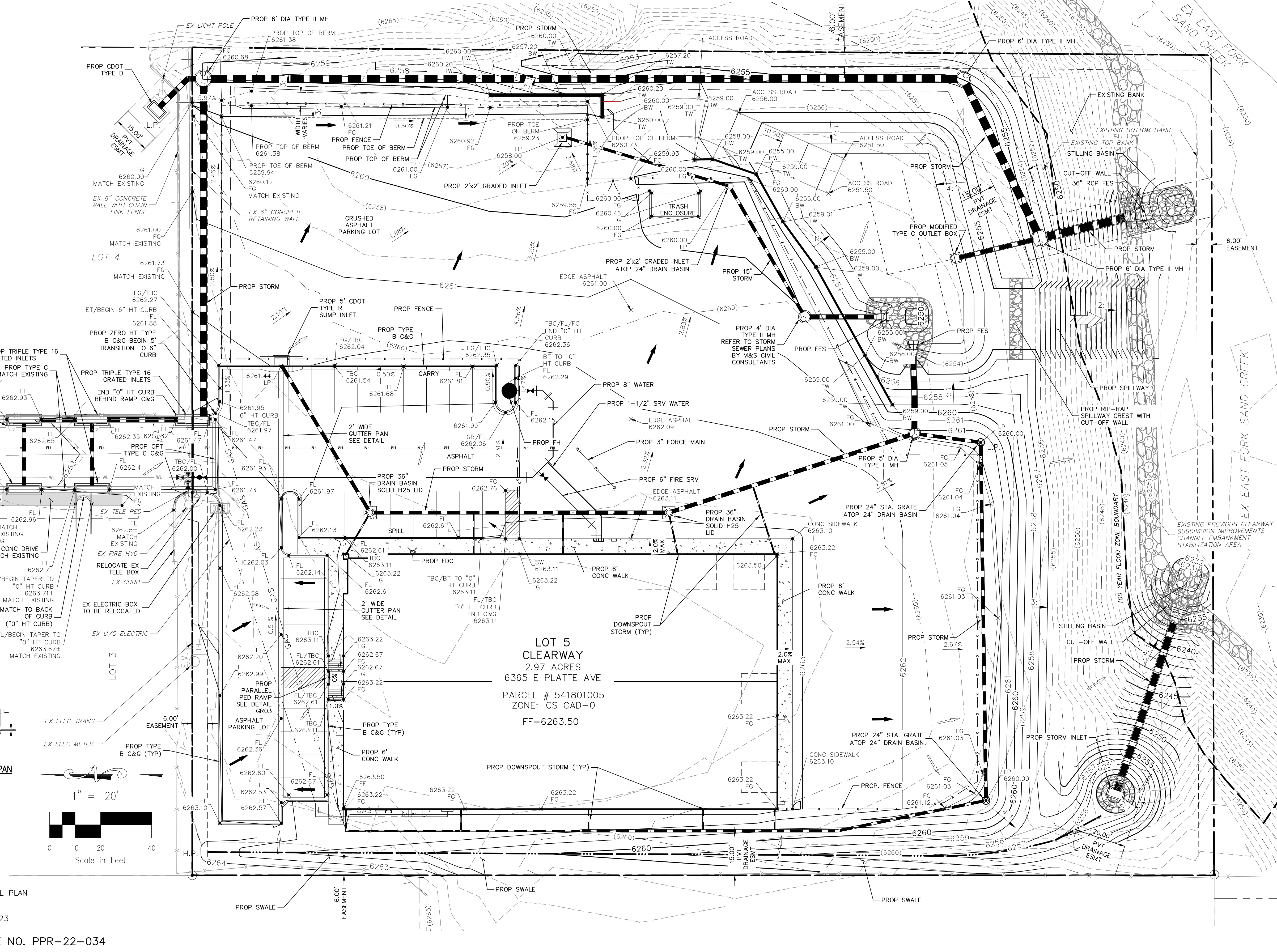
LEGEND FOR RADIUS  
A 1/8" TO 1/4"  
B 1-1/2"  
C 1-1/2" TO 2"

1 - GUTTER CROSS SLOPES SHALL BE 1/2 IN./FT. WHEN DRAINING AWAY FROM CURB AND 1 IN./FT. WHEN DRAINING TOWARD CURB (WITH EXCEPTION TO IMMEDIATELY ADJACENT TO CURB RAMPS - SEE CURB RAMP STANDARDS FOR SLOPE REQUIREMENTS).

# CLEARWAY, LOT 5 (WIENUT)

## COUNTY OF EL PASO, STATE OF COLORADO

### DETAILED GRADING PLAN



CLEARWAY, LOT 5

DETAILED GRADING PLAN

PROJECT NO. 44-042A

DATE: 08/07/2023

SCALE: HORIZONTAL: 1"=20' VERTICAL: N/A

DESIGNED BY: TAU

DRAWN BY: CLP

CHECKED BY: DLM

GR02

210 N. WATKINS AVE. STE 305

COLORADO SPRINGS CO 80903

PHONE: 719.555.5465

CIVIL CONSULTANTS, INC.

FOR AND ON BEHALF OF

CIVIL CONSULTANTS, INC.

REVISIONS:

NO.	DATE	BY	DESCRIPTION

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARED OF THESE PLANS.

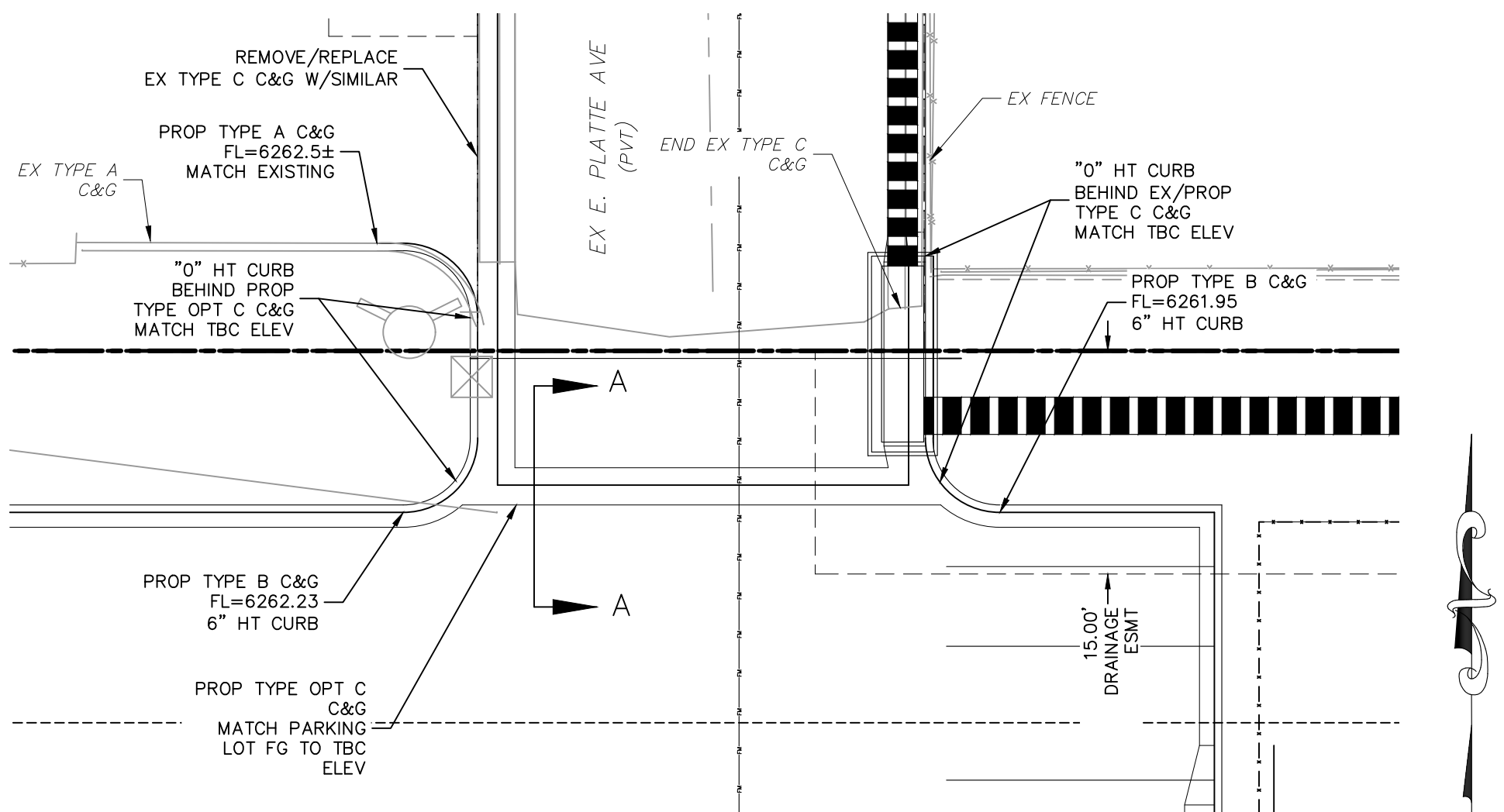
CAUTION



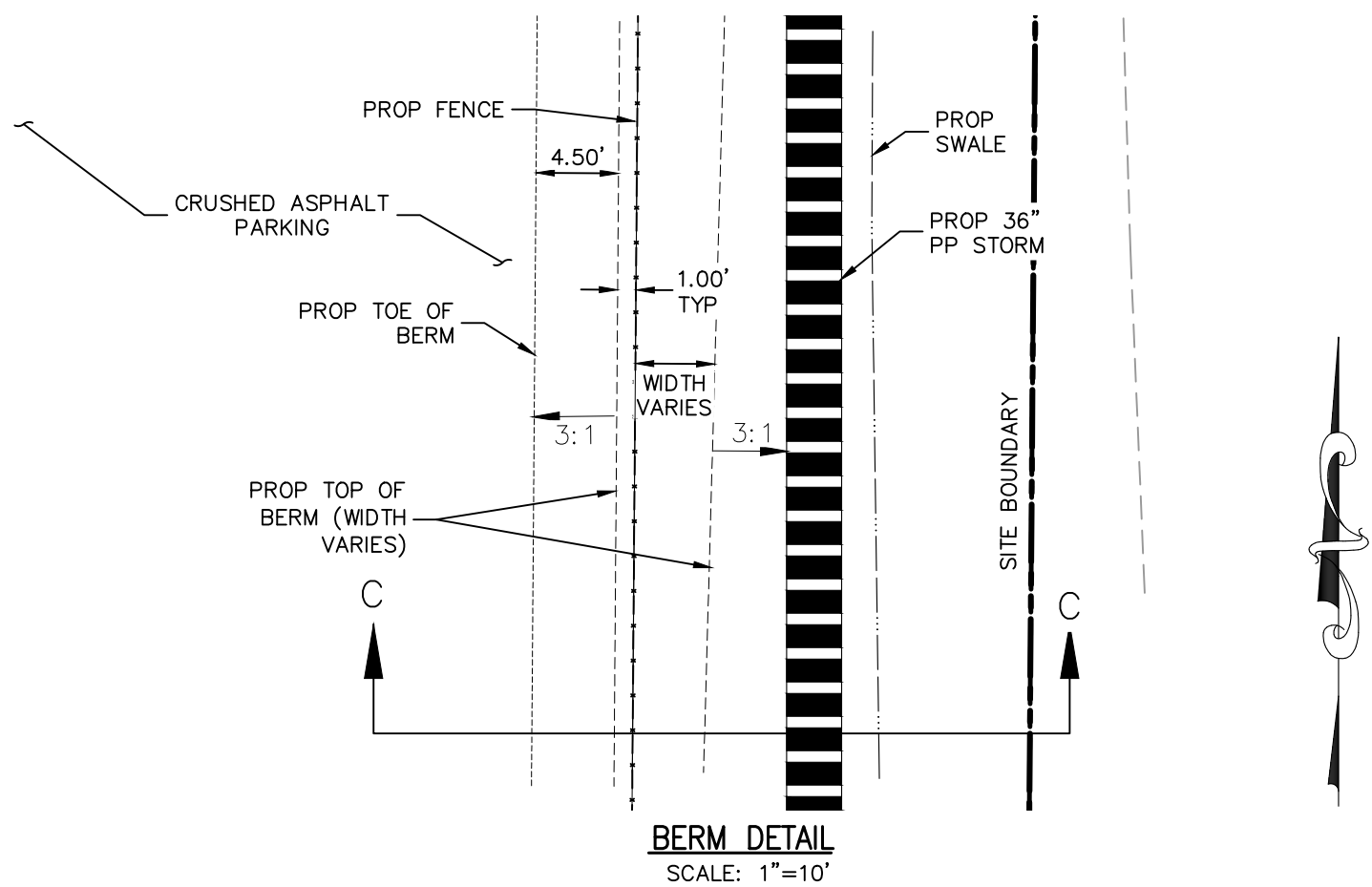
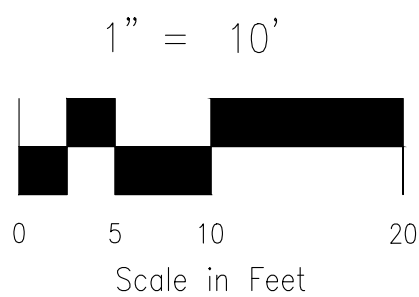
CLEARWAY, LOT 5 (WIRENUT)

COUNTY OF EL PASO, STATE OF COLORADO

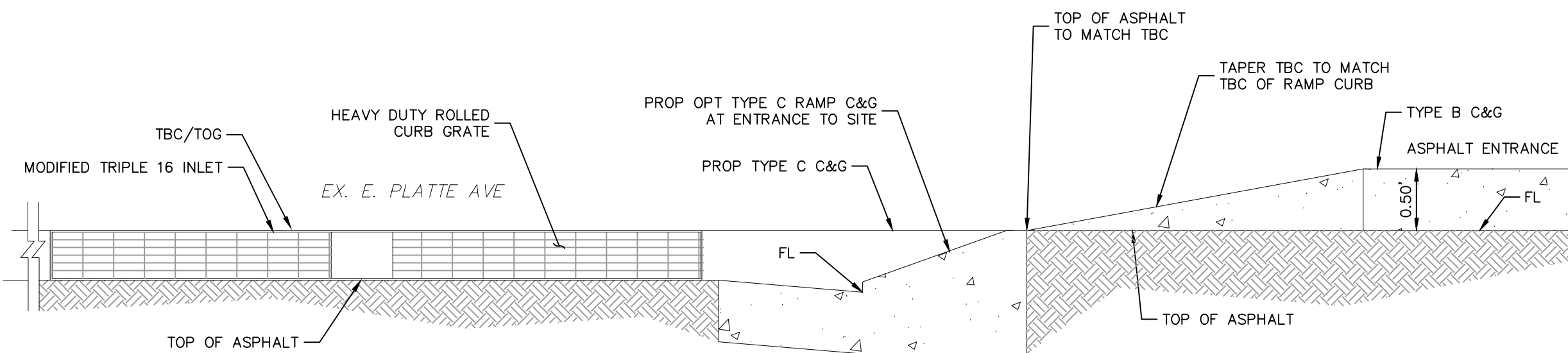
DETAILED GRADING DETAILS



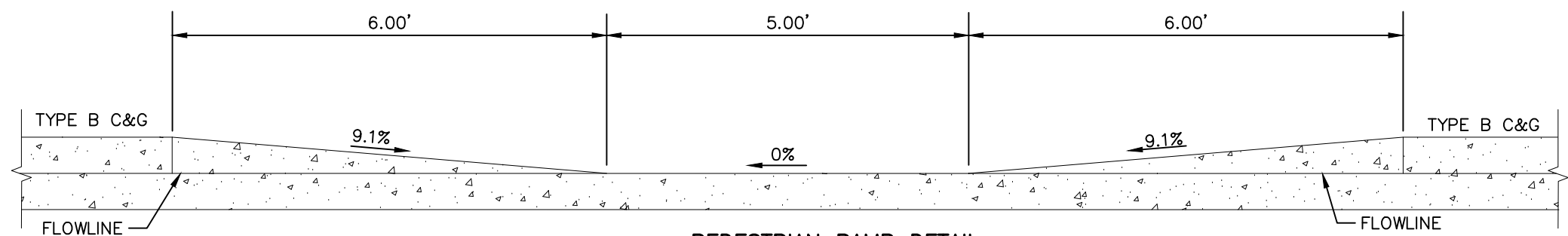
SITE ENTRANCE  
SCALE: 1"=10'



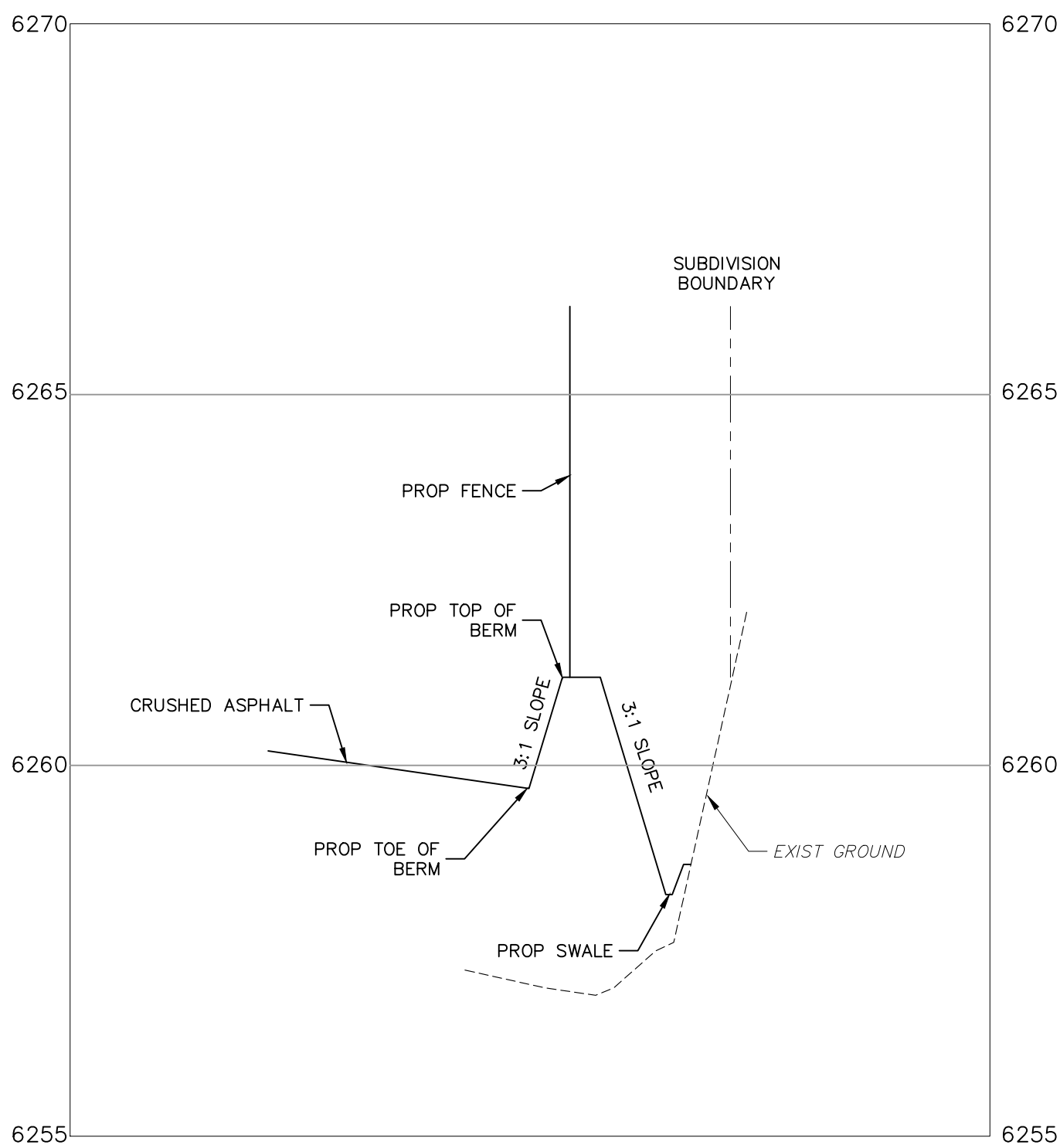
BERM DETAIL  
SCALE: 1"=10'



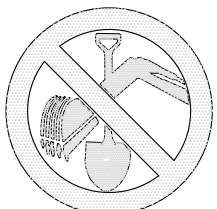
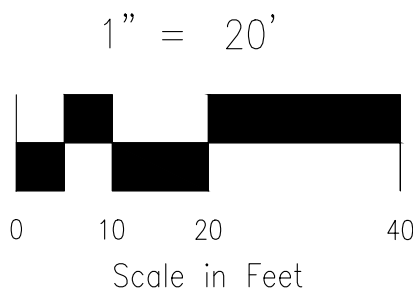
SECTION A-A  
SCALE: NTS



PEDESTRIAN RAMP DETAIL  
SCALE: NTS



TYPICAL BERM SECTION C-C  
SCALE: HORIZ: 1"=20'  
VERT: 1"=2'



FOR LOCATING  
& MARKING  
GAS,  
ELECTRIC,  
WATER &  
TELEPHONE  
LINES

FOR BURIED UTILITY INFORMATION  
48 HRS BEFORE YOU DIG  
CALL 1-800-922-1987

GRADING DETAILS  
CLEARWAY, LOT 5  
JOB NO. 44-042  
DATE PREPARED: JUNE 1, 2023  
DATE REVISED:

EL PASO COUNTY FILE NO. PPR-22-034

CLEARWAY, LOT 5

DETAILED GRADING DETAILS

DATE: 08/07/2023

GR03

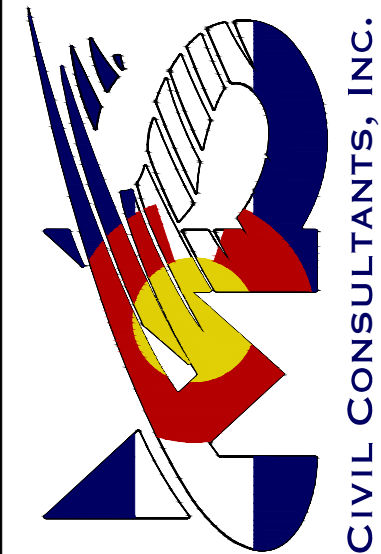
SHEET 3 OF 11

SCALE: HORIZONTAL: 1"=20' VERTICAL: N/A

DESIGNED BY: TAU CLP

CHECKED BY: DLM

212 N. WABATCH AVE. STE 305  
COLORADO SPRINGS CO 80903  
PHONE: 719.555.5465



VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

FOR AND ON  
BEHALF OF  
CIVIL CONSULTANTS,  
INC.



REVISIONS: NO. DATE BY DESCRIPTION

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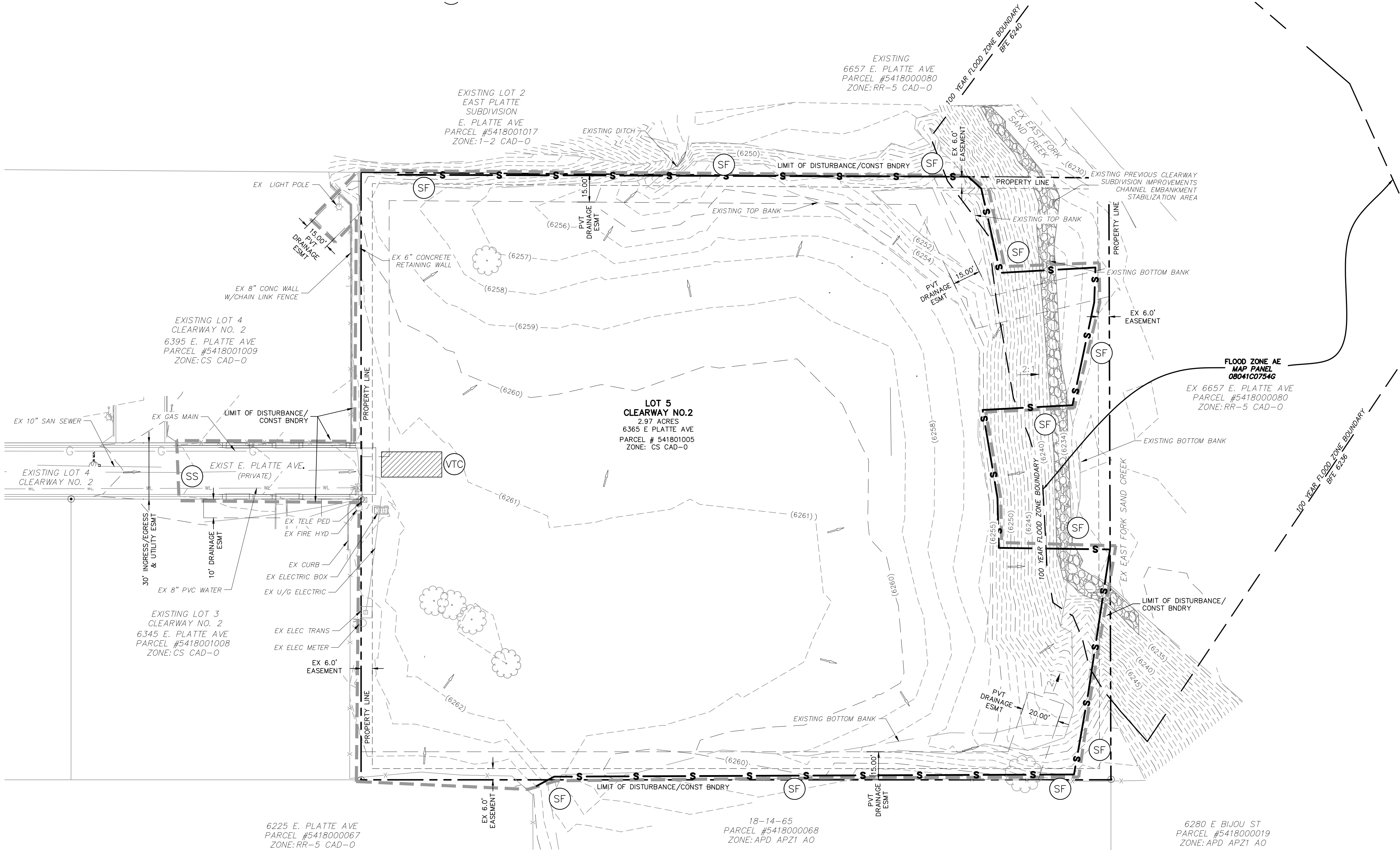
CAUTION





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TELEPHONE  
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**NARRATIVE NOTES:**

1. LOCATION OF STOCKPILES SHALL BE DETERMINED BY CONTRACTOR. ALL STOCKPILES SHALL REMAIN WITHIN THE CONSTRUCTION BOUNDARIES AS INDICATED ON THE SITE MAP.
2. THE EXACT LOCATION FOR THE STABILIZED STAGING AREA, STORAGE EQUIPMENT AND TEMPORARY DISPOSAL AREAS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR. PLAN SHALL BE UPDATED BY CONTRACTOR UPON DETERMINATION OF EXACT LOCATION.
3. FINAL STABILIZATION SHALL BE COMPLETED AT THE END OF THE CONSTRUCTION ACTIVITIES. ALL AREAS DISTURBED WITHIN THE CONSTRUCTION BOUNDARY/LIMITS OF DISTURBANCE AREA SHALL BE RESEEDED WITH NATIVE SEEDING.
4. EROSION CONTROL BLANKET SHALL BE USED ON SLOPES GREATER THAN 4:1.
5. REFER TO WIRE NUT FILING NO. 1 CONSTRUCTION PLANS BY M&S CIVIL CONSULTANTS FOR ADDITIONAL DETAIL.

**ADDITIONAL NOTES:**

1. THE EROSION CONTROL DELINEATED ON THIS PLAN SHALL BE REGULARLY UPDATED BY THE CONTRACTOR.
2. OFFSITE GRADING ON PLATTE AVE AND LOT 4 DUE TO NON-EXISTING DRAINAGE INFRASTRUCTURE, TO BE APPROVED BY THE CITY OF COLORADO SPRINGS. (OR EPC.)
3. LOCATIONS OF ALL NON-STRUCTURAL CONTROL MEASURES. NONSTRUCTURAL CONTROLS (LIKE STREET SWEEPING) WITHOUT A SPECIFIC LOCATION MAY BE DESCRIBED USING NOTES.
4. PROPOSED SLOPES SHALL BE 4:1 OR GREATER.
5. THE CONTRACTOR SHALL OBTAIN A COPY OF THE GEOTECHNICAL ENGINEERING REPORT AND KEEP A COPY ONSITE DURING ALL EARTHWORK OPERATIONS.
6. TO REDUCED RUNOFF EROSION, THE CONTRACTOR SHALL IMPLEMENT SURFACING ROUGHING MEASURES OVER LARGER AREAS OF THE SITE. IF WEATHER DICTATES, THE CONTRACTOR SHOULD UTILIZE WATERING NON-STRUCTURAL MEASUREMENTS TO MINIMIZE WIND EROSION. THE SITE SHOULD BE MULCHED AFTER INTERIM GRADING WITHIN 21 DAYS, AND THE SITE SHALL BE SEEDDED IF CONSTRUCTION DOESN'T COMMENCE WITHIN 60 DAYS, PER EPC STANDARDS SPECIFICATIONS.
7. NO ASPHALT / CONCRETE BATCH PLANTS WILL BE UTILIZED ONSITE.

**VEGETATION:**

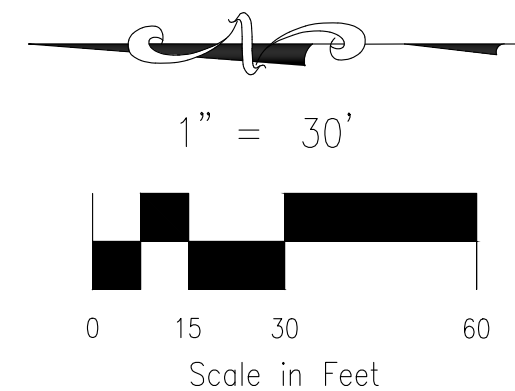
EXISTING VEGETATION: NATIVE PRAIRIE GRASSES AND SHRUBS.

**TEMPORARY NON-STRUCTURAL PRACTICES:**

TO REDUCED RUNOFF EROSION, THE CONTRACTOR SHALL IMPLEMENT SURFACING ROUGHING MEASURES OVER LARGER AREAS OF THE SITE. IF WEATHER DICTATES, THE CONTRACTOR SHOULD UTILIZE WATERING NON-STRUCTURAL MEASUREMENTS TO MINIMIZE WIND EROSION. THE SITE SHOULD BE MULCHED AFTER INTERIM GRADING WITHIN 21 DAYS, AND THE SITE SHALL BE SEEDDED IF CONSTRUCTION DOESN'T COMMENCE WITHIN 60 DAYS, PER EL PASO COUNTY (EPC) STANDARDS.

**LEGEND**

- 6920 — EXISTING MAJOR CONTOUR
- 6918 — EXISTING MINOR CONTOUR
- 6920 — PROPOSED MAJOR CONTOUR
- 6918 — PROPOSED MINOR CONTOUR
- - - - - FILING BOUNDARY LINE
- - - - - EXISTING PROPERTY LINE
- - - - - LIMIT OF DISTURBANCE/CONST FENCING /BOUNDARY
- SF — S — SILT FENCE
- L.P./H.P. — 2:1 — LOW POINT/HIGH POINT
- 2:1 — FLOW DIRECTION & SLOPE
- — FLOW DIRECTION ARROW/ EMERGENCY OVERFLOW
- — EXISTING FLOW DIRECTION ARROW
- VTC — VEHICLE TRACKING CONTROL
- SS — SWEEPING AT THIS LOCATION WHEN WORK IS BEING CONDUCTED
- — EXISTING RIPRAP FROM PREVIOUS CLEARWAY SUBDIVISION IMPROVEMENTS



EL PASO COUNTY FILE NO. PPR-22-034

CLEARWAY, LOT 5

INITIAL GRADING & EROSION CONTROL PLAN

PROJECT NO. 44-042A

DATE: 08/07/2023

SCALE: HORIZONTAL: 1"=30' VERTICAL: N/A

DESIGNED BY: TAU CLP

DRAWN BY: CLP

CHECKED BY: DLM

SHEET 4 OF 11

GR04

212 N WAHATCH AVE, STE 305  
COLORADO SPRINGS, CO 80903  
PHONE: 719.555.5465

CIVIL CONSULTANTS, INC.

FOR AND ON  
BEHALF OF  
CIVIL CONSULTANTS,  
INC.

VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

REVISONS:	NO.	DATE:	BY:	DESCRIPTION:

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CAUTION





FOR BURIED UTILITY INFORMATION  
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CALL 1-800-922-1987

#### NARRATIVE NOTES:

1. LOCATION OF STOCKPILES SHALL BE DETERMINED BY CONTRACTOR. ALL STOCKPILES SHALL REMAIN WITHIN THE CONSTRUCTION BOUNDARIES AS INDICATED ON THE SITE MAP.
2. THE EXACT LOCATION FOR THE STABILIZED STAGING AREA, STORAGE EQUIPMENT AND TEMPORARY DISPOSAL AREAS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR. PLAN SHALL BE UPDATED BY CONTRACTOR UPON DETERMINATION OF EXACT LOCATION.
3. FINAL STABILIZATION SHALL BE COMPLETED AT THE END OF THE CONSTRUCTION ACTIVITIES. ALL AREAS DISTURBED WITHIN THE CONSTRUCTION BOUNDARY/LIMITS OF DISTURBANCE AREA SHALL BE RESEED WITH NATIVE SEEDING.
4. EROSION CONTROL BLANKET SHALL BE USED ON SLOPES GREATER THAN 4:1.
5. REFER TO WIRE NUT FILING NO. 1 CONSTRUCTION PLANS BY M&S CIVIL CONSULTANTS FOR ADDITIONAL DETAIL.

#### ADDITIONAL NOTES:

1. THE EROSION CONTROL DELINEATED ON THIS PLAN SHALL BE REGULARLY UPDATED BY THE CONTRACTOR.
2. OFFSITE GRADING ON PLATTE AVE AND LOT 4 DUE TO NON-EXISTING DRAINAGE INFRASTRUCTURE, TO BE APPROVED BY THE CITY OF COLORADO SPRINGS. (OR EPC.)
3. LOCATIONS OF ALL NON-STRUCTURAL CONTROL MEASURES. NON-STRUCTURAL CONTROLS (LIKE STREET SWEEPING) WITHOUT A SPECIFIC LOCATION MAY BE DESCRIBED USING NOTES.
4. PROPOSED SLOPES SHALL BE 4:1 OR GREATER.
5. THE CONTRACTOR SHALL OBTAIN A COPY OF THE GEOTECHNICAL ENGINEERING REPORT AND KEEP A COPY ONSITE DURING ALL EARTHWORK OPERATIONS.
6. TO REDUCED RUNOFF EROSION, THE CONTRACTOR SHALL IMPLEMENT SURFACING ROUGHING MEASURES OVER LARGER AREAS OF THE SITE. IF WEATHER DICTATES, THE CONTRACTOR SHOULD UTILIZE WATERING. NON-STRUCTURAL MEASUREMENTS TO MINIMIZE WIND EROSION. THE SITE SHOULD BE MULCHED AFTER INTERIM GRADING WITHIN 21 DAYS, AND THE SITE SHALL BE SEEDDED IF CONSTRUCTION DOESN'T COMMENCE WITHIN 60 DAYS, PER EPC STANDARDS SPECIFICATIONS.
7. NO ASPHALT / CONCRETE BATCH PLANTS WILL BE UTILIZED ONSITE.
8. REFER TO CLEARWAY, LOT 5 (WIRENUT) CONSTRUCTION PLANS FOR STORM SEWER INSTALLATION DETAILS.

#### VEGETATION:

EXISTING VEGETATION: NATIVE PRAIRIE GRASSES AND SHRUBS.

#### TEMPORARY NON-STRUCTURAL PRACTICES:

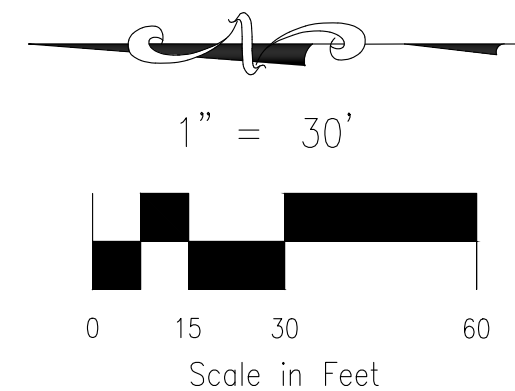
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#### SEDIMENT BASIN TABLE

SEDIMENT BASIN NO.	UPSTREAM DRAINAGE AREA AC.	Basin Width FT.	Basin Length FT.	Antic. Max Water Ht FT.	Req'd Volume C.F.	Spillway Length FT.	Hole Dia. IN.	Rows of Holes IN STANDPIPE
SB1	2	21	42	3	16,818	3	13/16	1
SB2	10	58	95	3	20,930	15	15/16	1

#### LEGEND

- 6920 — EXISTING MAJOR CONTOUR
- 6918 — EXISTING MINOR CONTOUR
- 6920 — PROPOSED MAJOR CONTOUR
- 6918 — PROPOSED MINOR CONTOUR
- - - FILING BOUNDARY LINE
- - - EXISTING PROPERTY LINE
- - - LIMIT OF DISTURBANCE/CONST BOUNDARY
- - - PROPOSED STORM SEWER
- (SF) S SILT FENCE
- L.P./H.P. LOW POINT/HIGH POINT
- 2:1 FLOW DIRECTION & SLOPE
- FLOW DIRECTION ARROW/ EMERGENCY OVERFLOW
- EXISTING FLOW DIRECTION ARROW
- (VTC) VEHICLE TRACKING CONTROL
- (CWA) CONCRETE WASH-OUT AREA
- (TSB) TEMPORARY SEDIMENT BASIN
- (IP) INLET PROTECTION
- (CIP) CULVERT INLET PROTECTION
- (CD) CHECK DAM
- (ECB) EROSION CONTROL BLANKET (INITIAL PHASE - TEMP EROSION CONTROL BLANKET SHALL REMAIN UNTIL FINAL STABILIZATION.)
- (SP) STOCK PILE MANAGEMENT
- EXISTING RIPRAP FROM PREVIOUS CLEARWAY SUBDIVISION IMPROVEMENTS
- PROPOSED RIPRAP/SOIL RIPRAP



EL PASO COUNTY FILE NO. PPR-22-034

CLEARWAY, LOT 5

INTERIM GRADING & EROSION CONTROL PLAN

PROJECT NO. 44-042A

DATE: 08/07/2023

SCALE: HORIZONTAL: 1"=30' VERTICAL: N/A

DESIGNED BY: TAU CLP

DRAWN BY: CLP

CHECKED BY: DLM

212 N WAHATCH AVE, STE 305  
COLORADO SPRINGS, CO 80903  
PHONE: 719.555.5465

CIVIL CONSULTANTS, INC.

FOR AND ON BEHALF OF  
M&S CIVIL CONSULTANTS, INC.

VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

REVISONS:	NO.	DATE:	BY:	DESCRIPTION:

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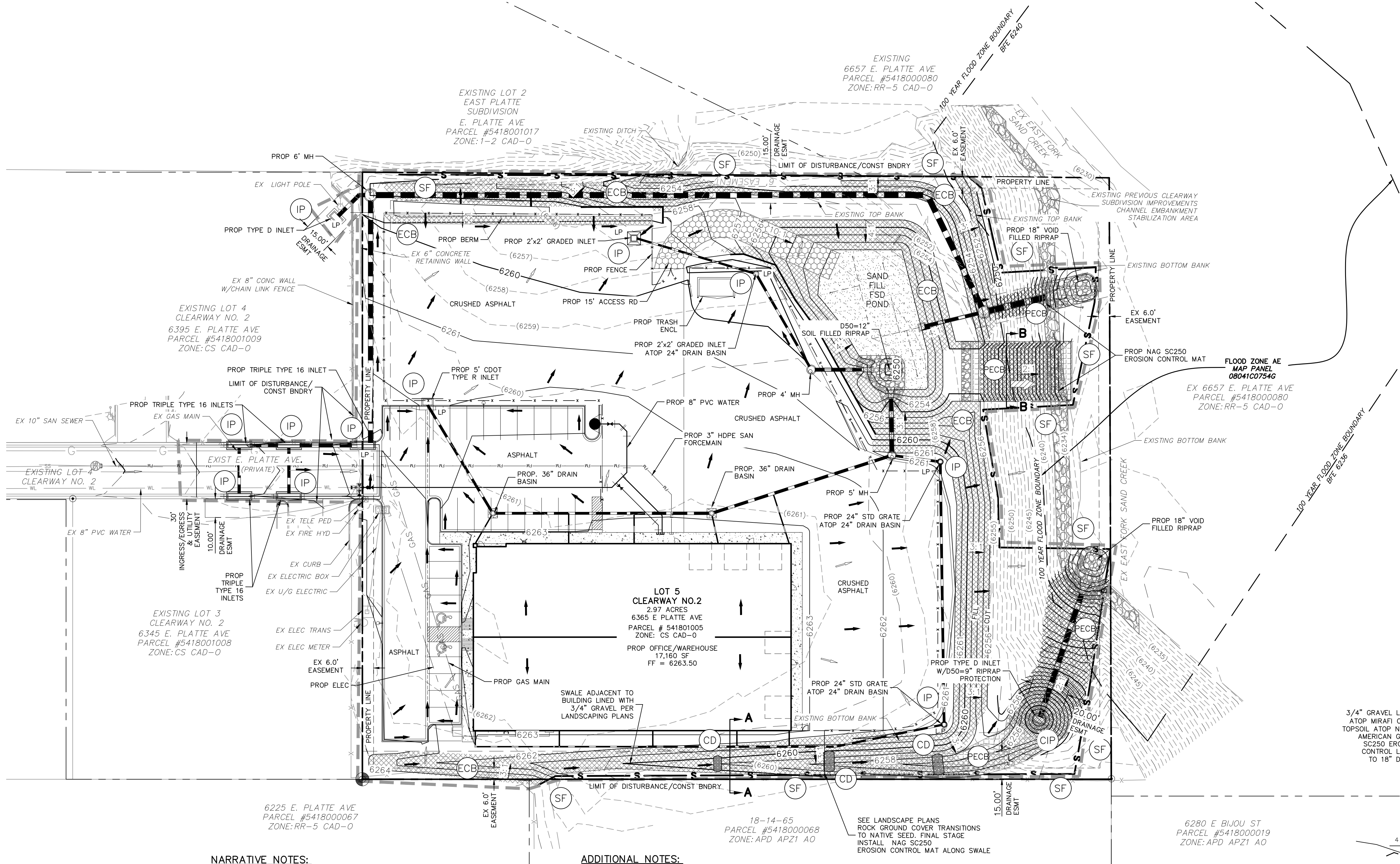
CAUTION





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& MARKING  
GAS,  
ELECTRIC,  
WATER &  
TELEPHONE  
LINES

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**NARRATIVE NOTES:**

1. LOCATION OF STOCKPILES SHALL BE DETERMINED BY CONTRACTOR. ALL STOCKPILES SHALL REMAIN WITHIN THE CONSTRUCTION BOUNDARIES AS INDICATED ON THE SITE MAP.
2. THE EXACT LOCATION FOR THE STABILIZED STAGING AREA, STORAGE EQUIPMENT AND TEMPORARY DISPOSAL AREAS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR. PLAN SHALL BE UPDATED BY CONTRACTOR UPON DETERMINATION OF EXACT LOCATION.
3. FINAL STABILIZATION SHALL BE COMPLETED AT THE END OF THE CONSTRUCTION ACTIVITIES. ALL AREAS DISTURBED WITHIN THE CONSTRUCTION BOUNDARY/LIMITS OF DISTURBANCE AREA SHALL BE RESEED WITH NATIVE SEEDING.
4. EROSION CONTROL BLANKET SHALL BE USED ON SLOPES GREATER THAN 4:1.
5. REFER TO WIRE NUT FILING NO. 1 CONSTRUCTION PLANS BY M&S CIVIL CONSULTANTS FOR ADDITIONAL DETAIL.

**ADDITIONAL NOTES:**

1. THE EROSION CONTROL DELINEATED ON THIS PLAN SHALL BE REGULARLY UPDATED BY THE CONTRACTOR.
2. OFFSITE GRADING ON PLATTE AVE AND LOT 4 DUE TO NON-EXISTING DRAINAGE INFRASTRUCTURE. TO BE APPROVED BY THE CITY OF COLORADO SPRINGS. (OR EPC.)
3. LOCATIONS OF ALL NON-STRUCTURAL CONTROL MEASURES. NONSTRUCTURAL CONTROLS (LIKE STREET SWEEPING) WITHOUT A SPECIFIC LOCATION MAY BE DESCRIBED USING NOTES.
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7. NO ASPHALT / CONCRETE BATCH PLANTS WILL BE UTILIZED ONSITE.
8. A FLOODPLAIN DEVELOPMENT PERMIT SHALL BE REQUIRED PRIOR TO GRADING WITHIN THE BOYR FLOODPLAIN
9. LOT 4 AND LOT 5 ARE OWNED BY WRENUT HOME SERVICES.

**VEGETATION:**

EXISTING VEGETATION: NATIVE PRAIRIE GRASSES AND SHRUBS.

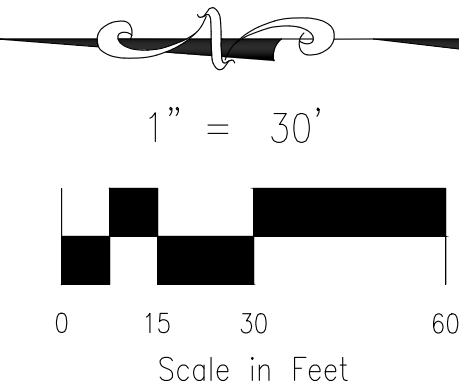
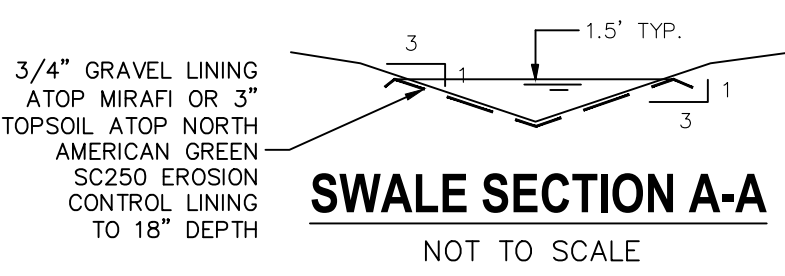
PLEASE REFER TO FINAL LANDSCAPE PLANS BY HIGHER GROUND DESIGNS JOB NO. 1082-22

**TEMPORARY NON-STRUCTURAL PRACTICES:**

TO REDUCED RUNOFF EROSION, THE CONTRACTOR SHALL IMPLEMENT SURFACING ROUGHING MEASURES OVER LARGER AREAS OF THE SITE. IF WEATHER DICTATES, THE CONTRACTOR SHOULD UTILIZE WATERING NON-STRUCTURAL MEASUREMENTS TO MINIMIZE WIND EROSION. THE SITE SHOULD BE MULCHED AFTER INTERIM GRADING WITHIN 21 DAYS, AND THE SITE SHALL BE SEEDED IF CONSTRUCTION DOESN'T COMMENCE WITHIN 60 DAYS, PER EL PASO COUNTY (EPC) STANDARDS.

**LEGEND**

- 6920 — EXISTING MAJOR CONTOUR
- 6918 — EXISTING MINOR CONTOUR
- 6920 — PROPOSED MAJOR CONTOUR
- 6918 — PROPOSED MINOR CONTOUR
- - - FILING BOUNDARY LINE
- - - EXISTING PROPERTY LINE
- - - LIMIT OF DISTURBANCE/CONST BOUNDARY
- SF S SILT FENCE
- PROPOSED STORM SEWER PIPE
- L.P./H.P. LOW POINT/HIGH POINT
- 2:1 FLOW DIRECTION & SLOPE
- FLOW DIRECTION ARROW/ EMERGENCY OVERFLOW
- EXISTING FLOW DIRECTION ARROW
- EMERGENCY OVERFLOW DIRECTION
- FLARED END SECTION
- IP INLET PROTECTION
- CIP CULVERT INLET PROTECTION
- CD CHECK DAM
- ECB EROSION CONTROL BLANKET (INITIAL PHASE - TEMP EROSION CONTROL BLANKET SHALL REMAIN UNTIL FINAL STABILIZATION.)
- PECB PERMANENT EROSION CONTROL BLANKET (FINAL STAGE - EROSION CONTROL BLANKET SHALL REMAIN)
- MAINTENANCE/ACCESS ROAD
- EXISTING RIPRAP FROM PREVIOUS CLEARWAY SUBDIVISION IMPROVEMENTS
- PROPOSED RIPRAP RUNDOWN & LOW TAILWATER BASIN/ SOIL RIPRAP
- SAND FILL FOR FSD POND



CLEARWAY, LOT 5

FINAL GRADING & EROSION CONTROL PLAN

PROJECT NO. 44-042A

DATE: 08/07/2023

SCALE: HORIZONTAL: 1"=30' VERTICAL: 1"=5'

DESIGNED BY: TAU CLP

DRAWN BY: CLP

CHECKED BY: DLM

SHEET 6 OF 11

GR06

212 N WAHATCH AVE, STE 305  
COLORADO SPRINGS, CO 80903  
PHONE: 719.555.5465

CIVIL CONSULTANTS, INC.

FOR AND ON BEHALF OF  
CIVIL CONSULTANTS,  
INC.

VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

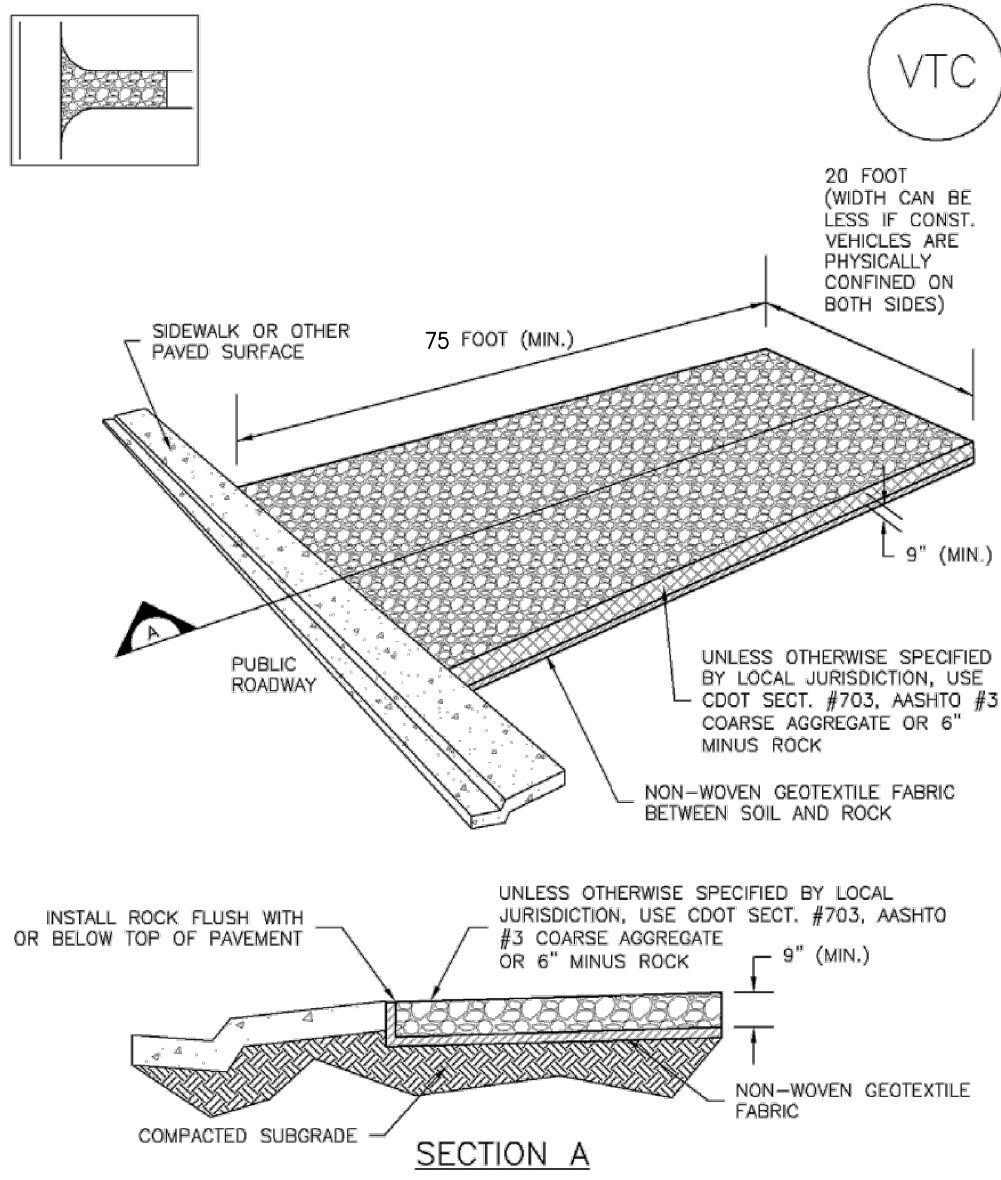
REVISIONS:  
NO. DATE BY DESCRIPTION

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CAUTION



Vehicle Tracking Control (VTC) SM-4



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

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)/EXIT(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

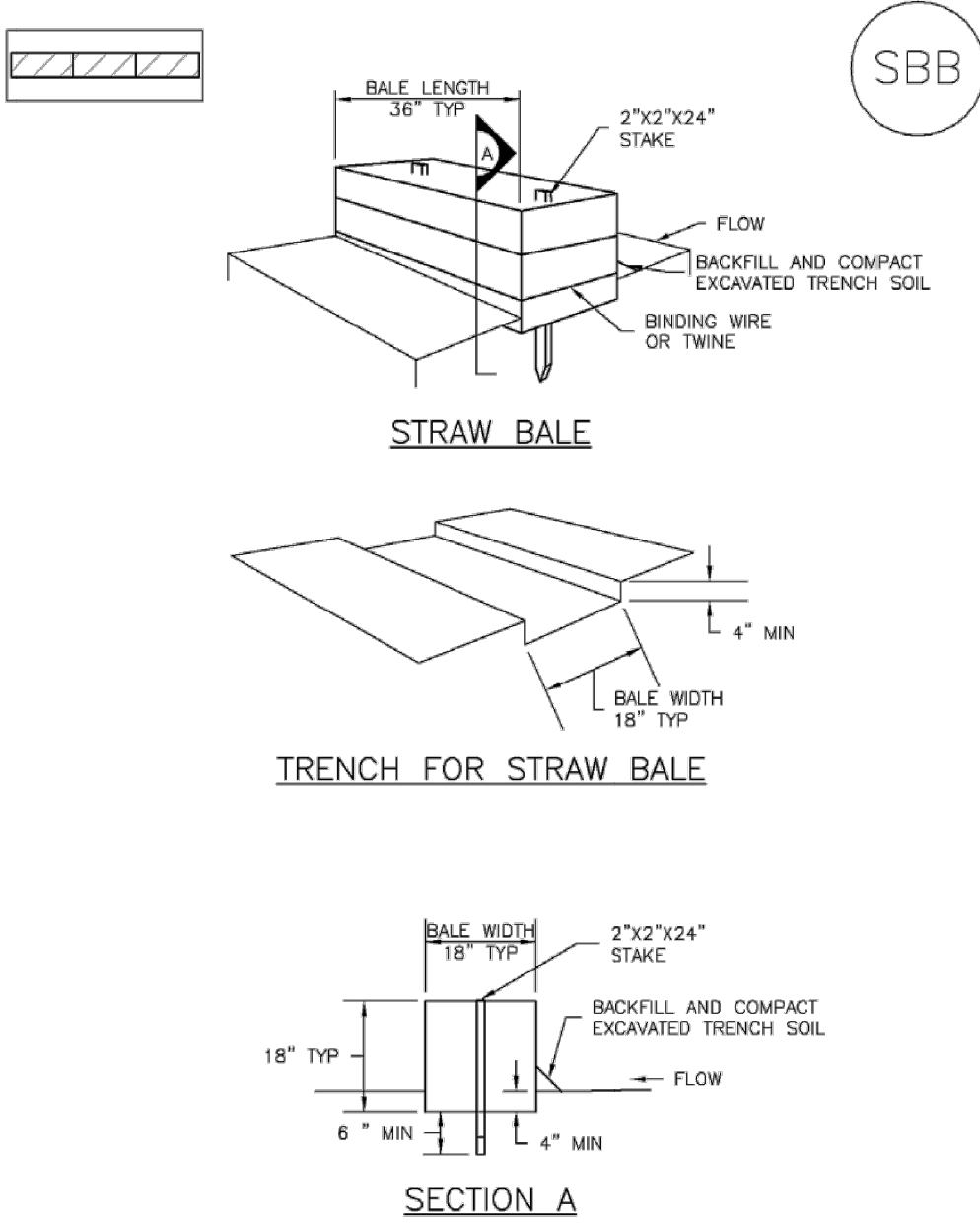
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS 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)

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

SC-3 Straw Bale Barrier (SBB)



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

Straw Bale Barrier (SBB) SC-3

STRAW BALE INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
  - LOCATION(S) OF STRAW BALES.
2. STRAW BALES SHALL CONSIST OF CERTIFIED WEED FREE STRAW OR HAY. LOCAL JURISDICTIONS MAY REQUIRE PROOF THAT BALES ARE WEED FREE.
3. STRAW BALES SHALL CONSIST OF APPROXIMATELY 5 CUBIC FEET OF STRAW OR HAY AND WEIGH NOT LESS THAN 35 POUNDS.
4. WHEN STRAW BALES ARE USED IN SERIES AS A BARRIER, THE END OF EACH BALE SHALL BE TIGHTLY ABUTTING ONE ANOTHER.
5. STRAW BALE DIMENSIONS SHALL BE APPROXIMATELY 36"x18"x18".
6. A UNIFORM ANCHOR TRENCH SHALL BE EXCAVATED TO A DEPTH OF 4". STRAW BALES SHALL BE PLACED SO THAT BINDING TWINE IS ENCOMPASSING THE VERTICAL SIDES OF THE BALES(S). ALL EXCAVATED SOIL SHALL BE PLACED ON THE UPHILL SIDE OF THE STRAW BALE(S) AND COMPACTED.
7. TWO (2) WOODEN STAKES SHALL BE USED TO HOLD EACH BALE IN PLACE. WOODEN STAKES SHALL BE 2"x2"x24". WOODEN STAKES SHALL BE DRIVEN 6" INTO THE GROUND.

STRAW BALE MAINTENANCE NOTES

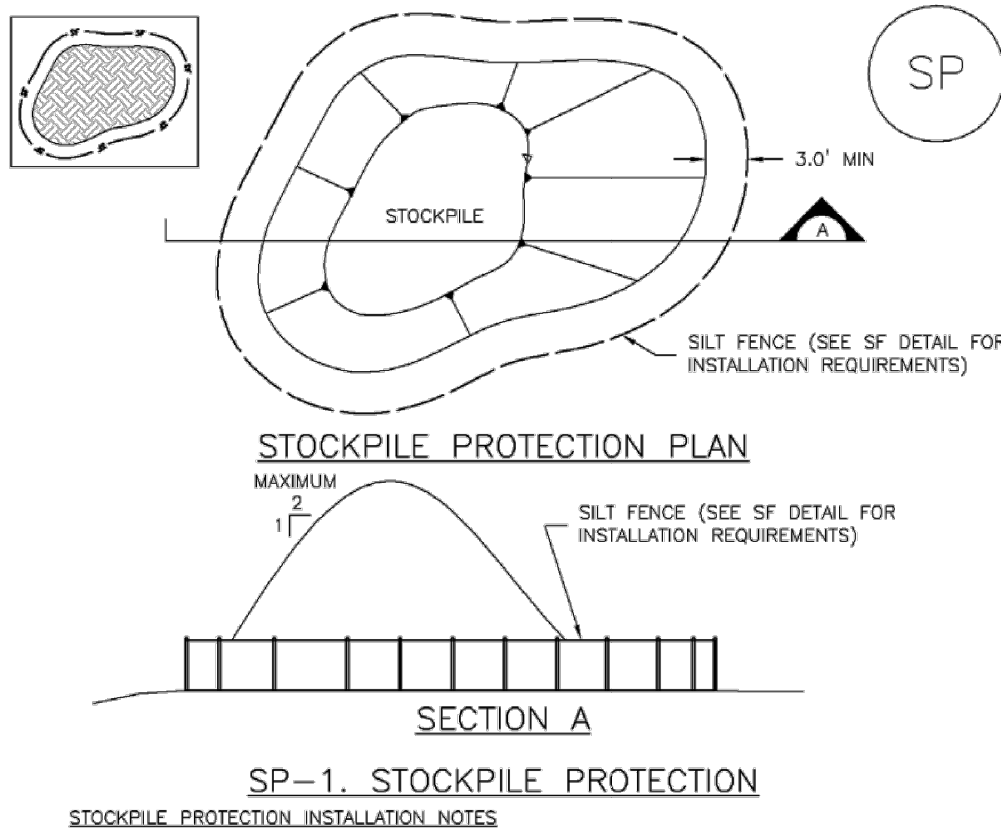
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS 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. STRAW BALES SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, ROTTEN, OR DAMAGED BEYOND REPAIR.
5. SEDIMENT ACCUMULATED UPSTREAM OF STRAW BALE BARRIER 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 STRAW BALE BARRIER.
6. STRAW BALES ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
7. WHEN STRAW BALES ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAILS ADAPTED FROM TOWN OF 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.

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

Stockpile Management (SP) MM-2

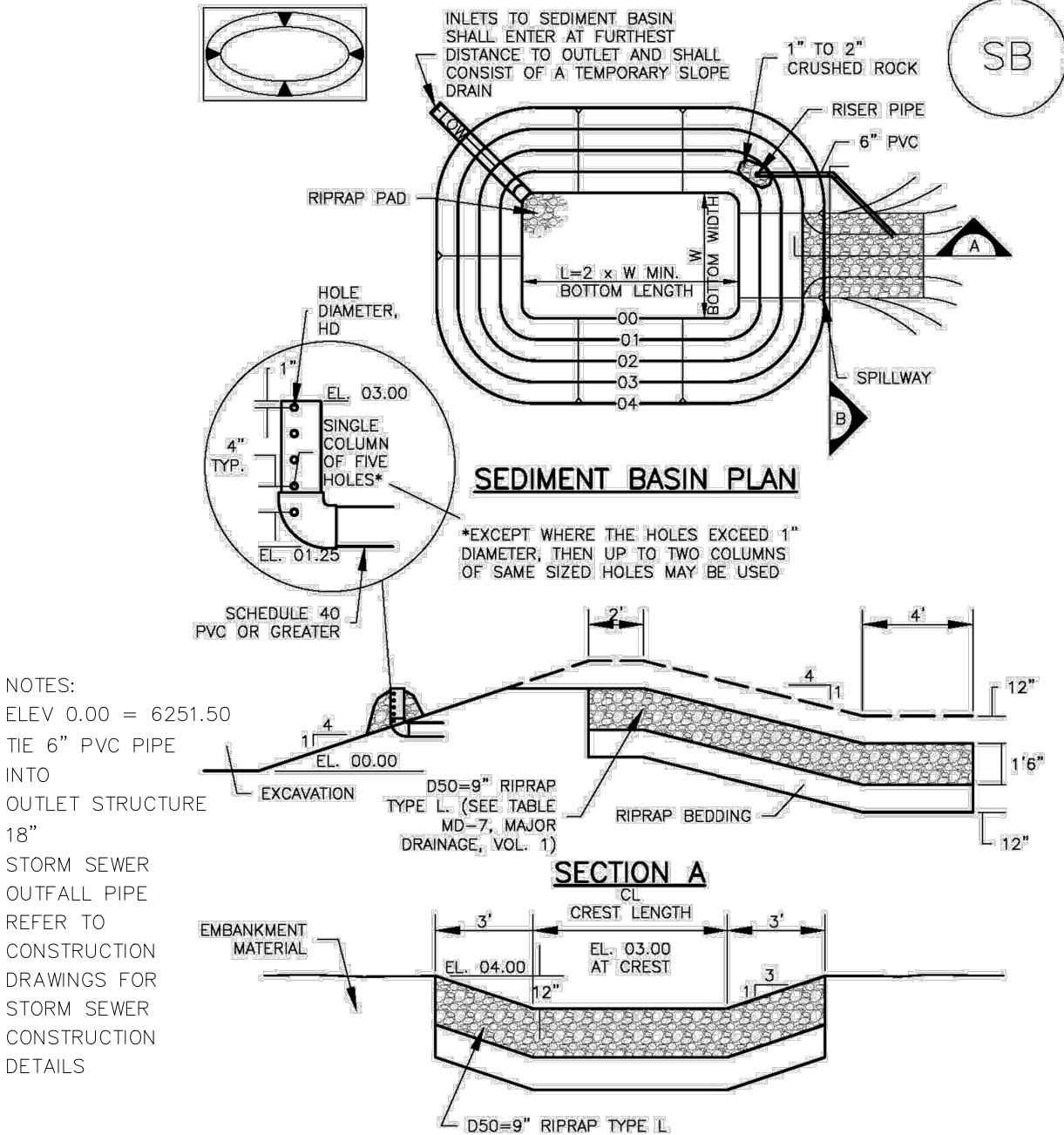


STOCKPILE PROTECTION INSTALLATION NOTES

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 DOWNGRADEMENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

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

Sediment Basin (SB) SC-7



NOTES:  
ELEV 0.00 = 6251.50  
TIE 6" PVC PIPE INTO OUTLET STRUCTURE 18"

STORM SEWER OUTFALL PIPE REFER TO CONSTRUCTION DRAWINGS FOR STORM SEWER CONSTRUCTION DETAILS

August 2013 Urban Drainage and Flood Control District SB-5  
Urban Storm Drainage Criteria Manual Volume 3

SC-7 Sediment Basin (SB)

TABLE SB-1. SIZING INFORMATION FOR STANDARD SEDIMENT BASIN			
Upstream Drainage Area (rounded to nearest acre), (ac)	Basin Bottom Width (W), (ft)	Spillway Crest Length (CL), (ft)	Hole Diameter (HD), (in)
1	12 1/2	2	3/8
2	21	3	1/2
3	28	5	5/8
4	33 1/2	6	3/4
5	38 1/2	8	2 1/2
6	43	9	2 1/2
7	47 1/2	11	2 1/2
8	51	12	2 1/2
9	55	13	2 1/2
10	58 1/2	15	1 1/2
11	61	16	2 1/2
12	64	18	1
13	67 1/2	19	1 1/2
14	70 1/2	21	1 1/2
15	73 1/2	22	1 1/2

SEDIMENT BASIN INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
  - LOCATION OF SEDIMENT BASIN.
  - TYPE OF BASIN (STANDARD BASIN OR NONSTANDARD BASIN).
  - FOR STANDARD BASIN, BOTTOM WIDTH W, CREST LENGTH CL, AND HOLE DIAMETER, HD.
  - FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RISER HEIGHT H, NUMBER OF COLUMNS N, HOLE DIAMETER HD AND PIPE DIAMETER D.
2. FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.
3. SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER LAND-DISTURBING ACTIVITY THAT RELIES ON BASINS AS A STORMWATER CONTROL.
4. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE.
5. EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.
6. PIPE SCH 40 OR GREATER SHALL BE USED.
7. 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.

SB-6 Urban Drainage and Flood Control District August 2013  
Urban Storm Drainage Criteria Manual Volume 3

Sediment Basin (SB) SC-7

SEDIMENT BASIN 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 IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN BMP EFFECTIVENESS. TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (I.E., TWO FEET BELOW THE SPILLWAY CREST).
5. SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS ACCEPTED BY THE LOCAL JURISDICTION.
6. WHEN SEDIMENT BASINS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO)

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.

August 2013 Urban Drainage and Flood Control District SB-7  
Urban Storm Drainage Criteria Manual Volume 3

CLEARWAY, LOT 5

GRADING & EROSION CONTROL DETAILS

PROJECT NO. 44-042A

DATE: 08/07/2023

SCALE: HORIZONTAL: N/A  
VERTICAL: 1"=5'

DESIGNED BY: TAU  
DRAWN BY: CLP  
CHECKED BY: DLM

GR07

SHEET 7 OF 11

2120 N WAHATCH AVE, STE 305  
COLORADO SPRINGS CO 80903  
PHONE: 719.555.5465

CIVIL CONSULTANTS, INC.

VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160

FOR AND ON BEHALF OF CIVIL CONSULTANTS, INC.

REVISIONS:	NO.	DATE:	BY:	DESCRIPTION:	APPROVED BY:	DATE:

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARED OF THESE PLANS.

CAUTION







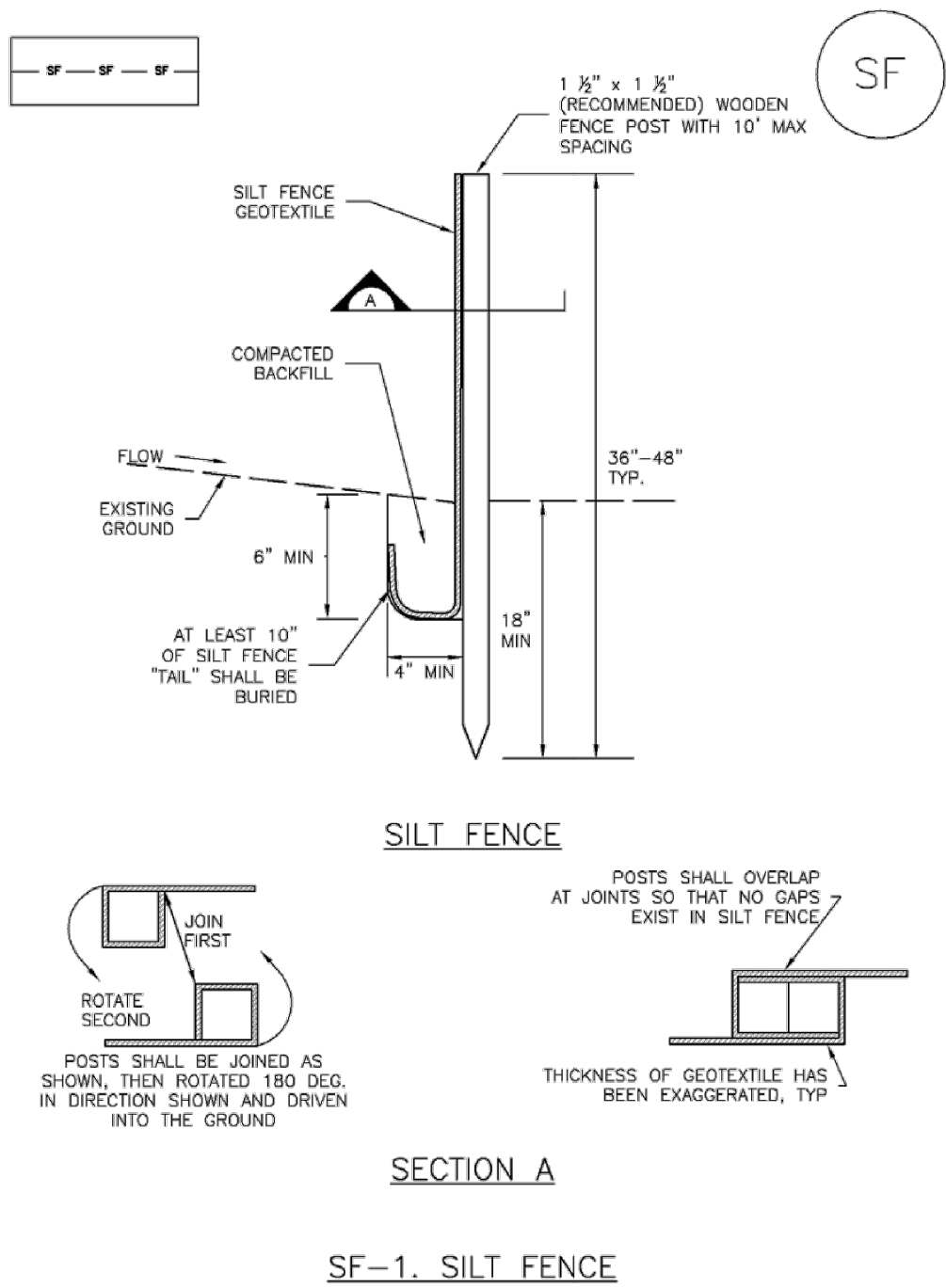








Silt Fence (SF) SC-1



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

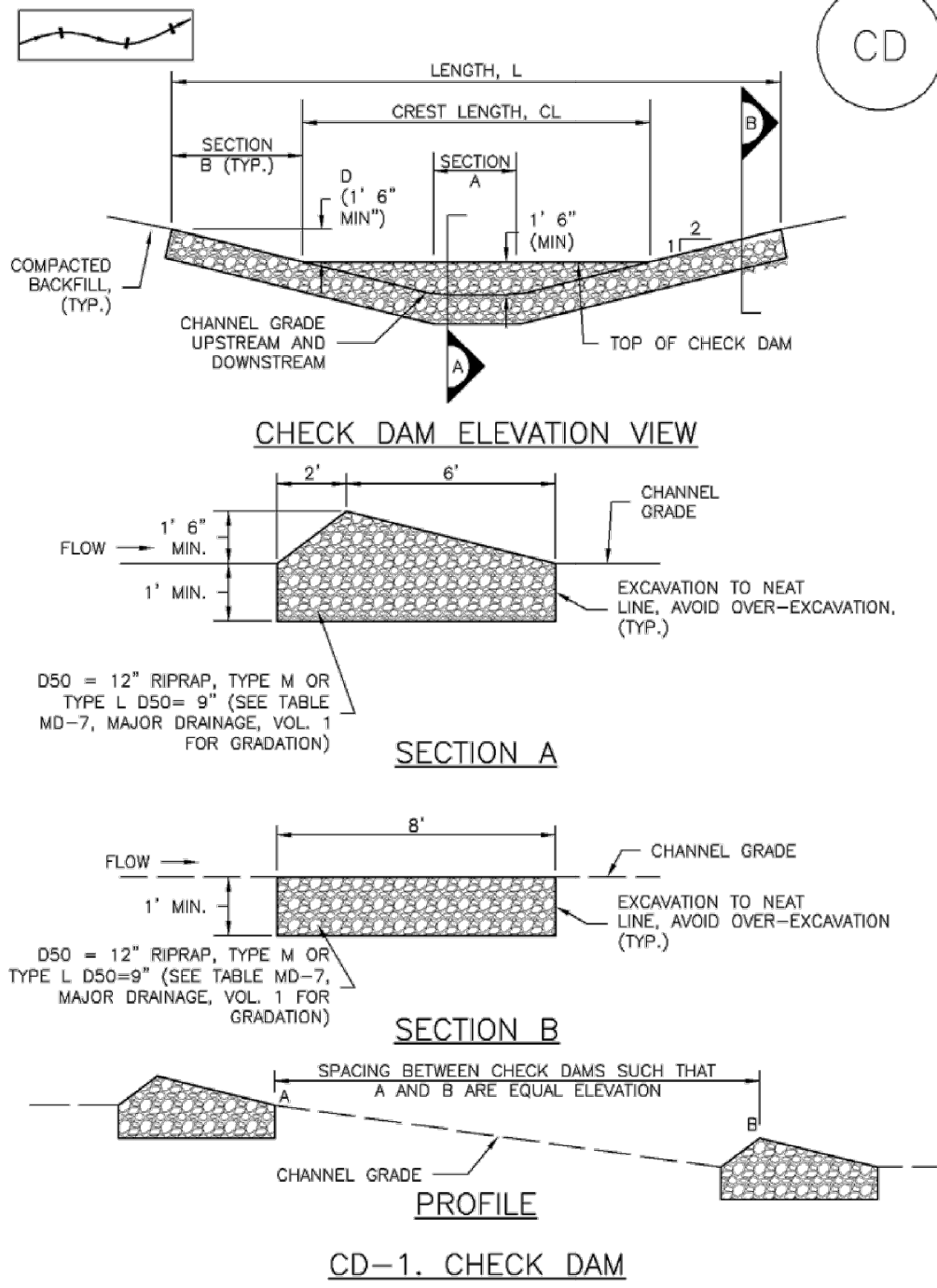
1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.
2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE 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

Check Dams (CD) EC-12



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

EC-12 Check Dams (CD)

CHECK DAM INSTALLATION NOTES

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

CHECK DAM MAINTENANCE NOTES

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 CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS WITHIN 1/2 OF THE HEIGHT OF THE CREST.
  5. CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
  6. WHEN CHECK DAMS ARE REMOVED, EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACKFILL. DISTURBED AREA SHALL BE SEEDED AND MULCHED AND COVERED WITH GEOTEXTILE OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.
- (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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

Street Sweeping and Vacuuming (SS) SM-7

Description

Street sweeping and vacuuming remove sediment that has been tracked onto roadways to reduce sediment transport into storm drain systems or a surface waterway.

Appropriate Uses

Use this practice at construction sites where vehicles may track sediment offsite onto paved roadways.

Design and Installation

Street sweeping or vacuuming should be conducted when there is noticeable sediment accumulation on roadways adjacent to the construction site. Typically, this will be concentrated at the entrance/exit to the construction site. Well-maintained stabilized construction entrances, vehicle tracking controls and tire wash facilities can help reduce the necessary frequency of street sweeping and vacuuming.

On smaller construction sites, street sweeping can be conducted manually using a shovel and broom. Never wash accumulated sediment on roadways into storm drains.

Maintenance and Removal

- Inspect paved roads around the perimeter of the construction site on a daily basis and more frequently, as needed. Remove accumulated sediment, as needed.
- Following street sweeping, check inlet protection that may have been displaced during street sweeping.
- Inspect area to be swept for materials that may be hazardous prior to beginning sweeping operations.



Photograph SS-1. A street sweeper removes sediment and potential pollutants along the curb line at a construction site. Photo courtesy of Tom Gore.

Street Sweeping/ Vacuuming	
Functions	
Erosion Control	No
Sediment Control	Yes
Site/Material Management	Yes

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SS-1

EROSION CONTROL CRITERIA:

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 ACTIVITIES WITHIN THE PROJECT SITE.

1. PRIOR TO START OF GRADING OPERATIONS, LOCATE AND SET THE SILT FENCE AND VEHICLE TRACKING CONTROL AS SHOWN ON THE EROSION CONTROL PLAN.
2. THE SILT FENCE SHALL BE KEPT IN PLACE AND MAINTAINED UNTIL EROSION AND SEDIMENTATION POTENTIAL IS MITIGATED. REMOVAL OF SILT AND SEDIMENT COLLECTED BY THE SILT FENCES IS REQUIRED ONCE IT REACHES HALF THE HEIGHT OF THE SILT FENCES.
3. EROSION CONTROL DEVICES SHOULD BE CHECKED AFTER EVERY STORM OR NOT MORE THAN EVERY 14 DAYS. REPAIRS OR REPLACEMENT SHOULD BE MADE AS NECESSARY TO MAINTAIN PROPER PROTECTION.

SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN TWENTY-ONE (21) CALENDAR DAYS AFTER FINAL GRADING, OR FINAL EARTH DISTURBANCE HAS BEEN COMPLETED. DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT THE FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS SHALL ALSO BE MULCHED WITHIN 21 DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE SEEDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMP'S SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED.

NOTE:

SEE URBAN DRAINAGE CRITERIA MANUAL (VOL. 3) FOR INSTALLATION AND MAINTENANCE (TYP)

CLEARWAY, LOT 5

GRADING & EROSION CONTROL DETAILS

PROJECT NO. 44-042A

DATE: 08/07/2023

SCALE: HORIZONTAL: N/A VERTICAL: 1"=5'

DESIGNED BY: TAU CLP DRAWN BY: CLP CHECKED BY: DLM

212 N WAHATCH AVE, STE 305  
COLORADO SPRINGS CO 80903  
PHONE: 719.555.5465

CIVIL CONSULTANTS, INC.

FOR AND ON BEHALF OF  
VIRGIL A. SANCHEZ, COLORADO P.E. NO. 37160  
CONSULTANTS, INC.

REVISIONS:  
NO. DATE BY DESCRIPTION  
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CAUTION