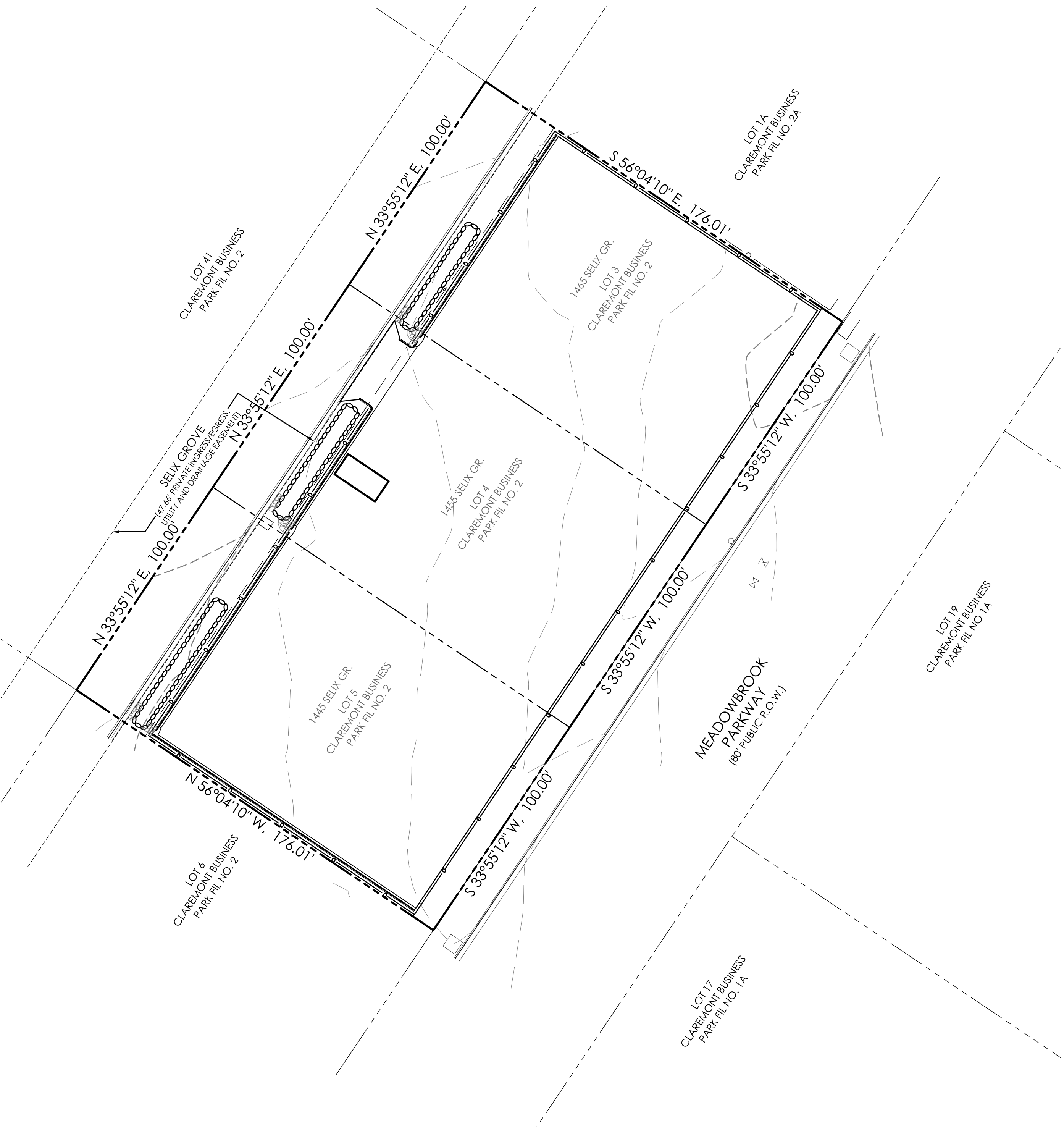


GULFEAGLE SUPPLY - GRADING & EROSION CONTROL PLANS

LOTS 3, 4 & 5, CLAREMONT BUSINESS PARK FILING NO. 2,
1445, 1455 & 1465 SELIX GROVE, EL PASO COUNTY, COLORADO



OWNER
SBJ RESCH FAMILY PARTNERSHIP, LTD.
2900 7TH AVENUE EAST, SUITE 200
TAMPA, FL 33605
(813) 248-4911

DEVELOPER
GULFEAGLE SUPPLY
JEFF BARNES, BRANCH MANAGER
1456 SELIX GROVE
COLORADO SPRINGS, CO 80915
(719) 574-7663

ENGINEER
M.V.E., INC.
1903 LELARAY STREET, STE 200
COLORADO SPRINGS, CO 80909
(719) 635-5736

ZONING
CS, CAD-0 (COMMERCIAL SERVICE,
COMMERCIAL AIRPORT DISTRICT)

SETBACK
FRONT = 25 FT
REAR = 25 FT
SIDE = 25 FT

LOT INFORMATION
MAXIMUM LOT COVERAGE - NONE
MAXIMUM BUILDING HEIGHT = 45 FT
SPECIAL USE REQUIRED FOR
CONTRACTOR STORAGE

LEGAL DESCRIPTION
LOTS 3, 4 & 5, CLAREMONT BUSINESS
PARK FILING NO. 2

TAX SCHEDULE NO.
5408102007 = LOT 3
5408102008 = LOT 4
5408102009 = LOT 5

LEGEND

----- PROPERTY LINE
----- EASEMENT LINE
----- LOT LINE
----- BUILDING SETBACK LINE
----- ADJACENT PROPERTY LINE

EXISTING

-----5985----- INDEX CONTOUR
-----84----- INTERMEDIATE CONTOUR
CONCRETE AREA
ASPHALT AREA
CURB AND GUTTER
BUILDING/
BUILDING OVERHANG
DECK
RETAINING WALL - SOLID/
ROCK
SIGN
BOLLARD
WOOD FENCE
CHAIN LINK FENCE
BARBED WIRE FENCE
TREE (EVERGREEN/DECIDUOUS)
SHRUB
ROCK

PROPOSED

-----5985----- INDEX CONTOUR
-----84----- INTERMEDIATE CONTOUR
CONCRETE AREA
ASPHALT AREA
CURB AND GUTTER
BUILDING/
BUILDING OVERHANG
DECK
RETAINING WALL - SOLID
ROCK
SIGN
BOLLARD
TOP OF WALL/GRADE AT BOTTOM
OF WALL
TOP OF CURB/FLOWLINE
SPOT ELEVATION
FL = FLOWLINE
TSW = TOP OF SIDEWALK
FINISHED FLOOR ELEVATION
FF = 5986.00
CHAINLINK FENCE

OWNERS STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH ALL OF THE REQUIREMENTS SPECIFIED
IN THESE DETAILED PLANS AND SPECIFICATIONS.

JEFF BARNES
BRANCH MANAGER, GULFEAGLE SUPPLY

DATE

DESIGN ENGINEER'S STATEMENT:

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND
SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA
ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION
CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY
WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND
SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE
FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT
RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY
PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS

CHARLES C. CRUM, P.E.
FOR AND ON BEHALF OF M.V.E., INC.

COLORADO NO. 13348

DATE

EL PASO COUNTY:

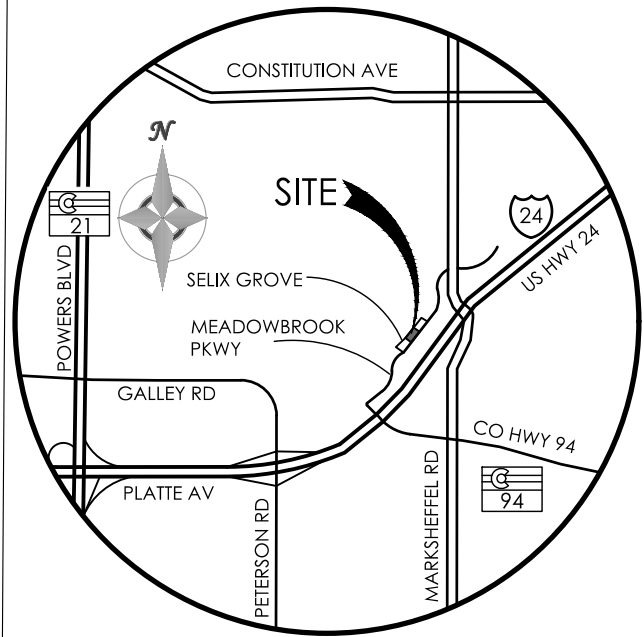
COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN
CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN,
DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY
THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY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

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE,
DRAINAGE CRITERIA MANUAL, 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 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 DISGRESSION.

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

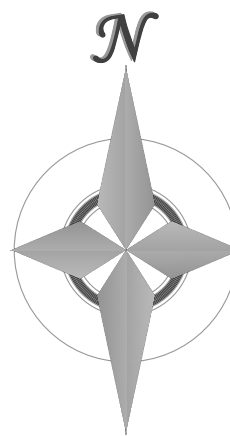
DATE



VICINITY MAP
NOT TO SCALE

BENCHMARK
ELEVATIONS SHOWN ON THIS DRAWING ARE
BASED ON THE CSU FIMS NETWORK (NGVD29).

BASIS OF BEARINGS: THE BASIS OF ALL BEARINGS
SHOWN ON THIS DRAWING IS THE NORTH LINE
OF MEADOWBROOK PARKWAY BEARING
S33°55'12"W.



5 0 10 30 40
1" = 30' 1:360

MVE, INC.
ENGINEERS / SURVEYORS
1903 Lelaray Street, Suite 200 Colorado Springs, CO 80909 719.635.5736

REVISIONS

DESIGNED BY
DRAWN BY
CHECKED BY
AS-BUILTS BY
CHECKED BY

**GULFEAGLE
SUPPLY**

GRADING & EROSION CONTROL
COVER SHEET

C1.1 MVE PROJECT 61078
MVE DRAWING -GEC-CS

MAY 28, 2019
SHEET 1 OF 5

EROSION CONTROL BMP'S - OPINION OF PROBABLE COSTS

311 LF	SILT FENCE @ \$4.00/LF	= \$	1,244
143 LF	SEDIMENT CONTROL LOG @ \$6.00/LF	= \$	858
30 LF	ROCK SOCKS @ \$7.00/LF	= \$	210
3 EA	SEDIMENT BASIN @ \$1,625/EACH	= \$	4,875
1 EA	VEHICLE TRACTING CONTROL @ \$1,625	= \$	1,625
1 EA	CONCRETE WASHOUT AREA @ \$776/EA	= \$	776

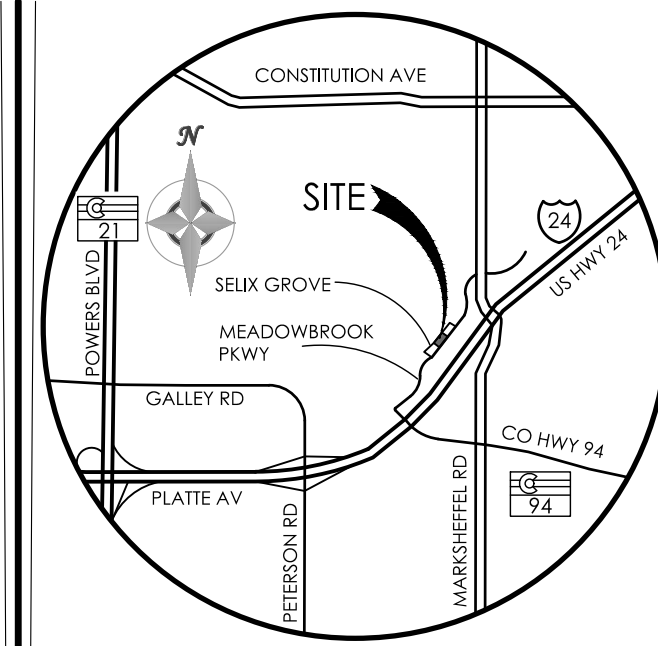
SUBTOTAL = \$ 9,588
40% MAINT. & REPLACEMENT = \$ 3,835

GRAND TOTAL = \$ 13,423

SHEET INDEX

SHEET	TITLE	DRAWING
EROSION CONTROL PLAN SET		
C1.1	COVER SHEET	61078-GESC-CS
C1.2	SITE GRADING PLAN	61078-GESC-SGP
C1.3	GENERAL NOTES/DETAILS	61078-GESC-ND
C1.4	EROSION CONTROL	61078-GESC-EC
C1.5	EROSION CONTROL DETAILS	61078-GESC-ED

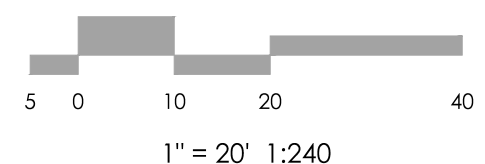
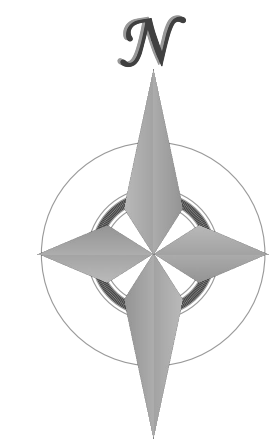




VICINITY MAP
NOT TO SCALE

BENCHMARK
ELEVATIONS SHOWN ON THIS DRAWING ARE
BASED ON THE CSU FIMS NETWORK (NGVD29).

BASIS OF BEARINGS: THE BASIS OF ALL BEARINGS
SHOWN ON THIS DRAWING IS THE NORTH LINE
OF MEADOWBROOK PARKWAY BEARING
S33°55'12"W.



REVISIONS

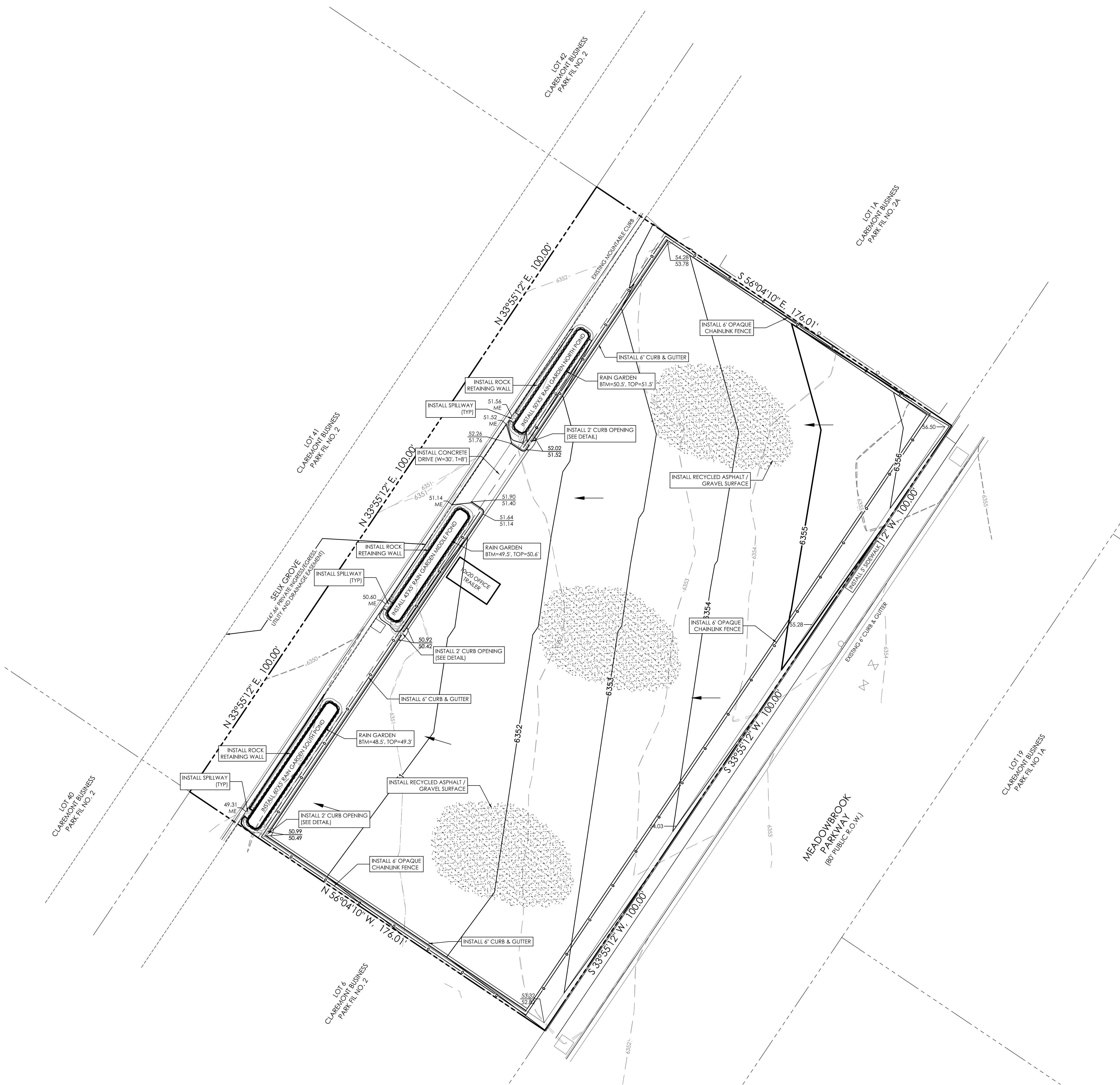
DESIGNED BY _____
DRAWN BY _____
CHECKED BY _____
AS-BUILT BY _____
CHECKED BY _____

GULFEAGLE
SUPPLY

GRADING & EROSION CONTROL
SITE / GRADING PLAN

C1.2 MVE PROJECT 61078
MVE DRAWING-GEC-SGP

MAY 28, 2019
SHEET 2 OF 5



GENERAL NOTES

1. ALL NEW CONSTRUCTION IS TO CONFORM TO THE SPECIFICATIONS OF EL PASO COUNTY.
2. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN DRAWN FROM AVAILABLE RECORDS AND/OR SURFACE EVIDENCE. THE LOCATION OF ALL UTILITIES MAY NOT BE SHOWN OR MAY NOT HAVE BEEN LOCATED. BELOW GROUND LOCATIONS HAVE NOT BEEN PERFORMED. THEREFORE, THE RELATIONSHIP BETWEEN PROPOSED WORK AND EXISTING FACILITIES, STRUCTURES AND UTILITIES MUST BE CONSIDERED APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL SUBSURFACE UTILITY OWNERS PRIOR TO BEGINNING WORK TO DETERMINE LOCATION OF UTILITY FACILITIES. ALL UTILITIES SHALL BE LOCATED PRIOR TO ANY EARTH WORK OR DIGGING (1-800-922-1987). THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.
3. EXISTING CONDITIONS SHALL BE VERIFIED BY THE GENERAL CONTRACTOR. DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION.
4. SOIL PREPARATION, SEEDING, AND MULCHING FOR AN ESTIMATED 1.2 ACRES WILL BE REQUIRED ON ALL DISTURBED AREAS NOT SURFACED. THE FOLLOWING TYPES AND RATES SHALL BE USED:

GRASS	VARIETY	AMOUNT IN PLS lbs. PER AC
SIDEOTS GRAMA	EL RENO	3.0 lbs.
WESTERN WHEATGRASS	BARREN	2.5 lbs.
SLENDER WHEAT GRASS	NATIVE	2.0 lbs.
LITTLE BLUESTEM	PASTURA	2.0 lbs.
SAND DROPSPEED	NATIVE	0.5 lbs.
SWITCH GRASS	NEBRASKA 28	3.0 lbs.
WEEPING LOVE GRASS	MORPHA	1.0 lbs.
	TOTAL	14.0 lbs.

STANDARD EL PASO COUNTY GRADING & EROSION CONTROL PLAN NOTES

1. CONSTRUCTION MAY NOT COMMENCE UNTIL A CONSTRUCTION PERMIT IS OBTAINED FROM PLANNING AND COMMUNITY DEVELOPMENT AND A PRECONSTRUCTION CONFERENCE IS HELD WITH PLANNING AND COMMUNITY DEVELOPMENT INSPECTIONS.
2. 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.
3. 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.
4. A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMERCING CONSTRUCTION. DURING CONSTRUCTION THE SWMP IS THE RESPONSIBILITY OF THE DESIGNATED STORMWATER MANAGER. SHALL BE LOCATED ON SITE AT ALL TIMES AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
5. ONCE THE ESQCP 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. SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 21 CALENDAR DAYS AFTER FINAL GRADING, OR FINAL EARTH DISTURBANCE, HAS BEEN COMPLETED. DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT 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 SEEDDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMPs SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND ESTABLISHED.
7. TEMPORARY SOIL EROSION CONTROL FACILITIES SHALL BE REMOVED AND EARTH DISTURBANCE AREAS GRADED AND STABILIZED WITH PERMANENT EROSION CONTROL MEASURES PURSUANT TO STANDARDS AND SPECIFICATION PRESCRIBED IN THE DCM VOLUME II AND THE ENGINEERING CRITERIA MANUAL (ECM) APPENDIX I.
8. ALL PERSONS ENGAGED IN EARTH DISTURBANCE SHALL IMPLEMENT AND MAINTAIN ACCEPTABLE SOIL EROSION AND SEDIMENT CONTROL MEASURES INCLUDING BMPs IN CONFORMANCE WITH THE EROSION CONTROL TECHNICAL STANDARDS OF THE DRAINAGE CRITERIA MANUAL (DCM) VOLUME II AND IN ACCORDANCE WITH THE STORMWATER MANAGEMENT PLAN (SWMP).
9. ALL TEMPORARY EROSION CONTROL FACILITIES INCLUDING BMPs AND ALL PERMANENT FACILITIES INTENDED TO CONTROL EROSION OF ANY EARTH DISTURBANCE OPERATIONS, SHALL BE INSTALLED AS DEFINED IN THE APPROVED PLANS, THE SWMP AND THE DCM VOLUME II AND MAINTAINED THROUGHOUT THE DURATION OF THE EARTH DISTURBANCE OPERATION.
10. ANY EARTH DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY REDUCE 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.
11. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONTROL OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE DESIGNED TO LIMIT THE DISCHARGE TO A NON-EROSIVE VELOCITY.
12. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO RUNOFF TO STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
13. EROSION CONTROL BLANKETING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
14. BUILDING, CONSTRUCTION, EXCAVATION, OR OTHER 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. BMPs MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
15. VEHICLE TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFFSITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
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. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN THE STORM SEWER OR OTHER DRAINAGE CONVEYANCE SYSTEM AND STORMWATER APURTENANCES AS A RESULT OF SITE DEVELOPMENT.
18. 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.
19. NO CHEMICALS ARE TO BE USED BY THE CONTRACTOR, WHICH HAVE THE POTENTIAL TO BE RELEASED IN STORMWATER UNLESS PERMISSION FOR THE USE OF A SPECIFIC CHEMICAL IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING THE USE OF SUCH CHEMICALS, SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
20. BULK STORAGE STRUCTURES FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS SHALL HAVE ADEQUATE PROTECTION SO AS TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIAL FROM ENTERING STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
21. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE FLOW LINE OF THE CURB AND GUTTER OR IN THE DITCHLINE.
22. INDIVIDUALS 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 INCLUDED IN THE DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (NPDES, FLOODPLAN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, OR COUNTY AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
23. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
24. PRIOR TO ACTUAL CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
25. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
26. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY ENTECH ENGINEERING, INC. AND SHALL BE CONSIDERED A PART OF THESE PLANS.
27. AT LEAST TEN DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB 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
4800 CHERRY CREEK DRIVE SOUTH
DENVER, CO 80246-1530
ATTN: PERMITS UNIT

STANDARD EL PASO COUNTY CONSTRUCTION PLAN NOTES

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 NOTIFICATION 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 (1UNCC).
3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
a. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
b. CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
c. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
d. CDOT M & S STANDARDS
4. 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. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ON-SITE AND OFF-SITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT (PCD) - INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
7. IT IS THE CONTRACTOR'S 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 STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
8. 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.
9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD.
10. 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 AND PAVEMENT.
11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
12. 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.
13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DPW AND MUTCD CRITERIA. (IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.)
14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DPW, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
15. 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 OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

STANDARD EL PASO COUNTY SIGNING AND STRIPING NOTES

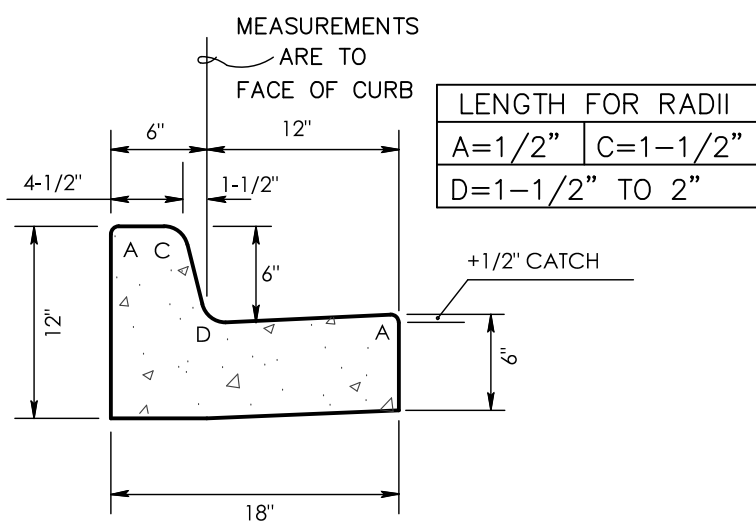
1. ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY A METHOD THAT DOES NOT MATERIALLY DAMAGE THE PAVEMENT. THE PAVEMENT MARKINGS SHALL BE REMOVED TO THE EXTENT THAT THEY WILL NOT BE VISIBLE UNDER DAY OR NIGHT CONDITIONS. AT NO TIME WILL IT BE ACCEPTABLE TO PAINT OVER EXISTING PAVEMENT MARKINGS.
3. ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT.
4. ALL SIGNS SHOWN ON THE SIGNING AND STRIPING PLAN SHALL BE NEW SIGNS. EXISTING SIGNS MAY REMAIN OR BE REUSED IF THEY MEET CURRENT EL PASO COUNTY AND MUTCD STANDARDS.
5. STREET NAME AND REGULATORY STOP SIGNS SHALL BE ON THE SAME POST AT INTERSECTIONS.
6. ALL REMOVED SIGNS SHALL BE DISPOSED OF IN A PROPER MANNER BY THE CONTRACTOR.
7. ALL STREET NAME SIGNS SHALL HAVE "C" SERIES LETTERS, WITH LOCAL ROADWAY SIGNS BEING 4" UPPER-LOWER CASE LETTERING ON 8" BLANK AND COLLECTOR ROADWAY SIGNS BEING 6" LETTERING, UPPER-LOWER CASE ON 12" BLANK, WITH 1/2" WHITE BORDER THAT IS NOT RECESSED.
8. ALL TRAFFIC SIGNS SHALL HAVE A MINIMUM HIGH INTENSITY PRISMATIC GRADE SHEETING.
9. ALL LOCAL RESIDENTIAL STREET SIGNS SHALL BE MOUNTED ON A 1.75" X 1.75" SQUARE TUBE SIGN POST AND STUB POST BASE. FOR OTHER APPLICATIONS, REFER TO THE CDOT STANDARD S-614-8 REGARDING USE OF THE P2 TUBULAR STEEL POST SUBBASE DESIGN.
10. ALL SIGNS SHALL BE SINGLE SHEET ALUMINUM WITH 0.100" MINIMUM THICKNESS.
11. ALL LIMIT LINES/STOP LINES, CROSSWALK LINES, PAVEMENT LEGENDS, AND ARROWS SHALL BE A MINIMUM 125 MIL THICKNESS PREFORMED THERMOPLASTIC PAVEMENT MARKINGS WITH TAPERED LEADING EDGES PER CDOT STANDARD S-627-1. WORD AND SYMBOL MARKINGS SHALL BE THE NARROW TYPE. STOP BARS SHALL BE 24" IN WIDTH. CROSSWALKS LINES SHALL BE 12" WIDE AND 8' LONG PER CDOT S-627-1.
12. ALL LONGITUDINAL LINES SHALL BE A MINIMUM 15MIL THICKNESS EPOXY PAINT. ALL NON-LOCAL RESIDENTIAL ROADWAYS SHALL INCLUDE BOTH RIGHT AND LEFT EDGE LINE STRIPING AND ANY ADDITIONAL STRIPING AS REQUIRED BY CDOT S-627-1.
13. THE CONTRACTOR SHALL NOTIFY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (719) 520-6819 PRIOR TO AND UPON COMPLETION OF SIGNING AND STRIPING.
14. THE CONTRACTOR SHALL OBTAIN A WORK IN THE RIGHT OF WAY PERMIT FROM THE EL PASO COUNTY DEPARTMENT OF TRANSPORTATION PRIOR TO ANY SIGNAGE OR STRIPING WORK WITHIN AN EXISTING EL PASO COUNTY ROADWAY.

TOPOGRAPHIC SURVEY NOTES

- 1.] ELEVATIONS SHOWN ON THIS DRAWING ARE BASED ON THE CSU FMS NETWORK (NGVD29).
- 2.] THE BASIS OF ALL BEARINGS SHOWN ON THIS DRAWING IS THE NORTH LINE OF MEADOWBROOK PARKWAY BEARING S33°55'12"W.
- 3.] THE EXISTING TOPOGRAPHIC BASE MAPPING WAS PREPARED BY MVE, INC., USING SURVEY DATA PROVIDED BY POLARIS SURVEYING INC. AND COLLECTED IN MAY 2017.
- 4.] ALL EXISTING UTILITIES SHOWN ON THIS SURVEY ARE FROM SURFACE EVIDENCE AND/OR FROM MAPS OBTAINED FROM UTILITY PROVIDERS. THE LOCATION OF UTILITIES AS SHOWN ARE APPROXIMATE. ALL UTILITIES MAY NOT BE SHOWN OR MAY NOT HAVE BEEN LOCATED. UNDERGROUND UTILITY LOCATIONS WERE NOT PERFORMED.

ABBREVIATIONS

EL	ELEVATION	ROW	RIGHT-OF-WAY
PC	POINT OF CURVATURE	R	RADIUS
PI	POINT OF INTERSECTION	T	TANGENT
PT	POINT OF TANGENCY	L	LENGTH
PCR	POINT OF CURVE RETURN	LF	LINEAR FEET
PRC	POINT OF REVERSE CURVATURE	CL	CENTERLINE
PVC	POINT OF VERTICAL CURVATURE	X.XX' R	DIMENSION RIGHT OF CL
PVI	POINT OF VERTICAL INTERSECTION	X.XX' L	DIMENSION LEFT OF CL
PVT	POINT OF VERTICAL TANGENCY	PL	PROPERTY LINE
GB	GRADE BREAK	PVRC	POINT OF VERT REVERSE CURVATURE
CSP	CORRUGATED STEEL PIPE	VC	VERTICAL CURVE
RCP	REINFORCED CONCRETE PIPE	AP	ANGLE POINT
CBG	CONCRETE BOX CULVERT	STA	STATION
TBC	TOP BACK CURB	INV	INVERT
TC	TOP OF CURB	RG	RAIN GARDEN
BT	BEGIN TAPER	SFB	SAND FILTER BASIN
ET	END TAPER		
EC	EDGE OF CONCRETE		



STD TYPE 3 CATCH CURB & GUTTER

SCALE 1" = 1.0'

RAIN GARDEN, SPECIFICATIONS, NOTES & REFERENCES:

REFERENCE URBAN DRAINAGE AND FLOOD CONTROL DISTRICT (UDFCD), URBAN STORM DRAINAGE CRITERIA MANUAL VOLUME 3, SECTION 1-3, FOR FULL SET OF RAIN GARDEN DETAILS AND SPECIFICATIONS AS IDENTIFIED.

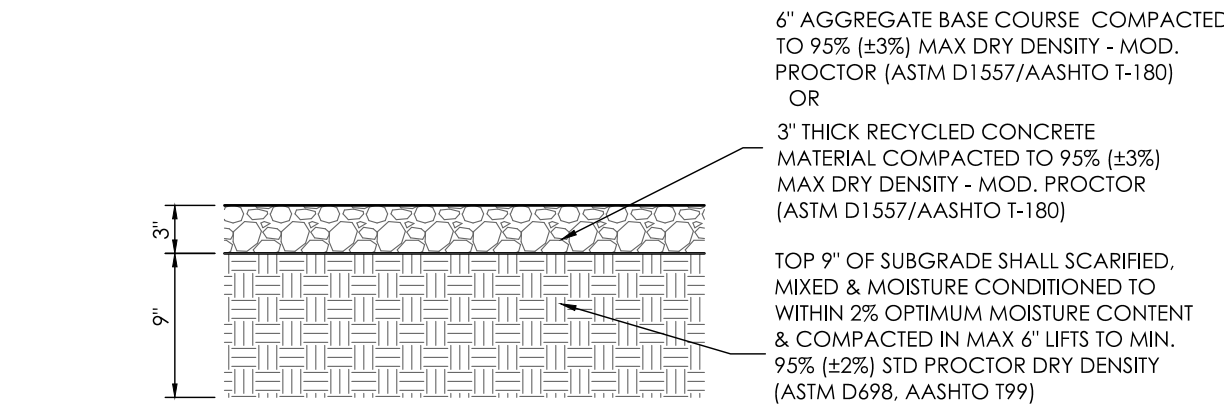
- GROWING MEDIA** (BY WEIGHT, USE 5-5% ORGANIC MATERIAL: 95-97% GROWING MEDIA SAND)
- ORGANIC MATERIAL - LOOSELY PACKED, SHREDDED MULCH - AGED 6 MONTHS (MIN).
 - GROWING MEDIA SAND - PER SOIL MATERIAL GRADATION TABLE
 - pH - 6.8-7.5
 - NITROGEN - 15 ppm (MAX)
 - PHOSPHORUS - 15 ppm (MAX)
 - SALINITY - 6 mmhos/cm (MAX)
 - FILTER MATERIAL** - CLASS B OR CLASS C FILTER MATERIAL, PER SOIL MATERIAL GRADATION TABLE
 - PERMEABLE GEOTEXTILE SEPARATOR FABRIC** - TENCATE MIRAFI 170N, OR EQUAL, PER UDFCD TABLE B-2.
 - VEGETATION** - SELECT PLANTS THAT ARE DROUGHT RESISTANT AND THRIVE IN SANDY SOIL. OPTIONAL: USE NATIVE SEED MIX PER RAIN GARDEN SEED MIX TABLE. AGGRESSIVE WEED CONTROL PROCEDURES WILL HELP THE DESIRED VEGETATION TO BECOME ESTABLISHED.
 - CONCENTRATED INFLOW** - PER CONCENTRATED INFLOW DETAIL.

STANDARD SIEVE SIZE	SOIL MATERIAL GRADATION TABLE (SOURCE: UDFCD BORETENTION (RG) TABLE B-1 & SAND FILTER BASIN (SFB) TABLE SF-1)		
	GROWING MEDIA ⁽¹⁾⁽²⁾	% PASSING	
		CLASS B	CLASS C
1-1/2"			
3/4"			
NO. 4			
NO. 10	100	20-60	100
NO. 50	85-100	10-30	10-30
NO. 100		0-3	0-10
NO. 200	80-90		0-3
NO. 280	3-17		

⁽¹⁾RAIN GARDEN ONLY
⁽²⁾LESS THAN 1.5% ORGANIC MATERIAL
⁽³⁾APPLIES TO BOTH SAND FILTER BASIN AND RAIN GARDEN

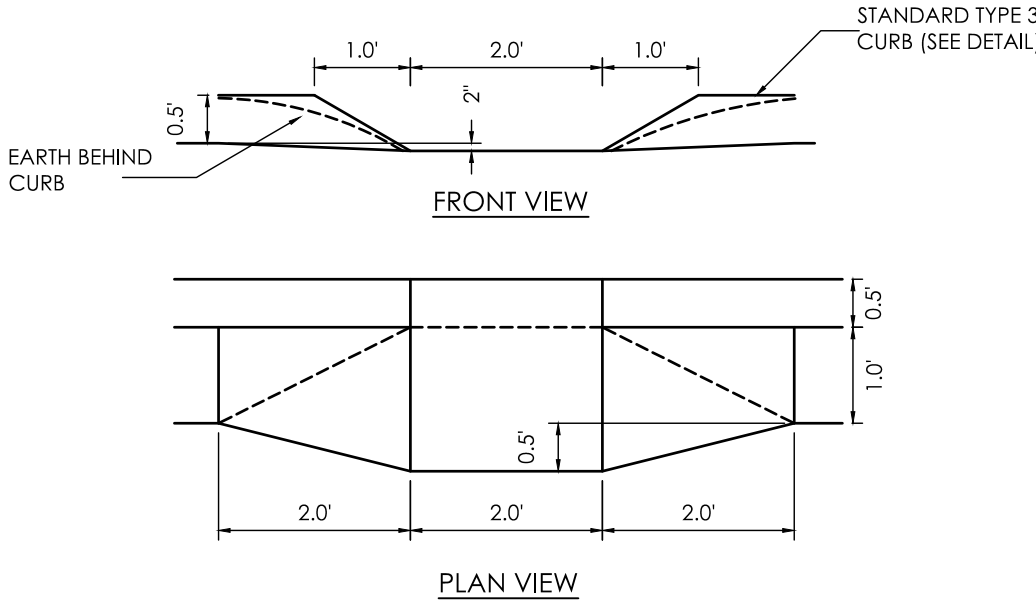
INFILTRATION NOTE

INFILTRATION TESTING USING APPENDIX E OF THE "LOW IMPACT DEVELOPMENT MANUAL FOR MICHIGAN" SHALL BE PERFORMED FOR THE RAIN GARDEN SITES AS DESCRIBED IN THE CITY OF COLORADO SPRINGS DRAINAGE CRITERIA MANUAL (DCM) VOLUME 2 POLICY CLARIFICATION DATED JANUARY 9, 2017 BY CITY OF COLORADO SPRINGS WATER RESOURCE DIVISION.



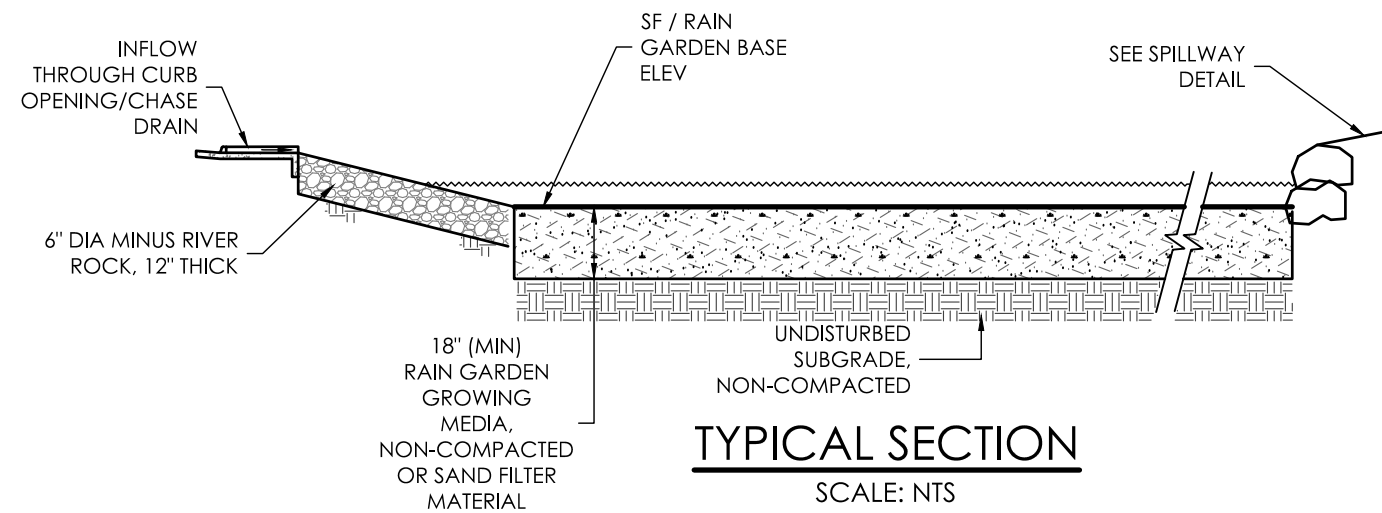
STORAGE SURFACE PARKING SECTION

SCALE 1" = 1.0'



CURB DEPRESSION DETAIL

SCALE 1" = 2'

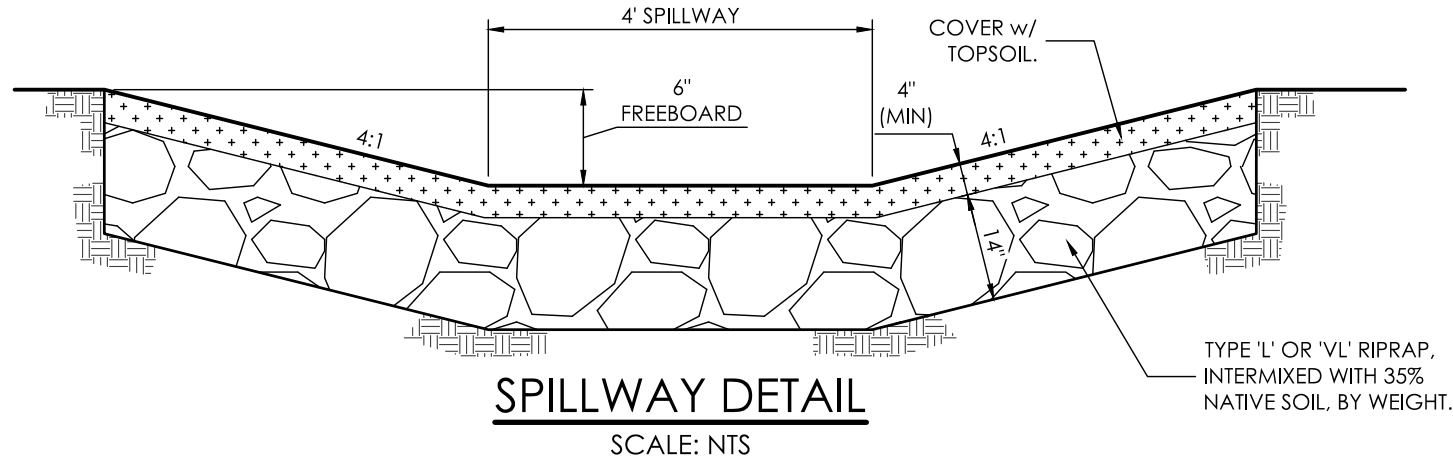


TYPICAL SECTION

SCALE: NTS

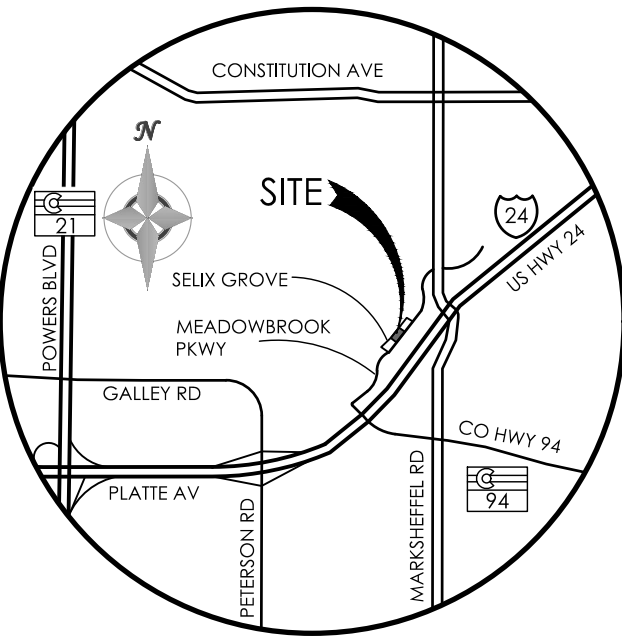
RAIN GARDEN / SAND FILTER DETAIL

SCALE 1" = 5'



SPILLWAY DETAIL

SCALE: NTS



VICINITY MAP

NOT TO SCALE

BENCHMARK

MVE, INC.
ENGINEERS, SURVEYORS

REVISIONS

DESIGNED BY
DRAWN BY
CHECKED BY
AS-BUILTS BY
CHECKED BY

GULFEAGLE
SUPPLY

GRADING & EROSION CONTROL
NOTES AND DETAILS

C1.3 MVE PROJECT 61078
MVE DRAWING -GEC-ND

MAY 28, 2019
SHEET 3 OF 5



1. SEE PLAN VIEW FOR:
 - a. CWA INSTALLATION LOCATION.
2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, USE A HIGHLY PERMEABLE SOLIDS EXCHANGE SITE. THE CWA SHALL BE INSTALLED WITH AN IMPERMEABLE LINER OR ANOTHER APPROPRIATE STORAGE ALTERNATIVES USING PREFABRICATED CONSTRUCTION WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE AREA SHOULD BE USED.
3. CWA SHALL BE INSTALLED WITHIN 10' OF THE PLACEMENT ON SITE.
4. CWA SHALL INCLUDE A FLAT SURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
5. BENCH SURROUNDING SIDES SHALL BE 3:1 OR FLATTER. THE MINIMUM HEIGHT OF 1'.
6. VEHICLE JACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP TRUCKS.
8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. REMOVE ANY DEBRIS FROM BMPs THAT MAY BE PRESENT FROM PREVIOUS STORM EVENTS AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. IF A BMP IS FOUND TO BE DEFECTIVE, THE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION, INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHEN A BMP HAS FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE:
4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WATER, CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2".
5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE WASHOUT PIT SHALL BE PROPERLY DISPOSED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
7. THE CWA SHALL BE REMOVED OR REPAIRED AS NECESSARY TO MAINTAIN BMPs AND MUCH OTHER EQUIPMENT STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.



1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.
2. SEDIMENT CONTROL LOGS SHALL BE INSTALLED TO PREVENT EROSION AND TO PREVENT SEDIMENT FROM ENTERING ADJACENT LANDS DURING CONSTRUCTION ACTIVITIES.
3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSOR OR COCONUT FIBER, AND SHALL BE 18" HIGH AND 12" WIDE. LOGS SHALL BE INSTALLED IN AREAS OF EROSION AND OBSOLETE LOGS SHALL BE REMOVED.
4. SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS OR HIGH VELOCITY DRAINAGE WAYS.
5. SEDIMENT CONTROL LOGS SHALL BE COMPACTED TO A MINIMUM OF 12" TO A DEPTH OF APPROXIMATELY 1/3 OF THE DEPTH OF THE LOGS. IF TRENCING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER DEPTH MAY BE USED.
6. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A RIGID BAR.
7. FOLLOW MANUFACTURER'S GUIDANCE FOR STAKING. IF MANUFACTURER'S INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4 CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND. THE STAKES SHALL BE REINFORCED FROM THE TOP OF THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED.



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)
 - 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 ENTER OR EXIT THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS.
4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
5. A NOTW-WEAVER GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.
6. 14/160 COARSE AGGREGATE #5658 #70 LOCAL CRUSHED GRANITE OR EQUIVALENT ROCK SHALL CONSIST OF DOT SPEC. #703.
7. AASHTO #30 COARSE AGGREGATE OR 6" MINUS ROCK.

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE. WHEN POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. WHEN BMP MAINTENANCE IS NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION, INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THROUGH THE BMP MAINTENANCE LOG.
3. WHERE BMPs HAVE FAILED, REPAIRED OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. BMPs WILL BE REPAIRED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.
5. SEDIMENT TRAPPED ON PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF EACH DAY. SHOVELING OR SWEEPING, SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.



SCL-4. SEDIMENT CONTROL LOGS TO CONTROL SLOPE LENGTH

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. WHEN MAINTENANCE IS REQUIRED, IT SHALL BE COMPLETED AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. INSPECTION, OBSERVATION AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHEN BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOGS SHALL BE REMOVED AS NEEDED TO MAINTAIN THE EFFECTIVENESS OF THE BMP. TYPICAL WHEN DETECTED, ACCUMULATED SEDIMENTS BE APPROXIMATELY 1/2 OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.
5. SEDIMENT CONTROL LOGS SHALL BE REMOVED AT THE END OF CONSTRUCTION. IF DISTURBED AREAS EXIST UPSTREAM OF THE LOGS, THEY SHALL BE STABILIZED WITH SEEDING AND MULCHES OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.



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. SILT FENCE SHALL BE SECURED BY HAND OR BY "JAWING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
4. SILT FENCE SHOULD BE TIGHTLY STAKED AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN CURED TO THE STAKES.
5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING IF HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED AT THE END OF EACH ROLL OF SILT FENCE.
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 BACK TO THE END OF THE SILT FENCE (TYPICALLY 10' TO 10').
7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, AND SHOULD BE COMPLETED 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 MAINTENANCE SHOULD BE IDENTIFIED AND COMPLETED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. SEDIMENT ACCUMULATED IN BMPs SHOULD BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP.
5. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".
6. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS GAGGING, TEARING, OR COLLAPSE.
7. SILT FENCE TO REMAIN IN PLACE UNTIL IT IS FULLY RESTORED TO FUNCTIONALITY AND APPROVED BY LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.
8. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.



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 EROSION, SEDIMENTATION, OR OTHER DAMAGE TO THE BMP'S EFFECTIVENESS.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. IF THE BMP'S 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 (IE, TWO FEET BELOW THE SURFACE), REMOVAL IS REQUIRED.
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 TOP SOIL, SEED, AND MULCH OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAILS ADOPTED 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.



ROCK SOCK PLAN

ROCK SOCK JOINTING

GRADATION TABLE	
SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVE NO. 4
2"	100
1 1/2"	90 - 100
1"	20 - 55
3/4"	0 - 15
3/8"	0 - 5

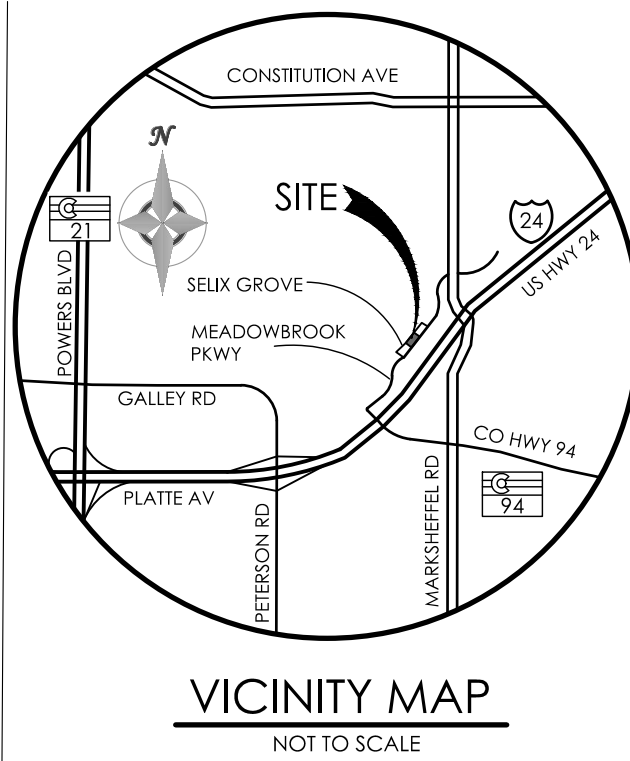
MATCHES SPECIFICATIONS FOR NO. 4
 COARSE AGGREGATE FOR CONCRETE
 PER AASHTO M43. ALL ROCK SHALL
 BE FRACTURED FACE, ALL SIDES.

1. SEE PLAN VIEW FOR:
 - LOCATION(S) OF ROCK SOCKS.
2. CRUSHED ROCK SHALL BE $\frac{1}{2}$ " (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COVER 100% OF THE AREA ON THIS SHEET (10% MINUS).
3. WIRE MESH SHALL BE FABRICATED OF 10 GAUGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF $\frac{1}{2}$ ". RECOMMENDED MINIMUM ROCK WIDTH OF 4".
4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2' CENTERS AT ENDS OF SOCKS.
5. SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE.


1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. REPAIR OR REPLACE BMPs AS NECESSARY TO MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. (ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION AND PERFORM NECESSARY MAINTENANCE.
2. REPAIR OR REPLACE BMPs AS NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.
5. SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 THE HEIGHT OF THE SOCK, OR WHEN THE SOCK IS NO LONGER EFFECTIVE TO REMOVE SEDIMENT UPSTREAM UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
6. DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDS AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

UPSTREAM DRAINAGE AREA (TO NEAREST AC), (AC)	BASIN BOTTOM WIDTH (W), (FT)	SPILLWAY CREST LENGTH (CL), (FT)	HOLE DIAMETER (HD), (IN)
1	12 1/2	2	9/32
2	21	3	13/16
3	28	5	1/2
4	33 1/2	6	9/16
5	38 1/2	8	21/32
6	43	9	21/32
7	47 1/4	11	25/32
8	51	12	27/32
9	55	13	7/8
10	58 1/4	15	15/16
11	61	16	31/32
12	64	18	1
13	67 1/2	19	1 1/16
14	70 1/2	21	1 1/8
15	73 1/4	22	1 3/16

SEE PLAN VIEW FOR
LOCATION OF SEDIMENT BASIN:
- TYPE OF BASIN (STANDARD BASIN OR NONSTANDARD BASIN).
- FOR STANDARD BASIN, BOTTOM WIDTH W, CREST LENGTH L, AND HOLE
DIAMETER, HD.
- FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN
AND MIN. 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. BASINS SHALL BE FILLED WITH A MINIMUM OF 18 INCHES 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. SEDIMENT BASINS SHALL BE MAINTAINED TO AT LEAST 95 PERCENT OF MAXIMUM
DENSITY IN ACCORDANCE WITH ASTM D998.
6. PIPE SCH 40 OR GREATER SHALL BE USED.
7. NOT BE SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASIN(S)
FOR DRAINAGE AREAS LESS THAN 1 ACRE. SEE CONSTRUCTION DRAWINGS FOR
EMBANKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR
AREAS LARGER THAN 1 ACRE.



BENCHMARK



MVE, INC.
ENGINEERS SURVEYORS

1903 lelaray street, suite 200 colorado springs co 80909 719.635.5736

REVISIONS

DESIGNED BY _____
 DRAWN BY _____
 CHECKED BY _____
 AS-BUILTS BY _____
 CHECKED BY _____

GRADING & EROSION CONTROL

EROSION CONTROL DETAILS

C1.5 MVE PROJECT 61078
MVE DRAWING -GEC-ED

MAY 28, 2019
SHEET 5 OF 5