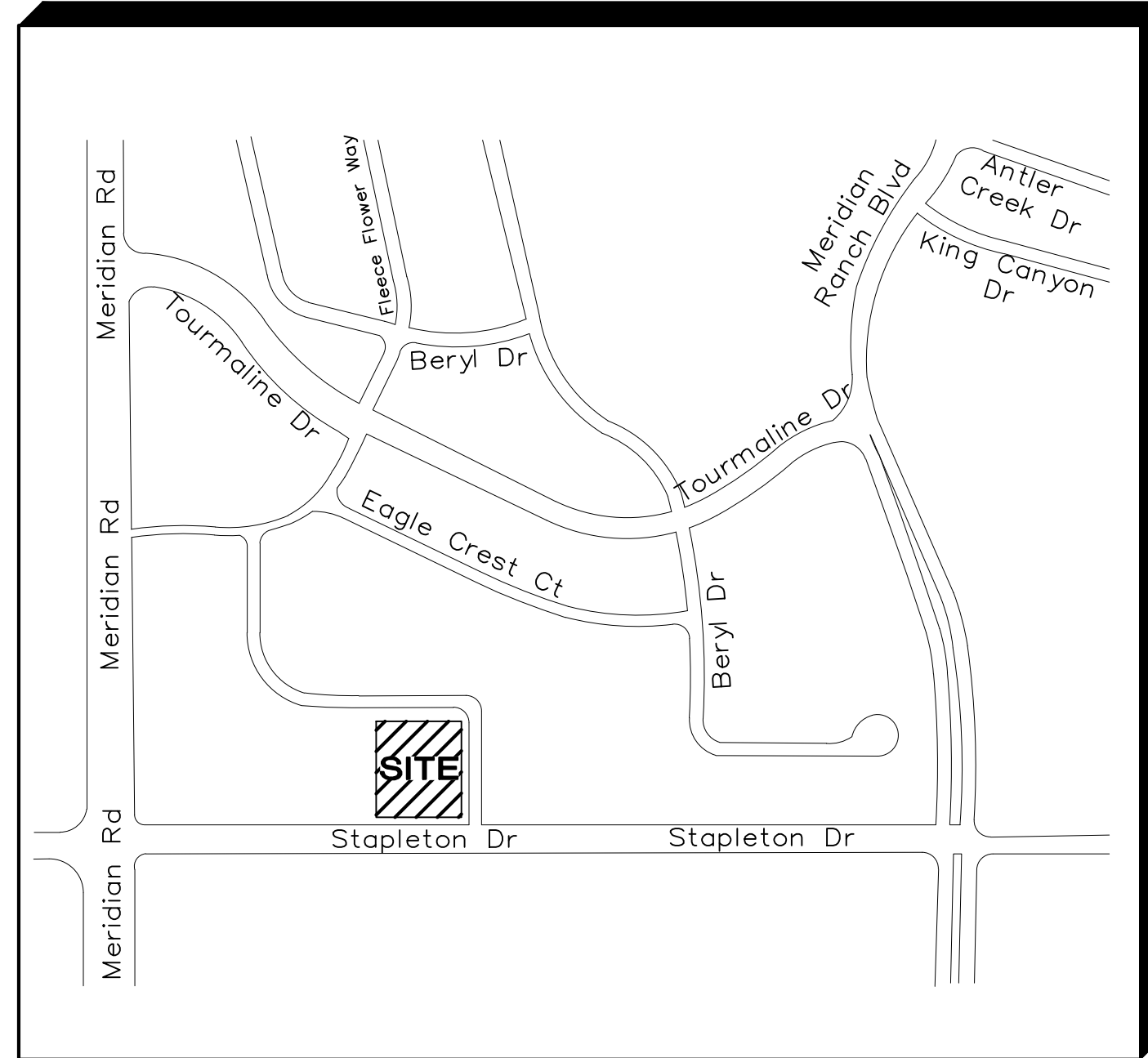


SHOPS AT MERIDIAN RANCH CONVENIENCE STORE

LOT 2, THE SHOPS FIL. NO. 1A AT MERIDIAN RANCH

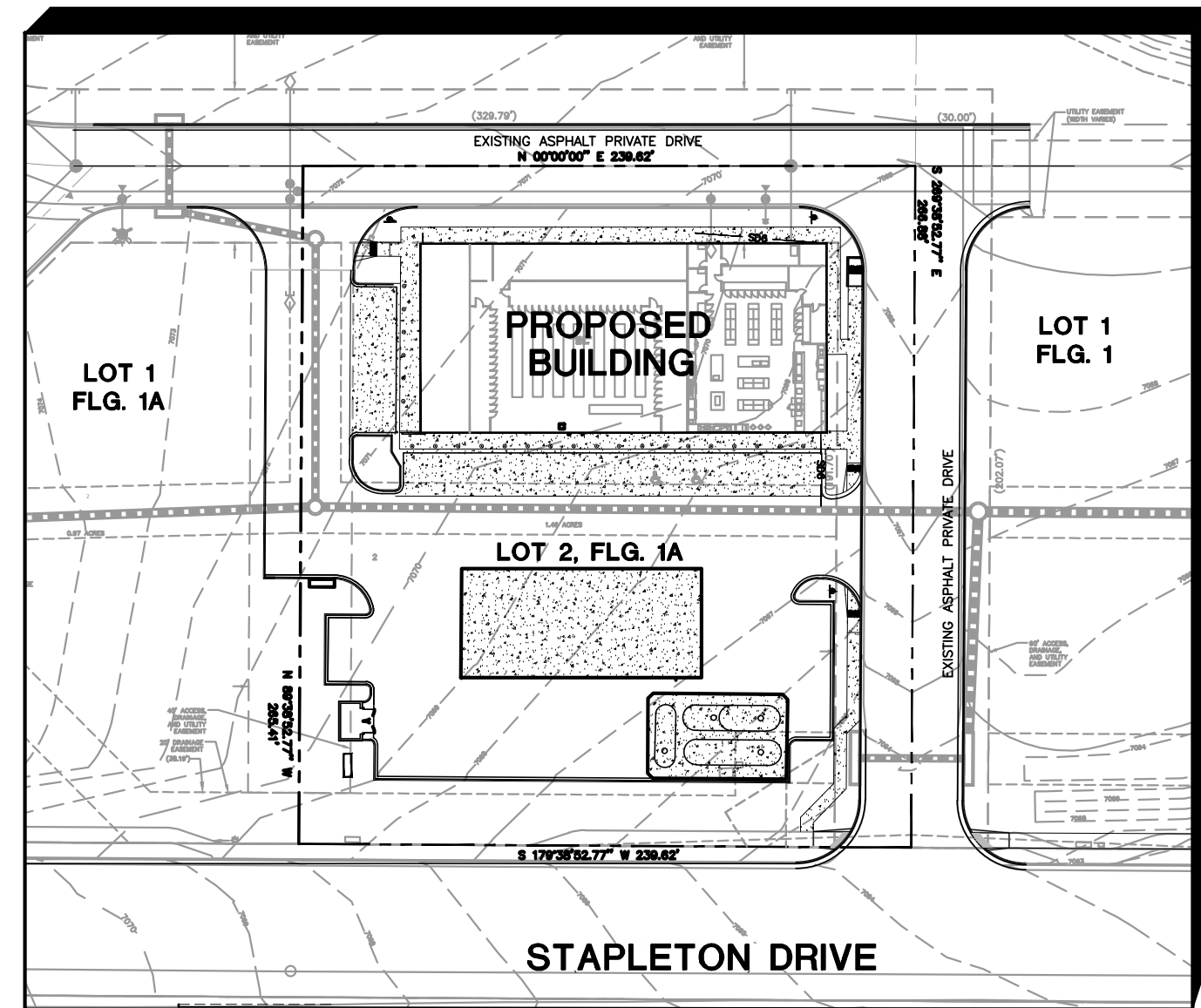
Grading & Erosion Control Plans

El Paso County, Colorado



VICINITY MAP

NOT TO SCALE

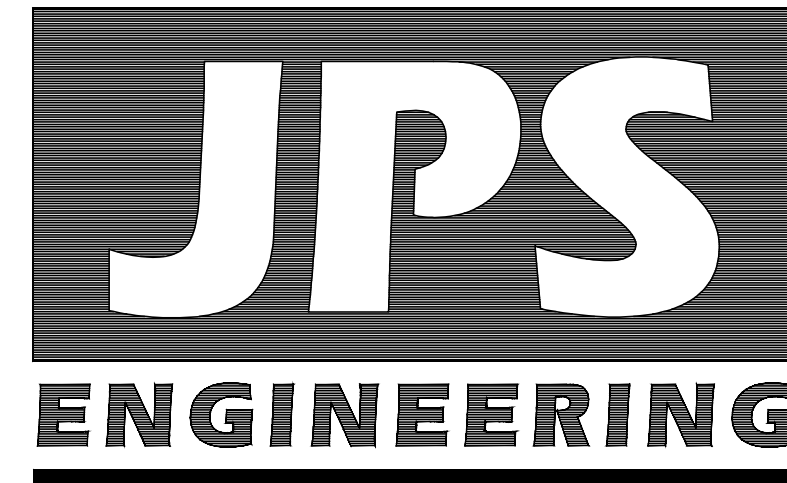


SITE MAP

NTS

PREPARED FOR:
HUNJAN GAS STATIONS
 12599 Mt. Lindsey Dr
 Peyton, CO 80831

PREPARED BY:



PREPARED BY:
 19 East Willamette Avenue
 Colorado Springs, Colorado 80903
 April, 2024



AGENCIES/CONTACTS

DEVELOPER:	HUNJAN GAS STATIONS 12599 MT. LINDSEY DR PEYTON, CO 80831 MR. IQBAL SINGH HUNJAN (719) 237-4927	WATER/WASTEWATER:	MERIDIAN SERVICE METROPOLITAN DISTRICT 1186 STAPLETON DRIVE FALCON, CO 80831 (719)495-6567
CIVIL ENGINEER:	JPS ENGINEERING, INC. 19 E. WILLAMETTE AVENUE COLORADO SPRINGS, CO 80903 MR. JOHN P. SCHWAB, P.E. (719)477-9429	GAS DEPARTMENT:	BLACK HILLS ENERGY MR. SEBASTIAN SCHWENDER (719)399-3176
LOCAL ROADS & DRAINAGE:	EL PASO COUNTY PCD 2880 INTERNATIONAL CIRCLE COLORADO SPRINGS, CO 80910 (719)520-6300	ELECTRIC DEPARTMENT:	MOUNTAIN VIEW ELECTRIC ASSOCIATION 1114.0 E. WOODMEN ROAD COLORADO SPRINGS, CO 80908 MR. DAVE WALDNER (719)495-2283
		TELEPHONE COMPANY:	CENTURY LINK COMMUNICATIONS (LOCATORS) (800)922-1987 A.T. & T. (LOCATORS) (719)635-3674

GEC PLAN SHEET INDEX

C1.0	GEC PLAN TITLE SHEET
C1.1	SITE GRADING & EROSION CONTROL PLAN
C1.2	CIVIL NOTES & DETAILS
C3.1	CIVIL & EROSION CONTROL NOTES & DETAILS
C3.2	EROSION CONTROL DETAILS

ENGINEER:

DESIGN ENGINEER'S STATEMENT:

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECTION 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 LIABILITY CAUSED BY NEGLIGENCE ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS PLAN.

John P. Schwab 6/4/24
 JOHN P. SCHWAB, P.E. #29891 DATE

OWNER/DEVELOPER'S STATEMENT:

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

Iqbal Singh 6/4/24
 OWNER SIGNATURE DATE

NAME: HUNJAN GAS STATIONS
 ADDRESS: 12599 MT. LINDSEY DR
 PEYTON, CO 80831
 PHONE: (719) 237-4927 EMAIL: iqbalsingh84@yahoo.com

EL PASO COUNTY:

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

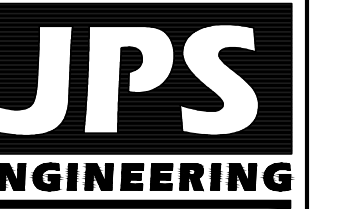
FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

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

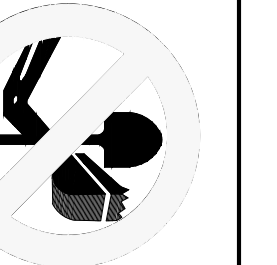
JOSHUA PALMER, P.E. _____ DATE _____
 COUNTY ENGINEER / ECM ADMINISTRATOR

PCD FILE NO. PRR2322

SHOPS AT MERIDIAN RANCH CONVENIENCE STORE
 LOT 2, THE SHOPS FIL. NO. 1A AT MERIDIAN RANCH



19 E. Willamette Ave.
 Colorado Springs, CO 80903
 PH: 719-477-9429
 FAX: 719-471-0766
 www.jpsengr.com



CALL UTILITY NOTIFICATION
 CENTER OF COLORADO
 1-800-922-1987
 CALL 2-BUSINESS DAYS IN ADVANCE
 BEFORE YOU DIG, GRADE, OR EXCAVATE
 FOR THE MARKING OF UNDERGROUND
 MEMBER UTILITIES.

NO.	REVISION	BY	DATE
1	COUNTY SUBMITTAL	JPS	03/31/23
2	COUNTY COMMENTS	JPS	09/18/23
3	COUNTY COMMENTS	JPS	01/08/24
4	COUNTY COMMENTS	JPS	04/12/24

GEC PLAN
 TITLE SHEET

BENCHMARK
 MRRC1-3/4" ALUMINUM CAP ON NO.6 REBAR
 LOCATED AT THE NORTHEAST CORNER OF THE
 INTERSECTION OF LONDONDERRY DRIVE AND
 ANGELES ROAD. LOCATED AT THE SE CORNER OF
 THE MERIDIAN RANCH RECREATIONAL CENTER SIGN.
 ELEVATION - 7098.40' (NAVD 29)

HORZ. SCALE:	1" = 20'	DRAWN:	PV
VERT. SCALE:	N/A	DESIGNED:	JPS
SURVEYED:	RIDGELINE	CHECKED:	JPS
CREATED:	08/29/22	LAST MODIFIED:	04/12/24
PROJECT NO:	092202	MODIFIED BY:	PV

SHEET: **C1.0**

SWMP NOTE:
1. EXISTING VEGETATION CONSISTS OF NATIVE GRASSES

CONTROL MEASURE PHASING:
INITIAL CONTROL MEASURES:

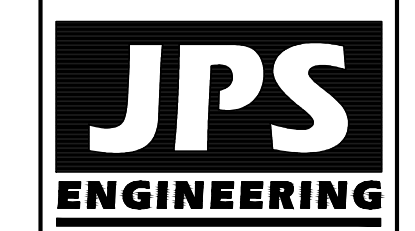
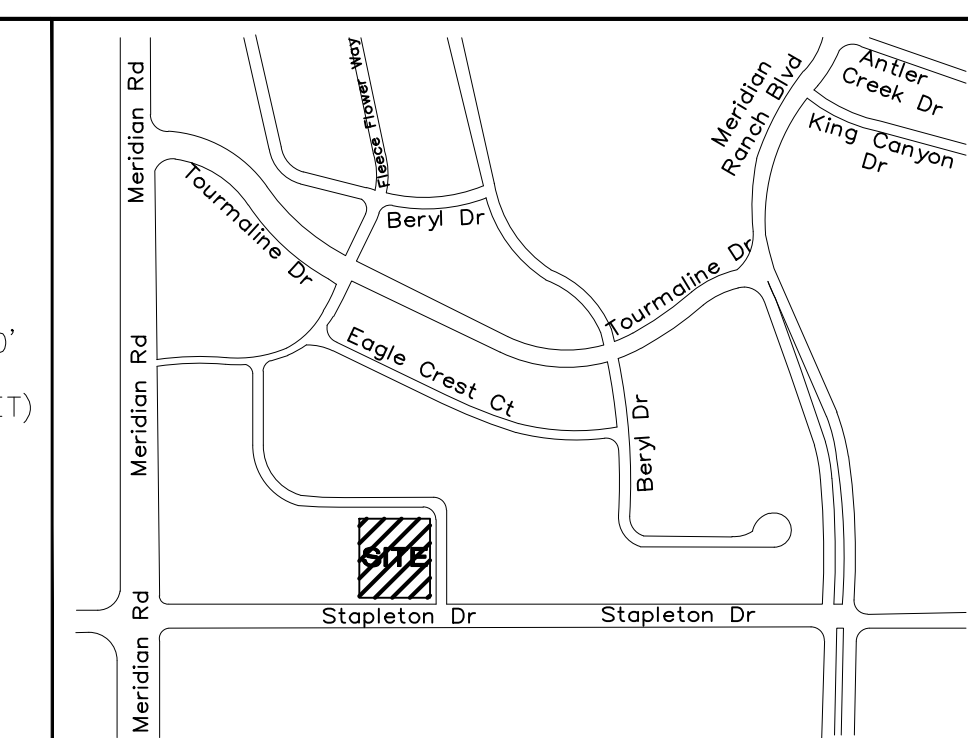
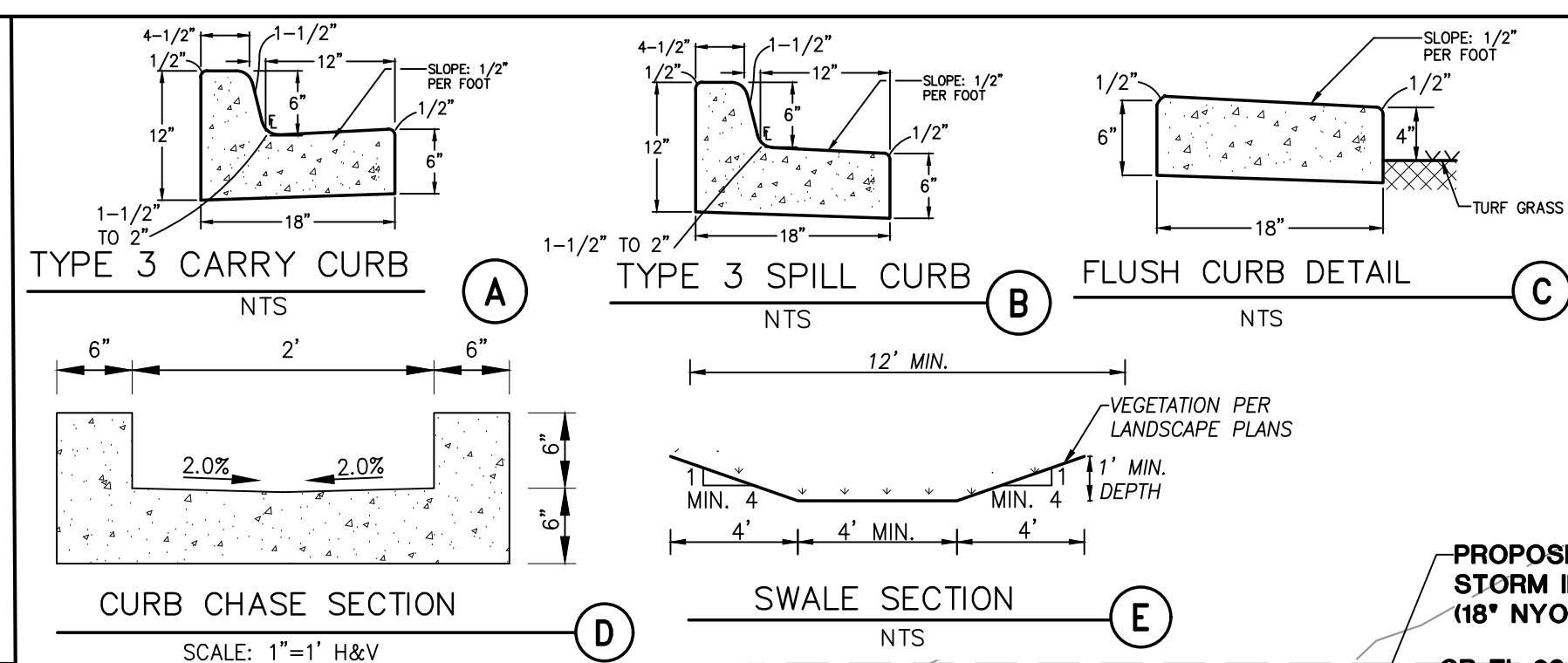
- VTC
- SILT FENCE ALONG DOWNSTREAM EDGE OF GRADING LIMITS
- TSB

INTERIM CONTROL MEASURES:

- INLET PROTECTION
- TEMPORARY SEED & MULCH

FINAL CONTROL MEASURES:

- SEEDING & MULCHING



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FOR THE MARKING OF UNDERGROUND
MEMBER UTILITIES.

KEYED NOTES:

- 1 TOPSOIL & STRIPPINGS STOCKPILE AREA
- 2 MIN 4'x4' CONCRETE LANDING AT DOOR W/2.0% MAX. SLOPE AWAY FROM BUILDING
- 3 PREPARE AND COMPACT BUILDING FOUNDATION & SLABS PER PROJECT GEOTECHNICAL REPORT
- 4 PARKING LOT PAVING PER GEOTECHNICAL REPORT (4" ASPHALT OVER 6" AGGREGATE BASE UNLESS NOTED OTHERWISE)
- 5 STORAGE AREA FOR BUILDING MATERIALS, EQUIPMENT & CONSTRUCTION WASTE (CONTRACTOR MAY ADJUST AS NEEDED)

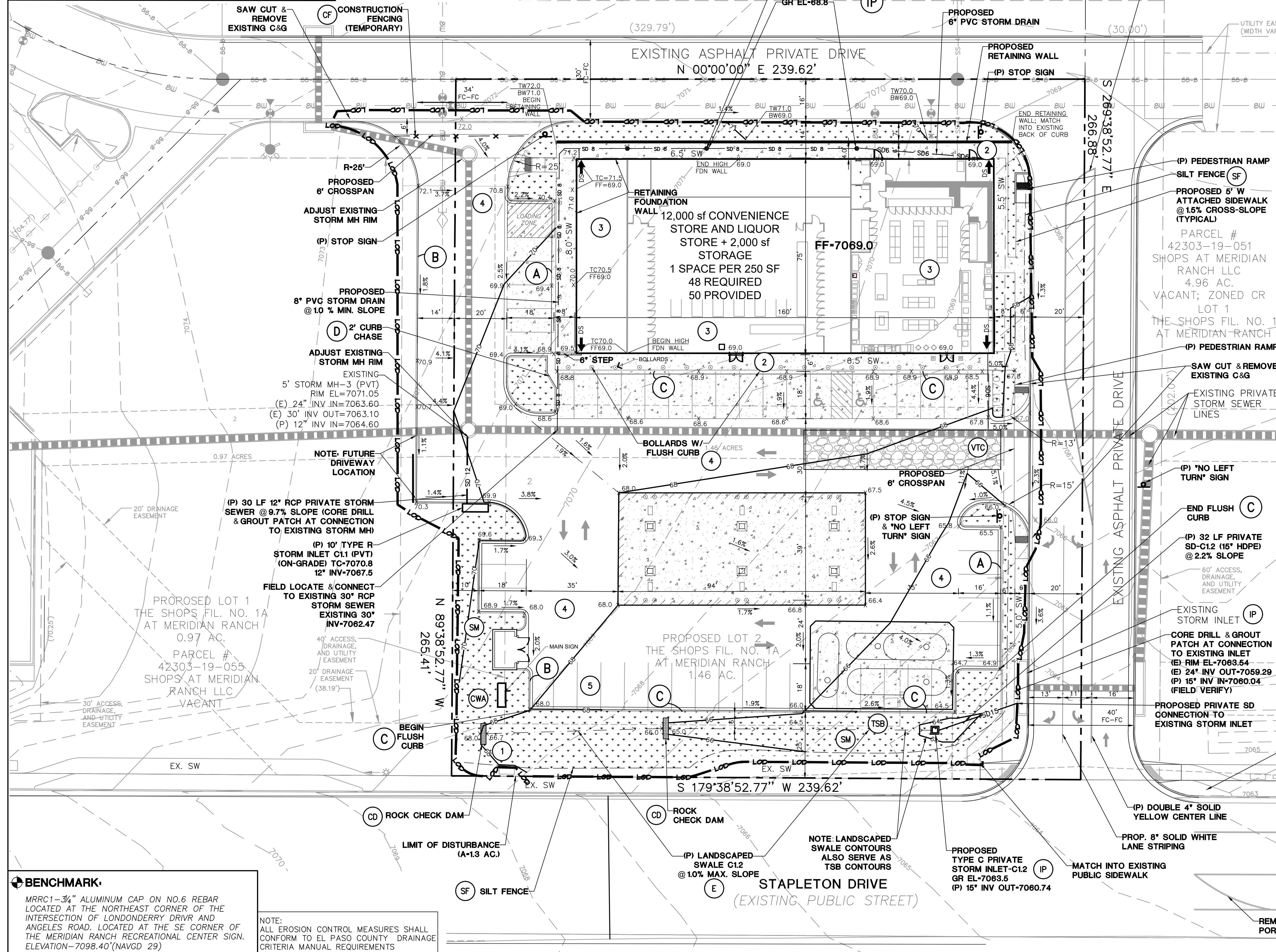
ESTIMATED EARTHWORK QUANTITY:

UNCLASSIFIED EXCAVATION (TOTAL CUT) = 1,288 CY
TOTAL FILL = 43 CY
NET (CUT) = 1,239 CY
*(ASSUMES 15% COMPACTION FACTOR)

NOTE: THIS ESTIMATE IS PROVIDED FOR INFORMATION ONLY, REPRESENTING THE CALCULATED BULK EARTHWORK VOLUME TO FINISHED GRADE, EXCLUDING ANY ADJUSTMENT FOR PAVEMENT DEPTHS, ETC. CONTRACTOR SHALL MAKE HIS OWN DETERMINATION OF EARTHWORK QUANTITIES AS BASIS FOR BID PRICING AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

EROSION CONTROL LEGEND

Symbol	Description
(SF)	SILT FENCE
(VTC)	VEHICLE TRACKING PAD
(IP)	INLET PROTECTION
(SM)	SEED & MULCH
(CWA)	CONCRETE WASHOUT AREA
(SCL)	SEDIMENT CONTROL LOGS
(CD)	CHECK DAM
(CF)	CONSTRUCTION FENCE
(TSB)	TEMPORARY SEDIMENT BASIN (SEE SH. C3.2)
---	PROPERTY LINE
---	EASEMENT LINE
---	PROPOSED CONTOUR
---	EXISTING CONTOUR
X 99.0	PROPOSED SPOT ELEVATION (FLOWLINE)
X 99.0	EXIST. SPOT ELEVATION
---	PROPOSED RETAINING WALL
TW	TOP OF RETAINING WALL
BW	BOTTOM OF RETAINING WALL
(E)	EXISTING
(P)	PROPOSED
---	CUT/FILL DEMARCATION LINE
---	LIMIT OF CONSTRUCTION/DISTURBANCE
DS	DOWNSPOUT CONNECTION TO STORM SEWER; INSTALL TRANSITION COUPLINGS & EXTEND 6" PVC (SDR35) AT 1.0% MIN. SLOPE TO SD
→	FLOW DIRECTION ARROWS
□	SITE CONCRETE AREAS
•	SEEDING/LANDSCAPE AREAS



SHOPS AT MERIDIAN RANCH CONVENIENCE STORE LOT 2, THE SHOPS FIL. NO. 1A AT MERIDIAN RANCH

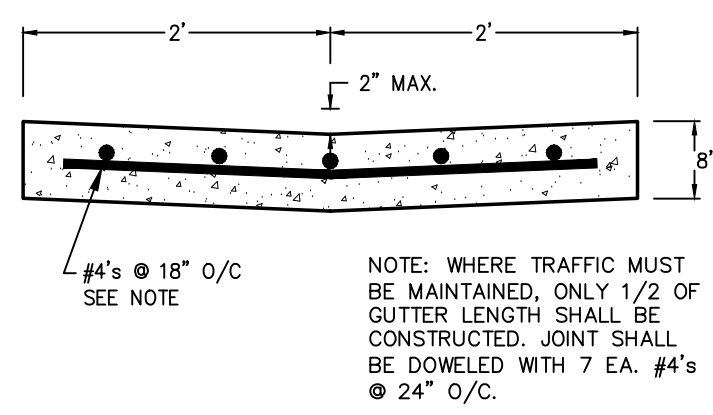
SITE GRADING AND EROSION CONTROL PLAN



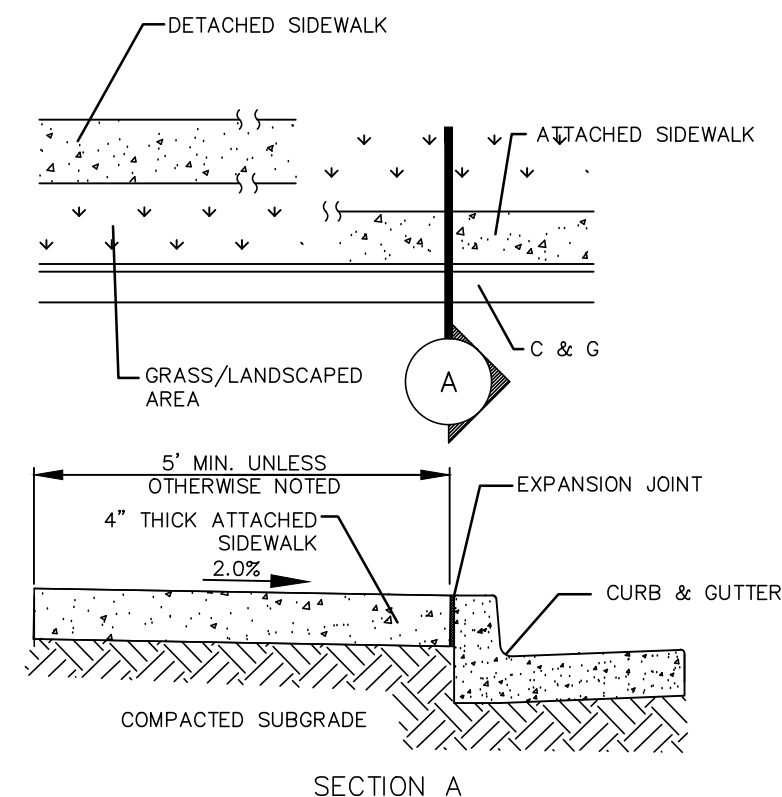
BENCHMARK:
MRRC1-3/4" ALUMINUM CAP ON NO.6 REBAR LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF LONDONDERRY DRIVR AND ANGELES ROAD. LOCATED AT THE SE CORNER OF THE MERIDIAN RANCH RECREATIONAL CENTER SIGN. ELEVATION-7098.40'(NAVGD 29)

NOTE: ALL EROSION CONTROL MEASURES SHALL CONFORM TO EL PASO COUNTY DRAINAGE CRITERIA MANUAL REQUIREMENTS

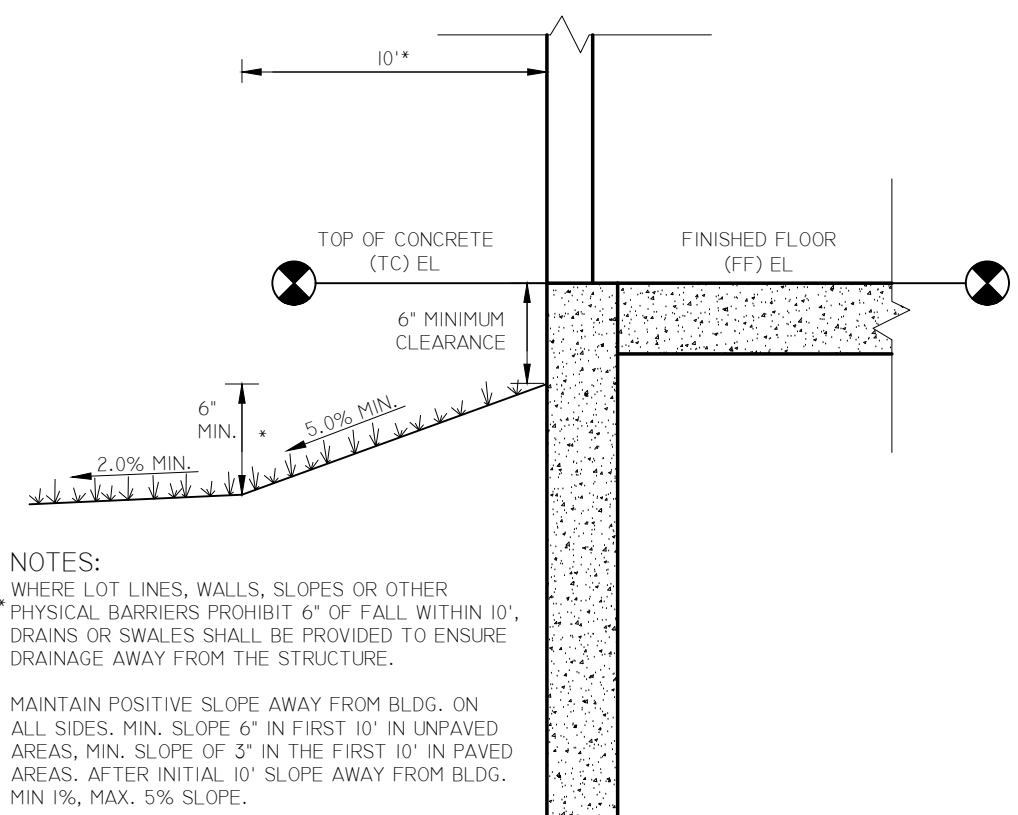
HORZ. SCALE: 1"=20'	DRAWN: PV
VERT. SCALE: N/A	DESIGNED: JPS
SURVEYED: RIDGELINE	CHECKED: JPS
CREATED: 08/29/22	LAST MODIFIED: 07/01/24
PROJECT NO: 092202	MODIFIED BY: PV
SHEET:	C1.1



TYPICAL CONCRETE CROSSSPAN (1)
SCALE: 1" = 1'-0"



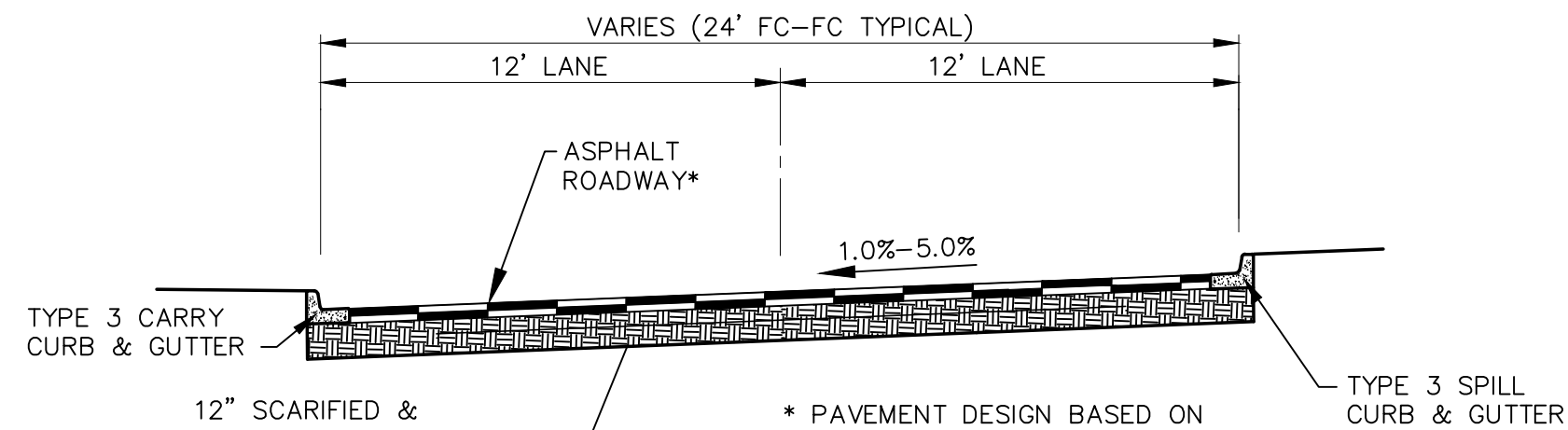
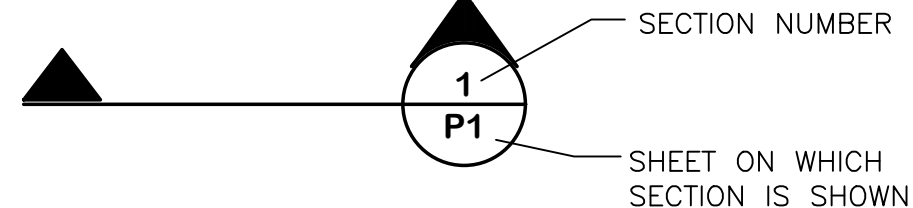
CONCRETE SIDEWALK DETAIL (2)
N.T.S.



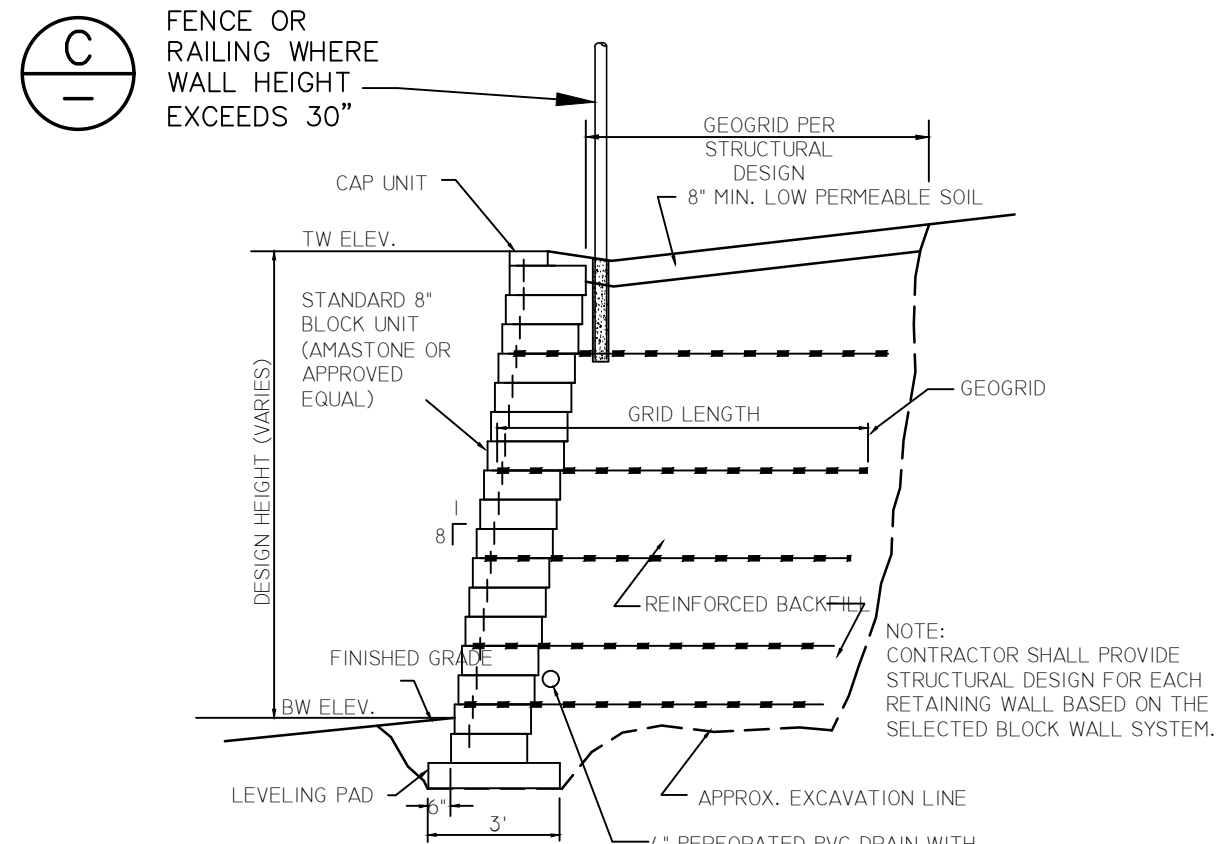
TYPICAL BUILDING DRAINAGE DETAIL (3)
N.T.S.

LEGEND:

NEW/EXISTING	
---	SECTION LINE - NEW/EXISTING
---	EASEMENT LINE - NEW/EXISTING
---	7075
---	7075
---	PROPERTY LINE - NEW/EXISTING
---	FENCE - NEW/EXISTING
---	OVERHEAD ELECTRIC LINE W/ POWER POLE NEW/EXISTING
---	UNDERGROUND ELECTRIC LINE NEW/EXISTING
---	UNDERGROUND ELECTRIC - NEW/EXISTING
---	TELEPHONE - NEW/EXISTING
---	GAS - NEW/EXISTING
---	WATER - NEW/EXISTING
---	RAW WATER - NEW/EXISTING
---	CURB & GUTTER - NEW/FUTURE

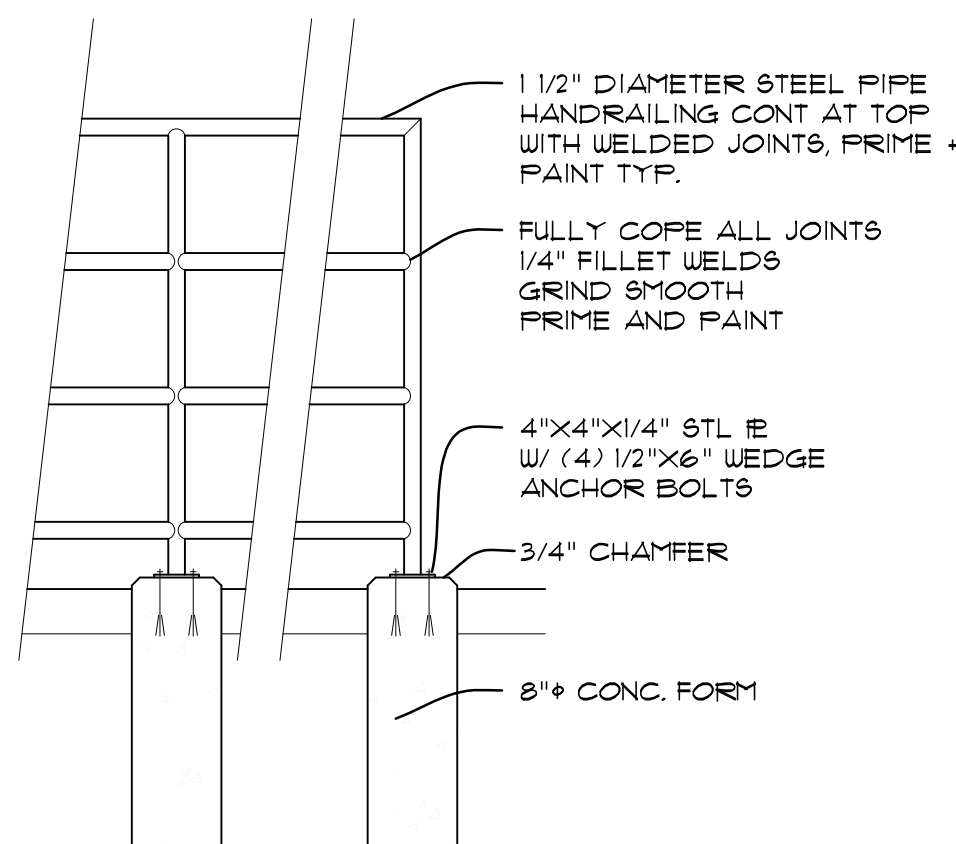


TYPICAL PARKING / ACCESS DRIVE SECTION (A)
SCALE: 1" = 5' H
1" = 2.5' V

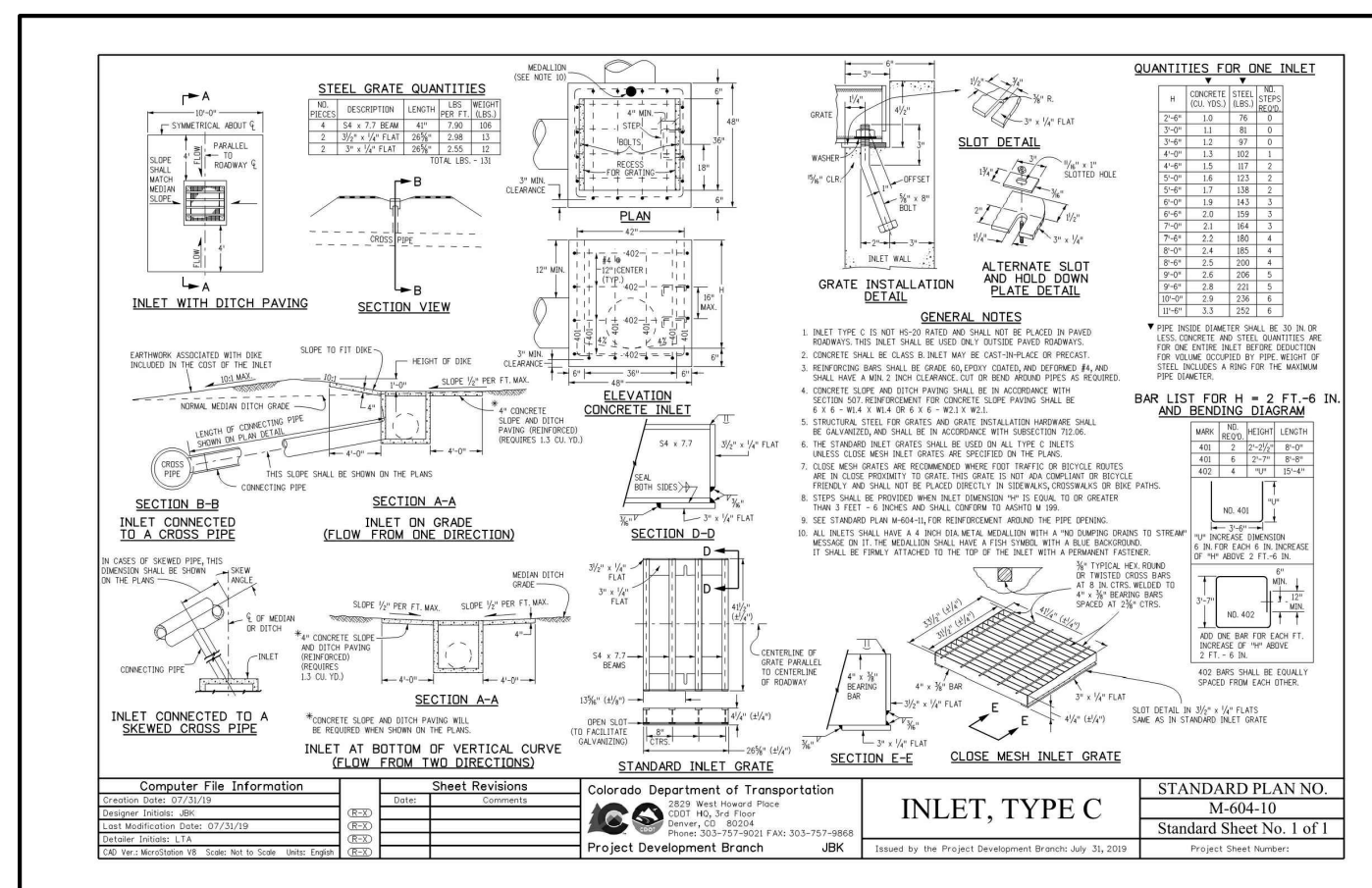


- NOTES:
1. REDI-ROCK OR EQUAL BLOCK SYSTEMS MAY ALSO BE APPROVED AS A SUBSTITUTE.
 2. REGIONAL BUILDING DEPARTMENT PERMIT REQUIRED FOR ALL RETAINING WALLS GREATER THAN OR EQUAL TO 4' IN HEIGHT.

SEGMENTAL BLOCK RETAINING WALL DETAIL (B)
SCALE: N.T.S.



HANDRAIL DETAIL (C)
SCALE: N.T.S.

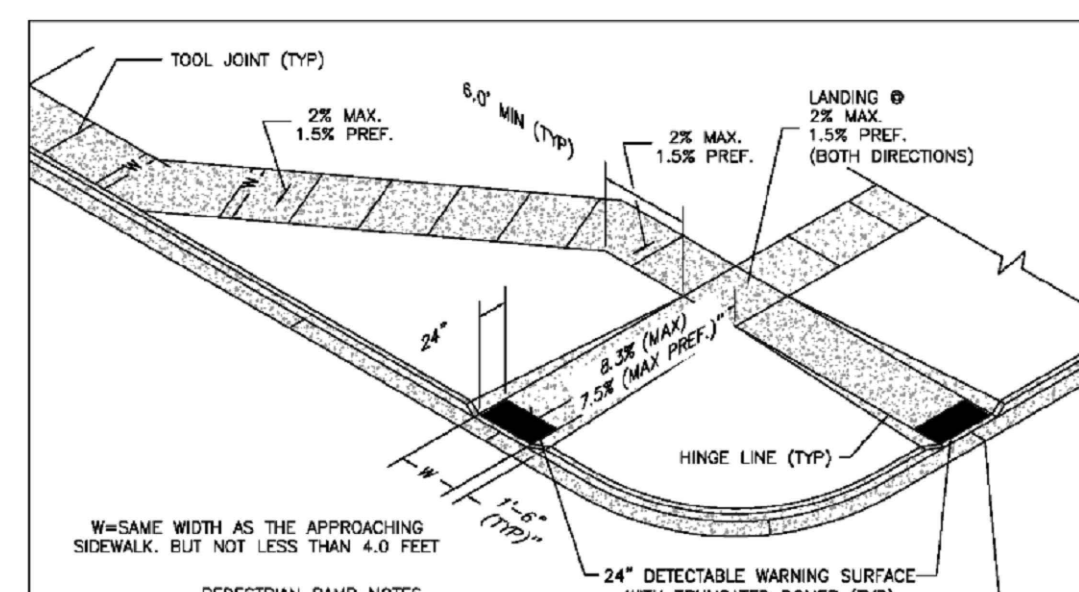


GENERAL CIVIL NOTES:

1. ALL CONSTRUCTION SHALL MEET THE FOLLOWING STANDARDS & SPECIFICATIONS:
 - * INTERNATIONAL BUILDING CODE, LATEST EDITION ADOPTED BY LOCAL JURISDICTION
 - * PIKES PEAK REGIONAL BUILDING CODE, LATEST EDITION.
 - * EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM), LATEST EDITION.
 - * PROJECT GEOTECHNICAL REPORT.
2. THE 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 ACTUAL CONSTRUCTION.
3. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THESE APPROVED PLANS AND ACCESS TO THE APPLICABLE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES.
4. STORM DRAIN PIPE SHALL BE RCP CLASS III WITH CLASS C BEDDING UNLESS OTHERWISE NOTED.
5. STATIONING IS AT CENTERLINE UNLESS OTHERWISE NOTED. ALL ELEVATIONS ARE AT FLOWLINE UNLESS OTHERWISE NOTED. ALL DIMENSIONS ARE FROM FACE OF CURB UNLESS OTHERWISE NOTED. LENGTHS SHOWN FOR STORM SEWER PIPES ARE TO CENTER OF MANHOLE.
6. CONTRACTOR SHALL COORDINATE WITH GAS, ELECTRIC, TELEPHONE AND CABLE T.V. UTILITY SUPPLIERS FOR INSTALLATION OF ALL UTILITIES. MINIMUM COVER FOR ALL DRY UTILITIES SHALL BE 36".
7. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, DEBRIS, WASTE AND OTHER UNSUITABLE FILL MATERIAL FOUND WITHIN THE LIMITS OF EXCAVATION.
8. MATCH INTO EXISTING GRADES AT 3:1 MAX CUT AND FILL SLOPES.
9. REVEGETATION OF ALL DISTURBED AREAS SHALL BE DONE WITH 4" TOPSOIL AND DRY LAND GRASS SEED AFTER FINE GRADING IS COMPLETE ("FOOTHILLS SEED MIX").
10. EROSION CONTROL SHALL CONSIST OF SILT FENCE AND HAY BALES AS SHOWN ON THE DRAWING, AND TOPSOIL WITH GRASS SEED, WHICH WILL BE WATERED UNTIL VEGETATION HAS BEEN RE-ESTABLISHED.
11. THE EROSION CONTROL MEASURES OUTLINED ON THIS PLAN ARE THE RESPONSIBILITY OF THE CONTRACTOR TO MONITOR AND REPLACE, REGRADE, AND REBUILD AS NECESSARY UNTIL VEGETATION IS RE-ESTABLISHED.
12. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES IN A MANNER THAT WILL PROTECT ADJACENT PROPERTIES AND PUBLIC FACILITIES FROM THE ADVERSE EFFECTS OF EROSION AND SEDIMENTATION AS A RESULT OF CONSTRUCTION AND EARTHWORK ACTIVITIES WITHIN THE PROJECT SITE.
13. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS DETERMINED BY SITE CONDITIONS.
14. THE CONTRACTOR WILL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE UTILITIES WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.
15. ALL BACKFILL, SUB-BASE, AND/OR BASE COURSE MATERIAL SHALL BE COMPACTED PER THE PROJECT GEOTECHNICAL REPORT AND CITY SPECIFICATIONS.
16. CONCRETE USED IN CURB AND GUTTER, SIDEWALK, AND CROSSSPAN CONSTRUCTION SHALL MEET CITY CRITERIA.
17. ALL FINISHED GRADES SHALL HAVE A MINIMUM 1.0% SLOPE TO PROVIDE POSITIVE DRAINAGE.
18. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO BEGINNING WORK.

HANDICAP ACCESS NOTES:

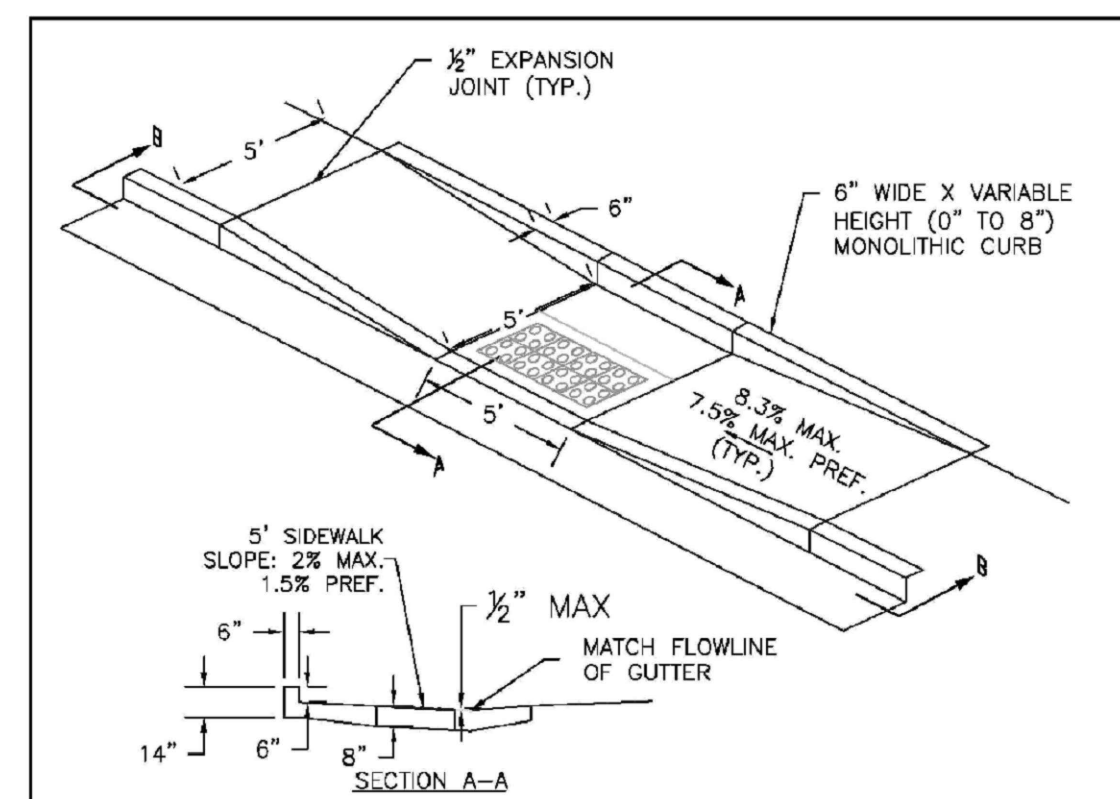
1. RAMPS ARE NOT TO BE PLACED IN HANDICAP ACCESS AISLES.
2. ACCESS AISLES MAY NOT EXCEED A 2% (1:48) SLOPE IN ANY DIRECTION.
3. HANDICAP RAMPS MAY NOT EXCEED A SLOPE OF 8% (1:12).
4. THE MINIMUM WIDTH FOR HANDICAPPED RAMPS IS 36 INCHES. THE SIDES OF RAMPS MAY NOT EXCEED A SLOPE OF 10% UNLESS PROTECTED WITH A HANDRAIL.
5. HANDICAPPED PARKING SHALL MEET ALL OTHER APPLICABLE CITY AND ADA CODE REQUIREMENTS.



Pedestrian Ramp Detail Standard Drawing

DATE APPROVED: 6/23/20
DESIGNED BY: Jennifer E. Irvine
FORNEN DATE: 6/23/20
FILE NAME: SD_2-41

DEPARTMENT OF PUBLIC WORKS

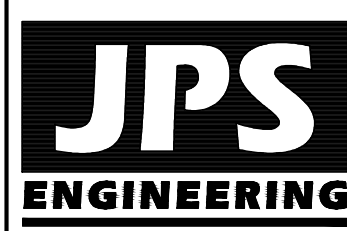


Parallel Pedestrian Curb Ramp Detail Standard Drawing

DATE APPROVED: 6/23/20
DESIGNED BY: Jennifer E. Irvine
FORNEN DATE: 6/23/20
FILE NAME: SD_2-50

DEPARTMENT OF PUBLIC WORKS

SHOPS AT MERIDIAN RANCH CONVENIENCE STORE LOT 2, THE SHOPS FIL. NO. 1A AT MERIDIAN RANCH



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NO.	REVISION	BY	DATE

CIVIL NOTES AND DETAILS



HORIZ. SCALE: 1" = 20'	DRAWN: PV
VERT. SCALE: N/A	DESIGNED: JPS
SURVEYED: RIDGELINE	CHECKED: JPS
CREATED: 08/29/22	LAST MODIFIED: 08/22/23
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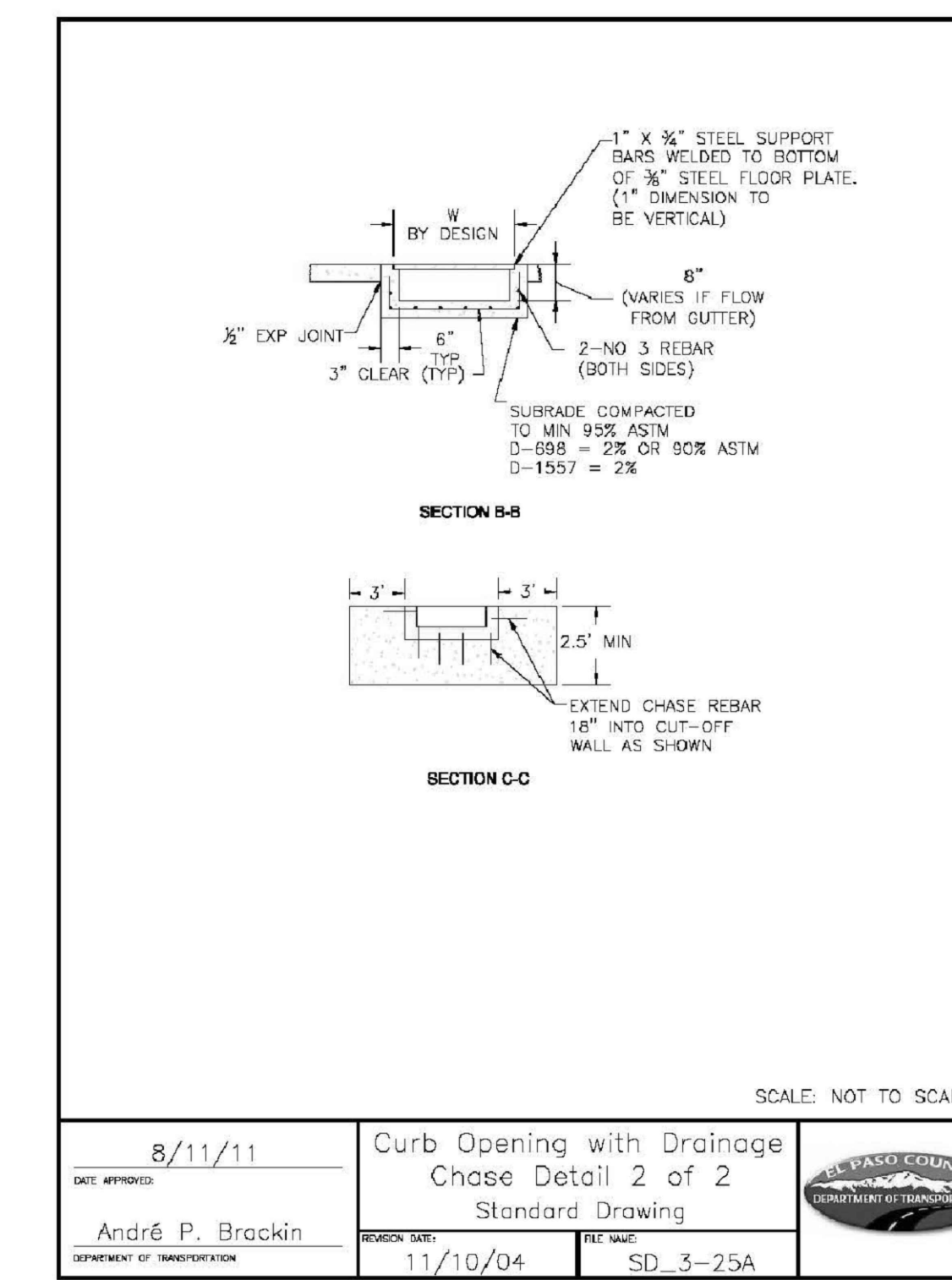
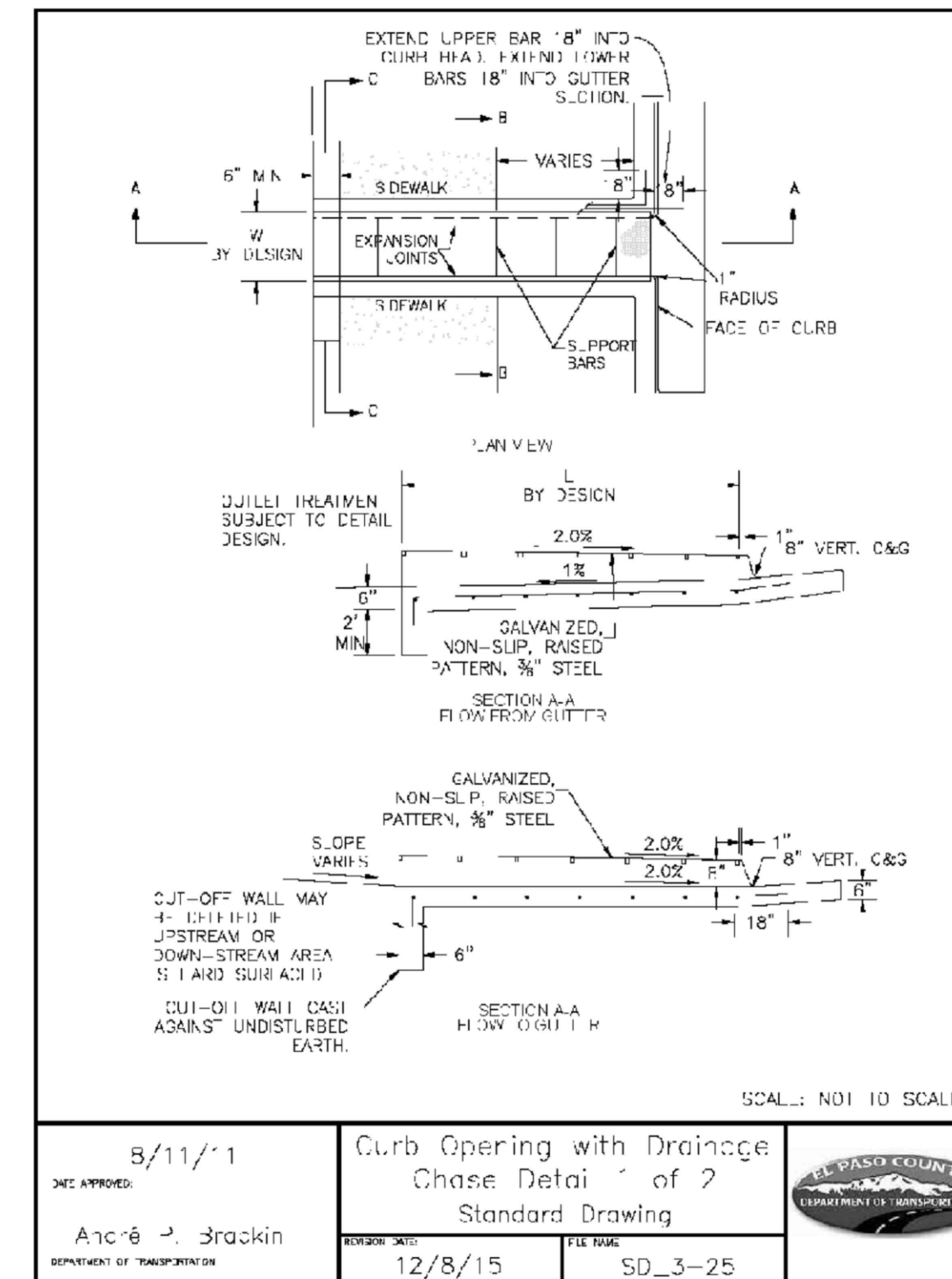
C1.2

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

REVISED 7/02/19

- 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.
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
- A SEPARATE STORMWATER MANAGEMENT PLAN (SMWP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
- TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
- FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL 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.
- ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT AFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENEED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.
- CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.
- DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
- EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
- NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ONSITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
- NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
- PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- THE SOILS REPORT FOR THIS SITE PREPARED BY "A BETTER SOIL SOLUTION" DATED 30 JANUARY 2023 SHALL BE CONSIDERED A PART OF THESE PLANS.
- AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE 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



SEEDING MIX:

GRASS	VARIETY	AMOUNT IN PLS LBS. PER ACRE
CRESTED WHEAT GRASS	EPHRAIM OR HYCREST	4.0 LBS.
PERENNIAL RYE	LINN	2.0 LBS.
WESTERN WHEATGRASS	SARTON	3.0 LBS.
SMOOTH BROME GRASS	LINCOLN OR MANCHAR	5.0 LBS.
SIDEOATS GRAMA	EPHRAIM	2.5 LBS.
TOTAL:		16.5 LBS.

SEEDING & FERTILIZER APPLICATION: DRILL SEED OR HYDRO-SEED PER CDOT SPEC. SECTION 212.

MULCHING APPLICATION: CONFORM TO CDOT SPEC-SECTION 213.

ESTIMATED TIME SCHEDULE:

INSTALL BMP'S	MAY, 2024
GRADING START	MAY, 2024
GRADING COMPLETION	MAY, 2025
SEEDING & MULCHING	MAY, 2025
STABILIZATION	SEPTEMBER, 2026

SEDIMENT CONTROL MAINTENANCE PROGRAM:

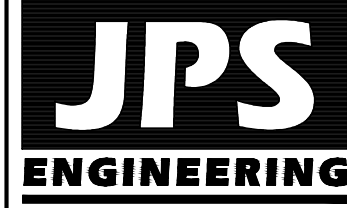
	FREQUENCY ¹
PERIODIC SITE INSPECTIONS	BI-WEEKLY
RE-VEGETATION OF EXPOSED SOILS	WITHIN 21 DAYS OF GRADING ²
SEDIMENT REMOVAL FROM BMP'S	MONTHLY
REMOVAL OF BMP'S	AFTER STABILIZATION ACHIEVED

¹ AND AFTER ANY PRECIPITATION OR SNOW MELT EVENT THAT CAUSES SURFACE EROSION.

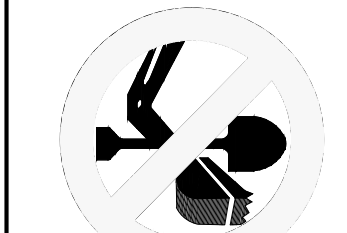
² ACCUMULATED SEDIMENT AND DEBRIS SHALL BE REMOVED WHEN THE SEDIMENT LEVEL REACHES ONE HALF THE HEIGHT OF THE BMP OR AT ANY TIME THAT SEDIMENT OR DEBRIS ADVERSELY IMPACTS THE FUNCTION OF THE BMP.

**SHOPS AT MERIDIAN RANCH CONVENIENCE STORE
 LOT 2, THE SHOPS FIL. NO. 1 AT MERIDIAN RANCH**

**CIVIL & EROSION CONTROL
 NOTES & DETAILS**



19 E. Willamette Ave.
 Colorado Springs, CO
 80903
 PH: 719-477-9429
 FAX: 719-471-0766
 www.jpseng.com



CALL UTILITY NOTIFICATION
 CENTER OF COLORADO
1-800-922-1987
 CALL 2-BUSINESS DAYS IN ADVANCE
 BEFORE YOU DIG, GRADE, OR EXCAVATE
 FOR THE MARKING OF UNDERGROUND
 MEMBER UTILITIES.

No.	REVISION	BY	DATE



HORIZ. SCALE: 1"=20'	DRAWN: PV
VERT. SCALE: N/A	DESIGNED: JPS
SURVEYED: RIDGELINE	CHECKED: JPS
CREATED: 08/29/22	LAST MODIFIED: 04/12/24
PROJECT NO: 092202	MODIFIED BY: PV
SHEET:	

C3.1

SEEDING & MULCHING

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

SOIL PREPARATION


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

SEEDING

- ALLOWABLE SEED MIXES ARE INCLUDED IN THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. ALTERNATE SEED MIXES ARE ACCEPTABLE IF INCLUDED IN AN APPROVED LANDSCAPING PLAN.
- SEED SHOULD BE DRILL-SEEDED WHENEVER POSSIBLE.
- SEED DEPTH MUST BE 3/8 TO 5/8 INCHES WHEN DRILL SEEDING IS USED.
- BROADCAST SEEDING UNDER SEEDING WITH TACKLER MAY BE SUBSTITUTED ON SLOPES STEEPER THAN 3:1 OR ON OTHER AREAS NOT PRACTICAL TO DRILL SEED.
- SEEDING RATES MUST BE DOUBLED FOR BROADCAST SEEDING OR INCREASED BY 50% IF USING A BRILLION SHALL OR HYBRID-SEEDING.
- BROADCAST SEEDING MUST BE LIGHTLY HAND-RAKED INTO THE SOIL.

MULCHING

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



City of Colorado Springs
Stormwater Quality


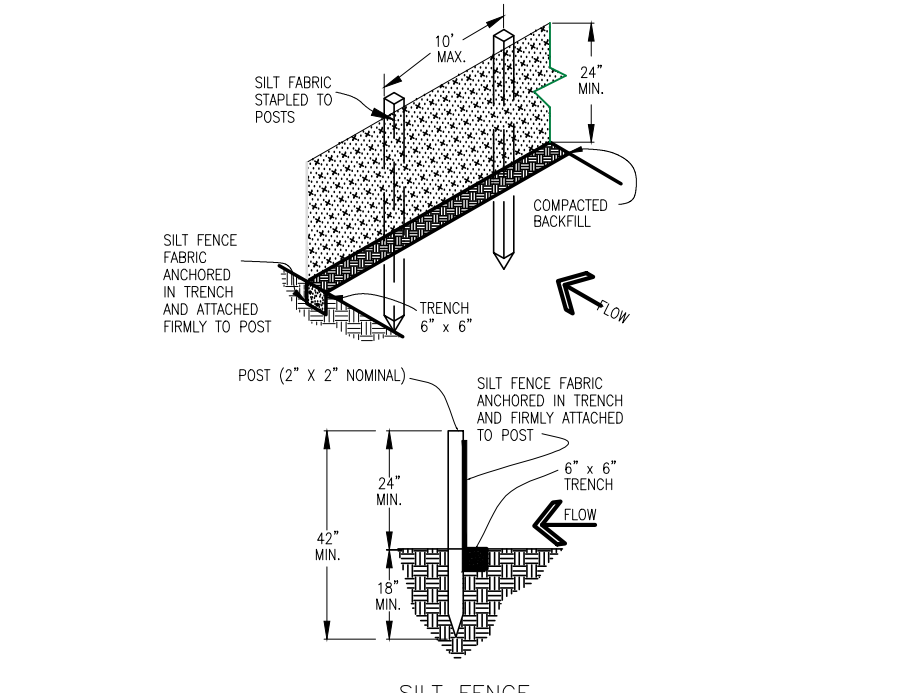


Figure SF-2
Silt Fence
Installation Details and Maintenance Requirements



SILT FENCE NOTES

INSTALLATION REQUIREMENTS

- SILT FENCES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
- WELD JOINTS ARE NECESSARY. SILT FENCE GEOTEXTILE SHALL BE STITCHED TOGETHER ONLY AT SUPPORT POSTS AND SECURITALLY SEALED.
- MATERIAL POSTS SHALL BE "STUCCOED" OR "B" OR "C" WITH MINIMUM WIDTH OF 1.25 INCHES PER LINEAR FOOT. WOOD POSTS SHALL HAVE A MINIMUM DIAMETER OR CROSS SECTION DIMENSION OF 2 INCHES.
- THE FILTER MATERIAL SHALL BE FASTENED SECURELY TO METAL OR WOOD POSTS USING WIRE TIE OR TO WOOD POSTS WITH 3/4" LINE #8 HEAVY-DUTY STAPLES. THE SET FORCE GEOTEXTILE SHALL NOT BE STAPLED TO EXISTING TREES.
- WIRE NOT REQUIRED. WIRE MESH FENCE MAY BE USED TO SUPPORT THE GEOTEXTILE. WIRE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 5" LONG. THE WIRE OR HOE RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 6" AND SHALL NOT EXTEND MORE THAN 5" ABOVE THE ORIGINAL GROUND SURFACE.

MAINTENANCE REQUIREMENTS

- CONTRACTOR SHALL INSPECT SILT FENCES IMMEDIATELY AFTER EACH RAINFALL. AT LEAST DAILY DURING PERIODS OF HEAVY RAINFALL, DAMAGED OR COLLAPSED, UNRENDERED OR INEFFECTIVE SILT FENCES SHALL BE PROMPTLY REPAIRED OR REPLACED.
- SEDIMENT SHALL BE REMOVED FROM BEHIND SILT FENCE WHEN IT ACCUMULATES AT LEAST 1/2" TO THE EXPOSED GEOTEXTILE HEIGHT.
- SILT FENCES SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED AS APPROVED BY THE CITY.

ALONG THE TOE OF FALLS, INSTALL THE SILT FENCE ALONG A LEVEE, CONTROL AND PROVIDE AN AREA BEHIND THE FENCE FOR RUNOFF TO POND AND SEDIMENT TO SETTLE. A MINIMUM DISTANCE OF 5 FEET FROM THE TOE OF THE FALL IS RECOMMENDED.

THE HEIGHT OF THE SILT FENCE FROM THE GROUND SURFACE SHALL BE MINIMUM OF 24 INCHES AND SHALL NOT EXCEED 36 INCHES. HIGHER FENCES MAY INCREASE VOLUME OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.


REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.

STONES ARE TO BE REPLACED PERIODICALLY AND WHEN REPAIR IS NECESSARY.

SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY DOWLING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS.

STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.

OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.



City of Colorado Springs
Stormwater Quality

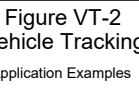
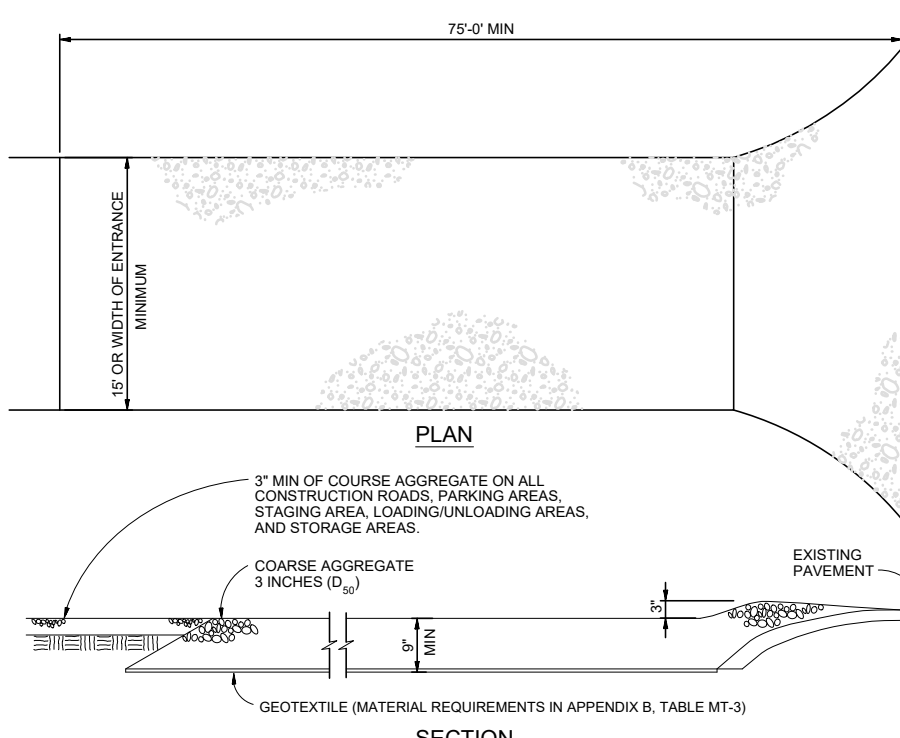


Figure SF-2
Silt Fence
Installation Details and Maintenance Requirements




VEHICLE TRACKING

INSTALLATION REQUIREMENTS

- ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION.
- CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APPROX 12" CURB TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAY.
- AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.
- CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.
- CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADES THAT ARE EXCESSIVELY STEEP.

MAINTENANCE REQUIREMENTS

- CONTRACTOR SHALL INSPECT INLET PROTECTION IMMEDIATELY AFTER EACH RAINFALL AT LEAST DAILY DURING PROLONGED RAINFALL AND WEEKLY DURING PERIODS OF RAINFALL.
- CONCRETE BLOCKS ARE TO BE PLACED AROUND THE INLET IN A SINGLE ROW ON THEIR SIDES, ABUTTING ONE ANOTHER WITH THE OPEN ENDS OF THE BLOCKS.
- GRAVEL BAGS ARE TO BE PLACED AROUND THE INLET PROTECTION TO BE REMOVED WHEN SEDIMENT HAS ACCUMULATED TO APPROXIMATELY 1/2 THE DESIGN DEPTH OF THE TRAP.
- GRAVEL BAGS ARE TO CONTAIN WASHED SAND OR GRAVEL APPROXIMATELY 3/4 INCH IN DIAMETER.
- BAGS ARE TO BE MADE OF 1/2 INCH WIRE MESH (USED WITH GRAVEL ONLY) OR GEOTEXTILE.
- AN ALTERNATE 3/4" TO GRAVEL FILTER OVER A WIRE SCREEN MAY BE USED IN PLACE OF GRAVEL BAGS. THE WIRE MESH SHALL EXTEND ABOVE THE TOP OF THE CONCRETE BLOCKS AND THE GRAVEL PLACED OVER THE WIRE SCREEN TO THE TOP OF THE CONCRETE BLOCKS.



City of Colorado Springs
Stormwater Quality

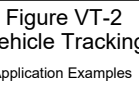
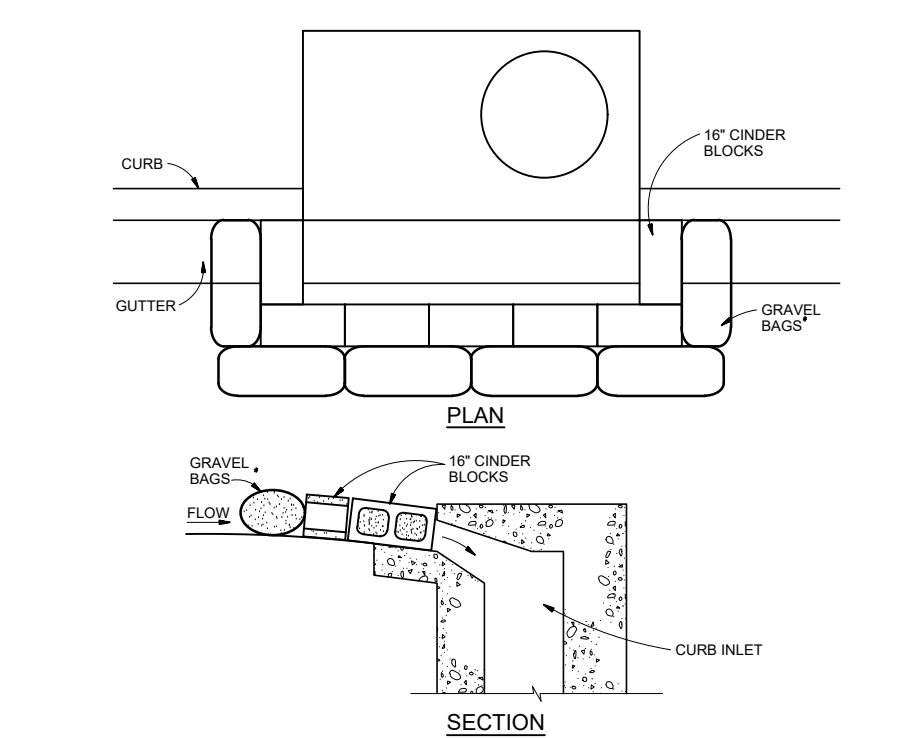


Figure VT-2
Vehicle Tracking
Application Examples



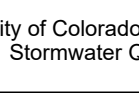
BLOCK AND GRAVEL BAG/CURB INLET PROTECTION

INSTALLATION REQUIREMENTS

- INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY AFTER CONSTRUCTION OF INLET.
- CONCRETE BLOCKS ARE TO BE Laid AROUND THE INLET IN A SINGLE ROW ON THEIR SIDES, ABUTTING ONE ANOTHER WITH THE OPEN ENDS OF THE BLOCKS.
- GRAVEL BAGS ARE TO BE PLACED AROUND THE INLET PROTECTION TO BE REMOVED WHEN SEDIMENT HAS ACCUMULATED TO APPROXIMATELY 1/2 THE DESIGN DEPTH OF THE TRAP.
- GRAVEL BAGS ARE TO CONTAIN WASHED SAND OR GRAVEL APPROXIMATELY 3/4 INCH IN DIAMETER.
- BAGS ARE TO BE MADE OF 1/2 INCH WIRE MESH (USED WITH GRAVEL ONLY) OR GEOTEXTILE.
- AN ALTERNATE 3/4" TO GRAVEL FILTER OVER A WIRE SCREEN MAY BE USED IN PLACE OF GRAVEL BAGS. THE WIRE MESH SHALL EXTEND ABOVE THE TOP OF THE CONCRETE BLOCKS AND THE GRAVEL PLACED OVER THE WIRE SCREEN TO THE TOP OF THE CONCRETE BLOCKS.

MAINTENANCE REQUIREMENTS

- CONTRACTOR SHALL INSPECT INLET PROTECTION IMMEDIATELY AFTER EACH RAINFALL AT LEAST DAILY DURING PROLONGED RAINFALL AND WEEKLY DURING PERIODS OF RAINFALL.
- DAMAGED OR INEFFECTIVE INLET PROTECTION SHALL BE PROMPTLY REPAIRED OR REPLACED.
- SEDIMENT SHALL BE REMOVED WHEN SEDIMENT HAS ACCUMULATED TO APPROXIMATELY 1/2 THE DESIGN DEPTH OF THE TRAP.
- INLET PROTECTION SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED WITHIN THE DRAINAGE AREA AS APPROVED BY THE CITY.



City of Colorado Springs
Stormwater Quality

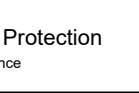
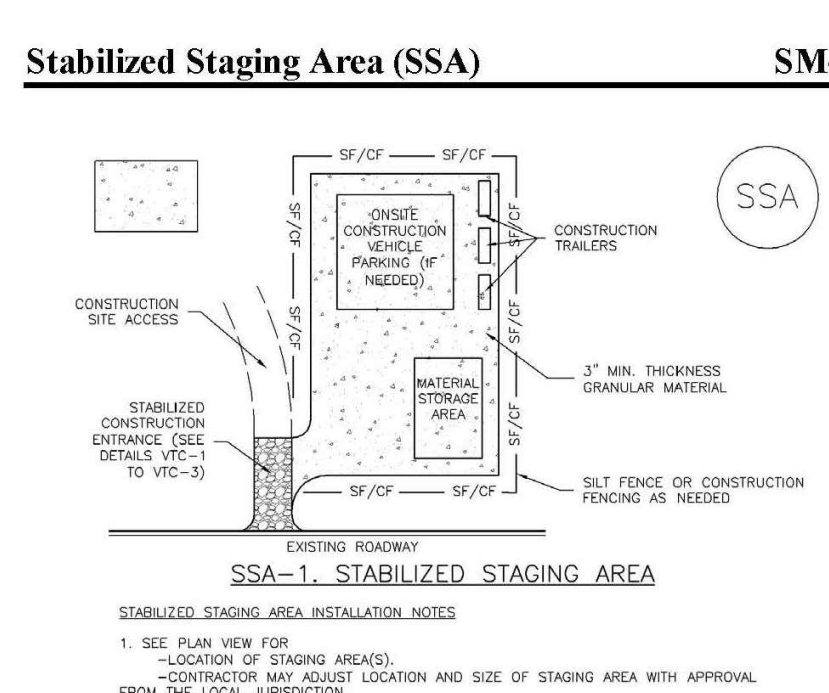


Figure IP-3
Block & Gravel Bag/Curb Inlet Protection
Installation Details and Maintenance Requirements

Stabilized Staging Area (SSA) SM-6



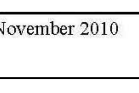
SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

- SEE PLAN VIEW FOR LOCATION OF STAGING AREAS.
- CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
- STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
- STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
- THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
- UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SPEC. P25. ABOUT #3 (CONCRETE AGGREGATE OR #4 (MINUS) ROCK).
- ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

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



City of Colorado Springs
Stormwater Quality

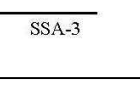
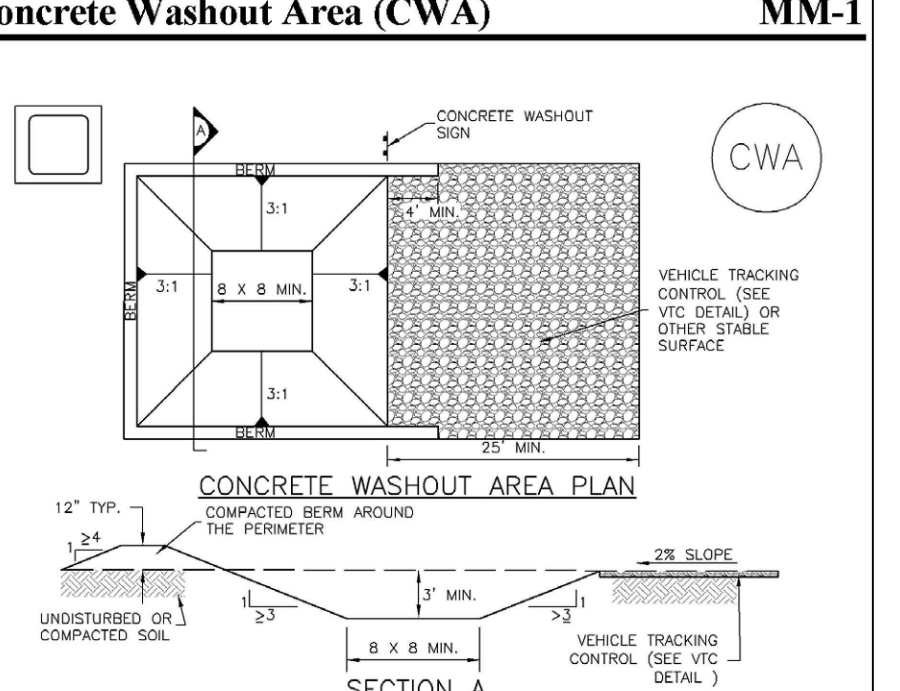


Figure SSA-3
Stabilized Staging Area
Installation Details and Maintenance Requirements

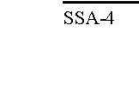
SM-6 Stabilized Staging Area (SSA)



STABILIZED STAGING AREA MAINTENANCE NOTES

- STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
- THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEED, AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.
- NOTE: MANY JURISDICTIONS PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO CONTAMINANT RELEASE FROM VEHICLES IN AREAS WHERE RECYCLED CONCRETE IS USED.
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM USED STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM COLORADO COUNTY, COLORADO, NOT AVAILABLE IN AIRBORNE)



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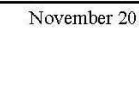
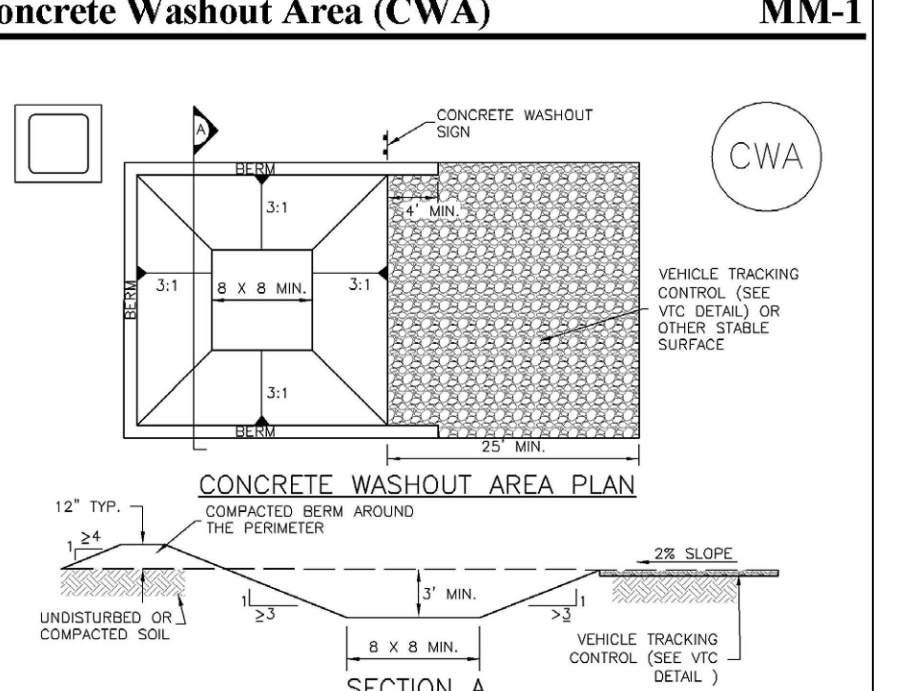


Figure SSA-3
Stabilized Staging Area
Installation Details and Maintenance Requirements

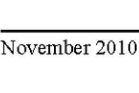
Concrete Washout Area (CWA) MM-1



CWA-1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

- SEE PLAN VIEW FOR CWA INSTALLATION LOCATION.
- DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1000' OF ANY WELLS OR DRINKING WATER SOURCES IF SITE CONSTRAINTS MAKE THIS UNFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE. THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE (MIN. 18 IN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES ON A UNLINED AREAS (GROUND STONES ARE SHOULD BE USED).
- THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
- THE CWA SHALL INCLUDE A FLAT SUBSURFACE (PT THAT IS AT LEAST 8" BY 8" SLOPES LEADING OUT OF THE SUBSURFACE PT SHALL BE 3:1 OR FLATTER. THE PT SHALL BE AT LEAST 12" DEEP.
- BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.
- VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
- 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.
- USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.



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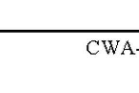
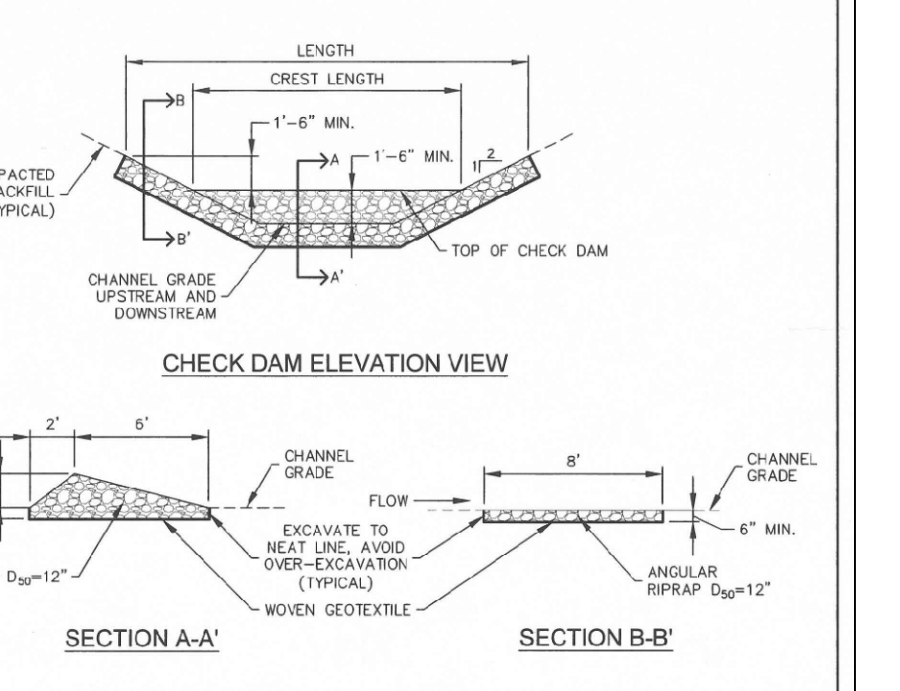


Figure CWA-3
Concrete Washout Area
Installation Details and Maintenance Requirements




CHECK DAM

INSTALLATION NOTES

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

MAINTENANCE NOTES

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



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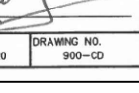
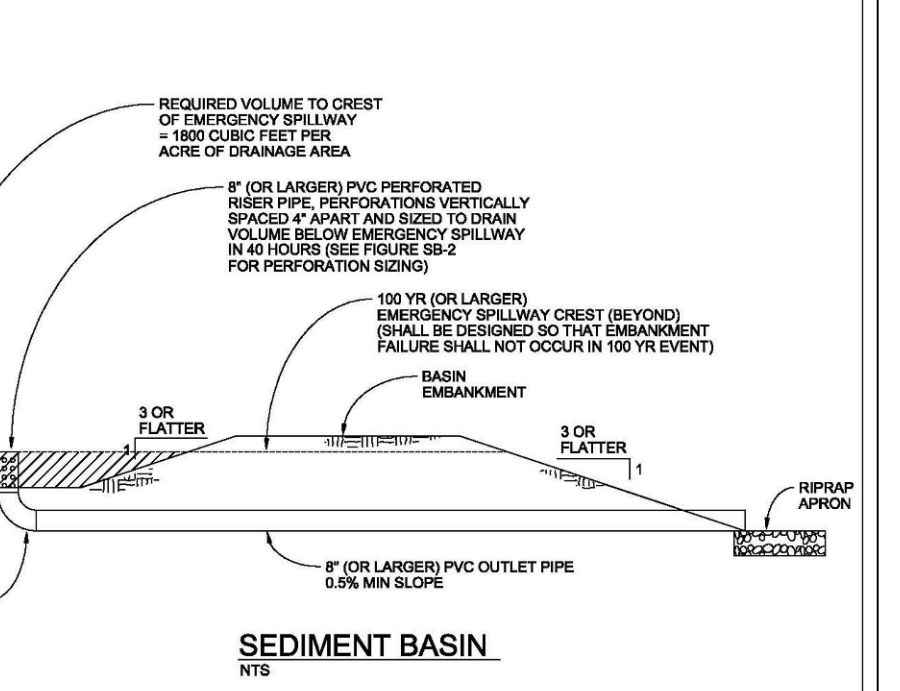


Figure CD
Check Dam
Installation Details and Maintenance Requirements




SEDIMENT BASIN

INSTALLATION REQUIREMENTS

- SEDIMENT BASINS SHALL BE INSTALLED BEFORE ANY CLEARING AND/OR GRADING IS UNDERTAKEN.
- THE AREA UNDER WHICH THE EMBANKMENT IS TO BE INSTALLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ALL VEGETATION AND ROOT MAT.
- THE OUTLET OF THE BASIN SHALL BE DESIGNED TO DRAIN ITS VOLUME IN 40 HOURS.
- THE OUTLET IS TO BE LOCATED AT THE FURTHEST DISTANCE FROM THE INLET OF THE BASIN. Baffles may be needed to INCREASE THE FLOW LENGTH AND SETTLING TIME.
- EMBANKMENT MATERIAL SHALL CONSIST OF SOIL WITH A MINIMUM OF 6% PASSING A #200 SIEVE. EXCAVATED SOIL CAN BE USED IF IT MEETS THIS REQUIREMENT.
- WHEN A BASIN IS INSTALLED NEAR A RESIDENTIAL AREA, FOR SAFETY REASONS, A SIGN SHALL BE POSTED AND THE AREA SECURED WITH A FENCE.

MAINTENANCE REQUIREMENTS

- CONTRACTOR SHALL INSPECT SEDIMENT BASINS AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS OF RAINFALL.
- SEDIMENT BASINS SHALL BE CLEANED OUT BEFORE SEDIMENT HAS FILLED HALF THE VOLUME OF THE BASIN.
- SEDIMENT BASINS SHALL REMAIN OPERATIONAL AND PROPERLY MAINTAINED UNTIL THE SITE AREA PERMANENTLY STABILIZED WITH ADEQUATE VEGETATIVE COVER AND/OR OTHER PERMANENT STRUCTURE AS APPROVED BY THE CITY.



City of Colorado Springs
Stormwater Quality




Figure SB-1
Sediment Basin
Installation Details and Maintenance Requirements

TABLE SB-1

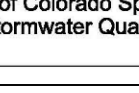
Circular Perforation Spacing	Hole Diameter		Area per Row (sq ft)							
	ft	in	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
2	18.04	2.21	1.53	3.79	2.66	2.44	2.62	1.73		
3	7.82	3.86	2.85	1.80	1.48	1.21	1.01	0.87		
4	4.81	2.31	1.93	1.33	0.88	0.72	0.61	0.52		
5	3.61	1.84	1.52	1.07	0.76	0.64	0.40	0.35		
6	3.00	1.50	1.33	0.88	0.58	0.54	0.30	0.27		
8	2.25	1.12	1.04	0.69	0.46	0.42	0.23	0.21		
10	1.80	0.90	0.83	0.55	0.36	0.34	0.19	0.18		
12	1.50	0.75	0.69	0.46	0.30	0.28	0.15	0.14		
15	1.20	0.60	0.55	0.37	0.24	0.22	0.12	0.11		
18	1.00	0.50	0.46	0.30	0.19	0.18	0.09	0.09		
20	0.90	0.45	0.43	0.27	0.17	0.16	0.08	0.08		
24	0.75	0.38	0.37	0.23	0.14	0.13	0.06	0.06		
30	0.60	0.30	0.33	0.18	0.11	0.10	0.05	0.05		
36	0.50	0.25	0.28	0.15	0.09	0.08	0.04	0.04		
42	0.43	0.21	0.24	0.13	0.07	0.07	0.03	0.03		
48	0.38	0.18	0.21	0.11	0.06	0.06	0.03	0.03		
60	0.30	0.15	0.16	0.09	0.05	0.05	0.02	0.02		
72	0.25	0.12	0.14	0.07	0.04	0.04	0.02	0.02		
90	0.20	0.10	0.11	0.06	0.03	0.03	0.01	0.01		

TABLE SB-2

Circular Perforation Spacing	Hole Diameter	Hole Area (sq ft)	Area per Row (sq ft)		
			n = 1	n = 2	n = 3
18	0.250	0.06	0.10	0.15	
36	0.375	0.11	0.22	0.33	
72	0.488	0.15	0.30	0.45	
108	0.600	0.20	0.39	0.59	
144	0.750	0.28	0.50	0.75	
180	0.882	0.31	0.61	0.92	
216	0.988	0.37	0.74	1.11	
252	1.080	0.44	0.88	1.33	
288	1.168	0.50	1.00	1.50	
324	1.250	0.60	1.17	1.73	
360	1.320	0.68	1.32	1.98	
408	1.480	0.80	1.57	2.36	
456	1.590	0.90	1.80	2.70	
504	1.680	0.99	2.00	3.00	
552	1.760	1.07	2.17	3.26	
600	1.820	1.14	2.31	3.47	
648	1.870	1.19	2.41	3.61	
696	1.910	1.23	2.48	3.68	
744	1.950	1.26	2.53	3.73	
792	1.980	1.28	2.57	3.78	
840	2.000	1.29	2.60	3.80	
888	2.020	1.30	2.62	3.82	
936	2.030	1.31	2.63	3.83	
984	2.040	1.31	2.64	3.84	
1032	2.050	1.32	2.65	3.85	
1080	2.050	1.32	2.65	3.85	

TABLE SB-3

Minimum steel plate thickness	Circular Perforation Spacing	
	14"	9"
3/8"	30'	30'
1/2"	45'	45'
5/8"	60'	60'
3/4"	75'	75'
7/8"	90'	90'
1"	105'	105'



City of Colorado Springs
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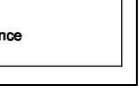
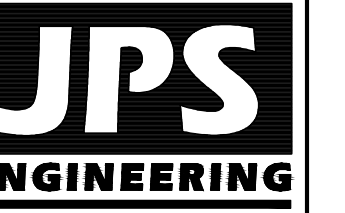


Figure SB-2
Outlet Staging
Installation Details and Maintenance Requirements

TEMPORARY SEDIMENT BASIN DESIGN DATA - POND A

BASIN	DRAINAGE AREA (AC)	REQUIRED VOLUME (AF)	L (FT)	W (FT)	D (FT)	HD* (IN)	# COLUMNS	# ROWS	SPILLWAY WIDTH
A	1.9	0.08	50	15	1.0	1"	1	3	4'

D=TSB DEPTH
HD=HOLE DIAMETER (PER FIG. SB-2)
* PERFORATIONS AT 4" VERTICAL SPACING



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80903
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 1-800-922-1987
 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

BY	DATE	REVISION

SHOPS AT MERIDIAN RANCH CONVENIENCE STORE LOT 2, THE SHOPS FIL. NO. 1 AT MERIDIAN RANCH

EROSION CONTROL DETAILS

HORZ. SCALE:	1" = 20'	DRAWN:	PV
VERT. SCALE: <td>N/A</td> <td>DESIGNED: <td>JPS</td> </td>	N/A	DESIGNED: <td>JPS</td>	JPS
SURVEYED: <td>RIDGELINE</td> <td>CHECKED: <td>JPS</td> </td>	RIDGELINE	CHECKED: <td>JPS</td>	JPS
CREATED: <td>08/29/22</td> <td>LAST MODIFIED: <td>06/03/24</td> </td>	08/29/22	LAST MODIFIED: <td>06/03/24</td>	06/03/24
PROJECT NO: <td>092202</td> <td>MODIFIED BY: <td>PV</td> </td>	092202	MODIFIED BY: <td>PV</td>	PV
SHEET:	C3.2		

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