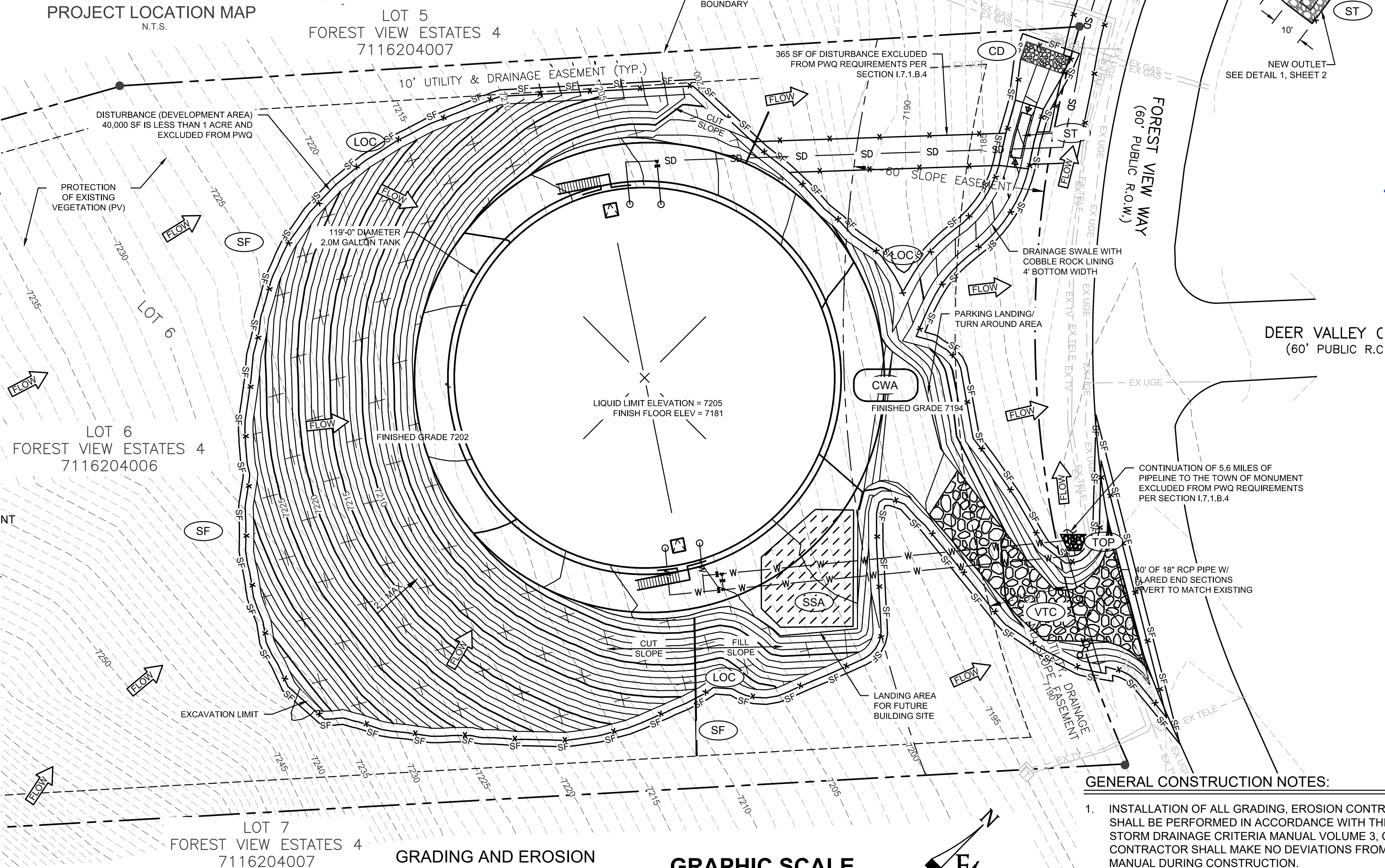


PROJECT LOCATION MAP
N.T.S.

GRADING NOTES

1. GRADING SHOWN ON PLAN REFLECTS THE EXISTING AND FINISHED GRADE FOR THE TANK SITE.
2. TEMPORARY EXCAVATIONS FOR CONSTRUCTION OF THE TANK AND ASSOCIATED UTILITIES SHALL FOLLOW RECOMMENDATION OF THE GEOTECHNICAL REPORT PREPARED BY NINYO & MOORE DATED NOVEMBER 18, 2016.
3. FINISHED GRADES SHALL NOT EXCEED A 2 HORIZONTAL TO 1 VERTICAL SLOPE UNLESS SPECIFICALLY AGREED TO IN WRITING BY THE ENGINEER FOR LIMITED LOCATIONS ON THE SITE WHERE EXPOSED ROCK MAY ALLOW A STEEPER SLOPE AND WHERE NECESSARY TO CATCH THE EXISTING SURFACE.
4. SITE RESTORATION SHALL CONSIST OF PLACEMENT/REPLACEMENT OF 4" MINIMUM DEPTH TOPSOIL OVER LOOSELY COMPACTED SUB-SURFACE MATERIAL.
5. TOPSOIL SHALL BE COVERED BY A DOUBLE NET STRAW/COCONUT BLANKET WITH BIODEGRADEABLE NETTING. BLANKET SHALL BE INSTALLED AND ANCHORED PER MANUFACTURER RECOMMENDATIONS.
6. HYDROSEED WITH APPROVED NATIVE GRASS MIX.
7. BUILDING HAS NOT BEEN DESIGNED. ESTIMATED FOOTPRINT BUILDING IS 10'X10'.

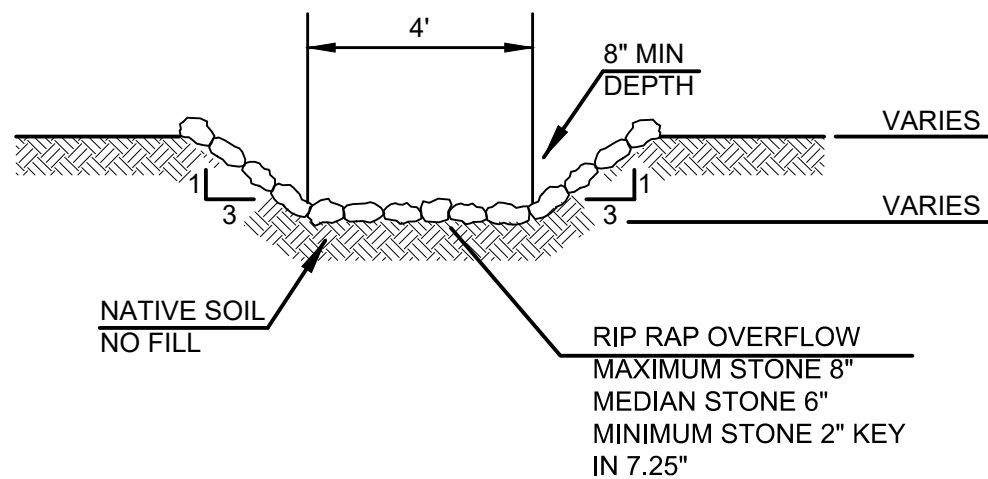


GRADING AND EROSION
CONTROL PLAN
SCALE: 1"= 20'

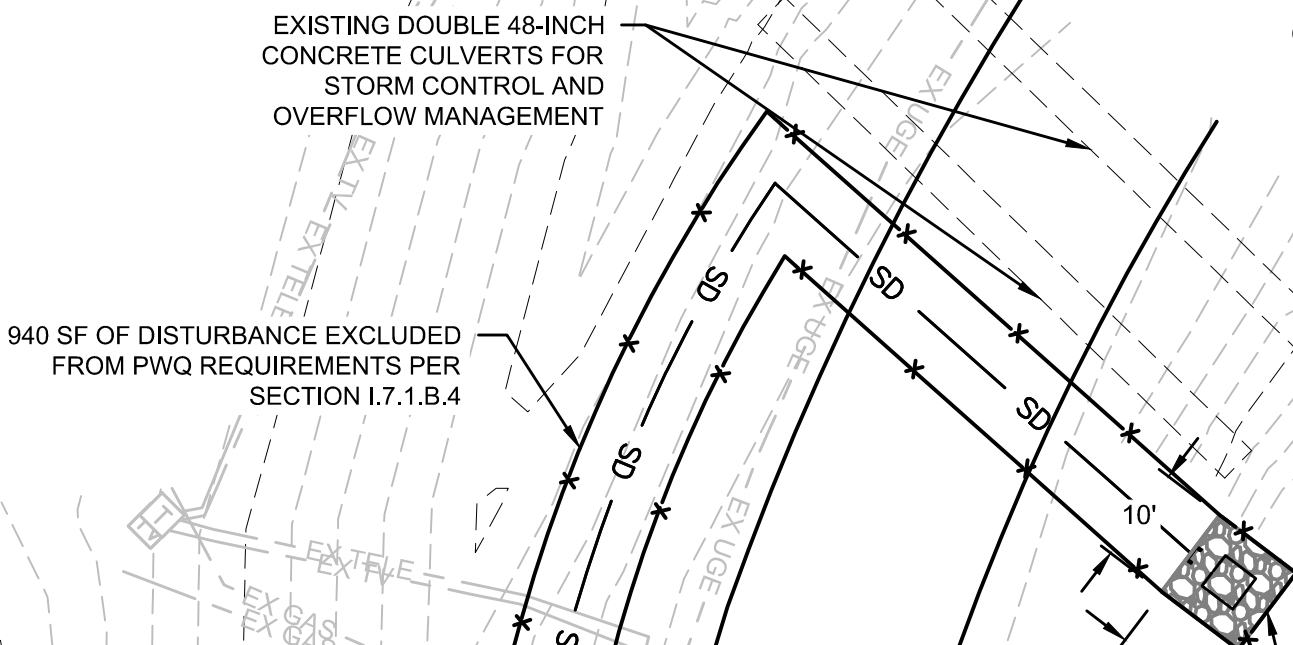
GRAPHIC SCALE
0' 10' 20' 40' 60'
Scale: 1"=20'

NOTE: NO PIPELINE CONSTRUCTION IS PERMITTED IN THE ROW UNTIL THE FINAL PIPELINE CONSTRUCTION PLANS HAVE BEEN APPROVED.

TOWN OF MONUMENT - WATERLINE AND STORAGE TANK
SITE DEVELOPMENT PLANS
LOT 6, FOREST VIEW ESTATES FILING NO. 4

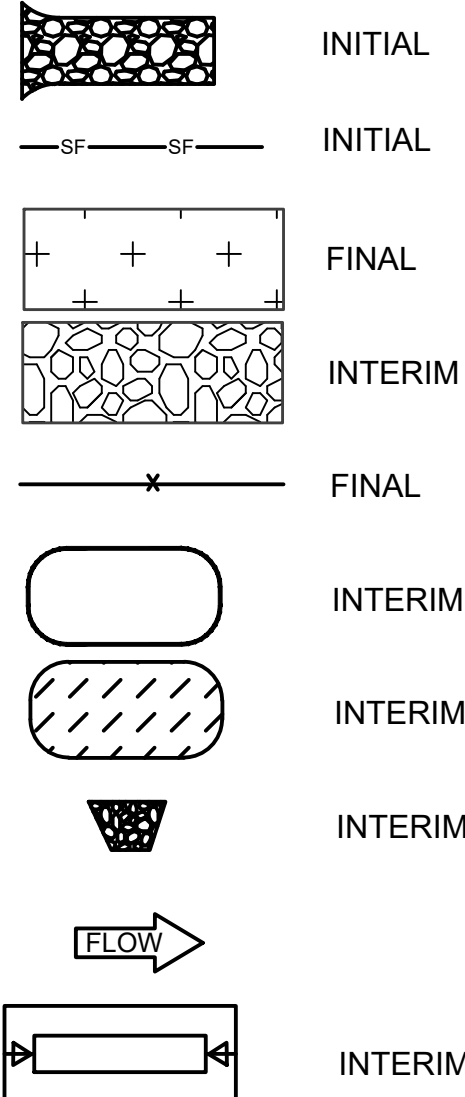


DRAINAGE CHANNEL TYPE 2
SCALE: N.T.S. SPEC # 31 22 40 001



LEGEND

- VTC VEHICLE TRACKING CONTROL
SF SILT FENCE
ECB EROSION CONTROL BLANKET
CD ROCK CHECK DAM
LOC LIMIT OF CONSTRUCTION/DISTURBANCE
CWA CONCRETE WASH AREA
SSA STABILIZED STAGING AREA
TOP TEMPORARY OUTLET PROTECTION
FLOW DIRECTION
ST SEDIMENT TRAP



ENGINEER'S STATEMENT:

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. SAID PLAN HAS BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR GRADING AND EROSION CONTROL PLANS. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS PLAN.

JAMES ADAMS, PE #38375
4/8/22

DATE

OWNER'S STATEMENT:

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

James A. Shank
TOWN OF MONUMENT
5-1-22
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, 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 IS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

APPROVED
Engineering Department
07/05/2022 9:36:32 AM
ddnjlkamp
EPC Planning & Community
Development Department

COUNTY ENGINEER / ECM ADMINISTRATOR

GENERAL CONSTRUCTION NOTES:

1. INSTALLATION OF ALL GRADING, EROSION CONTROL BMP'S SHALL BE PERFORMED IN ACCORDANCE WITH THE URBAN STORM DRAINAGE CRITERIA MANUAL VOLUME 3, CHAPTER 7. CONTRACTOR SHALL MAKE NO DEVIATIONS FROM THIS MANUAL DURING CONSTRUCTION.
2. ANY UNPAVED AREA THAT IS DISTURBED DURING CONSTRUCTION SHALL BE RESEED AND MULCHED.
3. EXISTING VEGETATION ONSITE CONSISTS OF NATIVE GRASSES AND TREES WITH AN ESTIMATED 100% COVERAGE.

PCD FILE NO. PPR-21-030

BY DATE	
REVISIONS	
NO.	NO.
FORSYTH ASSOCIATES, INC.	
56 INVERNESS DRIVE EAST #112, ENGLEWOOD, CO 80112 PH: 720.232.6644	
COLORADO REGISTERED JAMIE LEADERS 5/19/22 38375 PROFESSIONAL ENGINEER	
PROJECT NO. 04-20-0153	S. CALE
DRAWN	J. ADAMS
DESIGNED	J. ADAMS
APPROVED	J. ADAMS
QA/QC	W. KOGER
2.0M GALLON TANK GRADING AND EROSION CONTROL PLAN	
SHEET NO. 1	
DATE: JAN, 2022	
PAGE NO.	

P:\Clients\Monument\04-20-0163 Waterline & Storage Tank\CAD\Sheets\Standard Details\COUNTY SUBMITTAL\SVGEOTANK\Grading Erosion Control Details.dwg - - - - - 2/1/2022 5:13 PM

TOWN OF MONUMENT - WATERLINE AND STORAGE TANK
SITE DEVELOPMENT PLANS
LOT 6, FOREST VIEW ESTATES FILING NO. 4

- GENERAL CONSTRUCTION NOTES:
1. PARKING DIMENSIONS ARE TO FACE OF CURB.
 2. CONSTRUCTION MAY NOT COMMENCE UNTIL A CONSTRUCTION PERMIT IS OBTAINED FROM PLANNING AND COMMUNITY (PCD) AND PRECONSTRUCTION CONFERENCE IS HELD WITH PCD INSPECTIONS.
 3. ANY UNPAVED AREA THAT IS DISTURBED DURING CONSTRUCTION SHALL BE RESEED. SEE BELOW FOR GRASS SEED MIXES FOR EL PASO COUNTY.

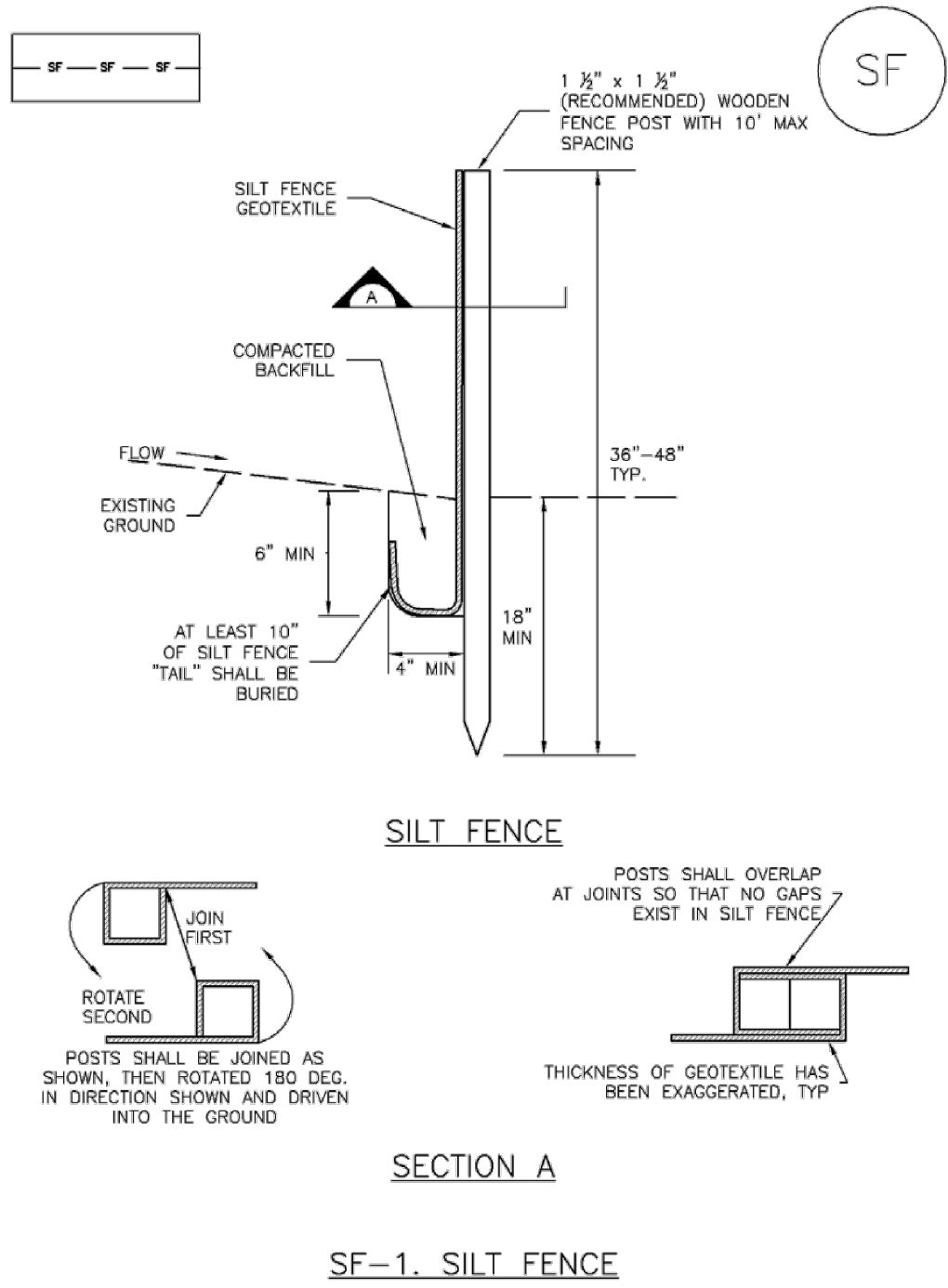
Recommended El Paso County Grass Seed Mixes

Grass mix for quick revegetation – all sites:		
Grass:	Variety	PLS lbs per acre
Crested Wheat Grass	Ephraim or <u>HyCrest</u>	4.0
Perennial Rye	Linn	2.0
Western Wheatgrass	Barton	3.0
Smooth Brome Grass	Lincoln or <u>Manchar</u>	5.0
<u>Sideoats</u> Grama	El Reno	2.5
Total:		16.5

Grass mix for heavier soil areas:		
Grass:	Variety	PLS lbs per acre
Crested Wheat Grass	Ephraim	3.0
Slender Wheat Grass	<u>Sodar</u>	2.5
Western Wheatgrass	Barton	5.0
Smooth Brome Grass	Lincoln or <u>Manchar</u>	4.0
<u>Sideoats</u> Grama	El Reno	3.0
Total:		17.5

Grass mix for sandy soils:		
Grass:	Variety	PLS lbs per acre
<u>Sideoats</u> Grama	El Reno	3.0
Western Wheatgrass	Barton	2.5
Slender Wheat Grass	Native	2.0
Little Bluestem	<u>Pastura</u>	2.0
Sand <u>Dropseed</u>	Native	0.5
Switch Grass	Nebraska 28	3.0
Weeping Love Grass	<u>Morpha</u>	1.0
Optional: Perennial Rye		2.0
Total:		14-16

Silt Fence (SF) SC-1



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

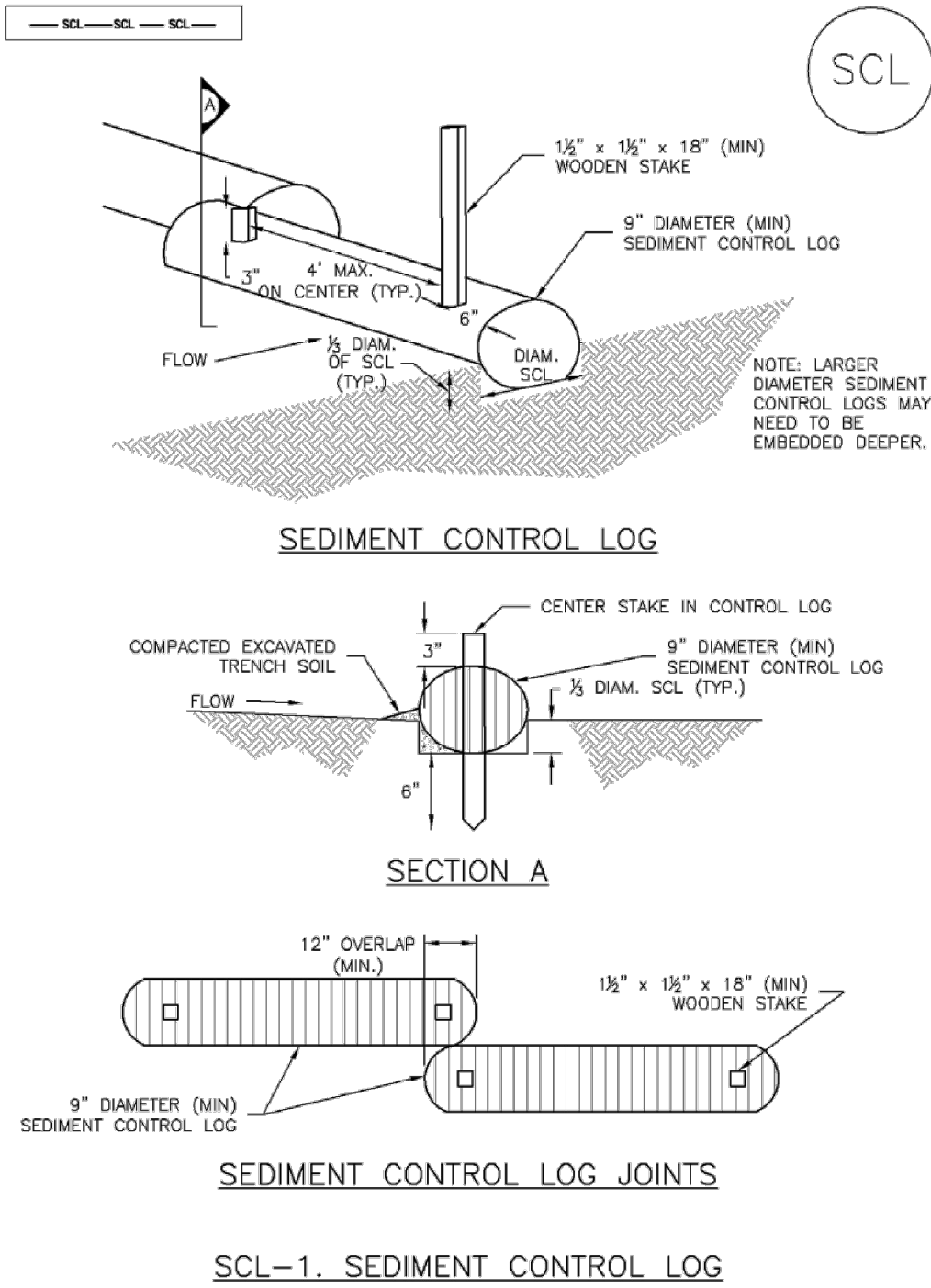
SC-1 Silt Fence (SF)

- SILT FENCE INSTALLATION NOTES
1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.
 2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.
 3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
 4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.
 5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.
 6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J-HOOK." THE "J-HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' - 20').
 7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

- SILT FENCE MAINTENANCE NOTES
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".
 5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.
 6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.
 7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.
- (DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN AUTOCAD)
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

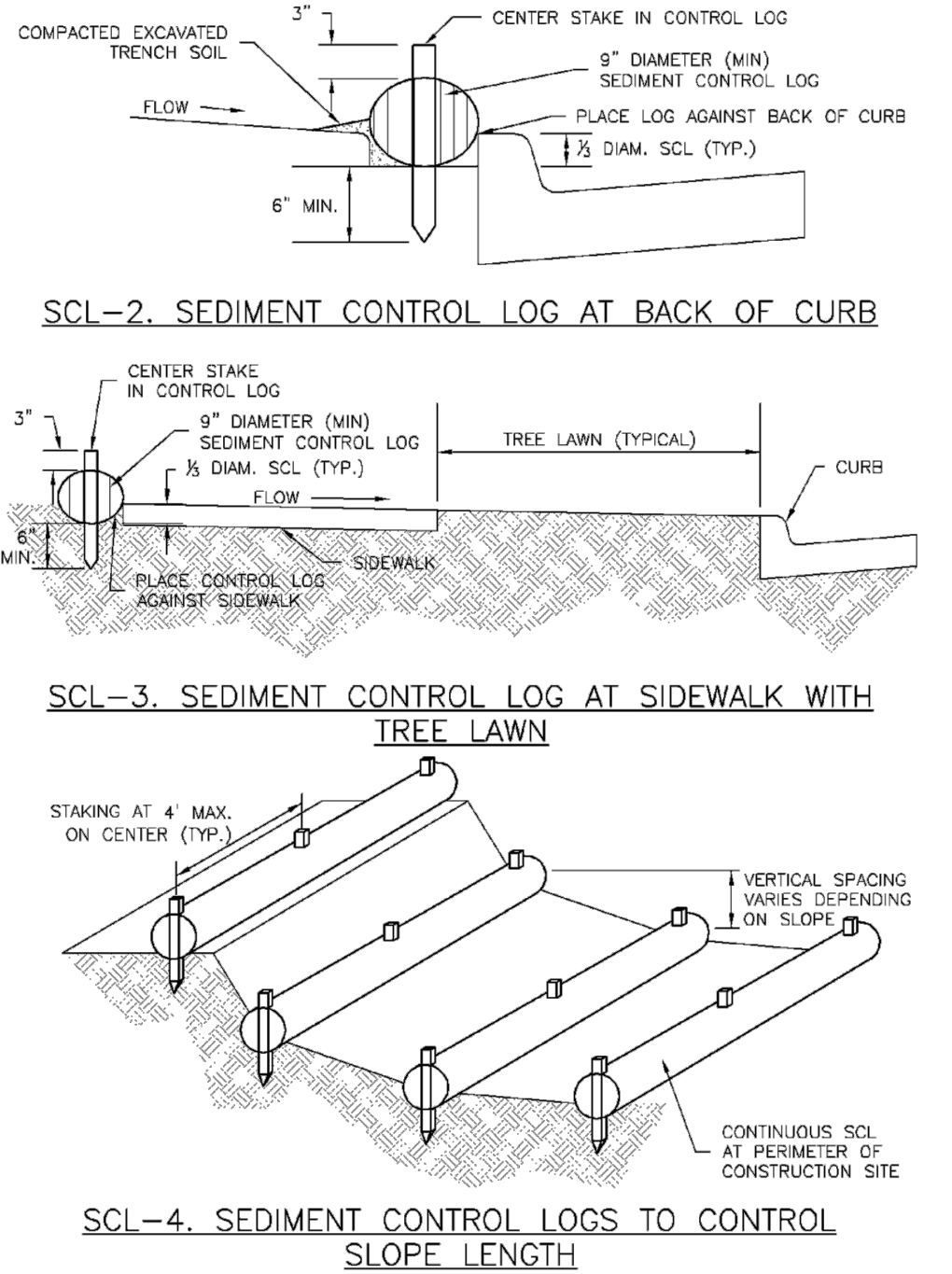
SF-4 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3 November 2010

Sediment Control Log (SCL) SC-2



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

SC-2 Sediment Control Log (SCL)



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

Revegetation Chapter 14

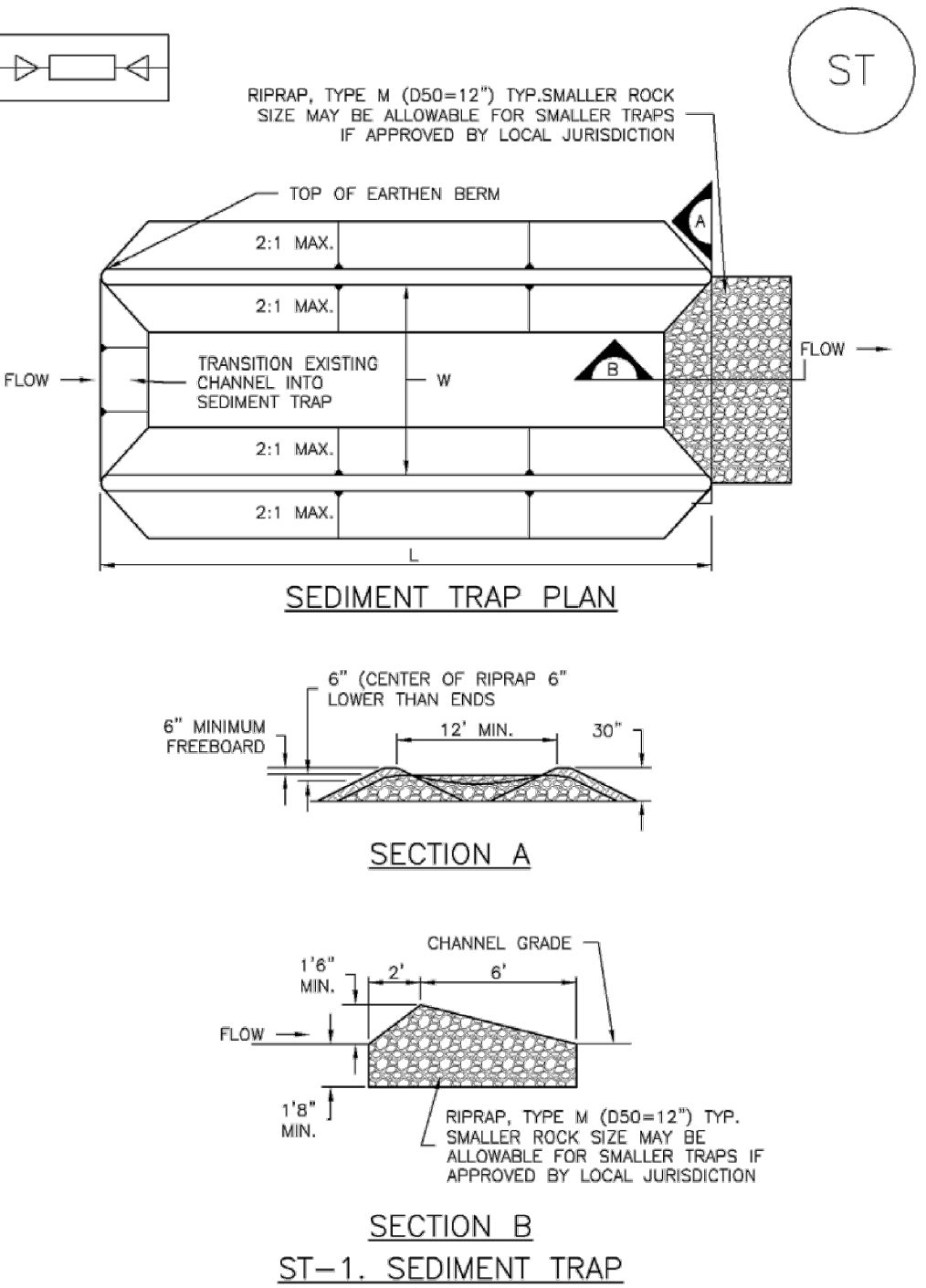
Table 14-10. Recommended Seed Mix for Transition Areas¹

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

¹For side slopes or between wet and dry areas.
²Substitute 1.7 lbs PLS/acre of inland saltgrass (*Distichlis spicata*) in salty soils.

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

SC-8 Sediment Trap (ST)



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

Sediment Trap (ST) SC-8

- SEDIMENT TRAP INSTALLATION NOTES
1. SEE PLAN VIEW FOR:
--LOCATION, LENGTH AND WIDTH OF SEDIMENT TRAP.
 2. ONLY USE FOR DRAINAGE AREAS LESS THAN 1 ACRE.
 3. SEDIMENT TRAPS SHALL BE INSTALLED PRIOR TO ANY UPGRADE LAND-DISTURBING ACTIVITIES.
 4. SEDIMENT TRAP BERM SHALL BE CONSTRUCTED FROM MATERIAL FROM EXCAVATION. THE BERM SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.
 5. SEDIMENT TRAP OUTLET TO BE CONSTRUCTED OF RIPRAP, TYPE M (D50=12") TYP. SMALLER ROCK SIZE MAY BE ALLOWABLE FOR SMALLER TRAPS IF APPROVED BY LOCAL JURISDICTION.
 6. THE TOP OF THE EARTHEN BERM SHALL BE A MINIMUM OF 6" HIGHER THAN THE TOP OF THE RIPRAP OUTLET STRUCTURE.
 7. THE ENDS OF THE RIPRAP OUTLET STRUCTURE SHALL BE A MINIMUM OF 6" HIGHER THAN THE CENTER OF THE OUTLET STRUCTURE.
- SEDIMENT TRAP MAINTENANCE NOTES
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 4. REMOVE SEDIMENT ACCUMULATED IN TRAP AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN THE SEDIMENT DEPTH REACHES 1/2 THE HEIGHT OF THE RIPRAP OUTLET.
 5. SEDIMENT TRAPS SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
 6. WHEN SEDIMENT TRAPS ARE REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.
- (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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

EPC 7/5/22

PCD FILE NO. PPR-21-030

PROJECT NO. 04-20-0163
DRAWN S. CALE
DESIGNED J. ADAMS
APPROVED J. ADAMS
QA/QC W. KOGER

FORSGREN Associates Inc.
56 INVERNESS DRIVE EAST #112, ENGLEWOOD, CO 80112
PH: 720.232.6644

REGISTERED PROFESSIONAL ENGINEER
JAMIE LEE ADAMS
5/19/22
38375

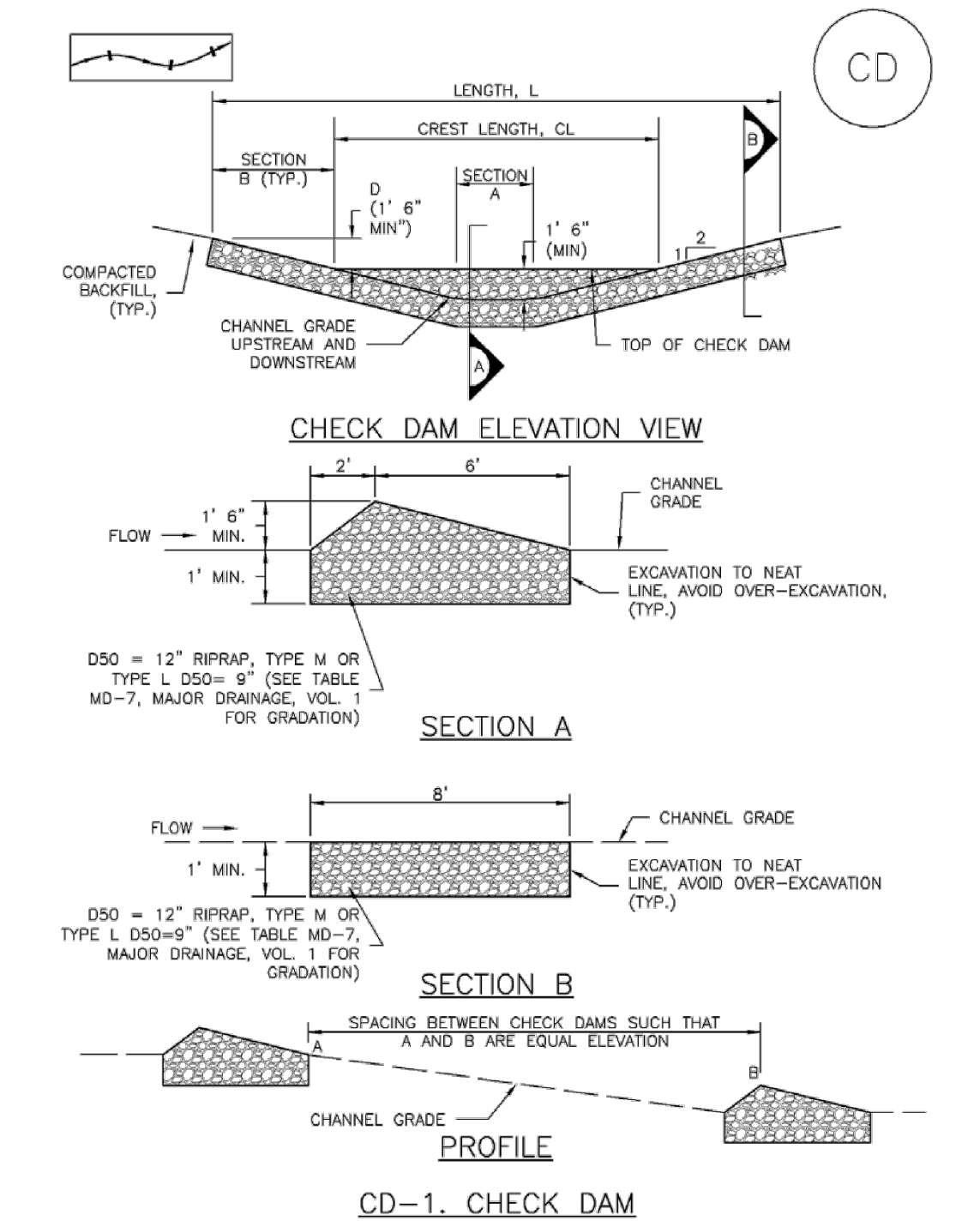
2.0M GALLON TANK
GRADING AND EROSION
CONTROL DETAILS

SHEET NO. 3
DATE: JAN, 2022
PAGE NO:

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TOWN OF MONUMENT - WATERLINE AND STORAGE TANK
SITE DEVELOPMENT PLANS
LOT 6, FOREST VIEW ESTATES FILING NO. 4

Check Dams (CD) EC-12



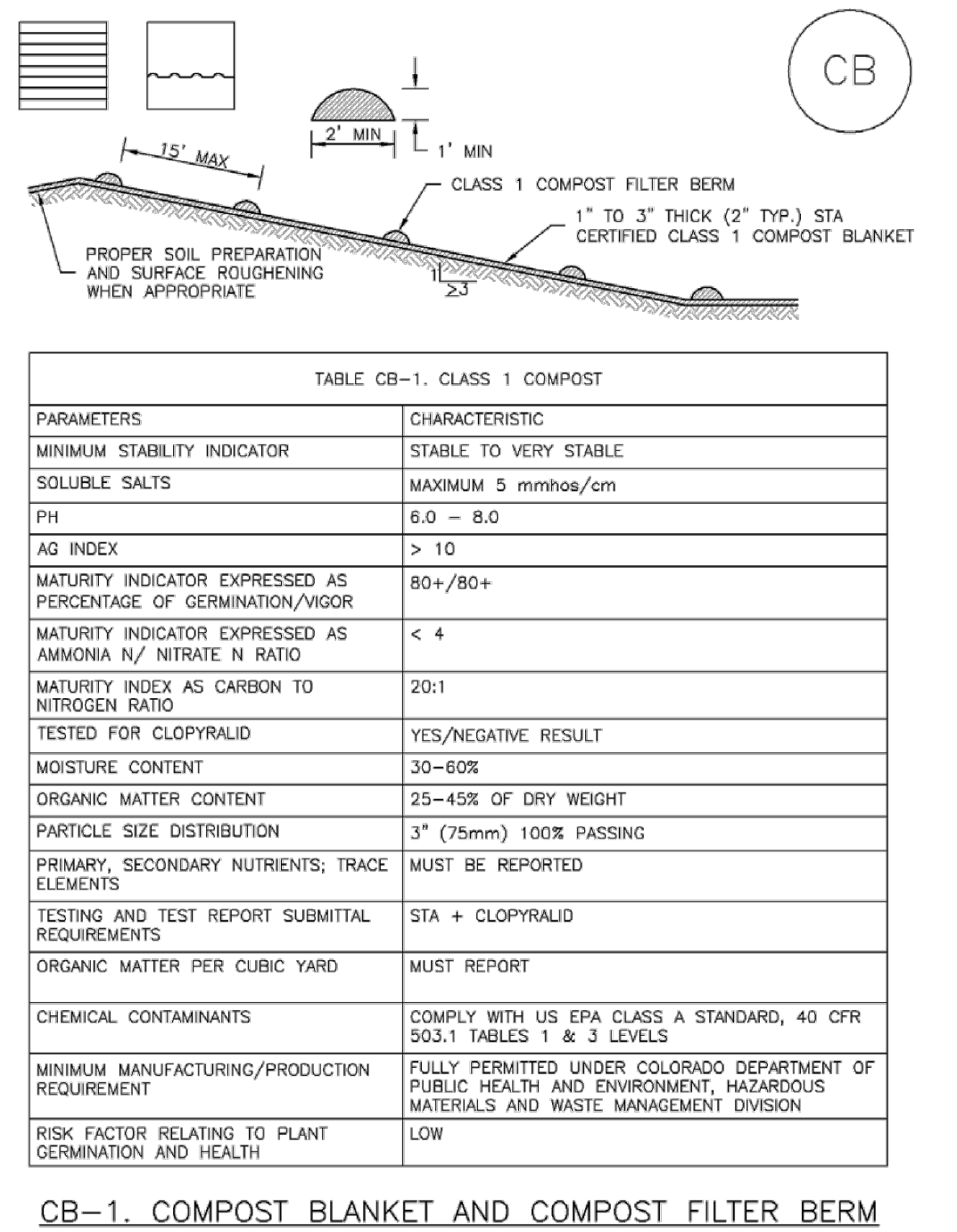
November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 CD-3

EC-12 Check Dams (CD)

- CHECK DAM INSTALLATION NOTES
- SEE PLAN VIEW FOR:
 - LOCATION OF CHECK DAMS.
 - CHECK DAM TYPE (CHECK DAM OR REINFORCED CHECK DAM).
 - LENGTH (L), CREST LENGTH (CL), AND DEPTH (D).
 - CHECK DAMS INDICATED ON INITIAL SWMP SHALL BE INSTALLED AFTER CONSTRUCTION FENCE, BUT PRIOR TO ANY UPSTREAM LAND DISTURBING ACTIVITIES.
 - RIPRAP UTILIZED FOR CHECK DAMS SHOULD BE OF APPROPRIATE SIZE FOR THE APPLICATION. TYPICAL TYPES OF RIPRAP USED FOR CHECK DAMS ARE TYPE M (D50 12") OR TYPE L (D50 9").
 - RIPRAP PAD SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1'.
 - THE ENDS OF THE CHECK DAM SHALL BE A MINIMUM OF 1' 6" HIGHER THAN THE CENTER OF THE CHECK DAM.
- CHECK DAM MAINTENANCE NOTES
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 - SEDIMENT ACCUMULATED UPSTREAM OF THE CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS WITHIN 1/2 OF THE HEIGHT OF THE CREST.
 - CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
 - WHEN CHECK DAMS ARE REMOVED, EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACKFILL, DISTURBED AREA SHALL BE SEEDED AND MULCHED AND COVERED WITH GEOTEXTILE OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.
- (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 EC-12

Compost Blanket and Filter Berm (CB) EC-5



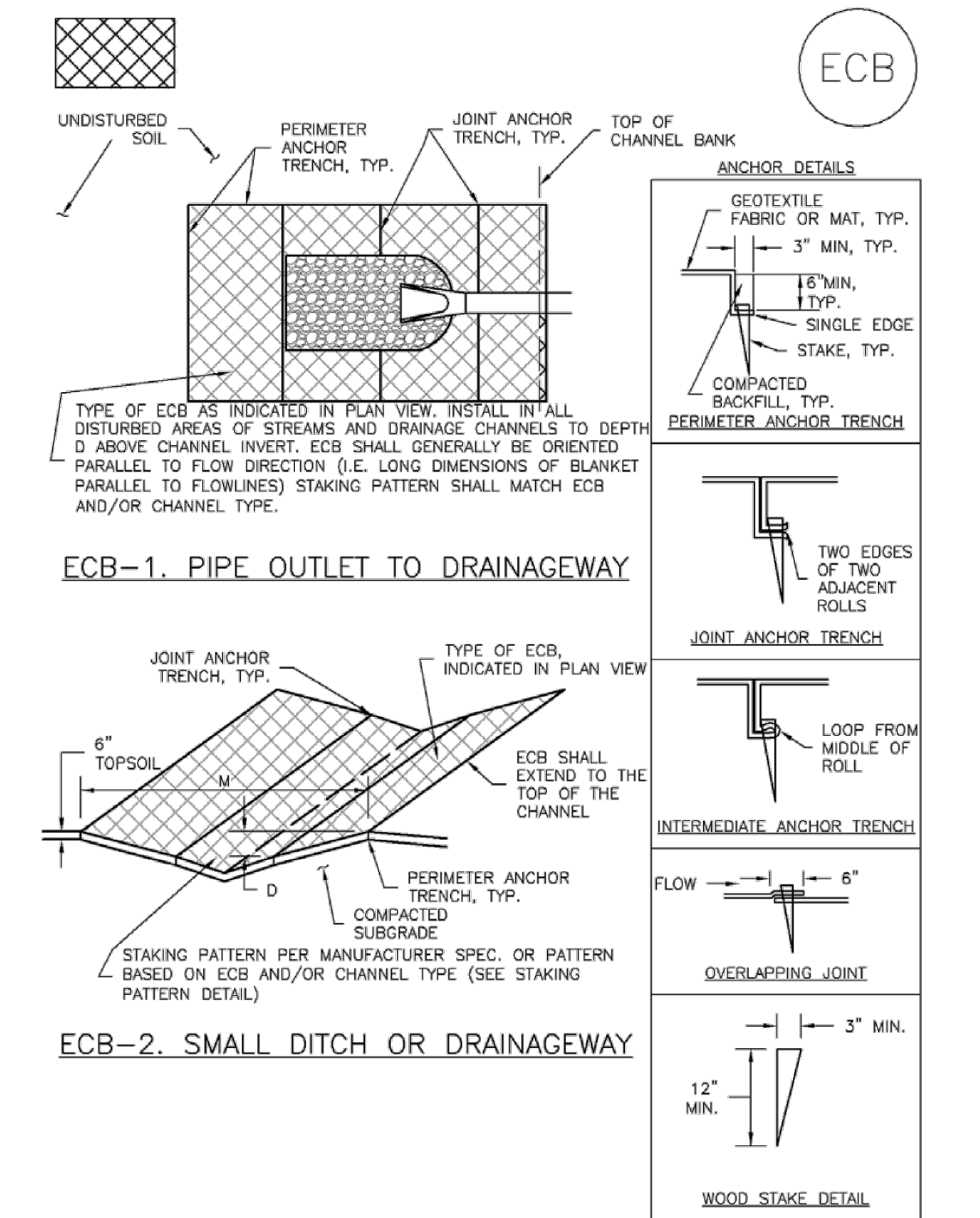
November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 EC-5

EC-5 Compost Blanket and Filter Berm (CB)

- COMPOST FILTER BERM AND COMPOST BLANKET INSTALLATION NOTES
- SEE PLAN VIEW FOR:
 - LOCATION OF COMPOST FILTER BERM(S).
 - LENGTH OF COMPOST FILTER BERM(S).
 - COMPOST BERMS AND BLANKETS MAY BE USED IN PLACE OF STRAW MULCH OR GEOTEXTILE FABRIC IN AREAS WHERE ACCESS TO LANDSCAPING IS DIFFICULT DUE TO LANDSCAPING OR OTHER OBJECTS OR IN AREAS WHERE A SMOOTH TURF GRASS FINISH IS DESIRED.
 - FILTER BERMS SHALL RUN PARALLEL TO THE CONTOUR.
 - FILTER BERMS SHALL BE A MINIMUM OF 1 FEET HIGH AND 2 FEET WIDE.
 - FILTER BERMS SHALL BE APPLIED BY PNEUMATIC BLOWER OR BY HAND.
 - FILTER BERMS SHALL ONLY BE UTILIZED IN AREAS WHERE SHEET FLOW CONDITIONS PREVAIL AND NOT IN AREAS OF CONCENTRATED FLOW.
 - COMPOST BLANKETS SHALL BE APPLIED AT A DEPTH OF 1 - 3 INCHES (TYPICALLY 2 INCHES). FOR AREAS WITH EXISTING VEGETATION THAT ARE TO BE SUPPLEMENTED BY COMPOST, A THIN 0.5-INCH LAYER MAY BE USED.
 - SEEDING SHALL BE PERFORMED PRIOR TO THE APPLICATION OF COMPOST. ALTERNATIVELY, SEED MAY BE COMBINED WITH COMPOST AND BLOWN WITH THE PNEUMATIC BLOWER.
 - WHEN TURF GRASS FINISH IS NOT DESIRED, SURFACE ROUGHENING ON SLOPES SHALL TAKE PLACE PRIOR TO COMPOST APPLICATION.
 - COMPOST SHALL BE A CLASS 1 COMPOST AS DEFINED BY TABLE CB-1.
- COMPOST FILTER BERM MAINTENANCE NOTES
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 - COMPOST BERMS AND BLANKETS SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RILLING IN THE COMPOST SURFACE OCCURS.
- (DETAILS ADAPTED FROM ARAPAHOE COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

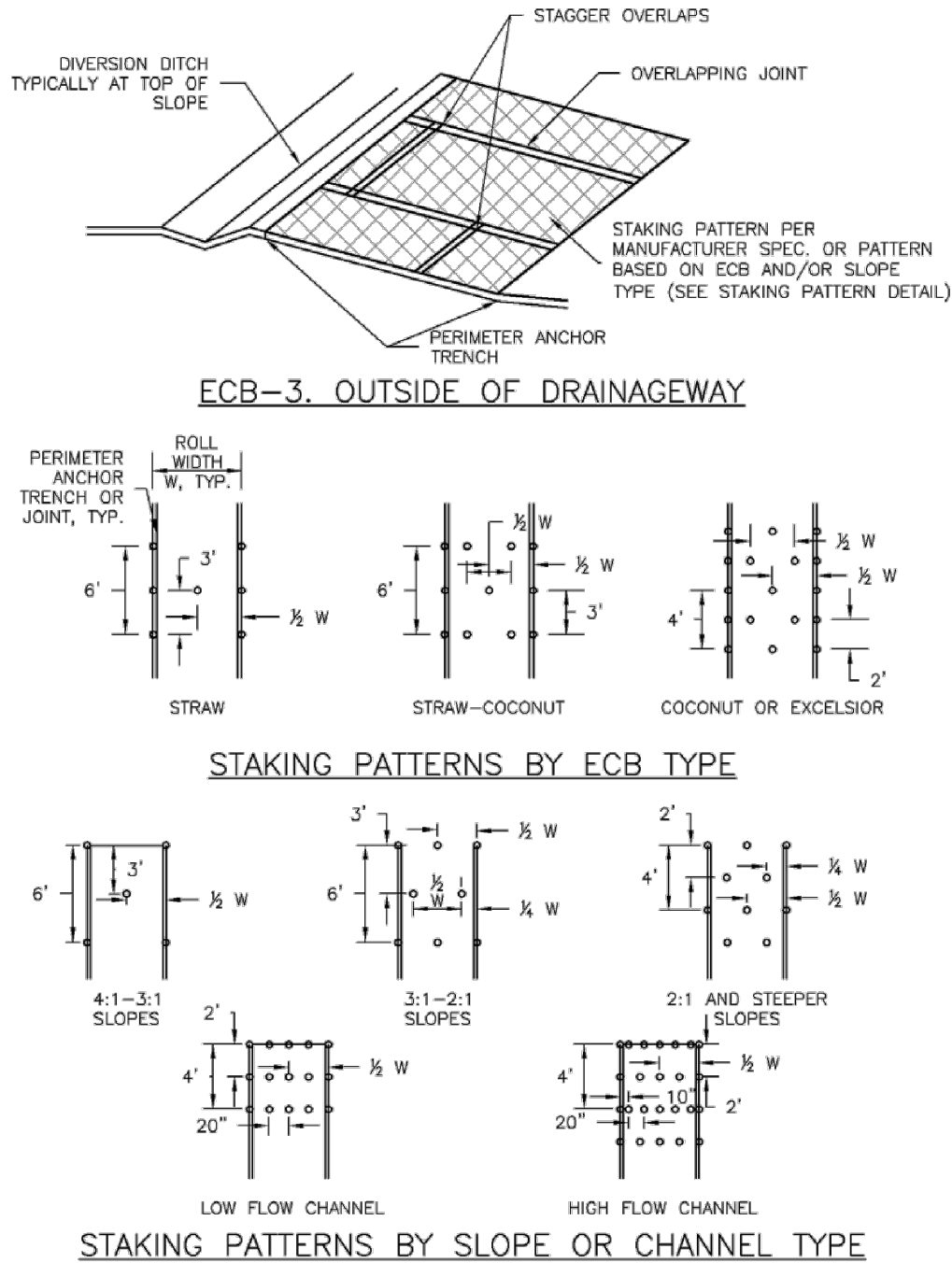
November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 EC-5

EC-6 Rolled Erosion Control Products (RECP)



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

EC-6 Rolled Erosion Control Products (RECP)



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

EC-6 Rolled Erosion Control Products (RECP)

- EROSION CONTROL BLANKET INSTALLATION NOTES
- SEE PLAN VIEW FOR:
 - LOCATION OF ECB.
 - TYPE OF ECB (STRAW, STRAW-COCONUT, COCONUT, OR EXCELSIOR).
 - AREA, A, IN SQUARE YARDS OF EACH TYPE OF ECB.
 - 100% NATURAL AND BIODEGRADABLE MATERIALS ARE PREFERRED FOR RECPs, ALTHOUGH SOME JURISDICTIONS MAY ALLOW OTHER MATERIALS IN SOME APPLICATIONS.
 - IN AREAS WHERE ECBs ARE SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOIST PRIOR TO ECB INSTALLATION AND THE ECB SHALL BE IN FULL CONTACT WITH SUBGRADE. NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
 - PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL BLANKET AREAS.
 - JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL ECBs EXCEPT STRAW WHICH MAY USE AN OVERLAPPING JOINT.
 - INTERMEDIATE ANCHOR TRENCH SHALL BE USED AT SPACING OF ONE-HALF ROLL LENGTH FOR COCONUT AND EXCELSIOR ECBs.
 - OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER FOR ECBs ON SLOPES.
 - MATERIAL SPECIFICATIONS OF ECBs SHALL CONFORM TO TABLE ECB-1.
 - ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING ECBs SHALL BE RESEDED AND MULCHED.
 - DETAILS ON DESIGN PLANS FOR MAJOR DRAINAGEWAY STABILIZATION WILL GOVERN IF DIFFERENT FROM THOSE SHOWN HERE.

TABLE ECB-1. ECB MATERIAL SPECIFICATIONS			
TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT
STRAW*	-	100%	-
STRAW-COCONUT	30% MIN	70% MAX	-
COCONUT	100%	-	-
EXCELSIOR	-	-	100%

*STRAW ECBs MAY ONLY BE USED OUTSIDE OF STREAMS AND DRAINAGE CHANNELS.
**ALTERNATE NETTING MAY BE ACCEPTABLE IN SOME JURISDICTIONS

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EC-6 Rolled Erosion Control Products (RECP)

- EROSION CONTROL BLANKET MAINTENANCE NOTES
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 - ECBs SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE, UNLESS REQUESTED TO BE REMOVED BY THE LOCAL JURISDICTION.
 - ANY ECB PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW THE GEOTEXTILE THAT HAVE ERODED TO CREATED A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEDED AND MULCHED AND THE ECB REINSTALLED.
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.
- (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO AND TOWN OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

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EPC 7/5/22

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JAMIE LEE ADAMS
38375

2.0M GALLON TANK
GRADING AND EROSION
CONTROL DETAILS

SHEET NO: 4

DATE: JAN, 2022

PAGE NO: