

# Public Works Standard Drawings Subcommittee Meeting

---

Monday July 2, 2018  
Regional Forum Room

# NCTCOG Construction Standards Fifth Edition

## Division 1000 Drawings

Slides 2 - 3: 1030A, 1030B Interceptor Swale

Slides 4 - 5: 1040A, 1040B Diversion Dike

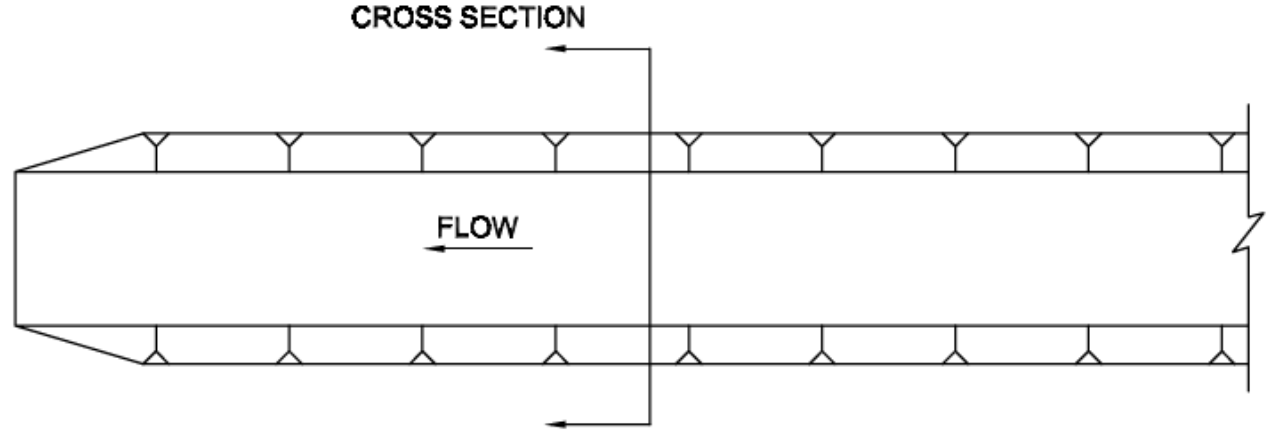
Slides 6 - 7: 1050A, 1050B Triangular Sediment Filter Dike

Slides 8 - 9: 1080A, 1080B Sand Bag Check Dam

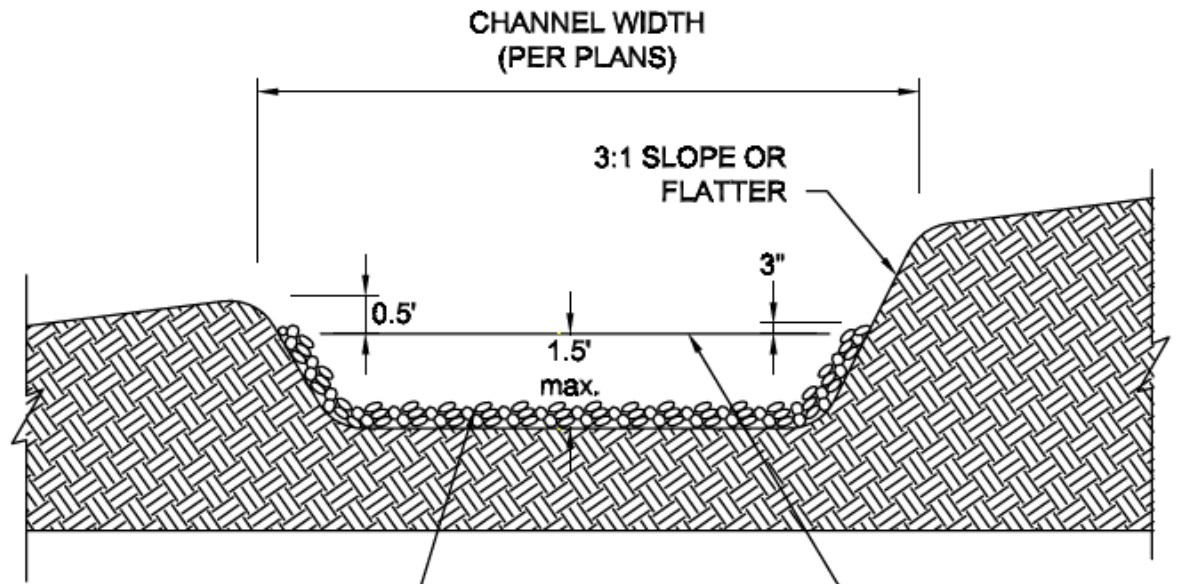
Slide 10: 1090 Stone Outlet, Sediment Trap

Slide 11: 1110 Pipe Slope Drain

*\*When providing comments on the following drawings, please preface edits with your initials.*



PLAN VIEW



TURF REINFORCEMENT MAT OR A LAYER OF CRUSHED STONE OR RIPRAP IS REQUIRED WHEN VELOCITIES EXCEED 6 FPS OR SLOPE EXCEEDS 2.0%

DESIGN WATER SURFACE ELEVATION

CROSS SECTION

INTERCEPTOR SWALE

STANDARD SPECIFICATION REFERENCE	
202.6 *	
DATE	STANDARD DRAWING NO.
OCT. '04	1030A

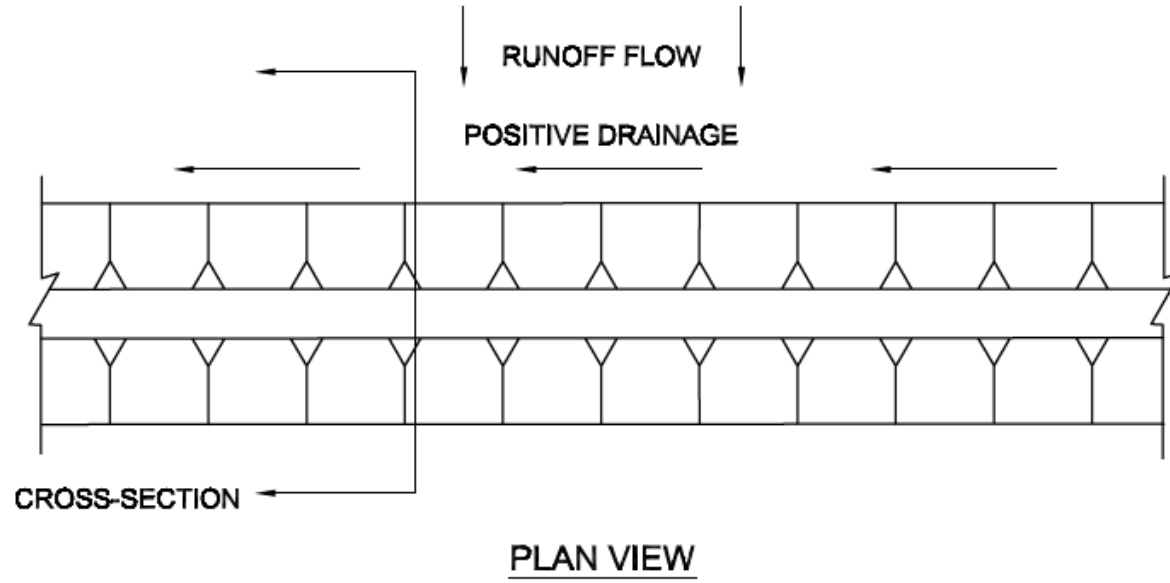
INTERCEPTOR SWALE GENERAL NOTES:

1. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS AND OTHER MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
2. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS-SECTION AS REQUIRED TO MEET CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
3. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE DISPOSED OF IN AN APPROVED SPOILS SITE SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
4. DIVERTED RUNOFF FROM A DISTURBED OR EXPOSED UPLAND AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
5. THE ON-SITE LOCATION MAY NEED TO BE ADJUSTED TO MEET FIELD CONDITIONS IN ORDER TO UTILIZE THE MOST SUITABLE OUTLET.
6. FOR GRADES LESS THAN 2 PERCENT AND VELOCITIES LESS THAN 6 FEET PER SECOND, THE MINIMUM REQUIRED CHANNEL STABILIZATION SHALL BE GRASS, EROSION CONTROL MATS OR MULCHING. FOR GRADES IN EXCESS OF 2 PERCENT OR VELOCITIES EXCEEDING 6 FEET PER SECOND, STABILIZATION IS REQUIRED IN THE FORM OF TURF REINFORCEMENT MATS (OR A LAYER OF CRUSHED STONE OR RIP-RAP WITH APPROPRIATE SIZE, GRADATION, AND THICKNESS AS SPECIFIED IN THE SWPPP).
7. MINIMUM COMPACTION FOR THE SWALE SHALL BE 90 PERCENT STANDARD PROCTOR.
8. INSPECTION SHALL BE AS SPECIFIED IN THE SWPPP.

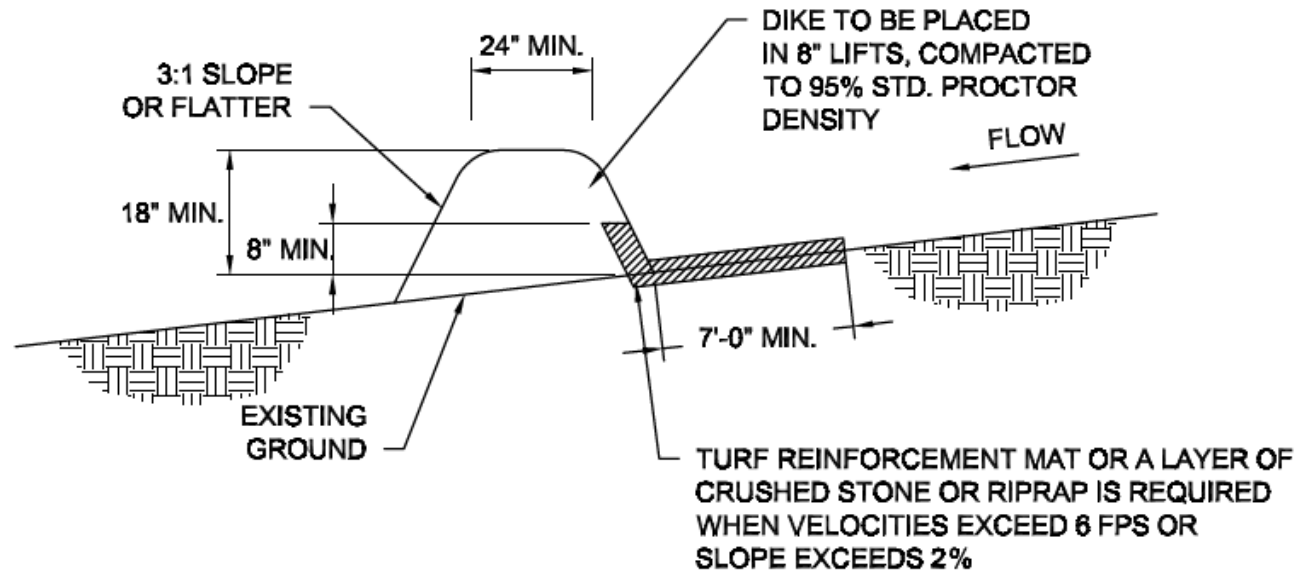
Provide edits/additions below:

JCI - The TRM should extend beyond the top of banks to match with the TRM details we already are using

INTERCEPTOR SWALE		STANDARD SPECIFICATION REFERENCE	
		202.6 *	
		DATE	STANDARD DRAWING NO.
		OCT. '04	1030B



PLAN VIEW



CROSS SECTION


## DIVERSION DIKE

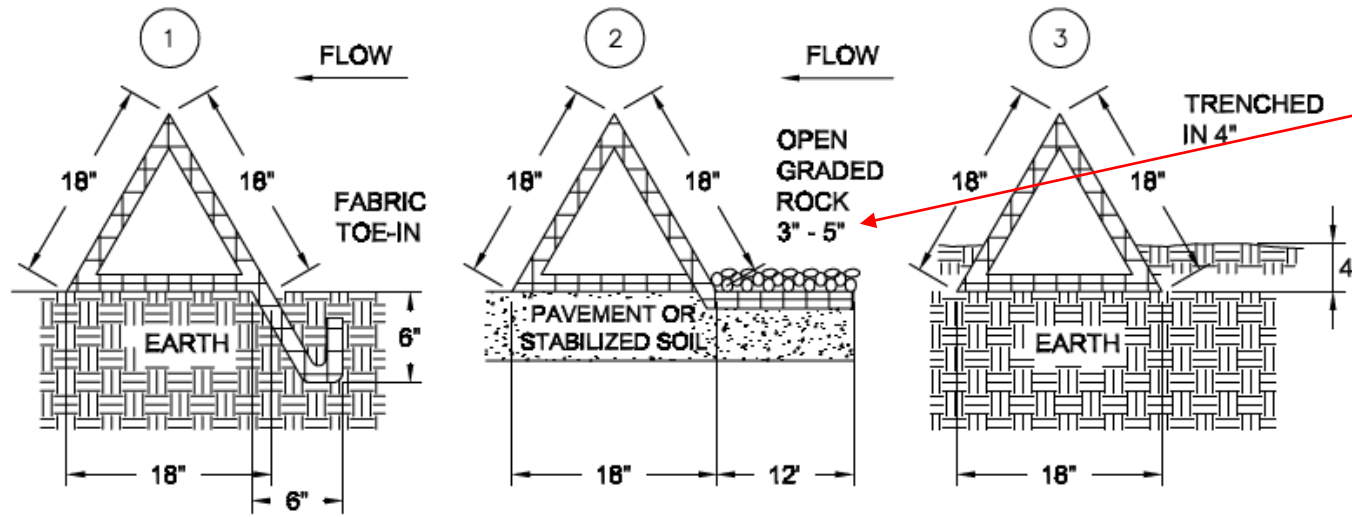
STANDARD SPECIFICATION REFERENCE	
202.7*	
DATE	STANDARD DRAWING NO.
OCT. '04	1040A

DIVERSION DIKE GENERAL NOTES:

1. ALL DIKES SHALL BE PLACED IN 8" LIFTS OR LESS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.
2. ALL DIVERSION DIKES SHALL HAVE POSITIVE DRAINAGE TO A CONTROLLED OUTLET.
3. DIVERTED RUNOFF FROM A PROTECTED OR STABILIZED AREA SHALL HAVE ITS OUTLET FLOW DIRECTED TO AN UNDISTURBED STABILIZED AREA OR INTO A LEVEL SPREADER OR GRADE STABILIZATION STRUCTURE.
4. DIVERTED RUNOFF FROM A DISTURBED OR EXPOSED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
5. FOR GRADES LESS THAN 2 PERCENT AND VELOCITIES LESS THAN 6 FEET PER SECOND, THE MINIMUM REQUIRED CHANNEL STABILIZATION SHALL BE GRASS, EROSION CONTROL MATS OR MULCHING. FOR GRADES IN EXCESS OF 2 PERCENT OR VELOCITIES EXCEEDING 6 FEET PER SECOND, STABILIZATION IS REQUIRED IN THE FORM OF TURF REINFORCEMENT MATS (OR A LAYER OF CRUSHED STONE OR RIP-RAP WITH APPROPRIATE SIZE, GRADATION, AND THICKNESS AS SPECIFIED IN THE SWPPP).
6. INSPECTION SHALL BE AS SPECIFIED IN THE SWPPP.

Provide edits/additions below:

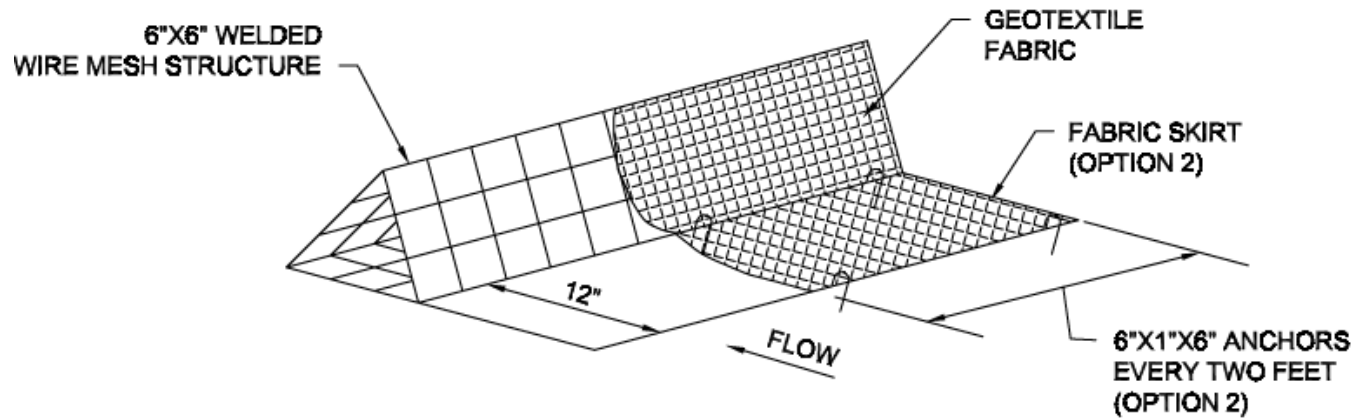
DIVERSION DIKE		STANDARD SPECIFICATION REFERENCE	
		202.7 *	
		DATE	STANDARD DRAWING NO.
		OCT. '04	1040B



CT - Assume this means 3" to 5" depth

**CROSS SECTION OF INSTALLATION OPTIONS**

1. TOE-IN 6" MIN.
2. FABRIC SKIRT WEIGHTED WITH ROCK
3. TRENCHED IN 4"



**ISOMETRIC PLAN VIEW**

STANDARD SPECIFICATION REFERENCE	
202.8 *	
DATE	STANDARD DRAWING NO.
OCT. '04	1050A

TRIANGULAR SEDIMENT FILTER DIKE GENERAL NOTES:

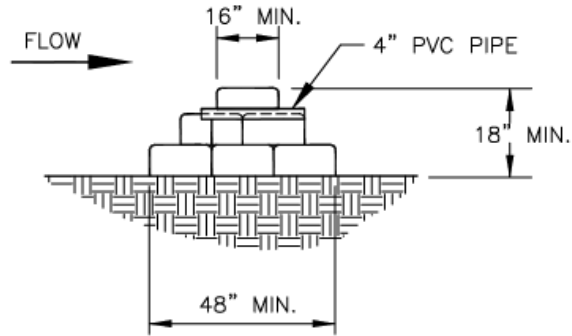
1. DIKES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT DIKE.
2. THE FABRIC COVER AND SKIRT SHALL BE A CONTINUOUS EXTENSION OF THE FABRIC ON THE UPSTREAM FACE, AND FABRIC SHALL BE OVERLAPPED A MINIMUM OF 12".
3. THE SKIRT SHALL BE WEIGHTED WITH A CONTINUOUS LAYER OF TYPE 'A' RIP RAP, OR TOED-IN 6" WITH MECHANICALLY COMPACTED MATERIAL. OTHERWISE, THE ENTIRE STRUCTURE SHALL BE TRENCHED TO A DEPTH OF 4 INCHES.
4. DIKES AND SKIRT SHALL BE SECURELY ANCHORED IN PLACE USING 6-INCH WIRE STAPLES ON 2-FOOT CENTERS ON BOTH EDGES AND SKIRTS.
5. FILTER MATERIAL SHALL BE LAPPED OVER ENDS 6" TO COVER DIKE TO DIKE JOINTS. JOINTS SHALL BE FASTENED WITH GALVANIZED SHOAT RINGS.
6. THE DIKE STRUCTURE SHALL BE 6 GA. 6" X 6" WIRE MESH, 18" ON A SIDE.
7. INSPECTION SHALL BE AS SPECIFIED IN THE SWPPP. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
8. THE FILTER DIKE SHALL BE REMOVED WHEN FINAL STABILIZATION IS ACHIEVED OR ANOTHER EROSION OR SEDIMENT CONTROL DEVICE IS EMPLOYED.
9. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES APPROXIMATELY 6-INCHES IN DEPTH. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

Provide edits/additions below:

CT - Should there be a maximum length?



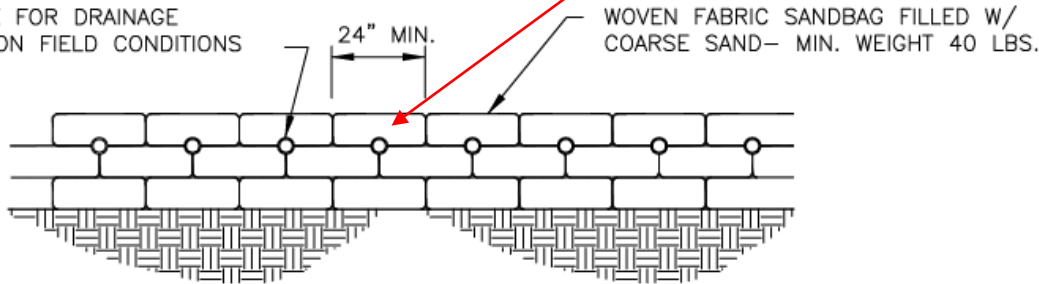




CROSS SECTION  
N.T.S.

CT - pipe spacing 24"  
minimum?

4" PVC PIPE FOR DRAINAGE  
DEPENDING ON FIELD CONDITIONS



PROFILE VIEW  
N.T.S.

NOTE: SAND BAG  
CHECK DAM  
CONSTRUCTION AND  
PLACEMENT SHALL BE  
IN ACCORDANCE WITH  
THE SPACING,  
CROSS-SECTION, AND  
PROFILE VIEWS OF THE  
ROCK CHECK DAM IN  
DRAWING 1060A.

STANDARD SPECIFICATION REFERENCE	
201.10. Check Dam (Filter Tube)	
DATE	STANDARD DRAWING NO.
OCT. '04	1080A

SAND BAG CHECK DAM

SAND BAG CHECK DAM GENERAL NOTES:

1. WHEN A SANDBAG IS FILLED WITH MATERIAL, THE OPEN END OF THE SANDBAG SHOULD BE STAPLED OR TIED WITH NYLON OR POLY CORD.
2. SANDBAGS SHOULD BE STACKED IN AT LEAST THREE ROWS ABUTTING EACH OTHER, AND IN STAGGERED ARRANGEMENT.
3. THE BASE OF THE CHECK DAM SHOULD HAVE AT LEAST 3 SANDBAGS. THESE CAN BE REDUCED TO 2 AND 1 BAG IN THE SECOND AND THIRD ROWS RESPECTIVELY.
4. FOR EACH ADDITIONAL 6" OF HEIGHT, AN ADDITIONAL SANDBAG MUST BE ADDED TO EACH ROW WIDTH.
5. THE SANDBAG CHECK DAM SHALL BE INSPECTED AS SPECIFIED IN THE SWPPP AND SHALL BE RESHAPED OR REPLACED AS NEEDED. REPAIRS SHALL BE MADE FOR WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
6. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD OF THE HEIGHT OF THE CHECK DAM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CREATE A SILTATION PROBLEM.
7. WHEN THE SITE HAS ACHIEVED FINAL STABILIZATION OR ANOTHER EROSION OR SEDIMENT CONTROL DEVICE IS EMPLOYED, THE CHECK DAM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

Provide edits/additions below:

JCI - Is this detail ever used? I have only used the rock check dams.

MP- We have only used the rock check dams. Easier to remove after construction is complete.

SAND BAG CHECK DAM

North Central Texas Council of Governments



STANDARD SPECIFICATION REFERENCE

201.10

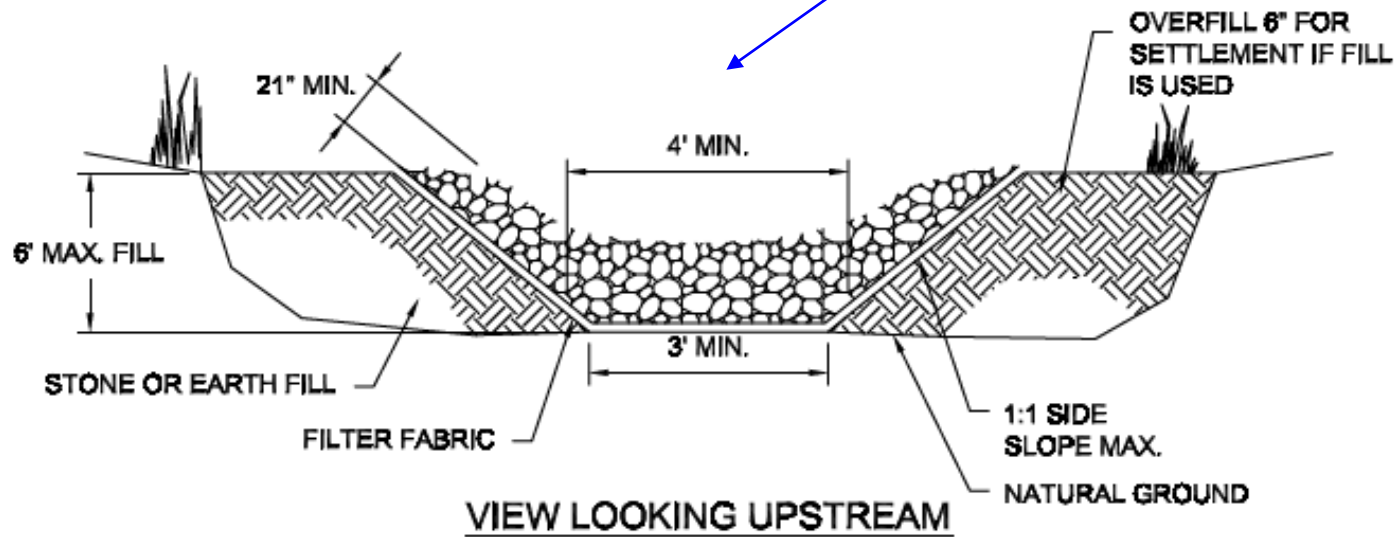
DATE

OCT. '04

STANDARD DRAWING NO.

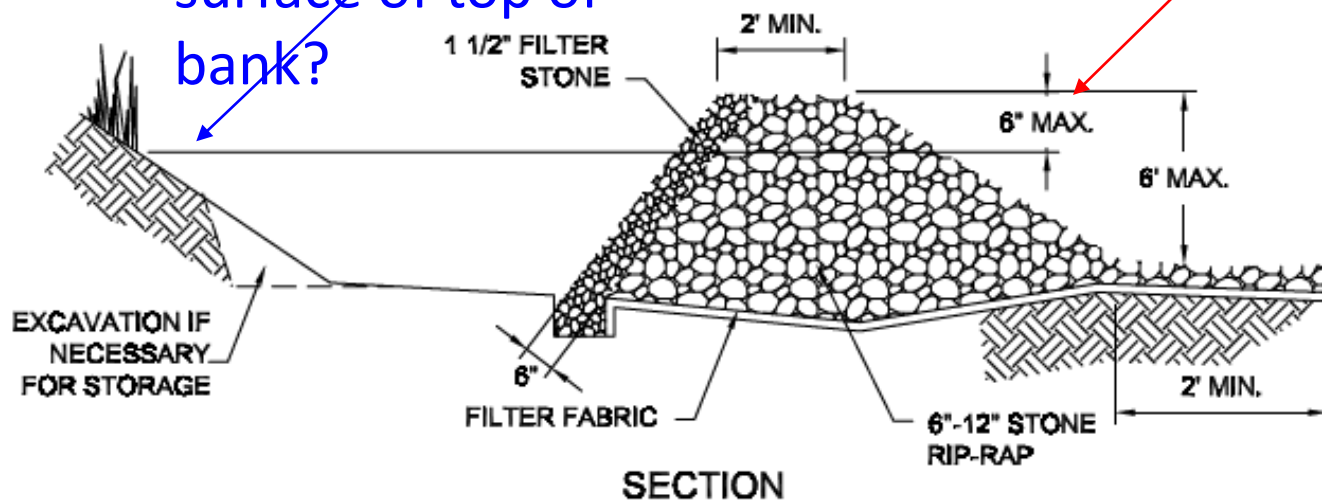
1080B

JCI - Is the 4' min for the filter fabric?



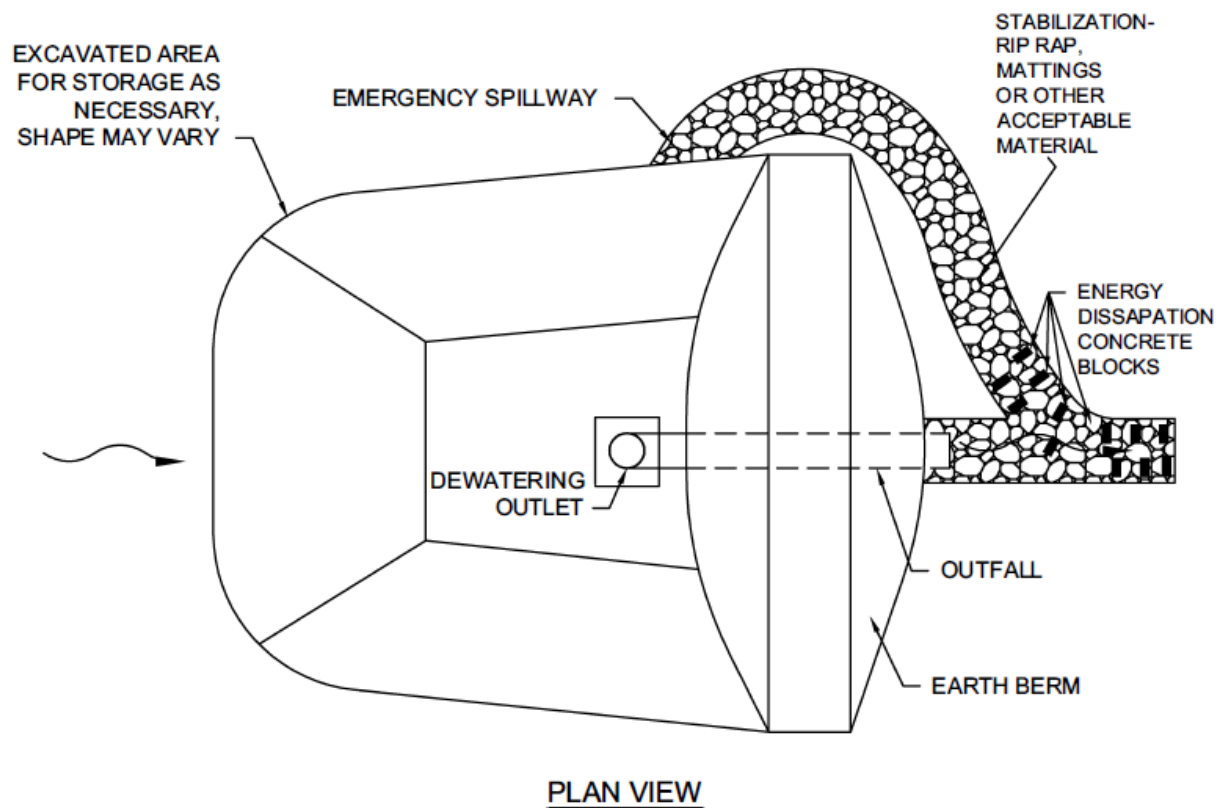
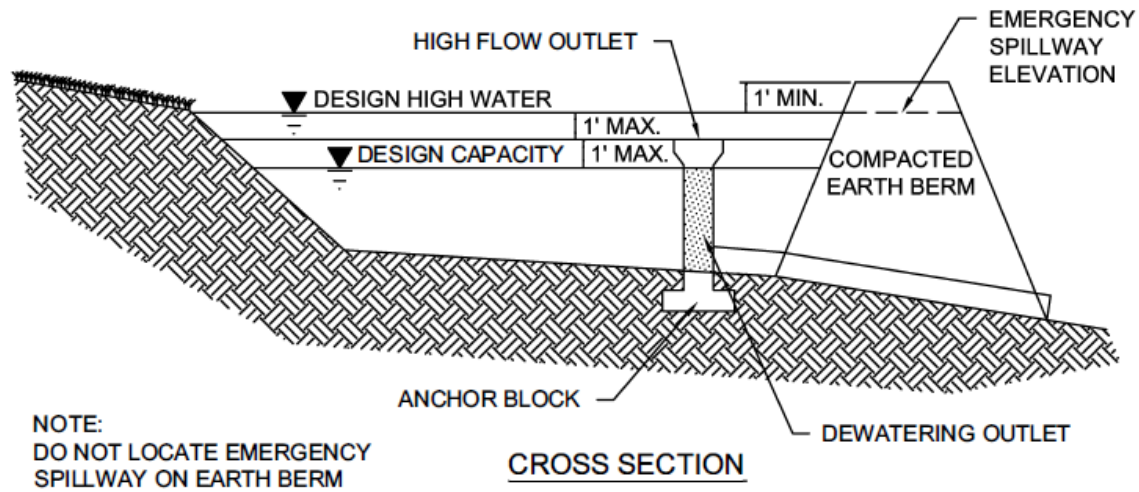
JCI - Water surface of top of bank?

CT - 1' minimum



STANDARD SPECIFICATION REFERENCE	
202.12 *	
DATE	STANDARD DRAWING NO.
OCT. '04	1090

STONE OUTLET  
SEDIMENT TRAP



STANDARD SPECIFICATION REFERENCE	
DATE	STANDARD DRAWING NO.
OCT. '04	1100

PIPE OUTLET  
SEDIMENT BASIN

# Next Steps

---

Determine action items for subcommittee members and  
NCTCOG staff

# Next Meeting – Possible Dates

Next meeting scheduled for **Monday, August 6, 2018**  
at 10 a.m. in the Regional Forum Room

## SEPTEMBER 2018

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

## OCTOBER 2018

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			