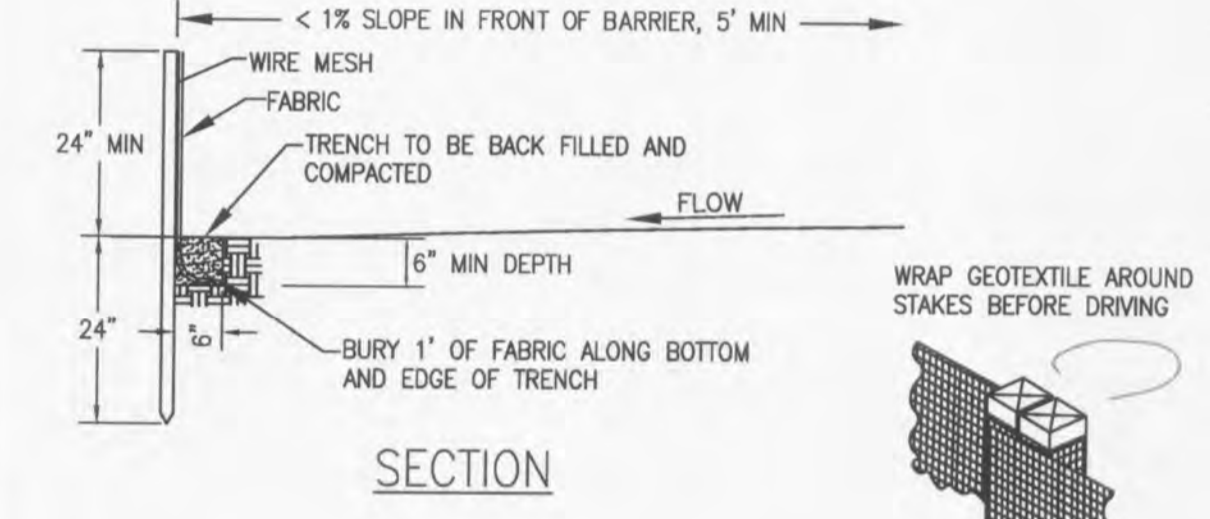
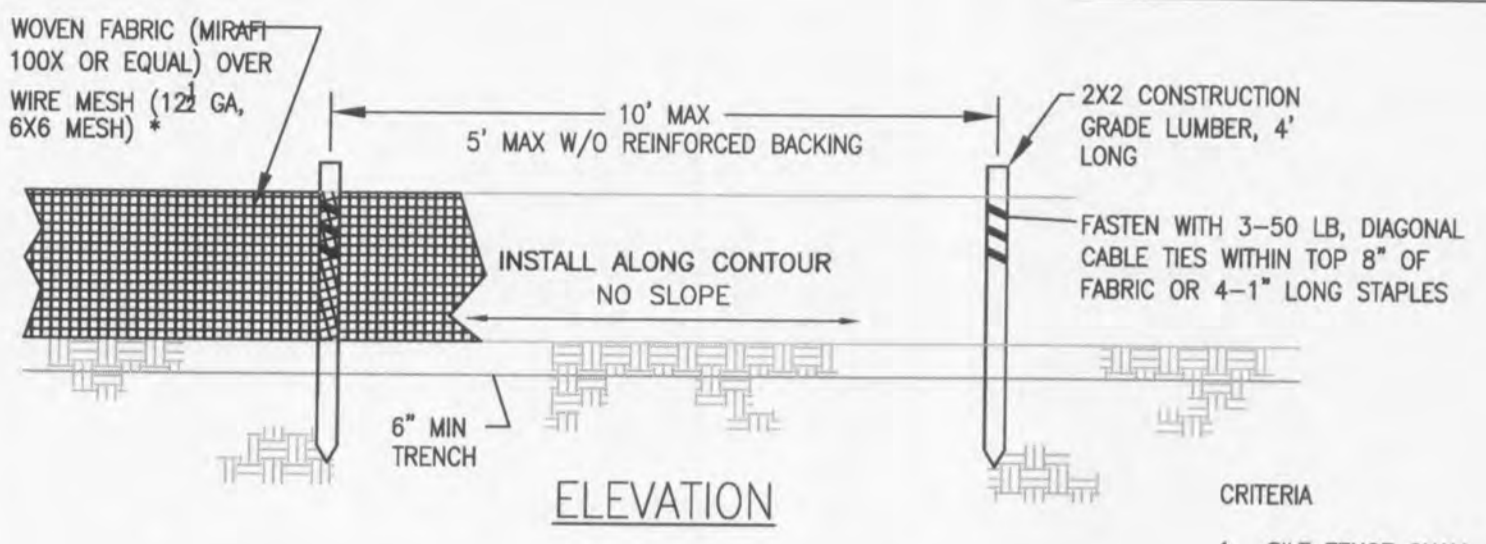


- DESIGN CRITERIA**
- SILT FENCE FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
 - STRAW BALE BARRIERS FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
 - REFER TO INDIVIDUAL ESC FIGURE FOR INSTALLATION.
 - TERRACING INCLUDES LOGS, WATLES & FILTER SOCKS.

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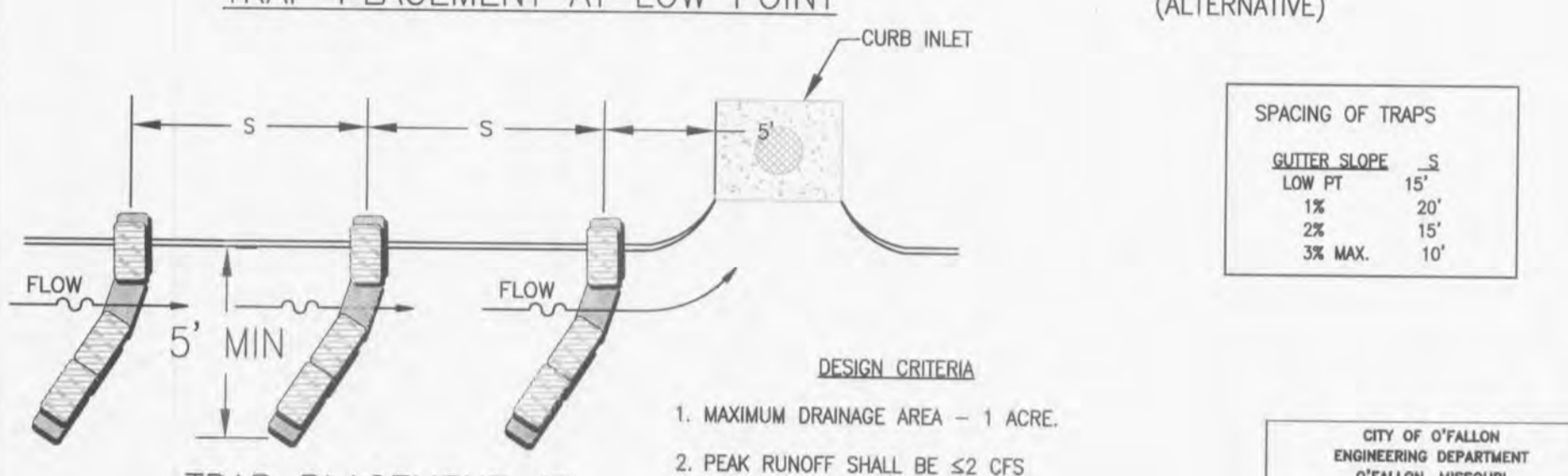
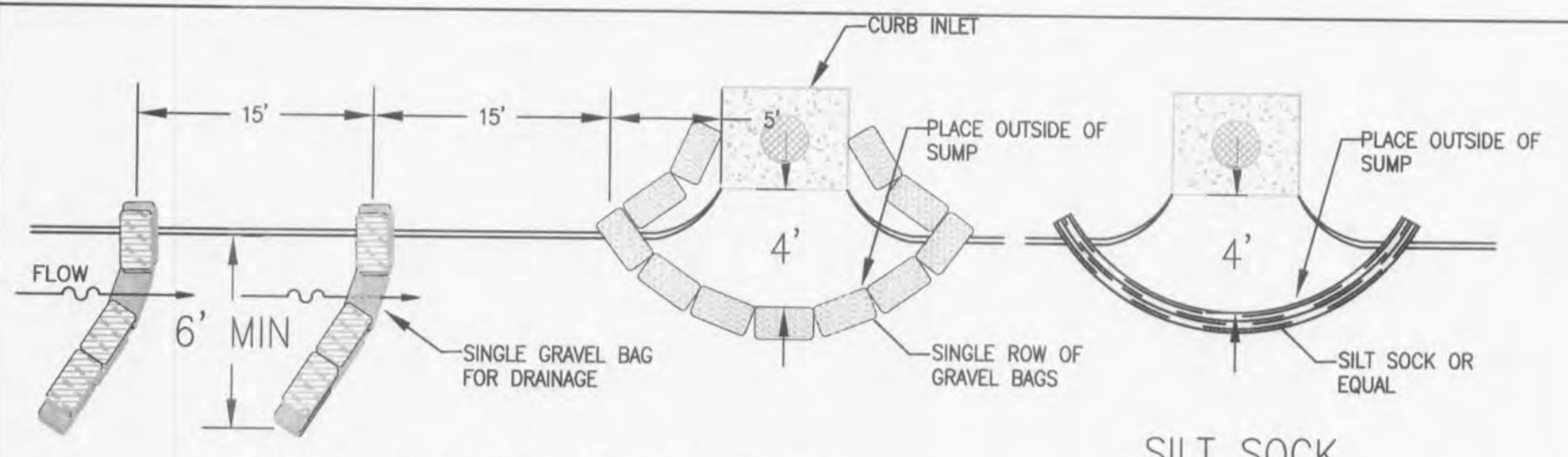
**SPACING CHART
FOR ESC DEVICES**



- CRITERIA**
- SILT FENCE SHALL BE 24 INCHES HIGH.
 - SILT FENCE SHALL NOT BE USED FOR CONCENTRATED FLOWS.
 - GEOSYNTHETIC REINFORCED SILT FENCE BACKING MAY BE USED IN LIEU OF WIRE MESH.
 - WIRE MESH WILL BE USED AT LOCATIONS SHOWN ON THE APPROVED SWPPP.

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**SILT FENCE INSTALLATION
SHEET FLOW (ONLY)**



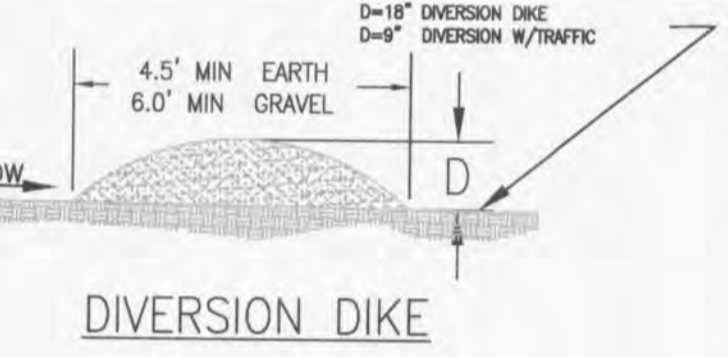
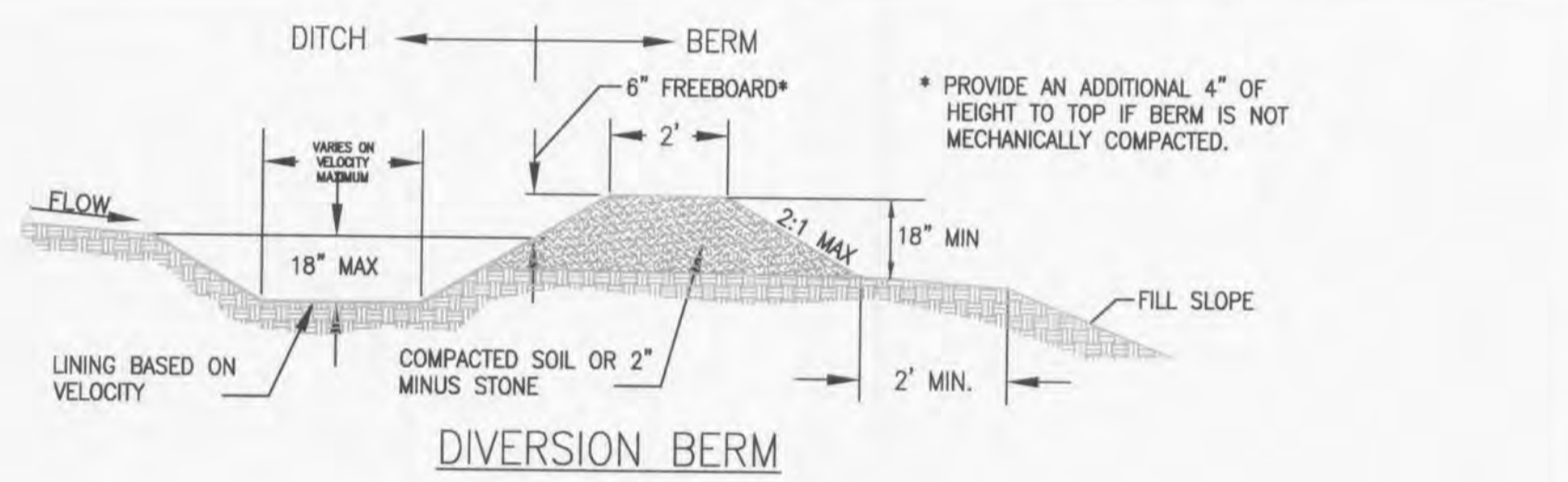
SPACING OF TRAPS

GUTTER SLOPE	S
LOW PT	15'
2%	15'
3% MAX.	10'

- DESIGN CRITERIA**
- MAXIMUM DRAINAGE AREA - 1 ACRE.
 - PEAK RUNOFF SHALL BE ≤ 2 CFS BASED ON THE 6-MONTH STORM.
 - STACK GRAVEL BAGS DOUBLE HIGH. PROVIDE GAP FOR DRAINAGE.

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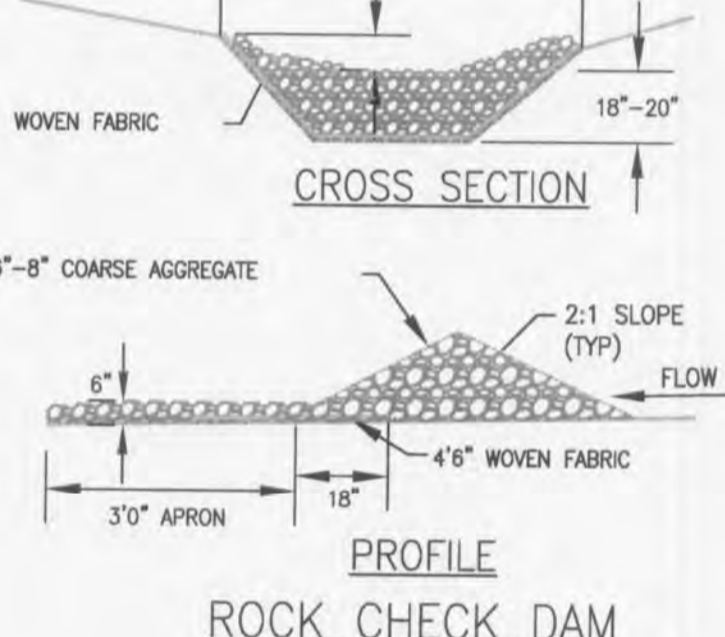
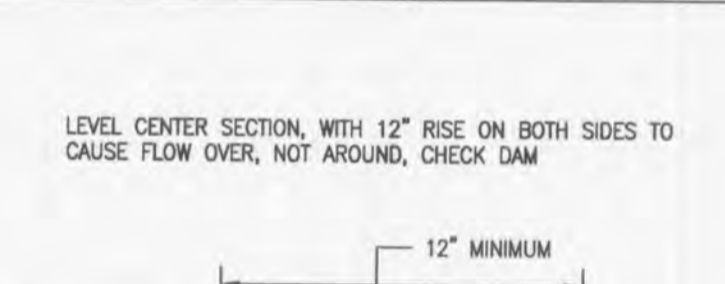
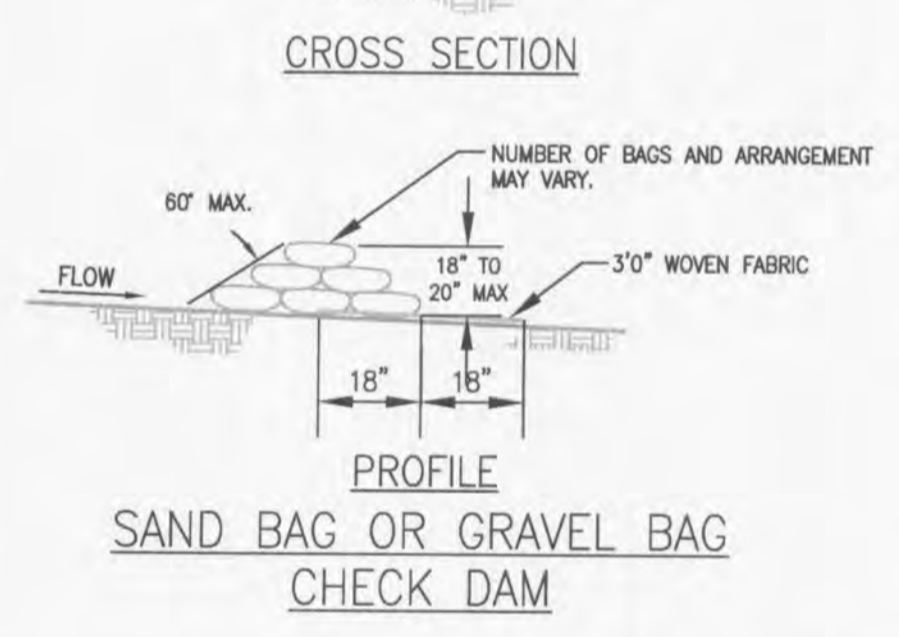
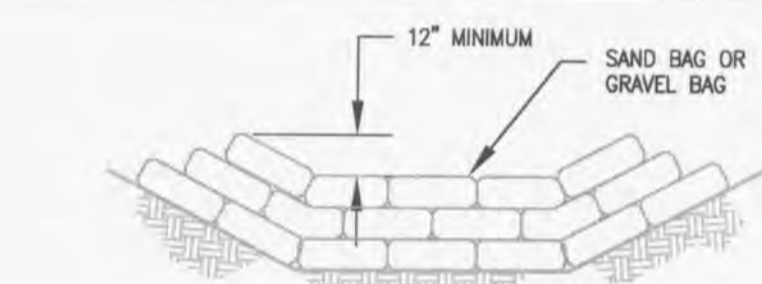
**CURB INLET
PROTECTION**



- DESIGN CRITERIA**
- DIVERSIONS SHALL BE USED FOR DRAINAGE AREAS ≤ 3 ACRES.
 - DIVERSION CHANNELS SHALL BE DESIGNED TO CONVEY THE 6-MO STORM AT NON-EROSIVE VELOCITIES.
 - CRITICAL LOCATIONS SHALL BE DESIGNED FOR THE 15YR / 20MIN. STORM.
 - MAXIMUM CHANNEL SLOPE OF 3% WITHOUT CHECK DAMS.
 - SWALE SEDIMENT TRAPS ARE TO BE USED IN HIGHLY ERODIVE AREAS.
 - CHANNELS SHALL BE PROTECTED USING APPROPRIATE CHANNEL LINERS.
 - CHANNEL OUTLETS MUST BE STABILIZED.
 - STORM SEWERS MAY BE USED IN LIEU OF OPEN CHANNELS.

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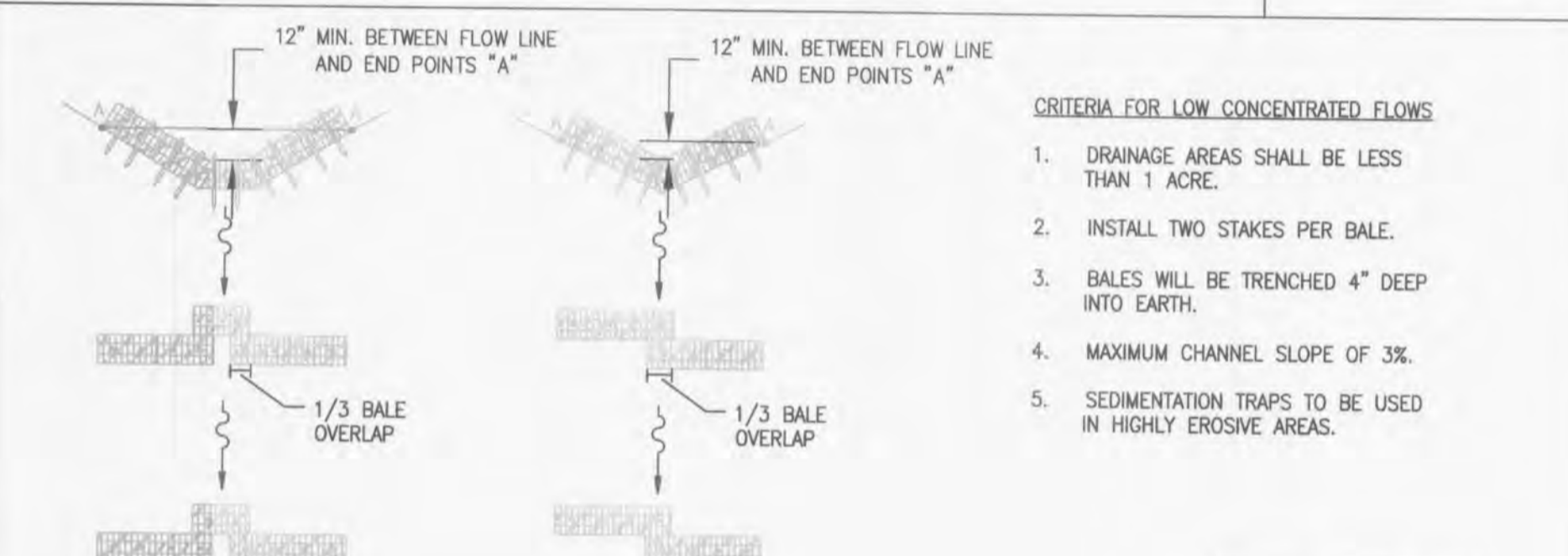
**DIVERSION BERMS
+ DIKES**



- NOTE:**
- CHECK DAMS MAY BE CONSTRUCTED OF SEVERAL ESC CHECK DAM PRODUCTS.
 - SEE TABLE 60-12 AND ESC 1 FOR CHECK DAM SPACING.

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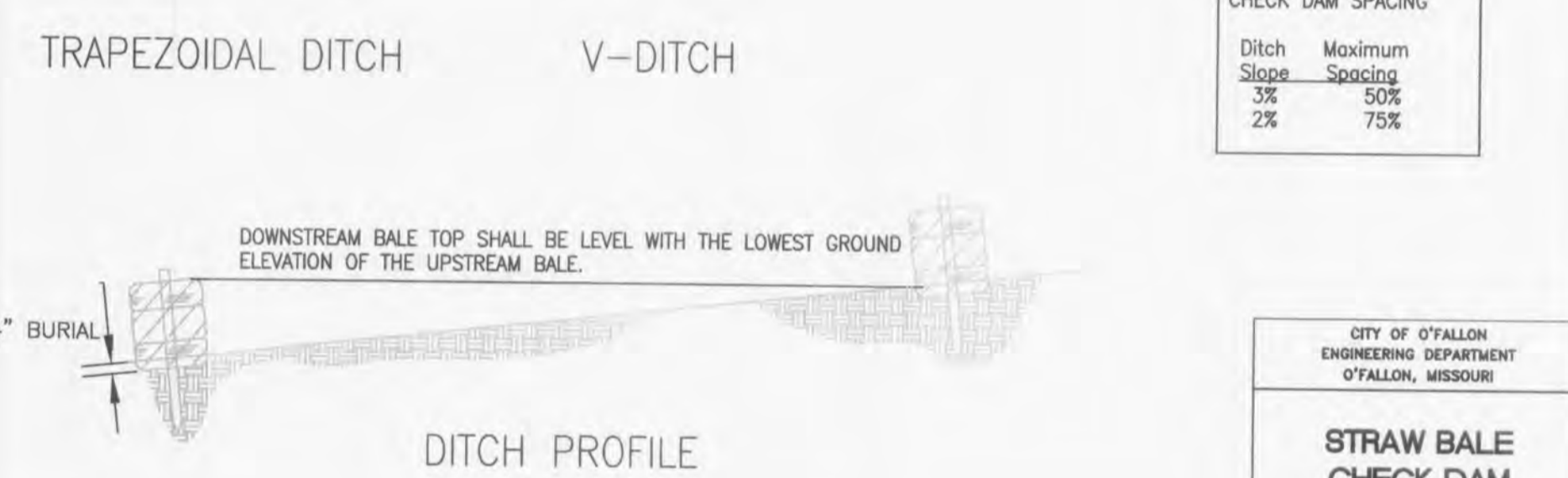
CHECK DAMS



- CRITERIA FOR LOW CONCENTRATED FLOWS**
- DRAINAGE AREAS SHALL BE LESS THAN 1 ACRE.
 - INSTALL TWO STAKES PER BALE.
 - BALES WILL BE TRENCHED 4\"/>

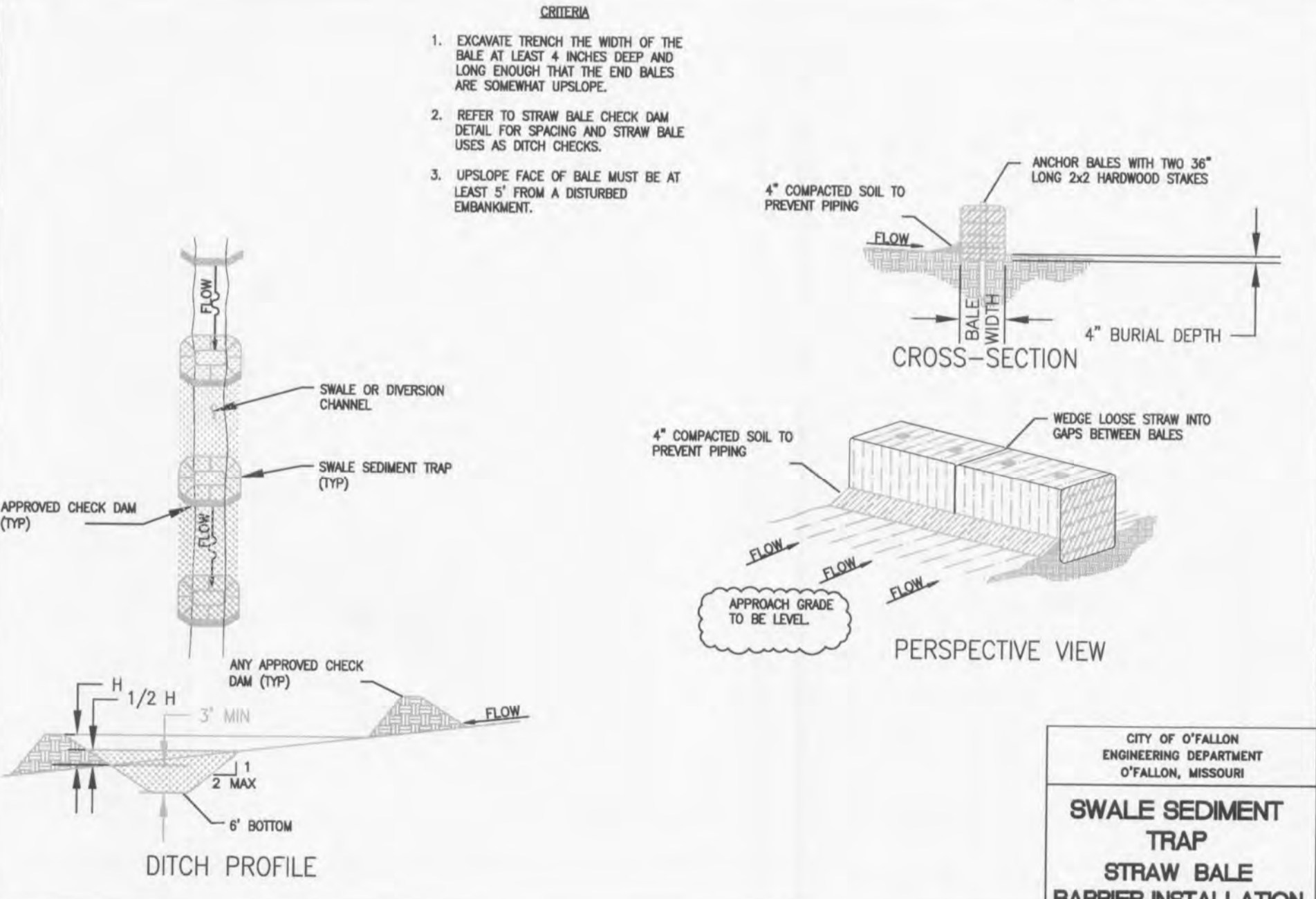
CHECK DAM SPACING

Ditch Slope	Maximum Spacing
3%	50%
2%	75%



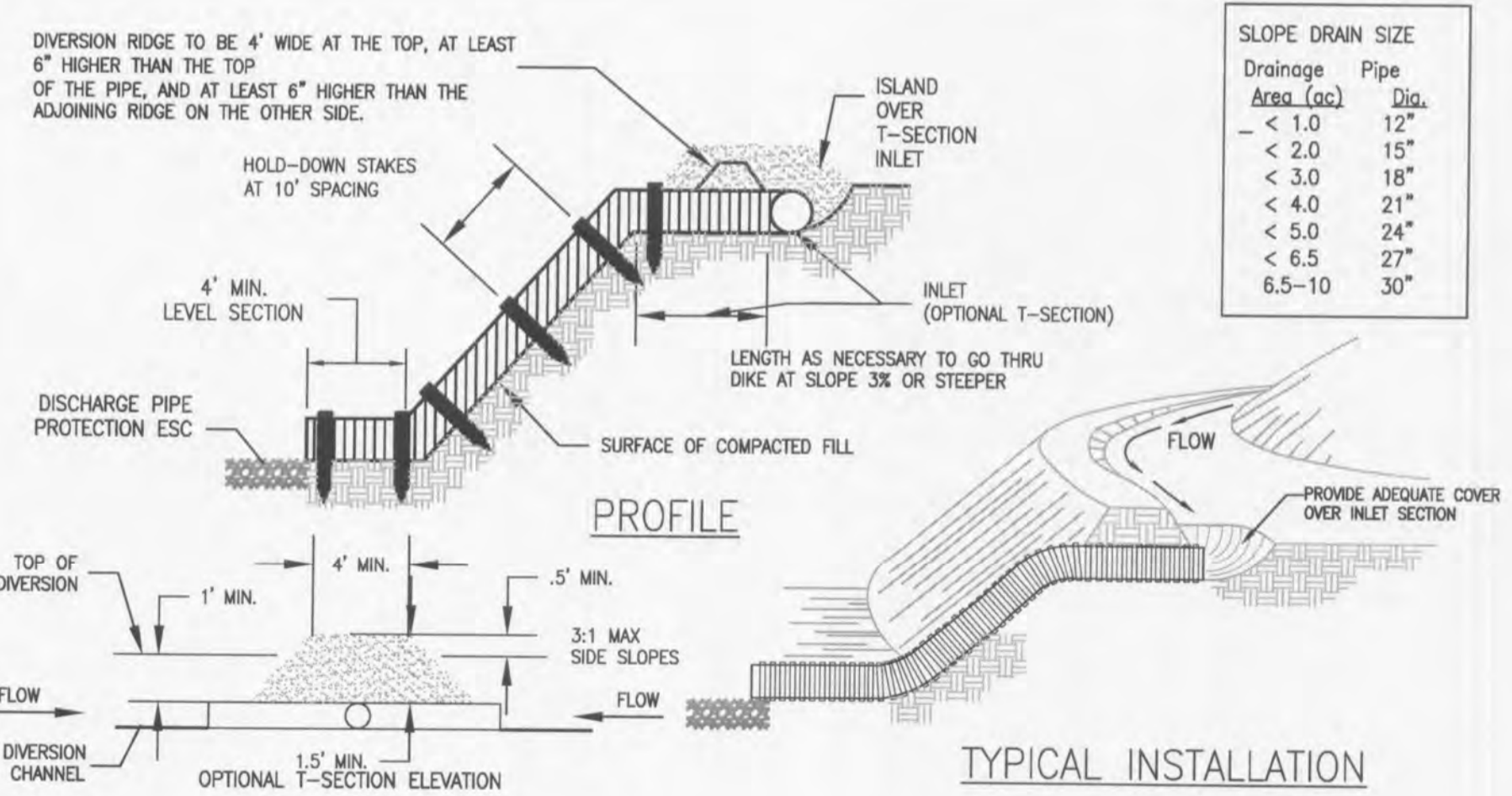
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**STRAW BALE
CHECK DAM**



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**SWALE SEDIMENT
TRAP
STRAW BALE
BARRIER INSTALLATION**



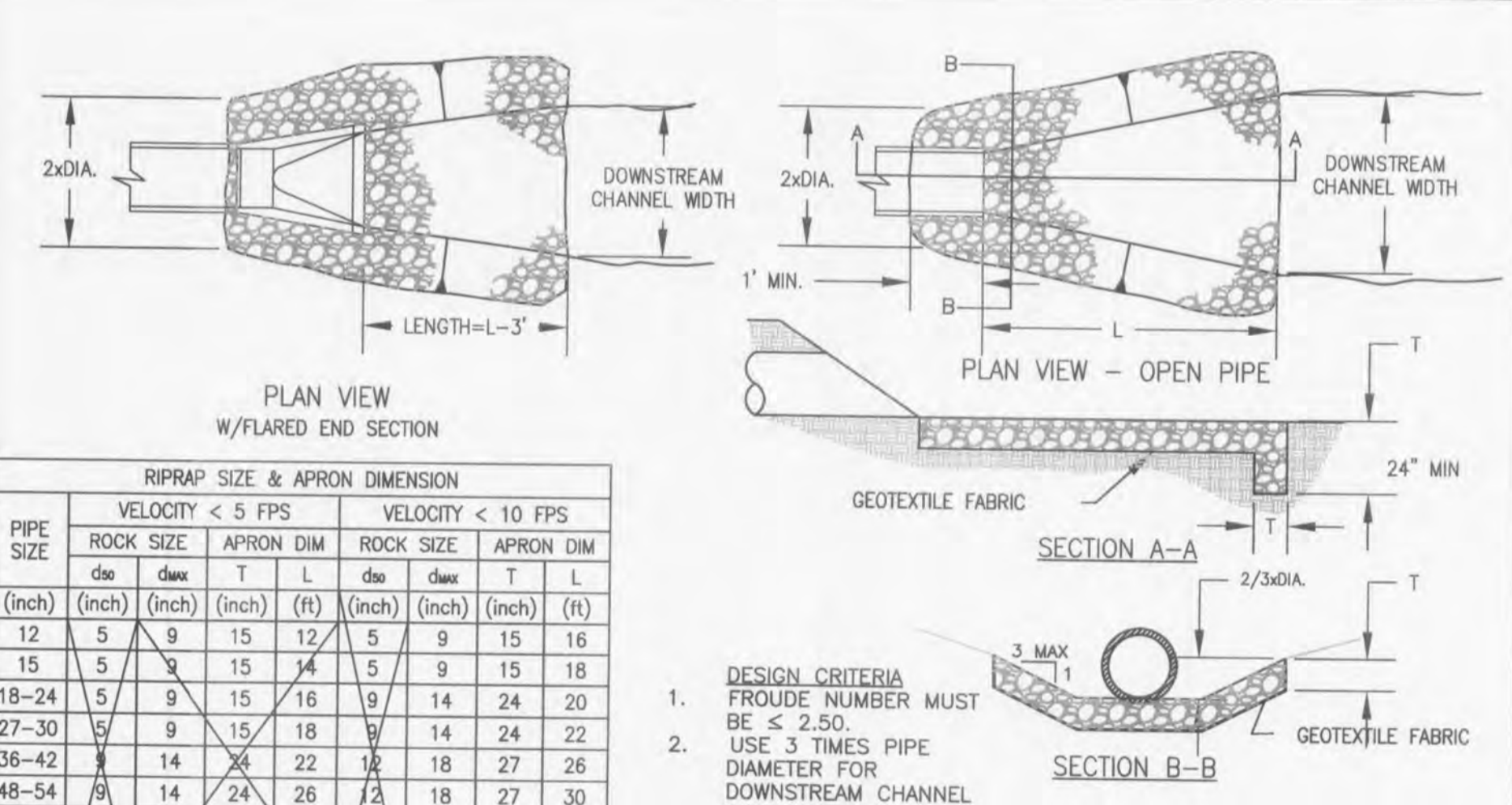
SLOPE DRAIN SIZE

Drainage Pipe Area (sq. ft)	Dig.
< 1.0	12"
< 2.0	15"
< 3.0	18"
< 4.0	21"
< 5.0	24"
< 6.5	27"
6.5-10	30"

- NOTE:**
- PIPE CAN BE CMP, PVC, FLEXIBLE TUBING, OR SIMILAR.
 - THIS METHOD MUST BE USED IN CONJUNCTION WITH OTHER ESC DEVICES. THIS IS NOT A STAND ALONE CONTROL DEVICE.

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**TEMPORARY
SLOPE DRAIN**



RIPRAP SIZE & APRON DIMENSION

PIPE SIZE	VELOCITY < 5 FPS				VELOCITY < 10 FPS			
	ROCK SIZE	APRON DIM	ROCK SIZE	APRON DIM	ROCK SIZE	APRON DIM	ROCK SIZE	APRON DIM
12	5	9	15	12	5	9	15	16
15	5	9	15	14	5	9	15	18
18-24	5	9	15	16	9	14	24	20
27-30	5	9	15	18	9	14	24	22
36-42	9	14	24	22	12	18	27	26
48-54	9	14	24	26	12	18	27	30
60-66	12	18	27	34	15	24	30	38
72-84	15	24	30	42	15	24	30	46
96	18	27	30	50	18	27	30	54

- DESIGN CRITERIA**
- FROUDE NUMBER MUST BE ≤ 2.50 .
 - USE 3 TIMES PIPE DIAMETER FOR DOWNSTREAM CHANNEL WIDTH IF THERE IS NO DEFINED CHANNEL.
 - BANK PROTECTION HEIGHT TO BE 2/3 TIMES PIPE DIAMETER.
 - ROCK SLOPES SHALL BE NO STEEPER THAN 3:1.

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**TEMPORARY OUTLET
PIPE DISCHARGE
PROTECTION**

USER: Taylor Stuart TAB: DETAILS 4
DATE: September 3, 2013 - 11:31:14 AM
DRAWING: S:\085\085001\13-0054\CAD-DWG\C-04\MASS GRADING_0_MG_DETAILS.dwg

NO.	DATE	PERSON DESCRIPTION
2	8/29/2013	CITY COMMENTS
1	8/29/2013	CITY COMMENTS

DEVELOPER/OWNER:
PULTE GROUP
16640 CHESTERFIELD GROVE STE 200
CHESTERFIELD, MO 63005
PHONE: (636) 537-7129

CIVIL ENGINEERS
CORPORATE
ENGINEERING
CERTIFICATE
#00175
JOHN F.
HARSHBARGER
E-29716
NUMBER
PC NO. E-20118
DATE: 9/11/13

PRESTON WOODS
PHASE 6
MASS GRADING PLANS
PRESTON WOODS LANE
O'FALLON, MO 63066

DETAILS

ST. CHARLES
1520 S. Fifth Street
Suite 307
St. Charles, MO 63033
636.978.7508 / f
636.978.7508 / e

COLE
CIVIL ENGINEERING / SURVEYING / PLANNING / LANDSCAPE ARCHITECTURE
Cole & Associates, Inc.

DESIGN/CALC BY: JFH
DRAWN BY: MTS
CHECKED BY: JFH
DRAWING SCALE: -
DATE: 7/25/2013
Job Number: 13-0054
Sheet Number: G4.3