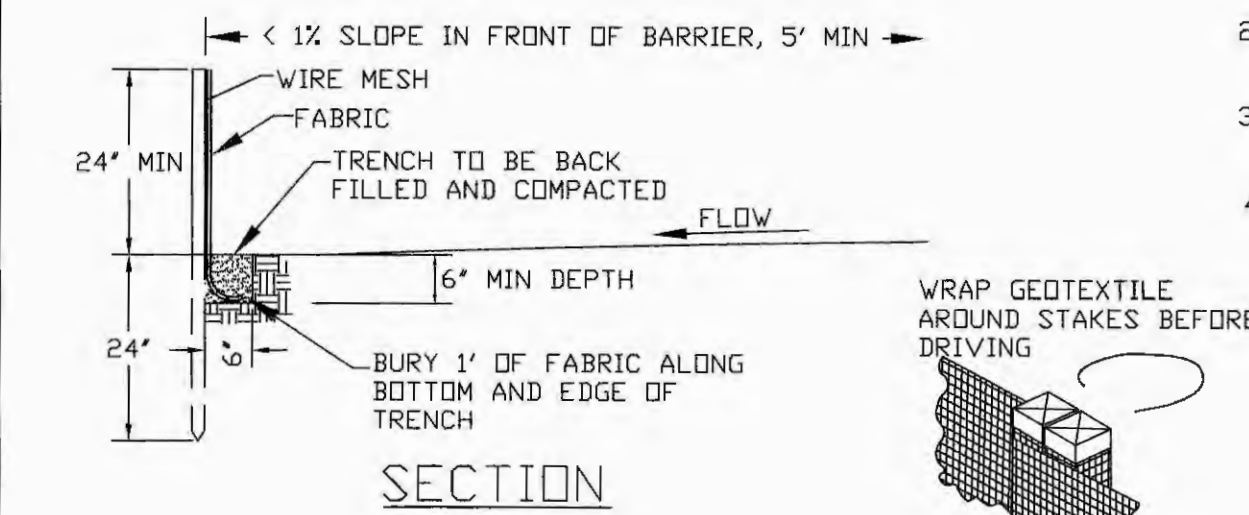
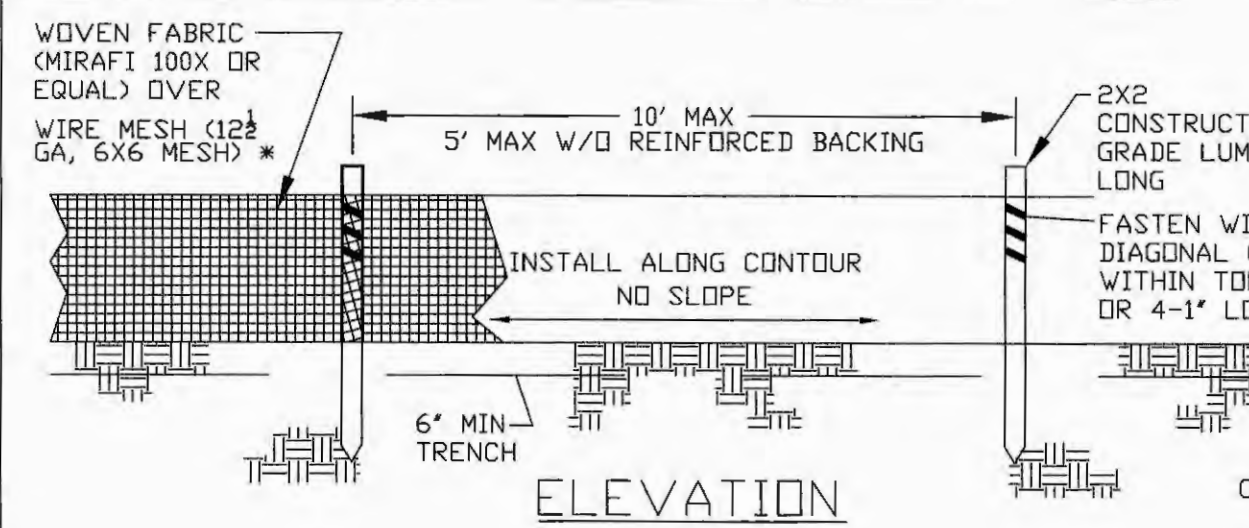


- DESIGN CRITERIA**
- SILT FENCE FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
  - STRAW BALES BARRIERS FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
  - REFER TO INDIVIDUAL ESC FIGURE FOR INSTALLATION.
  - TERRACING INCLUDES LOGS, WATTLES & FILTER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

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**SPACING CHART FOR ESC DEVICES**



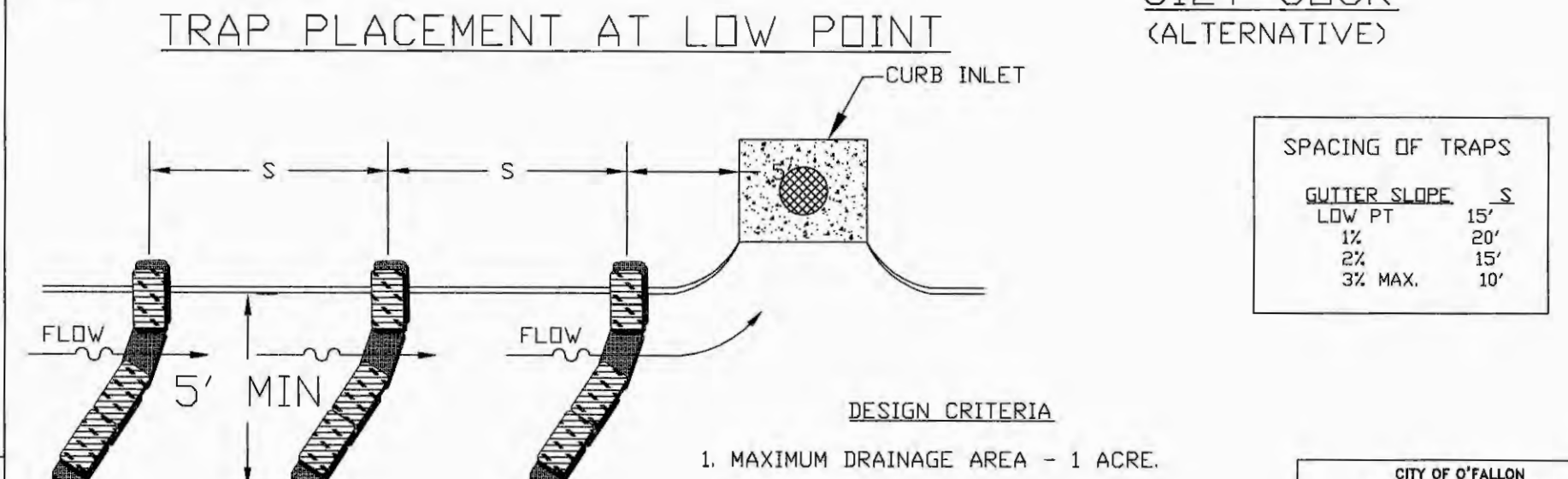
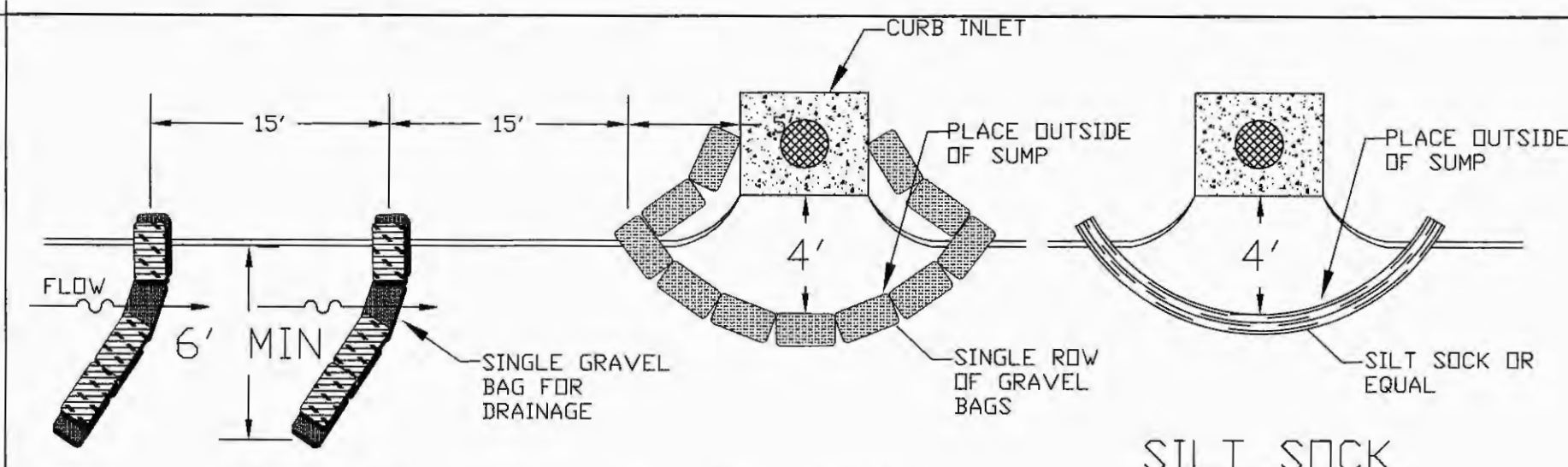
- CRITERIA**
- SILT FENCE SHALL BE 24 INCHES HIGH.
  - SILT FENCE SHALL NOT BE USED FOR CONCENTRATED FLOWS.
  - GEOSYNTHETIC REINFORCED SILT FENCE BACKING MAY BE USED IN LIEU OF WIRE MESH.
  - WIRE MESH WILL BE USED AT LOCATIONS SHOWN ON THE APPROVED SWPPP.

NOTE: IF FABRIC IS INSTALLED BY EQUIPMENT DESIGNED TO SLICE INTO THE GROUND, THE TRENCH IS NOT REQ'D.

**JOINING SECTIONS OF SILT FENCE**

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



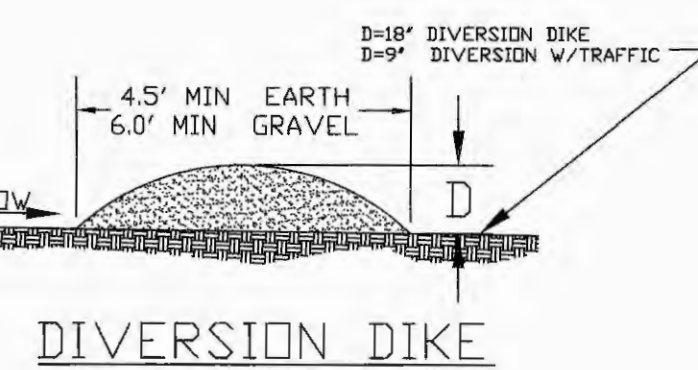
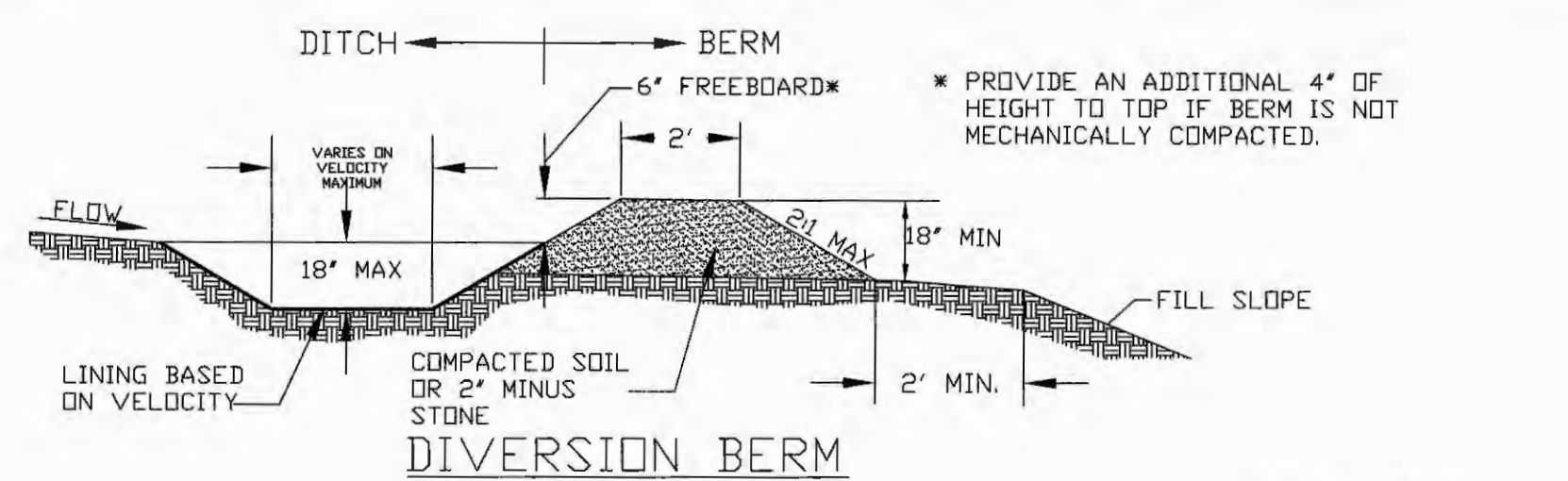
- DESIGN CRITERIA**
- MAXIMUM DRAINAGE AREA - 1 ACRE.
  - PEAK RUNOFF SHALL BE  $\leq 2$  CFS BASED ON THE 6-MONTH STORM.
  - STACK GRAVEL BAGS DOUBLE HIGH. PROVIDE GAP FOR DRAINAGE.

**SPACING OF TRAPS**

GUTTER SLOPE	S
LOW PT	15'
1%	20'
2%	15'
3% MAX.	10'

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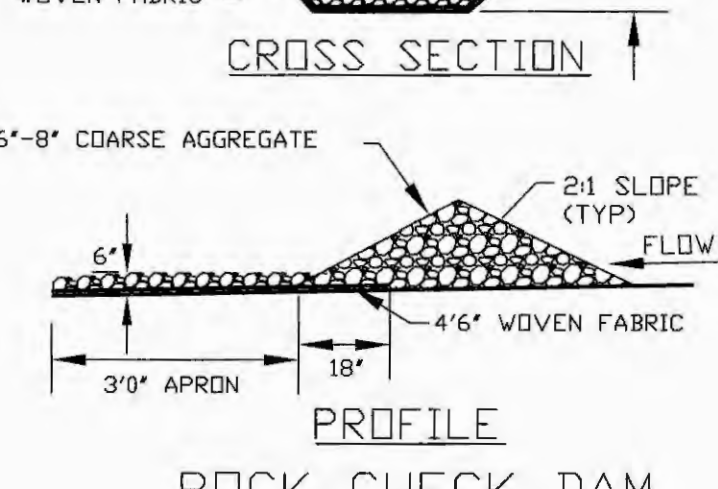
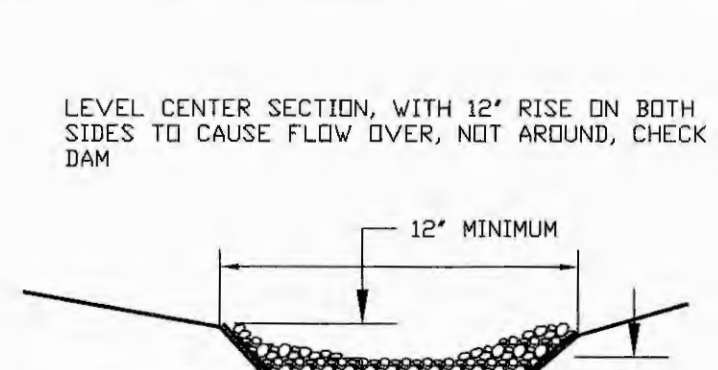
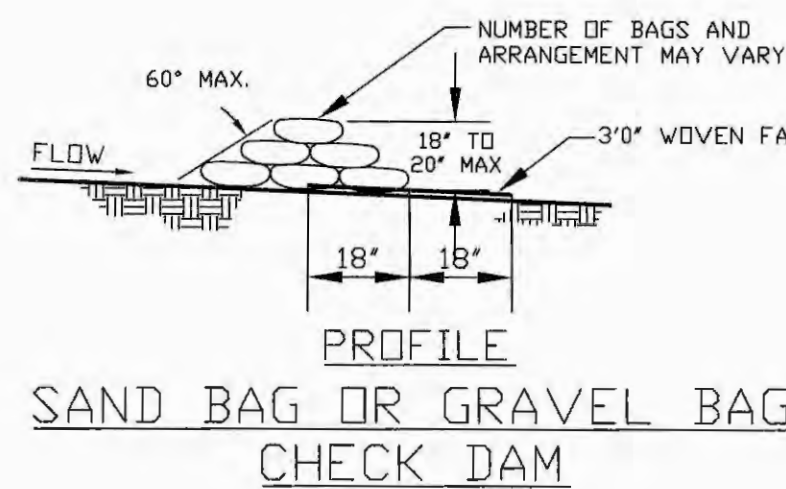
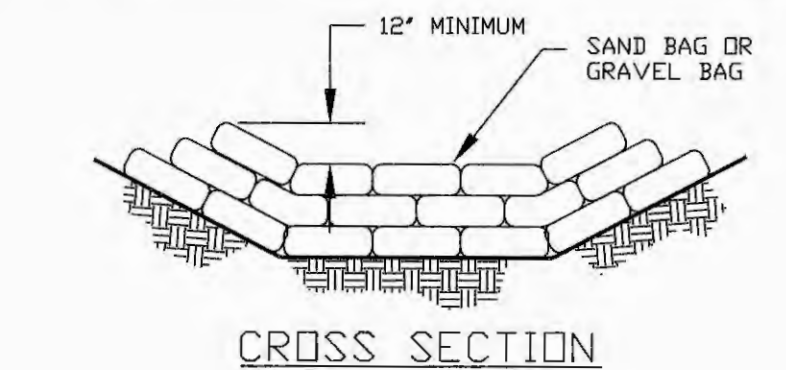
**CURB INLET PROTECTION**



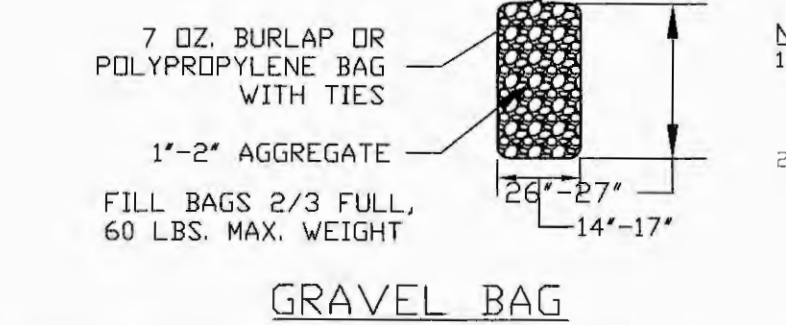
- DESIGN CRITERIA**
- DIVERSIONS SHALL BE USED FOR DRAINAGE AREAS  $\leq 3$  ACRES.
  - DIVERSION CHANNELS SHALL BE DESIGNED TO CONVEY THE 6-MO STORM AT NON-EROSIVE VELOCITIES.
  - CRITICAL LOCATIONS SHALL BE DESIGNED FOR THE 15YR / 20MIN. STORM.
  - MAXIMUM CHANNEL SLOPE OF 3% WITHOUT CHECK DAMS.
  - SWALE SEDIMENT TRAPS ARE TO BE USED IN HIGHLY ERODITIVE 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**

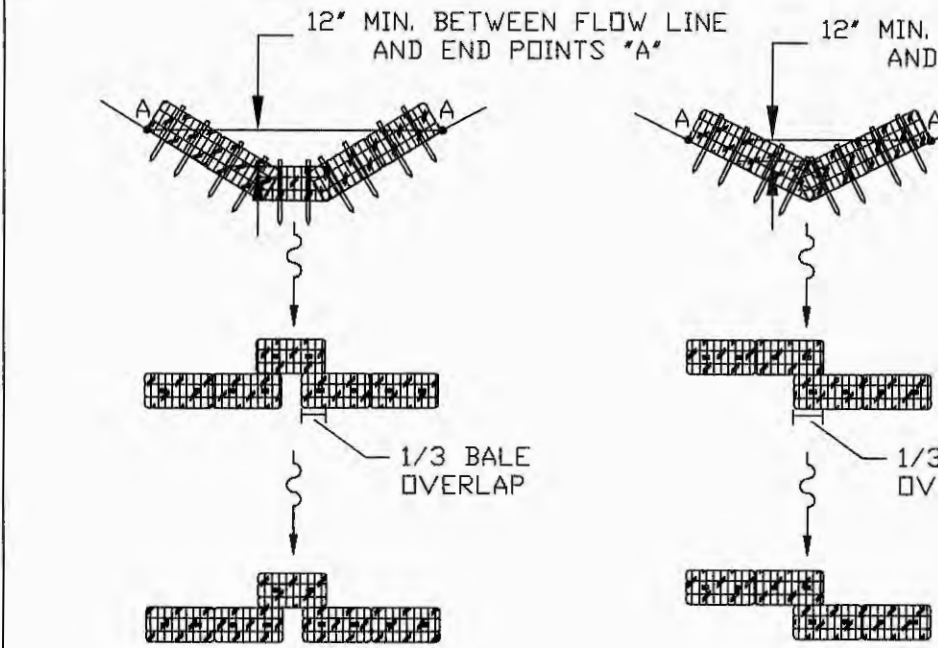


- NOTE:**
- CHECK DAMS MAY BE CONSTRUCTED OF SEVERAL ESC CHECK DAM PRODUCTS.
  - SEE TABLE 60-12 AND ESC 1 FOR CHECK DAM SPACING.



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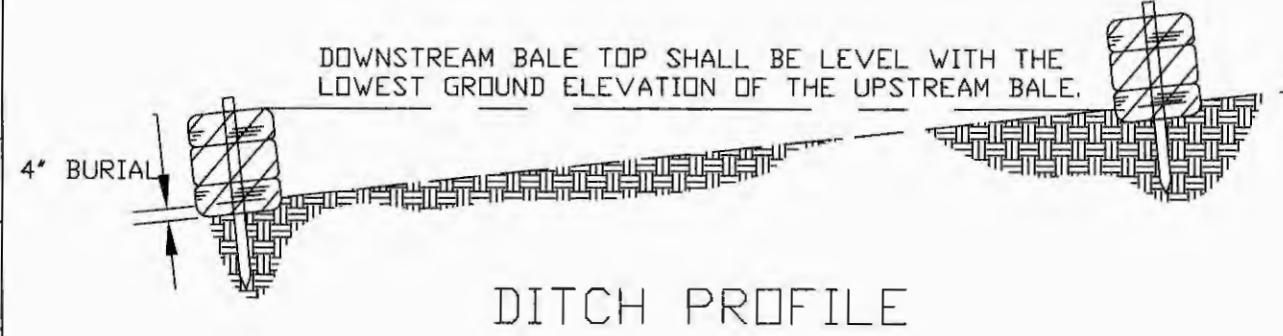
**CHECK DAMS**



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

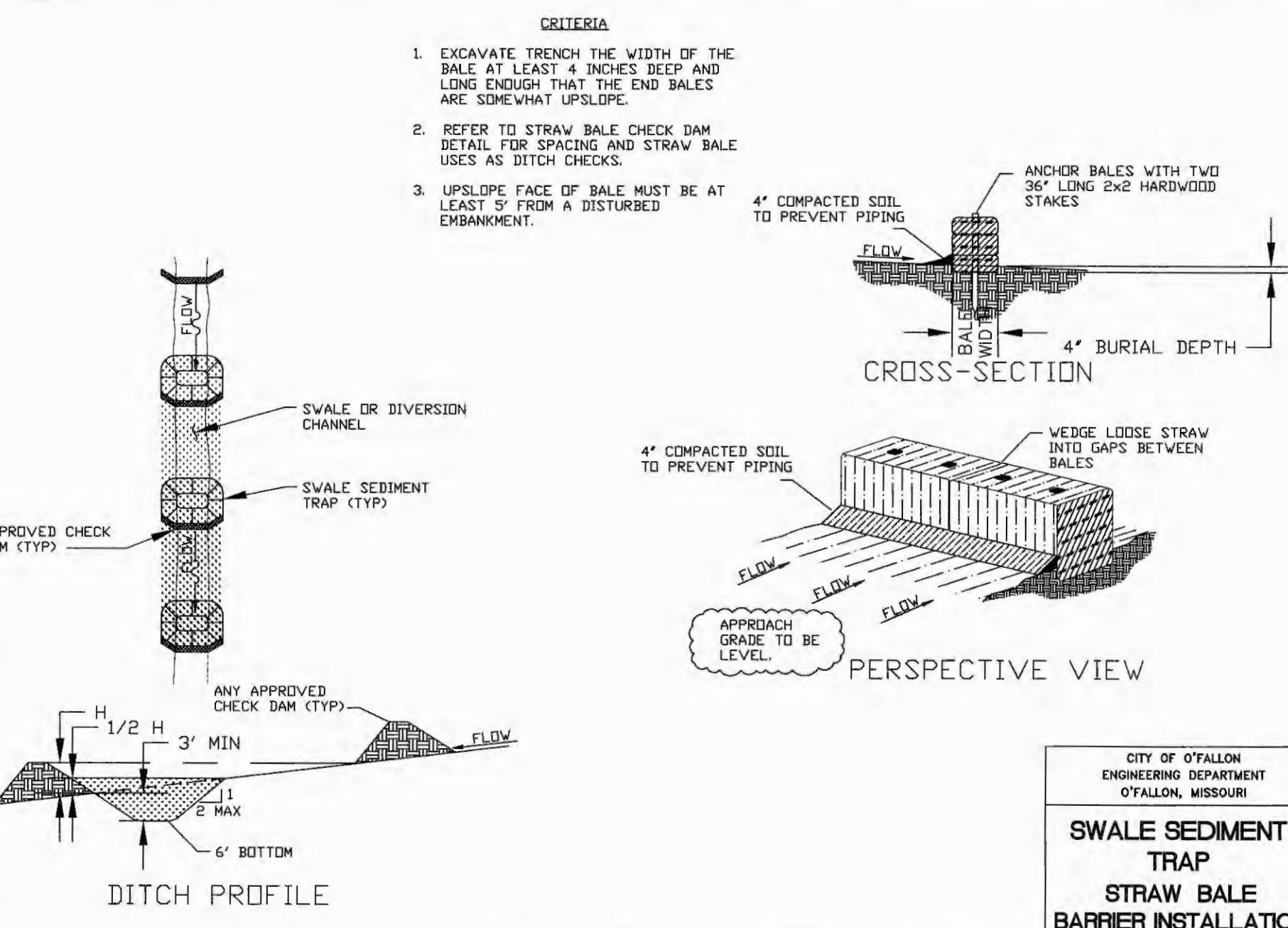
**CHECK DAM SPACING**

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



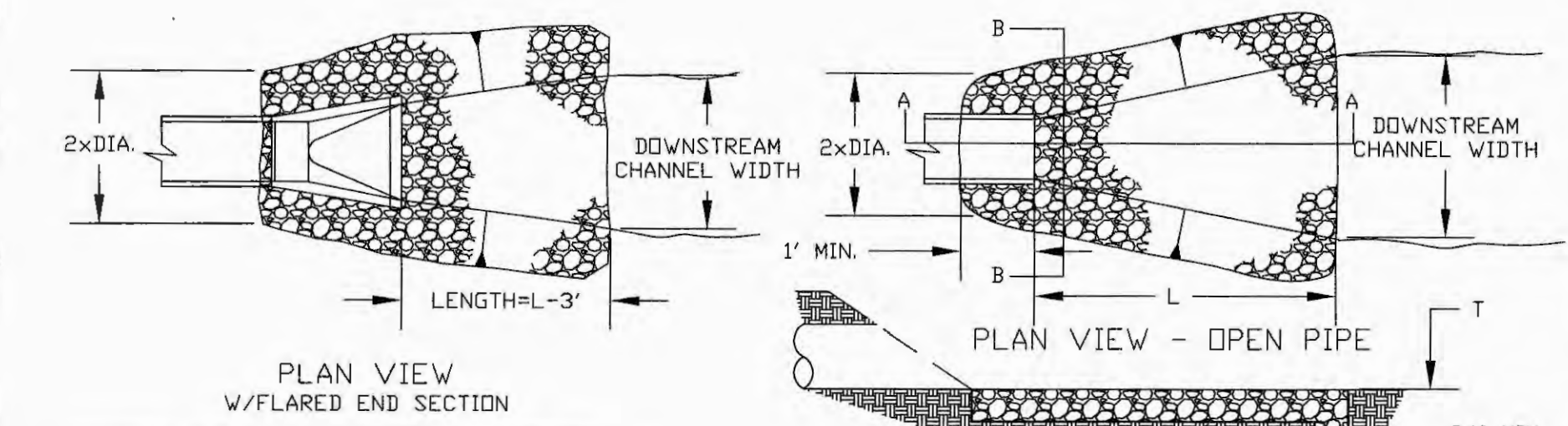
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**STRAW BALE CHECK DAM**



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**SWALE SEDIMENT TRAP STRAW BALE BARRIER INSTALLATION**



**RIPRAP SIZE & APRON DIMENSION**

PIPE SIZE (inch)	VELOCITY < 5 FPS			VELOCITY < 10 FPS		
	ROCK SIZE (inch)	APRON DIM (inch)	ROCK SIZE (inch)	APRON DIM (inch)	ROCK SIZE (inch)	APRON DIM (inch)
12	5	9	15	12	5	9
15	5	9	15	14	5	9
18-24	5	9	15	16	9	14
27-30	7	9	15	18	14	24
36-42	7	14	24	22	18	27
48-54	9	14	24	26	18	27
60-66	12	18	27	34	15	24
72-84	15	24	30	42	15	24
96	18	27	30	50	18	27

- DESIGN CRITERIA**
- FROUDE NUMBER MUST BE  $\leq 2.50$ .
  - 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**

**ALTAIR AT THE PRESERVE (FKA WINGHAVEN POINTE)**

ENGINEERING SURVEYING  
221 Poinc. West Blvd.  
St. Charles, MO 63001  
636-928-5552  
FAX 636-928-1718

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I hereby specify that the documents intended to be authorized by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.

**REVISIONS**

04/25/2016	DCSD & PWS2 COMMENTS
05/16/2016	CITY REVIEW
06/15/2016	CITY REVIEW & DCSD COMMENTS
07/29/2016	CITY REVIEW
08/04/2016	MODOT REVIEW
06/29/2017	MODOT REVIEW

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**STRAW BALE CHECK DAM**

**Developer / Owner:**  
ROLWES DEVELOPMENT, L.L.C.  
13100 MANCHESTER ROAD, SUITE 65  
ST. LOUIS, MISSOURI 63131  
314-821-9600

**REFERENCE DETAILS**

**P+Z No.** #9831.65.02  
**City No.** #  
**Page No.** 30 of 38

**ENGINEERS SEAL DOES NOT APPLY TO CITY OF O'FALLON DETAILS ON THIS SHEET.**