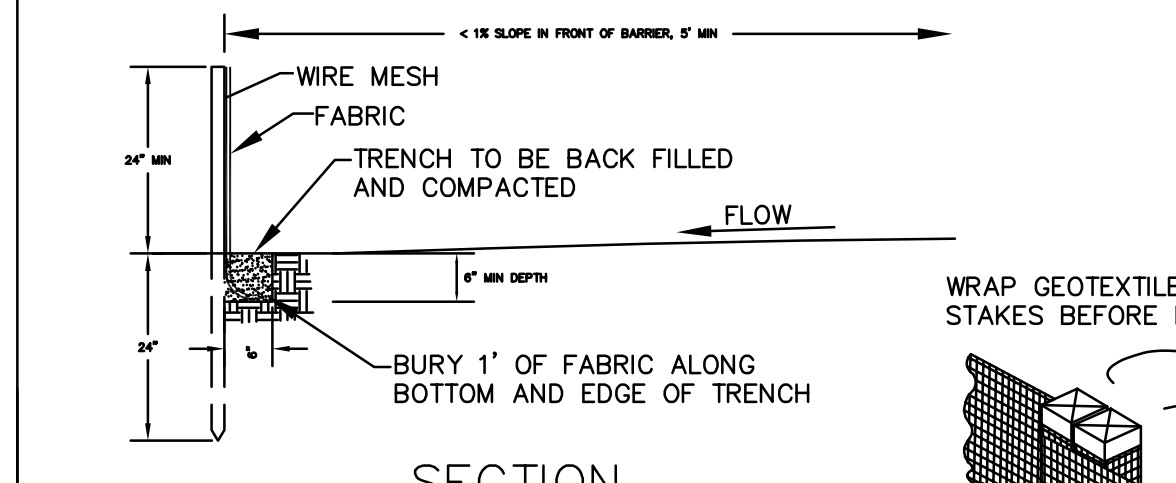
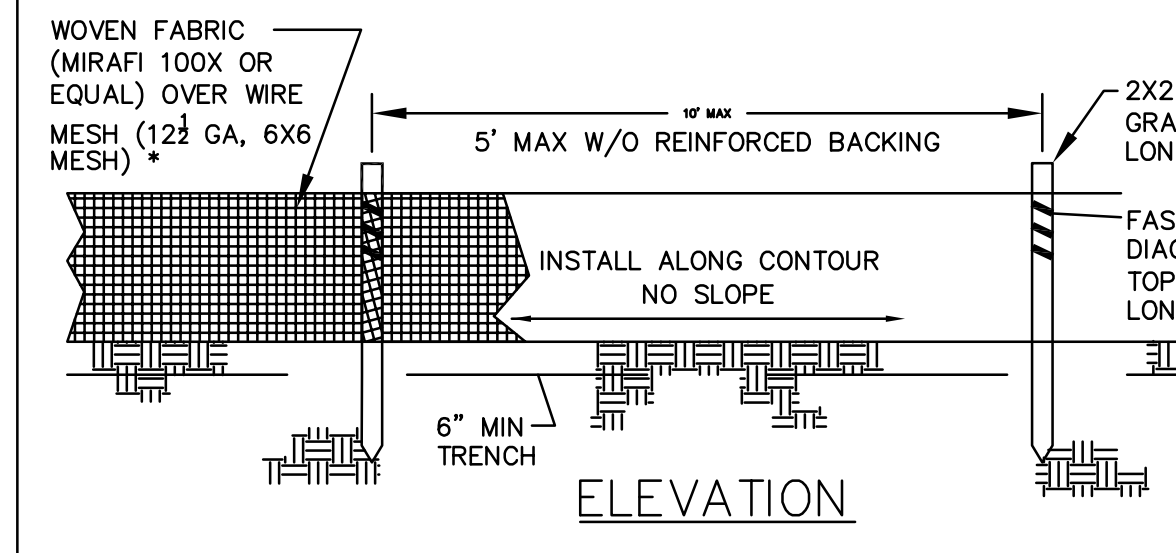
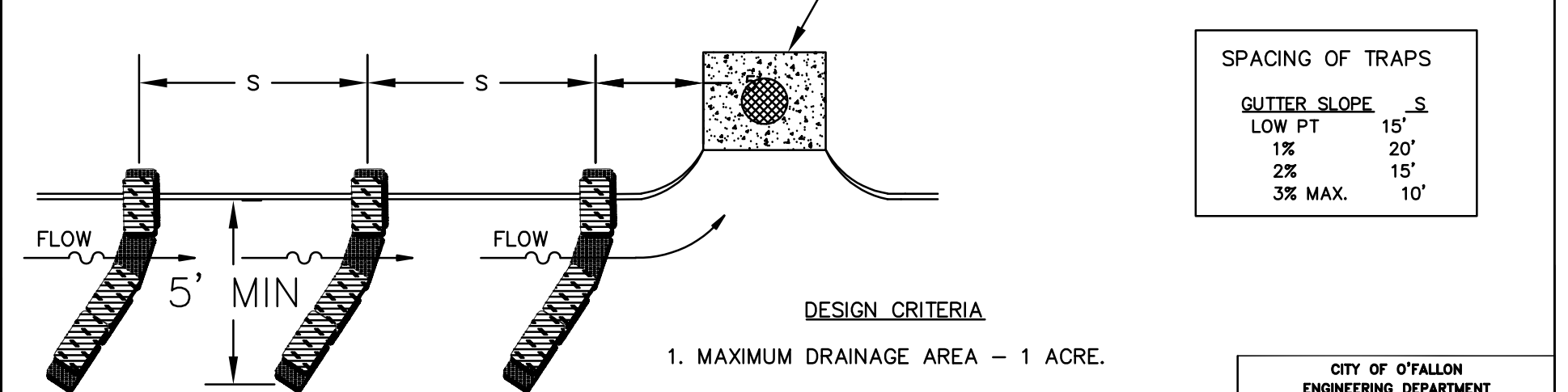
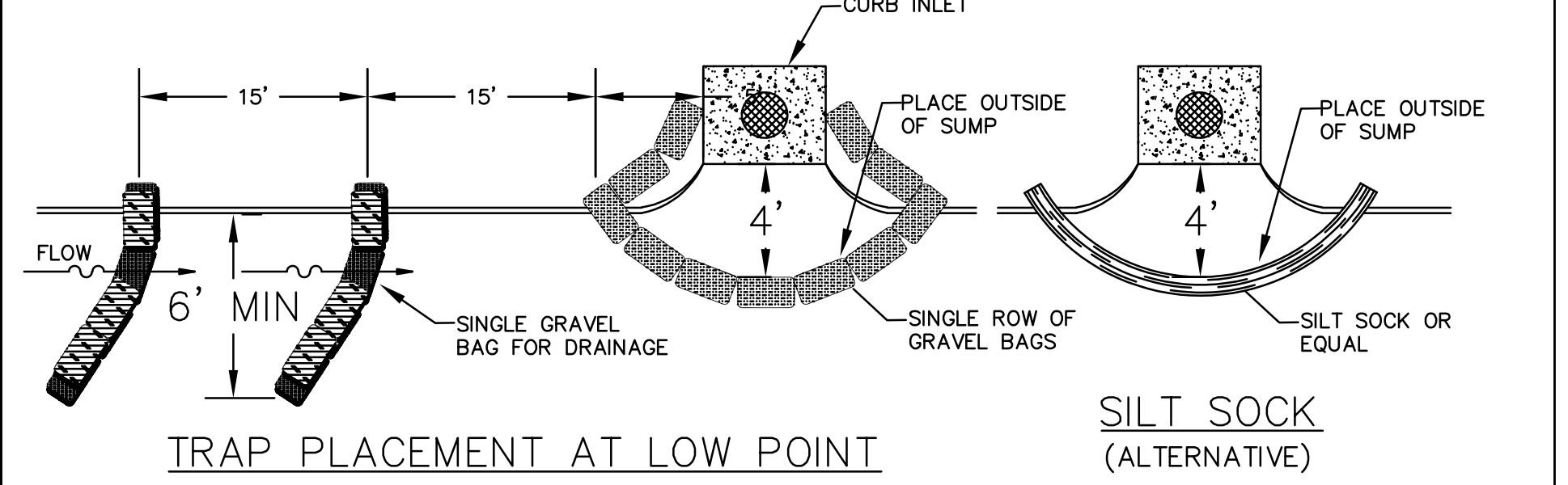


SPACING CHART FOR ESC DEVICES
CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI



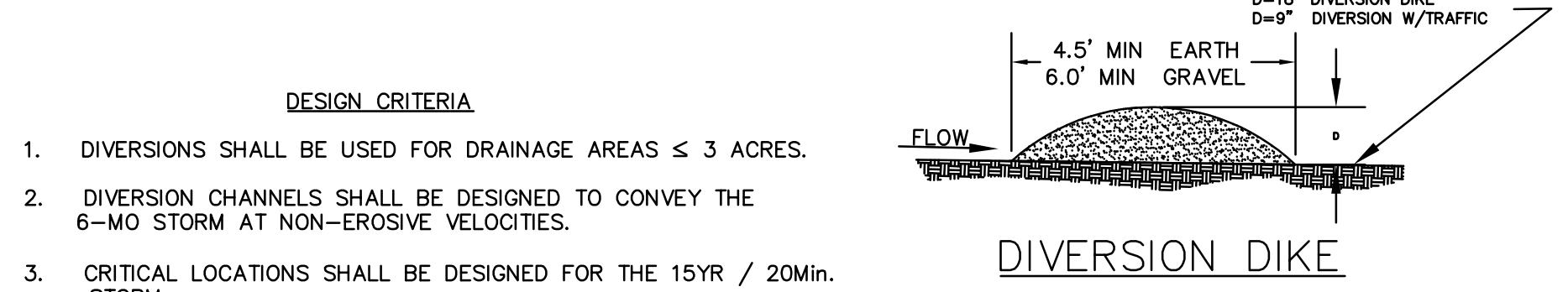
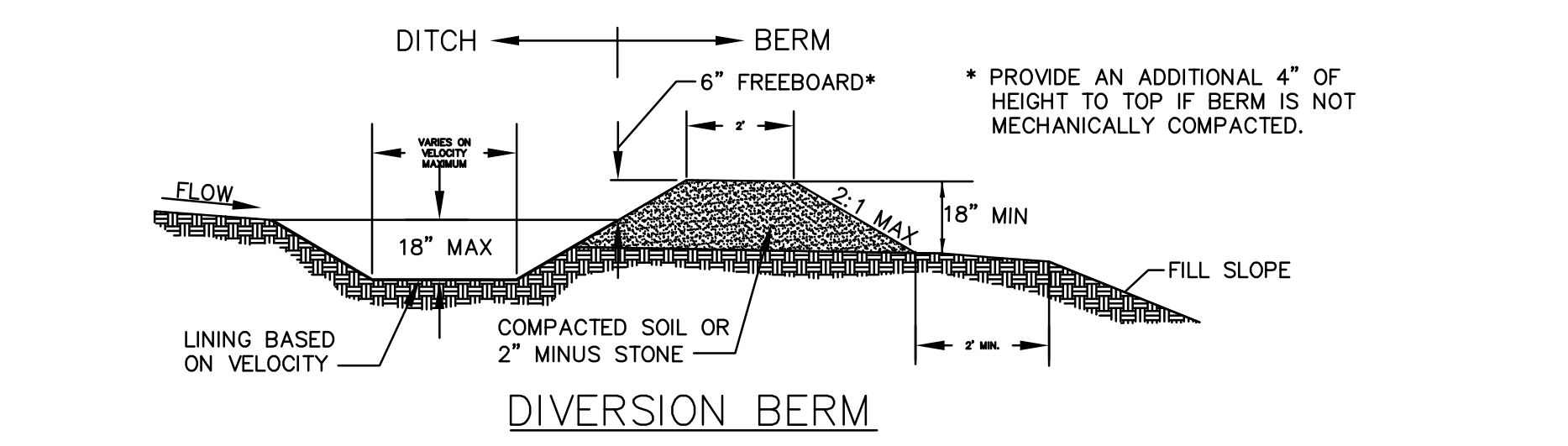
- CRITERIA**
- SILT FENCE SHALL BE 24 INCHES HIGH.
 - SILT FENCE SHALL NOT BE USED FOR CONCENTRATED FLOWS.
 - GEOSYNTHETIC REINFORCED SILT FENCE BACKING MAY BE USED IN LIEU OF WIRE MESH.
 - WIRE MESH WILL BE USED AT LOCATIONS SHOWN ON THE APPROVED SWPPP.

SILT FENCE INSTALLATION SHEET FLOW ONLY
CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI



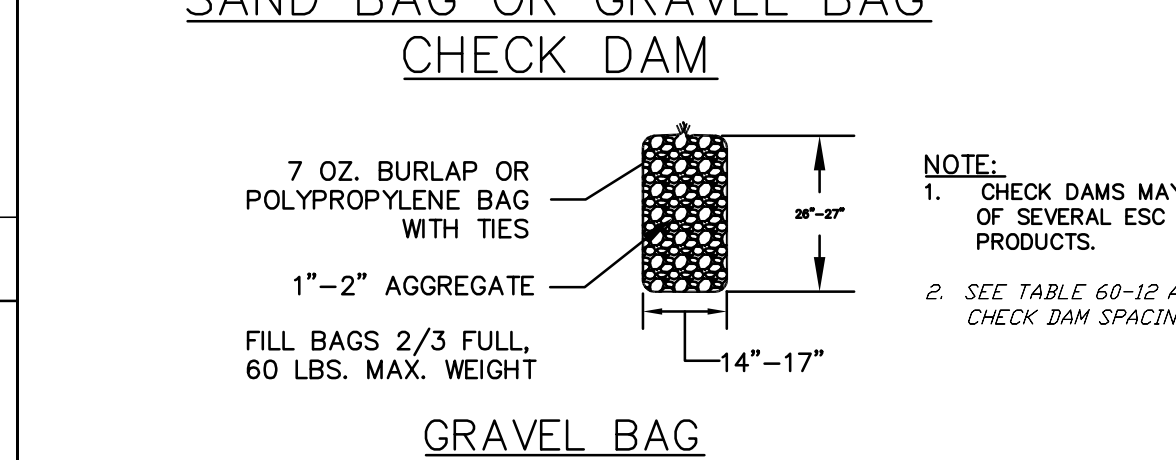
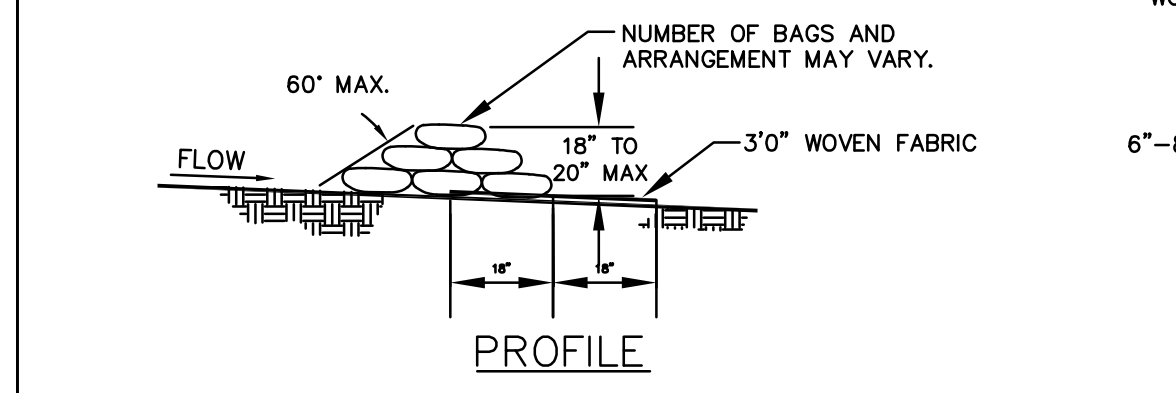
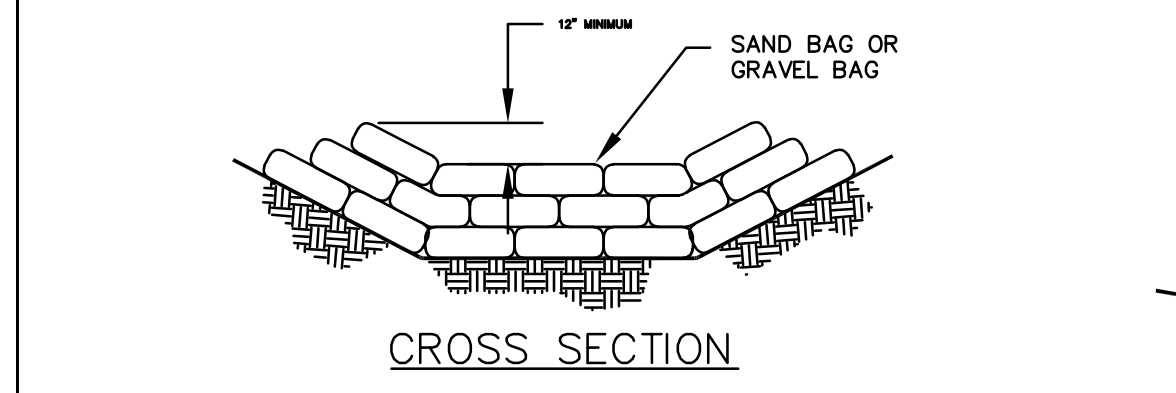
- DESIGN CRITERIA**
- MAXIMUM DRAINAGE AREA - 1 ACRE.
 - PEAK RUNOFF SHALL BE ≤ 2 CFS BASED ON THE 6-MONTH STORM.
 - STACK GRAVEL BAGS DOUBLE HIGH. PROVIDE GAP FOR DRAINAGE.

CURB INLET PROTECTION
CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI



- 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 EROSION AREAS.
 - CHANNELS SHALL BE PROTECTED USING APPROPRIATE CHANNEL LINERS.
 - CHANNEL OUTLETS MUST BE STABILIZED.
 - STORM SEWERS MAY BE USED IN LIEU OF OPEN CHANNELS.

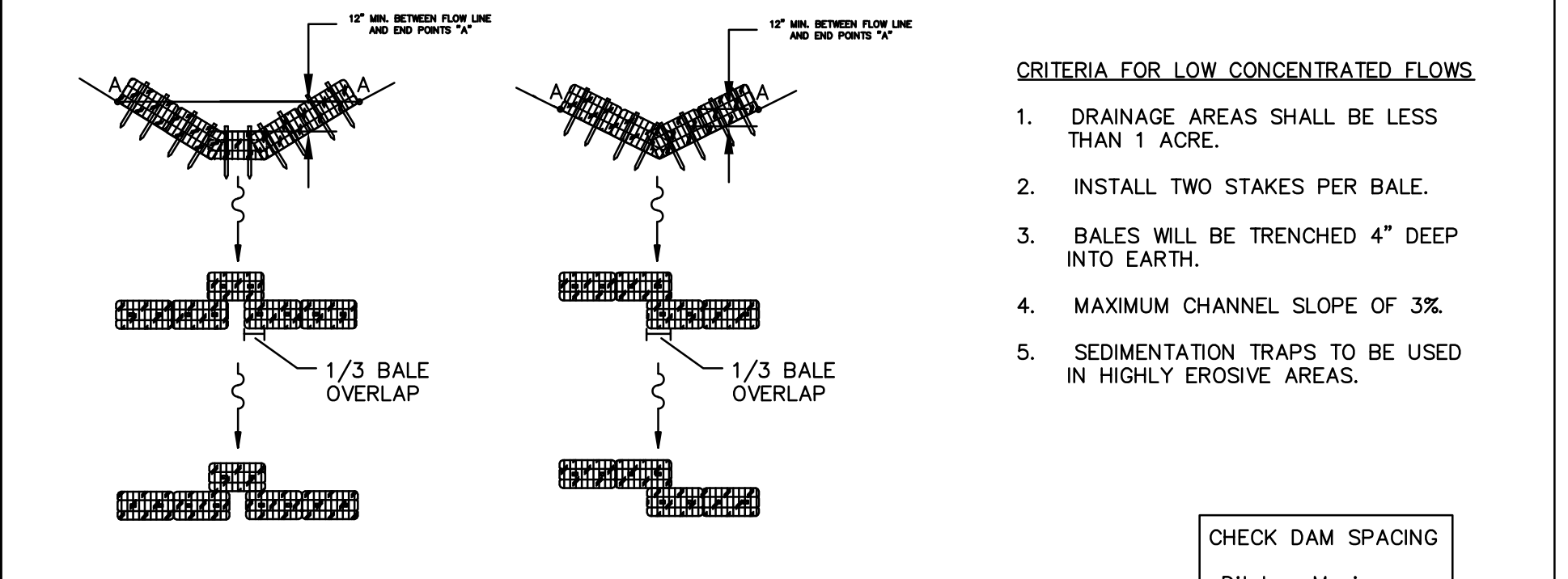
DIVERSION BERMS + DIKES
CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI



LEVEL CENTER SECTION, WITH 12" RISE ON BOTH SIDES TO CAUSE FLOW OVER, NOT AROUND, CHECK DAM

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

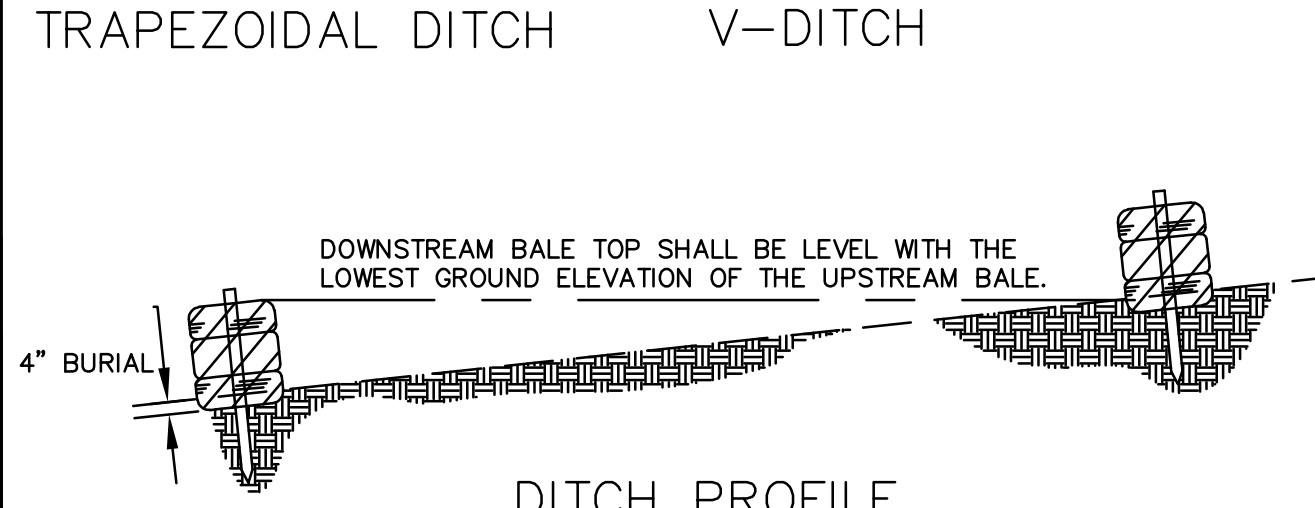
CHECK DAMS
CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI



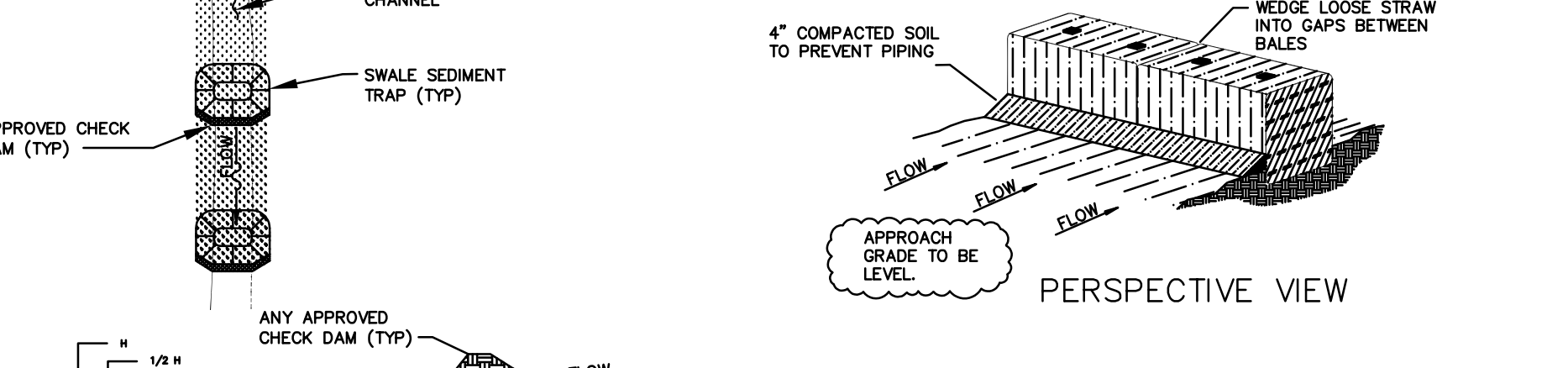
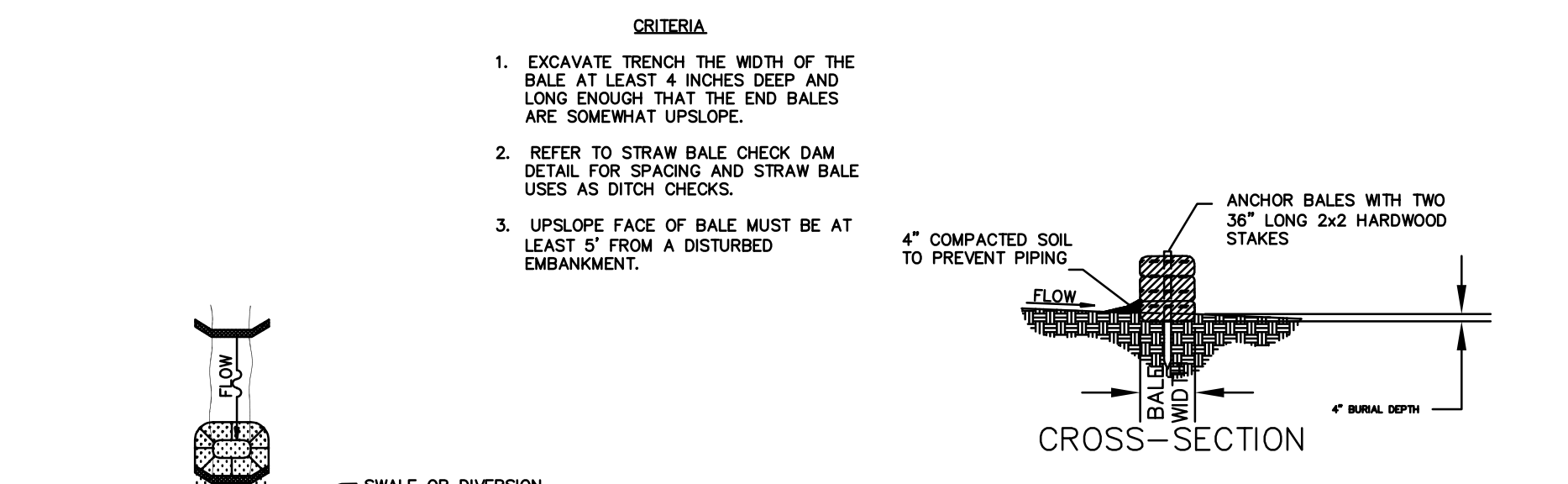
- CRITERIA FOR LOW CONCENTRATED FLOWS**
- DRAINAGE AREAS SHALL BE LESS THAN 1 ACRE.
 - INSTALL TWO STAKES PER BALE.
 - BALES WILL BE TRENCHED 4" DEEP INTO EARTH.
 - MAXIMUM CHANNEL SLOPE OF 3%.
 - SEDIMENTATION TRAPS TO BE USED IN HIGHLY EROSION AREAS.

CHECK DAM SPACING

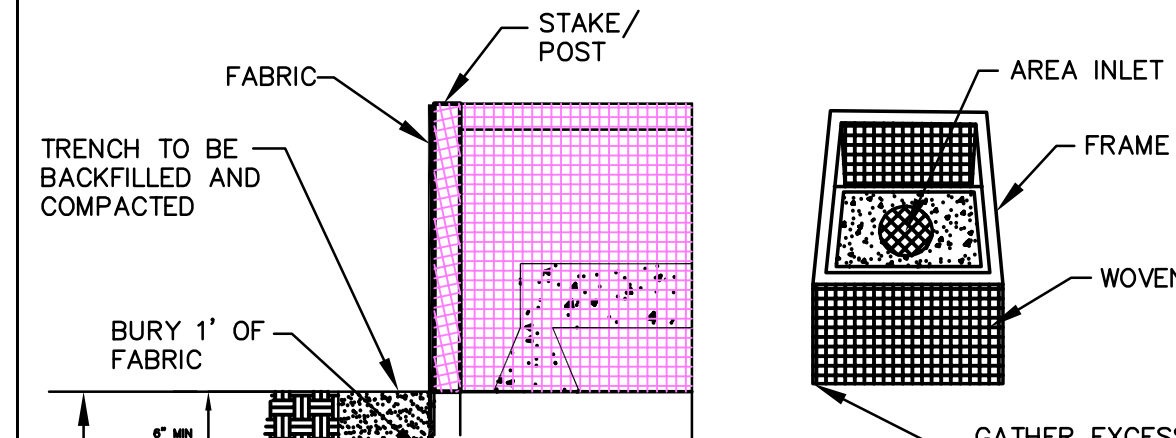
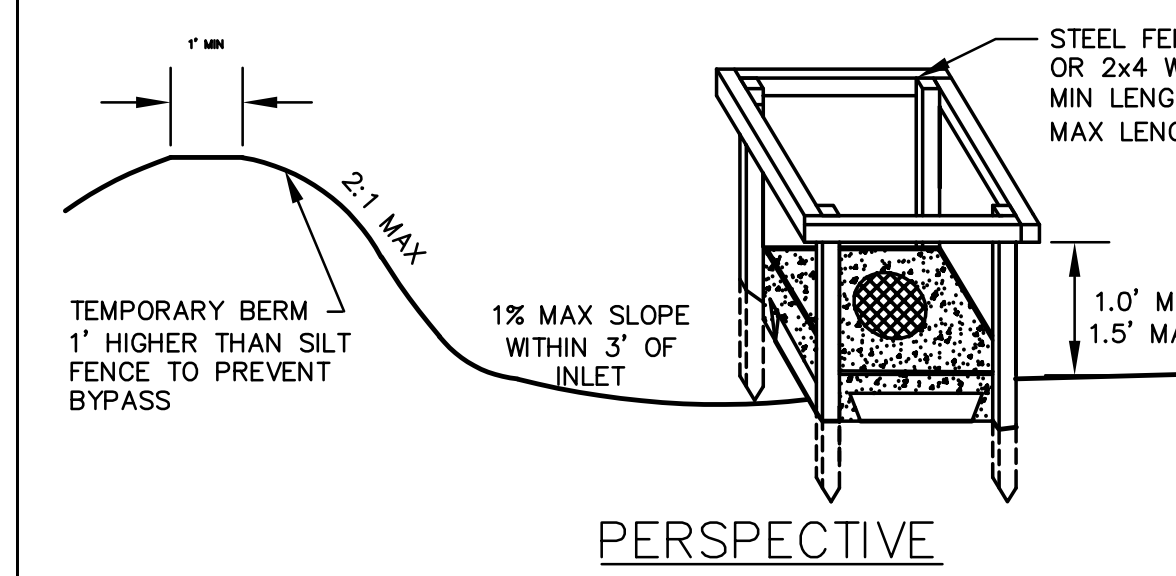
Ditch Slope	Maximum Spacing
3%	50%
2%	75%



STRAW BALE CHECK DAM
CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

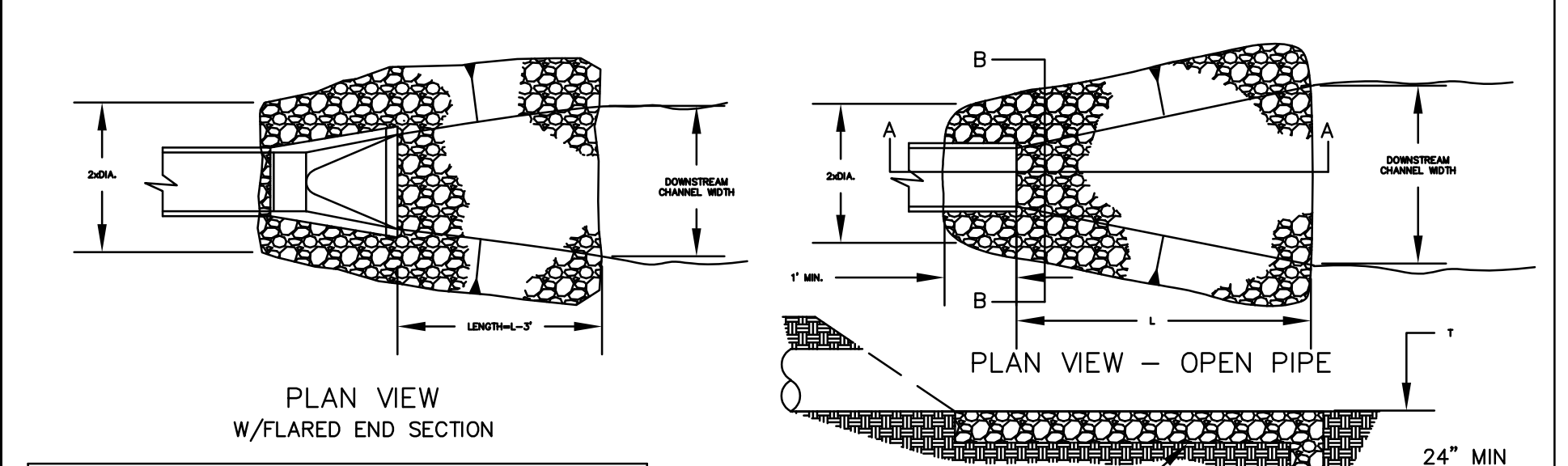


SWALE SEDIMENT TRAP STRAW BALE BARRIER INSTALLATION
CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI



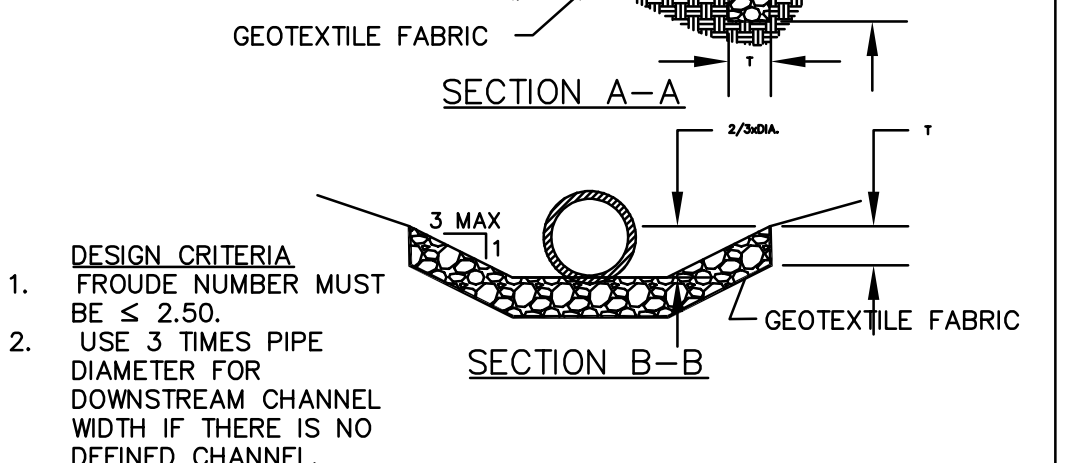
- DESIGN CRITERIA**
- MAXIMUM DRAINAGE AREA - 1 ACRE.
 - PEAK RUNOFF SHALL NOT EXCEED 2 CFS BASED ON A 6-MONTH STORM EVENT.
 - OTHER SEDIMENT PROTECTION PRODUCTS MAY BE USED, SUCH AS FITR FENCE™.

St. Charles County Erosion & Sediment Controls Standard Drawings
AREA INLET PROTECTION FABRIC DROP
DATE: MARCH 2008 DRAWING: ESC-14



RIPRAP SIZE & APRON DIMENSION

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



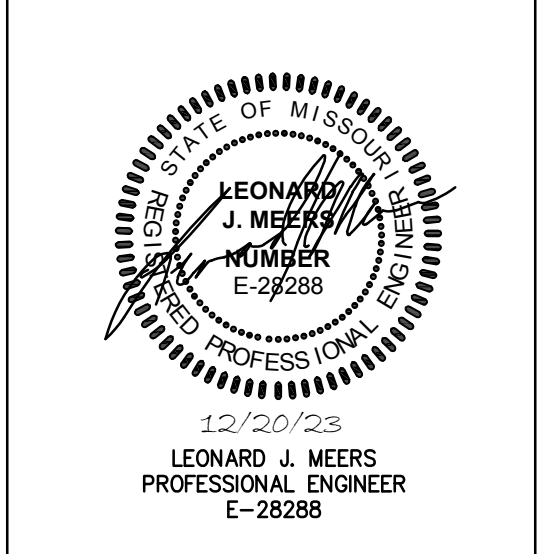
- DESIGN CRITERIA**
- FROUDE NUMBER MUST BE ≤ 2.50.
 - USE 3 TIMES PIPE DIAMETER FOR DOWNSTREAM CHANNEL WIDTH IF THERE IS NO DEFINED CHANNEL.
 - BANK PROTECTION HEIGHT TO BE 2/3 TIMES PIPE DIAMETER.
 - ROCK SLOPES SHALL BE NO STEEPER THAN 3:1.

TEMPORARY OUTLET PIPE DISCHARGE PROTECTION
CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

NO.	DESCRIPTION	DATE
▲	CITY COMMENTS	11-30-2023
▲	CITY COMMENTS	12-20-2023
▲		
▲		
▲		

PROJECT TITLE
O'FALLON YMCA
3451 PHEASANT MEADOW DRIVE O'FALLON, MO 63368

GRIMES CONSULTING, INC.
Civil Engineering & Surveying Services
SUITE 3000
12300 OLD TESSON ROAD
ST. LOUIS, MO 63108
TEL: (314) 849-6100
FAX: (314) 849-6010
www.grimesconsulting.com



LEONARD J. MEERS
PROFESSIONAL ENGINEER
E-28288

Developer / Owner Information
527 ARCHITECTS, P.C.
CONTACT: STEVE HUNSICKER
131 W. ARGONNE, ST. LOUIS, MO 63122
Email: steve@527architects.com

P+Z No.
Approval Date:

City No.

Page No.
C7.0

SITE DETAILS