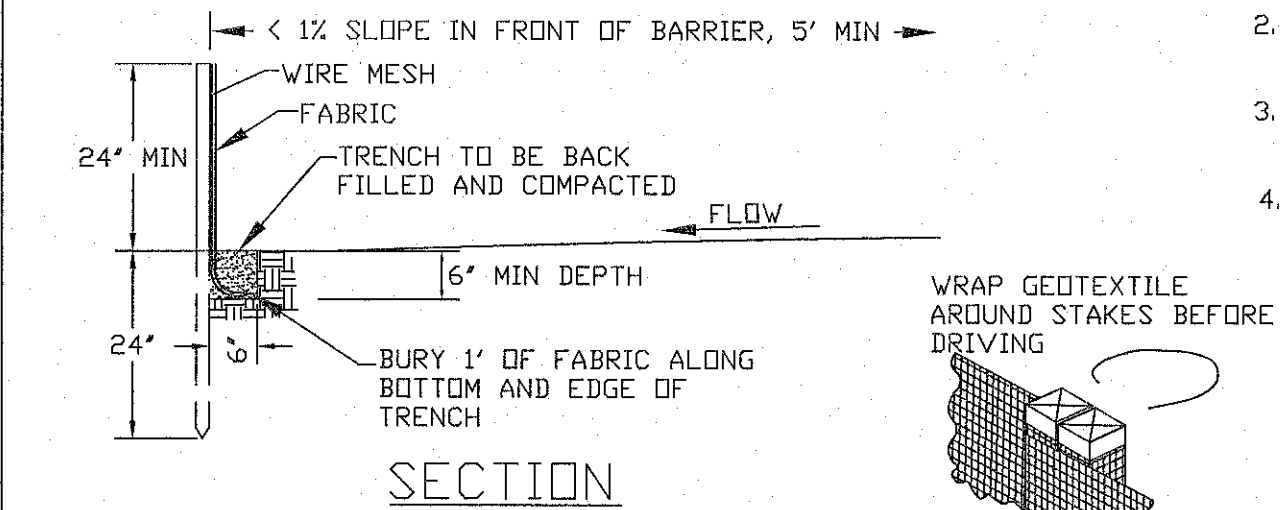
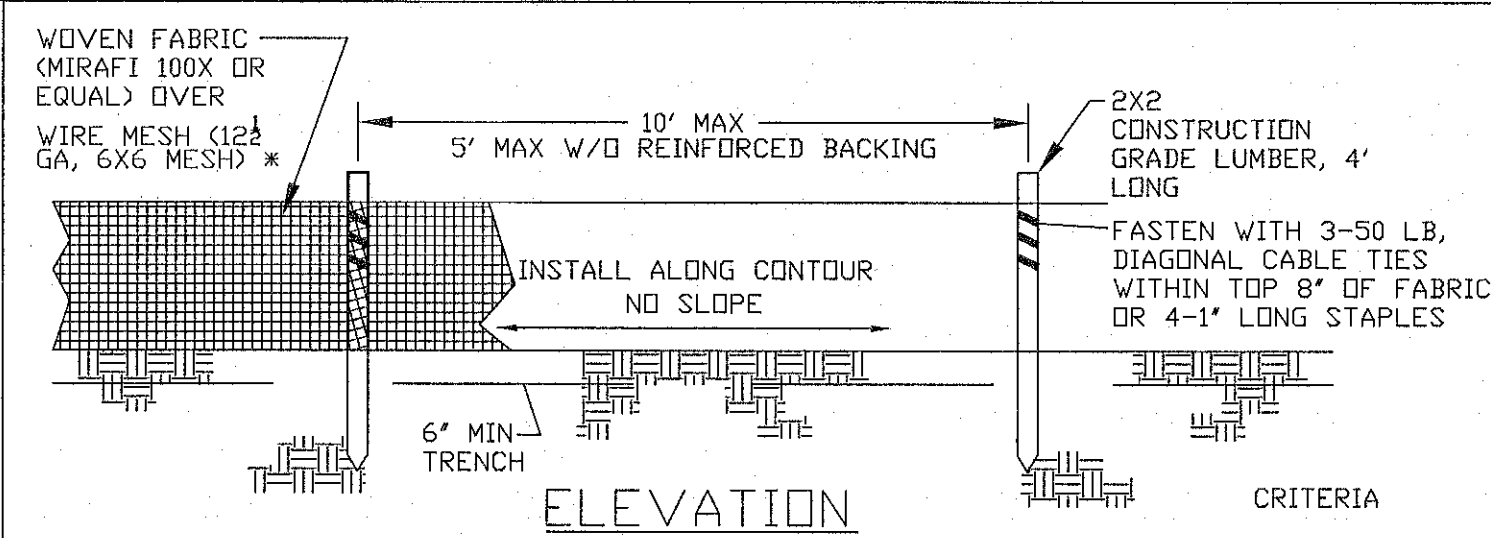


- DESIGN CRITERIA**
- SILT FENCE FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
 - STRAW BALE BARRIERS FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
 - REFER TO INDIVIDUAL ESC FIGURE FOR INSTALLATION.
 - TERRACING INCLUDES LOGS, WATTLES & FILTER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

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O'FALLON, MISSOURI

**SPACING CHART
FOR ESC DEVICES**



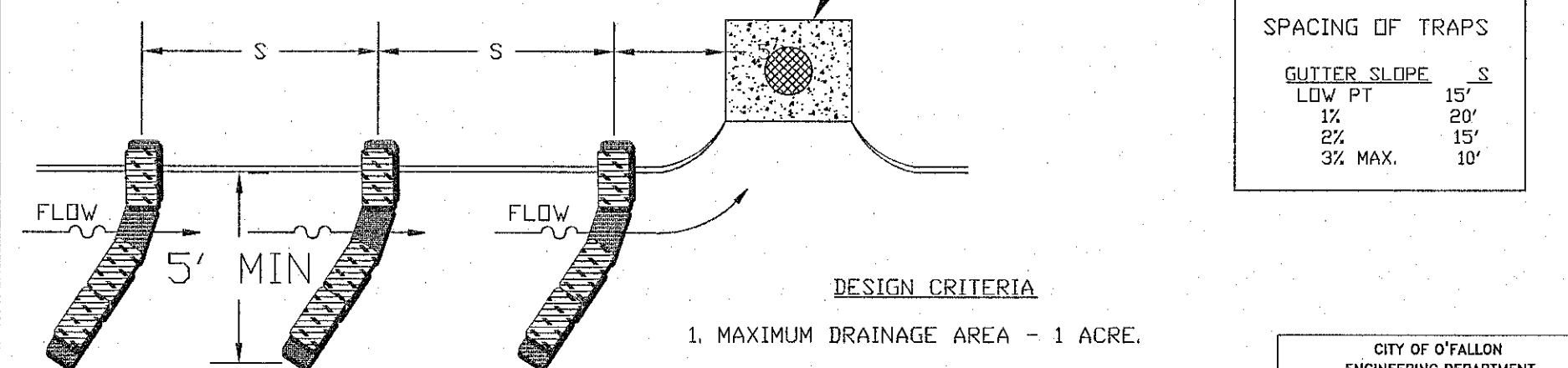
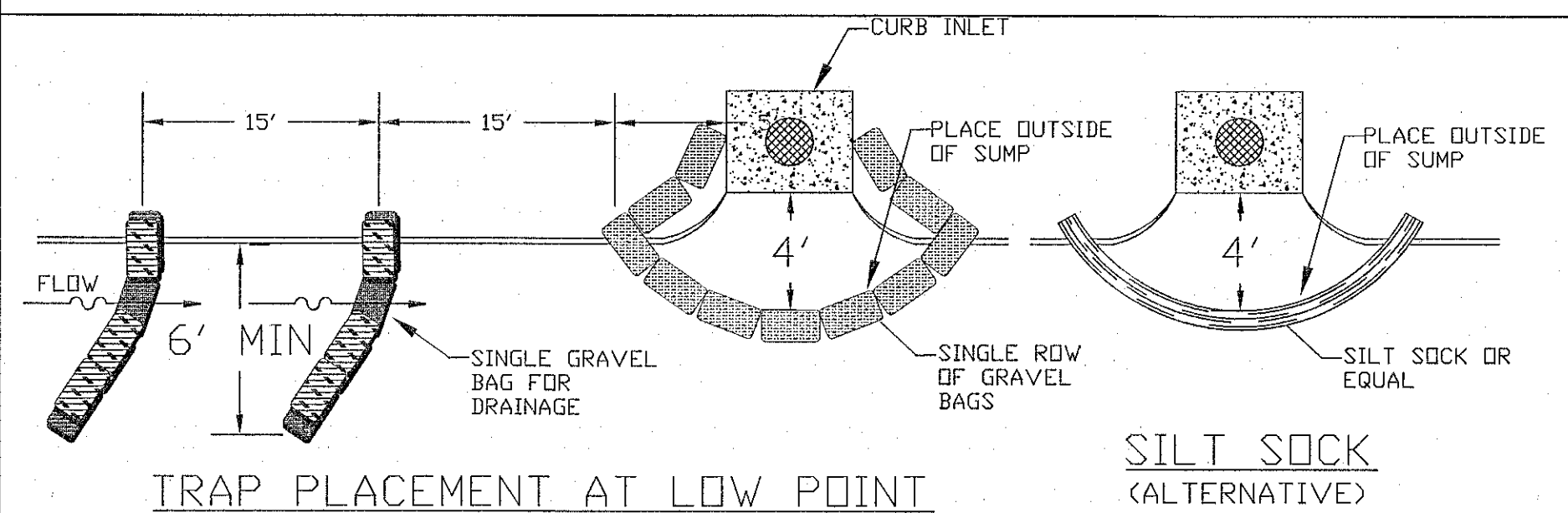
- CRITERIA**
- SILT FENCE SHALL BE 24 INCHES HIGH.
 - SILT FENCE SHALL NOT BE USED FOR CONCENTRATED FLOWS.
 - GEOSYNTHETIC REINFORCED SILT FENCE BACKING MAY BE USED IN LIEU OF WIRE MESH.
 - WIRE MESH WILL BE USED AT LOCATIONS SHOWN ON THE APPROVED SWPPP.

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)**

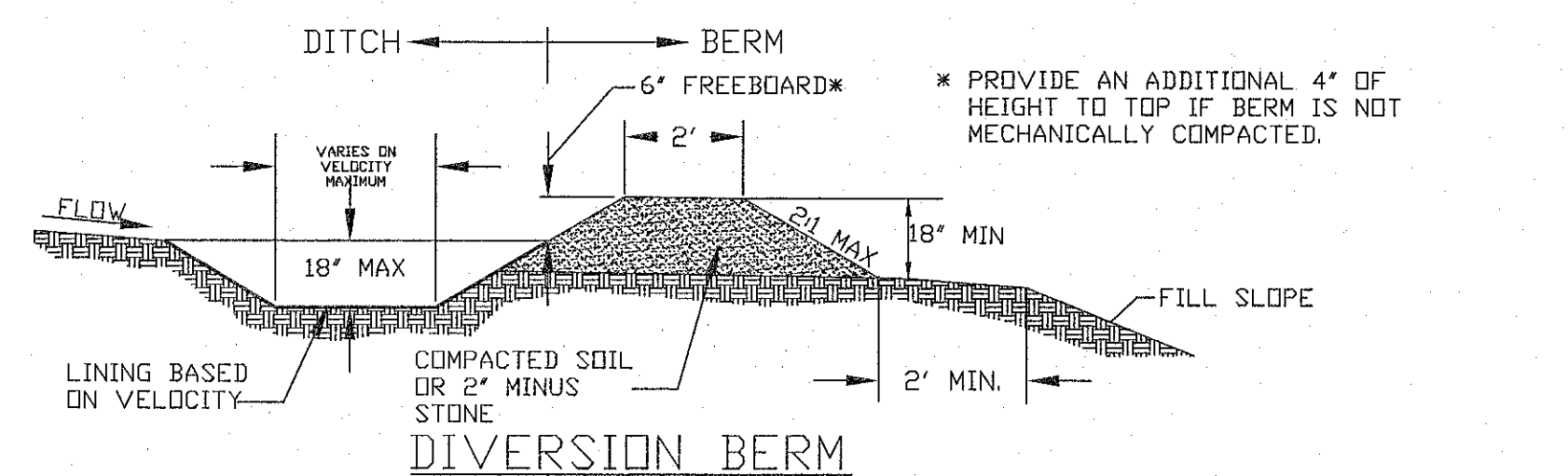


- DESIGN CRITERIA**
- MAXIMUM DRAINAGE AREA - 1 ACRE.
 - PEAK RUNOFF SHALL BE ≤ 2 CFS BASED ON THE 6-MONTH STORM.
 - STACK GRAVEL BAGS DOUBLE HIGH. PROVIDE GAP FOR DRAINAGE.

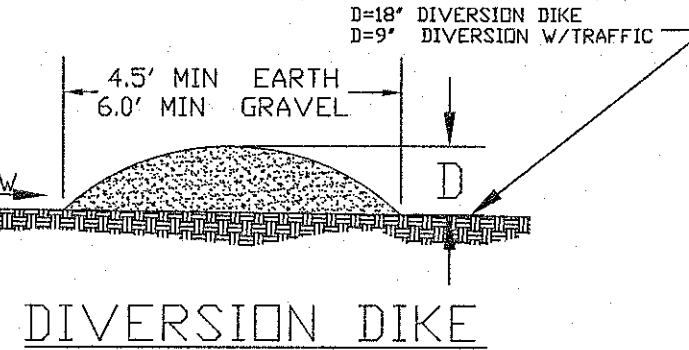
CITY OF O'FALLON
ENGINEERING DEPARTMENT
O'FALLON, MISSOURI

**CURB INLET
PROTECTION**

ESC-17



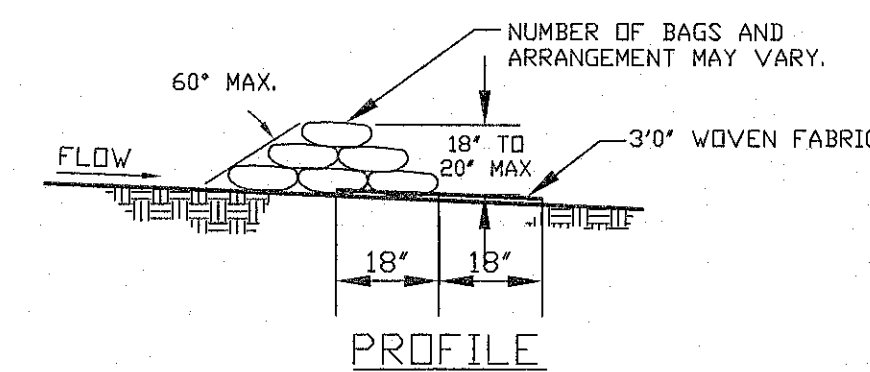
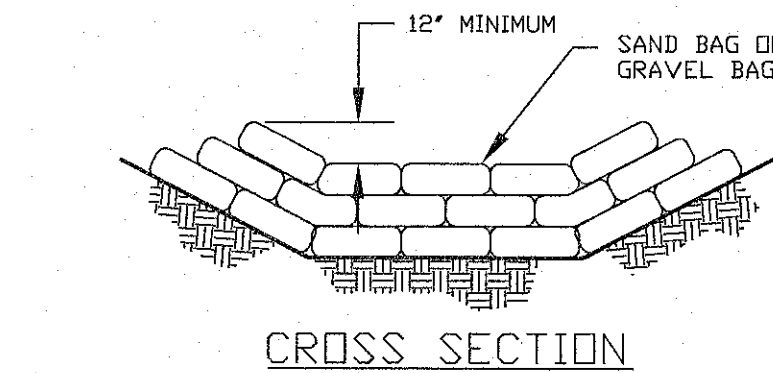
- DESIGN CRITERIA**
- DIVERSIONS SHALL BE USED FOR DRAINAGE AREAS ≤ 3 ACRES.
 - DIVERSION CHANNELS SHALL BE DESIGNED TO CONVEY THE 6-MO STORM AT NON-EROSIVE VELOCITIES.
 - CRITICAL LOCATIONS SHALL BE DESIGNED FOR THE 15YR / 20MIN. STORM.
 - MAXIMUM CHANNEL SLOPE OF 3% WITHOUT CHECK DAMS.
 - SWALE SEDIMENT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



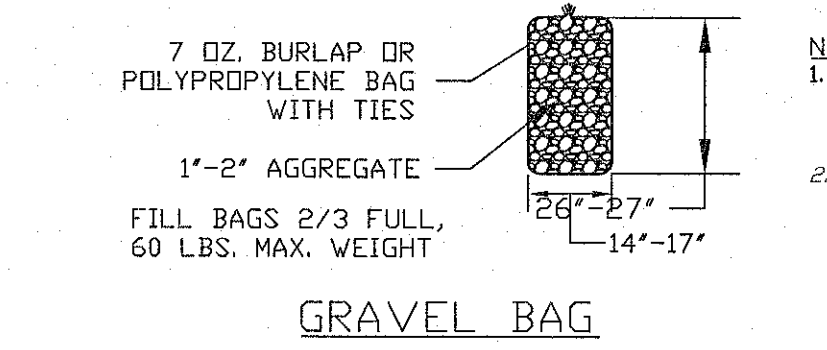
CITY OF O'FALLON
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O'FALLON, MISSOURI

**DIVERSION BERMS
+ DIKES**

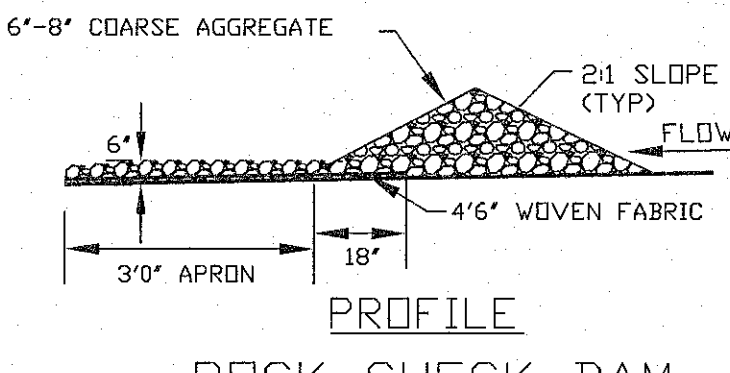
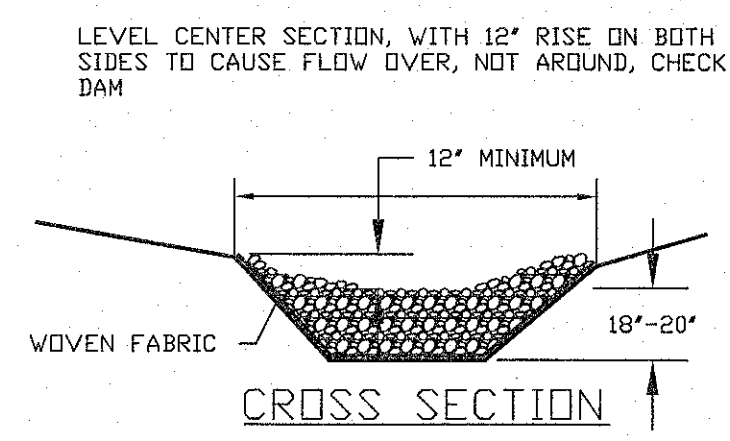
ESC-13



**SAND BAG OR GRAVEL BAG
CHECK DAM**



GRAVEL BAG



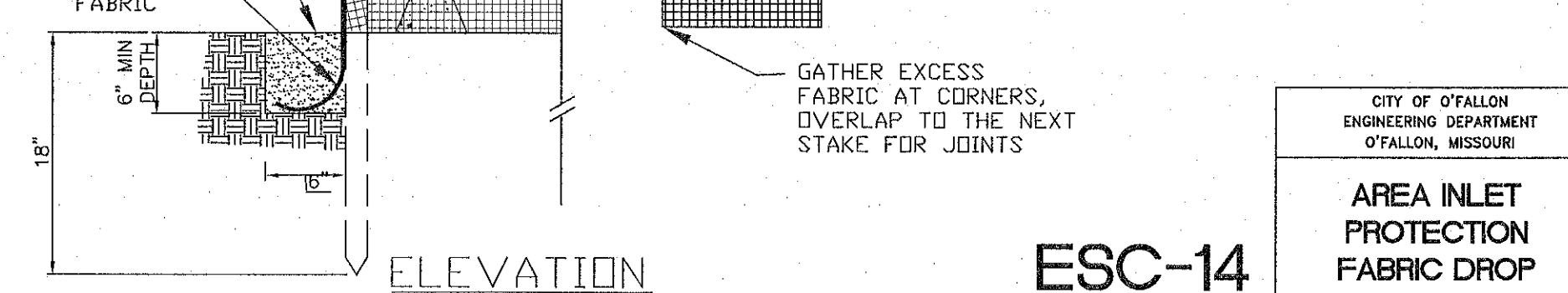
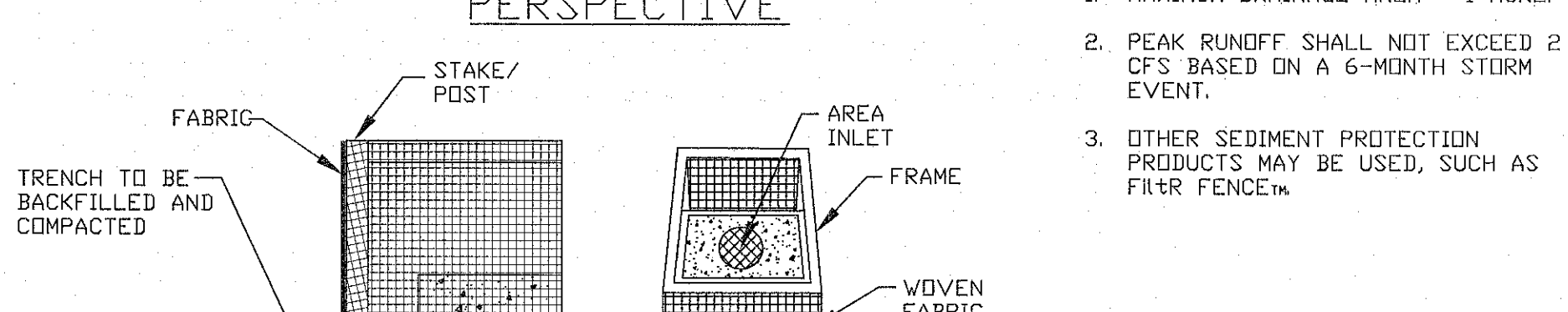
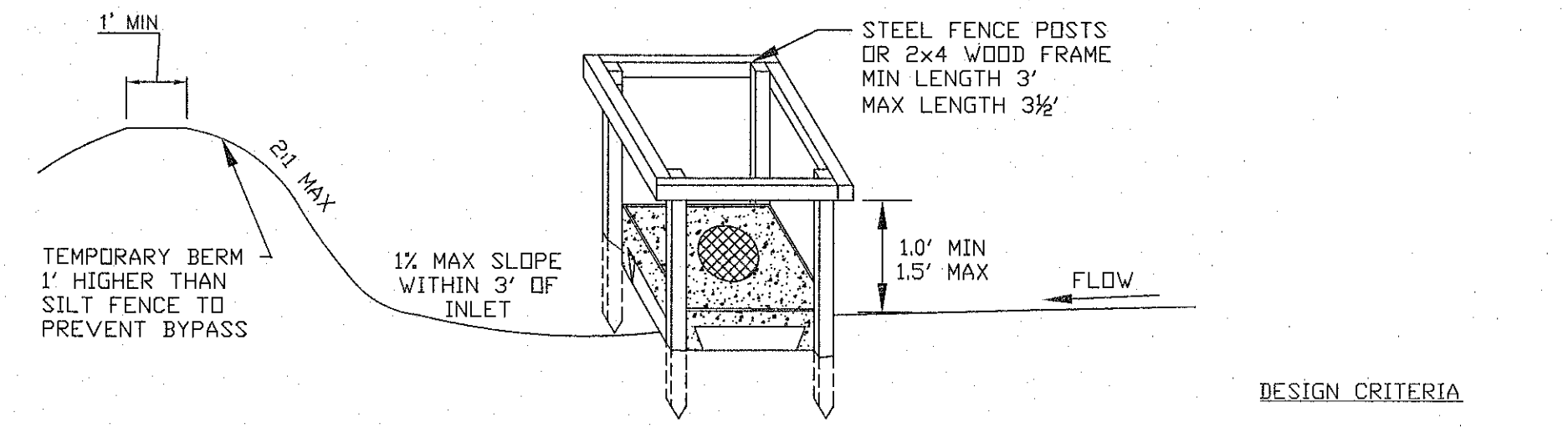
**PROFILE
ROCK CHECK DAM**

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

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CHECK DAMS

ESC-21

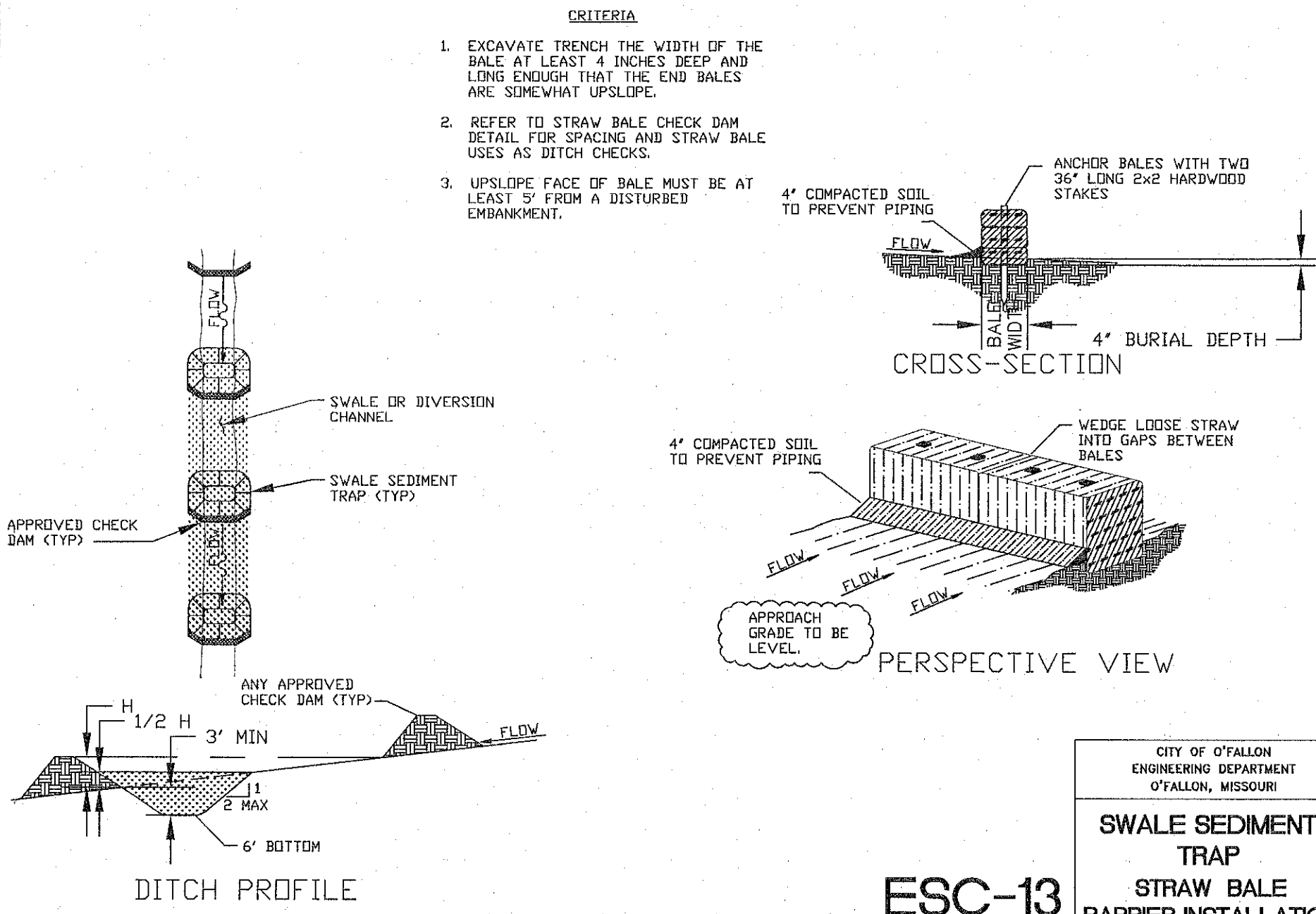


- DESIGN CRITERIA**
- MAXIMUM DRAINAGE AREA - 1 ACRE.
 - PEAK RUNOFF SHALL NOT EXCEED 2 CFS BASED ON A 6-MONTH STORM EVENT.
 - OTHER SEDIMENT PROTECTION PRODUCTS MAY BE USED, SUCH AS FILTER FENCES.

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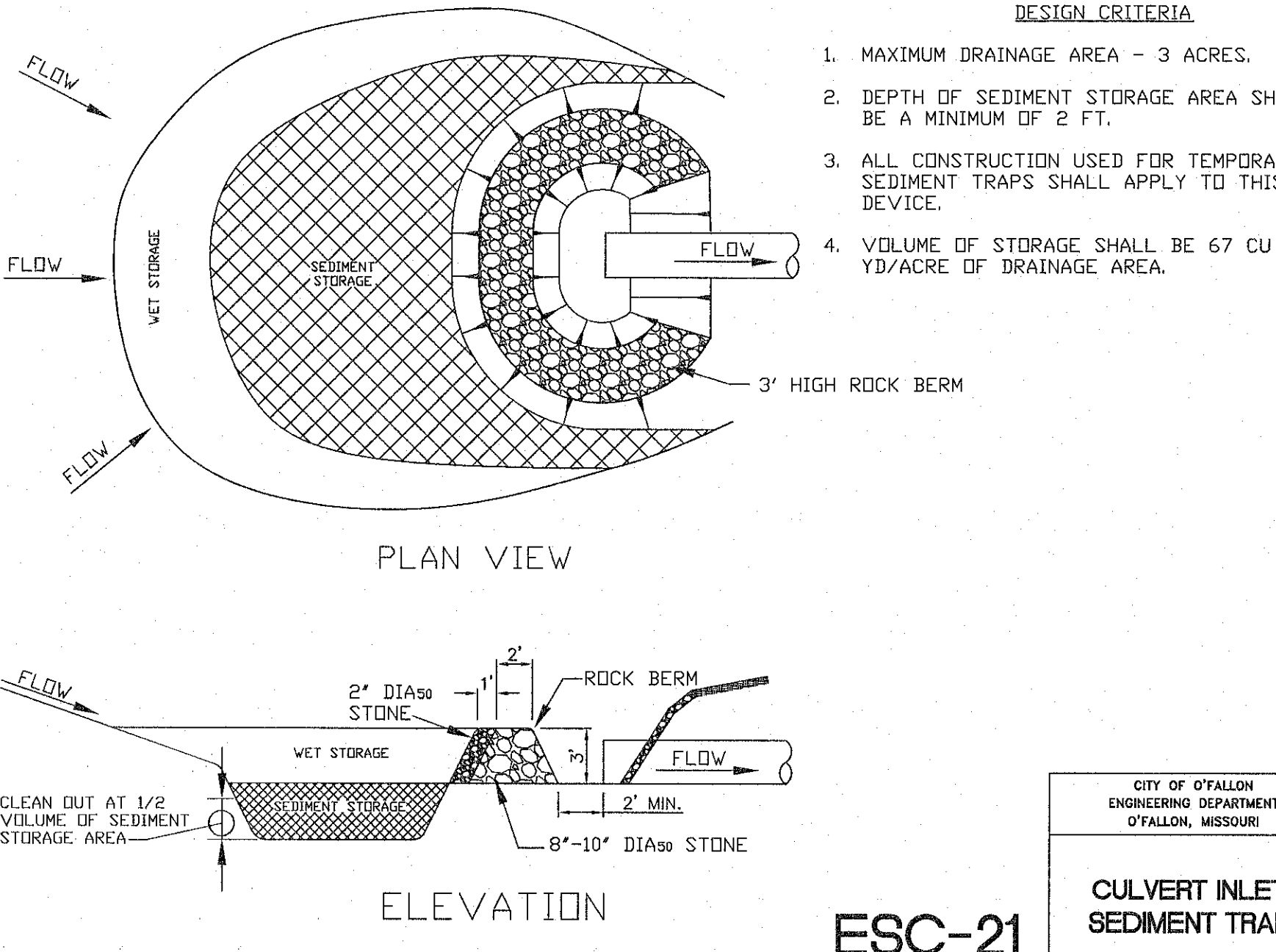
**AREA INLET
PROTECTION
FABRIC DROP**

ESC-14



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

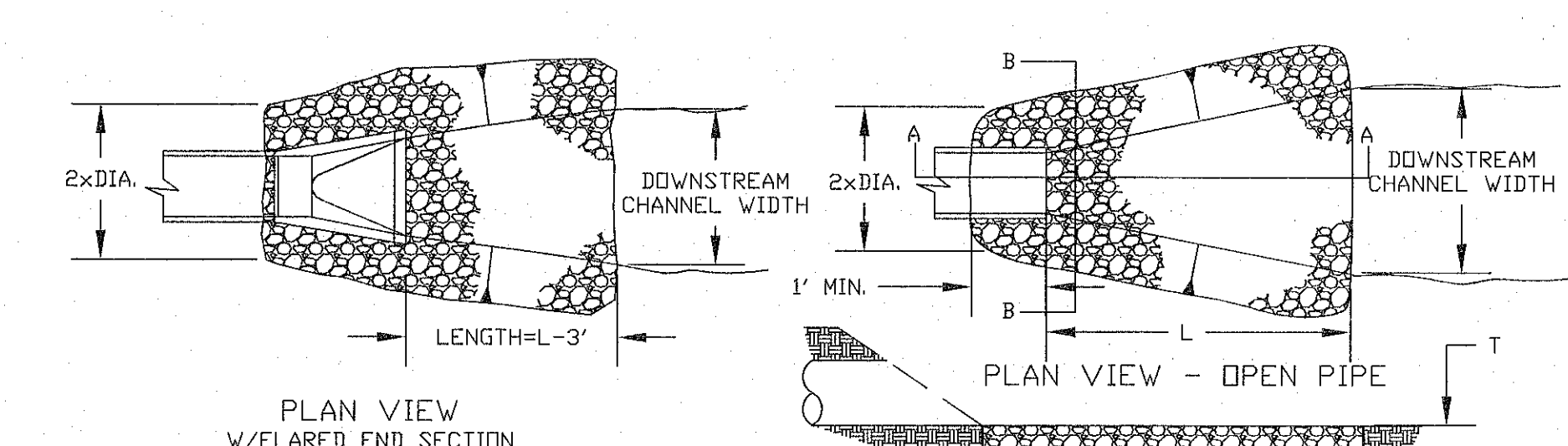
**SWALE SEDIMENT
TRAP
STRAW BALE
BARRIER INSTALLATION**



- DESIGN CRITERIA**
- MAXIMUM DRAINAGE AREA - 3 ACRES.
 - DEPTH OF SEDIMENT STORAGE AREA SHALL BE A MINIMUM OF 2 FT.
 - ALL CONSTRUCTION USED FOR TEMPORARY SEDIMENT TRAPS SHALL APPLY TO THIS DEVICE.
 - VOLUME OF STORAGE SHALL BE 67 CU YD/ACRE OF DRAINAGE AREA.

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**CULVERT INLET
SEDIMENT TRAP**



**PLAN VIEW
W/ FLARED END SECTION**

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			
d ₉₀	d ₅₀	T	L	d ₉₀	d ₅₀	T	L	d ₉₀	d ₅₀	T	L
(inch)	(inch)	(inch)	(inch)	(inch)	(inch)	(inch)	(inch)	(inch)	(inch)	(inch)	(inch)
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	9	15	18	14	14	24	22				
36-42	14	24	22	12	18	27	26				
48-54	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			

d₅₀ - NOMINAL DIAMETER
d₉₀ - MAXIMUM DIAMETER
T - THICKNESS
L - LENGTH

- 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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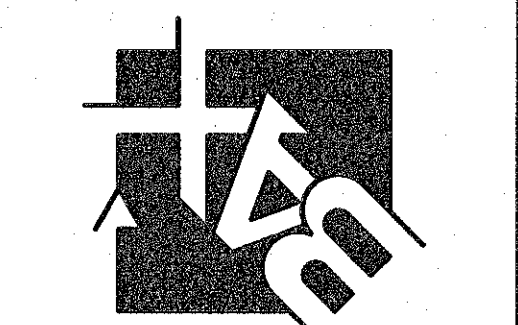
**TEMPORARY OUTLET
PIPE DISCHARGE
PROTECTION**

PROJECT TITLE:

**KEYSTONE
RIDGE**

**ENGINEERING
PLANNING
SURVEYING**

221 Point View Blvd.
St. Charles, MO 63301
636-928-6652
FAX 636-928-1718



DISCLAIMER OF RESPONSIBILITY

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

DATE	CITY COMMENTS
05/01/17	CITY COMMENTS
07/20/17	CITY COMMENTS
08/07/17	CITY COMMENTS
08/21/17	CITY COMMENTS
08/31/17	CITY COMMENTS
10/02/17	CITY COMMENTS

Developer / Owner:

KEYSTONE RIDGE LAND, LLC
10328 LAKE BLUFF DRIVE
ST. LOUIS, MO 63123
314-892-3030 EXT. 121

P+Z No. #32-16

City No. #

Page No.

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

REFERENCE DETAILS