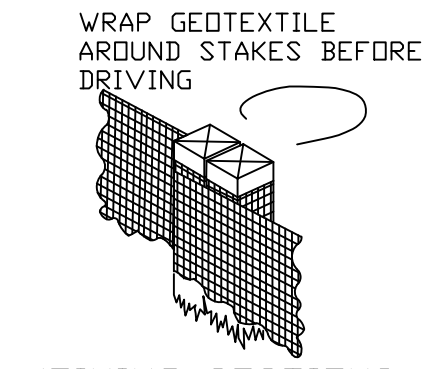
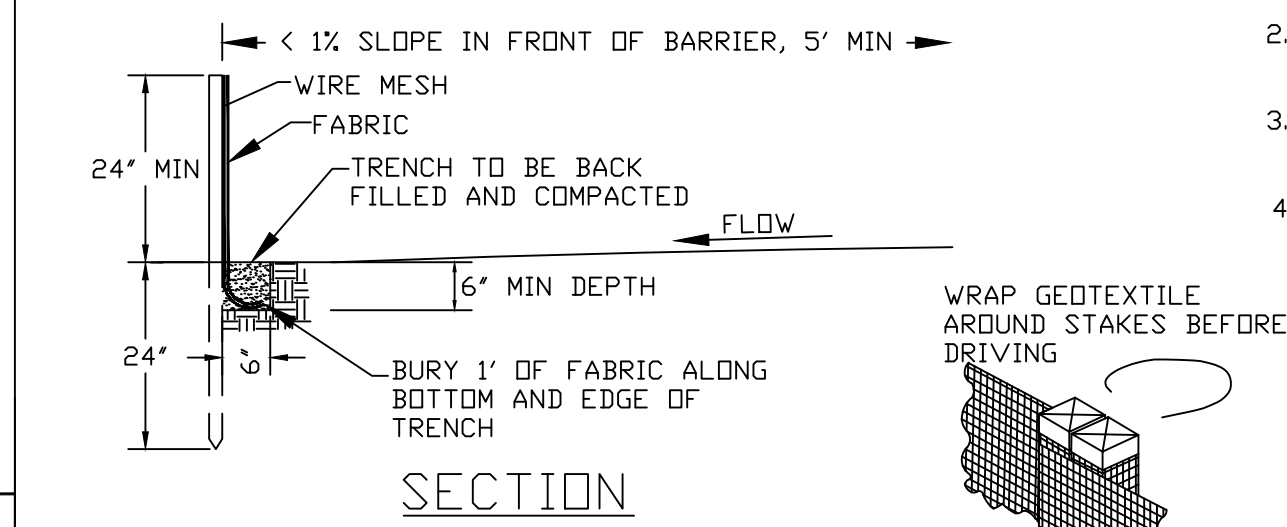
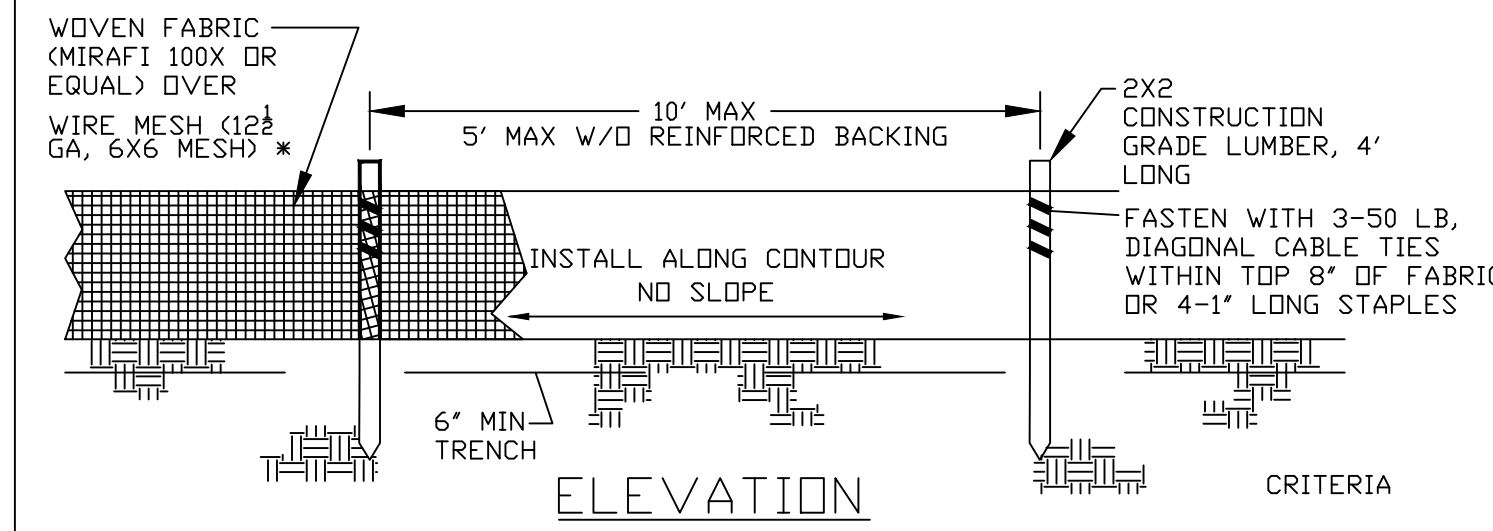


- DESIGN CRITERIA**
- SILT FENCE FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
  - STRAW BALE BARRIERS FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
  - REFER TO INDIVIDUAL ESC FIGURE FOR INSTALLATION.
  - TERRACING INCLUDES LOGS, WATTLES & FILTER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

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ENGINEERING DEPARTMENT  
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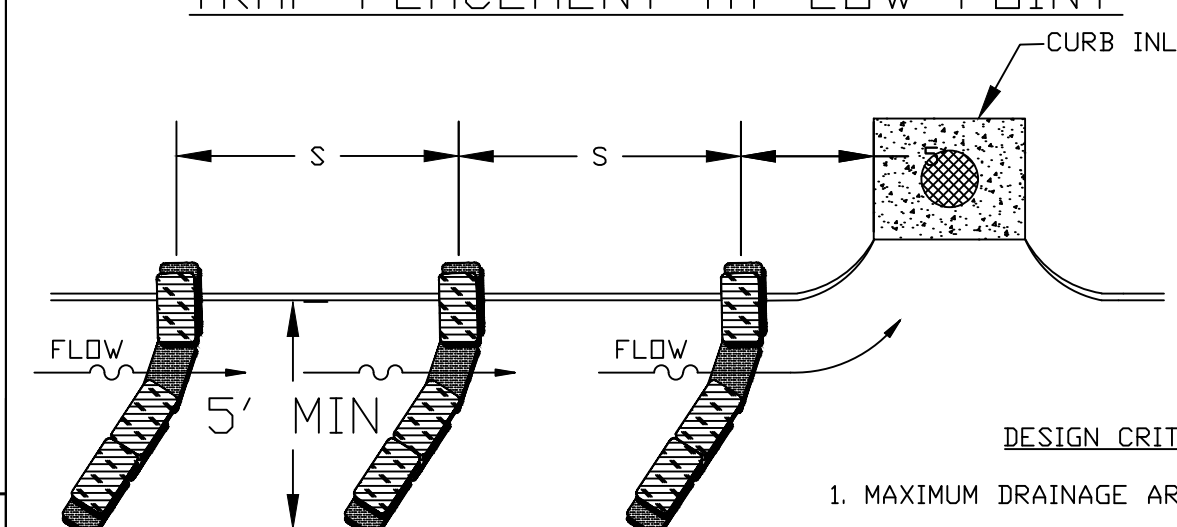
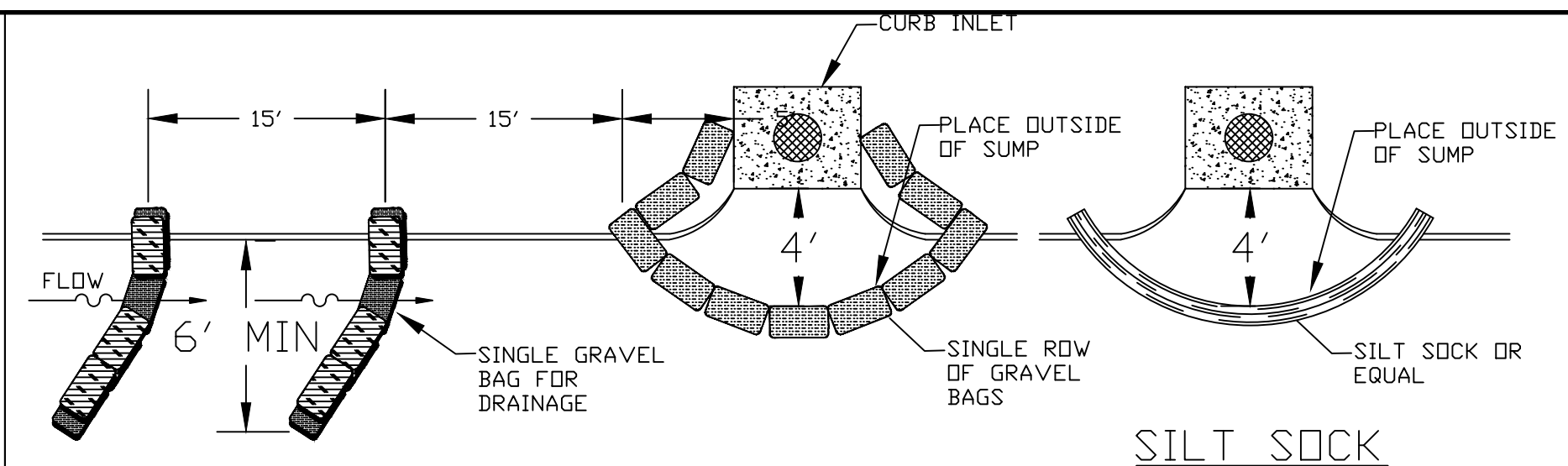
**SPACING CHART FOR ESC DEVICES**



- 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**



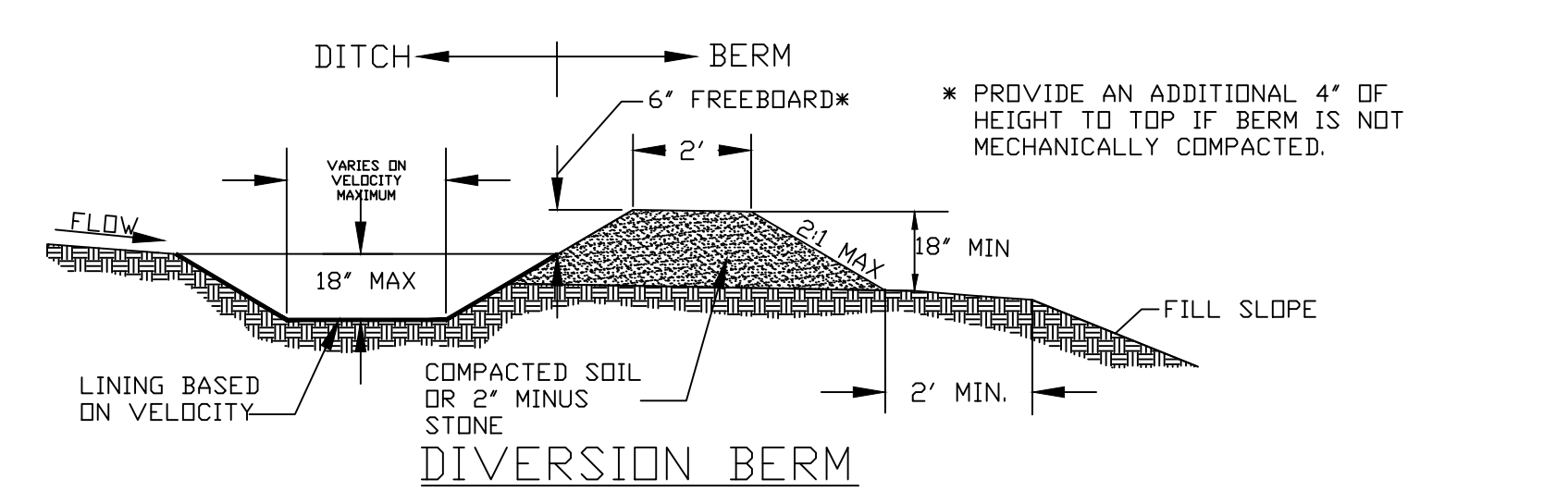
- DESIGN CRITERIA**
- MAXIMUM DRAINAGE AREA - 1 ACRE.
  - PEAK RUNOFF SHALL BE 52 CFS BASED ON THE 6-MONTH STORM.
  - STACK GRAVEL BAGS DOUBLE HIGH. PROVIDE GAP FOR DRAINAGE.

**SPACING OF TRAPS**

|              |     |
|--------------|-----|
| GUTTER SLOPE | S   |
| LOW PT       | 15' |
| 2%           | 20' |
| 3% MAX.      | 15' |

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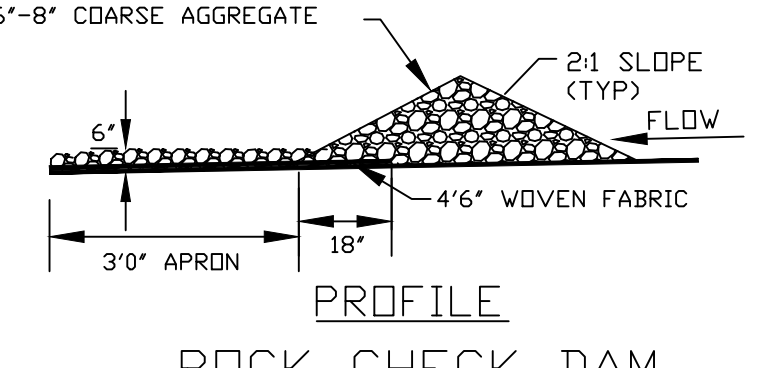
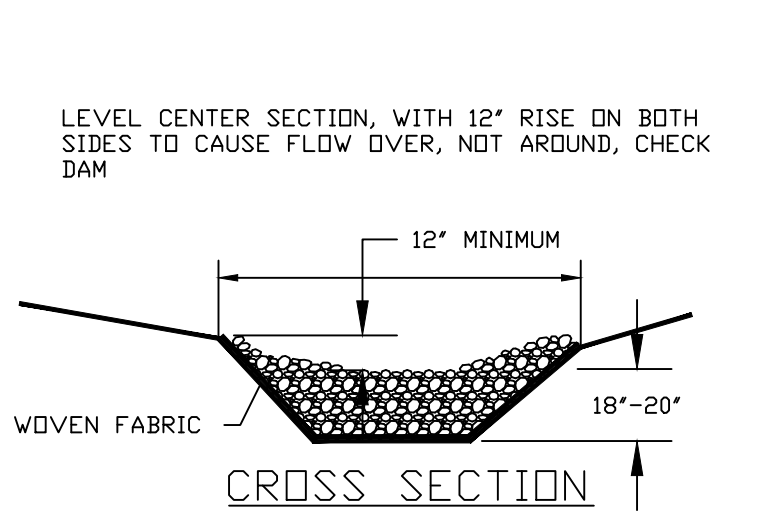
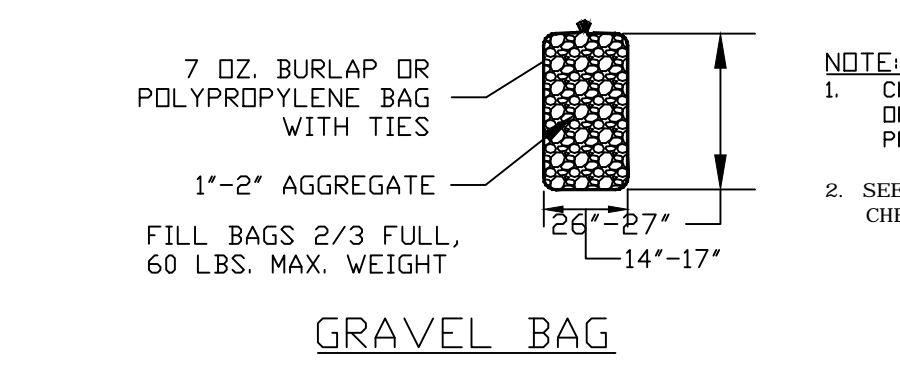
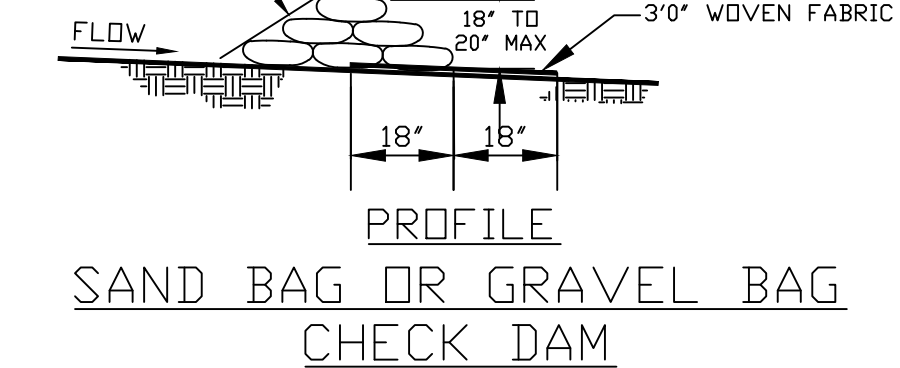
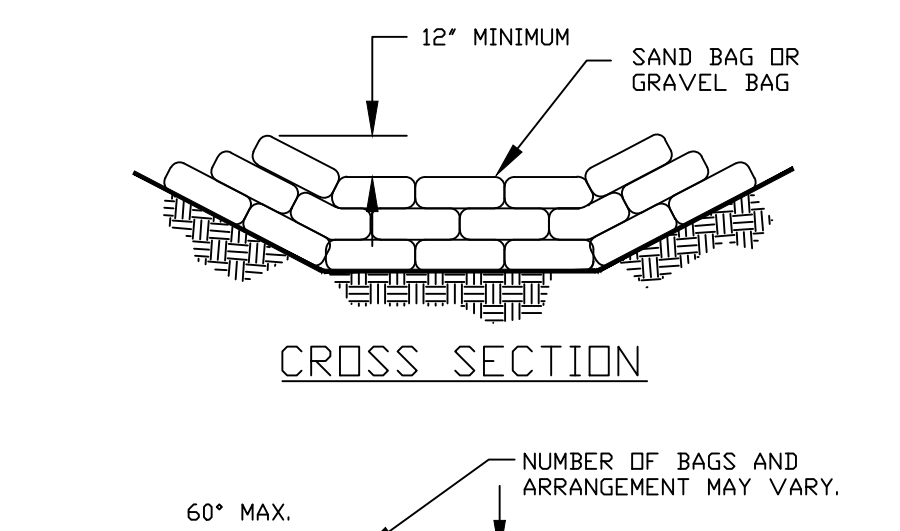
**CURB INLET PROTECTION**



- 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 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.

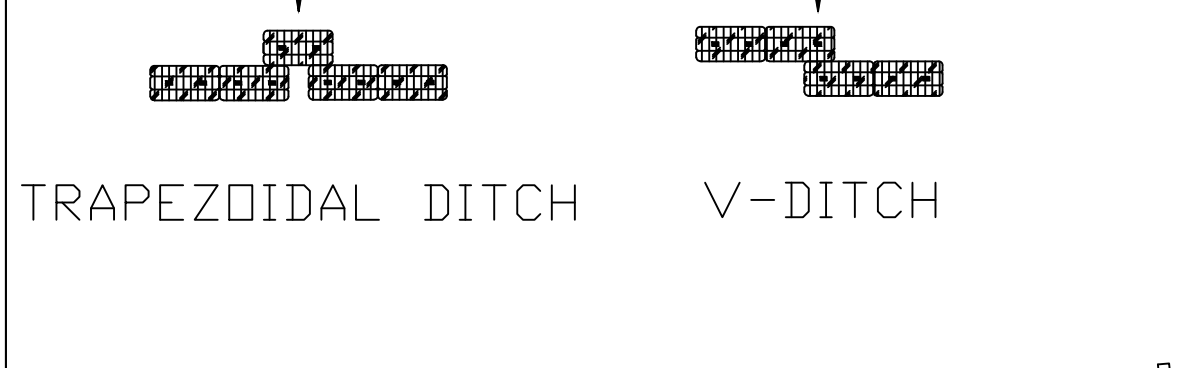
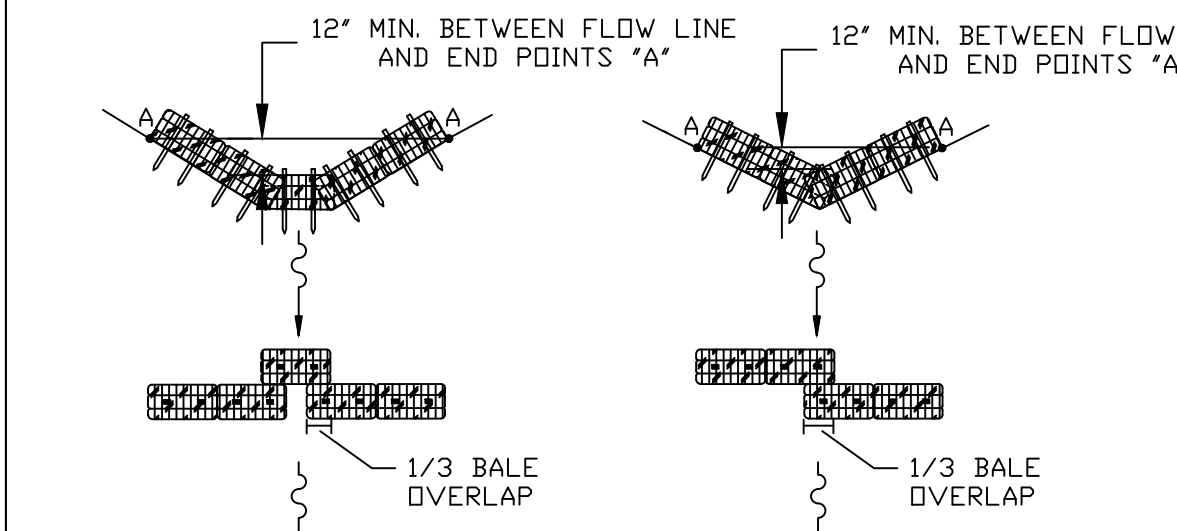
CITY OF O'FALLON  
ENGINEERING DEPARTMENT  
O'FALLON, MISSOURI

**DIVERSION BERMS + DIKES**



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ENGINEERING DEPARTMENT  
O'FALLON, MISSOURI

**CHECK DAMS**



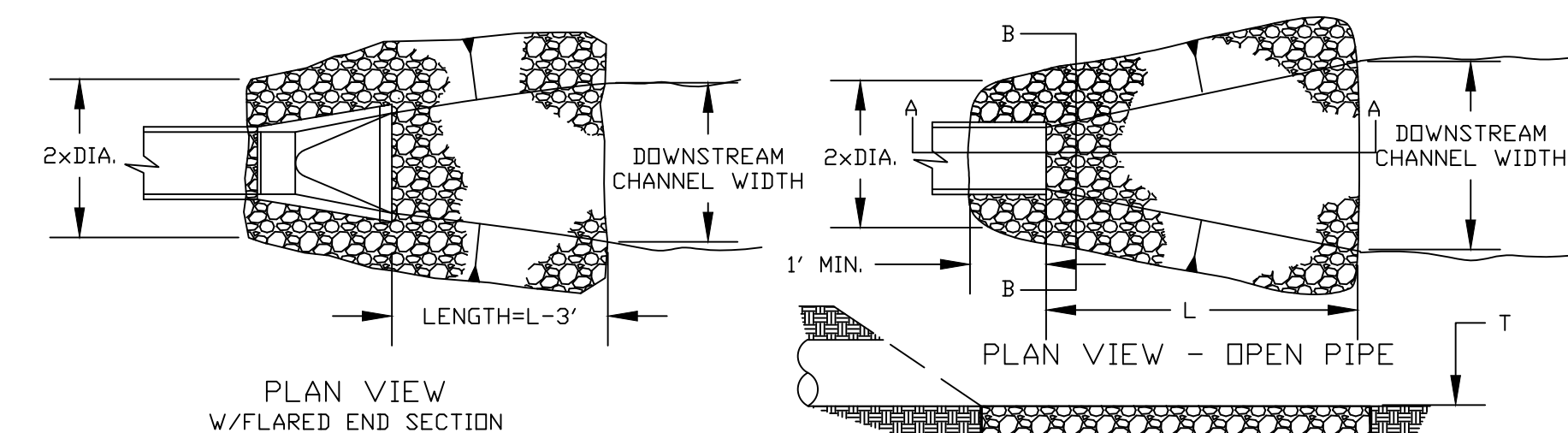
- CRITERIA FOR LOW CONCENTRATED FLOWS**
- DRAINAGE AREAS SHALL BE LESS THAN 1 ACRE.
  - INSTALL TWO STAKES PER BALE.
  - BALES WILL BE TRENCHED 4' DEEP INTO EARTH.
  - MAXIMUM CHANNEL SLOPE OF 3%.
  - SEDIMENTATION TRAPS TO BE USED IN HIGHLY ERODITIVE AREAS.

**CHECK DAM SPACING**

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

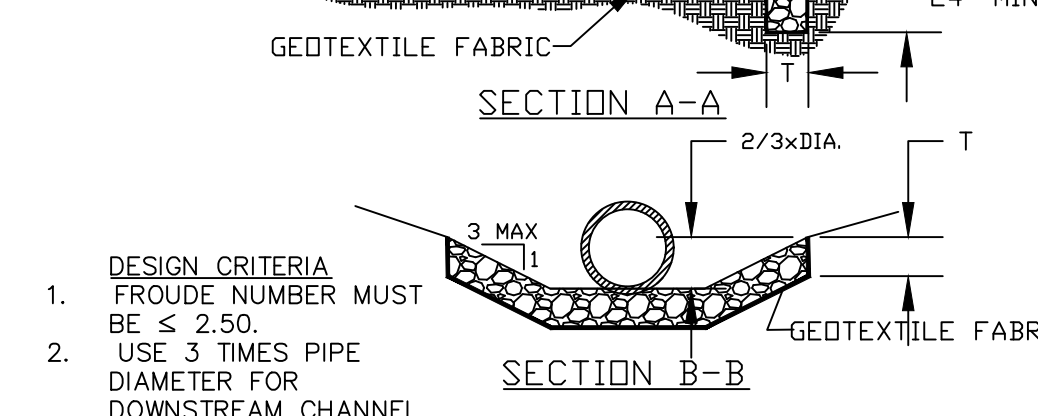
CITY OF O'FALLON  
ENGINEERING DEPARTMENT  
O'FALLON, MISSOURI

**STRAW BALE CHECK DAM**



**RIPRAP SIZE & APRON DIMENSION**

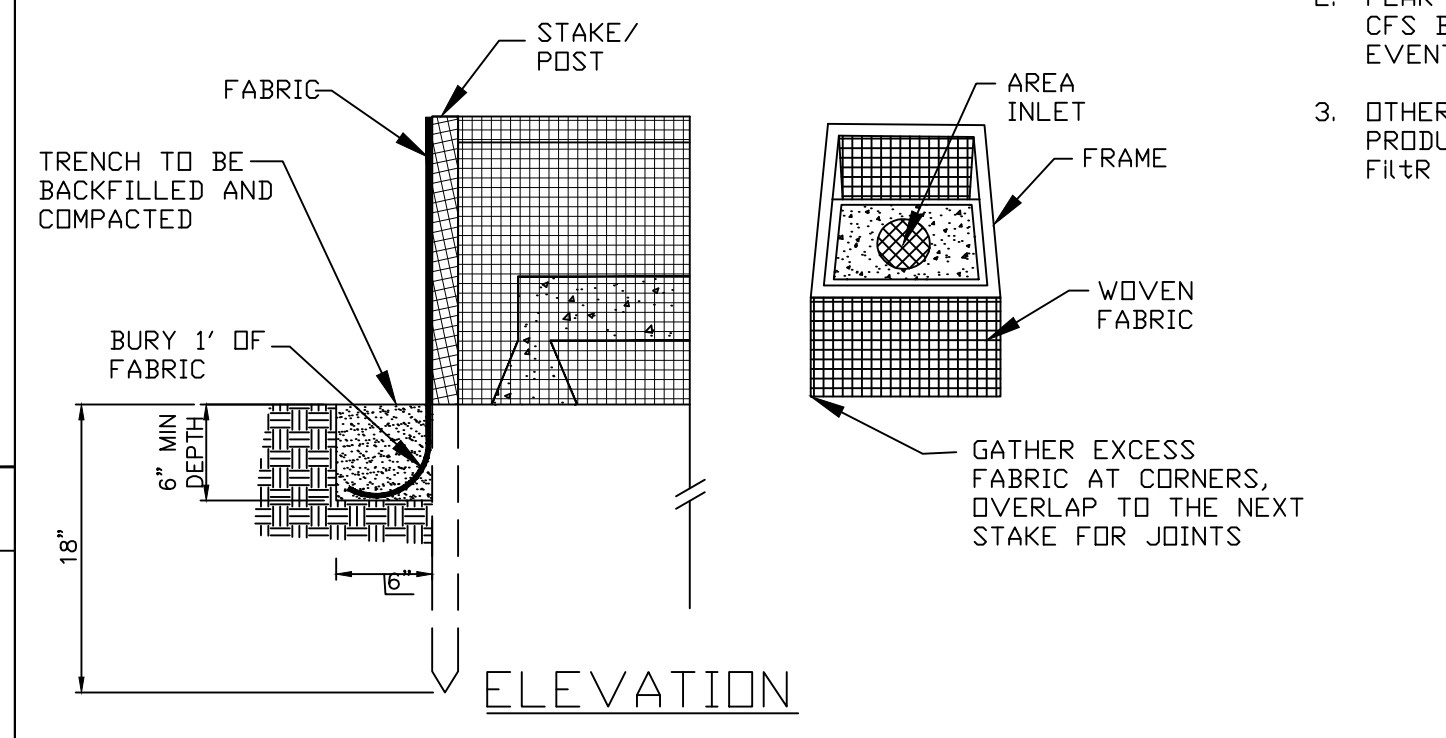
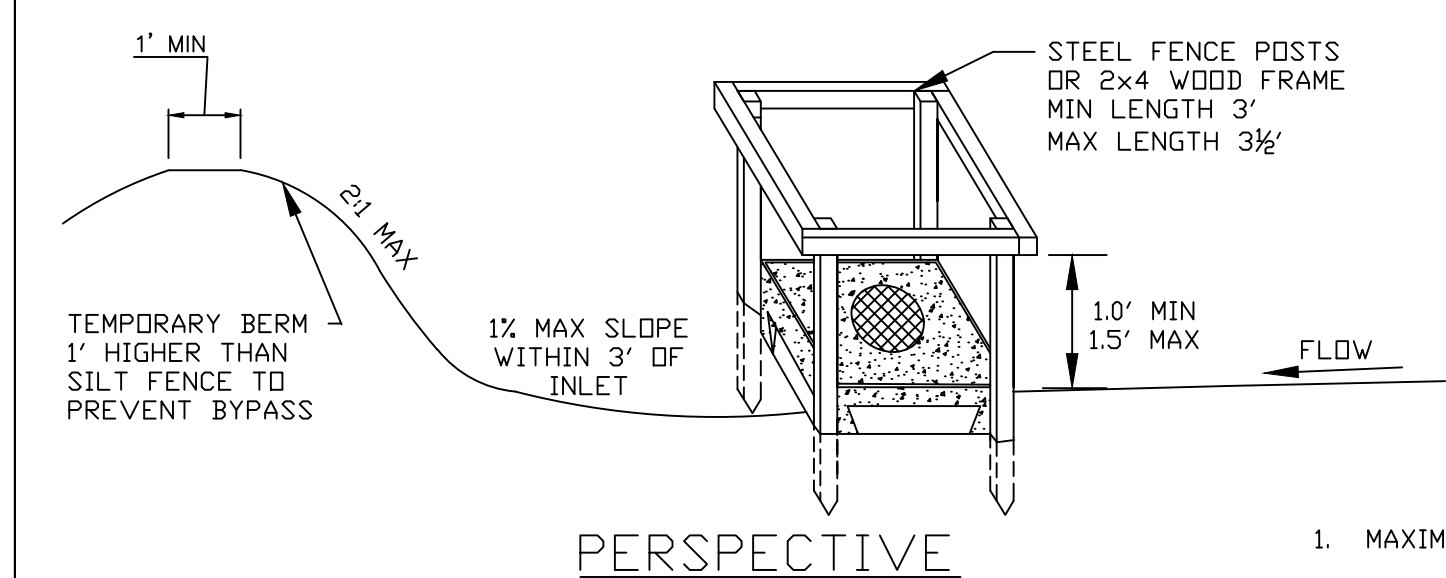
| PIPE SIZE | VELOCITY < 5 FPS |           |           |           | VELOCITY < 10 FPS |           |           |           |        |      |
|-----------|------------------|-----------|-----------|-----------|-------------------|-----------|-----------|-----------|--------|------|
|           | ROCK SIZE        | APRON DIM | ROCK SIZE | APRON DIM | ROCK SIZE         | APRON DIM | ROCK SIZE | APRON DIM |        |      |
| (inch)    | (inch)           | (inch)    | (ft)      | (inch)    | (inch)            | (inch)    | (ft)      | (inch)    | (inch) | (ft) |
| 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     | 5                | 14        | 24        | 22        | 12                | 18        | 27        | 26        |        |      |
| 48-54     | 5                | 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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ENGINEERING DEPARTMENT  
O'FALLON, MISSOURI

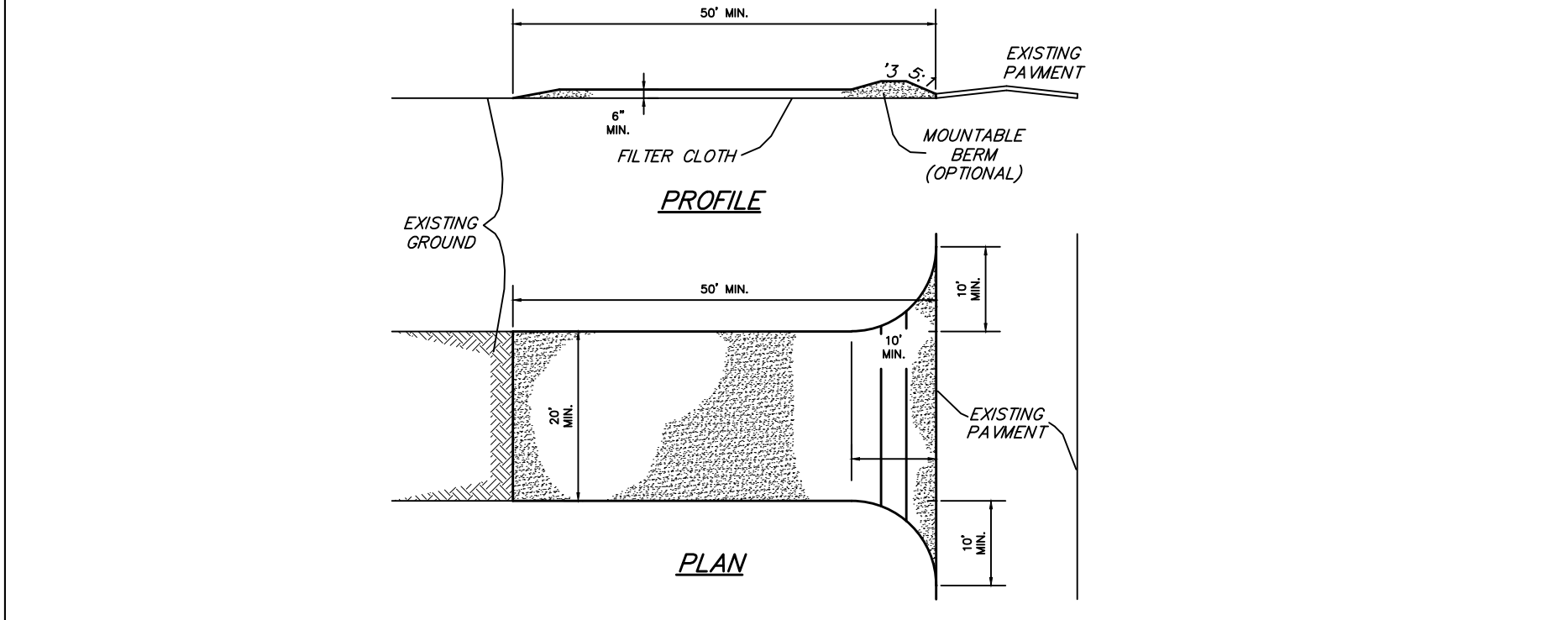
**TEMPORARY OUTLET PIPE DISCHARGE PROTECTION**



- 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 FENCE™.

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ENGINEERING DEPARTMENT  
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**AREA INLET PROTECTION FABRIC DROP**



- CONSTRUCTION SPECIFICATIONS**
- Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
  - Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
  - Thickness - Not less than six (6) inches.
  - Width - Twenty (20) foot minimum, but not less than the full width at points where ingress or egress occurs.
  - Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
  - Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
  - Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanup of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
  - Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
  - Periodic inspection and needed maintenance shall be provided after each rain.

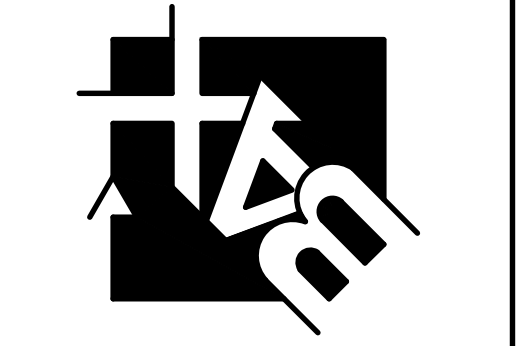
STABILIZED CONSTRUCTION ENTRANCE/WASHDOWN AREA  
NOT TO SCALE

**PROJECT TITLE:**  
SHANE ESTATES  
PHASE TWO

4566 HIGHWAY P  
CITY OF O'FALLON  
ST. CHARLES COUNTY, MO. 63366

**ENGINEERING PLANNING SURVEYING**

221 Point West Blvd.  
St. Charles, MO 63301  
636-928-5552  
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**

|          |                 |
|----------|-----------------|
| 03/04/20 | CITY COMMENTS   |
| 03/19/20 | CITY COMMENTS   |
| 04/15/20 | CITY COMMENTS   |
| 10/01/20 | CLIENT COMMENTS |
|          |                 |
|          |                 |

**Developer / Owner:**  
ELLA REAL PROPERTY HOLDINGS, L.L.C.  
428 NORTH MAIN STREET  
O'FALLON, MO 63366  
(636) 577-2458

**P+Z No.** #19-009651  
**Approval Date:** 11/07/2019  
**City No.** #City number

**Page No.** 9 of 14

**EROSION CONTROL DETAILS**

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