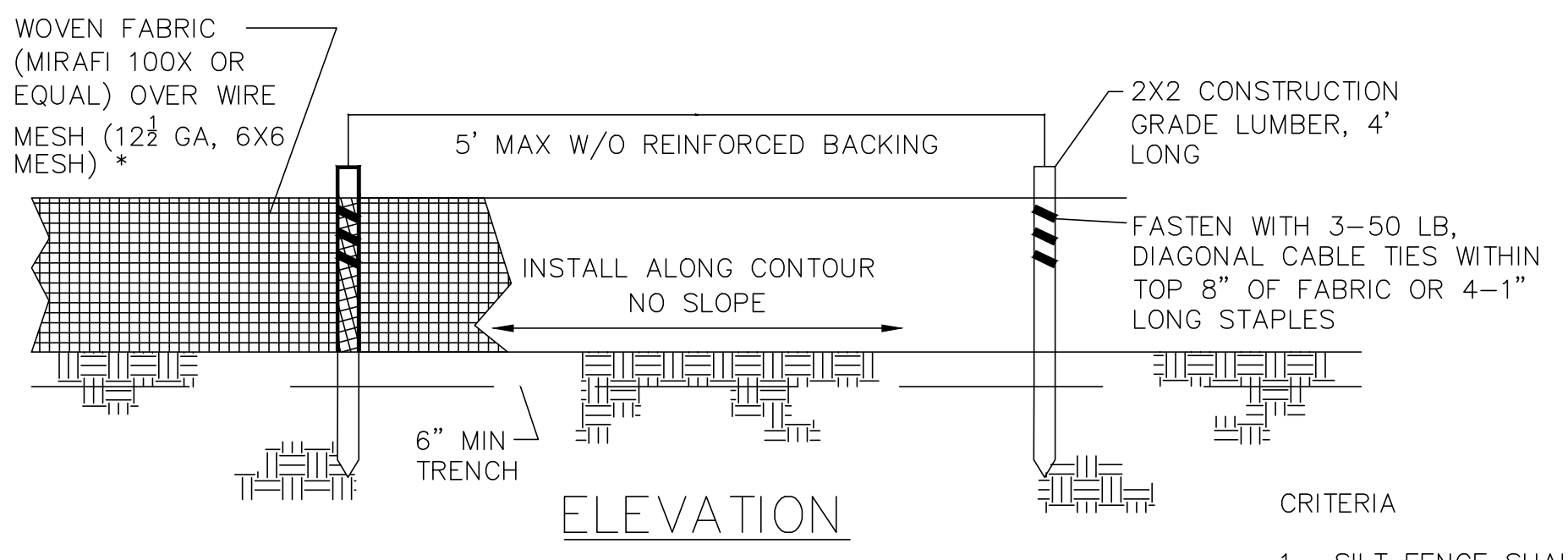


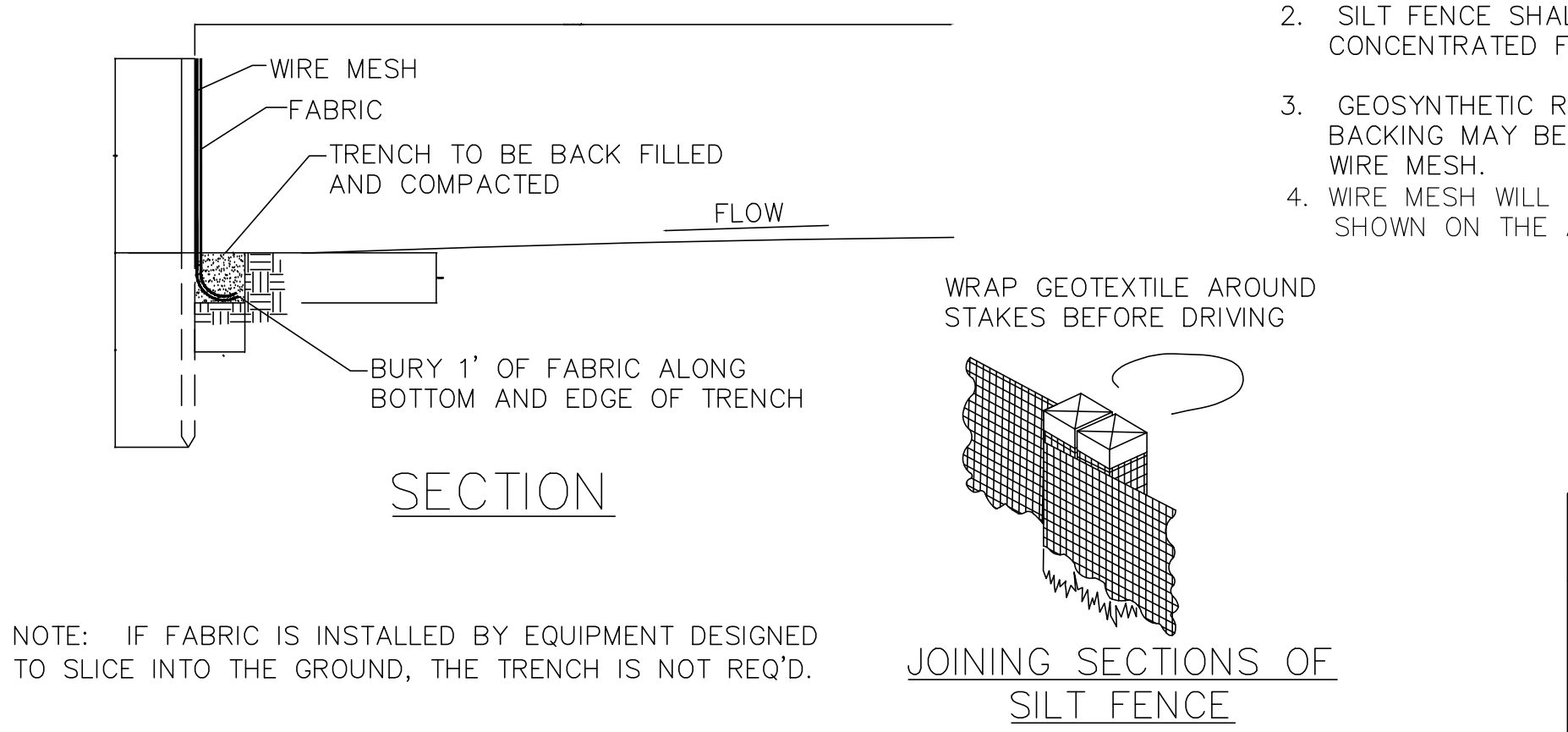
- DESIGN CRITERIA**
- SILT FENCE FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
  - STRAW BALE BARRIERS FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
  - REFER TO INDIVIDUAL ESC FIGURE FOR INSTALLATION.
  - TERRACING INCLUDES LOGS, WATTLE & FILTER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

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**SPACING CHART FOR ESC DEVICES**

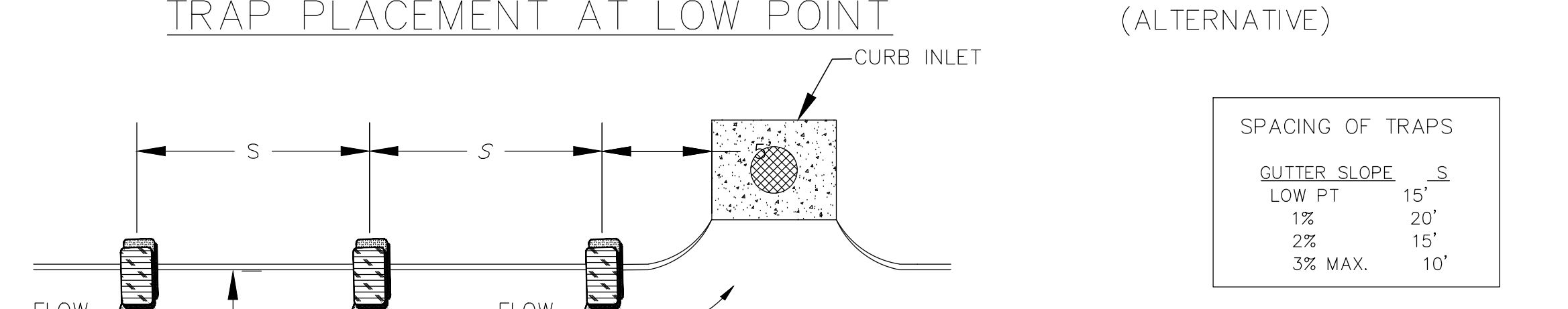
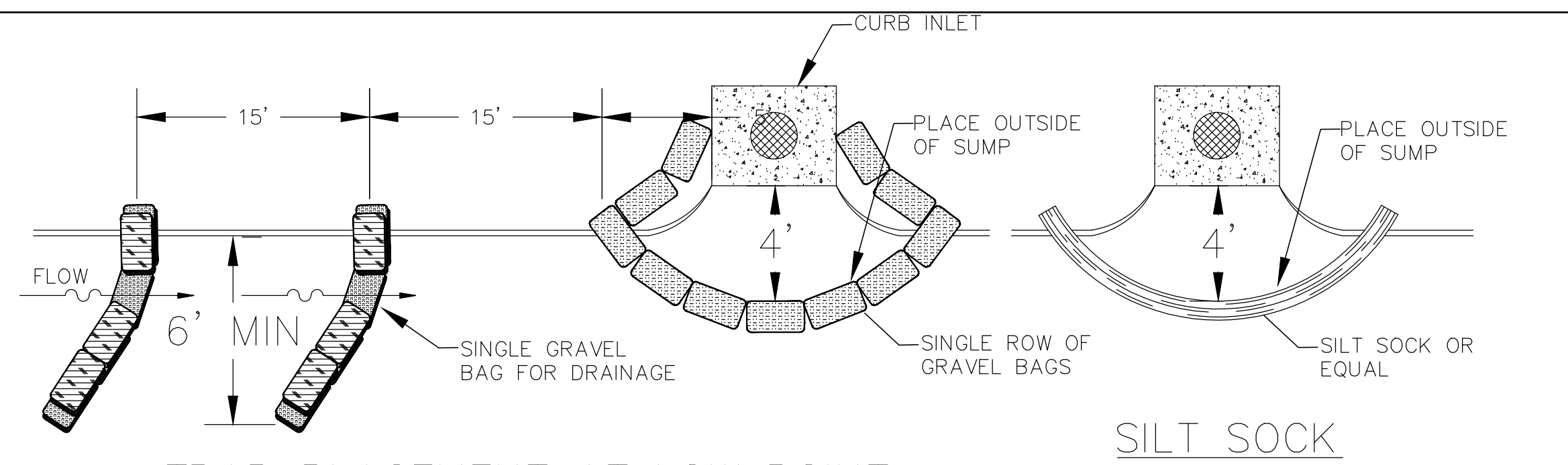


- CRITERIA**
- SILT FENCE SHALL BE 24 INCHES HIGH.
  - SILT FENCE SHALL NOT BE USED FOR CONCENTRATED FLOWS.
  - GEOSYNTHETIC REINFORCED SILT FENCE BACKING MAY BE USED IN LIEU OF WIRE MESH.
  - WIRE MESH WILL BE USED AT LOCATIONS SHOWN ON THE APPROVED SWPPP.



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



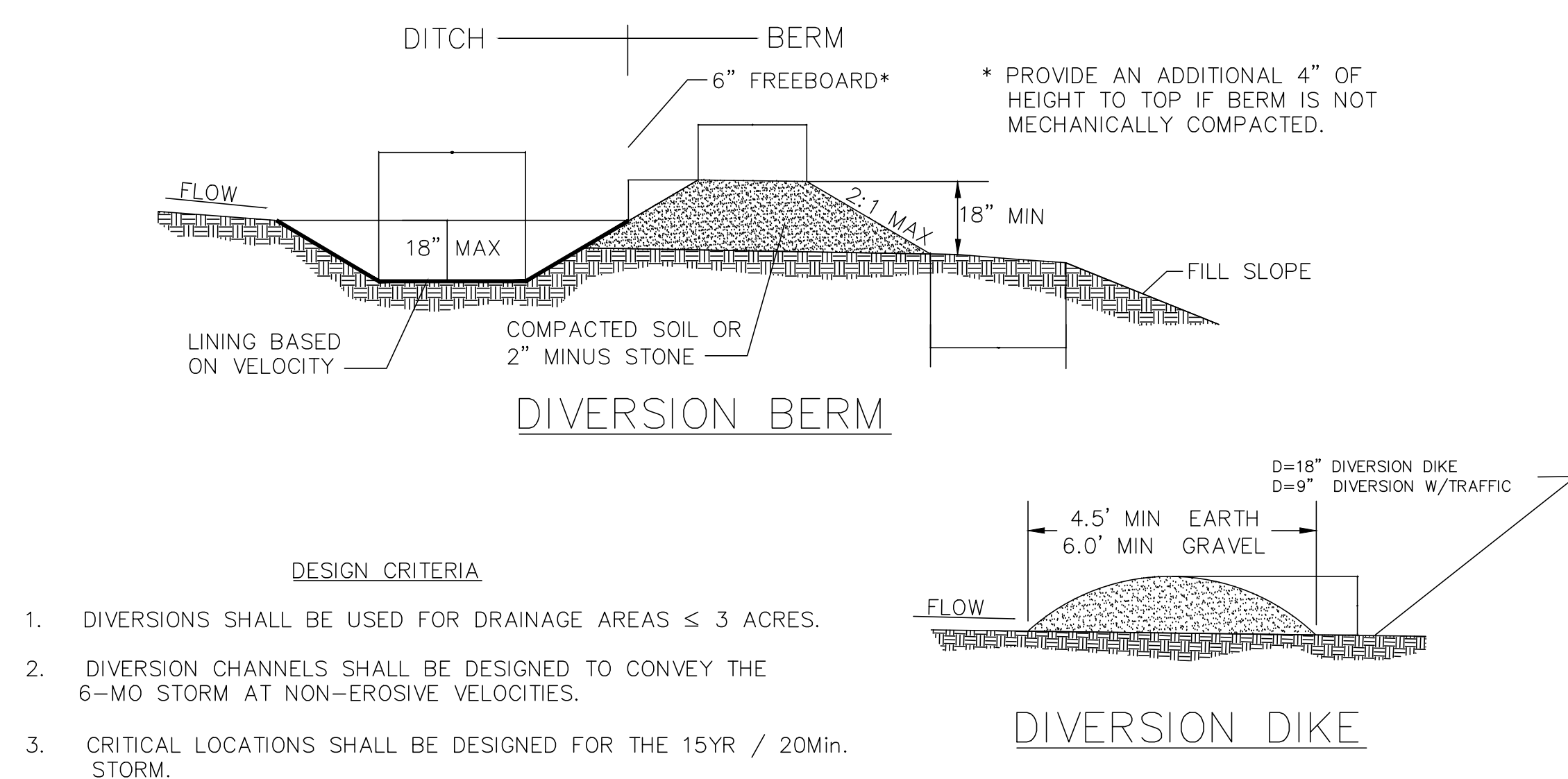
**SPACING OF TRAPS**

| GUTTER SLOPE | S   |
|--------------|-----|
| LOW PT       | 15' |
| 1%           | 20' |
| 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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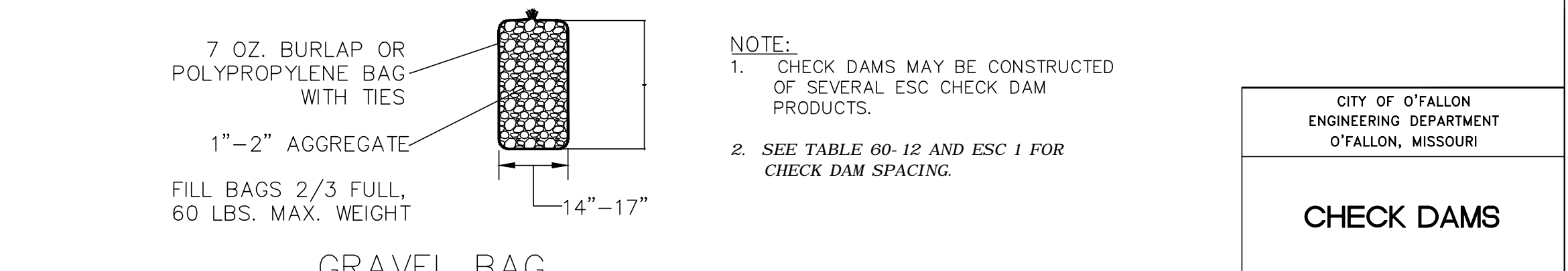
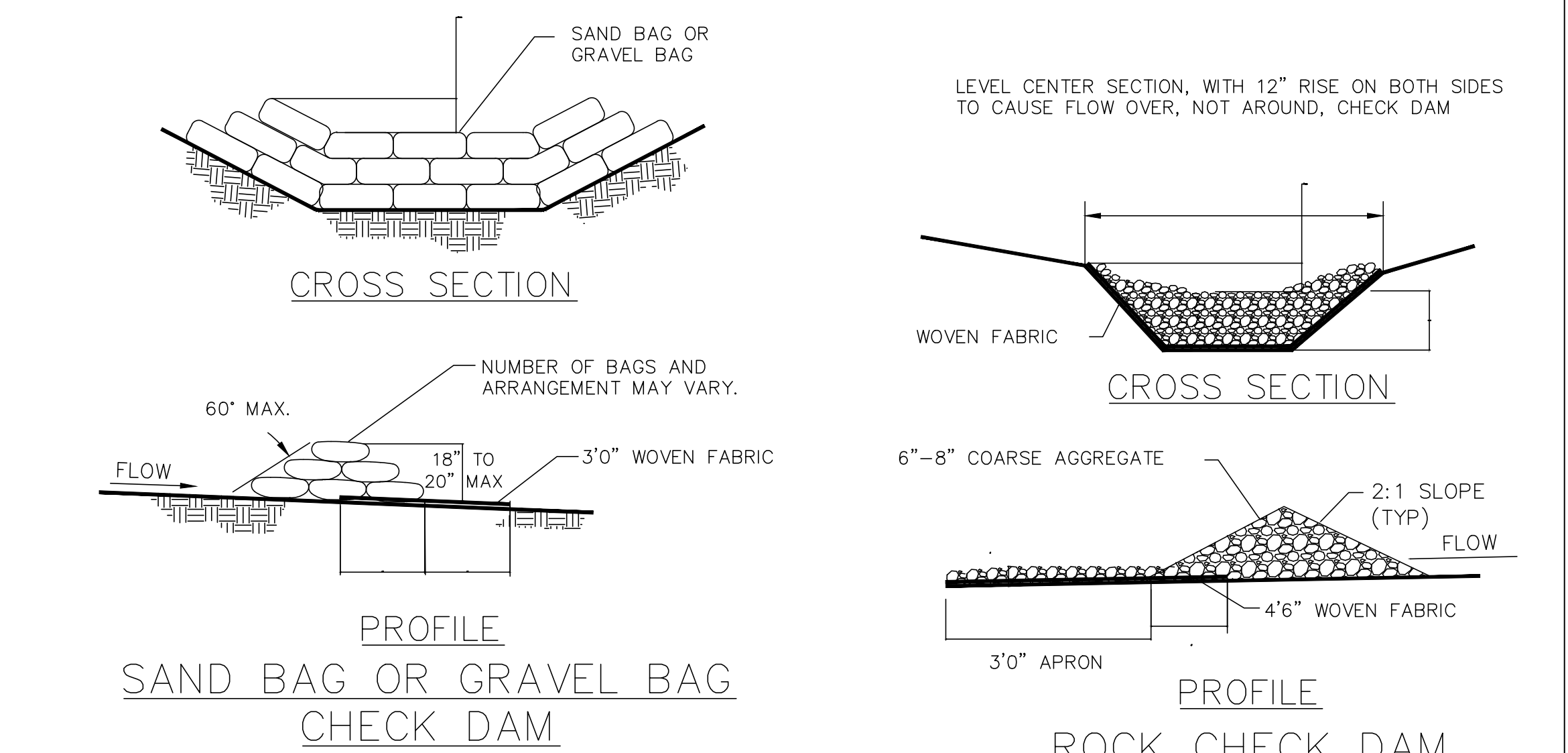
**CURB INLET PROTECTION**



- 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 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.

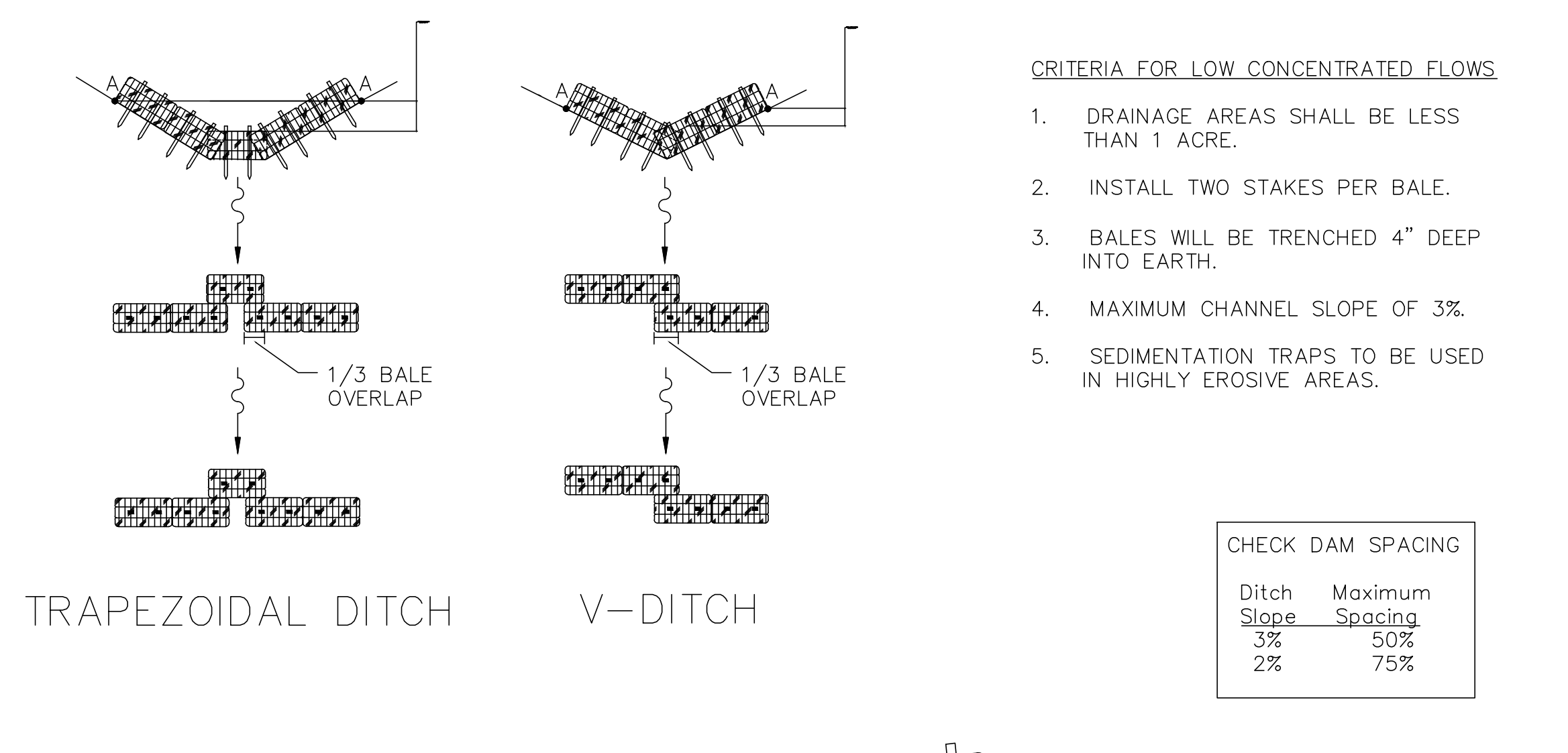
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**DIVERSION BERMS + DIKES**



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**CHECK DAMS**



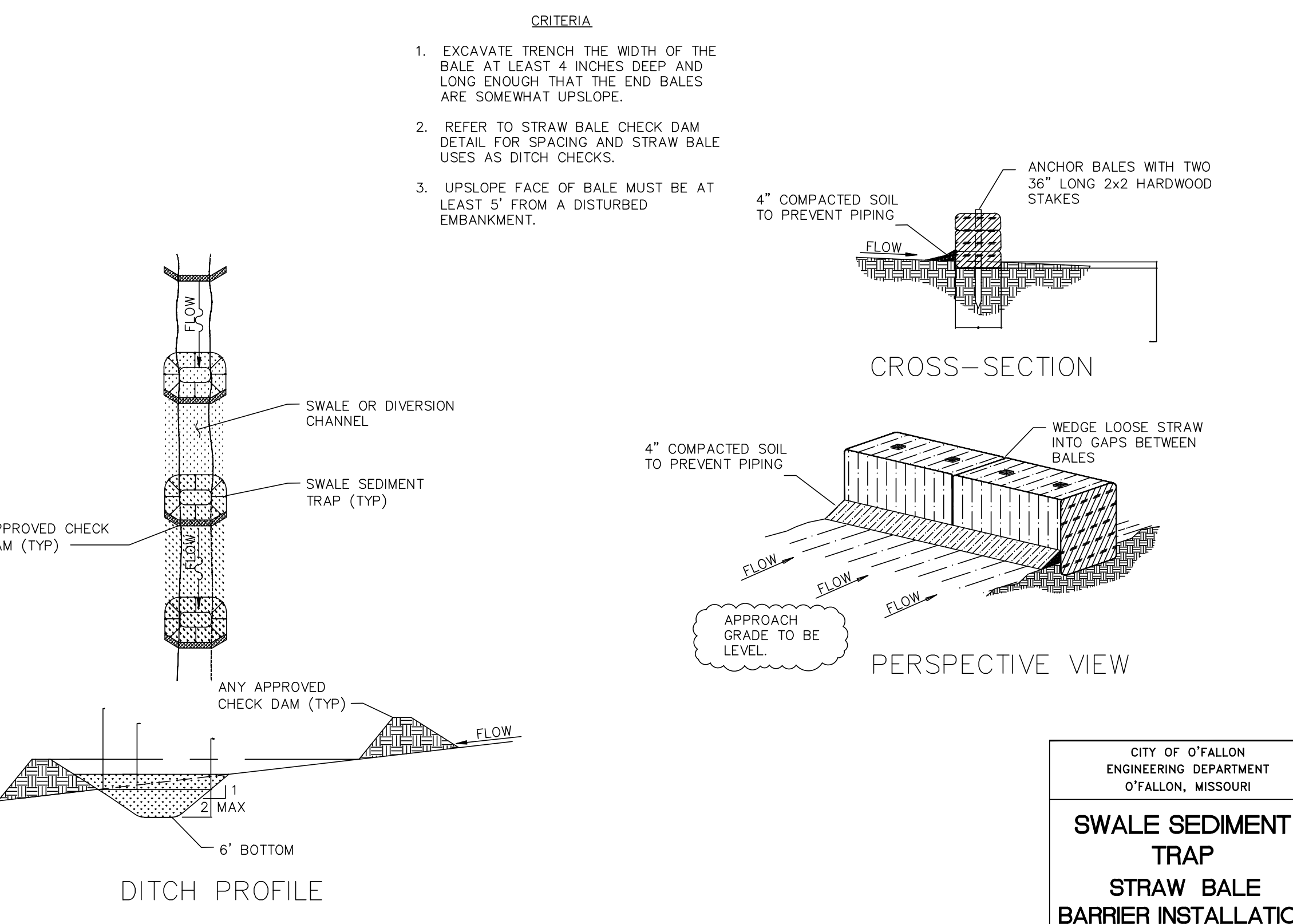
- CRITERIA FOR LOW CONCENTRATED FLOWS**
- DRAINAGE AREAS SHALL BE LESS THAN 1 ACRE.
  - INSTALL TWO STAKES PER BALE.
  - BALES WILL BE TRENCHED 4\"/>

**CHECK DAM SPACING**

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

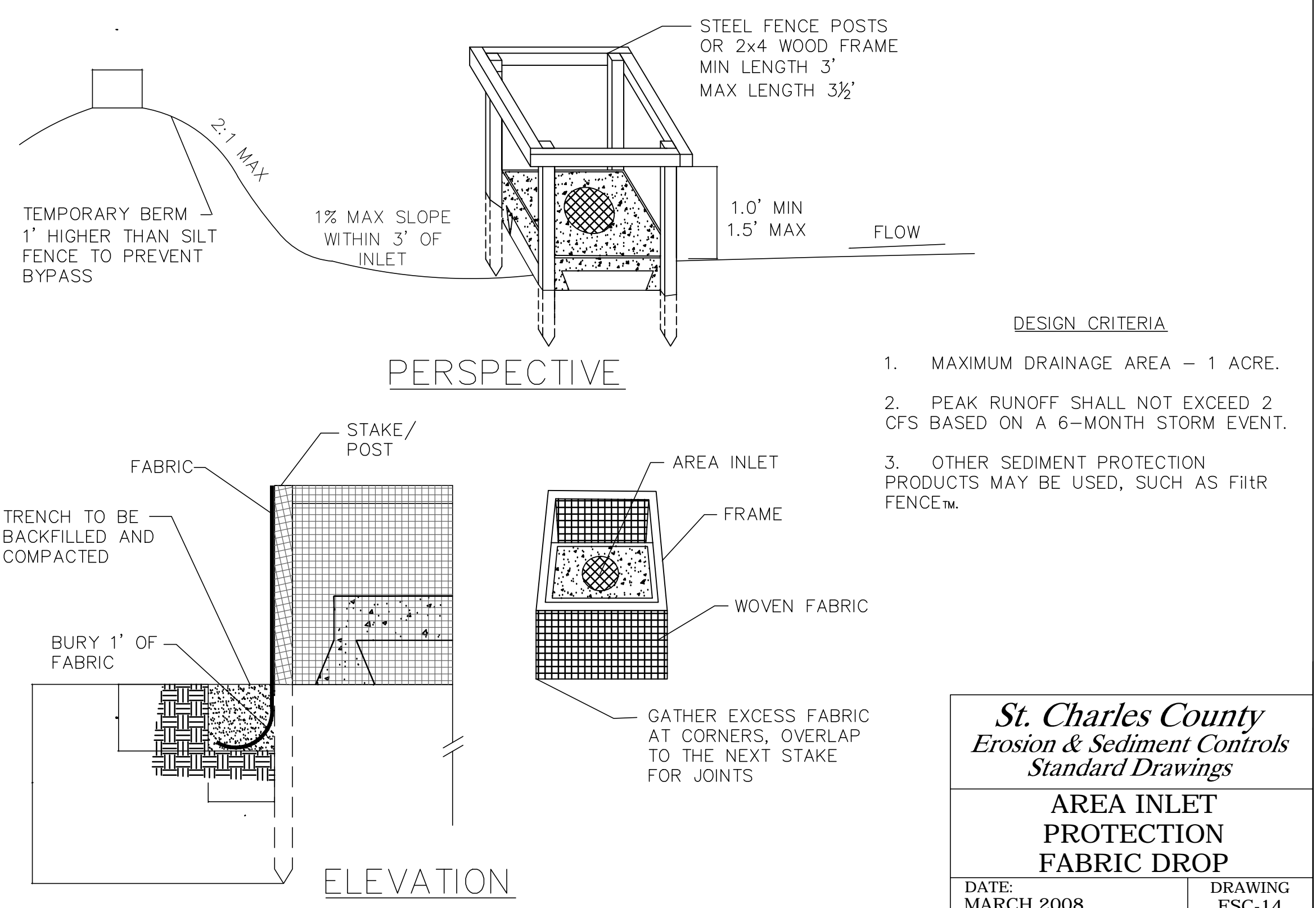
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**STRAW BALE CHECK DAM**



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**SWALE SEDIMENT TRAP STRAW BALE BARRIER INSTALLATION**

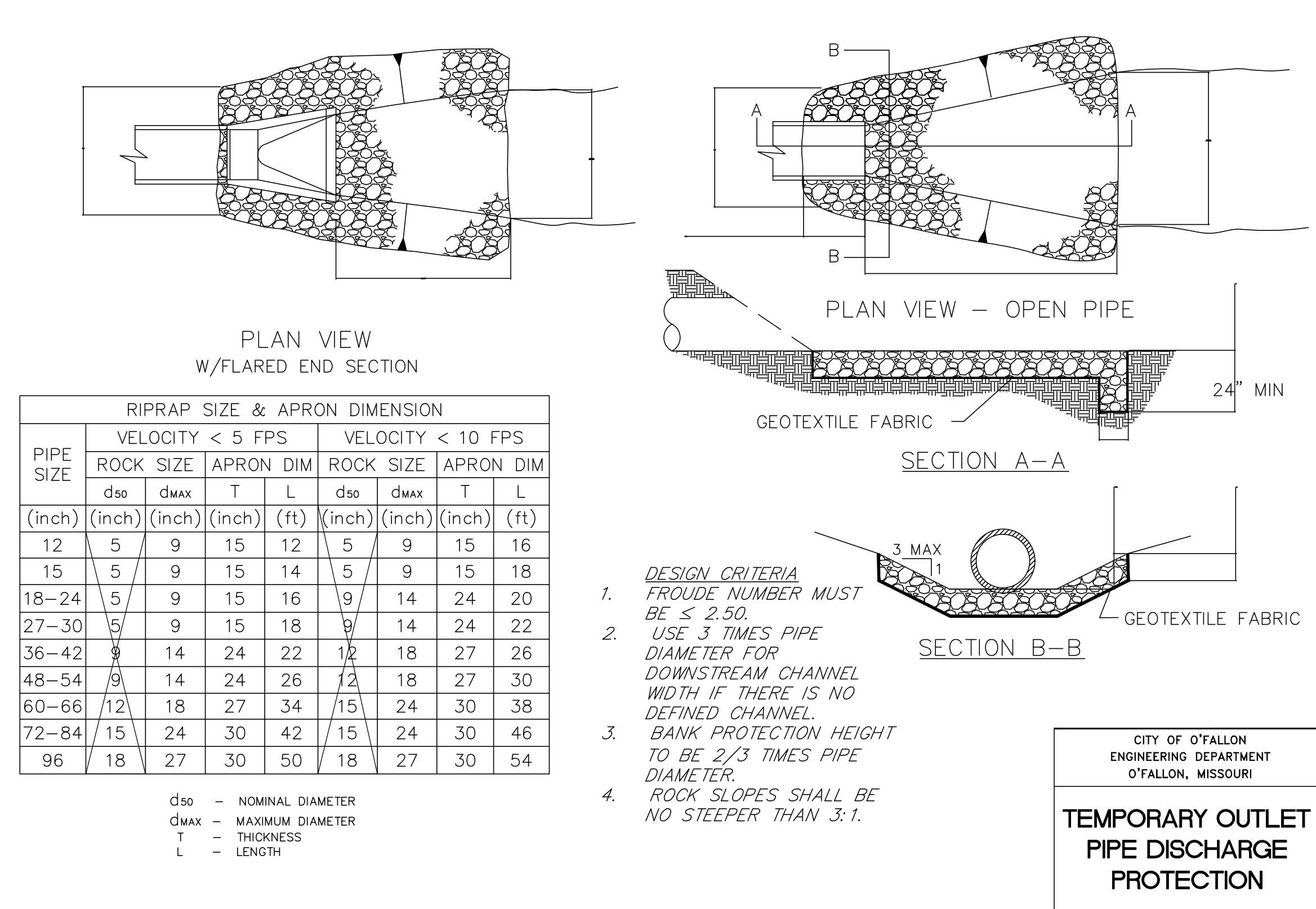


- DESIGN CRITERIA**
- MAXIMUM DRAINAGE AREA - 1 ACRE.
  - PEAK RUNOFF SHALL NOT EXCEED 2 CFS BASED ON A 6-MONTH STORM EVENT.
  - OTHER SEDIMENT PROTECTION PRODUCTS MAY BE USED, SUCH AS FILTER FENCE™.

**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 | VELOCITY < 5 FPS |             |           |           | VELOCITY < 10 FPS |             |           |           |
|-----------|------------------|-------------|-----------|-----------|-------------------|-------------|-----------|-----------|
|           | ROCK SIZE        | APRON DIM   | ROCK SIZE | APRON DIM | ROCK SIZE         | APRON DIM   | ROCK SIZE | APRON DIM |
|           | d50 (inch)       | dmax (inch) | T (inch)  | L (ft)    | d50 (inch)        | dmax (inch) | T (inch)  | L (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     | 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**