

CITY *of* CAPE G I R A R D E A U

ENGINEERING DIVISION
Cape Girardeau, Missouri

STANDARD DRAWINGS

*City of Cape Girardeau
401 Independence
Cape Girardeau, MO 63703*

ISSUED February 25, 2016

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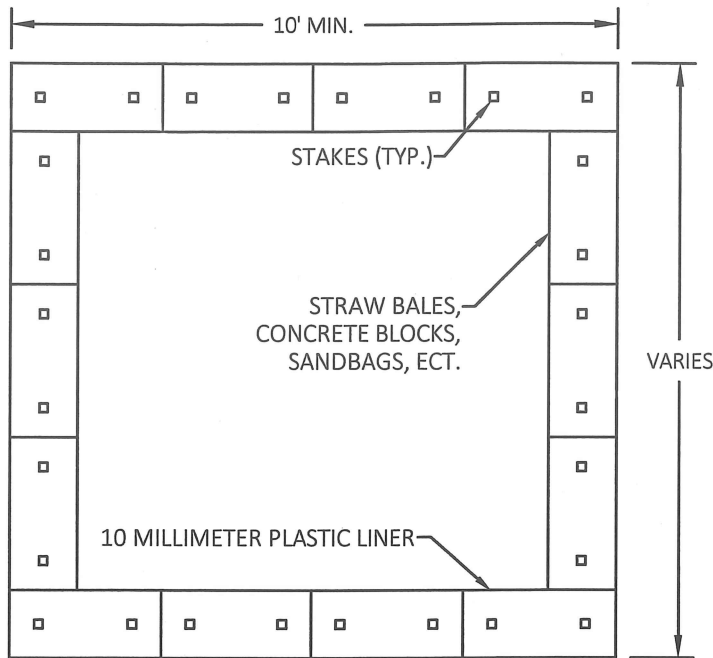
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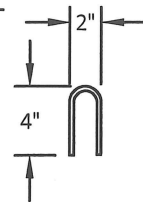
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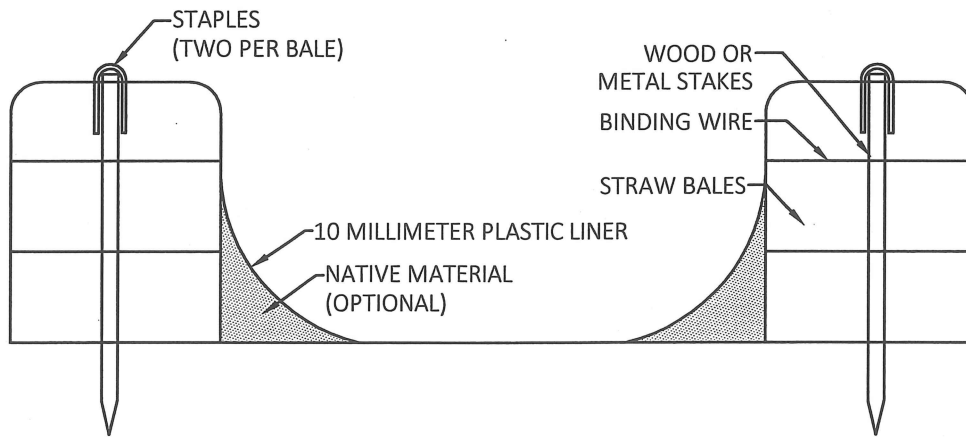
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PLAN



STAPLE DETAIL



SECTION

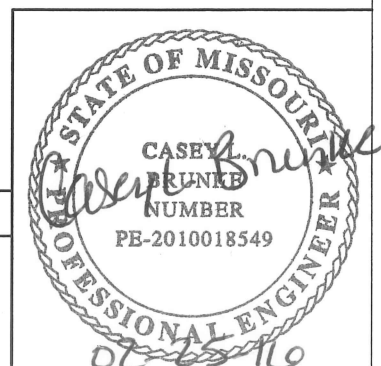
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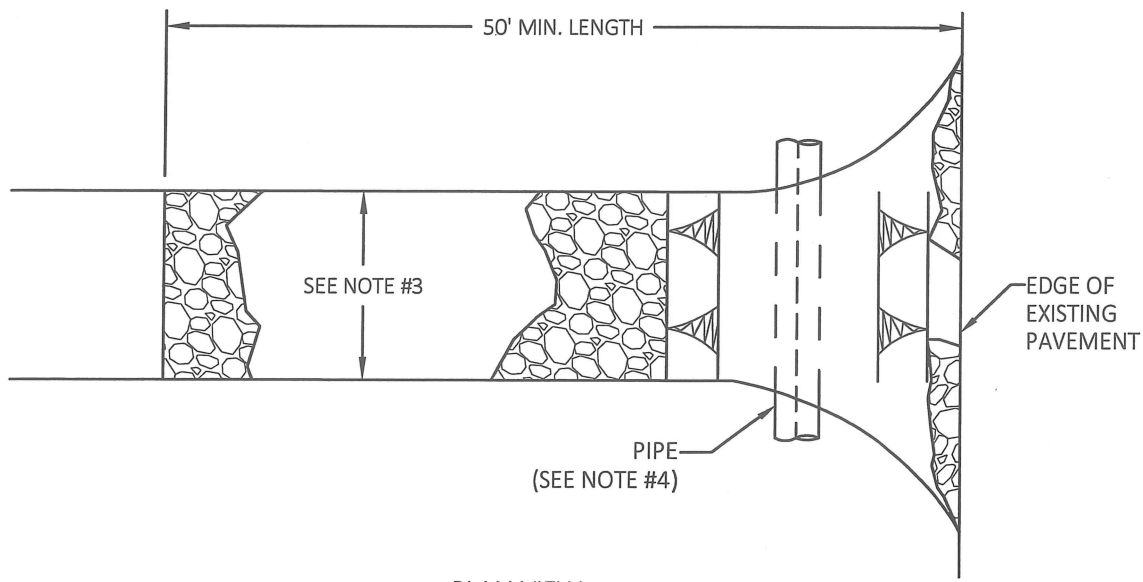
1. All work shall be done in accordance with the latest edition of the City of Cape Girardeau Standard Specifications.
2. Actual layout determined in field as necessary to accommodate anticipated number of washout.
3. Contractor shall be responsible for washout removal once washout operation have ceased.

Concrete Washout

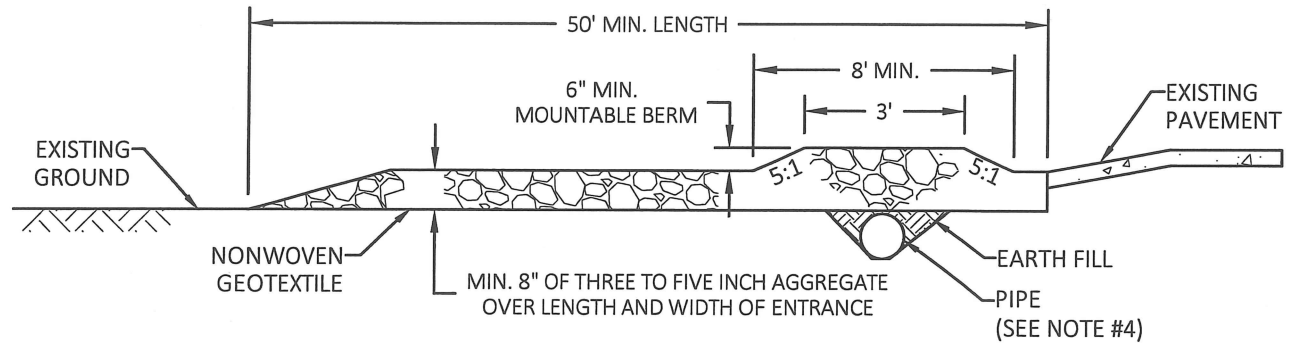
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PLAN VIEW



PROFILE

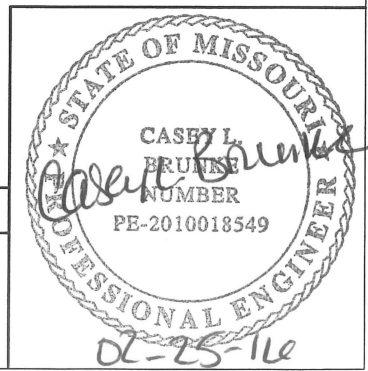
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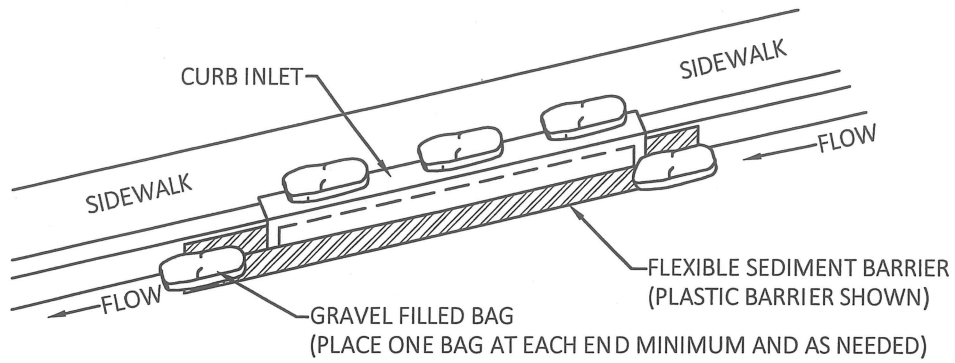
1. All work shall be done in accordance with the latest edition of the City of Cape Girardeau Standard Specifications.
2. Place construction entrance in accordance with the approved plan. Vehicles must travel over the entire length of the construction entrance. Use minimum length of 50 feet. Flare construction entrance ten feet minimum at each side of the existing road to provide a turning radius.
3. Width: Not less than full width of all points of ingress/egress.
4. Pipe all surface water flowing to or diverted toward the construction entrance under the entrance, maintaining positive drainage. Protect pipe installed through the construction entrance with a mountable berm with 5:1 slopes and a minimum of 12 inches of stone over the pipe. Provide pipe as specified on approved plan. When the construction entrance is located at a high spot and has no drainage to convey, a pipe is not necessary. A mountable berm is required where necessary to prevent runoff from flowing into street and/or to provide additional cover to protect pipe.
5. Stone Size: As required to be effective but not less than three to five inch minimum open graded rock.
6. Prepare subgrade and place nonwoven geotextile over the entire area prior to placing of stone.
7. Maintain entrance in a condition that minimizes tracking of sediment. Add stone or make other repairs as conditions demand to maintain clean surface, mountable berm, and specified dimensions. Immediately remove stone and/or sediment spilled, dropped, or tracked onto adjacent roadway by vacuuming, scraping, and/or sweeping.
8. Washing roadway to remove mud tracked onto pavement is not acceptable unless wash water is directed to an approved sediment control practice.
9. Maintenance: The entrance shall be maintained in a condition that will prevent tracking or flowing of sediment onto Public Right-of-Way. This may require periodic top dressing with additional stone as conditions demand, as well as repair and clean out of any associated sediment removal devices. All sediment that is spilled, dropped, washed or tracked onto Public Right-of-Way must be removed immediately. Periodic inspections and maintenance shall be provided after each rain.

Construction Entrance

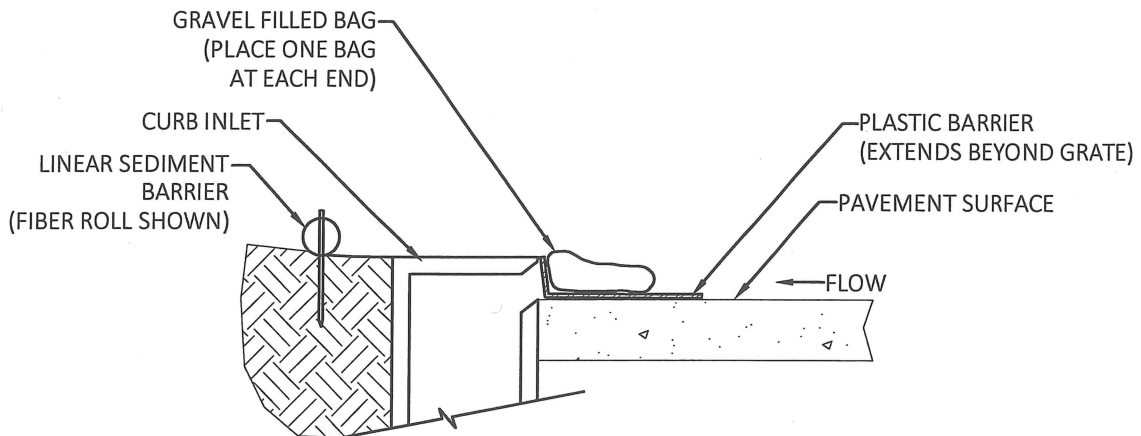
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PERSPECTIVE



SECTION

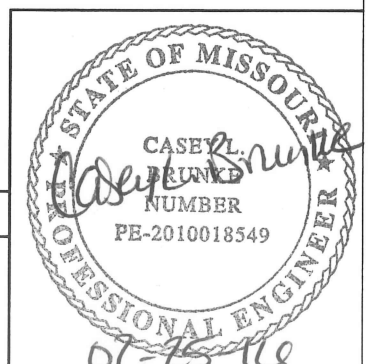
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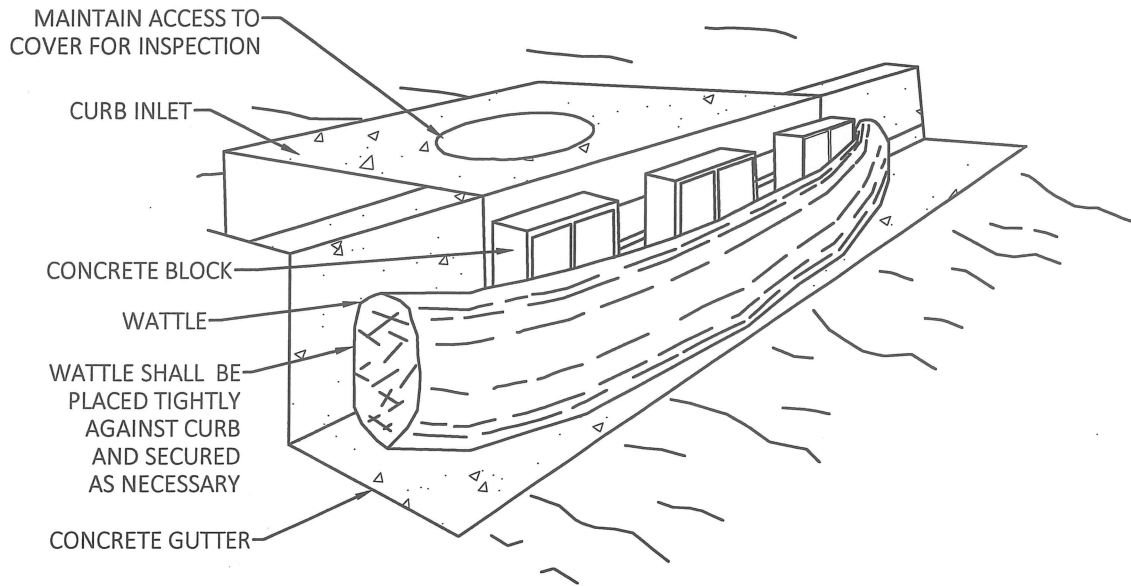
1. All work shall be done in accordance with the latest edition of the City of Cape Girardeau Standard Specifications.
2. Inlet diversion shall only be used with the approval of the Engineer. Additional Inlet on Grade devices shall be used in conjunction with approved inlet diversions.
3. Inlet Diversion may be used with or without the Linear Sediment Barrier, subject to approval by the Engineer.

Inlet Protection - Curb Inlet Diversion

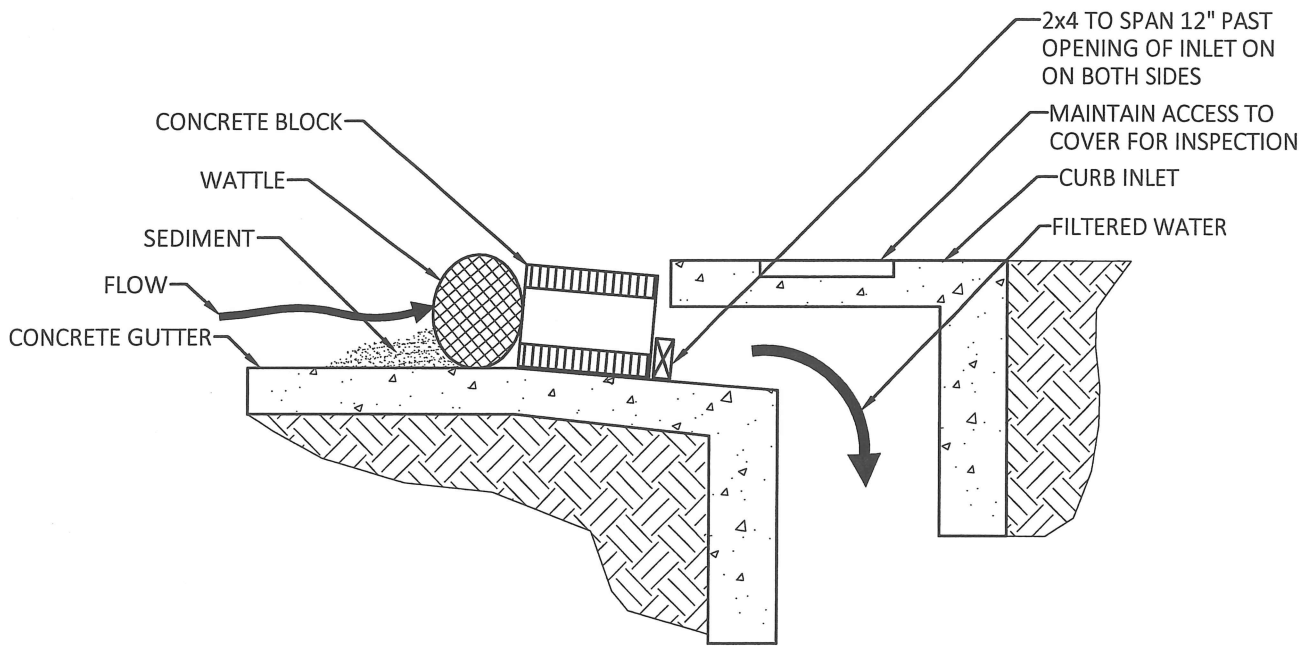
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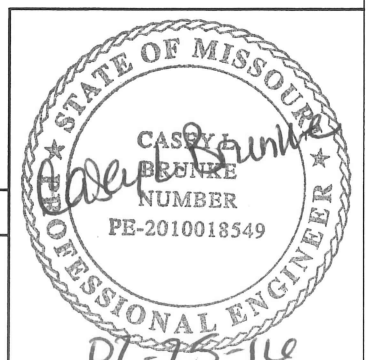
PERSPECTIVE



SECTION

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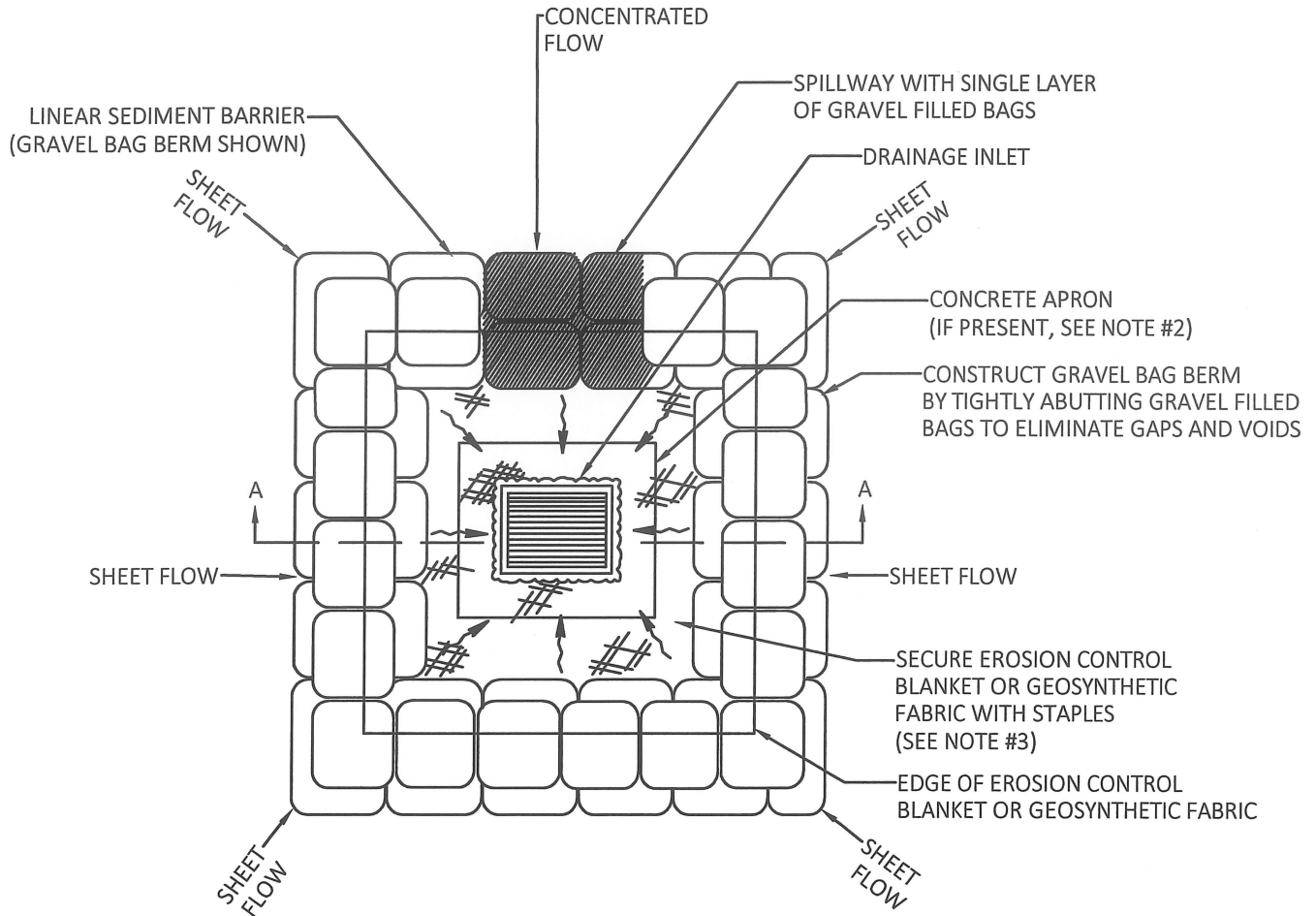
1. All work shall be done in accordance with the latest edition of the City of Cape Girardeau Standard Specifications.
2. This method of Inlet Protection is applicable at curb inlets where ponding is in front of the structures and unprotected areas.
3. Depending on the opening of the inlet, the concrete block may have to be placed vertically.



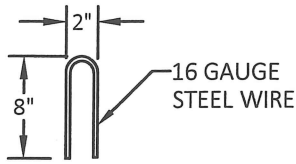
Inlet Protection - Curb Inlet with Wattle

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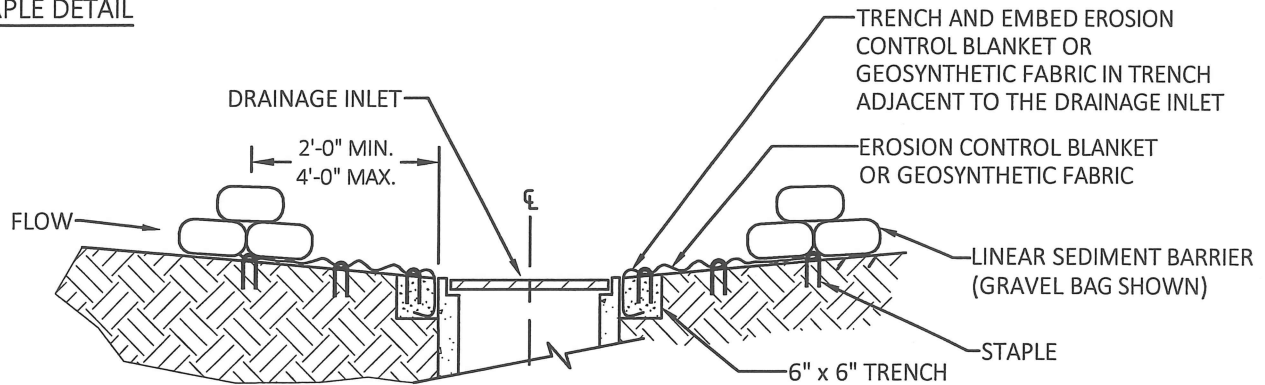
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PLAN



STAPLE DETAIL



SECTION A-A

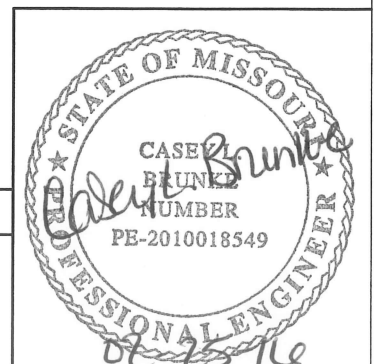
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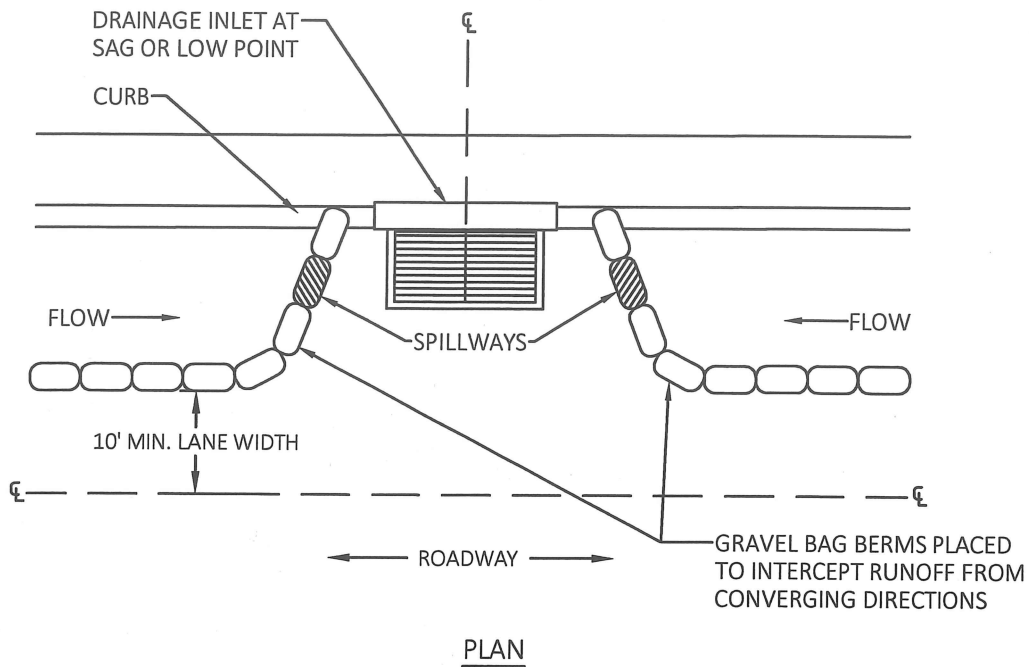
1. All work shall be done in accordance with the latest edition of the City of Cape Girardeau Standard Specifications.
2. Position erosion control blanket at edge of concrete apron and secure in trench.
3. Erosion control blanket is not required if the area adjacent to the inlet is vegetated or paved.

Inlet Protection - Area Inlet

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Slope or Roadway (Percent) %	1 to 3.9	4 to 5.9	6 to 7.9	8 to 10	10+
Maximum Interval between Berms	100'	75'	50'	25'	12'

FOR SLOPE OF LESS THAN 1% INSTALL BARRIERS IF EROSION/ SEDIMENT IS PRESENT, SUBJECT TO THE APPROVAL OF ENGINEER.

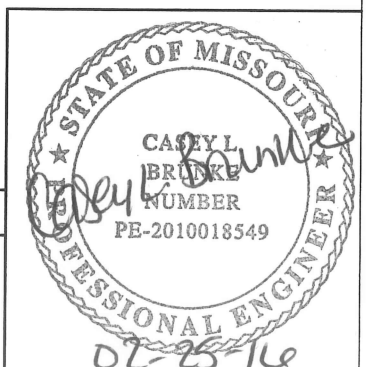
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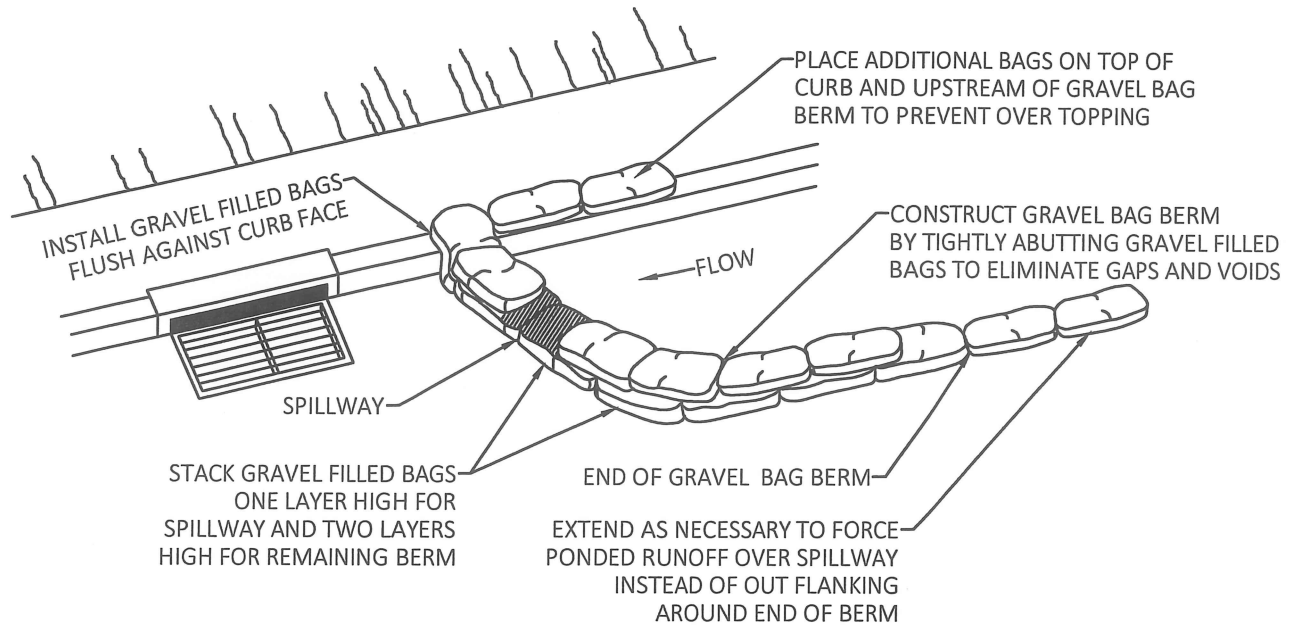
1. All work shall be done in accordance with the latest edition of the City of Cape Girardeau Standard Specifications.
2. Place traffic cones adjacent to drainage inlet protection.
3. Dimensions may vary to fit field conditions.
4. Install a minimum of three gravel bag berms upstream of each drainage inlet to be protected.

Inlet Protection - Inlet at Sag Point

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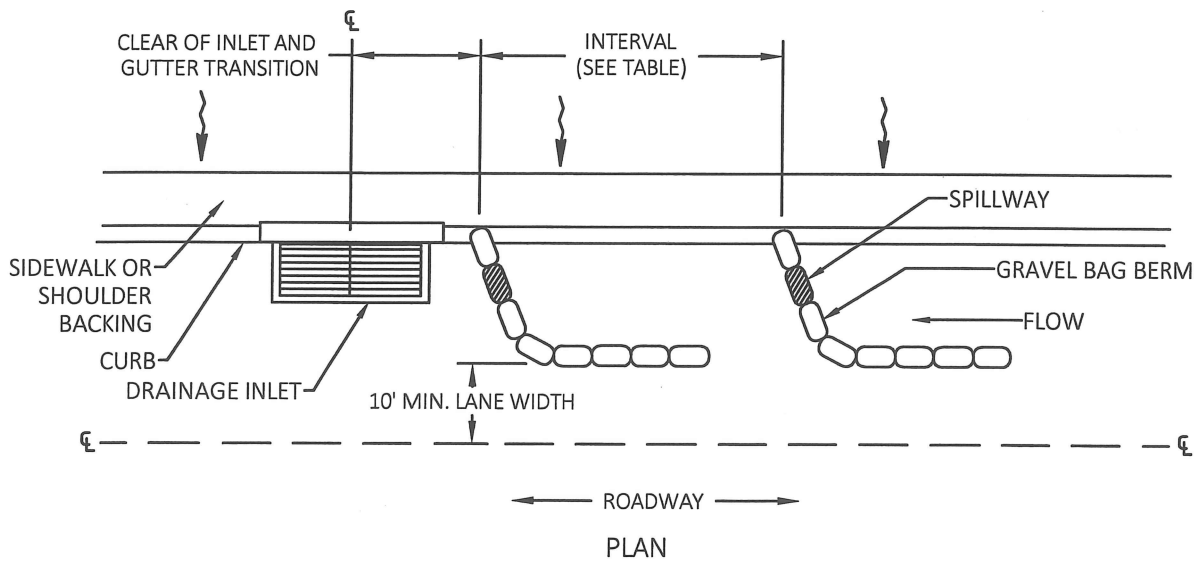




PERSPECTIVE

Gravel Bag Berm Spacing Table					
Slope or Roadway (Percent) %	1 to 3.9	4 to 5.9	6 to 7.9	8 to 10	10+
Maximum Interval between Berms	100'	75'	50'	25'	12'

FOR SLOPE OF LESS THAN 1% INSTALL BARRIERS IF EROSION/ SEDIMENT IS PRESENT, SUBJECT TO THE APPROVAL OF ENGINEER.



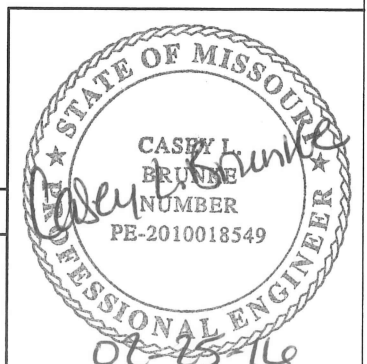
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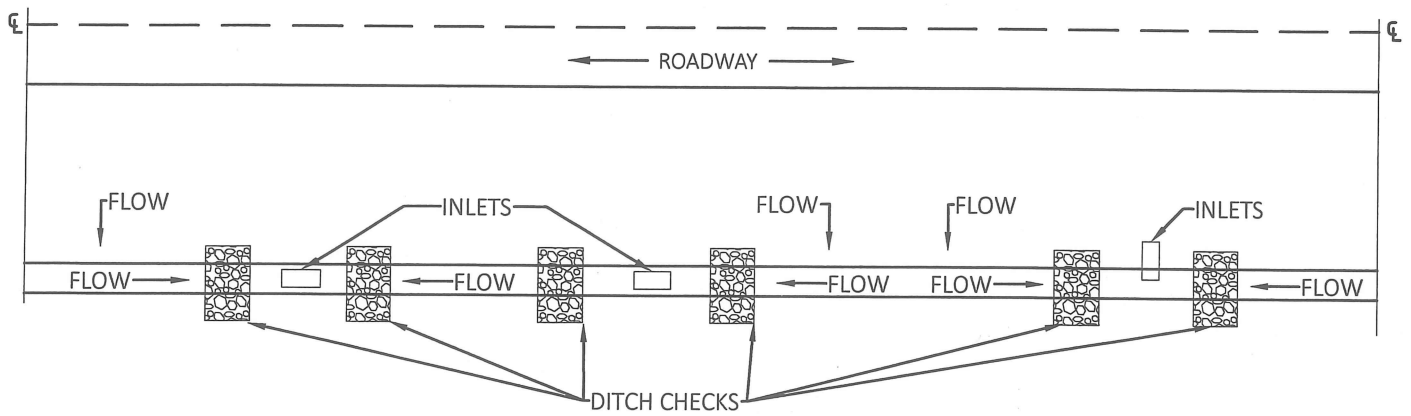
1. All work shall be done in accordance with the latest edition of the City of Cape Girardeau Standard Specifications.
2. Place traffic cones adjacent to drainage inlet protection.
3. Dimensions may vary to fit conditions.
4. Install a minimum of three gravel bag berms upstream of each drainage inlet to be protected.

Inlet Protection - Inlet on Grade

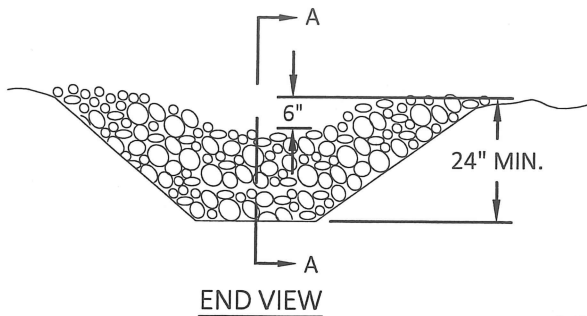
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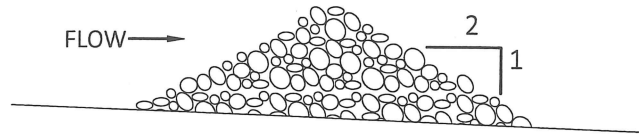




AREA INLET DITCH CHECK

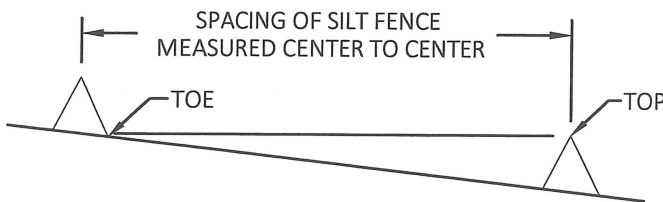


END VIEW



SECTION A-A

ELEVATION OF TOE MUST BE SAME OR LESS THAN ELEVATION OF TOP.



MINIMUM DITCH CHECK SPACING

Ditch Slope %	Spacing for 24" Height	Spacing for 18" Height
0.5	400	300
1.0	200	150
1.5	133	100
2.0	100	75
2.5	80	60
3.0	66	50
3.5	57	43
4.0	50	38
4.5	44	33
5.0	40	30
5.5	38	27
6.0	35	25
6.5	30	23
7.0	28	21
7.5	26	20
8.0	25	19
8.5	23	18
9.0	22	17
9.5	21	16
10.0	20	15

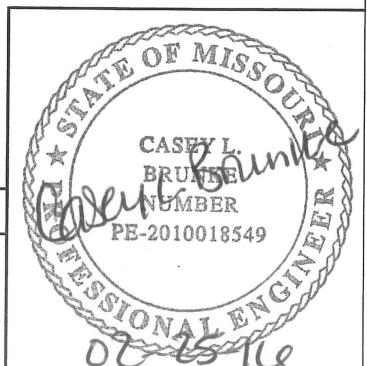
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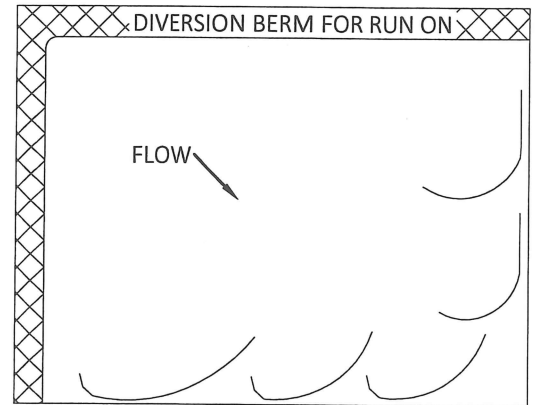
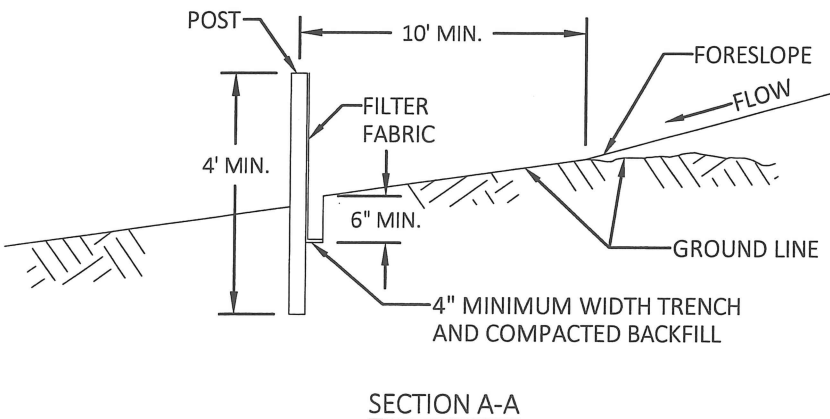
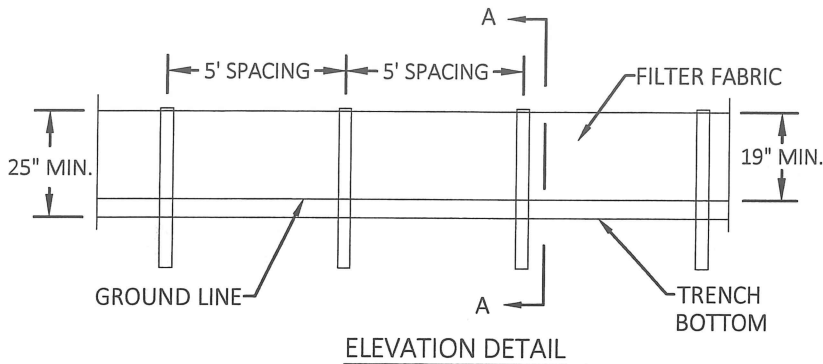
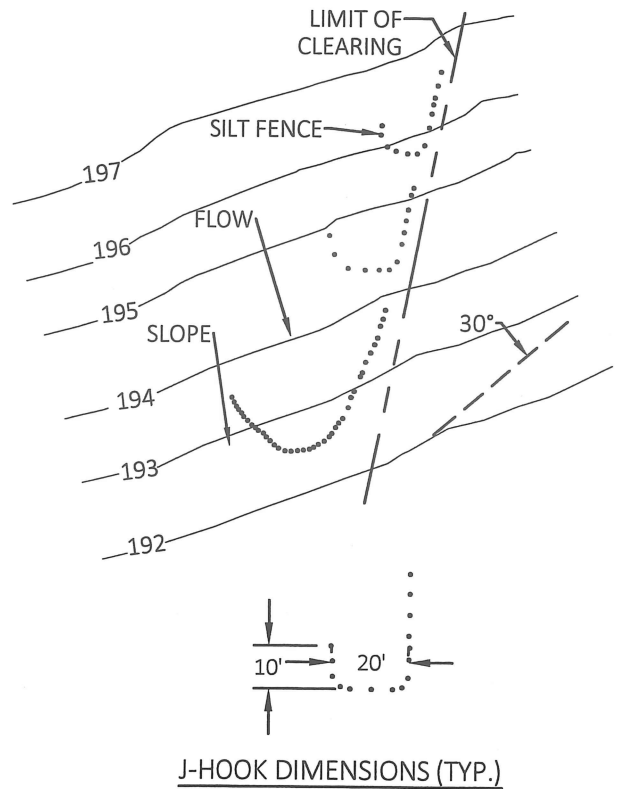
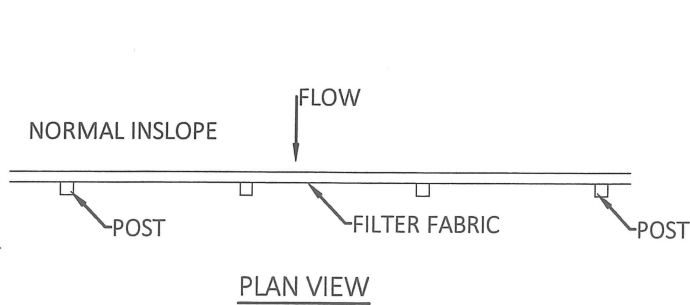
1. All work shall be done in accordance with the latest edition of the City of Cape Girardeau Standard Specifications.
2. Rock Ditch Check shall be removed after vegetation has sufficiently matured to protect the ditch or swales, as determined by the Engineer, or after ditch liner has been placed.
3. Ditch checks located adjacent to area inlets shall provide a minimum of 12 inches and a maximum of 18 inches of height above the inlet grade.
4. The predominate size of rock used shall range between four and 12 inches.

Rock Ditch Checks

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— SILT FENCE PLACEMENT

Notes:

1. All work shall be done in accordance with the latest edition of the City of Cape Girardeau Standard Specifications.
2. On all slopes greater than ten feet high, mid-slope runs of silt fence shall be provided.
3. For fabric silt fence, the minimum longitudinal splice overlap shall be two feet with a post at each end. The fabric shall be secured to posts.
4. Silt fence shall not be used on concentrated flows, across drainage ditches or drains. Instead ditch checks shall be used as shown on plans or as directed by Engineer.
5. One quarter (1/4) acre per 100 feet of fence with maximum length of 600 feet.
6. Drive support stakes to half of their length.
7. J-Hook minimum width of 20 feet with a ten foot length of fence turned uphill as shown, is recommended. Where space is limited narrower hooks may be used with a higher spacing frequency. J-Hooks shall be used when the silt fence is installed at an angle of 30 degrees or greater from parallel to the contours.

Silt Fence and J-Hooks

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