

Notes to the Designer

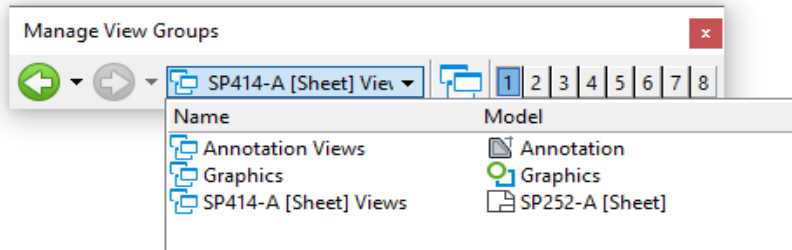
Updated June 2024

Inlet Protection

NOTE: DO NOT USE THIS DRAWING IF PAYING BY THE LPSM. This drawing should only be included in the plan set if items are being paid for separately.

General Information

- Printing should be done from the **[Sheet]** View model



- Appropriate Applications

Storm drain inlet protection is used to detain and/or filter sediment-laden runoff. Appropriate applications include:

- Where sediment-laden runoff may enter an inlet;
- Where ponding will not encroach into travel way; and
- Where the drainage area is 1 acre or less.

| Site Conditions Where Types are Appropriate | INLET PROTECTION* | | | | | |
|---|-------------------|---|---|----|----|---|
| | Type | | | | | |
| | A | B | C | D1 | D2 | E |
| Area Drain, Soil | Y | N | Y | Y | N | N |
| Area Drain, Pavement | N | N | Y | Y | N | N |
| Grate inlet along curb, Soil | Y | Y | Y | N | N | N |
| Grate inlet along curb, Pavement | N | Y | Y | N | N | N |
| Curb opening inlet, Soil | N | Y | N | N | Y | Y |
| Curb opening inlet, Pavement | N | Y | N | N | Y | Y |

*Note: Table shown for information only. Designer will not specify a type of drop inlet protection to use – will leave it up to the Contractor.

- Limitations

Sediment removal may be difficult in high-flow conditions or if runoff is heavily sediment laden. May need to use other on-site sediment trapping techniques (e.g. check dams, wattles at back of curb, etc) in conjunction with inlet protection.

Could be an obstacle to traffic (could be within clear zone)

Applicable SCRs

- None

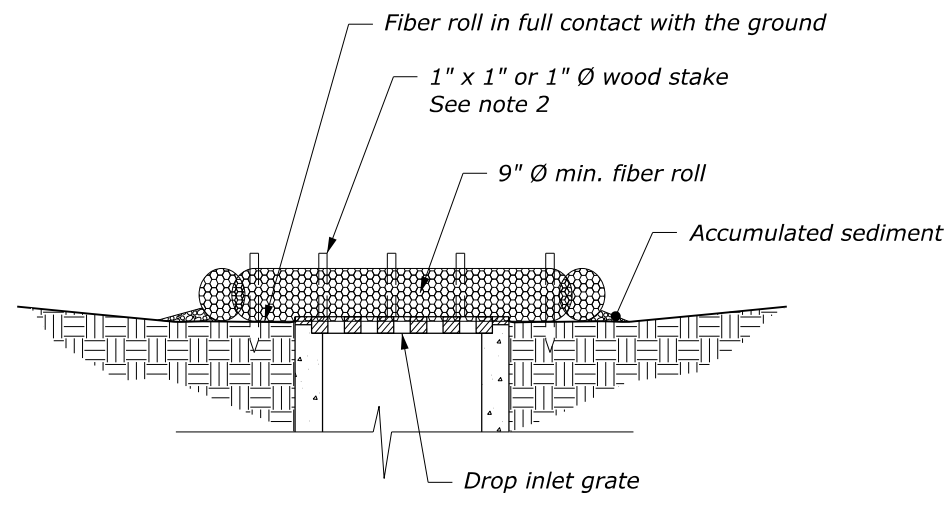
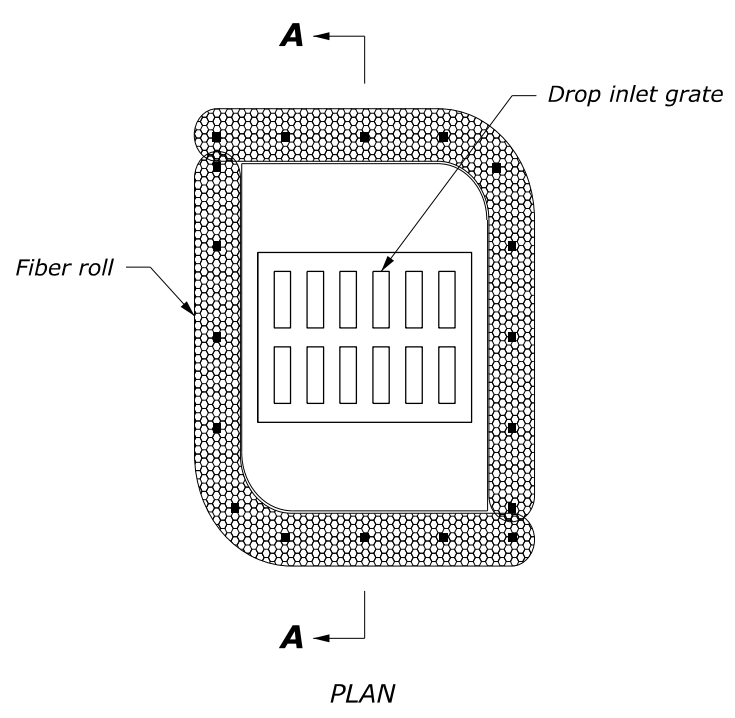
Typical Pay Item Used

We will leave it up to the Contractor to select the specific type of drop inlet protection to use on the project.

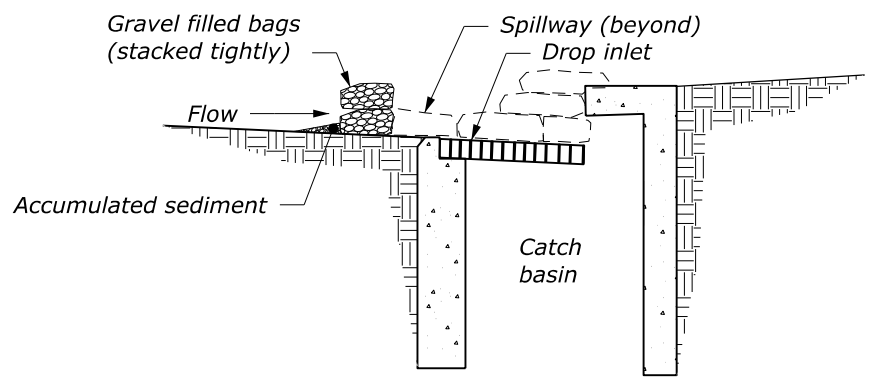
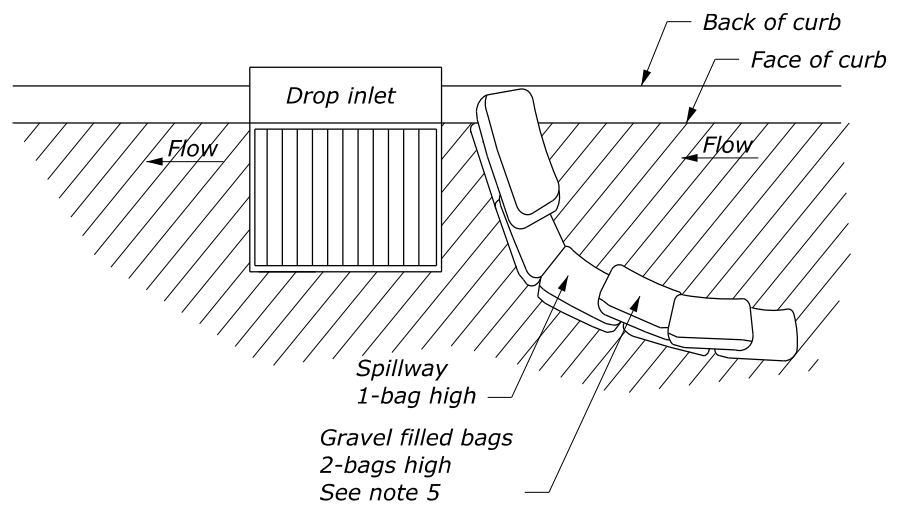
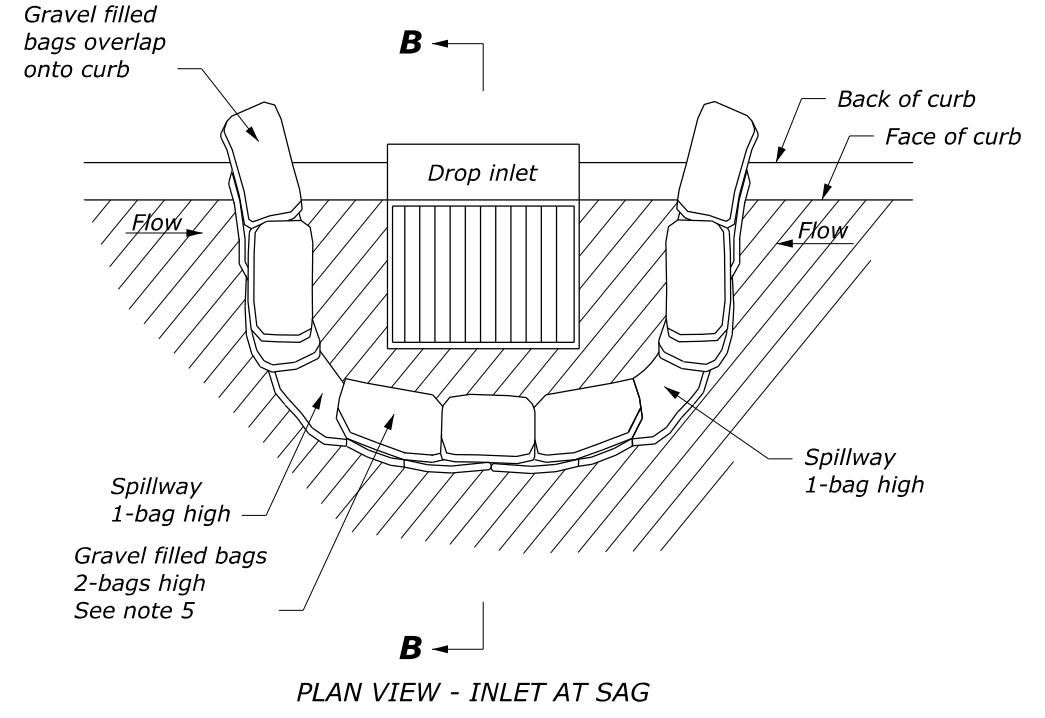
- Include both plan sheets and a generic pay item in the PS&E.
- 15706-1000 Soil erosion control, inlet protection [EA]

Updates

- **September 2020**
 - Updated for OpenRoads Designer
 - Updated geotextile references
- **June 2024**
 - Updated for FP24



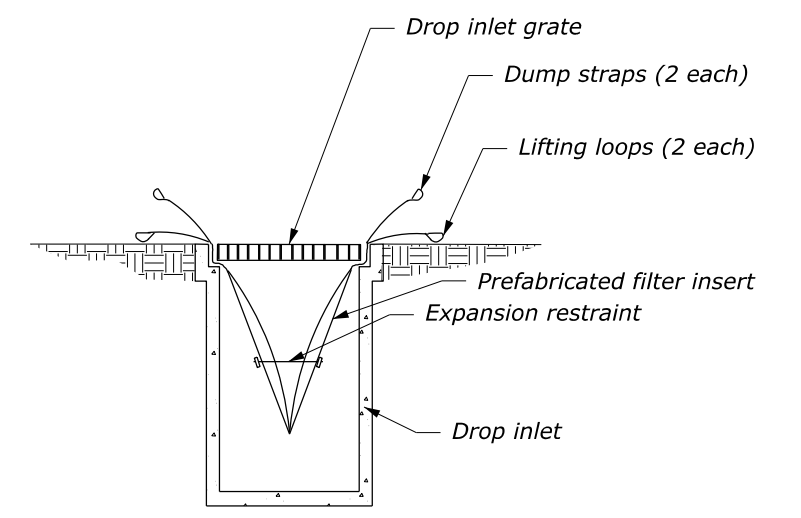
**FIBER ROLL
DROP INLET PROTECTION (TYPE A)**



**GRAVEL BAG BERM
DROP INLET PROTECTION (TYPE B)**

NOTE:

1. Select the inlet protection device to fit field conditions.
2. Install fiber roll with stakes spaced no more than 24" on center. Drive stakes 12-inch minimum into undisturbed soil.
3. Approximate finished dimension of gravel bags is 12" x 18".
4. Maximum top of gravel bag spillway elevation = Top of curb minus 1".
5. Pack gravel filled bags tightly together end to end to ensure no sediment flows between or underneath the bags. Where tight fit is unachievable, install geotextile filter along the upstream face of the bags. Place geotextile filter over the top of the bags to spillway elevation. Anchor the geotextile filter by placing the next layer of bags on top of it. Extend the geotextile filter a minimum of 18 inches upstream of the bags. Cover upstream geotextile filter with clean, silt-free aggregate between 2 inches and 3 inches in diameter.
6. Furnish geotextile filter according to Subsection 714.01(c).



**PREFABRICATED FILTER INSERT
DROP INLET PROTECTION (TYPE C)**

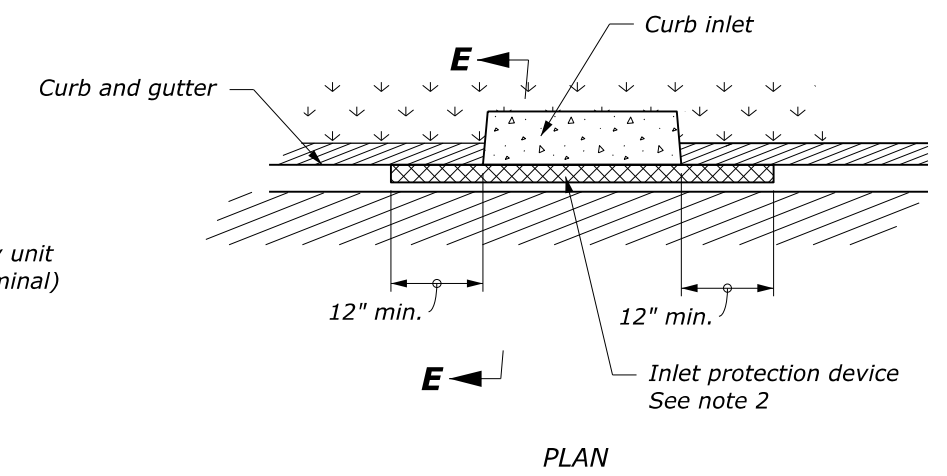
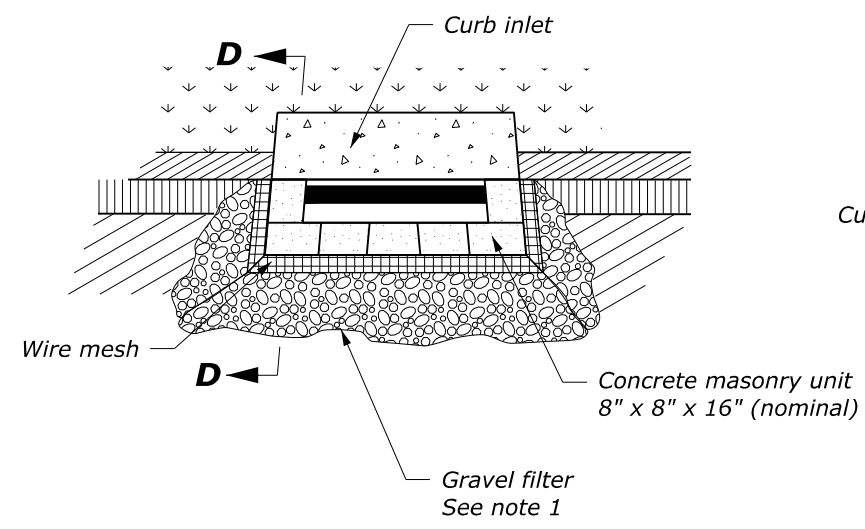
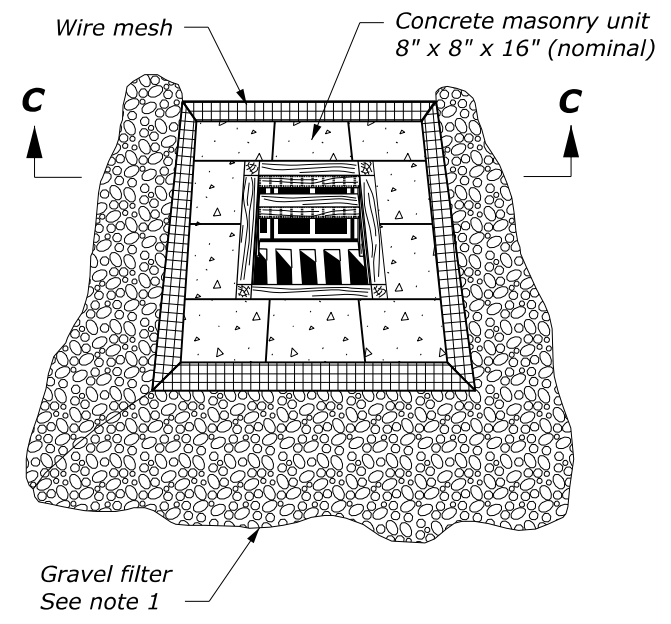
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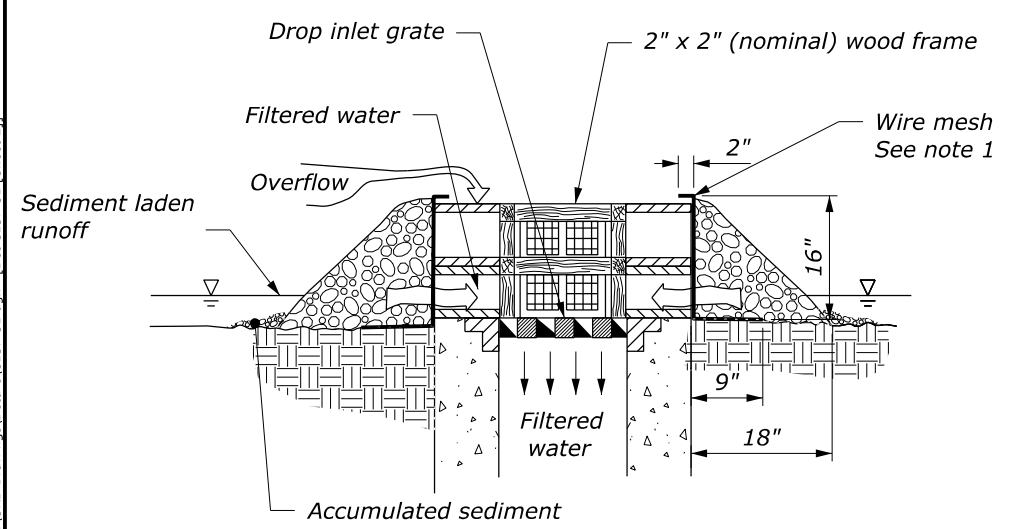
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| U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY | CFLHD DETAIL C157-51 |
| INLET PROTECTION | SPECIFICATION FP-24 |
| | APPROVED FOR USE |
| Sheet 1 of 2 | DRAFT 06/2024 |

NOTE:

1. For Type D1 and D2 gravel filter, use clean, silt-free aggregate between 2 inches and 3 inches in diameter. Use wire mesh with 1/2" x 1/2" openings.
2. Inlet protection device (Type E) may consist of continuous filter tubing filled with gravel or other prefabricated filter material. Install device according to the manufacturer's recommendations.
3. Dimensions may vary to fit field conditions.

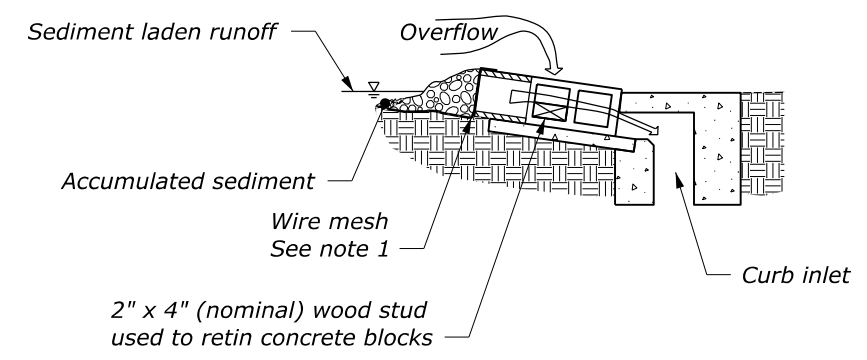


PLAN



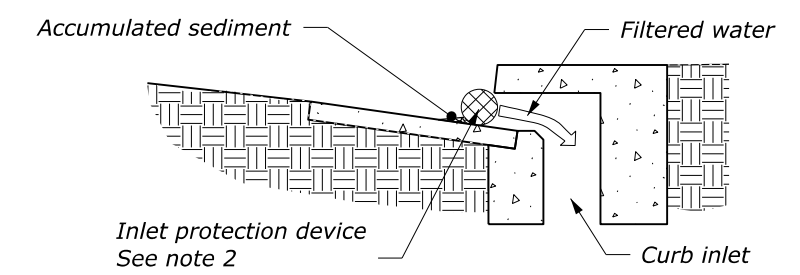
SECTION C-C

**BLOCK AND GRAVEL
DROP INLET PROTECTION (TYPE D1)**



SECTION D-D

**BLOCK AND GRAVEL
DROP INLET PROTECTION (TYPE D2)**



SECTION E-E

**INLET PROTECTION DEVICE
CURB INLET PROTECTION (TYPE E)**

NO SCALE

| | |
|--|-------------------------|
| U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY | CFLHD DETAIL C157-51 |
| INLET PROTECTION | SPECIFICATION FP-24 |
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| Sheet 2 of 2 | DRAFT 06/2024 |

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