

**Drain Inlet Protection System for area grates (in paved areas)  
Sediment and Debris Control  
GUIDE SPECIFICATION**

PRODUCT:  
**GR8 Guard™**

MANUFACTURER:  
ERTEC®  
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**1.0 Description:**

Work covered under this item consists of installing a GR8 Guard™ inlet protection system for drain inlets in paved areas. The purpose is to minimize silt and sediment and stop debris from entering the storm drain system.

**2.0 Material:**

Provide a low profile grate inlet protection device:

- **Size.** Furnish low profile grated drain inlet protection device with a maximum vertical berm height of 2 in and a perimeter gasket that is long and wide enough to seal and prevent underflows.
- **Structure.** Furnish low profile grated drain inlet protection device manufactured from non-biodegradable materials. It shall be UV stable, resist cracking or performance deterioration from sunlight for 4 years. System shall be made from recyclable materials and recyclable at the end of life. The sediment filter shall be laminated between and protected by semi-rigid layers of apertured polymeric high density polyethylene (HDPE) with tensile yield (ASTM D-638) = 1800 to 2800 lb/in<sup>2</sup>. Service temperature shall be from -30 to 160 deg F.
- **Flow Rate.** Furnish low profile grated drain inlet device containing a filter with a minimum clean water flow-through rate between 130 and 180 gallons per square foot per minute and a percentage-open-area of 9% to 13%.
- **Single unit Construction:** Furnish four layer low profile grated drain inlet protection device as a single unit assembly.
- **High flow bypass:** Furnish low profile grated inlet protection device which has an area that allows unfiltered flow during high flow conditions.
- **Underflow Seal:** Furnish low profile grated inlet protection device with an underflow seal to prevent sediment laden water from flowing under the filtering system.
- **Secure Attachment:** Furnish low profile grated inlet protection device with grate attachment systems allowing rapid installation, flush fit above ground and secure attachment.

### 3.0 Installation:

1. **Placement:** Select correct size (see table in installation instructions): DO NOT remove grate. Place GR8 Guard™ on top of grate. GR8 Guard shall extend at least 3 inches beyond grate in each direction.
2. **Anchor methods:** **A)** Attach with 16 gauge tie-wire. Cut wire to 18" lengths. At each corner of GR8 Guard, feed one end of wire down through GR8 Guard, around grate bar, and back up thru GR8 Guard. Above ground, twist wires several times and snip off excess or **B)** Place small snake bags or equivalent (gravel bags) containing clean, pea-sized gravel around perimeter of GR8 Guard or **C)** Place traffic cone or delineator on top of GR8 Guard.
3. **Clean:** Accumulation of leaves, debris and sediment can cause backups! Clean after every storm, or as necessary.
4. **Protect:** In stop-and-go traffic areas where exposed to constant tire abuse, it is useful to place traffic cones or delineators on or near GR8 Guard to discourage run-overs. GR8 Guard stands up to run-overs well, but does not survive long in constant stop-and-start traffic.

### 4.0 Maintenance:

- Perform maintenance as required. Inspect following rainfall events and at least daily during prolonged rainfall. Clean periodically to provide an adequate sediment holding capacity. Debris shall be removed daily and sediment shall be removed when the sediment accumulation reaches 1 inch. Unit can be removed, washed and reinstalled. Removed sediment and debris shall be incorporated in the project at designated locations or disposed of outside the project or in conformance with requirements.

### 5.0 Method of Measurement:

- **Low Profile Drain Inlet Protection Device.** Low profile drain inlet protection device size will be based on grate size. Each unit shall overlap grate by at least 3 inches beyond the grate perimeter. Check manufacturer size tables (data sheet or installation instructions).

### 6.0 Basis of payment:

- **Low Profile Drain Inlet Protection Device.** The work performed and materials furnished in accordance with this item and measured as provided under "Measurement" will be paid for at the unit price bid for "Drain Inlet Protection Device." This price is full compensation for furnishing, placing, maintaining, and for permanently removing the low profile drain inlet protection device from the project, and for all other materials, labor, tools, equipment, and incidentals.
- Removal of drain inlet protection device will not be paid for directly but is subsidiary to the installation item. When the Engineer directs that the drain inlet protection device installation or portions thereof be replaced, payment will be made at the unit price bid for "Drain Inlet Protection Device," which is full compensation for the removal and reinstallation of the drain inlet protection device installation.