



## ECONODRAIN DG-4™ STANDARD SPECIFICATION

EconoDrain® Pre-engineered Trench Forming System with Heel Proof/ ADA Perforated Reinforced Galvanized Steel Grates

### System ID#: EconoDrain DG-4

Trench drain shall be EconoDrain® DG-4; By MultiDrain Systems, Inc., which is located at: 1405 Industrial Drive; Statesville, NC 28625; ASD. Toll Free Tel: 800-433-1119; Tel: 704-508-1010; Fax: 704-508-1011; Email: [request info](mailto:request_info@multidrain.com) ([steve.born@multidrain.com](mailto:steve.born@multidrain.com)); Web: [www.multidrain.com](http://www.multidrain.com).

**Forming System:** EconoDrain 4 inch (102 mm) Trench Drain Forming System as manufactured by MultiDrain Systems, including EPS forms, grating/cover seat, grating and/or covers and system accessories.

1. Construction: The trench drain system shall be EconoDrain consisting of non-CFC Expanded Polystyrene Foam (EPS) interlocking pre-sloped removable forms having a standard slope of 0.5 percent (1/16 inch per lineal foot of trench) and installed in standard 78-3/8 inch (two meter nominal) sections, pre-welded grate frames anchored securely in concrete, common rebar used for form stability and anti-flotation during pour and gratings.
2. Expanded Polystyrene Foam (EPS) Forms:
  - a. EPS shall have a Flame Spread less than 25 and Smoke Developed less than 450 per ASTM E-84 test method.
  - b. Radius Bottom.
  - c. Square Bottom.
3. Grate Seat Rails:
  - a. Left and right rail shall be affixed together and pre-welded to assure proper symmetry and planar accuracy.
  - b. Material: Mild steel rails - Black, Polyester powder coating.
  - c. Material: Mild steel rails - Galvanized.
  - d. Material: Stainless steel.
  - e. Alignment clips shall be provided at the rail end welded to the angle frame.
  - f. Eight anchor stands shall be provided per eight foot length to aid installation stability; allow simple grade adjustment and provide grate rail pull out resistance. The anchor stands shall be fully welded to the angle frame.
  - g. Each rail shall provide 10 anchor studs, a means to mechanically lock itself into the surrounding concrete. Rail pull out resistance shall not be less than 2,480 lb/lineal foot (36 kN/m).

**Grating:** MultiDrain part number 2412.19/2413.10. Grates are 39.19" (1 meter) and 19.6 (1/2 meter) respectively. Grates shall be a minimum of 14ga stamped galvanized steel with extra reinforcement bars and shall be Heel Proof with maximum openings of .25" (6.35mm) and shall be ADA compliant to all directions of travel. Grating shall meet a minimum 494 psi proof load per AASHTO M-306 test modified by utilizing a 9" x 3" load plate. Grates shall seat into channels without rocking and shall be locked to the channel using a zinc plated steel 5/16 – 18 UNC bolt and zinc plated steel toggle bar system with a bolt torque of 10in/lb. Grates shall be made in U.S.A., and shall conform to the FHWA's "Buy America" policy 23 CFR 635.410(b) and Federal Acquisitions Regulations (FAR) 52.225 "Buy American Act".

### Quality Assurance:

**Submittals:** A Certificate of Compliance in conformance with the provisions of these Standard Specifications shall be furnished to the Engineer. Grates shall be independently tested to AASHTO M-306.