



ECONODRAIN® STANDARD SPECIFICATION

4-1/2" (114 mm) Trench ID, Pre-engineered Trench Forming System with Ductile Iron Grate

System ID#: EconoDrain Series #4

Trench drain shall be EconoDrain® Series #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 \(steve.born@multidrain.com\)](mailto:request_info@multidrain.com); Web: www.multidrain.com.

Forming System: EconoDrain 4-1/2 inch (114 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 eight foot sections (2438 mm) 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. Non-petroleum based form release is to be used for smooth interior trench walls and easy form removal.
 - 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 conforming to ASTM A36 - Black, Polyester powder coating.
 - c. Material: Mild steel rails - Galvanized.
 - d. Material: Stainless steel conforming to ASTM A276.
 - e. Alignment clips shall be welded to each end of 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 frame assembly 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).

Grate: EG-0424-1-DI-B

- a. Material: Ductile Iron
- b. Size (in.): 5-1/4" Wide x 24" Long
- c. Grate Slot Size: 1-1/2" x 4-1/2"
- d. Open Area: 64.1%
- e. Square Inches per Lin. Ft.: 41.4
- f. Load Rating: AASHTO M306-HS25
- g. Grate Locking Device: Grate secured to steel rails with center locking device, Part Number ELD04.

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.