

BRIDGE FIBERGLASS DRAIN SYSTEM

****From Springfield BRO 1442(26)**

- xx. DESCRIPTION. This work shall consist of furnishing and installing a bridge drainage system or the removal of an existing bridge drainage system and replacement with a new system at the locations designated in the Plans and as directed by the Engineer.

The work under this Section shall be performed in accordance with these provisions and Section 628 of the Standard Specifications.

- xx. SUBMITTALS. The manufacturer supplying the fiberglass pipe shall prepare adequate plan details to meet the requirements specified herein. One copy of these details shall be submitted to the Engineer, for informational purposes only, before construction of the drainage system begins.

- xx. MATERIALS.

- (a) Pipe and Fittings. Pipe and component fittings shall be 200 mm (8 inch) diameter or 150 mm (6 inch), as specified, reinforced thermosetting resin pipe (RTRP) meeting the requirements of ASTM D 2996. Pipe and component fittings shall qualify for a 207 Mpa (30,000 psi) short time rupture strength hoops tensile stress.

The final color of the reinforced fiberglass pipe and component fittings shall be pigmented concrete gray. Paint will not be accepted.

A Type A Certification shall be furnished in accordance with Subsection 700.02.

- (b) Scuppers and Grates. Bridge scuppers and grates shall be Neenah R-3948-V, or approved equal. Gray iron castings meeting the minimum requirements of AASHTO M 105, Class No. 30B shall be used.

A Type A Certification shall be furnished in accordance with Subsection 700.02.

- xx. GENERAL REQUIREMENTS. The Contractor shall construct the new drainage system at the location shown on the Plans or in the same approximate location as the existing system. Minor adjustments in horizontal or vertical alignment may be allowed to accommodate normal fiberglass pipe fitting. The final drainage system shall fully control all water flowing off the bridge at the expansion joint. Each system shall include all the necessary components to form a complete and fully functional drainage system from the bridge deck to the existing drain outlet elevation.

All reinforced fiberglass pipe, fittings, and method of attachment shall be in accordance with guidelines and procedures recommended by the manufacturer of the fiberglass materials.

10/5/2011

Adhesive bond joints are acceptable for all joints. The interface between the drainage features on the deck (expansion joint) and the fiberglass pipe shall not be rigidly connected.

xx. METHOD OF MEASUREMENT. The quantity of Special Provision (Bridge Fiberglass Drain System) of the size specified to be measured for payment will be the number of meters (linear feet) of drainage pipe used in the complete and accepted work.

xx. BASIS OF PAYMENT. The accepted quantity of Special Provision (Bridge Fiberglass Drain System) of the size specified will be paid for at the Contract unit price per meter (linear foot). Payment will be full compensation for removing and disposing of the existing drainage system, where required; for installing a new drainage system as specified; and for furnishing all labor, equipment, tools, and incidentals necessary to complete the work.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.640 Special Provision (Bridge Fiberglass Drain System)	Meter (Linear Foot)