

TEMPORARY SUPPORT OF WATER MAIN

**\*\*From Barre Town STP SCRP(10)**

xx. DESCRIPTION. This work shall consist of supporting and protecting an operating water main located within the limits of work.

The work under this Section shall be performed in accordance with these provisions, the Plans, and Section 629 of the Standard Specifications.

xx. SUBMITTALS. The Contractor shall submit Construction Drawings in accordance with Section 105 detailing work and materials requirements for supporting the existing water main. The submission shall include, but not be limited to, the following:

- (1) Selection of foundation pad(s) and jack(s) to adjust beam position.
- (2) Detail to secure water main to beam or other support member.
- (3) Calculations verifying adequate support for the existing water main during excavation operations.

The submitted drawings, procedures, and calculations shall be prepared, stamped, and signed by a Professional Engineer licensed in the State of Vermont. The Contractor shall anticipate duration of two weeks for the Owner and Engineer to review and comment on the initial submission.

xx. MATERIALS.

- (a) Insulation Board. Insulation board shall be extruded polystyrene, having an R-value of 10 for a 2 inch thickness and conforming to ASTM C 578, Type VII.
- (d) Controlled Density (Flowable) Fill. Material for flowable fill shall meet the requirements of Section 541 and the following for a pumpable mix:

Class	Minimum Cementitious Material* (lbs/cy)	Maximum Water-Cem. Mat. Ratio	Range in Slump (in.)	Air Content (%)	Fine Aggregate Gradation Table	28-Day Comp. Strength (psi)
Flowable Fill	To be designed	4.0	6 min.	15 ± 6	Subsection 704.01	100 max.

\* A mineral admixture is required to replace a portion of the cement.

Provide design mix with submission.

xx. CONSTRUCTION REQUIREMENTS. Following culvert installation, place initial backfill above culvert. Install insulation board beneath water main and over precast concrete culvert. Extend insulation 4

feet beyond culvert width.

Place 6-mil polyethylene wrap around water main to prevent flowable fill adhesion. Install formwork to control limits of flowable fill envelope. Longitudinal limits of flowable fill envelope shall extend 1 foot past either end of temporary water main extension.

Any break or leaks in the water main through the project area shall result in replaced new Class 52, 12-inch diameter ductile iron water main and solid sleeve couplers, installed to the satisfaction of the Owner. No additional compensation will be allowed for any repairs to or replacement of the existing water main due to breaks or leaks. The Contractor shall respond immediately to first notice from the Owner in the event of a break or leak in the water main. The Contractor shall provide 24-hour emergency contact information to the Owner. If the Contractor fails to respond in the event of an emergency break or leak, the Owner will make all necessary repairs and back charge the Contractor for all associated costs.

The Contractor shall retain a sketch of the installed configuration of flowable fill for the Owner's file.

- xx. METHOD OF MEASUREMENT. The quantity of Special Provision (Temporary Support of Water Main) to be measured for payment will be on a lump sum basis in the complete and accepted work.
- xx. BASIS OF PAYMENT. The accepted quantity of Special Provision (Temporary Support of Water Main) will be paid for at the Contract lump sum price. Payment will be full compensation for performing the work specified, making required submittals, and for furnishing all materials, labor, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.645 Special Provision (Temporary Support of Water Main)	Lump Sum