

CAT PLOW INSTALLATION OF HDPE INNER DUCT

****From Hartford-Sharon FITS(503)**

xx. DESCRIPTION. This work shall consist of plowing, by use of a Caterpillar tractor-mounted plow, six (6) 1.25" SDR-9 HDPE innerducts to the depth specified in the Contract Documents; electrofusion welding HDPE duct ends; performing one (1) pre-rip pass at the discretion of the Engineer; restoring the plow furrough by the end of each work period; furnishing and placing necessary erosion prevention and sediment control measures; placing 4" nonmetallic utility/cable warning tape 12" below the restored surface and directly over the top of the steel pipes; and placing a #6 copper ground wire 6" above the conduits or steel pipe.

xx. MATERIALS. The Contractor is required to submit material specification sheets for all materials used, for approval by the Engineer.

Unless otherwise specified, the material shall be six (6) 1.25" SDR-9 High Density Polyethylene (HDPE), UL listed, plastic innerducts with a smooth interior and exterior wall. The SDR-9 HDPE innerducts shall have a minimum inner diameter of 1.270" and a nominal outer diameter of 1.660". The six (6) 1.25" SDR-9 innerducts shall all be individual colors, consistent throughout the entire project. The material also includes 4" nonmetallic utility warning tape and #6 ground wire.

Additional select backfill may be required if the spoils from the excavation are deemed unsuitable for backfill by the Engineer.

xx. CONSTRUCTION REQUIREMENTS. Preparation of the HDPE innerducts for the electrofusion weld procedure includes the following:

- (a) The preparation of the HDPE innerducts for the electrofusion weld procedure in accordance with the fusion machine manufacturer's instructions, and the proper execution of the fusion process.
- (b) Perform a right angle cut using a fixture and suitable cutter for the plastic.
- (c) Use a hand scrapper to remove oxidation from the areas of the plastic pipe that will be fused.
- (d) De-burr the edges of both sides of the plastic pipes.
- (e) Protect the prepared ends of the plastic pipes from atmospheric conditions.
- (f) Use a re-rounding clamp if required to take out any ovality of the plastic pipes.
- (g) Prepare the coupler and the plastic pipes for the fusion process with appropriate solvents and cleaners.
- (h) Set up the plastic pipe ends in the alignment fixture and connect the fusion heat element contacts.

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(i) Fuse the plastic pipe according to the instructions provided by the manufacturer of the fusion equipment.

(j) Contractor shall use the proper cleaning solutions and expendables, such as cleaning cloths, during the electrofusion welding of HDPE ducts.

xx. METHOD OF MEASUREMENT. The quantity of Special Provision (Cat Plow Installation of HDPE Inner Duct) to be measured for payment will be the number of meters (linear feet) of the specified duct system installed in the complete and accepted work.

xx. BASIS OF PAYMENT. The accepted quantity of Special Provision (Cat Plow Installation of HDPE Inner Duct) will be paid for at the Contract unit price per meter (linear foot). Payment will be full compensation for performing the work specified 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>
900.640 Special Provision (Cat Plow Installation of HDPE Inner Duct)	Meter (Linear Foot)