

**DESCRIPTION**

The CONTRACTOR shall install a furnished 0.46 in. diameter Fiber Optic Cable to be used for the Rochester TCS communications interconnect.

**CONDUIT PREPARATION**

The CONTRACTOR shall have prepared the conduit for pulling the fiber optic cable under other bid items of this contract.

**CABLE PULLING AIDS AND HANDLING PRECAUTIONS**

The 0.46 in. diameter Fiber Optic Cable shall be attached to the pulling cable by means of a wire mesh pulling grip. Pulling force shall not exceed 600 lbs and shall be limited by using a tension monitored or limiting pulling winch, or a properly rated break-away swivel.

The cable jacket may be lubricated with a neutral lubricant that will not attack the polyethylene jacket to minimize pulling friction. An "elephant trunk" cable guide shall be employed between the top of the manhole and the entrance end of the conduit to prevent cable damage where deemed necessary and to prevent the cable from exceeding the minimum loaded bend radius of 6.8 in.

Caution shall be observed by the CONTRACTOR in pulling of cable through the conduits to prevent damage to cable jackets, shields and conductors. When a cable is pulled into a conduit the end of the cable shall be covered with polyvinyl chloride shrink sleeving to exclude moisture, and it shall be so kept until connections are made with terminations equipment. Both the shrink sleeving and the manner in which it is applied shall be approved by the ENGINEER before being used.

Cable pulleys shall be used at all locations where a change in direction of the cable would otherwise create excessive pulling drag. Mechanical pulling aids may be used providing the pulling forces do not exceed the maximum tensile limit of 600 Lbs. for the fiber optic cable. Reel brakes shall be provided to ensure that the cable does not "kink" coming off the reel.

**CABLE INSTALLATION BETWEEN THE MANHOLE OR PULL BOX AND CABINET**

The contractor must ensure he has sufficient cable length to complete the pull in one continuous run. Splicing not called for in the design plans will not be allowed.

A length of cable shall be pulled out of the exit end of the primary conduit in the manhole or pull box sufficient in length to reach the designated equipment cabinet at curb side. A pull cable shall be used in the manhole or pull box to conduit to pull this remaining length of cable through and up into the cabinet with sufficient length to leave a 40 ft. loop of cable in the cabinet to facilitate splicing in a truck or trailer.

Cable coiling in the manhole or pull box will be as ordered by the ENGINEER. The coil shall

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MATERIAL & TESTING**

be tied back to prevent interference with other cabling in the manhole or pull box or with access to junction boxes, the bend radius of coils will not violate the minimum specified installed bend radius for of 4.6 in.

**POST-INSTALLATION TESTS**

After the cable is installed, Monroe County Department of Transportation shall be contacted to perform all splicing and required testing.

**METHOD OF MEASUREMENT**

The quantity to be paid for in this item shall be the lineal feet of installed cable furnished by Monroe County.

**BASIS OF PAYMENT**

The price bid shall include the costs of all hooks, racks, and other devices for supporting the cable in manholes, pull wire, material, installation labor, tools and equipment required for cable installation.

Payment shall be made for each installed section upon successful completion of the approved communications network test.

Payment will be made under:

<b><u>Item No.</u></b>	<b><u>Item</u></b>	<b><u>Pay Unit</u></b>
C689.9921	Fiber Optic Cable Installation - County Furnished Material & Testing	LF