

Rigid Conduit (stick, typical Ft sections)

Recommendation of a mid-assist pull box every 300 ft with a smaller conduit, and likely stick type conduit should be no less than 1" OD.

No sharp bends, gradual sweeps (elbows 12" 90 degree) should be employed.

Long block or LB's should not be used as this may cause impairment to optical performance should cable bend radius be compromised.

- FTTH Microduct (rolled conduit)

Towns may consider purchasing a fiber microduct conduit that we employ in Westfield that comes on a reel. Its 5000 ft/ per reel and runs approximately \$.35/ft.

It's specific for fiber drop installations, has a ribbed inner liner (self lubricated) for air jetting the drop or cable pushing rigid fiber in at time of cable installation. Another nice feature is that it has a 20.AWG (gauge) tracer wire embedded into the skin of the jacket that allows for inducing a toner for future cable location once buried.

This conduit can be layed in an open trench, or plowed in. Preferred depth of 12-18"

In that it's a "rolled" or continuous conduit vs. stick conduit, unlike stick sections of PVC there are no elbows or sweeps that need to be glued thus making the installation easier.

Technicians can air jet cable up to 1000 FT easily without mid assist pull boxes if placed correctly.

Care need be taken to avoid "kinking" the conduit itself. In the event that occurs, a splice and coupler need be installed for clearing conduit path.

Should the town consider purchasing a reel and having it in your town yard, town could then have interested residents purchase the amount they need in advance. Caution need be taken to ensure they are adhering to the correct service pole location per towns FTTH design.

Conduit riser lengths from grade at pole and house should be considered in the installation planning.

- PVC conduits should rise from below ground tight to the premise foundation wall and extend at minimum 4 ft. and capped. The location at premise should be predetermined as suitable for future Fiber Optic NID installation and building penetration of service cable. Preferred pull line installed for future cable entry and taped outside of cap to prevent pull back. PVC conduit will be plumbed into NID at time of cable installation.

PVC conduit at pole should rise at minimum 4 ft and be capped for protection. Location on pole should be considered for eventual cable installation on back quarter or field side of pole.

- FTTH Microduct installations follow the same guidelines as PVC conduit. Riser at pole should have 25 ft coiled vs. 4 ft to allow continuation of duct up to MLP pole attachment height for cable protection. This will be secured up pole at time of cable installation.



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