

SECTION 10 **Customer-Supplied Primary Conduit Systems and Company Transformer Installation**

10 – 1 Installation

10 – 1a Customer/Contractor

- Ensure the safe, reliable installation of primary underground conduits. Own and maintain all primary conduits between the company's distribution tap and the transformer pad.
- Refrain from starting any work until a sketch is received from the company. The sketch will indicate the route of the primary conduit, manhole, handhole, and transformer pad and customer requirements for installation.

Note: Customer's contractor must notify the company one week in advance of excavation of trench by calling the company for inspection scheduling. Failure to contact the company prior to excavation will result in scheduling delays, additional customer requirements, and possible charges.

10 – 1b Company

- Own and maintain all cable within the customer's primary conduit and the company's distribution tap and the transformer pad.

10 – 2 Primary Conduit System

10 – 2a Customer/Contractor

- Consult the company regarding the location, selection, and details of the installation prior to design and installation.
- Install one spare conduit that contains a fish line and is plugged at the pole.
- Install conduit at a minimum depth of 36 inches below final grade, unless otherwise noted or approved by the company.

10 – 2b Company

- Specify location, type, and size of primary conduits. Minimum 4 inches in diameter.
- Provide the customer with a design sketch, installation charges, customer requirements for installation, and information regarding Underground Primary Distribution.

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10 – 3 Acceptable Material and Applications for Primary Conduits

Acceptable Material	Acceptable Applications
Galvanized rigid steel conduit	All locations and 90 degree bends With minimum 36 inch radius
Rigid non-metallic conduit encased	Conduit run
At transformer foundations	*
At manholes and handholes	*
Rigid non-metallic conduit, approved All locations for the purpose without concrete envelope or other covering	All locations
PVC Schedule 80	*With 40" minimum depth under pavement or grade
PVC Schedule 40-DB	*Grade
PVC Schedule 40-DB encased	*Pavement

** To be determined by the company's electrical engineer for application*

10 – 4 Padmounted Transformer

10 – 4a Customer/Contractor

- Obtain any permits or easements.
- Provide property on which to construct the transformer foundation. The distance between a building wall and the transformer must meet company specifications. Separation between gas meter set and the transformer must be at least 15 feet.
- Provide sufficient unobstructed space suitable for operation and maintenance of this equipment.
- Maintain a minimum 12-foot clearance in front of transformer doors and a minimum of 5-foot clearance on the sides and back of transformer. Company engineering specifies transformer protection.
- Ensure transformer site is accessible at all times to company trucks equipped for the installation and removal of heavy transformers. Transformer sites in grass areas require a permanent, driveable base under the grass. The company is not responsible for any lawn restoration in cases where the transformer cannot be accessed by truck from a paved area.
- Maintain a minimum four-foot clearance in front of meter, if metering is installed on the transformer.

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- Install, own, and maintain the transformer pad foundation in accordance with company specifications.
- Ground in accordance with company and NEC specifications.
- Install and maintain service laterals in accordance with the NEC and company specifications.
- Ensure cable is insulated stranded cable, terminated at the transformer end with Burndy Type YA (or approved equivalent) compression-type lugs. These lugs must have a two-hole NEMA drilled tongue and a long shank for a minimum of two compression indents, one-and-three-quarters inch in width.
- Ensure that the customer's electrician terminates the lugs on the de-energized transformer.

Note: If the existing padmounted transformer with multiple customers is tapped off the transformer, the customer/property owner must make shutdown arrangements with all affected customers supplied from the transformer and supply company-specified lugs. The company will terminate the service.

10 – 4b Company

- Explain to the customer that the type of transformer installation depends upon specific conditions. Explain those conditions for the customer's situation.
- Specify transformer protection.
- Terminate on the transformer's two-hole spade terminals.