STANDARD UNDERGROUND ELECTRIC SERVICE REQUIREMENTS TO A STRUCTURE

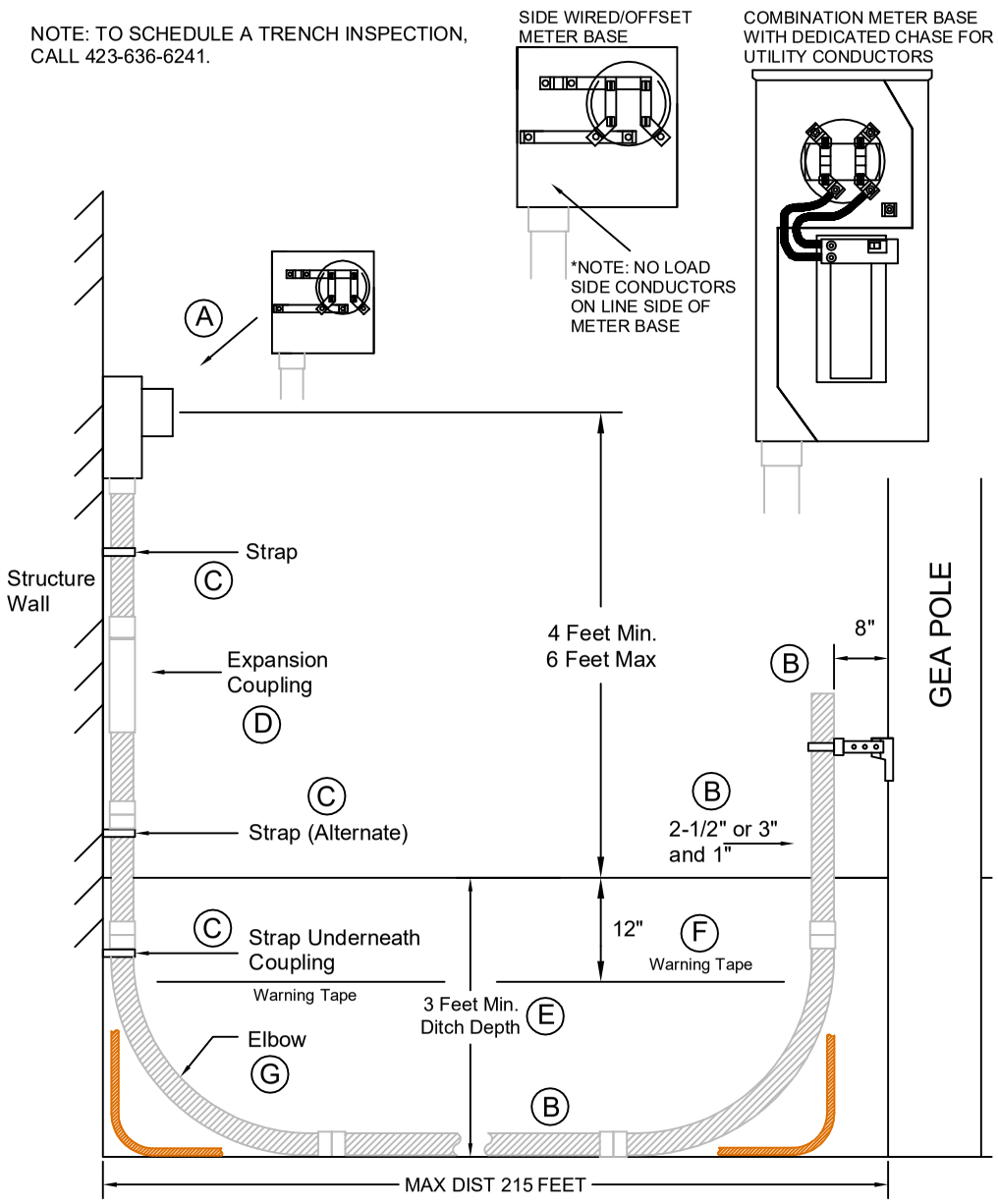
100-200 AMP 120/240 Volt Single Phase

**THE REQUIREMENTS OF THIS SPECIFICATION ARE EFFECTIVE JANUARY 2, 2024 AND SUPERSEDE ALL PREVIOUS PUBLICATIONS

NOTE: BEFORE GEA INSTALLS ANY FACILITIES ON PRIVATE PROPERTY, AN EASEMENT WILL NEED TO BE OBTAINED

Greeneville Energy Authority
423-636-6200
www.mygea.net

NOTE: TO SCHEDULE A TRENCH INSPECTION, CALL 423-636-6241.



*NOTE: 1 INCH COMMUNICATION DUCT NOT SHOWN IN ITS ENTIRETY FOR CLARITY

A. **UG METER BASE:** Customer must contact GEA Engineering Department at 423-636-6241 to have the meter base location determined. GEA may require relocation of the meter base when customer has not complied with this requirement. Meter base must be mounted a minimum of 4 feet and a maximum of 6 feet above finished grade. Meter base must be grounded per National Electric Code requirements.

NOTE: ONLY SIDE WIRED/OFFSET METER BASES OR METER BASE COMBINATIONS WITH A DEDICATED CHASE FOR UTILITY SIDE CONDUCTORS WILL BE ACCEPTED FOR GEA TO FURNISH AND INSTALL THE UNDERGROUND SERVICE CONDUCTORS TO THE METER BASE.

B. **CONDUIT:** All underground services shall be installed in conduit regardless of soil conditions. ***NO LB'S, LL'S OR LR'S ARE PERMITTED ON THE LINE SIDE OF METER BASE***.

- Customer to furnish and install all conduit from meter base to GEA pole per drawing. *Maximum underground service length from GEA pole is 215 feet.* All joints to be glued.
- 2-1/2 inch or 3 inch UL listed Schedule 40 PVC conduit is required for the electrical service. No reducers or mixing of conduit sizes are permitted. Customer must also furnish and install a 1 inch UL listed Schedule 40 PVC conduit for future communications/meter reading. The 1 inch conduit is to be installed in close proximity and preferably in contact with the electrical service conduit. ***NOTE: THE 1 INCH CONDUIT CANNOT BE USED BY ANY OTHER ENTITY DUE TO ITS INSTALLED LOCATION. THE CONDUIT WILL NOT MEET NESC RULE 320B2c FOR MINIMUM SEPARATION REQUIREMENTS.***
- **GEA WILL NOT ACCEPT HEATED CONDUIT REGARDLESS OF THE METHOD USED. UNDER NO CIRCUMSTANCES WILL GEA ACCEPT CONDUIT OFFSETS TO AVOID NOTCHING/MODIFYING OF FOOTER AT STRUCTURE.**
- All Conduits are to be installed above grade and must not exceed 2 inches away from structure wall. Conduit at GEA pole to be installed in contact with GEA stand-off bracket. If GEA stand-off bracket is not present during installation, install conduit 8 inches away from surface of pole. Seal the end of all conduits that do not enter an enclosure.

C. **COUPLING SUPPORT STRAP/STRAPS:** Install strap directly below coupling ensuring contact with coupling. This prevents conduit from settling during backfill. If there is nothing below grade to anchor the coupling support strap, cut the conduit one foot above grade and install coupling support strap. Straps are required every 24 inches for exposed conduit above grade.

D. **EXPANSION COUPLING:** An expansion coupling is required for all underground services.

E. **TRENCH 3 FEET DEEP MINIMUM:** Customer to open and close service trench. Depth of trench to be a minimum of 3 feet. If rock is encountered and minimum depth cannot be achieved, conduit can be encased with 3 inches of concrete. Water lines cannot be installed in the trench with electrical lines unless installed by "shelf method" as specified by GEA drawing JT1-722. If "shelf method" was not utilized, a minimum of 5 feet of separation is required. Water lines can cross GEA lines as long as a minimum of 12 inches of separation is maintained. Communication lines can be installed in the same trench as electric as long as a minimum of 12 inches of separation is maintained. Refer to "GEA TRENCH REQUIREMENTS" located at www.mygea.net or obtain a copy from GEA Engineering Department. Trench must be backfilled before GEA can energize service.

F. **WARNING TAPE AND TRENCH INSPECTION:** Warning Tape must be installed and secured to all vertical elbows. The warning tape can be in the trench or on the ground beside the trench at time of inspection. GEA will not install facilities unless warning tape is present. To schedule a trench inspection, contact GEA Engineering Department at 423-636-6241.

G. **ELBOW:** Must use at least 24 inch radius, 90-degree elbows at GEA pole and at meter base on structure. 36 inch radius 90-degree elbows must be used for horizontal turns in trench. Maximum of 3 elbows (one at pole, one at structure and one in trench) can be used. For the communication conduit, use 5.75 inch radius (standard) elbows.

NOTE: ALL REQUIREMENTS LISTED ABOVE MUST BE MET FOR GEA TO FURNISH AND INSTALL UNDERGROUND CONDUCTORS TO METER BASE. IF THE REQUIREMENTS CANNOT BE MET, REFER TO THE GEA SPECIFICATION "NON-STANDARD UNDERGROUND ELECTRIC SERVICE REQUIREMENTS TO A STRUCTURE".