



SEQUACHEE VALLEY ELECTRIC COOPERATIVE

UNDERGROUND SPECIFICATIONS

October 30, 2009

UNDERGROUND PRIMARY SPECIFICATIONS

- ⇒ The maximum primary length from the riser pole to padmount transformer or junction box shall be limited to 500 feet.
- ⇒ Consumer shall provide unobstructed access to both the primary riser pole and padmount transformer. Sub-surface installations (installation of fence posts, planting of trees and bushes, etc.) shall not be allowed within 3 feet of the underground primary route. Buildings or other structures shall not be located within 3 feet of said route. Above ground or in-ground pools shall not be located within 5 feet of said route.
- ⇒ Consumer shall install appropriate electrical conduit, buried to an effective depth of 36" to top of conduit. Back-fill material shall be free of debris that may pose a physical hazard to the underground installation.

Should an effective burial depth of 36" not be attainable due to the presence of solid rock, the minimum coverage requirements may be permitted to be reduced by 6" for each 2" of concrete placed immediately over conduit. However, in no case shall the minimum ditch depth in solid rock be less than 12", with 8" of concrete poured on top of conduit.

- ⇒ Ditch shall be dug in a continuous straight line from the riser pole to the padmount transformer or junction box.
- ⇒ 3" Schedule 40 PVC electrical conduit may be used in ditches over which no vehicular traffic will cross.
- ⇒ In areas where vehicles are expected to cross (driveways, roadways, etc), 3" Schedule 80 PVC electrical conduit must be installed.
- ⇒ For all electrical conduits that extend up the riser pole or at any other location where conduit is exposed above ground, 3" Schedule 80 PVC electrical conduit must be used. Member must provide 3" Schedule 80 PVC electrical conduit for installation by Cooperative to within 18" of primary neutral or transformer.

- ⇒ At the riser pole, 3" Schedule 80 PVC long sweeping 90° elbows must be installed. When installing the elbow at the riser pole, said elbow must be placed at a horizontal distance of 4" from the base of the riser pole to allow for the installation of conduit standoff brackets.
- ⇒ At the transformer's concrete pad or fiberglass sleeve, 3" Schedule 80 PVC short sweeping 90° elbows must be installed.
- ⇒ The conduit shall extend 4" above the ground line at the riser pole and concrete transformer pad and 4" above the gravel inside the fiberglass sleeve, with the conduit opening to be temporarily covered to avoid dirt and debris from entering.
- ⇒ Consumer must install a 1/4" nylon pull rope throughout length of conduit system, making sure said rope does not become glued or otherwise adhered to conduit.
- ⇒ Consumer must provide a reinforced concrete transformer pad or install a transformer fiberglass sleeve, to Cooperative specifications.
- ⇒ Should a primary junction box be required due to length of conductor run, Consumer shall be responsible for installation of junction box ground sleeve, installed to Cooperative specifications.
- ⇒ Telephone and television cables may jointly occupy the power cable ditch route, with a minimum vertical separation of 12" above the power cable conduit. Water and gas lines shall not be permitted within a joint-use route, and must be located no closer than 30" horizontal distance from conduit.

- ⇒ At locations where electrical circuits cross gas or water lines, said electrical circuit must normally be placed below gas or water lines at a minimum vertical distance of 12", with an 18" wide by 4" thick slab of concrete installed directly on top of the electrical conduit and extending a minimum of 3' horizontally on either side of the gas or water line. If depth of existing gas or water lines preclude installation of electrical conduit below gas or water lines, the electrical conduit may be installed at a minimum vertical distance of 12" above gas and water lines and encased in 12" of concrete, while maintaining a minimum buried depth of 24" to top of conduit.
- ⇒ Cooperative will provide underground marking tape for installation by Consumer during back-fill operation. Underground marking tape shall be installed a minimum vertical distance of 12" above the power cable conduit.
- ⇒ Cooperative must inspect ditch before it is back-filled.

UNDERGROUND SECONDARY and SERVICE SPECIFICATIONS

- ⇒ The maximum secondary and service conductor length from the riser pole or padmount transformer to the meter base shall be limited to 200 feet.
- ⇒ Consumer shall install appropriate electrical conduit, buried to an effective depth of 24" to top of conduit. Back-fill material shall be free of debris that may pose a physical hazard to the underground installation. Ditch shall be dug in a continuous straight line from the riser pole or padmount transformer to the meter base.

Should an effective burial depth of 24" not be attainable due to the presence of solid rock, the minimum coverage requirements may be permitted to be reduced by 6" for each 2" of concrete placed immediately over conduit. However, in no case shall the minimum ditch depth in solid rock be less than 12", with 8" of concrete poured on top of conduit.

- ⇒ For service entrance equipment rated at 200 amps or less, 2 1/2" Schedule 40 PVC electrical conduit may be used in ditches over which no vehicular traffic will cross.
- ⇒ For service entrance equipment rated at 400 amps, 3" Schedule 40 PVC electrical conduit may be used in ditches over which no vehicular traffic will cross.
- ⇒ In areas where vehicles are expected to cross (driveways, roadways, etc.), Schedule 80 PVC electrical conduit must be installed.
- ⇒ For all electrical conduits that extend up the riser pole or at any other location where conduit is exposed above ground, Schedule 80 PVC electrical conduit must be installed.
- ⇒ At the riser pole, padmount transformer or junction box location, Schedule 40 PVC long or short sweeping elbows must be installed. When installing the elbow at the riser pole, said elbow must be placed at a horizontal distance of 4" from the base of the riser pole to allow for the installation of conduit standoff brackets.

- ⇒ Consumer shall furnish a minimum of 30' of Schedule 80 PVC conduit and PVC weather head for Cooperative's installation up the riser pole.
- ⇒ The conduit shall extend 4" above the ground line at the riser pole and concrete transformer pad and 4" above the gravel inside the fiberglass sleeve, with the conduit opening to be temporarily covered to avoid dirt and debris from entering.
- ⇒ Consumer must install a 1/4" nylon pull rope throughout length of conduit system, making sure said rope does not become glued or otherwise adhered to conduit.
- ⇒ Telephone and television cables may jointly occupy the power cable ditch route, with a minimum vertical separation of 12" above the power cable conduit. Water and gas lines shall not be permitted within a joint-use route, and must be located no closer than 30" horizontal distance from conduit.
- ⇒ At locations where electrical circuits cross gas or water lines, said electrical circuit must be placed below gas or water lines at a minimum vertical separation of 12", with an 18" wide by 4" thick slab of concrete installed directly on top of the electrical conduit and extending a minimum of 3' horizontally on either side of the gas or water line. If depth of existing gas or water lines preclude installation of electrical conduit below gas or water lines, the electrical conduit may be installed at a minimum vertical distance of 12" above gas and water lines and encased in 12" of concrete, while maintaining a minimum buried depth of 12" to top of conduit.
- ⇒ Cooperative must inspect ditch before it is back-filled. The Deputy Electrical Inspector for the State of Tennessee will inspect the conduit system where it exits the ditch and enters the meterbase, and all consumer-owned service conductors.