

TOWN OF BEDFORD



69 kV Line Loop Improvement

Install 69 kV line along Forest Road and McGhee Street to McGhee Street Station, relocate 69 kV line on Dawn Drive and install 69 kV Switch at Weaving Mill Station.

Electric Department

2/4/2021

Work to be performed on Forest Road and McGhee Street, Dawn Drive and Commerce Street in Bedford, VA

69 kV Transmission Line Improvements in Bedford, Virginia.

The Town of Bedford is seeking a contractor to perform 69 kV Electrical Line Work. Project 1 shall consist of installing approximately 4,420 feet of 3 phase 69kV, 336.4 MCM, 18/1 Merlin transmission line above our existing 12 kV overhead line and one double throw 69 kV switch and steel pole at McGhee Street Station. Project 2 is the installation of a 1,350 ft. long 69 kV line along Dawn Drive to the existing 69 kV line on Shady Knoll Avenue, removal of the 1,280 ft. of existing lines to Frank Chevan Station and installation of one 69 kV single throw three phase air-break switch at Weaving Mill Station. Only contractors experienced in performing 69 kV high voltage work and meeting the Town of Bedford requirement for performing contact work will be considered for this job. Bids will be awarded for performance of all of the work or part of the work as determined by available funds.

Contractor shall be responsible for coordinating all work with the Town of Bedford Electrical Department.

All work shall be performed according to the Distribution Standards of Electricities of North Carolina and Transmission Standards of the Town of Bedford (RUS Bulletin 1728F-810). Other questions should be addressed to Elvin Epting 540-587-6107 eepting@bedfordva.gov or Scott Salmon 540-587-6079 msalmon@bedfordva.gov.

The base bid will be considered lump sum.

Unit prices will be used to add or take away from the total bid price to reflect major changes to the construction and considered for extra to the work. Town Electric Department personnel shall have the right to make changes to add or delete items from the scope of work at the unit prices included with bid proposal and shall have the right to use contractor's labor force to perform additional work at the unit price or a negotiated price.

All temporary and make ready work required to perform the work shall be included in the base bid price.

The contractor shall be required to make a site visit prior to bidding on this job.

The Town Electric Department shall provide all material to be used. Some material may be supplied by the contractor and billed to the town at cost plus if it is necessary to expedite the work .

Where existing equipment can be used to construct the specified units, it will be up to the contractor's discretion as long as completed work is in like new condition and compliant with the current NESC code. An example is if a double or single cross-arm assemblies can be up graded to a triple or double arm by changing required hardware and adding an additional cross-arm.

All retired wire and other scrap remove as part of this work shall be considered Town of Bedford Property and returned to the Electric Department Scrap bins on Adams Street. Copper shall be returned to the Electric Department warehouse at 877 Monroe Street, Bedford, VA 24523.

All 12 kV work shall be performed energized where practical and all 69 kV work shall be performed de-energized and grounded. All conductors shall be tensioned to achieve the proper sag as specified by the engineer.

Holes will need to be drilled in steel poles to mount transformer and auxiliary equipment.

All work shall be coordinated with A. J. Fairchild Superintendent of Bedford Electric Department. The Town Electric Department has purchased and will supply one steel pole and Turner 69 kV double throw switch and the Contractor shall supply all other material.

Unit Definitions and description of Bidding Units:

Distribution Poles:

- P305- Pole, Wood, 30 ft., Class 5
- P354- Pole, Wood, 35 ft., Class 4
- P355- Pole, Wood, 35 ft., Class 5
- P403- Pole, Wood, 40 ft., Class 3
- P404 - Pole, Wood, 40 ft., Class 4
- P451- Pole, Wood, 45 ft., Class 1
- P452- Pole, Wood, 45 ft., Class 2
- P453- Pole, Wood, 45 ft., Class 3
- P501- Pole, Wood, 50 ft., Class 1
- P502- Pole, Wood, 50 ft., Class 2
- P503- Pole, Wood, 50 ft., Class 3
- P551- Pole, Wood, 55 ft., Class 1
- P552- Pole, Wood, 55 ft., Class 2
- P652- Pole, Steel, 65 ft., Class 2
- P65H1- Pole, Steel, 65 ft., Class H1
- P701- Pole, Steel, 75 ft., Class 1
- P702- Pole, Steel, 75 ft., Class 2
- P70H1- Pole, Steel, 75 ft., Class H1
- P751- Pole, Steel, 75 ft., Class 1
- P752- Pole, Steel, 75 ft., Class 2
- P75H1-Pole, Steel, 75 ft., Class H1

Installation shall consist of all labor and material to install pole including excavation of hole to required setting depth of 10% of length of pole plus two feet. Pole shall be tamped and excavated earth shall be removed in accordance with Virginia State Guidelines. Butt ground shall be included on all new wood poles. All wood poles, steel poles and jacking plates shall be supplied by the Town.

Removal shall consist of removing pole and filling hole. Pole shall be disposed of in a manor approved by the Town of Bedford. Pole hole shall be back filled in accordance with the Virginia State Guidelines.

P75S1- Pole Steel 75 ft., Class as needed. Poles supplied by Town of Bedford.

PCUT- Pole, cut off, cut pole off with saw and dispose of excess as needed.

PROCK-Adder for removal of rock per cubic foot.

PHAND- Hand dig adder per cubic foot to hand dig pole hole were required and machine dig in not practical.

Pole Hardware:

PXAP - Cross Arm pin – Installation shall include all labor to install pin Hubbell cat. no. 881 or equal in cross-arm.

Removal shall consist of all labor to remove pin from cross-arm.

PXAAP – Pin, Angle, Cross Arm – Including bolt to attach to cross arm. Chance cat. no. 8779.

Installation shall include all labor and material to install pin in cross arm including drilling arm if necessary.

Removal shall consist of all labor to remove pin from cross-arm either and return to warehouse.

PTP - Pin, Pole Top – Installation shall include all labor and material to install pin MacLean cat. no.

J1368Z, two 5/8 x 12 inch machine bolts Chance cat. no. 8812, two lock washers cat. no. C205-0186 and two flat washers Chance Cat. 6814.

Removal shall consist of all labor to remove pin from pole.

PISP – Pin, 4 inch screw end Insulator Pin Chance cat. no. 888. Installation shall include all labor to install pin.

Removal shall consist of all labor to remove pin.

P8XA – Single 8 ft Cross Arm 3 ½ x 4 ½ inch wood REA Type 4 with steel braces.(This unit for removal only).

Installation shall consist of labor and material to install one cross arm and one set of steel braces including all drilling and gaining as required.

Removal shall consist of labor to remove cross-arm, braces and hardware. Cutting or loosening hardware as necessary shall be included.

P8DXA – Double 8 ft Cross-arms, 3 ½ x 4 ½ inch wood with steel braces. (This item for removal only)

Removal will consist of labor to retire two 8 foot arms and two sets of steel braces from a pole.

Cutting or loosening hardware as necessary shall be included.

P8DXAW – Double 8 ft. Cross-arms, 3 ½ x 4 ½ inch wood REA Type 4 with wood braces Aluma-Form AF636, Three 5/8 x 20 inch DA Bolts Chance cat. no. 8872, Two 3/8 x 4.5 inch Long Carriage Bolts Chance 8634-1/2, one lag screw ½ x 4 inch Chance cat. no. 508754, twelve 2 ½ x 2 ½ square washers Chance cat. no. 6813 and two 5/8 inch double coil lock washers Chance cat. no. C205-0186.

Installation shall consist of labor to install 2 cross-arms, braces, and necessary hardware on pole either using existing predrilled holes and gain or drilling and gaining as required.

Removal shall consist of all labor to remove cross arm and braces from pole. Cutting or loosening hardware as necessary shall be included.

P8DXAW6 – Double 8 ft. cross-arms, with two sets of 60 inch span wood braces. Material shall consist of 2 wood cross-arm, 3 ½ x 4 ½ inch, REA Type 4, 2 sets of 60 inch span 30 inch drop wood braces Aluma-form cat. no. RA6030, three galvanized 5/8 x 20 inch double arming bolts Chance cat. no. 8872, four galvanized machine bolts 6 x ½ inch long, 4 ½ inch, four ½ inch lock washers Chance cat. no. C205-0185, three 5/8 inch lock washers Chance cat. no. C205-0186, 12 square washers 2.25 x 2.25 inches Chance cat. no. 6813, two 5/8 x 5 inch lag screws MacLean cat. no. J8765.

Installation shall consist of labor to install 2 cross-arms, braces, and necessary hardware on pole either using existing predrilled holes and gains or drilling and gaining as required.

Removal shall consist of all labor to remove cross arm and braces from pole. Cutting or loosening hardware as necessary shall be included.

P8XAW – Single 8 ft Cross Arm 3 ½ x 4 ½ inch wood REA Type 4 with a pair of wood brace Aluma-form AF626, three 5/8 x 14 galvanized steel machine bolts, Chance cat. no. 8814, six square 2.25 x 2.25 galv. steel washers Chance 6813, Lag Screw ½ x 4 inch galv. steel Chance cat. no. 508754 with 11/16 inch diameter hole, 5/8 inch galv. double lock washer Chance cat. no. C205-0186, two 5/8 x 5 inch lag screws MacLean cat. no. J8765.

Installation shall consist of labor and material to install cross arm and one set of wood braces including all drilling and gaining as required.

Removal shall consist of labor to remove cross-arm, braces and hardware. Cutting or loosening hardware as necessary shall be included.

Transfer shall consist of moving arm to new location on pole.

P8TXAW6 – Triple 8 ft. cross-arms, with two sets of 60 inch span wood braces. Material shall consist of 3 wood cross-arm, 3 ½ x 4 ½ inch, REA Type 4, 2 sets of 60 inch span 30 inch drop wood braces Aluma-form cat. no. RA6030, Three galvanized 5/8 x 24 inch double arming bolts Chance cat. no. 8872, four galvanized machine bolts 6 x ½ inch long, 4 ½ inch, four ½ inch lock washers Chance cat. no. C205-0185, three 5/8 inch lock washers Chance cat. no. C205-0186, 14 square washers 2.25 x 2.25 inches Chance cat. no. 6813 two 5/8 x 5 inch lag screws MacLean cat. no. J8765. Installation shall consist of all labor and material to install cross-arms, braces and hardware and include all necessary drilling and gaining.

Removal shall consist of all labor to retire cross-arms, braces and hardware. Cutting or loosening hardware as necessary shall be included.

P10XAW6 – Single 10 ft. cross-arm set. Material shall consist of one wood cross-arm 4-5/8 x 3-5/8 inch wood REA Type 5 with Aluma-form cat. no. RA6030 wood braces, one galvanized 5/8 x 22 inch machine bolt, 2 galvanized machine bolts 6 inch long, ½ inch Chance cat. no. 8706, one lock washers Chance cat. no. C205-0186, two round washers, 3 square washers 2-1/4 x 2-1/4 with 5/8 hole Chance cat. no. 6813, and two 5/8 x 5 inch lag screws MacLean cat. no. J8765.

Installation shall consist of labor to install cross-arms, braces, and necessary hardware on pole and shall include necessary drilling and gaining.

Removal shall consist of all labor to remove cross arm and braces from pole. Cutting or loosening hardware as necessary shall be included.

- P10DXAW6 – Double 10 ft. cross-arms assembly with 60 inch span wood braces. Material shall consist of two 10 ft., 4-5/8 x 3-5/8 inch wood REA Type 5 cross-arms, two sets of 60 inch span wood braces Aluma-Form cat. no. RA6030, 3 Galvanized 5/8 x 26 inch double arming bolts Chance cat. no. 8826, 4 galvanized machine bolts, 6 inch long, Chance cat. no. 8706, four 1/2 inch, lock washers C205-0185, four galvanized steel round washers Chance cat. no. 6803, 14 square washers 2-1/4 x 2-1/4 with 5/8 hole, Chance cat. no. 6814, and two 5/8 x 5 inch lag screws MacLean cat. no. J8765. Installation shall consist of labor to install 2 of cross-arms, braces, and necessary hardware on pole drilling and gaining as required.
Removal shall consist of all labor to remove cross arm and braces from pole. Cutting or loosening hardware as necessary shall be included.(M5-13EC)
- P10TXAW6 – Triple 10 Arm-assembly consisting of three 10 ft., 4-5/8 x 3-5/8 inch wood REA Type 5 cross-arms, two Aluma-Form cat. no. RA6030 sets of wood braces, three DA bolts, 5/8 x 26 inch Galvanized Steel Chance cat. no. 8876, four galvanized 1/2 x 6 inch machine bolts Chance cat. no. 8706, 14 galvanized steel 2-1/4x2-1/4 inch square washers, Chance cat. no. 6814 and two 5/8 x 5 inch lag screws MacLean cat. no. J8765.
Installation shall consist of all labor and material to install cross-arms, braces and hardware and include all necessary drilling and gaining.
Removal shall consist of all labor to retire cross-arms, braces and hardware. Cutting or loosening hardware as necessary shall be included.
- P10FGT–Fiberglass 10 ft. cross-arms assembly for tangent construction. Material shall consist of one 10 ft., 4-5/8 x 3-5/8 inch Fiberglass REA Type 5 cross-arms, MacLean cat. no. PS10ST005,Two Machine Bolts, Galv. Steel, 3/4 inch x 12 inch length, Chance cat. no. 8912, two washers, curved, 13/16 inch hole, Chance cat. no. 6825. Installation shall consist of labor to install cross-arms, and necessary hardware on pole and include any drilling as required.
Removal shall consist of all labor to remove cross arm. Cutting or loosening hardware as necessary shall be included.
- P10FGDE– Fiberglass 10 ft dead-end Arm-assembly consisting of One 10 ft., 6 x 4 inch fiberglass cross-arms with standard drilling, Two 3/4 inch x 12 inch long galvanized steel machine bolts Chance cat. no. 8912, two galvanized curved washers, 13/16 inch hole Chance cat. no. 6825.
Installation shall consist of all labor and material to install cross-arms, and hardware and include all necessary drilling.
Removal shall consist of all labor to retire cross-arms and hardware. Cutting or loosening hardware as necessary shall be included.
- P10XAW6S – Single 10 foot cross-arm on steel pole-Material shall consist of one 4-5/8 x 3-5/8 inch wood REA Type 5, 10 foot cross-arm, one set if Aluma-form cat. no. RA6030 with 60 inch span wood braces on steel pole two galvanized 1/2 x 6 inch machine bolts Chance cat. no. 8706, one 6 x 5/8 inch machine bolt, one 2.5 x 5/8 inch Machine bolt, two 5/8 inch round washers Chance cat. no. 6805 and two 5/8 inch galv. Steel lock-washer Chance cat. no. 4037. Installation shall consist of labor and material to install 1 cross arm and one set of wood braces on bracket installed on mounted on steel pole.
Removal shall consist of labor to remove cross-arm, braces and hardware. Cutting or loosening hardware as necessary shall be included.
Transfer shall consist of moving arm to new location on pole.
- PFGB1- Bracket Fiber Glass cutout and surge arrester. McClean cat. no. G1MA0112DCB. Installation shall consist of all necessary labor and material to install bracket on pole and include bolts and hardware as required to complete the installation.
Removal shall include all labor to remove bracket and hardware from pole and return to the Bedford Electrical Department warehouse.
- PFGB3- Bracket Fiber Glass cutout and surge arrester. McClean cat. no. G1MA0112DCB. Installation shall consist of all necessary labor and material to install bracket on pole and include bolts and hardware as required to complete the installation.
Removal shall include all labor to remove bracket and hardware from pole.
- PC3 – Neutral clevis. 3 inch insulator mounted on clevis MacLean cat. no. J251 with insulator Hubble cat. no. C99091032PG.
Installation shall consist of all labor and material to drill pole install hardware and insulated clevis.
Removal shall consist of all labor to retire clevis and hardware from pole.

- Transfer shall include all labor to move clevis and hardware from one location on a pole to another location.
- PSB – Pole spool bolt including insulator and bolt.
 Installation shall include all necessary labor and material and include drilling and installing all hardware.
 Removal shall include all labor to remove bolt and attachments and sort and separate to scrap or return Bedford storeroom.
- PDGC38 – Pole Down Guy 3/8 in steel guy wire complete, 100 ft of 3/8 in steel guy wire, 1 inch rod Chance cat. no. 7570, 12 inch expandable anchor Chance cat no. 12831, guy plate MacLean cat. no. DET60K-79, Two 7/8 x 14 inch Machine bolts with nuts Hughes Brothers cat. no. B818-6, Two lock washer HB cat. SLW-80, one Guy Grip MacLean cat. no. DE-S1107, one Strand-vice Anderson cat. no. GDE5102, Two 4 inch washers HB cat. no. RW2-80 for 7/8 inch Bolts and Guy Protector Hubble cat. no. 96FRPE.
 Installation shall consist of all necessary labor to install complete guy including pole bolts and head fitting bolts, anchor, guy protector, guy wire, preformed grip, strand-vice, thimbles and guy rod. All labor to tamp and dispose of earth off site as required by Virginia Department of Conservation and Recreation.
 Removal shall consist of all labor to retire guy wire, anchor, head guy fitting, guy wire and guy rod. All labor to tamp and fill holes shall be included and work shall be in accordance with the Virginia Department of Conservation and Recreation regulations.
- PDGC38D – Double Down Guy 3/8 EHS complete. 200 ft. of 3/8 in steel guy wire, 1 inch rod Chance cat. no. 7570 , 12 inch expandable anchor Chance cat no. 12831,two guy plates MacLean cat. DET60K-79, four 7/8 x 18 inch machine bolts with nut , four Hughes Brother lock washer SLW-80, two guy grip MacLean cat. no. DE-S1107, two Strand-vice Anderson cat. no. GDE5102 and two clevis thimble MacLean cat. no. FSA-100-6, four 4 inch washers Hubble cat. GCW41 for 3/4 inch bolts and guy protector Hubble cat. no. 96FRPE.
 Installation shall consist of all necessary labor and material to install complete guy including pole bolt and head fitting with two 3/4 inch bolts, anchor, guy protector, guy wire, preformed grips, thimbles and guy rod. All labor to tamp and dispose of earth off site as required by Virginia Department of Conservation and Recreation.
 Removal shall consist of all labor to retire guy wire, anchor, head guy fitting, guy wire and guy rod. All labor to tamp and fill holes shall be included and work shall be in accordance with the Virginia Department of Conservation and Recreation regulations.
- PDGC12 – Down Guy complete, 100 ft of 1/2 in steel guy wire, 1 inch rod Chance cat. no. 7570 , 12 inch expandable anchor Chance cat No. 12831, guy plate MacLean cat. no, DET60K-79, two 7/8 x 14 inch machine bolts with nut HB cat. no. B814-6, two lock washer HB cat. no. SLW-80, one guy grip Hubble cat. no. DE-S2115, one strand-vice Anderson cat. no. GDE5104L and clevis thimble MacLean cat. no. FSA-100-6, two 2 inch washers HB cat. no.RW2-80 for 7/8 inch bolts and guy protector Hubble cat. no. 96FRPE.
 Installation shall consist of all necessary labor and material to install complete guy, guy plate, bolts and all necessary hardware. All labor to tamp and dispose of earth off site as required by Virginia Department of Conservation and Recreation.
 Removal shall consist of all labor to retire guy wire, anchor, head guy fitting, guy wire and guy rod. All labor to tamp and fill holes shall be included and work shall be in accordance with the Virginia Department of Conservation and Recreation regulations.
- PDGC12D – Double Pole Down Guy Complete, 200 ft. of 1/2 in steel guy wire, 1 inch rod Chance cat. no. 7570 , 12 inch expandable anchor Chance cat no. 12831, two guy plate MacLean cat. no. DET60K, four 7/8 x 14 inch machine bolts with nut Hughes Brothers cat. no. B814-6, four lock washer HB cat. no. SLW-80, two guy grips Hubble cat. no. DE-S2115, two strand-vice Anderson cat. no. GDE5104L, Two clevis thimble MacLean cat. no. FSA-100-66, four 2 inch washers HB cat. no. SRW-80 for 7/8 inch bolts and guy protector Hubble cat. no. 96FRPE.
 Installation shall consist of all necessary labor to install double guy including bolts and head fittings, anchor, guy protector, guy wire, preformed grips, thimbles and guy rod and shall include any necessary drilling of steel poles. All labor to tamp and dispose of earth off site as required by Virginia Department of Conservation and Recreation.

Removal shall consist of all labor to retire guy wire, anchor, head guy fitting, guy wire and guy rod. All labor to tamp and fill holes shall be included and work shall be in accordance with the Virginia Department of Conservation and Recreation regulations.

PHOLE – Drill hole in steel pole.

PHGF38 – Pole head guy fitting, pole guy plate MacLean cat. no. PEP-65-45 two ¾ x 12 inch machine bolts, guy thimble MacLean cat. no. PSA-100-6, and guy grip Hubble cat. no. DE-S1107

Installation shall consist of all labor to drill pole and install bolt and fitting. Attachment of guy grip and thimble as necessary. All labor to pull tension shall be included.

Removal shall consist of all labor to retire fitting, hardware and attached guy.

PHGF12-Pole head guy fitting, pole guy plate MacLean cat. no. PEP-66-45, thimble guy clevis MacLean PSA-100-6, 2 galvanized machine bolts ¾ x 12 inch, and guy grip Hubble cat. no. DE-2115.

PGW38-Guy wire 3/8 inch steel. Installation shall consist of labor and material to install including applying proper tension. Removal shall consist of all labor to remove and transport to storage site for scrapping.

PGI38 - Pole Guy Insulator, fiberglass rod MacLean cat. no. GCC15-78R2 with two grips MacLean cat. no. DE-S1107 for 3/8 inch guy wire. Installation shall include all labor and material to complete assembly including grips and insulator.

Removal shall include all labor to remove and return.

PGI12 - Pole Guy Insulator. For ½ Inch EHS Guy. Fiberglass rod McLean cat no. GCC21-78R2 with Two MacLean cat. no. DE-S2115 grips for ½ inch EHS.

Installation shall include all labor and material including insulator and grips on guy wire.

Removal shall include all labor to remove grips and guy wire. Also included shall be any labor to splice and tension guy wire.

PLINK – Link Chain Material only link to join two fiberglass guy rods. Hubble cat. no. LK30

CONDUCTORS AND ACCESSORIES:

STIRRUP – Stirrup, equipment tap for use with hot line clamp, MacLean cat. no. HLS-397.

Installation shall consist all labor and material including mechanical or crimp on stirrup and installation on wire and loop and attaching hot line clamp to riser and installing on stirrup.

Removal shall consist of removing hot line clamp and cutting stirrup off of wire.

This unit can not be transferred.

CAA42 – Conductor, #4 twisted insulated Aluminum wire street light conductor.

CAA03 – Conductor 1/0 Aluminum three conductor cable insulated twisted secondary Neritina.

Installation shall consist of all labor to string wire and shall include proper tensioning and labor to place and remove and stringing.

CAD4 – Wire #4 single conductor #4 aluminum. Open wire.

Removal shall consist of all labor to remove wire and hardware and prepare for scrapping.

CAD10 – Wire #1/0 single conductor. Open wire.

Removal shall consist of all labor to remove wire and hardware and prepare for scrapping.

CU6 – Conductor #6 Copper Hard Drawn

Installation shall consist of all labor needed to install, tension and sag wire as directed by owner's engineer. This includes installation of pulling blocks and use of wire installation equipment.

Removal shall consist of all labor to remove wire and the use of contractors wire removal equipment. Contractor shall sort and separate wire for scrapping or return to storeroom.

CAR10 – Conductor 1/0 ACSR,

Installation shall consist of all labor and material needed to install, tension and sag wire as directed by owner's engineer. This includes installation of pulling blocks and use of wire installation equipment. Any temporary storage will be the responsibility of the contractor.

Removal shall consist of all labor to remove wire and the use of contractor's wire removal equipment.

Transfer shall consist of labor to move conductor to new attachment. Work to achieve proper sagging and tensioning shall be part of this unit.

- CAR40 – Conductor 4/0 ACSR,
Installation shall consist of all labor and material needed to install and sag wire as directed by owner’s engineer. This includes installation of pulling blocks, spreading phases and use of wire installation equipment. Any temporary storage will be the responsibility of the contractor.
Removal shall consist of all labor to remove wire and the use of contractor’s wire removal equipment. Contractor shall be responsible for disposal of removed wire.
Transfer shall consist of labor to move conductor to new attachment.
- CAR336 – Conductor 336 ACSR, Merlin
Installation shall consist of all labor and material needed to install, tension and sag wire as directed by owner’s engineer. All costs associated with the installation of the wire shall be included in this cost, including loading and transporting reels, installation of pulling blocks, spreading phases and any other temporary work.
Removal shall consist of all labor to remove wire and the use of contractor’s wire removal equipment. Contractor shall be responsible for returning scrap to the Electric Department Scrap bins.
Transfer shall consist of labor to move conductor to new attachment.
- CAD23-Conductor #2 Aluminum 3 conductor Twist Conch.
- CAR4 – Conductor #4 ACSR,
Installation shall consist of all labor needed to install, tension and sag wire as directed by owner’s engineer. All costs associated with the installation of the wire shall be included in this cost, including loading and transporting reels, installation of pulling blocks, spreading phases and any other temporary work. Any temporary storage will be the responsibility of the contractor. Labor for temporary placement of wire shall be included in this unit.
Removal shall consist of all labor to remove wire and the use of contractor’s wire removal equipment. Contractor shall be responsible for disposal of removed wire.
Transfer shall consist of labor to move conductor to new attachment. Work to achieve proper sagging and tensioning shall be part of this unit.
- CAR2– Conductor #2 ACSR,
Installation shall consist of all labor needed to install, tension and sag wire as directed by owner’s engineer. All costs associated with the installation of the wire shall be included in this cost, including loading and transporting reels, installation of pulling blocks, spreading phases and any other temporary work. Any temporary storage will be the responsibility of the contractor. Labor for temporary placement of wire shall be included in this unit.
Removal shall consist of all labor to remove wire and the use of contractor’s wire removal equipment. Contractor shall be responsible for disposal of removed wire.
Transfer shall consist of labor to move conductor to new attachment. Work to achieve proper sagging and tensioning shall be part of this unit.
- CDE2 – Conductor dead-end #2 ACSR, 120 volt, Blackburn cat. no. W62-1, installed on clevis insulator.
Installation shall consist of all labor and material to install grip on clevis insulator and dead-end wire. Including none tension splice as needed. One crimp lug per connection.
Removal shall consist of all labor to remove connector from insulator. Placing of conductor in temporary holding blocks shall be included.
Transfer shall consist of labor to move dead-end to new location on existing or new pole. Labor to sag conductor to proper tension shall be included.
- CDE4 – Conductor dead-end #4 ACSR Blackburn cat. no. W62-1 neutral or secondary.
Installation shall consist of all labor and material to install dead end on wire and clevis insulator.
Removal shall consist of all labor to remove grip and remove wire. Placing of conductor in temporary holding blocks shall be included.
Transfer shall consist of labor to move dead-end to new location on existing or new pole. Labor to sag conductor to proper tension shall be included.
- CDE6 – Conductor dead-end #6 Hard Drawn Copper, PLP # SG-4502 neutral or secondary, including all labor to install grip on wire and clevis insulator.
Removal shall consist of all labor to remove connector, dead-end tongue, insulators, and bolts.
Placing of conductor in temporary holding blocks shall be included.
Transfer shall consist of labor to move dead-end to new location on existing or new pole. Labor to sag conductor to proper tension shall be included.

- CDE10C – Conductor dead-end #1/0 Aluminum, Secondary or Neutral, Mounted on Clevis Insulator. Material shall consist of one Dead-end grip Blackburn cat. no. W20-1. Installation shall consist of all labor and material to install dead-end grip on wire and place on insulator. Removal shall consist of all labor to remove. Any labor to place in temporary holding blocks shall be included. Transfer shall consist of labor to move dead-end to new location on existing or new pole. Labor to sag conductor to proper tension shall be included.
- CDE10 – Conductor dead-end #1/0 aluminum, secondary or neutral. Material shall consist of 5/8 inch x 14 inch steel bolt Chance cat. no. 8914, dead-end Tongue C203-0385 or eye-nut Chance cat. no. 6502, insulator and dead-end connector Anderson cat no. ADEZ57N. Installation shall consist of all labor and material to install dead end tongue and place wire in dead end grip clamp. Removal shall consist of all labor to remove connector, dead-end tongue, insulators, and bolts. Placing of conductor in temporary holding blocks shall be included. Transfer shall consist of labor to move dead-end to new location on existing or new pole. Labor to sag conductor to proper tension shall be included.
- CDE40 – Conductor dead-end #4/0 Aluminum, Secondary or Neutral. Material shall consist of MacLean cat. no. DG-AC4547. Installation shall consist of all labor and material to install dead end tongue and place wire in dead end grip clamp. Removal shall consist of all labor to remove connector, dead-end tongue, insulators, and bolts. Placing of conductor in temporary holding blocks shall be included. Transfer shall consist of labor to move dead-end to new location on existing or new pole. Labor to sag conductor to proper tension shall be included.
- CDE336 – Conductor dead-end #336 ACSR, Neutral or secondary. Material shall consist of MacLean cat. no. DG-AC4549 Grip for 335.4 ACSR. Installation shall consist of all labor to install material and place wire as required. Removal shall consist of all labor and material to remove connector, dead-end tongue, insulators, and bolts. Placing of conductor in temporary holding blocks shall be included. Transfer shall consist of labor to move dead-end to new location on existing or new pole. Labor to sag conductor to proper tension shall be included.
- CPDE2 – Conductor dead-end #2 ACSR. 15 kV Ohio Brass cat. no. 4010150215, Clamp cat. no. ADEZ-47N, eye nut Chance cat. no. 6502, dead-end tongue Chance cat. no. C203-0385 and 5/8 x 12 inch galv. steel, machine bolt Chance cat. no. 8812 . Installation shall consist of all labor and material to install dead end tongue, disk or approved insulator and place wire in dead end clamp. Removal shall consist of all labor to remove connector, dead-end tongue, insulators, and bolts. Placing of conductor in temporary holding blocks shall be included. Transfer shall consist of labor to move dead-end to new location on existing or new pole. Labor to sag conductor to proper tension shall be included.
- CPDE4 – Conductor dead-end #4 ACSR, 15 kV. Material shall consist of 15 kV insulator MacLean cat. no. DS-15M, clamp Anderson cat. no. ADEZ-47N and eye nut Chance cat. no. 6502. Installation shall consist of all labor and material to install dead end tongue, disk or approved insulator and place wire in dead end clamp. Removal shall consist of all labor to remove connector, dead-end tongue, insulators, and bolts. Placing of conductor in temporary holding blocks shall be included. Transfer shall consist of labor to move dead-end to new location on existing or new pole. Labor to sag conductor to proper tension shall be included.
- CPDE6 – Conductor dead-end #6 copper hard drawn copper, Material shall consist of 15 kV Ohio Brass cat. no. 4010150215, Clamp Anderson cat. no. ADEZ-47N and eye nut Chance cat. no. 6501. Installation shall consist of all labor to install dead eye nut, insulator and clamp, disk or approved insulator and place wire in dead end clamp. Removal shall consist of all labor to remove connector, hardware, insulators, and bolts. Placing of conductor in temporary holding blocks shall be included. Transfer shall consist of labor to move dead-end to new location on existing or new pole. Labor to sag conductor to proper tension shall be included.

- CPDE40 – Conductor dead-end #4/0 ACSR, Material shall consist of one 15 kV composite dead-end insulator Ohio Brass cat. no. 4010150215, clamp Anderson cat. no. ADEZ-88 and Eye Nut Chance 6502 hardware.
Installation shall consist of all labor and material to install dead end tongue or eye bolt or eye nut, insulator and dead end clamp and shall include all labor to install wire to correct tension and sag.
Removal shall consist of all labor to remove connector, hardware, insulators, and bolts. Placing of conductor in temporary holding blocks shall be included.
Transfer shall consist of labor to move dead-end to new location on existing or new pole. Labor to sag conductor to proper tension shall be included.
- CPDE336 – Connector dead-end, 336 ACSR, Material shall consist of one 15 kV Composite dead-end insulator Ohio Brass cat. no. 4010150215, Clamp Anderson cat. no. ADEZ-88 and eye nut Chance 6502 hardware.
Installation shall consist of all labor and material to install dead end tongue or eyebolt or eye nut, insulator and dead end clamp and shall include labor to correctly sag and tension wire as necessary.
Removal shall consist of all labor to remove connector, dead-end tongue, insulators, and bolts. Placing of conductor in temporary holding blocks shall be included.
Transfer shall consist of labor to move dead-end to new location on existing or new pole. Labor to sag conductor to proper tension shall be included.
- CTPT336A – Preformed tie, double insulator, two per position or one per insulator. PLP cat. no. DST-0158. Installation shall include all material and labor to install on 336 ACSR and position wire on insulator. Removal shall include all labor to remove from conductor and dispose of in a proper manner.
- CTPT336B – Preformed tie, double insulator, for angle pin installation two per position or one per insulator. PLP cat. no. DBST-1108. Installation shall include all material and labor to install on 336 ACSR and position wire on insulator. Removal shall include all labor to remove from conductor and dispose of in a proper manner.
- CTPT336C – Preformed tie, single insulator, for installation on one pin insulator on cross arm or on pole top pin. PLP cat. no. UTF-1210. Installation shall include all labor to install on 336 ACSR and position wire on insulator. Removal shall include all labor to remove from conductor and dispose of in a proper manner.
- CTPTN10 – Preformed tie for installation of 1/0 ACSR on clevis. PLP cat. no. SPL-1355-P. Installation shall include all labor to install on 1/0 ACSR primary or secondary neutral and position wire on insulator. Removal shall include all labor to remove from conductor and dispose of in a proper manner.
- CTPTN40 – Preformed tie for clevis spool. PLP cat. no. SPL-1360-P. Installation shall include all material and labor to install on 4/0 ACSR and position wire on insulator. Removal shall include all labor to remove from conductor and dispose of in a proper manner.
- CXL – Extension link, 12 inch steel.
- CPII – Insulator, Brown
Retirement shall consist of removing tie wire, lifting conductor and removing insulator from cross arm pin, angle pin or pole top pin.
- CPIIA – Insulator, 15 kV pin type none non-porcelain Hendrix cat. no. HPI-55-4-01 Class 55-4 F-Neck.
Installation shall consist of labor and material insulator on cross arm pin or angle pin, installing conductor.
Retirement shall consist of removing tie wire, lifting conductor and removing insulator from cross arm pin, angle pin or pole top pin.
- CG6C – Conductor pole ground assembly, Material shall consists of 8 ft long 5/8 inch diameter ground rod Chance cat. no. 8578, ground rod fitting Chance cat. no. C203-0344, 80 feet of #6 solid copper ground wire, wire staples Chance cat. no. C205-0216, neutral bonding connection and connection to equipment and secondary neutral.
Installation shall consist of all labor and material to drive 8 foot ground rod connect ground rod clamp, #6 solid copper wire, and make connection to neutral, equipment and secondary neutrals.
Removal shall consist of all labor to remove ground rod , ground rod clamp, wire and connections.

Transfer shall consist of disconnection from equipment and reattachment. Any necessary splicing shall be included.

CAP3050 – Capacitor, 7.2 kV Three phase rack-mounted .

Installation shall consist of all labor and material to install capacitor on pole and connect primary risers. Including current sensor.

Removal shall consist of all labor to disconnect all primary risers and remove capacitor bank from pole.

Transfer shall consist of disconnection of primary risers and removing from one pole or position and installing in a new position on a new pole or in a new position. Any necessary splicing shall of risers or ground connection shall be included.

RMSF – Remove 6 foot long switch frame

STREET LIGHTS:

STLG100-Dusk to Dawn light 100 watt 9,600 lumen High Pressure Sodium, Installation shall consist of all labor and secondary connection material. Removal shall consist of all labor to remove from pole, disconnect from secondary and return material to Electric Department warehouse.

Transfer shall consist of labor to move fixture to new pole or location.

STLGLD-Dusk to Dawn LED Street Light Any Size, Installation shall consist of all labor and secondary connection material. Removal shall consist of all labor to remove from pole, disconnect from secondary and return material to Electric Department warehouse.

Transfer shall consist of labor to move fixture to new pole or location.

SERVICES AND ACCESSORIES:

SD2A3 – Secondary, service drop, #2 Insulated, 3 conductor. Material shall consist of 150 feet of #2 Aluminum triplex conductor code name Conch, dead-end, preformed PLP cat. no. SG-4504, five connectors, non-tension, Blackburn cat. no. WR-159 and one non-tension, connector, Blackburn cat. no. WR-719.

Installation shall consist of labor and material necessary to install wire including dead-ends and string wire from pole to house or from pole to pole. Existing wire may be used when required.

Transfer shall consist of all labor to move unit to new location on pole or new pole and include cutting wire and installing new connectors and dead-ends.

SD4A3 – Secondary, service drop, #4 Aluminum Insulated 3 conductor.

Material shall consist of 150 feet of #4 Aluminum triplex conductor, two Dead-ends, PLP cat. no. SG-4502, five connectors non-tension, Blackburn cat. no. WR-159 and one non-tension connector Blackburn cat. no. WR-699.

Installation shall consist of labor to dead-ends and string wire from pole to house. Existing wire may be used when appropriate.

Removal shall consist of all labor to unbolt and remove conductor from clamps, lower to the ground and dispose of in a manner determined by the Town of Bedford.

Transfer shall consist of all labor to move unit to new location on pole or new pole

SD10A3 – Secondary, service drop, #1/0 Aluminum Insulated 3 conductor.

Installation shall consist of labor to dead-ends and string wire from pole to house. Existing wire may be used when appropriate.

Removal shall consist of all labor to unbolt and remove conductor from clamps, lower to the ground and dispose of in a manner determined by the Town of Bedford.

Transfer shall consist of all labor to move unit to new location on pole or new pole.

SD40A3 – Secondary, service drop, #4/0 Aluminum Insulated 3 conductor.

Installation shall consist of labor to dead-ends and string wire from pole to building or pole. Existing wire may be used when appropriate.

Removal shall consist of all labor to unbolt and remove conductor from clamps, lower to the ground and dispose of in a manner determined by the Town of Bedford.

Transfer shall consist of all labor to move unit to new location on pole or new pole.

Underground services:

SDUG2 – Conductor, Underground, #2 Aluminum, 600 volt insulated Triplex

Installation shall consist of labor and material to place wire in conduit or trench and terminate as necessary.

Removal shall consist of removal of wire from trench or conduit and prepare for scrapping at location specified by warehouse.

SDUG10 – Conductor, Underground, 1/0 Aluminum, 600 volt insulated Triplex

Installation shall consist of labor and material to place wire in conduit or trench and terminate as necessary.

Removal shall consist of removal of wire from trench or conduit and prepare for scrapping at location specified by COB. Transfer shall consist of labor and material to disconnect secondary and riser and move to a new pole.

Removal shall consist of removal of pedestal and returning it to warehouse.

SDRISE – Pole riser for underground conductors, 2 inch PVC. Includes grips, conduit, and brackets.

Installation shall consist of all labor and material to install conduit and brackets on pole and installation of grip on secondary wire.

Removal shall include all necessary labor to remove conduit, wire and all hardware from pole.

Transfer shall include all labor to remove and relocate in conjunction with pole replacement.

UNDERGROUND PRIMARY:

UDRISE – Pole riser for underground conductors, 2 or 4 inch PVC. Includes grips, conduit, and brackets.

Installation shall consist of all labor and material to install conduit and brackets on pole and installation of grip on secondary wire.

Removal shall include all necessary labor to remove conduit, wire and all hardware from pole.

Transfer shall include all labor to remove and relocate in conjunction with pole replacement.

CUTOUTS AND SURGE ARRESTERS:

TCO72 – Cut-Out 15 kV –Material shall consist of polymer Insulators MacLean cat. no. SC15HG116-Dor equivalent 100 Amp, 110 kV BIL, 15 kV and S&C Fuse Link.

Installation shall consist of labor to install cutout and fuse unit and include drilling of pole or cross-arm as necessary.

Removal shall consist of installing temporary and permanent jumpers, disconnecting primary and secondary risers and removal of hardware.

Transfer shall consist of disconnection and removal from pole and cross arm and installation on new cross-arm or pole.

TLAC84 – Arrester, 8.4 kV MCOV Metal Oxide, polymer only MacLean cat. no. ZHP0090H00100 or equivalent.

Installation shall consist of labor and material and include drilling pole or cross arm as necessary and connecting riser to primary line. .

Retire shall consist of labor to disconnect primary riser and remove arrester and bracket from pole or cross-arm.

Transfer shall consist of disconnection and removal from pole and cross arm and installation on new cross-arm or pole.

TRANSFORMERS AND ACCESSORIES:

T1A1 - Transformer riser single phase including #6 copper primary 600 volt insulated and #2 copper secondary wire and connections and hot line clamp MacLean cat. no. C1520P.

Installation shall consist of labor and material to install riser from 7.2 or 2.5 kV primary connection point to transformer high voltage bushing and from secondary bushings to secondary connection point.

- Removal shall consist of labor to retire wire from primary bushing, secondary bushings and primary connection point. Disconnection from secondary and neutral is also included.
- T1A2 - Transformer riser single phase including #6 copper wire and hot line clamp MacLean cat. no. C1520P between primary connection point and transformer high voltage bushing. Also #1/0 insulated copper wire between secondary bushings and secondary or service connections wires. Installation shall consist of all labor and material to connect #6 covered wire from the 7.2 or 2.5kV primary to the primary bushing on the transformer and 1/0 wire between the three secondary bushing and secondary wire or service.
Removal shall consist of labor to retire #6 copper wire between primary and 1/0 wire between transformer bushings and secondary.
- T1A3 – Transformer riser single phase including #4 copper wire and hot line clamp MacLean cat. no. C1520P between primary connection point and transformer high voltage bushing. Also #4/0 copper wire between secondary bushings and secondary or service connections wires. Installation shall consist of all labor and material to connect #4 covered wire from the 7.2 or 2.6 kV primary to the primary bushing on the transformer and 4/0 wire between the three secondary bushing and secondary wire or service.
Removal shall consist of labor to retire #2 copper wire between primary and #4/0 wire between transformer bushings and secondary.
- X72015 – Transformer, 7.2 kV, 15 KVA, 120/240 volt or 277/480 volt
X72025 – Transformer 7.2 kV, 25 KVA, 120/240 volt or 277/480 volt
X72037 – Transformer 7.2 kV, 37.5 KVA, 120/240 volt or 277/480 volt
X72050 – Transformer 7.2 kV, 50 KVA, 120/240 volt or 277/480 volt
X72075 – Transformer 7.2 kV, 75 KVA, 120/240 volt or 277/480 volt
X72100 – Transformer 7.2 kV, 100 KVA, 120/240 volt or 277/480 volt
Installation shall consist of labor to drill all holes and mount transformer on pole as required.
Removal shall consist of all labor to remove transformer from pole and transport to Town of Bedford storage lot.

Transmission Units:

- CAR336T – Conductor 336 ACSR, Merlin Transmission level.
Installation shall consist of all labor and material needed to install and sag wire as directed by owner’s engineer. This includes installation of pulling blocks and use of wire installation equipment. Also included is the cost of loading wire on contractors trailer and moving to installation location. Any temporary storage will be the responsibility of the contractor. Labor for temporary placement of wire in stringing blocks and pulling to proper tension shall be included in this unit.
Removal shall consist of all labor to remove wire and the use of contractor’s wire removal equipment. Contractor shall be responsible for disposal of removed wire.
Transfer shall consist of labor to move conductor to new attachment. Work to achieve proper sag shall be part of this unit.
- PGW38T-Static Wire or Guy wire 3/8 inch steel EHS grade (15,400 lb Breaking Strength), Installation shall consist of labor to install including applying proper tension. Removal shall consist of all labor to remove and transport to storage site for scrapping.
- CPI69 – Insulator, Polymer 69 KV Post Assembly Material shall consist of one post insulator NGK-Locke cat. no. L1-SN211-26 with OB Clamp TSC-86 one 14 x 3/4 inch bolt, one 3/4 spring washers Chance cat. no.4037, one square 3 X 3 inches washers Chance cat. no. GCW-31 curved washers, one lock washer Chance cat. no.4037 . Labor shall consist of drilling hole, mounting insulator and placing wire in clamp.
Removal shall consist of removing wire and armor rods from clamp, lifting conductor and removing insulator from pole. Transfer shall consist of labor to move insulator to new position on the same or new pole and shall include drilling new holes where needed.
- CPI69A – Insulator, Polymer 69 KV Post Assembly Material shall consist of one post insulator drop tongue NGK cat. no. L2-SN211-14 with Anderson cat. no. HAS-104-N, Wye-clevis-eye Anderson cat. no. YSC-05-90, two 18 x 7/8 inch bolts HB cat. no. B818-6, two 7/8 spring washers HB cat. no. SLW3-80EM, four square 3 X 3 inches washers HB cat. no. SW80-3/8 washers and installing wire clamp and wire. Labor shall consist of drilling holes and mounting insulators.

- Removal shall consist of removing wire and armor rods from clamp, lifting conductor and removing insulator from pole. Transfer shall consist of labor to move insulator to new position on the same or new pole and shall include drilling new holes where needed.
- CTWH38SW – Wire, holder, 3/8 inch EHS static Wire. Installation shall consist of all labor and material to install wire holder consisting of two 5/8 inch bolts through pole, and installing bracket and wire holder.(Chance cat. no. 5433 and FAC 90-75 or equivalent)
Removal shall consist of all labor to remove lift wire and remove bracket.
Transfer shall consist of labor to move bracket and conductor to new position on the same or new pole and include labor to drill new holes if needed.
- CDE69T336 – Dead-end transmission, 69 kV, composite insulator, dead end clamp and all necessary hardware.
NKG-Locke Cat. 251-SS300-YE with Anderson cat. no. ADEZ-88 Dead-end Clamp attached with 3/4 inch galvanized eye-bolt Chance cat. no. 29984, square curved washer Chance cat. no. GCW31A and double coil spring washer Chance cat. no. C2050187 or other hardware.
Installation shall consist of all labor and material to install assembly on pole or cross-arm or substation structure as required including drilling wood or steel pole as necessary.
Removal shall consist of all necessary labor to remove and disassemble insulators, hardware and clamp.
Transfer shall consist of all labor to move insulators, clamp and hardware to a new location.
- CVC336S69 - Vertical Corner, 69 kV, including 69 kV polymer suspension insulator, and clamp for 336 ACSR. (Chance Bracket corner C206-0480, two clevis bolts Chance 15832 ,NKG-Locke 251-SS-300-YE and clamp OB catalog number HAS-85-C.)
Installation shall consist of all labor to assemble insulators, drill pole as necessary, install mounting hardware and install wire in clamp.
Removal shall consist of all necessary labor to remove insulator, hardware and clamp.
Transfer shall consist of all labor to move insulator and hardware to a new location on the same or different poles.
- CGT4C – Ground Assembly Transmission – Material shall consist of 100 feet of #4 solid soft-drawn copper wire, ground rod Erico cat. no. 615880, ground rod clamp Erico GP-58 and staples Chance cat. no. C205-0216, clamp for grounding overhead static line. Bonding to distribution neutral shall also be included.
Removal shall consist of all labor to disconnect wire, remove bracket, disassemble as necessary and return usable material to storeroom or scrap bin as required.
Transfer shall consist of removing all items from one wood utility pole and installing on a new utility pole.
- CARMOR336 – Armor Rods for 336 ACSR.
Installation shall consist of all labor and material to position rods on wire and insert into clamp.
Removal shall consist of all labor to remove wire from clamp, lower string, disassemble insulators, place wire in temporary position and retire good material to Town of Bedford.
Transfer shall consist of all labor to move insulators, wire and hardware to new location on pole or new pole and shall include any labor to drill new holes needed to mount dead-end.
- CDE38SW – Dead end, 3/8 inch EHS static wire.
Installation shall consist of all labor and material including drilling pole, installing hardware, and dead-end clamp and tensioning wire in clamp and installation of #4 copper jumper and crimp connector. One 3/4 x 12 Eye-bolt, one dead-end clamp for 3/8 EHS static Anderson cat. no. SWDE55C, two crimp-on Kearney 302-83 bonding clamps 10 ft of #4 copper soft drawn wire.
Removal shall consist of labor to place wire in pulling block, remove wire from dead-end clamp and remove bolt as appropriate.
Transfer shall consist of all labor to move dead-end to new position of pole or new pole. All labor to place wire in pulling block, drill holes and install wire in dead-end clamp at new location shall be included.
Transfer shall consist of labor to move to new location on the same or different pole.

- C1SW69GOAB – Switch 600 Amp, 69 kV one-way Gang Operated Air-break Switch Turner cat. no. TU-1CD.
 Installation shall consist of all labor to install switch including adjusting and setting piercing screws, installing operating pipe, transition pads, ground mat. All connections shall be properly cleaned and rust inhibitor applied as recommended by manufacturer.
 Removal shall consist of all labor to disassemble, remove clamps and wire and splice wire as necessary.
 Transfer shall consist of all labor to remove switch at one location and install at another.
- C2SW69GOAB – Switch 600 Amp, 69 kV two-way Gang Operated Air-break Switch Turner cat. no. TU-2CD.
 Installation shall consist of all labor and material (not supplied by manufacturer of switch) to install switches including adjusting and setting piercing screws, installing operating pipe, transition pads, ground mat. All connections shall be properly cleaned and rust inhibitor applied as recommended by manufacturer.
 Removal shall consist of all labor to disassemble, remove clamps and wire and splice wire as necessary.
 Transfer shall consist of all labor to remove switch at one location and install at another.
- CTPJ336 – Jumper for 336 ACSR installed on 69 kV Sub-transmission line. Material to consist of two bolted low corona connectors and enough conductor to tap to new line. Labor and material shall consist of that necessary to make up jumper to wire and attach to both source and feed conductors.
 Removal shall consist of all necessary labor to remove connector and wire from line and scrap or return to stock as appropriate.
 Transfer shall consist of all labor to move from one position to another on the same pole.
- CGT4CS – Ground Assembly Transmission Steel pole – Installation shall consist of all labor and material to install #4 Copper solid soft drawn wire, shall include attaching wire to steel pole using Erico cat. no. CP-58 clamp and to ground rod Erico cat. no. 615880 and overhead static line. Bonding to distribution neutral shall also be included if appropriate.
 Removal shall consist of all labor to disconnect wire, remove bracket, disassemble as necessary and return usable material to storeroom or scrap bin as required.
 Transfer shall consist of removing all items from one pole and installing on a new utility pole
- CGSWMAT-Ground mat, Steel, Copper clad or Galvanized Steel, 4 foot by 4 foot, Installed on ground under switch handle. One two hole pad Anderson cat. no. SWL022B, 20 feet of #4 copper solid ground wire and two connector #4 to #4 copper and two Burndy cat. no. GX2626 connectors.
 Installation shall consist of all material and labor necessary to install and connect to pole or pole ground.
- CSI69T336D – Two suspension Insulators system on Davit Arm, Consisting of two 69 kV composite insulators Ohio Brass cat. no. 511005-1201, suspension clamp for 336 ACSR Anderson cat. no. HAS-104-N or equivalent and 7/8 inch Eye-nut Hughes Brothers cat. no. EN80, Anderson socket-eye cat. no. SC-30 and one yoke plate Maclean cat. no. Y2DT060S1800.
 Installation shall consist of all labor to install assembly on davit arm.
 Removal shall consist of all necessary labor to remove and disassemble insulators, hardware and clamp.
 Transfer shall consist of all labor to move insulators, clamp and hardware to a new location.
- CSI69T336 – One suspension Insulator, 69 kV assembly composite insulator, suspension clamp for 336 ACSR and all necessary hardware.
 One OB cat. no. 511005-1201, One Suspension Clamp Anderson cat. no. HAS-104-N. Socket-eye Anderson cat. no. SC-30. Installation shall consist of all labor and material to install assembly on davit arm.
 Removal shall consist of all necessary labor to remove and disassemble insulators, hardware and clamp.
 Transfer shall consist of all labor to move insulators, clamp and hardware to a new location.
- CTS336 – Splice Tension, 336 ACSR install straight tension splice on transmission conductor.
 Installation shall consist of all labor and material to install using proper tool and die as recommended by manufacturer.

TDAVIT – Steel transmission davit arm Hughes Brothers cat. no. 4010A5.0A33G– Installation shall consist of all necessary to drill wood or steel pole and install two 7/8 inch 14 long bolts to secure arm and back plate to pole. Bonding of arm to ground shall be included.
Removal shall consist of all labor to remove and return to Bedford Electric Department storage area.

Fiber Optic Cable Units:

FOB1 – Fiber Optic Cable Support Bracket for ADSS PLP Fiberlign Dielectric Support cat. no. 44009823 and 5/8 x 14 Inch, DA Bolt.

Removal shall consist of all labor to remove and return to Bedford Electric Department storage area.

FOBDE – Fiber Optic Cable Dead-end PLP cat. no. 2872005C1E1.

Removal shall consist of all labor to remove and return to Bedford Electric Department storage area.

Work requirements:

The Contractor shall supply all materials and shall include conductor attachments and grounding materials. All transformers will be supplied by the Town of Bedford.

All pole shall be PENTA treated.

All wood poles shall have butt grounds. Ref (M2-12EC). (Rap ground without butt plat is acceptable.)

All distribution equipment shall be connected driven ground with bare #6 copper soft drawn wire and all transmission equipment(69 kV) shall be connected to and 8 foot long, 5/8 inch diameter driven ground rod by #4 soft drawn copper wire.

All poles shall be gained when installing cross-arm below transmission level.

All equipment shall be installed in accordance with the attached standards, the National Electrical Code and The National Electrical Safety Code. All work shall be performed in accordance with OSHA rules and regulations.

The contractor will be responsible for obtaining any and all permits necessary to perform the work and shall be performed in compliance with all local, state and national regulations. All DOT regulations and requirements shall be met by contractor when working on state roads. All ground disturbed by the contractor will be restored to the original condition.

All 12 kV work shall be performed energized unless otherwise indicated.

All 69 kV work shall be performed de-energized.

All removed material shall be sorted and returned to the town of Bedford Electric Department. All scrap wire and hardware shall be placed in the Electric Department Scrap bin located on Adams Street.

Attaching conductors to insulators and installation of jumper shall be considered part of the cost of installing conductors.

Work Description: (Note: Standards for new assemblies only will be shown)

Pole 65194-19189
 SWITCH POLE
 Distribution Arm Standard C2-2SEC
 McGhee Street Circuit 3 (12 KV)

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CDE38SW	1		
CDE69T336	3		
PHGF38		4	

Pole 65196-19201
 Transmission Standard TP-69G
 75 FOOT CLASS 2 POLE SET ON LAST JOB
 Distribution Arm Standard C2-1SEC
 McGhee Street Circuit 3 (12 KV)
 114 FT SPAN

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW	1		
CPI69A	3		
PGW38T	114	342	
PDGC12		3	
CAR336T	342		

Pole 65198-19213
 Transmission Standard TP-69G
 Distribution Arm Standard C2-2SEC
 65 FT CL 2
 McGhee Street Circuit 3 (12 KV)
 128 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8DXAW		1	
P10FGT	1		
P404		1	
P702	1		
PC3	1	1	
PTP		1	
PXAP	3	4	
CPIIA	3	5	
CTPT336C	3		

CTPTN10	1		
CAR336			384
CAR10			128

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW	1		
CPI69A	3		
PGW38T	128		
CAR336T	384		
CGT4C	1		

Pole 65202-19236
Transmission Standard TP-69G
Distribution Arm Standard C2-2SEC
70 FT CL 2
McGhee Street Circuit 3 (12 KV)
235 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8DXAW		1	
P10FGT	1		
P404		1	
P702	1		
PC3	1	1	
PTP		1	
PXAP	3	4	
CPI1A	3	5	
PC3			1
CTPT336C	3		
CTPTN10	1		
CAR336			705
CAR10			235

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW	1		
CPI69A	3		
PGW38T	235		
CAR336T	705		
CGT4C	1		

Pole 65204-19250
 McGhee Street Circuit 3 (12 KV)
 DISTRIBUTION STANDARD C2-2SEC
 Secondary span guy
 CHANGE DISTRIBUTION ARM TO 10 FT
 DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8DXAW		1	
P10FGT	1		
PTP		1	
PXAP	3	4	
CPIIA	3	5	
PC3			1
CTPT336C	3		
CTPTN10	1		
CAR336			705
CAR10			235

Pole 65207-19266
 Transmission Standard TP-69G
 Distribution Arm Standard C2-2SEC
 65 FT CLASS H1 Steel Pole
 McGhee Street Circuit 3 (12 KV)
 Transfer 7.2 kV Underground Riser
 302 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8DXAW		1	
P10FGT	1		
P404		1	
P65H1	1		
PC3	1	1	
PTP		1	
PXAP	3	4	
CPIIA	3	5	
PC3			2
T1A1			1
TCO72	1	1	
TLAC84	1	1	1
SD2A3			2
PFGB1	1		
CTPT336C	3		
CTPTN10	1		
CAA03	165		
CAD10		310	
UDRISE			1
CDE40			2
CAR336			906
CAR40			302
STIRRUP	1		

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW	1		
CPI69A	3		
PGW38T	302		
CAR336T	906		
CGT4C	1		

Pole 65210-19285
 McGhee Street Circuit 3 (12 KV)
 188 FT SPAN
 Replace open wire secondary with #2 twist
 Shentel Amplifier

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CAA03	188		
CAD10		380	
PR3		1	
PC3	1		

Pole 65214-19284
 McGhee Street Circuit 3 (12 KV)
 50 FT SPAN
 Replace open wire secondary with #2 twist

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
PR3		1	
PC3	1		
SD2A3	1		
CAD4		150	

Pole 65212-19296
 Transmission Standard TP-69GB
 Distribution Arm Standard C2-2SEC
 70 CLASS 1 Steel Pole
 5 DEGREE ANGLE
 McGhee Street Circuit 3 (12 KV)
 297 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8DXAW		1	
P10FGT	1		
P404		1	
P701	1		
PC3			3
PTP		2	
PXAP	3	4	
CPI1A	3	6	
PC3			2
CTPT336B	3		
CTPTN10	1		
SDUG10			250
CAR336			1053
CAR10			351
T1A1	1	1	
STIRRUP	1		
SDRISE			1

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW	1		
CPI69A	3		
PGW38T	117		
CAR336T	351		
CGT4C	1		
PDGC12D	1		

Pole 65216-19310
 McGhee Street Circuit 3 (12 KV)
 Secondary span guy

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CAD10		290	
CAA03	145		
SD2A3			2
P10FGT	1		
P8DXAW		1	
PXAP	3	4	
CPIIA	3	6	
CDE10C	2		
CDE10	4		
CTPT336C	3		
CAR336			435
CAR10			145

Pole 65219-19320
 Transmission Standard TP-69GB
 Distribution Arm Standard C2-2SEC
 70 CLASS H1 Steel Pole
 McGhee Street Circuit 3 (12 KV)
 250 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8DXAW		2	
P10FGT	1		
P404		1	
P10FGDE	1		
P70H1	1		
PC3			3
PTP		2	
PXAP	6	4	
CPIIA	6	6	
CTPT336B	3		
CTPTN10	1		
CAR336			315
CAR10			105
PHGF12	2		
PGW12	40		
PGW12	40		
PGI12	2		
X72025			1
T1A1	1	1	
TCO72	1	1	
CPDE2	1		
CAA03	50	50	
CPDE6	3		
CDE6	1		

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW	1		
CPI69A	3		
PGW38T	105		
CAR336T	315		
CGT4C	1		

Pole 65217-19320
 Distribution Arm Standard C2-2SEC
 McGhee Street Circuit 3 (12 KV)
 15 FT SPAN
 40S AMP FUSE

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8DXAW		2	
P10FGT	1		
P404		1	
P502	1		
CPDE10			6
PXAP	3	4	
CPIIA	3	6	
CAR10			60
PDGC12D	1		
CDE10C	2	2	
PDGC38		1	
TCO72	3	3	
PGI12	2		
STIRRUP	3	3	
TLAC84	3	3	
PDGC12D	1		

Pole 65226-19336
 DISTRIBUTION STANDARD C2-2SEC
 DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
PC3	3	5	
CAA03	175		
P10FGT	1		
P8DXAW		1	
PXAP	6	6	
CPIIA	6	6	

Pole 65232-19347
 Transmission Standard TP-69GB
 Distribution Arm Standard C2-2SEC
 70 CLASS H1 Steel Pole
 McGhee Street Circuit 3 (12 KV)
 280 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8DXAW		2	
P10FGT	2		
P404		1	
P70H1	1		
PC3	5	5	
PXAP	3	6	
CPI1A	3	6	
CTPT336C	3		
CTPTN10	1		
CAR336			315
CAR10			105
SD2A3			1
SD2A3			1
SD2A3			1
X72037			1
T1A2	1	1	
TCO72	1	1	
PDGC12D	1		
PDGC38		1	
PGI12	2		

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW	1		
CPI69A	3		
PGW38T	105		
CAR336T	315		
CGT4C	1		

Pole 65241-19363

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CAA03	181		
CAD10		362	
PC3		1	

Pole 65246-19372
 Transmission Standard TS-5G
 Distribution Arm Standard C8-1BED, C7-1BED
 10 foot cross arm
 336 ACSR Primary, #4 ACSR Primary, 4/0 ACSR Neutral, and
 75 FT CLASS H1 Steel Pole
 McGhee Street Circuit 3 (12 KV)
 285 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8DXAW		2	
P10FGDE	1		
P10FGDE	1		
P404		1	
P75H1	1		
PC3	5	5	
PXAP	6	6	
CPDE336	9	6	
CPDE4		3	
CDE4			1
CPI1A	6	6	
CTPT336C	6		
CAR336			309
CAR10			181
CAD10		362	
CAA03	181		
PHGF12	1		
SD2A3			1
SD2A3			1
PGI12	1		
STL100			1
CDE10	2	2	
CDE10C	2	2	

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CDE38SW	2		
CDE69T336	6		
PHGF12	4		
PGW38T	103		
CAR336T	309		
CGT4C	1		
PGI12	4		
CPI69	3		

Pole 65255-19388
 Transmission Guy Pole
 Distribution Arm Standard C2-2SEC
 50 Class 3 Wood Pole (Distribution and Transmission Guying)
 McGhee Street Circuit 3 (12 KV)
 185 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8DXAW		1	
P10FGDE	1		
P404		1	
P501	1		
PC3	5	5	
PXAP	3	6	
CPI1A	3	6	
CAR336	555		
CU4			185
PHGF12	4		
SD2A3			1
PDGC12D	2		
PDGC12	1		
PGI12	9		
X72025			1
T1A1	1		
TCO72	1	1	
TLAC84	1	1	
PHGF38		1	
CPDE336	3		
CPDE4	3		
CTPT336C	3		
PFGB1	1		

Pole 65249-19368
 Transmission Standard Guy Pole
 Distribution Arm Standard C2-2SEC
 McGhee Street Circuit 3 (12 KV)
 50 foot Class H2 Wood Pole Distribution and Transmission Guying
 103 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8DXAW		2	
P10FGDE	2		
P404		1	
P50H2	1		
PC3	5	5	
PHGF12	5		
SD2A3			1
PDGC12D	2		
PDGC12	1		
PGI12	5		
PHGF38		1	

Pole 65237-19386
 Transmission Standard TP-69G
 Distribution Arm Standard C2-2SEC, M9-13EC
 McGhee Street Circuit 3 (12 KV), Change to polymer cutouts
 70 CLASS 2 Steel Pole
 CURRENT SENSOR TO TRANSFER
 CAPACITOR BANK AND LINE CURRENT SENSOR
 170 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8DXAW		1	
P10FGT	1		
CAP3050			1
P404		1	
P702	1		
PC3			3
PXAP	2	2	
CPI1A	2		
CTPT336C	3		
CTPTN10	1		
CAR336			501
CAR10			167
PDGC38	1	1	
TLAC84	3	3	
CDE10		3	
CDE10C	1		
PC3		1	
TCO72	3	3	
PFGB3	1		
STIRRUP	3		

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW	1		
CPI69A	3		
PGW38T	170		
CAR336T	510		
CGT4C	1		

Pole 65228-19399
 65 CLASS 2 Steel Pole
 Transmission Standard TP-69G
 Distribution Arm Standard C2-2SEC
 McGhee Street Circuit 3 (12 KV)
 153 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8XAW		1	
P10FGT	1		
P404		1	
P652	1		
PC3	2	3	
PXAP	3	3	
CPI1A	3	3	
CTPT336C	3		
CTPTN10	2		
CAR336			455
CAR10			155
CAD10		310	
CDE10		3	
CAA03	153		
X72037			1
T1A1	1	1	
TCO72	1	1	
TLAC84	1	1	
STL100			1
SD2A3			3
STIRRUP		1	1

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW	1		
CPI69A	3		
PGW38T	155		
CAR336T	459		
CGT4C	1		

Pole 65219-19412
 65 CLASS 2 POLE
 Transmission Standard TP-69G
 Distribution Arm Standard C2-2SEC
 McGhee Street Circuit 3 (12 KV)
 161 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8DXAW		1	
P10FGT	1		
P404		1	
P652	1		
PC3	3	3	
PXAP	3	4	
PTP		1	
CPI1A	3	5	
CTPT336C	3		
CTPTN10	2		
CAR336			483
CAD10		330	
CDE10			4
PHGF38			1
SD2A3			3
CAA03	165		

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW	1		
CPI69A	3		
PGW38T	161		
CAR336T	483		
CGT4C	1		

Pole 65221-19416
 DOWN GUY AND SECONDARY
 McGhee Street Circuit 3 (12 KV)
 161 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
PHGF38	1		
PGW38	50		
P306		1	
P353	1		
PC3	1		
PGW38		50	
PHGF38		1	
PDGC38		1	
PDGC12	1		
PC3			1
SDRISE			1

Pole 65208-19425
 65 CLASS 2 POLE
 Transmission Standard TP-69G
 Distribution Arm Standard C2-2SEC
 McGhee Street Circuit 3 (12 KV)
 165 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8XAW		1	
P10FGT	1		
P404		1	
P652	1		
PC3	2	3	
PXAP	3	4	
PTP		1	
CPI1A	3	5	
CTPT336C	3		
CTPTN10	2		
CAR336			495
CAR10			165
CAD10		330	
CAA03	165		
CDE10		4	
CDE10C	2		
PHGF38	1	1	
T1A1	1	1	
TCO72	1	1	
TLAC84	1	1	
X72037	1	1	
SD2A3			2
STL100			1

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW	1		
CPI69A	3		
PGW38T	165		
CAR336T	495		
CGT4C	1		

Pole 65197-19439
 65 CLASS 2 POLE
 Transmission Standard TP-69G
 Distribution Arm Standard C2-2SEC
 McGhee Street Circuit 3 (12 KV)
 180 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8XAW		1	
P10FGT	1		
P404		1	
P652	1		
PC3	3	4	
PXAP	3	2	
PTP		1	
CPI1A	3	3	
CTPT336C	3		
CTPTN10	1		
CAR336			540
CAR10			534
CAA03	180		
CDE10C	1		
CDE10			2
PHGF38	1	1	

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW	1		
CPI69A	3		
PGW38T	178		
CAR336T	534		
CGT4C	1		

Pole 65188-19451
 65 CLASS 2 POLE
 Transmission Standard TP-69G
 Distribution Arm Standard C2-2SEC
 McGhee Street Circuit 3 (12 KV)
 158 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8DXAW		1	
P10FGT	1		
P404		1	
P652	1		
PC3	3	4	
PXAP	3	4	
PTP		1	
CPI1A	3	5	
CTPT336C	3		
CTPTN10	1		
CAR336			480
CAR10			160
CDE10			2
PHGF38	2	2	
PGW38			158
STL100			1
SDUG10			250
SDRISE			1

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW	1		
CPI69A	3		
PGW38T	160		
CAR336T	480		
CGT4C	1		

Pole 65191-19454
 30 CLASS 5 POLE
 Distribution Arm Standard E1-1EC
 McGhee Street Circuit 3 (12 KV)
 40 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P305		1	
PDGC38		1	
PHGF38		1	
PGW38		40	

Pole 65177-19464
 70 CLASS 2 POLE
 Transmission Standard TP-69G
 Distribution Arm Standard C2-2SEC
 McGhee Street Circuit 3 (12 KV)
 163 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8XAW		1	
P10FGT	1		
P404		1	
P652	1		
PC3	3	4	
PXAP	3	2	
PTP		1	
CPI1A	3	3	
CTPT336C	3		
CTPTN10	1		
CAR336			489
CAA03	163		
CAD10		489	
CDE10	2		4
X72037			1
SD2A3			1
T1A1	1	1	
TCO72	1	1	
TLAC84	1		
PHGF38		1	

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW	1		
CPI69A	3		
PGW38T	163		
CAR336T	489		
CGT4C	1		

Pole 65181-19467
 30 CLASS 5 POLE
 Distribution Arm Standard E1-1EC
 McGhee Street Circuit 3 (12 KV)
 40 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P305		1	
PDGC38		1	
PHGF38		1	
PGW38		40	

Pole 65166-19475
 70 FT CLASS H1 POLE
 Transmission Standard TP-69GB
 Distribution Arm Standard C2-2SEC
 McGhee Street Circuit 3 (12 KV)
 158 FT SPAN
 10 DEGREE ANGLE
 Guy Leads 13 and 17 feet
 Guy heights 63, 57.5, 50.5 and 34 feet

SECONDARY AND RISER TO TRANSFER

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8XAW		1	
P10FGT	1		
P404		1	
P70H1	1		
PC3			3
PXAP	3	2	
PTP		1	
CPI1A	3	3	
CTPT336C	3		
CTPTN10	1		
CAR336			474
CAR10			474
SDRISE			1
SD2A3			2
STL100			1
X72037			1
TIA1	1	1	
TCO72	1	1	
TLAC84	1	1	
SDUG10			250

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW	1		
CPI69A	3		
PGW38T	158		
CAR336T	474		
CGT4C	1		
PDGC12D	2		
PGI12	4		

Pole 65158-19487
 141 FT SPAN
 Secondary work only

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CAA10	141		
CAD10		282	
PC3	1	2	
CTPTN10	1		
SD2A3			1

Pole 65151-19500
 75 FT CLASS H1 POLE
 Transmission Standard TP-69G
 Distribution Arm Standard C2-2SEC
 McGhee Street Circuit 3 (12 KV)
 152 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8XAW		1	
P10FGT	1		
P404		1	
P75H1	1		
PC3	3	4	
PXAP	3	3	
CPI1A	3	3	
CTPT336C	3		
CTPTN10	1		
CAR336			885
CAR10			295
CDE10			2
SDRISE			1
SD2A3			2
PDGC38	1	1	
SDUG10			250

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW	1		
CPI69A	3		
PGW38T	293		
CAR336T	879		
CGT4C	1		

65141-19520 No work new line will over-hang.

NEW POLE 1

Pole 65134-19528

70 FOOT CLASS 1H POLE

Transmission Standard TS-5GA

Transmission only

McGhee Street Circuit 3 (12 KV)

325 FT SPAN

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW	1		
CVC336S69	3		
PGW38T	325		
CAR336T	975		
CGT4C	1		
PDGC12D	2		
PGI12	3		
P70H1	1		

NEW POLE 2

Pole 65122-19538

Transmission Standard TS-5GA

Transmission only

McGhee Street Circuit 3 (12 KV)

175 FT SPAN

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW	1		
CVC336S69	3		
PGW38T	175		
CAR336T	525		
CGT4C	1		
PDGC12D	2		
PGI12	3		
P70H1	1		

Pole 65094-19550
 NEW POLE 3
 Transmission Switch Pole
 One Way 69kV Switch
 INSTALL NEW STEEL POLE AND TURNER TU-2D TWO WAY SWITCH
 McGhee Street Circuit 4 (12 KV)
 SPAN 300

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
C2SW69GOAB	1		
CGT4CS	2		
CTWH38SW	1		
CDE69T336	6		
CGSWMAT	1		
PGW38T	300		
CAR336T	900		
P75S1	1		

Pole 65081-19555
 STEEL TRANSMISSION POLE INSTALL DEAD ENDS
 TRANSMISSION STANDARD FS-5A
 McGhee Street Circuit 4 (12 KV)
 SPAN 280

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CDE38SW	3		
CGT4CS	1		
CDE69T336	6		
PGW38T	140		
CAR336T	420		

Pole 65092-19539
 TRANSMISSION POLE
 McGhee Street Circuit 4 (12 KV)
 SPAN

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
PGW38T	150		
CAR336T	450		

SECTION 2 (Dawn Drive to Shady Knoll)

FRANK CHEVAN 69 KV STRUCTURE

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CDE69T336		3	

Pole 64887-19102

75 FT CLASS H1 POLE (EXISTING)

Transmission Standard TP-69G

McGhee Street Circuit 3 (12 KV)

40 feet to next pole

Dawn Drive

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CAR336T		180	
PGW387		60	
CPI69		3	
CDE38SW		1	

Pole 64875-19106

75 FT CLASS H1 POLE (EXISTING)

Transmission Standard TS-5GA

Distribution Arm Standard C2-1SEC

McGhee Street Circuit 3 (12 KV)

Dawn Drive

116 feet to next pole

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CPI69	3		
CTPJ336	3		
CAR336T		348	
CDE69T336	3	6	

Pole 64879-19111
 70 FT CLASS 2 POLE
 Transmission Standard TP-69-GB
 Distribution Arm Standard C2-2SEC
 McGhee Street Circuit 3 (12 KV)
 65 FT SPAN

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CPI69A	3		
PGW38T	70		
CAR336T	210		
PHGF38		3	

Pole 64892-19128
 70 FT CLASS 2 POLE
 Transmission Standard TP-69G
 Distribution Arm Standard C2-2SEC
 McGhee Street Circuit 3 (12 KV)
 210 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8XAW		1	
P10FGT	1		
P653		1	
P702	1		
PC3	3	3	
PXAP	3	6	
CPI1A	3	6	
CTPT336C	3		
CTPTN10	1		
CAR336			630
CAR10			210
TCO72	1	1	
TLAC84	1	1	
X72025	1	1	
T1A1	1	1	
PDGC38D	1	3	
FOB1			1
CDE4	1	1	
SD2A3			1

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
PGW38T	210		
CPI69A	3		
CSI69T336	3		
CDE38SW	2		
CAR336T	630		
CGT4C	1		

Pole 64904-19150

70 FT CLASS 2 POLE

Transmission Standard TU-1

Distribution Arm Standard C8-SEC(10 FT ARM AND LARGE BRACE)

McGhee Street Circuit 3 (12 KV)

210 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8XAW		1	
P10FGT	1		
P404		1	
P702	1		
PXAP	6	6	
CPDE336	3	6	
CPI1A	3	6	
CTPT336C	3		
CTPTN10	1		
CAR336			750
CAR10			250
FOB1			1
CDE4	1	1	
PC3	2	2	
SD4A3			1
CDE10	2	2	
STLG100			1

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
PGW38T	250		
CTPI69A	3		
CTWH38SW	1		
CAR336T	750		
CGT4C	1		

Pole 64915-19174
 70 FT CLASS 2 POLE
 Transmission Standard TP-69G
 Distribution Arm Standard C2-2SEC
 McGhee Street Circuit 3 (12 KV)
 270 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8XAW		1	
P10FGDE	1		
P404		1	
P702	1		
PXAP	3	6	
CPDE336	6	6	
CPI1A	3	6	
CTPT336C	3		
CTPTN10	1		
CAR336			810
CAR10			270
FOB1			1
CDE4	1	1	
PC3	2	2	
SD4A3			1
CDE10	2	2	

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
PGW38T	270		
CPI69A	3		
CTWH38SW	1		
CAR336T	810		
CGT4C	1		

Pole 64924-19189
 75 FT CLASS H1 POLE
 Transmission Standard TS-5G
 Distribution Arm Standard C8-1SEC (10 FT ARM)
 BOTTOM ARM C7-1SEC(10 FT ARM)
 McGhee Street Circuit 3 (12 KV)
 170 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8XAW		1	
P8DXAW		1	
P10FGDE	2		
P452		1	
P75H1	1		
PXAP	5	10	
CPI1A	5	10	
CATW6	5		
TLAC84	3	3	
CAR336			510
CAR10			170
FOB1			1
CPDE336	6	6	
PC3			2
SD4A3			1
CDE4			1
CDE10	2	2	
STLG100			1
FOBDE			2
PDGC38		2	
PDGC12D	2		
PHGF38	6	2	

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
PGW38T	170		
CDE38SW	2		
CDE69T336	6		
CDE38SW	2		
CAR336T	510		
CGT4C	1		

Pole 64918-19194
 55 FT CLASS 2 POLE
 Guys at 25 and 30 feet
 Distribution Arm Standard C1-2SEC (10 FT ARM)
 McGhee Street Circuit 3 (12 KV)
 FT SPAN 80

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P10FGT	1		
P8XA		1	
P404		1	
P552	1		
PXAP	3	3	
CPI1A	3	3	
PC3	1	1	
CAD23			320

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
PGW38T	320		
PHGF38	4		
PDGC12D	4		

Pole 64942-19174
 75 FT CLASS H1 POLE
 Transmission Standard TP-69GB
 Distribution Arm Standard C2-2SEC
 McGhee Street Circuit 3 (12 KV)
 235 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8XAW		1	
P10FGDE	1		
P452		1	
P75H1	1		
PXAP	3	6	
CPDE336	6	6	
CPI1A	3	6	
CTPT336C	3		
CTPTN10	1		
CAR336			705
CAR10			235
FOB1			1
PC3	2	2	

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
PGW38T	235		
CPI69A	3		
CTWH38SW	1		
CAR336T	705		
CGT4C	1		

Pole 64955-19167
 70 FT CLASS 2 POLE
 Transmission Standard TS-4G
 Distribution Arm Standard C2-2SEC
 McGhee Street Circuit 3 (12 KV)
 145 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P8XAW		1	
P10DXAW6		2	
PXAP	6	9	
CPIA1	6	9	
CPDE336		6	
CAR336			705
CAR10			235
FOB1			1
PC3	2	2	
P10FGT	1		

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
PGW38T	235		
CDE69T336	3		
CTWH38SW	1		
CAR336T	705		
CGT4C	1		
CPI69	3		
PHGF38		13	

(Removal of Abandoned Poles Behind Frank Chevan Station)

Pole 64957-19170
 40 FT CLASS 4 POLE
 Guy Pole
 McGhee Street Circuit 3 (12 KV)
 FT SPAN 35

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P404		1	
PDGC38D		3	
PHGF38		6	
PGW38		245	

Pole 64944-19158
 70 FT CLASS 2 POLE
 Transmission Standard TP-69G
 Distribution Arm Standard C1-1SEC
 CENTERVILLE 69 KV
 McGhee Street Circuit 3 (12 KV)
 145 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P10DXAW6		1	
PXAP		3	
CPIA1		3	
CAR40		435	
CAR10		145	
PC3		1	

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW		1	
CTW38T		145	
CPI69		3	
CAR336T		435	
P702		1	

Pole 64928-19147
 70 FT CLASS 2 POLE
 Transmission Standard TS-5GA
 Distribution Arm Standard C2-2SEC
 CENTERVILLE 69 KV
 McGhee Street Circuit 3 (12 KV)
 185 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P10DXAW6		1	
PXAP		6	
CPIA1		6	
CAR40		555	
CAR10		185	
PC3		1	

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CDE38SW		2	
CTW38T		185	
CPI69		3	
CAR336T		555	
P702		1	
CDE69T336		6	

Pole 64944-19158
 70 FT CLASS 2 POLE
 Transmission Standard TP-69G
 Distribution Arm Standard C1-1SEC
 CENTERVILLE 69 KV
 McGhee Street Circuit 3 (12 KV)
 145 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P10DXAW6		1	
PXAP		3	
CPIA1		3	
CAR40		435	
CAR10		145	
PC3		1	

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW		1	
CTW38T		145	
CPI69		3	
CAR336T		435	

Pole 64925-19131
 70 FT CLASS 2 POLE
 Transmission Standard TP-69G
 Distribution Arm Standard C1-1SEC
 CENTERVILLE 69 KV
 McGhee Street Circuit 3 (12 KV)
 160 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P10DXAW6		1	
PXAP		3	
CPIA1		3	
CAR40		480	
CAR10		160	
PC3		1	

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CTWH38SW		1	
CTW38T		160	
CPI69		3	
CAR336T		480	
P702		1	

Pole 64921-19118
 70 FT CLASS 2 POLE
 Transmission Standard TP-69G
 Distribution Arm Standard C1-1SEC
 CENTERVILLE 69 KV
 McGhee Street Circuit 3 (12 KV)
 135 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P10DXAW6		1	
PXAP		3	
CPIA1		3	
CAR40		405	
CAR10		135	
PC3		1	

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CDESW38		1	
CTW38T		135	
CPI69		3	
CAR336T		405	
P702		1	

Pole 64909-19191
 70 FT CLASS 2 POLE
 Transmission Standard TS-5G
 Distribution Arm Standard C4-EC
 CENTERVILLE 69 KV
 McGhee Street Circuit 3 (12 KV)
 185 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CPDE40		6	
CDE40		2	
CAR40		555	
CAR10		185	

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CDE38SW		2	
CTW38T		185	
CAR336T		555	
P702		1	
CDE69T336		6	

Pole 64894-19102
 70 FT CLASS 2 POLE
 Transmission Standard TS-5G
 CENTERVILLE 69 KV
 McGhee Street Circuit 3 (12 KV)
 185 FT SPAN

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CDE38SW		2	
CTW38T		185	
CAR336T		555	
P702		1	
CDE69T336		6	

FRANK CHIVAN STATION STRUCTURE
 70 FT CLASS 2 POLE
 CENTERVILLE 69 KV
 McGhee Street Circuit 3 (12 KV)
 30 FT SPAN

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CDE38SW		1	
CTW38T		30	
CAR336T		90	
CDE69T336		3	

Pole 64902-19094
 35 FT CLASS 2 POLE
 Distribution Arm Standard C4-EC
 CENTERVILLE 69 KV
 McGhee Street Circuit 3 (12 KV)
 75 FT SPAN

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CAR40		225	
P352		1	

Pole 64901-19094
 35 FT CLASS 2 POLE
 Distribution Arm Standard C4-EC
 CENTERVILLE 69 KV
 McGhee Street Circuit 3 (12 KV)
 REMOVE STEEL SWITCH FRAME

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P352		1	
RMSF		1	

FRANK CHEVAN 23 KV STRUCTURE

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
CPDE40		3	
CDE40		1	
CAR40		120	
CAR10		40	

Section 3 : Work 69 kV in line switch at Weaving Mill

Pole 64800-19051

Transmission Standard 69 kV Switch

One Way 69kV Switch

Replace 40 Class 3 pole with 75 foot Steel Pole.

Distribution Arm Standard C1-1SEC

Weaving Mill Circuit 2(4 KV)

DISTRIBUTION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
P404		1	
P75S1	1		
P10FGT	1		
P8XA		1	
CG6C		1	
PC3	1	1	
CPI1A	3	4	
PXAP	3	4	
CTPT336C	3		
CAR336			1524

TRANSMISSION UNITS:

UNIT	INSTALL	REMOVE	TRANSFER
PGW38T			127
CAR336T			381
C1SW69GOAB	1		
CTWH38SW	1		
CDE69T336	6		
CGT4C	1		
CGSWMAT	1		
CPI69		3	
CTWH38SW		1	