

## **ADVERTISEMENT FOR BIDS**

Sealed proposals will be received in the Office of the Purchasing Technician, Greenville Utilities Commission, 401 S. Greene Street, Greenville, North Carolina 27834 until 2:00 PM (EDST) on April 25, 2012 and immediately thereafter publicly opened and read for the furnishing of Steel Structures and Equipment for the Frog Level Substation Expansion.

Instructions for submitting bids and complete specifications will be available in the Office of the Purchasing Technician, Greenville Utilities Commission, 401 S. Greene Street, Greenville, North Carolina during regular office hours, which are 8:30AM – 5:00PM Monday through Friday.

Greenville Utilities Commission reserves the right to reject any or all bids.

## **SECTION I**

### **GENERAL INSTRUCTIONS FOR FORMAL BIDS**

#### **RELATED TO THE PURCHASE OF APPARATUS, SUPPLIES,**

#### **MATERIALS, AND EQUIPMENT**

##### **1.0 NOTICE TO BIDDERS**

Sealed bids, subject to the conditions made a part hereof, will be received in the Office of the Purchasing Technician, Greenville Utilities Commission, 401 S. Greene Street, Greenville, North Carolina 27834 until 2:00 PM (EDST) on April 25, 2012 the day of opening. **Bids submitted in a fax or e-mail in response to this Invitation for Bids will not be acceptable.**

##### **2.0 STANDARD FORMS REQUIRED**

Each bidder must submit a proposal on the enclosed bid forms. **The bid must be signed by an authorized official of the firm. Return only the attached Proposal Form. Do not return the Advertisement for Bids, Instructions to Bidders or Specifications.**

##### **3.0 PREPARATION OF BID**

Bids must be in sealed envelopes clearly marked on the outside with the name of the bid and the bid opening date and time. Bid shall be addressed to PURCHASING TECHNICIAN, GREENVILLE UTILITIES COMMISSION, 401 S. GREENE STREET, GREENVILLE, NORTH CAROLINA 27834.

##### **4.0 TIME FOR OPENING BIDS**

Bids will be opened promptly and read at the hour and on the date set forth in the advertisement in the Office of the Purchasing Technician, Greenville Utilities Main Office, 401 S. Greene Street, Greenville, North Carolina. Bidders or their authorized agents are invited to be present.

##### **5.0 DEPOSIT**

A deposit is **NOT** required for this bid.

##### **6.0 NC SALES TAX**

Do **not** include NC sales taxes in bid figure; however, Greenville Utilities Commission (GUC) does pay sales tax. Sales tax should be added to the invoice as a separate item.

##### **7.0 FEDERAL EXCISE TAX**

GUC is exempt from Federal Excise Tax and will issue a Federal Exemption Certificate upon request to the successful bidder.

## **8.0 EXCEPTIONS TO BE CLEARLY STATED**

If bid is not in strict accordance with Section II, "Specifications," bidder must list or note all exceptions **on the Request for Proposal Form**, otherwise, it is fully understood that the successful bidder will furnish equipment and/or materials exactly as specified. GUC reserves the right to accept or reject bids with noted minor deviations from specifications and to determine the lowest and best responsible bid from the standpoint of quality, performance, and price.

## **9.0 EVALUATION AND AWARD OF BIDS**

GUC reserves the right to reject any and all bids, to waive any and all informalities, and to disregard all nonconforming or conditional bids or counter proposals. In evaluating bids, GUC shall consider whether the bids comply with the prescribed requirements, plus all alternates or options requested. GUC reserves the right to include or exclude any option or alternative in GUC's opinion is in GUC's best interests. If a bid is to be awarded, it will be awarded to the lowest responsible, responsive bidder whose evaluation by GUC indicates that the award will be in GUC's best interests. Only firm prices will be considered for award of this bid.

## **10.0 PROMPT PAYMENT DISCOUNTS**

Bidders are urged to compute all discounts into the price offered. If a prompt payment discount is offered, it may be considered in the award of the contract.

## **11.0 NUMERICAL ERRORS**

In the case of a discrepancy between a unit price and the extension (the unit price multiplied by the number of units), the unit price governs. In the case where numerical bids are stated both in numbers and in words, the words govern.

## **12.0 BID WITHDRAWAL**

A bidder must notify GUC in writing of its request to withdraw a bid within seventy-two (72) hours after the bid opening, not including Saturdays, Sundays, or holidays. In order to justify withdrawal, the bidder must demonstrate that a substantial error exists and that the bid was submitted in good faith.

## **13.0 MINORITY BUSINESS PARTICIPATION PROGRAM**

GUC has adopted an Affirmative Action and Minority and Women Business Enterprise Plan (M/WBE) Program. Firms submitting a proposal are attesting that they also have taken affirmative action to ensure equality of opportunity in all aspects of employment, and to utilize M/WBE suppliers of materials and/or labor.

## **14.0 DELIVERY TIME**

Delivery time is to be stated and will be considered in the evaluation of bids.

## **15.0 MANUFACTURER**

Bidder is to specify the manufacturer of items being quoted.

## **16.0 CONTACT INFORMATION**

Questions regarding this bid request should be directed to Cleve Haddock, Purchasing Department, Buyer II, at (252) 551-1533, [haddocgc@guc.com](mailto:haddocgc@guc.com) or Todd Rouse, Substation and Controls Engineer at (252) 551-1570, [rouset@guc.com](mailto:rouset@guc.com)

## **17.0 TERMS AND CONDITIONS**

**The attached Terms and Conditions must be considered by all vendors as part of the bid proposal.**

[Balance of page left blank intentionally]

**SECTION II**  
**GREENVILLE UTILITIES COMMISSION**  
**SPECIFICATIONS FOR**  
**FROG LEVEL SUBSTATION EXPANSION OVERHEAD STRUCTURES AND EQUIPMENT**

**1.0 GENERAL**

**1.1 Scope**

These specifications are for furnishing FOB job site structures and equipment for two substation projects:

**Frog Level Substation Expansion – 3308 Frog Level Road, Greenville, NC 27834**

The existing substation structure was provided by M.D. Henry Design FK-5895. The structures and equipment shall be furnished complete and ready for installation, connection, and immediate service and shall include:

- Tubular aluminum bus conductor and accessories
- Bus support insulators
- 115 kV A-frame dead-end structure with 115 kV switch & motor operator
- Five (5) 15 kV equipment bays
- 15 kV group operated switches and hook stick switches

**1.2 Delivery**

The equipment shall be delivered FOB job site by truck shipment and unloaded by Greenville Utilities. Greenville Utilities shall receive shipping notice at least 48 hours before delivery.

The Contractor shall submit to Greenville Utilities duplicate copies of shipping notices describing each shipment of material or equipment.

The Contractor shall contact Todd Rouse, Substation Engineer at least 72 hours prior to arrival of equipment at the delivery site, to notify Greenville Utilities of the method of shipment and date of arrival. Telephone notification shall be made between 8:00 a.m. and 5:00 p.m., Monday through Friday, telephone 252-551-1570.

The Contractor shall pay all demurrage costs resulting from delays in unloading, if those delays are caused by failure of the Contractor to notify Greenville Utilities of shipment or to schedule shipment as specified above.

**1.3 Shipping Requirements**

All materials shall be suitably protected to prevent damage and loss during shipment. Special care shall be exercised in loading the members for shipment to assure that members will not be deformed by overburdened loads and that wearing of the galvanized surfaces will not occur during shipment.

The steel structures shall be shipped assembled where shipping conditions permit.

Each bidder shall furnish with his proposals, under the Section PROPOSAL DATA, a list of the structure items that will require field assembly and describe the shipping sections. All small items shall be bagged, identified and shipping in boxes or crates. The contents of all boxes and crates shall be identified with a packing slip.

#### **1.4 Codes and Standards**

Except where specifically stated otherwise, all equipment furnished under these specifications shall conform to the latest applicable standards of ASTM, NEMA, NESC, ANSI, IEEE, NEC, and EEI and shall be in accordance with the applicable requirements of the Federal "Occupational Safety and Health Standards."

The requirements of the drawings and the written text of these specifications shall govern in case of conflict between them and any of the referenced codes and standards except the mandatory standards which shall govern in all cases. Any conflict between standards shall be referred to Greenville Utilities to determine which standard shall govern.

#### **1.5 Correction of Manufacturing Errors**

Equipment and materials shall be complete in all respects within the limits herein outlined. All manufacturing errors or omissions required to be corrected in the field shall be done by the manufacturer or his duly authorized representative and at the Supplier's expense.

#### **1.6 Arrangement and Ratings**

The arrangement of the structures and ratings of the equipment for the two (2) substations are shown on the drawings, which are listed in Section 6 and that are included as part of this Specification.

#### **1.7 Material to be Furnished**

Material and equipment shall be furnished in accordance with the drawings and bill of material as listed in Section 5 and these specifications.

[Balance of page left blank intentionally]

## **ENGINEERING DATA**

### **2.1 General**

This section covers the requirements for moment and loading data, manufacturer's drawings, instruction manuals, and other engineering data that the Contractor shall submit to Greenville Utilities for design information and review.

### **2.2 Correspondence**

Correspondence forwarding drawings, instruction manuals, and other engineering data shall be addressed as follows:

<b>Electronic</b>	<b>Correspondence</b>	<b>Delivery</b>
Todd Rouse <a href="mailto:rouset@guc.com">rouset@guc.com</a>	Greenville Utilities PO Box 1847	Greenville Utilities 801 Mumford Road
John Powell <a href="mailto:powelljl@guc.com">powelljl@guc.com</a>	Greenville, NC 27835-1847 Attention: Mr. J. Todd Rouse	Greenville, NC 27834 Attention: Mr. J. Todd Rouse

Always include the Manufacturer's order number.

### **2.3 Drawings, Bills of Material, and Loading Data**

**2.3.1** Shop drawings, bills of material, and loading reaction data covering all fabricated materials furnished under this Specification shall be submitted to Greenville Utilities for approval within 35 days after award of contract. Drawings shall be a maximum of 22 by 34 inches. No work shall be performed in connection with fabrication or manufacture of materials until the drawings and data have been approved.

**2.3.2** Loading data shall show the worst-case loads at the foundations in the "X", "Y", and "Z" directions, and resulting moments at the foundation surfaces.

**2.3.3** Drawings and necessary data which show the kind, size, arrangement, weights of each component, and operation of component materials and devices; the external connections, anchorage, and supports required; and the dimensions needed for installation and correlation with other materials and equipment shall be submitted to the Greenville Utilities for review.

**2.3.4** Approval drawings and reaction data, either preliminary or certified, shall be submitted to Greenville Utilities electronically. Each drawing submitted shall be clearly marked with the name of the project, the order number, the Contractor's name, and references to applicable specification paragraphs. When catalog pages are submitted, the applicable items shall be indicated and the pages shall be included in the Substation Equipment Manual.

**2.3.5** Drawings, data, and Equipment Manuals will be reviewed by Greenville Utilities and returned to the Contractor marked APPROVED, APPROVED AS NOTED, or RETURN FOR CORRECTIONS.

**2.3.6** When the drawings, data, and Equipment Manuals are returned marked APPROVED AS NOTED or RETURNED FOR CORRECTIONS, the changes and/or corrections shall be made as noted thereon and corrected copies shall be submitted electronically to Greenville Utilities for final approval and distribution.

**2.3.7** When the drawings are returned marked RETURNED FOR CORRECTIONS, the corrections shall be made as noted thereon and as instructed by Greenville Utilities, and shall be submitted electronically.

[Balance of page left blank intentionally]



**3.0** Greenville Utilities' review of drawings and data will cover only general conformity to the Specifications and the external connections and dimensions. Greenville Utilities' review of drawings returned marked APPROVED will not constitute a blanket approval of all dimensions, quantities, and details of the material, equipment, device, or item shown and does not relieve the Contractor from any responsibility for errors or deviations from the contract requirements. All drawings and data, after final approval by the Greenville Utilities, shall become a part of the contract documents and the work shown or described thereby shall be performed in conformity therewith unless otherwise required by Greenville Utilities. After all drawings have been approved, the Contractor will submit the drawings to Greenville Utilities in AutoCAD format, current 2004 version. The Substation Equipment Manual shall be bound in one binder with four copies delivered to Greenville Utilities and on copy sent electronically in Adobe (pdf) format. SUBSTATION STEEL STRUCTURES

**3.1 General**

This section cover materials and fabrication for substation wide flange steel structures to be incorporated in the **Frog Level Substation Expansion** in Greenville, North Carolina.

The structures furnished under these specifications shall include all new structures indicated on the drawings listed in Section 6.

The structures shall be complete with all field connection bolts required for erecting the structures and all bolts required for mounting the equipment furnished under other sections of these specifications. In addition, mounting bolts shall be furnished for mounting other equipment as indicated on the drawings.

All testing and welding specifications required by these specifications shall be performed by an independent testing laboratory retained by the Fabricator and accepted by Greenville Utilities. All testing qualification expenses shall be paid by the Fabricator.

Certain dimensions indicated on Greenville Utilities' drawings shall be adjusted as required to suit the equipment furnished by the Contractor under other sections of these specifications. The dimensions required for the equipment furnished shall be shown on the Contractor's detail shop drawings and the materials and fabrication required shall be provided as part of the contract work. There will be no adjustment in price because of these requirements.

The following minimum clearances shall be maintained:

<b>Clearance</b>	<b>115 kV</b>	<b>13.2 kV</b>
Metal-to metal phase spacing (inches)	53"	12"
Vertical break disconnect switch center-to center phase spacing (inches)	84"	24"
Horn gap switch (if used to interrupt transmission line charging currents, loop currents, or transformer magnetizing currents) and expulsion type fuses center-to-center phase spacing (inches)	120"	36"
Phase-to-ground (inches)	47"	10"
Vertical clearance from energized parts or jumpers to grade (feet-inches)	12'-0"	9'-0"
Clearance from unguarded live parts to working platform (feet-inches)		

Vertical	11'-7"	9'-0"
Horizontal	6'-1"	3'-6"
Low bus height above top of foundation (feet)	12'-0"	14'-0"
High bus height above top of foundation (feet)	20'-0"	23'-8"

---

Detail sealed engineering calculations, shop drawings, and erection drawings shall be prepared, checked, and submitted, to Greenville Utilities in accordance with the requirements of Section 2. Engineers seal on calculations shall be for the State of North Carolina or the state of the Engineers' primary residence.

### **3.2 Codes and Standards**

All material furnished under this section shall conform to the applicable codes or standards of the technical societies or organizations listed in these specifications, to the specific standards mentioned in this section, and the latest edition of North Carolina Building Code.

Reference to technical societies or organizations may be made by abbreviation in accordance with the following list.

AHDGA	-	American Hot-Dip Galvanizers Association
AISC	-	American Institute of Steel Construction
AISI	-	American Iron and Steel Institute
ANSI	-	American National Standards Institute
ASCE	-	American Society of Civil Engineers
ASTM	-	American Society of Testing and Materials
AWS	-	American Welding Society
IEEE	-	Institute of Electrical and Electronic Engineers
NEMA	-	National Electrical Manufacturers Association

Except as otherwise specified or specifically indicated on the drawings, all materials furnished and work performed in connection with substation structure work under this section shall be in conformity with the AISC Manual of Steel Construction, Ninth Edition.

### **3.3 Structure Loads**

The following structure loads shall be considered.

#### **3.3.1 Apparatus Loads**

Apparatus loads include the following:

- Weight of equipment
- Conductor and bus weight
- Friction forces, moments, and torque due to mechanical operation of apparatus such as air break switches

### **3.3.2 Climatological Loading**

- Ice Loading: The Ice Loading Condition is 0.5 inch radial ice thickness, at 0 degrees F, with a wind pressure of 2.3 pounds per square foot (psf).
- Extreme Wind: The extreme wind condition shall be a 31 psf horizontal wind pressure, with no ice, at a temperature of 60 degrees F.

### **3.3.3 Application of Wind Loads and Ice Loads on Structures**

The wind pressures for Section 3.3.2 will be applied to the vertical projection of the structural members for the first bent. A bent consists of one or more columns effectively all in on plane, including bracing between the members. For successive bents, the wind pressure will be reduced in proportion to the shade factor K, where K is defined as follows:

$$K = L / 4W$$

L = Distance from front of the first bent to front of the following bent.

W = The least dimension perpendicular to the wind direction.

If L is greater than 4W, then shading is ineffective and full wind pressure is applied to the next bent (K=1).

Shape factors for applying wind force will be applied as follows:

Round shapes	1.0
Octagonal shapes	1.4
Flat shapes	1.6

For lattice towers, lattice box columns and trusses, the exposed area is assumed to be 1.5 times the total exposed area of the component members.

## **3.4 Allowable Stresses and Deflections**

Allowable stresses shall be calculated according to the methods outlined in the latest edition of the AISC Manual of Steel Construction. The following deflection limits shall apply when the structure is under a set of compatible loads without short circuit forces.

### **3.4.1 Class "A" Structures**

Intended for the support of high voltage equipment; i.e., air break switches and other circuit interrupting devices

- Horizontal deflection of vertical members: 1.0% of the vertical height
- Vertical deflection of horizontal members: 0.5% of the span
- Horizontal deflection of horizontal members: 0.5% of the span

### **3.4.2 Class "B" Structures**

Where deflections within the limits do not affect the performance of support equipment; i.e., dead-end structures without switches, bus supports, and miscellaneous equipment supports

- Horizontal deflection of vertical members: 2.0% of the vertical height
- Vertical deflection of horizontal members: 0.5% of the span
- Horizontal deflection of horizontal members: 1.0% of the span

### **3.5 Materials**

All materials shall be new and undamaged and shall conform to pertinent AISC and ASTM standard specifications and the following requirements.

Steel shapes and plates for structures	ASTM A36 steel. Minimum yield point of 36,000 psi including appurtenant materials. Galvanized after fabrication.
Structural tubing members	ASTM 500, Grade B. Minimum yield point of 46,000 psi. 1/4 inch minimum wall thickness, galvanized after fabrication.
Welding electrodes	AWS D1.1-80 (as specified in Table 4.1.1 "Matching Filler Metal Requirements"). Low hydrogen types, tensile strength range of 70,000 psi minimum.
Structural members bolted connections	ASTM A325, heavy hex bolts and install high strength threaded fasteners in accordance with AISC "specifications for structural joints using ASTM A325 or A490 bolts."
Connection bolts and bolts for equipment mounting	ASTM A394; hexagon bolts and nuts, flat or beveled washers, and MacLean-Fogg "M-F Lock Nut #1" locking devices. All bolting materials shall be galvanized.
Galvanizing	ASTM A384, ASTM A385, and ASTM A386
Shapes and plates	ASTM A123
Bolts, nuts, and washers	Galvanized as specified in ASTM A394 and ASTM A153.
Anchor bolts	ASTM A153

### **3.6 Anchor Bolts**

The contractor shall provide detailed design of the anchor bolts. Detailed design calculations and design drawings to verify the anchor bolt design shall be provided to Greenville Utilities for review. Design shall be based on equipment weights and loads, line tensions and climatological design criteria as listed in these specifications.

Anchor bolts shall be fabricated from ASTM A36 steel rods and shall have heavy hexagon nuts conforming to ASTM A307, Grade B. Anchor bolts, nuts and washers shall be hot-dip galvanized after fabrication, threads being undercut to provide a tolerance equal to ANSI Class 2A. Each bolt shall be furnished with two nuts and sufficient threads to permit a nut to be installed on each side of the or template.

The Contractor shall provide anchor bolts for columns and stands. Greenville Utilities will provide anchor bolts for the circuit breakers.

### **3.7 Field Connection Bolts**

Field connection bolts, nuts, and washers shall be furnished for all structure field connections and equipment mounting with the overage of five per cent plus five bolts of each type, size, and length. The length of bolts shall be determined with sufficient projection for washer, nut, and locknut.

With locknuts in place, bolt projection beyond the locknut shall be from ¼ inch to ½ inch inclusive.

Smooth beveled washers shall be furnished for use when the bearing faces of the bolted parts will have a slope of 1:20 or greater with respect to a plane normal to the bolt axis.

Bolting materials shall be shipped in sturdy kegs or pails which shall be marked with the size, length, count, and other descriptive data as required to fully describe the contents.

### **3.8 Fabrication**

The structures shall be fabricated in conformity with the dimensions, arrangements, sizes, and weights or thicknesses indicated on the drawings or stipulated in the specifications. All members shall be detailed and fabricated in accordance with AISC standards, specifications, and details unless otherwise indicated on the drawings or specified herein, and shall have been pre-assembled at the factory prior to shipping to ensure proper fit.

The structures shall be shipped assembled where shipping conditions permit. Each bidder shall furnish with his proposal, under the heading PROPOSAL DATA, a list of the structure items that will require field assembly and describe the shipping sections. When proposals are submitted without statements describing sectional shipments, it will be understood that no field assembly of the structures will be required.

When delivered, members shall be straight, free from warp, unauthorized splices and bends, or local deformations. Holes and other provisions for field connections shall be accurate and shop checked so that when the structure is field assembled, proper fit will be provided. All punching, drilling, and reaming of the holes shall be done in the shop before galvanizing.

All fabricated materials shall conform to the tolerances specified in the AISC Manual and ASTM A6. In additions, the allowable tolerance for sweep shall be no more than 1/8 inch in 10 feet of length regardless of the type of steel section. If necessary, the Contractor shall cull out or straighten materials that do not comply with the specified tolerances. Materials that do not comply with the specified sweep and camber requirements may be rejected.

Baseplates shall also be checked after fabrication and will be rejected if anchor bolt holes are not within 1/32 inch of their specified location with respect to the center of the anchor bolt group or cluster.

Contact surfaces at all column splices and at all other compression joints depending upon contact bearing shall have the bearing surfaces prepared to a common plane by milling, sawing, or other acceptable means. Only milling will be acceptable where milling is specifically indicated on the drawings.

Shearing, flame cutting, and chipping shall be done carefully and accurately. Baseplates, fillers, stiffeners, and connection plates shall be neatly fitted and shall not have ragged edges. Holes shall be cut, drilled, or punched at right angles to the surface and shall not be made or enlarged by burning. Holes shall be clean-cut without torn or

ragged edges, and burrs resulting from drilled or reaming operations shall be removed with the proper tool.

Bolt holes shall be provided for mounting equipment, conduit, and grounding attachments as indicated on the drawings.

Except as otherwise indicated on the drawings or specified herein, shop connections shall be all welded and field connections shall be all bolted. Bolted connections shall be bearing type with all threads excluded from the shear planes of the connected parts.

### **3.8.1 Swage Connections**

Qualified personnel, using manufactures' recommended methods, shall install swage radial compression connections.

Welded and bolted connections shall not be used for electrical connections.

### **3.9 Nondestructive Testing**

Nondestructive testing shall be provided in accordance with the requirements of Article 6.7 of the referenced AWS code as follows.

Magnetic particle inspection or ultrasonic inspection shall be provided at all circumferential welds and all other critical welds.

Inspection and evaluation of the test data shall be performed by persons fully qualified by training and experience to inspect, evaluate, and accept or reject these welds. Copies of the test reports covering this inspection shall be furnished to Greenville Utilities. Any defective weld shall be removed, rewelded, and reinspected at the Contractor's expense.

### **3.10 Identification**

All separate structural members and parts shall be plainly marked, as an aid in assembly, with the identifying mark on the member corresponding to the identical mark on the erection drawings. Marks shall be metal stamped into each member in characters not less than ½ inch high. Stamping shall be done before galvanizing, but marks shall be clearly legible after galvanizing. Marks shall also be painted on the galvanized members with nonpermanent paint in characters not less than one inch high. Connection materials shall be packaged in separate containers with durable fade proof and weatherproof markings.

### **3.11 Galvanizing**

All steel materials furnished under this section shall be hot-dip galvanized after fabrication. Materials shall be prepared for galvanizing by being properly cleaned, pickled, rinsed, and dried.

A durable, high quality, relatively smooth coating is required. The Contractor's attention is directed to the requirements of ASTM A384, ASTM A385, and ASTM A386 in this regard. Greenville Utilities may at its option inspect the galvanizing in process. Grounds for rejection of members because of galvanizing defects shall be as listed in Table II of the "Inspection Manual for Hot-dip Galvanized Products" published by the American Zinc Institute except that excessive general roughness, pimples, lumpiness, and runs shall be cause for rejection. Greenville Utilities will determine whether defects are excessive or not.

After all cutting, punching, reaming, welding, drilling, capping, and cleaning have been completed, all steel members shall be degreased, pickled, rinsed, prefluxed, and galvanized in accordance with the latest recommendations of AHDGA for compliance with the ASTM specifications.

The galvanizing coating shall cover all interior surfaces of hollow members as well as exterior surfaces, channels, angles, and all other unsymmetrical sections shall be straightened after galvanizing as required to meet the specified tolerance requirements.

Anchor bolts shall be galvanized over their entire length.

## **DESCRIPTION OF SUBSTATION EQUIPMENT**

### **3.12 General**

This section covers materials and equipment to be supplied by the Contractor and incorporated in to the **Frog Level Substation Expansion**. All material and equipment furnished under this section shall conform to the applicable codes or standards of the technical societies or organizations mentioned in this section.

### **3.13 Bus Materials**

Bus materials furnished shall conform to the following:

The rigid substation bus shall be aluminum alloy 6063-T6 seamless pipe manufactured in accordance with ASTM Specification B-241. Schedule 40 pipe size (IPS) pipe shall be used. Jumper cables shall be provided and sized as shown on the drawings unless otherwise noted.

All shop welding shall be by the inert-gas electric-arc welding method.

End enclosure plugs shall be furnished for all bus pipe.

All aluminum bus sections shall be individually packaged in fiber boxes for shipment.

Current carrying connections to bus tube shall be radial swage compression type as manufactured by Deutsch Metal Components. Current carrying connections to AAC and ACSR cable shall be compression terminal type with factory installed corrosion inhibitor. Current carrying connections to copper cable shall be bolted type.

Where aluminum to copper connections are to be made, the contact surfaces will be tinned or copper lined as appropriate for the metal-to-metal contact. Terminal pad connection bolts, Belleville lock washers, and nuts will be stainless steel or bronze as appropriate and of appropriate length for the connection. A sufficient number including a 5% overage amount shall be provided to make all electrical connections. An ample quantity of recommended electrical joint compound shall be furnished that will be used to prevent oxidation between the dissimilar metals and to prevent possible entrance of contaminants between the contact surfaces.

The Contractor shall provide complete information for tightening of all electrical connections secured with bolts or studs. The information furnished shall include torque wrench settings or complete details of other tightening procedures recommended for bus joints and connector attachments.

Bus received at the job site with scratches, burrs, or abrasions will be returned to the Contractor for repair or replacement. All other blemishes including black marks, scuff marks, etc., shall be repaired in the field under the direction of a manufacturer's

representative. The costs of field repairing the bus, repackaging, and shipping the bus back to the manufacturer shall be borne by the Contractor.

Bus fittings and jumpers shall be individually wrapped and packed in wooden crates. Sawdust or other similar non-deleterious shock absorbing material shall be used as a filler material to further protect the fittings and jumpers during shipping and handling. The sizes of the crates used shall be as large as practical to permit ease of handling by normal handling equipment.

### **3.14 Insulators**

All 115 kV insulators shall be porcelain station post type, NEMA Technical Reference 286, ANSI 70 sky gray color. All 13.2 kV insulators shall be porcelain station post type, NEMA Technical Reference 205, ANSI 70 sky gray color.

### **3.15 Disconnect Switches**

Switches shall be in accordance with applicable paragraphs of the NEMA, IEEE, and ANSI specifications and shall conform to the following additional conditions.

Insulators shall be as specified in Section 4.3.

Switch bases, operating mechanisms, and operating rods shall be hot-dip galvanized after all machining and threading operations. Operating rods and levers shall be cut to length and all machining operations and threading shall be completed at the factory. The operating mechanisms shall have provisions for grounding and for padlocking in the open and closed positions. All operating mechanisms shall be mounted on the structures. Each switch operator for group operator switches shall be furnished complete with all operating pipes, interphase spaces, pipe couplings, guide bearings, ground braids and offsets required to operate the switch from the ground.

All 15 kV switches shall be furnished with copper live parts.

All group-operated switches shall be furnished with a galvanized steel operator grounding platform with dimensions of 3 feet by 6 feet. Two compression terminals per grounding platform, one on each end of the platform, shall be provided by the Contractor.

Contractor shall provide Burndy Type GG, Anderson Type GC-109, or equivalent ground clamp for attaching ground braids to the operating pipe.

Switch bearings shall be of the sealed greaseless type.

All switches shall be manufactured by Cleveland Price or USCO.

### **3.16 Voltage Transformers**

Voltage transformers shall be rated in accordance with the ratings shown on the drawings, applicable paragraphs of the NEMA, IEEE, and ANSI specifications.

### **3.17 Power Fuses**

Power fuses shall be rated in accordance with the ratings shown on the drawings, applicable paragraphs of the NEMA, IEEE, and ANSI specification. Insulators shall be as specified under Section 4.3.



### **3.18 Ground Conductor and Connectors**

No. 2/0 AWG copper ground stingers will be furnished by others for connection of each steel structure column to the below grade ground grid. The Owner shall furnish above grade No. 2/0 AWG copper ground conductor to connect the ground stingers to switch operating handles, switch operating platforms, voltage transformers, and surge arresters.

The Contractor shall provide all above grade ground connectors required for connecting ground stingers and above grade ground conductor to the steel structures. Above grade ground conductors shall be supported by bronze ground clamps at interval not to exceed four feet. Connectors shall be bronze ground clamps, cable-to-flat, type GC as manufactured by Anderson, or equal. Connectors on material listing have been specified for 1/2" thick steel structure. If thickness is other than 1/2", fabricator shall coordinate appropriate change order to specify connectors for correct steel thickness.

All equipment and switch operating platforms shall be bonded at two diagonally separating locations. All equipment shall be grounded with single 2/0 AWG copper except the power transformer shall be grounded with dual 4/0 AWG copper.

The switch platform shall have a continuous ground stinger from the below grade ground grid, to each diagonal corner pad, to the steel column and to the operating mechanism. The operating control pipe shall be bonded with a flexible braid strap. A separate ground stinger shall be bonded to both switch platform pads with the first ground stinger with a parallel groove grounding connector.

The static mast shall be a 2" x 10' galvanized pipe. There shall be a continuous 2/0 AWG copper ground from the static mast to the below grade ground grid. The copper conductor shall be bonded to the steel column every 4 to 6 feet.

### **3.19 Equipment Details**

#### BUS Dimensions

115 kV main bus  
115 kV tap bus  
15 kV main bus  
15 kV main bus tap  
15 kV transfer bus

#### Bus Size

3" Schedule 40  
3" Schedule 40  
3" Schedule 40  
2" Schedule 40  
2" Schedule 40

#### CONDUCTOR Sizes

Transmission incoming line – 115 kV  
Power Transformer High Side – 115 kV  
Power Transformer Low Side – 15 kV  
Bus Breaker – 15 kV  
Feeder Breaker – 15 kV  
Distribution outgoing line – 15 kV

#### Size

1272 AAC  
336 ACSR  
2-795 AAC  
2-795 AAC  
1272 AAC  
1000 MCM UG

#### Device Quantities

Power Transformers  
115 kV Circuit Switchers  
15 kV Source Breakers (2000A)

#### Quantity

1  
1  
1

15 kV Feeder Breakers (1200A)	2
Potential Transformer Sources	1
Station Service Transformers	1

Preferred Equipment Manufacturers

Switches

Bus Connectors

Manufacturers

Cleveland-Price

Deutsch Power  
Products unless

**3.20 Other Equipment**

The Bill of Material in Section 5 provides the recommended manufacturer and catalog number. The items provided by Greenville Utilities are identified by "Owner" as the manufacturer. The Contractor shall use the same item number in the developed Bill of Material and drawings. The Bill of Material and drawings can be provided electronically upon request.

[Balance of page left blank intentionally]

				BILL OF MATERIAL
				GREENVILLE UTILITIES COMMISSION
				FROG LEVEL BUS No. 2
ITEM	QTY	MFG	CAT. NO.	DESCRIPTION
1				STEEL STRUCTURES, HOT-DIPPED GALVANIZED AFTER FABRICATION AND ASSEMBLED WITHIN LIMITATIONS OF TRUCKING
2	8			STEEL LIGHTNING RODS
3	18			HEIGHT ADAPTERS
5A	32	UNIQUE		ANCHOR BOLT: 1" X 3'-4" WITH 8" HOOK, WITH 2HHN,2FW
5B	16	UNIQUE		ANCHOR BOLT: 3/4" X 2'-2" WITH 6" HOOK, WITH 2HHN,2FW
8	2			SWITCH OPERATOR GROUND PLATFORM, 3 X 4'
8A	4	AE	TLS-42-L	GROUND CONN
10	1	BY	OWNER	TRANSFORMER: 20 MVA, 115000 D:13200 Y VOLT
11	1	BY	OWNER	CIRCUIT SWITCHER: 115 KV, 600 AMP
12	1	BY	OWNER	BREAKER: 15.5 KV, 2000 AMP
13	2	BY	OWNER	BREAKER: 15.5 KV, 1200 AMP
14	2	CLEVPRICE	V2-C -- C06A034G08	SWITCH: 15 KV 2000 AMP GROUP OPERATED VERTICAL BREAK, COPPER LIVE PARTS, TINNED TERM PADS, STANDARD ARCING HORNS, SWING HANDLE CONTROL, AND TR-205 INSULATORS
15	6	CLEVPRICE	LCO-C	SWITCH: 15 KV 2000 AMP HOOKSTICK DISCONNECT, WITH TINNED TERM PADS, AND TR-205 INSULATORS
15	24			BOLTS: 5/8" X # " GMB W/HN,LW,WW
16	12	CLEVPRICE	LCO-C	SWITCH: 15 KV 1200 AMP HOOKSTICK DISCONNECT, WITH TINNED TERM PADS, AND TR-205 INSULATORS
16	48			BOLTS: 5/8" X # " GMB W/HN,LW,WW

ITEM	QTY	MFG	CAT. NO.	DESCRIPTION
17	12	CLEVPRI	LCO-CT	SWITCH: 15 KV 1200 AMP HOOKSTICK TANDEM DISCONNECT, WITH TINNED TERM PADS, AND TR-205 INSULATORS
17	48			BOLTS: 5/8" X # GMB W/HN,LW,WW
20	4	S&C	192222R2-E-Z5	FUSED DISCONNECT 15 KV 200 AMP, SMD-20
20	16			BOLTS: 1/2" X # GMB W/HN,LW,FW
20A	4	S&C	702003	FUSE UNIT, 3K
20B	4	GE	9F59UBD251	CURRENT LIMITING COMPANION FUSE
31	45	SEVES		INSULATOR: 15 KV STATION POST TR-205
31	90			BOLTS: 1/2" X # GCS W/LW,FW
41	12	OB	PVN -- 310009	LIGHTNING ARRESTER, 8.4 KV MCOV STATION CLASS POLYMER, 10" B.C.
41	36			BOLTS: 1/2" X # GMB W/HN,LW
50	1	BY	OWNER	STATION SERVICE TRANSFORMER
51	3	ABB	7525A91G05	POTENTIAL TRANSFORMER, 7200:120 VOLT, VOZ-11M 51 6 ABB 7525A91G05
51	12	SEIB	GMB15038	BOLTS: 3/8" X 1-1/2" GMB W/HN,LW
60		BY	OWNER	CABLE: 1272 AAC
61		BY	OWNER	CABLE: 795 AAC
62		BY	OWNER	CABLE: 336 ACSR
63		BY	OWNER	CABLE: 1000 KCMIL, AL, XLPE
65	320			BUS: 3" IPS AL 6063-T6 SEAMLESS (8 pieces at 40') -- Owner has 240'
	240	BY	OWNER	
	80	BY	SUPPLIER	
66	600			BUS: 2" IPS AL 6063-T6 SEAMLESS (15 pieces at 40') -- Owner has 120'
	120	BY	OWNER	

ITEM	QTY	MFG	CAT. NO.	DESCRIPTION
	480	BY	SUPPLIER	
67		BY	OWNER	CABLE; 2/0 BARE COPPER
68		BY	OWNER	CABLE: #2 BARE COPPER SOUD TINNED66 BY
69		BY	OWNER	CABLE; 4/0 BARE COPPER
70	3			TEE CONN COMP 336 ACSR TO 4-HOLE PAD
70A	3			TEE CONN COMP 795 AAC MAIN TO 336 TAP
70C	12	DMC	PLK1500D4848E1	TEE CONN COMP 3" AL MAIN & TAP
70D	15	DMC	PLK1500D3232E1	TEE CONN COMP 2" AL MAIN & TAP
70E	16	DMC	PLK1200D32E1	TEE CONN COMP 2" AL TO 2-HOLE PAD
70F	12	DMC	PLK1100D32E5	TEE CONN COMP 2" AL TO 4-HOLE PAD
70G	9	DMC	PLK1500D3248E1	TEE CONN COMP 3" AL TO 2" AL TAP
71	6	DMC	PLK1400D48E4	COUPLER 90 DEG COMP 3" AL
71A	24	DMC	PLK1400D32E4	COUPLER 90 DEG COMP 2" AL
71B	3	DMC	PLK1000D48	COUPLER STRAIGHT COMP 3" AL
71C	3	DMC	PLK1000D32	COUPLER STRAIGHT COMP 2" AL
72	9			TERM CONN COMP 336 18/1 ACSR TO 4-HOLE PAD, SHORT BARREL
72	36			BOLTS: 1/2" X # SSB W/HN,BW,2FW
72A	24			TERM CONN COMP 1272 AAC TO 4-HOLE PAD, SHORT BARREL
72A	96			BOLTS: 1/2" X 2-1/4" SSB W/HN,BW,2FW
72D	18	DMC	CPLK9642D07950S	TERM CONN COMP (2) 795 MC TO 4-HOLE PAD
72D	72			BOLTS: 1/2" X # SSB W/HN,BW,2FW
72E	3	DMC	PLK2600D48E1-90	TERM CONN COMP EXPANSION 3" AL TO 4-HOLE PAD
72E	12	SEIB	SSB225	BOLTS: 1/2" X 2-1/4" SSB W/HN,BW,2FW
72F	9	DMC	PLK1850D48B	TERM CONN COMP 3" AL TO 4-HOLE PAD, CENTERFORMED
72F	36	SEIB	SSB225	BOLTS: 1/2" X 2-1/4" SSB W/HN,BW,2FW

ITEM	QTY	MFG	CAT. NO.	DESCRIPTION
72G	6	DMC	PLK1870D48B	TERM CONN COMP 3" AL TO 4-HOLE PAD 90 DEG
72G	24	SEIB	SSB225	BOLTS: 1/2" X 2-1/4" SSB W/HN,BW,2FW
72H	3	DMC	PLK2601D48E1	TERM CONN COMP EXPANSION 3" AL TO 4-HOLE PAD, 90 DEG
72H	12	SEIB	SSB225	BOLTS: 1/2" X 2-1/4" SSB W/HN,BW,2FW
72J	18	DMC	PLK1870D32A	TERM CONN COMP 2" AL TO 4-HOLE PAD 90 DEG
72J	72	SEIB	SSB225	BOLTS: 1/2" X 2-1/4" SSB W/HN,BW,2FW
72K	12	DMC	PLK1880D32A	TERM CONN COMP 2" AL TO 4-HOLE PAD
72K	48	SEIB	SSB175	BOLTS: 1/2" X 1-3/4" SSB W/HN,BW,2FW
72L	24	DOSS	DPL13-2N-AA	TERM CONN COMP #2 CU TO 2-HOLE PAD
72L	96	SEIB	SSB200	BOLTS: 1/2" X 2" SSB W/HN,BW,2FW
72M	3	DMC	PLK1850D32A	TERM CONN COMP 2" AL TO 4-HOLE PAD, CENTERFORMED
72M	12	SEIB	SSB200	BOLTS: 1/2" X 2" SSB W/HN,BW,2FW
72P	3	DMC	PLK2601D32E2	TERM CONN COMP EXPANSION 2" AL TO 4-HOLE PAD, 90 DEG
72P	12	SEIB	SSB200	BOLTS: 1/2" X 2" SSB W/HN,BW,2FW
73	3	DMC	PLK2210D32E12	BUS SUPPORT 2" AL TO 3" B.C., FIXED
73A	9	DMC	PLK2200D48E12	BUS SUPPORT 3" AL TO 3" B.C., SLIPPED
73B	33	DMC	PLK2200D32E12	BUS SUPPORT 2" AL TO 3" B.C., SLIPPED
77	3	DOSS	C1300-AA	CORONA END CAP 3" AL
77A	18	DOSS	C1200-AA	CORONA END CAP 2" AL
79A	15	DMC	CL702D07950	CABLE SPACER 795 AAC
80	6	AE	GC-143A-G2-1/2	GROUND CONN TWO PIECE DOUBLE GROOVE 1/0-4/0 CU TO FLAT
80A	60	AE	GC-141A-G2-1/2	GROUND CONN TWO PIECE SINGLE GROOVE 1/0-4/0 CU TO FLAT

ITEM	QTY	MFG	CAT. NO.	DESCRIPTION
80B	6	DOSS	QLB252S-2N	GROUND CONN TERMINAL 2/0--4/0 CU TO 2-HOLE PAD
80B	20	SEIB	SSB175	BOLTS: 1/2" X 1-3/4" SSB W/HN,BW,2FW
80C	2	DOSS	T2CVH50-4N	GROUND CONN TERMINAL (2) 2/0--500 CU TO 4-HOLE PAD
80E	8	AE	GC-111-6C	GROUND CONN SINGLE GROOVE 1-1/2" IPS PIPE TO 2/0 CU
81D	2	DOSS	GCF	GROUND CONN ROTATING PIPE TO FLAT SURFACE WITH BRAIDED SHUNT
81E	15			GROUND CONN COMPRESSION 2/0 CU TO #2 TINNED CU
82		BY	OWNER	GROUND RODS
83		BY	OWNER	BELOW GRADE CADWELD MOLDS AND WELD METALS

## Drawings

- Plan View
- Sections A-A, B-B
- Sections C-C, D-D
- Sections E-E, F-F

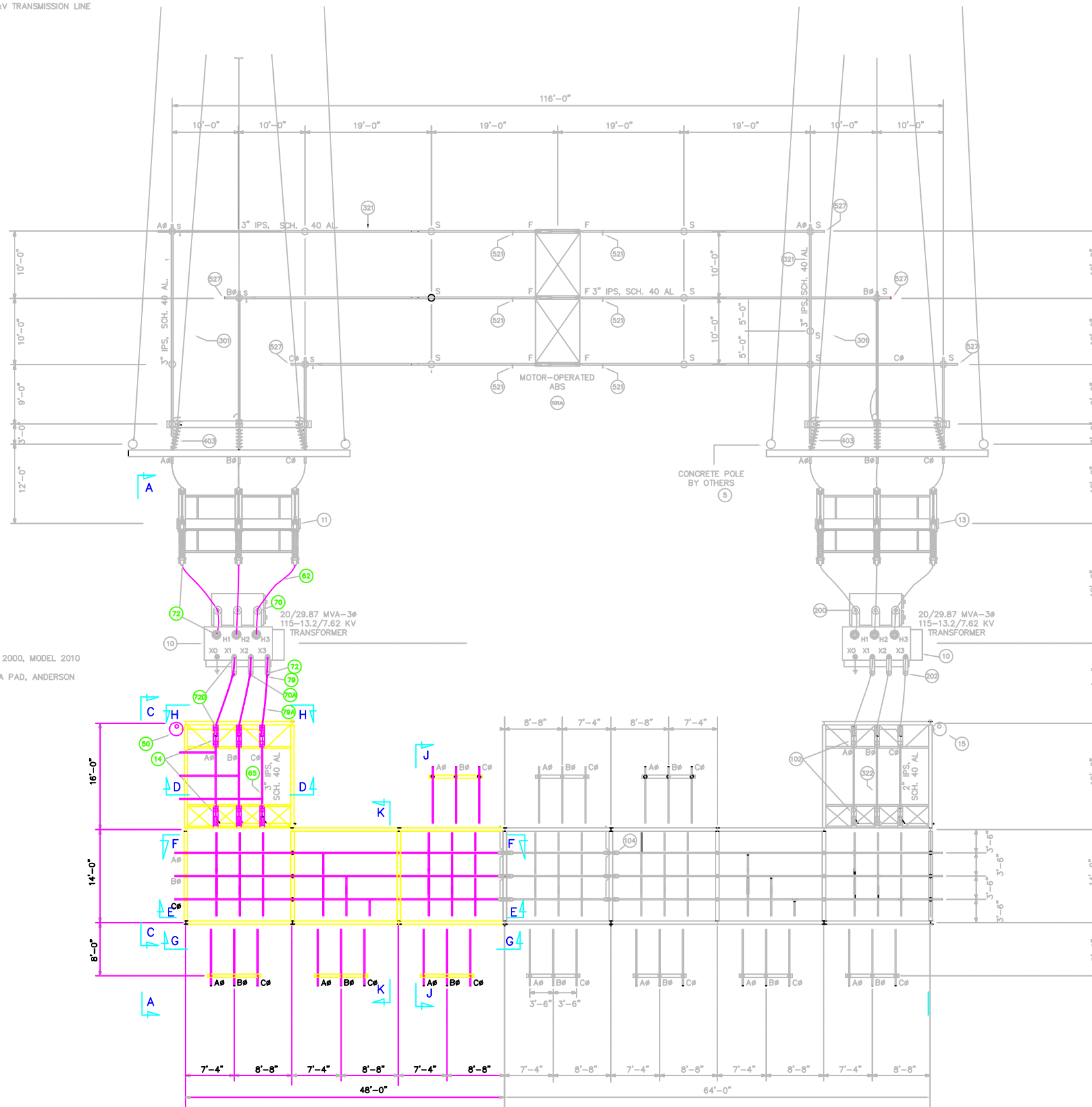


TO WINTERVILLE STATION

115 kV TRANSMISSION LINE

115 kV TRANSMISSION LINE

TO WESTSIDE STATION



- 13 FAULT INTERRUPTER, 115KV, S&C SERIES 2000, MODEL 2010
- 302 WIRE, 336 ACSR, MERLIN 18/1
- 507 CONNECTOR, 336 ACSR TO 4-HOLE NEMA PAD, ANDERSON

**LEGEND**

SHADED LINES INDICATE FUTURE INSTALLATION

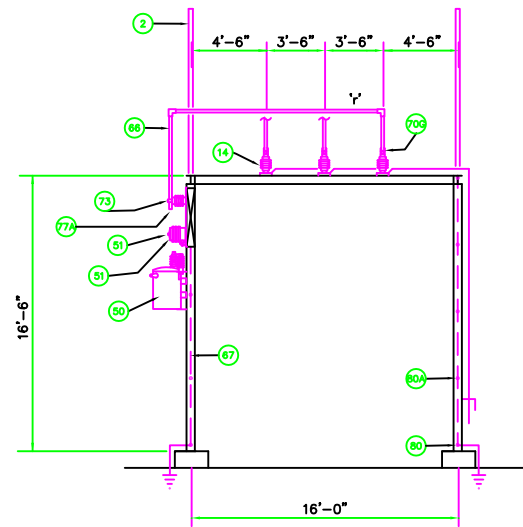
#	1	2
REVISIONS	Adopted from AS BUILT 12/04	Added Bus No. 2 03/2012



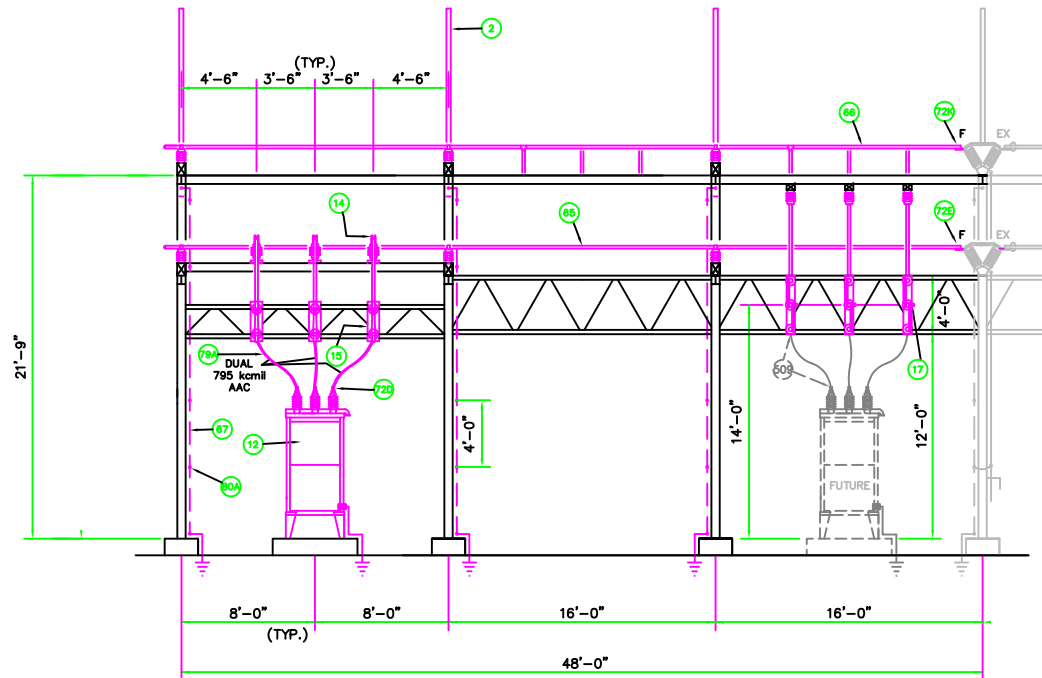
GREENVILLE UTILITIES  
Greenville, North Carolina  
FROG LEVEL SUBSTATION  
115 TO 15 KV  
SITE PLAN

DWN, JTW	DATE 5/28/97	DWG. NO.
CKD, JTR	APPD, JTR	
SCALE: NONE		

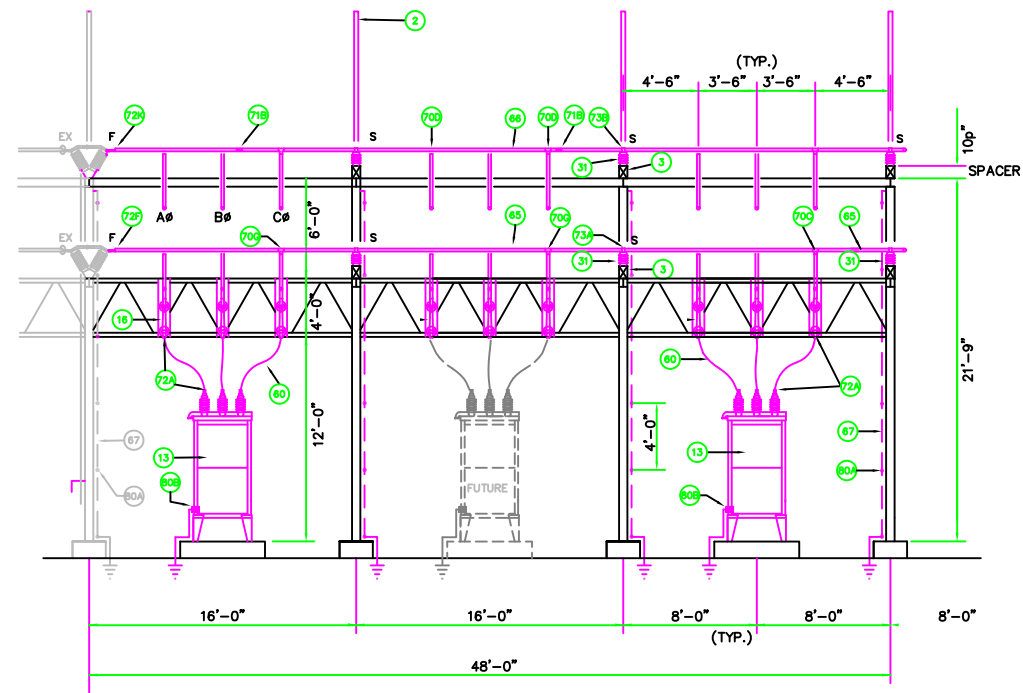




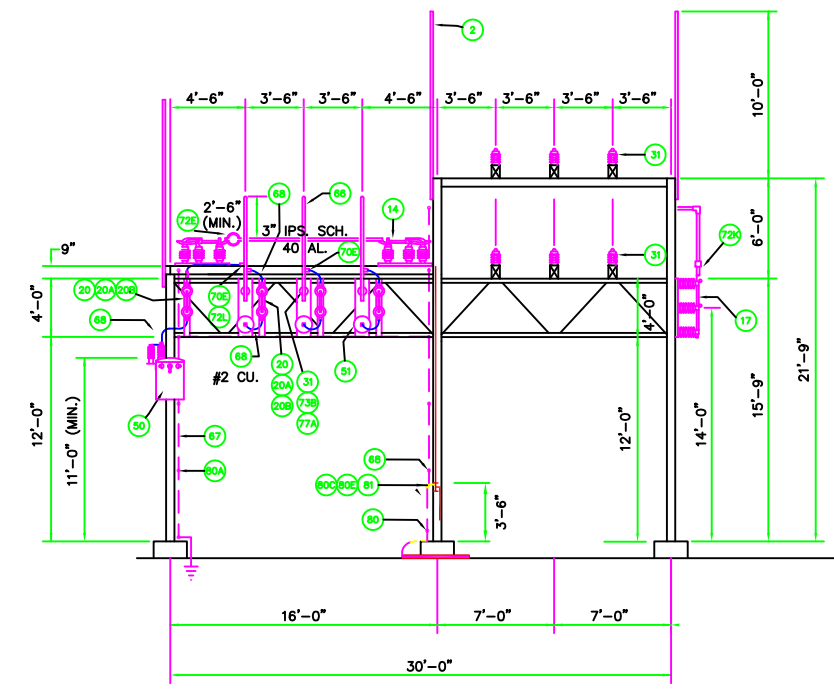
SECTION D-D  
SCALE: 3/16"=1'-0"



SECTION E-E  
SCALE: 3/16"=1'-0"



SECTION F-F  
SCALE: 3/16"=1'-0"



SECTION C-C  
SCALE: 3/16"=1'-0"

LEGEND

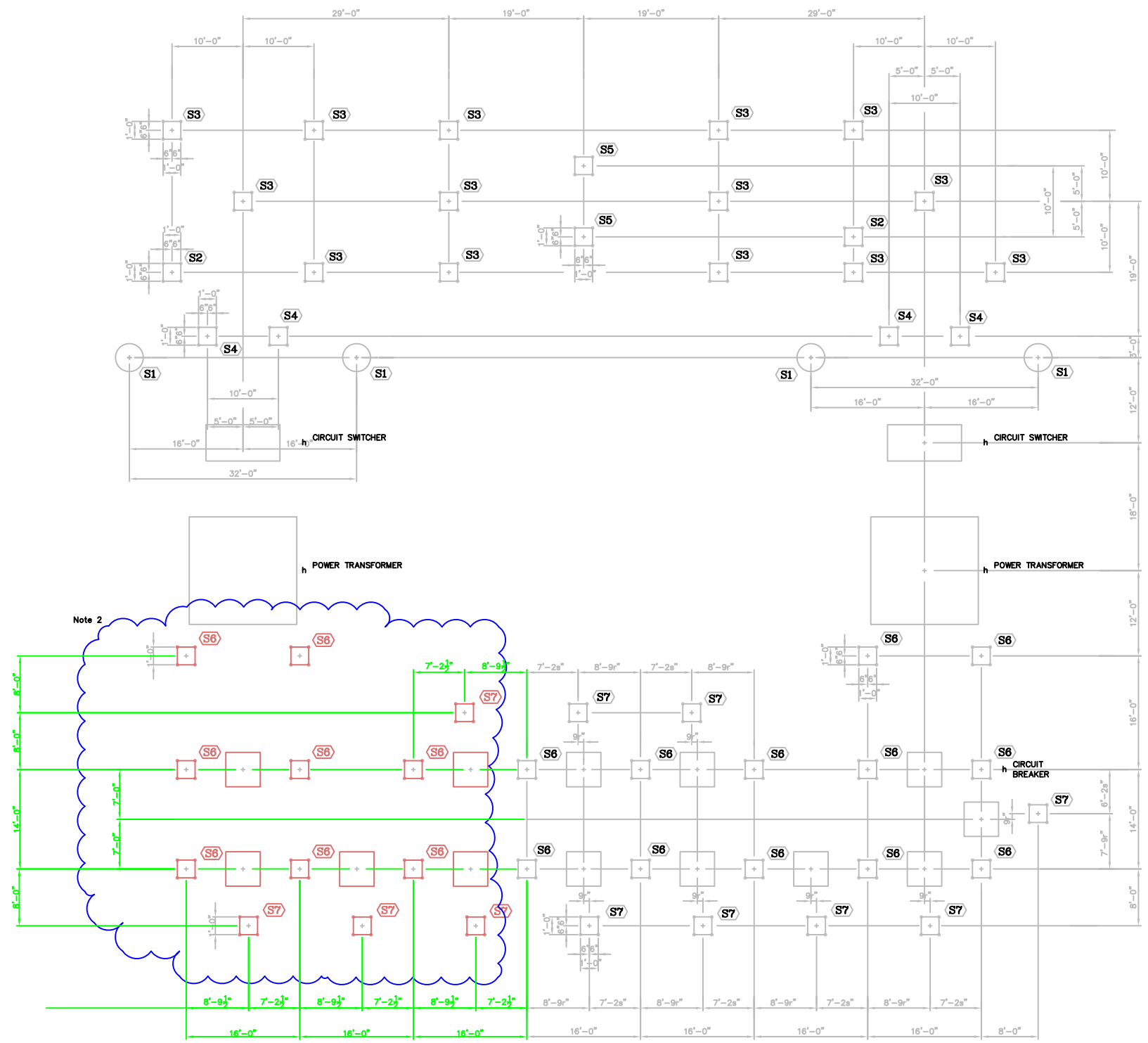
- SHADED LINES INDICATE FUTURE INSTALLATION
- S = SLIP FIT BUS SUPPORT
- F = FIXED (WELD) BUS SUPPORT
- EX = EXPANSION COUPLING

#	1	2
REVISIONS	Adopted from Distron JN 3100 DN E204 10-21-1997	Added Bus No. 2 02/29/2012



GREENVILLE UTILITIES  
Greenville, North Carolina  
FROG LEVEL SUBSTATION  
FOUNDATION PLAN

DWN. MFG	DATE 10/21/97	DWG. NO.
CKD.	APPD.	S301
SCALE: NONE		S100



ANCHOR BOLT SETTING SCHEDULE						
STR. DESIG.	QTY.	DESCRIPTION	THREAD	HOOK	PROJECTION	GROUT.
(116) S2, S3, S4, S5	116	3/4"φ x 2'-2"	6"	6"	4"	1 1/2"
(48) S1	48	1"φ x 3'-4"	6"	8"	5"	2"

**TOTAL ANCHOR BOLT QUANTITIES**  
 (116) - 3/4"φ x 2'-2" A.B. W/(2) FLATWASHER & (2) H. HEX NUTS EACH.  
 (48) - 1"φ x 3'-4" A.B. W/(2) FLATWASHER & (2) H. HEX NUTS EACH.

**NOTES:**  
 1. (1) HEAVY HEX NUT & (1) FLATWASHER LOCATED ON TOP OF BASE PLATE AND (1) HEAVY HEX NUT & (1) FLATWASHER LOCATED ON BOTTOM OF BASE PLATE.  
 2. STRUCTURE (S1) IS EMBEDDED.

**LEGEND:**  
 ○ - STRUCTURE DESIGNATION

#	1	2
REVISIONS	Adopted from Distran JN 3100 DN S301 rev 1 10-21-1997	Added Anchor bolts for Bus No. 2 02/29/2012



GREENVILLE UTILITIES Greenville, North Carolina		
FROG LEVEL SUBSTATION FOUNDATION PLAN		
DWN. MFG	DATE 10/21/97	DWG. NO.
CKD.	APPD.	
SCALE: NONE		

**GREENVILLE UTILITIES COMMISSION**  
**PROPOSAL FORM**  
**OVERHEAD STRUCTURES AND EQUIPMENT**  
**APRIL 25, 2012**

The undersigned bidder hereby declares that it has carefully examined the enclosed detailed specifications for furnishing GUC with the below listed item(s). The undersigned bidder further agrees, if this proposal is accepted within thirty (30) days from the date of the opening, to furnish any or all of the item(s) upon the quoted price.

ITEM NO.	DESCRIPTION	TOTAL PRICE
I	<b>Frog Level Substation Expansion Structures and Equipment</b>	
	Steel Structures for Frog Level Substation Expansion	\$ _____
	Weight of Steel _____ lbs	
I	Equipment and Components	\$ _____
will		
	<b>TOTAL</b>	\$ _____
	Delivery Time _____ weeks	

**Method of Award:** GUC will award this bid as a total bid.

**Complete and Check All Math:** It is the responsibility of the Bidder to extend bid prices and supply a total for all item(s).

[Balance of page left blank intentionally]

It is certified that this proposal is made in good faith and without collusion or connection with any other person bidding on the same above listed items. It is also certified that this proposal is made in good faith and without collusion or connection with any GUC employee(s).

Certified check or cash for \$  n/a  or bid bond for \$  n/a  attached.

Firm Name \_\_\_\_\_ Phone ( \_\_\_\_\_ ) \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Fax ( \_\_\_\_\_ ) \_\_\_\_\_ E-Mail \_\_\_\_\_

Authorized Official \_\_\_\_\_ Title \_\_\_\_\_

Typed Name

\_\_\_\_\_ Date \_\_\_\_\_

Signature

**Three (3) copies of your proposal should be received no later than**

**April 25, 2012 at 2:00 PM (EDST).**

**NO BIDS CONSIDERED UNLESS SUBMITTED ON THIS FORM**

**(RETURN ONLY THIS FORM)**



### **SECTION III**

#### **TERMS AND CONDITIONS FOR THE PURCHASE OF APPARATUS, SUPPLIES, MATERIALS, AND EQUIPMENT**

These Terms and Conditions, made and entered into on this the \_\_\_\_\_ day of \_\_\_\_\_, by and between GREENVILLE UTILITIES COMMISSION OF THE CITY OF GREENVILLE, PITT COUNTY, NORTH CAROLINA, with one of its principal offices and places of business at 401 S. Greene Street, Post Office Box 1847, Greenville, Pitt County, North Carolina 27835-1847, hereinafter referred to as "GUC" and \_\_\_\_\_, a \_\_\_\_\_ organized and existing under and by virtue of the laws of the State of \_\_\_\_\_, with one of its principal offices and places of business at \_\_\_\_\_, hereinafter referred to as "PROVIDER";

#### **1.0 TAXES**

No taxes shall be included in any bid prices. GUC is exempt from Federal Excise Tax. GUC is not exempt from North Carolina state sales and use tax or, if applicable, Pitt County sales and use tax. Such taxes shall be shown as a separate item on the invoice.

#### **2.0 INVOICES**

It is understood and agreed that orders will be shipped at the established contract prices and quantities in effect on dates orders are placed. Invoicing at variance with this provision may subject the contract to cancellation. Applicable North Carolina sales tax shall be invoiced as a separate line item. All invoices must bear the GUC purchase order number. Mail all invoices to Greenville Utilities Commission, Finance Department, P. O. Box 1847, Greenville, NC 27835-1847.

#### **3.0 PAYMENT TERMS**

Payments for equipment, materials, or supplies will be made after the receipt and acceptance of the equipment, materials, or supplies and after submission of a proper invoice. GUC's normal payment policy is thirty (30) days. GUC will not be responsible for any goods delivered without a purchase order having been issued. Payment will be made in U. S. currency only.

#### **4.0 QUANTITIES**

Quantities specified are only estimates of GUC's requirements. GUC reserves the right to purchase more or less than the stated quantities at prices indicated in the submitted Proposal Form based on our actual needs.

#### **5.0 AFFIRMATIVE ACTION**

The Provider will take affirmative action in complying with all Federal and State requirements concerning fair employment and employment of the handicapped, and concerning the treatment of all employees, without discrimination by reason of race, color, religion, sex, national origin, or physical handicap.



## **6.0 CONDITION AND PACKAGING**

Unless otherwise indicated in the bid, it is understood and agreed that any item offered or shipped shall be new and in first class condition, that all containers shall be new and suitable for storage or shipment, and that prices include standard commercial packaging.

## **7.0 SAMPLES**

Samples of items, if required, must be furnished free of expense to GUC, and if not destroyed, will, upon request, be returned at the Provider's expense. Request for the return of samples must be made at the bid opening, otherwise, the samples will become GUC's property. Each individual sample must be labeled with Provider's name.

## **8.0 SPECIFICATIONS**

Any deviation from specifications must be clearly pointed out, otherwise, it will be considered that items offered are in strict compliance with specifications, and the Provider will be held responsible. Deviations must be explained in detail. **The Provider shall not construe this paragraph as inviting deviation or implying that any deviation will be acceptable.**

## **9.0 INFORMATION AND DESCRIPTIVE LITERATURE**

Providers are to furnish all information requested. Further, as may be specified elsewhere, each Provider must submit with its proposal: cuts, sketches, descriptive literature, and/or complete specifications covering the products offered. Reference to literature submitted with a previous bid does not satisfy this provision. Bids which do not comply with these requirements will be subject to rejection.

## **10.0 AWARD OF CONTRACT**

As directed by statute, qualified bids will be evaluated and acceptance made of the lowest responsible, responsive bid most advantageous to GUC as determined upon consideration of such factors as prices offered, the quality of the article(s) offered, the general reputation and performance capabilities of the Provider, substantial conformity with the specifications and other conditions set forth in the bid, the suitability of the article(s) for the intended use, the related services needed, the date(s) of delivery and performance, and such other factors deemed by GUC to be pertinent or peculiar to the purchase in question.

Acceptance of the order includes acceptance of all terms, conditions, prices, delivery instructions, and specifications as shown on this set of Terms and Conditions and in this order or attached to and made a part of this order.

The conditions of this order cannot be modified except by written amendment in the form of "Amended Purchase Order," which has been approved by GUC's Purchasing Technician.

In the event of a Provider's failure to deliver or perform as specified, GUC reserves the right to cancel the order or any part thereof, without prejudice to GUC's other rights. The Provider agrees that GUC may return part of or all of any shipment at Provider's expense. GUC may charge the Provider with all reasonable expenses resulting from such failure to deliver or perform.

## **11.0 MEDIATION/BINDING ARBITRATION**

In the event of any dispute between the Parties, the Parties agree to submit any dispute to non-binding mediation before a mutually agreeable Mediator prior to initiating litigation. If the Parties are unable to agree upon a Mediator within thirty (30) days after demand therefore, either Party may petition a Court of competent jurisdiction for the designation of a qualified Mediator for these purposes. Each Party shall bear its own costs and expenses of participating in the mediation (including, without limitation, reasonable attorneys' fees), and each Party shall bear one-half (1/2) of the costs and expenses of the Mediator. Unless otherwise agreed, the Parties will hold the mediation in Greenville, North Carolina. The matters discussed or revealed in the mediation session shall not be disclosed in any subsequent litigation.

In the event the matter is not resolved in mediation, either Party may request arbitration. The parties shall jointly select an Arbitrator, and shall be bound by the decision of the Arbitrator with respect to any dispute between the parties with respect to this Agreement. If the parties are unable to mutually agree upon an Arbitrator, the Parties shall each select an Arbitrator, and the two Arbitrators so selected shall select a third Arbitrator, and the decision of the majority of the Arbitrators shall be conclusive and binding upon the Parties. The Parties at all times agree to equally split the costs of any Arbitrator(s) selected in an effort to resolve the dispute between the Parties. Any party desiring to resolve a dispute under the terms of this Agreement shall notify the other Party in writing, and the Parties shall seek to agree upon a mutually agreed-upon Arbitrator within a period of ten (10) days from the date of such written demand. If the Parties are unable to agree within such ten (10) day period, the Parties shall each select an Arbitrator, and the two (2) Arbitrators so selected shall select a third Arbitrator within fifteen (15) days from the date of the written demand for arbitration, and a decision shall be rendered by the Arbitrator(s) so selected within five (5) days after such Arbitrator(s) is selected.

## **12.0 GOVERNMENT RESTRICTIONS**

In the event any Governmental restrictions may be imposed which would necessitate alteration of the material, quality, workmanship, or performance of the items offered on this bid prior to their delivery, it shall be the responsibility of the successful Provider to notify the GUC Purchasing Technician, at once, indicating in its letter the specific regulation which required such alterations. GUC reserves the right to accept any such alterations, including any price adjustments occasioned thereby, or, in the sole discretion of GUC, to cancel the contract.

## **13.0 INSURANCE**

**14.1 Coverage** – During the term of the contract, the Provider at its sole cost and expense shall provide commercial insurance of such type and with the following coverage and limits:

**13.1.1 Workers' Compensation** – The Provider shall provide and maintain Workers' Compensation Insurance, as required by the laws of North Carolina, as well as employer's liability coverage with minimum limits of \$1,000,000 each accident, covering all Provider's employees who are engaged in any work under the contract. If any work is sublet, the Provider shall require the subcontractor to provide the same coverage for any of its employees engaged in any work under the contract.

**13.1.2 General Liability** – Commercial Liability Coverage written on an “occurrence” basis in the minimum amount of \$1,000,000 per occurrence.

**13.1.3 Automobile** – Automobile Liability Insurance, to include coverage for all owned, hired, and non-owned vehicles used in connection with the contract with a minimum combined single limit of \$1,000,000 per accident.

**13.2 Requirements** - Providing and maintaining adequate insurance coverage is a material obligation of the Provider. All such insurance shall meet all laws of the State of North Carolina. Such insurance coverage shall be obtained from companies that are authorized to provide such coverage and that are authorized to do business in North Carolina by the Commissioner of Insurance. The Provider shall at all times comply with the terms of such insurance policies and all requirements of the insurer under any of such insurance policies, except as they may conflict with existing North Carolina laws or this contract. The limits of coverage under each insurance policy maintained by the Provider shall not be interpreted as limiting the Provider’s liability and obligations under the contract. It is agreed that the coverage as stated shall not be canceled or changed until thirty (30) days after written notice of such termination or alteration has been sent by registered mail to GUC’s Purchasing Technician.

#### **14.0 PATENTS AND COPYRIGHTS**

The Provider shall hold and save GUC, its officers, agents, and employees, harmless from liability of any kind, including costs and expenses, including reasonable attorney fees, on account of any copyrighted articles or any patented or unpatented invention, device or appliance manufactured or used in the performance of this contract.

#### **15.0 PATENT AND COPYRIGHT INDEMNITY**

The Provider will defend or settle, at its own expense, any action brought against GUC to the extent that it is based on a claim that the product(s) provided pursuant to this agreement infringe any U.S. copyright or patent; and will pay those costs, damages, and attorney fees finally awarded against GUC in any such action attributable to any such claim, but such defense, settlements, and payments are conditioned on the following: (1) that Provider shall be notified

promptly in writing by GUC of any such claim; (2) that Provider shall have sole control of the defense of any action on such claim and of all negotiations for its settlement or compromise; (3) that GUC shall cooperate with Provider in a reasonable way to facilitate the settlement of defense of such claim; (4) that such claim does not arise from GUC modifications not authorized by the Provider or from the use of combination of products provided by the Provider with products provided by GUC or by others; and (5) should such product(s) become, or in the Provider’s opinion likely to become, the subject of such claim of infringement, then GUC shall permit Provider, at Provider’s option and expense, either to procure for GUC the right to continue using the product(s), or replace or modify the same so that it becomes non-infringing and performs in a substantially similar manner to the original product.

#### **16.0 EXCEPTIONS**

All proposals are subject to the terms and conditions outlined herein. All responses will be controlled by such terms and conditions and the submission of other terms and conditions, price

catalogs, and other documents as part of a Provider's response will be waived and have no effect on this Request for Proposal or any other contract that may be awarded resulting from this solicitation. The submission of any other terms and conditions by a Provider may be grounds for rejection of the Provider's proposal. The Provider specifically agrees to the terms and conditions set forth in this set of Terms and Conditions by affixing its name on the signatory page contained herein.

#### **17.0 CONFIDENTIAL INFORMATION**

Except as provided by statute and rule of law, GUC will keep trade secrets which the Provider does not wish disclosed confidential. Each page shall be identified in boldface at the top and bottom as "CONFIDENTIAL" by the Provider. Cost information shall not be deemed confidential. The determination of whether a matter is confidential will be determined by North Carolina law.

#### **18.0 ASSIGNMENT**

No assignment of the Provider's obligations or the Provider's right to receive payment hereunder shall be permitted without the express written consent of GUC, provided however, upon written request approved by the GUC Purchasing Technician, solely as a convenience to the Provider, GUC may:

- Forward the Provider's payment check directly to any person or entity designated by the Provider, and
- Include any person or entity designated by Provider as a joint payee on the Provider's payment check.
- In no event shall such approval and action obligate GUC to anyone other than the Provider, and the Provider shall remain responsible for fulfillment of all contract obligations.

#### **19.0 ACCESS TO PERSON AND RECORDS**

GUC shall have reasonable access to persons and records of Provider as a result of all contracts entered into by GUC.

#### **20.0 INSPECTION AT BIDDER'S SITE**

GUC reserves the right to inspect, at a reasonable time, the item, plant, or other facilities of a prospective Provider prior to contract award and during the contract term as necessary for GUC's determination that such item, plant, or other facilities conform with the specifications/requirements and are adequate and suitable for the proper and effective performance of the contract. Provider may limit GUC's access to restricted areas.

#### **21.0 AVAILABILITY OF FUNDS**

Any and all payments of compensation of this specific transaction and any continuation or any renewal or extension are dependent upon and subject to the allocation of GUC funds for the purpose set forth in this Agreement.

## **22.0 GOVERNING LAWS**

All contracts, transactions, agreements, etc., are made under and shall be governed by and construed in accordance with the laws of the State of North Carolina.

## **23.0 ADMINISTRATIVE CODE**

Bids, proposals, and awards are subject to applicable provisions of the North Carolina Administrative Code.

## **24.0 EXECUTION**

In the discretion of GUC, failure of a duly authorized official of Provider to sign the Signatory Page may render the bid invalid.

## **25.0 CLARIFICATIONS/INTERPRETATIONS**

Any and all questions regarding these Terms and Conditions must be addressed to the GUC Purchasing Technician. Do not contact the user directly. **These Terms and Conditions are a complete statement of the parties' agreement and may only be modified in writing signed by Provider and the GUC Purchasing Technician.**

## **26.0 SITUS**

The place of all contracts, transactions, agreements, their situs and forum, shall be North Carolina, where all matters, whether in contract or tort, relating to the validity, construction, interpretation, and enforcement shall be determined.

## **27.0 TERMINATION OF AGREEMENT**

GUC or Provider may terminate this Agreement for just cause at any time. Provider will be paid for all time and expenses incurred as of the termination date. Termination for just cause by either party shall be by certified letter and shall be effective thirty (30) days after signed and acknowledged receipt of said letter. Just cause shall be based on reasonable grounds, and there must be a fair and honest cause or reason for such action. The causes for termination, include, but are not limited to: (1) Provider's persistent failure to perform in accordance with the Terms and Conditions, (2) Provider's disregard of laws and regulations related to this transaction, and/or (3) Provider's substantial violation of the provisions of the Terms and Conditions.

## **28.0 DELIVERY**

**Shipments will be made only upon releases from a purchase order issued by GUC in accordance with GUC's current needs.**

Delivery of all equipment, materials, or supplies shall be made Free on Board (FOB) GUC Warehouse, 801 Mumford Road, Greenville, North Carolina 27834, unless otherwise specified. The agreed price for such equipment, materials, or supplies shall include all costs of delivery and ownership, and risks of loss shall not be transferred from Provider to GUC until express written acceptance of delivery and inspection by GUC. Delivery hours are between 8:00 AM and 4:30 PM Monday-Friday only. **GUC's purchase order number is to be shown on the**

**packing slip or any related documents.** GUC reserves the right to refuse or return any delivery with no purchase order number or which is damaged. GUC will not be charged a restocking fee for any delivery which is refused or returned.

### **29.0 INDEMNITY PROVISION**

Provider agrees to indemnify and save GREENVILLE UTILITIES COMMISSION of the City of Greenville, Pitt County, North Carolina, and the City of Greenville, North Carolina, its co-owners, joint venturers, agents, employees, and insurance carriers harmless from any and all losses, claims, actions, costs, expenses including reasonable attorney fees, judgments, subrogations, or other damages resulting from injury to any person (including injury resulting in death), or damage (including loss or destruction) to property of whatsoever nature of any person arising out of or incident to the performance of the terms of this Contract by Provider, including, but not limited to, Provider's employees, agents, subcontractors, and others designated by Provider to perform work or services in, about, or attendant to, the work and services under the terms of this Contract. Provider shall not be held responsible for any losses, expenses, claims, subrogations, actions, costs, judgments, or other damages, directly, solely, and proximately caused by the negligence of Greenville Utilities Commission of the City of Greenville, Pitt County, North Carolina. Insurance covering this indemnity agreement by the Provider in favor of Greenville Utilities Commission of the City of Greenville, Pitt County, North Carolina, and the City of Greenville, North Carolina, shall be provided by Provider.

### **30.0 FORCE MAJEURE**

Neither party shall be considered in default in the performance of its obligations hereunder to the extent that the performance of any such obligation is prevented or delayed by any cause, existing or future, which is beyond the reasonable control of such party. In any such event of force majeure, the parties shall advise each other of such event, and the parties shall negotiate an equitable adjustment to their respective obligations under this Agreement.

### **31.0 WARRANTY(IES)**

The Provider hereby includes all warranties, whether expressed or implied, including, but not limited to, the Implied Warranty of Merchantability and the Implied Warranty of Fitness for a Particular Purpose.

### **32.0 INTEGRATED CONTRACT**

These Terms and Conditions, Instructions to Bidders, Specifications, and the selected Provider's bid represents the entire contract between the Parties. No verbal or other written agreement(s) shall be held to vary the provisions of this Agreement.

### **33.0 CONTRACT PROVISIONS**

Each of the provisions of these Terms and Conditions shall apply to the full extent permitted by law, and the invalidity in whole or in part of any provision shall not affect the remainder of such provision or any other provisions.

### **34.0 NOTICES**

Notices to the Parties should be sent to the names and addresses specified below:

Cleve Haddock  
Purchasing Technician  
Greenville Utilities Commission  
P.O. Box 1847  
Greenville, NC 27835-1847

Todd Rouse  
Substation/Control Engineer  
Greenville Utilities Commission  
P.O. Box 1847  
Greenville, NC 27835-1847

Vendor Specified on Page 1 of Section III when awarded.

GREENVILLE UTILITIES COMMISSION

By: \_\_\_\_\_  
Ronald D. Elks

Title: General Manager/CEO  
(Authorized Signatory)

Date: \_\_\_\_\_

Attest: \_\_\_\_\_

Name (Print): Amy Carson Quinn

Title: Executive Secretary

Date: \_\_\_\_\_

(OFFICIAL SEAL)

COMPANY NAME:

By: \_\_\_\_\_

Name (Print): \_\_\_\_\_

Title: \_\_\_\_\_  
(Authorized Signatory)

Date: \_\_\_\_\_

Attest: \_\_\_\_\_

Name (Print): \_\_\_\_\_

Title: Corporate Secretary

Date: \_\_\_\_\_

(CORP. SEAL)

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

By: \_\_\_\_\_  
Jeff W. McCauley

Title: Chief Financial Officer

Date: \_\_\_\_\_

APPROVED AS TO FORM AND LEGAL CONTENT:

By: \_\_\_\_\_  
Phillip R. Dixon

Title: Commission Attorney

Date: \_\_\_\_\_



