



# City of Danville, Virginia

PO Box 3300  
Danville, VA 24543

427 Patton Street, Rm 304  
Danville, VA 24541

J. Gary Via, CPPO  
Director of Purchasing  
e-mail: [viajg@danvilleva.gov](mailto:viajg@danvilleva.gov)

Phone: (434) 799-6528  
Fax: (434) 799-5102  
e-mail: [purchasing@danvilleva.gov](mailto:purchasing@danvilleva.gov)

## REQUESTS FOR PROPOSALS

Proposal No.: RFP 20-21-050

Title: Kentuck & Whitmell Substations Control Buildings

Proposal Closing Date: **Sealed** Proposals shall be accepted no later than **October 20, 2020 at 5:00 pm** at the Purchasing Department, 427 Patton Street, Room 304, Danville, VA 24541

Direct Inquires to: J. Gary Via, Director of Purchasing  
(434) 799-6528 option 4

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1.0 SCOPE

1.1 The Materialman shall furnish a new or used NEMA 4 prefabricated concrete structure designed and constructed to accommodate cable tray, battery system, relay panels, control panels, power panels, metering equipment, and other accessories for the operation and control of the substation(s) as set forth in the Bid Schedule(s), as specified herein, and as shown on the drawings.

1.2 Submit invoice(s) to:

City of Danville  
Purchasing Department  
PO Box 3300  
Danville, VA 24543

1.3 Deadline

Sealed Proposals shall be submitted no later than October 20, 2020 at 5:00 pm to:

City of Danville  
Purchasing Department  
Attn.: J. Gary Via  
427 Patton Street, Room 304  
Danville, VA 24541

2.0 DELIVERY

2.1 Delivery shall be made to the substation sites located at:

Kentuck Substation  
1865 Kentuck Road  
Ringgold, VA 24586

Whitmell Substation  
422 F C Beverly Road  
Dry Fork, VA 24549

- 2.2 The manufacturer shall notify the City of shipment approximately forty-eight (48) hours before arrival.

3.0 SUPPLEMENTAL GENERAL CONDITIONS

3.1 Award Criteria

3.1.1 The award will be made to the proposal conforming to the and will be most advantageous to the City. Price, Technical recommendation by the City’s Engineer. and other factors considered such as delivery time, quality, operating and maintenance cost, service, resale value, etc. NOTE: DELIVERY TIMES MAY BE A FACTOR IN AWARD OF PROPOSAL.

3.1.2 The City reserves the right to reject any or all offers and to waive informalities and minor irregularities in offers received.

3.2 Authority

3.2.1 The Director of Purchasing as the designee of the City Manager has the sole responsibility and authority for negotiating, placing, and when necessary modifying each and every invitation to bid, purchase order or other award issued by the City of Danville. In the discharge of these responsibilities, the Director of Purchasing may be assisted by assigned buyers. No other City officer or employee is authorized to order supplies or services, enter into purchase negotiations, or in any way obligate the government of the City of Danville for an indebtedness. Any purchases contrary to these provisions and authorities shall be void and the City shall not be bound thereby.

3.2.2 This procurement process, including withdrawal of proposals and appeals or protests, is governed by the "PROCUREMENT CODE OF THE CITY OF DANVILLE, VIRGINIA". Copies of the Procurement Code may be obtained by writing the City of Danville Purchasing Department, PO Box 3300, Danville, VA 24543.

3.3 Proposal Preparation

3.3.1 Proposals must be written in ink or typewritten and shall be submitted on the forms issued. Unsigned proposals will not be accepted. No proposal may be considered if received after the time shown on Title Page. Offerors are expected to examine all instructions and specifications. Failure to do so will be at the Offeror's risk. Erasures or other changes must be initialed by the person signing the proposal.

3.3.2 Envelopes containing proposals must be sealed and marked in the lower left hand corner with the invitation number and the words RFP 20-21-050 Riverside Substation Circuit Breakers and submitted to the office indicated on the title page.

3.4 Proposals Binding 60 Days

Unless otherwise specified all formal Proposals submitted shall be binding for sixty (60) calendar days following submission date.

3.5 Enforcement

This Agreement and the performance hereof shall be governed by and enforced under the laws of the Commonwealth of Virginia, and if legal action by either party is necessary for or with respect to the enforcement of any or all of the terms and conditions hereof, then exclusive venue therefore shall lie in the City of Danville, Virginia.

3.6 Interpretation

3.6.1 If any person contemplating the submission of a proposal on this invitation is in doubt as to the true meaning of any part of the plans, specification or other document, he should submit a written request for an interpretation thereof to the Director of Purchasing. An interpretation of the proposal invitation document will be made only by written addendum issued to each potential Offeror. **THE CITY WILL NOT BE RESPONSIBLE FOR EXPLANATIONS OR INTERPRETATIONS OF PROPOSAL INVITATION DOCUMENTS EXCEPT AS ISSUED IN ACCORDANCE HEREWITH.**

3.6.2 All notices, demands, requests, instructions, approvals, proposals and claims must be in writing.

3.7 Patents

The Vendor agrees to indemnify and save harmless the City, and all personnel from all suits and actions of every nature and description brought against them or any of them, for or on account of the use of patented appliances, products, or processes, and he shall pay all royalties and charges which are legal and equitable. Evidence of such payment or satisfaction shall be submitted upon request of the City as a necessary requirement in connection with the final execution of any contract in which such patented appliances, products, or processes are used.

3.8 Prices

3.8.1 All prices are based on delivery to the destination designated in the RFP including packing charges. Any discounts for payment (Invoicing Terms) should be entered on the proposal page and will be considered in the evaluation.

3.8.2 Unless lump sum is specifically requested, unit and extended prices should be given. Failure to do so may cause proposal to be rejected. In all cases, the unit price shall govern.

3.9 Performance

In case of default by the Vendor, the City may procure the commodity or services from other sources and hold the Vendor responsible for any excess costs occasioned thereby.

3.10 Specifications and Product Description

When brand names, Delivery ARO numbers, trade names, catalog numbers or cuts are listed, they are, unless otherwise specified, included for the purpose of furnishing Offerors with information concerning the style, type or kind of article desired and a Offeror may offer an article which he certifies to be equal in quality, performance and other essential characteristics. Any available printed material or literature which describes the product being offered for sale shall be included with the proposal. The City shall be the sole judge of suitability of substitutes offered. When a formal numbered specification is referred to in this invitation, no deviation will be permitted and the Offeror will be required to furnish articles in conformity with that specification.

3.11 Taxes

The City is exempt from payment of State Sales and Use Tax on all tangible personal property purchased or leased for its use or consumption. Certificate of Exemption will be furnished upon request.

3.12 Vendor's Relationship to the City

3.12.1 Independent Contractor

It is expressly agreed and understood that the Vendor is in all respects an independent Contractor as to work and is in no respect any agent, servant, or employee of the City. The contract specifies the work to be done by the Vendor, but the method to be employed to accomplish the work shall be the responsibility of the Vendor.

3.12.2 Subcontracting

Vendor may subcontract services to be performed hereunder with the prior approval of the City, which approval shall not be unreasonably withheld. No such approval will be construed as making the City a part of, or to, such subcontract, or subjecting the City to liability of any kind to any subcontractor. No subcontract shall, under any circumstances, relieve the Vendor of its liability and obligation under this contract; and despite any such subcontracting the City shall deal through the Vendor, and subcontractors will be dealt with as representatives of the Vendor.

3.12.3 Payments to Subcontractors

a. The contractor shall take one of the two following actions within seven days after receipt of amounts paid to the contractor by the City of Danville for work performed by the subcontractor;

1. Pay the subcontractor for the proportionate share of the total payment received from the agency attributed to the work performed by the subcontractor under that contract; or

2. Notify the agency and subcontractor, in writing, of his intention to withhold all or a part of the subcontractor’s payment with the reason for nonpayment.

b. Individual Contractors shall provide their social security numbers and proprietorships, partnerships, and corporations to provide their federal identification numbers.

c. The contractor shall pay interest to the subcontractor on all amounts owed by the contractor that remain unpaid after seven days following receipt by the contractor of payment from the City of Danville for work performed by the subcontractor, except for amounts withheld as allowed in subdivision 1.

d. Unless otherwise provided under the terms of this contract, interest shall accrue at the rate of one percent per month.

The contractor shall include in each of its subcontracts a provision requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier subcontractor.

A contractor’s obligation to pay an interest charge to a subcontractor pursuant to the payment clause in this section shall not be construed to be an obligation of the City of Danville. A contract modification shall not be made for the purpose of providing reimbursement for the interest charge. A cost reimbursement claim shall not include any amount for reimbursement for the interest charge.

3.12.4 Novation

The Vendor shall not assign or transfer, whether by as Assignment or Novation, any of its rights, duties, benefits, obligations, liabilities, or responsibilities under this Contract without the written consent of the City; provided, however, that assignments to banks, trust companies, or other financial institutions for the purpose of securing bond may be made without the consent of the City. Assignment or Novation of this Contract shall not be valid unless the Assignment or Novation expressly provides that the assignment of any of the Vendor’s rights or benefits under the Contract is subject to a prior lien for labor performed, services rendered, and materials, tools, and equipment supplied for the performance of the work under this Contract in favor of all persons, firms, or corporations rendering such labor or services or supplying such materials, tools, and equipment.

3.13 Drug Free Work Place

During the performance of this contract, the vendor agrees to:

- a. Provide a drug-free workplace for the vendor’s employees;
- b. Post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the vendor’s workplace and specifying the actions that will be taken against employees for violations of such prohibition;
- c. State in all solicitations or advertisements for employees placed by or on behalf of the vendor that the vendor maintains a drug-free workplace;
- d. Include the provisions of the foregoing clauses in every subcontract or purchase order of or over \$10,000, so that the provisions will be binding upon each subcontractor or vendor;

“Drug-free workplace” means a site for the performance of work done in connection with a specific contract awarded to a vendor in accordance with this chapter, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

#### 3.14 Indemnification

The Vendor shall indemnify the City, its agents, officers, and employees, against any damages to property or injuries to or death of any person or persons, including property and employees or agents of the City, and shall defend and indemnify the City, its agents, officers, and employees, from any claims, demands, suits, actions, or proceedings of any kind, including workers’ compensation claims, of or by anyone, in any way resulting from or arising out of the operations in connection with the work described in the contract, including operations of subcontractors and acts or omissions of employees or agents of Vendor or Vendor’s subcontractors. Vendor shall procure and maintain, at Vendor’s own cost and expense, any additional kinds and amount of insurance that, in Vendor’s own judgment, may be necessary for Vendor’s proper protection in the prosecution of the work.

b. The Vendor shall, at his own expense, appear, defend, and pay all charges of attorney and other expenses arising there from or incurred in connection therewith, and, if any judgment shall be rendered against the City, and/or its officers, agents, and employees, in any such action, the Vendor shall, at his own expense, satisfy and discharge the same. The Vendor expressly understands and agrees that any performance bond or insurance protection required by this contract, or otherwise provided by the Vendor, shall in no way limit the responsibility to indemnify, keep, and save harmless and defend the City, its agents, officers, and employees as herein provided.

c. The Vendor shall assume all risks and responsibilities for casualties of every description in connection with the work, except that he shall not be held liable or responsible for delays or damage to the work caused by acts of God, acts of Public Enemy, acts of Government, quarantine restrictions, general strikes through the trade, or by freight embargoes not caused or participated in by the Vendor. The Vendor shall have charge and control of the entire work until completion and acceptance of the same by the City.

d. The Vendor shall alone be liable and responsible for, and shall pay, any and all loss or damage sustained by any person or party either during the performance or subsequent to the completion of the work under this agreement, by reason of injuries to persons and damage to property, buildings, and adjacent work, that may occur either during the performance of the work covered by this contract or that may be sustained as a result of or in consequence thereof, irrespective of whether or not such injury or damage be due to negligence or the inherent nature of the work.

e. The Vendor, however, will not be obligated to indemnify the City, its officers, agents, or employees against liability for damage arising out of bodily injury to persons or damage to property caused by or resulting solely from the negligence of the City or its officers, agents, and employees.

### 3.15 Insurance

The Vendor shall not commence work under any contract until he has obtained all the insurance required hereunder and such insurance has been approved by the City; nor shall the Vendor allow any Subcontractor to commence work on his subcontract until all similar insurance has been so obtained and approved. Approval of the insurance by the City shall not relieve or decrease the liability of the Vendor hereunder.

a. Worker’s Compensation including Occupational Disease and Employer’s Liability Insurance: The Vendor shall take out and maintain during the life of the Contract, Workers’ Compensation and Employer’s Liability Insurance for all of his employees to be engaged in work on the project under this Contract in an amount no less than the minimum allowed by the State Corporation Commission, and in case any such work is sublet, the Vendor shall require the Subcontractor similarly to provide Workers’ Compensation and Employers’ Liability Insurance for all of the latter’s employees to be engaged in such work.

b. Comprehensive General Liability Insurance: The Vendor shall maintain during the life of the Contract comprehensive general liability insurance as shall protect him and the City of Danville and its officers, agents and employees from claims for damages for personal injury, including death, as well as from claims for property damage, which may arise from operations under the Contract, whether such operations be by himself or by any Subcontractor, or by anyone directly or indirectly employed by either of them. The amount of such insurance shall be not less than a combined single limit of \$1,000,000.00 per occurrence on bodily injury and property damage and \$1,000,000.00 aggregate on completed operations. The comprehensive general liability insurance shall provide the following coverage:

Comprehensive

Premises – Operation

Products/Completed Operations Hazard

Contractual Insurance

Broad Form Property Damage

Personal Injury

c. Automobile liability insurance with minimum combined single limits of \$500,000.00 per occurrence. This insurance shall include bodily injury and property damage for the following vehicles:

Owned Vehicles

Non-owned Vehicles

Hired Vehicles

d. Umbrella Policy: At the option of the Vendor, primary limits may be less than required, with an umbrella policy providing the additional limits needed. This form of insurance will be acceptable provided that the primary and umbrella policies both provide the insurance coverage herein required. However, any such umbrella policy must have minimum coverage limits of \$2,000,000.00.

3.16 Equal Employment:

During the performance of the contract, the vendor agrees as follows:

a. The Vendor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, or national origin, except where religion, sex, or national origin is a bona fide occupational qualification reasonably necessary to the normal operation of the Vendor. The Vendor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions for this nondiscrimination clause.

b. The Vendor also shall not discriminate against any handicapped person in violation of any state or federal law or regulation and shall also post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this additional nondiscrimination clause.

c. The Vendor, in solicitations or advertisements for employees placed by or on behalf of the Vendor, will state that such vendor is an equal opportunity employer.

d. Notices, advertisements, and solicitations placed in accordance with Federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section

e. The Vendor will include the provisions of the foregoing paragraphs in every subcontract or purchase order over \$10,000 so that the provisions will be binding upon each subcontractor or vendor.

f. The Vendor will otherwise comply with all other applicable provisions of local, State, and Federal law.

g. The contractor does not, and shall not during the performance of the contract for goods and services in the Commonwealth, knowingly employ and

unauthorized alien as defined in the Federal Immigration Reform and Control Act of 1986.

h. Contractors organized as a stock or nonstick corporation, limited liability company, business trust, or limited partnership or as a registered limited liability partnership shall be authorized to transact business in the Commonwealth as a domestic or foreign business entity if so required by Virginia Title 13.1 or Title 50 or as otherwise required by law.

A contractor organized or authorized to transact business in the Commonwealth pursuant to Virginia Title 13.1 or Title 50 shall include in its bid or proposal the identification number issued to it by the State Corporation Commission. Any bidder or offeror that is not required to be authorized to transact business in the Commonwealth as a foreign business entity under Title 13.1 or Title 50 or as otherwise required by law shall include in its bid or proposal a statement describing why the bidder or offeror is not required to be so authorized.

### 3.0 DOCUMENTS, PROPOSAL PAGES AND SPECIFICATIONS AS PDREPAED BY PIKE ENGINEERING

SEE ATTACHED MANUAL



**CITY OF DANVILLE  
DANVILLE, VIRGINIA  
KENTUCK AND WHITMELL SUBSTATION UPGRADES  
SPECIFICATIONS AND PROPOSAL DOCUMENTS  
FOR  
SUBSTATION CONTROL BUILDINGS  
REQUEST FOR PROPOSALS**



Virginia License#: 0407005765  
1616 E. Millbrook Road, Suite 210  
Raleigh, North Carolina 27609  
Phone: (919) 256-5900



**CITY OF DANVILLE**  
**DANVILLE, VIRGINIA**  
**KENTUCK AND WHITMELL SUBSTATION UPGRADE**  
**SPECIFICATIONS AND PROPOSAL DOCUMENTS**  
**FOR**  
**SUBSTATION CONTROL BUILDINGS**  
**REQUEST FOR PROPOSALS**



Virginia License#: 0407005765  
 1616 E. Millbrook Road, Suite 210  
 Raleigh, North Carolina 27609  
 Phone: (919) 256-5900

I hereby certify this document was prepared by me or under my direct supervision. I also certify I am a duly registered professional engineer under the laws of the Commonwealth of Virginia, Registration No. 046844.



**CITY OF DANVILLE, VIRGINIA**  
**PROPOSAL FOR** September 9, 2020  
**KENTUCK AND WHITMELL SUBSTATION UPGRADE** Henry Michael Taylor, PE  
**SUBSTATION CONTROL BUILDINGS**

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**NOTICE TO PROSPECTIVE PROPOSERS**

Proposals will be received by the City of Danville Purchasing Office, in Room 304, 427 Patton Street, until **5:00 p.m., local time, October 20, 2020**, after which time they will be opened and read for the furnishing of the following:

**SUBSTATION POWER TRANSFORMERS**

Proposals shall be marked "**Proposal for Substation Control House for Danville's Kentuck and Whitmell Substation Upgrades**". Proposers shall mail or hand deliver their Proposals as follows:

City of Danville,  
Purchasing Office  
Post Office Box 3300  
427 Patton Street, Room 304  
Danville, Virginia 24543  
Attention: Mr. J. Gary Via

Specifications and proposal forms may be secured from the offices of the Engineer. All hand carried proposals are to be presented to the City of Danville Purchasing Office or at the time of the Proposal opening. Cash, bid bond, certified check or cashier's check insured by the Federal Deposit Insurance Corporation, made payable to the City of Danville, Virginia, in the amount of five percent (5%) of the total Proposal must accompany all proposals in order to guarantee compliance with the provisions of the proposal.

The Proposer's proposal shall specify price, any applicable price terms, approval drawing time, and delivery time. All prices shall be FOB substation site. The Proposer's proposal shall include an outline drawing indicating approximate overall physical dimensions and weight.

Virginia sales tax is applicable to this purchase. Each Proposer shall show as a separate item the amounts which will be payable by the Purchaser for any taxes upon the sale of the proposed materials.

The Purchaser reserves the right to waive minor irregularities or errors in the Proposal if it appears that such irregularities or errors were made through inadvertence. Any such irregularities or errors so waived must be corrected on the Proposal prior to acceptance by the Purchaser. The Purchaser will evaluate all data provided in the proposal and select the proposal that in the sole judgment of the Purchaser represents the best value to the City of Danville. The Purchaser reserves the right to reject any or all proposals. The City of Danville will not discriminate against any Proposer submitting a Proposal because of race, creed, color, national origin or handicap.

\_\_\_\_\_  
City of Danville, Virginia

\_\_\_\_\_  
Purchaser  
Pike Engineering, LLC.  
\_\_\_\_\_  
Engineer

Date: September 9, 2020

**SPECIFICATIONS AND BID DOCUMENTS**

**FOR  
CONTROL BUILDING FOR THE  
KENTUCK AND WHITMELL SUBSTATIONS**

**PROPOSAL**

<b><u>Bid Schedule No. 1</u></b>	<u>Quantity</u>	<u>Total Price</u>
CONTROL BUILDING	2	\$ _____
Freight		\$ _____
Total Price		\$ _____
Delivery (Weeks)		_____
Warranty Period (Years)		_____
Applicable VA Sales Tax		\$ _____
Total delivery time (weeks)		_____

1. The prices of Materials proposed do not include any sums payable by the Purchaser for Virginia sales tax. The amount of tax shall be added to the invoice and paid by the Purchaser after the Materialman has performed the work. Invoices shall be submitted to the Engineer to be approved before submittal to the Purchaser.
2. The materials quoted conform to the Specifications or any exceptions are clearly noted under paragraph 13 of this proposal.
3. The Purchaser may accept any Schedule or portion thereof or purchase additional quantities of any quoted materials.
4. The prices quoted shall include delivery of the materials and equipment by truck or rail F.O.B. substation sites with unloading by the Purchaser.
5. The prices of the materials and equipment set forth herein shall include the cost of delivery to the site at the Materialman's risk. The time of delivery shall be as follows:

a. Approval Drawings \_\_\_\_\_  
(Weeks)\*

b. Final Drawings\*\* \_\_\_\_\_  
(Weeks)\*

c. Delivery\*\* \_\_\_\_\_  
(Weeks)\*

- \* Number of consecutive calendar weeks after receipt of a written order.
- \*\* Allow two (2) weeks for receipt and return of Approval Drawings.

Delivery of all items of equipment to the Purchaser's designated delivery point shall be made to permit unloading between the hours of 9:00 a.m. and 3:00 p.m., Monday through Thursday, holidays excluded.

6. Price Policy: The prices quoted in the Proposal are firm.

Other terms and conditions that apply to this proposal \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. Proposals shall include the following:

- a. Catalog numbers, manufacturer, ratings, characteristics, types, sizes, etc., of all materials and equipment included. A simple statement that all necessary materials and equipment will be provided is not satisfactory.
- b. Performance data for the several items as set forth in the detailed Specifications.
- c. Prices shall include the cost of delivery to the substation site.

8. Receipt of Approval Drawings by the Materialman marked “Approved” by the Engineer constitutes authorization for manufacture predicated making any corrections noted thereon. After the return of Approval Drawings, release for shipment is to be granted by the Engineer based upon the manufacturer's compliance with the following:

- a. Notification of at least seven days prior to tests, so the Engineer may have a representative present to witness the tests.
- b. Furnishing of the requested number of copies of the Final Drawings as called for in the Specifications.
- c. Thirty (30) days' notification of tentative shipping schedule and forty-



14. Non-Collusive Bid Certification: By the submission of this bid, the Materialman certifies that:
1. The bid has been arrived at by the Materialman independently and has been submitted without collusion with any other manufacturer of materials, supplies, or equipment of the type described in the Notice to Prospective Bidders or the Specifications.
  2. The contents of the bid have not been communicated by the Materialman or, to his best knowledge and belief, by any of his employees or agents to any person not an employee or agent of the Materialman and will not be communicated to any person prior to the official opening of the bid.
15. If, in submitting this Proposal, the Materialman has made any change(s) from the Specifications to offer an alternate proposal(s), the Materialman understands that the Purchaser may evaluate the effect of such change as it sees fit or may exclude the Proposal from consideration in determining the award of the Purchase Order.

Submitted this the \_\_\_\_\_ day of \_\_\_\_\_, 2020.

Name of Firm \_\_\_\_\_

Signature \_\_\_\_\_

Printed or Typed Name \_\_\_\_\_

Title \_\_\_\_\_

Address of Materialman: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Telephone \_\_\_\_\_

E-mail \_\_\_\_\_

**SPECIFICATIONS AND BID DOCUMENTS  
FOR  
CONTROL BUILDING  
FOR THE  
KENTUCK AND WHITMELL SUBSTATIONS**

**1. SCOPE**

- 1.2 The Materialman shall furnish a new or used NEMA 4 prefabricated concrete structure designed and constructed to accommodate cable tray, battery system, relay panels, control panels, power panels, metering equipment, and other accessories for the operation and control of the substation(s) as set forth in the Bid Schedule(s), as specified herein, and as shown on the drawings.
- 1.3 Building shall meet all applicable state and local building codes and regulations. Materialman shall be responsible for obtaining all licenses and permits necessary to complete the project.
- 1.4 All other items described in these specifications shall be furnished and installed by the Materialman as shown on the drawings.

**2. GENERAL CONDITIONS**

These Specifications describe the type, size, and characteristics of the various materials and equipment required to be furnished. Strict adherence to these general Specifications is required to facilitate review and consideration of the Proposal. Alternate proposals will be evaluated if deemed appropriate.

All workmanship and material shall be first quality, and all material shall be new, unused, utility grade, and free from defects affecting appearance or serviceability of the equipment. The design and materials shall be such as has been proven to be satisfactory for the intended application by past experience, commercial service, and comprehensive laboratory tests.

It is the intent of these Specifications that the control building shall be complete and fully operable. Any details or materials not mentioned in the Specifications, but required for satisfactory operation, shall be furnished and installed by the Materialman.

### **3. SPECIAL CONDITIONS**

#### **3.1 Defective Materials, Equipment, and Workmanship**

All materials and equipment furnished hereunder shall be subject to the inspection, tests, and approval of the Engineer and the Materialman shall furnish all information required concerning the nature or source of all materials and equipment, as well as provide adequate facilities for testing and inspecting the materials and equipment at the plant of the Materialman.

The materials and equipment furnished hereunder shall become the property of the Owner upon delivery to the point specified herein, provided, however, that the Owner may reject any such materials and equipment which do not comply with the Specifications for materials and equipment and/or warranties of the Materialman and manufacturers. Recognition and subsequent rejection of any defective materials and equipment may occur either before or after incorporation of such materials and equipment into the facilities, provided such rejection is made within one year of date of delivery of the materials and equipment. Upon any such rejection, the Materialman shall replace the rejected materials and equipment with materials and equipment complying with the Specifications for materials and equipment and warranties, DDP substation. The Owner shall return the rejected materials DDP truck at the substation. In the event of the failure of the Materialman to so replace rejected materials and equipment, the Owner may make such replacement and the cost and expense thereof shall be paid by and recoverable from the Materialman.

#### **3.2 Miscellaneous**

The Materialman shall hold harmless and indemnify the Owner, its agents and employees, from any and all claims, suits and proceedings for infringement of any patent or patents covering materials and equipment purchased hereunder. The Materialman shall defend any suit or proceeding brought against the Owner, its agents or employees, based upon a claim that the materials and equipment or any part thereof constitute an infringement of any patent, or if the Materialman shall fail to defend such suit or proceeding, the Owner may do so and the Materialman shall make reimbursement for the expense of such litigation. If the materials and equipment, or any part thereof, are held

to constitute infringement and the use thereof is enjoined, the Materialman shall, at its own expense, either procure for the Owner the right to continue to use the materials and equipment, or such part thereof, or shall replace the materials and equipment, with non-infringing materials and equipment.

### 3.3 Standards

All equipment and materials covered by these Specifications and all tests applied thereto shall, unless otherwise stated herein, be in accordance with the applicable provisions of the latest editions of the Standards of the ASTM, ANSI, AEIC, AWS, NEMA, IEEE, and NESC. Where the term "Standards" is used in the specifications, it shall be understood to refer to the above standards.

## 4. DRAWINGS

Drawings included as part of these documents show conceptual layout drawing(s) intended to indicate the intent only of the final product. These drawings are not intended as design documents.

### 4.1 Prior to Fabrication

Before proceeding with fabrication, the Materialman shall submit for approval to the Engineer sufficient Drawings to demonstrate that all parts conform to the requirements and intent of these Specifications.

Approval drawings shall indicate all pertinent dimensions and shall include the plan view, elevations, sections, complete material list, layouts, equipment details, AC power panel schedules, AC schematics and diagrams, etc., foundation requirements, complete HVAC calculations, seismic provisions, and loading levels used for design basis.

The Materialman shall furnish design certifications required by 7 CFR 1792.104 Seismic acknowledgments. Acknowledgment that seismic provisions pursuant to §1792.103 shall be on the title page of the drawings.

Drawings shall be submitted electronically as AutoCAD ".dwg" drawings and in PDF format. Each drawing shall contain identifying information such as, but not limited to, customer and project name.

Approval of Drawings shall not relieve the manufacturer of obligations to meet all requirements to the Specifications or of responsibility for correctness of the Drawings, or of responsibility to

meet original shipping promise on the basis of customer being allowed two (2) weeks for approval.

The Engineer may require additional submittals of Shop Drawings if, in the opinion of the Engineer, such is required due to the extent of changes required on the previous submittal(s). If an extension of time is required due to a protracted drawing approval process, the price will remain as quoted for the quoted delivery.

Receipt of Approval Drawings by the Materialman constitutes authorization for manufacture based upon the corrections found thereon.

**No** changes shall be made in the final Drawings from the approved Approval Drawings. Any proposed changes from the approved drawings must go through the approval drawing process again **with the changes clearly denoted**.

Following approval of drawings the Materialman shall submit a complete set of "For Construction" drawings to the Engineer.

#### 4.2 Prior to Shipment

A complete set of final documents and certified "as-built" drawings shall be submitted to the Engineer **prior to the shipment of the building**. A complete set includes all the items specified above for approval drawings. Contents shall be in PDF format. The "as-built" drawings shall be provided in AutoCAD format in addition to PDF format.

All Building structural design and drafting shall be performed under the direct supervision of a Professional Engineer currently licensed in the destination state. All "as-built" drawings shall bear the seal of a Professional Engineer.

### 5. SHIPPING

The Control Building shall be shipped fully assembled or ready to be assembled complete with all required assembly hardware to the station site. All components shall be shipped completely wired internally ready to be mounted complete with all required assembly hardware to the station control building. The shipping address for the substations are:

Kentuck Substation  
1865 Kentuck Road  
Ringgold, VA 24586

Whitmell Substation  
422 F C Beverly Road  
Dry Fork, VA 24549

## NOTES:

1. All labor required to unload and set up building and crane, spreader bars, cables, shackles, and other lifting / rigging equipment shall be provided by Materialman. Only firm quotes will be accepted. Estimates are unacceptable.

**6. DESIGN DATA**

- 6.1 Design and construction shall conform to the applicable sections of the latest standards as issued by the following agencies, as a minimum:

- IBC: International Building Code, International Code Council (ICC) - *(Default Structural loading criteria shall be per the IBC)*
- American National Standards Institute (ANSI)
- American Society of Civil Engineers (ASCE)
- American Society for Testing and Material (ASTM)
- American Society of Heating, Refrigeration, and Air conditioning Engineers (ASHRAE)
- ACI 304: Guide for Measuring, Mixing, Transporting, and Placing Concrete
- ACI 305: Hot Weather Concreting
- ACI 306: Cold Weather Concreting
- ACI 308: Standard Practice for Curing Concrete
- ACI 309: Guide for Consolidation of Concrete
- ACI 318: Building Code Requirements for Structural Concrete
- American Institute of Steel Construction (AISC)
- American Iron and Steel Institute (AISI-Specification for the Design of Cold Formed Steel Structural Members)
- Metal Building Manufacturers Association (MBMA)
- ARI 210/240: Standard for Unitary Air Conditioning and Air Source Heat Pump Equipment
- ASCE 7: Minimum Design Loads for Buildings and Other Structures
- ASHRAE 90.1: Energy Efficient Design of New Buildings
- ASTM A36: Standard Specification for Structural Steel
- ASTM A185: Standard Specification for Steel Welded Wire Fabric, Plain, for Concrete Reinforcement
- ASTM A615: Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
- ASTM C31: Standard Practice for Making and Curing Concrete Test Specimens in the Field
- ASTM C33: Standard Specification for Concrete Aggregate
- ASTM C39: Standard Test Method for Compressive Strength

of Cylindrical Concrete Specimens

- ASTM C150: Standard Specification for Portland Cement
- ASTM C172: Standard Method of Sampling Freshly Mixed Concrete
- ASTM C260: Standard Specification for Air-Entraining Admixtures in Concrete
- ASTM C330: Standard Specification for Lightweight Aggregate for Structural Concrete
- ASTM C494: Standard Specification for Chemical Admixtures in Concrete
- ASTM E84: Test Method for Surface Burning Characteristics of Building Materials [fire retardant]
- ASTM E119: Test Methods for Fire Tests on Building Construction and Materials [fire resistance]
- ASTM E136: Test Method for Behavior of Materials in a Vertical Tube Furnace [non-combustibility]
- ASTM E152: Methods of Fire Tests of Door Assemblies
- AWS D1.1: Structural Welding Code-Steel
- AWS D1.4: Structural Welding Code-Reinforcing Steel
- NFPA-70: National Fire Protection Association
- UL 752: Bullet Resisting Equipment
- UL 1449: 2nd Ed., Transient Voltage Surge Suppressor
- NEMA: National Electric Manufacturers Association
- NEC: National Electric Code
- SDI 100-91: Steel Door Institute
- NESC: National Electrical Safety Code

6.2 The Building shall be **third party inspected and certified by an agency approved by the destination state, and shall bear a destination state Industrialized Unit label.**

6.3 Building components shall be designed to withstand external loading as prescribed by the applicable codes above (as a minimum), with co-lateral considerations as follows:

6.3.1 Base and floor system shall be designed to withstand all dead and live loads as applicable, or, a minimum of 200 lbs/ft<sup>2</sup> over the entire floor area, while supported at lift points only. Concrete slab foundation may be utilized to meet this requirement if suitable means for anchoring the building to the foundation is provided.

Control building is to be placed on a concrete or gravel foundation provided by others.

6.3.2 Maximum deflection of all base members shall not exceed

L/240 at time of lift, and following final installation, with all applicable dead and live loads applied, or, a minimum of 125 lbs/ft<sup>2</sup> over the entire floor area.

- 6.3.3 Roof loading: 100 lbs/ft<sup>2</sup> minimum.
- 6.3.4 Wind loading: 150 mph minimum.
- 6.3.5 Seismic: Importance factor 1.0, use group I, spectral response coefficients – SDS = 1.24 & SD1 = 0.19, site class D.
- 6.3.6 Interior walls: Shall be capable of mounting and supporting 400 lbs / linear foot (200 ft-lbs of moment / torque) at any place along the perimeter wall space.
- 6.3.7 Each shipping piece shall be designed for lifting by lugs located along the base perimeter members.
- 6.3.8 All lifting lugs shall be removable.
- 6.3.9 The ceiling shall be capable of withstanding a single continuous load of 100 lbs. per linear foot located at mid span of the ceiling panels, and running the entire building length. The ceiling panels shall act alone, structurally, and not depend on the roof or the interior equipment for support. Ceiling height shall be a minimum of ten feet (10’).
- 6.3.10 All shipping splits and other penetrations shall have adequate structural reinforcement via rigid frames or other means to minimize distortion during handling and transportation.
- 6.3.11 Exterior walls shall be rated for two (2) hour fire resistance per ASTM E119.
- 6.3.12 Exterior walls shall be rated Level 4 high rifle bullet resistance when tested in accordance with UL 752.

## **7. BASIC MATERIALS AND CONSTRUCTION**

All facets of prefabrication through coating and weatherproofing shall be performed indoors, protected from outdoor weather conditions.

### **7.1 Concrete**

- 7.1.1 Concrete formulation used shall be no less than 4000-psi

compressive strength at 28 days and a density no less than 100 pcf.

- A. Cement: Type I or II Portland cement per ASTM C150.
- B. Aggregate: lightweight sand per ASTM C33 and lightweight coarse per ASTM C330; use coarse aggregate no larger than  $\frac{3}{4}$ " nominal.
- C. Admixtures: air entraining admixtures per ASTM C260 and water reducing admixtures per ASTM C494.
- D. Water: clean and free of oils, acids, solids, salts, organic materials, or other substances harmful to concrete or reinforcing steel. Non-potable water shall not be used.

### 7.1.2 Steel

Embedded reinforcing and other structural steel components shall conform to the following:

- A. Rebar: use grade 60 deformed reinforcing bar per ASTM A615.
- B. Welded wire fabric: use  $f_y=60$  ksi wire fabric reinforcement per ASTM A185.
- C. Other steel: use ASTM A36 steel, or better, for other steel components; e.g. weld plates, lifting, and tie-down hardware.

### 7.1.3 Fabrication

Floor, walls, and roof shall be constructed into pre-cast reinforced concrete panels in conformance with ACI 318 with a minimum thickness of 6" on floors and 4" on roof and wall panels. Cast reinforced steel plates in floor, walls, and roof panels to provide for welded panel-to-panel connections.

- A. Concrete shall be measured, mixed, and transported per ACI 304.
- B. Collect concrete samples for strength testing per ASTM C172, mold into cylinders per ASTM C31, and test for compressive strength per ASTM C39.
- C. Concrete shall be cured in forms and protected from moisture loss, excessive heat, and freezing until removal from form in conformance to ACI 305 and ACI 306 as required for hot and cold concreting.
- D. Concrete shall be consolidated per ACI 309.
- E. Roof shall have a minimum  $\frac{1}{4}$ " per foot slope in two directions for proper water drainage.
- F. Steel door frames shall be molded into cast panel walls

where shown on drawing(s); step-joint threshold shall be included to prevent water from entering shelter.

- G. Keyed or step-joint edges shall be molded into fabricated panels to enhance moisture protection and water runoff; roof/wall shall be molded so that joint is not exposed.
- H. Wall panels shall be treated with retarders as required to permit exposure of coarse aggregate for exterior finish; "seeding" of exterior surface with coarse aggregate is not permitted.

#### 7.1.4 Shelter Assembly

Weatherproofing features shall be installed as concrete panels are assembled. Finished panels shall be welded together to form a rigid concrete shell. Welding shall be done by certified welders and conform to applicable provisions of AWS D1.1 and D1.4.

#### 7.2 Steel

- A. Base members shall be ASTM A572 wide flange, ASTM A36 channel, angle and tube shapes forming a self-supporting grid. All members shall be continuously welded to adjoining members.
- B. Floor shall be 1/4" (minimum) thickness flat steel plate, welded to all longitudinal and transverse base members.
- C. Floor plate seams shall be *continuously welded at all joints*, and ground smooth to minimize visibility of seams. Floor plate welding shall be staged to produce a flat, ripple free surface.
- D. Exterior walls shall be 24-gauge (minimum) G90 pre-galvanized sheet steel interlocking panels formed to create a tightly interlocking panel design, nominally 3" deep. Interlocking panel ribs shall repeat at a typical maximum nominal dimension of 16".
- E. Roof material shall be 20-gauge (minimum) G90 pre-galvanized sheet steel interlocking panels formed to create a tightly interlocking panel design with vertical standing ribs.
- F. Interior walls shall be 26-gauge (minimum) G90 pre-galvanized sheet steel firmly attached to interlocking ribs of exterior wall panels utilizing ASTM shear and pull-out rated self-tapping screws on 24" maximum centers. Each interior wall panel shall be formed to receive adjacent panels at overlaps.
- G. Ceiling panels shall be 24-gauge (minimum) G90 pre-galvanized sheet steel interlocking panels formed to create a tightly interlocking panel design with vertical standing ribs.
- H. Insulation levels:

Ceiling: 3" fiberglass batts (R11)

Walls: 3" fiberglass batts (R11)

Floor: 1" urethane board or urethane spray (R7.2)  
Equipment access doors: 1" urethane board (R7.2)  
with welded metal cover  
Personnel doors: (R2.4)

- I. The entire roof perimeter shall be trimmed with a fascia that aesthetically hides the standing rib roof edges, prevents high velocity rainwater run-off, and prevents built-up ice from sliding off the roof in large sheets.
- J. At shipping splits (when required due to transportation restrictions), each open area shall be sealed with 2" thick wooden framing and a complete plywood cover for temporary protection during transportation and setting. Seams in plywood shall be liberally caulked at the exterior.
- K. All permanent components shall consist of materials that **do not** freely support combustion. Use of wood or any other materials that freely support combustion shall not be allowed as permanent components.

## 8. ARCHITECTURAL REQUIREMENTS

Control building shall be constructed with standard interior and exterior finish and weather resistance consistent with environment of the destination location.

### 8.1 Performance

Necessary weatherproofing shall be provided to prevent moisture and dust infiltration. Panel insulation shall be installed to reduce heat loss from conduction. Insulation shall be installed to floor, wall, and roof construction to ensure that total shelter  $U_0$  factor is less than 0.09 btu/hr/ft<sup>2</sup>/°F when calculated per ASHRAE 90.1.

### 8.2 Materials

Furnish components and materials that conform to architectural requirements of this specification:

- A. Dust seal: pre-compressed, self-expanding polyurethane joint sealant.
- B. Water seal: butyl tape or caulk.
- C. Roof finish: white mastic coating made with elastomeric acrylic.
- D. Exterior wall coating: clear, non-yellowing, and UV resistant acrylic sealer.
- E. Exterior trim (concrete surfaces): high-build, textured, water based, acrylic paint for masonry and concrete.
- F. Exterior door(s): heavy duty steel, fully-welded with continuous

aluminum tamperproof hinge suitable for the environment of the destination location.

- G. Insulation for walls/roof: use polyisocyanurate or other insulation with equivalent K-factor.
- H. Insulation for floor: use polystyrene or other insulation with equivalent K-factor.

### 8.3 Installation

8.3.1 Interior Finish. Finish interior walls and ceiling with white laminated sheathing board and vinyl trim. Finish floor with light colored commercial-grade vinyl.

8.3.2 Exterior Finish. Finish exterior with medium colored exposed aggregate finish sealed with UV-resistant clear coat and painted trim. Finish roof with seamless UV-resistant elastomeric coating.

8.3.3 Weatherproofing. Add dust and water-proofing to fabricated concrete panels before assembly:

- A. Waterproofing: double-seal all wall-to-wall and roof-to-wall joints with butyl sealant; to permit water runoff, use no waterproofing on wall-to-floor joints.
- B. Dust proofing: seal exterior exposure of wall-to-wall and floor-to-wall joints with a dust seal.

## 9. PERSONNEL AND EQUIPMENT ACCESS DOOR

9.1 Personnel door(s) shall conform to the latest version of the Steel Door Institute (SDI) / ANSI/SDI – 100-91 – Recommended Specifications for Standard Steel Doors and Frames and shall be 3' x 7' nominal size single leaf, double wall, honeycomb reinforced personnel door, pre-galvanized, 20-gauge, 1-3/4" thick – quantity required as shown on the drawings, equipped as follows:

- 9.1.1 Panic hardware: Thumb latch with keyed cylinder lock, Button type aluminum (Magnokrom #N1550-5XOT53-US28)
- 9.1.2 Closer with stopping arm (Yale series #50)
- 9.1.3 Wind safety chain
- 9.1.4 Drip shield
- 9.1.5 Threshold: Aluminum

- 9.1.6 Factory frame
- 9.1.7 Caps in top
- 9.1.8 Weather stripping
- 9.1.9 Stainless steel hinges
- 9.1.10 R2.4 minimum thermal resistance rating
- 9.1.11 Fire resistance rating and label (2 hour minimum rating)
- 9.1.12 Double pane window minimum size 18" x 18" inserted at eye level with 1/2" insulated glass.
- 9.1.13 Hold open device.

## **10. CONTROL BUILDING ELECTRICAL UTILITIES – AC SYSTEM**

- 10.1 For reference, see Drawing(s) located in the Appendix.
- 10.2 All devices installed shall be UL listed.
- 10.3 AC distribution panel(s): panels rated 120/240V, 1 phase, 3 wire, 42 circuit plug in breakers, surface mount, 10,000 AIC with 225A main breaker. Installation shall be in the location(s) and as shown on the drawings. Eaton Cutler-Hammer, type Pow-R-Line 1a with type FD main breaker, type QBHW branch circuit breakers, and type SPD-250 surge protective device, or approved equal.
- 10.4 One (1) 200A rated automatic transfer switch (ATS) shall be provided and mounted on exterior of building. The ATS shall accommodate primary and alternate underground station service supplies and feed a pre-mounted meter base. The enclosure shall be ASCO Series 300, solid natural, 2 poles, 1-phase, 200 amperes continuous rating, 240V, with controller, NEMA Type 4 enclosure operated at 240V and 60 Hz, Catalog No. 300\*2200F1G240V 60 Hz. Installation shall be in the location and as shown on the drawings.
- 10.5 Interior lights: Eaton Lighting Metalux WNLED series fixtures (Part# 4WNLED-LD4-32SL-F-UNV-L830-CD1-U) or equal – quantity as required for 50 foot candles interior illumination at floor.
- 10.6 Emergency lights: Emergency lighting unit, 1.5 lamp watts, number of lamps (24), 120/277 AC voltage input, LED lamp type, NiCad battery type, 3.6 DC voltage output, switch, ready/charge lamp

status indicator, white housing finish, thermoplastic housing material, mounting wall/ceiling, Grainger item 4ZDA4 (or equal), quantity required as shown on drawings.

- 10.7 Exterior lights: Lithonia wall pack fixture type, LED, 69W, 120V, with photocell, CSXW LED 30C 700 40K T3M 120 DDBXD, one (1) required for each door plus one (1) on each of the other three sides.
- 10.8 Exit signs: Exit sign with battery back-up, LED lamp type, 120/277 AC voltage input, thermoplastic housing material, white housing finish, number of sides 1 or 2, 3/4" stroke x 6" high letter size, red letter color, universal (top, end, or back) mounting, Nickel-Cadmium battery type, test feature switch, status indicator diagnostic test light, directional knockouts indicators, Grainger item 3BA32 (or equal), one (1) required over each door.
- 10.9 Light switch: Single-pole double-throw (3-way) commercial specification grade, grounding, 20A, 120 – 277V, Leviton CS320-2I ivory (or equal); minimum quantity required as shown on drawings.
- 10.10 Light switch: Single-pole single-throw (2-way) commercial specifications grade, grounding, 20A, 120 – 227V, Leviton CS120-2I ivory (or equal); minimum quantity required as shown on drawings.
- 10.11 Duplex receptacles - Interior: Specification grade 20A, 125V, ivory, Leviton 7899-I (or equal) GFCI duplex receptacle; As a minimum receptacles shall be in the locations and in quantity as required by the NEC and local codes.
- 10.12 Duplex receptacles - Exterior: Specification grade 20A, 125V, white, Leviton GFWR2-W (or equal) GFCI duplex receptacle suitable for outdoor use, one (1) required.
- 10.13 Power outlets: 230 V, amperage as required, 4-wire, one (1) required for each HVAC unit.
- 10.14 Wire type: "THHN".
  - 10.14.1 Power wiring: #12 AWG minimum (sized as required).
  - 10.14.2 HVAC Control wiring: #18 AWG thermostat cable.
- 10.15 Conduit: Exposed 3/4" EMT minimum.
- 10.16 Ground lugs welded to base: Burndy #QA28-2N1-4/0; four (4) required, one (1) at each corner.

10.17 Wiring shall be supplied to battery charger from a 30A, two-pole 230V, breaker with #10/4 copper wire and Hubbell L14-30R twist lock receptacle and mating Hubbell L14-30P plug.

## 11. DC POWER SYSTEM – NOT APPLICABLE FOR THIS BUILDING

### 12. HVAC SYSTEM

12.1 Exterior design temperatures:

Summer	110°F
Winter	-10°F

12.2 Interior design temperatures:

Summer	70°F
Winter	70°F

12.3 HVAC unit(s) (AS REQUIRED to maintain interior design temperatures) - Industrial quality, vertical, self-contained, wall mounted heat pump unit(s) as manufactured by Eubanks or The Bard Corp. (or equal) with aluminum fin, ruffle tube copper coils and adjustable fresh air damper to 40%:

12.3.1 Cooling capacity (AS REQUIRED to maintain interior design temperatures).

12.3.2 Heat Pump heating capacity (AS REQUIRED to maintain interior design temperatures with exterior temperature down to 32°F) with electric strip backup of 5 KW.

12.3.3 Totaline SX100 Thermostat P274-0100, *Auto Change Over*, Digital, °F or °C Display.

12.3.4 Low Pressure Switch.

12.3.5 High Pressure Switch.

12.3.6 Low Ambient Control.

12.3.7 Compressor anti-cycle relay.

12.3.8 Alarm Relay.

12.3.9 Blank-off plate at make-up (outside) air damper.

12.3.10 Supply & Return Grills.

12.3.11 Pleated Filter, 2".

- 12.4 Complete HVAC calculations shall be submitted with approval drawings for review.

### **ACCESSORIES**

- 13.1 Removable lift lugs: As required along base length at approximate 15'-0" centers (per shipping piece).
- 13.2 Overhead light duty aluminum cable trays: Vertical and main sections shall be 30" x 4" and Branch sections shall be 18" x 4". Main section shall be installed along full length of main room and branch sections shall be installed from the closest point of the main tray to the AC panel.
- 13.3 Provision for wall mounting battery charger(s) with estimated weight of 110 lbs. and estimated size of 20"W x 27"H x 16"D.

### **11. WARRANTY**

- 15.1 All materials and workmanship shall be guaranteed by manufacturer (parts and labor) for a period of twelve (12) months following shipment of the Control Building. Any item found to be defective shall be repaired or replaced at the sole expense of the successful bidder.
- 15.2 Control Building shall be guaranteed for coating adhesion and integrity per ASTM Standards under normal operating conditions for a period of 20 years following shipment.
- 15.3 Control Building shall be guaranteed for leak resistance per NEMA 4 Standards for a period of 20 years following shipment.

