

**THE ESCAMBIA COUNTY SCHOOL DISTRICT  
PURCHASING DEPARTMENT  
75 NORTH PACE BLVD.  
PENSACOLA, FL 32505**

**REQUEST FOR PROPOSAL (RFP) & PROPOSAL ACKNOWLEDGMENT**

POSTING DATE:  
**September 8, 2020**

PURCHASING CONTACT & TELEPHONE:  
**David Romero 850.469.6203  
dromero@ecsdfl.us**

RFP TITLE:  
**UPS Replacement for Vernon McDaniel Building**

RFP NUMBER:  
**201206**

RFP OPENING DATE & TIME:

**October 9, 2020 2:00 PM, CENTRAL TIME**

**NOTE: PROPOSALS RECEIVED AFTER THE RFP OPENING DATE AND TIME WILL NOT BE ACCEPTED.**

The School District of Escambia County, Florida, (the District) solicits your company to submit a Proposal on the above referenced goods or services. All terms, specifications and conditions set forth in this request are incorporated by this reference into your response. Proposals will not be accepted unless all conditions have been met. All Proposals must have an authorized signature in the space provided below. All Proposals must be sealed and received in the School District's Purchasing Office at 75 North Pace Blvd., Pensacola, Florida, 32505 by the "RFP Opening Date & Time" referenced above. All envelopes containing sealed Proposals must reference the "RFP Title", "RFP Number" and the "RFP Opening Date & Time". The School District is not responsible for lost or late delivery of Proposals by the U.S. Postal Service or other delivery services used by the Responder. Proposals may not be withdrawn for a period of sixty (60) days after the opening date unless otherwise specified.

**THE FOLLOWING MUST BE COMPLETED, SIGNED, AND RETURNED AS PART OF YOUR PROPOSAL. PROPOSALS WILL NOT BE ACCEPTED WITHOUT THIS FORM. AN ORIGINAL, MANUAL SIGNATURE, BY AN AUTHORIZED AGENT OF THE RESPONDER, IS REQUIRED ON THIS FORM.**

COMPANY NAME:

MAILING ADDRESS:

CITY, STATE, ZIP:

FEDERAL EMPLOYER'S IDENTIFICATION NUMBER (FEIN):

TELEPHONE NUMBER: (EXT: ) FACSIMILE NUMBER:

EMAIL:

HOW DID YOU FIND OUT ABOUT THIS RFP? SCHOOL DISTRICT WEBSITE\_\_\_ BIDNET\_\_\_ DEMAND STAR\_\_\_ PRIME VENDOR\_\_\_ OTHER\_\_\_ (PLEASE SPECIFY\_\_\_\_\_)

I CERTIFY THAT THIS PROPOSAL IS MADE WITHOUT PRIOR UNDERSTANDING, AGREEMENT, OR CONNECTION WITH ANY OTHER RESPONDER SUBMITTING A PROPOSAL FOR THE SAME MATERIALS, SUPPLIES, EQUIPMENT OR SERVICES, AND IS IN ALL RESPECTS FAIR AND WITHOUT COLLUSION OR FRAUD. I AGREE TO ABIDE TO ALL TERMS AND CONDITIONS OF THIS RFP AND CERTIFY THAT I AM AUTHORIZED TO SIGN THIS RFP FOR THE RESPONDER. SIGNING THIS ACKNOWLEDGEMENT ALSO AFFIRMS THAT THE ORIGINAL REQUEST FOR PROPOSAL DOCUMENT HAS NOT BEEN ALTERED IN ANY WAY.

TYPED OR AUTHORIZED SIGNATURE:

PRINTED NAME:

TITLE:

DATE:

## I. INTRODUCTION & GENERAL INFORMATION

The purpose of this Request for Proposal (RFP) is to obtain responses for the replacement of the current Uninterrupted Power Supply (“UPS”) with an optional maintenance plan located at the School District of Escambia County, FL (“District”) in the basement of the Vernon McDaniel Building, 75 North Pace Boulevard, Pensacola, FL 32505. The District is looking for a turnkey solution, including the removal and disposal of the current UPS.

**Proposals will only be accepted from Responders who attend the MANDATORY Pre-Proposal Conference.**

| CALENDAR OF EVENTS   |  |
|--|--|
| RFP Posting Date   | Tuesday, September 8, 2020                       |
| Mandatory Pre-Proposal Conference<br>(See Page 13, Section VI.A.)                  | Wednesday, September 16, 2020 at 11:00 a.m., CST |
| Deadline for Questions<br>(See Page 5, Section II.V. and<br>Page 8, Section III.K) | Monday, September 21, 2020 at 5:00 p.m., CST     |
| Answers to Questions and Any<br>Addendums Posted By<br>(See Page 8, Section III.K) | Monday, September 28, 2020 at 5:00 p.m., CST     |
| RFP Opening<br>(See Page 1)  | Friday, October 9, 2020 at 2:00 p.m., CST        |
| RFP Evaluation<br>(subject to change)  | Thursday, October 15, 2020 at 10:30 a.m., CST    |
| Anticipated Agreement Start Date   | Wednesday, November 18, 2020                     |

## II. GENERAL TERMS AND CONDITIONS

NOTE: The term "Responder", "Contractor", or "Vendor" as used within this Request for Proposal (RFP) refers to the person, company or organization responding to this RFP. The Responder is responsible for understanding and complying with the terms and conditions herein. The term "Parties", when used collectively, will apply to both the District and the Responder.

- A. GENERAL:** Upon an RFP award, the terms and conditions of this RFP or any portion thereof, may upon mutual agreement of the parties be extended for an additional term(s) or for additional quantities (all original terms and conditions will remain in effect). Subject to the mutual consent of the parties, the pricing, terms and conditions of this RFP, for the products or services specified herein, may be extended to other municipal, city or county government agencies, school boards, community or junior colleges, or state universities within the State of Florida.
- B. RFP OPENING AND FORM:** Proposal openings will be public on the date and time specified on the Proposal Acknowledgement form. All Proposals received after the time indicated will be rejected as non-responsive and retained by the District. Proposals by email, fax, telegram, or verbally by telephone or in person will not be accepted. The public opening will acknowledge receipt of the Proposals only; details concerning pricing or the offering will not be announced. All Proposals submitted shall become public record upon an announcement of a recommended award or thirty (30) days after the opening date whichever occurs first. To protect any confidential information contained in their Proposal, companies must invoke the exemptions to disclosure provided by law in response to the RFP, and must identify the data and other material to be protected, and must state the reasons why such exclusion from public disclosure is necessary.
- C. WARRANTY:** All goods and services furnished by the Responder, relating to and pursuant to this RFP will be warranted to meet or exceed the Specifications contained herein. In the event of breach, the Responder will take all necessary action, at Responder's expense, to correct such breach in the most expeditious manner possible.

- D. **PRICING:** All pricing submitted will include all packaging, handling, shipping charges, and delivery to any point within Escambia County, Florida to a secure area or inside delivery. The School Board is exempt and does not pay Federal Excise and State of Florida Sales Taxes.
- E. **TERMS OF PAYMENT / INVOICING:** The normal terms of payment will be Net 30 Days from receipt and acceptance of goods or services and Responder's invoice. Itemized invoices, each bearing the Purchase Order Number must be mailed on the day of shipment. Invoicing subject to cash discounts will be mailed on the day that they are dated.
- F. **TRANSPORTATION AND TITLE:** (1) Title to the goods will pass to the School District upon receipt and acceptance at the destination indicated herein. Until acceptance, the Responder retains the sole insurable interest in the goods. (2) The shipper will prepay all transportation charges. The School District will not accept collect freight charges. (3) No premium carriers will be used for the School District's account without prior written consent of the Director of Purchasing.
- G. **PACKING:** All shipments will include an itemized list of each package's content, and reference the School District's Purchase Order Number. No charges will be allowed for cartage or packing unless agreed upon by the School District prior to shipment.
- H. **INSPECTIONS AND TESTING:** The School District will have the right to expedite, inspect and test any of the goods or work covered by this RFP. All goods or services are subject to the School District's inspection and approval upon arrival or completion. If rejected, they will be held for disposal at the Responder's risk. Such inspection, or the waiver thereof, however, will not relieve the Responder from full responsibility for furnishing goods or work conforming to the requirements of this RFP or the RFP Specifications, and will not prejudice any claim, right, or privilege the School District may have because of the use of defective or unsatisfactory goods or work.
- I. **STOP WORK ORDER:** The School District may at any time by written notice to the Responder stop all or any part of the work for this RFP award. Upon receiving such notice, the Responder will take all reasonable steps to minimize additional costs during the period of work stoppage. The School District may subsequently either cancel the stop work order resulting in an equitable adjustment in the delivery schedule and/or the price, or terminate the work in accordance with the provisions of the RFP terms and conditions.
- J. **INSURANCE AND INDEMNIFICATION:** The Responder agrees to indemnify and save harmless the School District, its officers, agents and employees from and against any and all claims and liabilities (including expenses) for injury or death of persons or damage to any property which may result, in whole or in part, from any act or omission on the part of the Responder, its agents, employees, or representatives, or are arising from any Responder furnished goods or services, except to the extent that such damage is due solely and directly to the negligence of the School District. The Responder will carry comprehensive general liability insurance, including contractual and product liability coverage, with minimum limits acceptable to the School District. The Responder will, at the request of the School District, supply certificates evidencing such coverage.
- K. **RISK OF LOSS:** The Responder assumes the following risks: (1) all risks of loss or damage to all goods, work in process, materials and equipment until the delivery thereof as herein provided; (2) all risks of loss or damage to third persons and their property until delivery of all goods as herein provided; (3) all risks of loss or damage to any property received by the Responder or held by the Responder or its suppliers for the account of the School District, until such property has been delivered to the School District; (4) all risks of loss or damage to any of the goods or part thereof rejected by the School District, from the time of shipment thereof to Responder until redelivery thereof to the School District.
- L. **LAWS AND REGULATIONS:** Responders will comply with all applicable Federal, State and Local laws, statutes and ordinances including, but not limited to the rules, regulations and standards of the Occupational Safety and Health Act of 1970, the Federal Contract Work Hours and Safety Standards Act, and the rules and regulations promulgated under these Acts. Responders agree not to discriminate against any employee or applicant for employment because of race, sex, religion, color, age or national origin.

All agreements as a result of an award hereto and all extensions and modifications thereto and all questions relating to its validity, interpretation, performance or enforcement shall be governed and construed in conformance to the laws of the State of Florida. The parties agree that jurisdiction for the resolution of any legal issues arising out of this contract shall be solely with the Circuit Courts of Escambia County, Florida. The parties hereby waive venue in any other forum.

- M. PUBLIC ENTITY CRIMES:** A Responder, person, or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a Proposal on a contract to provide any goods or services to a public entity for the construction or repair of a public building or public work, may not submit Proposals on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Florida State Statute, Section 287.017, for CATEGORY TWO for a period of thirty-six (36) months from the date of being placed on the convicted vendor list.
- N. PATENTS:** Responders agree to indemnify and save harmless the School District, its officers, employees, agents, or representatives using the goods specified herein from any loss, damage or injury arising out of a claim or suit at law or equity for actual or alleged infringement of letters of patent by reason of the buying, selling or using the goods supplied under this solicitation, and will assume the defense of any and all suits and will pay all costs and expenses thereto.
- O. CONFLICT OF INTEREST:** The award hereunder is subject to the provisions of Chapter 112 Florida Statutes. All Responders must disclose the name of any company owner, officer, director or agent who is an employee of the School District and/or is an employee of the School District and owns, directly or indirectly, an interest of five percent (5%) or more of the company.
- P. TERMINATION: DEFAULT.** The School District may terminate all or any part of a subsequent award by giving notice of default to Responder, if Responder: (1) refuses or fails to deliver the goods or services within the time specified; (2) fails to comply with any of the provisions of this RFP or so fails to make progress as to endanger performances, hereunder, or; (3) becomes insolvent or subject to proceedings under any law relating to bankruptcy, insolvency, or relief of debtors. In the event of termination for default, the School District's liability will be limited to the payment for goods and services delivered and accepted as of the date of termination. **CONVENIENCE.** The School District may terminate for its convenience at any time, in whole or in part any subsequent award. In which event of termination for convenience, the School District's sole obligations will be to reimburse Responder for (1) those goods or services actually shipped/performed and accepted up to the date of termination, and (2) costs incurred by Responder for unfinished goods, which are specifically manufactured for the School District and which are not standard products of the Responder, as of the date of termination, and a reasonable profit thereon. In no event is the School District responsible for loss of anticipated profit nor will reimbursement exceed the RFP value.
- Q. DRUG-FREE WORKPLACE:** Whenever two (2) or more RFPs are equal with respect to price, quality, and service, an RFP received from a business that certifies that it has implemented a drug-free workplace program as defined by Section 287.087 Florida Statutes, will be given preference in the award process.
- R. PERFORMANCE:** In an effort to reduce the cost of doing business with the School District, and unless indicated elsewhere, no bid or performance bond is required. However, upon award and subsequent default by Responder, the School District reserves the right to pursue any or all of the following remedies: (1) to accept the next lowest available RFP price or to purchase materials or services on the open market, and to charge the original awardees for the difference in cost via a deduction to any outstanding or future obligations; (2) the Responder in default will be prohibited from activity for a period of time determined by the severity of the default, but not exceeding two (2) years; (3) any other remedy available to the School District in tort or law.
- S. AUDIT AND INSPECTION:** The District or its representative reserves the right to inspect and/or audit all the Responder's documents and records as they pertain to the products and services delivered under this Agreement. Such rights will be exercised with notice to the Responder to

determine compliance with and performance of the terms, conditions and specifications on all matters, rights and duties, and obligations established by this Agreement. Documents/records in any form shall be open to the District's representative and may include but are not limited to all correspondence, ordering, payment, inspection and receiving records, and contracts or sub-contracts that directly or indirectly pertain to the transactions between the District and the Responder.

- T. SAMPLES AND BRAND NAMES: BRAND NAMES.** Specifications referencing specific brand names and models are used to reflect the kind and type of quality in materials and workmanship, and the corresponding level of performance the School District expects to receive as a minimum. Responders offering equivalents or superior products to the brand/model referenced will: (1) reference on the RFP in the space provided the manufacturer's name, brand name, model and/or part number; (2) next to the price, indicate "ALT" to reflect an alternate offering; (3) where no sample is provided with the RFP, enclose sufficient technical specification sheets and literature to enable the District to reach a preliminary evaluation; (4) agree to any request by the District for submission of a sample or to provide its product on-trial or demonstration, whichever the District may deem appropriate, at no charge to the District. The District reserves the right to determine the acceptability of any alternatives offered. **SAMPLES.** Any sample requested by this RFP or to be provided at the Responder's option, should be forwarded under separate cover to the attention of the Purchasing Office of the District. The package or envelope will reference the RFP Number, RFP Title, and RFP Item Number and clearly marked "Samples". All samples will be provided free of charge, including transportation charges. Responders are responsible for notifying and making arrangements for pick up from the District if a return of samples is expected. All samples unclaimed for thirty (30) days will be disposed of at the discretion of the District.
- U. EVALUATION CRITERIA:** Primary factors used to decide the award hereunder will be price, quality, availability, vendor experience, references, and responsiveness. Other factors that may be used in the evaluation of Proposals received will be: (1) administrative costs incurred by the District in association with the discharge of any subsequent award; (2) alternative payment terms; (3) Responder's past performance. The School District reserves the right to evaluate by lot, by partial lot, or by item, and to accept or reject any Proposal in its entirety or in part, and to waive minor irregularities if the Proposal is otherwise valid. In the event of a price extension error, the unit price will be accepted as correct. The School District has sole discretion in determining testing and evaluation methods. The School District may consider in conjunction to any award hereunder, those products, services and, prices available to them through contracts from state, federal, and local government agencies or other school districts within the State of Florida.
- V. CLARIFICATIONS AND INTERPRETATIONS:** The School District reserves the right to allow for clarification of questionable entries, and for the Responder to withdraw items with obvious mistakes. Any questions concerning terms, conditions or specifications will be directed to the designated Purchasing Agent referenced on the RFP Acknowledgement. Any ambiguities or inconsistencies shall be brought to the attention of the designated Purchasing Agent, in writing, no later than **Monday, September 21, 2020 at 5:00 p.m., CST**. Failure to do so, on the part of the Responder will constitute an acceptance by the Responder of consequent decision. An addendum to the RFP shall be issued and posted for those interpretations that may affect the eventual outcome of this solicitation. It is the Responder's responsibility to assure the receipt of all addendum issued. No person is authorized to give oral interpretations of, or make oral changes to the RFP. Therefore, oral statements given before the RFP opening date will not be binding. The School District will consider no interpretations binding unless provided for by issuance of an addendum. Addenda will be posted to the School District's Purchasing website address at <http://ecsd-fl.schoolloop.com/purchasing/bids> on or before **Monday, September 28, 2020 at 5:00 p.m., CST**. The Responder shall acknowledge receipt of all addenda by signing and enclosing said addenda with their Proposal.
- W. RFP TABULATIONS, RECOMMENDATIONS, AND PROTEST:** RFP tabulations with award recommendations are posted for seventy-two (72) hours in the Purchasing Office and are also posted to the School District's Purchasing website address at <http://ecsd-fl.schoolloop.com/purchasing/bids>. Failure to file a protest within the time prescribed in Section 120.57(3) Florida State Statutes will constitute a waiver of proceedings under Chapter 120,

Florida State Statutes and School Board Rules. RFP tabulations, recommendations or notices will not be automatically mailed.

- X. **CONTACT:** All questions for additional information regarding this RFP **must be directed to the designated Purchasing Agent noted on page one (1)**. Prospective Responders shall not contact any member of the Escambia County School Board, Superintendent, or staff regarding this solicitation prior to posting of the final tabulation and award recommendation on the website and in the Purchasing Office. Any such contact shall be cause for rejection of your Proposal.
- Y. **PROPOSAL PREPARATION COSTS:** Neither the School District nor its representatives shall be liable for any expenses incurred in connection with the preparation of a response to this Proposal.
- Z. **AGREEMENT FORM:** All subsequent agreements as a result of an award hereunder, shall incorporate all terms, conditions and specifications contained herein, and in response hereto, unless mutually amended in writing.
- AA. **ADDITIONAL TERMS AND CONDITIONS:** The School District reserves the right to reject offers containing terms and/or conditions contradictory to those requested in this solicitation.

### III. SPECIAL CONDITIONS

These "SPECIAL CONDITIONS" are in addition to or supplement Section II GENERAL TERMS AND CONDITIONS. In the event of a conflict these SPECIAL CONDITIONS shall have precedence.

- A. **LICENSES:** Responder must be licensed to do business in Escambia County, Florida and/or the State of Florida. If a Contractor is located within Escambia County, FL, and fails to provide a copy with their proposal, the Responder's Proposal may be rendered non-responsive. Non-Florida businesses shall submit documentation from the state in which the business was formed and documentation from the State of Florida providing authorization to perform business in the state of Florida. Responder shall also hold and maintain any certifications and/or licenses required to provide work under this Agreement. Electrical or other licenses need to be issued or recognized by the Department of Business and Professional Regulations, Florida. All licenses shall be current and active for the duration of the project.
- B. **BACKGROUND SCREENING REQUIREMENTS:** The successful Responder will comply with all requirements of Sections 1012.32 and 1012.465, Florida Statutes, by certifying that the vendor and all of its employees who provide services under this contract have completed the background screening required by the referenced statutes and meet the standards established by the statutes. This certification will be provided to the school in advance of the vendor providing any services on campus while students are present. The vendor will bear the cost of acquiring the background screening required by Section 1012.32, F.S., and any fee imposed by the Florida Department of Law Enforcement to maintain the fingerprints provided with respect to vendor and its employees. The vendor will follow the procedures for obtaining employee background screening as outlined on the Escambia County School District Website: <http://ecsd-fl.schoolloop.com>. The parties agree that in the event that vendor fails to perform any of the duties described in this paragraph, this will constitute a material breach of the contract entitling school to terminate immediately with no further responsibility to make payment or perform any other duties under this contract. Vendor agrees to indemnify and hold harmless school, its officers and employees from any liability in the form of physical injury, death, or property damage resulting from vendor's failure to comply with the requirements of this paragraph or Sections 1012.32 and 1012.465, Florida Statutes.
- C. **THE RESPONDER AS AN INDEPENDENT CONTRACTOR:** The Responder shall have sole control over the manner and means of providing the services performed under this Agreement. The Responder's relationship to the District under this Agreement shall be that of an Independent Contractor. The Responder will not be considered an agent or employee of the District for any purpose.

As an Independent Contractor, the Responder is responsible for all taxes incident to payments for services herein, including without limitation, all state and federal income taxes payroll and other taxes, and Workers' Compensation.

- D. CONFLICT OF INTEREST:** The Responder affirms that, to the best of its knowledge, there exists no actual or potential conflict between the Independent Contractor's family, business, or financial interests and its services under this Agreement; and, in event of change in either its private interests or services under this Agreement, the Responder will raise with the District any questions regarding possible conflict of interest which may arise as a result of such change.
- E. COMPLIANCE WITH LAWS:** The Responder agrees to comply with all applicable laws, statutes, regulations, rulings, or enactments of any governmental authority. The Responder shall obtain from third parties, including State and local governments, all licenses and permissions necessary for the performance of the work.
- F. GOVERNING LAWS:** This Agreement is to be governed and construed in accordance with the laws of the State of Florida. The parties agree that jurisdiction for the resolution of any legal issues arising out of this contract shall be solely with the Circuit Courts of Escambia County, Florida. The parties hereby waive venue in any other forum.
- G. EXAMINATION OF RECORDS:** The Responder agrees that the District, the Comptroller General of the United States of America and/or the Inspector General of the Federal Sponsoring Agency, and the Auditor General of the State of Florida or their duly authorized representatives shall have access to, and the right to examine, any directly pertinent books, papers, and records of the Responder involving transactions related to this Agreement until the expiration of five (5) years after final payment under this Agreement or such longer period as required by law.
- H. EX PARTE COMMUNICATION:**
1. Ex parte communication, whether verbal or written, by any potential Responders or representatives of any potential Responders to this solicitation with District personnel involved with or related to this RFP, other than as expressly designated in this document, is strictly prohibited. Violation of this restriction may result in the rejection/disqualification of the Responders' offer.
  2. Ex parte communication whether verbal or written, by any potential Responders or representative of any potential Responders to this solicitation with District Board members is also prohibited and will result in the rejection/disqualification of the Responders' offer.
  3. Any current meetings the Responder has with District staff and administration, or instructional personnel, shall at no time include any conversation regarding the RFP.
- I. COVENANT AGAINST CONTINGENT FEES:** The Responder warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon an Agreement or understanding for a commission, percentage, brokerage, or contingency fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Independent Contractor for purposes of securing business. For breach or violation of this warranty, the District shall have the right to annul this Agreement without liability, or, in its discretion, to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage or contingent fee.
- J. INVOICING AND PAYMENTS:** The Contractor must submit a detailed, itemized invoice within twenty (20) calendar days after post-inspection or training, whichever happens last, which will include the Purchase Order number for this project. The Purchase Order will be provided within five (5) days of the Agreement start date.

The District has fifteen (15) business days after receipt of invoice to notify the Contractor if an invoice appears incorrect. Once notified, the Contractor must provide all documentation necessary to validate pricing listed on the invoice to the requesting District representative within ten (10) business days. In the event additional time is required to obtain the necessary documentation, the Contractor will notify the District designee within five (5) business days and provide a specified date that the documentation will be ready, which will not exceed thirty (30) days from the date of the notification. Furthermore, the Contractor agrees that payment for the invoice in question will be held, without penalty to the District, until the requested documentation has been provided and reviewed by the District.

Any bill, invoices, statement or other claim for funds due submitted more than ninety (90) calendar days after the post-inspection or training, whichever happens last, has been completed may be deemed waived.

- K. COMMUNICATION AND QUESTIONS:** Due to time constraints, it is recommended Responders send any questions they may have regarding this solicitation to the designated Purchasing Agent below using a method that can be tracked (email, certified mail, overnight courier, etc.); email is preferred. The deadline for submitting questions concerning this RFP is **Monday, September 21, 2020 at 5:00 p.m., CST.**

All changes in the specifications contained within this RFP will be made by Addendum. All Addendums concerning this RFP will be posted to the Purchasing Department's webpage located at <http://ecsd-fl.schoolloop.com/purchasing/bids>. It is the sole responsibility of each Responder to contact the Purchasing Agent responsible for this solicitation or visit the District's website to determine if any Addendums have been issued in order to obtain said Addendum(s). Any applicable Addendums and/or responses to questions received will be posted to the Purchasing Department's Current Bid Activity webpage by **Monday, September 28, 2020 at 5:00 p.m., CST.**

In order for the Escambia County School District, Florida to ensure fair and equal treatment of all participating Responders, the below named individual is the District's only designated representative for this RFP. Responders shall contact this representative for all information regarding this RFP. **Responders who contact any other District employee, staff, Board members, or plan developer regarding this RFP are subject to disqualification from participating in this solicitation.**

David Romero, Purchasing Agent  
Purchasing Department  
Escambia County School District  
75 N. Pace Blvd.  
Pensacola, FL 32505  
Email: [dromero@ecsdfl.us](mailto:dromero@ecsdfl.us)

- L. FORCE MAJEURE:** A "Force Majeure Event" is defined as fire, flood, earthquake, acts of God, wars, riots, civil unrest, vandalism, acts of terrorism, or any other similar cause beyond the reasonable control of either Party (the District or the Responder) which make it illegal, impossible, or unreasonable for the Party to perform as originally contracted under this Agreement. Force Majeure does not apply where the non-performing Party is at fault in failing to prevent or causing the default or delay or if the default or delay cannot reasonably be circumvented by the non-performing Party through the use of alternate sources, workaround plans, or other means. In the event that a Force Majeure Event prevents the Responder from executing its responsibilities under this Agreement, the Responder must immediately notify the District. The District will not hold the Responder in default of this Agreement if the Responder's non-performance is directly caused by a Force Majeure Event. A strike, lockout, or labor dispute shall not constitute a Force Majeure Event and shall not excuse the Responder from its obligations under this Agreement.

- M. PROHIBITION AGAINST CONTRACTING WITH SCRUTINIZED COMPANIES:** In accordance with Chapters 215 and 287, Florida Statutes, the District is prohibited from, or limited in its ability to, contract with companies on the Scrutinized Companies lists created pursuant to Ch. 215, Florida Statutes. This includes companies with activities in Sudan, with activities in the Iran Petroleum Sector, and/or companies which boycott Israel. "Companies" is defined to include "all wholly owned subsidiaries, majority-owned subsidiaries, parent companies, or affiliates of such entities or business associations that exists for the purpose of making profit." By submitting a response to this solicitation, a respondent certifies that it and all related entities of respondent as defined above are not on such Scrutinized Companies lists. The respondent is specifically required to complete the State of Florida Vendor Certification Regarding Scrutinized Companies Lists form included within this solicitation (Attachment E). Any multi-year agreement award resulting from this solicitation shall further require the awarded vendor to recertify prior to each renewal of the agreement that it and its related entities are not on statutory Scrutinized Companies lists. The School Board (or District) may terminate any agreement resulting from this solicitation if the vendor or a related entity as defined above is found to have submitted a false certification

or been placed on a statutory Scrutinized Companies list. Notwithstanding the preceding, the District reserves the right to and may permit a company on such lists to be eligible for, bid on, submit a proposal for, or enter into or renew a contract, should the District determine, on a case-by-case basis and in its sole discretion, that the conditions set forth in Section 287.135(4) are met.

**N. ADDITIONAL FEDERAL REQUIREMENTS:** While not provided as separate certifications in this RFP, by signing this Proposal, the signatory attests to the applicable certification provisions listed below:

1. Title VI of Civil Rights Act of 1964, as amended, USDA regulations implementing Title IX of the Education Amendments, Section 504 of the Rehabilitation Act of 1973, Age Discrimination Act of 1975, 7 C.F.R. Parts 15, 15a and 15b, and FNS Instruction 113-1, Civil Rights Compliance and Enforcement-Nutrition Programs and Activities, and any additions or amendments.
2. The Clean Air Act (42 U.S.C. § 7401 et seq.), the Clean Water Act (33 U.S.C. § 1311–1330, § 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 C.F.R. § 1.1 et seq.).
3. Certification Regarding Lobbying pursuant to 31 U.S.C. 1352 (Appendix A: 7 C.F.R. Part 3018).
4. Disclosure of Lobbying Activities pursuant to 31 U.S.C. 1352 (Appendix A: 7 C.F.R. Part 3018).
5. Energy Policy and Conservation Act (Pub. L. 94–163, 89 Stat. 871).
6. Contract Work Hours and Safety Standards Act (29 C.F.R. Part 5). 9
7. Executive Order 11246, entitled Equal Employment Opportunity, as amended by Executive Order 11375 and Department of Labor Regulation (41 C.F.R. Chapter 60).
8. Copeland “Anti-Kickback” Act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 C.F.R. Part 3).
9. Davis-Bacon Act (40 U.S.C. 276a to 276a-7) as supplemented by Department of Labor regulations (29 C.F.R. Part 5).
10. The vendor is subject to the provisions of Section 2209d of Title 7 of the United States Code due to the use of federal funds for the food service program. All announcements and other materials publicizing this program must include statements as to the amount and proportion of federal funding involved.
11. Rights to Inventions Made Under a Contract or Agreement (2 CFR 200.326 Appendix II (F)).
12. Procurement of Recovered Materials and Solid Waste Act (2 CFR 200.322).
13. Breach of Contract [2 CFR Appendix II to Part 200 (b)].
14. Byrd Anti-Lobbying [2 CFR 200.326 Appendix II (J)].

Minority/Disabled Service Veteran Suppliers are encouraged to register with the Florida Department of Management Services Office of Supplier Diversity at: <https://osd.dms.myflorida.com>

**O. MISCELLANEOUS:**

1. The District will not be liable for any cost incurred in the preparation of Proposals.
2. The submission of a Proposal shall be prima facie evidence that the Responder has full knowledge of the scope, nature, quantity and quality of work to be performed; the detailed requirements of the specifications; and the conditions under which the work is to be performed.

3. The Responder shall furnish the District such additional information as the District may reasonably require.
4. The District will not be liable for any costs not included in the Proposal and subsequent contracted-for-costs.
5. The District reserves the right to reject any and all Proposals, and the right, in its sole discretion, to accept the Proposal it considers most favorable to the District's interests. The District further reserves the right to reject all Proposals and to seek new Proposals when such a procedure is reasonable and in the best interest of the District.
6. The District reserves the right to waive any of the conditions or criteria set forth in this RFP.
7. The Agreement cannot be assigned to a subcontractor without the prior written approval of the District.
8. The District reserves the right to purchase unlimited quantities of services under this Agreement for any facility operated by the District.
9. The District reserves the right, in its sole discretion, to increase and/or decrease the frequency of any services provided under this Agreement.
10. The District reserves the right, in its sole discretion, to add and/or remove equipment to or from this Agreement.

#### **IV. DISPUTE**

Any person or company whose substantial interests are directly and adversely affected by the award or intended award of a bid, RFP, or contract may file a protest in accordance with the rules set forth herein.

- A. The District reserves the right to reject all Proposals submitted and re-solicit at any time during the solicitation process.
- B. Solicitation award recommendations and tabulations will be posted for seventy-two (72) hours in the Purchasing and Business Services Department and on its website. Failure to file a "Notice of Protest" during this seventy-two (72) hour period, or failure to post the bond or other security required by law within the time allowed for filing a bond shall constitute a waiver of proceedings under School Board Rule and Florida Statutes. It is the Contractor's responsibility to insure timely filing and receipt of protest by the Purchasing and Business Services Department.
- C. Within ten (10) days, not including Saturdays, Sundays and state holidays, of filing the Notice of Protest, the Protester shall file a formal written protest with the Purchasing and Business Services Office. The formal written protest shall state with particularity the facts and law on which the protest is based. At the time of filing the formal written protest, the Protester shall post a Protest Bond to defray the costs incurred by the Board in considering the protest. The Bond, payable to the Board, shall be in the amount equal to five percent (5%) of the estimated amount of the contract or ten thousand dollars (\$10,000.00), whichever is greater, not to exceed twenty-five thousand dollars (\$25,000.00).
  1. The Protest Bond shall be in the form of a surety bond, cash, or certified funds, and shall be conditioned upon payment of all costs and charges which may be incurred by the Board in considering the protest if the Board prevails. In the event the Protest is withdrawn prior to a formal hearing or the Protester prevails as determined by the findings of an independent Hearing Officer, the Bond will be refunded to the Protester.
  2. Failure to file the Notice of Protest, formal written protest, and/or Protest Bond within the time permitted shall constitute a waiver of proceedings under Board Rules and Florida Statutes. The Protester has the responsibility to insure timely filing of the Notice of Protest, formal written protest and/or Protest Bond and receipt of same by the Purchasing and Business Services Office.

- D. Communications shall continue between the Protester and the Purchasing and Business Services Department and/or their legal counsel for seven (7) days, not including Saturdays, Sundays and state holidays from filing the formal written protest in an effort to mutually resolve the protest. The Parties may mutually extend the seven (7) workday time period. If the subject of a protest is not resolved by mutual agreement within seven (7) days, excluding Saturdays, Sundays, and state holidays, after receipt of the formal written protest, the Board shall refer the protest to the Florida Division of Administrative Hearings (DOAH).
- E. The Florida Division of Administrative Hearings (DOAH) will assign an Administrative Law Judge (ALJ) to serve as an impartial Hearing Officer. A date, time and location will be set for an administrative hearing within thirty (30) days.
1. The Parties shall arrange to have all witnesses and evidence present at the time and place of hearing. Subpoenas will be issued by the ALJ upon request of the Parties. All Parties have the right to present oral argument and to cross-examine opposing witnesses. All Parties have the right to be represented by counsel or other qualified representative, in accordance with Florida Administrative Code Rule 28-106.106. Failure to appear at this hearing may be grounds for closure of the file without further proceedings.
  2. The ALJ shall render his findings of fact and ruling of law. Each Party shall be allowed ten (10) days in which to submit written exceptions to the recommended order. A final order shall be submitted within thirty (30) days of the entry of the recommended order to the School Board to be adopted for resolution and disposition of the protest.
  3. If the Protester prevails, the Board shall return the Protest Bond to the Protester.

If the Board prevails, the Protester will submit payment for all costs and charges, such as ALJ and court reporter fees. Each Party will be responsible for their own attorney fees regardless of the findings of the ALJ. Upon settlement of all cost and charges, the Protest Bond will be returned to the Protester.

## V. EVALUATION CRITERIA

Points will be awarded based on the responses in each proposal received. The number of points in parenthesis is the total potential points for award. Points awarded by each member of the evaluation committee will be averaged and rounded to the next whole point to determine the total quantity of points awarded in each of the below categories.

### A. QUESTIONNAIRE AND RESPONSE (60 POINTS):

1. Responses to each paragraph in Section VIII.A. shall be awarded some number of points up to the maximum number stated. A possible total of twenty-five (25) points will be available for this section.
2. The evaluation committee will determine scores for Section VIII.B. A possible total of thirty-five (35) points will be available for this section.

**B. PRICE PROPOSAL (40 POINTS):** The maximum total points will be awarded to the Responder with the most responsive and competitive Price Proposal. All other Responders will be awarded less than the total maximum points based on their comparison to the most responsive and competitive Price Proposal.

Lack of a response for any item above may result in zero (0) points for that item. All attachments shall be clearly marked and reference the appropriate item. Additional information may be submitted by the Responder; however, the evaluation committee shall be solely responsible for determining the weight such information will be assigned, if any. Responses received which do not contain ALL items listed in this section may be considered non-responsive at the sole discretion of the District. An Agreement will be awarded to the Responder(s) deemed to be, overall, the most responsive and capable to meet and perform according to the RFP's specifications and scope of work for services.

### C. PROPOSAL EVALUATION PROCESS AND DISTRICT'S RIGHTS AND RESERVATIONS:

1. Proposals are received and publicly opened. Only the names of the Responders are read at the proposal opening.

2. An Evaluation Committee will convene, review, and evaluate all Proposals submitted based on the factors set forth in the RFP. The District reserves the right to waive any irregularities and technicalities. The District reserves the right to accept or reject any or all Proposals. Purchasing personnel will participate in an administrative and advisory capacity only.
3. The Evaluation Committee reserves the right to interview any or all Responders and to require a formal presentation with the key people who will administer and be assigned to work on the contract before recommendation of award. This interview is to be based upon the written Proposal received. The District will not be liable for any costs incurred by the Responder in connection with such interviews (i.e., travel, accommodations, etc.).
4. All Proposals will be evaluated in accordance with the evaluation criteria specified in this document. Information derived by investigation and overall due diligence of District staff will be considered. Based on the Proposals received, the District may elect to proceed based on any of the following options, but will not necessarily be limited only to these options: (1) Award to the best initial Proposal without any further discussion or negotiation; (2) Negotiate with the highest ranked Responder; or, (3) Allow the top ranked Responders to make oral presentations.
5. Responders are advised to provide their best offer with the initial Proposal because the District reserves the right to award a Contract based on initial Proposals without further discussion or negotiation. The District reserves the right, before awarding the Contract, to require Responder(s) to submit additional evidence of qualifications or any other information the District may deem necessary.
6. The District, in its sole discretion, will select the Proposal(s) most advantageous to the District. The District reserves the right to negotiate out unacceptable clauses or restrictions incorporated within an otherwise acceptable Proposal. The District reserves the right to further negotiate any Proposal, including price. In the event that a mutually acceptable contract between the District and the selected Responder(s) cannot be successfully negotiated and executed, the District reserves the right to discontinue negotiations with such Responder(s) and to negotiate and execute a Contract with the next-ranked Responder(s).
7. The District reserves all rights, in its sole discretion, not to issue an award to any Responder, to cancel this RFP at any time, to reissue this RFP for any reason, or a combination of any or all of the above. The District will not be liable to any Responder for any costs incurred in connection with this RFP as a result of any of the above stated actions taken by the District.
8. The Purchasing Department will prepare and submit a recommendation agenda item to the Superintendent of Schools, Escambia County, Florida. The Superintendent will then recommend the award(s) to the School Board. The School Board will then approve or reject the recommendation.

## **VI. PREPARATION AND SUBMISSION REQUIREMENTS**

Proposals not conforming to the instructions provided herein may be subject to disqualification at the sole discretion of the District.

### **A. MANDATORY PRE-PROPOSAL CONFERENCE:**

There will be a Mandatory Pre-Proposal Conference held at the District's McDaniel Building located at 75 North Pace Boulevard in Pensacola, Florida 32505 on **Wednesday, September 16, 2020 from 11:00 AM to 12:00 PM, Central Time in the HR Conference Room.**

**Please allow sufficient time for check in. All attendees shall bring and wear a mask while in the conference. We will recap the RFP and highlight critical points and then take a guided tour to the location of the current UPS system. This meeting will be recorded and all questions will be answered as a part of the questions and answers period. Please be advised that answers received during the conference are subject to change and only the**

answers provided via posting to the District's website on September 28, 2020 will be considered "Final".

Proposals will ONLY be accepted from Responders who attend the Mandatory Pre-Proposal Conference. Due to limited space, the maximum number of attendees from any entity will be limited to two (2).

- B. SUBMISSION REQUIREMENTS:** All documents listed below must be returned in their entirety. **Failure to return all pages of the entire document or any of the listed items will subject the Proposal to disqualification as indicated below.** Once accepted, all originals and any copies of Proposals become the sole property of the District and may be retained or disposed of by the District in any manner which the District deems fit. Modifications or alterations to this RFP document are prohibited and may result in the rejection of your Proposal.
1. **The entire RFP document (Pages 1 - 60) must be returned.** The signature on the first page must be an original signature. No fax or email documents will be accepted. In the event that the Responder makes an error on entering any information and enters a correction, the Responder shall initial the change(s). Any Proposal submitted with strike over or white out corrections that are not initialed may be rejected as a non-responsive Proposal.
  2. **Return your original Proposal and eight (8) copies.** The copies must be a photocopy of your original Proposal and there shall be no differences in the RFP document or attached enclosures. Any difference or failure to include RFP attachments in both sets may cause your Proposal to be rejected. **Please mark all copies as "COPY". RFP documents may be printed double-sided with left margin, book-style binding.** Your original Proposal and your eight (8) copies, excluding your Price Proposal, must be submitted in a sealed envelope which must be clearly labeled "**RFP #201206 – ECSD – UPS REPLACEMENT FOR VERNON MCDANIEL BUILDING**" on the outside of the package.
  3. **Copy of Responder's current business license and any applicable contractor licenses as referenced in Section III.A.**
  4. **Price Proposal:** This form must be completed **in its entirety** and signed in the space provided. Original Price Proposals and a photocopy must be provided in a **separate, sealed envelope** which must be clearly labeled "**PRICE PROPOSAL: RFP #201206 – ECSD – UPS REPLACEMENT FOR VERNON MCDANIEL BUILDING.**" Failure to return this form will result in your Proposal not being accepted.
  5. **Response to Questionnaire Attachments:** The following items must be provided and attached to the Responder's Proposal. Failure to provide any of the requested items may result in your Proposal not being accepted.
    - i. **Company Background and Experience:** This information must be provided per Section VIII.A. (See Pages 14 - 15).
    - ii. **References:** This information must be provided per Section VIII.A.3 (See Page 15)
  6. **Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – Lower Tier Covered Transactions:** This form must be completed in its entirety, signed, and returned with the Responder's Proposal. Failure to return this form will result in your Proposal not being accepted. Refer to Attachment A.
  7. **Escambia School District Risk Management Addendum:** This form must be initialed and returned with the Responder's Proposal. Refer to Attachment B. Contractor shall furnish proof of the required insurance by certificate of insurance thirty (30) days prior to the start of term.
  8. **Escambia School District Public Records Addendum:** This form must be initialed and returned with the Responder's Proposal. Refer to Attachment C.

9. **Drug Free Workplace:** This form while not required, will be a determining factor in award between two (2) Proposals equal in price, quality, and service. If submitting, this form must be signed and returned with the Responder's Proposal. Refer to Attachment D.
10. **Vendor Certification Regarding Scrutinized Companies Lists:** This form must be completed in its entirety, signed, and returned with the Responder's Proposal. Refer to Attachment E.

A Submission Checklist has been provided in Attachment F to assist Responders in ensuring that their respective Proposal includes all of the required documents and attachments. **All Proposals and pricing must be received no later than Friday, October 9, 2020 at 2:00 p.m., CST**

## VII. SPECIFICATIONS AND SCOPE OF WORK OR SERVICES

The District is looking for a turnkey solution for the replacement and disposal of the current UPS, located at 75 North Pace Blvd., Pensacola, FL 32505, and is interested in purchasing an additional, optional maintenance plan after the initial warranty term. All services and material provided will be in accordance with Attachment G, Vernon McDaniel Building Uninterruptible Power Supply (UPS) System Replacement Manual. All equipment and material must be new. Any used, refurbished, damaged, or deteriorated equipment and material will not be accepted. Any gray market goods will be not accepted. Gray market goods are defined as the trading of goods through distribution channels which are unofficial, unauthorized, or unintended by an original manufacturer. Make and models listed in Attachment G are provided as the basic level of expectation.

**Language that has been "struck" in Attachment G is deemed not applicable to this RFP or has been addressed in Section VII and VIII.**

## VIII. QUESTIONNAIRE AND RESPONSE (MAXIMUM – 60 POINTS)

Responder shall provide the information requested in this section as an attachment – Response to Questionnaire Attachments and submit it in the manner prescribed in Section V and VI (Pages 11-14).

- A. **COMPANY BACKGROUND, EXPERIENCE, AND REFERENCES (MAXIMUM – 25 POINTS):**
  1. **Company Biography (Maximum – 4 Points):** Provide a brief company biography, limited to two (2) pages, to include:

General information on the company to include, number of years in business, the location of Corporate headquarters, the location of the office from which the work for the District would be performed, and the company's primary business focus.
  2. **Company Structure and Experience (Maximum – 15 Points):** The Responder must be capable of providing a turnkey solution. To assist in the evaluation of the size and expertise of the Responder's staff, please provide the following information:
    - a. Provide the Responder's point of contact information, including the name, email, and phone number if the District will have a single point of contact. If you plan to have multiple designated contacts, describe each person's area of responsibility and provide their contact information. If the District will not have any designated contacts-single or multiple, describe the support services structure the District should expect.
    - b. State the number and names of full-time and part-time employees employed by the Contractor who will provide service to the District under this Agreement as well as their years of experience in this field and provide proof of any relevant licenses and/or any certifications they possess.
    - c. Provide a copy of your business license and contractor licenses as referenced in Section III.A.

- d. Will the Responder require the use of a subcontractor to provide the requested services listed in this RFP? If you plan to use sub-contractors to perform services, then please provide a one (1) page explanation of who the sub-contractor(s) is/are and how and when they will be utilized.

**Note: Anyone on the convicted vendor list following a conviction for a public entity crime may not perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Florida State Statute, Section 287.017, for CATEGORY TWO for a period of thirty-six (36) months from the date of being placed on the convicted vendor list.**

3. **References (Maximum – 6 Points):** Provide a list of no more than three (3) references for which you have performed services similar to those proposed in this RFP within the last five (5) years. The reference list shall include: the client's name, address, contact name, phone number, email address (if available), and a brief description of the work done. By providing the reference information, you are authorizing the District to contact the reference to ask questions and obtain information relative to your performance. One reference citing a District project may also be considered in this section.

**B. PERFORMANCE PARAMETER COMMITMENT (MAXIMUM – 35 POINTS):** The District is interested in finding out timelines, catastrophe responses, trainings, warranty information, and maintenance agreements.

1. **Timeline:** Describe in detail the estimated timeline it will take to complete the project.

**Note: Any hardship, i.e. disruption of utilities, incurred by the District related to this RFP to include, as applicable, permitting, ordering, shipping, and install time frames will be at the vendors expense and should last no longer than two (2) days.**

**The target install period from start to finish is March 15-19, 2021.**

2. **Catastrophe Response:** The District has experienced interruptions in other lengthy projects in the past due to catastrophes such as hurricanes. Provide a plan to deal with catastrophes that could be experienced by the District or by your organization. Include a ranking of the District's priority in relation to other entities within government, private and public sectors in the event that your organization's services are requested. Also state the number of current contracts for those entities.
3. **Training:** A training session of a minimum of four (4) hours shall be provided as described in Attachment G to key District personnel. Provide an outline for the training session detailing the unit(s), operation of the unit(s), applicable software, failovers, fail safes, fail secures, wiring maps, and required maintenance.
4. **Warranty and Maintenance:** State verification of your commitment to warranty requirements listed in the Vernon McDaniel Building Uninterruptible Power Supply (UPS) System Replacement Manual (Attachment G), which includes a three (3) year warranty and an added maintenance plan during the warranty period. The warranty will cover the cost of any and all parts, material, supplies, and equipment as well as related labor required to return the system to its proper working condition. The maintenance plan will include scheduled maintenance and testing of the UPS system. Each Proposal should clearly acknowledge the Responder's warranty and maintenance policy period, exclusions, acceptable warranty repair rate, and if a Maintenance Bond will be provided.
5. **Maintenance Service Agreement (No points will be awarded for this item):** Provide a Maintenance Service Agreement which would begin after the initial warranty period of three (3) years. The service agreement should include scheduled maintenance, service calls, and service repair warranty information.

While requested, the District reserves the right to not purchase the additional Maintenance Service Agreement. If Responder elects to not provide a response to this item, please include a statement with your Proposal.

6. **Badging:** Proposal will affirm commitment to obtaining badges for all employees as required in accordance with Section III.C., which will be maintained for the duration of award Term and subsequent renewals, as applicable. Further, Proposer will affirm that only employees holding valid, current badges will be allowed on District property to perform on-site work. Proof of badging must be provided no later than thirty (30) days following award to the Purchasing Agent responsible and listed for this solicitation.
7. **Permits and Authorizations:** List anticipated applicable permits that will be obtained to perform this work. If authorizations for utility companies will be anticipated, please provide this information as well.

## **IX. PRICE PROPOSAL (MAXIMUM – 40 POINTS)**

In a separate sealed envelope, provide a completed Price Proposal for the services described in Section V – Evaluation Criteria and include the manufacturer specifications for all components. No pricing will be given consideration until all Proposals are evaluated based on qualification items in the above Section VIII – Questionnaire and Response. The award of points will be based on letter “A”. Letter “B” is for the convenience of the District should an additional Maintenance Service Agreement be desired.

Pricing should be separated as follows:

- A. Turnkey pricing for the replacement and removal of the current UPS system as detailed in the RFP.
- B. (Optional) Maintenance Service Agreement cost.

## ATTACHMENT A

### CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION – LOWER TIER COVERED TRANSACTIONS

This certification is required by the regulations implementing Executive Order 12549, Executive Order 12689, and 31 U.S.C. 6101; Debarment and Suspension, 2 CFR Part 417, Subpart C, Responsibilities of Participants Regarding Transactions Doing Business with Other Persons.

**(Please read instructions below before completing Certification)**

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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ORGANIZATION NAME

SPONSOR AGREEMENT NUMBER OR PROJECT NAME

---

NAME(S) AND TITLE(S) OF AUTHORIZED REPRESENTATIVE(S)

---

SIGNATURE(S)

DATE

1. By signing and submitting this form, the prospective lower tier participant is providing the certification above in accordance with these instructions.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

**ATTACHMENT B**

**ESCAMBIA SCHOOL DISTRICT RISK MANAGEMENT ADDENDUM (REGULAR)**

Anything in the foregoing agreement to the contrary notwithstanding, each Signer thereof (other than the School Board, the Superintendent of Schools, the School District, their officers, agents and employees) hereby agrees to:

**A. HOLD HARMLESS/INDEMNIFICATION AGREEMENT:**

1. Save and hold harmless, pay on behalf of, protect, defend, and indemnify the School Board, (including the Superintendent of Schools, the School District, their officers, agents, and employees) from and against any demand, claim, suit, loss, expense, or damage which may be asserted against any of them in their official or individual capacities by reason of any alleged damage to property, or injury to, or death of any person arising out of, or in any way related to, any action or inaction of the Signer (including its sub-contractors, officers, agents, and employees) in the performance or intended performance of this agreement, or the maintenance of any facility, or the operation of any program, which is the subject of, or is related to the performance of this agreement. The obligations of the Signer pursuant to this paragraph shall not be limited in any way by any limitation in the amount or type of proceeds, damages, compensation, or benefits payable under any policy of insurance or self-insurance maintained by or for the use and benefit of the Signer.

**B. REQUIRED INSURANCE:**

- 1. Maintain, keep in full force and effect during the term of this agreement and any extensions and renewals thereof, and furnish to the undersigned good and sufficient evidence of general liability and auto liability insurance in an amount not less than \$1,000,000 with an insurance company rated not lower than "A" by A. M. Best and Company. The School Board shall be named as an additional insured. The policy and evidence of such insurance shall be endorsed so as to provide coverage for all liability hereby contractually assumed by the Signer and a copy thereof shall be delivered to the undersigned before beginning performance of this agreement. Such insurance shall not be subject to cancellation, non-renewal, reduction in policy limits or other adverse change in coverage, except with 45 days prior written notice to the School Board, which notice shall be given by U.S. Certified Mail with return receipt requested to the undersigned. No other form of notification shall relieve the insurance company, or its agents, or representatives of responsibility.
- 2. If this agreement involves performance by officers, employees, agents or sub-contractors of the Signer, the Signer shall also maintain, keep in full force and effect during the term of this agreement and any extensions and renewals thereof, and furnish to the undersigned good and sufficient evidence of workers' compensation insurance in the amount required by Florida Statutes Chapter, 440, and Employer Legal Liability Insurance in the amount of \$100,000.

Approved:  
Signer:

Initials of each  
Signer:



**Kevin T. Windham, CFE, CSRM,  
Director-Risk Management  
Escambia School District  
75 North Pace Boulevard  
Pensacola, FL 32505**

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# ATTACHMENT C

## ESCAMBIA SCHOOL DISTRICT PUBLIC RECORDS ADDENDUM

CONTRACTOR'S RESPONSIBILITY FOR COMPLIANCE WITH CHAPTER 119, FLORIDA STATUTES. Pursuant to Section 119.0701, F.S., CONTRACTOR agrees to comply with all public records laws, specifically to:

- A. Keep and maintain public records required by the School Board to perform the service.
  - 1. The timeframes and classifications for records retention requirements must be in accordance with the General Records Schedule GS1-SL for State and Local Government Agencies and GS7 for Public Schools. (See <http://dos.myflorida.com/library-archives/records-management/general-records-schedules>)
  - 2. Records include all documents, papers, letters, maps, books, tapes, photographs, films, sound recordings, data processing software, or other material, regardless of the physical form, characteristics, or means of transmission, made or received pursuant to law or ordinance or in connection with the transaction of official business with the School Board. Contractor's records under this Agreement include but are not limited to supplier/subcontractor invoices and contracts, project documents, meeting notes, emails and all other documentation generated during this Agreement.
- B. Upon request from the School Board's custodian of public records, provide the School Board with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided for by law. If a Contractor does not comply with the School Board's request for records, School Board shall enforce the provisions in accordance with the contract.
- C. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the Contractor does not transfer the records to School Board.
- D. Upon completion of the contract, transfer, at no cost, to the School Board all public records in possession of the Contractor or keep and maintain public records required by the School Board to perform the service. If the Contractor transfers all public records to the School Board upon completion of the contract, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon the completion of the contract, the Contractor shall meet all applicable requirements for retaining public records. All records kept electronically must be provided to the School Board, upon request from the School Board's custodian of public records, in a format that is compatible with the information technology systems of the SCHOOL BOARD.

**IF CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE SCHOOL BOARD OF ESCAMBIA COUNTY, CUSTODIAN OF PUBLIC RECORDS AT (850)469-6131, NROSS@ECSDFL.US, OR 75 NORTH PACE BLVD., PENSACOLA, FL 32505.**

A Contractor who fails to provide the public records to the School Board within a reasonable time may also be subject to penalties under Section 119.10, Florida Statutes.

Approved:



\_\_\_\_\_  
Donna Sessions Waters  
General Counsel  
Escambia County School Board  
75 North Pace Blvd.  
Pensacola, FL 32505  
02/28/2020

Initials of Each Signatory:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**ATTACHMENT D  
DRUG FREE WORKPLACE**

Preference shall be given to businesses with drug-free workplace programs. Whenever two or more proposals which are equal with respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a proposal received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie proposals will be followed if none of the tied vendors have a drug-free workplace program. In order to have a drug-free workplace program, a business shall:

- 1) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
- 2) Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
- 3) Give each employee engaged in providing the commodities or contractual services that are under contract a copy of the statement specified in subsection (1).
- 4) In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under contract, the employees will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
- 5) Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
- 6) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

Vendor's Signature \_\_\_\_\_

**ATTACHMENT E**  
**State of Florida**  
**Vendor Certification Regarding Scrutinized Companies Lists**

|  |              |            |
|--|--------------|------------|
| Respondent Vendor Name: _____                            |              |            |
| Vendor FEIN: _____                                       |              |            |
| Vendor's Authorized Representative Name and Title: _____ |              |            |
| Address: _____   |              |            |
| City: _____  | State: _____ | ZIP: _____ |
| Phone Number: _____                                      |              |            |
| Email Address: _____                                     |              |            |

Section 287.135, Florida Statutes prohibits or limits agencies from contracting with companies, for goods or services, that are participating in a boycott of Israel, are on the Scrutinized Companies that Boycott Israel list, the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or has been engaged in business operations in Cuba or Syria. Both lists are created pursuant to Section 215.473, Florida Statutes.

As the person authorized to sign on behalf of Respondent, I hereby certify that the company identified above in the sector entitled "Respondent Vendor Name" is not participating in a boycott of Israel, is not listed on the Scrutinized Companies that Boycott Israel List, the Scrutinized Companies with Activities in Sudan List, or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List and has not been engaged in business operations in Cuba or Syria. I understand that pursuant to Section 287.135, Florida Statutes, the submission of false certification may subject company to civil penalties, attorney's fees, and/or costs.

|   |
|---|
| Certified By: _____<br>AUTHORIZED SIGNATURE |
| Print Name and Title: _____                 |
| Date: _____                                 |

## ATTACHMENT F Submission Checklist

Use this checklist to ensure that you have included all required items in your Proposal. For specific submission instructions, refer to Section VI.

### ENVELOPE 1

- \_\_\_\_\_ Complete Proposal (Refer to Section VI) – **One (1), Manually-Signed Original and Eight (8) Copies**
- \_\_\_\_\_ Request for Proposal (RFP) & Proposal Acknowledgement Form (Page 1)
- \_\_\_\_\_ State of Florida Business License (See Section III.A.)
  - \_\_\_\_\_ A. Company Background and Experience (Refer to Section VIII.A.)
    - \_\_\_\_\_ 1. Company Biography (4 Points)
    - \_\_\_\_\_ 2. Company Structure (15 Points)
      - \_\_\_\_\_ a. Point of Contact Information
      - \_\_\_\_\_ b. Contractor Information (with License/Certificate copies)
      - \_\_\_\_\_ c. Business License
      - \_\_\_\_\_ d. Use of sub-contractors and explanation (if applicable)
    - \_\_\_\_\_ 3. References (6 Points)
  - \_\_\_\_\_ B. Performance Parameter Commitment (Refer to Section VIII.B.)
    - \_\_\_\_\_ a. Timeline
    - \_\_\_\_\_ b. Catastrophe Response
    - \_\_\_\_\_ c. Training
    - \_\_\_\_\_ d. Warranty
    - \_\_\_\_\_ e. Maintenance Agreement
    - \_\_\_\_\_ f. Permits/Authorizations
- \_\_\_\_\_ Attachment A - Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – Lower Tier Covered Transactions (Page 17)
- \_\_\_\_\_ Attachment B - Escambia School District Risk Management Addendum (Page 18)
  - \_\_\_\_\_ Proof of Required Insurance (Current copy of Certificate of Insurance)
- \_\_\_\_\_ Attachment C - Escambia School District Public Records Addendum (Page 19)
- \_\_\_\_\_ Attachment D - Drug Free Workplace (Page 20)
- \_\_\_\_\_ Attachment E - Vendor Certification Regarding Scrutinized Companies Lists (Page 21)

### ENVELOPE 2

- \_\_\_\_\_ Price Proposal (Refer to Section IX. on Page 16) Completed in its **ENTIRETY** – **One (1), Manually-Signed Original and One (1) Copy**

ATTACHMENT G

# VERNON McDANIEL BUILDING UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEM REPLACEMENT

75 NORTH PACE  
BOULEVARD  
PENSACOLA, FLORIDA  
32505



for the  
**Escambia County School District**

August 14, 2020

## **Specifications**

Prepared By:

**ACEI** ADAMS CONSULTING  
ENGINEERING, INC.

3 West Garden Street,  
Suite 608  
Pensacola, FL 32502

VERNON McDANIEL BUILDING - UPS SYSTEM REPLACEMENT

DIVISION 16 – ELECTRICAL

|       |   |
|-------|---|
| 16000 | ELECTRICAL                                |
| 16100 | ELECTRICAL METHODS AND BASIC MATERIALS    |
| 16200 | RACEWAY SYSTEMS                           |
| 16300 | WIRE, CABLE AND DEVICES                   |
| 16400 | SERVICE AND DISTRIBUTION                  |
| 16460 | UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEM |

SECTION 16000 – ELECTRICAL

1. RELATED DOCUMENTS: The Electrical General Requirements are supplementing and applicable to Division 16 Sections and shall apply to all phases of work specified herein, shown on the Drawings, or required to provide a complete installation of electrical systems. Section 16 is sub-divided for convenience only. Associated work specified in other Sections:

16100 - Electrical Methods and Basic Materials

16200 - Raceway Systems

16300 - Wire, Cable and Devices

16400 - Service and Distribution

16460 – Uninterruptible Power Supply (UPS) System

2. JOB CONDITIONS:

- A. SITE INSPECTIONS: Before submitting proposals, each bidder shall visit the site and fully familiarize himself with all job conditions and shall be fully informed as to the extent of his work. No consideration will be given after bid opening date for alleged misunderstanding as to the requirements of work involved in connecting to the utilities or as to requirements of materials to be furnished. The Contractor shall provide a turn-key project.

- B. EXISTING CONDITIONS: All utilities, existing system and conditions shown on the plans as existing are approximate, and the Contractor shall verify before any work is started.

- C. SCHEDULED INTERRUPTIONS: Planned interruptions of utilities service, to any facility affected by this contract, shall be carefully planned and approved by Engineer at least ten (10) days in advance of the requested interruption. The Contractor shall not interrupt services until the Engineer has granted specific approval. The request shall indicate services to be affected, date and time of interruption and duration of outage. Request for interruption of service will not be approved until all equipment and materials required for the completion of that particular phase of work are on the job site. The work may have to be scheduled after normal working hours.

- D. ACCIDENTAL INTERRUPTIONS: All excavation and/or remodeling work required shall be performed with care so as not to interrupt other existing services (water, gas, electrical, sewer, sprinklers, etc.). If accidental utility interruption resulting from work performed by the Contractor occurs, service shall be immediately restored to its original condition without delay, by and at the expense of the Contractor, using skilled workmen of the trade required.

- E. MAINTAINING SERVICE:

- (1) Any existing service (or operating system) which must be interrupted for any length of time shall be supplied with a temporary service if necessary for continuation of the normal operation of this facility.

- (2) Any existing system or part of an existing system currently in operation shall remain so after all additions or renovations are made and all work is complete.

3. REGULATORY REQUIREMENTS:

- A. CODES, PERMITS AND INSPECTIONS: The installation shall comply with all state and federal laws and ordinances applicable to electrical installation and with the regulations of the latest published edition of the National Electric Code where such regulations do not conflict with those laws and ordinances. The Contractor shall obtain permits, and after completion of the work, shall furnish the Architect a certificate of final inspection and approval from the applicable local inspection department.

For Schools: The installation shall comply with all state and federal laws and ordinances applicable to electrical installation and with the regulations of the latest published edition of the National Electric Code. The installation shall also conform to the latest published edition of State Requirements for Educational Facilities (SREF).

- B. **DRAWINGS AND SPECIFICATIONS:** The drawings and these specifications are complementary each to the other. What is called for by one shall be as binding as if called for by both. Omissions from the drawings and specifications of details of work which are evidently necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve the Contractor from performing such work. In any case of discrepancy in the figures or catalog numbers, the matter shall be submitted to the Architect, who shall promptly make a determination in writing. Any adjustment by the Contractor shall be at the Contractor's own risk and expense. Electrical drawings are diagrammatic only. Do not scale these drawings. All equipment shall be installed in accordance with manufacturer's recommendations and any conflicting data shall be verified before bidding.

4. **SYSTEMS COORDINATION AND COOPERATION:**

- A. **INTERFACING WITH OTHER CRAFTS:** It shall be the responsibility of the Contractor to cooperate and coordinate with all other crafts working on this project. This Contractor shall do all cutting, trenching, backfill and structural removals to permit entry of the electrical system components. The Contractor shall do all patching and finishing. The Engineer's representative shall render a decision in writing as to space allotment in congested areas. No claims for "extras" due to such decisions shall be allowed, even though the work has already been installed. When the Contractor submits for approval any item or equipment, he shall determine for himself whether or not it will fit the space provided. If, after installation of any equipment, wiring or other items, it is determined that ample maintenance or passage space has not been provided, then the Contractor shall rearrange this work and/or furnish other equipment even though the equipment installed has been approved. A 1/2" = 1'0" scaled drawing of all electrical rooms and rooms containing electrical panels shall be submitted 10 calendar days prior to bid for approval by the Engineer of Record and submitted again with the electrical shop drawings showing the proposed location of all equipment in each room. The Contractor shall verify that all electrical panels have clearances required by code and thickness of walls are adequate for all flush mounted panels. SPACE ALLOCATION IN THESE ROOMS IS CRITICAL. ALSO SUBMIT ELEVATIONS OF EACH MAJOR WALL.

- B. **EQUIPMENT FURNISHED UNDER OTHER SECTIONS:** This Contractor shall furnish and install, complete electrical roughing-in and connections to all equipment furnished under other sections and as indicated on drawings. THIS INCLUDES ALL OUTLETS, PULL BOXES, HANDHOLES, CONDUIT, LADDER RACEWAY, SURFACE RACEWAYS, AND PULLSTRING AS SHOWN ON MECHANICAL, ELECTRICAL, FIRE ALARM, INTERCOM, AND TELECOMMUNICATIONS/STRUCTURED CABLING DRAWINGS. All such equipment shall be set in place as work of other sections.

C. **HEATING AND AIR CONDITIONING:**

- (1) The Contractor shall furnish all branch circuit wiring to motors and control panels or centers including disconnects, receptacles, switches, and appurtenances to which the system at the units may be connected, to provide a complete system of wiring for power. Control equipment and control circuit wiring is specified in the Mechanical Section.
- (2) Control devices to be included in the branch circuit, except those furnished integral with the equipment, will be delivered by the Heating and Air Conditioning Contractor and installed by the Electrical Contractor.

5. **WORKMANSHIP:** All work shall be executed in a neat and substantial manner by skilled workman, well qualified, and regularly engaged in the type of work required. Substandard work shall be removed and replaced by the Contractor at no cost to the Owner.

6. APPROVAL OF MATERIALS AND EQUIPMENT:

A. PRIOR-SUBMITTALS: The Contractor shall base his proposal on the materials specified herein and on the drawings. Reference to a particular product by manufacturer, trade name, or catalog number establishes the quality standards of material and equipment required for this installation and is not intended to exclude products equal in quality and similar design. ~~The Engineer of Record reserves the sole right to decide the equality of materials proposed for use in lieu of these specified. It shall be the Contractor's responsibility to furnish the information and data sufficient to establish the quality and utility of the items in question, including furnishing of samples if required. If other equipment manufacturers determine that their equipment will fit in the space and meet the recommended clearances, suit all job conditions, equal or exceed the quality of the specified items, then a request may be made in writing to the Architect at least ten (10) days prior to bid date for permission to be included in the approved equipment list.~~ All data required for evaluation shall accompany the above letter.

B. SUBMITTALS:

- (1) Shop Drawings: The Contractor shall submit a list of items proposed for use. He shall also submit catalog data and shop drawings on proposed systems and their components, panelboards, safety switches, starters and contactors, transformers, lighting fixtures, and wiring devices. Where substitutions alter the design or space requirements, the Contractor shall defray all items of cost for the revised design and construction including costs to all allied trades involved. Data shall be submitted within thirty (30) days after the contract is awarded. Provide eight (8) copies of shop drawings as a minimum unless the General Conditions requires a greater number of copies. Each submittal data section shall be covered with an index sheet listing Contractor, supplier, etc., and an index to the enclosed submittals.
- (2) As-Built Drawings: Upon completion of the project, the Contractor shall furnish a complete set of the drawings which formed a part of the contract and include all revisions, sketches, etc., which may have been required during the construction.
- (3) Operating and Maintenance Manuals: At completion of the work, furnish three (3) copies of written operation instructions which shall include manufacturer's descriptive bulletins, operating and maintenance manuals and parts lists of all equipment installed. Also include in such instructions, the specified size and capacity ratings of all equipment installed. Each set of instructions shall be assembled into a suitable loose-leaf type binder and presented to the Architect for delivery to the Owner.
- (4) Each major section of submittals such as power, equipment, UPS system, batteries, etc. shall be secured in a booklet or stapled with a covering index which lists the following information:
  - a. Contractor w/phone number and project manager.
  - b. Sub-contractor w/phone number and project manager.
  - c. Supplier of equipment w/phone number and person responsible for this project.
  - d. Index of each item covered in submittal and model number.
  - e. Any deviation from contract documents shall be specifically noted on submittal cover index and boldly on specific submittal sheet.

7. PRODUCT DELIVERY, STORAGE AND HANDLING

A. PROTECTION: Take necessary precautions to protect all material, equipment, apparatus and work from damage. Failure to do so to the satisfaction of the Owner will be sufficient cause for the rejection of the material, equipment or work in question. Contractor is responsible for the safety and good condition of the materials installed until final acceptance by the owner.

- B. **CLEANING:** Conduit openings shall be capped or plugged during installation. Fixtures and equipment shall be tightly covered and protected against dirt, moisture, chemical and mechanical injury. At the completion of the work the fixtures, material and equipment shall be thoroughly cleaned and delivered in condition satisfactory to the Architect.
  - C. ~~**DISPOSAL OF EXISTING ELECTRICAL EQUIPMENT:** Existing circuit breakers from equipment (panelboards, switchboards, etc.) shall have circuit breakers removed, stored and protected from environment, and delivered to the Electrical Maintenance Shop at 30 East Texas Drive, Pensacola, Florida. The School District Electronics shop shall have first right of refusal to any electronics equipment, including all intercom system and all fire alarm system equipment and devices, removed from the existing school facilities.~~
8. **TESTING AND BALANCING:** Make tests that may be required by the Owner in connection with the operation of the electrical system in the buildings. Balance all single-phase loads connected to all panelboards in the buildings to insure approximate equal divisions of these loads on the main secondary power supply serving the buildings. All tests shall be made in accordance with the latest standards of the IEEE and the NEC. The installation shall be tested for performance, grounds and insulation resistance. A "megger" type instrument shall be used. Contractor shall perform circuit continuity and operational tests on all equipment furnished or connected by Contractor. The tests shall be made in the presence of the Owner or his representative. The Contractor shall notify the Owner at least twenty-four (24) hours in advance of tests. The Contractor shall provide all testing equipment and all costs shall be borne by him. Written reports shall be made of all tests. All faults shall be corrected immediately.
- A letter shall be written giving the following:
- A. Measured amps on each phase of each panel.
  - B. Resistance to ground of each grounding electrode.
  - C. Measured voltage phase to phase and phase to neutral at each panel.
  - D. Ground continuity and polarity instrument used.
9. **OPERATING AND MAINTENANCE INSTRUCTIONS/AS BUILT DRAWINGS:**
- A. Four (4) complete sets of instructions containing the manufacturer's operating and maintenance instructions for each piece of equipment shall be furnished to the Owner. Each set shall be permanently bound and shall have a hard cover. One complete set shall be furnished at the time that the test procedure is submitted, and remaining sets shall be furnished before the Contract is completed. Flysheets shall be placed before instructions covering each subject. The instruction sheets shall be approximately 8-1/2" by 11" with large sheets of Drawings folded in. The instructions shall include information for major pieces of equipment and systems.
  - B. Upon completion of the work and at the time designated, the services of one project engineer shall be provided by the Contractor to instruct the representative of the Owner in the operation and maintenance of the systems.
  - C. This Contractor shall provide as-built Drawings at the completion of the job. Drawings shall show all significant changes in equipment, wiring, routing, location, etc. All underground conduit routing shall be accurately indicated with locations dimensioned.
10. **GUARANTEE AND SERVICE:** Upon completion of all tests and acceptance, the Contractor shall furnish the Owner a written guarantee covering the electrical work done for a period of three (3) years from date of acceptance. Guarantee includes equipment capacity and performance ratings specified without excessive noise levels. Upon notice from the Architect or the Owner, the Contractor shall, during the guarantee period, rectify and replace any defective material or workmanship and repair any damage caused thereby without additional cost.

END OF SECTION

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SECTION 16100 – ELECTRICAL METHODS AND BASIC MATERIAL

I. GENERAL

1. SECTION INCLUDES:

- A. SUPPORTS
- B. EQUIPMENT CONNECTION
- C. IDENTIFICATION OF EQUIPMENT
- D. CLEANING AND PAINTING

II. PRODUCTS

1. SUPPORTS:

- A. FRAMING STEEL: Galvanized or painted rolled steel of standard shapes and sizes.
- B. MANUFACTURED CHANNEL: Hot dipped galvanized with all hardware required for mounting as manufactured by Unistrut, Steel City, or approved equal.
- C. MISCELLANEOUS HARDWARE: Standard sizes treated for corrosion resistance.

2. IDENTIFICATION:

- A. NAMEPLATES: Laminated black micarta with ¼” high engraved white letters.
- B. PANEL DIRECTORIES: Typewritten under plastic cover in metal circuit directory holder permanently fastened to door by manufacturer.
- C. WIRE AND CABLE MARKERS: Cloth, split sleeve, or tubing type.

III. EXECUTION

1. INSTALLATION

- A. Products shall be installed in accordance with manufacturer’s instructions.
- B. Install support systems sized and fastened to accommodate weight of equipment and conduit, including wiring, which they carry.
  - (1) Fasten hanger rods, conduit clamps, and outlet junction boxes to building structure using pre-cast insert system, expansion anchors, preset inserts, beam clamps, or spring steel clips.
  - (2) Use toggle bolts or hollow wall fasteners in hollow masonry, plaster, or gypsum board partitions and walls; expansion anchors or preset inserts in solid masonry walls; self-drilling anchors or expansion and anchors on concrete surfaces; sheet metal screws in sheet metal studs; and wood screws in wood construction.
  - (3) Do not fasten supports to piping, ceiling support wires, ductwork, mechanical equipment, or conduit.

VERNON McDANIEL BUILDING - UPS SYSTEM REPLACEMENT

- (4) Do not use powder-actuated anchors.
  - (5) Do not drill structural steel members without written consent from the Architect.
  - (6) Fabricate supports from structural steel or steel channel.
  - (7) Install surface mounted cabinets and panel boards with minimum of four anchors.
  - (8) Provide steel channel supports to stand cabinets one inch off wall in wet locations.
  - (9) Bridge studs top and bottom with channels to support flush mounted cabinets and panel boards in stud walls.
- C. Make electrical connections to equipment in accordance with equipment manufacturer's instructions.
- (1) Verify that wiring and outlet rough-in work is complete and that equipment is ready for electrical connection, wiring, and being energized.
  - (2) Make wiring connections in control panel or in wiring compartment of pre-wired equipment. Provide interconnecting wiring where indicated.
  - (3) Install and connect disconnect switches, controllers, control stations, and control devices as indicated.
  - (4) Make conduit connections to equipment using flexible conduit. Use liquid-tight flexible conduit in damp or wet locations.
  - (5) Install pre-fabricated cord set where connections with attachment plug is indicated or specified, or use attachment plug with suitable strain-relief clamps.
  - (6) Provide suitable strain-relief clamps for cord connections to outlet boxes and equipment connection boxes.
- D. Identify electrical distribution and control equipment, and loads served, to meet regulatory requirements and as specified herein.
- (1) Degrease and clean surface to receive nameplates.
  - (2) Secure nameplates to equipment fronts using screws or rivets with edges parallel to equipment lines.
  - (3) Each new and existing panel shall have an external nameplate. Disconnect switches, starters or similar devices shall have a micarta engraved nameplate mechanically affixed with rivets indicating the load served and the location, such as "A/C 2" or "A/C 3 above ceiling". Letters shall be 1/4" white on a black background. Panels shall be designated in this manner:  

"Panel A  
120/208 Volts 3  
Phase 4 Wire  
Served from Panel MP"
  - (4) Panel directories shall accurately indicate load served and location of load.
  - (5) Engrave plates as indicated on the Drawings.

VERNON McDANIEL BUILDING - UPS SYSTEM REPLACEMENT

- E. Raceway junction boxes for each system shall be identified by painting the inside of the junction box cover for exposed work and both sides of the covers for concealed work according to the following code:

|                             |       |
|-----------------------------|-------|
| Receptacle Circuits         | Black |
| 208 or 240 V. Power & Misc. | Green |
| 480 V. Power & Misc.        | Brown |

If the established color code at this site conflicts with the above or other trades, the contractor shall so state in a letter outlining his proposed colors to maintain conformity.

- F. Install wire markers on each conductor in panel board gutters, boxes, and at load connections.
  - (1) Use distribution panel and branch circuit or feeder number to identify power and lighting circuits.
  - (2) Use control wire number as indicated on schematic and interconnection diagrams or equipment manufacturer's shop drawings to identify control wiring.
- G. Cleaning and Painting: The respective Contractors for the various phases of work shall clear away all debris, surplus materials, etc., resulting from their work or operations, leaving the job and equipment furnished in the clean first class condition.
  - (1) All fixtures and equipment shall be thoroughly cleaned of plaster, stickers, rust, stains and other foreign matter or discoloration, leaving every part in an acceptable condition ready for use.
  - (2) The Contractor shall refinish and restore to the original condition and appearance, all electrical equipment, which has sustained damage to manufacturer's prime and finish coats or enamel or paint. Materials and workmanship shall be equal to the requirements described for other painting.

END OF SECTION

SECTION: 16200 - RACEWAY SYSTEMS

I. GENERAL

1. SECTION INCLUDES:

- A. CONDUIT AND CONDUIT FITTINGS
- B. ELECTRICAL BOXES AND FITTINGS
- C. WIREWAY
- D. SERVICE FITTINGS

II. PRODUCTS

1. CONDUIT AND FITTINGS:

A. CONDUIT:

- (1) Metal conduit: Galvanized steel.
- (2) Metal tubing: Galvanized steel.
- (3) Flexible Conduit: Steel.
- (4) Liquid-tight Flexible Conduit: Flexible steel conduit with PVC jacket.
- (5) Plastic Conduit and Tubing: NEMA TC 2; PVC. Use Schedule 40 conduit.

B. CONDUIT FITTINGS:

- (1) Conduit Fittings and Conduit Bodies: NEMA FB 1. Conduit fittings shall be steel threaded type.
- (2) Tubing Fittings: NEMA FB 1. Tubing fittings to be steel compression type for conduit up to 2" in diameter and set screw type for conduit 2-1/2" and larger.
- (3) Flexible Conduit Fittings: NEMA FB 1. Flexible conduit fittings to be steel set screw or screw-in type.
- (4) Liquid-tight Flexible Conduit Fittings: NEMA FB 1. Liquid-tight flexible conduit fittings shall be steel compression type.
- (5) Plastic Fittings and Conduit Bodies: NEMA TC 3.

2. ELECTRICAL BOXES:

A. BOXES:

- (1) Sheet Metal: NEMA OS 1; galvanized steel 4" or 4-11/16" square. Provide galvanized plaster/tile ring for recessed outlet boxes.
- (2) Cast Metal: Aluminum or cast ferroalloy, deep type, gasketed cover, threaded hubs.

VERNON McDANIEL BUILDING - UPS SYSTEM REPLACEMENT

- B. FLOOR BOXES for Installation in Cast-in-Place Concrete Floors: See electrical and telecom drawings for requirements.
  - C. LARGE ENCLOSURES: NEMA 250; Type 4, steel enclosures with manufacturer's standard enamel finish and cover, held closed screws.
  - D. LARGE CAST METAL BOXES:
    - (1) Surface-mounted Type: NEMA 250; Type 4 and Type 6, flat-flanged, surface mounted junction box; galvanized cast iron or cast aluminum box and cover with ground flange, neoprene gasket, and stainless steel cover screws.
    - (2) Underground Type: NEMA 250; Type 4 flanged, recessed cover box for flush mounting; galvanized cast iron box and plain cover with neoprene gasket and stainless steel cover screw.
3. WIREWAY:
- A. ENCLOSURE: General purpose or raintight type with knockouts.
  - B. COVER: Screw type with full gasketing.
  - C. FITTINGS: Lay-in type with removable cover and drip shield for outdoor installation.
  - D. FINISH: Rust inhibiting primer coating with enamel finish.
4. SERVICE FITTINGS:
- A. FLUSH FLOOR BOX COVERS:
    - (1) Cover material: Brass.
    - (2) Duplex Convenience Receptacle: Duplex flap opening hinged with holding screw.
    - (3) Communications: 2-1/8" X 1" combination threaded opening.
    - (4) Provide brass finish protective rings and carpet flanges.

III. EXECUTION

1. EXAMINATION AND PREPARATION:

- A. Examine supporting surfaces to determine that surfaces are ready to receive work.
- B. Electrical boxes shown on Drawings are approximate locations unless dimensioned. Obtain verification from Architect of floor box locations and locations of outlets prior to rough-in. Outlets may be relocated to a distance of ten feet prior to rough-in with no additional cost to the Owner.

2. INSTALLATION:

- A. Use conduit and tubing for raceways in the following locations:
  - (1) Underground Installations: Rigid steel conduit, painted with two coats of epoxy asphaltic paint or schedule 40 PVC.
  - (2) Installations in Concrete: Rigid steel conduit or rigid non-metallic conduit (schedule 40).

VERNON McDANIEL BUILDING - UPS SYSTEM REPLACEMENT

- (3) Exposed Outdoor Locations: Rigid steel conduit or IMC.
  - (4) Wet Interior Locations: Rigid steel conduit, IMC, or electrical metallic tubing. Use threaded or raintight fittings for conduit.
  - (5) Concealed Dry Interior Locations: Rigid steel conduit or electrical metallic tubing.
  - (6) Exposed Dry Interior Locations: Rigid steel conduit or electrical metallic tubing.
  - (7) MC type cable is prohibited.
- B. Size raceways for conductor type installed.
- (1) Minimum Size Conduit: ¾” in underground locations, ½” in all other locations.
  - (2) Maximum Size Conduit in Slab Above Grade: 1 – inch; do not route conduits larger than ¾” to cross each other.
- C. Arrange conduit and tubing to maintain headroom and to present a neat mechanical appearance.
- (1) Route exposed raceway parallel and perpendicular to walls and adjacent piping.
  - (2) Maintain minimum 6 inch clearance to piping and 12 inch clearance to heat surfaces such as flues, steam piping, and heating appliances.
  - (3) Maintain required fire, acoustic, and vapor barrier rating when penetrating walls, floors, and ceilings.
  - (4) Route conduit through roof openings for piping and ductwork where possible; otherwise, route through roof jack with pitch pocket.
  - (5) Group in parallel runs where practical. Use rack constructed of steel channel. Maintain spacing between raceways or de-rate circuit ampacities to NFPA 70 requirements.
  - (6) Use conduit hangers and clamps; do not fasten with wire or perforated pipe straps.
  - (7) Use conduit bodies to make sharp changes in direction.
  - (8) Terminate all conduits with insulated bushings.
  - (9) Use suitable caps to protect installed raceway against entrance of moisture and dirt.
  - (10) Provide a pull cord in all empty raceways.
  - (11) Install expansion joint fittings where raceway crosses building expansion joints.
  - (12) Install plastic conduit and tubing in strict accordance with the manufacturer’s recommendations. When plastic conduit is installed, use galvanized rigid elbows for 90 degree bends.
- D. Install electrical boxes as shown on the Drawings, and as required for splices, taps, wire pulling, equipment connections and regulatory requirements.
- (1) Use cast outlet box in exterior locations, wet locations, and exposed interior locations

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- (2) Use large enclosure for interior pull and junction boxes larger than 12 inches in any dimension.
  - (3) Locate and install electrical boxes to allow access. Provide access panels if required.
  - (4) Locate and install electrical boxes to maintain headroom and to present a neat mechanical appearance.
  - (5) Install pull boxes and junction boxes above accessible ceilings or in unfinished areas.
  - (6) Provide knockout closure for unused openings.
  - (7) Align wall-mounted outlet boxes plumb and level for switches, and similar devices.
  - (8) Coordinate mounting heights and locations of outlets above counters and backsplashes
  - (9) Install lighting outlets to locate luminaries as shown on the Drawings.
- E. Use recessed outlet boxes in finished areas where indicated.
- (1) Secure boxes to interior wall and partition studs, accurately positioning to allow for surface finish thickness, and plaster/tile ring installation.
  - (2) Use stamped steel stud bridges for flush outlets in hollow stud wall, and adjustable steel channel fasteners for flush ceiling outlet boxes.
  - (3) Locate boxes in masonry walls to require cutting corner only. Coordinate masonry cutting to achieve neat openings for boxes.
  - (4) Do not install boxes back-to-back in walls; provide 6 inch separation, minimum. In acoustic-rated walls provide 24 inch separation minimum.
  - (5) Do not damage insulation.
- F. Install wireway in accordance with manufacturer's instructions.
- (1) Bolt wireway to wall using two-piece hangers or steel channels fastened to the wall or on a self-supporting structure. Install level.
  - (2) Mount raintight gutter in horizontal position only.
- G. Install floor boxes in accordance with manufacturer's instructions.
- (1) Set boxes level and flush with finish flooring material.
  - (2) Use adjustable cast floor boxes for all floor box installations.
- H. Install service fittings in accordance with manufacturer's instructions.
- I. Interface outlet boxes, service fittings, floor boxes, etc. with connection of equipment.
- J. See Division 27 specifications for communications conduit and raceway systems requirements. All communications conduits shall be metal, of the type as described in these specifications unless noted otherwise in Division 27 specifications.

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- K. The Contractor shall be responsible for providing and installing all conduit and raceway systems for all systems including but not limited to lighting, power, fire alarm system, intercom system, communications systems, mechanical systems, and HVAC control systems. Coordinate location, quantities, sizes and requirements with respective contractor for such systems.
- L. The Electrical Contractor shall refer to all telecommunications and mechanical drawings for electrical contractor specific notes and requirements.

END OF SECTION

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SECTION: 16300 - WIRE, CABLE, AND DEVICES

I. GENERAL

1. RELATED DOCUMENTS:

- A. Section 16000 – Electrical General Requirements, apply to the work specified in this Section, with additions and modifications specified herein.

2. SECTION INCLUDES:

- A. WIRE AND CABLE
- B. WIRING DEVICES

II. PRODUCTS

1. WIRE AND CABLE:

A. BUILDING WIRE:

- (1) Feeder and Branch Circuits 10 AWG and Smaller: Copper, solid conductor, 600 volt insulation, THHN/THWN.
- (2) Feeder and Branch Circuits 8 AWG and 6 AWG: Copper, stranded conductor, 600 volt insulation, THHN/THWN.
- (3) Feeder and Branch Circuit larger than 6 AWG: Copper, stranded, conductor, 600 volt insulation, THW.
- (4) Control Circuits: Copper, stranded conductor, 600 volt insulation, THHN/THWN.
- (5) Provide dedicated neutral conductors for all circuits. Shared neutrals shall be prohibited.

B. REMOTE CONTROL SIGNAL CABLE:

- (1) Control Cable for Class 1 Remote Control and Signal Circuits: Copper conductor, 600 volt insulation, rated 60 degree C, individual conductors twisted together, shielded, and covered with PVC jacket.
- (2) Control Cable for Class 2 or Class 3 Remote Control and Signal Circuits: Copper conductor, 300 volt insulation, rated 60 degree C, individual conductors twisted together, shielded, and covered with PVC jacket; UL listed.

- C. CORDS: Oil – resistant thermoset insulated multi – conductor flexible cord with identified equipment grounding conductor, suitable for extra hard usage in damp locations.

2. WIRING DEVICES AND WALLPLATES:

A. MANUFACTURERS:

- (1) Hubbell.
- (2) Legrand.

B. WALL SWITCHES: AC general use, quiet – operating snap switch rated 20 amperes and 120/277 volts AC, with plastic toggle handle.

- (1) Single Pole Switch: Hubbell 1221
- (2) Double Pole Switch: Hubbell 1222
- (3) Three Way Switch: Hubbell 1223
- (4) Four Way Switch: Hubbell 1224
- (5) Pilot Light Type: Lighted handle, Model 1221-PL manufactured by Hubbell.
- (6) Color: To be selected by Owner from standard colors.

C. RECEPTACLE:

- (1) Convenience Receptacle Configuration: Type 5-20R, plastic face. Model 5362 manufactured by Hubbell.
- (2) Specific Purpose Receptacle: Configuration indicated on Drawings with black plastic face.
- (3) Provide straight-blade receptacles to NEMA WD 1.
- (4) Provide locking-blade receptacles to NEMA WD 5.
- (5) GFCI Receptacles: Duplex convenience receptacle with integral ground fault current interrupter. Model GF-5362 manufactured by Hubbell.
- (6) Color: To be selected by Owner from standard colors.

D. WALL DIMMER: Rotary dial type, color to be selected by Owner. Model C-2000 manufactured by Lutron. Rating of 2000 watts. Verify voltage.

E. WEATHERPROOF COVER PLATE: Gasketed cast metal with hinged gasketed device covers rated raintight while in use in accordance with Article 410-57 of the National Electrical Code.

F. ATTACHMENT PLUG CAP: Match receptacle configuration provided for equipment connection.

G. CLOCKS: Battery operated Quartz clocks shall be provided as noted on the drawings. Clocks shall have a 12” dial, black gothic numerals and red sweep second hand. Clock shall operate on one or two AA batteries. The initial batteries shall be lead calcium.

H. WALL PLATES: Wall plates for all electrical wiring devices including but not limited to receptacles, switches, etc. shall be specification grade 302 stainless steel. (This does not apply to wall plates for telecommunication outlets.)

III. EXECUTION:

1. EXAMINATION AND PREPERATION:

- A. Verify that interior of building has been physically protected from weather.
- B. Verify that mechanical work which is likely to injure conductors has been completed.
- C. Completely and thoroughly swab raceway system before installing conductors.

2. INSTALLATION:

A. WIRING METHODS:

- (1) Concealed Interior Locations: Building wire in raceway.
- (2) Exposed Interior Locations: Building wire in raceway.
- (3) Above Accessible Ceilings: Building wire in raceway.
- (4) Wet or Damp Interior Locations: Building wire in raceway.
- (5) Exterior Locations: Building wire in raceway.
- (6) Underground Locations: Building wire in raceway.

B. Use no wire smaller than 12 AWG for power and lighting circuits, and no smaller than 14 AWG for control wiring.

- (1) Use 10 AWG conductor for 20 ampere, 120 volt branch circuit home runs longer than 100 feet; and for 20 ampere, 277 volt branch circuit home runs longer than 200 feet.

C. Neatly train and secure wiring inside boxes, equipment and panelboards.

D. Use UL listed wire pulling lubricant for pulling conductors in raceways.

E. Protect exposed cables.

F. Support cables above accessible ceilings to keep them from resting on ceiling tiles.

G. Make splices, taps, and terminations to carry full ampacity of conductors without perceptible temperature rise.

H. Terminate spare conductors with electrical tape.

I. Devices shall mount flush or as indicated on the Drawings.

J. Install wiring devices in accordance with manufacturer's instructions.

- (1) Install wall switches 48 inches above floor, "OFF" position down.
- (2) Install wall dimmers 48 inches above floor. De-rate ganged dimmers as instructed by manufacturer. Do not use a common neutral, provide a separate neutral for each dimmed circuit.

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- (3) Install convenience receptacles 18 inches above floor, 6 inches above counters or splash backs, with grounding pole on bottom. Verify typical mounting heights with Engineer prior to construction and field coordinate with telecom outlets. Advise the Engineer of any conflicts prior to rough-in.
  - (4) Install GFCI receptacles at all outdoor locations and all indoor locations as required by NFPA70, and as indicated.
  - (5) Install specific purpose receptacles at heights shown on Drawings.
- K. Install wall plates flush and level.
- (1) Install decorative plates on switch, receptacle, telephone, television and blank outlets in finished areas.
  - (2) Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface mounted outlets.
  - (3) Install weatherproof cover plates on all devices/boxes in wet or outdoor locations.
3. FIELD QUALITY CONTROL:
- A. Perform field inspection and testing of circuits under provisions of Section 16000.
- (1) Inspect wire and cables for physical damage and proper connection.
  - (2) Torque test conductor connections and terminations to manufacturer's recommended values.
  - (3) Perform continuity test on all power and equipment branch circuit conductors. Verify proper phasing connections.

END OF SECTION

SECTION: 16400 - SERVICE AND DISTRIBUTION

I. GENERAL

1. SECTION INCLUDES:

- A. GROUNDING AND BONDING
- B. SERVICE ENTRANCE
- C. UTILITY REQUIREMENTS

2. SERVICE TYPE DESCRIPTION: Electric Service System is existing to remain.

3. PROJECT CONDITIONS: Verify field measurements for the equipment to ensure proper fit within the space provided.

4. UTILITY REQUIREMENTS:

- A. The serving utility is Gulf Power Company.

5. EQUIPMENT APPLICATION: All equipment and materials shall have ratings established by a recognized independent agency or laboratory. The Contractor shall apply the items used on this project within those ratings and application shall be subject to any stipulations or exceptions established by the independent agency or laboratory. Use of equipment or materials in applications beyond that certified by the agency or beyond that recommended by the manufacturer shall be cause for removal and replacement of such misapplied items.

II. PRODUCTS

1. GROUNDING MATERIALS:

- A. GROUND ROD: 16 feet x 3/4" diameter, copper clad steel, sectional driven.
- B. GROUND CONNECTORS: Approved ground clamp manufactured of cast bronze construction with matching bolts, nuts, and washers.
- C. EXOTHERMIC WELDS: Materials shall be from the same source. Welding process shall be Cadweld or approved equal.
- D. GROUNDING CONDUCTORS: Green colored and coded insulated copper (#12 AWG minimum) or bare soft drawn copper as indicated on Drawings.

III. EXECUTION

1. INSTALLATION:

- A. Install equipment in accordance with manufacturer's instructions.
- B. Except where specifically indicated otherwise, all exposed non-current-carrying metallic parts of electrical equipment, metallic raceway systems, and service neutral of the electrical system shall be grounded.

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- (1) Equipment grounding shall be accomplished by installing a separate grounding conductor in each raceway of the system. The Conductor shall be provided with a distinctive green insulation or marker and shall be sized in accordance with Article 250 of the National Electrical Code.
  
- C. Provide labels for all disconnects, UPS system, and distribution equipment.
  
- D. Provide permanent phenolic manufacturer's label for each breaker/switch position in UPS system.

END OF SECTION

## SECTION 16460: UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEM

**1.1 GENERAL**

These specifications describe requirements for an Uninterruptible Power System (UPS) optimized for maximum efficiency. The UPS shall automatically maintain AC power to the critical load within specified tolerances and without interruption during failure or deterioration of the normal power source.

The manufacturer shall design and furnish all materials and equipment to be fully compatible with electrical, environmental and space conditions at the site. The UPS shall include all equipment to properly interface the AC power source to the intended load and shall be designed for unattended operation.

**1.2 STANDARDS**

The UPS and all associated equipment and components shall be manufactured in accordance with the following applicable standards:

- The UPS shall be UL listed per UL Standard 1778, Fifth edition, Uninterruptible Power Supplies, and shall be CSA Certified.
- The UPS shall be provided with a Short Circuit Withstand Rating (SCWR) label denoting the maximum source fault short circuit current that is applicable to the unit. The withstand rating shall be independently verified by a nationally recognized, third-party lab.
- The UPS shall withstand input surges to both the rectifier and bypass when configured as either a single- input or as a dual-input unit without damage as per the criteria in EN62040-2 (4kV). The manufacturer shall provide evidence of compliance upon request.
- The UPS shall comply with FCC Rules and Regulations, Part 15, Subclass B, Class A. This compliance is legally required to prevent interference with adjacent equipment. The UPS shall have a label stating FCC compliance. The manufacturer shall provide evidence and test data of compliance upon request.
- The UPS shall be compatible with the wiring practices, materials and coding in accordance with the requirements of the National Electrical Code, OSHA and applicable local codes and standards. Provisions shall be made in the cabinets to permit installation of input, output and external control cabling using raceway or conduit for top and bottom access to input, output, bypass and DC connections. Connection cabinets shall provide for wiring gutter and wire bend radius as defined by the NEC and UL.

**1.3 SYSTEM DESCRIPTION****1.3.1 Design Requirements**

The UPS shall be a parallel system, 'UPS-A' and 'UPS-B' each sized to provide a minimum of 150 kW output (unity load power factor rating) and paralleled with manufacturer's paralleling section between UPS-A AND UPS-B.

The UPS output capacity shall have the option to enable scalability at the time of ordering and shall be upgradeable by Vertiv™ Services.

Models shall be available in two frames:

- 200kVA frame – Scalable from 50kVA to 200kVA (50kVA hardware increments)

The UPS shall be able to supply all required power to full rated output kVA loads with power factor from 0.5 lagging to 0.9 leading. The UPS shall also work from unity power factor to 0.5 leading power factors subject to derating.

Load voltage and bypass line voltage shall be 480VAC, three-phase, three-wire plus ground. Input voltage shall be 480VAC, three-phase, three-wire plus ground. The AC input source and bypass input source shall each be a solidly grounded wye service.

The new UPS system shall be connected to the existing battery bank system as indicated on the drawings. Battery shall support the UPS at 100% rated kW load for at least 12 hours at 77°F (25°C) at startup.

The UPS shall have an active power factor-corrected IGBT converter/rectifier, capable of maintaining input power factor and input current total harmonic distortion (THDi) within specifications without an additional input filter.

The UPS shall be of transformer-free design, requiring no internal transformer in the main power path for the basic operation of the module. Optional transformers in cabinets or otherwise external to the basic UPS module shall be permissible to provide isolation and/or voltage transformation.

**1.3.2 Modes of Operation**

The UPS shall operate as an on-line reverse transfer system in the following modes:

- A. Normal:** The critical AC load shall be continuously powered by the UPS inverter. The rectifier/charger shall derive power from the utility AC source and supply DC power to the DC-DC converter, which in turn shall supply the inverter while simultaneously float charging the battery.
- B. ECO Mode:** The critical AC load shall be continuously powered by the bypass with the inverter available to power the load if the bypass source voltage or frequency exceeds adjustable parameters of power quality.
- C. Battery:** Upon failure of utility AC power, the critical load shall be powered by the inverter, which, without any switching, shall obtain its power from the battery plant via the DC-DC converter. There shall be no interruption in power to the critical load upon failure or restoration of the utility AC source.
- D. Recharge:** Upon restoration of the utility AC source, the rectifier shall supply power to the output inverter and to the DC-DC converter, which shall simultaneously recharge the batteries. This shall be an automatic function and shall cause no interruption to the critical load.
- E. Bypass:** If the UPS must be taken out of service, the static transfer switch shall transfer the load to the bypass source. The transfer process shall cause no interruption in power to the critical load. An optional external wrap-around maintenance bypass shall be used to ensure full isolation of the unit for the service of internal components while providing safety from arc flash and in compliance with OSHA requirements.
- F. Off-Battery:** If the battery only is taken out of service, it shall be disconnected from the DC-DC converter by means of an external disconnect circuit breaker (in the case of external batteries). The UPS shall continue to function and meet all of the specified steady-state performance criteria, except for the power outage backup time capability. If multiple battery strings are used, each string shall be capable of being electrically isolated for safety during maintenance.

**1.3.3 Performance Requirements**

The solid-state power components, magnetics, electronic devices and overcurrent protection devices shall operate within the manufacturer's recommended temperature when the UPS is operating at 100% critical load and maintain battery charging under either of the following conditions:

- Any altitude within the specified operating range up to 3300 ft. (1000m) elevation
- Any ambient temperature within the specified operating range of 32°F to 104°F (0°C to 40°C)

**1.3.4 Input**

- A. Voltage:** Input/output voltage specifications of the UPS shall be
  - Rectifier AC Input: 480V, three-phase, three-wire-plus-ground
  - Bypass AC Input: 480V, three-phase, three-wire-plus-ground
  - AC Output: 480V, three-phase, three-wire-plus-ground
- B. Voltage Range:** +20%, -15% at full load; -40% at half load
- C. Frequency Range:** 40 - 70Hz
- D. Maximum Inrush Current:** UPS inrush current not to exceed 1.5 times rated input current
- E. Input Current Walk-In:** The UPS shall contain a controlled module walk-in to minimize inrush current upon auto-restart. The module walk-in is programmable for a 1 to 5 second delay.
- F. Power Factor:** Minimum 0.99 at full load with nominal input voltage
- G. Current Distortion:** Less than 3% THD at full load linear input current and less than 5% at full load non-linear input current in double-conversion mode
- H. Surge Protection:** Withstands input surges of 4kV (Line to ground) without damage as per criteria listed in EN 61000-4-5: 1995
- I. Short Circuit Current Rating:** Units shall carry as standard 65kA Short Circuit Withstand Rating. All ratings shall be certified and a label shall be applied to the unit clearly identifying this rating as required by the National Electrical Code.

**1.3.5 AC Output**

- A. Load Rating:** 100% of load rating at 104°F (40°C) for any load from 0.5 lagging to 0.9 leading
- B. Voltage Regulation:**
  - ±1% RMS average for a balanced, three-phase load

- $\pm 2\%$  for 100% unbalanced load for line-to-line imbalances
- C.** Voltage Adjustment Range:  $\pm 5\%$  for line drop compensation adjustable by factory service personnel
- D.** Frequency Regulation:
  - Synchronized to bypass:  $\pm 2.0\text{Hz}$  default setting, (adjustable by factory service personnel)
- E.** Phase Imbalance:
  - Balanced loads  $120^\circ \pm 0.5^\circ$
  - 100% unbalanced loads  $120^\circ \pm 1.5^\circ$
- F.** Voltage Transients (average of all three phases): 1 0-100% or 100-0%  
 Response: Meets ITIC and CBEMA Curve Requirements Complies with IEC/EN 62040-3: 2010 Figure 2 Curve 1, Class 1 Transient Voltage Deviation, RMS: 5%  
  
 Recovers within 60ms
- G.** Overload at Full Output Voltage with  $\pm 1\%$  voltage regulation:
  - 100% continuously
  - 105% - 110% of full load for 60 minutes at 104°F (40°C) ambient
  - 110% - 125% of full load for 10 minutes at 104°F (40°C) ambient
  - 125% - 150% of full load for 60 seconds at 104°F (40°C) ambient
  - >150% of full load for a minimum of 200 milliseconds at 104°F (40°C) ambient

**1.3.6** Grounding

The UPS chassis shall have an equipment ground terminal.

**1.4** ENVIRONMENTAL CONDITIONS

The UPS shall be able to withstand the following environmental conditions without damage or degradation of operating characteristics:

- A.** Operating Ambient Temperature
  - UPS: 32°F to 104°F (0°C to 40°C) without derating 1 Battery: 77°F (25°C),  $\pm 5^\circ\text{F}$  ( $\pm 3^\circ\text{C}$ )
- B.** Storage/Transport Ambient Temperature 1 -4°F to 158°F (-20°C to 70°C)
- C.** Relative Humidity
  - 0 to 95%, non-condensing
- D.** Altitude
  - Operating: To 3300 ft. (1000m) above Mean Sea Level without derating (compliant with IEC/EN 62040-3 at altitudes exceeding 1000m)  
 Consult factory for derating above 3300 ft. (1000m) elevation.
  - Storage/Transport: To 50,000 ft. (15,000m) above Mean Sea Level
- E.** Audible Noise Level

| Unit Size | Noise/Load, dB |          |
|-----------|----------------|----------|
|           | 100% Load      | 50% Load |
| 50kVA     | 63.2           | 60.5     |
| 100kVA    | 66.1           | 62       |
| 150kVA    | 67.1           | 62.9     |
| 200kVA    | 68.5           | 63.4     |
| 250kVA    | 68.7           | 63.8     |

Measured 4.6 ft. (1.4m) from the surface of the unit.

## **1.5 SUBMITTALS**

### **1.5.1 Proposal Submittals**

Submittals with the proposal shall include:

- Descriptions of equipment to be furnished, including deviations from these specifications.
- Document stating compliance with FCC requirements.
- Document stating listing to UL, including edition used for listing.
- Document showing compliance with required SCCR and labeling.
- System configuration with single-line diagrams.
- Detailed layouts of customer power and control connections.
- Functional relationship of equipment, including weights, dimensions and heat dissipation.
- Information to allow distribution system coordination.
- Size and weight of shipping units to be handled by contractor.

### **1.5.2 Order Submittals**

Submittals supplied at time of order shall include:

- All of the documentation presented with the proposal, per Section 1.5.1.
- Detailed installation drawings including all terminal locations.
- Interconnect wiring diagrams showing conduit wiring with terminal numbers for each wire.

### **1.5.3 UPS Delivery Submittals**

Submittals upon UPS delivery shall include:

- A complete set of submittal drawings.
- Four (4) sets of instruction manuals. Manuals shall include a functional description of the equipment, safety precautions, instructions, step-by-step operating procedures and routine maintenance guidelines, including illustrations.

## **1.6 WARRANTY**

### **1.6.1 UPS Warranty**

The UPS manufacturer shall warrant the unit against defects in workmanship and materials including parts and labor for 12 months after initial startup and shall warrant the unit against defects in workmanship and materials for an additional 12 months after providing a preventative maintenance visit and inspection after the first 12 months.

### **1.6.2 Warranty – End User**

Warranties associated with items not manufactured by the UPS supplier but included as part of the system shall be passed through to the end user.

## **1.7 QUALITY ASSURANCE**

### **1.7.1 Manufacturer's Qualifications**

A minimum of 10 years' experience in the design, manufacture and testing of solid-state UPS systems shall be required.

The quality system for the engineering and manufacturing facility shall be certified to conform to Quality System Standard ISO 9001 for the design and manufacture of power protection systems for computers and other sensitive electronics.

### **1.7.2 Factory Testing**

Before shipment, the manufacturer shall fully and completely test the UPS unit to ensure compliance with the specification.

The UPS unit shall be tested at the system-specified capacity. Testing shall be done using load banks at part-load and the full kW rating of the unit. Operational discharge and recharge tests to ensure guaranteed rated performance. System operations such as startup, shutdown and transfers shall be demonstrated.

A certified copy of the test results shall be available for each system as indicated on the order.

**1.7.3 On-Site Testing**

After installation on-site, the manufacturer's field representative shall provide startup and shall fully and completely test the UPS unit to ensure compliance with the specification.

The UPS unit shall be tested at the system-specified capacity. Testing shall be done using load banks at part-load and the full kW rating of the unit. The Contractor and manufacturer's representative shall provide load bank on-site for testing. Operational discharge and recharge tests to ensure guaranteed rated performance. System operations such as startup, shutdown and transfers shall be demonstrated.

A certified copy of the test results shall be available for each system as indicated on the order.

**1.7.4 Startup and Training**

The Contractor and manufacturer's field representative shall provide full startup and training. A training session of a minimum of four (4) hours shall be provided on-site to Escambia County School District personnel.

**2.0 PRODUCT**

**2.1 FABRICATION**

**2.1.1 Materials**

The UPS system provided and installed shall be the basis of design, Liebert UPS System, or an approved equal. All materials of the UPS shall be new, of current manufacture, high grade and shall not have been in prior service except as required during factory testing. All active electronic devices shall be solid-state. All power semiconductors shall be sealed. Control logic and fuses shall be physically isolated from power train components to ensure operator safety and protection from heat.

**2.1.2 UPS Internal Wiring**

Wiring practices, materials and coding shall be in accordance with the requirements of the National Electrical Code, OSHA and applicable local codes and standards. All bolted connections of busbars, lugs and cables shall be in accordance with requirements of the National Electrical Code and other applicable standards. All electrical power connections shall be torqued to the required value and marked with a visual indicator.

**2.1.3 Field Wiring**

All field wiring power connections shall be to tin-plated copper busbars for connection integrity. Busbars shall have adequate space to allow two-hole, long-barrel, compression type lugs forming a permanent connection between field wiring and field-installed lugs.

Provisions shall be made in the cabinets to permit installation of input, output and external control cabling using raceway or conduit. Provision shall be made for top and bottom access to input, output, bypass and DC connections. In conformance with the NEC, connection cabinets shall provide for adequate wire bend radius.

**2.1.4 Construction and Mounting**

The UPS shall be in NEMA Type 1 enclosures, designed for floor mounting. The UPS shall be structurally adequate and have provisions for hoisting, jacking and forklift handling. Maximum cabinet height shall be 78.7 in. (2000mm).

The UPS shall be NEMA Type 1-compliant, with front doors open to enable safe change of air filters without the need for shutdown.

**2.1.5 Cooling**

Adequate ventilation shall be provided to ensure that all components are operated well within temperature ratings.

Temperature sensors shall be provided to monitor the UPS's internal temperature. Upon detection of temperatures in excess of the manufacturer's recommendations, the sensors shall cause audible alarms to be sounded and visual alarms to be displayed on the UPS control panel. Air filters shall be located at the point of air inlet and shall be changeable. No service clearance or ventilation shall be required in the rear of the system.

**2.2 EQUIPMENT**

**2.2.1 UPS System**

The UPS system shall consist of an IGBT power factor-corrected rectifier, DC-DC converter and three-phase, transformer-free inverter, bypass static transfer switch, bypass synchronizing circuitry, protective devices and accessories as specified. The specified system shall also include a battery disconnect breaker and battery system.

**2.2.2 Output Protection**

The UPS shall be protected against sudden changes in output load and short circuits at the output terminals. The UPS shall have built-in protection against permanent damage to itself and the connected load for all predictable types of malfunctions. Fast-acting, current-limiting devices shall be used to protect against cascading failure of solid-state devices. Internal UPS malfunctions shall cause the module to trip off-line with minimum damage to the module and provide maximum information to maintenance personnel regarding the reason for tripping off-line.

The load shall be automatically transferred to the bypass line uninterrupted for an internal UPS malfunction. The status of protective devices shall be indicated on a graphic display screen on the front of the unit.

**2.3 COMPONENTS**

**2.3.1 Rectifier**

The term rectifier shall denote the solid-state equipment and controls necessary to convert alternating current to regulated direct current to supply the inverter and charge the battery. The DC output of the rectifier shall meet the input requirements of the inverter without the battery being connected.

**A. Input Current Harmonic Distortion**

The rectifier shall actively control and reduce input current distortion over the full operating range of the UPS without the need for an additional passive input filter. Input current THD shall be less than 5% at rated load and nominal voltage in double-conversion mode.

**B. Dynamic Current Input Limit Reduction**

The rectifier, in conjunction with the other UPS controls and circuitry, shall adjust the current demanded for battery charging as a function of UPS wattage load and input voltage level.

**2.3.2 DC-DC Converter**

The term *DC-DC converter* shall denote the equipment and controls to regulate the output of the rectifier to the levels appropriate for charging the battery and to boost the battery voltage to the level required to operate the inverter. The DC-DC converter shall be solid-state, capable of providing rated output power and, for increased performance, shall be a pulse width-modulated design and shall utilize insulated gate bipolar transistors (IGBTs). The DC-DC converter shall control charging of the battery. The AC ripple voltage of the charger DC shall not exceed 1% RMS of the float voltage.

**A. Battery Equalize Charge**

A manually initiated equalize charge feature shall be provided to apply an equalize voltage to the battery. The duration of equalize charge time shall be adjustable from 8 to 30 hours. A method shall be available to deactivate this feature for valve regulated battery systems.

**B. Stop Battery Charging Function**

Battery charging may be stopped by a shunt trip of the battery cabinet breaker when overtemperature is sensed in the battery cabinet, on generator or when environmental contact is closed.

**C. Overvoltage Protection**

There shall be DC overvoltage protection so that if the DC voltage rises to the pre-set limit, the UPS shall shut down automatically and initiate an uninterrupted load transfer to bypass or shall disconnect the battery via the DC breaker(s) in the battery string.

**D. Temperature-Compensated Charging**

The UPS shall adjust the battery charging voltage based on the battery temperature reported from external battery temperature sensors. When multiple sensors are used, the voltage shall be based on the average temperature measured. Excessive difference in the temperature measurements shall be reported and the charging voltage adjusted to protect the batteries from excessive current.

**E. Battery Load Testing**

The UPS shall be capable of performing battery load testing under operator supervision. To accomplish this, the rectifier shall reduce charging voltage to force the batteries to carry the load for a short time. If the curve of battery voltage drop indicates diminished battery capacity, the UPS shall display an alarm message. If the voltage drop indicates battery failure, the UPS shall terminate the test immediately and annunciate the appropriate alarms.

**2.3.3 Inverter**

The term *inverter* shall denote the equipment and controls to convert direct current from the rectifier or battery via the DC-DC converter to precise alternating current to power the load. The inverter shall be solid-state, capable of providing rated output power and, for increased performance, the inverter shall be a pulse-width-modulated design and shall utilize insulated gate bipolar transistors (IGBTs). To further enhance reliable performance and efficiency, the inverter shall not require an inverter output series static switch/isolator for the purposes of overload or fault isolation or transfers to bypass.

**A. Overload Capability**

The inverter shall be able to withstand an overload across its output terminals while supplying full rated voltage of up to 150% for 60 seconds. The inverter shall be capable of at least 170% current for short-circuit conditions including phase-to-phase, phase-to-ground and three-phase faults. After the fault is removed, the UPS shall return to normal operation without damage. If the short circuit is sustained, the load shall be transferred to the bypass source and the inverter shall disconnect automatically from the critical load bus.

**B. Output Frequency**

The inverter shall track the bypass continuously, providing the bypass source maintains a frequency of 60Hz  $\pm 1\%$  (0.6 Hz).

**C. Phase-to-Phase Balance**

The inverter shall provide a phase-to-phase voltage displacement of no worse than  $\pm 3\%$  with a 100% unbalanced load.

**D. Inverter Fault Sensing and Isolation**

The UPS shall be provided with a means to detect a malfunctioning inverter and isolate it from the critical load bus to prevent disturbance of the critical load voltage beyond the specified limits.

**E. Battery Protection**

The inverter shall be provided with monitoring and control circuits to protect the battery system from damage due to excessive discharge. Inverter shutdown shall be initiated when the battery voltage has reached the end of discharge voltage. The battery end-of-discharge voltage shall be calculated and automatically adjusted for partial load conditions to allow extended operation without damaging the battery. Automatic shutdown based on discharge time shall not be acceptable.

**2.3.4 Inverter Bypass Operation**

When maintenance is required or when the inverter cannot maintain voltage to the load due to sustained overload or malfunction, a bypass circuit shall be provided to isolate the inverter output from the load and provide a path for power directly from an alternate AC (bypass) source. The UPS control system shall constantly monitor the availability of the inverter bypass circuit to perform a transfer. The inverter bypass circuit shall consist of a continuous duty bypass static switch and an overcurrent protection device to isolate the static bypass switch from the bypass utility source. The bypass static switch shall denote the solid-state device incorporating SCRs (silicon controlled rectifiers) that can automatically and instantaneously connect the alternate AC source to the load.

**A. Static Bypass Switch Rating**

The static bypass switch shall be rated for continuous duty operation at full rated load for highest reliability without the use of mechanical devices, such as those used with a momentary rated device.

**B. Manual Load Transfers**

A manual load transfer between the inverter output and the alternate AC source shall be initiated from the control panel. Manually initiated transfers shall be make-before-break, utilizing the inverter and the bypass static switch.

**C. Automatic Load Transfers**

An automatic load transfer between the inverter output and the alternate AC source shall be initiated if an overload condition is sustained for a period in excess of the inverter output capability or due to a malfunction that would affect the output voltage. Transfers caused by overloads shall initiate an automatic retransfer of the load to the inverter only after the load has returned to a level within the rating of the inverter source and the alarm has been acknowledged.

**D. Momentary Overloads**

In the event of a load current inrush or branch load circuit fault in excess of the inverter rating, the bypass static switch shall connect the alternate AC source to the load for at least 600 milliseconds, allowing up to 1000% of the normal rated output current to flow. Output voltage shall be sustained to the extent the alternate AC source capacity permits. If the overload condition is removed before the end of the 600-millisecond period, the bypass static switch shall turn Off and the load shall remain on inverter power. If the overload remains, then a transfer to the alternate AC source is to be completed.

**E. Back-Feed Protection**

As required by UL1778 and CSA, the static transfer switch shall not back-feed UPS power to the bypass distribution system while the UPS is operating on battery during a bypass power outage. The purpose of this requirement is to prevent the risk of electrical shock on the distribution system when the normal source of power is disconnected or has failed. If a shorted SCR is detected, the static transfer switch shall be isolated by automatically tripping the upstream bypass circuit breaker and an alarm message shall be annunciated at the UPS control panel. The load shall remain on conditioned and protected power after detection of a shorted SCR and isolation of the bypass static switch.

**F. Active ECO-Mode**

When selected, this mode of operation shall transfer the load to the bypass source and maintain it there as long as the bypass source frequency, slew rate and voltage are within the adjusted operating parameters. While in this mode, the inverter shall remain operating to be able to instantaneously assume the load without interrupting the output voltage. Should the bypass source go outside the adjusted limits, the bypass static switch shall turn Off, isolating the load from the bypass while the inverter assumes the full critical load. The load shall be transferred from the bypass source to the inverter while maintaining the output voltage within the ITIC and CBEMA curves.

**2.3.5 Display and Controls****A. UPS Control Panel**

The UPS shall be provided with a microprocessor-based control panel for operator interface (may also be referred to as User Interface, or UI) to configure and monitor the UPS. The control panel shall be located on the front of the unit where it can be operated without opening the hinged front door. A backlit, menu-driven, full-graphics, color touchscreen liquid crystal display shall be used to display system information, metering information, a one-line diagram of the UPS and battery, active events and event history.

No mechanical push buttons shall be used.

**B. Logic**

UPS system logic and control programming shall reside in a microprocessor-based control system with nonvolatile flash memory. Rectifier, inverter and system control logic shall utilize high-speed digital signal processors (DSPs). CANbus shall be used to communicate between the logic and the User Interface as well as the options. Switches, contacts and relays shall be used only to signal the logic system as to the status of mechanical devices or to signal user control inputs. Customer external signals shall be isolated from the UPS logic by relays or optical isolation.

**C. Metered Values**

A microprocessor shall control the display and memory functions of the monitoring system. All three phases of three-phase parameters shall be displayed simultaneously. All voltage and current parameters shall be monitored using true RMS measurements for accuracy to  $\pm 3\%$  of voltage,  $\pm 5\%$  AC current. The following parameters shall be displayed:

- Input voltage, line-to-line
- Input current per phase
- Input frequency
- Input apparent power (kVA)
- Battery voltage

- Battery charging/discharging current
- Output voltage, line-to-line
- Output frequency
- Bypass input voltage, line-to-line
- Bypass input frequency
- Load current
- Load real power (kW), total and percentage
- Load apparent power (kVA), total and percentage
- Battery temperature

**D. Power Flow Indications**

A power flow diagram shall graphically depict whether the load is being supplied from the inverter, bypass or battery and shall provide, on the same screen, the status of the following components:

- AC Input Circuit Breaker (optional)
- Battery Circuit Breaker, each breaker connection of complete battery complement, complete disconnection and partial connection (one or more, but not all breakers open.)
- Maintenance Bypass Status

**E. Main Display Screen**

The following UPS status messages shall be displayed:

- Rectifier (Off / Soft Start / Main Input On / Battery Input On)
- Input Supply (Normal Mode / Battery Mode / AllOff)
- Battery Self-Test (True / False)
- Input Disconnect (Open / Closed)
- EPO (True / False)
- Charger (On / Off)
- Output Disconnect (Open / Closed)
- Maint. Disconnect (Open / Closed)
- Bypass Disconnect (Open / Closed)
- Inverter (Off / Soft Start / On)
- Bypass (Normal / Unable to Trace / Abnormal)
- Output Supply (All Off / Bypass Mode / Inverter Mode / OutputDisable)
- Inverter On (Enable / Disable)

**F. HMI Control Buttons**

Buttons shall be provided to start and stop the inverter.

Other buttons shall be provided to reset faults and silence the alarm buzzer.

**G. Event Log**

This menu item shall display the list of events that have occurred recently while the UPS was in operation. The Event Log shall store up to 2048 events, with the oldest events being overwritten first if the log's capacity is reached.

**H. Battery Status Indicator**

A battery status indicator shall display DC alarm conditions, temperature, battery state of charge, the present battery voltage and battery time remaining during discharge.

The UPS shall provide the operator with controls to perform the following functions:

- Configure and manage manual battery test
- Start battery test
- Monitor test status and progression
- Stop battery test
- Battery test status

**I. Alarms**

The following alarm messages shall be displayed:

- Mains Voltage Abnormal
- Mains Undervoltage
- Mains Freq. Abnormal
- Charger Fault
- Battery Reversed
- No Battery
- Parallel Comm. Fail
- Bypass Unable to Track
- Bypass Abnormal
- Inverter Asynchronous
- Fan Fault
- Control Power Fail
- Output Overload
- Bypass Phase Reversed
- Transfer Time-Out
- Load Sharing Fault
- Bypass Over Current

**J. Controls**

System-level control functions shall be:

- Start Inverter (and transfer to inverter)
- Stop Inverter (after transferring to bypass)
- Startup Screen
- Configure Manual Battery Test
- Initiate Manual Battery Test
- System Settings (Time, Date, Language, Password)
- Alarm Silence Command
- Fault Reset Command
- ECO mode

**K. Manual Procedures**

- Load Transfers: HMI buttons (START INVERTER, STOP INVERTER) shall provide the means for the user to transfer the load to bypass and back on UPS.

**2.3.6 Self-Diagnostics**

- Event Log File - The control system shall maintain a log of the event conditions that have occurred during system operation. Each log shall contain the event name, event time/date stamp and a set/clear indicator.

**2.3.7 Remote Monitoring and Integration Capabilities**

- A. LIFE™ Services:** The UPS manufacturer shall provide as an option LIFE services, which provides 24x7 continuous monitoring of events and parametric data, event and data analysis reports and dispatch of factory-trained field service personnel. The UPS shall be able to initiate periodic and critical event-driven communication with a remote service center to transfer event and parametric data for analysis and action. The remote service center shall be staffed with factory-trained service personnel who are capable of receiving, analyzing and interpreting the communicated events and data. The remote service center personnel shall also be capable of dispatching factory-trained field service personnel to the location of the UPS.
- B. Communication Cards:** The UPS shall be equipped with three communication card(s) including:
  - Optional Liebert® IntelliSlot™ Unity™ card or approved equal providing Web-based UPS monitoring and management capabilities, LIFE Services delivery and the following third-party open protocols:

- SNMP protocols (v1, v2, v3)
- Modbus RTU or Modbus TCP or BACnet MSTP or BACnetIP

*Note: Modbus RTU and BACnet MSTP cannot both be enabled simultaneously.*

- C. Output Alarm Contacts: Dry contact outputs shall be provided for Summary Alarm, Bypass Active, Low Battery and AC Input Failure.
- D. Customer Input Contacts: The UPS shall have four discrete input contacts available for the input and display of customer-provided alarm points or to initiate a pre-assigned UPS operation. Each input can be signaled by an isolated, external, normally open contact.

When an assembly is selected as a pre-assigned UPS operation, the following actions shall be initiated:

- On Generator—Provides selectable choices to enable or disable battery charging, and enable or disable ECO Mode operation while on generator.
- Transfer to Bypass—Manual command to transfer from inverter operation to static bypass operation.
- Fast Power Off—Emergency Module Off (EPO) command to stop UPS operation.
- Acknowledge Fault—Acknowledge a UPS alarm condition and present faults will be reset.
- Bypass/Inverter Off—Emergency Power Off (EPO) command to stop UPS operation.
- External Maintenance Bypass Breaker (MBB) status (open or closed)

### 2.3.8 Battery Disconnect Breaker

The battery cabinet shall have a properly rated circuit breaker (600VDC) to isolate it from the Liebert<sup>®</sup> EXM<sup>™</sup> UPS or approved equal. This breaker shall be in a separate NEMA-1 enclosure or in a matching battery cabinet. When this breaker is open, there shall be no battery voltage in the UPS enclosure. The UPS shall be automatically disconnected from the battery by a shunt trip of the battery cabinet breaker when signaled by other control functions.

### 2.3.9 Optional Accessories and Features

#### A. Load Bus Sync

The Load Bus Sync (LBS) shall enable two independent single-module UPS units to stay in sync when operating on battery or unsynchronized input sources. The LBS shall determine the master and slave relationship between UPS units. The LBS shall be installed within each single-module UPS.

#### B. Communication Card

A communication card shall provide Web-based UPS monitoring and management capabilities and the following remote monitoring protocols: SNMP (v1, v2, v3), Modbus or BACnet for remote monitoring.

#### C. Relay Contact Card

A relay contact card shall provide output dry contact signals communicating the following UPS states: Summary Alarm, Bypass Active (On Bypass), Low Battery, AC Input Failure (UPS Fault) and On UPS.

#### D. Liebert<sup>®</sup> SiteScan<sup>®</sup> Communication Card or approved equal

The Liebert<sup>®</sup> SiteScan communication card or approved equal shall provide a connection to a Liebert<sup>®</sup> SiteLink-E<sup>™</sup> or approved equal, allowing Liebert<sup>®</sup> SiteScan<sup>®</sup> Web or approved equal to monitor and control the UPS.

#### E. Seismic Anchorage Kits

Seismic anchorage kits shall be provided with the UPS unit, and if included the optional matching battery cabinet, for use in seismic restraint as required for IBC 2012 or OSHPD certification.

## 3.0 STORED ENERGY SYSTEMS

The UPS system shall be provided with a stored energy system that shall comply with the specifications of:

- Flooded-Cell Battery System,
- Valve-Regulated, Lead-Acid Battery System,

Specifications describing the requirements for the customer-specified stored energy system are contained in SL-25418GS, available at the Vertiv<sup>™</sup> Web site.

## 4.0 EXECUTION

### 4.1 FIELD QUALITY CONTROL

The following inspections and test procedures shall be performed by factory-trained field service personnel during the UPS startup.

#### A. Visual Inspection

- Inspect equipment for signs of damage.
- Verify installation per drawings supplied with installation manuals or submittal package.
- Inspect cabinets for foreign objects.
- Verify that neutral and ground conductors are properly sized and configured per Vertiv™ requirements as noted in Vertiv™ drawings supplied with installation manuals or submittal package.
- Inspect each battery jar for proper polarity.
- Verify that all printed circuit boards are configured properly.

#### B. Mechanical Inspection

- Check all control wiring connections for tightness.
- Check all power wiring connections for tightness.
- Check all terminal screws, nuts and/or spade lugs for tightness.

#### C. Electrical Inspection

- Check all fuses for continuity.
- Confirm input and bypass voltage and phase rotation are correct.
- Verify control transformer connections are correct for voltages being used.
- Ensure connection and voltage of the battery string(s).

### 4.2 UNIT STARTUP

1. Energize control power.
2. Perform control/logic checks and adjust to meet Vertiv™ specification.
3. Verify DC float and equalize voltage levels.
4. Verify DC voltage clamp and overvoltage shutdown levels.
5. Verify battery discharge, low battery warning and low battery shutdown levels.
6. Verify fuse monitor alarms and system shutdown.
7. Verify inverter voltages and regulation circuits.
8. Verify inverter/bypass sync circuits and set overlap time.
9. Perform manual transfers and returns.
10. Simulate utility outage at no load.
11. Verify proper recharge.

### 4.3 MANUFACTURER'S FIELD SERVICE

#### A. Service Personnel

The UPS manufacturer shall directly employ a nationwide service organization, consisting of factory-trained field service personnel dedicated to the startup and maintenance of UPS and power equipment.

The manufacturer shall provide a national dispatch center to coordinate field service personnel schedules. One toll-free number shall reach a qualified support person 24 hours a day, 7 days a week and 365 days a year. If emergency service is required, on-site response time shall be 4 hours or less within 150 miles of a Vertiv™ Services center.

Two local customer engineers shall be assigned to the site with a regional office as a backup. Escalation procedures shall be in place to notify Power Technical Support if a site is not functioning within 24 hours.

#### B. Automated Site Monitoring

The UPS manufacturer shall provide as an option an automated site monitoring service. This service shall be staffed by a qualified support person 24 hours a day, 7 days a week and 365 days a year. At the detection of an

alarm within the UPS, the controls shall initiate communication with the monitoring service. The monitoring service shall be capable of interpreting the communicated alarms to allow dispatch of a service engineer.

**C. Replacement Parts Stocking**

Parts shall be available through an extensive network to ensure round-the-clock parts availability throughout the country.

Spare parts shall be stocked by local field service personnel with backup available from national parts centers and the manufacturing location. A Customer Support Parts Coordinator shall be on call 24 hours a day, 7 days a week, 365 days a year for immediate parts availability.

**D. Maintenance Contracts**

A complete offering of preventive and full-service maintenance contracts for both the UPS system and battery system shall be available.

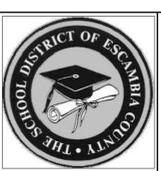
UPS SYSTEM REPLACEMENT  
ESCAMBIA COUNTY SCHOOL DISTRICT  
VERNON MCDANIEL BUILDING

75 NORTH PACE BOULEVARD  
PENSACOLA, FLORIDA 32505



ESCAMBIA COUNTY SCHOOL DISTRICT

**ACEI** ADAMS CONSULTING ENGINEERING, INC.  
3 West Garden Street • Suite 608 • Pensacola, Florida 32502  
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SCOTT A. ADAMS, P.E. FL LICENSE No. 57949 • CA No. 26311

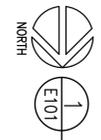
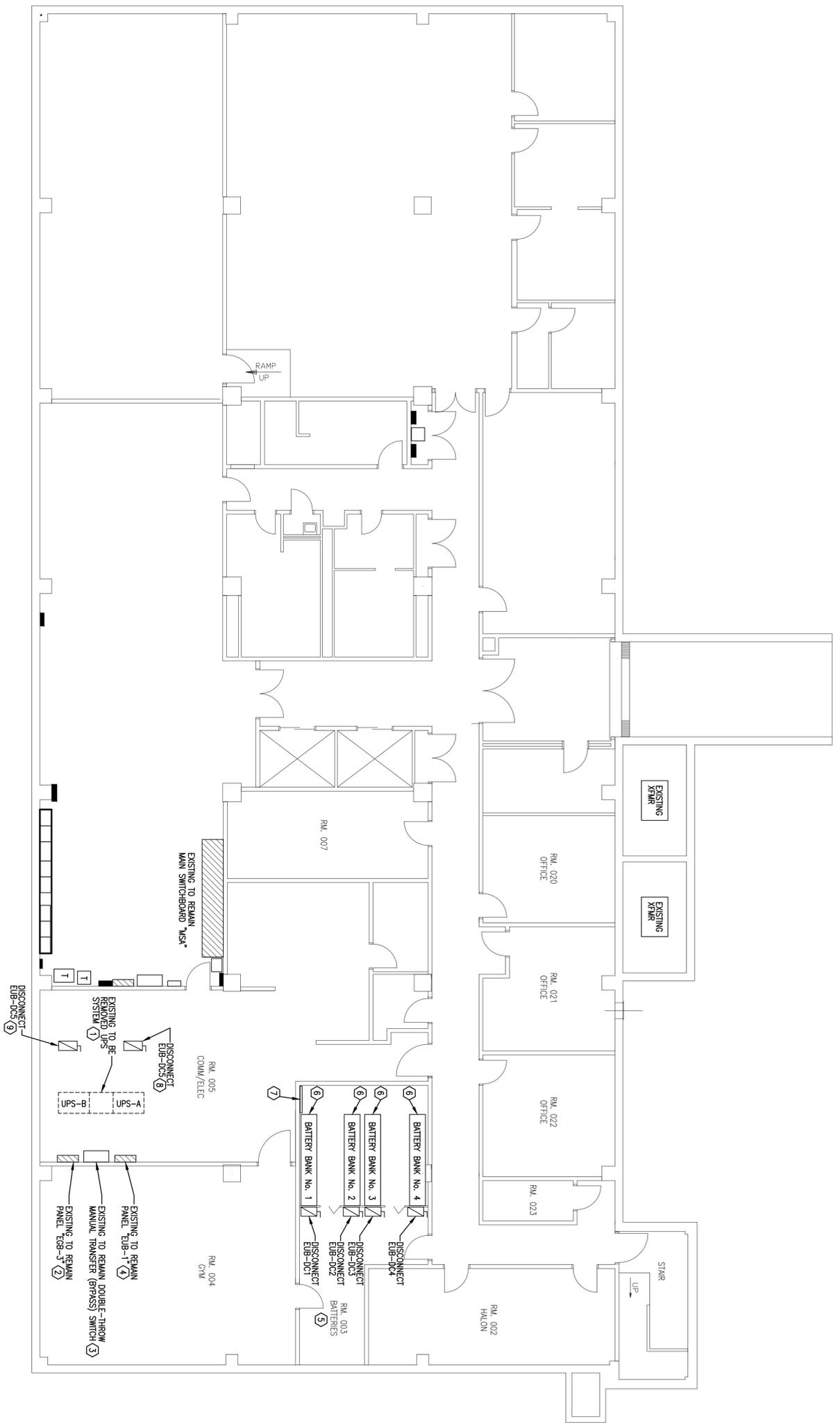


UPS SYSTEM REPLACEMENT  
ESCAMBIA COUNTY SCHOOL DISTRICT  
VERNON MCDANIEL BUILDING  
75 NORTH PACE BOULEVARD  
PENSACOLA, FLORIDA 32505

|             |
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| SHEET TITLE |
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| SHEET NO.   |
| T001        |

**GENERAL DEMOLITION NOTES**

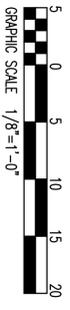
1. WHERE EXISTING OUTLETS, FIXTURES, DEVICES, ETC. ARE TO BE REMOVED, REMOVE ALL ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE (UNLESS SPECIFICALLY NOTED TO BE REUSED).
2. DURING CONSTRUCTION, CONTRACTOR SHALL PROTECT EXISTING SYSTEMS WHICH ARE TO REMAIN (I.E. FIRE ALARM SYSTEM, TELE/DATA SYSTEM, CCTV SYSTEM, ETC.). EXISTING DEVICES SHALL BE PROTECTED DURING CONSTRUCTION AND EXISTING CONDUIT/WIRING SYSTEMS SHALL BE REMOVED AS REQUIRED TO COORDINATE WITH NEW CONSTRUCTION.
3. ELECTRICAL OUTLETS INCLUDING BUT NOT LIMITED TO RECEPTACLES, LIGHT FIXTURES, MECHANICAL EQUIPMENT, EXTERIOR LIGHTING, ETC. WHICH ARE NOT BEING REMOVED SHALL REMAIN AS IS. CONTRACTOR SHALL MAINTAIN CONTINUITY OF CIRCUITS WHICH SERVE THESE OUTLETS AND SHALL EXTEND CIRCUITING AS REQUIRED.



**1 ELECTRICAL DEMOLITION PLAN – BASEMENT**  
 SCALE: 1/8" = 1'-0"

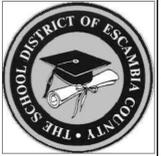
**KEY NOTES**

1. EXISTING POWERWARE UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEM TO BE REMOVED IN ITS ENTIRETY. PARALLEL 150 KVA UPS SYSTEMS, A AND B, WITH 480V, 3-PHASE, 3-WIRE INPUT AND 480V, 3-PHASE, 4-WIRE OUTPUT. THE CONTRACTOR SHALL DISCONNECT AND REMOVE THE ENTIRE UPS SYSTEM INCLUDING ALL COMPONENTS OF THE EXISTING UPS SYSTEM IN THE SAME LOCATION. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING CONNECTIONS INCLUDING BUT NOT LIMITED TO UPS INPUT, UPS OUTPUT, BATTERY BANK CONNECTIONS, ETC TO RECONNECT TO THE NEW UPS SYSTEM. SEE NEW WORK PLAN.
2. EXISTING TO REMAIN PANEL, EIB-001, SQUARE D, 480V/277V, 3-PHASE, 4W, 400 AMP. THIS PANELS FEEDS THE NORMAL FEED TO THE MANUAL DOUBLE-THROW BYPASS SWITCH.
3. EXISTING TO REMAIN MANUAL DOUBLE-THROW BYPASS SWITCH, SQUARE D, 600VAC, 400 AMP. FED FROM TWO INPUTS: NORMAL FEED FROM EIB-001 AND UPS FEED FROM PARALLEL UPS SYSTEM, ONE OUTPUT TO PANEL, EIB-001.
4. EXISTING TO REMAIN PANEL, EIB-001, SQUARE D, TYPE MF, 480V/277V, 3-PHASE, 4W, 400A. FED FROM MANUAL DOUBLE THROW BYPASS SWITCH.
5. EXISTING TO REMAIN BATTERY BANK, DISCONNECT FEED FROM UPS SYSTEM BEING REMOVED AND RECONNECT TO NEW UPS SYSTEM TO BE PROVIDED. SEE NEW WORK PLAN.
6. EXISTING BATTERY BANK TO REMAIN. EACH BATTERY BANK IS COMPRISED OF (120) 2-VOLT BATTERIES CONNECTED IN SERIES FOR 240V DC OUTPUT. BATTERY BANKS NO. 1 AND NO. 2 ARE CONNECTED IN SERIES FOR A TOTAL OUTPUT OF 600 FED THRU DISCONNECT EIB-001. BATTERY BANKS NO. 3 AND NO. 4 ARE CONNECTED IN SERIES FOR A TOTAL OUTPUT OF 600 FED THRU DISCONNECT EIB-002. THE LOAD SIDE OF BOTH DISCONNECTS, EIB-001 AND EIB-002 ARE THEN CONNECTED IN PARALLEL TO THE BUS BARS IN THE SAME ROOM. SEE KEY NOTE 7. THIS SHEET, NOTE THAT DISCONNECTS EIB-002 AND EIB-004 ARE CONNECTED ON THE LINE SIDE TO THE BUS BARS IN THE SAME ROOM AND THEREFORE ENERGIZED BUT ARE NOT CONNECTED ON THE LOAD SIDE.
7. EXISTING TO REMAIN BUS BARS AND CONDUCTORS FROM BATTERY BANK/DISCONNECTS EIB-001, EIB-002, EIB-003, AND EIB-004 THEN ROUTED TO DISCONNECTS EIB-005 AND EIB-006 ADJACENT TO THE UPS/D SYSTEM.
8. EXISTING TO REMAIN DISCONNECT EIB-005, DISCONNECT IS FED FROM BATTERY BANKS/DISCONNECTS/SPlicing OF CONDUCTORS IS PROHIBITED. PROVIDE NEW CONDUCTORS FROM DISCONNECT TO UPS 'A'. EXISTING CONDUCTORS CANNOT BE CONNECTED TO NEW UPS WITHOUT SPlicing.
9. EXISTING TO REMAIN DISCONNECT EIB-006, DISCONNECT IS FED FROM BATTERY BANKS/DISCONNECTS/SPlicing OF CONDUCTORS IS PROHIBITED. PROVIDE NEW CONDUCTORS TO RECONNECT TO NEW UPS 'B'. EXISTING CONDUCTORS CANNOT BE CONNECTED TO NEW UPS WITHOUT SPlicing.



**BID DOCUMENTS**

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 VERNON McDANIEL BUILDING**  
 75 NORTH PACE BOULEVARD  
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SHEET TITLE  
**ELECTRICAL  
 DEMOLITION  
 PLAN - BASEMENT**

SHEET NO.:

**E101**

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