REQUEST FOR PROPOSALS

DESIGN-BUILD SERVICES
REPLACEMENT GENERATOR

FOR

HOLMES DISTRICT SCHOOL BOARD
BONIFAY K8 SCHOOL

FDEM Grant SA-56948

ADVERTISEMENT ISSUE DATE:
June 16, 2025

MANDATORY PRE-SUBMITTAL CONFERENCE:
June 30, 2025 at 2 PM CDT

RESPONSE SUBMITTAL DUE DATE AND TIME:
July 14, 2025 by 2 PM CDT

HOLMES DISTRICT SCHOOL BOARD
307 West North Ave
Bonifay, FL

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PUBLIC NOTICE
REQUEST FOR PROPOSAL
DESIGN-BUILD SERVICES

REPLACEMENT GENERATOR
HOLMES DISTRICT SCHOOL BOARD
BONIFAY K8 SCHOOL

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Notice is hereby given that the Holmes District School Board ("HDSB" or the "District"), Bonifay, Florida, will accept completed responses HAND DELIVERED to the District offices at 307 West North Ave., Bonifay, FL 32425 until 2:00 pm on July 14, 2025 Central Time. Any responses received after the above date and time, or delivered to a different address or location, will not be considered.

Interested parties are advised to review the full solicitation, **in particular the minimum qualification requirements,** before submitting a response. Responses not clearly demonstrating minimum qualifications will be disqualified. The full RFP can be requested via email from David Watford at bonifayk8gen@watford-engineering.com.

HDSB has scheduled **a mandatory pre-submittal conference for this solicitation on June 30, 2025 at 2 pm Central Time at the Bonifay K8, 140 Blue Devil Dr., Bonifay, FL 32425.** Any respondent not attending and signing into the mandatory pre-submittal conference will be precluded from submitting a response.

The Holmes District School Board reserves the right to accept any responses deemed to be in the best interest of the School District, to waive any minor irregularities, omissions, and/or technicalities in any responses, or to reject any or all responses and to re-advertise for new responses. The responsibility for submitting a response before the stated time and date is solely and strictly that of the respondent. HDSB is not responsible for any delayed, late or misdelivered responses, no matter the cause.

Submittal Requirements: Reponses must be prepared in conformance with this Request for Responses. Six (6) signed originals and one (1) electronic copy on a USB FLASH DRIVE as an Adobe PDF file shall be submitted in one sealed package, clearly marked on the outside **"Sealed Response to RFP Design-Build Services for Replacement Generator Holmes District School Board Bonifay K8"** and addressed to:

HOLMES DISTRICT SCHOOL BOARD
307 West North Ave
Bonifay, FL 32425

PROJECT CONTACT:
Design Criteria Engineer, Watford Engineering, Inc.
Contact: David N Watford, PE
bonifayk8gen@watford-engineering.com
850-526-3447 office

SECTION 1

INTRODUCTION TO
REQUEST FOR PROPOSAL (RFP)

1.1. Invitation

Holmes District School Board (HDSB) invites responses from qualified and experienced design-build firms or teams to provide design, permitting, and construction services for the **REPLACEMENT GENERATOR BONIFAY K8 SCHOOL** project. The building is located at ***140 Blue Devil Dr., Bonifay, FL 32425***. A mandatory pre-submittal conference will be held at the Bonifay K8. HDSB will discuss the intended project scope, goals of the project, and intended sequence and commencement dates (HDSB reserves the right to modify the schedule for convenience). Actual commencement dates for the construction phases will be negotiated after the selection process. The final completion date for the project shall be **December 1, 2026**. The funding budgeted for this project is **$1.4M.**

The Appendix listed below is hereby incorporated into and made a part of this RFP as though fully set forth herein.

APPENDIX A:

- Scope of Work
- Design Criteria Package
  - A1 Design Criteria Specifications
  - A2 Design Criteria Drawings

The ranking process for this RFP is comprised of Evaluation of Qualifications and Evaluation of Technical Responses. Selection shall be made by the HDSB Selection Committee established by HDSB (the “Evaluation Committee” or “Committee”).

Respondents must have documented experience with K-12 construction including repairs or modifications to occupied buildings or sites. See Section 3 of this RFP for Minimum Qualifications.

A set of conceptual drawings has been developed for this project and are included in the Design Criteria Package. However, the selected design-build firm or team will be responsible for the final signed and sealed construction documents and all means and methods of construction.

After the selection process, the top ranked respondent will enter negotiations with the School District for a contract to provide Design/Build Services as described in this RFP.

1.2 Submission of Responses

Notice is hereby given that the Holmes District School Board (HDSB), Bonifay, Florida, will accept completed responses HAND DELIVERED to the District offices at 307 West North Ave, Bonifay, FL until 2:00 pm CDT on July 14, 2025. Any responses received after the above date and time, or delivered to a different address or location, will not be considered.

HDSB reserves the right to accept any responses deemed to be in the best interest of the School District, to waive any minor irregularities, omissions, and/or technicalities in any responses, or to reject any or all responses and to re-advertise for new responses. The responsibility for submitting a response before the stated time and date is solely and strictly that of the respondent. HDSB is not responsible for any delayed, late or mis-delivered responses, no matter the cause**.**

1.3 Mandatory Pre-Response Conference

A **mandatory** pre-response conference ("Conference") will be held on **June 30, 2025 at 2 pm CDT** The conference will be held at the Bonifay K8 Generator Upgrade. Prospective respondents are required to attend this meeting to obtain information related to the RFP. Attendees are required to sign in. Failure to attend or sign-in will result in a respondent's response being rejected as non-responsive.

1.4 Cone of Silence

A "Cone of Silence" is imposed upon this RFP. Oral communication is prohibited with any School Board Member, the School Superintendent or District staff member. All communications must be with Watford Engineering / David N Watford, PE Phone: (850) 526-3447 or bonifayk8gen@watford-engineering.com. Failure to abide by this condition of the RFP shall be cause for rejection of your response.

1.5 Additional Information or Clarification

Requests for additional information or clarifications must be made in writing. Respondents may e-mail to bonifayk8gen@watford-engineering.com their requests for additional information or clarifications. Any request for additional information or clarification must be received in writing **no later than 2 pm CDT on July 7, 2025.** Late or misplaced delivered requests will not receive a response in the subsequent addendum.

HDSB will issue responses to inquiries and any other corrections or amendments it deems necessary in written addenda issued no less than seven business days prior to the response Submission Date. responses to inquiries and any addendum to this RFP will be emailed to all teams signing into the mandatory pre-submittal conference. Respondents cannot rely on any representations, statements or explanations other than those made in this RFP or in any written addenda to this RFP. Where there appears to be conflict between the RFP and any addenda issued, the last addendum issued shall prevail.

All documents may be requested from David N Watford, PE bonifayk8gen@watford-engineering.com (850-526-3447).

1.6 RFP and Contract Terms and Conditions

The successful respondent shall be required to execute a design/build contract with Holmes District School Board based upon AIA Document A141 -2014.

Without diminishing the foregoing, the Respondent may request clarification and submit comments concerning this RFP for HDSB's consideration. None of the foregoing shall preclude the District, at its option, from making changes in this RFP or seeking to negotiate changes to the Contract (including changes to the terms outlined in this RFP) during the negotiation process.

1.7 Unauthorized Work

After entry of the contract, the successful respondent shall not begin work until HDSB issues a Notice to Proceed. Any unauthorized work performed by the Successful respondent prior to the Notice to Proceed, and during the term of the Contract, shall be deemed non-compensable by HDSB and the successful respondent shall not have any recourse against the District for performing unauthorized work.

1.8 Subconsultant(s)/Subcontractor(s)

A subconsultant or subcontractor is an individual or firm who has a contract with the respondent to assist in the performance of professional or construction services required under this RFP.

Any liabilities regarding the use of a subconsultant or subcontractor shall be borne solely by the successful respondent and insurance for each subconsultant and subcontractor must be maintained in good standing and approved by the District throughout the duration of the Contract.

1.9 Discrepancies, Errors, and Omissions

Any discrepancies, errors, or ambiguities in this RFP or addenda (if any) should be reported in writing, in the manner prescribed in RFP Section 1.4, Cone of Silence. Should it be necessary, the District will issue a written addendum to the RFP clarifying such conflicts or ambiguities.

1.10 Disqualification

HDSB reserves the right to disqualify responses before or after the Submission Date, upon evidence of collusion, intent to defraud, or other illegal practices on the part of the respondent. The District also reserves the right to waive any immaterial defect or informality in any response; to reject any or all responses in whole or in part, or to reissue a new RFP for the same or modified services.

Any respondent who submits in its response any information that is determined by HDSB, at its sole and unfettered discretion, to be substantially inaccurate, misleading, exaggerated, or incorrect, shall be disqualified from consideration for award of the Contract.

Any response submitted by a respondent who is in arrears, e.g., money owed or otherwise in debt by failing to deliver goods or services to HDSB or where HDSB has an open or liquidated claim against the respondent for monies owed HDSB at the time of response, or if a respondent has been declared in default or abandoned a prior HDSB contract or agreement, or has been barred by any federal, state, or local public entity within the past five (5) years will be rejected as non-responsive. Prior to award of a contract, the above requirements must be met and are a condition that must be maintained during the term of the Contract.

1.11 Respondent's Expenditures

Any expenditure a respondent may make in preparation and submittal of a response or in the performance of any services requested by HDSB in connection with or in response to this RFP are exclusively at the expense of the respondent. HDSB shall not pay or reimburse any expenditure or expense incurred by any respondent in preparation of a response or in anticipation of an award of a Contract, or to maintain the respondent's status or in connection with any administrative or judicial proceedings associated with this solicitation process.

1.12 Inspection of Sites

Respondents should carefully examine the Bonifay K8 and associated sites before submission of a response and make all necessary investigations to inform themselves thoroughly as to all difficulties involved in the completion of all work required pursuant to the mandates and requirements of this RFP and the Contract. No plea of ignorance of conditions or difficulties that may exist now or later arose as a result in whole or in part of conditions that may exist now, or of conditions or difficulties that may be encountered in the execution of the work as a result of failure to make the necessary examinations and investigations will be accepted as an excuse for a failure or omission on the part of the successful respondent to fulfill, in every detail, all of the requirements of the Contract nor will they be accepted as a basis for any claims whatsoever for extra compensation or for an extension of time.

1.13 Secure Access to Sites

Respondents are reminded that Bonifay K8 and associated sites are School Board Property and considered as a campus of an active public school. Accordingly, respondents will be required to comply with the Jessica Lunsford Act and the security policies of HDSB for access to all sites, whether for preliminary inspection, RFP development, or construction activity.

1.14 Execution of Response

The response must be manually and duly signed by an authorized corporate officer, principal, or partner (as applicable) with a signature in full. When a partnership or joint venture is the respondent, the response shall be signed in its the name by one or more of the partners. When a corporation is the respondent, the officer signing shall set out the corporate name where he shall sign his name, write the title of his office, and affix the corporate seal. Anyone signing the response as agent must file with it legally sufficient evidence of authority. Respondents who are nonresident corporations shall furnish with the response a certified copy of their registration to transact business in the State of Florida and failure to do so may be the basis for rejection of the response.

Submission of a response to this RFP does not constitute an Agreement, Contract, or offer with or by or with the respondent.

1.15. The anticipated schedule of events related to this RFP is as follows:

Activity	Date
RFP Advertisement	June 16, 2025
Mandatory Pre-Submittal Conference	June 30, 2025
Last Day for Questions	July 7, 2025
Submittal Deadline	July 14, 2025
Ranking	July 15, 2025
School Board Approval of Ranking	August 12, 2025
Prepare Contracts and Notice to Proceed	September 3, 2025

Dates subject to change if a contract with the highest ranked firm is not negotiated.

SECTION 2

GENERAL SCOPE OF SERVICES

2.1 Holmes District School Board's Responsibilities

HDSB Facilities Department and HDSB's design criteria professional reserves the right to observe and provide quality acceptance reviews of some or all of the work at the sole discretion of HDSB. In any event, the awarded design-build firm must provide its own complete construction quality assurance and quality control inspections, testing and material certifications and not rely upon HDSB for these services.

HDSB will not be responsible for materials testing of any type. All quality assurance services as may be required by the approved project drawings and specifications, shall be the responsibility of the approved design-build firm.

2.2 Design-Build Firm Responsibilities

The design-build firm will be responsible for obtaining all necessary or useful surveys, and all other investigations and studies of existing site and building conditions necessary, convenient, or useful to a safe, durable and functional design and workmanlike construction. As the work progresses, the Design-Build firm shall notify HDSB Facilities Department of any areas possibly needing repair or remediation. The Design-Build firm will be responsible for temporary protection against weather and elements during construction. The Design-Build firm will be responsible for segregating work areas from students and staff throughout construction. The Design-Build firm shall provide timely notification to HDSB of any unforeseen conditions.

The Design-Build firm will be responsible for the design and construction of all civil elements (If any are required) of the design and shall coordinate all civil design and construction activities with HDSB's design criteria professional, Watford Engineering, Inc.

The design-build firm shall be responsible for confirming the site and property surveys, underground utility locations (as applicable), condition assessment for repair and/or replacement quantities of the structural, plumbing, mechanical and communication trades, documentation of existing conditions in accordance with requirements, engineering designs for the trades required, construction inspections (including special inspections required by the building permits), Holmes County permitting, construction document preparation and subsequent approvals, and construction inspections on or before the project completion date indicated in the Technical Response.

The Design Criteria Package (Appendix 'A') sets forth requirements regarding design, construction, and occupied building access during construction, requirements relative to project management, scheduling, and coordination with other agencies and entities such as state and local government, utilities and permitting agencies, and the public.

The design-build firm shall demonstrate best project management practices while working on this project, including but not limited to accounting and invoicing practices sufficient to meet Florida state, American Institute of Architects (AIA), and HDSB audit standards.

The services performed by the design-build firm shall be in compliance with all applicable building and Life Safety codes.

The design-build firm shall be responsible for preparing all necessary permit applications. The design-build firm will be responsible for processing the required building permit as well as any required trade permits in accordance with the Florida Building Code and Holmes County Building department requirements. All permits required for a particular construction activity will be acquired prior to commencing the particular construction activity. Delays due to incomplete permit packages, agency rejection, agency denials, agency processing time, lack of payment, or any permit violations shall be solely the responsibility of the design-build firm and will not be considered sufficient reason for time extension. Changes to the concept requiring additional permitting activities are the responsibility of the design-build firm.

The design-build firm shall be responsible for construction layout and, if necessary, mapping services necessary to confirm existing conditions and to complete the design and construction aspects of this project. Construction phase survey and mapping work must also comply with all pertinent Florida Statutes and applicable rules in the Florida Administrative Code. This work must comply with the Minimum Technical Standards for Professional Surveyors and Mappers, Chapter 5J-17, Florida Administrative Code (F.A.C.), pursuant to Section 472.027, Florida Statutes (F.S.) and any special instructions from HDSB. The design-build firm will also be responsible for conducting any “as-built” survey that will be processed through the agencies with jurisdiction.

The design-build firm shall be responsible for verification of existing conditions. The design-build firm specifically acknowledges and agrees that the design-build firm’s engagement is sufficient and complete compensation for performing adequate investigations of existing site conditions, sufficient to support the design developed by the design-build firm and that any information being provided is merely to assist the design-build firm in completing adequate site investigations. Notwithstanding any other provision in the contract documents to the contrary, no additional compensation will be paid in the event of any inaccuracies in the preliminary information.

The design-build firm shall fully document and take every precaution during construction to protect any existing roadway and/or building infrastructure such as signs and sign structures, signals, lighting, utilities, storm-water facilities and other items that are not to be replaced as part of this Project. If such items are damaged by the design-build firm during the construction period, the damage shall be replaced at the design-build firm's expense.

2.3 Submittals:

Respondents are advised that the Contract shall require, among other similar things, the following described submittals.

a. Plans:

For each phase of the project, plans submitted to the owner must meet the minimum contents listed below. The particular phase of each submittal shall be clearly indicated on the cover sheet.

The design-build firm shall provide copies of required review documents as listed below for each submittal:

1. PDF and hard copies
2. Three (3) sets of full-size Plans

3. Three (3) copies of Technical Specifications
4. One (1) letter with all comments received and replies.
5. One (1) letter addressed any specific unresolved issues.
6. One (1) CD or USB drive containing all of the above

b. Submittal Requirements for each Documentation Phase

DESIGN DEVELOPMENT (60%)

- Drawings (All disciplines)
- Outline Specifications (All disciplines)
- Written replies to all issued review comments

CONSTRUCTION DOCUMENTS

- Signed and Sealed Drawings (All disciplines)
- Signed and Sealed Full Specifications (All disciplines)
- Written replies to all issued review comments

c. Construction Documents:

In addition to the requirements above, Construction documents shall be signed and sealed (Manually or e-signed) by the Design Professional or Engineer registered in the State of Florida.

The Design-Builder shall complete the Record Set as the project is being constructed. The record set becomes the "as-built" at the end of the project. All design changes shall be signed and sealed by the Engineer of Record. The record set shall reflect all changes initiated by the Design-Builder or the District in the form of revisions. The record set shall be submitted on a Final Project CD upon project completion along with one (1) signed and sealed hard copy. The District shall review the record set prior to Final Acceptance in order to accept the record set.

2.4 Design and Construction Project Schedule:

The minimum number of major milestone activities shall be those listed below:

- Award Date
- Design Surveys and Field Assessment of Conditions
- Design Durations
- Design Submittals
- Design Reviews by the HDSB
- Building Permit Processing
- Start of Construction
- Materials Quality Tracking
- Structural, electrical, and associated trade construction; to include utility service connections and associated adjacent upland improvements.
- Holidays and Special Events
- Substantial Completion
- Final Completion Date for all work-**December 1, 2026**
- Preparation of As-Built Surveys
- Reconciliation of final costs/reimbursement packages/owner purchased items

Within fourteen (14) days after contract award, the Design-Build firm shall submit a draft detailed logic-based Critical Path Method (CPM) schedule for approval by HDSB Facilities Department. After approval, the Design-Build firm shall update the CPM schedule at least monthly with actual progress and any necessary schedule revisions. The scheduled date for Substantial Completion shall not be changed with prior written consent of HDSB Facilities Department.

2.5 Key Personnel/Staffing:

The Design-Builder's work shall be performed and directed by Key Personnel identified in the Technical Proposal by the Design-Builder. Respondents shall not change Key Personnel without just cause. Any changes to the indicated Key Personnel shall be subject to review **and** must obtain written approval by HDSB. HDSB reserves the right to request additional documentation as required by this RFP.

2.6 Meetings and Progress Reporting:

The Design-Builder shall anticipate periodic meetings with HDSB personnel and other agencies as required for resolution of design and/or construction issues. These meetings may include:

- Technical issue resolution
- Permit coordination
- Scoping Meetings
- Design coordination
- Updated project cost

During design, the Design-Build Firm shall meet with HDSB's as needed, During Construction, meeting will be on a weekly basis and provide a 14-day "look ahead" of the upcoming activities.

2.7 Testing:

The Design-Builder shall be responsible for all materials testing. The HDSB or its representatives will not perform verification testing services. However, the HDSB reserves the right to perform inspections and testing for verification of compliance with the approved drawings and specifications.

2.8 Design and Construction Criteria:

a. General:

The Design-Builder shall be responsible for detailed plan checking of all work described in the RFP, and in the Design and Construction criteria. Before construction activities can begin, signed and sealed design plans and calculations supporting the design must be reviewed by HDSB and/or designee.

b. Shop Drawings:

The Design-Builder shall be responsible for the preparation and approval of all Shop Drawings. Shop Drawings shall be submitted to HDSB and shall bear the stamp and signature of the Design-Builder's Engineer of Record (EOR), and Specialty Engineer, as appropriate.

HDSB will review the Shop Drawing(s) to evaluate compliance with project requirements and provide any findings to the Design-Builder. The District's procedural review of shop drawings would be to assure that the Design-Builder's EOR has approved and signed the drawing; the drawing has been independently reviewed and is in general conformance with the plans. HDSB's review would not be meant to be a complete and detailed review.

Shop Drawing submittals must be accompanied by sufficient information for adjoining components or areas of work to allow for proper evaluation of the Shop Drawing(s) submitted for review**.**

c. Sequence of Construction:

The Design-Builder shall construct the work in a logical manner and with the following objectives:

- Maximize occupant and visitor safety
- Minimize disruption to work activities
- Minimize the impact to building utilities
- Minimize the overall time for construction

d. Stormwater Pollution Prevention Plans (SWPPP):

The Design-Builder shall construct and execute the erosion control plan that complies with the Storm Water Pollution Prevention Plan (SWPPP) as required by permit (If applicable)

e. Landscape:

The Design-Build Firm shall relocate and/or restore existing landscaping impacted by the construction and replace same when work is completed.

f. CADD Files:

Upon request, and at no charge, HDSB will make available, to Design-Build firms responding to the RFP, all available AutoCAD files included in the entire Design Criteria Package. (Appendix A)

2.9 Pricing and Costs: The selected Design-Builder will be required to provide cost accounting information as required by the State of Florida and FDOE.

a. Lump Sum Bid

Proposed bid shall be included with the response to this RFP for review, together with the following types of information to be used by HDSB to evaluate the GMP.

- *Executive Summary*
- *Scope of Work Narrative*
- *Clarifications and Assumptions*
- *Project Schedule (both Design and Construction)*
- *List of Allowances (Allowances are to be minimized.)*
- *Construction Phasing Plan (if applicable)*

- *Staffing Matrix (both Design and Construction)*

Once the Design-Build firm is selected a GMP shall be developed using the information provided in the Criteria Package. If the contracted Design-Build team believes additional design or existing site condition investigation is required, that work can be performed by the Design-Build Team, but the cost of this work will not be reimbursed by the School District and will fall entirely to the Design-Build team.

The Design-Build Firm and HDSB Facilities Staff shall meet to review the submitted GMP. At that time, HDSB can execute an amendment to the Design-Build contract for the GMP or the parties shall cooperate to Value Engineer the design and construction costs until either a GMP is agreed upon or the Contract is cancelled due to an impasse after notice. See Section 1.1 regarding impasse.

If HDSB Facilities recommends an agreed GMP they will be presented to the Board for final approval. If approved by the Board, a Notice to Proceed will be issued in by HDSB using typical practices. If not approved by the Board, the Contract will be terminated.

It is the intent of HDSB that once the GMP is approved, the Owner shall be entitled to recover any savings realized between the Guaranteed Maximum Price and the buyout price for subcontracting work, provided however, that the Design-Build firm may use such savings to offset other buyout packages that exceed the amounts identified in the initial Guaranteed Maximum Price, so long as the total Cost of Work proposed in the Guaranteed Maximum Price does not increase. The progress of buyout pricing, Design-Build team's contingency and Owner Direct Purchase Program will be reported monthly with all requests for payment.

c. Invoicing:

During the design phase, the Design-Build team shall invoice for design services after submittal and HDSB approval. The design submittals shall follow industry standards at Design Development and Construction Document phases.

During construction, The GMP will be paid in arrears by monthly installments based upon the percentage of completion of Construction Standards Institute (CSI) Division Format Schedule of Values including all pertinent line items.

Project will be invoiced monthly (during Design and Construction). Each invoice will be on standard AIA G 702 form (and continuation sheet) with full back-up for each line item being invoiced, including design fees, testing and any other related costs.

d. Use of Drawings:

Payment for the costs established in the Design-Build process then allows that the design paid for is the property of Holmes District School Board and can be utilized in a manner consistent with Florida statutes for construction with another entity. The successful designer is entitled to require CA oversight should this occur but may not prevent the district from proceeding utilizing the design that the district has paid for.

SECTION 3
RFP GENERAL CONDITIONS

3.1 Legal Requirements

This RFP is subject to all applicable federal, state, county, District and local laws, codes, ordinances, rules and regulations. Lack of knowledge by the respondent shall in no way be cause for relief from responsibility for compliance with these requirements. Respondent shall fully comply with all applicable federal, state and local laws, rules and regulations. The foregoing will be considered as part of the duties of performance of the respondent under the Contract.

3.2 Minimum Qualification Requirements

Electrical Contractor

The Holmes District School Board is seeking to procure a qualified and experienced Design-Build Team, as defined in §287.055 Florida Statutes, including a certified Electrical Contractor ("EC"), as the team's lead firm. In general, and subject to limited exceptions below, the **Electrical Contractor shall possess a minimum of five (5) years of experience in K-12 construction and hold a current active certified license as a Electrical Contractor under its current business name as authorized to do business in the State of Florida.**

The EC shall have experience as the prime contractor (Design/Build delivery not required for this) for **at least two completed projects of similar scope, size and complexity within the immediately preceding Five years.** The Electrical Contractor must have a proven record of successfully completing projects. The Electrical Contractor must have a proven track record of coordination of the trades required for structural and electrical work required for K-12 schools and the Replacement Generator Scope of Work.

The EC must agree to provide field (on-site) supervision (through an experienced named superintendent) for all trade subcontractors on the project. In addition, the EC shall assign and name a supervisory employee to provide scheduling direction to the entire project. Supervisory employees (including field superintendents, foremen, and Project Manager) must have been employed in a supervisory (leadership) capacity for the EC on a substantially equivalent level on a similar project for at least two years within the last five years. **The EC shall include a resume of experience for each of those proposed supervisory employees.**

The EC shall have possession or availability of facilities and equipment needed for performance of the work.

The EC must provide a list of projects and their statuses for a period of twelve (12) months prior to the response and a copy of its current financial statement.

Each respondent interested in responding to this RFP shall provide information on the firm's qualifications and experience, qualifications of the project team, key personnel, members and

staff on previous work of similar scope and complexity. For the District to consider a referenced project as complete, the respondent shall provide documentation of completion and references. Copies of such documentation shall be provided for each project being submitted to demonstrate meeting the Minimum Requirements.

HDSB will consider a response from a design-build firm as responsive where a respondent has less than the required minimum experience under its current business name but the majority of the respondent's principals and operating officers have the minimum experience required. Respondent must include documentation substantiating the above stated as part of its response for the District to consider crediting the years of experience from the respondent under its previous name.

See Section 4 "Instructions for Submitting a Response" for further direction. Responses that do not completely adhere to all requirements may be considered non-responsive and eliminated from the process.

Lead Engineer

HDSB is seeking to procure a qualified and experienced design-build firm or team, as defined in §287.055 Florida Statutes, including an engineering/design manager firm, as the team's lead design firm. **The Lead Engineer must be a licensed, registered, and practicing firm authorized to conduct business in the State of Florida for the last five (5) years under its current business name** (current business name means the actual official name on file with the State of Florida of the business entity or firm submitting the response), as of the Submission Date. The managing principal/s of the Lead Engineer/Design Manager must be registered engineer(s) under Chapter 471, Florida Statutes.

In addition, the Lead Engineer shall have experience as the Engineer of Record for at least three (3) projects of similar scope and complexity. The Lead Engineer will be the design-build firm's Engineer of record.

All references required above and offered by the design-build firm to attest to its own previous project experience, as well as that of its sub-consultants/sub-contractors, must be included in the design-build firm's response.

3.3 Public Entity Crimes

In accordance with Section 287.133, Florida Statutes, a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a response on a contract to provide any goods or services to a public entity, may not submit a response on a contract with a public entity for the construction or repair of a public building or public work, may not submit responses on leases of real property to a public entity, may not be awarded or perform work as a contractor, design-build firm, 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 Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list. Violation of this section by respondent shall result in rejection of the response, cancellation of the Contract (if awarded) and may result in respondent's debarment.

3.4. Resolution of Protests

Any actual or prospective contractual party who feels aggrieved in connection with the solicitation or award of a contract may protest in writing to David N Watford, PE, Watford Engineering, Inc. at bonifayk8gen@watford-engineering.com. HDSB's Protest Policy and Procedure is available upon request.

3.5 Review of Responses for Responsiveness

Each response will be reviewed to determine if it is responsive to the submission requirements outlined in the RFP. A "responsive" response is one which meets the requirements of the RFP and is submitted in the format outlined in the RFP, is of timely submission, can be evaluated in accordance with the evaluation criteria, and has appropriate signatures/attachments as required on each document. Failure of the respondent to provide the information as required under Section 4 of the RFP may result in a rejection of the response as non-responsive.

3.6 Clarifications

HDSB reserves the right to request clarifications of information submitted and to request any necessary supporting documentation or information of one or more respondents after the deadline for submission of responses.

3.7 Public Records

The design-build firm shall comply with the requirements specified in Section 119.0701, Florida Statutes, entitled "Contracts; public records; request for contractor records; civil action."

3.8 Conflict of Interest

Respondents, by responding to this RFP, certify that to the best of their knowledge or belief, no elected/appointed official or employee of the HDSB is financially interested, directly or indirectly, in the purchase of goods/services specified in this RFP. Any such interests on the part of the respondent or its employees must be disclosed in writing to the District.

Further, respondents must disclose the name of any HDSB employee who owns, directly or Indirectly, an interest of five percent (5%) or more of the total assets of capital stock in the respondent.

3.9 Debarred/Suspended Vendors

An entity or affiliate who has been placed on the State of Florida debarred or suspended vendor list may not a) submit a response on a contract to provide goods or services to a public entity; b) may not submit a response on a contract with a public entity for the construction or repair of a public building or public work; c) may not submit response on leases of real property to a public entity, may not award or perform work as a contractor, design-build firm, supplier, subcontractor, or consultant under contract with any public entity; and d) may not transact business with any public entity.

3.10 Conflict of Interest, and Unethical Business Practice Prohibitions

Respondent represents and warrants to HDSB that it has not employed or retained any person or company employed by HDSB to solicit or secure the award of the Contract and that it has not offered to pay, paid, or agreed to pay any person any fee, commission, percentage, brokerage fee, or gift of any kind, contingent upon or in connection with, the award of the Contract.

3.11 Davis Bacon Act

Bidders shall be advised that all contracts relating to this work must be in compliance with the Davis Bacon Act (40 U.S.C. 2760-2760-7) supplemented by the Department of Labor regulations (29 CFR Part 5).

A. The contractor or subcontractor shall pay all mechanics and laborers employed directly on the site of the work, unconditionally and at least once a week, and without subsequent deduction or rebate on any account, the full amounts accrued at time of payment, computed at wage rates not less than those stated in the advertised specifications, regardless of any contractual relationship which may be alleged to exist between the contractor or subcontractor and the laborers and mechanics;

B. The contractor will post the scale of wages to be paid in a prominent and easily accessible place at the site of the work; and

C. There may be withheld from the contractor so much of accrued payments as the contracting officer considers necessary to pay to laborers and mechanics employed by the contractor or any subcontractor on the work the difference between the rates of wages required by the contract to be paid laborers and mechanics on the work and the rates of wages received by the laborers and mechanics and not refunded to the contractor or subcontractors or their agents.

D. For prime contracts in excess of $100,000, contractors and subcontractors must also, under the provisions of the Contract Work Hours and Safety Standards Act, as amended, pay laborers and mechanics, including guards and watchmen, at least one and one-half times their regular rate of pay for all hours worked over 40 in a workweek. The overtime provisions of the Fair Labor Standards Act may also apply to DBRA-covered contracts.

E. The Wage Determination to be used for this project follows this section in the specifications.

3.12 Equal Opportunity Report Statement And Certificate Of Nonsegregated Facilities:

Each bidder shall complete, sign and include in his bid proposal the Equal Opportunity Report Statement and Certificate of Nonsegregated Facilities. When a determination has been made to award a contract to a specific Contractor, such Contractor shall, prior to award, after award or both, furnish such other pertinent information regarding his own employment policies and practices as well as those of his proposed subcontractors as the sponsor or the Secretary of Labor may require. All such information required of a subcontractor shall be furnished by the Contractor.

The Equal Opportunity Report Statement, Certification of Nonsegregated Facilities, Equal Opportunity Clause, and all other EEO requirements shall be included in all non-exempt

subcontracts entered into by the Contractor. Subcontracts entered into by the Contractor shall also include all other applicable labor provisions. No sub-contract shall be awarded to a non-complying subcontractor.

In addition, the Contractor will also insert in each subcontract a clause requiring the subcontractor to include these provisions in any lower tier subcontracts which they may enter into, together with a clause requiring this insertion in any further subcontracts that may in turn be made.

3.13 Contractor's Liability Insurance

A. The insurance required shall be written for not less than any limits of liability set forth below, required by Law or set forth in the Contract Documents, whichever is greater. Other types as may be required by the Project Specifications shall also be furnished.

1. FURNISH TO THE OWNER A LETTER FROM THE INSURANCE COMPANY STATING THAT ALL REQUIRED INSURANCE HAS BEEN COMPLIED WITH AS SPECIFIED.
2. THE OWNER, HOLMES DISTRICT SCHOOL BOARD, AND THE ENGINEER, Watford Engineering, shall be named as an ADDITIONAL INSURED on the Contractor's general liability policies. (Being named as Certificate Holder is not acceptable.)
3. INSURANCE MUST BE MAINTAINED FOR ONE (1) YEAR AFTER FINAL PAYMENT if written on a claims-made basis.
4. All insurance shall contain provision that coverage afforded under the policies SHALL NOT BE CANCELED OR MODIFIED UNTIL A MINIMUM OF FIFTEEN (15) DAYS PRIOR WRITTEN NOTICE TO OWNER HAS BEEN GIVEN, AND THIS PROVISION SHALL BE NOTED ON CERTIFICATES OF INSURANCE.
5. Deliver to the Architect, before work commences, two (2) certificates evidencing compliance with all required insurance, using ACORD Certificate of Insurance and AIA Document G715, Supplemental Attachment for ACORD Certificate of Insurance 25.
6. Insurance required shall include Contractual Liability Insurance applicable to the Contractor's obligations under Item 3.15.
7. Property Insurance coverage shall include coverage of perils of windstorms, fire, lightning vandalism, malicious mischief and those included in extended coverage in the amount of one hundred percent (100%) of the values at risk. Extended coverage, vandalism, and malicious mischief insurance may contain the standard deductibles.
8. Contractor shall maintain valid Worker's Compensation Insurance as required by Chapter 440, Florida Statutes. All Subcontractors shall maintain valid Worker's Compensation as required by Florida Statutes.
9. Contractor shall maintain Public Liability Insurance against bodily injury, personal injury and property damage, in limits as specified. Coverage shall include Comprehensive General Liability and Products and Completed Operations Liability.
10. The amounts set forth herein and by Law shall apply equally or whether on or off the site of the Work.
11. Unless otherwise provided in the Contract Documents, property insurance shall cover portions of the Work stored off the site after written approval of the Owner at the value established in the approval, and also portions of the Work in transit.

3.14 Builder's Risk Insurance

A. It is the Contractor's responsibility to obtain, purchase and maintain property coverage's (Builder's Risk) shall be written for one hundred percent (100%) of the values at risk.

1. Such policy shall include the interest of Owner, Contractor, Subcontractors, and Sub-subcontractors or any other parties involved in the project. Perils insured shall be "All Risks" including flood, Earthquake, and Sinkhole. Contractor remains responsible for any deductible under such policy."
2. The Contractor shall purchase and maintain such machinery insurance as may be required by law. This insurance shall include the interests of the Owner, the Contractor, Subcontractor and Sub-subcontractor in the Work.
3. Any insured loss is payable to the Owner as trustee for the insured, as their interest may appear.
4. The Contractor shall file a copy of all policies with the Owner before an exposure to loss may occur.
5. If the Owner requests in writing that other special insurance be included in the property insurance policy, the Contractor shall, if possible, include such insurance, and the cost thereof shall be charged to the Owner by appropriate Change Order.
6. The Owner and Contractor waive all rights against each other for damages caused by fire or other perils to the extent covered by insurance provided under this paragraph, except such rights as they may have to the proceeds of such insurance held by the Owner as trustee. The Contractor shall require similar waivers by Subcontractors and Sub-subcontractors.

3.15 Requirements (Minimum)

A. WORKER'S COMPENSATION

Applicable	Per Florida Statute - Chapter 440
Railroad Required	NO
Maritime Required	NO
Employer's Liability	1,000,000

B. CONTRACTOR'S LIABILITY INSURANCE including CONTRACTUAL LIABILITY

Form of Insurance shall be:

Comprehensive General Liability, Premises and Completed Operations, Contractual Liability, Broad Form.

1. BODILY INJURY

Each Occurrence	1,000,000
Aggregate	1,000,000

2. PROPERTY DAMAGE

Including Complete Operations	
Broad Form	Yes
Each Occurrence	1,000,000
Aggregate	1,000,000

3. PERSONAL INJURY (WITH EMPLOYMENT EXCLUSION DELETED)

Each Occurrence	1,000,000
Aggregate	1,000,000

4. XCU COVERAGE included Yes

C. MOTOR VEHICLE LIABILITY - Owned, Non-owned and Hired

1. BODILY INJURY

Each Occurrence	1,000,000
Aggregate	1,000,000

2. PROPERTY DAMAGE

Each Occurrence	200,000
Aggregate	400,000

D. OWNER'S AND CONTRACTOR'S PROTECTIVE LIABILITY INSURANCE

The Contractor shall provide an Owner's and Contractor's Protective Liability Policy with the following limits: (A separate policy in the name of the Owner must be provided.)

1. BODILY INJURY

Each Occurrence	1,000,000
Aggregate	1,000,000

2. PROPERTY DAMAGE

Each Occurrence	1,000,000
Aggregate	1,000,000

3. PERSONAL INJURY

Each Occurrence	1,000,000
Aggregate	1,000,000

4. Optionally, the Owner may purchase and maintain other insurance for self-protection against claims which may arise from operations under the Contract.

E. PROPERTY INSURANCE

1. To be purchased by Contractor: Builders Risk Insurance on completed value form in the names of the Owner, Architect, and Contractor as their interests may appear with limits in an amount equal to the Contract Sum for the work, including coverage for materials and equipment furnished by Owner to be incorporated or used in the project when stored off the site or when in transit. Coverage shall be provided on an all-risk basis to include extended coverage for fire, lightning, wind storms, vandalism and malicious mischief.

3.16 General Bond Requirements

A. Prior to execution of the Contract, the Bidder shall furnish bonds covering the faithful performance of the Contract and the payment of all obligations arising thereunder in such form and amount as stated hereafter. Bonds may be secured through the Bidder's usual sources.

Unless otherwise specified or instructed, all bonds shall be paid for by Contractor and made payable to the Owner. AIA Document A311, February 1970 Edition, shall be used.

B. To be acceptable to the Holmes District School Board as Surety for Bid Bonds and Performance and Payment Bonds a Surety Company shall comply with the following provisions:

1. The Surety Company must be admitted to do business in the State of Florida.
2. The Surety Company shall have been in business and have record of successful continuous operations for at least five (5) years.
3. The Surety Company shall have a least the following minimum ratings:

CONTRACT AMOUNT	POLICY HOLDER'S REQUIRED RATING	FINANCIAL RATING CLASS
Performance Bond equal to 100% of Contract Price	A	III

4. Best's Policyholder's Rating of "A" and "B" (which signifies A = Excellent, and B = Good, based upon good underwriting, economic management, adequate reserves for undisclosed liabilities, net resources for unusual stock and sound investment) or an equivalent rating from the Insurance commissioner if not rated by Best's.
5. The Surety Company shall not expose itself to any loss on any one risk in an amount exceeding ten percent (10%) of its surplus policyholders, provided:
   a. Any risk or portion of any risk shall have been reinsured (in which case these minimum requirements contained herein also apply to the reinsuring carrier) in assuming insurer authorized or approved by the Insurance Commissioner to do business in this State shall be deducted in determining the limitation of risk prescribed in this section.
   b. In the case of a surety insurance company, there shall be deducted in addition to the deduction for reinsurance, the amount assumed by any co-surety.

3.17 Bid Bond

A. Each bid shall be accompanied by a Bid Bond in the amount of five percent (5%) of the total proposal, including all alternates if any, pledging that the Bidder shall enter into a contract with the Owner on the terms stated in his Bid and shall furnish bonds as described hereunder in Item 3.16 covering the faithful performance of the Contract and the payment of all obligations arising thereunder. Should the bidder refuse to enter into such Contract or fail to furnish such bonds if required, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as a penalty.

1. The Bond shall show that it is signed and sealed on the date of the Building Contract.
2. Surety Bond shall be written on Bid Bond Form and the Attorney-in-Fact who executes the bond on behalf of the surety shall affix to the bond a certified current copy of his Power of Attorney to execute obligations on behalf of the surety company.
3. The Power of Attorney shall be on a certificate stating that on the date the Bond was executed that the Power of Attorney was in full force and effect.
4. The Certificate may be manually signed or the Surety Company must have filed with the Attorney General's Office of the State of Florida, duly attested that the signatures of the officers and the seal of the company may be affixed to any Power of Attorney or any

Certificate relating thereto by facsimile, and such facsimile signatures shall be valid and binding upon the company.

5. The Owner shall have the right to retain the bid security of the Bidders to whom an award is being considered until either (1) the contract has been executed and bonds, if required, have been furnished, or (2) the specified time has elapsed so that Bids may be withdrawn, or (3) all Bids have been rejected.

3.18 Performance Bond And Labor And Material Payment Bond

A. The Contractor shall furnish the Owner a Performance Bond equal to one hundred percent (100%) of the contract price. The Performance Bond shall extend as a guarantee bond for one (1) year after final acceptance of the Work, or until specified guarantees which exceed one year are satisfied. The Contractor shall furnish a Labor and Material Payment Bond equal to one hundred percent (100%) of the contract price.

SECTION 4
INSTRUCTIONS FOR SUBMITTING A RESPONSE

Interested firms must submit the following information and documents with their response to this RFP. Failure to do so may deem your response non-responsive and not entitled to further consideration. This selection process will be based upon a scoring system including qualifications and cost.

4.1 Requirements of Written Qualification Response

Each written response must contain the documents required by this Section 4.1 and must be fully completed and signed as required. Respondents shall prepare their responses utilizing the format outlined below in this Section. A tabbed divider identifying the corresponding section number shall separate each section of the response as stipulated in 4.1.C. Respondents are not to submit any information in response to this RFP that has not been requested, or which the respondent considers confidential. Submission of any confidential information will be deemed a waiver of any confidentiality or other such protection, which would otherwise be available to the respondent, except as specifically permitted under Florida Statute.

The respondent shall submit Six (6) signed originals and one (1) electronic copy on a USB FLASH DRIVE as an Adobe PDF file in one sealed package, clearly marked on the outside **"Sealed Response to RFP, Design-Build Services for the Replacement Generator for Holmes District School Board Bonifay K8 School"**

and addressed to:

Josh McGowan
Director of District Operations
HOLMES DISTRICT SCHOOL BOARD
307 West North Ave
Bonifay, FL 32425

The content and form of the response should present a clear, comprehensive, and well documented representation of the respondent and the design-build team's qualifications and experience. The response must demonstrate how the design-build firm is qualified to meet or exceed the evaluation criteria described in this RFP, and how the team's past performance on similar projects may provide an understanding of how the respondent is best suited to meet the challenges of the scope of work, as described in Appendix 'A'.

The response must contain sufficient information to enable the Evaluation Committee to evaluate each of the criteria to be used in scoring the required minimum qualifications and experience. The response will be assigned a maximum of one hundred eighty (180) points by each Evaluation Committee member.

Format of Qualifications Response

All responses shall include the following elements in the order listed.

1. **Table of Contents**

2. **Response Cover Letter** (maximum 1 page)
   Respondent shall submit a cover letter.

3. **Response Narrative** (maximum 3 pages)
   Narrative is to explain the specific reasons why the respondent is the most qualified and best choice to be awarded this Project.

4. **Qualifications of the Electrical Contractor** (maximum 5 pages including pictures)
   Respondent shall include information which demonstrates the respondent's ability to satisfy all of the minimum qualification requirements identified in Section 3 of this RFP and to provide services required to meet the requirements of the Design Criteria Package and deliver the project to the School District.

   Respondents must disclose, in detail, any and all judgments, suits, claims, arbitrations, and back charges asserted or awarded against the respondent or any proposed Sub-Consultant/Sub-Contractor in the past five (5) years where the threshold exceeded one hundred thousand dollars ($100,000). Responses which do not contain such documentation may be deemed non-responsive.

5. **Qualifications of the Engineer/Lead Designer** (maximum 5 pages including pictures)
   Respondent shall include information which demonstrates the respondent's ability to satisfy all of the minimum qualification requirements identified in Section 3 of this RFP and to provide services required to meet the requirements of the Design Criteria Package and deliver the project to the School District.

   Respondents must disclose, in detail, any and all judgments, suits, claims, arbitrations, and back charges asserted or awarded against the design team lead or any proposed Sub-Consultant in the past five (5) years where the threshold exceeded one hundred thousand dollars ($100,000). Responses which do not contain such documentation may be deemed non-responsive.

6. **Experience of the Respondent** (maximum 15 pages)
   Respondent to provide a comprehensive summary of the respondent's experience and qualifications in providing services of equal or greater scope, size, and complexity that best represent its ability to complete the Project. The respondent MUST have served as Electrical Contractor or Lead of a Design/Build team and have the minimum experience required in Section 3 of this RFP.

   Respondents shall submit no less than 3 and no more than 7 referenced projects including: client name, address, phone number, description of work, the year the project was commenced and completed, total construction cost, Change Order history and the total value of the project in terms of the entire cost, including design fees (for Design/Build delivery projects only).

   Projects may independently represent the respondent's construction arm's experience and the respondent's design arm's experience but should also demonstrate the entire team's experience working together.

Provide resumes of key personnel assigned to the project and highlight experience applicable to the Project.

7. **Organization chart**- Project Team indicating key personnel and their relationship(s). (Maximum 1 page)

8. **Licensure and Insurance**:

   - Evidence that the respondent is licensed, registered, and a practicing Class "A" Electrical Contractor authorized to conduct business in the State of Florida.

   - Evidence that the Lead Engineer is licensed, registered, and a practicing Engineer authorized to practice in the State of Florida.

   - Proof of the following insurance: See Supplemental General Conditions in the Criteria Package specifications for insurance requirements.

   - State of Florida Certificate(s) of current corporate existence, if applicable.

9. **Respondent's Certification Form** (Section 6)

10. **Respondent's Cost Proposal** (Section 7)

SECTION 5
EVALUATION AND SELECTION PROCESS

A. EVALUATION PROCEDURES AND CONTRACT AWARD

This Request for Proposal is a qualification, performance, and price source selection in which competing offeror's performance history, qualifications, and price will be evaluated. Award will be made to the responsible offeror whose proposal represents the best value after evaluation in accordance with the factors listed herein. HDSB intends to evaluate proposals and award a contract without discussions with respondents, but reserves the right to conduct discussions if the District later determines them to be necessary.

The procedure for response evaluation and selection is as follows:

1. Request for Statements of Qualification issued.
2. Receipt of Responses
3. HDSB staff shall make a due diligence review of each response for compliance with the submission requirements of the RFP, including verification that each Response includes all required documents. Responses shall be found responsive or non-responsive upon completion of the review and due diligence efforts. Each Response will be reviewed to determine if the response follows the requirements of this RFP, includes all documentation, is submitted in the format outlined in this RFP, is of timely submission, and has the appropriate signatures as required on each document. Failure to comply with these requirements may result in the Response being deemed non-responsive.
4. Each evaluation committee member shall subsequently and individually evaluate, score, and rank each firm or team in accordance with the requirements and criteria of the RFP.
5. The Committee shall meet to consider and discuss the individual evaluations at which time and in light of those discussions any member may change the points awarded by him or her and the final ranking shall be determined by the sum of all points ultimately awarded by all members.
6. A School Board meeting will be held wherein the ranking of the respondents will be reviewed and approved by the Board.
7. After approval, negotiations will commence with the highest ranked respondent to develop a final contract. Upon successful negotiation of a Contract, HDSB Facilities will submit a recommendation to award a contract to the School Board. Written notice shall be provided to all respondents.
8. In the event that The District is unable to successfully negotiate a Contract with the top-ranked respondent such negotiations will be terminated and negotiations will commence with the next highest ranked respondent, and so forth, until a Contract is negotiated.

B. EVALUATION CRITERIA

Responses will be evaluated and ranked separately and individually by each member of the Evaluation Committee (Committee). All evaluations shall be based upon the following criteria:

Maximum Points – Proposal		Points
1.	Cover Letter (Required, not scored)	0
2.	Response Narrative • Why Respondent is most qualified (5 points) • Ability of Designer and Builder to work together (5 points)	10
3.	Qualification of Electrical Contractor • History of Electrical Contracting Company (4 points) • Ability to meet requirements of RFP (4 points) • Assessment of Criteria Package (2 points) • Judgements against (0 points) • Experience (0 points)	10
4.	Qualification of Engineer/Lead Design Firm • History of Engineering Firm (2 points) • Ability to meet requirements of RFP (2 points) • Assessment of Criteria Package (1 points) • Judgments against (0 points) • Experience (0 points)	5
5.	Experience of Respondent • Electrical Contractor's experience (10 points) • Engineer's experience (5 points)	15
6.	Organization Chart (Required, not scored)	0
7.	Insurance and Registration (Required, not scored)	0
8.	Respondent's Certification Form (Required, not scored)	0
9.	Design and Construction Timeline	30
10.	Cost Proposal	30
	Maximum Points	**100**

SECTION 6
RESPONDENT'S CERTIFICATION FORM

To: **Holmes District School Board**
Address: **307 West North Ave, Bonifay, FL 32425**

RESPONDENT'S person to contact for additional information on this RFP:

Name:

Telephone:

Email Address:

RESPONDENT'S DECLARATION AND UNDERSTANDING

The undersigned, hereinafter called the RESPONDENT, declares that the only persons or parties interested in this bid are those named herein, that this Response is, in all respects, fair and without fraud, that it is made without collusion with any official of the OWNER, and that the bid is made without any connection or collusion with any person submitting another bid on this Contract.

The RESPONDENT further declares that he has carefully examined the RFP and this response and has personally inspected the site conditions of proposed work.

CERTIFICATES OF INSURANCE

Successfully RESPONDENT agrees to furnish the OWNER, before commencing the Work under this Contract, the certificates of insurance as specified in these Documents.

ADDENDA

The RESPONDENT hereby acknowledges that he has received Addenda Nos. , _____ , (RESPONDENT shall insert No. of each Addendum received) and agrees that all addenda issued are hereby made part of the Contract Documents, and the RESPONDENT further agrees that his response includes all impacts resulting from said addenda.

SALES AND USE TAXES

The RESPONDENT agrees that all federal, state, and local sales and use taxes are included in the stated Price Response for the Work.

PUBLIC ENTITY CRIMES

The undersigned RESPONDENT hereby provides the following sworn statement and information:

1. **This sworn statement is submitted to the HOLMES DISTRICT SCHOOL BOARD.**
2. **I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency**

or political subdivision of any other state or of the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision or any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

3. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of jury verdict, non-jury trial, or entry of a plea of guilty or nolo contendere.

4. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means:

a. A predecessor or successor of a person convicted of a public entity crime; or
b. An entity under the control any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person or a pooling of equipment or income among persons when not for fair market value under an arm's length AGREEMENT, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.
c. I understand that a "person" as defined in Paragraph 287.133(1)(e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.
d. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. (indicate which statement applies.)

Neither the entity submitting this sworn statement, nor any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989. However, there has been a subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearings and the Final Order entered by the Hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted CONTRACTOR list. (attach a copy of the final order)

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT HIS FORM IS VALID THOROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

DRUG-FREE WORKPLACE

The undersigned RESPONDENT, in accordance with Florida Statute 287.087, hereby certifies that RESPONDENT does the following:

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 bid a copy of the Drug-Free statement.**

4. **Notify the employees that as a condition of working on the commodities or contractual services that are under bid, employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or no lo contendere to, any violation of Chapter 1893 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.**

E-VERIFY REQUIREMENTS COMPLIANCE

The undersigned RESPONDENT acknowledges that Section 274A of the Immigration and Nationalization Act and other relevant provisions of law prohibit the employment of unauthorized aliens; that the U.S. Department of Homeland Security has established an E-Verify System that allows employers to verify employee eligibility in an efficient manner; and that the Office of the Governor of the State of Florida has issued Executive Order 11116, encouraging public agencies not under the control of the Governor to include as a provision of contracts for the provision of goods or services a requirement that CONTRACTORs and subcontractors utilize the E-Verify System to verify employee eligibility. CONTRACTOR hereby affirms and agrees that CONTRACTOR is in compliance and shall at all times comply with Section 274A of the Immigration and Nationalization Act and other provisions of law with respect to the hiring of unauthorized aliens. CONTRACTOR shall verify the eligibility of its current and prospective employees utilizing the U.S. Department of Homeland Security's E- Verify System during the term of this Agreement. CONTRACTOR shall include in all contracts with subcontractors related to this Agreement a provision requiring the subcontractor to comply with Section 274A of the Immigration and Nationalization Act and other provisions of law with respect to the hiring of unauthorized aliens and to verify the employment eligibility of all the subcontractor's current and prospective employees using the U.S. Department of Homeland Security's E-Verify System. The CONTRACTOR shall maintain records showing its compliance with the requirements of this paragraph, and shall provide copies of all such records to the DISTRICT upon request. Failure to comply with any requirement of this paragraph shall constitute a breach of this Agreement for which the DISTRICT may immediately terminate the Contract without penalty. In the event of such breach or termination, the CONTRACTOR shall be liable to the DISTRICT for any costs incurred by the DISTRICT as a result of the breach.

NON-COLLUSION CERTIFICATION

The undersigned RESPONDENT certifies that neither the RESPONDENT nor any of its officers, partners, owners, agent representatives, employees or parties in interest including this affiant, has in any way, colluded, conspired, or agreed, directly or indirectly, with any other respondent, firm or person, to submit a collusive or sham response in connection with the Agreement for which the attached response has been submitted or to refrain from bidding in connection with such Agreement, or has in any manner, directly or indirectly, sought by

Agreement or collusion or communication or conference with any other responder, firm or person to fix the price or prices in the attached solicitation or of any other respondent, or to fix any overhead, profit or cost element of the proposed price or the proposed price of any other responder, or to secure through any collusion, conspiracy, connivance or unlawful Agreement any advantage against the Holmes District School Board, Florida, or any person interested in the proposed Agreement.

JESSICA LUNSFORD ACT

1. **All personnel on the referenced project must comply with "The Jessica Lunsford Act" (Florida Statute 1012.465). In addition, Holmes District School Board requires a level two background screening. The screening process and I.D. badges are available from The Safety and Security Office of Holmes District School Board, located at 1120 W. 17th Street, Bonifay, Florida at a cost to the Contractor.**

   Identification badges issued by the Bay County School Board shall be displayed by all Contractors' and subcontractors' employees when on school property. The badges must be renewed in June of each year at a cost to the Contractor. The State-Wide Florida Contractor I. D. badge issued by DOE is also accepted.

2. **The Owner reserves the right to restrict access to a higher standard than the threshold set forth in the revised Jessica Lunsford Act Statute. Screening shall be commensurate with the screening standards in Level 2 as defined by Section 435.04.F.S.**

3. **In cases where non-instructional contractors who under Section 1012.467(2)(a), F.S., would be subject to reduced screening standards are denied access as a result of Level 2 screening, the contractor may appeal the decision in writing within 10 days of notification of denial. The Superintendent shall act upon the appeal within 30 days of receipt of the appeal. In the review of all appeals a reasonable basis shall apply.**

4. **The JLA Section 1012.468(2)(a), F.S., as amended, allows contractors who have not passed background screening to work on school grounds as long as they are under direct line of sight supervision of a screened supervisor or District employee. Except as outlined in (b) and (c) of this rule, the Owner does not grant this degree of latitude due to the possibility that the screened supervisor may be called away by an emergency or lose sight of an employee.**

5. **Line-of-sight provisions may be used for individual contractors providing training or educational resource presentations provided they are escorted by responsible District administrative staff to and from the delivery venues and remain under constant supervision throughout their lecture/training delivery obligation. Departments utilizing such individual contractors must notify the District Safety and Security Office in writing prior to their arrival. These exempted individual contractors must be checked against the national sexual offender database by the responsible District administrative staff member.**

6. **Line-of sight provisions may be used for contractors responding to time sensitive critical emergencies provided they are escorted by responsible District administrative staff to and from the work site and remain under constant supervision throughout their service/repair obligation.**
   Departments utilizing such individual contractors should coordinate with the District Safety & Security Office. These exempted individual contractors must be checked against the national sexual offender database by the responsible District administrative staff.
7. **The JLA Section 1012.468(2)(e), F.S., as amended, allows personnel who have not passed background screening to work on a school campus if there is a barrier in place configured so as to ensure reasonable physical separation from normal student activity. This requires a 6-foot chain link fence, with a single ingress/egress point allowing access only from off-campus/public right-of-way. The physical barrier provision is allowed. However, the fence must also include a visual fabric screen and remain intact throughout the time workers are on campus. Should the fence be damaged, repairing it shall be the contractor's immediate priority. If the fence is not repaired, all unscreened workers will be required to leave the jobsite.**

   All workers entering an enclosed work area under the conditions set forth in this spec section will be required to be screened through the "raptor system" on campus and will be required to maintain and display a project specific credential showing that they have the required raptor clearance. It is the intent of HDSB facilities that this will be in the form of a hard hat sticker and a project record consisting of a registry of workers names and copies of identification used to obtain raptor clearance. The credential shall be numbered and the unique number assigned to each person shall be recorded. The registry shall be held on site and maintained by the contractor at all times and made available for owner review at anytime. Any worker who will engage in activities outside the project barrier as described in this section, will be required to obtain and display JLA badging as set forth in other sections of this specification. It shall be the responsibility of the prime contractor and/or CM to ensure adherence to these requirements is maintained at all times.

8. **Section 1012.468(2)(f), F.S., allowing exemption for delivery personnel is reasonable and shall be applied. Contractor personnel who enter campuses only briefly to pick up or deliver materials, commodities, or property and who are under supervision of school employees their entire time on campus will be exempt from screening. This does not include service technicians who make more lengthy visits to work on equipment on campuses.**

9. **District properties where students are not present during the course of the normal education process are exempt from the requirements of JLA screening. District facilities employing student workers are not exempt.**

10. **Background checks, where required, are to be done at least every five (5) years. However, the Owner reserves the right to limit some credentials to a shorter term and can require more frequent background checks for renewal as deemed necessary.**

11. **Screening information will be shared with other districts as provided by Section 1012.467(7)(a), F.S.**

PUBLIC RECORDS ACT

The undersigned RESPONDENT agrees to comply with the Florida Public Records Acts to the fullest extent applicable, and shall, if this engagement is one for which services are provided by doing the following:

1. **CONTRACTOR shall keep and maintain public records that ordinarily and necessarily would be required by the public agency in order to perform the service;**

2. **CONTRACTOR shall provide the public with access to such public records on the same terms and conditions that the public agency would provide the records and at a cost that does not exceed that provided in Chapter 119, Florida Statutes or as otherwise provided by law;**

3. **CONTRACTOR shall insure that public records that are exempt or that are confidential and exempt from the public record requirements are not disclosed except as authorized by law; and**

4. **CONTRACTOR shall meet all requirements for retaining public records and transfer to the public agency, at no cost, all public records in possession of the CONTRACTOR upon termination of the contract and shall destroy any duplicate public records that are exempt or confidential and exempt. All records stored electronically must be provided to the public agency in a format that is compatible with the information technology systems of the DISTRICT.**

The parties agree that if the CONTRACTOR fails to comply with a public records request, then the DISTRICT must enforce the contract provisions in accordance with the contract and as required by Section 119.0701, Florida Statutes. Notwithstanding any other requirement herein stated, the CONTRACTOR shall comply fully with the requirements of Florida Statutes 119.0701.

PERMITS:

The undersigned RESPONDENT understands and will comply with conditions of any permits related to this RFP.

RESPONDENT

The name of the RESPONDENT submitting this Response is doing business at:

_____ _____ _____
Street Address **State** **Zip**

which is the address to which all communications concerned with this RFP and with the Contract shall be sent.

The names of the principal officers of the corporation submitting this bid, or of the partnership, or of all persons interested in this bid as principals are as follows:

_____ _____

_____ _____

_____ _____

If Sole Proprietor or Partnership

IN WITNESS hereto the undersigned has set his (its) hand this day of _____ 2025.

Signature of RESPONDENT _____

Title _____
(signature)

The foregoing instrument was acknowledged before me this day of _____,

2025, by _____ , who is personally known to me or

produced _____ as identification.

State of _____

County of _____ **Notary Public Seal:**

If Corporation

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed and its seal affixed by its duly authorized officers this _____ day of 2025.

(SEAL)

_____
Name of Corporation

By: _____

Title: _____

Attest:

_____
(signature)

_____

The foregoing instrument was acknowledged before me this day of _____ 2025, by _____, who is personally known to me or produced _____ as identification.

State of Florida **NOTARY PUBLIC SEAL**
County of _____

SECTION 7
COST PROPOSAL

DATE: _____

RESPONDENT'S NAME: _____

STREET AND CITY: _____

TELEPHONE NO: _____

TO: HOLMES DISTRICT SCHOOL BOARD
307 West North Ave
Bonifay, FL

The Respondent, in compliance with your Request for Proposal for Design-Build Services for Replacement Generator for Holmes District School Board Bonifay K8 School, Bonifay, Florida and having carefully examined the proposal documents, the site of the proposed work, and being familiar with conditions existing including availability of materials, proposes to furnish all labor, materials and equipment to design and construct the project in accordance with the Request for Proposal, and the time indicated, at the price stated below. These prices shall cover all expenses incurred in performing the work required by the Request for Proposal.

Drawings dated May 23, 2025 are as listed in the Index of Drawings on Sheet No. 1 of A2: Design Criteria drawings.

Specifications dated May 23, 2025 are as listed in the Index of Specifications at the front of A1: Design Criteria specifications.

Also examined were the Contract provisions, the Site Work and the conditions affecting the Work and Addenda including,

Addendum No.:____; Dated:_____; Pages ___ of ___.

Addendum No.:____; Dated:_____; Pages ___ of ___.

Addendum No.:____; Dated:_____; Pages ___ of ___.

Addendum No.:____; Dated:_____; Pages ___ of ___.

Addendum No.:____; Dated:_____; Pages ___ of ___.

In submitting this bid I agree:

1. To hold my bid open for 60 days after the bid date.

2. To accept the provisions of the Request for Proposal documents of the Owner regarding disposition of bid security.

3. To enter into and execute a contract, if awarded, on the basis of this bid and to furnish Bonds in accordance with the Request for Proposal.

4. To accomplish the work in accordance with the Request for Proposal.

I, the Undersigned, hereby submit the following proposal:

5. BASE BID

   I shall furnish all design, engineering, testing, labor, materials, services and incidentals, and perform all Work necessary for the completion of the Replacement Generator for Holmes District School Board Bonifay K8 School as shown and specified in strict accordance with the above-named Request for Proposal for the sums and prices as listed below:

   $ _____

   (_____DOLLARS)
   (Amount shall be shown in both numerals and words. Amount in words shall govern.)

6. ALTERNATES:

   Bid Alternate #1:

   $ _____

   (_____DOLLARS)
   (Amount shall be shown in both numerals and words. Amount in words shall govern.)

7. CONTRACT PROVISIONS: I understand that the Owner reserves the right to reject any or all proposals and to waive any irregularities in the bidding.

8. Upon receipt of written notice of the acceptance of this bid, Bidder shall execute the formal contract within ten (10) days and deliver a Surety Bond or Bonds as required by Invitation to Bid.

9. I have executed and attached the following:

   a. Bid security

b. Sworn statement on Material Safety Data Form (MSDF).

_____
COMPANY

_____ ..... _____
DATE ..... BY (SIGNATURE)

_____
TITLE

(SEAL - IF BID IS BY CORPORATION)

STATE OF _____

COUNTY OF _____

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

_____
[name of individual signing]

who, after first being sworn by me, affixed his/her signature in the space provided above on this _____ day of _____, 2025.

_____ SEAL
NOTARY PUBLIC

My commission expires: _____

END OF COST PROPOSAL

SWORN STATEMENT PURSUANT TO FLORIDA STATUTES, MATERIAL SAFETY DATA FORM (MSDF)

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted to _____

   by _____
   (print individual's name and title)

   for _____
   (print name of entity submitting sworn statement)

   whose business address is

   _____

   _____

   and (if applicable) its Federal Employer Identification Number (FEIN) is

   _____.

2 It is my understanding that the Owner, Holmes District School Board (HDSB), requires the Bidder to submit to the Owner within five (5) business days from the Permit Date the following items:

   a. List of all chemicals and/or products that may emit, leak, evaporate, be dissolved from, or produced by the services that the Contractor is proposing;

   b. List shall include a clear deliberation of chemical content of product, containing all information required by Federal OSHA Hazard Construction Law and Florida's Right-to-Know Law; list shall have Bid number and Bid Item Number stated on Data Sheets.

   c. For building or construction materials, or building furnishings, the Contractor shall submit in writing any chemical emission or exposure data that the product contains.

   d. Safety and Health Precautions to be employed to protect Workers who will be doing the work;

   e. Safety and Health Precautions to be employed to protect the building occupants, general public and other nearby tradesmen;

f. Safety and Health precautions to ensure that the work space, building, or School Board's properties are not contaminated as it may relate in any way to the services that are provided;

g. Precautions to be employed to ensure that harmful exposures shall not occur after the services have been provided, and a detailed description of the steps to be used to ensure this condition is achieved;

h. Procedures for the disposal of wastes or by-products, and a statement that the Contractor shall dispose of all wastes in compliance with applicable regulatory agencies.

3. Contractor is projecting himself as an expert in these services, and as such should be very familiar with listed items (a) through (h); As a knowledgeable entity about these services and products, the Contractor shall also be held fully and solely responsible for any problems that result in injury, illness, property damage or loss, or contamination of the air, soil, or water, or fines imposed by any regulatory agency for failure to comply with the regulations or prudent actions, that result from his services and/or the products used in supplying these services.

4. Submission of the Bid acknowledges and accepts the agreement to provide these services or materials and the Contractor agrees with all of the provisions listed above, and agrees to fully indemnify the WCSB for any and all costs to the WCSB that are the result of contamination, people exposures, damage to WCSB, Architect, and all personal property, or regulatory actions.

5. Contractor understands and agrees, if any of these provisions are not agreed to or provided as required in the Bid Application, the Contractor may be disqualified on the basis of being unresponsive to the Bid Requirements.

6. If after the contract has been secured, the Contractor fails to comply with any of these provisions, the work may be stopped immediately by the WCSB, and the contract may be terminated at no penalty to the WCSB. Should this occur, then the difference between this bid price and that of the next highest bidder shall be withheld as punitive damages for failing to comply with this agreement. The intent of this provision is for the Contractor to provide services and materials that shall not cause any harm to the students, staff, faculty, other tradesmen, school visitors or business invites, the indoor or outdoor environments, School Board of Holmes District School Board property, or neighboring properties, and to ensure that the Bidder complies fully with all applicable regulatory agency requirements.

7. The HDSB reserves the right to request additional information from the Contractor and Supplier concerning the contents of the products submitted by the Contractor for the corresponding bid item.

8. All questions concerning the requirements shall be submitted in writing to be forwarded to the Holmes District School Board.

_____
(signature)

STATE OF _____

COUNTY OF _____

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

_____
[name of individual signing]

who, after first being sworn by me, affixed his/her signature in the space provided above on

this _____ day of _____, 2025.

_____ SEAL
NOTARY PUBLIC

My commission expires:

END OF MATERIAL SAFETY DATA FORM (MSDF) STATEMENT

APPENDIX “A”

DESIGN-BUILD CRITERIA PACKAGE

REPLACEMENT GENERATOR

for

HOLMES DISTRICT SCHOOL BOARD

BONIFAY K8 SCHOOL

FDEM Grant SA-56948

TABLE OF CONTENTS

1 - SCOPE OF WORK

PROJECT DESCRIPTION: Design-Criteria for Replacement Generator Holmes District School Board Bonifay K-8 School

Project Background: The center portion of the existing Bonifay K-8 school is to become a hurricane shelter. A new generator is to replace the existing generator and to be included in the 'Base Bid' of the project. In addition, a 'Bid-Alternate #1' is included to provide backup power via a new generator for the existing lift station at the Bonifay High School.

Base Bid: The existing 300KW diesel-powered generator (and associated feeders, ATS, etc.) will be removed and replaced with a new 750KW diesel-powered genset system. The new work will include the installation of the new genset, a new ATS (automatic transfer switch), two (2) new panelboards, and the required feeders to interconnect the generator to the existing system. To enable all systems of the center portion of the school to be powered via the EPS (emergency power system), three existing sub-panels on the ground floor will require refeeding with new feeders from the new Panel 'MDP'. In addition, the existing domestic water booster pump will also require refeeding from the new Panel 'MDP'. The existing generator shall remain operable until the new generator is in place and ready for a "cutover". Work shall not interfere with school operations. Any outage of the school's electrical systems, life safety, or lift stations shall require the owner's prior approval. The existing generator shall be removed after the new generator is in place and operational. The contract shall include moving the existing generator to a new site identified by HDSB within 40 miles of the current location.

Bid-Alternate #1: The EC shall submit as a bid-alternate the costs associated with furnishing/installing a new 60KW LP-powered genset at the Bonifay High School for backup power to the existing lift station. The installation will include a new generator, ATS, an ingrade pullbox, and all associated feeders. In addition, the contractor(s) will be required to field-coordinate the installation of a fuel line from the existing LP tanks to the new generator.

Throughout the project, collaboration between design professionals and construction teams will ensure that the work is carried out efficiently, on schedule, and in compliance with all relevant safety and building codes.

PROJECT REQUIREMENTS:

Successful respondent will conduct a thorough investigation of the existing conditions and, in collaboration with HDSB, develop a plan of action to accomplish the scope of work described herein. Once the plan of action has been approved, the Design/Build Team will develop construction documents for approval by HDSB.

The Design/Build team will furnish and install all materials and equipment included in the Proposal. All design elements will conform to the specifications included in this document. Any deviations must be approved, in writing, by HDSB.

The design build team will provide signed and sealed drawings and specifications needed to acquire a Building permit. The Design/Build team will be responsible for obtaining any variances required for the final design.

Design/Build team shall revise any drawings as requested by regulatory agencies. Revisions to

drawingswill be made at no additional cost to HDSB. Design build team shall provide as-built drawings upon completion of the project as part of their price proposal.

Design shall meet all applicable code requirements; including, but not limited to:

Florida Administrative Code (FAC) 64E-9
Florida Building Code, Building (FBC-B) 2023
Florida Building Code, Accessibility 2023
Florida Building Code, Mechanical (FBC-M) 2023
Florida Building Code, Energy Conservation 2023
Florida Building Code, Fuel Gas (FBC-FG) 2023
Florida Building Code, Plumbing (FBC-P) 2023
Florida Fire Prevention Code (FFPC) 2023
National Electrical Code (NEC) 2020

PROJECT PROCESS AND SUBMITTALS:

The selected Design-Build Team shall complete the following tasks and submittals as outlined in the RFP.

Construction:

a. Provide all construction services required for completion of the project.
b. Coordinate all required testing, reviews, and inspections.
c. Provide construction administration and maintain all project records.
d. Attend regularly scheduled progress meetings.
e. Prepare punch list for Substantial Completion walkthrough by HDSB.
f. Complete work on Punch list and call for final completion.
g. Prepare operations & maintenance manuals and train HDSB staff in the operation & maintenance of systems.
h. Provide as-built construction documents in hard copy with AutoCAD electronic copies.

APPENDIX A

DESIGN CRITERIA PACKAGE

A1 DESIGN CRITERIA SPECIFICATIONS

A2 DESIGN CRITERIA DRAWINGS

A1: DESIGN CRITERIA
REPLACEMENT GENERATOR
for
Holmes District School Board
BONIFAY K8 SCHOOL
Bonifay, FL

Buddy Brown	**Superintendent**
Charley Wilson	**District I**
Wilburn Baker	**District II**
Natalie Miller	**District III**
Shirley Owens	**District IV**
Leesa Lee	**District V**
Josh McGowan	**Director of District Ops.**

Date: May 23, 2025
Request for Proposals

WATFORD ENGINEERING

4452 Clinton Street
Marianna, FL 32446
FL CA Number: 27825
www.watford-engineering.com

DIVISION 26 – ELECTRICAL

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SECTION 260000 - ELECTRICAL GENERAL REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES:

A. Electrical General Requirements specifically applicable to Division 26 Sections, in addition to Division 1 - General Requirements.

1.02 PROJECT/SITE CONDITIONS:

A. Install work in locations shown on Drawings, unless prevented by project conditions.

B. Prepare drawings showing proposed rearrangement of work to meet project conditions, including changes to work specified in other Sections. Obtain permission of Engineer before proceeding.

C. Before submitting a proposal for the work contemplated in these specifications and accompanying Drawings, each bidder shall examine the site and familiarize himself with all the existing conditions and limitations. No additional compensation will be allowed because of the Contractor's misunderstandings as to the amount of work involved or his lack of knowledge of any condition in connection with the work.

1.03 REGULATORY REQUIREMENTS:

A. Permits and Inspections: This Contractor shall secure and pay for all permits, and inspections required on work performed under this section of the Specifications. He shall assume full responsibility for all assessments and taxes necessary for the completion and acceptance of the work.

B. Applicable Standards and Codes: All materials and workmanship shall comply with all applicable codes, specifications, local ordinances, industry standards and utility company regulations. In case of difference between building codes, specifications, federal and state laws, local ordinances, industry standards and utility company regulations and the Contract Documents, the most stringent requirements shall govern. The Contractor shall promptly notify the Engineer in writing of such differences. Should the Contractor perform any work that does not comply with the requirements of the applicable building codes, federal and state laws, local ordinances, industry standards and utility company regulations, he shall bear all costs arising in correcting the deficiencies. Applicable codes and standards shall include all State laws, State Board of Health and State Rating Bureau, local ordinances, utility company regulations and the applicable requirements of the following:

1. Standard Building Code
2. National Fire Protection Association - NFPA
3. National Electrical Manufacturers Association - NEMA
4. National Bureau of Standards
5. American National Standards Institute - ANSI
6. Underwriters' Laboratories - UL

1.04 COOPERATION:

A. Cooperate with others in laying out the electrical work so that this phase of the work will properly fit the building and other contractor’s requirements.

1.05 PRODUCTS FURNISHED BY OTHERS:

A. Products are furnished by the Owner or under other Divisions of these Specifications that require electrical connection. This Contractor shall provide all necessary materials and labor to connect to the electrical system all equipment and fixtures having electrical power connection requirements. Refer to other Divisions of these Specifications for additional or specific requirements. Actual rough-in dimensions shall be obtained from Shop Drawings or measurements of the equipment or fixture.

B. The unpacking, assembling and setting of equipment furnished by the Owner or under other Divisions of these Specifications will be performed by others, unless stated otherwise.

C. Because the manufacturer of the equipment actually purchased or supplied may vary slightly from that specified, as hereinbefore stated, some rearranging of the requirements may be necessary. This Contractor shall make connections as required by the actual equipment furnished.

1.06 SEQUENCING AND SCHEDULING:

A. Construct work in sequence under provisions of applicable sections of these specifications.

B. Power outages shall be scheduled with the Owner and other Contractors. Outages shall be at the convenience of the Owner.

1.07 APPROVAL OF MATERIALS AND EQUIPMENT:

A. Whenever a material, article, or piece of equipment is identified on the Drawings or in these Specifications by reference to manufacturer's or vendor's name, trade name, catalog number or the like, it is so identified for

the purpose of establishing a standard of quality and shall not be construed as limiting competition. Any material, article, or piece of equipment of other manufacturers or vendors, which will perform adequately the intent of the design, will be considered equally acceptable provided written approval has been granted by the Engineer. Materials submitted for approval shall comply with all applicable Sections of these Specifications prior to acceptance. Submit proposed substitutions to the Architect for approval at least ten
(10) days prior to the bid so that an addendum can be issued to all contractors. Engineer's opinion shall be final on the equality of substituted items.

B. After the Contract has been awarded, catalog cuts on the following items shall be submitted to the Architect/Engineer for final approval before purchase of the equipment whether substitutions are being made or not:

1. Light Fixtures
2. Panelboards and Switchboards
3. Distribution Equipment
4. Wiring Devices
5. Fabricated Equipment
6. Automatic Transfer

Switches

1.08 OBSERVATION, TESTING AND BALANCING:

A. Observation: The complete job will be, during and/or after construction, subject to the administration of the Engineer. Site visit(s) shall be conducted by the Architect/Engineer or his designated representative as necessary to maintain compliance with the Contract requirements.
B. Balancing: All branch circuits and feeders shall be tested under typical load conditions (under maximum load conditions if so desired/requested by general contractor or engineer), and loads shall be balanced on the phases of the electrical system**.**
C. **Prior to disconnecting existing panels/equipment, phase rotation shall be field-verified and noted. Prior to reconnection, verify so existing phase rotation is maintained.**

1.09 WORKMANSHIP:

A. 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.

1.10 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.

1.11 GUARANTEE:

A. This Contractor shall guarantee to the Owner, all work performed under this contract to be free from defects in workmanship and material for a period of one year from date of final acceptance by Owner and Architect. Any defects arising during this period will be promptly remedied by the Contractor without cost to the Owner. Lamps and fuses burned out during normal operation after acceptance are exempt from guarantee. This Contractor shall furnish the Owner with an estimated time, from notification of a problem to presence on the site, for all service calls on warranty items.

1.12 COMPLIANCE:

A. In the event of a conflict between Specifications, Drawings, Codes, Requirements, etc., the most stringent requirements shall govern.

B. The interpretation of conflicts and resolution thereof shall remain the right of the Architect/Engineer or his designated representative.

PART 2 PRODUCTS: Not

Used

PART 3 EXECUTION: Not Used

SECTION 260519 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS, CABLES, AND DEVICES

PART 1 GENERAL

1.1 RELATED DOCUMENTS:

A. Section 260000 - Electrical General Requirements, apply to the work specified in this Section, with additions and modifications specified herein.

1.2 SECTION INCLUDES:

A. Wire and Cable

B. Wiring Devices

PART 2 PRODUCTS

2.1 WIRE AND CABLE

A. Building Wire:

1. Feeder and Branch Circuits 10 AWG and Smaller: Copper, solid conductor, 600 volt insulation, rated 75 degrees C, THHN/THWN.

2. Feeder and Branch Circuits 8 AWG and 6 AWG: Copper, stranded conductor, 600 volt insulation, rated 75 degrees C, THHN/THWN.

3. Feeder and Branch Circuits Larger Than 6 AWG: Copper, stranded conductor, 600 volt insulation, rated 75 degrees C, THW.

4. Control Circuits: Copper, stranded conductor, 600 volt insulation, THHN/THWN.

NOTE: The use of Romex cable is not allowed on this project. MC (metal clad) cable may be used where applicable and approved by local AHJ. Aluminum wire may be used for feeder conductors provided the local AHJ approves and the minimal allowable ampacity (as specified) is met.

B. Remote Control Signal Cable (where applicable):

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, type SO.

2.2 WIRING DEVICES AND WALL PLATES:

A. Manufacturers:
1. Hubbell
2. Leviton
3. Arrow Hart

A. Wall Switches: AC general use, quiet-operating snap switch rated 20 amperes and 120/277 volts AC, with plastic toggle handle. Unless noted on architectural drawings, confirm with architect the color of devices.

1. Single Pole Switch: Hubbell 1221-I (or equal)

2. Three Way Switch: Hubbell 1223-I (or equal)

B. Receptacle:

1. Convenience Receptacle Configuration: Type 5-20R, plastic face, ivory color. Model 5262-I manufactured by Hubbell (or equal).

2. Specific Purpose Receptacle: Configuration indicated on Drawings with black plastic face.

3. Provide straight-blade receptacles to NEMA WD 1.

4. Provide straight-blade receptacles to NEMA WD 5.

5. GFCI Receptacles: Duplex convenience receptacle with integral ground fault current interrupter. Model GFR-5352IA manufactured by Hubbell (or equal). Device shall be compliant to the requirements of UL 943.

C. Wall Dimmer: Rotary dial or slide type, ivory color. (Confirm with COSCo) Model C-2000 manufactured by Lutron. (or equal) Rating of 2000 watts at 120 volts, AC.

D. Decorative Cover Plate: Smooth Stainless steel, ivory color, ANSI 302.

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. Cord Reels: Provide cord reels as indicated on the drawings. Cords shall be sized per loads served and shall be 50' in length.

PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION:

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.

3.2 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.

7. Hazardous Locations: Building wire in raceway conforming to applicable NEC Articles as identified on the Drawings.

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

smaller than 14 AWG for control wiring. Conductors shall be sized to compensate for voltage drop.

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

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

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

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

G. 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.

3. Unless noted otherwise, install convenience receptacles 18 inches above floor, 6 inches above counters or splash backs, with grounding pole on bottom.

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.

6. Install cord and attachment plug caps on equipment where acceptable and approved by all local AHJ's… and deemed necessary. Size cord for connected load and rating of branch circuit over- current protection.

K. Install wall plates flush and level.

1. Install decorative plates on switch, receptacle, 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.

2. Install weatherproof cover plates on all devices/boxes in wet or outdoor locations.

3.3 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 260519

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SECTION 260530 - RACEWAY SYSTEMS

PART 1 GENERAL

1.1 RELATED DOCUMENTS:

A. Section 260000 - Electrical General Requirements, apply to the work specified in this section, with additions and modifications specified herein.

1.2 SECTION INCLUDES:

A. Conduit and Conduit Fittings

B. Electrical Boxes and Fittings

C. Cable Tray

PART 2 PRODUCTS

2.1 CONDUIT AND FITTINGS:

A. Conduit:

1. Metal Rigid Conduit: Galvanized steel.

2. Metal Tubing: Galvanized steel.

3. Flexible Conduit: Steel.

4. Liquid-Tight Flexible Conduit: Flexible conduit with PVC Jacket.

5. Plastic Conduit and Tubing: NEMA TC 2; PVC. Use Schedule 40 conduit.

B. Conduit and Fittings:

1. Conduit Fittings and Conduit Bodies: NEMA FB 1. Conduit fittings to be steel, threaded type. Split couplings are not acceptable.

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-Type Flexible Conduit Fittings: NEMA FB 1. Liquid-tight flexible conduit fittings to be steel compression type.

5. Plastic Fittings and Conduit Bodies: NEMA TC 3.

2.2 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.

3. Nonmetallic: NEMA OS 2.

B. Large Enclosures: NEMA 250; Type 4, steel enclosures with manufacturer's standard enamel finish and cover, held closed screws.

2.3 CABLE TRAY (where applicable):

A. Manufacturers:

1. B-line

2. Mono-Systems

B. Ladder type, constructed of aluminum with 9” rung spacing, 6” siderails and 18” wide

C. Fittings: Horizontal 90° elbows, horizontal tees, and horizontal crosses with all metal accessories to connect to straight sections.

D. Support: Supports shall be fabricated channel, and threaded rods.

E. Grounding: Provide grounding straps as each junction, splice, fitting, etc.

PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION:

A. Examine supporting surfaces to determine that surfaces are ready to receive work.

B. Electrical boxes shown on Contract Drawings are approximate locations unless dimensioned.

3.2 INSTALLATION:

A. Use conduit and tubing for raceways in the following locations:

1. Underground Installations: Rigid steel conduit, painted with two coats of epoxy asphaltum paint, or PVC conduit.

2. Installations In Concrete: Rigid steel conduit, or PVC conduit.

3. In Slab Above Grade: Rigid steel conduit, or PVC conduit.

4. Exposed Outdoor Locations: Rigid steel conduit where damage from an external source is likely. Otherwise, schedule 80 PVC may be used.

5. Wet Interior Locations: Rigid steel conduit or electrical metallic tubing. Use threaded or raintight fittings for conduit.

6. Concealed Dry Interior Locations: Rigid steel conduit or electrical metallic tubing.

7. Exposed Dry Interior Locations: Rigid steel conduit or electrical metallic tubing.

8. Feeders: Galvanized rigid steel conduit on all feeders.

B. Size raceways for conductor type installed.

1. Minimum Size Conduit: 1/2 inch.

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, 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 approved manufactured conduit hangers and clamps; do not fasten with wire or perforated pipe straps. Utilize conduit hangers for conduits located below floor slabs.

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 string in all empty raceways.

11. Install expansion joints 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 90E 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.

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 luminaires 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.

END OF SECTION 260530

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SECTION 262713 - SERVICE AND DISTRIBUTION

PART 1 GENERAL

1.1 RELATED DOCUMENTS:

A. Section 260000 - Electrical General Requirements, apply to the work specified in this Section, with additions and modifications specified herein.

1.2 SECTION INCLUDES:

A. System Description

B. Utility Requirements

C. Grounding

D. Switchboards

E. Panelboards

F. Enclosed Switches

G. Fuses

H. Transformers

I. Enclosed Circuit Breakers

J. Plug-in Duct

1.4 SYSTEM DESCRIPTION:

A. The existing electrical service to remain. Refer to ‘Power Riser Diagram’ for installation of new 120/208V, 3-phase, 4-wire underground feeders required for new generator installation.

1.5 PROJECT CONDITIONS:

A. Verify field measurements for the equipment to ensure proper fit within the space proposed.

1.6 UTILITY REQUIREMENTS:

A. The existing serving utility is FP&L (formerly GPCo). No new electrical service required.

B. No new metering required for this project. When required, metering shall be provided by the utility company and installed by electrical contractor.

1. Coordinate with the utility for exact metering requirements.

2. Install metering devices provided by the utility company.

PART 2 PRODUCTS

2.1 SWITCHBOARD:

A. Manufacturers:

1. Square D Company

2. ITE-Siemens

3. General Electric Company

4. Cutler Hammer

B. Switchboard: NEMA PB2.

1. Line and Load Terminations: Accessible from front only of switchboard, suitable for conductor materials used.

2. Main Sections Devices: Individually mounted.

C. Ratings: As shown on Drawings.

D. Bussing:

1. Bus Material: Copper or Aluminum with tin plating sized in accordance with NEMA PB2.

2. Bus Connections: Accessible from front for maintenance.

3. Ground Bus: Copper

E. Enclosure: Type 1General purpose as shown on the Drawings.

1. Align sections at front and rear.

2. Height: 90 inches

3. Finish: Manufacturer's standard light gray enamel over external surfaces.

F. Future Provisions:

1. Fully equip spaces for future devices with bussing and bus connection provisions; continuous current rating as indicated on the Drawings.

2. Do not taper main bus rating.

G. Switching and Over-Current Protection Devices:

1. Molded Case Circuit Breakers: NEMA AB 1.

2. Solid State Molded Case Circuit Breakers: NEMA AB 1; with electronic sensing, timing and tripping circuits for adjustable current settings; ground fault trip; instantaneous trip and adjustable short time trip.

H. Switchboard Instruments:

1. Ground Fault Sensors: Zero sequence type.

2. Ground Fault Relay: Adjustable ground fault sensitivity from 200 to 1200 amperes, time delay adjustable from 0 to 1 second.

3. Square D Power Logic metering.

2.2 PANELBOARDS:

A. Manufacturers:

1. Square D Company

2. ITE-Siemens

3. General Electric Company

4. Cutler Hammer

B. Distribution Panelboards: NEMA PB 1; circuit breaker type.

1. Enclosures: Type 1 or 3R as shown on Drawings.
2. Mounting: Surface or flush mount as shown on Drawings.
3. Bus: Copper.
4. Ground Bus: Copper
5. Voltage and phase: As shown on Drawings.
6. Minimum Integrated Equipment: As shown on Drawings.
7. Hinged door with lock.
8. Circuit Breakers: Bolt-on, ratings as shown on Drawings.

C. Light and Power Panelboards: NEMA PB 1; circuit breaker type.

1. Enclosures: Type 1 or 3R as shown on Drawings.
2. Surface or flush mount as shown on Drawings.
3. Bus: Copper.
4. Ground Bus: Copper.
5. Voltage and phase as shown on Drawings.
6. Minimum Integrated Equipment: As shown on Drawings.
7. Hinged door with lock.
8. Circuit Breakers: Bolt-on, ratings as shown on Drawings.

D. Accessories: Provide panel and branch device accessories as shown on Drawings.

E. Future Provisions: Where space provisions are indicated on the Drawings provide bussing, bus extensions, etc. require to mount future circuit breakers. Where spare provisions are indicated on the Drawings provide circuit breakers complete and ready for connection.

2.3 ENCLOSED SWITCHES:

A. Manufacturers:

1. Square D Company

2. ITE-Siemens

3. General Electric Company

4. Cutler Hammer

B. Enclosed Switch Assemblies: NEMA KS 1; Type HD.

1. Fuse Clips: Designed to accommodate Class `R' or `J' fuses as shown on Drawings.

C. Enclosures: NEMA KS 1; Type 1 or 3R as required.

D. Ground: Provide grounding lug.

E. Ratings: 600 or 250 volts to match system service requirements, poles and ampere ratings as indicated on the Drawings.

2.4 FUSES:

A. Manufacturers:

1. Bussman

2. Shawmut

3. Little Fuse

B. Service Entrance/Feeder Circuits-601 Amp and Larger

1. Current Limiting

2. UL Class L

3. 200,000 Ampere RMS Interrupting Rating

4. Voltage Rating: As required for system compatibility.

C. Service Entrance/Feeder Circuits-600 Amp and Smaller

1. Current Limiting
2. UL Class RK1
3. 200,000 Ampere RMS Interrupting Rating
4. Voltage Rating: As required for system compatibility

D. Motor, Motor Controller, Transformer and Inductive Circuits

1. Current Limiting
2. UL Class RK1, Time Delay
3. 200,000 Ampere RMS Interrupting Rating
4. Voltage Rating: As required for system compatibility.

2.5 TRANSFORMERS:

A. Manufacturers:

1. Square D Company
2. ITE-Siemens
3. General Electric Company
4. Cutler Hammer

B. Description: Enclosed air-cooled dry type transformer.

C. Ratings:

1. Primary Voltage: As shown on Drawings.
2. Secondary Voltage: As shown on Drawings.
3. Capacity: KVA ratings as shown on Drawings.
4. Basic Impulse Level: 10 BIL.
5. Insulation Class/Temperature Rise: Class 220/115 degrees C.

D. Configuration: Two winding, delta-wye.

E. Winding Taps: Four full capacity primary taps, each at 2.5 percent below rated voltage; and two full capacity primary taps, each at 2.5 percent above rated voltage.

F. Mounting: Wall, floor, or trapeze as shown on Drawings.

G. Enclosures: Code gauge steel, NEMA 1 or 3R as

required.

2.6 ENCLOSED CIRCUIT BREAKERS:

A. Manufacturers:

1. Square D Company

2. ITE-Siemens

3. General Electric Company

4. Cutler Hammer

B. Circuit Breaker: NEMA AB 1.

1. Voltage: As shown on Drawings.

2. Enclosure: NEMA AB 1; Type 1 or 3R as required.

3. Accessories: As indicated on Drawings.

2.7 PLUG-IN DUCT:

A. Manufacturers:

1. Square D Company

2. ITE-Siemens

3. General Electric

4. Cutler Hammer

B. Plug-in Duct

1. Bus Material: Copper

2. Enclosure: NEMA 1

3. Mounting: Suspended from structure

4. Rating: 225 amperes, 600 volt, 3 phase, 4 wire

C. Plug-in Units

1. Fusible switches

PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION:

A. Make arrangements with utility company to obtain permanent electrical service to the facility.

B. Provide concrete pad for utility transformer. Pad details on the Drawings are for estimating purposes. Coordinate exact pad requirements with the utility prior to installation.

3.2 INSTALLATION:

A. Install utility services in accordance with utility company standards and requirements.

1. Underground Service: Install service entrance conduits and conductors from the utility pad mounted transformer to the service equipment as shown on the Drawings. (Verify with utility prior to bid/construction.) In addition, coordinate with utility company for required provisions for utility-owned underground primary cabling.

2. If applicable…provide lugs on utility transformer spaces sized to accommodate service entrance conductors.

B. Install equipment in accordance with manufacturer's instructions.

C. Install switchboard to NEMA PB 2.1.

D. Install panelboards to NEMA PB 1.1.

E. Ground the electrical service in accordance with NFPA 70, National Electrical

Code, Article 250.

F. Provide labels for all switchboards, panelboards, and distribution equipment.

G. Provide typewritten directory inside panel door for all panelboards.

END OF SECTION 262713

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SECTION 263213 - EMERGENCY GENERATOR

PART 1 - GENERAL

1.1 GENERAL

1.1.1 References and Standards

The generator set covered by these specifications shall be designed, tested, rated, assembled and installed in strict accordance with all applicable standards below:

- CSA C22.2 No14
- CSA 282
- CSA 100
- EN61000-6
- EN55011
- FCC Part 15 Subpart B
- ISO8528
- IEC61000
- UL508
- UL2200
- UL142
- Designed to allow for installed compliance to NFPA 37, NFPA 70, NFPA 99 and NFPA 110

1.2 The work includes supplying and installing a complete integrated generator system. The system consists of a generator set with related component accessories and automatic transfer switches specified under a separate section.

1.3.2 Fuel System

The CONTRACTOR shall provide a full tank of diesel fuel for the completion of all testing.

1.3.3 System Test

A complete system load test shall be performed after all equipment is installed. Guidelines in the Start-up Section.

1.3.4 Requirements, Codes and Regulations

The equipment supplied and installed shall meet the requirements of the NEC and all applicable local codes and regulations. All equipment shall be of new and current production by a MANUFACTURER who has 25 years of experience building this type of equipment. Manufacturer shall be ISO9001 certified.

1.4 SUBSTITUTION

Proposed deviations from the specifications shall be treated as follows:

1.4.1 Substitution Time Requirement

Requests for substitutions shall be made a minimum of ten (10) days prior to bid date. Manufacturers catalog data shall accompany each request and authorized acceptance shall be addenda only.

1.4.2 Substitution Responsibility

The power system has been designed to the specified manufacturer's electrical and physical characteristics. The equipment sizing, spacing, amounts, electrical wiring, ventilation equipment, fuel, and exhaust components have all been sized and designed around CATERPILLAR supplied equipment. Should any substitutions be made, the CONTRACTOR shall bear responsibility for the installation, coordination and operation of the system as well as any engineering and redesign costs, which may result from such substitutions.

1.5 SUBMITTALS

Engine-generator submittals shall include the following information:

A. Factory published specification sheet.

B. Manufacturer's catalog cut sheets of all auxiliary components such as battery charger, control panel, enclosure, etc.

C. Dimensional elevation and layout drawings of the generator set, enclosure and transfer switchgear and related accessories.

D. Weights of all equipment.

E. Concrete pad recommendation, layout and stub-up locations of electrical and fuel systems.

F. Interconnect wiring diagram of complete emergency system, including generator, switchgear, day tank, remote pumps, battery charger, control panel, and remote alarm indications.

G. Engine mechanical data, including heat rejection, exhaust gas flows, combustion air and ventilation air flows, fuel consumption, etc.

H. Generator electrical data including temperature and insulation data, cooling requirements, excitation ratings, voltage regulation, voltage regulator, efficiencies, waveform distortion and telephone influence factor.

I. Generator resistances, reactances and time constants.

J. Generator locked rotor motor starting curves.

K. Manufacturer's documentation showing maximum expected transient voltage and frequency dips, and recovery time during operation of the generator set at the specified site conditions with the specified loads.

L. Manufacturer's and dealer's written warranty.

1.7 SYSTEM RESPONSIBILITY

1.7.1 Generator Set Distributor

The completed engine generator set shall be supplied by the Manufacturer's authorized distributor only.

1.7.2 Requirements, Codes and Regulations

The equipment supplied and installed shall meet the requirements of NEC and all-applicable local codes and regulations. All equipment shall be new, of current production. There shall be one source responsibility for warranty; parts and service through a local representative with factory trained service personnel.

1.7.3 Automatic Transfer Switch

The automatic transfer switch(es) specified in another section shall be supplied by the generator set manufacturer in order to establish and maintain a single source of system responsibility and coordination.

1.8 WARRANTY

A. Two Year Standby / Mission Critical Generator Set Warranty

1. The manufacturer's standard warranty shall in no event be for a period of less than two (2) years from date of initial start-up of the system and shall include repair parts, labor, reasonable travel expense necessary for repairs at the job site, and expendables (lubricating oil, filters, antifreeze, and other service items made unusable by the defect) used during the course of repair. Running hours shall be limited to 500 hours annually for the system warranty by both the manufacturer and servicing distributor. Warranty coverage of less than 500 hours a year operation will not be accepted. Submittals received without written warranties as specified will be rejected in their entirety.
2. Warranty shall include a temporary generator set in the event a warrantable repair will take more than 48 hours. Selling dealer must have a minimum of 100 units in its rental fleet to assure a temporary unit is available if needed. Provide documentation as such.

1.9 PARTS AND SERVICE QUALIFICATIONS

1.9.1 Maintenace Service

A. The engine generator supplier shall maintain 24 hour parts and service capability within 100 miles of the project site. The distributor shall stock parts as needed to support the generator set package for this specific project. The distributor shall carry sufficient inventory to cover no less than 80% of the parts service within 24 hours and 95% within 48 hours.

B. Initial Maintenance Service: Beginning at Acceptance, provide 12 months' full maintenance by certified employees of manufacturer's designated service organization. Include semi-annual exercising to check for proper starting, load transfer, and running under load. Include routine preventive maintenance as

recommended by manufacturer and adjusting as required for proper operation. Provide parts and supplies same as those used in the manufacture and installation of original equipment.

2 PRODUCT SPECIFICATIONS

2.1 GENERAL REQUIREMENTS

2.1.1 Generator set Requirements

The generator set shall be Standby Duty rated at 750 kW, 937.5 kVA,
1800 RPM, 0.8 power factor, 208 V, Three Phase,
60 hertz, including radiator fan and all parasitic loads. Generator set shall be sized to operate at the specified load at a maximum ambient of 77F (25.0C) and altitude of 500.0 feet (152.4 m).

Standby Power Rating:
Power is available for the duration of an emergency outage
Average Power Output = 70% of standby power
Load = Varying
Typical Hours/Year = 200 Hours
Maximum Expected Usage = 500 hours/year
Typical Application = Standby

2.1.2 Material and Parts

All materials and parts comprising the unit shall be new and unused.

2.1.3 Engine

The engine shall be diesel fueled, four (4) cycle, water-cooled, while operating with nominal speed not exceeding 1800 RPM. The engine will utilize in-cylinder combustion technology, as required, to meet applicable EPA non-road mobile regulations and/or the EPA NSPS rule for stationary reciprocating compression ignition engines. Additionally, the engine shall comply with the State Emission regulations at the time of installation/commissioning. Actual engine emissions values must be in compliance with

applicable EPA emissions standards per ISO 8178 – D2 Emissions Cycle at specified ekW / bHP rating. Emissions requirements / certifications of this package:
EPA ESE

2.1.3.1 Engine Governing

2.2 GENERATOR

2.2.1 Generator Specifications

The synchronous three phase generator shall be a single bearing, self-ventilated, drip-proof design in accordance with NEMA MG 1 and directly connected to the engine flywheel housing with a flex coupling. The generator shall meet performance class G2 of ISO 8528. The excitation system shall enable the alternator to sustain 300% (250% for 50Hz) of rated current based on the 125C (Class H) or 105C (Class F) rise rating for ten seconds during a fault condition and shall improve the immunity of the voltage regulator to non-linear distorting loads. The excitation system shall be of brushless construction and be independent of main stator windings (either permanent magnet or auxiliary windings).

2.2.2 Voltage Regulator

2.2.2.1 Automatic Voltage Regulator

The automatic voltage regulator (AVR) shall maintain generator output voltage within +/- 0.5% for any constant load between no load and full load. The regulator shall be a totally solid state design, which includes electronic voltage buildup, over-excitation protection, shall limit voltage overshoot on startup, and shall be environmentally sealed. Voltage regulation shall be selectable to be either volts per hertz or by load adjustment module.

2.2.2.1 Integrated Voltage Regulator (IVR)

The IVR shall maintain generator output voltage within +/- 0.25% for any constant load between no load and full load. The regulator shall be capable of sensing true RMS in three phases of alternator output voltage, or operating in single phase sensing mode. The IVR shall be cable of configuring knee frequency and voltage regulation configurable up to +/-30% .The voltage regulator shall include a VAR/Pf control feature as standard. The regulator shall provide an adjustable dual slope regulation characteristic in order tooptimize voltage and frequency response for site conditions. The IVR shall be capable of setpoint adjustment.

2.2.3 Motor Starting

Provide locked rotor motor starting capability of
2403.2 skVA at 30% instantaneous voltage dip as defined per NEMA MG 1. Sustained voltage dip data is not acceptable.

2.3 CIRCUIT BREAKER

2.3.1 Circuit Breaker Specifications

Provide a generator mounted 100% rated circuit breaker, molded case, 2,000 amp trip, 3 pole, NEMA 1/IP22. Breaker shall utilize a solid state trip unit. The breaker shall be UL/CSA Listed
and connected to engine/generator safety shutdowns. Breaker shall be housed in an extension terminal box which is isolated from vibrations induced by the generator set. Mechanical type lugs, sized for the circuit breaker feeders shown on drawing, shall be supplied on the load side of breaker.

2.4 CONTROLS – GENERATOR SET MOUNTED (EMCP 4.2)

Provide a fully solid-state, microprocessor based, generator set control. The control panel shall be designed and built by the engine manufacturer. The control shall provide all operating, monitoring, and control functions for the generator set. The control panel

shall provide real time digital communications to all engine and regulator controls via SAE J1939.

2.4.1 Environmental

The generator set control shall be tested and certified to the following environmental conditions:

A. –40°C to +70°C Operating Range
B. 100% condensing humidity, 30°C to 60°C
C. IP22 protection for rear of controller; IP55 when installed in control panel
D. 5% salt spray, 48 hours, +38°C, 36.8V system voltage
E. Sinusoidal vibration 4.3G's RMS, 24-1000Hz
F. Electromagnetic Capability (89/336/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, BS EN 50081-2, 50082-2)
G. Shock: withstand 15G

2.4.2 Functional Requirements

The following functionality shall be integral to the control panel.

A. The control shall include a minimum 33 x 132 pixel, 24mm x 95mm, positive image, transflective LCD display with text based alarm/event descriptions.
B. The control shall include a minimum of 3-line data display
C. Audible horn for alarm and shutdown with horn silence switch
D. Standard ISO labeling
E. Multiple language capability
F. Remote start/stop control
G. Local run/off/auto control integral to system microprocessor
H. Cooldown timer
I. Speed adjust
J. Lamp test
K. Emergency stop push button
L. Voltage adjust
M. Voltage regulator V/Hz slope - adjustable
N. Password protected system programming

2.4.3 Digital Monitoring Capability

The controls shall provide the following digital readouts for the engine and generator. All readings shall be indicated in either metric or English units.

Engine

A. Engine oil pressure
B. Engine oil temperature
C. Engine coolant temperature
D. Engine RPM
E. Battery volts
F. Engine hours
G. Engine crank attempt counter
H. Engine successful start counter
I. Service maintenance interval
J. Real time clock
K. Engine exhaust stack temperature
L. Engine main bearing temperature

Generator

A. Generator AC volts (Line to Line, Line to Neutral and Average)
B. Generator AC current (Avg and Per Phase)
C. Generator AC Frequency
D. Generator kW (Total and Per Phase)
E. Generator kVA (Total and Per Phase)
F. Generator kVAR (Total and Per Phase)
G. Power Factor (Avg and Per Phase)
H. Total kW-hr
I. Total kVAR-hr
J. % kW
K. % kVA
L. % kVAR
M. Generator bearing temperature
N. Generator stator winding temperature

2.4.4 Alarms and Shutdowns

The control shall monitor and provide alarm indication and subsequent shutdown for the following conditions. All alarms and shutdowns are accompanied by a time, date, and engine hour stamp that are stored by the control panel for first and last occurrence:

Engine Alarm/Shutdown

A. Low oil pressure alarm/shutdown
B. High coolant temperature alarm/shutdown
C. Loss of coolant shutdown
D. Overspeed shutdown
E. Overcrank shutdown
F. Emergency stop shutdown
G. Low coolant temperature alarm
H. Low battery voltage alarm
I. High battery voltage alarm
J. Control switch not in auto position alarm
K. Battery charger failure alarm

Generator Alarm/Shutdown

A. Generator phase sequence
B. Generator over voltage
C. Generator under voltage
D. Generator over frequency
E. Generator under frequency
F. Generator reverse power (real and reactive)
G. Generator overcurrent

Voltage Regulator Alarm/Shutdown

A. Loss of excitation alarm/shutdown
B. Instantaneous over excitation alarm/shutdown
C. Time over excitation alarm/shutdown
D. Rotating diode failure
E. Loss of sensing
F. Loss of PMG

2.4.5 Inputs and Outputs

Programmable Digital Inputs

The Controller shall include the ability to accept programmable digital input signals. The signals may be programmed for either high or low activation using programmable Normally Open or Normally Closed contacts.

Programmable Relay Outputs

The control shall include the ability to operate programmable relay output signals, integral to the controller. The output relays shall be rated for 2A @ 30VDC and consist of six (6) Form A (Normally Open) contacts and two (2) Form C (Normally Open & Normally Closed) contacts.

Programmable Discrete Outputs

The control shall include the ability to operate two (2) discrete outputs, integral to the controller, which are capable of sinking up to 300mA.

2.4.6 Maintenance

All engine, voltage regulator, control panel and accessory units shall be accessible through a single electronic service tool. The following maintenance functionality shall be integral to the generator set control

A. Engine running hours display
B. Service maintenance interval (running hours or calendar days)
C. Engine crank attempt counter
D. Engine successful starts counter
E. 40 events are stored in control panel memory
F. Programmable cycle timer that starts and runs the generator for a predetermined time. The timer shall use 7 user-programmable sequences that are repeated in a 7-day cycle. Each sequence shall have the following programmable set points:

    1. Day of week
    2. Time of day to start
    3. Duration of cycle

2.4.7 Remote Communications

Remote Communications

The control shall include Modbus RTU communications as standard via RS-485 half duplex with configurable baud rates from 2.4k to 57.6k.

Remote Monitoring Software

The control shall provide Monitoring Software with the following functionality

A. Monitor up to eight (8) generator sets, plus ATS and UPS.
B. Provide access to all date and events on generator set communications network
C. Provide remote control capability for the generator set(s)
D. Ability to communicate via Modbus RTU or remote modem

2.4.8 Annunciation

Local Annunciator (NFPA 99/110, CSA 282)

Provide a local, control panel mounted, annunciator to meet the requirements of NFPA 110, Level 1.

A. Annunciators shall be networked directly to the generator set control
B. Local Annunciator shall include a lamp test pushbutton, alarm horn and alarm acknowledge pushbutton
C. Provide the following individual light indications for protection and diagnostics:
    1. Overcrank
    2. Low coolant temperature
    3. High coolant temperature warning
    4. High coolant temperature shutdown
    5. Low oil pressure warning
    6. Low oil pressure shutdown
    7. Overspeed
    8. Low coolant level
    9. EPS supplying load
    10. Control switch not in auto
    11. High battery voltage
    12. Low battery voltage

13. Battery charger AC failure
14. Emergency stop
15. Spare (or ATS Remote Start wiring failure)
16. Spare (or Tier 4 SCR when applicable)

Remote Annunciator (NFPA 99/110, CSA 282)

Provide a remote annunciator to meet the requirements of NFPA 110, Level 1.

A. The annunciator shall incorporate ring-back capability so that after silencing the initial alarm, any subsequent alarms will sound the horn.
B. Ability to be located up to 4000 ft from the generator set
C. The annunciator shall provide remote annunciation of all points listed below:
   1. Overcrank
   2. Low coolant temperature
   3. High coolant temperature warning
   4. High coolant temperature shutdown
   5. Low oil pressure warning
   6. Low oil pressure shutdown
   7. Overspeed
   8. Low coolant level
   9. EPS supplying load
   10. Control switch not in auto
   11. High battery voltage
   12. Low battery voltage
   13. Battery charger AC failure
   14. Emergency stop
   15. Spare (or ATS Remote Start wiring failure)
   16. Spare (or Tier 4 SCR when applicable)

2.5 COOLING SYSTEM

2.6 FUEL SYSTEM

2.6.1 Fuel System

The fuel system shall be integral with the engine. In addition to the standard fuel filters provided by the engine manufacturer, there shall also be installed a primary fuel filter/water separator in the fuel inlet line to the engine. All fuel piping shall be black iron or flexible fuel hose rated for this service. No galvanized piping will be permitted. Flexible fuel lines shall be minimally rated for 300 degrees F and 100 psi.

2.7 EXHAUST SYSTEM (INDOOR INSTALLATIONS ONLY)

2.7.1 Silencer

A critical grade silencer, companion flanges, and flexible stainless steel exhaust fitting properly sized shall be furnished and installed according to the manufacturer's recommendation. Mounting shall be provided by the contractor as shown on the drawings. The silencer shall be mounted so that its weight is not supported by the engine nor will exhaust system growth due to thermal expansion be imposed on the engine. Exhaust pipe size shall be sufficient to ensure that exhaust backpressure does not exceed the maximum limitations specified by the engine manufacturer.

2.8 STARTING SYSTEM

2.8.1 Starting Motor

A DC electric starting system with positive engagement shall be furnished. The motor voltage shall be as recommended by the engine manufacturer.

2.8.2 Jacket Water Heater

Jacket water heater shall be provided and shall be sized to insure that genset will start within the specified time period and ambient conditions.

2.8.3 Batteries

Batteries - A lead-acid storage battery set of the heavy-duty diesel starting type shall be provided. Battery voltage shall be compatible with the starting system.

2.8.4 Battery Charger

A current limiting battery charger shall be furnished to automatically recharge batteries. The charger shall be dual charge rate with automatic switching to the boost rate when required. The battery charger shall be mounted on the genset package or inside the genset enclosure/room.

2.9 ENCLOSURE

2.9.1 Weather Proof Enclosure (Standard Sound optional)

The complete: Section291A
engine generator set, including generator control panel, engine starting batteries and fuel oil tank, shall be enclosed in a factory assembled, WeatherProof/sound attenuated enclosure mounted on the fuel tank base.

A. A weather resistant, sound attenuated enclosure of steel with electrostatically applied powder coated baked polyester paint. It shall consist of a roof, side walls, and end walls. Fasteners shall be either zinc plated or stainless steel.

B. Enclosure Sound Attenuation: Acoustical foam shall be provided between all supports and inside doors and sound baffles on air intake and air discharge.

3 EXECUTION

3.1 INSTALLATION

Install equipment in accordance with manufacturer's recommendations, the project drawings and specifications, and all applicable codes.

3.2 START-UP AND TESTING

Coordinate all start-up and testing activities with the Engineer and Owner. After installation is complete and normal power is available, the manufacturer's local dealer shall perform the following:

A. Verify that the equipment is installed properly.

B. Check all auxiliary devices for proper operation, including battery charger, jacket water heater(s), generator space heater, remote annunciator, etc.
C. Test all alarms and safety shutdown devices for proper operation and annunciation.
D. Check all fluid levels.
E. Start engine and check for exhaust, oil, fuel leaks, vibrations, etc.
F. Verify proper voltage and phase rotation at the transfer switch before connecting to the load.
G. Connect the generator to building load and verify that the generator will start and run all designated loads.
H. The system shall be tested under full load and monitor the following readings:

1. Oil pressure
2. Coolant temperature
3. Battery charge rate
4. AC volts
5. AC Amperes- all phases
6. Frequency
7. Kilowatts
8. Ambient Temperature

3.3 OPERATION AND MAINTENANCE MANUALS

Provide two (2) sets of operation and maintenance manuals covering the generator, switchgear, and auxiliary components. Include final as-built wiring interconnect diagrams and recommended preventative maintenance schedules.

3.4 TRAINING

3.4.1 On-Site Training

Provide on-site training to instruct the owner's personnel in the proper operation and maintenance of the equipment. Review operation and maintenance manuals, parts manuals, and emergency service procedures.
END OF SECTION 16700

SECTION 263213 - GENERATOR SET (60kW)

1. Scope of Work

1.1. It is the intent of this specification to secure an engine-driven generator set that has been factory built, production-tested, and site-tested together with all accessories necessary for a complete installation as shown on the plans and drawings and specified herein.

1.2. Any and all exceptions to the published specifications shall be subject to the approval of the engineer.

1.3. The power system shall be furnished by a single manufacturer who shall be responsible for the design, coordination, and testing of the complete system. The entire system shall be installed as shown on the plans, drawings, and specifications herein.

1.4. The equipment shall be produced by a manufacturer who has produced this type of equipment for a period of at least 10 years and who maintains a service organization available twenty-four hours a day throughout the year.

1.5. The equipment shall be supported by a local distributor who has had local facilities for at least 5 years and who maintains a local service organization available twenty-four hours a day throughout the year.

2. General Requirements

2.1. It is the intent of this specification to secure a generator set system that has been tested during design verification, in production, and at the final job site. The generator set will be a commercial design and will be complete with all of the necessary accessories for complete installation as shown on the plans, drawings, and specifications herein. The equipment supplied shall meet the requirements of the National Electrical Code and applicable local codes and regulations.

2.2. All equipment shall be new and of current production by a national firm that manufactures the generator sets and controls and transfer switches, and assembles the generator sets as a complete and coordinated system. There will be one-source responsibility for warranty, parts, and service through a local representative with factory-trained servicemen.

3. Submittal

3.1. The submittal shall include specification sheets showing all standard and optional accessories to be supplied; schematic wiring diagrams, dimension drawings, and interconnection diagrams identifying by terminal number each required interconnection between the generator set, the transfer switch, and the remote annunciator panel if it is included elsewhere in these specifications.

4. Codes and Standards

4.1. The generator set shall be ETL certified to UL 2200 standards or submitted to an independent third party certification process to verify compliance as installed.

4.2. The generator set shall conform to the requirements of the following codes and standards:

4.2.1. CSA C22.2, No. 14-M91 Industrial Control Equipment.

4.2.2. EN50082-2, Electromagnetic Compatibility-Generic Immunity Requirements, Part 2: Industrial.

4.2.3. EN55011, Limits and Methods of Measurement of Radio Interference Characteristics of Industrial, Scientific and Medical Equipment.

4.2.4. IEC8528 part 4, Control Systems for Generator Sets.

4.2.5. IEC Std 61000-2 and 61000-3 for susceptibility, 61000-6 radiated and conducted electromagnetic emissions.

4.2.6. IEEE446 Recommended Practice for Emergency and Standby Power Systems for Commercial and Industrial Applications.

4.2.7. NFPA 70, National Electrical Code, Equipment shall be suitable for use in systems in compliance to Article 700, 701, and 702.

4.2.8. NFPA 99, Essential Electrical Systems for Health Care

Facilities.

4.2.9. NFPA 110, Emergency and Standby Power Systems. The generator set shall meet all requirements for Level 1 systems.

5. Testing

5.1. To ensure that the equipment has been designed and built to the highest reliability and quality standards, the manufacturer and/or local representative shall be responsible for two separate tests: final production tests and site tests.

5.2. **Final Production Tests**. Each generator set shall be tested under varying loads with guards and exhaust system in place. Tests shall include:

5.2.1 Single-step load pickup

5.2.2. Transient and steady-state governing

5.2.3. Safety shutdown device testing

5.2.4. Voltage regulation

5.2.5. Rated Power @ 0.8 PF

5.2.6. Maximum power

5.2.7. Upon request, a witness test, or a certified test record sent prior to shipment.

5.3. **Site Tests.** The manufacturer's distribution representative shall perform an installation check, startup, and 2 hour full load test utilizing a resistive type load bank. The engineer, regular operators, and the maintenance staff shall be notified of the time and date of the site test. The tests shall include:

5.3.1. Fuel, lubricating oil, and antifreeze shall be checked for conformity to the manufacturer's recommendations, under the environmental conditions present and expected.

5.3.2. Accessories that normally function while the set is standing by shall be checked prior to cranking the engine. These shall include: block heaters, battery chargers, alternator strip heaters, remote annunciators, etc.

5.3.3. Generator set startup under test mode to check for exhaust leaks, path of exhaust gases outside the building, cooling air flow, movement during starting and stopping, vibration during operation, normal and emergency line-to-line voltage and frequency, and phase rotation.

5.3.4. Automatic start by means of a simulated power outage to test remote-automatic starting, transfer of the load, and automatic shutdown. Prior to this test, all transfer switch timers shall be adjusted for proper system coordination. Engine coolant temperature, oil pressure, and battery charge level along with generator set voltage, amperes, and frequency shall be monitored throughout the test.

6. Warranty and Maintenance

6.1. The generator set shall include a standard two year warranty to guarantee against defective material and workmanship in accordance with the manufacturer's published warranty from date of startup. Optional warranties shall be available upon request.

6.2. The generator set manufacturer and its distributor shall maintain a 24-hour parts and service organization. This organization shall regularly engage in maintenance contract programs to perform preventive maintenance and service on equipment similar to that specified. A service agreement shall be available and shall include system operation under simulated operating conditions; adjustment to the generator set, transfer switch, and switchgear controls as required, and certification in the owner's maintenance log of repairs made and function tests performed on all systems.

7. Equipment

7.1. The generator set shall be a Taylor model TG60 with an UCI224F311 alternator. It shall provide 60kW/75 kVA when operating at 120/208 volts, 60 Hz, .8 power factor. The generator set shall be capable of a Standby 130°C rating while operating in an ambient condition of less than or equal to 77° F and a maximum elevation of 3279 feet

above sea level.

7.2. Motor starting performance and voltage dip determinations shall be based on the complete generator set. The generator set shall be capable of supplying 194SKVA at the specified voltage (120/208) for starting motor loads with a maximum instantaneous voltage dip of 30%, as measured by a digital RMS transient recorder in accordance with IEEE standard 115. Motor starting performance and voltage dip determination that does not account for all components affecting total voltage dip i.e. engine, alternator, voltage regulator and governor will not be acceptable.

7.3. Vibration isolators shall be provided between the engine-alternator and heavy-duty steel base.

8. Engine

8.1. The 5.7L displacement engine shall have the proper HP to deliver 60kW at a governed engine speed of 1800 rpm (engines that operate above 1800 rpm are not acceptable), and shall be equipped with the following:

8.1.1. Electronic isochronous governor capable of 0.5% steady-state frequency regulation.

8.1.2. 24-volt positive-engagement solenoid shift-starting motor.

8.1.3. 70-ampere automatic battery charging alternator with solid-state voltage regulation.

8.1.4. Positive displacement, full-pressure lubrication oil pump, cartridge oil filters, dipstick, and oil drain.

8.1.5. Dry-type replaceable air cleaner elements for normal applications.

8.2. The naturally aspirated engine shall be fueled by *natural gas.*

8.3. The engine shall have a minimum of 8 cylinders and be liquid-cooled by Unit Mounted Radiator 122°F/50°C.

8.4. The engine shall be EPA certified from the factory, and shall not require a site performance test.

9. Alternator

9.1. The alternator shall be salient-pole, 3 phase sensing, brushless, 2/3-pitch, 12 lead, self-ventilated with drip-proof construction and amortisseur rotor windings and skewed for smooth voltage waveform. The ratings shall meet the NEMA standard (MG1-32.40) temperature rise limits. The insulation shall be class H per UL1446 and the varnish shall be fungus resistant epoxy. Temperature rise of the rotor and stator shall be limited to . The excitation system shall be of brushless construction controlled by a solid- state voltage regulator capable of maintaining voltage within ±0.5% at any constant load from 0% to 100% of rating. The AVR shall be capable of proper operation under severe nonlinear loads and provide individual adjustments for voltage range, stability and volts-per-hertz operations. The AVR shall be protected from the environment by conformal coating. The waveform harmonic distortion shall not exceed 5% total RMS measured line-to-line at full rated load. The TIF factor shall not exceed 50.

9.2. The generator shall be inherently capable of sustaining at least 250% of rated current for at least 10 seconds under a 3-phase symmetrical short circuit without the addition of separate current-support devices.

10. Controller

10.1. The generator shall have a Digital Controller which is a highly advanced integrated genset control system. The controller shall combine rugged construction with microprocessor technology to offer a product that will hold up to any environment and flexible enough to meet they system needs.

10.1.1. The controller shall have front panel navigation keys and large LCD display. It shall incorporate easy to navigate menus for setup and configuration without the use of additional PLC's or computer connection. All program functions and software shall be NON-proprietary. Any controller(s) provided with proprietary software shall be provided to the owner with all unlocking keys, required hardware and complete writeable software program free of charge.

10.1.2. Features shall include,

a. Generator Metering
b. Engine Metering
c. Genset Control
d. Generator Protection (27, 59, 81O,81U)
e. BESTCOMSPlus (included with every DGC-2020 at no additional cost)
    -Programming and setup software
    -Intuitive and powerful
    -Remote control and monitoring
    -Programmable Logic
    -USB communications
f. Suitable for use on rental gensets with
g. Hi/Lo line sensing
h. Single or three phase sensing override
i. SAE J1939 Engine ECU communications
j. Multilingual capability
k. Remote communications to our RDP-110 Remote Annunciator
l. Battery Backup for Real Time Clock
m. LCD Heater
n. Extremely rugged, fully encapsulated design
o. 16 programmable contact inputs
p. 2 Contact outputs: (1) 30 Adc Gen. Run (1) Programmable 1 Adc rated contracts
q. Wide Ambient Temperature range
r. Additional (8) Programmable 2 Adc contacts (optional)
s. Remote Dial-out and Dial-in capability with Internal Modem (optional)
t. Enhanced Generator Protection 51 and 47
u. Modbus Communications with RS-485
v. Expandable I/O capability via J1939 CANBUS (optional)
w. UL recognized, CSA certified, CE approved
x. HALT (Highly Accelerated Life Tests) tested
y. IP 54 Front Panel rating with integrated gaskets
z. NFPA110 Level Compatible

10.1.3. Description

A. A microprocessor based generator set control shall incorporate advanced technology and features into a user friendly, rugged design. It provides front panel and PC programmability. It can sense engine parameters directly via analog senders, or it can communicate with the engine's ECU using SAE J1939 CANBUS communications. This device offers programmable inputs and outputs and programmable

logic to allow the users easily customize the operation as desired.

B. The controller shall have the capability to be configured to have eight additional output contacts, an internal RS-485, an internal industrial modem for remote communications and dialing out to a pager when the controller detects trouble. Controller shall have optional features for enhanced generator protection.

10.1.4. Functions

A. GENSET PROTECTION:

Standard Protection

Undervoltage (27)
Overvoltage (59)
Underfrequency (81U)
Overfrequency (81O)

Enhanced Protection

Phase Imbalance (47)
Generator Overcurrent (51)

B. All Generator Protection features are programmable as Alarms or Pre-alarms.

a. Engine Alarms (Shutdowns)
b. Low Oil Pressure
c. High Coolant Temperature
d. Low Coolant Temperature
e. Overspeed
f. Overcrank
g. Engine Sender Unit Failure
h. Emergency Stop
i. Battery Charger Failure

C. Pre-Alarms (Warnings)

a. Low Oil Pressure
b. High Coolant Temperature
c. Low Coolant Temperature
e. Battery Overvoltage
f. Weak Battery
g. Battery Charger Failure
h. Engine Sender Unit Failure
i. Engine kW Overload
j. Maintenance Interval Timer

k. Low Coolant Level
l. High Fuel Level
m. Low Fuel Level
n. Fuel Leak Detect

D. All Alarms and Pre-Alarms can be enabled or disabled via the BESTCOMSPlus PC software or the front panel.

E. GENSET METERING
   a. Metered generator parameters include voltage, current, Hz, real power (watts), apparent power (VA), and power factor.
   b. Metered engine parameters include oil pressure, coolant temperature, RPM, battery voltage, fuel level, engine runtime, and various J1939 supported parameters.

10.1.5. ENGINE CONTROL

A. Cranking Control: Cycle or Continuous (Fully Programmable)
B. Engine Cooldown: Smart Cooldown function saves fuel and engine life.
C. Successful Start Counter: Counts and records successful engine starts
   Timers:
   a. Engine Cooldown Timer
   b. Engine Maintenance Timer
   c. Pre-Alarm Time Delay for Weak/Low Battery Voltage
   d. Alarm Time Delay for Overspeed
   e. Alarm Time Delay for Sender Failure
   f. Arming Time Delays after Crank Disconnect:
      -Low Oil Pressure
      -High Coolant Temperature
   g. Pre-Crank Delay
   h. Continuous or Cycle Cranking Time Delay
D. Provide Keyed cranking panel that bypasses the controller and safeties to crank the engine in the event the controller fails.

10.1.6 EVENT RECORDING
A. The DGC has an event recorder that provides a record of alarms, pre-alarms, engine starts, engine runtime loaded, engine runtime unloaded, last run date, and many other events that are all date and time stamped to help the user

determine the cause and effect of issues related to the generator set.

B. BATTERY BACKUP FOR REAL TIME CLOCK
A ten-year (typical life) lithium battery is used to provide long term maintenance for the real time clock setting. This battery is serviceable by removing the rear cover. All settings, programming, and even records are saved in non-volatile memory and do not require battery backup.

11. Accessories

11.1. **Battery Charger.** A 10-ampere automatic float to equalize battery charger with LCD Display, LED Indicators, meters and NFPA-110 alarm contacts for Remote Alarm Annunciation.

11.2. **Batteries, Rack and Cables.** Battery (950CCA), rack and battery cables capable of holding the manufacturer's recommended batteries shall be supplied.

11.3. **Block Heater.** The 120V, 1500W block heater shall be thermostatically controlled and sized to maintain manufacturers recommended engine coolant temperature to meet the start-up requirements of NFPA 99 and NFPA 110, Level 1.

11.4. **Circuit Breaker.** A UL 489 listed 225Amp, 100% rated line circuit breaker, Electronic Trip (LSI), generator-mounted with load side lugs and auxiliary contacts.

11.5. **Critical Silencer.** The engine exhaust silencer shall be temperature and rust resistant, and rated for critical applications. The silencer will reduce total engine exhaust noise by 25-35 db(A).

11.6. **Flex Exhaust Tube.** The exhaust piping shall be gas proof, seamless, stainless steel, flexible exhaust bellows with threaded NPT connection.

11.7. **Flexible Fuel Line.** The flexible fuel line shall have a fitting for the engine inlet and a threaded pipe fitting for connection to the stationary piping

11.8. **Standard Air Cleaner.** The air cleaner shall provide engine air filtration which meets the engine manufacturer's specifications under typical operating conditions.

11.9 **Remote Annunciator.** Flush Mount Remote Annunciator meeting NFPA-110 requirements.

11.10 **Remote Emergency Stop Switch.** Break-Glass Type, provided loose for mounting in location specified by engineer.

11.11 **Oil and Coolant Drains with Valves.** Piped to edge of skid

12. Sound Attenuated Aluminum Weather Enclosure w/ Internal Critical Silencer

12.1. All enclosures are to be constructed from heavy duty Aluminum.

12.2. The enclosure shall be finish coated with powder baked paint for superior finish, durability, and appearance. Enclosures will be finished in the manufacturer's standard color.

12.3. The enclosures must allow the generator set to operate at full load in an ambient temperature of 40 - 45°C with no additional derating of the electrical output.

12.4. Enclosures must be equipped with sufficient side and end doors to allow access for operation, inspection, and service of the unit and all options. Minimum requirements are two doors per side. When the generator set controller faces the rear of the generator set, an additional rear facing door is required. Access to the controller and main line circuit breaker must meet the requirements of the National Electric Code.

12.5. Doors must be hinged with stainless steel hinges and hardware and be removable.

12.6. Doors must be equipped with lockable latches. Locks must be keyed

alike.

12.7. A duct between the radiator and air outlet must be provided to prevent re-circulation of hot air.

12.8. The complete exhaust system shall be internal to the enclosure

12.9 A sound attenuated weather housing shall be provided. The housing shall be constructed of 14 gauge Aluminum.with 1” UL-94 Sound Attenuating Foam.

SECTION 263214 - AUTOMATIC TRANSFER SWITCHES

PART 1 GENERAL

1.01 Scope

Furnish and install (1) **1200 amp** automatic transfer switch (ATS) with 3 poles, **208VAC** voltage and withstand current ratings as shown on the plans. The automatic transfer shall consist of a mechanically held power transfer switch unit and a microprocessor controller, interconnected to provide complete automatic operation. All transfer switches and control panels shall be the product of the same manufacturer.

1.02 Acceptable Manufacturers

Automatic transfer switches shall be ASCO Series 300 (3ATS). Any alternate shall be submitted to the consulting engineer in writing. at least 10 days prior to bid. Each alternate bid must list any deviations from this specification.

1.03 Codes and Standards

The automatic transfer switches and accessories shall conform to the requirements of:

A. UL 1008 - Standard for Automatic Transfer Switches

B. CSA C22.2 No.178 – 1978

C. NFPA 70 - National Electrical Code

D. NFPA 99 – Health Care Facilities

E. NFPA 110 - Emergency and Standby Power Systems

F. IEEE Standard 446 - IEEE Recommended Practice for Emergency and Standby Power Systems for Commercial and Industrial Applications

G. NEMA Standard ICS10-2005 (formerly ICS2-447) - AC Automatic Transfer Switches

H. NEC Articles 700, 701, 702

I. International Standards Organization ISO 9001: 2008

J. IEC 60947 – 6 – 1

PART 2 PRODUCTS

2.01 Mechanically Held Transfer Switch

A. The transfer switch unit shall be electrically operated and mechanically

held. The electrical operator shall be a single-solenoid mechanism, momentarily energized. Main operators which include over current disconnect devices will not be accepted. The switch shall be mechanically interlocked to ensure only one of two possible positions, normal or emergency.

B. The switch shall be positively locked and unaffected by momentary outages so that contact pressure is maintained at a constant value and temperature rise at the contacts is minimized for maximum reliability and operating life.

C. All main contacts shall be silver composition. Switches rated 800 amperes and above shall have segmented blow-on construction for high withstand current capability and be protected by separate arcing contacts.

D. Inspection of all contacts shall be possible from the front of the switch without disassembly of operating linkages and without disconnection of power conductors. A manual operating handle shall be provided for maintenance purposes. The handle shall permit the operator to manually stop the contacts at any point throughout their entire travel to inspect and service the contacts when required.

E. Designs utilizing components of molded-case circuit breakers, contactors, or parts thereof which are not intended for continuous duty, repetitive switching or transfer between two active power sources are not acceptable.

F. Where neutral conductors must be switched, the ATS shall be provided with fully- rated neutral transfer contacts.

G. Where neutral conductors are to be solidly connected, a neutral terminal plate with fully-rated AL-CU pressure connectors shall be provided.

2.02 Group ‘G’ Controller with Integrated User Interface Panel

A. The controller shall be connected to the transfer switch by an interconnecting wiring harness. The harness shall include a keyed disconnect plug to enable the controller to be disconnected from the transfer switch for routine maintenance.

B. The controller shall direct the operation of the transfer switch. The controller's sensing and logic shall be controlled by a built-in microprocessor for maximum reliability, minimum maintenance, inherent serial communications capability, and the ability to communicate via the Ethernet through optional communications module

C. A single controller shall provide single and three phase capability for maximum application flexibility and minimal spare part requirements. Voltage sensing shall be true RMS type and shall be accurate to ± 1% of nominal
voltage. F
requency sensing shall be accurate to ± 0.1Hz. Time delay settings shall

be accurate to ± 0.5% of the full scale value of the time delay. The panel shall be capable of operating over a temperature range of -20 to + 70 degrees C, and storage from -55 to + 85 degrees C.

D. The controller shall be enclosed with a protective cover and be mounted separate from the transfer switch unit for safety and ease of maintenance. Sensing and control logic shall be provided on printed circuit boards.

E. The controller shall meet or exceed the requirements for Electromagnetic Compatibility (EMC) as follows:

1. IEC 60947 – 6 – 1 Multiple Function Equipment Transfer Switching Equipment. 61000-4 Testing And Measurement Techniques - Overview
   a. IEC 61000 – 4 - 2 Electrostatic Discharge Immunity
   b. IEC 61000 – 4 - 3 Radiated RF Field Immunity
   c. IEC 61000 – 4 - 4 Electrical Fast Transient/Burst Immunity
   d. IEC 61000 – 4 - 5 Surge Immunity
   e. IEC 61000 – 4 – 6 Conducted RF Immunity
2. CISPR 11 – Conducted RF Emissions and Radiated RF Emissions

2.03 Enclosure

A. The 3ATS shall be furnished in a NEMA type 1 enclosure unless otherwise shown on the plans.

B. Controller shall be mounted on, visible, and operational through enclosure door.

PART 3 OPERATIONS

3.01 Controller Display and Keypad

A. A 128*64 graphical LCD display and keypad shall be an integral part of the controller for viewing all available data and setting desired operational parameters. Operational parameters shall also be available for viewing and limited control through communications port. The following parameters shall only be adjustable via DIP switches on the controller.

1. Nominal line voltage and frequency
2. Single or three phase sensing on normal
3. Transfer operating mode configuration, (open transition, or delayed transition)

All instructions and controller settings shall be easily accessible, readable and accomplished without the use of codes, calculations, or instruction
manuals.

3.02 Voltage and Frequency Sensing

A. Voltage and frequency on both the normal and emergency sources (as noted below) shall be continuously monitored, with the following pickup ,dropout, and trip settings capabilities (values shown as % of nominal unless otherwise specified.

Parameter	Sources	Dropout/Trip	Pickup/Reset
Undervoltage	N & E	70 to 98%	85 to 100%
Overvoltage	N & E	102 to116%	2% below trip
Underfrequency	N & E	85 to 98%	86 to 100%
Overfrequency	N & E	101 to 111%	2% below trip

B. Repetitive accuracy of all settings shall be within 1% at +25C

C. Voltage and frequency settings shall be field adjustable in 1% increments either locally with the display and keypad or remotely via serial communications port access.

D. Source status screens shall be provided for both normal & emergency to provide digital readout of voltage and frequency. *Note: Single phase sensing on emergency*

E. The backlit 128*64 graphical display shall have multiple language capability. Languages can be selected from the user interface.

3.03 Time Delays

A. A time delay shall be provided to override momentary normal source outages and delay all transfer and engine starting signals, adjustable 0 to 6 seconds. It shall be possible to bypass the time delay from the controller user interface.

B. A time delay shall be provided on transfer to emergency, adjustable from 0 to 60 minutes 59 seconds for controlled timing of transfer of loads to emergency. It shall be possible to bypass the time delay from the controller user interface.

C. A generator stabilization time delay shall be provided after transfer to emergency adjustable 0 or 4 seconds.

D. A time delay shall be provided on retransfer to normal, adjustable 0 to 9 hours 59 minutes 59 seconds. Time delay shall be automatically

bypassed if emergency source fails and normal source is acceptable.

E. A cooldown time delay shall be provided on shutdown of engine generator, Adjustable 0 to 60 minutes 59 seconds.

F. All adjustable time delays shall be field adjustable without the use of special tools.

G. A time delay activated output signal shall also be provided to drive an external relay(s) for selective load disconnect control. The controller shall have the ability to activate an adjustable 0 to 5 minutes 59 seconds time delay in any of the following modes:

1. Prior to transfer only.
2. Prior to and after transfer.
3. Normal to emergency only.
4. Emergency to normal only.
5. Normal to emergency and emergency to normal.
6. All transfer conditions or only when both sources are available.

H. In the event that the alternate source is not accepted within the configured Failure to Accept time delay, the common alert indication shall become active.

I. The controller shall also include the following built-in time delay for delayed transition operation.

1. A time delay for the load disconnect position for delayed transition operation adjustable 0 to 5 minutes 59 seconds.

3.04 Additional Features

A. The user interface shall be provided with test/reset modes. The test mode will simulate a normal source failure. The reset mode shall bypass the time delays on either transfer to emergency or retransfer to normal.

B. A set of contacts rated 5 amps, 30 VDC shall be provided for a low-voltage engine start signal. The start signal shall prevent dry cranking of the engine by requiring the generator set to reach proper output, and run for the duration of the cool down. setting, regardless of whether the normal source restores before the load is transferred.

C. Auxiliary contacts, rated 10 amps, 250 VAC shall be provided consisting of one contact, closed when the ATS is connected to the normal source and one contact closed when the ATS is connected to the emergency source.

D. A single alarm indication shall light up the alert indicator and de – energize the configured common alarm output relay for external monitoring.

E. LED indicating lights shall be provided; one to indicate when the ATS is connected to the normal source (green) and one to indicate when the ATS is connected to the emergency source (red).

F. LED indicating lights shall be provided and energized by controller outputs. The lights shall provide true source availability of the normal (green) and emergency (red) source, as determined by the voltage sensing trip and reset settings for each source.

G. LED indicating light shall be provided to indicate switch not in automatic mode (manual); and blinking (amber) to indicate transfer inhibit.

H. LED indicating light shall be provided to indicate any alarm condition or active time delay (red).

The following features shall be built – in to the controller, but capable of being activated through keypad programming or the serial port only when required by the user:

I. Provide the ability to select “commit/no commit to transfer” to determine whether the load should be transferred to the emergency generator if the normal source restores before the generator is ready to accept the load.

J. A variable window inphase monitor shall be provided in the controller. The monitor shall control transfer so that motor load inrush currents do not exceed normal starting currents, and shall not require external control of power sources. The inphase monitor shall be specifically designed for and be the product of the ATS manufacturer. The inphase monitor shall be equal to ASCO feature 27.

K. An engine generator exercising timer shall be provided to configure weekly and bi- weekly automatic testing of an engine generator set with or without load for 20 minutes fixed. It shall be capable of being configured to indicate a day of the week, and time weekly testing should occur.

The following feature shall be built – into the controller, but capable of being activated through keypad programming, communications interface port, or additional hardware.

L. Terminals shall be provided for a remote contact to signal the ATS to transfer to emergency. This inhibit signal can be enabled through the keypad or serial port.

M. System Status - The controller LCD display shall include a "System Status" screen which shall be readily accessible from any point in the menu by depressing the "ESC" key. This screen shall display a clear description of the active operating sequences and switch position. For example,

Normal Failed

Load on Normal

TD
Normal to
Emerg
2min15s

Controllers that require multiple screens to determine system status or display "coded" system status messages, which must be explained by references in the operator's manual are not permissible.

N. Self Diagnostics – The controller shall contain a diagnostic screen for the purpose of detecting system errors. This screen shall provide information on the status input signals to the controller which may be preventing load transfer commands from being completed.

O. Communications Interface – The controller shall be capable of interfacing, through an optional serial communication port with a network of transfer switches, locally (up to 4000 ft.). Standard software specific for transfer switch applications shall be available by the transfer switch manufacturer. This software shall allow for the monitoring, control, and setup of parameters.

P. Data Logging **–** The controller shall have the ability to log data and to maintain the last 99 events, even in the event of total power loss. The following events shall be time and date stamped and maintained in a non – volatile memory.

1. Event Logging

    1. Data and time and reason for transfer normal to emergency
    2. Data and time and reason for transfer emergency to normal
    3. Data and time and reason for engine start
    4. Data and time engine stopped
    5. Data and time emergency source available
    6. Data and time emergency source not available

2. Statistical Data

    1. Total number of transfers
    2. Total number of transfers due to source failure

3. Total number of day's controller is energized
4. Total number of hours both normal and emergency sources are Available
5. Total time load is connected to normal
6. Total time load is connected to emergency
7. Last engine start
8. Last engine start up time
9. Input and output status

4.01 Optional Features

A. Accessory Package - An accessory bundle shall be provided that includes:

1. A fully programmable engine exerciser with seven independent routines to exercise the engine generator, with or without load on a daily weekly, bi –weekly, or monthly basis.

2. Event log display that shows event number, time and date of events, event type, and reason (if applicable). A minimum of 300 events shall be stored.

3. RS – 485 communications port enabled.

4. Common alarm output contact.

(This feature shall be equal to ASCO accessory 11BE, and shall be capable of being activated for existing switches through optional accessory dongle).

5.01 Withstand and Closing Ratings

A. The ATS shall be rated to close on and withstand the available RMS symmetrical short circuit current at the ATS terminals with the type of overcurrent protection shown on the plans. WCR ATS ratings shall be as follows when used with specific circuit breakers:

ATS Size	Withstand & Closing Rating MCCB (480v/60hz)	W/CLF
30	22,000A	100,000
70 - 200	22,000A	200,000
230	25,000A	100,000
260 – 400	42,000A	200,000
600	50,000A	200,000
800 – 1200	65,000A	200,000
1600 – 2000	85,000A	200,000
2600 – 3000	100,000A	200,000

5.02 Tests and Certification

5.02.1 The complete 3ATS shall be factory tested to ensure proper operation of the individual components and correct overall sequence of operation and to ensure that the operating transfer time, voltage, frequency and time delay settings are in compliance with the specification requirements.

5.02.2 Upon request, the manufacturer shall provide a notarized letter certifying compliance with all of the requirements of this specification including compliance with the above codes and standards, and withstand and closing ratings. The certification shall identify, by serial number(s), the equipment involved. No exceptions to the specifications, other than those stipulated at the time of the submittal, shall be included in the certification.

5.02.3 The ATS manufacturer shall be certified to ISO 9001: 2008 International Quality Standard and the manufacturer shall have third party certification verifying quality assurance in design/development, production, installation and servicing in accordance with ISO 9001: 2008.

5.03 Service Representation

5.03.1 The ATS manufacturer shall maintain a national service organization of company-employed personnel located throughout the contiguous United States. The service center's personnel must be factory trained and must be on call 24 hours a day, 365 days a year.

The manufacturer shall maintain records of switch shipments, by serial number, for a minimum of 20 years.

5.03.2 For ease of maintenance, the transfer switch nameplate shall include drawing numbers and serviceable part numbers.

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SECTION 263214 – AUTOMATIC TRANSFER SWITCH BID ALT 1

Series 300 Service Entrance Rated Automatic Transfer Switches

PART 1 GENERAL

1.01 Scope

A. Furnish and install automatic transfer switches (ATS) with number of poles, amperage, voltage, and withstand current ratings as shown on the plans **(3 pole, 225A, 208V, 65 KAIC, N3R)**. **)**. **ATS shall be Delayed Transition with a programmed neutral position during transfer.** Each automatic transfer shall consist of an inherently double throw power transfer switch unit and a microprocessor controller, interconnected to provide complete automatic operation. All transfer switches and control panels shall be the product of the same manufacturer.

B. Furnish an enclosure for the (3AUS) that is for service entrance. It shall provide all of the proper disconnecting, protection, grounding and bonding required for service entrance equipment.

1.02 Acceptable Manufacturers

Service entrance automatic transfer switches shall be ASCO Series 3AUS. Any alternate shall be submitted to the consulting engineer in writing at least 10 days prior to bid. Each alternate bid must list any deviations from this specification.

1.03 Codes and Standards

The service entrance automatic transfer switch and accessories shall conform to the requirements of:

A. UL 1008 Listed for Optional Standby Transfer Switches (Manual Transfer Switches)

B. CSA C22.2 No.178 1978

C. IEC 60947-6-1 Low – Voltage Switchgear and Controller

D. NFPA 70 - National Electrical Code

E. NFPA 99 – Essential Electrical Systems for Health Care Facilities

F. IEEE Standard 446 - IEEE Recommended Practice for Emergency and StandbyPower Systems for Commercial and Industrial Applications

G. UL 508 Industrial Control Equipment

H. UL 891 Switchboards

I. NEC Articles 700, 701, 702

J. International Standards Organization ISO 90estrication 01: 2008

K. RoHs compliant (Restriction of Hazardous Substances)

L Seismic qualification – International Building Code & OSHPD to SDS level of 2.5

PART 2 PRODUCTS

2.01 Mechanically Held Transfer Switch

C. The transfer switch unit shall be electrically operated and mechanically held. The electrical operator shall be a single-solenoid mechanism, momentarily energized. Main operators which include overcurrent disconnect devices will not be accepted. The switch shall be mechanically interlocked to ensure only one of two possible positions, normal or emergency.

D. The switch shall be positively locked and unaffected by momentary outages so that contact pressure is maintained at a constant value and temperature rise at the contacts is minimized for maximum reliability and operating life.

E. All main contacts shall be silver composition. Switches rated 600 amperes and above shall have segmented, blow-on construction for high withstand current capability and be protected by separate arcing contacts.

F. Inspection of all contacts shall be possible from the front of the switch without disassembly of operating linkages and without disconnection of power conductors. A manual operating handle shall be provided for maintenance purposes. The handle shall permit the operator to manually stop the contacts at any point throughout their entire travel to inspect and service the contacts when required.

G. Designs utilizing components of molded-case circuit breakers, contactors, or parts thereof which are not intended for continuous duty, repetitive switching or transfer between two active power sources are not acceptable.

H. Where neutral conductors must be switched, the ATS shall be provided with fully- rated neutral transfer contacts.

I. Where neutral conductors are to be solidly connected, a neutral terminal plate with fully-rated AL-CU pressure connectors shall be provided.

2.02 Group G Controller with Integrated User Interface Panel

A. The controller shall be connected to the transfer switch by an interconnecting wiring harness. The harness shall include a keyed disconnect plug to enable the controller to be disconnected from the transfer switch for routine maintenance.

B. The controller shall direct the operation of the transfer switch. The controller's sensing and logic shall be controlled by a built – in microprocessor for maximum reliability, minimum maintenance, inherent

serial communications capability, and the ability to communicate via Ethernet through optional communications module.

C. A single controller shall provide single and three phase capability for maximum application flexibility and mimimal spare part requirements. Voltage sensing shall be true RMS type and shall be accurate to ± 1% of nominal voltage. Frequency sensing shall be accurate to ± 0.1 Hz. Time delay settings shall be accurate to ± 0.5% of the full scale value of the time delay. The panel shall be capable of operating over a temperature range of -20 to + 70 degrees C, and storage from -55 to + 85 degrees C.

D. The controller shall be enclosed with a protective cover and be mounted separate from the transfer switch unit for safety and ease of maintenance. Senisng and control logic shall be provided on printed circuit boards.

E. The controller shall meet or exceed the requirements for Electromagnetic Compability (EMC) as follows:

1. IEC 60947-6-1 Multiple Function Equipment Transfer Switching Equipment. 61000-4 Testing And Measurement Techniques – Overview
    a. IEC 61000 – 4 – 2 Electrostatic Discharge Immunity
    b. IEC 61000 - 4 – 3 Radiated RF Field Immunity
    c. IEC 61000 – 4 – 4 Electrical Fast Transient/Burst Immunity
    d. IEC 61000 – 4 – 5 Surge Immunity
    e. IEC 61000 – 4 – 6 Conducted RF Immunity
2. CISPR 11 – Conducted RF Emissions and Radiated RF Emiissions

2.03 Enclosure

A. The service entrance 3AUS shall be furnished in a NEMA type 3R enclosure unless otherwise shown on the plans.

B. Provide strip heater with thermostat for Type 3R enclosure requirements.

C. Controller shall be mounted on, visable, and operational through enclosure door..

D. The complete assembly shall be degreased, and thoroughly cleaned through a five- stage aqueous process. The finish shall be ANSI-61, light gray, electrostatically- charged polyester powder paint over a phosphate coating, at a minimum of 2.0 mils in density. Finish shall be suitable for indoor and outdoor environments.

E. For those automatic transfer switches that are less than 1000 amperes, the

connection between the normal disconnecting device and the ATS shall be made with the appropriate size cable. For those automatic transfer switches that are greater than 1000 amperes, the connection between the normal disconnecting device and the ATS shall be made with the appropriate size bus. Bus shall be silver plated copper rated no less than 1000 amps per square inch.

F. A pressure disconnect link shall be provided to disconnect the normal source neutral connection from the emergency and load neutral connections for 4-wire applications. A ground bus shall be provided for connection of the grounding conductor to the grounding electrode. A pressure disconnect link for the neutral to ground bonding jumper shall be provided to connect the normal neutral connection to the ground bus.

G. Control wiring shall be rated for 600 volt, UL 1015. Wires shall be placed in wire duct or harnessed, and shall be supported to prevent sagging or breakage from weight or vibration. All wiring to hinged doors shall be run through door terminal blocks or connection plugs.

PART 3 OPERATIONS

3.01 Controller Display and Keypad

A. A 128*64 graphical LCD display and keypad shall be an integral part of the controller for viewing all available data and setting desired operational parameters.
Operational parameters shall also be available for viewing and limited control through communications port. The following parameters shall only be adjustable via DIP switches on the controller.

1. Nominal line voltage and frequency
2. Single or three phase sensing on normal
3. Transfer operating mode configuration, (open transition, or delayed transition)

All instructions and controller settings shall be easily accessible, readable and accomplished without the use of codes, calculations, or instruction manuals.

3.02 Voltage and Frequency Sensing

A. Voltage and frequency on both the normal and emergency sources (as noted below) shall be continuously monitored, with the following pickup,dropout, and trip settings capabilities (values shown as % of nominal unless otherwise specified.

Parameter	Sources	Dropout/Trip	Pickup/Reset
Undervoltage	N & E	70 to 98%	85 to 100%
Overvoltage	N & E	102 to116%	2% below trip
Underfrequency	N & E	85 to 98%	86 to 100%

Overfrequency	N & E	101 to 111%	2% bellow trip

B. Repetitive accuracy of all settings shall be within 1% at +25C

C. Voltage and frequency settings shall be field adjustable in 1% increments either locally with the display and keypad or remotely via serial communications port access.

D. Source status screens shall be provided for both normal & emergency to provide digital readout of voltage and frequency. *Note: Single phase sensing on emergency*

E. The backlit 128*64 graphical display shall have multiple language capability. Languages can be selected from the user interface.

3.03 Time Delays

A. A time delay shall be provided to override momentary normal source outages and delay all transfer and engine starting signals, adjustable 0 to 6 seconds. It shall be possible to bypass the time delay from the controller user interface.

B. A time delay shall be provided on transfer to emergency, adjustable from 0 to 60 minutes 59 seconds for controlled timing of transfer of loads to emergency. It shall be possible to bypass the time delay from the controller user interface.

C. A generator stabilization time delay shall be provided after transfer to emergency adjustable 0 or 4 seconds.

D. A time delay shall be provided on retransfer to normal, adjustable 0 to 9 hours 59 minutes 59 seconds. Time delay shall be automatically bypassed if emergency source fails and normal source is acceptable.

E. A cooldown time delay shall be provided on shutdown of engine generator, Adjustable 0 to 60 minutes 59 seconds.

F. All adjustable time delays shall be field adjustable without the use of special tools.

G. A time delay activated output signal shall also be provided to drive an external relay(s) for selective load disconnect control. The controller shall have the ability to activate an adjustable 0 to 5 minutes 59 seconds time delay in any of the following modes:

1. Prior to transfer only.
2. Prior to and after transfer.
3. Normal to emergency only.

4. Emergency to normal only.

5. Normal to emergency and emergency to normal.

6. All transfer conditions or only when both sources are available.

H. In the event that the alternate source is not accepted within the configured Failure to Accept time delay, the common alert indication shall become active.

I. The controller shall also include the following built-in time delay for delayed transition operation.

1. A time delay for the load disconnect position for delayed transition operation adjustable 0 to 5 minutes 59 seconds.

3.04 Additional Features

A. The user interface shall be provided with test/reset modes. The test mode will simulate a normal source failure. The reset mode shall bypass the time delays on either transfer to emergency or retransfer to normal.

B. A set of contacts rated 5 amps, 30 VDC shall be provided for a low-voltage engine start signal. The start signal shall prevent dry cranking of the engine by requiring the generator set to reach proper output, and run for the duration of the cool down. setting, regardless of whether the normal source restores before the load is transferred.

C. Auxiliary contacts, rated 10 amps, 250 VAC shall be provided consisting of one contact, closed when the ATS is connected to the normal source and one contact closed when the ATS is connected to the emergency source.

D. A single alarm indication shall light up the alert indicator and de – energize the configured common alarm output relay for external monitoring.

E. LED indicating lights shall be provided; one to indicate when the ATS is connected to the normal source (green) and one to indicate when the ATS is connected to the emergency source (red).

F. LED indicating lights shall be provided and energized by controller outputs. The lights shall provide true source availability of the normal (green) and emergency (red) source, as determined by the voltage sensing trip and reset settings for each source.

G. LED indicating light shall be provided to indicate switch not in automatic mode (manual); and blinking (amber) to indicate transfer inhibit.

H. LED indicating light shall be provided to indicate any alarm condition or active time delay (red).

The following features shall be built – in to the controller, but capable of being activated through keypad programming or the serial port only when required by the user:

I. Provide the ability to select “commit/no commit to transfer” to determine whether the load should be transferred to the emergency generator if the normal source restores before the generator is ready to accept the load.

J. A variable window inphase monitor shall be provided in the controller. The monitor shall control transfer so that motor load inrush currents do not exceed normal starting currents, and shall not require external control of power sources. The inphase monitor shall be specifically designed for and be the product of the ATS manufacturer. The inphase monitor shall be equal to ASCO feature 27.

K. An engine generator exercising timer shall be provided to configure weekly and bi- weekly automatic testing of an engine generator set with or without load for 20 minutes fixed. It shall be capable of being configured to indicate a day of the week, and time weekly testing should occur.

The following feature shall be built – into the controller, but capable of being activated through keypad programming,communications interface port, or additional hardware.

L. Terminals shall be provided for a remote contact to signal the ATS to transfer to emergency. This inhibit signal can be enabled through the keypad or serial port.

M. System Status - The controller LCD display shall include a “System Status” screen which shall be readily accessible from any point in the menu by depressing the “ESC” key. This screen shall display a clear description of the active operating sequences and switch position. For example,

Normal Failed
Load on Normal
TD Normal
to Emerg
2min15s

Controllers that require multiple screens to determine system status or display “coded” system status messages, which must be explained by references in the operator’s manual are not permissible.

N. **Self Diagnostics –** The controller shall contain a diagnostic screen for the purpose of detecting system errors. This screen shall provide information

on the status input signals to the controller which may be preventing load transfer commands from being completed.

O. Communications Interface – The controller shall be capable of interfacing, through an optional serial communication port with a network of transfer switches, locally (up to 4000 ft.). Standard software specific for transfer switch applications shall be available by the transfer switch manufacturer. This software shall allow for the monitoring, control, and setup of parameters.

P. Data Logging – The controller shall have the ability to log data and to maintain the last 300 events, even in the event of total power loss. The following events shall be time and date stamped and maintained in a non – volatile memory.

1. Event Logging

    1. Data and time and reason for transfer normal to emergency
    2. Data and time and reason for transfer emergency to normal
    3. Data and time and reason for engine start
    4. Data and time engine stopped
    5. Data and time emergency source available
    6. Data and time emergency source not available

2. Statistical Data

    1. Total number of transfers
    2. Total number of transfers due to source failure
    3. Total number of day's controller is energized
    4. Total number of hours both normal and emergency sources are Available
    5. Total time load is connected to normal
    6. Total time load is connected to emergency
    7. Last engine start
    8. Last engine start up time
    9. Input and output status

4.01 Optional Features

A. Accessory Package - An accessory bundle shall be provided that includes:

1. A fully programmable engine exerciser with seven independent routines to exercise the engine generator, with or without load on a daily weekly, bi – weekly, or monthly basis.

2. Event log display that shows event number, time and date of events, event type, and reason (if applicable). A minimum of 300 events shall be stored.

3. RS – 485 communications port enabled.

4. Common alarm output contact.

(This feature shall be equal to ASCO accessory 11BE, and shall be capable of being activated for existing switches through optional accessory dongle).

ADDITIONAL REQUIREMENTS

5.01 Ampere Interrupting Capacity (AIC)

A. The maximum short circuit current the breaker shall be required to interrupt is as follows:

Switch Rating	AIC Rating	Voltage
70 - 225	25,000A	480V
250, 400	50,000A	480V
600	50,000A	480V
800 – 2000	65,000A	480V
2500, 3000	100,000A	480V

5.02 Tests and Certification

5.02.1 The complete 3AUS shall be factory tested to ensure proper operation of the individual components and correct overall sequence of operation and to ensure that the operating transfer time, voltage, frequency and time delay settings are in compliance with the specification requirements.

5.02.2 Upon request, the manufacturer shall provide a notarized letter certifying compliance with all of the requirements of this specification including compliance with the above codes and standards, and withstand and closing ratings. The certification shall identify, by serial number(s), the equipment involved. No exceptions to the specifications, other than those stipulated at the time of the submittal, shall be included in the certification.

5.02.3 The ATS manufacturer shall be certified to ISO 9001 International Quality Standard and the manufacturer shall have third party certification verifying quality assurance in design/development, production, installation and servicing in accordance with ISO 9001:2008.

5.03 Service Representation

5.03.1 The ATS manufacturer shall maintain a national service organization of company-employed personnel located throughout the contiguous United States. The service center's personnel must be factory trained and must be on call 24 hours

a day, 365 days a year.

5.03.2 The manufacturer shall maintain records of each switch, by serial number, for a minimum of 20 years.

5.03.3 For ease of maintenance and parts replacement, the switch nameplate shall include drawing numbers, part numbers for main coil and control.

SECTION 265000 - BASIC ELECTRICAL MATERIALS AND METHODS

PART 1 GENERAL

1.1 RELATED DOCUMENTS:

A. Section 260000 - Electrical General Requirements, apply to the work specified in this Section, with additions and modifications specified herein.

1.2 SECTION INCLUDES:

A. Grounding and Bonding

B. Supports

C. Identification

D. Connection of Equipment

E. Excavation, Trenching, and Backfilling

F. Cleaning and Painting

G. Cutting and Patching

1.3 PROJECT CONDITIONS:

A. Existing project conditions indicated on Drawings are based on casual field observation and existing record documents.

B. Verify field measurements and circuiting arrangements as shown on the Drawings.

C. Report discrepancies to Engineer before disturbing existing

installation. PART 2 PRODUCTS

2.1 GROUNDING MATERIALS:

A. Ground Rod: Copper clad steel, 3/4 inch in diameter x 10 feet in length.

B. Mechanical Connectors: Cast bronze construction with matching bolt, nuts, and washers.

C. Exothermic Welds: Materials shall be from the same source. Materials shall be Cadweld or approved equal.

D. Conductors: Insulated type complying with applicable Sections of these Specifications or bare soft drawn copper as indicated.

2.2 SUPPORTS:

A. Fabrication Steel: Galvanized or painted steel of standard shapes and sizes.

B. Manufactured Channel: Hot dipped galvanized with all hardware required for mounting as manufactured by

Unistrut, Kindorf, or Powerstrut.

C. Miscellaneous Hardware: Standard sizes treated for corrosion resistance.

2.3 IDENTIFICATION:

A. Nameplates: Engraved three-layer laminated plastic, black letters on white background.

B. Wire and Cable Markers: Cloth type, split sleeve type, or tubing type.

C. Panel Directories: Typewritten under plastic

cover. PART 3 EXECUTION

3.1 INSTALLATION:

A. Install Products 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.

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 Table 250-122 of the National Electrical Code for circuit ampacity ratings.

2. The electrical system grounding electrode shall be made at the main service equipment and shall be extended to the point of entrance of the metallic cold water service. Ground to be sized in accordance with Table 250-66 of the National Electrical Code. Connection to the water pipe shall be made by a suitable ground clamp. If flanged pipes are encountered, connection shall be made on the street side of the flange connection. If the metallic water service is coated with an insulating material or there is no metallic water service to the building, ground connection shall be made to ground rods at the exterior of the building driven full length into the earth. The maximum resistance of the driven ground shall not exceed 25 ohms under normally dry conditions. If this resistance cannot be obtained with a single rod, additional rods shall be installed not less than 6 feet on centers, or if sectional type rods are used, additional sections may be coupled together and driven with the first rod. The

resultant resistance shall not exceed 25 ohms measured not less than 48 hours after rainfall.

3. Ground all building steel including reinforcing bars in concrete and all piping entering the building from outside. Where applicable, see Section 16900 for additional requirements.

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 energization.

2. Make wiring connections in control panel or in wiring compartment of pre-wired equipment. Provide interconnecting wiring as required by equipment manufacturer.

3. Install and connect disconnect switches, controllers, control stations, and control devices as required by equipment manufacturer.

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. 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 and junction boxes to building structure using precast 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 systems, ductwork, mechanical equipment, conduit, etc.

4. Do not use powder-actuated anchors.

5. Do not drill structural steel members.

6. Fabricate supports from structural steel or steel channel.

7. Install surface mounted cabinets and panelboards 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 panelboards in stud walls.

10. Install free-standing electrical equipment on 4 inch high concrete pads.

E. 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. Use nameplates with 1/4 inch lettering to identify Switchboard, Panelboards, Safety Switches, Motor Starters and Branch Devices of Switchboards.

4. Panel directories shall accurately indicate load served and location of load.

5. Engrave plates as indicated by Schedules on the Drawings.

F. Install wire markers on each conductor in panelboard 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. Excavating, trenching, and backfilling shall be accomplished as indicated on the Drawings or where required to install systems and/or equipment.

1. Trenches for all underground conduits or equipment shall be excavated to the required depths. Where soft, wet, or unstable soil is encountered, the bottom of the trench shall be filled with 6 inches of compacted gravel and sand fill. All trench bottoms shall be tamped hard. Trenches shall be shored as required to meet OSHA requirements and general safe working conditions.

2. After conduits or equipment have been inspected and approved by the Architect and prior to backfilling, all forms shall be removed and the excavation shall be cleaned of all trash and debris. Material for backfilling

shall consist of the excavation, or borrow of sand, gravel, or other materials approved by the Architect and shall be free of trash, lumber, or other debris. Backfill shall be placed in horizontal layers, not exceeding 9 inches in depth and properly moistened to approximate optimum requirements. Each layer shall be compacted by hand or machine tamped to a density equivalent to surrounding soil.

H. 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.

I. Cutting and Patching: This Contractor shall provide all cutting, digging, etc., incident to his work and shall make all required repairs thereafter to the satisfaction to the Engineer, but in no case shall the Contractor cut into any major structural element, beam, or column without written approval of the Engineer.

1. Pavements, sidewalks, roads, curbs, walls, ceilings, floors, and roofs shall be cut, patched, repaired and/or replaced as required to permit the installation of the electrical work.

2. The Contractor shall bear the expense of all cutting, patching, painting, repairing, or replacing of the work of other trades required because of his fault, error, or tardiness or because of any damage done by him.

END OF SECTION 265000

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A2: DESIGN CRITERIA
REPLACEMENT GENERATOR
HOLMES DISTRICT SCHOOL BOARD
BONIFAY K8 SCHOOL

BONIFAY, FL

FDEM GRANT SA-56948

MAY 23, 2025

CODES AND STANDARDS

FLORIDA BUILDING CODE EIGHTH EDITION, 2023 BUILDING
FLORIDA BUILDING CODE EIGHTH EDITION, 2023 ENERGY CONSERVATION
NFPA LIFE SAFETY CODE-101-2021
NATIONAL ELECTRIC CODE-NFPA 70-2020

FUNCTIONAL DESCRIPTION

THE PURPOSE OF THE PROJECT IS TO REPLACE THE GENERATOR SERVING THE EHPA (ENHANCED HURRICANE PROTECTION AREA) AT THE K8 SCHOOL. AN ADDITIONAL GENERATOR INSTALLATION WILL BE SUBMITTED AS A 'BID-ALTERNATE' TO PROVIDE BACKUP POWER FOR THE EXISTING LIFT STATION AT THE HIGH SCHOOL.

THE PURPOSE OF THESE DRAWINGS IS TO PROVIDE CRITERIA FOR A DESIGN-BUILD SOLICITATION.

DESIGN TEAM

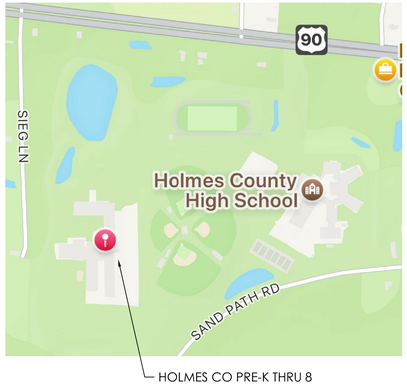
WATFORD ENGINEERING

4452 Clinton Street, Marianna, Florida 32446
850.526.3447 Project Number: 2025-011
Florida Certificate of Authorization: 27825
Anthony L Davis, PE Florida License 57419

INDEX OF DRAWINGS

PROJECT LOCATION

HOLMES COUNTY PRE-K THRU 8/
HOLMES COUNTY HIGH SCHOOL
140 BLUE DEVIL DRIVE
BONIFAY, FL. 32425



STATEMENT OF COMPLIANCE

TO THE BEST OF MY KNOWLEDGE, THESE DRAWINGS AND THE PROJECT MANUAL ARE COMPLETE AND COMPLY WITH THE FLORIDA BUILDING CODE

ENGINEER OF RECORD: ANTHONY L DAVIS, PE FL LICENSE 57419

SET NO.___

File: 2025-011_E-0.1 GNDL NOTES, RISR.dwg 5/29/2025 10:25 AM

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GENERATOR LOAD SUMMARY

SERVICE LOAD CALCULATIONS

THE ENHANCED HURRICANE PROTECTION AREA (EHPA) IS INCLUSIVE OF THE CENTER CORE OF THE ENTIRE SCHOOL FACILITY. REFER TO SHEET 'E-1.1' FOR EXACT AREA.

TOTAL PROPOSED EHPA (ENHANCED HURRICANE PROT AREA): 77,870 SQ FT
TOTAL SCHOOL AREA: 155,739 SQ FT

EHPA IS APPROXIMATELY 50% OF TOTAL BUILDING AREA. THE ENTIRE FACILITY IS METERED BY FP&L UNDER ONE ELECTRIC METER.

PEAK DEMAND: 721.0 kw
(RECORDED 5/24 PER FP&L UTILITY BILLS)

PER THE NATIONAL ELECTRIC CODE (NEC), THE PEAK DEMAND + 25% MAY BE USED FOR THE TOTAL LOAD FOR THE ELECTRICAL SERVICE RESULTING IN AN ADJUSTED DEMAND OF 901.25KW.

HALF OF THE TOTAL BUILDING AREA IS TO BE BACKED UP BY THE EPS (EMERGENCY POWER SYSTEM). 50% OF 901.25KW = 450.6KW.

SINCE THE FIRE PUMP IS NOT INCLUDED IN THE UTILITY PEAK DEMAND, THE FP PUMP LOAD OF 22.4KW IS ADDED YIELDING A TOTAL LOAD OF 473.0KW.

TO ALLOW FOR ADDITIONAL UNKNOWN LOAD PEAKS, THE DECISION WAS MADE TO USE A 750KW GENERATOR.

POWER RISER NOTES

1. EXISTING FEEDER TO REMAIN.
2. PANEL 'DP' LOCATED IN 'ELECTRICAL ROOM 1629' ADJACENT TO 'MSB'.
3. PANEL 'DP11' LOCATED IN 'ELECT 1204'. SEE SHEET 'E-1.2'.
4. GENSET TO BE FURNISHED WITH ADJUSTABLE BREAKER. ADJUST TO SETTING AS SHOWN.
5. PANEL 'DP11A' LOCATED IN 'ELECT 1147'. SEE SHEET 'E-1.3'.
6. PRIOR TO SUBMITTING BID, EC TO FIELD-COORDINATE THE MOST FEASIBLE ROUTING OF NEW FEEDER TO EXISTING PANEL. FEEDER TO BE SIZED PER THE BREAKER RATING. EC TO ENSURE NAMEPLATE ON EXISTING PANELS TO BE UPDATED TO DENOTE NEW SOURCE OF FEED.
7. DOMESTIC WATER BOOSTER PUMP LOCATED IN 'MECHANICAL 1631' ON OPPOSITE SIDE OF COMMON WALL WITH 'ELECTRICAL 1630'.
8. FIELD-COORDINATE EXACT LOCATION OF REMOTE EMERGENCY STOP TO BE MOUNTED ON EXTERIOR WALL. INSTALL A MIN. OF 1'C.
9. PER FBC 453.25.5, THE REMOTE ANNUNCIATOR SHALL BE LOCATED IN OR ADJACENT TO THE SCHOOL ADMINISTRATOR'S OFFICE. FIELD-COORDINATE EXACT LOCATION AND ROUTING OF RACEWAY. EC TO LOCATE EXISTING CONDUIT ON EXTERIOR OF BUILDING AND EXTEND CONDUIT FROM EXISTING TO NEW GENSET LOCATION. NEW FEEDER (MATCH EXISTING) TO BE INSTALLED FROM GENSET TO 'FIRE PUMP 1627'.
10. EXISTING CONDUIT TO FIRE PUMP ROOM TO BE EXPOSED ON EXTERIOR OF BUILDING. EC TO EXTEND CONDUIT TO NEW GENSET AND RE-PULL FEEDER FROM GENSET TO 'FIRE PUMP 1627'.
11. EXISTING CONDUIT TO 'ATS-EB' AND 'ATS-LS' TO BE EXPOSED ON EXTERIOR OF BUILDING. EC TO EXTEND CONDUIT TO NEW PANEL 'EM' AND RE-PULL FEEDER FROM PANEL TO EACH ATS.
12. FIELD-COORDINATE LOCATIONS OF NEW ATS AND PANEL 'MDP' IN FIELD PRIOR TO CONSTRUCTION.
13. FEEDER TO BE SIZED PER THE BREAKER RATING PROTECTION FEEDER.
14. EC TO FIELD-VERIFY THE CIRCUITS FEEDING THE EXISTING BATTERY CHARGER AND BLOCK HEATER CIRCUIT AND EXTEND TO NEW GENERATOR.

ELECTRICAL GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION.
2. ALL PANELBOARDS, BACKBOARDS, TERMINAL CABINETS, ETC., SHALL HAVE CUSTOM ENGRAVED MICARTA NAMEPLATE MECHANICALLY AFFIXED IDENTIFYING SYSTEM.
3. FURNISH ALL EQUIPMENT AND LABOR, PERFORM ALL LABOR WITH SUPERVISION, BEAR ALL EXPENSES, AS NECESSARY FOR THE SATISFACTORY COMPLETION OF ALL WORK READY FOR OPERATION.
4. COMPLY WITH ALL LOCAL CODE, LAWS, AND ORDINANCES APPLICABLE TO ELECTRICAL WORK, THE STATE BUILDING CODE, 2020 NATIONAL ELECTRIC CODE, AND 2023 FBC 8TH EDITION. OBTAIN ALL PERMITS REQUIRED BY LOCAL ORDINANCES.
5. WHERE USED, PROVIDE MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE CIRCUIT BREAKERS SERVING MULTI-WIRE BRANCH CIRCUITS IN ACCORDANCE WITH NEC 210.4(B).
6. ELECTRICAL CONTRACTOR SHALL PROVIDE THE FOLLOWING UPON COMPLETION OF THE PROJECT:
   - PANEL SCHEDULE TO BE VERIFIED BY ENGINEER OF RECORD
   - ON MAIN PANEL LABEL PHASE ROTATION, WHERE APPLICABLE
   - ALL NEW AND EXISTING PANELS WITHIN PROJECT SCOPE SHALL BE LABELED TO INDICATE SOURCE PANEL AND PROTECTING BREAKER SIZE, WHERE APPLICABLE
7. PRIOR TO DISCONNECTING/RECONNECTING OF PANELS/EQUIPMENT, EC TO FIELD-VERIFY AND NOTE PHASE ROTATION. PRIOR TO RECONNECTION, PHASE ROTATION TO BE CONFIRMED.

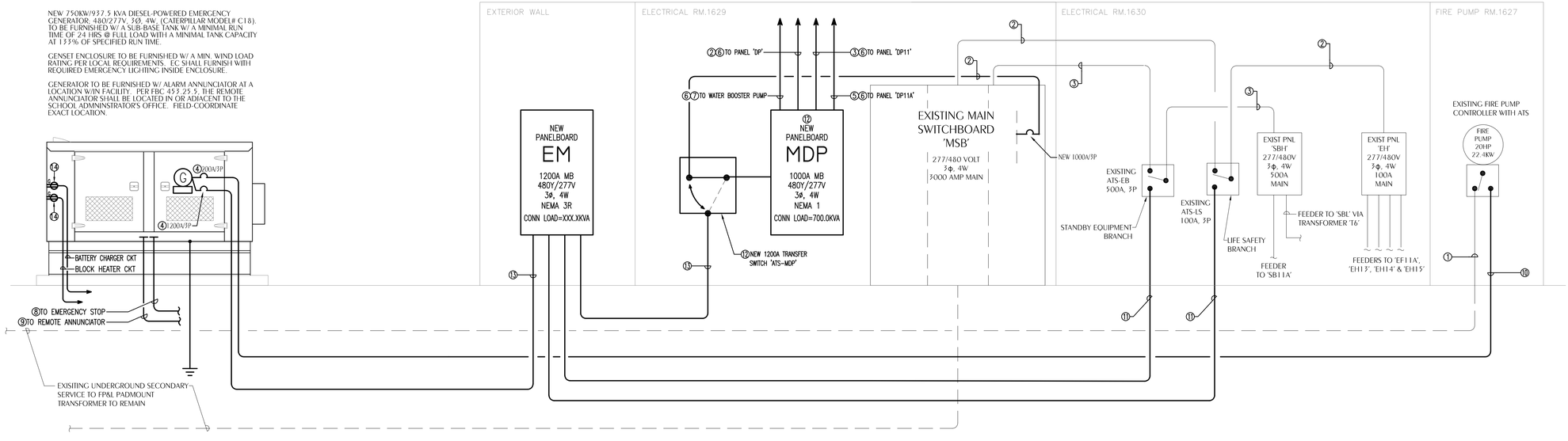
DEMOLITION NOTES

1. ALL EXISTING SYSTEMS AND CONDITIONS SHOWN ON THE PLANS ARE APPROXIMATE. THE EXISTING ELECTRICAL CIRCUITS OF POWER, RECEPTACLES, LIGHTING, ETC. BEING REMOVED MAY NOT BE SHOWN ON THESE DOCUMENTS, BUT ARE TO BE REMOVED AS REQUIRED TO BUILD THIS PROJECT AND TO PERMIT NEW FINISHES, WALLS, ETC. THE CONTRACTOR SHALL FIELD-VERIFY ALL CONDITIONS PRIOR TO BEGINNING ANY WORK AND SHALL NOTIFY THE ARCHITECT OF DISCREPANCIES. FAILURE TO DO SO INDICATES THAT THE CONTRACTOR ACCEPTS THE CONDITIONS AS THEY EXIST AND SHALL PERFORM ANY ADDITIONAL WORK NECESSARY TO PERFORM THE WORK AS SHOWN AND SPECIFIED.
2. IF A DEVICE IS BEING REMOVED AND THE CIRCUIT FEEDS OTHER LOADS FROM THE DEVICE, THEN THE WIRING SHALL BE MADE CONTINUOUS TO THE REMAINING LOADS. NO CIRCUIT CONTINUITY SHALL BE LOST.
3. IF A DEVICE IS BEING REMOVED AND NOT PART OF A DEMO WALL, THAT LOCATION SHALL BE RESTORED TO MATCH ADJACENT SURFACE.
4. REMOVE ALL DISCONNECTS, WIRING, AND CONDUITS SERVING ELECTRICAL EQUIPMENT BEING REMOVED OR RELOCATED.
5. CONTRACTOR TO REMOVE ALL CONDUITS, AND ASSOCIATED WIRING FROM DEVICES BEING REMOVED BACK TO PANEL UNLESS NOTED OTHERWISE. WHEN ALL LOADS ON EXISTING BREAKERS ARE REMOVED, RELABEL BREAKER AS 'SPARE'.

FIRESTOPPING NOTES

USE ONLY FIRESTOP PRODUCTS THAT HAVE BEEN UL 1479, ASTM E-814, OR UL 2079 TESTED FOR SPECIFIC FIRE RATED CONSTRUCTION CONDITIONS. THE CONDITIONS AND MATERIALS ARE SPECIFIED AS FOLLOWS:

1. FOR PENETRATIONS BY NON COMBUSTIBLE ITEMS USE 3M FIRE STOP SEALANT 2000 OR 3M FIRE BARRIER MOLDABLE PUDDY PADS MPP+.
2. FOR FIRE RATED CONSTRUCTION JOINTS AND OTHER GAPS USE 3M FIRESTOP SEALANT 2000.
3. FOR PENETRATIONS BY COMBUSTIBLE ITEMS USE 3M FIRE BARRIER CP25 WB OR 3M FIRE BARRIER FS 195 WRAP/STRIP.
4. FOR PENETRATIONS BY COMBUSTIBLE PLASTIC PIPE (OPEN PIPING SYSTEMS) USE 3M FIRE BARRIER PPO PLASTIC PIPE DEVICE.
5. FOR LARGE SIZE/COMPLEX PENETRATIONS USE 3M FIRESTOP FOAM 2001 OR 3M FIRE BARRIER CS 195 COMPOSITE SHEET.
6. FOR OPENINGS BETWEEN STRUCTURALLY SEPARATE SECTIONS OF WALL AND FLOORS USE 3M FIRE BARRIER CP 25 WB.



1 POWER RISER DIAGRAM
E-0.1 SCALE: N.T.S.

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NOT FOR CONSTRUCTION
PRELIMINARY

Anthony L Davis, PE Florida License 57419

DESIGN CRITERIA

Anthony L Davis, State of Florida, Professional Engineer, License No. 57419
This item has been digitally signed and sealed by Anthony L Davis on the date indicated here.
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

DESIGN CRITERIA
REPLACEMENT GENERATOR
HOLMES DISTRICT SCHOOL BOARD
BONIFAY K-8 SCHOOL
FDEM GRANT SA-56948
BONIFAY, FLORIDA

No.	Description	Date

PROJECT NUMBER:	2025-011
DATE:	05-23-2025
DRAWN BY:	ALD
DESIGNED BY:	ALD

GENERAL NOTES & POWER RISER DIAGRAM

E-0.1

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277/480 VOLT 3Ø 4W
1200 AMP MAIN BREAKER ②
SERVICE-RATED

CIRCUIT BREAKER PANEL SCHEDULE
NEW PANEL 'EM'

SURFACE MOUNTED
LOCKABLE NEMA 3R
ENCLOSURE

CKT	LOAD DESCRIPTION	BREAKER POLE	BREAKER AMP	LOAD KVA		BREAKER AMP	BREAKER POLE	LOAD DESCRIPTION	CKT
1	↑	↑	↑			↑	↑	↑	2
3	PANEL 'MDP' (VIA NORMAL BRANCH ATS)	3	1000	700.00	225.0	500	3	PANEL 'SBH' (VIA EQ BRANCH ATS)	4
5	↓	↓	↓			↓	↓	↓	6
7	↑	↑	↑			↑	↑	↑	8
9	SPACE	3	--		48.2	100	3	PANEL 'EH' (VIA LS BRANCH ATS)	10
11	↓	↓	↓			↓	↓	↓	12
13	↑	↑	↑			↑	↑	↑	14
15	SPACE	3	--			--	3	SPACE	16
17	↓	↓	↓			↓	↓	↓	18
19	↑	↑	↑			↑	↑	↑	20
21	SPACE	3	--			--	3	SPACE	22
23	↓	↓	↓			↓	↓	↓	24
25	↑	↑	↑			↑	↑	↑	26
27	SPACE	3	--			--	3	SPACE	28
29	↓	↓	↓			↓	↓	↓	30
31	↑	↑	↑			↑	↑	↑	32
33	SPACE	3	--			--	3	SPACE	34
35	↓	↓	↓			↓	↓	↓	36
37	↑	↑	↑			↑	↑	↑	38
39	SPACE	3	--		--	60	3	SURGE SUPPRESSOR	40
41	↓	↓	↓			↓	↓	↓	42

TOTAL CONNECTED LOAD: 973.2 KVA
MINIMUM INTERRUPTING CAPACITY: 65,000 AMPS SYMMETRICAL

277/480 VOLT 3Ø 4W
1200 AMP MAIN LUG ONLY

CIRCUIT BREAKER PANEL SCHEDULE
NEW PANEL 'MDP'

SURFACE MOUNTED
LOCKABLE NEMA 1
ENCLOSURE

CKT	LOAD DESCRIPTION	BREAKER POLE	BREAKER AMP	LOAD KVA		BREAKER AMP	BREAKER POLE	LOAD DESCRIPTION	CKT
1	↑	↑	↑			↑	↑	↑	2
3	PANEL 'DP'	3	400	209.0	358.0	600	3	PANEL 'DP11A'	4
5	↓	↓	↓			↓	↓	↓	6
7	↑	↑	↑			↑	↑	↑	8
9	PANEL 'DP11'	3	200	98.0	35.0	60	3	EXISTING WATER BOOSTER	10
11	↓	↓	↓			↓	↓	↓	12
13	↑	↑	↑			↑	↑	↑	14
15	SPACE	3	--			--	3	SPACE	16
17	↓	↓	↓			↓	↓	↓	18
19	↑	↑	↑			↑	↑	↑	20
21	SPACE	3	--			--	3	SPACE	22
23	↓	↓	↓			↓	↓	↓	24
25	↑	↑	↑			↑	↑	↑	26
27	SPACE	3	--			--	3	SPACE	28
29	↓	↓	↓			↓	↓	↓	30
31	↑	↑	↑			↑	↑	↑	32
33	SPACE	3	--			--	3	SPACE	34
35	↓	↓	↓			↓	↓	↓	36
37	↑	↑	↑			↑	↑	↑	38
39	SPACE	3	--			--	3	SPACE	40
41	↓	↓	↓			↓	↓	↓	42

TOTAL CONNECTED LOAD: 700.00 KVA
MINIMUM INTERRUPTING CAPACITY: 65,000 AMPS SYMMETRICAL

3000A, 277/480 VOLT, 3Ø 4WIRE
3000 A MAIN BREAKER
IER=65,000 AIC RMS SYM

EXISTING
MAIN SWITCHBOARD 'MSB'

FREE STANDING

CKT	POLE	TRIP	FR.	KVA	WIRE	CON-DUIT	SERVING
1	3	300	400	209	SEE RISER SEE	RISER	SERVES PANEL 'SBH' VIA ATS
2	3	100	100	48			SERVES PANEL 'EH' VIA ATS
3	3	400	400	209			SERVES PANEL 'DP' ①
4	3	600	600	301			SERVES PANEL 'DP13'
5	3	600	600	338			SERVES PANEL 'DP12'
6	3	600	600	358			SERVES PANEL 'DP11A' ①
7	3	200	225	98			SERVES PANEL 'DP11' ①
8	3	600	600	425			SERVES PANEL 'DP15'
9	3	400	400	279			SERVES PANEL 'DP14'
10	3	200	400	–			SPARE
11	3	60	100	35	3#6, 1#10G	1"	WATER PRESSURE BOOSTER (NOTE 1) ①
12	3	30	100	–	4#10, 1#10G	1"	SURGE SUPPRESSOR
13	3	–					SPACE
14	3	–					SPACE
15	3	–					SPACE

NOTE 1: VERIFY BREAKER SIZE WITH EQUIPMENT PROVIDED.

EXISTING CONNECTED LOAD: 2,311 KVA
NEW ADJUSTED CONNECTED LOAD: 1,611 KVA

KEYNOTES

① FEEDER/CIRCUIT TO BE RELOCATED TO NEW PANEL 'MDP'. EXISTING BREAKER TO BE LABELLED AS 'SPARE'. REFER TO SHEETS 'E-0.1' AND 'E-1.4' FOR ADDITIONAL DETAILS.

② FURNISH/INSTALL GFCI BREAKER

100A, 277/480 VOLT, 3Ø 4W
100A MAIN BREAKER
IER=35,000 AIC RMS SYM

EXISTING
PANEL 'EH' CIRCUIT SCHEDULE

SURFACE

CIRCUIT	SERVING	CONN. LOAD	COND. SIZE	WIRE SIZE	CKT. BREAKER BRK.	CKT. BREAKER CLASS	CKT. BREAKER POLE	PHASE	CKT. BREAKER POLE	CKT. BREAKER CLASS	CKT. BREAKER BRK.	WIRE SIZE	COND. SIZE	CONN. LOAD	SERVING	CIRCUIT
1	PANEL 'EH13'	18	SEE	RISER	20		3	○	3		40	SEE	RISER	12	PANEL 'EH11A'	2
3		18						○						12		4
5		10						○						12		6
7	PANEL 'EH15'	11	SEE	RISER	20		3	○	3	40	SEE	RISER		16	PANEL 'EH14'	8
9		11						○						16		10
11		11						○						16		12
13	LGTS.-RM 1630,1616,ETC.	6	1/2"	12	20		1		1						SPARE	14
15	LGTS.-RM 1607,1610,ETC.	3	1/2"	12												16
17	LGTS.-EXTERIOR	1	1/2"	12												18
19	SPARE	–														20
21		–														22
23		–														24
25		–														26
27		–														28
29		–														30
31	SPACE															32
33																34
35																36
37								○	3	30	10	3/4"	–		SURGE SUPPRESSOR	38
39													–			40
41													–			42

CONNECTED LOAD: 58A

600A, 277/480 VOLT, 3Ø 4W
500A MAIN BKR. (ELECTRONIC)
IER=14,000 AIC RMS SYM

EXISTING
PANEL 'SBH' CIRCUIT SCHEDULE

SURFACE

CIRCUIT	SERVING	CONN. LOAD	COND. SIZE	WIRE SIZE	CKT. BREAKER BRK.	CKT. BREAKER CLASS	CKT. BREAKER POLE	PHASE	CKT. BREAKER POLE	CKT. BREAKER CLASS	CKT. BREAKER BRK.	WIRE SIZE	COND. SIZE	CONN. LOAD	SERVING	CIRCUIT
1	PANEL 'SB11A'	146	SEE	RISER	400		3	○	3		175	SEE	RISER	90	PANEL 'SBL'	2
3		146						○						90	VIA TRANSFORMER	4
5		146						○						90		6
7	ESF-16.1	8	3/4"	12	20		3	○	3	15	12	3/4"		3	JOCKEY PUMP	8
9		8						○						3		10
11		8						○						3		12
13	ESF-16.2	8	3/4"	12	20		3	○	3	20	12	3/4"		8	EEF-16.1	14
15		8						○						8		16
17		8						○						8		18
19	SPACE						1	○	3	20	12	3/4"		8	EEF-16.2	20
21								○						8		22
23								○						8		24
25								○								26
27								○								28
29								○								30
31								○	1						SPARE	32
33								○								34
35								○								36
37								○	3	30	10	3/4"	–		SURGE SUPPRESSOR	38
39								○					–			40
41								○					–			42

NOTE: 400A BREAKER FOR PANEL 'SB11A' SHALL BE ELECTRONIC

CONNECTED LOAD: 271A

400A, 277/480 VOLT, 3Ø 4W
MAIN LUG ONLY
IER=35,000 AIC RMS SYM

EXISTING
PANEL 'DP' CIRCUIT SCHEDULE

SURFACE

CIRCUIT	SERVING	CONN. LOAD	COND. SIZE	WIRE SIZE	CKT. BREAKER BRK.	CKT. BREAKER CLASS	CKT. BREAKER POLE	PHASE	CKT. BREAKER POLE	CKT. BREAKER CLASS	CKT. BREAKER BRK.	WIRE SIZE	COND. SIZE	CONN. LOAD	SERVING	CIRCUIT
1	PANEL 'LK'	59	SEE	RISER	100		3	○	3		200	SEE	RISER	60	PANEL 'H'	2
3	VIA TRANSFORMER	68						○						47		4
5		59						○						55		6
7	SPACE						1	○	3		400	SEE	RISER	133	PANEL 'HK'	8
9								○						133		10
11								○						133		12
13								○	1						SPACE	14
15								○								16
17								○								18
19								○								20
21								○								22
23								○								24
25								○	3	30	10	3/4"	–		SURGE SUPPRESSOR	26
27								○					–			28
29								○					–			30

CONNECTED LOAD: 321A
DEMAND LOAD: 252A

225A, 277/480 VOLT, 3Ø 4W
200A MAIN
IER=14,000 AIC RMS SYM

EXISTING
PANEL 'DP11' CIRCUIT SCHEDULE

SURFACE

CIRCUIT	SERVING	CONN. LOAD	COND. SIZE	WIRE SIZE	CKT. BREAKER BRK.	CKT. BREAKER CLASS	CKT. BREAKER POLE	PHASE	CKT. BREAKER POLE	CKT. BREAKER CLASS	CKT. BREAKER BRK.	WIRE SIZE	COND. SIZE	CONN. LOAD	SERVING	CIRCUIT
1	LTG-RM 1100,1100A,ETC.	9	1/2"	12	20		1	○	3		175	SEE	RISER	101	PANEL 'L11' & 'L21'	2
3	1102,ETC.	4						○						101	VIA TRANSFORMER	4
5	1100B,1118,ETC.	3						○						101		6
7	LTG-E. PARKING LOT	11	3/4"	8				○	3	60	SEE	RISER		10	PANEL 'H21'	8
9	LTG-RM 1115,1116,ETC.	2	1/2"	12				○						5		10
11	SPARE	–						○						5		12
13		–						○	1						SPACE	14
15		–						○								16
17		–						○								18
19		–						○	3	30	10	3/4"	–		SURGE SUPPRESSOR	20
21	SPACE	–						○					–			22
23		–						○					–			24

CONNECTED LOAD: 118A

600A, 277/480 VOLT, 3Ø 4W
600A MAIN
IER=14,000 AIC RMS SYM

EXISTING
PANEL 'DP11A' CIRCUIT SCHEDULE

SURFACE

CIRCUIT	SERVING	CONN. LOAD	COND. SIZE	WIRE SIZE	CKT. BREAKER BRK.	CKT. BREAKER CLASS	CKT. BREAKER POLE	PHASE	CKT. BREAKER POLE	CKT. BREAKER CLASS	CKT. BREAKER BRK.	WIRE SIZE	COND. SIZE	CONN. LOAD	SERVING	CIRCUIT
1	LTG-RM 1100G,1142,ETC.	4	1/2"	12	20		1	○	3		60	SEE	RISER	33	PANEL 'H21A'	2
3	1148,1143,ETC.	5						○						33		4
5	1600	3						○						33		6
7	SPARE	–						○	3	125	SEE	RISER		82	PANEL 'L11A'	8
9		–						○						80	VIA TRANSFORMER	10
11		–						○						95		12
13	PANEL HC11A	243	SEE	RISER	300		3	○	3	35	10	3/4"		24	ERU-21.2	14
15		243						○						24		16
17		243						○						24		18
19	OAU-11.1	36	3/4"	8	60		3	○	3	35	8	3/4"		26	DH-21.2	20
21		36						○						26		22
23		36						○						26		24
25	DH-11.1	60	1"	4	80		3	○	1	30					SPARE	26
27		60						○	1						SPACE	28
29		60						○								30
31	SPACE						1	○								32
33								○								34
35								○								36
37								○	3	30	10	3/4"	–		SURGE SUPPRESSOR	38
39								○					–			40
41								○					–			42

CONNECTED LOAD: 495A
DEMAND LOAD: 409A

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DESIGN CRITERIA

Anthony L Davis, State of Florida, Professional Engineer, License No. 57419

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DESIGN CRITERIA
REPLACEMENT GENERATOR
HOLMES DISTRICT SCHOOL BOARD
BONIFAY K-8 SCHOOL

FDEM GRANT SA-56948
BONIFAY, FLORIDA

No.	Description	Date

PROJECT NUMBER:	2025-011
DATE:	05-23-2025
DRAWN BY:	ALD
DESIGNED BY:	ALD

PANEL SCHEDULES

E-0.2

File: 2025-011_E-1.1 OVERALL SITE.dwg
5/29/2025 10:28 AM

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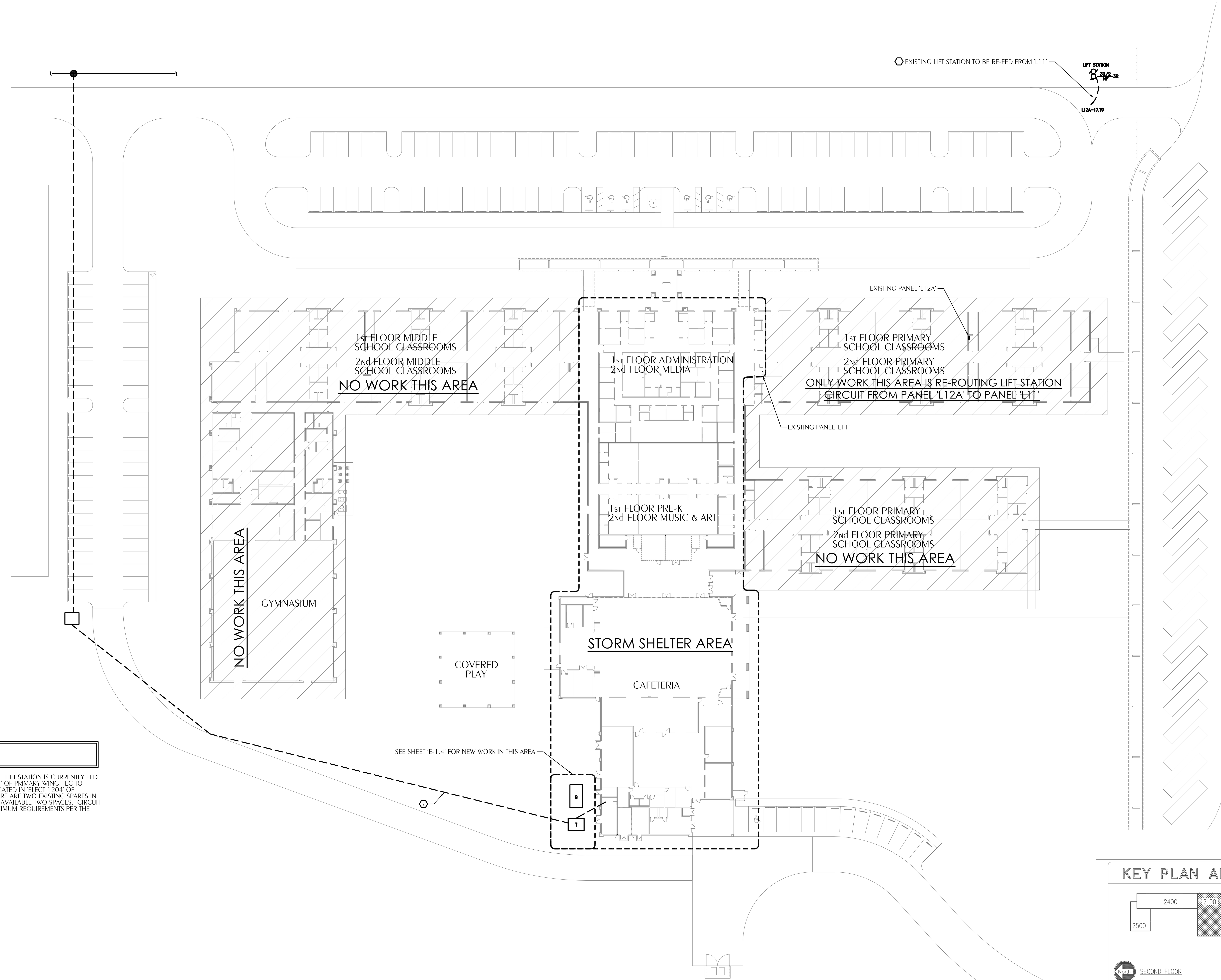
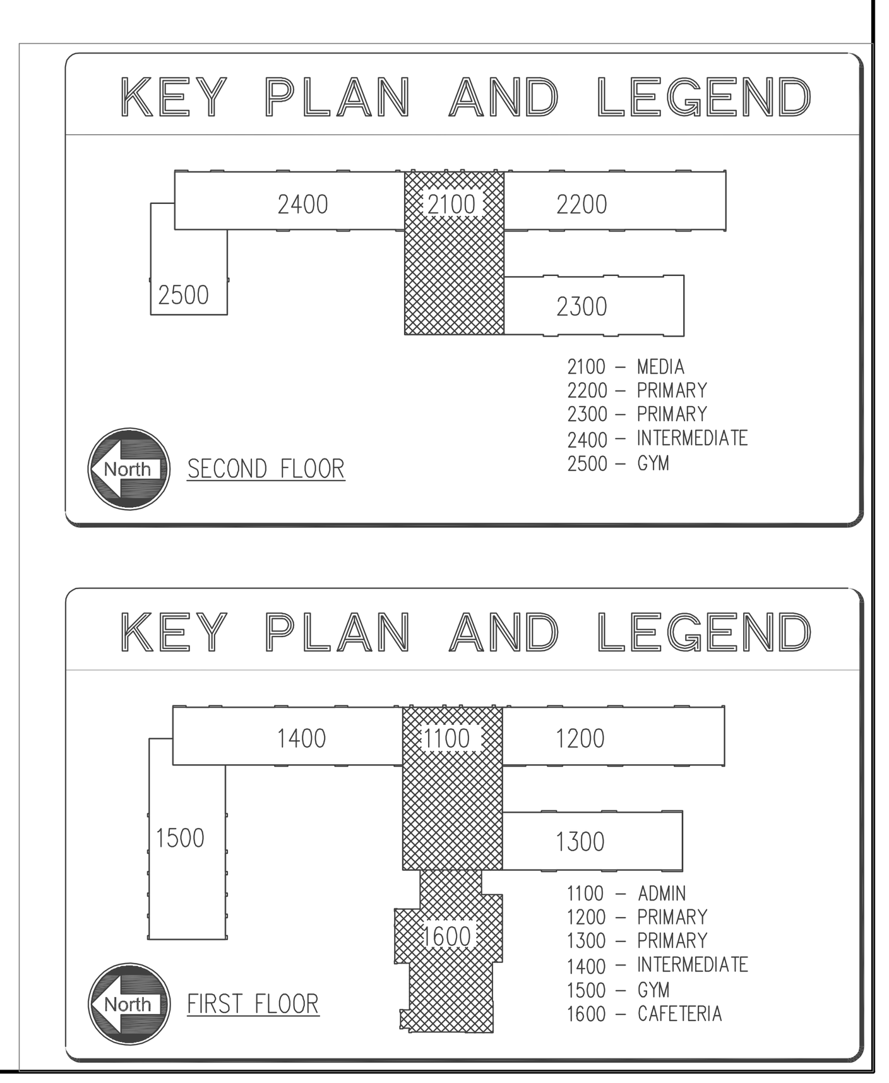


KEYNOTES

1. EXISTING LIFT STATION IS TO BE FED VIA BACKUP GENERATOR. LIFT STATION IS CURRENTLY FED VIA A 30/2 BREAKER IN PANEL 'L12A' LOCATED IN 'ELECT 1218' OF PRIMARY WING. EC TO INTERCEPT EXISTING CIRCUIT AND EXTEND TO PANEL 'L11' LOCATED IN 'ELECT 1204' OF ADMINISTRATION WING. PER EXISTING PANEL SCHEDULE, THERE ARE TWO EXISTING SPARES IN PANEL. FIELD-VERIFY AND FURNISH/INSTALL 30/2 BREAKER IN AVAILABLE TWO SPACES. CIRCUIT EXTENSION TO BE SIZED TO KEEP VOLTAGE DROP BELOW MAXIMUM REQUIREMENTS PER THE NATIONAL ELECTRIC CODE.
2. EXISTING UNDERGROUND FEEDER SHOWN FOR REFERENCE.

1 / E-1.1 **OVERALL SITE PLAN - NEW WORK**
SCALE: 1" = 40'-0"



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BONIFAY K-8 SCHOOL
FDEM GRANT SA-56948
BONIFAY, FLORIDA

No.	Description	Date

PROJECT NUMBER:	2025-011
DATE:	05-23-2025
DRAWN BY:	ALD
DESIGNED BY:	ALD

OVERALL SITE PLAN
NEW WORK

E-1.1

File: 2025-011_E-1.2 ADMIN WING.dwg
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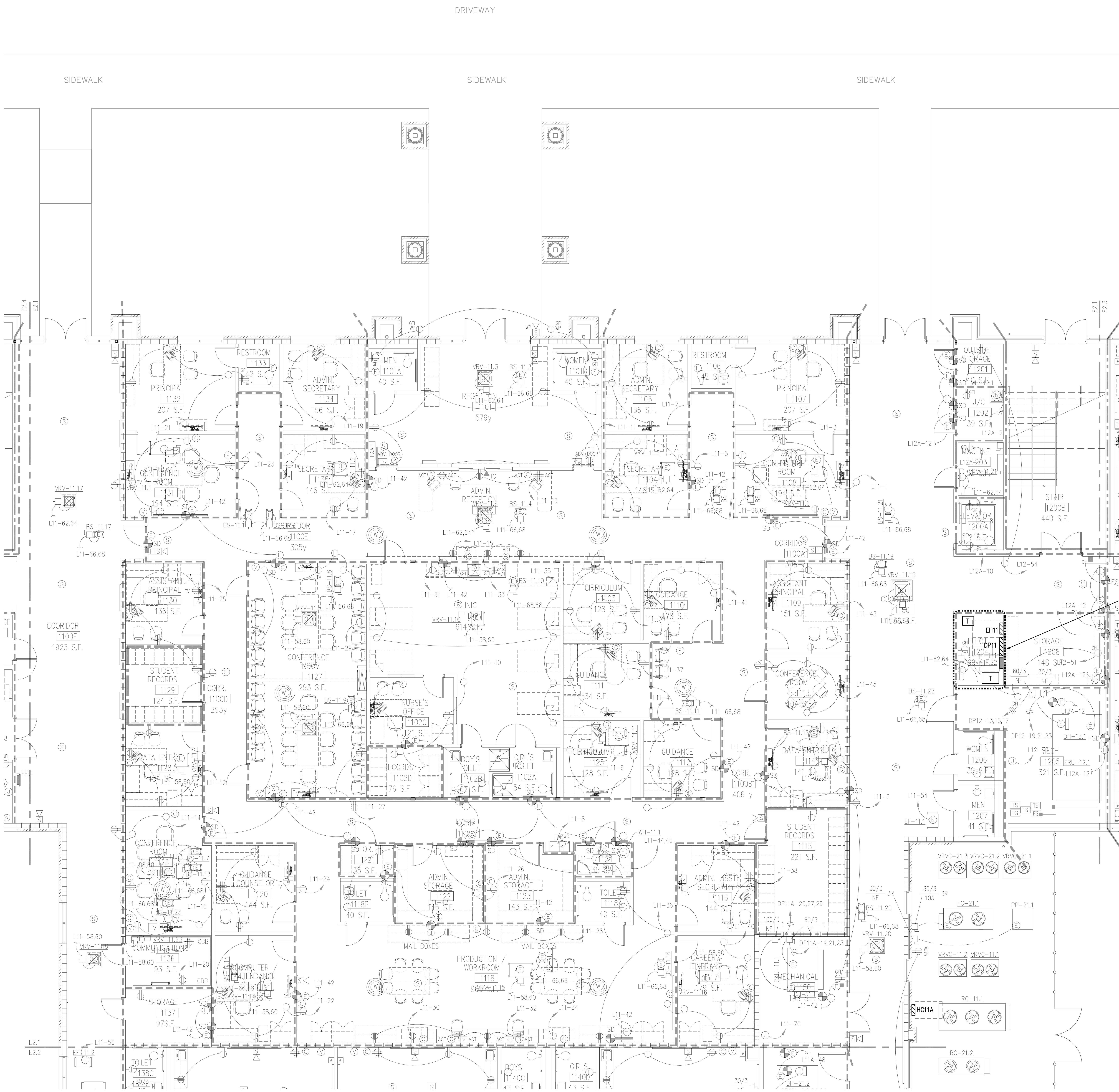

ADMINISTRATION WING - EXISTING

1 / E-1.2

SCALE: 1/8" = 1'-0"

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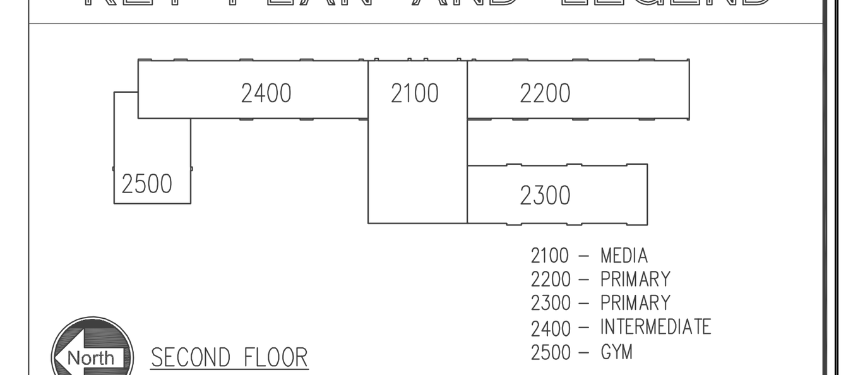
KEY PLAN AND LEGEND



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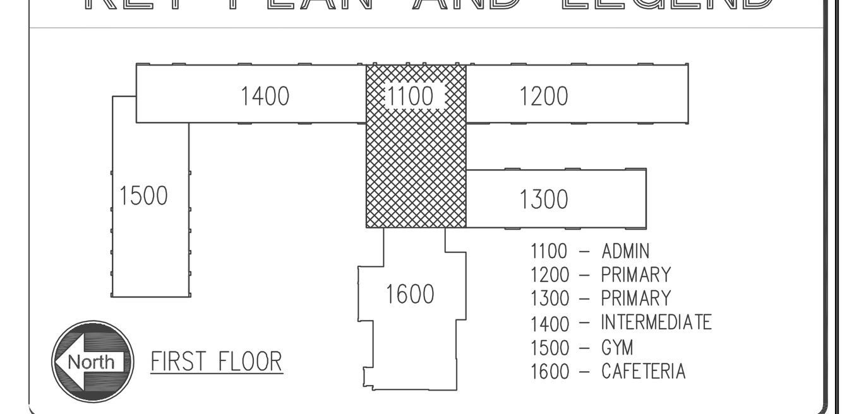

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FDEM GRANT SA-56948
BONIFAY, FLORIDA

No.	Description	Date

PROJECT NUMBER:	2025-011
DATE:	05-23-2025
DRAWN BY:	ALD
DESIGNED BY:	ALD

ADMINISTRATION WING
EXISTING

E-1.2

File: 2025-011_E-1.3 KINDERGARTEN&1ST GRADE.dwg
5/29/2025 11:00 AM

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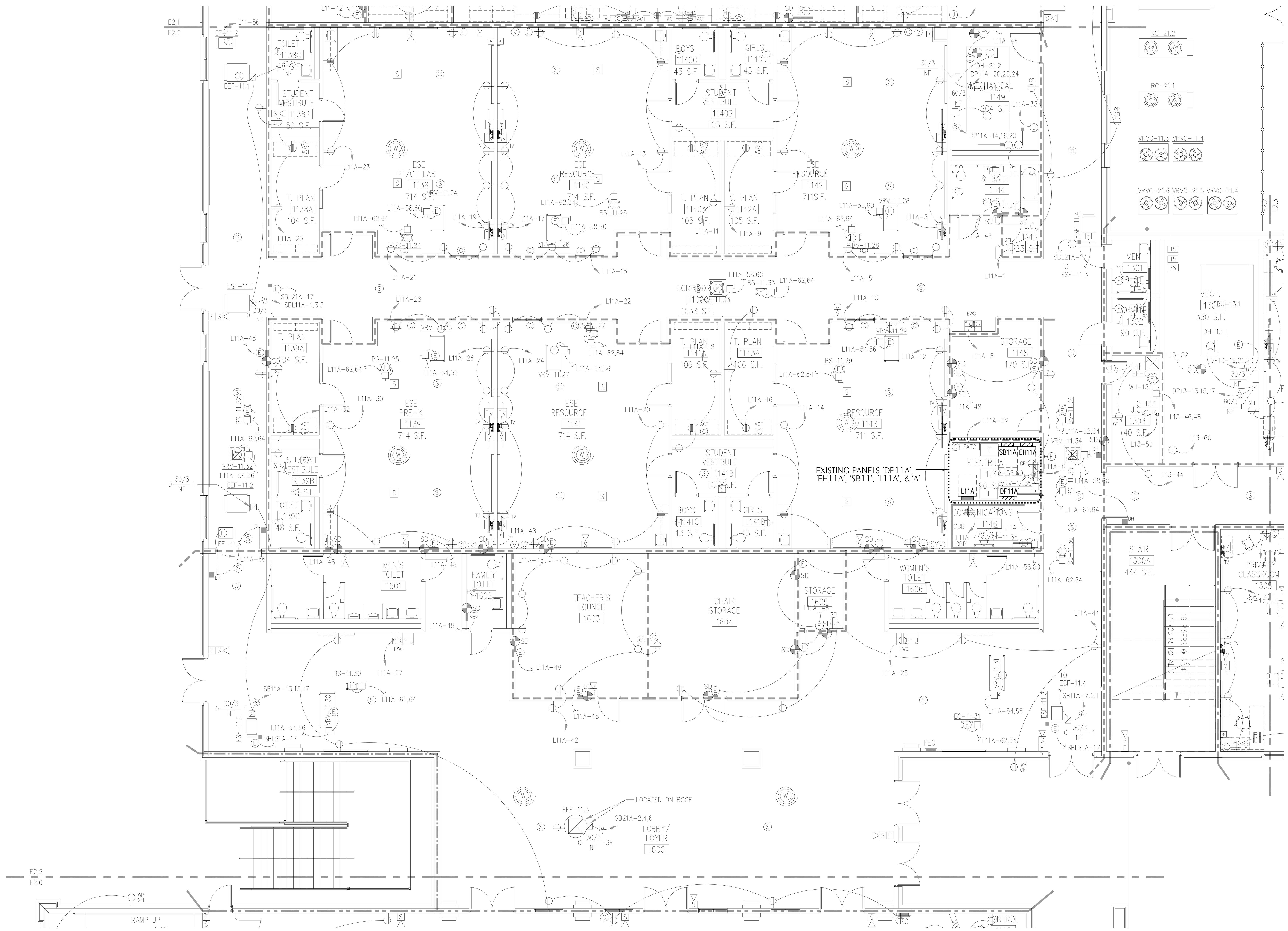

1 KINDERGARTEN & FIRST GRADE - FIRST FLOOR EXISTING

E-1.3

SCALE: 1/8" = 1'-0"

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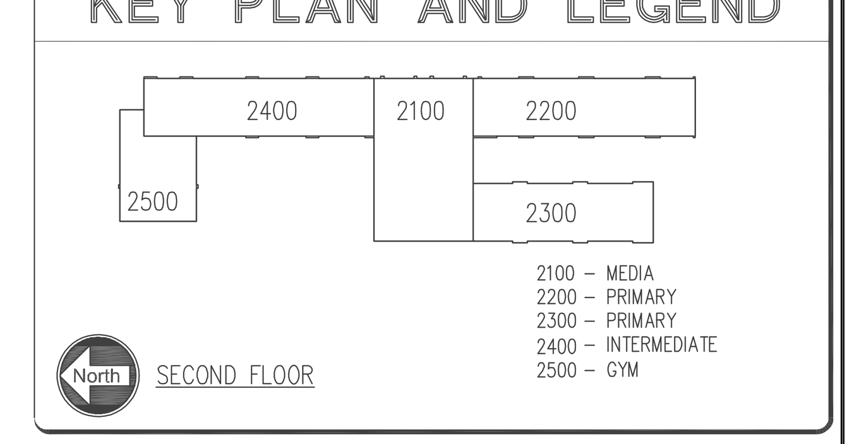
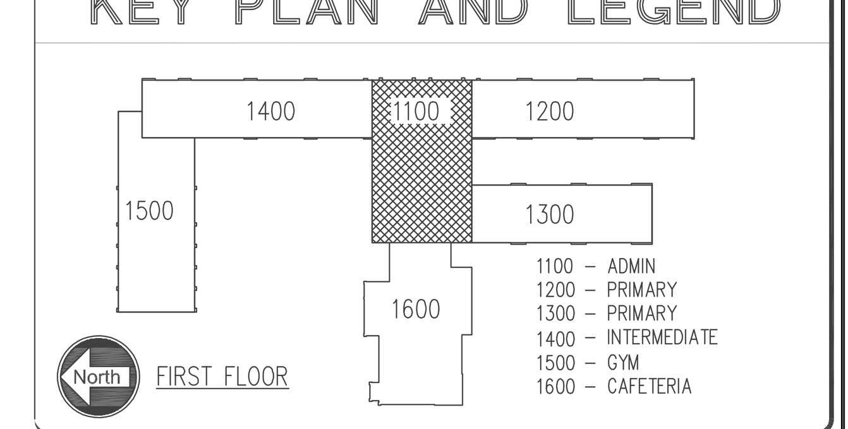
KEY PLAN AND LEGEND



KEY PLAN AND LEGEND



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BONIFAY, FLORIDA

No.	Description	Date

PROJECT NUMBER:	2025-011
DATE:	05-23-2025
DRAWN BY:	ALD
DESIGNED BY:	ALD

KINDERGARTEN & FIRST GRADE FIRST FLOOR EXISTING

E-1.3

File: 2025-011_E-1.4 CAFETORIUM.dwg
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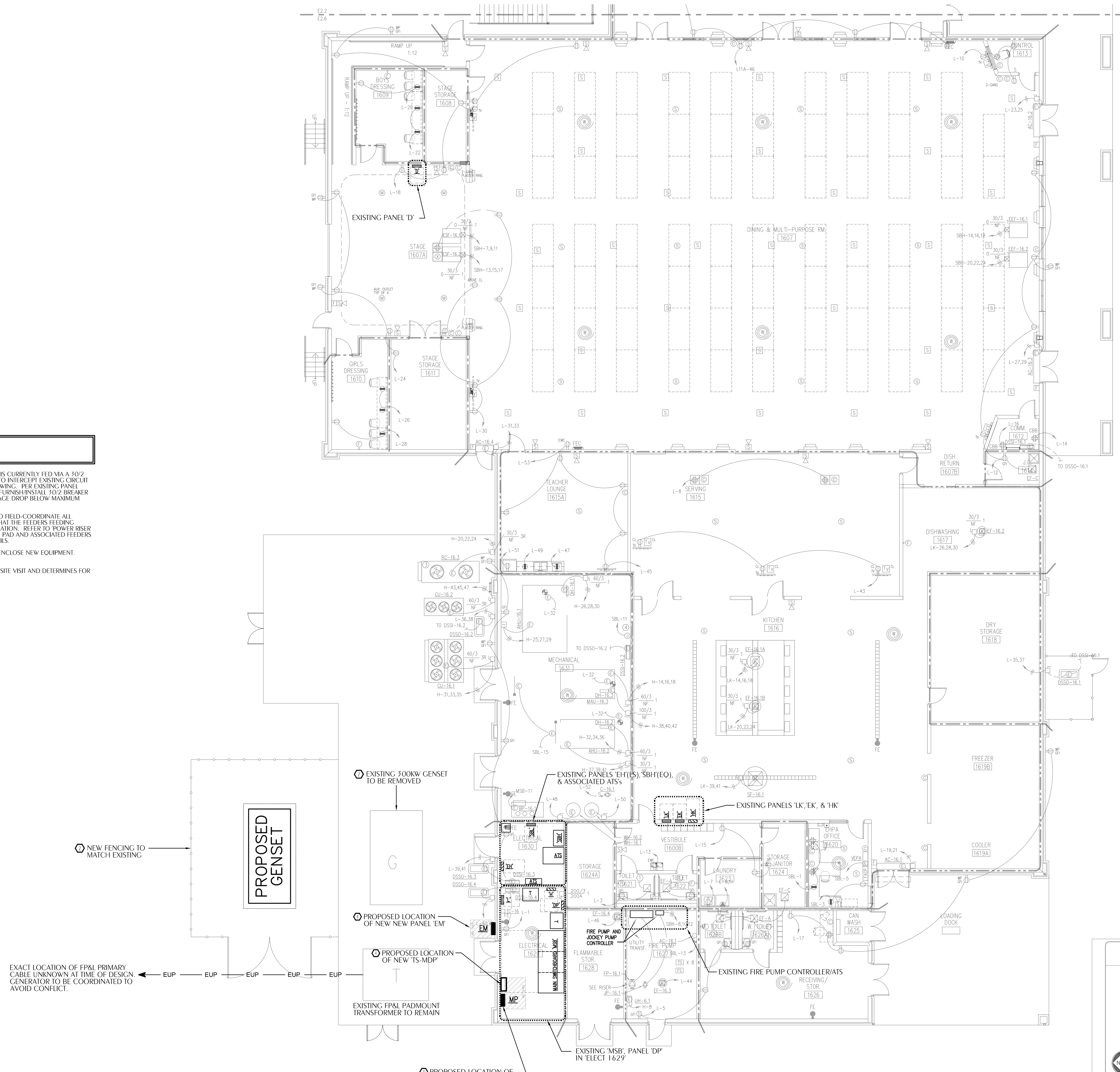
KEYNOTES

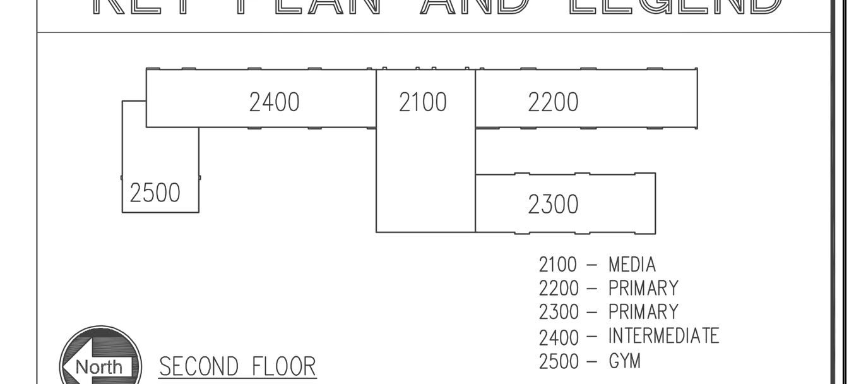
1. EXISTING LIFT STATION IS TO BE FED VIA BACKUP GENERATOR. LIFT STATION IS CURRENTLY FED VIA A 30/2 BREAKER IN PANEL 'L12A' LOCATED IN 'ELECT 1218' OF PRIMARY WING. EC TO INTERCEPT EXISTING CIRCUIT AND EXTEND TO PANEL 'L11' LOCATED IN 'ELECT 1204' OF ADMINISTRATION WING. PER EXISTING PANEL SCHEDULE, THERE ARE TWO EXISTING SPARES IN PANEL. FIELD-VERIFY AND FURNISH/INSTALL 30/2 BREAKER IN AVAILABLE TWO SPACES. CIRCUIT EXTENSION TO BE SIZED TO KEEP VOLTAGE DROP BELOW MAXIMUM REQUIREMENTS PER THE NEC.
2. EXISTING 300KW GENSET TO BE REPLACED WITH NEW 750KW GENSET. EC TO FIELD-COORDINATE ALL REQUIREMENTS INCLUDING EXACT LOCATION OF NEW CONCRETE PAD SO THAT THE FEEDERS FEEDING EXISTING ATS's MAY BE INTERCEPTED AND ROUTED TO NEW GENERATOR LOCATION. REFER TO 'POWER RISER DIAGRAM' ON SHEET 'E-0.1' FOR ADDITIONAL DETAILS. EXISTING CONCRETE PAD AND ASSOCIATED FEEDERS TO BE REMOVED. REFER TO 'POWER RISER DIAGRAM' FOR ADDITIONAL DETAILS.
3. CONTRACTOR IS RESPONSIBILE FOR MAKING ADJUSTMENTS TO FENCING TO ENCLOSE NEW EQUIPMENT. FIELD-COORDINAT EXACT LOCATION AND SIZE WITH EQUIPMENT INSTALLED.
4. THE LOCATION(S) SHOWN ARE ONLY PROPOSED. IF ONCE THE EC MAKES A SITE VISIT AND DETERMINES FOR EASE OF CONSTRUCTION, EQUIPMENT MAY BE RELOCATED.



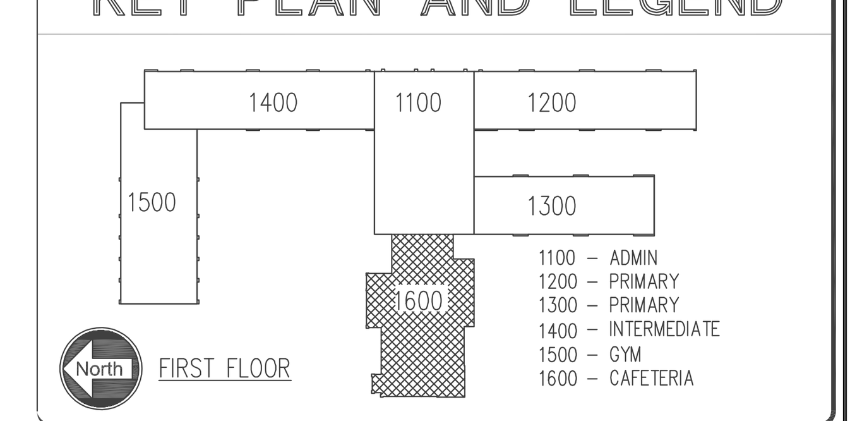
1 CAFETORIUM - FIRST FLOOR EXISTING
E-1.4 SCALE: 3/32" = 1'-0"

GENERAL RECEPTACLE LAYOUT AND EQUIPMENT CIRCUITS SHOWN ON THIS SHEET ARE EXISTING CONDITIONS AND HAVE BEEN INCLUDED FOR REFERENCE ONLY.

KEY PLAN AND LEGEND



KEY PLAN AND LEGEND



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HOLMES DISTRICT SCHOOL BOARD
BONIFAY K-8 SCHOOL
FDEM GRANT SA-56948
BONIFAY, FLORIDA

No.	Description	Date

PROJECT NUMBER:	2025-011
DATE:	05-23-2025
DRAWN BY:	ALD
DESIGNED BY:	ALD

CAFETORIUM
FIRST FLOOR
EXISTING

E-1.4

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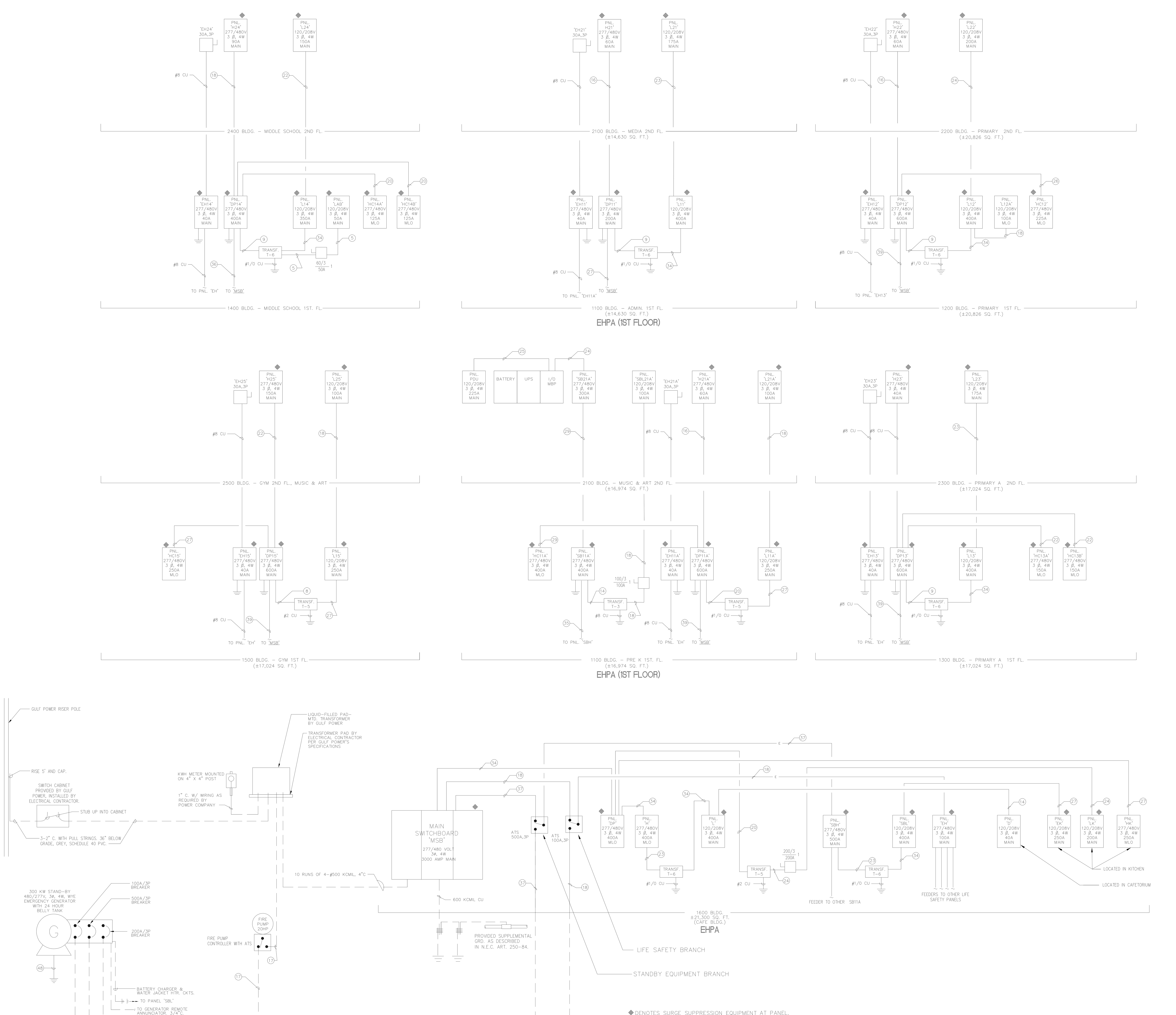


1 EXISTING POWER RISER DIAGRAM

E-1.5

SCALE: N.T.S.

THE INFORMATION PRESENTED ON THIS SHEET IS EXISTING CONDITIONS AND IS INCLUDED FOR REFERENCE ONLY.

ALUMINUM CONDUCTOR SCHEDULE

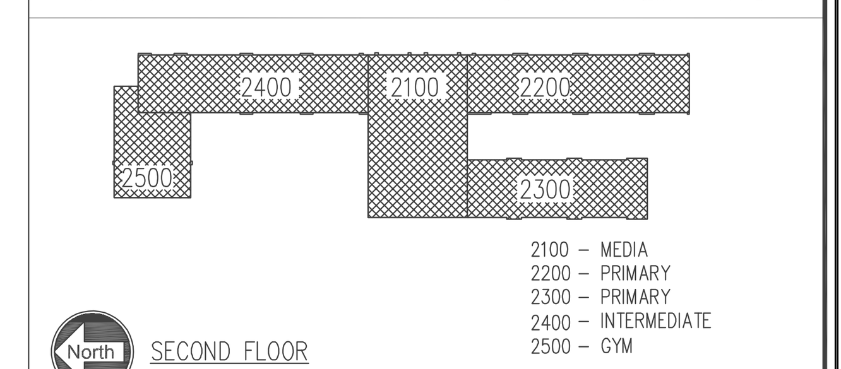
MARK	ALUMINUM	CONDUIT EMT	CONDUIT PVC
1	NOT USED	X	X
2	NOT USED	X	X
3	NOT USED	X	X
4	3#6, 1#8 G.	3/4"	3/4"
5	3#4, 1#6 G.	1"	1"
6	3#2, 1#6 G.	1 1/4"	1 1/4"
7	3#1/0, 1#4 G.	1 ½"	1 ½"
8	3#3/0, 1#4 G.	2"	2"
9	3#4/0, 1#4 G.	2"	2"
10	3-300KCMIL, 1#2 G.	2 ½"	2 ½"
11	NOT USED	X	X
12	NOT USED	X	X
13	NOT USED	X	X
14	4#6, 1#8 G.	1"	1"
15	4#6, 1#8 G.	2"	2"
16	4#4, 1#6 G.	1"	1"
17	4#2, 1#6 G.	1 1/4"	1 1/4"
18	4#1, 1#6 G.	1 ½"	1 ½"
19	4#1/0, 1#4 G.	2"	2"
20	4#2/0, 1#4 G.	2"	2"
21	4#2/0, 1#4 G.	3"	3"
22	4#3/0, 1#4 G.	2"	2"
23	4#4/0, 1#4 G.	2 ½"	2 ½"
24	4-250KCMIL, 1#4 G.	2 ½"	3"
25	4-300KCMIL, 1#2 G.	2 ½"	3"
26	4-300KCMIL, 1#2 G.	4"	4"
27	4-400KCMIL, 1#2 G.	3"	3 ½"
28	4-500KCMIL, 1#2 G.	3 "	3 ½"
29	4-500KCMIL, 1#1 G.	3"	3 ½"
30	4-500KCMIL, 1#1 G.	4"	4"
31	NOT USED	X	X
32	NOT USED	X	X
33	NOT USED	X	X
34	2 RUNS OF 4-250KCMIL, 1#1 G.	2-3 ½"	2-4"
35	2 RUNS OF 4-250KCMIL, 1#1 G.	2-4"	2-4"
36	2 RUNS OF 4-300KCMIL, 1#1/0 G.	2-3 ½"	2-4"
37	2 RUNS OF 4-400KCMIL, 1#1/0 G.	2-4"	2-4"
38	2 RUNS OF 4-400KCMIL, 1#2/0 G.	2-4"	2-4"
39	3 RUNS OF 4-400KCMIL, 1#3/0 G.	3-4"	3-4"
40	3 RUNS OF 4-500KCMIL, 1#3/0 G.	3-4"	3-4"
41	4 RUNS OF 4-400KCMIL, 1#4/0 G.	4-4"	4-4"
42	4 RUNS OF 4-500KCMIL, 1#250KCMIL G.	4-4"	4-4"
43	6 RUNS OF 4-500KCMIL, 1#350KCMIL G.	6-4"	6-4"
44	7 RUNS OF 4-500KCMIL, 1#400KCMIL G.	7-4"	7-4"
45	NOT USED	X	X
46	NOT USED	X	X
47	NOT USED	X	X
48			
49			
50			
51			
52			
53			
54			
55			

(A) CADWELD CONDUCTOR TO DRIVEN GRD. RODS.
(B) CONNECT TO GROUND PER NEC 250-26

DRY TYPE TRANSFORMER SCHEDULE

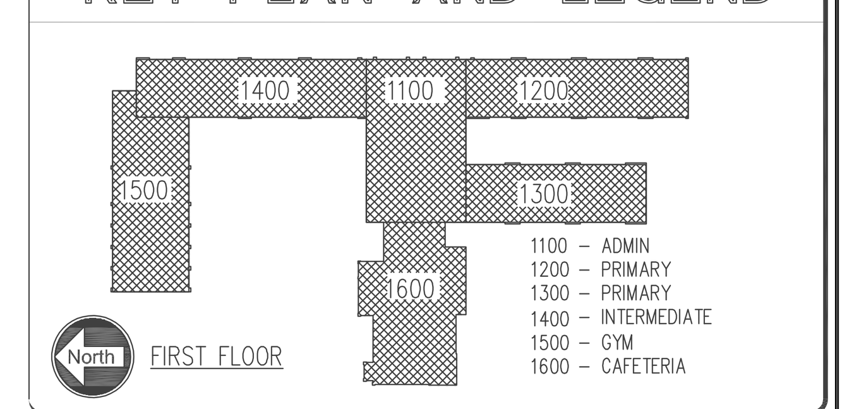
MARK	VOLTAGE/PHASE	KVA	PRIMARY PROTECTION	RATING
T-1	480-120/208, 3Ø, 4W	9	20 A	150° C
T-2	480-120/208, 3Ø, 4W	15	25 A	150° C
T-3	480-120/208, 3Ø, 4W	30	45 A	150° C
T-4	480-120/208, 3Ø, 4W	45	70 A	150° C
T-5	480-120/208, 3Ø, 4W	75	125 A	150° C
T-6	480-120/208, 3Ø, 4W	112.5	175 A	80° C
T-7	480-120/208, 3Ø, 4W	150	225 A	80° C
T-8	480-120/208, 3Ø, 4W	225	350 A	80° C

KEY PLAN AND LEGEND



2100 – MEDIA
2200 – PRIMARY
2300 – PRIMARY
2400 – INTERMEDIATE
2500 – GYM

KEY PLAN AND LEGEND



1100 – ADMIN
1200 – PRIMARY
1300 – PRIMARY
1400 – INTERMEDIATE
1500 – GYM
1600 – CAFETERIA

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FDEM GRANT SA-56948
BONIFAY, FLORIDA

No.	Description	Date

PROJECT NUMBER:	2025-011
DATE:	05-23-2025
DRAWN BY:	SBH
DESIGNED BY:	ALD

EXISTING POWER RISER DIAGRAM

File: 2025-011_E-2.1 MEDIA.dwg
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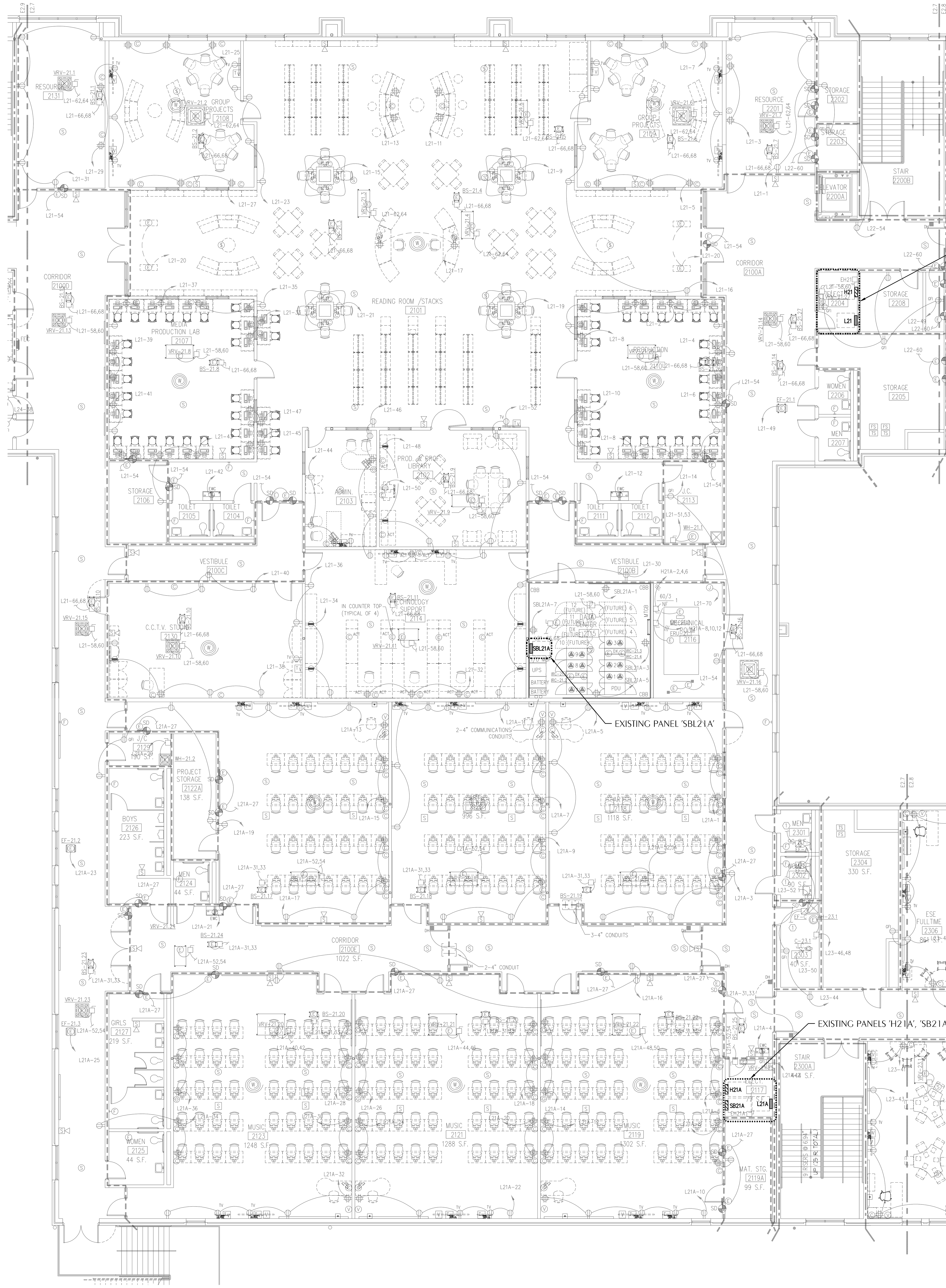

1 E-2.1 MEDIA - SECOND FLOOR EXISTING
SCALE: 3/32" = 1'-0"

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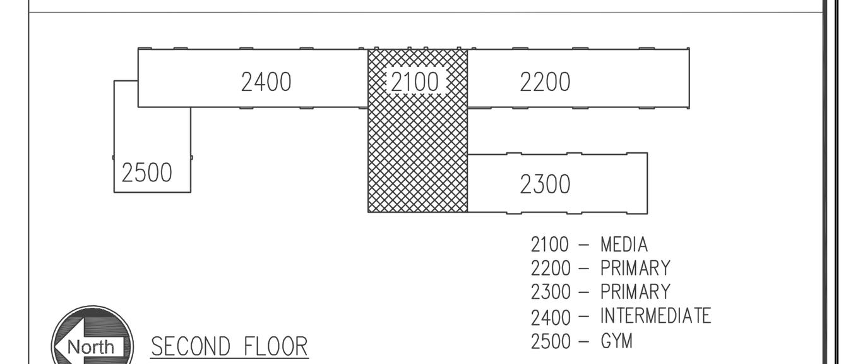
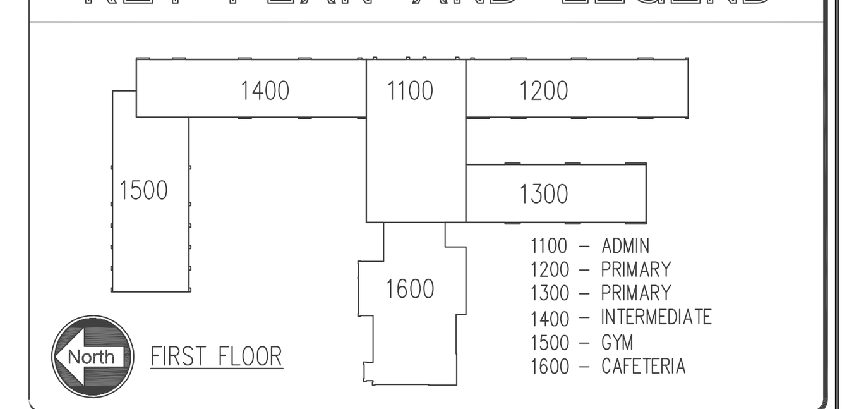
No.	Description	Date

KEY PLAN AND LEGEND



2100 – MEDIA
2200 – PRIMARY
2300 – PRIMARY
2400 – INTERMEDIATE
2500 – GYM

KEY PLAN AND LEGEND



1100 – ADMIN
1200 – PRIMARY
1300 – PRIMARY
1400 – INTERMEDIATE
1500 – GYM
1600 – CAFETERIA

PROJECT NUMBER: 2025-011
DATE: 05-23-2025
DRAWN BY: ALD
DESIGNED BY: ALD

MEDIA
SECOND FLOOR
EXISTING

E-2.1

File: 2025-011_E-3.1 BID ALT 1.dwg
5/29/2025 10:31 AM

KEYNOTES

1. EXISTING PANELS AND TRANSFORMERS TO REMAIN. NO WORK.
2. EXISTING PANEL 'P4C', LOCATED IN ELECTRICAL ROOM 617, IS SIEMENS, TYPE SPP, SERIES 6, 480Y/277VAC, 3Ø, 4W, 780 AMP, MAIN LUG ONLY PANELBOARD.
3. EXISTING LIFT STATION, TO REMAIN, IS CURRENTLY FED FROM 90/3 BREAKER IN 277/480V PANEL 'P4C'; SEE NOTE #2 FOR PANEL DETAILS. FEEDER IS #4 AWG WITH EXACT UNDERGROUND ROUTING UNKNOWN. STRAIGHT-LINE DISTANCE FROM PANEL TO LIFT STATION IS APPROXIMATELY 400'. EXISTING UNDERGROUND FEEDER WILL NEED TO BE LOCATED, EXPOSED, AND SPLICED INTO FOR INSTALLATION OF NEW AUTOMATIC TRANSFER SWITCH. SEE SITE PLAN AND RISER DIAGRAM, THIS SHEET.
4. EXISTING AWG #4 UNDERGROUND FEEDER ROUTES INTO PUMP CONTROL PANEL IN LIFT STATION ENCLOSURE. CONTROL PANEL HAS SUSTAINED STORM DAMAGE IN THE PAST AND, WHILE FUNCTIONAL, IS RECOMMENDED TO BE REPLACED. INCLUDED PRICING FOR NEW PUMP CONTROL PANEL AS SEPARATE LINE ITEM IN BID ALTERNATE. NOTE: EXISTING CONTROL PANEL IS A GORMAN RUPP 480V, 3Ø, PUMP CONTROL PANEL WITH TWO INTERNAL 45/3 (480V) BREAKERS, ONE INTERNAL 15/3 (480V) BREAKER, AND AN INTEGRAL TRANSFORMER THAT POWERS TWO 15/1 (120V) BREAKERS AND ONE 10/1 (120V) BREAKER FOR PUMP CONTROL, SERVICE OUTLET, AND FAN.
5. LOCATE AND EXPOSE EXISTING UNDERGROUND FEEDER BEYOND PAVED PARKING AREA. CUT CONDUIT ONLY TO ACCESS CONDUCTORS. DISCONNECT FEEDER CONDUCTORS AT PANEL 'P4C' IN MECHANICAL ROOM 617 AND IF POSSIBLE, REMOVE EXISTING CONDUCTORS BACK TO PANEL 'P4C'. EC TO LEAVE ENOUGH SLACK SO THAT THE EXISTING FEEDER MAY BE SPLICED TO THE NEW CIRCUIT BACK TO THE NEW ATS. CAP AND ABANDON NOW-EMPTY UNDERGROUND CONDUIT UNDER EXISTING PAVED PARKING AREA. FURNISH/INSTALL IN-GROUND QUAZITE (OR EQUAL) JUNCTION BOX (SIZE AS REQ'D) TO SPLICE NEW & EXISTING CIRCUIT FEEDING LIFT STATION. SEE RISER DIAGRAM, THIS SHEET.
6. PROPOSED LOCATION FOR NEW LP-FUELED 60 KW, 277/480V, 3Ø GENERATOR. FURNISH WITH WIND-RATED ENCLOSURE. SEE RISER DIAGRAM, THIS SHEET, FOR DETAILS. FIELD-COORDINATE WITH OWNER FOR EXACT LOCATION.
7. PROPOSED LOCATION FOR NEW AUTOMATIC TRANSFER SWITCH IN LOCKABLE NEMA 3R ENCLOSURE. SWITCH TO BE 277/480V, 3Ø, WITH MINIMUM FULL RATING OF 80A. FIELD-COORDINATE WITH OWNER FOR EXACT LOCATION.
8. INSTALL NEW 3#4, 1#8 GND, IN 1-1/4"C, ROUTED OVERHEAD, TO EXISTING PANEL 'P4C'. REMOVE OVERSIZED EXISTING 90/3 BREAKER MARKED 'LIFT STATION' AND INSTALL NEW 80/3 HACR BREAKER IN SAME SPACES OF PANEL 'P4C'. COORDINATE WITH OWNER FOR EXACT ROUTING OF NEW CONDUIT/WIRE. SEE KEYNOTE #2, THIS SHEET FOR PANEL 'P4C' INFORMATION. SEE POWER RISER NOTE #5, THIS SHEET.
9. PER DESIGN INTENT AND AT OWNER'S REQUEST, NEW LIQUID PROPANE GENERATOR TO BE FURNISHED WITH NO FUEL STORAGE TANK. FIELD-COORDINATE WITH OWNER TO INSTALL NEW PROPANE PIPING AND VALVES NECESSARY TO CONNECT NEW GENERATOR TO EXISTING ON-SITE LIQUID PROPANE FUEL STORAGE TANKS. EXACT ROUTING TO BE FIELD-VERIFIED.

POWER RISER NOTES

1. REFER TO SHEET KEYNOTE #5 ABOVE.
2. INSTALL 3#4, 1#8 GND IN 1-1/4"C FROM NEW AUTOMATIC TRANSFER SWITCH TO INGRADE SPLICE BOX.
3. FURNISH/INSTALL 480V, 3-PHASE AUTOMATIC TRANSFER SWITCH IN NEMA 3R LOCKABLE ENCLOSURE; SWITCH TO BE EQUIPPED WITH 'EXERCISER' OPTION SO THAT GENERATOR MY PERFORM ROUTINE BI-WEEKLY TESTING. SWITCH TO HAVE A MINIMUM FULL SERVICE RATING OF 80 AMPS.
4. INSTALL NEW 3#4, 1#8 GND, IN 1-1/4"C FROM NEW AUTOMATIC TRANSFER SWITCH TO EXISTING PANEL 'P4C'. COORDINATE WITH OWNER FOR NEW OVERHEAD CONDUIT ROUTING THROUGH SHOP CLASSROOM TO ELECTRICAL ROOM 617. RECONNECT LIFT STATION FEEDER TO NEW 80/3 HACR BREAKER IN EXISTING SPACES IN 'P4C'. SEE POWER RISER NOTE #5.
5. EXISTING LIFT STATION FEEDER IS #4 AWG PROTECTED BY 90/3 BREAKER IN EXISTING PANEL 'P4C'. PER THE NEC, THIS BREAKER IS OVERSIZED FOR THE EXISTING WIRE. REPLACE EXISTING BREAKER WITH NEW 80/3 HACR BREAKER IN EXISTING SPACES. SEE KEYNOTE #2, THIS SHEET, FOR EXISTING PANEL INFORMATION.
6. REMAINING LENGTH OF EXISTING #4 AWG UNDERGROUND FEEDER TO REMAIN.
7. LIFT STATION CONTROL PANEL. SEE KEYNOTE #4, THIS SHEET.
8. INSTALL 3#4, 1#8 GND, IN 1-1/4"C.
9. EC TO FURNISH/INSTALL GFCI RECEPTACLES IN GENERATOR ENCLOSURE FOR BATTERY CHARGING AND BLOCK HEATER. FURNISH/INSTALL 20/1 BREAKER, FOR EACH CIRCUIT, IN NEAREST AVAILABLE 120V PANEL FOR POWER.
10. EC TO FIELD-COORDINATE INSTALLATION OF 1"C (W/PULLSTRING) FOR EMERGENCY STOP TO BE INSTALLED ON ADJACENT WALL OF BUILDING. FIELD-COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
11. EC TO FIELD-COORDINATE INSTALLATION OF 1"C (W/PULLSTRING) FOR REMOTE ANNUNCIATOR TO BE INSTALLED ON BUILDING INTERIOR. FIELD-COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.

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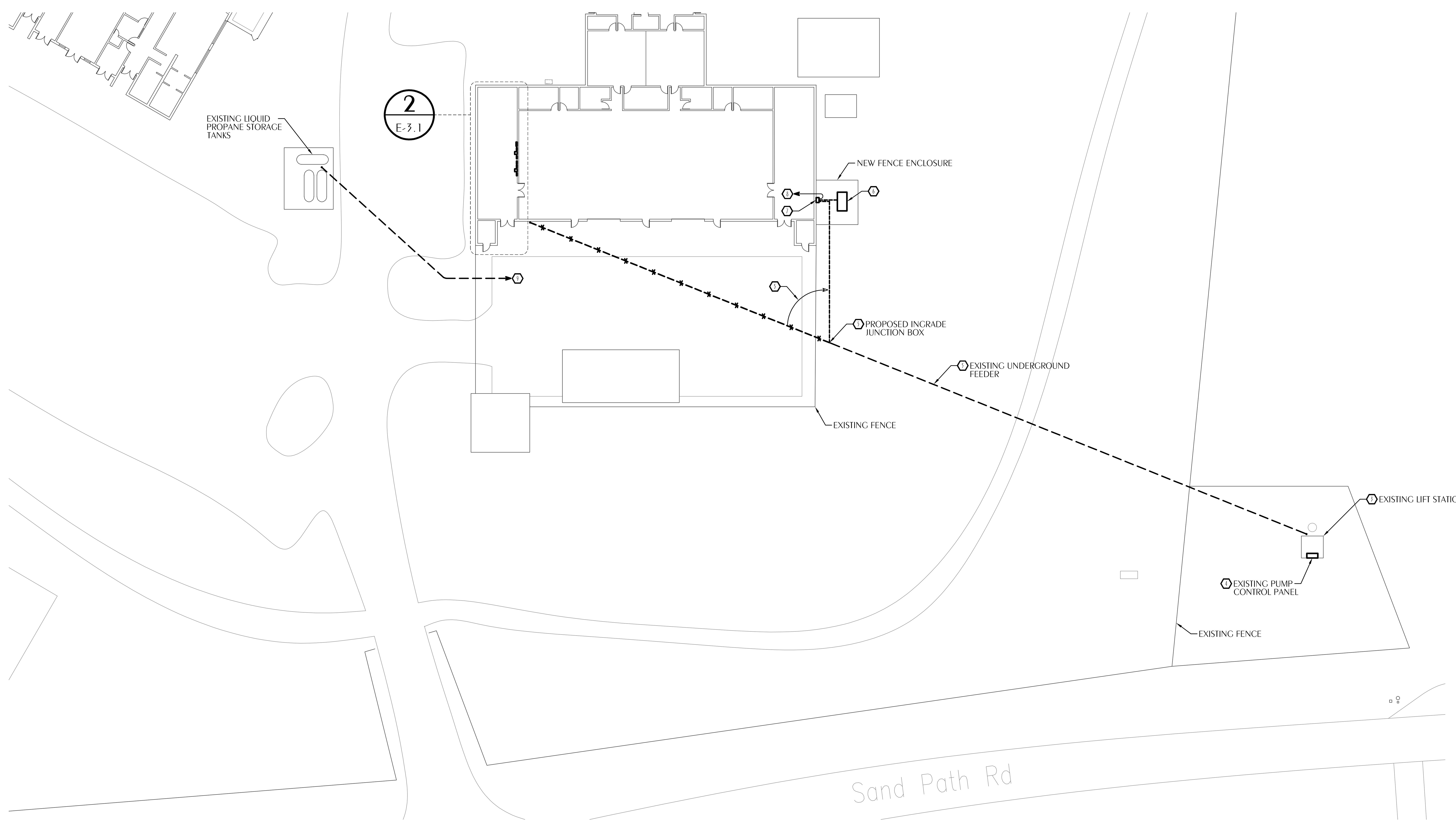
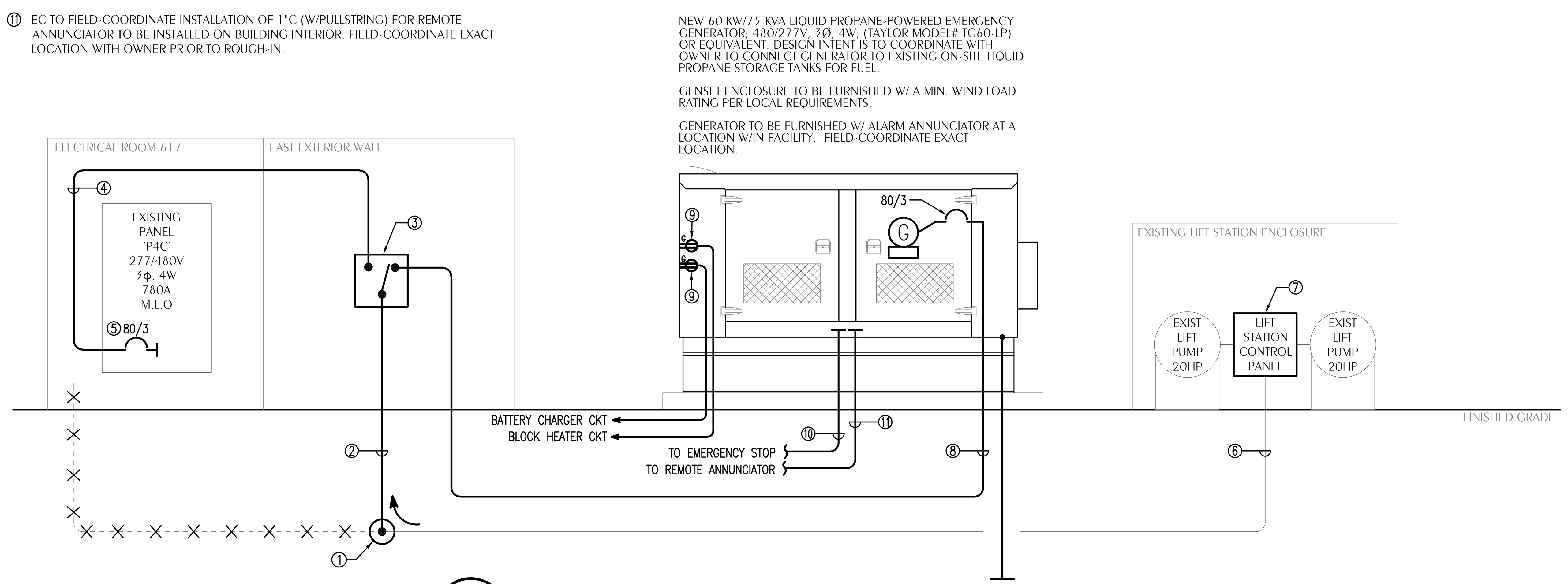
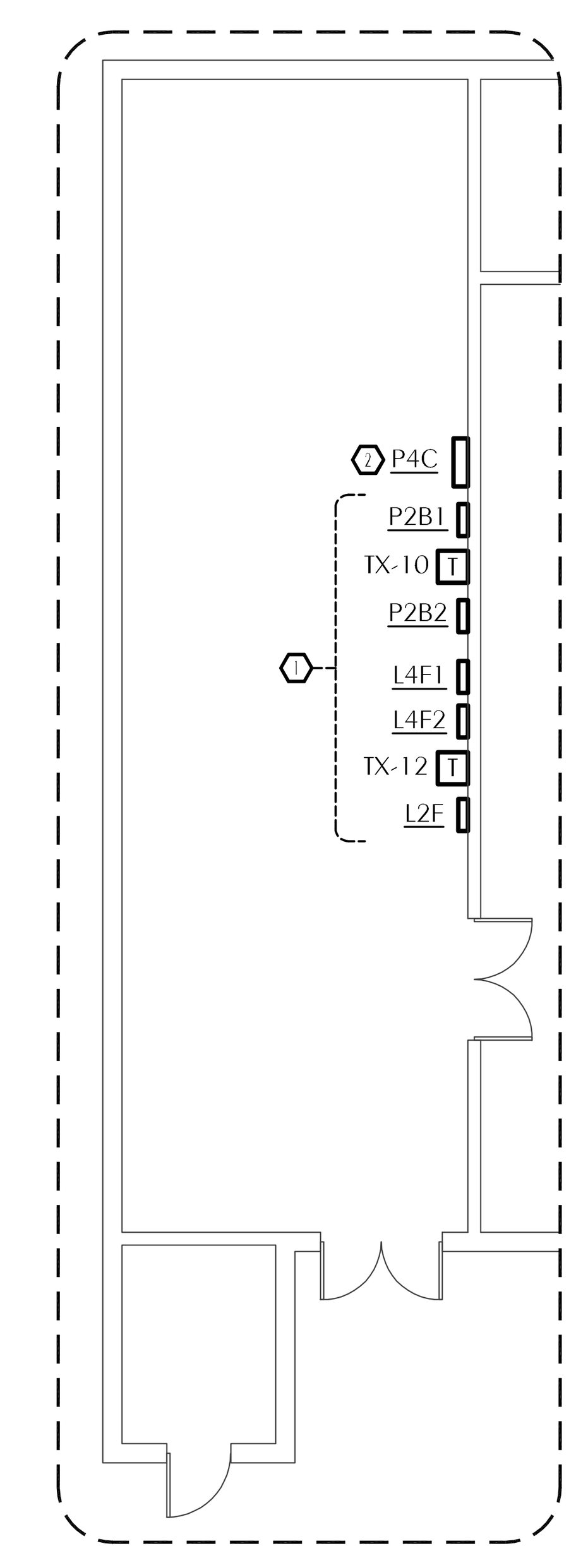


N
1 E-3.1
PARTIAL SITE PLAN - HOLMES COUNTY HIGH SCHOOL
SCALE: 1" = 30'-0"



3 E-3.1
POWER RISER DIAGRAM
SCALE: N.T.S.



2 E-3.1
ENLARGED ELECTRICAL ROOM
SCALE: 1" = 10'-0"

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Anthony L Davis, PE Florida License 57419

DESIGN CRITERIA

Anthony L Davis, State of Florida, Professional Engineer, License No. 57419

This item has been digitally signed and sealed by Anthony L Davis on the date indicated here.

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DESIGN CRITERIA
REPLACEMENT GENERATOR
HOLMES DISTRICT SCHOOL BOARD
BONIFAY K-8 SCHOOL
FDEM GRANT SA-56948
BONIFAY, FLORIDA

No.	Description	Date

PROJECT NUMBER:	2025-011
DATE:	05-23-2025
DRAWN BY:	SBH
DESIGNED BY:	ALD

BID ALTERNATE #1
HCHS LIFT STATION
GENERATOR

E-3.1