MEETING DATE
3/17/2025

CITY OF LAKE CITY
Report to Council

COUNCIL AGENDA	
SECTION	
ITEM NO.	

SUBJECT: New SCADA for SMWWTF

DEPT / OFFICE: Waste Water Treatment Plant

Originator: Angel Bryant		
City Manager: Don Rosenthal	**Department Director** Steve Brown/ Cody Pridgeon	**Date** 02/21/2025

Recommended Action:
Request approval to accept the sole bid from ITB-005-2025 with Advantage Contracting Group Inc, for the SMWWTF New SCADA.

Summary Explanation & Background:

ITB-005-2025 New Scada for SMWWTF was solicited from January 10,2025 to February 7,2025. One Bid was submitted from Advantage Contracting Group, Inc.

Alternatives:
Not accept bid.

Source of Funds:
410.74.536-060.63

Financial Impact:

1,150,500.00

Exhibits Attached:

ITB-005-2025 Solicitation, Bid Tabulation, Advantage Contracting Group, Inc. Proposal, etc.

SECTION 00111
ADVERTISEMENT FOR BIDS
NEW SCADA FOR SMWWTF
CITY BID NO. ITB 005-2025
CITY OF LAKE CITY, FLORIDA

Sealed Bids for the construction of the New SCADA for SMWWTF project, Invitation to Bid (ITB) 005-2025, will be received electronically on the City of Lake City's procurement website, https://procurement.opengov.com/governments/388/projects/137264 until February 7th, 2025 at 2:00 p.m. local time. At that time, the Bids received will be publicly opened and read aloud. The Project includes the following Work: Providing all labor, equipment, and materials necessary to furnish and install a Supervisory Control and Data Acquisition System (SCADA) at the City of Lake City's St. Margaret's Wastewater Treatment Facility located at 527 SW St. Margaret's Street, Lake City, Florida 32025. The SCADA system shall be a complete integrated system furnished and configured by the SCADA System Contractor/Supplier, who shall be responsible for the satisfactory operation of the entire system. The SCADA system shall consist of programmable logic controllers, operator interface panels, RTUs, and fiber optic communication network. Process units to be monitored/controlled shall include screening and grit removal facilities, aeration facilities, clarifiers and scum pumps, RAS/WAS pumps, chemical feed facilities, chlorine contact chamber, effluent pump station, and digesters. SCADA system shall monitor flow, equipment status, and alarms.

Bids are requested for the following Contract: New SCADA for SMWWTF, City Bid No. ITB 005-2025. The Issuing Office for the Bidding Documents is the City of Lake City, Florida. Prospective Bidders may examine the Bidding Documents on the City of Lake City's procurement website, https://procurement.opengov.com/governments/388/projects/137264.

Bidding Documents will be provided electronically on the City of Lake City's procurement website, https://procurement.opengov.com/governments/388/projects/137264. Partial sets of Bidding Documents will not be available from the Issuing Office. Neither Owner nor Engineer will be responsible for full or partial sets of Bidding Documents, including addenda, if any, obtained from sources other than the Issuing Office.
Bidding Documents also may be examined at the Lake City Procurement Department, 205 N. Marion Avenue, Lake City, Florida 32055, (386) 719-5816, Monday through Friday (excluding Holidays).

Bid security must be furnished in accordance with the Instructions to Bidders.
A pre-bid conference for this project will not be held. All bidders must certify that they have visited the site. Site visits may be arranged in accordance with the Instructions to Bidders.
To be considered qualified, Bidder must be licensed to engage in the business of contracting in the State of Florida by the Construction Industry Licensing Board and must have successfully completed, as prime contractor, a minimum of 3 projects of a similar nature within the past 5 years, each having a minimum contract value of $200,000, with at least one project having a contract value in excess of $500,000.

Instructions to Bidders.
For all further requirements regarding bid submittal, qualifications, procedures, and contract award, contact the Procurement Department at (386) 719-5818 or (386) 758-5407 for additional information.

INVITATION TO BID

005-2025

NEW SCADA FOR SMWWTF

City of Lake City

205 N. Marion Ave.

Lake City, FL 32055

RELEASE DATE: January 10, 2025

DEADLINE FOR QUESTIONS: January 24, 2025

PROPOSAL SUBMISSION DEADLINE: February 7, 2025, 2:00 pm

RESPONSES MUST BE SUBMITTED ELECTRONICALLY TO:

https://procurement.opengov.com/portal/lcfla

City of Lake City
INVITATION TO BID
New SCADA for SMWWTF

Attachments:

A - Bid Set Specs - New SCADA for SMWWTF - Lake City

B - Bid Set Plans - New SCADA for SMWWTF - Lake City

1. Introduction

1.1. Summary

INVITATION TO BID

005-2025

Sealed bids will be accepted by the City of Lake City, Florida until Friday, February 7, 2025 at 2:00 pm, local time through the City's e-Procurement Portal, OpenGov Procurement. Any bids received after the above time will not be accepted under any circumstances. Any uncertainty regarding the time a bid is received will be resolved against the Bidder. Bids will not be accepted through any other means. Bid opening will be promptly at 2:15 PM in the OpenGov located on the 2nd floor in City Hall, at which time all bids will be publicly opened and read aloud for the purchase and installation of:

New SCADA for SMWWTF

Any deviation from the specifications must be explained in detail under "Clarifications and Exceptions", as part of the Bidder's Response, and each deviation must be itemized by number and must specifically refer to the applicable specification paragraph and page. Otherwise it will be considered that items offered are in strict compliance with these specifications and the successful Bidder will be held responsible for meeting the specification.

All questions related to this ITB shall be submitted in writing through the OpenGov Procurement Question/Answer Tab via the City's e-Procurement portal, on or before, Question & Answer Submission Date by Question & Answer Submission Time. Please include the section title for each question, if applicable, in order to ensure that questions asked are responded to correctly.

All questions must be in writing and directed to the Procurement Director. All questions will be answered in writing. Any answers which may alter the scope of work will be answered in the form of addenda. Any and all addenda must be acknowledged through the City's e-Procurement Portal. Deadline for receiving questions is Friday, January 24, 2025 at 2:00 pm. Questions received after this date and time will not be considered.

Bidder may not withdraw his/her bid for a period of ninety (90) days following the opening of the responses.

The City of Lake City is exempt from State Use Tax, State Retail Tax and Federal Excise Tax. The bid price must be net, exclusive of taxes. Bidder's proposal must be dated, signed by authorized representative, title, firm name, address, and telephone number.

Local Vendor Preference: City of Lake City Administrative Policy #18 states that the bid of a resident of Columbia County, Florida will have a 5% preference over the bid submitted by any non-resident of Columbia County. A resident is defined as an individual whose primary residence is within Columbia County, Florida, a partnership whose principals are all residents of Columbia County, Florida, partnership or other business entity whose principal place of business is within Columbia County, Florida, or which maintains a full time business office open to the public within Columbia County, Florida. With these and

other contributing factors the City Council reserves the right to award a bid or contract in the best interest of the City.

Respondents to this solicitation or persons acting on their behalf may not contact, between the release of the solicitation and the end of the 72-hour period following the agency posting the notice of intended award, excluding Saturdays, Sundays, and city holidays, any employee or officer of the executive or legislative branch concerning any aspect of this solicitation, except in writing to the Procurement Department or as provided in the solicitation documents. Violation of this provision may be grounds for rejecting a response.

Any Bidder desirous of protesting a bid for any reason must file a written notice of bid protest with the City Manager's office within 72 hours following posting of notice of intended award. All protest will be in writing stating the bid being protested and the specific reason of the protest. All protest will be signed by the Protestor and include all detail for a complete and thorough review. The decision of the City Manager, after consultation with the City Attorney will be issued within five (5) working days of the receipt of the protest, unless additional time is agreed upon by all parties involved should circumstance warrant such a delay.

By submission of his/her bid, the Bidder certifies that:

A. The bid has been arrived at by the Bidder independently and has been submitted without collusion with any other vendor of materials, supplies, or equipment described in the Invitation to Bid.

B. The contents of the bid have not been communicated by the Bidder, his/her employees or agents, to his/her best knowledge and belief, to any person not an employee or agent of the Bidder or his surety in any bond furnished herewith and will not be communicated to any such person prior to the official opening of the bids.

The City of Lake City reserves the right to accept or reject any/all bids and to award the contract in the best interest of the City of Lake City, Florida.

CITY OF LAKE CITY, FLORIDA

Don Rosenthal

City Manager

1.2. Background

The Project includes the following Work: Providing all labor, equipment, and materials necessary to furnish and install a Supervisory Control and Data Acquisition System (SCADA) at the City of Lake City's St. Margarets Wastewater Treatment Facility located at 527 SW St. Margarets Street, Lake City, Florida 32025. The SCADA system shall be a complete integrated system, furnished and configured by the SCADA System Contractor/Supplier, who shall be responsible for the satisfactory operation of the entire system. The SCADA system shall consist of programmable logic controllers, operator interface panels, RTUs, and fiber optic communication network. Process units to be monitored/controlled shall include

screening and grit removal facilities, aeration facilities, clarifiers and scum pumps, RAS/WAS pumps, chemical feed facilities, chlorine contact chamber, effluent pump station, and digesters. SCADA system shall monitor flow, equipment status, and alarms.

1.3. Contact Information

Angel Bryant
Procurement Analyst
205 N Marion Ave
Lake City, FL 32055
Email: bryanta@lcfla.com
Phone: (386) 715-5818

Department:
Procurement

1.4. Timeline

Release Project Date	January 10, 2025
Question Submission Deadline	January 24, 2025, 2:00pm
Question Response Deadline	January 31, 2025, 2:00pm
Proposal Submission Deadline	February 7, 2025, 2:00pm
Contractor Selection Date	February 17, 2025
Site Visit	A pre-bid conference for this project will not be held. All bidders must certify that they have visited the site. Site visits may be arranged in accordance with the Instructions to Bidders. 692 SW St. Margarets Street Lake City, FL 32025

2. Instruction To Bidders

2.1. Overview

The City of Lake City is accepting bids for the construction of a New SCADA for the SM Wastewater Treatment Facility .

Bidders shall create a FREE account with OpenGov Procurement by signing up at https://procurement.opengov.com/signup. Once you have completed account registration, browse back to this page, click on "Submit Response", and follow the instructions to submit the electronic response.

2.2. Submittal Deadline

Bids shall be submitted via the City's e-Procurement Portal, OpenGov Procurement, no later than Friday, February 7, 2025 at 2:00 pm. Late proposals shall not be accepted.

Bids must be submitted via the City's e-Procurement Portal, OpenGov and may not be delivered orally, by facsimile transmission, or by other telecommunication or electronic means.

2.3. Pre-Bid Meeting

There will be no pre-bid meeting associated with this project.

2.4. Questions

All questions related to this ITB shall be submitted in writing via the OpenGov Question/Answer Tab via the City's e-Procurement portal, on or before, Friday, January 31, 2025 by 2:00 pm. All questions submitted and answers provided shall be electronically distributed via email to bidders following this solicitation on the City's e-Procurement Portal. Oral answers given by anyone shall not be authoritative.

2.5. Addenda

A. The Procurement Department may issue an addendum in response to any inquiry received, prior to the deadline for questions which changes, adds to, or clarifies the terms, provisions, or requirements of the solicitation. The Bidder should not rely on any representation, statement or explanation whether written or verbal, regardless of the source, other than those made in this solicitation document or in any addenda issued. Where there appears to be a conflict between this solicitation and any addenda, the last addendum issued shall prevail. Bidders will be notified by email when an any addendum are issued.

B. It is the Bidders responsibility to ensure receipt of all addenda and any accompanying documentation. The Bidder is required to Acknowledge receipt of the addenda in the OpenGov system. Failure to acknowledge each addendum in the OpenGov system will prevent your bid from being submitted.

2.6. Contents of Solicitation and Bidders Responsibilities

It is the responsibility of the Bidder to become thoroughly familiar with the requirements, terms, and conditions of this solicitation. Pleas of ignorance of these matters by the Bidder will not be accepted as a basis for varying the requirements of the City or the amount to be paid to the vendor.

3. Scope of Work and Related Requirements

3.1. General Scope of Work

Providing all labor, equipment, and materials necessary to furnish and install a Supervisory Control and Data Acquisition System (SCADA) at the City of Lake City's St. Margarets Wastewater Treatment Facility located at 527 SW St. Margarets Street, Lake City, Florida 32025. The SCADA system shall be a complete integrated system furnished and configured by the SCADA System Contractor/Supplier, who shall be responsible for the satisfactory operation of the entire system. The SCADA system shall consist of programmable logic controllers, operator interface panels, RTUs, and a fiber optic communication network.

Process units to be monitored/controlled shall include screening and grit removal facilities, operation facilities, clarifiers, and scum pumps, RAS/WAS pumps, chemical feed facilities, chlorine contact chambers, effluent pump stations, and digesters. SCADA system shall monitor flow, equipment status, and alarms.

3.2. Specifications

Please see document attached.

3.3. Protection of Property/Property Conditions

A. If property is damaged performing work specified or is removed for the convenience of the work, it shall be repaired or replaced at the expense of the bidder in a manner acceptable to the City of Lake City.

B. Bidder shall notify the Contract Manager for the City of the work site having pre-existing damage before beginning the work. Failure to do so shall obligate the bidder to make repairs as addressed in this solicitation.

C. Bidder shall be responsible for securing all work areas to be safe.

3.4. Safety

The Contractor shall be responsible for the safe conduct of his/her personnel during the execution of the work detailed herein. The Contractor shall meet or exceed the standards set for by the Occupational Safety and Health Administration (OSHA) and requirements established by the Federal, State, and Local agencies. Should an unsafe condition be identified during the execution of this work, the Contractor will immediately suspend such activity until a safe method can be employed.

3.5. Employees

A. Contractor shall be responsible for the appearance of all working personnel assigned to the project. Personnel shall be clean and appropriately dressed at all times. Personnel must wear property identification at all times (company shirts, ID badges, etc.)

B. All personnel of the Contractor shall be considered to be, at all times, the sole employees of the Contractor, under the Contractor's sole direction, and not an employee or agent of the City of Lake City. The Contractor shall supply competent and physically capable employees and the City of Lake City may require the Contractor to remove any employee it deems careless, incompetent, insubordinate or otherwise objectionable and whose presence on city property is not in the best interest of the City of Lake City. The City of Lake City shall not have any duty to implement or enforce such requirements.

C. Contractor shall assign an "on-duty" supervisor who speaks and reads English.

D. Contractor shall have its employees refrain from the use of tobacco products in the City's buildings or grounds. Tobacco use will be allowed in designated areas only.

E. Contractor shall be solely responsible for receiving all materials and equipment at site.

4. General Terms and Conditions

4.1. Definitions

1.1. **Addendum**: A written change to a Solicitation.

1.2. **Bid, Offer, or Response**: Shall refer to any bid, offer, or response submitted in regard to this Invitation to Bid that if accepted would bind the Contractor to perform the resultant contract.

1.3. **Bidder:** A general reference to any entity responding to this solicitation and must be the party entering into the Agreement with the City; also includes bidder, contractor, company, respondent, vendor, etc.

1.4. **Contract:**The Agreement to provide the goods or perform the services set forth in this solicitation.

1.4.1.**Purchase of Goods**- The contract will be comprised of the solicitation document signed by the vendor with any addenda and other attachments specified incorporated and a City purchase order.

1.4.2.**Performance of Services** – The contract will be comprised of the Agreement between the City and the vendor, the solicitation document, any addenda, and other attachments incorporated into the agreement.

1.5. **Contractor:**The vendor to whom award has been made.

1.6. **City:** Shall refer to City of Lake City, Florida.

1.7. **Required Bid Bonds** – Bidder is required to send in their bid bonds (if applicable) by the due date and time of the solicitation.

1.8. **Invitation to Bid (ITB)**: Shall mean this solicitation document, including any Addenda, used to communicate City requirements to prospective bidders and to solicit bid responses from them.

1.9. **Language:** The City has established for purposes of this solicitation that the words “shall”, “must”, or “will” are equivalent in this solicitation and indicate a mandatory requirement or condition, the material deviation from which shall not be waived by the City. A deviation is material if, in the City’s sole discretion, the deficient response is not in substantial accord with this ITB’s mandatory requirements. The words “should” or “may” are equivalent in this solicitation and indicate very desirable conditions or requirements, but are permissive in nature.

1.10.**Owner**: Shall refer to City of Lake City, Florida.

1.11.**Responsible:** Refers to a vendor that has the capacity and capability to perform the work required under a Solicitation and is otherwise eligible for award.

1.13.**Responsive:** Refers to a Bidder that has taken no exception or deviation from the terms, conditions, and specifications set forth in an ITB. Their bid, offer or response conforms to the instructions and format specified in the solicitation document.

1.14.**Solicitation:** The written document detailing the solicitation requirements and requesting bids, offers or submittals from Bidders.

4.2. Qualifications of Respondents

The City of Lake City reserves the right before awarding the contract, to require the Bidder to submit such evidence of his qualifications and experience as it may deem necessary, and may consider any evidence available to it of the financial, technical and other qualifications and abilities of a respondent.

A. The Bidder is assumed to be familiar with all Federal, State or local laws, codes, ordinances, rules and regulations that in any manner affect the work, and to abide thereby if awarded the Contract. Ignorance of legal requirements on the part of the Bidder will in no way relieve him of responsibility.

B. Any Bidder may be required to show to the complete satisfaction of the City of Lake City that he/she has the necessary personnel, facilities, abilities, and financial resources to perform the work in a satisfactory manner and within the time specified.

C. Bidder must possess any and all required licenses to perform and complete the work necessary in this project. The Bidder must be licensed at the time of submitting their bid and the license must be in effect for the entire period of the project.

4.3. Award

Award may be made to the Bidder which offers the best value to the City. The City reserves the right to reject any and all offers, to waive non-material irregularities or technicalities and to re-advertise for all or any part of this solicitation as deemed in its best interest. The City shall be the sole judge of its best interest.

4.4. Assignment

The Contractor shall not assign or transfer any contract resulting from this solicitation, including any rights title or interest therein, or its power to execute such contract to any person, company or corporation without the prior written consent of the City.

4.5. Basis for Bidding

The total amount bid shall be based on quantities, unit prices and/or lump sum(s) according to the " Pricing Table" provided. Any quantities shown in the Pricing Table are estimates for the purpose of arriving at a total bid price for comparison of Bid Responses.

A Bidders bid prices shall be firm for ninety (90) calendar days after the solicitation opening date, unless stated differently in the Special Terms and Conditions. In the case of a discrepancy between the unit cost and extended cost the unit cost quoted will take precedence and the Procurement Department shall make and note the correction on the Final Bid Tabulation.

4.6. Bidder Eligibility

It is the policy of the City to encourage full and open competition among all available qualified vendors. All vendors regularly engaged in the type of work specified in the solicitation are encouraged to submit bids. Eligibility requirements for contract award are:

6.1. Have NO delinquent indebtedness to the City of Lake City or other federal, state, or local agencies;

6.2. Shall be regularly and consistently engaged in providing services the same or similar to those being requested in the solicitation;

6.3. Have adequate financial resources, or the ability to obtain such resources as required during performance of the contract;

6.4. Be able to comply with the required or proposed delivery or performance schedule;

6.5. Have a satisfactory record of performance. Vendors who are or have been seriously deficient in current or recent contract performance (when the number of contracts and the extent of the deficiency of each are considered, in the absence of evidence to the contrary or circumstances properly beyond the control of the contractor) shall be presumed unable to meet this requirement. Past unsatisfactory performance will ordinarily be sufficient to justify a finding of non-responsibility;

6.6. Have a satisfactory record of integrity and business ethics;

6.7. Be properly licensed by the appropriate regulatory agency for the work to be performed;

6.8. Not have any previous or current investigations, regardless of disposition or outcome, by the regulatory agency responsible for licensing Contractors; and

6.9. Be otherwise qualified and eligible to receive an award under applicable laws and regulations.

4.7. Cancellation of Solicitation

The City reserves the right to cancel, in whole or in part, any solicitation when it is in the best interest of the City. Availability of all information related to a cancelled solicitation is subject to Chapter 119, Florida Statutes.

4.8. Changing of Forms

If the City discovers any bid forms submitted by a bidder in response to this solicitation have been altered the City may, at its discretion, disqualify the Bidder and not consider their bid for award.

4.9. Tax Exempt

The City is generally exempt from Federal Excise Taxes and all State of Florida sales and use taxes. The City will provide a tax exemption certificate upon request. Contractors doing business with the City are not exempt from paying sales tax to their suppliers for materials to fulfill contractual obligations with

the City, nor shall any contractor be authorized to use any of the City's Tax Exemptions in securing such materials.

4.10. Collusion Among Firms

Where two (2) or more related parties, as defined herein, each submit a bid for the same contract, such bids shall be presumed to be collusive. The foregoing presumption may be rebutted by the presentation of evidence as to the extent of ownership, control and management of such related parties in preparation of such submittals. Related parties shall mean an interested party or the principals thereof which have a direct or indirect ownership interest in another interested party for the same contract or in which a parent company or the principals thereof of one interested party have a direct or indirect ownership interest in another interested party for the same contract. Furthermore, any prior understanding, agreement, or connection between two (2) or more corporations, firms, or persons submitting a response for the same materials, supplies, services, or equipment shall also be presumed to be collusive. The relationship of manufacturer or their representative(s) providing pricing to distributors while each party submits a bid for the same materials, supplies, services, or equipment shall be presumed to be collusive. Responses found to be collusive shall be rejected. Respondents which have been found to have engaged in collusion may be considered non-responsible, and may be suspended or debarred, and any contract resulting from collusive actions may be terminated for default.

4.11. Conflict of Interest

The award hereunder is subject to Chapter 112, Florida Statutes. All respondents must disclose with their response the name of any officer, director, or agent who is also an employee of the City of Lake City. Further, all respondents must disclose the name of any City of Lake City employee who owns, directly or indirectly, an interest of five percent (5%) or more of the Bidders firm or any of its branches.

4.12. Conflicts within the Solicitation

Where there appears to be a conflict between the General Terms and Conditions, Special Terms and Conditions, the Supplemental Terms & Conditions the Statement of Work, the Schedule of Bid Items, or any addendum issued, the order of precedence shall be the last addendum issued, the Schedule of Bid Items, the Statement of Work, the Special Terms & Conditions, the Supplemental Terms & Conditions and then the General Terms & Conditions. In addition, in the case of a conflict between any term or provision contained in contract documents which cannot be resolved by the order of precedence set forth previously, the term or condition that is more stringent and/or specific shall govern and apply.

4.13. Continuation of Work

Any work that commences prior to and will extend beyond the expiration date of the current contract period shall, unless terminated by mutual written agreement between the City and the vendor, continue until completion without change to the then current prices, terms and conditions.

4.14. Cost of Preparing Bid Response

All costs incurred by the Bidder for proposal preparation and participation in this competitive procurement will be the sole responsibility of the Bidder. The City of Lake City shall not reimburse any Bidder for any such costs.

4.15. Execution of Contract

The Contractor to whom the City intends to award a Contract will be required to execute an Agreement within ten (10) days from the date of the Notice of Recommendation for Award, and deliver these executed instruments as instructed to the City of Lake City Procurement Department.

4.16. Interpretation of Contract Documents

Each Bidder shall thoroughly examine the Forms Response Form, and all other papers comprising the Contract Documents. He shall also examine and judge for himself all matters relating to the location and the character of the proposed work. If the Bidder should be of the opinion that the meaning of any part of the specifications is doubtful or obscure, or that they contain errors or reflect omissions, he should report such opinion or opinions in writing for an interpretation to the Procurement Department at 205 N. Marion Ave., Lake City, FL 32055 or by email to procurement@lcfla.com. Your notification should be done immediately, but in not case no later than **seven (7) business days** before the due date and time.

The City shall not be responsible for oral interpretation given by any City representative, the issuance of a written addendum being the only official method whereby such an interpretation will be given. The failure of the Bidder to direct the attention of the Purchasing Representative to errors or discrepancies will not relieve the Bidder, should he be awarded the contract, of responsibility of performing the work to the satisfaction of the City of Lake City in accordance with the specifications.

4.17. Liability

The Contractor shall hold and save the City of Lake City, its officers, agents, and employees harmless from liability of any kind in the performance of or fulfilling the requirements of a Contract resulting from this solicitation.

4.18. Notice to Proceed

Following contract award the City shall schedule with Contractor a pre-construction meeting. At that meeting the parties will mutually agree on a projects start date which will be used as the Notice to Proceed date. The City shall provide the Notice to Proceed (NTP) to the Contractor. Contractor shall sign NTP acknowledging receipt and agreeing to the dates. The performance period will be defined in the NTP using the NTP date with the days stated in the Time of Completion paragraph of the Contract Documents.

4.19. Price Bid

The unit prices, lump sum(s) and total price bid for the work shall be stated in figures in the appropriate places on the prescribed form(s), and shall be firm for ninety (90) calendar days after the solicitation opening date, unless stated differently in the Special Terms and Conditions. In the case of a discrepancy between the unit cost and extended cost the unit cost quoted will take precedence.

4.20. Protests

Protests can only be made by Interested Parties. Any Bidder desirous of protesting a bid for any reason must file a written notice of bid protest with the City Manager's office within 72 hours following posting of notice of intended award. All protest will be in writing stating the bid being protested and the specific

reason of the protest. All protest will be signed by the Protestor and include all detail for a complete and thorough review. The decision of the City Manager, after consultation with the City Attorney will be issued within five (5) working days of the receipt of the protest, unless additional time is agreed upon by all parties involved should circumstance warrant such a delay.

4.21. Public Entity Crime

Pursuant to Section 287.133(12)(a) of the 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 Bid Response on a contract to provide any goods or services to a public entity, may not submit a bond on a contract with a public entity for the construction or repair of a public building or public work, may not submit Bid Responses on leases of real property to a public entity may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017 for Category Two ($25,000) for a period of 36 months from the date of being placed on the convicted vendor list."

4.22. Public Record

The Owner is a public agency subject to Chapter 119, Florida Statutes. The Contractor shall comply with Florida's public records law. Specifically, the Contractor shall:

A. Keep and maintain public records required by the public agency to perform the service.

B. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law.

C. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the public agency.

D. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of the contractor or keep and maintain public records required by the public agency to perform the service. If the contractor transfers all public records to the public agency upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT (386) 719-5826 OR (386) 719-5756, CITYCLERK@LCFLA.COM, CITY CLERKS OFFICE, 205 N MARION AVE., LAKE CITY, FL, 32055.

4.23. Insurance

A. Without limiting Contractor's indemnification, it is agreed that the successful Contractor will purchase at their expense and maintain in force at all times during the performance of services under this agreement the following insurance. Where specific limits are shown, it is understood that they must be the minimum acceptable limits. If successful Contractor's policy contains higher limits, the City of Lake City will be entitled to coverage to the extent of such higher limits. Certificates of Insurance must be furnished to the City naming the City of Lake City as additional insured. These certificates must provide a ten (10) calendar day notice to the City in the event of cancellation, non-renewal or a material change in the policy.

B. Statutory Workers Compensation insurance as required by the State of Florida.

C. Commercial General Liability insurance to provide coverage of not less than $1,000,000.00 combined single limit per occurrence and annual aggregates where generally applicable and must include premises-operations, independent contractors, products/completed operations, broad form property damage, blanket contractual and personal injury endorsements.

D. Business Vehicle/Umbrella Liability insurance with a minimum limit of $200,000 per occurrence, and $300,000 for all claims arising out of the same incident or occurrence, for property damage and personal injury. Notice, these limits may change according to Florida law and the protections afforded to the City pursuant to sovereign immunity for liability.

4.24. Indemnity

Successful contractor will indemnify and hold Owner and Owner’s agents harmless from any loss, cost, damage or injury sustained by any persons (s) as a result of the actions of employees or officers of the Contractor, subcontractors or suppliers.

4.25. Liquidated Damages

In the event the bidder is awarded the contract and fails to complete the work within the time limit or extended time limit agreed upon, liquidated damages will be paid to the City of Lake City at the sum of $500.00 per day for all work awarded under the contract until the work has been satisfactorily completed and accepted by the City.

4.26. Schedule

A. Upon receipt of all required documents a Notice to Proceed will be issued.

B. The successful Contractor must complete all work within n/a calendar days after delivery of equipment.

4.27. Special Conditions

A. Extended time may be allowed for the completion of this project due to inclement weather.

B. Decisions to allow days added to the contract due to inclement weather will be based upon weather records as recorded with the State of Florida, Division of Forestry located in Lake City, Florida and approved by the City of Lake City Project Manager.

C. In the event additional days are awarded the contractor must notify the City of Lake City Procurement department at the beginning of work stoppage and each succeeding day until work can be safely resumed.

4.28. Payment

Payment will be based on: (a) City's acceptance of work, and (b) submitted evidence, if requested by the City, that all payrolls, materials, bills, and indebtedness connected with the work have been paid. The City may withhold an amount as may be necessary to pay such claims for labor and services rendered and materials involved with the work. Payment to Contractor will be made within thirty (30) calendar days of receipt of invoice, assuming there are no contested amounts with the invoice.

4.29. Or Equal

Any manufacturers' names, trade names, brand names or catalogue numbers used in the specifications are for the purpose of describing and establishing general performance and quality levels. Such references are not intended to be restrictive. Bids are invited on these and comparable brands or products provided the quality of the proposed products meet or exceed the quality of the specifications listed for any item. All requests for "or equal" consideration must be received prior to the deadline for receiving questions.

4.30. Experience/References

Bidders must provide a statement of qualifications and include with their proposal a minimum ofthree (3)references for similar project in the last five (5) years. The list of references must be submitted as a part of the bidder response as provided within the vendor questionnaire. All reference materials provided become the property of the City of Lake City and also become public record.

4.31. Change Orders

A. Notify the City of Lake City of any conditions in the project area that are not addressed within the specifications that may require a change order.

B. Change orders to the scope of work or additional work requested by the City of Lake City must be in written form and initiated by the Contractor.

C. All changes or additions will be approved by the City of Lake City prior to work being initiated.

4.32. Addendum

It will be the sole responsibility of the bidder to contact the Purchasing Department prior to submitting a bid to determine if any addenda have been issued, to obtain such addenda, and to acknowledge addenda with their bid. Failure to submit acknowledgement of any addendum that affects the bid price is considered a major irregularity and will be cause for rejection of the bid.

4.33. Required Documents

The enclosed documents must be executed and returned with bid proposal or the proposal may be considered non-responsive. (Conflict of Interest Statement, Disputes Disclosure Form, Drug Free Workplace Certificate, Non-Collusion Affidavit of Proposer, References, Public Entity Crime Statement and E-Verify Affirmation Statement.

4.34. Employment Eligibility Verification (E-Verify)

In accordance with State of Florida, Office of the Governor, Executive Order 11-116 (superseding Executive Order 11-02; Verification of Employment Status), in the event performance of this Agreement is or will be funded using state or federal funds, the CONTRACTOR must comply with the Employment Eligibility Verification Program("E-Verify Program") developed by the federal government to verify the eligibility of individuals to work in the United States and 48 CFR 52.222-54 (as amended) is incorporated herein by reference. If applicable, in accordance with Subpart 22.18 of the Federal Acquisition Register, the CONTRACTOR must (1) enroll in the E-Verify Program, (2) use E-Verify to verify the employment eligibility of all new hires working in the United States, except if the CONTRACTOR is a state or local government, the CONTRACTOR may choose to verify only new hires assigned to the Agreement; (3) use E-Verify to verify the employment eligibility of all employees assigned to the Agreement; and (4) include these requirement in certain subcontracts, such as construction. Information on registration for and use of the E-Verify Program can be obtained via the internet at the Department of Homeland Security Web site: http://www.dhs.gov/E-Verify.

4.35. Payment And Performance Bonds

A Bid must be accompanied by Bid security made payable to Owner in an amount of 5% percent of Bidder's maximum Bid price (determined by adding the base bid and all additive alternates) and in the form of a Bid bond issued by a surety meeting the requirements of Paragraph 6.01 of the General Conditions (see attachments).

4.36. Additional Information

The City of Lake City reserves the right to request any additional information needed for clarification from any Bidder for evaluation purposes.

5. Pricing Proposal

Line Item	Description	Quantity	Unit of Measure	Unit Cost	Total
1	Furnish and Installation of New Scada at SMWWTF	1	Lump Sum		
TOTAL					

6. Vendor Questionnaire

6.1. References*

As per the Terms and Conditions, please provide the company name, address, contact person, telephone number and length of time services, using the following format, of at least three (3) client/customer references.

***Note: only list those client/customers in which a similar type of equipment/product of scope of work/service was provided.**

Company Name: _____

Address:_____

Business Phone #:_____

Contact Person:_____

Email: _____

Length of time services provided:_____

*Response required

6.2. Title and Organization*

Please provide your title and organization's name.

*Response required

6.3. Local Office*

Please provide the city and state for your local office. If you do not have a local office, please type "N/A".

*Response required

6.4. Principal Office*

Please provide the city and state for your Principal Office.

*Response required

6.5. Conflict of Interest Statement*

A. The above named entity is submitting a Bid for the City of Lake City 005-2025 described as New SCADA for SMWWTF.

B. The Affiant has made diligent inquiry and provides the information contained in the Affidavit based upon his/her own knowledge.

C. The Affiant states that only one submittal for the above proposal is being submitted and that the above named entity has no financial interest in other entities submitting proposals for the same project.

D. Neither the Affiant nor the above named entity has directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken any action in restraints of free competitive pricing in connection with the entity's submittal for the above proposal. This statement restricts the discussion of pricing data until the completion of negotiations if necessary and execution of the Contract for this project.

E. Neither the entity not its affiliates, nor anyone associated with them, is presently suspended or otherwise ineligible from participation in contract letting by any local, State, or Federal Agency.

F. Neither the entity nor its affiliates, nor anyone associated with them have any potential conflict of interest due to any other clients, contracts, or property interests for this project.

G. I certify that no member of the entity's ownership or management is presently applying for an employee position or actively seeking an elected position with the City of Lake City.

H. I certify that no member of the entity's ownership or management, or staff has a vested interest in any aspect of the City of lake City.

I. In the event that a conflict of interest is identified in the provision of services, I, on behalf of the above named entity, will immediately notify the City of Lake City.

☐ Please confirm

*Response required

6.6. Disputes Disclosure Form*

Please select all that pertain to your organization. To answer yes, click on the options that pertain to your organization.

Select all that apply

☐ Has your firm or any of its officers, received a reprimand of any nature or been suspended by the Department of Professional Regulations or any other regulatory agency or professional association within the last five (5) years?
☐ Has your firm, or any member of your firm, been declared in default, terminated or removed from a contract or job related to the services your firm provides in the regular course of business within the last five (5) years?
☐ Has your firm had against it or filed any request for equitable adjustment, contract claims, bid protest, or litigation in the past five (5) years that is related to the services your firm provides in the regular course of business?
☐ None
*Response required

6.7. Disputes Disclosure Form - Explanation*

If you answered yes for any in the previous question, state the nature of the request for equitable adjustment, contract claim, litigation, or protest, and state a brief description of the case, the outcome or status of the suit and the monetary amounts or extended contract time involved. If you selected none, please type "N/A".

*Response required

6.8. Disputes Disclosure Form - Acknowledgement*

I hereby certify that all statements made are true and agree and understand that any misstatement or misrepresentation or falsification of facts shall be cause for forfeiture of rights for further consideration of this proposal for the City of Lake City.

☐ Please confirm

*Response required

6.9. Drug Free Workplace Certificate*

I, the undersigned, in accordance with Florida Statute 287.087, hereby certify that, as an authorized signatory on behalf of our organization, publishes a written statement notifying that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the workplace named above, and specifying actions that will be taken against violations of such prohibition.

- Informs employees about the dangers of drug abuse in the work place, the firm's policy of maintaining a drug free working environment, and available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug use violations.
- Gives each employee engaged in providing commodities or contractual services that are under bid or proposal, a copy of the statement specified above.
- Notifies the employees that as a condition of working on the commodities or contractual services that are under bid or proposal, the employee will abide by the terms of the statement and will notify the employer of any conviction of, plea of guilty or nolo contender to, any violation of Chapter 1893, of any controlled substance law of the State of Florida or the United States, for a violation occurring in the work place, no later than five (5) days after such conviction, and requires employees to sign copies of such written (*) statement to acknowledge their receipt.
- Imposes a sanction on, or requires 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.
- Makes a good faith effort to continue to maintain a drug free work place through the implementation of the drug free workplace program.

"As a person authorized to sign this statement, I certify that the above named business, firm or corporation complies fully with the requirements set forth herein".

☐ Please confirm

*Response required

6.10. Non-Collusion Affidavit*

A. By submitting a response to this solicitation, the Bidder Acknowledges that he/she is authorized to submit the attached response on behalf of their organization for:
005-2025, New SCADA for SMWWTF;

B. He/She is fully informed respecting the preparation and contents of the attached proposal and of all pertinent circumstances respecting such proposal;

C. Such Proposal is genuine and is not a collusive or sham proposal;

D. Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees, or parties in interest, including this affiant, has in any way colluded, connived, or agreed, directly or indirectly, with any other Bidder, firm or person to submit a collusive or sham Proposal in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm, or person to fix the price or prices in the attached proposal or any other Bidder, or to fix any overhead, profit or cost element of the proposal price or the proposal price of any other Bidder, or to secure through any collusion, connivance, or unlawful agreement any advantage against the City of Lake City, Florida or any person interested in the proposed Contract; and;

E. The price or prices quoted in the attached proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

☐ Please confirm

*Response required

6.11. E-Verify Affirmation Statement*

005-2025-New SCADA for SMWWTF

Contractor/Proposer/Bidder acknowledges and agrees to utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of,

(a) all persons employed by Contractor/Proposer/Bidder to perform employment duties within Florida during the term of the Contract, and,

(b) all persons (including subcontractors/vendors) assigned by Contractor/Proposer/Bidder to perform work pursuant to the Contract.

The Contractor/Proposer/Bidder acknowledges and agrees that use of the U.S. Department of Homeland Security's E-Verify System during the term of the Contract is a condition of the Contract.

☐ Please confirm

*Response required

6.12. Bidder's Checklist*

By submitting a response to this solicitation, the bidder acknowledges that they have read, understand and agree to all requirements and that they have completed in their entirety all required documents and/or attachments as a part of their bid submission.

☐ Please confirm

*Response required

6.13. Clarifications and Exceptions*

Please explain in detail any deviation from the specifications. Each deviation must be itemized by number and must specifically refer to the applicable specification. Otherwise it will be considered that items offered are in strict compliance with these specifications and the successful Bidder will be held responsible for meeting the specification. If there will not be any deviation, please type "N/A".

*Response required

6.14. Federal Identification No. (FEID)*

Please provide your FEIN number here.

*Response required

6.15. Sworn Statement Under Section 287.133(3)(n), Florida Statutes on Public Entity Crimes Acknowledgments*

A. This sworn statement is submitted with 005-2025.

B. 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 with 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 of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy or material misrepresentations.

C. 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 a jury verdict, non-jury trial, or entry of a plea of guilty or nolo contendere.

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

1. A predecessor or successor of a person convicted of a public entity crime; or
2. an entity under the control of 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.

E. I understand that a "person" as defined in Paragraph 287.133(1)(c), Florida Statutes, means any natural person or entity organized under the laws of any state of the United States with the legal power to enter into a 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.

☐ Please confirm

*Response required

6.16. Please indicate which statement applies.*

Based on information and belief, the statement, which I have marked below, is true in relation to the entity submitting this sworn statement.

Select all that apply

☐ Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members or agents who are active in management of the entity, nor any affiliate of the entity have been charged with or convicted of a public entity crime subsequent to July 1, 1989.
☐ The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members or agents who are active in 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, and (Please indicate which additional statement applies - option 3, 4 or 5))
☐ There has been a proceeding concerning the conviction before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order)
☐ The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. (Please attach a copy of the final order)

☐ The person or affiliate has not been placed on the convicted vendor list. (Please describe any action taken by, or pending with, the Department of General Services)
*Response required

6.17. Required Documents

Please upload your Final Order if you selected Option 3 or Option 4 above.

6.18. Describe Action Taken

Please describe any action taken by, or pending with, the Department of General Services, if you selected Option 5 above.

6.19. Site Visit *

Please Certify that you have visited the site.

☐ Please confirm

*Response required

6.20. SCADA Software for WasteWater Treatment Plant Proposal Submittals*

Please upload your response document here

*Response required

6.21. Human Trafficking Affadavit*

Please download the below documents, complete, and upload.

- Human_Trafficking.docx

*Response required

EVALUATION

New SCADA for SMWWTF

Invitation to Bid Procurement

Project ID: 005-2025

Release Date: Friday, January 10, 2025 · **Due Date:** Friday, February 7, 2025 2:00pm

Posted Friday, January 10, 2025 8:00am

Bid Unsealed Friday, February 7, 2025 2:17pm by Brenda Karr

Pricing Unsealed Friday, February 7, 2025 2:17pm by Brenda Karr

All dates & times in Eastern Time

Approvals Dashboard

Review Step 1 Completed

BK Brenda Karr

Approved!

Approved: 1/8/25 9:40am

Review Step 2 Completed

CP Cody Pridgeon

Approved!

Approved: 1/8/25 10:53am

Review Step 3 Completed

DR Don Rosenthal

Approved!

Approved: 1/8/25 3:47pm

Project approvals are closed. The project is not in a reviewable state.

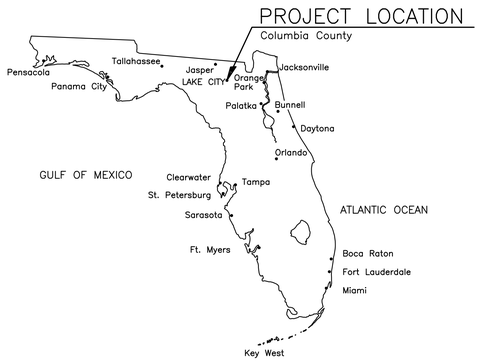
NEW SCADA FOR SMWWTF

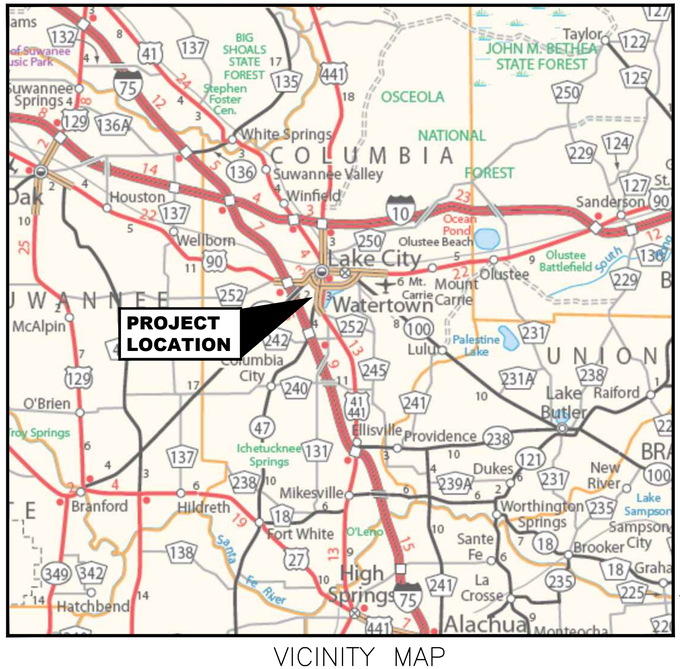
FOR

CITY OF LAKE CITY, FLORIDA

City Bid No. ITB 005-2025

M & A Project No. 8904-23-1





VICINITY MAP

CITY OF LAKE CITY
Florida's Gateway Est. 1859

NOAH WALKER
MAYOR

CHAVELLA YOUNG
COUNCIL MEMBER

JAMES CARTER
COUNCIL MEMBER

TAMMY HARRIS
COUNCIL MEMBER

RICKY JERNIGAN
COUNCIL MEMBER

DON ROSENTHAL
CITY MANAGER

STEPHEN BROWN
EXECUTIVE DIRECTOR OF UTILITIES

CODY PRIDGEON
WASTEWATER DIRECTOR

DRAWING INDEX

MITTAUER & ASSOCIATES, INC.
CONSULTING ENGINEERS
580-1 WELLS ROAD, ORANGE PARK, FLORIDA 32073
TEL. (904) 278-0030 FAX. (904) 278-0840 FLORIDA RY NO. 6569

BID SET

01/09/25

GENERAL NOTES

A. GENERAL CONSTRUCTION NOTES

1. Existing Underground Facilities have been shown from the best available information. Contractor shall field determine the location, size, and depth of all Underground Facilities. Contractor shall provide complete piping system including all fittings necessary to interconnect piping systems and to avoid conflicts with existing and proposed pipes/structures.

2. It shall be the sole responsibility of the Contractor to locate and avoid all utilities, structures and obstructions both above and below the ground surface. All damages resulting from the Contractor's failure to comply with this requirement shall be repaired at the Contractor's expense.

3. Contractor is responsible for supporting/protecting all existing improvements (i.e., utilities, utility poles, structures, pavement, sidewalks, monitoring wells, foundations, etc.) which may be damaged/undermined as a result of his operations. Contractor may be required to shore, sheet, brace, or support work to protect existing improvements. All costs associated with supporting/protecting existing improvements shall be borne by the Contractor.

4. All existing facilities (e.g., pipes, roadways, sidewalks, landscaping, structures, etc.) not indicated to be disturbed/restored which are disturbed/damaged as a result of Contractor's operations shall be restored to a condition equal to or better than that which existed prior to construction, at Contractor's expense.

5. Horizontal and vertical controls are subject to adjustments in the field if necessary to avoid utility conflicts upon approval of the Engineer or his representative. Contractor shall not adjust location of pipe or other facilities (either vertically or horizontally) without approval of Engineer or his representative.

6. All aboveground conduit shall be properly supported and/or secured to tanks, buildings, or other structures using SS straps and fasteners.

7. The Contractor shall at all times conduct operations so as to interfere as little as possible with the existing facilities. The Contractor shall develop a program in cooperation with the Owner's operating staff which shall provide for the construction of and putting into service the proposed work in the most orderly manner possible. All work of connection with, cutting into and reconstruction of existing facilities shall be planned so as not to interfere with the existing facility.

8. The Contractor shall employ a land surveyor, registered in the State of Florida to reference and restore property corners and land markers which may be disturbed as a result of Contractor's operations.

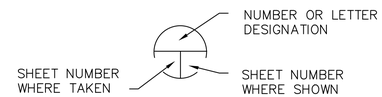
ABBREVIATIONS

ABBREVIATION	DESCRIPTION
ABS	ACRYLONITRILE BUTADIENE STYRENE
ABV	ABOVE
ACP	ASBESTOS CEMENT PIPE
AFF	ABOVE FINISH FLOOR (REF. ELEV.)
AFG	ABOVE FINISH GRADE (REF. ELEV.)
ALUM	ALUMINUM
ALT	ALTERNATE
APRX	APPROXIMATE(LY)
ARCH	ARCHITECT(URAL)
ARV	AIR RELEASE VALVE
ASPH	ASPHALT
ASSY	ASSEMBLY
BE	BURIED ELECTRIC
BF	BOTTOM FACE
BFO	BURIED FIBER OPTIC
BFV	BUTTERFLY VALVE
BITUM	BITUMINOUS OR BITUMASTIC
℄	BASELINE
BLDG	BUILDING
BLK	BLOCK
BM	BENCH MARK
BOC	BACK OF CURB
BOT	BOTTOM
BT	BURIED TELEPHONE-CABLE
BV	BALL VALVE
BW	BOTH WAYS
C, CND	CONDUIT
CAP	CAPACITY
CATV	CABLE TELEVISION
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CI	CAST IRON
CIP	CAST IRON PIPE, CAST-IN-PLACE
CJ	CONTROL JOINT
℄	CENTERLINE
CLF	CHAIN LINK FENCE
CLR	CLEAR OR CLEARANCE
CM	CONCRETE MONUMENT
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CNR	CORNER
CO	CLEAN OUT
CONC	CONCRETE
CONT	CONTINUOUS
COORD	COORDINATE
CPLG	COUPLING
CPVC	CHLORINATED POLYVINYL CHLORIDE
CUL	CULVERT
CV	CHECK VALVE
CY	CUBIC YARD
C/C	CENTER TO CENTER
DBL	DOUBLE
DEMO	DEMOLITION
DI	DUCTILE IRON
DIA	DIAMETER
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DOT	DEPARTMENT OF TRANSPORTATION
DR	DRAIN
DW	DRIVEWAY
DWG	DRAWING
E	EAST
EA	EACH
ECC	ECCENTRIC
EF	EACH FACE
EJ	EXPANSION JOINT
EL, ELEV	ELEVATION
ELEC	ELECTRIC(AL)
EMER	EMERGENCY
EP	EDGE OF PAVEMENT
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
EQUIP	EQUIPMENT
ESMT	EASEMENT
EST	ESTIMATE(D)
EW	EACH WAY
EXP	EXPANSION
EX, EXIST	EXISTING
EXT	EXTERIOR
FB	FLAT BAR
FD	FLOOR DRAIN
FDN	FOUNDATION
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
FF	FINISH FLOOR
FH	FIRE HYDRANT
FIG	FIGURE
FIN	FINISH(ED)
FIN GR	FINISH GRADE
FJ	FLANGED JOINT
FL	FLANGE(D)
FM	FORCE MAIN
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FPT	FEMALE PIPE THREAD
FRP	FIBERGLASS REINFORCED PLASTIC
FT	FOOT OR FEET
FW	FINISHED WATER
F/F	FACE TO FACE
G	GAS MAIN
GAL	GALLON(S)
GALV	GALVANIZED
GIP	GALVANIZED IRON PIPE
GND	GROUND
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GPS	GALLONS PER SECOND
GR	GRADE
GS	GALVANIZED STEEL
GSP	GALVANIZED STEEL PIPE
GV	GATE VALVE
HB	HOSE BIBB
HDPE	HIGH-DENSITY POLYETHYLENE
HGT	HEIGHT
HH	HANDHOLE
HR	HAND RAIL
HOA	HAND-OFF-AUTO SWITCH
HORIZ	HORIZONTAL
HP	HORSEPOWER
HR	HOUR
HVAC	HEATING, VENTILATION, AND AIR CONDITIONING
HWL	HIGH WATER LEVEL
HWY	HIGHWAY
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCH(ES)
INF	INFLUENT
INT	INTERSECTION
INTR	INTERIOR
INV	INVERT
IP	IRON PIPE
IPS	INTERNATIONAL PIPE STANDARD; IRON PIPE SIZE
JB	JUNCTION BOX
JT	JOINT
K	KIP(1,000 LB)
KVA	KILOVOLT-AMPERE
KW	KILOWATT
L	LEFT
LAB	LABORATORY
LAV	LAVATORY
LB	POUND
LF	LINEAR FEET
LP	LIGHT POLE
LR	LONG RADIUS
LS	LUMP SUM

ABBREVIATION	DESCRIPTION
LWL	LOW WATER LEVEL
MAINT	MAINTAIN OR MAINTENANCE
MAN	MANUAL(LY)
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MES	MITERED END SECTION
MECH	MECHANICAL
MFR	MANUFACTURE
MG	MILLION GALLON(S)
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MIN	MINIMUM; MINUTE(S)
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MON	MONUMENT
MPH	MILES PER HOUR
MPT	MALE PIPE THREAD
MTD	MOUNTED
MW	MANWAY; MONITORING WELL
N	NORTH
NE	NORTHEAST
NIC	NOT IN CONTRACT; NOT INCLUDED
NOM	NOMINAL
No	NUMBER
NPT	NATIONAL PIPE THREAD
NPW	NON-POTABLE WATER
NTS	NOT TO SCALE
NW	NORTHWEST
N/A	NOT APPLICABLE
OA	OVERALL DIMENSION
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OH	OVER HEAD
OHE	OVER HEAD ELECTRIC
OPT	OPTIONAL
O&M	OPERATION AND MAINTENANCE
PAVT, PVMT	PAVEMENT
PC	POINT OF CURVE
PE	PLAIN END
PI	POINT OF INTERSECTION
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
POB	OINT OF BEGINNING
PP	POWER POLE
PPD	POUNDS PER DAY
PPM	PARTS PER MILLION
PRES	PRESSURE
PRV	PRESSURE REDUCING VALVE
PS	PUMP STATION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAGE
PT	POINT OF TANGENCY
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE
PW	POTABLE WATERLVAN
PWR	POWER
Q	FLOW
QTY	QUANTITY
R, RAD	RADIUS
RCA	REINFORCED CONCRETE PIPE
RD	ROAD
RED	REDUCER
REBAR	REINFORCING STEEL BARS
REF	REFERENCE
REINF	REINFORCE(D)(ING)(MENT)
REQD	REQUIRED
REST	RESTRAINED
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RR	RAILROAD
RT	RIGHT
RW	RAW WATER
RWM	RAW WATER MAIN
R/W	RIGHT-OF-WAY
S	SEWER; SOUTH
SAN	SANITARY SEWER
SCHED	SCHEDULE
SE	SOUTHEAST
SECT	SECTION
SF	SQUARE FOOT OR FEET
SHT	SHEET(ED)(ING)
SJ	SLIP JOINT
SLV	SLEEVE
SP	SERVICE POLE, DROP POLE
SPEC	SPECIFICATION
SQ	SQUARE
SR	STATE ROAD
SS	SANITARY SEWER, STAINLESS STEEL
ST	STREET
STA	STATION
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
SW	SOUTHWEST
SWD	SIDEWATER DEPTH
SYM	SYMBOL
SYMM	SYMMETRICAL
S/W	SIDEWALK
TAN	TANGENT
TBM	TEMPORARY BENCH MARK
TC, TOC	TC, TOC TOP OF CONCRETE
TDH	TOTAL DYNAMIC HEAD
TEL, TELE	TELEPHONE
TEMP	TEMPORARY
TF	TOP FACE
TG	THREADED JOINT
THD	THREAD(ED)
THK	THICK(NESS)
TOB	TOP OF BANK
TOE	TOE OF SLOPE
TOS	TOE OF SLOPE; TOP OF STEEL
TP	TELEPHONE POLE, TOP OF PAVEMENT
TV	TELEVISON
TYP	TYPICAL
T&B	TOP AND BOTTOM
UG	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UN	UNION
UTIL	UTILITY
V	VOLT(S)
VAC	VACUUM
VAR	VARIES
VCP	VITRIFIED CLAY PIPE
VEL	VELOCITY
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
W	WATER, WEST
WL	WATER LINE
WM	WATER MAIN
WS	WATER SURFACE
WTP	WATER TREATMENT PLANT
WT	WEIGHT
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH
WWTP	WASTEWATER TREATMENT PLANT
W/	WITH
W/O	WITHOUT
XFER	TRANSFER
XFMR	TRANSFORMER
YD	YARD(S)
YR	YEAR(S)

LEGEND

PROPOSED	EXISTING	
	6"W	WATER PIPE
		VALVE
8"SAN	8"SAN	SANITARY SEWER
4"FM	4"FM	SANITARY FORCE MAIN
	WM	WATER SERVICE
63	63	GRADE CONTOURS
63.00	63.0	SPOT ELEVATIONS
MH	MH	MANHOLE
	PP	POWER POLE/ W/ANCHOR
	BT	BURIED TELEPHONE
	CTV	CABLE TELEVISION
	FO	FIBER OPTIC
	GAS	GAS
		SWALE
		FENCING
		DEMOLISH FEATURE
		PAVEMENT TO BE REMOVED
		BUILDING OR EQUIPMENT
		ROADWAY OR DRIVEWAY
		SLAB OR SIDEWALK
		TYPE III SILT FENCE
		ASPHALT RECONSTRUCTION



DETAIL/SECTION KEY

PROJECT CONTACTS

TYPE	ORGANIZATION	ADDRESS	TELEPHONE	CONTACT PERSON
ELECTRIC	FPL	2618 NE BASCOM NORRIS DR. LAKE CITY FLORIDA, 32055-3663	(386) 754-2014	JEFF SIMMONS
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WATER & SEWER	CITY OF LAKE CITY	527 SW. ST. MARGARETS ST. LAKE CITY, FLORIDA 32055	(386) 758-5497	CODY PRIDGEON
OWNER	CITY OF LAKE CITY	205 N. MARION AVE. LAKE CITY, FLORIDA 32055	(368) 719-5812	-
DESIGN ENGINEER	MITTAUER & ASSOCIATES, INC.	580-1 WELL ROAD ORANGE PARK, FLORIDA 32073	(904) 278-0030	TIM NORMAN, P.E.

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MITTAUER & ASSOCIATES, INC.
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FLORIDA RY NO. 6569

CITY OF LAKE CITY
St. Margaret's WWTF SCADA
General Notes, Abbreviations & Legend
Columbia County, Florida

JOB NO. 8904-23-1
SHEET NO. G-1

Location	ID	Source	Point Name	Destination	Wire Type	Voltage	Wire Size	Notes
Main PLC - RTU10	C1001	MCC	Clarifier Scum Pump #1 Run Confirm	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1002	MCC	Clarifier Scum Pump #1 Fault	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1003	MCC	Clarifier Scum Pump #1 HOA in Hand	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1004	MCC	Clarifier Scum Pump #1 HOA in Auto	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1005	MCC	Clarifier Scum Pump #2 Run Confirm	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1006	MCC	Clarifier Scum Pump #2 Fault	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1007	MCC	Clarifier Scum Pump #2 HOA in Hand	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1008	MCC	Clarifier Scum Pump #2 HOA in Auto	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1009	ATS	ATS on Utility Power	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1010	ATS	ATS on Generator Power	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1011	ATS	ATS Utility Source Available	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1012	ATS	ATS Generator Power Available	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1013	Generator	Generator In AUTO	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1014	Generator	Generator Running	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1015	Generator	Generator Faulted	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1017	Chlorine Pump#1 VFD	Chlorine Pump #1 Run Confirm	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1018	Chlorine Pump#1 VFD	Chlorine Pump #1 Fault	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1019	Chlorine Pump#1 VFD	Chlorine Pump #1 Local/Remote Status	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1020	Chlorine Pump #2 VFD	Chlorine Pump #2 Run Confirm	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1021	Chlorine Pump #2 VFD	Chlorine Pump #2 Fault	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1022	Chlorine Pump #2 VFD	Chlorine Pump #2 Local/Remote Status	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1023	Chlorine Tank#1	Chlorine Leak Sensor#1	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1024	Chlorine Tank#2	Chlorine Leak Sensor#2	RTU10	THWN or XHHW	24VDC	14AWG	2 separate conductors
Main PLC - RTU10	C1033	Clarifier Scum Pump #1 Panel	Clarifier Scum Pump #1 Run CMD	RTU10	THWN or XHHW	120VAC	14AWG	2 separate conductors
Main PLC - RTU10	C1034	Clarifier Scum Pump #2 Panel	Clarifier Scum Pump #2 Run CMD	RTU10	THWN or XHHW	120VAC	14AWG	2 separate conductors
Main PLC - RTU10	C1035	Chlorine Pump #1 VFD	Chlorine Pump #1 Run Cmd	RTU10	THWN or XHHW	120VAC	14AWG	2 separate conductors
Main PLC - RTU10	C1036	Chlorine Pump #2 VFD	Chlorine Pump #2 Run Cmd	RTU10	THWN or XHHW	120VAC	14AWG	2 separate conductors
Main PLC - RTU10	C1037	Chlorine Feed Pump Panel	Chlorine Feed Auto Mode	RTU10	THWN or XHHW	120VAC	14AWG	2 separate conductors
Main PLC - RTU10	C1049	Generator Fuel Sensor	Generator Fuel Level	RTU10	9318 Belden	24VDC	18AWG	2C + Shield
Main PLC - RTU10	C1050	Chlorine Pump #1 VFD	Chlorine Pump #1 VFD Speed Confirm	RTU10	9318 Belden	24VDC	18AWG	2C + Shield
Main PLC - RTU10	C1051	Chlorine Pump #2 VFD	Chlorine Pump #2 VFD Speed Confirm	RTU10	9318 Belden	24VDC	18AWG	2C + Shield
Main PLC - RTU10	C1052	Chlorine Tank #1 Ultrasonic	Chlorine Tank# 1 Level	RTU10	9318 Belden	24VDC	18AWG	2C + Shield
Main PLC - RTU10	C1053	Chlorine Tank #2 Ultrasonic	Chlorine Tank #2 Level	RTU10	9318 Belden	24VDC	18AWG	2C + Shield
Main PLC - RTU10	C1054	OPEN	OPEN	RTU10	9318 Belden	24VDC	18AWG	2C + Shield
Main PLC - RTU10	C1065	Chlorine Pump #1 VFD	Chlorine VFD #1 Pacing Speed Signal	RTU10	9318 Belden	24VDC	18AWG	2C + Shield
Main PLC - RTU10	C1066	Chlorine Pump #2 VFD	Chlorine VFD #2 Pacing Speed Signal	RTU10	9318 Belden	24VDC	18AWG	2C + Shield
Main PLC - RTU10	F1001	FO-10	Fiber from FO-10 to FO-20	FO-20		Fiber	n/a	Direct Bury Fiber OM3 8 Strand Singlemode
Main PLC - RTU10	F1002	FO-10	Fiber Patch Cable	RTU-10		Fiber		Fiber Patch Panel to Switch in RTU
Main PLC - RTU11	F1003	FO-10	Fiber from FO-10 to FO-40	FO-40		Fiber		Direct Bury Fiber OM3 8 Strand Singlemode
Main PLC - RTU10	E1001	RTU-10	Ethernet Cable	SCADA Data Rack	ETH	Cat6		Cat 6 Shielded Cable
Main PLC - RTU10	E1002	RTU-10	Ethernet Cable	Generator	ETH	Cat6		Cat 6 Shielded Cable
Main PLC - RTU10	E1003	RTU-10	Ethernet Cable	Chlorine #1 VFD	ETH	Cat6		Cat 6 Shielded Cable
Main PLC - RTU10	E1004	RTU-10	Ethernet Cable	Chlorine #2 VFD	ETH	Cat6		Cat 6 Shielded Cable

SCADA Rack

Location	ID	Source	Point Name	Destination	Wire Type	Voltage	Wire Size	Notes
SCADA Rack	E0001	SCADA RACK	Ethernet Cable	Ovivo Oculus Panel	ETH	Cat6		Cat 6 Shielded Cable
SCADA Rack	E0002	SCADA RACK	Ethernet Cable	OPS WS#1	ETH	Cat6		Cat 6 Shielded Cable
SCADA Rack	E0003	SCADA RACK	Ethernet Cable	OPS WS#2	ETH	Cat6		Cat 6 Shielded Cable
SCADA Rack	E0004	SCADA RACK	Ethernet Cable	Historian	ETH	Cat6		Cat 6 Shielded Cable
SCADA Rack	E0005	SCADA RACK	Ethernet Cable	SCADA SERVER 1	ETH	Cat6		Cat 6 Shielded Cable
SCADA Rack	E0006	SCADA RACK	Ethernet Cable	SCADA SERVER 2	ETH	Cat6		Cat 6 Shielded Cable
SCADA Rack	E0007	SCADA RACK	Ethernet Cable	BREAKROOM PC	ETH	Cat6		Cat 6 Shielded Cable

"XYZ"	MISCELLANEOUS ABBREVIATIONS
ACM	ANALOG CONTROL MODULE
AI	ANALOG INPUT SIGNAL
AMM	ANALOG MONITOR MODULE
AO	ANALOG OUTPUT SIGNAL
CL	CHLORINE RESIDUAL MEASUREMENT
DCM	DIGITAL CONTROL MODULE
DI	DIGITAL INPUT SIGNAL
DO	DIGITAL OUTPUT SIGNAL
FOR	FORWARD-OFF-REVERSE SELECTOR SWITCH
HOA	HAND-OFF-AUTOMATIC SELECTOR SWITCH
ICP	INSTRUMENTATION/CONTROL PANEL
NTU	NEPHELOMETRIC TURBIDITY UNITS
MCC	MOTOR CONTROL CENTER
MIP	MAIN INSTRUMENTATION PANEL
MLSS	MIXED LIQUOR SUSPENDED SOLIDS
O2	DISSOLVED OXYGEN MEASUREMENT
OI	OPERATOR INTERFACE
PCM	PUMP CONTROL MODULE
PLC	PROGRAMMABLE LOGIC CONTROLLER MODULE
pH	pH MEASUREMENT
PSM	POWER SUPPLY MODULE
RIM	RADIO INTERFACE MODULE
RTU	REMOTE TELEMETRY UNIT
S/C	SIGNAL CONVERTER
S/I	SIGNAL ISOLATOR
VFD	VARIABLE FREQUENCY DRIVE

DRAWING INDEX

CONTROLS CABLE SCHEDULE

GENERAL NOTES:

1. INTEGRATOR SHALL ACCOUNT FOR 20% EXTRA TERMINALS FOR ALL DIGITAL INPUTS AND OUTPUTS, AS WELL AS ALL CONDUCTORS FOR FIELD CONNECTIONS.
2. REFERENCE 16900 INSTRUMENTAL AND CONTROL SPECIFICATIONS FOR MORE DETAILS.

ERS JOB No: 22-006-007

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MITTAUER & ASSOCIATES, INC.
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FLORIDA CA NO. 6569

CITY OF LAKE CITY
ST. MARGRET'S WWTF SCADA
Cable Schedule – RTU-10 & SCADA RACK
Columbia County, Florida

JOB No. 8904-23-1
SHEET No. EC1.1

ISSUED FOR BID

CONTROLS CABLE SCHEDULE

GENERAL NOTES:

1. INTEGRATOR SHALL ACCOUNT FOR 20% EXTRA TERMINALS FOR ALL DIGITAL INPUTS AND OUTPUTS, AS WELL AS ALL CONDUCTORS FOR FIELD CONNECTIONS.
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Effluent Pump Station - RTU-20

Location	ID	Source	Point Name	Destination	Wire Type	Voltage	Wire Size	Notes
Effluent Pump Station - RTU-20	C2001	Effluent Pump 1 VFD	Effluent Pump 1 Run Confirm	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2002	Effluent Pump 1 VFD	Effluent Pump 1 Fault	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2003	Effluent Pump 1 VFD	Effluent Pump 1 HOA in Hand	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2004	Effluent Pump 1 VFD	Effluent Pump 1 HOA in Auto	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2005	Effluent Pump 1 Check Valve	Effluent Pump 1 Check Valve Open	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2006	Effluent Pump 2 VFD	Effluent Pump 2 Run Confirm	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2007	Effluent Pump 2 VFD	Effluent Pump 2 Fault	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2008	Effluent Pump 2 VFD	Effluent Pump 2 HOA in Hand	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2009	Effluent Pump 2 VFD	Effluent Pump 2 HOA in Auto	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2010	Effluent Pump 2 Check Valve	Effluent Pump 2 Check Valve Open	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2011	ATS	ATS Normal Power Available	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2012	ATS	ATS Emergency Power Available	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2013	ATS	ATS Transfer Switch Position	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2014	Effluent High Level Float	High Level Float	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2015	Effluent Low Level Float	Low Level Float	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2017	PH Meter	PH Low	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2018	PH Meter	PH High	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2019	High Pressure Switch	Pressure Low	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2020	High Pressure Switch	Pressure High	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2021	Generator	Generator Fault Alarm	RTU20	THWN or XHHW	24VDC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2022	Alarm Light	Alarm Light	RTU20	THWN or XHHW	120VAC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2023	Alarm Horn	Alarm Horn	RTU20	THWN or XHHW	120VAC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2033	Effluent Pump 2 VFD	Effluent Pump 1 Run CMD	RTU20	THWN or XHHW	120VAC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2034	Effluent Pump 2 VFD	Effluent Pump 2 Run CMD	RTU20	THWN or XHHW	120VAC	14AWG	2 separate conductors
Effluent Pump Station - RTU-20	C2049	Effluent Pump 2 VFD	Effluent Pump 1 VFD Speed Feedback	RTU20	9318 Belden	24VDC	18AWG	2C + Shield
Effluent Pump Station - RTU-20	C2050	Effluent Pump 2 VFD	Effluent Pump 2 VFD Speed Feedback	RTU20	9318 Belden	24VDC	18AWG	2C + Shield
Effluent Pump Station - RTU-20	C2051	Effluent Tank Level Sensor	Effluent Tank Level	RTU20	9318 Belden	24VDC	18AWG	2C + Shield
Effluent Pump Station - RTU-20	C2052	Effluent PH Meter	Effluent PH Level	RTU20	9318 Belden	24VDC	18AWG	2C + Shield
Effluent Pump Station - RTU-20	C2053	Reuse Pressure Sensor	Reuse System Pressure	RTU20	9318 Belden	24VDC	18AWG	2C + Shield
Effluent Pump Station - RTU-20	C2054	Effluent Flow Meter	Effluent Flow Meter	RTU20	9318 Belden	24VDC	18AWG	2C + Shield
Effluent Pump Station - RTU-20	C2055	Chlorine Analyzer	Chlorine Analyzer	RTU20	9318 Belden	24VDC	18AWG	2C + Shield
Effluent Pump Station - RTU-20	C2063	Effluent Pump 2 VFD	Effluent Pump 1 Speed Signal to VFD	RTU20	9318 Belden	24VDC	18AWG	2C + Shield
Effluent Pump Station - RTU-20	C2064	Effluent Pump 2 VFD	Effluent Pump 2 Speed Signal to VFD	RTU20	9318 Belden	24VDC	18AWG	2C + Shield
Effluent Pump Station - RTU-20	C2065	Effluent Composite Sampler	Effluent Flow Meter to Composite Sampler	RTU20	9318 Belden	24VDC	18AWG	2C + Shield
Effluent Pump Station - RTU-20	F2001	FO-20	Fiber from FO-20 to FO-30	FO-30		Fiber	n/a	Direct Bury Fiber OM3 8 Strand Singlemode
Effluent Pump Station - RTU-20	F2002	FO-20	Fiber Patch Cable	RTU-20		Fiber		Fiber Patch Panel to Switch in RTU
Effluent Pump Station - RTU-20	E2001	RTU-20	Ethernet Cable	Effluent #1 VFD	ETH	Cat6		Cat 6 Shielded Cable
Effluent Pump Station - RTU-20	E2002	RTU-20	Ethernet Cable	Effluent #2 VFD	ETH	Cat6		Cat 6 Shielded Cable

ERS JOB No: 22-006-007

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CITY OF LAKE CITY
ST. MARGRET'S WWTF SCADA
Cable Schedule – RTU-20
Columbia County, Florida

JOB No.
8904-23-1
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EC1.2

ISSUED FOR BID

CONTROLS CABLE SCHEDULE

GENERAL NOTES:

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Influent Pump Station - RTU-30

Location	ID	Source	Point Name	Destination	Wire Type	Voltage	Wire Size	Notes
Influent Pump Station - RTU-30	C3001	Influent Pump 1 VFD	Influent Pump 1 Run Confirm	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3002	Influent Pump 1 VFD	Influent Pump 1 Fault	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3003	Influent Pump 1 VFD	Influent Pump 1 HOA in Hand	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3004	Influent Pump 1 VFD	Influent Pump 1 HOA in Auto	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3005	Influent Pump 1 Check Valve	Influent Pump 1 Check Valve Open	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3006	Influent Pump 2 VFD	Influent Pump 2 Run Confirm	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3007	Influent Pump 2 VFD	Influent Pump 2 Fault	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3008	Influent Pump 2 VFD	Influent Pump 2 HOA in Hand	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3009	Influent Pump 2 VFD	Influent Pump 2 HOA in Auto	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3010	Influent Pump 2 Check Valve	Influent Pump 2 Check Valve Open	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3011	Influent Pump 3 VFD	Influent Pump 3 Run Confirm	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3012	Influent Pump 3 VFD	Influent Pump 3 Fault	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3013	Influent Pump 3 VFD	Influent Pump 3 HOA in Hand	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3014	Influent Pump 3 VFD	Influent Pump 3 HOA in Auto	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3015	Influent Pump 3 Check Valve	Pump 3 Check Valve	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3016	Influent Sump	Influent High Level Float	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3017	Influent Sump	Influent Low Level Float	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3018	Influent Bldg	Influent Basement Flood Sensor	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3019	Influent Sump?	High Level Float - Inlet Structure	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3020	Pump #1 Motor	Pump #1 Motor Winding Overtemp	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3021	Pump #1 Motor	Pump #1 Seal Fail	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3022	Pump #2 Motor	Pump #2 Motor Winding Overtemp	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3023	Pump #2 Motor	Pump #2 Seal Fail	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3024	OPEN	OPEN	RTU-30	9318 Belden	24VDC	18AWG	2C + Shield
Influent Pump Station - RTU-30	C3033	Influent Screen Panel	Screen in AUTO	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3034	Influent Screen Panel	Screen Running	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3035	Influent Screen Panel	Screen Fault	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3036	Influent Screen Panel	Compactor in AUTO	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3037	Influent Screen Panel	Compactor Running	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3038	Influent Screen Panel	Compactor Fault	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3039	Influent High-High Differential Level Sensor	High-High Differential Level	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3040	Influent High Upstream Level Sensor	High Upstream Level	RTU-30	THWN or XHHW	24VDC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3041	Alarm Light	Alarm Light	RTU-30	THWN or XHHW	120VAC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3042	Alarm Horn	Alarm Horn	RTU-30	THWN or XHHW	120VAC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3049	Influent Pump 1 VFD	Influent Pump 1 Run CMD	RTU-30	THWN or XHHW	120VAC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3050	Influent Pump 2 VFD	Influent Pump 2 Run CMD	RTU-30	THWN or XHHW	120VAC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3051	Influent Pump 3 VFD	Influent Pump 3 Run CMD	RTU-30	THWN or XHHW	120VAC	14AWG	2 separate conductors
Influent Pump Station - RTU-30	C3065	Influent Pump 1 VFD	Influent Pump 1 VFD Speed Feedback	RTU-30	9318 Belden	24VDC	18AWG	2C + Shield
Influent Pump Station - RTU-30	C3066	Influent Pump 2 VFD	Influent Pump 2 VFD Speed Feedback	RTU-30	9318 Belden	24VDC	18AWG	2C + Shield
Influent Pump Station - RTU-30	C3067	Influent Pump 3 VFD	Influent Pump 3 VFD Speed Feedback	RTU-30	9318 Belden	24VDC	18AWG	2C + Shield
Influent Pump Station - RTU-30	C3068	Level Sensor	Level Sensor	RTU-30	9318 Belden	24VDC	18AWG	2C + Shield
Influent Pump Station - RTU-30	C3069	OPEN	OPEN	RTU-30	9318 Belden	24VDC	18AWG	2C + Shield
Influent Pump Station - RTU-30	C3073	Influent Pump 1 VFD	Influent Pump 1 Speed Signal to VFD	RTU-30	9318 Belden	24VDC	18AWG	2C + Shield
Influent Pump Station - RTU-30	C3074	Influent Pump 2 VFD	Influent Pump 2 Speed Signal to VFD	RTU-30	9318 Belden	24VDC	18AWG	2C + Shield
Influent Pump Station - RTU-30	C3075	Influent Pump 3 VFD	Influent Pump 3 Speed Signal to VFD	RTU-30	9318 Belden	24VDC	18AWG	2C + Shield
Influent Pump Station - RTU-30	C3076	Composite Sampler	Influent Flow Meter to Composite Sampler	RTU-30	9318 Belden	24VDC	18AWG	2C + Shield
Influent Pump Station - RTU-30	F3001	FO-30	Fiber from FO-30 to FO-60	FO-60		Fiber	n/a	Direct Bury Fiber OM3 8 Strand Singlemode
Influent Pump Station - RTU-30	F3002	FO-30	Fiber Patch Cable	RTU-30		Fiber	n/a	Fiber Patch Panel to Switch in RTU
Influent Pump Station - RTU-30	E3001	RTU-30	Ethernet Cable	Influent #1 VFD	ETH	Cat6		Cat 6 Shielded Cable
Influent Pump Station - RTU-30	E3002	RTU-30	Ethernet Cable	Influent #2 VFD	ETH	Cat6		Cat 6 Shielded Cable
Influent Pump Station - RTU-30	E3003	RTU-30	Ethernet Cable	Influent #3 VFD	ETH	Cat6		Cat 6 Shielded Cable
Influent Pump Station - RTU-30	E3004	RTU-30	Ethernet Cable	Grit System Panel	ETH	Cat6		Cat 6 Shielded Cable

ERS JOB No: 22-006-007

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FLORIDA CA NO. 6569

CITY OF LAKE CITY
ST. MARGRET'S WWTF SCADA
Cable Schedule – RTU-30
Columbia County, Florida

JOB No.
8904-23-1
SHEET No.
EC1.3

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Digester RTU-40

Location	ID	Source	Point Name	Destination	Wire Type	Voltage	Wire Size	Notes
Digester RTU-40	C4001	RAS Pump 1 VFD	RAS Pump 1 Run Confirm	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4002	RAS Pump 1 VFD	RAS Pump 1 Fault	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4003	RAS Pump 1 VFD	RAS Pump 1 HOA in Hand	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4004	RAS Pump 1 VFD	RAS Pump 1 HOA in Auto	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4005	RAS Pump 2 VFD	RAS Pump 2 Run Confirm	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4006	RAS Pump 2 VFD	RAS Pump 2 Fault	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4007	RAS Pump 2 VFD	RAS Pump 2 HOA in Hand	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4008	RAS Pump 2 VFD	RAS Pump 2 HOA in Auto	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4009	RAS Pump 3 VFD	RAS Pump 3 Run Confirm	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4010	RAS Pump 3 VFD	RAS Pump 3 Fault	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4011	RAS Pump 3 VFD	RAS Pump 3 HOA in Hand	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4012	RAS Pump 3 VFD	RAS Pump 3 HOA in Auto	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4013	WAS Pump 1 Starter	WAS Pump 1 Run Confirm	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4014	WAS Pump 1 Starter	WAS Pump 1 Fault	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4015	WAS Pump 1 Starter	WAS Pump 1 HOA in Hand	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4016	WAS Pump 1 Starter	WAS Pump 1 HOA in Auto	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4017	WAS Pump 2 Starter	WAS Pump 2 Run Confirm	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4018	WAS Pump 2 Starter	WAS Pump 2 Fault	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4019	WAS Pump 2 Starter	WAS Pump 2 HOA in Hand	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4020	WAS Pump 2 Starter	WAS Pump 2 HOA in Auto	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4025	Float Switch	Low Level Float	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4026	East Digester Blower VFD	East Digester Blower HOA in Hand	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4027	East Digester Blower VFD	East Digester Blower HOA in Auto	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4028	East Digester Blower VFD	East Digester Blower Run Confirm	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4029	East Digester Blower VFD	East Digester Blower Fault	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4030	West Digester Blower VFD	West Digester Blower HOA in Hand	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4031	West Digester Blower VFD	West Digester Blower HOA in Auto	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4032	West Digester Blower VFD	West Digester Blower Run Confirm	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4033	West Digester Blower VFD	West Digester Blower Fault	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4034	Float Switch	East Digester High Float	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4035	Float Switch	West Digester High Float	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4036	East Digester Transfer Pump 1 Panel	East Digester Transfer Pump 1 HOA in Hand	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4037	East Digester Transfer Pump 1 Panel	East Digester Transfer Pump 1 HOA in Auto	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4038	East Digester Transfer Pump 1 Panel	East Digester Transfer Pump 1 Run Confirm	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4039	East Digester Transfer Pump 1 Panel	East Digester Transfer Pump 1 Fault	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4040	West Digester Transfer Pump Panel	West Digester Transfer Pump 1 HOA in Hand	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4041	West Digester Transfer Pump Panel	West Digester Transfer Pump 1 HOA in Auto	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4042	West Digester Transfer Pump Panel	West Digester Transfer Pump 1 Run Confirm	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4043	West Digester Transfer Pump Panel	West Digester Transfer Pump 1 Fault	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4044	RAS Pump 1	RAS Pump 2 Motor Winding OT	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4045	RAS Pump 1	RAS Pump 2 Seal Fail	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4046	RAS Pump 2	RAS Pump 2 Motor Winding OT	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4047	RAS Pump 2	RAS Pump 2 Seal Fail	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4048	RAS Pump 3	RAS Pump 3 Motor Winding OT	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4049	RAS Pump 3	RAS Pump 3 Seal Fail	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4050	RAS Pump 1 VFD	RAS Pump 1 Run CMD	RTU-40	THWN or XHHW	120VAC	14AWG	2 separate conductors
Digester RTU-40	C4051	RAS Pump 2 VFD	RAS Pump 2 Run CMD	RTU-40	THWN or XHHW	120VAC	14AWG	2 separate conductors
Digester RTU-40	C4052	RAS Pump 3 VFD	RAS Pump 3 Run CMD	RTU-40	THWN or XHHW	120VAC	14AWG	2 separate conductors
Digester RTU-40	C4053	WAS Pump 1 Starter	WAS Pump 1 Run CMD	RTU-40	THWN or XHHW	120VAC	14AWG	2 separate conductors
Digester RTU-40	C4054	WAS Pump 2 Starter	WAS Pump 2 Run CMD	RTU-40	THWN or XHHW	120VAC	14AWG	2 separate conductors
Digester RTU-40	C4055	East Digester Blower VFD	East Digester Blower Run CMD	RTU-40	THWN or XHHW	120VAC	14AWG	2 separate conductors
Digester RTU-40	C4056	West Digester Blower VFD	West Digester Blower Run CMD	RTU-40	THWN or XHHW	120VAC	14AWG	2 separate conductors
Digester RTU-40	C4057	East Digester Transfer Pump VFD	East Digester Transfer Pump Run CMD	RTU-40	THWN or XHHW	120VAC	14AWG	2 separate conductors
Digester RTU-40	C4058	West Digester Transfer Pump VFD	West Digester Transfer Pump Run CMD	RTU-40	THWN or XHHW	120VAC	14AWG	2 separate conductors
Digester RTU-40	C4065	RAS Pump 1 VFD	RAS Pump 1 VFD Speed Feedback	RTU-40	9318 Belden	24VDC	18AWG	2C + Shield
Digester RTU-40	C4066	RAS Pump 2 VFD	RAS Pump 2 VFD Speed Feedback	RTU-40	9318 Belden	24VDC	18AWG	2C + Shield
Digester RTU-40	C4067	RAS Pump 3 VFD	RAS Pump 3 VFD Speed Feedback	RTU-40	9318 Belden	24VDC	18AWG	2C + Shield
Digester RTU-40	C4068	East Digester Blower VFD	East Digester Blower Speed Feedback	RTU-40	9318 Belden	24VDC	18AWG	2C + Shield
Digester RTU-40	C4069	West Digester Blower VFD	West Digester Blower Speed Feedback	RTU-40	9318 Belden	24VDC	18AWG	2C + Shield
Digester RTU-40	C4070	East Digester	East Digester Level	RTU-40	9318 Belden	24VDC	18AWG	2C + Shield
Digester RTU-40	C4071	East Digester	East Dissolved Oxygen	RTU-40	9318 Belden	24VDC	18AWG	2C + Shield
Digester RTU-40	C4072	West Digester	West Digester Level	RTU-40	9318 Belden	24VDC	18AWG	2C + Shield
Digester RTU-40	C4073	West Digester	West Digester Dissolved Oxygen	RTU-40	9318 Belden	24VDC	18AWG	2C + Shield
Digester RTU-40	C4074	RAS Flow Meter	RAS Flow	RTU-40	9318 Belden	24VDC	18AWG	2C + Shield
Digester RTU-40	C4075	Was Flow Meter	WAS Flow	RTU-40	9318 Belden	24VDC	18AWG	2C + Shield
Digester RTU-40	C4081	RAS Pump 1 VFD	RAS Pump 1 VFD Speed Output	RTU-40	9318 Belden	24VDC	18AWG	2C + Shield
Digester RTU-40	C4082	RAS Pump 2 VFD	RAS Pump 2 VFD Speed Output	RTU-40	9318 Belden	24VDC	18AWG	2C + Shield
Digester RTU-40	C4083	RAS Pump 3 VFD	RAS Pump 3 VFD Speed Output	RTU-40	9318 Belden	24VDC	18AWG	2C + Shield
Digester RTU-40	C4084	East Digester Blower VFD	East Digester Blower Speed Output	RTU-40	9318 Belden	24VDC	18AWG	2C + Shield
Digester RTU-40	C4085	West Digester Blower VFD	West Digester Blower Speed Output	RTU-40	9318 Belden	24VDC	18AWG	2C + Shield
Digester RTU-40	C4086	Clarifier 1	Clarifier 1 Drive Run Confirm	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4087	Clarifier 1	Clarifier 1 Drive High Torque	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4088	Clarifier 1	Clarifier 1 Drive High-High Torque	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4089	Clarifier 1	Clarifier 1 Scum Well High Float	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4090	Clarifier 1	Clarifier 1 Scum Well Low Float	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4091	Clarifier 2	Clarifier 2 Drive Run Confirm	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4092	Clarifier 2	Clarifier 2 Drive High Torque	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4093	Clarifier 2	Clarifier 2 Drive High-High Torque	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4094	Clarifier 2	Clarifier 2 Scum Well High Float	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	C4095	Clarifier 2	Clarifier 2 Scum Well Low Float	RTU-40	THWN or XHHW	24VDC	14AWG	2 separate conductors
Digester RTU-40	F4001	FO-40	Fiber from FO-40 to FO-50	FO-50		Fiber		Direct Bury Fiber OM3 8 Strand Singlemode
Digester RTU-40	F4002	FO-40	Fiber Patch Cable	RTU-40		Fiber	n/a	Fiber Patch Panel to Switch in RTU
Digester RTU-40	E4001	RTU-40	Ethernet Cable	RAS Pump #1 VFD	ETH	Cat6		Cat 6 Shielded Cable
Digester RTU-40	E4002	RTU-40	Ethernet Cable	RAS Pump #2 VFD	ETH	Cat6		Cat 6 Shielded Cable
Digester RTU-40	E4003	RTU-40	Ethernet Cable	RAS Pump #3 VFD	ETH	Cat6		Cat 6 Shielded Cable
Digester RTU-40	E4004	RTU-40	Ethernet Cable	E Digester VFD	ETH	Cat6		Cat 6 Shielded Cable
Digester RTU-40	E4005	RTU-40	Ethernet Cable	W Digester VFD	ETH	Cat6		Cat 6 Shielded Cable
Digester RTU-40	E4006	RTU-40	Ethernet Cable	Weg Flow Meter	ETH	Cat6		Cat 6 Shielded Cable

CONTROLS CABLE SCHEDULE

GENERAL NOTES:

1. INTEGRATOR SHALL ACCOUNT FOR 20% EXTRA TERMINALS FOR ALL DIGITAL INPUTS AND OUTPUTS, AS WELL AS ALL CONDUCTORS FOR FIELD CONNECTIONS.
2. REFERENCE 16900 INSTRUMENTAL AND CONTROL SPECIFICATIONS FOR MORE DETAILS.

ERS JOB No: 22-006-007

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CITY OF LAKE CITY
ST. MARGRET'S WWTF SCADA
Cable Schedule – RTU-40
Columbia County, Florida

JOB No. 8904-23-1
SHEET No. EC1.4

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CONTROLS CABLE SCHEDULE

GENERAL NOTES:

1. INTEGRATOR SHALL ACCOUNT FOR 20% EXTRA TERMINALS FOR ALL DIGITAL INPUTS AND OUTPUTS, AS WELL AS ALL CONDUCTORS FOR FIELD CONNECTIONS.
2. REFERENCE 16900 INSTRUMENTAL AND CONTROL SPECIFICATIONS FOR MORE DETAILS.

RTU-50 PLC Panel (Existing)

Location	ID	Source	Point Name	Destination	Wire Type	Voltage	Wire Size	Notes
RTU-50	F5001	FO-50	Fiber from FO-50 to FO-60	FO-60		Fiber	n/a	Direct Bury Fiber OM3 8 Strand Singlemode
RTU-50	F5002	FO-50	Fiber Patch Cable	RTU-50		Fiber	n/a	Fiber Patch Panel to Switch in RTU

Clarifier3 RTU-60

Location	ID	Source	Point Name	Destination	Wire Type	Voltage	Wire Size	Notes
Clarifier3 RTU-60	C6001	Pump Panel	Pump 1 Run Confirm	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6002	Pump Panel	Pump 1 Fault	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6003	Pump Panel	Pump 1 HOA in Hand	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6004	Pump Panel	Pump 1 HOA in Auto	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6005	Pump Panel	Pump 2 Run Confirm	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6006	Pump Panel	Pump 2 Fault	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6007	Pump Panel	Pump 2 HOA in Hand	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6008	Pump Panel	Pump 2 HOA in Auto	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6009	Clarifier 3	Clarifier 3 Drive Run Confirm	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6010	Clarifier 3	Clarifier 3 Drive High Torque	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6011	Clarifier 3	Clarifier 3 Drive High - High Torque	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6012	Clarifier 3	Clarifier 3 Scum Well High Float	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6013	Clarifier 3	Clarifier 3 Scum Well Lag Float	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6014	Clarifier 3	Clarifier 3 Scum Well Lead Float	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6015	Clarifier 3	Clarifier 3 Scum Well Low Float	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6016	Clarifier 3	Clarifier 3 Scum Pump 1 HOA in Hand	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6017	Clarifier 3	Clarifier 3 Scum Pump 1 HOA in Auto	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6018	Clarifier 3	Clarifier 3 Scum Pump 1 Run Confirm	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6019	Clarifier 3	Clarifier 3 Scum Pump 1 Fault	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6020	Clarifier 3	Clarifier 3 Scum Pump 1 Motor Winding OT	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6021	Clarifier 3	Clarifier 3 Scum Pump 1 Seal Fail	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6022	Clarifier 3	Clarifier 3 Scum Pump 2 HOA in Hand	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6023	Clarifier 3	Clarifier 3 Scum Pump 2 HOA in Auto	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6024	Clarifier 3	Clarifier 3 Scum Pump 2 Run Confirm	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6025	Clarifier 3	Clarifier 3 Scum Pump 2 Fault	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6026	Clarifier 3	Clarifier 3 Scum Pump 2 Motor Winding OT	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6027	Clarifier 3	Clarifier 3 Scum Pump 2 Seal Fail	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6028	Clarifier 3	Clarifier 3 Scum Pump High Float	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6029	Clarifier 3	Clarifier 3 Scum Pump Lag Float	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6030	Clarifier 3	Clarifier 3 Scum Pump Lead Float	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6031	Clarifier 3	Clarifier 3 Scum Pump Low Float	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6049	Clarifier 3 LS Panel	Pump 1 Run CMD	RTU-60	THWN or XHHW	120VAC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6050	Clarifier 3 LS Panel	Pump 2 Run CMD	RTU-60	THWN or XHHW	120VAC	14AWG	2 separate conductors
Clarifier3 RTU-60	C6051	Clarifier 3	Clarifier 3 Scum Pump 1 Run CMD	RTU-60	9318 Belden	24VDC	18AWG	2C + Shield
Clarifier3 RTU-60	C6052	Clarifier 3	Clarifier 3 Scum Pump 2 Run CMD	RTU-60	9318 Belden	24VDC	18AWG	2C + Shield
Clarifier3 RTU-60	F6002	FO-60	Fiber Patch Cable	RTU-60		Fiber	n/a	Fiber Patch Panel to Switch in RTU
Clarifier3 RTU-60	E6001	RTU-60	Ethernet Cable	Effluent #1 VFD	ETH	Cat6		Cat 6 Shielded Cable
Clarifier3 RTU-60	E6002	RTU-60	Ethernet Cable	Effluent #2 VFD	ETH	Cat6		Cat 6 Shielded Cable

Clarifier3 LS Panel

Location	ID	Source	Point Name	Destination	Wire Type	Voltage	Wire Size	Notes
Clarifier3 LS Panel	C7000	LS Panel	P1 OL Fault	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 LS Panel	C7001	LS Panel	P1 Overtemp	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 LS Panel	C7002	LS Panel	P1 HOA in Hand	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 LS Panel	C7003	LS Panel	P1 HOA in Auto	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 LS Panel	C7004	LS Panel	P2 OL Fault	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 LS Panel	C7005	LS Panel	P2 Overtemp	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 LS Panel	C7006	LS Panel	P2 HOA in Hand	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 LS Panel	C7007	LS Panel	P2 HOA in Auto	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 LS Panel	C7008	LS Panel	Phase Monitor	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 LS Panel	C7009	LS Panel	Spare	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 LS Panel	C7010	LS Panel	Spare	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 LS Panel	C7009	LS Panel	Spare	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors
Clarifier3 LS Panel	C7010	LS Panel	Spare	RTU-60	THWN or XHHW	24VDC	14AWG	2 separate conductors

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CITY OF LAKE CITY
ST. MARGRET'S WWTF SCADA
Cable Schedule – RTU-50, 60, & DPP
Columbia County, Florida

JOB No.
8904-23-1
SHEET No.
EC1.5

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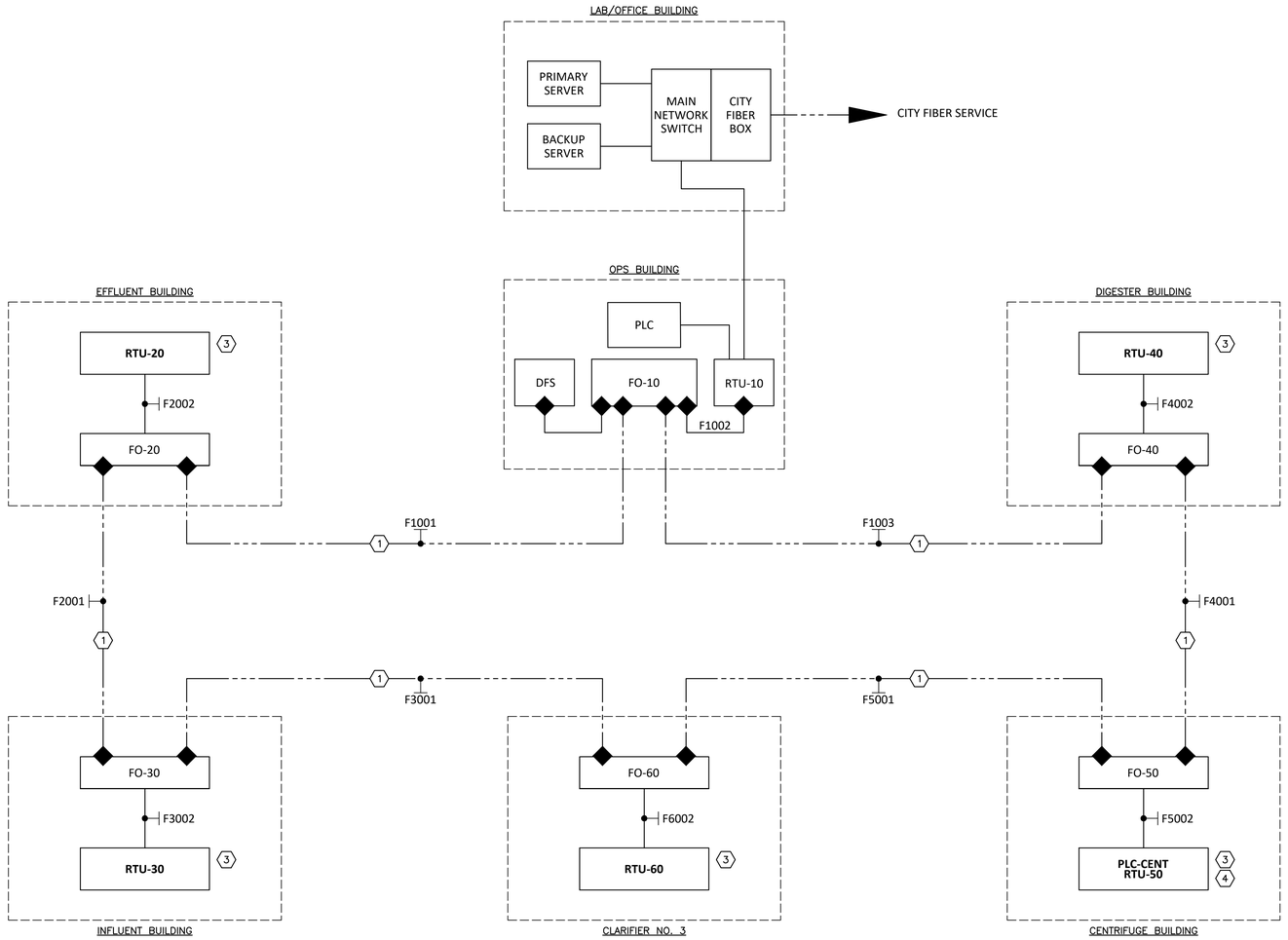
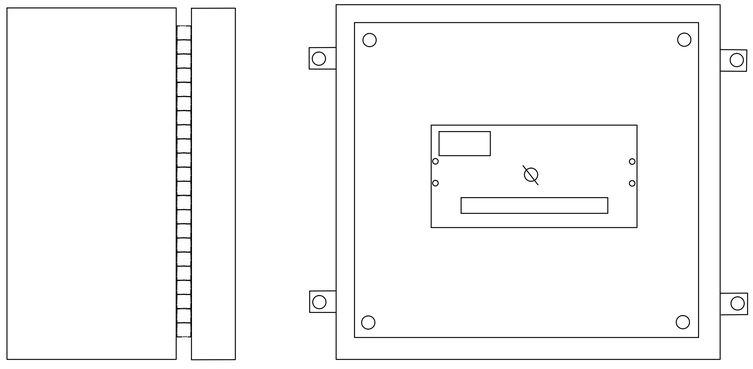


FIBER/RTU SCHEMATIC DIAGRAM

(#) NOTES:

1. PROVIDE 8 STRAND OM3 SINGLE-MODE FIBER OPTIC CABLE.
2. PROVIDE A FIBER PATCH PANEL WITH 8 SETS OF ST CONNECTORS. OUTDOOR UNITS SHALL BE MOUNTED IN N4X 304SS ENCLOSURE.
3. ETHERNET SWITCHES IN EACH RTU SHALL HAVE COPPER AND ST SINGLE-MODE FIBER PORTS. SWITCH SHALL BE PROGRAMED FOR RING TOPOLOGY.
4. RTU-50 (CENTRIFUGE CONTROL PANEL) IS EXISTING. CONTRACTOR TO INSTALL ETHERNET SWITCH IN EXISTING PANEL TO CONNECT TO FIBER RING.
5. ETHERNET SWITCH IN RTU'S SHALL CONNECT TO FO BOXES TO COMPLETE FIBER RING NETWORK USING FIBER PATCH CABLES.
6. RTU'S SHALL BE POWERED BY 120VAC.
7. EMPTY CONDUITS, REFERENCE ELECTRICAL SITE PLAN FOR ROUTING.
8. REFERENCE SPECIFICATION 16900 FOR MORE DETAILS.



Typical FO-Boxes N4X 304SS
(12 Strand Single-mode Fiber Termination)

Typical Fiber Splice Box	
Incoming	Exit
Blue	Blue
Orange	Orange
Green	Green
Brown	Brown
Gray	Gray
White	White
Red	Red
Black	Black
Yellow	Yellow
Violet	Violet
Pink	Pink
Aqua	Aqua

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CITY OF LAKE CITY
ST. MARGRET'S WWTF SCADA
Fiber/RTU Schematic
Columbia County, Florida

JOB No.
8904-23-1
SHEET No.
EC3.0

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[SITE PLAN]
FIBER OPTIC SITE ROUTING

(#) KEYED PLAN NOTES

1. REFERENCE SCHEMATIC FIBER DIAGRAM– SHT EC3.0 AND CONTROLS CABLE SCHEDULE SHEETS – EC1 FOR MORE DETAILS.
2. PROVIDE A MINIMUM OF (3) 2" CONDUITS – 36" BELOW GRADE AT ROAD CROSSING. COORDINATE WITH OWNER AT PRE–BID IF MORE CONDUITS ARE NEEDED.
3. APPROXIMATE ROUTE OF [NEW] 8 STRAND FIBER IN 2"PVC–SCH80 AND 1–2"PVC–SCH80 SPARE CONDUIT.
4. COORDINATE CONDUIT ROUTING WITH CITY OF LAKE CITY.

SCADA COMPONENT LEGEND

EQUIPMENT #	EQUIPMENT DESCRIPTION
10	FO10, RTU10, PLC, DFS
20	FO20, RTU20
30	FO30, RTU30
40	FO40, RTU40
50	FO50, PLC–CENT
60	FO60, RTU60, DUPLEX PUMP PNL, LIFT STATION PANEL

[EXISTING] CENTRIFUGE PLC INTEGRATOR SHALL INSTALL A [NEW] FIBER OPTIC SPLICE BOX AND FIBER–TO–ETHERNET CARD IN [EXISTING] PLC CABINET FOR SCADA INTEGRATION.

EXISTING CLARIFIER No.3
STORAGE BUILDING
SLUDGE AND DEWATERING BUILDING
AEROBIC DIGESTER No.1
AEROBIC DIGESTER No.2
PUMP BUILDING
EXISTING CLARIFIER No.1
EXISTING CLARIFIER No.2
EXISTING WET WELL
EXISTING INFLUENT STRUCTURE
INFLUENT PUMP STATION
EXISTING CONCRETE SLAB
GENERATOR
SHED
TRANSF VAULT
CHLORINE BUILDING
EFFLUENT PUMP STATION
MAINTENANCE/ OPS BUILDING
OFFICE/LAB BUILDING

LS 60 DPP FO
F3001 F5001 (3)
PLC FO
F5001 F4001 (3)
F4001 F1003 (3)
FO 40
F1003 F5001 (3)
F3001 F5001 (3)
F2001 F3001 (3)
F1001 F3001 (3)
F1001 F2001 (3)
30 FO
F3001 F1003 (3)
10 FO DFS PLC
20 FO
FPB
FO
(2)

OHE
UGE

SCALE: 1" = 20'–0"
0 10' 20' 40' 60'

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CITY OF LAKE CITY
ST. MARGRET'S WWTF SCADA
Site Plan – Fiber Backbone
Columbia County, Florida

JOB No. 8904–23–1
SHEET No. EC3.1

ISSUED FOR BID

[PROPOSED] ELEC SITE PLAN

CONDUIT & WIRE SCHEDULE

#	DESCRIPTION	CONDUCTORS
1	120V PWR FOR RTU(S)	3-#12, 1/2"C & 2-#12 SPARES, SEE NOTE #5
2	SCADA RACK ETHERNET	SEE NOTE #2
3	SCADA RACK POWER	2-#10, #10G, 3/4"C & 2-#10 SPARES
4	NOT USED	
5	RTU-40 TO DIGESTER VFDs	SEE NOTE #2
6	RTU-40 TO RAS VFDs	SEE NOTE #2
7	RTU-40 TO MCC-WAS	SEE NOTE #2
8	RTU-20 TO EFF VFDs	SEE NOTE #2
9	RTU-20 TO ATS	1-1"EMT
10	RTU-10 TO MCC-OPS	1-2"EMT & 1-2"EMT SPARE WITH 2 PULL STRINGS
11	RTU-10 TO EPB	3-2"C - SEE NOTE #1 & #3
12	EPB TO CHLORINE BLDG	SEE NOTE #2
13	EPB TO GENSET/ATS	SEE NOTE #2
14	RTU-30 TO INF VFD 1 & 2	SEE NOTE #2
15	RTU-30 TO INF VFD 3	SEE NOTE #2
16	RTU-30 TO GRIT SYS CP	1-1"C, SEE NOTE #1
17	RTU-30 TO SCREEN CP	1-1"C, SEE NOTE #1
18	DPP TO RTU-60 / CLARIFIER 3	SEE NOTE #2 - NIPPLE/CONDUIT BETWEEN EA.

CONDUIT NOTES:

1. ALL CONDUITS SHALL BE THE FOLLOWING:
   - EXTERIOR UG : PVC80
   - EXTERIOR-DAMAGE PRONE : RGC
   - INTERIOR : EMT
2. [TYPICAL] CONDUIT RUN SHALL BE INCLUDE THE FOLLOWING UON:
   - 2"C - CONTROLS - 24VDC / 120VAC
   - 2"C - ANALOG - SERIAL (24VDC)
   - 2"C - COMMUNICATION - ETHERNET
   - ALL CONDUITS SHALL BE PULLED WITH (2) TWO SPARE 200LB PULL STRINGS.
   - REFERENCE NOTE #1 ABOVE FOR SPECIFIC CONDUIT LOCATION REQUIREMENTS.
   - REFERENCE NOTE #4 BELOW FOR FUTURE/SPARE CONDUCTORS/CABLES.
3. EPB GATHERS I/O FROM GENERATOR/ATS AND CHLORINE BUILDING.
4. ALL CONDUITS WITH CONDUCTORS/CABLE INSTALLED SHALL HAVE FOLLOWING: FOR EVERY 10 CONDUCTORS THERE SHALL BE AN ADDITIONAL 2 SPARE CONDUCTORS/ CABLE.
5. REFERENCE SHT EC4.2 FOR 120VAC POWER CIRCUITS.
6. EC SHALL CONFIRM THAT ALL [EXISTING] PANELS THAT BEING USED TO FEED RTU'S ARE RELIABLE AND SAFE.

(#) KEYED PLAN NOTES

1. REFERENCE SHT EC3.0 AND EC3.1 FOR FIBER LAYOUT AND SCHEMATIC RISER.
2. PROVIDE A MINIMUM OF (3) 2" CONDUITS AT ROAD CROSSING. COORDINATE WITH OWNER AT PRE-BID IF MORE CONDUITS ARE NEEDED.
3. COORDINATE CONDUIT ROUTING WITH CITY OF LAKE CITY.
4. EC SHALL BE AWARE THAT THERE ARE [EXISTING] MEDIUM- VOLTAGE CONDUCTORS THAT ARE ROUTED THROUGH THE PROPOSED AREA FOR GROUND GRID. ITS RECOMMENDED THE EC PERFORM A SUBTERRANEAN SCAN FOR EXACT LOCATIONS OF MV CONDUITS.
5. CHLORINE CONTACT CHAMBER (CCC); EC SHALL COORDINATE FINAL CONNECTION LOCATION WITH CITY OF LAKE CITY.
6. PROVIDE A MINIMUM OF (3) 2" CONDUITS - 36" BELOW GRADE AT ROAD CROSSING. COORDINATE WITH OWNER AT PRE-BID IF MORE CONDUITS ARE NEEDED.
7. ALARM LIGHTS AND HORNS SHALL BE LOCATED AT INFLUENT AND EFFLUENT BUILDINGS AND BE TIED BACK TO THEIR RESPECTIVE RTU FOR CONTROL.

C6001-C6008
C6009-C6031
C6049-C6052
C7001-C7010
(18)
60 DPP LS
EXISTING CLARIFIER No.3
CP3
[EXISTING] 30A POWER FEED SHALL BE REPLACED WITH A [NEW] 60A/3/3W CIRCUIT. 3-#4, #8G, 1.5"PVC COORD ROUTING WITH CITY OF LAKE CITY.
[NEW] 30A/3/3W CKT 3-#10, #10G, 1"GRC
[EXISTING] CENTRIFUGE PLC NO I/O SCOPE; SEE SHT EC3.0 & E3.1 FOR MORE DETAILS.
PLC
SLUDGE AND DEWATERING BUILDING
STORAGE BUILDING
[EXISTING] DIGESTOR VFDS
C4086-C4095
VFD
TB
[NEW] TERMINAL BOX N4X 304SS TERMINAL BOX SHALL BE USED AS A TERMINATION POINT FOR ALL HARD WIRED I/O & NETWORK CABLING.
AEROBIC DIGESTER No.1
AEROBIC DIGESTER No.2
C4026-C4049
C4055-C4058
C4068, C4069
C4074, C4075
C4084, C4085
E4004, E4005
C4070-C4073
(5)
(6) ROAD CROSSING 36" UG
PWR CKT RAS-16
WF
WEG FLOWMETER
E4006
[PROPOSED] RTU-40 (TYP. FOR ALL)
40
[EXISTING] VFD-RAS
[EXISTING] PNL-RAS & MCC-WAS
PUMP BUILDING
(1) FED FROM PNL-EFF
C4001-C4012
C4050-C4052
C4065-C4067
C4081-C4083
E4001-E4003
C4013-C4020
C4053-C4055
EXISTING CLARIFIER No.1
EXISTING CLARIFIER No.2
HH
UGE
OHE
(17) C3033-C3040
C3076
(16) E3004
EXISTING INFLUENT PUMP STATION
C3001-C3004
C3006-C3009
C3049, C3050
C3065, C3066
C3073, C3074
E3001, E3002
(14)
PWR CKT INF-18
30 VFD VFD
C3011-C3014
C3051, C3067
C3075, E3003
(15)
H L
C3041
C3042
C3005, C3010
C3015-C3024
C3068, C3069
(6) ROAD CROSSING 36" UG
EXISTING CONCRETE SLAB
CONDUIT SPEC'S (1) (TYP.)
(7) ALARM LIGHT & HORN (TYP. FOR 2)
[EXISTING] MCC-INF PNL-INF SEE PNL SCH.
GENERATOR
(9) [EXISTING] ATS
C2011-C2013
C2021
[EXISTING] MCC-EFF PNL-EFF SEE PNL SCH.
SHED
C2017-C2021
C2052, C2053
C2055, C2065
FED FROM PNL-EFF
(1)
C2022
C2023
(7) H L
EFFLUENT
VFD VFD 20
PWR CKT EFF-16
EFFLUENT PUMP STATION
(8) C2001-C2010
C2033, C2034
C2049, C2050
C2063, C2064
E2001, E2002
(5) CHLORINE CONTACT CHAMBER (CCC)
C1009-C1012
C1013-C1015
C1049, E1002
C1017-C1024
C1035-C1037
C1050-C1054
C1065, C1066
E1003, E1004
(2) EC-4.2
EPB
(13)
C1009-C1012
C1013-C1015
C1049, E1002
(12) CHLORINE BUILDING
TRANSF VAULT
GENERATOR
(11)
(10) PWR CKT OPS-2/4
(10) C1001-C1012
C1017-C1024
C1035-C1037
C1050-C1054
C1065, C1066
E1003, E1004
[EXISTING] MCC-OPS PNL-OPS
MAINTENANCE/ OPS BUILDING
(2) (3) E0002, E0003 E0007, E1001
(4)
PWR CKT LAB-6/8
[EXISTING] PNL-LAB SEE PNL SCH.
E0001
E0004-E006
(5,6) EC4.1
G G G
GROUND LOOP
SCADA
OFFICE/LAB BUILDING
[EXISTING] SERVER CLOSET
[NEW] SCADA SERVER(S)
(2,3) EC4.1

SCALE: 1" = 20'-0"
0 10' 20' 40' 60'

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Site Plan - Electrical
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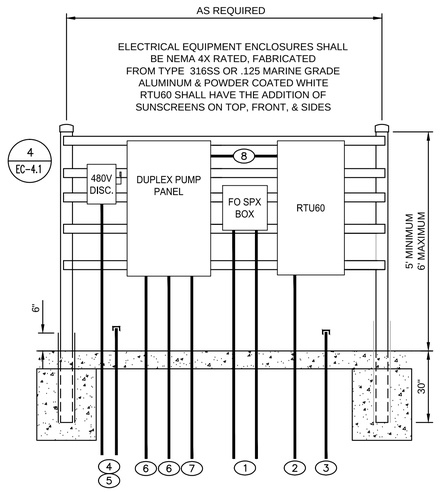
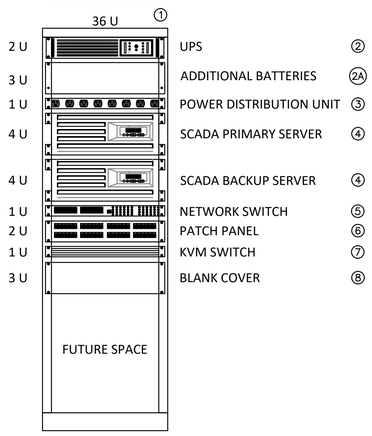


DUPLEX PUMP PANEL/CLARIFIER NO. 3 ELEC RACK ELEVATION DIAGRAM

1 EC4.1

(#) NOTES:

1. FIBER IN AND OUT.
2. I&C CONDUITS TO DEVICES, FIELD DETERMINE NUMBER REQUIRED.
3. STUB AT LEAST TWO CONDUIT TO BEYOND PAD FOR FUTURE I&C USE.
4. 480V POWER FROM ELEC BLDG.
5. SPARE POWER CONDUIT FROM ELEC BLDG.
6. 480V POWER TO DUPLEX PUMPS 1 & 2.
7. CLARIFIER PUMP NO. 3 FEEDER.
8. RTU-60 120V FEED.

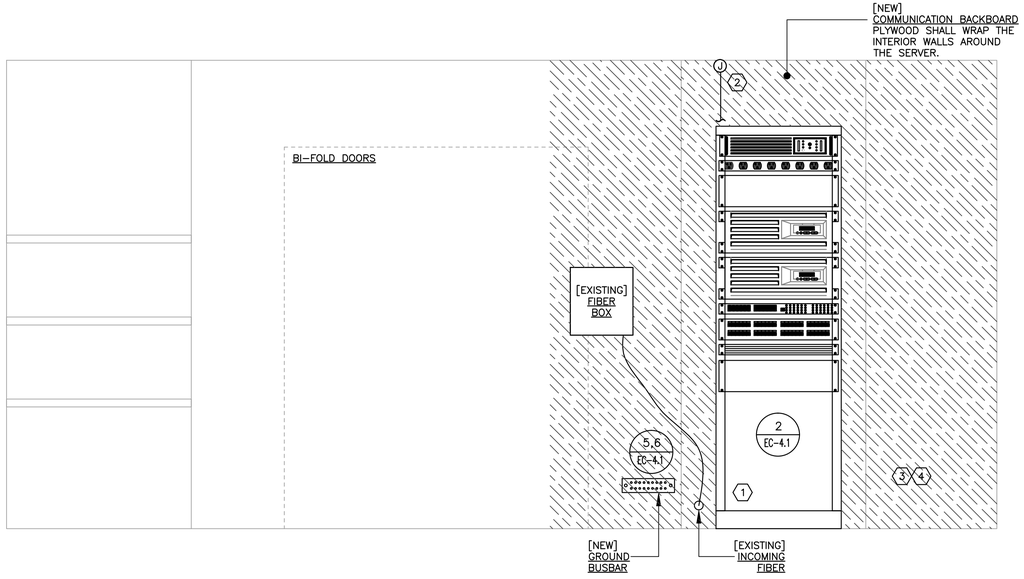


SERVER RACK ELEVATION

2 EC4.1

(#) NOTES:

1. 4 POST 36U SERVER RACK IN NETWORK CLOSET IN OPERATIONS BUILDING.
2. UPS: EATON – 5PX3000RT2U – 2700 WATTS AND EXTRA BATTERIES FOR REDUNDANCY.
3. PDU: EATON – EPBZ85 – MOUNT WITH RECEPTACLES FACING THE REAR.
4. RACK MOUNTED SERVER WITH IGNITION SOFTWARE, SEE SPECIFICATIONS FOR DETAILS.
5. NETWORK SWITCH: MINIMUM 16 PORTS, SEE SPECIFICATIONS FOR DETAILS.
6. PATCH PANEL AND SURGE ARRESTORS
7. KVM SWITCH
8. PROVIDE BLANK COVERS AS NEEDED BETWEEN COMPONENTS.

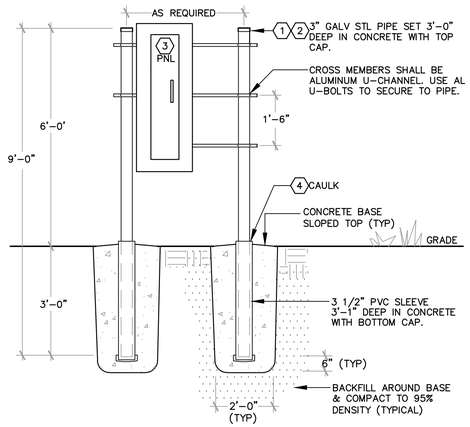


SERVER CLOSET ELEVATION

3 EC4.1

(#) NOTES (SCADA SERVER CLOSET):

1. COMMUNICATIONS RACK PROVIDED AND POPULATED BY EC/INTEGRATOR.
2. SUSPEND #10 AWG, 2 CONDUCTOR PLUS GROUND, S.O. TYPE CORD FROM J-BOX AT THE CEILING, WITH CORD CAP RECEPTACLE (L30-5R) TO MATCH NEMA PLUG (L30-5P) CONFIGURATION . PROVIDE KELLEMS GRIP DEVICE TO SUPPORT CABLE FROM J-BOX. TYPICAL FOR 1 CORD AND 1 FEMALE CORD CAP DEVICE TO BE PROVIDED AT EACH COMMUNICATIONS RACK, PROVIDED BY EC. PROVIDE MATCHING MALE CORD CAP DEVICES OF THAT INDICATED FOR EACH CABLE DROP WITH THE FEMALE END AND MALE END FOR RACK MOUNTED UPS SYSTEM, PROVIDED BY EC/INTEGRATOR. LEAVE MALE END CORD CAP CONNECT TO FEMALE END ON CABLE DROP FOR OTHERS TO UTILIZE AT THE TIME OF THE INSTALLATION OF THE RACK MOUNTED UPS UNIT.
3. COMMUNICATIONS BACKBOARD: PROVIDE A 3/4" THICK PLYWOOD BACKBOARD MOUNTED IN A MANNER THAT WILL PROVIDE AN ~4'-0" WIDE x 8-0" TALL BACKBOARD SUITABLE FOR THE PURPOSE OF MOUNTING/SUPPORT COMMUNICATIONS EQUIPMENT TO THE WALL – IF NEEDED. PLYWOOD SHALL BE PAINTED WITH A MINIMUM OF 3 COATS OF A FLAME RETARDANT GRAY PAINT.
4. PRIOR TO THE APPLICATION OF GYP-BOARD BEING APPLIED TO THE WALL, PROVIDE A 3/4" PLYWOOD BACKING TO WALL STUDS FROM FLOOR TO 8'-0" A.F.F. FOR THE SUPPORT OF THE ELECTRICAL EQUIPMENT AROUND THE EAST, WEST, AND SOUTH WALLS OF CLOSET. THE COMMUNICATIONS BACKBOARD SHALL ACCOMMODATE TELECOMMUNICATIONS EQUIPMENT THAT MAY NEED TO BE MOUNTED IN SPACE.



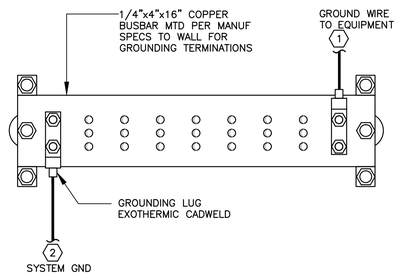
ELEC EQUIPMENT RACK MTD DETAIL

4 EC4.1

NOT TO SCALE

(#) DETAIL NOTES:

1. FIELD VERIFY WITH OWNER AS TO PREFERABLE RACK MATERIALS/PARTS/PIECES.
2. FIELD VERIFY FINAL LOCATION OF RACK WITH OWNER PRIOR TO ROUGH-IN.
3. MOUNT PANEL(s) A MINIMUM OF 24"AFG.
4. SEAL WITH OUTDOOR WEATHER RESISTANT 50 YEAR CLEAR SILICONE CAULK.



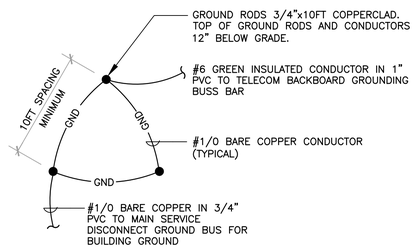
G GROUNDING BUSBAR STATION

5 EC4.1

NOT TO SCALE

(#) DETAIL NOTES:

1. CONNECT GROUNDING BUSBAR(S) W/ #6, INSULATED, GREEN WIRE TO RACK MOUNTED UPS, POWER STRIP, TERMINAL BOXES, EQUIPMENT RACKS, LADDER RACKS, ETC.
2. SEE 'SYSTEM GROUNDING DETAIL'.



SERVICE ENTRANCE (SE) GROUND RODS DETAIL

6 EC4.1

NOT TO SCALE

ERS ENGINEERING INC
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BY: GMP

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DRWN GMP
PROJ. MGR. GMP
DATE 09/01/21
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MITTAUER & ASSOCIATES, INC.
CONSULTING ENGINEERS
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CITY OF LAKE CITY
ST. MARGRET'S WWTF SCADA
ELEC RACK & SERVER ELEVATIONS
Columbia County, Florida

JOB No. 8904-23-1
SHEET No. EC4.1

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PNL–OPS

LOCATION: OPS BUILDING
FED FROM: MCC–OPS

208/120 VOLTS/1ø 3 WIRE | 225 AF — AT | ☒ FLUSH MTD ☐ SURFACE MTD | ☐ MAIN BKR ☒ MAIN LUGS | ☐ TOP FED ☐ BOTTOM FED | ☐ FEED THRU LUGS | — AIC @ 240 VOLTAGE

KVA	LOAD DESCRIPTION	BKR	CKT	A	B	CKT	BKR	LOAD DESCRIPTION	KVA
0.0	OFFICE AC	20	1			2	20	RTU–10	1.0
			3			4	20	RTU–10	1.0
0.0	INSTRUMENT PANEL	20	5			6	20	SPARE	0.0
			7			8			
0.0	REC BATHROOM	20	9			10	20	REC & LIGHTS	0.0
0.0	LIGHTS CLOSET	20	11			12	20	REC DRINK MACHINE	0.0
0.0	GENERATOR BATTERY CHARGER	20	13			14	20	GFI POLE LIGHT	0.0
0.0	GENERATOR BATTERY CHARGER	20	15			16	20	POLE LIGHTS	0.0
0.0	REC OFFICE	20	17			18	20	POLE LIGHTS	0.0
0.0	GENERATOR JACKET HEATER	20	19			20	20	REC POLE LIGHTS	0.0
0.0	GENERATOR JACKET HEATER	20	21			22	20	BUGER LIGHT	0.0
0.0	GENERATOR START	20	23			24	20	REC GFI	0.0
0.0	LIGHTS LAB	20	25			26	20	LINDA'S REC	0.0
0.0	REC COUNTER	20	27			28	20	LIGHT IN BATHROOM	0.0
0.0	LINDA'S OFFICE	20	29			30	20	REC OFFICE	0.0
	CONNECTED LOAD KVA:				**2.0**				

REPLACE ONE EXISTING 20/2 BREAKER WITH TWO (2) 20A/1.

PNL–RAS

LOCATION: DIGESTER BUILDING
FED FROM: MCC–RAS

208/120 VOLTS/1ø 3 WIRE | 100 AF — AT | ☐ FLUSH MTD ☒ SURFACE MTD | ☐ MAIN BKR ☒ MAIN LUGS | ☐ TOP FED ☐ BOTTOM FED | ☐ FEED THRU LUGS | — AIC @ 240 VOLTAGE

KVA	LOAD DESCRIPTION	BKR	CKT	A	B	CKT	BKR	LOAD DESCRIPTION	KVA
0.0	MAIN BREAKER	60	1			2	20	RELAY FLOATS	0.0
			3			4	20	RECEPTACLES	0.0
0.0	LIGHTS	20	5			6	20	TRANSFORMER	0.0
0.0	RECETACLES	20	7			8	20	TIMER	0.0
0.0	LIGHTS WITH PHOTOCELL	20	9			10	20	SPARE	0.0
0.0	RAS #1 VFD DRIVE	20	11			12	20	AIR HANDLER	0.0
0.0	RAS #2 VFD DRIVE	20	13			14			
0.0	RAS #3 VFD DRIVE	20	15			16	20	RTU–40 – RAS/WAS/CLAR #1 & #2	0.5
0.0	SPACE		17			18	20	SPARE	0.0
	CONNECTED LOAD KVA:				**0.5**				

ADD TWO 20A/1 CBs.

PNL–EFF

LOCATION: EFFLUENT BUILDING
FED FROM: MCC–EFF

208/120 VOLTS/3ø 4 WIRE | 100 AF — AT | ☒ FLUSH MTD ☐ SURFACE MTD | ☐ MAIN BKR ☒ MAIN LUGS | ☐ TOP FED ☐ BOTTOM FED | ☐ FEED THRU LUGS | — AIC @ 240 VOLTAGE

KVA	LOAD DESCRIPTION	BKR	CKT	A	B	C	CKT	BKR	LOAD DESCRIPTION	KVA
0.0	PACKAGED HVAC UNIT	20	1				2	20	OUTSIDE LIGHTS	0.0
			3				4			
			5				6	20	PIT FLOAT/RECEPT	0.0
0.0	MOTOR HEATER	20	7				8	20	LIGHTS	0.0
0.0	SPARE	20	9				10	20	FLOW METER	0.0
0.0	SPARE	20	11				12	20	SPARE	0.0
0.0	ALARM	20	13				14	20	DATA FLOW	0.0
0.0	GATE	20	15				16	20	RTU–20 – EFFLUENT	0.5
0.0	SPARE	20	17				18	20	SPARE	0.0
	CONNECTED LOAD KVA:					**0.5**				

REPLACE EXISTING 20/2 BREAKER WITH TWO 20A/1 CBs.

PNL–LAB

LOCATION: LAB BUILDING
FED FROM: –

208/120 VOLTS/3ø — WIRE | 100 AF 100 AT | ☐ FLUSH MTD ☒ SURFACE MTD | ☒ MAIN BKR ☐ MAIN LUGS | ☐ TOP FED ☒ BOTTOM FED | ☐ FEED THRU LUGS | — AIC @ 240 VOLTAGE

KVA	LOAD DESCRIPTION	BKR	CKT	A	B	C	CKT	BKR	LOAD DESCRIPTION	KVA
0.0	LTG – WEST OFFICE	20	1				2	20	LTG & FAN – BATHROOM	0.0
0.0	LTG – OFFICE #2	20	3				4	20	LTG – UTILITY & OUTSIDE	0.0
0.0	LTG – LAB	20	5				6	30	SCADA RACK	1.8
0.0	LTG – LAB	20	7				8	30	SCADA RACK	1.8
0.0	LTG – FRONT ENTRANCE	20	9				10	20	REC – ENTRANCE	0.0
0.0	REC – WEST OFFICE	20	11				12	20	REC – WEST OFFICE	0.0
0.0	REC – BATHROOM	20	13				14	20	REC – OFFICE #2	0.0
0.0	REC – UTILITY RM	20	15				16	20	REC – LAB	0.0
0.0	REC – LAB	20	17				18	20	REC – LAB	0.0
0.0	REC – LAB	20	19				20	20	REC – LAB	0.0
0.0	REC – LAB & REFRIGERATOR	20	21				22	20	FURNACE	0.0
0.0	ALARM PANEL	20	23				24	20	SPARE	0.0
0.0	ALARM PANEL	20	25				26	30	WATER HEATER	0.0
0.0	REC – COMPUTER	20	27				28			
0.0	REC	30	29				30			
	CONNECTED LOAD KVA:					**3.6**				

REPLACE ONE EXISTING 20/2 BREAKER WITH TWO (2) 30A/1 BREAKERS.

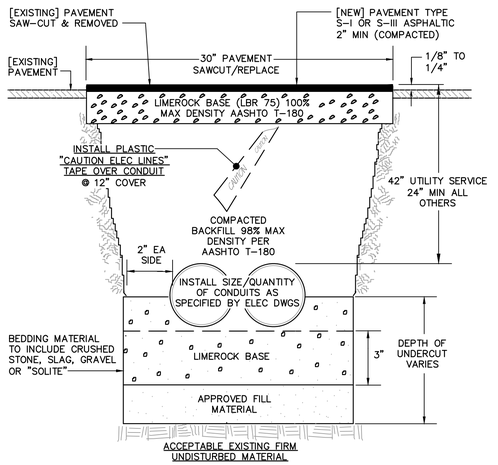
PNL–INF

LOCATION: INFLUENT BUILDING
FED FROM: –

208/120 VOLTS/1ø 3 WIRE | 100 AF 100 AT | ☒ FLUSH MTD ☐ SURFACE MTD | ☒ MAIN BKR ☐ MAIN LUGS | ☐ TOP FED ☐ BOTTOM FED | ☐ FEED THRU LUGS | — AIC @ 240 VOLTAGE

KVA	LOAD DESCRIPTION	BKR	CKT	A	B	CKT	BKR	LOAD DESCRIPTION	KVA
0.0	MAIN BREAKER (SIDE MOUNTED)	100	1			2	20	LTG – UPSTAIRS	0.0
			3			4	30	REC – UPSTAIRS	0.0
0.0	LTG – DOWNSTAIRS	20	5			6	20	VENT FANS – DOWNSTAIRS	0.0
0.0	SUMP PUMP – NE	20	7			8	20	VENT FANS – UPSTAIRS – NW	0.0
0.0	PUMP CONTROLS	20	9			10	20	GRIT CONTROLS	0.0
0.0	SUMP PUMP – NW	20	11			12	20	LTG – OUTSIDE	0.0
0.0	PUMP 1 CONTROLS	20	13			14	20	VFD CONTROLS	0.0
0.0	SPACE	20	15			16	30	A/C	0.0
0.0	SPACE	20	17			18	20	RTU–30	0.5
0.0	SPACE	20	19			20	20	SPARE	0.0
0.0	SPACE	20	21			22	20	SPACE	0.0
0.0	SPACE	20	23			24	20	SPACE	0.0
0.0	SPACE	20	25			26	20	SPACE	0.0
0.0	SPACE	20	27			28	20	SPACE	0.0
0.0	SPACE	20	29			30	20	SPACE	0.0
	CONNECTED LOAD KVA:				**0.5**				

ADD TWO 20A/1 CBs.

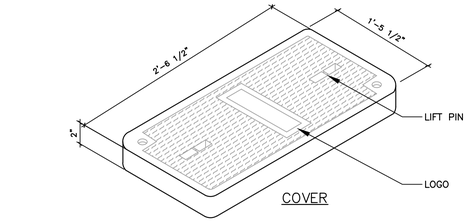


TRENCHING THRU ASPHALT PAVEMENT & CONDUIT BEDDING DETAIL

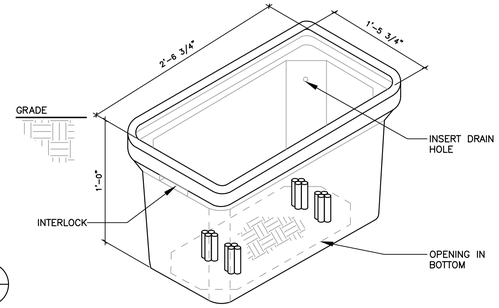
1 / EC4.2

NOT TO SCALE

1. TO FACILITATE DEWATERING, POCKETS CAN BE UNDERCUT AT CONVENIENT INTERVALS & FILLED WITH GRAVEL TO ESTABLISH LOCATIONS FOR SUCTION END OF DEWATERING PUMP.
2. EACH LIFT TO BE COMPLETELY COMPACTED TO REQUIRED DENSITY BEFORE STARTING NEXT LIFT. NO LIFT TO EXCEED 6" WHEN COMPACTED.



COVER



ISOMETRIC VIEW

MEDIUM HANDHOLE DETAIL

2 / EC4.2

NOT TO SCALE

HANDHOLE DETAIL NOTES:

1. WHEN THE PULL–BOX IS TO BE CONSTRUCTED OR INSTALLED IN A VEHICULAR TRAFFIC AREA, IT MUST BE DESIGNED TO WITHSTAND A LOAD OF 16,000 PSI.
2. THE TOP OF THE ACCESS COVER SHOULD BE FLUSH WITH FINISHED GRADE.
3. COVER SHALL HAVE SLOTS FOR REMOVAL WITH METAL HOOK.

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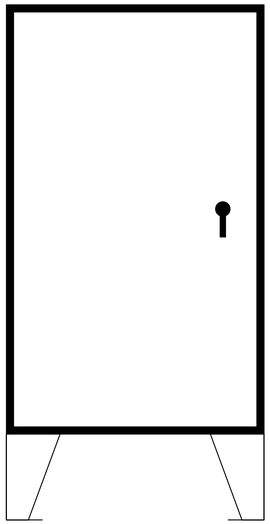
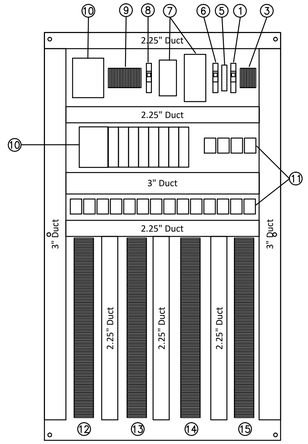




ENCLOSURE NOTES:

A. N12 ENCLOSURE PAINTED ANSI 61 GRAY

B. 60"H X 36"W X 12"D WITH 12"H FLOOR STANDS, OVERALL HEIGHT 72"

C. 3 POINT LATCH ASSEMBLY WITH HANDLE

BACK PANEL LAYOUT:

A. MOUNTING PANEL WHITE POWDER COATED STEEL

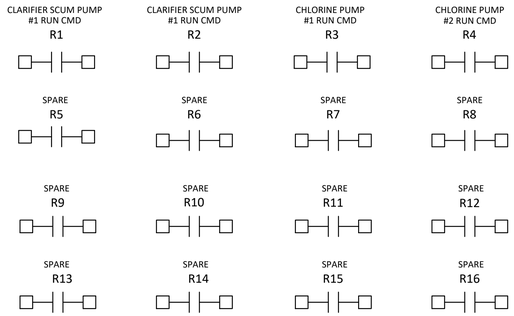
B. 57"H X 33"W OR SIZED TO FIT ENCLOSURE

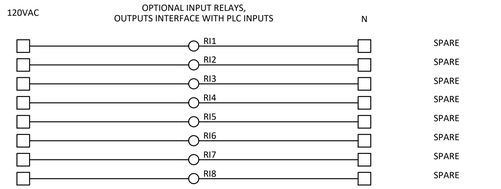
NOTES:

1. INCOMING POWER 120VAC 1PH + G
2. MOUNTING PANEL, POWDER COATED WHITE
3. AC TERMINAL STRIP
4. DC TERMINAL STRIP
5. CITEL DS240-120G SURGE ARRESTOR
6. AC BREAKER FOR PANEL LIGHT
7. DC UPS AND BATTERY 3.2AH- WAGO P/N'S 787-1675, 787-871
8. 1P DC BREAKER
9. DC TERMINAL STRIP WAGO 2004-1401, 20 TERMINALS
10. HIRSCHMAN ETHERNET SWITCH P/N BRS-16TX4SFP AND FIBER MODULEs
11. INTERPOSING RELAYS, DPDT OCTAL BASE WITH INDICATOR AND TEST BUTTON
12. DC INPUT TERMINALS
13. RELAY OUTPUTS FROM INTERPOSING RELAYS
14. ANALOG INPUTS, INCLUDE CITEL DLAW-24D SURGE ARRESTOR AND FUSED DISCONNECT - TERMINAL WAGO 2006-1811
15. ANALOG OUTPUTS, INCLUDE CITEL DLAW-24D SURGE ARRESTOR AND FUSED DISCONNECT TERMINAL WAGO 2006-1811

MAIN PLC RTU-10					
Slot 1: 16 Sourcing Input Card 1769-IQ16		**Slot 2: 16 Sourcing Input Card 1769-IQ16**		**Slot 3: 16 Sourcing Ouput Card 1769-OB16**	
Input	**Description**	**Input**	**Description**	**Input**	**Description**
1	Clarifier Scum Pump #1 Run Confirm	1	Chlorine Pump #1 Run Confirm	1	Clarifier Scum Pump #1 Run CMD
2	Clarifier Scum Pump #1 Fault	2	Chlorine Pump #1 Fault	2	Clarifier Scum Pump #2 Run CMD
3	Clarifier Scum Pump #1 HOA in Hand	3	Chlorine Pump #1 Local/Remote Status	3	Chlorine Pump #1 Run Cmd
4	Clarifier Scum Pump #1 HOA in Auto	4	Chlorine Pump #2 Run Confirm	4	Chlorine Pump #2 Run Cmd
5	Clarifier Scum Pump #2 Run Confirm	5	Chlorine Pump #2 Fault	5	Chlorine Feed Auto Mode
6	Clarifier Scum Pump #2 Fault	6	Chlorine Pump #2 Local/Remote Status	6	SPARE
7	Clarifier Scum Pump #2 HOA in Hand	7	Chlorine Leak Sensor#1	7	SPARE
8	Clarifier Scum Pump #2 HOA in Auto	8	Chlorine Leak Sensor#2	8	SPARE
9	ATS on Utility Power	9	SPARE	9	SPARE
10	ATS on Generator Power	10	SPARE	10	SPARE
11	ATS Utility Source Available	11	SPARE	11	SPARE
12	ATS Generator Power Available	12	SPARE	12	SPARE
13	Generator In AUTO	13	SPARE	13	SPARE
14	Generator Running	14	SPARE	14	SPARE
15	Generator Faulted	15	SPARE	15	SPARE
16	SPARE	16	SPARE	16	SPARE
Analog					
Slot 4: 8 Pt Analog Input Card 1769-IF8		**Slot 5: EMPTY SLOT**		**Slot 6: 8 Pt Output Card 1769-OF8C**	
Input	**Description**	**Input**	**Description**	**Input**	**Description**
1	Generator Fuel Level	1		1	Chlorine VFD#1 Pacing Speed Signal
2	Chlorine Pump#1 VFD Speed Confirm	2	F	2	Chlorine VFD#2 Pacing Speed Signal
3	Chlorine Pump#2 VFD Speed Confirm	3	U	3	SPARE
4	Chlorine Tank 1 Level	4	T	4	SPARE
5	Chlorine Tank #2 Level	5	U	5	SPARE
6	SPARE	6	R	6	SPARE
7	SPARE	7	E	7	SPARE
8	SPARE	8		8	SPARE

OUTPUT CONTACTS





TERMINAL STRIP FOR FIELD CONNECTIONS

DIGITAL INPUTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Clarifier Scum Pump #1 Run Confirm	Clarifier Scum Pump #1 Fault	Clarifier Scum Pump #1 HOA in Hand	Clarifier Scum Pump #1 HOA in Auto	Clarifier Scum Pump #2 Run Confirm	Clarifier Scum Pump #2 Fault	Clarifier Scum Pump #2 HOA in Hand	Clarifier Scum Pump #2 HOA in Auto	ATS on Utility Power	ATS on Generator Power	ATS Utility Source Available	ATS Generator Power Available	Generator in AUTO	Generator Running	Generator Faulted	Generator In AUTO	SPARE	Chlorine Pump # 1 Run Confirm	Chlorine Pump # 1 Fault	Chlorine Pump # 1 Local/Remote Status	Chlorine Pump #2 Run Confirm	Chlorine Pump #2 Fault	Chlorine Pump #2 Local/Remote Status	Chlorine Leak Sensor #1	Chlorine Leak Sensor #2	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

DIGITAL OUTPUTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Clarifier Scum Pump #1 Run CMD	Clarifier Scum Pump #1 Run CMD	Clarifier Scum Pump #1 Run CMD	Clarifier Scum Pump #1 Run CMD	Chlorine Pump #1 Run Cmd	Chlorine Pump #1 Run Cmd	Chlorine Pump #2 Run Cmd	Chlorine Pump #2 Run Cmd	Chlorine Feed Auto Mode	Chlorine Feed Auto Mode	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

ANALOG INPUTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Generator Fuel Level	Generator Fuel Level	Chlorine Pump#1 VFD Speed Confirm	Chlorine Pump#1 VFD Speed Confirm	Chlorine Pump#2 VFD Speed Confirm	Chlorine Pump#2 VFD Speed Confirm	Chlorine Tank #1 Level	Chlorine Tank #1 Level	Chlorine Tank #2 Level	Chlorine Tank #2 Level	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

ANALOG OUTPUTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Chlorine VFD#1 Pacing Speed Signal +	Chlorine VFD#1 Pacing Speed Signal -	Chlorine VFD#2 Pacing Speed Signal +	Chlorine VFD#2 Pacing Speed Signal -	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

120V POWER

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

DC POWER

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

ERS JOB No: 22-006-007

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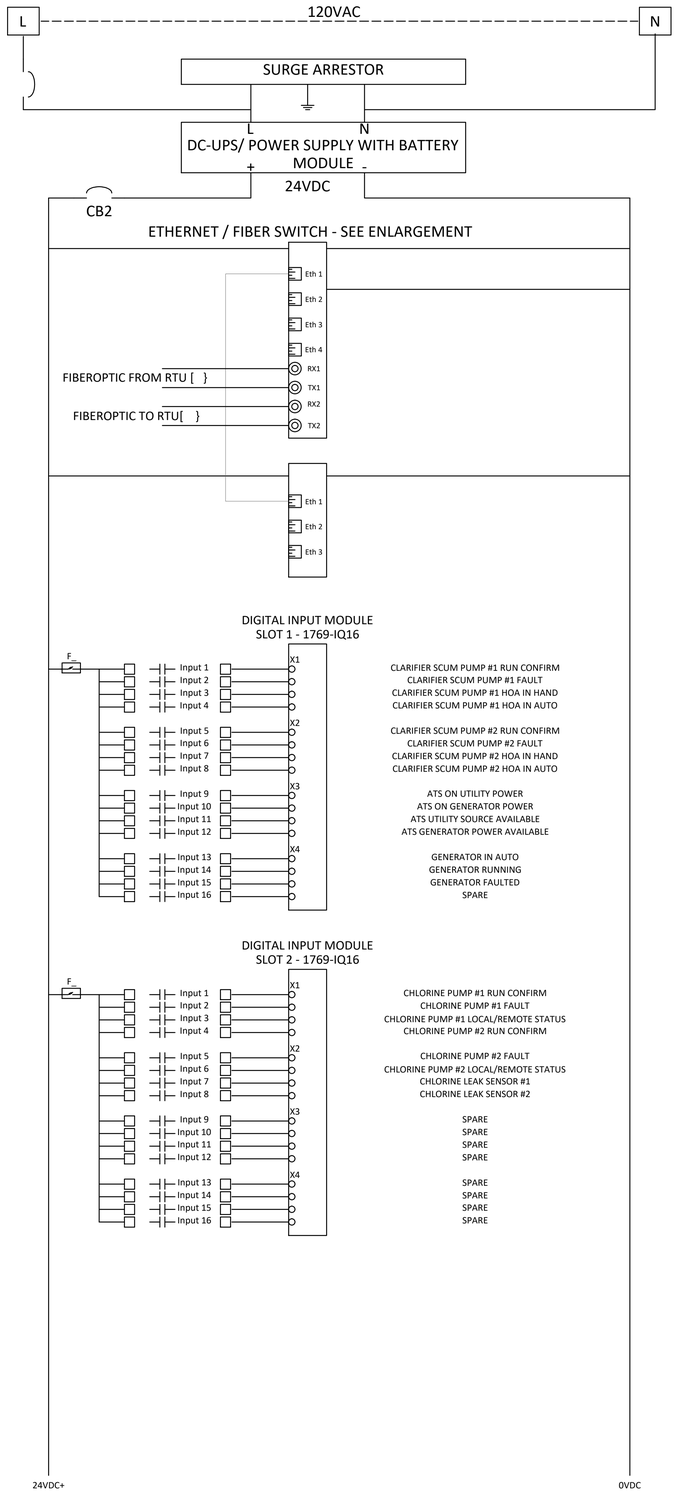
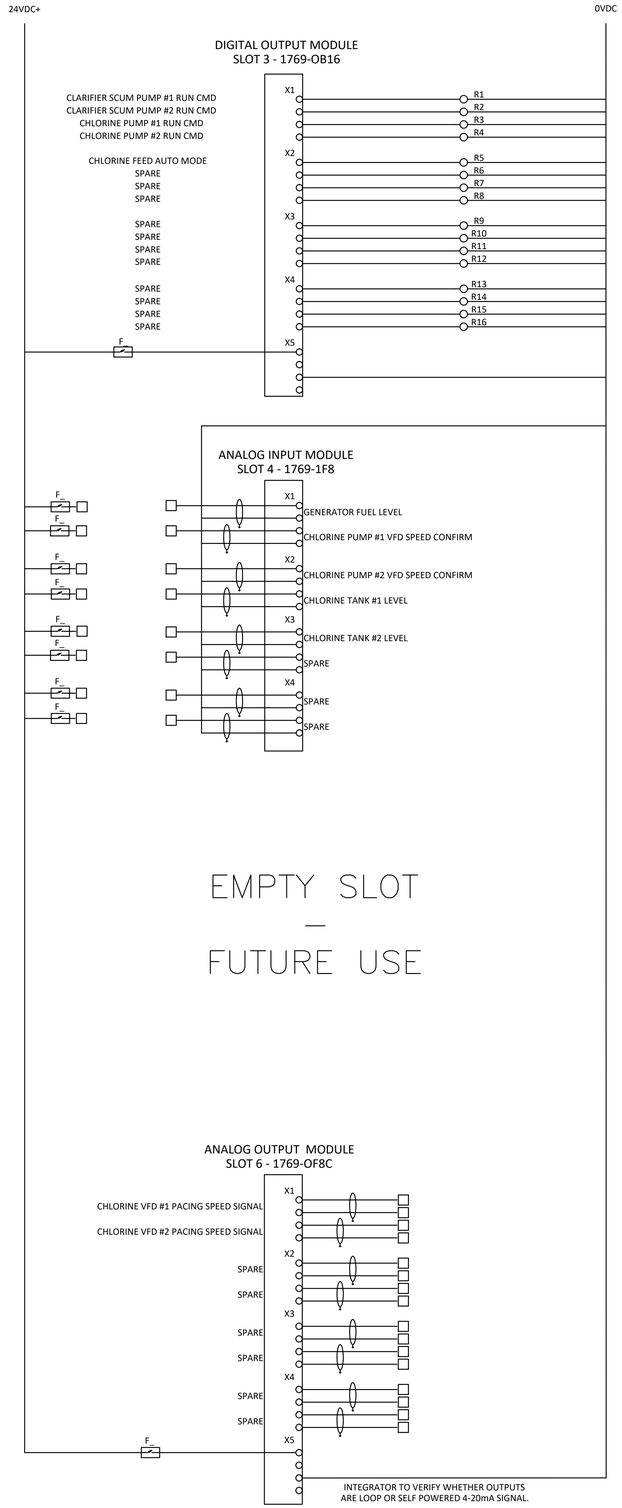
TEL. (904) 278-0030 FAX. (904) 278-0840
FLORIDA CA NO. 6569

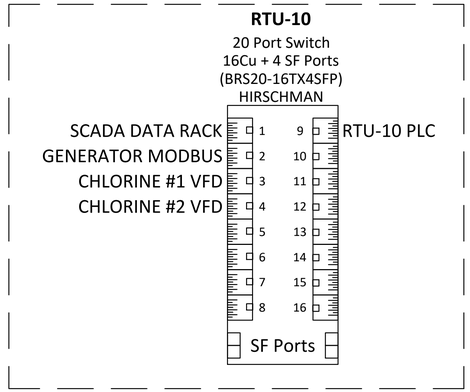
CITY OF LAKE CITY
ST. MARGRET'S WWTF SCADA
RTU10 - MAIN PLC/CLARIFIER #2 & #3
Columbia County, Florida

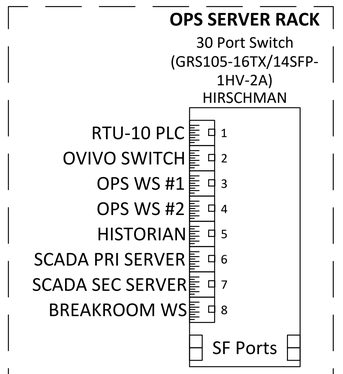
JOB No. 8904-23-1
SHEET No. EC5.10

ISSUED FOR BID









SF PORTS ARE CONFIGURABLE – FIBER, COPPER, OR ETHERNET.

NO	DATE	BY	REVISION DESCRIPTION
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DESG STAFF
DRWN GMP
PROJ. MGR. GMP
DATE 09/01/21
1 INCH

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ERS JOB No: 22–006–007

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Ph 904.777.3089
Engineering Business No. 7984
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JOB No. 8904–23–1
SHEET No. EC5.11

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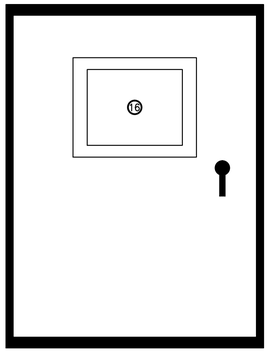
RTU 20

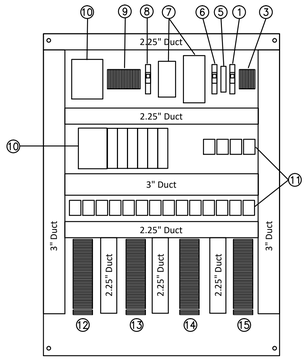


ENCLOSURE NOTES:

A. N12 ENCLOSURE PAINTED ANSI 61 GRAY

B. 48"H X 36"W X 12"D

C. 3 POINT LATCH ASSEMBLY WITH HANDLE



BACK PANEL LAYOUT:

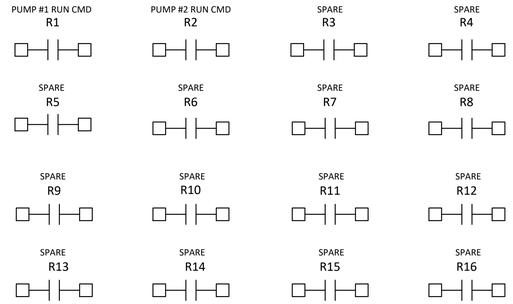
A. MOUNTING PANEL WHITE POWDER COATED STEEL

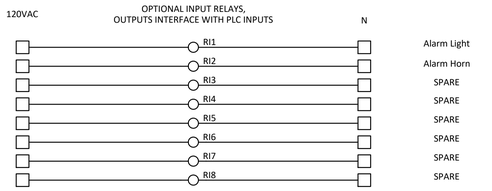
B. 45"H X 33"W OR SIZED TO FIT ENCLOSURE

NOTES:

1. INCOMING POWER 120VAC 1PH + G
2. MOUNTING PANEL, POWDER COATED WHITE
3. AC TERMINAL STRIP
4. DC TERMINAL STRIP
5. CITEL DS240-120G SURGE ARRESTOR
6. AC BREAKER FOR PANEL LIGHT
7. DC UPS AND BATTERY 3.2AH- WAGO P/N'S 787-1675, 787-871
8. 1P DC BREAKER
9. DC TERMINAL STRIP WAGO 2004-1401, 20 TERMINALS
10. HIRSCHMAN ETHERNET SWITCH P/N BRS-16TX4SFP AND FIBER MODULEs
11. INTERPOSING RELAYS, DPDT OCTAL BASE WITH INDICATOR AND TEST BUTTON
12. DC INPUT TERMINALS
13. RELAY OUTPUTS FROM INTERPOSING RELAYS
14. ANALOG INPUTS, INCLUDE CITEL DLAW-24D SURGE ARRESTOR AND FUSED DISCONNECT - TERMINAL WAGO 2006-1811
15. ANALOG OUTPUTS, INCLUDE CITEL DLAW-24D SURGE ARRESTOR AND FUSED DISCONNECT TERMINAL WAGO 2006-1811
16. HMI IS COMPRISED OF A 17" INDUSTRIAL TOUCHSCREEN AND A PC RUNNING IGNITION SOFTWARE. A STANDARD HMI IS NOT ACCEPTABLE.

OUTPUT CONTACTS



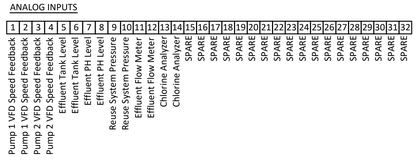


TERMINAL STRIP FOR FIELD CONNECTIONS

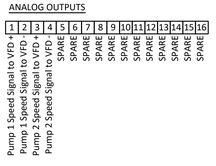
DIGITAL INPUTS

DIGITAL OUTPUTS

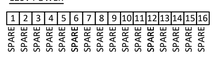
ANALOG INPUTS



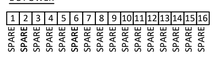
ANALOG OUTPUTS



120V POWER



DC POWER



EFFLUENT PUMP STATION RTU-20					
Slot 1: 16 Sourcing Input Card 1769-IQ16		**Slot 2: 16 Sourcing Input Card 1769-IQ16**		**Slot 3: 16 Sourcing Ouput Card 1769-OB16**	
Input	**Description**	**Input**	**Description**	**Input**	**Description**
1	Effluent Pump 1 Run Confirm	1	PH Low	1	Effluent Pump 1 Run CMD
2	Effluent Pump 1 Fault	2	PH High	2	Effluent Pump 2 Run CMD
3	Effluent Pump 1 HOA in Hand	3	Pressure Low	3	Alarm Light (via relay)
4	Effluent Pump 1 HOA in Auto	4	Pressure High	4	Alarm Horn (via relay)
5	Effluent Pump 1 Check Valve Open	5	Generator Fault Alarm	5	SPARE
6	Effluent Pump 2 Run Confirm	6	SPARE	6	SPARE
7	Effluent Pump 2 Fault	7	SPARE	7	SPARE
8	Effluent Pump 2 HOA in Hand	8	SPARE	8	SPARE
9	Effluent Pump 2 HOA in Auto	9	SPARE	9	SPARE
10	Effluent Pump 2 Check Valve Open	10	SPARE	10	SPARE
11	ATS Normal Power Available	11	SPARE	11	SPARE
12	ATS Emergency Power Available	12	SPARE	12	SPARE
13	ATS Transfer Switch Position	13	SPARE	13	SPARE
14	High Level Float	14	SPARE	14	SPARE
15	Low Level Float	15	SPARE	15	SPARE
16	SPARE	16	SPARE	16	SPARE
Analog					
Slot 4: 8 Pt Analog Input Card 1769-IF8		**Slot 5: EMPTY SLOT**		**Slot 6: 8 Pt Output Card 1769-OF8C**	
Input	**Description**	**Input**	**Description**	**Input**	**Description**
1	Effluent Pump 1 VFD Speed Feedback	1		1	Effluent Pump 1 Speed Signal to VFD
2	Effluent Pump 2 VFD Speed Feedback	2	F	2	Effluent Pump 2 Speed Signal to VFD
3	Effluent Tank Level	3	U	3	Effluent Flow Meter to Composite Sampler
4	Effluent PH Level	4	T	4	SPARE
5	Reuse System Pressure	5	U	5	SPARE
6	Effluent Flow Meter	6	R	6	SPARE
7	Chlorine Analyzer	7	E	7	SPARE
8	SPARE	8		8	SPARE

ERS JOB No: 22-006-007

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Columbia County, Florida

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SHEET No. EC5.20

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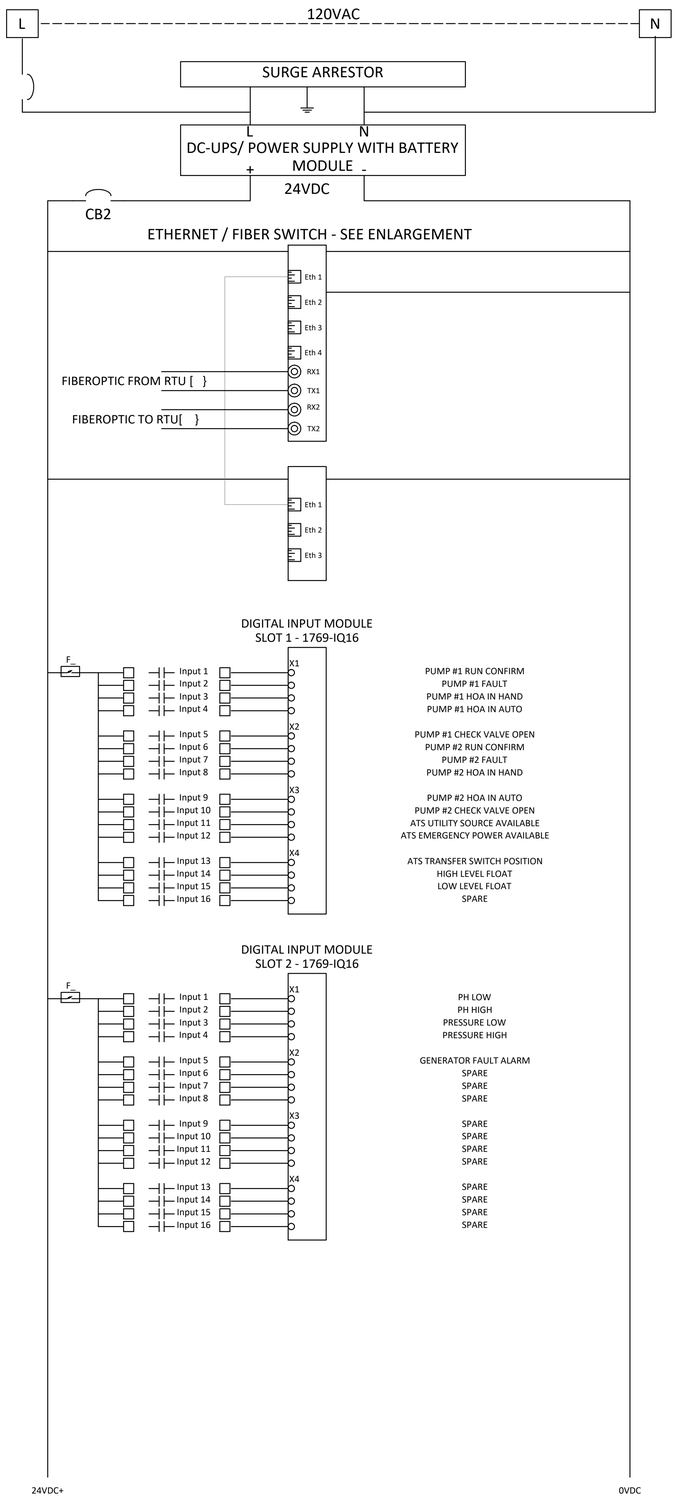

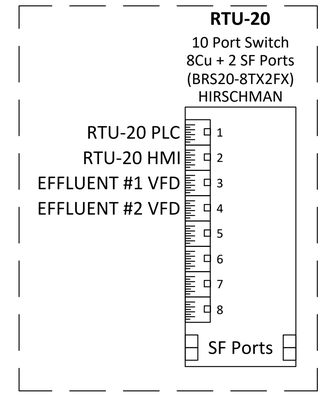

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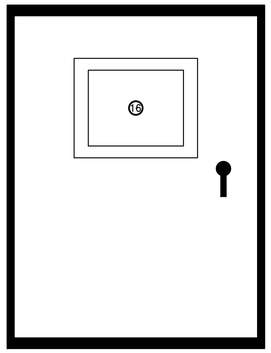
ISSUED FOR BID

RTU 30



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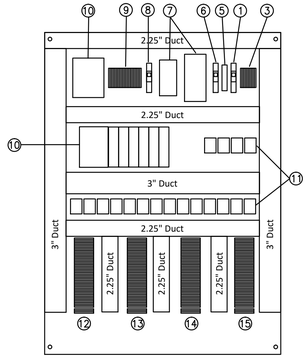
A. N4X 304SS ENCLOSURE

B. 48"H X 36"W X 12"D

C. 3 POINT LATCH ASSEMBLY WITH HANDLE



BACK PANEL LAYOUT:

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NOTES:

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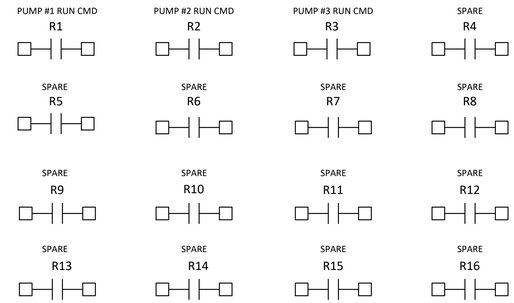
INFLUENT PUMP STATION RTU-30

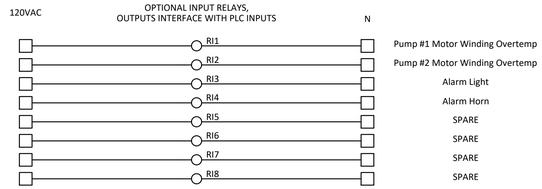
Slot 1: 16 Sourcing Input Card 1769-IQ16		Slot 2: 16 Sourcing Input Card 1769-IQ16		Slot 3: 16 EMPTY SLOT		Slot 4: 16 Sourcing Ouput Card 1769-OB16	
Input	Description	Input	Description	Input	Description	Input	Description
1	Pump 1 Run Confirm	1	Low Level Float	1		1	Pump 1 Run CMD
2	Pump 1 Fault	2	Basement Flood Sensor	2		2	Pump 2 Run CMD
3	Pump 1 HOA in Hand	3	High Level Float - Inlet Structure	3		3	Pump 3 Run CMD
4	Pump 1 HOA in Auto	4	Screen in AUTO	4	F	4	Alarm Light (via relay)
5	Pump 1 Check Valve Open	5	Screen Running	5	U	5	Alarm Horn (via relay)
6	Pump 2 Run Confirm	6	Screen Fault	6	T	6	SPARE
7	Pump 2 Fault	7	Compactor in AUTO	7	U	7	SPARE
8	Pump 2 HOA in Hand	8	Compactor Running	8	R	8	SPARE
9	Pump 2 HOA in Auto	9	Compactor Fault	9	E	9	SPARE
10	Pump 2 Check Valve Open	10	High-High Differential Level	10		10	SPARE
11	Pump 3 Run Confirm	11	High Upstream Level	11	U	11	SPARE
12	Pump 3 Fault	12	Pump #1 Motor Winding Overtemp	12	S	12	SPARE
13	Pump 3 HOA in Hand	13	Pump #1 Seal Fail	13	E	13	SPARE
14	Pump 3 HOA in Auto	14	Pump #2 Motor Winding Overtemp	14		14	SPARE
15	Pump 3 Check Valve Open	15	Pump #2 Seal Fail	15		15	SPARE
16	High Level Float	16	SPARE	16		16	SPARE

Analog

Slot 5: 8 Pt Analog Input Card 1769-IF8		Slot 6: 8 Pt Output Card 1769-OF8C	
Input	Description	Input	Description
1	Pump 1 VFD Speed Feedback	1	Pump 1 Speed Signal to VFD
2	Pump 2 VFD Speed Feedback	2	Pump 2 Speed Signal to VFD
3	Pump 3 VFD Speed Feedback	3	Pump 3 Speed Signal to VFD
4	Level Sensor	4	Influent Flow Meter to Composite Sampler
5	Influent Flow Meter	5	SPARE
6	SPARE	6	SPARE
7	SPARE	7	SPARE
8	SPARE	8	SPARE

OUTPUT CONTACTS





TERMINAL STRIP FOR FIELD CONNECTIONS

DIGITAL INPUTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Pump 1 Run Confirm	Pump 1 Run Confirm	Pump 1 Fault	Pump 1 Fault	Pump 1 HOA in Hand	Pump 1 HOA in Hand	Pump 1 HOA in Auto	Pump 1 HOA in Auto	Pump 1 Check Valve Open	Pump 1 Check Valve Open	Pump 2 Run Confirm	Pump 2 Run Confirm	Pump 2 Fault	Pump 2 Fault	Pump 2 HOA in Hand	Pump 2 HOA in Hand	Pump 2 HOA in Auto	Pump 2 HOA in Auto	Pump 2 Check Valve Open	Pump 2 Check Valve Open	Pump 3 Run Confirm	Pump 3 Run Confirm	Pump 3 Fault	Pump 3 Fault	Pump 3 HOA in Hand	Pump 3 HOA in Hand	Pump 3 HOA in Auto	Pump 3 HOA in Auto	Pump 3 Check Valve Open	Pump 3 Check Valve Open	High Level Float	High Level Float	Low Level Float	Low Level Float	Basement Flood Sensor	Basement Flood Sensor	High Level Float - Inlet Structure	High Level Float - Inlet Structure	Screen in AUTO	Screen in AUTO	Screen Running	Screen Running	Screen Fault	Screen Fault	Compactor in AUTO	Compactor in AUTO	Compactor Running	Compactor Running	Compactor Fault	Compactor Fault	High-High Differential Level	High-High Differential Level	High Upstream Level	High Upstream Level	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

DIGITAL OUTPUTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Pump 1 Run CMD	Pump 1 Run CMD	Pump 2 Run CMD	Pump 2 Run CMD	Pump 3 Run CMD	Pump 3 Run CMD	Alarm Light	Alarm Light	Alarm Horn	Alarm Horn	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

ANALOG INPUTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pump 1 VFD Speed Feedback	Pump 1 VFD Speed Feedback	Pump 2 VFD Speed Feedback	Pump 2 VFD Speed Feedback	Pump 3 VFD Speed Feedback	Pump 3 VFD Speed Feedback	Level Sensor	Level Sensor	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

ANALOG OUTPUTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pump 1 Speed Signal to VFD +	Pump 1 Speed Signal to VFD -	Pump 2 Speed Signal to VFD +	Pump 2 Speed Signal to VFD -	Pump 3 Speed Signal to VFD +	Pump 3 Speed Signal to VFD -	Influent Flow Meter to Composite Sampler +	Influent Flow Meter to Composite Sampler -	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

120V POWER

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

DC POWER

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

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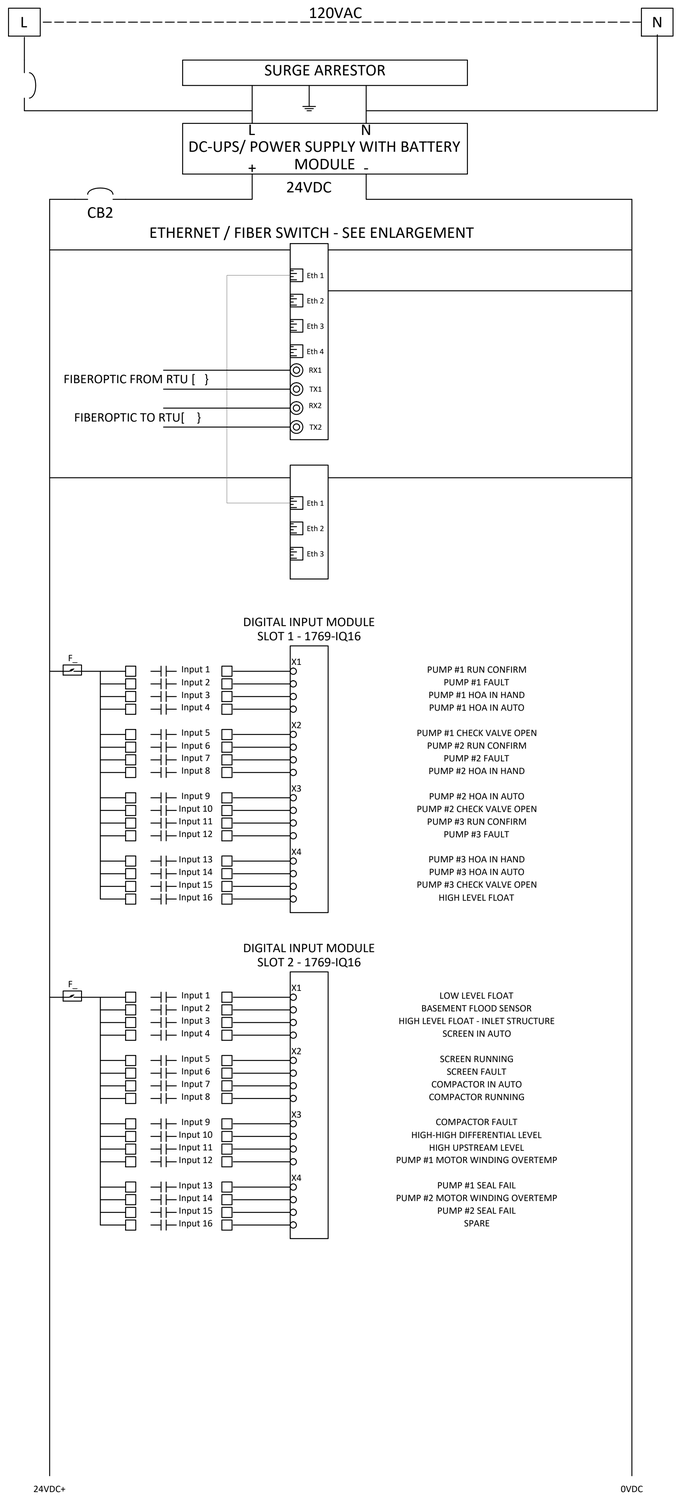
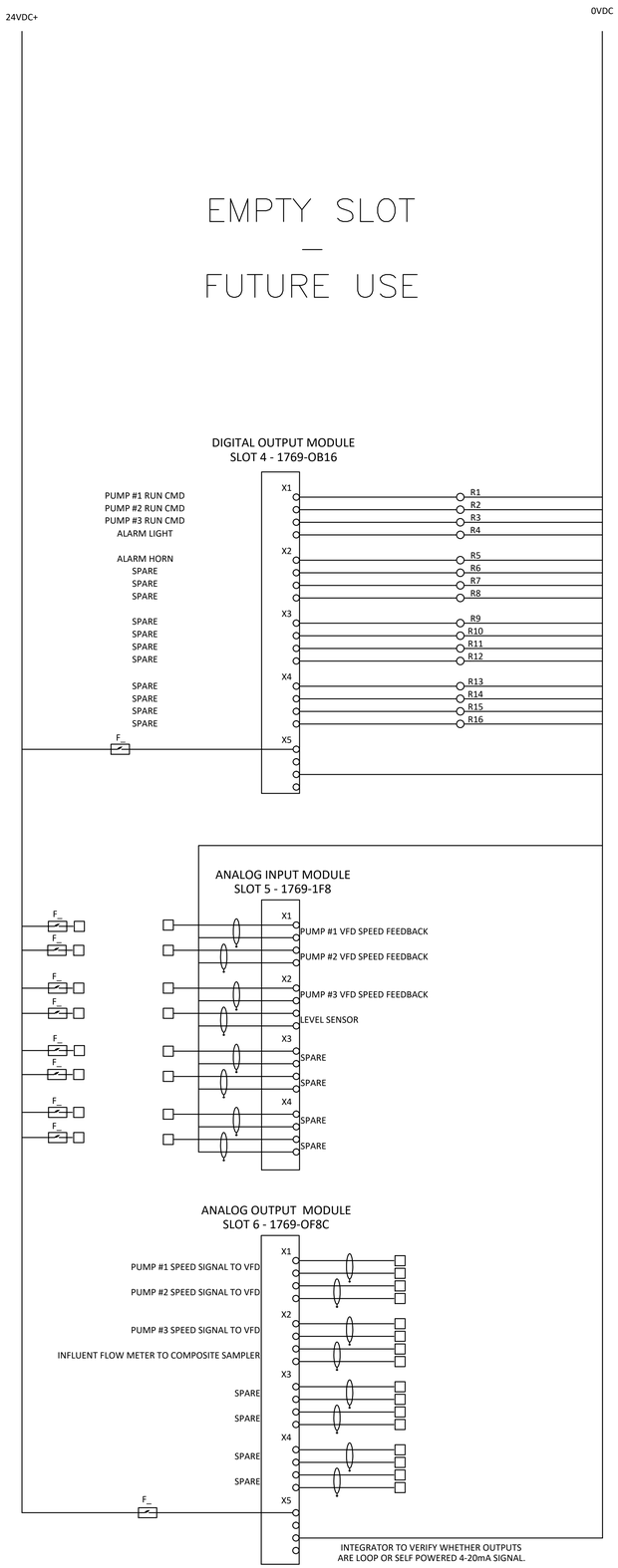
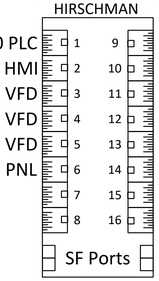




RTU-30

20 Port Switch
16Cu + 4 SF Ports
(BRS20-16TX4SFP)
HIRSCHMAN



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CITY OF LAKE CITY
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RTU30 – INFLUENT
Columbia County, Florida

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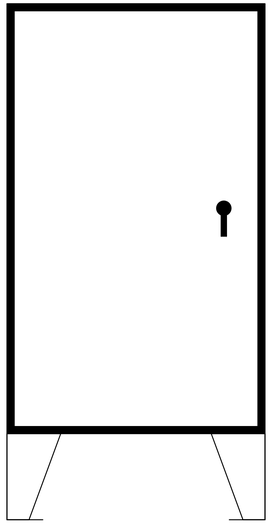
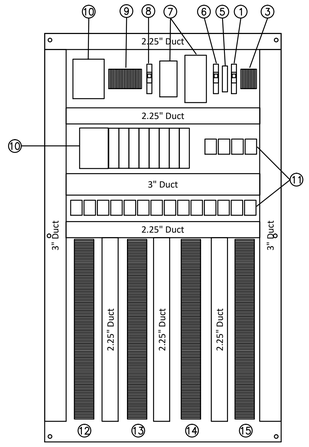
ISSUED FOR BID

RTU 40





ENCLOSURE NOTES:

A. N12 ENCLOSURE PAINTED ANSI 61 GRAY

B. 60"H X 36"W X 12"D WITH 12"H FLOOR STANDS, OVERALL HEIGHT 72"

C. 3 POINT LATCH ASSEMBLY WITH HANDLE

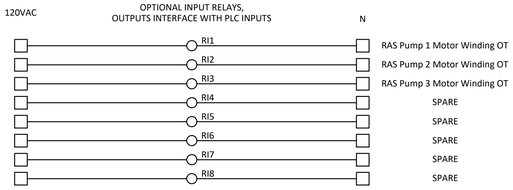
BACK PANEL LAYOUT:

A. MOUNTING PANEL WHITE POWDER COATED STEEL

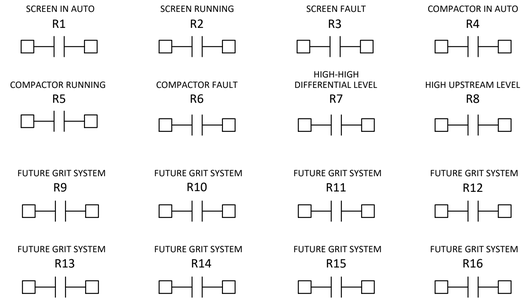
B. 57"H X 33"W OR SIZED TO FIT ENCLOSURE

NOTES:

1. INCOMING POWER 120VAC 1PH + G
2. MOUNTING PANEL, POWDER COATED WHITE
3. AC TERMINAL STRIP
4. DC TERMINAL STRIP
5. CITEL DS240-120G SURGE ARRESTOR
6. AC BREAKER FOR PANEL LIGHT
7. DC UPS AND BATTERY 3.2AH- WAGO P/N'S 787-1675, 787-871
8. 1P DC BREAKER
9. DC TERMINAL STRIP WAGO 2004-1401, 20 TERMINALS
10. HIRSCHMAN ETHERNET SWITCH P/N BRS-16TX4SFP AND FIBER MODULEs
11. INTERPOSING RELAYS, DPDT OCTAL BASE WITH INDICATOR AND TEST BUTTON
12. DC INPUT TERMINALS
13. RELAY OUTPUTS FROM INTERPOSING RELAYS
14. ANALOG INPUTS, INCLUDE CITEL DLAW-24D SURGE ARRESTOR AND FUSED DISCONNECT - TERMINAL WAGO 2006-1811
15. ANALOG OUTPUTS, INCLUDE CITEL DLAW-24D SURGE ARRESTOR AND FUSED DISCONNECT TERMINAL WAGO 2006-1811



OUTPUT CONTACTS



TERMINAL STRIP FOR FIELD CONNECTIONS

DIGITAL INPUTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
RAS Pump 1 Run Confirm	RAS Pump 3 Run Confirm	RAS Pump 1 Fault	RAS Pump 1 HOA in Hand	RAS Pump 1 HOA in Auto	RAS Pump 1 Motor Winding OT	RAS Pump 1 Seal Fail	RAS Pump 2 Fault	RAS Pump 2 HOA in Hand	RAS Pump 2 HOA in Auto	RAS Pump 2 Motor Winding OT	RAS Pump 2 Seal Fail	RAS Pump 3 Fault	RAS Pump 3 HOA in Hand	RAS Pump 3 HOA in Auto	RAS Pump 3 Motor Winding OT	RAS Pump 3 Seal Fail	WAS Pump 1 Run Confirm	WAS Pump 1 Fault	WAS Pump 1 HOA in Hand	WAS Pump 1 HOA in Auto	WAS Pump 2 Run Confirm	WAS Pump 2 Fault	WAS Pump 2 HOA in Hand	WAS Pump 2 HOA in Auto	Low Level Float	East Digester Blower Run Confirm	East Digester Blower Fault	East Digester Blower HOA in Hand	East Digester Blower HOA in Auto	East Digester Blower HOA in Auto	East Digester Blower Run Confirm	East Digester Blower Fault	SPARE	SPARE

DIGITAL INPUTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
West Digester Blower HOA in Hand	West Digester Blower HOA in Auto	West Digester Blower Run Confirm	West Digester Blower Fault	East Digester High Float	West Digester High Float	East Digester Transfer Pump 1 HOA in Hand	East Digester Transfer Pump 1 HOA in Auto	East Digester Transfer Pump 1 Fault	East Digester Transfer Pump 1 Run Confirm	West Digester Transfer Pump 1 HOA in Hand	West Digester Transfer Pump 1 HOA in Auto	West Digester Transfer Pump 1 Fault	West Digester Transfer Pump 1 Run Confirm	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

DIGITAL OUTPUTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
RAS Pump 1 Run CMD	RAS Pump 1 Run CMD	RAS Pump 2 Run CMD	RAS Pump 2 Run CMD	RAS Pump 3 Run CMD	RAS Pump 3 Run CMD	WAS Pump 1 Run CMD	WAS Pump 1 Run CMD	WAS Pump 2 Run CMD	WAS Pump 2 Run CMD	East Digester Blower Run CMD	West Digester Blower Run CMD	East Digester Transfer Pump Run CMD	East Digester Transfer Pump Run CMD	West Digester Transfer Pump Run CMD	West Digester Transfer Pump Run CMD	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

ANALOG INPUTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
RAS Pump 1 VFD Speed Feedback	RAS Pump 1 VFD Speed Feedback	RAS Pump 2 VFD Speed Feedback	RAS Pump 2 VFD Speed Feedback	RAS Pump 3 VFD Speed Feedback	RAS Pump 3 VFD Speed Feedback	East Digester Blower Speed Feedback	East Digester Blower Speed Feedback	West Digester Blower Speed Feedback	West Digester Blower Speed Feedback	East Digester Level	East Dissolved Oxygen	East Dissolved Oxygen	West Digester Level	West Dissolved Oxygen	West Dissolved Oxygen	RAS Flow	WAS Flow	WAS Flow	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

120V POWER

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

ANALOG OUTPUTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
RAS Pump 1 VFD Speed Output +	RAS Pump 1 VFD Speed Output -	RAS Pump 2 VFD Speed Output +	RAS Pump 2 VFD Speed Output -	RAS Pump 3 VFD Speed Output +	RAS Pump 3 VFD Speed Output -	East Digester Blower Speed Output +	East Digester Blower Speed Output -	West Digester Blower Speed Output +	West Digester Blower Speed Output -	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

DC POWER

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

DIGESTOR RTU-40									
Slot 1: 16 Sourcing Input Card 1769-IQ16		**Slot 2: 16 Sourcing Input Card 1769-IQ16**		**Slot 3: 16 Sourcing Input Card 1769-IQ16**		**Slot 4: EMPTY SLOT**		**Slot 5: 16 Sourcing Ouput Card 1769-OB16**	
Input	**Description**	**Input**	**Description**	**Input**	**Description**	**Input**	**Description**	**Input**	**Description**
1	RAS Pump 1 Run Confirm	1	RAS Pump 3 Motor Winding OT	1	West Digester Blower HOA in Hand	1		1	RAS Pump 1 Run CMD
2	RAS Pump 1 Fault	2	RAS Pump 3 Seal Fail	2	West Digester Blower HOA in Auto	2		2	RAS Pump 2 Run CMD
3	RAS Pump 1 HOA in Hand	3	WAS Pump 1 Run Confirm	3	West Digester Blower Run Confirm	3		3	RAS Pump 3 Run CMD
4	RAS Pump 1 HOA in Auto	4	WAS Pump 1 Fault	4	West Digester Blower Fault	4	F	4	WAS Pump 1 Run CMD
5	RAS Pump 1 Motor Winding OT	5	WAS Pump 1 HOA in Hand	5	East Digester High Float	5	U	5	WAS Pump 2 Run CMD
6	RAS Pump 1 Seal Fail	6	WAS Pump 1 HOA in Auto	6	West Digester High Float	6	T	6	East Digester Blower Run CMD
7	RAS Pump 2 Run Confirm	7	WAS Pump 2 Run Confirm	7	East Digester Transfer Pump 1 HOA in Hand	7	U	7	West Digester Blower Run CMD
8	RAS Pump 2 Fault	8	WAS Pump 2 Fault	8	East Digester Transfer Pump 1 HOA in Auto	8	R	8	East Digester Transfer Pump Run CMD
9	RAS Pump 2 HOA in Hand	9	WAS Pump 2 HOA in Hand	9	East Digester Transfer Pump 1 Run Confirm	9	E	9	West Digester Transfer Pump Run CMD
10	RAS Pump 2 HOA in Auto	10	WAS Pump 2 HOA in Auto	10	East Digester Transfer Pump 1 Fault	10		10	SPARE
11	RAS Pump 2 Motor Winding OT	11	Low Level Float	11	West Digester Transfer Pump 1 HOA in Hand	11	U	11	SPARE
12	RAS Pump 2 Seal Fail	12	East Digester Blower HOA in Hand	12	West Digester Transfer Pump 1 HOA in Auto	12	S	12	SPARE
13	RAS Pump 3 Run Confirm	13	East Digester Blower HOA in Auto	13	West Digester Transfer Pump 1 Run Confirm	13	E	13	SPARE
14	RAS Pump 3 Fault	14	East Digester Blower Run Confirm	14	West Digester Transfer Pump 1 Fault	14		14	SPARE
15	RAS Pump 3 HOA in Hand	15	East Digester Blower Fault	15	SPARE	15		15	SPARE
16	RAS Pump 3 HOA in Auto	16	SPARE	16	SPARE	16		16	SPARE

Analog

Slot 6: 8 Pt Analog Input Card 1769-IF8		**Slot 7: 8 Pt Analog Input Card 1769-IF8**		**Slot 8: 8 Pt Analog Output Card 1769-OF8C**	
Input	**Description**	**Input**	**Description**	**Input**	**Description**
1	RAS Pump 1 VFD Speed Feedback	1	West Digester Dissolved Oxygen	1	RAS Pump 1 VFD Speed Output
2	RAS Pump 2 VFD Speed Feedback	2	RAS Flow	2	RAS Pump 2 VFD Speed Output
3	RAS Pump 3 VFD Speed Feedback	3	WAS Flow	3	RAS Pump 2 VFD Speed Output
4	East Digester Blower Speed Feedback	4	SPARE	4	East Digester Blower Speed Output
5	West Digester Blower Speed Feedback	5	SPARE	5	West Digester Blower Speed Output
6	East Digester Level	6	SPARE	6	SPARE
7	East Dissolved Oxygen	7	SPARE	7	SPARE
8	West Digester Level	8	SPARE	8	SPARE

ERS JOB No: 22-006-007

ERS ENGINEERING INC
9432 Baymeadows Rd. Suite 145
Jacksonville, Florida 32256
Ph 904.777.3089
Engineering Business No. 7984
www.ersengineering.com

NO	DATE	BY	REVISION DESCRIPTION
0	9/2/22	GMP	BID ISSUE

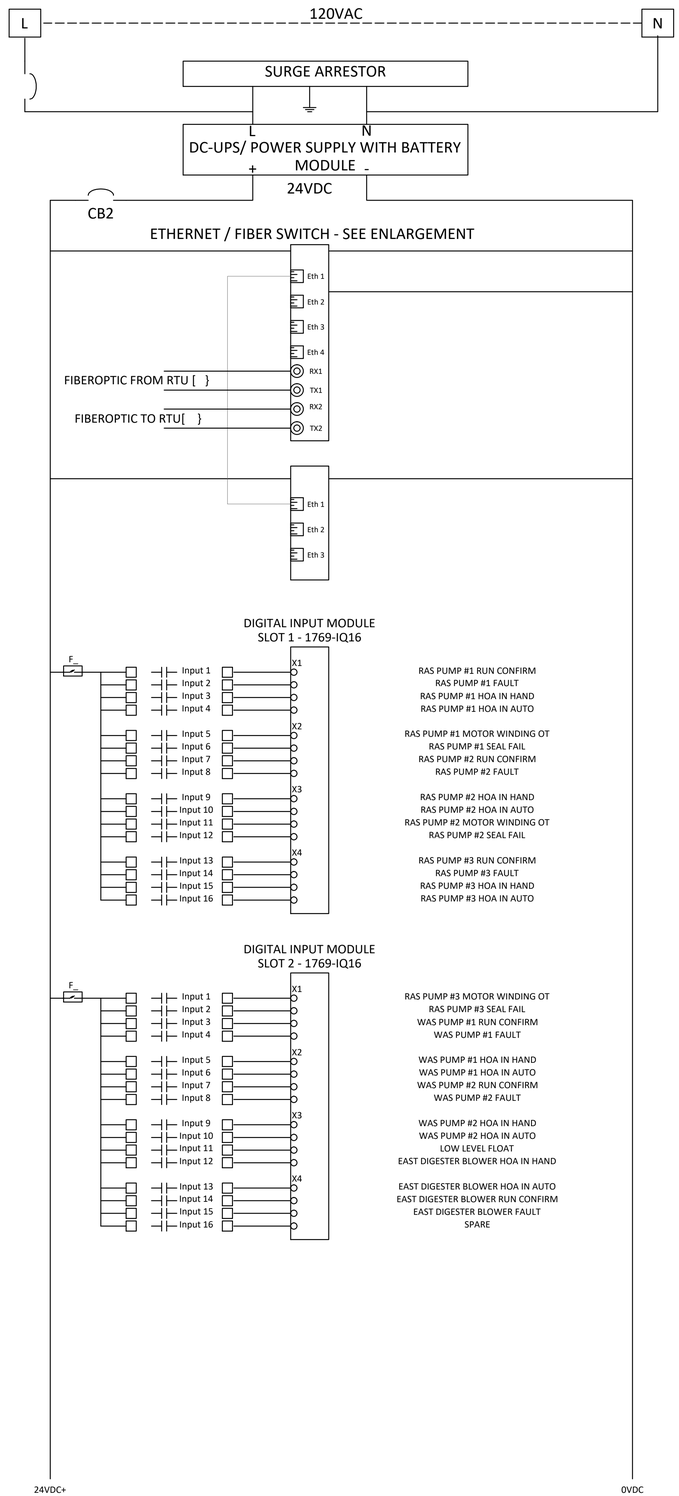
DESG STAFF
DRWN GMP
PROJ. MGR. GMP
DATE 09/01/21
1 INCH

MITTAUER & ASSOCIATES, INC.
CONSULTING ENGINEERS
580-1 WELLS ROAD, ORANGE PARK, FLORIDA 32073
TEL. (904) 278-0030 FAX. (904) 278-0840
FLORIDA CA NO. 6549

CITY OF LAKE CITY
ST. MARGRET'S WWTF SCADA
RTU40 - DIGESTOR
Columbia County, Florida

JOB No. 8904-23-1
SHEET No. EC5.40

ISSUED FOR BID



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FLORIDA CA NO. 6569

CITY OF LAKE CITY
ST. MARGRET'S WWTF SCADA
RTU40 – DIGESTOR
Columbia County, Florida

ERS JOB No: 22–006–007

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JOB No. 8904–23–1
SHEET No. EC5.41

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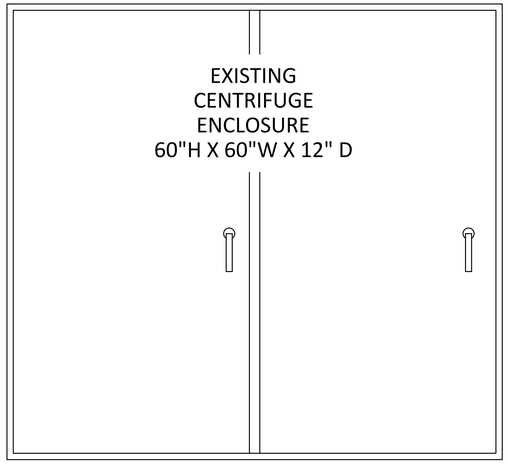
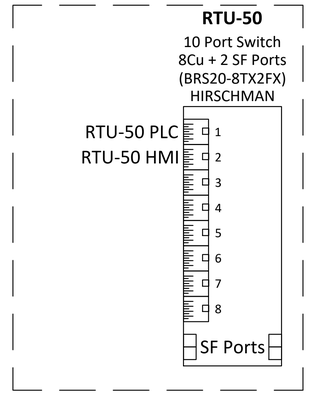
RTU 50 - CENTRIFUGE ENCLOSURE





SF PORTS ARE CONFIGURABLE – FIBER, COPPER, OR ETHERNET.

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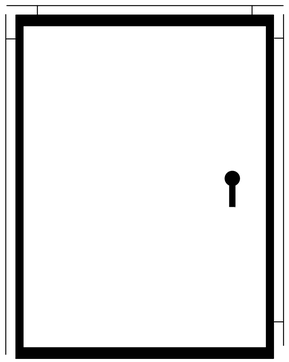
CITY OF LAKE CITY
ST. MARGRET'S WWTF SCADA
RTU50 – CENTRIFUGE
Columbia County, Florida

JOB No.
8904-23-1
SHEET No.
EC5.50

ISSUED FOR BID

RTU 60



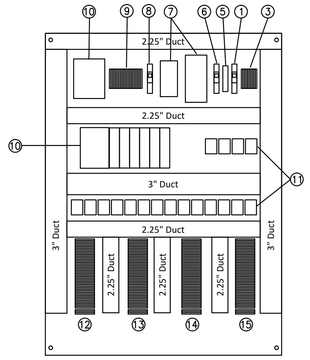
ENCLOSURE NOTES:

A. N4X 304SS ENCLOSURE PAINTED WHITE WITH SUNSHIELDS ON THE TOP, SIDES AND FRONT.

B. 48"H X 36"W X 12"D

C. 3 POINT LATCH ASSEMBLY WITH HANDLE

D. PLACE HMI ON DEADFRONT INSIDE OUTER DOOR, PLACE WINDOW KIT ON OUTER DOOR TO MAKE HMI VISIBLE WITHOUT OPENING DOOR.



BACK PANEL LAYOUT:

A. MOUNTING PANEL WHITE POWDER COATED STEEL

B. 45"H X 33"W OR SIZED TO FIT ENCLOSURE

NOTES:

1. INCOMING POWER 120VAC 1PH + G
2. MOUNTING PANEL, POWDER COATED WHITE
3. AC TERMINAL STRIP
4. DC TERMINAL STRIP
5. CITEL DS240-120G SURGE ARRESTOR
6. AC BREAKER FOR PANEL LIGHT
7. DC UPS AND BATTERY 3.2AH- WAGO P/N'S 787-1675, 787-871
8. 1P DC BREAKER
9. DC TERMINAL STRIP WAGO 2004-1401, 20 TERMINALS
10. HIRSCHMAN ETHERNET SWITCH P/N BRS-16TX4SFP AND FIBER MODULEs
11. INTERPOSING RELAYS, DPDT OCTAL BASE WITH INDICATOR AND TEST BUTTON
12. DC INPUT TERMINALS
13. RELAY OUTPUTS FROM INTERPOSING RELAYS
14. ANALOG INPUTS, INCLUDE CITEL DLAW-24D SURGE ARRESTOR AND FUSED DISCONNECT - TERMINAL WAGO 2006-1811
15. ANALOG OUTPUTS, INCLUDE CITEL DLAW-24D SURGE ARRESTOR AND FUSED DISCONNECT TERMINAL WAGO 2006-1811

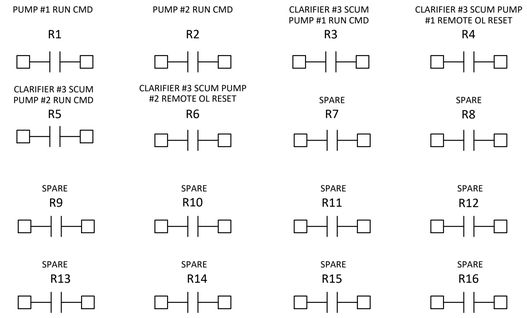
CLARIFIER RTU-60

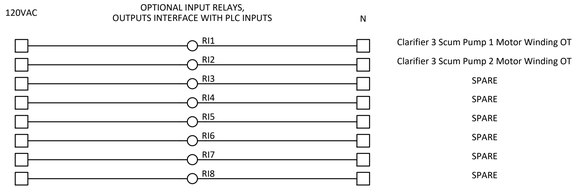
Slot 1: 16 Sourcing Input Card 1769-IQ16		Slot 2: 16 Sourcing Input Card 1769-IQ16		Slot 3: EMPTY SLOT		Slot 4: 16 Sourcing Ouput Card 1769-OB16	
Input	Description	Input	Description	Input	Description	Input	Description
1	Pump 1 Run Confirm	1	Clarifier 3 Scum Pump 1 HOA in Auto	1		1	Pump 1 Run CMD
2	Pump 1 Fault	2	Clarifier 3 Scum Pump 1 Run Confirm	2		2	Pump 2 Run CMD
3	Pump 1 HOA in Hand	3	Clarifier 3 Scum Pump 1 Fault	3		3	Clarifier 3 Scum Pump 1 Run CMD
4	Pump 1 HOA in AUTO	4	Clarifier 3 Scum Pump 1 Motor Winding OT	4	F	4	Clarifier 3 Scum Pump 1 Remote OL Reset
5	Pump 2 Run Confirm	5	Clarifier 3 Scum Pump 2 HOA in Hand	5	U	5	Clarifier 3 Scum Pump 2 Run CMD
6	Pump 2 Fault	6	Clarifier 3 Scum Pump 2 HOA in Auto	6	T	6	Clarifier 3 Scum Pump 2 Remote OL Reset
7	Pump 2 HOA in Hand	7	Clarifier 3 Scum Pump 2 Run Confirm	7	U	7	SPARE
8	Pump 2 HOA in AUTO	8	Clarifier 3 Scum Pump 2 Fault	8	R	8	SPARE
9	Clarifier 3 Drive Run Confirm	9	Clarifier 3 Scum Pump 2 Motor Winding OT	9	E	9	SPARE
10	Clarifier 3 Drive High Torque	10	Clarifier 3 Scum Pump Off Float	10		10	SPARE
11	Clarifier 3 Drive High - High Torque	11	Clarifier 3 Scum Pump Lead Float	11	U	11	SPARE
12	Clarifier 3 Scum Well High Float	12	Clarifier 3 Scum Pump Lag Float	12	S	12	SPARE
13	Clarifier 3 Scum Well Lag Float	13	Clarifier 3 Scum Pump High Level Float	13	E	13	SPARE
14	Clarifier 3 Scum Well Lead Float	14	SPARE	14		14	SPARE
15	Clarifier 3 Scum Well Off Float	15	SPARE	15		15	SPARE
16	Clarifier 3 Scum Pump 1 HOA in Hand	16	SPARE	16		16	SPARE

Analog

Slot 5: EMPTY SLOT		Slot 6: EMPTY SLOT	
Input	Description	Input	Description
1		1	
2	F	2	F
3	U	3	U
4	T	4	T
5	U	5	U
6	R	6	R
7	E	7	E
8		8	

OUTPUT CONTACTS





TERMINAL STRIP FOR FIELD CONNECTIONS

DIGITAL INPUTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Pump 1 Run Confirm	Pump 1 Run Confirm	Pump 1 Fault	Pump 1 Fault	Pump 1 HOA in HAND	Pump 1 HOA in HAND	Pump 1 HOA in AUTO	Pump 1 HOA in AUTO	Pump 2 Run Confirm	Pump 2 Run Confirm	Pump 2 Fault	Pump 2 Fault	Pump 2 HOA in HAND	Pump 2 HOA in HAND	Pump 2 HOA in AUTO	Pump 2 HOA in AUTO	Clarifier 3 Drive Run Confirm	Clarifier 3 Drive Run Confirm	Clarifier 3 Drive High Torque	Clarifier 3 Drive High Torque	Clarifier 3 Drive High - High Torque	Clarifier 3 Drive High - High Torque	Clarifier 3 Scum Well High Float	Clarifier 3 Scum Well High Float	Clarifier 3 Scum Well Lag Float	Clarifier 3 Scum Well Lag Float	Clarifier 3 Scum Well Lead Float	Clarifier 3 Scum Well Lead Float	Clarifier 3 Scum Well Off Float	Clarifier 3 Scum Well Off Float	Clarifier 3 Scum Pump 1 HOA in Hand	Clarifier 3 Scum Pump 1 HOA in Hand	Clarifier 3 Scum Pump 1 HOA in Auto	Clarifier 3 Scum Pump 1 HOA in Auto	Clarifier 3 Scum Pump 1 Run Confirm	Clarifier 3 Scum Pump 1 Run Confirm	Clarifier 3 Scum Pump 1 Fault	Clarifier 3 Scum Pump 1 Fault	Clarifier 3 Scum Pump 1 Motor Winding OT	Clarifier 3 Scum Pump 1 Motor Winding OT	Clarifier 3 Scum Pump 2 HOA in Hand	Clarifier 3 Scum Pump 2 HOA in Hand	Clarifier 3 Scum Pump 2 HOA in Auto	Clarifier 3 Scum Pump 2 HOA in Auto	Clarifier 3 Scum Pump 2 Run Confirm	Clarifier 3 Scum Pump 2 Run Confirm	Clarifier 3 Scum Pump 2 Fault	Clarifier 3 Scum Pump 2 Fault	Clarifier 3 Scum Pump 2 Motor Winding OT	Clarifier 3 Scum Pump 2 Motor Winding OT	Clarifier 3 Scum Pump High Float	Clarifier 3 Scum Pump High Float	Clarifier 3 Scum Pump Lag Float	Clarifier 3 Scum Pump Lag Float	Clarifier 3 Scum Pump Lead Float	Clarifier 3 Scum Pump Lead Float	Clarifier 3 Scum Pump Off Float	Clarifier 3 Scum Pump Off Float	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

DIGITAL OUTPUTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Pump 1 Run CMD	Pump 1 Run CMD	Pump 2 Run CMD	Pump 2 Run CMD	Clarifier 3 Scum Pump 1 Run CMD	Clarifier 3 Scum Pump 1 Run CMD	Clarifier 3 Scum Pump 1 Remote OL Reset	Clarifier 3 Scum Pump 1 Remote OL Reset	Clarifier 3 Scum Pump 2 Run CMD	Clarifier 3 Scum Pump 2 Run CMD	Clarifier 3 Scum Pump 2 Remote OL Reset	Clarifier 3 Scum Pump 2 Remote OL Reset	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

ANALOG INPUTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

ANALOG OUTPUTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

120V POWER

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

DC POWER

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE	SPARE

ERS JOB No: 22-006-007

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DESG STAFF
DRWN GMP
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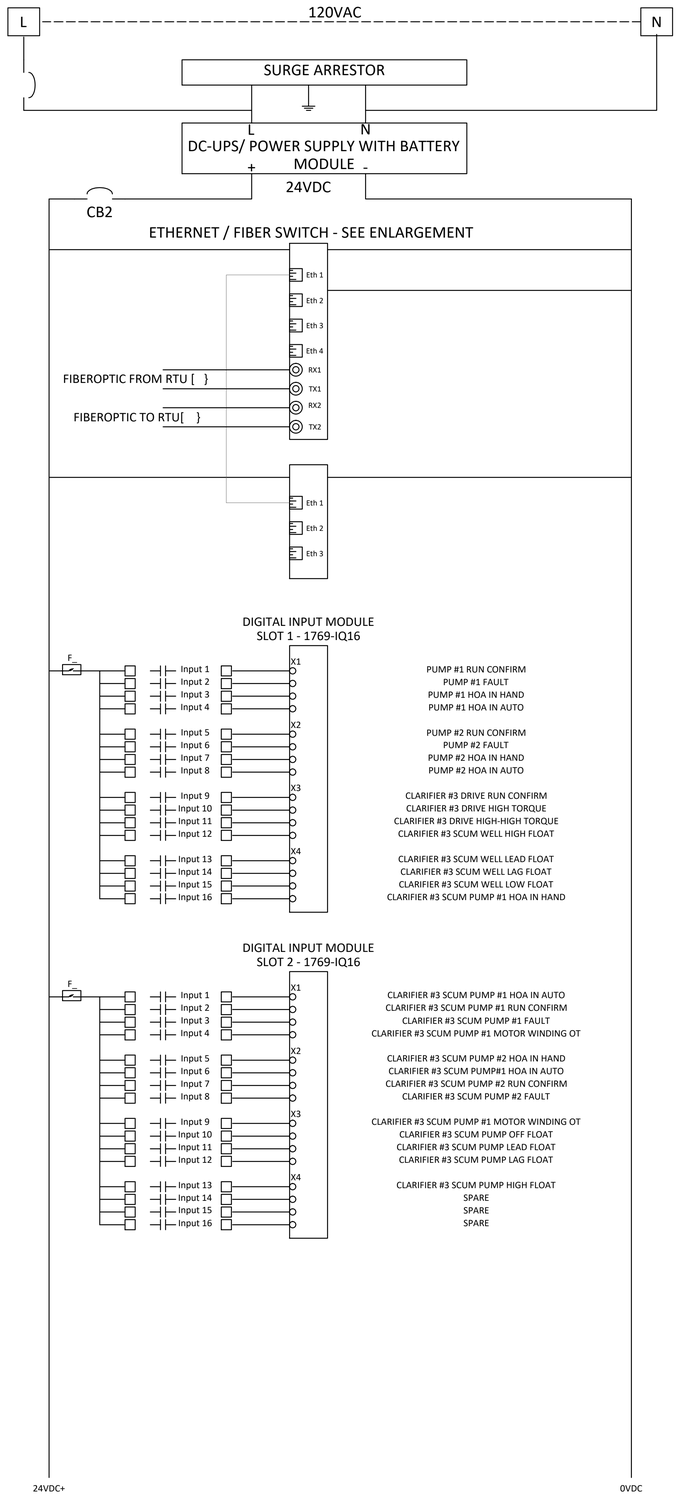
CONSULTING ENGINEERS
580-1 WELLS ROAD, ORANGE PARK, FLORIDA 32073
TEL. (904) 278-0030 FAX. (904) 278-0840
FLORIDA CA NO. 6569

CITY OF LAKE CITY SCADA
ST. MARGRET'S WWTF #3
RTU60 – CLARIFIER
Columbia County, Florida

JOB No. 8904-23-1
SHEET No. EC5.60

ISSUED FOR BID

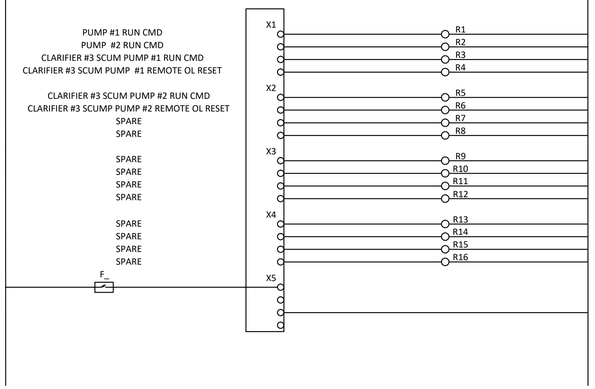
POWER FEED FROM DUPLEX PUMP PANEL



24VDC+ 0VDC

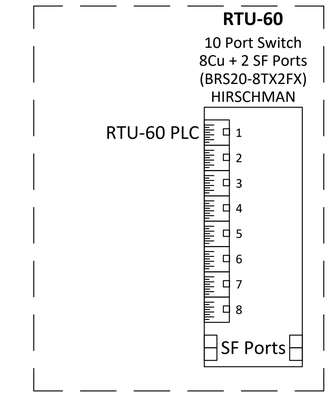
EMPTY SLOT
—
FUTURE USE

DIGITAL OUTPUT MODULE
SLOT 4 - 1769-OB16



EMPTY SLOT
—
FUTURE USE

EMPTY SLOT
—
FUTURE USE



SF PORTS ARE CONFIGURABLE – FIBER, COPPER, OR ETHERNET.

ERS JOB No: 22-006-007

ERS ENGINEERING INC
9432 Baymeadows Rd. Suite 145
Jacksonville, Florida 32256
Ph 904.777.3089
Engineering Business No. 7984
www.ersengineering.com

NO	DATE	BY	REVISION DESCRIPTION
0	9/2/22	GMP	BID ISSUE

DESG STAFF
DRWN GMP
PROJ. MGR. GMP
DATE 09/01/21
1 INCH

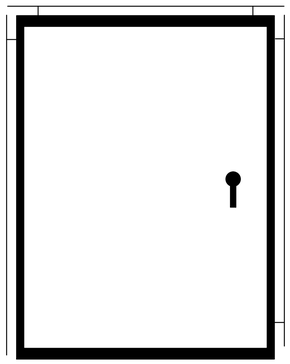
MITTAULER & ASSOCIATES, INC.
CONSULTING ENGINEERS
580-1 WELLS ROAD, ORANGE PARK, FLORIDA 32073
TEL. (904) 278-0030 FAX. (904) 278-0840
FLORIDA CA NO. 6569

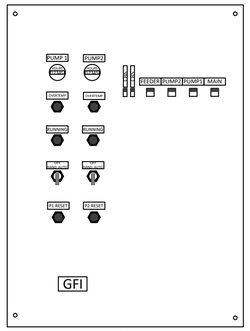
CITY OF LAKE CITY SCADA
ST. MARGRET'S WWTF #3
RTU60 – CLARIFIER #3
Columbia County, Florida

JOB No.
8904-23-1
SHEET No.
EC5.61

ISSUED FOR BID

DUPLEX PUMP PANEL





Dead Front

ENCLOSURE NOTES:

A. N4X 304SS ENCLOSURE PAINTED WHITE WITH SUNSHIELDS ON THE TOP, SIDES AND FRONT.

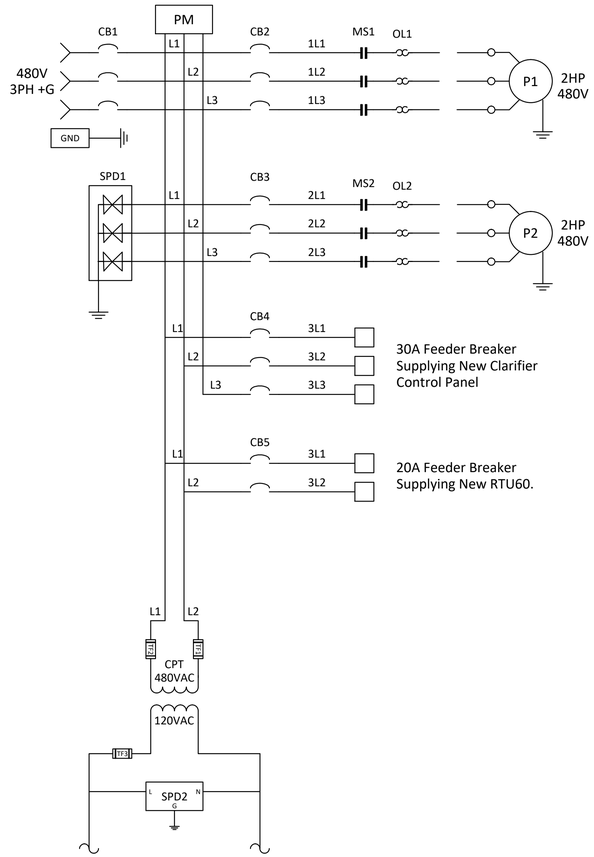
B. 36"H X 24"W X 12"D -

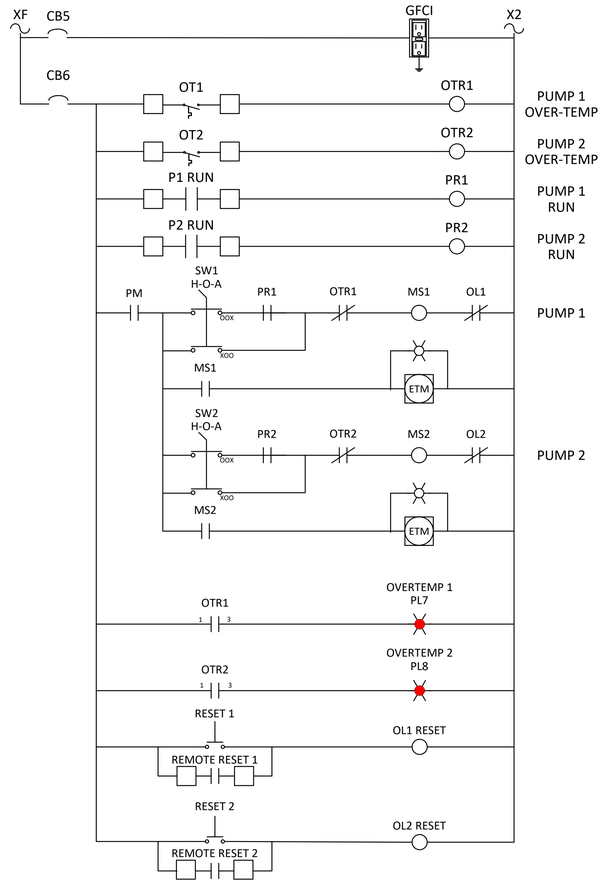
C. 3 POINT LATCH ASSEMBLY WITH HANDLE

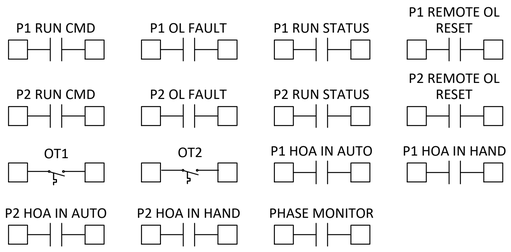
BACK PANEL LAYOUT:

A. MOUNTING PANEL WHITE POWDER COATED STEEL

B. 33"H X 22"W OR SIZED TO FIT ENCLOSURE







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NO	DATE	BY	REVISION DESCRIPTION
0	9/2/22	GMP	BID ISSUE

DESG STAFF
DRWN GMP
PROJ. MGR. GMP
DATE 09/01/21
1 INCH

MITTAULER & ASSOCIATES, INC.
CONSULTING ENGINEERS
580-1 WELLS ROAD, ORANGE PARK, FLORIDA 32073
TEL. (904) 278-0840 FAX. (904) 278-0030
FLORIDA CA NO. 6569

CITY OF LAKE CITY
ST. MARGRET'S WWTF SCADA
DUPLEX PUMP PANEL
Columbia County, Florida

JOB No.
8904-23-1
SHEET No.
EC5.70

ISSUED FOR BID

MITTAUER
& ASSOCIATES, INC.
CONSULTING ENGINEERS &
PROJECT FUNDING SPECIALISTS

35 Years
1989-2024 ENGINEERING EXCELLENCE

580-1 WELLS ROAD
ORANGE PARK, FL 32073
PHONE: (904) 278-0030
FAX: (904) 278-0840
WWW.MITTAUER.COM

February 21, 2025 VIA EMAIL

Mayor and City Council
City of Lake City
205 N. Marion Avenue
Lake City, FL 32055

RE: Engineer's Recommendation of Award
New SCADA for SMWWTF
City Bid No. ITB 005-2025
City of Lake City, Florida
Mittauer & Associates, Inc. Project No. 8904-23-1

Dear Mayor and City Council Members:

On February 7, 2025, one (1) bid was received in response to the City's Advertisement for Bids on the New SCADA for SMWWTF project. We have reviewed the bid and have found the below listed Contractor to be low bidder for this project. Attached is a copy of the bid "Evaluation Tabulation," which City personnel prepared. Contingent upon approval by the City and your attorney, as well as receipt of proper bonds and insurance certificates, we recommend that the project be awarded as follows:

CONTRACTOR: Advantage Contracting Group, Inc.
4200 County Road 218
281 SW Stewart Loop
Middleburg, Florida 32068
Tel: (904) 219-3556
Email: ryanw.acg@gmail.com

TOTAL AWARD AMOUNT: $1,150,500.00

We look forward to continuing our services on the Construction Phase of this project. As always, we remain available to answer any questions.

Sincerely yours,
Mittauer & Associates, Inc.

Timothy P. Norman, P.E.
Vice President

TPN/pj
Enclosure

City of Lake City
Procurement
Brenda Karr, Procurement Director
205 N. Marion Ave., Lake City, FL 32055

[ADVANTAGE CONTRACTING GROUP] RESPONSE DOCUMENT REPORT

ITB No. 005-2025

New SCADA for SMWWTF

RESPONSE DEADLINE: February 7, 2025 at 2:00 pm

Report Generated: Monday, February 24, 2025

Advantage Contracting Group Response

CONTACT INFORMATION

Company:
Advantage Contracting Group

Email:
ryanw.acg@gmail.com

Contact:
Ryan Worthington

Address:
4200 COUNTY ROAD 218
281 SW Stewart Loop
MIDDLEBURG, FL 32068

Phone:
(904) 219-3556

Website:
N/A

Submission Date:
Feb 7, 2025 12:39 PM (Eastern Time)

ADDENDA CONFIRMATION

No addenda issued

QUESTIONNAIRE

1. References*

As per the Terms and Conditions, please provide the company name, address, contact person, telephone number and length of time services, using the following format, of at least three (3) client/customer references.

***Note: only list those client/customers in which a similar type of equipment/product of scope of work/service was provided.**

Company Name: _____

Address:_____

Business Phone #:_____

Contact Person:_____

Email: _____

Length of time services provided:_____

REFERENCE ONE

Company/Entity Name: Echo Power LLC

Address: PO Box 2587

City, State & Zip Code: Hendersonville, TN 37077

Contact Person: James Boatright

Telephone: 904-229-5894

Email Address: James@echopowerengineering.com

Dates of Service: 11/2022 till current

Project Name: HCA FL Largo

Type of Service: Installing generators and controls

Additional Comments: Multiple sites with this company doing all kinds of control work.

REFERENCE TWO

Company/Entity Name: Integrated Environmental Technologies

Address: 4804 US Hwy 98 North

City, State & Zip Code: Lakeland, FL 33809

Contact Person: Michael Daniels

Telephone: 407-919-9061

Email Address: mdaniels@ietteam.com

Dates of Service: August 2018 – Current

Project Name: Trailridge Landfill

Type of Service: Working on panels, installing new power, building racks for new equipment.

Additional Comments: We work in many locations with this company on communication panels for landfills.

REFERENCE THREE

Company/Entity Name: JEA

Address: 5420 118th St.

City, State & Zip Code: Jacksonville, FL 32244

Contact Person: Saunders Masters

Telephone: 904-652-9046

Email Address: MASTERSS@JEA.COM

Dates of Service: January 2021 - Current

Project Name: JEA SCADA Field Services

Type of Service: Build tower, trouble shoot equipment, antenna alignment, and build sites.

Additional Comments: Install radios for wastewater treatment plants and wells.

2. Title and Organization*

Please provide your title and organization's name.

President, Advantage Contracting Group, Inc.

3. Local Office*

Please provide the city and state for your local office. If you do not have a local office, please type "N/A".

N/A

4. Principal Office*

Please provide the city and state for your Principal Office.

4200 County Road 218, Middleburg, FL 32068

5. Conflict of Interest Statement*

A. The above named entity is submitting a Bid for the City of Lake City 005-2025 described as New SCADA for SMWWTF.

B. The Affiant has made diligent inquiry and provides the information contained in the Affidavit based upon his/her own knowledge.

C. The Affiant states that only one submittal for the above proposal is being submitted and that the above named entity has no financial interest in other entities submitting proposals for the same project.

D. Neither the Affiant nor the above named entity has directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken any action in restraints of free competitive pricing in connection with the entity's submittal for the above proposal. This statement restricts the discussion of pricing data until the completion of negotiations if necessary and execution of the Contract for this project.

E. Neither the entity not its affiliates, nor anyone associated with them, is presently suspended or otherwise ineligible from participation in contract letting by any local, State, or Federal Agency.

F. Neither the entity nor its affiliates, nor anyone associated with them have any potential conflict of interest due to any other clients, contracts, or property interests for this project.

G. I certify that no member of the entity's ownership or management is presently applying for an employee position or actively seeking an elected position with the City of Lake City.

H. I certify that no member of the entity's ownership or management, or staff has a vested interest in any aspect of the City of lake City.

I. In the event that a conflict of interest is identified in the provision of services, I, on behalf of the above named entity, will immediately notify the City of Lake City.

Confirmed

6. Disputes Disclosure Form*

Please select all that pertain to your organization. To answer yes, click on the options that pertain to your organization.

None

7. Disputes Disclosure Form - Explanation*

If you answered yes for any in the previous question, state the nature of the request for equitable adjustment, contract claim, litigation, or protest, and state a brief description of the case, the outcome or status of the suit and the monetary amounts or extended contract time involved. If you selected none, please type "N/A".

N/A

8. Disputes Disclosure Form - Acknowledgement*

I hereby certify that all statements made are true and agree and understand that any misstatement or misrepresentation or falsification of facts shall be cause for forfeiture of rights for further consideration of this proposal for the City of Lake City.

Confirmed

9. Drug Free Workplace Certificate*

I, the undersigned, in accordance with Florida Statute 287.087, hereby certify that, as an authorized signatory on behalf of our organization, publishes a written statement notifying that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the workplace named above, and specifying actions that will be taken against violations of such prohibition.

- Informs employees about the dangers of drug abuse in the work place, the firm’s policy of maintaining a drug free working environment, and available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug use violations.
- Gives each employee engaged in providing commodities or contractual services that are under bid or proposal, a copy of the statement specified above.
- Notifies the employees that as a condition of working on the commodities or contractual services that are under bid or proposal, the employee will abide by the terms of the statement and will notify the employer of any conviction of, plea of guilty or nolo contender to, any violation of Chapter 1893, of any controlled substance law of the State of Florida or the United States, for a violation occurring in the work place, no later than five (5) days after such conviction, and requires employees to sign copies of such written (*) statement to acknowledge their receipt.

- Imposes a sanction on, or requires 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.
- Makes a good faith effort to continue to maintain a drug free work place through the implementation of the drug free workplace program.

"As a person authorized to sign this statement, I certify that the above named business, firm or corporation complies fully with the requirements set forth herein".

Confirmed

10. Non-Collusion Affidavit*

A. By submitting a response to this solicitation, the Bidder Acknowledges that he/she is authorized to submit the attached response on behalf of their organization for:
005-2025, New SCADA for SMWWTF;

B. He/She is fully informed respecting the preparation and contents of the attached proposal and of all pertinent circumstances respecting such proposal;

C. Such Proposal is genuine and is not a collusive or sham proposal;

D. Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees, or parties in interest, including this affiant, has in any way colluded, connived, or agreed, directly or indirectly, with any other Bidder, firm or person to submit a collusive or sham Proposal in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm, or person to fix the price or prices in the attached proposal or any other Bidder, or to fix any overhead, profit or cost element of the proposal price or the proposal price of any other Bidder, or to secure through any collusion, connivance, or unlawful agreement any advantage against the City of Lake City, Florida or any person interested in the proposed Contract; and;

E. The price or prices quoted in the attached proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

Confirmed

11. E-Verify Affirmation Statement*

005-2025-New SCADA for SMWWTF

Contractor/Proposer/Bidder acknowledges and agrees to utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of,

(a) all persons employed by Contractor/Proposer/Bidder to perform employment duties within Florida during the term of the Contract, and,

(b) all persons (including subcontractors/vendors) assigned by Contractor/Proposer/Bidder to perform work pursuant to the Contract.

The Contractor/Proposer/Bidder acknowledges and agrees that use of the U.S. Department of Homeland Security's E-Verify System during the term of the Contract is a condition of the Contract.

Confirmed

12. Bidder's Checklist*

By submitting a response to this solicitation, the bidder acknowledges that they have read, understand and agree to all requirements and that they have completed in their entirety all required documents and/or attachments as a part of their bid submission.

Confirmed

13. Clarifications and Exceptions*

Please explain in detail any deviation from the specifications. Each deviation must be itemized by number and must specifically refer to the applicable specification. Otherwise it will be considered that items offered are in strict compliance with these specifications and the successful Bidder will be held responsible for meeting the specification. If there will not be any deviation, please type "N/A".

Will be installing a 12 fiber versus 8 fiber cable.

14. Federal Identification No. (FEID)*

Please provide your FEIN number here.

38-3695714

15. Sworn Statement Under Section 287.133(3)(n), Florida Statutes on Public Entity Crimes Acknowledgments*

A. This sworn statement is submitted with 005-2025.

B. 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 with 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 of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy or material misrepresentations.

C. 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 a jury verdict, non-jury trial, or entry of a plea of guilty or nolo contendere.

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

   1. A predecessor or successor of a person convicted of a public entity crime; or

   2. an entity under the control of 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.

E. I understand that a "person" as defined in Paragraph 287.133(1)(c), Florida Statutes, means any natural person or entity organized under the laws of any state of the United States with the legal power to enter into a 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.

Confirmed

16. Please indicate which statement applies.*

Based on information and belief, the statement, which I have marked below, is true in relation to the entity submitting this sworn statement.

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

17. Required Documents

Please upload your Final Order if you selected Option 3 or Option 4 above.

Advantage_Contracting_Group_Not_Applicable.docx

18. Describe Action Taken

Please describe any action taken by, or pending with, the Department of General Services, if you selected Option 5 above.

N/A

19. Site Visit *

Please Certify that you have visited the site.

Confirmed

20. SCADA Software for WasteWater Treatment Plant Proposal Submittals*

Please upload your response document here

New_SCADA_for_SMWWTF_Breakdown_.docx

21. Human Trafficking Affadavit*

Please download the below documents, complete, and upload.

- Human_Trafficking.docx

Human_Trafficking.pdf

PRICE TABLES

Line Item	Description	Quantity	Unit of Measure	Unit Cost	Total
1	Furnish and Installation of New Scada at SMWWTF	1	Lump Sum	$1,150,500.00	$1,150,500.00
TOTAL					$1,150,500.00

Advantage Contracting Group, Inc. replies with N/A

CITY OF LAKE CITY
LAKE CITY FLORIDA
NEW SCADA FOR SMWWTF
ADVANTAGE CONTRACTING GROUP, INC.

PROJECT OVERVIEW

Advantage Contracting Group, Inc. is pleased to submit this proposal for the New SCADA for SMWWTF in Lake City, Florida. This proposal is based on the Invitation to Bid # 005-2025 and provided Bid Set Plans and Specifications. ADVANTAGE CONTRACTING is providing this proposal to serve as the Instrumentation and Control System Supplier as described in Specifications Section 16900.

SCHEDULE OF SERVICES

The following services are included in this proposal:

- ADVANTAGE CONTRACTING shall perform all system engineering and prepare all necessary internal and external wiring and piping drawings per Section 16900, 1.02, D
- ADVANTAGE CONTRACTING will provide all programming and configuration services needed per Section 16900, 1.02, F
- ADVANTAGE CONTRACTING will provide all application programming and configuration services necessary to produce the HMI graphic displays per Section 16900, 1.02, G
- ADVANTAGE CONTRACTING will coordinate the control systems for proper operation with related equipment furnished by other suppliers and with related existing equipment per Section 16900, 1.02, H
- ADVANTAGE CONTRACTING shall coordinate and schedule all testing procedures with the general contractor per Section 16900, 1.02, K
- ADVANTAGE CONTRACTING will include a minimum 1-year warranty/support including an onsite technician for any issue that cannot be corrected remotely per Section 16900, 1.02, L
- ADVANTAGE CONTRACTING will provide submittals as outlined in Section 16900, 1.03 to include:
    - Control Panel Submittals
    - System Software Submittal
    - Preliminary Graphics Submittal
    - Process Control Strategy, Graphic Screen
    - Operation and Maintenance Manuals Submittal
- ADVANTAGE CONTRACTING will furnish and configure a complete integrated SCADA system per Section 16900, 2.08 to include:
    - Complete system configuration submittal data
    - SCS system programming
    - System startup and testing
    - Witnessed testing at DSI's manufacturing facility
    - Upgrades to Clarifier 1 / 2 Scum Pumps and MCC buckets
    - Upgrades to 2 WAS Pumps MCC buckets
    - Upgrades to existing RAS control panels
    - Upgrade to Influent Pump controls
    - Upgrade to Effluent Pumps 1 and 2

    - Communications link from Eaton Transfer Switch controller to SCADA
- ADVANTAGE CONTRACTING shall provide SCADA System Initialization per Section 16900, 3.01, B
- ADVANTAGE CONTRACTING shall provide Field Calibration and Training per Section 16900, 3.06

SCHEDULE OF MATERIALS

The following materials are included in this proposal:

- Control Panels:
    - RTU 10 Control Panel
    - RTU 20 Control Panel
    - RTU 30 Control Panel
    - RTU 40 Control Panel
    - RTU 60 Control Panel
    - Clarifier 3 Scum Pump Panel
    - Hypochlorite Metering Pump Panel

- Instruments:
    - Tank Level Sensor for Effluent Pump Station
    - High Level Float Switch for Inlet Structure in the Influent PS Building

- SCADA Server Rack and User Workstations:
    - Ignition Software Package 8.1
    - SCADA Server Rack
    - UPS
    - Additional Batteries
    - Power Distribution Unit
    - SCADA Primary Server
    - SCADA Backup Server
    - Network Switch
    - Patch Panel
    - KVM Switch
    - Blank Cover (3U)
    - User Workstations (qty. 2)
    - Breakroom Display and PC

- Spare Parts:
    - Pilot Light Modules (qty. 12)
    - Fuses (qty. 12 of each type and size)
    - PLC CPU (qty. 1)
    - PLC Power Supply (qty. 1)
    - Digital Input Module (qty. 1)
    - Digital Output Module (qty. 1)
    - Analog Input Module (qty. 1)
    - Analog Output Module (qty. 1)

- Other Miscellaneous Materials Provided:
    - Ethernet Switch for existing RTU 50 Control Panel
    - One (1) complete copy of Studio 5000 Full Edition Software licensed to the Owner
    - Components for upgrades to MCC buckets and existing control panels to include:
        - Motor Starters (qty. 4)
        - Reset Pushbuttons (qty. 4)
        - HOA Selector Switches (qty. 11)
        - Control Relays (qty. 7)
        - Terminal Blocks (as required)
    - Alarm Horn and Strobe for Influent and Effluent Buildings (qty. 2 each)

HUMAN TRAFFICKING AFFIDAVIT

1. I am over the age of 18 and I have personal knowledge of the matters set forth except as otherwise set forth herein.

2. I currently serve as President (Role) of Advantage Contracting Group, Inc. (Company).

3. Advantage Contracting Group, Inc. (Company) does not use coercion for labor or services, as those terms are defined in Florida Statute 787.06.

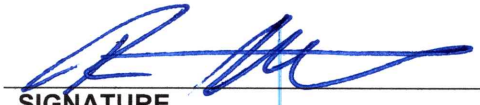
4. This declaration is made pursuant to Florida Statute 92.525. I understand that making a false statement in this declaration may subject me to criminal penalties.

Under penalties of perjury, I Ryan Worthington / President (Signatory Name and Title), declare that I have read the foregoing Human Trafficking Affidavit and that the facts stated in it are true.

Further Affiant sayeth naught.

COMPANY

Advantage Contracting Group, Inc.
NAME OF BUSINESS ENTITY


SIGNATURE

Ryan Worthington / President
TYPE NAME AND TITLE

City of Lake City
Procurement
Brenda Karr, Procurement Director
205 N. Marion Ave., Lake City, FL 32055

EVALUATION TABULATION

ITB No. 005-2025

New SCADA for SMWWTF

RESPONSE DEADLINE: February 7, 2025 at 2:00 pm

Report Generated: Friday, February 7, 2025

SELECTED VENDOR TOTALS

Vendor	Total
Advantage Contracting Group	$1,150,500.00

TABLE 1

					Advantage Contracting Group	
Selected	Line Item	Description	Quantity	Unit of Measure	Unit Cost	Total
X	1	Furnish and Installation of New Scada at SMWWTF	1	Lump Sum	$1,150,500.00	$1,150,500.00
Total						$1,150,500.00

SECTION 00520

AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)

This Agreement is by and between City of Lake City, Florida ("Owner") and Advantage Contracting Group, Inc. ("Contractor").

Terms used in this Agreement have the meanings stated in the General Conditions and the Supplementary Conditions.

Owner and Contractor hereby agree as follows:

ARTICLE 1—WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: Providing all labor, equipment, and materials necessary to furnish and install a Supervisory Control and Data Acquisition System (SCADA) at the City of Lake City's St. Margarets Wastewater Treatment Facility located at 527 SW St. Margarets Street, Lake City, Florida 32025. The SCADA system shall be a complete integrated system, furnished and configured by the SCADA System Contractor/Supplier, who shall be responsible for the satisfactory operation of the entire system. The SCADA system shall consist of programmable logic controllers, operator interface panels, RTUs, and fiber optic communication network. Process units to be monitored/controlled shall include screening and grit removal facilities, aeration facilities, clarifiers and scum pumps, RAS/WAS pumps, chemical feed facilities, chlorine contact chamber, effluent pump station, and digesters. SCADA system shall monitor flow, equipment status, and alarms.

ARTICLE 2—THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: New SCADA for SMWWTF, City Bid No. ITB 005-2025.

ARTICLE 3—ENGINEER

3.01 The Owner has retained Mittauer & Associates, Inc. ("Engineer") to act as Owner's representative, assume all duties and responsibilities of Engineer, and have the rights and authority assigned to Engineer in the Contract.

3.02 The Project has been designed by Mittauer & Associates, Inc., 580-1 Wells Road, Orange Park, Florida 32073.

ARTICLE 4—CONTRACT TIMES

4.01 *Time is of the Essence*

A. All time limits for Substantial Completion and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Days*

A. The Work will be substantially complete within 330 days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 365 days after the date when the Contract Times commence to run.

4.03 *Liquidated Damages*

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the Contract Times, as duly modified. The parties also recognize the delays, expense, and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. *Substantial Completion:* Contractor shall pay Owner $500 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for Substantial Completion, until the Work is substantially complete.

2. *Completion of Remaining Work:* After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner $200 for each day that expires after such time until the Work is completed and ready for final payment.

3. Liquidated damages for failing to timely attain Substantial Completion and Final Completion are additive and will be imposed concurrently.

B. If Owner recovers liquidated damages for a delay in completion by Contractor, then such liquidated damages are Owner's sole and exclusive remedy for such delay, and Owner is precluded from recovering any other damages, whether actual, direct, excess, or consequential, for such delay, except for special damages (if any) specified in this Agreement.

4.04 *Special Damages - Not Applicable*

ARTICLE 5—CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents, the amounts that follow, subject to adjustment under the Contract:

A. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6—PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

A. Owner shall make progress payments on the basis of Contractor's Applications for Payment within 25 days for each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments

   previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract.

   a. 95 percent of the value of the Work completed (with the balance being retainage).

   b. 95 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

   c. If 50 percent or more of the Work has been completed, as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage.

B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 95 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

A. Upon final completion and acceptance of the Work, Owner shall pay the remainder of the Contract Price in accordance with Paragraph 15.06 of the General Conditions.

6.04 *Consent of Surety*

A. Owner will not make final payment, or return or release retainage at Substantial Completion or any other time, unless Contractor submits written consent of the surety to such payment, return, or release.

6.05 *Interest*

A. All amounts not paid when due will bear interest at the rate of one percent per month.

ARTICLE 7—CONTRACT DOCUMENTS

7.01 *Contents*

A. The Contract Documents consist of all of the following:

1. This Agreement.
2. Bonds:
    a. Performance bond (together with power of attorney) (Section 00610).
    b. Payment bond (together with power of attorney) (Section 00615).
3. General Conditions (Section 00700).
4. Supplementary Conditions (Section 00800).
5. Specifications as listed in the table of contents of the project manual.
6. Drawings (not attached but incorporated by reference), each sheet bearing the following general title: New SCADA for SMWWTF.
7. Addenda (numbers -- to --, inclusive).
8. Exhibits to this Agreement (enumerated as follows):
    a. Contractor's Bid (Section 00410)
    b. E-Verify and Public Records requirements (attached hereto)
9. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
    a. Notice to Proceed.
    b. Work Change Directives.
    c. Change Orders.
    d. Field Orders.
    e. Warranty Bond, if any.

B. The Contract Documents listed in Paragraph 7.01.A are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 7.

D. The Contract Documents may only be amended, modified, or supplemented as provided in the Contract.

ARTICLE 8—REPRESENTATIONS, CERTIFICATIONS, AND STIPULATIONS

8.01 *Contractor's Representations*

A. In order to induce Owner to enter into this Contract, Contractor makes the following representations:

1. Contractor has examined and carefully studied the Contract Documents, including Addenda.

2. Contractor has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

3. Contractor is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.

4. Contractor has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.

5. Contractor has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.

6. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (c) Contractor's safety precautions and programs.

7. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

8. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

9. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

10. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

11. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

8.02 *Contractor's Certifications*

A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 8.02:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

8.03 *Standard General Conditions*

A. Owner stipulates that if the General Conditions that are made a part of this Contract are EJCDC® C-700, Standard General Conditions for the Construction Contract (2018), published by the Engineers Joint Contract Documents Committee, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.

[Remainder of page intentionally blank]

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on March 6, 2025 (which is the Effective Date of the Contract).

Owner:		Contractor:
City of Lake City, Florida		Advantage Contracting Group, Inc.
(typed or printed name of organization)		*(typed or printed name of organization)*
By: _____		By: _____
(individual's signature)		*(individual's signature)*
Date: _____		Date: _____
(date signed)		*(date signed)*
Name: Noah Walker		Name: Ryan D. Worthington
(typed or printed)		*(typed or printed)*
Title: Mayor		Title: President
(typed or printed)		*(typed or printed)*
		(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)
Attest: _____	City Seal	Attest: _____
(individual's signature)		*(individual's signature)*
Title: Audrey Sikes, City Clerk		Title: _____
(typed or printed)		*(typed or printed)*

Approved as to form and legality:

By: _____

Clay Martin (Folds Walker)
City Attorney

Signed, sealed, and delivered in the
Presence of:

_____
Witness

_____
(Print/Type Name)

_____
Witness

_____
(Print/Type Name)

Address for giving notices:

City of Lake City

205 N. Marion Avenue

Lake City, Florida 32055

Designated Representative:

Name: Cody Pridgeon
(typed or printed)

Title: Director of Wastewater Treatment
(typed or printed)

Address:

City of Lake City

527 SW Saint Margarets Street

Lake City, Florida 32025

Phone: (386) 758-5455

Email: pridgeonc@lcfla.com

*(If **[Type of Entity]** is a corporation, attach evidence of authority to sign. If **[Type of Entity]** is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)*

Address for giving notices:

Advantage Contracting Group, Inc.

4200 County Road 218 (281 SW Stewart Loop)

Middleburg, Florida 32068

Designated Representative:

Name:
(typed or printed)

Title: Ryan D. Worthington, President
(typed or printed)

Address:

Advantage Contracting Group, Inc.

4200 County Road 218 (281 SW Stewart Loop)

Middleburg, Florida 32068

Phone: (904) 219-3556

Email: Ryanw.acg@gmail.com

License No.: CGC1520250/EC13005591
(where applicable)

State: Florida

END OF SECTION

E-VERIFY. Contractor is obligated to comply with the provisions of Section 448.095, Fla. Stat., "Employment Eligibility." This includes but is not limited to utilization of the E-Verify System to verify the work authorization status of all newly hired employees, and requiring all subcontractors to provide an affidavit attesting that the subcontractor does not employ, contract with, or subcontract with, an unauthorized alien.

Failure of Contractor to comply will lead to termination of this Agreement, or if a subcontractor knowingly violates the statute, Contractor must immediately terminate their subcontract with the subcontractor. Any challenge to termination under this provision must be filed in the Circuit Court no later than TWENTY (20) calendar days after the date of termination. If this contract is terminated for a violation of the statute by Contractor may not be awarded a public contract for a period of ONE (1) year after the date of termination.

PUBLIC RECORDS. Contractor shall comply with all public records laws.

IF CONTRACTOR, HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO CONTRACTORS DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

City Clerk, City of Lake City
205 North Marion Avenue
Lake City, Florida 32055
386-719-5826 or 386-719-5756

A. Contractor shall comply with public records laws, specifically Contractor shall:

(1) Keep and maintain public records required by the City to perform the services.

(2) Upon request from the City's custodian of public records, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this Chapter 119 of Florida Statutes or as otherwise provided by law.

(3) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if Contractor does not transfer the records to the City.

(4) If Contractor considers any portion of any documents, data, or records submitted to the City to be confidential, proprietary, trade secret, or otherwise not subject to disclosure pursuant to Chapter 119, Florida Statutes, the Florida Constitution, or other law, Contractor must simultaneously provide the City with a separate redacted copy of the information it claims as confidential and briefly describe in writing the grounds for claiming exemption from the public records law, including the specific statutory citation

for such exemption. This redacted copy shall contain the Contract name and number, and it shall be clearly titled "Confidential." The redacted copy should only redact those portions of material that Contractor claim are confidential, proprietary, trade secret, or otherwise not subject to disclosure.

(5) Upon completion of the contract, transfer, at no cost, to the City all public records in possession of Contractor or keep and maintain public records required by the City to perform the service. If Contractor transfers all public records to the City upon completion of the contract, Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If Contractor keeps and maintains public records upon completion of the contract, Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City's custodian of public records, in a format that is compatible with the information technology systems of the City.

(6) Failure of Contractor to provide the above described public records to the City within a reasonable time may subject Contractor to penalties under 119.10, Florida Statutes, as amended.