Solicitation

for Participation in

Deerwood Aquifer Recharge Pilot Test

for



Jacksonville, FL

Request for Quote (RFQ) Number 95874

Mandatory Pre-Bid Meeting in Person on November 15, at 9:00 AM EST

Pre-Bid location: JEA Bid Office, Customer Center 1st Floor, Room 002

21 W. Church Street, Jacksonville, FL 32202

Optional Pre-Bid Site Visit

In Person on

November 15, 2018, at 10:30 AM EST

 $\label{eq:continuity} \textbf{Pre-Bid location: Deerwood III Water Treatment Plant (WTP) Wellfield}$

7587 Southside Blvd.

Jacksonville, FL 32256

Quotes are due on November 27, 2018 by 12:00 PM EST

E-Mail quotes to David King: kinggd@jea.com
JEA Procurement Services

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Solicitation

1. INVITATION

1.1. SCOPE OF WORK

This project includes removing an existing submersible pump, furnishing and installing a new one in a monitoring well and connecting it to a new 8" PVC line with a flowmeter, pressure gauges, ARV's and isolation valves, as well as furnishing a generator and fuel to operate the well pump. Once the testing is complete, there is also the requirement to disassemble parts of the well and piping. The life of this project is approximately 18 months.

Further information can be found in Appendix A - Technical Specifications.

1.2. QUESTIONS (RFQ)

All questions shall be submitted in writing to the JEA Buyer listed below at least three (3) business days prior to the Bid opening date. Questions not received three (3) days prior to the Bid opening date will not be answered.

For Procurement Related Questions:

Buyer: David King Email: <u>kinggd@jea.com</u>

For Technical Related Questions:

Contact: Andrew May Email: mayar@jea.com

1.3. INVITATION (RFQ)

You are invited to submit a Bid in response to the Request for Quote (RFQ) noted below:

JEA RFQ Title: Deerwood Aquifer Recharge Pilot Test

JEA RFQ Number: 95874

To obtain more information about this RFQ, download a copy of the RFQ, PDF quality drawings (if applicable) and any required forms at jea.com.

Bid Due Date: November 15, 2018 Bid Due Time: 12:00 PM EST

All bids shall be submitted on the appropriate Bid forms that are included in this RFQ and are also available at jea.com. All bids submitted electronically shall reference the RFQ Title in the subject line of the email.

Please submit the Bid Form and other related documentation to:

Buyer Name: David King Buyer Email: kinggd@jea.com

The Bidder shall be solely responsible for delivery of its bid to the JEA Buyer.

SPECIAL INSTRUCTIONS

1.4. MINIMUM QUALIFICATIONS - RFQ

Bidder shall have the following Minimum Qualifications to be considered eligible to submit a Bid in response to this Request for Quote. **JEA reserves the right to ask for additional back up documentation or additional reference projects to confirm the Bidder meets the requirements stated below.** Please use the Minimum Qualifications Form in Appendix B to show the requirements below.

• Bidder must be an approved bidder on the SW8 Well Drilling RBL list as of the RFQ due date.

Please note, any Bidder whose contract with JEA was terminated for default within the last two (2) years shall not be determined to be a responsible Bidder and their Bid will be rejected.

1.5. PRE-BID MEETING – IN PERSON

There will be a Mandatory Pre-Bid meeting. All interested Bidders may attend the Pre-Bid meeting. JEA expects the Bidders to be on time to the Pre-Bid meeting and Bidders must be present at the starting time of the meeting.

Pre-Bid Meeting: 09:00 AM

Pre-Bid Meeting Date: November 15, 2018

Pre-Bid Location: JEA Bid Office, 21 West Church Street, Jacksonville, FL 32202

1.6. PRE-BID SITE MEETING – IN PERSON

There will be an Optional Pre-Bid site meeting. All interested Bidders may attend the Pre-Bid meeting. JEA expects the Bidders to be on time to the Pre-Bid meeting and Bidders must be present at the starting time of the meeting.

Pre-Bid Meeting: 10:30 AM

Pre-Bid Meeting Date: November 15, 2018

Pre-Bid Location: Deerwood III Water Treatment Plant (WTP) Wellfield 7587 Southside Blvd., Jacksonville, FL

32256

1.7. COMPETITIVE BIDDING-REQUEST FOR QUOTE

The Bidder shall submit its Bid in response to this Solicitation no later than the Bid due date and time indicated herein. JEA will subsequently review Bids to determine if they meet the minimum qualifications as stated in this Solicitation. JEA will Award the Contract to the lowest responsive and responsible Bidder whose Bid meets or exceeds the minimum qualifications, and whose Bid Price represents the lowest cost to JEA.

NO EXCEPTIONS ARE ALLOWED IN A REQUEST FOR QUOTE. IF THE BIDDER OBJECTS IN ANY MANNER TO THE TERMS AND CONDITIONS OR TECHNICAL SPECIFICATIONS, THE OBJECTION MUST BE ADDRESSED IN WRITING FIVE (5) BUSINESS DAYS PRIOR TO THE BID OPENING DATE, AND THE OBJECTION MAY BE ADDRESSED IN AN ADDENDUM IF JEA BELIEVES THAT A CLARIFICATION OR CHANGE IS NECESSARY. ANY MODIFICATIONS, EXCEPTIONS OR OBJECTIONS STATED WITHIN THE BID DOCUMENTS SHALL SUBJECT THE BID TO BE REJECTED.

1.8. NUMBER OF CONTRACTS TO BE AWARDED

JEA intends to award one (1) Contract for the Work. JEA reserves the right to award more than one Contract based on certain groupings of the Work items, or JEA may exclude certain Work items, if JEA determines that it is in its best interest to do so.

1.9. REQUIRED FORMS TO SUBMIT WITH BID - REQUEST FOR QUOTE

To submit a Bid in response to this RFQ, all of the forms listed below must be completed and submitted as part of the Bid. The Bidder must obtain the required forms, other than the Bid Form, Bid Workbook, and the Minimum Qualification Form which is attached, by downloading them from JEA.com. If the Bidder fails to complete or fails to submit one or more of the required forms, the Bid may be rejected.

The following forms are required to be submitted at the time of Bid:

- o Bid Form (including acknowledgement of all addenda) This form can be found in Appendix B
- o List of JSEB Certified Firms (if applicable)
- o Subcontractor Form (if applicable).

If the above listed forms are not submitted with the Bid by the Bid Due Time on the Bid Due Date, JEA may reject the Bid.

JEA also requires the following documents to be submitted prior to issuance of a JEA Purchase Order or Blanket Purchase Agreement. A Bid will not be rejected if these forms are not submitted at the Bid Due Time and Date. However, failure to submit these documents prior to awarding work could result in Bid rejection.

- Conflict of Interest Certificate Form
- o Insurance Certificate
- o W-9
- Evidence of active registration with the State of Florida Division of Corporations (www.sunbiz.org)
- o Any technical submittals as required by the Technical Specifications.

1.10. OPTIONAL USE OF JACKSONVILLE SMALL AND EMERGING BUSINESS PROGRAM

It is at the Bidder's option as to whether it chooses to subcontract to a JSEB firm. JEA encourages the use of JSEB firms; however, the Bidder is not required to utilize a JSEB to be awarded this Contract.

For more information regarding the JSEB program, please contact Rita Scott, JEA, JSEB Manager, scottl@jea.com.

1.11. LIQUIDATED DAMAGES

The Contract issued pursuant to this Solicitation contains liquidated damages tied to project completion deadlines. The Bidder should review the specific time frames and liquidated damage amounts prior to submitting its Bid.

1.11.1. INSURANCE REQUIREMETNS

Prior to JEA issuing a Purchase Order to the Bidder to begin the Work or Services, the Bidder shall submit a certificate of insurance (COI) that is in compliance with amounts and requirements as indicated in the Section herein entitled "Insurance Requirements". Note that the COI shall specifically indicate JEA, if applicable) as additional insured(s) on all required insurance except Worker's Compensation and Professional Liability (if applicable). Furthermore, waiver of subrogation shall be provided for all required insurance in favor of JEA (if applicable), including their board members, officers, employees, agents, successors, and assigns.

1.11.2. BID SECURITY/BID BOND

All Bids shall be accompanied by a bid security in the amount stated on the Bid Form. The bid security must be furnished by the Bidder at or before the opening of Bids. The bid security shall either be issued by a surety company authorized to do business in the State of Florida, or Bidder shall furnish a certified check or cashier's check in the amount of five percent 5% of the total Bid Amount shown on the Bid Form. The JEA Bid Bond form can be found at jea.com. Failure to furnish the required bid security will disqualify the Bid. If the Bidder is awarded the Work and fails to execute the Contract within ten (10) days of postmarked date on the Contract Documents, JEA shall retain the Bid Bond or check as liquidated damages.

1.11.3. PAYMENT AND PERFORMANCE BOND REQUIREMENTS

Once the Bidder is awarded the Contract and upon receipt of the Contract Documents, the Bidder shall furnish a Payment and Performance Bond, or alternate form of security, in the amount indicated on the Bid Form, made out to JEA in forms and formats approved and provided by JEA, as security for the faithful performance of the Work or Services. No modifications to the JEA bond forms are allowed.

A fully executed Payment and Performance Bond must be recorded with the Clerk of Duval County Court and delivered to JEA before the JEA Purchase Order will be issued. JEA will send the approved bond forms to the Bidder for execution along with the Contract; however, in no case shall the date on the bond forms be prior to that of the executed Contract. The surety must be authorized and licensed to transact business in Florida. **Note, that the Bidder is responsible for the costs associated with the required Payment and Performance Bonds; therefore,**

the costs should be included in the Bidder's total Bid Price. If the Bidder fails or refuses to furnish or record the required bonds, JEA will retain the Bidder's bid bond as liquidated damages.

To be acceptable to JEA as surety for Performance and Payment Bonds, a surety company shall comply with the following provisions:

- o The Surety Company shall have a currently valid Certificate of Authority, issued by the State of Florida, Department of Insurance, authorizing it to write surety bonds in the State of Florida.
- The Surety Company shall have a currently valid Certificate of Authority issued by the United States Department of Treasury under Sections 9304 to 9308 of Title 31 of the United States Codes.
- o The Surety Company shall be in full compliance with the provisions of the Florida Insurance Code.
- o The Surety Company shall have at least twice the minimum surplus and capital required by the Florida Insurance Code during the life of this agreement.
- o If the Contract Award Amount exceeds \$500,000, the Surety Company shall also comply with the following provisions:

The Surety Company shall have at least the following minimum ratings in the latest issue of AM Best's Key Rating Guide.

POLICY HOLDER'S CONTRACT AMOUNT AND REQUIRED FINANCIAL RATING

\$500,000 TO 1,000,000: A-CLASS IV \$1,000,000 TO 2,500,000: A-CLASS V \$2,500,000 TO 5,000,000: A-CLASS VI \$5,000,000 TO 10,000,000: A-CLASS VII \$10,000,000 TO 25,000,000: A- CLASS VIII \$25,000,000 TO 50,000,000: A- CLASS IX \$50,000,000 TO 75,000,000: A- CLASS X

The Surety Company shall not expose itself to any loss on any one (1) risk in an amount exceeding ten percent (10%) of its surplus to policyholders, provided:

Any risk or portion of any risk being reinsured shall be deducted in determining the limitation of the risk as prescribed in this section. These minimum requirements shall apply to the reinsuring carrier providing authorization or approval by the State of Florida, Department of Insurance, to conduct business in this state has been met.

In the case of the surety insurance company, in addition to the deduction for reinsurance, the amount assumed by any co-surety, the value of any security deposited, pledged or held subject to the consent of the surety and for the protection of the surety shall be deducted.

1.12. SAFETY QUALIFICATION REQUIREMENTS

Bidder shall be approved as JEA Safety Qualified within ten (10) business days of receiving written notice from the JEA Bid Office that it is the lowest responsive and responsible Bidder. If the Bidder fails to obtain JEA approval as a JEA Safety Qualified company by 4:00 PM Eastern Time on the 10th business day, JEA may reject the company's Bid, and proceed to Award to the next lowest responsive and responsible Bidder.

JEA Safety Qualification information is available online at jea.com. Please note that it may take up to five (5) business days for a company to be approved as JEA Safety Qualified. It is the Bidder's responsibility to ensure it is JEA Safety Qualified. A list of the JEA's Safety Qualified vendors can be found on jea.com. For additional information, contact Jerry Fulop at (904) 665-5810.

1.13. TIME

In computing any period of time prescribed or allowed by this solicitation, the day of the act, event, or default from which the designated period of time begins to run shall not be included. The last day of the period so computed shall be included unless it is a Saturday, Sunday, or JEA holiday, in which event the period shall run until the end of the next day which is neither a Saturday, Sunday, or JEA holiday.

1.13.1. PROTEST OF BIDDING AND AWARD PROCESS

Companies shall file any protests regarding this Solicitation in writing, in accordance with the JEA Procurement Code, as amended from time to time. The JEA Procurement Code is available online at jea.com.

1.14. SUNSHINE LAW

General.

Article I, Section 24, Florida Constitution, guarantees every person access to all public records and Chapter 119, Florida Statutes, provide a broad definition of public records. JEA is a body politic and corporate and subject to these laws and related statutes ("Florida's Public Records Laws"). All bids or purchase orders issued pursuant to this Solicitation are public records and available for public inspection unless specifically exempt by law.

IF A BIDDER/PROPOSER 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:

JEA

Attn: Public Records 21 West Church Street Jacksonville, Florida 32202 Ph: 904-665-8606 publicrecords@jea.com

Redacted Submissions.

If a Bidder/Proposer believes that any portion of the documents, data or records submitted in response to this Solicitation are exempt from Florida's Public Records Law, Bidder/Proposer must (1) clearly segregate and mark the specific sections of the document, data or records as "Confidential," (2) cite the specific Florida Statute or other legal authority for the asserted exemption, and (3) provide JEA with a separate redacted copy of its response (the "Redacted Copy"). The cover of the Redacted Copy shall contain JEA's title and number for this Solicitation and Bidder's name, and shall be clearly titled "Redacted Copy." Bidder/Proposer should only redact those portions of records that Bidder/Proposer claims are specifically exempt from disclosure under Florida's Public Records Laws. If Bidder/Proposer fails to submit a redacted copy of information it claims is confidential, JEA is authorized to produce all documents, data and other records submitted to JEA in answer to a public records request for such information.

In the event of a request for public records to which documents that are marked as confidential are responsive, JEA will provide the Redacted Copy to the requestor. If a requestor asserts a right to any redacted information, JEA will notify Bidder/Proposer that such an assertion has been made. It is Bidder's/Proposer's responsibility to respond to the requestor to assert that the information in question is exempt from disclosure under applicable law. If JEA becomes subject to a demand for discovery or disclosure of Bidder's/Proposer's redacted information under legal process, JEA shall give Bidder/Proposer prompt notice of the demand prior to releasing the information (unless otherwise prohibited by applicable law.) Bidder/Proposer shall be responsible for defending its determination that the redacted portions of its response are not subject to disclosure.

By submitting a response to this Solicitation, Bidder/Proposer agrees to protect, defend and indemnify JEA from and against all claims, demands, actions, suits, damages, liabilities, losses, settlements, costs and expenses (including but not limited to reasonable attorney fees and costs) arising from or relating to Bidder's/Proposer's determination that the redacted portions of its response to this Solicitation are not subject to disclosure.

2. GENERAL INSTRUCTIONS

2.1. ADDENDA (REQUEST FOR QUOTE)

JEA may issue Addenda prior to the Bid Due date to revise, in whole or in part, or clarify the intent or requirements of the RFQ. The Bidder shall be responsible for ensuring it has received all Addenda prior to submitting its Bid and shall acknowledge receipt of all Addenda by indicating where requested on the Bid Form. JEA will post Addenda online at jea.com. Bidder will receive and email from the Buyer with any Addenda or Bidder may obtain Addenda from the JEA website.

All Addenda will become part of the RFQ and any resulting Contract Documents. It is the responsibility of each Company to ensure it has received and incorporated all Addenda into its Bid. Failure to acknowledge receipt of Addenda may be grounds for rejection of a bid.

2.2. UNABLE TO SUBMIT A BID FORM (RFQ)

If you elect not to submit a Bid in response to this RFQ, please complete the Unable to Submit Bid Form, available for download at jea.com. Please email the completed Unable to Submit Bid Form to the JEA Buyer indicated in this RFQ. Do not return the entire RFQ package, simply return the Unable to Submit Bid Form.

2.3. ETHICS

By signing the Bid Document, the Bidder certifies this Bid is made without any previous understanding, agreement or connection with any other person, firm, or corporation submitting a Bid for the same Work other than as a Subcontractor or supplier, and that this Bid is made without outside control, collusion, fraud, or other illegal or unethical actions. The Bidder shall comply with all JEA and City of Jacksonville ordinances, policies and procedures regarding business ethics.

The Bidder shall submit only one Bid in response to this Solicitation. If JEA has reasonable cause to believe the Bidder has submitted more than one Bid for the same Work, other than as a Subcontractor or subsupplier, JEA shall disqualify the Bid and may pursue debarment actions.

The Bidder shall disclose the name(s) of any public officials who have any financial position, directly or indirectly, with this Bid by completing and submitting the Conflict of Interest Certificate Form found at jea.com. If JEA has reason to believe that collusion exists among the Bidders, JEA shall reject any and all Bids from the suspected Bidders and will proceed to debar Bidder from future JEA Awards in accordance with the JEA Procurement Code.

JEA is prohibited by its Charter from awarding contracts to JEA officers or employees, or in which a JEA officer or employee has a financial interest. JEA shall reject any and all Bids from JEA officers or employees, as well as, any and all Bids in which a JEA officer or employee has a financial interest.

In accordance with Florida Statutes Sec. 287.133, JEA shall reject Bids from any persons or affiliates convicted of a public entity crime as listed on the Convicted Vendor list maintained by the Florida Department of Management Services. JEA shall not make an Award to any officer, director, executive, partner, shareholder, employee, member, or agent active in management of the Bidder listed on the Convicted Vendor list for any transaction exceeding \$35,000 for a period of 36 months from the date of being placed on the Convicted Vendor list.

If the Bidder violates any requirement of this clause, the Bid may be rejected and JEA may debar offending companies and persons.

2.4. SUBCONTRACTORS

JEA shall specify the major Subcontractors that the Company must list is the Company intends to use a Subcontractor to perform a portion of the Work, unless the Work will be self-performed by the Company. The Subcontractors that JEA requires to be listed is stated in the Section titled "Required Forms to Be Submitted with the Bid". The major Subcontractors shall be listed on the Subcontractors Form which is available at jea.com. Failure of the Company to submit the required Subcontractor information on the form with its Bid shall result in rejection of the Company's Bid.

The Company shall not use Subcontractors and subsuppliers/shop fabricators other than those shown on the Subcontractor Form unless it shows good cause and obtains the JEA Representative's prior written consent.

If the Company plans to use Subcontractors or subsupplier/shop fabricators to perform over 50% of the Work, the Company shall obtain JEA's approval at least five (5) days prior to the Bid/Proposal Due Date. Failure to obtain JEA approval will disqualify the Company and result in rejection of Company's Bid/Proposal

2.5. EX PARTE COMMUNICATION-RFQ

Ex Parte Communication is defined as any inappropriate communication concerning a RFQ or IFB between a company submitting a Bid or Proposal and a JEA representative during the time in which the RFQ or IFB is being advertised through the time of Award. Examples of inappropriate communications include: private communications concerning the details of RFQ or IFB in which a company becomes privy to information not available to the other Bidders. Social contact between companies and JEA Representatives should be kept to an absolute minimum during the RFQ and IFB process.

Ex Parte Communication is strictly prohibited. Failure to adhere to this policy will disqualify the noncompliant company's Response. Any questions or clarifications concerning a RFQ or IFB must be sent in writing via email to the JEA Buyer at least five (5) business days prior to the opening date. If determined by JEA, that a question should be answered or an issue clarified, JEA will issue an addendum to all companies.

2.6. START OF WORK

If Bidder fails to act on a JEA issued Blanket Purchase Agreement, Purchase Order or Contract, JEA may cancel the Award with no further liability to the Company, retain the bid security or bond (if applicable), and Award to the next-ranked Company.

2.7. PRE-WORK MEETING AND PROGRESS MEETINGS

Before starting the Field Work, a Pre-Work or Pre-Construction meeting may be held to review procedures for the Work, review the Work schedule, establish procedures for invoicing, approving Invoices and making payments, and establish a working relationship between JEA and the Company.

The JEA Contract Administrator may, at his or her discretion, request Pre-Work Meetings to be held prior to start of any Field Work. Such meeting(s) shall be attended by, but not limited to, the Company Representative and Company Supervisor. The JEA Contract Administrator will notify the Company in writing of the meeting time and location at least two (2) days prior to the meeting date. In addition, construction progress meetings will be held at a frequency as determined by JEA. Such meeting(s) shall be attended by, but not limited to, the Company's Representative and Company's Supervisor.

2.8. REPORTING

The Company shall provide all reports as defined in the Contract Documents.

Where the reporting frequency is daily, reports shall be submitted by noon of the following workday. Where the reporting frequency is weekly, reports are due by Monday at noon, covering the prior workweek. Where Monday is a Holiday, the reports are due at noon on the next workday. Where reports are due monthly, reports are due by noon on the first business day of each month. Sample forms for reports may be included in the Contract Documents. Where they are included, they are to be used. Where they are not included, the Company shall provide a sample of its proposed report format for each report to the Contract Administrator at least one-week prior to its initial due date. The Contract Administrator will review and either approve or reject use of the report. Where proposed report is rejected, Company shall resubmit revised report formats, until Contract Administrator approves format. Reporting cycle shall begin upon the Purchase Order date, or, if used, the issuance date of the Notice to Proceed. Where the Contract calls for reports to be submitted by Company, such reports shall be in both paper and electronic format, with the electronic version submitted electronically via email to the Contract Administrator.

3. CONTRACT TERMS AND CONDITIONS

3.1. **DEFINITIONS**

3.1.1. ACCEPTANCE

JEA's written notice by the Contract Administrator to the Company that all Work as specified in the Contract, or a portion of the Work as specified in a Task or Work Order, has been completed to JEA's satisfaction. Approval or recognition of the Company meeting a Milestone or interim step does not constitute Acceptance of that portion of Work. Acceptance does not in any way limit JEA's rights under the Contract or applicable laws, rules and regulations.

3.1.2. **AWARD**

The written approval of the JEA Awards Committee that the procurement process for the purchase of the Work was in accordance with the JEA Procurement Code and Florida Statutes. Once an Award is approved, JEA will either issue a Purchase Order or execute a Contract with the successful bidder or proposer.

3.1.3. BIDDER-RFQ

The respondent to this RFQ.

3.1.4. PURCHASE ORDER (PO)

A commercial document issued by JEA, authorizing work, indicating types, quantities, and agreed prices for products or services the Company will provide to JEA. Sending a PO to a Company constitutes a legal offer to buy products or services. The words "Purchase Order" are clearly marked across the top, a PO number is used for reference and invoicing purposes, includes an authorized JEA signature, and states the dollar amount of the lawfully appropriated funds.

3.1.5. SUBSTANTIAL COMPLETION (DEFINITION)

The time when JEA determines that the Work (or a specified part thereof) is substantially complete, in accordance with the Contract Documents. Additionally, all work other than incidental corrective and incidental punch list work items shall be completed. Substantial Completion shall not have been achieved if all systems and parts are not functional, if utilities are not connected and operating normally, if all required regulatory permits and approvals have not been issued, or if all vehicular and pedestrian traffic routes affected by the Work have not been restored. The date of Substantial Completion shall be established in writing by JEA. Recognition of the Work as Substantially Complete, as evidenced by issuance of a Certificate of Substantial Completion, does not represent JEA's Acceptance of the Work.

3.2. ORDER OF PRECEDENCE

The Contract shall consist of JEA's Contract and/or Purchase Order together with the Solicitation including, but not limited to, the executed Bid Documents, which shall be collectively referred to as the Contract Documents. This Contract is the complete agreement between the parties. Parol or extrinsic evidence will not be used to vary or contradict the express terms of this Contract. The Contract Documents are complementary; what is called for by one (1) is binding as if called for by all. The Company shall inform JEA in writing of any conflict, error or discrepancy in the Contract Documents upon discovery. Should the Company proceed with the Work prior to written resolution of the error or conflict by JEA, all Work performed is at the sole risk of the Company. JEA will generally consider this precedence of the Contract Documents in resolving any conflict, error, or discrepancy:

- o Executed Contract Amendments or Executed Change Orders
- o Executed Contract Documents
- o Exhibits to Contract Documents
- o JEA Purchase Order(s)
- o Addenda to JEA Solicitation
- o Drawings associated with this Solicitation
- o Exhibits and Attachments to this Solicitation
- o Technical Specifications associated with this Solicitation

- o This Solicitation
- o Bid Documents
- o References

The figure dimensions on drawings shall govern over scale dimensions. Contract and detailed drawings shall govern over general drawings. The Company shall perform any Work that may reasonably be inferred from the Contract as being required whether or not it is specifically called for. Work, materials or equipment described in words that, so applied, have a well-known technical or trade meaning shall be taken as referring to such recognized standards.

3.3. PAYMENTS

3.3.1. PAYMENT METHOD – MONTHLY PAYMENTS

The Company shall submit to JEA a monthly Application for Payment that details the Work completed during that month. The Company shall request payment in accordance with the amounts/percentages set forth on the Schedule of Values that the Company submitted prior to the start of the Work. The Schedule of Values is defined as an itemized list that establishes the value of each part of the Work for a stipulated price and for major lump sum items in a unit price contract. JEA will determine, either by measurement or approximation, the final quantities incorporated into the Work under items for which Unit Prices are established in the Contract Documents. JEA's determination as to the quantity of the Work successfully completed shall be final.

3.3.2. INVOICING AND PAYMENT TERMS

Within sixty (60) days from completion of the Work, the Company shall submit all Invoices in accordance with the payment method agreed upon in these Contract Documents. Invoices shall be submitted to the following email address: ACCTPAYCUSTSRV@JEA.COM, or if the Company does not have email capability, it can email hard copies to: JEA Accounts Payable, P.O. Box 4910, Jacksonville, FL 32201-4910.

JEA will pay the Company the amount requested within thirty (30) calendar days after receipt of an Invoice from the Company subject to the provisions stated below.

JEA may reject any Invoice or Application for Payment within 20 calendar days after receipt. JEA will return the Invoice or Application for Payment to the Company stating the reasons for rejection.

Upon receipt of an acceptable revised Invoice or Application for Payment, JEA will pay the Respondent the revised amount within ten (10) days.

JEA may withhold payment if the Company is in violation of any conditions or terms of the Contract Documents.

In the case of early termination of the Contract, all payments made by JEA against the Contract Price prior to notice of termination shall be credited to the amount, if any, due the Company. If the parties determine that the sum of all previous payments and credits exceeds the sum due the Company, the Company shall refund the excess amount to JEA within ten (10) days of determination or written notice.

3.4. WARRANTIES AND REPRESENTATIONS

3.4.1. WARRANTY (CONSTRUCTION)

Unless otherwise stated herein, the Company unconditionally warrants to JEA for a period of not less than **one** (1) **year** from the date of issuance of the Certificate of Substantial Completion that all Work furnished under the Contract, including but not limited to, materials, equipment, workmanship, and intellectual property, including derivative works will be:

- o performed in a safe, professional and workman like manner; and
- o free from Defects in design, material, and workmanship; and
- o fit for the use and purpose specified or referred to in the Contract; and
- o suitable for any other use or purpose as represented in writing by the Contractor; and

- o in conformance with the Contract Documents; and
- o merchantable, new and of first-class quality.

The Company warrants that the Work shall conform to all applicable standards and regulations promulgated by federal, state, local laws and regulations, standards boards, organizations of the Department of State, and adopted industry association standards. If the Work fails to conform to such laws, rules, standards and regulations, JEA may return the Work for correction or replacement at the Company's expense, or return the Work at the Company's expense and terminate the Contract.

If the Company performs services that fail to conform to such standards and regulations or to the warranties set forth in the first paragraph of this Section, the Company shall make the necessary corrections at Company's expense. JEA may correct any services to comply with standards and regulations at the Company's expense if the Company fails to make the appropriate corrections within a reasonable time after notice of the Defect from JEA.

If Work includes items covered under a manufacturer's or Subcontractor's warranty that exceeds the requirements stated herein, Company shall transfer such warranty to JEA. Such warranties, do not in any way limit the warranty provided by the Company to JEA.

If, within the warranty period, JEA determines that any of the Work is defective or exhibit signs of excessive deterioration, the Company at its own expense, shall repair, adjust, or replace the defective Work to the complete satisfaction of JEA. The Company shall pay all costs of removal, transportation, reinstallation, repair, and all other associated costs incurred in connection with correcting such Defects in the Work. The Company shall correct any Defects only at times designated by JEA. The Company shall extend the warranty period an additional 12 months for any portion of the Work that has undergone warranty repair or replacement, but in no case shall the maximum warranty period be extended beyond thirty six (36) months.

JEA may repair or replace any defective Work at the Company's expense when the Company fails to correct the Defect within a reasonable time of receiving written notification of the Defect by JEA, when the Company is unable to respond in an emergency situation or when necessary to prevent JEA from substantial financial loss. Where JEA makes repairs or replaces defective Work, JEA will issue the Company a written accounting and invoice of all repair work required to correct the Defects.

Where spare parts may be needed, Company warrants that spare parts will be available to JEA for purchase for at least 75 percent of the stated useful life of the product.

The Company's warranty excludes any remedy for damage or Defect caused by abuse, improper or insufficient maintenance, improper operation, or wear and tear under normal usage.

Note that JEA intends to perform a warranty inspection prior to the expiration of the warranty period. JEA will notify the Company and the Company Representative shall attend the inspection. All discrepancies identified at said inspection shall be corrected by the Company within a reasonable timeframe.

3.5. INSURANCE, INDEMNITY, RISK OF LOSS & LIQUIDATED DAMAGES

3.5.1. INDEMNIFICATION (JEA STANDARD)

For ten dollars (\$10.00) acknowledged to be included and paid for in the contract price and other good and valuable considerations, the Company shall hold harmless and indemnify JEA against any claim, action, loss, damage, injury, liability, cost and expense of whatsoever kind or nature (including, but not by way of limitation, reasonable attorney's fees and court costs) arising out of injury (whether mental or corporeal) to persons, including death, or damage to property, arising out of or incidental to the negligence, recklessness or intentional wrongful misconduct of the Company and any person or entity used by Company in the performance of this Contract or Work performed thereunder. For purposes of this Indemnification, the term "JEA" shall mean JEA as a body politic and corporate and shall include its governing board, officers, employees, agents, successors and assigns. This indemnification shall survive the term of a Contract entered into pursuant to this solicitation, for events that occurred during the Contract term. This indemnification shall be separate and apart from, and in addition to, any other indemnification provisions set forth elsewhere in this Contract.

3.5.2. INSURANCE

INSURANCE REQUIREMENTS

Before starting the Work and for the Term of the Contract, and without further limiting its liability under the Contract, Company shall procure and maintain at its sole expense, insurance of the types and in the minimum amounts stated below:

Workers' Compensation

Florida Statutory coverage and Employer's Liability (including appropriate Federal Acts); Insurance Limits: Statutory Limits (Workers' Compensation) \$500,000 each accident (Employer's Liability).

Commercial General Liability

Premises-Operations, Products-Completed Operations, Contractual Liability, Independent Contractors, Broad Form Property Damage, Explosion, Collapse and Underground, Hazards (XCU Coverage) as appropriate; Insurance Limits: \$1,000,000 each occurrence, \$2,000,000 annual aggregate for bodily injury and property damage, combined single limit.

Automobile Liability

All autos-owned, hired, or non-owned; Insurance Limits: \$1,000,000 each occurrence, combined single limit.

Excess or Umbrella Liability

(This is additional coverage and limits above the following primary insurance: Employer's Liability, Commercial General Liability, and Automobile Liability); Insurance Limits: \$3,000,000 each occurrence and annual aggregate.

Company's Commercial General Liability and Excess or Umbrella Liability policies shall be effective for two years after Work is complete. The Indemnification provision provided herein is separate and is not limited by the type of insurance or insurance amounts stated above.

Company shall specify JEA as an additional insured for all coverage except Workers' Compensation and Employer's Liability. Such insurance shall be primary to any and all other insurance or self-insurance maintained by JEA. Company shall include a Waiver of Subrogation on all required insurance in favor of JEA, its board members, officers, employees, agents, successors and assigns.

Such insurance shall be written by a company or companies licensed to do business in the State of Florida and satisfactory to JEA. Prior to commencing any Work under this Contract, certificates evidencing the maintenance of the insurance shall be furnished to JEA for approval. Company's and its subcontractors' Certificates of Insurance shall be mailed to JEA (Attn. Procurement Services), Customer Care Center, 6th Floor, 21 West Church Street, Jacksonville, FL 32202-3139.

The insurance certificates shall provide that no material alteration or cancellation, including expiration and non-renewal, shall be effective until 30 days after receipt of written notice by JEA.

Any subcontractors of Company shall procure and maintain the insurance required of Company hereunder during the life of the subcontracts. Subcontractors' insurance may be either by separate coverage or by endorsement under insurance provided by Company. Note: Any JSEB firms identified by Bidders for this Solicitation are considered "Subcontractors" under the direct supervision of the Prime or General Contractor (herein referred to as "Company"). Companies should show good faith efforts in providing assistance to JSEB firms in the securing of the Subcontractors' insurance requirements stated herein. Company shall submit subcontractors' certificates of insurance to JEA prior to allowing Subcontractors to perform Work on JEA's job sites.

3.5.3. TITLE AND RISK OF LOSS

Ownership, risks of damage to or loss of the Work shall pass to JEA upon Acceptance. The Company shall assume all risk of loss or damage to the Work while items are in transit and/or in the Company's custody until such time that JEA issues written notice of Acceptance.

JEA's receipt or delivery of any equipment or other materials will not constitute JEA's Acceptance of the Work and will not constitute a waiver by JEA of any right, claim or remedy. In the event of loss or damage to the Work, the Company shall bear all costs associated with any loss or damage until Acceptance by JEA.

For equipment and materials removed from JEA sites or the Work locations for repairs, service or duplication, JEA will retain the title to equipment and materials removed.

3.5.4. LIQUIDATED DAMAGES

If the Company fails to substantially complete the Work to allow the start of Phase I within thirty (30) days after date of the issuance of the Notice to Proceed, the Company shall pay JEA the sum of \$300.00 per day for each and every calendar day, including Sundays and Holidays, starting on this day until the date the Work is Substantially Completed.

If the Company fails to substantially complete the Work within sixty (60) days after date of the issuance of the Notice to Proceed at the end of Phase II, the Company shall pay JEA the sum of \$300.00 per day for each and every calendar day, including Sundays and Holidays, starting on this day until the date the Work has obtained JEA Acceptance.

Liquidated Damages are capped at a maximum of ten percent (10%) of the Contract Price. However, if the amount of Liquidated Damages incurred by the Company is 5% or less than the Contract Price, the Company will not be imputed with Liquidated Damages but will pay such amount to JEA as an administrative charge (the "Administrative Charge").

The Company understands and agrees that said daily sum is to be paid not as a penalty, but as compensation to JEA as a fixed and reasonable amount for damages and losses that JEA will suffer because of such default, whether through increased administrative and engineering costs, interference with JEA's normal operations, or other tangible and intangible costs, which costs will be impossible or impractical to measure or ascertain with any reasonable specificity.

Liquidated Damages or Administrative Charges may, at JEA's sole discretion, be deducted from any monies held by JEA that are otherwise payable to Company.

The Company's responsibility for these costs shall in no way relieve the Company of any other obligations under the Contract.

The Company's responsibility for liquidated damages shall in no way relieve the Company of any other obligations under the Contract.

3.6. ACCEPTANCE

3.6.1. ACCEPTANCE OF WORK - RECEIPT, INSPECTION, USAGE AND TESTING

The Contract Administrator will make the determination when Work is completed and there is Acceptance by JEA. Acceptance will be made by JEA only in writing, and after adequate time to ensure Work is performed in accordance with Contract Documents. JEA will reject any items delivered by Company that are not in accordance with the Contract, and shall not be deemed to have accepted any items until JEA has had reasonable time to inspect them following delivery or, if later, within a reasonable time after any latent defect in the items has become apparent. JEA may partially accept the Work items. If JEA elects to accept nonconforming items, it may in addition to other remedies, be entitled to deduct a reasonable amount from the price as compensation for the nonconformity. Any Acceptance by JEA, even if nonconditional, shall not be deemed a waiver, or settlement or acceptance of any Defect.

3.7. TERM AND TERMINATION

3.7.1. TERMINATION FOR CONVENIENCE

JEA shall have the absolute right to terminate the Contract in whole or part, with or without cause, at any time after the Award effective date upon written notification of such termination.

In the event of termination for convenience, JEA will pay the Company for all disbursements and expenses that the Company has incurred, or has become obligated prior to receiving JEA's notice of termination. Upon receipt of such notice of termination, the Company shall stop the performance of the Work hereunder except as may be necessary to carry out such termination and take any other action toward termination of the Work that JEA may reasonably request, including all reasonable efforts to provide for a prompt and efficient transition as directed by JEA.

JEA will have no liability to the Company for any cause whatsoever arising out of, or in connection with, termination including, but not limited to, lost profits, lost opportunities, resulting change in business condition, except as expressly stated within these Contract Documents.

3.7.2. TERMINATION FOR DEFAULT

JEA may give the Company written notice to discontinue all or part of the Work under the Contract or a Notice to Cure a material breach in the event that:

- The Company assigns or subcontracts the Work without prior written permission;
- Any petition is filed or any proceeding is commenced by or against the Company for relief under any bankruptcy or insolvency laws;
- A receiver is appointed for the Company's properties or the Company commits any act of insolvency (however evidenced);
- The Company makes an assignment for the benefit of creditors;
- The Company suspends the operation of a substantial portion of its business;
- The Company suspends the whole or any part of the Work to the extent that it impacts the Company's ability to meet the Work schedule, or the Company abandons the whole or any part of the Work;
- The Company, at any time, violates any of the conditions or provisions of the Contract Documents, or the Company fails to perform as specified in the Contract Documents, or the Company is not complying with the Contract Documents;
- The Company attempts to willfully impose upon JEA items or workmanship that are, in JEA's sole opinion, defective or of unacceptable quality;
- The Company breaches any of the representations or warranties;
- The Company is determined, in JEA's sole opinion, to have misrepresented the utilization of funds or misappropriate property belonging to JEA; or
- There is an adverse material change in the financial or business condition of the Company.

If within thirty (30) days after service of such notice to discontinue or notice to cure upon the Company an arrangement satisfactory to JEA has not been made by the Company for continuance of the Work or the material breach has not been remedied, JEA may declare the Company to be in default and terminate the Contract.

Once Company is declared in default and the Contract has been terminated, JEA will notify the Surety in writing of the termination. The Surety shall, at JEA's sole option take one (1) of the following actions:

- (a) Within a reasonable time, but in no event later than thirty (30) days, from JEA's written notice of termination for default, arrange for Company with JEA's consent, which shall not be unreasonably withheld, to complete the Contract and the Surety shall pay JEA all losses, delay and disruption damages and all other damages, expenses, costs and statutory attorney's fees, including appellate proceedings, that JEA sustains because of a default by the Company under the Contract;
- (b) Within a reasonable time, but in no event longer than sixty (60) days after JEA's written notice of termination for default, award a contract to a completion contractor and issue notice to proceed or alternatively, JEA may elect, to have the Surety determine jointly with JEA the lowest responsible qualified bidder, to have the Surety arrange for a contract between such bidder and JEA, and for the Surety to make available as Work progresses sufficient funds to pay the cost of completion less the balance of the Contract price; or

(c) Within a reasonable time, but in no event later than thirty (30) days from JEA's notice of termination for default, JEA may waive its right to complete or arrange for completion of the Contract and, within twenty-one (21) days thereafter, determine the amount for which the Surety may be liable to JEA and tender payment to JEA of any amount necessary in order for JEA to complete performance of the Contract in accordance with its terms and conditions less the balance of the Contract price.

JEA shall have the right to take possession of and use any of the materials, plant, tools, equipment, supplies and property of any kind provided by the Company for the purpose of this Work.

JEA will charge the expense of completing the Work to the Company and will deduct such expenses from monies due, or which at any time thereafter may become due, to the Company. If such expenses are more than the sum that would otherwise have been payable under the Contract, then the Company or Surety shall pay the amount of such excess to JEA upon notice of the expenses from JEA. JEA shall not be required to obtain the lowest price for completing the Work under the Contract, but may make such expenditures that, in its sole judgment, shall best accomplish such completion. JEA will, however, make reasonable efforts to mitigate the excess costs of completing the Work.

The Contract Documents shall in no way limit JEA's right to all remedies for nonperformance provided under law or in equity, except as specifically set forth herein. In the event of termination for nonperformance, the Company shall immediately surrender all Work records to JEA. In such a case, JEA may set off any money owed to the Company against any liabilities resulting from the Company's nonperformance.

JEA has no responsibility whatsoever to issue notices of any kind, including but not limited to deficient performance letters and scorecards, to the Company regarding its performance prior to default by Company for performance related issues.

JEA shall have no liability to the Company for termination costs arising out of the Contract, or any of the Company's subcontracts, as a result of termination for default.

Immediately upon termination or expiration of this Contract, Company must return to JEA all materials, documents and things used by Company and belonging to JEA, including proposals, computer files, borrower files, building keys, and any other property or information regarding continued business compliance or goodwill, whether in electronic or hard-copy form. Furthermore, upon JEA's request, Company shall certify in writing that all of the foregoing documents or materials, including archival or backup copies, whether in electronic of hard-copy form, have been returned to JEA, deleted from any computer system, or otherwise destroyed.

3.7.3. TERM OF CONTRACT - THROUGH COMPLETION OF WORK

The Contract shall be in force through completion of all Work, Acceptance and final payment, including resolution of all disputes, claims, or suits, if any. Certain provisions of this Contract may extend past termination including, but not limited to, Warranty and Indemnification provisions.

This Contract, after the initial year, shall be contingent upon the existence of lawfully appropriated funds for each subsequent year of the Contract.

3.8. COMPANY'S RESPONSIBILITIES

3.9. PRE-WORK MEETING AND PROGRESS MEETINGS

Before starting the Field Work, a Pre-Work or Pre-Construction meeting may be held to review procedures for the Work, review the Work schedule, establish procedures for invoicing, approving Invoices and making payments, and establish a working relationship between JEA and the Company.

The JEA Contract Administrator may, at his or her discretion, request Pre-Work Meetings to be held prior to start of any Field Work. Such meeting(s) shall be attended by, but not limited to, the Company Representative and Company Supervisor. The JEA Contract Administrator will notify the Company in writing of the meeting time and location at least two (2) days prior to the meeting date. In addition, construction progress meetings will be held at a frequency as determined by JEA. Such meeting(s) shall be attended by, but not limited to, the Company's Representative and Company's Supervisor.

3.10. REPORTING

The Company shall provide all reports as defined in the Contract Documents.

Where the reporting frequency is daily, reports shall be submitted by noon of the following workday. Where the reporting frequency is weekly, reports are due by Monday at noon, covering the prior workweek. Where Monday is a Holiday, the reports are due at noon on the next workday. Where reports are due monthly, reports are due by noon on the first business day of each month. Sample forms for reports may be included in the Contract Documents. Where they are included, they are to be used. Where they are not included, the Company shall provide a sample of its proposed report format for each report to the Contract Administrator at least one-week prior to its initial due date. The Contract Administrator will review and either approve or reject use of the report. Where proposed report is rejected, Company shall resubmit revised report formats, until Contract Administrator approves format. Reporting cycle shall begin upon the Purchase Order date, or, if used, the issuance date of the Notice to Proceed. Where the Contract calls for reports to be submitted by Company, such reports shall be in both paper and electronic format, with the electronic version submitted electronically via email to the Contract Administrator.

3.11. MISCELLANEOUS PROVISIONS

3.11.1. AMENDMENTS

This Contract may not be altered or amended except in writing, signed by JEA Chief Procurement Officer, or designee, and the Company Representative, or each of their duly authorized representatives.

3.11.2. DISPUTES

If a dispute occurs between JEA and the Company over a contractual issue that cannot be mediated by the JEA Representative, the dispute shall be handled in accordance with Article 5 of the JEA Procurement Code.

3.11.3. JEA ACCESS BADGES

If the scope of work described in this Contract requires a Company to access JEA facilities over a period of time, each Company employee shall apply for a JEA access badge through JEA's Security Department. JEA will run a seven (7) year background check on all Company employee's that apply for a JEA access badge. **The Company will be responsible for the costs associated with the background check which is approximately \$70.**

An appointment to obtain a JEA access badge can be made by contacting JEA Security at securitybadge@jea.com.

JEA does not allow Company employees to share JEA access badges. A Company whose employees are found to be sharing JEA access badges, will result in the Contract being terminated immediately for default. Additionally, JEA shall be notified within 6 hours of a lost or stolen JEA security badge or when an employee leaves the Company. Report badge termination notifications to JEA Security at (904) 665-8200.

3.11.4. ASSIGNING OF CONTRACT

Each party agrees that it shall not assign, delegate, or otherwise dispose of the Contract, the duties to be performed under the Contract, or the monies to become due under the Contract without the other party's prior written consent.

The assignment of the Contract will not relieve either of the parties of any of its obligations until such obligations have been assumed in writing by the assignee. If the Contract is assigned by either of the parties, it will be binding upon and will inure to the benefit of the permitted assignee. The Company shall be liable for all acts and omissions of its assignee or it's Subcontractor.

3.11.5. NONEXCLUSIVE

Notwithstanding anything contained herein that may appear to be the contrary, this Contract is "non-exclusive" and JEA reserves the right, in its sole discretion, to retain other companies to perform the Work, and/or JEA may self-perform the Work itself.

3.11.6. APPLICABLE STATE LAW; VENUE; SEVERABILITY

The rights, obligations and remedies of the parties as specified under the Contract will be interpreted and governed in all respects exclusively by the laws of the State of Florida without giving effect to the principles of conflicts of laws thereof. Should any provision of the Contract be determined by the courts to be illegal or in conflict with any law of the State of Florida, the validity of the remaining provisions will not be impaired. Litigation involving this Contract or any provision thereof shall take place in the State or Federal Courts located exclusively in Jacksonville, Duval County, Florida.

3.8.6. RIGHT TO AUDIT & FINANCIAL REPORTING

Accounting System

The Company shall establish and maintain a reasonable accounting system that enables JEA to readily identify the Company's assets, expenses, cost of goods, and use of funds.

Audited Financial Statements

The Company shall provide to JEA audited financial statements for the most recent fiscal year upon JEA's request, not later than five days after receipt of written request.

Content and Retention of Records

Such records shall include, but not be limited to, accounting records, written policies and procedures; subcontract files (including proposals of successful and unsuccessful bidders, bid recaps, etc.); all paid vouchers including those for out-of-pocket expenses; other reimbursement supported by invoices; ledgers; cancelled checks; deposit slips; bank statements; journals; original estimates; estimating work sheets; contract amendments and change order files; back charge logs and supporting documentation; insurance documents; payroll documents; timesheets; memoranda; and correspondence. Company shall, at all times during the term of this Contract and for a period of five years after the completion of this Contract, maintain such records, together with such supporting or underlying documents and materials.

Inspection / Audit of Records

Upon JEA's request, the Company agrees to allow JEA to audit, to examine, and to make copies of or extracts from its financial and operating records (in whatever form they may be kept, whether written, electronic, or other) kept by the Company, its employees, agents, assigns, successors, and subcontractors, for the purpose of determining invoice accuracy, or otherwise assessing compliance with the Contract Documents.

The Company shall at any time requested by JEA, whether during or after completion of this Contract, and at Company's own expense make such records available for inspection and audit (including copies and extracts of records as required) by JEA. Such records shall be made available to JEA during normal business hours at the Company's office or place of business in a workspace suitable for the audit and [subject to a three day written notice/without prior notice]. In the event that no such location is available, then the financial records, together with the supporting or underlying documents and records, shall be made available for audit at a time and location that is convenient for JEA. The Company agrees to have knowledgeable personnel available to answer questions for the auditors during the time they are performing the audit and for a period of two weeks thereafter. Company shall ensure JEA has these rights with Company's employees, agents, assigns, successors, and subcontractors, and the obligations of these rights shall be explicitly included in any subcontracts or agreements formed between the Company and any subcontractors to the extent that those subcontracts or agreements relate to fulfillment of the Company's obligations to JEA.

Cost of Audits

Costs of any audits conducted under the authority of this right to audit and not addressed elsewhere will be borne by JEA unless certain exemption criteria are met. If the audit identifies overpricing or overcharges (of any nature) by the Company to JEA in excess of one-half of one percent (0.5%) of the total contract billings, the Company shall reimburse JEA for the total costs of the audit. If the audit discovers substantive findings related to fraud, misrepresentation, or nonperformance, JEA may recoup the costs of the audit work from the Company.

Billing Adjustments and Recoveries

Any billing payment recoveries to JEA that must be made as a result of any such audit or inspection of the Company's invoices and/or records shall be made within a reasonable amount of time (not to exceed 90 days) from presentation of JEA's findings to Company.

Failure to Comply

If Company fails to comply with the requirements contained in this clause, the Company may be found to be in breach of the Contract, be subject to debarment or suspension of bidding privileges with JEA, and/or JEA may exercise any other remedies available by law.

3.12. CONTINUING THE WORK

The Company shall carry on the Work and maintain the progress schedule during disputes or disagreements with JEA. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as JEA and Company may otherwise agree in writing. Suspension of the Work or portion thereof by Company shall entitle JEA to terminate the Contract for Default.

4. TECHNICAL SPECIFICATIONS/DETAILED SCOPE OF WORK

4.1. TECHNICAL SPECIFICATIONS AND DRAWINGS (APPENDIX A)

The technical specifications for this solicitation can be found in Appendix A.

5. FORMS

5.1. FORMS (APPENDIX B)

Forms required to be submitted with this solicitation are provided in Appendix B or can be obtained on the JEA website at www.jea.com.



Aquifer Recharge Pilot Testing Plans and Requirements for JEA Deerwood III Water Treatment Plant Wellfield

PREPARED FOR: JEA Well Contractor

PREPARED BY: CH2M HILL Engineers, Inc. (CH2M), a wholly owned subsidiary of Jacobs

Engineering Group Inc.

COPY TO: JEA

DATE: October 2, 2018

Introduction

JEA (Owner) plans to conduct an aquifer recharge (AR) pilot test at their Deerwood III Water Treatment Plant (WTP) Wellfield located at 7587 Southside Boulevard in Jacksonville, Florida. Recharge water for the pilot test will be obtained from a 24-inch wellfield raw water transmission main, and injected, stored, and recovered from a 6-inch lower Floridan aquifer monitoring well completed in the AR zone.

The temporary piping to convey the water from the 24-inch wellfield raw water transmission main will be provided in part by a separate contract. JEA has obtained the services of Petticoat-Schmitt Civil Contractors, referred to in this technical memorandum (TM) and on the drawings as by Others.

This TM includes plans for the Owner to procure a well contractor (Contractor) to do the following:

- 1. Attend a pre-construction meeting and assist CH2M HILL Engineers, Inc. (CH2M) (Engineer) with baseline sampling, refer to Sequence of Work section in this TM.
- 2. Furnish and install the monitoring well pipe, valves, pump, instruments, and miscellaneous appurtenances shown on Drawings 20-D-001, 20-D-002, and 20-D-003, and as described in the AR Pilot Test Configuration section. The temporary generator rental cost and the fuel required to operate during Phase I operation shall be included in the bid price.
- 3. Assist with preliminary testing, refer to Preliminary Test section in this TM.
- 4. Assist with the Phase I operation of the pilot test as described in this TM, refer to Phase I Test section.
- 5. Upon completion of Phase I, return the submersible turbine sample pump and the portable generator.
- 6. Assist with the Phase II operation of the pilot test as described in this TM, refer to Phase II Test section.
- 7. Upon completion of Phase II, disassemble and dispose of the 8-inch pipe and the valves shown on Drawings 20-C-001, 20-C-002, 20-D-001, 20-D-002, and 20-D-003. This includes piping on Drawings 20-C-001 and 20-C-002 that was provided by Others. The 24-inch by 24-inch by 8-inch tee cut into the raw water header and the adjoining 8-inch gate valve shall remain.
- 8. Upon completion of Phase II, disassemble and turn over to the Owner the turbine flowmeter, pressure gauge, and any SST valves.

9. Upon completion of Phase II, reinstall the 2-inch submersible sampling pump, wellhead, and electrical connections.

Prospective bidders (Bidders) shall submit their cost estimate using the attached bid form. No permits are required by the Contractor to execute the work presented herein. The Owner will be responsible for obtaining the underground injection control permit required from the Florida Department of Environmental Protection to implement the testing plan.

The Engineer will provide the following professional engineering services as part of this work:

- 1. Develop the AR pilot testing plans and requirements for the Contractor (this TM).
- 2. Coordinate and provide field oversight services during installation and start up of pilot test system.
- 3. Monitor and assist in the operation of the test system.
- 4. Prepare a technical report summarizing the test results and recommendations.

The following items are included in this TM:

- 1. Wellfield Description
- 2. Pilot Test Description
- 3. Monitoring and Sampling Plan
- 4. Sequence of Work
- 5. Bill of Materials (Attachment 1)
- 6. Design Drawings (Attachment 2)
- 7. Deerwood III AR Pilot Test Bid Form (Attachment 3)

Wellfield Description

The Deerwood III WTP Wellfield includes eight production wells (Well Nos. 1, 2, 3, 4, 5, 6, 7, and 8) completed into the upper 300 feet Floridan aquifer system, which produces water from the upper Floridan, see Drawing 20-C-001. Production Well No. 6 was backplugged to the base of the upper Floridan and acidized in 2018.

The wellfield also includes an existing 8-inch by 6-inch monitoring well completed in the lower Floridan aquifer that will serve as the AR pilot test well. The transition in casing diameter from 8 to 6 inches, is positioned approximately 40 feet below land surface, refer to Drawings 20-D-001 and 20-D-002.

Table 1 summarizes the construction details of the wells comprising the Deerwood III WTP Wellfield and their intended purpose during the pilot test. The location of the WTP and the approximate layout of the monitoring well, production wells, and wellfield raw water piping system is provided on attached Drawing 20-C-001.

Table 1. Deerwood Wellfield Construction DetailsAquifer Recharge Pilot Testing Plans and Requirements for JEA Deerwood III Water Treatment Plant Wellfield

Well No.	AD Dilet Test Durage	Current Well Configuration			
well no.	AR Pilot Test Purpose	Cased Depth (feet)	Total Depth (feet)	Casing Diameter (inches)	
1	-	545	750	16 x 12	
2	Observation Well	603	795	18 x 12	
3	Observation Well	580	810	18	
4	Observation Well	546	830	20	
5	Observation Well	520	835	20	
6	Observation Well	520	970	20	
7	Recharge Source Water	558	853	16	

Table 1. Deerwood Wellfield Construction Details

Aquifer Recharge Pilot Testing Plans and Requirements for JEA Deerwood III Water Treatment Plant Wellfield

Well No.	AR Pilot Test Purpose	Current Well Configuration			
well No.	AR Pilot Test Purpose	Cased Depth (feet)	Total Depth (feet)	Casing Diameter (inches)	
8	Recharge Source Water	541	852	20	
Monitor Well	AR Test Well	950	1,050	8 x 6	

Pilot Test Description

Recharge water for the pilot test will originate from a 24-inch polyvinyl chloride (PVC) raw water wellfield transmission main. Recharge water will be conveyed with temporary piping (by Others) and injected, stored, and recovered from the monitoring well (installed by the Contractor).

The pilot test will include two main test phases:

- 1. **Phase I** includes two short-term recharge (or injection), storage, and recovery test cycles (TCs) that are designed to address the feasibility of storing and subsequently recovering recharge water from the lower Floridan aquifer and evaluate the quality of recovered water. Phase I will be conducted over a 2-month period (winter months) and will require all production wells to be offline, except for Well Nos. 7 and 8.
- 2. **Phase II** will include recharging the monitoring well with a relatively large volume of water (500 million gallons [MG] or more) over a 1.25-year period while JEA runs the wellfield under normal operating conditions.

AR Pilot Test Operating Data

Phase I will include two TCs, each lasting approximately 20 days. Both TCs will be conducted by recharging the monitoring well with approximately 5.0 MG of water over a 4.6-day period, followed by 7 days of storage (i.e., static period), and subsequently recovering 5.0 MG during an 8.7-day period at the estimated flow rates provided in Table 2.

Phase II will include recharging the monitoring well with approximately 500 MG of water over a 1.25-year period. Once Phase II testing begins, the Contractor will not be involved with the operation of the system unless otherwise directed by the Engineer or Owner.

Table 2. Proposed Pilot Testing Plan^a

Aquifer Recharge Pilot Testing Plans and Requirements for JEA Deerwood III Water Treatment Plant Wellfield

Test	Average	Q (gpm)	Total Vol	ume (MG)	Percent	Estimated Duration (days)				
Phase	Recharge	Recovery	Recharge	Recovery	Recovered	Recharge	Storage	Recovery	Total	
	Phase I									
TC 1	750	400	5	5	100	4.6	7.0	8.7	20.3	
TC 2	750	400	5	5	100	4.6	7.0	8.7	20.3	
						Total Cyc	le Test Dura	ation (days)	41	
	Phase II									
Recharge	750	-	500	-	-	463	-	-	463	
Total Recharge Duration (days)							463			

Notes:

^a Rates, volumes, and duration may be adjusted, as appropriate, based on operational needs, test well performance, formation conditions, or test results from earlier cycles.

1 day = 24 hours

gpm = gallons per minute

Q = flow rate

AR Pilot Test Configuration

The layout of the AR pilot test system and configuration of the AR wellhead for both recharge and recovery phases are presented in Drawings 20-D-001, 20-D-002, and 20-D-003. The Contractor shall construct the AR pilot test system in accordance with these drawings. A list of equipment and materials to construct the AR pilot test is also included as Attachment 1 of this TM.

Work by Others

The following work will be provided by others:

- 1. Recharge water from the 24-inch PVC raw water transmission line will be accessed upstream of Well No. 6 and conveyed to the monitoring well using approximately 2,250 feet of temporary 8-inch, Schedule 40 PVC pipe.
- 2. Where the 8-inch conveyance pipe ties into the 24-inch raw water main, the 8-inch pipe will be equipped with a gate valve followed by a backflow preventer assembly to prevent fluid from entering the raw water system.
- 3. The 8-inch PVC conveyance pipe will be equipped with an air relief valve installed approximately 750 feet upstream of the monitoring well.

Work by Contractor

The following work shall be included in the scope of the well Contractor and are included on design drawings 20-D-001, 20-D-002, and 20-D-003.

- 1. The portion of the 8-inch PVC conveyance pipe installed by the Contractor will be equipped with two air relief valves installed at the wellhead to ensure no air is introduced into the monitoring well during testing.
- 2. Recharge water will be conveyed through the 8-inch pipe to the monitoring well under system pressure; therefore, no booster pumps or electrical power are required. The anticipated recharge rate is approximately 750 gpm.
- 3. During Phase I recovery periods (refer to Table 2), the same 8-inch conveyance pipe will be used to pump recovered water from the monitoring well to the designated discharge area, which is the 3.8-acre dry pond located approximately 1,000 feet north of the monitoring well. Valves located at the discharge tee will be used to direct the flow of water from the monitoring well to the discharge area.
- 4. A bidirectional totalizing turbine flowmeter will be Contractor furnished and installed on the 8-inch conveyance line to measure and record recharge and recovery volumes and flow rates. The Owner will furnish a backup flowmeter.
- 5. Drawing 20-D-002 shows how the wellhead of the test well will be configured during recharge phases (flowing to the well). Recharge water will be pumped down the well using a 4-inch PVC pipe set to a depth of approximately 40 feet below top of casing (btoc) and positioned approximately 25 feet below the static water level in the well.
- 6. The wellhead flange shall be water-tight and equipped with 2 ports for installation of a water level measuring device and pressure gauge/blow-off valve to evacuate air from the casing and measure wellhead pressures.
- 7. The wellhead pipe that connects to the 4-inch recharge tube shall be equipped with two air-relief valves and two water quality sampling ports with valves.
- 8. Drawing 20-D-001 shows how the wellhead pipe layout during Phase I recovery periods. The pipe layout will be the same as the recharge configuration, except a temporary submersible turbine

pump (having flow and head characteristics similar to a 6-inch Grundfos SP-300S submersible pump) will be set inside the 8-inch section of final casing, in lieu of the recharge pipe. The companion flange assembly will be changed from a 6-inch by 4-inch to a 6-inch by 3-inch, these are denoted as MARK NO. 3 and 9 on drawing 20-D-003 (Attachment 2).

- 9. The pump will be used to recover water from the well during Phase I testing periods at a rate of approximately 400 gpm, refer to MARK NO. 1 on Drawing 20-D-003 (Attachment 2). The Contractor will furnish, operate, maintain the pump during Phase I.
- 10. A temporary generator, (refer to MARK NO. 27 on Drawing 20-D-003 [Attachment 2]) capable of powering the submersible pump during Phase I recovery periods shall be furnished, installed, and fueled by the Contractor.
- 11. Contractor to install instrumentation for level, conductivity, and flow measurement.
 - The Owner will wire the flowmeter to the programmable logic controller in the supervisory control and data acquisition (SCADA) cabinet and provide additional input/output cards as needed
 - The Engineer will manually collect the data from the data logger at level transmitter throughout the study.
- 12. At Well No. 2, the Contractor shall provide the following. A detail showing the layout of the work at Well No 2 is provided on Drawing 20-D-003:
 - Install a PVC sampling tube inside the well to a depth of approximately 720 feet btoc. The tube will be perforated from 630 to 720 feet btoc, fastened, and secured at land surface.
 - The upper 100 feet of the sampling tube will be 2 inches in diameter to allow installation of a Grundfos Redi-Flo2 pump and the remainder of the tube will be 1-inch diameter. The Engineer will provide the Grundfos Redi-Flo2 pump.
 - Provide a vent and stainless-steel screen.
 - Provide two, 1-inch threaded access ports for installation of water level measuring devices.
 Engineer will provide the water level measuring devices.

Monitoring and Sampling Plan

During Phase I and Phase II, the Engineer will be responsible for monitoring water quality and hydraulic data at the AR test well and observation wells listed in Table 1. The following hydraulic data will be measured and recorded during both phases:

- 1. Water levels and wellhead pressures at the AR test well by manually taking a laptop to the well and downloading data.
- 2. Recharge/recovery flow rates and volumes at the AR test well by accessing the SCADA data.
- 3. Water levels at the observation wells by manually taking a laptop to each well and downloading data.

Water levels and wellhead pressures will be measured continuously using downhole data-logging pressure transducers. Backup measurements using water level indicators and pressure gauges will be taken at regular intervals, twice daily during Phase I and twice a week during Phase II. The Engineer will be responsible for furnishing the data-logging pressure transducers and water level indicators.

Flow rates and volumes during recharge and recovery will be recorded at the AR test well using the dedicated flowmeter installed on the 8-inch temporary recharge/recovery line. Backup flow

measurements will be measured and recorded using the data-logging strap-on ultrasonic flowmeter provided by Owner.

The Engineer will download the water pressure and flow records from the data loggers weekly (and more frequently during Phase I testing) to evaluate changes in well specific capacity/injectivity and aquifer response to recharge and recovery.

Work by Contractor

The Contractor will provide and install the pressure gauges and flowmeter at the AR test well. The Contractor will install the Engineer's pressure transducers in the observation wells and AR test well.

Water Quality Sampling AR Test Well

The Engineer will collect recharge water samples and recovered water samples from the AR test well during Phase I, and recharge water samples from the AR test well during Phase II. Water samples will be collected and analyzed in the field and in the laboratory. The Engineer will be responsible for furnishing the field water quality meters, coordinating, and delivering the samples to JEA's laboratory for analysis. The cost of laboratory analysis is not included in this scope.

The approximate number of laboratory samples to be collected at the AR test well during Phase I and Phase II is provided in Table 3.

Table 3. Aquifer Recharge Test Well Water Quality Sampling Plan *Aquifer Recharge Pilot Testing Plans and Requirements for JEA Deerwood III Water Treatment Plant Wellfield*

Test Phase	No. of Laboratory Samples	Frequency		
		Phase I (TC 1)		
Recharge	4	 Collects samples at 20, 40, 60, and 70 percent Injected 		
Recovery	5	 One sample at the beginning of recovery Collect three subsequent samples during recovery Collect one sample at the end of recovery 		
		Phase I (TC 2)		
Recharge	4	Collects samples at 20, 40, 60, and 70 percent injected		
Recovery	5	 One sample at the beginning of recovery Collect three subsequent samples during recovery Collect one sample at the end of recovery 		
		Phase II (Recharge)		
Recharge	16	Collect samples once every month for a minimum of 16 months		

Water Quality Sampling Observation Wells

During Phase I, the Engineer will collect a minimum of five water samples from each observation well as follows:

- One sample prior to the start of TC 1 (Baseline)
- One sample at the end of the recharge phase of TC 1
- One sample at the end of the recovery phase of TC 1
- One sample at the end of the recharge phase of TC 2

One sample at the end of the recovery phase of TC 2

During Phase II, the Engineer will collect and analyze water samples from the observation wells on a monthly basis. Water samples will be collected from Well Nos. 3, 4, 5, and 6 using the existing vertical turbine pumps and sample taps.

Sequence of Work

The general sequence of work to construct the pilot test system and conduct preliminary testing and Phase I and Phase II testing is presented in this section.

Work by Contractor

The Contractor shall perform baseline sampling activities as follows:

- Pre-construction Meeting. Contractor shall attend one pre-construction meeting with the Owner and Engineer to discuss wellfield access and security, project goals, pilot test system installation, testing procedures and sequence, and to make necessary arrangements with Owner to access and tie into the 24-inch raw water main. The Owner will coordinate and hold the pre-construction meeting.
- 2. **Baseline Sampling**. The Contractor shall assist the Engineer in the following tasks to conduct baseline sampling.
 - Contractor will assist the Engineer with installing the data-logging pressure transducers in the five observation wells listed in Table 1.
 - Contractor shall install the 1-inch PVC sampling tube inside Well No. 2 as described in Section AR
 Pilot Test Configuration. Following installation of the sample tube in Well No. 2, Engineer will
 collect baseline groundwater samples from the AR test well and observation wells in accordance
 with the Monitoring and Sampling Plan section.
 - Following completion of baseline sampling, the Contractor will remove the existing 2-inch diameter submersible monitoring well pump, discharge piping, and wellhead appurtenances from the test AR well and prepare the site for the AR study. Removal of the well site fencing is not required. Coordinate with Owner's operations and maintenance (O&M) staff to de-energize the monitoring well pump and SCADA equipment before removal. Coordinate with Owner regarding temporary storage of the monitoring well sampling pump.
- 3. Contractor shall furnish and install the 4-inch recharge tube, wellhead flange assembly, piping, air relief valves, flowmeter, drop tubes, sample ports, monitoring equipment, and other wellhead appurtenances at the AR test well in accordance with Drawings 20-D-001, 20-D-002, and 20-D-003.

Preliminary Test

Work by Contractor

The Contractor shall perform preliminary test work activities as follows:

- 1. Following installation of the test system and prior to the start of Phase I testing. Contractor and Engineer will conduct a preliminary test to identify potential leaks or issues in the test system and to confirm proper operation of test equipment including the pressure transducers, gauges, flowmeters, air-relief valves, backflow preventer assembly, and water quality monitoring devices. If leaks are detected, Contractor shall repair leaks and retest the system until no leaks are detected.
- 2. Preliminary testing will also include a short system operations test consisting of an approximate 2-hour recharge period followed by a recovery period of equal duration. The Contractor shall assist

- with the short system operations test. Depending on the results of the preliminary testing, adjustments to the testing plan in Table 2 may be required.
- 3. During preliminary testing, the Contractor is required to remove the 4-inch recharge tube and install the test submersible pump between the recharge and recovery periods, and then re-install the 4-inch recharge tube following completion of the preliminary test. This will require changing the companion flange.

Phase I Test

Work by Contractor

The Contractor shall perform Phase I work activities as follows:

- 1. Engineer and Contractor shall coordinate in advance with the Deerwood III WTP operator(s), JEA O&M, and Ridenour command center staff regarding shut down of all operating wells in the wellfield during Phase I, except for Well Nos. 7 and 8. Discuss alternate plans with JEA staff to provide additional raw water capacity to WTP, if demands during testing dictate.
- 2. Turn off the well pumps for Well Nos. 1, 3, 4, 5, and 6 a minimum of 72 hours in advance of testing to allow water levels to return to static conditions. Contractor shall close the isolation valve at each wellhead to prevent potential backflow of recharge water down observation wells, in the event of leaky check valves at the observation wells.
- 3. With the 8-inch butterfly valve closed at the AR test well, turn on Well Nos. 7 and 8 and open the 8-inch gate valve at the tie-in location to fill and evacuate air from the 8-inch conveyance line.
- 4. The Contractor will record initial data and begin Phase I TC 1 by opening the butterfly valve at the AR test well. Recharge the well for the duration provided in Table 2 or as directed by Engineer.
- 5. The Engineer will monitor and record the quality of the recharge water, flow rates, volumes, water levels, and wellhead pressures at the test well in accordance with Monitoring and Sampling Plan section. The Contractor will assist the Engineer with data collection.
- 6. Near the end of the recharge phase of TC 1, the Engineer will collect groundwater samples from the observation wells as described in Monitoring and Sampling Plan section.
- 7. End Phase I TC 1 recharge by closing the 8-inch butterfly valve at the wellhead followed by the 8-inch gate valve at the tie in location.
- 8. The test well and AR system will remain undistributed during an approximate 7-day storage period. No oversight of the test system is required during the storage period.
- 9. Following completion of the storage period, the Contractor shall remove the 4-inch recharge tube from the AR test well, and install the submersible test pump, pump column, generator, and wellhead assembly in accordance with the drawings.
- 10. Begin Phase I TC 1 recovery period by the Contractor configuring the valves on the 8-inch conveyance line to direct recovered water to the discharge pond. Turn on the submersible pump and recover water from the test well for the duration provided in Table 2 or as directed by Engineer.
- 11. Contractor shall provide an operator during the total duration of the recovery period to operate and maintain the submersible pump and generator. <u>Failure of pumping equipment to operate continuously through the recovery period may require Contractor to replace equipment and restart test at no additional cost to Owner.</u>
- 12. The Engineer will monitor and record the quality of the recovered water, flow rates, volumes, and water levels in accordance with the Monitoring and Sampling Plan section. The Contractor will assist the Engineer with data collection.

- 13. Near the end of the recovery phase of TC 1, Engineer will collect groundwater samples from the observation wells as described in the Monitoring and Sampling Plan section.
- 14. End Phase I TC1 recovery period by the Contractor shutting off the test pump and closing the 8-inch butterfly valve at the wellhead, followed by the valves at the discharge location. Allow the water level in the test well to return to within 1 percent of the static condition.
- 15. Following the recovery period, Contractor shall remove the test pump and re-install the 4-inch recharge tube and wellhead in preparation of TC 2.
- 16. Conduct Phase I TC 2 according to Steps 1 through 15. Following completion of Phase I TC 2, suspend pilot testing for approximately 2 weeks. During this time period, the Engineer will determine if pilot testing will proceed to Phase II. Continue recording water levels in all wells during the 2-week static period.

Phase II Test

Phase II testing will consist of recharging the AR test well with approximately 500 MG of water or more, over a 463-day period at an anticipated recharge rate of approximately 750 gpm, while all active inservice wells are pumping to the WTP (Well Nos. 1, 3, 4, 5, 6, 7, and 8).

Work by Contractor

The Contractor shall perform Phase II work activities as follows:

- 1. Engineer and Contractor shall coordinate in advance with the Deerwood III WTP operator(s), JEA O&M, and Ridenour command center staff regarding Phase II testing schedule and procedures.
- 2. Using the valves on the 8-inch line, the Contractor will fill and evacuate air from the 8-inch conveyance line.
- 3. The Contractor will record initial data and begin Phase II by opening the butterfly valve at the AR test well. Recharge the well for the duration provided in Table 2 or as directed by the Engineer.
- 4. The Engineer will monitor and record the quality of the recharge water, recharge flow rates and volumes, and water levels and wellhead pressures in accordance with the Monitoring and Sampling Plan section.
- 5. The Contractor will conduct site visits once daily during the first week of Phase II testing to check on the operation of the AR pilot test system. Following the first week of Phase II testing, the Engineer will operate and monitor the AR pilot test system until the 463-day recharge period is complete.
- 6. The Contractor shall assume four site visits to perform maintenance on the test system during Phase II testing.
- 7. Following completion of Phase II testing, Contractor shall remove and dispose test equipment, piping, valves, and materials and reinstall of the 2-inch submersible sampling pump, wellhead, and electrical connections.

Attachment 1 Bill of Materials

Bill of Materials

Aquifer Recharge Pilot Testing Plans and Requirements for JEA Deerwood III Water Treatment Plant Wellfield

Item	Responsible Party	Description	Material	Quantity	Unit	Components for
Pump	Contractor	Provide a temporary pump having the flow and head characteristics matching a 6-inch Grundfos SP-3 00S submersible turbine with 3-inch discharge, 15 hp, 3P, 230 V	SST	1	EA	AR Pilot Test System
Pipe	Contractor	3-inch diameter PVC pipe	Schedule 10 Steel	60	LF	AR Pilot Test System
Companion Flange	Contractor	3-inch, FLG by threaded companion flange	Steel	1	EA	AR Pilot Test System
Flange Reducer	Contractor	8-inch by 3-inch reducing bushing, FLG by spigot	Steel	1	EA	AR Pilot Test System
90-degree Elbow	Contractor	8-inch socket by socked, 90-degree elbow	Schedule 40 PVC	3	EA	AR Pilot Test System
Valve	Contractor	8-inch V500 flanged butterfly valve	Ductile Iron	2	EA	AR Pilot Test System
Pipe	Contractor	4-inch Diameter PVC pipe	Schedule 40 PVC	60	LF	AR Pilot Test System
Companion Flange	Contractor	4-inch, FLG by threaded companion flange	Steel	1	EA	AR Pilot Test System
Flange Reducer	Contractor	8-inch by 4-inch reducing bushing, FLG by spigot	Schedule 40 PVC	1	EA	AR Pilot Test System
Tee	Contractor	8-inch socket tee	Schedule 40 PVC	2	EA	AR Pilot Test System
Pipe	By Others	8-inch pipe	Schedule 40 PVC	2,250	LF	AR Pilot Test System
ARV	Contractor	1-inch air release valve	Ductile iron body and SST trim	2	EA	AR Pilot Test System
Valve	Contractor	½-inch ball valve	PVC	3	EA	AR Pilot Test System
Pressure Gauge	Contractor	Refer to bill of materials on drawings	SST	3	EA	AR Pilot Test System
Pipe	Contractor	8-inch Schedule 40	PVC	Length as Required	EA	AR Pilot Test System
Blind Flange	Contractor	8 -inch PVC blind flange and gasket	PVC and red rubber	2	EA	AR Pilot Test System

Bill of Materials

Aquifer Recharge Pilot Testing Plans and Requirements for JEA Deerwood III Water Treatment Plant Wellfield

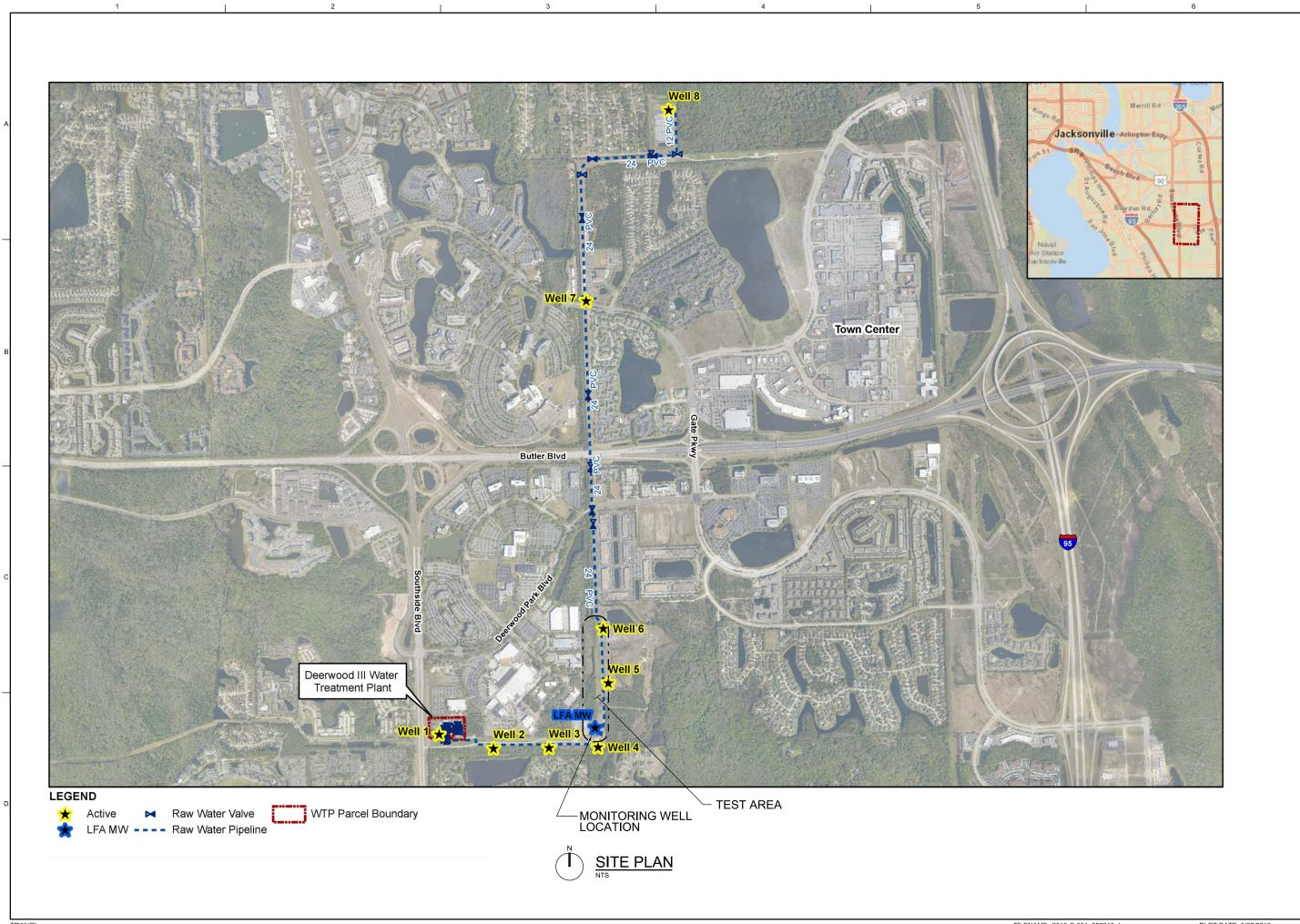
ltem	Responsible Party	Description	Material	Quantity	Unit	Components for
Elbow	By Others	8-inch 45-degree elbow	Schedule 40 PVC	2	EA	AR Pilot Test System
Valve	By Others	8-inch check valve for BFP	Ductile iron	2	EA	AR Pilot Test System
Valve	By Others	8-inch butterfly valve for BFP	Ductile Iron	2	EA	AR Pilot Test System
Tee	By Others	24-inch tee	PVC			AR Pilot Test System
Gland	By Others	24-inch retainer gland		2	EA	AR Pilot Test System
ARV	Contractor	½-inch air release valve	Ductile iron body and SST trim	1	EA	AR Pilot Test System
Flowmeter	Contractor	8-inch bidirectional turbine flowmeter	316 SST wetted parts	1	EA	AR Pilot Test System
Generator	Contractor	Magnum #MMG25FHI, 208-V 3P, trailer- mounted, with tier IV interim approval and 106-gallon single wall base fuel tank		1	EA	AR Pilot Test System
Pipe	Contractor	1-inch pipe	Thin wall PVC	650	LF	Sample tube for Well No. 2.
Pipe	Contractor	2-inch pipe	Schedule 40 PVC	120	LF	Sample tube for Well No. 2.
Reducer	Contractor	2-inch by 1-inch reducer	Schedule 40 PVC	1	EA	Sample tube for Well No. 2.
Pressure Transducer	Engineer	30-psi Level Troll 700		5	EA	Monitoring Equipment
Pressure Transducer	Engineer	100-psi Level Troll 700		1	EA	Monitoring Equipment
Barometer	Engineer	Baro-Troll		1	EA	Monitoring Equipment
Data cables	Engineer	100-foot-long data cables with desiccant pack		6	EA	Monitoring Equipment
Water Level Indicator	Engineer	Heron or equal		2	EA	Monitoring Equipment
Water Quality Meter	Engineer	YSI-600 XLM water quality meter or equal		2	EA	Monitoring Equipment
Water Quality Meter	Engineer	Hach 890 meter		1	EA	Monitoring Equipment
Water Quality Meter	Engineer	LaMotte test kit (SO ₄ , H ₂ S, Fe, CO ₂)		1	EA	Monitoring Equipment

Bill of MaterialsAquifer Recharge Pilot Testing Plans and Requirements for JEA Deerwood III Water Treatment Plant Wellfield

	Responsible					
Item	Party	Description	Material	Quantity	Unit	Components for
Water Quality Meter	Engineer	MFI test kit (TSS)		1	EA	Monitoring Equipment
Water Quality Meter	Engineer	BFI test kit (TSS)		1	EA	Monitoring Equipment
Sample Pump	Engineer	Grundfos Redi-Flo2 with VFD		2	EA	Sample Pump
Backup Flowmeter	Owner	Ultrasonic strap on meter		1	EA	AR Pilot Test System
Notes:	Fe = iron	LF = linear feet	SST = stainless steel			
AR = aquifer recharge	FLG = flange	psi = pound(s) per square inch	TSS = total suspended solid	ds		
CO ₂ = carbon monoxide	H ₂ S = hydrogen s	ulfide PVC = polyvinyl chloride	V = volt			
EA = each	hp = horsepower	SO ₄ = sulfate	VFD = variable frequency of	Irive		

WT1025151048JAX 1-3

Attachment 2 Design Drawings



CVILYARD PIPING
DEERWOOD #3 WTP ASR PILOT STUDY CIVIL/YARD PIPING
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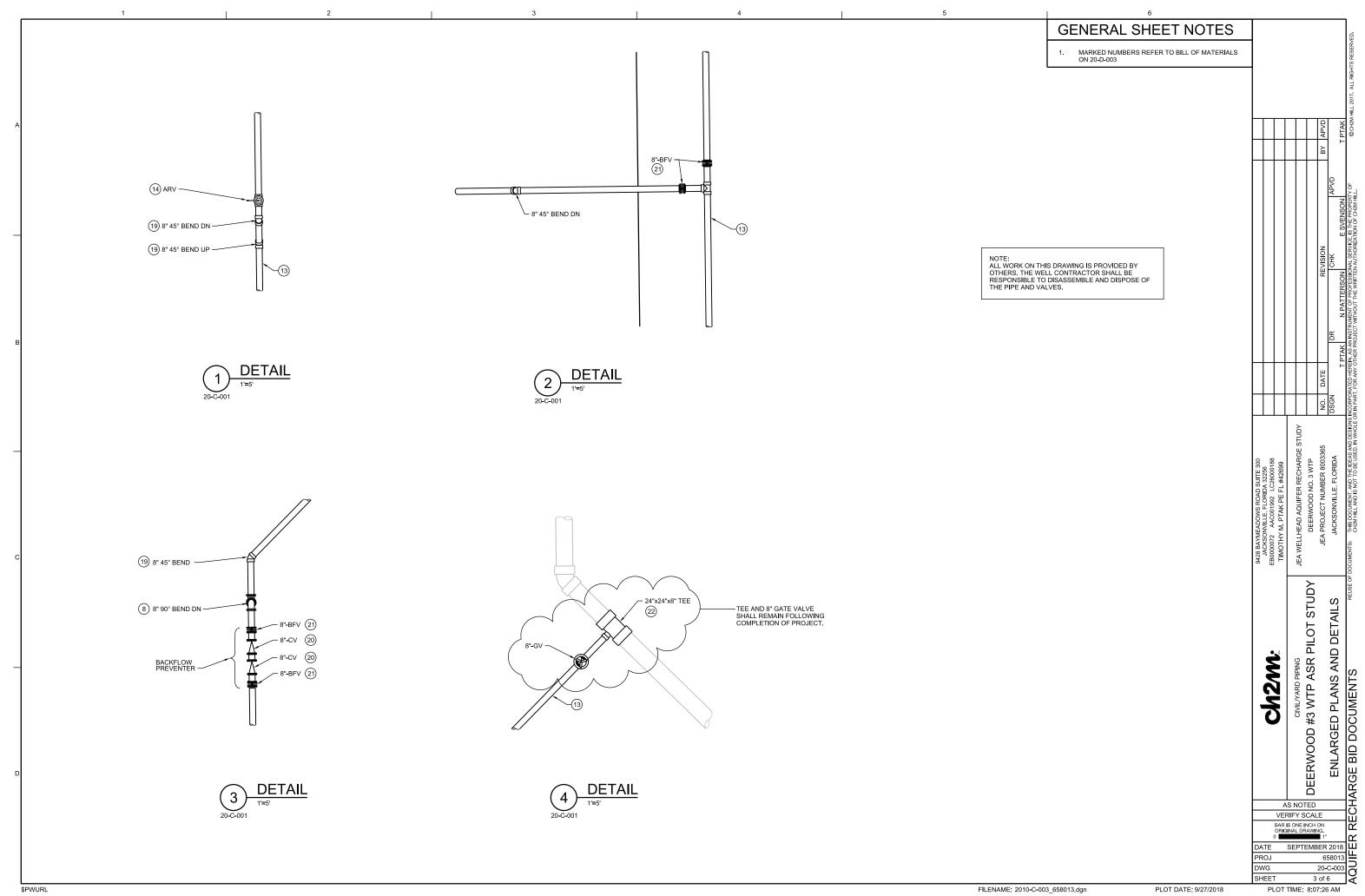
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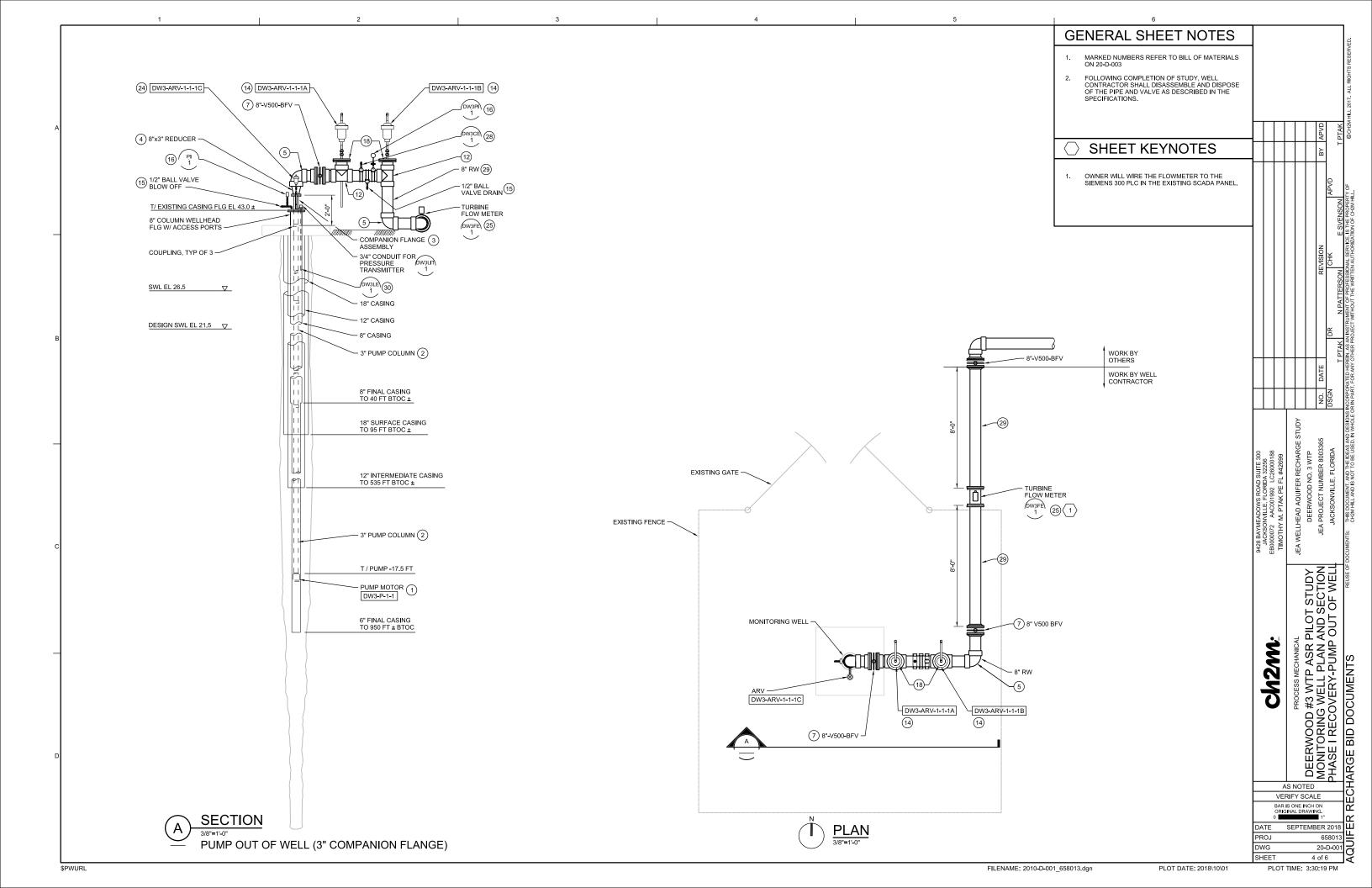
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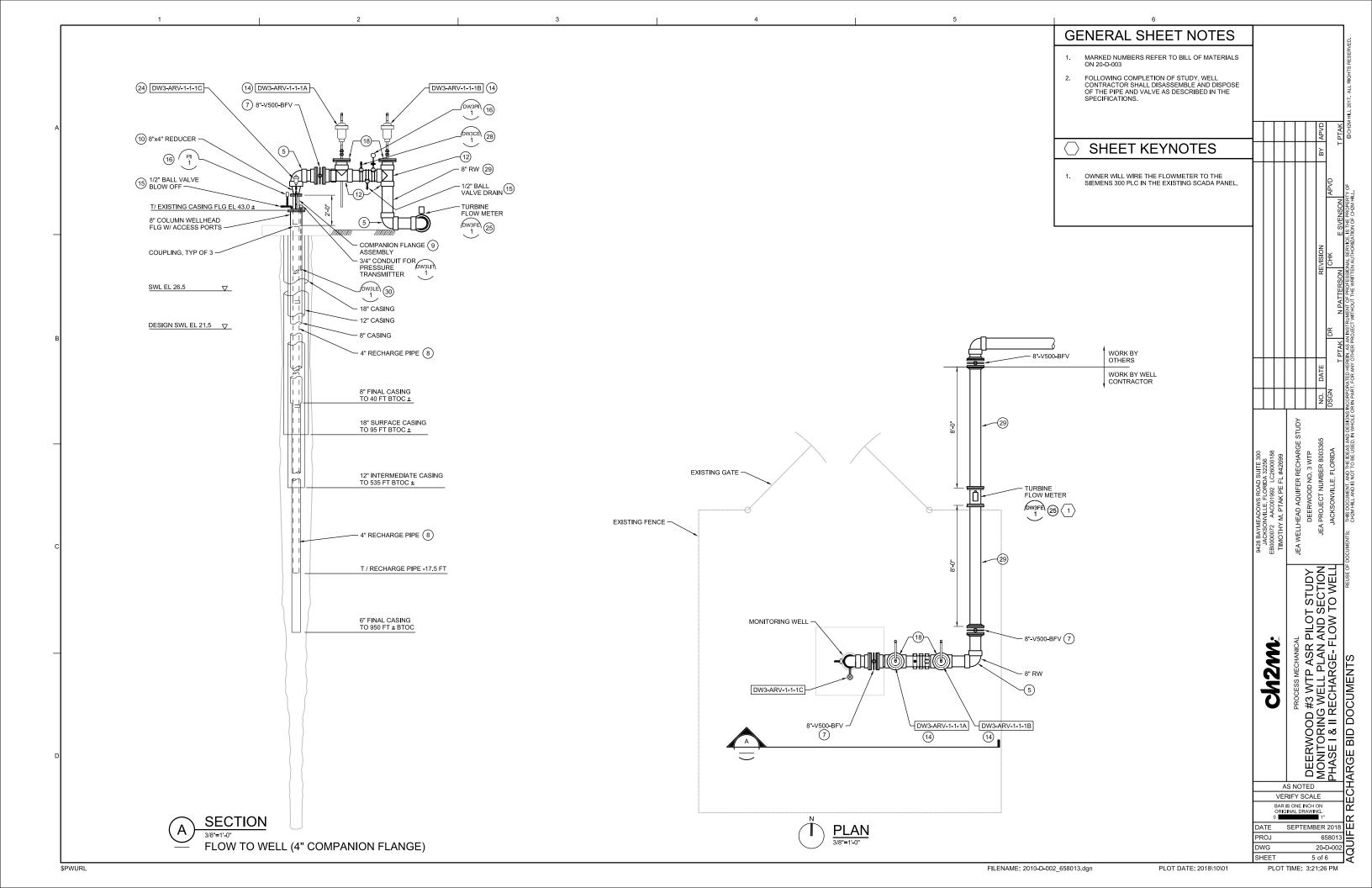
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AQUIFER RECHARGE BID DOCUMENTS

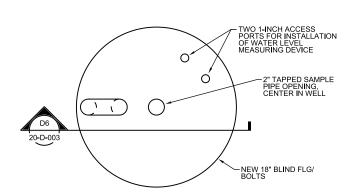




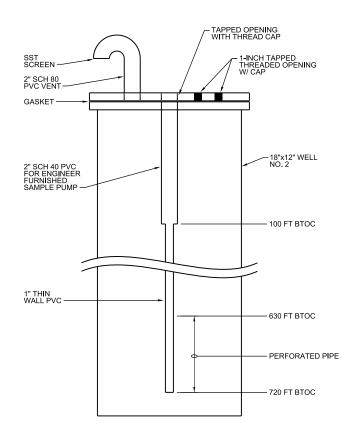


BILL OF MATERIALS

MARK NO	ITEM	Size	DESCRIPTION	MATERIAL	TAG NO.	QUANTITY	UNIT	COMMENTS
1	Pump	6"	Temporary sample pump shall provide the flow and head characteristics as a 6" Grundfos 300S 150-4AA temporary submersable sample pump with 3" discharge, 15 hp, 3P, 230V	SST	DW3-P-1-1	1	EA	Pump will be driven at 208V/120V 3P during the pilot study
2	Pipe	3"	60 ft of 3" Diam. pipe	Sch 10 Steel		60	LF	Order additional length as needed
3	Companion Flange	3"	3", FLG by Threaded companion flange	Steel		1	EA	
4	Reducer	8" by 3"	8" by 3" reducing bushing, FLG by spigot	Steel		1	EA	
5	90-deg Elbow	8"	8" socket by socked, 90 deg	Sch 40 PVC		3	EA	
6	Spool	8"	8" by 8", spigot by flange, length 12"	Sch 40 PVC		2	EA	Field verify length
7	Valve	8"	8" V500 flanged butterfly valve	Ductile Iron		2	EA	
8	Pipe	4"	60 ft of 4" Diam PVC pipe	Sch 40 PVC		60	LF	Order additional length as needed
9	Companion Flange	4"	4", FLG by Threaded companion flange	Steel		1	EA	
10	Reducer	8" by 4"	8" by 4" reducing bushing, FLG by spigot	Sch 40 PVC		1	EA	
11	Not Used							
12	Tee	8"	8" socket tee	Sch 40 PVC		2	EA	
13	Not Used							
14	ARV	1"	1" air release valve	DI Body and SST Trim	DWS-ARV-1-1- 1A and-1B	2	EA	2-inch, Valamtic VM38-2DISV with reducing bushing to 1"
15	Valve	1/2"	1/2" ball valve	PVC		3	EA	Sample, drain and blow-off
16	Gauge		Pressure gauge			3	EA	Ashcroft DuraGauge PLUS!
17	Not Used							
18	Blind Flg	8"	8" PVC blind flange and gasket	PVC and red rubber		2	EA	
19	Not Used							
20 21	Not Used Not Used							
22	Not Used							
23	Not Used							
24	ARV	1/2"	1/2"" air release valve	DI Body and SST Trim	DW3-ARV-1-1- 1C	1	EA	1-inch Valmatic VM22-9DISV with reducing bushing to 1/2"
25	FE	1"	Bi-directional Turbine Flowmeter	316 SST Wetted Parts	DW3-FE1	1	EA	Onicon Turbine Flowmeter Model F- 1211 and D-100 Display, Install Kit 1" SST Ball valve, 1" SST nipple, SCH 80 PVC Saddle with 1" Outlet
26	Not Used							
27	Generator	25 kVA max/ 23 kVA continuous	Magnum #MMG25FHI, 208V 3P, trailer-mounted, with tier IV interim approval and 106 gallon single wall base fuel tank			1	EA	Rental from Caterpillar or Generac
28	Analyzer		Conductivity Analyzer		DW3-CE-1	1		Engineer will furnish to Contractor to install.
29	Pipe	8"	8" pipe	Sch 40 PVC		See Comment		Order length as needed.
30	Level	N/A	Level Sensor	Titanium	DW3-LIT-1	1	EA	Engineer will furnish to Contractor to install.



WELL NO. 2 SAMPLE PIPE, PLAN (B6)



NOTE: REFER TO THE SPECIFICATION FOR THE SAMPLE TUBE MATERIALS REQUIRED AT WELL 2.



PROCESS MECHANICAL
PROCESS MECHANICAL
PROCESS MECHANICAL
MONITORING WELL
BILL OF MATERIALS
AQUIFER RECHARGE BID DOCUMENTS
REUSE OF THE PROCESS MECHANICAL
MONITORING WELL
BILL OF MATERIALS Ch2m. VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

PROJ DWG SHEET

PLOT TIME: 3:23:29 PM

Attachment 3
Deerwood III AR Pilot Test Bid Form

Deerwood III AR Pilot Test Bid Form

ITEM #	ENTER YOUR BID HERE FOR THE FOLLOWING DESCRIBED ARTICLES OR SERVICES	UNIT PRICE	QUANTITY	PRICE
1	Mobilization and Demobilization	Lump Sum	1	\$
2	AR Wellhead Construction - Furnish and install all equipment and materials as shown on Drawings 20-D-001, 20-D-002, and 20-D-003 - Furnish the temporary generator	Lump Sum	1	\$
3	Baseline Sampling - Attend preconstruction meeting - Install data-logging equipment at five wells - Install and remove sampling tube in Well No. 2	Lump Sum	1	\$
4	Preliminary Testing - Inspect the installation and repair any leaks and confirm proper operation - Conduct 2-hour operations test - Remove and reinstall the 4-inch recharge tube and submersible test pump as required	Lump Sum	1	\$
5	Preliminary and Phase I Testing - – Fuel for temporary generator	\$/gal	300 gallons	\$
6	Phase I Testing, Test Cycle 1 and 2 – — Remove the 4-inch recharge tube and install the submersible test pump at the end of each recharge period — At the end of each recovery period re-install the 4-inch recharge tube — Operator during recovery period to operate and maintain the test pump and generator	Lump Sum	1	\$
7	Phase II Testing - — Coordinate with Owner to initiate testing — Daily site visits during the first week of testing	Lump Sum	1	\$
8	Phase II Testing – — Conduct operation and maintenance site visits during Phase II pilot testing, per hour basis	\$/hour	32 hours	\$
	TOTAL (Furnish, Install, Operate, Maintain, and Remove Aquifer Recharge Pilot Test System Complete)		TOTAL	\$

BI1001181329GNV 3-1

Appendix B - Bid Form 95874 – Deerwood Aquifer Recharge Pilot Test

Submit a scanned signed copy of this document to kinggd@jea.com

Company Name:						
Company's Address						
Phone Number:	_FAX No:	Email Address:				
License Number:						
BID SECURITY REQUIREMENTS None required Certified Check or Bond - Five Percent (5%) SAMPLE REQUIREMENTS None required Samples required prior to Bid Opening Samples may be required subsequent to Bid Opening TERM OF CONTRACT One Time Purchase Annual Requirements Other, Specify - Project Completion SECTION 255.05, FLORIDA STATUTES CONTRACT BOND None required Bond required 100% of Bid Award if the bid amount exceeds \$200,000.00.						
QUANTITIES Quantities indicated are exacting Quantities indicated reflect the a Throughout the Contract period an with actual requirements.	approximate qua	antities to be purchased	INSURANCE REQUIREMENTS Insurance required			
PAYMENT DISCOUNTS 1% 20, net 30 2% 10, net 30 Other None Offered						
ENTER YO	OUR BID FOR	RFQ 95874	TOTAL BID PRICE			
Total Bid Price for the Project			\$			
☐ I have read and understood the Sunshine Law/Public Records clauses contained within this solicitation. I understand that in the absence of a redacted copy my proposal will be disclosed to the public "as-is". BIDDER'S CERTIFICATION						
By submitting this Bid, the Bidder	certifies that it	has read and reviewed all of the do	cuments pertaining to this Solicitation, that			
business in the State of Florida, an	d that the Comp	oany maintains in active status an ap	at the Company is legally authorized to do oppropriate contractor's license for the work out not limited to Conflict Of Interest and			
We have received addendathrough	Hand	Iwritten Signature of Authorized Of	fficer of Company or Agent Date			
	Printe	ed Name and Title				

Appendix B - Minimum Qualifications Form 95874 – Deerwood Aquifer Recharge Pilot Test

THE MINIMUM QUALIFICATIONS SHALL BE SUBMITTED ON THIS FORM. IN ORDER TO BE CONSIDERED A QUALIFIED BIDDER BY JEA YOU MUST MEET THE MINIMUM QUALIFICATIONS LISTED BELOW, AND BE ABLE TO PROVIDE ALL THE SERVICES LISTED IN THIS SOLICITATION.

THE BIDDER MUST COMPLETE THE BIDDER INFORMATION SECTION BELOW AND PROVIDE ANY OTHER INFORMATION OR REFERENCE REQUESTED. THE BIDDER MUST ALSO PROVIDE ANY ATTACHMENTS REQUESTED WITH THIS MINIMUM QUALIFICATIONS FORM.

COMPANY NAME:
BUSINESS ADDRESS:
CITY, STATE, ZIP CODE:
TELEPHONE:
FAX:
E-MAIL:
PRINT NAME OF AUTHORIZED REPRESENTATIVE:
SIGNATURE OF AUTHORIZED REPRESENTATIVE:
NAME AND TITLE OF AUTHORIZED REPRESENTATIVE:

MINIMUM QUALIFICATIONS:

BIDDER INFORMATION

Bidder shall have the following Minimum Qualifications to be considered eligible to submit a Bid in response to this Solicitation.

• Bidder must be an approved bidder on the SW8 Well Drilling RBL list as of the RFQ due date.

It is the responsibility of the Bidder to ensure and certify that it meets the Minimum Qualifications stated above. A Bidder not meeting all of the criteria will have their Bid rejected.

95874 LIST OF SUBCONTRACTORS

JEA Solicitation Number #95874 requires certain major Subcontractors be listed on this form, unless the work will be self-performed by the Company.

The undersigned understands that failure to submit the required Subcontractor information on this form will result in bid rejection, and the Company agrees to employ the Subcontractors specified below: (Use additional sheets as necessary)

Note: This list of Subcontractors shall not be modified subsequent to bid opening, without a showing of good cause and the written consent of JEA.

Type of Work	Corporate Name of Subcontractor	Subcontractor Primary Contact Person & Telephone Number	Subcontractor's License Number (if applicable)	Percentage of Work or Dollar Amount	Will the Provider Self Perform this Category? Yes/No		
Signed:							
Company:							
Address: Date:							