CONTRACT NO. 2019000156

AGREEMENT BETWEEN CHARLOTTE COUNTY

and

JONES EDMUNDS & ASSOCIATES, INC.

for

EASTPORT WATER RECLAMATION FACILITY EXPANSION - ENGINEERING, DESIGN AND CONSTRUCTION ADMINISTRATION SERVICES

THIS AGREEMENT (hereinafter the "Agreement"), is made and entered into by and between CHARLOTTE COUNTY, a political subdivision of the State of Florida, 18500 Murdock Circle, Port Charlotte, Florida 33948-1094 (hereinafter the "County") and JONES EDMUNDS & ASSOCIATES, INC., 730 NE Waldo Road, Gainesville, Florida 32641 (hereinafter the "Consultant").

<u>WITNESSETH</u>

WHEREAS, the County has determined that it is necessary to retain a Consultant to provide professional services for the preliminary engineering, design and construction administration services for the expansion of the East Port Water Reclamation Facility; and

WHEREAS, the Consultant has reviewed RFP No. 2019000156 required pursuant to this Agreement and is qualified, willing and able to provide and perform all such services in accordance with its terms; and

WHEREAS, the County, through a selection process conducted in accordance with the requirements of law and County policy, has determined that it would be in the best interest of the County to award a contract to Consultant for the rendering of those services described in the RFP 2019000156 and the Scope of Services, incorporated herein.

NOW, THEREFORE, the County and the Consultant, in consideration of the mutual covenants contained herein, do agree to implement the design of the East Port Water Reclamation Facility Expansion project (hereinafter, the "Project") as follows:

ARTICLE 1. INCORPORATION OF DOCUMENTS

- 1.1. RFP No. 2019000156, issued by the County on December 20, 2018 and consisting of pages 1 through and including 23; Addendum #1 to RFP 2019000156 issued by the County on January 16, 2019; Addendum #2 to RFP 2019000156, issued by the County on January 17, 2019; and the Proposal submitted by Consultant dated January 23, 2019, all filed with the Clerk of the Circuit Court of Charlotte County, Minutes Division, as RFP No. 2019000156, are hereby specifically incorporated into and made a part of this Agreement as if same had been set forth at length herein. The Scope of Services containing the Project Services and Timeline, is attached hereto as **Exhibit A** and is specifically incorporated into and made a part of this Agreement. The Project fees are attached hereto as **Exhibit B**, Summary of Labor Hours and Costs and are specifically incorporated into and made a part of this Agreement. The Proposed Drawing List is attached hereto as **Exhibit C** and is specifically incorporated into and made a part of this Agreement.
- 1.2. In the event of any conflict between the documents constituting this Agreement, the documents shall be given precedence in the following order:
 - 1) This Agreement including the Exhibits attached hereto;
 - 2) RFP No. 2019000156, with Addenda;

3) The Proposal submitted by Consultant dated January 23, 2019.

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ARTICLE 2. CONSULTANT'S SCOPE OF SERVICES

- 2.1. Consultant agrees to perform all the services and provide all the materials for the East Port Water Reclamation Facility Expansion Project as described in **Exhibit A**, Scope of Services and **Exhibit C**, Proposed Drawing List.
- 2.2. Consultant agrees to provide its services and all materials for the Project described in the **Exhibit A** for the fees contained in **Exhibit B**, Summary of Labor Hours and Costs. The Consultant shall make no claims for additional compensation or damages owing to suspensions, delays, or hindrances which arise during the performance of this Agreement. Such suspensions, delays or hindrances may only be compensated for by an extension of time as the County may decide. However, such extension shall not operate as a waiver of any other rights of the County.
- 2.3. In the event that County desires Consultant to perform any additional services related to the Design project not specifically contained in **Exhibit A**, Scope of Services, the parties shall enter into an amendment to this Agreement to provide for such additional services by Consultant and payment therefore by County.
- 2.4. Consultant agrees to provide its services and materials as contained in the Scope of Services in the times allowed for performance of the Project as set forth in **Exhibit A**, Schedule. The Consultant shall make no claims for additional compensation or damages owing to suspensions, delays, or hindrances which arise during the performance of this Agreement. Such suspensions, delays or hindrances may only be compensated for by an extension of time as the County may decide. However, such extension shall not operate as a waiver of any other rights of the County.

ARTICLE 3. COMPENSATION AND PAYMENT FOR CONSULTANT 'S SERVICES

- 3.1. County shall pay Consultant for those tasks and services provided in **Exhibits A** and **C** actually performed by Consultant and in accordance with **Exhibits A and C**. The total payment to Consultant shall not exceed Two Million Eight Hundred Thousand Dollars and no cents (\$2,800,000.00) for Consultant's services under this Agreement, performed in accordance with the Scope of Services and this Agreement.
- 3.2. Payment for services rendered by Consultant shall be made on a monthly basis in proportion to the percentage completed of those tasks listed in the Scope of Services. Percentage of services completed shall be subject to review and approval by the County Director of Utilities, or his/her designee.
- 3.3. Consultant shall submit all billings for payment of services rendered on a monthly basis to the County Purchasing Division for processing. Billings shall be detailed as to the nature of the tasks and services performed and shall refer to the specific tasks listed in the Scope of Services that were actually performed by Consultant. Billings shall include a summary of any amounts previously billed and any credits for amounts previously paid.
- 3.4. Consultant acknowledges that each billing must be reviewed and approved by the County Director of Utilities, or his/her designee. Should the Director of Utilities, or his/her designee, determine that the billing is not commensurate with services performed, work

accomplished or hours expended, Consultant shall adjust billing accordingly. However, Consultant shall be entitled to payment of any portion of a billing not in dispute.

3.5. County shall pay Consultant's monthly billings in accordance with Sections 218.70 through 218.80 Florida Statutes, the Local Government Prompt Payment Act.

ARTICLE 4. CONSULTANT'S RESPONSIBILITIES

- 4.1. Consultant shall perform or furnish consulting and related services to a level of technical skill, ability, and diligence customarily provided by an experienced professional in his or her field of expertise when rendering the same services, and in accordance with sound principles and practices generally acknowledged by professionals in his or her field of expertise, as represented to the County, both orally and in writing, to be possessed by Consultant, all in accordance with the standards contained elsewhere in this Agreement and in accordance with generally accepted standards of professional consulting practice and with the laws, statutes, ordinances, codes, rules and regulations governing Consultant's profession. The same standards of care shall be required of any subconsultant or subcontractor engaged by Consultant.
- 4.2. Consultant shall, without additional compensation, correct and revise any errors, omissions, or other deficiencies in its work product, services, or materials arising from the negligent act, error or omission of Consultant or any subconsultant or subcontractor engaged by Consultant for one year after the completion of Consultant's services under this Agreement. The foregoing shall be construed as an independent duty to correct rather than a waiver of County's rights under any applicable statute of limitations. County review of, approval of, acceptance of, or payment for any of Consultant's work product, services, or materials shall not be construed to operate as a waiver of any of County's rights under this Agreement, or cause of action County may have arising out of the performance of this Agreement.

ARTICLE 5. OWNERSHIP AND USE OF DOCUMENTS

- 5.1. All documents, data, studies, surveys, analyses, sketches, tracings, specifications, plans, designs, design calculations, details, computations, drawings, maps, models, photographs, reports, and other documents and plans resulting from Consultant's services under this Agreement are the property of, and shall be delivered to, County without cost, restriction or limitation as to use regardless of the format of the document (paper or electronic). However, any use subsequent for or other than the specific project for which such items were created, shall be at sole risk of County.
- 5.2. Consultant agrees that any software, computer systems and databases used for providing the documents necessary to this Agreement shall be compatible with existing County software and systems. It is anticipated that the software utilized will be run on windows-based PC's and will consist of AutoCAD release 2010, ICPR, Microsoft Office 365 2016, and Adobe Reader 10.

ARTICLE 6. COUNTY'S RESPONSIBILITIES

- 6.1. County shall perform the responsibilities contained in this Article 6 in a timely manner so as not to delay the services of Consultant.
- 6.2. County shall furnish to Consultant, upon request of Consultant and at County expense, all existing studies, reports and other available data pertinent to the services to be

performed under this Agreement which are within the County's possession. However, Consultant shall be required to evaluate all materials furnished hereunder using reasonable professional judgment before relying on such materials.

6.3. County shall provide reasonable access and entry to all public property required by Consultant to perform the services described in this Agreement. All such access and entry shall be provided at County expense. County shall also use reasonable efforts to obtain permission for reasonable access and entry to any private property required by Consultant to perform the services described in this Agreement.

ARTICLE 7. TERM / TERMINATION

- 7.1. The term of this Agreement shall begin on the date it is signed by both parties and shall be completed in accordance with the schedule attached hereto in **Exhibit A**, Schedule. Consultant's services shall be deemed complete when Consultant provides all products or services contained in the Scope of Services and required under this Agreement, and County accepts such services and products as satisfactory, unless otherwise terminated in accordance herewith.
- 7.2. The Consultant shall be responsible for notifying the County promptly whenever a delay is anticipated or experienced, including a delay in approval by any governmental agency having jurisdiction over the Project. The County shall allow the Consultant to extend the Project Schedule for valid, documented delays. The County shall be the sole determiner of the validity of the delays.
- 7.3. The County shall have the right at any time upon thirty (30) calendar days written notice to the Consultant to terminate the services of the Consultant and, in that event, the Consultant shall cease work and shall deliver to the County all documents, (including reports, designs, specifications, and all other data) prepared or obtained by the Consultant in connection with its services. The County shall, upon receipt of the aforesaid documents, pay to the Consultant, and the Consultant shall accept as full payment for its services, fees for all tasks completed in accordance with Scopes of Services.
- 7.4. In the event that the Consultant has abandoned performance under this Agreement, then the County may terminate this Agreement upon three (3) calendar day's written notice to the Consultant indicating its intention to terminate. The written notice shall state the evidence indicating the Consultant's abandonment. Payment for services performed prior to the Consultant's abandonment shall be as stated Section 3 above.

ARTICLE 8. NO CONTINGENT FEES

8.1. Consultant certifies that it has not employed or retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this Agreement and that it has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for Consultant any fee, commission, percentage, gift or other consideration contingent upon or resulting from the award or making of this Agreement. For the breach or violation of this provision, County shall have the right to terminate the Agreement without liability at its discretion, to deduct from the contract price, or otherwise recover, the full amount of such fee, commission, percentage, gift or consideration.

ARTICLE 9. NOTICES

9.1. Any notice required or permitted to be sent hereunder shall be sent certified mail, return receipt requested, to the parties at the addresses listed below:

Consultant: Jones Edmunds & Associates, Inc.

County:

Purchasing Division

Name:

Tom Friedrich, PE, BCCE

Name:

Kimberly A. Corbett

Senior Division Manager

Address:

Jones Edmunds & Associates, Inc.

Address:

Charlotte County Purchasing

7230 Kyle Court

Sarasota, Florida 34240

18500 Murdock Circle, Suite 344 Port Charlotte, Florida 33948

9.2. Contractor shall immediately notify County of any changes in address.

ARTICLE 10. TRUTH-IN-NEGOTIATION CERTIFICATE

10.1. In accordance with Section 287.055 of the Florida Statutes and Charlotte County Resolution 2003-059, signature of this Agreement by Consultant shall act as the execution of a truth-in-negotiation certificate stating that wage rates and other factual unit costs supporting the compensation of this Agreement are accurate, complete, and current at the time of contracting. The original contract price and any additions thereto shall be adjusted to exclude any significant sums by which County determines the contract price was increased due to inaccurate, incomplete, or noncurrent wage rates and other factual unit costs. All such contract adjustments shall be made within one (1) year following the end of this Agreement.

ARTICLE 11. ASSIGNMENT

11.1. This Agreement, or any interest herein, shall not be assigned, transferred or otherwise encumbered, under any circumstances by Consultant without the prior written consent of County. Further, no portion of this Agreement may be performed by subcontractors or subconsultants without written notice to and approval of such action by County.

ARTICLE 12. EXTENT OF AGREEMENT / SEVERABILITY / MODIFICATION

- 12.1. This Agreement represents the entire and integrated agreement between the County and Consultant and supersedes all prior negotiations, representations or agreement, either written or oral.
- 12.2. In the event any provision of this Agreement shall be held invalid and unenforceable, the remaining provisions shall be valid and binding upon the parties. One or more waivers by either party of any breach of any provision, term, condition or covenant shall not be construed by the other party as a waiver of any subsequent breach.
- 12.3. No modification, amendment or alteration in the terms or conditions contained herein shall be effective unless contained in a written document executed by both parties.
- 12.4. This is a nonexclusive contract. The County has the right to enter into contracts with other consultants for the providing of any services.

ARTICLE 13. GOVERNING LAW / VENUE

13.1. This Agreement shall be governed and construed in accordance with Florida law. In the event any litigation arises between the parties in connection with this Agreement, venue for such litigation shall lie exclusively in Charlotte County, Florida.

ARTICLE 14. INDEPENDENT CONTRACTOR STATUS

14.1. Consultant is an independent contractor and is not an employee, servant, agent, partner or joint venturer of the County. Neither the County nor any of its employees shall have any control over the conduct of Consultant or any of Consultant's employees, except as herein set forth, and Consultant expressly warrants not to represent at any time or in any manner that Consultant or any of Consultant's agents, servants or employees are in any manner agents, servants or employees of the County. It is understood and agreed that Consultant is, and shall at all times remain as to the County, a wholly independent contractor and that Consultant's obligations to the County are solely as prescribed by this Agreement.

ARTICLE 15. AUDIT AND RECORDS REQUIREMENTS

- 15.1. Consultant shall maintain books, records, documents, and other evidence directly pertaining to or connected with the services under this Agreement which shall be available and accessible at Consultant's local offices for the purpose of inspection, audit, and copying during normal business hours by the County, or any of its authorized representatives. Such records shall be retained for a minimum of five (5) years after completion of the services. Prior to destruction of any records, the Consultant shall notify the County and deliver to the County any records the County requests. Consultant shall require all subcontractors to comply with the provisions of this paragraph by insertion of the requirements hereof in a written contract agreement between Consultant and the subcontractor.
- 15.2 If the records are unavailable locally, it shall be the Consultant's responsibility to insure that all required records are provided at the Consultant's expense including payment of travel and maintenance costs incurred by the County's authorized representatives or designees in accessing records maintained out of the County. The direct costs of copying records, excluding any overhead cost, shall be at the County's expense.
- 15.3 Pursuant to Section 119.0701 of the Florida Statutes, Contractors acting on behalf of the County must comply with the public records laws, specifically: a) keep and maintain public records required by the County to perform the contracted services; b) upon request from the County's custodian of public records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119 of the Florida Statutes or as otherwise provided by law; c) ensure that public records that are exempt or confidential from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract; and d) upon completion of the contract, keep and maintain all public records required by the County to perform the service, and meet all applicable requirements for retaining public records.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE

CONTRACTOR'S DUTY TO RETAIN AND PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE COUNTY'S CUSTODIAN OF PUBLIC RECORDS AT (941) 743-1441, E-MAIL TO RECORDS@CHARLOTTECOUNTYFL.GOV, 18500 MURDOCK CIRCLE, BLDG. B, Suite 200, PORT CHARLOTTE, FLORIDA 33948.

ARTICLE 16. INDEMNIFICATION

16.1. Consultant shall indemnify and hold harmless the County, its Commissioners, officers, employees, agents and volunteers from and against liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the Consultant and other persons employed or utilized by the Consultant in the performance of this Agreement.

ARTICLE 17. EMPLOYEE RESTRICTIONS

- 17.1. Charlotte County will not intentionally award publicly-funded contracts to any Consultant who knowingly employs unauthorized alien workers, constituting a violation of the employment provisions contained in 8 U.S.C. Section 1324a(e) [Section 274A(e) of the Immigration and Nationality Act ("INA")]. The County shall consider employment by Consultant, or any subconsultant or subcontractor of Consultant, of unauthorized aliens a violation of Section 274A(e) of the INA. Such violation by the Consultant or any subconsultant or subcontractor of Consultant of the employment provisions contained in Section 274A(e) of the INA shall be grounds for termination of this Agreement by the County.
- 17.2. Consultant shall incorporate this provision into all contracts with subcontractors or subconsultants.

ARTICLE 18 SCRUITNIZED VENDORS

- 18.1. Pursuant to Section 287.135(3)(b) of the Florida Statutes, Charlotte County may, at its sole option, terminate this Agreement if the Contractor is found to have been placed on the *Scrutinized Companies that Boycott Israel List*, or is engaged in a boycott of Israel.
- 18.2. Pursuant to Section 287.135(3)(a)4 of the Florida Statutes, Charlotte County may, at its sole option, terminate this Agreement if the Contractor is found to have submitted a false certification, has been placed on the *Scrutinzed Companies with Activities in Sudan List*, or the *Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List*, or has been engaged in business operations in Cuba or Syria or a boycott of Israel.

ARTICLE 19 STATUTORY LIABILITY WAIVER

19.1 PURSUANT TO SECTION 558.0035, FLORIDA STATUTES, AN INDIVIDUAL EMPLOYEE OR AGENT OF

CONSULTANT MAY NOT BE HELD INDIVIDUALLY LIABLE FOR ECONOMIC DAMAGES RESULTING FROM NEGLIGENCE UNDER THIS AGREEMENT IF THE CONDITIONS OF SECTION 558.0035 ARE SATISFIED.

ARTICLE 20 CONSTRUCTION OBSERVATION

20.1 The Consultant shall visit the site at intervals appropriate to the stage of construction, as outlined in the Scope of Services, in order to observe the progress and quality of the work completed by the General Contractor. Such visits and observation are not intended to be an exhaustive check or a detailed inspection of the Contractor's work but rather are to allow the Consultant to become generally familiar with the work in progress and to determine, in general, if the work is proceeding in accordance with the Contract Documents. Based on this general observation, the Consultant shall keep the County informed about the progress of the work and shall advise the County about observed deficiencies in the work.

ARTICLE 21 JOBSITE SAFETY

21.1 Neither the professional activities of the Consultant, nor the presence of the Consultant or its employees and subconsultants at a construction/project site, shall impose any duty on the Consultant, nor relieve the General Contractor of its obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending and coordinating the work in accordance with the Contract Documents and any health or safety precautions required by any regulatory agencies. The Consultant and its personnel have no authority to exercise any control over any construction contractor or its employees in connection with their work or any health or safety programs or procedures. The County agrees that the General Contractor shall be solely responsible for jobsite and worker safety and warrants that this intent shall be carried out in the County's contract with the General Contractor.

ARTICLE 22 ESTIMATES OF PROBABLE CONSTRUCTION COST

22.1 In providing estimates of probable construction cost, the County understands that the Consultant has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that the Consultant's estimates of probable construction cost are made on the basis of the Consultant's professional judgment and experience. The Consultant makes no warranty, express or implied, that the bids or the negotiated cost of the Work will not vary from the Consultant's estimate of probable construction cost.

ARTICLE 23 RECORD DRAWINGS

23.1 Upon completion of construction by the Contractor, the Consultant shall compile and deliver to the County a reproducible set of record drawings conforming to the marked-up prints, drawings and other data furnished to the Consultant by the Contractor, which record drawings shall show the reported location of the work and significant changes made during the construction process. Because these record drawings are based on unverified information provided by others which is assumed reliable, the Consultant cannot and does not warrant their accuracy.

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IN WITNESS WHEREOF, the parties hereto have caused the execution of this Agreement as of the date and year written below.

WITNESSES:	JONES EDMUNDS & ASSOCIATES, INC.
Signed By: Junk Hyler Print Name: Linda Lyles	Signed by: Stanley F. Ferreira, P.E.
Date: 10/15/2019	Title: President & CEO
Signed By: Lindo G. Fellow	Date: 10/15/2019
Print Name: ZINDA E. FELLER	
Date: 10/15/2019	
ATTEST: Roger D. Eaton, Clerk of the Circuit Court and Ex-Officio Clerk to the Board of County Commissioners	BOARD OF COUNTY COMMESSIONERS OF CHARLOTTE COUNTS FLORIDA By: Kenneth W. Doherty, Chairman Date: 10 -10 -93
By: Michelle S. Berardino Deputy Clerk	APPROVED AS TO FORM AND LEGAL SUFFICIENCY By: Janette S. Knowken County Attorney LR 19-0178

Exhibit List:

Exhibit A – Scope of Services and Schedule

Exhibit B – Summary of Labor Hours and Costs

Exhibit C - Proposed Drawing List

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September 25, 2019, Jones Edmunds Approved Scope with Fee

EXHIBIT A

CHARLOTTE COUNTY UTILITIES DEPARTMENT RFP NO.: 2019000156 EAST PORT WATER RECLAMATION FACILITY EXPANSION ENGINEERING, DESIGN & CONSTRUCTION SERVICES JONES EDMUNDS PROPOSAL NO.: 95347-513-18

SCOPE OF SERVICES

BACKGROUND

Under this Scope of Services Jones Edmunds will provide professional services to Charlotte County Utilities (CCU) for engineering, design, and construction services for Stage 3 and Stage 4 upgrades to the East Port Water Reclamation Facility (WRF). This work will build on the existing biddable plans, specifications, and cost estimate for Stages 3 and 4 of the WRF expansion from 6 to 9 million gallons per day (MGD) annual average daily flow (AADF) completed by Jones Edmunds in March 2014. The proposed work will consider advances in technology, operational enhancements including better control and monitoring, energy efficiency, and other improvements that could be cost-effectively incorporated into the expansion.

This Scope of Services addresses the following goals and objectives identified by CCU:

Preliminary Engineering Services

- Evaluate flows and loads, plant hydraulics, process evaluation, process instrumentation and controls, BioWin model, and regulatory evaluation for expansion to 9 MGD and 12 MGD. Provide a Technical Memorandum (TM) with a schedule and cost estimates for two expansion alternatives. The two alternatives are:
 - Alternative 1: Two-stage expansion from 6 MGD to 9 MGD and then from 9 MGD to 12 MGD.
 - Alternative 2: One-stage expansion from 6 MGD to 12 MGD.
- Provide a TM for assessment and verification for Stages 3 and 4 9 MGD preliminary documents.
- Provide a TM for energy efficiency evaluation.
- Update 2012 Preliminary Engineering Report and 30% Design Drawings for Expansion to 12 MGD.
- Provide a Reclaimed Water Master Plan for Mid- and West-County with incorporation of South County to provide a County-wide Reclaim Water Master Plan.
- Present the recommended East Port Expansion Plan to the Board of County Commissioners (BCC) for approval.

Design, Bid, and Award Services

- Review, revise, and update existing biddable plans, specifications, and cost estimate for the WRF expansion based on the findings from the expansion alternative evaluation and considering more recent information from studies and projects that followed the development of Stage 3 and Stage 4 design in 2014. Submit 60%, 90%, and 100% Design Documents to CCU for review and comments.
- Submit an application for modification of the Florida Department of Environmental Protection (FDEP)
 Wastewater Permit for 12 MGD, if applicable.
- Assist CCU during the bidding phase.

Construction, Engineering, Administration, and Inspection (CEI) Services

- Provide CEI services for the selected expansion alternative including coordinating construction progress meetings, assisting with value engineering areas of contract modifications, reviewing shop drawings and submittals, coordinating site visits, certification of the facility for FDEP permitting and local building permits, and preparing Record Drawings.
- Provide services for compliance as required by local, state, or federal funding agencies such as Davis Bacon and American Iron and Steel.
- Finalize a detailed updated to the existing WRF Operation & Maintenance Manual and providing training for these facilities.
- Provide necessary technical support and other assistance to CCU staff during the initial start-up of these facilities.
- Provide final certification and closeout services for regulatory permitting and funding agencies.

SCOPE OF SERVICES

Charlotte County intends to execute this project in several tasks. Each task will be viewed and billed independently from the other tasks. Nonetheless, the outcome from one task might have a significant impact on subsequent task(s). Such dependency will be discussed in more details herein.

Jones Edmunds has developed the following Scope of Services to be executed in this project based on the goals and objectives outlined above and our understanding of CCU drivers and challenges. This Scope of Services will highlight the main steps for each task, the expected deliverable(s) from each task, key assumptions for the tasks and the expected schedule to complete each task. Quality assurance and quality control (QA/QC) reviews will take place at appropriate milestones throughout the project.

The main tasks for the project include the Tasks listed below.

TASK 1: PRELIMINARY ENGINEERING

TASK 1.1: PROJECT PLAN INITIATION, DATA REVIEW AND KICKOFF MEETING

Jones Edmunds will create an initial project plan that will act as a road map to deliver this project using Deltek Vision.

Jones Edmunds will review the available information from previous projects and identify any data gap critical to this project. Jones Edmunds will develop and submit a list of required East Port WRF data,

September 25, 2019, Jones Edmunds Approved Scope with Fee

reports, drawings, and other relevant information for CCU staff to begin to assemble before the kickoff meeting.

Jones Edmunds will develop a kickoff meeting agenda and share it with CCU 1 week before the scheduled meeting date. Key members of the team will attend this meeting including the project manager, the engineer of record, and other key team members as required. Key items to be discussed at the meeting include CCU's vision and critical success factors, schedule, lines of communication, and other information pertinent to the successful completion of this project.

Meeting minutes and an overall project plan will be prepared and distributed within 10 calendar days following the meeting. A site visit will also occur as part of the kickoff meeting.

Deliverables: Jones Edmunds will prepare the following deliverables as part of this task:

- A list of required East Port WRF data, reports, drawings, and other relevant information.
- Kickoff meeting agenda via e-mail at least 1 week before the scheduled meeting date.
- Kickoff meeting minutes via e-mail within 10 calendar days following the meeting.

TASK 1.2: PROJECT MANAGEMENT PLAN

A Project Management Plan will be finalized following the kickoff meeting that will be used by the Jones Edmunds Team and CCU for the duration of the project. The Plan will establish the following:

- County's goals and critical success factors.
- Project schedule.
- Project budgets.
- Communication plan.
- Project contacts list.

Project management and coordination of the subcontractors' work will also begin during this phase for the site survey, geotechnical, civil, stormwater, architectural, structural, HVAC, plumbing, electrical, and instrumentation and controls.

Deliverables: Jones Edmunds will submit the Project Management Plan in conjunction with the kickoff meeting minutes.

TASK 1.3: FIELD INVESTIGATIONS

The following field investigations will be conducted during the Preliminary Engineering Phase with the assumptions and exclusions noted.

TASK 1.3.1: SITE AND STRUCTURE TOPOGRAPHIC SURVEY

A survey of portions of the East Port WRF will be conducted by Hyatt Surveying as described in this scope of services. The survey work under this scope and fee includes Area A, with three separate subareas Area A-1, A-2 and A-3 of the existing East Port WRF. Area A-1 is the west end of existing WRF plant site, A-2 is the old structure for the original WWTP over to the Grand Master LS and A-3 is the north and east side of the existing WRF site. Area B and Area C can be done under supplemental services if determined necessary by CCU. Area B is entire area south of the 95 MG Pond including the Injection

Well Forcemain and wells IW-1 and IW-2. Area C is the spray field area south of the WRF proposed for solar fields or other expansions. The extent of the additional B and C areas to be surveyed will be determined based on final approval from CCU based on recommended expansion plan and completed under supplemental services.

TASK 1.3.2: GEOTECHNICAL BORINGS AND REPORT

A geotechnical investigation will be conducted in the expansion areas by Ardaman. The following field exploration, consisting of Standard Penetration Testing (SPT), will be conducted:

- Oxidation ditch influent flow splitter box one SPT boring to 35 feet below land surface (bls).
- Oxidation ditch #4 three SPT borings to 50 feet bls.
- Secondary clarifier #4 two SPT borings to 35' bls and 1 SPT boring to 60' bls.
- Effluent filters #3 and #4 two SPT borings to 50 feet bls.
- Chlorine Contact Tanks #3 and #4 two SPT borings to 50 feet bls.
- New Equalization Tank three SPT borings to 60 feet bls.
- Chemical Building one SPT boring to 25 feet bls.
- Miscellaneous Structures four SPT borings to 25 feet bls.

Based on this field exploration, laboratory testing will be conducted to define the soil characteristics. The results of the field exploration and associated laboratory testing will be summarized in a report. This report will also provide recommendations for site preparation and foundation design.

TASK 1.3.3: ECOLOGICAL AND ENDANGERED SPECIES

Jones Edmunds has received a proposal from ESA to conduct an environmental assessment of portions of the East Port WRF site proposed for potential expansion. This includes assessment for Federally Protected species, habitat mapping and characterization, protected species field survey, gopher tortoise survey and report preparation. No cost for ESA has been included at this time until the actual areas of expansion are determined. The work, if needed can be done under the supplemental services. The potential areas are similar to the three expansion areas outlined in Task 1.3.1, and include Area A – Existing WRF, Area B- South of 95 MG Pond and Injection Well Areas, and Area C – Spray field area South of WRF. The actual areas for environmental assessment work and the fee will be determined based on final approval from CCU based on recommended expansion plan, and environmental assessment work will be done under supplemental services.

TASK 1.3.4: ARCHAEOLOGICAL/HISTORIC SITE ASSESSMENTS

Jones Edmunds has received a proposal from ASI to conduct as needed archaeological survey for areas on the East Port WRF. This work will be done under supplemental services as determined required. The Cultural Resources Assessment Survey (CRAS) will conform to the specifications set forth in Chapter 1A-46, Florida Administrative Code (FAC). The CRAS will include background research, field survey and a CRAS Report complying with the Florida Division of Historic Resources' (FDHR) Module Three, Guidelines for Use by Historic Preservation Professionals. If any historic resources (50 years of age or older) are located on the property, there is additional scope and fee will be required as the FDHR requires the historic resources to be recorded in the CRAS report (Chapter 1A-46 FAC). This scope of services does not include responding to comments which may be generated by the Seminole Tribe of Florida during a federal review process. Such comments would

be addressed under a separate agreement, as necessary. The assessment areas proposed for assessment are similar to the three expansion areas outlined in Task 1.3.1, and include Area A — Existing WRF, Area B- South of 95 MG Pond and Injection Well Areas, and Area C —Spray Field Area South of WRF. The areas to be surveyed for archaeological / historic site assessments and the final fee will be determined based on final approval from CCU based on recommended expansion plan and work will be done under supplemental services.

TASK 1.3.5: JURISDICTIONAL WETLAND ASSESSMENT

Jones Edmunds will assess the approximate limits of jurisdictional wetlands in the areas surrounding Area A – Existing WRF Site and Area C – Spray Field Area south of WRF a combination of a desktop geographic information system analysis combined with limited ground truthing. Jones Edmunds will create a map depicting the limits of jurisdictional wetlands and surface waters. Jones Edmunds will also provide an opinion of probable wetland mitigation cost per acre based on the 30% design by obtaining wetland mitigation credit costs from several wetland mitigation banks that service the project site.

Jones Edmunds will prepare a draft and final Technical Memorandum in .pdf format that provides associated maps depicting the location of jurisdictional wetlands and conceptual mitigation costs. This work will be done once authorized by CCU as determined necessary for the expansion.

TASK 1.3.6: SUBSURFACE UTILITY EVALUATION (SUE)

Jones Edmunds has ECHO USE as a subconsultant to perform subsurface utilities evaluation to locate underground utilities (piping, valves, electrical, I&C duct banks, etc.) in areas not recently investigated under recent expansion phases. The SUE work will focus on the following areas: northwest area of the WRF site from the reclaimed and secondary ponds to the clarifiers; northeast area east of the aerobic sludge storage tanks and truck off-loading facilities. The subconsultant will provide a SUE crew to locate buried utilities. The crew will conduct a minimum of eight buried locates per day. The scope of work includes five days of SUE to conduct a minimum of 40 locates. Buried underground utilities will recorded to include depth, pipe diameter or duct bank size, material. The subconsultant will provide coordinates to locate buried utility and coordinate with CCU staff to install marker balls at determined locations to allow CCU to easily locate buried infrastructure. The subconsultant will prepare a table summarizing the buried infrastructure type, material, depth, coordinates, and marker ball ID number.

TASK 1.4: FLOWS AND LOADS ANALYSIS

Jones Edmunds will review historical flows and loads and WRF effluent quality using historical Discharge Monitoring Reports (DMRs), and update the dataset used for the "Permit Renewal and Substantial Modification" report (the PER) dated February 2012 to include data through 2018. Jones Edmunds will use growth projections and future flows and loads provided by CCU to develop the design basis for the proposed expansions. Jones Edmunds has included time to coordinate with CCU to pull samples and analyze for WRF nutrient removal (T-Nitrogen, T-Phosphorus, CBOD5) capabilities of the WRF to confirm basis of design for achieving future low-level nutrient removal requirements. The flows and loads analysis, along with current plant nutrient removal performance will be summarized in Technical Memorandum 1 (TM 1) described in Task 1.5.

TASK 1.5: CAPACITY, REGULATORY & ELECTRICAL/ I&C ASSESSMENT

Jones Edmunds will assess the capacity of the components of the existing WRF including treatment processes, mechanical and electrical equipment, structures, control systems, stormwater system, and buildings for current and future operating conditions to ensure optimal use of assets toward the 9-MGD and 12-MGD expansions. The capacity assessment will consider recent upgrades from Stages 1, 2, 5, and the Loveland Grand Master Lift Station (GMLS) projects at the WRF facility.

The existing BioWin model will be validated using more recent flows, loads and nutrient removal performance. The model will be used to verify the capacity of the existing secondary biological treatment system identifying required improvements to meet expansion objectives and future low-level nutrient discharge goals if implemented and required by the FDEP.

Jones Edmunds will also evaluate plant hydraulics to incorporate the new Loveland GMLS, identify potential hydraulic bottlenecks, and recommend appropriate short-term and long-term mitigations.

The goal of this sub-task is to identify if the major unit treatment processes and associated facilities are adequate, marginal, or inadequate for current and future operations and required performance.

Deliverables: Jones Edmunds will prepare a draft Flows and Loads and Capacity Assessment as part of TM 1 and submit it to CCU for review and comment. Jones Edmunds will conduct a workshop with CCU staff to review and receive comments on TM 1. Based on the comments received at the workshop, Jones Edmunds will prepare a final version of TM 1 to be used in subsequent tasks and submit to CCU.

TASK 1.6: ENERGY EFFICIENCY EVALUATION

Jones Edmunds will conduct an energy efficiency evaluation and evaluate green solutions and alternative energy sources for the WRF expansion. The goal is to decrease energy use and provide alternative energy options that are proven and provide a reasonable return on investment. The alternatives to be considered will include the following:

- Solar
- Anaerobic Digestion with Biogas
- Natural Gas
- Technology Advances on Process Equipment

The energy evaluation completed for CCU in 2011 for the East Port WRF will be the basis of this evaluation with updates based on facility size, land area available, costs, return on investment, and permittability. In addition, Jones Edmunds will summarize anticipated additional staffing needs, equipment costs, and/or partnerships required for the successful implementation of alternate energy alternatives. The Jones Edmunds Team will identify potential grants for energy efficiency and reduction alternatives and support CCU in application submissions.

Deliverables: Jones Edmunds will prepare TM 2 – Energy Efficiency Evaluations and submit it to CCU for review and comment. Jones Edmunds will conduct a workshop with CCU staff to review and receive comments on TM 2. Based on the comments received at the workshop, Jones Edmunds will prepare a final version of TM 2 to be used in subsequent tasks and submit to CCU. Jones Edmunds will summarize potential grants and submit supporting information to CCU to support grant application.

TASK 1.7: EVALUATION OF ADMINISTRATION BUILDING NEEDS

Jones Edmunds will review the need for and location of a new administration building at the East Port WRF. This evaluation will include the recommended location within the WRF site and the general types of space usage to be potentially housed within the administration building. Condition evaluation and repurposing of the old administration building is not included as a part of this scope of services. Design of the recommended new administration building is not included as a part of this scope of services.

Deliverables: Jones Edmunds will prepare TM 3 – Administration Building Needs and submit it to CCU for review and comment. Jones Edmunds will conduct a workshop with CCU staff to review and receive comments on TM 3. Based on the comments received at the workshop, Jones Edmunds will prepare a final version of TM 3 and submit to CCU.

TASK 1.8: EVALUATION OF EXPANSION ALTERNATIVES

Jones Edmunds will review historical data as well as submitted reports and drawings including current permit, recent Capacity Analysis Report (CAR), recent Sewer Master Plan, and other relevant new information that could impact the types of improvements, expansion schedule, and/or regulatory permitting for the project. Based on this review, Jones Edmunds will evaluate the feasibility of the proposed expansion alternatives as described in the following subtasks.

TASK 1.8.1: ALTERNATIVE 1 STAGE 1 (6 MGD TO 9 MGD EXPANSION)

- Evaluate flow equalization. The evaluation will include the need for equalization for a 9-MGD facility and the impacts to the headworks. Two locations will be considered for equalization if determined to be needed, one location at the Eastport WRF and one location in the new collection system interceptor (part of the Grand Master Lift Station) within the WRF property. Jones Edmunds will meet with CCU to discuss potential locations for the equalization basin prior to conducting the evaluation.
- Update hydraulic profile for 9 MGD facility.
- Revise the schedule and cost estimates developed as part of the 2012 PER to expand the facility from 6 MGD to 9 MGD considering modification resulting from the completion of Stages 1, 2, and 5, and the Loveland GMLS projects at the WRF facility, and other changes to the original design completed in Stage 3 and 4 as discussed with CCU.
- Evaluate reconfiguring Oxidation Ditches 3 and 4 to be of similar operation/configuration to Oxidation Ditches 1 and 2.
- Recommend unit process that should be expanded to 12 MGD under either the 9-MGD or 12-MGD plant expansion options based on reliability, ease of maintenance, economy of scale, construction costs and plant hydraulics.
- Evaluate previous Camp Dresser McKee design from 1990s where expansion to 9 MGD did not require splitter box and summarize pros and cons and cost benefit of the splitter box.

TASK 1.8.2: ALTERNATIVE 1 STAGE 2 (9-MGD TO 12-MGD EXPANSION)

- Identify the required improvements for expansion from 9 MGD to 12 MGD AADF.
- Evaluate the need for flow equalization for a 12-MGD facility. The sites for flow equalization will be the same as those evaluated in Task 1.8.1.
- Develop hydraulic profile for 12 MGD facility.
- Prepare a site layout and phasing plan for the required improvements.

- Incorporate required improvements due to current or pending regulatory changes at local, state, and federal levels.
- Develop the schedule for the expansion, associated Engineer's Opinion of Probable Construction
 Cost (EOPCC), and a 20-year life cycle cost estimate.

TASK 1.8.3: ALTERNATIVE 2 (6-MGD TO 12-MGD EXPANSION)

- Summarize the flow equalization needs and siting options based on the analysis completed in Task 1.8.2.
- Identify the required improvements for expansion from 6 MGD to 12 MGD AADF with and without flow equalization.
- Summarize required improvements due to current or pending regulatory changes as identified in Task 1.8.2 and 1.8.4 outlined below.
- Prepare a site layout and phasing plan for the required improvements. Highlight those structures recommended for inclusion and those
- Develop the schedule for the expansion, the recommended unit process to include and those to phase in once plant capacity issue dictate, the EOPCC, and a 20-year life cycle cost estimate.

TASK 1.8.4: EVALUATE IMPACTS OF FUTURE LOWER NITROGEN LIMITS

- Evaluate options to achieve potential lower effluent Total-nitrogen limits (TN < 3 mg/l) including:</p>
 - Second stage anoxic and reaeration basins
 - Denitrifying filters
 - o IFAS
- Define process equipment, siting, piping and pumping requirements
- Define chemical feed requirements
- Develop estimated costs for adding this

After evaluating the three alternatives, Jones Edmunds will arrange a workshop with CCU staff to discuss the findings from this evaluation and assist CCU to select the most feasible expansion alternative for presentation to the BCC.

Deliverables: Prepare a draft TM 4 summarizing the expansion alternatives, cost benefits, and expansion alternatives. Submit TM 4 to CCU for review. Conduct a second workshop with CCU staff to review and discuss the findings. Jones Edmunds will finalize TM 4 based on CCU comments.

TASK 1.8.5: EVALUATE REPLACEMENT OF FORCEMAIN FOR INJECTION WELLS (IW-1, IW-2)

The East Port WRF has two deep injection wells (IW-1, IW-2) which receive excess reclaim water and/or reject water from the WRF through the irrigation pump station that is located within the 45 MG Pond. The deep wells allow disposal of reclaimed water not used by public access reuse customers and/or not sent to the restricted access spray field for disposal. Three irrigation pumps lift the reclaimed water from the ponds to the two deep injection wells (IW-1 and IW-2) approximately 4,000 feet away through a 20-inch DIP forcemain. The permitted maximum capacity of IW-2 is 5,250 gpm (7.56 MGD) and was planned to be increased to 8,840 gpm (12.7 MGD). The permitted maximum capacity of IW-1 is 1,420 gpm (2.04 MGD). Jones Edmunds performed an evaluation in June 2008 of the Deep Injection Well System which consisted of a pump performance test (3 pumps), a hydraulic performance test of the pumps and forcemain, and development of a hydraulic model of the injection well forcemain. The results indicated a

major obstruction in the 20-inch forcemain downstream of the pump station. More recently, CCU has confirmed that a 10-inch section of forcemain was installed (instead of 20-inch FM) for a significant length is in the identified location which is causing the hydraulic limitations and capacity restrictions in this injection well system.

CCU requests that Jones Edmunds evaluate and develop a basis of design and sizing for the injection well forcemain of approximately 4,000 LF and sized to accommodate the future 12 MGD WRF design capacity and determined peak wet weather flow rates. The Jones Edmunds Team will also review the historic injection well construction completion and well performance test data, and conduct permit preapplication meeting with FDEP UIC (By Johnson/ ASR Us) to discuss re-permitting capacity of the IW-2 well to 8,840 gpm or greater for the 12 MGD WRF AADF Design Capacity.

Deliverables: Prepare a draft section to be added to TM 4 summarizing the recommended sizing and layout, opinion of construction cost to replace the forcemain, cost benefits of increased disposal capacity, feasibility to re-permit IW-2 maximum well capacity, and recommended action plan to move forward. This work summary will be included in the Task 1.8.4 TM and workshop meetings.

TASK 1.8.6: BCC PRESENTATION

Jones Edmunds will develop a presentation summarizing the results of the comparison of expanding the WRF from 6 MGD to 9 MGD to 12 MGD (two phases) versus expanding the WRF from 6 to 12 MGD (single phase). Jones Edmunds will participate in up to three preparatory meetings with the County before the presentation to the BCC. Based on the preparatory meeting, Jones Edmunds will finalize the presentation and then deliver the presentation at on BCC meeting.

Deliverables: Prepare draft BCC presentation for County review. Finalize the BCC presentation.

Task 1.9: Preliminary Engineering Report and 30% Design Drawings Task 1.9.1: Update Preliminary Engineering Report for Expansion and 30% Drawings

Following BCC approval of the selected expansion option, Jones Edmunds will prepare a draft and final Preliminary Engineering Report (PER) outlining the entire 12 MGD Expansion and selected and approved expansion option (6 MGD to 9 MGD, 9 MGD to 12 MGD or 6 MGD to 12 MGD). The format will be based on the 2012 PER for the East Port WRF Phased Expansion and will include an Executive Summary with Recommendations and an Implementation Plan. A 30% design drawing set will be provided with the PER for expansion to 12 MGD.

Jones Edmunds will update and submit the PER and 30% design drawings as outlined above to CCU for review and comments. Jones Edmunds will conduct a review meeting with CCU to receive comments on the PER and the 30% design drawings.

Deliverables: One electronic copy in portable document format (PDF format) for CCU review.

TASK 1.9.2: FINAL PER AND 30% DRAWINGS

Jones Edmunds will finalize the PER based on the CCU comments received on the draft report.

Deliverables:

- One hard copy and one electronic copy in PDF format will be submitted to the CCU for their records.
- One electronic copy in PDF format will be submitted to the FDEP State Revolving Fund (SRF)
 Program for review and approval.

TASK 1.9.3: STATE REVOLVING FUND (SRF) LOAN/GRANT APPLICATION ASSISTANCE

Jones Edmunds will assist CCU with the technical documents needed to support an SRF Loan or Grant application by the County. Jones Edmunds will provide the following assistance to CCU in support of the SRF Loan/Grant application:

- Request for Inclusion (RFI) support documents:
 - Project descriptions, scope, and reason it is needed for environmental benefit.
 - Site maps showing the system boundaries, existing and proposed service area, and project area.
 - Facility layout and process flow diagram for WRF expansion.
 - Estimated project costs.
 - Project schedule.
- Loan Application assistance documents:
 - 60% drawings and specifications.
- SRF workshop/public meeting at BCC meeting (1 meeting):
 - Prepare presentation for workshop/public meeting.
 - Participate in up to three preparatory meetings with the County before the workshop/public meeting to receive input and comments from the County on the presentation.
 - Participate in the workshop/public meeting at a BCC meeting.
 - Summarize comments received at the workshop/public meeting.

Jones Edmunds assumes that the County will be responsible for preparing the remaining documents, applications, etc., required for the Request for Inclusion and Loan Application. It is also assumed that the County will be responsible for public noticing for all public meetings/workshops required for SRF.

Deliverables: The RFI supporting information and loan application assistance documents listed above in the format and number of copies necessary for FDEP to review and accept. Draft and final presentations for WRF workshop/public meeting.

TASK 2.0: RECLAIMED WATER MASTER PLAN

Jones Edmunds will prepare a reclaimed water master plan for the East Port WRF service area, which includes the areas serviced by the West Port WRF and Rotunda WRF (Central and West County Service Areas) and will incorporate the South County Reclaim Water Master Plan into an overall County-wide Reclaim Water Master Plan. We will build on our recent and past reclaimed water hydraulic modeling and incorporate the Stage 5 Reclaimed Water Improvements and recommended operations into the County-wide Reclaimed Water Master Plan.

TASK 2.1: EXISTING RECLAIMED SYSTEM EVALUATION

Jones Edmunds will complete a review of the existing East Port WRF reclaimed water service area. This review will include the following:

- Define Existing Service Areas: Using existing reclaimed water maps provided by the County, define the existing service areas. System maps are to be provided by CCU in electronic format (AutoCAD or GIS format) for use in this evaluation.
- <u>Current Usage:</u> A review of current reuse records provided by the County will be performed to identify current reuse, storage, and disposal volumes.
- <u>Ultimate Service Area:</u> The ultimate service area for the reclaimed system will be delineated using prior master plans, information from reports, topographic maps, and respective comprehensive plans. System maps are to be provided by the County in electronic format (AutoCAD or GIS format).
 - Proposed bulk users will be evaluated using the population and growth projections developed in the Charlotte County Sewer Master Plan. This information will be interpolated to identify future reclaimed water customers. This task will include initial discussions with no more than 10 targeted customers (major users). The potential user groups will be prioritized, and list of potential additional customers will be developed.
- Service Area Demographics: The ultimate service area for the East Port WRF reclaimed water system will be further delineated using, the Charlotte County Sewer Master Plan and the Charlotte 2050 Comprehensive Plan to evaluate population projections and land use planning (such as residential, commercial, institutional, and industrial densities that currently exist and are planned for the East Port service area). The projections will be delineated for 2020, 2025, 2030, 2035, and buildout. Population projections will be based on those developed in the Charlotte County Sewer Master Plan.
- <u>Distribution System Evaluation</u>: The evaluation will be limited to a review of current record drawings and pending expansion projects. Condition assessments and field investigations are not included in this scope, and if needed, will be considered additional services. Based on Jones Edmunds' recent work updating the hydraulic model of the Mid/West County, the existing reclaimed water system for the service area will be summarized. Alternatives for reuse of aging infrastructure (water tanks, water piping, forcemains, pump stations) will be considered and evaluated to determine if it reduces cost of service to provide reclaim to defined customers.
- Regulatory Review: An overview of existing, pending, and proposed reclaimed water regulatory issues that may affect long-term planning of reclaimed water systems will be performed including viability of integrating with stormwater pond systems, alternative uses of reclaim water and benefit to the environment and future water resource needs including aquifer recharge and combining stormwater and reclaim for aquifer recharge.
- Review of Customer Agreements: Perform a review of the existing agreements that govern the delivery of reclaimed water to customers. A draft agreement for interconnects with other counties or municipalities will be developed.

TASK 2.2: RECLAIMED DISTRIBUTION SYSTEM CAPACITY EVALUATION

The projected reclaimed data (availability and demand) will be used to evaluate the need for expanding existing transmission and/or distribution infrastructure, develop storage facilities in the distribution system, and establish an implementation plan with CCU to outline where and when new facilities are needed. This work will build on and use the existing reclaimed water model for Mid/West County and will include potential user identification; production, demand, and disposal projections; and reclaimed water distribution system expansion. We assume that no additional model calibration, verification, or updating of the existing model is required to reflect the current system since this work was done under a separate project.

TASK 2.3: RECLAIMED ASR AND AQUIFER RECHARGE (AR) EVALUATION

The Jones Edmunds team will update the past evaluation of an aquifer storage and recovery (ASR) or Managed Aquifer Recharge (MAR) program at the East Port WRF based on work previously completed for CCU by Johnson Engineering. Johnson Engineering and ASR Us are subconsultants completing this work which will include the feasibility, cost, and cost/benefits of this approach to reclaim water storage and/or aquifer recharge. In addition, the Jones Edmunds team will evaluate the feasibility, cost, and cost/benefit of developing an AR well at the East Port WRF. Permitting of the recommended ASR or MAR alternative(s) and final design is not included as a part of this scope of services.

TASK 2.4: DEVELOP RECLAIMED WATER SYSTEM ALTERNATIVES

Jones Edmunds will evaluate up to five scenarios to expand the reclaimed water system and minimize effluent disposal. The alternative improvements will include surface storage systems, ASR, AR, Potable Water for Irrigation, expansion of the existing system, repurposing existing and unused facilities, and coordination with adjoining agencies.

TASK 2.5: RECLAIMED WATER COST OF SERVICE EVALUATION

Jones Edmunds' subconsultant, PRMG, will conduct a cost-of-service evaluation for the reclaimed water service area. The tasks included as a part of this effort are as follows:

- Kick-off Meeting and Data Acquisition and Review: Prepare a data request to compile statistical and financial information from CCU related to the existing and future reclaimed water customers of the proposed system. Data that will be requested include: i) updated reclaimed water customer statistics; ii) fixed asset information in support of the reclaimed water system, including capital improvement master plans; and iii) other information as deemed necessary to adequately develop the reclaimed water cost-of-service analysis to develop proposed reclaimed water rates and connection fees. The Jones Edmunds team will attend a meeting to review compiled information and discuss issues with CCU.
- Staff Interviews: Since CCU does not specifically record reclaimed water system costs, most of the reclaimed water costs are included in other components of CCU's operating and capital budgets. The Jones Edmunds team will conduct interviews with appropriate staff to identify the reclaimed water system and the components of such system and the corresponding costs of providing reclaimed water service and where such costs are presently accounted for. For the purposes of this task, up to two on-site meetings will be conducted.

- Development of Customer Forecast and System Attributes: The Jones Edmunds team will rely on i) historical information as compiled by the County (not to exceed 5 years of information), and ii) anticipated new development/extensions of service for the reclaimed water system for developing a customer and sales (water delivery) forecast by type of service. We assume that the forecast will be for the 5-fiscal-year period of FY2020 through 2024 (with the FY2024 being referred to as the "Test Year"). Specifically, the Jones Edmunds team will recognize the following classes of service, depending on data availability and overall service demands of CCU's reclaimed water system: i) major customers that are large users and have on-site storage to serve the property, and ii) retail customers that fully rely on CCU for all costs (service requirements) for the delivery of reclaimed water to the property.
- <u>Development of Net Revenue Requirements:</u> The Jones Edmunds team will identify the net revenue requirements associated with providing reclaimed water service. The analysis will include a review of existing agreements with large users, if any, the capital improvement, the master plan for the reclaimed water system, existing fixed asset records, staffing requirements, debt requirements, and other cost parameters. This task will involve the allocation of the costs identified for CCU's utility system to the reclaimed water function with the emphasis on determining the full costs required to provide services (will be recognized as a "stand-alone" utility for the determination of the costs to be recovered). Additionally, any miscellaneous or other operating revenues allocable to providing reclaimed water service will also be recognized in the determination of the net revenue requirements of the reclaimed water system. One meeting will be conducted to review the preliminary results.
- Design of Rates and Connection Fees: The Jones Edmunds team will develop connection fees to be imposed on new connections to the reclaimed water system to recoup capital costs necessary for the supply and transmission of reclaimed water service. The Jones Edmunds team will also develop monthly rates to recover the identified revenue requirements for CCU's reclaimed water system. The Jones Edmunds team will work with CCU staff to identify and review the reclaimed water system cost projections and establish the rate design parameters. One working group meeting with CCU staff will be conducted to present the net revenue requirements and preliminary rates to management to identify issues and to finalize the cost analysis and rate design activities.
- Reclaimed Water Rate Comparison: The Jones Edmunds team will prepare a comparison of CCU's existing and proposed reclaimed water rates with the existing rates and with select neighboring jurisdictions to assist CCU in the evaluation of the proposed rates.

Deliverables: Jones Edmunds will issue a draft Reclaim Water Master Plan (TM 5) which incorporates the South County Reclaim Master Plan to CCU for review. We will conduct a workshop with CCU staff to review TM 5. Jones Edmunds will finalize TM 5 based on CCU comments.

TASK 2.6: PRESENTATION TO BCC

Jones Edmunds will prepare a presentation for the BCC related to the reclaimed water master plan (TM 5) for the reclaim water service area. Jones Edmunds will submit a draft of the presentation to CCU and participate in up to three review meetings with the County. Following these review meetings, Jones Edmunds will update the presentation. Jones Edmunds will participate in a presentation to the BCC on TM 5.

TASK 3: DESIGN FOR EXPANSION TO 12 MGD

The Jones Edmunds Team will prepare plans and contract documents to expand the East Port WRF to 12 MGD no matter what expansion option is selected by the County. Jones Edmunds will produce design drawings and specifications for those additional unit operations, piping, and site grading for a plant capacity of 12 MGD AADF. The additional components that will be designed to achieve a plant capacity of 12 MGD include:

- An additional headworks train, flow split structure, and coordinating hydraulic design with new equalization tank.
- An equalization tank on the East Port WRF site. Evaluate concrete vs. steel tanks. Design to include stairs with aluminum construction with fiberglass tread, 48-inch access manways, drain sumps, and pumps with ease of access to impellor for maintenance and repair. If it is determined that the abandoned steel aerobic sludge digester or off-site equalization is preferred, additional scope and fee may be required.
- An oxidation ditch flow splitter box.
- Oxidation Ditch No. 3 and No. 4. The new oxidation ditch will be of similar operation to the existing
 Oxidation Ditches 1 and 2.
- Modifying the existing clarifier flow splitter box to improve hydraulics and flow split.
- Clarifiers 3 and 4 and associated RAS/WAS pump station.
- Demolish existing scum ejectors for Clarifiers 1 and 2 and constructing new scum pump station to serve all four clarifiers.
- Constructing two new filters (Filter Nos. 3 and 4). The new filters are assumed to be the same as the existing filters and as designed for Stages 3 and 4.
- Constructing new chlorine contact chambers (Nos. 3 and 4).
- Constructing a Pond Transfer Pump Station at the clearwell for Chlorine Contract Chamber Nos. 3 and 4.
- Constructing a new chemical building for storage tanks, pumps and analyzers.
- Constructing the fourth sludge storage tank for the aerobic digester.
- Adding two additional belt filter presses in a new open-air structure similar to the existing dewatering facilities
- Site, drainage, and yard piping improvements required for the expansion.
- Structural design documents for the expansion.
- Electrical, I&C and SCADA documents for the expansion.

A preliminary list of drawings is included herein for reference. Although Jones Edmunds' drawings standards and details will be used, they will be checked for conformance with the County's standard details. The drawings and specifications developed for Stages 3 and 4 will be the initial basis of the design for the expansion of the East Port WRF to 12 MGD, with changes as agreed upon

TASK 3.1: 60% DESIGN DOCUMENTS

Prepare 60% design plans and specifications (process, civil, mechanical, electrical, structural, and instrumentation and controls) for the additional unit operations, piping, and site grading required for 12 MGD and submit to the County for review.

- Incorporate the additional costs required for the 12-MGD plant capacity into the 60% opinion of probable construction cost and submit to the County for review.
- Conduct a review meeting with CCU to obtain comments.

TASK 3.2: FDEP PERMIT APPLICATION

Expansion of the WRF to 12 MGD or some combination above 9 MGD will require a Substantial Modification to the facility's existing wastewater permit from the FDEP Southwest District Office. Jones Edmunds will prepare and submit the permit application, which will include:

- FDEP pre-application meeting.
- Preliminary Engineering Report prepared in Task 1.9.
- CAR & OMPR (Jones Edmunds will use CAR & OMPR from 2017 FDEP Permit Renewal)
- Land Application Engineering Report updated for land application spray field areas to be reused or removed.
- Form 62-620.910(1) and (2), Application Forms 1 and 2A.
- Update public-access reuse Operating Protocol.
- Minor Modification to the existing Environmental Resource Permit (ERP) for the site.

Jones Edmunds will respond to up to two FDEP Requests for Additional Information (RAIs) for the wastewater permit application.

TASK 3.3: 90% DESIGN DOCUMENTS

- Prepare 90% design plans and specifications (process, civil, mechanical, electrical, structural, and instrumentation and controls) for the additional unit operations, piping, and site grading required for 12 MGD and incorporate them into the 90% design documents described in Task 3.2.
- Incorporate the additional costs required for the 12-MGD plant capacity into the 90% opinion of probable construction cost and submit to the County for review.
- Conduct review meeting with CCU to obtain comments.

TASK 3.4: 100% DESIGN DOCUMENTS

- Prepare 100% design plans and specifications (process, civil, mechanical, electrical, structural, and instrumentation and controls) for the additional unit operations, piping, and site grading required for 12 MGD and incorporate them into the 100% design documents.
- Incorporate the additional costs required for the 12-MGD plant capacity into the 100% opinion of probable construction cost and submit to the County for review.
- Conduct a review meeting with CCU to document the 100% 12 MGD Expansion Documents.

Deliverables: Jones Edmunds will submit four hard copies and one electronic (.pdf) copy of the 60%,90%, and 100% design plans and specifications for the 12 MGD Expansion.

TASK 4: BID DOCUMENTS FOR SELECTED EXPANSION

Based on the County's selected expansion plan and desired unit treatment processes, the Jones Edmunds Team will modify the Contract Documents (design drawings, specifications, and cost estimate) to create bid documents for this project. The scope of services and fee estimate assumes that the 100% Design Documents for the 12 MGD Expansion will be modified to exclude equipment, drawings and specifications not required for the selected East Port WRF Expansion. Jones Edmunds will prepare a 90%, and 100% Contract Documents for review, comment and approval by the County as outlined below.

TASK 4.1: 90% DESIGN DOCUMENTS

- Prepare 90% design plans and specifications (process, civil, mechanical, electrical, structural, instrumentation and controls), by modifying the 12 MGD, 100% drawings and specifications.
- Submit the 90% design plans and specifications to the County for review. An electronic copy will also be provided in .pdf format, along with three hard copies.
- Prepare a 90% opinion of probable construction cost and submit to the County for review.
- Meet with the County to review the 90% design documents and receive comments.

TASK 4.2: 100% DESIGN DOCUMENTS

- Prepare 100% design plans and specifications (process, civil, mechanical, electrical, structural, and instrumentation and controls), incorporating the County's comments from the 90% design review.
- Submit the 100% design plans and specifications to the County for review. An electronic copy will also be provided in .pdf format, along with three hard copies.
- Submit 100% design plans to the County for the Building Permit Application.
- Prepare a 100% opinion of probable construction cost and submit to the County for review.
- Meet with the County to review the 100% design documents.

Deliverables: Jones Edmunds will submit four hard copies and one electronic (.pdf) copy of the 90%, and 100% design plans and specifications of the WRF Expansion for advertisement and bidding. Jones Edmunds will submit eight hard copies for the 100% plans to the County for the Building Permit Application.

TASK 5: BIDDING AND AWARD

Jones Edmunds will support CCU with bidding the expansion of the East Port WRF. For this scope of services and fee estimate, the project will bid as a single project. Jones Edmunds will provide the following bid-phase services:

- Address the County's final comments on the updated design documents.
- Prepare and submit signed-and sealed-copies and one electronic copy of the bid documents (single package) to the County.
- Attend one pre-bid meeting and prepare pre-bid meeting minutes and submit them to the County for distribution.
- Respond to requests for information (RFIs) from bidders and issue up to three addenda, if necessary.
 The last addendum, if required, will be issued 7 calendar days before bid opening.
- Tabulate and evaluate bids and provide recommendations to the County for award.

The County's PM will prepare the meeting agenda, meeting minutes, and contact list with Jones Edmunds' assistance and distribute to the attendees.

Deliverables: Five hard copies and one electronic (.pdf) copy of the bid documents. Agenda and meeting minutes for one pre-bid meeting. Responses to up to three bid addenda submitted electronically to CCU.

TASK 6: CONSTRUCTION-ENGINEERING SERVICES

Construction-phase services described below assume that CCU will provide a qualified resident project representative to perform daily construction observation services under the supervision of the Engineer of Record (EOR), and construction administration provided by Jones Edmunds. Jones Edmunds will assist CCU with SRF Funding requirements during construction including "buy American and David Bacon." For the purpose of this scope of services, Jones Edmunds expects that the County will bid and award a single construction contract for the project. Construction-phase services will commence upon issuance of the Notice-to-Proceed to the Contractor and shall continue for the duration of 24 consecutive months. Services beyond 24 months will be considered additional services and paid under supplemental contingency funds.

Complete necessary certifications for compliance with various funding sources including but not limited to SWFWMD and FDEP grant and loan programs. As requested, prepare documentation and submittals for the funding from the FDEP SRF Loan and the SWFWMD Grant for this project. In addition, assist, as needed, with the Bacon – Davis Act provisions of the construction contract and FDEP SRF funding agreements.

Provide assistance regarding the Wonderware integration of this project into the overall Utilities Wonderware system. The person doing this work shall be Wonderware Certified or be able to obtain this certification within six (6) months of the contract date.

Assist CCU staff in contracting with a testing firm for any borings, sampling, testing and analysis needed for various tasks as requested by the selected firm(s) and deemed necessary by CCU. CCU staff will decide whether to contract with an independent testing firm or utilize the CCUD facilities for each particular testing task.

Task 6.1: Coordinate and Attend Pre-Construction Meeting

Jones Edmunds will coordinate with CCU's Construction Project Manager (PM) before the Pre-Construction Meeting to coordinate the required construction forms, lines of communication, and project-management logistics. At CCU's request, we will provide standard construction forms. Included in our budget are two site visits (including the EOR, PM, and Construction Observer) with the CCU PM to coordinate the required construction forms, review the scope of work, and discuss site issues before the Contractor mobilizes.

Jones Edmunds' EOR, PM, and Construction Observer will attend the Pre-Construction Meeting with the County's engineering and operating staff, the Contractor, and other applicable representatives. In the meeting, we will assist the CCU PM in discussing lines of communication, project requirements, schedule and milestone dates, the Contractor's submittal requirements, monthly payment applications, RFI

procedures, contract-modification procedures, and key project information. Jones Edmunds will prepare the meeting agenda, meeting minutes, and contact list with the assistance of the County's PM and Purchasing Manager. Jones Edmunds will distribute to the attendees.

TASK 6.2: ATTEND BI-WEEKLY CONSTRUCTION MEETINGS AND PROVIDE CONSTRUCTION ASSISTANCE

Jones Edmunds will provide the following services:

- Attend 48 bi-weekly progress meetings to review project status, including work progress, schedule, submittals, change orders, RFIs, material delivery, and the Contractor's 2-week look-ahead schedule.
- After each meeting, observe the work related to design requirements, provide assistance to answer RFIs and requested contract modifications, and review Contractor's redline progress drawings with the CCU PM.
- Assist CCU personnel in evaluating whether required testing for piping, concrete placement, compaction, and equipment have been completed.
- Assist the CCU PM in reviewing and approving monthly payment applications in accordance with the approved Schedule of Values, and all SRF requirements including "buy American and Davis Bacon."
- Assist the CCU PM in reviewing the Contractor's requests for contract modifications, change orders, and/or out-of-scope work and provide comments and recommendations.
- Witness equipment testing and review testing reports.
- Arrange and witness operation staff training by the Contractor and equipment manufacturers.
- Prepare a site report after each site visit and coordinate with the CCU PM on findings regarding observed activities, progress discussions, requested resolutions and RFIs, and any identified deficiencies or recommended corrective actions. We will provide a copy of the site report to the CCU PM and upload it to the Construction FTP site.

TASK 6.3: ASSIST WITH VALUE ENGINEERING AND CONTRACT-MODIFICATION REQUESTS

Jones Edmunds will assist the CCU PM by reviewing the Contractor's requests for contract modifications. This includes value-engineering requests and/or suggestions, no-cost changes, and change-order requests that change the contract value and/or schedule. In addition, we will assist the CCU PM with preparing contract-modification forms and supporting documentation.

Task 6.4: Review Shop Drawings and Submittals

Jones Edmunds' Construction Project Coordinator will receive all electronic submittals from the Contractor, record them in the appropriate logs, and distribute them concurrently to the CCU PM and Jones Edmunds' design-team members for review. We will establish a secure shared driver or cloud storage to store all submittals and submittal logs for ease of reference by CCU staff.

Submittals for this project include equipment shop drawings, RFIs, Schedule of Values, Construction Schedule, Maintenance of Plant Operation Plan, Bypass Plans, Equipment Startup and Testing procedures, Equipment Operation and Maintenance (O&M) Manuals, and Training Manuals. Shopdrawing submittals will be reviewed against the Contract Documents for accuracy and suitability. We will coordinate the review process with the CCU PM and maintain submittal review logs. Reviewed submittals

will be distributed back through the CCU PM for final review and distribution to the Contractor. For this scope and fee estimate, 200 submittals are expected for this project.

Task 6.5: Review Schedule of Values and Construction Schedule

Jones Edmunds will review and comment on the Contractor's proposed Schedule of Values and Construction Schedule for conformance to the Contract Document requirements. In addition, we will review the Schedule of Values against the requirements for monthly payment application review and processing and SRF Funding requirements. We will submit comments and recommendations for both documents through the CCU PM for final review and distribution to the Contractor.

Task 6.6: Review Unit Treatment Bypass & Maintenance of Plant Operations Plans

Jones Edmunds will review and comment on the Contractor's proposed plan for unit treatment bypass and maintenance-of-plant operations to allow the East Port WRF to maintain compliance with the FDEP Operating Permit and acceptability with CCU Operations. The Contract Documents specify constraints that limit the duration that each unit treatment process can be out of service and the time of year unit processes can be offline to maintain permit compliance and production of reclaimed water. We will submit comments and recommendations through the CCU PM for final review and distribution to the Contractor. We will also provide technical assistance to evaluate the plans and determine acceptability to achieve FDEP permit requirements.

Task 6.7: Respond to Requests for Information

Jones Edmunds will review and respond to RFIs and provide technical interpretations of the drawings, specifications, and Contract Documents to meet design intent and performance requirements. We will maintain an RFI receipt/response log. We will submit reviewed RFIs to the CCU PM for distribution to the Contractor. For this scope of services and fee estimate, approximately 80 RFI responses/clarifications are expected to be provided during the construction phase.

TASK 6.8: PROVIDE LICENSED, PROFESSIONAL ENGINEERS FOR PERIODIC SITE VISITS

As agreed, upon by CCU, Jones Edmunds will provide periodic on-site observation by qualified licensed professional engineering staff in the specific disciplines required for this project, as outlined below:

Structural Engineer

- Evaluate structural condition of existing concrete structures.
- Provide recommendations on concrete repairs.
- Observe the Contractor's concrete repairs to ensure compliance with requirements.
- Observe construction of new concrete structures, miscellaneous metal work, and other work associated with the structural plans and specifications.

■ Electrical Engineer

- Confirm the electrical work is completed in accordance with the Contract Documents and National Electrical Code.
- Witness electrical system startup and performance tests.

- Review electrical acceptance tests and performance verification (Specification Section 16035).
- Instrumentation and Controls (I&C) Engineer
 - Confirm the I&C work is completed in accordance with the Contract Documents and applicable codes.
 - Conduct meetings with I&C integrator to review pre-development of the I&C system, Software Development, Final Software Review, and Plant Commissioning via Performance Acceptance Tests (PAT) and Operational Readiness Tests (ORT).
 - Coordinate with County Information Technology Division on software and hardware integration.
- Mechanical and Process Wastewater Engineer
 - Observe equipment installation, including piping, valves, instruments, and related components.
 - Discuss and evaluate startup and testing plans.
 - Make recommendations for changes.
 - Attend the startup of all major process equipment and assist the CCU PM in addressing any technical issues that may arise during startup.

All licensed engineers will provide written reports summarizing their findings, recommendations, and any directives regarding corrections or modifications determined to be necessary so that, at the conclusion of the project, all work will be in general conformance with the Contract Documents.

Task 6.9: Complete Substantial and Final Completion Walkthroughs

At the time of the Contractor's request for Substantial Completion, Jones Edmunds will provide the appropriate engineering staff (e.g., civil, electrical, HVAC, I&C, mechanical) to walk through the project with the CCU PM. Each engineer will prepare a punch list of outstanding work items for the Contractor to complete. When the Contractor certifies that the work and all punch-list items have been completed, our engineer staff will attend a Final Completion walkthrough with the CCU PM and Contractor to verify that the work is complete and ready for final payment. Any outstanding items will be documented, and sufficient payment withheld until the work is complete.

Task 6.10: Assist with FDEP Coordination

Jones Edmunds will assist the CCU PM to coordinate with FDEP regarding notifications and startup of the Stage 3 and 4 Improvements.

Task 7: Construction Observation

Jones Edmunds will provide and supervise observation staff to perform daily on-site observation of the Contractor's activities to verify compliance with the Contract Documents, while providing records of the Contractor's progress by completing Daily Construction Reports with construction photographs of work being performed. The Resident Observer will verify the level of staffing and equipment that the Contractor has on site, witness and document testing, take photographs, provide a daily observation record, verify that materials delivered to the site are consistent with submitted materials, and review progress reports

and payment requests against constructed project elements. This Scope includes the services of Resident Observer during 22 months of the construction contract schedule for 25% of the time (880 hours). The Resident Observer will assist CCU with:

- Providing daily onsite observation to verify compliance with the Contract Documents and inform County of progress and any observed deficiencies.
- Preparing and logging Daily Field Reports documenting construction activities.
- Reviewing the Contractor's red-line as-builts on site on a monthly basis.
- Providing daily coordination with the Contractor's superintendent regarding planned on-site construction activities and coordination of activities with County Project Manager (PM).
- Coordinating with County Project Manager when testing that requires the presence of County Staff is necessary.
- Observing and recommend to the County, that the Contractor has met all requirements of the Phasing Plan established in the contract documents.
- Coordinating and attending start-ups with the contractor, EOR and appropriate County staff.

The Contractor is responsible for their safety while onsite. Jones Edmunds will follow the contractor's site safety and health plan whenever our representatives are onsite.

TASK 8: POST-CONSTRUCTION SERVICES

TASK 8.1: PREPARE RECORD DRAWINGS

Based on the Contractor's redline drawings delivered in the required AutoCAD format, Jones Edmunds will prepare Record Drawings, signed and sealed by the EOR, and submit three full-size hard copies and two electronic copies to CCU Engineering and East Port WRF Operations staff. Record drawings shall be in compliance with the requirements of the Charlotte County Utilities Design Compliance Standards dated November 1, 2011 and all subsequent updates.

TASK 8.2: FDEP AND COUNTY BUILDING SERVICES CERTIFICATIONS

Jones Edmunds will review, evaluate, comment, and request necessary modifications to equipment O&M Manuals. EORs will sign and seal the FDEP, SRF and County Building Services Construction Completion Forms and submit to CCU for submission to FDEP and Building Services.

TASK 8.3: PROVIDE DOCUMENTS FOR PROJECT CLOSEOUT AND UPDATE WRF O&M MANUAL

Jones Edmunds will prepare and submit a final set of construction documents including a list of spare parts, O&M manuals, training manuals, training videos (as applicable), final administration change order, Record Drawings, submittals and submittal logs, RFI logs, site reports, and testing reports to CCU for record keeping.

In addition, based on the submitted O&M manuals, Jones Edmunds will amend and update the existing Plant Operations Manual to include the new and expanded unit treatment processes, electrical systems, I&C and SCADA from early phases (Stage 1 and 2, Stage 5) and this expansion phase. The existing O&M Manual will be used and updated with the new unit treatment processes. The updated O&M manual will be in electronic format and searchable. Jones Edmunds will prepare a draft of the Plant Operations Manual and submit it to CCU for review. Jones Edmunds will meet with CCU to receive comments and

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based on the comments received at the meeting Jones Edmunds will finalize the updated Plant Operations Manual.

TASK 9: PUBLIC OUTREACH

Jones Edmunds will participate in up to two public workshops regarding the East Port WRF and the plant expansion. Jones Edmunds will assist CCU in developing a presentation for each workshop and meet with the County to review the presentation before each workshop. We assume that the public meetings will be conducted at a County facility and may include a tour of the East Port WRF. The County will be responsible for all public noticing of the workshop(s) and tour(s).

Deliverables: Draft and final presentations for up to two public workshops.

TASK 10: SUPPLEMENTAL SERVICES

Jones Edmunds understands that during the execution of the project, the County may request the Engineer to perform additional engineering analysis, additional computer runs, development of alternatives, minor design and preparation of construction documents, engineering evaluations, and other directly related engineering required to produce an efficient and modern plant expansion, meeting all standards and the needs of the project Scope. Supplemental Services are included but must receive prior authorization in writing from the County before proceeding. This authorization shall fully set forth the proposed work and all compensation in an approved scope and fee. Supplemental services may include, but not be limited to:

- Additional site topographic survey, environmental assessments, archaeological assessments for new areas of the site to be used for the future expansion.
- Perform additional topographic or environmental survey not included in this scope of services.
- Perform additional engineering analysis and evaluation of alternatives requested that is not in the scope of work, or that is not anticipated at this time.
- Perform additional wastewater engineering or data collection services as specifically requested to fulfill the intent of the Project.
- Additional wetland delineation or other environmental investigations or other permitting not included in this scope of services.
- Additional design for the expansion, rehabilitation, or modification of the existing WRF to accommodate expansion not included in this scope of work.

<u>SCHEDULE</u>

Jones Edmunds estimates that this project can be completed in 48 months following Notice to Proceed based on the schedule outlined below.

The schedule for each phase is presented below:

Preliminary Engineering Services – 270 calendar days (9 Months)

Final Design, Bid and Award Services - 455 calendar days (15 Months)

Construction Engineering, Administration and Inspections Services – 730 calendar days (24 months)

The goal is to have the Draft Evaluation of Expansion Alternatives (6 to 9 MGD, 6 to 12 MGD or Combination) Technical Memorandum completed and sent to within a mutually agreed upon schedule so that recommendations can be presented at one of the Utilities BCC Quarterly workshops for approval.

A Project Schedule will be submitted to the County within 30 days of authorization for the Preliminary Engineering Phase services and conceptual schedules will be developed for Final Design, Bidding and Construction Phase Services. Schedules will be updated prior to beginning each subsequent phase.

ASSUMPTIONS AND EXCLUSIONS

- Additional topographic survey, environmental assessments, and archaeological surveys of areas outside of the existing active plant area can be completed, as needed under supplemental services as outlined herein.
- The Stage 3 and 4 design drawings, specifications, and engineering calculations will be the basis of the 9 MGD expansion with the revisions noted in Task 3.
- For the 9-MGD plant expansion, Jones Edmunds will not prepare any permit applications since the existing FDEP WRF Operating Permit and SWFWMD ERP include the 9 MGD expansion. If the County elects to only design a 9-MGD facility and permit applications are required, additional scope and fee will be necessary.
- For the 12 MGD expansion, only a minor modification to the County's existing ERP is assumed. If additional modification beyond a minor modification is required for the ERP, additional scope and fee may be required. If additional permits beyond those listed for the 12 MGD are required, additional scope and fee will be required. All permitting fees and associated costs will be paid by the County.
- Public meetings will be conducted at a County facility and may include a tour of the East Port WRF. The County will be responsible for all public noticing of the workshop(s) and tour(s).
- The expansion for the 9-MGD and 12-MGD plant capacities will be conducted concurrently.
- Design and permitting of the alternative energy options considered in Task 1.6 is not included in this scope of services and fee estimate.
- Condition assessment of the old administration building or further planning and design of a new administration building beyond what is described in Task 1.7 is not included in this scope of services and fee estimate.
- Wetland mitigation design and permitting services is not provided in this scope of services.
- Florida Fish and Wildlife Conservation Commission (FWC) gopher tortoise permit application fee and capture/relocation of the tortoises is not included in this scope and fee.

- CCU and County Purchasing will prepare front-end documents for the Bid Package. The Jones Edmunds Team will assist CCU in preparing the Bid Form and Advertisement and prepare the Technical Specifications and Drawings for the Bid Package.
- We calculated our fee based on 22 months (from the date of the Contractor's Notice to Proceed) of on-site construction-engineering assistance, with a total construction time to close out the project not to exceed 24 months.
- The CCU PM will prepare the bi-weekly progress meeting agenda and meeting minutes. The County will distribute the meeting minutes to all attendees.
- The CCU PM and resident-observation staff will maintain daily field reports of construction progress and upload them to the established FTP site for review by Jones Edmunds' construction-engineering team.
- The CCU PM will initiate review of monthly payment applications and submit drafts to Jones Edmunds for review and approval
- The CCU PM and County resident observers will periodically check and confirm that periodic updates to Contractor's redline drawings showing approved changes have been made to facilitate our production of final Record-Drawings.
- CCU has an existing East Port WRF O & M Manual produced by CDM for the 1996 facility that will be used as the basis of the updated O&M Manual.

COMPENSATION

Jones Edmunds proposes to complete the Scope of Services outlined above for a not-to-exceed cost of \$2,800,000, as detailed in Exhibit B. The preliminary and final design engineering services, permitting, County reclaimed water master plan, bid documents for selected expansion, bidding and award services, and public outreach services will be billed monthly, on a lump-sum basis based on percent complete for the task, for an amount of \$1,903,000 as outlined in Tasks 1.0, 2.0, 3.0, 4.0, 5.0, and 9.0.

The Construction Engineering Services, Construction Observation and Post-Construction Services will be billed monthly on a time-and-labor-rate basis for a fee of \$854,000 as outlined in Tasks 6.0, 7.0 and 8.0.

Task 10.0 is for unallocated supplemental services for a fee \$43,000. This work will be completed only upon request and authorization from the County Project Manager. The type of work, fee and billing method will be negotiated and approved by the County.

Jones Edmunds will invoice the County on a monthly basis as outline above based on the major task headings outlined in Exhibit B.

EXHIBIT B

Summary of Labor Hours and Costs		
Description of Services	Lump-Sum Fee	
Task 1.0: Preliminary Engineering	\$731,000	
Task 1.1, 1.2: Project Initiation and Project Management		
Task 1.3.1: Field Investigations Site & Structure Survey (4 Areas)		
Task 1.3.2: Geotechnical Borings and Report		
Task 1.3.3: Ecological and Endangered Species		
Task 1.3.4: Archaeological / Historic Site Assessments		
Task 1.3.5: Jurisdictional Wetland Assessment		
Task 1.3.6: Subsurface Utility Evaluations (SUE)		
Task 1.4: Flows and Loads Analysis		
Task 1.5: Capacity, Regulatory & Electrical/I&C Assessment		
Task 1.6: Energy Efficiency Evaluation	-	
Task 1.7: Evaluation of Administration Building Needs		
Task 1.8: Evaluation of Expansion Alternatives and BCC Presentation		
Task 1.9: Preliminary Engineering Report, 30% Design and SRF Loan Apps.		
Task 2.0: Reclaimed Water Master Plan	\$183,000	
Task 3.0: Design Expansion to 12 MGD	\$780,000	
Task 4.0: Bid Documents for Selected Expansion	\$155,000	
Task 5.0: Bidding and Award Services	\$35,000	
Task 9.0: Public Outreach	\$19,000	
Subtotal - Lump Sum Fee	\$1,903,000	
	Time-and-Labor-Rate Fee	
Task 6.0: Construction Engineering Services	\$578,000	
Task 6.1: Coordinate and Attend Pre-Construction Meeting		
Task 6.2: Attend Bi-Weekly Construction Meetings and Provide Construction Assistance		
Task 6.3: Assist with Value Engineering and Contract-Modification Requests		
Task 6.4: Review Shop Drawings and Submittals	*	
Task 6.5: Review Schedule of Values and Construction Schedule		
Task 6.6: Review Unit Treatment Bypass and Maintenance of Plant Ops.		
Task 6.7: Respond to Requests for Information		
Task 6.8: Provide Licensed, Professional Engineers for Periodic Site Visits		
Task 6.9: Complete Substantial and Final Completion Walkthroughs		

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Task 6.10: Assist with FDEP Coordination	
Task 6.11: Subconsultant Services During Construction	
Task 7.0: Construction Observation	\$193,000
Task 8.0: Post-Construction Services	\$83,000
Task 8.1: Prepare Record Drawings	
Task 8.2: FDEP and County Building Services Certifications	
Task 8.3: Provide Documents for Project Closeout	
Subtotal - Time and Labor Rate Fee	\$854,000
. Total Fee	\$2,757,000
Task 10.0: Supplemental Services	\$43,000
Total – Not to Exceed Fee	\$2,800,000

EXHIBIT C

PROPOSED DRAWING LIST WRF EXPANSION TO 12 MGD

DWG #	DRAWING NAME
	GENERAL
G-01	COVER SHEET AND LOCATION MAP
G-02	DRAWING INDEX
G-03	GENERAL ABBREVIATIONS
G-04	GENERAL CIVIL NOTES
G-05	CHARLOTTE COUNTY GENERAL NOTES
G-06	LEGENDS AND DESIGNATIONS
G-07	PROCESS PIPE FLOW STREAM AND VALVE INDENTIFICATION SCHEDULE
G-08	UNIT PROCESS DATA AND DESIGN CRITERIA – PHASE I
G-09	PROCESS FLOW SCHEMATIC (36 MGD PHF AND 12 MGD AADF)
G-10	HYDRAULIC PROFILE (36 MGD PHF AND 12 MGD AADF)
	CIVIL
C-01	EXISTING CONDITIONS KEY MAP, AND SOIL BORINGS
C-02	EXISTING CONDITIONS SHEET 1 OF 3
C-03	EXISTING CONDITIONS SHEET 2 OF 3
C-04	EXISTING CONDITIONS SHEET 3 OF 3
C-05	CIVIL KEY MAP
C-06	AERIAL SITE PLAN
C-07	GEOMETRY PLAN SHEET 1 OF 3
C-08	GEOMETRY PLAN SHEET 2 OF 3
C-09	GEOMETRY PLAN SHEET 3 OF 3
C-10	COORDINATE TABLE
C-11	SITE, GRADING, AND DRAINAGE PLAN SHEET 1 OF 3
C-12	SITE, GRADING, AND DRAINAGE PLAN SHEET 2 OF 3
C-13	SITE, GRADING, AND DRAINAGE PLAN SHEET 3 OF 3
C-14	CHEMICAL FEED BUILDING SITE, GRADING, AND DRAINAGE PLAN
C-15	CHEMICAL FEED BUILDING SITE, GRADING, AND DRAINAGE SECTIONS
C-16	PAVING, SIGNAGE, AND STRIPING PLAN EAST
C-17	PAVING, SIGNAGE, AND STRIPING PLAN WEST
C-18	DETAILS AND SECTIONS
C-19	EROSION AND SEDIMENT CONTROL PLAN
C-20	STORMWATER POLLUTION PREVENTION PLAN NOTES SHEET 1 OF 2

DWG#	DRAWING NAME
C-21	STORMWATER POLLUTION PREVENTION PLAN NOTES SHEET 2 OF 2
C-22	EROSION AND SEDIMENT CONTROL NOTES
C-23	EROSION CONTROL DETAILS
	DEMOLITION
D-01	DEMOLITION KEY MAP
D-02	CHEMICAL FEED BUILDING AND STORAGE DEMOLITION PLAN
D-03	SCUM EJECTOR STATIONS DEMOLITION PLAN
D-04	EXISTING YARD PIPING DEMOLITION PLAN SHEET 1 OF 2
D-05	EXISTING YARD PIPING DEMOLITION PLAN SHEET 2 OF 2
D-06	DEMOLITION ABANDONED STEEL AEROBIC DIGESTER TANK
D-07	SLIDE GATE AT CLEARWELL OF CCC NO. 1
	STRUCTURAL
S-01	GENERAL STRUCTURAL NOTES
S-02	EQUALIZATION TANK PLANS
S-03	EQUALIZATION TANK SECTIONS AND DETAILS
S-04	EQUALIZATION TANK DETAILS
S-05	HEADWORKS TRAIN FOUNDATION AND SLAB PLAN
S-06	HEADWORK INTERMEDIATE PLAN
S-07	HEADWORKS TOP OF STRUCTURE
S-08	HEADWORKS SECTIONS
S-09	OX DITCH FLOW SPLITTER BOX PLAN, SECTIONS AND DETAILS
S-10	OXIDATION DITCH NO. 3 BASE SLAB PLAN
S-11	OXIDATION DITCH NO. 3 TOP OF STRUCTURE PLAN
S-12	OXIDATION DITCH NO. 3 SECTIONS
S-13	OXIDATION DITCH NO. 3 DETAILS SHEET 1 OF 2
S-14	OXIDATION DITCH NO. 3 DETAILS SHEET 2 OF 2
S-15	OXIDATION DITCH NO. 3 WALL SECTIONS
S-16	OXIDATION DITCH NO. 4 BASE SLAB PLAN
S-17	OXIDATION DITCH NO. 4 TOP OF STRUCTURE PLAN
S-18	OXIDATION DITCH NO. 4 SECTIONS
S-19	OXIDATION DITCH NO. 4 DETAILS SHEET 1 OF 2
S-20	OXIDATION DITCH NO. 4 DETAILS SHEET 2 OF 2
S-21	OXIDATION DITCH NO. 4 WALL SECTIONS
S-22	OXIDATION DITCH NO. 1 AND NO. 2 MODIFICATIONS
S-23	CLARIFIER NO. 3 PLAN AND SECTION
S-24	CLARIFIER NO. 3 DETAILS SHEET 1 OF 2

DWG #	DRAWING NAME
S-25	CLARIFIER NO. 3 DETAILS SHEET 2 OF 2
S-26	CLARIFIER NO. 4 PLAN AND SECTION
S-27	CLARIFIER NO. 4 DETAILS SHEET 1 OF 2
S-28	CLARIFIER NO. 4 DETAILS SHEET 2 OF 2
S-29	CLARIFIER FLOW SPLITTER BOX PLAN, SECTIONS, AND DETAILS
S-30	SCUM PUMP STATION NO. 1 AND NO. 2 PLAN AND SECTIONS
S-31	SCUM PUMP STATION NO. 3 AND NO. 4 PLAN AND SECTIONS
S-32	RAS AND WAS PUMP STATION NO. 2A and 2B
S-33	FILTER NO. 3, NO. 4 AND NO. 5 BASE SLAB PLAN
S-34	FILTER NO. 3, NO. 4 AND NO. 5 TOP OF STRUCTURE PLAN
S-35	FILTER NO. 3, NO. 4 AND NO. 5 CANOPY FRAMING PLAN
S-36	FILTER NO. 3, NO. 4 AND NO. 5 SECTIONS
S-37	FILTER NO. NO. 3, NO. 4 AND NO. 5 WALL SECTIONS AND DETAILS
S-38	CCC NO. 3, NO. 4 AND NO. 5 BASE SLAB PLAN
S-39	CCC NO. 3, NO. 4 AND NO. 5 TOP OF STRUCTURE PLAN
S-40	CCC NO. 3, NO. 4 AND NO. 5 SECTIONS AND DETAILS
S-41	CCC NO. 3, NO. 4 AND NO. 5 WALL SCHEDULE AND DETAILS
S-42	CHEMICAL FEED SYSTEM CANOPY AND BUILDING PLANS AND SECTION
S-43	CHEMICAL FEED SYSTEM CANOPY AND BUILDING SECTIONS
S-44	CHEMICAL FEED SYSTEM CANOPY AND BUILDING ELEVATIONS
S-45	CHEMICAL FEED SYSTEM CANOPY DETAILS
S-46	CHEMICAL FEED BUILDING DETAILS
S-47	EXISTING CCC NO. 1 AND NO. 2 MODIFICATION PLAN AND SECTIONS
S-48	STAIRS PLAN AND SECTIONS
S-49	WALKWAYS PLAN AND SECTIONS SHEET 1 OF 2
S-50	WALKWAYS PLAN AND SECTIONS SHEET 2 OF 2
S-51	AEROBIC DIGESTER NO. 4 BASE SLAB PLAN
S-52	AEROBIC DIGESTER NO. 4 TOP OF STRUCTURE PLAN
S-53	AEROBIC DIGESTER NO. 4 SECTIONS AND WALL SCHEDULE
S-54	AEROBIC DIGESTER NO. 4 DETAILS
SD-01	STANDARD STRUCTURAL DETAILS SHEET 1 OF 4
SD-02	STANDARD STRUCTURAL DETAILS SHEET 2 OF 4
SD-03	STANDARD STRUCTURAL DETAILS SHEET 3 OF 4
SD-04	STANDARD STRUCTURAL DETAILS SHEET 4 OF 4
	MECHANICAL
M-01	SITE LAYOUT PLAN

DWG #	DRAWING NAME
M-02	YARD PIPING PLAN SHEET 1 OF 3
M-03	YARD PIPING PLAN SHEET 2 OF 3
M-04	YARD PIPING PLAN SHEET 3 OF 3
M-05	YARD PIPING CROSSINGS AND CONNECTION DETAILS
M-06	YARD PIPING CROSSINGS AND CONNECTION DETAILS
M-07	EQUALIZATION TANK PLAN
M-08	EQUALIZATION TANK SECTIONS
M-09	EQUALIZATION TANK DETAILS
M-10	HEADWORKS TRAIN - TOP PLAN
M-11	HEADWORKS TRAIN - BOTTOM PLAN
M-12	HEADWORKS UNDERSLAB PIPING PLAN
M-13	HEADWORKS - SECTIONS
M-14	HEADWORKS - SECTIONS
M-15	HEADWORKS - SECTIONS AND DETAILS
M-08	OXIDATION DITCH FLOW SPLITTER BOX PLAN
M-09	OXIDATION DITCH FLOW SPLITTER BOX SECTIONS
M-10	OXIDATION DITCH NO. 3 PLAN
M-11	OXIDATION DITCH NO. 3 SECTIONS
M-12	OXIDATION DITCH NO. 3 DETAILS
M-13	OXIDATION DITCH NO. 4 PLAN
M-14	OXIDATION DITCH NO. 4 SECTIONS
M-15	OXIDATION DITCH NO. 3 AND 4 DETAILS
M-16	CLARIFIER NO. 3 PLAN
M-17	CLARIFIER NO. 3 SECTIONS AND DETAILS
M-18	CLARIFIER NO. 3 AND DETAILS
M-19	CLARIFIER NO. 4 PLAN
M-20	CLARIFIER NO. 4 SECTIONS AND DETAILS
M-21	CLARIFIER NO. 4 AND DETAILS
M-22	EXISTING CLARIFIER SPLITTER BOX MODIFICATIONS
M-23	SCUM PUMP STATION NO. 1 AND 2 PLAN
M-24	SCUM PUMP STATION NO. 1 AND NO. 2 PLANS
M-25	SCUM PUMP STATION NO. 3 PLANS
M-26	SCUM PUMP STATION NO. 4 PLANS
M-27	SCUM PUMP STATION TYPICAL SECTION
M-28	RAS AND WAS PUMP STATION NO. 2A and 2B PLAN
M-29	RAS AND WAS PUMP STATION NO. 2A and 2B SECTIONS

DWG#	DRAWING NAME
M-30	FLOW METER ASSEMBLY DETAILS
M-31	FILTER NO. 1 AND NO. 2 CHEMICAL INJECTION DETAILS
M-32	FILTER NO. 3 AND 4 PLAN
M-33	FILTER NO. 3 AND 4 SECTONS
M-34	FILTER NO. 5 PLAN
M-35	FILTER NO. 5 SECTONS
M-36	CCC & CLEARWELL NO. 1 AND 2 MODIFICATIONS
M-37	CCC NO. 3, NO. 4 AND NO. 5 PLAN
M-38	CCC NO. 3, NO. 4 AND NO. 5 SECTONS AND DETAILS
M-39	CHEMICAL FEED SYSTEM PLAN
M-40	CHEMICAL FEED SYSTEM SECTIONS AND DETAILS
M-41	CHEMICAL FEED BUILDING DETAILS
M-42	CHEMICAL FEED SYSTEM DETAILS
M-43	AEROBIC DIGESTER NO. 4 LOWER PLAN
M-44	AEROBIC DIGESTER NO. 4 TOP PLAN
M-45	AEROBIC DIGESTER NO. 4 SECTIONS AND DETAILS
M-46	AEROBIC DIGESTER NO. 4 BLOWER AND SLUDGE FEED PUMP STATION PLAN
M-47	AEROBIC DIGESTER NO. 4 BLOWER AND SLUDGE FEED PUMP STATION SECTIONS
M-48	AEROBIC DIGESTER NO. 4 TRUCK TRANSFER PUMP STATION PLAN AND SECTIONS
M-49	AEROBIC DIGESTER NO. 4 SUPERNATANT PUMP STATION PLAN AND SECTIONS
M-50	DEWATERING FACILITY PLAN
M-51	DEWATERING FACILITY PLAN
M-52	DEWATERING SECTIONS
M-53	DEWATERING SECTIONS
M-54	DEWATERING DETAILS
M-55	DEWATERING DETAILS
M-56	MECHANICAL DETAILS SHEET 1 OF 9
M-57	MECHANICAL DETAILS SHEET 2 OF 9
M-58	MECHANICAL DETAILS SHEET 3 OF 9
M-59	MECHANICAL DETAILS SHEET 4 OF 9
M-60	MECHANICAL DETAILS SHEET 5 OF 9
M-61	MECHANICAL DETAILS SHEET 6 OF 9
M-62	MECHANICAL DETAILS SHEET 7 OF 9

DWG#	DRAWING NAME
M-63	MECHANICAL DETAILS SHEET 8 OF 9
M-64	MECHANICAL DETAILS SHEET 9 OF 9
	ELECTRICAL
E-01	SYMBOLS
E-02	ABBREVIATIONS
E-03	SITE PLAN
E-04	480VOLT SWITCHGEAR
E-05	MCC-5A
E-06	MCC-6A
E-07	MCC-7 RISER
E-08	MCC-8 RISER
E-09	CONTROL CONDUIT AND WIRE RISER
E-10	INSTRUMENTATION CONDUIT AND WIRE RISER
E-11	DETAILS
E-12	PANEL SCHEDULES
E-13	LIGHTING FIXTURE SCHEDULE AND DUCTBANK SECTIONS
E-14	SOUTHEAST ELECTRICAL BUILDING PLAN
E-15	ELECTRICAL GENERATOR BUILDING
E-16	LOVELAND GRAND MASTER LIFT STATION
E-17	EQUALIZATION TANK AND HEADWORKS TRAIN PLAN
E-18	OXIDATION DITCH SPLITTER BOX TOP PLAN
E-19	OXIDATION DITCH NO. 3 AND NO. 4 PLAN
E-20	CLARIFIER NO. 3 AND NO. 4 PLAN
E-21	SCUM PUMP STATIONS NO. 1 AND 2. WAS PUMP STATION NO. 1
E-22	SCUM PUMP STATIONS NO. 3 AND NO. 4
E-23	RAS AND WAS PUMP STATION NO. 2A AND 2B
E-24	FILTERS NO. 1 AND 2 PLAN
E-25	FILTERS NO. 3, NO. 4 AND NO. 5 PLAN
E-26	CCC NO. 3, NO. 4 AND NO. 5 PLAN
E-27	CCC NO. 1 AND NO. 2 PLAN
E-28	CHEMICAL FEED BUILDING POWER PLAN
E-29	CHEMICAL FEED BUILDING LIGHTING PLAN
E-30	AEROBIC DIGESTER NO. 4 TOP PLAN
E-31	AEROBIC DIGESTER NO. 4 BLOWER AND SLUDGE FEED PS PLAN
E-32	DEWATERING PLAN
E-33	SWITCHGEAR BUILDIGN DETAILS

DWG#	DRAWING NAME
E-34	MCC CONTROL DIAGRAMS
E-35	ELECTRICAL DETAILS
E-36	ELECTRICAL DETAILS
	INSTRUMENTATION
I-01	I&C LEGEND SHEET 1 OF 2
I-02	I&C LEGEND SHEET 2 OF 2
I-03	COMMUNICATION BLOCK DIAGRAM
I-04	P&ID LOVELAND GRAND MASTER LIFT STATION
I-05	P&ID EQUALIZATION TANK AND HEADWORKS TRAIN
I-06	P&ID OXIDATION DITCH NO. 3 AND NO. 4
I-07	P&ID SECONDARY CLARIFIERS NO. 3 AND NO. 4, SCUM PUMP STATIONS
1-08	P&ID RAS/WAS PUMP STATION NO.2 AND SCUM PUMP STATIONS
I-09	P&ID ABW TRAVELING BRIDGE FILTER NO. 3, NO. 4 AND NO. 5
I-10	P&ID CHLORINE CONTACT CHAMBER NO. 3, NO. 4 AND NO. 5 AND TRANSFER PUMP STATION
I-11	P&ID SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM
I-12	P&ID AEROBIC DIGESTER NO. 4,
I-13	P&ID AEROBIC DIGESTER NO. 4 BLOWER AND SLUDGE FEED PUMP STATION
I-14	P& ID DEWATERING FACILITIES
I-15	ESTIMATED WIRELESS ACCESS COVERAGE
I-16	I&C STANDARD DETAILS SHEET 1 OF 3
I-17	I&C STANDARD DETAILS SHEET 2 OF 3
I-18	I&C STANDARD DETAILS SHEET 3 OF 3
	HVAC
V-01	HVAC SYMBOLS, ABBREVIATIONS, AND NOTES
V-02	HVAC PLAN - CHEMICAL FEED BUILDING