WORK ASSIGNMENT NO. 2016-04 PURSUANT TO

THE JUNE 28, 2016 AGREEMENT BETWEEN THE

CITY OF VENICE, FLORIDA AND BLACK & VEATCH

WHEREAS, on June 28, 2016, the City of Venice, Florida ("OWNER") and **Black & Veatch Corporation** ("CONSULTANT"), entered into an Agreement whereby the CONSULTANT would perform professional services for the OWNER pursuant to an executed Work Assignment; and

WHEREAS, the OWNER and CONSULTANT agreed to extend the Agreement for an additional year on June 26, 2019; and

WHEREAS, the OWNER wishes to authorize the CONSULTANT to perform professional services concerning **WTP Switchgear Replacement and Generator Addition** as more particularly described in the Scope of Services herein; and

WHEREAS, the CONSULTANT wishes to perform such professional services,

NOW THEREFORE, in consideration of the premises and mutual covenants contained in the June 28, 2016, Agreement and this Work Assignment, the parties agree as follows:

1. General description of the project: **This project involves replacement of existing electrical equipment at the Water Treatment Plant (WTP), as well as addition of a second backup engine generator.**
2. Scope of services to be performed. CONSULTANT shall perform the services described in the Scope of Services attached hereto as Attachment "A".
3. Compensation to be paid. OWNER shall pay the CONSULTANT the not –to-exceed sum of **three hundred eighty thousand seven hundred sixty-four and 00/100 dollars ($380,764.00)** for performance of the professional services specified in this work assignment.
4. Time for completion. CONSULTANT shall complete the professional services specified in this work assignment in accordance with the "Proposed Schedule" set forth in Attachment "A" to this Work Assignment.
5. The terms and conditions of the June 28, 2016. Agreement shall remain in full force and effect until the completion of this Work Assignment; and

IN WITNESS WHEREOF, the parties have executed this Work Assignment on the ___ day of ____, 2019

BLACK & VEATCH CORPORATION

_____

Rafael E. Frias, P.E., Associate Vice President

CITY OF VENICE, FLORIDA

ATTEST: _____

By: _____ **John Holic, Mayor**

CITY CLERK

Attachment A – Scope of Services

WTP Switchgear Replacement and Generator Addition

PROJECT OVERVIEW

The City of Venice, Florida (OWNER) owns and operates a 4.48 MGD brackish groundwater Reverse Osmosis (RO) Water Treatment Plant (WTP). The WTP produces a finished water product that meets or exceeds all state and federal drinking water requirements before pumping into the distribution system. The WTP electric power utility supplier is Florida Power & Light (FPL). Standby electrical power at the Owner's WTP is provided by a 1.25 MW Cummins Diesel Engine Generator (EG) of sufficient kW capacity to meet the FDEP requirements based on current WTP Average Daily Demand (ADD).

The existing electrical switchgear (SWGR) distributing electric utility and standby EG power throughout the WTP was installed in conjunction with the 1990 WTP expansion and is approximately 28 years old. The switchgear, which was manufactured by General Electric (GE), is reaching the end of its useful life. Furthermore, GE no longer manufactures the major components of the switchgear (circuit breakers) and repair and replacement parts for these critical components of the WTP electrical system is limited to 'grey market' parts salvaged from retired and out-of-service breakers.

The EG control system designed to start and operate the standby EG through the existing SWGR is also 28 years old and has reached the end of its useful life. The EG control system was designed with hardwired relay and discrete component generator / switchgear control technology including an obsolete 2000 Amp rated Merlin-Gerin circuit breaker no longer available in the marketplace.

CONSULTANT performed a condition assessment of the SWGR and EG control system in 2018/2019 and recommended a retrofit or replacement of the SWGR and EG control system due to age and lack of spare parts availability.

CONSULTANT also performed a condition assessment of the existing standby EG and an assessment of WTP standby power capacity requirements in 2018/2019. The standby EG assessments determined the existing EG is in good condition, but due to its age is likely to need a major overhaul within the near future and is more likely to need major repairs compared to a new generator.

CONSULTANT recommended the addition of a second standby EG to supplement the existing EG to meet the Owner's long term WTP standby power needs supporting future WTP load expansion while improving the reliability of the existing standby power system and ensuring long-term viability of the WTP electrical system. The City will be able to continue use of the existing EG under the FP&L Load Control Program (LCP). The new EG will serve as a backup for improved reliability and to support future expansion. This Work Assignment provides engineering services to support the design, bidding, and construction of replacement SWGR, replacement EG control system, and addition of a second standby EG.

The WTP Switchgear Replacement and Generator Addition project (Project) will support implementation of the facilities described below:

- Replacement Switchgear (SWGR): The replacement SWGR will be designed to accommodate a construction sequence allowing for an 'in-situ' replacement of the existing SWGR to minimize WTP process interruptions. The SWGR design will be configured in a Main-Tie-Main configuration approximately matching the existing SWGR with the same quantities and capacities of feeder circuits including an additional circuit breaker for connection of the second standby EG. The new SWGR will be of arc-flash resistant construction.
- Replacement EG Control Panel: The replacement EG control panel shall be designed to control the existing standby EG, paralleled or (independent) operation of a second (new) standby EG, control the SWGR incoming FPL utility breakers, and the SWGR 'Tie' breaker to permit automatic power transfers between FPL utility supply and WTP standby EG supply during FPL utility power failures. The replacement EG control panel shall be designed to be located within the approximate footprint of the existing EG control panel. Connection provisions in the new EG control panel will be provided for connection to existing WTP Plant Control System (PCS) for monitoring and load transfer control of the standby EG system.
- New Standby EG: The new standby EG will be an appx. 1000 kW 'standby operation rated' diesel-fueled Engine-Generator packaged with a sub-base diesel fuel tank and outdoor sound attenuated enclosure rated to hurricane wind forces for the Venice WTP site. The new standby EG design will include a new concrete slab located at a suitable outdoor location adjacent to the existing standby EG and SWGR location. The EG design and specifications will include all electrical connections, instrumentation, and ancillaries required for automatic primary / backup) operation through use of paralleling switchgear. The design will enable manual initiation of load transfer from the operator control room.

SCOPE OF SERVICES

Task 1 – Project Management

1.1 Project Management, Administration

CONSULTANT will perform general management and administrative duties associated with the Project, including project set-up, negotiation of subconsultant contracts, resource and subconsultant management, progress monitoring, scheduling, general correspondence, and invoicing.

CONSULTANT will maintain accurate project documentation and project cost accounting system throughout the project to include the following:

- Maintain a project filing system throughout duration of Project to use for storage and retrieval of Project documents.
- Prepare monthly status reports and invoices for engineering services in the format required by the contract. Status reports will include a summary of work completed during the previous month.

CONSULTANT will develop a project schedule based upon the NTP date and distribute the updated schedule at the project initiation meeting. The project schedule will identify the following information:

- Key project tasks and deliverables.
- Critical dates for data submission, deliverable reviews, decisions by the OWNER, meetings and workshops.

CONSULTANT will review, update and submit to OWNER the updated Project schedule periodically upon completion of major project elements.

1.2 QA/QC Plan

CONSULTANT will prepare a QC-Verification plan and monitoring checklist and maintain control over the quality of its work efforts. This will include oversight and review by the lead technical engineer(s), project manager, senior technical staff and managerial staff. This task includes time for development and management of the QA/QC plan / program. Hours for actual QC reviews are included in other tasks.

Task 2 – Data Request and Kickoff Meeting

2.1 Project Kickoff Meeting

Attend a project kickoff meeting with the OWNER to confirm project goals, roles and responsibilities and to review the scope of services. CONSULTANT will prepare and distribute meeting minutes.

2.2 Collect and Review Existing Documents and Data

CONSULTANT develop and submit a data request to the OWNER and will coordinate with OWNER to collect and review existing reports, maps, as-built drawings, aerial photos, property data, survey data, and relevant data to gain a thorough understanding of the OWNER's electrical system at the WTP. CONSULTANT will gather data on the EG and SWGR systems proposed by the OWNER. CONSULTANT will be reliant on OWNER staff to assist in the acquisition of such documentation.

Task 3 – Field Investigations

Consultant will perform (with assistance of subconsultants) the necessary survey and subsurface utility engineering (SUE) investigations at the site necessary to support the project, as described below:

3.1 Surveying

A topo survey will be performed of the area immediately between Buildings B and C, where the proposed generator and its slab are proposed to be located. A boundary survey will not be needed. Refer to the GFY proposal, included as an attachment to this scope, for a description of the specific work elements to be performed under this subtask.

3.2 Subsurface Utility Engineering (SUE) Services

A limited program of subsurface utility location services will be performed in support of the design. Refer to the GFY proposal included as an attachment to this scope for a description of the specific work elements to be performed under this subtask.

Task 4 – Design Services

The following facilities are anticipated to be covered in the Preliminary Design Report and included in the design documents prepared for this project:

Engine Generator:

- Appx. 1,000 kW standby duty diesel Engine generator to be located west of the existing EG room in an available open area between the existing buildings
- Suitable concrete slab structurally designed for site conditions and equipment loads
- New standby EG to be housed in an outdoor hurricane wind rated aluminum enclosure with maintenance access doors, access platforms, integral sub-base EG diesel fuel tank, and fueling station
- Instrumentation and Controls to allow remote monitoring and load transfer control of the new EG operating / alarm statuses and fuel tank storage level
- Electrical duct bank, electrical power and control cabling, and conduit connecting the new EG to the replacement switchgear and EG control panel

Switchgear (SWGR):

- Replacement SWGR to be installed in the footprint of existing switchgear room; (in-situ) with construction sequencing to minimize WTP disruptions
- 600VAC, 3000 Amp, 65 KAIC, Arc-Resistant Construction 'Main1 bus with EG & Feeder Breakers - Tie Breaker - Main2 bus with EG & Feeder breakers' switchgear.
- Existing conductors and cable to the SWGR will be reused (and extended as needed), if determined to be serviceable during the design phase.

EG Controls:

- Replacement EG Control Panel to be installed in the approximate footprint of existing EG Control panel in switchgear room; construction sequencing to minimize WTP disruptions
- EG Controls for power monitoring and automatic utility / standby power control of SWGR utility, tie, and EG breakers and EG unit(s) for paralleled or independent standby EG WTP power operation
- EG Control connections to WTP Plant Control System for remote monitoring and load transfer control

Clarifications:

- Refurbishment of the existing generator will be performed under a separate project.
- No HVAC improvements or significant building modifications are envisioned for this project.

CONSULTANT will develop documents suitable for permitting, bidding and construction. Design documents will be prepared to support competitive bidding for selection of a general contractor under a single construction contract with the OWNER.

Drawings will be prepared by CONSULTANT in AutoCAD format. Drawings will be prepared based on CONSULTANT's drafting standards on 22"x34" size sheets. The OWNER's applicable standard details available and current at the time of the work will be utilized. Where applicable OWNER standard details are not available, CONSULTANT's standard details will be utilized.

The technical specifications will be based on CONSULTANT's standards and customized for the project. Construction Specifications Institute (CSI) 16 Division format will be utilized. General Conditions and Special Conditions will be the current standard EJCDC documents.

The design will be developed with a base bid for an EPA rated EG with Tier II emissions and an additive alternate bid item to upgrade to a tier IV emissions rated EG. This will provide the City with firm comparative pricing to select the best-value emissions rating.

CONSULTANT's services will include development of an Opinion of Probable Construction Cost (OPCC) which will be updated at each design milestone.

4.1. 30% Level Design

A. 30% Design Development – CONSULTANT will progress the design to a 30% level of completion. This task will include verification of the new EG size through a review of the previously submitted EG Sizing Evaluation Technical Memorandum and further discussion with the OWNER in consideration of anticipated future plant demands and modifications. An internal quality control review will be performed and review comments incorporated prior to submittal to the OWNER. CONSULTANT will produce and submit a 30% design deliverable package of drawings and specifications. Five printed copies of drawings (11"x17") and specifications will be provided for OWNER review, along with electronic files in pdf format.

B. 30% OWNER Review Meeting - CONSULTANT will conduct a Workshop with OWNER staff to review the progressing design documents and discuss OWNER Comments. CONSULTANT will prepare an agenda, meeting roster, and other materials as may be necessary to support the meeting. Following the meeting, CONSULTANT will prepare and distribute meeting minutes.

C. 30% Level Cost Opinion - CONSULTANT will prepare a Class 3 OPCC based on the 30% design for review by OWNER. The OPCC will be based on budget pricing provided by potential vendors, comparison to bids for similar projects, published cost data / indices, CONSULTANT's cost database, and engineering judgment. The OPCC is for comparison to the OWNER's budget for the Project and determination if either the OWNER's budget or the Project scope requires adjustment to align the budget with the projected cost before the design is complete.

4.2. 60% Level Design

A. 60% Design Development – CONSULTANT will progress the design to a 60% level of completion. An internal quality control review will be performed and review comments incorporated prior to submittal to the OWNER. CONSULTANT will produce and submit a 60% design deliverable package of drawings and specifications. Five printed copies of drawings (11"x17") and specifications will be provided for OWNER review, along with electronic files in pdf format.

B. 60% OWNER Review Meeting - CONSULTANT will conduct a Workshop with OWNER staff to review the progressing design documents and discuss OWNER Comments. CONSULTANT will prepare an agenda, meeting roster, and other materials as may be necessary to support the meeting. Following the meeting, CONSULTANT will prepare and distribute meeting minutes.

C. 60% Level Cost Opinion - CONSULTANT will prepare a Class 3 OPCC based on the 60% design for review by OWNER. The OPCC will be based on budget pricing provided by potential vendors, comparison to bids for similar projects, published cost data / indices, CONSULTANT's cost database, and engineering judgment. The OPCC is for comparison to the OWNER's budget for the Project and determination if either the OWNER's budget or the Project scope requires adjustment to align the budget with the projected cost before the design is complete.

4.3 <u>90% Level Design</u>

A. 90% Design Development - CONSULTANT will progress the design to a 90% level of completion. An internal quality control review will be performed and review comments incorporated prior to submittal to the OWNER. CONSULTANT will produce and submit a 90% design deliverable package of drawings and specifications. Five printed copies of drawings (11"x17") and specifications will be provided for OWNER review, along with electronic files in pdf format.

B. 90% OWNER Review Meeting - CONSULTANT will conduct a Workshop with OWNER staff to review the progressing design documents and discuss OWNER Comments. CONSULTANT will prepare an agenda, meeting roster, and other materials as may be necessary to support the meeting. Following the meeting, CONSULTANT will prepare and distribute meeting minutes.

C. Update Cost Opinion - CONSULTANT will update the Cost Opinion based on the 90% design and comments received at the 90% review meeting to produce a Class 2 OPCC for the OWNER.

4.4 <u>Final Design Documents</u>

CONSULTANT will prepare final documents for construction that incorporate the 90% review comments from OWNER and that are suitable for bidding purposes. The final documents will include necessary General Conditions, Special Conditions and supporting Front-end documents. The final design submittal will consist of signed and sealed electronic files of drawings and specifications in electronic pdf format for the OWNER use in advertising the project for bidding. In addition, an updated final Class 2 OPCC, based on the final design, will be submitted to the OWNER.

Task 5 – Permitting Services

CONSULTANT will prepare permit applications for the following permits or provide coordination for the following approvals anticipated to be required for the Project. Anticipated services are as described below. Unless otherwise stated, the budget for these permitting subtasks assumes that the CONSULTANT will respond to up to two (2) agency requests for information for each permit. It is understood that permit fees will be paid directly by the OWNER.

5.1 FDEP Environmental Resources Permit (ERP)

CONSULTANT will provide services in support of obtaining this permit. It is anticipated that this work will be exempt from the ERP due to the relatively small amount of new impervious area added. Services will generally include preparation and submittal of an ERP exemption request.

5.2 FDEP Storage Tank Registration for new Diesel Fuel Storage Tank

CONSULTANT will provide services to register the new storage tank and provide any other updates to the storage tank registry that occur because of the Project. This will include updated forms, applications, drawings and participation in an inspection by FDEP, if required.

5.3 DOH Permit to construct Public Water Supply Facilities

The Florida Department of Environmental Protection has jurisdiction for permitting construction of Public Water Facilities but has delegated their authority for review and approval of Public Water Supply Facilities to DOH in Sarasota County, Florida. CONSULTANT will provide services in support of obtaining this permit / exemption. This Project is not anticipated to require an DOH permit but this will be verified through email notification. Services will generally include preparation and submittal of a permit determination letter along with a site plan drawing.

5.4 City of Venice – Site and Utilities Construction Plans for approval

CONSULTANT will provide services in support of obtaining this permit, which will be submitted to the Utilities and Engineering Departments for approval. Services will generally include preparation and submittal of a permit application, coordinating and responding to agency questions.

5.5 Coordinate with the City of Venice (City) Building Department Plans Review

This permit will be obtained by the Contractor. In support, Consultant will coordinate with the Building Department to facilitate plans review prior to construction. This is anticipated to involve structural, electrical, architectural, and building mechanical elements of the pump station design.

Task 6 – Bid Phase Services

CONSULTANT will provide assistance to the Owner during the bidding phase of the Project. These services assume that the Project will be publicly bid as a single bid package. Services are anticipated for a single advertisement with up to 45-day bid period.

6.1 Pre-Bid Conference

CONSULTANT will attend pre-bid conference to be held with prospective contractor(s) and assist the OWNER with presenting an overview of the project elements, answering questions, and facilitating a site visit.

6.2 Bidder Questions and Addenda

CONSULTANT will develop responses to technical questions and develop language for addenda items in response to bidder questions, as appropriate, upon interpreting the construction documents.

6.3 Bid Evaluations

CONSULTANT will review a copy of the bids received by OWNER. Within seven calendar days of bid opening, CONSULTANT will evaluate the bids for responsiveness and price, including alternative prices and unit prices. For the apparent low, responsive bidder, CONSULTANT will review contractor qualifications for compliance with the contract documents and will call references provided by the Contractor. CONSULTANT will develop and submit a letter of award recommendation based on review on the bid review.

Task 7 – Construction Phase Services

Consultant will perform construction phase services during construction of the WTP Switchgear Replacement and Generator Addition project as covered in the construction documents completed by Consultant. It is understood that the project will be constructed under a single construction contract by a Contractor under contract to the City. It is anticipated that the Construction Contract time to Final Completion will be no more than fourteen (14) months from Construction NTP.

By performing these services, Consultant shall not have authority nor responsibility to supervise, direct, or control the Contractor's work or the Contractor's means, methods, techniques, sequences, or procedures of construction. Consultant shall not have authority or responsibility for safety precautions and programs incident to the Contractor's work or for any failure of the Contractor to comply with laws, regulations, rules, ordinances, codes, or orders applicable to the Contractor furnishing and performing the work. Services to be performed by Consultant are as follows:

7.1 Construction Observation Services

Consultant will perform construction observation services as described in the subtasks below. In performing these services, Consultant shall not have responsibility for the superintendence of construction site conditions, safety, safe practices or unsafe practices or conditions, operation, equipment, or personnel other than employees of the Consultant. This service will in no way relieve the Contractor of complete supervision and inspection of the work or the Contractor's obligation for complete compliance with the drawings and specifications. The Contractor shall have sole responsibility for safety and for maintaining safe practices and avoiding unsafe practices or conditions. Specific services performed by the Resident Project Representative and durations of their services are as follows:

A. Full Time Construction Observation for 6 Weeks – Consultant will perform full time on-site construction observation during a continuous period of 6 weeks (40 hours per week). The period of full-time construction observation shall be scheduled at least a month in advance in coordination between the Contractor, City, and Engineer, with the intent of providing coverage

during the most critical phase of construction and startup activities: switchgear installation, transfer of loads, testing, and commissioning of the replacement switchgear and EG controls.

B. Periodic As-Needed Site Visits – On-site representation outside of the scheduled 6-week period will provided through periodic site visits by engineers and operations & commissioning specialists. Such meetings are covered under subtask 7.8.

7.2 Conformed Contract Documents

Consultant will develop Construction Contract Documents for use by City and the successful bidder within two weeks of request by City. Construction contract documents will incorporate the following items into the construction contract documents:

- Contractor's bid submittals, including but not limited to, bid proposal, insurance, licenses, etc.
- Amend / modify front end documents and / or technical specifications to incorporate changes made via contract document addenda.
- Revise construction contract drawings to include modifications / revisions incorporated via contract document addenda.

Consultant will provide one set full size hard copy of the construction contract drawings and one set of electronic files of both the drawings and specifications on a thumb drive for the Contractor within ten (10) calendar days after City construction contract execution. One full-size and one half-size hard copy of the construction drawings along with a thumb drive with the electronic files of the documents will be provided to City.

7.3 Pre-Construction Meeting

Consultant will develop agenda and conduct the Pre-Construction Meeting with the City and Contractor. Consultant will prepare and deliver the meeting agenda as well as the post-meeting minutes. Consultant has budgeted for three local (Florida-based) design team members to attend this meeting.

7.4 Construction Submittals

Consultant will review and respond to Contractor's construction submittals required by the contract documents including shop drawings, O&M manuals, and test reports. Consultant's review shall be for general conformity to the construction contract documents and shall not relieve the Contractor of any of his contractual responsibilities. Consultant has budgeted for an original submittal and an average of one re-submittal per required shop drawing.

7.5 Requests for Information (RFIs)

Review and respond to Requests for Information (RFIs) by interpreting the construction contract documents when requested by the Contractor.

7.6 Payment Applications Review

Receive, review and provide comments on Contractor's monthly payment applications. It is assumed that there will be up to fourteen (14) payment applications.

7.7 Monthly Construction Progress Meetings

Attend up to 10 monthly progress meetings at the construction site. Consultant has budgeted time for one local (Florida-based) design team member to attend each progress meeting. Limited participation by non-local design team members at select progress meetings will be by phone.

7.8 Periodic Engineer Site Visits
Project design team personnel, with particular areas of responsibilities for the project, shall visit the site to provide periodic observation of the work and consultation with the City and/or Contractor. This task also includes time for site visits for participation in testing and startup and commissioning activities, as well as time to attend factory acceptance testing, as needed. Consultant has budgeted 120 hours total over the construction schedule for site visits.

7.9 Change Orders
When requested by the City, review Change Order requests initiated by the Contractor or the City. Provide recommendations regarding impacts to contract price and time. Support for up to two Change Orders is assumed under this subtask.

7.10 Substantial Completion Inspection
Consultant will attend a Substantial Completion Inspection. Attendance by two members of the design team have been budgeted for. Consultant will prepare and submit to the City a Punch List of work items to be completed or corrected by the Contractor prior to Final Completion.

7.11 Final Completion Inspection
Consultant will attend a Final Completion Inspection. Attendance by two members of the design team have been budgeted for.

7.12 Equipment Startup and Commissioning
Consultant will perform pre-startup inspections on equipment prior to vendor startup. Consultant will monitor the vendor's startup activities to reveal any startup problems encountered with the installation. Consultant will notify the Contractor of any equipment or apparatus that falls short of its performance criteria. Log commencement of the equipment commissioning and warranty periods when the unit process is put into operation. Retain a log of commissioning and warranty period expirations and provide same to the Contractor. On-site participation in startup and commissioning activities is covered in subtasks 7.1 and 7.8.

7.13 Permit Close-Out Activities
Consultant will assist the City in permit closeout activities with the various agencies.

7.14 Record Drawings
Upon completion of construction; revise the construction contract drawings to conform to the construction records. The conformed drawings shall be based on drawing mark-ups prepared by the Contractor to reflect construction changes. Consultant will provide the City with two sets of prints and electronic files.

Construction Phase Services – Supplemental Services

The following services are not included in this scope but can be performed by Consultant under a mutually agreed amendment to this contract.

1. Printing and production of construction documents.
2. Witnessing of Factory Acceptance Testing of equipment or control systems, other than those specifically described in the scope.
3. Construction material testing.
4. Preparation for litigation, arbitration, or other legal or administrative proceedings; and appearances in court or at arbitration sessions in connection with bid protests, change orders, or construction incidents.
5. Supplemental engineering work required to meet the requirements of regulatory or funding agencies that become effective subsequent to the date of this agreement.
6. Startup and commissioning services other than oversight of Contractor's work as defined in this scope.
7. Training services.
8. Development of Operation and Maintenance manuals.

OWNER's ALLOWANCE

This Work Assignment includes an Owner's Allowance to support services by CONSULTANT on an as-needed basis for performance of services related to the project, but not specifically included in other Scope Tasks. Work under this Owner's Allowance Task shall only be performed and compensation with the OWNER's Written Authorization. The total amount of services under this Task shall not exceed $20,000.

PARTICIPATION BY THE OWNER

The following participation by the OWNER will be needed to support execution of work under this Work Assignment:

- Provide CONSULTANT with requested data, as available to support the assessments.
- Provide CONSULTANT Staff access to the facilities for on-site assessments and data gathering.
- Review and comment on draft report within 2 weeks of submittal dates.
- Participate in meetings, interviews, and site visits with CONSULTANT as identified herein.

PROPOSED IMPLEMENTATION SCHEDULE

The proposed implementation schedule for the Project is outlined below. The Notice to Proceed shall be the date of approval of the Work Assignment by the City (City Council or Mayor). The following schedule assumes that City's reviews will be completed within 2 weeks and that the City's staff can be available for participation in meetings and interviews in the timeframes indicated. The cumulative days following NTP is approximate and is based on assumptions regarding the timing of City actions such as bid advertisement and award, as well as the Contractor's actual progress during construction.

Proposed Implementation Schedule		
Deliverable or Activity	**Target Completion Following NTP (or Timeframe Indicated)**	**Cumulative Days Following NTP**
Task 2.1 - Project Kickoff Meeting	15 days	15
Task 2.2 - Collect and Review Existing Documents and Data	15 days	15
Task 3 - Field Investigations	60 days	60
Task 4.1 – 30% Level Design (submittal)	80 days	80
Task 4.2 – 60% Level Design (submittal)	80 days following 30% review meeting	175
Task 4.3 – 90% Level Design (submittal)	80 days following 60% review meeting	270
Task 4.4 – Final Design Documents	15 days following 90% review meeting	300
Task 5.1, 5.1, 5.3 Permit Applications / Exemption Requests submitted	7 days following completion of 90% design	277
Task 5.4 – Permitting – City Site and Utilities Construction Plans – Application Submittal	7 days following completion of Final Design	307
Task 5.5 – Permitting – City of Venice Building Department – Plans Submittal	7 days following completion of Final Design	307
Task 6 – Bid Phase Services – Bid Opening	90 days following completion of Final Design	390
Task 6.3 – Bid Evaluations	7 days following bid opening	397
Task 7 – Construction Phase Services	425 days from Construction NTP	867

COMPENSATION

For the Scope of Services described in this Work Assignment, CONSULTANT shall be compensated on a Lump Sum (LS) Basis for some Tasks and Not-to-Exceed (NTE) Method for some Tasks as indicated in the table below. Compensation under this Agreement includes $360,764 for services defined in the scope, and $20,000 in reserve as an Owner's Allowance. The total amount of compensation shall not exceed $380,764.

Proposed Fee Breakdown		
Task	**Payment Basis**	**Lump Sum Method**
Task 1 – Project Management	LS	$39,984
Task 2 – Data Request and Kickoff Meeting	LS	$5,027
Task 3 – Field Investigations	LS	$8,986
Task 4 – Design Services	LS	$140,110
Task 5 – Permitting Services	LS	$11,340
Task 6 – Bid Phase Services	LS	$11,223
Task 7 – Construction Phase Services	NTE	$144,094
Subtotal		**$360,764**
OWNER's Allowance		$20,000
Work Assignment Total		**$380,764**

Attachment

Subconsultant Proposals

George F. Young, Inc.

EXHIBIT A
BASIC SCOPE OF SERVICES

- Project site is at the Venice Water Treatment Plant in Venice, FL. as depicted attached Client-provided aerial.
- Black & Veatch (Client) intends to design new switchgear and generator. George F. Young, Inc. (GFY) to provide subsurface utility designation, subsurface utility location and survey services at the above referenced project site.

Subsurface Utility Designation, Subsurface Utility Location (VVH - verified vertical and horizontal) and Survey Services

- Provide traffic control within the work areas while designating and locating the subsurface utilities. Traffic control is to be maintained in accordance with applicable standards. Provide safety devices, signs and/or other safety equipment as appropriate.
- ASCE Level "B" - Utilizing electromagnetic designating equipment and Ground Penetrating Radar (GPR), designate and mark the horizontal location of found underground utilities in the areas behind building B and C at the Venice treatment plant as depicted on Client provided aerial.
- ASCE Level "A" - GFY to provide a maximum of 7 test holes (VVH – verified vertical and horizontal) on underground utilities in the 2 specific areas that may be in conflict with the design and construction of the proposed facilities that are described above.
- For each test hole, neatly cut and remove existing pavement or other surface material (not to exceed 225 square inches per cut). Excavate the material through the cut down to the utility in a way that prevents damage to wrappings, coatings or other protective coverings of the utilities (i.e. vacuum/pressure excavations, hand digging, etc.). Backfill and compact with select material around the utility. Provide a restoration of the surface pavement, within the limits of the cut, at the time of the backfill.
- GFY to survey collect found utility information and to provide a 2-dimensional electronic file, in plan view only, together with a Surveyor's Report containing VVH test hole information and a copy of the SUE field notes.
- Existing conditions/topographic data in the areas of work indicated on the attachment will be field located and mapped. A limited topographic survey will be prepared with an AutoCAD drawing file and six (6) signed/sealed blackline copies of the map of survey to be provided.

Utilization of the above equipment and methods is the industry recognized procedure for finding and locating underground utilities and features. Although effective and reliable, there is the possibility that all utilities may not be detected due to environmental conditions, soil conditions, water table, excessive depth, and/or feature makeup.

EXCLUSIONS

The following items are specifically excluded from the above Basic Scope of Services:

1. Filing fees, permit fees, prints, or any other out of pocket expenses other than those specifically included.
2. Any work associated with securing permits other than those specifically included.
3. Any work associated with the handling of hazardous materials.

CLIENT'S RESPONSIBILITIES

In addition to other responsibilities of CLIENT as set forth in this Agreement, CLIENT shall:

1. Provide any available utility information, as-builts, etc. that may aid in locating the underground utility lines.
2. Provide in writing expected electronic deliverable format, to include font, size, type, line types, scale, symbology and any other relevant information.
3. Provide Horizontal Control in the immediate project vicinity with a minimum of two inter-visible pairs of survey control points that meet or exceed the State of Florida's Minimum Technical Standards for an urban control survey.
4. Provide Vertical Control in the immediate project vicinity with a minimum of two benchmarks that meet or exceed the State of Florida's Minimum Technical Standards for an urban control survey.

COMPENSATION SCHEDULE

Client shall pay Sub-consultant for Basic Services set forth in Exhibit A in accordance with items A & B below:

A: LUMP SUM FEE:

1. A lump Sum Fee of **$7,543.75(Seven Thousand Five Hundred Forty Three Dollars and Seventy Five Cents)**, based upon the following assumed distribution of compensation:

2. Consultant may alter the distribution of compensation within the individual phases noted herein to be consistent with services actually rendered but shall not exceed the total Lump Sum Fee for the Basic Services unless approved by the Client.

3. The portion of the Lump Sum Fee amount billed for Consultant's services will be based upon Consultant's estimate of the proportion of the total services actually completed during the billing period to the Lump Sum Fee.

B: HOURLY

1. On an hourly basis at our prevailing standard hourly rates. (Current rate schedule attached.)

C: RETAINER:

1. The Client shall make an initial payment of $ 0.00 (retainer) upon execution of this Agreement. Upon receipt of this retainer payment, the Consultant shall commence services as provided for under this Agreement. This retainer shall be held by the Consultant and applied against the final invoice. In the event the amount of the final invoice exceeds the final invoice, the Consultant shall refund the balance with the final invoice. If the final invoice exceeds the retainer the Client shall promptly remit the amount due.

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