

Exhibit A
City of Riviera Beach Utility District
Scope of Services – Work Authorization No. 30
LS No. 47 – Design, Permitting, Bidding Services and Construction Services

Scope of Services

I. BACKGROUND

The City of Riviera Beach Utility District (RBUD) has 51 wastewater lift stations in its service area that are owned and operated by the City of Riviera Beach Utility District (RBUD). Of these, five lift stations are considered master pump stations: LS 50, LS 47, LS 1A, LS 10 and LS 12. LS 47 is the primary master lift station for RBUD's western service area and re-pumps most flows west of the C-17 canal.

Due to the critical nature of this lift station, RBUD has decided to rehabilitate / replace Lift Station No. 47 at the existing site located at 6522 N. Haverhill Road Riviera Beach, FL 33407. This scope of services is intended to provide the design, permitting and bidding services for the rehabilitation / replacement of LS No. 47. Construction services for this project will be provided under a future work authorization. Under the existing Continuing Professional Utility Consulting Engineering Services Agreement (dated December 4, 2013), C Solutions, Inc. (CONSULTANT) was selected to provide these services as defined below.

II. SCOPE OF SERVICES

CONSULTANT will perform the engineering scope of services as described herein.

Task 1 - Site Investigation

1.1 Wet Well Structural Investigation

The existing wet well has been in service since 1991. The structural integrity of the wet well is unknown. The design of the proposed LS 47 Pump Building on top of the existing wet well will not proceed until additional data are collected on the integrity of the structure to support the proposed structure. Data collection will include the following:

1. Retain the services of Video Industrial Services, Inc. to clean the wet well. During a short-term (two hour) shutdown of the lift stations upstream of LS 47 at night, perform a final cleaning and enter the wet well to perform a visual inspection of the concrete condition.
2. Perform visual inspection of the interior of the wet well (by a structural engineer). Inspect for visual indication of the follow:
 - a. Deficiencies in joints
 - b. Cracks locations
 - c. Leakage locations

- d. Efflorescence
 - e. Honeycombing
 - f. Popouts
 - g. Scaling
 - h. Spalling
 - i. Delamination
 - j. Exposed reinforcing
 - k. Previous patches or repairs
 - l. Other visual evidence of deterioration
3. Document the inspection with photographs.
 4. Prepare a memorandum that summarizes the data collected from the visual inspection.
 5. Based upon the investigation findings, the memorandum would offer recommendations on: 1) the design of temporary shoring strategies and 2) rehabilitation strategies (such as filling the wet well with flowable fill) following construction of the Pump Building.
 6. It is speculated that the short duration pre-construction inspection described herein may not fully reveal the extent of non-satisfactory concrete and steel due to the limited shut-down duration. Consequently, a post-construction inspection is recommended to limit the RBUD's risk.

1.2 Topographic Survey

CONSULTANT will perform a topographical and boundary survey of the project site at LS 47 for the purpose of locating existing structures, obstructions, landscaping and utilities on site. The survey will establish a control traverse and bench marks (North American Vertical Datum 1988) at sufficient intervals to support the topographic survey to be utilized on the design plans. Above ground features within the established survey boundaries will be located including: edges and corners of all structures, pavement, swales, sidewalks, fences, light poles, handrails, storm manholes, driveways types, trees, overhanging trees in right of way, meter boxes, centerline and crown of roads, irrigation systems, fire hydrants and valves, and overhead utilities. Underground features of sanitary manholes, storm manholes, catch basins, and underground structures such as wetwells will be located. Where possible, the material, pipe sizes, and invert elevations will be determined or measured. The survey also will tie in any subdivision corners, lot corners and plat corners which can be located along the right-of-way lines. This will not constitute a boundary or right-of-way survey as defined in the Minimum Technical Standards for Land Surveying and Mapping. Ownership and title searches are not included but the project site shall include the property's legal description. Any easements, if applicable, will be based on information obtained from record plats.

CONSULTANT will review existing "As-Built" drawings of the LS No. 47 project site pertaining to underground piping and utilities within the vicinity of the proposed construction activities in addition to the information obtained from the site surveys. RBUD will assist the CONSULTANT in verifying key underground piping and other utilities by excavating selected locations

requested by CONSULTANT. CONSULTANT shall obtain spot elevations of underground piping of those locations requested to establish as-built elevations necessary for the design of the rehabilitation of LS No. 47. A total of 5 spot elevations are included as part of this Task. The soft dig to prepare the spots for survey locate will be performed by RBUD.

1.3 Geotechnical Investigation

CONSULTANT shall perform two Standard Penetration Test (SPT) boring to a depth of 25 feet at LS No. 47. The SPT boring will be used to determine existing soil characteristics at the proposed location of the rehabilitated lift station and to estimate soil bearing capacity for any structural design for the new pump station.

The CONSULTANT will provide a geotechnical report summarizing the results of the standard penetration test.

TASK 1 Deliverables:

- 1.1 Memorandum summarizing Wet Well Structural Investigation
- 1.2 Copy of the topographic survey
- 1.3 Copy of the geotechnical report

Task 2 - Detailed Design

CONSULTANT will design the civil, mechanical, architectural, structural, electrical and instrumentation improvements described in the document titled "Basis of Design Report (BODR) Lift Station No. 47 Rehabilitation". In general, the improvements will include the following:

- Design of new above ground inline booster pump station with variable frequency drives units located at the existing LS 47 site.
- Pump selection and configuration to handle existing and future estimated wastewater pumping capacities to the year 2030
- Replacement of existing emergency generator to handle requirements of new inline booster station. Generator fuel storage facilities will be sized and provided in accordance with the jurisdictional agency's regulatory requirements.
- Site sanitary lift station to support existing pump station sanitary facilities.
- Design a new Pump Building to house the new inline booster pumps located on top of the existing wet well at LS 47.
- Refurbishment of the existing Electrical Building.
- Design instrumentation and controls for the proposed LS47 in-line booster pumps.

CONSULTANT will provide the following services for the detailed design of the proposed LS 47:

- Prepare detailed design drawings and technical specifications.
- Submittals will be prepared at 60%, 90% and 100% design completion milestones.
- Perform internal QA/QC reviews and constructability reviews at the 60%, 90% and 100% design completion milestones.
- RBUD will provide review comments of the 60% and 90% design submittals within 5 days

from receipt of each submittal from CONSULTANT. The CONSULTANT will address the review comments on the related design disciplines.

- Prepare an opinion of probable construction cost at the 100% design completion milestone.

2.1 60% Design Submittal

CONSULTANT will prepare and submit electronic plans and specifications (provided in Adobe *.pdf format) to RBUD for review. These technical specifications and drawings will consist of the existing conditions and a conceptual design for review by RBUD. CONSULTANT will attend one review meeting with RBUD staff to discuss comments after the 60% submittal.

2.2 90% Design Submittal

CONSULTANT will prepare and submit electronic plans and specifications (provided in Adobe *.pdf format) to RBUD for review. These drawings will incorporate comments received at the 60% design review. Additionally, these drawings will incorporate all the details and information necessary for the completion of the project for a final review. CONSULTANT will attend one review meeting with RBUD staff to discuss comments after the 90% submittal.

2.3 Final Submittal (100% Design Submittal)

CONSULTANT will utilize the 90% plan and specification review to prepare the bid set of construction documents. CONSULTANT will produce three sets (24"x36") of technical specifications and drawings for bid. A final opinion of probable construction cost will be submitted. The cost opinion will be a Class 2 level estimate as defined by AACE. An estimate of this type is normally expected to be accurate within plus 15 percent to minus 5 percent of the estimated cost. Estimate shall be in Microsoft Excel format.

TASK 2 Deliverables:

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| 2.1 60% | Technical specifications and drawings (Electronic format) |
| 2.2 90% | Technical specifications, drawings, and cost estimate (Electronic format) |
| 2.3 100% | Technical specifications, drawings, and cost estimate (3 hard copies and one Electronic format on CD) |

Task 3 - Permitting Services

CONSULTANT will prepare and submit, on behalf of RBUD, construction permit applications and required support documentation to the following regulatory agencies:

- 1) State of Florida Department of Environmental Protection (Pump Station Construction Permit) as administered through the Palm Beach County Department of Health and Rehabilitative Services
- 2) Palm Beach County Department of Environmental Resource Management (Fuel Storage Permit)
- 3) City of Riviera Beach Building Department

TASK 3 Deliverables:

CONSULTANT will provide the following services relative to permit application submission:

- Provide signed and sealed civil, mechanical, architectural, structural, electrical and instrumentation drawings in support of the permit applications.

- Attend one meeting with the City of Riviera Beach Building Department to review and address comments received on the permit application.
- Provide written responses to comments issued by the permitting agencies.
- Update design drawings and technical specifications to address comments issued by the permitting agencies.
- Provide signed and sealed engineering criteria and calculations in support of the permit applications.

All associated permit application and filing fees shall be determined by CONSULTANT and paid by RBUD. In addition to the preparing permit applications for each of the above regulatory agencies, CONSULTANT shall assist RBUD in consultations with the appropriate authorities, including the attendance at one review meeting with the Staff of each agency, if required.

Task 4 - Bidding Services

CONSULTANT will furnish bidding services as described below:

- A. CONSULTANT will issue three (3) copies of Contract documents to RBUD and an electronic copy (Adobe pdf) to the RBUD's purchasing office. Delivery shall be made within five (5) business days of CONSULTANT's receipt of request by RBUD.
- B. CONSULTANT will respond to bidders' inquiries and prepare addenda necessary to clarify the bidding documents and distribute to RBUD's purchasing office.
- C. CONSULTANT will attend one pre-bid conference. This task also includes conducting a single visit to the site of the work with prospective bidders.
- D. CONSULTANT will attend one bid opening and prepare a bid tabulation.
- E. CONSULTANT will review the acceptability of subcontractors, suppliers, equipment and other information submitted by the apparent low bidder.
- F. CONSULTANT will consult with RBUD concerning the acceptability of substitute materials and equipment proposed by the apparent low bidder.
- G. CONSULTANT will review the submittals and provide written recommendations to RBUD for award of a construction contract.
- H. CONSULTANT shall prepare "As-Bid" Contract Documents which reflect the changes made during the bidding period by addenda and provide three (3) sets of "As-Bid" Contract Documents for execution by RBUD and the successful bidder.

TASK 4 Deliverables:

- Bid tabulation and recommendation of award letter
- "As-Bid" Contract Documents

Task 5 Construction Contract Administration Services

The CONSULTANT will perform the following tasks associated with administration activities related to the construction of the project:

5.1 General Management

CONSULTANT will provide services for the management of engineering tasks during construction. Such management activities will include project coordination with the RBUD, general coordination with the contractor, scheduling, and general correspondence with the RBUD and the Contractor.

It is assumed general management services will be provided throughout the entire duration of the project (395 consecutive days).

5.2 Pre-construction Conference and Progress Meetings

CONSULTANT will attend meetings with the RBUD and the Contractor. As a minimum, one representative of CONSULTANT will attend the project progress meetings (i.e., the Project Manager) together with the Resident Project Representative (RPR) to discuss the project progress. CONSULTANT will chair the progress meeting and prepare and issue meeting minutes. Additional CONSULTANT or sub-consultant team members will attend, as appropriate, to address specific subject matter as issues arise during the course of the construction work.

It is assumed that these project progress meetings will be held monthly during the 12 months of the construction period; plus one project kick-off meeting, one preliminary schedule review meeting and one project close out meeting. A total of 15 meetings are assumed.

5.3 Assistance to Contractor for Procuring Building Department Permit Approval

CONSULTANT will provide assistance to the Contractor for procuring the Building Department permit from the RBUD. CONSULTANT will participate in up to two meetings with the Building Department and Contractor together with any required contract drawing revisions and subsequent resubmittal of revisions to resolve outstanding permitting issues.

5.4 Contract Interpretation and Clarifications

CONSULTANT shall issue necessary technical interpretations and clarifications of the Contract Documents in a timely manner as defined in the specifications unless otherwise authorized by the RBUD. CONSULTANT shall issue necessary interpretations and clarifications of the Construction Drawings and specifications, and in connection therewith prepare work change directives and change orders as required or requested by the RBUD. CONSULTANT may issue additional instructions, by means of drawings, minor change orders or otherwise, necessary to illustrate changes in the Work. CONSULTANT will notify the RBUD of any such requested deviations or substitutions, and when reasonably necessary, provide the RBUD with a recommendation concerning same. A total of 25 Request for Information (RFI) are assumed.

5.5 Shop Drawings and Contract Document Submittals

CONSULTANT shall review shop drawings, diagrams, illustrations, catalog data, schedules and samples, the results of laboratory tests and inspections, manufacturer's operations and

maintenance manuals, and other data that the Contractor is required to submit for conformance with the design concept of the Project and compliance with the provisions of the Contract Documents. In addition, CONSULTANT will receive and review all items to be delivered by the Contractor(s) pursuant to the Contract Documents, including but not limited to all maintenance and operating instructions, schedules, guarantees, warranties, bonds and certificates of inspection, tests and approvals. CONSULTANT shall provide written comments and recommendations concerning their completeness under the Contract Document. CONSULTANT shall complete its review of submittals, shop drawings, samples and other data so as not to delay progression of the work, and in accordance with the times specified in the Contract Documents.

The projected quantity of shop drawings and manufacturer's O&M manuals is 150 submittals and is based on the Contract drawings and specifications, and the contract specifications' requirement that the Contractor submit complete submittals for equipment by specification section. If the Contractor submits partial or piecemeal submittals and/or manufacturer's O&M manuals, the CONSULTANT will reject such submittals without review and return those submittals to the Contractor in accordance with the contract documents. Should the actual quantities of shop drawings or manufacturer's O&M manuals exceed the quantity identified, the CONSULTANT shall be entitled to additional compensation through a negotiated amendment with the RBUD.

5.6 Review and Approval of Contractor Applications for Payment

Based upon the Project records (including but not limited to delivery schedules, inventories and construction reports), as well as the RPR's observations at the site and evaluations of the data reflected in Contractor's application for payment, CONSULTANT shall render a recommendation to the RBUD concerning the amount owed to the Contractor and shall forward the Contractor's application for such amount to the RBUD. Such approval of the application for payment shall constitute a representation by CONSULTANT to the RBUD, based on observations and evaluations provided to the CONSULTANT by the RPR, that:

- (a) The work has progressed to the point indicated.
- (b) The work is substantial, in accordance with the Contract Documents.
- (c) The Contractor is entitled to payment in the recommended amount.

5.7 Change Orders

CONSULTANT shall receive and log all requests for project cost and/or schedule changes from the Contractor. Changes may be the result of unforeseen conditions or interferences identified by the Contractor during the progress of work, inadvertent omissions (betterment) issues in the Contract Documents, or additional improvements requested by the RBUD after the project bid date. CONSULTANT will provide a response to the contractor and the RBUD with respect to a request for change order within a reasonable amount of time after receipt of contractor's notice and all necessary backup information required by CONSULTANT to formulate a response. CONSULTANT will have authority to make minor changes in the work not involving extra cost, and not inconsistent with the purpose of the work. CONSULTANT is not authorized to bind the RBUD to changes in contract price or time.

Regardless of the source, CONSULTANT shall evaluate the impact of the change request in terms of project cost and schedule. CONSULTANT shall prepare an analysis of the change

request indicating reasons for acceptance, references to applicable sections of the contract documents that validate or disclaim the change request, and if accepted, a statement noting that the requested cost / schedule impacts are fair and reasonable. If requested cost impacts are not considered by CONSULTANT to be fair and reasonable, CONSULTANT shall advise the RBUD and assist the RBUD to negotiate with the Contractor the scope and cost of any necessary contract change orders, using as a basis for such negotiations data or other information, emanating from the Contract Documents, including but not limited to the bid sheet, technical specifications, plans, shop drawings, material specifications, and proposed material and labor costs. If requested schedule impacts are not considered reasonable by CONSULTANT, CONSULTANT advise the RBUD and shall assist the RBUD to jointly negotiate with the Contractor a fair and reasonable schedule impact based on analysis of the Contractor's CPM schedule. CONSULTANT's analysis of the change request shall be forwarded to the RBUD.

Following approval and/or negotiation of Contractor change order requests, CONSULTANT shall prepare, recommend and submit for the RBUD's approval such change orders. CONSULTANT's services do not include litigation support.

A total review of 10 change order proposals are assumed.

5.8 Substantial and Final Construction Completion and Project Close-Out Reviews

Upon receiving notice from the Contractor advising CONSULTANT that the Project is substantially complete, CONSULTANT will schedule and, in conjunction with the RBUD and RBUD's RPR, conduct a review of the Project, develop a list of items needing completion or correction, forward said list to the Contractor and provide written recommendations to the RBUD concerning the acceptability of work done and the use of the Project. Also, CONSULTANT will perform final inspection in conjunction with RBUD and RBUD's RPR, and assist the RBUD in closing out construction contract. These services will include providing recommendations concerning acceptance of Project, and preparing necessary documents such as lien waivers, Contractor's final affidavit, close-out change order, final payment application, permitting certifications, and warranty letters from Contractor, subcontractor and equipment suppliers. The CONSULTANT will require accurate list of items needing completion from RBUD's RPR in order to make the above stated recommendations.

5.9 Record Drawings

CONSULTANT shall prepare and distribute to the RBUD within sixty (60) days of the date of receipt of marked-up, red-lined field drawings from the Contractor, five (5) sets of full size (24"x36") record drawings. CONSULTANT shall also deliver an electronic version of the record drawings in PDF format. The record drawings shall incorporate those changes made during the construction process, based on the marked-up prints, drawings and other data furnished by the Contractor. This assumes that the selected Contractor is required to keep and submit to the CONSULTANT accurate up-to-date "redlines" at each payment application milestone.

Task 6 - Field Services During Construction

The CONSULTANT will provide field services during construction as specified below. The CONSULTANT will not provide a resident project representative (RPR). This service will be provided by others as stated below.

6.1 Resident Project Representative (Provided by Others)

It is assumed that RBUD's RPR shall provide a RPR throughout the duration of construction activities for the project. It is assumed that the RPR will be provided fulltime throughout the duration of onsite construction activities. It is assumed that the RPR's duties and responsibilities shall include, at minimum, the following:

- 1) Attend pre-construction conference, construction progress meetings and other construction conferences.
- 2) Serve as CONSULTANT 's construction liaison with the Contractor.
- 3) Assist in obtaining from the RBUD staff additional details or information at the job site.
- 4) Conduct on-site observations of construction in progress (including specialized field tests), to assist in determining if construction is proceeding in substantial accordance with the Contract Documents, and that completed construction conforms to the Contract Documents. Inform the Contractor and CONSULTANT whenever the RPR believes that any construction is unsatisfactory, faulty or defective or does not conform to the Contract Documents, or does not meet the requirements of any inspections, tests or approval required to be made, or has been damaged before final payment. Immediately inform the Contractor and CONSULTANT upon the commencement of any construction requiring a submittal if the submittal has not been accepted. Visually inspect and review suitability and method of storage of materials, equipment and supplies delivered to the construction site in accordance with the Contract Documents.
- 5) Keep a daily diary and / or log book recording hours on the job site as required by CONSULTANT. This daily diary shall include recording of: weather conditions, data pertaining to questions of extras or deductions, list of visiting officials and representatives of manufacturers, fabricators, suppliers and distributors, daily activities, decisions, observations in general and specific observations in more detail as in observing test procedures.
- 6) Prepare daily reports of the progress of construction in sufficient detail to determine the progress of all activities. The report shall record the number of personnel on the job site, the number and type of active and inactive equipment on the job site and materials stored on the job site. The report shall record the impact, if any, of weather or other causes for delays at the job site. This report (electronic version in format required by the CONSULTANT) shall be delivered weekly to the CONSULTANT.
- 7) Review monthly applications for payment with the Contractor for accuracy, back-up detail and completeness and coordinate final recommendation for payment with the CONSULTANT.
- 8) Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, and record the outcome of these inspections in the daily reports.
- 9) Review Contractor measurements and notations for accuracy on the Contractor's set of record drawings indicating field changes in construction and "as-built" conditions.
- 10) Advise the RBUD and CONSULTANT before scheduled major tests, inspections or start of important phases of construction.
- 11) Coordinate with the CONSULTANT, RBUD and the Contractor necessary shutdowns and interruptions of the RBUD's facilities.

- 12) During the course of construction, verify that certificates, operating and maintenance manuals and other data required to be assembled and furnished by the Contractor are available to the CONSULTANT and RBUD before equipment start-up and operator training is conducted by the Contractor as required by the Contract Documents and, in the presence of the required personnel; observe, record, and report appropriate details relative to the test procedures and start-ups.
- 13) Before issuance of a determination of substantial completion, prepare a written list of items requiring completion or correction to the CONSULTANT. Coordinate and participate in a review of the project with the CONSULTANT and RBUD upon receipt of Contractor's request for substantial completion. Provide verification that all items have been completed and properly corrected prior to final inspection. Coordinate and participate in the final inspection with the CONSULTANT and RBUD.
- 14) Report to the CONSULTANT and RBUD as soon as possible any environmental concerns and the occurrence of any accident.
- 15) In addition, the RPR:
 - a. Shall not undertake any of the responsibilities of the Contractor or subcontractors.
 - b. Shall not advise on or issue directions pertaining to any aspect of the means, method, techniques, sequences or procedures of construction unless such is specifically called for in the Contract Documents.
 - c. Shall not advise on or issue directions about safety precautions and programs about the Contractor's Work.
 - d. Shall not approve any interruptions or modification of the RBUD's facilities without the approval of the CONSULTANT and RBUD.
 - e. RPR shall not be responsible for the acts or omissions of the Contractor, any construction subcontractor or any other person (except RPR's own employees and agents) at the Project site.

6.2 Periodic Onsite Inspection

CONSULTANT will perform periodic inspections of the jobsite in order to check compliance and assume final project certification. It is assumed that at least bi-weekly inspections will be made.

6.3 Discipline Specific Inspections

CONSULTANT will furnish the services of discipline specific (instrumentation, electrical, and structural) inspectors for construction of the project to supplement the RPR throughout the duration of the construction period. The following estimated hours are assumed for discipline specific inspections over the duration of construction:

▪ Structural:	60 hours
▪ Geotechnical	8 hours
▪ Electrical:	60 hours
▪ Instrumentation and Control:	16 hours
▪ HVAC	6 hours

Structural and electrical inspection services associated with Building Department Special Inspection requirements anticipated for this project and limited to the list of items and/or areas

identified below are being furnished by the CONSULTANT as part of the discipline specific inspections:

- Precast concrete units and their attachments to structures
- Reinforced masonry
- Bolted Structural (metal) connections
- Cast in place concrete and steel reinforcement
- Electrical ductbank and conduit
- Electrical grounding
- Electric building slab
- Lighting
- Electrical equipment
- Cable insulation testing
- National Electric Code compliance

CONSULTANT will prepare an inspection report for Special Inspections required by the Building Department associated with the items and/or areas identified above and will submit the Special Inspection reports to the Building Department on a weekly basis. Additional inspections beyond the items and/or areas and effort identified above but required at the discretion of the Building Official will be provided by CONSULTANT as an amendment to this Professional Engineering Services Agreement.

6.4 Startup and Testing Services

CONSULTANT shall provide the following startup services, including startup of individual components, pump station startup, and performance testing. It is assumed that the Contractor has performed all of the preliminary testing required to trouble-shoot any and all systems prior to the field start-up of equipment, and the installation of the equipment has been reviewed for conformance with the contract documents by the RPR. It is further assumed that additional costs required due to re-testing and / or diagnostic investigations of the manufacturer's equipment will be reimbursed as amended to this Work Order. CONSULTANT shall provide engineering assistance during the following activities:

- 1) Subsystem startup – provide oversight during field testing of individual components such as pumps, seal water system, motorized valves, instruments, vendor control panels, emergency power generator, etc.
- 2) Performance testing – Upon successful completion of the previous activities, oversee entire pump station performance to ensure the entire pump station will operate as intended. CONSULTANT shall oversee testing to confirm compliance with specified standards. CONSULTANT shall notify the contractor, and the RBUD of any startup and performance testing deviation from the Contract Documents requirements.

6.5 Operator Training

CONSULTANT will coordinate with the Contractor operator training to be provided by the equipment suppliers for the new and rehabilitated pump stations and support systems (e.g., electrical, SCADA) as identified in the Contract Documents. Training will be conducted by the Contractor with pump station operations staff to review the function of new equipment and local controls installed under this project.

ASSUMPTIONS

This Authorization scope of services is based on the following:

- A. It is assumed that LS 47 will be designed as specified in the preliminary engineering design report (dated April 2015).
- B. No site irrigation or landscape design is included in this Authorization.
- C. The design is based on the preparation of a single set of Contract Documents for the design of the rehabilitation of LS No. 47 as identified herein. The preparation of documents for the purpose of pre-purchasing equipment is not included in this Authorization.
- D. All work associated with the handling, containment, removal and disposal of any hazardous substances (asbestos piping, paint containing lead) is not included in this Authorization other than identifying in the bidding documents the rules and regulations to be followed for the proper handling, containment, removal and disposal of asbestos material and paint containing lead. No Asbestos survey or lead based paint survey is being performed as part of this scope of services. Notifications to the appropriate authorities for demolition is not provided in this scope of services as RBUD has stated that all demolition will be performed by RBUD prior to the commencement of construction for these facilities.
- E. It is assumed that RBUD will provide written comments within five (5) days of receipt of a submittal.
- F. Applying for dewatering permits is not included in this work authorization. The contract documents will require that the Contractor obtain any needed dewatering permits.
- G. It is assumed that the project site is not contaminated with hazardous substances such as those included in the Environmental Protection Agency publication "EPA 550-B-15-001" commonly referred to as the "List of Lists".
- H. It is assumed that LS 47 will be rehabilitated with inline booster pumps (screw centrifugal pumps) placed within a building located over the existing wet well.
- I. It is assumed that the new electrical generator with a sub-based diesel fuel tank will be provided as backup power for the new pump station and located outside of the existing building within a sound attenuating enclosure.
- J. Drawings will be prepared in AutoCAD; files will be saved in AutoCAD 2010 format. Drawings will be created using two dimensional methods.
- K. AutoCAD drawings will be setup for 24" x 36" size paper using a title block provided by CONSULTANT.
- L. Prior to issuing a notice to proceed, the RBUD will expose the wall of the Wet Well at LS 47 where requested to facilitate concrete coring, if this testing is required.
- M. If required, RBUD will assist the concrete testing company. Assistance would be limited to: 1) Provide access to the site; 2) Observing testing company perform its work; 3) Provide access to 120 volt power and 4) Provide access to potable water.
- N. RBUD will retain the services of a firm such as Video Industrial Services, Inc. to clean the wet well. During a short-term (two hour) shutdown of the lift stations upstream of LS 47 at night, perform a final cleaning and enter the wet well to perform a visual inspection of the concrete condition. RBUD will have staff help organize shutdown of lift station for inspection for the time required for visual inspection.

- O. The total duration of the project is 395 consecutive days. CONSULTANT will provide part-time inspection services for the majority of the 395 consecutive day construction duration. Any additional efforts beyond the 395 day project construction phase duration will be compensated as amended to this Professional Engineering Services Agreement.
- P. During part-time on-site observations and/or during limited field checks of materials and equipment, CONSULTANT may endeavor to provide protection for the RBUD against defects and deficiencies in the work of the construction contractor. The furnishing of such services; however, will not make CONSULTANT responsible for (or give CONSULTANT control over) construction means, methods, techniques, sequences or procedures; for safety precautions or programs; or for the responsibility of construction contractor's failure to perform the work.
- Q. CONSULTANT will not undertake any responsibilities of the contractor, subcontractor, or contractor's superintendent, or expedite the work.
- R. CONSULTANT will not advise on, or issue directions relative to any aspect of the contractor's means and methods, techniques, sequences, or procedures of construction unless specifically called for in the contract documents or submitted in writing by the contractor to CONSULTANT.
- S. Record Drawings will be prepared based upon information provided by Contractor and confirmation of RPR as required above.
- T. It is assumed that the RPR contracted by RBUD will have experience in the inspections of similar projects.

III. Time of Completion

The Notice to Proceed (NTP) defines the official commencement of the SUBCONSULTANT's contract. All days are defined as calendar days.

Task Description	Completion (Days from NTP)
Task 1 - Site Investigation	60
Task 2.1 - 60 % Design Submittal	100
Task 2.2 - 90% Design Submittal	160
Task 2.3 - 100% Design Submittal	200
Task 3 - Permitting Services	260
Task 4 - Bidding Services	As Required
Task 5 - Construction Contract Administration Services	395 from Construction NTP
Task 6 - Field Services During Construction	395 Construction NTP

A number of factors affecting the project are beyond the control of CONSULTANT including work by others such as reviews by others and delivery of information to be supplied by others. Consequently, the schedule presented herein is dynamic and is presented as a best-case scenario. The schedule will be updated when appropriate.

IV. Proposed Compensation

The Consultant shall perform the services defined in this scope of work for a lump sum fee of \$666,190. Invoices will be submitted to RBUD monthly and define the current percent complete for the project. The breakdown of fees per task is estimated below.

Task Description	Lump Sum Amount
Task 1 - Site Investigation	\$22,180
Task 2.1 - 60 % Design Submittal	\$123,680
Task 2.2 - 90% Design Submittal	\$78,420
Task 2.3 - 100% Design Submittal	\$30,400
Task 3 - Permitting Services	\$11,400
Task 4 - Bidding Services	\$15,240
Task 5 - Construction Contract Administration Services	\$277,229
Task 6 - Field Services During Construction	\$85,795
Other Direct Cost (Expenses)	\$21,846
TOTAL	\$666,190