EXHIBIT 3

CONSULTANT COMPETITIVE NEGOTIATION ACT (CCNA) CONTINUING PROFESSIONAL ARCHITECTURAL AND ENGINEERING SERVICES AND OTHER SERVICES

WORK AUTHORIZATION FORM

PURSUANT TO REQUEST FOR PROPOSAL
(RFP) # FY 2018-2019-012

1. The Firm receiving the Work Authorization will have five (5) business days to return the completed Work Authorization to the Project Manager via email.

2. The Work Authorization must include all costs for the Project utilizing a Fee Worksheet with hours and fees per Exhibit B - Hourly Billing Rates for Tasks Orders. The Cost Proposal must include a narrative schedule of deliverables and a summary of compensation which could be through an excel worksheet.

3. The costs for the Project must include all meetings and all costs required for the Project.

Task No.	Task Description
1.	Pre-Design: **See Exhibit A - Scope of Services Proposal** a. Kick-Off Meeting b. Geo-Technical Report c. Surveying
2.	Design: **See Exhibit A - Scope of Services Proposal** a. 30% Submittals b. 60% Submittals c. 90% Submittals d. Final (Signed and Sealed) e. Permitting f. Client Meetings Submittals are ONLY deemed accepted if approved in writing by the City.
3.	Post Design Services **See Exhibit A - Scope of Services Proposal**
4.	Bidding Services: **See Exhibit A - Scope of Services Proposal** a. Responding to Request for Information (RFI) during Bidding b. Attending Pre-Bid Meetings
5.	Engineering Services During Construction: **See Exhibit A - Scope of Services Proposal** a. Project Management b. Client Meetings c. Inspections d. Certifications i. Project Close Out ii. Release of Retainage iii. Review and Submittal of As-Built Drawings
6.	General Tasks **See Exhibit A - Scope of Services Proposal**
	TOTAL COSTS ITEMS 1 - 6 $ See Exhibit A - Scope of Services Proposal

Work Authorization

Under
Agreement between the City of Hallandale Beach and Craig A. Smith & Associates

For
Triplex Submersible Lift Station Improvements Project

RFP # FY 2018-2019-012 CONSULTANT COMPETITIVE NEGOTIATION ACT (CCNA) CONTINUING PROFESSIONAL ARCHITECTURAL AND ENGINEERING SERVICES

This Work Authorization is issued pursuant to the Agreement between the City of Hallandale Beach ("City") and Craig A. Smith & Associates ("Consultant") for RFP # FY 2018-2019-012 CONSULTANT COMPETITIVE NEGOTIATION ACT (CCNA) CONTINUING PROFESSIONAL ARCHITECTURAL AND ENGINEERING SERVICES (the "Agreement"), which was approved by the City Commission on August 5,2020 via Resolution #2020-054.

1. This Work Authorization permits Consultant to provide the services described in Exhibit "A" to this Work Authorization, attached hereto and incorporated herein. These services are authorized by Article 3 of the Agreement.

2. Compensation and Method of Payment.

2.1 Payment for the services authorized by this Work Authorization will be in accordance with Article 10 of the Agreement and the agreed method of compensation is as follows (Check those boxes that apply. Amounts indicated herein should not include any sums set aside as contingency. Monies indicated as contingency in project budgets or estimates are subject to the change order authorization provisions of the Agreement):

☐ 2.1.1 Maximum Amount Not-To-Exceed Compensation. City shall pay Consultant for the performance of all services set forth in Exhibit A to this Work Authorization, pursuant to the terms of the Agreement, up to a maximum amount not-to-exceed of_____. It is understood that the method of compensation is that of "maximum amount not-to-exceed" which means that Consultant shall perform all services set forth herein for total compensation in the amount of or less than that stated above.

☒ 2.1.2 Lump Sum Compensation. City shall pay Consultant for the performance of all services provided pursuant to Exhibit A, as required under the terms of the Agreement, a total lump sum of **$426,222.50**.

☐ 2.1.3 Reimbursable Expenses. City has established a maximum amount not-to-exceed of $_____ for potential reimbursable expenses that may be utilized pursuant to Section 9.2 of the Agreement.

2.2 Payments for this Work Authorization shall be charged against: Budget account **#490-3595S-565010-P2002**.

3. Time for Performance.

3.1 Consultant shall perform the services described in Exhibit A within the time periods specified in the Project Schedule included in Exhibit A. The Project Manager shall issue to Consultant a written Notice to Proceed for said time periods to commence.

3.2 ☐ If this box is checked, liquidated damages shall be applicable. In the event Consultant fails to complete the services identified in Exhibit "A" to this Work Authorization, on or before the Time for Performance set forth herein, Consultant shall pay to City the sum of $_____ for each calendar day after the applicable Time for Performance, plus approved time extensions thereof, until completion of the service. These amounts are not penalties but are liquidated damages to City for its inability to proceed with, and complete, the service in a timely manner pursuant to the agreed upon Schedule. Liquidated damages are hereby fixed and agreed upon by the parties, recognizing the impossibility of precisely ascertaining the amount of damages that will be sustained by City as a consequence of such delay, and both parties desiring to obviate any question or dispute concerning the amount of said damages and the cost and effect of the failure of Consultant to complete the services within the applicable Time for Performance. This provision shall not affect the rights and obligations of either party as set forth in Section 3.7 of the Agreement.

4. The terms and conditions of the Agreement are hereby incorporated into this Work Authorization. Nothing contained in this Work Authorization shall alter, modify, or change in any way the terms and conditions of the Agreement with the City.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement on the respective dates under each signature: CITY OF HALLANDALE BEACH through its authorization to execute same by City Commission action on 24th day of June, 2021, and Craig A. Smith & Associates, signing by and through its Vice President duly authorized to execute same.

CITY

ATTEST:

CITY CLERK

CITY OF HALLANDALE BEACH

By: Jeremy Earle
Jeremy Earle (Jun 24, 2021 16:55 EDT)

City Manager

24 Day of June, 2021.

Approved as to legal sufficiency and form by
CITY ATTORNEY

City Attorney

24 Day of June, 2021.

[CONSULTANT EXECUTION ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement on the respective dates under each signature, Craig A. Smith & Associates signing by and through its Stephen C. Smith P.E., Vice President duly authorized to execute same.

CONTRACTOR MUST EXECUTE THIS CONTRACT AS INDICATED BELOW. USE CORPORATION OR NONCORPORATION FORMAT, AS APPLICABLE. If the Company President does not sign the Contract, there must be a Secretary's Certificate Form provided to the CITY of Hallandale Beach, Florida indicating designee signing, has the authority to sign.

CONSULTANT

ATTEST:

By _____

_____
(Secretary)

Stephen C. Smith

Craig A. Smith & Associates

(Corporate Seal) (OR NOTARY)

_____
(Type Name and Title Signed Above)
Andrea Cole

2nd Day of June, 2021.

Notary Public State of Florida
Andrea Cole
My Commission GG 353948
Expires 07/11/2023

OR **(ONLY If not incorporated sign below).**

WITNESSES:

_____ _____
(PRINT NAME) (PRESIDENT OR VICE-PRESIDENT)

_____ _____
(PRINT NAME) (TYPE NAME & SIGNED ABOVE)

STATE OF FLORIDA
COUNTY OF _____ **NOTARY SEAL**

The foregoing instrument was acknowledged before me this _____day of _____, 20___, by _____.

_____ _____
Signature of Notary Name of Notary Printed, or Stamped
Personally Known _____ OR Produced Identification _____
Type of Identification Produced

CRAIG A. SMITH & ASSOCIATES

PROPOSED SCOPE OF SERVICES, FEE REQUEST AND SCOPE OF WORK FOR

HALLANDALE BEACH TRI-PLEX SUBMERSIBLE LIFT STATION IMPROVEMENTS PROJECT

(Egret Master Lift Submersible Improvements)

CAS PROPOSAL NO.: 4110

ENGINEERING SERVICES PROPOSAL

MAY 25, 2021

CRAIG A. SMITH & ASSOCIATES
CONSULTING ENGINEERS • SURVEYORS • UTILITY LOCATORS • GRANTS SPECIALISTS
21045 Commercial Trail, Boca Raton, FL 33486
(561) 314-4445 • Fax (561) 314-4457

City of Hallandale Beach
Triplex Submersible Lift Station Improvements Project
Proposal for Professional Services

CRAIG A. SMITH & ASSOCIATES

PROPOSED SCOPE OF SERVICES AND PROPOSED FEE

PROJECT NAME: CITY OF HALLANDALE BEACH TRIPLEX SUBMERSIBLE LIFT STATION IMPROVEMENTS PROJECT

CAS PROJECT NO.: 4110

PROPOSAL DESCRIPTION:

In accordance to RESOLUTION #2020-054, RFP# FY 2018-2019-012 Continuing Professional Services, the following scope of services is provided by Craig A. Smith & Associates (CAS) as requested by the City of Hallandale Beach (CITY) for the above reference project. This proposal, when executed, shall be incorporated in and become an integral part of the Agreement for professional services between the CITY and CAS, hereafter referred to as the Agreement. Craig A. Smith & Associates (CAS) is pleased to provide this proposal to the City of Hallandale Beach for the preparation of engineering plans and specifications, survey, utility locates, engineering services during construction (ESDC), and construction observation services.

The purpose of this project is the conversion of the existing triplex wet pit dry pit pump station to a triplex submersible lift station. The existing pump station is located in-between the north eastern corner of the Gulfstream Race Track and the Golden Isles Park and Tennis Center on Layne Blvd. The station was constructed in 1969 and consisted of three centrifugal pumps, a 200 HP, a 60 HP, and a 15 hp. The city would like to convert the existing structure into a submersible lift station with three proposed 2,500 gpm submersible pumps. The proposed submersible pumps guide rails will extend from the bottom of the structure at elevation -18.50 to the top of the structure at elevation 13.0. The pumps will require the installation of three pump hatches to be installed into the existing 8-inch-thick concrete roof slab and the 18-inch thick first floor slab for installation and removal of the proposed submersible pumps.

The proposed rehabilitation will include installing a new influent structure on the east side of the pump station in which the existing 30-inch diameter influent pipe will be exposed into a rectangular open channel type structure. The proposed structure will be approximately 20 deep where the existing Muffin Monster, rated at 5 mgd will be re-installed on a rail system for easy installation and removal. The structure will be enclosed with a concrete top slab and an aluminum hatch and ladder to access the mechanical grinder for service and or removal.

The three individual pipe lines which include the 30 inch gravity line, the existing 16 inch force main and the existing 12 inch force main, will be combined into a single line prior to entering the proposed influent grinder structure.

The existing three level pump station structure will be converted into a submersible wetwell with three proposed 2,500 gpm submersible pumps installed along the existing north wall. The existing lower level of the structure measuring 23.5 feet x 23.5 feet x 8 feet deep is approximately 33,047 gallons of wetwell volume. This will require the installation of six floor hatches to be cut into the existing structures 8-inch-thick roof slab and the 18-inch thick first floor slab. The six proposed floor hatches will include safety cages under the hatch openings to prevent anyone from falling through.

The existing pumps, existing effluent piping, and the existing electrical controls will be removed from the structure's lower levels. The existing emergency generator will have to be analyzed to see if it can be rehabilitated for continual service at this site. The initial review of the generator appears that its steel enclosure can be sand blaster, re-painted and any rusted areas of the walls and intake structure will have to be replaced.

The submersible pumps will discharge into a common header that will be installed outside the buildings first floor. The pumps 3 discharge pipes will extend out of the buildings north wall into a common header where it will have a magnetic flow meter installed in an above ground pipe assembly complete with bypass piping. The effluent pipe will then connect into the existing 18 inch force main that leaves the site and eventually connects into the Hollywood WWTP.

This engineering proposal is to authorize CAS to provide professional engineering services to the City of Hallandale Beach to assist the City by supplying contract documents and specifications to allow the City to publicly bid the proposed triplex submersible lift station project. Craig A. Smith & Associates proposes to provide professional engineering and construction observation services during the construction phase of the project.

City of Hallandale Beach
Triplex Submersible Lift Station Improvements Project
Proposal for Professional Services

OWNER/CLIENT: **City of Hallandale Beach**
Attn: **Peter Kunen, P.E. (pkunen@hallandalebeachfl.gov)**

ADDRESS: **630 NW 2nd Street, Hallandale Beach, FL 33009**

PHONE: **(954) 457 3042**

GENERAL:
Craig A. Smith & Associates will provide professional services, engineering design, permitting, bidding services, and construction observation during the construction phase of the project. More specifically, the scope of work for the City of Hallandale Beach Triplex Submersible Lift Station Improvements Project includes the following tasks:

TASK 1 MAP OF TOPOGRAPHIC SURVEY:

Field surveying to provide a Map of Topographic Survey for that portion of the Hallandale Beach Sewage Pumping Station No. 1 (Egret) shown on Exhibit "A" attached hereto. A corridor will be established per said Exhibit and elevations taken at an approximate 50-foot grid. All above ground, visible improvements within the corridor will be located together with utility surface marks provided by the CAS Utility Locating Department. Said elevations will be relative to North American Vertical Datum of 1988 (NAVD '88). Available data at the pumping station will be measured, IE., Pipe sizes, inverts, materials (as available), top and chamber elevations, etc. and added. The Map of Topographic Survey adhering to Florida Statutes Chapter 472.027, Florida Administrative Code 5J-17 (Standards of Practice for Surveying in the State of Florida) will be represented on 11"x17" sheets at an appropriate scale and 6 certified copies will be provided. A PDF and Cad file of the survey will be provided.

Lump Sum for Task: $15,510.00

TASK 2 PROVIDE LOCATES – GPR/EM SERVICES:
Provide utility location and verification services within the area described in Task 1 above using AWPA standards for marking. A subsurface ground penetrating radar (GPR) unit shall be used in addition to electromagnetic induction (EM) to perform/verify horizontal locations of existing utility lines. Lines will be painted on the ground or pin flags set to show said lines on the surface.

Lump Sum for Task: $3,600.00

TASK 3 **UTILITY TEST HOLES (SOFT DIGS)**

Utility test holes (soft digs) will be performed, and reports provided for each with utility depth, elevation, size, material, and type. The test holes will be performed based on the direction of the engineer. Twenty (20) utility test holes are estimated for this task.

Lump Sum for Task: $9,900.00

TASK 4 **ENGINEERING DESIGN SERVICES:**

Preparation of construction plans for bidding Hallandale Beach triplex submersible lift station improvements. The scope of work includes the installation of an enclosed influent - grinder structure. The proposed influent grinder structure will allow the anticipated 3.45 MGD of sewer flows to flow through the proposed grinder assembly before entering the pump station thus macerating rags and influent solids that would normally foul the pumps.

The plans will also include the design of the proposed 18-inch diameter effluent force main that will extend above grade out of the pump station structure where the above grade piping will have an installed magnetic flow meter, plug valves, and stainless stee pipe supports including by-pass piping for maintenance on the mag meter.

The existing pumps, electrical controls, discharge piping, diesel pump engine, airducts, vents, wall louvers, and all miscellaneous supports will be removed from the structure. The three proposed 2,400 gpm submersible pumps will be installed against the north wall of the structure and their individual discharge pipe will be installed through the first-floor rooms north wall, where it will be departing structure at grade elevation. The header will be installed along the north exterior wall of the pump station where an above ground effluent magnetic flow meter assembly will be installed including all fittings, plug valves, and by-pass piping.
The force main will then extend towards the NE where it will connect into the city's existing 18-inch force main.

The existing pump station structure will have portions of the first-floor windows, wall louvers, vents, and diesel engine intake wall plenum removed and sealed. The structures approximate 21,000 ft3 of volume will have an air scrubber facility installed to evacuate the hydrogen sulfide gases indicative of this type of pump station.
CAS will provide an Opinion of Probable Cost for the project based on our final design.

Lump Sum for Task: $66,700.00

TASK 5 ELECTRICAL ENGINEERING, GEOTECHNICAL AND STRUCTURAL ENGINEERING (see attached sub-consultant proposals for detail)

CAS will hire an electrical sub-consultant for the electrical design of the triplex submersible lift station improvements. CAS will also hire a geotechnical - structural consultant to provide soil boring and geotechnical report of the existing subsurface conditions.
The structural engineers will be responsible for evaluating the existing pump station's structure verifying the proposed design hatch openings and structural support requirements. Additional they will be responsible for the proposed influent grinder structure.

Lump Sum for Task: $149,532.50

TASK 6 ENGINEERING PERMITTING SERVICES:

Preparation of sanitary sewer permit applications with supporting construction drawings sufficient for permitting by the Broward County Environmental Protection and Growth Management Department. This task includes up to three (3) responses to request for additional information letter from each agency.

Lump Sum for Task: $10,600.00

TASK 7 SERVICES DURING BIDDING:
Preparation of contract documents, including bid specifications, bid schedule, general conditions, bid forms and the invitation to bid for the proposed Hallandale Beach Triplex Lift Submersible Lift Station Improvements Project. Provide services during bidding, including preparation of any bid addenda, preparation and attendance of pre-bid meeting, coordination with contractors, respond to bid questions, attend bid opening, preparation of bid tabulations, review and evaluate all bids after which, issue our letter of recommendation for the award of the Hallandale Beach Triplex Submersible Lift Station Improvements Project.

Lump Sum for Task: $13,960.00

TASK 8 PRE-CONSTRUCTION MEETING SERVICES:
CAS will attend the pre-construction meeting to answer questions and provide signed and sealed construction drawings and hard copies of the contract specifications to execute the contract and issue the Notice to Proceed to the contractor. CAS attendees shall include the Senior

Supervising Engineer and our Senior Field Representative for observational services.

Lump Sum for Task: $6,960.00

TASK 9 ENGINEERING SHOP DRAWING REVIEW

Project Engineer will review shop drawings and process the submittals from the contractor. Correspond with contractor on approval of all expected products to be installed on the project. Engineer will maintain a shop drawing log to document all submittals with dates submitted, reviewed, and returned.

Lump Sum for Task: $11,360.00

TASK 10 ENGINEERING SERVICES DURING CONSTRUCTION (ESDC)

Provide, review, and process submittals from the contractor including review of the project's construction schedule, maintenance of traffic plan, construction materials and monthly contractor's pay requests. In addition, CAS will provide final engineering certification and project closeout documentation to confirm construction was completed in general conformance with the design documents. Review and approve the projects as-built record drawings, execute, and submit the FDEP Certification of Completion forms and as-built drawings if any design deviations occurred.

Lump Sum for Task: $50,600.00

Task 11 CONSTRUCTION OBSERVATION SERVICES

Provide construction observation services to include examination of the contractor's monthly pay applications, coordination with contractor and owner, full time site observation to ensure contractor compliance with approved construction plans, permits and standards, resolve field conflicts and aid the owner during construction.

Lump Sum for Task: $87,500.00

CAS proposes to accomplish the professional engineering services listed within twelve (12) months of the issued Work Authorization for the following total fees, which is the sum of the fees for each phase and its specific work task:

Task 1	**TOPOGRAPHIC SURVEY (30 days)**	**$15,510.00**
Task 2	**LOCATES - GPR / EM SERVICES (5 days)**	**$3,600.00**
Task 3	**UTILITY TEST HOLES (SOFT DIGS) (5 days)** **Total Of (10) Test Holes Proposed**	**$9,900.00**
Task 4	**ENGINEERING DESIGN SERVICES (180 days)**	**$66,700.00**
Task5	**ELECTRICALENGINEERING, GEOTECHNICAL AND STRUCTURAL ENGINEERING (180 days)**	**$149,532.50**
Task 6	**ENGINEERING PERMITTING SERVICES (120 days)**	**$10,600.00**
Task 7	**SERVICES DURING BIDDING (60 days)**	**$13,960.00**
Task 8	**PRE-CONSTRUCTION MEETING SERVICES (30 days)**	**$6,960.00**
TASK 9	**SHOP DRAWING REVIEW SERVICES (45 days)**	**$11,360.00**
Task 10	**ENGINEERING SERVICES DURING CONST. (120 days)**	**$50,600.00**
Task 11	**CONSTRUCTION OBSERVATION SERVICES (120 days)**	**$87,500.00**
TOTAL ENGINEERING FEES		**$426,222.50**

(Plus hourly services in accordance with CAS's General Services Agreement)

ADDITIONAL SERVICES

Any service not specifically included in the agreement will be considered as an additional service. CAS will accomplish additional services upon proper written authorization of the client. The fees for additional services will be billed at our standard hourly rates or at a mutually agreed upon Lump Sum Fee.

If you agree with the above scope of services and the terms, please sign in the authorization space provided below and return one (1) executed copy of this proposal via email (ssmith@craigasmith.com) **or** mailed to our Boca Raton Office at 21045 Commercial Trail, Boca Raton, FL 33486 as notice to proceed.

Should you have any questions or need additional information, please do not hesitate to contact this office.

AGREED TO AND ACCEPTED BY:

CRAIG A. SMITH & ASSOCIATES

Stephen C. Smith, P.E.
President

City of Hallandale Beach, Florida

Jeremy Earle
Jeremy Earle (Jun 24, 2021 16:55 EDT)

Authorized Signature

Jeremy Earle

Printed Name

Jun 24, 2021

Date

SEC Smith Engineering Consultants, Inc.

April 21, 2021

Mr. Greg A. Giarratana
Craig A. Smith & Associates, Inc.
21045 Commercial Trail
Boca Raton, FL 33486

Re: City of Hallandale Beach Lift Station #1 Rehabilitation
Electrical Engineering Services Proposal

Dear Greg:

Smith Engineering Consultants, Inc. (SEC) is pleased to provide this proposal for the above referenced project. We propose to provide the following scope of services:

Design Phase: (Fee = $18,500 lump sum)

1. Perform initial site visit and review of preliminary project documents.

2. Electrical design, including power, control, lighting, instrumentation, and SCADA/telemetry for the replacement of the existing lift station electrical system. The electrical replacement will include, but not be limited to, the electrical service, pump control panel, RTU, conduits and wiring. The existing generator will be replaced with a new generator. New site features will also include a light pole, odor control system, and pressure and flow meter (mag-meter). The electrical design will be in accordance with the Florida Building Code, the National Electrical Code, and applicable local codes.

3. Submit 30%, 60%, 90%, and 100% plans, specifications, and cost estimate.

4. Submit plans for an electrical permit dry run, respond to review comments, and revise the plans accordingly.

SEC will prepare contract documents suitable for bidding, permit, and construction. We propose to furnish AutoCAD drawings using base plan drawings provided by Craig A. Smith.

Bid Phase: (Fee = $1,500 lump sum)

1. Attend the pre-bid meeting.

2. Respond to requests for information (RFI's), and issue addenda as necessary.

2161 Palm Beach Lakes Blvd., Suite 312
West Palm Beach, FL 33409
(561) 616-3911 Fax (561) 616-3912

SEC

Construction Phase: (Fee = $9,000)

1. Attend the pre-construction meeting.
2. Review electrical equipment shop drawings.
3. Respond to contractor requests for information (RFI's) and review change order requests.
4. Attend up to four (4) construction meetings and/or site visits as necessary.
5. Attend the generator load bank test.
6. Attend the pump station start-up and prepare a substantial completion punch list.
7. Attend the final walk-through and prepare a final punch list.
8. Prepare record drawings based upon contractor "as-built" drawings.

Thank you for using Smith Engineering Consultants as the source for these engineering services. We look forward to working with you on this project.

Sincerely,

Larry M. Smith, P. E.
President

May 27, 2021

Craig A. Smith & Associates
21045 Commercial Trail,
Boca Raton, FL 33486

Attn: Stephen C. Smith, P.E.

Re: City of Hallandale, Lift Station Conversion, Scope of Work Proposal

Dear Mr. Smith:

RADISE International (RADISE) is pleased to furnish this proposal to support Craig A. Smith & Associates to provide structural engineering support for the Lift Station Conversion adjacent to Layne Blvd. for the City of Hallandale. This work will be for structural engineering to support the installation of three submersible pumps and associated facilities to convert the lift station to a wet well type system. Specifically this proposal is to accomplish the following elements:

- Structural engineering to create three (3) openings in the roof deck and equipment floor for three (3) submersible pumps.
- Provide structural engineering to mount supports for associated hatches and guide rails for the three submersible pumps.
- Provide details to seal existing louvers and the generator exhaust.
- Structural design for one concrete pad to support equipment adjacent to the lift station.
- Structural design of one set of equipment steps to connect the top of the existing lift station to the adjacent ground.
- Structural design of a vault containment structure, approximately eighteen (18) feet deep, for a sewage grinder adjacent to the existing lift station. Design will include design of the top deck, walls, base slab and buoyancy calculations.
- Geotechnical and concrete testing investigation.
- Detailed design drawings 24"x 36" signed and sealed CAD drawings.
- Opinion of probable cost for the structural elements.
- Specifications for the structural elements formatted in accordance with Craig A Smith & Assoc. requirements.

RADISE will provide all drawing on AutoCAD version 2021. Specifications and opinion of probable cost will be provided in Microsoft Word, signed and sealed, along with an electronic version in PDF format.

A work sheet regarding the development of the project cost will be provided. Analysis and Design will be based on information provided by the Craig A. Smith & Associates. Architectural elements, ventilation, ADA requirements, hazardous materials & remediation, coatings, site access, etc. are not included.

Based on the information furnished at the site visit meeting, RADISE will provide the following services:

Task 1 Project kick-off meeting

RADISE will attend a project kick-off meeting with Craig A. Smith & Associates to establish project objectives, scope, lines of communication and project schedule.

Deliverable – Attend meeting

Fee - $3,441.78

Task 2 Preparation 30% Design Documents

RADISE will provide the following design services:

1. Review existing drawings, surveys and related documents and materials.
2. Prepare conceptual 30% structural drawings and list of specifications.
3. Prepare an opinion of probable cost.
4. Conduct geotechnical investigations needed to support detailed design.
5. RADISE will provide thirty percent (30%) drawings, list of technical specifications, and opinion of probable cost within 30 calendar days from the project kick-off meeting date. Craig A. Smith & Associates will provide comments on the 30% design within 7 calendar days. RADISE will attend a design review meeting with Craig A. Smith & Associates to review the 30% drawings, technical specification and opinion of probable cost if required. Craig A Smith & Associates will provide appropriate title blocks, CAD standards and specification format.

Deliverables – Two (2) sets of 30% plans (24" x 36") and set in PDF format. Specifications, geotechnical investigations and cost estimate will be provided in PDF format.

Fee - $39,709.84

Task 3 Preparation 90% Design Documents

RADISE will provide the following design services:

1. Review existing drawings, surveys and related documents and materials.
2. Prepare detailed 90% structural drawings and specifications.
3. Prepare an opinion of probable cost.

4. RADISE will provide ninety percent (90%) drawings, technical specifications, and opinion of probable cost within 60 calendar days from the authorization date. Craig A. Smith & Associates will provide comments on the 90% design within 7 calendar days. RADISE will attend a design review meeting with Craig A. Smith & Associates to review the 90% drawings, technical specification and opinion of probable cost if required.

Deliverables – Two (2) sets of 30% plans (24" x 36") and in PDF format. Specifications structural calculations and cost estimates will be provided in PDF format.

Fee - $40,412.68

Task 3 Preparation 100% Design Documents

RADISE will provide one hundred percent (100%) drawings, technical specifications, calculations and opinion of probable cost within 15 calendar days from the date of the 90% review meeting. Craig A. Smith & Associates will provide comments on the 100% design within 7 calendar days. RADISE will attend a design review meeting with Craig A. Smith & Associates to review the 100% drawings, technical specifications and opinion of probable cost if required.

Deliverables – Two (2) sets hardcopy plans (24" x 36") and in PDF format. Specifications, calculations, results of geotechnical investigation, and cost estimates in PDF format for Craig A. Smith & Associates 100% review. Upon resolution of all comments from the 100% review meeting with Craig A. Smith & Associates, RADISE shall provide digitally signed and sealed plans, specification and opinion of probable cost. The deliverables shall be provided electronically in both CAD and PDF format along with two signed and sealed hardcopy of the drawings (24" x 36"). The electronic format of the plans and specifications shall meet all the requirements of the City of Hallandale Building Department to obtain the construction permit.

Fee - $9,019.60

Task 4 Assistance During Bidding and Contract Award

RADISE will provide technical assistance during the bidding process which may include attendance at the City of Hallandale with Craig A. Smith & Associates for the city's pre-bid meeting, and respond to inquiries or clarifications from potential bidders regarding structural matters.

Fee - $3,789.40

Task 5 Construction Observations

RADISE will provide construction observation during project construction. These will be limited to structural modifications to the existing lift station, vault for the grinder equipment, equipment pads, and stairways/ladders designed by RADISE. Inspection reports will be provided in PDF format. Twelve (12) inspections and reports are anticipated. If additional inspections are required additional charges will be made at standard hourly rates. Vibration monitoring will be provided. RADISE will provide response to structural related RFIs.

Fee - $24,159.20

Optional Task
RADISE will, in coordination with Craig A Smith & Associates, conduct a project study to consider an alternate design concept which may include demolishing and/or abandoning the existing lift station and constructing a new wet well lift station. This will include alternative opinion of cost, operations, layout and compliance with current structural related codes.

Fee - TBD

Closure

We appreciate the opportunity to provide this proposal and look forward to working with you on this project. Please contact me if you have any questions.

Sincerely,

Ralph E Hayden, PE
Senior Engineer

City of Hallandale Beach
Tri-Plex Submersible Lift Station Improvements
CAS Proposal #4110

City of Hallandale Beach Tri-Plex Submersible Lift Station																		
Scope of Services																		
5/27/2021																		
PROJECT NO: P4110																		
CAS SERVICES																		
SURVEYING, LOCATES & SOFT DIGS	$29,010.00																	
ENGINEERING DESIGN	$247,752.50																	
ENGINEERING CONSTRUCTION OBSERVATION	$149,460.00																	
TOTAL	$426,222.50																	
		HOURLY RATES	155	115	85	200	150	495	65	200	180	140	85	85	125	1	1	
			Survey Crew	Survey Coordinator	CADD Technician	Senior Registered Surveyor	Utility Locates	Soft Dig	Clerical	Engineering Director	Engineering Associate	Project Engineer	CADD Tech	Permit Administrator	Senior Field Rep	Electrical - Smith Engineering Consultants	Geotechnical/Structural- Radise International	Totals
Task 1 MAP OF SPECIFIC PURPOSE SURVEY	$15,510.00		32	20	50	20												16610
Task 2 PROVIDE LOCATES – GPR/EM SERVICES	$3,600.00						24.00											3600
Task 3 PROVIDE SOFT DIGS	$9,900.00							20.00										9900
Task 4 ENGINEERING DESIGN SERVICES	$66,700.00								20.00	30.00	80.00	200.00	200.00					66700
Task 5 ELECTRICAL, GEOTECHNICAL & STRUCTURAL SERVICES	$149,532.50															29000.00	120532.50	149532.50
Task 6 ENGINEERING PERMITTING SERVICES	$10,600.00									15.00	40.00		20.00	20.00				10600
Task 7 SERVICES DURING BIDDING	$13,960.00								40.00		32.00	40.00						13960
Task 8 PRE-CONSTRUCTION MEETING SERVICES	$6,960.00										20.00	24.00						6960
Task 9 ENGINEERING SHOP DRAWING REVIEW SERVICES	$11,360.00								16.00		32.00	40.00						11360
Task 10 ENGINEERING SERVICES DURING CONSTRUCTION	$50,600.00								40.00	20.00	120.00	160.00						50600
Task 11 CONSTRUCTION OBSERVATION SERVICES	$87,500.00								40.00						700.00			87600
		TOTAL HOURS	32.00	20.00	50.00	20.00	24.00	20.00	156.00	65.00	324.00	464.00	220.00	20.00	700.00			426222.50

HALLANDAL BEACH TRI-PLEX P.S. REHAB

ITEM NO	DESCRIPTION OF BID ITEM	QTY.	UNIT	UNIT COST	TOTAL
1	Mobilization	1	LS	$145,381	$145,381
2	Maintenance of Traffic	1	LS	$43,614	$43,614
3	Construction Survey:	1	LS	$58,152	$58,152
4	Density Testing:	1	LS	$29,076	$29,076
5	Pre-Construction Video	1	LS	$3,500	$3,500
6	Erosion Control	1	LS	$43,614	$43,614
7	**Triplex P.S. Structural work**				
8	**Grinder Vault**				
9	Influent Concrete Grinder Vault w/ hatches, grating, piping and centious liner	1	LS	225,000	$ 225,000
10	Abandonment/demolition of UG Utilities	1	LS	10,000	$ 10,000
11	Excavation for Grinder Vault	1,000	CY	36	$ 36,000
12	Dewatering installation	1	LS	15,000	$ 15,000
13	Dewatering	30	LS	2,500	$ 75,000
14	**Miscelleanous**				
15	Preparation of area for Equipment Slab	27	SY	24	$648
16	Concrete Equipment Slab	6	CY	600	$3,600
17	Compaction for Equipment Slab	27	SY	48	$1,296
18	**Existing P. S. Vault Modifications**				
19	Vent and Louver Infill in Vault	1	LS	24,000	$24,000
20	Concete Stairs to Top of Vault, Modify Exist Stairs, etc.	1	LS	12,000	$12,000
21	Equipment Demolition (5 days for demolition, incl ventilation)	5	Days	2,500	$12,500
22	Structural Modifications for Slab Support	1	LS	100,000	$100,000
23	Saw Cut Top Slab (8")	1	LS	10,000	$10,000
24	Saw Cut Bottom Slab (18")	1	LS	15,000	$15,000
25	Structural Demolition (walkways, pipe supports)	1	LS	25,000	$25,000
26	Misc Structural Elements, (angles, anchor bolts, grouting, etc.)	1	LS	35,000	$35,000
28	Rehab the emergency generators rusted steel enclosures	1	LS	35,000	$35,000
29	**Force Mian & Sanitary Sewer Modification**				
30	Clear & grub area around P.S. structure	1	LS	$ 12,500	$12,500
31	Combine Inlet 30" gravity sewer ,16",&12" Force Mains into proposed influent grinder structure channel	1	LS	$ 100,000	$100,000
32	Influent by pass pumping during construction	1	LS	$ 35,000	$35,000
33	Submersible pumps 16" DIP flanged vertical discharge pipe,supports,& fittings	1	LS	$ 62,000	$62,000
34	Pumps 18" DIP discharge header w/ flanged fittings,plug valves,& by-pass pipe	1	LS	$ 210,000	$210,000
35	Discharge Header 12-inch magnectic flow meter installation	1	LS	$ 35,000	$35,000
36	Relocation of existing utility lines around existing P.S.Site	1	LS	$ 45,000	$45,000
37	Build paved asphalt access road and small parking area at P.S.	100	SY	$ 100	$10,000
38	**Electrical-Mechanical Components**				
39	Purchase & Install Submersible pumps @ 2400 gpm @ 57 psi TDH including all rails	3	EA	$ 150,000	$450,000
40	Pumps Motor Control Center	1	LS	$ 175,000	$175,000
41	Purchase & Install wetwell Ultrasonic level controls with back up mercury float switches	1	LS	$ 11,500	$11,500
42	Purcahase & Install De-Gasifier assembly including all structures, all of the buildings aluminum duct work, water pipes - valves and all fittings	1	LS	$ 375,000	$375,000
43	Purchase & Install effluent magnetic flow meter , HOA switch,valves,fittings,& by-pass piping	1	LS.	$ 85,000	$85,000
44	Remove existing Muffin Monster grinder assy. & re- install Muffin Monster w/guide rails, stainless steel support frame,	1	LS	$ 55,000	$55,000
45	Electrical-conduit and wiring for P. S. structure including all site work	1	LS	$ 100,000	$100,000
46	Electrical Demolition	1	LS	$ 25,000	$25,000
47	Main Electrical Service and Equipment	1	LS	$ 50,000	$50,000
48	Replace Existing Generator Enclosure	1	LS	$ 50,000	$50,000
49	RTU and Antenna	1	LS	$ 50,000	$50,000
50	Site Lighting	1	LS	$ 25,000	$25,000
51	600A Automatic Transfer Switch (if desired to replace existing)	1	LS	$ 25,000	$25,000
52	**SUB TOTAL =**				**$2,944,382**
53	**CONTINGENCY: @ 20% =**				$588,876
54	**Opinion of Probable Construction Costs =**				**$3,533,258**

Work Authorization for WA-Triplex Submersible Lift Station

Final Audit Report 2021-06-24

Created:	2021-06-24
By:	Demetris Pearson (dpearson@cohb.org)
Status:	Signed
Transaction ID:	CBJCHBCAABAAmJ30JDUGfT6lHXpq5ADYeKdgQWbmMMcZ

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