

Work Authorization No. CTA 13-09
Master Pump Station 224 Improvements
Under
Agreement between Broward County and Craven Thompson & Associates, Inc.
for
Continuing Engineering Services for Water Distribution, Wastewater Collection, and Storm
Water Collection Systems

1. This Work Authorization is issued pursuant to the Agreement between Broward County (hereinafter referred to as "COUNTY") and **Craven Thompson & Associates, Inc.** for Continuing Engineering Services (hereinafter "the Agreement"), which was approved by the Board of County Commissioners on **December 3, 2013 (Item 18)**.

2. This Work Authorization permits **Craven Thompson & Associates, Inc.** (hereinafter referred to as "CONSULTANT") to provide the services described in Exhibit "A" to this Work Authorization. These services are authorized pursuant to Article 3 of the Agreement.

3. Compensation and Method of Payment.

3.1 Payment for the services authorized by this Work Authorization shall be in accordance with Article 5 of the Agreement and the agreed method of compensation shall be as follows (check those boxes that apply):

3.1.1 Maximum Amount Not-To-Exceed Compensation. Compensation to CONSULTANT for the performance of Optional Additional Services identified in Task 4 of Exhibit "A" to this Work Authorization, shall be based upon the Salary Costs as described in Section 5.2 of the Agreement up to a maximum amount not-to-exceed of \$18,000. Unused amounts of these Optional Additional Services monies shall be retained by COUNTY.

3.1.2 Lump Sum Compensation. Compensation to CONSULTANT for the performance of all Basic Services identified in Tasks 1 through 3 of Exhibit A as payable on a "Lump Sum" basis, and as otherwise required by this Agreement, shall be not more than a total lump sum of \$255,120.

3.1.3 Reimbursable Expenses. COUNTY has established a maximum amount not-to-exceed of \$5,000 for potential reimbursable expenses which may be utilized pursuant to Section 5.3 of the Agreement. Unused amounts of those monies established for reimbursable expenses shall be retained by COUNTY.

3.2 Payments for this Work Authorization shall be charged against:

Budget No. 4620-126-9150-6510

4. CONSULTANT shall perform the services described in Exhibit A within 365 calendar days ("Time for Performance"), or The time periods specified in the Project Schedule included in Exhibit "A" ("Time for Performance"); said time periods shall commence from the date of the Notice to Proceed for such services.

4.1 If this box is checked, this paragraph shall be applicable. In the event Contractor fails to substantially complete the Project on or before the substantial completion date specified in its agreement with COUNTY, and the failure to substantially complete is caused in whole or in part by CONSULTANT, then CONSULTANT shall pay to COUNTY its proportional share of any claim or damages to Contractor arising out of the delay. By reference hereto, the provisions for the computation of delay costs/damages and any amounts included therein, whether direct or indirect, in the agreement between the Contractor and COUNTY are incorporated herein. This provision shall not affect the rights and obligations of either party as set forth in Section 10.8, Indemnification of COUNTY.

4.2 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 above, CONSULTANT shall pay to COUNTY the sum of dollars identified below for each calendar day after the applicable Time for Performance, plus approved time extensions thereof, until completion of the service:

Services

Amount

These amounts are not penalties but are liquidated damages to COUNTY for CONSULTANT's inability to proceed with, and complete, the service in a timely manner pursuant to the agreed upon Project 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 COUNTY 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 10.8, Indemnification of COUNTY.

5. CBE Goals.

5.1 In an effort to assist COUNTY in achieving its overall goal as set forth in the Agreement, CONSULTANT agrees to meet the following CBE participation goals by utilizing the CBE firms for the work and dollar values described in paragraph 5.2 below:
24.8 %.

5.2 In performing services for this Project, COUNTY and CONSULTANT hereby incorporate CONSULTANT's participating CBE firms, addresses, scope of work, and dollar value identified in the Letter of Intent (attached hereto and incorporated herein as Exhibit "B").

6. 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 COUNTY.

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EXHIBIT "A"
SCOPE OF SERVICES
CONTINUING ENGINEERING SERVICES
BCWWS RLI R1025211R1
Work Authorization 13-09
November 9, 2015

BCWWS Project No. 9150: Master Pump Station 224 Improvements

SCOPE OF WORK

Address:

MPS 224
4115 NE 22 Avenue
Lighthouse Point, Florida

CONSULTANT shall provide professional engineering services to **COUNTY** for design, regulatory permitting assistance and bidding and award for the construction contract as described below and further described in the task summaries that follow.

- Rehabilitate existing Master Pump Station 224 including wet well rehabilitation, by-pass system, replacement of piping, pumps, panels, electrical services, valves, water proof vaults, hatches, SCADA instrumentation, provided by County, etc. within the parcel of MPS 224.
- Provide detailed cost estimate based on a quantity take off of the final design drawings.
- Prepare Contract Documents for Bidding Purposes.

TASK 1 – DESIGN SERVICES

The design of the rehabilitation of Master Pump Station 224 shall consist of the following:

Task 1.1 – Preliminary Design

Task 1.1.1 – Site Investigation

CONSULTANT shall:

- Obtain existing utility information, including water, drainage, gas, telephone and underground electric.
- Coordinate with utility companies to minimize utility relocations due to conflicts with proposed work.
- Meet with all applicable utility, permitting agencies and the City of Lighthouse Point.
- Review all reports and record drawings for age, condition and material of existing utilities.

Task 1.1.2 – Geotechnical Investigation

CONSULTANT shall determine subsurface soil conditions based on the requirements identified in the BODR and subsequent site visits. The geotechnical investigation shall include five (5) five twenty (20') foot deep soil borings and analysis to verify design criteria for the rehabilitation of MPS 224.

Task 1.1.3 – Surveys

Design Survey – Prepare Design Survey at existing MPS 224 Site to provide a base sheet for design and permitting to include the following:

- Prepare right-of-way calculations covering the project area and prepare base map for Project Site.
- **CONSULTANT** shall prepare a design survey including topography and locations of all visible fixed improvements within the project area as required for design and permitting.
- As-built existing master pump station.
- Locate underground piping as designated (painted and flagged) by BCWWS.

Task 1.1.4 – Underground Utility Investigation

- **CONSULTANT** shall confirm the locations of key underground utilities as identified from as-builts and utility atlas. Based on the existing Atlas and As-built information, selected locations shall be identified to perform test-holes to confirm depth and type of utilities or other features. It is anticipated that up to a maximum of ten (10) test-holes shall be performed. Test holes shall be located by survey to indicate coordinates of each test hole. Locate underground piping as designated (painted and flagged) by Underground Utility Locator. It is recognized that complete characterization of underground utilities is not contemplated under this agreement.

Task 1.2 – Detailed Design

CONSULTANT shall prepare construction contract documents including bidding documents, general and supplementary conditions, technical specifications and drawings that show the character and extent of the project.

At each design milestone as identified in Tasks 1.2.1, and 1.2.2, **CONSULTANT** shall provide **COUNTY** with four (4) copies of construction contract documents for that milestone. For Task 1.2.3, **CONSULTANT** shall provide **COUNTY** with three (3) copies of construction contract documents. **CONSULTANT** shall meet with **COUNTY** to receive and discuss **COUNTY** review comments. **CONSULTANT** shall incorporate into the construction contract documents the review comments of **COUNTY** as required. **CONSULTANT**'s meeting attendance time is included in this Task. Meeting notes shall be prepared by **CONSULTANT** and distributed electronically to attendees.

Task 1.2.1 – 50% Design

The 50% design milestone submittal shall consist of preliminary drawings (11-inch by 17-inch) for general, civil, mechanical, structural, instrumentation, electrical, landscaping and irrigation. Draft technical specifications (Divisions 2 – 17) shall also be included in the submittal. **CONSULTANT** shall provide a current construction cost estimate at that point. The estimate shall be to the Budget level, as defined by the American Association of Cost Engineers (AACE) with a probable accuracy of –15% to +30%. Ten calendar days of review time for **COUNTY** has been provided for in **CONSULTANT**'s time of performance.

Task 1.2.2 – 90% Design

The 90% design milestone submittal shall consist of the entire contract document set including **COUNTY**'s front-end documents, technical specifications and construction drawings (11-inch by 17-inch) for all the work proposed. **CONSULTANT** shall provide a construction cost estimate to the Definitive level, as defined by the AACE with a probable accuracy of –5% to +15%. Ten calendar days of review time for the **COUNTY** have been provided for in **CONSULTANT**'s time of performance.

Task 1.2.3 – Final Check Documents (Purchasing Review Submittal)

CONSULTANT shall provide **COUNTY** with construction contract documents that incorporate final comments from **COUNTY** on the 90% design documents and information required from the **COUNTY** to complete the front end documents within fifteen calendar days of receipt of the information from the **COUNTY**.

TASK 2 – PRE-BID PERMITTING

At the 90% stage of design, **CONSULTANT** shall submit the 90% design documents to the permitting agencies listed below for review or permit issuance as noted. **CONSULTANT** shall provide the proper application processing fees.

CONSULTANT shall prepare applications and such documents and design data as may be required so that Contract Administrator may apply for approvals of all such governmental authorities as have jurisdiction over the Project regarding Engineering Design permits. Identification of the governmental authorities is the responsibility of the **CONSULTANT**. **COUNTY** shall reimburse **CONSULTANT** for all engineering permit and Site Plan approval fees. **CONSULTANT** shall assist in obtaining such approvals by participating in meetings, submissions, resubmissions and negotiations with such authorities. **CONSULTANT** shall respond to approval agency comments to the Contract Administrator within ten working days of receipt of comments unless a different time is agreed to by the Contract Administrator.

- **Broward County Environmental Protection and Growth Management Department (BC EPGMD) – Application to Construct a Wastewater Collection / Transmission System**

CONSULTANT shall complete one (1) construction permit application form for the rehabilitation of MPS 224 along with all supporting documentation to BCEPD.

- **State of Florida Department of Environmental Protection Department (FDEP) –**

Application to Construct a Wastewater Collection / Transmission System

CONSULTANT shall complete one (1) FDEP application form for the rehabilitation for MPS 224 along with all supporting documents to BCEPD.

- ***Lighthouse Point Engineering/Building Permit***

CONSULTANT shall complete one (1) City of Lighthouse Point application form for the rehabilitation of MPS 224 with all supporting documents to City of Lighthouse Point.

TASK 3 – BIDDING AND AWARD

Upon completion of construction contract documents and permitting reviews by agencies, **CONSULTANT** shall make final revisions to the documents based on review comments within twenty calendar days of receipt of the last of these comments.

CONSULTANT shall reproduce construction contract documents to provide copies requested by potential bidders and six (6) sets to the **COUNTY**. **CONSULTANT** shall submit a list to **COUNTY** of construction contractors **CONSULTANT** deems capable of construction project.

CONSULTANT shall reproduce and distribute bid documents to construction contractors requesting documents. **CONSULTANT** can charge a reasonable fee to potential bidders and others that request bid documents.

CONSULTANT shall schedule and conduct a prebid conference to be held prior to the advertised bid date. **CONSULTANT**'s attendance time is included in this Task.

CONSULTANT shall provide timely responses to the inquiries of potential bidders through written addenda. These queries shall be transmitted to the **COUNTY** by **CONSULTANT**. **CONSULTANT** shall prepare and distribute up to two addenda as required, or requested by **COUNTY**.

CONSULTANT shall evaluate the bids for completeness, full responsiveness and price, including alternative prices and unit prices, and shall make a formal recommendation to **COUNTY** in regard to the award of contract. Nontechnical bid requirements shall be evaluated by **COUNTY**.

CONSULTANT shall provide eight sets of construction contract documents for execution by **COUNTY** and construction contractor within five calendar days of request by **COUNTY**.

TASK 4 – OPTIONAL ADDITIONAL SERVICES

CONSULTANT shall provide additional services related to Tasks 1 through 3, as identified by the Contract Administrator, which are related to but beyond the level of effort of the scope of work outlined above. Services provided under this Task shall be billed on an hourly basis up to the specified amount as authorized by the Contract Administrator, subject to the limits set in the Work Authorization. Services performed under this Task must be initiated by a separate written Notice to Proceed issued by the Contract Administrator.

ASSUMPTIONS

The proposed Scope of Services is based on the following understandings of the project:

1. A single construction bid package shall be prepared as part of this scope.
2. All permit and certification fees will be paid for by BCWWS.
3. Structural, Site Planning and Architectural Design are not included.
4. Meeting attendance is based upon the following:
 - Two (2) meetings with other government agencies as directed by the Contract Administrator.
 - Two (2) Design Review Meetings with COUNTY.
 - Four (4) coordination meetings with COUNTY and other agencies or municipalities

TIME of PERFORMANCE

Tasks 1 through 3

365 days from Notice to Proceed

Exhibit "A"

11/17/2015

CTA Estimated Fee Summary
BCWWS Project No. 9150
MPS 224 Improvements
WA-09

TASK (Description, See Exhibit "A")	CTA	HILLERS	NOVA	TIERRA	Fee
1.1.1 Investigation Lump Sum					\$18,336
Sub-Total Fee	\$15,586		\$2,750		
1.1.2 Geotechnical Investigation Lump Sum					\$8,123
Sub-Total Fee	\$3,123		\$0	\$5,000	
1.1.3 Survey Lump Sum					\$35,754
Sub-Total Fee	\$31,714		\$4,040		
1.1.4 Underground Utility Investigation Lump Sum					\$9,020
Sub-Total Fee	\$6,927		\$2,093		
1.2 Civil Design Lump Sum					\$141,020
Sub-Total Fee	\$95,936	\$20,318	\$24,766		
2 Pre-Bid Permitting Lump Sum					\$23,444
Sub-Total Fee	\$18,076		\$5,368		
3 Bidding and Award Lump Sum					\$19,423
Sub-Total Fee	\$14,704		\$4,719		

CTA Sub Total \$186,066
Hillers Sub Total \$20,318
Nova Sub Total \$43,736
Tierra Sub Total \$5,000

SUB TOTAL- LABOR \$255,120

REIMBURSABLES
Test Hole Sub Total \$3,000
Prints, Fed Ex, Copies \$2,000

SUB TOTAL - REIMBURSABLES \$5,000

TASK 4 OPTIONAL ADDITIONAL SERVICES (Not to Exceed) \$18,000

TOTAL \$278,120