



PUBLIC WORKS

ROUTING FORM FOR TASK ORDERS – COMMISSION APPROVAL

Project/Contract Number: 12196 CMO Log #: _____
 Document Title: Relocation of Existing 16" Water Main & Installation of 16" Force Main at E. Las Olas Blvd. Attached: _____
 Department: Public Works - Engineering Contact: ☒ 3 original Daniel Lizarazo
 Corresponding CAM #: 16-0063 Contact #: 954-828-6982
 Commission Date: 01/20/2016 Item: 3 copies TO#6

Purpose: The City owns and operates a 16-inch diameter subaqueous water main located on the north side of the Las Olas Boulevard Bridge crossing the Intracoastal Waterway. Dredging for this location is scheduled as part of the Intracoastal Waterway Deepening Project planned by the Florida Inland Navigation District (F.I.N.D.). The City determined that the existing subaqueous water main must be abandoned and replaced with a deeper water main prior to dredging. The City also intends to install a new 16-inch diameter subaqueous force main on the south side of Las Olas Boulevard Bridge.

FUNDING INFORMATION

CIP Funded Project: Yes ☒ No ☐
 Amount Required by Task Order: \$311,505
 Index/Sub Object Code: P12196-45416534
 Engineering Finance Approval Sign: Neil Thomas 1/22/16

APPROVAL ROUTING – PUBLIC WORKS

	Approved:	Disapproved:	Signature/Initials
Paul Berg, Acting Public Works Director	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Paul Berg</i>

APPROVAL ROUTING – FINANCE DEPARTMENT

	Recommend Approval:	Disapproved:	Signature/Initials
Kirk W. Buffington, C.P.M., Finance Director	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>Kirk W. Buffington</i>

APPROVAL ROUTING – CITY ATTORNEY'S OFFICE

	Approved as to form:	Disapproved:	Signature/Initials
City Attorney	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>City Attorney</i>

APPROVAL ROUTING – CITY MANAGER'S OFFICE

	Approved:	Disapproved:	Signature/Initials
Lee R. Feldman, ICMA-CM, City Manager	<input type="checkbox"/>	<input type="checkbox"/>	

CITY CLERK'S OFFICE Upon approval by the City Manager, please route this form along with Task Order to PW- Engineering, Kian Movafaghi (Ext. 7818).

TASK ORDER No. 06

Dated this 20 day of January, 2016

CITY Project No.: 12196

FORT LAUDERDALE PUBLIC WORKS DEPARTMENT

**RELOCATION OF EXISTING 16" WATER MAIN & INSTALLATION OF NOMINAL 16" FORCE MAIN AT
E. LAS OLAS BLVD**

PROFESSIONAL SERVICES

This Task Order between the CITY of Fort Lauderdale, a Florida municipal corporation **CITY** and Craven, Thompson & Associates, Inc., a Florida Corporation **CONSULTANT** is pursuant to the Continuing Contract for Civil Engineering Consultant Services Agreement (No. 626-10881) dated November 6, 2012 and expiring on November 5, 2016 ("MASTER AGREEMENT").

PROJECT BACKGROUND

The **CITY** owns and operates a 16-inch diameter subaqueous water main located on the north side of the Las Olas Boulevard Bridge crossing the Intracoastal Waterway. The location of this subaqueous water main is scheduled to be dredged as part of the Intracoastal Waterway Deepening Project planned by the Florida Inland Navigation District (F.I.N.D.). The **CITY** has determined that the existing subaqueous water main must be abandoned and replaced with a deeper water main prior to dredging. The **CITY** also intends on installing a new 16-inch diameter subaqueous force main on the south side of Las Olas Boulevard Bridge. The **CITY** has selected the horizontal directional drilling (HDD) method for construction of the proposed subaqueous crossings; on-shore piping would be constructed via traditional open-cut methods. The project will be implemented using a design/build approach to expedite the construction schedule and allocate greater responsibility to the entity performing the construction. The selected Design/Build Firm (DBF) will be required to retain full responsibility for design, permitting, and construction of all aspects of the project.

PROJECT DESCRIPTION

In accordance with Florida State Statue 287.055, the **CITY** must prepare a Design Criteria Package (DCP) that identifies the minimum criteria to be met by the DBF. The **CITY** has requested **CONSULTANT** provide engineering services for developing the DCP for the proposed replacement of the water pipeline and sewer force main crossing the Intracoastal Waterway. The replacement water pipeline and proposed sewer force main pipeline will be located on the south side of the Las Olas Boulevard Bridge. The HDD staging area on the east side of the Intracoastal Waterway will be at a **CITY** owned parking lot (Property ID No. 504212340020). The HDD staging area on the west side of the Intracoastal Waterway will be at **CITY** owned Merle Fogg Park (Property ID No. 504212000090). See Exhibit 1 for location.

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The engineering services to be provided by **CONSULTANT** to **CITY** are described in the following scope of services.

SCOPE OF SERVICES AND DELIVERABLES

CONSULTANT shall provide all services described on the tasks herein below:

Task No. 1 – Design Criteria Package

CONSULTANT shall prepare a DCP that meets the requirements of Florida Statute 287.055. **CONSULTANT** shall be the Design Criteria Professional as defined in Section 287.055(2)(k) of the Florida Statutes. The DCP shall include performance-based criteria as described below:

1. Prepare written background information and general project description.
2. Incorporate relevant information from the Benthic Survey (prepared under a separate task order) into the DCP.
3. Utilizing a topographic survey (provided by **CITY**) together with aerial images (if needed) of the on-shore areas, the DCP shall include conceptual plans that illustrate the proposed water piping improvements. The centerline of the pipeline shall be stationed.
4. A profile will be provided for the water and force main portion of the pipelines crossing the Intracoastal Waterway. No profiles will be presented for the on-shore piping.
5. Documentation provided by the **CITY** on the existing **CITY** and other underground utilities within the vicinity of the proposed water and force main piping improvements will be incorporated into the DCP.
6. **CONSULTANT** shall provide guidance on the directional drill entry and exit points to minimize – to the extent practicable – on-shore piping outside of road right-of-way at the Las Olas Marina.
7. Prepare plan view which illustrates the proposed easement for the pipeline within the Intracoastal Waterway. **CONSULTANT** will provide the sketch and descriptions of the easements. The **CITY** will be responsible for processing and obtaining required easement.
8. The DCP shall include criteria related to the responsibility for utility locating, permits, and utility connections.
9. The selected DBF shall be required to contact all known underground utility Owners within the proposed pipeline corridor routing, to identify and address all potential conflicts with the proposed improvements during the design of the work. The selected DBF shall be required to show all existing pipelines on its design documents.
10. General performance-based specifications shall be prepared. It is not anticipated that these specifications will be all encompassing. The specifications will identify the minimum requirements for execution of the work. The specifications shall address the following:
 - A. Pipeline size
 - B. Material specifications
 - C. Excavation and backfill requirements
 - D. Minimum cover requirements
 - E. Isolation valve requirements
 - F. Waterway crossing monuments
 - G. Staging areas
 - H. Construction sequence restrictions

- I. Site usage
 - J. Site maintenance
 - K. Provisions for temporary utilities
 - L. Maintenance of traffic
 - M. Parking requirements
 - N. Permitting requirements for permits obtained by the DBF
 - O. Incorporate permit requirements (e.g., manatee monitoring requirements) for the permits obtained by the **CONSULTANT**
 - P. Construction cost estimates
11. Performance criteria for responsibility to create plans for slurry and cuttings disposal (contaminated or non-contaminated), dewatering, stormwater pollution prevention, and environmental incident response.
 12. Stipulation of responsibility for meeting environmental regulations. The selected DBF will be required to maintain full responsibility for meeting environmental regulations and conditions for all applicable permits.
 13. Statement of required compliance with codes and general technical specifications.
 14. The DCP will identify any general **CITY** design guidelines and standards as may be provided by the **CITY** for inclusion in the document.
 15. The DCP will require that all drawings produced by the selected DBF be submitted to the **CITY** in electronic (DWG & PDF) format.
 16. The selected DBF firm will be required to prepare all contract drawings to a requisite scale of 1-inch equals 20 feet on the horizontal and 1-inch equals 4 feet on the vertical – plan and profile sheets will be mandatory.
 17. The selected DBF will be required to submit progress document sets at the 90% and 100% design completion stages for **CITY** review and comment. The selected DBF will be required to address all comments to the satisfaction of the **CITY**.
 18. For all permits not obtained by **CONSULTANT**, The selected DBF will maintain full responsibility for the permitting of its proposed design with the **CITY**, the Broward County Health Department (BCHD), and any other agencies having jurisdiction over the project.
 19. The selected DBF will be required to maintain full responsibility for addressing all regulatory and/or residential complaints associated with its work effort.
 20. The selected DBF will be required to coordinate its work efforts with **CITY** forces as required to allow for the timely construction observation of work. The DCP shall indicate that no on-shore work will be covered up without **CITY** approval.
 21. The DCP will identify a project implementation schedule , in Microsoft Project format, with design and construction milestone dates based on **CITY** direction. The selected DBF will retain full responsibility for adhering to such dates.
 22. A permitting allowance based on past projects and **CITY** input will be included in the DCP bid form.
 23. Bidding Phase Analysis: **CONSULTANT** shall provide bid review upon **CITY** request during the procurement of the DBF. Assistance may include, but not limited to, the following:
 - Response to questions raised by bidders.
 - Review of documents.
 - Participate in meetings with **CITY** engineering, operations and potential bidders.

- Participate in meetings with **CITY** selection committee.
 - Evaluation of the technical aspects of the DBF proposals.
 - Provide input on the proposals relative to compliance with the DCP documents.
 - Provide all other assistance requested by **CITY**.
 - Drafting letters for **CITY** signature.
 - This scope of services includes no allowance for **CONSULTANT**'s time to assist **CITY** in the event of a bid protest.
24. DBF Design Phase Analysis: **CONSULTANT** shall provide DB review upon **CITY** request during the preparation of the DBF's design. Assistance may include, but not limited to, the following:
- Response to questions raised by **CITY**.
 - Review of documents.
 - Participate in meetings with **CITY** engineering, operations and successful DBF.
 - Provide input on the successful DBF design documents relative to compliance with the DCP documents.
 - Provide all other assistance requested by **CITY**.
 - Drafting letters for **CITY** signature.

Task No. 1 Deliverables

CONSULTANT shall provide the following services:

1. **Drawings:** DCP drawings prepared under this Task Order will be developed using **CITY** CAD Standards. Digital copies of the DCP drawings shall be submitted to **CITY**. Digital copies shall be in portable document file (PDF) format and AutoCAD DWG format. The DCP drawings shall be visually acceptable to a panel of **CITY** engineering / procurement experts such that the appearance of the hardcopy documents will generally match the appearance of drawings produced for DCP documents prepared for similar projects in Broward and Miami-Dade Counties. Final DCP drawings shall be printable in 24-inch x 36-inch and 11-inch x 17-inch for hard copy drawing production.
2. **90 Percent DCP Submittal:** **CONSULTANT** shall produce and submit 90 percent completion stage DCP documents. Five (5) sets of the 90 percent DCP documents shall be furnished to **CITY** for review and comment. Drawings shall be 11-inch x 17-inch size. A digital copy of all submitted deliverables shall be provided on a compact disk.
3. **90 Percent DCP Review Meeting:** **CONSULTANT** shall chair one progress review meeting with **CITY** staff to review and receive comments on the 90 percent DCP submittal.
4. **100 Percent DCP Submittal:** **CONSULTANT** shall incorporate comments received from the **CITY** during 90 percent review meeting, to produce the 100 percent completion stage DCP. Drawings shall be 11-inch x 17-inch size. A digital copy of all submitted deliverables shall be provided on a compact disk.
5. **Front-end Document:** The **CITY** has a DCP "front-end" document that includes general conditions, bidding requirements, proposal form and other "boiler-plate" information. **CONSULTANT** shall fill in appropriate blanks and make suitable adjustments to tailor the "front-end" document for this project.
6. **Bidding Phase and DBF Design Phase Analysis:** Task Items #23 and #24 are allowance tasks that shall only be used at the request of **CITY**. **CONSULTANT** labor shall be provided up to the dollar amount in executed task order.

Task No. 2 – Permitting Services

CONSULTANT shall prepare applications and provide design data as required for permit approval from the regulating agencies for activities associated with obtaining geotechnical borings within the Intracoastal Waterway. Additionally, **CONSULTANT** shall prepare the environmental resource permit application required for horizontal directional drilling beneath the Intracoastal Waterway. Furthermore, **CONSULTANT** shall prepare sketch and descriptions for easements under the Intra Coastal Waterway for the installation of the 16" water main and 16" force main. All other permits are the responsibility of the successful DBF. Preparation of permit applications, transmittal of signed and sealed sets of design data, and responses to RFIs are included under this task. It is assumed that no other permits (other than those obtained by DBF) will be necessary for the completion of this work.

Task No. 2 – Deliverables

CONSULTANT shall provide the following services:

1. Environmental Resource Permit (ERP) for Soil Borings: Prepare one permit application titled "Environmental Resource Permit/Authorization to use Sovereign Submerged Lands/Federal Dredge and Fill Permit" required to allow soil borings in the Intracoastal Waterway.
2. ERP for Directional Drilling: Prepare one permit application titled "Environmental Resource Permit/Authorization to use Sovereign Submerged Lands/Federal Dredge and Fill Permit" required for directional drilling. **CONSULTANT** shall submit the application and respond to request for additional information. It is noted that the permitting agency may request information that can only be supplied by the successful DBF. Hence, the permit application documents shall be prepared based upon assumptions related to the detailed design to be prepared by the successful DBF. It is noted that having the **CONSULTANT** prepare this application (in lieu of the successful DBF) may reduce the overall project schedule by three months. The application shall include the following:

- Application
- Land Ownership Summary
- Construction Methodology
- Drawings (Location Map, Plan and Profile)
- Benthic Survey Report
- Biological Characterization of Uplands
- Endangered Species Assessment
- Essential Fisheries Habitat Assessment
- Frac-Out Prevention, Monitoring and Contingency Plan
- Manatee Monitoring Plan
- Alternatives Analysis
- List of Items Not Necessary for this Project and Rationale
- Spoil Material Management, Reuse and Disposal Plan
- Drilling Equipment Details and Specifications
- MSDS Sheets for Drilling Fluids
- USGS Quadrangle Map

Requests for additional information that cannot be responded to by **CONSULTANT** shall become the responsibility of the successful DBF's engineer-of-record. The successful DBF shall become the engineer-of-record.

3. Florida Department of Environmental Protection (FDEP) Pre-application Meeting for Direction Drill: Participate in pre-application meeting with the FDEP relative to directional drilling. Identify permitting requirements.

4. United States Army Corps of Engineers (ACOE) Pre-application Meeting for Direction Drill: Participate in pre-application meeting with the ACOE relative to directional drilling. Identify permitting requirements.
5. United States Coast Guard (USCG) Coordination for Soil Borings: Coordinate with the USCG to obtain permission to allow soil borings in the Intracoastal Waterway. No permit application is anticipated to be needed. Rather, it is anticipated that electronic submittal of conceptual drawings, email correspondence, response to questions from the USCG and phone conversations will be required to obtain acceptance of the USCG for performance of the geotechnical borings.
6. USCG Pre-application Meeting for Direction Drill: Participate in pre-application meeting with the USCG relative to directional drilling. Identify permitting requirements.
7. Broward County Environmental Protection and Growth Management Department (BCEPGMD), Aquatic and Wetland Resources Section Permit Exemption Request for Soil Borings: Request a permit exemption from the BCEPGMD Aquatic and Wetland Resources Section to perform soil borings in the Intracoastal Waterway. The permit exemption request will require the electronic submittal of conceptual drawings, email correspondence, response to questions from the Aquatic and Wetland Resources Section and phone conversations.
8. BCEPGMD Pre-application Meeting for Direction Drill: Participate in pre-application meeting with the BCEPGMD relative to directional drilling. Identify permitting requirements.
9. BCEPGMD Aquatic and Wetland Resources Section Environmental Resource License Application for Horizontal Drilling: Prepare permit application allow horizontal drilling beneath the Intracoastal Waterway.
10. Response to RAIs: Provide responses to requests for additional information (RAI) from the above agencies.
11. Certifications: Prepare and issue certification documents required for permits obtained by **CONSULTANT** for the soil borings. All other permits and associated certification requirements are the responsibility of the successful DBF.

Failure to identify (above) the governmental authorities that have jurisdiction over the project does not relieve **CONSULTANT** from the responsibility to apply for the permit. The **CITY** accepts that an equitable adjustment to **CONSULTANT** compensation may be required for applications for permits not identified above.

Task No. 3 – Geotechnical Investigations

CONSULTANT shall employ the services of a licensed geotechnical engineer in the state of Florida to perform the following geotechnical services necessary to prepare the DCP. Services to include:

1. Utility Clearance: Underground utility clearance through Sunshine State One Call of Florida
2. Equipment: Mobilize drill rig and crew to the project site for the land borings; mobilize a barge mounted drill rig and crew for the Intracoastal Waterway borings.
3. Marine Protection and Indemnity (P&I) Insurance: In addition to the coverages required by the "General Water Consultant Professional Architectural - Engineering Services" contract, the geotechnical engineer shall be required to provide a policy that also includes marine P&I coverage for:
 - A. liability for injury to persons on-shore caused by the negligence of the vessel's crew
 - B. liability for collision with fixed structures such as bridges and docks and liability for damage to other vessels

4. **Boring Descriptions:** Perform geotechnical investigation to collected data suitable for design of subaqueous water pipeline crossing of the Intracoastal Waterway. A total of five (5) borings and one (1) coring shall be performed as follows:

Boring ID	Estimated Land Surface Elevation (NAVD 1988)	Bottom Elevation of Boring (NAVD 1988)	Estimated Depth Below Land Surface (feet)	Type of Boring	Location
B-1	(-)10 ft	(-)80 ft	70 ft	SPT per ASTM D1586	Intracoastal Waterway
B-2	(-)10 ft	(-)80 ft	70 ft	SPT per ASTM D1586	Intracoastal Waterway
B-2A	(-)10 ft	(-)30 to (-)80 ft	20 ft to 70 ft	Rock Core	Intracoastal Waterway
B-3	(-)10 ft	(-)80 ft	70 ft	SPT per ASTM D1586	Intracoastal Waterway
B-4	5.00	(-)50 ft	55 ft	SPT per ASTM D1586	Merle Fogg Park
B-5	5.00	(-)50 ft	55 ft	SPT per ASTM D1586	Las Olas Cir Right-of-Way

Approximate boring locations are shown in Figure 1.

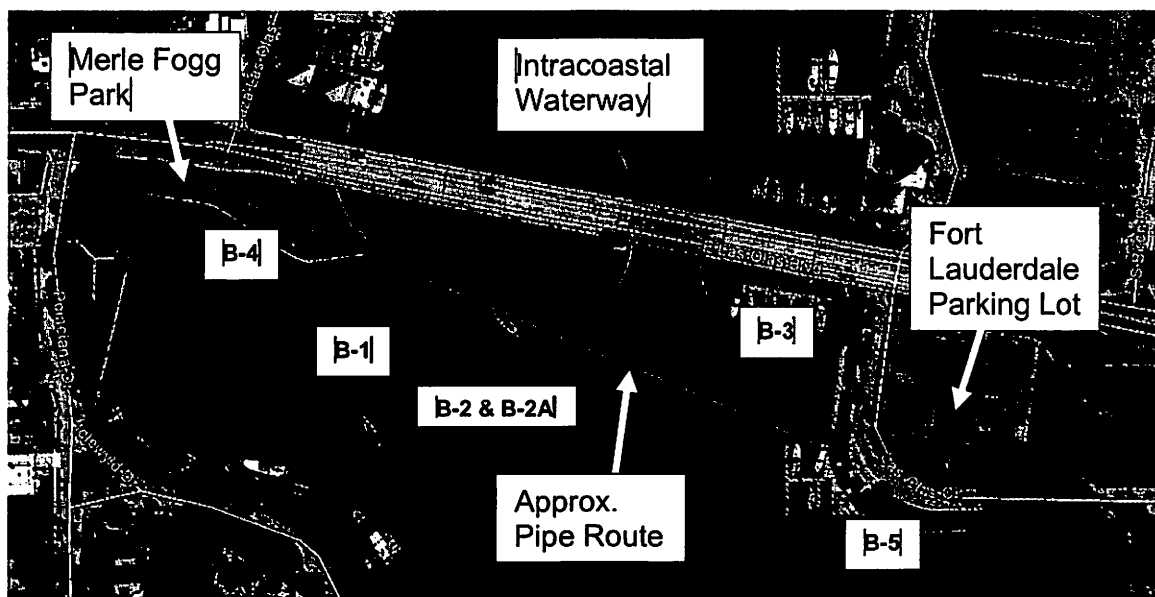


Figure 1 – Boring Location Plan

5. Laboratory Tests on Core Sample: one abrasion test and one unconfined compressive strength test shall be performed on samples for each five foot of core recovered.
6. Soils Parameters: The following information shall be provided for each type of soil encountered in the soil borings:
 - Unified Soil Classification System (USCS) Soil Classification (SC, SM, etc.)
 - Dry Unit Weight
 - Saturated Unit Weight
 - Internal Friction Angle based on blow counts and soil type
 - Shear Modulus estimated range based on local knowledge
7. Rock Parameters: The following information shall be provided for each type of rock encountered in the rock core:
 - Type (Sedimentary, Igneous, Metamorphic)
 - Unit Weight
 - Internal Friction Angle
 - Shear Modulus estimated range based on local knowledge
 - Mohs Hardness

Task No. 3 Deliverables

CONSULTANT shall provide the following services:

1. Engineering Report: Provide an engineering report that includes: vicinity maps, test location drawings, records of soil borings, generalized subsurface profile drawings, depth to groundwater, anticipated seasonal groundwater variation, procedures used, soil and rock parameters, laboratory testing results and interpretation of the data collected. Furnish five (5) signed-and-sealed sets of the geotechnical report to **CITY** for review and comment. A digital shall also be provided on a compact disk.
2. The report shall be incorporated into the DCP as an appendix for DBF use during the bid phase.

Task No. 4 – Services During Construction

CONSULTANT shall provide assistance upon **CITY** request during the construction phase of the project. Assistance shall be performed on an as-needed basis, as determined by the **CITY**. **CONSULTANT** will certify only those portions of the work that are required by the permit and not transferable to the DBF. Assistance may include, but not be limited to, the following:

Administrative Services: Perform administrative tasks upon request such as:

1. Monitor, prepare and maintain project records including: 1) correspondence, 2) construction records and 3) progress photographs and videos.
2. Periodic phone discussions with **CITY** and the successful DBF.

Shop Drawing Review: Upon **CITY** request, review shop drawings and any other data that the successful DBF is required to submit within fourteen (14) calendar days of receipt of the submittal. The review will be for conformance with the DCP. Determine the acceptability of substitute materials and equipment proposed by the successful DBF.

Design Interpretation:

1. Provide interpretations and clarifications of the plans and specifications developed for the DCP to the successful DBF. Act as an interpreter of the requirements of the DCP, judge the acceptability of the work therein, and make recommendations on all claims of the successful DBF and **CITY** as to the acceptability of the work or the interpretation of the requirements of the DCP pertaining to the execution and progress of the work.
2. Reply to requests for clarification or interpretation of requirements of the DCP to the successful DBF within five (5) working days. Make all interpretations consistent with the intent of and reasonably inferable from the DCP.

Field Observations: Project Field Representation shall be provided on a periodic basis on an as needed basis, as determined by the **CITY**, to observe the construction activities for conformance with the DCP at key construction phases. Observation is anticipated for the following activities:

1. Periodic observation during the directional drilling of the pilot-hole, reaming and pipe pullback
2. Disinfection and pressure testing of the pulled high-density polyethylene pipe
3. Periodic general inspection
4. Prepare observation reports and submit to **CITY**

The **CITY's** inspector will be responsible for observing the construction of the open-cut portion of the piping. The **CITY's** inspector will provide **CONSULTANT** with copies of their daily reports.

Meetings: Participate in construction contract progress meetings upon request. Duties may include preparation of meeting agenda and/or minutes for specialized meetings should they occur.

Certifications: Prepare and issue certification documents required for permits obtained by **CONSULTANT** that are not transferred to the successful DBF. Permits obtained by the DBF (or transferred from the **CONSULTANT** to the DBF) will be certified by the DBF.

PROJECT ASSUMPTIONS

1. **CONSULTANT** shall not start the work until provided a written Notice to Proceed from the **CITY**. The Notice to Proceed project start date will be mutually agreed upon by **CITY** and **CONSULTANT**.
2. Performance schedule assumes that the **CITY** will use a one-step procurement process as per City of Fort Lauderdale Code of Ordinances Section 2-125.1 and at least three bids will be received.

CITY'S RESPONSIBILITIES

1. **CITY** will provide its standard design/build "front end document" for **CONSULTANT** to use as a template for modification and incorporation into the DCP.
2. **CITY** will coordinate with the Las Olas Marina management staff relative to future development to ensure that the parking lot north of the Las Olas bridge is available for laying out the pipeline that will be pulled into the directional drill bore hole.
3. **CITY** will provide written review comments within five days of receipt of submittals.
4. **CITY** will pay for all permit fees that are not paid for from the reimbursables allowance in the compensation section.
5. **CITY** will provide available existing survey of the on-shore portions of the project. Survey shall be signed-and-sealed by a registered land surveyor. CAD files and two (2) hard copies shall be provided.
6. **CITY** will process and secure the easements required within the Intracoastal Waterway.
7. If temporary construction easements are deemed necessary during the development of the DCP, **CITY** will process and secure the easements.
8. **CITY** will provide access to the on-shore portions of the project site within property owned by the **CITY**.
9. **CITY** will request proposals for design/build of the project resulting in selection of an outside Contractor to complete the work. The project will be bid, in one-step, and designed and constructed under one contract.
10. **CITY** will develop and determine selection criteria to determine the successful DBF firm, evaluate the DBF proposals, and conduct the review and selection process. Participation by **CONSULTANT** is limited to review of the technical proposal and qualifications of the top-ranked DBF prior to **CITY's** award of the project.
11. Value engineering, constructability review and other outside reviews (other than **CITY** staff review) are not anticipated.
12. **CITY** will advise if a Public Education/Notification/Information Program is to be a part of the DBF effort. If required, **CITY** will provide its technical specifications with its requirements relative to Public Education/Notification/Information Program for incorporation into the DCP. Currently, no provisions for such a program are being considered, except for DBF requirement to address residential issues and/or complaints that may arise from the work effort.

13. **CITY** will reproduce documents and handle the advertising and distribution of the DCP documents. **CITY** will solicit proposals and establish selection criteria in accordance with City of Fort Lauderdale Code of Ordinances Section 2-125.1.
14. **CITY** will provide a hard copy and electronic file (in Microsoft Word format) of a front end document that has been used previously by the **CITY** on a similar design/build project. It is intended that **CONSULTANT** include this document in the DCP. In this effort, **CONSULTANT** will perform a cursory review of the document and implement revisions as may be required to clarify the scope and nature of the project. **CITY** retains all responsibility for editing and revisions as may be required to address legal, risk and procurement compliance related components of the document.

ADDITIONAL SERVICES

If authorized in writing by the City as an amendment to this Task Order, the Consultant shall furnish, or obtain from others, Additional Services of the types listed in the Master Agreement. The City, as indicated in the Master Agreement, will pay for these services.

PERFORMANCE SCHEDULE

Note that a number of factors affecting the project are beyond the control of **CONSULTANT** including work by others such as reviews by others (e.g., permitting agency reviews) 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. See Exhibit 2.

METHOD OF COMPENSATION

The services performed shall be accomplished using the Not to Exceed method of compensation. Reimbursable expenses associated with these services are not included in the fees and will be itemized separately, subject to an established Not to Exceed limit. A fee schedule and cost breakdown for reimbursable expenditures is included on Exhibit 3.

TERMS OF COMPENSATION

Services shall be provided for the following Not to Exceed amounts:

Task No	Task Title	Labor Fees		Total
		Consultant	Sub consultants	
1	Design Criteria Package	\$51,976.00	\$56,255.00	\$108,231.00
2	Permitting Services	\$9,184.00	\$48,836.00	\$58,020.00
3	Geotechnical Investigation	\$1,652.00	\$78,946.00	\$80,598.00
4	Services During Construction	\$25,616.00	\$27,440.00	\$53,056.00
All tasks				\$299,905.00
Task No	Description	Reimbursables		Total
		Consultant	Sub consultants	
1	Design Criteria Package	\$0.00	\$0.00	\$0.00
2	Permitting Services	\$0.00	\$0.00	\$0.00
3	Geotechnical Investigation	\$0.00	\$0.00	\$0.00
4	Procurement Assistance	\$0.00	\$0.00	\$0.00
5	Services During Construction	\$0.00	\$0.00	\$0.00
099	Reimbursables	\$1,000.00	\$10,600.00	\$11,600.00
All reimbursables				\$11,600.00
TOTAL				\$311,505.00

Exhibit 3 provides a more detailed cost breakdown for this Task Order.

CITY CONTACTS

Requests for payments should be directed to City of Fort Lauderdale Accounts Payable via e-mail to AcctsPayable@FortLauderdale.gov. All other correspondence and submittals should be directed to the attention of Daniel Lizarazo at the address shown below. **Please be sure that all correspondence refers to the City project number and title as stated above.**

City of Fort Lauderdale
City Hall, 4th Floor – Engineering
100 North Andrews Avenue
Fort Lauderdale, FL 33301

CONSULTANT CONTACTS

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Task Order 6
Project No. 12196
Craven Thompson & Associates

CITY

IN WITNESS OF THE FOREGOING, the parties have set their hands and seals the day and year first above written.

CITY OF FORT LAUDERDALE, a municipal
corporation of the State of Florida:

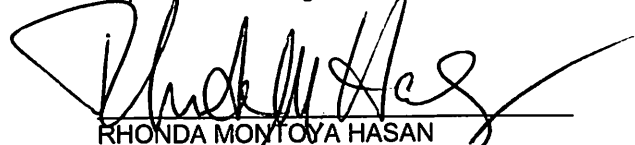
By 
LEE R. FELDMAN, City Manager

(CORPORATE SEAL)

ATTEST:


JEFFREY A. MODARELLI, City Clerk

Approved as to Legal Form:


RHONDA MONTOKA HASAN
Assistant City Attorney

[illegible]

Figure 1 is a line graph titled "Percentage of total population in the labor force by age group, 1970-1990". The vertical axis (Y-axis) is labeled "Percentage of total population in the labor force" and ranges from 0 to 100 in increments of 10. The horizontal axis (X-axis) is labeled "Year" and ranges from 1970 to 1990 in increments of 10. There are six data series representing different age groups: 15-24, 25-34, 35-44, 45-54, 55-64, and 65+. The 15-24 age group starts at approximately 25% in 1970 and declines steadily to about 15% by 1990. The 25-34 age group starts at approximately 15% in 1970 and rises slightly to about 20% by 1990. The 35-44 age group starts at approximately 10% in 1970 and rises slightly to about 15% by 1990. The 45-54 age group starts at approximately 5% in 1970 and rises slightly to about 10% by 1990. The 55-64 age group starts at approximately 2% in 1970 and rises slightly to about 5% by 1990. The 65+ age group starts at approximately 1% in 1970 and rises slightly to about 2% by 1990.



CONSULTANT

WITNESSES:

Tammy Taylor
Signature
Tammy Taylor
Print Name

Jennifer MacDonald
Signature
Jennifer MacDonald
Print Name

Craven Thompson & Associates

By: [Signature]
Name: Patrick Gibney, P.E.
Title: Vice President

ATTEST:
By: [Signature]
Name: Richard Pryce, P.E.
Title: Vice President

(CORPORATE SEAL)

STATE OF FLORIDA:
COUNTY OF BROWARD:

Patrick Gibney and Richard Pryce as Vice President's of Craven Thompson & Associates, acknowledged the foregoing instrument before me this 18th day of January, 2016, on behalf of the corporation. They are personally known to me and did not take an oath.



Patricia A. Gilbert
Notary Public, State of Florida
(Signature of Notary taking Acknowledgement)

PATRICIA A. GILBERT
Name of Notary Typed, Printed or Stamped

3/23/2018
My Commission Expires

FF 948437
Commission No.

RECEIVED

RECEIVED

RECEIVED

RECEIVED

RECEIVED

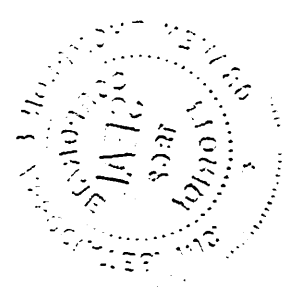


Exhibit 2

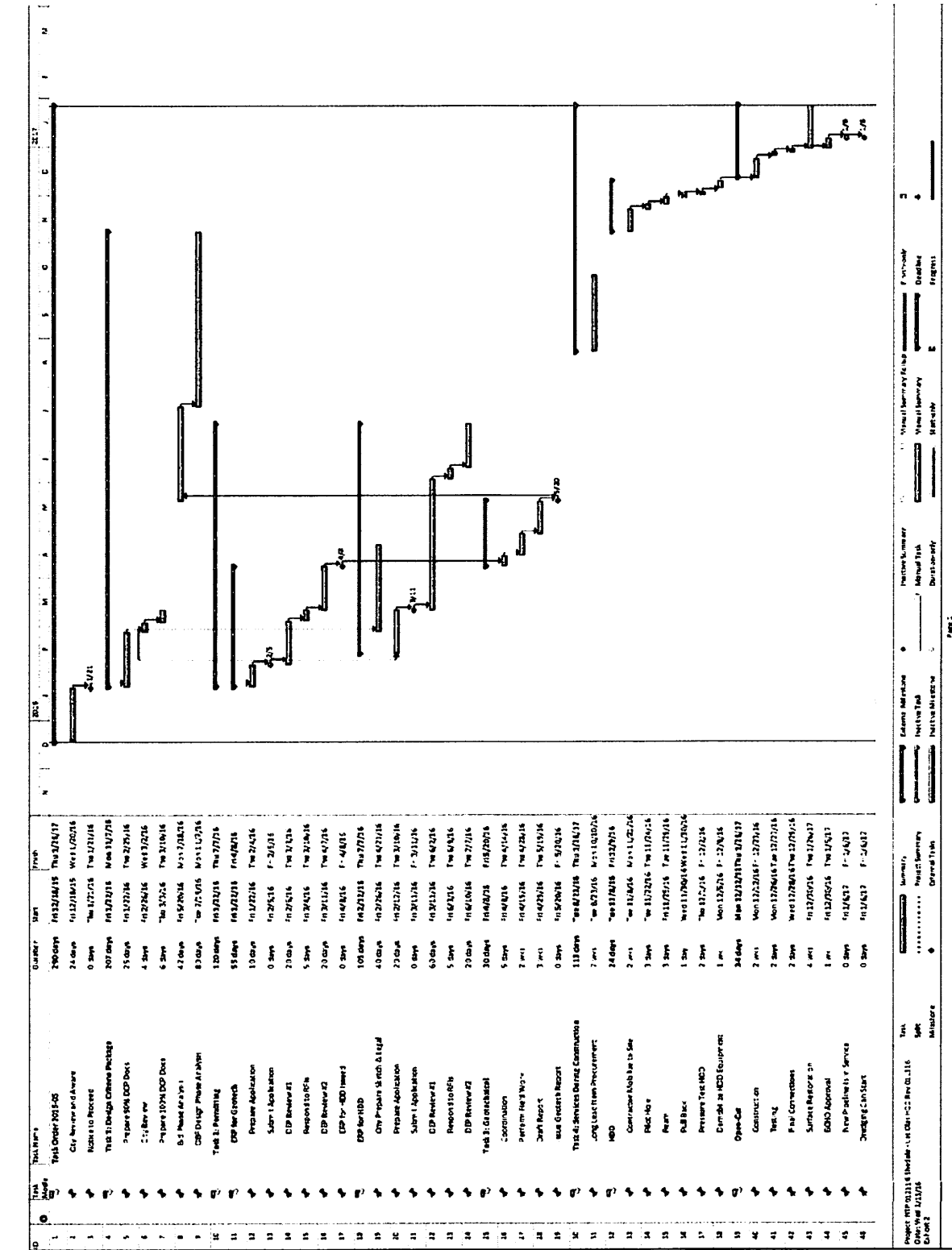


Exhibit 3 – CTA

Relocation of Existing 16" DIP Water Main & Installation of Nominal 16" Force Main East Las Olas

1/13/2016

City Project No. 12196

Task Order No. 6

CONSULTANT WORK BREAKDOWN AND FEE SCHEDULE																	
	CRAVEN THOMPSON													SUBCONSULTANT		TOTAL FEES	
	Principal Engineer	Client	Sr. Supervising Engineer	Senior Engineer	Project Engineer	Sr. CAD Tech	Proposal Services	Professional Lead Designer	Sr. Engineer Consulting	Sr. Field Representative	Jr. Man Survey/Time	Lead Contract/Time	SUB-TOTAL HOURS	SUB-TOTAL FEES	HAZEN		TERRA
Hourly Rate	\$175.00	\$50.00	\$150.00	\$120.00	\$105.00	\$40.00	\$110.00	\$110.00	\$170.00	\$90.00	\$130.00	\$75.00					
Task 1	Design Criteria Package	8		24	48	80							240	\$25,568.00	\$31,310		\$56,878.00
	Bidding Phase Analysis	4	4	16	24	40							88	\$10,384.00	\$10,545		\$20,929.00
	DBF Design Phase Analysis	4	4	24	40	64							136	\$16,024.00	\$14,400		\$30,424.00
Task 2	Permitting	4		8	16	16		8	24				76	\$9,184.00	\$48,836		\$58,020.00
Task 3	Geotechnical	2	2	8									12	\$1,652.00	\$3,410	\$75,536	\$80,598.00
Task 4	Construction Observation	16		120					40				176	\$25,616.00	\$27,440		\$53,056.00
	Reimbursables (\$1,000 Expenses)													\$1,000.00	\$10,600		\$11,600.00
													728	\$88,428.00			\$311,505.00

1/13/2016 3:34PM

	CTA	CTA			
	HOURS	LABOR	REIMBURSABLE	SUBS	TOTAL
Task 1 - 5	728	\$88,428	\$11,600.00	\$211,477	\$311,505

Task Order 6
Project No. 12196
Craven Thompson & Associates

Exhibit 3- Hazen

FEE ESTIMATE

Hazen and Sawyer, P.C.

RELOCATION OF EXISTING 16" DIP WATER MAIN AT E. LAS OLAS BLVD

A. Fee Schedule

Consultant - Hazen and Sawyer

Fee Schedule										Total Hours	Labor Cost
Labor Category		Senior Associate		Associate		Principal Engineer		Designer			
Percent Utilization		25%		11%		61%		12%			
Labor Rate		\$105/hr		\$175/hr		\$164/hr		\$100/hr			
Task No	Task Title	Hours	Subtotal (\$)	Hours	Subtotal (\$)	Hours	Subtotal (\$)	Hours	Subtotal (\$)		
1	Design Criteria Package	107	\$19,795.00	52	\$9,100.00	110	\$17,160.00	102	\$10,200.00	371	\$56,255.00
	Prepare DCP	10	\$1,850.00	12	\$2,100.00	110	\$17,160.00	102	\$10,200.00	234	\$31,310.00
	Bidding Phase Analysis	67	\$10,545.00	0	\$0.00	0	\$0.00	0	\$0.00	67	\$10,545.00
	DBF Design Phase Analysis	40	\$7,400.00	40	\$7,000.00	0	\$0.00	0	\$0.00	80	\$14,400.00
2	Permitting Services	60	\$11,100.00	32	\$5,600.00	205	\$32,135.00	0	\$0.00	298	\$48,835.00
	Environmental Resource Permit for Soil Borings	8	\$1,400.00	24	\$4,200.00	9	\$1,248.00	0	\$0.00	40	\$6,329.00
	ERP for Directional Drill	9	\$1,480.00	0	\$0.00	130	\$20,290.00	0	\$0.00	139	\$21,760.00
	FDEP Pre-application meeting for directional drill	6	\$1,110.00	0	\$0.00	0	\$0.00	0	\$0.00	6	\$1,110.00
	ACOE Pre-application meeting for directional drill	6	\$1,110.00	0	\$0.00	0	\$0.00	0	\$0.00	6	\$1,110.00
	USCG Coordination for Soil Borings	2	\$370.00	0	\$0.00	6	\$936.00	0	\$0.00	8	\$1,306.00
	USCG Pre-application meeting for directional drill	6	\$1,110.00	0	\$0.00	0	\$0.00	0	\$0.00	6	\$1,110.00
	Broward County EPGMD Permit Exemption for soil borings	2	\$370.00	8	\$1,400.00	8	\$1,248.00	0	\$0.00	18	\$3,018.00
	Broward County EPGMD Permit Application for directional drill	8	\$1,480.00	0	\$0.00	44	\$6,854.00	0	\$0.00	52	\$8,344.00
	BCEPGMD Pre-application meeting for directional drill	6	\$1,110.00	0	\$0.00	0	\$0.00	0	\$0.00	6	\$1,110.00
	Certifications	8	\$1,480.00	0	\$0.00	10	\$1,650.00	0	\$0.00	18	\$3,040.00
3	Geotechnical Investigation	10	\$1,850.00	0	\$0.00	10	\$1,650.00	0	\$0.00	20	\$3,410.00
4	Services During Construction	48	\$3,080.00	0	\$1,400.00	110	\$17,160.00	0	\$0.00	168	\$27,440.00
	Administrative Services	10	\$1,850.00	0	\$0.00	0	\$0.00	0	\$0.00	10	\$1,850.00
	Shop Drawing Review	6	\$1,110.00	0	\$0.00	40	\$6,240.00	0	\$0.00	46	\$7,350.00
	Contract Interpretation	8	\$1,480.00	8	\$1,400.00	0	\$0.00	0	\$0.00	16	\$2,880.00
	Periodic Observations	8	\$1,480.00	0	\$0.00	70	\$10,920.00	0	\$0.00	78	\$12,400.00
	Meetings	16	\$2,960.00	0	\$0.00	0	\$0.00	0	\$0.00	16	\$2,960.00
Totals		226	\$41,625	92	\$16,100	436	\$68,016	102	\$10,200	656	\$135,941

Sub-Consultant (to be retained by CTA)

B. Reimbursable (in accordance with Master Agreement)

Task No	Task Title	Reimbursable Description	Cost (\$)
009	Reimbursable	Commercial express delivery services to transfer documents	\$600
009	Permit Application Fees	Permit Application Fees	\$10,000
		Reimbursable Subtotal	\$10,600

C. Other Costs (not used)

TOTAL NOT-TO-EXCEED FEE

\$146,541.00

Exhibit 3 - Tierra

TERRA SOUTH FLORIDA, INC.

	Units	# Of Units	Unit Price	Total
I. FIELD INVESTIGATION				
Barge-Mounted Equipment	Day	2	\$ 3500.00	\$ 7,000.00
Support Boat	Day	2	\$ 500.00	\$ 1,000.00
Crane Rental	Day	2	\$ 2000.00	\$ 4,000.00
Barge Mobilization	Each	1	\$ 10000.00	\$ 10,000.00
Support Boat Mobilization	Each	1	\$ 500.00	\$ 500.00
Truck-Mounted Rig Mobilization	Each	1	\$ 350.00	\$ 350.00
Loading & Unloading Barge offsite	LS	1	\$ 2500.00	\$ 2,500.00
Standard Penetration Test Borings (By Barge-Mounted Equipment)				
0 - 50 ft depth	L.F.	150	\$ 18.25	\$ 2,737.50
50 - 100 ft depth	L.F.	105	\$ 24.50	\$ 2,572.50
Grout-Seal Boreholes (By Barge-Mounted Equipment)				
0 - 50 ft depth	L.F.	150	\$ 7.20	\$ 1,080.00
50 - 100 ft depth	L.F.	105	\$ 9.80	\$ 1,008.00
Casing Allowance (By Barge-Mounted Equipment)				
0 - 50 ft depth	L.F.	200	\$ 13.25	\$ 2,650.00
50 - 100 ft depth	L.F.	120	\$ 15.90	\$ 1,908.00
Rock Coring	L.F.	50	\$ 40.00	\$ 2,000.00
Standard Penetration Test Borings (By Truck-Mounted Equipment)				
0 - 50 ft depth	L.F.	110	\$ 12.00	\$ 1,320.00
Grout-Seal Boreholes (By Truck-Mounted Equipment)				
0 - 50 ft depth	L.F.	110	\$ 5.00	\$ 550.00
Casing Allowance (By Truck-Mounted Equipment)				
0 - 50 ft depth	L.F.	110	\$ 7.00	\$ 770.00
Traffic Control (1-man crew with safety equipments)	Each	2	\$ 1200.00	\$ 2,400.00
II. LABORATORY TESTING				
Visual Examination by Senior Specialist	Hour	8	\$ 125.00	\$ 1,000.00
Unit Weight	Test	5	\$ 50.00	\$ 250.00
Unconfined Compression Test	Test	10	\$ 150.00	\$ 1,500.00
LA Abrasion Tests	Test	10	\$ 500.00	\$ 5,000.00
III. FIELD ENGINEERING AND TECHNICAL SERVICES				
Site Recon /Utility Coordination/MOT Sr. Engineering Technician	Hour	20	\$ 95.00	\$ 1,900.00
VI. ENGINEERING AND TECHNICAL SERVICES				
Principal Engineer	Hour	2	\$ 180.00	\$ 360.00
Senior Geotechnical Engineer	Hour	12	\$ 160.00	\$ 1,920.00
Project Engineer	Hour	40	\$ 150.00	\$ 6,000.00
AUTOCADD	Hour	8	\$ 95.00	\$ 760.00
VII. Additional fee for Insurance	LS	1	\$ 12500.00	\$ 12,500.00
TOTAL FEE FOR GEOTECHNICAL SERVICES-WATER MAIN				\$ 75,536.00



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

1/19/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Corporate Insurance Advisors 1401 E Broward Blvd Suite 103 Ft. Lauderdale FL 33301	CONTACT NAME: Angela Nervi-Saketkoo	
	PHONE (A/C No. Ext): (954) 315-5000	FAX (A/C No.): (954) 315-5050
INSURED Craven Thompson & Associates, Inc. 3563 NW 53rd Street Fort Lauderdale FL 33309	E-MAIL ADDRESS: ANervi@ciafl.net	
	INSURER(S) AFFORDING COVERAGE	
	INSURER A: Hartford Fire Insurance Co	
	INSURER B: Hartford Ins Co of the Southea	
	INSURER C: Hanover Insurance Company	
	INSURER D:	
INSURER E:		
INSURER F:		

COVERAGES**CERTIFICATE NUMBER:** 16-17**REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY			21UUNZP1507	12/1/2015	12/1/2016	EACH OCCURRENCE	\$ 1,000,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 300,000
							MED EXP (Any one person)	\$ 10,000
							PERSONAL & ADV INJURY	\$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	\$ 2,000,000
	<input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC						PRODUCTS - COMP/OP AGG	\$ 2,000,000
	OTHER:						Employee Benefits	\$ 1,000,000
A	AUTOMOBILE LIABILITY			21UUNZP1507	12/1/2015	12/1/2016	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO						BODILY INJURY (Per person)	\$
	<input type="checkbox"/> ALL OWNED AUTOS	<input type="checkbox"/> SCHEDULED AUTOS					BODILY INJURY (Per accident)	\$
	<input type="checkbox"/> HIRED AUTOS	<input type="checkbox"/> NON-OWNED AUTOS					PROPERTY DAMAGE (Per accident)	\$
							Uninsured motorist property	\$
A	UMBRELLA LIAB			21XBUZP1253	12/1/2015	12/1/2016	EACH OCCURRENCE	\$ 5,000,000
	<input checked="" type="checkbox"/> EXCESS LIAB	<input type="checkbox"/> OCCUR					AGGREGATE	\$ 5,000,000
	<input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000	<input type="checkbox"/> CLAIMS-MADE						\$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			21WEAL9636	1/1/2016	1/1/2017	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	Y/N					E.L. EACH ACCIDENT	\$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below	<input checked="" type="checkbox"/> N	N/A				E.L. DISEASE - EA EMPLOYEE	\$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	\$ 1,000,000
C	Professional Liability			LEJ A591180 00	3/30/2015	3/30/2016	Each Claim	\$2,000,000
	\$50,000 Deductible						Aggregate	\$4,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RE: Relocation of Existing 16" Water Main & Installation of Nominal 16" Force Main at East Las Olas Boulevard.

CERTIFICATE HOLDER**CANCELLATION**

City of Fort Lauderdale
City Hall, 4th Floor - Engineering
100 North Andrews Avenue
Fort Lauderdale, FL 33301

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Mark Schwartz/ANGELA

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COMMENTS/REMARKS

City of Fort Lauderdale is included as Additional Insured as respects General Liability when required by written contract. 30 day notice of cancellation, except 10 day notice of cancellation for non-payment of premium.

December 23, 2015

Mr. Paul A. Berg, ICMA-CM
Acting Public Works Director
City of Fort Lauderdale
100 North Andrews Avenue, Room 619
Fort Lauderdale, Florida 33301

RE: CTA AGREEMENT RFQ NO. 626-10881
FORT LAUDERDALE PROJECT NO. 12196
SUB-CONSULTANT ADDITION - HAZEN & SAWYER & TIERRA SOUTH FLORIDA

Dear Mr. Berg,

Craven Thompson & Associates would like to formally request the addition of Hazen and Sawyer, P.C. and Tierra South Florida, Inc. to our Task Order 6: Relocation of Existing 16" Water Main & Installation of Nominal 16" Force Main at E. Las Olas Boulevard.

Hazen and Sawyer will prepare the design build criteria package for the 16" water main at E. Las Olas Boulevard. Tierra South Florida will perform the soil borings and prepare a report for the proposed force main and water main directional drill under the Intracoastal Waterway.

<u>Sub-Consultant</u>	<u>Approximate Fee</u>
Hazen and Sawyer	\$146,541.00
Tierra South Florida	\$75,536.00

Please review this request and let us know if this is acceptable and also if any additional information is required.

Should you have any questions regarding this matter do not hesitate to contact this office.


Sincerely,

Craven Thompson & Associates, Inc.


PATRICK J. GIBNEY, P.E.
Vice President, Engineering

PJG/tg

Acceptance of Request

By: 
Mr. Paul A. Berg
Acting Director of Public Works

Date: 12-29-15

3563 N.W. 53rd Street
Fort Lauderdale, FL 33309-6311
(954) 739-6400
Fax (954) 739-6409

Craven Thompson



& Associates, Inc.

Engineers
Planners
Surveyors
Landscape Architects