

**CITY OF DELRAY BEACH**

**CONSULTING SERVICE AUTHORIZATION**

DATE: \_\_\_\_\_

SERVICE AUTHORIZATION NO. 12-17.1 FOR CONSULTING SERVICES

CITY P.O. NO. \_\_\_\_\_ CITY EXPENSE CODE: 442-5178-536.68-93

CITY PROJECT NO. 15-054 MATHEWS CONSULT. PROJECT NO. \_\_\_\_\_

TITLE: Delray Shores WM (Phase III)

This Amendment No. 1, when executed, shall be incorporated in and shall become an integral part of Consulting Service Authorization No. 12-17.

TITLE: Agreement for General Consulting Services

**I. PROJECT DESCRIPTION**

This Amendment No. 1 includes, but is not limited to, providing engineering design, permitting, surveying, geotechnical investigations, and utility locates (e.g. soft digs) for the Delray Shores Water Main Replacement (Phase III). The additional work is required to design and permit Delray Shores Water Main Replacement (Phase IV) so that Phases III and IV can be bid as one construction package. The additional project components consist of:

- Water Main replacement (approximately 2,220 LF of 8" WM) along the following roads:
  - Davis Road (from Lake Ida Road to Dorson Way); approximately 1,500 ft.
  - Udell Lane (from Angler Drive to Lake Ida Road); approximately 400 ft.
  - Dorson Way (from Angler Drive to Davis Road); approximately 320 ft.
- Connections will be made to the existing water mains in the project area.
- Approximately three (3) fire hydrants will be installed.
- Approximately forty-six (46) new water services and meter boxes will be installed. Any meter boxes located in the sidewalks or driveways will be re-located to the grass area.
- The new water mains will be located in the swale area within the City's ROW.
- The water main services will be moled and will not be installed by open-cut.
- Roadway restoration will only consist of pavement trench repair.
- The existing 6" transite water mains in the project area shall be abandoned in place.
- New swales will be located on both sides of the roadway.
- Driveways will not be replaced unless a water meter box needs to be relocated out of the driveway.

- Asphalt parking areas in the grass areas will be removed and replaced with a swale.
- All houses will only have one existing driveway. If two driveways exist, one will be removed and replaced with a swale.

## II. SCOPE OF SERVICES

### Phase I – Study and Report Phase

Not Applicable.

### Phase II – Preliminary Design Phase

Not Applicable.

### Phase III – Final Design Phase

Consultant shall provide final design phase services in accordance with Article III.C of the Agreement for Engineering Services with the City, dated January 24, 2012.

1. **Field Investigation:** Field reconnaissance of the proposed pipeline alignment shall be performed. Photograph log walk-through will be included. In addition, potential underground existing utilities will be identified.
2. **Utility Coordination:** Coordination with utility agencies (electric, phone, gas, and cable TV) shall be performed to collect record information. This Subtask includes reconciling apparent discrepancies between record information and existing photographic and field-verification information.
3. **Design Drawings:** Consultant shall prepare construction drawings which shall include: cover sheet, general notes, civil plan/profile drawings, and detail sheets conforming to the requirements of the current City of Delray Beach Minimum Construction Standards. The drawing scale shall be 1" = 20' for plan and 1" = 2' for profile. Consultant shall prepare the engineering design elements on topographic survey information prepared by Consultant's surveyor using AutoCAD Release 2016 format and available As-Built Drawings. Consultant shall coordinate with the City in order to design the proposed water mains in accordance with the requirements and design standards of the City. Drawings (two copies) shall be submitted for City review at 50% (plan view only), 75% (plan/profile) and 100% Stages (plan/profile).
4. **Specifications:** Technical specifications shall be prepared and shall conform to City of Delray Beach Standards and the FDOT Standard Specifications for road and bridge work. Specifications (two copies) shall be submitted for City review at the 50%, 75% and 100% stages. City shall prepare all front-end documents.
5. **Cost Estimate:** At the 50%, 75% and 100% stages, Consultant shall prepare a detailed opinion of probable construction cost based upon the level of design

drawings and specifications approved by the City. The cost opinion shall reflect changes in general scope, extent or character of design requirements incorporated during the various design review stages. Opinion of probable construction cost (two copies) shall be submitted for City review at the 50%, 75% and 100% stages.

6. **Meetings:** Consultant shall attend kick-off meeting and three (3) design meetings with the City and provide written summary of the issues discussed.
7. **QA/QC:** Consultant shall provide internal QA/QC reviews on the 50%, 75% and 100% Design Documents (e.g. drawings, specifications and cost estimates).

#### **Phase IV – Bidding/Negotiation Phase**

Not Applicable.

#### **Phase V – Construction Administration Phase**

Not Applicable.

#### **Other – Permitting**

At the outset of the Design Phase, the Consultant shall meet with the appropriate permitting agencies to determine potential permitting requirements. Agencies anticipated to have jurisdiction over the project include: (1) Palm Beach County Health Department (PBCHD).

Permit applications shall be completed as required for PBCHD. Associated permit application fees shall be determined by Consultant and paid by City.

- PBCHD Water Main Construction Permit

In addition to preparing the permit applications for the appropriate regulatory agencies, Consultant shall assist the City in consultations with the appropriate authorities. Consultation services shall include the following:

- Attend up to one (1) pre-application meeting with the staff of each of the regulatory agencies.
- Attend up to one (1) meeting with each of the regulatory agencies during review of the final permit applications.
- Respond to request(s) for additional information from each regulatory agency.

#### **Other – Geotechnical**

Consultant shall furnish the services of a professional geotechnical engineer to provide subsurface investigations of the project area that will include:

- Perform up to three (3) standard penetration test (SPT) borings to an average depth of ten (10) feet. Evaluate field data collected and provide geotechnical engineering evaluation report.

#### Other – Survey

Consultant shall furnish the services of a professional surveyor to provide survey services consisting of field topography and horizontal locations referenced by baseline stationing. The control will be referenced from the Palm Beach County Control Network which is the North American Datum of 1983 and the 1990 adjustment for horizontal control and the National Geodetic Vertical Datum of 1929 for vertical control. All existing facilities and utilities within the established project limits will be referenced by baseline station with an offset distance (left or right) from baseline for the project and will include the following:

1. Topography survey at 100-foot intervals and at major ground elevation changes to depict existing ground profile at proposed project area. This shall be accomplished by creating a baseline in the field to collect pertinent data which shall include the following:
  - a. Location of all visible fixed improvements within the project limits, including physical objects, roadway pavement, railway tracks, canals, driveways, sidewalks, curb, trees, signs, fences, power poles, buildings, and other encumbrances, including point of curvature and point of tangency.
  - b. Location of all known above and below ground existing utilities: FP&L, BellSouth, Cable TV, Natural Gas, Potable Water (pipe diameter, TOP, valves, fire hydrants, and meters), Reclaimed Water Mains (pipe diameter, TOP and valves), Force Mains (pipe diameter, TOP, and valves), Sanitary Sewer (pipe diameter, manhole inverts and direction, rim elevations, laterals, and clean-outs), Storm Sewers (pipe diameter, manhole inverts and direction, catch basins, and rim/grate elevations), and **all** other accessible structures. This will include coordination with Sunshine and City of Delray Beach. Underground piping shall be pot-holed by City in a timely fashion.
  - c. Identify platted rights-of-way (including bearing and distances for centerline), lot numbers, house address, ownership lines, block numbers and dedicated easements.
  - d. Elevations shall be indicated every 100 feet, at a minimum, to indicate centerline grades, edge of pavement grades, and shoulder grades, low points, railway ditch bottoms, and all right-of-way lines. Intermediate grades shall be indicated at all grade breaks, driveways and sidewalks. Sufficient grades shall be indicated on the driveways and parking areas to indicate direction of grade.
  - e. Provide and reference benchmarks at **maximum 600-foot intervals**. Elevations to be referenced to an existing established City or County Benchmark.

- The above topographical survey data will be prepared in AutoCAD (Version 2016) format at a scale of 1"=20', as one continuous file. The City of Delray Beach standard layering system shall be followed.

#### **Other – Field Verification (soft-digs)**

Consultant shall furnish the services of a professional underground services company to provide underground field locations of affected existing utilities. The work shall consist of measuring and recording the approximate horizontal location of affected utilities within the project limits. It is anticipated that approximately 15 (fifteen) utility locations will need to be pot-holed.

#### **Other – Field Verification (utility targeting)**

The professional underground services company shall also provide subsurface utility targeting in the project area. The work shall consist of conducting a thorough electronic search for buried utility systems. The investigation will be accomplished using active and passive type utility detection gear that detects induced or naturally occurring energy fields present on conductive utilities. Field sheets will be generated that show the location, trend and configuration of utilities detected.

### **ASSUMPTIONS**

Work described herein is based upon the assumptions listed below. If conditions differ from those assumed in a manner that will affect schedule of Scope of Work, Consultant shall advise City in writing of the magnitude of the required adjustments. Changes in completion schedule or compensation to Consultant will be negotiated with City.

1. City will provide Consultant record drawings of all available existing facilities and proposed facilities, which shall serve as the basis of design in this project. The information will be provided to Consultant within 5 calendar days of NTP.
2. City personnel will assist in field verification of affected existing City facilities. This includes marking in field (in a timely manner) existing water mains, sanitary sewers & laterals, force mains, reclaimed water mains and drainage in the field for the Surveyor in a timely manner.
3. City will be responsible for acquisition of easements (including temporary), if required.
4. City is responsible for all permitting fees, including costs of public notification in local newspapers.
5. The Contract Documents will be prepared as a single contract. No pre-purchase of materials and/or equipment is presumed.
6. City will be responsible for preparation of any descriptions, sketches and acquisition of easements (including temporary construction easements) that may be required. Consultant

will identify the location and dimensions of any easements or temporary construction easements required for use of the City to prepare the easement descriptions and deeds.

7. Contractor shall be responsible for obtaining SFWMD Dewatering Permit (if required).
8. The design is to be based on the federal, state and local codes and standards in effect at the beginning of the project. Revisions required for compliance with any subsequent changes to those regulations is considered an Additional Services Item not currently included in this Scope of Work.
9. Consultant assumes that there are no contaminated soils or groundwater in the project area.

### **ADDITIONAL SERVICES**

Consultant shall provide additional engineering services relating to the provision of surveying, geotechnical, sanitary, water, reclaimed water, and drainage improvements to the project area that are not covered under this Service Authorization. These additional services may be required due to uncertainties discovered during survey, soils, investigations, field verification of existing facilities and conditions, and potential property or easement acquisitions.

Services performed under this task will be on as-directed basis in accordance with a written Notice-to-Proceed from the City Manager. The Notice-to-Proceed issued shall contain the following information and requirements.

A detailed description of the work to be undertaken.

A budget establishing the amount of the fee to be paid in accordance with the Agreement.

A time established for completion of the work.

### **III. TIME OF PERFORMANCE**

The completion dates for this work will be as follows (starting at written notice-to-proceed). Refer to *Attachment A* for schedule.

<u>Engineering Services</u>	<u>Time per Phase</u>	<u>Cumulative Time</u>
Survey	4 weeks	4 weeks
Final Design	16 weeks	20 weeks
<i>Geotechnical<sup>(1)</sup></i>		
<i>Field Verification<sup>(1)</sup></i>		
Permitting <sup>(2)</sup>	4 weeks	20 weeks

<sup>(1)</sup>*Geotechnical, Surveying, and Field Verification will be completed during Final Design Phase.*

<sup>(2)</sup>*Permitting duration will have overlap with Final Design Phase.*

\* The schedule is based upon conducting a review meeting within 7 calendar days after the City receives the design submittal. All review comments shall be provided to Consultant within 7 calendar days after the City receives the submittal. An adjustment to the overall schedule will be required in case the review meeting takes longer to be conducted and/or obtaining comments takes longer to receive.

***\*All Tasks will be completed by March 31, 2018***

## VI. COMPENSATION

The compensation for Amendment No. 1 services provided shall be billed on an hourly basis plus reimbursable expenses for each phase of work in accordance with Article VII, Method II, up to the following not to exceed cost for each phase. Refer to *Attachment B* for budget summary.

<u>Engineering Services</u>	<u>Estimated Fees</u>
Phase IV – Final Design Phase	\$ 21,464.00
Permitting	\$ 827.00
Surveying	\$ 14,001.00
Geotechnical	\$ 3,032.00
Field Verification (soft-digs)	\$ 5,706.00
Field Verification (utility targeting)	\$ 4,016.00
Out-of-Pocket Expenses	<u>\$ 500.00<sup>(1)</sup></u>
<b>TOTAL PROJECT COST</b>	<b>\$ 49,546.00<sup>(2)</sup></b>

Notes:

<sup>(1)</sup>Out-of-Pocket Expenses include the following: printing/reproduction and postage.

This Service Authorization Amendment No. 1 is approved contingent upon the City's acceptance of and satisfaction of the completion of the services rendered in the previous phase whereas encompassed by the previous Service Authorization. If the City in its sole discretion is unsatisfied with the services provided in the previous phase or Service Authorization, the City may terminate the contract without incurring any further liability. The Consultant shall commence work upon City Commission approval and this Service Authorization Amendment No. 1 to be included as part of the contract without any further notice to proceed.

Approve by:

CITY OF DELRAY BEACH:

MATHEWS CONSULTING, A BAXTER  
& WOODMAN COMPANY

Date: \_\_\_\_\_

Date: 5-25-17

\_\_\_\_\_  
Cary D. Glickstein, Mayor

\_\_\_\_\_  
David Mathews, P.E., Vice President

\_\_\_\_\_  
Witness

Attest:

\_\_\_\_\_  
R. Max Lohman  
City Attorney

\_\_\_\_\_  
City Clerk

STATE OF FLORIDA  
COUNTY OF PALM BEACH

The foregoing instrument was acknowledged before me this 25 day of May, 2017 by David Mathews, Vice President of Mathews Consulting, a Baxter & Woodman Company, an Illinois corporation, on behalf of the corporation. He/She is (personally known to me) or (has produced identification), Florida Driver's License \_\_\_\_\_ and (did/did not) take an oath.

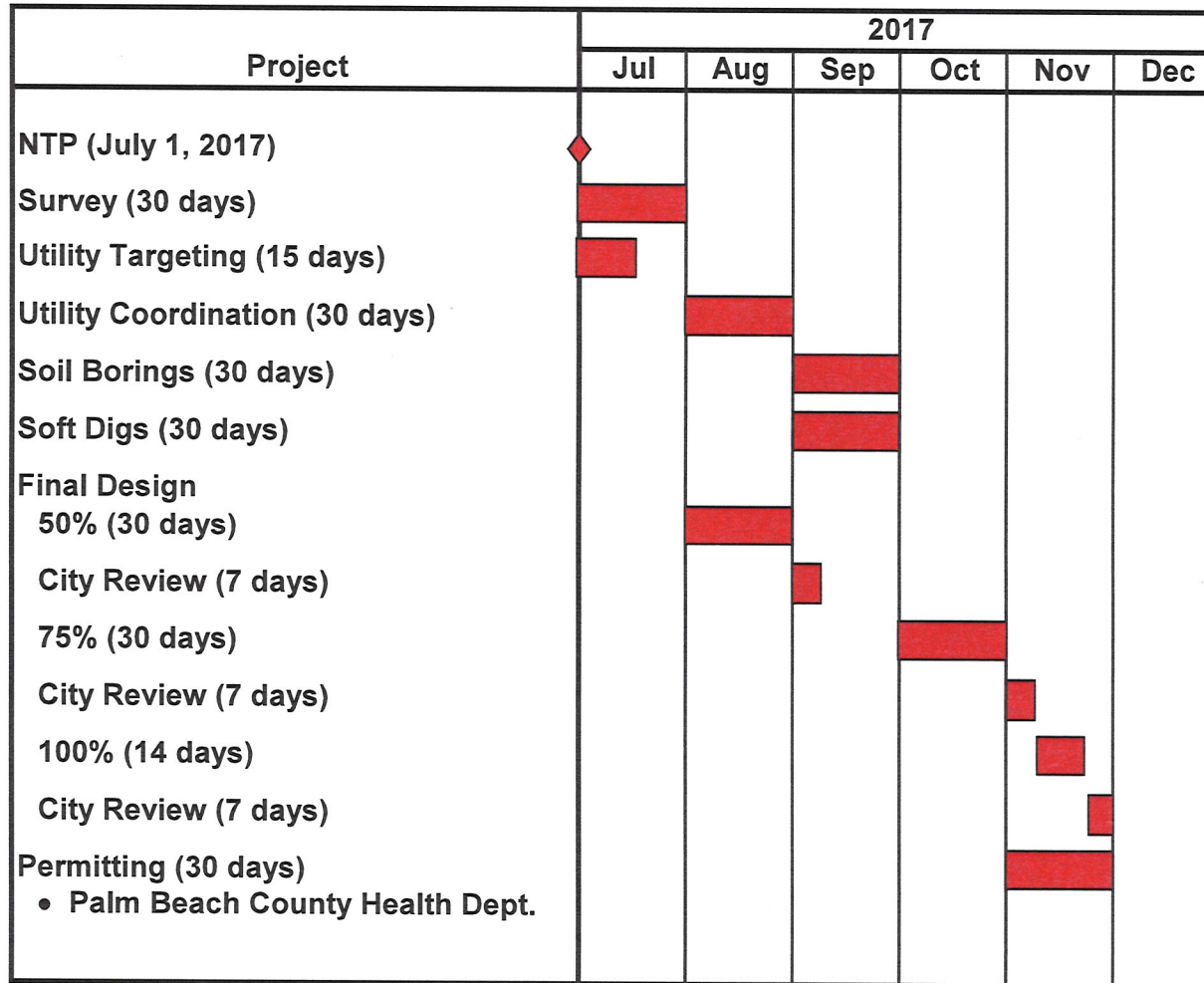


Courtney Marshall  
Signature of person taking  
acknowledgement



ATTACHMENT A

**Delray Shores Water Main Replacement (Phase IV) - Project Schedule**



## ATTACHMENT B

*City of Delray Beach Delray Shores WM (Phase III) - Amendment No. 1*

### Budget Summary

Phase No.	Task Description	Labor Classification and Hourly Rates								Sub-Consultant Services
		Principal Engineer \$166.40	Senior Engineer \$144.86	Engineer I \$96.56	Senior Construction Manager \$118.22	Senior Engineering Technician \$115.13	Senior Cadd Designer \$100.27	Clerical \$70.58	Total Labor	
<b>III</b>	<b>Final Design Phase</b>									
	3.1 Field Investigation	1		3					\$456	
	3.2 Utility Coordination	2		3		3		2	\$1,109	
	3.3a 50% Design Drawings/Specifications	2		12		18			\$3,564	
	3.3b 75% Design Drawings/Specifications	2		22		25			\$5,335	
	3.3c 100% Design Drawings/Specifications	2		12		18			\$3,564	
	3.4 Specifications	6						4	\$1,281	
	3.5 Construction Cost Opinion	2		12				1	\$1,562	
	3.6 Meetings	14		9				4	\$3,481	
	3.7 Quality Assurance	1			8				\$1,112	
	<b>Subtotal</b>	<b>32</b>	<b>0</b>	<b>73</b>	<b>8</b>	<b>64</b>	<b>0</b>	<b>11</b>	<b>\$21,464</b>	
<b>Other</b>	Permitting	2		2		2		1	\$827	
	Surveying	1		3		3			\$801	\$12,000
	Geotechnical	1				1			\$282	\$2,500
	Field Verification (i.e. soft-digs)	2		2		2			\$756	\$4,500
	Field Verification (i.e. utility targeting)	1							\$166	\$3,500
	<b>Subtotal</b>	<b>7</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>1</b>	<b>\$2,832</b>	<b>\$22,500</b>
	<b>Labor Subtotal Hours</b>	<b>39</b>	<b>0</b>	<b>80</b>	<b>8</b>	<b>72</b>	<b>0</b>	<b>12</b>	<b>\$24,296</b>	<b>\$22,500</b>
	<b>Labor Subtotal Costs</b>	<b>\$6,490</b>	<b>\$0</b>	<b>\$7,725</b>	<b>\$946</b>	<b>\$8,289</b>	<b>\$0</b>	<b>\$847</b>		
	<b>Labor Total Costs</b>	<b>\$24,296</b>								
	<b>Subconsultant Costs Total</b>	<b>\$22,500</b>								
	<b>Subconsultant Multiplier</b>	<b>1.1</b>								
	<b>Subconsultant Total</b>	<b>\$24,750</b>								
	<b>Reimbursable Expenses</b>	<b>\$500</b>								
	<b>Project Total</b>	<b>\$49,546</b>								