

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2024	2025	2026	2027	2028
Capital Expenditures	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Operating Costs	<u>\$147,207</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
External Revenues	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Program Income (County)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
In-Kind Match County	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
NET FISCAL IMPACT	<u>\$147,207</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
# ADDITIONAL FTE POSITIONS (Cumulative)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

Budget Account No.: Fund 4001 Dept 720 Unit 2323 Object 3120

Is Item Included in Current Budget? Yes X No

Is this Item using Federal Funds? Yes No X

Is this Item using State Funds? Yes No X

Reporting Category N/A

B. Recommended Sources of Funds/Summary of Fiscal Impact:

One (1) time expenditure from user fees, connection fees and balance brought forward.

C. Department Fiscal Review: Bony Foreman

III. REVIEW COMMENTS

A. OFMB Fiscal and/or Contract Development and Control Comments:

Lisa M. [Signature] 2/20/2024
OFMB *mf* 2/20

Brenda M. [Signature] 2/22/24
Contract Development and Control
Red 2/21/24

B. Legal Sufficiency:

[Signature] 2/26/24
Assistant County Attorney

C. Other Department Review:

Department Director

This summary is not to be used as a basis for payment.

CONSULTANT SERVICES AUTHORIZATION NO. 7
Palm Beach County Water Utilities Department
Contract for Consulting/Professional Services
Pressure Pipeline Engineering Services
Resolution No. R2021-0505 Contract Dated April 20, 2021

Project Title: East-West Water Main Interconnection Feasibility Study

PBCWUD Project No.: 24-009

Consultant: Mock, Roos & Associates, Inc.

Address: 5720 Corporate Way, West Palm Beach FL 33407

Budget Line Item No.: 4001-720-2323-3120

District No.: 6

This Consultant Services Authorization provides for: Professional engineering services to evaluate the feasibility, sizing, route, and cost of constructing a water main interconnection between the Eastern distribution system (Zone 5) and the Western distribution system (Zone 6). The work will be concurrent with other consultants' evaluation of the Water Treatment Plant No. 11 (WTP 11) improvements.

(See ATTACHMENT A for detailed scope of services)

The Contract provides for 0.34 SBE participation, which includes 0.34 MBE participation, 0.34 MBE (B).

This Consultant Services Authorization includes 41.48% overall participation which includes, 41.48% MBE participation, 41.48% MBE (B).

The cumulative SBE participation, including this Consultant Services Authorization is 31.94%, which includes 31.94% MBE participation, 31.94% MBE (B).

1. Services completed by the Consultant to date :

See ATTACHMENT B.

2. Consultant shall begin work upon receipt of Notice to Proceed correspondence.

3. The compensation to be paid to the Consultant for providing the requested services shall be:

A. Computation of time charges plus expenses, not to exceed \$147,207.00

B. Fixed price of \$0.00

C. Total \$147,207.00

4. This Authorization may be terminated by the County without cause or prior notice. In the event of termination not the fault of the Consultant, the Consultant shall be compensated for all services performed through the date of termination, together with reimbursable expenses (if applicable) then due.

CONSULTANT SERVICES AUTHORIZATION NO. 7
Palm Beach County Water Utilities Department
Contract for Consulting/Professional Services
Pressure Pipeline Engineering Services
Resolution No. R2021-0505 Contract Dated April 20, 2021

Project Title: East-West Water Main Interconnection Feasibility Study

PBCWUD Project No.: 24-009

5. SBE participation is included in **ATTACHMENT C** under this Authorization. The attached Schedule 1 defines the SBE applied to this Authorization and Schedule 2 establishes the SBE contribution from each Sub-Consultant (Letter of Intent).
6. This Authorization does not amend, change, or modify the Contract dated April 20, 2021 which remains in full force and effect.
7. All Attachments to this Authorization are incorporated herein and made a part of this Consultant Services Authorization.

CONSULTANT SERVICES AUTHORIZATION NO. 7
Palm Beach County Water Utilities Department
Contract for Consulting/Professional Services
Pressure Pipeline Engineering Services
Resolution No. R2021-0505 Contract Dated April 20, 2021

Project Title: East-West Water Main Interconnection Feasibility Study

PBCWUD Project No.: 24-009

IN WITNESS WHEREOF, this Authorization is accepted, subject to the terms, conditions and obligations of the aforementioned Contract.

PALM BEACH COUNTY, A POLITICAL SUBDIVISION OF THE STATE OF FLORIDA

Joseph Abruzzo, Clerk of the Circuit Court
& Comptroller, Palm Beach County

Palm Beach County, Board
of County Commissioners

ATTEST:

Signed: _____

Signed: _____

Maria Sachs, Mayor

Handwritten initials

Typed Name: _____

Deputy Clerk

(Date)

Approved as to Form and Legal
Sufficiency.

Mock, Roos & Associates, Inc.
(Consultant)

Signed: _____

Thomas A. Biggs, P.E.
(Print Name)

Typed Name: Michael W. Jones
County Attorney

Handwritten signature
(Signature)

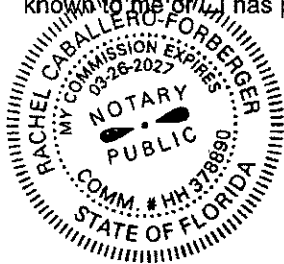
Executive Vice President
(Title)

2/12/24
(Date)

STATE OF FLORIDA

COUNTY OF PALM BEACH

The foregoing instrument was acknowledged before me by means of physical presence or online notarization,
this 12th day of February, 2024, by Thomas A. Biggs who is personally
known to me or has produced _____ as identification.



Handwritten signature of Rachel Caballero-Ferberger
(Signature of Notary Public - State of Florida)

Rachel Caballero-Ferberger
(Print, Type, or Stamp Commissioned Name of Notary Public)

LIST OF ATTACHMENTS

ATTACHMENT A	Scope of Services
ATTACHMENT B	Summary and Status of Consultant Services Authorizations
ATTACHMENT C	OEBO Schedules 1 and 2
ATTACHMENT D	Project Schedule
ATTACHMENT E	Budget Summary
ATTACHMENT F	Summary of SBE-M/WBE Business Tracking
ATTACHMENT G	Location Map

ATTACHMENT A

SCOPE OF SERVICES

PBCWUD Project No.: 24-009

Project Title: East-West Water Main Interconnection Feasibility Study

Background:

The water distribution system for Palm Beach County Water Utilities Department (PBCWUD) consists of approximately 2,500 linear miles of water main in the Eastern area and 190 linear miles in the Western area, for a total of 2,690 linear miles of water main for the entire PBCWUD system. The potable water system includes four (4) interconnected Water Treatment Plant Nos. 2, 3, 8, and 9 in the Eastern Zones 1, 2, 3, and 4 and one (1) Water Treatment Plant No. 11 in the Western Zone 6.

The Eastern Potable Water service area includes Zone 1 through Zone 5 with an approximate service area of 290 interconnected square miles. The Eastern system has four (4) water treatment plants (WTP) fed by 112 production wells that provide a maximum daily potable water capacity of 103.28 Million Gallons per Day (MGD) combined.

The Western Potable Water service area contains one zone (Zone 6) with an approximate service area of 43.5 interconnected square miles. The Western system has one (1) water treatment plant Water Treatment Plant 11 (WTP11), fed by ten (10) Floridian Aquifer wells, that has a total permitted potable water capacity of 10 MGD.

PBCWUD is currently looking into improvements to WTP11 to increase the reliability and operation of the plant. As part of those improvements, PBCWUD requested that Mock, Roos and Associates, Inc. (CONSULTANT) evaluate the feasibility of interconnecting the Eastern water distribution system to WTP11 for either system redundancy or use as a primary source for Zone 6. The Eastern connection location is anticipated to be to the 18-inches to 24-inches water main in front of the Florida Power and Light West County Energy Center, on State Road 80 west of Arden Lake Way. The water main will then be routed along the State Road 80 (Kenneth C. Mock Memorial Highway) corridor west approximately 110,000-linear feet (21-miles) to the WTP11 storage tanks.

CONSULTANT will provide engineering and related services for the above-described project as outlined in the Scope of Services below. It is anticipated that the CONSULTANT'S work product in this CSA shall be used by another CONSULTANT (CDM under WUD 15-058) doing WTP 11 planning to evaluate project feasibility and implementation as it relates to the WTP 11 improvements.

(Page 1 of 7)

Revised 12/20/2022

Scope of Services:

PBCWUD requested that the CONSULTANT evaluate the feasibility of interconnecting the Eastern water distribution system to WTP11 for either system redundancy or use as a primary source for Zone 6. The water main connecting WTP11 to the Eastern water distribution system will be routed along State Road 80 for approximately 110,000 linear feet. The Eastern connection will be in front of the Florida Power and Light West County Energy Center, on State Road 80 west of Arden Lake Way and terminate at the existing 3MG and 5MG above ground finished water storage tanks at WTP11.

PBCWUD's existing hydraulic model (Model) for the Eastern water distribution system will be utilized and is assumed to be approved by PBCWUD and considered by PBCWUD to be accurate, calibrated, and functional to perform this evaluation. CONSULTANT will rely upon the accuracy of the data and information already in the Model without field confirmation. PBCWUD will provide CONSULTANT with the maximum new connecting water main diameter to be analyzed and the minimum and maximum desired flows to be delivered from the Eastern system to WTP 11. CONSULTANT will then perform hydraulic modeling analysis under existing demand conditions and future demand conditions as defined below. The existing demand conditions presented in the existing model will be utilized and are understood to represent year 2020 (existing). The future demand conditions presented in the existing model are understood to represent year 2035. However, PBCWUD has requested the CONSULTANT to perform this evaluation under year 2050 projected demand conditions, therefore, a year 2050 scenario will have to be created as part of this scope of services.

Task 1 – Project Management

The CONSULTANT will attend a kickoff meeting with (PBCWUD) staff and provide project management including activities related to initiating, planning, executing, controlling, and closing the Project. Project management activities include project accounting and regular communication with PBCWUD staff and other Consultants project progress, including four (4) scheduled progress meetings.

Task 2 – Feasibility Route Review

The CONSULTANT already has an understanding of the existing water main system based on information already gathered. PBCWUD will provide CONSULTANT with the latest Geographic Information System (GIS) information and all relevant record information (record drawings, previous studies/reports, hydraulic models, TAZ population) that is available along the 110,000-linear feet (21-miles) proposed corridor along State Road 80 (Kenneth C. Mock Memorial Highway) from the western side of Zone 5 to WTP11.

The CONSULTANT will coordinate with PBCWUD and Florida Department of Transportation (FDOT) staff to document known issues and any other infrastructure improvement programs identified to take place in this corridor in the next five (5) years.

The CONSULTANT will coordinate with PBCWUD to determine the required flow (sequenced flow) for the proposed water main.

The CONSULTANT will prepare exhibits based on aerial and PBC GIS property lines and the CONSULTANT will place a "Sunshine One Call" design ticket and coordinate with the entities identified on the ticket and listed below to obtain readily available pertinent information regarding the other existing utility infrastructure within the project area.

- Palm Beach County Roadway
- Palm Beach County Water Utilities Department Distribution and Collections staff
- Palm Beach County Water Utilities Department O&M staff
- Florida Public Utilities (Natural Gas Distribution Facilities) (FPU)
- Florida Department of Transportation (Roadway Projects) (FDOT)
- Florida Power and Light Company (Power Distribution) (FPL)
- AT&T
- Comcast
- South Florida Water Management District (SFWMD)

The CONSULTANT will also request available information on the location and duration of other construction projects proposed by these organizations that may occur within the program construction period.

The CONSULTANT will coordinate with FPL, AT&T, Comcast, & FPU to obtain information on the existing utilities near the proposed water main(s) to obtain and review their existing utility infrastructure records. The CONSULTANT will perform field reviews to confirm the existence of major utility elements and crossings as contained in the records.

The CONSULTANT will provide the services of a Florida licensed Professional Surveyor to review and compile the Palm Beach County (GIS) information and readily available record information provided by Palm Beach County for the proposed 21-mile corridor along State Road 80 (Kenneth C. Mock Memorial Highway) from the L-8 Canal/Arden to WTP 11 in Belle Glade, for the right-of-way. Utilizing the provided GIS, Property Appraiser Public Access maps (PAPA), tax maps and FDOT drawings, the CONSULTANT will prepare exhibits showing the preliminary right-of-way. This will be used to identify any right-of-way issues. This is not intended to be a full right-of-way survey, and as such, a signed and sealed drawing is not proposed.

The CONSULTANT will collect the available information at identified critical crossings/locations and compile it into a base file that will be used to review the proposed water main route along State Road 80. This information and the proposed corridor (generally, the north/south) side of the road will be identified in the technical memorandum. Approximately ten (10) and forty (40) scale exhibits will be prepared to depict critical crossing locations (canals/railroad tracks) and identify potential ownership/permitting issues.

Task 3 – Hydraulic Modeling Evaluation Technical Memorandum

The CONSULTANT will provide the services of a SUBCONSULTANT (C Solutions, Inc) and use the existing Model to evaluate interconnecting the Eastern water distribution system to WTP 11. The first scenario evaluated will be interconnecting the Eastern water distribution system to WTP 11 without a booster station. The scenario will determine the total flow that can be delivered to the ground storage tanks at WTP 11 in a day from the Eastern system without a booster station utilizing two (2) different pipe sizes. This analysis will be performed under average, and maximum day demand conditions for the Eastern water distribution system under an extended period simulation. The second scenario will model interconnecting the Eastern water distribution system to WTP 11 while adding a pump node in the Model to boost the hydraulic head in the system. The pump node will be modeled as constant power input because specific operating characteristics of the pump are not yet known for this preliminary design study. This will be used to determine the size needed of the 21-mile water main to deliver set flows of 6 MGD and 10 MGD to the ground storage tank at WTP 11 from the Eastern system. This analysis will be performed under average, and maximum day demand conditions for the Eastern water distribution system under a steady state simulation. In addition, SUBCONSULTANT will identify the total dynamic head required for the pump to deliver 6 MGD and 10 MGD to the storage tanks at WTP 11.

CONSULTANT will create a year 2050 scenario in order to perform this evaluation under future demand conditions for both average, and maximum day demand conditions. PBCWUD will provide the CONSULTANT with the projected future population for year 2050 per TAZ (Traffic Analysis Zone) for PBCWUD's east system service area that matches the TAZ boundaries utilized in the existing hydraulic model for the current year scenario. PBCWUD will also provide the CONSULTANT with an average day demand per capita to be used to project future demands per TAZ for year 2050 average day demand conditions. CONSULTANT will allocate 2050 average day demands at each demand junction in the model as a ratio of the water demand from the base scenario (2020) already in the Model and the total demand at each TAZ. For maximum day demand conditions, PBCWUD will provide a maximum day peaking factor to be used to scale average day demands. Existing Large Users demands will be allocated separately and according to PBCWUD's recommendations. The CONSULTANT will provide an excel spreadsheet identifying existing large users demands already in the Model and requesting PBCWUD for the desired 2050 demands for existing and already known future Large Users. CONSULTANT will utilize the 2035 scenario diurnal curves, model controls, and pipe sets already in the Model and assign it to the new 2050 scenarios.

The following scenarios will be modeled under this scope of services:

1. Interconnecting the Eastern system without a booster station with two (2) different pipe sizes:
 - Average Day Demand for Existing Demand Conditions (2020 Scenarios in Model)
 - Maximum Day Demand for Existing Demand Conditions (2020 Scenarios in Model)

- Average Day Demand for Future Demand Conditions (2050 Scenarios in Model)
 - Maximum Day Demand for Future Demand Conditions (2050 Scenarios in Model)
2. Interconnecting the Eastern system with a booster station to deliver 6 MGD and 10 MGD:
 - Average Day Demand for Existing Demand Conditions (2020 Scenarios in Model)
 - Maximum Day Demand for Existing Demand Conditions (2020 Scenarios in Model)
 - Average Day Demand for Future Demand Conditions (2050 Scenarios in Model)
 - Maximum Day Demand for Future Demand Conditions (2050 Scenarios in Model)
 3. In addition, all scenarios above will be modeled with the addition of a proposed 16-inch water main extension from Seminole Pratt Whitney Road (Seminole Pratt) to the Arden Development with the connection at Southern Blvd.
 4. Water age analysis at WTP No.11.

The following will be determined for the modeled scenarios specified above:

1. Interconnecting the Eastern system without a booster station with two (2) different pipe sizes:
 - Determine total flow delivered in a day without a booster station to WTP 11 storage tanks during average day and maximum day conditions for existing (2020) and future (2050) demand conditions.
 - Identify impacts on the existing water distribution system within Zone 5. These results will identify water mains that exceed design criteria.
 - Evaluate if the proposed 16-inch water main extension from Seminole Pratt to Arden Development is beneficial.
2. Interconnecting the Eastern system with a booster station to deliver 5 MGD and 10 MGD:
 - Determine horsepower required to deliver 5 MGD and 10 MGD to WTP 11 storage tanks with a booster station during an average day and maximum day conditions for existing (2020) and future (2050) demand conditions for given two (2) water main sizes.
 - Identify impacts on the existing water distribution system within Zone 5. These results will identify water mains that exceed design criteria.
 - Identify the total dynamic head required for the pump to deliver 5 MGD and 10 MGD to the storage tanks at WTP 11 through the two (2) water main sizes
 - Evaluate if the proposed 16-inch water main extension from Seminole Pratt to Arden Development is beneficial.

The CONSULTANT will summarize the findings of the above hydraulic evaluations in a draft Technical Memorandum. An electronic copy (Adobe Acrobat file format (PDF)) of the Technical Memorandum will be provided to PBCWUD. The technical memorandum is anticipated to include:

- Summary/Introduction
- Identified Conflicts from data collection/site investigation
- Discussion on the proposed water main route, right-of-way, and permitting
- Assumptions and coordinated requirements with PBCWUD
- Hydraulic analysis for the six (6) water main scenarios
- Planning level Engineers Opinion of Probable Construction Cost for each scenario
- Planning level of project schedule in the Technical Memorandum
- Results and recommendations

CONSULTANT will attend a draft Technical Memorandum review meeting with PBCWUD staff and discuss the draft evaluation results and recommendations. CONSULTANT will update the draft evaluation based on feedback from PBCWUD and prepare a final Technical Memorandum. The final Technical Memorandum will be delivered as a PDF with five (5) hard copies.

Assumptions

- PBCWUD shall provide CONSULTANT with the existing water main hydraulic model and current GIS files within seven (7) days of the NTP.
- CONSULTANT will rely upon the accuracy of the data and information supplied by PBCWUD without field confirmation.
- CONSULTANT assumes the existing model has been checked for quality assurance and quality control (QA/QC) and accepted as a final product by PBCWUD. No updates to the existing scenarios already in the Model will be made as part of this Scope of Services.
- CONSULTANT assumes that only 2050 average day and maximum day demand scenarios will be created under this scope of services and that no additional scenarios will be included besides the ones specifically stated in this scope of services.
- CONSULTANT assumes that no other evaluation will be performed under the 2050 scenarios besides the one specifically stated in this scope of services.
- PBCWUD will provide all necessary data to create 2050 scenario. Data to be provided by PBCWUD includes TAZ population data for 2050, average day demand per capita, maximum day peaking factor, and projected large user demands for 2050.
- No field confirmation effort nor calibration is part of this scope of services.
- CONSULTANT assumes that all diurnal curves, model controls and pipe sets in the Model have been reviewed and approved by PBCWUD.
- PBCWUD project manager/representative shall attend all meetings to maintain the progress of the hydraulic modeling effort according to schedule.

- PBCWUD shall provide feedback on Large Users demand allocation location and usage as specified in this scope of services. One (1) review meeting will be held with PBCWUD to review demand allocation for the 2050 scenario, discuss demand allocation discrepancies, and obtain feedback from PBCWUD.
- Hydraulic modeling will be performed in InfoWater using GIS background information in ArcMap. All existing modeling and GIS information shall be provided in these formats.
- Improvements to water mains upstream of the connection locations will not be modeled and if required will be completed under additional services. The model will be for flow from Zone 5 to Zone 6, bi-directional flow will not be modeled.
- The connection points at both the Eastern and the Western systems are as specified above.
- This scope of services does not include the evaluation of the booster station other than determining the flow delivered to the ground storage tanks at WTP 11 when a pump node is added to the Model to raise the hydraulic head in the system. The pump node will be modeled as constant power input, and no individual pumps will be modeled.

Deliverables

- A PDF exhibit showing up to proposed water main corridor.
- A draft PDF of the Technical Memorandum will be provided for PBCWUD's review and comment.
- A final PDF of the Technical Memorandum will be provided for PBCWUD's review.
- Up to five (5) hard copies of the Final Technical Memorandum will be provided to PBCWUD.
- Updated model in its original format.

ATTACHMENT B

SUMMARY AND STATUS OF CONSULTANT SERVICES AUTHORIZATIONS

Auth. No.	WUD Project No.	Title	Status	Project Total Amount	SBE Total Amount	SBE Participation %	Approved	
							By	Date
1	21-026	Florida Power and Light Water Main Redundancy Installation	Approved	\$428,274.84	\$146,844.34	34.28%	BCC	4/20/2021
2	22-035	Construction Phase Services for Miscellaneous Distribution and Collection Systems Projects	Approved	\$46,910.00	\$0.00	0.00%	WUD	5/9/2023
3	20-076	Lake Worth Road Force Main Improvements	Approved	\$175,242.00	\$48,000.00	27.39%	BCC	2/7/2023
4	20-056	Century Village South Water Main Improvements	Approved	\$336,136.00	\$118,560.00	35.27%	BCC	7/11/2023
5	23-039	Technical assistance for Capital Improvement Projects	Approved	\$38,600.00	\$0.00	0.00%	WUD	8/10/2023
6	23-057	Regional Transfer Pump Station Location Evaluation	Pending	\$199,507.00	\$62,292.00	31.22%	BCC	Pending
7	24-009	East-West Water Main Interconnection Feasibility Study	Pending	\$124,552.00	\$43,020.00	34.53%	WUD	Pending

OEBO SCHEDULE 1

SOLICITATION/PROJECT/BID NAME: East-West Watermain Interconnection Feasibility Study

SOLICITATION/PROJECT/BID NO.: 24-009

SOLICITATION OPENING/SUBMITTAL DATE: N/A

COUNTY DEPARTMENT: Palm Beach County Water Utilities Department

Section A PLEASE LIST THE DOLLAR AMOUNT OR PERCENTAGE OF WORK TO BE COMPLETED BY THE PRIME CONTRACTOR/CONSULTANT* ON THE PROJECT:

NAME OF PRIME RESPONDENT/BIDDER: Mock, Roos & Associates, Inc. ADDRESS: 5720 Corporate Way, West Palm Beach, FL 33407

CONTACT PERSON: Garry G. Gruber PHONE NO.: (561)683-3113, ext 293 E-MAIL: garry.gruber@mockroos.com

PRIME'S DOLLAR AMOUNT OR PERCENTAGE OF WORK: \$86,136.00
 *SMWBE Prime's must include their percentage or dollar amount in the Total Participation line under section B.

Non-SBE MBE WBE SBE

Section B PLEASE LIST THE DOLLAR AMOUNT OR PERCENTAGE OF WORK TO BE COMPLETED BY ALL SUBCONTRACTORS/SUBCONSULTANTS ON THE PROJECT BELOW:

Subcontractor/Sub consultant Name	(Check all Applicable Categories)				DOLLAR AMOUNT OR PERCENTAGE OF WORK					
	Non-SBE	MBE	WBE	SBE	Black	Hispanic	Women	Caucasian	Asian	Other
		Minority Business	Women Business	Small Business						
1. C Solutions, Inc. 601 N. Congress Avenue, Suite 104 B, Delray Beach, FL 33445	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$46,083.00					
2. Brown & Phillips 1860 Old Okeechobee Road, Suite 508, West Palm Beach, FL 33409	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	\$14,988.00					
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
5.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						

(Please use additional sheets if necessary)

Total \$61,071.00

Total Bid/Offer Price \$ 147,207.00

Total Certified S/M/WBE Participation \$ \$61,071.00

I hereby certify that the above information is accurate to the best of my knowledge:


 Name & Authorized Signature

Garry G. Gruber, P.E. Senior Vice President
 Title

- Note:
- The amount listed on this form for a Subcontractor/sub consultant must be supported by price or percentage listed on the properly executed Schedule 2 or attached signed proposal.
 - Only those firms certified by Palm Beach County at the time of solicitation due date are eligible to meet the established OEBO Affirmative Procurement Initiative (API). Please check the applicable box and list the dollar amount or percentage under the appropriate demographic category.
 - Modification of this form is not permitted and will be rejected upon submittal.

OEBO LETTER OF INTENT – SCHEDULE 2

A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such. The Schedule 2 shall contain bolded language indicating that by signing the Schedule 2, both parties recognize this Schedule as a binding document. All Subcontractors/subconsultants, including any tiered Subcontractors/subconsultants, must properly execute this document. Each properly executed Schedule 2 must be submitted with the bid/proposal.

SOLICITATION/PROJECT NUMBER: 24-009

SOLICITATION/PROJECT NAME: East-West Water Main Interconnection Feasibility Study

Prime Contractor: Mock, Roos & Associates, Inc. Subcontractor: C Solutions, Inc.

(Check box(s) that apply)

SBE WBE MBE M/WBE Non-S/M/WBE Date of Palm Beach County Certification (if applicable): _____

The undersigned affirms they are the following (select one from each column if applicable):

Column 1	Column 2	Column 3
<input type="checkbox"/> Male <input type="checkbox"/> Female	<input checked="" type="checkbox"/> African-American/Black <input type="checkbox"/> Asian American <input type="checkbox"/> Caucasian American	<input type="checkbox"/> Supplier
	<input type="checkbox"/> Hispanic American <input type="checkbox"/> Native American	

S/M/WBE PARTICIPATION – S/M/WBE Primes must document all work to be performed by their own work force on this form. Failure to submit a properly executed Schedule 2 for any S/M/WBE participation may result in that participation not being counted. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. S/M/WBE credit will only be given for the areas in which the S/M/WBE is certified. A detailed proposal may be attached to a properly executed Schedule 2.

Line Item	Item Description	Unit Price	Quantity/Units	Contingencies/Allowances	Total Price/Percentage
1	Mechanical Engineering	1	LS		\$28,032.00

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$28,032.00

If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.

Name of 2nd/3rd tier Subcontractor/subconsultant _____ Price or Percentage: _____

Mock, Roos & Associates, Inc.

Print Name of Prime

By:  _____
Authorized Signature

Thomas A. Biggs, P.E.

Print Name

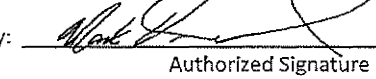
Executive Vice President

Title

Date: 1/15/24

C Solutions, Inc.

Print Name of Subcontractor/subconsultant

By:  _____
Authorized Signature

Mark Drummond, P.E.

Print Name

President

Title

Date: 01/12/2024

OEBO LETTER OF INTENT – SCHEDULE 2

A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such. The Schedule 2 shall contain bolded language indicating that by signing the Schedule 2, both parties recognize this Schedule as a binding document. All Subcontractors/subconsultants, including any tiered Subcontractors/subconsultants, must properly execute this document. Each properly executed Schedule 2 must be submitted with the bid/proposal.

SOLICITATION/PROJECT NUMBER: 24-009

SOLICITATION/PROJECT NAME: East-West Water Main Interconnection Feasibility Study

Prime Contractor: Mock, Roos & Associates, Inc. Subcontractor: Brown & Phillips, Inc.

(Check box(s) that apply)

SBE WBE MBE M/WBE Non-S/M/WBE Date of Palm Beach County Certification (if applicable): 1/31/22-1/30/25

The undersigned affirms they are the following (select one from each column if applicable):

Column 1	Column 2	Column 3
<input checked="" type="checkbox"/> Male <input type="checkbox"/> Female	<input checked="" type="checkbox"/> African-American/Black <input type="checkbox"/> Asian American <input type="checkbox"/> Caucasian American <input type="checkbox"/> Hispanic American <input type="checkbox"/> Native American	<input type="checkbox"/> Supplier

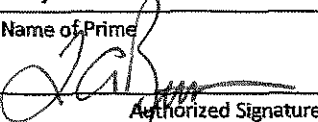
S/M/WBE PARTICIPATION – S/M/WBE Primes must document all work to be performed by their own work force on this form. Failure to submit a properly executed Schedule 2 for any S/M/WBE participation may result in that participation not being counted. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. S/M/WBE credit will only be given for the areas in which the S/M/WBE is certified. A detailed proposal may be attached to a properly executed Schedule 2.

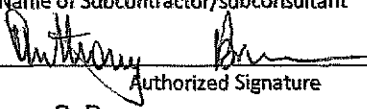
Line Item	Item Description	Unit Price	Quantity/ Units	Contingencies/ Allowances	Total Price/Percentage
1	Survey Services	1	LS		\$14,988.00

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$14,988.00

If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.

Name of 2nd/3rd tier Subcontractor/subconsultant _____ Price or Percentage: _____

Mock, Roos & Associates, Inc.
 Print Name of Prime
 By: 
 Authorized Signature
Thomas A. Biggs, P.E.
 Print Name
Executive Vice President
 Title
 Date: 1/15/24

Brown & Phillips, Inc.
 Print Name of Subcontractor/subconsultant
 By: 
 Authorized Signature
Anthony S. Brown
 Print Name
CEO
 Title
 Date: 01/12/2024

ATTACHMENT D

PROJECT SCHEDULE

The completion dates for this work will be as follows (starting from CONSULTANT'S receipt of Notice to Proceed).

<u>Engineering Services</u>		<u>Completion Date from Notice to Proceed</u> (Calendar Days)*
Task 1	Project Management	210
Task 2	Feasibility Route Study	180
Task 3	Hydraulic Modeling Evaluation and Technical Memorandum	210

*Calendar days include assume that PBCWUD review time for submittals will be 14 days.

Revised 12/20/2022

**ATTACHMENT E
BUDGET SUMMARY**

Palm Beach County Water Utilities Department
 Contract for Consulting/Professional Services: Pressure Pipeline Engineering Services
 Resolution No.: R2021-0505 Contract Dated: April 20, 2021
 Consultant Services Authorization: No. 7
 Consultant: Mock, Roos & Associates, Inc.
 Project Title: East-West Water Main Interconnection Feasibility Study
 PBCWUD Project No.: 24-009

BUDGET SUMMARY FOR FIRM										MOCK, ROOS & ASSOCIATES, INC.			
Task Number	Task Description	Principal	Senior Project Manager	Senior Project Engineer	Project Engineer II	Project Engineer I	Sr. CADD/Sr. Designer	Sr. Field Representative	Sr. Project Administrator	PRIME TOTALS			
										Total Hours	Total Labor	Reimbursables and Reproducibles	Total Labor/Reimbursables and Reproducibles
	Raw Rate RANGE frm MASTER EXHIBIT C	\$75 - \$85	\$59 - \$80	\$45 - \$65	\$31 - \$45	\$28 - \$31	\$50 - \$60	\$47 - \$55	\$30 - \$35				
	Raw Rate >	\$76.67	\$63.33	\$53.67	\$34.67	\$29.33	\$53.33	\$47.33	\$31.00				
	Multiplier >	3	3	3	3	3	3	3	3				
	Bill Rate >	\$230	\$190.00	\$161.00	\$104.00	\$88.00	\$160.00	\$142.00	\$93.00				
TASK 1	PROJECT MANAGEMENT												
	Project Management	16	34	16					12				
	Task 1 - Subtotal Hours	16	34	16	0	0	0	0	12	78	\$ 13,832.00	\$ 0.00	\$ 13,832.00
TASK 2	FEASIBILITY ROUTE STUDY												
	FEASIBILITY ROUTE STUDY	16	60	80	120				20				
	Task 2 - Subtotal Hours	16	60	80	120	0	0	0	20	296	\$ 42,300.00	\$ 0.00	\$ 42,300.00
TASK 3	HYDRAULIC MODELING EVALUATION AND TECHNICAL MEMORANDUM												
	HYDRAULIC MODELING EVALUATION AND TECHNICAL MEMORANDUM	10	10	80	80								
	Task 3 - Subtotal Hours	10	10	80	80	0	0	0	0	180	\$ 25,400.00	\$ 0.00	\$ 25,400.00
	Labor Hours	42	104	176	200	0	0	0	32	554			
	Labor Raw Costs	\$ 3,220.00	\$ 6,586.67	\$ 9,445.33	\$ 6,933.33	\$ -	\$ -	\$ -	\$ 992.00		\$ 27,177.33		
	Labor Subtotal (Bill Rate * Labor Subtotal Hours)	\$ 9,660.00	\$ 19,760.00	\$ 28,336.00	\$ 20,800.00	\$ -	\$ -	\$ -	\$ 2,976.00		\$ 81,532.00		
	PROJECT TOTAL									554	\$ 81,532.00	\$ -	\$ 81,532.00

**ATTACHMENT E
BUDGET SUMMARY**

Palm Beach County Water Utilities Department
 Contract for Consulting/Professional Services: Pressure Pipeline Engineering Services
 Resolution No.: R2021-0505 Contract Dated: April 20, 2021
 Consultant Services Authorization: No. 7
 Consultant: Mock, Roos & Associates, Inc.
 Project Title: East-West Watermain Interconnection Feasibility Study
 PBCWUD Project No.: 24-009

BUDGET SUMMARY

Task Number	Task Description	PRIME	SUBCONSULTANTS		TOTAL
			C Solutions, Inc.	Brown and Phillips	
OEBO APPROVED AWARDED CATEGORY					
		Non-SBE	SBE + M/WBE (Black)	SBE + M/WBE (Black)	
TASK 1	PROJECT MANAGEMENT				
	<i>Project Management</i>	\$ 13,832.00	\$ 5,088.00	\$ -	\$ 18,920.00
	Task 1 - Subtotal	\$ 13,832.00	\$ 5,088.00	\$ -	\$ 18,920.00
TASK 2	TRANSFER PUMP STATION LOCATION SELECTION				
	<i>Transfer Pump Station Location Selection</i>	\$ 42,300.00	\$ -	\$ 14,988.00	\$ 57,288.00
	Task 2 - Subtotal	\$ 42,300.00	\$ -	\$ 14,988.00	\$ 57,288.00
TASK 3	HYDRAULIC MODELING EVALUATION AND TECHNICAL MEMORANDUM				
	<i>Hydraulic Modeling Evaluation</i>	\$ 25,400.00	\$ 22,944.00	\$ -	\$ 48,344.00
	Task 3 - Subtotal	\$ 25,400.00	\$ 22,944.00	\$ -	\$ 48,344.00
	TOTAL PROJECT	\$ 81,532.00	\$ 28,032.00	\$ 14,988.00	\$ 124,552.00
	Percentage	65.46%	22.50%	12.03%	100.00%
	PRIME	\$ 81,532.00	65.46%		
	SBE	\$ 43,020.00	34.53%	C Solutions, Inc., Brown and Phillips	
	MBE (Black)	\$ 43,020.00	34.53%	C Solutions, Inc., Brown and Phillips	

**EXHIBIT A-1
BUDGET SUMMARY**

Palm Beach County Water Utilities Department
 Contract for Consulting/Professional Services Pressure Pipeline Engineering Services
 Resolution No. R2021-0505 Contract Dated April 20, 2021
 Consultant Services Authorization: No. 7
 Consultant: C Solutions, Inc. (Subconsultant to Mock Roos & Associates, Inc.)
 Project Title: East- West Water Main Interconnection Feasibility Study
 WUD Project No.: 24-089

BUDGET SUMMARY FOR FIRM									LABOR TOTALS			
Task Number	Task Description	Project Director	Senior Technical Expert	Senior Project Manager	Engineer	Senior Designer	Designer	Administrative Assistant	Total Hours	Total Labor	Total Expenses	Total Labor and Expenses
	Raw Rate RANGE	\$65 - \$95	\$70 - \$125	\$75 - \$85	\$20 - \$32	\$55 - \$65	\$20 - \$35	\$25 - \$35				
	Raw Rate >	\$ 98.00	\$ 79.00	\$ 53.00	\$ 32.00	\$ 45.00	\$ 25.00	\$ 31.00				
	Multiplier >	3.0	3.0	3.0	3.0	3.0	3.0	3.0				
	Bill Rate >	\$ 288.00	\$ 237.00	\$ 159.00	\$ 98.00	\$ 135.00	\$ 75.00	\$ 93.00				
TASK 1	Project Management	6	4	14				2	26	\$ 5,088.00	\$ -	\$ 5,088.00
Task 3	Hydraulic Modeling Evaluation and Technical Memo.	14	21	60	31	4	8	3	141	\$ 22,944.00	\$ -	\$ 22,944.00
	Task 1 - Subtotal	20	25	74	31	4	8	5	167	\$ 28,032.00	\$ -	\$ 28,032.00
	Labor Subtotal Hours	20	25	74	31	4	8	5	167			
	Labor Raw Costs	\$ 1,920.00	\$ 1,975.00	\$ 3,922.00	\$ 992.00	\$ 180.00	\$ 200.00	\$ 155.00		\$ 9,344.00		
	Labor Subtotal (Bill Rate * Labor Subtotal Hours)	\$ 5,760.00	\$ 5,925.00	\$ 11,766.00	\$ 2,976.00	\$ 540.00	\$ 600.00	\$ 465.00		\$ 28,032.00		
	PROJECT TOTAL								167	\$ 28,032.00	\$ -	\$ 28,032.00



**EXHIBIT A-1
BUDGET SUMMARY**

Palm Beach County Water Utilities Department
 Contract for Consulting/Professional Services: Pressure Pipeline Engineering Services
 Resolution No.: R2021-0505 Contract Dated: April 20, 2021
 Consultant Services Authorization: No. 7
 Consultant: Brown & Phillips, Inc.
 Project Title: East-West Water Main Interconnection Feasibility Study
 PBCWUD Project No.: 24-009

BUDGET SUMMARY FOR FIRM

BROWN & PHILLIPS, INC.

Task Description	BROWN & PHILLIPS, INC.			PRIME TOTALS	
	CADD TECHNICIAN	SURVEY TECHNICIAN	PROFESSIONAL LAND SURVEYOR	Total Hours	Comments
Raw Rate >	\$31.00	\$31.00	\$42.00		
Multiplier >	3	3	3		
Bill Rate >	\$230	\$190.00	\$161.00		
Meetings and Coordination			4		Review/complie furnished right-of-way information
R/W Review/Research		88	12		Prepare CAD file of ROW Layout Map (preliminary)
Right-of-Way CAD file	10	20	2		
Address Comments		12	5		
Total Hours	10	120	23	153	
Labor Subtotal Raw Costs	\$ 310.00	\$ 3,720.00	\$ 966.00		\$ 4,996.00
Labor Subtotal (Bill Rate * Labor Subtotal)	\$ 930.00	\$ 11,160.00	\$ 2,898.00		\$ 14,988.00
PROJECT TOTAL					\$ 14,988.00

ATTACHMENT F

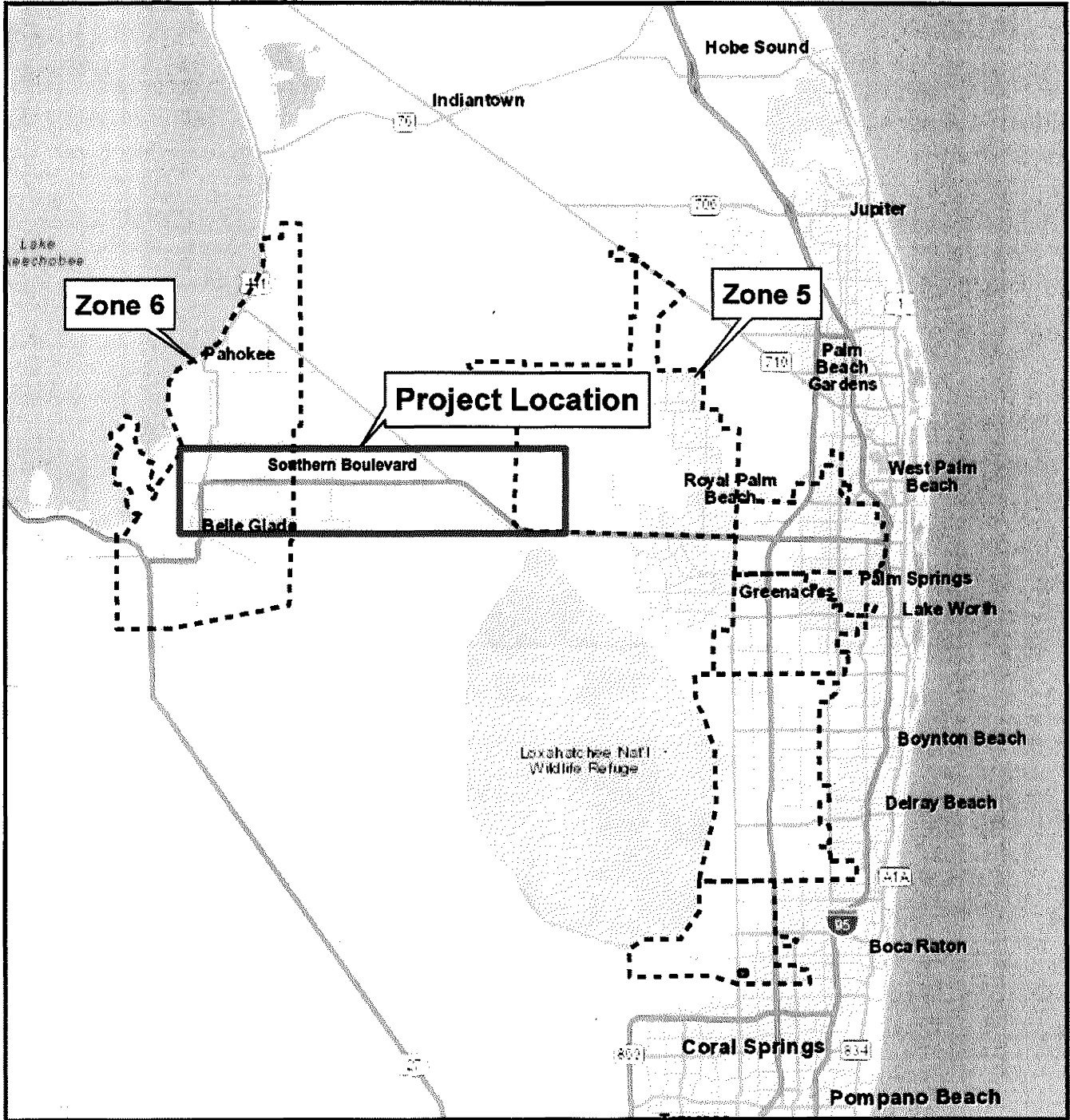
Palm Beach County Water Utilities Department
Contract for Consulting/Professional Services
Pressure Pipeline Engineering Services
Resolution No. R2021-0505 Contract Dated April 20, 2021

SUMMARY OF SBE-M/WBE BUSINESS TRACKING

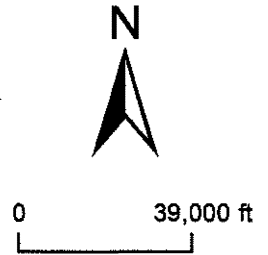
Master Contract Goals	SBE: 34.00%	M/WBE: 34.00%	MBE (B): 34.00%
Current Proposal			
Value of Authorization No. <u>Z</u>	\$124,552.00		
Value of SBE-M/WBE Letters of Intent	\$43,020.00	\$43,020.00	\$43,020.00
Actual Percentage	34.53%	34.53%	34.53%
Signed/Approved Authorizations			
Total Value of Authorizations	\$1,025,162.84		
Total Value of SBE-M/WBE Signed Subcontractors	\$313,404.34	\$313,404.34	\$313,404.34
Actual Percentage	30.57%	30.57%	30.57%
Signed/Approved Authorizations Plus Current Proposal			
Total Value of Authorization	\$1,149,714.84		
Total Value of Subcontractors & Letters of Intent	\$356,424.34	\$356,424.34	\$356,424.34
Actual Percentage	31.00%	31.00%	31.00%

Revised 12/20/2022

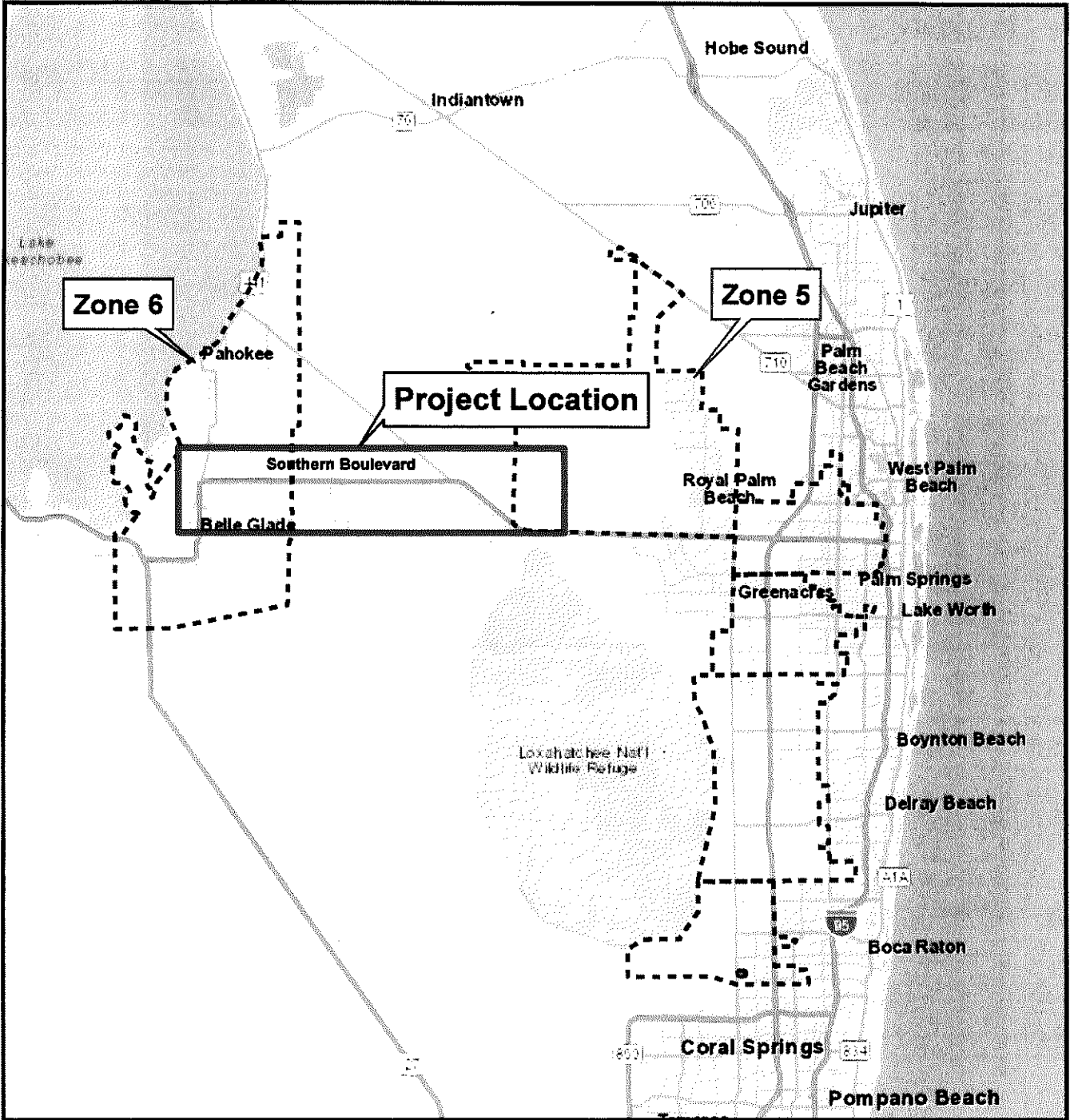
F:_PROPOSALS\pbcu\C3031.00_CSA # 7_East-West WM Intercon Feasibility Study\Project Location Map.mxd



Attachment G
Project Location Map
CSA No. 7
East-West Water Main Interconnection
Feasibility Study
Palm Beach County Water Utilities Department
PBCWUD Project No. WUD 24-009



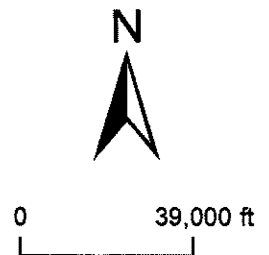
ATTACHMENT 2



F:_PROPOSALS\pbc\c3031.00_CSA # 7_East-West WM Intercon Feasibility Study\Project Location Map.mxd



Project Location Map
CSA No. 7
East-West Water Main Interconnection
Feasibility Study
Palm Beach County Water Utilities Department
PBCWUD Project No. WUD 24-009



ATTACHMENT 3



Palm Beach County Compliance Summary Report

Vendor Number	Vendor Name	AM Best Rating	Insurance Carrier	Policy #	Eff. Date	Exp. Date	Coverage	Contract Number	Contract Name
DX00001988	Mock, Roos & Associates, Inc.	Modified	Compliant					20-044	Pressure Pipeline Engineering Services
		Ag , XV	The Continental Insurance Company	7063909307	1/1/2024	1/1/2025	Auto Liability		
		Ag , XV	The Continental Insurance Company	CUE5084970362	1/1/2024	1/1/2025	Excess Liability		
		Ag , XV	American Casualty Company of Reading, Pennsylvania	5084971043	1/1/2024	1/1/2025	General Liability		
		A+g , XV	XL Specialty Insurance Company	DPR5011927	4/26/2023	4/26/2024	Professional Liability		
		Ag , XV	Valley Forge Insurance Company	WC5084970328	1/1/2024	1/1/2025	Workers Comp		

Risk Profile : Standard - Professional Services
Required Additional Insured : Palm Beach County Board of County Commissioners
Ownership Entity :