

**CITY OF MIRAMAR
PROPOSED CITY COMMISSION AGENDA ITEM**

Meeting Date: September 17, 2025

Presenter's Name and Title: Jinsheng Huo, Ph.D., P.E., BCEE, Assistant Director of Utilities, on behalf of the Utilities Department, and Alicia Ayum, Director of Procurement on behalf of the Procurement Department

Prepared By: Jinsheng Huo, Ph.D., P.E., BCEE, Assistant Director of Utilities

Temp. Reso. Number: 8489

Item Description: TEMP. RESO. #R8489 APPROVING AMENDMENT NO.1 TO THE ORIGINAL PACKAGE 5 AGREEMENT WITH AECOM TECHNICAL SERVICES, INC., TO PROVIDE ENGINEERING SERVICES DURING THE CONSTRUCTION OF TWO (2) NEW FLORIDAN WELLS AND NEW LIFT STATION FORCE MAIN SYSTEM IN A NOT-TO-EXCEED AMOUNT OF \$1,033,883, AMENDING THE TOTAL AMOUNT OF PACKAGE 5 TO \$1,985,807 FOR THE WEST WATER TREATMENT PLANT CAPACITY EXPANSION AND UPGRADES PROJECT; AUTHORIZING THE CITY MANAGER TO EXECUTE AN APPROPRIATE AGREEMENT. (Assistant Director of Utilities Jinsheng (Jin) Huo and Procurement Director Alicia Ayum)

Consent ☐ Resolution ☒ Ordinance ☐ Quasi-Judicial ☐ Public Hearing ☐

Instructions for the Office of the City Clerk: N/A

Public Notice – As required by the Sec. ____ of the City Code and/or Sec. ____, Florida Statutes, public notice for this item was provided as follows: on _____ in a _____ ad in the _____; by the posting the property on _____ and/or by sending mailed notice to property owners within ____ feet of the property on _____
(fill in all that apply)

Special Voting Requirement – As required by Sec. _____, of the City Code and/or Sec. _____, Florida Statutes, approval of this item requires a _____ (unanimous, 4/5ths etc.) vote by the City Commission.

Fiscal Impact: Yes ☒ No ☐

REMARKS: Funding in the amount of \$1,033,883 is available in the Utilities Department Account No. 410-55-814-533-000-606510-52092 (CIP-Construction)".


Content:

- **Agenda Item Memo from the City Manager to City Commission**
- **Resolution TR8489**
 - **Exhibit A: Proposed Amendment No.1 with AECOM Technical Services, Inc.**
- **Attachment(s)**
 - **Attachment 1: Resolution No. 21-99**
 - **Attachment 2: Resolution No. 24-127**



**CITY OF MIRAMAR
INTEROFFICE MEMORANDUM**

TO: Mayor, Vice Mayor, & City Commissioners

FROM: Dr. Roy L. Virgin, City Manager 

BY: Francois Domond, P.E., Director of Utilities

DATE: September 11, 2025

RE: Temp. Reso. No. 8489 Amendment No.1 for Engineering Services during the Construction of two (2) new Floridan wells and new lift station force main system

RECOMMENDATION: The City Manager recommends the approval of Temp. Reso. No. 8489, approving Amendment No.1 to the original Package 5 Agreement with AECOM Technical Services, Inc. to provide Engineering Services during the Construction of two (2) new Floridan wells and new lift station force main system in a not-to-exceed amount of \$1,033,883, amending the total amount of Package 5 to \$1,985,807 for the West Water Treatment Plant Capacity Expansion and Upgrades Project.

ISSUE: City Commission approval is required for expenditures exceeding \$75,000 in accordance with City Code Section 2-412(a)(1).

BACKGROUND: The City of Miramar ("City") Utilities Department is responsible for the operation and maintenance of the West Water Treatment Plant ("West WTP"). The City is experiencing an increase in demand for potable water due to population, business growth, and land use change making the expansion of its treatment capacity necessary.

DISCUSSION: On May 19, 2021, the City Commission adopted Resolution No. 21-99 and approved the award of Request For Qualifications No. 21-10-05 ("RFQ") entitled "West Water Treatment Plant Capacity Expansion and Updates" to AECOM Technology Services, Inc. ("Consultant"). Four agreements were also awarded to the Consultant to conduct the professional services as specified in the Packages 1, 2, 3, and 4 out of a total of 5 packages as listed below.

- **Package 1:** Deep Injection Well Rehabilitation (Resolution No. 21-99)
- **Package 2:** Preliminary Design Report (PDR) (Resolution No. 21-99)
- **Package 3:** Final Design and Permitting (Resolution No. 22-142)
- **Package 4:** Construction, Start-up and Owner Direct Purchase (ODP) of Select WTP Components (Resolution No. 24-14)
- **Package 5:** Future Plant Upgrade Design and Construction (Resolution No. 24-127 and This Item for Amendment No.1)

As of September 2023, the professional services in Packages 1, 2, and 3 have been completed. The professional services in Package 4 are ongoing and include engineering oversight and technical direction during the construction of the new 2.5 million gallon per day ("MGD") reverse osmosis ("RO") skid at the West WTP.

The Package 5 will include the following three items:

- a. Engineering services to design/permit/bid the two new Floridan wells (included in the original Package 5 agreement)
- b. Engineering services to design/permit/bid the new disposal system (included in the original Package 5 agreement)
- c. Engineering services during the construction after the completion of Items a and b (This Item).

This amendment (Amendment No.1) will include Item c as listed above. This amendment will allow AECOM TECHNICAL SERVICES, INC. to provide engineering services during the construction phase of two (2) new Floridan wells and new lift station force main system at the West WTP, in a total amount of \$1,033,883. This project will improve the treatment capacity, provide reliability and redundancy in the drinking water system, and will assist in meeting future growth demands.

After several rounds of negotiations regarding the scope and fees, both the City and the Consultant agreed on this Amendment No.1 in a total amount of \$1,033,883, which will amend the total amount of Package 5 to \$1,985,807. For details, please refer to Exhibit "A," the final proposed Amendment No.1.

Table 1 below shows a summary of the expenditures from the RFQ No. 21-10-05.

Table 1. Summary of the expenditures from the RFQ No. 21-10-05.

Package No. and Description	Resolution No.	Amount (\$)
Package 1: Deep Injection Well Rehabilitation	21-99	\$315,595
Package 2: Preliminary Design Report (PDR)	21-99	
Package 3: Final Design and Permitting	22-142	389,740
Package 4: Construction, Start-up and Owner Direct Purchase (ODP) of Select WTP Components	24-14	570,760
<i>Package 5ab: Future Plant Upgrade Design and Construction (For design phase only.)</i>	24-127	951,924
<i>Package 5c: Future Plant Upgrade Design and Construction (For engineering services during the construction only)</i>	<i>This Item - Amendment No.1</i>	<i>1,033,883</i>
Package 5 Subtotal		1,985,807
TOTAL		\$3,261,902

ANALYSIS: This project is critical to expand the water treatment plant capacity and ensure the City can meet the increasing water demands.

**CITY OF MIRAMAR
MIRAMAR, FLORIDA**

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF MIRAMAR, FLORIDA, APPROVING AMENDMENT NO.1 TO THE ORIGINAL PACKAGE 5 AGREEMENT WITH AECOM TECHNICAL SERVICES, INC., TO PROVIDE ENGINEERING SERVICES DURING THE CONSTRUCTION OF TWO NEW FLORIDAN WELLS AND NEW LIFT STATION FORCE MAIN SYSTEM IN A NOT-TO-EXCEED AMOUNT OF \$1,033,883, AMENDING THE TOTAL AMOUNT OF PACKAGE 5 TO \$1,985,807 FOR THE WEST WATER TREATMENT PLANT CAPACITY EXPANSION AND UPGRADES PROJECT; AUTHORIZING THE CITY MANAGER TO EXECUTE AN APPROPRIATE AGREEMENT; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City of Miramar (“City”) Utilities Department is responsible for the operation and maintenance of the West Water Treatment Plant (“West WTP”); and

WHEREAS, the City is experiencing increase in demand for potable water due to population, business growth, and land use change making the expansion of its drinking water treatment capacity necessary; and

WHEREAS, the construction of two (2) new Floridan wells and new lift station force main system are essential components of the West WTP capacity expansion program, because this project will improve the treatment capacity, will provide reliability and redundancy in the drinking water system, and will help meet future growth demands; and

WHEREAS, on May 19, 2021, the City Commission adopted Resolution No. 21-99 and approved the award of Request For Qualifications No. 21-10-05 (“RFQ”) entitled “West Water Treatment Plant Capacity Expansion and Updates” to AECOM Technology Reso. No. _____

Services, Inc. ("Consultant"), and four (4) agreements were awarded to the Consultant to conduct the professional services as specified in the Packages 1, 2, 3, 4, and 5 out of a total of 5 packages as specified in RFQ No.21-10-05; and

WHEREAS, this amendment (Amendment No.1) will allow AECOM TECHNICAL SERVICES, INC. to provide the engineering services during the construction of two (2) new Floridan wells and new lift station force main system at the West WTP, in a total amount of \$1,033,883., amending the total amount of Package 5 agreement to \$1,985,807 as specified in Exhibit "A;" and

WHEREAS, Section 2-412(a)(1) of the City Code provides that all commodities or services provided by a single vendor in excess of \$75,000 must be formally approved by the City Commission; and

WHEREAS, the City Manager recommends that the City Commission approves the Amendment No.1 to the original Package 5 agreement with AECOM Technical Services, Inc. to provide Engineering Services during the Construction of two (2) new Floridan wells and new lift station force main system in a not-to-exceed amount of \$1,033,883, amending the total amount of Package 5 to \$1,985,807 for the West Water Treatment Plant Capacity Expansion and Upgrades Project; and

WHEREAS, the City Commission deems it to be in the best interest of the citizens and residents, of the City of Miramar, to approve Amendment No.1 to the original Package 5 agreement with AECOM Technical Services, Inc. to provide Engineering Services During the Construction of two (2) new Floridan wells and new lift station force main system in a not-to-exceed amount of \$1,033,883, amending the total amount of Package

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7/31/25

9/10/25

5 to \$1,985,807 for the West Water Treatment Plant Capacity Expansion and Upgrades Project.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF MIRAMAR, FLORIDA AS FOLLOWS:

Section 1: That the foregoing “**WHEREAS**” clauses are ratified and confirmed as being true and correct and are made a specific part of this Resolution.

Section 2: That the City Commission approves the Amendment No.1 to the original Package 5 agreement with AECOM Technical Services, Inc. to provide Engineering Services During the Construction of two (2) new Floridan wells and new lift station force main system in a not-to-exceed amount of \$1,033,883, amending Package 5 to a total amount of \$1,985,807 for the West WTP Capacity Expansion and Upgrades Project.

Section 3: That the City Manager is authorized to execute appropriate agreements if needed.

Section 4: That the appropriate City officials are authorized to do all things necessary and expedient in order to carry out the aims of this Resolution.

Section 5: That this Resolution shall become effective upon adoption.

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7/31/25

9/10/25

PASSED AND ADOPTED this _____ day of _____, _____.

Mayor, Wayne M. Messam

Vice Mayor, Yvette Colbourne

ATTEST:

City Clerk, Denise A. Gibbs

I HEREBY CERTIFY that I have approved
this RESOLUTION as to form:

City Attorney,
Austin Pamies Norris Weeks Powell, PLLC

Requested by Administration

Commissioner Maxwell B. Chambers

Commissioner Avril Cherasard

Vice Mayor Yvette Colbourne

Commissioner Carson Edwards

Mayor Wayne M. Messam

Voted



**AMENDMENT NO. 1
TO THE
PACKAGE 5 AGREEMENT BETWEEN THE CITY OF MIRAMAR, FLORIDA
AND
AECOM TECHNICAL SERVICES , INC.
FOR
FOR WEST WATER TREATMENT PLANT CAPACITY EXPANSION & UPGRADE
SERVICES**

THIS AMENDMENT NO. 1 (the "Amendment") is made effective on the last date of execution herein by and between the **CITY OF MIRAMAR, FLORIDA**, (the "City"), a Florida municipal corporation, whose place of business is 2300 Civic Center Place, Miramar, Florida 33025,

AND

AECOM TECHNICAL SERVICES, INC, (the "Consultant"), a Foreign Profit Corporation authorized to conduct business in the State of Florida, with a principal address of 300 South Grand Avenue, Los Angeles, California 90071

WHEREAS, the City issued Request for Qualifications No. 21-10-05 (the "RFQ") for West Water Treatment Plant Capacity Expansion & Upgrade Services (the "Work", "Project" or "Services"); and

WHEREAS, Consultant was determined to be the highest most qualified evaluation scoring responsive, responsible Proposer; and

WHEREAS, Consultant and City have agreed upon a Scope of Services and fee for such Services; and

WHEREAS, on May 19, 2021, by the adoption of Resolution No 21-99 the Miramar City Commission awarded the RFQ to Consultant; and

WHEREAS, Consultant performed the Services for Packages 1 – Deep Injection Well Rehabilitation and Package 2 – Preliminary Design Report of the project for the City within the basic terms and conditions set forth in the Agreement.; and

WHEREAS, on July 6, 2022, by the adoption of Resolution No. 22-142, the Miramar City Commission awarded Consultant the Services for Package 3 – Final Design and Permitting of the project for the City within the basic terms and conditions set forth in the Agreement; and

WHEREAS, on October 18, 2023, by the adoption of Resolution No. 24-14, Miramar City Commission awarded Consultant the Services for Package 4 – Engineering services during construction (ESDC) and startup observation for the City within the basic terms and conditions set forth in the Agreement; and

WHEREAS, on June 11, 2024, by the adoption of Resolution No. 24-127, Miramar City Commission awarded Consultant the Services for Package 5 – Future Plant Upgrade Design and Construction for the City within the basic terms and conditions set forth in the Agreement. This Package 5 Agreement (“Original Agreement”) includes Package 5a and 5b for Consultant to provide design/permitting/bidding services only for two new Floridan wells and a new lift station and force main system. The Package 5c for Engineering services during the construction was left out to be added back during the construction phase; and

WHEREAS, Currently this project has reached the construction phase. The City desires to engage Consultant to provide the needed engineering services during the constructions for two new Floridan wells and a new lift station and force main system, as specified in the Consultant’s proposal, attached hereto as **Exhibit “1”**; and

WHEREAS, the City accepts the Consultant’s updated proposal for the additional services (“additional Services”); and

WHEREAS, the Consultant agrees to perform the additional services under the same terms, conditions and pricing of the Original agreement in the total Lump Sum amount, not to exceed \$1,033,833, which brings the total amount of this agreement to \$1,985,807; and

NOW, THEREFORE, for good and valuable consideration of the mutual covenants set forth herein and in the agreement for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereto do covenant and agree to amend the Agreement as follows:

1. The parties have agreed that the additional services are required to complete the Package 5 upgrades and is in a not to exceed amount of \$1,033,833, which brings the total amount of this agreement to \$1,985,807.
2. The scope of work for the provision of engineering services during the construction phase of two (2) new Floridan wells and new lift station force main system at the West Water Treatment Plant, as detailed in the Consultant's proposal, attached hereto as Exhibit "1", shall become part of and shall be incorporated into the terms of the Original Agreement and its amendment for all purposes.
3. The foregoing "**WHEREAS**" clauses are ratified and confirmed as being true and correct and are made a specific part of this Amendment No. 1.
4. No term of this Amendment No. 1 may be modified except in writing and executed by all parties to this Amendment No. 1.
5. The Agreement between the Parties is deemed amended as set forth herein.
6. If any term of this Amendment No.1 is found by a legal forum of competent jurisdiction to be void or unenforceable, said finding shall not affect the enforceability of the remaining terms of the Amendment No. 1.
7. All other terms and conditions of the Agreement, not inconsistent with this Amendment No. 1 shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have made and executed this Amendment No. 1 to the Agreement on the respective dates under each signature: City of Miramar through its City Manager, authorized to execute same, and AECOM Technical Services, Inc. through its Karen D. Brandon, AVP, Principal Client Service Manager, who is authorized to execute same.

CITY OF MIRAMAR:

By: _____
City Manager
Dr. Roy L. Virgin

This ____ day of _____, 2025.

AECOM TECHNICAL SERVICES, INC.:

By: _____

Date: _____

ATTEST:

Denise A. Gibbs, City Clerk

Approved as to form and legal sufficiency
for the use of and reliance by the City of
Miramar, Florida only:

City Attorney
Austin Pamies Norris Weeks Powell, PLLC.

**RFQ 21-10-05 West Water Treatment Plant Capacity Expansion
and Upgrades**

**FUTURE PLANT UPGRADE DESIGN
CITY OF MIRAMAR
Package 5
Amendment No.1
Scope of Work
AECOM Technical Services, Inc. (Consultant)**

Background

The City of Miramar's (CITY) West Water Treatment Plant (West WTP) was constructed in 1996 as a conventional nanofiltration (NF), also called membrane softening, treatment plant using raw water from the Biscayne aquifer with three NF treatment skids and an initial capacity of 4.5 million gallons per day (MGD). In 2003, two additional NF skids were added that increased the total plant capacity to 7.5 MGD. Then in 2007 additional membrane vessels were constructed on existing skids to further expand the capacity to 9.25 MGD. The most recent expansion was constructed in 2012, with two new Floridan aquifer wells, and a 2.5 MGD reverse osmosis (RO) membrane treatment skid for a total plant capacity of 11.75 MGD. The plant blends the permeate from the NF units and the RO unit and distributes the finished water to customers for potable use. The CITY also owns and operates two Class I deep injection wells (DIW) at the West WTP.

To implement the project, multiple work packages have been identified as follows:

Package 1: Deep Injection Well Rehabilitation (Completed)

Package 2: Preliminary Design Report (PDR) (Completed)

Package 3: Final Design, Permitting and Bidding of an additional 2.5 MGD RO skid, an additional cartridge filter and anti-scalant and sulfuric acid chemical system upgrades. (Completed and approved for construction by the CITY).

Package 4: Engineering Services During Construction (ESDC) for the construction, and start-up services for the 2.5 MGD RO skid, an additional cartridge filter and anti-scalant and sulfuric acid chemical system (approved by the CITY).

Package 5: Future Plant Upgrade Design and Construction to further enhance the West WTP. A scope meeting was held with the CITY Staff on December 13, 2023, to define the scope for Package 5. Package 5 will include design, permitting, bidding services, and construction services associated with the following:

- The full design of F8 and F9 Upper Floridan Aquifer (UFA) Production wells including wellhead, pad and allowance for surface components including

mechanical, electrical, civil and I&C connecting to the soon-to-be-constructed raw water main.

- Lift station improvements to eliminate the plant septic system and de-commission the Scavenger system including sanitary sewer force main (FM) (within the plant fence) connecting soon-to-be-constructed offsite FMs by others to the City's Wastewater Reclamation Facility (WWRF).
- FM for back-up to the Class I Injection Well System (within the plant fence area) to tie into a future offsite FM by others to the WWRF.

The Package 5 proposal will be approved as one package and split into two parts: Package 5a for the design, permitting and construction of the two (2) UFA Wells and Package 5b design, permitting and construction for the lift station and new sewer FM and for the new backup FM to the DIW's within the West WTP fence. The advantage to this will be the difference in procurement and schedules between Package 5a and 5b, allowing them to be bid separately and be coordinated with the design and construction of projects by others. Packages 5a and 5b are described in more detail below. On June 11, 2024, the City Commission adopted the Resolution No.24-127 to grant AECOM to provide the Design/Permitting/Bidding Services except for the Construction Management Services.

This Amendment (Amendment No.1) is to add the Tasks 5a-4, 5a-5, and 5b-4 for the Consultant to provide the Construction Management and Observation Services and Well Construction Engineering Report and Record Drawings.

Package 5a. Design UFA Production Well and Surface Facility(Currently funded under PO# 242259)

PROJECT DESCRIPTION

This phase of the project includes the design of two 20-inch diameter Upper Floridan aquifer (UFA) production wells to a total depth of 1,350 feet with variable frequency drive motor and pump system, completed surface conveyance pipe system, associated surface structures and FDEP permitting of the production well's surface facilities.

SCOPE OF SERVICES

The Floridan aquifer production well design includes design services related to site civil, electrical, mechanical and instrumentation and control components for the production wellhead, well pumping and surface conveyance systems and connection to the proposed raw water transmission line and landscaping. Design services for the City of Miramar Upper Floridan Aquifer (UFA) Production Well project includes the following:

TASK 5a-0 – Project Management (Currently funded under PO# 242259)

CONSULTANT's project manager (PM) will manage the project resources. Project management will encompass those efforts required for project setup, resource management, scheduling, trend management, invoicing, design review coordination, and establishment of subconsultant agreements. coordination support as described in this scope of work.

CONSULTANT will conduct project coordination, accounting, monitoring, and administration activities for the construction of two UFA production wells, and two water supply facilities, and associated pipeline work. This includes preparing monthly invoices, monitoring work progress and scheduling, ensuring quality control, and reporting to the CITY the schedule and progress of work.

CONSULTANT will attend one project kickoff meeting, which will include team introductions and discussion of the data request form, schedule, and project deliverables. CONSULTANT will attend monthly project status meetings and provide monthly progress reports indicating project activities completed along with schedule updates. Project design, data collection, and permitting duration is anticipated to be a maximum of 9 months. The monthly project status meetings will to be held virtually using Microsoft Teams or other agreeable applications.

TASK 5a-1 UFA Production Well Design (Currently funded under PO# 242259)

1. Develop the conceptual design of the two (2) UFA production wells based on reverse osmosis water quality and quantity objectives and local and regional geology and hydrogeology and requirements of the pending water use permit modification completed by others.
2. Prepare 60% design technical specifications and drawings for two (2) UFA production wells.
3. Transmit 60% design submittal to the CITY for internal review with a 2-week review period.
4. Schedule and conduct 60% design review meeting with CITY staff.
5. Incorporate comments from 60% review meeting into 90% technical specifications.
6. Prepare 90% design technical specifications and drawings for two (2) UFA production wells.
7. Transmit 90% design submittal to the CITY for internal review with a 2-week review period.
8. Prepare and submit an opinion of probable construction cost (OPCC) to the CITY based on the 90% complete design.
9. Schedule and conduct 90% design meeting with CITY staff to receive review comments on the 90% complete design.
10. Implement final changes and corrections to the contract documents and print as final.

11. Complete the design to 100% and update the technical specifications and construction drawings to construct and test two (2) UFA production wells at sites specified by the CITY.
12. Produce two (2) paper copies and two (2) electronic copies of the complete set of final technical specifications and construction plans/drawings and provide bid set documents to the CITY for bidding.

Deliverables:

1. 60% Design Drawings and Technical Specifications
2. 90% Design Drawings and Technical Specifications
3. Opinion of Probable Construction Cost (OPCC)
4. 100% Design Drawings and Technical Specifications

TASK 5a-2 – Surface Facility Permitting and Design Services: (Currently funded under PO# 242259)

It will be necessary collect survey and geotechnical data in order to design and obtain a permit to construct public water supply components to allow construction of the wellheads and surface facilities for Fire Barn Park UFA well (F8) and Huntington Park UFA well (F9). CONSULTANT will provide the following services:

Surveying services will be provided by ZEMAN Consulting Group. Geotechnical services will be provided by WIRX.

1. Prepare a Specific Purpose Survey for (F-8) and (F-9) area for the proposed well sites (see exhibit Fire Barn Park and Huntington Park). To include Subsurface Utilities (SUE), above-ground improvements, tree line, individual non-invasive trees, topography at grade breaks and 50' max grid. GIS Derived Boundary lines.
2. Geotechnical drilling, testing, and engineering services will be performed to support design of the utility improvements at each well site to support recommendations for the structural pad and needed drainage improvements. Geotechnical services include the collection of site and subsurface data within the footprint of each of the two UFA well sites; a summary of the test results in the form of a geotechnical engineering report will be provided.
3. CONSULTANT will prepare and submit an "Application for a Specific Permit to Construct PWS Components" to the Florida Department of Environmental Protection (FDEP). The permit will be required for the wellhead and surface conveyance piping system for the two proposed UFA production wells. CITY to pay permit fees.
4. Attend up to two (2) meetings with the FDEP Drinking Water Section during the permitting process. The meetings are to be held in the West Palm Beach office of FDEP. CONSULTANT will prepare meeting minutes and distribute to meeting attendees.

5. Prepare a response for up to two (2) Requests for Information related to the FDEP permit application.
6. CONSULTANT will provide civil, electrical, structural, mechanical and instrumentation and control design service for the production wellhead, Variable Frequency Drive (VFD) well pumping system and surface conveyance systems and connection to the proposed raw water transmission line.
7. Site civil will include preparation of the site grading plan for the well pad and surrounding fenced in enclosure with survey elevation controls established for finished well pad.
8. Electrical design will include determination of 3-phase electrical power connection points to existing FPL power grid with the capability to support a VFD drive pump system, transformer, and temperature-controlled enclosure.
9. Prepare 60% design technical specifications and drawings for well pad and surface facilities.
10. Transmit 60% design submittal to the CITY for internal review with a 2-week review period.
11. Schedule and conduct 60% design review meeting with CITY staff.
12. Incorporate comments from 60% review meeting into 90% drawings and technical specifications.
13. Prepare 90% design technical specifications and drawings for two (2) UFA production wells.
14. Transmit to CITY for internal review with a 2-week review period.
15. Schedule and conduct 90% design review meeting with CITY staff.
16. Incorporate comments from 90% review meeting into 100% drawings and technical specifications.
17. Prepare 90% design technical specifications and drawings.
18. Prepare 90% Opinion of Probable Construction Cost (OPCC)
19. Prepare and submit Building Permit Application at 90%
20. Meeting with Building Department
21. Respond to two (2) Requests for Additional Information.
22. Schedule and conduct 100% design review meeting with CITY staff.
23. Incorporate comments from 100% review meeting into Final bid set drawings and technical specifications.
24. As applicable, submit 90% Design Drawings to Building Department for review and approval.

Deliverables:

1. 60% Design Drawings and Technical Specifications
2. FDEP Application for a Specific Permit to Construct PWS Components after 60% Design Meeting with the City
3. 90% Design Drawings and Technical Specifications
4. 90% Opinion of Probable Construction Cost (OPCC)
5. Building Permit Application based on 90% Drawings.

6. 100% Bid Set Technical Specifications and Drawings.

TASK 5a-3-1 - Bid Phase Services – Production Well Construction (Currently funded under PO# 242259)

Bidding Services are based on a Bid Period of approximately 60 days.

1. CONSULTANT will provide copies of the 100% Technical Specifications and Drawings and distribute to the CITY.
2. CONSULTANT will conduct a pre-bid conference at the well sites for all interested bidders and address questions from bidders on matters related to the technical aspects of the design via the CITY's Procurement Department.
3. CONSULTANT will provide Addenda, if required, tabulate, and evaluate the construction proposals and assist in the awarding of a contract for construction. Bids will be received, opened and processed by the CITY.
4. CONSULTANT will review and evaluate submitted bids in conformance with the Request for Bid Requirements.
5. Bid Services will be considered complete upon Consultant's review and forwarding of the Contractor's executed documents.
6. A final set of Conformed Documents will be prepared for construction.

TASK 5a-3-2 - Bid Phase Services – General Contractor - Surface Facilities (Currently funded under PO# 242259)

Bidding Services are based on a Bid Period of approximately 60 days.

1. CONSULTANT will provide copies of the contract documents and distribute to the CITY.
2. CONSULTANT will conduct a pre-bid conference at the well sites for all interested bidders and will address all questions from potential bidders on matters related to the technical aspects of the well and surface facility design.
3. CONSULTANT will issue Addenda, if required, tabulate, and evaluate the construction proposals and assist in the awarding of a contract for construction. Bids will be received, opened and processed by the CITY.
4. CONSULTANT will review and evaluate submitted bids in conformance with the Request for Bid Requirements.

Bid Services will be considered complete upon CONSULTANT's review and forwarding of the Contractor's executed documents.

TASK 5a-4 Engineering Services During Construction (Amendment No.1)

TASK DESCRIPTION

This phase of the project includes engineering, construction management and observation services that will be provided during well construction and testing activities. Once well construction and testing activities are complete, an Engineering Report and Record Drawings will be provided summarizing drilling, construction and testing activities of the two (2) Floridan Aquifer production wells and surface facilities.

SCOPE OF SERVICES

Specific hydrogeologic, engineering and construction observation services for the City of Miramar Upper Floridan Aquifer Production Well project includes the following:

TASK 5a-4-1 UFA Well Construction Management and Observation Services (Amendment No.1)

1. Attend one (1) on site pre-construction meeting with CITY staff and well drilling contractor for each of the two (2) production wells to be constructed. A meeting summary will be prepared, and copies will be distributed by the Consultant.
2. Attend Bi-monthly progress meetings with Contractor and the CITY with 36 progress meetings anticipated over the 18-month production well and surface facility construction period.
3. Review submittals and other data that the Contractor is required to submit. These shall be reviewed for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Such review is not intended as an approval of the submittals if they deviate from the Contract Documents or contain errors, omissions, and inconsistencies, nor is it intended to relieve the Contractor of his full responsibility for Contract performance, nor is the review intended to ensure or guarantee lack of inconsistencies, errors, and/or omissions between the submittals and the Contract requirements.
4. Provide technical interpretations of the drawings, specifications, and Contract Documents, and evaluate requested deviations from the approved design or specifications. Act as the initial interpreter of the Contract Documents pertaining to the execution and progress of the work.
5. Provide onsite resident observation of the construction activities during construction of F8, and F9. Resident services are scheduled to be provided on an average of 10 hours per day (5 days per week) during well construction and testing, for an estimated total duration of 260 workdays (52 weeks) to be held virtually using Microsoft Teams or other agreeable application. The total hours remain but will be managed to accommodate an 18 month contract period associated with the Water Well Drilling Contractor's contract.

6. The resident observer will be a degreed professional experienced with well construction techniques and will assist in monitoring the construction progress, in checking compliance with technical plans and specifications. Specific activities will include:
 - a. Coordinate on a daily basis activity and a one-week look ahead on CONSULTANT observation requirements.
 - b. Prepare daily shift reports.
 - c. Observe well drilling activities (e.g., document ROP, WOB, rig behavior).
 - d. Prepare detail lithologic descriptions of drill cutting using Dunham 1962 Classification Scheme.
 - e. Observe and document well construction activities (e.g., casing installation, cementing operations, etc.).
 - f. Record quantities of materials used (e.g., casing, cement, drilling mud, etc.)
 - g. Observe and document geophysical logging activities.
 - h. Observe handling, labeling, and storage of well cutting samples.
 - i. Assist Contractor in the collection of water quality samples to submit to State approved testing laboratory.
 - j. Observe the Contractor during the installation of the recording instrumentation for the Aquifer Performance Test and observe testing and data collection activity.
7. Prepare weekly summary reports and submit to interested parties during the well construction and testing phase.

Deliverables:

1. Daily Field Reports
2. Weekly Summary Reports (52) for the estimated 18 month well construction and testing period. During the weeks with no major construction activities, weekly summary reports will not be provided..
3. The information recorded for the above task will be in compiled and in include as an appendix in the Final Well Construction Report

TASK 5a-4-2 Surface Facilities - Construction Management and Observation Services (Amendment No.1)

1. Attend one (1) on site pre-construction meeting with CITY staff and general contractor for each of the two UFA production wells to be constructed. A meeting summary will be prepared, and copies will be distributed by the Consultant.
2. Attend Bi-monthly progress meetings with Contractor and the CITY with 12 progress meetings anticipated over the 6-month surface facility construction period to be held virtually using Microsoft Teams or other agreeable application.
3. Review submittals and other data that the Contractor is required to submit. These shall be reviewed for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents.

Such review is not intended as an approval of the submittals if they deviate from the Contract Documents or contain errors, omissions, and inconsistencies, nor is it intended to relieve the Contractor of his full responsibility for Contract performance, nor is the review intended to ensure or guarantee lack of inconsistencies, errors, and/or omissions between the submittals and the Contract requirements.

4. Provide technical interpretations of the drawings, specifications, and Contract Documents, and evaluate requested deviations from the approved design or specifications. Act as the initial interpreter of the Contract Documents pertaining to the execution and progress of the work.
5. Well Surface Facilities construction engineering observation services has an additional estimated duration of 130 workdays. On-site coverage averaging 6 hours per day will be provided during wellhead and surface facility construction. The estimated duration is broken down as follows. Construction and testing of F8 and F9 are estimated to take 130 workdays (26 weeks) Daily onsite time will vary depending on the construction activities in progress.
6. Review and make determinations necessary for the approval or rejection of the Contractor's monthly payment applications.
7. Make a final review of the construction to determine if the work has been completed in conformance with the intent of the Contract Documents, assist in negotiating final payment for construction and submit a final letter report upon which final settlement and termination of the Contract can be based. The proceedings of all final settlement negotiations will be documented and the basis for final payment recorded.
8. Provide Certification of Completion of Construction for PWS Components to FDEP and make final site inspection of surface facilities with the CITY and FDEP.

TASK 5a-5 – Well Construction & Engineering Report and Record Drawings (Amendment No.1)

1. The Consultant will compile and document findings of the well construction, well testing activities, water level monitoring and water quality sampling in a technical report and include the following subtasks:
 - a. The Consultant will compile and review the lithologic data obtained from the UFA production wells and integrate the information into the geologic-hydrogeologic interpretation.
 - b. The Consultant will compile and review geophysical log data and integrate it into geologic and hydro geologic interpretation.
 - c. The Consultant will compile and review the water quality data obtained from up to five (5) packer tests in each of two UFA production well. This shall include all inorganic constituents.

- d. The Consultant will compile and analyze the results for a 6-hour step-drawdown and a 12-hour pump test from each of the two (2) UFA production wells
 - e. The Consultant will compile and interpret the drawdown and recovery results from aquifer performance testing of each production well using the appropriate analytical solution using Aqtesolve software package. This shall include the review and analysis of water level data from the production wells.
 - f. A geologic and hydrogeologic interpretation will be provided based on the lithologic, geophysical and water quality data obtained from the two (2) UFA production wells and surrounding consultant and other governmental agency technical reports.
2. Include Completion of Construction for PWS Components submittal along with Record Drawings.

Deliverables:

1. Well Completion Report documenting Well Construction and Testing of F8 and F9.
2. Engineering Report and Record Drawings for Surface Facilities.

ASSUMPTIONS:

1. No additional SFWMD Water Use Permitting is required to receive well construction permits for F8 and F9.
2. No Environmental or Stormwater Permits will be required such as Wetland or Endangered or Threatened Species Surveys based on current site use.
3. Coordination with the U.S Fish and Wildlife Service and/or the Florida Fish and Wildlife Conservation Commission will not be required.
4. A generic permit for the Discharge of Produced Ground Water from any Non-Contaminated Site Activity or NPDES Permit will not be needed since the produced ground water generated during drilling and testing operations will be conveyed to the CITY Wastewater Forcemain.
5. Project will not impact wetlands.
6. Resident project representative shall not, as a result of observation services, supervise, direct, or have control over any Constructor's work nor have authority over or responsibility for the means, methods, techniques, sequences or procedures selected by any Constructor, for safety precautions and programs incident to the work of any Constructor, for any failure of any Constructor to comply with laws, rules, regulations, ordinances, codes or orders applicable to performing and furnishing the work, or responsibility of construction for Contractor's failure to furnish and perform the Work in accordance with the Construction Contract Documents. No contaminate site assessment or modeling associated with dewatering operations will be needed based on current land use.
7. This scope does not include traffic control plans.
8. CITY's Standard Specifications will be utilized when applicable.

9. The wellhead, well pad and surface conveyance piping for F8 and F9 will be completed above grade and be configured like F1 & F2.
10. The proposed well will be located on CITY-owned land, ROW or easements with no additional legal access requirement needed to construct the two UFA production wells and surface facilities. CITY to provide legal descriptions and boundary land surveys for each site.
11. Design does not include backup generators for each well site.
12. A VFD controlled submersible pump system will be installed with a maximum water production capacity of 3.2 MGD (2,225 gpm).
13. The final production casing for each UFA production well will be constructed using 20-inch diameter Fiberglass Reinforced Plastic Pipe.
14. The CITY will provide surveyed connection points with flanged and flow/shut off valve with backflow protection on the wastewater force main to tie-in to convey the produced GW generated during construction and testing operations at each site.
15. The CITY will provide surveyed flanged and flow/shut off valve connection points to the proposed raw water transmission line for the two Floridan aquifer production wells.

OBLIGATIONS OF OWNER:

To assist meeting schedule and budget estimates contained in this proposal, the CITY will provide the following:

1. As requested, provide site plan or record drawings, aerial photographs, and other pertinent information.
2. Location data of proposed UFA production wells and point of well development and testing of formation water discharges into the CITY's Wastewater Forcemain at each location.
3. Prompt review and comment on all deliverables (within 10 working days of receipt).
4. Attendance of key personnel at meetings, as requested.
5. Payments of all permit application fees.
6. Place any needed advertisement for the Solicitation of the Well Construction/Surface Facility Request for Bid in a local newspaper and pay all associated costs.
7. Other Direct Costs (ODC) Reimbursable Expenses include, photocopying services, electronic scanning services rental vehicles, mileage, hotel accommodations, food, field testing equipment, calibration solutions, well cutting storage containers.

Package 5b. Design, permitting and construction for the lift station and new sanitary sewer Forcemain, the new backup Forcemain to the DIW's, and Floridan Raw Watermain within the West WTP Facilities

PROJECT DESCRIPTION:

This phase of the project includes the lift station improvements to eliminate the plant septic system and de-commission the Scavenger system including sanitary sewer forcemain (FM) (within the plant fence area) connecting to the soon-to-be-constructed offsite FMs by others to the City's Wastewater Reclamation Facility (WWRF).

This project includes a FM for back-up/redundancy to the Class I deep injection wells (DIW) (within the plant fence area) to tie into a future offsite FM designed and constructed by others to the WWRF.

This project includes the Floridan raw water main (WM) within the plant fence area connecting to tie into the future offsite raw WM by others.

SCOPE OF SERVICES

The plant FM designs include design services related to site civil, electrical, mechanical and instrumentation and control components for the lift station, DIW booster pumps and FM conveyance systems, raw WM, and connection to the proposed offsite FMs and raw WM located within the plant site. Design services for the two (2) FM and raw WM projects includes the following:

TASK 5b-0 – Project Management (Currently funded under PO# 242259).

CONSULTANT's project manager (PM) will manage the project resources. Project management will encompass those efforts required for project setup, resource management, scheduling, trend management, invoicing, design review coordination, and establishment of subconsultant agreements. coordination support as described in this scope of work.

CONSULTANT will conduct project coordination, accounting, monitoring, and administration activities for the construction of two (2) New FMs, raw WM and associated work. This includes preparing monthly invoices, monitoring work progress and scheduling, ensuring quality control, and reporting to the CITY the schedule and progress of work.

CONSULTANT will attend one project kickoff meeting, which will include team introductions and discussion of the data request form, schedule, and project deliverables. CONSULTANT will attend monthly project status meetings and provide monthly progress reports indicating project activities completed along with schedule updates. Project design, data collection, and permitting duration is anticipated to be approximately 9 months. The monthly project status meeting will to be held virtually using Microsoft Teams or other agreeable application.

TASK 5b-1 Lift Station Improvements and New Sewer FM design and permitting (Currently funded under PO# 242259)..

It will be necessary collect survey data in order to design and obtain a permit to construct a New Lift Station to replace the existing sanitary septic system and collect the process building waste stream and send the waste through a New FM to the WWRF. The existing lift station collects wastewater from the process building floor drains and the degasifier scrubber system waste and pumps it to the Scavenger tank and system. The New FM from the New Lift Station will terminate within the plant fence site to a designated tie-in location on the soon-to-be-constructed offsite FM to be designed and constructed by others. CONSULTANT will provide the following services.

1. Specific Purpose Survey of the West WTP site to locate subsurface utilities will be provided by ZEMAN Consulting Group.
 - a. Designate utilities within the 10 Acre plant area (see exhibit West WTP). Designate (flag or paint) subsurface utilities utilizing electromagnetic (EM) and Ground Penetrating Radar (GPR). Identify types of utilities utilizing provided site plans by the CITY, above ground evidence, and discussions with City Staff and Lead Plant Operator.
 - b. Prepare Specific Purpose Survey.
 - LiDAR scan the exterior of building, tanks, pipes, roads, and open areas around the property.
 - Obtain rims and inverts of accessible pipes.
 - Exterior measurements of buildings
 - Identify equipment and systems when possible.
 - Tree groups of non-invasive trees
 - Topography at break lines, edges of roadway, and 50' max intervals.
 - c. Vacuum Excavation Services (soft Digs)
 - Perform Vacuum Excavation at requested locations. Test hole location for each hole will be added to the survey along with the size, type of material and depth of the target utility. Holes will be backfilled, compacted and patch with either concrete or asphalt, as needed.
2. CONSULTANT will provide electrical, structural, mechanical, instrumentation and control design for the new Lift Station and design the New FM within the plant fence site to a designated tie-in location for the offsite FM to be designed and constructed by others.
3. A site location plan for the New Lift Station and New FM will be shown on the West WTP site plan.
4. Prepare 60% design technical specifications and drawings for New Lift Station and New FM routing within the West WTP site.
5. Transmit to CITY for internal review with a 2-week review period.
6. Schedule and conduct 60% design review meeting with CITY staff.
7. Incorporate comments from 60% review meeting into 90% technical specifications.
8. Prepare 90% design technical specifications and drawings for New Lift Station and New FM routing within the West WTP site.

9. Transmit to CITY for internal review with a 2-week review period.
10. Schedule and conduct 90% design review meeting with CITY staff.
11. Incorporate comments from 90% review meeting into 100% drawings and technical specifications.
12. Prepare 90% Opinion of Probable Construction Cost (OPCC)
13. CONSULTANT will prepare and submit a FDEP "Application for Constructing a Domestic Wastewater Collection/Transmission System" to the Broward County Environmental Permitting Division Domestic Wastewater Section. Permit fee by the CITY.
14. Attend up to two (2) meetings with the FDEP Broward County Environmental Permitting Division Domestic Wastewater Section during the permitting process. The meetings are to be held in the Broward County office in Plantation. CONSULTANT will prepare meeting minutes and distribute to meeting attendees.
15. Prepare a response for up to two (2) Requests for Information related to the FDEP permit application.
16. Prepare 100% design technical specifications and drawings for New Lift Station and New FM routing within the West WTP site.
17. Transmit to CITY for internal review with a 2-week review period.
18. Schedule and conduct 100% design review meeting with CITY staff.
19. Incorporate comments from 100% review meeting into Bid Set drawings and technical specifications.

Deliverables:

1. 60% Design Drawings and Technical Specifications
2. FDEP Application for Constructing a Domestic Wastewater Collection/Transmission System
3. 90% Opinion of Probable Construction Cost (OPCC)
4. 90% Design Drawings and Technical Specifications
5. 100% Bid Set Technical Specifications and Drawings.

TASK 5b-2 New Backup FM design and permitting for Concentrate Disposal, and New Raw WM (Currently funded under PO# 242259).

It will be necessary to design and obtain a permit to construct a New Backup FM to the existing Class I Injection Well System at the West WTP. The New Backup FM will be connected to the existing Injection Well booster pumps to pump the NF and RO concentrate through a New Backup FM to the CITY-operated WWRF. CONSULTANT's portion of the New Backup FM and the New Raw WM will terminate within the plant fenced area and tie-in at points for the future offsite FM and WM to be constructed by others. CONSULTANT will provide the following services.

1. CONSULTANT will provide electrical, structural, mechanical and instrumentation and control design for connection to the existing Injection Well Booster Pumps. The New Backup FM will connect within the plant fence site at a convenient location for the soon-to-be-constructed offsite Backup FM by others.

2. CONSULTANT will provide design for connection to the future offsite Raw WM at two points the SW and NW corners of the West WTP.
3. A site location plan for the Backup New FM and the new Raw WM will be shown on the West WTP site plan.
4. Electrical design will include determination of 3-phase electrical power connection points from the process building.
5. Prepare 60% design technical specifications and drawings for Backup New FM routing within the West WTP site.
6. Transmit to CITY for internal review with a 2-week review period.
7. Schedule and conduct 60% design review meeting with CITY staff.
8. Incorporate comments from 60% review meeting into 90% technical specifications.
9. Prepare 90% design technical specifications and drawings for Backup New FM routing within the West WTP site.
10. Transmit to CITY for internal review with a 2-week review period.
11. CONSULTANT will submit a minor permit modification to the CITY's existing FDEP-issued Class I Injection Well Permit to document additional redundancy of injection capacity at the West WTP.
12. CONSULTANT will prepare and submit a FDEP Application for Construction of a Raw Water Transmission Main. Permit fee to be paid by the CITY.
13. Attend up to two (2) meetings with FDEP West Palm Beach.
14. Prepare a response for up to two (2) Requests for Information related to the FDEP permit application.
15. CONSULTANT will prepare and submit a FDEP "Application for Constructing a Domestic Wastewater Collection/Transmission System" to the Broward County Environmental Permitting Division Domestic Wastewater Section. Permit fee to be paid by the CITY.
16. Attend up to two (2) meetings with the FDEP Broward County Environmental Permitting Division Domestic Wastewater Section during the permitting process. The meetings are to be held in the Broward County office in Plantation. CONSULTANT will prepare meeting minutes and distribute to meeting attendees.
17. Prepare a response for up to two (2) Requests for Information related to the FDEP permit application.
18. Prepare 90% Opinion of Probable Construction Cost (OPCC)
19. Schedule and conduct 90% design review meeting with CITY staff.
20. Incorporate comments from 90% review meeting into 100% technical specifications.
21. Prepare 100% design technical specifications and drawings for Backup New FM routing within the West WTP site.
22. Transmit to CITY for internal review with a 2-week review period.
23. Schedule and conduct 100% design review meeting with CITY staff.
24. Incorporate comments from 100% review meeting into Bid Set drawings and technical specifications.

Deliverables:

1. 60% Design Drawings and Technical Specifications
2. FDEP Application for constructing a new raw WM within the West WTP.

3. FDEP/Broward County Application for Constructing a Domestic Wastewater Collection/Transmission System
4. 90% Design Drawings and Technical Specifications
5. 90% Opinion of Probable Construction Cost (OPCC)
6. 100% Bid Set Technical Specifications and Drawings

TASK 5b-3 - Bid Phase Services – General Contractor - West WTP Facilities (Currently funded under PO# 242259).

Bidding Services are based on a Bid Period of approximately 60 days.

1. CONSULTANT will provide copies of the contract documents and distribute to the CITY.
2. CONSULTANT will conduct a pre-bid conference on site for all interested bidders and handle all questions with bidders on matters related to the technical aspects of the design.
3. Consultant will issue Addenda, if required, tabulate, and evaluate the construction proposals and assist in the awarding of a contract for construction. Bids will be received, opened and processed by the CITY.
4. CONSULTANT will review and evaluate submitted bids in conformance with the Request for Bid Requirements.

Bid Services will be considered complete upon CONSULTANT's review and forwarding of the Contractor's executed documents.

TASK 5b-4 Engineering Services During Construction (Amendment No.1)

TASK DESCRIPTION

This phase of the project includes engineering, construction management and observation services that will be provided during NEW Lift Station construction and testing activities. Once the construction and testing activities are complete, and Record Drawings submitted the permit will be closed out with FDEP Broward County Environmental Permitting Division Domestic Wastewater Section

SCOPE OF SERVICES

Specific engineering and construction observation services for the West WTP New Lift Station and New FMs will include the following:

TASK 5b-4-1 Construction Management and Observation Services (Amendment No.1)

1. Attend one (1) on site pre-construction meeting with CITY staff and contractor for New Lift Station, New FMs and New Raw WM to be constructed. A meeting

summary will be prepared, and copies will be distributed by the CONSULTANT. Review submittals and other data that the Contractor is required to submit. These shall be reviewed for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Such review is not intended as an approval of the submittals if they deviate from the Contract Documents or contain errors, omissions, and inconsistencies, nor is it intended to relieve the Contractor of his full responsibility for Contract performance, nor is the review intended to ensure or guarantee lack of inconsistencies, errors, and/or omissions between the submittals and the Contract requirements.

2. Provide technical interpretations of the drawings, specifications, and Contract Documents, and evaluate requested deviations from the approved design or specifications. Act as the initial technical interpreter of the technical specification and drawings pertaining to the execution and progress of the work.
3. Provide onsite resident observation of the construction activities during construction of the New Lift Station, FMs and WM. Resident services are scheduled to be provided on average one day per week during construction and testing, for an estimated total duration 52 weeks (52 workdays). CONSULTANT will prepare a field report with photos of the work observed.
4. Review and make determinations necessary for the approval or rejection of the Contractor's monthly payment applications.
5. Make a final review of the construction to determine if the work has been completed in conformance with the intent of the Contract Documents, assist in negotiating final payment for construction and submit a final letter report upon which final settlement and termination of the Contract can be based. The proceedings of all final settlement negotiations will be documented and the basis for final payment recorded.
6. Provide Certification of Completion of Construction for the FDEP Permits and make final site inspection of facilities with the CITY and As-built Drawing of the constructed components.

ASSUMPTIONS:

1. The work for the New Lift Station and the New FMs will be within the West WTP Specific Purpose surveys.
2. The flow to the two (2) DIWs can be pumped by the existing DIW booster pumps or new pumps after evaluation of the existing DIW pumps to the WWRF will be included in this package.
3. No ROW or easements with no additional legal requirements are needed to construct the New Lift Station and FMs.
4. No stormwater permit is required for the West WTP.
5. Underground piping will be PVC.

6. The sanitary septic system will stay in operation until the New Lift Station and New FM and the offsite FM to the WWRF are complete by others and available for 100% operation.
7. The New Backup FM to the DIW and the offsite Backup FM by others to the WWRF by others is complete and available for operation.
8. The CITY will abandon the sanitary septic system according to FDEP regulation upon completion of the New Lift Station and New FM and the offsite FM by others.
9. The CITY will decommission and remove the Scavenger tank and system upon completion of the New Backup FM on site and the New Backup FM offsite by others.
10. If the New offsite sanitary FM, the New Backup and Raw WM offsite FM are not complete by the time the New onsite FM and the New onsite Backup FM are complete the connections to the offsite FMs shall be done by others.
11. Resident project representative shall not, as a result of observation services, supervise, direct, or have control over any Constructor's work nor have authority over or responsibility for the means, methods, techniques, sequences or procedures selected by any Constructor, for safety precautions and programs incident to the work of any Constructor, for any failure of any Constructor to comply with laws, rules, regulations, ordinances, codes or orders applicable to performing and furnishing the work, or responsibility of construction for Contractor's failure to furnish and perform the Work in accordance with the Construction Contract Documents.

OBLIGATIONS OF OWNER:

To assist meeting schedule and budget estimates contained in this proposal, the CITY of Miramar will provide the following:

1. As requested, site plan or record drawings, aerial photographs, and other pertinent information pertinent.
2. FM pressures and flows at SW 136th Ave and Old Miramar Parkway
3. Size and lengths of FM from SW 136th Ave and Old Miramar Parkway to WWRF
4. FM pressure and flow at WWRF
5. Prompt review and comment on all deliverables.
6. Attendance of key personnel at meetings as requested.
7. Payments of all permit application fees.
8. Place any needed advertisement for the Solicitation for the New Lift Station and FMs Construction Request for Bid/Quotation in a local newspaper and pay all associated costs.
9. Other Direct Costs (ODC) Reimbursable Expenses include mileage, tolls, hotels, food allowance, rental vehicles as required by CONSULTANT Staff.

PAYMENT AND COMPENSATION

Compensation for the Scope of Services described herein shall be made in accordance with the Agreement between the parties based on a lump sum fee. The fee for the services described herein and the attached Project Budget is a lump sum fee of \$1,033,883. This lump sum value does not include any contingencies for unforeseen issue that may come up during the contract period.

The values for each item below have been updated to reflect the recalculated values from the attached cost breakdown spreadsheet.

Floridan Aquifer Production Wells and Surface Facility Design	(Funded under PO# 242259)
Bidding Services UFA Production Wells	(Funded under PO# 242259)
Bidding Services UFA Production Wells Surface Facilities	(Funded under PO# 242259)
UFA Well Construction Management and Observation Services	\$474,474
UFA Well Surface Facilities construction Management and Observation Services	\$279,311
UFA Well Construction Engineering Report and Record Drawings	\$47,103
New Lift Station and Sanitary FM, Backup DIW FM and Booster Pump, and Floridan Raw WM design and permitting	(Funded under PO# 242259)
Bidding Services General Contractor West WTP Facilities Lift Station, FMs and WM	(Funded under PO# 242259)
Construction Management and Observation Services West WTP Facilities	\$190,995
Survey Services Well Sites and West WTP Facilities	(Funded under PO# 242259)
Geotechnical Services Well Sites	(Funded under PO# 242259)
Other Direct Costs	\$42,000

CONSULTANT will submit monthly invoices for services rendered in accordance with the referenced contract, with a summary of work performed based on a percent complete by task basis in accordance with the Agreement.

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**CITY OF MIRAMAR
MIRAMAR, FLORIDA**

RESOLUTION NO. 21-99

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF MIRAMAR, FLORIDA, APPROVING THE FINAL RANKING AND AWARD OF REQUEST FOR QUALIFICATION, NO. 21-10-05, ENTITLED "WEST WATER TREATMENT PLANT CAPACITY EXPANSION AND UPGRADES", TO THE HIGHEST EVALUATION SCORING, MOST QUALIFIED, RESPONSIVE AND RESPONSIBLE PROPOSER, AECOM TECHNICAL SERVICES, INC.; AUTHORIZING THE CITY MANAGER TO EXECUTE THE PROPOSED PROFESSIONAL SERVICES AGREEMENT WITH AECOM TECHNICAL SERVICES, INC. FOR THE PROPOSED UTILITY SERVICES IN AN AMOUNT NOT-TO-EXCEED \$315,595; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City of Miramar ("City") Utilities Department owns, maintains, and operates the West Water Treatment Plant ("WWTP"); and

WHEREAS, in recent years, water demand has increased due to the City's continued growth in population, businesses, and expansion of its service area to the Country Club Ranches area; and

WHEREAS, in 1996, the treatment plant was constructed as a conventional nanofiltration ("NF"), also called membrane softening treatment plant, using raw water from Biscayne aquifer with an initial capacity of 4.5 MGD; and

WHEREAS, in 2003, two additional NF skids were added that increased the total plant capacity to 7.5 MGD; and

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WHEREAS, in 2007, additional membrane vessels were constructed on existing NF skids to further expand the capacity to 9.25 MGD; and

WHEREAS, in 2012, two Floridian aquifer wells were developed and a 2.5 MGD reverse osmosis (RO) membrane treatment skid was installed for a total plant capacity of 11.75 MGD; and

WHEREAS, in 2021, the City has decided to add a new 2.5 MGD NF Skid to improve plant performance, plant redundancy, treatment efficiency and reliability, and meet future growth demands; and

WHEREAS, these improvements will achieve an overall rated plant capacity of 14.25 MGD; and

WHEREAS, on November 2, 2020, the City's Procurement Department issued RFQ No. 21-10-03, entitled: "West Water Treatment Plant Capacity Expansion and Upgrades" (the "RFQ"); and

WHEREAS, on December 17, 2020, the date of the scheduled submittal deadline, four (4) proposals were received; and

WHEREAS, on January 26, 2021, a selection committee comprised of City staff evaluated, scored, and ranked all submittals based on the criteria contained in the RFQ, and determined AECOM Technical Services, Inc. (the "Consultant") to be the highest evaluation scoring, most qualified responsive and responsible proposer whose proposal is most advantageous to the City; and

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WHEREAS, the City and the Consultant have negotiated the fees for the utility engineering services in an amount not-to-exceed \$315,595 for Packages 1 and 2; and

WHEREAS, the City Manager recommends that the City Commission approve the final ranking and award the RFQ to AECOM Technical Services, Inc.; and authorization for the City Manager to execute the proposed Professional Services Agreement, in an amount not-to-exceed \$315,595, in the form attached hereto as Exhibit "A"; and

WHEREAS, the City Commission deems it to be in the best interest of the citizens and residents of the City of Miramar to approve the final ranking and award of the RFQ to AECOM Technical Services, Inc.; and authorization for the City Manager to execute the proposed Professional Services Agreement ("Agreement"), in an amount not-to-exceed \$315,595, in the form attached hereto as Exhibit "A".

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF MIRAMAR, FLORIDA AS FOLLOWS:

Section 1: That the foregoing "**WHEREAS**" clauses are hereby ratified and confirmed as being true and correct and are hereby made a specific part of this Resolution.

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Section 2: That it approves the award of the RFQ No. 21-10-05 to AECOM Technical Services, Inc.

Section 3: That the City Manager is authorized to execute the proposed Agreement with AECOM Technical Services, in an amount not-to-exceed \$315,595, in the form attached hereto as Exhibit "A", together with such non-substantive changes as are deemed acceptable to the City Manager and approved as to form and legal sufficiency by the City Attorney.

Section 4: That the appropriate City officials are authorized to do all things necessary and expedient in order to carry out the aims of this Resolution.

Section 5: That this Resolution shall take effect immediately upon adoption.

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PASSED AND ADOPTED this 19th day of May, 2021.




Mayor Wayne M. Messam



Vice Mayor, Yvette Colbourne

ATTEST:



City Clerk, Denise A. Gibbs

I HEREBY CERTIFY that I have approved
this RESOLUTION as to form:



City Attorney,
Austin Pamies Norris Weeks Powell, PLLC

Requested by Administration

Commissioner Winston F. Barnes
Commissioner Maxwell B. Chambers
Vice Mayor Yvette Colbourne
Commissioner Alexandra P. Davis
Mayor Wayne M. Messam

Voted

Yes
Yes
Yes
Yes
Yes



**AGREEMENT BETWEEN
THE CITY OF MIRAMAR, FLORIDA
AND
AECOM TECHNICAL SERVICES, INC.
FOR WEST WATER TREATMENT PLANT CAPACITY EXPANSION & UPGRADE
SERVICES**

THIS AGREEMENT (the "Agreement") is entered into and dated [REDACTED], 2021, by and between the CITY OF MIRAMAR, FLORIDA (the "City"), a Florida municipal corporation, whose address is 2300 Civic Center Place, Miramar, Florida 33025, and AECOM TECHNICAL SERVICES, INC. (the "Consultant"), a Foreign profit corporation whose address is 300 South Grand Avenue, Los Angeles, California 90071.

WHEREAS, the City issued Request for Qualification No. 21-10-05 (the "RFQ") for West Water Treatment Plant Capacity Expansion & Upgrade Services (the "Work", "Project" or "Services"); and

WHEREAS, Consultant was determined to be the highest most qualified evaluation scoring responsive, responsible Proposer; and

WHEREAS, Consultant and City have agreed upon a Scope of Services and fee for such Services; and

WHEREAS, on [REDACTED], 2021, the Miramar City Commission awarded the RFQ to Consultant; and

WHEREAS, Consultant is willing and able to perform these Services for the City within the basic terms and conditions set forth in this Agreement (the "Agreement"); and

WHEREAS, City desires to engage Consultant to perform the Services specified herein under the terms of this Agreement.

NOW THEREFORE, the City and Consultant, in consideration of the mutual covenants hereinafter set forth, the receipt and sufficiency of which is acknowledged, agree as follows:

**ARTICLE 1
DEFINITIONS**

Except as provided herein, terms used in this Agreement are defined in the RFQ,

which is deemed fully incorporated herein for all purposes, and have the meanings indicated in the RFQ or in the General Terms and Conditions incorporated herein and made a part hereof. In the event of conflict, the definitions and all other terms and conditions contained in the RFQ shall govern.

ARTICLE 2

SCOPE OF SERVICES

The consultant shall provide the following services including, but it not limited to:

- A. Water Treatment Capacity Expansion – Design, permitting, and construction management services for a 2.5 MGD nanofiltration skid in conjunction with pre and post physical and chemical treatment system, odor control, concentrate disposal, and any necessary upgrades/expansions to the existing treatment facility in order to achieve an overall minimum rated plant capacity of 14.25 MGD.
- B. Water Treatment Facility Upgrades - Evaluate Existing Facility Conditions and provide recommendations for renewal/replacements.
- C. Site Development and Building Improvement/Upgrades - Provide site improvements to enhance physical security, parking, and general aesthetics of the facility.

And inclusive of the work detailed within the RFQ and the Consultant's proposal attached as "Exhibit A."

ARTICLE 3

CONSULTANT AND CITY'S RELATIONSHIP

3.1 The Consultant accepts the relationship of trust and confidence established between it and the City by this Agreement. The Consultant represents that it will furnish its best skill and judgment in performing the Consultant's Services and the Work, and shall always act to further the interest of the City in the expeditious completion of the Project at the lowest responsible cost to the City, and in strict accordance with the Contract Documents and prudent and customary industry practices.

3.2 By signing this Agreement, the Consultant accepts a fiduciary duty with the City and warrants and represents to the City that the Consultant:

- A. Has all licenses and certifications required by applicable Law to perform the Consultant's Services and the Work;
- B. Is experienced in all aspects of the Work required for projects similar to

the Project;

- C. Will act in the City's highest and best interest in performing the Consultant's Services and the Work; and
- D. That no employee or affiliate of the Consultant, including all Subconsultants, Subcontractors and Suppliers (if any), at any tier, has been convicted of a public entity crime pursuant to Section §287.133, Florida Statutes, within the preceding 36 months from the date of execution of this Agreement.

3.3 The Consultant acknowledges and agrees that the City is relying on these representations and covenants as a material inducement to enter into this Agreement.

ARTICLE 4 **TERM**

The term of this Agreement shall commence upon the last date of execution hereof and shall remain in effect until acceptance of the Goods and/or Services by the City, unless terminated earlier as provided herein.

ARTICLE 5 **CONSULTANT'S RESPONSIBILITIES**

5.1 Consultant agrees that it shall prepare and review plans and documents ensuring that such plans and documents conform with guidelines set forth in the City's Code and all other applicable Laws, ordinances and governmental rules, Regulations and orders, now or at any time during the term of this Agreement.

5.2 Consultant shall provide City with a detailed breakdown of its monthly bills, indicating each task performed and time allocated to each task.

5.3 Consultant agrees that all meetings relating to Work performed pursuant to this Agreement shall take place at a City facility and all site visits relating to such Work shall take place with a City representative present.

5.4 Consultant agrees that its Services are to be performed within the limits prescribed by the City and represents that the standard of care for all Services performed or furnished by Consultant under this Agreement, will be the care and skill ordinarily used by members of the Consultant's profession practicing under similar conditions.

5.5 Consultant is prepared to begin Work on the Project immediately upon receipt of a copy of this fully executed Agreement. Consultant, in consultation with the City, shall perform its Work in such a manner as to comply with an agreed upon Project Schedule, attached as Exhibit "B."

ARTICLE 6

CITY'S RESPONSIBILITIES

6.1 In exchange for the Services to be performed by Consultant, outlined herein and in Exhibit "A" of this Agreement, the City agrees to compensate the Consultant pursuant to the Scope of Basic Design Services in the amount of Three Hundred Fifteen Thousand, Five Hundred Ninety-Five Dollars and zero cents (\$315,595.).

6.2 Compensation shall be invoiced by Consultant and paid by the City as follows: Consultant shall submit monthly invoices to the City for review. Each invoice shall indicate the original fee estimate for the Service provided the invoice date, the amount of the invoice and the estimated fees remaining. Payment for Services rendered by Consultant during the previous billing period shall be due and payable as of the date of the invoice, and shall be paid by the City no later than the 30th Day after the date of invoice, unless some other mutually agreeable period of required payment is established. All invoices are subject to the City's approval.

ARTICLE 7

INDEMNIFICATION

7.1 To the fullest extent permitted by Laws and Regulations, the Consultant shall indemnify, defend, and hold harmless the City, its officers, directors, agents, and employees, against and from all claims and liability arising under, by reason of or incidental to the Agreement or any performance of the Work, but not from the sole negligence or willful misconduct of the City. Such indemnification by the Consultant shall include but not be limited to the following:

A. Liability or claims arising directly or indirectly from or based on the violation of any Law, ordinance, Regulation, order, or decree, whether by the Consultant, its employees, or agents;

B. Liability or claims arising directly or indirectly from the use or manufacture by the Consultant, its employees or agents in the performance of this Agreement, of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, article, or appliance, unless otherwise specifically stipulated in this Agreement;

C. Liability or claims arising directly or indirectly from the breach of any warranties, whether express or implied, made to the City or any other parties by the Consultant, its employees or agents;

D. Liabilities or claims arising directly or indirectly from the willful misconduct of the Consultant, its employees or agents; and

E. Liabilities or claims arising directly or indirectly from any breach of the obligations assumed herein by the Consultant.

7.2 The Consultant shall reimburse the City for any and all costs and expenses (including but not limited to fees and charges of Architects, attorneys, and other professionals and court costs) incurred by the City in enforcing the provisions of this indemnification.

7.3 This indemnification obligation shall not be limited in any way by any limitation of the amount or type of damages, compensation, or benefits payable by or for the Consultant or any Subcontractor (if any) or other person or organization under workers' compensation Laws, disability benefit acts, or other employee benefit acts, or insurance coverage.

7.4 The Consultant acknowledges receipt and the adequacy of the specific consideration in the amount of \$100.00, which sum was included in the total negotiated Proposal Price and is included in the Proposal Price to be paid by City to the Consultant, as consideration for the indemnification given by the Consultant to the City.

ARTICLE 8 **TERMINATION**

8.1 **TERM OF AGREEMENT** - This Agreement shall commence on the date that it is fully executed by all parties. Architect shall begin Work promptly after receipt of a fully executed copy of this Agreement from City and complete the Project within the completion timeframes established in the Project Schedule as set forth in Exhibit "B". With respect to such schedule, performance shall be timely under this Agreement, and time is of the essence. However, the completion timeframes shall be extended for periods of delay resulting from strikes, natural disasters, and similar circumstances over which the Architect has no control, if City approves such extensions in writing.

8.2 **TERMINATION - For Convenience** - This Agreement may be terminated by City for convenience upon 30 calendar Days' written notice to Architect. In the event of termination by City, Architect shall be paid for all authorized Services rendered to the date of such termination. The amount payable to Architect in the event of such termination shall be a pro rata amount determined on the basis of the amount and value of the Work performed prior to Architect's receipt of notice of termination for the applicable Work performed. In exchange for such payment, Architect shall turn over to City all work product which has been paid for by City. Under no circumstances shall City make payment for Services that have not been performed.

8.3 **TERMINATION - For Cause** - This Agreement may be terminated by either party upon five calendar Days' written notice to the other should such other party fail substantially to perform in accordance with its material terms through no fault of the party initiating the termination. In the event Architect abandons this Agreement or causes it to be terminated by City, Architect shall indemnify City against loss pertaining to this termination. In the event that City terminates the Agreement for cause, and it is subsequently determined by a court of competent jurisdiction that such termination was

without cause, such termination shall thereupon be deemed a termination for convenience under Article 8.2 and the provisions of Article 8.2 shall apply.

ARTICLE 9 **DEFAULT**

9.1 An event of default shall mean a breach of this Agreement by Consultant. Without limiting the generality of the foregoing and in addition to those instances referred to as a breach, an event of default shall include the following:

- A.** Consultant has not performed Services on a timely basis as set forth in the Project Schedule attached as, Exhibit "B";
- B.** Consultant has refused or failed, except in the case for which an extension of time is provided, to supply enough properly skilled staff personnel;
- C.** Consultant has failed to make prompt payment to Subconsultants or Suppliers (if any) for any Services;
- D.** Consultant has become insolvent or has assigned the proceeds received for the benefit of Architect's creditors, or Architect has taken advantage of any insolvency statute or debtor/creditor law or, if Architect's affairs have been put in the hands of a receiver;
- E.** Consultant has failed to obtain the approval of City where required by this Agreement;
- F.** Consultant has failed in the honoring of any warranties; or
- G.** Consultant has refused or failed, except in the case for which an extension of time is provided, to provide the Services as defined in this Agreement.

9.2 In the event Consultant fails to comply with the provisions of this Agreement, City may declare Consultant in default, notify Consultant in writing, and give Consultant 15 calendar Days to cure the default. If Consultant fails to cure the default, compensation will only be due for any completed professional Services, minus any damages pursuant to Article 8.3. In the event payment has been made for such professional Services not completed, Consultant shall return these sums to City within ten (10) days after notice that these sums are due. Nothing in this Section shall limit City's right to terminate, at any time, pursuant to Article 8 above, and its right for damages under Article 9.3.

9.3 In the event of Default, Consultant shall be liable for all damages resulting from the default, including but not limited to:

- A.** Lost funding, and
- B.** The difference between the cost associated with procuring services and the amount actually expended by City, including procurement and administrative costs.

9.4 City may take advantage of each and every remedy specifically existing at law or in equity. Each and every remedy shall be in addition to every other remedy specifically given or otherwise existing and may be exercised from time to time as often and in such order as may be deemed expedient by City. The exercise or the beginning of the exercise of one remedy shall not be deemed to be a waiver of the right to exercise any other remedy. City's rights and remedies as set forth in this Agreement are not exclusive and are in addition to any other rights and remedies available to City at Law or in equity.

ARTICLE 10

DELIVERY OF MATERIALS

10.1 Upon receipt of notice of termination under Articles 8 or 9 above, Consultant shall immediately deliver to City all Materials held or used by Consultant in connection with the Services except those Materials, if any, owned by Consultant or supplied by Consultant at Consultant's own cost. If, at the time of termination further sums are due Consultant, Consultant shall not be entitled to sums until all Materials required to be delivered to the City are delivered in electronic format, including any additional format of delivery of Materials requested by the City.

10.2 Upon receipt of notice of termination for any reason, Consultant shall promptly cease all Services, except for additional Services that the City may, in its discretion, request Consultant to perform. Consultant shall perform additional Services with the standard of care as stated in Article 5 above.

ARTICLE 11

CONTRACT DOCUMENTS

11.1 The Contract Documents which comprise the entire agreement between City and Consultant concerning the Work consist of this Agreement, including amendments hereto and the following:

- All Change Orders (if any) which may be delivered or issued after the Effective Date of this Agreement;
- All Addenda;
- Consultant's Proposal;

- Solicitation, General Provisions;
- General Conditions;
- Technical Specifications;
- Referenced Standard Specifications; and
- Drawings.

11.2 There are no Contract Documents other than those listed herein. The Contract Documents may only be amended by written Change Order (if any) as provided in the General Conditions. In the event of any conflict between this Agreement and any other of the Contract Documents, this Agreement and amendments shall govern first and then the other Contract Documents in the order listed above.

ARTICLE 12 **ASSIGNMENT**

No assignment by the Consultant of any rights or obligations hereunder or interests in the Contract Documents will be binding on the City without the written consent of the City, which may be withheld for any reason, in the City's sole discretion.

ARTICLE 13 **APPLICABLE LAW; ACCIDENT PREVENTION AND REGULATIONS**

Consultant shall comply with all applicable Laws and Regulations at all times. Precautions shall be exercised at all times for the protection of persons and property. The Consultant and all Subcontractors (if any) shall conform to all OSHA, federal, state, county and City Regulations while performing under this Agreement. Any fines levied by the above-mentioned authorities because of inadequacies to comply with these requirements shall be borne solely by the Consultant.

ARTICLE 14 **AUDIT AND INSPECTION RIGHTS**

14.1 The City may, at reasonable times and for a period of up to three years following the date of Final Completion, audit, or cause to be audited, those books and records of Consultant that are related to Consultant's performance under this Agreement. Consultant agrees to maintain all such books and records at its principal place of business for a period of three years after final payment is made under this Agreement.

14.2 The City may, at reasonable times during the term hereof, inspect Consultant's facilities and perform such inspections as the City deems reasonably necessary to determine whether the Services required to be provided by Consultant under this Agreement conform to the terms hereof and/or the terms of this Agreement. Consultant shall make available to the City all reasonable facilities and assistance to facilitate the performance of inspections by the City's representatives. All inspections

shall be subject to and made in accordance with all applicable Laws, including but not limited to the provisions of the City Code and the Code of Broward County, Florida, as same may be amended or supplemented from time to time.

14.3 The City may, as deemed necessary, require from the Consultant support and/or documentation for any submission. Upon execution of the Agreement, the Consultant agrees that the City shall have unrestricted access during normal working hours to all Consultant's records relating to this Project, including hard copy as well as electronic records, for a period of three years after Final Completion.

ARTICLE 15

SURVIVAL OF PROVISIONS

Any terms or conditions of this Agreement that require acts beyond the date of its termination shall survive the termination of this Agreement, shall remain in full force and effect unless and until the terms or conditions are completed, and shall be fully enforceable by either party.

ARTICLE 16

PUBLIC RECORDS

16.1 The Consultant shall comply with The Florida Public Records Act as follows:

16.1.1 Keep and maintain public records in the Consultant's possession or control in connection with the Consultant's performance under this Agreement, that ordinarily and necessarily would be required by the City in order to perform the service.

16.1.2 Upon request by the City's records custodian, provide the City with a copy of requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.

16.1.3 Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of this Agreement, and following completion of this Agreement until the records are transferred to the City.

16.1.4 Upon completion of this Agreement or in the event of termination of this Agreement by either party, any and all public records relating to this Agreement in the possession of the Consultant shall be delivered by the Consultant to the City, at no cost to the City, within seven (7) days. All records stored electronically by the Consultant shall be delivered to the City in a format that is compatible with the City's information technology systems. Once the public records have been delivered to City upon completion or termination of this Agreement, the Consultant shall destroy any and all duplicate public records that are exempt or confidential and exempt from public record disclosure requirements.

16.1.5 The Consultant's failure or refusal to comply with the provisions of this Section shall result in the immediate termination of this Agreement by the City.

16.1.6 IF CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT 954-602-3011, dagibbs@miramarfl.gov OR BY MAIL: City Of Miramar – City Clerk's Office, 2300 Civic Center Place, Miramar, FL 33025.

16.1.7 Ownership of Documents: Unless otherwise provided by law, any and all reports, surveys, and other data and documents provided or created in connection with this Agreement are and shall remain the property of the City. Any compensation due to the Consultant shall be withheld until all documents are received as provided herein.

ARTICLE 17

COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS

17.1 Consultant understands that agreements between private entities and local governments are subject to certain Laws and Regulations, including, by example and not limited to, Laws pertaining to public records, conflict of interest, and record keeping. Consultant agrees to comply with and observe all applicable Laws, codes and ordinances as they may be amended from time to time.

17.2 Consultant agrees that it shall not make any statements, press releases or publicity releases concerning this Agreement or its subject matter or otherwise disclose or permit to be disclosed any of the data or other information obtained or furnished in compliance with this Agreement, or any particulars thereof, during the period of the Agreement, without first notifying the City and securing prior written consent, unless and except otherwise required by Law. The Consultant also agrees that it shall not publish, copyright or patent any of the data developed under this Agreement, it being understood that such data or information are works made for hire and the property of the City.

17.3 The knowing employment by Consultant or its Subcontractors or Subconsultants of any alien not authorized to work by the immigration Laws or the Attorney General of the United States is prohibited and shall be a default of this Agreement.

ARTICLE 18

INSURANCE

18.1 Consultant shall furnish to the City of Miramar, 2300 Civic Center Place, Miramar, Florida 33025, before the commencement of Work, certificates of insurance and all required endorsements that indicate the insurance coverage has been obtained and meets the requirements set forth in the General Conditions and the following:

- Commercial General Liability:
\$1,000,000 each occurrence, \$2,000,000 general aggregate;
Professional Liability: \$1,000,000;
- Products and Complete Operations Aggregate: \$2,000,000;
- Personal Injury and Advertising Injury: \$1,000,000;
- Bodily Injury, \$1,000,000 each person, \$1,000,000 each occurrence;
- Property Damage, \$500,000 each occurrence or combined single limit of \$1,000,000 each occurrence;
- Automobile Liability: \$1,000,000 combined single limit per accident;
- Workers Compensation and Employers Liability: \$1,000,000 each accident, \$1,000,000 each employee for injury by disease, \$1,000,000 aggregate for injury by disease.

18.2 The City shall be named as the certificate holder and an Additional Insured on all certificates. All liability insurance policies shall have endorsements adding the City of Miramar as an Additional Insured, a waiver of subrogation in favor of the City and a separate endorsement for automobile liability. Insurance shall be maintained continuously during the term of the Contract up to the date of Final Completion, but the Consultant's liabilities under this Agreement shall not be deemed limited in any way to the insurance coverage required.

ARTICLE 19

INDEPENDENT CONTRACTOR

Consultant has been procured and is being engaged to provide Services to the City as an independent contractor, and not as an agent or employee of the City. Accordingly, Consultant shall not attain nor be entitled to any rights or benefits of the City, nor any rights generally afforded classified or unclassified employees of the City. Consultant further understands that Florida Workers' Compensation benefits available to employees of the City are not available to Consultant, and agrees to provide workers' compensation insurance for any employee or agent of Consultant rendering Services to the City under this Agreement.

ARTICLE 20

NONDISCRIMINATION

Consultant represents and warrants to the City that Consultant does not and shall not engage in discriminatory practices and that there shall be no discrimination in connection with Consultant's performance under this Agreement on account of race,

age, religion, color, gender, sexual orientation, national origin, marital status, physical or mental disability, political affiliation or any other factor which cannot be lawfully used as a basis for delivery of Services. Consultant further covenants that no otherwise qualified individual shall, solely by reason of his/her race, age, religion, color, gender, sexual orientation, national origin, marital status, physical or mental disability, political affiliation or any other factor which cannot be lawfully used as a basis for delivery of Services, be excluded from participation in, be denied any Services, or be subject to discrimination under any provision of the General Conditions.

ARTICLE 21

COSTS AND ATTORNEY FEES

If either City or Consultant is required to enforce the terms of this Agreement by court proceedings or otherwise, whether or not formal legal action is required, the prevailing party shall be entitled to recover from the other party all such costs and expenses, including but not limited to court costs and reasonable attorney's fees.

SECTION 22

CONFLICT-OF-INTEREST

22.1 To avoid any conflicts of interest, or any appearance thereof, Consultant, for the term of this Agreement, agrees that it will not represent any private sector entities (including but not limited to developers, corporations, real estate investors, etc.) in Miramar, Florida, without notifying the City of the services to be performed. If after such notification the City reasonably determines that a material conflict exists, Consultant will not perform such conflicting Work. The conditions and requirements of this paragraph will also apply to any Subconsultants utilized by Consultant in completion of the Work tasks under this Agreement.

22.2 Furthermore, Consultant covenants that no person under its employ who presently exercises any functions or responsibilities on behalf of the City in connection with this Agreement has any personal financial interest, direct or indirect, with contractors or vendors providing professional services on projects assigned to Consultant, except as fully disclosed and approved by the City. Consultant further covenants that, in the performance of this Agreement, no person having such conflicting interest shall be employed. Any such interest on the part of Consultant or its employees must be disclosed in writing to the City.

ARTICLE 23

COUNTERPARTS

This Agreement may be executed in two or more counterparts, each of which shall constitute an original but all of which, when taken together, shall constitute one and the same Agreement.

ARTICLE 24
WAIVER

The waiver by either party of any failure on the part of the other party to perform in accordance with any of the terms or conditions of this Agreement shall not be construed as a waiver of any future or continuing similar or dissimilar failure. No waiver shall be effective unless made in writing.

ARTICLE 25
BINDING AUTHORITY

Each person signing this Agreement on behalf of either party individually warrants that he or she has full legal power to execute this Agreement on behalf of the party for whom he or she is signing, and to bind and obligate such party with respect to all provisions contained in this Agreement. This Agreement shall be binding upon the parties hereto, their heirs, executors, legal representatives, successors, or assigns.

ARTICLE 26
NOTICES

All notices or other communications required under this Agreement shall be in writing and shall be given by Electronic Mail Transmittal, hand-delivery, by registered or certified U.S. Mail, return receipt requested, addressed to the other party at the address indicated herein or to such other address as a party may designate by notice given as herein provided. Notice shall be deemed given on the day on which personally delivered, or, if by mail, on the fifth day after being posted or the date of actual receipt, whichever is earlier.

TO CONSULTANT:

ATTN: Scott Lee
Aecom Technical Services, Inc.
110 E. Broward Boulevard #700
Ft. Lauderdale, Florida 33301
Telephone: (352) 638-5320
Fax: (813) 287-8591
Email: scott.lee@aecom.com

TO THE CITY OF MIRAMAR:

ATTN: Vernon E. Hargray, City Manager
CITY OF MIRAMAR
2300 Civic Center Place
Miramar, Florida 33025
Telephone: (954) 602-3115
Fax: (954) 602-3672
Email: vhargray@miramarfl.gov

WITH A COPY TO:

City Attorney
Austin Pamies Norris Weeks Powell, PLLC
401 NW 7th Avenue
Fort Lauderdale, FL 33311
Telephone: (954) 768-9770

Email: miramarcityattorney@apnwplaw.com

ARTICLE 27
CITY'S OWN FORCES

27.1 The City reserves the right to perform operations related to the Project with the City's own forces, and to award contracts in connection with the Project which are not part of the Consultant's responsibilities under this Agreement.

27.2 The City will have the right to inspect and conduct periodic inspections of the Work and/or Materials to determine compliance with the requirements of the Contract. Any Work and/or Materials rejected by the City for non-compliance shall be replaced and/or corrected at the Consultant's expense. Failure to reject Defective Work and/or Materials, whether from lack of discovery of such defect or for any other reason, will not relieve the Consultant from responsibility to complete the Work in full compliance with all Contract requirements and shall in no way prevent later rejection of such Defective Work when discovered.

ARTICLE 28
LIMITATION OF LIABILITY

28.1 The City desires to enter into this Agreement only if in so doing the City can place a limit on City's liability for any cause of action for money damages due to an alleged breach by the City of this Agreement, so that its liability for any such breach never exceeds the fee paid to Consultant herein, less any sums paid by the City. Consultant hereby expresses its willingness to enter into this Agreement with Consultant's recovery from the City for any damage action for breach of contract to be limited to a maximum fee paid to Consultant herein, less any sums paid by the City.

28.2 Accordingly, and notwithstanding any other term or condition of this Agreement, Consultant agrees that the City shall not be liable to Consultant for damages in an amount in excess of the fee paid to the Consultant herein, less any sums paid by the City, for any action or claim for breach of contract arising out of the performance or non-performance of any obligations imposed upon the City by this Agreement. Nothing contained in this paragraph or elsewhere in this Agreement is in any way intended to be a waiver of the limitation placed upon the City's liability as set forth in Section §768.28, Florida Statutes.

28.3 In no event shall either party be liable for any indirect, incidental, special, or consequential damages, including, without limitation, loss of profits, revenue, or use incurred by either party or any third party, whether in an action in contract or tort, even if the other party or any other person has been advised of the possibility of such damages.

ARTICLE 29
NON-SOLICITATION

Consultant represents and warrants to the City that it has not employed or retained any person or company employed by the City to solicit or secure this Agreement and that it has not offered to pay, paid, or agreed to pay any person any fee, commission, percentage, brokerage fee, or gift of any kind contingent upon or in connection with the award or making of this Agreement. For the breach or violation of this provision, the City shall have the right to terminate the Agreement without liability at its discretion, to deduct from the Contract Price, or otherwise recover the full amount of such fee, commission, percentage, gift or consideration.

ARTICLE 30
THIRD PARTY BENEFICIARY

It is specifically agreed between the City and Consultant executing this Agreement that it is not intended by any of the provisions of any part of the Agreement to create in the public or any member thereof a third party beneficiary hereunder, or to authorize anyone not a party to this Agreement to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this Agreement.

ARTICLE 31
WARRANTY AND GUARANTEE

Architect warrants that its Services are to be performed within the limits prescribed by City and with the usual thoroughness and competence of Architect's profession. Architect shall be responsible for technically deficient designs, reports or studies due to errors and omissions directly related to the Services provided by Architect pursuant to this Agreement for four years after the date of acceptance of the Services by City. Architect shall, upon the request of City, promptly correct or replace all Defective Work due to errors or omissions directly related to the Services provided by Architect pursuant to this Agreement at no cost to the City.

ARTICLE 32
VENUE AND JURISDICTION

This Agreement shall be construed and enforced according to the Laws of the State of Florida. The parties submit to the jurisdiction of any Florida state or federal court in any action or proceeding arising out of or relating to this Agreement. Venue for any action arising out of this Agreement shall be in Broward County, Florida.

ARTICLE 33
HEADINGS AND INTERPRETATION

Title and paragraph headings are for convenience only and are not a part of this Agreement. Consultant has been given an opportunity for counsel of its choice to

review this Agreement. Accordingly, no party shall be deemed to have any benefit as the drafter of the document for interpretation purposes.

ARTICLE 34 **SEVERABILITY**

34.1 Should any provision, paragraph, sentence, word or phrase contained in this Agreement be determined by a court of competent jurisdiction to be invalid, illegal or otherwise unenforceable under any applicable Law, such provision, paragraph, sentence, word or phrase shall be deemed modified to the extent necessary in order to conform with such Laws, or if not modifiable, then same shall be deemed severable, and in either event, the remaining terms and provisions of this Agreement shall remain unmodified and in full force and effect for limitation of its use.

34.2 City and Consultant each binds itself, its partners, successors, assign and legal representatives to the other party hereto, its partners, successors, assign and legal representatives in respect of all covenants, agreements and obligations contained in this Agreement and in all Contract Documents.

ARTICLE 35 **REAFFIRMATION OF REPRESENTATIONS**

Consultant reaffirms all of the representations contained in the Solicitation documents and previously made in all Contract Documents.

ARTICLE 36 **SCRUTINIZED COMPANIES**

36.1 Consultant certifies that it and its subcontractors are not on the Scrutinized Companies that Boycott Israel List. Pursuant to Section 287.135, F.S., the City may immediately terminate this Agreement at its sole option if the Consultant or its subcontractors are found to have submitted a false certification; or if the Consultant, or its subcontractors are placed on the Scrutinized Companies that Boycott Israel List or is engaged in the boycott of Israel during the term of the Agreement.

36.2 If this Agreement is for more than one million dollars, the Consultant certifies that it and its subcontractors are also not on the Scrutinized Companies with Activities in Sudan, Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or engaged with business operations in Cuba or Syria as identified in Section 287.135, F.S. Pursuant to Section 287.135, F.S., the City may immediately terminate this Agreement at its sole option if the Consultant, its affiliates, or its subcontractors are found to have submitted a false certification; or if the Consultant, its affiliates, or its subcontractors are placed on the Scrutinized Companies with Activities in Sudan List, or Scrutinized Companies with Activities in the Iran Petroleum Energy

Sector List, or engaged with business operations in Cuba or Syria during the term of the Agreement.

36.3 The Consultant agrees to observe the above requirements for applicable subcontracts entered into for the performance of work under this Agreement.

36.4 As provided in Subsection 287.135(8), F.S., if federal law ceases to authorize the above-stated contracting prohibitions then they shall become inoperative.

ARTICLE 37

CERTIFICATE OF COMPETENCY

Consultant shall, at the time of executing this Agreement, hold a valid certificate of competency or applicable license for providing the Services, if applicable, issued by the federal, state, or county examining board qualifying the Consultant to perform the Work. If a Subcontractor(s) or Subconsultant(s) is employed, an applicable certificate of competency or license issued to the Subcontractor(s) or Subconsultant(s) shall be submitted along with Consultant's certificate or license upon execution of this Agreement; provided, however, that the City may, at its sole option, upon written approval to Consultant, and in its best interest, allow Consultant to supply the certificate(s) to the City during the first week of Work or Services.

ARTICLE 38

PARTICIPATION PLAN

Consultant agrees to the City's minimum goal requirement of 10% of the Services to be performed by a CBE / SBE and 5% of the Services to be performed by a Local vendor. Consultant agrees to make a good faith effort at recruiting such vendors to complete the Services and shall also submit a Proposed Subconsultants list showing anticipated Approved Vendors.

ARTICLE 39

E-VERIFY PROGRAM

In accordance with Florida Statutes §448.095, the Consultant, prior to commencement of services or payment by the City, will provide to the City proof of participation/enrollment in the E-Verify system of the Department of Homeland Security. Evidence of participation/enrollment will be a printout of the Company's "Company Profile" page from the E-Verify system. Failure to be continually enrolled and participating in the E-Verify program will be a breach of contract which will be grounds for immediate termination of the contract by the City. The Consultant will not hire any employee who has not been vetted through E-Verify. The Consultant may not subcontract any work for the City to any subcontractor that has not provided an affidavit

stating that the subcontractor does not employ, contract with or subcontract with an unauthorized alien."

ARTICLE 40
ENTIRE AGREEMENT

The Contract Documents constitute the sole and entire agreement of the parties relating to the subject matter hereof and correctly set forth the rights, duties, and obligations of each to the other as of its date. Any prior agreements, promises, negotiations, or representations not expressly set forth therein, are of no force or effect. No modification or amendment thereto shall be valid unless in writing and executed by properly authorized representatives of the parties herein.

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

CITY OF MIRAMAR:

By: _____
City Manager
Vernon E. Hargray

CONSULTANT:

By: C. Scott Lee

C. Scott Lee, V.P.

This ____ day of _____, 2021.

Date: 4/27/2021

ATTEST:

Denise A. Gibbs, City Clerk

Corporate Seal

Approved as to form and legal sufficiency
for the use of and reliance by the City of
Miramar, Florida only:

City Attorney
Austin Pamies Norris Weeks Powell, PLLC

Exhibit A

**RFQ 21-10-05 West Water Treatment Plant Capacity Expansion and Upgrades
WELL REHABILITATION AND TESTING OF DEEP INJECTION WELL
AND
PRELIMINARY DESIGN FOR THE WEST WATER TREATMENT PLANT
CAPACITY EXPANSION AND SYSTEM UPGRADES
CITY OF MIRAMAR**

The proposal includes Package 1 and 2 Only.

**Packages 3, 4 and 5 will be provided after acceptance by the City of the
Preliminary Design Report which will contain the Basis of Design and
Recommendations.**

Background

The CITY's West Water Treatment Plant (WTP) was constructed in 1996 as a conventional nanofiltration (NF) also called membrane softening treatment plant using raw water from the Biscayne aquifer with an initial capacity of three skids 4.5 MGD. In 2003, two additional NF skids were added that increased the total plant capacity to 7.5 MGD. Then in 2007 additional membrane vessels were constructed on existing skids to further expand the capacity to 9.25 MGD. The most recent expansion was constructed in 2012, with 2 new Floridan aquifer wells, and a 2.5 MGD reverse osmosis (RO) membrane treatment skid for a total plant capacity of 11.75 MGD. The plant blends the permeate from the NF units and the RO unit and distributes the finished water to the consumers for potable use. The CITY also owns and operates two Class I deep injection wells at the West Water Treatment Plant.

To further enhance the West WTP treatment and operation capability, the CITY has decided to add a new 2.5 MGD NF Skid to improve plant performance, plant redundancy, treatment efficiency and reliability, and meet future growth demands. These services will include pre and post treatment processes with necessary upgrades to the existing system to support the expansion. The improvements will achieve an overall rated plant capacity of 14.25 MGD. In addition, the scope of work includes recommendations for renewal and replacement of equipment and site improvements to enhance physical security and general aesthetics of the facility.

To implement the project, multiple work packages have been identified as follows:

Package 1: Deep Injection Well Rehabilitation

Package 2: Preliminary Design Report (PDR)

Package 3: Final Design and Permitting

Package 4: Construction, Start-up and Owner Direct Purchase (ODP) of Select WTP Components

Package 5: Future Plant Upgrade Design and Construction

This proposal includes Package 1 and 2 only. Packages 3, 4 and 5 will be provided after acceptance by the CITY of the Preliminary Design Report which will contain The Basis of Design and Recommendations.

**WELL REHABILITATION AND TESTING OF
DEEP INJECTION WELL (IW-1 & IW-2)
PACKAGE #1**

CITY OF MIRAMAR WEST WATER TREATMENT PLANT

Package 1 – Scope of Services

The City of Miramar (CITY) owns and operates a Class I deep injection well system at West Water Treatment Plant (WTP). The injection well system consists of two (2) Class I alternate design injection wells identified as IW-1 and IW-2 and a dual-zone monitor well identified as MW-1.

The first alternate design deep injection well IW-1 is completed to a total depth of 3,500 feet below pad level (bpl) but has bridged or back-filled to approximately 3,123 feet bpl. IW-1 is constructed using a nominal 16-inch diameter steel injection casing installed to a depth of 3,095 feet bpl and nominal 10-inch Fiberglass Reinforced Pipe (FRP) injection tubing set to 3,033 feet bpl. The receiving injection is currently limited to 28 feet in comparison to the original length of 405 feet representing a reduction of 93% of the open-hole to receive injected fluids.

The second-deep injection well IW-2 is also an alternate design well completed to a total depth of 3,508 feet bpl but has bridged or back-filled to approximately 3,130 feet bpl. IW-2 is constructed using a nominal 16-inch diameter steel injection casing installed to a depth of 3,040 feet bpl and nominal 10-inch Fiberglass Reinforced Pipe (FRP) injection tubing set to 3,033 feet bpl. The receiving injection well is currently limited to 90 feet in comparison to the original length of 468 feet representing a reduction of 80% of the open-hole to receive injected fluids.

The following scope of services includes the testing and development of documents for the Well Rehabilitation and Testing of the Injection Wells at the CITY's West Water Treatment Plant. The CITY will procure the services of a qualified and Florida licensed Water Well Contractor under separate contract. AECOM will develop and submit the Well Rehabilitation and Testing Plan to the FDEP; develop a set of technical specifications and drawings, oversee field operations during Well Rehabilitation and Testing operation and produce and submit to the FDEP a final technical report documenting the results of the well rehabilitation completed on IW-1 and IW-2. The final technical report shall provide a rated capacity of the deep injection disposal operation, with one well in operation and the second well as standby with 100% redundant capacity of FDEP approval.

Task 1 - Project Management

Project Management activities comprise of contract administration, coordination of project staff, monitoring of progress and project costs during the Professional Services phases.

AECOM will attend meetings with representatives of the CITY as part of this project, as follows:

- a. Project kick-off meeting
- b. Senior Management and QA/QC
- c. Progress/review meeting at the 90% completion milestone for the two documents under Tasks 2 and 5.
- d. Meeting with the Florida Department of Environmental Protection to discuss well rehabilitation plan after its submission

Task 2 – Well Rehabilitation Plans and Specifications

AECOM will prepare a Well Rehabilitation and Testing Plan for submittal to the Florida Department of Environmental Protection (FDEP). This plan shall include provisions that include mechanical cleaning (brushing) the nominal 10-inch FRP injection tubing, removal of the backfilled material within the open completed injection zone for IW-1 and IW-2 via reverse air drilling/circulation, well acidization and injection testing. Once the backfilled material is removed, the open hole will be acidized to increase the injection capacity of each well. Following acidization a final clean-out of the open-hole will be completed, then a 4-arm caliper and downhole video survey will be completed to document the effects of brushing of the FRP injection tubing and the clean-out and acidization of the injection zones. In addition, a pre and post injectivity test will be completed to document the effectiveness of the well rehabilitation process.

AECOM will respond to two (2) Requests for Information (RFIs) from the FDEP related to the Well Rehabilitation and Testing Plan.

Task 3 – Bidding Services

AECOM will prepare technical specifications and contract drawings or figures for bidding the Well Rehabilitation work, and submit the plan and specifications to the selected Contractor for execution, which includes the following tasks:

1. An Engineer's estimate of probable costs will be prepared. The estimate will be based on Price Index adjusts since bids received in 2016.
2. CITY shall provide standard front-end documents for AECOM to be incorporated into the Contract Documents for bidding. AECOM shall add the summary of work, bidder qualifications and bid form for insertion into the bidding documents in a format suitable to the CITY.
3. CITY shall advertise the bid and addenda if any, electronically. AECOM shall be responsible for answering questions and preparing bid addenda for the City to issue electronically.

4. AECOM shall provide limited bidding services such as attendance at a Pre-Bid conference, preparation of meeting minutes and provide timely responses to written questions from potential bidders through the CITY relating to documents prepared by AECOM.
5. AECOM shall prepare bid tabulation and evaluate the bid of the lowest responsive bidder to establish the bidders' ability to perform the contract requirements; the CITY shall determine bidder responsiveness; and AECOM shall provide a recommendation of award to the CITY.

Task 4 – Well Rehabilitation and Testing Services

AECOM shall attend a Pre-Construction meeting to coordinate the performance of the well rehabilitation and testing between plant operation staff and bidder and ensure uninterrupted concentrate disposal operation throughout the planned work. AECOM will chair the Pre-Construction meeting and provide meeting minutes to all attendees and shall coordinate the work with the FDEP and provide required notification in accordance with the approved well rehabilitation plan.

AECOM will provide resident inspection services during well rehabilitation and testing at 10 hours per day for 40 days (20 workdays per injection well) to ensure proper set-up, well rehabilitation and testing operations and demobilization. The resident inspector will be a member of AECOM's staff experienced in the well rehabilitation and testing of Class I injection wells. As part of the services during well rehabilitation and testing, AECOM will review progress of the work and recommend acceptance by the CITY.

Task 5 – Well Rehabilitation and Testing Report

Upon completion of well rehabilitation and testing operations, AECOM will prepare a report to be submitted to the FDEP and the CITY. The report will summarize the results of well rehabilitation and testing. AECOM will complete this report within 60 days of completing well rehabilitation and testing operations in accordance with FDEP requirements. AECOM will respond to one RFI generated by the FDEP regarding the submitted well rehabilitation and testing report. The final technical report shall provide a rated capacity of the deep injection disposal operation, with one well in operation and the second well as standby with 100% redundant capacity of FDEP approval.

Direct Expenses

Direct expenses include any direct, non-salary expense, including, but not limited to, travel, mileage, photocopies, blueprints, out-of-office reproduction, or photographic services and services from Water Rite Consulting.

Obligations of Owner

To assist meeting schedule and budget estimates contained in this proposal, the CITY will provide the following:

1. Prompt review and comment on all documents requiring a response.
2. Attendance of key personnel at meetings as requested.

3. Pay all Regulatory permit and processing fees, if required

Compensation

Professional fees for SCOPE OF SERVICES between the CITY and AECOM, to provide professional engineering services and mechanical integrity testing services shall be paid lump sum in accordance with the following schedule:

COST PROPOSAL FOR WELL REHABILITATION & TESTING SERVICES

PACKAGE 1

TASK	TOTAL COST
Task 1 – Project Management	\$ 6,995
Task 2 – Well Rehabilitation Plan and Specifications	\$ 9,320
Task 3 – Bidding Services	\$ 4,800
Task 4 – Well Rehabilitation and Testing Services	\$ 27,860
Task 5 – Well Rehabilitation and Testing Report	\$ 9,640
Direct Expenses including Water Rite Consulting	\$ 5,750
TOTAL	\$ 64,365

Schedule

The time periods for the performance of services are as follows:

TASK	DURATION
Prepare Plans and Specifications	6 weeks from NTP issued by the CITY to AECOM
Well Rehabilitation and Testing Services	2 weeks from NTP to Licensed Well Contractor after receipt of Regulatory Approval
Well Rehabilitation and Testing Report	8 weeks from Completion of Well Rehabilitation& Testing Operations

Payment

AECOM shall obtain written consent of the CITY before acting upon project work directives, work directive changes or change order affecting this part of the project and assume full responsibility for any such action taken without such consultation or consent.

AECOM shall give prompt written notice to the CITY whenever AECOM observes or otherwise becomes aware of any development that affects the scope, pricing, or timing of AECOM's services.

Cost Breakdown Package 1

Project: AECOM Technical Services
 Engineer: Engineers Project
 Number:
 Date: 3/23/2021

Tasks	Project Manager	Principal Hydrogeologist	Assistant Hydrogeologist III	Designer			Admin Assistance	Direct Expenses	PROJECT TOTALS
				CADD Operator Technician					
	Cost Per Hour	\$215	\$200	\$105	\$100	\$85			
Task 1	Project Management including Water Rite Consulting	19	12				6	2,500	
Task 2	Well Rehabilitation Plan and Specifications	4	18	30	12		6	\$150	
Task 3	Bidding Services	4	18				4	\$200	
Task 4	Well Rehabilitation and Testing Services	4	30	200				\$2,800	
Task 5	Well Rehabilitation and Testing Report	4	18	32	8		12	\$100	
Task 1	Cost	\$4,085	\$2,400	\$0	\$0		\$510		\$6,995
Task 2	Cost	\$860	\$3,600	\$3,150	\$1,200		\$510		\$9,320
Task 3	Cost	\$860	\$3,600	\$0	\$0		\$340		\$4,800
Task 4	Costs	\$860	\$6,000	\$21,000	\$0		\$0		\$27,860
Task 5	Cost	\$860	\$3,600	\$3,360	\$800		\$1,020		\$9,640
	Direct Expense							\$5,750	\$5,750
	Total Costs	\$7,525	\$19,200	\$27,510	\$2,000		\$2,380		\$64,365
	Total Hours	35	96	282	20		28		489

**PRELIMINARY DESIGN FOR THE WEST WATER TREATMENT PLANT
CAPACITY EXPANSION AND SYSTEM UPGRADES
PACKAGE #2**

Package 2 – Scope of Services

CONSULTANT will provide CITY with the following services:

Task 1 – Project Management, Site Visit, Coordination, and Initial Data Review

1. Project Management, Billing & Progress Tracking – CONSULTANT's project manager will be tasked with managing the efforts of the project team including subconsultants contracted by CONSULTANT, coordination of internal quality assurance and control reviews, monthly invoicing, and progress reporting. At each invoicing period, the project manager will review progress and schedule as defined herein for invoicing and reporting purposes.
2. Coordinate Site Visits, Meetings & Teleconferences – CONSULTANT will coordinate with CITY project site visits, meetings and teleconferences as described herein.
3. Initial Data Review – CONSULTANT will review the CITY's Monthly Operating Reports (MORs), and current operating status of the raw water wells, chemical feed systems, raw water pre-treatment, NF and RO skids, post-treatment processes, transfer pumping, storage, high service pumping, odor control and deep injection well system. CONSULTANT will review up to 2-years of operational data. CONSULTANT will also review the new Huntington Well design and anticipated raw water quality and identify possible impacts to NF performance.
4. Review Relevant Permits and Correspondence with Regulatory Agencies – CONSULTANT will review permits and correspondence between CITY and the Florida Department of Environmental Protection (FDEP) the South Florida Water Management District (SFWMD) as pertaining to the existing Water/Consumptive Use, Deep Well Injection and Plant Operation permits.
5. Design Team Site Visit – includes site visit to the WTP by representatives from each applicable engineering discipline and surveyor to obtain design information that is necessary to establish preliminary design criteria. Key operational staff from the CITY's operations, SCADA and electrical team will be available to provide access and to answer questions as necessary during the site visit.

Task 2 – Preliminary Design Report

CONSULTANT will prepare a preliminary design report to serve as the Basis of Design and Recommendations (BODR) for the plant expansion that will accompany the FDEP construction permit application. The BODR will describe the technical approach planned for the project as well as the design parameters to be used. The tasks are as follows:

1. Deep Well Injection Concentrate Disposal System shall be reevaluated with the additional injection flows from the new NF skid and includes the preliminary sizing and

conceptual layout for existing system booster pump replacement and associated piping, valving and ancillary equipment modifications.

2. Plant Capacity Assessment – includes confirming existing plant flow capacity for the plant to identify improvements needed to accommodate the increase in plant flow. CONSULTANT will review wellfield, pumping, piping, chemical feed and storage systems, pre-treatment, post treatment, storage, odor control and waste disposal. It is noted that CONSULTANT's Condition Assessment project did not include evaluation of increased treatment plant capacity with new a NF skid.
3. Single 2.5 MGD NF Skid Addition – includes preliminary sizing and conceptual layout of the membrane feed pumps, NF skid, membrane manufacturer performance modeling, and optimization of skid water flux rate and number of stage 1 and 2 pressure vessels. To the extent possible, CONSULTANT will adjust NF feed water quality for the new Huntington well. CONSULTANT understands the City prefers to use the same NF membrane as currently installed at the East WTP. CONSULTANT will inform the City if an alternate membrane is needed to achieve performance requirements for permeate water quality, feed pressure requirements or other factors.
4. Cartridge Filter Pretreatment – includes upgrades and preliminary sizing and conceptual layout of a new cartridge filter to pretreat raw water from the Biscayne Aquifer wellfield.
5. Anti-scalant Chemical Feed – includes upgrades and preliminary sizing and conceptual layout of a new anti-scalant feed pump skid.
6. NF Permeate Degasifiers – includes system upgrades and preliminary identification of equipment needing maintenance and/or replacement, and ductwork modifications to permit isolation of each degasifier unit for maintenance without shutdown of entire NF process.
7. Off-gas and Odor Control – includes system upgrades and preliminary identification of equipment requiring maintenance and/or replacement to treat the off-gas odor from the degasifiers.
8. Increased NF Recovery Rate – includes a plant test operating protocol to confirm feasibility of operation above 80% recovery of the existing NF skids. Increased recovery is intended to lower the combined concentrate flow volume for disposal in the deep injection wells. CONSULTANT anticipates assisting the CITY preparing a performance demonstration protocol to evaluate operation up to a maximum of 85% recovery. The demonstration will proceed during the Package 3 final design phase of work.
9. Raw Water Blending and finished water pH and Alkalinity. Evaluate possible raw water blending based on a desktop analysis and water quality requirements and provide a preliminary concept layout. As a part of this task CONSULTANT will prepare a desktop analysis of anticipated West WTP finished water pH and alkalinity. The results will be compared to existing East and West WTP finished water quality.
10. Process Flow Diagram – Develop a line diagram of the existing and proposed WTP unit operations including chemical feed pumps and storage that will integrate the new equipment and equipment upgrades into the existing WTP process.

11. Conceptual Instrumentation and Control – Establish the basis of design for instrumentation and control tie-in to CITY's existing supervisory and control data acquisition (SCADA) system.
12. Electrical – includes preparing the electrical design criteria, calculating preliminary equipment loads, and coordination with CITY electrical staff. Electrical distribution equipment will be preliminarily sized and laid out within the existing electrical room. General coordination will be conducted with the CITY for electrical loads related to the building and equipment placement. A preliminary electrical single line diagram will be included. CONSULTANT assumes adequate space is available for new electrical equipment and no new electrical service, auxiliary power, lighting, grounding and lightning protection are required.
13. Structural – includes review of structural loading to existing membrane process building for the NF skid and feed pump as well as a discussion explaining the materials to be used and basic concepts for installing the NF equipment and concentrate booster pumps. CONSULTANT assumes structural calculations will not be required to be submitted during the preliminary design phase.
14. Mechanical HVAC – includes reviewing the existing Motor Control Center (MCC) HVAC system capacity for ability to handle additional electrical gear, and establishing the basis of design for MCC room HVAC system improvements, if required.
15. Membrane Building Piping Survey – includes a surveyor to locate and measure the existing pipe and stub ups to update the as-built plant piping conditions for pipe tie-in with the new NF skid. CONSULTANT anticipates using local survey subcontractor.
16. Site Improvements – includes areas for construction equipment and staging of materials for the time construction activities remain, providing additional staff and visitor parking and improve the designed entry to the plant, new entry access fence and gate, upgraded site security system to control access to the plant, and improved site aesthetics with site maintenance, painting, and landscaping. This will include the conceptual layout of the site improvements.
17. Develop Site Plan – includes development of site plan in AutoCAD from existing West WTP record drawings.
18. Permitting – includes identifying project permitting requirements.
19. Preliminary Opinion of Probable Construction Cost – includes preparing preliminary opinion of probable construction costs based on the preliminary design criteria. It is noted that any opinion of probable construction cost prepared by CONSULTANT represents its judgment as a design professional and is supplied for the general guidance of CITY. Since CONSULTANT has no control over the cost of labor and material, or over competitive bidding or market conditions, CONSULTANT does not guarantee the accuracy of such opinions as compared to contractor bids or actual costs to the CITY.
20. Draft Preliminary Design Report and Internal QC Review – includes preparing and submitting three (3) hardcopies and electronic copy of the draft Preliminary Design Report with conceptual process flow diagram, site plan, opinion of probable construction

cost for the recommended plant improvements.

21. Preliminary Design Report Review Meeting – includes meeting with CITY to discuss and review the draft Report. The purpose of this review is to ensure that the City's needs are met and to facilitate a clear understanding of expectations in the design process.
22. Finalize Preliminary Design Report – includes incorporating CITY review comments and submitting finalized Report.

Deliverables

CONSULTANT will provide to CITY the following deliverables:

1. Three (3) hardcopies and electronic CD copy of the draft and final Preliminary Design Report.

Period of Service

The services described in this exhibit are anticipated to be completed in accordance with the following summary. Unless noted otherwise, all time durations listed below are in calendar days measured from the date upon which CONSULTANT receives authorization to proceed.

- The preliminary design technical memorandum will be submitted to CITY for delivery to the CITY for review within 180 days after receipt of the notice to proceed.
- The revised preliminary design technical memorandum will be submitted to CITY within 14 days of receiving CITY's comments on the draft document.

CONSULTANT will observe the time limitations contained herein. CONSULTANT shall not be responsible for delays, which occur as the result of action or inaction of others, such as delays in receiving information from others and in obtaining review comments from the CITY.

Compensation

COST PROPOSAL FOR PRELIMINARY DESIGN FOR THE WEST WATER TREATMENT PLANT CAPACITY EXPANSION AND SYSTEM UPGRADES PACKAGE 2

TASK	TOTAL COST
Task 1 – Project Management, Site Visits, Data Review	\$ 50,920
Task 2 – Preliminary Design Report	\$ 154,810
Direct Expenses includes travel, surveyor, and Water Rite Consulting	\$ 45,500
TOTAL	\$ 251,230

Compensation to CONSULTANT for services performed under this Work Order will be in accordance with the lump sum method. The total amount authorized by this Scope of Services

Package 1 and 2 is \$315,595.00. CONSULTANT will invoice CITY on a monthly basis according to CONSULTANT's estimated percent project completion per task.

CITY Responsibilities

The CITY will provide the following information and services at the time of notice to proceed:

- Access to CITY's WTP facility.
- Three (3) years of WTP Monthly Operating Reports (MORs) and system performance data.
- Three (3) years of correspondence with FDEP, SFWMD and any other relevant agencies regarding permits.
- Provide relevant water quality testing, design and permit information for the future Huntington Biscayne well.
- Copies of any additional WTP as-built drawings, as required.
- Assist and participate in the preliminary design team's WTP site visit(s).
- Assist CONSULTANT in coordinating with regulatory agencies and/or other utilities for the project.
- Review and approve submittals made by CONSULTANT as set forth herein in a timely manner. CITY shall provide all comments to CONSULTANT in written form.
- Provide assistance and/or services for activities not defined herein but required to complete the project.
- Prepare blended finished water samples for analysis by the City lab and report results to CONSULTANT's use in the finished water pH and alkalinity analysis.

Other Provisions

All exclusions and additional provisions agreed to in the original Agreement are to remain in full effect during the implementation of the project. Certain assumptions have been made in preparing this Scope of Services. To the extent possible, these assumptions are stated herein and are reflected in the budget for services.

- If the work tasks required are different from the assumptions presented herein or if CITY desires additional services, the resultant change in scope may serve as a basis for modifying this Authorization as agreed to by both CITY and CONSULTANT.
- CONSULTANT is not responsible for the means, methods, sequences, techniques or procedures of CITY's operations or for safety precautions and programs.
- Consistent with the professional standard of care and unless specifically provided herein, CONSULTANT shall be entitled to rely upon the accuracy of data and information provided by CITY or others without independent review or evaluation.

Exhibit B
City of Miramar

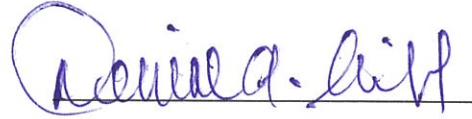
RFQ 21-10-05 West Water Treatment Plant Capacity Expansion and Upgrade

	Package	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11
Task	1 Well Rehabilitation and Testing of Deep Injection Well (IW-1 & IW-2)											
1	Project management	X	X	X	X	X	X	X	X	X	X	X
2	Well Rehabilitation Plans and specifications	X	X									
3	Bidding services and City bidding, award and contract with Well Driller			X	X	X						
4	Well rehabilitation and testing services						X	X	X	X		
5	Well Rehabilitation and Testing report									X	X	X
	2 Preliminary Design Report for the West Water Treatment Plant Capacity Expansion and System Upgrades											
1	Project Management, site visit, Coordination and Initial Data review	X	X	X	X	X	X	X	X			
2	Preliminary Design Report		X	X	X	X	X		X			
	City review							X				

Certificate of Filing for a Resolution

CERTIFICATE OF FILING

I, Denise A. Gibbs, as City Clerk of the City of Miramar, a Florida Municipal Corporation, hereby certify that this fully executed Resolution No. 21-99 was filed in the records of the City Clerk this 19th day of May, 2021.

A handwritten signature in blue ink, appearing to read "Denise A. Gibbs", is written over a horizontal line.

Print Name: Denise A. Gibbs

Print Title: City Clerk

Temp. Reso. No. 8125
4/9/24
6/4/24

**CITY OF MIRAMAR
MIRAMAR, FLORIDA**

RESOLUTION NO. 24-127

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF MIRAMAR, FLORIDA, APPROVING THE AGREEMENT (PACKAGE 5) WITH AECOM TECHNICAL SERVICES, INC., IN A TOTAL AMOUNT OF \$951,924, TO PROVIDE ENGINEERING SERVICES TO DESIGN TWO NEW FLORIDAN WELLS AND NEW LIFT STATION FORCE MAIN SYSTEMS FOR THE WEST WATER TREATMENT PLANT CAPACITY EXPANSION AND UPGRADES PROJECT; AUTHORIZING THE CITY MANAGER TO EXECUTE AN APPROPRIATE AGREEMENT; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City of Miramar ("City") Utilities Department is responsible for the operation and maintenance of the West Water Treatment Plant ("WWTP"); and

WHEREAS, the City is experiencing an increase in demand for potable water due to population, business growth, and land use change requiring the expansion of its treatment capacity; and

WHEREAS, on May 19, 2021, the City Commission adopted Resolution No. 21-99 and approved the award of Request For Qualifications No. 21-10-05 ("RFQ") entitled "West Water Treatment Plant Capacity Expansion and Updates" to AECOM Technology Services, Inc. ("Consultant"); and

Reso. No. 24-127

Temp. Reso. No. 8125
4/9/24
6/4/24

WHEREAS, three agreements were also awarded to the Consultant to conduct the professional services as specified in the Packages 1, 2, 3, and 4 out of a total of 5 packages as listed below; and

WHEREAS, this agreement (Package 5) will allow AECOM TECHNICAL SERVICES, INC. to provide the engineering services, in a total amount of \$951,924 to design/permit/bid two new Floridan wells and a new lift station force main system at the West Water Treatment Plant; and

WHEREAS, this project will improve the critically needed treatment capacity, provide redundancy and reliability, and will meet the future growth demands; and

WHEREAS, the Engineering Services During the Construction will be forthcoming for approval; and

WHEREAS, Section 2-412(a)(1) of the City Code provides that all commodities or services provided by a single vendor in excess of \$75,000 must be formally approved by the City Commission; and

WHEREAS, The City Manager recommends that the City Commission approves the agreement (Package 5) with AECOM TECHNICAL SERVICES, INC. in a total amount of \$951,924, to provide the engineering services to design two new Floridan wells and new lift station force main system for the West Water Treatment Plant Capacity Expansion and Upgrades Project; and

Temp. Reso. No. 8125
4/9/24
6/4/24

WHEREAS, The City Commission deems it to be in the best interest of the Citizens and residents of the City of Miramar to approve the agreement (Package 5) with AECOM TECHNICAL SERVICES, INC. in a total amount of \$951,924, to provide the engineering services to design two new Floridan wells and a new lift station force main system at the West Water Treatment Plant; and to authorize the City Manager to execute an appropriate agreement in substantial conformity with Exhibit "A," attached hereto.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF MIRAMAR, FLORIDA AS FOLLOWS:

Section 1: That the foregoing "WHEREAS" clauses are ratified and confirmed as being true and correct and are made a specific part of this Resolution.

Section 2: The City Commission approves the agreement (Package 5) with AECOM TECHNICAL SERVICES, INC. in a total amount of \$951,924, to provide the engineering services to design two new Floridan wells and new lift station force main system for the West Water Treatment Plant Capacity Expansion and Upgrades Project.

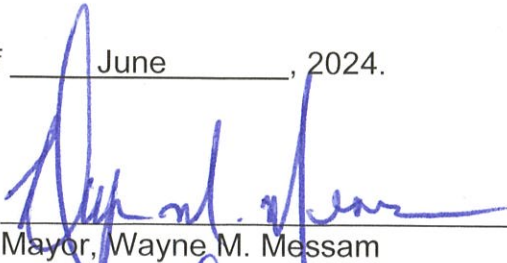
Section 3: That the City Manager is authorized to execute the appropriate agreement in substantial conformity with Exhibit "A."

Section 4: That the appropriate City officials are authorized to do all things necessary and expedient in order to carry out the aims of this Resolution.

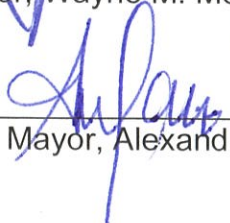
Section 5: That this Resolution shall become effective upon adoption.

Temp. Reso. No. 8125
4/9/24
6/4/24

PASSED AND ADOPTED this 11 day of June, 2024.

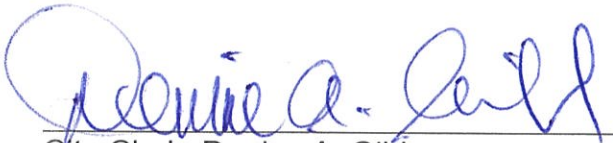


Mayor, Wayne M. Messam



Vice Mayor, Alexandra P. Davis

ATTEST:



City Clerk, Denise A. Gibbs

I HEREBY CERTIFY that I have approved
this RESOLUTION as to form:



City Attorney,
Austin Pamies Norris Weeks Powell, PLLC

Requested by Administration

Commissioner Winston F. Barnes
Commissioner Maxwell B. Chambers
Commissioner Yvette Colbourne
Vice Mayor Alexandra P. Davis
Mayor Wayne M. Messam

Voted

Yes
Yes
Yes
Yes
Yes

**RFQ 21-10-05 West Water Treatment Plant Capacity Expansion
and Upgrades**

**FUTURE PLANT UPGRADE DESIGN
CITY OF MIRAMAR
Package 5
Scope of Work
AECOM Technical Services, Inc. (Consultant)**

Background

The City of Miramar's (CITY) West Water Treatment Plant (West WTP) was constructed in 1996 as a conventional nanofiltration (NF), also called membrane softening, treatment plant using raw water from the Biscayne aquifer with three NF treatment skids and an initial capacity of 4.5 million gallons per day (MGD). In 2003, two additional NF skids were added that increased the total plant capacity to 7.5 MGD. Then in 2007 additional membrane vessels were constructed on existing skids to further expand the capacity to 9.25 MGD. The most recent expansion was constructed in 2012, with two new Floridan aquifer wells, and a 2.5 MGD reverse osmosis (RO) membrane treatment skid for a total plant capacity of 11.75 MGD. The plant blends the permeate from the NF units and the RO unit and distributes the finished water to customers for potable use. The CITY also owns and operates two Class I deep injection wells (DIW) at the West WTP.

To implement the project, multiple work packages have been identified as follows:

Package 1: Deep Injection Well Rehabilitation (Completed)

Package 2: Preliminary Design Report (PDR) (Completed)

Package 3: Final Design, Permitting and Bidding of an additional 2.5 MGD RO skid, an additional cartridge filter and anti-scalant and sulfuric acid chemical system upgrades. (Completed and approved for construction by the CITY).

Package 4: Engineering Services During Construction (ESDC) for the construction, and start-up services for the 2.5 MGD RO skid, an additional cartridge filter and anti-scalant and sulfuric acid chemical system (approved by the CITY).

Package 5: Future Plant Upgrade Design and Construction to further enhance the West WTP. A scope meeting was held with the CITY Staff on December 13, 2023, to define the scope for Package 5. Package 5 will include design, permitting, bidding services, and construction services associated with the following:

- The full design of F8 and F9 Upper Floridan Aquifer (UFA) Production wells including wellhead, pad and allowance for surface components including mechanical, electrical, civil and I&C connecting to the soon-to-be-constructed raw water main.

- Lift station improvements to eliminate the plant septic system and de-commission the Scavenger system including sanitary sewer force main (FM) (within the plant fence) connecting soon-to-be-constructed offsite FMs by others to the City's Wastewater Reclamation Facility (WWRF).
- FM for back-up to the Class I Injection Well System (within the plant fence area) to tie into a future offsite FM by others to the WWRF.

The Package 5 proposal will be approved as one package and split into two parts: Package 5a for the design, permitting and construction of the two (2) UFA Wells and Package 5b design, permitting and construction for the lift station and new sewer FM and for the new backup FM to the DIW's within the West WTP fence. The advantage to this will be the difference in procurement and schedules between Package 5a and 5b, allowing them to be bid separately and be coordinated with the design and construction of projects by others.

Packages 5a and 5b are described in more detail below.

Package 5a. Design UFA Production Well and Surface Facility

PROJECT DESCRIPTION

This phase of the project includes the design of two 20-inch diameter Upper Floridan aquifer (UFA) production wells to a total depth of 1,350 feet with variable frequency drive motor and pump system, completed surface conveyance pipe system, associated surface structures and FDEP permitting of the production well's surface facilities.

SCOPE OF SERVICES

The Floridan aquifer production well design includes design services related to site civil, electrical, mechanical and instrumentation and control components for the production wellhead, well pumping and surface conveyance systems and connection to the proposed raw water transmission line and landscaping. Design services for the City of Miramar Upper Floridan Aquifer (UFA) Production Well project includes the following:

TASK 5a-0 – Project Management

CONSULTANT's project manager (PM) will manage the project resources. Project management will encompass those efforts required for project setup, resource management, scheduling, trend management, invoicing, design review coordination, and establishment of subconsultant agreements. coordination support as described in this scope of work.

CONSULTANT will conduct project coordination, accounting, monitoring, and administration activities for the construction of two UFA production wells, and two water supply facilities, and associated pipeline work. This includes preparing monthly invoices, monitoring work progress and scheduling, ensuring quality control, and reporting to the CITY the schedule and progress of work.

CONSULTANT will attend one project kickoff meeting, which will include team introductions and discussion of the data request form, schedule, and project deliverables. CONSULTANT will attend monthly project status meetings and provide monthly progress reports indicating project activities completed along with schedule updates. Project design, data collection, and permitting duration is anticipated to be a maximum of 9 months. The monthly project status meetings will to be held virtually using Microsoft Teams or other agreeable applications.

TASK 5a-1 UFA Production Well Design

1. Develop the conceptual design of the two (2) UFA production wells based on reverse osmosis water quality and quantity objectives and local and regional geology and hydrogeology and requirements of the pending water use permit modification completed by others.
2. Prepare 60% design technical specifications and drawings for two (2) UFA production wells.
3. Transmit 60% design submittal to the CITY for internal review with a 2-week review period.
4. Schedule and conduct 60% design review meeting with CITY staff.
5. Incorporate comments from 60% review meeting into 90% technical specifications.
6. Prepare 90% design technical specifications and drawings for two (2) UFA production wells.
7. Transmit 90% design submittal to the CITY for internal review with a 2-week review period.
8. Prepare and submit an opinion of probable construction cost (OPCC) to the CITY based on the 90% complete design.
9. Schedule and conduct 90% design meeting with CITY staff to receive review comments on the 90% complete design.
10. Implement final changes and corrections to the contract documents and print as final.
11. Complete the design to 100% and update the technical specifications and construction drawings to construct and test two (2) UFA production wells at sites specified by the CITY.
12. Produce two (2) paper copies and two (2) electronic copies of the complete set of final technical specifications and construction plans/drawings and provide bid set documents to the CITY for bidding.

Deliverables:

1. 60% Design Drawings and Technical Specifications
2. 90% Design Drawings and Technical Specifications
3. Opinion of Probable Construction Cost (OPCC)
4. 100% Design Drawings and Technical Specifications

TASK 5a-2 – Surface Facility Permitting and Design Services:

It will be necessary collect survey and geotechnical data in order to design and obtain a permit to construct public water supply components to allow construction of the wellheads and surface facilities for Fire Barn Park UFA well (F8) and Huntington Park UFA well (F9). CONSULTANT will provide the following services:

Surveying services will be provided by ZEMAN Consulting Group. Geotechnical services will be provided by WIRX.

1. Prepare a Specific Purpose Survey for (F-8) and (F-9) area for the proposed well sites (see exhibit Fire Barn Park and Huntington Park). To include Subsurface Utilities (SUE), above-ground improvements, tree line, individual non-invasive trees, topography at grade breaks and 50' max grid. GIS Derived Boundary lines.
2. Geotechnical drilling, testing, and engineering services will be performed to support design of the utility improvements at each well site to support recommendations for the structural pad and needed drainage improvements. Geotechnical services include the collection of site and subsurface data within the footprint of each of the two UFA well sites; a summary of the test results in the form of a geotechnical engineering report will be provided.
3. CONSULTANT will prepare and submit an "Application for a Specific Permit to Construct PWS Components" to the Florida Department of Environmental Protection (FDEP). The permit will be required for the wellhead and surface conveyance piping system for the two proposed UFA production wells. CITY to pay permit fees.
4. Attend up to two (2) meetings with the FDEP Drinking Water Section during the permitting process. The meetings are to be held in the West Palm Beach office of FDEP. CONSULTANT will prepare meeting minutes and distribute to meeting attendees.
5. Prepare a response for up to two (2) Requests for Information related to the FDEP permit application.
6. CONSULTANT will provide civil, electrical, structural, mechanical and instrumentation and control design service for the production wellhead, Variable Frequency Drive (VFD) well pumping system and surface conveyance systems and connection to the proposed raw water transmission line.

7. Site civil will include preparation of the site grading plan for the well pad and surrounding fenced in enclosure with survey elevation controls established for finished well pad.
8. Electrical design will include determination of 3-phase electrical power connection points to existing FPL power grid with the capability to support a VFD drive pump system, transformer, and temperature-controlled enclosure.
9. Prepare 60% design technical specifications and drawings for well pad and surface facilities.
10. Transmit 60% design submittal to the CITY for internal review with a 2-week review period.
11. Schedule and conduct 60% design review meeting with CITY staff.
12. Incorporate comments from 60% review meeting into 90% drawings and technical specifications.
13. Prepare 90% design technical specifications and drawings for two (2) UFA production wells.
14. Transmit to CITY for internal review with a 2-week review period.
15. Schedule and conduct 90% design review meeting with CITY staff.
16. Incorporate comments from 90% review meeting into 100% drawings and technical specifications.
17. Prepare 90% design technical specifications and drawings.
18. Prepare 90% Opinion of Probable Construction Cost (OPCC)
19. Prepare and submit Building Permit Application at 90%
20. Meeting with Building Department
21. Respond to two (2) Requests for Additional Information.
22. Schedule and conduct 100% design review meeting with CITY staff.
23. Incorporate comments from 100% review meeting into Final bid set drawings and technical specifications.
24. As applicable, submit 90% Design Drawings to Building Department for review and approval.

Deliverables:

1. 60% Design Drawings and Technical Specifications
2. FDEP Application for a Specific Permit to Construct PWS Components after 60% Design Meeting with the City
3. 90% Design Drawings and Technical Specifications
4. 90% Opinion of Probable Construction Cost (OPCC)
5. Building Permit Application based on 90% Drawings.
6. 100% Bid Set Technical Specifications and Drawings.

TASK 5a-3-1 - Bid Phase Services – Production Well Construction

Bidding Services are based on a Bid Period of approximately 60 days.

1. CONSULTANT will provide copies of the 100% Technical Specifications and Drawings and distribute to the CITY.
2. CONSULTANT will conduct a pre-bid conference at the well sites for all interested bidders and address questions from bidders on matters related to the technical aspects of the design via the CITY's Procurement Department.
3. CONSULTANT will provide Addenda, if required, tabulate, and evaluate the construction proposals and assist in the awarding of a contract for construction. Bids will be received, opened and processed by the CITY.
4. CONSULTANT will review and evaluate submitted bids in conformance with the Request for Bid Requirements.
5. Bid Services will be considered complete upon Consultant's review and forwarding of the Contractor's executed documents.
6. A final set of Conformed Documents will be prepared for construction.

TASK 5a-3-2 - Bid Phase Services – General Contractor - Surface Facilities

Bidding Services are based on a Bid Period of approximately 60 days.

1. CONSULTANT will provide copies of the contract documents and distribute to the CITY.
2. CONSULTANT will conduct a pre-bid conference at the well sites for all interested bidders and will address all questions from potential bidders on matters related to the technical aspects of the well and surface facility design.
3. CONSULTANT will issue Addenda, if required, tabulate, and evaluate the construction proposals and assist in the awarding of a contract for construction. Bids will be received, opened and processed by the CITY.
4. CONSULTANT will review and evaluate submitted bids in conformance with the Request for Bid Requirements.

Bid Services will be considered complete upon CONSULTANT's review and forwarding of the Contractor's executed documents.

TASK 5a-4 Engineering Services During Construction (To be included in future package)

TASK DESCRIPTION

This phase of the project includes engineering, construction management and observation services that will be provided during well construction and testing activities. Once well construction and testing activities are complete, an Engineering Report and Record Drawings will be provided summarizing drilling, construction and testing activities of the two (2) Floridan Aquifer production wells and surface facilities.

SCOPE OF SERVICES

Specific hydrogeologic, engineering and construction observation services for the City of Miramar Upper Floridan Aquifer Production Well project includes the following:

TASK 5a-4-1 UFA Well Construction Management and Observation Services (To be included in future package)

1. Attend one (1) on site pre-construction meeting with CITY staff and well drilling contractor for each of the two (2) production wells to be constructed. A meeting summary will be prepared, and copies will be distributed by the Consultant.
2. Attend Bi-monthly progress meetings with Contractor and the CITY with 36 progress meetings anticipated over the 18-month production well and surface facility construction period.
3. Review submittals and other data that the Contractor is required to submit. These shall be reviewed for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Such review is not intended as an approval of the submittals if they deviate from the Contract Documents or contain errors, omissions, and inconsistencies, nor is it intended to relieve the Contractor of his full responsibility for Contract performance, nor is the review intended to ensure or guarantee lack of inconsistencies, errors, and/or omissions between the submittals and the Contract requirements.
4. Provide technical interpretations of the drawings, specifications, and Contract Documents, and evaluate requested deviations from the approved design or specifications. Act as the initial interpreter of the Contract Documents pertaining to the execution and progress of the work.
5. Provide onsite resident observation of the construction activities during construction of F8, and F9. Resident services are scheduled to be provided on an average of 10 hours per day (5 days per week) during well construction and testing, for an estimated total duration of 260 workdays (52 weeks) to be held virtually using Microsoft Teams or other agreeable application.
6. The resident observer will be a degreed professional experienced with well construction techniques and will assist in monitoring the construction progress, in checking compliance with technical plans and specifications. Specific activities will include:
 - a. Coordinate on a daily basis activity and a one-week look ahead on CONSULTANT observation requirements.
 - b. Prepare daily shift reports.
 - c. Observe well drilling activities (e.g., document ROP, WOB, rig behavior).
 - d. Prepare detail lithologic descriptions of drill cutting using Dunham 1962 Classification Scheme.

- e. Observe and document well construction activities (e.g., casing installation, cementing operations, etc.).
 - f. Record quantities of materials used (e.g., casing, cement, drilling mud, etc.)
 - g. Observe and document geophysical logging activities.
 - h. Observe handling, labeling, and storage of well cutting samples.
 - i. Assist Contractor in the collection of water quality samples to submit to State approved testing laboratory.
 - j. Observe the Contractor during the installation of the recording instrumentation for the Aquifer Performance Test and observe testing and data collection activity.
7. Prepare weekly summary reports and submit to interested parties during the well construction and testing phase.

Deliverables:

- 1. Daily Field Reports
- 2. Weekly Summary Reports (52) for the estimated 12 month well construction and testing period.
- 3. The information recorded for the above task will be compiled and included as an appendix in the Final Well Construction Report

TASK 5a-4-2 Surface Facilities - Construction Management and Observation Services (To be included in future package)

- 1. Attend one (1) on site pre-construction meeting with CITY staff and general contractor for each of the two UFA production wells to be constructed. A meeting summary will be prepared, and copies will be distributed by the Consultant.
- 2. Attend Bi-monthly progress meetings with Contractor and the CITY with 12 progress meetings anticipated over the 6-month surface facility construction period to be held virtually using Microsoft Teams or other agreeable application.
- 3. Review submittals and other data that the Contractor is required to submit. These shall be reviewed for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Such review is not intended as an approval of the submittals if they deviate from the Contract Documents or contain errors, omissions, and inconsistencies, nor is it intended to relieve the Contractor of his full responsibility for Contract performance, nor is the review intended to ensure or guarantee lack of inconsistencies, errors, and/or omissions between the submittals and the Contract requirements.
- 4. Provide technical interpretations of the drawings, specifications, and Contract Documents, and evaluate requested deviations from the approved design or specifications. Act as the initial interpreter of the Contract Documents pertaining to the execution and progress of the work.

5. Well Surface Facilities construction engineering observation services has an additional estimated duration of 130 workdays. On-site coverage averaging 6 hours per day will be provided during wellhead and surface facility construction. The estimated duration is broken down as follows. Construction and testing of F8 and F9 are estimated to take 130 workdays (26 weeks) Daily onsite time will vary depending on the construction activities in progress.
6. Review and make determinations necessary for the approval or rejection of the Contractor's monthly payment applications.
7. Make a final review of the construction to determine if the work has been completed in conformance with the intent of the Contract Documents, assist in negotiating final payment for construction and submit a final letter report upon which final settlement and termination of the Contract can be based. The proceedings of all final settlement negotiations will be documented and the basis for final payment recorded.
8. Provide Certification of Completion of Construction for PWS Components to FDEP and make final site inspection of surface facilities with the CITY and FDEP.

TASK 5a-5 – Well Construction & Engineering Report and Record Drawings (To be included in future package)

1. The Consultant will compile and document findings of the well construction, well testing activities, water level monitoring and water quality sampling in a technical report and include the following subtasks:
 - a. The Consultant will compile and review the lithologic data obtained from the UFA production wells and integrate the information into the geologic-hydrogeologic interpretation.
 - b. The Consultant will compile and review geophysical log data and integrate it into geologic and hydro geologic interpretation.
 - c. The Consultant will compile and review the water quality data obtained from up to five (5) packer tests in each of two UFA production well. This shall include all inorganic constituents.
 - d. The Consultant will compile and analyze the results for a 6-hour step-drawdown and a 12-hour pump test from each of the two (2) UFA production wells
 - e. The Consultant will compile and interpret the drawdown and recovery results from aquifer performance testing of each production well using the appropriate analytical solution using Aqtesolve software package. This shall include the review and analysis of water level data from the production wells.
 - f. A geologic and hydrogeologic interpretation will be provided based on the lithologic, geophysical and water quality data obtained from the two (2) UFA production wells and surrounding consultant and other governmental agency technical reports.

2. Include Completion of Construction for PWS Components submittal along with Record Drawings.

Deliverables:

1. Well Completion Report documenting Well Construction and Testing of F8 and F9.
2. Engineering Report and Record Drawings for Surface Facilities.

ASSUMPTIONS:

1. No additional SFWMD Water Use Permitting is required to receive well construction permits for F8 and F9.
2. No Environmental or Stormwater Permits will be required such as Wetland or Endangered or Threatened Species Surveys based on current site use.
3. Coordination with the U.S Fish and Wildlife Service and/or the Florida Fish and Wildlife Conservation Commission will not be required.
4. A generic permit for the Discharge of Produced Ground Water from any Non-Contaminated Site Activity or NPDES Permit will not be needed since the produced ground water generated during drilling and testing operations will be conveyed to the CITY Wastewater Forcemain.
5. Project will not impact wetlands.
6. Resident project representative shall not, as a result of observation services, supervise, direct, or have control over any Constructor's work nor have authority over or responsibility for the means, methods, techniques, sequences or procedures selected by any Constructor, for safety precautions and programs incident to the work of any Constructor, for any failure of any Constructor to comply with laws, rules, regulations, ordinances, codes or orders applicable to performing and furnishing the work, or responsibility of construction for Contractor's failure to furnish and perform the Work in accordance with the Construction Contract Documents. No contaminate site assessment or modeling associated with dewatering operations will be needed based on current land use.
7. This scope does not include traffic control plans.
8. CITY's Standard Specifications will be utilized when applicable.
9. The wellhead, well pad and surface conveyance piping for F8 and F9 will be completed above grade and be configured like F1 & F2.
10. The proposed well will be located on CITY-owned land, ROW or easements with no additional legal access requirement needed to construct the two UFA production wells and surface facilities. CITY to provide legal descriptions and boundary land surveys for each site.
11. Design does not include backup generators for each well site.
12. A VFD controlled submersible pump system will be installed with a maximum water production capacity of 3.2 MGD (2,225 gpm).
13. The final production casing for each UFA production well will be constructed using 20-inch diameter Fiberglass Reinforced Plastic Pipe.

14. The CITY will provide surveyed connection points with flanged and flow/shut off valve with backflow protection on the wastewater force main to tie-in to convey the produced GW generated during construction and testing operations at each site.
15. The CITY will provide surveyed flanged and flow/shut off valve connection points to the proposed raw water transmission line for the two Floridan aquifer production wells.

OBLIGATIONS OF OWNER:

To assist meeting schedule and budget estimates contained in this proposal, the CITY will provide the following:

1. As requested, provide site plan or record drawings, aerial photographs, and other pertinent information.
2. Location data of proposed UFA production wells and point of well development and testing of formation water discharges into the CITY's Wastewater Forcemain at each location.
3. Prompt review and comment on all deliverables (within 10 working days of receipt).
4. Attendance of key personnel at meetings, as requested.
5. Payments of all permit application fees.
6. Place any needed advertisement for the Solicitation of the Well Construction/Surface Facility Request for Bid in a local newspaper and pay all associated costs.
7. Other Direct Costs (ODC) Reimbursable Expenses include, photocopying services, electronic scanning services rental vehicles, mileage, hotel accommodations, food, field testing equipment, calibration solutions, well cutting storage containers.

Package 5b. Design, permitting and construction for the lift station and new sanitary sewer Forcemain, the new backup Forcemain to the DIW's, and Floridan Raw Watermain within the West WTP Facilities

PROJECT DESCRIPTION:

This phase of the project includes the lift station improvements to eliminate the plant septic system and de-commission the Scavenger system including sanitary sewer forcemain (FM) (within the plant fence area) connecting to the soon-to-be-constructed offsite FMs by others to the City's Wastewater Reclamation Facility (WWRF).

This project includes a FM for back-up/redundancy to the Class I deep injection wells (DIW) (within the plant fence area) to tie into a future offsite FM designed and constructed by others to the WWRF.

This project includes the Floridan raw water main (WM) within the plant fence area connecting to tie into the future offsite raw WM by others.

SCOPE OF SERVICES

The plant FM designs include design services related to site civil, electrical, mechanical and instrumentation and control components for the lift station, DIW booster pumps and FM conveyance systems, raw WM, and connection to the proposed offsite FMs and raw WM located within the plant site. Design services for the two (2) FM and raw WM projects includes the following:

TASK 5b-0 – Project Management

CONSULTANT's project manager (PM) will manage the project resources. Project management will encompass those efforts required for project setup, resource management, scheduling, trend management, invoicing, design review coordination, and establishment of subconsultant agreements. coordination support as described in this scope of work.

CONSULTANT will conduct project coordination, accounting, monitoring, and administration activities for the construction of two (2) New FMs, raw WM and associated work. This includes preparing monthly invoices, monitoring work progress and scheduling, ensuring quality control, and reporting to the CITY the schedule and progress of work.

CONSULTANT will attend one project kickoff meeting, which will include team introductions and discussion of the data request form, schedule, and project deliverables. CONSULTANT will attend monthly project status meetings and provide monthly progress reports indicating project activities completed along with schedule updates. Project design, data collection, and permitting duration is anticipated to be approximately 9 months. The monthly project status meeting will to be held virtually using Microsoft Teams or other agreeable application.

TASK 5b-1 Lift Station Improvements and New Sewer FM design and permitting.

It will be necessary collect survey data in order to design and obtain a permit to construct a New Lift Station to replace the existing sanitary septic system and collect the process building waste stream and send the waste through a New FM to the WWRF. The existing lift station collects wastewater from the process building floor drains and the degasifier scrubber system waste and pumps it to the Scavenger tank and system. The New FM from the New Lift Station will terminate within the plant fence site to a designated tie-in location on the soon-to-be-constructed offsite FM to be designed and constructed by others. CONSULTANT will provide the following services.

1. Specific Purpose Survey of the West WTP site to locate subsurface utilities will be provided by ZEMAN Consulting Group.
 - a. Designate utilities within the 10 Acre plant area (see exhibit West WTP). Designate (flag or paint) subsurface utilities utilizing electromagnetic (EM) and Ground Penetrating Radar (GPR). Identify types of utilities utilizing provided site plans by the CITY, above ground evidence, and discussions with City Staff and Lead Plant Operator.
 - b. Prepare Specific Purpose Survey.
 - LiDAR scan the exterior of building, tanks, pipes, roads, and open areas around the property.
 - Obtain rims and inverts of accessible pipes.
 - Exterior measurements of buildings
 - Identify equipment and systems when possible.
 - Tree groups of non-invasive trees
 - Topography at break lines, edges of roadway, and 50' max intervals.
 - c. Vacuum Excavation Services (soft Digs)
 - Perform Vacuum Excavation at requested locations. Test hole location for each hole will be added to the survey along with the size, type of material and depth of the target utility. Holes will be backfilled, compacted and patch with either concrete or asphalt, as needed.
2. CONSULTANT will provide electrical, structural, mechanical, instrumentation and control design for the new Lift Station and design the New FM within the plant fence site to a designated tie-in location for the offsite FM to be designed and constructed by others.
3. A site location plan for the New Lift Station and New FM will be shown on the West WTP site plan.
4. Prepare 60% design technical specifications and drawings for New Lift Station and New FM routing within the West WTP site.
5. Transmit to CITY for internal review with a 2-week review period.
6. Schedule and conduct 60% design review meeting with CITY staff.
7. Incorporate comments from 60% review meeting into 90% technical specifications.
8. Prepare 90% design technical specifications and drawings for New Lift Station and New FM routing within the West WTP site.
9. Transmit to CITY for internal review with a 2-week review period.
10. Schedule and conduct 90% design review meeting with CITY staff.
11. Incorporate comments from 90% review meeting into 100% drawings and technical specifications.
12. Prepare 90% Opinion of Probable Construction Cost (OPCC)
13. CONSULTANT will prepare and submit a FDEP "Application for Constructing a Domestic Wastewater Collection/Transmission System" to the Broward County Environmental Permitting Division Domestic Wastewater Section. Permit fee by the CITY.
14. Attend up to two (2) meetings with the FDEP Broward County Environmental Permitting Division Domestic Wastewater Section during the permitting process. The meetings are to be held in the Broward County office in Plantation. CONSULTANT will prepare meeting minutes and distribute to meeting attendees.

15. Prepare a response for up to two (2) Requests for Information related to the FDEP permit application.
16. Prepare 100% design technical specifications and drawings for New Lift Station and New FM routing within the West WTP site.
17. Transmit to CITY for internal review with a 2-week review period.
18. Schedule and conduct 100% design review meeting with CITY staff.
19. Incorporate comments from 100% review meeting into Bid Set drawings and technical specifications.

Deliverables:

1. 60% Design Drawings and Technical Specifications
2. FDEP Application for Constructing a Domestic Wastewater Collection/Transmission System
3. 90% Opinion of Probable Construction Cost (OPCC)
4. 90% Design Drawings and Technical Specifications
5. 100% Bid Set Technical Specifications and Drawings.

TASK 5b-2 New Backup FM design and permitting for Concentrate Disposal, and New Raw WM

It will be necessary to design and obtain a permit to construct a New Backup FM to the existing Class I Injection Well System at the West WTP. The New Backup FM will be connected to the existing Injection Well booster pumps to pump the NF and RO concentrate through a New Backup FM to the CITY-operated WWRF. CONSULTANT's portion of the New Backup FM and the New Raw WM will terminate within the plant fenced area and tie-in at points for the future offsite FM and WM to be constructed by others. CONSULTANT will provide the following services.

1. CONSULTANT will provide electrical, structural, mechanical and instrumentation and control design for connection to the existing Injection Well Booster Pumps. The New Backup FM will connect within the plant fence site at a convenient location for the soon-to-be-constructed offsite Backup FM by others.
2. CONSULTANT will provide design for connection to the future offsite Raw WM at two points the SW and NW corners of the West WTP.
3. A site location plan for the Backup New FM and the new Raw WM will be shown on the West WTP site plan.
4. Electrical design will include determination of 3-phase electrical power connection points from the process building.
5. Prepare 60% design technical specifications and drawings for Backup New FM routing within the West WTP site.
6. Transmit to CITY for internal review with a 2-week review period.
7. Schedule and conduct 60% design review meeting with CITY staff.
8. Incorporate comments from 60% review meeting into 90% technical specifications.
9. Prepare 90% design technical specifications and drawings for Backup New FM routing within the West WTP site.
10. Transmit to CITY for internal review with a 2-week review period.

11. CONSULTANT will submit a minor permit modification to the CITY's existing FDEP-issued Class I Injection Well Permit to document additional redundancy of injection capacity at the West WTP.
12. CONSULTANT will prepare and submit a FDEP Application for Construction of a Raw Water Transmission Main. Permit fee to be paid by the CITY.
13. Attend up to two (2) meetings with FDEP West Palm Beach.
14. Prepare a response for up to two (2) Requests for Information related to the FDEP permit application.
15. CONSULTANT will prepare and submit a FDEP "Application for Constructing a Domestic Wastewater Collection/Transmission System" to the Broward County Environmental Permitting Division Domestic Wastewater Section. Permit fee to be paid by the CITY.
16. Attend up to two (2) meetings with the FDEP Broward County Environmental Permitting Division Domestic Wastewater Section during the permitting process. The meetings are to be held in the Broward County office in Plantation. CONSULTANT will prepare meeting minutes and distribute to meeting attendees.
17. Prepare a response for up to two (2) Requests for Information related to the FDEP permit application.
18. Prepare 90% Opinion of Probable Construction Cost (OPCC)
19. Schedule and conduct 90% design review meeting with CITY staff.
20. Incorporate comments from 90% review meeting into 100% technical specifications.
21. Prepare 100% design technical specifications and drawings for Backup New FM routing within the West WTP site.
22. Transmit to CITY for internal review with a 2-week review period.
23. Schedule and conduct 100% design review meeting with CITY staff.
24. Incorporate comments from 100% review meeting into Bid Set drawings and technical specifications.

Deliverables:

1. 60% Design Drawings and Technical Specifications
2. FDEP Application for constructing a new raw WM within the West WTP.
3. FDEP/Broward County Application for Constructing a Domestic Wastewater Collection/Transmission System
4. 90% Design Drawings and Technical Specifications
5. 90% Opinion of Probable Construction Cost (OPCC)
6. 100% Bid Set Technical Specifications and Drawings

TASK 5b-3 - Bid Phase Services – General Contractor - West WTP Facilities

Bidding Services are based on a Bid Period of approximately 60 days.

1. CONSULTANT will provide copies of the contract documents and distribute to the CITY.

2. CONSULTANT will conduct a pre-bid conference on site for all interested bidders and handle all questions with bidders on matters related to the technical aspects of the design.
3. Consultant will issue Addenda, if required, tabulate, and evaluate the construction proposals and assist in the awarding of a contract for construction. Bids will be received, opened and processed by the CITY.
4. CONSULTANT will review and evaluate submitted bids in conformance with the Request for Bid Requirements.

Bid Services will be considered complete upon CONSULTANT's review and forwarding of the Contractor's executed documents.

TASK 5b-4 Engineering Services During Construction (To be included in future package)

TASK DESCRIPTION

This phase of the project includes engineering, construction management and observation services that will be provided during NEW Lift Station construction and testing activities. Once the construction and testing activities are complete, and Record Drawings submitted the permit will be closed out with FDEP Broward County Environmental Permitting Division Domestic Wastewater Section

SCOPE OF SERVICES

Specific engineering and construction observation services for the West WTP New Lift Station and New FMs will include the following:

TASK 5b-4-1 Construction Management and Observation Services (To be included in future package)

1. Attend one (1) on site pre-construction meeting with CITY staff and contractor for New Lift Station, New FMs and New Raw WM to be constructed. A meeting summary will be prepared, and copies will be distributed by the CONSULTANT. Review submittals and other data that the Contractor is required to submit. These shall be reviewed for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Such review is not intended as an approval of the submittals if they deviate from the Contract Documents or contain errors, omissions, and inconsistencies, nor is it intended to relieve the Contractor of his full responsibility for Contract performance, nor is the review intended to ensure or guarantee lack of inconsistencies, errors, and/or omissions between the submittals and the Contract requirements.

2. Provide technical interpretations of the drawings, specifications, and Contract Documents, and evaluate requested deviations from the approved design or specifications. Act as the initial technical interpreter of the technical specification and drawings pertaining to the execution and progress of the work.
3. Provide onsite resident observation of the construction activities during construction of the New Lift Station, FMs and WM. Resident services are scheduled to be provided on average one day per week during construction and testing, for an estimated total duration 52 weeks (52 workdays). CONSULTANT will prepare a field report with photos of the work observed.
4. Review and make determinations necessary for the approval or rejection of the Contractor's monthly payment applications.
5. Make a final review of the construction to determine if the work has been completed in conformance with the intent of the Contract Documents, assist in negotiating final payment for construction and submit a final letter report upon which final settlement and termination of the Contract can be based. The proceedings of all final settlement negotiations will be documented and the basis for final payment recorded.
6. Provide Certification of Completion of Construction for the FDEP Permits and make final site inspection of facilities with the CITY and As-built Drawing of the constructed components.

ASSUMPTIONS:

1. The work for the New Lift Station and the New FMs will be within the West WTP Specific Purpose surveys.
2. The flow to the two (2) DIWs can be pumped by the existing DIW booster pumps or new pumps after evaluation of the existing DIW pumps to the WWRF will be included in this package.
3. No ROW or easements with no additional legal requirements are needed to construct the New Lift Station and FMs.
4. No stormwater permit is required for the West WTP.
5. Underground piping will be PVC.
6. The sanitary septic system will stay in operation until the New Lift Station and New FM and the offsite FM to the WWRF are complete by others and available for 100% operation.
7. The New Backup FM to the DIW and the offsite Backup FM by others to the WWRF by others is complete and available for operation.
8. The CITY will abandon the sanitary septic system according to FDEP regulation upon completion of the New Lift Station and New FM and the offsite FM by others.
9. The CITY will decommission and remove the Scavenger tank and system upon completion of the New Backup FM on site and the New Backup FM offsite by others.

10. If the New offsite sanitary FM, the New Backup and Raw WM offsite FM are not complete by the time the New onsite FM and the New onsite Backup FM are complete the connections to the offsite FMs shall be done by others.
11. Resident project representative shall not, as a result of observation services, supervise, direct, or have control over any Constructor's work nor have authority over or responsibility for the means, methods, techniques, sequences or procedures selected by any Constructor, for safety precautions and programs incident to the work of any Constructor, for any failure of any Constructor to comply with laws, rules, regulations, ordinances, codes or orders applicable to performing and furnishing the work, or responsibility of construction for Contractor's failure to furnish and perform the Work in accordance with the Construction Contract Documents.

OBLIGATIONS OF OWNER:

To assist meeting schedule and budget estimates contained in this proposal, the CITY of Miramar will provide the following:

1. As requested, site plan or record drawings, aerial photographs, and other pertinent information pertinent.
2. FM pressures and flows at SW 136th Ave and Old Miramar Parkway
3. Size and lengths of FM from SW 136th Ave and Old Miramar Parkway to WWRF
4. FM pressure and flow at WWRF
5. Prompt review and comment on all deliverables.
6. Attendance of key personnel at meetings as requested.
7. Payments of all permit application fees.
8. Place any needed advertisement for the Solicitation for the New Lift Station and FMs Construction Request for Bid/Quotation in a local newspaper and pay all associated costs.
9. Other Direct Costs (ODC) Reimbursable Expenses include mileage, tolls, hotels, food allowance, rental vehicles as required by CONSULTANT Staff.

PAYMENT AND COMPENSATION

Compensation for the Scope of Services described herein shall be made in accordance with the Agreement between the parties based on a lump sum fee. The fee for the services described herein and the attached Project Budget is a lump sum fee of \$951,924. This lump sum value does not include any contingencies for unforeseen issue that may come up during the contract period.

The values for each item below have been updated to reflect the recalculated values from the attached cost breakdown spreadsheet.

Floridan Aquifer Production Wells and Surface Facility Design \$505,134

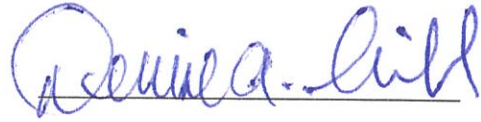
Bidding Services UFA Production Wells	\$6,342
Bidding Services UFA Production Wells Surface Facilities	\$11,414
UFA Well Construction Management and Observation Services	\$(To be included in future package)
UFA Well Surface Facilities construction Management and Observation Services	\$(To be included in future package)
UFA Well Construction Engineering Report and Record Drawings	\$(To be included in future package)
New Lift Station and Sanitary FM, Backup DIW FM and Booster Pump, and Floridan Raw WM design and permitting	\$277,830
Bidding Services General Contractor West WTP Facilities Lift Station, FMs and WM	\$11,204
Construction Management and Observation Services West WTP Facilities	\$(To be included in future package)
Survey Services Well Sites and West WTP Facilities	\$100,000
Geotechnical Services Well Sites	\$20,000
Other Direct Costs	\$20,000

CONSULTANT will submit monthly invoices for services rendered in accordance with the referenced contract, with a summary of work performed based on a percent complete by task basis in accordance with the Agreement.

Certificate of Filing for a Resolution

CERTIFICATE OF FILING

I, Denise A. Gibbs, as City Clerk of the City of Miramar, a Florida Municipal Corporation, hereby certify that this fully executed Resolution No. 24-127 was filed in the records of the City Clerk this 11th day of June, 2024.

A handwritten signature in blue ink, appearing to read "Denise A. Gibbs", is written over a horizontal line.

Print Name: Denise A. Gibbs

Print Title: City Clerk