



COMMISSION AGENDA ITEM
DOCUMENT ROUTING FORM

12

Today's Date: 11/6/24

DOCUMENT TITLE:

Change Order No. 6 for PFAS Pilot Testing for Prospect Lake Clean Water Center - Prospect Lake Water L.P.

COMM. MTG. DATE: 10/11/24

CAM #: 240858

ITEM #: _____

CAM attached: ☒ YES ☐ NO

Routing Origin: _____

Router Name/Ext: Glynis B/x5091

Action Summary attached: ☐ YES ☒ NO

CIP FUNDED: ☒ YES ☐ NO

Capital Investment / Community Improvement Projects defined as having a life of at least 10 years and a cost of at least \$50,000 and shall mean improvements to real property (land, buildings, or fixtures) that add value and/or extend useful life, including major repairs such as roof replacement, etc. Term "Real Property" include: land, real estate, realty, or real.

1) Dept: _____ Router Name/Ext: _____ # of originals routed: _____ Date to CAO: _____

2) City Attorney's Office: Documents to be signed/routed? ☒ YES ☐ NO # of originals attached: 1

Is attached Granicus document Final? ☒ YES ☐ NO

Approved as to Form: ☒ YES ☐ NO

Date to CCO: 11/6/24

Rhonda Montoya Hasan
Attorney's Name

[Signature]
Initials

3) City Clerk's Office: # of originals: 1 Routed to: Donna V./Amber C./CMO Date: 11/7/24

4) City Manager's Office: CMO LOG #: _____ Document received from: _____

Assigned to: SUSAN GRANT ☐ (Acting City Manager) ANTHONY FAJARDO ☐ (Assistant City Manager)
LAURA REECE ☐ (Acting Assistant City Manager) BEN ROGERS ☐ (Acting Assistant City Manager)
CHRIS COOPER ☐ (Acting Assistant City Manager)

SUSAN GRANT as Acting CRA Executive Director ☐

☐ APPROVED FOR S. GRANT'S SIGNATURE

☐ N/A FOR S. GRANT TO SIGN

PER ACM: Anthony Fajardo _____ (Initial/Date)

PER AACM: Laura Reece _____ (Initial/Date)

Ben Rogers _____ (Initial/Date)

Chris Cooper _____ (Initial/Date)

☐ PENDING APPROVAL (See comments below)

Comments/Questions: _____

Forward ☒ originals to ☐ Mayor ☒ CCO Date: 11/8/24

5) Mayor/CRA Chairman: Please sign as indicated.

Forward _____ originals to CCO for attestation/City seal (as applicable)

Date: _____

6) City Clerk: Scan original and forwards _____ originals to: Dan/Fisher

Attach _____ certified Reso #

☐ YES ☐ NO



**CITY OF FORT LAUDERDALE
City Commission Agenda Memo
REGULAR MEETING**

#24-0858

TO: Honorable Mayor & Members of the
Fort Lauderdale City Commission

FROM: Susan Grant, Acting City Manager

DATE: October 1, 2024

TITLE: Motion Approving Change Order No. 6 for PFAS Pilot Testing for the
Prospect Lake Clean Water Center – Prospect Lake Water L.P. –
\$4,720,061 – **(Commission Districts 1, 2, 3, and 4)**

Recommendation

Staff recommends the City Commission approve Change Order No. 6 with Prospect Lake Water L.P. (Project Company), PFAS Pilot Testing for the Prospect Lake Clean Water Center (PLCWC) in the amount of \$4,720,061.

Background

On February 7, 2023, the City Commission approved a Comprehensive Agreement (CA) with Project Company for the design, construction, and operation of the PLCWC to replace the Charles W. Fiveash Water Treatment Plant. (CAM #23-0196)

On March 14, 2023, the Environmental Protection Agency (EPA) released its proposed national drinking water standard (Standard) for per-and-polyfluoroalkyl substances (PFAS). In response, the City issued Change Order No. 1 to the Project Company, directing them to sample groundwater at the Prospect Wellfield for PFAS and prepare a preliminary engineering report with options for complying with the Standard. Sampling occurred at each of the 29 production wells with each well exceeding the proposed Standard. On April 10, 2024, the EPA published the final Standard for PFAS at the originally proposed levels with compliance required by April 2027.

The report outlines two (2) options for compliance. Alternative 1 involves adding additional PFAS treatment following the ion exchange process. Alternative 2 replaces ion exchange with nanofiltration to handle 100% of the treatment. A pilot study will be done to establish baseline PFAS removal for the current design and assess the effectiveness of additional downstream treatment. Upon completion of the pilot, the Project Company will submit a report to the City, detailing any necessary modifications to the existing plant design or operations.

Two (2) Purchase Orders (PO) have been issued for this project: PO 6189 and PO 6191. PO 6189 is for the Enabling Works and City Obligation projects to construct under the CA, and PO 6191 is for the construction of the water plant. Change Order No. 6 will add \$4,720,061 to the project under PO 6189.

Summary of Change Orders to date by Purchase Order:

Purchase Order 6189

Change Order No. 1 added \$371,644 to the project and for raw water testing at the Prospect Lake Wellfield for PFAS and develop options for meeting the PFAS standard.

Change Order No. 2 added \$445,504 to the project for the construction of a temporary power infrastructure to supply power to the project site during construction.

Change Order No. 3 added \$1,336,774 for additional and larger equipment to meet the water quality standards as recommended in the OCCT Study which was required as part of the Florida Department of Environmental Protection permit for constructing the PLCWC.

(Pending) Change Order No. 4 added \$3,275,339 for construction of the 54-inch feedstock watermain to the PLCWC. (CAM #24-0856)

(Pending) Change Order No. 5 added \$5,790,004 for Optimal Corrosion Control Treatment Pipe Loop Test for the PLCWC. (CAM #24-0857)

Purchase Order 6191

Change Order No. 1 added \$4,167,756 to the project to increase the size of the administration building and to utilize concrete in lieu of steel for the construction of the administration and nanofiltration buildings. (CAM #23-1147)

Change Order No. 2 deducted (\$736,631) from the project after Project Company discovered a discrepancy in previously executed Change Order No. 1, necessitating a deductive change order.

Resource Impact

There will be a fiscal impact to the City in the amount of \$4,720,061 for Change Order No. 6. Funds for this change order are available in the FY2025 Community Investment Plan in the accounts listed below.

Funds available as of September 11, 2024					
ACCOUNT NUMBER	COST CENTER NAME (Program)	CHARACTER/ ACCOUNT NAME	AMENDED BUDGET (Character)	AVAILABLE BALANCE (Character)	AMOUNT
10-494-7999-536- 60-6599-P12765	New Water Treatment Plant - Prospect Lake Water Treatment Plant Enabling Works	Capital Outlay/ Construction	\$177,000,001	\$70,258,533	\$4,720,061
TOTAL AMOUNT ►					\$4,720,061

Strategic Connections

This item is a FY 2024 *Commission Priority*, advancing the Infrastructure and Resilience initiative.

This item supports the *Press Play Fort Lauderdale 2029 Strategic Plan*, specifically advancing:

- The Infrastructure Focus Area, Goal 1: Be a sustainable and resilient community.

This item advances the *Fast Forward Fort Lauderdale 2035 Vision Plan: We Are Ready*

This item supports the *Advance Fort Lauderdale 2040 Comprehensive Plan* specifically advancing:

- The Infrastructure Focus Area
- The Sanitary Sewer, Water & Stormwater Element
- Goal 3: Develop and maintain an adequate water supply, treatment and distribution system, which meets existing and projected needs of the service area in an efficient, economical, and environmentally sensitive manner.

Related CAMs

CAM #24-0856

CAM #24-0857

CAM #24-0956

Attachment

Exhibit 1 – Change Order No. 6

Prepared by: Daniel Fisher, Senior Project Manager, Public Works

Department Director: Alan Dodd, Public Works

10/01/2024

CAM #24-0858



**CITY OF
FORT LAUDERDALE**

Change Order No. 6
Purchase Order 6189
P12765
Prospect Lake Clean Water Center
Prospect Lake Water, L.P



To: Susan Grant, Acting City Manager
From: Alan Dodd, Director – Public Works
Date: September 17, 2024
Re: Change Order # 6 for Project #12765 PO 6189

Job Description: Project #12765, Prospect Lake Clean Water Center
Contractor: Prospect Lake Water, L.P.
Amount: Total amount of Change Order No.6 \$4,720,061 plus 0 additional days
Funding: 10-494-7999-536-60-6599-P12765

The purpose of this Change Order is:

On April 10, 2024, the United States Environmental Protection Agency (EPA) finalized a national drinking water standard for per-and polyfluoroalkyl substances (PFAS), with compliance required by April 2027. Since PFAS was not a regulated contaminant when the Comprehensive Agreement was executed, a pilot study will be conducted to evaluate the current plant's ability to remove PFAS and the effectiveness of additional downstream treatment. Upon completing the pilot, Prospect Lake Water L.P. (Project Company) will submit a report to the City outlining any necessary modifications to the plant's design or operations.

NEW AND EXISTING CONTRACT ITEMS ARE UTILIZED – TOTAL ADDITIVE COST \$4,720,061

Item No. 1 New Item #1 – \$4,560,061 for design, construction, and Operation of the Pilot and \$160,00 for Project Company's administrative costs.
Adjust Contact Item – Lump Sum
ADDITION \$4,720,061

NET AMOUNT OF THIS CHANGE ORDER \$4,720,061

ADDITIONAL CONTRACT TIME BEING REQUESTED– ZERO (0) CALENDAR DAYS



**CITY OF
FORT LAUDERDALE**

Change Order No. 6
Purchase Order 6189
P12765
Prospect Lake Clean Water Center
Prospect Lake Water, L.P



THE TOTAL AMOUNT OF THIS CHANGE ORDER

\$4,720,061



Change Order No. 6
Purchase Order 6189
P12765
Prospect Lake Clean Water Center
Prospect Lake Water, L.P.



This change Order provides for all costs and schedule adjustments associated with completing the work, including materials, labor, equipment, bond, insurance, overhead, profit, impacts, and any and all related items or associated costs incurred or resulting from the items listed above, and is provided in accordance with Article VIII – Changes in the Work of the Contract.

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

Prospect Lake Water, L.P.

Signed by:
Michael Albrecht
Approved: _____
557401F88D8D470...

Michael Albrecht, President, Prospect Lake Water, L.P.

Print Name and Title

10/18/2024

Date

C: Scott Teschky , Division Manager – Engineering
Daniel Fisher, Senior Project Manager
Financial Administrator
Project File



CITY OF
FORT LAUDERDALE

Change Order No. 5
Purchase Order 6189
P12765
Prospect Lake Clean Water Center
Prospect Lake Water, L.P.



CITY

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

By: 
SUSAN GRANT
Acting City Manager

Date: November 8, 2024

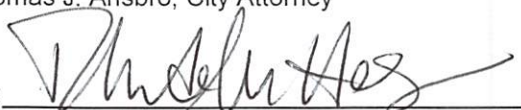
ATTEST:

By: 
DAVID R. SOLOMAN
City Clerk

(CORPORATE SEAL)



Approved as to legal form and correctness:
Thomas J. Ansbro, City Attorney

By: 
RHONDA MONTOYA HASAN
Senior Assistant City Attorney

C: Scott Teschky, Division Manager – Engineering
Daniel Fisher, Senior Project Manager
Financial Administrator
Project File



**CITY OF
FORT LAUDERDALE**

Change Order No. 6
Purchase Order 6189
P12765
Prospect Lake Clean Water Center
Prospect Lake Water, L.P.



CHANGE ORDER SUMMARY SHEET

ORIGINAL CONTRACT AMOUNT (PO 6189 + 6191)	\$411,567,380
COST OF CHANGE ORDERS ON PO 6189 TO DATE	\$11,219,265
COST OF THIS CHANGE ORDER	\$4,720,061
COST OF CHANGE ORDERS ON PO 6191 TO DATE	\$3,431,125
COST OF THIS CHANGE ORDER	\$0
TOTAL:	\$430,937,831
ORIGINAL CONTRACT TIME	1,278 calendar days
TIME ADDED TO DATE	0 calendar days
TIME ADDED TO THIS CHANGE ORDER	0 calendar days
TOTAL:	1,278 calendar days

SCHEDULE OF CHANGE ORDERS TO DATE ON PO 6189

C.O.#	DATE	DESCRIPTION	AMOUNT OF COST OR CREDIT
1	8/23/2023	PFAS	\$371,644
2	10/23/2023	Temporary Power for Construction	\$445,504
3	12/3/2023	OCCT Construction Updates	\$1,336,774
4	8/20/2024	Feedstock Watermain	\$3,275,339
5	9/17/2024	OCCT Pipe Loop Test	\$5,790,004

SCHEDULE OF CHANGE ORDERS TO DATE ON PO 6191



**CITY OF
FORT LAUDERDALE**

Change Order No. 6
Purchase Order 6189
P12765
Prospect Lake Clean Water Center
Prospect Lake Water, L.P



C.O.#	DATE	DESCRIPTION	AMOUNT OF COST OR CREDIT
1	12/19/2023	Administration and Nano Building	\$4,167,756
2	4/9/2024	Administration Building Deduction	\$(736,631)

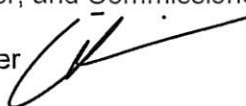


CITY OF
FORT LAUDERDALE



Memorandum

Memorandum No: 23-109

Date: August 31, 2023
To: Honorable Mayor, Vice Mayor, and Commissioners
From: Greg Chavarria, City Manager 
Re: Prospect Lake Clean Water Center – Change Order Procedure

On February 7, 2023, the City Commission approved a resolution authorizing execution of a Comprehensive Agreement with Prospect Lake Water, L.P. Prospect Lake Holdings, L.P., and IDE PLCW, INC. for the development, construction, and operation of the Prospect Lake Clean Water Center (PLCWC) (CAM #23-0196). Pursuant to Section 8.02 of the Comprehensive Agreement, the City of Fort Lauderdale (City) initiated a change in work requesting that the Project Company perform additional feedstock water testing and provide alternatives, if required, to ensure compliance with newly proposed Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) regulations. At the time the Comprehensive Agreement was approved, proposed regulations from the Environmental Protection Agency (EPA), that included new PFAS requirements were not released and therefore were not reflected in the design standards used for the proposed project. In compliance with Section 8.04 "Procedures for Implementing Changes to the Work" the project company prepared a Change Proposal that was submitted to the City on August 22, 2023. The change order has a net value of \$371,644 reflecting the additional work necessary to ensure the new water plant will meet all requirements when the new rules come into effect.

Pursuant to the City Code of Ordinances, Article V, Division 2, Section 2-177, the City Manager, or designee, is authorized to approve change orders up to a cumulative maximum amount of ten percent (10%) of the original contract amount. The contract amount of the PLCWC is \$485 million; therefore change orders up to a cumulative amount of \$48.5 million may be approved. Given the importance of this project, staff believes greater visibility is warranted when approving change orders. As such, the \$371,644 change order was administratively approved by myself. Funding for proposed additional work is available within the project's enabling work contingency funds and will not alter the previously approved funding strategy.

To provide greater transparency for the Commission and our residents, all change orders exceeding \$500,000 will be brought to the City Commission for approval, along with any material changes, while change orders below \$500,000 and non-material change orders

Memorandum No: 23-109

Page 2 of 2

will be approved by myself, as authorized by City Code of Ordinances, Article V Division 2, Section 2-177.

Staff is currently negotiating potential additional work that may exceed the \$500,000 threshold. Staff has requested a material change to the administration and nanofiltration buildings to be constructed with concrete in lieu of prefabricated metal buildings. Additionally, staff have requested the administration building be expanded to provide additional space for supervisory offices, a training room, and options for LEED certification. If the costs associated with these additional changes are deemed acceptable, and surpass the given thresholds by Ordinance, a change order will be brought to the City Commission for approval at a future meeting.

For additional information contact Public Works Director Alan Dodd at adodd@fortlauderdale.gov.

c: Anthony G. Fajardo, Assistant City Manager
Susan Grant, Assistant City Manager
D'Wayne M. Spence, Interim City Attorney
David R. Soloman, City Clerk
Patrick Reilly, City Auditor
Department Directors
CMO Managers

July 10, 2024

City of Fort Lauderdale, Florida
101 NE 3rd Avenue Suite 2100, Fort Lauderdale, FL 33301
Attn: City Manager and Public Works Director
Phone: 954-828-5000

With a copy to:

City of Fort Lauderdale, Florida
One East Broward Boulevard Suite 1320, Fort Lauderdale, FL 33301
Attn: City Attorney
Phone: 954-828-5000

VIA ELECTRONIC MAIL

RE: Prospect Lake Clean Water Center Project – City-Initiated Changes

CHANGE PROPOSAL

Reference is hereby made to that certain Comprehensive Agreement, dated as of February 14, 2023 (as amended or otherwise modified from time to time, the “Comprehensive Agreement”) between, *inter alia*, Prospect Lake Water, L.P. (the “Project Company” or “we”) and the City of Fort Lauderdale, Florida (the “City” or “you”). Except as otherwise expressly provided herein, capitalized terms used and not defined herein shall have the meanings ascribed to such terms in the Comprehensive Agreement.

Further to our discussions with you and your consultants, at this time the City has requested the Project Company to implement those City Changes described in Section 2 (Description of Requested City Changes) below. This is a Change Proposal under Section 8.04(a) of the Comprehensive Agreement, in respect of such City Changes. Further, upon the City’s execution and delivery of this Change Proposal (such date, the “Effective Date”), this Change Proposal shall (a) constitute the agreement of the City and the Project Company required by Section 8.02(c) (*City-Initiated Changes*) of the Comprehensive Agreement in respect of such City Changes, (b) become a valid and binding part of the Comprehensive Agreement, and all other terms and conditions of the Comprehensive Agreement shall remain in full force and effect, as modified by this Change Proposal, and (c) supersede all prior agreements and arrangements between the Parties, whether oral or in writing, regarding the subject matter of this Change Proposal, including that certain Change Order No. 1 for Project No. 12765, dated August 23, 2023, and that certain Change Order No. _____ for Project No. 12765, dated _____.

1. Background

On March 29, 2023, a proposed rule was published in Federal Register Vol. 88, page 18638 titled “PFAS National Primary Drinking Water Regulation Rulemaking” (the “Proposed PFAS Rule”) establishing proposed maximum contaminant levels for six per- and polyfluoroalkyl substances (PFAS) in drinking water under the Safe Drinking Water Act. Following the publication of the Proposed PFAS Rule, the City and the Project Company entered into the Change Proposal, effective as of September 16, 2023 (the “Initial PFAS Change Proposal”), pursuant to which the City requested the Project Company to

undertake certain Extra Work to investigate potential changes to the Project to permit the City to comply with the requirements in the Proposed PFAS Rule.

In accordance with the Initial PFAS Change Proposal, the Project Company has delivered to the City the Preliminary Engineering Report (as defined in the Initial PFAS Change Proposal) evaluating the treatment infrastructure identified in the Initial PFAS Change Proposal as Alternative 1 and Alternative 2. Under the Initial PFAS Change Proposal, (a) the City must provide written instructions to the Project Company to proceed with either Alternative 1 or Alternative 2 (each as defined therein), (b) such written instructions shall also constitute instructions for the Project Company to initiate pilot testing and engineering and procurement activities related to the selected alternative and (c) the City must issue a Request for Change Proposal in connection with the delivery of a final engineering report in respect of the selected alternative and any amendments required to the Comprehensive Agreement for the City to comply with the Proposed PFAS Rule following the pilot testing of the selected Alternative (the City obligations described in (a), (b) and (c), collectively, the “Subsequent City Obligations”).

Notwithstanding the Subsequent City Obligations, the Preliminary Engineering Report recommends the City to maintain the design, permitting and procurement approach for the Project as currently set out in the Comprehensive Agreement, and proceed with pilot testing to assess the existing Project’s ability to remove PFAS.

On April 10, 2024, the EPA finalized the National Primary Drinking Water Regulation (NPDWR) setting forth maximum contaminant levels (MCLs) and MCL goals for PFAS consistent with the Proposed PFAS Rule. Accordingly, the City is now requesting the Project Company to retain a third party consultant to investigate, and report to the City on, the existing Project’s ability to remove PFAS and the changes to the Work, if any, that would be necessary for the City to comply with the NPDWR using the City’s Feedstock Water (for purposes of this Change Proposal, the “Requested City Changes”).

2. Description of Requested City Changes

a. Extra Work to be Undertaken by Project Company

Please find below a description of the scope of Extra Work that the City has requested the Project Company to undertake in connection with the Requested City Changes (the “PFAS Pilot Study Work”):

- (i) Project Company shall undertake the design, fabrication, installation, commissioning and operation of a PFAS pilot unit in accordance with the scope, timeline and assumptions set out in Annex I (the “DB Contractor’s PFAS Pilot SOW”);
- (ii) Project Company shall retain and require Jacobs Project Management Company, a qualified consultant acceptable to the City, to conduct water sampling and testing rounds during operation of the PFAS pilot trailer in accordance with the scope, timeline and assumptions set out in Annex II (the “Jacobs’ PFAS Pilot SOW”); and
- (iii) Upon conclusion of the Extra Work described in the preceding two paragraphs, the Project Company shall deliver to the City a report, which shall summarize (x) Jacobs Project Management Company’s findings with respect to the performance of the current Project design in removing PFAS and (y) any potential changes to the Design Requirements and Construction Standards recommended by the Contractors to enable the City to comply with the requirements in the NPDWR and the operation and maintenance implications arising from the operation of the Project according to such revised Design Requirements and Construction Standards and any corresponding changes to the O&M Standards (the “PFAS Pilot Study Report”).

By executing and delivering this proposal, the City further acknowledges and agrees that:

- (a) the Subsequent City Obligations shall be of no force and effect and shall be replaced in their entirety by the terms of this Change Proposal;
- (b) if the PFAS Pilot Study Report recommends any changes to the Design and Construction Standards or the Operating Standards for the City to comply with the requirements in the NPDWR, within twenty-one (21) days of the City's receipt of the PFAS Pilot Study Report, the City shall issue a Request for Change Proposal in respect thereof and any other amendments to the Comprehensive Agreement required to ensure compliance with the NPDWR;
- (c) the Project Company shall have no obligation under Section 18.08 (*Indemnification*) of the Comprehensive Agreement to indemnify the City or any other party if the Project Company's operation of the Project in accordance with the requirements, terms and conditions set forth in the Comprehensive Agreement (including the O&M Standards) results in an environmental hazard as a result of PFOA and PFOS being classified as hazardous substances under CERCLA; and
- (d) Section 6.01(c) (*Conflicting Standards*) of the Comprehensive Agreement shall be amended to:¹
 - (i) include at the end of the first sentence thereof the following: "and the Project Company's compliance with the Legal Standards set out in Annex H-1 (*Product Water Legal Standards*) could result in the Product Water delivered by the Project Company failing to meet the the National Primary Drinking Water Regulation (NPDWR)";
 - (ii) include in the second sentence thereof immediately after the words "employees and agents" the following: "(including Contractors)";
 - (iii) include in the second sentence thereof immediately after the words "arising out of or in connection with" the following: "(i)"; and
 - (iv) include at the end of the second sentence thereof the following: "; (ii) the Feedstock Water containing any per- and polyfluoroalkyl substances (PFAS); (iii) the Product Water not complying with the NPDWR for any PFAS; or (iv) any adverse environmental condition associated with the disposal of PFAS-contaminated byproducts of the water treatment process".
- (e) the Project Company will operate the PFAS pilot unit using Feedstock Water drawn from the City's well 32, which, according to the analysis performed by Jacobs Project Management Company at the City's direction pursuant to the Initial PFAS Change Proposal, contains a minimum PFOS concentration of 18 ng/L. The Project Company has no responsibility or liability if the PFOS concentration in such well 32 differs from 18 ng/L and adversely impacts the performance of the PFAS Pilot Study Work.

b. Extra Work Costs

In accordance with Section 8.02(a) (*City-Initiated Changes*) of the Comprehensive Agreement, please find below the amount of Extra Work Costs associated with the PFAS Pilot Study Work:

¹ **Note to City:** This provisions adjusts the indemnity that the City has provided the Project Company to take into account the final PFAS regulation, which is binding on the City.

Extra Work Description	Associated Extra Work Costs
DB Contractor's costs	\$4,051,040
Jacobs Project Management Company's costs	\$509,021
Project Company's administrative costs	\$160,000
TOTAL	\$4,720,061

The Project Company will invoice the City for the Extra Work Costs associated with the PFAS Pilot Study Work in accordance with Section 10.04(a)(iv) (*Availability Payment Impacts; Monetary Compensation*) of the Comprehensive Agreement.

c. Completion Deadlines

No changes to the Scheduled Commercial Operation Date or the Commercial Operation Longstop Date are proposed in connection with the performance of the PFAS Pilot Study Work.

[Signature Page Follows]

Very truly yours,

PROSPECT LAKE WATER, L.P.

By: _____

Name: Michael Albrecht

Title: President

Date: July 11, 2024

Accepted and agreed:

CITY OF FORT LAUDERDALE

By: _____

Name:

Title:

Date:

Annex I
DB Contractor's PFAS Pilot SOW

[Attached]

Annex II
Jacobs' PFAS Pilot SOW

[Attached]

Task Order Form No. 4

June 11, 2024

TASK ORDER FORM

Effective Date _____ Task Order No. 4
Owner Project No. _____ Consultant Project No. _____

This Task Order No. 4 (this "Task Order") is entered into on the date first written above pursuant to that certain Master Agreement for Professional Services dated July 17, 2023 (the "Agreement") between Prospect Lake Water, L.P. ("Project Company") and Jacobs Engineering Group Inc. ("Consultant"). The Agreement is incorporated herein and forms an integral part of this Task Order. However, in case of conflict between the Agreement and this Task Order, the terms of this Task Order shall control.

Services Authorized

Owner authorizes Consultant to perform the services described in Appendix 1 attached hereto and incorporated herein, which Appendix 1 is marked with the above noted Task Order No. and consists of 5 page(s).

Pricing

X Time and Expense per Agreement Article 2 and Exhibit B to the Agreement.
_____ Firm Fixed Price of \$_____.
_____ Other (Describe): _____

Schedule

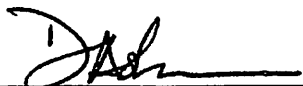
Services may commence on June 26, 2024.
Services will cease by October 31, 2025.

Other

PROJECT COMPANY:

JACOBS ENGINEERING GROUP, INC.

By: _____

By: 
David Ashman, Vice President

Task Order No. #4

Professional Services for Prospect Lake Clean Water Center Piloting Support

This Task Order No. 4 (this "Task Order") is entered into on the date first written above pursuant to that certain Master Agreement for Professional Services" dated July 17, 2023 (the "Agreement") between Prospect Lake Water, L.P. ("Project Company") and Jacobs Engineering Group Inc. ("Consultant"). The Agreement is incorporated herein and forms an integral part of this Task Order. However, in case of conflict between the Agreement and this Task Order, the terms of this Task Order shall control.

1. PROJECT BACKGROUND

On February 14, 2023, the City of Fort Lauderdale ("City") and the Project Company executed a Comprehensive Agreement defining the key terms and conditions of a P3 to provide the City with equity financing, design, construction and operation of a new 50 million gallons per day water treatment plant (WTP) at the City's Prospect Wellfield site. As part of this effort, the Project Company will be running a pilot for treatability testing and the rejection/adsorption of emerging contaminants such as per- and polyfluoroalkyl substances (PFAS). Consultant will be providing piloting support for both pilots as further detailed in the scope of services.

2. SCOPE OF SERVICES:

Task 1. PFAS Piloting Support

- Consultant will provide field equipment to collect and analyze field water quality data during testing. Consultant field personnel will analyze field water quality data using standard methods and Good Laboratory Practice as defined by ASTM D3856-95 and in accordance with the standards set out in Section 6.1 of the Agreement. Consultant will use this data to assess pilot performance. The sampling will occur over the 40-week pilot duration. All sampling points will be determined by IDE and the Project Company and will be provided to the Consultant with the Water Quality Sampling Plan. The sampling includes up to 36 sampling points a day, one sampling day per week and up to 48 sampling days in total. Field analyses will consist of the following:
 - Dissolved and total iron (Hach colorimetric method 8147)
 - hydrogen sulfide (Hach colorimetric method 8131)
 - turbidity (Method 2130B)
 - oxidation reduction potential (ORP)
 - dissolved oxygen, conductivity, and pH
- Consultant will also collect and deliver water samples for laboratory analysis [at the conclusion of each sampling day test]. Laboratory testing includes 36 sampling points a day and one sampling day per week. Laboratory analyses and anticipated quantities will follow the parameters listed under the table below:

Appendix 1

June 11, 2024

Parameter	Quantity of Tests
PFAS (Method 533)	725
PFAS (Method 1633)	104
PFAS Stripping Tower Testing	0
PFAS Testing of Aeration Tower Media	0
Chloride	184
Fluoride	119
Calcium	108
Magnesium	108
Sodium	97
Potassium	65
Manganese	65
Total Suspended Solids (TSS)	130
Total Organic Carbon (TOC)	184
Total Dissolved Solids (TDS)	130
Dissolved Iron	86
Total Chlorine	54
Free Chlorine	54
Sulfate	108
Nitrite	108
Nitrate	108
Alkalinity	54
Iron	86
Hardness	54
H ₂ S	54
NH ₄	54
pH	32
ORP	32
Color	54
Turbidity	43
Pre-TOP Assay PFAS 36 Compounds	12
Post-TOP Assay PFAS 36 Compounds	12
Prep - TOP Assay	12
TOF as Total Fluorine	60
Adsorbable Organic Fluorine	12
Perchlorate	4
Arsenate (As (V))	4
Hexavalent chromium (chromate) Cr(VI)	4
Uranium	4
Oil & Grease	4

Note(s): Field Reagent Blank (FRBs) and Field Duplicate samples (QC Samples) are included in the quantity of PFAS tests for EPA Method 1633 and EPA Method 533. QC sample frequency was determined according to the recommendation of the City's consultants.

- Consultant will deliver to Project Company field water quality data weekly and meet with Project Company on a biweekly basis to discuss available results.
- Consultant will deliver to Project Company laboratory reports and data promptly following receipt of such reports and data from the laboratory and no later than one week from receipt of laboratory results to compile and send data to Project Company.

Task 1 Deliverables

- Consultant will deliver water quality results in electronic Microsoft Excel format and laboratory reports in pdf format.

Task 1 Meetings

- Consultant will participate in biweekly calls via Microsoft Teams to provide the Project Company with available sampling results and observations.

Task 2. PFAS Data Analysis

- Consultant will coordinate with the Project Company, City, and IDE to analyze PFAS data that was collected by the Consultant from May 2023 through January 2024 and additional data collected during the operation of the PFAS pilot. Consultant will develop a blending spreadsheet that will be used by the Consultant to analyze existing PFAS treatment/removal capability of the current nanofiltration and anionic exchange color removal process configuration. Consultant will develop PFAS removal assumptions using available pilot data and with consensus from IDE, City, and Project Company.
- Upon completion of the Pilot Report by IDE, Consultant will review and provide review comments for incorporation into the Final Pilot report.

Task 2 Deliverables

- Consultant will deliver blending spreadsheet in electronic Microsoft Excel format.

Task 2 Meetings

- It is assumed that the Consultant will participate in up to four (4) calls to discuss data analysis and Pilot Report review meetings.

3. BASIS OF COMPENSATION

For the Scope of Services, the Consultant will be compensated on a time and materials basis, in accordance with the Agreement. The estimated cost for the professional services described above is \$509,021 ("Cost Estimate"), as summarized below.

Appendix 1

June 11, 2024

Engineering Cost Summary					Administrative Assistant 2	Engineer 2	Engineer 5 Project Engineer/PM	Engineer 8 Technical Lead
Project Lake Clean Water Center Piloting Support					\$90.00	\$125.00	\$190.00	\$300.00
Per Diem Rate:								
Task 1 – PFAS Piloting Support								
SubTask	Hours	Labor	Reimbursable Expense	Task Total				
Testing and analysis testing	782	\$112,680	\$322,101	\$434,781		578	192	14
Review calls	46	\$8,100	\$0	\$8,100		20	20	6
Project Management	28	\$4,520	\$0	\$4,520	8		20	
Subtotal for Task 2	856	\$125,300.00	\$322,101.00	\$447,401.00	8	596	212	20
Task 2 – PFAS Data Analysis								
SubTask	Hours	Labor	Expense	Task Total				
Data review and Blending Spreadsheet	300	\$52,700	\$0	\$52,700		100	180	20
Pilot Report Review	24	\$5,440	\$0	\$5,440			16	8
Review calls	8	\$1,960	\$0	\$1,960			4	4
Project Management	8	\$1,520	\$0	\$1,520			8	
Subtotal for Task 3	340	\$61,620.00	\$0.00	\$61,620.00	0	100	208	32
Grand Total	1,196	\$186,920	\$322,101	\$509,021	8	696	440	52

Note(s): Reimbursable expenses include PFAS analytical testing from contracted laboratory, water quality analytical testing from contracted laboratory, and materials and equipment and travel needed for field analysis, including taxes.

Consultant's time will be billed per the approved list of hourly rates in the table below.

JACOBS PROFESSIONAL RATE SCHEDULE	
Classification	Rate
Engineer Grade 8	\$300.00
Engineer Grade 7	\$260.00
Engineer Grade 6	\$220.00
Engineer Grade 5	\$190.00
Engineer Grade 4	\$160.00
Engineer Grade 3	\$140.00
Engineer Grade 2	\$125.00
Engineer Grade 1	\$110.00
Technician 6	\$180.00
Technician 5	\$160.00
Technician 4	\$140.00
Technician 3	\$120.00
Administrative Assistant 3	\$105.00
Administrative Assistant 2	\$90.00

4. TIME OF PERFORMANCE

The Consultant will complete Tasks on the Scope of Services according to the following schedule of execution of this Task Order. Project Company and Consultant may revise this schedule based upon piloting progress and schedule, however it is anticipated that the Scope of Services will be completed in 40 weeks.

TASK	Schedule
Task 1. PFAS Piloting Support	
Pilot support completed	40 weeks

5. ASSUMPTION(S):

- The Project Company will provide pilot details to the Consultant, including sampling locations and frequency as detailed in Task 1.
- The Project Company will provide access to pilot skid for sampling and analysis.
- Consultant will provide instruments to measure field analyses during the field testing.
- Consultant will subcontract directly with a water quality laboratory qualified to complete all the required analyses shown in the table under Task 1 above for all analyses not conducted during field testing. The qualified laboratory will be certified under the Environmental Laboratory Certification Program by the Florida Department of Health. Consultant will collect and ship samples for analysis.
- Project Company will assist Consultant with obtaining site access to the wellfield and the pilot.
- Consultant will provide data to Project Company, in XLX/XLSX, and PDF formats.
- The presence or duties of Consultant's personnel at a construction site, whether as onsite representatives or otherwise, do not make Consultant or Consultant's personnel in any way responsible for those duties that belong to City including, but not limited to, means, techniques, sequences, and procedures necessary for coordinating and completing all portions of the work and any health or safety precautions required by such work.
- Consultant's personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions and have no duty for inspecting, noting, observing, correcting, or reporting on health or safety deficiencies of the construction contractor(s) or other entity or any other persons at the site except Jacobs' own personnel.
- The schedule of this Task Order is based upon laboratory turnaround time of 6 weeks as well as the Project Company and City obligations and assumptions listed within this Task Order.



July 11th, 2024

LTR No. LTR0063a – Kiewit to Project Co.

Prospect Lake Water, L.P.
c/o Ridgewood Infrastructure
14 Philips Parkway
Montvale, NJ 07645
Attn: Legal Department

With copy to the addressees listed in Schedule 1

Via Email

Subject: Prospect Lake Clean Water Center Design Build Contract
Response to Scope Change Order Proposal Request – PFAS Phase 2 Pilot Study

Dear Maria,

Reference is hereby made to that certain Design-Build Contract, dated as of February 14, 2023 (as amended or otherwise modified from time to time, the “DB Contract”) between Prospect Lake Water, L.P. (“Project Company”) and Kiewit Water Facilities Florida Co. (“Kiewit”). Except as otherwise expressly provided herein, capitalized terms used and not defined herein shall have the meanings ascribed to such terms in the DB Contract and, if not defined therein, in the Comprehensive Agreement.

This letter (“Scope Change Order Proposal Response”) is in response to Project Company’s Scope Change Order Proposal Request for Engineering Study and Proposed Treatment to comply with proposed PFAS Rule (City RFP 001) per Annex B-1 (City Infrastructure Obligations) in the Comprehensive Agreement, sent to Kiewit on April 19th, 2023.

Section 10.03(b) (*Procedure for Scope Changes*) of the Design Build Agreement states that “*Design-Build Contractor shall promptly review the Scope Change Order Proposal Request and notify Project Company in writing of the options for implementing the proposed Scope Change (including, if possible, any option that does not involve an extension of time) and the effect, if any, each such option would have on the DB Contract Price, the Guaranteed Substantial Completion Date, the Project Progress Milestone Dates, the Payment Schedule, the Project Schedule, and the Performance Criteria*”.

Kiewit hereby agrees to perform the Scope Change identified in Attachment 1 to this Scope Change Order Proposal Response in accordance with the terms and conditions set out herein, including the other attachments hereto.

Background

The Project Company and Kiewit entered into that certain Acknowledgement of Executed Change Proposal – PFAS, dated as of August 22, 2023 (the “Initial PFAS Change Proposal Acknowledgment”), pursuant to which Kiewit has delivered to the Project Company the Preliminary Engineering Report (as defined in the Initial PFAS Change Proposal Acknowledgment) evaluating the treatment infrastructure identified in the Initial PFAS Change Proposal Acknowledgment as Alternative 1 and Alternative 2.

KIEWIT WATER FACILITIES FLORIDA CO.
5757 Blue Lagoon Dr., Suite 200, Miami, Florida, 33126



Under the Initial PFAS Change Proposal Acknowledgment, (a) the Project Company must provide written instructions to the DB Contractor to proceed with either Alternative 1 or Alternative 2 (each as defined therein), and (b) such written instructions shall also constitute instructions for the DB Contractor to initiate pilot testing and engineering and procurement activities related to the selected alternative (the Project Company obligations described in (a) and (b), collectively, the "Subsequent Project Company Obligations").

Notwithstanding the Subsequent Project Company Obligations, the Preliminary Engineering Report recommends the Project Company to maintain the design, permitting and procurement approach for the Project as currently set out in the Comprehensive Agreement, and proceed with pilot testing to assess the existing Project's ability to remove PFAS.

On April 10, 2024, the EPA finalized the National Primary Drinking Water Regulation (NPDWR) setting forth maximum contaminant levels (MCLs) and MCL goals for six per- and polyfluoroalkyl substances (PFAS) in drinking water under the Safe Drinking Water Act.

Accordingly, the Project Company is now requesting Kiewit to investigate, and report to the Project Company on, the existing Project's ability to remove PFAS and the changes to the Work, if any, that would be necessary for the City to comply with the NPDWR using the City's Feedstock Water as treated by the Project Company pursuant to the Comprehensive Agreement (for purposes of this Scope Change Order Proposal Response, the "Requested City Changes").

By executing and delivering an acknowledgement in respect of this Scope Change Order Proposal Response, Kiewit acknowledges and agrees that the Subsequent Project Company Obligations shall be of no force and effect and shall be replaced in their entirety by the terms of this Scope Change Order Proposal Response.

Change to the DB Contract Price

Attachment 1 to this letter defines the detailed scope of work associated with this Scope Change including the pricing summary and supporting information. In accordance with Sections 2.09(e) and (f) (*Comprehensive Agreement; Equivalent Project Relief*) and Section 10.06 (*Price Change*) of the DB Contract, (a) DB Contractor will not be entitled to receive any increase in the DB Contract Price in respect of this Scope Change until Project Company has received such amount from the City and (b) Project Company shall pay such amount to DB Contractor promptly, and in any event no later than five (5) Business Days, after receipt of the corresponding payment from the City.

Base Bid

\$4,051,040

Change to Guaranteed Substantial Completion Date

- This Scope of Work is outside the overall Scope of Work for the Project and therefore has no bearing on the Project Schedule.

Change to the Project Progress Milestone Dates



- This Scope of Work is outside the overall Scope of Work for the Project and therefore has no bearing on the Project Milestones.

Change to the Payment Schedule

- The revised Payment Schedule will be provided following final execution of this referenced Change Order.

Change to the Project Schedule

- There is no change to the Project Schedule associated with this Scope Change.

Change to the Performance Criteria

- By virtue of accepting or performing the Work, Design-Builder does not become the generator or co-generator of any Third Party Environmental Condition.

Other Information Pursuant to Section 8.04 (Procedures for Implementing Changes to the Work) of the Comprehensive Agreement

This Response to Scope Change Order Proposal Request is valid for 30 days from the date of this letter.

If you have questions or comments about this information, please contact me at Matthew.Allen@Kiewit.com.

Sincerely,

Matthew.Allen

Digitally signed by Matthew.Allen
DN: CN=Matthew.Allen,
OU=Employees, OU=Users,
OU=Kiewit, DC=KIEWITPLAZA,
DC=edn
Date: 2024.07.11 10:29:53-04'00'

Matthew Allen
Project Manager
Kiewit Water Facilities Florida Co.

Accepted and Agreed:

Prospect Lake Water, L.P.

Name:

Title:

Date:

Schedule 1 – Additional Addressees

Attachments:

KIEWIT WATER FACILITIES FLORIDA CO.
5757 Blue Lagoon Dr., Suite 200, Miami, Florida, 33126



Kiewit

1. Scope of Work & Pricing Summary
2. Updated Project Progress Milestone Dates – NOT USED
3. Updated Payment Schedule - NOT USED
4. Updated Project Schedule – NOT USED
5. Updated Performance Criteria – NOT USED



Schedule 1 – Additional Addressees

Prospect Lake Holdings, L.P.
c/o Ridgewood Infrastructure
14 Philips Parkway
Montvale, NJ 07645-1811
Attn: Legal Department
Phone: 201-447-9000
Email: mhaggerty@ridgewood.com

White & Case LLP
1221 Avenue of the Americas
New York, NY 10020
Attn: Dolly Mirchandani
Email: dolly.mirchandani@whitecase.com

IDE PLCWC, Inc.
c/o IDE Americas Inc.
5050 Avenida Encinas, Suite 250
Carlsbad, CA 92008
Attn: Lihy Teuerstein
Phone: 6194870760
Email: Lihyt@ide-tech.com

IDE Americas Inc.
5050 Avenida Encinas, Suite 250
Carlsbad, CA 92008
Attn: Lihy Teuerstein
Phone: 6194870760
Email: Lihyt@ide-tech.com



Attachment 1 – Scope of Work and Pricing Summary

[Attached]

Attachment 1: Scope of Work and Pricing Summary

INCLUDED SCOPE	EXCLUDED SCOPE
Design, fabrication, installation, and commissioning of the PFAS Pilot Trailer, comprised of all treatment units (pumps, pretreatment, color-removal IX, PFAS removal NF, PFAS IX, PFAS GAC, CIP, chemicals dosing, piping and accessories, electrical control, monitoring, and sampling taps etc).	480V electrical connection to be provided by the City 3 weeks prior to completion of the pilot plant installation
PFAS Pilot operation	Future injectate treatment design
1 - 3" HDPE piping from Well 32 to the Pilot Trailer Inlet	Permanent tie in points to the base plant systems
Preliminary, interim, and final pilot test reports summarizing the pilot test findings.	No permitting has been included.

Clarifications / Assumptions
The existing 2" CPVC waste/discharge piping from the current pilot study to the existing sanitary lift station will be used for this PFAS pilot study
Discharge of disposal streams to the City's sanitary sewer lift station is assumed to be acceptable, no permitting associated with this disposal has been included.
The conditions of the water at the PFAS trailer tie-in point (Well #32) are assumed to be adequate. No adjustment to these conditions (temperature, pressure, flow, etc.) has been included.

PILOT TREATMENT CONFIGURATION

The Pilot treatment configuration shall be a split stream process comprised of an NF stream and an IX stream intended to evaluate the PFAS reduction from well water along with other main process parameters. The system shall simulate as closely as possible the existing Project design.

The Pilot unit will be installed in a high cube container or a trailer container, consisting of the following sub-units:

- **Pre-treatment area:** This is intended to protect the NF from suspended solids, adjust the water pH, and add the required chemicals before entering the membranes, and includes PMF, micronic cartridge filters, and chemical dosing systems.
- **Nano-filtration:** The NF process will remove multivalent ions (e.g., hardness and iron) and organic matter that color the water, as well as microorganisms and other compounds. The NF module shall be pre-engineered, including two-stage nanofiltration in a 2-1 configuration, skid-mounted unit that contains the membrane pressure vessels, membrane elements, and associated interconnecting piping and instrumentation.
- **Clean-in-Place (“CIP”) System:** The presence of organic materials and biological microorganisms in the Feedstock Water can increase the frequency and severity of membrane biofouling. To mitigate this biofouling, the NF treatment trains shall be designed with a CIP system and associated cleaning chemicals.
- **Color removal Ion Exchange:** Downstream of the PMF, the treatment process shall continue with an IX process, which will remove natural organic matter (i.e., NOM) that colors the water. The IX resin is packed into two pressurized columns where it absorbs the organic matter until the resin is saturated.
- **PFAS removal Ion Exchange:** Downstream of the color removal IX, the treatment process shall continue with a designated IX process, which will remove PFAS from the water. The resin shall be packed into two (2) pressurized columns (each with different resin) where the PFAS shall be absorbed until the resin is saturated.
- **PFAS removal GAC columns:** In parallel to the PFAS removal IX, downstream of the color reduction IX, the treatment process shall continue with a designated GAC process, which will remove PFAS from the water. The GAC shall be packed into two (2) pressurized columns (each with different GAC) where the PFAS shall be absorbed until the GAC is saturated.
- **Monitoring and testing equipment:** The pilot shall be equipped with instrumentation for continuous online monitoring and for field analyses.
 - The following parameters shall be monitored continuously, using dedicated instrumentation that will be installed in several streams throughout the Pilot treatment process: temperature, pH, ORP, color, turbidity, and conductivity.
 - For the sampling field analyses, the Pilot shall be equipped with analytical instruments, such as a spectrophotometer, turbidimeter, UVT meter, Multi-Meter and different types of electrodes. The Pilot shall use those for analyses of the following parameters: SDI, sulfate, nitrite, nitrate, alkalinity, iron, dissolved iron, total chlorine, free chlorine, ammonium, conductivity, hardness, dissolved oxygen and UVT.

WATER QUALITY SAMPLING PLAN

The Water Quality Sampling Plan shall be performed based on the following methodology:

- The Design-Build Contractor shall install sampling ports within the equipment units of the systems operating in the Pilot, placed in a way that allows the performance of each system to be evaluated.
- Each system shall be sampled at a different frequency. Depending on the information needed from its activity, there will be weekly and bi-weekly samplings and changing frequency sampling according to a study on part of the systems, as shown in the “PFAS Sampling Plan Matrix” and “General Analyses Sampling Plan Matrix” that follow in the next few pages of this Appendix 2. These analyses shall be performed by a certified off-site analytical laboratory.
- During the operation of the Pilot, the following analyses shall be monitored using continuous online monitoring instrumentation that the Pilot team shall operate, and their data will be available online for the Pilot control: temperature, pH, ORP, color, turbidity, and conductivity.
- The Project Company shall perform water sampling for field analyses at changing frequency, daily/weekly/bi-weekly, according to the Pilot test needs, by using test kits and reagents designed for the analytical instruments that will be installed in the pilot laboratory and operated by the Pilot team, for the following parameters: SDI, sulfate, nitrite, nitrate, alkalinity, iron, dissolved iron, total chlorine, free chlorine, ammonium, conductivity, hardness, dissolved oxygen and UVT.

PFAS Sampling Plan Matrix

All will be tested by a certified off-site analytical laboratory.

Port	System	Location	Sampling Frequency	Test Repetitions	Samples Per	Base Plan
1	General	Main Inlet	Weekly	40	1	40
2	Air Stripper	water outlet	Study	3	4	12
3	Air Stripper CIP	CIP outlet	Study	1	3	3
4	Aerobic PMF	inlet	Study	3	4	12
5	Aerobic PMF	outlet	Study	3	4	12
6	Aerobic PMF	Backwash	Study	3	4	12
7	Aerobic IX-Color	inlet	Study	1	2	2
8	Aerobic IX-Color	outlet	Study	3	4	12
9	Aerobic IX-Color	Regeneration Brine	Study	2	4	8
10	Anaerobic IX-Color	outlet	Study	1	4	4
11	Anaerobic IX-Color	Brine	Study	1	4	4
12	PFAS system	Inlet	Bi-weekly	20	1	20
13	PFAS IX 1	25%	Total for unit	19	1	19
14	PFAS IX 1	50%	Total for unit	18	1	18
15	PFAS IX 1	75%	Total for unit	10	1	10
16	PFAS IX 1	outlet	Total for unit	19	1	19
17	PFAS IX 2	25%	Total for unit	19	1	19
18	PFAS IX 2	50%	Total for unit	18	1	18
19	PFAS IX 2	75%	Total for unit	10	1	10
20	PFAS IX 2	outlet	Total for unit	19	1	19
21	GAC 1	25%	Total for unit	19	1	19
22	GAC 1	50%	Total for unit	14	1	14
23	GAC 1	75%	Total for unit	8	1	8
24	GAC 1	outlet	Total for unit	19	1	19
25	GAC 2	25%	Total for unit	19	1	19
26	GAC 2	50%	Total for unit	14	1	14
27	GAC 2	75%	Total for unit	8	1	8
28	GAC 2	outlet	Total for unit	19	1	19
29	Nano filtration	Feed	Bi-weekly	20	1	20
30	Nano filtration	Stage 1 Permeate	Bi-weekly	20	1	20
31	Nano filtration	Stage 2 Permeate	Bi-weekly	20	1	20
32	Nano filtration	Total Permeate	Bi-weekly	20	1	20
33	Nano filtration	Stage 1 brine	Bi-weekly	20	1	20
34	Nano filtration	Final brine	Bi-weekly	20	1	20
35	Nano filtration	CIP	Study	1	12	12
Subtotal Base Plan						525
FRB (filed reagent blanks)					20% of Base	105
Field Duplicates (FD)					10% of Base	53
QA/QC- PFAS spikes analysis						10
Provision for additional analyses					20% of Base	136
Total PFAS analyses						829

Comments:

QC sample (FRB and Field Duplicates) frequency was determined according to the recommendation of City consultants.

PFAS analyses for brine and CIP streams will be performed by method 1633 (104 analyses including QC).

PFAS analyses for all other streams will be performed by method 533 (725 analyses including QC).

General Analyses Sampling Plan Matrix

All will be tested by a certified off-site analytical laboratory.

Color legend	Continuous online monitoring
	Field Sampling (daily/weekly/ bi-weekly)
	Certified off-site analytical laboratory only

Parameter	Units	Sampling Frequency for lab test	Number of samples per month	Quantity for 9 months operation	20% extra
Chloride	mg/L	bi weekly	17	153	184
Fluoride	mg/L	monthly	11	99	119
Calcium	mg/L	bi weekly	10	90	108
Magnesium	mg/L as CaCO3	bi weekly	10	90	108
Sodium	mg/L	bi weekly	9	81	97
Potassium	mg/L	monthly	6	54	65
Manganese	mg/L	monthly	6	54	65
TSS	mg/L	bi weekly	12	108	130
TOC	mg/L	bi weekly	17	153	184
TDS	mg/L	bi weekly	12	108	130
Dissolved Iron	mg/L	monthly	8	72	86
Total Chlorine	mg/L	monthly	5	45	54
Free Chlorine	mg/L	monthly	5	45	54
Sulfate	mg/L	monthly	10	90	108
Nitrite	mg/L as N	monthly	10	90	108
Nitrate	mg/L as N	monthly	10	90	108
Alkalinity	mg/L as CaCO3	monthly	5	45	54
Iron	mg/L	monthly	8	72	86
Hardness	mg/L as CaCO3	monthly	5	45	54
H2S	mg/L	monthly	5	45	54
NH4	mg/l	monthly	5	45	54
pH		monthly	3	27	32
ORP	mV	monthly	3	27	32
Color	Pt-Co	monthly	5	45	54
Turbidity	NTU	monthly	4	36	43
Pre-TOP Assay PFAS 36 Compounds	ppt	For evaluating the concentrations of these parameters in the Feedstock Water. If unexpectedly high concentrations are received, we may have to increase the amount of analysis for some parameters.		10	12
Post-TOP Assay PFAS 36 Compounds	ppt			10	12
Prep - TOP Assay	ppt			10	12
TOF as Total Fluorine	Ppb			50	60
Adsorbable Organic Fluorine	Ppb			10	12
Perchlorate	Ppb			3	4
Arsenate (As (V))	Ppb			3	4
Hexavalent chromium (chromate) Cr(VI)	Ppb			3	4
Uranium	Ppb			3	4
Oil & Grease	mg/L			3	4
Total VOC	Ppb			3	4

DELIVERABLES

The Design-Build Contractor shall prepare the periodic reports (the “Reports”) and submit them to the Project Company, based on the water sampling laboratory reports and process performance trends. The Reports shall consist of the following:

1. Deliverables regarding the Pilot design: The following documents shall be provided by the Design-Build Contractor to the Project Company for review during the detailed design stage – PFD, PID, test plan including summary of the test objectives, treated water quality goals, target operating conditions for each test and approach for data collection, and schedule.

2. Monthly Report: These shall track and detail the course of the Pilot, the application of the different technologies (i.e., NF/ IX/ GAC) for the PFAS removal that were used, and the water quality of the Feedstock Water and product water streams.

3. Preliminary Report: This shall be delivered four (4) months after commencement of Pilot operations and shall consist of a preliminary report for the performance evaluation of NF membranes PFAS removal, based on the relevant criteria in the Project wellfield.

4. Interim Report: This shall be delivered six (6) months after commencement of Pilot operations, and shall consist of a report evaluating the performance, up to that date, of each of the technologies on the removal of PFAS.

5. Final Report: This shall be delivered within three (3) to five (5) weeks after receiving the last water sampling laboratory results from the external laboratory and according to the availability of the PE. The Subcontractor assumes it will receive the results from the external laboratory six (6) weeks from water sampling. The Final Report shall consist of a final summary report, signed by Florida PE, and shall include the following sections:

a) **Introduction:** A brief description of the PFAS contamination at the Project wellfield and the goals of the Pilot program.

b) **Methodology:** An outline of the Pilot test, including Site selection, technology implementation, and monitoring plan.

c) **Pilot Test Findings:** A presentation of the findings of the Pilot test, including the effectiveness levels of the technologies tested for PFAS removal.

d) **Discussion:** An identification of the analytical results, key findings and potential challenges and limitations.

e) **Conclusions and Recommendations:** These shall include: (i) recommendations as to types of IX resins/GAC for PFAS removal; (ii) operational aspects for the application of each technology, including the rate of fouling, breakthrough and replacement of membranes, resins and GAC frequency; (iii) main insights and implications based on the Pilot results, current design and regulations; and (iv) modifications, if needed, to the current design of the Project to comply with the Proposed PFAS Rule.

SUBCONTRACTOR PILOT PRICING

The Price for the Pilot is detailed in Tables 1 through 3 below. The Price is for the services described in this Agreement and for nine (9) months of Pilot operation.

Table 1: Services Pricing and Payment Terms

Service Description	Total Cost [US\$]
<u>PFAS Pilot construction, procurement, and fabrication:</u> <ol style="list-style-type: none"> Pilot engineering and detailed design according to the pilot's specification, including all treatment units: pumps, pretreatment, color-removal IX, PFAS removal NF, PFAS IX PFAS GAC, CIP, chemicals dosing, piping and accessories, electrical control, monitoring and sampling taps, etc. The pilot unit will be a fully automated standalone system that can be remotely monitored and controlled. Pilot unit fabrication and construction: The pilot will be built in a closed 53' mobile trailer container certified for transportation. All equipment and wetted materials will be NSF compliant. Logistics, equipment, quality assurance and process control. Installation at the site. Site Commissioning and onboarding of the pilot operators, including instruction manuals for operation and maintenance of all equipment. Freight, ,and insurance 	<p>1,647 K</p> <p>See the breakdown in Table 2 below.</p>
<u>Labor and professional services:</u> The labor services will include the following disciplines: <ol style="list-style-type: none"> Process engineering design, preparation of materials and deliverables. Supervision of fabrication, construction, installation and commissioning. Operation of the Pilot activity including the set of water quality testing for continuous monitoring and field analyses. Overhead, technical, and engineering back-office work, including support through entire pilot services by the Subcontractor's PFAS TEAM, data analysis, and reports preparation. 	<p>907 K</p> <p>See the breakdown in Table 3 below.</p> <p>Note: Third-party laboratory services shall be provided by Jacobs, and not included in this proposal.</p>
<u>PFAS Pilot Operation and maintenance:</u> <ol style="list-style-type: none"> Pilot Consumables. Field analyses equipment and reagents. Monitoring Instruments. Spare parts. Maintenance services and mechanical support: <ul style="list-style-type: none"> Repair of operational malfunctions. Technical support and upgrades. Installation of spare parts. Mechanical support to enable continuous pilot operation. Certified electrician for installations. Other operational related costs. Insurance (as specified in Section 7 of the Agreement). Engineer of Record: Services of PE throughout the Pilot operation and preparation of the final report. 	<p>430 K</p>
<u>Overhead (8%)</u>	238.72 K
<u>Total</u>	3,222.72 K

Table 2: PFAS Pilot Construction Breakdown

Item	Description	Total Cost [US\$]
1	Detailed design and MP for fabrication	300 K
2	Pretreatment	210 K
3	Color-removal IX & PFAS removal (NF, IX, GAC)	450 K
4	Auxiliary Systems (CIP, Chemicals dosing, and Monitoring & control systems)	400 K
5	Trailer and equipment	190 K
6	Installation, commissioning, insurance, freight	97 K
	Total	1,647 K

Table 3: Manpower Breakdown

IDE PROFESSIONAL RATE SCHEDULE:

<u>Professional Service Provider</u>	<u>Rate [US\$/Hour]</u>	<u>Total Hours</u>
Project Manager	250	1,274
Supervisor	225	110
Project Engineer	190	719
Electrical Engineer	190	19
Control Engineer	190	19
Instrument Engineer	190	19
Process Engineer	175	3,822
Quality Assurance	170	402
Process Buyer	170	328
Project Management Office	170	73

Total Manpower Hours: 6,785

Final - Total Labor Price: \$907K



Kiewit Water Facilities Florida Co.
5757 Blue Lagoon Dr. Suite 200
Miami, FL 33126

SCOPE CHANGE ORDER PROPOSAL	
Prospect Lake Clean Water Center - Design-Build Contract	
Kiewit PCO NO. 06	
Thursday, July 11, 2024	
Scope Change Order Proposal	
PFAS Phase 2 Pilot Study	
IDE PFAS Phase 2 Pilot Study	\$ 3,780,107
Kiewit PFAS Phase 2 Pilot Study	\$ 235,594
SUBTOTAL	\$ 4,015,701
Overhead & Fee (15%) On Kiewit Scope Only	\$ 35,339
TOTAL	\$ 4,051,040



Kiewit

PROSPECT LAKE



DESCRIPTION	QTY	UOM	COST
CIVIL			
CIVIL TOTAL			\$0
STRUCTURAL			
STRUCTURAL TOTAL			\$0
MECHANICAL EQUIPMENT (IDE)			
IDE Pilot Study	1	LS	\$3,222,720
Sales Tax	1	LS	\$225,590
Overhead	1	LS	\$331,796
Fee	1	LS	\$0
MECHANICAL EQUIPMENT TOTAL (IDE)			\$3,780,107
PIPE			
Below Ground Large Bore Pipe (Fusion Joint Poly) (2.5"-6" Diameter)	2,800	LF	\$51,083
Above Ground Small Bore Pipe Testing - Hydro <36"	2,800	LF	\$9,510
Other Sub Assist Piping Work (Loader to set trailer and backfill)	1	PLS	\$3,479
Potholing Subcontractor	8	EA	\$5,162
GPR Subcontractor	3	DAYS	\$6,783
Trencher Rental	2	WK	\$1,945
PIPE TOTAL			\$77,964
ELECTRICAL			
ELECTRICAL TOTAL			\$0
START UP			
START UP TOTAL			\$0
SUPERVISION & COMMERCIAL			
Staff & Staff Related Costs	1	LS	\$13,506
Craft Related Costs	1	LS	\$11,975
Commercial Costs (Bonds & Insurance)	1	LS	\$59,675
SUPERVISION & COMMERCIAL TOTAL			\$85,155
ENGINEERING			
Engineering Support & Oversight	64	MWK	\$72,475
ENGINEERING TOTAL			\$72,475
DESIGN BUILD CONTRACTOR TOTAL			\$235,594
Fee	1	LS	\$35,339



Attachment 2 – Updated Project Progress Milestone Dates

[Not Used]



Attachment 3 – Updated Payment Schedule

[To come]



Attachment 4 – Updated Project Schedule

[Not Used]



Attachment 5 – Updated Performance Criteria

[Not Used]