### PUBLIC WORKS MEMORANDUM #16-2024

DATE: July 8, 2024

TO: Honorable Mayor Meredith Leighty and City Council Members

Heather Geyer, City Manager Jason Loveland, Deputy City Manager 2 THROUGH:

FROM: Eric Czaikowski PE, Senior Engineer

SUBJECT: CR-119 – Wastewater Treatment Plant Odor Mitigation Consultant Addendum #2

#### **PURPOSE**

To consider CR-119, a resolution approving Addendum #2 to the contract with Providence Infrastructure Consultants, Inc. (Providence), for the Wastewater Treatment Plant (WWTP) Odor Mitigation project.

### **BACKGROUND**

The City contracted with Providence for the design and construction services of the WWTP Odor Mitigation project. The City signed contract 2020-080 in the original amount of \$169,629.00 with a contingency amount of \$16,962.90. Since the start of this project, the engineering consultant has performed several out-of-scope tasks as requested by the City, including changing the entire design from an oxygen injection system to a ferric injection system. Amendment #1 provided outof-scope services, unanticipated directives, and required construction phase services. The City signed Addendum #1 on June 27, 2022, in the amount of \$66,527.

As the project proceeded through its various phases, there were unforeseen issues that arose. During the project's initial startup, it was evident the existing non-potable water (NPW) designed by Integra Engineering in 2004 did not have adequate pressure to operate the new biofilters and maintain autonomous mechanical operations within the headworks building. Northglenn tasked Providence with evaluating the NPW supply at the plant to determine whether the pumps and pipes in the system were adequately sized to accommodate new demands from the biofilters west of the headworks building. Based on Providence's recommendations, staff elected to construct a new 4-inch NPW line to provide sufficient pressure to WWTP operations and abandon the existing 2-inch NPW line.

The existing injection vault at the WWTP was constructed in 2008. It has been incorporated into this project to inject ferric chloride into the wastewater force main to assist in odor mitigation. Within 4 days of dosing the force main, the tapping saddle failed and caused a leak. A new tapping port and appurtenances are required to correct this issue. Also, an influent bypass is needed to divert flows. Addendum #2 will provide funding to Providence to complete the project with all the recent and additional scope of work services added to the project.

### **BUDGET/TIME IMPLICATIONS**

The budget impact of this supplemental appropriation request is shown in the following table:

Description	Amount
Original Contract	\$169,629.00
Original Contingency	\$16,962.90

CR-119 – WWTP Odor Mitigation Project Addendum #2 July 8, 2024 Page 2 of 2

Addendum #1	\$66,527.00
Addendum #2	\$22,650.10
Total Project	\$275,769.00

### STAFF RECOMMENDATION

Attached is CR-119, a resolution that, if approved, would authorize the Mayor to execute Addendum #2 to the contract with Providence for engineering services for the WWTP Odor Mitigation project in an amount not to exceed \$22,650.10. Staff recommends approval of CR-119.

# **STAFF REFERENCE**

If Council members have any questions, please contact Jason Loveland, Deputy City Manager, jloveland@northglenn.org or 303.450.8817

CR-119 – WWTP Odor Mitigation Consultant Addendum #2 WWTP Odor Mitigation Consultant Addendum #2

SPONSORED BY: MAYOR LEIGHTY	
COUNCIL MEMBER'S RESOLUTION	RESOLUTION NO.
No. <u>CR-119</u> Series of 2024	Series of 2024
A RESOLUTION APPROVING ADDENDUM N AGREEMENT BETWEEN THE CITY OF INFRASTRUCTURE CONSULTANTS FOR WASTEWATER TREATMENT PLANT ODOR N	NORTHGLENN AND PROVIDENCE ENGINEERING SERVICES FOR THE
WHEREAS, the City of Northglenn entered "Agreement") with Providence Infrastructure Conservices for the Wastewater Treatment Plant Odor N	
WHEREAS, City Council approved Adden to allow for an additional scope of services for th Ferric injection system for the Project; and	dum No. 1 to the Agreement on June 7, 2022 e design and construction phase support of
WHEREAS, the City desires to supplement for an additional scope of services for the headwork construction support services for the Project.	the Agreement with Addendum No. 2 to allow ks bypass and biofilter startup final design and
NOW, THEREFORE, BE IT RESOLVED I NORTHGLENN, COLORADO, THAT:	BY THE CITY COUNCIL OF THE CITY OI
Section 1. Addendum No. 2 to the Profe of Northglenn and Providence Infrastructure Cons exceed \$22,650.10 for engineering services for the Project is hereby approved and the Mayor is author Northglenn. The total Project amount shall not exce	Wastewater Treatment Plant Odor Mitigation rized to execute same on behalf of the City o
DATED at Northglenn, Colorado, this	day of, 2024.
	MEREDITH LEIGHTY Mayor
ATTEST:	APPROVED AS TO FORM:
JOHANNA SMALL, MMC City Clerk	COREY Y. HOFFMANN City Attorney

### ADDENDUM #2 TO AGREEMENT FOR PROFESSIONAL SERVICES

THIS SECOND ADD	DENDUM	TO	AGREEMEN?	FOR I	PROFESS	SIONA	L SE	<b>RVICE</b>	S is
made and entered into this _	day	of			, 20_	,	by ar	nd betw	/een
the CITY OF NORTHGLEN	N, State	of	Colorado (her	einafter	referred	to as	the '	"City")	and
Providence Infrastructure Co	onsultants	(he	reinafter referr	ed to as	"Consulta	ant").			

### RECITALS:

- A. On September 14, 2020 the City and Consultant entered into an Agreement for Professional Services for Lift Station A and Force Main Additional Design and Construction Support for Oxygen Injection System services (the "Agreement") for an amount of \$169,629, with a 10% contingency allowance of \$16,962.90 for an amount not to exceed \$186,591.90.
- B. On June 27, 2022 the parties agreed through Addendum #1 to add an additional scope of work for design and construction phase support of a Ferric Injection system in an amount not to exceed \$66,527, for a total amended contract amount not to exceed \$253,118.90.
- C. On March 5, 2024 the parties initiated Change Order #1 for additional services required for the non-potable waterline and ferric injection vault encumbering the 10% contingency allowance of \$16,962.90 authorized on September 14, 2020. These services are complete, and realized a savings of \$2,370.90 available.

### **AGREEMENT**

NOW, THEREFORE, it is hereby agreed that for the consideration hereinafter set forth, that Consultant shall provide to the City, professional design, and construction support services as needed in the manner provided in the Agreement.

- 1. The Scope of Services in the Agreement is hereby supplemented to include the scope of services for Headworks Bypass and Biofilter Startup final design and construction phase support services attached hereto as **Exhibit A** and incorporated herein by this reference (the "Additional Scope of Services"). Compensation for the Additional Scope of Services shall not exceed \$25,021 as provided in **Exhibit B** attached hereto. Savings realized from Change Order #1 will be used towards this work, reducing the amount required for this Addendum #2 to \$22,650.10. Consultant shall commence work on the Additional Scope of Services within ten (10) days of the issuance of a Notice to Proceed.
- 2. Subparagraph A. of Article IV entitled "Compensation" is hereby amended to provide as follows:
- A. Compensation shall not exceed two hundred seventy-five thousand seven hundred sixty-nine dollars (\$275,769) for the work performed under the original contract, Addendum #1, Change Order #1 and the Additional Scope of Work as described in **Exhibit A** to this Addendum #2.
- 3. The original Agreement is in full force and effect and is hereby ratified by the City and the Consultant. The original Agreement, Addendum #1, Change Order #1 and this Addendum #2 constitute all of the agreements between the City and the Consultant.

IN WITNESS WHEREOF, the parties hereto each herewith subscribe to the same in duplicate.

# CITY OF NORTHGLENN, COLORADO

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	Mayor		 Date
	Title		Date
ATTEST:			
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APPROVED AS TO FORM:			
Corey Y. Hoffmann, City Attorney			
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# Contract #2020-080B Exhibits A & B



300 Plaza Drive, Suite 320 Highlands Ranch, Colorado 80129 Tele: (303) 997-5035 www.providenceic.com

### **EXHIBIT A - MEMO**

TO: Eric Czaikowski, City of Northglenn

FROM: Brett Bohn, P.E. DATE: May 10, 2024

RE: NORTHGLENN ODOR CONTROL PROJECT

AMENDMENT NO. 2 – NON-POTABLE WATER IMPROVEMENTS, HEADWORKS

BYPASS DESIGN, AND ADDITIONAL CONSTRUCTION SERVICES

Northglenn Project ID: 2020-080

PIC Project ID: 201009

The purpose of this memorandum is to summarize the efforts and costs associated with the City's request for improvements to the non-potable water system, design of a new permanent headworks bypass pipeline, additional Lift Station A construction services, and additional construction phase services for the additional design items. Based on discussions with the contractor, the estimate completion is in June 2024.

#### 400 - Construction Services

### **Headworks Bypass**

PIC has been tasked to provide engineering support for additional services regarding a new bypass the headworks building. This includes preparation of an ESI (Engineering Supplemental Information) along with anticipated efforts for Submittals, RFI responses, and administrative billing for the increased duration of the construction services.

### **Biofilter Startup**

In addition, PIC has provided support for the difficulties that have taken place for the startup of the Biofilters. This has included attending meetings, compiling documentation, analyzing water quality parameters, and providing engineering recommendations.

In total, this work is anticipated to amount to \$25,021.

### 600 - Lift Station A Services

In February 2023, PIC opened Task 600 to track time spent towards ESIs for the Lift Station A Replacement Project. There are several items that have been charged towards this task including:

- Evaluate and propose improvements to Lift Station A site drainage
- Aid in troubleshooting for the channel grinder
- ESI for PLC integration & wet well control logic
- ESI for Xcel automatic throw over (ATO) switch

In total, this work has amounted to \$9,904.

### 700 - Non-Potable Water System Analysis

PIC was tasked with evaluating the existing non-potable water system due to lower-than-expected pressures at the biofilters during startup. Efforts for this task include a site visit, system/document investigation, hydraulic calculations, Technical Memorandum summarizing the analysis and recommendations, and preparation of ESI 07.

In total, this work has amounted to \$4,688.

EXHIBIT A - MEMO
AMENDMENT NO. 2 – NON-POTABLE WATER IMPROVEMENTS, HEADWORKS BYPASS DESIGN,
AND ADDITIONAL CONSTRUCTION SERVICES

May 10, 2024 EXHIBIT A

### **Costs**

The original contract amount was \$169,629 with the allowance of a 10% contingency of \$16,962.90 for a total amount of \$186,591.90. This contingency was processed in Change Order #1 which was executed March 5, 2024.

Amendment #1 was executed June 27<sup>th</sup>, 2022 for an addition of \$66,527 to the contract, bringing the contract total to \$253,118.90.

PIC has been tracking and charging time separately for the efforts related to Lift Station A Services (\$9,904) and Non-Potable Water System Analysis (\$4,688). This amendment also includes an addition of \$25,021 for headworks bypass design, construction services for additional design, biofilter startup support, RFIs, and submittal reviews for out of scope items. This equates to a total of \$39,613 of costs.

The total cost for the efforts outlined above (\$39,631), minus the 10% contingency executed through Change Order #1 on March 5, 2024 (\$19,963), amounts to \$22,650.

An overall summary of the contract and amendment amounts is shown below.

### **Amendment No. 2 Cost Summary**

Task ID	Task Description	Total \$
400	Construction Services	\$ 25,021
600	Lift Station A Services	\$ 9,904
700	Non-Potable Water System Analysis	\$ 4,688
	Amount of Additional Cost	\$ 39,613
	Amount charged Towards Contingency	\$ 16,963
	Amount for Amendment #2	\$ 22,650
	Original Contract Amount	\$ 169,629
	Contingency	\$ 16,963
	Amendment #1	\$ 66,527
	<b>Total Revised Contract Amount</b>	\$ 275,769

