

RESOLUTION AUTHORIZING CONTRACT MODIFICATION 2023-02 TO OPERATIONS MANAGEMENT INTERNATIONAL/JACOBS

MOTIONED BY: Gardiner

SECONDED BY: Guzman

WHEREAS, the North Hudson Sewerage Authority (hereinafter "Authority") is a public body, duly formed under the Sewerage Authorities law, constituting Chapter 138 of the Laws of New Jersey of 1946, as amended (Chapter 14A of Title 40 of the New Jersey Statutes Annotated) and possesses the powers set forth therein; and

WHEREAS, the Authority has contracted with Operations Management International, Inc., Denver, CO. in the amount of \$8,216,474.00 for the operation, maintenance and management of the Authority's sewerage collection and treatment facilities pursuant to the provisions of the Wastewater Treatment Privatization Act, N.J.S.A. 58:27-1 et seq; and

WHEREAS, Operations Management International, Inc., has submitted a proposal(Exhibit "A") for additional compensation in the amount of \$201,181.72 related to the Adams Street Plant Operations; and

WHEREAS, the Facilities Review Board has reviewed the proposal and recommends the approval of the requested contract.

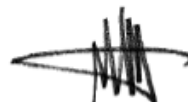
NOW, THEREFORE, BE IT RESOLVED that the Authority hereby authorizes the execution and implementation of said contract modification 2023-02 in the amount of \$201,181.72.

DATED: MAY 18, 2023

RECORD OF COMMISSIONERS' VOTE

	YES	NO	ABSENT
Commissioner Kappock	x		
Commissioner Marotta	x		
Commissioner Gardiner	x		
Commissioner Friedrich	x		
Commissioner Guzman	x		
Commissioner Velazquez	x		
Commissioner Barrera			x
Commissioner Zucconi	x		
Commissioner Assadourian	x		

THIS IS TO CERTIFY THAT THIS RESOLUTION WAS DULY ADOPTED BY THE NORTH HUDSON BOARD OF COMMISSIONERS ON MAY 18, 2023.



SECRETARY



Operations & Maintenance

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May 3, 2023

Fredric Pocci
North Hudson Sewerage Authority
1600 Adams Street
Hoboken, New Jersey 07030

Subject: Proposed Out of Scope Project
PURAC Backwash Waste Tank Grit Removal and Disposal

Dear Mr. Pocci:

Jacobs OMI (“Jacobs”) is pleased to provide North Hudson Sewerage Authority (“Authority”) our proposal to clean and dispose of the material and grit that has accumulated within the PURAC Backwash Waste Tank by means of robotic dredging at the Adams Street Facility in Hoboken, New Jersey.

Overview:

The Adams Street WWTP PURAC system is a dissolved air floatation system with a sand filter. Over time, and prior to the PURAC Capital Improvement Project, sand has accumulated in the backwash waste tank. Consequently, accumulated sand has reduced the volume of the tank which can affect the operation of PURAC and the waste tank pumps. To ensure PURAC operates properly, and downstream equipment remains free of grit and sand, a full tank cleaning is required. The work will consist of removing all grit from the tank into dewatering boxes. The grit will then be transported to a disposal facility.

Based on visual observations, it is currently estimated that 400 cubic yards of sand and grit must be removed from the dirty backwash waste tank. Through use of a proprietary system, Sciphyn Robotics will complete a remote cleaning of the tank without needing to perform a manual confined space entry. Sciphyn uses a robotic dredging machine like a large vacuum and pump, controlled by a Sciphyn operator to navigate and maneuver through the bottom of the tank while pumping and extracting material to 25 cubic yard dewatering boxes positioned outside of the building. This strategy was used to remove sand from the PURAC clear well tank as part of the PURAC Capital Improvement Project, which proved to be a safe and efficient method. As the robotic unit travels through the tank, dewatering boxes fill with sand and grit. As material accumulates, water drains through a mesh liner and is pumped back to the primary clarifiers. This method also allows the PURAC process to remain online so the crew can clean the space in a shorter time frame.

At the start of each workday, Jacobs vector crews will clean out the full dewatering boxes that accumulated from the previous days’ work and dispose the material at the SpectrServ facility in Kearny,

New Jersey. Jacobs OMI will ensure that there is always one empty dewatering box so Sciphyn can work uninterrupted. Through use of Jacobs vactor crews, we can provide the labor for cleaning and transporting the material at a reduced cost to the Authority. Our Jacobs crews will work overtime each day and arrive on site prior to Sciphyn to ensure the boxes are ready for filling. Spectraserv will provide disposal services at their facility in Kearny, New Jersey.

Scope of Services and Specifics

Sciphyn Robotic Cleanout and Dewatering Box Rental

1. Jacobs will coordinate delivery of three (3) 25 cubic yard dewatering boxes one day prior to startup through Adler Tank Rental. The boxes will be positioned along the south wall of PURAC to allow traffic to pass through.
2. Sciphyn will set up and prepare their worksite to lower the robotic unit into the hatch of the backwash waste tank. Sciphyn will set up fall protection barricades around the work area and the open hatches.
3. Sciphyn personnel will set up mesh liners in each dewatering box and swap out new ones as needed to ensure efficient dewatering of solids. The robotic dredger will continuously extract sand/water slurry from the tank and into the dewatering boxes. As water filters through the mesh liner, water is pumped back into the primary clarifiers and the grit material is left within the dumpster.
4. The Sciphyn team will conduct cleaning along the south wall of the tank and eventually move to the north end of the tank as cleaning progresses. No shutdown or lockout of PURAC equipment is necessary.
5. Sciphyn will work for eight (8) continuous days to complete the work.

Labor and Disposal

1. Jacobs will provide the necessary labor (during overtime hours and weekends) to clean out the dewatering boxes. Jacobs operators will then transport the material and grit to SpectraServ in Kearny, NJ for disposal each day while Sciphyn operates.
2. To reduce the amount of water weight prior to disposal, water decants from the grit through the mesh lined containers over night for approximately 12 hours. Jacobs operators will vactor out debris from the dewatering boxes after each consecutive workday.
3. Jacobs will ensure at least one dewatering box remains empty, so Sciphyn works uninterrupted.

Schedule:

The out-of-scope project is expected to commence within ten to twelve weeks of written approval via board resolution. The work is expected to be completed within approximately 10 days of commencing the project.

Cost:

Jacobs proposed cost estimate for the project is \$201,181.72 (Two Hundred One Thousand One Hundred Eighty One Dollars and Seventy Two Cents). This amount is based on the estimated direct costs and includes Jacobs' markup of 15% to cover general and administrative costs, overhead, and profit. Jacobs followed the Jacobs procurement process and received three quotes for the work. Jacobs recommends that the Authority proceed with Sciphyn to remotely clean the tank based on its ability to complete the job in a safe and effective manner. Sciphyn, working in tandem with our Jacobs team, is also the most cost-effective proposal since we can provide the labor to clean dewatering boxes and transport material at a much lower rate than an outside contractor. SpectraServ also provided the lowest rate for disposal. Jacobs OMI will invoice on a lump sum basis. The out-of-scope project costs are in addition to the Agreement's base fee and any other Agreement budget amounts.

Tank Cleaning and Disposal		COST (\$)
1	Sciphyn Robotic Cleanout and Dewatering Box Rental	\$ 67,831.00
2	Estimated Disposal Costs	\$ 85,750.00
3	Labor Overtime Hours (300 Hours)	\$21,359.63
4	Jacobs OMI (15% O&P)	\$ 26,241.09
TOTAL		\$ 201,181.72

TOTAL COST: \$201,181.72

Jacobs appreciates the opportunity to provide this bid. If you need additional information or have any questions regarding this letter, please feel free to contact me by phone at 201.795.1411 or by e-mail at mark.berube@jacobs.com.

Thank you for your consideration regarding this proposed out of scope project.

Regards,



Mark Berube
Project Director



Kevin Dahl
Regional Director, Jacobs

Cc: Richard Wolff, NHTSA Executive Director
Don Conger, NHTSA Authority Associate Engineer
Phil Reeve, Jacobs OM