

Jefferson County
Board of Commissioners
Agenda Request

To: Board of Commissioners
Mark McCauley, County Administrator

From: Monte Reinders, P.E., Public Works Director/County Engineer 

Agenda Date: September 19, 2022

Subject: Change Order #1, Ovivo USA, LLC
Port Hadlock Wastewater Project

Statement of Issue: Execution of Change Order #1 to the contract with Ovivo USA, LLC for supply of the Membrane Bioreactor (MBR) wastewater treatment plant equipment for Port Hadlock.

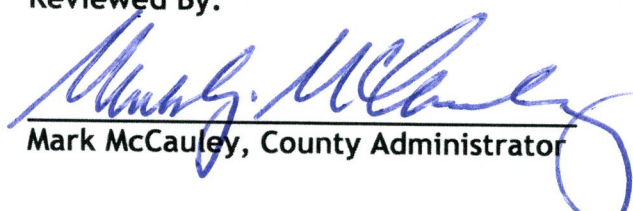
Analysis/Strategic Goals/Pro's & Con's: Change Order #1 adds \$6,098 to the contract for a larger Waste Activated Sludge (WAS) pump which is necessary to add sludge thickening to the process. Since the bid was submitted, the County and its engineers have determined that sludge thickening will provide an operational cost savings for the treatment process; however a larger pump is required.

Fiscal Impact/Cost Benefit Analysis: Change Order #1 is for \$6,098. Funding for this work comes from State Dept. of Commerce revenue that has been dedicated to this project.

Recommendation: Public Works recommends that the Board sign Change Order #1 where indicated and return all three (3) originals to Public Works for further processing.

Department Contact: Monte Reinders, Public Works Director x242.

Reviewed By:


Mark McCauley, County Administrator

Date

8/13/22

CHANGE ORDER NO.: 1

Owner: **Jefferson County**
Engineer: **Tetra Tech, Inc.**
Seller: **Ovivo USA, LLC**
Project: **Port Hadlock Wastewater**
Contract Name: **Port Hadlock Wastewater**

Owner's Project No.: **405-1693-6**
Engineer's Project No.: **N/A**
Sellers Project No.:

Date Issued: **7/22/2022**

Effective Date of
Change Order: **Upon execution by all parties**

The Contract is modified as follows upon execution of this Change Order:

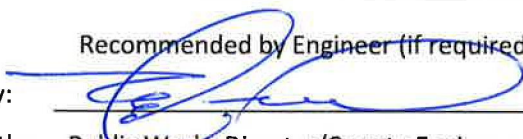
Description:

Increase WAS pump size at Owner's request to support sludge thickening.

Attachments:

See attached Change Order Proposal from Ovivo dated 7/22/2022 (8 pages).

Change in Contract Price	Change in Contract Times
Original Contract Price: \$ <u>1,395,158 + WSST</u>	Original Contract Times: Substantial Completion: <u>Per Article 2, 2.02</u> Ready for final payment: <u>Per Article 2, 2.02</u>
Increase from previously approved Change Orders No. N/A: \$ <u>N/A</u>	Increase from previously approved Change Orders. N/A: Substantial Completion: <u>N/A</u> Ready for final payment: <u>N/A</u>
Contract Price prior to this Change Order: \$ <u>1,395,158 + WSST</u>	Contract Times prior to this Change Order: Substantial Completion: <u>Per Article 2, 2.02</u> Ready for final payment: <u>Per Article 2, 2.02</u>
Increase this Change Order: \$ <u>6,098</u>	Increase this Change Order: Substantial Completion: <u>None</u> Ready for final payment: <u>None</u>
Contract Price incorporating this Change Order: \$ <u>1,401,256 + WSST</u>	Contract Times with all approved Change Orders: Substantial Completion: <u>Per Article 2, 2.02</u> Ready for final payment: <u>Per Article 2, 2.02</u>

Recommended by Engineer (if required)
By: 
Title: Public Works Director/County Engineer
Date: 7/22/22

Authorized by Owner
By: _____
Title: _____
Date: _____

Accepted by Seller

Ovivo USA, LLC
9/9/2022

Approved by Funding Agency (if applicable)
N/A

Ovivo SiC Systems

2300 Greenhill Dr. #100
Round Rock, TX 78664



Worldwide Experts in Water Treatment

ECN 7 for Increase WAS Pump to Port Hadlock

Date	Prepared By	Services Performed For:
7/22/2022	Ovivo 2300 Greenhill Dr. #100 Round Rock, TX 78664	Port Hadlock 623 Sheridan St Port Townsend, WA 98368

This External Change Notice (ECN) is issued pursuant to the current contract between **Port Hadlock** ("Client") and Ovivo ("Vendor"), effective **July 22, 2022**. This ECN is subject to the terms and conditions contained in the contract between the parties and is made a part thereof. Any term not otherwise defined herein shall have the meaning specified in the contract. In the event of any conflict or inconsistency between the terms of this ECN and the terms of the contract, the terms of this ECN shall govern and prevail.

Proposal Overview

Client requests a larger WAS pump to support their sludge thickening / dewatering system.

Change Order covers material cost price differential between current pump and new larger pump size. Change Order covers labor cost to correctly size and specify new pump along with update Ovivo documentation to reflect new pump on drawings (P&ID, PFD, General Arrangements, Electrical Drawings, etc.) and to update documentation within submittal (Scope of Supply, Vendor Cutsheets, etc.)



Ovivo Scope of Supply

- Ovivo to provide a new WAS pump, capable of 25-40gpm; fully installed and integrated on MicroBLOX skid in place of current WAS pump

Out of Scope Items

- No change from previous scope, same exclusions apply.

Supporting Documentation & Attachments

- Updated document and drawing package to be provided once Change Order signed

Delivery Details

- Pump to be procured with rest of project equipment and delivered fully installed and integrated on microBLOX skid

Delivery Terms

- No change from project contract

Purchase Price

Item	Description	Sell Price (US Dollars)
1	Increase WAS Pump	\$ 6,098



Payment Schedule

- Propose 100% of change order paid upon delivery of updated drawing and documentation package. This would allow, the current invoicing schedule and quantities for the overall project to remain unchanged.

Pricing and Commercial Terms

- Standard Terms are 30 days NET, interest charged at 1 ½% per month (18%) per annum on outstanding balances. Please refer to contract terms for a reference point
- Pricing are net, taxes are not included
- Prices are valid for 30 days from proposal issuance date. If a formal purchase order is not received and accepted within this validity period Ovivo reserves the right to review and adjust pricing and lead times as necessary.
- Prices are quotes in US Dollars unless otherwise noted
- No allowances have been included for bonds of any kind

Warranty

- Warranty terms will remain consistent with Ovivo project warranty statement

General Notes

- Pricing is based on the use of Ovivo standard design, equipment engineering submittals (IFI), materials of construction, QA/QC procedures and documentation

Proprietary and Confidential Information

The attached document contains proprietary and confidential information and is submitted under a confidential relationship. By accepting this document the recipient agrees:



- It will not disclose to third parties or use any drawings, specifications, designs, processes or information supplied by Ovivo in any manner detrimental to the interests of Ovivo;
- Any special features particular to this design and information gained as a result of this document shall be treated as confidential and shall be the property of Ovivo and will not be incorporated in whole or in part in other projects unless recipient obtains written permission from Ovivo to do so;
- Not to copy in whole or in part nor reveal its contents in any manner or for any purpose except for the purpose stated herein;
- The foregoing applies without limitation to all documents prepared by Ovivo in connection with this submission and the recipient acknowledges that this document involves confidential rights of Ovivo and all design, manufacturing, reproduction, use and sale rights regarding same are expressly reserved.

Approval and Acceptance

In order to move forward with this change request Ovivo requires that the below be signed off and returned to the Ovivo Project Manager. Upon acceptance, a revised PO will need to be issued to include additional scope.

Port Hadlock

Ovivo Project Manager

By:
Bob Wheeler:

Project Manager:

By:
Eric Schaefer:

Project Manager:

Eric Schaefer



Specification Sheet (1/2)



PROCESS CONDITIONS

Customer Number	113487	Abrasion	Medium
Customer Name	FilterBoxx Water & Environmental Corp	Abrasiveness (1-10)	2 - mild Abrasive like RAS, Must
Project	CAW432: Wasting Pump Quote - Angular Gear Box	Suction Condition	0.0 ft. flooded
Quote Number	12302000	Requested Capacity	40 gpm
Quote Position Number	1	Discharge Pressure	15.0 psi
Number of Pumps	1	Discharge Head	
Pumping Temperature	100 °F	Inlet Pressure	0.0 psi
Viscosity	not Provided	Differential Pressure	15.0 psi
Density	not Provided	Actual Capacity	40.2 gpm
Specific Gravity	not Provided	Motor HP Reserve %	10%
Liquid PH	7	Rated Power	1.4 BHP
Chloride Content	not Provided	Pump Speed	215 RPM
% Solids	not Provided	Rated Volumetric Efficiency %	69.30%
Solid Size		Starting Torque	733 in.lbs.
NPSH-Available	31.14 ft.	Running Torque	413 in.lbs.
NPSH-Required	6.56 ft.	Tag Number 1	Not Specified
Medium	Sludge, Waste Activated		

POSITIVE DISPLACEMENT PUMP INFORMATION

Pump Part Number	IQ112-81H4	Buffer Chamber Fluid	Oil
Pump Model	IQ112-81	Mechanical Seal Type	Cartridge
Material of Construction	Grey Cast Iron	Mechanical Seal Single/Double	Single Mechanical Seal
Cover Type		Seal Carrier Material	Mild Steel
Housing Segment Material	0.6025 (Grey Cast Iron)	Material Block Ring 1	304 Stainless Steel (1.4301)
Housing Segment Coating	None	Material Block Ring 2	None
Housing Segment Form	Injection S (I)	Material Mechanical Seal 1	Duronit
Radial Wear Plates	N/A	Material Mechanical Seal 2	None
Direction of Flow	Bi-Directional	Thrust Washer Material	Mild Steel
Rotary Lobe Material	NBR	Strain Bolt Material	Galvanized
Rotary Lobe Coating		Pump Shaft Top	Motor Shaft Long
Rotary Lobe Form	HiFlo®	Pump Shaft Bottom	Motor Shaft Short
Rotary Lobe # of Wings	4	Pump Length	15.4 inch
O-Ring Material	NBR	Pump Width	13.9 inch
Lip Seal Material	HNBR	Pump Weight	75 lbs
Wear Plate Material	High Wear Resistant Special Steel	Pump Shaft Diameter	45 mm
Wear Plate Coating	Galvanized	Pump Shaft Diameter (Flange)	28 mm
Oil Bottle	Standard Pressurized Oil Bottle	Pump Shaft Length	2.4 inch
Drain Hose	No	Maximum Shaft Deflection	0.0015 inch

PERFORMANCE DATA

	Pump	20 Hz	60 Hz	80 Hz	
Pump Speed	214	72	215	287	RPM
Flow Rate (new)	40	1.4	40.2	59.5	gpm
Flow Rate (used)	1.3	-37.8	1.5	21.2	gpm
Starting Torque	733	733	733	733	in.lbs.
Running Torque	413	408	413	416	in.lbs.
Running Power	1.4	0.5	1.4	1.9	BHP
Efficiency (Volume)	69.2	7.2	69.3	77.1	%
Efficiency (Total)	24.9	2.6	25	27.5	%
Dynamic Pressure Reduction	0.19	0.02	0.19	0.34	psi
NPSH-r	6.56	6.56	6.56	6.56	ft

Specification Sheet (1/2)



VOGELSANG

GEARED MOTOR INFORMATION

Part Number	USGM0004	Gearbox Service Factor	2.10
Manufacturer	NORD Gear Corp.	Motor Service Factor	1.15
Vendor Part Number	SK92372.1V-100LP/4 CUS TW-215	Insulation Class	F
Motor Material	Aluminum	AGMA Class	III
Gearbox Material	Cast Iron	KVA Code	
Class I Div I	No	Inverter Rating	Inverter Duty
Class I Div II	No	VFD Turndown	10:1 Ratio
Voltage	230/460	Duty	Continuous
Frequency	60 Hz	Thermistors	No
Phase	3	Thermostats	Yes
HP	3 HP	Weight	91 lbs
Efficiency %	90.0	230V Full Load Amps	7.7 A
Motor Speed	1770 RPM	460V Full Load Amps	3.8 A
RPM (Output)	215 RPM	575V Full Load Amps	
Output Torque	878 in.lbs.	Speed at 9 Hz	
Gear Ratio	8.19	Speed at 90 Hz	
Frame Size	100LP	Temp Rise	
Enclosure	TEFC		

COUPLING INFORMATION

Coupling Manufacturer	TB Woods	Coupling Flange Drive	6S1
Coupling Sleeve	6HS	Coupling Flange Pump	6S28MM

FLANGE CONFIGURATION

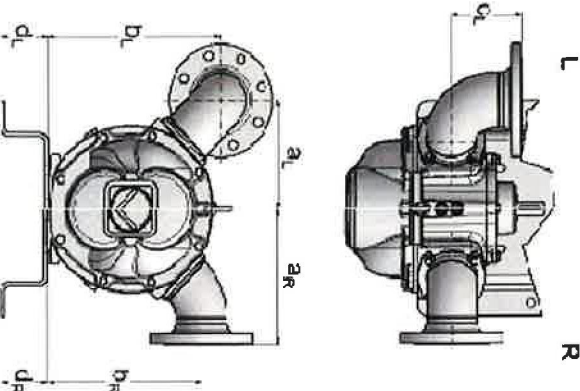
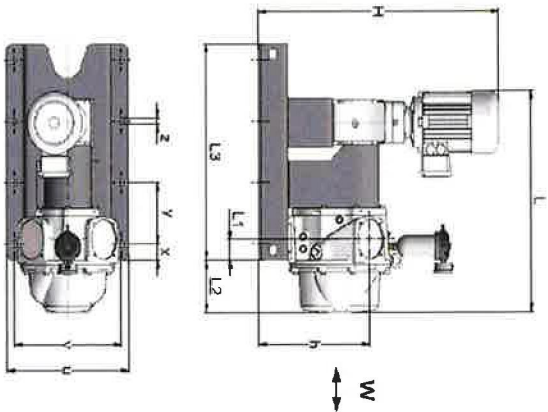
Flange Size	4.0 inch	Right Flange Type	Mild Steel Galv., 45° (Facing Right)
Left Flange Part Number	IBS3104	Right Flange Material	Hot Dipped Galvanized Steel
Left Flange Type	Mild Steel Galv., 90° Horizontal Bend (Facing Shaft)	Marathon Flange Part Number	N/A
Left Flange Material	Hot Dipped Galvanized Steel	Marathon Flange Material	N/A
Right Flange Part Number	IBS3105	Marathon Flange Configuration	N/A

WARRANTY INFORMATION

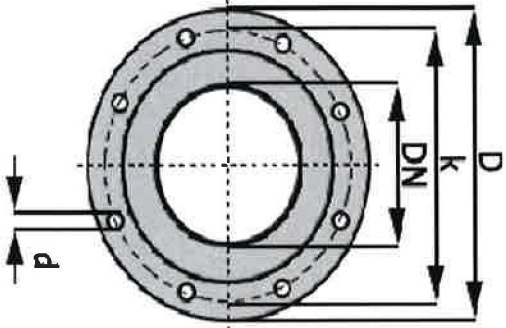
Warranty Type	Limited Industrial Warranty
---------------	-----------------------------

Work Space minimum:
W = 20.63 inch required, 32.44 inch recommended

Recommended Anchor Bolts:
Bolt Size: 5/8" Thread UNC / Length min. 2.25"



Raised-Face Flange Data Inches	
Norm	ANSI (ASA) B 16.5 "
DN	4 "
D	9 "
k	7.5 "
d	0.75 "
Hole number 8 "	



	inches
L	38.88
H	19.61
L 1	2.50
L 2	5.12
L 3	26.38
L 4	0.00
L 5	0.00
h	15.00
u	16.54
v	14.57
x	1.97
y	7.48
y2	0.00
y3	0.00
z	0.71

Scale: NTS
dimensions shown in inches
dimensional changes reserved
general tolerances acc to ANSI Std.
created with CAPSlogik

Flange Left L	
a _L	9.52
b _L	15.81
c _L	8.61
d _L	3.94

Flange Right R	
a _R	12.52
b _R	13.48
c _R	0.00
d _R	3.94

Vogelsang USA - 7966 SR 44, Ravenna, OH 44266	
Phone: 330-296-3820	Email: sales@vogelsangusa.com
www.vogelsangusa.com	
Date	7/21/2022
@ copyright	

Vogelsang Data	
Customer	FilterBoxx Water & Environmental Corp
Quote ID	12302000
Sales Order No	
Position No	1
Pump Type	IQ112-81
Motor	USGM0004
Drive Type	Right-angle Helical-bevel Geared Motor
Guard Type	Coupling Guard, Galvanized
Base Plate	USIL 0948
Total Weight	349 lbs





VOGELSANG

Flowrate / Speed at Constant Pressure IQ112-81

Project: CAW432: Wasting Pump
Quote No.: 12302000
NPSH-R: 6.56 ft.

