Corporate Finance Department
*Purchasing Division*

# 177-2024 ADDENDUM 02

# CONWAY LIFT STATION 2024 UPGRADES

ISSUED: April 23, 2023
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**URGENT**

**PLEASE FORWARD THIS DOCUMENT TO WHOEVER IS IN POSSESSION OF THE BID/PROPOSAL**

**THIS ADDENDUM SHALL BE INCORPORATED INTO THE BID/PROPOSAL AND SHALL FORM A PART OF THE CONTRACT DOCUMENTS**

Template Version: Add 2024-02-01

**Please note the following and attached changes, corrections, additions, deletions, information and/or instructions in connection with the Bid/Proposal, and be governed accordingly. Failure to acknowledge receipt of this Addendum in Paragraph 10 of Form A: Bid/Proposal may render your Bid/Proposal non-responsive.**

## PART B – BIDDING PROCEDURES

| | | |
|---|---|---|
| Revise: | B2.1 to read: | The Submission Deadline is 12:00 noon Winnipeg time, April 30, 2024. |

## PART E – SPECIFICATIONS

| | | |
|---|---|---|
| Revise: | E32.1 (b) to read: | Both of the two existing pumps at the Conway Lift Station are to be replaced with larger pumps complete with spare parts. Refer to E35. |
| Revise : | E32.1 (d) to read | The pumps will be used to pump raw sewage having a temperature range of 0ºC to 30ºC with solids up to 75mm. |
| Add: | E32.1 (l): | A 2.2 material certificate and a certificate confirming the impeller was polished to 250 RMS must be supplied by the pump manufacture with the performance test results to confirm the impeller nickel content supplied and polishing matches the specification before pump can be shipped to site. |
| Revise : | E32.3.1 (d) to read | Minimum Efficiency at all duty points 1 & 3 listed above, regardless of speed: 70%. |
| Add: | E32.3.2 (d) | Flygt 6x6x17 NSW, 406mm impeller, 900RPM synchronous speed. |
| Revise : | E32.3.6 (a) to read | Impeller: cast iron conforming to ASTM Specification A48 or A278, for Gray Iron Castings, Class 30 or approved equal in accordance with Section B7 of the Tender. The cast iron shall contain not less than two (2) percent nickel. |
| Revise : | E32.3.8 (b) to read | Minimum dimensions of one hundred twenty-five (125) millimetres (five (5) inches) by seventy-five (75) millimetres (three (3) inches), two (2) bolt pattern. |
| Revise: | E32.3.14 (f) to read | Statically and dynamically balance the drive shaft to obtain vibration free operation. Please refer to E32.1 (f) for tolerances and requirements for torsional frequency analysis. |
| Delete: | E36.1 (e) (v) | Surge Test. |
| Delete: | E36.1 (e) (vi) | Partial Discharge Test. |

## DRAWINGS

Replace: 177-2024_Drawing_B0009-001-00 with 177-2024 _Addendum_02 _Drawing_B0009-001-01

## NMS SPECIFICATIONS

Revise: Section 26 05 31

## QUESTIONS AND ANSWERS

Q1: Is a 900RPM pump acceptable

A1: A 900 RPM speed pump would be an acceptable speed, provided that the maximum size impeller of the pump does not exceed 35 HP.

Q2: Is the Flygt 6x6x17 NSW 900 RPM an acceptable pump equal?.

A2: The performance characteristics of the Flygt 6x6x17 NSW have been reviewed and is approved as an alternative, provided that impeller is no less than 95% trimmed a double mechanical seal is provided and the pump specifications meet or exceed the project specifications. See revision to E32.3.2 above.

Q3: Is the Apex D2PR double mechanical cartridge seal or the Cornell Cycloseal considered an approved equal to the double mechanical cartridge seals specified?

A3: The Apex D2PR is a double mechanical cartridge seal and is approved as an equal if it meets or exceeds the specified requirements. The Cycloseal is a single seal and does not meet the requirements of the specifications and is therefore not approved.

Q4: In the specs there is a section on plastic fabrication for ladders and grates. But on the drawing everything is labelled as metal. Can we use metal ladders and grates as shown in the drawings?

A4: All ladders are to be stainless steel and grating is to be aluminum or FRP.

Q5: Please confirm the required motor hp as E32.4 (a) (iii) asks for a 35 hp motor which is not available from the motor manufactures. Next available size is 40 HP. Are 40 HP motors acceptable?

A5: 40 HP motors are acceptable, however, the VFDs provided must be sized for the motor and will thus be required to be 40 HP also.

Q6: The pumps are drawn as centerline-discharge. Are tangential discharge pumps acceptable?

A6: Horizontal, tangential discharge pumps are acceptable provided they match the spin direction of the existing pumps. Should tangential discharge pumps be supplied, the contractor is to bear the costs associated with changes to the pipework on the construction drawings.

Q7: Is a spare pump required?

A7: A spare pump is not required. Please see the revision above to E32.1 (b)

Q8: Please confirm if a handhole of 76 x 127 mm is acceptable as E32.3.8 (b) requires a (150 mm 6 in) 2 bolt pattern clean out port which is unavailable for a pump of this size.

A8: A handhole of 76 x 127 mm is acceptable.

Q9: Please confirm if two angular contact bearings can be provided instead of radial bearing as noted on E32.3.11 (a)

A9: Two angular contact bearings is acceptable.

Q10: Can the bid deadline be extended?

A10: The deadline is extended. See the revision to B2.1 above.

Q11: Is the outdoor CSTE enclosure to be stainless steel?

A11: The enclosure is to be painted steel and NEMA 3R rated.

Q12: Are the 2 hoist trolleys shown on the drawings to be supplied and installed by the contractor or by the city?

A12: Both 2-ton hoists and trolleys to be provided and installed by the Contractor.

Q13: Are any sensors required for motor monitoring, such as winding temperature?

A13: There are no motor winding instruments to be supplied.

Q14: Please confirm that a motor service factor of 1.15 on sine wave power only. 1.0 on VFD is acceptable as E32.4 (a) (ix) is not clear.

A14: Normally motors have a service factor of 1.15. VFD should match.

Q15: Please confirm what is required for comment “Proved motor mount standoff with access to motor shaft” as per E32.4 (c)?

A15: Provide motor support stand such that motor can be mounted vertically to connect with drive shaft. Motor stand shall easily allow personnel to access the drive shaft top end bearings.

Q16: E32.5 (c) Sensor 100 mV/g is usually for an accelerometer and not for a 4-20 mA vibration sensor. Please confirm what kind of sensor is required.

A16: The sensors measure acceleration and convert to a vibration 4 – 20 mA signal. An example of an acceptable sensor is the IMI Sensors Model 641B61.

Q17: E32.3.14 (f) is contradictory with E32.1 (f). The 50% separation is typically only for the pump shaft itself and not for the U-Joint drive shaft and is not achievable for the drive shaft. The 15% separation noted in E32.1 (f) is typically what is allowed for these assemblies. Please confirm that the +/- 15% separation margin for the U-joint drive shaft is allowed.

A17: Provide motor support stand such that motor can be mounted vertically to connect with drive shaft. Motor stand shall easily allow personnel to access the drive shaft top end bearings.

Q18: Are electrically driven self-priming bypass pumping units available.

A18: Contractor is responsible for procuring these units as necessary. MPE has identified electrically driven units from Toromont Power Systems and Canadian Dewatering LP.