



Agenda Item B September 9, 2019

**SUBJECT:** Approval to purchase two replacement sewage pumps at the Hilton Pump Station, in the amount of \$40,275.

SUBMITTING DEPARTMENT: Department of Public Works, Water and Sewer Division

EXPENDITURE REQUIRED	\$ 40,275
AMOUNT BUDGETED	\$ 89,000
APPROPRIATION REQUIRED	\$0
LINE ITEM NUMBER	592-592.00-937.000

**BACKGROUND INFORMATION:** Kennedy Industries, the City's pump maintenance contractor and pump supplier, completed an inspection at the Hilton Pump Station on one of the sewage pumps not performing properly. The attached report indicates the pump was damaged and shows signs of significant wear. Kennedy Industries provided quotes for repair (\$18,525) and replacement (\$19,200) of this pump. Due to the small difference in cost, staff recommends purchasing a new pump.

Given these pumps are 12 years old and at the end of the typical life for sewage pumps, the second pump in this station will also likely need to be replaced. Once the first pump is replaced, the second pump will be inspected to verify its condition, and replaced if warranted.

The price quoted by Kennedy includes two pumps at \$19,200 each, plus \$1,875 for testing and verification they are operating properly.

**RECOMMENDED ACTION:** Approval to purchase two replacement sewage pumps at the Hilton Pump Station, in the amount of \$40,275.



Map Author: Croy Date: 8/27/19 Project: Hilton Pump Station Version #: v1.0

#### MAP INTERPRETATION NOTICE



City of Novi

Engineering Division

Department of Public Services
26300 Lee BeGole Drive
Novi, MI 48375
cityofnovi.org









QUOTATION					
DATE	NUMBER	PAGE			
8/19/2019	0026725	1 of 1			

B NOV200 Accepted By:	
CITY OF NOVI LATTN: FINANCE DEPT. Company:	
T 45175 WEST TEN MILE Date:	
o NOVI, MI 48375-3029 PO#:	

ATTENTION:

SCOTT ROSELLE 248-343-1303 sroselle@cityofnovi.org

WE ARE PLEASED TO PROPOSE THE FOLLOWING FOR YOUR CONSIDERATION:

<b>CUSTOMER REF/PO#</b>		JOB TITLE	SLP	SHIPPING TYPE	
	HILTON STATION, FLYGT NP3153.095 KES/HLL		FREIGHT ALLOWED		
QTY	DESCRIPTION			UNIT PRICE	EXTENDED
2.00	2.00 FLYGT,PUMP,NON-CLOG, NP462-4 20/208/3, 50' FM FLS FV EXPLOSION PROOF, SUBMERSIBLE SEWAGE, MODEL NP3153.095-462 WITH HIGH CHROME IMPELLER AND INSERT RING. 20 HP, 3 PHASE, 208 VOLT WITH 4" DISCHARGE AND 50 FT. MOTOR AND ENSOR CABLE. PUMP EQUIPPED WITH SEAL FAIL/HIGH TEMP CABLE.			\$19,200.00	\$38,400.00
1.00	FIELD SERVICE			\$1 <i>.</i> 875.00	\$1,875.00

KENNEDY INDUSTRIES WILL PROVIDE (1) FIELD SERVICE TECHNICIAN(S) ONSITE TO PERFORM THE FOLLOWING IN (2) ONSITE VISITS:

FIRST SERVICE CALL: INSTALL (1) REPLACEMENT PUMP #1 TEST RUN AND VERIFY PROPER OPERATION. REMOVE PUMP #2 AND BRING BACK TO OUR WIXOM REPAIR FACILITY SECOND SERVICE CALL: INSTALL (1) REPLACEMENT OR REPAIRED PUMP #2, TEST RUN AND VERIFY PROPER OPERATION

**DELIVERY: 8-10 WEEKS ARO** 

WE DO NOT INCLUDE: INSTALLATION, SITE WORK, CONCRETE, ANCHOR BOLTS, PIPING, VALVES, COVER, STARTERS, CONTROLS, CONDUIT, WIRING, JUNCTION BOXES OR START-UP UNLESS LISTED ABOVE.

WE APPRECIATE THIS OPPORTUNITY TO QUOTE AND LOOK FORWARD TO BEING OF FUTURE SERVICE.

SINCERELY, KEITH SIKAITIS / HEATHER LAKE KENNEDY INDUSTRIES INC

This quote is subject to and incorporates by reference Kennedy Industries, Inc.'s ("Kennedy") Terms & Conditions (Rev'd 4/2019) and Customer Warranty available at www.kennedyind.com which will be provided by email upon written request. Kennedy reserves the right to change the Terms & Conditions and Customer Warranty for future orders. By accepting this quote and/or issuing a purchase order relative to this quote, buyer expressly agrees to the provisions set forth in the Terms & Conditions and Customer Warranty posted on Kennedy's website.

CREDIT CARD PAYMENTS ARE SUBJECT TO AN ADDITIONAL 3% CHARGE NO TAXES OF ANY KIND ARE INCLUDED IN THIS PROPOSAL

TOTAL: \$40,275.00

P.O. Box 930079 Wixom, MI 48393 - 4925 Holtz Drive Wixom, MI 48393 - Phone: 248-684-1200 - Fax: 248-684-6011



August 14, 2019

Mr. Scott Roselle City of Novi Novi, MI 48375

RE: Flygt 3153.091 Hilton Station Sewage Pump

Serial Number: 0660153

Customer Reference Order #: Kennedy Industries #: 100254

Mr. Roselle:

Attached are photos with descriptions of the parts in need of repair or replacement. If you have any questions, please do not hesitate to contact us.

Sincerely,

#### Mike Horn

Repair Center Manager KENNEDY INDUSTRIES, INC.



### **PUMP**



- Pump at disassembly.
- Pump rotates roughly by hand.
- Pump failed initial electrical testing.







- Rags wrapped around impeller back hub caused a mechanical seal failure and allowed product and oil to enter the cooling jacket.
- Mechanical seals, bearings and O-rings will be replaced with new.



### **IMPELLER**



- Impeller is worn but usable.
- Optional hi chrome impeller upgrade is recommended.





- Insert ring is worn but usable.
- Optional hi chrome insert ring upgrade is recommended.



### **ROTOR**



- Rotor Total Indicator Runout is .005 and within specification.
- Rotor is in good condition and will be reused.





- Stator windings got hot from overloading.
- Winding wrap melted due to high temperature.
- Stator will be replaced with new due to factory mutual explosion proof requirements.



### **SEAL HOUSING**



- Seal housing is thin from rag rubbing on face and Outer Diameter.
- Seal housing will be replaced with new.

# **VOLUTE**



- Volute discharge flange and mixed flush valve mounting faces are pitted and eroded.
- Polymer steel will be applied to discharge flange and machined flat to restore the sealing surface.
- Mixed flush valve mounting face will be machined to restore the sealing surface.



## **MOTOR CABLE**



- Motor cable has large gash.
- Motor cable is unusable and will be replaced with new.