



# CITY OF HOUSTON

**Annisie D. Parker**

---

Administration and Regulatory Affairs Department  
Strategic Purchasing Division

**Mayor**

Calvin D. Wells, Deputy Director  
City Purchasing Agent  
P. O. Box 1562  
Houston, Texas 77251-1562

March 12, 2013

F. 832.393.8755  
<https://purchasing.houston.tx.gov>

**Subject:** Letter of Clarification No. 5 to Invitation to Bid No. S12-N24427 Purchase of Various Types and Sizes of Pumps for the Public Works & Engineering Department

**To:** All Prospective Bidders:

This letter of Clarification is being issued for the following reasons:

- **To revise the above referenced solicitation as follows:**

- 1) **Replace the solicitation bid document pages 39A and 42A, representing ITT-AC bid line item Nos. 8 and 9, with the revised bid document pages 39A and 42A dated March 12, 2013.**

When issued, Letter(s) of Clarification shall automatically become a part of the solicitation documents and shall supersede any previous specification(s) and/or provision(s) in conflict with the Letter(s) of Clarification. All revisions and answers incorporated into the Letter(s) of Clarification are collaboratively from both the Strategic Purchasing Division and the applicable City Department(s). It is the responsibility of the bidder/respondent to ensure that it has obtained all such letter(s). By submitting a bid on this project, bidders/respondents shall be deemed to have received all Letter(s) of Clarification and to have incorporated them into this solicitation and resulting bid.

Furthermore, it is the responsibility of each Contractor to obtain any previous Letter of Clarification associated with this solicitation.

*Martin L. King*

Martin L. King  
Senior Staff Analyst  
832-393-8705

*Partnering to better serve Houston*

**Council Members:** Helena Brown Jerry Davis Ellen R. Cohen Wanda Adams Mike Sullivan Al Hoang Oliver Pennington Edward Gonzalez James G. Rodriguez Stephen C. Costello Andrew C. Burks, Jr. Melissa Noriega C.O. "Brad" Bradford Jack Christie Larry Green Mike Laster **Controller: Ronald C. Green**

8.0 **LINE ITEM NO. 8 PUMP, NON-CLOG, VERTICAL DRY PIT PUMP.**

Make: ITT-AC

Model: **Model No. NSWZ, 10x10x21 LC or City Approved Substitute**

8.1 **SUMMARY OF REQUIREMENT:**

8.1.1 The Contractor shall be required to provide the non-clog vertical dry pit pump as specified in this section. The pump(s) bid/furnished and delivered by the contractor shall require no structure and/or piping alterations/modifications. The pump as specified will be used by the City to pump raw wastewater at the City's Northwest Treatment Plant.

8.1.2 The pump shall be rated for wastewater applications.

8.1.3 The pump rotating assembly shall match the City's existing units dimensionally and must fit into the existing casing without modification. The pump rotating assembly shall be designed to perform satisfactorily with a reasonable service life when operated either continuously or intermittently in typical wastewater services. Assembly is to be mounted into existing casing

**8.1.4 The pump shall be rated 3000 GPM @ 34 ft. TDH running 705 RPM with 40HP Marathon motors, p-base, TEFC, 405HPV frame, 3/60/460 volt with 240V space heaters and normally closed thermostats.**

8.2 **PUMP SPECIFICATIONS:**

8.2.1 Casing: Casing is existing and to be reused. .

8.2.2 Discharge flange: Existing and to be reused.

8.2.3 Discharge position: Existing and to be reused.

8.2.4 Suction cover: Existing and to be reused.

8.2.5 Impeller:

8.2.5.1 The impeller shall be of the single-suction, enclosed type with two vanes, made of ductile Iron. Impellers shall be specially designed with smooth water passages to prevent clogging by stringy or fibrous materials, and shall be capable of passing solids having at least a sphere size of 3". Impeller shall be dynamically balanced. Impeller shall have a tapered bore and shall be keyed and secured to the shaft by an 18-8 Stainless Steel nut locked in place. It shall be readily removable without the use of special tools.

8.2.6 Wear Ring:

8.2.6.1 A replacement 11.5-14% chrome steel AL@ shaped wear ring shall be provided. Ring shall be mounted on impeller to provide a renewable surface opposite the suction cover wear plate. 5.5.2 Pump shall have provisions for adjustment of axial clearance. This adjustment shall be made through the use of shims placed between the frame and outboard bearing housing.

8.2.7 Shaft:

8.2.7.1 The pump shaft shall be high-strength carbon steel, AISI #1045 or 4140, accurately machined, tapered at the impeller end and of sufficient size to transmit full driver output. It shall be protected from the pumped liquid by a shaft sleeve. A seal shall be provided, by a synthetic rubber O-ring between the shaft and shaft sleeve to prevent leakage of pumped liquid out and/or air into the pump.

8.2.8 Shaft sleeve:

8.2.8.1 The renewable shaft sleeve shall be 316 SS with a Ni-CR-Boron coating to a hardness of 58-63RC(approximately 650 Brinell). The sleeve provided shall extend through the seal housing.

8.2.9 Each pump shall be provided with a Dynamic Seal System.

9.0 **LINE ITEM NO. 9 PUMP, NON-CLOG, VERTICAL DRY PIT PUMP**

Make: ITT-AC

**Model: Model No. NSWZ, 8x8x17 SC or City Approved Substitute**

9.1 **SUMMARY OF REQUIREMENT:**

8.1.1 The Contractor shall be required to provide the non-clog vertical dry pit pump as specified in this section. The pump(s) bid/furnished and delivered by the contractor shall require no structure and/or piping alterations/modifications. The pump as specified will be used by the City to pump raw wastewater at the City's Northwest Treatment Plant.

9.1.2 The pump shall be rated for wastewater applications.

9.1.3 The pump rotating assembly shall match the City's existing units dimensionally and must fit into the existing casing without modification. The pump rotating assembly shall be designed to perform satisfactorily with a reasonable service life when operated either continuously or intermittently in typical wastewater services. Assembly is to be mounted into existing casing.

**9.1.4 The pump shall be rated 950 GPM @ 32 ft. TDH running 695 RPM with 20HP Marathon motors, p-base, IEEC, 404HPV frame, 3/60/460 volt with 240V space heaters and normally closed thermostats.**

9.2 **PUMP SPECIFICATIONS:**

9.2.1 Construction: Rotating assembly shall be designed to perform satisfactorily with a reasonable service life when operated either continuously or intermittently in typical wastewater services. Assembly is to be mounted into existing casing.

9.2.1.1 Casing: Casing is existing and to be reused.

9.2.1.2 Discharge flange: Existing and to be reused.

9.2.1.3 Discharge position: Existing and to be reused.

9.2.1.4 Suction cover: Existing and to be reused.

9.2.1.5 Impeller:

9.2.1.5.1 The impeller shall be of the single-suction, enclosed type with two vanes, made of ductile iron. Impellers shall be specially designed with smooth water passages to prevent clogging by stringy or fibrous materials, and shall be capable of passing solids having at least a sphere size of 3". Impeller shall be dynamically balanced. Impeller shall have a tapered bore and shall be keyed and secured to the shaft by an 18-8 Stainless Steel nut locked in place. It shall be readily removable without the use of special tools.

9.2.6 Wear Ring:

9.2.6.1 A replacement 11.5-14% chrome steel AL @ shaped wear ring shall be provided. Ring shall be mounted on impeller to provide a renewable surface opposite the suction cover wear plate. 5.5.2 Pump shall have provisions for adjustment of axial clearance. This adjustment shall be made through the use of shims placed between the frame and outboard bearing housing.

9.2.7 Shaft:

9.2.7.1 The pump shaft shall be high-strength carbon steel, AISI #1045 or 4140, accurately machined, tapered at the impeller end and of sufficient size to transmit full driver output. It shall be protected from the pumped liquid by a shaft sleeve. A seal shall be provided, by a synthetic rubber O-ring between the shaft and shaft sleeve to prevent leakage of pumped liquid out and/or air into the pump.

9.2.8 Shaft sleeve:

9.2.8.1 The renewable shaft sleeve shall be 316 SS with a Ni-CR-Boron coating to a hardness of 58-