



**REQUEST FOR BIDS
ADDENDUM NUMBER ONE (1)**

DATE: October 27, 2016

RE: BID NO. 2017-31 NORTH & WEST BOOSTER STATION BACKUP BOOSTER PUMPS

OWNER: CITY OF EDINBURG

TO: ALL PROPOSERS, HOLDERS OF SPECIFICATIONS, AND ALL INTERESTED PARTIES TO THE CITY OF EDINBURG

All Addenda issued in respect to this project shall be considered official changes to the original bid documents and shall become a part of the Contract documents.

SPECIFICATIONS ADDENDUM ITEM AS SPECIFIED BELOW:

Bid Opening Date:

- *The bid opening has changed from October 31, 2016 to **November 21, 2016 @ 3:00 p.m.**, location will remain the same.*

Correction of Specifications:

- *Please disregard the original specifications, in their entirety, and replace with the attached revised specifications. (The revised specifications go into depth of what is actually needed.)*

Bid Proposal Correction (Please Replace and Use Revised Bid Proposal)

- *Item #1 Should Read:*
 - *West Booster – Fairbanks Morse Split Case Pump/Motor Assembly, Model #2824C, 10"x6", 2550 GPM, US Electric Motor, 200HP, 1775 RPMS, 460V, 1.15 SF, 3PH, TEFC Enclosure*
- *Item #2 Should Read:*
 - *North Booster – Fairbanks Morse Split Case Pump/Motor Assembly, Model #2823C, 8"x6", 1350 GPM, US Electric Motor, 100HP, 1775 RPMS, 460V, 1.15 SF, 3PH, TEFC Enclosure*



415 W. University Drive • P.O. Box 1079 • Edinburg, Texas 78540
Phone: (956)388-8204 • Fax: (956)383-7111

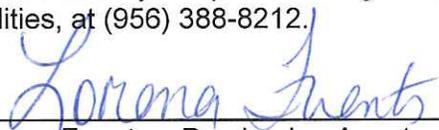


PLEASE ACKNOWLEDGE RECEIPT OF THIS ADDENDUM IN THE SPACE PROVIDED BELOW AND FAX BACK TO MS. LORENA FUENTES, PURCHASING AGENT, AT (956) 383-7111. PLEASE INCLUDE THIS FORM IN YOUR BID PROPOSAL.

NAME: _____ TITLE: _____

COMPANY NAME: _____

Please direct your questions regarding the preparation of the bid to Mr. Arturo Martinez, Director of Utilities, at (956) 388-8212.



Lorena Fuentes, Purchasing Agent

**CITY OF EDINBURG
 BID FORM FOR
 NORTH & WEST BOOSTER STATION BACKUP BOOSTER PUMPS**

BID NO. 2017-31

BID OPENING DATE: NOVEMBER 21, 2016 at 3:00 p.m.

I/We submit the following bid in **ORIGINAL FORM** for **NORTH & WEST BOOSTER STATION BACKUP BOOSTER PUMPS** according to City of Edinburg requirements, less tax:

NOTE: In addition to responding to our "local" solicitation for bids/proposals vendors/contractors are encouraged to provide pricing on the above referenced items/products/services based on Buy board, H-GAC, TXMAS and/or any other **State of Texas recognized and approved cooperative** which has complied with the bidding requirements for the State of Texas (**any and all applicable fees must be included**). **All cooperative pricing must be submitted on or before bid/proposal opening date and hour.**

<u>CHECK ONE</u>	
<input type="checkbox"/> BUYBOARD	<input type="checkbox"/> H-GAC
<input type="checkbox"/> TX DIR	<input type="checkbox"/> TFC
<input type="checkbox"/> TXMAS	<input type="checkbox"/> DEALER/LOCAL
<input type="checkbox"/> OTHER	_____
Specify	
CONTRACT NUMBER: _____	COMMODITY NUMBER: _____
(If applicable)	(If applicable)

ITEM	QUANTITY	DESCRIPTION	UNIT PRICE	EXTENDED PRICE
1	1 ea.	<i>West Booster – Fairbanks Morse Split Case Pump/Motor Assembly, Model #2824C, 10"x6", 2550 GPM, US Electric Motor, 200HP, 1775 RPMS, 460V, 1.15 SF, 3PH, TEFC Enclosure</i>	\$ _____	\$ _____
2	1 ea.	<i>North Booster – Fairbanks Morse Split Case Pump/Motor Assembly, Model #2823C, 8"x6", 1350 GPM, US Electric Motor, 100HP, 1775 RPMS, 460V, 1.15 SF, 3PH, TEFC Enclosure</i>	\$ _____	\$ _____
3		SHIPPING	\$ _____	\$ _____
4		TOTAL		\$ _____

**BID FORM FOR NORTH & WEST BOOSTER STATION BACKUP BOOSTER PUMPS
(Continued):**

All Addenda issued in respect to this project shall be considered official changes to the original bidding documents. It shall be the Bidder(s) responsibility to ensure that all Addenda have been received. Furthermore, bidders are advised that they must recognize, comply with, and attach a signed copy of each Addendum which shall be made part of their Bid Submittal. Bidder(s) signature on Addenda shall be interpreted as the vendor's "recognition and compliance to" official changes as outlined by the City of Edinburg and as such are made part of the original bidding documents.

Does the Company have an office located in Edinburg, Texas? Yes _____ No _____

Has the Company ever conducted business with the City of Edinburg? Yes _____ No _____

Respectfully submitted this _____ day of _____, 2016.

SIGNATURE: _____

TYPE/PRINT NAME: _____

TITLE: _____

COMPANY: _____

ADDRESS: _____

TELEPHONE NO.: _____

FAX NO.: _____

EMAIL: _____

NORTH & WEST BOOSTER STATION BACKUP BOOSTER PUMPS

SCOPE OF WORK

- A. The successful supplier shall furnish two (2) new horizontal split-case high service pumps. Each unit shall be complete with pump, base, coupling guard, and TEFC premium efficiency motors. A certificate of compliance with NSF61 and 372 shall be provided with the bid. The term "in accordance with" will not be acceptable.

- B. The pumps shall be as shown on the table below.

<u>PUMP DATA</u>	NORTH BP- 1	WEST BP-2
Design Point:		
GPM	1350	2550
TDH	185'	185'
MIN. Eff @ Design	78%	83%
MAX.NPSH-R @ Design	10'	15'
Secondary Point:		
GPM	2000	3500
TDH	125'	125'
Eff	65%	80%
Min. Suction Size:	8"	10"
Min. Discharge Size:	6"	6"
MIN. SHUT OFF TDH	210'	210'
<u>MOTOR DATA</u>		
Motor H.P. (TEFC)	100	200
Phase	3	3
Cycle	60	60
Voltage	460	460
RPM	1775	1775
Service Factor	1.15	1.15
Min. Full Load Eff. %	95.4%	96.2%

QUALIFICATIONS

- A. To assure unity of responsibility, the motors shall be furnished and coordinated by the pump manufacturer. The manufacturer shall assume responsibility for verifying the satisfactory installation and operation of the pumps.
- B. The pumps covered by these Specifications are intended to be standard pumping equipment of proven ability as manufactured by a reputable manufacturer having long experience in the production of such pumps. The pumps furnished shall be designed, constructed, and installed in accordance with the best practice and methods, and shall operate satisfactorily when installed. Pumps shall be manufactured in accordance with the Hydraulic Institute Standards,
- C. All equipment furnished under these specifications shall be new and unused, shall be the standard product of manufacturers having a successful record of manufacturing and servicing the equipment and systems specified herein for a minimum of five (5) years.

SUBMITTALS WITH BID

- A. Copies of all materials required to establish compliance with these Specifications shall be submitted in accordance with the specifications including the NSF certificates. Submittals shall include at least the following:
 - 1. Typical shop and erection drawings showing all important details of construction, dimensions and anchor bolt locations.
 - 2. Descriptive literature, bulletins and/or catalogs of the equipment.
 - 3. Data on the characteristics and performance of each pump. Data shall include factory guaranteed performance curves, based on actual shop tests of similar units, which show that they meet the specified requirements for head, capacity, efficiency, NPSHR and horsepower. Curves shall be submitted on 8-1/2-inch by 11-inch sheets, at as large a scale as is practical. Curves shall be plotted from no flow at Shut off Head to Pump Capacity at minimum specified TDH. Catalog sheets showing a family of curves will not be acceptable.
 - 4. The total weight of the equipment including the weight of the single largest item.
 - 5. A complete total bill of materials of all equipment.
 - 6. A list of the manufacturer's recommended spare parts.
 - 7. Motor data as required herein.

REVISED

- B. In the event that it is impossible to conform to certain details of these Specifications due to different manufacturing techniques, describe completely all nonconforming aspects.

OPERATING INSTRUCTIONS

- A. Operating and maintenance manuals shall be furnished. The manuals shall be prepared specifically for this installation and shall include all required cuts, drawings, equipment lists, descriptions, etc. that are required to instruct operating and maintenance personnel unfamiliar with such equipment.
- B. A factory representative of all major component manufacturers who has complete knowledge of proper operation and maintenance shall be provided for two (2) days to instruct representatives of the Owner on proper operation and maintenance. This work may be conducted in conjunction with the inspection of the installation and test run as provided herein with the owner's permission. If there are difficulties in operation of the equipment due to manufacturer's design or fabrication, additional service shall be provided at no cost to the owner,

PRODUCT HANDLING

- A. All parts shall be properly protected so that no damage or deterioration will occur during a prolonged delay from the time of shipment until installation is completed and the units and equipment are ready for operation,
- B. All equipment and parts must be properly protected against any damage during a prolonged period at the site.
- C. Factory assembled parts and components shall not be dismantled for shipment unless permission is received in writing from the Engineer.
- D. Finished surfaces of all exposed pump openings shall be protected by wooden blanks, strongly built and securely bolted thereto.
- E. Finished iron or steel surfaces not painted shall be properly protected to prevent rust and corrosion.
- F. After hydrostatic or other tests, all entrapped water shall be drained prior to shipment, and proper care shall be taken to protect parts from the entrance of water during shipment, storage, and handling.
- G. Each box or package shall be properly marked to show its net weight in addition to its contents.

FIELD QUALITY CONTROL

- A. Provide the services of a qualified Field Service Representative to assist the Contractor in installation and start-up of the equipment specified under this section. Field service personnel shall be factory trained and have experience with the pumping systems on the job site. The service representative shall provide technical direction and assistance to the City in general assembly of the equipment, installation as specified in manufacturer's installation instructions, wiring, application dependent adjustments, and verification of proper operation.

MAINTENANCE / WARRANTY SERVICE

- A. Warranty to commence 12 months from the date of start-up, not to exceed 18 months from the date of shipment, and include all parts, labor, and travel time.

TRAINING

- A. The supplier shall provide a training session for up to four owner's representatives for one normal workdays with a maximum of two trips at a job site location determined by the owner. Training and instruction time shall be in addition to that required for start-up service.
- B. The training shall be conducted by the manufacturer's qualified representative.
- C. The training program shall consist of the following:
- D. Instructions on the proper operation of the equipment. Instructions on the proper maintenance of the equipment.

MATERIALS AND EQUIPMENT

- A. The pumping units required under this section of these specifications shall be complete with proper alignment and balancing of the individual units. All parts shall be so designed and proportioned as to have liberal strength, stability, and stiffness and to be especially adapted for the work to be done. Ample room shall be provided for inspection, repairs, and adjustment.
- B. The support systems for pumps and drives shall be rigidly and accurately anchored into position. All foundation bolts, plates, nuts, and washers shall be furnished by the Contractor.
- C. Stainless steel nameplates giving the name of the manufacture, the rated capacity, head, speed and all other pertinent data shall be attached to each pump and motor.

PUMPS

A. Pump Construction

1. Casing

Casing shall be made of close-grained double volute type cast iron SINGLE VOLUTE IS NOT ACCEPTABLE, having minimum 30,000 psi tensile strength, suitable for 175 psi working pressure when 125 lb. ANSI discharge flange is used. Casing shall withstand a minimum 265 psi hydro test. Casing shall consist of upper and lower half castings containing the volute and suction passages, and removable bearing housings that are doweled and securely bolted to the lower half casing. Inboard and outboard bearing housings shall be replaceable without the need for field alignment. Casing shall be axially split along the horizontal shaft centerline with flat-faced suction and discharge flanges as shown on table and mounting feet cast integral with the lower half casing. Casing shall be line-bored to assure concentricity and angular alignment. The upper and lower half casings shall be double volute doweled to permit easy removal and accurate replacement of the upper half for inspection and maintenance. The upper half casing shall be completely removable without disturbing the suction or discharge piping connections. Suction and discharge connections shall be sized to reduce hydraulic friction losses and to reduce turbulence and pipe noise. All suction and discharge flanges shall be designed for straight-through nut-and-bolt flange connections having ANSI Standard 125 lb. rating. Upper half casing shall have a drilled and tapped connection at the highest point on the casing for the purposes of pump priming or air release. Upper half casing shall contain a generous cored passageway to circulate sealing fluid to the mechanical seal box. Lower half casing shall be drilled and tapped to allow for drainage piping.

2. Impeller

Impeller shall be enclosed type, double-suction, Francis vane design, to minimize inlet losses and accommodate high suction lifts. Impeller shall be CF8M stainless steel and hydraulically and statically balanced to reduce bearing loading. Impellers shall be precision cast in one piece with smooth flow contours to promote maximum efficiency and fitted with stainless steel type wear rings. Impeller shall be fixed axially along the shaft by shaft sleeves and nuts and secured to the shaft through a precision fit and full length key.

3. Shaft

The pump shaft shall be manufactured of high quality 416 stainless steel of sufficient diameter to allow no greater than 0.002" maximum deflection measured at the stuffing box for all normal performance conditions on the curve. Shaft shall be manufactured to meet stiff shaft construction with a critical speed at least 25% in excess of operating speed, in order to prevent vibration

REVISED

and fatigue. The shaft shall be accurately machined along its entire length. A keyway shall be machined at the coupling end. No threads shall be machined adjacent to the impeller. The shaft shall be reversible to provide for field change to opposite rotation if required. Renewable type 304 stainless steel shaft sleeves shall be provided to protect the shaft from wear and from contact with the pumped liquid. The sleeves shall also serve to accurately position the impeller on the shaft.

4. Bearings

Bearings shall be 100,000 min life, single row and deep groove ball type bearings. Bearings shall be selected to carry radial and thrust loads. Interchangeable inboard and outboard bearings shall be press fit and positioned onto ground journals on both ends of an accurately machined shaft. Bearing housings shall be doweled and accurately positioned onto the bearing shoulders located on the lower half casing to ensure accurate alignment. Bearings shall be grease lubricated, and pump and bearing construction shall be such that a change to oil lubrication can be made in the field, using the same bearings.

5. Wearing Rings

Casing wear rings shall be C95400 aluminum bronze of the annular type, designed to minimize leakage across the ring fit. Casing ring will be straight-sided, renewable type, pinned at the type parting flange of the casing to prevent rotation. Impeller wear ring shall be CF8M stainless steel and designed to minimize recirculation of the pumped fluid through the casing.

6. Packing Box

The packing box shall be machined into the casing. Packing box shall contain a split 2 piece gland with Texlock 231 packing with stainless steel parts.

7. Baseplate, Coupling and Guard

A fabricated structural steel or channel base for pump and driver is to be supplied. The base shall be designed to resist torsional movement and support the combined weight of both pump and driver. All major fasteners shall be 316 stainless steel. After leveling and alignment, the base shall be grouted and filled with a non-shrinking grout by the City. A flexible coupling shall be supplied as manufactured by Falk T10, steel flex with a 1.25 service factor. An enclosed type galvanized steel coupling guard shall be provided.

ELECTRIC MOTORS

A. General

REVISED

1. The motors for the pumps shall be of the horizontal, premium efficiency, TEFC design,
 2. All motors shall be built in accordance with latest NEMA, IEEE, ANSI and ABMA standards where applicable.
 3. Motors shall be as specified in Division 16. Motors shall be as manufactured by General Electric Company, TECO/Westinghouse, Nidec, Baldor or approved equal.
 4. Each motor shall be supplied with 120 Volt space heaters.
- B. Performance Requirements:
1. Motors shall be rated for operation on 460V, 3 phase, 60 HZ power supply.
 2. Each motor shall have a 1.15 service factor.
 3. Motors shall have the horsepower and full load output speed ratings as listed in table.
 4. Motors shall have a minimum full load efficiency as listed in table..
 5. Motors shall be free of objectionable noise and vibration. Units shall operate with a maximum sound level not to exceed 85 dBA as measured 5 feet from any surface.
 6. Maximum temperature rise of motor windings shall not exceed 80 deg C, as measured by resistance, when motor is operated and continuously at service factor horsepower, rated voltage and frequency in ambient air temperature of 40 deg C.
- C. Construction:
1. Motor frames and end shields shall be of cast iron construction of such design and proportions as to hold all motor components rigidly in proper position and provide adequate protection for the type of enclosure employed.
 2. The motors shall be of totally enclosed fan cooled construction. Motors shall have a Class B non-hygroscopic epoxy sealed insulation system. Class F insulation may be used but shall be limited to Class B temperature rise.
 3. Windings shall be adequately insulated and securely braced to resist failure due to electrical stresses and vibrations.

REVISED

4. The shaft shall be made of high-grade machine steel or steel forging of size and design adequate to withstand the load stresses normally encountered in motors of the particular rating.
5. Stator and rotor cores shall be made of low loss, non-aging electrical sheet steel with insulated laminations. Stator coils shall be random wound and of size, shape, insulation and number of turns required. Coils shall be epoxy sealed after fabrication.
6. Motors shall be equipped with bearings made to AFBMA Standards, and be of ample capacity of the motor rating. Bearings shall be grease lubricated and shall have a minimum BIO bearing life of 100,000 hours.
7. Nameplates shall be stainless steel. Lifting lugs or "O" type bolts shall be supplied on all motors. Enclosures shall have stainless steel Screen and shall be protected from corrosion, fungus and insects.
8. All fittings, bolts, nuts, and screws shall be plated to resist corrosion. Bolts and nuts shall have hex heads. Conduit boxes shall be gasketed. Lead wires between motor frame and conduit box shall be gasketed.

SHOP PAINTING

- A. Before exposure to weather and prior to shop painting, all surfaces shall be thoroughly cleaned, dry and free from all mill/scale, rust, grease, dirt and other foreign matter.
- B. All pumps, motors and drives shall be shop primed. with a primer..
- C. Gears, bearing surfaces, and other similar surfaces obviously not to be painted shall be given a heavy shop coat of grease or other suitable rust-resistant coating. This coating shall be maintained as necessary to prevent corrosion during periods of storage and erection and shall be satisfactory to the Engineer up the time of the final acceptance test.

INSTALLATION

- A. Installation shall be by the City in strict accordance with the manufacturer's instructions and recommendations in the locations shown on the Drawings. Installations shall include furnishing the required oil and grease for initial operation. The grades of oil and grease shall be in accordance with the manufacturer's recommendations. Anchor bolts shall be set in accordance with the manufacturer's recommendations.

FIELD PAINTING-By others