

ADDENDUM NO. 3
CITY OF NORPHLET
WASTEWATER PIPELINE
18 October 2018

INSTRUCTIONS:

PLANS

1. Attached is revised sheet no. 4. The 3-inch mag meter is now the only flow meter to be added; the existing flow meter will still remain in place.

PREPARED BY:

Gaunt Engineers, Inc.

3256 West Hillsboro

El Dorado, AR 71730

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ADDENDUM NO. 2
CITY OF NORPHLET
WASTEWATER PIPELINE
18 October 2018

INSTRUCTIONS:

PLANS

1. Attached is revised sheet no. 4 showing the piping to and from the flow meter.
2. As shown on the revised sheet 4, a meter box has been added to protect the flow meter from the elements.

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ADDENDUM NO. 1
CITY OF NORPHLET
WASTEWATER PIPELINE
15 October 2018

INSTRUCTIONS

PROJECT MANUAL:

Section C-410 – Bid Form

Remove existing Bid Form and replace with attached bid form

Section 11307 – Effluent Pump Station

Remove existing section 11307 and replace with attached section 11307.

PLANS

Remove Sheet 4 and replace with attached Sheet 4.

OTHER

Bid opening shall be on **Monday, October 22, 2018**, at 1:15.p.m. The location is unchanged.

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BID FORM

City of Norphlet, Arkansas

Wastewater Pipeline

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ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

**City of Norphlet
105 E. Padgett Road (physical)
P.O. Box 31 (mailing)
Norphlet, AR 71759**

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

<u>Addendum No.</u>	<u>Addendum, Date</u>
1	15 October 2018
_____	_____
_____	_____
_____	_____

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work **and including all American Iron and Steel Requirements.**

~~D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.~~

- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.
- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Note: BIDS shall include sales tax and all other applicable taxes and fees.

Item No.	Item Description	Est Qty	Unit	Unit Price	Total Amount
1	6" Sewer Force Main - class 160 PVC or SDR-11 HDPE - including trench, backfill and 10 gauge tracing wire and risers	24,404	LF	\$ _____	\$ _____
2	6" Uncased Bore	1211	LF	\$ _____	\$ _____
3	6" uncased bore with polyethelene pipe	150	LF	\$ _____	\$ _____
4	6" bore - with 10" PVC casing	80	LF	\$ _____	\$ _____
5	6" bore - with 10" steel casing (railroad bore)	100	LF	\$ _____	\$ _____
6	Air and Vacuum Valve	4	EA	\$ _____	\$ _____
7	Force Main Signs, to be installed every 1000 feet.	24	EA	\$ _____	\$ _____
8	Pipe Locator Equipment	1	LS	\$ _____	\$ _____
9	90 gpm effluent pump installed in existing structure and associated piping	1	LS	\$ _____	\$ _____
10	Flow meter	1	LS	\$ _____	\$ _____
11	Relocation of Aeration Equipment	1	LS	\$ _____	\$ _____
12	Pump Control Panel and Electrical (Excluding Phase Converter)	1	LS	\$ _____	\$ _____
13	Phase Converter for Both Pumps	1	LS	\$ _____	\$ _____

Item No.	Item Description	Est Qty	Unit	Unit Price	Total Amount
14	Storm Water Pollution Prevention, Install & maintain during construction	1	LS	\$ _____	\$ _____
15	Trench Safety as required by OSHA (29 CFR, Part 1926, Subpart P) Contractor's Certification of Compliance will be required for each payment under this item.	1	LS	\$ _____	\$ _____
16	Mobilization, project sign and miscellaneous	1	LS	\$ _____	\$ _____
17	Buy America requirements	1	LS	\$ _____	\$ _____
Total Bid Amount:					\$ _____

DEDUCTIVE ALTERNATIVE NO. 1 - Delete bores under gravel and dirt drives and roads

Note: Unit prices must be the same as in the base bid.

Item No.	Item Description	Est Qty	Unit	Unit Price	Total Amount
1	Delete - 6" Uncased Bore	856	LF	\$ _____	\$ _____
2	Add - Gravel for driveways	200	CY	\$ _____	\$ _____
Amount Deducted					\$ _____
Reduced Bid Amount (Base bid less Deductive Alt. No. 1):					\$ _____

DEDUCTIVE ALTERNATIVE NO. 2 - Delete phase converter (City to provide 3-phase power)

Note: Unit prices must be the same as in the base bid.

Item No.	Item Description	Est Qty	Unit	Unit Price	Total Amount
1	Delete - Phase Converter for Both Pumps	1	LS	\$ _____	\$ _____
Amount Deducted					\$ _____
Reduced Bid Amount (Base bid less Deductive Alt. No. 1 & 2):					\$ _____

DEDUCTIVE ALTERNATIVE NO. 3 - Delete relocation of aeration equipment, delete flow meter

Note: Unit prices must be the same as in the base bid.

Item No.	Item Description	Est Qty	Unit	Unit Price	Total Amount
1	Delete - Relocation of Aeration Equipment	1	LS	\$ _____	\$ _____
2	Delete - Flow Meter	1	LS	\$ _____	\$ _____
Amount Deducted					\$ _____
Reduced Bid Amount (Base bid less Deductive Alt. No. 1, 2, & 3):					\$ _____

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor’s overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
 - A. Required Bid security;
 - B. List of Proposed Subcontractors;
 - C. List of Proposed Suppliers;
 - D. List of Project References;
 - E. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
 - F. Contractor’s License No.: _____ [or] Evidence of Bidder’s ability to obtain a State Contractor’s License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;
 - G. Required Bidder Qualification Statement with supporting data; and
 - H. **If Bid amount exceeds \$10,000, signed Compliance Statement (RD 400-6). Refer to specific equal opportunity requirements set forth in the Supplemental General Conditions;**

- I. If Bid amount exceeds \$25,000, signed Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions (AD-1048);
- J. If Bid amount exceeds \$100,000, signed RD Instruction 1940-Q, Exhibit A-1, Certification for Contracts, Grants, and Loans.
- K. Manufacturers' Certification letter of compliance with Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A - Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and subsequent statutes mandating domestic preference for all equals or substitutes approved by Addenda for American Iron and Steel products as provided in these Contract Documents.

ARTICLE 8 – DEFINED TERMS

- 8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

By:
[Signature] _____

[Printed name] _____
(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:
[Signature] _____

[Printed name] _____

Title: _____

Submittal Date: _____

Address for giving notices:

Telephone Number: _____

Fax Number: _____

Contact Name and e-mail address: _____

Bidder's License No.: _____
(where applicable)

Section 11307
EFFLUENT PUMP STATION

PART 1 - GENERAL

1.01 Work Included

- A. Excavate and dewater pump station pit station.
- B. Supply and install package sewage pump station complete with fiberglass wet well and valve vault, pumps, piping, control panel, level control, electrical and incidental items.

1.02 Related Work

- A. Section 02610B – Pipe and Fittings (Water & Sewer)
- B. Section 02641 – Sewage Valves & Gates
- C. Section 03001 – Concrete Work

1.03 Unit Price

- A. Packaged Pump Station: The pumps, guide rails, fittings, valves, electrical, fiberglass wet well and valve vault, appurtenances and other incidental items needed to install the package pump station as specified and as shown on the plans shall be included in the lump sum item listed in the Proposal for Sewage Pump Station.

1.04 Pre-Bid Submittals

- A. Manufacturers other than the manufacturer specified must have their submittals in the Engineer's office seven (7) days prior to the bid opening.
- B. The Engineer will review these submittals and will furnish a letter to all bidders listing any additional manufacturers which have been approved at least 3 days prior to the bid opening.

1.05 Warranty

- A. The entire pumping system shall be warranted by the pump supplier for a period of 30 months minimum after notice of owner's acceptance. The station warranty shall be included as part of the submittal so engineer can review.

PART 2 - PRODUCTS

2.01 Acceptable Manufacturer

- A. Flygt Type NP3153SH, Division of ITT Water & Wastewater, Charlotte, North Carolina.
- B. Other manufacturers who submit their information 7 days prior to the bid opening and who can prove that their equipment is comparable to the equipment specified will be considered an approved equal.

2.02 Pumps

- A. Provide centrifugal type submersible sewage pumps for the following Operating Conditions (Effluent Pumps):
 - 1. Minimum flow with one pump operating = 90 gpm
 - 2. Total dynamic head = 145 ft.
 - 3. Minimum operating efficiency = 30%
 - 4. Maximum RPM = 3450
- B. Impellers: The impeller shall be of ASTM A-532 (Alloy III A) 25% chrome cast iron, dynamically balanced, semi-open, multi-vane, back swept, screw-shaped, non-clog design. The impeller leading edges shall be mechanically self-cleaned automatically upon each rotation as they pass across a spiral groove located on the volute suction. Suitable for handling solids, fibrous materials, heavy sludge and other matter normally found in wastewater. The screw shape of the impeller inlet shall provide an inducing effect for the handling of up to 5% sludge and rag-laden wastewater. The impeller to volute clearance shall be readily adjustable by the means of a single trim screw. The impellers shall be locked to the shaft, held by an impeller bolt and shall be coated with alkyd resin primer.
- C. Volute: The pump volute shall be a single piece gray cast iron, ASTM A-48, Class 35B, non-concentric design with smooth passages of sufficient size to pass any solids that may enter the impeller. Minimum inlet and discharge size shall be as specified. The volute shall have a replaceable suction cover insert ring in which are cast spiral-shaped, sharp-edged groove. The spiral groove shall provide trash release pathways and sharp edge across which each impeller vane leading edge shall cross during rotation so to remain unobstructed. The insert ring shall be cast of ASTM A-532 (Alloy III A) 25% chrome cast iron and provide effective sealing between the multi-vane semi-open impeller and the volute housing.

- D. Pump Shaft: Pump and motor shaft shall be the same unit. The pump shaft is an extension of the motor shaft. Couplings shall not be acceptable. The shaft shall be stainless steel – ASTM A479 S43100-T.
- E. Shaft Sealants:
1. Each pump shall be provided with a tandem mechanical shaft seal system consisting of two totally independent seal assemblies. The seals shall operate in a lubricant reservoir that hydrodynamically lubricates the lapped seal faces at a constant rate.
 2. The lower, primary seal unit, located between the pump and the lubricant chamber, shall contain one stationary and one positively driven rotating tungsten-carbide ring.
 3. The upper, secondary seal unit, located between the lubricant chamber and the motor housing, shall contain one stationary and one positively driven rotating, corrosion resistant tungsten-carbide seal ring.
 4. Each seal interface shall be held in contact by its own spring system.
 5. The seals shall require neither maintenance nor adjustment nor depend on direction of rotation for sealing.
 6. Mounting of the lower mechanical seal on the impeller hub will not be acceptable.
 7. The following seal types shall not be considered acceptable or equal to the dual independent seal specified:
 - a. Shaft seals without positively driven rotating members.
 - b. Conventional double mechanical seals containing either a common single or double spring acting between the upper and lower seal faces.
 - c. No system requiring a pressure differential to offset pressure and to effect sealing shall be used.
 8. Each pump shall be provided with a lubricant chamber for the shaft sealing system.
 - a. The lubricant chamber shall be designed to prevent overfilling and to provide lubricant expansion capacity.
 - b. The drain and inspection plug, with positive anti-leak seal shall be easily accessible from the outside.
 - c. The seal system shall not rely upon the pumped media for lubrication.
 9. The motor shall be able to operate dry without damage while pumping under load.
 10. Seal lubricant shall be FDA Approved, nontoxic.
- F. Cable Entry Seal: The cable entry seal design shall preclude specific torque requirements to insure a watertight and submersible seal.
1. The cable entry shall consist of a single cylindrical elastomer grommet, flanked by washers, all having a close tolerance fit against the cable outside diameter and the entry inside diameter and compressed by the

- body containing a strain relief function, separate from the function of sealing the cable.
2. The assembly shall provide ease of changing the cable when necessary using the same entry seal.
 3. The cable entry junction chamber and motor shall be separated by a stator lead sealing gland or terminal board, which shall isolate the interior from foreign material gaining access through the pump top.
 4. Epoxies, silicones, or other secondary sealing systems shall not be considered acceptable.
- G. Bearings: The pump shaft shall rotate on two bearings. Motor bearings shall be permanently grease lubricated. The upper bearing shall be a single deep groove ball bearing. The lower bearing shall be a two row angular contact bearing to compensate for axial thrust and radial forces. Single row lower bearings are not acceptable
- H. Protection: All stators shall incorporate thermal switches in series to monitor the temperature of each phase winding. At 125°C (260°F) the thermal switches shall open and stop the motor.
- I. Major pump components shall be of grey cast iron, ASTM A-48, Class 35B, with smooth surfaces devoid of blow holes or other irregularities. The lifting handle shall be of stainless steel. All exposed nuts or bolts shall be AISI type 316 stainless steel construction. All metal surfaces coming into contact with the pumpage, other than stainless steel or brass, shall be protected by a factory applied spray coating of acrylic dispersion zinc phosphate primer with a polyester resin paint finish on the exterior of the pump.

Sealing design shall incorporate metal-to-metal contact between machined surfaces. Critical mating surfaces where watertight sealing is required shall be machined and fitted with Nitrile rubber O-rings. Fittings will be the result of controlled compression of rubber O-rings in two planes and O-ring contact of four sides without the requirement of a specific torque limit.

Rectangular cross sectioned gaskets requiring specific torque limits to achieve compression shall not be considered as adequate or equal. No secondary sealing compounds, elliptical O-rings, grease or other devices shall be used.

- J. All outside surfaces shall be coated with a corrosion resistant material similar to Sherwin Williams "Sher-Tar" coal tar epoxy or approved equal.

2.03 Motors

- A. The pump motor shall be induction type with a squirrel-cage rotor, shell type design, housed in an air-filled, watertight chamber, NEMA B type.

- B. The stator windings shall be insulated with moisture resistant Class H insulation rated for 180°C (356°F). The stator shall be insulated by the trickle impregnation method using Class H monomer-free polyester resin resulting in a winding fill factor of at least 95%. The motor shall be inverter duty rated in accordance with NEMA MG1, Part 31. The stator shall be heat-shrink fitted into the cast iron stator housing. The use of multiple step dip and bake-type stator insulation process is not acceptable. The use of bolts, pins or other fastening devices requiring penetration of the stator housing is not acceptable.
- C. The motor shall be designed for continuous duty handling pumped media of 40°C (104°F) and capable of no less than 15 evenly spaced starts per hour. Motor shall be enclosed in SS housing with self contained glycol closed loop cooling system.
- D. The rotor bars and short circuit rings shall be made of cast aluminum.
- E. Thermal switches set to open at 125°C (260°F) shall be embedded in the stator end coils to monitor the temperature of each phase winding. These thermal switches shall be used in conjunction with and supplemental to external motor overload protection and shall be connected to the control panel.
- F. The junction chamber containing the terminal board, shall be hermetically sealed from the motor by an elastomer compression seal.
- G. Connection between the cable conductors and stator leads shall be made with threaded compression type binding posts permanently affixed to a terminal board. Wire nuts or crimping type connection devices are not acceptable.
- H. The motor and pump shall be designed and assembled by the same manufacturer.
- I. The combined service factor (combined effect of voltage, frequency and specific gravity) shall be a minimum of 1.15.
- J. The motor shall have a voltage tolerance of plus or minus 10%. The motor shall be designed for operation up to 40°C (104°F) ambient and with a temperature rise not to exceed 80°C.
- K. A performance chart shall be provided upon request showing curves for torque, current, power factor, input/output kW and efficiency. This chart shall also include data on starting and no-load characteristics.
- L. The power cable shall be sized according to the NEC and ICEA standards and shall be of sufficient length to reach the junction box without the need of any

splices. The outer jacket of the cable shall be oil resistant chlorinated polyethylene rubber.

- M. The motor and cable shall be capable of continuous submergence underwater without loss of watertight integrity to a depth of 65 feet or greater.
- N. The motor horsepower shall be adequate so that the pump is non-overloading throughout the entire pump performance curve from shut-off through run-out.

2.04 Pump Lifting Mechanism

- A. Provide 2 inch diameter schedule 40 stainless steel guide rails (2 per pump).
- B. Provide two galvanized plastic coated lifting cables.
- C. Provide guide rail assembly consisting of:
 - 1. Ductile iron discharge base.
 - 2. Cast iron pump attaching and sealing plate.
 - 3. Cast iron pump guide plate.
 - 4. Stainless steel upper bracket.
 - 5. All exposed nuts, bolts and fasteners shall be 300 series stainless steel.
- D. Sealing of the pump at the discharge flange shall be accomplished by a simple downward linear motion of the pump with the entire weight of the guided pump to press against the discharge connection. Sealing of the pumping unit to the discharge connection shall be accomplished by a machined metal-to-metal watertight contact. No part of the pump shall bear directly on the basin floor and no rotary motion of the pump shall be required for sealing. Guide claws, attached to the pump discharge, shall guide the pump up and down.
- E. Provide manual lifting crane as specified on drawings.
- F. Pumps and lifting mechanisms to be designed so that no personnel shall be required to enter the wet well to remove or replace pumps.

2.05 Duplex Control Panel and Accessories

- A. Control Panel – Control Panel to be housed in a Nema 3R enclosure for outdoor, rain tight use and shall be provided with padlock hasp, lock by others. The control panel shall provide plastic wire ways for all internal wiring, all wires shall be numbered on each end and a laminated “As Built” drawing shall be provided. Additionally, the panel shall be equipped with an aluminum inner door for mounting of all operator components.

- B. Power - Panel shall be for 1/60/230vac power, provided with a main power distribution block for connection of incoming power and bonded ground. A VFD shall be provided for phase conversion on each pump.

- C. Components – Provide the following components for each pump:
 - 1. Minimum 10kAIC circuit breaker
 - 2. HOA switch, green run light
 - 3. Amber seal fail light
 - 4. Red pump fail light
 - 5. Elapsed time meter

- D. Alternator: An alternator shall be furnished so that a different pump is selected for each subsequent pumping operation. An override circuit shall be provided which would bring on the second pump, should the lead pump be unable to lower wet well and water level continues to rise. The lag pump shall also start if the lead pump has failed or is out of service.

- E. Additional Items: The panel shall also be provided with the following additional items:
 - 1. Lag pump delay timer
 - 2. Lighting arrestor
 - 3. Three phase power monitor
 - 4. Numbered terminal strip
 - 5. Bi-metallic thermal switch to shut off the pumps when the temperature exceeds 140°C.

- F. High Water Alarm
 - 1. Red light mounted on the top of the control panel.
 - 2. Light to come on when the sewage level in the pump station exceeds the high water level designated.

- G. Accessories: The following additional items shall be provided:
 - 1. Level sensing system consisting of FLYGT MTR/MTRA and probe.
 - 2. Operation will be pumps off/alternate, lead on, lag on and high water alarm.
 - 3. Stainless steel float switch mounting bracket.

- H. Control Setting:
 - 1. Stop both pumps: 114.00
 - 2. Start lead pump: 117.00
 - 3. Start lag pump: 117.50
 - 4. High Water Alarm: 118.00

2.06 Piping & Valves

- A. Provide all piping and valves and incidentals as shown on plans.
- B. All piping and fittings to conform to the requirements of Section 02610B - Pipe & Fittings. Wet well and exposed piping to be flanged cast iron or ductile iron as indicated on plans.
- C. All valves to be flanged valves conforming to the requirements of Section 02641.
- D. Where piping passes through the concrete wall, sleeves and Linkseals shall be installed to seal the station interior from wet well gases.

PART 3 - EXECUTION

3.01 Examination

- A. Examine pump station when delivered to make sure that all components have been delivered.
- B. Examine pump station for damage prior to installation and immediately notify Engineer of any damage that has occurred.

3.02 Field Quality Control

- A. Test the pumping capacity of the pumps in the presence of the Engineer's representative.

3.03 Start-Up

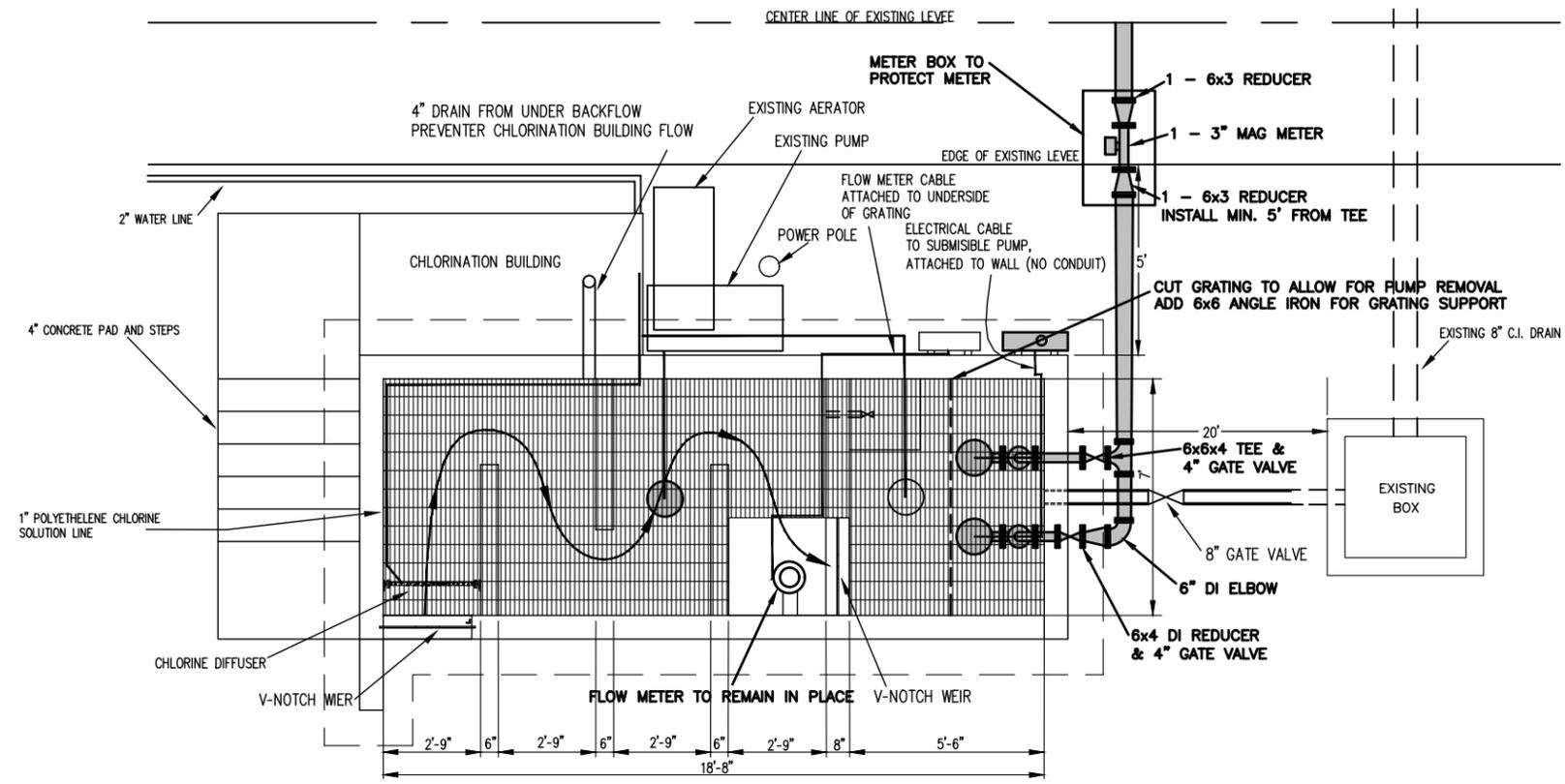
- A. Contractor to provide a minimum one (1) day start-up by a factory trained serviceman.
- B. Serviceman to check and adjust the equipment as necessary.
- C. Serviceman to instruct owner in the proper operation and maintenance procedures.
- D. Contractor to furnish three (3) sets of operating manuals.

3.04 Clean-Up

- A. Remove all trash and debris from site.

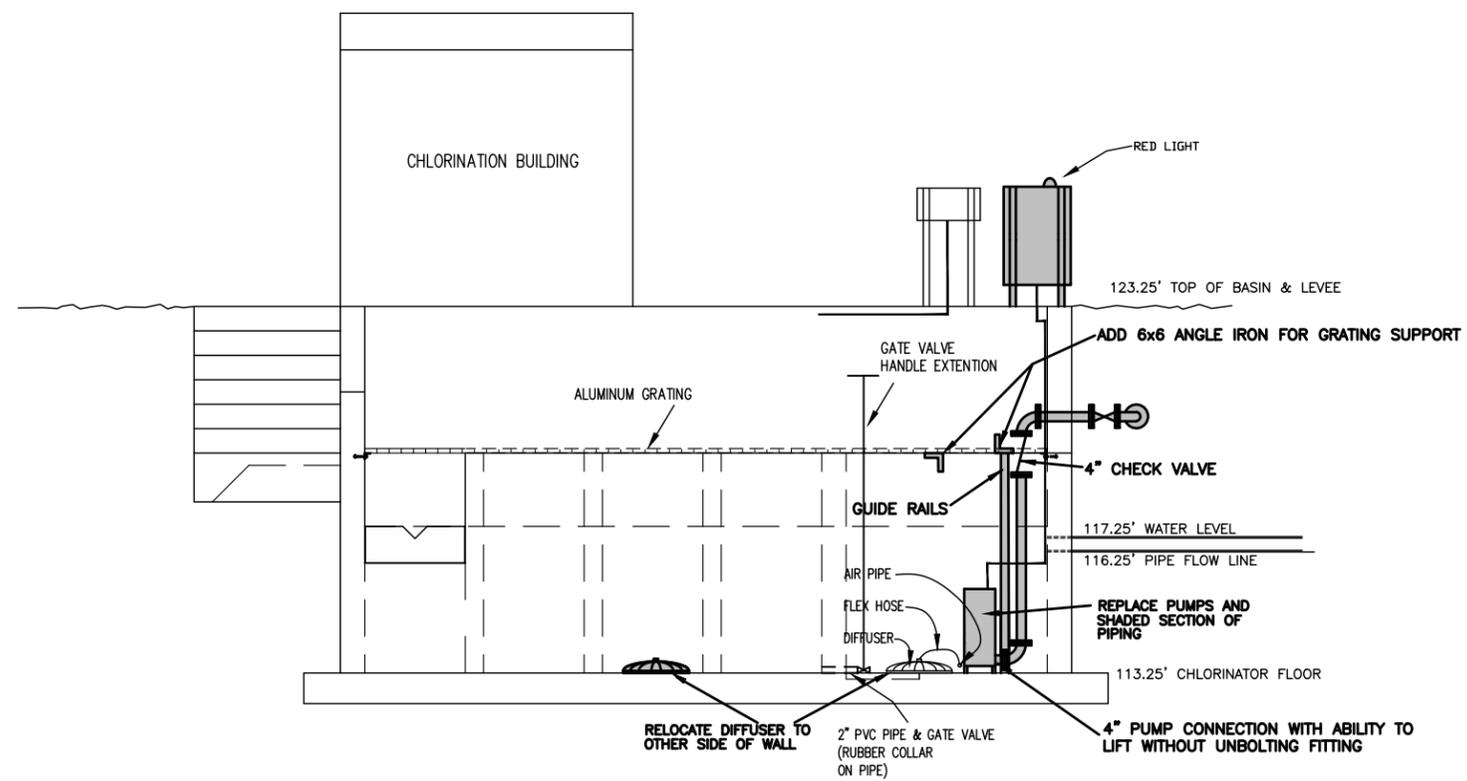
- B. Clean pumps and equipment as necessary.

END OF SECTION



DESIGN FLOW 0.18 MGD

SHADED ITEMS INDICATE WORK TO BE COMPLETED



GAUNT ENGINEERS, INC.
 ENGINEERS, SURVEYORS AND PLANNERS
 3400 W. HILLSBORO, EL DORADO, AR 71730

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**CITY OF NORPHLET
 WASTEWATER PIPELINE**

EXISTING CHLORINATION BASIN

ADDENDUM 3 - DELETE EXTRA FLOW METER	10/18/18		
ADDENDUM 2 - ADD MAGMETER & BOX	10/18/18		
ADDENDUM NO. 1	10/15/18		
PUMPS AND FLOW METER TO BE REPLACED	03/2018		
REV.	DESCRIPTION	CHK.	DATE

DESIGNED BY	CHECKED BY	DATE: 01/2018	JOB NO:	ITEM NO:
DRAWN BY	APPROVED BY	SCALE: NTS	DRAWING NUMBER: 4	REV.: