

**ESCAMBIA COUNTY
FLORIDA**

INVITATION TO BIDDERS

INNERARITY ISLAND SEWER MATERIAL PURCHASE

SPECIFICATION NUMBER PD 16-17.007

BIDS WILL BE RECEIVED UNTIL: 3:00 p.m., CST, TUESDAY, November 15, 2016

Office of Purchasing, Room 11.101

213 Palafox Place, Pensacola, FL 32502 Matt Langley Bell III Building

Post Office Box 1591

Pensacola, FL 32591-1591

Board of County Commissioners

Grover Robinson, IV, Chairman
Wilson B. Robertson, Vice Chairman

Steven Barry
Douglas Underhill
Lumon J. May

From:

**Claudia Simmons
Purchasing Manager**

Assistance:

Claudia Simmons, Manager

Office of Purchasing

2nd Floor, Matt Langley Bell, III Building

213 Palafox Place

Pensacola, FL 32502

Tel: (850) 595-4987

Fax: (850) 595-4805

SPECIAL ACCOMMODATIONS:

Any person requiring special accommodations to attend or participate, pursuant to the Americans with Disabilities Act, should call the Office of Purchasing, (850) 595-4980 at least five (5) working days prior to the solicitation opening. If you are hearing or speech impaired, please contact the Office of Purchasing at (850) 595-4684 (TTY).

NOTICE

It is the specific legislative intent of the Board of County Commissioners that NO CONTRACT under this solicitation shall be formed between Escambia County and the awardee vendor until such time as the contract is executed by the last party to the transaction.

**ESCAMBIA COUNTY FLORIDA
INVITATION TO BID
BIDDER'S CHECKLIST
INNERARITY ISLAND SEWER MATERIAL PURCHASE
SPECIFICATION PD 16-17.007**

• **HOW TO SUBMIT YOUR BID**

PLEASE REVIEW THIS DOCUMENT CAREFULLY. OFFERS THAT ARE ACCEPTED BY THE COUNTY ARE BINDING CONTRACTS. **INCOMPLETE BIDS ARE NOT ACCEPTABLE.** ALL DOCUMENTS AND SUBMITTALS SHALL BE RECEIVED BY THE OFFICE OF PURCHASING ON OR BEFORE DATE AND HOUR FOR SPECIFIED FOR RECEIPT. LATE BIDS WILL BE RETURNED UNOPENED.

** Documents submitted with Bids are to be on the forms provided in the Invitation to Bid and photocopies of other required documents*

THE FOLLOWING DOCUMENTS SHALL BE RETURNED WITH BID:

- SOLICITATION, OFFER AND BID FORM (WITH ORIGINAL SIGNATURE)
- BID SURETY (BOND, CHECK, ETC.)

THE FOLLOWING DOCUMENTS SHOULD BE RETURNED WITH BID

- SWORN STATEMENT PURSUANT TO SECTION 287.133(3)(A), FLORIDA STATUTES, ON ENTITY CRIMES
- DRUG-FREE WORKPLACE FORM
- INFORMATION SHEET FOR TRANSACTIONS AND CONVEYANCES CORPORATE IDENTIFICATION
- CERTIFICATE OF AUTHORITY TO DO BUSINESS FROM THE STATE OF FLORIDA
- OCCUPATIONAL LICENSE
- FLORIDA DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION – LICENSE(S), CERTIFICATION(S) AND/OR REGISTRATION(S)
- ANTI-LOBBYING CERTIFICATE
- DISCLOSURE OF LOBBYING ACTIVITIES IF APPLICABLE
- CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION FOR FEDERAL AID CONTRACTS

BEFORE YOU SUBMIT YOUR BID, HAVE YOU:

- PLACED YOUR BID WITH ALL REQUIRED SUBMITTAL ITEMS IN A SEALED ENVELOPE CLEARLY MARKED FOR SPECIFICATION NUMBER, COFFEE CREEK BRIDGE REPLACEMENT (BEULAH LANDFILL), NAME OF BIDDER, AND DUE DATE AND TIME OF BID RECEIPT?

THE FOLLOWING SUBMITTALS ARE REQUIRED UPON NOTICE OF AWARD:

- CERTIFICATE OF INSURANCE

HOW TO SUBMIT A NO BID

- IF YOU DO NOT WISH TO BID AT THIS TIME, PLEASE REMOVE THE BIDDER SOLICITATION, OFFER AND AWARD FORM FROM THE BID SOLICITATION PACKAGE AND ENTER NO BID IN THE "**REASON FOR NO BID**" BLOCK, YOUR COMPANY'S NAME, ADDRESS, SIGNATURE, AND RETURN THE BIDDER SOLICITATION, OFFER AND AWARD FORM IN A SEALED ENVELOPE. THIS WILL ENSURE YOUR COMPANY'S ACTIVE STATUS IN OUR BIDDER'S LIST.

**THIS FORM IS FOR YOUR CONVENIENCE TO ASSIST IN FILLING OUT YOUR
BID ONLY.**

DO NOT RETURN WITH YOUR BID

**INNERARITY ISLAND SEWER MATERIAL PURCHASE
PD 16-17.007**

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Forms marked with a (Double Asterisk) should be returned with Offer.**

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SIGN AND RETURN THIS FORM WITH YOUR BIDS**

SOLICITATION, OFFER AND AWARD FORM ESCAMBIA COUNTY FLORIDA

SUBMIT OFFERS TO:

Claudia Simmons

Manager

Office of Purchasing, 2nd Floor, Room 11.101
213 Palafox Place, Pensacola, FL 32502
Post Office Box 1591, Pensacola, FL 32591-1591
Phone No: (850)595-4980 Fax No: (850) 595-4805

Invitation to Bid

Innerarity Island Sewer Material Purchase

SOLICITATION NUMBER: PD 16-17.007

SOLICITATION

MAILING DATE: Monday, October 24, 2016

PRE-BID CONFERENCE: N/A

OFFERS WILL BE RECEIVED UNTIL: 3:00 p.m., CST, TUESDAY, November 15, 2016 and may not be withdrawn within **90** days after such date and time.

POSTING OF SOLICITATION TABULATIONS

Solicitation tabulations with recommended awards will be posted for review by interested parties at the County Office of Purchasing and will remain posted for a period of two (2) business days. Failure to file a protest in writing within two (2) business days after posting of the solicitation tabulation shall constitute a waiver of any protest relating to this solicitation. All protests must be filed with the Office of Purchasing. They will be handled according to the Escambia County Purchasing Ordinance.

OFFER (SHALL BE COMPLETED BY OFFEROR)

FEDERAL EMPLOYER IDENTIFICATION NUMBER OR S.S. NUMBER:

TERMS OF PAYMENT:

DELIVERY DATE WILL BE _____ DAYS AFTER RECEIPT OF PURCHASE ORDER.

VENDOR NAME: _____

REASON FOR NO OFFER:

ADDRESS: _____

CITY, ST. & ZIP: _____

PHONE NO.: (____) _____

BID BOND ATTACHED \$ _____

EMAIL _____

I certify that this offer is made without prior understanding, agreement, or connection, with any Corporation, firm or person submitting an offer for the same materials, supplies, or equipment, and is in all respects fair and without collusion or fraud. I agree to abide by all conditions of this offer and certify that I am authorized to sign this offer for the offeror and that the offeror is in compliance with all requirements of the solicitation, including but not limited to certification requirements. In submitting an offer to Escambia County Florida, the offeror agrees that if the offer is accepted, the offeror will convey, sell, assign or transfer to Escambia County Florida all rights title and interest in and to all causes of action it may now or hereafter acquire under the Anti-trust laws of the United States and the State of Florida for price fixing relating to the particular commodities or services purchased or acquired by Escambia County Florida. At the County's discretion such assignment shall be made and become effective at the time the County tenders final payment to the offeror

NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER

(TYPED OR PRINTED)

**
SIGNATURE OF PERSON AUTHORIZED TO SIGN OFFER
(MANUAL)

****Failure to execute this Form binding the bidder/proposer's offer shall result in this bid/proposal being rejected as non-responsive.**

BID FORM
PD16-17.007

Board of County Commissioners
Escambia County, Florida
Pensacola, Florida 32502

Date: _____

Commissioners:

In accordance with your "Invitation for Bids" and "Instructions to Bidders" as described and listed in this Invitation for Bids, and subject to all conditions thereof, I, undersigned, hereby propose to provide at the following price

QTY of 125 Grinder Pump Stations \$_____ each Total \$_____

CONTRACTOR REQUIREMENTS

Acknowledgment is hereby made of receipt of the following addenda issued during the bidding period:

Addendum No. _____ Date _____ Addendum No. _____ Date _____

Addendum No. _____ Date _____ Addendum No. _____ Date _____

(PLEASE TYPE INFORMATION BELOW)

SEAL IF BID IS BY CORPORATION

State of Florida Department of State Certificate of
Authority
Document Number _____

Occupational License No. _____

Florida DBPR Contractor's License, Certification
and/or Registration No. _____

Type of Contractor's License, Certification and/or
Registration NA _____

Expiration Date: _____

Person to contact regarding this bid

Person to contact for emergency service:

Phone _____

Email _____

County Permits/Fees required for this project:

<u>Permit</u>	<u>Cost</u>
N/A	_____
_____	_____
_____	_____

Attached to bid you shall find a bid bond, cashier's check or certified check (circle one that applies) in the amount of (5%) of bid.

The grinder pump stations shall be delivered to the Escambia County Road Department on Highway 297A, Cantonment, Florida 32535 NO EARLIER THAN JULY 31, 2017 AND NO LATER THAN SEPTEMBER 30, 2017.

Liquidated damages of \$500 each day will be assessed for each day that delivery of material is delayed. All work to be accomplished under this bid shall be the responsibility of Bidder and failure of subcontract Bidder of any liquidated damages. A Bid Bond in the amount of 5% of base bid is to be furnished by each Bidder. Bidder further acknowledges that all of the work outlined above may not be required at the discretion of Escambia County. The total will be subject to total funds available during the course of the work. However, it is the intent of Escambia County at this time to substantially complete the listed work.

**SWORN STATEMENT PURSUANT TO SECTION 287.133(3)(a),
FLORIDA STATUTES, ON ENTITY CRIMES**

1. This sworn statement is submitted to _____
(print name of the public entity)
- by _____
(print individual's name and title)
- for _____
(print name of entity submitting sworn statement)

whose business address is

and (if applicable) its Federal Employer Identification Number (FEIN) is:

(If the entity has no FEIN, include the Social Security Number of the Individual signing this sworn statement: _____)

2. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), **Florida Statutes**, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or of the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision or any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
3. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), **Florida Statutes**, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
4. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), **Florida Statutes**, means:
- a. A predecessor or successor of a person convicted of a public entity crime; or
 - b. An entity under the control any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity

crime in Florida during the preceding 36 months shall be considered an affiliate.

- c. I understand that a "person" as defined in Paragraph 287.133(1)(e), **Florida Statutes**, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.
- d. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. **(indicate which statement applies.)**

_____ Neither the entity submitting this sworn statement, nor any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

_____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

_____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989. However, there has been a subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearings and the Final Order entered by the Hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. **(attach a copy of the final order)**

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THOROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

(signature)

Sworn to an subscribed before me this _____ day of _____, 20_____

Personally known _____

OR produced identification _____ Notary Public - State of _____

(Type of identification)

My commission expires_____

(Printed typed or stamped commissioned name of notary public)

Drug-Free Workplace Form

The undersigned vendor, in accordance with Florida Statute 287.087 hereby certifies that
_____ does:

Name of Business

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, employee assistance programs and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in Paragraph 1.
4. In the statement specified in Paragraph 1, notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on, or require the satisfactory participation in a drug assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of Paragraphs 1 through 5.

Check one:

_____ As the person authorized to sign this statement, I certify that this firm complies fully with above requirements.

_____ As the person authorized to sign this statement, this firm **does not** comply fully with the above requirements.

Offeror's Signature

Date

**Information Sheet
for Transactions and Conveyances
Corporation Identification**

The following information will be provided to the Escambia County Legal Department for incorporation in legal documents. It is, therefore, vital all information is accurate and complete. Please be certain all spelling, capitalization, etc. is exactly as registered with the state or federal government.

Is this a Florida Corporation (Please Circle One)
Yes or No

If not a Florida Corporation,

In what state was it created: _____
Name as spelled in that State: _____

What kind of corporation is it: "For Profit" or "Not for Profit"

Is it in good standing: Yes or No

**Authorized to transact business
in Florida:**

Yes or No

State of Florida Department of State Certificate of Authority Document No.: _____

Does it use a registered fictitious name: Yes or No

Names of Officers:

President: _____	Secretary: _____
Vice President: _____	Treasurer: _____
Director: _____	Director: _____
Other: _____	Other: _____

Name of Corporation (As used in Florida):

(Spelled exactly as it is registered with the state or federal government)

Corporate Address:

Post Office Box: _____
City, State Zip: _____
Street Address: _____
City, State, Zip: _____

(Please provide post office box and street address for mail and/or express delivery; also for recorded instruments involving land)

(Please continue and complete page 2)

Federal Identification Number: _____
(For all instruments to be recorded, taxpayer's identification is needed)

Contact person for company: _____ E-mail: _____
Telephone Number: _____ Facsimile Number: _____

Name of individual who will sign the instrument on behalf of the company:

(Upon Certification of Award, Contract shall be signed by the President or Vice-President. Any other officer shall have permission to sign via a resolution approved by the Board of Directors on behalf of the company. Awarded contractor shall submit a copy of the resolution together with the executed contract to the Office of Purchasing)

(Spelled exactly as it would appear on the instrument)

Title of the individual named above who will sign on behalf of the company:

END

(850) 488-9000 Verified by: _____ Date: _____

ESCAMBIA COUNTY , FLORIDA GENERAL TERMS and CONDITIONS

The following General Terms and Conditions are incorporated by reference and have the same legal effect as if printed in its entirety.

A full textual copy of these conditions may be obtained by visiting the Office of Purchasing Home Page (see Bid Information), by telephoning the Office of Purchasing at (850) 595-4980 or by Fax at (850)595-4805.

NOTE: Any and all Special Terms and Conditions and specifications referenced within the solicitation which varies from these General Terms and Conditions shall have precedence. Submission of the Bidder/Proposal Solicitation, Offer and Award Form and Bid/Proposal Form(s) in accordance with these General Terms and Conditions and Special Terms and Conditions constitutes an offer from the offeror. If any or all parts of the offer are accepted by Escambia County Florida, an authorized representative of the county shall affix his signature hereto, and this shall then constitute a written agreement between parties. The conditions incorporated herein become a part of the written agreement between the parties.

Bid Information See Home Page URL: <http://www.myescambia.com>

Click on **ON-LINE SOLICITATIONS**

1. **Sealed Solicitations**
2. **Execution of Solicitation**
3. **No Offer**
4. **Solicitation Opening**
5. **Prices, Terms and Payment**
 - 5.01 **Taxes**
 - 5.02 **Discounts**
 - 5.03 **Mistakes**
 - 5.04 **Condition and Packaging**
 - 5.05 **Safety Standards**
 - 5.06 **Invoicing and Payment**
 - 5.07 **Annual Appropriations**
6. **Additional Terms and Conditions**
7. **Manufacturers' Name and Approved Equivalents**
8. **Interpretations/Disputes**
9. **Conflict of Interest**
 - 9.01 **County Procedure on Acceptance of Gifts**
 - 9.02 **Contractors Required to Disclose any Gift Giving**
 - 9.03 **Gratuities**
10. **Awards**
11. **Nonconformance to Contract Conditions**
12. **Inspection, Acceptance and Title**
13. **Governmental Restrictions**
14. **Legal Requirements**
15. **Patents and Royalties**
16. **Price Adjustments**
17. **Cancellation**
18. **Abnormal Quantities**
19. **Advertising**
20. **Assignment**
21. **Liability**
22. **Facilities**
23. **Distribution of Certification of Contract**

ESCAMBIA COUNTY , FLORIDA GENERAL TERMS and CONDITIONS
The following General Terms and Conditions are incorporated by reference (continued).

- 24. **The Successful Bidder(s) must Provide**
- 25. **Addition/deletion of Items**
- 26. **Ordering Instructions**
- 27. **Public Records**
- 28. **Delivery**
- 29. **Samples**
- 30. **Additional Quantities**
- 31. **Service and Warranty**
- 32. **Default**
- 33. **Equal Employment Opportunity**
- 34. **Florida Preference**
- 35. **Contractor Personnel**
- 36. **Award**
- 37. **Uniform Commercial Code**
- 38. **Contractual Agreement**
- 39. **Payment Terms/Discounts**
- 40. **Improper Invoice; Resolution of Disputes**
- 41. **Public Entity Crimes**
- 42. **Suspended and Debarred Vendors**
- 43. **Drug-Free Workplace Form**
- 44. **Information Sheet for Transactions and Conveyances**
- 45. **Copies**
- 46. **License and Certifications** - For access to Certification/Registration Form for doing Business in Florida go to the Department of State, Division of Corporations,
URL:<http://ccfcorp.dos.state.fl.us/corpweb/inquiry/search.html>
- 47. **Execution of Contract**
- 48. **Purchase Order**
- 49. **No Contingent Fees**
- 50. **Solicitation Expenses**
- 51. **On-Line Auction Services**

SPECIAL TERMS AND CONDITIONS

The Board of County Commissioners, Escambia County, Florida, invites your company to submit a sealed offer on the item(s) as listed in this solicitation request.

All terms and conditions below are a part of this request, and no offer will be accepted unless all these conditions have been complied with. The County reserves the right to waive informalities in any offer; to reject any or all offers, in whole or in part, and/or to accept the offer(s) that in its judgment is from the lowest and most responsible and responsive offeror(s).

Instructions to Offerors

1. General Information

All offers to be considered shall be in the possession of the Office of Purchasing prior to the time of the solicitation closing. Offers may be mailed to 213 Palafox Place, Room 11.101, Pensacola, Florida 32502 or delivered to the Office of Purchasing, 2nd floor, Room 11.101, Matt Langley Bell, III Bldg., 213 Palafox Place, Pensacola, Florida 32502, in a sealed envelope clearly marked:

Specification Number PD 16-17.007, Innerarity Island Sewer Material Purchase Name of Submitting Firm, Time and Date due.

Note: If you are using a courier service; Federal Express, Airborne, UPS, etc., you must mark airbill and envelope or box with Specification Number PD16-17.007 and Innerarity Island Sewer Material Purchase

Regardless of the method of delivery, each offeror shall be responsible for his offer(s) being delivered on time as the County assumes no responsibility for same. Offers offered or received after the time set for solicitation closing will be rejected and returned unopened to the offeror(s).

The following policy will apply to all methods of source selection:

Conduct of Participants

After the issuance of any solicitation, all bidders/proposers/protestors or individuals acting on their behalf are hereby prohibited from **lobbying** as defined herein or otherwise attempting to persuade or influence any elected County officials, their agents or employees or any member of the relevant selection committee at any time during the **blackout period** as defined herein; provided, however, nothing herein shall prohibit bidders/proposers/protestors or individuals acting on their behalf from communicating with the purchasing staff concerning a pending solicitation unless otherwise provided for in the solicitation or unless otherwise directed by the purchasing manager.

Definitions

Blackout period means the period between the time the bids/proposals for invitations for bid or the request for proposal, or qualifications, or information, or requests for letters of interest, or the invitation to negotiate, as applicable, are received at the Escambia County Office of Purchasing and the time the Board awards the contract and any resulting bid protest is resolved or the solicitation is otherwise canceled.

Lobbying means the attempt to influence the thinking of elected County officials, their agents or employees or any member of the relevant Selection Committee for or against a specific cause

related to a pending solicitation for goods or services, in person, by mail, by facsimile, by telephone, by electronic mail, or by any other means of communication.

Sanctions

The Board may impose any one or more of the following sanctions on a nonemployee for violations of the policy set forth herein:

- (a) Rejection/disqualification of submittal
- (b) Termination of contracts; or
- (c) Suspension or debarment as provided in Sec. 46-102 of the Escambia County Code of Ordinances.

This policy is not intended to alter the procedure for Protested Solicitations and Awards as set forth in the Sec. 46-101 of the Escambia County Code of Ordinances.

General Summary

1. Scope of Work;

Materials are being pre-purchased to facilitate encumbering a FDEP \$1,000,000 grant. Additional grant funding can be obtained once the initial grant funding has been encumbered. The initial grant scope includes both water and sewer projects. The water project including design will be encumbered by the end of December, 2016. While the sewer design and contract will be completed sometime in 2017, there are sufficient funds remaining in the initial grant to pre-purchase sewer materials ahead of the contract to install them. We have been working closely with ECUA to ensure the proper specifications and quantities are appropriate for the future sewer project.

Specifically, 125 grinder pump stations shall be purchased per the attached specification. The grinder pump station shall be delivered to the Escambia County Road Department on Highway 297A, Cantonment, Florida 32535. The grinder pump stations shall be delivered AFTER July 30, 2017 AND NO LATER THAN SEPTEMBER 30, 2017.

The grinder pump stations shall be as manufactured by Eone or equal.

Environment One Corporation

2773 Balltown Road

Niskayuna, NY 12309-1090

Voice: 518.346.6161 Fax: 518.346.6188

eone@eone.com

2. Bid Surety

Each offer shall be accompanied by a bid bond, cashier's check or certified check in the amount of **5%** of the total offer.

Checks or bonds are to be made payable to Escambia County, Florida. The amount of the bond or check is the amount of liquidated damages agreed upon should the offeror fail or refuse to enter into a contract with the County.

A County warrant in the amount of the bid check(s) of the successful offeror(s) will be returned immediately after the offeror and the County are mutually bound by contract as evidenced by signatures thereto by an authorized representative of both the offeror and the County, and/or the offeror accepts the purchase order by signing the solicitation, offer and award form/acceptance copy of same and returning to the County Purchasing department. Any unsuccessful offeror(s)

will have the amounts of his cashier's or certified check returned via county warrant promptly after award.

All offerors agree that any interest earned on any bid surety while in possession of the County, or its agents, shall be retained by the County.

3. **Bonds**

Performance and Payment Bonds – N/A

4. **Questions**

Questions may be directed Claudia Simmons, Manager. Phone: (850) 595-4987; Fax: (850) 595-4805, e-mail: casimmons@myescambia.com. Last day for questions 5:00 p.m. CDT, November 8, 2016

5. **Bid Forms**

This Solicitation contains a Solicitation, Offer and Award Form and Bid Form which shall be submitted in a sealed envelope, with Original signatures in indelible ink signed in the proper spaces. Responses on vendor forms will not be accepted.

The Offerors Checklist included in this solicitation provides instructions to the offeror on the documentation to be submitted during the procurement process.

6. **Pre-Solicitation Conference –N/A**

7. **Liquidated Damages**

Should the awarded vendor fail to complete the required services or make delivery of the commodities or equipment within the time(s) specified in the contract, or within such additional time(s) as may be granted by Escambia County, the County will suffer damage, the amount of which is difficult, if not impossible to ascertain therefore, the vendor shall pay to the County, as liquidated damages, the sum of **\$500** for each calendar day of delay that actual completion extends beyond the time limit specified until such reasonable time as may be required for final completion of the work. Such sum is mutually agreed upon as a reasonable and proper amount of damages the County will sustain per diem by failure of the vendor to complete the services or make delivery within the specified time. The costs for liquidated damages shall not be construed as a penalty on the vendor.

1. **F.O.B. Point**

The F.O.B. point shall be destination within Escambia County. The prices offered shall include all costs of packaging, transporting, delivery and unloading (**this includes inside delivery if requested**) to designated point within Escambia County. Material is to be delivered to the Escambia County Road Department on Highway 297A, Cantonment, Florida 32535.

2. **Delivery**

Delivery shall be no EARLIER than July 31, 2017 AND NO LATER THAN SEPTEMBER 30, 2017. Offers submitted which fail to meet this requirement shall be cause for rejection.

Failure of the awarded vendor to meet this delivery requirement shall be result in default and immediate termination of the purchase order or contract.

It is hereby understood and mutually agreed to by and between parties hereto that the time of delivery is an essential condition of this contract.

8. **Safety Regulations**

Equipment shall meet all state and federal safety regulations for grounding of electrical equipment.

9. **Codes and Regulations**

The awarded vendor shall strictly comply with all federal, state and local building and safety codes.

10. **Payment**

Payments in the full amount for the value of items received and accepted may be requested by the submission of a properly executed **original** invoice, with supporting documents if required. Payment for accepted equipment/supplies/services will be accomplished by submission of an **original** invoice, in duplicate, to:

Clerk of the Circuit Court
Attention: Accounts Payable
221 Palafox Place
Pensacola, FL 32502

11. **Warranty**

The awarded vendor shall fully warrant all equipment furnished hereunder against defect in materials and/or workmanship for a period of two (2) years from date of delivery/acceptance by Escambia County.

Should any defect in materials or workmanship, except ordinary wear and tear, appear during the above stated warranty period, the awarded vendor shall repair or replace same at no cost to the County, immediately upon written notice from the Purchasing Manager.

3. 12. **Information and Descriptive Literature**

Offerors shall furnish all information requested and in the space provided on the bid form, if any. Furthermore, each offeror offering an alternate other than the brand(s) specified shall submit with his offer, descriptive literature and/or complete specifications covering the products offered. Reference to literature submitted with a previous offer will not satisfy this provision. Offers which do not comply with these requirements shall be subject to rejection.

4. **Brand/Manufacturer Referenced**

Reference manufacturer indicated. Products similar in design and equal in function and

performance may also be considered. Alternate offers shall include detailed specifications and/or descriptive literature. Failure to include such specifications or literature may be cause for disqualification of the offer.

5. **Equivalents/Samples**

Please note the clause "manufacturers' name and approved equivalents" in general conditions on the cover sheet. In addition to the equivalency requirement, vendors offering equivalent items shall meet the general design and style given for the "as specified" item.

Vendors offering equivalent to the "as specified" item(s) shall submit a sample detailed specifications to the Office of Purchasing for evaluation purposes 10 days prior to the solicitation opening. Each particular specification which the equivalent item does meet shall be listed along with detailed specification sheet. **All samples shall be identified by vendor name and solicitation number.**

6. **Samples/ Demonstrations**

Samples of any product or demonstrations shall be furnished upon request for a quality test or comparison without cost to the County. **All samples shall be identified by vendor name and solicitation number.**

7. **Equipment/Service**

All equipment shall be new, of current manufacturer in production at the time of solicitation opening and carry standard warranties. The awarded vendor shall service all equipment prior to delivery.

Offers will be considered only on equipment which can, on short notice, be serviced and maintained by the successful offeror. At the time of solicitation opening, the offeror shall be an authorized dealer, distributor, and/or representative of the manufacturer for the brand/model being offered. For the purposes of this solicitation, dealer, distributor, and/or representative means a firm or person that owns, operates, or maintains a store, warehouse, or other establishment in which materials, supplies, parts, articles, or equipment of the general character described in the specifications are bought, kept in stock and sold commercially or to the public in the usual course of business. The offeror shall maintain a normal supply of repair parts and be equipped with personnel and facilities to provide such service as necessary to keep the equipment in operation with a minimum delay. Failure to meet these requirements, in the County's sole opinion, may be cause for rejection.

Offeror shall indicate the nearest available location for replacement parts, how long parts will be available on the market and the number of days to receive parts after receipt of order. The space for this information is included on the bid form.

8. **Manuals**

The following manuals, in the quantities indicated, shall be delivered with each piece of equipment:

Operation manual	2 copies
Parts manual	2 copies

The awarded vendor must, at all times, comply with State of Florida and Occupational Safety and Health Administration (OSHA) safety regulations.

14. **Permits**

The county and/or its contracted consultant(s) have conducted a review of required permits and fees required to be purchased by the contractor from the county permitting agencies for this specific project and they are listed on the bid/proposal form(s) to the best of our knowledge.

15. **Term of Offer**

An offer shall constitute an irrevocable offer for a period of ninety (90) days from the solicitation opening date or until the date of award, whichever is earlier, without forfeiting bid bond or check. In the event that an award is not made by the county within ninety (90) days from the solicitation opening date, the offeror may withdraw his offer or provide a written extension of his offer.

16. **Award**

Award shall be made on an "all-or-none total" basis.

The offeror or contractor will be required to fully comply with all applicable federal, state, and local regulations. The offeror should carefully review these requirements which are detailed in this solicitation.

17. **Termination**

The purchase order or contract will be subject to immediate termination if either product or service does not comply with specifications as stated herein or fails to meet the county's performance standards. In the event that any of the provisions of the contract are violated by awarded vendor, Escambia County may serve written notice upon the awarded vendor of its intention to terminate the contract. Such notice is to state the reason(s) for such intention to terminate contract. The liability of the vendor for any and all such violation(s) shall not be affected by any such termination and his surety, if any, shall be forfeited.

18. **Termination (Services)**

The Contract Administrator shall notify the Office of Purchasing of unsatisfactory performance and/or deficiencies in service that remain unresolved or recurring. The Office of Purchasing shall notify the contractor, in writing, of such unresolved or recurring deficiencies within five (5) working days of notification by the Contract Administrator.

Upon the third such written notification of unsatisfactory performance and/or deficiencies to the contractor by the Office of Purchasing within a four (4) month period; or the sixth such

notification within any contract term, shall result in issuance of written notice of immediate contract termination to the contractor by the Office of Purchasing. Such termination may also result in suspension or debarment of the contractor.

19. **Termination (Public Records Request)**

If the contractor refuses to allow public access to all documents, papers, letters, or other material subject to the provisions of Chapter 119, Florida Statutes, and made or received by the contractor in conjunction with this agreement then the county may, without prejudice to any right or remedy and after giving the contractor and his surety, if any, seven (7) days written notice, during which period contractor still fails to allow access, terminate the employment of the contractor and take possession of the site and of all materials, equipment, tools, construction equipment and machinery thereon, owned by the contractor, and may finish the project by whatever method it may deem expedient. In such case, the contractor shall not be entitled to receive any further payment until the project is finished. Reasonable terminal expenses incurred by the county may be deducted from any payments left owing the contractor (excluding monies owed the contractor for subcontract work.)

20. **As Specified**

All items delivered shall meet the specifications herein. Items delivered not as specified will be returned at no expense by Escambia County. The County may return, for full credit, any unused items received which fail to meet the County's performance standards.

Insurance Requirements

21. **Standard Insurance Requirements and Certificates**

This offer contains an extensive insurance requirement. Offerors are encouraged to review these requirements with their insurance agents before submitting offers.

It is not necessary to have this level of insurance in effect at the time of submitting the offer.

A letter from the offeror's insurance carrier will be required as evidence that the offeror will be able to obtain the levels of insurance as required by the contract and indicated on the Sample Certificate of Insurance should your firm be awarded the contract.

County Insurance Required

The contractor shall procure and maintain the following described insurance, except for coverages specifically waived by the County. Such policies shall be from insurers with a minimum financial size of VII according to the latest edition of the AM Best Rating Guide. An A or better Best Rating is "preferred"; however, other ratings if "Secure Best Ratings" may be considered. Such policies shall provide coverages for any or all claims which may arise out of, or result from, the services, work and operations carried out pursuant to and under the requirements of the contract documents, whether such services, work and operations be by the contractor, its employees, or by subcontractor(s), or anyone employed by or under the supervision of any of them, or for whose acts any of them may be legally liable.

The contractor shall require, and shall be responsible for assuring throughout the time the agreement is in effect, that any and all of its subcontractors obtain and maintain until the completion of that subcontractor's work, such of the insurance coverages described herein as are required by law to be provided on behalf of their employees and others.

The required insurance shall be obtained and written for not less than the limits of liability specified hereinafter, or as required by law, whichever is greater.

These insurance requirements shall not limit the liability of the contractor.

The County does not represent these types or amounts of insurance to be sufficient or adequate to protect the contractor's interests or liabilities, but are merely minimums.

Except for workers compensation and professional liability, the contractor's insurance policies shall be endorsed to name Escambia County as an additional insured to the extent of its interests arising from this agreement, contract or lease.

The contractor waives its right of recovery against the County, to the extent permitted by its insurance policies.

The contractor's deductibles/self-insured retentions shall be disclosed to the County and may be disapproved by the County. They shall be reduced or eliminated at the option of the County. The contractor is responsible for the amount of any deductible or self-insured retention.

Insurance required of the contractor or any other insurance of the contractor shall be considered primary, and insurance of the county, if any, shall be considered excess, as may be applicable to claims obligations which arise out of this agreement, contract or lease.

Workers Compensation Coverage

The contractor shall purchase and maintain workers compensation insurance for all workers compensation obligations imposed by state law and with employers liability limits of at least \$100,000 each accident and \$100,000 each employee/\$500,000 policy limit for disease, or a valid certificate of exemption issued by the state of Florida, or an affidavit in accordance with the provisions of Florida Workers Compensation law.

Contractor shall also purchase any other coverages required by law for the benefit of employees.

General, Automobile and Excess or Umbrella Liability Coverage

The contractor shall purchase and maintain coverage on forms no more restrictive than the latest editions of the commercial general liability and business auto policies of the insurance services office.

Minimum limits of \$1,000,000 per occurrence for all liability must be provided, with excess or umbrella insurance making up the difference, if any, between the policy limits of underlying policies (including employers liability required in the workers compensation coverage section) and the total amount of coverage required.

General Liability Coverage - Occurrence Form Required

Coverage A shall include bodily injury and property damage liability for premises, operations, products and completed operations, independent contractors, contractual liability covering this agreement, contract or lease, broad form property damage coverages, and property damage resulting from explosion, collapse or underground (x,c,u) exposures.

Coverage B shall include personal injury.

Coverage C, medical payments, is not required.

The contractor is required to continue to purchase products and completed operations coverage, at least to satisfy this agreement, contract or lease, for a minimum of three years beyond the County's acceptance of renovation or construction projects.

Business Auto Liability Coverage

Business auto liability coverage is to include bodily injury and property damage arising out of ownership, maintenance or use of any auto, including owned, nonowned and hired automobiles and employee nonownership use.

The General Liability and Business Auto Liability policies shall be endorsed to include Escambia County as an additional insured and provide for 30 day notification of cancellation.

Excess or Umbrella Liability Coverage (If utilized to achieve required policy limits)

Umbrella liability insurance is preferred, but an excess liability equivalent may be allowed. Whichever type of coverage is provided, it shall not be more restrictive than the underlying insurance policy coverages. Umbrella coverage shall drop down to provide coverage where the underlying limits are exhausted.

Evidence/Certificates of Insurance

Required insurance shall be documented in certificates of insurance. If and when required by the County, certificates of insurance shall be accompanied by documentation that is acceptable to the County establishing that the insurance agent and/or agency issuing the certificate of insurance has been duly authorized, in writing, to do so by and on behalf of each insurance company underwriting the insurance coverage(s) indicated on each certificate of insurance.

New certificates of insurance are to be provided to the County at least 30 days prior to coverage renewals. Failure of the contractor to provide the County with such renewal certificates may be considered justification for the County to terminate this agreement, contract or lease.

Certificates should contain the following additional information:

1. Indicate that Escambia County is an additional insured on the liability policy.
2. Include a reference to the project and the Office of Purchasing number.
3. Disclose any self-insured retentions in excess of \$1,000.
4. Designate Escambia County as the certificate holder as follows:

Escambia County
Attention: Paul R. Nobles CPPO, CPPB, FCN, FCCM, Senior Purchasing Coordinator
Office of Purchasing, Room 11.101
P.O. Box 1591
Pensacola, FL 32591-1591
Fax (850) 595-4805

5. Indicate that the County shall be notified at least 30 days in advance of cancellation.

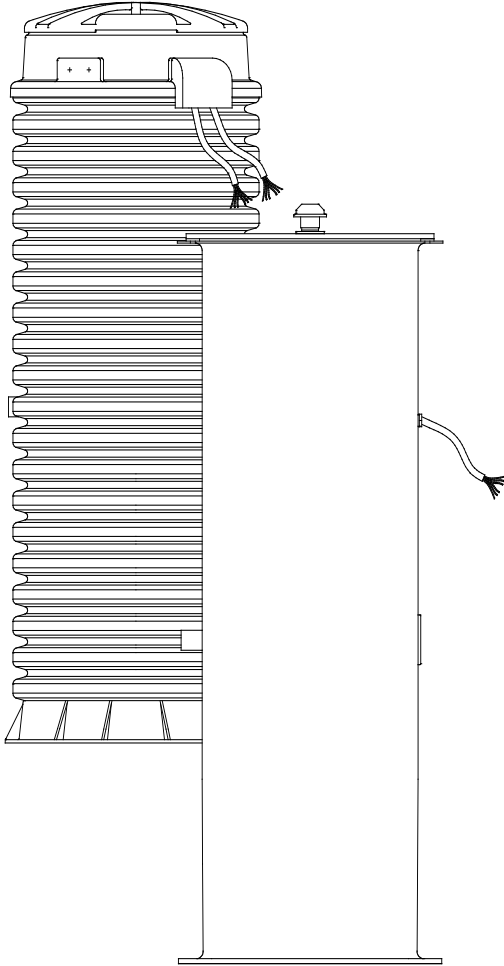
Receipt of certificates or other documentation of insurance or policies or copies of policies by the county, or by any of its representatives, which indicate less coverage than required does not constitute a waiver of the contractor's obligation to fulfill the insurance requirements herein.

If requested by the County, the contractor shall furnish complete copies of the contractor's insurance policies, forms and endorsements, and/or such additional information with respect to its insurance as may be requested.

For commercial general liability coverage the contractor shall, at the option of the County, provide an indication of the amount of claims payments or reserves chargeable to the aggregate amount of liability coverage.

23. **Indemnification**

Contractor agrees to save harmless, indemnify, and defend County and Architect/Engineer and their, agents, officers and employees from any and all claims, losses, penalties, interest, demands, judgments, and costs of suit, including attorneys' fees and paralegals' fees, for any expense, damage or liability incurred by any of them, whether for personal injury, death, property damage, direct or consequential damages, or economic loss, including environmental impairment, arising directly or indirectly on account of or in connection with the Work done by Contractor under this Agreement or by any person, firm or corporation to whom any portion of the Work is subcontracted by Contractor or resulting from the use by Contractor, or by any one for whom Contractor is legally liable, of any materials, tools, machinery or other property of County. County and Contractor agree the first \$100.00 of the Contract Amount paid by County to Contractor shall be given as separate consideration for this indemnification, and any other indemnification of County by Contractor provided for within the Contract Documents, the sufficiency of such separate consideration being acknowledged by Contractor by Contractor's acceptance and execution of the Agreement. The Contractor's obligation shall not be limited by, or in any way to, any insurance coverage or by any provision in or exclusion or omission from any policy of insurance. The Contractor agrees to pay on behalf of Escambia County, as well as provide a legal defense for the County, both of which will be done only if and when requested by the County, for all claims made. Such payment on the behalf of the County shall be in addition to any and all other legal remedies available to the County and shall not be considered to be the County's exclusive remedy



Wetwell Grinder
Pump Station
with
Wired Level Sensor

Typical Specifications

Semi-Positive
Displacement Type
Grinder Pump Stations

SECTION: GRINDER PUMP STATIONS

1.0 General

- 1.01 GENERAL DESCRIPTION:** The **MANUFACTURER** shall furnish complete factory-built and tested grinder pump unit(s), each consisting of a grinder pump core suitably mounted on an integral stand of stainless steel, tank, electrical quick disconnect (NEMA 6P), pump removal harness, discharge assembly/shut-off valve, anti-siphon valve/check valve assembly, electrical alarm assembly and all necessary internal wiring and controls. For ease of serviceability, all pump motor/grinder units shall be of like type and horsepower throughout the system.
- 1.02 SUBMITTALS:** After receipt of notice to proceed, the **MANUFACTURER** shall furnish a minimum of six sets of shop drawings detailing the equipment to be furnished including dimensional data and materials of construction. The **ENGINEER** shall promptly review this data, and return two copies as accepted, or with requested modifications. Upon receipt of accepted shop drawings, the **MANUFACTURER** shall proceed immediately with fabrication of the equipment.
- 1.03 MANUFACTURER:** Grinder pump stations, complete with all appurtenances, form an integral system, and as such, shall be supplied by one grinder pump station manufacturer. The **CONTRACTOR** shall be responsible for the satisfactory operation of the entire system. The equipment specified shall be a product of a company experienced in the design and manufacture of grinder pumps for specific use in low pressure sewage systems. The company shall submit detailed installation and user instructions for its product, submit evidence of an established service program including complete parts and service manuals, and be responsible for maintaining a continuing inventory of grinder pump replacement parts. The **MANUFACTURER** shall provide, upon request, a reference and contact list from ten of its largest contiguous grinder pump installations of the type of grinder pumps described within this specification.

Attention is directed to the fact that the drawings and overall system design are based on a particular piece of equipment from a particular manufacturer. These specifications are intended to provide guidelines for standard equipment of a recognized manufacturer who already meets all the requirements of this specification.

- 1.03a ALTERNATE EQUIPMENT:** In the event that the **CONTRACTOR** or another supplier proposes an Alternate to the specified **MANUFACTURER**, the **ENGINEER** recognizes that it will be difficult to conform to certain details of this Specification due to different manufacturing techniques or grinder pump station designs. If proposing an Alternate, the **CONTRACTOR** (supplier) must submit, no less than 15 business days in advance of the bid date, a complete description of any changes that will be necessary to the system design, a complete submittal package as outlined in Section 1.02 SUBMITTALS, a system hydraulic analysis based on the proposed pump (including pipe sizes, flows, velocities, retention times and number and location of recommended valves and cleanouts, if any), a list of exceptions to this specification, and demonstration of compliance to Section 1.04 EXPERIENCE CLAUSE of this specification. The **CONTRACTOR** (supplier) must also complete the Manufacturer Disclosure Statement found at the end of this specification. This information must be submitted to the **ENGINEER** for pre-approval of the alternate equipment being proposed and determination of compliance with these Contract Documents. If the equipment differs materially or differs from the dimensions given on the Drawings, the **CONTRACTOR** (supplier) shall submit complete drawings showing elevations, dimensions, or any necessary changes to the Contract Documents for the proposed equipment and its installation. Pre-approval, if granted, will be provided in writing by the **ENGINEER** to the **CONTRACTOR** (supplier) at least five business days in advance of the bid date. If the **ENGINEER'S** approval is obtained for Alternate Equipment, the **CONTRACTOR** (supplier) must make any needed changes in the structures, system design, piping or electrical systems necessary to accommodate the proposed equipment at the expense of the **CONTRACTOR** (supplier).
- 1.04 EXPERIENCE CLAUSE:** The equipment furnished hereunder shall be the product of a company experienced in the design and manufacture of grinder pumps specifically designed for use in low pressure systems. All manufacturers proposing equipment for this project shall have at least 10 years of

experience in the design and manufacture of units of identical size(s) and performance to the specified units. All manufacturers proposing equipment for this project must also have not less than 500 successful installations of low pressure sewer systems utilizing grinder pumps of like type to the grinder pumps specified herein. An installation is defined as a minimum of 25 pumps discharging into a common force main which forms a low pressure sewer system. The **CONTRACTOR** (supplier) proposing alternate equipment shall also submit, as part of the bid schedule, an installation list with contact person(s), phone number(s) and date(s) of at least 10 installations of the type of pump specified herein that have been in operation for at least 10 years.

In lieu of this experience clause, the **CONTRACTOR** (supplier) of alternate equipment will be required to submit a 5-year performance bond for 100 percent of the stipulated cost of the equipment as bid and as shown in the Bid Schedule. This performance bond will be used to guarantee the replacement of the equipment in the event that it fails within the bond period.

- 1.05 OPERATING CONDITIONS:** The pumps shall be capable of delivering 15 GPM against a rated total dynamic head of 0 feet (0 PSIG), 11 GPM against a rated total dynamic head of 92 feet (40 PSIG), and 7.8 GPM against a rated total dynamic head of 185 feet (80 PSIG). The pump(s) must also be capable of operating at negative total dynamic head without overloading the motor(s). Under no conditions shall in-line piping or valving be allowed to create a false apparent head.
- 1.06 WARRANTY:** The grinder pump **MANUFACTURER** shall provide a part(s) and labor warranty on the complete station and accessories, including, but not limited to, the panel for a period of 24 months after notice of **OWNER'S** acceptance, but no greater than 27 months after receipt of shipment. Any manufacturing defects found during the warranty period will be reported to the **MANUFACTURER** by the **OWNER** and will be corrected by the **MANUFACTURER** at no cost to the **OWNER**.
- 1.07 WARRANTY PERFORMANCE CERTIFICATION:** As a bid certification requirement, each bidder shall provide with their bid schedule a Warranty Performance Certification statement executed by the most senior executive officer of the grinder pump **MANUFACTURER**, which certifies a minimum of a 24-month warranty. They must further detail any exclusions from the warranty or additional cost items required to maintain the equipment in warrantable condition, including all associated labor and shipping fees, and certify that the **MANUFACTURER** will bear **all** costs to correct any original equipment deficiency for the effective period of the warranty. All preventive maintenance type requirements shall be included in this form as exclusions. These requirements include, but are not limited to, unjamming of grinder mechanism, periodic motor maintenance, and periodic cleaning of liquid level controls. Should the **CONTRACTOR** (supplier) elect to submit a performance bond in lieu of the experience clause outlined above, this Warranty Performance Certification shall also be used as a criterion to evaluate the **CONTRACTOR'S** (supplier's) performance over the warranty period. A Warranty Performance Certification form is included with the bid schedule and must be completed and submitted as part of the bid package. Bids with incomplete forms or missing forms will be considered nonresponsive.

2.0 PRODUCT

- 2.01 PUMP:** The pump shall be a custom designed, integral, vertical rotor, motor driven, solids handling pump of the **progressing cavity type** with a single mechanical seal. Double radial O-ring seals are required at all casting joints to minimize corrosion and create a protective barrier. All pump castings shall be cast iron, fully epoxy coated to 8-10 mil Nominal dry thickness, wet applied. The rotor shall be through-hardened, highly polished, precipitation hardened stainless steel. The stator shall be of a specifically compounded ethylene propylene synthetic elastomer. This material shall be suitable for domestic wastewater service. Its physical properties shall include high tear and abrasion resistance, grease resistance, water and detergent resistance, temperature stability, excellent aging properties, and outstanding wear resistance. Buna-N is not acceptable as a stator material because it does not exhibit the properties as outlined above and required for wastewater service.
- 2.02 GRINDER:** The grinder shall be placed immediately below the pumping elements and shall be direct-driven by a single, one-piece motor shaft. The grinder impeller (cutter wheel) assembly shall be securely fastened to the pump motor shaft by means of a threaded connection attaching the grinder impeller to the motor shaft. Attachment by means of pins or keys will not be acceptable. The grinder impeller shall be a one-piece, 4140 cutter wheel of the rotating type with inductively hardened cutter

teeth. The cutter teeth shall be inductively hardened to Rockwell 50 – 60c for abrasion resistance. The shredder ring shall be of the stationary type and the material shall be white cast iron. The teeth shall be ground into the material to achieve effective grinding. The shredder ring shall have a staggered tooth pattern with only one edge engaged at a time, maximizing the cutting torque. These materials have been chosen for their capacity to perform in the intended environment as they are materials with wear and corrosive resistant properties.

This assembly shall be dynamically balanced and operate without objectionable noise or vibration over the entire range of recommended operating pressures. The grinder shall be constructed so as to minimize clogging and jamming under all normal operating conditions including starting. Sufficient vortex action shall be created to scour the tank free of deposits or sludge banks which would impair the operation of the pump. These requirements shall be accomplished by the following, in conjunction with the pump:

1. The grinder shall be positioned in such a way that solids are fed in an upward flow direction.
2. The maximum flow rate through the cutting mechanism must not exceed 4 feet per second. This is a critical design element to minimize jamming and as such must be adhered to.
3. The inlet shroud shall have a diameter of no less than 5 inches. Inlet shrouds that are less than 5 inches in diameter will not be accepted due to their inability to maintain the specified 4 feet per second maximum inlet velocity which by design prevents unnecessary jamming of the cutter mechanism and minimizes blinding of the pump by large objects that block the inlet shroud.
4. The impeller mechanism must rotate at a nominal speed of no greater than 1800 rpm.

The grinder shall be capable of reducing all components in normal domestic sewage, including a reasonable amount of "foreign objects," such as paper, wood, plastic, glass, wipes, rubber and the like, to finely-divided particles which will pass freely through the passages of the pump and the 1-1/4" diameter stainless steel discharge piping.

2.03 ELECTRIC MOTOR: As a maximum, the motor shall be a 1 HP, 1725 RPM, 240 Volt 60 Hertz, 1 Phase, capacitor start, ball bearing, air-cooled induction type with Class F installation, low starting current not to exceed 30 amperes and high starting torque of 8.4 foot pounds. The motor shall be press-fit into the casting for better heat transfer and longer winding life. Inherent protection against running overloads or locked rotor conditions for the pump motor shall be provided by the use of an automatic-reset, integral thermal overload protector incorporated into the motor. This motor protector combination shall have been specifically investigated and listed by Underwriters Laboratories, Inc., for the application. Non-capacitor start motors or permanent split capacitor motors will not be accepted because of their reduced starting torque and consequent diminished grinding capability. The wet portion of the motor armature must be 300 Series stainless. To reduce the potential of environmental concerns, the expense of handling and disposing of oil, and the associated maintenance costs, oil-filled motors will not be accepted.

2.04 MECHANICAL SEAL: The pump/core shall be provided with a mechanical shaft seal to prevent leakage between the motor and pump. The seal shall have a stationary ceramic seat and carbon rotating surface with faces precision lapped and held in position by a stainless steel spring.

2.05 TANK: High Density Polyethylene Construction (HDPE). The tank shall be a wetwell design made of high density polyethylene of a grade selected for environmental stress cracking resistance. Corrugated sections are to be made of a double wall construction with the internal wall being generally smooth to promote scouring. Corrugations of the outside wall are to be of a minimum amplitude of 1-1/2" to provide necessary transverse stiffness. Any incidental sections of a single wall construction are to be a minimum .250 inch thick. All seams created during tank construction are to be thermally welded and factory tested for leak tightness. Tank wall and bottom must withstand the pressure exerted by saturated soil loading at maximum burial depth. All station components must function normally when exposed to maximum external soil and hydrostatic pressure.

The tank shall be furnished with a factory installed PVC inlet flange to accept a 4.50" OD (4" DWV or SCH 40) inlet pipe.

The tank shall include a lockable cover assembly providing low profile mounting and watertight capability. The cover shall be high density polyethylene, green in color, with a load rating of 150 lbs per square foot. The cover assembly shall also include an integral 2-inch vent to prevent sewage gases from accumulating in the tank. The accessway design and construction shall facilitate field adjustment of station height in increments of 3" or less without the use of any adhesives or sealants requiring cure time before installation can be completed.

The power and control cable shall connect to the pump by means of the provided NEMA 6P Electrical Quick Disconnect (EQD) and shall enter the tank through a factory installed watertight strain relief connector. An electrical junction box shall not be permitted in the tank.

Tank heights shall be as shown on the contract drawings.

The station shall have all necessary penetrations factory sealed and tested. No field penetrations shall be acceptable.

Fiberglass Construction. The tank shall be a wetwell design consisting of a single wall, laminated fiberglass construction. The resin used shall be of a commercial grade suitable for the environment. The reinforcing material shall be a commercial grade of glass fiber capable of bonding with the selected resin. The inner surface shall have a smooth finish and be free of cracks and crazing. The exterior tank surface shall be relatively smooth with no exposed fiber or sharp projections present.

The tank wall and bottom shall be of sufficient thickness and construction to withstand the imposed loading due to saturated soil at the specified burial depth for each available tank height. All station components must function normally when exposed to the external soil and hydrostatic pressures developed at the specified burial depth. The tank bottom shall be reinforced with a fiberglass plate extending beyond the tank walls to support concrete anchoring, as required, to prevent flotation.

The Fiberglass tank shall have a stainless steel discharge bulkhead which terminates outside the tank wall with a 1-1/4" female pipe thread. The discharge bulkhead shall be factory installed and warranted by the manufacturer to be watertight. The tank shall be furnished with a field installed EPDM grommet to accept a 4.50" OD (4" DWV or SCH 40) inlet pipe.

The power and control cable shall connect to the pump by means of the provided NEMA 6P Electrical Quick Disconnect (EQD) and shall enter the tank through a field installed watertight strain relief connector supplied by the manufacturer. An electrical junction box shall not be permitted in the tank. Installation of the inlet grommet and cable strain relief shall require field penetration of the tank wall by the installing party. The tank shall also be vented to prevent sewage gases from accumulating inside the tank by means of a factory-provided, field-installed mushroom vent. The station cover shall be factory drilled to accept the mushroom vent. The tank and stainless steel discharge bulkhead shall be factory-tested to be watertight.

Consult the contract drawings for station tank sizes (diameter and height).

2.06 DISCHARGE HOSE AND DISCONNECT/VALVE: All discharge fittings and piping shall be constructed of polypropylene, EPDM or PVC. The discharge hose assembly shall include a shut-off valve rated for 200 psi WOG and a quick disconnect feature to simplify installation and pump removal. The bulkhead penetration shall be factory installed and warranted by the manufacturer to be watertight.

2.07 ELECTRICAL QUICK DISCONNECT: The grinder pump core shall include a factory-installed NEMA 6P electrical quick disconnect (EQD) for all power and control functions. The EQD will be supplied with 32', 25' of useable, electrical supply cable (ESC) to connect to the alarm panel. The EQD shall require no tools for assembly, seal against water before the electrical connection is made, and include radial seals to assure a watertight seal regardless of tightening torque. Plug-type connections of the power cable onto the pump housing will not be acceptable due to the potential for leaks and electrical shorts.

Junction boxes are not acceptable due to the large number of potential leak points. The EQD shall be so designed to be conducive to field wiring as required.

- 2.08 CHECK VALVE:** The pump discharge shall be equipped with a factory installed, gravity operated, flapper-type integral check valve built into the discharge piping. The check valve will provide a full-ported passageway when open, and shall introduce a friction loss of less than 6 inches of water at maximum rated flow. Moving parts will be made of a 300 Series stainless steel and fabric reinforced synthetic elastomer to ensure corrosion resistance, dimensional stability, and fatigue strength. A nonmetallic hinge shall be an integral part of the flapper assembly providing a maximum degree of freedom to assure seating even at a very low back-pressure. The valve body shall be an injection molded part made of an engineered thermoplastic resin. The valve shall be rated for continuous operating pressure of 235 psi. Ball-type check valves are unacceptable due to their limited sealing capacity in slurry applications.
- 2.09 ANTI-SIPHON VALVE:** The pump discharge shall be equipped with a factory-installed, gravity-operated, flapper-type integral anti-siphon valve built into the discharge piping. Moving parts will be made of 300 Series stainless steel and fabric-reinforced synthetic elastomer to ensure corrosion resistance, dimensional stability, and fatigue strength. A nonmetallic hinge shall be an integral part of the flapper assembly, providing a maximum degree of freedom to ensure proper operation even at a very low pressure. The valve body shall be injection-molded from an engineered thermoplastic resin. Holes or ports in the discharge piping are not acceptable anti-siphon devices due to their tendency to clog from the solids in the slurry being pumped. The anti-siphon port diameter shall be no less than 60% of the inside diameter of the pump discharge piping.
- 2.10 CORE UNIT:** The grinder pump station shall have an easily removable core assembly containing pump, motor, grinder, all motor controls, check valve, anti-siphon valve, electrical quick disconnect and wiring. The watertight integrity of the core unit shall be established by a 100% factory test at a minimum of 5 PSIG.
- 2.11 CONTROLS:** All necessary motor starting controls shall be located in the cast iron enclosure of the core unit secured by stainless steel fasteners. Locating motor starting controls in a plastic enclosure is not acceptable. Wastewater level sensing controls shall be housed in a separate enclosure from motor starting controls. Level sensor housing must be sealed via a radial type seal; solvents or glues are not acceptable. Level sensing control housing must be integrally attached to pump assembly so that it may be removed from the station with the pump and in such a way as to minimize the potential for the accumulation of grease and debris accumulation, etc. Level sensing housing must be a high-impact thermoplastic copolymer over-molded with a thermo plastic elastomer. The use of PVC for the level sensing housing is not acceptable.

Non-fouling wastewater level controls for controlling pump operation shall be accomplished by monitoring the pressure changes in an integral air column connected to a pressure switch. The air column shall be integrally molded from a thermoplastic elastomer suitable for use in wastewater and with excellent impact resistance. The air column shall have only a single connection between the water level being monitored and the pressure switch. Any connections are to be radial sealed with redundant O-rings. The level detection device shall have no moving parts in direct contact with the wastewater and shall be integral to the pump core assembly in a single, readily-exchanged unit. Depressing the push to run button must operate the pump even with the level sensor housing removed from the pump.

All fasteners throughout the assembly shall be 300 Series stainless steel. High-level sensing will be accomplished in the manner detailed above by a separate air column sensor and pressure switch of the same type. Closure of the high-level sensing device will energize an alarm circuit as well as a redundant pump-on circuit. For increased reliability, pump ON/OFF and high-level alarm functions shall not be controlled by the same switch. Float switches of any kind, including float trees, will not be accepted due to the periodic need to maintain (rinsing, cleaning) such devices and their tendency to malfunction because of incorrect wiring, tangling, grease buildup, and mechanical cord fatigue. To assure reliable operation of the pressure switches, each core shall be equipped with a factory installed equalizer diaphragm that compensates for any atmospheric pressure or temperature changes. Tube or piping runs outside of the station tank or into tank-mounted junction boxes providing pressure switch equalization will not be permitted due to their susceptibility to condensation, kinking, pinching, and

insect infestation. The grinder pump will be furnished with a 6 conductor 14 gauge, type SJOW cable, pre-wired and watertight to meet UL requirements with a **FACTORY INSTALLED** NEMA 6P EQD half attached to it.

- 2.12 STAINLESS STEEL CURB STOP/CHECK VALVE ASSEMBLY (UNI-LATERAL):** The curb stop shall be pressure-tight in both directions. The ball valve actuator shall include position stop features at the fully opened and closed positions. The curb stop/check valve assembly shall be designed to withstand a working pressure of 235 psi.

The stainless steel check valve shall be integral with the curb stop valve. The check valve will provide a full-ported 1-1/4" passageway and shall introduce minimal friction loss at maximum rated flow. The flapper hinge design shall provide a maximum degree of freedom and ensure seating at low back pressure.

Engineered Thermoplastic Fittings – All plastic fitting components are to be in compliance with applicable ASTM standards.

All pipe connections shall be made using compression fitting connections including a Buna-N O-ring for sealing to the outside diameter of the pipe. A split-collet locking device shall be integrated into all pipe connection fittings to securely restrain the pipe from hydraulic pressure and external loading caused by shifting and settling.

Curb Boxes – Curb boxes shall be constructed of ABS, conforming to ASTM-D 1788. Lid top casting shall be cast iron, conforming to ASTM A-48 Class 25, providing magnetic detectability, and be painted black. All components shall be inherently corrosion-resistant to ensure durability in the ground. Curb boxes shall provide height adjustment downward (shorter) from their nominal height.

High Density Polyethylene Pipe (Supplied by others) – Pipe shall have a working pressure of 160 psi minimum and shall be classified SDR per ASTM D 3035.

Pipe Dimensions – The SDR (Standard Dimension Ratio) of the pipe supplied shall be as specified by the **SPECIFYING ENGINEER**. SDR 7, 9 and 11 fittings are available from the **MANUFACTURER**.

Factory Test – The stainless steel, combination curb stop/check valve component shall be 100 percent hydrostatically tested to 150 psi in the factory.

Construction Practices – Pipe shall be stored on clean, level ground to prevent undue scratching or gouging of the pipe. If the pipe must be stacked for storage, such stacking should be in accordance with the pipe manufacturer's recommendations. The pipe should be handled in such a manner that it is not damaged by being dragged over sharp objects or cut by chokers or lifting equipment.

Segments of pipe having cuts or gouges in excess of 10 percent of the wall thickness of the pipe shall be cut out and removed. The undamaged portions of the pipe shall be rejoined using the butt fusion joining method. Sections of polyethylene pipe should be joined into continuous lengths on the job site above ground. The joining method shall be the butt-fusion method and shall be performed in strict accordance with the pipe manufacturer's recommendations. The butt-fusion equipment used in the joining procedure shall be capable of meeting all conditions recommended by the pipe manufacturer, including, but not limited to, fusion temperature, alignment, and fusion pressure.

Fused segments of pipe shall be handled so as to avoid damage to the pipe. When lifting fused sections of pipe, chains or cable-type chokers should be avoided. Nylon slings are preferred. Spreader bars should be used when lifting long, fused sections. Care should be exercised to avoid cutting or gouging the pipe.

Installation – Assemble the compression fittings according to the fitting manufacturer's recommendations.

The trench and trench bottom should be constructed in accordance with ASTM D 2321. Embedment materials should be Class I, Class II or Class III materials as defined in ASTM D 2321. The use of Class

IV and/or Class V materials for embedment is not recommended and should be allowed only with the approval of the **SPECIFYING ENGINEER**. Bedding of the pipe should be performed in accordance with ASTM D 2321. Compaction should be as specified in ASTM D 2321. Deviations from the specified compaction shall be approved by the **SPECIFYING ENGINEER**.

Haunching and initial backfill should be as specified in ASTM D 2321 using Class I, Class II or Class III materials. Materials used and compaction shall be as specified by the **SPECIFYING ENGINEER**. In cases where a compaction of 85 percent Standard Proctor Density is not attainable, the **SPECIFYING ENGINEER** may wish to increase the SDR of the pipe to provide adequate stiffness. ASTM D 2321 sections titled "Minimum Cover for Load Application," "Use of Compaction Equipment" and "Removal of Trench Protection" should apply unless directed otherwise by the **SPECIFYING ENGINEER**.

- 2.13 ALARM PANEL:** Each grinder pump station shall include a NEMA 4X, UL-listed alarm panel suitable for wall or pole mounting. The NEMA 4X enclosure shall be manufactured of thermoplastic polyester to ensure corrosion resistance. The enclosure shall include a hinged, lockable cover with padlock, preventing access to electrical components, and creating a secured safety front to allow access only to authorized personnel. The enclosure shall not exceed 10.5" W x 14" H x 7" D, or 12.5" W x 16" H x 7.5" D if certain options are included.

The alarm panel shall contain one 15-amp, double-pole circuit breaker for the pump core's power circuit and one 15-amp single-pole circuit breaker for the alarm circuit. The panel shall contain a push-to-run feature, an internal run indicator, and a complete alarm circuit. All circuit boards in the alarm panel are to be protected with a conformal coating on both sides and the AC power circuit shall include an auto resetting fuse.

The alarm panel shall include the following features: external audible and visual alarm; push-to-run switch; push-to-silence switch; redundant pump start; and high level alarm capability. The alarm sequence is to be as follows when the pump and alarm breakers are on:

1. When liquid level in the sewage wet-well rises above the alarm level, the contacts on the alarm pressure switch activate, audible and visual alarms are activated, and the redundant pump starting system is energized.
2. The audible alarm may be silenced by means of the externally mounted, push-to-silence button.
3. Visual alarm remains illuminated until the sewage level in the wet-well drops below the "off" setting of the alarm pressure switch.

The visual alarm lamp shall be inside a red, oblong lens at least 3.75" L x 2.38" W x 1.5" H. Visual alarm shall be mounted to the top of the enclosure in such a manner as to maintain NEMA 4X rating. The audible alarm shall be externally mounted on the bottom of the enclosure, capable of 93 dB @ 2 feet. The audible alarm shall be capable of being deactivated by depressing a push-type switch that is encapsulated in a weatherproof silicone boot and mounted on the bottom of the enclosure (push-to-silence button).

The entire alarm panel, as manufactured and including any of the following options shall be listed by Underwriters Laboratories, Inc.

(OPTIONAL) Alarm Contacts Package

- **Alarm Activated Dry Contacts** – Normally open relay contact closes upon alarm activation.
- **Alarm Activated Remote (Powered) Contacts** – Normally open contacts that close on alarm, providing 120V on high level alarm.

(OPTIONAL) Generator Receptacle and Auto Transfer – The alarm panel shall include a 20 amp, 250 VAC generator receptacle with a spring-loaded, gasketed cover suitably mounted to provide access for connection of an external generator while maintaining a NEMA 4X rating. An automatic transfer switch shall be provided, which automatically switches from AC power to generator power.

Power shall be provided to that alarm panel through the generator receptacle whenever power is present at the receptacle, allowing the audible and visual alarms to function normally in generator mode. When power is no longer applied to the generator receptacle, the panel is automatically switched back to the AC Mains power. (No manual switching within the panel enclosure is necessary to switch from generator power back to AC Mains, so the mode cannot be inadvertently left in the generator position after pumping down the station in generator mode as is the case with a manual transfer switch).

(OPTIONAL) Service Equipment/Main Service Disconnect Breaker – A separate, internal breaker rated and approved for use as “service equipment” and acts as a main service disconnect of the grinder pump station shall be provided.

(OPTIONAL) Remote Sentry Indoor Alarm Module – A separate, remote indoor alarm module shall be provided to indicate a high level alarm with or without AC power to the grinder pump station. The Remote Sentry indoor alarm module shall have an internal power source enabling its continued operation without AC power. The Remote Sentry shall have an audible alarm and a visual alarm, both of which shall automatically reset if the high level alarm condition is eliminated. The Remote Sentry indoor alarm module shall include a Silence button for the audible alarm and a Test button.

(OPTIONAL) Run-time/Hour Meter – A run-time or hour meter to display the total run-time or operation time for the pump core shall be provided.

(OPTIONAL) Event/Cycle Counter – An event or cycle counter to display the number of operations of the pump core shall be provided.

(OPTIONAL) SENTRY SIMPLEX PROTECT

Provides protection from the following operating conditions:

- **Low Voltage (Brownout) Protection** – A lockout cycle will prevent the motor from operating and will illuminate an LED if:
 - the incoming AC Mains voltage drops below a predetermined minimum, typically 12% of nameplate (211 volts for a 240 volt system) for 2 to 3 seconds, regardless of whether the motor is running
 - the lockout cycle will end if the incoming AC Mains voltage returns to a predetermined value, typically 10% of nameplate (216 volts for a 240 volt system)

The system continues to retest the voltage every second indefinitely. If the lockout cycle has been initiated and the voltage comes back above the predetermined starting voltage, the system will function normally. The LED remains illuminated during a Brownout condition and remains latched until the pump breaker is turned off and then on again (reset). The audible and visual alarm will not be activated unless there is a high wastewater level in the tank.

- **Run Dry Protection** – A 20-minute lockout cycle will prevent the motor from operating and will illuminate an LED when the wastewater level in the tank is below the pump inlet level. The condition is rechecked every 20 minutes. If the lockout cycle has been initiated and the condition is satisfied, the pump is not allowed to cycle normally but the LED remains latched. The LED will remain latched until the pump breaker is turned off and then on again (reset). If the condition is not satisfied after 3 consecutive attempts, the visual alarm will be activated until the pump breaker is turned off and on (reset) or until there is one cycle of normal operation. If a high level condition is presented at any time, a pump run cycle will be activated.
- **High System Pressure Protection** – A 20-minute lockout cycle will prevent the motor from operating and will illuminate an LED when the pressure in the discharge line is atypically high (closed valve or abnormal line plug). The condition is rechecked every 20 minutes. If the condition is satisfied, the pump is allowed to cycle normally but the LED remains latched. If the condition is not satisfied after 3 consecutive attempts, the pump is locked out indefinitely until the condition is removed and power is reset. The LED will remain latched until the pump breaker is turned off and then on again (reset). The audible and visual alarm will be activated.

In all of the above cases, if more than one error condition is presented, the LED depicting the most

recent error condition will be displayed.

Other included features:

- Alarm Activated Dry Contacts – Normally open relay contact closes upon alarm activation.
- Includes Inner Door Dead Front
- Separate LED's for each condition

(OPTIONAL) SENTRY SIMPLEX PROTECT PLUS:

- All Sentry Protect features (as detailed above)
- High/Low Voltage monitoring with Trouble indication
- High/Low Wattage (wattage is used instead of current because it is a better indicator of pump performance) monitoring with Trouble indication
- Extended Run Time monitoring with Trouble indication
- Cycle/Event Counter
- Run Time Counter (Hour Meter)
- Run Time Limit (time adjustable, user selected options: 10 minutes (default) to 120 minutes in 1-minute intervals)
- Power-up Delay (time adjustable, user selected options: None (default), to 300 minutes in 1-minute intervals)
- Alarm Delay (time adjustable, user selected options: None (default) or adjustable in 1-minute intervals)
- System self-test diagnostic
- User selectable Alarm latch
- User Selectable Protect Mode disable
- User selectable buzzer timer

Specific Protect PLUS indicators and programming features shall include:

- Ready LED to indicate AC power to the station is satisfactory
- Pump Run LED to indicate pump is operating
- Trouble LED indicator and predictive Visual Alarm notification ("blinking" alarm lamp; clears on Normal cycle)
- High Level Alarm LED indicator
- Manual Run switch to manually activate pump
- Menu-driven programmable controller with navigation overlay-type buttons (Enter, Scroll, Up, Down)
- Normal Operation LED and Mode button for Mode status
- Pump Performance menu LED with LCD Display of the following pump performance statistics:
 - Real-time Voltage
 - Real-time Amperage
 - Real-time Wattage
 - Minimum/Maximum/Average Voltage
 - Minimum/Maximum/Average Amperage
 - Minimum/Maximum/Average Wattage
 - Minimum/Maximum Run-time
 - Average Run-time
 - Last Run-time
 - Cycle/Event Counter
 - Run Time Counter (Hour Meter)
- Diagnostics Menu LED
- Initialize System Menu LED
- Run Limit Menu LED
- Alarm Delay Menu LED
- Power Delay Menu LED

DUPLEX STATIONS

MOD T260 DUPLEX:

Each grinder pump station shall include a NEMA 4X, UL-listed alarm panel suitable for wall or pole mounting. The NEMA 4X enclosure shall be manufactured of thermoplastic to ensure corrosion resistance. The enclosure shall include a hinged, lockable cover with padlock, preventing access to electrical components, and creating a secured safety front to allow access only to authorized personnel. The standard enclosure shall not exceed 12.5" W x 16" H x 7.5" D.

The panel shall contain one 15-amp single pole circuit breaker for the alarm circuit and one 15-amp double pole circuit breaker per core for the power circuit. The panel shall contain a push-to-run feature, an internal run indicator, and a complete alarm circuit. All circuit boards in the alarm panel are to be protected with a conformal coating on both sides and the AC power circuit shall include an auto resetting fuse.

The visual alarm lamp shall be inside a red, oblong lens at least 3.75" L x 2.38" W x 1.5" H. Visual alarm shall be mounted to the top of the enclosure in such a manner as to maintain NEMA 4X rating. The audible alarm shall be externally mounted on the bottom of the enclosure, capable of 93 dB @ 2 feet. The audible alarm shall be capable of being deactivated by depressing a push-type switch that is encapsulated in a weatherproof silicone boot and mounted on the bottom of the enclosure (push-to-silence button).

The high-level alarm system shall operate as follows:

1. The panel will go into alarm mode if either pump's alarm switch closes. During the initial alarm mode both pumps will run and the alarm light and buzzer will be delayed for a period of time based on user settings (default is 3-1/2 minutes). If the station is still in high-level alarm after the delay, the light and buzzer will be activated.
2. The audible alarm may be silenced by means of the externally mounted push-to-silence button.
3. The visual alarm remains illuminated until the sewage level in the wet well drops below the "off" setting of the alarm switch for both pumps.

The entire alarm panel, as manufactured and including any of the following options shall be listed by Underwriters Laboratories, Inc.

(OPTIONAL) Generator Receptacle and Auto Transfer – The alarm panel shall include a 20 amp, 250 VAC generator receptacle with a spring-loaded, gasketed cover suitably mounted to provide access for connection of an external generator while maintaining a NEMA 4X rating. An automatic transfer switch shall be provided, which automatically switches from AC power to generator power. Power shall be provided to the alarm panel through the generator receptacle whenever power is present at the receptacle, allowing the audible and visual alarms to function normally in generator mode. When power is no longer applied to the generator receptacle, the panel is automatically switched back to the AC Mains power. (No manual switching within the panel enclosure is necessary to switch from generator power back to AC Mains, so the mode cannot be inadvertently left in the generator position after pumping down the station in generator mode as is the case with a manual transfer switch).

(OPTIONAL) Service Equipment/Main Service Disconnect Breaker – A separate, internal breaker rated and approved for use as "service equipment" and acts as a main service disconnect of the grinder pump station shall be provided.

(OPTIONAL) Remote Sentry Indoor Alarm Module – A separate, remote indoor alarm module shall be provided to indicate a high level alarm with or without AC power to the grinder pump station. The Remote Sentry indoor alarm module shall have an internal power source enabling its continued operation without AC power. The Remote Sentry shall have an audible alarm and a visual alarm, both of which shall automatically reset if the high level alarm condition is eliminated. The Remote Sentry indoor alarm module shall include a Silence button for the audible alarm and a Test button.

(OPTIONAL) Run-time/Hour Meter – A run-time or hour meter to display the total run-time or operation time for the pump core shall be provided.

(OPTIONAL) Event/Cycle Counter – An event or cycle counter to display the number of operations of

the pump core shall be provided.

(OPTIONAL) External Autodialer –

- Four separate voice message alarm zones
- Calls up to 8 telephones, cell phones or pagers
- Built-in line seizure
- Remote Turn Off feature allows termination of activated channel
- EEPROM Memory retains program despite power loss
- Listen-in verification and communication
- Universal dial tone
- Built-in auxiliary output to drive external siren, strobe or relay
- Five optional settings for notifications of a power loss occurrence — instantaneous, 15 minutes, 2 hours, 12 hours or 24 hours.
- One channel for power-loss sensing, three hardwired channels for additional input
- Dialer senses loss of power and based on setting; will notify parties of loss condition only when specified time has elapsed
- If power restores before set time has elapsed, no call will be made
- Package includes battery backup and transformer

DUPLEX PROTECT PLUS:

Each grinder pump station shall include a NEMA 4X, UL-listed alarm panel suitable for wall or pole mounting. The NEMA 4X enclosure shall be manufactured of thermoplastic to ensure corrosion resistance. The enclosure shall include a hinged, lockable cover with padlock, preventing access to electrical components, and creating a secured safety front to allow access only to authorized personnel. The standard enclosure shall not exceed 12.5" W x 16" H x 7.5" D.

The panel shall contain one 15-amp single pole circuit breaker for the alarm circuit and one 15-amp double pole circuit breaker per core for the power circuit. The panel shall contain a push-to-run feature, an internal run indicator, and a complete alarm circuit. All circuit boards in the alarm panel are to be protected with a conformal coating on both sides and the AC power circuit shall include an auto resetting fuse.

The visual alarm lamp shall be inside a red, oblong lens at least 3.75" L x 2.38" W x 1.5" H. Visual alarm shall be mounted to the top of the enclosure in such a manner as to maintain NEMA 4X rating. The audible alarm shall be externally mounted on the bottom of the enclosure, capable of 93 dB @ 2 feet. The audible alarm shall be capable of being deactivated by depressing a push-type switch that is encapsulated in a weatherproof silicone boot and mounted on the bottom of the enclosure (push-to-silence button).

The high-level alarm system shall operate as follows:

1. The panel will go into alarm mode if either pump's alarm switch closes. During the initial alarm mode both pumps will run and the alarm light and buzzer will be delayed for a period of time based on user settings (default is 3-1/2 minutes). If the station is still in high-level alarm after the delay, the light and buzzer will be activated.
2. The audible alarm may be silenced by means of the externally mounted push-to-silence button.
3. The visual alarm remains illuminated until the sewage level in the wet well drops below the "off" setting of the alarm switch for both pumps.

The entire alarm panel, as manufactured and including any of the following options shall be listed by Underwriters Laboratories, Inc.

Contains the following features:

- **Alarm Activated Dry Contacts** – Normally open relay contact closes upon alarm activation.

- **Includes Inner Door Dead Front**
- **Separate LED's for each condition**

Provides protection from the following operating conditions:

- **Low Voltage (Brownout) Protection** – A lockout cycle will prevent the motor from operating and will illuminate the Trouble LED if:
 - the incoming AC Mains voltage drops below a predetermined minimum, typically 12% of nameplate (211 volts for a 240 volt system) for 2 to 3 seconds, regardless of whether the motor is running
 - the lockout cycle will end if the incoming AC Mains voltage returns to a predetermined value, typically 10% of nameplate (216 volts for a 240 volt system).

The system continues to retest the voltage every second indefinitely. If the lockout cycle has been initiated and the voltage comes back above the predetermined starting voltage, the system will function normally. The Trouble LED remains illuminated during a Brownout condition and a corresponding Brownout message will be displayed on the LCD screen. The LED will turn off when the Brownout condition ends and the LCD message remains latched until the panel is reset. The audible and visual alarm will not be activated unless there is a high wastewater level in the tank.
- **Run Dry Protection** – A 20-minute lockout cycle will prevent the motor from operating and will illuminate the Trouble LED when the wastewater level in the tank is below the pump inlet shroud. A corresponding Run Dry message will be displayed on the LCD screen. The condition is rechecked every 20 minutes and the LCD message remains latched. If the condition is satisfied, the pump is allowed to cycle normally and the Trouble LED will go out, but the LCD message remains latched. The LCD message will remain latched until the panel is reset. If the condition is not satisfied after 3 consecutive attempts, the visual alarm will be activated until the panel is reset or until there is one cycle of normal operation. If a high level condition is presented at any time, a pump run cycle will be activated.
- **High System Pressure Protection** – A 20-minute lockout cycle will prevent the motor from operating and will illuminate the Trouble LED when the pressure in the discharge line is atypically high (closed valve or abnormal line plug). A corresponding Overpressure message will be displayed on the LCD screen. The condition is rechecked every 20 minutes. If the condition is satisfied, the pump is allowed to cycle normally and the Trouble LED will turn off, but the LCD message remains latched. The LCD message will remain latched until the panel is reset. If the condition is not satisfied after 3 consecutive attempts, the pump is locked out indefinitely and the audible and visual alarm will be activated. The LCD message and alarms will remain latched until the condition is removed and the panel is reset.

In all of the above cases, if more than one error condition is presented, the LCD message depicting the most recent error condition will be displayed.

PROTECT PLUS FEATURES:

- High/Low Voltage monitoring with Trouble indication
- High/Low Wattage (wattage is used instead of current because it is a better indicator of pump performance) monitoring with Trouble indication
- Extended Run Time monitoring with Trouble indication
- Cycle/Event Counter
- Run Time Counter (Hour Meter)
- Run Time Limit — time adjustable, user-selected options: 10 minutes (default) to 120 minutes in 1-minute intervals
- Power-up Delay — time adjustable, user-selected options: None (default), to 300 minutes in 1-minute intervals
- Alarm Delay — time adjustable, user-selected options: zero to 10 minutes in 30-second increments; 4 minutes is default

- System self-test diagnostic
- User-selectable Alarm latch
- User-selectable Protect Mode disable
- User-selectable buzzer timer

Specific Duplex Protect PLUS indicators and programming features shall include:

- Ready LED to indicate AC power to the station is satisfactory
- Pump Run LED to indicate pump is operating (LCD indicates which pump is running)
- Trouble LED indicator and predictive Visual Alarm notification ("blinking" alarm lamp; clears on Normal cycle)
- High Level Alarm LED indicator (LCD indicates which pump is in alarm)
- Manual Run switch to manually activate pumps
- Lead/Lag indication (LCD indicates which pump is lead)
- Menu-driven programmable controller with navigation overlay-type buttons (Enter, Scroll, Up, Down)
- Normal Operation LED and Mode button for Mode status
- Pump Performance menu LED with LCD display of the following pump performance statistics:
 - Real-time Voltage
 - Real-time Amperage
 - Real-time Wattage
 - Minimum/Maximum/Average Voltage
 - Minimum/Maximum/Average Amperage
 - Minimum/Maximum/Average Wattage
 - Minimum/Maximum Run-time
 - Average Run-time
 - Last Run-time
 - Cycle/Event Counter
 - Run Time Counter (Hour Meter)
- Diagnostics Menu LED
- Initialize System Menu LED
- Run Limit Menu LED
- Alarm Delay Menu LED
- Power Delay Menu LED
- Pump alternating options (no alternation, adjustable time based and test)
- Pump alternating time options — 24 hours to 72 hours in 12-hour increments

(OPTIONAL) Generator Receptacle and Auto Transfer – The alarm panel shall include a 20 amp, 250 VAC generator receptacle with a spring-loaded, gasketed cover suitably mounted to provide access for connection of an external generator while maintaining a NEMA 4X rating. An automatic transfer switch shall be provided, which automatically switches from AC power to generator power. Power shall be provided to the alarm panel through the generator receptacle whenever power is present at the receptacle, allowing the audible and visual alarms to function normally in generator mode. When power is no longer applied to the generator receptacle, the panel is automatically switched back to the AC Mains power. (No manual switching within the panel enclosure is necessary to switch from generator power back to AC Mains, so the mode cannot be inadvertently left in the generator position after pumping down the station in generator mode as is the case with a manual transfer switch).

(OPTIONAL) Service Equipment/Main Service Disconnect Breaker – A separate, internal breaker that is rated and approved for use as "service equipment" and acts as a main service disconnect of the grinder pump station shall be provided.

(OPTIONAL) Remote Sentry Indoor Alarm Module – A separate, remote indoor alarm module shall be provided to indicate a high level alarm with or without AC power to the grinder pump station. The Remote Sentry indoor alarm module shall have an internal power source enabling its continued operation without AC power. The Remote Sentry shall have an audible alarm and a visual alarm, both of which shall automatically reset if the high level alarm condition is eliminated. The Remote Sentry indoor alarm module shall include a Silence button for the audible alarm and a Test button.

(OPTIONAL) External Autodialer –

- Four separate voice message alarm zones
- Calls up to 8 telephones, cell phones or pagers
- Built-in line seizure
- Remote Turn Off feature allows termination of activated channel
- EEPROM Memory retains program despite power loss
- Listen-in verification and communication
- Universal dial tone
- Built-in auxiliary output to drive external siren, strobe or relay
- Five optional settings for notifications of a power loss occurrence — instantaneous, 15 minutes, 2 hours, 12 hours or 24 hours
- One channel for power-loss sensing, three hardwired channels for additional input
- Dialer senses loss of power and based on setting; will notify parties of loss condition only when specified time has elapsed
- If power restores before set time has elapsed, no call will be made
- Package includes battery backup and transformer

2.14 SERVICEABILITY: The grinder pump core, including level sensor assembly, shall have two lifting hooks complete with lift-out harness connected to its top housing to facilitate easy core removal when necessary. The level sensor assembly must be easily removed from the pump assembly for service or replacement. All mechanical and electrical connections must provide easy disconnect capability for core unit removal and installation. Each EQD half must include a water-tight cover to protect the internal electrical pins while the EQD is unplugged. A pump push-to-run feature will be provided for field trouble shooting. The push-to-run feature must operate the pump even if the level sensor assembly has been removed from the pump assembly. All motor control components shall be mounted on a readily replaceable bracket for ease of field service.

2.15 OSHA CONFINED SPACE: All maintenance tasks for the grinder pump station must be possible without entry into the grinder pump station (as per OSHA 1910.146 Permit-required confined spaces). *“Entry means the action by which a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant’s body breaks the plane of an opening into the space.”*

2.16 SAFETY: The grinder pump shall be free from electrical and fire hazards as required in a residential environment. As evidence of compliance with this requirement, the completely assembled and wired grinder pump station shall be listed by Underwriters Laboratories, Inc., to be safe and appropriate for the intended use. UL listing of components of the station, or third-party testing to UL standard are not acceptable.

The grinder pump shall meet accepted standards for plumbing equipment for use in or near residences, shall be free from noise, odor, or health hazards, and shall have been tested by an independent laboratory to certify its capability to perform as specified in either individual or low pressure sewer system applications. As evidence of compliance with this requirement, the grinder pump shall bear the seal of NSF International. Third-party testing to NSF standard is not acceptable.

3.0 EXECUTION

3.01 FACTORY TEST: Each grinder pump shall be submerged and operated for 1.5 minutes (minimum). Included in this procedure will be the testing of all ancillary components such as, the anti-siphon valve, check valve, discharge assembly and each unit’s dedicated level controls and motor controls. All factory tests shall incorporate each of the above listed items. Actual appurtenances and controls which will be installed in the field shall be particular to the tested pump only. A common set of appurtenances and controls for all pumps is not acceptable. Certified test results shall be available upon request showing the operation of each grinder pump at two different points on its curve. Additional validation tests include: integral level control performance, continuity to ground and acoustic tests of the rotating components.

The **ENGINEER** reserves the right to inspect such testing procedures with representatives of the **OWNER**, at the **GRINDER PUMP MANUFACTURER'S** facility.

All HDPE basins shall be factory leak tested to assure the integrity of all joints, seams and penetrations. All necessary penetrations such as inlets, discharge fittings and cable connectors shall be included in this test along with their respective sealing means (grommets, gaskets etc.). Fiberglass basins with stainless steel discharge bulkhead shall be factory tested to be watertight.

- 3.02 CERTIFIED SERVICE PROGRAM:** The grinder pump **MANUFACTURER** shall provide a program implemented by the **MANUFACTURER'S** personnel as described in this specification to certify the service company as an authorized serviced center. As evidence of this, the **MANUFACTURER** shall provide, when requested, sufficient evidence that they have maintained their own service department for a minimum of 30 years and currently employ a minimum of five employees specifically in the service department.

As part of this program, the **MANUFACTURER** shall evaluate the service technicians as well as the service organization annually. The service company will be authorized by the **MANUFACTURER** to make independent warranty judgments. The areas covered by the program shall include, as a minimum:

1. Pump Population Information — The service company will maintain a detailed database for the grinder pumps in the territory that tracks serial numbers by address.
2. Inventory Management — The service company must maintain an appropriate level of inventory (pumps, tanks, panels, service parts, etc.) including regular inventory review and proper inventory labeling. Service technicians will also maintain appropriate parts inventory and spare core(s) on service vehicles.
3. Service Personnel Certification — Service technicians will maintain their level-specific certification annually. The certifications are given in field troubleshooting, repair, and training.
4. Service Documentation and Records — Start up sheets, service call records, and customer feedback will be recorded by the service company.
5. Shop Organization — The service company will keep its service shop organized and pumps will be tagged with site information at all times. The shop will have all required equipment, a test tank, and cleaning tools necessary to service pumps properly.

- 3.03 DELIVERY:** All grinder pump core units, including level controls, will be delivered to the job site 100 percent completely assembled, including testing, ready for installation. Grinder pump cores will be shipped separately from the tanks. Installing the cores and discharge piping/hose into the tanks is the only assembly step required and allowed due to the workmanship issues associated with other on-site assembly. Grinder pump cores must be boxed for ease of handling.

- 3.04 INSTALLATION:** Earth excavation and backfill are specified under **SITE WORK**, but are also to be done as a part of the work under this section, including any necessary sheeting and bracing.

The **CONTRACTOR** shall be responsible for handling ground water to provide a firm, dry subgrade for the structure, and shall guard against flotation or other damage resulting from general water or flooding.

The grinder pump stations shall not be set into the excavation until the installation procedures and excavation have been approved by the **ENGINEER**.

Remove packing material. User instructions **MUST** be given to the **OWNER**. Hardware supplied with the unit, if required, will be used at installation. The basin will be supplied with a standard 4" inlet

grommet (4.50" OD) for connecting the incoming sewer line. Appropriate inlet piping must be used. The basin may not be dropped, rolled or laid on its side for any reason.

Installation shall be accomplished so that 1 inch to 4 inches of accessway, below the bottom of the lid, extends above the finished grade line. The finished grade shall slope away from the unit. The diameter of the excavated hole must be large enough to allow for the concrete anchor.

A 6" inch (minimum) layer of naturally rounded aggregate, clean and free flowing, with particle size of not less than 1/8" or more than 3/4" shall be used as bedding material under each unit.

A concrete anti-flotation collar, as detailed on the drawings, and sized according to the manufacturer's instructions, shall be required and shall be pre-cast to the grinder pump or poured in place. Each grinder pump station with its pre-cast anti-flotation collar shall have a minimum of three lifting eyes for loading and unloading purposes.

If the concrete is poured in place, the unit shall be leveled, and filled with water, to the bottom of the inlet, to help prevent the unit from shifting while the concrete is being poured. The concrete must be manually vibrated to ensure there are no voids. If it is necessary to pour the concrete to a level higher than the inlet piping, an 8" sleeve is required over the inlet prior to the concrete being poured.

The **CONTRACTOR** will provide and install a 4-foot piece of 4-inch SCH 40 PVC pipe with water tight cap, to stub-out the inlet for the property owners' installation contractor, as depicted on the contract drawings.

A lateral assembly or redundant check valve is required to be installed in the pipe lateral outside the home between the pump discharge and the street main on all installations.

The electrical enclosure shall be furnished, installed and wired to the grinder pump station by the **CONTRACTOR**. An alarm device is required on every installation, there shall be **NO EXCEPTIONS**. It will be the responsibility of the **CONTRACTOR** and the **ENGINEER** to coordinate with the individual property owner(s) to determine the optimum location for the alarm panel.

The **CONTRACTOR** shall mount the alarm device in a conspicuous location, as per national and local codes. The alarm panel will be connected to the grinder pump station by a length of 6-conductor type TC cable as shown on the contract drawings. The power and alarm circuits must be on separate power circuits. The grinder pump stations will be provided with 32 feet, 25 feet of useable, electrical supply cable to connect the station to the alarm panel. This cable shall be supplied with a **FACTORY INSTALLED** EQD half to connect to the mating EQD half on the core.

3.05 BACKFILL REQUIREMENTS: Proper backfill is essential to the long-term reliability of any underground structure. Several methods of backfill are available to produce favorable results with different native soil conditions. The most highly recommended method of backfilling is to surround the unit to grade using Class I or Class II backfill material as defined in ASTM 2321. Class 1A and Class 1B are recommended where frost heave is a concern; Class 1B is a better choice when the native soil is sand or if a high, fluctuating water table is expected. Class 1, angular crushed stone, offers an added benefit in that it doesn't need to be compacted.

Class II, naturally rounded stone, may require more compactive effort, or tamping, to achieve the proper density. If the native soil condition consists of clean compactible soil, with less than 12% fines, free of ice, rocks, roots and organic material, it may be an acceptable backfill. Soil must be compacted in lifts not to exceed one foot to reach a final Proctor Density of between 85% and 90%. Heavy, non-compactible clays and silts are not suitable backfill for this or any underground structure such as inlet or discharge lines.

If you are unsure of the consistency of the native soil, it is recommended that a geotechnical evaluation of the material is obtained before specifying backfill.

Another option is the use of a flowable fill (i.e., low slump concrete). This is particularly attractive when installing grinder pump stations in augured holes where tight clearances make it difficult to assure

proper backfilling and compaction with dry materials. Flowable fills should not be dropped more than four feet from the discharge to the bottom of the hole to avoid separation of the constituent materials.

Backfill of clean, native earth, free of rocks, roots, and foreign objects, shall be thoroughly compacted in lifts not exceeding 12" to a final Proctor Density of not less than 85%. Improper backfilling may result in damaged accessways. The grinder pump station shall be installed at a minimum depth from grade to the top of the 1 1/4" discharge line, to assure maximum frost protection. The finish grade line shall be 1" to 4" below the bottom of the lid, and final grade shall slope away from the grinder pump station.

All restoration will be the responsibility of the **CONTRACTOR**. Per unit costs for this item shall be included in the **CONTRACTOR'S** bid price for the individual grinder pump station. The properties shall be restored to their original condition in all respects, including, but not limited to, curb and sidewalk replacement, landscaping, loaming and seeding, and restoration of the traveled ways, as directed by the **ENGINEER**.

3.06 START-UP AND FIELD TESTING: The **MANUFACTURER** shall provide the services of qualified factory trained technician(s) who shall inspect the placement and wiring of each station, perform field tests as specified herein, and instruct the **OWNER'S** personnel in the operation and maintenance of the equipment before the stations are accepted by the **OWNER**.

All equipment and materials necessary to perform testing shall be the responsibility of the **INSTALLING CONTRACTOR**. This includes, as a minimum, a portable generator and power cable (if temporary power is required), water in each basin (filled to a depth sufficient to verify the high level alarm is operating), and opening of all valves in the system. These steps shall be completed prior to the qualified factory trained technician(s) arrival on site.

The services of a trained, factory-authorized technician shall be provided at a rate of 40 hours for every 100 grinder pump stations supplied.

Upon completion of the installation, the authorized factory technician(s) will perform the following test on each station:

1. Make certain the discharge shut-off valve in the station is fully open.
2. Turn ON the alarm power circuit and verify the alarm is functioning properly.
3. Turn ON the pump power circuit. Initiate the pump operation to verify automatic "on/off" controls are operative. The pump should immediately turn ON.
4. Consult the Manufacturer's Service Manual for detailed start-up procedures.

Upon completion of the start-up and testing, the **MANUFACTURER** shall submit to the **ENGINEER** the start-up authorization form describing the results of the tests performed for each grinder pump station. Final acceptance of the system will not occur until authorization forms have been received for each pump station installed and any installation deficiencies corrected.

4.0 OPERATION AND MAINTENANCE

- 4.01 SPARE CORE:** The **MANUFACTURER** will supply one spare grinder pump core for every 50 grinder pump stations installed or portion thereof, complete with all operational controls, level sensors, check valve, anti-siphon valve, pump/motor unit, and grinder.
- 4.02 MANUALS:** The **MANUFACTURER** shall supply four copies of Operation and Maintenance Manuals to the **OWNER**, and one copy of the same to the **ENGINEER**.

END OF SECTION

WARRANTY PERFORMANCE CERTIFICATION

As a pre-bid certification requirement, each bidder shall provide a Warranty Performance Certification executed by the most senior executive officer, which certifies a minimum of a two (2) year warranty. They must further detail any exclusions from the warranty or additional cost items required to maintain the equipment in warrantable condition, including all associated labor and shipping fees, and certify that the manufacturer will bear **all** costs to correct original equipment deficiency for the effective period of the warranty.

I, _____, by and through my duly authorized signature below as its most senior operating executive, certify that _____ will provide a two (2) year warranty on grinder pump equipment manufactured and supplied by _____ for the _____ project. I further certify that, other than failure to install equipment in accordance with manufacturer's instructions, no exclusions and/or cost items to maintain said equipment in warrantable condition, including labor, travel and shipping fees, exist except as detailed immediately below:

EXCLUSIONS: 1. _____
2. _____
3. _____

COST ITEMS TO MAINTAIN EQUIPMENT IN WARRANTABLE CONDITION:	Required Frequency (mos)	Avg. monthly cost (\$) times warranty period
1. _____	_____	\$ _____
2. _____	_____	\$ _____
3. _____	_____	\$ _____
4. _____	_____	\$ _____
5. _____	_____	\$ _____

Total labor/material cost to maintain equipment in warrantable condition for warranty period (\$):

For any items not identified as exclusions or additional cost items above, OR for additional labor & material costs required to maintain equipment in warrantable condition that exceed the Avg. monthly cost (\$) detailed above, _____ will bear all costs to correct such original equipment deficiency for the effective period of the warranty including all applicable labor, travel and shipping fees.

Signature

Date

Title

MANUFACTURER'S DISCLOSURE STATEMENT

Note: To be completed if proposing an alternate

1.0 GENERAL:

1.01 General Description

Describe all non-conforming aspects to the specification:

1.04 Experience

List 10 low pressure sewer system installations *of the type of pump/station specified (progressive cavity type)* that have been in operation for a period of no less than ten years with a minimum of 100 pumps pumping into a "common" low pressure sewer system. Provide Name and Location, Contact Name, Phone Number, Number of Pumps, and Install Date for each.

1.05 Operating Conditions

Describe all non-conforming aspects to the specification:

1.06 Warranty

Fully state the manufacturer's warranty:

2.0 PRODUCT:

2.01 Pump

Describe all non-conforming aspects to the specification:

2.02 Grinder

Describe all non-conforming aspects to the specification:

2.03 Motor

Describe all non-conforming aspects to the specification:

2.05 Tank

Describe all non-conforming aspects to the specification:

2.07 Electrical Quick Disconnect

Describe all non-conforming aspects to the specification:

2.08 Check Valve

Describe all non-conforming aspects to the specification:

2.09 Anti-Siphon Valve

Describe all non-conforming aspects to the specification:

2.11 Controls

Describe all non-conforming aspects to the specification:

2.16 Safety

Describe all non-conforming aspects to the specification:

3.0 EXECUTION:**3.01 Factory Test**

Describe all non-conforming aspects to the specification:

I attest that all questions are answered truthfully and all non-conforming aspects to the specifications have been described where requested.

Manufacturer: _____

By: _____ Date: _____
Name of Corporate Officer Signature

Title of Corporate Officer

Witness: _____ Date: _____
Name Signature

EXHIBIT K
PD 16-17.007 INNERARITY ISLAND SEWER MATERIAL PURCHASE
FEDERALLY FUNDED PROJECT

PD 16-17.007

**INNERARITY ISLAND SEWER MATERIAL PURCHASE
REQUIREMENTS FOR PROJECTS FUNDED BY FEDERAL AID**

**CERTIFICATION FOR DISCLOSURE OF LOBBYING ACTIVITIES
ON FEDERAL-AID CONTRACTS
(Compliance with 49CFR, Section 20.100 (b))**

The prospective participant certifies, by signing this certification, that to the best of his or her knowledge and belief:

(1) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities", in accordance with its instructions. (Standard Form-LLL can be obtained from the Florida Department of Transportation's Professional Services Administrator or Procurement Office.)

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

Name of Consultant:

By: _____ Date: _____ Authorized Signature

Title: _____

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352

Approved by OMB

0348-0046

(See reverse for public burden disclosure.)

1. Type of Federal Action: <input type="checkbox"/> a. contract <input type="checkbox"/> b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance		2. Status of Federal Action: <input type="checkbox"/> a. bid/offer/application b. initial award c. post-award		3. Report Type: <input type="checkbox"/> a. initial filing b. material change For Material Change Only: year _____ quarter _____ date of last report _____	
4. Name and Address of Reporting Entity: <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known: Congressional District, if known: 4c			5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime: Congressional District, if known:		
6. Federal Department/Agency:			7. Federal Program Name/Description: CFDA Number, if applicable: _____		
8. Federal Action Number, if known:			9. Award Amount, if known: \$		
10. a. Name and Address of Lobbying Registrant (if individual, last name, first name, MI):			b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI):		
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.			Signature: _____ Print Name: _____ Title: _____ Telephone No.: _____ Date: _____		
Federal Use Only:				Authorized for Local Reproduction Standard Form LLL (Rev. 7-97)	

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, State and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in item 4 to influence the covered Federal action.

(b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).
11. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503.

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY
AND VOLUNTARY EXCLUSION FOR FEDERAL AID CONTRACTS**
(Compliance with 49CFR, Section 29.510)
(Appendix B Certification]

It is certified that neither the below identified firm nor its principals are presently suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency.

Name of Consultant:

By: _____ Date: _____
Authorized Signature

Title: _____

Instructions for Certification

1. By signing and submitting this certification with the proposal, the prospective lower tier participant is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the Department may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted. If at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms 'covered transaction', 'debarred', 'suspended', 'ineligible', 'lower tier covered transaction', 'participant', 'person', 'primary covered transaction', 'principal', 'proposal', and 'voluntarily excluded', as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the person to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the Department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Appendix B: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction", without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant are not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the Department may pursue available remedies, including suspension and/or debarment.

(a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions, as defined in 49 CFR §29.110(a), by any Federal department or agency;

(b) has within a three-year period preceding this certification been convicted of or had a civil judgment rendered against him or her for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, State or local government transaction or public contract; violation of Federal or State antitrust statutes; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;

(c) is presently indicted for or otherwise criminally or civilly charged by a Federal, State or local governmental entity with commission of any of the offenses enumerated in paragraph 9(b) of this certification; and

(d) has within a three-year period preceding this certification had one or more Federal, State or local government public transactions terminated for cause or default.

10. I(We), certify that I(We), shall not knowingly enter into any transaction with any subcontractor, material supplier, or vendor who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this contract by any Federal Agency unless authorized by the Department.

Where I am unable to declare or certify as to any of the statements contained in the above stated paragraphs numbered (1) through (10), I have provided an explanation in the "Exceptions" portion below or by attached separate sheet.

EXCEPTIONS:

(Any exception listed above will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted, indicate to whom it applies, initiating agency and dates of agency action. Providing false information may result in criminal prosecution and/or administrative sanctions.)

I declare under penalty of perjury that the foregoing is true and correct.

CONTRACTOR: (Seal)

BY: _____
NAME AND TITLE PRINTED

WITNESS: _____

BY: _____
SIGNATURE

WITNESS: _____

Executed on this _____ day of _____, _____

**FAILURE TO FULLY COMPLETE AND EXECUTE THIS DOCUMENT
MAY RESULT IN THE BID BEING DECLARED NONRESPONSIVE**