

FLORIDA SALES: 85-8013708974C-0  
FEDERAL SALES/USE: 59-6000856

Board of County Commissioners  
**PURCHASE ORDER**

**ORDER NUMBER: 52964**

ALL PACKING SLIPS INVOICES AND CORRESPONDENCE  
MUST REFER TO THIS ORDER NUMBER

**S  
H  
I  
P** ENVIRONMENTAL  
SERVICES/UTILITIES  
500 W. LAKE MARY BLVD  
SANFORD FL 32773



ORDER DATE	04/18/2023
REQUISITION	68600 - OR
REQUESTOR	Rivera, Yari
VENDOR #	401265
ANALYST	GREEN, MARIA

**V  
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N  
D  
O  
R** DANUS UTILITIES INC  
2320 BEARDALL AVE  
SANFORD FL 32771

**EMERGENCY  
PURCHASE ORDER**

**SUBMIT ALL INVOICES TO:**  
AP@seminoleclerk.org  
Seminole County Clerk & Comptroller  
POST OFFICE BOX 8080  
SANFORD, FL 32772  
Accts. Payable Inquiries - Phone (407) 665  
7656

**MAILED**

**ORDER  
INQUIRIES**

Yari Rivera 407 665-2150

**APR 21 2023**

ITEM #	QTY	UNIT	ITEM DESCRIPTION	UNIT PRICE	EXTENDED PRICE
1.00		EA	MISCELLANEOUS REPAIRS-CIP-EPO PUMP STATION NE018 Please reference proposal dated 3/29/2023. MAG 02308029.530460	0.00	115,000.00

**THIS ORDER IS SUBJECT TO THE TERMS & CONDITIONS  
ON THE REVERSE SIDE OF THIS ORDER.**

**TOTAL AMOUNT**

**115,000.00**

**PURCHASING AND CONTRACT DIVISION**  
1301 EAST SECOND STREET  
SANFORD FLORIDA 32771  
PHONE (407) 665-7116 / FAX (407) 665-7956

AUTHORIZED SIGNATURE FOR THE SEMINOLE COUNTY BOARD OF COUNTY COMMISSIONERS

FLORIDA SALES: 85-8013708974C-0  
FEDERAL SALES/USE: 59-6000856

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R** DANUS UTILITIES INC  
3725 DELPHINI PARK LANE  
SANFORD FL 32771

**EMAILED**

**APR 18 2023**

**SUBMIT ALL INVOICES TO:**  
**AP@seminoleclerk.org**  
**Seminole County Clerk & Comptroller**  
**POST OFFICE BOX 8080**  
**SANFORD, FL 32772**  
Accts. Payable Inquiries - Phone (407) 665  
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**TOTAL AMOUNT 115,000.00**

**PURCHASING AND CONTRACT DIVISION**  
1301 EAST SECOND STREET  
SANFORD FLORIDA 32771  
PHONE (407) 665-7116 / FAX (407) 665-7956

AUTHORIZED SIGNATURE FOR THE SEMINOLE COUNTY BOARD OF COUNTY COMMISSIONERS

## Terms and Conditions

**1. Acceptance/Entire Agreement.** This Purchase Order ("PO") is entered into between Seminole County, Florida ("County") and the Supplier referenced herein (individually, referred to as "Party," and collectively, "Parties"). By accepting this PO, Supplier accepts all Terms and Conditions contained herein. This PO, including specifications and drawings, if any, and referenced documents, such as solicitations and responses constitutes the entire agreement between the Parties. Whenever terms and conditions of Main Agreement, if any, conflict with any PO issued pursuant to Main Agreement, Main Agreement will control.

**2. Inspection.** Notwithstanding any prior payment or inspection, all goods/services are subject to inspection/rejection by County at any time, including during manufacture, construction or preparation. To the extent a PO requires a series of performances by Supplier, County reserves right to cancel remainder of PO if goods/services provided during the term of PO are non-conforming or otherwise rejected. Without limiting any rights County may have, County, at its sole option, may require Supplier, at Supplier's expense to: (a) promptly repair or replace any or all rejected goods, or to cure or re-perform any or all rejected services; or (b) refund price of any or all rejected goods or services. All rejected goods will be held for Supplier's prompt inspection at Supplier's risk. Nothing contained in PO will relieve Supplier's obligation of testing, inspection and quality control.

**3. Packing & Shipping.** Unless otherwise specified, all goods must be packed, packaged, marked and prepared for shipment in a manner that is: (a) in accordance with good commercial practice; (b) acceptable to common carriers for shipment at the lowest rate for the particular good; (c) in accordance with local, state, and federal regulations; and (d) protected against weather. Supplier must mark all containers with necessary lifting, handling, shipping information, PO number, date of shipment and the name of the consignee and consignor. An itemized packing sheet must accompany each shipment.

**4. Delivery; Risk of Loss.** All goods are FOB destination, and risk of loss will remain with Supplier until delivery by Supplier and acceptance by County. Goods delivered by Supplier that are damaged, defective, or otherwise fail to conform to PO may be rejected by County or held by County at Supplier's risk and expense. County may charge Supplier for cost(s) to inspect, unpack, repack, store and re-ship rejected goods.

**5. Delivery of Excess Quantities.** If Supplier delivers excess quantities of goods without prior written authorization from County, excess quantities of goods may be returned to Supplier at Supplier's expense.

**6. Time is of the Essence.** Time is of the essence for delivery of goods /services under PO. Failure to meet delivery schedules or deliver within a reasonable time, as determined by County, entitles County to seek all remedies available at law or in equity. County reserves right to cancel any PO and procure goods/services elsewhere if delivery is not timely. Supplier agrees to reimburse County for all costs incurred in enforcing its rights. Failure of County to cancel PO, acceptance, or payment will not be deemed a waiver of County's right to cancel remainder of PO. Delivery date or time in PO may be extended if Supplier provides a written request in advance of originally scheduled delivery date and time and County agrees to delayed delivery in writing prior to originally scheduled delivery date and time.

**7. Warranties.** Supplier warrants to County that all goods/services covered by PO conform strictly to specifications, drawings or samples specified or furnished by County, and are free from: (a) defects in title; and (b) latent or patent defects in material or workmanship. If no quality is specified by County, Supplier warrants to County that goods/services are of the best grade of their respective kinds, meet or exceed applicable standards for industry represented, are merchantable (as to goods) and are fit for County's particular purpose. Supplier warrants that at the time County accepts the goods/services, the goods/services will have been produced, sold, delivered and furnished in strict compliance with all applicable federal and state laws, regulations, ordinances, rules, labor agreements and working conditions to which goods/services are subject. Supplier warrants the title to goods furnished under PO is valid, transfer of such title to County is rightful and goods are free of any claims or liens of any nature whatsoever, whether rightful or otherwise, of any person, corporation, partnership or association. All applicable manufacturers' warranties must be furnished to County at time of delivery of goods or completion of service. All warranties are cumulative and are in addition to any other express or implied warranties provided by law.

**8. Indemnification.** To the fullest extent permitted by law, Supplier assumes and all liability for damages, breach of PO, loss or injury of any kind or nature whatsoever to persons or property caused by, resulting from or related to the goods/services provided under PO. To the fullest extent permitted by law, Supplier shall indemnify and hold harmless County, its commissioners, officers, employees and agents from and against any and all claims, damages, demands, lawsuits, losses, costs and expenses, including attorneys' fees, patent, copyright or trademark infringement, judgments, decrees of whatsoever nature which County may incur as a result of claims, demands, lawsuits or causes of action of any kind or nature arising from, caused by or related to goods/services furnished by Supplier, its officers, employees, agents, partners, principals or subcontractors. Remedies afforded to County by this section are cumulative with and in no way affect any other legal remedy County may have under PO or at law. Supplier's

obligations under PO must not be limited by any insurance coverage or by any provision in or exclusion or omission from any policy of insurance.

**9. Insurance.** Supplier, at its sole expense, shall maintain insurance coverage acceptable to County. All policies must name County as an additional insured. All Insurance Certificates must be provided to the Purchasing and Contracts Division within ten (10) days of request. Supplier shall notify County, in writing, of any cancellation, material change, or alteration to Supplier's Certificate of Insurance.

**10. Modifications.** PO may be modified or rescinded in writing by County.

**11. Material Safety Data Sheets.** At time of delivery, Supplier agrees to provide County with a current Material Safety Data Sheet for any hazardous chemicals or toxic substances, as required by law.

**12. Pricing.** Supplier agrees that pricing included on PO shall remain firm through and until delivery of goods and/or completion of services, unless otherwise agreed to by the Parties in writing.

**13. Invoicing & Payment.** After delivery of goods/services by Supplier and acceptance by the County, the Supplier must electronically submit an original invoice via email to [AP@seminoleclerk.org](mailto:AP@seminoleclerk.org) or may mail the invoice, if electronic invoice is not available, to: Seminole County Clerk of the Circuit Court and Comptroller, P.O. Box 8080, Sanford, Florida 32772. Invoices must be billed at pricing stipulated on PO and must include the County's Purchase Order Number. Thereafter, all payments and interest on any late payments will be paid in compliance with Florida Prompt Payment Act, §218.70, Florida Statutes.

**14. Taxes.** County is exempt from Florida sales tax, federal taxes on transportation charges and any federal excise tax. County will not reimburse Supplier for taxes paid.

**15. Termination.** County may terminate PO, in whole or in part, at any time, either for County's convenience or because of Supplier's failure to fulfill its obligations under PO, by written notice to Supplier. Upon receipt of written notice, Supplier must discontinue all deliveries affected unless written notice directs otherwise. In the event of termination, County will be liable only for materials procured, work completed or services rendered or supplies partially fabricated, within the authorization of PO. In no event will County be liable for incidental or consequential damages by reason of such termination.

**16. Equal Opportunity Employer.** County is an Equal Employment Opportunity ("EEO") employer, and as such, requires all Suppliers to comply with EEO regulations with regards to race, color, religion, sex, national origin, age, disability or genetic information, as may be applicable to Supplier. Any subcontracts entered into, as authorized by County, must make reference to this clause with the same degree of application being encouraged.

**17. Assignment.** Supplier may not assign, transfer, or subcontract PO or any right or obligation under it without County's written consent. Any purported assignment, transfer, or subcontract will be null and void.

**18. Venue & Applicable Law.** The laws of the State of Florida govern validity, enforcement, and interpretation of PO. The sole jurisdiction and venue for any legal action in connection with PO will be in the courts of Seminole County, Florida.

**19. Fiscal Non-Funding.** In the event sufficient budgeted funds are not available for payment to Supplier for a new fiscal period, County shall notify Supplier of such occurrence and PO will terminate on the last day of the current fiscal period without penalty or expense to County.

**20. Public Records.** Supplier acknowledges that PO and any related financial records, audits, reports, plans, correspondence and other documents may be subject to disclosure to members of the public pursuant to Chapter 119, Florida Statutes. Supplier shall maintain all public records and, upon request, provide a copy of requested records or allow records to be inspected within a reasonable time. Supplier shall also ensure that any public records that are exempt or confidential from disclosure are not disclosed except as authorized by law. In event Supplier fails to abide by provisions of Chapter 119, Florida Statutes, County may, without prejudice to any other right or remedy and after giving Supplier seven (7) days written notice, during which period Supplier still fails to allow access to such documents, terminate PO. **IF SUPPLIER HAS QUESTIONS REGARDING APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO SUPPLIER'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO PO, CONTACT CUSTODIAN OF PUBLIC RECORDS AT: 407-665-7116, [PURCH@SEMINOLECOUNTYFL.GOV](mailto:PURCH@SEMINOLECOUNTYFL.GOV), PURCHASING AND CONTRACTS DIVISION, 1301 E. SECOND STREET, SANFORD, FL 32771.**

**21. Right to Audit Records.** County will be entitled to audit the books and records of Supplier to the extent that the books and records relate to this PO. Supplier must maintain books and records relating to this PO for a period of three (3) years from the date of final payment under the PO, unless the County authorizes otherwise in writing.

**22. Severability.** If any section, sentence, clause, phrase or portion of PO are, for any reason, held invalid or unconstitutional by any court of competent jurisdiction, such portion will be deemed separate, distinct, and independent and such holding will not affect validity of remaining portion of PO.

**23. Headings & Captions.** All headings and captions contained in PO are provided for convenience only, do not constitute a part of PO, and may not be used to define, describe, interpret or construe any provision of PO.

Rev. 10/2021

Purchase Requisition  
PURCHASING AND CONTRACTS DIVISION  
SEMINOLE COUNTY GOVERNMENT  
1301 EAST SECOND STREET  
SANFORD, FL 32771-1468  
OFFICE (407) 665-7116  
FAX (407) 665-7956

4/18/2023

Page - 1  
Order Number 68600 000 OR

Shipped From DANUS UTILITIES INC  
3725 DELPHINI PARK LANE  
SANFORD FL 32771

Branch Plant 087802

VendorNo 401265

Ship To *211358*

Delivery:

*529164*

Line	Rev	Description	Ordered	UOM	Unit Price	Extended Price	Order No
1.000	0	MISCELLANEOUS REPAIRS-CIP		EA	.0000	115,000.00	
		EPO PUMP STATION NE018				02308029.530460	
		4609999905					
						115,000.00	*** Total Or

Purchasing Agent: \_\_\_\_\_



2320 Beardall Ave, Sanford, FL 32771 ♦ P.O. BOX 291671, Port Orange, FL 32129 ♦ (386) 894-0068  
State License # CUC 1224744

3/29/23

Danus utilities

Seminole County

LS NE018

Pay Item No	Description	Unit	Est. Qty	Unit Price	Extended Cost
<b>General</b>					
1	Mobilization	Each	1	\$2,000.00	\$2,000.00
2	Bypass Pumping	Days	15	\$500.00	\$7,500.00
<b>Removal of Existing Components</b>					
3	Removal and return of existing submersible pumps. Removal and disposal of existing base elbow, and guide rails. Removal and disposal of existing discharge pipe, from base elbow up to check valves. Removal and disposal of existing check valves.	Each	1	\$15,000.00	\$15,000.00
<b>Installation of New and Stored Existing Components</b>					
4	Reconstruct filets and leveling course. Preparation and application of new high build epoxy wet well coating, Raven 405 or equivalent. Install new base elbows, base plates, guide rails. Install new 4" 316SS SCH40 discharge piping, from base elbow up to in vault check valve, including SS bends. Install new 4" AWWA C508 swing check valves. Preparation and recoating of existing valve vault ductile iron pipes. <i>Restorations to existing or better condition</i>	Each	1	\$32,000.00	\$32,000.00
5	Install new submersible pumps	Each	1	\$56,000.00	\$56,000.00
6	Startup	Each	1	\$2,500.00	\$2,500.00
				<b>Total</b>	<b>\$115,000.00</b>

**SEMINOLE COUNTY - PURCHASING AND CONTRACTS DIVISION  
EMERGENCY PURCHASE DATA SHEET**

Date Requested: 4/13/2023

Requisition No.: \_\_\_\_\_

Requestor: Matthew Clark, Senior Engineer

Telephone/Ext.: x2118

Department/Division: Environmental Services/Utilities Engineering - On Behalf of Public Works/Facilities Management

**Describe the Emergency:** The County owned and maintained wastewater pump station NE018 "Five Points" is in immediate need or corrective maintenance. In its current condition, the pump station is in immediate risk of failure due to age and wear, and its failure will have immediate consequences to critical county facilities, as it serves a large portion of the Five Points Complex, including the John E. Polk Correctional Facility.

This pump station is a Facilities Maintenance asset, but Environmental Services has provided past assistance towards maintaining operations, and is assisting Facilities Management with project management of the proposed corrective maintenance.

Does the emergency fit the definition as described in Section 220.4?      Yes X      No \_\_\_\_\_

**Describe the harm / impact of the emergency:** Currently there are multiple points of failure at the station, any of which will cause the immediate loss of wastewater service to a large portion of the Five Points Complex. A loss of wastewater service could cause "sanitary sewer overflows" at the Complex, either out of manholes, the lift station, or within buildings. This could cause regulatory orders or fines, but more importantly health and environmental damages.

**Companies contacted and their quotes:**

Company: Danus Utilities      Contact/Phone: Richard Cook / 352-989-0100      Cost: \$ 115,000.00

Company: Central Florida Lift Stations (CFL)      Contact/Phone: Scott Gingerich / 407-575-0893      Cost: \$ 141,370.00

Company: L7 Construction, Inc      Contact/Phone: Brian Bach / 321-972-9325      Cost: \$ 345,227.00

**Approval from the Department Requesting Emergency:**

Requesting Division Manager Signature:       4/17/2023

Requesting Department Director Signature:       4/14/2023

**Purchasing and Contracts Division Approval:**

Purchasing Review and Approval: \_\_\_\_\_      Date: \_\_\_\_\_

Purchase Order No.: \_\_\_\_\_      Amount of Purchase: \$ \_\_\_\_\_

March 30<sup>th</sup>, 2023

To: Kim Ornberg, PE  
Director, Seminole County Environmental Services Department (SCESD)

From: Matthew Clark, PE, Engineer, SCESD

CC: William “Johnny” Edwards, PE, Deputy Director, SCESD  
William K. White, PE, Utility Engineering Division Manager, SCESD  
Elisa Williams, Utility Operations Division Manager, SCESD  
Paul Zimmerman, PE, Chief Engineer, SCESD

## RE: NE018 Five Points Lift Station – Summary of Quotes and Recommendations

### BACKGROUND

The Utility Engineering Division (UE), was tasked by Department leadership to evaluate the “NE018 Five Points” lift station for immediate, short term, renewal and replacement work. NE018 is a County-owned lift station for which Facilities Maintenance (FM) required assistance from Environmental Services (ES) to help manage immediate repairs. Due to the unique responsibility of this lift station, the facilities it serves, the immediate need for services, and UE’s experience in such projects, this transmittal has been drafted to summarize the quotes received, and recommended paths forward.

### QUOTES

Prior to reaching out to vendors, UE approached Purchasing and Contracts Division (PC) with the proposed route of utilizing one of four preselected South Seminole North Orange County Wastewater Transmission Authority (SSNOCWTA) contractors (RFQ-2020-001, previously transmitted), in a “piggyback” contract fashion. SSNOCWTA holds a unique relationship with the County, as a member of its Board, and since it is tasked under agreement with the maintenance of selected portions of the Authorities system. Therefor the County has great insight in the performance of the Authority’s vendors, including those in the proposed piggy-back contract. PC requested that UE attempt to collect at Quotes from all identified contractors.

All four RFQ-2020-001 vendors were contacted for Quotes with a standardized list of needs early March 2023. The standardized list’s purpose was to ensure accurate Quotes from all vendors, since a schedule of values is lacking in the current SSNOCWTA RFQ-2020-001 contract. Of the four vendors, three responded with Quotes, the fourth declining to submit a Quote due to current workload. The table below summarizes received Quotes:

Vendor	Quote Total Amount
Central Florida Lift Stations (CFL)	\$141,370.00
<b>Danus Utilities</b>	<b>\$115,000.00</b>
L7 Construction, Inc	\$345,227.00
Prime Construction Group	No Quote

## RECOMMENDATIONS

It is recommended that FM immediately contact Danus Utilities and work with PC to issue an emergency PO. FM should reserve funds in excess, or could reallocate funds, in the event unforeseen complications require changes to the work. A recommended level of funding should be in excess of 15% of the selected Quote.

UE is available to further assist procurement if needed, and to provide oversight of the services. UE also recommends:

- Addressing medium term renewals and replacements at NE018 to ensure the station continues reliable and safe operation until the planned Five Points complex improvements. UE is able to provide assistance towards this.
- Entering a continuing services contract for lift station inspection, maintenance, and repair services. Searches found a sufficient contract available for piggy-back but UE can also prepare a scope of services for FM to solicit if desired.

## ATTACHMENTS

- Quotes, "no-quote" Responses
- Vendor Contacts and Communications

# Quote – Danus Utilities Recommended Vendor



2320 Beardall Ave, Sanford, FL 32771 ♦ P.O. BOX 291671, Port Orange, FL 32129 ♦ (386) 894-0068  
State License # CUC 1224744

3/29/23

Danus utilities

Seminole County

LS NE018

Pay Item No	Description	Unit	Est. Qty	Unit Price	Extended Cost
<b>General</b>					
1	Mobilization	Each	1	\$2,000.00	\$2,000.00
2	Bypass Pumping	Days	15	\$500.00	\$7,500.00
<b>Removal of Existing Components</b>					
3	Removal and return of existing submersible pumps. Removal and disposal of existing base elbow, and guide rails. Removal and disposal of existing discharge pipe, from base elbow up to check valves. Removal and disposals of existing check valves.	Each	1	\$15,000.00	\$15,000.00
<b>Installation of New and Stored Existing Components</b>					
4	Reconstruct filets and leveling course. Preparation and application of new high build epoxy wet well coating, Raven 405 or equivalent. Install new base elbows, base plates, guide rails. Install new 4" 316SS SCH40 discharge piping, from base elbow up to in vault check valve, including SS bends. Install new 4" AWWA C508 swing check valves. Preparation and recoating of existing valve vault ductile iron pipes. <i>Restorations to existine or better condition</i>	Each	1	\$32,000.00	\$32,000.00
5	Install new submersible pumps	Each	1	\$56,000.00	\$56,000.00
6	Startup	Each	1	\$2,500.00	\$2,500.00
				<b>Total</b>	<b>\$115,000.00</b>

## Quote – Central Florida Lift Stations (CFL)



CUC1225283  
P.O. Box 740179  
Orange City, FL 32774-0179  
Phone: 407-575-0893  
Fax: 386-774-0010

March 28, 2023

Matthew Clark P.E.  
Seminole County Environmental Services Department  
500 W. Lake Mary Blvd.  
Sanford, FL 32773

Re: NEO 18, Seminole County

Dear Matthew Clark, P.E.,

We are pleased to provide this PROPOSAL for the Central Florida Liftstations, Inc. SCOPE OF WORK, for the project stated above. We propose to furnish and install all necessary materials, labor and equipment for the completion of the installation of lift station for this project. All labor and materials are guaranteed to be as specified and the work to be performed in accordance with the drawings and specifications submitted, and completed in a substantial workman-like manner. Proposal is based on providing merit shop craftsmen working a 40-hour work week, Monday through Friday between the hours of 8:00 AM to 4:00 PM.

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### SCOPE OF WORK

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**Central Florida Liftstations, Inc. proposes to complete the following scope of work:**

-Job bid per plans and specifications provided to us by your office and as they pertain to this scope of work.

- In the event of a conflict or ambiguity between the plans, specifications or other documents relating to Central Florida Liftstations' obligations under this proposal, this proposal shall take precedence and be controlling, as follows:

- Remove existing components:
  - Remove and return submersible pumps.
  - Remove and dispose of base elbows and guide rails.
  - Remove and dispose of discharge piping from base elbow to check valves.
  - Remove and dispose of check valves.
- To furnish and install:
  - Fillet and leveling course as needed.
  - Raven 405 coating on walls, floor and fillet.
  - (2) new Flygt base elbows, base plates and SS guide rails.
  - (2) new 316SS SCH40 risers from base elbow to check valve.

- (2) new flanged check valves.
- (2) new Flygt pumps.
- Remove rust and paint remaining ductile iron piping in valve box.
- Provide top slab layout drawings for wet well.
- Core all holes for piping discharge and electrical conduit in field.

**PRICE FOR THIS WORK PER SPECIFICATIONS .....**

**ITEM 1 (MOB): \$ 5,920.00**  
**ITEM 2 (BYPASS): \$ 22,275.00**  
**ITEM 3 (DEMO): \$ 13,000.00**  
**ITEM 4 (INSTALLATION): \$ 47,175.00**  
**ITEM 5 (PUMP PACKAGE): \$56,500.00**  
**ITEM 6 (STARTUP): \$ 2,500.00**  
**TOTAL: \$ 141,370.00**

**Estimated time of material, based on date of order and approved submittals:**  
**Mechanical: 12-16 weeks**  
**Pumps: TBD**

Any changes may affect pricing.  
 Additional work will be billed separately.  
 Full payment will be due upon completion.  
 One startup trip.

**CLARIFICATIONS & EXCLUSIONS**

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Items that are not show on plans and are not included in this proposal  
 Generator, Emergency Bypass Pump, Odor Control unit

Items Excluded From This Proposal

1. Water, Water Meters, Water Fees, water service and connection to force main.
2. Pumps, panel, RTU, rock, fence & driveway.
3. Payment Bond & Material and Labor Performance Bond are not included.
4. No well pointing, sheet piling, dig boxes or dewatering.

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We trust that you will find this proposal to be both attractive and responsive to your needs. If you should have any questions or comments please contact myself at (407) 575-0893 or email me at [Scott@CFLiftstations.com](mailto:Scott@CFLiftstations.com).

Respectfully yours,

Scott Gingerich  
Central Florida Liftstations, Inc.

## ACCEPTANCE

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**This Proposal is in effect for 90 days from the date noted above. We reserve the right to resubmit, amend and or withdraw this proposal based upon our review of the final working construction drawings.**

**To authorize the work, please sign below and return the signed copy to us. When authorized, we will begin work as soon as weather and previous commitments permit, and/or when a mutually acceptable time is established.**

**Acceptance of this proposal indicates the costs stated in this proposal, specifications, and conditions are satisfactory and are hereby accepted. Payment will be per terms listed above.**

Force Majeure. Neither party shall be liable in damages nor have the right to terminate this Contract for any delay or default in performing hereunder if such delay or default is caused by conditions beyond their control including, but not limited to natural disasters, including but not limited to ground subsidence or upheaval, acts of God, Government restrictions (including the denial or cancellation of any permits, tax incentive, or other license or approvals), covid-19, labor shortage, material delays, wars, insurrections and/or any other cause beyond the reasonable control of the party whose performance is affected. Furthermore, neither party shall be liable for any failure or delay in performance under this Contract to the extent said failures or delays are proximately caused by those causes beyond that party's reasonable control and occurring without its fault or negligence, including, without limitation, failure of suppliers, subcontractors, and carriers, or any other party to substantially meet its performance obligations under this Contract. The party experiencing the difficulty shall give the other prompt written notice, with details following the occurrence of the cause relied upon. Dates by which performance obligations are scheduled to be met will be extended for a period equal to the time lost due to any delay so caused. Contractor's failure to perform any term or condition of this Contract because of conditions beyond its control mentioned herein or other conditions that cause delay, damage, or destruction of its work by others shall not be deemed a breach of this Contract.

Material Escalation. The Contract Price for this Project has been calculated based on the current prices for the component building materials. However, the market for these building materials is considered volatile and sudden price increases could occur. Contractor agrees to use its best efforts to obtain the lowest possible prices from available building material suppliers but should there be an increase in the prices of these materials that are purchased after execution of this Contract for use in this Project, then Owner or General Contractor agrees and shall pay the substantiated cost increase to Contractor. Any request or change order for payment of a cost increase shall state the increased cost, the building materials in question, and the source of supply, supported by invoices or bills of sale.

Authorized Signature: \_\_\_\_\_

Date: \_\_\_\_\_

3/10/2023

CIP TBD NE018 LS Limited R&R

Scope of Work

Pay Item No	Description	Unit	Est. Qty	Unit Price	Extended Cost
<b>General</b>					
1	Mobilization	Each	1	5,920.00	5,920.00
2	Bypass Pumping	Days	15	1,485.00	22,275.00
<b>Removal of Existing Components</b>					
3	Removal and return of existing submersible pumps. Removal and disposal of existing base elbow, and guide rails. Removal and disposal of existing discharge pipe, from base elbow up to check valves. Removal and disposals of existing check valves.	Each	1	13,000.00	13,000.00
<b>Installation of New and Stored Existing Components</b>					
4	Reconstruct filets and leveling course. Preparation and application of new high build epoxy wet well coating, Raven 405 or equivalent. Install new base elbows, base plates, guide rails. Install new 4" 316SS SCH40 discharge piping, from base elbow up to in vault check valve, including SS bends. Install new 4" AWWA C508 swing check valves. Preparation and recoating of existing valve vault ductile iron pipes. Restorations to existing or better condition.	Each	1	41,175.00	41,175.00
5	Install new submersible pumps	Each	1	56,500.00	56,500.00
6	Startup	Each	1	2,500.00	2,500.00
				<b>Total</b>	<b>141,370.00</b>

# Quote – L7 Construction, Inc

*L7 CONSTRUCTION, INC*

Pay Item No	Description	Unit	Est. Qty	Unit Price	Extended Cost
<b>General</b>					
1	Mobilization	Each	1	34,227	34,227
2	Bypass Pumping	Days	15	3,200	48,000
<b>Removal of Existing Components</b>					
3	Removal and return of existing submersible pumps. Removal and disposal of existing base elbow, and guide rails. Removal and disposal of existing discharge pipe, from base elbow up to check valves. Removal and disposals of existing check valves.	Each	1	18,000	18,000
<b>Installation of New and Stored Existing Components</b>					
4	Reconstruct filets and leveling course. Preparation and application of new high build epoxy wet well coating, Raven 405 or equivalent. Install new base elbows, base plates, guide rails. Install new 4"316SS SCH40 discharge piping, from base elbow up to in vault check valve, including SS bends. Install new 4" AWWA C508 swing check valves. Preparation and recoating of existing valve vault ductile iron pipes. Restorations to existing or better condition.	Each	1	117,000	117,000
5	Install new submersible pumps	Each	1	127,000	127,000
6	Startup	Each	1	1,000	1,000
				<b>Total</b>	<b>345,227</b>

*LEAD TIME to get materials - TBD*

# No Quote – Prime Construction Group

## Clark, Matthew

---

**From:** Mark A. Allen <mallen@primeconstructiongroup.com>  
**Sent:** Tuesday, March 21, 2023 13:42  
**To:** Clark, Matthew  
**Cc:** Ramsudh, Rose  
**Subject:** RE: Additional Photos: Repair needs - Piggyback of SSNOCWTA RFP-2020-001

**NOTICE:** This email was sent from someone outside of the Seminole County BCC Organization. Always use caution when opening attachments or clicking links from unknown senders or when receiving unexpected emails. If you believe this message is suspicious or malicious in nature, please use the Phish Alert Button to report it to the Information Services Security Team or contact 311Support at [CSDSupport@seminole](mailto:CSDSupport@seminole)

Matt I spoke with Chase, I will not be able to get you a price for this work.

I've been assigned to other things right now.

Thank you

---

**From:** Clark, Matthew <mclark02@seminolecountyfl.gov>  
**Sent:** Tuesday, March 14, 2023 3:00 PM  
**Cc:** Ramsudh, Rose <RRamsudh@seminolecountyfl.gov>  
**Subject:** Additional Photos: Repair needs - Piggyback of SSNOCWTA RFP-2020-001

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Please see additional photos attached to aid in your proposal.



**Matthew Clark, P.E.**

Engineer  
Environmental Services Department | Utility Engineering

O: (407) 665-2118 | C: (407) 618-3158

500 W Lake Mary Blvd

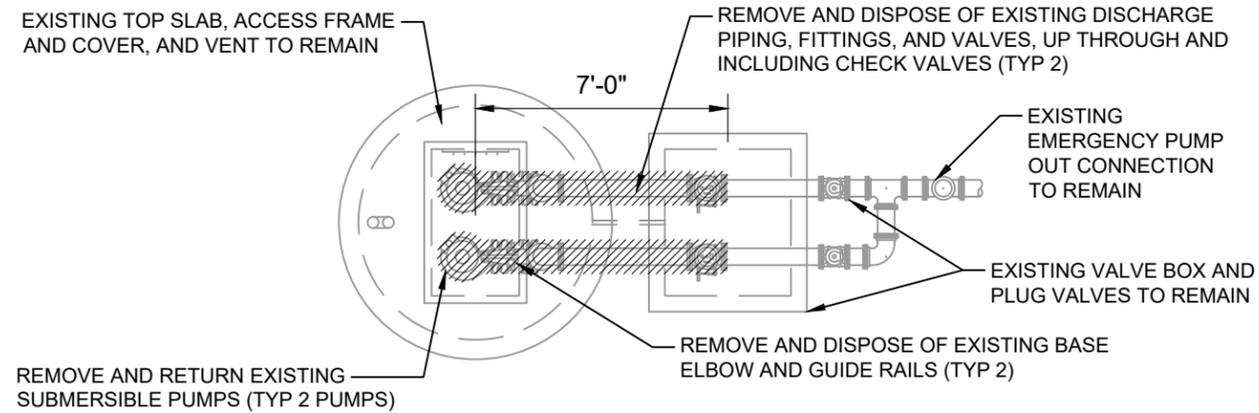
Sanford, FL 32773

[mclark02@seminolecountyfl.gov](mailto:mclark02@seminolecountyfl.gov)

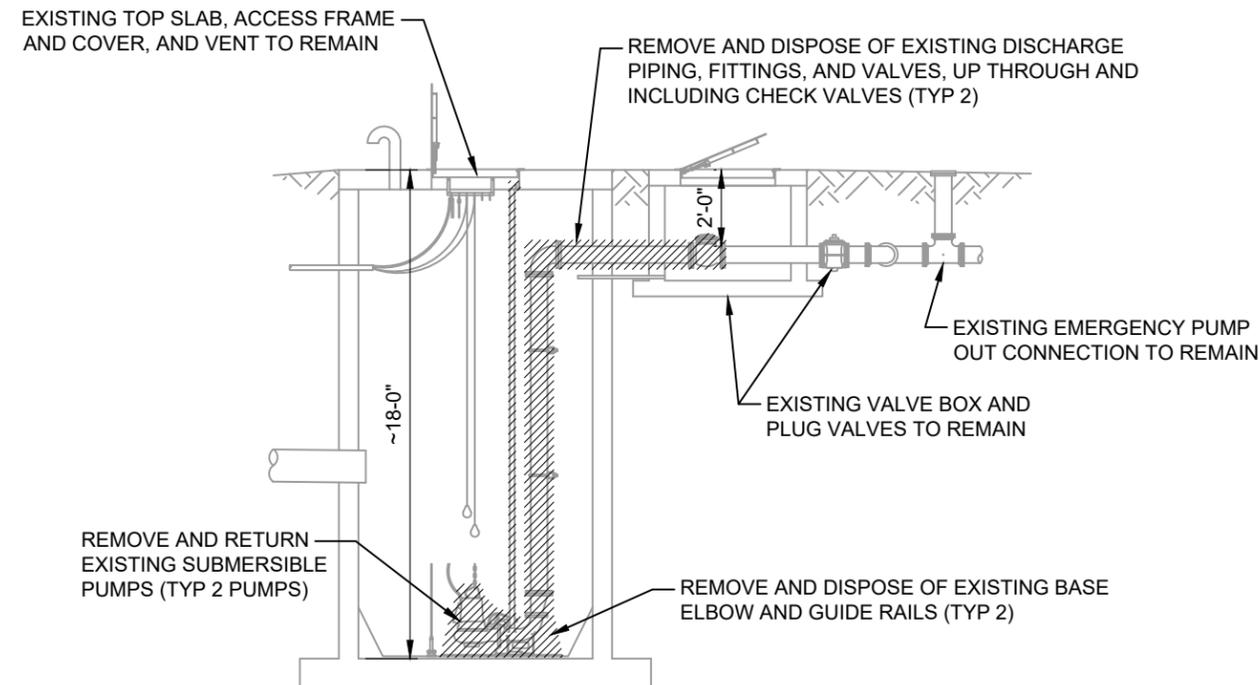
[www.seminolecountyfl.gov](http://www.seminolecountyfl.gov)

\*\*\*\*Florida has a very broad Public Records Law. Virtually all written communications to or from State and Local Officials and employees are public records available to the public and media upon request. Seminole County policy does not differentiate between personal and business emails. E-mail sent on the County system will be considered public and will only be withheld from disclosure if deemed confidential pursuant to State Law.\*\*\*\*

# Scope of Services



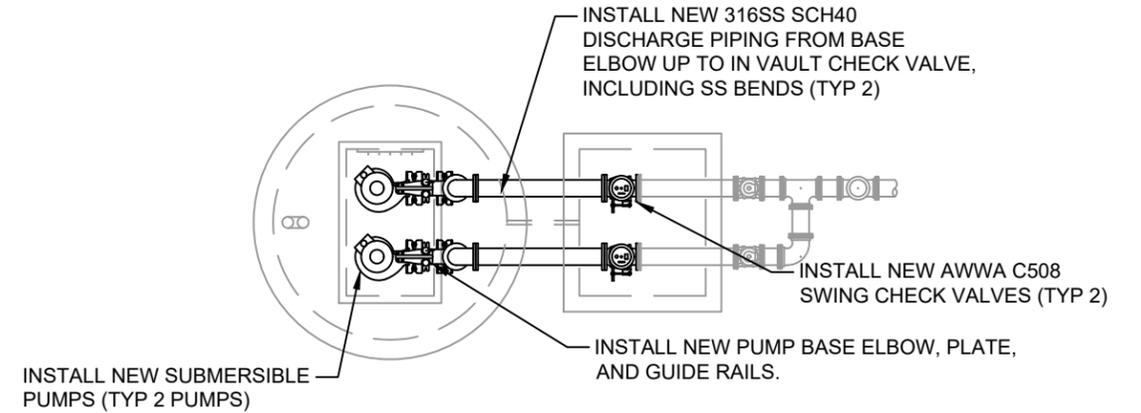
PLAN - REMOVAL



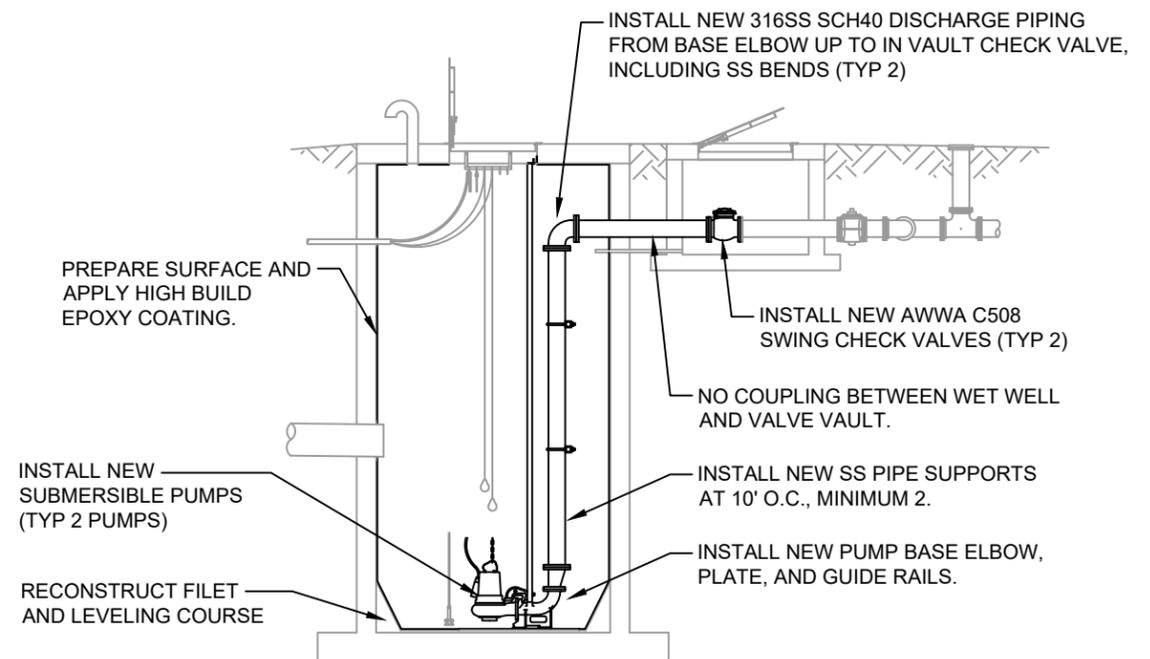
SECTION - REMOVAL

**REMOVAL NOTES**

1. PLAN VIEW AND SECTION CONFIGURATION MAY DIFFER AND ARE PROVIDED AS ILLUSTRATION OF WORK. CONTRACTOR TO VERIFY FIELD CONDITIONS.
2. VERIFY EXISTING ISOLATION VALVE OPERATION BEFORE STARTING WORK. PROVIDE TEMPORARY BYPASS PUMPING OF WASTEWATER FLOW. DUE TO THE NATURE OF THIS LIFT STATION, PROVIDE CONTINGENCY PLAN IN THE EVENT BYPASS PUMPING IS INTERRUPTED.
3. CAREFULLY REMOVED INDICATED ITEMS AND REPAIR/PATCH ANY DAMAGED CONCRETE.
4. RETURN ANY SALVAGED EQUIPMENT AT LOCATION DIRECTED BY COUNTY.



PLAN - INSTALLATION



SECTION - INSTALLATION

**INSTALLATION NOTES**

1. PLAN VIEW AND SECTION CONFIGURATION MAY DIFFER AND ARE PROVIDED AS ILLUSTRATION OF WORK. CONTRACTOR TO VERIFY FIELD CONDITIONS.
2. REINSTALL ALL INCIDENTALS NOT EXPLICITLY IDENTIFIED BUT WHICH WERE REQUIRED TO COMPLETE THE WORK.
3. REFERENCE ADDITIONAL SHEETS FOR DETAILS AND PHOTOS.



**SEMINOLE COUNTY  
ENVIRONMENTAL SERVICES  
UTILITIES ENGINEERING DIVISION**  
  
500 West Lake Mary Blvd, Sanford, FL 32773-7441  
T: (407) 665-2000 F: (407) 665-2019  
www.seminolecountyfl.gov

Designed By:	MRC
Drawn By:	MRC
Date:	3/10/23
Project ID:	TBD
Scale:	NTS

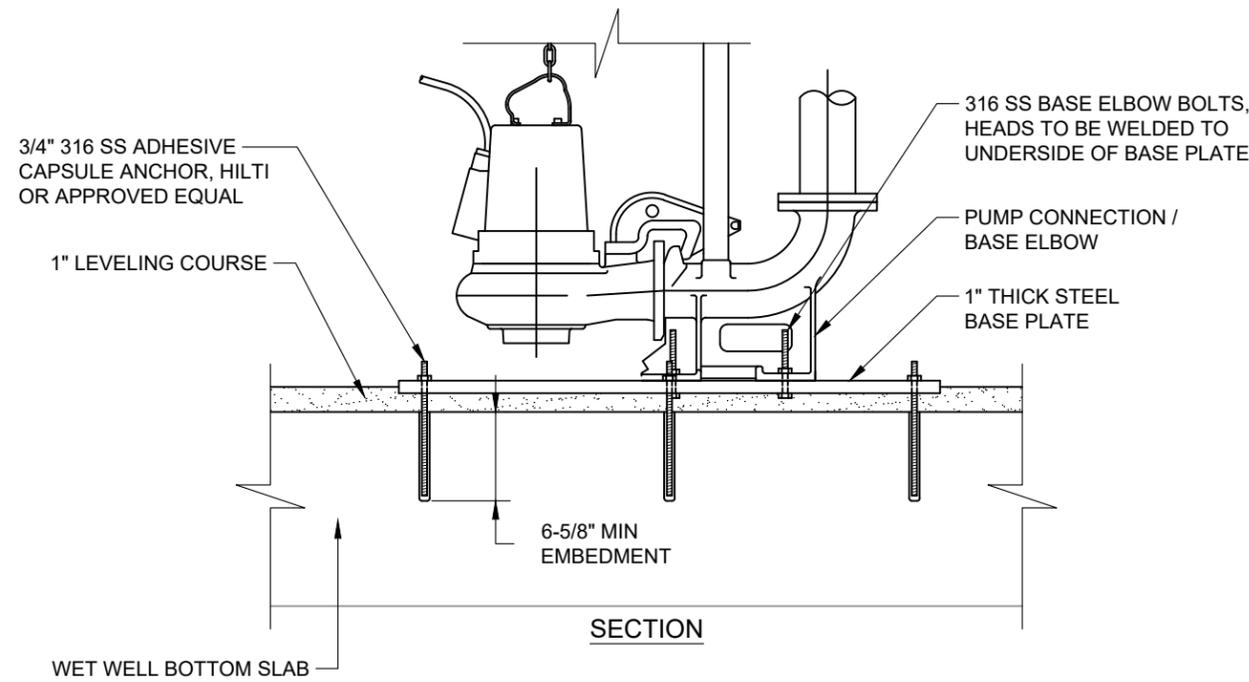
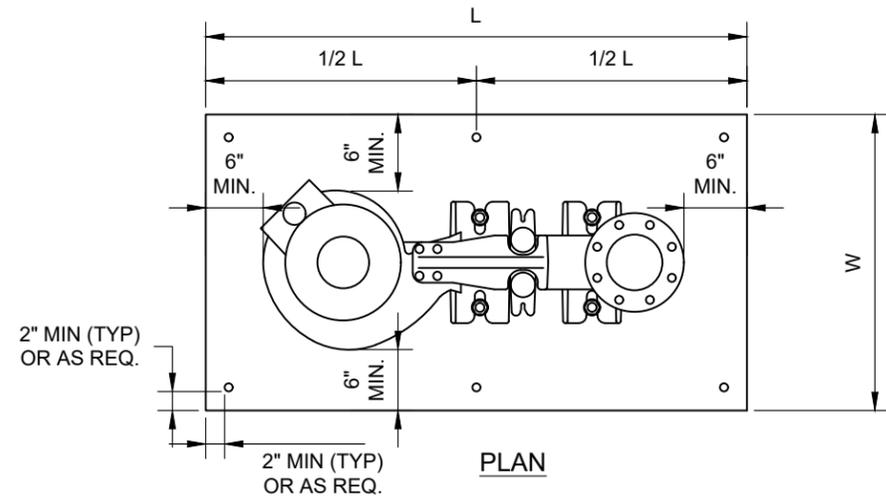
**REMOVAL AND REPLACEMENT**

**NE018 FIVE POINTS LIFT STATION, SEMINOLE COUNTY**

FIGURE NO.

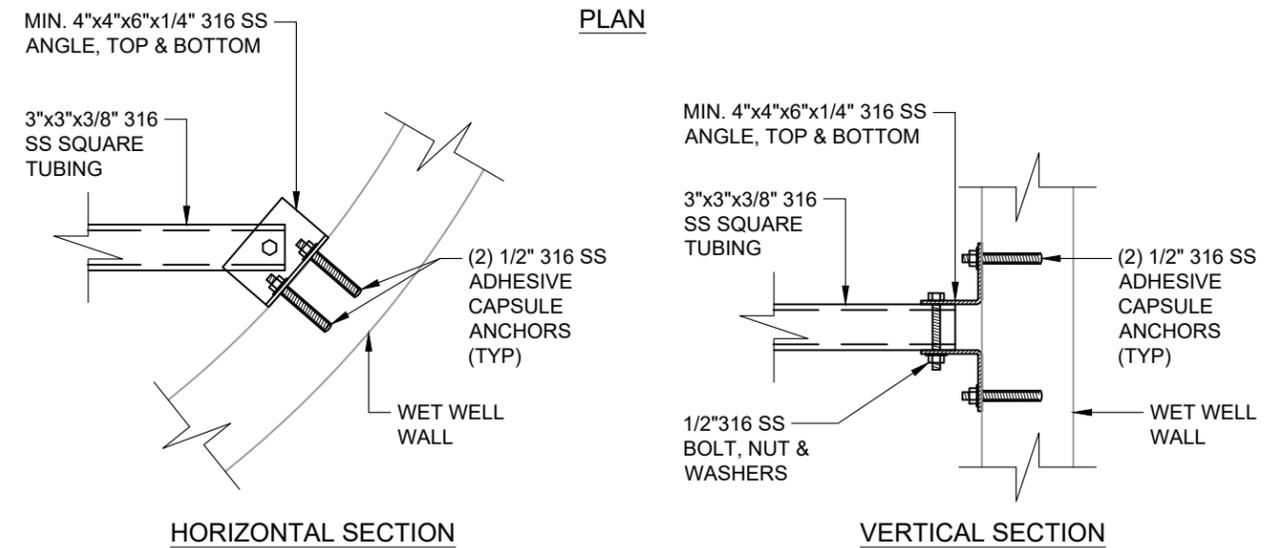
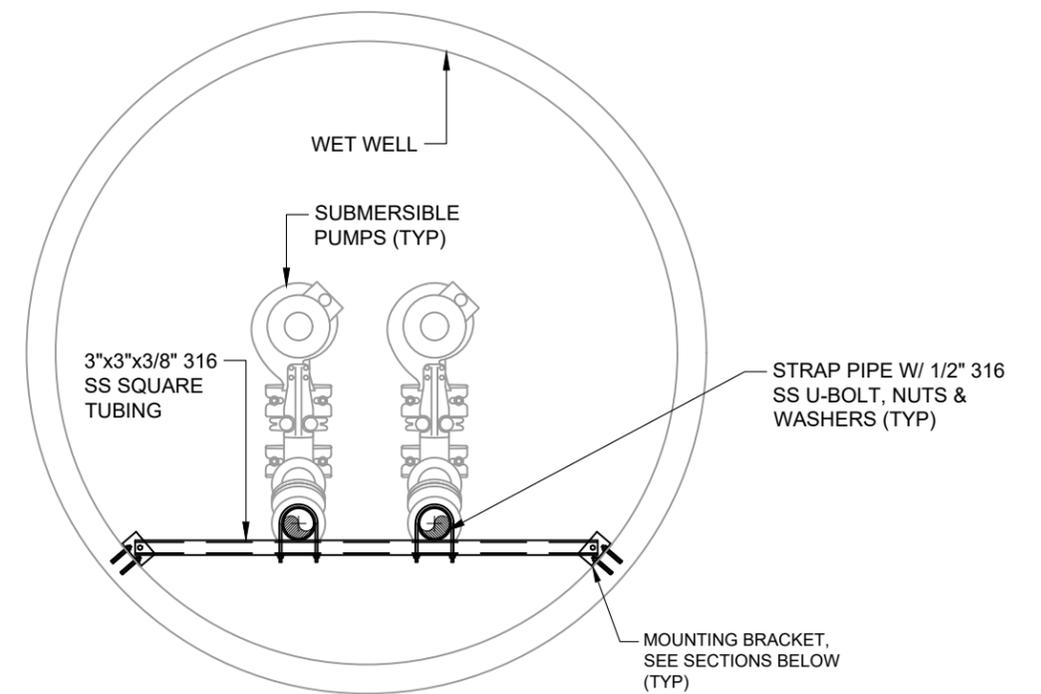
**01**

FIG1 - REMOVE AND REPLACE.dwg 3/10/2023 5:24 PM Clark, Matthew\_SCES.sib



- NOTES:**
1. PLATE ANCHORS TO BE 3/4" DIAMETER, CONSTRUCTED OF TYPE 316 SS (H.A.S. ROD) W/ "HVA" ADHESIVE CAPSULE PROVIDING AN EMBEDMENT DEPTH OF 6-5/8" MINIMUM, HILTI OR APPROVED EQUAL. NO EXPANSION ANCHORS ALLOWED
  2. PLATE SIZE 6" LARGER THAN BASE ELBOW AND PUMP VOLUTE, TYPICAL ALL DIRECTIONS
  3. BASE ELBOW BOLTS AND STUDS TO BE TYPE 316 SS
  4. BASE ELBOW BOLT HEADS SHALL BE WELDED TO THE UNDERSIDE OF THE STEEL PLATE.

**SUBMERSIBLE PUMP PLATE**



- NOTES:**
1. ALL PIPE WITHIN THE WET WELL SHALL BE SUPPORTED AT A MINIMUM OF 10' INTERVALS, AT LEAST ONE BRACE AT THE TOP OF THE WET WELL AND ONE DIRECTLY ABOVE THE HIGH WATER LEVEL, OR AS RECOMMENDED BY THE PIPE MANUFACTURER.

**DISCHARGE PIPE MOUNTING**



**SEMINOLE COUNTY  
ENVIRONMENTAL SERVICES  
UTILITIES ENGINEERING DIVISION**

500 West Lake Mary Blvd, Sanford, FL 32773-7441  
T: (407) 665-2000 F: (407) 665-2019  
www.seminolecountyfl.gov

Designed By:	MRC
Drawn By:	MRC
Date:	3/10/23
Project ID:	TBD
Scale:	NTS

**DETAILS**

**NE018 FIVE POINTS LIFT STATION, SEMINOLE COUNTY**

FIGURE NO.

**02**



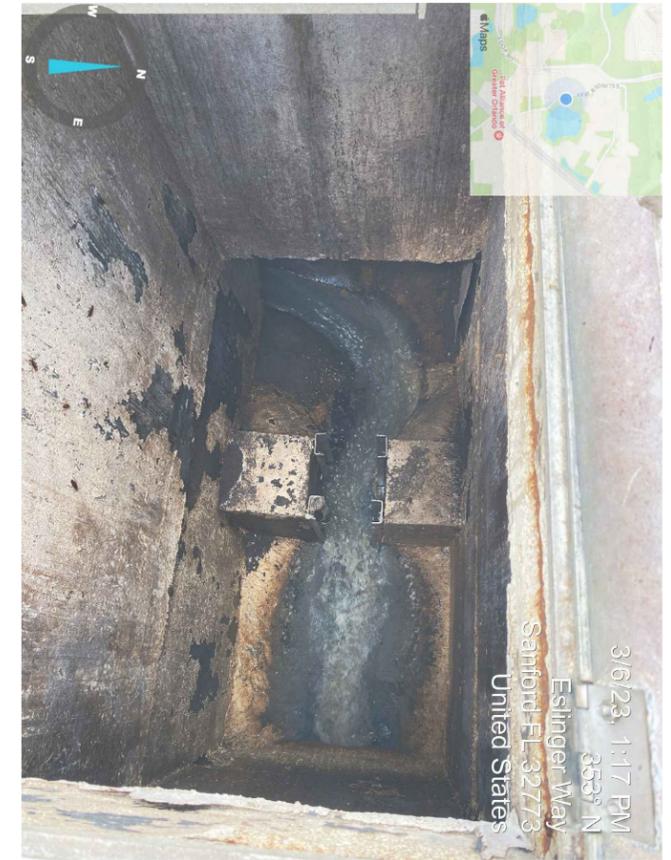
**PUMP STATION SITE**



**WET WELL INTERIOR**



**VALVE VAULT INTERIOR**



**ADJACENT GRINDER PIT**

Cat.	Desc	Manufacturer	Contractor's Material Identification	Potable		Reclaim		Wastewater		
				Model	Note	Model	Note	Model	Note	
Pressure System Materials	Pipe	PVC Pipe	<b>Push on Joint C900 PVC Pipe - 4" to 24" Minimum DR18, Minimum DR14 for Fire Lines, Minimum DR21/DR25 for 30" and greater.</b>							
			Diamond Plastics Corp	Diamond C900	Blue	Diamond C900	Purple	Diamond C900	Green	
			JM Eagle	Blue Brute C900	Blue	Blue Brute C900	Purple	Blue Brute C900	Green	
			National Pipe & Plastics Inc	Dura-Blue C900	Blue	Dura-Blue C900	Purple	Dura-Blue C900	Green	
			North American Pipe Corp (NAPCO)	AWWA C900/IB	Blue	AWWA C900/IB	Purple	AWWA C900/IB	Green	
		<b>Restrained Joint Coupled C900 PVC Pipe - 4" to 24" Minimum DR18, Minimum DR14 for Fire Lines, Minimum DR21/DR25 for 30" and greater.</b>								
		Certaanteed	Certa-Lok C900/RJ	Blue, 4" to 12"	Certa-Lok C900/RJ	Purple, 4" to 12"				
		HDPE Pipe	<b>Butt Fused C906 HDPE Pipe - DR11 IPS, PE 3408/3608/4710</b>							
			Endot	PE 4710 DIPS	Black w/ Blue Stripes	PE 4710 DIPS	Black w/ Purple Stripes	PE 4710 DIPS	Black w/ Green Stripes	
			JM Eagle	HDPE C906 DIPS	Black w/ Blue Stripes	HDPE C906 DIPS	Black w/ Purple Stripes	HDPE C906 DIPS	Black w/ Green Stripes	
	Performance Pipe (Chevron)	DriscoPlex 4000	Black w/ Blue Stripes	DriscoPlex 4000	Black w/ Purple Stripes	DriscoPlex 4000	Black w/ Green Stripes			
	DIP	<b>Push on Joint Pipe DIP, Unrestrained - 4" to 12" Class 350, 14" to 24" Class 250, 30" to 64" Class 200</b>								
		American	Fastite Joint Pipe	Cement Lined	Fastite Joint Pipe	Cement Lined	Fastite Joint Pipe	Protecto 401 Lined		
		McWane Ductile	Tyton Joint Pipe	Cement Lined	Tyton Joint Pipe	Cement Lined	Tyton Joint Pipe	Protecto 401 Lined		
		US Pipe	Tyton Joint Pipe	Cement Lined	Tyton Joint Pipe	Cement Lined	Tyton Joint Pipe	Protecto 401 Lined		
		<b>Push on Joint Pipe DIP, Integrated Restraint - 4" to 12" Class 350, 14" to 24" Class 250, 30" to 64" Class 200</b>								
		American	Fast-Grip Gasket	Cement Lined	Fast-Grip	Cement Lined	Fast-Grip	Protecto 401 Lined		
			Flex-Ring	Cement Lined	Flex-Ring	Cement Lined	Flex-Ring	Protecto 401 Lined		
			Lok-Rink	Cement Lined	Lok-Rink	Cement Lined	Lok-Rink	Protecto 401 Lined		
		McWane Ductile	Sure Stop 350 Gasket	Cement Lined	Sure Stop 350 Gasket	Cement Lined	Sure Stop 350 Gasket	Protecto 401 Lined		
			Thrust-Lock	Cement Lined	Thrust-Lock	Cement Lined	Thrust-Lock	Protecto 401 Lined		
			TR-Flex	Cement Lined	TR-Flex	Cement Lined	TR-Flex	Protecto 401 Lined		
			Super-Lock	Cement Lined	Super-Lock	Cement Lined	Super-Lock	Protecto 401 Lined		
		US Pipe	Field Lok 350 Gasket	Cement Lined	Field Lok 350 Gasket	Cement Lined	Field Lok 350 Gasket	Protecto 401 Lined		
			TR-Flex	Cement Lined	TR-Flex	Cement Lined	TR-Flex	Protecto 401 Lined		
			HP Lok	Cement Lined	HP Lok	Cement Lined	HP Lok	Protecto 401 Lined		
		<b>Mechanical Joint DIP - 4" to 12" Class 350, 14" to 24" Class 250, 30" to 64" Class 200</b>								
		American	Mechanical Joint Pipe	Cement Lined	Mechanical Joint Pipe	Cement Lined	Mechanical Joint Pipe	Protecto 401 Lined		
		McWane Ductile	Mechanical Joint Pipe	Cement Lined	Mechanical Joint Pipe	Cement Lined	Mechanical Joint Pipe	Protecto 401 Lined		
		US Pipe	Mechanical Joint Pipe	Cement Lined	Mechanical Joint Pipe	Cement Lined	Mechanical Joint Pipe	Protecto 401 Lined		
		<b>Flanged Joint DIP - 4" to 12" Class 350, 14" to 24" Class 250, 30" to 64" Class 200, w/ Shop Exterior Primer (Asphaltic Shop Coatings Shall be Removed Prior to Field Coating)</b>								
		American	Flanged Joint Pipe	Cement Lined	Flanged Joint Pipe	Cement Lined	Flanged Joint Pipe	Protecto 401 Lined		
		McWane Ductile	Flanged Joint Pipe	Cement Lined	Flanged Joint Pipe	Cement Lined	Flanged Joint Pipe	Protecto 401 Lined		
		US Pipe	Flanged Joint Pipe	Cement Lined	Flanged Joint Pipe	Cement Lined	Flanged Joint Pipe	Protecto 401 Lined		
		Fittings	Ductile Iron Fittings	<b>Mechanical Joint Ductile Iron Fittings</b>						
				S.I.P.	MJ Fitting	Cement/Epoxy Lined	MJ Fitting	Cement/Epoxy Lined	MJ Fitting	Protecto 401 Lined
	Sigma			MJ Fitting	Cement/Epoxy Lined	MJ Fitting	Cement/Epoxy Lined	MJ Fitting	Protecto 401 Lined	
	Star			MJ Fitting	Cement/Epoxy Lined	MJ Fitting	Cement/Epoxy Lined	MJ Fitting	Protecto 401 Lined	
	Tyler Union			MJ Fitting	Cement/Epoxy Lined	MJ Fitting	Cement/Epoxy Lined	MJ Fitting	Protecto 401 Lined	

Cat.	Desc	Manufacturer	Contractor's Material Identification	Potable		Reclaim		Wastewater			
				Model	Note	Model	Note	Model	Note		
Pressure System Materials	Fittings	Ductile Iron Fittings	<b>Flanged Joint Ductile Iron Fittings, w/ Shop Exterior Primer or Fusion Bonded Epoxy (Asphaltic Shop Coatings Shall be Removed Prior to Field Coating)</b>								
			S.I.P.		Flanged Fitting	Cement/Epoxy Lined	Flanged Fitting	Cement/Epoxy Lined	Flanged Fitting	Protecto 401 Lined	
			Sigma		Flanged Fitting	Cement/Epoxy Lined	Flanged Fitting	Cement/Epoxy Lined	Flanged Fitting	Protecto 401 Lined	
			Star		Flanged Fitting	Cement/Epoxy Lined	Flanged Fitting	Cement/Epoxy Lined	Flanged Fitting	Protecto 401 Lined	
			Tyler Union		Flanged Fitting	Cement/Epoxy Lined	Flanged Fitting	Cement/Epoxy Lined	Flanged Fitting	Protecto 401 Lined	
	Restrains	C900 PVC Pipe Push on Joint Restraint	<b>4" to 14" C900 PVC Pipe Push on Joint Restraints</b>								
			EBAA Iron Inc.		1500	New or Existing Joint	1500	New or Existing Joint	1500	New or Existing Joint	
			JCM		Sur-Grip 610	New Joint	Sur-Grip 610	New Joint	Sur-Grip 610	New Joint	
			S.I.P.		EZPVCTP	New Joint	EZPVCTP	New Joint	EZPVCTP	New Joint	
					PTPVC	Existing Joint	PTPVC	Existing Joint	PTPVC	Existing Joint	
			Sigma		PV-LOK PWP	New & Existing Joint	PV-LOK PWP	New & Existing Joint	PV-LOK PWP	New & Existing Joint	
			Smith Blair		Bell-Lock 165	New & Existing Joint	Bell-Lock 165	New & Existing Joint	Bell-Lock 165	New & Existing Joint	
			Star		1100C	New & Existing Joint	1100C	New & Existing Joint	1100C	New & Existing Joint	
			Tyler Union		TUFGrip 3000PP	New & Existing Joint	TUFGrip 3000PP	New & Existing Joint	TUFGrip 3000PP	New & Existing Joint	
			C900 PVC Pipe Push on Joint Restraint	<b>14" and Larger C900 PVC Pipe Push on Joint Restraints</b>							
				EBAA Iron Inc.		2800	New Joint	2800	New Joint	2800	New Joint
						1100HV	Existing Joint	1100HV	Existing Joint	1100HV	Existing Joint
				JCM		Sur-Grip Series 621	New & Existing Joint	Sur-Grip Series 621	New & Existing Joint	Sur-Grip Series 621	New & Existing Joint
				S.I.P.		EZPVCTP	New Joint	EZPVCTP	New Joint	EZPVCTP	New Joint
					PTPVC	Existing Joint	PTPVC	Existing Joint	PTPVC	Existing Joint	
		Sigma			PV-LOK PWP	New & Existing Joint	PV-LOK PWP	New & Existing Joint	PV-LOK PWP	New & Existing Joint	
		Smith Blair			Bell-Lock 165	New & Existing Joint	Bell-Lock 165	New & Existing Joint	Bell-Lock 165	New & Existing Joint	
		Star			1100C	New & Existing Joint	1100C	New & Existing Joint	1100C	New & Existing Joint	
		Tyler Union		TUFGrip 3000PP	New & Existing Joint	TUFGrip 3000PP	New & Existing Joint	TUFGrip 3000PP	New & Existing Joint		
		C900 PVC Pipe Mechanical Joint Restraint	<b>C900 PVC Pipe Mechanical Joint Restraining Gland</b>								
			EBAA Iron Inc.		2000PV MEGALUG		2000PV MEGALUG		2000PV MEGALUG		
			S.I.P.		EZPVCNG		EZPVCNG		EZPVCNG		
			Sigma		ONE-LOK SLCE		ONE-LOK SLCE		ONE-LOK SLCE		
Smith Blair			Cam-Lock 120		Cam-Lock 120		Cam-Lock 120				
Star			PVC Stargrip 4000		PVC Stargrip 4000		PVC Stargrip 4000				
Tyler Union			TUFGrip 2000 TLP		TUFGrip 2000 TLP		TUFGrip 2000 TLP				
DIP Push on Joint Restraint	<b>4" to 12" DIP Push on Joint Restraints, (New 4" to 12" DIP can use Integrated Push On Joint Restraint Systems, see Pipe Section Above)</b>										
	EBAA Iron Inc.		1700	New Joint	1700	New Joint	1700	New Joint			
			1100HD	Existing Joint	1100HD	Existing Joint	1100HD	Existing Joint			
	JCM		Sur-Grip 610	New Joint	Sur-Grip 610	New Joint	Sur-Grip 610	New Joint			
	S.I.P.		PTPDI	New & Existing Joint	PTPDI	New & Existing Joint	PTPDI	New & Existing Joint			
	Smith Blair		Bell-Lock 165	New & Existing Joint	Bell-Lock 165	New & Existing Joint	Bell-Lock 165	New & Existing Joint			
	Sigma		PV-LOK PWP	New & Existing Joint	PV-LOK PWP	New & Existing Joint	PV-LOK PWP	New & Existing Joint			
	Star		Stargrip 3100P	New Joint	Stargrip 3100P	New Joint	Stargrip 3100P	New Joint			
		Stargrip 3100S	Existing Joint	Stargrip 3100S	Existing Joint	Stargrip 3100S	Existing Joint				

Cat.	Desc	Manufacturer	Contractor's Material Identification	Potable		Reclaim		Wastewater		
				Model	Note	Model	Note	Model	Note	
Pressure System Materials	Restraints	<b>DIP Push on Joint Restraints, (new 14" and Larger DIP shall use Integrated Push On Joint Restraint Systems, see Pipe Section Above)</b>								
		DIP Push on Joint Restraint	EBAA Iron Inc.		1100HD	Existing Joint	1100HD	Existing Joint	1100HD	Existing Joint
			S.I.P.		PTPDI	Existing Joint	PTPDI	Existing Joint	PTPDI	Existing Joint
			Sigma		ONE-LOK SSLDH	Existing Joint	ONE-LOK SSLDH	Existing Joint	ONE-LOK SSLDH	Existing Joint
			Smith Blair		Bell-Lock 165	Existing Joint	Bell-Lock 165	Existing Joint	Bell-Lock 165	Existing Joint
			Star		Stargrip 3100S	Existing Joint	Stargrip 3100S	Existing Joint	Stargrip 3100S	Existing Joint
		<b>DIP Mechanical Joint Restraining Gland</b>								
			EBAA Iron Inc.		1100 MEGALUG		1100 MEGALUG		1100 MEGALUG	
			S.I.P.		EZDP		EZDP		EZDP	
			Sigma		ONE-LOK D-SLDE		ONE-LOK D-SLDE		ONE-LOK D-SLDE	
		Smith Blair		Cam-Lock 111		Cam-Lock 111		Cam-Lock 111		
		Star		Stargrip 3000		Stargrip 3000		Stargrip 3000		
		Tyler Union		TUFGrip 1000 TLD		TUFGrip 1000 TLD		TUFGrip 1000 TLD		
	Restraints (cont.)	<b>DIP Flange Coupling Adaptor</b>								
		DIP Flange Coupling Adaptor	EBAA Iron Inc.		2100 MEGAFLANGE		2100 MEGAFLANGE		2100 MEGAFLANGE	
			JCM		Model #301		Model #301		Model #301	
			Smith Blair		Flange-Lock 911		Flange-Lock 911		Flange-Lock 911	
			Sigma		SIGMAFLANGE		SIGMAFLANGE		SIGMAFLANGE	
		Star		StarFlange 3200		StarFlange 3200		StarFlange 3200		
	Material Location	<b>Self Leveling, High Density Polyethylene Shell, Color and Frequency Coded to Service (145.7 kHz for Water, 66.4 kHz for Reclaim, 121.6 kHz for Sewer)</b>								
Locate Ball		3M		1403-XR	Blue	1408-XR	Purple	1404-XR	Green	
		Temco		OmniMarker II OM-08	Blue	OmniMarker II OM-01	Purple	OmniMarker II OM-06	Green	
<b>Detectable Marking Tape, Color Coded to Service, Width per Main Size (4" wide tape for 4" to 12" Main, 6" Wide Tape for 14" and Larger Main)</b>										
Locate Tape		Pro-Line Safety Products		103131253	4 to 12" Main	103135173	4 to 12" Main	103133083	4 to 12" Main	
				103141253	14" and Larger Main	103145173	14" and Larger Main	103143083	14" and Larger Main	
<b>Min. #10 AWG, Min 45 mil. HDPE Jacket Insulation, Color to Service</b>										
Locate Wire		Copperhead		SoloShot 1045B-EHS	Direct Bury & HDD	SoloShot 1045P-EHS	Direct Bury & HDD	SoloShot 1045G-EHS	Direct Bury & HDD	
		Performance Wire & Cable		Tracer Wire	Direct Bury	Tracer Wire	Direct Bury	Tracer Wire	Direct Bury	
		Pro-Line Safety Products		HF-CSS 74443.02XX	Direct Bury	HF-CSS 74443.08XX	Direct Bury	HF-CSS 74443.05XX	Direct Bury	
			HDD-CSS 74643.02XX	Direct Bury & HDD	HDD-CSS 74643.08XX	Direct Bury & HDD	HDD-CSS 74643.05XX	Direct Bury & HDD		
Locate Wire Terminal	<b>Waterproof, Corrosion Resistant, Pre-Filled Dielectric Silicone Sealant</b>									
	Copperhead		3WB-01		3WB-01		3WB-01			
	King Innovation		DryConn DB Lug Aqua		DryConn DB Lug Aqua		DryConn DB Lug Aqua			
Casing Seals / Spacers	<b>14-gauge Type 304 Stainless Band, 0.090" thick PVC Liner, Min. 4 High Molecular Weight Polymer Plastic w/ Min. 1/2" Top Clearance, Centered &amp; Restrained</b>									
	Casing Spacer	Advance Products & Systems		SSI8, SSI12		SSI8, SSI12		SSI8, SSI12		
		BWM Company		SS-8, SS-12		SS-8, SS-12		SS-8, SS-12		
		Cascade Water Works		CCS, CCS-ER, CCS-JR		CCS, CCS-ER, CCS-JR		CCS, CCS-ER, CCS-JR		
		CCI Pipeline Systems		CSS8, CSS12		CSS8, CSS12		CSS8, CSS12		
		Power Seal		4810		4810		4810		

Cat.	Desc	Manufacturer	Contractor's Material Identification	Potable		Reclaim		Wastewater	
				Model	Note	Model	Note	Model	Note
Pressure System Materials	Casing Seals / Spacers	<b>Chemical Resistant Rubber, Stainless Steel Bands</b>							
		Advance Products & Systems		AC		AC		AC	
		BWM Company		CCES		CCES		CCES	
		Cascade Water Works		PO		PO		PO	
		CCI Pipeline Systems		ESC		ESC		ESC	
	Gate Valves	<b>Resilient Wedge AWWA C515 or C509 Ductile Iron Body (For Shallow Installations or Valves 24" and larger, Horizontally Gate Valve w/ Bevel Gear Actuator &amp; NPT Port to Permit Track Flushing)</b>							
		American Flow Control		2500 Series	MJ x MJ NRS	2500 Series	MJ x MJ NRS		
				2500 Series	FL x FL NRS	2500 Series	FL x FL NRS		
				2500 Series	FL x FL OS&Y				
		Clow		F-6100 Series	MJ x MJ NRS	F-6100 Series	MJ x MJ NRS		
				F-6102 Series	FL x FL NRS	F-6102 Series	FL x FL NRS		
				F-6136 Series	FL x FL OS&Y				
		Kennedy		7571 / 8571 Series	MJ x MJ NRS	7571 / 8571 Series	MJ x MJ NRS		
				7561 / 8561 Series	FL x FL NRS	7561 / 8561 Series	FL x FL NRS		
				7068A / 8068A Series	FL x FL OS&Y				
	Mueller		A-2361 / 2362 Series	MJ x MJ NRS	A-2361 / 2362 Series	MJ x MJ NRS			
			A-2361 / 2362 Series	FL x FL NRS	A-2361 / 2362 Series	FL x FL NRS			
			R-2361 Series	FL x FL OS&Y					
	Check Valves	<b>AWWA C508 Ductile Iron Body, Resilient-to-Coated Seat, Resilient Hinge Arm, Full Waterway</b>							
		American Flow Control		2100 Series	FL x FL	2100 Series	FL x FL		
Clow / Kennedy / M&H			Kenflex 506	FL x FL	Kenflex 506	FL x FL			
Crispin			RF Series	FL x FL	RF Series	FL x FL			
DeZURICK / APCO			CFR100 Series	FL x FL	CFR100 Series	FL x FL			
Pratt			RD Series	FL x FL	RD Series	FL x FL			
Val-matic			Swing-Flex	FL x FL	Swing-Flex	FL x FL			
Plug Valves	<b>Eccentric, Ballcentric or Full Port, Cast or Ductile Iron, 6" and Larger w/ Buried Service Rated Gear Actuators (Eccentric or Ballcentric Min. Port Area: 4" to 20" Min 80% , 24" and Greater Min 70%)</b>								
	Crispin						K-FLO 706/806 Series	MJ x MJ	
								K-FLO 704/804 Series	FL x FL
	Clow							F-5413 Series	MJ x MJ
								F-5412 Series	FL x FL
	DeZURICK							PEC/PEF Series	MJ x MJ, FL x FL
	M&H							1820 Series	MJ x MJ, FL x FL
	Pratt / Milliken								Ballcentric 600/620 Ser.
								Ballcentric 601/611 Ser.	FL x FL
Val-matic								Camcentric 5900 Series	MJ x MJ
								Camcentric 5800 Series	FL x FL
BFP	DDCVA	<b>UL Classified \ FM Approved, w/ OS &amp; Y Valves &amp; Freeze Relief Valve</b>							
		Zurn		350DA / 350 ADA					
Valve Boxes	Valve Box	<b>5-1/4" Two Piece Standard Heavy Duty Cast Iron w/ Service Cast Into Lid, Heavy Duty H2O Traffic Rated, Paved Areas to Utilize Locking Lids</b>							
		Bingham & Taylor Foundry		4905 Series	Box	4905 Series	Box	4905 Series	Box
				4905-X	Extension	4905-X	Extension	4905-X	Extension
	4904-L		Locking Lid	4904-L	Locking Lid	4904-L	Locking Lid		

Cat.	Desc	Manufacturer	Contractor's Material Identification	Potable		Reclaim		Wastewater			
				Model	Note	Model	Note	Model	Note		
Pressure System Materials	Valve Boxes	Sigma		VB-26 Series	Box	VB-26 Series	Box	VB-26 Series	Box		
				VB-6302	Extension	VB-6302	Extension	VB-6302	Extension		
				VB-4650W	Locking Lid		Locking Lid	VB-4650S	Locking Lid		
		Star		VB-0002 Series	Box	VB-0002 Series	Box	VB-0002 Series	Box		
				VBEX12-24S	Extension	VBEX12-24S	Extension	VBEX12-24S	Extension		
				VBLIDLOCK	Locking Lid		Locking Lid	VBLIDLOCKS	Locking Lid		
		Tyler Union		6850 Series	Box	6850 Series	Box	6850 Series	Box		
				58, 59, 60	Extension	58, 59, 60	Extension	58, 59, 60	Extension		
				Lock Lid	Locking Lid		Locking Lid		Locking Lid		
		Centering Ring		EJ Prescott	45158		45158		45158		
				Trumbull Manufacturing	367-485X Series		367-485X Series		367-485X Series		
		Debris Shield	<b>Insertable Valve Box Debris Shield, w/ Locking Device Where Specified</b>								
	SW Services			DC 455	Debris Shield	DC 455	Debris Shield	DC 455	Debris Shield		
				LD-4	Locking Device	LD-4	Locking Device	LD-4	Locking Device		
	Trumbull Manufacturing		367-4915	Debris Shield	367-4915	Debris Shield	367-4915	Debris Shield			
	Tapping Sleeves and Valves	Tapping Sleeve	<b>AWWA C223, MSS SP-60 &amp; SP-124, Type 304 SS Full Body Wrap</b>								
			Ford		FTSS	4" to 12" Outlet	FTSS	4" to 12" Outlet	FTSS	4" to 12" Outlet	
					FTSS	14" & Larger Outlet	FTSS	14" & Larger Outlet	FTSS	14" & Larger Outlet	
			JCM		432	4" to 12" Outlet	432	4" to 12" Outlet	432	4" to 12" Outlet	
					452	14" & Larger Outlet	452	14" & Larger Outlet	452	14" & Larger Outlet	
			Romac		SST III	4" to 12" Outlet	SST III	4" to 12" Outlet	SST III	4" to 12" Outlet	
					Sst 420	14" & Larger Outlet	Sst 420	14" & Larger Outlet	Sst 420	14" & Larger Outlet	
			Smith Blair		663	4" to 12" Outlet	663	4" to 12" Outlet	663	4" to 12" Outlet	
				14" & Larger Outlet		14" & Larger Outlet		14" & Larger Outlet			
	Tapping Valve	<b>Resilient Wedge AWWA C515 or C509 Ductile Iron Body, MSS SP-60 (Bevel Gear Actuator shall be used in shallow installations or for valves 24" and larger)</b>									
		American Flow Control		2500 Series		2500 Series		2500 Series			
		Clow		F-6114 Series		F-6114 Series		F-6114 Series			
		Kennedy		7950 Series		7950 Series		7950 Series			
Mueller			T-2361 / 2362 Series		T-2361 / 2362 Series		T-2361 / 2362 Series				
Combo Air Valves	<b>Combination Air Valves, Body Shall be Full Type 316 Stainless Steel, Min. 2" Shall be NPT Connection, Larger Than 2" Valves Shall be Flanged Connection</b>										
	A.R.I.		D-040 ST ST		D-040 ST ST		D-020 SST, D-026	Type 316 SS			
	Crispin		UL Series		UL Series		UX Series	Type 316 SS			
	Vent-O-Mat		RBX Series		RBX Series		RGX Series	Type 316 SS			
Vault Frame & Cover	<b>Heavy Duty H20 Traffic Rated, For Wastewater Applications Frame and Cover Shall be Non-Corrosive Composite</b>										
	GMI Composites		3800 Series	Composite	3800 Series	Composite	3800 Series	Composite			
Above Grade Enclosure	<b>Polyethylene Enclosure, Vented, with Tamper Proof Locking Device, Colored to Service</b>										
	HydroGuard		SGE142435CHABL	Blue	SGE142435CHAPR	Purple	SGE142435CHALG	Green			
	Water Plus		107-B		107-P		107-G	Green			

Cat.	Desc	Manufacturer	Contractor's Material Identification	Potable		Reclaim		Wastewater			
				Model	Note	Model	Note	Model	Note		
Pressure System Materials	Fire Hydrants	<b>Fire Hydrant</b>	<b>AWWA C502, UL Listed, FM Approved Hydrant, Open Left, 5-1/4" Valve Opening, 1.5" Pentagon Op. Nut, NST Hose &amp; Pumper Thread, Rotate 360 degrees, Drains Omitted or Plugged</b>								
		American Flow Control		B-84-B-5							
		Clow		Medallion F-2545							
		Kennedy		K81-D							
		M&H		129							
	Mueller		Super Centurion A423								
	Security Check Valve	<b>Security Check Valve</b>	<b>AWWA C508, 100% Unobstructed Flow Area</b>								
		American Flow Control		2100 Series							
		Clow / Kennedy / M&H		Patriot Series							
	Ultrasonic (Preferred)	<b>Ultrasonic (Preferred)</b>	<b>3" - 10" Ultrasonic Meters, Direct Read Gallon Register, NSF 61 Marked &amp; Certified, UL Listed &amp; FM Approved, Encoder Adaptable</b>								
		Badger		E-Series G2	prewire w/ Nicor conn.	E-Series G2	prewire w/ Nicor conn.				
		Master Meter		Octave Series	prewire w/ Nicor conn.	Octave Series	prewire w/ Nicor conn.				
		Neptune		C&I Mach 10 Series	Fact. potted 3 wire cable	C&I Mach 10 Series	Fact. potted 3 wire cable				
	Turbine	<b>Turbine</b>	<b>3" - 10" Turbine Meter, Direct Read Gallon Register, NSF 61 Marked &amp; Certified, Exact Encoder Adaptable, Complete with Strainer - See Register / Encoder Below</b>								
		Badger		Recordall Turbo Series		Recordall Turbo Series					
		Neptune		HP Turbine Series		HP Turbine Series					
	Compound	<b>Compound</b>	<b>3" - 8" Compound Meter, Direct Read Gallon Registers, NSF 61 Marked &amp; Certified, Exact Encoder Adaptable, Complete with Strainer - See Register / Encoder Below</b>								
		Badger		Recordall Comp. Series		Recordall Comp. Series					
		Neptune		TRU/FLO Comp. Series		TRU/FLO Comp. Series					
	Dual Fire Domestic	<b>Dual Fire Domestic</b>	<b>4" - 10" Fire Service Meter Assembly for Dual Fire &amp; Domestic Flow Usage, Direct Read Gallon Registers, NSF 61 Marked &amp; Certified, UL Listed &amp; FM Approved - See Register / Encoder Below</b>								
Badger			Recordall Fire Series								
Neptune			HP Protectus III Series								
Register / Encoder	<b>Register / Encoder</b>	<b>Register/Encoders for Non-Ultrasonic Meters Must be Pit Style, Orion AMR Compatible w/ Standard ASCII encoder output and prewired with Nicor connector where possible</b>									
	Badger		Recordall	prewire w/ Nicor conn.	Recordall	prewire w/ Nicor conn.					
	Master Meter		Octave Encoder Module	prewire w/ Nicor conn.	Octave Encoder Module	prewire w/ Nicor conn.					
	Neptune		E-CODER, ProCoder	Fact. potted 3 wire cable	E-CODER, ProCoder	Fact. potted 3 wire cable					
Mag	<b>Mag</b>	<b>Magnetic Flow Meter, Wastewater Force Main Applications Only, Complete with Transmitter</b>									
	Siemens						MAG 5100	Flow Meter			
Services	<b>Service Saddles</b>	<b>PVC/DI/AC pipe Service Saddles, Epoxy or nylon coated body, steel straps</b>									
	Ford		F202	1" CC, 1-1/2" & 2" IPT	F202	1" CC, 1-1/2" & 2" IPT					
	JCM		402	1" CC, 1-1/2" & 2" IPT	402	1" CC, 1-1/2" & 2" IPT					
	Mueller		DR 2 A	1" CC, 1-1/2" & 2" IPT	DR 2 A	1" CC, 1-1/2" & 2" IPT					
	Romac		202NU	1" CC, 1-1/2" & 2" IPT	202NU	1" CC, 1-1/2" & 2" IPT					
	Smith Blair		313	1" CC, 1-1/2" & 2" IPT	313	1" CC, 1-1/2" & 2" IPT					

Cat.	Desc	Manufacturer	Contractor's Material Identification	Potable		Reclaim		Wastewater		
				Model	Note	Model	Note	Model	Note	
Pressure System Materials	Services	<b>Service Saddles</b>								
		<b>HDPE pipe Service Saddles, Epoxy or nylon coated body, double Type-304 stainless steel bands</b>								
					FCP202	1" CC, 1-1/2" & 2" IPT	FCP202	1" CC, 1-1/2" & 2" IPT		
					202N-H	1" CC, 1-1/2" & 2" IPT	202N-H	1" CC, 1-1/2" & 2" IPT		
					317 w/ Spring Washers	1" CC, 1-1/2" & 2" IPT	317 w/ Spring Washers	1" CC, 1-1/2" & 2" IPT		
		<b>1" AWWA taper CC threads x 1" Packed Joint CTS Ball Type Corporation Stops</b>								
					FB1000-4-NL	1" CC x 1" CTS	FBRW1000-4	1" CC x 1" CTS		
					74701B-22	1" CC x 1" CTS	74701B-22-RW	1" CC x 1" CTS		
					P-25008N	1" CC x 1" CTS	P-25008N-20	1" CC x 1" CTS		
		<b>1-1/2" MIPT x 1-1/2" Packed Joint CTS Ball Type Corporation Stops</b>								
					FB1100-6-NL	1-1/2"MIPT x 1-1/2" CTS	FBRW1100-6	1-1/2"MIPT x 1-1/2" CTS		
					74704B-22	1-1/2"MIPT x 1-1/2" CTS	747041B-22-RW	1-1/2"MIPT x 1-1/2" CTS		
					P-25028N	1-1/2"MIPT x 1-1/2" CTS	P-25028N-20	1-1/2"MIPT x 1-1/2" CTS		
		<b>2" MIPT x 2" Packed Joint CTS Ball Type Corporation Stops</b>								
					FB1100-7-NL	2" MIPT x 2" CTS	FBRW1100-7	2" MIPT x 2" CTS		
					74704B-22	2" MIPT x 2" CTS	74704B-22-RW	2" MIPT x 2" CTS		
					P-25028N	2" MIPT x 2" CTS	P-25028N-20	2" MIPT x 2" CTS		
		<b>PE tubing</b>								
		<b>Polyethylene tubing: 1", 1.5" &amp; 2", 3", AWWA C901, UV protection, SDR-9, PE 3408 / PE 4710</b>								
					EndoPure Blue	Blue	Endot Lavender	Lavender	Endot Green	Green
					Pure-Core	Blue	Pure-Core	Lavender	Pure-Core	Green
					Blue Ice	Blue	Lavender Ice	Lavender	Green Ice	Green
		<b>1" Packed Joint CTS x 5/8x3/4" Meter Swivel Nut Ball Type Straight Curb Stops</b>								
					B43-342W-NL	1" CST x 5/8X3/4" MSN	BRW43-342W	1" CST x 5/8X3/4" MSN		
					76100MW-22-NL	1" CST x 5/8X3/4" MSN	76100MW-22-RWC	1" CST x 5/8X3/4" MSN		
					P-24350N-1	1" CST x 5/8X3/4" MSN	P-24350N-1-20	1" CST x 5/8X3/4" MSN		
		<b>1" Packed Joint CTS x 1" Meter Swivel Nut Ball Type Straight Curb Stops</b>								
					B43-444W-NL	1" CST x 1" MSN	BRW43-444W	1" CST x 1" MSN		
					76100MW-22-NL	1" CST x 1" MSN	76100MW-22-RWC	1" CST x 1" MSN		
					P-24350N-1	1" CST x 1" MSN	P-24350N-1-20	1" CST x 1" MSN		
		<b>1-1/2" Packed Joint CTS x 1-1/2" Meter Flange Ball Type Straight Curb Stops</b>								
					BF43-666W-NL	1-1/2" CST x 1-1/2" MF	BFRW43-666W	1-1/2" CST x 1-1/2" MF		
					76100MW-22-NL	1-1/2" CST x 1-1/2" MF	76100MW-22-RWC	1-1/2" CST x 1-1/2" MF		
					P-24335N	1-1/2" CST x 1-1/2" MF	P-24335N-20	1-1/2" CST x 1-1/2" MF		
		<b>2" Packed Joint CTS x 2" Meter Flange Ball Type Straight Curb Stops</b>								
					BF43-777W-NL	2" CST x 2" MF	BFRW43-777W	2" CST x 2" MF		
					76100MW-22-NL	2" CST x 2" MF	76100MW-22-RWC	2" CST x 2" MF		
					P-24335N	2" CST x 2" MF	P-24335N-20	2" CST x 2" MF		
		<b>3/4" FIPT x 5/8x3/4" Meter Swivel Nut Ball Type Straight Curb Stops</b>								
					B13-332W-NL	3/4" FIPT x 5/8X3/4" MSN	BRW13-332W	3/4" FIPT x 5/8X3/4" MSN		
					76101MW	3/4" FIPT x 5/8X3/4" MSN	76101MW-RWC	3/4" FIPT x 5/8X3/4" MSN		
					B-24351N-1	3/4" FIPT x 5/8X3/4" MSN	B-24351N-1-20	3/4" FIPT x 5/8X3/4" MSN		

Cat.	Desc	Manufacturer	Contractor's Material Identification	Potable		Reclaim		Wastewater		
				Model	Note	Model	Note	Model	Note	
Pressure System Materials	Straight Curb Stops	<b>1" FIPT x 1" Meter Swivel Nut Ball Type Straight Curb Stops</b>								
		Ford		B13-444W-NL	1" FIPT x 1" MSN	BRW13-444W	1" FIPT x 1" MSN			
		AY McDonald		76101MW	1" FIPT x 1" MSN	76101MW-RWC	1" FIPT x 1" MSN			
		Mueller		B-24351N-1	1" FIPT x 1" MSN	B-24351N-1-20	1" FIPT x 1" MSN			
	Angle Curb Stops	<b>1" Packed Joint CTS x 5/8x3/4" Meter Swivel Nut Ball Type Angle Curb Stops</b>								
		Ford		BA43-342W-NL	1" CTS x 5/8X3/4" MSN	BARW43-342W	1" CTS x 5/8X3/4" MSN			
		AY McDonald		74602B-22	1" CTS x 5/8X3/4" MSN	74602B-22-RWC	1" CTS x 5/8X3/4" MSN			
			Mueller		P-24258N-1	1" CTS x 5/8X3/4" MSN	P-24258N-1-20	1" CTS x 5/8X3/4" MSN		
		<b>1" Packed Joint CTS x 1" Meter Swivel Nut Ball Type Angle Curb Stops</b>								
		Ford		BA43-444W-NL	1" CTS x 1" MSN	BARW43-444W	1" CTS x 1" MSN			
		AY McDonald		74602B-22	1" CTS x 1" MSN	74602B-22-RWC	1" CTS x 1" MSN			
			Mueller		P-24258N-1	1" CTS x 1" MSN	P-24258N-1-20	1" CTS x 1" MSN		
		<b>1-1/2" Packed Joint CTS x 1-1/2" Meter Flange Ball Type Angle Curb Stops</b>								
		Ford		BFA43-666W-NL	1-1/2" CST x 1-1/2" MF	BFARW43-666W	1-1/2" CST x 1-1/2" MF			
		AY McDonald		74602B-22	1-1/2" CST x 1-1/2" MF	74602B-22-RWC	1-1/2" CST x 1-1/2" MF			
			Mueller		P-24276N	1-1/2" CST x 1-1/2" MF	P-24276N-20	1-1/2" CST x 1-1/2" MF		
		<b>2" Packed Joint CTS x 2" Meter Flange Ball Type Angle Curb Stops</b>								
		Ford		BFA43-777W-NL	2" CST x 2" MF	BFARW43-777W	2" CST x 2" MF			
		AY McDonald		74602B-22	2" CST x 2" MF	74602B-22-RWC	2" CST x 2" MF			
		Mueller		P-24276N	2" CST x 2" MF	P-24276N-20	2" CST x 2" MF			
	<b>3/4" FIPT x 5/8x3/4" Meter Swivel Nut Ball Type Angle Curb Stops</b>									
	Ford		BA13-332W-NL	3/4" FIPT x 5/8X3/4" MSN	BARW13-332W	3/4" FIPT x 5/8X3/4" MSN				
	AY McDonald		74604B	3/4" FIPT x 5/8X3/4" MSN	74604B-RWC	3/4" FIPT x 5/8X3/4" MSN				
		Mueller		B-24265N-1	3/4" FIPT x 5/8X3/4" MSN	B-24265N-1-20	3/4" FIPT x 5/8X3/4" MSN			
	<b>1" FIPT x 1" Meter Swivel Nut Ball Type Angle Curb Stops</b>									
	Ford		BA13-444W-NL	1" FIPT x 1" MSN	BARW13-444W	1" FIPT x 1" MSN				
	AY McDonald		74604B	1" FIPT x 1" MSN	74604B-RWC	1" FIPT x 1" MSN				
		Mueller		B-24265N-1	1" FIPT x 1" MSN	B-24265N-1-20	1" FIPT x 1" MSN			
	U-Branch	<b>1-1/2" Packed Joint CTS x 3/4" MIPT x 7-1/2" U-Branch</b>								
		Ford		U48-63-75-NL	1-1/2" CTS x 3/4" MIPT	U48-63-75-NL	1-1/2" CTS x 3/4" MIPT			
		AY McDonald		708U2M	1-1/2" CTS x 3/4" MIPT	708U2M	1-1/2" CTS x 3/4" MIPT			
			Mueller		P-15363N	1-1/2" CTS x 3/4" MIPT	P-15363N	1-1/2" CTS x 3/4" MIPT		
		<b>1-1/2" Packed Joint CTS x 1" MIPT x 9" U-Branch</b>								
Ford			U48-64-9-NL	1-1/2" CTS x 1" MIPT	U48-64-9-NL	1-1/2" CTS x 1" MIPT				
AY McDonald		708U2M	1-1/2" CTS x 1" MIPT	708U2M	1-1/2" CTS x 1" MIPT					
	Mueller		P-15363N	1-1/2" CTS x 1" MIPT	P-15363N	1-1/2" CTS x 1" MIPT				
Y-Branch	<b>1-1/2" Packed Joint CTS x 1" Packed Joint CTS Y-Branch (Shall only be used when double service meter boxes must be offset)</b>									
	Ford		Y44-264-NL	1-1/2" CTS x 1" CTS	Y44-264-NL	1-1/2" CTS x 1" CTS				
	AY McDonald		708YS22	1-1/2" CTS x 1" CTS	708YS22	1-1/2" CTS x 1" CTS				
		Mueller		P-15343N	1-1/2" CTS x 1" CTS	P-15343N	1-1/2" CTS x 1" CTS			
Sample Station	<b>Polyethylene Enclosure, Smooth Nose Stainless Steel Sampling Tap.</b>									
	Water Plus		301 W							
	Kupferle Foundry		Eclipse 88WC							

Cat.	Desc	Manufacturer	Contractor's Material Identification	Potable		Reclaim		Wastewater		
				Model	Note	Model	Note	Model	Note	
Pressure System Materials	Blow Off	Auto Flush Valve	<b>Automatic Flush Valve w/ Built-In Timer</b>							
		Hydro-Guard		HG-1 Standard		HG-1 Standard				
	Blow Off Valve	<b>Manual Blow Off Valve, Fits in Standard 5-1/4" Valve Box</b>								
		Kupferle Foundry		TF550		TF550				
		Water Plus		VB 2000B		VB 2000B				
	Over Shop Primer or Epoxy Coating	<b>Top Coat, High Performance, Modified Urethane Alkyd Enamel</b>								
		Sherwin Williams		PI Urethane Alkyd	SW 4081 Safety Red	PI Urethane Alkyd	SW 4080 Safety Purple	PI Urethane Alkyd	SW 4085 Safety Green	
					SW 4083 Safety Orange					
					SW 4084 Safety Yellow					
					SW 4085 Safety Green					
					SW 4086 Safety Blue					
				SW 4071 Rain Forest						
	Over Shop Asphaltic Coating (Remove Before Coating)	<b>Primer, Rust Inhibitive, Corrosion Resistant, Single Component Acrylic (Shop Asphaltic Exterior Coating Shall Be Removed Prior to Priming)</b>								
		Sherwin Williams		Pro-Cryl	Red Oxide	Pro-Cryl	Red Oxide	Pro-Cryl	Red Oxide	
<b>Top Coat, High Performance, Modified Urethane Alkyd Enamel</b>										
Sherwin Williams			PI Urethane Alkyd	SW 4081 Safety Red	PI Urethane Alkyd	SW 4080 Safety Purple	PI Urethane Alkyd	SW 4085 Safety Green		
				SW 4083 Safety Orange						
				SW 4084 Safety Yellow						
			SW 4085 Safety Green							
			SW 4086 Safety Blue							
			SW 4071 Rain Forest							
Gravity System Materials	Pipe	<b>4" to 15" PVC Gravity Sewer, Integral Bell, ASTM D3034 Minimum SDR 26 (PS 115)</b>								
		Diamond Plastics Corp						Sani-21	SDR 26	
		JM Eagle						Gravity Sewer	SDR 26	
		National Pipe & Plastics Inc						Sewer	SDR 26	
		North American Pipe Corp (NAPCO)						ASTM D3034/IB	SDR 26	
		<b>18" to 27" PVC Gravity Sewer, Integral Bell, ASTM F679 Minimum PS 115</b>								
		Diamond Plastics Corp						Sani-21	PS 115	
		JM Eagle						Gravity Sewer	PS 115	
	National Pipe & Plastics Inc						Sewer	PS 115		
	North American Pipe Corp (NAPCO)						ASTM F679/IB	PS 115		
	Fittings	PVC Fittings	<b>PVC Fittings, Integral Gasket, ASTM F-1336 SDR 26</b>							
			GPK Products						PVC Gasketed Fitting	SDR 26
			Harrington / HARCO						PVC Gasketed Fitting	SDR 26
			Multi Fittings						Trench Tough Plus	SDR 26
TIGRE USA							PVC Gasketed Fitting	SDR 26		
Flexible Pipe Connectors		<b>Flexible Pipe Connectors and Transitions, Stainless Steel Bands and Rings</b>								
	Fernco						1002, 1051, 1056	Strong Back		
	Indiana Seal						102, 151, 156	Amazon Shear Ring		
	Mission Rubber						MR02, MR51, MR56	Flex Seal ARC		

Cat.	Desc	Manufacturer	Contractor's Material Identification	Potable		Reclaim		Wastewater			
				Model	Note	Model	Note	Model	Note		
Gravity System Materials	Manholes	Precast Concrete Manholes	<b>Precast Manhole, ASTM C478. w/ red dyed crystalline hydrophilic admixture, Pro-Tech EW-1 Interior Coating. Manholes receiving force main flow, and next down stream, to be factory lined.</b>								
			Allied Precast						N/A		
			Atlantic Concrete Products						N/A		
			Delzotto Products, Inc.						N/A		
			Rinker Materials						N/A		
			Mack Concrete						N/A		
			Oldcastle Precast						N/A		
		Standard Precast Inc.						N/A			
		Concrete Admix	<b>Crystallined hydrophilic concrete admixture batched at plant / manufacture, w/ red dye, for all concrete structures (precast &amp; cast-in-place)</b>								
			Kryton International						KIM K301R	2% w/ red dye	
		Xypex Chemical Corp							Admix C-1000 Red	3.0-3.5% w/ red dye	
		Interior Liners	<b>New Manholes receiving force main flow, and next down stream, intergrally cast by precast manufacture</b>								
			AGRU							HDPE Sure Grip Liner	
			GU Liner							PP Liner	
			A-LOK Products							Dura Plate 100	
			<b>Existing Manholes receiving force main flow, and next down stream, prepared and installed per manufacture's instruction, Fiberglass liners only with prior approval.</b>								
			Raven Lining Systems							Raven 405	w/ primer
		SprayRoq Inc							SprayWall		
		L & F Manufacturing							Fiberglass Insert	Only with Approval	
		PREDL Systems							FRP Liner	Only with Approval	
		Heat Shrink Seal	<b>Heat Shrink Seal - Precast structures shall be primed with manufacturer approved primer prior to application of heat shrink encapsulation.</b>								
			Canusa-CPS							Wrapid Seal	w/ Canusa G Primer
		Pipeline Seal & Insulator (PSI)							Riser Wrap	w/ Polyken 1027 / 1039	
		Jointing Material	<b>Jointing Material, min. 2" width for all products to ensure squeeze out, w/ manufacturer approved primer.</b>								
			Henry Company							Ram-Nek	w/ primer
			Martin Asphalt Company							Evergrip 990	w/ primer
			Trelleborg Pipe Seals							C-56	w/ primer
		Gravity Pipe Seals	<b>Resilient pipe to manhole connector, w/ stainless steal bands - permissible for connections less than 15' below finish grade and pipes less than 12" in diameter</b>								
Trelleborg Pipe Seals								Kor-N-Seal WS Series			
Press-Seal								PSX Direct Drive			
<b>Cast-in-place pipe to manhole seals, required on all pipe 15' and deeper than finished grade and all pipes 12" and larger in diameter</b>											
A-LOK Products							A-Lok Premium or X-CEL				
Hail Mary Rubber							Star Seal				
Force Main Pipe Seals	<b>Modular pipe seals for all force main penetrations, w/ EDPE seals and Type 316 stainless steel hardware</b>										
	CCI Pipeline Systems							Wrap-It Link WL-SS			
	Pipeline Seal & Insulator (PSI)							Link-Seal S-316			
	Proco Products, Inc							PEN-SEAL ES			
Frame & Cover	<b>Grey Iron Casting Manhole Frame and Cover, Heavy Duty H20 Traffic Rated, Marked "SANITARY"</b>										
	U.S. Foundry							USF 225-AS	"SANITARY" lettering		
Adj. Rings	<b>HDPE or pre-cast top adjusting rings, Heavy Duty H20 Traffic Rated, w/ rope sealant</b>										
	Ladtech							24R, 24S			
MH Insert	<b>HDPE Manhole Insert, Vented, w/ lifting Handle</b>										
	Rainstopper							HDPE Rainstopper			

# Vendor Contacts and Communications

<b>Vendor</b>	<b>Contact</b>	<b>Communications</b>
Central Florida Lift Stations (CFL)	Scott Gingerich 407-575-0893 scott@cfliftstations.com	3/10/23 - Sent out Scope of Services, attempted contact by phone. 3/14/23 – Provided additional information. 3/17/23 – Followed up. 3/27/23 – Received Quote.
Danus Utilities	Richard Cook 386-233-5588 richard@danusutilities.com	3/10/23 - Sent out Scope of Services, attempted contact by phone. 3/14/23 – Provided additional information. 3/15/23 – Met Richard onsite 3/29/23 – Received Quote.
L7 Construction, Inc	Brian Brach 407-221-1891 bbrach@l7constructs.com	3/10/23 - Sent out Scope of Services, attempted contact by phone. 3/14/23 – Provided additional information. 3/17/23 – Followed up. 3/24/23 – Received Quote.
Prime Construction Group	Mark Allen 407-856-8180 Mark A. Allen mallen@primeconstructiongroup.com	3/10/23 - Sent out Scope of Services, attempted contact by phone. 3/14/23 – Provided additional information. 3/17/23 – Followed up. 3/21/23 – Provided “no- quote” response.