



Gregory L. Geist  
Director

February 10, 2022

Board of County Commissioners  
Clackamas County

Members of the Board:

Approval of a Contract with Xylem Water Solutions USA, Inc., for the Bolton Pump Station Pump Purchase. Contract value is \$188,513.88 until December 31, 2022 through WES Capital Improvement funds.  
No County General Funds are involved. - Procurement

<b>Purpose/Outcome</b>	Approval of a Contract with Xylem Water Solutions USA, Inc., for the Bolton Pump Station Pump Purchase. Contract value is \$188,513.88 until December 31, 2022 through WES Capital Improvement funds. No County General Funds are involved. - <i>Procurement</i>
<b>Dollar Amount and Fiscal Impact</b>	\$188,513.88 until December 31, 2022.
<b>Funding Source</b>	WES Capital Improvement Funds. No general fund dollars used.
<b>Duration</b>	Through December 31, 2022
<b>Previous Board Action/Review</b>	Brand Standardization was issued and approved by the Board on June 4, 2020 to establish a Brand Standardization for Flygt N-Impeller Pumps by Xylem.  This item was presented at Issues on February 8, 2022.
<b>Strategic Plan Alignment</b>	1. This project supports the WES Strategic Plan to provide Enterprise Resiliency by proactively addressing repairs and ordering replacements in advance, Infrastructure Strategy and Performance by reacting to current asset conditions and ensuring system reliability, and Operational Optimization by enhancing our functionality. 2. This project aligns with the County's Strategic goal to Ensure Safe, Healthy and Secure Communities by providing clean water to safeguard constituent health.
<b>Counsel Review</b>	Review Date: 1/31/2022 Counsel: Amanda Keller
<b>Procurement Review</b>	Was this item processed through Procurement? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Contact Person</b>	Carmen Brown, Senior Civil Engineer 971-380-1225
<b>Contract No.</b>	#4781

**Background:**

This contract will allow Water Environment Services (“WES”) to purchase three new pumps for the Bolton Pump Station. In Spring 2021, WES performed an emergency repair on the force main from the Bolton Pump Station and relocated the forcemain to facilitate easier access for future repairs and replaced a troublesome length of the pipeline. The forcemain relocation requires that new pumps be provided to maintain pump station capacity. The pumps are scheduled to be installed prior to Fall 2022. Due to extended equipment delivery lead times, WES needs to pre-purchase the three new Flygt pumps.

Pre-purchasing the new pumps, will allow for the pumps to be manufactured and delivered by June 2022, and a separate construction contract, which will include installation of these pumps this summer.

**Procurement Process:**

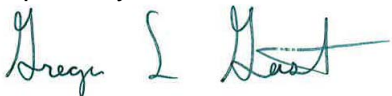
A Brand Standardization notice was posted on March 9, 2020. The Board approved the brand standardization on June 4, 2020.

This project was advertised in accordance with ORS and LCRB Rules on September 21, 2021. Bids were opened on October 6, 2021. The County received one (1) bid from Xylem Waster Solutions USA, Inc., at 188,513.88. After review of the bid, Xylem Water Solutions USA, Inc. was determined to be lowest responsive bidder.

**Recommendation:**

WES staff recommends the Board, acting as the governing body of Water Environment Services, approve the Contract with Xylem Water Solutions USA, Inc., for the Bolton Pump Station Pump Purchase. Contract value is \$188,513.88 until December 31, 2022 through WES Capital Improvement funds.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Greg Geist".

Greg Geist  
Director, WES

**PROCUREMENT**



**RECORDING MEMO**

New Agreement/Contract

Amendment/Change/Extension

Other: \_\_\_\_\_

Originating County Department: \_\_\_\_\_

Purchasing for: \_\_\_\_\_

Other party to contract/agreement: \_\_\_\_\_

Title from Business Meeting Agenda:

After recording please return to:

Clerk to the Board please complete below this line after Board approval \_\_\_\_\_

Board Agenda Date: \_\_\_\_\_

Agenda Item Number: \_\_\_\_\_



**GOODS AND SERVICES CONTRACT**  
**Contract #4781**

This Goods and Services Contract (this "Contract") is entered into between **Xylem Water Solutions USA, Inc.**, ("Contractor"), and Water Environment Services, a political subdivision of the State of Oregon ("District"), for the purposes of purchasing Flygt pumps.

**I. TERM**

This Contract shall become effective upon signature of both parties and shall remain in effect until **December 31, 2022**. This Contract and any amendments to this Contract will not be effective until approved in writing by an authorized representative of the Board of County Commissioners of Clackamas County acting as the Governing Body for the District. This Contract supersedes and cancels any prior contracts between the parties hereto for similar services.

**II. SCOPE OF WORK**

This Contract covers the Scope of Work as described in ITB# 2021-84, Bolton Pump Station: Flygt Pumps Purchase, attached and hereby incorporated by reference as Exhibit "A." This Contract consists of the following attached documents, which are listed in descending order of precedence, this Contract, Exhibit "A", and the Contractor's Quote attached and hereby incorporated by reference as Exhibit "B." Work shall be performed in accordance with a schedule approved by the District. The District Representative for this contract is: Carmen Brown.

**III. COMPENSATION**

1. **PAYMENT.** The District agrees to compensate the Contractor on a fixed fee basis as detailed in this Contract. The maximum total Contract compensation shall not exceed **One Hundred Eighty-Eight Thousand Five Hundred Thirteen Dollars and Eighty-Eight Cents (\$188,513.88)**.
2. **TRAVEL EXPENSE REIMBURSEMENT.** Authorized:  Yes  No  
If travel expense reimbursement is authorized in this Contract, such expenses shall only be reimbursed at the rates in the Clackamas County Contractor Travel Reimbursement Policy, hereby incorporated by reference, in effect at the time of the expense is incurred.
3. **INVOICES.** Invoices submitted for payment in connection with this Contract shall be properly documented and shall indicate pertinent District contract and/or purchase order numbers. All charges shall be billed monthly (unless a different payment period is outlined in Exhibit A) and will be paid net thirty (30) days from receipt of invoice and shall be subject to Oregon Revised Statute ("ORS") 293.462. If Contractor fails to present invoices in proper form within sixty (60) calendar days after the end of the month in which the services were rendered, Contractor waives any rights to present such invoice thereafter and to receive payment therefor. Invoices shall be submitted to the District's Representative at: [CBrown@clackamas.us](mailto:CBrown@clackamas.us)

**IV. CONTRACT PROVISIONS**

1. **ACCESS TO RECORDS.** Contractor shall maintain books, records, documents, and other evidence and accounting procedures and practices sufficient to reflect properly all costs of whatever nature claimed to have been incurred and anticipated to be incurred in the performance of this Contract. District and its duly authorized representatives shall have access to the books, documents, papers, and records of

Contractor which are directly pertinent to this Contract for the purpose of making audit, examination, excerpts, and transcripts. Such books and records shall be maintained by Contractor for a minimum of six (6) years, or such longer period as may be required by applicable law, following final payment and termination of this Contract, or until the conclusion of any audit, controversy or litigation arising out of or related to this Contract, whichever date is later.

**2. AVAILABILITY OF FUNDS.** District certifies that sufficient funds are available and authorized for expenditure to finance costs of this Contract within its current annual appropriation or expenditure limitation, provided, however, that continuation of this Contract, or any extension, after the end of the fiscal period in which it is written, is contingent on a new appropriation or limitation for each succeeding fiscal period sufficient in amount, in the exercise of the District's reasonable administrative discretion, to continue to make payments under this Contract.

**3. CAPTIONS.** The captions or headings in this Contract are for convenience only and in no way define, limit, or describe the scope or intent of any provisions of this Contract.

**4. COMPLIANCE WITH APPLICABLE LAW.** Contractor shall comply with all federal, state, county, and local laws, ordinances, and regulations applicable to the work to be done under this Contract. Contractor specifically agrees to comply with all applicable requirements of federal and state civil rights and rehabilitation statutes, rules, and regulations. Contractor shall also comply with the Americans with Disabilities Act of 1990 (Pub. L. No. 101-336), Title VI of the Civil Rights Act of 1964, Section V of the Rehabilitation Act of 1973, ORS 659A.142, and all regulations and administrative rules established pursuant to those laws. Contractor further agrees to make payments promptly when due, to all persons supplying to such Contractor, labor or materials for the prosecution of the work provided in this Contract; pay all contributions or amounts due the Industrial Accident Funds from such Contractor responsibilities incurred in the performance of this Contract; not permit any lien or claim to be filed or prosecuted against the District on account of any labor or material furnished; pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167. If Contractor fails or refuses to make any such payments required herein, the appropriate District official may pay such claim. Any payment of a claim in the manner authorized in this section shall not relieve the Contractor or Contractor's surety from obligation with respect to unpaid claims. Contractor shall promptly pay any person or entity that furnishes medical care to Contractor's employees those sums which Contractor agreed to pay for such services and all money Contractor collected or deducted from employee's wages to provide such services.

**5. EXECUTION AND COUNTERPARTS.** This Contract may be executed in several counterparts, each of which shall be an original, all of which shall constitute but one and the same instrument.

**6. GOVERNING LAW.** This Contract shall be governed and construed in accordance with the laws of the State of Oregon without regard to principles of conflicts of law. Any claim, action, or suit between District and Contractor that arises out of or relates to the performance of this Contract shall be brought and conducted solely and exclusively within the Circuit Court for Clackamas County, for the State of Oregon. Provided, however, that if any such claim, action, or suit may be brought in a federal forum, it shall be brought and conducted solely and exclusively within the United States District Court for the District of Oregon.

**7. HAZARD COMMUNICATION.** Contractor shall notify District prior to using products containing hazardous chemicals to which District employees may be exposed. Products containing hazardous chemicals are those products defined by Oregon Administrative Rules, Chapter 437. Upon District's request, Contractor shall immediately provide Material Safety Data Sheets for the products subject to this provision.

**8. RESPONSIBILITY FOR DAMAGES; INDEMNITY.** Contractor shall be responsible for all damage to tangible property, bodily injury to persons to the extent caused by, or resulting from any negligent act, omission, or willful misconduct of Contractor, its subcontractors, agents or employees. Contractor shall indemnify, defend and hold harmless the District and Clackamas County, and their respective officers, elected officials, directors, employees, consultants, and agents (the “District Indemnified Parties”) from and against any and all claims, demands, losses and expenses (including attorney’s fees), arising out of suits, claims and demands by reason of a) third party claims for damage to property or b) for injury or death of any person(s) to the extent attributable to the negligence of Contractor, its subcontractors and their officers, agents or employees. This indemnity applies unless claims or losses are due to the negligence or willful misconduct of Indemnified Parties or any one of them. It is the express intention of the parties, that each of them shall be liable for the consequences of their own negligent acts or omissions whether those acts or omission are the sole, joint, or concurring causes of any claims, demands, proceedings, losses or other liabilities.

**9. INDEPENDENT CONTRACTOR STATUS.** The service(s) to be rendered under this Contract are those of an independent contractor. Although the District reserve the right to determine (and modify) the delivery schedule for the Work to be performed and to evaluate the quality of the completed performance, District cannot and will not control the means or manner of Contractor’s performance. Contractor is responsible for determining the appropriate means and manner of performing the work. Contractor is not to be considered an agent or employee of District for any purpose, including, but not limited to: (A) The Contractor will be solely responsible for payment of any Federal or State taxes required as a result of this Contract; (B) This Contract is not intended to entitle the Contractor to any benefits generally granted to the District employees, including, but not limited to, vacation, holiday and sick leave, other leaves with pay, tenure, medical and dental coverage, life and disability insurance, overtime, Social Security, Workers' Compensation, unemployment compensation, or retirement; and (C) If the Contractor has the assistance of other persons in the performance of this Contract, and the Contractor is a subject employer, the Contractor shall qualify and remain qualified for the term of this Contract as an insured employer under Oregon Revised Statutes (“ORS”) Chapter 656.

**10. INSURANCE.** Insurance policies, which cannot be excess to a self-insurance program, are to be issued by an insurance company authorized to do business in the State of Oregon. Contractor shall provide insurance as indicated below:

**A. COMMERCIAL GENERAL LIABILITY**

The Contractor agrees to furnish the District evidence of commercial general liability insurance with a combined single limit of \$1,000,000 for each claim, incident, or occurrence, with an aggregate limit of \$2,000,000 for bodily injury and property damage for the protection of the District and Clackamas County, and their officers, elected officials, agents, and employees against liability for damages because of personal injury, bodily injury, death or damage to property, including loss of use thereof, in any way related to this Contract. The general aggregate shall apply separately to this project / location. The District, at its option, may require a complete copy of the above policy.

**B. AUTOMOBILE LIABILITY**

The Contractor agrees to furnish the District evidence of business automobile liability insurance with a combined single limit of \$1,000,000 for bodily injury and property damage for the protection of the District and Clackamas County, and their officers, elected officials, agents, and employees against liability for damages because of bodily injury, death or damage to property, including loss of use thereof in any way related to this Contract. The District, at its option, may require a complete copy of the above policy.

**C.** Contractor shall provide District a certificate of insurance naming the District and Clackamas County, and their officers, elected officials, agents, and employees additional insureds. If Contractor’s insurance policy does not include a blanket endorsement for additional

insured status when/where required by written contract (as required in this Contract), the insurance, shall include the District and Clackamas County and their agents, officers, and employees as expressly scheduled additional insured. Use CG 20 10 or its equivalent. Such insurance shall provide sixty (60) days written notice to the District in the event of a cancellation or material change and include a statement that no act on the part of the insured shall affect the coverage afforded to the District under this insurance. This policy(s) shall be primary insurance with respect to the District. Any insurance or self-insurance maintained by the District shall be excess and shall not contribute to it.

**D.** If the Contractor has the assistance of other persons in the performance of this Contract, and the Contractor is a subject employer, the Contractor agrees to qualify and remain qualified for the term of this Contract as an insured employer under ORS 656. The Contractor shall maintain employer's liability insurance with limits of \$100,000 for each accident, \$100,000 per disease for each employee, and \$500,000 each policy limit.

**E.** If any other required liability insurance is arranged on a "claims made" basis, "tail" coverage will be required at the completion of this Contract for a duration of thirty-six (36) months or the maximum time period the Contractor's insurer will provide "tail" coverage as subscribed, whichever is greater, or continuous "claims made" liability coverage for thirty-six (36) months following the contract completion. Continuous "claims made" coverage will be acceptable in lieu of "tail" coverage, provided it's retroactive date is on or before the effective date of this Contract.

**F.** There shall be no cancellation, material change, exhaustion of aggregate limits or intent not to renew insurance coverage without 60 days written notice by the Contractor to the District. This policy(s) shall be primary insurance with respect to the District. Any insurance or self-insurance maintained by the District shall be excess and shall not contribute to it.

**G.** Contractor shall require that all of its subcontractors of any tier provide insurance coverage (including additional insured provisions) and limits identical to the insurance required of the Contractor under this Contract, unless this requirement is expressly modified or waived by the District.

**11. LIMITATION OF LIABILITIES.** The District and Contractor (inclusive of their respective officers, directors, members, partners, subcontractors, and employees) shall be not be liable to each other for loss of profit or revenue, loss of use or business opportunity, loss of contract, cost of obtaining alternative performance, or for any indirect, consequential, special, incidental and punitive damages. The aggregate liability of each party, whether under contract law, in tort (including negligence), or otherwise, is limited to the Contract price ("Cap"). This Cap does not apply to: (a) costs, losses, or damages asserted by third parties for damage to property, (b) bodily injury, sickness, or death of any persons; or (c) gross negligence or willful misconduct. This Contract is expressly subject to the debt limitation of Oregon counties set forth in Article XI, Section 10, of the Oregon Constitution, and is contingent upon funds being appropriated therefore. Any provisions herein which would conflict with law are deemed inoperative to that extent.

**12. NOTICES.** Except as otherwise expressly provided in this Contract, any communications between the parties hereto or notices to be given hereunder shall be given in writing by personal delivery, facsimile, or mailing the same, postage prepaid, to Contractor or District at the address or number set forth on the signature page of this Contract, or to such other addresses or numbers as either party may hereafter indicate. Any communication or notice so addressed and mailed shall be deemed to be given five (5) days after mailing. Any such communication or notice delivered by facsimile shall be deemed to be given when receipt of transmission is generated by the transmitting machine. To be effective against District, such facsimile transmission must be confirmed by telephone notice to District's supervising

representative. Any communication or notice by personal delivery shall be deemed to be given when actually delivered.

**13. OWNERSHIP OF WORK PRODUCT.** All work product of Contractor that results from this Contract (the “Work Product”) is the exclusive property of District. District and Contractor intend that such Work Product be deemed “work made for hire” of which District shall be deemed the author. If for any reason the Work Product is not deemed “work for hire,” Contractor hereby irrevocably assigns to District all of its right, title, and interest in and to any and all of the Work Product, whether arising from copyright, patent, trademark or trade secret, or any other state or federal intellectual property law or doctrine. Contractor shall execute such further documents and instruments as District may reasonably request in order to fully vest such rights in the District. Contractor forever waives any and all rights relating to the Work Product, including without limitation, any and all rights arising under 17 USC § 106A or any other rights of identification of authorship or rights of approval, restriction or limitation on use or subsequent modifications.

**14. REPRESENTATIONS AND WARRANTIES.** Contractor represents and warrants to District that (1) Contractor has the power and authority to enter into and perform this Contract; (2) this Contract, when executed and delivered, shall be a valid and binding obligation of Contractor enforceable in accordance with its terms; (3) the Work under this Contract shall be performed in a good and workmanlike manner and in accordance with the highest professional standards; and (4) Contractor shall at all times during the term of this Contract, be qualified, professionally competent, and duly licensed to perform the Work. The warranties set forth in this section are in addition to, and not in lieu of, any other warranties provided.

- A. Performance Warranty.** Contractor warrants that the goods provided to the District shall consistently perform according to the performance characteristics described in the Scope of Work.
- B. Service Warranty.** Contractor warrants that the services provided herein to the District, if any, will be performed in a workmanlike manner and in accordance with the highest professional standards. Contractor’s liability and District’s remedy under this services warranty are limited to Contractor’s prompt correction of such services, provided that written notice of such alleged defective services shall have been given by the District to Contractor. The District agrees to provide Contractor reasonable access to the goods for purposes of repair or replacement under this services warranty. Failure of Contractor to promptly correct problems pursuant to this service warranty shall be deemed a material breach of this Contract.

**15. SURVIVAL.** All rights and obligations shall cease upon termination or expiration of this Contract, except for the rights and obligations set forth in Sections of Section IV: 1, 6, 8, 11, 13, 14, 15, 21, and all other terms and conditions which by their context are intended to survive termination of this Contract.

**16. SEVERABILITY.** If any term or provision of this Contract is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Contract did not contain the particular term or provision held to be invalid.

**17. SUBCONTRACTS AND ASSIGNMENTS.** Contractor shall not enter into any subcontracts for any of the work required by this Contract, or assign or transfer any of its interest in this Contract, by operation of law or otherwise, without obtaining prior written approval from the District. In addition to any provisions the District may require, Contractor shall include in any permitted subcontract under this Contract a requirement that the subcontractor be bound by this section and Sections 1, 8, 13, 15, and 27 as if the subcontractor were the Contractor. District’s consent to any subcontract shall not relieve Contractor



of any of its duties or obligations under this Contract. District may assign all or part of this Contract at any time without further permission required to the Contractor. District may assign all or part of this Contract at any time without further permission required to the Contractor.

**18. SUCCESSORS IN INTEREST.** The provisions of this Contract shall be binding upon and shall inure to the benefit of the parties hereto, and their respective authorized successors and assigns.

**19. TAX COMPLIANCE CERTIFICATION.** Contractor must, throughout the duration of this Contract and any extensions, comply with all tax laws of this state and all applicable tax laws of any political subdivision of this state. Any violation of this section shall constitute a material breach of this Contract. Further, any violation of Contractor's warranty in this Contract that Contractor has complied with the tax laws of this state and the applicable tax laws of any political subdivision of this state also shall constitute a material breach of this Contract. Any violation shall entitle District to terminate this Contract, to pursue and recover any and all damages that arise from the breach and the termination of this Contract, and to pursue any or all of the remedies available under this Contract, at law, or in equity, including but not limited to: (A) Termination of this Contract, in whole or in part; (B) Exercise of the right of setoff, and withholding of amounts otherwise due and owing to Contractor, in an amount equal to District's setoff right, without penalty; and (C) Initiation of an action or proceeding for damages, specific performance, declaratory or injunctive relief. District shall be entitled to recover any and all damages suffered as the result of Contractor's breach of this Contract, including but not limited to direct, indirect, incidental and consequential damages, costs of cure, and costs incurred in securing replacement performance. These remedies are cumulative to the extent the remedies are not inconsistent, and District may pursue any remedy or remedies singly, collectively, successively, or in any order whatsoever.

The Contractor represents and warrants that, for a period of no fewer than six calendar years preceding the effective date of this Contract, has faithfully complied with: (A) All tax laws of this state, including but not limited to ORS 305.620 and ORS chapters 316, 317, and 318; (B) Any tax provisions imposed by a political subdivision of this state that applied to Contractor, to Contractor's property, operations, receipts, or income, or to Contractor's performance of or compensation for any work performed by Contractor; (C) Any tax provisions imposed by a political subdivision of this state that applied to Contractor, or to goods, services, or property, whether tangible or intangible, provided by Contractor; and (D) Any rules, regulations, charter provisions, or ordinances that implemented or enforced any of the foregoing tax laws or provisions.

**20. TERMINATION.** This Contract may be terminated for the following reasons: (A) This Contract may be terminated at any time by mutual consent of the parties, or by the District for convenience upon thirty (30) days' written notice to the Contractor; (B) District may terminate this Contract effective upon delivery of notice to Contractor, or at such later date as may be established by the District, if (i) federal or state laws, rules, regulations, or guidelines are modified, changed, or interpreted in such a way that either the work under this Contract is prohibited or the District are prohibited from paying for such work from the planned funding source; or (ii) any license or certificate required by law or regulation to be held by the Contractor to provide the services required by this Contract is for any reason denied, revoked, or not renewed; (C) This Contract may also be immediately terminated by the District for default (including breach of Contract) if (i) Contractor fails to provide services or materials called for by this Contract within the time specified herein or any extension thereof; or (ii) Contractor fails to perform any of the other provisions of this Contract or so fails to pursue the work as to endanger performance of this Contract in accordance with its terms, and after receipt of notice from the District, fails to correct such failure within ten (10) business days; or (D) If sufficient funds are not provided in future approved budgets of the District (or from applicable federal, state, or other sources) to permit the District in the exercise of its reasonable administrative discretion to continue this Contract, or if the program for which this Contract was executed is abolished, District may terminate this Contract without further liability by

giving Contractor not less than thirty (30) days' notice.

**21. REMEDIES.** (A) In the event of termination pursuant to Section 20(A), (B)(i), or (D), Contractor's sole remedy shall be payment for the work completed or goods received and accepted by the District, less previous amounts paid and any claim(s) which the District has against Contractor. If previous amounts paid to Contractor exceed the amount due to Contractor under Section 21(A), Contractor shall pay any excess to District on demand. (B) In the event of termination pursuant to Sections 20(B)(ii) or 20(C), the District shall have any remedy available to it in law or equity. If it is determined for any reason that Contractor was not in default under Sections 20(B)(ii) or 20(C), the rights and obligations of the parties shall be the same as if the Contract was terminated pursuant to Section 20(A). (C) Upon receiving a notice of termination of this Contract, Contractor shall immediately cease all activities under this Contract, unless District expressly directs otherwise in such notice of termination. Upon termination of this Contract, Contractor shall deliver to District all documents, information, works-in-progress and other property that are or would be deliverables had the Contract work been completed. Upon District's request, Contractor shall surrender to anyone District designates, all documents, research or objects or other tangible things needed to complete the work.

**22. NO ATTORNEY FEES.** In the event any arbitration, action or proceeding, including any bankruptcy proceeding, is instituted to enforce any term of this Contract, each party shall be responsible for its own attorneys' fees and expenses.

**23. NO THIRD PARTY BENEFICIARIES.** District and Contractor are the only parties to this Contract and are the only parties entitled to enforce its terms. Nothing in this Contract gives, is intended to give, or shall be construed to give or provide any benefit or right, whether directly, indirectly or otherwise, to third persons unless such third persons are individually identified by name herein and expressly described as intended beneficiaries of the terms of this Contract.

**24. TIME IS OF THE ESSENCE.** Contractor acknowledges that time is of critical importance and agrees to furnish the equipment in accordance with a mutually agreed upon schedule. Upon failure to do so, the Contractor shall pay the District liquidated damages of \$500 per day on a day per day basis corresponding to the delayed delivery. Liquidated damages shall not exceed, in the aggregate, 5% of the value of this Purchase Order. The liquidated damages are the Contractor's sole liability and the District's exclusive remedy for late delivery.

**25. FOREIGN CONTRACTOR.** If the Contractor is not domiciled in or registered to do business in the State of Oregon, Contractor shall promptly provide to the Oregon Department of Revenue and the Secretary of State, Corporate Division, all information required by those agencies relative to this Contract. The Contractor shall demonstrate its legal capacity to perform these services in the State of Oregon prior to entering into this Contract.

**26. FORCE MAJEURE.** Neither District nor Contractor shall be held responsible for delay or default caused by fire, terrorism, riot, acts of God, or war where such cause was beyond, respectively, District's or Contractor's reasonable control. Contractor shall, however, make all reasonable efforts to remove or eliminate such a cause of delay or default and shall upon the cessation of the cause, diligently pursue performance of its obligations under this Contract.

**27. WAIVER.** The failure of District to enforce any provision of this Contract shall not constitute a waiver by District of that or any other provision.

**28. COMPLIANCE.** Pursuant to the requirements of ORS 279B.020 and 279B.220 through 279B.235 and Article XI, Section 10, of the Oregon Constitution, the following terms and conditions are made a

part of this Contract: (A) Contractor shall: (i) Make payments promptly, as due, to all persons supplying to the Contractor labor or materials for the prosecution of the work provided for in this Contract; (ii) Pay all contributions or amounts due the Industrial Accident Fund from such Contractor or subcontractor incurred in the performance of this Contract; (iii) Not permit any lien or claim to be filed or prosecuted against the District on account of any labor or material furnished. (B) If the Contractor fails, neglects or refuses to make prompt payment of any claim for labor or services furnished to the Contractor or a subcontractor by any person in connection with this Contract as such claim becomes due, the proper officer representing the District may pay such claim to the person furnishing the labor or services and charge the amount of the payment against funds due or to become due the Contractor by reason of this Contract. (C) The Contractor shall pay employees for work in accordance with ORS 279B.020 and ORS 279B.235, which is incorporated herein by this reference. All subject employers working under the contract are either employers that will comply with ORS 656.017 or employers that are exempt under ORS 656.126. The Contractor shall comply with the prohibitions set forth in ORS 652.220, compliance of which is a material element of this Contract and failure to comply is a material breach that entitles District to exercise any rights and remedies available under this Contract including, but not limited to, termination for default. (D) The Contractor shall promptly, as due, make payment to any person or copartnership, association or corporation furnishing medical, surgical and hospital care or other needed care and attention incident to sickness and injury to the employees of the Contractor, of all sums which the Contractor agrees to pay for such services and all moneys and sums which the Contractor collected or deducted from the wages of the Contractor's employees pursuant to any law, contract or agreement for the purpose of providing or paying for such services.

**29. DELIVERY.** All deliveries shall be F.O.B. destination with all transportation and handling charges paid by the Contractor, unless specified otherwise in this Contract. Responsibility and liability for loss or damage shall remain with the Contractor until final inspection and acceptance, when responsibility shall pass to the District except as to latent defects, fraud and Contractor's warranty obligations.

**30. INSPECTIONS.** Goods and services furnished under this Contract will be subject to inspection and test by the District at times and places determined by the District. If the District finds goods and services furnished to be incomplete or not in compliance with the Contract, the District, at its sole discretion, may either reject the goods and services, require Contractor to correct any defects without charge, or negotiate with Contractor to sell the goods and services to the District at a reduced price, whichever the District deems equitable under the circumstances. If Contractor is unable or refuses to cure any defects within a time deemed reasonable by the District, the District may reject the goods and services and cancel the Contract in whole or in part. Nothing in this paragraph shall in any way affect or limit the District's rights as a Buyer, including the rights and remedies relating to rejection under ORS 72.6020 and revocation of acceptance under ORS 72.6080.

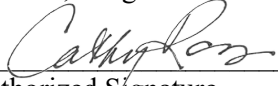
**31. MERGER.** THIS CONTRACT CONSTITUTES THE ENTIRE AGREEMENT BETWEEN THE PARTIES WITH RESPECT TO THE SUBJECT MATTER REFERENCED THEREIN. THERE ARE NO UNDERSTANDINGS, AGREEMENTS, OR REPRESENTATIONS, ORAL OR WRITTEN, NOT SPECIFIED HEREIN REGARDING THIS CONTRACT. NO AMENDMENT, CONSENT, OR WAIVER OF TERMS OF THIS CONTRACT SHALL BIND EITHER PARTY UNLESS IN WRITING AND SIGNED BY ALL PARTIES. ANY SUCH AMENDMENT, CONSENT, OR WAIVER SHALL BE EFFECTIVE ONLY IN THE SPECIFIC INSTANCE AND FOR THE SPECIFIC PURPOSE GIVEN. CONTRACTOR, BY THE SIGNATURE HERETO OF ITS AUTHORIZED REPRESENTATIVE, ACKNOWLEDGES HAVING READ AND UNDERSTOOD THIS CONTRACT AND CONTRACTOR AGREES TO BE BOUND BY ITS TERMS AND CONDITIONS.

**SIGNATURE PAGE FOLLOWS**

By their signatures below, the parties to this Contract agree to the terms, conditions, and content expressed herein.

**Xylem Water Solutions USA, Inc.**  
9625 SW Tualatin Sherwood Road  
Tualatin, Oregon 97062

Water Environment Services

 1/30/22  
Authorized Signature Date

\_\_\_\_\_  
Chair Date

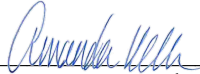
Cathy Ross, Contracts Administrator  
\_\_\_\_\_  
Name / Title (Printed)

\_\_\_\_\_  
Recording Secretary

808435-93  
Oregon Business Registry #

APPROVED AS TO FORM

FBC/Delaware  
Entity Type / State of Formation

 1/31/22  
County Counsel Date

**EXHIBIT A**  
**ITB# 2021-84**  
**Bolton Pump Stations: Flygt Pumps Purchase**  
**Issued September 21, 2021**



**INVITATION TO BID  
ITB # 2021-84  
Bolton Pump Station: Flygt Pumps Purchase**

**ISSUE DATE: September 21, 2021**

**BID DUE DATE AND TIME  
October 6, 2021 (2:00 PM, PST)**

**SUBMITTAL LOCATION:**

**Clackamas County Procurement Division**

**[Procurement@clackamas.us](mailto:Procurement@clackamas.us)**

**1.0 GENERAL**

1.01 SCHEDULE OF EVENTS:

Invitation to Bid Issue Date.....	<b>September 21, 2021</b>
Protest of Specifications Deadline .....	<b>September 28, 2021</b>
Request for Clarification or Change Deadline .....	<b>October 5, 2021</b>
Bid Due Date and Time.....	<b>October 6, 2021</b>
Deadline for Protest of Award .....	7 calendar days after date on Notice of Award letter
Anticipated Contract Begin Date .....	<b>December 2021</b>

This Schedule of Events is subject to change. Any changes will be made through the issuance of Written Addenda.

1.02 ISSUING OFFICE:

Bidding Documents can be downloaded from OregonBuys at the following address: <https://oregonbuys.gov/bsa/view/login/login.xhtml> Document No. S-C01010-00000801. Prospective Bidders will need to sign in to download the information and that information will be accumulated for a Plan Holder's List. Prospective Bidders are responsible for obtaining any Addenda from Website listed above.

The Procurement Division of Clackamas County (“County”) is the issuing office and is the sole point of contact for this Invitation to Bid (“ITB”). All questions regarding this ITB should be directed to the Administrative Contact person identified below:

Name: Tralee Whitley  
 Title: Procurement and Contract Analyst  
 Email: [TWhitley@clackamas.us](mailto:TWhitley@clackamas.us)

1.03 DEFINITIONS

As used in this ITB, the terms set forth below are defined as follows:

1. "Addenda" means an addition to, deletion from, a material change in, or general interest explanation of the ITB.
2. "Exhibits" means those documents which are attached to and incorporated as part of the ITB.
3. "Bid" means an offer, binding on the Bidder and submitted in response to an Invitation to Bid.
4. "Bidder" means an entity that submits a Bid in response to an ITB.
5. "Bid Due Date and Time" means the date and time specified in the ITB as the deadline for submitting Bids.
6. "Invitation to Bid" or “ITB” means a Solicitation Document for the solicitation of competitive, Written, signed and sealed Bids in which Specifications, price, and delivery (or project completion) are the predominant award criteria.
7. “LCRBR” means the Clackamas County Local Contract Review Board Rules found at: <https://www.clackamas.us/code>
8. "Responsible" means an entity that demonstrates their ability to perform satisfactorily under a contract by meeting the applicable standards of responsibility outlined in LCRBR C-047-0500.
9. "Responsive" means a Bid that has substantially complied in all material respects with the criteria outlined in the ITB.
10. “Written or Writing” means letters, characters, and symbols inscribed on paper by hand, print, type, or other method of impression intended to represent or convey particular ideas or meanings.



## 2.0 INTRODUCTION AND BACKGROUND

### 2.01 INTRODUCTION:

Water Environment Services (“WES”) had an emergency repair on the force main of the Bolton pump station last spring that reduced the firm capacity of the pump station. WES needs to pre-purchase three (3) new Flygt pumps in order to regain the pump station firm capacity before the next wet weather season, by the year 2022.

### 2.02 BACKGROUND:

WES is a special district operating under an ORS 190 Partnership that produces clean water and protects water quality for more than 190,000 people living and working in Clackamas County, Oregon. WES owns and operates five resource recovery facilities, 23 pumping stations and more than 350 miles of pipes. WES serves the Cities of Milwaukie, Happy Valley, Oregon City, West Linn, Gladstone, Johnson City, and unincorporated areas within Clackamas County.

Clackamas County sought brand specification approval per ORS 279B.215 on March 9, 2020, the County issued a Notification of Brand Name Specification specifically for this project. The notification was published for fourteen (14) days and received no protests. The Clackamas County Board of County Commissioners approved the brand specification at the Board of County Commissioners’ Business Meeting held June 4, 2020.

### 2.03 SCOPE OF WORK:

Water Environment Services (“WES”) is requesting bids for purchasing three (3) new Flygt pumps for the Bolton pump station. WES has standardized their pumps on Flygt N-Impeller Pumps by Xylem, therefore, no equals will be considered. Bolton pump station located at 6615 Failing Street, West Linn, OR 97068. Coordination pump delivery with Project Manager.

## 3.0 SPECIFICATIONS / STATEMENT OF WORK

### 3.01 REQUIRED SPECIFICATIONS:

In order to qualify as a Responsive Bidder, the Bid needs to meet the required specifications per Exhibit A, attached and hereby incorporated by reference.

### 3.02 TERMS AND CONDITIONS:

Sample Contract: Submission of a Proposal in response to this ITB indicates Proposer’s willingness to enter into a contract containing substantially the same terms (including insurance requirements) of the sample contract identified below. No action or response to the sample contract is required under this ITB. This ITB and all supplemental information in response to this ITB will be a binding part of the final contract.

The applicable **Sample Goods and Services** Contract.

The following insurance requirements will be applicable.

- Professional Liability: combined single limit, or the equivalent, of not less than \$1,000,000 per occurrence, with an annual aggregate limit of \$2,000,000 for damages caused by error, omission or negligent acts.
- Commercial General Liability: combined single limit, or the equivalent, of not less than \$1,000,000 per occurrence, with an annual aggregate limit of \$2,000,000 for Bodily Injury and Property Damage.
- Automobile Liability: combined single limit, or the equivalent, of not less than \$500,000 per occurrence for Bodily Injury and Property Damage.

## **4.0 BIDDER QUALIFICATIONS**

### **4.01 MINIMUM QUALIFICATIONS:**

In order to qualify as a Responsive Bidder, the Bidder needs to meet the minimum qualifications below: Supplier shall provide Flygt N-Impeller Pumps by Xylem as specified. No equals will be considered.

## **5.0 REQUIRED SUBMITTALS**

### **5.01 SUBMISSION OF BID AND QUANTITY:**

Submit one (1) **sealed** copy of the Bid by email to the address below. The subject line of the email must identify ITB# 2021-84 Bolton Pump Station: Flygt Pumps Purchase. Bidders are encouraged to contract Procurement to confirm receipt of the Bid. The Bid must contain all of the required information and must have signatures on the required forms and be received by the Closing Date and time indicated in Section 1.01 of the ITB.

Submit Bids (including all required documents) by 2:00 PM PT to:

[procurement@clackamas.us](mailto:procurement@clackamas.us)

Late Bids will not be accepted.

### **5.02 REQUIRED SUBMITTALS:**

It is the Bidder's sole responsibility to submit information in fulfillment of the requirements of this ITB. If pertinent information or required submittals are not included within the Bid, it may cause the Bid to be rejected.

Bidders should submit the following information:

- Description of how the goods or services offered specifically meet the required specifications described in Exhibit A.
- Exhibit B, Certifications, fully completed.
- Exhibit C, References, fully completed.
- Exhibit D, Bid Price Form, fully completed.

## **6.0 EVALUATION AND AWARD**

### **6.01 EVALUATION:**

Bids will be evaluated to determine the lowest Responsive Responsible Bidder based upon the ITB, Exhibits and Addenda. County may engage in any of the processes identified in the applicable LCRBR to determine the Contract award.

### **6.02 BEST AND FINAL OFFER:**

In accordance with LCRBR C-047-0261, the County may request best and final offers from those Bidders determined by County to be reasonably viable for contract award. However, County reserves the right to award a contract on the basis of initial bid received. Therefore, each bid should contain the Bidder's best terms from a price and technical standpoint. Following evaluation of the best and final offers, County may select for final contract negotiations/execution the offers that are most advantageous to County, considering cost and the evaluation criteria in this ITB.

6.03 INTERGOVERNMENTAL COOPERATIVE PROCUREMENT STATEMENT:

Pursuant to ORS 279A and LCRBR, other public agencies shall have the ability to purchase the awarded goods and services from the awarded contractor(s) under terms and conditions of the resultant contract. Any such purchases shall be between the contractor and the participating public agency and shall not impact the contractor's obligation to County. Any estimated purchase volumes listed herein do not include other public agencies and County makes no guarantee as to their participation. Any proposer, by written notification included with their proposal, may decline to extend the prices and terms of this solicitation to any and/or all other public agencies. County grants to any and all public serving governmental agencies, authorization to purchase equivalent services or products described herein at the same submitted unit bid price, but only with the consent of the contractor awarded the contract by the County.

6.04 INVESTIGATION OF REFERENCES:

County reserves the right to investigate and to consider the references and the past performance of any Bidder with respect to such things as its performance or provision of similar goods or services, compliance with specifications and contractual obligations, and its lawful payment of suppliers, subcontractors, and workers. County further reserves the right to consider past performance, historical information and facts, whether gained from the Bid, interviews, references, County or any other source. County may postpone the award or execution of the Contract after the announcement of the notice of intent to award in order to complete its investigation.

<b>7.0 INSTRUCTIONS TO BIDDERS</b>
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7.01 APPLICABLE STATUTES AND RULES:

This ITB is subject to the applicable provisions and requirements of the Oregon Revised Statutes, and the LCRBR.

7.02 MANUFACTURER'S NAMES AND APPROVED EQUIVALENT:

No equivalent substitutions for the identified brand name will be accepted.

7.03 REQUEST FOR CLARIFICATION OR CHANGE:

Requests for clarification or change of the ITB must be in Writing and received by the issuing office no later than the Request for Clarification or Change Deadline as specified in the Schedule of Events. Such requests for clarification or change must include the reason for the Bidder's request. County Tech will consider all timely requests and, if acceptable to County, amend the ITB by issuing an Addendum. An Addendum will be posted on OregonBuys. Envelopes or e-mails containing requests should be clearly marked as a Request for Clarification or Change and include the ITB Number and Title.

7.04 PROTESTS OF THE BID/SPECIFICATIONS:

Protests must be in accordance with LCRBR C-047-0730. Protests of Specifications must be received in writing on or before 5:00 p.m. (Pacific Time), on the date indicated in the Schedule of Events, or within three (3) business days of issuance of any addendum, at the Procurement Services Division address listed in Section 1 of this ITB. Protests may not be faxed. Protests of the ITB specifications must include the reason for the protest and any proposed changes to the requirements.

7.05 ADDENDA:

If any part of this ITB is changed, an addendum will be provided to Proposers that have provided an address to the Procurement Division for this procurement. It shall be Proposers responsibility to regularly check projects OregonBuys listing for any published Addenda or response to clarifying questions.

- 7.06 PREPARING AND SIGNATURE:  
All Required Submittals must be Written and signed by an authorized representative with authority to bind the Bidder. Signature certifies that the Bidder has read, fully understands, and agrees to be bound by the ITB and all Exhibits and Addenda to the ITB.
- 7.07 PUBLIC RECORD:  
Upon completion of the ITB process, information in your Bid will become subject records under the Oregon Public Records Law. Only those items considered a “trade secret” under ORS 192.501(2), may be exempt from disclosure. If a Bid contains what the Bidder considers a “trade secret” the Bidder must mark each sheet of information as such. Only bona fide trade secrets may be exempt and only if public interest does not require disclosure.
- 7.08 MODIFICATION:  
Prior to submittal, Bidders should initial modifications or erasures in ink by the person signing the Bid. After submittal but prior to the Bid Due Date and Time, Bids may be modified by submitting a Written notice indicating the modifications and a statement that the modification amends and supersedes the prior Bid. After the Bid Due Date and Time, Bidders may not modify their Bid.
- 7.09 WITHDRAWALS:  
A Bidder may withdraw their Bid by submitting a Written notice to the issuing office identified in this ITB prior to the Bid Due Date and Time. The Written notice must be on the Bidder’s letterhead and signed by an authorized representative of the Bidder. The Bidder, or authorized representative of the Bidder, may also withdraw their Bid in person prior to the Bid Due Date and Time, upon presentation of appropriate identification and evidence of authority to withdraw the Bid satisfactory to County.
- 7.10 LATE SUBMITTALS:  
Bids and Written notices of modification or withdrawal must be received no later than the Bid Due Date and Time. County may not accept or consider late Bids, modifications, or withdrawals except as permitted in LCRBR C-047-0330(6).
- 7.11 BID OPENING:  
Bids will be opened immediately following the Bid Due Date and Time at the Submittal Location. The base bid results will be posted to OregonBuys.
- 7.12 BIDS ARE OFFERS:  
The Bid is the Bidder’s offer to enter into a contract pursuant to the terms and conditions specified in the ITB, its Exhibits, and Addenda. The offer is binding on the Bidder for one hundred twenty (120) days. County’s award of the Contract constitutes acceptance of the offer and binds the Bidder. The Bid must be a complete offer and fully Responsive to the ITB.
- 7.13 CONTINGENT BIDS:  
Bidder shall not make its Bid contingent upon County’s acceptance of specifications or contract terms that conflict with or are in addition to those in the ITB, its Exhibits, or Addenda.
- 7.14 RIGHT TO REJECT:  
County may reject, in whole or in part, any Bid not in compliance with the ITB, Exhibits, or Addenda, if upon County’s Written finding that it is in the public interest to do so. County may reject all Bids for good cause, if upon County’s Written finding that it is in the public interest to do so. Notification of

rejection of all Bids, along with the good cause justification and finding of public interest, will be sent to all who submitted a Bid.

7.15 AWARDS:

County reserves the right to make award(s) by individual item, group of items, all or none, or any combination thereof. County reserves the right to delete any item from the award when deemed to be in the best interest of County.

7.16 LEGAL SUFFICIENCY REVIEW:

Prior to execution of any Contract resulting from this ITB, the Contract may be reviewed for legal sufficiency by a qualified attorney for County pursuant to the applicable Oregon Revised Statutes and County Policy. Legal sufficiency review may result in changes to the terms and conditions specified in the ITB, Exhibits, and Addenda.

7.17 BID RESULTS:

A notice of intent to award containing the Bid results will be issued to all Bidders and posted to OregonBuys. The Bid file will be available for Bidder's review during the protest period at the Procurement Division. Bidders must make an appointment with the issuing office to view the Bid file. After the protest period, the file will be available by making a Public Records Request to County through the Procurement Division.

7.18 BID PREPARATION COST:

County is not liable for costs incurred by the Bidder during the ITB process.

7.19 BID CANCELLATION:

If an ITB is cancelled prior to the Bid Due Date and Time, all Bids that may have already been received will be returned to the Bidders. If an ITB is cancelled after the Bid Due Date and Time or all Bids are rejected, the Bids received will be retained and become part of County's permanent Bid file.

7.20 COLLUSION:

By responding, the Proposer states that the proposal is not made in connection with any competing Proposer submitting a separate response to the ITB, and is in all aspects fair and without collusion or fraud. Proposer also certifies that no officer, agent, elected official, or employee of County has a pecuniary interest in this Proposal.

7.21 NONDISCRIMINATION:

The successful proposer agrees that, in performing the work called for by this ITB and in securing and supplying materials, contractor will not discriminate against any person on the basis of race, color, religious creed, political ideas, sex, age, marital status, sexual orientation, gender identity, veteran status, physical or mental handicap, national origin or ancestry, or any other class protected by applicable law.

7.22 PROTEST OF CONTRACTOR SELECTION, CONTRACT AWARD:

An eligible Bidder who feels adversely affected or aggrieved may submit a protest within seven (7) calendar days after County issues a notice of intent to award a Contract. The protest must be clearly identified as a protest, identify the type and nature of the protest, and include the ITB number and title. The rules governing protests are at LCRBR C-047-0740.

**EXHIBIT A**  
**REQUIRED SPECIFICATIONS**

## SECTION 01 33 00

### SUBMITTAL PROCEDURES

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. This Section contains administrative and procedural requirements for submittals for review, information, and for Project closeout.
- B. Section includes:
  - 1. Schedule of Submittals.
  - 2. Submittal requirements.
  - 3. Submittal procedures.
  - 4. Engineer review.
  - 5. Resubmittal procedures.
  - 6. Product data.
  - 7. Shop Drawings.
  - 8. Samples.
  - 9. Design data.
  - 10. Test reports.
  - 11. Certificates.
  - 12. Manufacturer's instructions.
  - 13. Manufacturer's field reports.
  - 14. Operation and maintenance (O&M) instructions.

##### 1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Engineer's responsive action.
- B. Informational Submittals: Written and graphic information and physical Samples that do not require Engineer's responsive action. Submittals may be rejected for not complying with requirements.

##### 1.3 SCHEDULE OF SUBMITTALS

- A. Within 10 days after the Effective Date of the Contract, Contractor shall submit to Engineer a preliminary Schedule of Submittals, including proposed list of major products proposed for use, with specification section reference, name of manufacturer, supplier, trade name, subcontractor and model number of each product. Provide a schedule of specific target dates for the submission and return of submittals and shop drawings required by the Contract Documents.

- B. For products specified only by reference standards, indicate manufacturer, trade name, model or catalog designation, and reference standards.
- C. The list and schedule shall be updated and resubmitted when requested by the Engineer.
- D. Contractor's Schedule of Submittals will be acceptable to the Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

#### 1.4 SHOP DRAWING AND SAMPLE SUBMITTAL REQUIREMENTS

- A. Before submitting a Shop Drawing or Sample, Contractor shall have:
  - 1. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
  - 2. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
  - 3. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
  - 4. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
- B. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.
- C. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review of each such variation.

#### 1.5 SUBMITTAL PROCEDURES

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review in accordance with the accepted Schedule of Submittals.
- B. Transmit each submittal with Engineer-accepted transmittal form certifying compliance with requirements of Contract Documents.



- C. Sequentially number transmittal forms. Mark transmittal forms for resubmittals with original number and sequential alphabetic suffix.
- D. Show each Submittal with the following numbering and tracking system:
  - 1. Submittals shall be numbered according to specification section. For example, the first product submittal for Section 055000 would be "055000-1". Resubmittals of that submittal would be "055000-1.1", followed by "055000-1.2", and so on. The second product submittal for that Section would be "055000-2".
  - 2. Submittals containing product information from multiple sections of the specifications will not be reviewed. Contractor and/or their supplier shall divide submittals in a manner that meets the numbering and tracking system requirements stated herein.
  - 3. Alternative method of numbering may be used if acceptable to Engineer.
- E. Identify: Project, Contractor, subcontractor and supplier, pertinent drawing and detail number, and specification Section number appropriate to submittal.
- F. Apply Contractor's stamp, signed or initialed, certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is according to requirements of the Work and Contract Documents.
- G. Coordinate submission of related items.
  - 1. All shop drawings for interrelated items shall be scheduled for submission at the same time.
  - 2. The Engineer may hold shop drawings in cases where partial submission cannot be reviewed until the complete submission has been received or where shop drawings cannot be reviewed until correlated items affected by them have been received. When such shop drawings are held, the Engineer will advise the Contractor in writing that the shop drawing submitted will not be reviewed until shop drawings for all related items have been received.
- H. When hard copies of submittals are provided by the Contractor, six (6) copies of all materials shall be provided to the Engineer. Two (2) copies of reviewed submittals will be kept by the Engineer, two (2) copies of reviewed submittals will be transmitted to the Owner, and two (2) copies of reviewed submittals will be returned to the Contractor. If the Contractor requests that more than two (2) copies of the reviewed submittal be returned, then the Contractor shall submit the appropriate quantity of submittals.

- I. When electronic transmittals of submittals are provided by the Contractor under established protocols described elsewhere in the Contract Documents or as jointly developed by the Owner, Engineer and Contractor, provide electronic submittals in portable document format (PDF) in addition to the source document format (Word, Excel, AutoCAD, etc.). Reviewed submittals will be returned to the Contractor as PDF electronic files.
- J. For each submittal for review, allow not less than fourteen (14) days for Engineer review, excluding delivery time to and from Contractor.
- K. Identify variations in Contract Documents and product or system limitations that may be detrimental to successful performance of completed Work.
- L. Allow space on submittals for Contractor and Engineer review stamps or comments.
- M. When revised for resubmission, the Contractor shall identify changes made since previous submission. A narrative of changes shall be provided, and shop drawings or calculations shall indicate that a revision was made.
- N. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with review comments.
- O. Submittals not requested will not be recognized nor processed.
- P. Incomplete Submittals: Engineer will not review. Complete submittals for each item are required. Delays resulting from incomplete submittals are not the responsibility of Engineer.

## 1.6 ENGINEER REVIEW

- A. Informational submittals and other similar data are for Engineer's information, do not require Engineer's responsive action, and will not be reviewed or returned with comment.
- B. The Engineer's review of submittals and shop drawings is not a check of any dimension or quantity and will not relieve the Contractor from responsibility for errors of any sort in the submittals and shop drawings.
- C. Submittals made by Contractor that are not required by Contract Documents may be returned without action.
- D. The Engineer will review the submitted data and shop drawings and return to the Contractor with notations thereon indicating "No Exception Taken", "Make Corrections Noted", "Rejected", "Revise and Resubmit", or "Submit Specified Item".

- E. If more than two (2) submissions of an item are required to meet the Project specifications, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.
- F. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
- G. Engineer's review will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.
- H. Engineer's review of a separate item as such will not indicate approval of the assembly in which the item functions.
- I. Engineer's review of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 1.4.C and Engineer has given written acceptance of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such accepted variation from the requirements of the Contract Documents in a Field Order.
- J. Engineer's review of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 1.4 A. and B.
- K. Engineer's review of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
- L. Neither Engineer's receipt, review, return of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.

## 1.7 RESUBMITTAL PROCEDURES

- A. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.
- B. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required review of an item with no more than two submittals. Engineer will

record Engineer's time for reviewing a third or subsequent submittal of a Shop Drawings, sample, or other item requiring review, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.

- C. If Contractor requests a change of a previously reviewed submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

## PART 2 PRODUCTS

### 2.1 PRODUCT DATA

- A. Product Data: Action Submittal: Submit to Engineer for review for assessing conformance with information given and design concept expressed in Contract Documents. Submitted data shall be sufficient in detail for determination of compliance with the Contract Documents.
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
  - 1. Note submittal will be returned to Contractor without review of submittal if products, models, options and other data are not clearly marked or identified.
- C. Indicate product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

### 2.2 SHOP DRAWINGS

- A. Shop Drawings: Action Submittal: Submit to Engineer for assessing conformance with information given and design concept expressed in Contract Documents.
- B. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. When required by individual Specification Sections, provide Shop Drawings signed and sealed by a professional Engineer licensed in the state of Project responsible for designing components shown on Shop Drawings.
  - 1. Include signed and sealed calculations to support design.
  - 2. Submit Shop Drawings and calculations in form suitable for submission to and approval by authorities having jurisdiction.

3. Make revisions and provide additional information when required by authorities having jurisdiction.
- D. All dimensioned shop drawings shall be scalable and provided as full-sized (22" x 34") sheets. PDF electronic files shall print as scalable full-sized sheets.
- E. After review, produce copies and distribute according to Paragraph 1.5.M and for record documents.

### 2.3 DESIGN DATA

- A. Informational Submittal: Submit data for Engineer's knowledge as Contract administrator or for Owner.
- B. Submit information for assessing conformance with information given and design concept expressed in Contract Documents.

### 2.4 TEST REPORTS

- A. Informational Submittal: Submit reports for Engineer's knowledge and records as Contract administrator or for Owner.
- B. Submit test reports for information for assessing conformance with information given and design concept expressed in Contract Documents.

### 2.5 CERTIFICATES

- A. Informational Submittal: Submit certification by manufacturer, installation/application Subcontractor, or Contractor to Engineer, in quantities specified for Product Data.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or product but must be acceptable to Engineer.

### 2.6 MANUFACTURER'S INSTRUCTIONS

- A. Informational Submittal: Submit manufacturer's installation instructions for Engineer's knowledge as Contract administrator or for Owner.
- B. Submit printed instructions for delivery, storage, assembly, installation, startup, adjusting, and finishing, to Engineer in quantities specified for Product Data.
- C. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

## 2.7 MANUFACTURER'S FIELD REPORTS

- A. Informational Submittal: Submit reports for Engineer's knowledge and records as Contract administrator or for Owner.
- B. Submit report within 48 hours of observation to Engineer for information.
- C. Submit reports for information for assessing conformance with information given and design concept expressed in Contract Documents.

## 2.8 OPERATION AND MAINTENANCE (O&M) INSTRUCTIONS

- A. Submit preliminary O&M materials for review by Engineer. The equipment manufacturer may furnish instruction manuals prepared specifically for the equipment furnished or standard manuals may be used if statements like "if your equipment has this accessory..." or listings of equipment not furnished are eliminated. O&M materials will be returned to the Contractor for resubmittal if the O&M materials do not clearly indicate what specific equipment was furnished and all items not provided being clearly crossed out. Poorly reproduced copies are not acceptable. Operation and maintenance instructions shall contain the following as a minimum:
  - 1. Reviewed shop drawings and submittal data;
  - 2. Model, type, size and serial numbers of equipment furnished;
  - 3. Equipment and driver nameplate data;
  - 4. List of parts showing replacement numbers;
  - 5. Recommended list of spare parts;
  - 6. Complete operating instructions including start-up, shutdown, adjustments, cleaning, etc.;
  - 7. Maintenance and repair requirements including frequency and detailed instructions; and
  - 8. Name, address and phone numbers of local representative and authorized repair service.
- B. Following review of the preliminary O&M materials by the Engineer and before acceptance of the Work, submit four (4) copies of complete final operation and maintenance instructions for all equipment supplied. Submit items in 8-1/2 x 11-inch heavy-duty three-ring binders when appropriate, or in 8-1/2 x 11-inch file folders. All binders and folders shall have clear plastic pockets on the front of the cover and the spine to allow for insertion of identifying information.

PART 3 EXECUTION - Not Used

END OF SECTION

## SECTION 43 21 00

### LIQUID PUMPS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. The provisions of this Section shall apply to all pumps and pumping equipment except where otherwise indicated.
- B. Where two or more pump systems of the same type or size are required, all pumps shall all be produced by the same manufacturer.
- C. Provide all labor, equipment and materials and perform all operations in connection with the installation and testing of pumps selected by the OWNER.
- D. Coordinate and utilize all factory testing, installation, start-up and field testing services supplied in conjunction with the pumping equipment.
- E. All work performed under this Section shall be in accordance with all approved trade practices and manufacturer's recommendations.
- F. Section includes:
  - 1. General design requirements for liquid pumps.
  - 2. Factory testing.
- G. Related Requirements:
  - 1. Section 43 21 39 - Submersible Liquid Pumps.

##### 1.2 SUBMITTALS

- A. Section 01 33 00, Submittal Procedures: Requirements for submittals.
- B. Shop Drawings: Provide the following information:
  - 1. Pump name, identification number and applicable Section number from Project specifications.
  - 2. Performance Data Curves:
    - a. Showing head, capacity, horsepower demand, NPSH required and pump efficiency over the entire operating range of the pump.



- b. Pump manufacturer shall indicate separately the head, capacity, horsepower demand, overall efficiency and minimum submergence required at the design flow conditions and the maximum and minimum flow conditions.
  - c. A family of performance curves at intervals of 100 rpm from minimum speed to maximum speed shall be provided for each centrifugal pump equipped with a variable speed drive, and a curve for each speed on two-speed pumps.
  3. The limits on the performance curves recommended for stable operation without surge, cavitation or excessive vibration.
  4. Assembly and Installation Drawings: Including shaft size, seal, coupling, bearings, anchor bolt plan, part nomenclature, material list, outline dimensions, and shipping weights.
- C. Complete motor nameplate data as defined by NEMA, motor manufacturer and any motor modifications.
- D. Operation and Maintenance Manual: Containing the required information for each pump section.
- E. Spare Parts List: Containing the required information for each pump section.
- F. Factory Test Data: Signed, dated and certified for each pump system which requires factory testing submitted before shipment of equipment.
- G. Certifications:
1. Manufacturer's certification of proper installation.
  2. CONTRACTOR's certification of satisfactory field testing.
- H. Pump motor information .

## PART 2 PRODUCTS

### 2.1 GENERAL

- A. Materials and equipment shall be standard products of a manufacturer and distributor regularly engaged in the manufacture and distribution of such products for at least 2 (two) years and shall be suitable for the service intended.
- B. All materials and equipment shall be new and unused except for the testing specified herein.
- C. Compliance with the requirements of the individual pump sections may necessitate modifications to the manufacturer's standard equipment.

- D. All centrifugal pumps shall have a continuously rising performance curve. In no case shall the required horsepower at any point on the performance curve exceed the rated horsepower of the motor or engine or encroach on the service factor.
- E. All components of each pump system provided under the pump sections shall be entirely compatible. Each unit of pumping equipment shall incorporate all basic mechanisms, couplings, electric motors or engine drives, variable speed controls, necessary mountings and appurtenances.
- F. The pumps shall be supplied by a distributor authorized to service them throughout the warranty period and beyond. The distributor shall be located within a 100-mile radius of the site.
- G. The pumps shall be warranted by the manufacturer for a minimum of one (1) year from the date of installation.
- H. All materials and coatings coming in contact with potable water shall be ANSI/NSF Standard 61 approved.
- I. The pumping units shall all be supplied by one manufacturer and shall be complete including pumps, motors, suction cans, baseplates, couplings, guards and other accessories.
- J. The complete pump assembly shall be designed and built for continuous service at any and all points within the specified range of operation, without overheating, without damaging cavitation, and without excessive vibration or noise.

## 2.2 MATERIALS

- A. All materials shall be suitable for the intended application; materials not specified shall be high-grade, standard commercial quality, free from all defects and imperfection that might affect the serviceability of the product for the purpose for which it is intended, and shall conform to the following requirements:
  - 1. Cast iron pump casings and bowls shall be of close-grained gray cast iron, conforming to ASTM A 48 - Gray Iron Casings, Class 30, or equal.
  - 2. Stainless steel pump shafts shall be Type 416 or 316.
  - 3. Miscellaneous stainless steel shall be of Type 316, except in a septic environment.
  - 4. Anchor bolts, washers, and nuts supplied by the CONTRACTOR for non-corrosive applications shall be galvanized steel in accordance with the following:

- a. General: Zinc-coated, ASTM A153.
  - b. Structural Connections: ASTM A307, Grade 2 (60 ksi), hot-dip galvanized.
  - c. Anchor Bolts: ASTM A307, Grade 2 (60 ksi), hot-dip galvanized.
  - d. Pipe and Equipment Flange Bolts: ASTM A193, Grade B-7.
  - e. High Strength Bolts: ASTM F3125, Heavy Hex Head.
5. Anchor bolts, washers and nuts in corrosive service applications shall be Type 316 stainless steel, Class 2; ASTM A193 for bolts; ASTM A194 for nuts.
- a. Where stainless steel bolts are in contact with dissimilar metals, glass epoxy insulating sleeves and washers shall be used to electrically isolate the bolts.

### 2.3 PUMP COMPONENTS, GENERAL

- A. Flanges: Suction and discharge flanges shall conform to ANSI/ASME B16.1 - Cast Iron Pipe Flanges and Flanged Fittings, Class 12, 125, 250, and 800 or B16.5 - Flanges and Flanged Fittings dimensions.
- B. Handholes: Handholes on pump casings shall be shaped to follow the contours of the casing to avoid any obstructions in the water passage.

### 2.4 PUMP APPURTENANCES

- A. Nameplates: Each pump shall be equipped with a stainless steel nameplate indicating serial numbers, rated head and flow, impeller size, pump speed and manufacturer's name and model number.
- B. Gauges: Provide and install pressure gauges as shown on the Drawings.
  - 1. All pumps (except sample pumps, sump pumps, hot water circulating pumps and chemical metering pumps) shall be equipped with pressure gauges on the pump discharge.
  - 2. Pump suction lines shall be provided with compound gauges.
  - 3. Gauges shall be located in a representative location, where not subject to shock or vibrations, in order to achieve true and accurate readings.
  - 4. Isolation diaphragms shall be provided for all gauges except where pumping potable water.

5. Where subject to shock or vibrations, the gauges shall be wall-mounted or attached to galvanized channel floor stands and connected by means of flexible connectors.

## 2.5 FACTORY TESTING

A. The following tests shall be conducted on each indicated pump system:

1. Pump Systems: All centrifugal pump systems 50 hp and larger shall be tested at the pump factory in accordance with the American National Standard for Centrifugal Pump Tests (ANSI/HI 1.6) or the American National Standard for Vertical Pump Tests (ANSI/HI 2.6) as approved by ANSI and published by the Hydraulic Institute.
2. Tests shall be performed using the complete pump system to be furnished, including the motor.
3. The following minimum test data shall be submitted:
  - a. Hydrostatic test data.
  - b. A minimum of five hydraulic test readings between shutoff head and 25 percent beyond the maximum indicated capacity, recorded on data sheets as defined by the Hydraulic Institute.
  - c. Pump curves showing head, flow, bhp, efficiency and NPSH requirements.
  - d. Certification that the pump horsepower demand did not exceed the rated motor hp beyond the 1.0 service rating at any point on the curve.
  - e. Pump test data curves showing head, flowrate, bhp, and efficiency. Acceptance level shall be Grade 2B as defined by ANSI/HI 14.6.
4. Factory Witnessed Tests: Factory witnessed testing for this project not required.
5. Acceptance: In the event of failure of any pump to meet any of the requirements, the CONTRACTOR and Pump Manufacturer shall make all necessary modifications, repairs or replacements to conform to the requirements of the Contract Documents and the pump shall be retested at no additional cost to the OWNER until found satisfactory.

## PART 3 EXECUTION

### 3.1 SERVICES OF PUMP MANUFACTURER

A. An authorized service representative of the manufacturer shall visit the Site to witness the following and to certify in writing that the equipment and controls have been properly installed, aligned, lubricated, adjusted and readied for operation:

1. Installation of the equipment.
2. Inspection, checking and adjusting the equipment.
3. Startup and field testing for proper operation.
4. Performing field adjustments to ensure that the equipment installation and operation comply with requirements.
5. Requirements are more specifically detailed herein and in individual pump specifications.

B. Instruction of the OWNER's Personnel:

1. An authorized training representative of the manufacturer shall visit the Site to instruct the OWNER's personnel in the operation and maintenance of the equipment, including step-by-step troubleshooting with necessary test equipment.
2. Instruction shall be specific to the models of equipment provided.
3. The pump manufacturer's representative shall have at least two years' experience in training.
4. Training shall be scheduled a minimum of three weeks in advance of the first session.
5. Proposed training material and a detailed outline of each lesson shall be submitted for review. Comments shall be incorporated into the material.
6. The training materials shall remain with the trainees.
7. The OWNER may videotape the training for later use with the OWNER's personnel.

### 3.2 INSTALLATION

A. General: Pumping equipment shall be installed in accordance with the manufacturer's written recommendations.

B. Alignment:

1. All equipment shall be field tested to verify proper alignment, operation as specified and freedom from binding, scraping, vibration, shaft runout or other defects.
2. Pump drive shafts shall be measured just prior to assembly to ensure correct alignment without forcing.
3. Equipment shall be secure in position and neat in appearance.

C. Lubricants: Provide the necessary oil and grease for initial operation.

3.3 FIELD TESTS

- A. Each pump system shall be field tested after installation to demonstrate satisfactory operation without excessive noise, vibration, cavitation or overheating of bearings.
- B. Field testing methods and allowable tolerances shall comply with current version of the Hydraulics Institute standards for the type of pumps installed.
- C. Field testing will be witnessed by the ENGINEER. The CONTRACTOR shall furnish three days advance notice of field testing.
- D. In the event any pumping system fails to meet the test requirements, it shall be modified and retested as above until it satisfies the requirements.
- E. After each pumping system has satisfied the requirements, the CONTRACTOR shall certify in writing that it has been satisfactorily tested and that all final adjustments have been made. Certification shall include the date of the field tests, a listing of all persons present during the tests and the test data.

END OF SECTION

## SECTION 43 21 39

### SUBMERSIBLE LIQUID PUMPS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. This Section includes furnishing, start-up, testing, and operation training for submersible sewage pumps.
- B. Section includes:
  - 1. Submersible sewage sump pumps.
- C. Related Sections
  - 1. Section 43 21 00, Liquid Pumps.

##### 1.2 REFERENCE STANDARDS

- A. ASTM International:
  - 1. ASTM A48 - Standard Specification for Gray Iron Castings.
  - 2. ASTM A276 - Standard Specification for Stainless Steel Bars and Shapes.
- B. National Electrical Manufacturers Association:
  - 1. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).

##### 1.3 SUBMITTALS

- A. Per the requirements of Section 43 21 00, Liquid Pumps.
- B. Applicable material certifications and testing certificates.

##### 1.4 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations and final orientation of equipment and accessories.
- B. Pump Supplier: Manufacturer's installation and operation certificate. Statement that the equipment is suitable for the intended use.

##### 1.5 FACTORY TESTING

- A. Pump manufacturer shall provide the following factory tests in accordance with Section 43 21 00, Liquid Pumps:

1. Performance test.
2. Hydrostatic test.
3. Submersible motor integrity test.
4. Vibration test.

1.6 COORDINATION

- A. Like items of equipment specified herein shall be the end product of one manufacturer.

1.7 WARRANTY

- A. Submersible sewage pumps shall be warranted by the manufacturer for a minimum of five (5) years and shall meet or exceed the following warranty requirements:
1. Full warranty for the first 2 years.
  2. Limited 50% warranty for any claim during years 3 and 4.
  3. Limited 25% warranty for any claim during the 5th year.

PART 2 PRODUCTS

2.1 DESCRIPTION

- A. Manufacturers:

1. Xylem, Flygt, Model NT 3301 MT with MiniCAS II monitoring and status unit.
2. Approved equal.

- B. Identification:

Location	Bolton Pump Station
Pump Label(s)	P-1, P-2, P-3
Quantity	3

- C. Power and Motor Requirements:

Voltage	460
Phase	3
Frequency	60 Hz
Motor Speed	1,185 rpm
Motor Horsepower	70 hp

- D. Performance Requirements at Full Pump Speed, Two Pumps Running

Duty Point 1 Minimum Flow Capacity	1,750 gpm (per pump)
Duty Point 1 Total Dynamic Head	82.5 feet



Duty Point 1 Minimum Pump Efficiency	69.2%
Maximum NPSH required at Duty Point 1	18.5 feet

E. Operating Conditions:

Duty	Continuous
Drive	Variable Frequency Drive
Ambient Environment	Wet Well - Corrosive
Ambient Temperature	33° - 104° F
Fluid Service	Municipal wastewater, raw and unscreened, containing rags, grit, fats, oil, and debris.
Minimum Solids Passing Capability	Flygt N-Impeller
Fluid Temperature	50° - 90° F
Fluid pH Range	6.0 to 8.0
Fluid Specific Gravity	1.0
Net Positive Suction Head Available	33 feet

F. Pumping System Dimensions:

Minimum Pump Discharge Size	10-inch
Base Elbow Suction Inlet Size	12-inch
Discharge Flange Rating (ANSI)	Class 125
Minimum Submersible Cable Length	50-ft

## 2.2 PUMP CONSTRUCTION

A. Pump, General:

1. Heavy-duty, vertical, submersible pump with integral drive motor, single suction, centrifugal, sewage type, suitable for a permanent-type wet well installation.
2. Major pump components shall be of gray cast iron, ASTM A48, Class 35B, with smooth surfaces devoid of blow holes or other casting irregularities.
3. All exposed nuts or bolts shall be AISI type 304 stainless steel.
4. All metal surfaces in contact with the pumped media, other than stainless steel, shall be protected by a factory applied spray coating of acrylic dispersion zinc phosphate primer with a polyester resin paint finish on the exterior of the pump.

B. Impeller:

1. ASTM A-532 (Alloy III A), 25% chrome cast iron, dynamically balanced, semi-open, multi-vane, back-swept, non-clog design.
2. Vane leading edges shall be mechanically self-cleaned upon each rotation as they pass across spiral grooves located on the volute suction, which shall keep them clear of debris, maintaining an unobstructed impeller leading edge and sustaining a high level of hydraulic efficiency.
3. Screw-shaped leading edges of the gray-iron impeller shall be hardened to Rc 45 and shall be capable of handling solids, fibrous materials, heavy sludge and other matter normally found in raw wastewater.
4. Screw shape of the impeller inlet shall provide an inducing effect for the handling of sludge and rag-laden wastewater.
5. Impeller shall be locked to the shaft, held by an impeller bolt and treated with a corrosion inhibitor.

C. Volute:

1. Single piece gray cast iron, ASTM A-48, Class 35B, non-concentric design with smooth passages of sufficient size to pass any solids that may enter the impeller.
2. Minimum inlet and discharge size shall be as specified.
3. The volute shall have a replaceable suction cover insert ring in which are cast spiral-shaped, sharp-edged groove(s).
4. The spiral groove(s) shall provide trash release pathways and sharp edge(s) across which each impeller vane leading edge shall cross during rotation so to remain unobstructed.
5. The insert ring shall be cast of ASTM A-532 (Alloy III A), 25% chrome cast iron and provide effective sealing between the multi-vane semi-open impeller and the volute housing.

D. Shaft:

1. Pump and motor shaft shall be a solid continuous shaft.
2. The pump shaft shall be an extension of the motor shaft.
3. Couplings will not be acceptable.
4. The pump shaft shall be stainless steel ASTM A479 S43100-T.
5. The shaft shall be adequately designed to endure alternating bending stresses and to provide for minimum overhang to reduce shaft deflection and prolong bearing life.

E. Bearings:

1. The pump shaft shall rotate on at least three grease-lubricated bearings.
2. The upper bearing, provided for radial forces, shall be a single roller bearing.
3. The lower bearings shall consist of at least one roller bearing for radial forces and one or two angular contact ball bearings for axial thrust.
4. The minimum L10 bearing life shall be 100,000 hours at any point along the usable portion of the pump curve at maximum product speed.
5. The lower bearing housing shall include an independent thermal sensor to monitor the bearing temperature.

F. Mechanical Seal:

1. Each pump shall be provided with a tandem mechanical shaft seal system consisting of two totally independent seal assemblies.
2. The lower seal shall be independent of the impeller hub. The seals shall operate in a lubricant reservoir that hydrodynamically lubricates the lapped seal faces at a constant rate.
3. The lower, primary seal unit, located between the pump and the lubricant chamber, shall contain one stationary and one positively driven rotating corrosion resistant tungsten-carbide seal ring.
4. The upper, secondary seal unit, located between the lubricant chamber and the motor housing, shall contain one stationary and one positively driven rotating corrosion resistant tungsten-carbide seal ring. Each seal interface shall be held in contact by its own spring system.
5. The seals shall not require maintenance or adjustment and shall be capable of operating in either clockwise or counter clockwise direction of rotation without damage or loss of seal. Should both seals fail and allow fluid to enter the stator housing, a port shall be provided to direct that fluid immediately to the stator float switch to shut down the pump and activate an alarm.
6. Any intrusion of fluid shall not come into contact with the lower bearings.
7. Conventional double mechanical seals with a single or a double spring between rotating faces, or that require constant differential pressure to affect sealing and are subject to opening and penetration by pumping forces, will not be acceptable.

8. Each pump shall be provided with a lubricant chamber for the shaft sealing system. The lubricant chamber shall be designed to prevent overfilling and to provide lubricant expansion capacity. The drain and inspection plug, with positive anti leak seal, shall be easily accessible from the outside. The seal system shall not rely upon the pumped media for lubrication.
9. The motor shall be able to operate continuously while not submerged without damage while pumping under load. Seal lubricant shall be FDA approved.

G. Cooling System:

1. Each pump/motor unit shall be provided with an integral, self-supplying cooling system. The motor water jacket shall encircle the stator housing and shall be of cast iron, ASTM A 48, Class 35B. The water jacket shall provide heat dissipation for the motor regardless of whether the motor unit is submerged in the pumped media or surrounded by air.
2. After passing through a classifying labyrinth, the impeller back vanes shall provide the necessary circulation of the cooling liquid, a portion of the filtered pump media, through the cooling system. Two cooling liquid supply pipes, one discharging low and one discharging high within the jacket, shall supply the cooling liquid to the jacket.
3. An air evacuation tube shall be provided to facilitate air removal from within the jacket. Any piping internal to the cooling system shall be shielded from the cooling media flow allowing for unobstructed circular flow within the jacket about the stator housing. Two cooling liquid return ports shall be provided.
4. The internals to the cooling system shall be non-clogging by virtue of their dimensions. Drilled and threaded provisions for external cooling and seal flushing or air relief are to be provided.
5. The cooling jacket shall be equipped with two flanged, gasketed and bolted inspection ports of not less than 4-inch diameter located 180 degrees apart.
6. The cooling system shall provide for continuous submerged or completely non-submerged pump operation in liquid or in air having a temperature of up to 40°C (104°F), in accordance with NEMA standards. Restrictions limiting the ambient or liquid temperatures at levels less than 40°C are not acceptable.

## H. Support Stand for Pumps

1. Each pump shall be supplied with a base plate made of painted steel and a 90° suction elbow made of cast iron. The suction flange of the inlet elbow shall be 12" and reduce to connect to the pump. The suction flange shall be drilled according ANSI B16.1-89; tab. 5.
  - a) The suction elbow shall be furnished with a blank flange on the pump side. The bolt holes shall be drilled in the field after installing contractor verifies the angle between suction line and discharge line.
2. The pump base plate shall sit on a steel reinforced concrete pedestal provided by others.
3. The inlet elbow shall have an inspection hatch of at least 5"
4. It shall be possible to rotate the pump discharge infinitely to adjust the discharge position relative to the base plate.

## I. Lifting Devices:

1. Each pump shall be provided with Flygt Pump Lift Lifting System.
2. Provide minimum of 25 feet of stainless steel cable connected to a short length (approximately ten links long) of high tensile strength proof-tested stainless steel chain of required capacity, connected to the lifting eye or lifting bail of the submersible pump.
3. Provide a forged "grip-eye" of stainless steel, provided separately to connect to the end of the lifting cable or chain of the pump lifting device.
4. All lifting devices shall be rated as lifting devices and shall be provided with certification indicating they are rated for lifting device service.

## 2.3 MOTORS

### A. General:

1. Each pump shall be provided with a vertically mounted electric motor that conforms to the following requirements:
  - a. Motors shall be designed to accept the total, unbalanced thrusts imposed by the pump.
  - b. The motor and the pump shall be produced by the same manufacturer.

- c. The motor shall be capable of continuous submergence underwater without loss of watertight integrity to a depth of 65 feet or greater.

B. Motor Design:

1. The pump motor shall be a NEMA B design, induction type with a squirrel cage rotor, shell type design, housed in an air filled, watertight chamber.
2. The stator windings shall be insulated with moisture resistant Class H insulation rated for 180°C (356°F). The stator shall be insulated by the trickle impregnation method using Class H monomer-free polyester resin resulting in a winding fill factor of at least 95%.
3. The motor shall be inverter duty rated in accordance with NEMA MG1, Part 31.
4. The stator shall be heat-shrink fitted into the cast iron stator housing.
5. The use of multiple step dip and bake-type stator insulation process is not acceptable.
6. The use of bolts, pins or other fastening devices requiring penetration of the stator housing is not acceptable.
7. The motor shall be specifically designed for submersible pump usage and designed for continuous duty pumping media of up to 40°C (104°F) with an 80°C temperature rise and capable of at least 15 evenly spaced starts per hour.
8. The rotor bars and short circuit rings shall be made of cast aluminum.

C. Service Factors:

1. The combined service factor (combined effect of voltage, frequency and specific gravity) shall be a minimum of 1.15.
2. The motor shall have a voltage tolerance of plus or minus 10%.
3. The motor shall be designed for operation up to 40°C (104°F) ambient and with a temperature rise not to exceed 80°C.
4. A performance chart shall be provided upon request showing curves for torque, current, power factor, input/output kW and efficiency. This chart shall also include data on starting and no load characteristics.

D. Moisture Protection:

1. A mechanical float switch (FLS) shall be mounted in the junction chamber to signal if there is water intrusion.

E. High Temperature Protection:

1. Thermal switches shall be embedded in the stator end coils to monitor the temperature of each phase winding.
2. One PT-100 type temperature sensor shall be installed in the stator winding.
3. These thermal switches shall be used in conjunction with and supplemental to external motor overload protection and shall be connected to the control panel.
4. The junction chamber shall be sealed off from the stator housing and shall contain a terminal board for connection of power and pilot sensor cables using threaded compression type terminals.

F. Power Cable:

1. The power cable shall be sized according to the NEC and ICEA standards and shall be of sufficient length to reach the junction box without the need of any splices.
2. The power cable shall be of a shielded design in which an overall tinned copper shield is included and each individual phase conductor is shielded with an aluminum coated foil wrap.
3. The outer jacket of the cable shall be oil resistant chlorinated polyethylene rubber.
4. The motor and cable shall be capable of continuous submergence underwater without loss of watertight integrity to a depth of 65 feet or greater.
5. The connection to the pump protection sensors shall be shielded, twisted pair cable integral with the power cable.

G. Cable Entry Seal:

1. The cable entry seal design shall preclude specific torque requirements to insure a watertight and submersible seal.
2. The cable entry shall consist of dual cylindrical elastomer grommets, flanked by washers, all having a close tolerance fit against the cable outside

diameter and the cable entry inside diameter. The grommets shall be compressed by the cable entry unit, thus providing a strain relief function.

3. The assembly shall provide ease of changing the cable when necessary using the same entry seal.
4. The cable entry junction chamber and motor shall be sealed from each other, which shall isolate the stator housing from foreign material gaining access through the pump top.
5. Epoxies, silicones, or other secondary sealing systems shall not be considered acceptable.

## 2.4 PROTECTION

- A. All stators shall incorporate three bi-metal thermal switches, one for each stator phase winding, connected in series to monitor temperature of the motor winding. Should high temperature occur, the thermal switches shall open, stop the motor and activate an alarm.
- B. A float switch shall be provided in the seal leakage chamber to detect water intrusion into the stator housing. When activated, the switch will activate an alarm but not stop the motor.
- C. The thermal switches and float switch shall be connected to a Mini-CAS II unit. The Mini-CAS unit shall be designed for mounting in the control panel. Thermal switches shall be connected to the normally open overtemp contact of the Mini-CAS II unit, in accordance with the wiring diagram in the Plans.

## 2.5 OTHER REQUIREMENTS

- A. The head-capacity curve shall exhibit a uniformly rising characteristic from free discharge to shutoff without employing the service factor.
- B. The entire pump assembly shall be U.L. approved as Explosion Proof for operation in a Class 1, Division 1, Group D hazardous location.

## PART 3 EXECUTION

### 3.1 INSPECTION

Inspect pumps and fittings before installation to verify quality of material.

### 3.2 INSTALLATION

- A. Installation:



1. Install and align pumps and fittings in accordance with the manufacturer's printed specifications and at the locations shown on the Drawings.
2. Use anchor bolts furnished or recommended by the manufacturer.
3. Place the pumps using equipment templates.

B. Anchorage:

1. Anchors for the unit shall be set in the concrete. Unit shall be mounted as instructed by the manufacturer.
2. Anchors shall be drilled and set with epoxy.
3. Provide 24 hours' notice prior to installing base elbows, to allow for anchor bolt inspection.
4. The manufacturer shall supervise installation to ensure that the unit is properly aligned and leveled; that all electrical and piping connections are properly made; and that lubricants have been provided and installed.

### 3.3 STARTUP AND TESTING

A. See Section 43 21 00, Liquid Pumps for additional requirements.

B. Pre-operational Checks:

1. Check pump and motor alignment.
2. Check for proper motor rotation.
3. Check pump and drive units for proper lubrication.

C. Manufacturer's Representative:

1. Furnish a representative of the manufacturer to perform inspection, testing, start-up, and training services.
2. The manufacturer's representative shall be experienced in the operation and maintenance of the equipment and shall instruct the Owner's personnel in the operation and maintenance of the equipment, including step-by-step troubleshooting with necessary test equipment.
3. Check pump and motor for high bearing temperature and excessive vibration.
4. The representative shall check the installation and supervise initial start-up of the equipment, and shall perform, at a minimum, the following tests on each pump:

- a. Measure and record shutoff head and power draw at shutoff head.
  - b. Measure and record actual operating head and power draw at actual operating head.
  - c. Measure and record operating head and power draw at two separate partially throttled flow rates.
  - d. Measure and record static head.
  - e. Duplicate all normal operating modes and all failure modes, including the removal and installation of pumps from the wet well using the guide rail system.
5. Testing shall include a comparison of measured installed flow and head, including shutoff head, with the manufacturer's curve value. Any discrepancy shall be resolved prior to acceptance by the Owner.
  6. Manufacturer's Written Certification:
    - a. The manufacturer's representative shall verify the complete assembly for proper alignment and connection, and quiet operation.
    - b. This service shall be provided for a minimum period of one trip and one day.
    - c. After the installation and operation of the equipment has been certified, the manufacturer's representative shall train the Owner's personnel in the proper operation and maintenance of the equipment.
- D. Verify pumps are operating at the design duty condition. Remove and replace units that do not meet the design operating criteria.
- E. For all pump tests, ensure that the force main is full of liquid during the testing. The Contractor shall provide the necessary water and other materials required for the testing as defined herein and recommended by the manufacturer. All testing shall use clean water as required by Section 01 75 16, Testing, Training & System Start-Up.
- F. Submersible Pump Lift Test:
1. Lift each submersible pump above the access hatch and then lower the pump back down onto the discharge elbow to demonstrate adequate

clearances, smooth operation of the guide rail system, and proper re-seating of the pump on the discharge elbow.

- G. A start-up report, acceptable to and approved by the Engineer, shall be completed by the manufacturer's representative before final acceptance of the pumps.

END OF SECTION

**EXHIBIT B - CERTIFICATIONS**  
**ITB #2021-84**

By signature on this certification the undersigned certifies that they are authorized to act on behalf of the Bidder and that under penalty of perjury the undersigned will comply with the following:

**SECTION I. OREGON TAX LAWS**

The undersigned hereby certifies under penalty of perjury that the undersigned is authorized to act on behalf of Bidder and that Bidder is, to the best of the undersigned's knowledge, not in violation of any Oregon Tax Laws. For purposes of this certification, "Oregon Tax Laws" means a state tax imposed by ORS 320.005 to 320.150 and 403.200 to 403.250 and ORS chapters 118, 314, 316, 317, 318, 321 and 323 and the elderly rental assistance program under ORS 310.630 to 310.706 and local taxes administered by the Department of Revenue under ORS 305.620.

**SECTION II. AFFIRMATIVE ACTION**

The undersigned hereby certifies that they have not discriminated against Minority, Women or Emerging Small Business Enterprises in obtaining any required subcontracts, pursuant to ORS 279A110.

**SECTION III. COMPLIANCE WITH SOLICITATION**

The undersigned agrees and certifies that they:

1. Have read, fully understands and agrees to be bound by the Invitation to Bid and all Exhibits and Addenda to the Invitation to Bid;
2. Are an authorized representative of the Bidder, that the information provided is true and accurate, and that providing incorrect or incomplete information may be cause for rejection of the Bid or Contract termination;
3. Will use recyclable products, unless prohibited in this ITB, to the maximum extent economically feasible in the performance of a contract if awarded.
4. Will furnish the designated item(s) and/or service(s) in accordance with the Invitation to Bid and the Contract; and

Resident Bidder, as defined in ORS 279A.120: Oregon Business Registry #: 1867620-93  
 Non-Resident Bidder, Resident State: \_\_\_\_\_

Company Legal Business Name (No DBA/ABN): XYLEM WATER SOLUTIONS USA, INC.

Authorized Signature:  Date: 09/29/2021

Name (Type or Print): SIMON CARTWRIGHT Telephone: (503) 913 0119

Title: OUTSIDE SALES REPRESENTATIVE Email: SIMON.CARTWRIGHT@XYLEM.COM

Address, City, State, Zip: 9625 TUALATIN-SHERWOOD RD, TUALATIN, OR 97062

Oregon CCB# (if applicable): \_\_\_\_\_

Business Designation (check one):

Corporation  Partnership  LLC  Sole Proprietorship  Non-Profit  
 Minority Owned  Women Owned  Emerging Small Business

Oregon MWESB Certification Number: \_\_\_\_\_

Self-Identified Minority, Women or Emerging Small Business:  Yes  No

**EXHIBIT C  
REFERENCES**

**REFERENCE 1**

Company: CITY OF EUGENE Contact Name: CURT BRACE  
Address: 79 W 10<sup>TH</sup> AVE Phone Number: 541 543 6067  
City, State, Zip: EUGENE OR 97401 E-Mail: CURT.L.BRACE@CI.EUGENE.OR.US  
Goods or Services Provided: FLYST PUMPS & SERVICE

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**REFERENCE 2**

Company: CITY OF WOODBURN Contact Name: JERRY TABLER  
Address: 19 GARFIELD ST Phone Number: 503 209 1134  
City, State, Zip: WOODBURN OR 97101 E-Mail: JTABLER@CI.WOODBURN.OR.US  
Goods or Services Provided: FLYST PUMPS CONTROLS SERVICE

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**REFERENCE 3**

Company: CITY OF BEND Contact Name: OPRIN LIBOLT  
Address: 575 NE 15<sup>TH</sup> ST Phone Number: 541 322 6330 / 541 480 5318  
City, State, Zip: BEND OR E-Mail: OLIBOLT@CI.BEND.OR.US  
Goods or Services Provided: FLYST PUMPS, CONTROLS, SERVICE

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**EXHIBIT D - BID PRICE FORM**  
**ITB #2021-84**

Bid pricing response must be FOB Destination and include all taxes, tariffs, and delivery costs.

Delivery Location:

Tri-City Water Resource Recovery Facility, 15941 S Agnes Ave, Oregon City, OR 97045

ITB: #2021-84

Date: 09/29/2021

FOR THE LUMP SUM TOTAL: \$188,513.88

Delivery Time after Receipt of Purchase Order: ESTIMATED 16 WEEKS

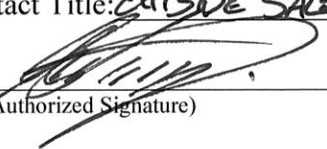
Company: XYLEM WATER SOLUTIONS USA, INC.

Address, City, State, Zip: 9625 TUALATIN SHERWOOD RD, TUALATIN, OR, 97062

Contact Name: Telephone: SIMON CARTWRIGHT 5039130119

Contact Title: OUTSIDE SALES REP

Email: SIMON.CARTWRIGHT@XYLEM.COM

By:   
(Authorized Signature)

Title: OUTSIDE SALES REPRESENTATIVE

**EXHIBIT B**  
**CONTRACTOR'S QUOTE**



**Xylem Water Solutions USA, Inc.  
Flygt Products**

August 26, 2021

CLACKAMAS CNTY WTR ENVIR SERVI  
15941 AGNES AVE  
OREGON CITY OR 97045-1003

9625 SW Tualatin Sherwood Road  
Tualatin, Oregon 97062  
Tel (503) 240-1980  
Fax (503) 240-3445

Quote # 2021-POR-0191 Alternate 3, Version 1  
Project Name: Clackamas County  
Job Name: Bolton Pump Station ITB#2021-84

Xylem Water Solutions USA, Inc. is pleased to provide a quote for the following Flygt equipment.

**NT 3301 pumps**

Qty	Description
3	Flygt Model NT-3301.095 10" volute Submersible pump equipped with a 460 Volt / 3 phase / 60 Hz 70 HP 1150 RPM motor, 636 impeller, 1 x 50 Ft. length of SUBCAB 3x50+2G35/2+S(2x0,5) submersible cable, FLS leakage detector, volute is prepared for Flush Valve
3	KIT,T-STAND 3301 MT
3	ELBOW,INLET DN250 X 12"ANSI CI
3	TEST FAL 2.3 HYDRO 3140-3153+ COMPLETE PUMP FAL 15-900009
3	#TEST FAL 2.2 3170-3301 + PLOTTED R/B 14-699490
3	TEST FAL 2.4 INSUL 3170-3301 FAL 15-900011
3	TEST FAL 2.5 RESIST 3170-3301 FAL 15-900012
3	TEST FAL 2.9 DIALECT 3170-3301 FAL 15-900016
3	TEST FAL 2.8 VIBRATN 3170-3301 FAL 15-900015
3	MINI-CASII/FUS 120/24VAC,24VDC
3	SOCKET,11-PIN BACK MOUNTING
1	START UP,FLYGT,NO TAX 2-TP MODELS: 3000,7000,8000

**NT 3301 pumps Price USD \$ 179,047.88**

**Total Price \$ 179,047.88**

**Freight Charge \$ 9,466.00**

**Total Price \$ 188,513.88**

DELIVERY SCHEDULE. The lead time for equipment is 7-16 weeks (Settables/Accessories 7 weeks, Pumps 16 weeks) from fully executed contract and written release to manufacture. The, as of today, lead-time for equipment delivery after written receipt of approval is as indicated above, however due to the continuing disruptions of COVID-19, including extended production timeframes from our suppliers as a result of raw materials shortages, related labor constraints, and transportation and logistics-related delays due to a shortage of both truckers and containers, we can at this time only state what our current lead-time is expected to be. We will work closely with you to meet your needs in this uncertain time.

