

ADDENDUM NO. 1
TO THE
CONTRACT DOCUMENTS
FOR
BIOSOLIDS CONVEYOR REPLACEMENT
FOR
CITY OF NEWPORT

THIS ADDENDUM IS HEREBY MADE A PART OF THE CONTRACT DOCUMENTS TO THE SAME EXTENT AS THOUGH IT WERE ORIGINALLY INCLUDED THEREIN.

BIDDERS MUST ACKNOWLEDGE RECEIPT OF ALL ADDENDA ON THE BID FORM. BID PROPOSALS THAT FAIL TO ACKNOWLEDGE ALL ADDENDA MAY BE CONSIDERED IRREGULAR AND MAY BE REJECTED.

ISSUED THIS 1ST DAY OF SEPTEMBER 2021.



RENEWS 12/31/2022

Justin S. Moman

MURRAYSMITH
888 SW 5th, Suite 1170
Portland, OR 97204
(503) 225-9010

ITEM NO. 1 – SPECIFICATION SECTION 00 11 13 ADVERTISEMENT FOR BIDS

On page 00 11 13-1, add the following after the end of the paragraph that begins with “Required subcontractors”:

“Owner as “Buyer” has executed a purchase order with Austin-Mac, Inc. as “Seller” for the procurement of goods and special services for the conveyor equipment. The materials and equipment to be provided through the purchase order are to be furnished and delivered to the Site for installation by Contractor. Owner will assign said purchase order to Contractor as set forth in the Agreement. Contractor will accept the assignment, as Buyer (Contractor/Assignee), and will be responsible to Owner for the performance of obligations by Seller, which will become a Subcontractor or Supplier to Contractor.

Bidders may examine the contract documents for the procurement of goods and special services for the conveyor equipment in the Supplementary Information section of these Contract Documents.”

CLARIFICATION: Owner is assigning the conveyor equipment purchase order to the Contractor.

ITEM NO. 2 – SPECIFICATION SECTION 00 21 13 INSTRUCTIONS TO BIDDERS

On page 00 21 13-10, add the following after Article 20:

“ARTICLE 21 – PROCUREMENT CONTRACT TO BE ASSIGNED

Bidder’s attention is directed to the provisions of Article AA of the Agreement Between Owner and Contractor for Construction Contract which provide for the assignment of the Purchase Order to a construction contractor designated by the Buyer to construct the Biosolids Replacement project. Successful Bidder (Seller) will be required to perform the Purchase Order after it has been assigned to the construction contractor (Contractor Assignee). Timing of the assignment is addressed in the Agreement.”

CLARIFICATION: Owner is assigning the conveyor equipment purchase order to the Contractor.

ITEM NO. 3 – SPECIFICATION SECTION 00 41 13 BID FORM

On page 00 41 13-4, add the following after section 6.02:

“ARTICLE AA—BIDDER’S ACKNOWLEDGEMENTS

AA.01 Bidder acknowledges the provisions of the Agreement as to the assignment of the specified purchase order for procurement of goods and special services for the conveyor equipment.”

CLARIFICATION: Owner is assigning the conveyor equipment purchase order to the Contractor.

ITEM NO. 4 – SPECIFICATION SECTION 00 52 13 AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT

On page 00 52 13-6, add the following after section 8.03:

“ARTICLE AA—MISCELLANEOUS

AA.01 The contract between Owner as “Buyer” and Austin-Mac, Inc. as “Seller” for procurement of goods and special services (“Purchase Order”) for the conveyor equipment is hereby assigned to Contractor by Owner, and Contractor accepts such assignment.

AA.02 This assignment will occur on the Effective Date of the Agreement and will relieve the Owner as Buyer from all further obligations and liabilities under the Purchase Order. Contractor, as Buyer (Contractor/Assignee) following assignment, will assume full responsibility to Owner for the performance of obligations by Seller, which will be Contractor’s Subcontractor or Supplier. Notwithstanding this assignment, all performance guarantees and warranties required by the Purchase Order will continue to run for the benefit of the Owner and, in addition, for the benefit of the Contractor. Except as noted in the Purchase Order, all rights, duties, and obligations of Engineer to Buyer and Seller under the Purchase Order will cease upon assignment.

AA.03 A copy of the assigned Purchase Order is included in the Supplementary Information.”

CLARIFICATION: Owner is assigning the conveyor equipment purchase order to the Contractor.

ITEM NO. 5 – SUPPLEMENTARY INFORMATION

Add the attached Purchase Order (six pages) to the beginning of the Supplementary Information section.

ITEM NO. 6 – SPECIFICATION SECTION 00 73 01 C-800 SUPPLEMENTARY CONDITIONS

On page 00 73 01-2, add the following at the end of Article 2:

“SC 1.01.A.52 Add the following new Paragraph after Paragraph 1.01.A.51:

52. *System Programmer – Equivalent to System Integrator”*

CLARIFICATION: Specified roles of System Programmer and System Integrator are equivalent.

ITEM NO. 7 – SPECIFICATION SECTION 01 75 16 TESTING, TRAINING, AND SYSTEM START-UP

Replace section 1.9.B with the following:

“A. Conduct operational test for continuous 24-hour period; all construction trades must be locally available during entire test period.”

CLARIFICATION: Operational test reduced to 24 hours; all construction trades must be locally available during entire test period.

ITEM NO. 8 – SPECIFICATION SECTION 26 29 23 LOW VOLTAGE ADJUSTABLE FREQUENCY DRIVES

Replace entire section with attached section (nine pages).

CLARIFICATION: Additional VFD manufacturers added.

ITEM NO. 9 – SPECIFICATION SECTION 40 61 13 PROCESS CONTROL SYSTEM GENERAL PROVISIONS

On page 40 61 13-9, replace section 3.3 with the following:

“3.3 MANUFACTURER’S SERVICES

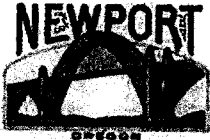
- A. TRAINING: Provide a factory-trained manufacturer’s representative or System Integrator Subcontractor skilled in equipment use at the Site for the following activities. Specified durations do not include travel time to or from the Site.
 - 1. Prior to startup of the control system changes provide training to demonstrate the use of the SCADA system to operate the equipment as modified by this contract.
 - 2. During start up and commissioning of the instrumentation provide training to demonstrate the use, calibration, and maintenance of all supplied instrumentation.
 - 3. Prior to startup of the control system provide training to demonstrate the use of the SCADA system to operate the facility as modified by this contract.
- B. Coordinate training with operations and maintenance staff schedules to ensure all required staff can attend.
- C. Training to include configuration, operation, trouble shooting, wiring, calibration, testing, installation, safety, and warranty coverage for each process control hardware type.
- D. Certify completion of training.
- E. Owner reserves the right to reuse recordings of training sessions.
- F. Provide for a 4-hour follow-up training session, if requested by the Owner, 6 months after completed start-up.
- G. The above training services can be modified if coordinated with the Owner, but the Systems Integrator shall provide a minimum of 12 hours for training.”

CLARIFICATION: Required training durations removed.

ITEM NO. 10 – SPECIFICATION SECTION 40 61 26 PROCESS CONTROL SYSTEM TRAINING

Delete entire section.

CLARIFICATION: Section is not required.



CITY OF NEWPORT
 169 SW Coast Hwy
 Newport, OR 97365

PURCHASE ORDER

P.O. Date: 02/25/21
 Vendor Name: Austin- Mac, Inc.
 Address: 2739 Sixth Ave South
 City/State/Zip: Seattle, WA 98124-3746
 Phone/FAX: (206) 624-7066
 Contact Name: Dave Martin

PO #: 20-001 Rev 1
 Deliver to: City of Newport
 Address: 5525 SE 50th Place
 City/State/Zip: Newport, OR 97366
 Phone/FAX: (541) 574-3371
 Contact Name: Andrew Grant
 Department: WWTP

QTY	ITEM	DESCRIPTION	UNIT PRICE	TOTAL PRICE
1		11 1/2" X 12" PITCH X 20'-0" LONG, HORIZONTAL	27,609.00	27,609.00
		SHAFTLESS SCREW CONVEYOR		0.00
1		11 1/2" X 12" PITCH X 38'-0" LONG	51,923.00	51,923.00
		SHAFTLESS SCREW CONVEYOR		0.00
1		11 1/2" X 12" PITCH X 12'-0" LONG	18,800.00	18,800.00
		SHAFTLESS SCREW CONVEYOR SLUDGE		0.00
				0.00
TOTAL COST:				98,332.00

THIS PURCHASE ORDER INCORPORATES THE TERMS ON THE REVERSE SIDE AND THE CITY'S REQUEST FOR PROPOSAL AND CONTRACTOR'S RESPONSE THERETO, OR, IN THE ALTERNATIVE, THE CITY'S SOLICITATION DOCUMENT AND CONTRACTORS' BID. BY ITS SIGNATURE HEREUNDER, CONTRACTOR AGREES TO PERFORM THE SERVICES/PROVIDE THE PRODUCTS DESCRIBED IN SUCH DOCUMENTS, FOR THE FEE/AMOUNT SET FORTH THEREIN. THE CONTRACTOR WILL COMPLY FULLY WITH ALL TERMS AND CONDITIONS OF THE DOCUMENTS, THE NEWPORT MUNICIPAL CODE AND STATE AND FEDERAL LAW.

Fund	GP Dept	Expense Account	Project Code
602	3490	90403	19016

Notes/Special Instructions:
 Solids Serpentix Belt Conveyance Replacement Project *Revised PO, Reduced price.*
Approved by City Council

Authorizations:

[Signature]
 Department Director
[Signature] 2/26/21
 Finance Director
[Signature] 2/26/21
 City Manager
[Signature] 3/1/21
 Contractor's Authorized Signature
DAVID MARTIN 3/1/21
 Contractor's Printed Name
AUSTIN-MAC, INC
 Name of Company

SUBMIT THIS FORM FOR SIGNATURE ALONG WITH QUOTATION DOCUMENTATION PRIOR TO PURCHASE OF NON ROUTINE GOODS OR SERVICES COSTING \$5,000 OR MORE.

TERMS OF CITY'S PURCHASE ORDER

1. In the course of providing Services under this Purchase Order, Contractor may have contact with the public. Contractor will maintain good relations with the public. The City may treat the failure to maintain good relations with the public as a non-curable breach of this Purchase Order and may disqualify Contractor from future work for the City.
2. Contractor shall be compensated as described in the Purchase Order. Unless otherwise set forth in the Purchase Order, Contractor shall begin Services on the Effective Date and shall complete Services no later than such date set forth in the Purchase Order or as agreed upon in writing by the parties.
3. Contractor certifies that: (a) Contractor is an independent contractor as defined by ORS 670.600 and not an employee of City, shall not be entitled to benefits of any kind to which an employee of City is entitled and shall be solely responsible for all payments and taxes required by law. In the event that Contractor is found by a court of law or any administrative agency to be an employee of City for any purpose, City shall be entitled to offset compensation due, or to demand repayment of any amounts paid to Contractor under the terms of this Agreement, to the full extent of any benefits or other remuneration Contractor receives (from City or third party) as a result of the finding and to the full extent of any payments that City is required to make (to Contractor or to a third party) as a result of the finding (b) Contractor is not an officer, employee or agent of the City as those terms are used in ORS 30.265. (c) No employee of the City, or any partnership or corporation in which a City employee has an interest, has or will receive any remuneration of any description from Contractor, either directly or indirectly, in connection with this Agreement, except as specifically declared in writing. (d) Contractor currently has a City business license or will obtain one prior to delivering Services under this Agreement.
4. City has relied upon the professional ability and training of Contractor as a material inducement to enter into this Agreement. Contractor warrants that all its work will be performed with good workmanship and in accordance with generally accepted professional practices and standards of the industry in which Contractor operates as well as the requirements of applicable federal, state and local laws. Contractor's work will conform to the requirements of this Purchase Order. Acceptance of Contractor's work by City shall not operate as a waiver or release of this warranty. Contractor is fully liable for the acts and omissions of Contractor and Contractor's subcontractors which cause any damage, injury, death, property damage or loss to any person or property. Contractor will indemnify and defend the City, its officers, agents, employees and volunteers and hold them harmless from any and all liability, causes of action, claims, losses, damages, judgments or other costs or expenses including attorney's fees that may be asserted by any person or entity which in any way arise from, during or in connection with the performance of the work described in this Agreement. Contractor's indemnification shall also cover claims brought against the City under state or federal workers' compensation laws. If any aspect of this indemnity shall be found to be illegal or invalid for any reason whatsoever, the illegality or invalidity shall not affect the validity of the remainder of this indemnification.
5. Contractor and its subcontractors shall maintain insurance acceptable to City in full force and effect throughout the term of this Agreement. The insurance shall cover all activities of the Contractor arising directly or indirectly out of Contractor's work performed hereunder, including the operations of its subcontractors of any tier.
6. At any time and without cause, City shall have the right in its sole discretion, to terminate this Agreement by giving notice to Contractor. If City terminates the Agreement pursuant to this Section due to no fault of Contractor, City shall pay Contractor for all approved and undisputed services rendered up to the date of termination. City may modify or terminate this Agreement without cause effective upon delivery of written notice to Contractor, or at such later date as may be established by City.
7. For a period of not less than three years after City's final payment to Contractor, Contractor shall permit the City, the State of Oregon and the Federal Government (if State or Federal funding is involved) to have access to all books, documents, papers and records of Contractor which are pertinent to the Services provided hereunder for purposes of audit, examination, excerpts and transcripts. Contractor shall retain those records for at least three years, or until litigation is resolved if litigation is instituted.
8. Neither City nor Contractor shall be considered in default because of any delays in completion and responsibilities due to causes beyond the control and without fault or negligence on the part of the parties so disabled, including but not restricted to, an act of nature or of a public enemy, civil unrest, earthquake, fire, flood, epidemic, quarantine restriction, strike, freight embargo, unusually severe weather, provided that the parties so disabled shall notify the other party in writing of the cause of delay. Each party shall make reasonable efforts to remove or eliminate the cause of delay or default and shall, upon cessation of the cause, diligently pursue performance of its obligations under the Agreement.
9. Contractor agrees to comply with all applicable requirements of federal and state civil rights and rehabilitation statutes, rules, and regulations, including, but not limited to those in Exhibit A. Contractor also shall comply with the Americans with Disabilities Act of 1990, ORS 659A.142, and all regulations and administrative rules established pursuant to those laws.
10. Contractor will perform additional work as may be necessary to correct errors in Services performed under this Agreement without undue delay and without additional cost.
11. The provisions of this Agreement shall be governed by and construed in accordance with the laws of the State of Oregon, without regard to conflict of law principles. Any action or suits involving any question arising under this Agreement must be brought in the appropriate court of the State of Oregon, and the parties hereby consent to venue in Lincoln County Circuit Court, Oregon, unless exclusive jurisdiction is in federal court, in which case venue shall be in federal district court for the District of Oregon. In any action arising under this Agreement, the prevailing party shall be entitled to such sum as the court may award as reasonable attorney fees and court costs, including any appeal. Contractor shall comply with all applicable federal, state and local laws, rules and regulations, including, but not limited to, requirements concerning working hours, overtime, medical care, workers compensation insurance, health care payments, payments to employees and subcontractors and income tax withholding contained in ORS Chapter 279B, some provisions of which are attached to this Agreement as Exhibit A. All Contractor's work product accomplished under this Agreement, whether in the form of designs, drawings, as-builts, diagrams, specifications, reports, or other writings, shall become the exclusive property of the City. The City is the owner of any copyrights thereto, upon City's final payment to Contractor. This writing is intended both as a final expression of the Agreement between the parties with respect to the included terms and as a complete and exclusive statement of the terms of the Agreement.

EXHIBIT A

- ORS 279B.220 Conditions concerning payment, contributions, liens, withholding.** The contractor shall: 1. Make payment promptly, as due, to all persons supplying to the contractor labor or material for the performance of the work provided for in the contract. 2. Pay all contributions or amounts due the Industrial Accident Fund from the contractor or subcontractor incurred in the performance of the contract. 3. Not permit any lien or claim to be filed or prosecuted against the state or a county, school district, municipality, municipal corporation or subdivision thereof, on account of any labor or material furnished. 4. Pay to the Department of Revenue all sums withheld from employees under ORS 316.167. 5. In addition to the conditions specific in subsection 1-4 above, every public improvement contract shall contain a condition that the contractor shall demonstrate that an employee drug testing program is in place. (ORS 279C.505).
- ORS 279C.515 Conditions concerning payment of claims by public officers, payment to persons furnishing labor or materials and complaints.** 1. 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 the public improvement contract as the claim becomes due, the proper officer or officers representing a municipality, 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 the contract. 2. If the contractor or a first-tier subcontractor fails, neglects or refuses to make payment to a person furnishing labor or materials in connection with the public improvement contract within thirty days after receipt of payment from the contracting agency or a contractor, the contractor or first-tier subcontractor shall owe the person the amount due plus interest charges commencing at the end of the ten day period that payment is due under ORS 279C.580 (4) and ending upon final payment, unless payment is subject to a good faith dispute as defined in ORS 279C.580. The rate of interest on the amount due is nine percent per annum. The amount of interest may not be waived. 3. If the contractor or a subcontractor fails, neglects or refuses to make payment to a person furnishing labor or materials in connection with the public improvement contract, the person may file a complaint with the Construction Contractors Board, unless payment is subject to a good faith dispute as defined in ORS 279C.580. 4. The payment of a claim in the manner authorized in this section does not relieve the contractor or the contractor's surety from obligation with respect to any unpaid claims.
- ORS 279B.230 Condition concerning payment for medical care and providing workers' compensation.** (see ORS 279C.530 for public improvement contracts) 1. The contractor shall promptly, as due, make payment to any person, co-partnership, association or corporation furnishing medical, surgical and hospital care services or other needed care and attention, incident to sickness or injury, to the employees of the contractor, of all sums that the contractor agrees to pay for the services and all moneys and sums that the contractor collected or deducted from the wages of employees under any law, contract or agreement for the purpose of providing or paying for the services. 2. 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.
- ORS 279B.020, 279B.235; 279C.520, 279C.540 Condition concerning hours of labor.** 1. An employer must give notice in writing to employees who work on a public contract, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that the employees may be required to work. 2. A person may not be employed for more than 10 hours in any one day, or 40 hours in any one week, except in cases of necessity, emergency or when the public policy absolutely requires it, and in such cases, except in cases of contracts for personal services designated under ORS 279A.055 (or 279C.100) the employee shall be paid at least time and a half pay: (a) For all overtime in excess of eight hours in any one day or 40 hours in any one week when the work week is five consecutive days, Monday through Friday; or (b) For all overtime in excess of ten hours in any one day or 40 hours in any one week when the work week is four consecutive days, Monday through Friday; and (c) For all work performed on Saturday and on any legal holiday specified in ORS 279B.020 (or 279C.540). 3. In the case of public contracts for personal services as described in ORS 279A.055 (or 279C.100), the contract shall contain a provision that the contractor's employees who work under the public contract shall be paid at least time and a half for all overtime worked in excess of 40 hours in any one week, except for individuals under personal services contracts who are excluded under ORS 653.010 to 653.261 or under 29 U.S.C. 201 to 209 from receiving overtime. 4. Persons employed under the public contract shall receive at least time and a half pay for work performed on the legal holidays specified in a collective bargaining agreement or in ORS 279B.020 (1)(b)(B) to (C) and for all time worked in excess of 10 hours in any one day or in excess of 40 hours in any one week, whichever is greater.
- ORS 279C.830 Relating to prevailing rate of wage in public works contracts.** 1. In the event this contract is a public works contract, the parties shall state in the contract the existing state prevailing rate of wage and if applicable, the federal prevailing rate of wage required under the Davis-Bacon Act that must be paid to workers in each trade or occupation required for the public works employed in the performance of the contract either by the contractor or subcontractor or other person doing or contracting to do all or part of the work contemplated by the contract. When the prevailing rates of wage are available electronically or are accessible on the Internet, the rates may be incorporated into the specifications by referring to the electronically accessible or Internet-accessible rates and by providing adequate information about how to access the rates. 2. Every contract and subcontract shall contain a provision that the workers shall be paid not less than the specified minimum hourly rate of wage in accordance with ORS 279C.838 and 279C.840. 3. Contractor will pay to the Commissioner of the Bureau of Labor and Industries (BOLI) a fee as provided in ORS 279C.825(1). The fee shall be paid to the commissioner under the administrative rule of the commissioner. 4. Every contract for public works, or in connection with a public works contract, shall contain a provision stating that the contractor and every subcontractor must have a public works bond filed with the Construction Contractors Board before starting work on the project, unless exempt under ORS 279C.836 (4), (7), (8) or (9).

AUSTIN-MAC, INC.

2739 Sixth Ave South
 P.O. Box 3746
 Seattle, WA 98124-3746
 (206) 624-7066 FAX (206) 682-4442

QUOTATION

Q 17878-D

PLEASE INDICATE THE
 ABOVE NUMBER WHEN ORDERING



TO: Justin Moman
 MurrySmith
 Newport WWTP
 Ph: (503) 542-1557

QUOTATION DATE	SALESPERSON
2/25/2021	David Martin
INQUIRY DATE	INQUIRY # / NAME
1/5/2020	Justin

EST. SHIP DATE	SHIP VIA	FOB	FREIGHT	TERMS
8-10 WEEKS	TRUCK	Newport	Paid	TBD
QTY	DESCRIPTION	PRICE	AMOUNT	
1	11 1/2" X 12" PITCH X 20'-0" LONG, HORIZONTAL SHAFTLESS SCREW CONVEYOR SLUDGE DISCHARGE <u>MATERIAL: SLUDGE, 60-65 LBS/FT³</u> <u>CAPACITY: 48 CFH @ 31 RPM</u>			\$ 27,609.00
1	11 1/2" X 12" PITCH X 38'-0" LONG, 22 DEGREE INCLINE, SHAFTLESS SCREW CONVEYOR SLUDGE DISCHARGE <u>MATERIAL: SLUDGE, 60-65 LBS/FT³</u> <u>CAPACITY: 48 CFH @ 34 RPM</u>			\$ 51,923.00
1	11 1/2" X 12" PITCH X 12'-0" LONG, HORIZONTAL SHAFTLESS SCREW CONVEYOR SLUDGE DISCHARGE <u>MATERIAL: SLUDGE, 60-65 LBS/FT³</u> <u>CAPACITY: 48 CFH @ 31 RPM</u>			\$ 18,800.00
<u>REVISED SS PRICING GOOD UNTIL FRIDAY 4PM 2/26/21</u>				
1	ALL HAVE ZERO SPEED: SIEMENS WM100			
1	E-STOP ASSEMBLY: ALLEN BRADLEY LIFELINE 3			
LOT	REUSE SUPPORT LEGS. INCLUDES TRANSITIONS. 2-DAY ONSITE START-UP & TRAINING FULLY ASSEMBLED & TESTED WITH O&M MANUAL EXCLUDES: PANELS / STRUCTURAL CALCS / STAMP			

WE ARE PLEASED TO SUBMIT THE ABOVE QUOTATION FOR YOUR CONSIDERATION. SHOULD YOU PLACE AN ORDER, BE ASSURED IT WILL RECEIVE OUR PROMPT ATTENTION. QUOTED PRICES ARE BASED ON CURRENT RAW MATERIAL COSTS AND ARE SUBJECT TO CHANGE AT THE TIME OF ORDER PLACEMENT OR ENGINEERING APPROVAL. LATE PAYMENTS WILL BE ASSESSED 1% PER MONTH.

BY _____ ACCEPTED _____ DATE _____

SIGN AND RETURN WHEN ORDERING

THANK YOU!

AUSTIN-MAC, INC.

2739 Sixth Ave South
 P.O. Box 3746
 Seattle, WA 98124-3746
 (206) 624-7066 FAX (206) 682-4442

QUOTATION

Q **17878-B**
 PLEASE INDICATE THE
 ABOVE NUMBER WHEN ORDERING



TO: Justin Moman
MurrySmith
Newport WWTP
Ph: (503) 542-1557

QUOTATION DATE	SALESPERSON
7/20/2020	David Martin
INQUIRY DATE	INQUIRY # / NAME
1/5/2020	Justin

EST. SHIP DATE	SHIP VIA	FOB	FREIGHT	TERMS
8-10 WEEKS	TRUCK	Newport	Paid	TBD
QTY	DESCRIPTION	PRICE	AMOUNT	
1	11 1/2" X 12" PITCH X 20'-0" LONG, HORIZONTAL SHAFTLESS SCREW CONVEYOR SLUDGE DISCHARGE <u>MATERIAL: SLUDGE, 60-65 LBS/FT³</u> <u>CAPACITY: 48 CFH @ 31 RPM</u>			
1	SHAFTLESS SCREW: 11 1/2" DIA X 12" PITCH X 19'-9" LONG, 1" THICK X 4" WIDE SHAFTLESS, 8620 BAR, RIGHT HAND, MOUNTED ON 3 1/2" SCH80 PIPE FLIGHT WELDED BOTH SIDES. SCREW BUSHED, DRILLED, & CAPPED 3" DIA (3-BOLT). 3" DIA (3-BOLT) DRIVE SHAFT, 4140.			
1	TROUGH: 12" SINGLE FLANGE U-TROUGH, 10 GA 316 SS. 3/8" TROUGH END PLATES, 304 SS. 1/4" END FLANGES, 316 SS. (2) INLET & (1) DISCHARGE SPOUT, 10 GA 316 SS. BOLTED & GASKETED COVERS, 10 GA 316 SS. 1/2" THICK DUAL COLOR UHMW LINERS, 4'-0" MAX LENGTH WITH SIDE HOLD DOWN. DRIVE END SEALED WITH 3" DIRECT MOUNT COMPRESSION SEAL AND SUPPORTED BY GEAR REDUCER. (2) ACCESS/ INSPECTION COVER DOORS.			
1	MOTOR: 3 HP, 1800 RPM, 3/60/230-460V, TEFC, C-FACE, TOSHIBA EQP GLOBAL SD			
1	REDUCER: SEW EURODRIVE KAZ77AM182, CLASS 2, 34 RPM, M1 MOUNT, 3" SHAFT			
1	ZERO SPEED: SIEMENS WM100			
1	E-STOP ASSEMBLY: ALLEN BRADLEY LIFELINE 3			
LOT	SUPPORT LEGS, TRANSITIONS & CHUTES 2-DAY ONSITE START-UP & TRAINING FULLY ASSEMBLED & TESTED WITH O&M MANUAL EXCLUDES: PANEL / STRUCTURAL CALCS / STAMP			

WE ARE PLEASED TO SUBMIT THE ABOVE QUOTATION FOR YOUR CONSIDERATION. SHOULD YOU PLACE AN ORDER, BE ASSURED IT WILL RECEIVE OUR PROMPT ATTENTION. QUOTED PRICES ARE BASED ON CURRENT RAW MATERIAL COSTS AND ARE SUBJECT TO CHANGE AT THE TIME OF ORDER PLACEMENT OR ENGINEERING APPROVAL. LATE PAYMENTS WILL BE ASSESSED 1% PER MONTH.

BY _____ ACCEPTED _____ DATE _____

SIGN AND RETURN WHEN ORDERING

THANK YOU!

AUSTIN-MAC, INC.

2739 Sixth Ave South
 P.O. Box 3746
 Seattle, WA 98124-3746
 (206) 624-7066 FAX (206) 682-4442

QUOTATION

Q **17878-B**
 PLEASE INDICATE THE
 ABOVE NUMBER WHEN ORDERING



TO: Justin Moman
MurrySmith
Newport WWTP
Ph: (503) 542-1557

QUOTATION DATE	SALESPERSON
7/20/2020	David Martin
INQUIRY DATE	INQUIRY #/NAME
1/5/2020	Justin

EST. SHIP DATE	SHIP VIA	FOB	FREIGHT	TERMS
8-10 WEEKS	TRUCK	Newport	Paid	TBD
QTY	DESCRIPTION	PRICE	AMOUNT	
1	11 1/2" X 12" PITCH X 38'-0" LONG, 22 DEGREE INCLINE, SHAFTLESS SCREW CONVEYOR SLUDGE DISCHARGE <u>MATERIAL: SLUDGE, 60-65 LBS/FT³</u> <u>CAPACITY: 48 CFH @ 34 RPM</u>			
1	SHAFTLESS SCREW: 11 1/2" DIA X 12" PITCH X 37'-9" LONG, 1" THICK X 4" WIDE SHAFTLESS, 8620 BAR, RIGHT HAND, MOUNTED ON 3 1/2" SCH80 PIPE FLIGHT WELDED BOTH SIDES. SCREW BUSHED, DRILLED, & CAPPED 3" DIA (3-BOLT). 3" DIA (3-BOLT) DRIVE SHAFT, 4140.			
1	TROUGH: 12" SINGLE FLANGE U-TROUGH, 10 GA 316 SS. 3/8" TROUGH END PLATES, 304 SS. 1/4" END FLANGES, 316 SS. (1) INLET & (1) DISCHARGE SPOUT, 10 GA 316 SS. BOLTED & GASKETED COVERS, 10 GA 316 SS. 1/2" THICK DUAL COLOR UHMW LINERS, 4'-0" MAX LENGTH WITH SIDE HOLD DOWN. DRIVE END SEALED WITH 3" DIRECT MOUNT COMPRESSION SEAL AND SUPPORTED BY GEAR REDUCER. (4) ACCESS/ INSPECTION COVER DOORS.			
1	MOTOR: 5 HP, 1800 RPM, 3/60/230-460V, TEFC, C-FACE, TOSHIBA EQP GLOBAL SD			
1	REDUCER: SEW EURODRIVE KAZ77AM182, CLASS 2, 34 RPM, M1 MOUNT, 3" SHAFT			
1	ZERO SPEED: SIEMENS WM100			
1	E-STOP ASSEMBLY: ALLEN BRADLEY LIFELINE 3			
LOT	SUPPORT LEGS, TRANSITIONS & CHUTES 2-DAY ONSITE START-UP & TRAINING FULLY ASSEMBLED & TESTED WITH O&M MANUAL EXCLUDES: PANEL / STRUCTURAL CALCS / STAMP			

WE ARE PLEASED TO SUBMIT THE ABOVE QUOTATION FOR YOUR CONSIDERATION. SHOULD YOU PLACE AN ORDER, BE ASSURED IT WILL RECEIVE OUR PROMPT ATTENTION. QUOTED PRICES ARE BASED ON CURRENT RAW MATERIAL COSTS AND ARE SUBJECT TO CHANGE AT THE TIME OF ORDER PLACEMENT OR ENGINEERING APPROVAL. LATE PAYMENTS WILL BE ASSESSED 1% PER MONTH.

BY _____ ACCEPTED

DATE _____

SIGN AND RETURN WHEN ORDERING

THANK YOU!

AUSTIN-MAC, INC.

2739 Sixth Ave South
 P.O. Box 3746
 Seattle, WA 98124-3746
 (206) 624-7066 FAX (206) 682-4442

QUOTATION

Q **17878-C**

PLEASE INDICATE THE
 ABOVE NUMBER WHEN ORDERING



TO: Justin Moman
MurrySmith
Newport WWTP
Ph: (503) 542-1557

QUOTATION DATE	SALESPERSON
9/24/2020	David Martin
INQUIRY DATE	INQUIRY # / NAME
1/5/2020	Justin

EST. SHIP DATE	SHIP VIA	FOB	FREIGHT	TERMS
12-14 WEEKS	TRUCK	Newport	Paid	TBD
QTY	DESCRIPTION	PRICE	AMOUNT	
1	11 1/2" X 12" PITCH X 12'-0" LONG, HORIZONTAL, REVERSING SHAFTLESS SCREW CONVEYOR SLUDGE DISCHARGE <u>MATERIAL: SLUDGE, 60-65 LBS/FT³</u> <u>CAPACITY: 48 CFH @ 31 RPM</u>			
1	SHAFTLESS SCREW: 11 1/2" DIA X 12" PITCH X 11'-9" LONG, 1" THICK X 4" WIDE SHAFTLESS, 8620 BAR, RIGHT HAND, MOUNTED ON 3 1/2" SCH80 PIPE FLIGHT WELDED BOTH SIDES. SCREW BUSHED, DRILLED, & CAPPED 3" DIA (3-BOLT). 3" DIA (3-BOLT) DRIVE SHAFT, 4140.			
1	TROUGH: 12" SINGLE FLANGE U-TROUGH, 10 GA 316 SS. 3/8" TROUGH END PLATES, 304 SS. 1/4" END FLANGES, 316 SS. (1) INLET & (2) DISCHARGE SPOUT, 10 GA 316 SS. BOLTED & GASKETED COVERS, 10 GA 316 SS. 1/2" THICK DUAL COLOR UHMW LINERS, 4'-0" MAX LENGTH WITH SIDE HOLD DOWN. DRIVE END SEALED WITH 3" DIRECT MOUNT COMPRESSION SEAL AND SUPPORTED BY GEAR REDUCER. (2) ACCESS/ INSPECTION COVER DOORS.			
1	MOTOR: 2 HP, 1800 RPM, 3/60/230-460V, TEFC, C-FACE, TOSHIBA EQP GLOBAL SD			
1	REDUCER: SEW EURODRIVE KAZ67AM182, CLASS 2, 31 RPM, M1 MOUNT, 3" SHAFT			
1	ZERO SPEED: SIEMENS WM100			
1	E-STOP ASSEMBLY: ALLEN BRADLEY LIFELINE 3			
LOT	SUPPORT LEGS, TRANSITIONS & CHUTES 2-DAY ONSITE START-UP & TRAINING FULLY ASSEMBLED & TESTED WITH O&M MANUAL			

WE ARE PLEASED TO SUBMIT THE ABOVE QUOTATION FOR YOUR CONSIDERATION. SHOULD YOU PLACE AN ORDER, BE ASSURED IT WILL RECEIVE OUR PROMPT ATTENTION. QUOTED PRICES ARE BASED ON CURRENT RAW MATERIAL COSTS AND ARE SUBJECT TO CHANGE AT THE TIME OF ORDER PLACEMENT OR ENGINEERING APPROVAL. LATE PAYMENTS WILL BE ASSESSED 1% PER MONTH.

BY _____ ACCEPTED _____ DATE _____

SIGN AND RETURN WHEN ORDERING

THANK YOU!

SECTION 26 29 23

LOW VOLTAGE ADJUSTABLE FREQUENCY DRIVES

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. Scope.
 - 2. Reference Standards.
 - 3. Quality Assurance.
 - 4. Submittals.
 - 5. Products Requirements.
 - 6. VFD Schedule.
 - 7. Coordination.
 - 8. Products.
 - 9. Execution.

1.2 SCOPE

- A. This specification specifies low voltage, adjustable frequency drives (AFDs), and variable frequency drives (VFDs). For the purpose of this specification the terms AFD and VFD are interchangeable and equivalent.
- B. Refer to the drawings for control and monitoring requirements including special interlocking requirements.

1.3 REFERENCE STANDARDS

- A. This Section incorporates by reference the latest revisions of the following documents. They are part of this Section insofar as specified and modified herein. In the event of conflict between the requirements of this Section and those of the listed documents, the requirements of this Section shall prevail.
- B. Unless otherwise specified, references to documents shall mean the documents in effect on the effective date of the Agreement. If referenced documents have been discontinued by the issuing organization, references to those documents shall mean the replacement documents issued or otherwise identified by that organization or, if there are no replacement documents, the last version of the document before it was discontinued.

Reference	Title
ANSI/IEEE C37.30A(1984)	Definitions and Requirements for High- Voltage Air Switches, Insulators, and Bus Supports, Supplement to C37.30-1971
ANSI C37.32	Schedules of Preferred Ratings, Manufacturing Specifications and Application Guide for High-Voltage Air Switches, Bus Supports, and Switch Accessories
NEMA ICS 1	General Standards for Industrial Controls and Systems
NEMA ICS 2	Standards for Industrial Control Devices, Controllers and Assemblies
NEMA ICS 3	Industrial Systems
NEMA ICS 3.1	Safety Standards for Construction and Guide for Selection, Installation and Operation of Variable-speed Drive Systems
NEMA ICS 4	Terminal Blocks for Industrial Control Equipment and Systems
NEMA ICS 6	Enclosures for Industrial Controls and Systems
ANSI C37.90	Relays and Relay Systems Associated with Electric Power Apparatus
IEEE 519	Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems

1.4 QUALITY ASSURANCE

- A. REQUIREMENTS: Section 26 05 00 General Requirements for Electrical Work
- B. The manufacturer shall warranty the above specified equipment for a period of twelve months from equipment start-up or eighteen months from date of shipment, whichever occurs first, to be free from defects in design, workmanship or materials.

1.5 SUBMITTALS

- A. Submittals requirements specified in: Section 01 33 00.
- B. Product Data: For each type of device and system:
 1. A copy of this specification Section with addenda updates, and all referenced Sections, with addenda updates, with each paragraph check-marked to show specification compliance or marked to show deviations.
 2. Catalog and technical data indicating the equipment complies with the Construction Document.
 3. Provide Seismic calculations for anchoring and support of equipment as required in Section 01 41 20.

4. Installation instructions, outline dimensions and weights including filters and/or phase shifting autotransformers, front view drawing identifying control and monitoring devices, nameplate engravings, shipping section dimensions, weight, and foundation requirements or wall mounting requirements for all assemblies.
5. External connection diagram showing function and identification of all terminals requiring field connections.
6. O&M manuals per Section 01 33 00 and Section 26 05 00.
7. Schematics and wiring diagrams.
8. Plan drawings showing conduit entry locations.
9. Current and voltage distortion calculations.
 - a. Point of Common Coupling (PCC)
 - b. Include first 36 odd current and voltage harmonics. Voltage shall be calculated on line-to-line basis.
 - c. Provide distortion figures for each harmonic and the total demand distortion.
10. Efficiency and power factor calculations:
 - a. Calculate efficiencies of the VFD controller including the auto-transformer (where applicable), ventilation fans, control power and all VFD losses.
 - b. Calculate displacement and total power factor including filter.
 - c. Perform calculations at 100, 75, and 50 percent speed.
 - d. Include first 36 harmonics.
11. Calculations of cooling and ventilation requirements.
12. Certified final factory test procedure and results for each drive.
13. Location and description of service center and spare parts stock.
14. Recommended spare parts list.
15. Factory and field test documentation.
16. Training schedule and materials.

17. Written descriptions explaining ladder diagram operation, system operation, and analog signal processing.
18. Comprehensive interconnection diagrams for VFD and motor.
19. In accordance with seismic anchoring requirements:
 - a. Certification of compliance with local code and seismic designation.
 - b. A sketch or description of the anchorage and restraint system.
20. Certification that VFD, motor, and driven load are compatible throughout the specified speed range.
21. Certified statement from the manufacturer accepting responsibility for providing a fully functioning installation as specified herein.

1.6 PRODUCT REQUIREMENTS

- A. The VFD system shall convert 460 volt, 60-Hertz nominal input to a suitable voltage and frequency to cause a premium efficient, inverter duty, squirrel-cage induction motor to run at a speed proportional to an external input analog 4 to 20 ma dc or digital input command as specified for the required VFD speed range.
- B. The VFD system shall include rectifier units, inverter units, control circuitry, protective equipment, phase shifting autotransformers, input line reactors and output load reactors and other filters and accessories as necessary to provide the specified functions to meet voltage and current harmonics at the specified point of common connection and to mitigate the motor reflected voltage wave. Unless otherwise specified, the point of common connection for VFDs shall be the 480-distribution bus (motor control center, distribution panel, etc.) immediately upstream of the VFD.
- C. VFD's shall be 6-Pulse units for small motors.
 1. Listed and labeled by Underwriter's Laboratories, Inc. (UL), ETL, or Factory Mutual (FM).
 - a. All upgrades to specified requirements per UL or ETL.
 2. QUALITY ASSURANCE: The Owner reserves the right to observe factory tests on the VFD controller at the Owner's option and expense.
 3. COMPATIBILITY: VFD controller's performance shall be compatible and tolerant of disturbances produced by other VFD controllers and not interfere with each other.
 4. PROGRAMMING: Provide VFD controller configuration and MACRO or sub-routine programming to meet specified driven equipment requirements.

5. MAINTAINABILITY: VFD controller’s parts shall be interchangeable and modular for all controllers.

D. FACTORY TEST: Subject complete VFD system to a complete simulated operational test. Drive a calibrated load at various speeds over the specified speed range to determine VFD efficiency.

1.7 VFD SCHEDULE

Equipment Name & Tag Number	Drive Number	Drive HP	Drive Speed Range	Driven Equipment Specification	VFD Type	VFD Enclosure & Mounting	Distance (ft) from VFD to Driven Equipment Motor
CON-351-01	VFD-1	3	1800-3600	33 14 00	CT, 6P	MOUNTED IN MCC	75

1.8 COORDINATION

A. Obtain and review the appropriate data for the driven motor and load over the required speed range, for a complete system analysis. Verify that equipment is mutually compatible and free of resonance over the complete operating range. Coordinate the assignment of any critical frequencies with the equipment suppliers.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Variable frequency drives shall be as manufactured by the vendors listed below and are based on the Owners existing VFD’s installed at the plant. To conform with specified requirements, a manufacturer’s standard product may require modification.

1. AB
2. ABB
3. Danfoss

2.2 SYSTEM

A. General: Provide integrated, all solid-state variable frequency drives (VFD) complete with incoming line reactors. Provide all components, with terminal numbers as shown on the Drawing 19-2673-OR-E-5. System shall comply with NEMA ICS 1, 3, 4, 3.1, 4, and 6.

B. Operation: Accomplish speed control by adjusting the output frequency according to the desired reference speed. Adjust ac voltage and frequency simultaneously to

provide the constant Volts/Hertz necessary to operate the motor at the desired speed. The VFD must use pulse width modulation technology.

C. Rating:

1. Line Voltage: 480 volts, -5 percent continuous, -10 percent momentary, +10 percent, 3- phase.
2. Line Frequency: 60 Hz, ± 2 Hz
3. Ambient Temperature: 5°C to 40°C
4. Altitude: Up to 3,300 feet above sea level.
5. Power Factor: Above 0.95 at full speed and rated load.

D. Performance:

1. Efficiency: Above 95 percent at 100 percent full speed, above 93 percent at 70 percent full speed.
2. VFD Inrush Current: Limited to less than 100 percent of motor full load
3. Duty Cycle: 6 starts per hour.

E. Features:

1. Provisions to accept the following control signals for automatic and manual operation:
 - a. FWD & REV Run signals from remote contact closure when specified.
 - b. A 4-20 mA dc signal for speed control. The VFD shall provide linear speed control of the motor from zero to full speed as the variable speed input signal varies from its minimum to maximum. Input impedance shall be 250 ohms resistive.
2. Motor speed indicator calibrated in percent of full speed.
3. Incoming line fused lockable disconnect or lockable main circuit breaker.
4. 24 VDC control circuitry and 480V-120V step down transformer.
5. Variable time delay for delaying motor drive restart after power failure; timer range shall be 0 to 120 seconds, with initial settings differing by 10 seconds for each drive; provide module which causes multiple attempts to restart.

6. Provision for automatic emergency shutdown in any mode, activated by the following:
 - a. Any additional abnormal conditions as shown on the Drawings. Provide for manual restart.
 7. Auxiliary contacts for remote indication of "Run" and "VFD Fault."
 8. VFD able to withstand harmonic distortion and notching as defined in IEEE-519 for dedicated system (10 percent voltage distortion factor and 36,500-volt microseconds commutation notch area).
 9. VFD operable with motor disconnected, in order to test VFD.
 10. Linearity and repeatability accuracy of 3 phase output of 1 percent of analog input control signal regardless of input power voltage fluctuations between 437 and 505 volts.
 11. Independent acceleration and deceleration controls, adjustable from 2 to 30 Hz per second.
 12. Line reactor on the input side of 6-pulse drives, in the MCC unit enclosure for the drive.
 13. Phase shifting autotransformer on the input side of 18-pulse drives, in the drive enclosure.
 14. Label with fault current rating per NEC article 409.110 and arc flash warning label per NEC Article 110.16.
- F. Protection: Protect VFD against the following conditions:
1. Reverse phase sequence and single phasing of input power.
 2. Input power failure.
 3. Input transient voltages, including peak suppression and snubbers, in accordance with ANSI C37.90.
 4. Transmission signal interference.
 5. Output overcurrent.
 6. Input overcurrent.
 7. Motor over temperature.

8. Cabinet over temperature.
 9. Under voltage: VFD shall automatically shut down if input voltage falls below preset limit with automatic restart upon return to a stable supply.
- G. Construction:
1. 6-pulse VFDs mounted in motor control centers (MCCs) shall be of the same manufacturer chosen from Paragraph 2.01 above.
 - a. Door-mount the following devices:
 - 1) HMI with the following indications:
 - a) Power On
 - b) Speed indication
 - c) Motor Run
 - d) VFD Fault Indication
 - e) External operating handle for the incoming line fused disconnect.
 - b. Control components shall be in accordance Section 26 27 16. Configuration of the enclosure and the components shall be as shown on the drawings.
 - c. Components: Mount components on circuit cards or modules, which can be adjusted or replaced in the field without the use of special tools.
 - d. Provide any additional I/O boards as required to perform the functions as shown on the drawings.
- H. Spare Parts: Furnish two sets of spare power fuses for each size and type of fuse used; furnish a minimum of five fuses of each size and type of control circuit fuse.

PART 3 EXECUTION

3.1 INSTALLATION

- A. REQUIREMENTS: Section 26 05 00 AND Install in accordance with manufacturer's instructions for the specified functional requirements.
- B. Properly level and plumb VFDs so that doors will open and close freely.
- C. Clean and repair scratched or damaged surfaces to "new" condition.
- D. Provide the services of a factory trained service technician to inspect and check out each system before energizing.

- E. Per manufacturer's instructions, lace power conductors to resist short circuit forces.

3.2 COMPONENT TEST PHASE

- A. PROCEDURES: Section 01 75 16
- B. Operate each drive from no load to full load and perform a spectrum analysis to verify that the waveform on the line side of the VFD is in compliance with IEEE 519 for general systems.

3.3 MANUFACTURER'S SERVICES

- A. ON-SITE INSPECTIONS AND TRAINING: Provide a factory-trained manufacturer's representative at the Site for the following activities. Specified durations do not include travel time to or from the Site.
 - 1. INSTALLATION INSPECTIONS: Assist, supervise, and inspect the Contractor's activities during installation.
 - 2. TRAINING SESSIONS: Procedures: Section 01 75 16. Coordinate training with operations and maintenance staff schedules to ensure all required staff can attend.

END OF SECTION