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Recycled Water Expansion Project

Addendum No. 3

November 20, 2026

The following is Addendum No. 3 to the Mendocino City Community Services District – Recycled Water Expansion Project.

IF YOU SUBMIT A PROPOSAL, ACKNOWLEDGMENT OF THIS ADDENDUM MUST BE SHOWN ON THE BID PROPOSAL FORM, OR IT MAY BE DEEMED AS NON-RESPONSIVE.

This Addendum is hereby made part of the Contract Documents to the same extent that it were originally included therein.

Questions and Answers (listed in order received):

Question 22: Due to the holiday week. The gathering of subcontractor and material costing has proven difficult. I would like to request this bid date be pushed to allow contractors the opportunity to gather and review quotes thoroughly before submitting their bids.

Response 22: Due to overall schedule constraints set by the State Water Board grant agreement, the bid date remains unchanged.

Revised Contract Provisions:

None

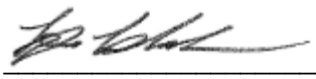
Revised Technical Specifications:

1. Section 43 21 39 is revised to change the pump type, duty point and a few other system elements.

Revised Drawings:

None

All other terms and conditions remain in full force and effect.



Ryan Rhoades
Superintendent

SECTION 43 21 39

SUBMERSIBLE SEWAGE PUMPS

PART 1 GENERAL

1.1 GENERAL

A. Provide a complete duplex submersible wastewater pumping system, including two single-phase submersible pumps, automatic-discharge wet-well guide system, duplex controller with motor starters, float switches, guide rails and supports, discharge piping, valves, fittings, anchors, electrical accessories, and appurtenances required for a complete operational system.

B. Basis of design: Xylem / Flygt N 3069, NP (P-installation), single-phase, with self-cleaning N-technology impeller. For the single-phase unit, provide the manufacturer-supported impeller configuration for the scheduled duty point.

~~B. Basis of design: Xylem / Flygt D 3045, DP (P-installation), MT pressure class, single-phase, with vortex impeller. For the single-phase unit, provide the manufacturer-supported 236 impeller trim/configuration.~~

C. System is intended for retrofit of an existing wastewater lift station. Contractor shall field verify wet-well dimensions, access opening, discharge connection, available single-phase electrical service, cable routing, controller mounting, and all interfacing dimensions before fabrication.

1.2 RELATED SECTIONS

A. 03 30 00 - Cast-in-Place Concrete.

B. Division 26 – Electrical Requirements.

1.3 REFERENCES

A. Reference Standards:
1. NFPA 70 - National Electrical Code (NEC).
2. UL 508A - Industrial Control Panels, where applicable.
3. NEMA 250 - Enclosures for Electrical Equipment.
4. ASTM A240/A240M - Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip.
5. ASTM A312/A312M - Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipe, where stainless steel discharge piping is specified.
6. Manufacturer published installation, operation, and maintenance instructions.

1.4 PRE-INSTALLATION MEETING

A. Section 01 30 00 - Administrative Requirements: Pre-installation meeting.

1.5 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.

B. Product data and certified pump curves showing head, capacity, efficiency, input power, and operating point for the furnished 60 Hz single-phase pump and actual impeller.

C. Pump dimensional drawings, weights, discharge connection, minimum submergence, and lifting requirements.

D. Motor data including voltage, horsepower, full-load current, locked-rotor current, service factor (if applicable), cable size/length, thermal protection, and maximum starts per hour.

E. Duplex control panel elementary/wiring diagrams, bill of materials, enclosure rating, short-circuit current rating, control narrative, alarm functions, and terminal schedule.

F. Guide rail, discharge connection, upper guide bracket, intermediate bracket if required, lifting chain/cable, and anchorage details.

G. Discharge piping, check valve, isolation valve, fittings, supports, and wall/floor penetrations.

H. Float-switch data and proposed elevations for stop, lead start, lag start, and high-level alarm.

I. Factory test documentation and startup report.

J. Operation and maintenance manuals and recommended spare parts list.

~~J.~~K. Calculations for anchor bolts.

~~K.~~L. Manufacturer's Certificates:

1. Factory finish system: Manufacturer's Certificate of Compliance, in accordance with Section 01 60 00–Product Requirements, that factory finish system is identical to requirements specified herein.
2. Certify that products meet or exceed specified requirements.

~~L.~~M. Manufacturer's Installation Instructions: Submit detailed instructions on installation requirements, including storage and handling procedures.

~~M.~~N. Manufacturer Reports: Certify that equipment has been installed according to manufacturer instructions.

1.6 CLOSEOUT SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for closeout submittals.

B. Project Record Documents: Record actual locations of mechanical appurtenances.

1.7 MAINTENANCE MATERIAL SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for spare parts and maintenance materials.

B. Suggested spare parts list to maintain equipment in service for a period of 1 year and 5 years. Include a list of special tools required for checking, testing, parts replacement, and maintenance with current price information.

1.8 QUALITY ASSURANCE

A. Services of Manufacturer's Representative shall be as stated in Section 01 43 33 – Manufacturers' Field Services and specified herein.

B. Provide pumps, guide system, and primary pump controls as a coordinated system supplied by Xylem/Flygt or an authorized Flygt representative or an approved equivalent.

C. Components shall be selected for compatibility with the furnished pumps and wastewater service.

D. Manufacturer shall have established service capability and replacement parts support in the Northern California ~~project~~ region.

E. Electrical equipment shall be listed/labeled by a nationally recognized testing laboratory where required by governing codes.

1.9 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years documented experience.

B. Installer: Company specializing in performing work of this Section with minimum 10 years documented experience.

1.10 DESIGN AND PERFORMANCE REQUIREMENTS

A. Duty point: ~~3~~80 gpm at 34~~0~~ ft TDH for one pump operating. Verify the scheduled operating point lies on the certified curve for the exact configuration.

B. Duplex operation: Each pump shall be capable of meeting the design firm pumping requirement unless Drawings indicate otherwise. Provide automatic lead/lag alternation with lag-pump operation on rising level and simultaneous operation when required by the level sequence.

C. Pump service: Wastewater/light sewage containing solids and fibrous material. Pump selection shall use an N~~a vortex~~-type self-cleaning hydraulic end to reduce clogging risk.

D. Maximum motor starts: Do not exceed manufacturer recommendation. Published information permits up to 15 starts per hour; configure float elevations and controls accordingly.

E. Wet well depth is approximately ~~22~~19 feet. Contractor shall verify actual guide rail length and determine whether an intermediate guide support is required by manufacturer for the installed geometry.

1.11 DELIVERY, STORAGE, AND HANDLING

A. Section 01 60 00 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.

B. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.

C. Store materials according to manufacturer instructions.

D. Protection:
1. Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.
2. Provide additional protection according to manufacturer instructions.

PART 2 PRODUCTS

2.1 GENERAL

A. Vertical turbine pumps shall be submersible turbine pumps driven by a vertical shaft affixed to a pump-mounted motor as indicated in Drawings for the purpose of pumping water as indicated in Drawings.

2.2 Submersible Pumps

A. Quantity: Two identical pumps.

B. Type: Completely submersible, close-coupled centrifugal wastewater pump with self-cleaning, non-clogging N-technology~~vortex~~ impeller. Pump shall automatically connect to stationary wet-well discharge connection when lowered on twin guide rails, without personnel entering the wet well.

C. Hydraulics: Flygt N~~Medium-head (MT) D~~-series (N 3069) self-cleaning, non-clog hydraulic end with hardened cast iron impeller and insert ring.~~vortex configuration.~~ Discharge nominally 2 inches. Furnish discharge elbow/base and mating flange/adaptor compatible with project piping.

D. Motor: Submersible squirrel-cage induction motor, 60 Hz, single-phase, designed for continuous submersible service; Class F insulation or better. Provide integral thermal protection and manufacturer-required starting/run capacitors or starting components as part of the coordinated system.

~~D.~~E. Transformer: Provide voltage step-up transformer, as required to meet motor voltage. Install transformer with pump control panel

~~E.~~F. Pump rating: Motor rating as required by the scheduled duty point for the furnished N 3069 unit (manufacturer published range 2~~1.0~~ hp to 3.8~~1.5~~ hp).~~.~~ Final voltage, rated current and electrical characteristics shall be those on the submitted factory data plate and certified product data for the exact furnished unit. Do not infer current from three-phase data.

~~F.~~G. Pump Construction: Heavy-duty cast iron major wetted castings with corrosion-resistant shaft, fasteners, and manufacturer-standard materials. Provide factory coating suitable for wastewater immersion.

~~G.~~H. Shaft Seals: Tandem/double independent mechanical seal system in an oil-filled intermediate chamber; silicon carbide and/or tungsten carbide faces as selected by manufacturer for wastewater service.

~~H.~~I. Bearings: Permanently lubricated anti-friction bearings designed for radial and thrust loads of the furnished pump.

~~I.~~J. Cable: Manufacturer standard heavy-duty submersible wastewater-rated power cable, continuous from pump into dry termination area or control panel unless a manufacturer-

approved watertight junction system is shown. Cable length shall suit approximately 22-foot deep wet well plus routing and service allowance; minimum length 30 ft.

~~J.~~K. Lifting: Each pump shall have dedicated Type 316 stainless steel lifting chain or manufacturer-approved stainless lifting cable, sized for pump weight with minimum 5:1 design safety factor. Power cable shall not be used for lifting.

2.3 GUIDE RAIL AND AUTOMATIC DISCHARGE SYSTEM

A. Provide Flygt P-installation guide system, or approved equivalent, consisting of submerged discharge connection/base elbow, pump sliding bracket, two guide bars, upper guide holder, intermediate guide support(s) where required, fasteners, and anchors.

B. Guide Bars: Twin ~~3/4~~2-inch nominal guide bars for specified pump series, Type 316 stainless steel.

C. Length: Extend continuously from automatic discharge connection to upper guide bracket at wet-well access. Provide manufacturer guide-bar extension components if required for the verified wet-well depth.

D. Upper and intermediate brackets, clamps, bolts, nuts, washers, and exposed mounting hardware within wet well: Type 316 stainless steel. Isolate dissimilar metals where required to prevent galvanic corrosion.

E. Anchorage: Type 316 stainless steel mechanical anchors suitable for cracked concrete and continuous wastewater exposure. 1/2 inch minimum diameter Simpson THDSS concrete anchor, with ~~2-1/2~~4 inch minimum embedment. Confirm size and embedment with equipment supplier based on actual loads, subject to Engineer review. Do not drill through reinforcing without approval.

2.4 DUPLEX PUMP CONTROL PANEL

A. Provide a factory-assembled duplex pump control panel specifically configured for two single-phase pumps and supply voltage of 120 volts.

B. Enclosure: NEMA 4X, Type 316 stainless steel enclosure rated for outdoor/corrosive marine environment location. Provide lockable dead-front arrangement.

C. Panel shall include, as applicable: main disconnect or provisions for external disconnect; individual pump branch circuit protection; single-phase motor contactors/starters rated for pump locked-rotor current; overload protection coordinated with integral thermal devices; Hand-Off-Auto selector for each pump; run lights; pump-fail/overload indication; lead/lag alternator; level relays; control transformer/power supply; terminal blocks; elapsed time meters; start counters; high-level alarm light and audible alarm with silence; and dry auxiliary contacts for common alarm and pump run status.

D. Sequence: Under normal operation one pump shall be lead. On lead-start level, lead pump starts. If liquid rises to lag-start level, second pump starts. Pumps stop at pump-off level unless manufacturer requires separate stop levels. Alternator shall change lead duty after each normal cycle. High-high level shall initiate alarm. Logic shall prevent automatic restart inconsistent with manufacturer safety requirements after faults.

E. Provide automatic operation following restoration of power unless prohibited by the District's operating requirements or governing code. Provide phase-independent

protection appropriate for single-phase motors, including under/over-voltage protection where recommended by manufacturer.

F. Control panel SCCR: Not less than available fault current at installation and not less than 10 kA unless Drawings require higher rating.

G. Provide surge protective device where required by Division 26 or utility/service conditions.

2.5 FLOAT SWITCHES AND LEVEL CONTROL

A. Provide four heavy-duty, direct-acting, sewage-rated, normally open/closed as required, mercury-free float switches with integral flexible cable and corrosion-resistant mounting hardware.

B. Functions: Pump Off/Low Level, Lead Pump Start, Lag Pump Start, and High Level Alarm. Where controller requires five floats for separate redundant off or alarm function, provide the additional float at no change in basic system functionality.

C. Mount on Type 316 stainless steel float bracket or individual suspended cable weights approved by manufacturer. Arrange to prevent floats from fouling pumps, rails, piping, walls, or one another.

D. Final float elevations shall be coordinated with required pump submergence, influent elevation, wet-well working volume, maximum starts per hour, and alarm response time. Submit proposed elevations before installation.

2.6 DISCHARGE PIPING AND APPURTENANCES

A. Provide piping from each pump automatic discharge connection through the wet-well/dry-well interface to the connection point shown on Drawings, including separate branch piping, check valve, isolation valve, fittings, unions/flanged dismantling provisions, supports, and common header as indicated.

B. Wet-Well Piping: Schedule 80 PVC piping. Do not use threaded joints for submerged wastewater piping except instrument connections.

C. Check Valve: Full-port swing check or ball check designed for wastewater service, nominal size matching pump discharge branch; resilient seat; accessible for maintenance. Provide type shown on Drawings.

D. Isolation Valve: Full-port resilient-seated gate valve for wastewater service, sized to branch piping, with non-rising stem where applicable and extension operator where access requires.

E. Supports: Type 316 stainless steel brackets, clamps, and anchors in wet well. Support piping independently of pumps and guide rails.

F. Provide flexible coupling or dismantling joint where shown on Drawings and required for removal of valves/piping without disturbing embedded piping.

~~2.7 SPARE PARTS AND SPECIAL TOOLS~~

~~A. Provide one set of manufacturer-recommended startup/maintenance tools and one spare set of pump mechanical seals, O-rings, and wear items if required by District.~~

B. ~~Provide touch-up coating supplied or approved by pump manufacturer for repair of damaged factory coating.~~

2.7 MANUFACTURER

A. Xylem / Flygt
   1. Zack Cederlind
   2. Zackery.cederlind@xylem.com
   3. 916-279-1661
B. Approved Equivalent

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify wet-well dimensions, access hatch clearances, concrete condition, discharge pipe elevations, electrical service voltage, and controller location before ordering final-length rails, cables, or piping.

B. Verify that each pump can be removed vertically through the access opening without removal of fixed piping or entry into the wet well.

C. Do not proceed until conditions preventing proper installation are corrected.

3.2 INSTALLATION

A. Install pumps and accessories in accordance with approved submittals and manufacturer instructions

B. Temporarily block wastewater flows into the wet well as necessary to install pumps, rails, piping and appurtenances.

C. Set discharge bases accurately and level in wet well channel on a bed of mortar. Plumb guide rails and align rails to permit pumps to travel freely and seat positively on discharge connections without binding.

D. Install guide-rail anchorage, upper brackets, intermediate supports, piping supports, and float brackets before placing system in service.

E. Arrange power and float cables with Type 316 stainless steel cable supports or manufacturer-approved hangers so cables do not bear pump weight, contact sharp edges, or interfere with floats.

F. Provide electrical grounding and bonding in accordance with NFPA 70 and manufacturer instructions. Seal conduits entering wet or classified areas as required by code and the Drawings.

G. Install valves so they are serviceable from the access area or dry well without confined-space entry where practicable.

H. Field Testing:
   1. Pressure test appurtenances with pipeline pressure testing.

3.3 FIELD FINISHING

A. Touch up factory finish as specified in Section 09 90 00–Painting and Coating and manufacturer's recommendations.

3.4 FIELD QUALITY CONTROL AND STARTUP

A. Manufacturer-authorized representative shall inspect installation before startup, verify pump seating, cable connections, motor protection settings, float sequence, controls, and alarms, and supervise initial startup.

B. Test each pump independently in Hand and Auto modes. Verify lead/lag alternation, lag start, high-level alarm, common alarm outputs, overload/fault response, and restoration after power interruption.

C. Perform drawdown or calibrated-volume test to verify delivered capacity where wet-well geometry permits. Compare observed duty point with certified pump curve.

D. Check piping and valve joints for leakage and verify check valves close without unacceptable slam or reverse flow.

E. Demonstrate complete pump removal and reinstallation on the guide rails for each pump.

F. Provide written startup report including voltage, running current, insulation resistance where applicable, control setpoints/float elevations, observed flow/head data, and deficiencies corrected.

3.5 TRAINING

A. Provide minimum 2 hours onsite training for District personnel covering normal operation, controller sequence, alarm response, pump removal/reinstallation, inspection, preventive maintenance, and safety/lockout requirements.

3.6 SCHEDULE

Item	Requirement
Pumps	2 - Flygt NP 3069, 1-phase, 60 Hz, N-technology impeller
Duty Point	80 gpm at 34 ft TDH, BEP 47%
Motor	Per manufacturer published data for N 3069 1-phase 60 Hz; verify exact furnished unit
Electrical Service	120 V, 1-phase, 60 Hz
Transformer	Provide as necessary
Guide Rails	Twin 2-inch nominal, Type 316 stainless steel
Wet Well Depth	Approx. 19 ft; field verify
Controller	Duplex, NEMA 4X Type 316 SS, lead/lag alternation
Level Devices	4 minimum sewage-rated mercury-free floats
Discharge Piping	2-inch nominal minimum / match furnished discharge and Drawings. Provide appropriate fittings as

	necessary

Item	Requirement
Pumps	2 - Flygt DP 3045 MT, 1-phase, 60 Hz, 236 configuration
Duty Point	30 gpm] at 30 ft TDH
Motor	Approx. 1.1 hp published for D 3045 MT 1-phase 60 Hz; verify exact furnished unit
Electrical Service	120 V, 1-phase, 60 Hz
Guide Rails	Twin 3/4-inch nominal, Type 316 stainless steel
Wet Well Depth	Approx. 22 ft; field verify
Controller	Duplex, NEMA 4X Type 316 SS, lead/lag alternation
Level Devices	4 minimum sewage-rated mercury-free floats
Discharge Piping	2-inch nominal minimum / match furnished discharge and Drawings

END OF SECTION