

**Amendment 0001**  
**Request for Proposal for:**  
**Sweet Cron Irrigation Modernization Project**  
**Project Location: 22995 Redwood Hwy, Kerby, Oregon 97531**  
**3/30/2026**

Page	Original Text	Amendment Revision
Page 13, Table line 4 Irrigation system requirements	Electric pivots with end gun coverage installed to cover acres for Fields 1, 2, and 3; Valley 8000 series or equivalent ( <a href="https://www.valleyirrigation.com/8000">https://www.valleyirrigation.com/8000</a> ) that meet or exceed specifications in Exhibit X;	Electric pivots with end gun coverage installed to cover acres for Fields 1, 2, and 3; Valley 8000 series or equivalent that meet or exceed these specifications ( <a href="https://www.valleyirrigation.com/8000">https://www.valleyirrigation.com/8000</a> ) that meet or exceed specifications located at <a href="https://drive.google.com/file/d/1g1Ay7jkTQRmLsCV2aeecxeab_qOfQGsf/view?usp=drive_link">https://drive.google.com/file/d/1g1Ay7jkTQRmLsCV2aeecxeab_qOfQGsf/view?usp=drive_link</a> or Exhibit A;

**Exhibit A:**  
**VALMONT CENTER PIVOT IRRIGATION EQUIPMENT**  
**8000 SERIES DESIGN CRITERIA AND MANUFACTURING SPECIFICATIONS**

General Description of Work

- A. The contractor will furnish, install and place in satisfactory operating condition **FOUR** (4) Valley 8000 series center pivot(s) and all required appurtenances in accordance with the approved plans and specifications.
- B. The unit will be a self-contained, electrically propelled land irrigation machine driven by individual drive unit structures supported on rubber pneumatic tires. The basic power train will consist of a three-phase electric motor at each drive tower that will drive the wheels through a series of gear reductions. Each tower will be electrically controlled to maintain the selected operating speed and correct alignment.
- C. A Valley ICON5 control panel will provide operator control from the pivot point.
- D. The pivot irrigation equipment will be supplied by a manufacturer who conforms to Quality Standard, ISO 9001:2015 Quality Management System Certification for Design and Manufacture of Irrigation Products. Valmont Irrigation conforms to this standard for the Design and Manufacture of Irrigation Products.
- E. The basis of design for the center pivot irrigation equipment is the Valmont Valley 8000 Series with ICON5 control system. No substitutions will be accepted unless the proposed equipment has been pre-approved in writing by the Engineer prior to bid, and the manufacturer demonstrates equivalent or superior engineering, service network, materials, design life, corrosion resistance, and operational compatibility with specified controls and accessories.

Basis of Design/No Substitutions

- A. The basis of design for the center pivot irrigation equipment is the Valmont Valley 8000 Series with ICON5 control system.
- B. No substitutions will be accepted unless the manufacturer demonstrates equivalent or superior engineering, service network, materials, design life, corrosion resistance, and operational compatibility with specified controls and accessories.

General Design Criteria

- A. All equipment furnished will be new and unused, and will be the product of a manufacturer having successful experience in the manufacture of center pivot irrigation equipment.
- B. All equipment provided will be capable of maximum interchangeability of spare parts. The equipment incorporated in this proposal will be the product of, and furnished by, a manufacturer who is regularly engaged in the production of such equipment for similar applications, and who has an experience record of fifty (50)

years with installations similar to that contemplated in these specifications.

- C. All of the equipment will be the manufacturer's latest and proven design. Specifications call attention to certain features, but do not purport to cover all details entering into the design of the entire pivot.
- D. All electrical components of the pivot will operate from a 480-volt, three-phase, 60-Hertz, 4-wire power supply to be provided at the pivot as per ASABE Standard S397.1.
- E. All controls for remote electrically operated or motor driven equipment will be complete, including all necessary auxiliary relays so as to require only remote wiring and wiring connections to the equipment.
- F. Commercially plated fasteners will be used on all connections, including the drive train U-joints, center drives and wheel gearboxes.
- G. All necessary fuses or switches required by the manufacturer for his equipment will be provided with the equipment.

#### Manufacturer Qualifications

- A. Manufacturer must have a minimum of 50 years of continuous experience producing electrically driven center pivots in North America.
- B. And must maintain a regional authorized dealer network capable of 24-hour service response.

#### Warranty and Support

- A. The pivot system shall carry a minimum two-year warranty covering structural, electrical, and mechanical components. 8 year 8,000 hour warranty on Valley Gearboxes.
- B. Installation and warranty service shall be performed only by an **authorized Valley dealer** to ensure compliance with manufacturer standards.

#### Basis of Bid

- A. Bidder shall base all pricing and technical submittals on Valley 8000 series components as specified. Alternate manufacturers must include detailed technical data sheets demonstrating full compliance with each specification section.
- B. It is the intent that all equipment as defined from the pivot point to the end of the machine in this specification shall be supplied by the irrigation pivot manufacturer. Other non-Valmont manufactured or supplied materials to be designed, procured and installed by the authorized dealer.
- C. The manufacturer or dealer of the center pivot irrigation equipment will erect the center pivots with one or more factory trained personnel. This will include assembly of the mechanical portion of the center pivots, and start-up and adjustment of the

equipment. This portion of the manufacturer's responsibility will be concluded when the center pivots have been operated continuously for one (1) field revolution.

- D. The pivot point foundations will comply with the requirements set by the center pivot manufacturer.

### Instruction Manuals

One (1) copy of the Owner's Manual will be inserted inside the door of the pivot

control panel. Structural

- A. 6 5/8" Pivot Point - The four-legged pivot point structure will be erected with .135" x 4.1" x 4.1" roll formed angle. The horizontal braces will be .163" x 2" x 2" or larger angle. Fixed pivot leg pads will be provided. The rotating swivel will be constructed with a stainless-steel nipple that provides a smooth durable surface for the riser gasket water seal. The riser pipe will be 6 5/8" O. D., 12 gauge (.109" wall) hot dipped galvanized steel with a Pierce Coupling and triple lip seal and is attached with riser support steel rods to the non-rotating swivel bearing. Two horizontal riser support angles and a gusset will stabilize the riser against deflection.
- B. Steel Pipeline - The main structural water supply pipe will be 12 gauge (.109" wall) hot dipped galvanized steel. A combination of 6" and 6 5/8" O. D. pipe may be used to minimize the pressure loss through the pivot. Water outlet couplings to be 3/4" NPT steel welded to the top of the pipeline. Outlet spacing to be 30" or 108" (to be determined based upon final design).
- C. Pipe Support Structure - The pipe support structure of the pivot will be of a bow string, under truss design. Vee positioned truss angles will be .163" x 2" x 2" attached to wrap around brackets welded to the pipes. The truss angles will be supported with a .163" x 2" x 2" spreader angle positioned perpendicular to the pipeline. Truss rods will be a minimum 3/4" diameter steel and the rods will have radius hot forged head ends.
- D. Span Connections - The spans will be connected using an external ball and socket flex joint which allows for span-to-span flexibility, and does not transmit bending or torsional stresses into the pipe. The pipeline flex hose will be replaceable without disengaging the structural components of the flex joint and without any lifting equipment. The flex joint will not obstruct the water flow inside the pipeline. The flex hose will match the pipe diameter.
- E. Drive Unit Tower - The drive unit tower will be a four-legged structure designed to withstand the forces induced when traversing rough terrain and ridged row crops. The drive unit legs will be fabricated from 1/4" x 3" x 3" angle. Two diagonal and six horizontal pre-galvanized braces will provide rigidity and strength to the drive unit. The horizontal base beam at the lower end of the structure will be constructed of 6 5/8" O. D., 12-gauge (.109") pipe and will provide a wheel base of 13.3 feet. Optional

base beam and floatation options are presented in Appendix A.

- F. Drive Unit Attachment - The fixed pipe of each span will be constructed of one piece of tubing. No stub pipe assemblies will be used. Drive unit legs will be attached to the one piece fixed or last pipe assembly to minimize the number of flanged connections on each span.
- G. Tower Supports - Two 2.875" O. D. 14 gauge (.083) pre-galvanized tubular tower support assemblies will be attached between the drive unit legs (Upper Brace connection) and pipeline attachment brackets. The tower supports will also be tied into the truss rods with a cross-channel member. This arrangement provides a unitized support structure to withstand tension and compression forces as the towers move around the field on level and rolling terrain.
- H. Structural Component Finish - All critical structural members, including the pipe, angles, and base beam will be hot dip galvanized per ASTM Specification 123 on all surfaces, with the exception of the Xenoy nipple and various small brackets, which will be painted or plated.
- I. Fasteners - All bolts will be Grade 5 minimum. Locknuts will be used in all structural assemblies. All fasteners will be plated for corrosion protection.

#### Drive Train

- A. Center Drive - The center drive will use a high efficiency, totally enclosed irrigation duty motor directly coupled to a double reduction gearbox with stainless steel stator bolts. Steel heat treated helical gears will be used for maximum efficiency and strength. The motor housing will be finned aluminum to provide additional cooling for longer life. The complete unit is designed to operate under extreme environmental conditions and is CSA and UL certified. The center drive motors will be 0.6 Hp (UL rating .8 Hp) and/or 1.2 Hp (UL rating 1.6 Hp) with a thermal sensitive device to protect the motor against excessive current or heat. One (1) motor at each drive unit provides input power to the two-wheel gearboxes and will operate at 1800 (4-pole) or 3600 (2-pole) RPM for standard and high speed respectively. The motors will be rated at 1100 in.-lb. torque with a 1.3 service factor (continuous rating 1400 in.-lb.) and 6800 in.-lb. starting torque. Amp draw will be 1.1 (0.6 Hp) and 1.8 (1.2 Hp).
- B. Wheel Gearbox - The pivot will be equipped with heavy duty gearboxes (52:1 gear ratios) with a rating of 30,000 in.-lbs. continuous output torque for a minimum of 1000 operating hours, and capable of withstanding 150,000 in.-lbs. instantaneous output torque without failure. The wheel drive gearboxes will be a self-locking worm gear design to provide positive braking. The cast iron worm wheel and integral ductile worm input shaft have a 25-degree pressure angle design for full recessed action and proper lubrication. The gears and American made bearings will operate in a submerged oil bath. A hermetically sealed 15.9 cubic inch vented expansion chamber with a rubber diaphragm will compensate for variations in operating temperature to minimize pressure fluctuations inside the gearbox. The output shaft

of the wheel gearbox will be 2 1/4" diameter, stress relieved, cold drawn steel. The input and output shaft will use a proprietary patented cartridge type seal construction containing 7-barriers that resist water contamination and oil leakage. The inner part of the seal turns with the shaft to minimize grooving. All gearboxes will be properly filled with lubricant by the manufacturer. Visual inspection of the lubricant will be provided by removal of the expansion chamber cover or fill level plug.

- C. Gearbox Oil - The gearboxes as shipped will be filled with oil to its normal operating level. The original lubricant will meet SAE 85W/140 API classification GL5. Replacement lubricants must meet manufacturer's specification.
- D. The drive shafts will be designed to withstand the maximum torque of the drive train with no permanent deformation and will be 7/8" square steel. The drive shaft will be adequately shielded to meet OSHA safety standards. Greaseless U-joints will connect the drive train components. The U-joints will incorporate flexible urethane inserts to absorb shock from motor starts and stops to reduce stress. Urethane inserts anchored between cast aluminum yokes will be attached to the drive shafts with four (4) 1/4" cap screws.
- E. Tires will have an R-1 14.9x24 Tubeless agricultural traction tread design. The rims will be hot dipped galvanized in accordance to ASTM 123.

### Control Panel

- A. The control system shall be **Valley ICON5**, incorporating proprietary programming, cloud compatibility (AgSense365), and GPS-based variable rate functionality. Substitutions are not acceptable.
- B. Valley ICON5 panel will be provided with the pivot. The essential characteristics include:
  - 1. Start-stop.
  - 2. Change speeds or depth of application.
  - 3. Direction control, forward or reverse.
  - 4. Position in the field display.
  - 5. Programmable end gun controls.
  - 6. Programmable functions by field position, time, date and external inputs.
  - 7. Programmable application rate by field position.
  - 8. Digital voltage display and low voltage shut down.
  - 9. Advanced diagnostics for easy trouble shooting.
  - 10. 5-inch full color touchscreen display.
  - 12. Pump start/stop.
  - 13. Bypass switch for engine run/start.
  - 14. Stop-in-slot bypass.
  - 15. Wet and dry digital hour meter.
  - 16. Auto reverse/Auto Stop.
  - 17. GPS Position Ready.
  - 18. BaseStation3 Compatible.
  - 19. AgSense Enabled (AgSense ICON Link).
  - 20. Variable Rate Irrigation capabilities.
- B. The main control panel will be constructed to meet or exceed the standards for a

National Electrical Manufacturers Association (NEMA) Type 3R enclosure. All operator controls will be protected from the elements by an outside door. The main panel will also be provided with latches to accommodate a padlock. 480-volt, three-phase, 4-wire, 60-cycle electrical power will be furnished to the main control panel at the appropriate amperage to match the pivot requirements. The pivot panel will be rated for 30 amps or 45 amps depending upon the total pivot amperage requirements based upon the number of spans, drive motors and end gun booster pump as calculated in VSOC. All wiring will be color coded. An optional stainless steel control panel is available.

- C. Each main pivot control panel will include functional capability for starting/stopping, speed/depth of water applied, start/override button, forward-stop-reverse, 480/120 control transformer, volt meter, fuses and main disconnect switch. Diagnostic display will identify cause for pivot shut-down from control panel, towers or end tower. Each center pivot will be equipped to automatically restart itself in the event of a power interruption, up to three (3) seconds in duration, and to shut itself down if the pivot fails to move for a preselected time interval. Units will be grounded in accordance with the National Electric Code, Article 250, Section H.
- D. The main pivot panel can be equipped with auxiliary contacts which will interface with auxiliary equipment. However, safety circuit wire and main power cable are to be supplied and installed by other supplier/contractor.

### Electrical

- A. The pivot electrical circuits will operate from a 480-volt, three-phase, 4-wire power (with ground) source with a step-down transformer for the seven conductor 120-volt, VAC., single-phase control and safety circuits.
- B. The main power cable from the pivot box to the tower boxes will be a minimum 12-gauge stranded copper wire. All exposed wiring will be bundled and jacketed with a black, U.V. stabilized polyethylene cable jacketing material.
- C. The individual tower panels will be constructed to meet or exceed the standards for a National Electrical Manufacturers Association (NEMA) Type 3R enclosure. All wiring will be color coded.
- D. The electrical alignment system will consist of micro-switches for tower alignment and safety shutdown. The motor control or alignment micro-switch will not cycle the center drive motors more than once each 10 seconds.
- E. Integral, thermal sensitive automatic reset overload protection will be provided for all 480-volt motors. A suppressor circuit will be provided in each tower control box to reduce arcing at contacts.
- F. The collector ring will be mounted on a stainless-steel J Tube that extends through the rotating swivel. A three-cap screw top clamp and V seals will provide a water tight seal around the tube. A collector ring cover with gasket will protect the internal electrical components against the effects of the environment.

- G. The collector ring will use 11 sliding contactors rated at 600 volts and either 35 amps or 45 amps to match the control panel. To assure positive contact of the brushes to the contact point, leaf springs will be used. Slip rings will be seamless and not more than 4" in diameter.
- H. Valmont electric irrigation equipment is designed and manufactured according to the National Electrical Code (NEC) Article 675, including:
  - Article 430 - motors, motor circuits and controllers
  - Article 250 - grounding
  - Article 240 - over current protection
  - Article 310 - conductors for general wiring
- I. Valmont equipment is also designed to meet the conditions outlined in ASABE Standard: ASABE S362. This standard covers all electrical equipment, apparatus, component and wiring necessary for electrically driven or controlled irrigation machines from the point of connection of the electric power to the machine. Other Standards cited are:
  - ASABE 318 - Safety for Agricultural Equipment.
  - ASABE S350 - Safety Alert Symbol for Agricultural Equipment. ANSI 235-1 - Specification for Accident Prevention Signs.
  - NEMA 151.1 - Controls and System. NFPA No. 70 - National Electric Code.
- J. All electrical components and wiring will meet or exceed the requirements of the National Electric Code, Article 675, and American Society of Agricultural and Biological Engineers Standard S362, "Wiring and Equipment for Electrically Driven or Controlled Irrigation Machine."
- K. All part circle operating pivots will be equipped with End of Field Auto Stop/Auto Reverse units with barriers to ensure that encroachment beyond field boundaries is prevented. These devices will be mounted on a distant tower unit.
- L. Options may be specified to provide additional capability for the pivot.

### Training

The dealer will orient the on-site operators regarding operation of the Valley 8000 pivot equipment.

EXHIBIT A: APPENDIX A

**Flotation**

**Flotation Options**

Drive Unit Options that can be Retrofitted to Existing Machines



SELECT THE BEST OPTION FOR THE GIVEN FIELD SITUATION:				
Drive Type	Traction (Prevent Getting Stuck)	Flotation (Reduce Wheel Rut)	Rough Ground Capabilities	Retrofit Applications
Standard 2-Wheel	Good	Good	Best	Not Applicable
3 - Wheel	Better	Good	Better	Valley 6000 and 8000 series Standard Profile Pivot or Linear Drive units (not on linear carts or any 6 in spans)
Articulating 4-Wheel	Best	Better	Best	Valley 8000 series Standard Profile Pivot drive units and the Valley Corner and Precision Corner LRDU. Not available for linears or any 6 in spans.
Track Drive	Best	Best	Good	Valley 6000 or 8000 series Standard Profile Pivot Drive Units and LRDU on Precision or Valley Corner.
Articulating Track Drive	Best	Best	Best	Valley 8000 series Standard Profile Pivot drive units and the Valley Corner and Precision Corner LRDU. Not available for linears or 6 in spans.
Agri-Tracs	Fair	Better	Good	All drive units with 11R X 22.5 or 11R X 24.5 Retread Tires. Can be installed on the Valley Corner or Precision Corner if gearboxes are equipped with the "extended neck" assembly.
Raaf-Tracks	Fair	Better	Good	All drive units with 11 x 22.5, 11.2 x 24.5, 14.9 x 24 or 11.2 x 38 New Tires.