

Pump Mechanical Technical Services, LLC

DATE: 05/09/24 \*\*\*BUYBOARD VENDOR # 672-22\*\*\*\*

TO: STONE TREE GOLF CLUB

ATTENTION: Dale Hough / City of Killeen Parks

Reference: STONE TREE GC VFD CONTROL PANEL- (UPDATED)

SCOPE OF SUPPLY

# Main Control Panel

## **Custom Enclosure**

- UL 508a Listed Control Panel Custom Engineered & Manufactured in Same Facility as Pump Station
- Watertight UL Type 4 Enclosure
- 72INx60INx18IN (HxWxD),,Final Panel Size Confirmed in Approval Drawings
- 12 ga. Mild Steel Construction with Self-Healing Zinc Primer and Superior Outdoor Rated Powder Coated Textured Finish
- Heavy Duty Concealed Hinge / 3- Point Latch with Handle (Pad Lock Capable),
   Easily Removeable Doors and Center Post for Servicing
- Rigid Steel Backplate with Pure White Powder Coat
- Stainless Steel Doorstop(s), (Standard on All Doors)
- 12IN Data Pocket Containing All Pertinent Panel Documentation and As Built Drawings for Easy in Field Reference
- Manufactured in the USA

## **Main Power**

- 400-Amp Main Fused Disconnect to Protect Valuable and Critical Components from Overloads and Abnormal Supply Power Conditions
- Industry Leading Short Circuit Current Rating (SCCR) of 100,000 Amps to Impede Catastrophic Failure
- Type 1 Surge Protection w/Status Indicators for Safeguarding of Electrical System Against Destructive Transient Power Surges
- Active Incoming Line Phase Monitor W/Primary Fusing for Detection of Voltage Imbalance, Phase Sequence, and Loss of Phase
- Regulated & Adjustable DC Power Supply for Safe User Operation and Stable Clean Power to Control Processing Components
- GFCI Outlet for Convenient Laptop Power
- Robust Industrial Control Power Transformer w/Primary Fusing

## Pump/Motor Control/Power

- Control & Power for QTY (1) 5 HP Pressure Maintenance Pump/Motor with XL Operation
  - Green Illuminated Off/On Switch with Running and Blinking Fault Indication
  - Pump/Motor Running Feedback
  - XL Operation
    - Advanced Fuse Protection Technology for Safeguarding Against Power Surges and Overloads
    - Solid State Overload Protection with Precise Monitoring Per Motor and Shutdown Safety
- Control & Power for QTY (3) 50 HP Main Pump/Motor with Single Shared VFD/XL Operation
  - Green Illuminated Off/On Switch with Running and Blinking Fault Indication
  - Pump/Motor Running Feedback
  - Variable Frequency Drive Operation
    - High Accuracy Pump/Motor Speed Control
    - Manual VFD Speed Pot
    - VFD Bypass Switch Per VFD for Alternate Pressure Control Mode in the Event of VFD Failure
    - Equipped With Input Impedance Per VFD for Smooth, Stable, & Consistent Power
    - Fast Acting Fusing for VFD Protection
    - VFD Fault with Auto Restart
    - 6-Year Warranty on VFD Including Coverage Against Damages from Momentary Line or Load Anomalies such as Lightning Strikes.
  - XL Operation
    - Advanced Fuse Protection Technology for Safeguarding Against Power Surges and Overloads
    - Solid State Overload Protection with Precise Monitoring Per Motor and Shutdown Safety Including Contactor Interlocks for Safe Operation

#### Control Features & Hardware

- Allen Bradley Compactlogix Fast Processing Robust PLC for Self-Sufficient Automatic Operation
- Allen Bradley 10IN Panelview High Resolution Display with Intuitive Color Operator Control and Monitoring of Critical Processes
- System "Full Size" Type 4 Operator Control Devices
  - Manual/Off/Auto System Control
  - Red Illuminated Fault Push Button
  - o Blue Illuminated Maintenance Light
- PLC Flow Adjustable Fertigation Run Relay with Dry Contacts
- System Safeties:

- Main Inlet Safety
  - Loss of Prime Shutdown w/Auto Reset
- Low Discharge Pressure Shutdown/Hard Fault
- High Discharge Pressure Shutdown w/Auto Restart
- Phase Failure, Imbalance, and Low Voltage Protection

# Operation Features

- Door Device Lamp Test Function
- Automatic Alternation of Pumps Based on Least Run Time
- Intelligent Slow Ramp Feature for Automatic Line Fill
- o 3-Year Flow Total Logging Day/Week/Month/Year
- Pump Run Times
- Event Log
- Flow and Station Trending
- Assignable I/O
- Multi-Parameter Adjustable Pump Station Lockout
  - Lockout Parameters: \*Individualized Day/Time Settings\*
    - Pressure Setpoint/Max
    - External Input
    - Max Number of Pumps Allowed
    - Power Consumption
    - Max VFD Speed
- MCI Remote Cell Monitoring w/1 Year Activation (Cell Service Starts When Equipment Ships from MCI)
  - o nSite, MCI's Cloud Based Solution NO SUBSCRIPTION FEE
    - Scheduled Monthly Email with Flow Report in Excel Format
    - Access To One Full Year of Pressure, Flow, Alarms and Event Data
  - Remote Pump Station Disable Feature from Any Smart Device Or PC
  - Factory Support Remote Access to PLC/HMI and VFD for Programming and Troubleshooting
  - nAlert
    - Manage Maintenance Due Dates for All Aspects of Maintenance on Your Pumping Station
    - Warning Light, Display Message and Email Alert When Due Monitor and Report Irregular Operation of Irrigation System, Pump System and Filter System

# **Optional Equipment: (Not Included in pricing)**

- Cellular Central Irrigation Communication Package \$3,800.00
  - Allows the Toro or Rainbird Irrigation Central Computer to Communicate Directly with the MCI Flowtronex Pump Station.
  - Allows User Defined Adjustments During Scheduled Irrigation Cycles
- Cell Booster Package

- Ultra-wide Band Weather-Resistant Antenna Designed for Maximum Performance in Rural Areas
- Extended Range for the most Remote Signal Booster Applications
- Easy to Install Quick-Connect Antenna with Pre-Assembled Mounting Bracket

**EQUIPMENT ONLY PRICE:** \$76,569.00

PMTS LABOR: \$ 8,400.00 (2 TECHS)

FREIGHT:(DEDICATED) \$ 1,200.00

**\*SALES TAXES NOT INCLUDED** 

\*\*\*BUYBOARD VENDOR # 672-22\*\*\*

\* Lead Time:

**Production 16 – 18 Weeks From Date of Drawing Approval** 

\*Deposit: 50% Production Deposit due with signed order, Balance due on completion.

MCI Flowtronex reserves the right to substitute alternate products for any named brand products based on availability.

#### **Additional Warranty items**

- Warranty <u>Includes</u> crane if needed
- 6-year warranty on Variable frequency drive (Includes Lightning Damage Coverage and Labor to Replace)
- 6-Year Warranty on ALL COMPONENTS IN ELECTRICAL PANEL, Inclusive of power related damage such as lightning. Includes parts only.
- 2-year warranty on Station

Attentively,
Ric Martinez Sr.

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