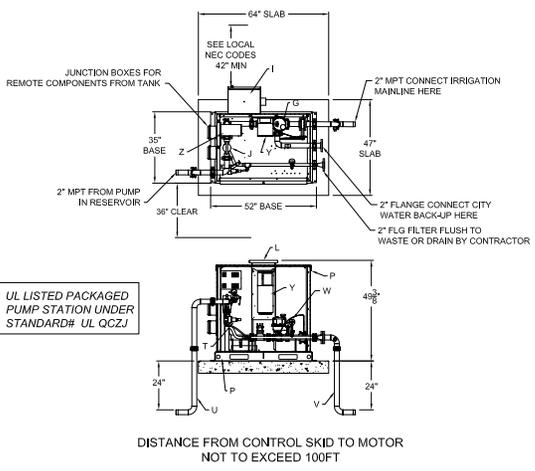


PUMP STATION SPECIFICATIONS: CUSTOMER TO COMPLETE			
PROJECT NAME:	MODEL# SHMSTV-7a-xxxxxx		
STATION TOTAL PERFORMANCE:	GPM @	PSI	
POWER REQUIREMENTS:	VOLTS	PHZ	FLA

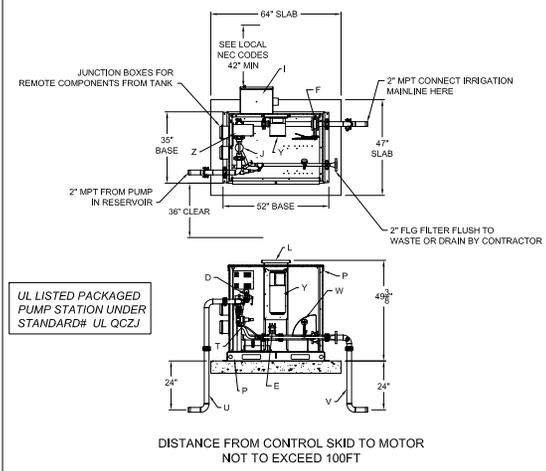
SKY HARVESTER SH-MICRO HORSEPOWER CONSULT FACTORY FOR LARGER CUSTOM SIZES							
BASED ON GOULDS 25GS15 - 1.5HP - MINIMUM PERFORMANCE MUST EXCEED 4GPM @ 25PSI ASSUMED 13FT ELEVATION TO CONTROL SKID + 7 FT FRICTION LOSS IN PIPING TO CONTROL SKID							
MAX AVAILABLE PSI @ GPM	100	100	95	86	69	43	N/A
CUSTOMER FLOW (GPM)	5	10	15	20	25	30	N/A
BASED ON GOULDS 35GS20 - 2.0HP - MINIMUM PERFORMANCE MUST EXCEED 4GPM @ 30PSI ASSUMED 13FT ELEVATION TO CONTROL SKID + 7 FT FRICTION LOSS IN PIPING TO CONTROL SKID							
MAX AVAILABLE PSI @ GPM	100	100	100	95	80	75	61
CUSTOMER FLOW (GPM)	10	15	20	25	30	35	40
BASED ON GOULDS 65GS30 - 3.0HP - MINIMUM PERFORMANCE MUST EXCEED 10GPM @ 23PSI ASSUMED 13FT ELEVATION TO CONTROL SKID + 7 FT FRICTION LOSS IN PIPING TO CONTROL SKID							
MAX AVAILABLE PSI @ GPM	73	69	60	56	50	N/A	N/A
CUSTOMER FLOW (GPM)	40	45	50	55	60	N/A	N/A

SKYHARVESTER SH-MICRO FULL LOAD AMPERAGE				
HORSEPOWER	208V-3PHZ	230V-1PHZ	230V-3PHZ	460V-3PHZ
1.5 HP	11 AMPS	15 AMPS	9 AMPS	5 AMPS
2 HP	11 AMPS	19 AMPS	9 AMPS	5 AMPS
3 HP	18 AMPS	25 AMPS	15 AMPS	9 AMPS

LAYOUT #1 CITY WATER BACKUP DIRECT TO IRRIGATION

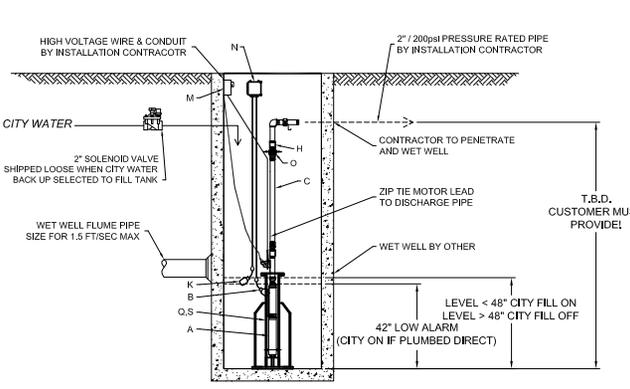


LAYOUT #2: CITY WATER TANK FILL OR NO CITY WATER BACKUP

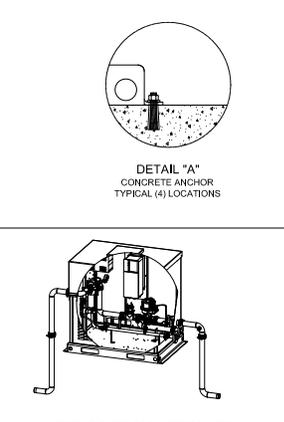
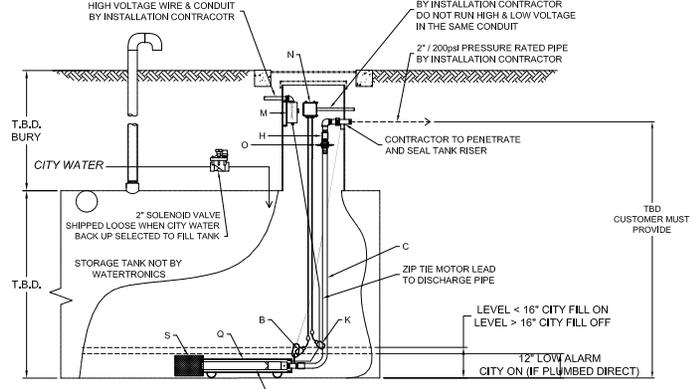


- STATION COMPONENTS:
- A PUMP AND MOTOR
  - B LOW LEVEL FLOAT SWITCH
  - C 20FT PUMP DISCHARGE PIPE
  - D PRESSURE TRANSDUCER W/ GAUGE
  - E PUMP FLOW SENSOR
  - F STATION DISCHARGE ISOLATION VALVE
  - G BACK UP WATER 3-WAY VALVE
  - H CHECK VALVE
  - I DISCONNECT ENCLOSURE W/ DEAD FRONT LOCKABLE DOOR
  - J MANUAL FILTER W/ 100 MICRON SCREEN
  - K CITY BACK UP VALVE FLOAT SWITCH
  - L HOOD MOUNTED ENCLOSURE FAN
  - M NEMA 4X REMOTE DISCONNECT
  - N LOW VOLTAGE JUNCTION BOX
  - O QUICK DISCONNECT
  - P ALUMINUM BASE NO PAINT W/ FORK POCKETS
  - Q HDPE FLOW INDUCER SLEEVE FOR MOTOR COOLING
  - R ALUMINUM ENCLOSURE NO PAINT
  - S PUMP INTAKE SCREEN
  - T PRESSURE RELIEF VALVE
  - U 2" MPT INLET DROP PIPE (OPTION)
  - V 2" MPT DISCHARGE DROP PIPE (OPTION)
  - W PRESSURE GAUGE
  - X VANDAL RESISTANT RED ALARM LIGHT (OPTION)
  - Y VFD
  - Z DV/DT FILTER USED WITH LONG MOTOR LEADS
- FIELD WIRE SCHEDULE:  
 CITY FILL VALVE FLOAT: 14 AWG (2) COND.  
 LEVEL ALARM FLOAT: 14 AWG (2) COND.  
 MOTOR WIRE: 10 AWG (3) COND. PLUS GROUND
- DO NOT RUN MOTOR WIRE IN SAME CONDUIT AS LEVEL FLOAT WIRE.

PUMP INSTALLED IN WET WELL



PUMP INSTALLED IN TANK



**DESCRIPTION OF OPERATION #1: CITY BACKUP DIRECT TO IRRIGATION**

PUMP WILL START VIA PRESSURE DROP (24V REMOTE START OPTION AVAILABLE) SENSED IN WATER MAINLINE AND REGULATE A CONSTANT PRESSURE AT VARIABLE FLOW RATE. PUMP WILL RETIRE BASED UPON AN ADJUSTABLE MINIMUM WATER DEMAND (FLOW) AND SUSTAINED REGULATE PRESSURE.

WATER WILL BE DRAWN OUT OF TANK. IF WATER LEVEL DROPS TO LOW LEVEL ALARM SET POINT, THE AUTOMATIC VALVE WILL SWITCH TO CITY WATER VALVE WILL SWITCH BACK TO TANK WATER WHEN LEVEL RISES ABOVE LOW LEVEL SET POINT.

LOW LEVEL WILL AUTO RE-SET WHEN TANK LEVEL SATISFIES FLOAT LEVEL

PUMP SYSTEM WILL TOTALIZE ALL WATER PUMPED.

DISCHARGE FILTRATION SHALL BE MANUAL FLUSH.

WATER IN STORAGE TANK IS ASSUMED TO BE FILTERED TO 350 MICRON OR BETTER AND BE FREE OF COLOR AND ODOR. WATERTRONICS DOES NOT RECOMMEND THE USE OF WATER COLLECTED FROM GREEN ROOF SYSTEMS, PARKING LOTS, OR LANDSCAPED AREAS.

OWNER RESPONSIBLE FOR CITY WATER METER, BACK FLOW PREVENTER AND ANY OTHER REGULATING DEVICES THAT MAY BE REQUIRED. OWNER RESPONSIBLE FOR VERIFYING CITY WATER CAPACITY MUST SUPPLY A MIN X GPM @ Y PSI TO RAINWATER CONTROL SKID, AND NOT EXCEED 125PSI.

**DESCRIPTION OF OPERATION #2: CITY FILL OR NO CITY BACKUP**

PUMP WILL START VIA PRESSURE DROP SENSED IN WATER MAINLINE AND REGULATE A CONSTANT PRESSURE AT VARIABLE FLOW RATE. PUMP WILL RETIRE BASED UPON AN ADJUSTABLE MINIMUM WATER DEMAND (FLOW) AND SUSTAINED REGULATE PRESSURE.

(IF CITY TANK FILL OPTION TAKEN) = WATER WILL BE DRAWN OUT OF TANK. IF WATER LEVEL DROPS TO TANK FILL VALVE FLOAT LEVEL THE FILL VALVE WILL OPEN ALLOWING CITY WATER TO ENTER TANK. AS WATER LEVEL RISES ABOVE FLOAT, VALVE WILL CLOSE

LOW LEVEL ALARM WILL AUTO RE-SET WHEN TANK LEVEL SATISFIED FLOAT LEVEL

PUMP SYSTEM WILL TOTALIZE ALL WATER PUMPED.

DISCHARGE FILTRATION SHALL BE MANUAL FLUSH.

WATER IN STORAGE TANK IS ASSUMED TO BE FILTERED TO 350 MICRON OR BETTER AND BE FREE OF COLOR AND ODOR. WATERTRONICS DOES NOT RECOMMEND THE USE OF WATER COLLECTED FROM GREEN ROOF SYSTEMS, PARKING LOTS, OR LANDSCAPED AREAS.

OWNER RESPONSIBLE FOR CITY WATER METER, BACK FLOW PREVENTER AND ANY OTHER REGULATING DEVICES THAT MAY BE REQUIRED. OWNER RESPONSIBLE FOR VERIFYING CITY WATER CAPACITY MUST SUPPLY A MIN X GPM TO TANK

SYSTEM SHALL HAVE THE FOLLOWING ALARMS

- HIGH DISCHARGE PRESSURE
- LOW DISCHARGE PRESSURE
- VFD FAULT
- LOW LEVEL SHUT DOWN
- LOSS OF PHASE OR PHASE REVERSAL
- HIGH VOLTAGE
- LOW VOLTAGE

CONTROL PANEL TO INCLUDE:

- TOUCH SCREEN OPERATOR INTERFACE
- FLOW SENSOR DISPLAY AND TOTALIZER
- PSI DISPLAY AND SET POINT
- PUMP RUNNING STATUS & RUN-TIME HRS
- ALL SYSTEM PARAMETERS USER ADJUSTABLE
- VFD PRESSURE REGULATION
- BRANCH CIRCUIT PROTECTION
- UL 508 LISTED ELECTRICAL PANEL ASSEMBLY
- NON-FUSABLE MAIN DISCONNECT

PROPOSAL DRAWING NOT FOR CONSTRUCTION	7			
	6			
	5			
	4			
	3			
	2			
	1	3/31/2021	MJW	FLA UPDATE
	NO.	DATE	BY	DESCRIPTION

SCALE: NONE DRWN BY:

THIS DRAWING AND DESIGN, IS THE PROPERTY OF WATERTRONICS AND IS NOT TO BE REPRODUCED IN WHOLE OR PART, NOR EMPLOYED FOR ANY PURPOSE OTHER THAN SPECIFICALLY PERMITTED IN WRITING BY WATERTRONICS. THIS DRAWING LOANED AND SUBJECT TO RETURN ON DEMAND

CHK. BY: \_\_\_\_\_ DATE: \_\_\_/\_\_\_/\_\_\_

SKYHARVESTER SH-MICRO

DATE: 12/3/2020 DRAWING NO. PRSH11262