PUMP STATION SPECIFICATIONS:
NAME: SAMPLE
STATION MODEL: SHB03TV-1-(22K)-7.5-460-3-60-75
STATION TOTAL PERFORMANCE: 60 GPM @ 75 PSI
PUMP HORSEPOWER:
PUMP NO.1: 7.5 HP (3600RPM)

MIN SUGGESTED CIRCUIT BREAKER: 30 AMP
POWER REQUIREMENTS: 460 V, 3 PH, 60 HZ, 28 FLA

DESCRIPTION OF OPERATION:

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.

WATER WILL BE DRAWN OUT OF TANK. ONCE USER ADJUSTABLE LEVEL SETPOINT IS SATISFIED THE AUTOMATIC VALVE WILL SWITCH TO CITY WATER AND THE PUMP WILL SHUT DOWN. VALVE WILL ALSO BE ENGAGED WHENEVER PUMP IS DISABLED VIA ALARM OR HOA IN THE OFF POSITION. A MANUAL OVER RIDE BUTTON WILL ALSO BE LOCATED ON THE OPERATOR INTERFACE. VALVE WILL SWITCH BACK TO TANK WATER WHEN LEVEL RISES ABOVE USER ADJUSTABLE SET POINT. AUTOMATIC VALVE WILL ALSO SWITCH TO CITY WATER UPON A POWER FAILURE.

PUMP SYSTEM WILL TOTALIZE ALL WATER PUMPED AND ALL CITY MAKE UP WATER USED.

AUTOMATIC DISCHARGE FILTRATION SHALL BE FLUSHED UPON (3) INPUTS, DIFFERENTIAL PRESSURE, TOTAL GALLONS PUMPED, AND TIMED INTERVAL WHICHEVER OCCURS FIRST. FILTER SHALL ALSO HAVE ALARM AFTER (3) FLUSH CYCLES AND PRESSURE DIFFERENTIAL IS NOT RESTORED TO CLEAN SCREEN.

WATER IN STORAGE TANK IS ASSUMED TO BE FILTERED TO 350 MICRONS 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. WATERTRONICS DOES NOT ACCEPT RESPONSIBILITY FOR THE QUALITY OF THE WATER IN THE STORAGE TANK.

RAINWATER TANK PRE-FILTER WILL BE FLUSHED ON TIME CLOCK EVERY DAY FOR 2 MIN. AT A USER ADJUSTABLE TIME. (2AM)

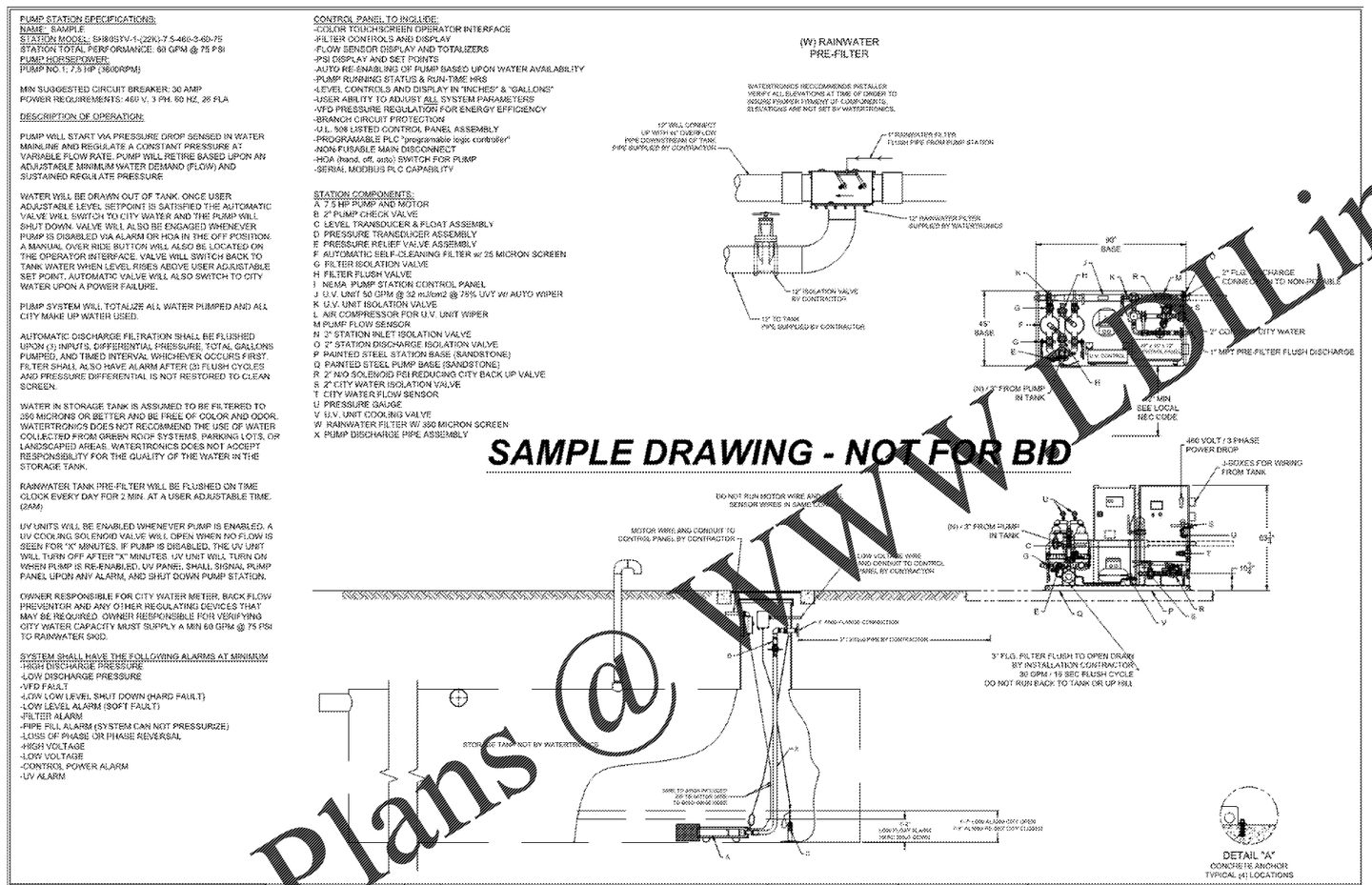
UV UNITS WILL BE ENABLED WHENEVER PUMP IS ENABLED. A UV COOLING SOLENOID VALVE WILL OPEN WHEN NO FLOW IS SEEN FOR "X" MINUTES. IF PUMP IS DISABLED, THE UV UNIT WILL TURN OFF AFTER "X" MINUTES. UV UNIT WILL TURN ON WHEN PUMP IS RE-ENABLED. UV PANEL SHALL SIGNAL PUMP PANEL UPON ANY ALARM, AND SHUT DOWN PUMP STATION.

OWNER RESPONSIBLE FOR CITY WATER METER, BACK FLOW PREVENTOR AND ANY OTHER REGULATING DEVICES THAT MAY BE REQUIRED. OWNER RESPONSIBLE FOR VERIFYING CITY WATER CAPACITY MUST SUPPLY A MIN 60 GPM @ 75 PSI TO RAINWATER SKID.

SYSTEM SHALL HAVE THE FOLLOWING ALARMS AT MINIMUM
-HIGH DISCHARGE PRESSURE
-LOW DISCHARGE PRESSURE
-VFD FAULT
-LOW LOW LEVEL SHUT DOWN (HARD FAULT)
-LOW LEVEL ALARM (SOFT FAULT)
-FILTER ALARM
-PIPE FILL ALARM (SYSTEM CAN NOT PRESSURIZE)
-LOSS OF PHASE OR PHASE REVERSAL
-HIGH VOLTAGE
-LOW VOLTAGE
-CONTROL POWER ALARM
-UV ALARM

CONTROL PANEL TO INCLUDE:
-COLOR TOUCHSCREEN OPERATOR INTERFACE
-FILTER CONTROLS AND DISPLAY
-FLOW SENSOR DISPLAY AND TOTALIZERS
-PSI DISPLAY AND SET POINTS
-AUTO RE-ENABLING OF PUMP BASED UPON WATER AVAILABILITY
-PUMP RUNNING STATUS & RUN-TIME HRS
-LEVEL CONTROLS AND DISPLAY IN "INCHES" & "GALLONS"
-USER ABILITY TO ADJUST ALL SYSTEM PARAMETERS
-VFD PRESSURE REGULATION FOR ENERGY EFFICIENCY
-BRANCH CIRCUIT PROTECTION
-U.L. 508 LISTED CONTROL PANEL ASSEMBLY
-PROGRAMABLE PLC "programmable logic controller"
-NON-FUSABLE MAIN DISCONNECT
-HOA (hand, off, auto) SWITCH FOR PUMP
-SERIAL MODBUS PLC CAPABILITY

STATION COMPONENTS:
A 7.5 HP PUMP AND MOTOR
B 2" PUMP CHECK VALVE
C LEVEL TRANSDUCER & FLOAT ASSEMBLY
D PRESSURE TRANSDUCER ASSEMBLY
E PRESSURE RELIEF VALVE ASSEMBLY
F AUTOMATIC SELF-CLEANING FILTER w/ 25 MICRON SCREEN
G FILTER ISOLATION VALVE
H FILTER FLUSH VALVE
I NEMA PUMP STATION CONTROL PANEL
J U.V. UNIT 50 GPM @ 52 mJ/cm2 @ 75% UVT W/ AUTO WIPER
K U.V. UNIT ISOLATION VALVE
L AIR COMPRESSOR FOR U.V. UNIT WIPER
M PUMP FLOW SENSOR
N 2" STATION INLET ISOLATION VALVE
O 2" STATION DISCHARGE ISOLATION VALVE
P PAINTED STEEL STATION BASE (SANDSTONE)
Q PAINTED STEEL PUMP BASE (SANDSTONE)
R 2" NO SOLENOID PSI REDUCING CITY BACK UP VALVE
S 2" CITY WATER ISOLATION VALVE
T CITY WATER FLOW SENSOR
U PRESSURE GAUGE
V U.V. UNIT COOLING VALVE
W RAINWATER FILTER W/ 350 MICRON SCREEN
X PUMP DISCHARGE PIPE ASSEMBLY



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TITLE: SAMPLE DRAWING

SKYHARVESTER

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Hellmuth, Obata & Kassabaum, Inc.
191 Peachtree Street, NE, Suite 2250
Atlanta, GA 30303 USA
t +1 404 439 9000 f +1 404 439 9001

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255 S. Orange Avenue
Suite 1800
Orlando, FL 32801
P 407.841.9050
COA PEF002660
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