

WATER FEATURE COMPONENTS BY:
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WIRE LEGEND

———— CONDUIT
 - - - - - WIRES
 _____ POWER
 _____ COMMUNICATION
 - - - - - PLC CONTROL CABLE

PIPING LEGEND

===== SUCTION LINE
 ===== DRAIN LINE
 ===== SUPPLY LINE

PRELIMINARY
 FOR DISCUSSION ONLY
 NOT FOR CONSTRUCTION



ASSUMPTIONS & STANDARDS

THE ENGINEERING INFORMATION ON THIS PAGE IS BASED ON THE FOLLOWING ASSUMPTIONS/STANDARDS:

- (1) WATER DISCHARGE FROM THE NOZZLES SHALL BE AT 20 FPS MAX FOR INTERACTIVE PLAY
- (2) PUMPS SHALL OPERATE WITH FLOODED SUCTION
- (3) EQUIPMENT ROOM IS WITHIN 100 FT. OF FEATURE
- (4) SUCTION PIPE VELOCITY SHALL BE LESS THAN 6 FPS
- (5) DISCHARGE PIPE VELOCITY SHALL BE LESS THAN 8 FPS
- (6) PUMP SUCTION MUST BE PROTECTED BY AN INLET STRAINER. PERFORATION SIZE SHALL NOT EXCEED 1/8" DIAMETER
- (7) GRAVITY DRAINS TO SLOPE MINIMUM 1/4" PER FOOT – MAXIMUM VELOCITY 3 FPS
- (8) THE MINIMUM FILTRATION TURNOVER FOR THE WATER VOLUME CONTAINED WITHIN AN INTERACTIVE WATER FEATURE SHALL NOT BE LESS THAN 1 TURNOVER EVERY 30 MINUTES.
- (9) THE MINIMUM FILTRATION TURNOVER FOR THE VOLUME OF WATER IN A NON INTERACTIVE WATER FEATURE SHALL NOT BE LESS THAN 1 TURNOVER EVERY 4 HOURS
- (10) WATER FEATURES SHALL COME EQUIPPED WITH AN AUTOMATIC CHEMICAL DOSING SYSTEM WITH A MINIMUM OF 2 SENSORS, ORP AND PH.
- (11) CALCULATIONS, PIPE SIZES, FITTINGS AND ALL OTHER SIZING AND CALCULATED FIGURES ARE BASED UPON THE USE OF STANDARD NORTH AMERICAN SCHEDULE 80 PVC PIPE AND FITTINGS.
- (12) CONDUIT SIZES BASED ON NEC CHART FOR THHN WIRE AND EMT CONDUIT
- (13) LOW VOLTAGE LIGHTING CALCULATIONS ARE BASED ON MAXIMUM 12.5, MIN 11.5 VOLTS AT THE LAMP USING MAXIMUM 13.5 VOLT TAP ON THE TRANSFORMER
- (14) REFER TO SHOP DRAWING (CUT SHEET) FOR OPERATIONAL PARAMETERS
- (15) CONTACT CRYSTAL FOUNTAINS FOR ADDITIONAL INFORMATION
- (16) LOCAL CODES ARE TO BE VERIFIED AND SUPERSEDE THESE DRAWINGS

INSTALLING CONTRACTOR COMPONENTS

COMPONENTS SUPPLIED BY INSTALLING CONTRACTOR (NOT SUPPLIED BY CRYSTAL FOUNTAINS)

ITEM	POWER SUPPLY FROM MAIN SOURCE TO PANEL IN EQUIPMENT ROOM, WITH MAIN DISCONNECT.
ITEM	ALL INTERCONNECTING WIRING AND CONDUIT BETWEEN COMPONENTS AND BETWEEN CONTROL PANEL AND COMPONENTS
ITEM	ALL PIPEWORK, VALVES AND FITTINGS TO AND FROM EQUIPMENT PIT TO WATER FEATURE.
ITEM	ALL PUMPS, CONTROL PANELS, FITTINGS, FILTERS, SURGE TANKS OR OTHER EQUIPMENT SHOWN BUT NOT LISTED ABOVE AS SUPPLIED BY CRYSTAL FOUNTAINS
ITEM	ARCHITECTURAL, STRUCTURAL ELEMENTS, WATER PROOFING OR BASIC SERVICES SUCH AS BUT NOT LIMITED TO CORE HOLES, CURBING, SERVICES TO EQUIPMENT ROOM (WATER, POWER, VENTILATION, DRAIN TO WASTE)

CRYSTAL COMPONENT BILL OF MATERIALS

QTY	PART NO.	DESCRIPTION
1	ECW100	WIND CONTROL
1	AVQ100	SOLENOID VALVE 24VAC 1 IN W/SOLENOID
1	ECB100	SUSPENDED LEVEL CONTROL
1	EBJ204	JUNCTION BOX SIDE 112mm IN ENT 20mm
1	EPA075	STUB UP 20mm
3	EGS052	CORD SEAL 9mm-11mm
1	PF1315	MALE PLUG 12mm IN BRASS SQ. END
12	LED186	SEQUENCING NICHE WITH 12VDC/30W RGB LED
12	NWS110C115	ADJUSTABLE DECK LEVEL NOZZLE
3	AFI200	50mm FILTER
1	LEDPS503	POWER SUPPLY
1	DSA600G	SUCTION DRAIN 150mm
1	LEDQUE1	DMX PLAY BACK UNIT
1	340031	5HP, 208V, 3PH PUMP
1	011570	2HP, 208V, 3PH PUMP
1	FA0342	TAMPERPROOF SCREWDRIVER
1	CONTROL PANEL	PROJECT QUOTATION PURPOSE
1	VFD	VERIABLE SEQUENCE DRIVE FOR 5 HP PUMP