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COOLING TOWER FOR:  
SULLIVAN COUNTY  
BLUFF CITY ELEMENTARY SCHOOL  
282 J. FORREST THOMAS ST.  
BLUFF CITY, TN 37618

Pr. No. 22-032  
Dr. by PFM  
Ck. by DEC

ME-1

1 of 1  
PLOT DATE:  
10/20/2022



NOTES

1. PROVIDE & INSTALL EXACT DIMENSIONAL REPLACEMENT COOLING TOWER WITH DISCHARGE HOOD AND DAMPERS BY EVAPCO MODEL ATW-91C2 S/N 996051M INDUCED DRAFT COUNTERFLOW CLOSED CIRCUIT COOLERS. COOLER IS RATED AT 440 GPM COOL FROM 95°F TO 85°F AT 78°F WET BULB TEMP. ANY SUBSTITUTIONS MUST INCLUDE DESIGN AND CONSTRUCTION COSTS. ANCHOR COOLING TOWER TO EXISTING FOUNDATIONS PER MANUFACTURER'S RECOMMENDATIONS.
2. PROVIDE COMPLETE CONTROLS PACKAGE WITH VFD FOR FAN, FAN CONTROL, PUMP ON/OFF, BASIN HEAT ON/OFF, AND OUTLET FOR HEAT TRACING IN A WEATHERPROOF CABINET. EXISTING BUILDING CONTROLS PROVIDE AN ON/OFF SIGNAL FOR COOLING TOWER. COUNTY MAINTENANCE TO RECONNECT ON/OFF CONTROL WIRES TO NEW COOLING TOWER CONTROL SYSTEM. CONTRACTOR SHALL DETERMINE WHAT TYPE OF ON/OFF SIGNAL EXISTS AND COORDINATE EXISTING CONTROL SIGNAL WITH NEW TOWER CONTROL SYSTEM. NEW CONTROL TO INCLUDE FAN VFD AND ALL SENSORS NEEDED FOR A FULLY FUNCTIONAL SYSTEM.
3. REPLACE INSULATION AND TRACING ON PIPING WITH SAME TYPE AS EXISTING
4. BASIN HEATERS TO KEEP WATER AT OR ABOVE 40°F AT -20°F. PROVIDE TEMPERATURE SWITCH TO TURN ON BASIN HEATERS.
5. RECONNECT ALL LOOP PIPING, DRAIN PIPING, AND MAKE-UP WATER PIPING. PROVIDE NEW FLOAT VALVE FOR MAKE-UP WATER.
6. IF PIPING EXTERIOR TO BUILDING IS DETERIORATED, FLANGE AND REPLACE WITH SAME SIZE SCHEDULE 40 CARBON STEEL PIPE.
7. PROVIDE NEW 10 GALLON CHEMICAL BYPASS FEEDER WITH FILTER IN MECHANICAL ROOM FOR LOOP WATER CLEAN SUCTION DEFEASERS ON PUMPS. FILL SYSTEM WITH FRESH WATER, AND PROVIDE ANTI-CORROSION AND ANTI-MICROBIAL WATER TREATMENT. ALLOW FOR ONE YEAR OF FILTER CHANGES STARTING OUT AT ONCE PER WEEK AND INCREASING FILTER CHANGE DURATION AS SYSTEM GETS CLEANER. REUSE EXISTING 3P 208 VOLT ELECTRICAL CIRCUIT STARTING AT EXISTING FIELD DISCONNECT AND RECONNECT TO NEW TOWER/VFD/CONTROLS, ETC. FUSE EXISTING DISCONNECT AS DIRECTED. DEMOLISH EXISTING ELECTRICAL FROM EXISTING FIELD DISCONNECT OUTWARD. REUSE EXISTING FIELD DISCONNECT.
9. REMOVE AND LAWFULLY DISPOSE OF COOLING TOWER AND ASSOCIATED ITEMS THAT ARE TO BE REPLACED.
10. REPLACE TOWER WATER CHEMICAL FEED SYSTEM. PROVIDE ONE YEAR CHEMICALS AND MAINTENANCE.

NOTE #7 ON OTHER SIDE OF WALL

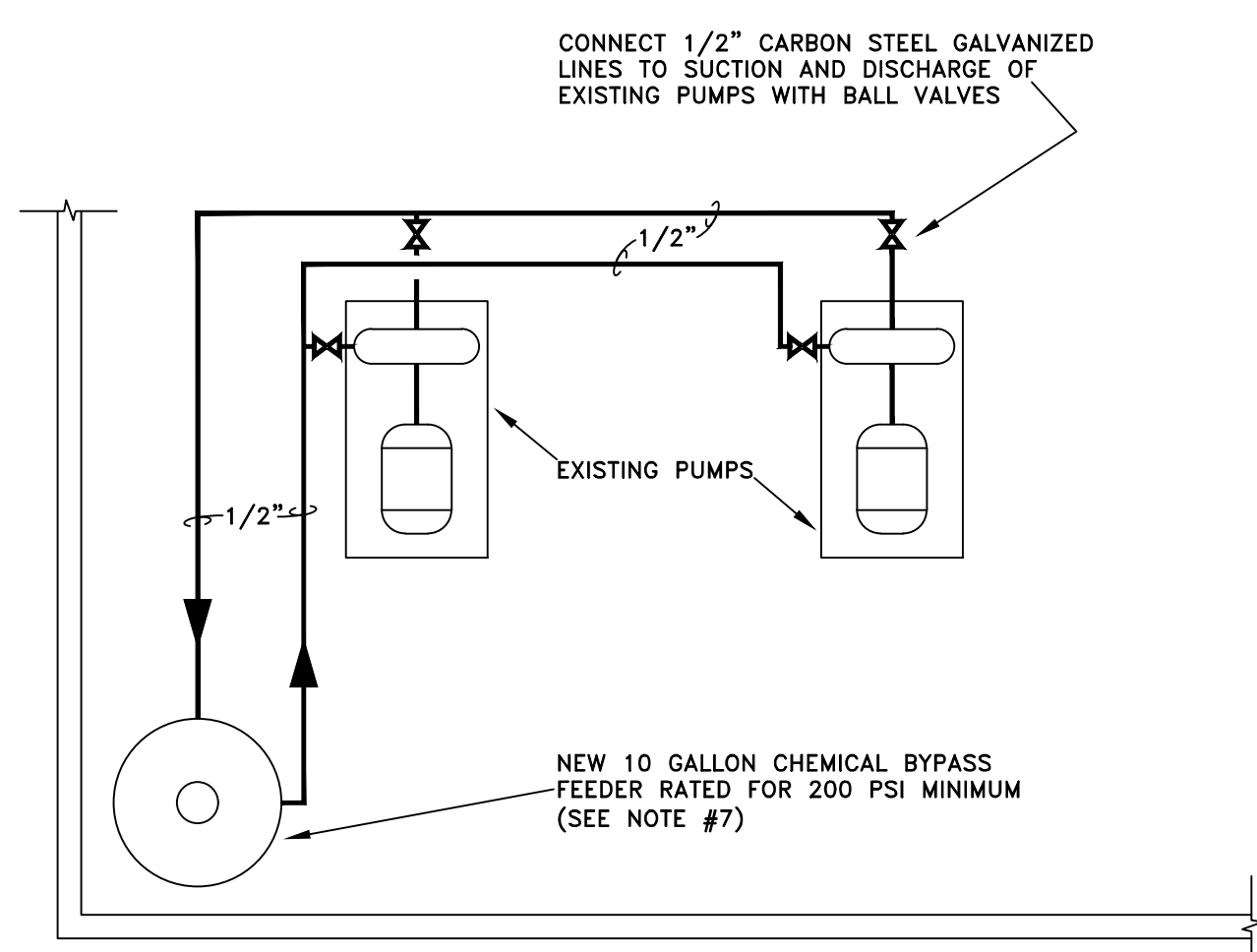
NOTE #8

NOTE #2

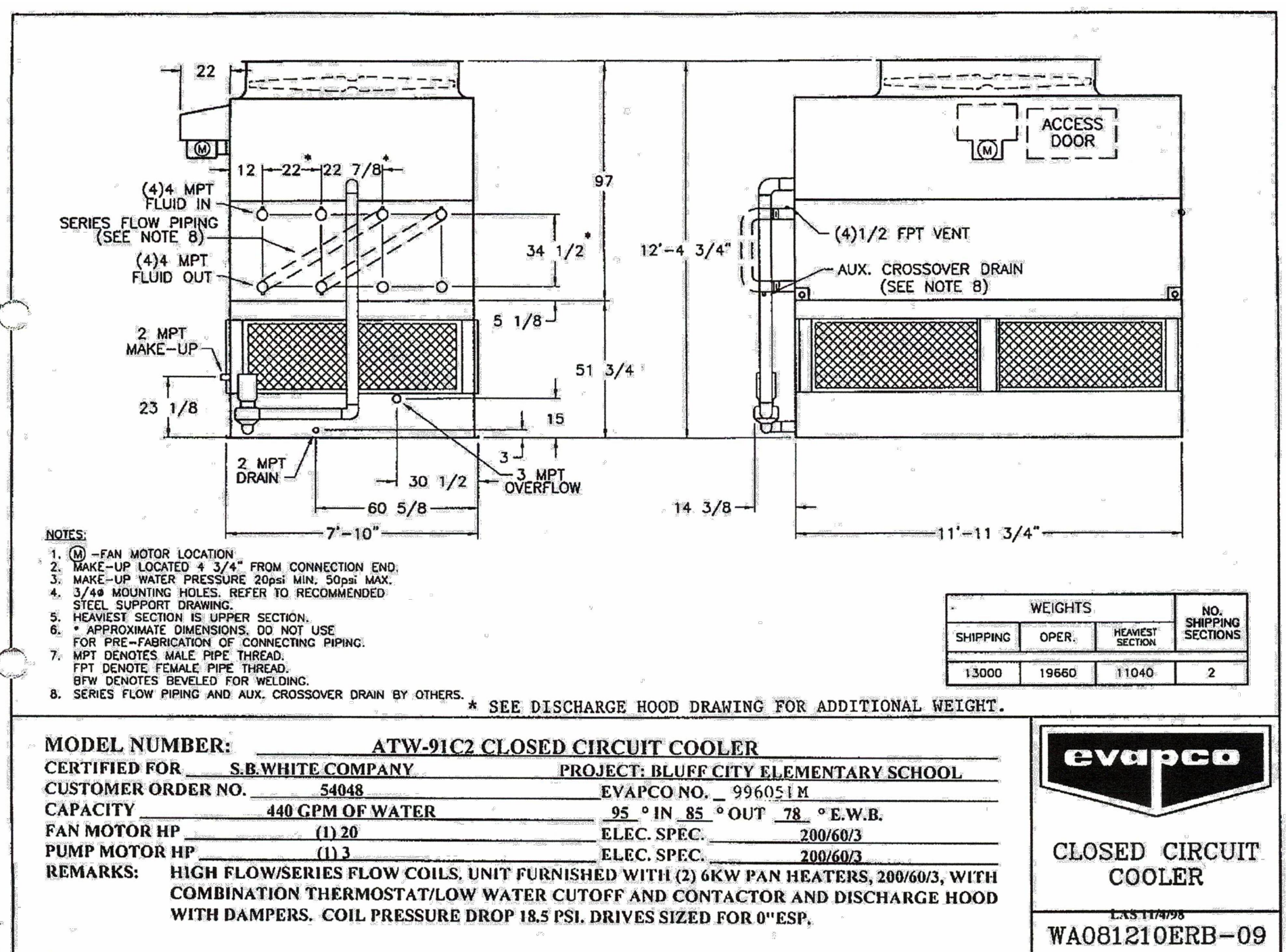
NOTE #5

NOTE #4

MECHANICAL PLAN  
NOT TO SCALE



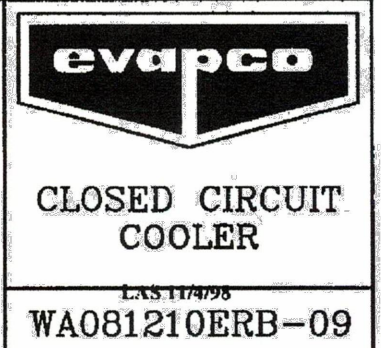
MECHANICAL ROOM DETAIL  
NOT TO SCALE



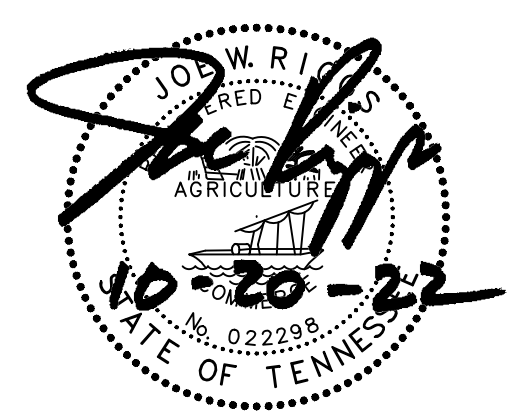
- NOTES:
1. (C) - FAN MOTOR LOCATION
  2. MAKE-UP LOCATED 3/4" FROM CONNECTION END
  3. MAKE-UP WATER PRESSURE 30PSI MIN. 50PSI MAX.
  4. 3/4" MOUNTING HOLES. REFER TO RECOMMENDED STEEL SUPPORT DRAWING
  5. HEAVIEST SECTION IS UPPER SECTION
  6. APPROXIMATE DIMENSIONS DO NOT USE FOR PRE-FABRICATION OF CONNECTING PIPING.
  7. MPT DENOTES MALE PIPE THREAD. FPT DENOTES FEMALE PIPE THREAD. 6FW DENOTES 6WELD FOR WELDING.
  8. SERIES FLOW PIPING AND AUX. CROSSOVER DRAIN BY OTHERS.

WEIGHTS		NO. SHIPPING SECTIONS
SHIPPING	OPER.	
13000	19660	11040 2

MODEL NUMBER: **ATW-91C2 CLOSED CIRCUIT COOLER**  
 CERTIFIED FOR: **S.B.WHITE COMPANY** PROJECT: **BLUFF CITY ELEMENTARY SCHOOL**  
 CUSTOMER ORDER NO.: **54048** EVAPCO NO.: **996051M**  
 CAPACITY: **440 GPM OF WATER** 95 ° IN 85 ° OUT 78 ° E.W.B.  
 FAN MOTOR HP: **(1) 20** ELEC. SPEC.: **200/60/3**  
 PUMP MOTOR HP: **(1) 3** ELEC. SPEC.: **200/60/3**  
 REMARKS: **HIGH FLOW/SERIES FLOW COILS. UNIT FURNISHED WITH (2) 6KW PAN HEATERS, 200/60/3, WITH COMBINATION THERMOSTAT/LOW WATER CUTOFF AND CONTACTOR AND DISCHARGE HOOD WITH DAMPERS. COIL PRESSURE DROP 18.5 PSI. DRIVES SIZED FOR 0" ESP.**



EXISTING COOLING TOWER  
NOT TO SCALE



ELECTRICAL ENGINEER



MECHANICAL ENGINEER

REV.	DATE	NOTE
1	10/20/2022	PER PRE-BID COMMENTS