DESIGN CRITERIA

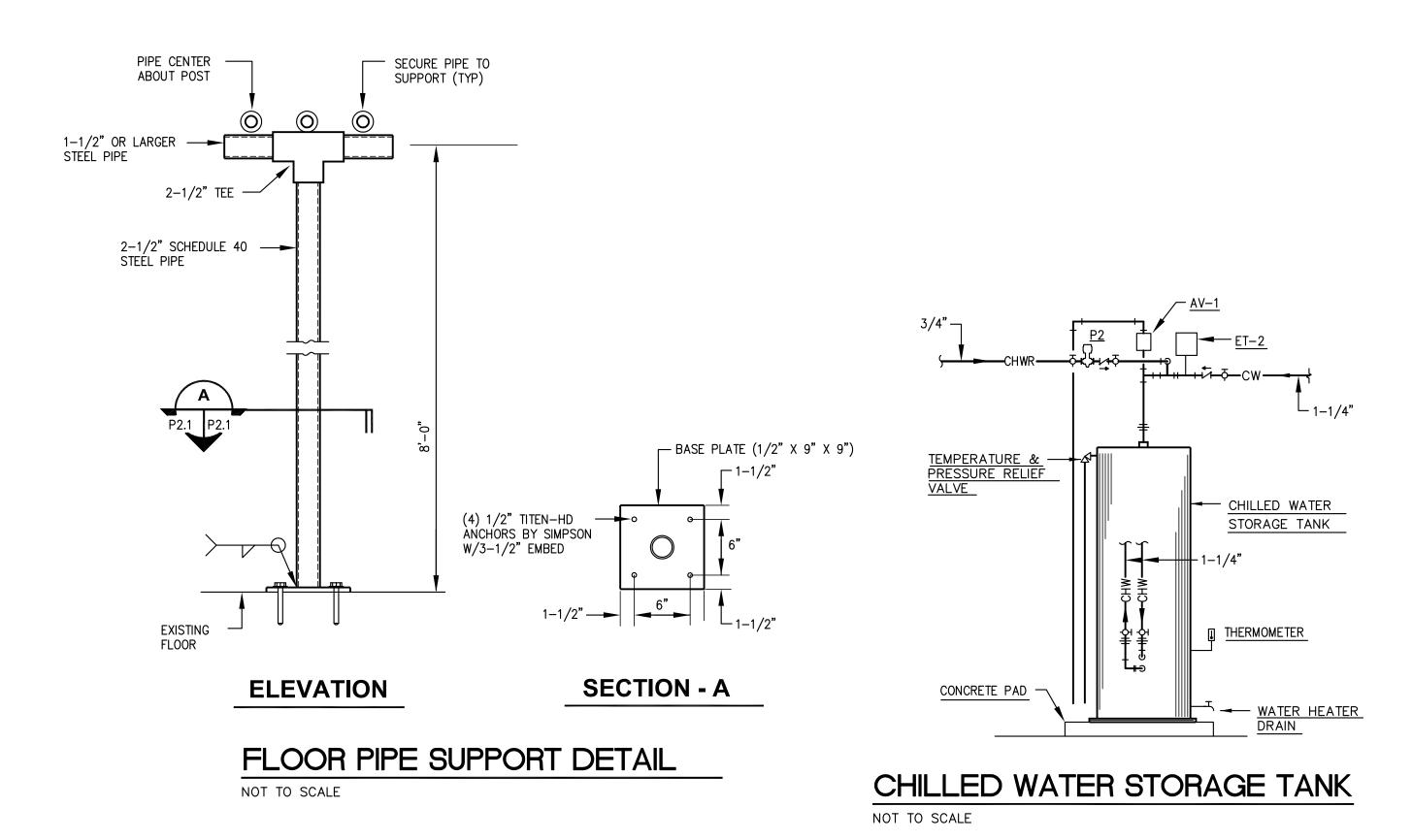
MAXIMUM SYSTEM FLOW RATE 12 GPM TOTAL FOR 15 MINUTES.

50 GALLONS PER HOUR CONTINUOUS.

MINIMUM TEMPERATURE: 40 DEG F. NOMINAL TEMPERATURE: 58 DEG F. MINIMUM DELIVERY PRESSURE: 40 PSI

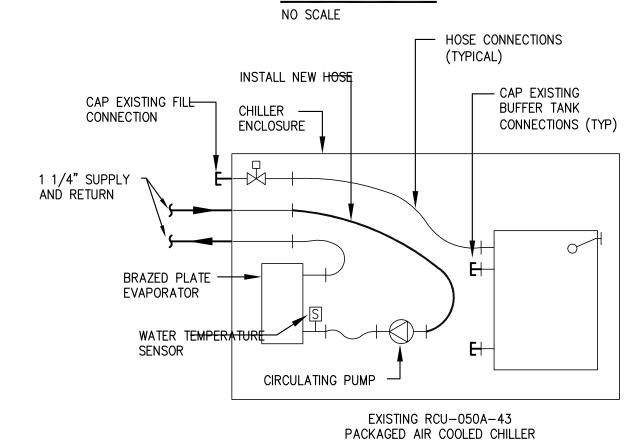
EQUIPMENT PIPING DETAIL

NOT TO SCALE



EXISTING HOSE TO-BE REMOVED (TYP) —HOSE CONNECTIONS SOLENOID FILL (TYPICAL) VALVE ENCLOSURE -ATMOSPHERIC 1 1/4" SUPPLY AND RETURN BUFFER TANK FLOAT SWITCH BRAZED PLATE EVAPORATOR WATER TEMPERATURE SENSOR CIRCULATING PUMP EXISTING RCU-050A-43 PACKAGED AIR COOLED CHILLER

EXISTING CHILLER SCHEMATIC



MODIFIED CHILLER SCHEMATIC

NOTES

- 1. ALL MODIFICATIONS TO THE CHILLER SHALL BE REVIEWED BY THE CHILLER MANUFACTURE. FINAL DIRECTION AND MODIFICATION DRAWINGS SHALL BE
- 2. INTERNAL HOSE CONNECTIONS AND COUPLINGS SHALL BE SUITABLE FOR OPERATION UP TO 75 PSI.

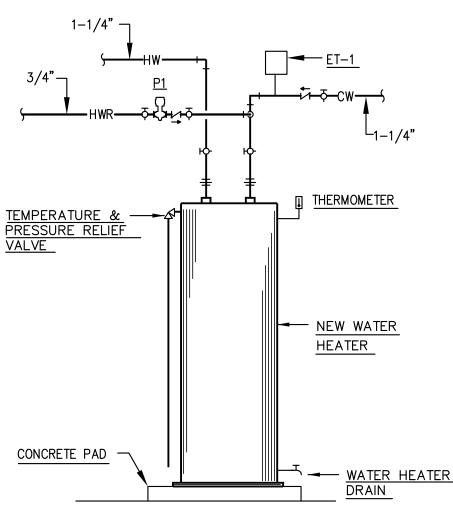
NO SCALE

BY PROVIDED BY ECONOCHILL

3. CHILLER SETPOINT SHALL BE 45 DEG F FOR NORMAL TESTING / 38 DEG F FOR LOW AMBIENT TESTING PROCEDURES.

CHILLER MODIFICATION DETAIL

NOT TO SCALE



WATER HEATER

NOT TO SCALE

SPECIFICATIONS

WASTE PIPING SHALL BE DRAINAGE WASTE AND VENT (DWV) POLYVINYL CHLORIDE (PVC) WITH SOLVENT CEMENT FITTINGS.

DOMESTIC HOT WATER, COLD WATER AND HOT WATER RETURN PIPING SHALL BE TYPE "L" COPPER WITH SOLDERED FITTINGS.

CHILLED WATER AND CHILLED WATER RETURN PIPING SHALL BE TYPE "L" COPPER WITH SOLDERED FITTINGS.

ALL WATER HOT WATER, COLD WATER, HOT WATER RETURN, CHILLED WATER AND CHILLED WATER RETURN PIPING SIZES 1" AND LESS SHALL BE INSULATED WITH 1" THICK FIBERGLASS INSULATION WITH ALL PURPOSE JACKET AND PRE FORMED PVC FITTINGS. ALL PIPE SIZES 1.25" AND GREATER SHALL BE INSULATED WITH 1.5" THICKNESS.

CHILLED WATER STORAGE TANK SHALL BE NILES MODEL J-32-200-SPC. 200 GALLON CAPACITY, GLASS LINED WITH 2" HIGH DENSITY INSULATION/VAPOR BARRIER WITH STEEL JACKET AND BAKED ENAMEL FINISH, CONTACT: SHERMAN & SCHRODER CO., MARK STUTZENBERGER 502-426-3865.

RECIRCULATING PUMPS (P-1,P-2) SHALL BE TACO MODEL 1003 CARTRIDGE CIRCULATOR, BRONZE CONSTRUCTION. 5 GPM AT 1 FT. OF HEAD 120/1PH/60 HZ. 1/40 HP.

EXPANSION TANKS (ET-1,ET-2) SHALL BE PRE CHARGED DIAPHRAGM TYPE SUITABLE FOR POTABLE WATER, TACO SERIES PLT OR EQUAL. ET-1: SIZE PLT-5, 2.1 GALLONS TOTAL / 1/26 GALLONS ACCEPTANCE

ET-2: SIZE PLT-12, 4.5 GALLONS TOTAL / 2.8 GALLONS ACCEPTANCE VOLUME.

PRESSURE RELIEF VALVE (RV-1) SHALL BE WATTS MODEL 3L, 3/4", SET AT 75

TEMPERING VALVES (TV-1THROUGH TV-8) SHALL INTELLIFAUCET MODEL DKR500 WITH ISTEC 1173/H FLOWMETER.

VALVES SHALL BE FULL PORT, BRONZE BALL VLAVES.

THERMOMETER SHALL BE DIGITAL AS MANUFACTURED BY TERICE, MODEL SX9 SOLAR THERM.

PRESSURE GAUGES SHALL BE MINIMUM 4.5" DIAL, RANGE 0 TO 100 PSI, PLUS OR MINUS 3% NORMAL ACCURACY.

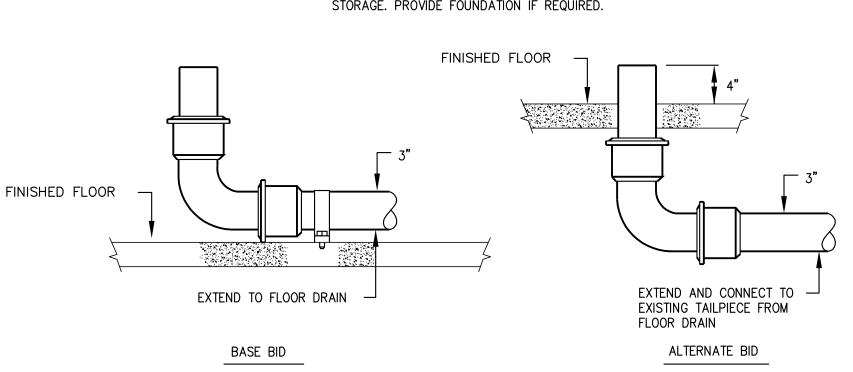
WATER HEATER (WH-1) SHALL BE GE MODEL GE80T06AAG. 80 GALLONS STORAGE, 4500 WATTS UPPER AND LOWER ELEMENTS. 240/208 VOLTS, SINGLE

OPERATION NOTES

- 1. DURING TYPICAL "NOMINAL" FLOW OPERATION/TESTING THE CHILLER SHALL REMAIN ON AND CYCLE AS REQUIRED TO MAINTAIN THE STORAGE TANK TEMPERATURE.
- 2. DURING "PEAK" FLOW OPERATION/TESTING THE CHILLER SHALL BE SHUT OFF TO MAINTAIN MAXIMUM STRATIFICATION IN THE STORAGE TANK. PRIOR TO RUNNING AT PEAK FLOW THE TANK SHALL BE COMPLETELY CHARGED WITH CHILLED WATER BEFORE SHUTTING DOWN THE CHILLER.
- 3. THE USER SHALL DETERMINE THE "BEST" MODE OF CHILLER OPERATION. FIELD MODIFICATION OF BALANCING VALVE SETTINGS AND ACTUAL CHILLER OPERATION AND LEAVING WATER TEMPERATURE MAY BE REQUIRED TO OPTIMIZE PERFORMANCE.

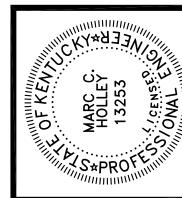
GENERAL NOTES

- A. ALL EXISTING UTILITIES ARE LOCATED AS CLOSE AS POSSIBLE FROM AVAILABLE INFORMATION. VERIFY EXACT LOCATIONS BEFORE STARTING
- B. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION AND BACK FILL NECESSARY FOR INSTALLATION OF UNDERGROUND LINES.
- C. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF EXISTING FLOOR NECESSARY FOR THE INSTALLATION OF PLUMBING WORK. AFTER LINES HAVE BEEN INSTALLED CONTRACTOR SHALL PATCH FLOOR TO MATCH EXISTING CONDITIONS.
- D. MAINTAIN CODE REQUIRED CLEARANCES BETWEEN PIPING, EQUIPMENT AND ELECTRICAL PANELS.
- E. PROVIDE WATER HAMMER ARRESTERS ON HOT AND COLD WATER PIPING IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE (PDI) STANDARD PDI-WH-201.
- F. COORDINATE ALL UTILITY SHUT DOWNS WITH OWNER.
- G. ALL MATERIALS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES.
- H. PROVIDE FLOOR LOADING CAPACITY PRIOR TO THE INSTALLATION OF STORAGE. PROVIDE FOUNDATION IF REQUIRED.



WASTE PIPING DETAIL

NOT TO SCALE

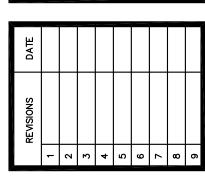


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G.3 HEAT - BLD WATER SYSTEM HYBRID V TESTING SY

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2010.055 MADE BY JAT

06/07/10

DETAILS

DRAWING NO.