



1 ENLARGED MECHANICAL PLAN - COOLING TOWER
Scale: 1/4" = 1'-0"

MECHANICAL KEYED NOTES

- 1 PROVIDE AND INSTALL NEW COOLING TOWER. COORDINATE ALL WORK WITH STRUCTURAL. FIELD VERIFY EXACT FINAL LOCATION. REFER TO SCHEDULE AND DETAILS. CONNECT MAKE-UP WATER AND PIPING TO NEW COOLING TOWER. INSTALL MECHANICAL FLOAT VALVE WITH HIGH/LOW LEVELS ALARMS CONNECTED TO BAS FOR AUTOMATIC MAKE-UP TO PRIMARY MECHANICAL FLOAT CONTROL. REFER TO CONDENSER WATER PIPING DIAGRAM. FIELD VERIFY EXACT FINAL LOCATION. MAINTAIN MINIMUM 3' AIR GAP AT DISCHARGE. DO NOT SUPPORT NEW PIPE FROM COOLING TOWER. PROVIDE NEW GRILLAGE AND SPRING ISOLATION FOR NEW TOWER ON STRUCTURE. COORDINATE WITH STRUCTURAL PLANS. PROVIDE NEW MANUAL ISOLATION VALVES, NEW DDC VALVES AND NEW SENSORS AND ACCESSORIES AS SHOWN ON PLAN AND SCHEMATICS AND PER MANUFACTURER RECOMMENDATIONS.
- 2 PROVIDE NEW INLINE CONDENSER WATER PUMP ON ROOF. PROVIDE WITH FLEX CONNECTION, PIPE AND RELATED ACCESSORIES TO TRANSITION AND CONNECT TO NEW PIPE AND ISOLATION VALVES. PROVIDE NEW VFD. COORDINATE WITH ELECTRICAL AND CONTROLS CONTRACTOR FOR EXACT FINAL VFD LOCATION AND ACCESSORIES. REFER TO DETAILS, SEQUENCE OF OPERATIONS AND PIPING DIAGRAM FOR MORE INFORMATION. TRANSITION PIPE AS REQUIRED TO MAKE CONNECTIONS AT PUMP.
- 3 PROVIDE AND INSTALL CONDENSER WATER PUMP VARIABLE FREQUENCY DRIVE (VFD) IN COOLING TOWER YARD. COORDINATE EXACT MOUNTING LOCATION TO MAINTAIN PROPER CLEARANCES RECOMMENDED BY MANUFACTURER.
- 4 PROVIDE AND INSTALL NEW CONDENSING UNIT ON MANUFACTURER UNIT RACK. FIELD VERIFY EXACT FINAL ROUTING BETWEEN UNIT AND DX COIL. SIZE REFRIGERANT PIPING PER MANUFACTURER'S REQUIREMENTS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES AROUND CONDENSER UNITS TO BE MOUNTED AND STACKED ON UNIT RACK AND SECURED TO ROOF PER MANUFACTURER'S REQUIREMENTS.
- 5 PROVIDE AND INSTALL NEW POLLUTION CONTROL UNIT ON ROOF TO SERVE KITCHEN EXHAUST HOOD. PROVIDE AND INSTALL NEW DDC ACTUATOR FOR NEW BYPASS BUTTERFLY CONTROL VALVE. CONTROL VALVE TO SUPPLY FULL CELL CONDENSER WATER FLOW TO BYPASS INLET. PROVIDE FLEXIBLE WATER PROOF CONDUIT CONNECTION TO ALL AUTOMATED VALVES REQUIRING LOW OR CONTROL VOLTAGE. POWER SUPPLY. COORDINATE ALL POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR.
- 7 CONDENSER WATER DOWN THROUGH ROOF AND ROUTED THROUGH BUILDING TO WATER COOLED CHILLER ON FIRST FLOOR. FIELD VERIFY EXACT FINAL ROUTING BETWEEN COOLING TOWER AND WATER COOLED CHILLER. REFER TO MECHANICAL HYDRONIC PLANS FOR CONTINUATION.
- 8 PROVIDE NEW PIPE SUPPORTS ON ROOF FOR ALL PIPING (PROVIDE EVERY 6' TO 8' AND WITHIN 3' OF EVERY TURN). COORDINATE WITH ELEVATION AND ROUTING OF PIPING IN FIELD.
- 9 REFRIGERANT PIPING DOWN THROUGH ROOF TO ASSOCIATED INDOOR EVAPORATOR UNIT. FIELD VERIFY THE EXACT ROUTING IN FIELD. REFER TO MECHANICAL HYDRONIC PLANS FOR MORE INFORMATION.
- 10 NEW KITCHEN EXHAUST DUCTWORK DOWN THROUGH ROOF TO SERVE KITCHEN HOOD ON FIRST FLOOR. COORDINATE FINAL ROUTING IN FIELD. REFER TO MECHANICAL PLANS FOR CONTINUATION.
- 11 TRANSITION DUCTWORK TO POLLUTION CONTROL UNIT (PCU) PER MANUFACTURERS REQUIREMENTS. PROVIDE AND INSTALL SHUT-OFF VALVE AND CAP FOR TEMPORARY CONNECTION. COORDINATE WITH ALL TRADES TO MAINTAIN PROPER CLEARANCE FOR CONNECTION.
- 12 PROVIDE AND INSTALL COOLING TOWER VARIABLE FREQUENCY DRIVE (VFD) IN COOLING TOWER YARD. COORDINATE EXACT MOUNTING LOCATION TO MAINTAIN PROPER CLEARANCES RECOMMENDED BY MANUFACTURER.

MECHANICAL GENERAL NOTES

- 1 ALL DUCT SIZES SHOWN ARE INSIDE CLEAR. INCREASE ACCORDINGLY WHERE INTERIOR LINER IS SHOWN OR SPECIFIED.
- 2 COORDINATE IN THE FIELD THE EXACT LOCATION OF ALL CEILING MOUNTED GRILLES AND DIFFUSERS WITH LIGHT FIXTURES AND ARCHITECT'S REFLECTED CEILING PLAN.
- 3 CONTRACTOR TO PROPERLY SEAL ALL NEW OR MODIFIED DUCTWORK.
- 4 SHOP PRIME ALL MISCELLANEOUS INTERIOR BRACKETS AND HANGERS UNLESS GALVANIZED OR STAINLESS STEEL. ALL EXTERIOR BRACKETS, CLAMPS, AND HANGERS SHALL BE HOT DIPPED GALVANIZED. COAT ALL CUT ENDS AND WELDS WITH ZINC COLD GALVANIZING COMPOUND.
- 5 FIELD COORDINATE WITH STRUCTURAL. OFFSET AND TRANSITION DUCTWORK AS REQUIRED.
- 6 THESE CONSTRUCTION DRAWINGS ARE DIAGRAMMATIC, AND DO NOT NECESSARILY REFLECT ACTUAL DIMENSIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD-VERIFY ALL DIMENSIONS AND COORDINATE PLACEMENT OF ALL EQUIPMENT AND ROUTING OF ALL PIPING AND/OR DUCT SYSTEMS.
- 7 ALL CONSTRUCTION IS TO CONFORM TO MORE STRINGENT OF PLAN, SPECIFICATION REQUIREMENTS AND LOCAL CODES. CONFORM TO SMACNA HVAC CONSTRUCTION STANDARDS AS A MINIMUM WHERE NO OTHER SPECIFICATIONS OR CODE REQUIREMENTS APPLY.
- 8 RETURN AIR IS THROUGH RETURN GRILLES AND BACK THROUGH RETURN AIR OPENINGS TO THE MECHANICAL ROOM. CONTRACTOR TO MAINTAIN RETURN AIR PATH. PROVIDE OPENINGS OR RETURN AIR BOOTS AS REQUIRED.
- 9 ALL DUCTWORK 15 FEET DOWNSTREAM OF AHU'S AND 10 FEET DOWNSTREAM OF FFB'S TO BE PROVIDED WITH KNAUF PERFORMANCE+ INTERNAL LINER OR APPROVED EQUAL.
- 10 ALL TRANSFER AIR DUCTS/BOOTS TO BE PROVIDED WITH INTERNAL LINING.
- 11 PROVIDE RETURN AIR BOOTS ON ALL RETURN GRILLES FOR OFFICES, CONFERENCE ROOMS, ETC ON 4TH FLOOR.