

GENERAL NOTES:

- REFER TO SPECIFICATIONS AND PROJECT MANUAL FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- REFER TO ALL PROJECT DRAWINGS FOR DETAILS OF CONSTRUCTION AND INSTALLATION REQUIREMENTS.
- REFER TO GENERAL CONDITIONS AND SUPPLEMENTARY GENERAL CONDITIONS FOR THE CONTRACT. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR FULL COORDINATION OF PROJECT INCLUDING THE EQUIPMENT AND INSTALLATION OF THE MECHANICAL WORK.
- CONTRACTOR SHALL BECOME, PRIOR TO BID, THOROUGHLY FAMILIAR WITH THE REQUIREMENTS OF THESE NOTES AS WELL AS OTHER NOTES SHOWN ON THE CONTRACT DOCUMENTS.
- THESE DRAWINGS REFLECT A SYSTEM DESIGNED AROUND SPECIFIC REFERENCE PRODUCTS (SEE SCHEDULES). THE SELECTION OF WHICH HAS INFLUENCED THE DESIGNS OF OTHER TRADES (ELECTRICAL, STRUCTURAL, ETC.). IF SUBSTITUTE MANUFACTURERS, SIZES, OR MODEL NUMBERS ARE BID, OR SUBMITTED, IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR AND ALL HIS SUBCONTRACTORS TO COORDINATE ALL DIFFERENCES PRIOR TO BID. ALL COSTS OF ALL TRADES ASSOCIATED WITH THE SUBSTITUTION SHALL BE INCLUDED IN THE BID.
- COORDINATION OF ALL MODIFICATIONS TO EACH DISCIPLINE WHICH RESULT FROM SUBSTITUTION OF EQUIPMENT OR MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SUBSTITUTIONS WHICH ARE INSTALLED AND SUBSEQUENTLY ARE PROVEN UNSATISFACTORY BY OWNER AND/OR ENGINEER, WITHIN THE WARRANTY PERIOD, SHALL BE REMOVED COMPLETELY BY THE CONTRACTOR AND REPLACED WITH THE ORIGINAL DESIGN OR CORRECTED AS DIRECTED BY THE ENGINEER WITHOUT ADDITIONAL COST TO THE OWNER.
- ALL DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENTS OR GEOMETRICAL RELATIONSHIPS OF EQUIPMENT AND SERVICES. THEY ARE NOT INTENDED TO SPECIFY OR SHOW EVERY OFFSET, SEQUENCE, DEVICE, OPTION, FITTING, OR COMPONENT.
- INFORMATION AND COMPONENTS SHOWN ON RISER DIAGRAMS OR DETAILS, BUT NOT SHOWN ON PLANS, AND VICE VERSA, SHALL BE PROVIDED AS IF EXPRESSLY REQUIRED BY BOTH.
- CONTRACTOR SHALL NOT SCALE DRAWINGS. DRAWINGS SPECIFIC TO THIS DISCIPLINE DO NOT LIMIT THE RESPONSIBILITY OF WORK REQUIRED BY THE CONTRACT DOCUMENTS.
- UNLESS NOTED OTHERWISE, THE INDICATION AND/OR DESCRIPTION OF ANY ITEM, IN THE DRAWINGS OR SPECIFICATIONS CARRIES WITH IT THE INSTRUCTION TO FURNISH AND INSTALL THE ITEM.
- EXACT LOCATIONS OF ALL EQUIPMENT, ROOF CURBS, DUCTS, DIFFUSERS, ETC. SHALL BE COORDINATED WITH OTHER TRADES. CEILING MOUNTED SPRINKLER, LIGHTING, AND ELECTRICAL REQUIREMENTS TAKE PRECEDENCE OVER CEILING MOUNTED MECHANICAL REQUIREMENTS. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILING GRID AND LIGHTING LAYOUT FOR COORDINATION OF FINAL DIFFUSER LOCATIONS.
- SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR BUILDING DETAILS AND DIMENSIONS.
- COORDINATE PLACEMENT OF ALL THERMOSTATS, ROOF MOUNTED EQUIPMENT, ETC. WITH ARCHITECTURAL AND STRUCTURAL TRADES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK WITH THAT OF OTHER TRADES. REFER TO ARCHITECTURAL, STRUCTURAL, ELECTRICAL, AND OTHER DRAWINGS FOR COMPLETE INFORMATION PRIOR TO BID.
- ROUGH-IN OR INSTALLATION OF OWNER FURNISHED EQUIPMENT SHALL NOT BEGIN UNTIL APPROVED EQUIPMENT DRAWINGS ARE OBTAINED FROM OWNER OR ARCHITECT. DO NOT SUBMIT SHOP DRAWINGS FOR ANY EQUIPMENT WHICH MAY BE COORDINATED WITH OWNER FURNISHED ITEMS UNTIL THE APPROVED DRAWINGS ARE OBTAINED FROM OWNER OR ARCHITECT. VERIFY THE APPROVED EQUIPMENT HAS THE SAME ROUGH-IN AND FINAL CONNECTION REQUIREMENTS AND DESIGN CRITERIA AS THE DOCUMENTS. NOTIFY ENGINEER OF ANY CHANGES, INCOMPATIBILITY, OR UNUSUAL CONDITIONS IMMEDIATELY. SEE SPECIFICATIONS OR DRAWINGS FOR LIST OF OWNER FURNISHED EQUIPMENT (WHERE APPLICABLE).
- ALL MECHANICAL CONSTRUCTION DETAILS SHALL BE AS SHOWN AND AS REQUIRED TO MAINTAIN "UL" ASSEMBLY RATINGS AS SHOWN ON ARCHITECTURAL SHEETS. SEAL AROUND ALL PENETRATIONS THROUGH UL RATED ASSEMBLIES, FIRE AND SMOKE WALLS. COORDINATE WITH GENERAL CONTRACTOR.
- NO OTHER TRADES, I.E., ELECTRICAL, CEILING, PLUMBING, ETC., SHALL BE SUSPENDED, HUNG, OR SUPPORTED FROM DUCTWORK OR PIPING.
- ROOFING CONTRACTOR SHALL BE RESPONSIBLE FOR FLASHING AND SEALING OF ALL ROOF PENETRATIONS.
- SPECIAL CARE SHALL BE TAKEN ON THE ROOF TO PREVENT DAMAGE. ANY DAMAGE SHALL BE PROMPTLY REPAIRED AT NO EXPENSE TO THE OWNER.
- REPLACE ALL ARCHITECTURAL FEATURES REMOVED OR DAMAGED DURING THE COURSE OF THE WORK.

CONTROL SEQUENCES:

- COMPRESSOR ROOM – CONTROL SEQUENCES
- PROVIDE STANDALONE PREPROGRAMMED DDC CONTROLLER FOR SEQUENCE BELOW.
 - INTAKE LOUVER (L-1)
 - THE DDC CONTROLLER SHALL OPEN LOUVER L-1'S DAMPER BASED ON A RUN STATUS FROM EITHER COMPRESSOR AC-1 OR AC-2. THE DAMPER SHALL BE CLOSED WHEN NEITHER AIR COMPRESSOR IS IN OPERATION.
 - SPACE TEMPERATURE:
 - THE DDC CONTROLLER SHALL AVERAGE SPACE TEMPERATURE AT SEVERAL LOCATIONS WITHIN THE COMPRESSOR ROOM, INCLUDING IN THE VICINITY OF THE ELECTRICAL TRANSFORMER. PROVIDE A DDC DIGITAL THERMOSTAT FOR ADJUSTMENTS AS WELL AS PLATE SENSORS FOR SPACE AVERAGING.
 - COOLING MODE:
 - WHEN THE SPACE TEMPERATURE EXCEEDS 85F (ADJUSTABLE), THE DDC CONTROLLER SHALL OPEN LOUVER L-1'S DAMPER (IF NOT ALREADY OPENED FROM AIR COMPRESSOR OPERATION), OPEN LOUVER L-2'S DAMPER, START EXHAUST FAN EF-1 AND OPEN ITS BACKDRAFT DAMPER. WHEN SPACE TEMPERATURE DROPS BELOW 80F (ADJUSTABLE), EF-1 SHALL BE DE-ENERGIZED, ITS BACKDRAFT DAMPER CLOSED AND LOUVER L-2'S DAMPER SHALL BE CLOSED.
 - HEATING MODE:
 - WHEN THE SPACE TEMPERATURE DROPS BELOW 50F, THE DDC CONTROLLER SHALL MODULATE THE BYPASS DAMPER FOR EACH AIR COMPRESSOR EXHAUST DUCT OPEN AND MODULATE THE EXHAUST DAMPER CLOSED AS REQUIRED TO DIVERT HEATED EXHAUST AIR FROM THE COMPRESSORS INTO THE ROOM. IF THE ROOM SPACE TEMPERATURE DROPS BELOW 40F, THE DDC CONTROLLER SHALL ENERGIZE UNIT HEATER EUH-1. WHEN THE SPACE TEMPERATURE RISES ABOVE 60F (ADJUSTABLE), EUH-1 SHALL BE DE-ENERGIZED, THE BYPASS DAMPER FOR EACH AIR COMPRESSOR EXHAUST DUCT SHALL CLOSE AND THE ASSOCIATED EXHAUST DAMPER SHALL FULLY OPEN.

CONTROL NOTES:

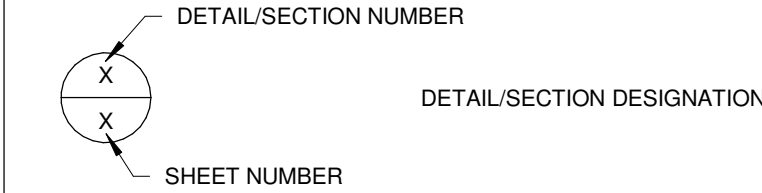
- REFER TO GENERAL NOTES ON DRAWING.
- ALL CONTROL DEVICES SHALL BE BY ONE MANUFACTURER. ALL CONTROL SET POINTS SHALL BE ADJUSTABLE. THERMOSTATS AND WIRING FOR FANS SHALL BE INCLUDED WITH CONTROLS.
 - THE CONTROL SYSTEM SHALL BE SUITABLE FOR THE LOCATIONS SHOWN ON THE PLANS.
 - PROVIDE ALL CONTROL COMPONENTS AS DESCRIBED IN CONTROL SEQUENCES INCLUDING CONTROL PANEL AND TEMPERATURE SENSORS.
 - SEE THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
 - ALL THERMOSTATS, SENSORS, AND OTHER EXPOSED CONTROL DEVICE LOCATIONS SHALL BE COORDINATED WITH THE ENGINEER AND ARCHITECT BEFORE ROUGHING IN.
 - ALL CONTROLS SHALL BE TESTED AND CALIBRATED BEFORE TESTING AND BALANCING IS PERFORMED.
 - PROVIDE LAMINATED TAGS AT ALL CONTROL DEVICES INDICATING EQUIPMENT BEING CONTROLLED.
 - INTERLOCK CONTROLS WITH THE FIRE ALARM SYSTEM. COORDINATE WITH THE FIRE ALARM SYSTEM CONTRACTOR FOR INTERFACE REQUIREMENTS OF THE SYSTEMS.
 - PROVIDE AUXILIARY CONTACTORS AS REQUIRED FOR OPERATIONS OF CONTROL SEQUENCES.
 - ALL WIRING SHALL BE IN CONDUIT. REFER TO THE SPECIFICATIONS.

HVAC NOTES:

- REFER TO GENERAL NOTES ON DRAWING FOR ADDITIONAL REQUIREMENTS.
- SEE STRUCTURAL PLANS FOR EXACT DIMENSIONS AND DETAILS OF THE BUILDING.
 - ALL ROOF MOUNTED EQUIPMENT SHALL BE PROVIDED WITH STANDARD MANUFACTURER'S FABRICATED CURBS WHICH FACILITATE LEVEL MOUNTING OF THE EQUIPMENT (I.E. FACTORY FABRICATED TO COMPENSATE FOR ROOF SLOPE). OBTAIN ROOF SLOPES AND DIRECTION OF SLOPE FROM ARCHITECTURAL AND/OR STRUCTURAL PLANS. ALL ROOF CURBS SHALL BE A MINIMUM OF 8" HIGH. SHIMMING OF CURBS IS NOT ACCEPTABLE. UNLESS OTHERWISE SHOWN, ALL SERVICES TO AND FROM ROOF MOUNTED EQUIPMENT SHALL BE INSIDE PERIMETER OF CURB. ALL EQUIPMENT SHALL BE SET PLUMB AND LEVEL.
 - MAINTAIN MINIMUM CLEAR DISTANCE OF 10' - 0" BETWEEN PARAPET WALL AND ALL ROOF MOUNTED MECHANICAL EQUIPMENT (FANS, RTUS, CONDENSERS, ETC.).
 - MAINTAIN A MINIMUM OF 15' - 0" BETWEEN ALL FRESH AIR INTAKES AND PLUMBING VENTS, EXHAUST FAN DISCHARGE, FLUES, ETC. COORDINATE WITH ALL OTHER CONTRACTORS ON SITE.
 - SEAL ALL ROOF AND WALL PENETRATIONS. FLASH AND COUNTERFLASH ROOF PENETRATIONS. MINIMUM HEIGHT OF FLASHING IS EIGHT (8) INCHES ABOVE ROOF.
 - ALL HVAC WORK TO BE PER SMACNA AND ALL APPLICABLE CODES.
 - PROVIDE FLEXIBLE CONNECTIONS AND TRANSITIONS ON DUCT INLET AND OUTLET CONNECTIONS TO ALL ROOF TOP UNITS, EXHAUST FANS, AIR BOXES, ETC. WHERE EQUIPMENT HAS ROTATING PARTS (MOTORS, ETC.).
 - BALANCE AIR SYSTEM TO PROVIDE INDICATED AIR FLOWS. SEE SPECIFICATIONS FOR OTHER TEST AND BALANCE REQUIREMENTS. SUBMIT FINAL BALANCE OF AIR SYSTEMS (FLOW AND TEMPERATURE) FOR REVIEW.
 - MECHANICAL CONTRACTOR (MC) SHALL COORDINATE AND VERIFY THE FOLLOWING WITH THE ELECTRICAL CONTRACTOR (EC) PRIOR TO BID:
 - A) ALL STARTERS: FURNISHED BY MC, INSTALLED BY EC.
 - B) ELECTRIC DAMPER ACTUATORS: FURNISHED BY MC, INSTALLED BY MC.
 - C) DISCONNECTS:
 - WHERE NOT FURNISHED WITH EQUIPMENT: FURNISHED BY EC, INSTALLED BY EC.
 - WHERE FURNISHED WITH EQUIPMENT: FURNISHED BY MC, INSTALLED BY MC.
 - COORDINATE FINAL PLACEMENT OF ALL THERMOSTATS WITH ARCHITECT AND ENGINEER. ANY THERMOSTAT THAT IS REQUIRED TO BE MOUNTED ON AN EXTERIOR WALL SHALL BE MOUNTED ON AN INSULATED PAD.

MECHANICAL LEGEND

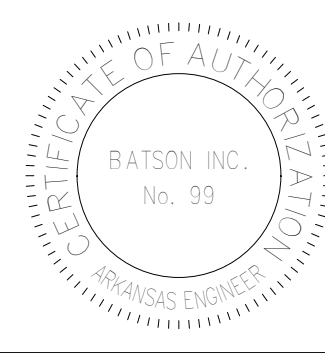
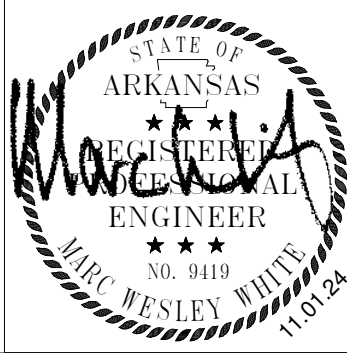
ABBREVIATION OR SYMBOL	DESCRIPTION	ABBREVIATION OR SYMBOL	DESCRIPTION	ABBREVIATION OR SYMBOL	DESCRIPTION
AHU	AIR HANDLING UNIT	NEW EQUIPMENT		CD	CONDENSATE DRAIN
A.F.F.	ABOVE FINISHED FLOOR			CHWR	CHILLED WATER RETURN
B	BOILER			CHWS	CHILLED WATER SUPPLY
BHP	BRAKE HORSE POWER			HWR	HOT WATER RETURN
BMS	BUILDING MANAGEMENT SYSTEM			HWS	HOT WATER SUPPLY
BTUH	BRITISH THERMAL UNIT PER HOUR	FAN COIL UNIT DESIGNATION		RS/RL	REFRIGERANT SUCTION / LIQUID
CFM	CUBIC FEET PER MINUTE				
CH	CHILLER				
CV	CONSTANT VOLUME				
DB	DRY BULB TEMPERATURE				
DP	DIFFERENTIAL PRESSURE				
EA	EXHAUST AIR				
EAT	ENTERING AIR TEMP OF THE COIL				
EF	EXHAUST FAN				
ESP	EXTERNAL STATIC PRESSURE				
EUH	ELECTRIC UNIT HEATER				
EWT	ENTERING WATER TEMPERATURE				
FC	FAN COIL UNIT				
FO	FLAT OVAL				
FPM	FEET PER MINUTE (VELOCITY)				
GH	GRAVITY HOOD				
GP	GALLONS PER MINUTE				
HP	HORSEPOWER				
KW	KILOWATT				
L	LOUVER				
LAT	LEAVING AIR TEMPERATURE OF THE COIL				
LBS	POUNDS				
LWT	LEAVING WATER TEMPERATURE				
MAX	MAXIMUM				
MBH	1000 BTUH				
MCA	MINIMUM CIRCUIT AMPACITY				
MIN	MINIMUM				
MHP	MOTOR HORSE POWER				
MOC	MAXIMUM OVER CURRENT PROTECTION				
N/A	NOT APPLICABLE				
NC	NOISE CRITERIA				
N.C.	NORMALLY CLOSED				
NIC	NOT IN CONTRACT				
N.O.	NORMALLY OPEN				
NK	NECK				
NTS	NOT TO SCALE				
OBD	OPPOSED BLADE DAMPER				
OF	OWNER FURNISHED/CONTRACTOR INSTALLED				
OAU	OUTSIDE AIR UNIT				
OSA	OUTSIDE AIR				
P	PUMP				
PBD	PARALLEL BLADE DAMPER				
PRV	PRESSURE REDUCING VALVE				
PSF	POUNDS PER SQUARE FOOT				
PSI	POUNDS PER SQUARE INCH				
PSIG	POUNDS PER SQUARE INCH GAUGE				
RA	RETURN AIR				
RF	RELIEF FAN				
RH	RELATIVE HUMIDITY				
RHP	RADIANT HEATING PANEL				
RPM	REVOLUTION PER MINUTE				
SA	SUPPLY AIR				
SC	SENSIBLE CAPACITY				
SP	STATIC PRESSURE				
SPEC.	SPECIFICATION				
TC	TOTAL CAPACITY				
TSP	TOTAL STATIC PRESSURE				
TSTAT	THERMOSTAT				
TYP.	TYPICAL				
VAV	VARIABLE AIR VOLUME				
VFD	VARIABLE SPEED (FREQUENCY) DRIVE				
WB	WET BULB TEMPERATURE				
WG	WATER GAUGE				
'	FEET				
"	INCHES				
Ø	ROUND DUCT				



* NOT ALL SYMBOLS MAY APPLY TO THIS PROJECT

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M203	HVAC SECTIONS
M204	MECHANICAL SECTIONS
M300	MECHANICAL DETAILS
M301	HVAC DUCT DETAILS
M400	MECHANICAL SCHEDULES



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:STAMP

CONSTRUCTION DOCUMENTS

:SHEET TITLE
MECHANICAL NOTES, LEGENDS, & INDEX

:REVISIONS		
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7	Wall Layout	09/21/26

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M100