

# MECHANICAL LEGEND

LINE WEIGHTS	
	EXISTING TO REMAIN
	TO BE DEMOLISHED OR NEW WORK
	EXISTING TO REMAIN
	TO BE DEMOLISHED
	NEW WORK
SYMBOLS	
	DOMESTIC COLD WATER PIPING
	CONDENSATE DRAIN PIPING
	CHILLED WATER RETURN PIPING
	CHILLED WATER SUPPLY PIPING
	CONDENSER WATER RETURN PIPING
	CONDENSER WATER SUPPLY PIPING
	HOT WATER RETURN PIPING
	HOT WATER SUPPLY PIPING
	DROPPING OR RISING PIPE
	PIPE TO OR FROM ABOVE
	ISOLATING GATE OR BALL VALVE
	BALL OR GLOBE VALVE
	CHECK VALVE
	THREE-WAY VALVE
	'Y' TYPE PIPE STRAINER
	BUTTERFLY VALVE
	BALANCING VALVE
	PRESSURE REDUCING STATION
	PIPE UNION
	PIPE BRANCH OUT TOP OF MAIN
	PIPE BRANCH OUT BOTTOM OF MAIN
	TEMPERATURE/PRESSURE RELIEF VALVE - ELEVATION
	TEMPERATURE/PRESSURE RELIEF VALVE - PLAN
	CAP END OF PIPE
	CONCENTRIC PIPE REDUCER
	ECCENTRIC PIPE REDUCER
	FLANGED FITTING
	PRESSURE GAUGE
	THERMOMETER
	MOTORIZED (PNEUMATIC) ACTUATOR
	MOTORIZED (ELECTRIC) ACTUATOR
	SIPHON AND GAUGE COCK
	TWO-WAY CONTROL VALVE WITH PNEUMATIC ACTUATOR
	THREE-WAY CONTROL VALVE WITH PNEUMATIC ACTUATOR
	TWO-WAY CONTROL VALVE WITH ELECTRIC ACTUATOR
	THREE-WAY CONTROL VALVE WITH ELECTRIC ACTUATOR
	AUTOMATIC AIR VENT
	MANUAL AIR VENT
	RECTANGULAR DUCT SIZE: FIRST DIMENSION IS SIDE DRAWING
	FLAT OVAL DUCT SIZE: FIRST DIMENSION IS SIDE DRAWING
	ROUND DUCTWORK OR FLUE PIPING
	RECTANGULAR TO ROUND DUCT TRANSITION
	FLEXIBLE ROUND DUCT
	FLEXIBLE DUCT CONNECTION
	ADJUSTABLE DEFLECTOR VANES AT BRANCH DUCT
	SQUARE DUCT ELBOW WITH TURNING VANES
	MANUAL VOLUME DAMPER
	FIRE DAMPER IN DUCT THROUGH WALL
	FIRE/SMOKE DAMPER IN DUCT THROUGH WALL
	AUTOMATIC (MOTORIZED) CONTROL DAMPER
	ONE INCH THICK DUCT LINER
	SPLITTER DAMPER WITH SPLIT DIMENSIONS SHOWN
	VERTICAL OFFSET: ARROW INDICATES RISE
	FIRE DAMPER IN DUCT THROUGH FLOOR SLAB
	RADIANT FIRE DAMPER AT CEILING
	EQUIPMENT ON ROOF ABOVE
	WALL MOUNTED THERMOSTAT OR TEMPERATURE SENSOR
	CONCRETE PAD
	POINT OF CONNECTION OR LIMIT OF SCOPE OF WORK
	CUBIC FEET PER MINUTE AIRFLOW

# MECHANICAL ABBREVIATIONS

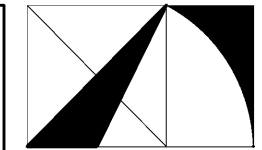
ABBREVIATIONS	
ABSORB	ABSORPTION
AFF	ABOVE FINISHED FLOOR
APPROX	APPROXIMATE
BAS	BUILDING AUTOMATION SYSTEM
CHW	CHILLED WATER
COND	CONDENSER
CFM	CUBIC FEET PER MINUTE
CW	CONDENSER WATER
DIA	DIAMETER
db	DRY BULB
DUAL TEMP	DUAL TEMPERATURE
DX	DIRECT EXPANSION
EER	ENERGY EFFICIENCY RATING
EAT	ENTERING AIR TEMPERATURE
Edb	ENTERING DRY BULB
ESP	EXTERNAL STATIC PRESSURE
EVAP	EVAPORATOR
Ewb	ENTERING WET BULB
EWT	ENTERING WATER TEMPERATURE
FPM	FEET PER MINUTE
FT	FEET
GAL	GALLONS
GPM	GALLONS PER MINUTE
H	HEIGHT
HP	HORSE POWER
HW	HOT WATER
IN	INCHES
IN. WG	INCHES WATER GAUGE
KW	KILOWATTS
LAT	LEAVING AIR TEMPERATURE
Ldb	LEAVING DRY BULB
Lwb	LEAVING WET BULB
LWT	LEAVING WATER TEMPERATURE
LWCO	LOW WATER CUT-OFF
MAX	MAXIMUM
MBH	THOUSAND BTU PER HOUR
MIN	MINIMUM
OA	OUTDOOR AIR
PD	PRESSURE DROP
PSIG	POUNDS PER SQUARE INCH GAUGE
REJECT	REJECTION
RPM	REVOLUTIONS PER MINUTE
SEER	SEASONAL ENERGY EFFICIENCY RATING
SQ. FT.	SQUARE FEET
TEMP	TEMPERATURE
TYP	TYPICAL
VFD	VARIABLE FREQUENCY DRIVE
W	WIDTH
wb	WET BULB
°F	DEGREES FAHRENHEIT
Δt	TEMPERATURE DIFFERENCE

# GENERAL DEMOLITION NOTES:

- FIELD VERIFY EXISTING CONDITIONS. LOCATION OF EXISTING EQUIPMENT, DUCT AND PIPE ROUTES MAY DEVIATE FROM WHAT IS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING CONDITIONS PRIOR TO SUBMITTING BIDS AND PRIOR TO FABRICATING ANY MATERIALS.
- WHERE EQUIPMENT, DUCTS AND PIPES, CONTROL DEVICES, CONDUITS, CABLES AND WIRING ARE DISCONNECTED FOR THE REMOVAL OF EQUIPMENT, THEY SHALL BE RECONNECTED, TESTED AND MADE OPERATIONAL.
- UNLESS OTHERWISE NOTED, ALL MATERIALS & EQUIPMENT SHOWN OR SPECIFIED TO BE REMOVED SHALL BE THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PROJECT SITE.
- DO ANY AND ALL CUTTING AND PATCHING REQUIRED FOR THIS SCOPE OF WORK, RESTORING ALL SURFACES TO THEIR ORIGINAL CONDITION TO MATCH SURROUNDING FINISHES. ALTERATIONS TO ANY STRUCTURAL MEMBER, EITHER STEEL OR CONCRETE, SHALL REQUIRE THE APPROVAL OF THE [CONTRACTING OFFICER/PROJECT MANAGER, OWNER].
- REMOVE ALL SUPPORTING FACILITIES NO LONGER NEEDED OR MADE OBSOLETE BY THE NEW EQUIPMENT AND MATERIALS FURNISHED UNDER THIS CONTRACT. SUCH REMOVAL INCLUDES, BUT IS NOT LIMITED TO, SUPPORT BRACKETS AND ATTACHMENTS, ABANDONED PIPING SUPPORT BRACKETS AND ATTACHMENTS. REMOVAL OF PIPING SHALL INCLUDE ASSOCIATED VALVES, WELDED SUPPORTS SHALL BE REMOVED FLUSH WITH SURFACE, SURFACE SHALL BE GROUND SMOOTH, CLEANED PRIMED AND PAINTED TO MATCH SURROUNDING FINISH.
- AFTER EXISTING PIPING AND DUCTWORK HAS BEEN REMOVED PATCH THE EXISTING FLOOR OR WALL OPENINGS TO MATCH SURROUNDING SURFACES AND MAINTAIN THE FIRE RATING.
- WHERE EQUIPMENT IS SHOWN TO BE REMOVED IT SHALL BE REMOVED COMPLETE WITH ASSOCIATED PIPING, CONTROLS AND ASSOCIATED CONDUITS AND WIRING.
- \*VERIFY SHALL MEAN CHECK EXISTING AS-INSTALLED CONDITIONS AGAINST DRAWING AND SPECIFICATION AND ADJUST NEW WORK TO MATCH EXISTING. OBTAIN RULING FROM THE OWNER CONTRACTING OFFICER ON ANY ITEMS REQUIRING CLARIFICATION.
- BEFORE REMOVAL OF ANY SERVICES SUCH AS PIPING, LABEL EACH EXISTING PIPE AT THE POINT OF RECONNECTION BETWEEN EXISTING AND NEW SERVICES TO ENSURE PROPER RECONNECTION WITHOUT CROSSOVERS.

# GENERAL NOTES:

- VERIFY ALL SIZES, MATERIALS, TEMPERATURES AND PRESSURES BEFORE ORDERING OR FABRICATION OF ANY MATERIALS.
- MECHANICAL DRAWINGS DO NOT SPECIFY VOLTAGES OF MECHANICAL EQUIPMENT. REFER TO THE ELECTRICAL DRAWINGS FOR VOLTAGES AND MECHANICAL EQUIPMENT ELECTRICAL LOADS. VERIFY ELECTRICAL CHARACTERISTICS OF ALL MECHANICAL EQUIPMENT BEFORE ORDERING EQUIPMENT.
- REFER TO EACH DRAWING FOR NOTES SPECIFIC TO THAT DRAWING SHEET.
- ALL PENETRATIONS THROUGH EXISTING FIRE RATED WALLS, PARTITIONS AND FLOOR SLABS SHALL BE FIRE STOPPED TO MAINTAIN THE FIRE RATING OF OF THE EXISTING WALL, PARTITION OR FLOOR SLAB.
- ALL FRESH AIR INTAKES SHALL BE MINIMUM 10 FT AWAY FROM ANY BUILDING GENERAL EXHAUST AND PLUMBING VENTS, AND MINIMUM 15 FT AWAY FROM FLUES AND GREASE EXHAUST.
- AREAS ABOVE THE CEILING ARE UTILIZED AS A RETURN AIR PLENUM UNLESS NOTED OTHERWISE. MATERIALS INSTALLED WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E84. WIRING, CABLE AND RACEWAYS INSTALLED IN PLENUMS SHALL BE LISTED AND LABELED AS PLENUM RATED.

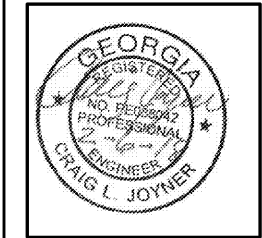


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