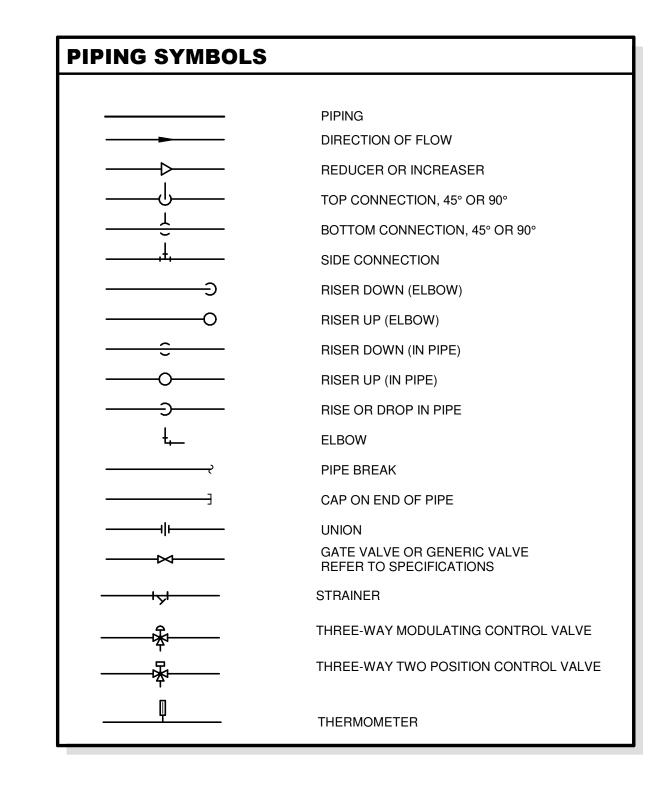
DUCTWORK SYMBOLS



SYMBOL	DESCRIPTION
11011	
MBH	1000 BRITISH THERMAL UNITS PER HOUF
AHU	AIR HANDLING UNIT
В	BOILER
CWR	CHILLED WATER RETURN
CWS	CHILLED WATER SUPPLY
CH	CHILLER
CFM	CUBIC FEET PER MINUTE
°F	DEGREES FAHRENHEIT
Ø	DIAMETER
DB	DRY BULB
EC	ELECTRICAL CONTRACTOR
EAT	ENTERING AIR TEMPERATURE
EWT	ENTERING WATER TEMPERATURE
EA	EXHAUST AIR
EF	EXHAUST FAN
FPB	FAN POWERED BOX
FPM	FEET PER MINUTE
GPM	GALLONS PER MINUTE
GC	GENERAL CONTRACTOR
GRV	GRAVITY ROOF VENTILATOR
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
HP	HORSE POWER
KEC	KITCHEN EQUIPMENT CONTRACTOR
KMUA	KITCHEN MAKE UP AIR UNIT
LAT	LEAVING AIR TEMPERATURE
MUA	MAKE UP AIR UNIT
MC	MECHANICAL CONTRACTOR
MOD	MOTOR OPERATED DAMPER
OA	OUTSIDE AIR
PSI	POUNDS PER SQUARE INCH
PG	PROPYLENE GLYCOL
Р	PUMP
RA	RETURN AIR
SWT	SPRING WOUND TIMER
SA	SUPPLY AIR
TSP	TOTAL STATIC PRESSURE
VAV	VARIABLE AIR VOLUME
WB	WET BULB

Sheet Number	Sheet Name
Silect Number	Sheet Name
M-000	HVAC LEGENDS, SYMBOLS AND ABBREVIATIONS
M-101-A	FIRST FLOOR PLAN - HVAC - UNIT A
M-101-B	FIRST FLOOR PLAN - HVAC - UNIT B
M-101-C	FIRST FLOOR PLAN - HVAC - UNIT C
M-102-A	SECOND FLOOR PLAN - HVAC - UNIT A
M-102-C	SECOND FLOOR PLAN - HVAC - UNIT C
M-103	ENLARGED MECHANICAL ROOMS
M-104	MECHANICAL ROOM SECTIONS
M-201-A	FIRST FLOOR PLAN - HVAC PIPING - UNIT A
M-201-B	FIRST FLOOR PLAN - HVAC PIPING - UNIT B
M-201-C	FIRST FLOOR PLAN - HVAC PIPING - UNIT C
M-202-A	SECOND FLOOR PLAN - HVAC PIPING - UNIT A
M-202-C	SECOND FLOOR PLAN - HVAC PIPING - UNIT C
M-203	ENLARGED MECHANICAL ROOMS
M-301	ROOF PLAN - HVAC
M-401	HVAC DETAILS
M-402	HVAC DETAILS
M-403	HVAC DETAILS
M-501	HVAC SCHEDULES
M-502	HVAC SCHEDULES
MECHANICAL: 20	

1 1 9 1 1 9

- ALL CONTRACTORS FOR THIS PROJECT ARE RESPONSIBLE TO REVIEW THE SUMMARY OF WORK, SPECIFICATION SECTION 011100 FOR REFERENCE TO OWNERSHIP OF WORK AND SPECIFIC JOB RESPONSIBILITIES.
- 2. DUCTWORK CONNECTIONS TO EQUIPMENT ARE PURSUANT TO EQUIPMENT MANUFACTURERS RECOMMENDATIONS.
- 3. ALL DUCT DIMENSIONAL DATA REPRESENTS CLEAR INSIDE DIMENSIONS.
- 4. CONTRACTOR TO VERIFY FIELD CONDITIONS AND DIMENSIONS OF JOB BEFORE CONSTRUCTION.
- 5. ROUND DUCT FLEXIBLE CONNECTION TO DIFFUSERS SHALL BE NO LONGER THAN 5 FEET.
- 6. COORDINATE ALL WORK WITH OTHER TRADES TO AVOID ANY CONFLICTS.
- 7. CONTRACTOR SHALL MAKE NECESSARY TURNS AND OFFSETS TO AVOID ANY CONFLICTS WITH BUILDING ELEMENTS.
- 8. PROVIDE VOLUME DAMPERS IN EVERY BRANCH LINE BEFORE EACH DIFFUSER, GRILLE OR REGISTER.
- 9. COORDINATE DUCT, WALL AND ROOF PENETRATIONS WITH RELEVANT TRADES.
- 10. ALL DISHWASHER EXHAUST DUCTWORK TO BE 16 GAUGE, TYPE 304 STAINLESS STEEL.
- 11. INSTALL ALL PIPING, DUCTWORK AND EQUIPMENT FOR BEST SERVICE ACCESS TO UNITS. DO NOT IMPEDE COIL PULL AND
- 12. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF ALL GRILLES, REGISTERS, AND DIFFUSERS.
- CENTER DIFFUSERS IN 2'x2' HALF OF CEILING TILE.
- 13. ALL DUCTWORK TO BE INSULATED ON THE EXTERIOR FROM AIR HANDLING UNIT TO DIFFUSER, GRILLE, REGISTER OR LOUVER UNLESS OTHERWISE NOTED.
- 14. ALL EXPOSED SUPPLY AIR DUCTWORK SHALL BE SPIRAL UNLESS NOTED OTHERWISE. ALL EXPOSED DUCTWORK SHALL BE PAINTED. COLOR TO BE SELECTED BY ARCHITECT.
- 15. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE SLEEVED AND FIRE STOPPED.
- 16. ALL PENETRATIONS THROUGH NON-FIRE RATED ASSEMBLIES SHALL BE SLEEVED, CAULKED OR OTHERWISE SEALED AGAINST SOUND TRANSMISSION. ALL EXPOSED PENETRATIONS SHALL HAVE A FLANGED EDGE, CONCEALING EDGE OF
- 17. ALL PATCHING SHALL MATCH EXISTING, ADJACENT MATERIAL IN COLOR AND QUALITY.
- 18. PIPE AIR HANDLING UNITS CONDENSATE TO FLOOR DRAIN WITH CLEANOUTS AND P-TRAPS. CAP HEATING COIL DRAIN FOR MAINTENANCE CLEANING.
- 19. MOUNT AIR HANDLING UNITS, BOILERS, AND PUMPS ON CONCRETE PADS.
- 20. THERMOSTATS TO BE HOUSED IN LOCKABLE COVER OF STURDY CONSTRUCTION TO PROTECT AGAINST TAMPERING OR DAMAGE. HOUSING TO BE PROVIDED FOR ALL THERMOSTATS.
- 21. THE MECHANICAL CONTRACTOR WILL REVIEW THE SPECIFICATION SECTION 230900 TEMPERATURE CONTROL FOR SPECIFIC CONTRACTOR AND EQUIPMENT SUPPLIER RESPONSIBILITIES.
- 22. 1/4" SCALE DUCTWORK SHOP DRAWINGS SHOWING BEAMS, LIGHTS, ETC. SHALL BE SUBMITTED BEFORE ANY DUCTWORK IS FABRICATED. CONTRACTOR SHALL VERIFY ALL BEAM LOCATIONS, ELEVATIONS, AND EXISTING EQUIPMENT PRIOR TO
- SUBMISSION OF THESE SHOP DRAWINGS. NO DUCTWORK FABRICATION SHALL START UNTIL APPROVAL OF DUCT SHOP
- 23. ALL VAV OR FPB SHALL HAVE 2-WAY CONTROL VALVES UNLESS OTHERWISE NOTED.
- 24. ALL BRANCH PIPING TO VAV AND FPB SHALL BE 3/4" UNLESS OTHERWISE NOTED.
- 25. ALL HEATING HYDRONIC EQUIPMENT IS DESIGNED FOR AN E.W.T. OF 180°F, A 30°F DELTA T, AND A 30% PROPYLENE GLYCOL SOLUTION.
- 26. ALL SUPPLY, EXHAUST, RETURN OR OUTSIDE AIR DUCTS PENETRATING FIRE RATED INTERIOR ASSEMBLIES WITH A FIRE RATING GREATER THAN ONE (1) HOUR SHALL HAVE FIRE DAMPERS WITH ACCESS DOORS.
- 27. ALL EXPOSED DUCTWORK AND PIPING SHALL BE PAINTED AFTER INSTALLATION.
- 28. ALL CONTRACTORS SHALL REVIEW ARCHITECTURAL PLANS SHOWING WALL TYPE AND CONSTRUCTION FOR TRANSFER OPENINGS AND LINTEL REQUIREMENTS.

29. MECHANICAL CONTRACTOR SHALL "BLANK-OFF" ANY PORTIONS OF THE LOUVER AND SCREEN NOT REQUIRED.

PROJECT NO

2203-2

PROJECT NO 2203-2 DRAWN BY PH

CHECKED BY ARB HVAC LEGENDS, SYMBOLS AND

SCALE: 1/8" = 1'-0" SHEET NO M-000

ABBREVIATIONS