

MECHANICAL PIPING LEGEND

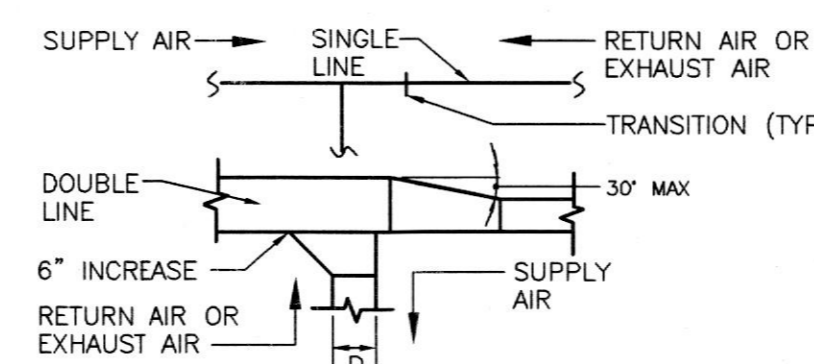
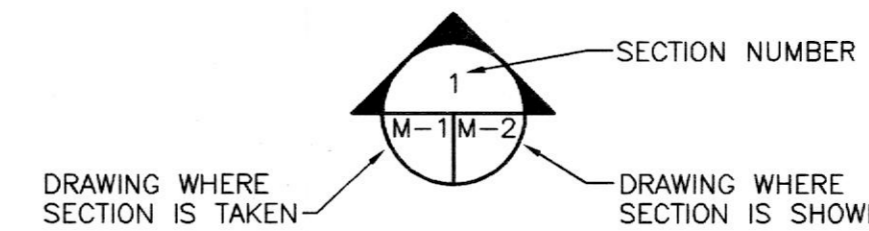
SYMBOLS	
	SANITARY; SAN
	SANITARY VENT; V
	STORM WATER; SW
	CLEANOUT; LINE, FLUSH; CO
	DOMESTIC COLD WATER; CW
	DOMESTIC HOT WATER; HW (TEMPERATURE AS NOTED UNLESS SINGLE TEMP.)
	HOT WATER CIRCULATING; HWC (TEMPERATURE AS NOTED UNLESS SINGLE TEMP.)
	HEATING SUPPLY (ZONE AS NOTED); HS
	HEATING RETURN (ZONE AS NOTED); HR
	CHILLED/HOT WATER SUPPLY (DUAL TEMPERATURE); CHS
	CHILLED/HOT WATER RETURN (DUAL TEMPERATURE); CHR
	CHILLED WATER SUPPLY; CWS
	CHILLED WATER RETURN; CWR
	CONDENSER WATER SUPPLY; CS
	CONDENSER WATER RETURN; CR
	REFRIGERANT LIQUID; RL
	REFRIGERANT SUCTION (GAS); RS
	REFRIGERANT HOT GAS; HG
	HEAT RECOVERY SUPPLY; HRS
	HEAT RECOVERY RETURN; HRR
	STEAM, MEDIUM PRESSURE; MPS
	RETURN, MEDIUM PRESSURE; MPR
	STEAM, HIGH PRESSURE; HPS
	RETURN, HIGH PRESSURE; HPR
	PUMPED CONDENSATE RETURN
	FINNED RADIATION
	BALL VALVE
	FOUNDATION DRAIN
	STRAINER, Y OR BASKET
	STRAINER W/BLOW DOWN VALVE
	CAP
	GATE VALVE
	OUTSIDE SCREW AND YOKE VALVE, OS&Y
	BALL VALVE IN VERTICAL
	GATE VALVE IN VERTICAL
	GAS SHUT-OFF COCK
	AUTOMATIC THREE VALVE (TWO POSITION OR MODULATING AS NOTED)
	THERMOSTATIC MIXING VALVE (DOMESTIC HOT WATER)
	AUTOMATIC STRAIGHT THRU VALVE (TWO POSITION OR MODULATING AS NOTED)
	SOLENOID VALVE
	THERMOSTATIC CONTROL VALVE
	GLOBE VALVE
	BUTTERFLY VALVE
	BACK FLOW PREVENTER
	PLUG VALVE; NON-LUBRICATED TYPE
	CHECK VALVE
	DOUBLE CHECK
	BALANCING VALVE
	FLOW MEASURING FITTING; FMF
	FLEXIBLE PIPE CONNECTOR
	COMBINATION TEMPERATURE/PRESSURE RELIEF VALVE
	AIRTROL TANK FITTING
	PRESSURE REDUCING VALVE (PRV)
	AIR VENT; MANUAL, AUTOMATIC
	UNION
	PIPE ANCHOR
	PIPE GUIDE
	THERMOMETER
	PRESSURE GAGE
	THERMOSTAT: "N" DENOTES UNOCCUPIED "G" DENOTES GUARD "RA" DENOTES REVERSE ACTING
	ECCENTRIC PIPE REDUCER
	CONCENTRIC PIPE REDUCER
	SPRINKLER HEAD - CLOSED
	EXPANSION JOINT & PIPE GUIDES

MECHANICAL PIPING LEGEND

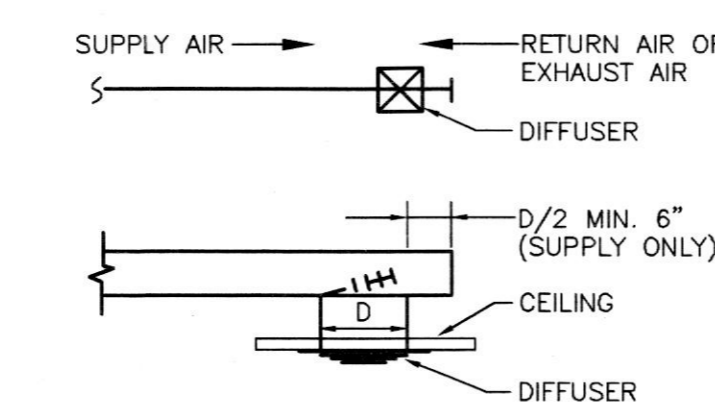
SYMBOLS (CONTINUED)	
	ACID RESISTANT SANITARY; ARS
	ACID RESISTANT VENT; ARV
	FIRE; SPRINKLER SUPPLY, STANDPIPE SUPPLY; F
	GAS; G
	LIQUEFIED PETROLEUM GAS; LPG
	AIR; A
	DEIONIZED OR DISTILLED WATER; DW
	PUMP DISCHARGE; PD
	ATMOSPHERIC OR CONDENSATE DRAIN; D
	FUEL OIL VENT; FOV
	FUEL OIL FILL; FOF
	FUEL OIL SUPPLY; FOS
	FUEL OIL RETURN; FOR
	FUEL OIL GAUGE; FOG
	DIESEL OIL SUPPLY; DOS
	DIESEL OIL RETURN; DOR
	DIESEL OIL VENT; DOV
	DIESEL OIL GAUGE; DOG
	DIESEL OIL FILL; DOF
	PROPANE GAS SUPPLY; PGS
	PROPANE GAS RETURN; PGR
	PROPANE GAS VENT; PGV
	PROPANE GAS GAUGE; PGG
	PROPANE GAS FILL; PGF

MECHANICAL H.V.A.C. LEGEND

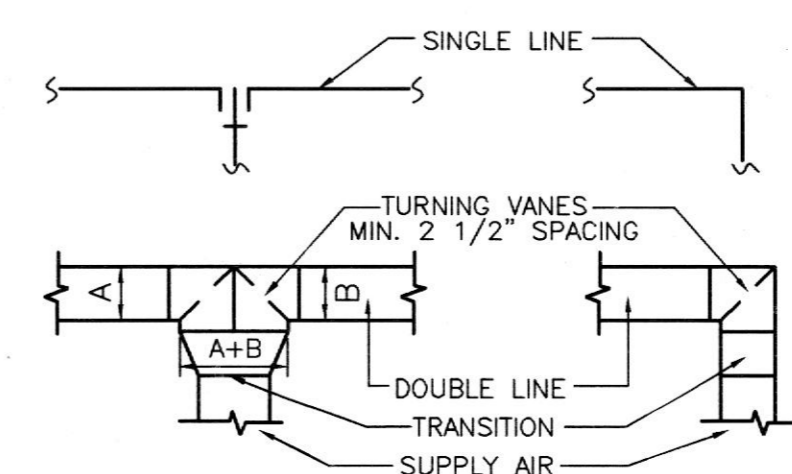
SYMBOLS	
	STOPPING POINT OF DEMOLITION
	POINT OF CONNECTION; NEW TO EXISTING
	GAS SHUT-OFF COCK
	SUPPLY AIR DUCT (UP, DOWN)
	EXHAUST AIR DUCT (UP, DOWN)
	RETURN AIR DUCT (UP, DOWN)
	FLEXIBLE CONNECTION
	VOLUME DAMPER
	FIRE DAMPER; FDR
	SMOKE DAMPER; SD
	90° BEND WITH TURNING VANES
	SUPPLY AIR DIFFUSER
	EXHAUST AIR GRILLE
	RETURN AIR GRILLE
	ACOUSTICALLY LINED SINGLE LINE DUCTWORK: A/L
	MOTOR OPERATED DAMPER
	ACOUSTICALLY LINED DUCTWORK: A/L
	FLEXIBLE DUCTWORK W/ AIR TIGHT FITTING AND VOLUME DAMPER. FLEX 5'-0" MAX.
	DUCT HEATING COIL
	EXISTING EQUIPMENT TO REMAIN; (UNLESS OTHERWISE NOTED)
	NEW EQUIPMENT; (UNLESS OTHERWISE NOTED)
	REMOVE EXISTING EQUIPMENT; (UNLESS OTHERWISE NOTED)
	RELOCATED EQUIPMENT; (UNLESS OTHERWISE NOTED)



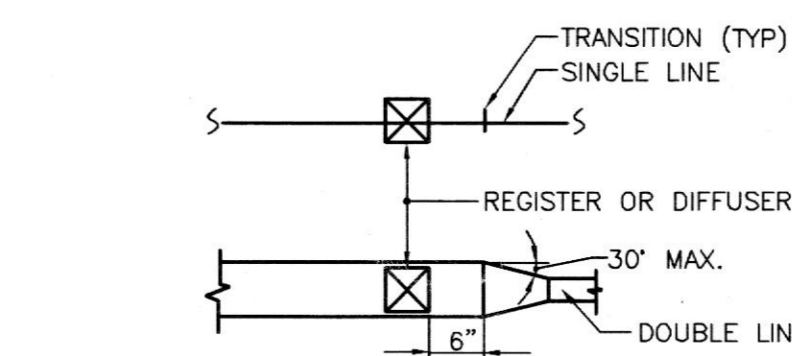
BRANCH CONNECTION



OUTLET AT END OF DUCT



SPLIT



DIFFUSER OR REGISTER CONNECTION

STANDARD LOW PRESSURE DUCT DETAILS

NO SCALE

NOTE:

NOT ALL SYMBOLS AND ABBREVIATIONS APPLY

MECHANICAL ABBREVIATIONS

ABBREVIATIONS	
ABV	ABOVE
AD	ACCESS DOOR
AF	ABOVE FINISHED FLOOR
AL	ACOUSTICALLY LINED
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
AREA D	AREA DRAIN
ARS	ACID RESISTANT SANITARY
ARV	ACID RESISTANT VENT
ARVTR	ACID RESISTANT VENT THRU ROOF
ATC	AUTOMATIC TEMPERATURE CONTROL
ATV	ADJUSTABLE TURNING VANES
BDD	BACK DRAFT DAMPER
BEL	BELOW
BWV	BACKWATER VALVE
CB	CATCH BASIN
CI	CAST IRON
CD	CANOPY DRAIN
CELG	CEILING
CONN	CONNECTION
CONT	CONTINUATION
CUH	CABINET UNIT HEATER
DEPT	DEPARTMENT
DIFF	DIFFUSER
DF	DRINKING FOUNTAIN
DN	DOWN
EH	EXTRA HEAVY
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EXH	EXHAUST
EC	EXPANSION COMPENSATOR
EF	EXHAUST FAN
ESP	EXTERNAL STATIC PRESSURE
EW	ELECTRIC WATER COOLER
EWI	ENTERING WATER TEMPERATURE
EX	EXISTING
EXIST	EXISTING
FE	FIRE EXTINGUISHER
FHC	FIRE HOSE CABINET
FD	FLOOR DRAIN
FDR	FIRE DAMPER
FOB	FLAT ON BOTTOM
FM	FLOW MONITOR
FMF	FLOW METER FITTING
F&T	FLOAT & THERMOSTATIC
FCU	FAN COIL UNIT
FL	FLOOR
GR	GRILLE
H	HUMIDISTAT
HB	HOSE BIBB
HE	HOSE END
HD	HEAD
IW	INDIRECT WASTE
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MED	MAIN END DRIP
MH	MANHOLE
MO	MOTOR OPERATED
MDD	MOTOR OPERATED DAMPER
MVD	MANUAL VOLUME DAMPER
NO	NORMALLY OPEN
NC	NORMALLY CLOSED
OA	OUTSIDE AIR
OED	OPEN END DUCT
PE	PNEUMATIC-ELECTRIC
PRV	PRESSURE REDUCING VALVE
REG	REGISTER
RV	RELIEF VALVE
RA	RETURN AIR
RL	RAIN LEADER
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
RET	RETURN
RX	REMOVE EXISTING
SA	SUPPLY AIR
SD	SMOKE DAMPER
SFD	SMOKE-FIRE DAMPER
SP	STATIC PRESSURE
ST	SOUND TRAP
SS	SANITARY STACK
SUP	SUPPLY
SW	STORM WATER
TEMP	TEMPERATURE
TV	TURNING VANES
TPL	TRAP PRIMING LINE
TYP	TYPICAL
UH	UNIT HEATER
V	VENT
VB	VACUUM BREAKER
VCP	VITRIFIED CLAY PIPE
VD	VOLUME DAMPER
VS	VENT STACK
VTR	VENT THRU ROOF
WG	WATER GAUGE
WH	WALL HYDRANT
WPD	WATER PRESSURE DROP
WS	WASTE STACK
WMS	WIRE MESH SCREEN

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MECHANICAL
LEGEND AND
ABBREVIATIONS

SHEET:

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