
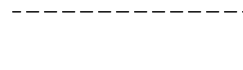
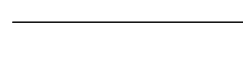
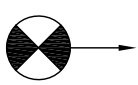
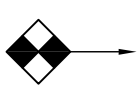



























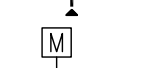




MECHANICAL ABBREVIATIONS

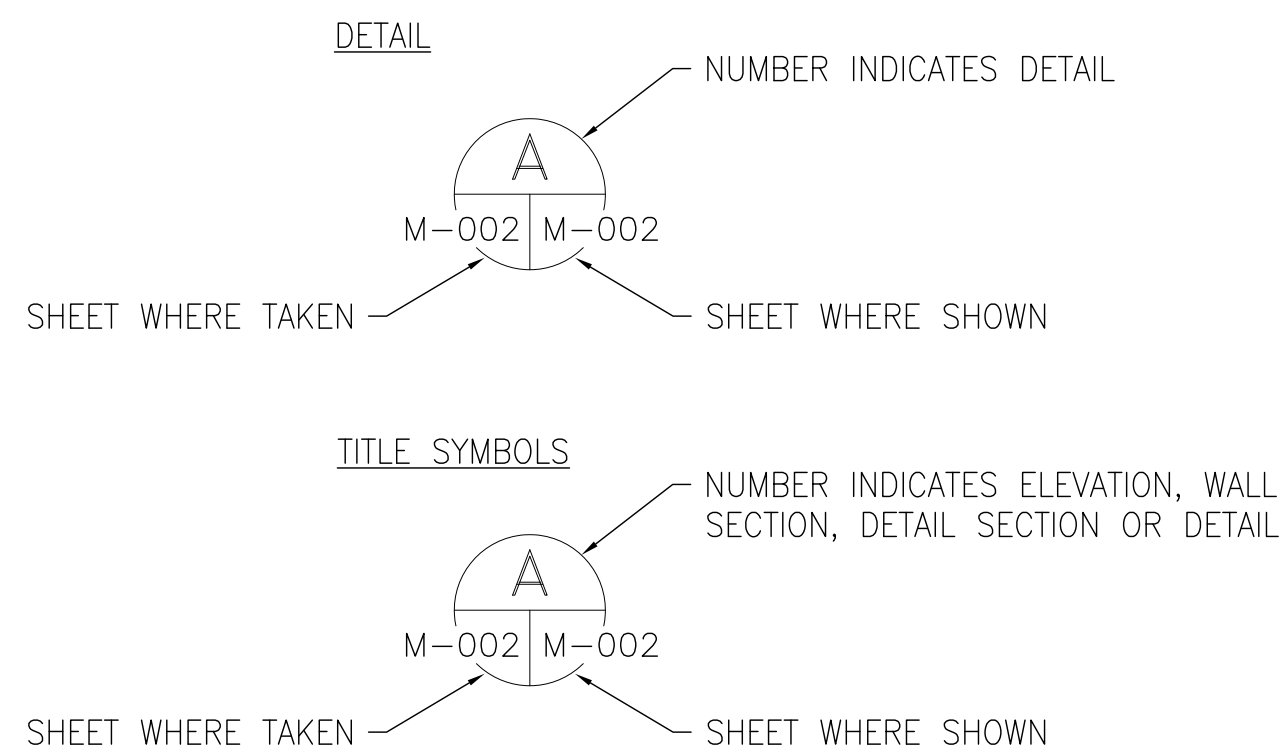
(NOT ALL ABBREVIATIONS USED)

(D)	DEMOUSH	ELEV	ELEVATION	OAT	OUTSIDE AIR TEMPERATURE
(E)	EXISTING	EM	EQUIPMENT MANUFACTURER	OBD	OPPOSED BLADE DAMPER
(F)	REFURBISH	EMER	EMERGENCY	OC	ON CENTER
(M)	PROVIDED BY MANUFACTURER	ENT	ENTERING	OED	OPEN ENDED DUCT
(N)	NEW	ER	EXHAUST REGISTER	OEM	ORIGINAL EQUIPMENT MANUFACTURER
(R)	RELOCATE	ERAD	ELECTRIC RADIATION	OPER	OPERATING
AC	AIR CONDITIONING UNIT	ERC	EXHAUST ENERGY RECOVERY COIL	OPNG	OPENING
ACC	AIR COOLED CONDENSER	ERU	ENERGY RECOVERY UNIT	P	PUMP
ACCU	AIR COOLED CONDENSING UNIT	ESP	EXTERNAL STATIC PRESSURE	PBD	PARALLEL BLADE DAMPER
ACFM	ACTUAL CUBIC FEET PER MINUTE	ET	EXPANSION TANK	PC	PUMPED CONDENSATE
AD	ACCESS DOOR	EVC	EVAPORATIVE COOLER	PD	PRESSURE DROP
ADJ	ADJUSTABLE	EWB	ENTERING WET BULB TEMPERATURE	PFHX	PLATE & FRAME HEAT EXCHANGER
AF	AIRFOIL	EWI	ENTERING WATER TEMPERATURE	PHC	PREHEAT COIL
AFF	ABOVE FINISHED FLOOR	EXH	EXHAUST	PLN	PLENUM
AHU	AIR HANDLING UNIT	EXIST	EXISTING	POS	POSTION
AI	ANALOG INPUT	EXT	EXTERNAL	PRESS	PRESSURE
AL	ACOUSTICAL LINING	F	FILTER	PRV	PRESSURE REDUCING VALVE
AMB	AMBIENT	FA	FACE AREA OR FROM ABOVE	PSI	POUNDS PER SQUARE INCH
AMS	AIR FLOW MEASURING STATION	FB	FROM BELOW	PSIA	POUNDS PER SQUARE INCH – ABSOLUTE
AO	ANALOG OUTPUT	FCU	FAN COIL UNIT	PSIG	POUNDS PER SQUARE INCH – GAUGE
AP	ACCESS PANEL	FIN	FINAL	QTY	QUANTITY
APD	AIR PRESSURE DROP	FLA	FULL LOAD AMPS	R	RISE
ARCH	ARCHITECTURAL	FLEX	FLEXIBLE	RA	RETURN OR RELIEF AIR
AS	AIR SEPARATOR	FLR	FLOOR	RAE	RETURN AIR ENTHALPY
ASC	APPLICATION SPECIFIC CONTROLLER	FLTR	FILTER	RAH	RETURN AIR HUMIDITY
ATC	AUTOMATIC TEMPERATURE CONTROL	FM	FLOW METERING DEVICE	RAT	RETURN AIR TEMPERATURE
AVG	AVERAGE	FOB	FLAT ON BOTTOM	RC	RECIRCULATION PUMP
AWT	AVERAGE WATER TEMPERATURE	FOT	FLAT ON TOP	REQ	REQUIRED
BAS	BUILDING AUTOMATION SYSTEM	FPM	FEET PER MINUTE	RET	RETURN
BDD	BACKDRAFT DAMPER	FPS	FEET PER SECOND	REV	REVISION
BFP	BACK FLOW PREVENTOR OR BOILER FEED PUMP	FT	FLASH TANK OR FOOT OR FEET	RF	RETURN FAN
BHP	BRAKE HORSEPOWER OR BOILER HORSEPOWER	FTR	FINNED TUBE RADIATION	RG	RETURN GRILLE
BI	BACKWARD INCLINE OR BINARY INPUT	FUT	FUTURE	RHC	REHEAT COIL
BLDG	BUILDING	FXC	FLEXIBLE CONNECTION	RLA	RUN LOAD AMPS
BO	BINARY OUTPUT	GA	GAUGE	RM	ROOM
BOD	BOTTOM OF DUCT OR BASIS OF DESIGN	GPH	GALLONS PER HOUR	RP	RECIRCULATION PUMP
BOP	BOTTOM OF PIPE	GPM	GALLONS PER MINUTE	RPM	REVOLUTIONS PER MINUTE
BOT	BOTTOM	GR	GRILLE	RR	RETURN REGISTER
BRD	BAROMETRIC RELIEF DAMPER	H	HUMIDIFIER	RTU	ROOFTOP UNIT
BT	BLOWDOWN TANK	HC	HEATING COIL	RV	RELIEF VALVE
BTU	BRITISH THERMAL UNIT	HP	HORSEPOWER	SA	SUPPLY AIR
BTUH	BTU PER HOUR	HTG	HEATING	SB	STRUCTURAL BASE
CAP	CAPACITY	HWR	HOT WATER RETURN	SCU	SELF CONTAINED UNIT
CAV	CONSTANT AIR VOLUME	HWS	HOT WATER SUPPLY	SD	SMOKE DAMPER OR DETECTOR
CC	COOLING COIL	IN	INCHES	SEC	SECOND
CD	CEILING DIFFUSER	INT	INTIAL	SEER	EFFICIENCY RATING
CFH	CUBIC FEET PER HOUR	KW	KILOWATT	SENS	SENSIBLE
CFM	CUBIC FEET PER MINUTE	LAT	LEAVING AIR TEMPERATURE	SF	SUPPLY FAN
CH	CHILLER	LB	POUND	SG	SUPPLY GRILLE
CHWR	CHILLED WATER RETURN	LD	LINEAR DIFFUSER	SI	SPRING HANGER
CHWS	CHILLED WATER SUPPLY	LDB	LEAVING DRY BULB TEMPERATURE	SP	STATIC PRESSURE IN WG
CL	COOLING	LF	LINEAR FOOT	SR	SUPPLY REGISTER
CLG	CEILING	LG	LINER GRILLE	SRC	SUPPLY ENERGY RECOVERY COIL
COL	COLUMN	LOC	LOCATION	SRV	SAFETY RELIEF VALVE
CONC	CONCRETE OR CONCENTRATION	LRA	LOCKED ROTOR AMPS	SUP	SUPPLY
COND	CONDENSATE (STEAM OR COOLING COIL)	LVG	LEAVING	TA	TRANSFER AIR
CONN	CONNECTION	LWB	LEAVING WET BULB TEMPERATURE	TAD	TRANSFER AIR DUCT
CONT	CONTINUATION	LWT	LEAVING WATER TEMPERATURE	TG	TRANSFER GRILLE
CT	COOLING TOWER	MAX	MAXIMUM	TH	THERMOMETER
CU	CONDENSING UNIT	MCB	MODULAR BUILDING CONTROLLER	TOD	TOP OF DUCT
CUH	CABINET UNIT HEATER	MBH	1000 BTU PER HOUR	TOP	TOP OF PIPE
CV	COEFFICIENT OF CAPACITY	MC	MECHANICAL CONTRACTOR	TOT	TOTAL
CWR	CONDENSER WATER RETURN	MCC	MOTOR CONTROL CENTER	TP	TRANSFER PUMP
CWS	CONDENSER WATER SUPPLY	MECH	MECHANICAL	TSP	TOTAL STATIC PRESSURE
D	DROP	MER	MECHANICAL EQUIPMENT ROOM	TTS	TIGHT TO STRUCTURE
DB	DRY BULB	MFR	MANUFACTURER	TYP	TYPICAL
DC	DRY COOLER	MIN	MINIMUM OR MINUTE	UNO	UNLESS NOTED OTHERWISE
DDC	DIRECT DIGITAL CONTROL	MOCP	MAXIMUM OVER–CURRENT PROTECTION	VAV	VARIABLE AIR VOLUME
DIA	DIAMETER	MOD	MOTOR OPERATED DAMPER	VD	VOLUME DAMPER
DISC	DISCONNECT	MODU	MODULATING	VEL	VELOCITY
DISCH	DISCHARGE	MXB	MODULATING MIXING BOX	VFD	VARIABLE FREQUENCY DRIVE
DN	DOWN	N	NEW	VIB	VIBRATION
DS	DISCONNECT SWITCH	NC	NORMALLY CLOSED	VIV	VARIABLE INLET VALVES
EA	EXHAUST AIR OR EACH	NG	NATURAL GAS	VVT	VARIABLE VOLUME AND TEMPERATURE
EAT	ENTERING AIR TEMPERATURE	NIC	NOT IN CONTRACT	W/	WITH
EDB	ENTERING DRY BULB TEMPERATURE	NO	NORMALLY OPEN OR NUMBER	W/O	WITHOUT
EF	EXHAUST FAN	NTS	NOT TO SCALE	WB	WET BULB
EFF	EFFICIENCY	OA	OUTSIDE AIR		
EG	EXHAUST GRILLE	OAI	OUTSIDE AIR INTAKE		

SYMBOL LEGEND

	DEMOLITION WORK
	EXISTING WORK
	PROPOSED WORK
	POINT OF CONNECTION NEW-TO-EXISTING
	EXTENT OF DEMOLITION NEW TO-EXISTING WORK TO REMAIN
	BREAK LINE (SINGLE LINE)
	FLOW ARROW
	AIR FLOW DIRECTION - EXHAUST
	EQUIPMENT DESIGNATIONS (REFER TO SCHEDULES AND/OR SPECS)
	AIR DEVICE DESIGNATIONS (REFER TO SCHEDULES AND/OR SPECS)
	PIPING RISING
	PIPING DROPPING DOWN
	TEE OUTLET DOWN
	PIPING ANCHOR
	PIPING GUIDE
	UNION
	FLOW METER
	STRAINER
	THERMOMETER
	GAUGE
	2-POSITION VALVE
	CONTROL VALVE
	THREE WAY CONTROL VALVE
	BALL VALVE
	BUTTERFLY VALVE
	GATE VALVE
	CHECK VALVE
	MOTOR
	PIPE/DUCT CAP
	MOTOR OPERATOR
	VARIABLE FREQUENCY DRIVE
	LOUVER W/CFM
	SMOKE DAMPER W/ ACCESS DOOR
	MOTOR OPERATED DAMPLER W/ ACCESS DOOR
	VOLUME DAMPER

GRAPHIC SYMBOLS



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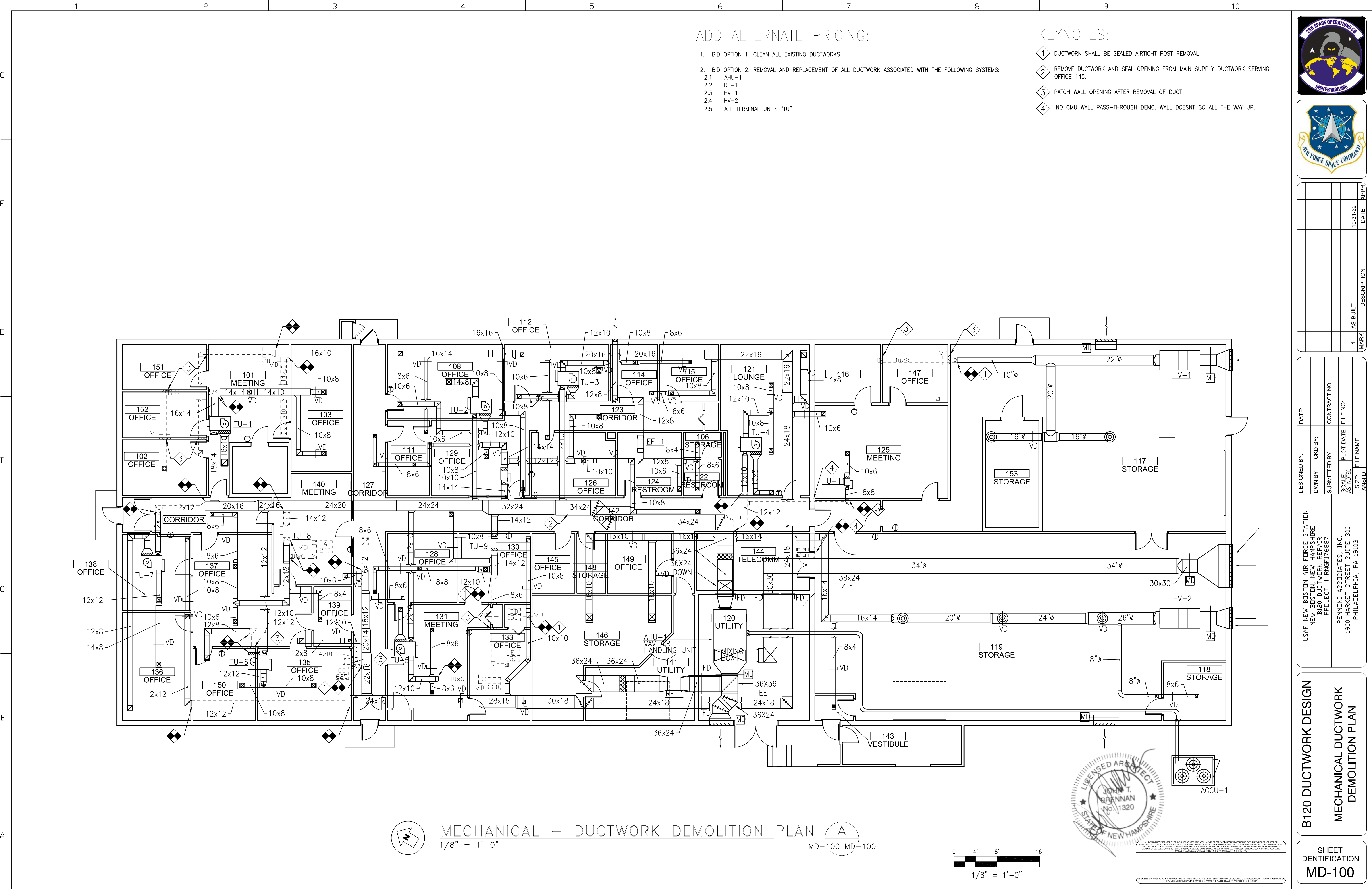
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USAF NEW BOSTON AIR FORCE STATION NEW HAMPSHIRE B120 DUCT WORK REPAIR PROJECT # WNGF176987	DESIGNED BY:	DATE:
	DWN BY:	OKD BY:
	SUBMITTED BY:	CONTRACT NO:
BENNETT ASSOCIATES, INC. 1900 MARKET STREET SUITE 300 PHILADELPHIA, PA 19103	SCALE: AS SHOWN	PLOT DATE:
	FILE NAME:	FILE NO:
	ANSI:	

B120 DUCTWORK DESIGN

SHEET
IDENTIFICATION
M-002



MARK	DESCRIPTION	DATE	APPR
1	AS-BUILT	10-31-22	

DESIGNED BY:	DATE:	CONTRACT NO:	FILE NO:
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USAF NEW BOSTON AIR FORCE STATION NEW BOSTON, NEW HAMPSHIRE B120 DUCTWORK REPAIR PROJECT # RNF176887	PENNINI ASSOCIATES, INC. 1900 MARKET STREET SUITE 300 PHILADELPHIA, PA 19103
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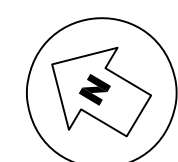
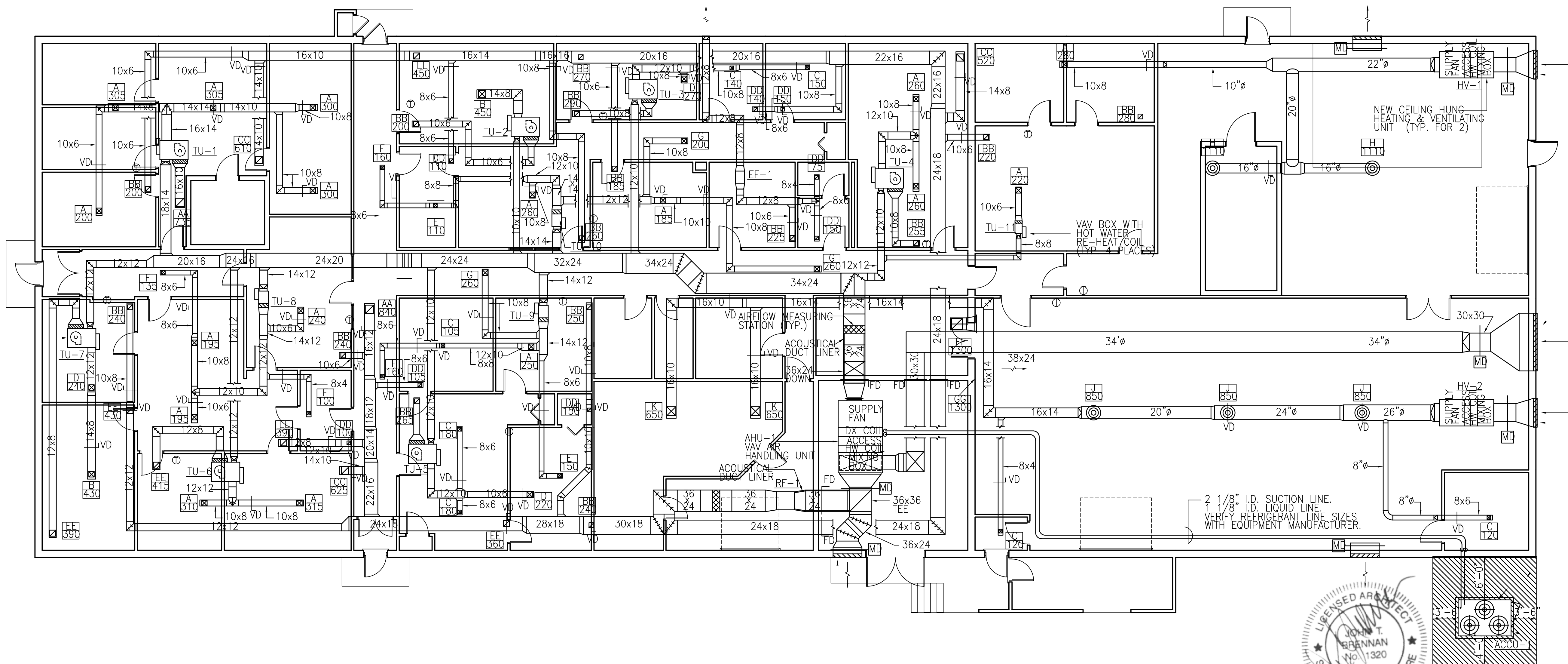
B120 DUCTWORK DESIGN

MECHANICAL DUCTWORK
DEMOLITION PLAN

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1. FOR REFERENCE ONLY. EXISTING PLAN DOES NOT REFLECT ASBUILT CONDITIONS. VERIFY IN FIELD
2. EXISTING DIFFUSERS THAT ARE NOT MODIFIED UNDER THIS PROJECT SHALL BE BALANCED TO VALUES SHOWN HERE

XX	←	EXISTING AIR TERMINAL DESIGNATION
XX	←	EXISTING AIR TERMINAL VOLUME (CFM)

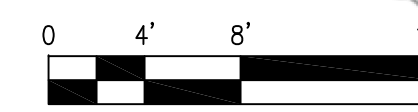


MECHANICAL – EXISTING DUCTWORK FOR REFERENCE
1/8" = 1'-0"

E

A

MH-101 | MH-101


$$1/8'' = 1'-0''$$
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B120 DUCTWORK DESIGN

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