

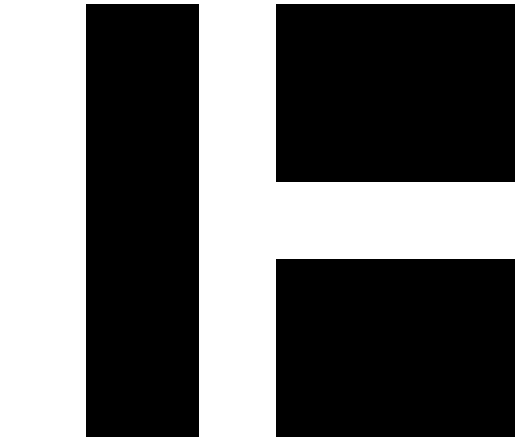
GENERAL NOTES

- 1 VISIT THE BUILDING SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS, AND TO TAKE MEASUREMENTS AS NECESSARY FOR COMPLETION OF THE WORK ASSOCIATED WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS.
- 2 COORDINATE WORK OF MECHANICAL SUBCONTRACTOR WITH WORK OF OTHER TRADES.
- 3 DUCTWORK, PIPING AND EQUIPMENT ARE INDICATED DIAGRAMMATICALLY. FIELD-VERIFY LOCATIONS.
- 4 PRIOR TO FABRICATING DUCTWORK, COORDINATE WITH OTHER TRADES TO ENSURE THAT THE DUCTWORK CAN BE INSTALLED WITH THE INDICATED SIZES AND LOCATIONS FIELD-VERIFY EXISTING DUCT SIZES AND CONDITIONS SUBMIT ANY DISCREPANCIES OR PROPOSED CHANGES.
- 5 REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR LOCATIONS OF CEILING DIFFUSERS AND REGISTERS.PROVIDE VOLUME DAMPERS SO THAT EVERY REGISTER, GRILLE AND DIFFUSER (SUPPLY, RETURN, AND EXHAUST) CAN BE INDIVIDUALLY BALANCED.
- 6 VERIFY INSTALLATION OF EXISTING VOLUME DAMPERS AT EACH BRANCH IN EXISTING SUPPLY DUCT. PROVIDE ADDITIONAL VOLUME DAMPERS WHERE REQUIRED.
- 7 LOCATE VOLUME DAMPERS AS FAR AWAY FROM REGISTERS, GRILLES AND DIFFUSERS AS POSSIBLE TO MINIMIZE NOISE. LOCATE TO BE UNOBSTRUCTED AND EASILY ACCESSIBLE FOR TESTING AND BALANCING. LOCATE POSSIBLE. WHERE VOLUME DAMPERS MUST BE LOCATED ABOVE HARD CEILINGS SUCH AS GYPSUM WALLBOARD, PROVIDE ACCESS PANELS AS SPECIFIED, AND NOTIFY THE ARCHITECT OF SUCH LOCATIONS VERBALLY AND IN WRITING. OBTAIN PERMISSION FROM THE ARCHITECT BEFORE INSTALLING ACCESS PANELS.
- 8 DUCT ELBOWS SHALL BE LONG-RADIUS TYPE (THROAT RADIUS EQUAL TO OR GREATER THAN DUCT WIDTH IN THE PLANE OF THE TURN) WHEREVER SPACE ALLOWS. IF SPACE IS NOT ADEQUATE, PROVIDE MITERED ELBOWS WITH TURNING VANES.
- 9 PROVIDE 16 GAUGE SINGLE-THICKNESS TURNING VANES AT MITERED DUCT ELBOWS. VANE EDGES (LEADING AND TRAILING) SHALL BE TANGENTIAL TO AIRFLOW.
- 10 FLEXIBLE DUCT LENGTHS SHALL NOT EXCEED 5'-0"
- 11 PAINT DUCTWORK VISIBLE THRU CEILING OPENINGS, DUCT OPENINGS, AND REGISTERS, GRILLES, AND DIFFUSERS WITH BLACK PAINT IN ACCORDANCE WITH DIVISION 09 SECTION "PAINTING."
- 12 MOUNT THERMOSTATS AND TEMPERATURE AND HUMIDITY SENSORS AT 48 INCHES AFF TO TOP OF ITEM. PROVIDE ELECTRICAL WALL BOX ATTACHED TO FRAMING.
- 13 WHERE THERMOSTATS/TEMPERATURE SENSORS ARE LOCATED NEAR LIGHT SWITCHES, INSTALL SO THAT LIGHT SWITCHES ARE NEARER TO THE DOOR JAMBS. THE INTENT IS TO LOCATE THERMOSTATS/ TEMPERATURE SENSORS SO THEY WILL NOT INTERFERE WITH ACCESSIBILITY OF LIGHT SWITCHES.
- 14 PIPING INDICATED IN OUTSIDE WALLS SHALL BE RUN ON THE WARM SIDE OF BUILDING INSULATION AND VAPOR BARRIER. BUILDING INSULATION BEHIND SUCH PIPING SHALL BE CONTINUOUS, WITHOUT JOINTS OR GAPS.
- 15 PIPING SHALL BE CONCEALED EXCEPT IN MECHANICAL ROOMS AND AS INDICATED. WHERE PIPES DROP IN BLOCK WALLS, PROVIDE 1/2" THICK INSULATION MINIMUM.
- 16 SEAL DUCTWORK AND PIPING THRU MECHANICAL ROOM FLOORS AND PARTITIONS, AND THRU FIRE-RATED ASSEMBLIES, WITH FIRESTOP MATERIAL AS SPECIFIED.

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
ACV	AUTOMATIC CONTROL VALVE	LAT	LEAVING AIR TEMPERATURE
AFF	ABOVE FINISHED FLOOR	LPCR	LOW PRESSURE CONDENSATE RETURN (LESS THAN 15 PSIG)
AFG	ABOVE FINISHED GRADE	LPS	LOW PRESSURE STEAM(LESS THAN 15 PSIG)
ALD	ACOUSTICAL LINED DUCT	LRA	LOCKED ROTOR AMPS
AMS	AIRFLOW MEASURING STATION	LSGV	LOCK & SHIELD GATE VALVE
APD	AIR PRESSURE DROP	LWT	LEAVING WATER TEMPERATURE
ATC	AUTOMATIC TEMPERATURE CONTROL		
		M	MOTORIZED DAMPER
B	BAROMETRIC DAMPER	MAX	MAXIMUM
BD	BACKDRAFT DAMPER	MBH	1000 BRITISH THERMAL UNITS
BHP	BRAKE HORSEPOWER	MCA	MINIMUM CIRCUIT AMPS
BPD	BYPASS DAMPER	MIN	MINIMUM
BTU	BRITISH THERMAL UNITS	MOPD	MAXIMUM OVERCURRENT PROTECTIVE DEVICE
		MPCR	MEDIUM PRESSURE CONDENSATE RETURN(16-30 PSIG)
CBD	COUNTERBALANCED BACKDRAFT DAMPER	MPS	MEDIUM PRESSURE STEAM (16-30 PSIG)
CFM	CUBIC FEET PER MINUTE		
CHWR	CHILLED WATER RETURN	NA	NOT APPLICABLE
CHWS	CHILLED WATER SUPPLY	NC	NOISE CRITERIA
CO	CLEANOUT	NIC	NOT IN CONTRACT
CTE	CONNECT TO EXISTING	NO	NORMALLY OPEN
CWR	CONDENSER WATER RETURN	NTS	NOT TO SCALE
CWS	CONDENSER WATER SUPPLY		
		OA	OUTSIDE AIR
DCW	DOMESTIC COLD WATER	OC	ON CENTER
DEG F	DEGREES FAHRENHEIT	OED	OPEN END DUCT
DHW	DOMESTIC HOT WATER	OS&Y	OUTSIDE SCREW & YOKE GATE VALVE
DIA	DIAMETER		
DN	DOWN	PD	PRESSURE DROP
		PRD	PRESSURE RELIEF DAMPER
EAT	ENTERING AIR TEMPERATURE	PRV	PRESSURE REDUCING VALVE
ESP	EXTERNAL STATIC PRESSURE	PSI	POUNDS PER SQUARE INCH
EWT	ENTERING WATER TEMPERATURE		
EXG	EXISTING	RET	RETURN
EXH	EXHAUST	RET	RETURN
		RL	RIFRIGERANT LIQUID
F&T	FLOAT & THERMOSTATIC TRAP	RLA	RATED LOAD AMPERES
FD	FIRE DAMPER	RPM	REVOLUTIONS PER MINUTE
FL	FINNED LENGTH OF RADIATION	RS	REFRIGERANT SUCTION
FM	FLOW METER		
FOR	FUEL OIL RETURN	S	SMOKE DAMPER
FOS	FUEL OIL SUPPLY	S/F	SMOKE AND FIRE COMBINATION DAMPER
FPF	FINS PER FOOT	SP	STATIC PRESSURE
FPi	FINS PERINCH	SS	STAINLESS STEEL
FFM	FEET PER MINUTE	SUP	SUPPLY
FT	FEET		
FT-HD	FEET OF HEAD	TEMP	TEMPERATURE
FT-WG	FEET WATER GAUGE	TT	THERMOSTATIC TRAP
FTR	FIN TUBE RADIATOR	TYP	TYPICAL
GAL	GALLONS	V	VOLUME DAMPER
GPM	GALLONS PER MINUTE	VFD	VARIABLE FREQUENCY DRIVE
HP	HORSEPOWER	W/	WITH
HPCR	HIGH PRESSURE CONDENSATE RETURN (OVER 30 PSIG)	W/O	WITHOUT
HPS	HIGH PRESSURE STEAM (OVER 30PSIG)	WC	WATER COLUMN
HRR	HEAT RECOVERY RETURN	WG	WATER GAUGE
HRS	HEAT RECOVERY SUPPLY	WPD	WATER PRESSURE DROP
HWR	HOT WATER RETURN	WWMS	WELDED WIRE MESH SCREEN
HWS	HOT WATER SUPPLY		
		Z	ZONE DAMPER
IN	INCHES		
		PREFIX OF X	EXISTING

SYMBOL	DESCRIPTION
	EXISTING EQUIPMENT TO REMAIN
	NEW EQUIPMENT
	EXISTING SUPPLY PIPING TO REMAIN
	EXISTING RETURN PIPING TO REMAIN
	EXISTING DUCTWORK TO REMAIN
	NEW DUCTWORK
	NEW SUPPLY PIPING
	NEW RETURN PIPING
	ACOUSTICALLY LINED DUCT
	ACV 2 - WAY
	ACV 3 - WAY
	AIRFLOW MEASURING STATION
	BALANCE VALVE
	BACKDRAFT DAMPER
	CAP - PIPE
	CHECK VALVE
	COMBINATION BALANCING, FLOW MEASURING & TIGHT SHUT-OFF VALVE
	COUNTERBALANCED DAMPER
	DIFFERENTIAL PRESSURE SENSOR
	DUCT DIAMETER
	DUCT SECTION - SUPPLY/OUTDOOR AIR
	DUCT SECTION - RETURN AIR
	DUCT SECTION - EXHAUST AIR
	DUCT TURNING VANES
	FIRE DAMPER (1 1/2 HOUR RATED)
	FIRE DAMPER (3 HOUR RATED)
	FLEXIBLE DUCT
	FLOAT & THERMOSTATIC TRAP
	ISOLATION VALVE
	GLOBE VALVE
	HUMIDISTAT
	HUMIDITY SENSOR
	INVERTED BUCKET TRAP
	LOCKSHIELD GATE VALVE
	LOUVER
	MANUAL AIR VENT
	MOTORIZED DAMPER
	OS&Y GATE VALVE
	PETCOCK FOR GAUGE CONNECTION
	PIPE ANCHOR
	PIPE DOWN
	PIPE UP
	PIPE GUIDE
	PITCH DOWN
	PLUG VALVE

SYMBOL	DESCRIPTION
	PRESSURE GAUGE
	PRESSURE REDUCING VALVE
	PRESSURE RELIEF VALVE
	PRESSURE RELIEF DAMPER
	RADIATION I.D. ( TYPE A, 10'-0" FINNED LENGTH, 10,000 BTU/HR) WITH DAMPER
	RADIATION I.D. ( TYPE A, 10'-0" FINNED LENGTH, 10,000 BTU/HR) WITHOUT DAMPER
	REFRIGERANT SUCTION GAUGE PORT
	REFRIGERANT CHARGING PORTS
	REFRIGERANT EXPANSION VALVE
	REFRIGERANT MOISTURE INDICATOR
	REFRIGERANT SOLONOID VALVE
	REFRIGERANT "SHUT OFF" VALVE
	REDUCER - CONCENTRIC
	REDUCER - ECCENTRIC
	RETURN AIR
	SECTION I.D. ( SECTION A SHOWN ON DWG. M10.1)
	SMOKE DAMPER
	DUCT MOUNTED SMOKE DETECTOR
	STRAINER
	STATIC PRESSURE SENSOR
	SUPPLY AIR
	TAKE - OFF FROM BOTTOM OF PIPE
	TAKE - OFF FROM TOP OF PIPE
	TEMPERATURE SENSOR
	THERMOMETER
	THERMOMETER WELL
	THERMOSTAT
	THERMOSTAT COOLING
	THERMOSTAT HEATING
	THERMOSTAT - NIGHT
	THERMOSTAT - HEATING/COOLING
	THERMOSTATIC TRAP
	UNION
	VOLUME DAMPER
	S (SUPPLY) R (RETURN) E (EXHAUST) T (TRANSFER) SUPPLY DIFFUSER ( TYPE 2 )
	DIFFUSER DESCRIPTION ( SEE REG., GRILLES & DIFF SCHEDULE )
	QUANTITY
	400 CFM EA



AUBURN PORTLAND PORTSMOUTH BOSTON

SAINT ANSELM COLLEGE  
LOWER LEVEL COOLING  
CARR CENTER

MANCHESTER, NEW HAMPSHIRE

Harriman Project No. 17343

Key Plan

Proj North



Issues and Revisions	
Date	Description
03-23-17	DESIGN DEVELOPMENT
04-18-17	100% REVIEW

PRELIMINARY  
NOT FOR  
CONSTRUCTION

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MECHANICAL LEGEND &  
GENERAL NOTES

M00.1