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west elm
 Downtown Portland
 164 Middle Street
 Portland, ME 04101
 PROJECT # 006-160335-00

ISSUED / REVISED	DATE
PRELIMINARY SET	09/08/16
LL COORDINATION SET	11/08/16
LL/PERMIT SET	11/21/16

MECH INFORMATION AND DRAWING LIST-MECHANICAL

M-001

GENERAL NOTES - MECHANICAL

- VERIFY ALL CONNECTIONS TO EXISTING WORK.
- CONTRACTORS SHALL VISIT SITE AND BE FULLY COGNIZANT OF ALL CONDITIONS PRIOR TO SUBMITTING PROPOSAL.
- DURING ENTIRE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL MAINTAIN ADEQUATE FIRE EXTINGUISHERS READY FOR USE IN CASE OF FIRE.
- PROTECTION OF PUBLIC: THE CONTRACTOR SHALL PROTECT THE PUBLIC FROM INJURY DURING PROGRESS OF THE WORK BY POSTING WARNING SIGNS, GUARD LIGHTS AND BARRICADES.
- THE CONTRACTOR SHALL COORDINATE ALL ELECTRICAL & PLUMBING CHARACTERISTICS WITH ALL SUB CONTRACTOR. ALL ELECTRICAL APPARATUS SERVING THE MECHANICAL EQUIPMENT SHALL FULLY COMPLY WITH ELECTRICAL AND CONTROL REQUIREMENTS.
- OBTAIN WRITTEN PERMISSION OF ARCHITECT BEFORE PROCEEDING WITH ANY CUTTING OR PATCHING OF STRUCTURAL SYSTEMS.
- FURNISH AND INSTALL MATERIALS, EQUIPMENT AND LABOR AS SHOWN AND AS NECESSARY FOR COMPLETE WORKABLE SYSTEMS.
- RESTORE ALL DAMAGE RESULTING FROM YOUR WORK AND LEAVE PREMISES IN CLEAN CONDITION WHEN FINISHED WITH WORK.
- PROVIDE TWO SETS OF "AS-BUILT" DRAWINGS AND TWO BOUND SETS OF ALL OPERATIONS MANUALS, DIAGRAMS, SERVICE CONTRACTS, GUARANTEES, ETC. TO THE PROPERTY MANAGER. PROVIDE ONE SET OF "AS-BUILT" DRAWINGS TO ARCHITECT.
- WHERE APPLICABLE, THERMOSTATS SHALL BE ABLE TO:
 - MAINTAIN SPACE TEMPERATURE SET POINTS FROM 55 DEGREES TO 85 DEGREES.
 - SEQUENCE HEATING AND COOLING AND PROVIDE A 5 DEGREE DEADBAND IN WHICH NO HEATING OR COOLING IS PROVIDED TO THE SPACE.
- PROVIDE THE MANUFACTURERS AND CODE REQUIRED CLEARANCES BETWEEN EQUIPMENT CONTROLS AND BEAMS, PIPES, DUCTS, LIGHT FIXTURES, CONDUITS, WALLS OR OTHER OBSTRUCTIONS.
- THERMOSTAT HEIGHT SHALL BE 48" ABOVE FINISHED FLOOR IN MANAGER'S OFFICE. LOCATIONS OF REMOTE TEMPERATURE SENSORS IN SALES AREA ARE TO BE APPROVED BY PM.
- ALL PIPE AND DUCT INSULATION SHALL MEET THE REQUIREMENTS OF THE LOCAL ENERGY CODE.
- MECHANICAL SYSTEM CONTROLS SHALL MEET THE REQUIREMENT OF THE LOCAL ENERGY CODE AND BE ABLE TO INTERFACE WITH EXISTING BUILDING CODE.
- PROVIDE REQUIRED DUCT AND PIPING INSULATION PER THE LOCAL ENERGY CODE.
- CONTRACTOR SHALL PROVIDE ALL CODE REQUIRED MECHANICAL EQUIPMENT AND PIPE SEISMIC RESTRAINT. THE SEISMIC RESTRAINTS SHALL BE DESIGNED AND STAMPED BY A LICENSED STRUCTURAL ENGINEER IN THE STATE OF THE PROJECT.
- ALL RIGID ROUND OR OVAL DUCT SHALL BE SPIRAL WOUND, TYPICAL.

ABBREVIATIONS

ARCH	ARCHITECT	KW	KILOWATT
BHP	BRAKE HORSEPOWER	(L)	ACOUSTICALLY LINED
BTU	BRITISH THERMAL UNIT	MBH	THOUSAND BTU PER HOUR
BTUH	BTU PER HOUR	MD	MOTORIZED DAMPER
BV	BALL VALVE OR BALANCING VALVE	MECH	MECHANICAL
BYV	BUTTERFLY VALVE	MFR	MANUFACTURER
		MIN	MINIMUM
CFM	CUBIC FEET PER MINUTE	(N)	NEW
CFS	CUBIC FEET PER SECOND	NTS	NOT TO SCALE
CL	CENTERLINE	OA	OUTSIDE AIR
CLG	CLEANOUT	OAD	OUTSIDE AIR DAMPER
COL	COLUMN	OAT	OUTSIDE AIR TEMPERATURE
CONC	CONCRETE	OBD	OPPOSED BLADE DAMPER
COND	CONDENSATE	OD	OUTSIDE DIAMETER
CONN	CONNECTION	OSA	OUTSIDE AIR
CP	CONDENSATE PUMP	OV	OUTLET VELOCITY
CR	CONDENSATE RETURN		
CS	CIRCUIT SETTER	P	PUMP OR PRESSURE OR POLE
CTE	CONNECT TO EXISTING	PC	PUMPED CONDENSATE
CU FT	CUBIC FEET	PD	PRESSURE DROP
CU IN	CUBIC INCH	PF	PREFILTER
CV	CONSTANT VOLUME	PH	PHASE (ELECTRICAL)
CW	COLD WATER	PLBG	PLUMBING
		POC	POINT OF CONNECTION
D	DROP OR DRAIN	PRV	PRESSURE REDUCING VALVE
DBT	DRY BULB TEMPERATURE	PS	PRESSURE SENSOR
DDC	DIRECT DIGITAL CONTROL	PSI	POUNDS PER SQUARE INCH
DEFL	DEFLECTION	PSIG	PSI GAUGE
DGP	DATA GATHERING PANEL		
DIA	DIAMETER	QTY	QUANTITY
DIFF	DIFFERENCE	RA	RETURN AIR
DN	DOWN	RAD	RETURN AIR DAMPER
DP	DIFFERENTIAL PRESSURE	REV.	REVISE OR REVISION
DPT	DEW POINT TEMPERATURE		
DSD	DUCT SMOKE DETECTOR		
DV	DIAPHRAGM VALVE	RF	RETURN FAN
DWG	DRAWING(S)	RH	RELATIVE HUMIDITY
DX	DIRECT EXPANSION	RM	ROOM
		RPM	REVOLUTIONS PER MINUTE
(E)	EXISTING	S	TEMPERATURE SENSOR
EA	EXHAUST AIR OR EACH	SCFM	CFM, STANDARD CONDITIONS
EAD	EXHAUST AIR DAMPER	SD	SMOKE DAMPER
EAT	ENTERING AIR TEMPERATURE	SF	SUPPLY FAN
ECON	ECONOMIZER	SN	SHEET NOTE
ED	EXTRACTOR DAMPER	SP	STATIC PRESSURE
EDB	ENTERING DRY BULB TEMPERATURE	SPEC	SPECIFICATIONS
EF	EXHAUST FAN	SQ IN	SQUARE INCH
EFF	EFFICIENCY	ST	STRAINER OR SOUND TRAP
		STD	SPLITTER DAMPER OR STANDARD
		STRUCT	STRUCTURAL
ELEC	ELECTRICAL	T	THERMOMETER OR THERMOSTAT
EMS	ENERGY MANAGEMENT SYSTEM	TOP	TEMPERATURE CONTROL PANEL
EQUIP	EQUIPMENT	TD	TRANSFER DUCT
ESP	EXTERNAL STATIC PRESSURE	TDH	TOTAL DYNAMIC HEAD
EWBT	ENTERING WET BULB TEMPERATURE	TEMP	TEMPERATURE
EWT	ENTERING WATER TEMPERATURE	TI	TENANT IMPROVEMENT
EX	EXISTING	TRG	TRANSFER GRILLE
EXH	EXHAUST	TS	TEMPERATURE SENSOR
EXT	EXTERNAL	TT	TEST TAP OR TEST TEE
		TYP	TYPICAL
F	FAHRENHEIT OR FILTER	V	VENT OR VOLT OR VELOCITY
FC	FLEXIBLE CONNECTION	VAV	VARIABLE AIR VOLUME
		VD	VOLUME DAMPER
FD	FIRE DAMPER	VEL	VELOCITY
FF	FINAL FILTER OR FINISHED FLOOR	VERT	VERTICAL
FLR	FLOOR	VFD	VARIABLE FREQUENCY DRIVE
FPM	FEET PER MINUTE	VOL	VOLUME
FPS	FEET PER SECOND	W	WASTE OR WIDTH OR WATTS
FSD	FIRE/SMOKE DAMPER	W/	WITH
FT	FOOT OR FEET	W/O	WITHOUT
		WBT	WET BULB TEMPERATURE
G	GAS	WG	WATER GAUGE
GA	GALVE, GAGE		
GAL	GALLONS		
GALV	GALVANIZED		
GPM	GALLONS PER MINUTE		
H	HEIGHT		
HB	HOSE BIB		
HC	HEATING COIL		
HD	HEAD		
HOR	HORIZONTAL		
HP	HORSEPOWER OR HEAT PUMP		
HR	HOUR(S)		
HVAC	HEATING, VENTILATING & AIR COND.		
HW	HOT WATER		
HWR	HOT WATER RETURN		
HWS	HOT WATER SUPPLY		

MECHANICAL DRAWING LIST

M-001	MECH INFORMATION AND DRAWING LIST - MECHANICAL
M-002	HVAC SCHEDULES
M-003	HVAC CALCULATIONS
M-004	HVAC CALCULATIONS
M-110	OVERALL HVAC PLAN
M-111	PARTIAL FIRST FLOOR HVAC PLAN
M-112	PARTIAL FIRST FLOOR HVAC PLAN
M-120	BASEMENT HVAC PLAN
M-301	MECHANICAL DETAILS
M-901	SPECIFICATIONS - MECHANICAL
M-902	SPECIFICATIONS - MECHANICAL
M-903	SPECIFICATIONS - MECHANICAL

HVAC LEGEND

SYMBOL (DOUBLE LINE)	DESCRIPTION
	NEW WORK
	EXISTING WORK
	DEMO WORK
	FLEXIBLE DUCT RUNOUT TO DIFFUSER
	DUCT SIZE (WIDTH X DEPTH)
	VOLUME DAMPER
	SUPPLY DUCT UP
	SUPPLY DUCT DOWN
	EXHAUST DUCT UP
	EXHAUST DUCT DOWN
	RETURN DUCT UP
	RETURN DUCT DOWN
	CROSS SECTION OF SUPPLY DUCT
	CROSS SECTION OF EXHAUST AIR DUCT
	CROSS SECTION OF RETURN AIR DUCT
	CROSS SECTION OF ROUND DUCT
	DUCT ELBOW WITH TURNING VANES
	DUCT ELBOW WITHOUT TURNING VANES
	ACOUSTICAL LINING DUCT DIMENSION IS ID
	TRANSFER DUCT (WITH LINER)
	ROUND OR SQUARE CEILING SUPPLY DIFFUSER (SEE SCHEDULE) 4-WAY THROW UNLESS INDICATED OTHERWISE.
	ROUND OR SQUARE CEILING EXHAUST REGISTER (SEE SCHEDULE)
	ROUND OR SQUARE CEILING RETURN REGISTER (SEE SCHEDULE)
	ROUND OR SQUARE CEILING RETURN GRILLE (SEE SCHEDULE)
	ROUND OR SQUARE CEILING RETURN GRILLE (SEE SCHEDULE)
	ROUND OR SQUARE CEILING RETURN GRILLE (SEE SCHEDULE)
	WALL SUPPLY/RETURN REGISTER (SEE SCHEDULE)
	SOFFIT SUPPLY DIFFUSER (SEE DETAIL 2 ON M12.01)
	COMBINATION FIRE/SMOKE DAMPER
	OCCUPANCY SENSOR TIED TO BMS SYSTEM
	DETAIL 1, DRAWING M-1
	EQUIPMENT IDENTIFICATION HEAT PUMP UNIT #1
	COLD WATER
	HOT WATER (120°F)
	HOT WATER CIRC (120°F)
	BALL VALVE
	WATER FLOW METER
	METER TAG