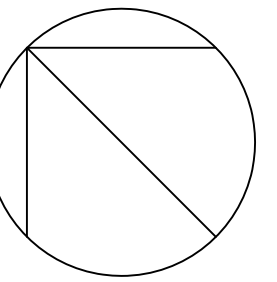


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City of Portland  
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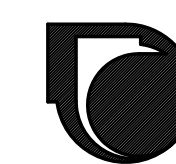
REVISIONS

ISSUED FOR CONSTRUCTION  
August 25, 2014

Mechanical Schedules  
Mechanical Notes  
Mechanical Legends

Scale: NO SCALE

M3



MECHANICAL SYSTEMS ENGINEERS  
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## HVAC UNIT SCHEDULE

TAG	MANUFACTURER AND MODEL	NOMINAL SIZE	CFM	ESP	COOLING					HEATING			ELECTRIC			WEIGHT	REMARKS	
					TYPE	REFRIGERANT	TOTAL	SENSIBLE	SEER	FUEL	INPUT	OUTPUT	STAGES	POWER	MCA			MOP
HVAC-1	TRANE YSC060	5 TONS	2,000	0.5"	DX	410A	54.1 MBH	48.1 MBH	13.0	NAT. GAS	80.0 MBH	64.0 MBH	2	208/60/3	21.4	40	613 LBS	WITH FACTORY DISCONNECT, ROOF CURB, ECONOMIZER, BAROMETRIC RELIEF, RETURN AIR SMOKE DETECTOR, THROUGH-THE-CURB ELECTRIC AND GAS

FIELD CONFIRM

## HEAT RECOVERY UNIT SCHEDULE

TAG	MANUFACTURER AND MODEL	RECOVERY TYPE	EFFECTIVENESS			WINTER O.A.		EXHAUST AND SUPPLY		ELECTRIC				WEIGHT	REMARKS
			SENSIBLE	WINTER	SUMMER	TEMP.	GRAINS	EXHAUST	SUPPLY	POWER	FLA	MCA	MOP		
ERV-1	RENEVAIRE HEIXIN ECM	CORE	72%	68%	58%	-5	2.5	700	750	208/60/1	5.1	11.5	15	211 LBS	WITH MERV 8 2" PLEATED FILTERS, FUSED DISCONNECT, MOTORIZED FA4EA DAMPERS AND ECM MOTORS
ERV-2	RENEVAIRE HEIXIN ECM	CORE	72%	68%	58%	-5	2.5	700	750	208/60/1	5.1	11.5	15	211 LBS	WITH MERV 8 2" PLEATED FILTERS, FUSED DISCONNECT, BACK DRAFT DAMPERS AND ECM MOTORS
ERV-3	RENEVAIRE HEIXIN ECM	CORE	72%	68%	58%	-5	2.5	700	750	208/60/1	5.1	11.5	15	211 LBS	WITH MERV 8 2" PLEATED FILTERS, FUSED DISCONNECT, BACK DRAFT DAMPERS AND ECM MOTORS
ERV-4	RENEVAIRE HEIXIN ECM	CORE	72%	68%	58%	-5	2.5	700	750	208/60/1	5.1	11.5	15	211 LBS	WITH MERV 8 2" PLEATED FILTERS, FUSED DISCONNECT, BACK DRAFT DAMPERS AND ECM MOTORS

FIELD CONFIRM

DEDUCT IN ALTERNATE #1 ERV-2,3&4

## FAN SCHEDULE

TAG	MANUFACTURER & MODEL	TYPE	CFM EXHAUST	ESP	WEIGHT	ELECTRIC		REMARKS	CONTROL
						POWER	HP		
EF-1	GREENHECK RBUB01H	AXIAL UPBLAST	10,000	0.2"	200 LBS	208/60/3	1.0	WITH INSULATED ROOF CURB, NEMA DISCONNECT	ENERGIZED BY CO, NO2 AND/OR WALL SWITCH
EF2	GREENHECK RBUB01H	AXIAL UPBLAST	10,000	0.2"	200 LBS	208/60/3	1.0	WITH INSULATED ROOF CURB, NEMA DISCONNECT	ENERGIZED BY CO, NO2 AND/OR WALL SWITCH
EF-3	GREENHECK RBUB01H	AXIAL UPBLAST	10,000	0.2"	200 LBS	208/60/3	1.0	WITH INSULATED ROOF CURB, NEMA DISCONNECT	ENERGIZED BY CO, NO2 AND/OR WALL SWITCH
EF-4	GREENHECK SE12	PROPELLER	750	0.2"	200 LBS	115/60/1	1/12	WITH GRAVITY SHUTTER AND WALL COLLAR	ON WITH DISCONNECT SWITCH 24/1/365
EF-5	GREENHECK SE12	PROPELLER	750	0.2"	200 LBS	115/60/1	1/12	WITH GRAVITY SHUTTER AND WALL COLLAR	ON WITH DISCONNECT SWITCH 24/1/365
EF-6	GREENHECK SE12	PROPELLER	750	0.2"	200 LBS	115/60/1	1/12	WITH GRAVITY SHUTTER AND WALL COLLAR	ON WITH DISCONNECT SWITCH 24/1/365

FIELD CONFIRM

ADD IN ALTERNATE #1 EF-4,5&6

## AIR TERMINAL SCHEDULE

TAG	MANUFACTURER & MODEL	SIZE	MAX NC	MAX SP	REMARKS
D1	PRICE SMD3P	6"x6"	20	.07	T-BAR MOUNT CEILING DIFFUSER - 4-WAY THROW
D2	PRICE SMD3P	9"x9"	20	.07	T-BAR MOUNT CEILING DIFFUSER - 4-WAY THROW
D3	PRICE SMD3P	12"x12"	20	.07	T-BAR MOUNT CEILING DIFFUSER - 4-WAY THROW
D4	PRICE SMD15	12"x12"	20	.07	T-BAR MOUNT CEILING DIFFUSER - 2-WAY OPPOSITE THROW
R1	PRICE 5205	18"x12"	20	.07	DOUBLE DEFLECTION SUPPLY GRILLE
G1	PRICE 530	10"x8"	20	.07	45 DEGREE RETURN GRILLE FOR SURFACE MOUNT
G2	PRICE 530	14"x10"	20	.07	45 DEGREE RETURN GRILLE FOR SURFACE MOUNT
G3	PRICE 530	22"x22"	20	.07	45 DEGREE RETURN GRILLE FOR LAY-IN T-BAR MOUNT

## ELECTRIC WALL HEATERS

TAG	MANUFACTURER & MODEL	TYPE	WATTS	BTUH	ELECTRIC		CONTROL
					POWER	AMPS	
WH-1	MARKEL F3422T	HEAVY DUTY FAN FORCED WALL HEATER	2000	6826	208/60/1	9.6	BUILT-IN TAMPER PROOF THERMOSTAT
WH-2	MARKEL F3422T	HEAVY DUTY FAN FORCED WALL HEATER	2000	6826	208/60/1	9.6	BUILT-IN TAMPER PROOF THERMOSTAT

FIELD CONFIRM

## SHEETMETAL LEGEND

	4-WAY CEILING SUPPLY DIFFUSER, T-BAR LAY-IN
	RETURN OR EXHAUST INLET, T-BAR LAY-IN
	RETURN OR EXHAUST INLET, SURFACE MOUNT
	45 DEG. TAKEOFF
	45 DEG. TAKEOFF WITH HEAVY DUTY 24 GA DAMPER AND CLOSED END BEARING
	BELLMOUTH TAKEOFF
	BELLMOUTH TAKEOFF WITH HEAVY DUTY 24 GA DAMPER AND CLOSED END BEARING
	UL LISTED FLEXIBLE DUCTWORK, INSULATED 1-1/2", MAXIMUM RUN LENGTH 6'-0"
	MOTORIZED DAMPER
	MANUAL DAMPER - LOCKING QUADRANT
	THERMOSTAT
	CONNECT TO EXISTING

## GENERAL NOTES

- All systems are to be to meet the following Codes and Standards.
  - ASHRAE 90.1 2007 - Energy Standard for Commercial Buildings.
  - ASHRAE 60.1 2007 - Standard for Indoor Air Quality in Commercial Buildings.
  - 2009 IECC - International Energy Conservation Code.
  - NFPA - National Fire Protection Association Standards.
- Do not cut any structural members with pre-approval of structural engineer.

## GAS PIPING NOTES

- Piping is shown diagrammatically and does not indicate all the offsets, rises and drops that will be required.
- Gas piping to be schedule 40 black iron.
- Provide and install a vent limited gas pressure regulator in gas line. 2 psi to 7" w.c.
- Provide and install a gas cock and drip leg at HVAC-1
- Paint all new gas piping with Yellow Rustoleum Paint. Every 20' stencil or use Seton Label "Natural Gas"

## SHEETMETAL NOTES

- All ductwork to be fabricated and installed per SMACNA Low Pressure Ductwork Standards.
- Ductwork is shown diagrammatically and does not indicate all the offsets, rises and drops that will be required.
- All square elbows are to be installed with turning vanes.
- Flexible ductwork to be insulated with 1-1/2" fiberglass duct wrap with foil-faced vapor barrier. Flexible ductwork to be UL181 listed and limited to a maximum run of 6'-0".
- All supply and fresh air ductwork to be insulated with 1-1/2" fiberglass duct wrap with foil faced vapor barrier.
- All outside air ductwork to be 3" fiberglass duct wrap with foil-faced vapor barrier.

## CONTROL NOTES

- It will be the Mechanical Contractor's responsibility to provide and install all controls and all control wiring.
- All control wiring that is run in concealed spaces to be plenum rated.
- All control wiring that is run exposed shall be in electrical conduit provided and installed by the mechanical contractor.
- All thermostats to be electronic programmable with 7-day programming.
- See Specifications for control sequence.