

AIR HANDLING UNIT																			
UNIT	LOCATION	AREA SERVED	CFM	EXTERNAL S.P. IN. WC	FAN SIZE TYPE	FAN HP VOLT/PHASE	STEAM COIL NO. 1					STEAM COIL NO. 2					REMARKS		
							MIN. AREA (FT SQ)	EAT (F)	LAT (F)	AIR P.D.	STEAM LBS/HR	TRAP SIZE	MIN. AREA (FT SQ)	EAT (F)	LAT (F)	AIR P.D.		STEAM LBS/HR	TRAP SIZE
AHU-1	SCREENINGS ROOM	SAME	3,550	.25	13.5" FC	1.5/480/3#	4.9	-20	35	0.25	202.2@ 12PSI	3/4"	6.5	35	70	0.10	141.5@ 12PSI	3/4"	TRANE MODEL BA- FLATE FILTERS, INTERNAL FACE AND BYPASS DAMPERS, PREHEAT COIL, ACCESS SECTION, HEATING COIL, FAN (HORIZONTAL DISCHARGE). SEE NOTES 1, 2 & 3.
AHU-2	SCREENINGS ROOM	SCREENINGS GAR	2,800	.25	12.28" FC	1.5/480/3#	2.9	-20	35	0.45	158.4@ 12PSI	3/4"	4.4	35	70	0.15	111.3@ 12PSI	3/4"	TRANE MODEL BA- FLATE FILTERS, INTERNAL FACE AND BYPASS DAMPERS, PREHEAT COIL, ACCESS SECTION, HEATING COIL, FAN (HORIZONTAL DISCHARGE). SEE NOTES 1, 2 & 3.
AHU-3	SCRUBBER ROOM	SAME	5,780	.375	16.5" FC	3.0/480/3#	9.0	-20	35	0.17	329.2@ 12PSI	1 1/4"	11.2	35	70	0.09	230.4@ 12PSI	3/4"	TRANE MODEL BA- FLATE FILTERS, INTERNAL FACE AND BYPASS DAMPERS, PREHEAT COIL, ACCESS SECTION, HEATING COIL, FAN (HORIZONTAL DISCHARGE).

**AIR HANDLING UNIT NOTES:**

1. MOTOR SHALL BE UL FOR CLASS I, GROUP D, DIVISION 1 ATMOSPHERE.
2. FAN SHALL BE AMCA CLASS B SPARKPROOF CONSTRUCTION.
3. ENTIRE AIR HANDLER/ASSEMBLY SHALL BE HERESITE COATED.

**GENERAL NOTES:**

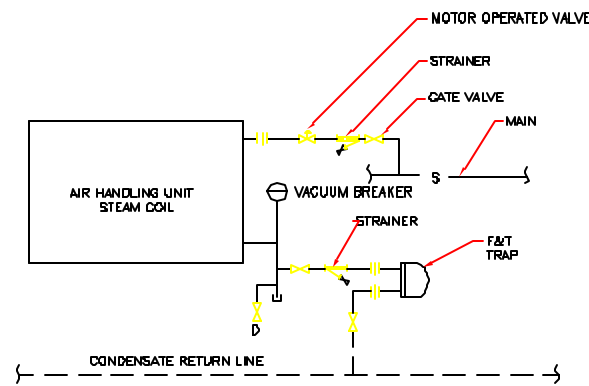
1. STEAM AND CONDENSATE PIPE MAIN SIZES SHOWN ON THE DRAWINGS ARE EXISTING SIZES. CONTRACTOR SHALL PROVIDE NECESSARY REDUCERS TO ACCOMMODATE CONTROL VALVES AND STEAM TRAPS.
2. ALL STEAM STRAINERS INSTALLED UNDER THIS CONTRACT SHALL HAVE 1/2" BLOW-DOWN VALVES INCLUDED.

FAN SCHEDULE										
UNIT NO.	LOCATION SERVED	CFM	T.S.P. INCH, W.C.	SONES	TYPE	MOTOR DATA			REMARKS	
						HP	RPM	VOLTS PHASE		
EF-1	PRIMARY SEDIMENTATION BASINS	24,000	4.0	68	IN-LINE CENTRF	30	881	480	3#	HARTZELL MODEL A4D-8-48 TEFC MOTOR, NOTE 3
EF-2	AERATION TANKS INFLUENT CHANNELS	2,300	5.6	77	IN-LINE CENTRF	5	3422	480	3#	HARTZELL MODEL A4D-8-15 TEFC MOTOR, NOTE 3
EF-3	GRAVITY THICKENERS	8,000	2.0	56	IN-LINE CENTRF	3	1093	480	3#	HARTZELL MODEL A4D-8-27 TEFC MOTOR, NOTE 3
EF-4	GRAVITY REMOVAL & FLOW CHANNELS	4,090	3.0	72	IN-LINE CENTRF	5	1793	480	3#	HARTZELL MODEL A4D-8-22 TEFC MOTOR, NOTE 3
EF-5	INFLENT AND EFFLUENT CHANNELS	1,800	1.0	62	IN-LINE CENTRF	1	1950	480	3#	HARTZELL MODEL A4D-8-15 TEFC MOTOR, NOTE 2
EF-6	TWAS TANKS	3,750	1.6	65	IN-LINE CENTRF	3	1445	480	3#	HARTZELL MODEL A4D-8-22 TEFC MOTOR, NOTE 2
EF-7	SCREENINGS ROOM AND GARAGE	12,700	1.5	63	IN-LINE CENTRF	7.5	1080	480	3#	HARTZELL MODEL A4D-8-33 TEFC MOTOR, NOTE 2
EF-8	ODOR CONTROL ROOM	2,890	.25	3.8	CENTRF ROOF	.25	382	120	1#	LORAN COOK MODEL ACE-8 270C 3B TEFC MOTOR
EF-9	ODOR CONTROL ROOM	2,890	.25	3.8	CENTRF ROOF	.25	382	120	1#	LORAN COOK MODEL ACE-8 270C 3B TEFC MOTOR
EF-10	CHEMICAL STORAGE ROOM	1,140	.375	--	SQUARE IN-LINE	.186	1102	120	1#	LORAN COOK MODEL 135SON10D TEFC MOTOR
SF-1	CHEMICAL STORAGE ROOM	1,140	.375	22	PROPELLER WALL	.33	1725	120	1#	LORAN COOK MODEL APD 18P17DA TEFC MOTOR

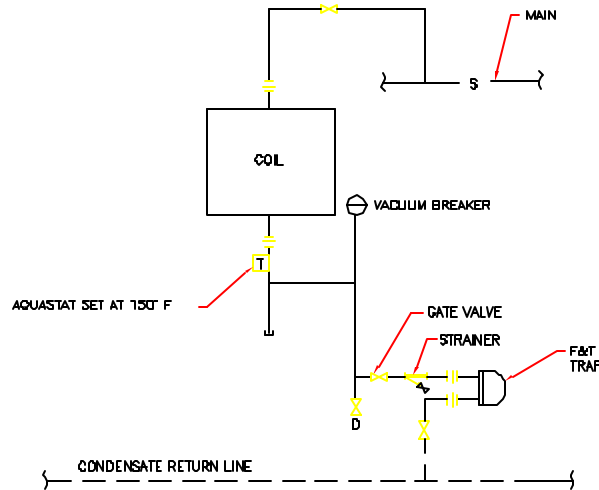
**FAN NOTES:**

1. ALL IN-LINE FIBERGLASS FANS SHALL BE PROVIDED WITH MOUNTING FEET AND VIBRATION ISOLATORS, DRAIN, HI-COR CONSTRUCTION, ELECTRICAL GROUNDING, AND TEFC MOTOR.
2. PROVIDE COMBINATION MOTOR COVER AND BELT GUARD.
3. PROVIDE BELT GUARD.

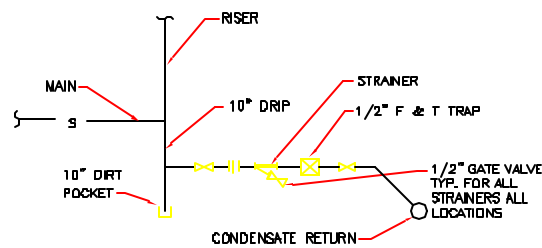
STEAM UNIT HEATER SCHEDULE										
UNIT NO.	LOCATION	MBH	STEAM LBS/HR	TRAP SIZE	EAT	FAT	HP	VOLTS	PHASE	REMARKS
UH-1	CHEN. STOR. ROOM	87.0	81	3/4"	80°F	127"	1/8	120	1#	EQUAL TO TRANE MODEL 80-S, TEFC MOTOR
UH-2	SCRUBBER ROOM	79.0	83	3/4"	80°F	131"	1/8	120	1#	EQUAL TO TRANE MODEL 80-S, TEFC MOTOR



TYPICAL STEAM COIL PIPING DETAIL  
NTS



TYPICAL STEAM UNIT HEATER PIPING DETAIL  
NTS



TYPICAL END OF MAIN OR RISERS DRIFT DETAIL  
NOT TO SCALE

**MECHANICAL LEGEND**

- ANCHOR
- POINT OF CONNECTION BETWEEN NEW AND EXISTING
- GATE VALVE
- CONTROL VALVE (2 WAY)
- STRAINER
- PIPE TURNING UP
- THERMOMETER
- PRESSURE GAUGE WITH SHUT OFF
- DIRECTION OF AIR FLOW (SUPPLY)
- DIRECTION OF AIR FLOW (RA OR EXH)
- CHECK VALVE
- UNION
- VOLUME DAMPER (BLAST GATE)
- SUPPLY AIR DUCT UP
- SUPPLY AIR DUCT DOWN
- FLEXIBLE DUCT CONNECTION
- RETURN OR EXHAUST AIR DUCT UP
- RETURN OR EXHAUST AIR DUCT DOWN
- INSULATED DUCTWORK
- PNEUMATIC OPERATED DAMPER
- MOTOR OPERATED DAMPER (MDD)
- UNIT HEATER (UH)
- THERMOSTAT
- REMOTE BULB THERMISTAT
- TURNING VANES
- H A HAND/AUTOMATIC SWITCH
- H O A HAND/OFF/AUTOMATIC SWITCH

**ABBREVIATIONS**

AFF	ABOVE FINISH FLOOR	NTS	NOT TO SCALE
AHU	AIR HANDLING UNIT	OA	OUTSIDE AIR
ALUM	ALUMINUM	PD	PRESSURE DROP
CFM	CUBIC FEET PER MINUTE	RPW	REVOLUTIONS PER MINUTE
D	DRAIN	SCH	SCHEDULE
EAT	ENTERING AIR TEMPERATURE	SF	SUPPLY FAN
EF	EXHAUST FAN	SP	STATIC PRESSURE
EJ	EXPANSION JOINT	SS	STAINLESS STEEL
EL	ELEVATION	SV	STRAIGHTENING VANES
FAT	FINAL AIR TEMPERATURE	TSP	TOTAL STATIC PRESSURE
FC	FLEXIBLE CONNECTION	T*STAT	THERMOSTAT
FF EL	FINISH FLOOR ELEVATION	TV	TURNING VANES
F&T	FLOAT AND THERMOSTAT	TYP	TYPICAL
GPM	GALLONS PER MINUTE	UH	UNIT HEATER
INV EL	INVERT ELEVATION	VD	VOLUME DAMPER
LAT	LEAVING AIR TEMPERATURE	W/	WITH
MIN	MINIMUM		
MNT	MOUNT		

**REVISIONS**

NO.	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

DRAWN BY: JLM  
 CHECKED BY: JLM  
 DATE: 3-24-20  
 APPROVED BY: JLM  
 DATE: 3-24-20  
 PROJECT NO.: 202004  
 BOOK NO.:  
 SCALE: AS NOTED SCALE

**Wright-Pierce**  
 99 Main Street, Topsham, Maine USA 04086  
 TEL (207) 725-8721 FAX (207) 725-8414

**PORTLAND WATER DISTRICT  
 PORTLAND, MAINE  
 PRIMARY SEDIMENTATION BASINS  
 UPGRADE WITH ODOR CONTROL FACILITIES**  
 EQUIPMENT SCHEDULES,  
 DETAILS AND LEGEND

**DWG M-8  
 57 OF 79**