

AHU UNIT SCHEDULE

UNIT NUMBER	NEW 1	NEW 2	NEW 3	NEW 4	NEW 5	NEW 6	EXISTING 7 (4)	EXISTING 8 (4)	NEW 9	NEW 10	NEW 11	NEW 12	NEW 13	NEW 14	NEW 15	NEW 16	NEW 17	NEW 18	EXISTING 19 (4)	EXISTING 20 (4)	NEW 21	EXISTING 22	NEW 23	NEW 24	EXISTING 26 (4)	NEW 27	NEW 28	NEW 29	
MANUFACTURER	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	
MODEL																													
TOTAL AIR FLOW (cfm)	1065	1072	1079	1086	2722	23,019	13,793	2861	6819	12,095	3128	5516	4869	7313	9771	5042	9956	7106	10,553	24,037	21,155	3375	1356	24,160	21,543	10,195	11,028	925	
TOTAL COOLING CAPACITY (MBH)	47.39	47.7	47.65	47.96	137.9	1069.97	---	188.0	381.11	668.84	129.79	390.36	234.76	399.13	444.4	227.74	480.23	285.38	634.9	1583.5	905.38	81.3	63.56	978.17	1199.2	429.54	453.81	60.79	
OUTSIDE AIR (min. cfm)	240	240	240	240	1000	5616	2155	373	1514	4834	555	3777	1603	2831	2769	1185	2820	1335	4131	10,797	4946	225	360	4638	6888	2272	2106	524	
MINIMUM AIR FLOW (cfm)	1065	1072	1079	1086	1239	9475	4820	1144	6819	6410	1251	4253	1981	2925	3699	2017	3982	2198	4538	13,220	7638	3375	1356	9086	8617	3520	5319	925	
TYPE	CV	CV	CV	CV	VAV	VAV	VAV	VAV	CV	VAV	VAV	VAV	VAV	VAV	VAV	VAV	VAV	VAV	VAV	VAV	VAV	CV	CV	VAV	VAV	VAV	VAV	VAV	
FILTER:																													
TYPE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	30% ROUGHING 85% CARTRIDGE	
SUPPLY FAN:																													
TYPE	FC	FC	FC	FC	BI	AF	AF	AF	BI	BI	BI	BI	BI	BI	BI	BI	BI	BI	AF	AF	AF	FC	FC	AF	AF	BI	BI	AF	
TOTAL S.P. (in. H <sub>2</sub> O)	3.31	3.33	3.32	3.32	4.42	4.93	5.79	3.51	4.07	5.11	3.27	3.51	3.61	3.94	3.7	3.73	3.88	3.99	5.31	5.59	4.17	4.38	3.98	4.81	6.28	3.38	3.86	3.03	
MAX. FAN RPM	2040	2047	2047	2047	2081	1338	1778	1822	1754	2233	1485	2468	1640	1447	2308	1501	2443	1186	2197	2308	1186	2233	1307	1307	1382	1426	1956		
MIN. MOTOR HP	2	2	2	2	5 (1)	30 (1)	6 (1)	3 (6)	10	20 (1)	5 (1)	7.5 (1)	7.5 (1)	18 (1)	10 (1)	15 (1)	18 (1)	25 (6)	40 (6)	25 (1)	18 (6)	2	30 (1)	48 (6)	5 (1)	15	1.5		
ELECTRICAL	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3
EXTERNAL S.P. (in. H <sub>2</sub> O)	0.6	0.6	0.6	0.6	1.4	1.4	1.4	1.2	0.7	1.7	1.0	1.0	1.0	1.10	0.9	0.9	1.0	0.9	1.40	1.83	1.5	0.25	0.65	1.5	1.73	1.0	1.3	0.6	
MODIFICATIONS	NEW	NEW	NEW	NEW	NEW	NEW	EXISTING (2)	EXISTING (2)	NEW	NEW	NEW	NEW	NEW	NEW	NEW	NEW	NEW	NEW	EXISTING (2)	EXISTING (2)	NEW	EXISTING (2)	NEW	NEW	EXISTING (2)	NEW	NEW	NEW	NEW
RETURN FAN:																													
TYPE	*	*	*	*	FC	FC			*	FC	BI	BI	BI	BI	BI	BI	BI	BI	AF	AF	AF	FC	FC	AF	AF	BI	BI	AF	
CFM	*	*	*	*	1722	21821	11638	2491	*	6999	2970	1741	3266	5399	7061	4849	9578	5771	8452	2122	16209	*	*	19622	2047	7923	8922	*	
TOTAL S.P. (in. H <sub>2</sub> O)	*	*	*	*	2.55	2.72	1.65	1.38	*	2.58	1.58	1.38	1.79	1.71	1.68	1.91	1.86	2.17	1.85	2.41	2.33	*	*	2.6	2.13	1.86	1.98	*	
MAX. FAN RPM	*	*	*	*	1583	1092			*	1446	1759	1240	1556	1119	1009	1921	1187	1779			917	*	*	1825	1090	1166	*		
MIN. MOTOR HP	*	*	*	*	2 (1)	15 (1)	10 (6)	1 (6)	*	5 (1)	2 (1)	1 (1)	2 (1)	3 (1)	5 (1)	3 (1)	5 (1)	5 (1)	7.5 (6)	15 (6)	10 (6)	*	*	15 (1)	20 (6)	5 (1)	5	*	
ELECTRICAL	*	*	*	*	460/3	460/3	460/3	460/3	*	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3	460/3
MODIFICATIONS	*	*	*	*	NEW	NEW	EXISTING (2)	EXISTING (2)	*	NEW	NEW	NEW	NEW	NEW	NEW	NEW	NEW	NEW	EXISTING (2)	EXISTING (2)	NEW	EXISTING (2)	NEW	NEW	EXISTING (2)	NEW	NEW	NEW	NEW
HEATING COIL:																													
SERVICE	RE-HEAT (1)	RE-HEAT (1)	RE-HEAT (1)	RE-HEAT (1)	HEAT	HEAT			RE-HEAT (1)	HEAT	HEAT	HEAT	HEAT	HEAT	HEAT	HEAT	HEAT	HEAT	HEAT	HEAT	HEAT	RE-HEAT (1)	RE-HEAT (1)	HEAT	HEAT	HEAT	HEAT	RE-HEAT (1)	
TYPE	HOT WATER	HOT WATER	HOT WATER	HOT WATER	HOT WATER	HOT WATER			HOT WATER	HOT WATER	HOT WATER	HOT WATER	HOT WATER	HOT WATER	HOT WATER	HOT WATER	HOT WATER	HOT WATER	HOT WATER	HOT WATER	HOT WATER	HOT WATER	HOT WATER	HOT WATER	HOT WATER	HOT WATER	HOT WATER	HOT WATER	
MAX. FACE VELOCITY (fpm)	500	500	500	500	500	500			500	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	
EAT/LAT (F.)	55.2/90	55.3/90	55.3/90	55.4/90	11/55	11/55			55.3/90	11/55	11/55	11/55	11/55	11/55	11/55	11/55	11/55	11/55	11/55	11/55	11/55	53.1/90	52.9/90	11/55	11/55	11/55	11/55	35.7/90	
CAPACITY (MBH)	40.2	40.4	40.6	40.8	57.2	268.1			266.7	238.8	26.5	181.1	95.5	135.2	198.4	56.6	134.5	297	297	297	531/90	54.6	303.02	194.8	301.9	54.5			
MAX. P.D. (ft. H <sub>2</sub> O)	0.06	0.07	0.07	0.07	0.23	1.54			0.23	1.24	0.2	0.92	0.40	0.55	0.24	0.59	0.24	0.24	0.24	0.24	1.32	0.11	1.41	0.11	0.84	0.84			
WATER FLOW (gpm)	2.69	2.78	2.72	2.74	10	17.9			28.86	15.4	1.9	9.0	4.0	5.0	2.4	9.0	4.0	4.0	4.0	4.0	1.32	3.64	4.0	15	15	3.6			
EWT/LWT (F.)	180/150	180/150	180/150	180/150	180/150	180/150			180/150	180/150	180/150	180/150	180/150	180/150	180/150	180/150	180/150	180/150	180/150	180/150	180/150	180/150	180/150	180/150	180/150	180/150	180/150		
ROWS/FINS	1/80	1/80	1/80	1/80	2/5	1/11			1/80	1/80	1/80	1/80	1/80	1/80	1/80	1/80	1/80	1/80	1/80	1/80	1/80	1/80	1/80	1/80	1/80	1/80	1/80		
MODIFICATIONS	NEW (7)	NEW (7)	NEW (7)	NEW (7)	NEW (7)	NEW (7)			NEW (7)	NEW (7)	NEW (7)	NEW (7)	NEW (7)	NEW (7)	NEW (7)	NEW (7)	NEW (7)	NEW (7)	NEW (7)	NEW (7)	NEW (7)	NEW (7)	NEW (7)	NEW (7)	NEW (7)	NEW (7)	NEW (7)	NEW (7)	NEW (7)

REMARKS: SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

① INVERTER DUTY MOTOR, FACTORY MOUNTED VFD.

② MODIFY FAN AS NECESSARY TO ACHIEVE NEW CFM AND STATIC PRESSURE REQUIREMENTS.

③ FOULING FACTOR 0.00025 FT<sup>2</sup>-F/BTU

④ WATER AND AIRFLOW FOR EACH AHU TO BE REBALANCED TO MATCH NEW CONDITIONS AS INDICATED BY THIS SCHEDULE FOR ALL EXISTING UNITS.

⑤ CONTRACTOR TO VERIFY CORRECT ECONOMIZER OPERATION FOR ALL NEW AND EXISTING AHUs. IF OPERATION IS INCORRECT CONTRACTOR TO REPLACE ACTUATORS AND DAMPERS AS REQUIRED TO ENSURE PROPER OPERATION. \* NOT REQUIRED

⑥ REMOVE EXISTING VARIABLE FREQUENCY DRIVE AND ASSOCIATED ISOLATION TRANSFORMERS AND PROVIDE NEW VFD WITH INPUT LINE REACTORS PER SPECIFICATIONS. INSTALL VFD WITHIN AHU CABINET.

⑦ SINGLE POINT ELECTRICAL CONNECTION TO BE PROVIDED BY VENDOR FOR ALL NEW AHUs.

⑧ NOTE ALL CHILLED WATER COILS TO BE SELECTED WITH 30% PROPYLENE GLYCOL.

⑨ EXISTING FACE-AND-BYPASS REHEAT COIL, AHU-22.

⑩ FULL FLOW HEATING COIL IN THE REHEAT POSITION.

⑪ EQUIPMENT SELECTIONS BASED ON 91° DB/77° WB SUMMER AMBIENT AND 11° WINTER AMBIENT AND 72° DB SUMMER SPACE SET POINT AND 68° DB WINTER SPACE SET POINT.

⑫ ALL EXISTING AHUs SHALL BE RETROFITTED WITH: (a) RUSKIN JA050, OSA AIRFLOW MONITOR SEE DETAIL 4, SHEET M502; (b) REPLACE MOTORIZED RELIEF DAMPER WITH BAROMETRIC RELIEF DAMPER BALANCED FOR 0.02" W.C. OPENING STATIC, AND (c) CONTROL VALVES & ACTUATOR FOR COOLING AND HEATING COIL.

⑬ PROVIDE FIRE/SMOKE ISOLATION DAMPER PER NFPA 90A AT UNIT RETURN AND DISCHARGE.

DUCT MOUNTED REHEAT COILS	7	19	20	26
SERVICE	REHEAT	REHEAT	REHEAT	REHEAT
TYPE	REHEAT	REHEAT	REHEAT	REHEAT
AIR FLOW (cfm)	4820	4538	13220	8617
MIN. SQ. FT.	12.25	11.67	18.0	14.69
MAX. FACE VELOCITY (fpm)	400	400	500	500
E.A.D.B. (F.)	35	17	23	24
L.A.D.B. (F.)	49	49	49	49
WATER FLOW (gpm)	9.52	12.25	32.48	16.91
WATER TEMP. ENTERING (F.)	180	180	180	180
MAX. P.D. (ft. H <sub>2</sub> O)	5.0	5.0	2.21	5.0
ROWS/FINS	1/80	1/80	1/100	1/80
MAX. AIR S.P. (in. H <sub>2</sub> O)	0.25	0.25	0.25	0.25
EXISTING SUPPLY DUCT SIZE	42"φ	40"φ	54"x48"	47"φ
REHEAT COIL SIZE (LxH)	42x42	40x42	54x48	47x45

REMARKS: REHEAT COILS TO BE MOUNTED IN EXISTING DUCT ABOVE ROOF. DUCT TRANSITIONS, INSULATION TO BE IN ACCORDANCE WITH SMACNA MEDIUM PRESSURE DUCT DESIGN AND IN ACCORDANCE WITH DUCT EXPOSED TO WEATHER. MATCH EXISTING WHERE APPLICABLE.

ELECTRIC DUCT HUMIDIFIER	1	2	3	4	16	18	22	23
AHU DESIGNATION	EDH-1	EDH-2	EDH-3	EDH-4	EDH-16	EDH-18	EDH-22	EDH-23
MANUFACTURER	DRI-STEEM	DRI-STEEM	DRI-STEEM	DRI-STEEM	DRI-STEEM	DRI-STEEM	DRI-STEEM	DRI-STEEM
TYPE	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC
MODEL	VLC 6-1	VLC 6-1	VLC 6-1	VLC 6-1	VLC 6-1	VLC 9-1	VLC 6-1	VLC 6-1
E.T. DB. (F.)/W.R.H.	49°/40%	49°/40%	49°/40%	49°/40%	49°/40%	49°/40%	49°/40%	49°/40%
HUMIDIFIED AREA	12x9	12x9	12x9	12x9	24x21	26x20	20x15	12x9
L.A.T. DB. (F.)/W.R.H.	49°/77%	49°/77%	49°/77%	49°/77%	49°/72%	49°/77%	49°/77%	49°/77%
DISPERSION								