

ROOFTOP UNIT SCHEDULE - BASED ON AAO																		
TAG	MANUFACTURER	MODEL	SIZE (TONS)	O.A. CFM	SUPPLY FAN							EXHAUST FAN						
					CFM	ESP (IN.WG.)	TOTAL STATIC (IN.WG.)	HP	BHP	RPM	VFD	CFM	ESP (IN.WG.)	TOTAL STATIC (IN.WG.)	HP	BHP	RPM	VFD
RTU-1	AAON	RN-015	15	4100	4100	1.0	2.32	5	2.26	1305	YES	1885	0.5	0.98	1	0.50	1071	YES
RTU-2	AAON	RN-015	15	1880	4475	2.0	3.79	5	3.79	1744	YES	3950	1.0	1.83	3	2.01	1510	YES
RTU-3	AAON	RN-011	11	1190	2500	2.0	2.83	3	1.78	1777	YES	2130	1.0	1.54	2	0.88	1295	YES
NOT USED																		
RTU-5	AAON	RN-007	7	880	1540	2.0	2.73	2	1.17	2135	YES	1150	1.0	1.50	1	0.48	1667	YES
RTU-6	AAON	RN-016	16	4725	4725	1.5	3.44	5	3.82	1500	YES	4575	1.5	2.5	5	2.71	1444	YES
RTU-7	AAON	RQ-004	4	800	1200	2.0	2.88	2	1.10	1852	YES	940	1.0	1.68	1	0.46	1572	YES
RTU-8	AAON	RN-020	20	3250	5100	2.0	3.32	5	3.91	1571	YES	4950	1.0	1.34	2	1.83	1290	YES
RTU-9	AAON	RN-011	11	1500	2365	3.0	3.75	3	2.29	1944	YES	1350	1.0	1.68	1	0.66	1251	YES
RTU-10	AAON	RN-013	13	1100	3400	3.0	4.17	5	3.67	1741	YES	2625	1.5	2.2	3	1.56	1565	YES
RTU-11	AAON	RN-016	16	3635	3635	2.0	3.46	5	3.04	1428	YES	3835	2.0	3.01	5	2.75	1638	YES
RTU-12	AAON	RN-016	16	3850	3850	1.0	2.55	3	2.36	1090	YES	4350	1.0	2.00	3	2.07	1322	YES
RTU-13	AAON	RN-007	7	1850	1850	1.0	2.84	2	1.32	2001	YES	1500	1.0	2.35	2	0.99	2130	YES

COOLING - DX COIL DATA																
TAG	EAT DBWB (°F)	LAT DBWB (°F)	TOTAL MBH	SENSIBLE MBH	REFRIGERANT TYPE	NUMBER OF CIRCUITS	MAXIMUM VELOCITY (FPM)	FACE AREA (FT2)	ROWS/FPI	DRAIN PIPE SIZE (IN)						
RTU-1	59.0073.00	58.11/57.48	202.09	139.81	R-410A	2	281.1	14.6	4/14	1"						
RTU-2	77.60/64.11	50.14/49.55	178.68	130.58	R-410A	2	306.9	14.6	2/14	1"						
RTU-3	77.77/65.96	49.83/49.41	115.81	74.15	R-410A	2	171.4	14.6	3/14	1"						
RTU-5	79.33/65.31	50.29/49.80	66.75	47.36	R-410A	1	181.0	8.5	3/14	1"						
RTU-6	79.96/65.92	53.01/52.15	186.16	134.75	R-410A	2	237.9	19.9	3/14	1"						
RTU-7	80.03/65.94	51.49/51.28	50.17	36.23	R-410A	1	228.6	5.3	4/14	7/8"						
RTU-8	85.20/69.31	53.92/53.48	239.70	167.11	R-410A	2	256.8	19.9	4/14	1"						
RTU-9	81.82/66.99	50.08/49.55	116.16	79.09	R-410A	2	162.2	14.6	3/14	1"						
RTU-10	76.29/64.69	49.47/49.28	145.46	97.10	R-410A	2	233.1	14.6	4/14	1"						
RTU-11	78.87/65.19	48.38/47.78	173.21	117.42	R-410A	2	183.0	19.9	3/14	1"						
RTU-12	78.82/65.16	49.20/48.66	175.52	120.86	R-410A	2	193.8	19.9	3/14	1"						
RTU-13	77.04/65.37	52.82/62.20	69.53	47.66	R-410A	1	217.5	8.5	3/14	1"						

HOT WATER COIL DATA 50% PROPYLENE GLYCOL SOLUTION AT 180°F EWT																
TAG	EATLAT (°F)	MBH	EWT/LWT (°F)	GPM	MAXIMUM VELOCITY (FPM)	MAXIMUM WPD (FT)	FACE AREA (FT2)	ROWS/FPI	RH (%)	LAT DBWB (°F)	MBH TOTAL					
RTU-1	3.0/95.0	465.6	180/154.5	40	715.13	6.78	6.56	4/10	54	70.0/60.60	75					
RTU-2	58.1/95.8	185.8	180/159.3	20	767.1	8.2	5.83	2/8	47	70.0/57.74	96					
RTU-3	57.3/97.6	111.4	180/160.9	13	428.6	2.2	5.83	2/10	47	70.0/57.74	54					
RTU-5	50.5/97.4	81.0	180/160.0	9	417.4	2.5	3.69	2/8	48	70.0/57.89	33					
RTU-6	47.2/105.7	311.6	180/159.6	34	649.5	5.4	7.28	2/12	52	70.0/58.91	87					
RTU-7	47.3/101.4	73.1	180/159.6	8	418.9	1.2	2.86	2/12	51	70.0/58.72	24					
RTU-8	27.3/95.2	406.2	180/161.2	48	701.0	9.1	7.28	2/12	55	70.0/59.75	89					
RTU-9	39.8/103.4	171.7	180/157.7	18	405.4	7.0	5.83	2/10	47	70.0/57.76	51					
RTU-10	54.1/95.9	158.1	180/161.5	19	582.9	4.6	5.83	2/10	47	70.0/57.74	75					
RTU-11	52.6/95.5	174.1	180/161.5	21	499.7	0.6	7.28	2/12	44	70.0/56.91	85					
RTU-12	52.8/104.8	223.0	180/160.1	25	529.2	3.4	7.28	2/10	46	70.0/57.34	86					
RTU-13	40.9/100.9	120.0	LP GAS HEAT, 150 MBH INPUT, TURNDOWN 1:4:1				52			70.0/59.02	34					

TAG	WHEEL EXHAUST AIR FLOW (CFM)	WHEEL PERFORMANCE (SUMMER)							WHEEL PERFORMANCE (WINTER)								
		OUTSIDE AIR DBWB (°F)	RETURN AIR DBWB (°F)	RETURN AIR DBWB (°F)	LEAVING EXH AIR DBWB (°F)	LEAVING SA DBWB (°F)	OUTSIDE AIR DBWB (°F)	RETURN AIR DBWB (°F)	RETURN AIR DBWB (°F)	LEAVING EXH AIR DBWB (°F)	LEAVING SA DBWB (°F)						
RTU-1	775	91.0/73.0	75.0/62.0	89.68/82.25	80.78/72.83	3.0/2.0	70.0/55.0	43.47/37.69									
RTU-2	1355	91.0/73.0	75.0/62.0	88.41/71.07	81.20/66.88	3.0/2.0	70.0/55.0	14.30/14.18	41.74/36.37								
RTU-3	820	91.0/73.0	75.0/62.0	89.56/67.15	80.82/69.95	3.0/2.0	70.0/55.0	9.43/9.32	43.40/37.62								
RTU-5	490	91.0/73.0	75.0/62.0	89.88/72.16	82.58/67.65	3.0/2.0	70.0/55.0	7.45/7.32	35.81/32.19								
RTU-6	4575	91.0/73.0	75.0/62.0	86.29/69.89	79.96/65.92	3.0/2.0	70.0/55.0	21.97/21.89	47.23/40.48								
RTU-7	540	91.0/73.0	75.0/62.0	87.36/70.39	82.54/67.79	3.0/2.0	70.0/55.0	18.45/18.32	35.96/31.95								
RTU-8				N/A													
RTU-9	485	91.0/73.0	75.0/62.0	90.88/72.92	85.74/69.64	3.0/2.0	70.0/55.0	3.65/3.06	22.59/21.63								
RTU-10	325	91.0/73.0	75.0/62.0	90.86/73.07	85.27/69.86	3.0/2.0	70.0/55.0	3.64/2.67	20.82/20.13								
RTU-11	3835	91.0/73.0	75.0/62.0	86.42/69.95	78.87/65.19	3.0/2.0	70.0/55.0	21.30/21.16	52.60/44.02								
RTU-12	4350	91.0/73.0	75.0/62.0	85.70/69.50	78.82/65.15	3.0/2.0	70.0/55.0	24.18/23.81	52.82/44.17								
RTU-13	1500	91.0/73.0	75.0/62.0	86.68/70.13	81.41/66.91	3.0/2.0	70.0/55.0	20.56/20.42	40.85/35.94								

ACOUSTIC DATA - DISCHARGE/RETURN SOUND POWER (dB)																
TAG	OPERATING WEIGHT (LBS)	DIMENSIONS (IN.) (LxWxH)	CURS HEIGHT (IN.)	IEER OR SEER	EER	MCA	MOCP	VOLTS/PHASE	AREA(S) SERVED	REMARKS						
RTU-1	1883	111x96x50	18	13	11.1	39	50	460/3	WELDING	1-17, 19-22						
RTU-2	2502	151x96x51	18	13	11.1	44	50	460/3	WOOD SHOP	1-17, 22, 24						
RTU-3	2359	151x96x51	18	14.9	12.2	32	40	460/3	SMALL ENGINE SHOP	1-17, 22						
RTU-5	1506	134x79x44	18	14.4	12.0	21	30	460/3	AG STEM	1-17, 22						
RTU-6	3355	185x101x59	18	13.8	11.8	47	50	460/3	VET SCIENCE ANIMAL AREA	1-17, 22						
RTU-7	1231	116x62x51	18	15.7	13.3	17	20	460/3	VET SCIENCE CLASS	1-17, 22						
RTU-8	2903	138x101x59	18	14.4	12.0	52	60	460/3	KITCHEN	1-17, 22						
RTU-9	2318	128x96x47	18	14.9	12.2	31	35	460/3	GENERAL AREA C	1-17, 22						
RTU-10	2502	151x96x51	18	14.3	12.0	39	45	460/3	EXISTING AREA B	1-17, 22, 23						
RTU-11	3355	158x101x57	18	13.8	11.8	47	50	460/3	SCIENCE LABS AREA C	1-17, 22						
RTU-12	3372	158x101x57	18	13.8	11.8	42	50	460/3	SCIENCE LABS AREA C	1-17, 22						
RTU-13	1521	134x79x44	18	14.4	12.0	22	30	460/3	AREA F	1-18, 22						

GENERAL NOTES/ACCESSORIES:																
1. ACCEPTABLE MANUFACTURERS BY: TRANE & INNOVENT.																
2. RTU SHALL BE PREWIRED FOR SINGLE POINT POWER CONNECTION.																
3. ALTERNATE MANUFACTURER OF EQUAL PERFORMANCE AND CAPACITY MUST HAVE SIMILAR PHYSICAL DIMENSIONS. OTHERWISE BASE MANUFACTURER MUST BE SUPPLIED. CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING DIMENSIONS IN FIELD. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL STRUCTURAL AND MECHANICAL MODIFICATIONS AT NO COST TO OWNER.																
4. PROVIDE MERV-14 FILTERS.																
5. PROVIDE DUCT TRANSITION AT THE UNIT AS NECESSARY V.I.F.																
6. EACH UNIT SHALL HAVE (3) AIR FLOW STATIONS (SUPPLY, RETURN & OUTSIDE AIR INTAKE). COORDINATE FINAL AIR FLOW STATION LOCATIONS AND EXACT TYPE WITH ENGINEER.																
7. PROVIDE 18" HIGH (ABOVE ROOF INSULATION) PREFABRICATED TAPERED ROOF CURB. ROOF CURB SHALL HAVE CONTINUOUS STRUCTURAL SUPPORT. SEISMIC RATED ISOLATED SPRING ROOF CURB, 2" DEFLECTION. PROVIDE PE STAMPED SEISMIC CALCULATIONS.																
8. PROVIDE O.A. INTAKE HOODS.																
9. PROVIDE 1-100% MODULATING OUTSIDE ENTHALPY AIR ECONOMIZER.																
10. ROOF OPENING AROUND BOTH SUPPLY AND RETURN DUCTS BELOW EACH ROOFTOP UNIT SHALL BE COMPLETELY SEALED TO PREVENT ANY NOISE TRANSFER. PROVIDE ACOUSTICAL BLANKETS AS NECESSARY.																
11. DIGITAL SCROLL COMPRESSOR																
12. FIRST 26FT OF DUCTWORK SHALL BE INTERNALLY ACOUSTICALLY LINED DOWN AND UPSTREAM OF THE UNIT. SEE SPEC. FOR ADDITIONAL INFORMATION.																
13. ROOFTOP VFD'S SHALL BE MOUNTED IN WEATHER PROOF ENCLOSURE INSTALLED BY UNIT'S MANUFACTURER.																
14. ALL UNITS ARE PROVIDED WITH INTERNAL RECIRCULATING DAMPERS.																
15. FACTORY INSTALLED AND WIRED VFD FOR SUPPLY FAN AND RETURN EXHAUST FAN.																
16. MODULATING HOT GAS REHEAT AND HOT GAS BYPASS.																
17. PROVIDE HINGED SERVICE ACCESS AND STAINLESS STEEL DRAIN PANS.																
18. STAINLESS STEEL HEAT EXCHANGER.																
19. RTU-1 SHALL BE CAPABLE OF PROVIDING THE SCHEDULED HEATING AND COOLING DISCHARGE TEMPERATURES WITHOUT UTILIZING HEAT RECOVERY.																
20. RTU-1 SHALL BE CAPABLE OF OPERATING WITH A SUPPLY AIR FLOW OF 2250 CFM. AN OUTSIDE AIR FLOW OF 1140 CFM. A RETURN AIR FLOW OF 1110 CFM AND AN EXHAUST AIR FLOW OF 775 CFM WITH AN ENERGY RECOVERY WHEEL. COOLING MODE DISCHARGE AIR TEMPERATURE SHALL BE BETWEEN 50 °F AND 55 °F. THE VENDOR SHALL PROVIDE UNIT SELECTIONS AT THIS OPERATING CONDITION AND THE SCHEDULED OPERATING CONDITION.																
21. RTU-1 SHALL BE PROVIDED WITH DIGITAL SCROLL COMPRESSORS ON BOTH CIRCUITS.																
22. PROVIDE UNIT WITHOUT MANUFACTURER'S CONTROLS. CONTROLS TO BE FIELD INSTALLED BY THE ATO CONTRACTOR.																
23. RTU-10 SHALL BE PROVIDED UNDER ALTERNATE X.																
24. PROVIDE EXPLOSION PROOF FANS AND SPARK RESISTANT BLADES.																

KITCHEN EXHAUST FAN SCHEDULE - (BASED ON LOREN COOK)												
TAG	MANUFACTURER	MODEL NUMBER	TYPE	DRIVE	CFM	ESP (IN WC)	RPM	MOTOR HP	VOLTS/PHASE	VFD/ECM	SERVES	
KEF-1	LOREN COOK	210VX9B	ROOF MOUNTED	BELT	1700	2.25	1512	2	460/3	NONE	FOOD SCIENCE LAB B116	
KEF-2	LOREN COOK	210VX9B	ROOF MOUNTED	BELT	1700	2.25	1512	2	460/3	NONE	FOOD SCIENCE LAB B116	
SOUND POWER (dB)												
TAG	1ST OCTAVE	2ND OCTAVE	3RD OCTAVE	4TH OCTAVE	5TH OCTAVE	6TH OCTAVE	7TH OCTAVE	8TH OCTAVE	SONES (INLET)		REMARKS	
KEF-1	81	86	81	74	73	71	72	66	18.2			
KEF-2	81	86	81	74	73	71	72	66	18.2			
GENERAL NOTES/ACCESSORIES:												
1. ACCEPTABLE MANUFACTURERS BY: GREENHECK, TWIN CITY FAN CO.												
2. 18" HIGH WELDED GALVANIZED STEEL ROOF CURB</												