

W:\BID\Projects\2021\Y021006 - Fidelity National NV500 Drawings\04 HVAC\Y021006 M-800 HVAC SCHEDULES.dwg (HVAC) July 23, 2021 - 4:47pm, user: mshane

PACKAGED DX ROOFTOP AIR HANDLING UNIT SCHEDULE																																			
TAG	LOCATION	OPERATING WEIGHT (LBS)	REFRIGERANT	SUPPLY FAN				UNIT COOLING COIL								UNIT HEATING (GAS)						ELECTRICAL										COOLING EFF.	HEATING THERMAL EFF. (%)	MANUFACTURER AND MODEL NUMBER (AS STANDARD)	REMARKS
				TYPE	CFM	EXT STATIC PRESS. (IN.WG)	MOTOR (BHP)	CAPACITY (MBH)				EAT (°F)	LAT (°F)		CAPACITY (MBH)		PRESSURE (IN. WG)	STAGES	EAT (°F)	LAT (°F)		TOTAL UNIT					COMPRESSOR		INDOOR FAN	CONDENSER FAN					
			TOTAL		MIN.			O.A.	TONS	TOTAL	SENS.	DB	WB	DB	WB	INPUT	OUTPUT		MIN/MAX	DB	DB	V	PH	HZ	MCA	MOCP	RLA	LRA	FLA	FLA					
RTU-1	ROOF	513	R-410A	1120	120	1.2	0.75	3	29.2	23.5	80	65	60	57	67/110	54/88	4/13	2	65	109	480	3	60	12	15	5.7	73	2.4	2.4	16.0 SEER	81	CARRIER 48GCDM04	SEE NOTES		
NOTES: 1. REFER TO SPECIFICATIONS, DETAILS, AND CONTROL DRAWINGS FOR ADDITIONAL INFORMATION. 2. PROVIDE MANUFACTURERS 7-DAY PROGRAMMABLE THERMOSTAT. 3. PROVIDE WITH ENTHALPY ECONOMIZER, THREE SETS OF FILTERS, CONVENIENCE OUTLET, AND INSULATED CABINET. 4. PROVIDE ALL RTUs WITH RAWAL APR CONTROL DEVICE.																																			

SPLIT SYSTEM AIR CONDITIONING UNIT SCHEDULE																																									
TAG	LOCATION	MANUFACTURER AND MODEL NUMBER (AS STANDARD)	INDOOR AIR CONDITIONING UNITS																REFRIGERANT	OUTDOOR CONDENSING UNIT											EFFICIENCY (SEER)	REMARKS									
			UNIT COOLING					UNIT HEATING					ELECTRIC DATA							ELECTRIC DATA (OUTDOOR UNIT)																					
			CFM		MOTOR (HP)	ESP (IN. WG.)	CAPACITY				EAT(°F)		LAT(°F)		CAPACITY		EAT (°F)		LAT (°F)		V	PH	HZ	MCA	MOCP	TYPE	TAG	LOCATION	DESIGN AMBIENT TEMP (°F)	MINIMUM AMBIENT TEMP (°F)			MANUFACTURER AND MODEL NUMBER (AS STANDARD)	TOTAL UNIT				COMPRESSOR	CONDENSER FAN		
			TOTAL	O.A.			TOTAL	SENSIBLE	DB	WB	DB	WB	kw	DB	DB	DB	WB	DB	WB	DB														WB	FLA	Hz	MCA		MOCP	RLA	LRA
ACU-1	ABOVE CEILING	CARRIER 40MBDQ12	310	90	.18	0.5	18	-	75	62	58	53	2	68	88	208	1	60	.2	-	R-410A	ACCU-1	ROOF	110	32	CARRIER 38MAQB12R	208	1	60	15	20	5.7	-	-	21.5	SEE NOTES					
ACU-2	ABOVE CEILING	CARRIER 40MBDQ18	400	135	.27	0.5	14.7	-	75	62	58	53	2.5	68	88	208	1	60	.2	-	R-410A	ACCU-2	ROOF	110	32	CARRIER 38MAQB18R	208	1	60	13	20	7.3	-	-	18.5	SEE NOTES					
ACU-3	ABOVE CEILING	CARRIER FV4C	630	60	1/3	0.5	18	11.6	75	62	58	53	4	68	88	208	1	60	5.4	15	R-410A	ACCU-3	ROOF	110	32	CARRIER 25HHA424	208	1	60	16.5	25	12.8	58.3	0.5	14	SEE NOTES					
ACU-4	ABOVE CEILING	CARRIER FV4C	450	45	1/3	0.5	18	11.6	75	62	58	53	2.5	68	88	208	1	60	5.4	15	R-410A	ACCU-4	ROOF	110	32	CARRIER 25HHA418	208	1	60	11.8	20	9.0	48.0	0.5	14	SEE NOTES					
ACU-5	ABOVE CEILING	CARRIER FV4C	360	60	1/3	0.5	18	11.6	75	62	58	53	2.5	68	88	208	1	60	5.4	15	R-410A	ACCU-5	ROOF	110	32	CARRIER 25HHA418	208	1	60	11.8	20	9.0	48.0	0.5	14	SEE NOTES					
ACU-6	ABOVE CEILING	CARRIER FV4C	480	65	1/3	0.5	18	11.6	75	62	58	53	3	68	88	208	1	60	5.4	15	R-410A	ACCU-6	ROOF	110	32	CARRIER 25HHA424	208	1	60	16.5	25	12.8	58.3	0.5	14	SEE NOTES					
ACU-7	ABOVE CEILING	CARRIER FV4C	425	60	1/3	0.5	18	11.6	75	62	58	53	2.5	68	88	208	1	60	5.4	15	R-410A	ACCU-7	ROOF	110	32	CARRIER 25HHA418	208	1	60	11.8	20	9.0	48.0	0.5	14	SEE NOTES					
NOTES: 1. REFER TO SPECIFICATIONS, DETAILS, AND CONTROL DRAWINGS FOR ADDITIONAL INFORMATION. 2. INDOOR UNIT - PROVIDE WITH 3 SETS OF FILTERS, VIBRATION ISOLATION PER SPECIFICATIONS, AND 7-DAY PROGRAMMABLE THERMOSTAT. 3. DISCONNECTS PROVIDED BY ELECTRICAL CONTRACTOR.																																									

DUCTWORK PRESSURE CLASS AND SEAL CLASS					
PRESSURE CLASS	STATIC PRESSURE CLASS	SMACNA SEAL CLASS	SMACNA LEAKAGE CLASS		DESIGN VELOCITY LIMITS
			RECTANGULAR	ROUND	
2"	2" POS. OR NEG.	A	6	3	2000 FPM OR LESS
UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE DRAWINGS, USE THE FOLLOWING PRESSURE CLASSIFICATIONS FOR THE TYPES OF DUCTWORK LISTED BELOW					
2" CLASS:		ALL DUCTWORK.			
NOTES:					
1. REFER TO SPECIFICATIONS AND DETAILS FOR ADDITIONAL INFORMATION.					

MINIMUM DUCT INSULATION R-VALUES (IECC - 2018 AND ASHRAE 90.1-2016 COMPLIANCE)					
LOCATION	SUPPLY	RETURN	RAW OUTDOOR AIR	EXHAUST	
				WITH ENERGY RECOVERY	WITHOUT ENERGY RECOVERY
OUTDOORS	R-12	R-12	-0-	R-12	-0-
UNCONDITIONED SPACE (SHAFT OR CEILING WITH DUCTED RETURN AIR)	R-6	R-6	R-6	R-6	-0-
DUCT LINING SCOPE: ACOUSTIC DUCT LINING OF THE TYPE AND THICKNESS SPECIFIED SHALL BE INSTALLED ON ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK WITHIN 20 FEET OF ALL TYPES OF AIR HANDLING UNITS (INCLUDING RTU, ERU, FCU, MUA, ETC., AND ALL BRANCHES WITHIN 20') ALL FANS (INCLUDING BRANCHES), ALL LOW PRESSURE DUCTWORK DOWNSTREAM OF ALL TYPES OF SUPPLY VOLUME BOXES (CV, VAV, FPAV, ETC.), AND WHERE DETAILED OR SHOWN ON DRAWINGS.					
NOTES: (SEE SPECIFICATIONS FOR R-VALUES OF VARIOUS DUCT INSULATION AND LINERS). 1. R-VALUES SHOWN MAY BE OBTAINED BY ADDING THE R-VALUES OF BOTH THE LINING (WHERE SHOWN OR USED) AND EXTERNAL DUCT INSULATION. 2. R-VALUES SHOWN ARE AS INSTALLED. USE R-VALUES FOR 25% COMPRESSION FOR NON-RIGID INSULATION. 3. REFER TO SPECIFICATIONS AND DETAILS FOR ADDITIONAL INFORMATION.					

PIPE INSULATION (2018 AND ASHRAE 90.1 - 2016 COMPLIANCE)							
MINIMUM INSULATION THICKNESS IN INCHES FOR INDOOR PIPE SIZES (SEE NOTES BELOW)							
PIPING SYSTEM TYPES	FLUID TEMP. RANGE (°F)	< 1"	1" & 1½"	1½" - 3"	4" - 6"	8" & UP	K-FACTOR (BTU-INCH/°F-HR-SF) AT AVE. TEMP. (°F)
REFRIGERANT OR COOLING COIL	≤ 60	0.5	1	1	1	1.5	0.20-0.27 @ 75°F
CONDENSATE DRAIN							
NOTES: 1. FOR MINIMUM THICKNESS OF ALTERNATIVE INSULATION TYPES OUTSIDE THE STATED CONDUCTIVITY RANGE, SEE TEST METHOD FOR STEADY STATE HEAT TRANSFER PROPERTIES OF HORIZONTAL PIPE INSULATIONS, ASTM C 335-95, AND THE STATE ENERGY CODE. 2. REFER TO SPECIFICATIONS AND DETAILS FOR ADDITIONAL INFORMATION.							

ELECTRIC HEATING COIL SCHEDULE																	
TAG	SERVICE	LOCATION	CFM	TYPE	CAPACITY		AIR TEMP (°F)		DUCT SIZE		VELOCITY (FPM)	NO. OF STEPS	ELECTRIC SERVICE			MANUFACTURER AND MODEL NUMBER (AS STANDARD)	REMARKS
					KW	BTUH	ENT	LVG	W (IN.)	H (IN.)			V	PH	HZ		
EHC-1	OA	DUCT	630	OC	5	17.1	30	55	12	12	696	SCR	480	3	60	INDEECO QUIZ	SEE NOTES
NOTES: 1. PROVIDE WITH THERMAL CUTOUPS, DOOR DISCONNECT SWITCH, AIRFLOW SWITCH, CONTROL TRANSFORMER, FUSES AND MANUFACTURERS SAFETIES. 2. ELECTRIC COIL SHALL BE FLANGED TYPE.																	

ELECTRIC CABINET UNIT HEATER SCHEDULE															
TAG	LOCATION	TYPE	MOUNTING	WEIGHT (LBS)	INPUT (KW)	OUTPUT (MBH)	AIR			ELECTRIC SERVICE			MANUFACTURER AND MODEL NUMBER (AS STANDARD)	REMARKS	
							CFM	EAT (°F)	LAT (°F)	V	PH	HZ			TOTAL AMPS
ECUJ-1	VESTIBULE	HORIZ	HUNG	120	3.0	10.2	250	60	98	480	3	60	3.6	QMARK CU935	SEE NOTES
NOTES: 1. REFER TO SPECIFICATIONS, DETAILS, AND CONTROL DRAWINGS FOR ADDITIONAL INFORMATION. 2. PROVIDE WITH CONCEALED CABINET, CASING WITH FRONT & BACK DUCT COLLARS, AND REMOTE DUCT MOUNTED TWO STAGE T-STAT. 3. UNIT MOUNTED DISCONNECT SWITCH PROVIDED BY ELECTRICAL CONTRACTOR. 4. PROVIDE WITH TEMPERATURE SENSOR IN THE RETURN GRILLE.															

CONDENSATE PUMP SCHEDULE												
TAG	SERVICE	LOCATION	REC. CAP. GAL.	FLUID TEMP. (°F)	DISCHARGE PRESS (FT)	PUMP CAP. (GPM)	ELECTRICAL				MANUFACTURER AND MODEL NUMBER (AS STANDARD)	REMARKS
							HP	V	PH	AMPS		
CP-1	ACU-1	PLENUM	1	55	12	4	1/10	120	1	3.1	HARTELL AZX-1965	SEE NOTES
NOTES:												
1. REFER TO SPECIFICATIONS, DETAILS, AND CONTROL DRAWINGS FOR ADDITIONAL INFORMATION.												
2. CONDENSATE PUMP SHALL BE HARD WIRED AND PLENUM RATED												

ELECTRIC BASEBOARD SCHEDULE									
TAG	LENGTH	WATTS PER FOOT	TOTAL WATTS	OUTPUT (MBH)	ELECTRIC SERVICE			MANUFACTURER AND MODEL NUMBER (AS STANDARD)	REMARKS
					AMPS	V	PH		
EBB-1	3'-0"	250	750	2.6	2.7	277	1	QMARK CPH05A3250	SEE NOTES
NOTES:									
1. REFER TO SPECIFICATIONS AND CONTROL DIAGRAMS FOR ADDITIONAL INFORMATION									
2. PROVIDE WITH INTEGRAL CONCEALED DISCONNECT PREWIRED TO THE UNIT. DISCONNECTING MEANS SHALL BE NEMA RATED AND SUITABLE FOR LOCKING IN THE OFF POSITION.									
3. CONFIRM EQUIPMENT FINISH WITH THE ARCHITECT.									
4. PROVIDE WITH INTEGRAL THERMOSTAT AND PEDESTAL KIT.									

DUCTLESS SPLIT AIR-CONDITIONING UNIT SCHEDULE																								
INDOOR UNIT								OUTDOOR CONDENSING UNIT																REMARKS
TAG	LOCATION	MANUFACTURER AND MODEL NUMBER (AS STANDARD)	COOLING CAPACITY (BTU)		HEATING CAPACITY (BTU)		FAN DATA (CFM)	REFRIGERANT TYPE	TAG	LOCATION	WEIGHT (LBS)	SOUND PRESSURE DB(A)	DESIGN AMBIENT TEMP (°F)		MANUFACTURER AND MODEL NUMBER (AS STANDARD)	ELECTRICAL DATA				EFFICIENCY				
			TOTAL	SENSIBLE	TOTAL	TOTAL							SUMMER	WINTER		V	PH	HZ	MOCP	SEER	HSPF			
ACU-LAN	LAN ROOM	mitsubishi PKA-A24KA	24,000	18,000	23,000	775	R410A	ACCU-LAN	ROOF	163	48	95	0	mitsubishi PUZ-A24NHA	208	1	60	30	21	11	SEE NOTES			
ACU-ELE	ELE ROOM	mitsubishi PKA-A12HA	12,000	9,700	11,100	425	R410A	ACCU-ELE	ROOF	163	48	95	0	mitsubishi PUZ-A12NKA	208	1	60	15	20	10.2	SEE NOTES			
NOTES:																								
1. REFER TO SPECIFICATIONS, DETAILS, AND CONTROL DRAWINGS FOR ADDITIONAL INFORMATION.																								
2. DISCONNECT SWITCH BY ELECTRICAL CONTRACTOR.																								
3. INDOOR UNIT IS POWERED FROM OUTDOOR UNIT.																								
4. INDOOR UNIT - PROVIDE WALL MOUNTED THERMOSTAT THERMOSTAT AND MANUFACTURERS INTEGRAL CONDENSATE PUMP.																								
5. REFRIGERANT PIPE SIZES AND REQUIRED ACCESSORIES SHALL BE PER MANUFACTURERS RECOMMENDATIONS.																								
6. LOCATE AIR COOLED CONDENSING UNIT ON ROOF.																								