VARIABLE REFRIGERANT VOLUME - AIR-COOLED CONDENSING UNIT SCHEDULE

TAG: ROOM	BASIS OF DESIGN (DAIKIN)	NOMINAL TONNAGE	DESCRIPTION	COOLING CAPACITY BTU/h	COOLING CAPACITY AMBIENT DESIGN (°F DB)	HEATING CAPACITY BTU/h	HEATING CAPACITY AMBIENT DESIGN (°F DB / WB)	REFRIGERANT CHARGE Factory Charge (lbs)	REFRIGERANT CHARGE Add'l Refrigerant (lbs)	CONNECTION RATIO (%)
CU-1 (DOAS-1-2-3)	REYQ312XATJB	26	Air cooled heat recovery (2)	312,666	92.2	246,834	13.0 / 10.0	51.6	NA	92.3
CU-2 (DOAS-8-9-10)	REYQ192XATJB	16	Air cooled heat recovery (2)	192,407	92.2	177,510	13.0 / 10.0	51.6	NA	93.8
CU-3 (DOAS-11-13)	REYQ264XATJB	22	Air cooled heat recovery (2)	264,555	92.2	211,340	13.0 / 10.0	51.6	NA	90.9
CU-4 (DOAS-14-15)	REYQ144XATJB	12	Air cooled heat recovery (1)	144,297	92.2	115,105	13.0 / 10.0	25.8	NA	91.7

TAG: ROOM	ELECTRICAL VOLTAGE-PHASE	MIN CIRCUIT AMPS (MCA) mod #1	MCA mod #2	MCA mod #3	MCA total	MAX OVERCURRENT PROTECTION (MOP) mod #1	MOP mod #2	MOP mod #3	MOP total	RUNNING CURRENT(RLA) mod #1	RLA mod #2	RLA mod #3	RLA total
CU-1 (DOAS-1-2-3)	208V - 230V 3ph	61.9	58.3		120.2	70.0	70.0		125.0	49.0	42.6		91.6
CU-2 (DOAS-8-9-10)	208V - 230V 3ph	38.1	38.1		76.2	45.0	45.0		80.0	23.3	23.3		46.6
CU-3 (DOAS-11-13)	208V - 230V 3ph	58.3	43.0		101.3	70.0	50.0		110.0	42.6	28.2		70.8
CU-4 (DOAS-14-15)	208V - 230V 3ph	58.3			58.3	70.0			70.0	42.6			42.6

TAG: ROOM	DIMENSIONS (WxHxD) (inch)	DIMENSIONS WEIGHT (lbs)	EER	IEER	COP47	COP17	SCHE	SEER	HSPF	NOTES	Options and Accessories
CU-1 (DOAS-1-2-3)	48.9 x 66.7 x 30.2 / 48.9 x 66.7 x 30.2	793.0 / 727.0	10.1 / 9.9	20.4 / 18	3.56 / 3.2	2.09 / 2.05	24.3 / 20.7	NA	NA		BHFP26P100UA (1), EKEQDCBAV3-US (4)
CU-2 (DOAS-8-9-10)	48.9 x 66.7 x 30.2 / 48.9 x 66.7 x 30.2	727.0 / 727.0	13 / 13	22.6 / 21.4	3.85 / 3.67	2.5 / 2.37	26.6 / 22.8	NA	NA		BHFP26P100UA (1), EKEQDCBAV3-US (3)
CU-3 (DOAS-11-13)	48.9 x 66.7 x 30.2 / 48.9 x 66.7 x 30.2	727.0 / 727.0	11.2 / 10.4	21.6 / 18	3.62 / 3.2	2.22 / 2.07	26.1 / 18.2	NA	NA		BHFP26P100UA (1), EKEQDCBAV3-US (3)
CU-4 (DOAS-14-15)	48.9 x 66.7 x 30.2	727.0	11.9 / 11.6	23.5 / 21.6	3.75 / 3.42	2.16 / 2.12	25.5 / 22	NA	NA		EKEQDCBAV3-US (2)

Efficiency columns (EER through HSPF): EFFICIENCY (NonDucted/Ducted or Specific Combo)

Schedule Notes:

1. ALL UNITS SHALL BE AGA CERTIFIED AND U.L. LABELED.
2. ALL UNITS SHALL BE SUPPLIED BY ONE MANUFACTURER UNLESS NOTED OTHERWISE.
3. REFRIGERANT SHALL BE R410A
4. PROVIDE ALL SUPPORTS, RAILS, CURBS, ETC. AS REQUIRED TO AND INSTALL UNITS ON ROOF.
5. VARIABLE REFRIGERANT SYSTEM SHALL BE INSTALLED, PIPED, AND CONTROLLED PER MANUFACTURERS RECOMMENDATIONS.
6. PROVIDE ANY ADDITIONAL PIPING, REFRIGERANT, ETC TO ACCOMMODATE ACTUAL PIPING LENGTHS, FIELD VERIFIED.
7. EQUIPMENT MANUFACTURER SHALL PROVIDE ALL REQUIRED TRAINING, ONSITE ASSISTANCE, PROJECT SPECIFIC SHOP DRAWINGS, ETC. AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM. EQUIPMENT MANUFACTURERS SERVICE REPRESENTATIVE SHALL PROVIDE A FINAL REPORT AFTER START-UP CERTIFYING PROPER INSTALLATION AND CONFIRMING WARRANTIES.
8. COORDINATE WITH BRANCH CONTROLLER LAYOUT, SIZE, QUANTITY, ETC WITH MANUFACTURER.
9. PROVIDE PANEL HEATER KIT TO PREVENT ICE BUILDUP ON OUTDOOR DRAIN PAN.
10. PROVIDE WITH WIND BAFFLE KIT.
11. PROVIDE SNOW/HAIL KIT TO PREVENT DAMAGE OR SNOW BUILD-UP IN SEVERE WINTER CLIMATES.
12. PROVIDE WITH MASTER "CENTRAL BRANCH CIRCUIT CONTROLLER", 120V/1Ø, 0.3A.
13. PROVIDE WITH EXPANSION CONTROLLER, 120V/1Ø, 0.3A.
14. FIELD INSTALLED LOW-AMBIENT KIT.
15. NOMINAL COOLING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 80/67°F (DB/WB), OUTDOOR OF 95°F (DB).
16. NOMINAL HEATING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 70°F (DB), OUTDOOR OF 43°F (WB).
17. EFFICIENCY VALUES FOR EER, IEER, COP ARE BASED ON AHRI 1230 TEST METHOD FOR MIXTURE OF DUCTED & NON-DUCTED INDOOR UNITS.
18. FOR SYSTEMS WITH MULTIPLE MODULES, REFRIGERANT PIPE DIMENSIONS INDICATE TOTAL SYSTEM COMBINED PIPING DOWNSTREAM OF MODULE TWINNING.
19. ADDED FIELD CHARGE LISTED IS IN ADDITION TO FACTORY CHARGE, THIS MUST BE UPDATED BASED UPON FINAL AS-BUILT PIPING LAYOUT.
20. EACH CONDENSING UNIT SHALL BE PROVIDED WITH A HOFFMAN & HOFFMAN SINGLE POINT POWER PANEL (SPPP).

VARIABLE REFRIGERANT VOLUME AIR HANDLING UNIT SCHEDULE

TAG	LEVEL SERVED	S.A. CFM	O.A. CFM	E.S.P. (IN.WC)	COOLING CAPACITY TC (MBH)	COOLING CAPACITY SC (MBH)	COOLING CAPACITY EFFICIENCY	COOLING COIL MANUFACTURER DAIKIN & MODEL	IFM FLA	ELECTRICAL DATA MCA	ELECTRICAL DATA MOCP	ELECTRICAL DATA VOLTAGE	CONFIGURATION	OPERATING WEIGHT	MANUFACTURER DAIKIN & MODEL	NOMINAL TONS	CONTROLLING VRF OUTDOOR UNIT	ADDITIONAL OPTIONS
AHU-1	MAIN	1840	1840	0.75	128.1	77.3	EER 10.1	DXM06C12	3.9	8.8	15	208V-1Ø	FLOOR MOUNTED	634 LBS	T24IN	6	CU-1	A
AHU-2	MAIN	1805	1805	0.75	128.0	79.1	EER 10.1	DXM06C12	3.9	8.8	15	208V-1Ø	FLOOR MOUNTED	634 LBS	T24IN	6		A
AHU-3	MAIN	2900	2900	0.75	165.2	99.7	EER 10.1	DXM06C13	3.9	10.8	15	208V-1Ø	FLOOR MOUNTED	634 LBS	T32IN	6		A
AHU-8	MAIN	1045	1045	0.75	69.9	42.4	EER 13	DXM06C14	3.9	4.8	15	208V-1Ø	FLOOR MOUNTED	465 LBS	T12IN	6	CU-2	A
AHU-9	MAIN	1255	1255	0.75	87.2	52.7	EER 13	DXM06C14	3.9	8.8	15	208V-1Ø	FLOOR MOUNTED	465 LBS	T15IN	6		A
AHU-10	MAIN	1425	1425	0.75	116.3	70.1	EER 13	DXM07C13	3.9	8.8	15	208V-1Ø	FLOOR MOUNTED	562 LBS	T15IN	7		A
AHU-11	UPPER	2065	2065	0.75	123.4	72.2	EER 11.2	DXM06C12	3.9	8.8	15	208V-1Ø	FLOOR MOUNTED	634 LBS	T24IN	6	CU-3	A
AHU-13	UPPER	3150	3150	0.75	159.8	97.3	EER 11.2	DXM06C13	3.9	10.8	15	208V-1Ø	FLOOR MOUNTED	634 LBS	T32IN	6		A
AHU-14	UPPER	1650	1650	0.75	116.3	70.1	EER 11.9	DXM07C13	3.9	8.8	15	208V-1Ø	FLOOR MOUNTED	562 LBS	T18IN	7	CU-4	A
AHU-15	UPPER	1245	1245	0.75	87.0	53.1	EER 11.9	DXM06C14	3.9	8.8	15	208V-1Ø	FLOOR MOUNTED	465 LBS	T15IN	6		A

OPTIONS (ALL UNITS)

- 7-DAY PROGRAMMABLE DIGITAL THERMOSTAT W/ HUMIDISTAT
- FILTER KIT /W 2" FILTERS
- CONDENSATE DRAIN PAN OVERFLOW SWITCH
- DUCT SMOKE DETECTOR, SEE NOTE #3
- SINGLE POINT ELECTRICAL CONNECTION
- MANUAL O.A. DAMPER
- GALVANIZED CONDENSATE DRAIN PAN
- FACTORY INSTALLED ELECTRIC HEATER KIT

ADDITIONAL OPTIONS (UNITS AS NOTED)

A: CONDENSATE PUMP, DIVERSITECH CP-22 120V/1Ø
B: 24V MOTORIZED O.A. DAMPER
C: 120V/1Ø MOTORIZED O.A. DAMPER
D: STAINLESS STEEL DRAIN PAN
E: CO2 SENSOR, WALL MOUNTED

NOTES:

1. ALL UNITS SHALL BE U.L. LABELED.
2. ALL UNITS SHALL BE SUPPLIED BY ONE MANUFACTURER UNLESS NOTED OTHERWISE.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE EACH UNIT WITH A SMOKE DETECTOR. THE SMOKE DETECTOR SHALL BE IONIZATION TYPE WIRED TO SHUT-DOWN UNIT WHEN ACTIVATED. THE SMOKE DETECTOR SHALL BE INSTALLED IN THE RETURN DUCT BY THE MECHANICAL CONTRACTOR. THE SMOKE DETECTOR SHALL BE WIRED BY THE ELECTRICAL CONTRACTOR TO AN HVAC MONITORING PANEL. THE PANEL SHALL PROVIDE VISUAL AND AUDIBLE SIGNAL. THE SIGNAL SHALL INDICATE AND BE LABELED AS AIR DETECTOR TROUBLE. THE PANEL SHALL BE SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR. PROVIDE SMOKE DETECTOR WITH REMOTE ALARM OR SUPERVISORY INDICATING DEVICES. EACH REMOTE DEVICE SHALL BE PERMANENTLY LABELED TO ACCURATELY IDENTIFY THE UNIT SERVED.
4. ELECTRIC HEATER SHALL BE BY UNIT MANUFACTURER.

VARIABLE REFRIGERANT VOLUME - BRANCH SELECTOR & ZONE HEAT RECOVERY DEVICE SCHEDULE

TAG: ROOM	BRANCH SELECTOR BASIS OF DESIGN (DAIKIN)	CONDENSING UNIT SERVED	VOLTAGE-PHASE	MIN CIRCUIT AMPS (MCA)	MAX OVERCURRENT PROTECTION (MOP)	MAX CAPACITY (per Port)	DIMENSIONS (WxHxD inch)	WEIGHT (lbs)	ZONE SERVED	REHEAT BOX BASIS OF DESIGN
BS-1	BSF4Q54TVJ	CU-1 for DOAS-1-2-3	208-230V 1ph	0.4	15.0	54,000	13.7 x 9.5 x 23.7	48.5	N/A	KHFP26A100CA (1), KHRP26A250TA (1)
BS-2	BSF4Q54TVJ	CU-1 for DOAS-1-2-3	208-230V 1ph	0.4	15.0	54,000	13.7 x 9.5 x 23.7	48.5	N/A	KHFP26A100CA (1), KHRP26A250TA (1)
BS-3	BSF6Q54TVJ	CU-1 for DOAS-1-2-3	208-230V 1ph	0.6	15.0	54,000	23.3 x 9.5 x 23.7	72.8	N/A	KHRP26A250TA (2)
BS-8	BSF4Q54TVJ	CU-2 for DOAS-8-9-10	208-230V 1ph	0.4	15.0	54,000	13.7 x 9.5 x 23.7	48.5	N/A	KHFP26A100CA (2)
BS-9	BSF4Q54TVJ	CU-2 for DOAS-8-9-10	208-230V 1ph	0.4	15.0	54,000	13.7 x 9.5 x 23.7	48.5	N/A	KHFP26A100CA (1), KHRP26A250TA (1)
BS-10	BSF4Q54TVJ	CU-2 for DOAS-8-9-10	208-230V 1ph	0.4	15.0	54,000	13.7 x 9.5 x 23.7	48.5	N/A	KHFP26A100CA (1), KHRP26A250TA (1)
BS-11	BSF4Q54TVJ	CU-3 for DOAS-11-13	208-230V 1ph	0.4	15.0	54,000	13.7 x 9.5 x 23.7	48.5	N/A	KHFP26A100CA (1), KHRP26A250TA (1)
BS-13	BSF6Q54TVJ	CU-3 for DOAS-11-13	208-230V 1ph	0.6	15.0	54,000	23.3 x 9.5 x 23.7	72.8	N/A	KHRP26A250TA (2)
BS-14	BSF4Q54TVJ	CU-4 for DOAS-14-15	208-230V 1ph	0.4	15.0	54,000	13.7 x 9.5 x 23.7	48.5	N/A	KHFP26A100CA (1), KHRP26A250TA (1)
BS-15	BSF4Q54TVJ	CU-4 for DOAS-14-15	208-230V 1ph	0.4	15.0	54,000	13.7 x 9.5 x 23.7	48.5	N/A	KHFP26A100CA (1), KHRP26A250TA (1)

Schedule Notes:

1. INCLUDE DIAMONDBACK BALL VALVES BV-SERIES, 700PSIG WORKING PRESSURE, FULL PORT, 410A RATED.
2. FOR SUB BC CONTROLLER, THE TOTAL CONNECTABLE INDOOR UNIT CAPACITY CAN BE 126,000 BTUS OR LESS. IF TWO SUB BC CONTROLLERS ARE USED, THE TOTAL INDOOR UNIT CAPACITY CONNECTED TO BOTH SUB BC CONTROLLERS ALSO CANNOT EXCEED 126,000 BTUS. FOR SUB BC CONTROLLER CMB-P1016NU-HB1 THE TOTAL CONNECTABLE INDOOR UNIT CAPACITY CAN BE 126,000 BTUS OR LESS. HOWEVER, IF TWO SUB CONTROLLERS ARE USED, AND ONE OF THEM IS CMB-1016NU-HB1, THE TOTAL INDOOR UNIT CAPACITY CONNECTED TO BOTH SUB CONTROLLERS MUST NOT EXCEED 168,000 BTUS.

STANDARD AIR HANDLING UNIT SCHEDULE

TAG	AREA SERVED	S.A. CFM	O.A. CFM	E.S.P. (IN.WC)	COOLING CAPACITY TC (MBH)	COOLING CAPACITY SC (MBH)	COOLING CAPACITY EFFICIENCY	ELECT. HEAT KW	ELECT. HEAT STEPS	ELECTRICAL DATA MCA	ELECTRICAL DATA MOCP	ELECTRICAL DATA VOLTAGE	CONFIGURATION	OPERATING WEIGHT	MANUFACTURER DAIKIN & MODEL	NOMINAL TONS	ADDITIONAL OPTIONS
AHU-4	INTAKE OFFICES	520	30	0.5	16.6	12.7	SEER2 17.5	5.0	1	27	30	208V-1Ø	VERTICAL	115 LBS	DFVE24BP1400	2	B
AHU-5	SURRENDER/CONF	1460	140	0.75	45.0	33.4	SEER2 16.2	8.0	1	43	45	208V-1Ø	VERTICAL	150 LBS	DFVE48DP1400	4	B
AHU-6	BULL PEN/COPY	1605	125	0.75	45.0	34.2	SEER2 16.2	10.0	1	50	50	208V-1Ø	VERTICAL	150 LBS	DFVE48DP1400	4	B
AHU-7	ADOPTION LOBBY	1205	105	0.75	27.8	21.2	SEER2 17.1	15.0	1	71.5	80	208V-1Ø	VERTICAL	140 LBS	DFVE36CP1400	3	B
AHU-12	ADOPTION LOBBY	2800	185	0.5	86.7	65.9	EER 11.0	30.0	1	95.4	110	208V-3	VERTICAL	406 LBS	DAX09043	6	B

OPTIONS (ALL UNITS)

- 7-DAY PROGRAMMABLE DIGITAL THERMOSTAT W/ HUNIDISTAT
- FILTER KIT /W 2" FILTERS
- CONDENSATE DRAIN PAN OVERFLOW SWITCH
- DUCT SMOKE DETECTOR, SEE NOTE #3
- SINGLE POINT ELECTRICAL CONNECTION
- MANUAL O.A. DAMPER
- GALVANIZED CONDENSATE DRAIN PAN
- FACTORY INSTALLED ELECTRIC HEATER KIT

ADDITIONAL OPTIONS (UNITS AS NOTED)

A: CONDENSATE PUMP, DIVERSITECH CP-22 120V/1Ø
B: 24V MOTORIZED O.A. DAMPER
C: 120V/1Ø MOTORIZED O.A. DAMPER
D: STAINLESS STEEL DRAIN PAN
E: CO2 SENSOR, WALL MOUNTED

NOTES:

1. ALL UNITS SHALL BE U.L. LABELED.
2. ALL UNITS SHALL BE SUPPLIED BY ONE MANUFACTURER UNLESS NOTED OTHERWISE.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE EACH UNIT WITH A SMOKE DETECTOR. THE SMOKE DETECTOR SHALL BE IONIZATION TYPE WIRED TO SHUT-DOWN UNIT WHEN ACTIVATED. THE SMOKE DETECTOR SHALL BE INSTALLED IN THE RETURN DUCT BY THE MECHANICAL CONTRACTOR. THE SMOKE DETECTOR SHALL BE WIRED BY THE ELECTRICAL CONTRACTOR TO AN AN HVAC MONITORING PANEL. THE PANEL SHALL PROVIDE VISUAL AND AUDIBLE SIGNAL. THE SIGNAL SHALL INDICATE AND BE LABELED AS AIR DETECTOR TROUBLE. THE PANEL SHALL BE SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR. PROVIDE SMOKE DETECTOR WITH REMOTE ALARM OR SUPERVISORY INDICATING DEVICES. EACH REMOTE DEVICE SHALL BE PERMANENTLY LABELED TO ACCURATELY IDENTIFY THE UNIT SERVED.
4. ELECTRIC HEATER SHALL BE BY UNIT MANUFACTURER.

STANDARD HEAT PUMP SCHEDULE

TAG	COOLING CAPACITY TC (MBH)	COOLING CAPACITY SC (MBH)	COOLING CAPACITY EFFICIENCY	COOLING CAPACITY OA DB (°F)	HEATING CAPACITY TH (MBH)	HEATING CAPACITY OA DB (°F)	COMPRESSOR RLA	ELECTRICAL DATA MCA	ELECTRICAL DATA MOCP	ELECTRICAL DATA VOLTAGE	MANUFACTURER DAIKIN & MODEL	OPERATING WEIGHT	NOMINAL TONS	MATCHING INDOOR UNIT
HP-4	16.6	12.7	SEER2 17.5	94	17.4	13	10.0	14.6	15	208V-1Ø	DZ6VSA1810	122 LBS	2	AHU-4
HP-5	45.0	33.4	SEER2 16.2	94	45.5	13	25.5	34.4	35	208V-1Ø	DZ6VSA4810	168 LBS	4	AHU-5
HP-6	45.0	34.2	SEER2 16.2	94	45.5	13	25.5	34.4	35	208V-1Ø	DZ6VSA4810	168 LBS	4	AHU-6
HP-7	27.8	21.2	SEER2 17.1	94	28.8	13	16.8	23.9	25	208V-1Ø	DZ6VSA3010	132 LBS	3	AHU-7
HP-12	86.7	65.9	EER 11.0	95	86.7	95	26.9	40.6	60	208V-3Ø	DZ14XA0903A	347 LBS	6	AHU-12

OPTIONS (ALL UNITS)

- 4" THICK PREFABRICATED PAD OR CONCRETE PAD
- PRE-CHARGED REFRIGERANT LINE SETS
- MANUFACTURER MINIMUM CLEARANCES

OPTIONS IF TOTAL EQUIVALENT REFRIGERANT LENGTH ≥ 50'-0" & ≤ 175'-0"

- COMPRESSOR CRANKCASE HEATER
- COMPRESSOR START ASSIST CAPACITOR AND RELAY (NOT REQUIRED FOR SCROLL COMPRESSORS OR 3 PHASE UNITS)
- OUTDOOR UNIT CYCLE PROTECTOR (5 MINUTE)
- WIND BAFFLES (UNITS MOUNTED ON ROOF)
- FOR HORIZONTAL CONFIGURATION: PROVIDE LIQUID LINE SOLENOID WITHIN 2'-0" OF OUTDOOR UNIT WITH FLOW ARROW POINTING TOWARD OUTDOOR UNIT. VAPOR LINE SHOULD SLOPE TOWARD INDOOR UNIT.
- FOR INDOOR UNIT LOCATED ABOVE HEAT PUMP (50'-0" MAX); A LIQUID LINE (BI-FLOW) SOLENOID MUST BE INSTALLED WITHIN 2'-0" OF OUTDOOR UNIT WITH FLOW ARROW POINTING TOWARD OUTDOOR UNIT. AN INVERTED VAPOR LINE TRAP MUST BE INSTALLED AT INDOOR UNIT. THE TOP OF THE TRAP MUST BE GREATER THAN THE HEIGHT OF THE INDOOR COIL.
- FOR INDOOR UNIT LOCATED BELOW HEAT PUMP (150'-0" MAX); A LIQUID LINE (BI-FLOW) SOLENOID MUST BE INSTALLED WITHIN 2'-0" OF OUTDOOR UNIT.

NOTES:

1. ALL UNITS SHALL BE U.L. LABELED.

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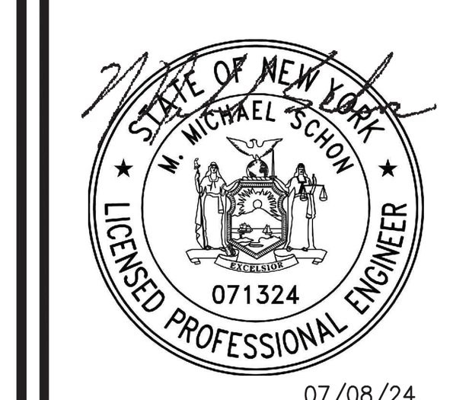
BDA



07/08/24

ROCKLAND GREEN CENTER FOR ANIMAL RESCUE AND EDUCATIONAL SERVICES, INC.

R.G. C.A.R.E.S. ANIMAL SHELTER
427 BEACH RD. LOCATED IN THE TOWN OF HARVERSTRAW, NY 10993

MECHANICAL SCHEDULES

	REV.#	DATE	COMMENTS
REVISION:	-	-	-
REVISION:	-	-	-
REVISION:	-	-	-
REVISION:	-	-	-

REVIEWS	
INITIALS	
	BDA DSGN. REV.
	BDA TECH REV.

RGAS

PROJECT NO.: 23077
DRAWN: DRH
DATE: 07/08/2024

M003