

COOLING TOWER SCHEDULE	
TAG	CT-2
LOCATION	ROOF
MANUFACTURER	RECOLD
MODEL	JWL-35C
TOTAL PROCESS FLOW	150
HOT WATER TEMP	95
COLD WATER TEMP	85
WET BULB TEMP	78
HEAT REJECTION MBH	747.370
GLYCOL CONTENT	30%
AIR VOLUME CFM	19500
COIL PRESSURE DROP	2.3
PUMP MOTOR BHP	1.0
PUMP WATER FLOW	110
MOTOR HP	10
MOTOR RPM	1800
MOTOR EFFICIENCY	PREMIUM
MOTOR DUTY	VFD
ELECTRICAL	208/3/60
LENGTH	144"
WIDTH	55"
HEIGHT - LESS FAN GUARD & RAILS	81"
SHIPPING WEIGHT, LBS	3,305
OPERATING WEIGHT, LBS	5,000
NOTE:	VFD WITH DISCONNECT BY DIVISION 23

INDOOR UNITS - HEAT PUMP SCHEDULE																			
TAG	DAIKIN HEAT PUMP MODEL NUMBER	TYPE	SERVES	BASE BID / ALTERNATE	CALC TOTAL COOL MBH	NOMINAL COOLING BTUH	SENSIBLE COOLING BTUH	NOMINAL HEAT	CFM HIGH / LOW	BUCKLEY FILTER BOX	REFRIGERANT			ELECTRICAL			SIZE H X W X D	WEIGHT	
											TYPE	LIQUID PIPE SIZE	GAS PIPE SIZE	COND DRAIN PIPE SIZE	V-PH-Hz	MCA			FLA
HP-7R	FXM030PBVJU	DUCT MOUNTED	IT ROOM	BASE BID	29.1	30,001	23,189	33,984	1094/850	DFKx-12x36	410A	3/8" ID	5/8" ID	1-1/4" ID	208-1-60	2.80	15	11-13/16" X 55-7/64" X 27-9/16"	101
HP-13	FXM030PBVJU	DUCT MOUNTED	COUNTY MANAGER	BASE BID	6.8	9,503	7,612	10,509	317/230	DFKx-12x20	410A	1/4" ID	1/2" ID	1-1/4" ID	208-1-60	0.60	15	11-13/16" X 21-21/32" X 27-9/16"	55
HP-14	FXM030PBVJU	DUCT MOUNTED	ASSISTANT COUNTY MANAGER	BASE BID	4	7,507	6,244	8,496	317/230	DFKx-12x20	410A	1/4" ID	1/2" ID	1-1/4" ID	208-1-60	0.60	15	11-13/16" X 21-21/32" X 27-9/16"	55
HP-15	FXM030PBVJU	DUCT MOUNTED	DA OFFICE	BASE BID	3.9	7,507	6,244	8,496	317/230	DFKx-12x20	410A	1/4" ID	1/2" ID	1-1/4" ID	208-1-60	0.60	15	11-13/16" X 21-21/32" X 27-9/16"	55
HP-16	FXM030PBVJU	DUCT MOUNTED	JUDGES CHAMBERS	ALTERNATE#1	8.4	15,014	11,704	16,514	560/450	DFKx-12x36	410A	3/8" ID	5/8" ID	1-1/4" ID	208-1-60	2.80	15	11-13/16" X 55-7/64" X 27-9/16"	79
HP-17	FXM030PBVJU	DUCT MOUNTED	PROBATE OFFICE 125	ALTERNATE#1	27.4	30,001	23,189	33,984	1094/850	DFKx-12x36	410A	3/8" ID	5/8" ID	1-1/4" ID	208-1-60	2.80	15	11-13/16" X 55-7/64" X 27-9/16"	101
HP-18	FXM030PBVJU	DUCT MOUNTED	PROBATE COURT ROOM 126	ALTERNATE#1	23.7	30,001	23,189	33,984	1094/850	DFKx-12x36	410A	3/8" ID	5/8" ID	1-1/4" ID	208-1-60	2.80	15	11-13/16" X 55-7/64" X 27-9/16"	101
HP-19	FXM024PBVJU	DUCT MOUNTED	CONFERENCE	BASE BID	21.8	24,002	18,340	26,989	688/565	DFKx-12x36	410A	3/8" ID	5/8" ID	1-1/4" ID	208-1-60	1.90	15	11-13/16" X 39-3/8" X 27-9/16"	79
HP-20	FXM048PBVJU	DUCT MOUNTED	SUPREME JUDICIAL COURT ROOM 112	BASE BID	47.9	48,012	34,961	53,978	1377/1100	DFKx-12x27(2)	410A	3/8" ID	5/8" ID	1-1/4" ID	208-1-60	3.40	15	11-13/16" X 55-7/64" X 27-9/16"	101
HP-21	FXM036PBVJU	DUCT MOUNTED	SUPREME JUDICIAL COURT ROOM 112	BASE BID	36.2	36,000	28,079	39,989	1130/950	DFKx-12x27(2)	410A	3/8" ID	5/8" ID	1-1/4" ID	208-1-60	3.40	15	11-13/16" X 55-7/64" X 27-9/16"	101
HP-22	FXM07PBVJU	DUCT MOUNTED	OFFICE 201	ALTERNATE#3	4.8	7,507	6,244	8,496	317/230	DFKx-12x20	410A	1/4" ID	1/2" ID	1-1/4" ID	208-1-60	0.60	15	11-13/16" X 21-21/32" X 27-9/16"	55
HP-23	FXM07PBVJU	DUCT MOUNTED	OFFICE 202	ALTERNATE#3	7.5	7,507	6,244	8,496	317/230	DFKx-12x20	410A	1/4" ID	1/2" ID	1-1/4" ID	208-1-60	0.60	15	11-13/16" X 21-21/32" X 27-9/16"	55
HP-24	FXM015PBVJU	DUCT MOUNTED	LAW COURT CLERK 200	ALTERNATE#3	12	15,014	11,704	16,514	560/450	DFKx-12x36	410A	1/4" ID	1/2" ID	1-1/4" ID	208-1-60	2.80	15	11-13/16" X 39-3/8" X 27-9/16"	79
HP-25	FXM07PBVJU	DUCT MOUNTED	DEEDS OFFICE	ALTERNATE#2	3	7,507	6,244	8,496	317/230	DFKx-12x20	410A	1/4" ID	1/2" ID	1-1/4" ID	208-1-60	0.60	15	11-13/16" X 27-1/2" X 27-9/16"	55

Notes:
1. POWER TO UNITS BY DIV 26. INTERCONNECTING CONTROL WIRING BY DIV 23. DISCONNECT SWITCH BY DIV 26.
2. PROVIDE CONDENSATE PUMPS FOR UNITS UNABLE TO DRAIN BY GRAVITY.
3. SEE VRF SYSTEM SCHEMATIC ON SHEET MH-500.

WATER COOLED CONDENSING UNIT SCHEDULE				
TAG	CD-3	CD-4 (ALT #1)	CD-5 (BASE BID)	CD-5 & 6 (ALT#3)
LOCATION	FIRST FL MECH RM	FIRST FL MECH RM	ATTIC	ATTIC
SERVICE	BS-6 & 8	BS-7 (ALT#1)	NA	BS-9 & 10 (ALT#3)
MFR-MODEL	DAIKIN	DAIKIN	DAIKIN	DAIKIN
MODEL	RWEYQ2PCTJ-HR	RWEYQ2PCTJ-HR	RWEYQ84PCTJ	RWEYQ144PCTJ-HR
NOMINAL TONS	6	6	7	12
COOLING CAPACITY BTU	69,334	72,106	82,174	140,346
HEATING CAPACITY BTU	79,438	82,742	92,656	158,876
V-PH-HZ	208-230/3/60	208-230/3/60	208-230/3/60	208-230/3/60
COOLING INPOUT POWER KW	5.6	5.6	5.6	5.6 EA
HEATING INPOUT POWER KW	4.7	4.7	5.4	4.7 EA
MCA	22.4	22.4	22.4	22.4 EA
MOP	30	30	30	30 EA
REFRIGERANT	R-410A	R-410A	R-410A	R-410A
COOLING MODE EWT	85	85	85	85
COOLING MODE LMT	92.7	97.3	95	94.1
HEATING MODE EWT	78	78	78	78
GPM	15	15	15	15 EA
WATER INLET PIPE	1 1/2"	1 1/2"	1 1/2"	1 1/2" EA
WATER OUTLET PIPE	1 1/2"	1 1/2"	1 1/2"	1 1/2" EA
LIQUID PIPE	3/8"	3/8"	3/8"	1/2"
GAS PIPE	5/8"	5/8"	7/8"	7/8"
DISCHARGE PIPE	3/4"	3/4"	NA	1 1/8"
OPERATING WEIGHT, lbs.	331	331	343	331 EA
LENGTH	30-3/4"	30-3/4"	30-3/4"	30-3/4" EA
WIDTH	39-3/8"	39-3/8"	39-3/8"	39-3/8" EA
HEIGHT	21-11/16"	21-11/16"	21-11/16"	21-11/16" EA

Notes:
1. UNDER ALTERNATE #3, CD#5 AND CD#6 SHALL BE HEAT RECOVERY UNITS MANIFOLDED TOGETHER WITH A SINGLE PORT BRANCH BOX (BS-9) SERVING HP 20- AND HP-21 (SINGLE TEMPERATURE CONTROLLER) AND A MULTI-PORT BRANCH BOX (BS-10) SERVING HP-22 THROUGH HP-24.
2. DISCONNECT SWITCH FOR EACH UNIT FURNISHED AND INSTALLED BY DIVISION 26.

BRANCH SELECTOR UNIT SCHEDULE												
TAG	DAIKIN BS MODEL NUMBER	SERVES	TOTAL CAPACITY BTU	NUMBER OF CONNECTED INDOOR UNITS	REFRIGERANT					ELECTRICAL	SIZE H X W X D	WEIGHT
					INDOOR UNIT		CONDENSER SIDE					
					LIQUID PIPE SIZE	GAS PIPE SIZE	LIQUID PIPE SIZE	SUCTION GAS PIPE SIZE	DISCHARGE GAS PIPE SIZE	V-PH-Hz		
BS-6	BS4Q54TVJ	HP-13, 14 & 15		3	1/4" ID	1/2" ID	3/8" ID	5/8" ID	1/2" ID	208-1-60	8-1/8" X 15-1/4" X 12-13/16"	49
BS-7 (ALT#1)	BS4Q54TVJ	HP-16, 17 & 18 (ALT#1)		3	3/8" ID	5/8" ID	3/8" ID	5/8" ID	3/4" ID	208-1-60	8-1/8" X 15-1/4" X 12-13/16"	49
BS-8	BSQ36TVJ	HP-19		1	3/8" ID	5/8" ID	3/8" ID	5/8" ID	1/2" ID	208-1-60	8-1/8" X 15-1/4" X 12-13/16"	27
BS-9 (ALT#3)	BSQ96TVJ	HP-20/HP-21 (ALT#3 ONLY)		2	3/8" ID	7/8" ID	3/8" ID	7/8" ID	3/4" ID	208-1-60	8-1/8" X 15-1/4" X 12-13/16"	27
BS-10 (ALT#3)	BS4Q54TVJ	HP-22, 23 & 24 (ALT#3)		3	1/4" ID	1/2" ID	3/8" ID	5/8" ID	1/2" ID	208-1-60	8-1/8" X 15-1/4" X 12-13/16"	27
BS-20 (ALT#2)	BSQ36TVJ	HP-25 (ALT#2)		1	1/4" ID	1/2" ID	1/4" ID	1/2" ID	3/8" ID	208-1-60	8-1/8" X 15-1/4" X 12-13/16"	27

Notes:
1. POWER TO UNITS BY DIV 26. INTERCONNECTING CONTROL WIRING BY DIV 23. DISCONNECT SWITCH BY DIV 26.

LOUVER SCHEDULE															
TAG	MAKE - MODEL	AIR SYSTEM	DUTY	CFM	DIMENSIONS				NET VELOCITY (FT/MIN)	% FREE AREA	BLADE DEPTH	BEGINNING POINT OF WATER PENETRATION AT 0.01 OZ/SF	MAX P.D. MAX W.C.	SCREEN	NOTES
					HEIGHT (IN.)	WIDTH (IN.)	MIN. FREE AREA (SF)	GROSS VELOCITY (FT/MIN)							
L-1	RUSKIN ELF445DX	ERU-6 & 7	INTAKE	880	18	36	1.89	195.6	465.6	42.0%	4"	873 FPM	0.06	SEE SPEC	
L-2	RUSKIN ELF445DX	ERU-6 & 7	INTAKE	1,080	18	36	1.89	240.0	571.4	42.0%	4"	873 FPM	0.06	SEE SPEC	

REGISTERS - GRILLES - DIFFUSERS (RGD) SCHEDULE										
TAG	PRICE MODEL	TYPE	NECK SIZE	FACE SIZE	CFM RANGE	MAX TOTAL P.D. (IN W.C.)	MAX NO LEVEL	BORDER TYPE	BLOW	NOTES
S-1	SCD	SQ. CEILING SUPPLY DIFFUSER	6" DIA	24" X 24"	0-150	0.07"	16	LAY-IN	4-WAY	
S-2	SCD	SQ. CEILING SUPPLY DIFFUSER	8" DIA	24" X 24"	151-275	0.07"	19	LAY-IN	4-WAY	
S-3	SCD	SQ. CEILING SUPPLY DIFFUSER	10" DIA	24" X 24"	276-440	0.07"	22	LAY-IN	4-WAY	
S-4	SCD	SQ. CEILING SUPPLY DIFFUSER	12" DIA	24" X 24"	441-630	0.07"	24	LAY-IN	4-WAY	
S-5	520D	STEEL DOUBLE DEFL. SUPPLY REGISTER	6" X 6"	6" X 6"	0-130	0.10"	20	SURFACE MT.	ADJUSTABLE	
S-6	520D	STEEL DOUBLE DEFL. SUPPLY, W/ DAMPER	8" X 6"	9.75" X 7.75"	131-180	0.10"	21	SURFACE MT.	ADJUSTABLE	
S-7	520D	STEEL DOUBLE DEFL. SUPPLY, W/ DAMPER	10" X 6"	11.75" X 7.75"	181-240	0.10"	23	SURFACE MT.	ADJUSTABLE	
S-8	520D	STEEL DOUBLE DEFL. SUPPLY, W/ DAMPER	12" X 8"	13.75" X 9.75"	241-400	0.10"	25	SURFACE MT.	ADJUSTABLE	
S-9	520D	STEEL DOUBLE DEFL. SUPPLY, W/ DAMPER	12" X 10"	13.75" X 11.75"	401-500	0.10"	26	SURFACE MT.	ADJUSTABLE	
S-10	520D	STEEL DOUBLE DEFL. SUPPLY, W/ DAMPER	18" X 14"	19.75" X 15.75"	501-650	0.10"	19	SURFACE MT.	ADJUSTABLE	
S-11	SMDP	LOUVERED PLAQUE CEILING DIFFUSER, 2 SLOT	12" DIA	24" X 24"	320	0.07"	22	LAY-IN	4-WAY	1
S-12	520D	STEEL DOUBLE DEFL. SUPPLY, W/ DAMPER	26" X 8"	27.75" X 9.75"	501-650	0.10"	19	SURFACE MT.	ADJUSTABLE	1
E-1	530	STEEL RETURN GRILLE, 3/4" SPACING, 45 DEG VANES	8" X 8"	8" X 8"	0-170	0.05"	23	SURFACE MT.	-----	
E-2	530	STEEL RETURN GRILLE, 3/4" SPACING, 45 DEG VANES	12" X 12"	12" X 12"	171-440	0.05"	27	SURFACE MT.	-----	
E-3	530	STEEL RETURN GRILLE, 3/4" SPACING, 45 DEG VANES	22" X 22"	22" X 22"	440-940	0.03"	27	LAY-IN	-----	
E-4	530	STEEL RETURN GRILLE, 3/4" SPACING, 45 DEG VANES	18" X 14"	18" X 14"	441-700	0.05"	19	SURFACE MT.	-----	
E-5	530	STEEL RETURN GRILLE, 3/4" SPACING, 45 DEG VANES	24" X 12"	24" X 12"	701-900	0.05"	27	SURFACE MT.	-----	
E-6	530	STEEL RETURN GRILLE, 3/4" SPACING, 45 DEG VANES	16" X 8"	16" X 8"	171-440	0.05"	27	SURFACE MT.	-----	1
E-7	530	STEEL RETURN GRILLE, 3/4" SPACING, 45 DEG VANES	26" X 8"	26" X 8"	441-700	0.05"	19	SURFACE MT.	-----	1

NOTE 1. PROVIDE W/ FACTORY PRIME COAT FINISH TO FOR FIELD PAINTING - REFER TO ARCHITECTURAL DRAWING.

ENERGY RECOVERY UNIT SCHEDULE						
GENERAL	TAG	ERU-3	ERU-4	ERU-5 (ALT#1)	ERU-6	ERU-7 (ALT#3)
SERVES		HP-13, 14 & 15	HP-19	HP-16, 17 & 18	HP-20 & 21	HP-22, 23 & 24
TYPE		FIXED-PLATE	FIXED-PLATE	FIXED-PLATE	FIXED-PLATE	FIXED-PLATE
MFR	RenewAire	RenewAire	RenewAire	RenewAire	RenewAire	RenewAire
MODEL	EV200	EV450IN	EV450IN	HE1XNH	EV450IN	EV450IN
FILTER SECTION		2" MERV-8	2" MERV-8	2" MERV-8	2" MERV-13	2" MERV-8
OUTSIDE AIR FAN		TYPE FC	FC	FC	FC	FC
AIRFLOW, cfm	100	270	485	730	150	150
ESP, in.wc.	0.70"	0.75"	0.75"	0.9"	0.75"	0.75"
HP	0.1	0.6	0.6	0.75	0.6	0.6
EXHAUST AIR FAN		TYPE FC	FC	FC	FC	FC
AIRFLOW, cfm	100	270	485	730	150	150
ESP, in.wc.	0.70"	0.75"	0.75"	0.9"	0.75"	0.75"
HP	SHARED MOTOR	SHARED MOTOR	SHARED MOTOR	0.75	SHARED MOTOR	
OVERALL DIMENSIONS		LENGTH 33.5"	44"	44"	53.75"	44"
		WIDTH 24"	37"	37"	23.75"	37"
		HEIGHT 20"	16"	16"	35.75"	16"
		OPERATING WEIGHT, lbs.	110	160	275	160
HEAT RECOVERY CORE		SUMMER OA DB/WB	87 / 72	87 / 72	87 / 72	87 / 72
		WINTER OA DB	0	0	0	0
		SUMMER SA DB/WB	78.5 / 72.9	78.5 / 72.9	78.5 / 72.9	78.5 / 72.9
		WINTER SA DB	52.8	52.8	52.8	52.8
		TEMP EFF.	81.0%	81.0%	73.0%	81.0%
		SUMMER EFF.	77.0%	66.0%	56.0%	66.0%
		WINTER EFF.	64.0%	76.0%	66.0%	76.0%
		FROST CONTROL	NONE REQUIRED	NONE REQUIRED	NONE REQUIRED	NONE REQUIRED
ELECTRICAL DATA		V-PH-HZ	120/1/60	208/1/60	208/1/60	208/1/60
		DISC SWITCH	DIV 26	DIV 26	DIV 26	DIV 26
		STARTER	DIV 26	DIV 26	DIV 26	DIV 26
		UNIT FLA	1.5	4.9	4.9	4.9
		S & R SMOKE DETECTORS	NO	NO	NO	NO
NOTES			1	1	1.2	1

Notes:
1. Provide ECM motor as specified.
2. Provide factory isolation damper at OA/EA as specified.

N:\Projects\2017\7051 - 104880m Dec 22, 2017 - 10:48