GAS-FIRED ROOFTOP AIR HANDLING UNIT SCHEDULE

MARK	TYPE	FAN				MIN. OA CFM	COOLING COIL					GAS HEAT				ELECTRIC CHAR.			DESIGN BASIS	OPER. WEIGHT (LBS)	REMARKS
		CFM	TYPE	ESP. IN. WG	MAX MOTOR HP		MIN. ROW NO.	TOTAL COOL. MBH	SENS. COOL. MBH	EAT °F DB	EAT °F WB	UNIT TON.	EER	GAS INPUT MBH	GAS OUTPUT MBH	EFF.	TEMP RISE	NO. OF STAGE	V/Ø/Hz	MCA	MOCP		
RTU-2-1 THRU RTU 2-4	ROOFTOP	2700	CENT.	1.0	3.7	700	4	89.9	66.2	80	67	7.5	12.6	150	120	80%	41	2	208/3/60	41.9	50	TRANE YHC092F3	1500	①②③④⑤⑥⑦⑧⑨
RTU-2-5	ROOFTOP	2700	CENT.	1.0	3.7	600	4	89.9	66.2	80	67	7.5	12.6	150	120	80%	41	2	208/3/60	41.9	50	TRANE YHC092F3	1500	①②③④⑤⑥⑦⑧⑨
RTU-2-6	ROOFTOP	2700	CENT.	1.0	3.7	240	4	89.9	66.2	80	67	7.5	12.6	120	96	80%	33	2	208/3/60	41.9	50	TRANE YHC092F3	1500	①②③④⑤⑥⑦⑧⑨

NOTE :

1. UNIT SHALL BE DOWNFLOW GAS-HEATED PACKAGED ROOFTOP AC UNIT. REFRIGERANT CIRCUIT SHALL BE COMPATIBLE WITH R-410A.
2. COORDINATE WITH ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS. PROVIDE UNIT DISCONNECT SWITCH BY UNIT MANUFACTURER.
3. UNIT SHALL BE INSTALLED ON 14" HIGH ROOF MOUNTING CURB FABRICATED BY UNIT MANUFACTURER.
4. PROVIDE SMOKE DETECTOR AT THE RETURN AIR DUCTWORK AS SHOWN IN DRAWING. SMOKE DETECTOR SHALL BE FURNISHED BY UNIT MANUFACTURER. INSTALLED SMOKE DETECTOR BY MECHANICAL CONTRACTOR AND WIRED BY ELECTRICAL CONTRACTOR.
5. UNIT SHALL BE PROVIDED WITH FRESH AIR INTAKE HOOD, THROWAWAY FILTER AND POWER EXHAUST FAN FOR AIR-SIDE ECONOMIZER MODE.
6. REFER TO UNIT MANUFACTURER'S RECOMMENDATION FOR GAS CONNECTION REQUIREMENT.
7. UNIT SHALL BE PROVIDED WITH TWO(2) CIRCUIT, TWO(2) SCROLL COMPRESSOR REFRIGERANT CIRCUIT. COOLING CAPACITY IS BASED ON OUTDOOR AIR TEMPERATURE AT 95°F.
8. PROVIDE HEAD PRESSURE CONTROLS FOR LOW AMBIENT OPERATION, LOUVERED HAIL GUARDS, CONVENIENCE POWERED OUTLET FOR SINGLE POINT ELECTRICAL CONNECTION AND THRU-THE-CURB FOR POWER CONNECTION BY UNIT MANUFACTURER.
9. TRANE IS USED FOR BASIS OF DESIGN. YORK & CARRIER PRODUCTS ARE ACCEPTABLE PROVIDED TO MEET ALL CONDITIONS ARE SET FORTH.

MECHANICAL VENTILATION

COND. AREA	NO. OF PEOPLE	CFM PER PEOPLE	CFM BY PEOPLE	COND. AREA SQ. FT.	CFM PER SQ. FT.	CFM BY AREA	MIN. VENTILATION REQUIREMENT CFM	DESIGN VENTILATION CFM
LOBBY/FOYER	27	5	135	4270	0.06	255	390	6635
RELIGIOUS SPACE	650	5	3250	6210	0.06	375	3625	
OFFICE	20	5	100	4270	0.06	260	360	
LIBRARY	100	5	500	1550	0.06	95	595	
UTILTIY SPACE	-	-	-	1380	0.06	85	85	
KITCHEN	11	7.5	85	1090	0.12	0	85	
MULTI-PURPOSE	250	5	1250	2660	0.06	160	1410	
STORAGE	-	5	-	905	0.06	55	55	

KITCHEN HOOD SYSTEM				WAREWASHER HOOD	TOILETS			TOTAL EXH CFM
# OF UNIT	EXH CFM	MUA CFM	NET CFM	# OF UNIT	EXH CFM	EXH CFM		
2	-9600	9120	-480	1	-325	-1330		-2135

REMARKS:

1. VENTILATION CALCULATION IS REFERENCED FROM INTERNATIONAL MECHANICAL CODE 2009 EDITION.
2. TOTAL DESIGN VENTILATION AIRFLOW RATE OF 6635 CFM IS BASED ON THE MINIMUM OUTSIDE AIRFLOW REQUIREMENT WITH POSITIVE PRESSURE RELATIVE TO OUTDOOR.

HEAT PUMP UNIT

MARK	SERVICE	NOM. CAP. TON	FAN MOTOR HP	SYSTEM POWER KW	COND. AMBIENT TEMP, °F	SAT. SUCTION TEMP. °F	MIN. SEER	MIN. COP	WEIGHT LB	ELECT. CHAR. V/Ø/Hz	DESIGN BASIS	REMARKS
HP-B-1 THRU 5	AH-B-1 THRU 5	5	1/4	4.25	95	45	16.0	3.72	350	208/1/60	TRANE 4TWR7060	①②③④⑤⑥
HP-B-8 THRU 10	AH-B-8 THRU 10	0.75	-	0.79	95	45	24.5	4.46	100	208/1/60	DAIKIN LV SERIES	①②③④⑤⑥

REMARKS:

1. UNIT SHALL BE SCROLL TYPE COMPRESSOR CONDENSING UNIT. REFRIGERANT CIRCUIT SHALL BE R-410A TYPE OR EQUAL.
2. CONSULT AND COORDINATE WITH UNIT MANUFACTURER FOR REFRIGERANT PIPING SIZES REQUIREMENT FROM HEAT PUMP UNIT TO ASSOCIATED INDOOR AIR HANDLER.
3. REFER TO ELECTRICAL DRAWING FOR ELECTRICAL CIRCUIT REQUIREMENT.
4. PROVIDE LOW AMBIENT CONTROL BY UNIT MANUFACTURER.
5. UNIT SHALL BE FIVE (5) YEAR WARRANTY ON COMPRESSOR, COIL AND ONE (1) YEAR ON PARTS.
6. UNIT SELECTION IS BASED ON TRANE AND DAIKIN. EQUIVALENT MANUFACTURERS: CARRIER, YORK, MITSUBISHI OR APPROVED EQUAL.

CONDENSING UNIT

MARK	SERVICE	NOM. CAP. TON	FAN MOTOR HP	SYSTEM POWER KW	COND. AMBIENT TEMP, °F	SAT. SUCTION TEMP. °F	MIN. SEER	WEIGHT LB	ELECT. CHAR. V/Ø/Hz	DESIGN BASIS	REMARKS
CU-B-6 & 7	AH-B-6 THRU 7	4	1/5	3.80	95	45	15.0	350	208/1/60	TRANE 4TTR7048	①②③④⑤⑥
CU-1-1	AH-1-1	3	1/8	2.86	95	45	15.5	350	208/1/60	TRANE 4TTR7036	①②③④⑤⑥
CU-1-2 THRU 4	AH-1-2 THRU 4	4	1/5	3.80	95	45	15.0	350	208/1/60	TRANE 4TTR7048	①②③④⑤⑥

REMARKS:

1. UNIT SHALL BE SCROLL TYPE COMPRESSOR CONDENSING UNIT. REFRIGERANT CIRCUIT SHALL BE R-410A TYPE OR EQUAL.
2. CONSULT AND COORDINATE WITH UNIT MANUFACTURER FOR REFRIGERANT PIPING SIZES REQUIREMENT FROM HEAT PUMP UNIT TO ASSOCIATED INDOOR AIR HANDLER.
3. REFER TO ELECTRICAL DRAWING FOR ELECTRICAL CIRCUIT REQUIREMENT.
4. PROVIDE LOW AMBIENT CONTROL BY UNIT MANUFACTURER.
5. UNIT SHALL BE FIVE (5) YEAR WARRANTY ON COMPRESSOR, COIL AND ONE (1) YEAR ON PARTS.
6. UNIT SELECTION IS BASED ON TRANE. EQUIVALENT MANUFACTURERS: CARRIER, YORK OR APPROVED EQUAL.

DUCTLESS AC UNIT

MARK	TOTAL CFM	TONAGE	# OF REFRIG CIRCUIT	REFRIG	COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	ELECT. CHAR. V/Ø/Hz	MCA AMP.	MCOP AMP.	DESIGN BASIS	REMARKS
AH-B-8 THRU 10	220	0.75	SINGLE	R410A	9	12	208/1/60	8	15	DAIKIN LV SERIES	①②③④⑤⑥⑦

REMARKS:

1. UNIT SHALL BE WALL MOUNTED INDOOR UNIT WITH FILTER.
2. REFER TO MANUFACTURER'S MANUAL FOR REFRIGERANT PIPE SIZE AND INSTALLATION REQUIREMENT.
3. REFER TO ELECTRICAL DRAWING FOR ELECTRICAL CIRCUIT REQUIREMENT. UNIT SHALL BE SINGLE POINT POWER CONNECTION.
4. UNIT SELECTION IS BASED ON DAIKIN. EQUIVALENT MANUFACTURER: MITSUBISHI OR APPROVED EQUAL.

SPLIT SYSTEM AIR HANDLER

MARK	TOTAL CFM	MIN O.A CFM	E.S.P. IN. WC	FAN TYPE	FAN DRIVE	MOTOR HP	# OF REFRIG CIRCUIT	COOLING COIL					ELECT. CHAR. V/Ø/Hz	ELECTRIC HEAT SECTION					DESIGN BASIS	REMARKS
								REFRIG	TOTAL CAP (MBH)	SENSIBLE CAP (MBH)	EAT DB °F	EAT WB °F		KW	NO. OF CIRCUIT	EAT °F	LAT °F	ELECT. CHAR. V/Ø/Hz		
AH-B-1 THRU 3	2000	470	0.5	F.C. CENTRIFUGAL	DIRECT	1	SINGLE	R410A	57.8	43.5	80	67	208/1/60	24	3	60	89	240/1/60	TRANE TAM7B0C60	①②③④⑤⑥⑦
AH-B-4 THRU 5	2000	200	0.5	F.C. CENTRIFUGAL	DIRECT	1	SINGLE	R410A	57.8	43.5	80	67	208/1/60	19.2	2	60	89	240/1/60	TRANE TAM7B0C60	①②③④⑤⑥⑦

REMARKS:

1. UNIT SHALL BE VERTICAL TOP DISCHARGE INDOOR UNIT WITH MIN. 4 ROWS OF DX COOLING COIL, THROW-AWAY FILTER AND ELECTRIC HEATING COIL. PROVIDE ELECTRIC HEATER AND RETURN AIR PLENUM STAND BY UNIT MANUFACTURER.
2. COOLING CONDITION IS BASED ON OUTDOOR AMBIENT TEMPERATURE OF 95°F.
3. MAXIMUM AIRFLOW FACE VELOCITY THROUGH COIL SHALL BE 500 FPM.
4. ADJUST OUTSIDE AIR DAMPER TO PROVIDE OUTSIDE AIR FLOWRATE AS SHOWN.
5. UNIT SHALL BE PROVIDED WITH REMOTE MOUNTED PROGRAMMABLE DIGITAL DISPLAY THERMOSTAT BY UNIT MANUFACTURER.
6. REFER TO ELECTRICAL DRAWING FOR ELECTRICAL CIRCUIT REQUIREMENT. UNIT SHALL BE SINGLE POINT POWER CONNECTION.
7. UNIT SELECTION IS BASED ON TRANE. EQUIVALENT MANUFACTURER: CARRIER, YORK OR APPROVED EQUAL.

GAS FURANCE WITH COOLING COIL

MARK	TOTAL CFM	MIN O.A CFM	E.S.P. IN. WC	FAN TYPE	FAN DRIVE	MOTOR HP	# OF REFRIG CIRCUIT	COOLING COIL SECTION					ELECT. CHAR. V/Ø/Hz	GAS HEAT			DESIGN BASIS	REMARKS
								REFRIG	TOTAL CAP (MBH)	SENSIBLE CAP (MBH)	EAT DB °F	EAT WB °F		GAS INPUT MBH	GAS OUTPUT MBH	EFF		
AH-B-6 THRU 7	1825	110	0.5	F.C. CENTRIFUGAL	DIRECT	3/4	SINGLE	R410A	48.3	34.6	80	67	208/1/60	80	76	95	TRANE TUH/4CXC	①②③④⑤⑥⑦
AH-1-1	1350	5[illegible]	0.5	F.C. CENTRIFUGAL	DIRECT	3/4	SINGLE	R410A	36.2	25.7	80	67	208/1/60	80	76	95	TRANE TUH/4CXC	①②③④⑤⑥⑦
AH-1-2 & 3	1375	[illegible]	[illegible]	F.C. CENTRIFUGAL	DIRECT	3/4	SINGLE	R410A	46.4	33.2	80	67	208/1/60	110	104.5	95	TRANE TUH/4CXC	①②③④⑤⑥⑦
AH-1-4	1[illegible]	8[illegible]	0.5	F.C. CENTRIFUGAL	DIRECT	3/4	SINGLE	R410A	48.3	34.6	80	67	208/1/60	80	76	95	TRANE TUH/4CXC	①②③④⑤⑥⑦

REMARKS:

1. UNIT SHALL BE VERTICAL UPFLOW DISCHARGE INDOOR UNIT WITH DX COOLING COIL CABINET AND THROW-AWAY FILTER. PROVIDE AUXILIARY DRAIN PAN AND COOLING COIL CABINET BY UNIT MANUFACTURER.
2. COOLING CONDITION IS BASED ON OUTDOOR AMBIENT TEMPERATURE OF 95°F.
3. MAXIMUM AIRFLOW FACE VELOCITY THROUGH COIL SHALL BE 500 FPM.
4. UNIT SHALL BE PROVIDED WITH REMOTE MOUNTED PROGRAMMABLE DIGITAL DISPLAY THERMOSTAT BY UNIT MANUFACTURER.
5. PROVIDE SUB-BASE WITH RETURN AIR PLENUM AT BOTTOM OF UNIT.
6. REFER TO ELECTRICAL DRAWING FOR ELECTRICAL CIRCUIT REQUIREMENT. UNIT SHALL BE SINGLE POINT POWER CONNECTION.
7. UNIT SELECTION IS BASED ON TRANE. EQUIVALENT MANUFACTURER: CARRIER, YORK OR APPROVED EQUAL.

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NOTES:

REVISION #	DATE	REMARKS

ISSUE DATE:	ISSUED TO:	ISSUED FOR:
10-02-2014	COUNTY	PERMITS

PROJECT ADDRESS:
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LAYOUT:
MECHANICAL SCHEDULES

PAPER SIZE: 24X36 (ARCH D)

SCALE: AS NOTED

SHEET NUMBER:
M002