PACKAGED ROOFTOP A.C. UNIT SCHEDULE (GAS/ELEC)

MARK	SERVES	TYPE	CFM	O.A. CFM	FAN MOTOR	FAN E.S.P.	FAN B.H.P.	FAN RPM	EVAP E.A.T. db	EVAP E.A.T. wb	EVAP L.A.T. db	EVAP L.A.T. wb	EVAP MBH TOTAL	EVAP MBH SENS.	COND AMB.	COND NO. FANS	COND H.P.	INDIRECT GAS FIRED HX E.A.T. db	HX L.A.T. db	HX MBH INPUT	HX MBH OUTPUT	ELEC. CHAR. VOLTS	ELEC. CHAR. PHASE	MOCP	MCA	MANUFACTURER	MODEL	WEIGHT (LBS)	TONS	EER /SEER	REMARKS
RTU-1	MAIN SALES	CONSTANT VOLUME	23,000	7,100	BELT	1.5"	19.2	933	77.9	65.4	46.9	46.3	964,915	613,877	95	8	1.0	53.3	50.9	1,600	1,280	208	3	--	--	SEASONS-4	1HPK47-0804 PN16 - 23SE	17,250	80	11.5	①②③④⑤⑧
RTU-2	AIR ENTRANCE	CONSTANT VOLUME	20,000	–	BELT	2.25"	(2)@8.83	1196	–	–	–	–	–	–	–	–	–	60.0	89.2	780	631.8	208	3	150	107	AAON	RN-031-8-0-0000-3B9	3920	–	11.0	⑤⑨⑩
RTU-3	VESTIBULE	CONSTANT VOLUME	2000	200	BELT	1.0"	1.65	1444	76.7	65.3	56.7	55.3	63.3	43.2	95	1	.25	60.7	103.9	115/82	93.15	208	3	35	28.9	CARRIER	48HJE006-5-HQ	900	5	13	①②④⑤
RTU-4	SEATING AREA 1	CONSTANT VOLUME	5000	1000	BELT	.8"	4.50	1151	77.0	66.0	57.0	56.6	147.7	104.1	95	2	.25	53.4	90.4	250/200	200	208	3	70	60.6	CARRIER	48HJE014-5-HQ	1300	12.5	9.60	①②④⑤
RTU-5	SEATING AREA 2	CONSTANT VOLUME	3000	600	BELT	1.0"	2.48	900	81.1	65.3	58.0	55.5	89.7	74.8	95	1	.25	53.4	99.0	180/120	147.6	208	3	45	38.2	CARRIER	48HJE008-5-HQ	1200	7.5	11.0	①②④⑤
RTU-6	KITCHEN	CONSTANT VOLUME	4450	4450	BELT	1.0"	2.43	1171	95.0	76.0	57.8	57.2	269.8	167.2	95	2	1.0	-5.0	81.9	550	457	208	3	150	113	REZNOR	RDDA-230-550	2500	22.5	10.9	①②⑤⑥⑦⑩

NOTE: SELECTIONS ARE BASED ON CARRIER EQUIPMENT, ACCEPTABLE ALTERNATIVE MANUFACTURERS ARE TRANE AND YORK.

REMARKS:
① CONTRACTOR SHALL FURNISH AND INSTALL UNIT WITH FACTORY ROOF CURB. LEVEL UNITS AS REQUIRED TO ADJUST FOR ROOF SLOPE. CURB IS NOT REQUIRED FOR RTU-1.
② PROVIDE FULL SIZE CONDENSATE DRAIN PIPING.
③ PROVIDE UNIT WITH HOT GAS REHEAT, HEAT RECLAIM AND ALL CONTROLS.
④ UNIT FURNISHED WITH OUTSIDE AIR ECONOMIZER WITH FACTORY MOUNTED DIFFERENTIAL ENTHALPY CONTROLS, AND BAROMETRIC RELIEF.
⑤ FURNISH GAS PRESSURE REGULATOR AS REQ'D. TO INTERFACE WITH 14" W.C. GAS PRESSURE AND RTU MIN/MAX INLET PRESSURE REQUIREMENTS.
⑥ PROVIDE UNIT WITH HOT GAS BYPASS AND ALL CONTROLS.
⑦ PROVIDE UNIT WITH O.A. RELATIVE HUMIDITY TRANSMITTER AND. DOWN FLOW ROOF CURB M#CJ31.
⑧ UNIT SHALL BE MOUNTED ON DUNNAGE, BLANK-OFF AND SEAL UNDERSIDE OF UNIT SUCH THAT THERE IS NO EXPOSED INSULATION AND WATER INTRUSION.
⑨ CONTRACTOR SHALL FURNISH AND INSTALL UNIT WITH FACTORY ROOF CURB SUPPLIED WITH UNIT. LEVEL UNITS AS REQUIRED TO ADJUST FOR ROOF SLOPE.
⑩ CONTRACTOR SHALL FURNISH AND INSTALL UNIT WITH409 STAINLESS STEEL HEAT EXCHANGER AND 6:1 MODULATING GAS VALVE.

GAS HEATER SCHEDULE

MARK	SERVES	MOTOR HP	CFM	VOLTS/ PHASE	FLUE SIZE	INPUT MBH	OUTPUT MBH	MANUFACTURER	MODEL	REMARKS
GUH-1	RECIEVING	0.25	1537	120/1ø	4"	125	99.6	REZNOR	UDAP-125	①②③④⑤

NOTE: SELECTIONS ARE BASED ON REZNOR EQUIPMENT, ACCEPTABLE ALTERNATIVE MANUFACTURERS ARE STERLING AND MODINE.

REMARKS:
① PROVIDE WITH CLI THERMOSTAT.
② PROVIDE WITH CMI GAURD.
③ PROVIDE WITH CEILING SUSPENSION KIT.
④ PROVIDE WITH FACTORY ROOF CONCENTRIC VENT TERMINATION KIT.
⑤ PROVIDE GAS REGULATOR FOR 14" W.C. GAS PRESSURE.

ELECTRIC WALL MNTD. UNIT HEATER SCHEDULE

MARK	SERVICE	LOCATION	VOLT/PHASE	HEAT OUTPUT (WATTS)	MANUFACTURER	MODEL NO.	REMARKS
EWH-1	WOMENS 216	WALL	208/3ø	4000	QMARK	AWH44083	①②③
EWH-2	MENS 217	WALL	208/3ø	4000	QMARK	AWH44083	①②③
EWH-3	STAIR #1	WALL	208/3ø	4000	QMARK	AWH44083	①②③
EWH-4	STAIR #2	WALL	208/3ø	4000	QMARK	AWH44083	①②③

NOTE: SELECTIONS ARE BASED ON QMARK EQUIPMENT, ACCEPTABLE ALTERNATIVE MANUFACTURERS ARE MARKEL AND CHROMALOX.

REMARKS:
① PROVIDE UNIT WITH INTERGRAL TAMPER-PROOF THERMOSTAT.
② PROVIDE UNIT WITH RECESSED MOUNTING BOX OPTION.
③ COORDINATE FINAL MOUNTING LOCATION WITH ARCHITECT.

GAS FIRED MAKE-UP AIR UNIT

UNIT MARK	MUA-1	MUA-2	MUA-3
AREA SERVED	HOOD H-1,1A,1B	HOOD H-6,6A	HOOD H-7
CFM	5363	2840	3010
E.S.P. INCHES W.G.	1.0"	1.0"	1.0"
MOTOR HP	5.0	1.5	1.5
FAN RPM	1025	689	715
VOLTS/PHASE	208/3ø	208/3ø	208/3ø
MBH OUTPUT	405	214	227
MODEL NO.	A2-D.500-G15	A1-D.500-G15	A2-D.500-G15
MANUFACTURER	CAPTIVEAIRE	CAPTIVEAIRE	CAPTIVEAIRE
REMARKS	①②③④⑤⑥⑦	①②③④⑤⑥⑦	①②③④⑤⑥⑦

NOTE: SELECTIONS ARE BASED ON CAPTIVEAIRE EQUIPMENT, ACCEPTABLE ALTERNATIVE MANUFACTURER IS REZNOR.

REMARKS:
① PROVIDE WITH MOTORIZED BACKDRAFT DAMPER.
② PROVIDE WITH INSULATED CURB.
③ PROVIDE SLOPED FILTER INTAKE W/ WEATHERHOOD & BIRDSCREEN.
④ PROVIDE WITH 2-STAGE FURNACE CONTOL.
⑤ PROVIDE WITH CONTROL CENTER W/DISC, STARTERS.
⑥ PROVIDE WITH FREEZESTAT - BLOWER.
⑦ PROVIDE GAS REGULATOR FOR 14" W.C. GAS PRESSURE.

ELECTRIC UNIT HEATER SCHEDULE

MARK	SERVICE	LOCATION	VOLT/PHASE	HEAT OUTPUT (WATTS)	MANUFACTURER	MODEL NO.	REMARKS
EUH-1	ELEC. RM.	SEE PLAN	208/3ø	5000	QMARK	MUH0581	①②③④
EUH-1	WATER RM.	SEE PLAN	208/3ø	5000	QMARK	MUH0581	①②③④

NOTE: SELECTIONS ARE BASED ON QMARK EQUIPMENT, ACCEPTABLE ALTERNATIVE MANUFACTURERS ARE MARKEL AND CHROMALOX.

REMARKS:
① PROVIDE WITH WALL-MOUNTED TSTAT.
② COORDINATE MOUNTING LOCATION IN ROOM WITH ARCHITECT AND ELECTRICIAN.
③ PROVIDE WITH FACTORY MOUNTING BRACKET, MODEL #MMB10.
④ PROVIDE WITH SUMMER FAN SWITCH, MODEL #MCFS.

AC UNIT SCHEDULE - COOLING ONLY DX SPLIT SYSTEM

MARK	SERVES	CFM SUPPLY/OA	FAN HP	"E.S.P.	COOLING TOTAL MBH	COOLING SENS. MBH	SEER	LVG. AIR° DB	LVG. AIR° WB	FAN SECTION VOLT/PHASE	MCA	MAX FUSE	MODEL No.	WEIGHT	CONDENSING UNIT (CU) MARK	VOLT/PHASE	MCA	MAX FUSE	MODEL No.	WEIGHT	REMARKS
A/C-1	ELEV. MACH RM.	726	1/8	–	22.6	18.0	10.5	60	58	208-230/1	--	--	40BNB024	27.5	CU-1	208-230/1	19	30	38BNB024	187	①②③④
A/C-2	I.S ROOM #221	726	1/10	–	18.6	14.8	10.0	60	58	208-230/1	--	--	40BNB018	27.5	CU-2	208-230/1	11	15	38BNB018	143	①②③④
A/C-3	BEER/WINE STOR.	726	1/10	–	18.6	14.8	10.0	60	58	208-230/1	--	--	40BNB018	27.5	CU-3	208-230/1	11	15	38BNB018	143	①②③④

NOTE: SELECTION IS BASED ON CARRIER. OTHER ACCEPTABLE MANUFACTURER'S ARE TRANE, SANYO AND MITSUBISHI.

REMARKS:
① PROVIDE UNIT WITH LOW AMBIENT KIT.
② FILTER DRIER AND CRANKCASE HEATER. CONTRACTOR TO ALSO PROVIDE UNIT WITH CONDENSATE PUMP, MODEL # 53DS-900-064.
③ MCA AND MOCP ARE FOR BOTH INDOOR AND OUTDOOR EQUIPMENT.
④ THE TOTAL RUNS OF REFRIGERANT PIPING ARE BASED ON THE SPECIFIED EQUIPMENT AS MANUFACTURED BY CARRIER. IF SUBSTITUTED EQUIPMENT IS USED OR TOTAL EQUIVALENT LENGTH EXCEEDS 35 FEET, CONTRACTOR SHALL VERIFY WITH MANUFACTURERS FOR ACCEPTABLE TOTAL RUN LENGTH. INSTALLATION OF EQUIPMENT & REFRIGERANT PIPING WILL BE BASED ON MANUFACTURERS LONG LINE APPLICATION DATA SPECIFICATIONS AND SHALL NOT COMPROMISE WARRANTY PERIOD.

AIR HANDLING UNIT SCHEDULE

FURNACE UNIT NO.	AHU-1	AHU-2,6	AHU-3,7,8,9	AHU-4	AHU-5
SERVICE	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS
LOCATION	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS	SEE PLANS
FUEL TYPE	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS	NATURAL GAS
HEATING INPUT (MBH)	40.0	40.0	60.0	100.0	60.0
HEATING OUTPUT (MBH)	37.0	37.0	56.0	93.0	56.0
BLOWER TYPE	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
TOTAL CFM/O.A	600/120	800/160	1200/240	1600/320	1000/200
EXT. STATIC PRESS. (WG)	0.5	0.5	0.5	0.5	0.5
FAN HP	1/5	1/5	1/2	1/2	1/3
FAN DRIVE TYPE	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
FAN RPM	1100	1100	1100	1100	1100
DRAFT TYPE	FAN ASSISTED	FAN ASSISTED	FAN ASSISTED	FAN ASSISTED	FAN ASSISTED
AFUE, %	92.1	92.1	92.1	92.1	92.1
ELECT. CHARA. (V/PH/HZ)	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60
MCA	6.1	6.1	9.5	10.2	7.1
MOCP	20	20	20	20	20
LOCAL DISCONNECT ONLY	YES	YES	YES	YES	YES
VIBRATION ISOLATORS	INERTIA PADS	INERTIA PADS	INERTIA PADS	INERTIA PADS	INERTIA PADS
UNIT WEIGHT (LBS)	165.0	165.0	175.0	219.0	175.0
FURN. MODEL/COIL MODEL	58MCB040-08	58MCB040-08	58MCB060-16	58MCB100-16	58MCB060-12
DX COOLING COIL MODEL	CK3BXA024017	CK5BXA018017	CK3BXA042017	CK3BXA048017	CK5BXA030017
MANUFACTURER	CARRIER	CARRIER	CARRIER	CARRIER	CARRIER
REMARKS	①②③④⑤	①②③④⑤	①②③④⑤	①②③④⑤	①②③④⑤

① PROVIDE WITH VERTICAL/HORIZ. EVAP. COIL SCHEDULED HERE BY CARRIER, OR EQUAL. COIL SHALL BE FIELD-INSTALLED AND SHALL HAVE AN INSULATED METAL CASING TO FIT FURNACE DISCHARGE. PROVIDE REF. CHARGE AND INSULATED PIPING TO CONDENSING UNIT.
② PROVIDE DIRECT-VENT FURNACE WITH GAS AND WATER TIGHT FLUE, UL LISTED VENT CAPS, AND COMBUSTION AIR INTAKE DUCT. PROVIDE CONCENTRIC VENT KIT MODEL #KGAVT0501CVT. FOR 2" CONNECTIONS OR #KGAVT0601CVT FOR 8" CONNECTIONS AS RECOMMENDED BY MANUFACTURER.
③ PROVIDE CONDENSATE PUMP. SEE HVAC PLANS FOR REQUIRED LOCATIONS.
④ PROVIDE MANUFACTURER'S PROGRAMMABLE TSTAT AND LOCKING TAMPERPROOF ENCLOSURE.
⑤ PROVIDE MANUFACTURER'S SIDE FILTER RACK AND 1" FILTER.

KITCHEN HOOD EXHAUST SCHEDULE

UNIT ID	MODEL NO.	SERVICE	DIMENSIONS LENGTH	DIMENSIONS DEPTH	DIMENSIONS HEIGHT	EXHAUST DUCT COLLAR	SUPPLY DUCT COLLAR	EXHAUST CFM	SUPPLY CFM	LIGHTS	REMARKS
H-1L	6724-ND-AC-PSP	COOKING LINE	134"	67"	24	24"X10"	(2)20"X10"	2513	1712	2	①②③④⑥⑦⑧⑨⑩⑪
H-1M	6724-ND-AC-PSP	COOKING LINE	160"	67"	24"	(2)16"X10"	(3)16"X10"	3333	2001	3	①②③④⑦⑧⑨⑩⑪
H-1R	6724-ND-AC-PSP	COOKING LINE	120"	67"	24"	21"X10"	(2)20"X10"	2250	1650	2	①②③④⑦⑧⑨⑩⑪
H-2	6924-ND	BAKERY	62"	69"	24"	9"X9"	--	1033	–	1	①③④⑨⑩⑪
H-3	5424-ND-2	ROTTISERIE/BROILER	89"	54"	24"	17"X10"	--	1854	--	1	①②④⑦⑧⑨⑩⑪
H-4	4824-VH1-G	DISHWASHER	96"	48"	24"	(2)10"X10"	--	1400	--	--	①⑤⑨⑪
H-5	--	PIZZA OVEN	PROVIDED BY OVEN MANUFACTURER								
H-6	6624-NDI-2-PSP-F	PASTA LINE	85"	66"	24"	21"X14"	(4)16"X10"	3150	2300	4	①②③④⑦⑧⑨⑪
H-6A	6024-ND-2-PSP-F	PASTA LINE	36"	60"	24"	7"X7"	16"X10"	600	540	1	①②③④⑦⑧⑨⑩⑪⑫
H-7	6024-NDI-2-PSP-FB	ASIAN BBQ	114"	60"	24"	24"X14"	(4)20"X10"	3563	3012	6	①②③④⑦⑧⑨⑩⑪⑬
H-8	3624-VH1-G	SMOKER	96"	36"	24"	11"X11"	--	1400	--	--	①⑤⑨⑪

REMARKS:
① HOOD SELECTION BASED ON CAPTIVEAIRE.
② PROVIDE W/ GREASE CUP.
③ PROVIDE EXHAUST AIR BALANCING BAFFLE.
④ PROVIDE 20X20 STAINLESS STEEL FILTERS.
⑤ PROVIDE W/ CONDENSATE DRAIN CONNECTION.
⑥ PROVIDE REMOTE ELECTRICAL CONTROL PANEL MOUNTED IN UL LISTED UTILITY CABINET. INTERLOCK WITH H-1L, H-1M, H-1R, KEF-1 KEF-1A, KEF-1B AND MUA-1.
⑦ PROVIDE PRE-PIPED UL LISTED FIRE PROTECTION SYSTEM. AND HOOD FIRE SUPPRESSION PANEL W/ CABLE RELEASE MANUAL STATION AND MECHANICAL RELEASE GAS VALVE.
⑧ WITH HOOD MOUNTED SWITCHES.
⑨ PROVIDE W/ HOOD MOUNTED INCANDESENT LIGHT FIXTURES AND BULBS FROM HOOD TOP TO CEILING.
⑩ PROVIDE ENCLOSURE PANELS, IF NECESSARY, SIZED TO EXTEND
⑪ PROVIDE WITH HOOD MOUNTED FAN CONTROL SWITCH.
⑫ UL LISTED/304 STAINLESS STEEL WHERE EXPOSED. KEF-6, KEF-6A AND MUA-2. PROVIDE REMOTE ELECTRICAL CONTROL PANEL MOUNTED IN INTERLOCK WITH H-6, H-6A,
⑬ UL LISTED UTILITY CABINET. AND MUA-3. PROVIDE REMOTE ELECTRICAL CONTROL PANEL MOUNTED IN INTERLOCK WITH H-7, KEF-7

AIR CURTAIN SCHEDULE

MARK	SERVES	MOTOR HP	CFM	FPM	VOLTS/ PHASE	MANUFACTURER	MODEL	REMARKS
AC-1	ENTRANCE DOOR	(1) 3/4	966	2700	208/1ø	BERNER	STF1048A	②③⑥
AC-2	ENTRANCE DOOR	(1) 3/4	966	2700	208/1ø	BERNER	STF1048A	②③⑥
AC-3	SEATING AREA	(1) 3/4	978	2700	208/1ø	BERNER	STF1042A	②③⑥
AC-4	RECIEVING DOOR	(3) 1/2	5,364	3400	208/3ø	BERNER	FSA3108A	①④⑤⑥

NOTE: SELECTIONS ARE BASED ON BERNER EQUIPMENT, ACCEPTABLE ALTERNATIVE MANUFACTURERS ARE KING AND MARS.

REMARKS:
① PROVIDE WITH STANDARD AUTOMATIC DOOR SWITCH.
② PROVIDE WITH STAINLESS STEEL FINISH.
③ PROVIDE WITH MAGNETIC REED SWITCH, 24 V TRANSFORMER, TIME DELAY RELAY (SET AT 60 SECONDS).
④ PROVIDE WITH STANDARD WHITE FINISH.
⑤ PROVIDE WITH FACTORY MOUNTED STARTER PANEL. WITH NEMA 4-12 ENCLOSURE.
⑥ PROVIDE WITH MANUAL ON/OFF POWER SWITCH. VERIFY SWITCH MOUNTING LOCATION WITH ARCHITECT.

AIR CURTAIN SCHEDULE (ALTERNATE #1)

MARK	SERVES	MOTOR HP	CFM	FPM	VOLTS/ PHASE	MANUFACTURER	MODEL	REMARKS
AC-5	ENTRANCE DOOR	(1) 3/4	966	2700	208/1ø	BERNER	STF1048A	①②③

NOTE: SELECTIONS ARE BASED ON BERNER EQUIPMENT, ACCEPTABLE ALTERNATIVE MANUFACTURERS ARE KING AND MARS.

REMARKS:
① PROVIDE WITH STAINLESS STEEL FINISH.
② PROVIDE WITH MAGNETIC REED SWITCH, 24 V TRANSFORMER, TIME DELAY RELAY (SET AT 60 SECONDS).
③ PROVIDE WITH MANUAL ON/OFF POWER SWITCH. VERIFY SWITCH MOUNTING LOCATION WITH ARCHITECT.

CONDENSING UNIT SCHEDULE

MARK	EVAPORATOR	SERVES	VOLT/PHASE	MCA	MANUFACTURER	MODEL No.	TONS	SEER*	WEIGHT
COND-1	AHU-1	SEE PLANS	208/1ø	28.5	CARRIER	24APA348	4.0	13.0	241
COND-2,6	AHU-2,6	SEE PLANS	208/1ø	16.5	CARRIER	24APA324	2.0	13.0	140
COND-3,7,8,9	AHU-3,7,8,9	SEE PLANS	208/1ø	25.9	CARRIER	24APA342	3.5	13.0	230
COND-4	AHU-4	SEE PLANS	208/1ø	18.7	CARRIER	24APA330	2.5	13.0	158
COND-5	AHU-5	SEE PLANS	208/1ø	11.7	CARRIER	24APA318	1.5	13.0	138

AIR DEVICE SCHEDULE

MARK	DUTY	TYPE	VOLUME CONTROL	SIZE FACE	SIZE NECK	MAN.	MODEL No.	REMARKS
A	SUPPLY	LAY-IN	DUCT	24X24	④	TITUS	TDC	①②④
B	RETURN	LAY-IN	DUCT	12X12	11-3/4X11-3/4	TITUS	50F	①②
C	RETURN	LAY-IN	DUCT	14X14	13-3/4X13-3/4	TITUS	50F	①②
D	SUPPLY	LAY-IN	DUCT	12X12	④	TITUS	TDC	①②④⑥
E	EXHAUST	LAY-IN	OBD	12X12	11-3/4X11-3/4	TITUS	50F	①②
F	RETURN	SIDEWALL	OBD	18X18	17-1/2X17-1/2	TITUS	23RL	①②
G	SUPPLY	SIDEWALL	OBD	14X6	13-1/2X5-1/2	TITUS	301R	①②
H	RETURN	SIDEWALL	OBD	48X24	47-1/2X23-1/2	TITUS	23RL	①②
I	RETURN	SIDEWALL	OBD	42X30	41-1/2X31-1/2	TITUS	23RL	①②
J	RETURN	SIDEWALL	OBD	28X28	27-1/2X27-1/2	TITUS	23RL	①②
K	SUPPLY	SIDEWALL	DUCT	30X6	26-3/4X5-3/4	TITUS	300R	①②③
L	SUPPLY	SIDEWALL	DUCT	24X6	23-3/4X5-3/4	TITUS	301RL	①②③
M	RETURN	LAY-IN	DUCT	24X24	23-3/4X23-3/4	TITUS	50F	①②

NOTE: SELECTIONS ARE BASED ON TITUS, ACCEPTABLE ALTERNATIVE MANUFACTURERS ARE METALAIRE AND PRICE.

REMARKS:
① FRAME STYLE TO MATCH ARCHITECTURAL CEILING TYPE.
② STANDARD WHITE (PAINTABLE) FINISH. CONTRACTOR TO COORDINATE AND PAINT FINAL FINISH W/ ARCHITECT.
③ PROVIDE WITH 22.5' DEFLECTION.
④ SEE BRANCH DUCT SIZING CHART.
⑤ PROVIDE WITH 1/2" SPACE & 30' DEFLECTION.
⑥ PROVIDE WITH 3-WAY CORNER BLOW & DIRECTIONAL ADJUSTMENTS.

BRANCH DUCT SIZE CHART

DUCT SIZE	CFM RANGE
6" ø	0 - 100 CFM
8" ø	101 - 240 CFM
10" ø	241 - 340 CFM
12" ø	341 - 450 CFM
14" ø	451 - 800 CFM
16" ø	801 - 1200 CFM

MECHANICAL LEGEND

- SUPPLY DUCT: 90 DEGREE RECTANGULAR ELBOW UP WITH DOUBLE THICKNESS TURNING VANES.
- RETURN DUCT: 90 DEGREE RECTANGULAR ELBOW UP WITH DOUBLE THICKNESS TURNING VANES.
- EXHAUST DUCT: 90 DEGREE RECTANGULAR ELBOW UP WITH DOUBLE THICKNESS TURNING VANES.
- FRESH AIR DUCT: 90 DEGREE RECTANGULAR ELBOW UP WITH DOUBLE THICKNESS TURNING VANES.
- RADIUS ELBOW: 90 DEGREE ROUND ELBOW WITH DOUBLE THICKNESS TURNING VANES.
- SUPPLY DUCT: 90 DEGREE RECTANGULAR ELBOW DOWN WITH DOUBLE THICKNESS TURNING VANES.
- RETURN DUCT: 90 DEGREE RECTANGULAR ELBOW DOWN WITH DOUBLE THICKNESS TURNING VANES.
- EXHAUST DUCT: 90 DEGREE RECTANGULAR ELBOW DOWN WITH DOUBLE THICKNESS TURNING VANES.
- FRESH AIR DUCT: 90 DEGREE RECTANGULAR ELBOW DOWN WITH DOUBLE THICKNESS TURNING VANES.
- RECTANGULAR ELBOW: 90 DEGREE SQAURE ELBOW WITH DOUBLE THICKNESS TURNING VANES.
- FD/SD — COMBINATION FIRE AND SMOKE DAMPER:
- MOTORIZED DAMPER: VERTICAL AND/OR HORIZONTAL
- VOLUME DAMPER:
- SUPPLY DIFFUSER: FOUR-WAY
- SUPPLY DIFFUSER: THREE-WAY
- SUPPLY DIFFUSER: TWO-WAY
- SUPPLY DIFFUSER: ONE-WAY
- RETURN GRILLE:
- EXHAUST GRILLE:
- SUPPLY AIR ARROW:
- RETURN AIR ARROW:
- EXHAUST AIR ARROW:
- T/A — THERMOSTAT (WALL): SYSTEM BEING SERVED
- S/A — SENSOR (WALL): SYSTEM BEING SERVED
- TAG/X — MECH. EQUIP TAG:
- S — DUCT MOUNTED SMOKE DETECTOR
- M — MOTORIZED DAMPER
- SW — WALL MOUNTED FAN SPEED CONTROLER

SYMBOLS/ABBREVIATIONS

GENERAL ABBREVIATIONS

A	COMPRESSED AIR
ACCU	AIR COOLED CONDENSING UNIT
ACD	AUTOMATIC CONTROL DAMPER
ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR
ADD'L	ADDITIONAL
ADL	ACOUSTICAL DUCT LINER
AF	AIR FILTER
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLER UNIT
AP	ACCESS PANEL
ARCH	ARCHITECT
ATC	AUTOMATIC TEMPERATURE CONTROL
AVS	AIR VOLUME TRAVERSE STATION
BDD	BACKDRAFT DAMPER
BHP	BRAKE HORSEPOWER
BLDG	BUILDING
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BSMT	BASEMENT
CACU	COMPUTER ROOM AIR CONDITIONING UNIT
CC	COOLING COIL
CD	CEILING DIFFUSER
CF	CEILING FAN
CFM	CUBIC FEET PER MINUTE
CL	CENTERLINE
CLG	CEILING
CO	CLEAN-OUT
COL	COLUMN
CONC	CONCRETE
CONTR	CONTRACTOR
CP	CONDENSATE PUMP
CTS	COOLING TOWER SUPPLY
CTR	COOLING TOWER RETURN
CUF	CUBIC FEET
CUH	CABINET UNIT HEATER
CWS	CONDENSER WATER SUPPLY TO AC UNIT
CWR	CONDENSER WATER RETURN FROM AC UNIT
CV	CONSTANT VOLUME SUPPLY AIR TERMINAL
D	DRAIN
DB	DRY BULB TEMPERATURE
DC	DRY COOLER
DDC	DIRECT DIGITAL CONTROL
DDCFP	DIRECT DIGITAL CONTROL FIELD PANEL
DH	DUCT HEATER
DIA	DIAMETER
DIFF	DIFFUSER
DIM	DIMENSION
DN	DOWN
DX	DIRECT EXPANSION
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
EFF	EFFICIENCY
EG	EXHAUST GRILLE
EHC	ELECTRICAL HEATING COIL
ELEC	ELECTRICAL
ELEV	ELEVATION
EMER	EMERGENCY
ER	EXHAUST REGISTER
ESP	EXTERNAL STATIC PRESSURE
EUH	ELECTRIC UNIT HEATER
EXH	EXHAUST
EXP	EXPANSION
FA	FREE AREA
FAI	FRESH AIR INTAKE
FB	FAN BOX
FC	FLEX CONNECTOR
FD	FIRE DAMPER
FG	FIBERGLASS
FLEX	FLEXIBLE
FLRDR	FLOOR DRAIN
FOP	FIREFIGHTERS OVERRIDE PANEL
FPM	FEET PER MINUTE
FT	FEET
FURN	FURNISHED
G	GAS
GA	GAUGE
GAL	GALLONS
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GIV	GRAVITY INTAKE VENT
GRV	GRAVITY RELIEF VENT
GRD	GRADE (GROUND)
GWB	GYPSUM WALL BOARD
H	HUMIDIFIER
HD	HEAD
HT	HEIGHT
HP	HORSEPOWER
HR	HOUR
HV	HEATING & VENTILATING UNIT
HZ	HERTZ
IN	INCHES
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LD	LINEAR DIFFUSER
LF	LINEAR FEET
LUVR	LOUVER
LVDR	LOUVERED DOOR
LWT	LEAVING WATER TEMPERATURE
MCC	MOTOR CONTROL CENTER
MD	MOTORIZED DAMPER
MECH	MECHANICAL
MEZZ	MEZZANINE
MF'R	MANUFACTURER
MIN	MINIMUM
MTD	MOUNTED
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NO.	NUMBER
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
OD	OUTSIDE DIAMETER
OED	OPEN END DUCT
P	PUMP
PCF	POUNDS PER CUBIC FOOT
PD	PRESSURE DROP
PLBG	PLUMBING
POS	PROVIDED BY OTHER SECTION
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSID	POUNDS PER SQUARE INCH DIFFERENTIAL
PSIG	POUNDS PER SQUARE INCH GAUGE
RET	RETURN
REQ'D	REQUIRED
REQ'S	REQUIREMENTS
RF	RETURN FAN
RG	RETURN GRILLE
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RLF	RELIEF
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RR	RETURN REGISTER
RTU	ROOF TOP UNIT
SA	SOUND ATTENUATOR
SCH	SCHEDULE
SCR	SCREEN
SD	SMOKE DAMPER
SDET	SMOKE DETECTOR
SF	SUPPLY FAN
SFD	COMBINATION AUTOMATIC SMOKE/FIRE DAMPER WITH ACCESS DOOR
SG	SUPPLY GRILLE
SPECS	SPECIFICATIONS
SQ	SQUARE
SQFT	SQUARE FEET
SR	SUPPLY REGISTER
SS	STAINLESS STEEL
STDBY	STANDBY POWER
STL	STEEL
SUP	SUPPLY
T	TEMPERATURE
TA	THROW-AWAY
TAV	THERMOSTATIC AIR VENT
TD	TRANSFER DUCT
TEL	TELEPHONE
TEMP	TEMPERATURE
TF	TRANSFER FAN
TG	TRANSFER GRILLE
TOD	TOP OF DUCT
TOP	TOP OF PIPE
TR	TRANSFER
TYP	TYPICAL
UC	UNDERCUT DOOR
UH	UNIT HEATER
UV	UNIT VENTILATION
V	VENT
VD	VOLUME DAMPER
VV	VARIABLE VOLUME SUPPLY AIR TERMINAL
VFD	VARIABLE FREQUENCY DRIVE
W	WIDTH
W/	WITH
WB	WET BULB TEMPERATURE
WEF	WALL EXHAUST SMOKE PURGE FAN
WG	WATER GAUGE
WMS	WIRE MESH SCREEN
W/O	WITHOUT

DUCT INSULATION SCHEDULE

	LINER	WRAP	NO INSULATION
SUPPLY DUCT FROM RTU FOR FIRST 10 FEET	●		
RETURN DUCT FROM RTU FOR FIRST 10 FEET	●		
SUPPLY DUCT FROM RTU AFTER FIRST 10 FEET IN CONCEALED AREAS		●	
RETURN DUCT FROM RTU AFTER FIRST 10 FEET IN CONCEALED AREAS		●	
SUPPLY DUCT FROM RTU AFTER FIRST 10 FEET IN EXPOSED AREAS OTHER THAN SALES FLOOR		●	
RETURN DUCT FROM RTU AFTER FIRST 10 FEET IN EXPOSED AREAS OTHER THAN SALES FLOOR		●	
SUPPLY DUCT FROM RTU AFTER FIRST 10 FEET EXPOSED IN SALES FLOOR			●
RETURN DUCT FROM RTU AFTER FIRST 10 FEET EXPOSED IN SALES FLOOR			●
EXHAUST DUCT FROM FAN IN CONCEALED AREAS		●	
EXHAUST DUCT FROM FAN IN EXPOSED AREAS OTHER THAN SALES FLOOR		●	
EXHAUST DUCT FROM FAN EXPOSED IN SALES FLOOR			●
KITCHEN EXHAUST DUCT		●	

FAN SCHEDULE

MARK	SERVES	LOCATION	CFM	EXT SP "W.G.	DRIVE	RPM	MOTOR HP OR WATTS	MOTOR VOLT/PHASE	MANUFACTURER	MODEL No.	REMARKS
KEF-1	HOOD H-1L	ROOF	2513	1.00"	BELT	975	1.0	208/3ø	CAPTIVEAIRE	NCA16FA	①③⑦⑩
KEF-1A	HOOD H-1M	ROOF	3333	1.00"	BELT	1128	1.5	208/3ø	CAPTIVEAIRE	NCA16FA	①③⑦⑩
KEF-1B	HOOD H-1R	ROOF	2250	1.00"	BELT	937	.75	208/3ø	CAPTIVEAIRE	NCA16FA	①③⑦⑩
KEF-2	HOOD H-2	ROOF	1033	1.00"	BELT	1278	.50	208/3ø	CAPTIVEAIRE	NCA10FA	①③⑦⑩
KEF-3	HOOD H-3	ROOF	1854	1.00"	BELT	1193	.75	208/3ø	CAPTIVEAIRE	NCA14FA	①③⑦⑩
KEF-4	HOOD H-4	ROOF	1400	1.00"	BELT	1126	.75	208/3ø	CAPTIVEAIRE	NCA14FA	①②③⑦
KEF-5	HOOD H-5 & H-5A	ROOF	1200	0.6"	BELT	1718	.33	115/1ø	GREENHECK	CUBE-101-3	①③⑦⑪
KEF-6	HOOD H-6	ROOF	3150	1.00"	BELT	1091	1.50	208/3ø	CAPTIVEAIRE	NCA16FA	①③⑦⑩
KEF-6A	HOOD H-6A	ROOF	600	1.00"	BELT	1246	.50	208/3ø	CAPTIVEAIRE	DU50HFA	①③⑦⑩
KEF-7	HOOD H-7	ROOF	3563	1.00"	BELT	936	1.5	208/3ø	CAPTIVEAIRE	NCA18FA	①③⑦⑩
KEF-8	HOOD H-8	ROOF	1050	1.00"	BELT	1278	.50	208/3ø	CAPTIVEAIRE	NCA10FA	①③⑦
EF-1	1ST FLOOR TOILETS	ROOF	525	0.5"	BELT	1401	0.25	115/1ø	GREENHECK	GB-090-4	①⑤⑦
EF-2	CONFERENCE RM	ROOF	275	0.17	BELT	1405	1/6	115/1ø	GREENHECK	GB-071-6	①⑦⑧
EF-3	SIGN MAKER	CEILING	155	0.17	DIRECT	1000	129W	115/1ø	GREENHECK	SP-B150	①⑥⑧⑬
EF-4	WOMEN'S RM 216	CEILING	207	0.25	DIRECT	1050	81W	115/1ø	GREENHECK	SP-A290	①⑥⑬⑭
EF-5	MEN'S RM 217	CEILING	207	0.25	DIRECT	1050	81W	115/1ø	GREENHECK	SP-A290	①⑥⑬⑭
EF-6	LOUNGE	CEILING	325	0.35	BELT	1350	135W	115/1ø	GREENHECK	SP-A390	①⑥⑧⑬
EF-7	ELEC. ROOM	ROOF	325	0.17	BELT	1609	1/6	115/1ø	GREENHECK	GB-071-6	①④⑦
EF-8	REFRIGERATION RM.	ROOF	16000	0.25	BELT	435	3.0	208/3ø	GREENHECK	GB-420-30	①④⑦

NOTE: SELECTIONS ARE BASED ON GREENHECK & CAPTIVEAIRE EQUIPMENT, ACCEPTABLE ALTERNATIVE MANUFACTURERS ARE LOREN COOK.

REMARKS:
① PROVIDE BACKDRAFT DAMPER & BIRDSCREEN.
② INTERLOCK WITH DISH WASHER OPERATION.
③ PROVIDE WITH HINGED CURB CAP AND CABLES.
④ INTERLOCKED WITH THERMOSTAT (SET AT 78°F).
⑤ INTERLOCK WITH TIMECLOCK.
⑥ PROVIDE MANUFACTURER'S ROUND DUCT CONNECTOR #RDC, FACTORY ROOF CAP, BACKDRAFT DAMPER AND BIRDSCREEN.
⑦ PROVIDE MANUFACTURER'S INSULATED ROOF CURB.
⑧ PROVIDE WITH UNIT WALL MOUNTED SPEED CONTROLLER.
⑨ INTERLOCK WITH OVEN OPERATION. VERIFY SEQUENCING WITH OVEN MANUFACTURER.
⑩ PROVIDE WITH GREASE BOX/CUP.
⑪ INTERLOCK WITH PIZZA OVEN OPERATION.
⑫ PROVIDE MOTOR STARTER(S) FOR EACH FAN COORDINATE WITH DIVISION 16.
⑬ PROVIDE WITH HANGING VIBRATION ISOLATORS.
⑭ INTERLOCK WITH LIGHTSWITCH.

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WHOLE FOODS MARKET

ISSUED FOR CONSTRUCTION

PROPOSED GROCERY STORE
2 SOMERSET STREET
PORTLAND, CUMBERLAND COUNTY, MAINE

No. Date Desc.

REVISIONS
No. Date Desc.

ARCHITECT/ENGINEER SEAL

Designed	GM
Drawn	GM
Checked	ML
Approved	ML
Scale	AS NOTED
Project No.	04C0829
Date	04-24-06
CAD File	

Title
HVAC SCHEDULES, HVAC NOTES, LEGEND AND ABBREVIATIONS

Sheet No.
M6.01

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