






GENERAL REQUIREMENTS		FURNISH	INSTALL	FINAL CONNECTION	NOTES
MECHANICAL PERMIT		MC			1-3
HOT WORK (WELDING) PERMIT (IF APPLICABLE)		KES			1-3
REFRIGERATION PERMIT (IF APPLICABLE)		MC			1-3
PLUMBING PERMIT		PC			1-3
ELECTRICAL PERMIT		EC			1-3
FIRE SPRINKLER PERMIT (IF APPLICABLE)		FPC			1-3
FIRE ALARM PERMIT (IF APPLICABLE)		FAC			1-3
CONTRACTOR COORDINATION REQUIREMENTS					
HEATING & AIR-CONDITIONING					
ROOFTOP UNITS, INTAKE AND RELIEF		MC	MC		1-5, 17, 22
ROOF CURBS		MC	MC		1-3, 20, 22
GAS PIPING AND GAS PIPE KIT		PC	PC	PC	1-3, 14, 22-23
CONTROLS WIRING		MC	EC	EC	1-3, 19, 22, 24
POWER WIRING		EC	EC	EC	1-3, 19, 22, 24
CONDENSATE TRAP		MC	PC		1-3, 22-23
CONDENSATE PIPING (IF APPLICABLE)		PC	PC		1-3, 22-23
DUCT-MOUNTED SMOKE DETECTOR		MC	MC	EC	1-3, 22, 24
GENERAL EXHAUST SYSTEMS					
EXHAUST FANS		MC	MC		1-3, 17, 22
ROOF CURBS		MC	MC		1-3, 22
CONTROLS (WHERE APPLICABLE)		MC	EC	EC	1-3, 22, 24
POWER WIRING		EC	EC	EC	1-3, 22, 24
TEMPERATURE CONTROLS					
THERMOSTATS & SUBBASES		MC	MC	EC	1-3, 22, 24
REMOTE SENSORS (RH AND/OR TEMPERATURE)		MC	MC	EC	1-3, 22, 24
CONTROLS WIRING (WHERE APPLICABLE)		MC	EC	EC	1-3, 22, 24
POWER WIRING		EC	EC	EC	1-3, 22, 24
DUCTWORK AND ACCESSORIES					
GALVANIZED SHEET METAL DUCTWORK		MC	MC		1-3, 22
EXTERNAL INSULATION		MC	MC		1-3, 22
INTERNAL INSULATION (IF APPLICABLE)		MC	MC		1-3, 22
WEATHERPROOFING (IF APPLICABLE)		MC	MC		1-3, 22
SPIN-IN COLLARS		MC	MC		1-3, 22
FLEXIBLE DUCTWORK		MC	MC		1-3, 22
VOLUME/BALANCING DAMPERS		MC	MC		1-3, 22
FIRE DAMPERS (IF APPLICABLE)		MC	MC		1-3, 22
FIRESTOPPING (IF APPLICABLE)		MC	MC		1-3, 22
AIR DEVICES AND ACCESSORIES		MC		MC	1-3, 7, 22, 28
PLUMBING SYSTEMS					
WATER HEATERS		PC	PC	PC	1-3, 11-12, 23
HOT AND COLD WATER PIPE		PC	PC	PC	1-3, 23
VENTS AND INTAKES		PC	PC	PC	1-3, 23
THERMOSTATIC MIXING VALVE		PC	PC	PC	1-3, 23
POWER AND CONTROL WIRING		EC	EC	EC	1-3, 23-24
KITCHEN EXHAUST SYSTEMS					
McDONALD'S BACKSHELF EXHAUST HOODS		KES	KEI		1-3, 6, 22, 27
CANOPY EXHAUST HOODS (IF APPLICABLE)		KES	KEI		1-3, 6, 22, 27
BLACK IRON DUCTWORK		KES	KEI		1-3, 6, 22
STAINLESS STEEL DUCTWORK (IF APPLICABLE)		KES	KEI		1-3, 6, 22
ALUMINUM DUCTWORK (IF APPLICABLE)		KES	KEI		1-3, 6, 22
UL LISTED DUCT WRAP		MC	MC		1-3, 6, 22
FIRE-RATED DUCT ENCLOSURE (IF APPLICABLE)		GC	GC		1-3, 6, 20, 22
EXHAUST FANS		MC	MC		1-3, 6, 17, 22
ROOF CURBS		MC	MC		1-3, 6, 20, 22
CURB EXTENSIONS		MC	MC		1-3, 6, 22
CONTROLS (WHERE APPLICABLE)		EC	EC	EC	1-3, 6, 22, 24
POWER WIRING		EC	EC	EC	1-3, 6, 22, 24
FIRE SUPPRESSION SYSTEM		KES	KES	KES	1-3, 16, 22, 27
KITCHEN EQUIPMENT					
COOLER/FREEZER		KES	GC		1-3, 27
EVAPORATOR COILS		KES	MC		1-3, 27
CONDENSATE PIPING		PC	PC	PC	1-3, 23, 27
REMOTE CONDENSING UNIT (MAC)		KES	MC		1-3, 22, 27
ROOF CURBS		MC	MC		1-3, 22
REFRIGERANT PIPING		KES	MC	MC	1-3, 22, 27
POWER WIRING		EC	EC	EC	1-3, 22, 24, 27
CONTROL WIRING		EC	EC	EC	1-3, 24, 27
PIPE PORTALS		MC	MC		1-3, 22
ICE MACHINES		KES	KEI		1-3, 27
WATER SUPPLY PIPING		KES	KEI	BSI	1-3, 27
REMOTE CONDENSING UNITS		KES	MC		1-3, 22, 27
ROOF CURBS		MC	MC		1-3, 22, 27
REFRIGERANT PIPING		KES	MC	MC	1-3, 22, 27
POWER WIRING		EC	EC	EC	1-3, 22, 24, 27
CONTROL WIRING		KES	EC	EC	1-3, 24, 27
PIPE PORTALS		MC	MC		1-3, 22
GRILLS		KES	KES		1-3, 27
GAS PIPING (IF APPLICABLE)		PC	PC	PC	1-3, 23, 27
POWER WIRING		EC	EC	EC	1-3, 24, 27
CONTROL CABLE (6" CLAMSHELL ONLY)		MC	EC	EC	1-3, 23, 24, 27
FRYERS		KES	KES		1-3, 27
GAS PIPING (IF APPLICABLE)		PC	PC	PC	1-3, 23, 27
POWER WIRING		EC	EC	EC	1-3, 24, 27
3					

ACCESSORIES:

1. Diff. Enthalpy Economizer	7. Humidity Control and High Static Blower Kit
2. Motorized O.A. Damper (Hawaii Only)	8. Supply Air Tempering
3. Barometric Relief	9. Temperature Sensor
4. 2" Pleated Filters (MERV 8)	10. Combined Temp/Humidity Sensor. See Note 5
5. Pwr. Exh. (PlacePlace +12.5 tons only)	11. Disconnect Switch
6. CO2 Sensor for DCV (PlacePlace only)	12. Field Wired 120V Convenience Outlet

TAG	MANUFACTURER	MODEL	BORDER	SIZE	COLOR	ACCESSORIES	NOTES
S-1	TITUS	PDR	LAY-IN	48x24	WHITE	7	1,2
	PRICE	PDDRE					
S-2	TITUS	OMNI	LAY-IN	24x24	VARIES	4,6,7	1,6,7
	PRICE	SPD					
S-3	TITUS	OMNI	LAY-IN	12x12	VARIES	1,2,7	1,3,6
	PRICE	SPD					
S-5	TITUS	TBD1-80	LAY-IN	(1)3/4" SLOT	VARIES	7	1,5,6
	PRICE	TBD14					
R-1	TITUS	23RL	LAY-IN	24x24	VARIES	3,7	1,6
	PRICE	60L					
E-1	TITUS	23RL	LAY-IN	12x12	WHITE	1,7	1
	PRICE	60L					

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL
	24V THERMOSTAT (ROOFTOP UNITS)	—	—
	120V THERMOSTAT (COMPUTER CLOSET)	HONEYWELL	T651A3018
	REMOTE TEMPERATURE SENSOR	—	—
	REMOTE AVERAGING TEMPERATURE SENSOR	—	—
	REMOTE HUMIDITY SENSOR	—	—
	BULK CO2 DETECTION SYSTEM	LOGIC02	—

NOTES:

- FOR TSTAT, TS, HS AND ATS INFORMATION, REFER TO E4.1
- TO ORDER HONEYWELL EQUIPMENT CALL (800)575-4841
- SEE KITCHEN DRAWINGS FOR BULK CO2 DETECTION LOCATIONS

GENERAL						DESIGN				ELECTRICAL				
TAG	MANUFACTURER	MODEL	SERVES	ACCESSORIES	NOTES	CFM	S.P.	BHP	FRPM	VOLTS	Ø	Hz	HP	AMPS
EF 1	GREENHECK	CUE-162 HP-VG7-MCD	KITCHEN HOOD (KH-1)	1-5,14	1,2,6	1350	1.52	0.61	1425	120 TO 10VDC ECM	1	60	¾	3.1
EF 2	GREENHECK	CUE-142 HP-VG5-MCD	KITCHEN HOOD (KH-2)	1-5,14	1,2,6	575	0.79	0.19	1320	120 TO 10VDC ECM	1	60	½	2.6
EF 3	GREENHECK	CUE-142 HP-VG5-MCD	KITCHEN HOOD (KH-3)	1-5,14	1,2,6	480	0.99	0.19	1334	120 TO 10VDC ECM	1	60	½	2.6
EF 4	GREENHECK	G-099-VG4X-QD	DINING RESTROOMS	6-8,14	1,2,5	400	0.50	0.07	1126	120 TO 10VDC ECM	1	60	¼	2.5
EF 5	GREENHECK	SP-A90	DINING ROOM JANITOR'S CLOSET	9-12	1-3,5	75	0.20	-	900	120	1	60	-	0.52
TF 1	GREENHECK	SP-A125	COMPUTER CLOSET	9-12	1-4	100	0.20	-	1100	120	1	60	-	0.79

NOTES:

1. NO SUBSTITUTIONS PERMITTED
2. TO ORDER GREENHECK EQUIPMENT CALL (888)325-6529 OR E-MAIL: MCD@GREENHECK.COM
3. ELECTRICAL CONTRACTOR SHALL PROVIDE DOOR SWITCH FOR LIGHT CONTROL
4. MECHANICAL CONTRACTOR SHALL FURNISH LINE VOLTAGE THERMOSTAT FOR FAN CONTROL. ELECTRICAL CONTRACTOR SHALL INSTALL THERMOSTAT.
5. CONNECT TO TIMECLOCK FOR FAN SHUT-OFF DURING UNOCCUPIED HOURS
6. REFER TO E.3.2 FOR HOOD/FAN INTERLOCK DETAILS

Notes:

- 1. No Substitutions Permitted
- 2. TO ORDER LENNOX EQUIPMENT, CALL (800)367-6285 TO ORDER AND FAX COPY OF SCHEDULE TO (800)453-7290
- 3. Factory installed disconnect switch not available when MOCIP is 200 amps or larger. Verify with manufacturer's documentation.
- 4. Mechanical Contractor shall install secondary enthalpy sensor in return air duct drop & wire to unit per manufacturers instructions.
- 5. Verify EMS provider with ACM to determine how dehumidification will be controlled.
- 6. Provide economizer status alert

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