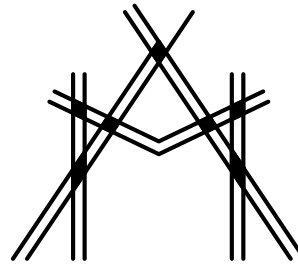




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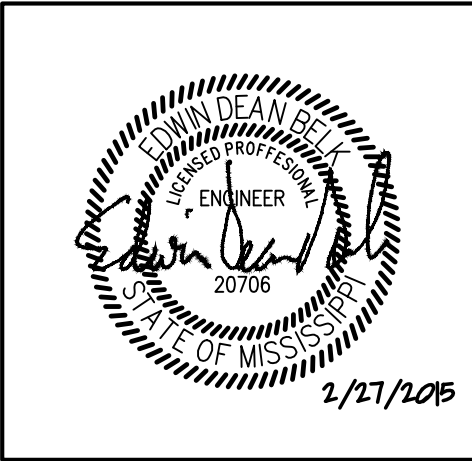
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REVISIONS		
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KEY PLAN

Shiva Southaven Inc.

Holiday Inn Express & Suites

Lot 16 (Rev Lot 3) Southcrest Pkwy.  
Southcrest Subdivision  
Southaven, MS 38671

Drawing Title

MECHANICAL LEGEND & SCHEDULES

Phase  
Construction Documents

Project No.	14-081	Sheet No.	
Prepared by	CRM	M001	
Checked by	EDB		
Date	Feb. 27, 2015		

### MAKE-UP AIR ROOFTOP UNIT SCHEDULE

MARK	MANUF.	HEAT OPTIONS	NOMINAL TONNAGE	MODEL NO.	COOLING COIL				HEATING (MBH)				REHEAT REQUIRED	BURNER TYPE	OUTSIDE AIR (CFM)	FAN				EER	VOLTS/ø	MCA	MOCP	REMARKS
					TC(MBH)	SHC(MBH)	EAT(OB/WB)	LAT(OB/WB)	DESIGN TEMP	INPUT	OUTPUT	DESIGN TEMP				CFM	ESP	HP	DRIVE					
MUA-1	GREENHECK	MODUL.	10	RV-35	118.0	49.2	85.8/77.3	61.1/58.0	72F	150	120	17F	42.3 MBH	MODULATING	1500	1500	1.00"	1.0	VFD	13.05	208/3	51.0	60	① ② ③

- 1) PROVIDE COMPLETE MAKEUP AIR PACKAGED ROOFTOP UNIT WITH MODULATING GAS HEAT, MODULATING HOT GAS REHEAT, DIGITAL SCROLL COMPRESSORS (2), UNIT DISCONNECT, REMOTE DDC INTERFACE, DDC CONTROLS, LOW-LEAKAGE MOTORIZED SUPPLY DAMPER, ROOFCURB, MERV-8 FILTERS WITH ADDITIONAL MERV-13 FILTERS, MICROPROCESSOR ROOM DEHUMIDISTAT, HEAD PRESSURE CONTROLLER, COMPRESSOR SAFETIES, PHASE AND BROWN OUT PROTECTION.
- 2) UNIT WEIGHT NOT TO EXCEED 2300 LBS. R410A REFRIGERANT, WEATHERHOOD WITH SCREEN, AMCA AND ARI RATING CLASSIFIED, 2-INCH DOUBLE WALL CONSTRUCTION, FACTORY MOUNTED VFD, PREMIUM MOTOR CONTROL CENTER.
- 3) COMPRESSOR OPERATION IS CONTROLLED TO MAINTAIN SUPPLY TEMPERATURE SETPOINT. MECHANICAL COOLING WILL BE LOCKED OUT WHEN THE OA TEMPERATURE IS <5 DEG/F - 2 DEG/F HYSTERESIS (ADJUSTABLE), COMPRESSORS WILL MODULATE DOWN TO 10% OF UNITS TOTAL CAPACITY TO MAINTAIN DISCHARGE TEMPERATURE SETPOINT, HEATING SETPOINT WILL BE LOCKED OUT AT 70 DEG/F - 2 DEG/F HYSTERESIS (ADJUSTABLE), DDC CONTROLLER SHALL CONTAIN THE FOLLOWING ALARMS: BUILDING FREEZE PROTECTION (ADJUSTABLE), DIRTY FILTER ALARM, SUPPLY AIR ALARM, DX ALARM, TEMPERATURE SENSOR ALARM, HUMIDITY SENSOR ALARM.

### MINI-SPLIT UNIT

GENERAL DATA					COOLING		HEATING		ELECTRICAL			GENERAL DATA					ELECTRICAL			AMBIENT ENTERING AIR (F)
SYMBOL	MITSUBISHI MODEL	ROOM SERVING	DIMENSIONS (LxWxH)	FAN CFM	TOTAL (MBH)	TOTAL (MBH)	VOLTAGE (V)	MCA	MOCP	SYMBOL	MITSUBISHI MODEL	LOCATION	DIMENSIONS (LxWxH)	EFFICIENCY SEER	VOLTAGE (V)	MCA	MOCP			
SSI-1	MSZ-D18NA	PBX	44"x11"x14"	500	18.2	N/A	208/1	1	15	SSO-1	MUZ-D18NA	OUTSIDE	34"x13"x34"	14.5	208/1	14	15	95		
SSI-2	MSZ-D18NA	EL. EQUIP	44"x11"x14"	500	18.2	N/A	208/1	1	15	SSO-2	MUZ-D18NA	OUTSIDE	34"x13"x34"	14.5	208/1	14	15	95		
SSI-3	MSZ-D18NA	SERVER	44"x11"x14"	500	18.2	N/A	208/1	1	15	SSO-3	MUZ-D18NA	OUTSIDE	34"x13"x34"	14.5	208/1	14	15	95		
NOTES: PROVIDE CONDENSATE PUMP FOR INDOOR UNIT. LOW AMBIENT CONTROLS, LONG LINE-SETS ARE REQUIRED. PROVIDE AUXILIARY DRAIN PAN W/ FLOAT SWITCH FOR EMERGENCY SHUT DOWN. PER IMC 307.2.3																				

### ELECTRIC WALL HEATER SCHEDULE

EW-1 MARKEL E3322TD-RP  
1 KW; 120V-1Ø; 3413 BTUH; 175 CFM; WITH:  
BUILT-IN DISCONNECT SWITCH AND THERMOSTAT,  
PENOL-PROOF LOUVERS, CABINET FOR SURFACE  
MOUNTING.

### POOL DEHUMIDIFICATION - CONDENSING UNIT

MARK	MODEL	ELECTRICAL			TOTAL UNIT EER	UNIT CAPACITY (MBH )	COMPRESSORS			TOTAL UNIT WEIGHT (Lb .)
		V/C/P	MCA (A)	MOP (A)			TYPE	REFRIGERANT	STAGES	
PDCU-1	SERESCO NC-B-1V	208/60/3	7	15	13.0	-	SCROLL	R410A	1	130
NOTES										
1. PROVIDE CONTROL SYSTEM DDC INTERFACE TO POOL DEHUMIDIFICATION SYSTEM 2. PROVIDE LIQUID LINE SOLENOID 3. PROVIDE ANTI-SHORT CYCLE TIMER 4. PROVIDE INTERCONNECTING REFRIGERANT PIPING TO POOL DEHUMIDIFICATION SYSTEM 5. PROVIDE DISCONNECT 6. PROVIDE MOUNTING PLATFORM										

### POOL DEHUMIDIFICATION UNIT SCHEDULE

UNIT TAG	SERVED	MANUF. MODEL	FAN CFM	FAN HP	O.A. CFM	E.S.P.	COOLING CAPACITY (BTUH)	MOISTURE REMOVAL (LBS/HR)	COMP. NO.	(E.A.) RLA	ELECT. HEAT (KW)	FAN ELECTRICAL DATA		
												VOLTAGE (V/PH)	MCA	MOCP (A)
PDU-1	POOL	SERESCO NE-004-PV-L-A2N1182	1800	2.5	520	1.0"	53.3	23.7	1	17.6	12.5	208/3ø	71	80
NOTES: 1. INDOOR DESIGN CONDITIONS BASED ON 82°F/50% R.H.  2. PROVIDE UNIT WITH: THERMOSTAT WITH LOCKABLE COVER, FILTER, U.L. LABEL, IONIZATION TYPE SMOKE DETECTOR INSTALLED IN THE RETURN DUCT, ELECTRIC HEATER (UNIT MOUNTED), POOL WATER HEATING, SINGLE POINT ELECTRICAL CONNECTION.  3. AN IONIZATION TYPE SMOKE DETECTOR SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR, INSTALLED IN THE RETURN DUCT BY THE MECHANICAL CONTRACTOR, AND WIRED TO SHUT DOWN THE UNIT BY THE ELECTRICAL CONTRACTOR.														

### MECHANICAL LEGEND

	SUPPLY AIR DIFFUSER
	RETURN AIR GRILLE
	WALL MOUNTED THERMOSTAT
	¾" DOOR UNDERCUT
	MANUAL VOLUME DAMPER
	BI-POLAR IONIZATION DEVICE (DUCT MOUNTED)
	TURNING VANES
	DUCT MOUNTED SMOKE DETECTOR
	MOTOR OPERATED DAMPER

### AIR DISTRIBUTION SCHEDULE

SYMBOL	CFM	NECK SIZE	MODULE SIZE	PATTERN	BLADE/SLOT SPACING	DAMPER	MATERIAL	SERVICE	MANUFACTURER & MODEL NO.	NOTES
A	0-100	6"ø	12"x12"	LOUVERED	-	YES	STEEL	SUPPLY	PRICE SMD	1-4
B	0-100	6"ø	24"x24"	LOUVERED	-	YES	STEEL	SUPPLY	PRICE SMD	1-4
C	105-175	8"ø	24"x24"	LOUVERED	-	YES	STEEL	SUPPLY	PRICE SMD	1-4
D	180-270	10"ø	24"x24"	LOUVERED	-	YES	STEEL	SUPPLY	PRICE SMD	1-4
E	275-390	12"ø	24"x24"	LOUVERED	-	YES	STEEL	SUPPLY	PRICE SMD	1-4
F	120-250	8"ø	48"x4"	SLOT	(1)1½" SLOT	YES	STEEL	SUPPLY	PRICE AS215	1-5
G	260-380	10"ø	48"x4"	SLOT	(1)2½" SLOT	YES	STEEL	SUPPLY	PRICE AS225	1-5
H	385-450	12"ø	48"x4"	SLOT	(1)3" SLOT	YES	STEEL	SUPPLY	PRICE AS230	1-5
J	0-175	8"ø	24"x24"	PERFORATED	-	NO	STEEL	RETURN	PRICE PDDR	1-4
K	180-270	10"ø	24"x24"	PERFORATED	-	NO	STEEL	RET/TRANS	PRICE PDDR	1-4
L	395-500	12"x12"	24"x24"	PERFORATED	-	NO	STEEL	RET/EXH	PRICE PDDR	1-4
M	505-885	16"x16"	24"x24"	PERFORATED	-	NO	STEEL	RETURN	PRICE PDDR	1-4
N	890-1,850	22"x22"	24"x24"	PERFORATED	-	NO	STEEL	RETURN	PRICE PDDR	1-4
P	250	48"x5"	48"x5"	SLOT	(3)½" SLOTS	NO	STEEL	RETURN	PRICE SDR50	1-5
R	120-250	8"ø	48"x4"	SLOT	(1)1½" SLOT	YES	STEEL	ALUM	PRICE AS215	1-5
S	260-380	10"ø	48"x4"	SLOT	(1)2½" SLOT	YES	STEEL	ALUM	PRICE AS225	1-5
T	1280	28"x20"	30"x22"	LOUVERED	-	NO	ALUM	RETURN	PRICE 635	1-4
V	100	6"x5"	8"x7"	LOUVERED	-	YES	STEEL	SUPPLY	PRICE 540	1-4

- NOTES:  
1. FINISH TO MATCH / BE ABLE MATCH CEILING OR WALL OR DOOR. COORDINATE WITH ARCHITECT.  
2. SQUARE TO ROUND TRANSITIONS PROVIDED BY AIR DISTRIBUTION SUPPLIER.  
3. FURNISH WITH FRAME SUITABLE FOR INSTALLATION REQUIRED.  
4. DIFFUSERS AT RATED CEILINGS SHALL BE ALL STEEL CONSTRUCTION WITH RADIATION DAMPER. PROVIDE RADIATION INSULATION BLANKET ON TOP SIDE OF DIFFUSER AS REQUIRED TO MAINTAIN RATING OF CEILING.  
5. ALL LINEAR DIFFUSERS SHALL BE FURNISHED WITH PLENUM AND END CAPS.

### FAN SCHEDULE

SYMBOL	# OF FANS	TYPE	CFM	APPROX. S.P.	DRIVE	RPM	ELECTRICAL DATA			MANUFACTURER GREENCHECK	CONTROL	ACCESSORIES
							WATTS	H.P.	VOLTAGE			
EF-1	95	EXHAUST	50	0.2	DIRECT	596	45	-	120V/1ø	SP-B70	D	1 2 5 6 13
EF-2	2	EXHAUST	120	0.2	DIRECT	824	150	-	120V/1ø	SP-B150	C	1 2 5 6 8 13
EF-3	1	EXHAUST	100	0.25	DIRECT	950	100	-	120V/1ø	SP-B110	A	1 2 5 6 8 13
EF-4	2	EXHAUST	100	0.25	DIRECT	950	100	-	120V/1ø	SP-B110	C	1 2 5 6 8 13
EF-5	2	EXHAUST	300	0.2	DIRECT	1124	150	-	120V/1ø	SP-B390	D	1 2 5 6 8 13
EF-6	5	EXHAUST	200	0.25	DIRECT	908	83	-	120V/1ø	SP-A250	E	1 2 5 6 8 13
EF-7	1	EXHAUST	240	0.25	DIRECT	1004	108	-	120V/1ø	SP-A290	F	1 2 5 6 8 13
EF-8	1	EXHAUST	100	0.25	DIRECT	950	100	-	120V/1ø	SP-B110	A	1 2 5 6 8 13
EF-9	1	EXHAUST	250	0.25	DIRECT	1032	108	-	120V/1ø	SP-A290	G	1 2 5 6 8 13
EF-10	1	EXHAUST	50	0.2	DIRECT	596	45	-	120V/1ø	SP-B70	E	1 2 5 6 8 13
EF-11	1	EXHAUST	520	0.2	DIRECT	837	350	-	120V/1ø	SP-A700	E	1 2 5 6 8 13
EF-12	1	EXHAUST	100	0.25	DIRECT	950	100	-	120V/1ø	SP-B110	D	1 2 5 6 8 13

#### ACCESSORIES

- 1: DISCONNECT BY E.C.
- 2: BACKDRAFT DAMPER
- 3: PREFAB. ROOF CURB
- 4: BIRDSCREEN
- 5: SPEED CONTROLLER
- 6: HANGING BRACKETS WITH VIBRATION ISOLATION
- 7: DISCHARGE HOOD
- 8: WL, WALL LOUVER DISCHARGE
- 9: MFG ROOF CAP
- 10: REMOTE MTD. SPEED CONTROLLER
- 11: MOTOR SIDE FAN GUARD
- 12: PROVIDE EXTENDED ROOF CURB
- 13: EXHAUST GRILLE
- 14: UL 762

#### CONTROL

- A: WALL MOUNTED SWITCH
- B: WALL MOUNTED PUSH BUTTON SWITCH
- C: WALL MOUNTED THERMOSTAT
- D: INTERLOCK WITH ROOM LIGHT SWITCH
- E: CONTINUOUS OPERATION
- F: INTERLOCK WITH AH-1
- G: INTERLOCK WITH AH-4

#### NOTES:

1. ALL FANS SHALL BE U.L. LISTED AND LABELED AND SHALL BE AMCA CERTIFIED.
2. ALL FANS SHALL BE SUPPLIED BY ONE MANUFACTURER UNLESS NOTED OTHERWISE.
3. MECHANICAL CONTRACTOR SHALL PROVIDE MAGNETIC STARTER WITH AUXILIARY CONTACTS AS REQUIRED.
4. BACKDRAFT DAMPER ON ROOF SUPPLY FANS SHALL BE MOTORIZED.
5. WHEN A SPEED CONTROLLER IS REQUIRED AND MOUNTED TO EXHAUST FAN, SPEED SHALL BE ADJUSTED TO PROVIDE LISTED AIRFLOW PRIOR TO CEILING BEING INSTALLED.

### PTAC UNITS

UNIT TAG	AMANA MODEL	FAN CFM	OSA CFM	ESP (WG)	EER	COOLING (MBH)	ELECT. HEAT (KW)	HEATING (MBH)	VOLTAGE (V)	MCA (A)	MOCP (A)	WEIGHTS (LBS)
PTAC-A	PTH073G	340	50	0.4	11.7	7.6	2.1	6.8	208V/1ø	14.1	15	102

#### NOTES:

- 1) PROVIDE SUB-BASE KIT WITH DISCONNECT SWITCH FOR ALL PTAC'S.
- 2) SHALL COMPLY W/ THE LOCAL 2012 ENERGY CODE
- 3) PROVIDE W/ REMOTE THERMOSTAT.
- 4) PROVIDE W/ MATCHING WALL SLEEVE..