

LEGEND

	SUPPLY DIFFUSER (NEW)
	RETURN GRILLE (NEW)
	SUPPLY DIFFUSER (FLOOR ABOVE)
	RETURN GRILLE (FLOOR ABOVE)
	RA TRANSFER GRILLE
EF-1	EXHAUST FAN
	THERMOSTAT 4'-0" A.F.F.
	REMOTE TEMPERATURE SENSOR
	CARBON DIOXIDE SENSOR
	RECTANGULAR DUCT
	FLEXIBLE DUCT
	ROUND RIGID DUCT
	TURNING VANES
VD	VOLUME DAMPER
BOD	BACKDRAFT DAMPER
SD	SPLITTER DAMPER
FD	FIRE DAMPER WITH 8x8 ACCESS DOOR
	CONDENSATE PIPING
	DUCT-MOUNTED SMOKE DETECTOR
CU	CONDENSING UNIT
DF	DUCT FURNACE
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
CC	COOLING COIL
CFM	CUBIC FEET PER MINUTE
EA	EXHAUST AIR
HP	HEAT PUMP
PH	PERIMETER HEAT
RA	RETURN AIR
RTU	ROOFTOP UNIT (PACKAGED)
SA	SUPPLY AIR
SP	STATIC PRESSURE
VAV	VARIABLE AIR VOLUME
	DOOR LOUVER
	CONNECT NEW TO EXISTING
	POINT OF DEMOLITION
VAV-1	VAV BOX
	PERIMETER HEAT BOX
PH-1	

MECHANICAL GENERAL NOTES

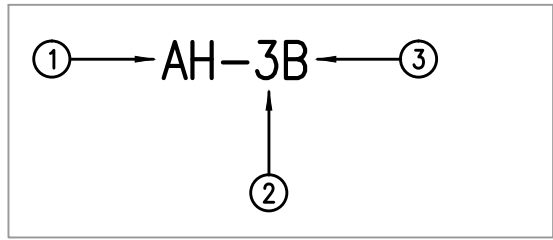
- DO NOT SCALE DRAWINGS. SEE ARCHITECTURAL DRAWINGS AND REFLECTED CEILING PLANS FOR EXACT LOCATION OF DOORS, WINDOWS, CEILING CONFIGURATION, ETC.
- INSTALLATION OF ANY EQUIPMENT SHALL BE IN ACCORDANCE WITH APPROVED SHOP DRAWINGS. CONTRACTOR TO COORDINATE THE SHOP DRAWING INFORMATION WITH ALL OTHER TRADES. (EXAMPLE: ROOFTOP UNITS PHYSICAL SIZE AND WEIGHT MUST BE COORDINATED WITH STRUCTURAL SYSTEMS THRU GENERAL CONTRACTOR, LIKEWISE ALL ELECTRICAL CHARACTERISTICS WILL REQUIRE COORDINATION THRU GENERAL CONTRACTOR WITH ELECTRICAL CONTRACTOR).
- ALL DUCTWORK SHALL BE SUPPORTED AS PER SMACNA STANDARDS.
- ALL PIPING AND DUCTWORK LOCATIONS SHALL BE COORDINATED WITH THE WORK UNDER OTHER TRADES, TO AVOID INTERFERENCE.
- ALL RECTANGULAR AND ROUND DUCTWORK SHALL BE GALVANIZED SHEET METAL CONSTRUCTED IN ACCORDANCE WITH SMACNA STANDARDS. ALL SQUARE ELBOWS SHALL HAVE DOUBLE THICKNESS TURNING VANES.
- MECHANICAL CONTRACTOR SHALL BALANCE SYSTEM TO CFM'S INDICATED ON PLANS AND PROVIDE ARCHITECT WITH COMPLETE BALANCE REPORT.
- NEW FLEXIBLE DUCT SHALL BE INSULATED THERMAFLEX M-KE OR APPROVED EQUAL. MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL BE 5'-0".
- LOCATE ALL THERMOSTATS AND SWITCHES 4'-6" ABOVE FINISHED FLOOR.
- ALL DUCTWORK SPECIFIED OR NOTED TO BE LINED SHALL BE LINED WITH ONE INCH THICK DUCT LINER HAVING NOT LESS THAN A "K" VALUE OF 0.22 AT 75° F. MEAN TEMPERATURE WITH ONE SIDE COATED FACING AIR STREAM CONFORMING TO THE DUCT LINE MATERIALS STANDARD AH-C-101 DATED 1975 OF THE NATIONAL INSULATION MANUFACTURERS ASSOCIATION.
- ALL DUCTWORK SPECIFIED OR NOTED TO BE LINED SHALL BE INCREASED IN SIZE TO ALLOW FOR LINER. DUCT DIMENSIONS SHOWN OR NOTED ON PLANS ARE INSIDE CLEAR.
- SPACE ABOVE CEILING TO BE USED AS RETURN AIR PLENUM WHERE DUCT IS NOT INDICATED ABOVE RETURN AIR GRILLES. DUCTS RETURNING AIR ABOVE CEILING SHALL BE OPEN END WITH BOXED EDGES.
- ANY DEVICE REQUIRING A THERMOSTAT FOR CONTROL SHALL BE FURNISHED WITH A THERMOSTAT WHETHER INDICATED ON THE DRAWINGS OR NOT. IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO FURNISH ALL THERMOSTATS, CONTROLS, ETC.
- ALL CUTTING, PATCHING OF SLAB, ROOF OR OTHER BUILDING COMPONENTS TO BE BY THE GENERAL CONTRACTOR.
- WHERE INDICATED, THERMOSTATS SHALL HAVE OPAQUE PLASTIC LOCKING GUARDS FURNISHED BY THERMOSTAT MANUFACTURER AS STANDARD ACCESSORY SIMILAR TO WHITE-ROGERS PLASTIC THERMOSTAT GUARDS.
- THE TOPS OF ALL SUPPLY AND RETURN AIR DISTRIBUTION ON A DUCTED RETURNED SYSTEM SHALL BE INSULATED WITH 1-1/2" THICK BATT INSULATION WITH VAPOR BARRIER.
- ALL PIPING, DUCTS, VENTS, ETC., EXTENDING THROUGH WALLS AND ROOF SHALL BE FLASHED AND COUNTERFLASHED IN A WATERPROOF MANNER.
- EXTEND ALL DRAIN LINES TO SPLASHBLOCK OR AS INDICATED, SO ROUTED AS TO AVOID INTERFERENCE WITH PASSAGEWAYS AND MAINTENANCE. DRAINS FROM AIR HANDLING UNITS SHALL BE TRAPPED. ALL DRAIN LINES SHALL BE INSULATED.
- ALL PIPING AND DUCTWORK INSULATION SHALL BE RUN CONTINUOUSLY THROUGH FLOORS AND PARTITIONS.
- EXTEND DRAIN LINES FROM RELIEF VALVES TO NEAREST FLOOR DRAIN.
- ALL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE SPECIFICATIONS AND FURTHER SUPPORTS OR HANGERS AS REQUIRED TO PREVENT THE WEIGHT OF PIPING BEING PLACED ON EQUIPMENT.
- MINIMUM PIPE SIZE SHALL BE 1/2".
- RUNOUTS SHALL PITCH DOWN IN DIRECTION OF FLOW A MINIMUM OF 1" IN 3'-0".
- ALL CONCRETE PADS UNDER MECHANICAL EQUIPMENT SHALL BE 4" THICK REINFORCED WITH 6x6 10/10 WIRE MESH BY MECHANICAL CONTRACTOR, UNLESS NOTED OTHERWISE. COORDINATE PAD LOCATIONS WITH GENERAL CONTRACTOR TO VERIFY KEY LOCATIONS.
- PROVIDE A DIELECTRIC FITTING BETWEEN FERROUS AND NON-FERROUS PIPING.
- FIRE DAMPERS SHALL BE INSTALLED WHERE SHOWN ON PLANS AND AT SLAB, WHERE DUCTS PASS THROUGH RATED FLOORS.
- HVAC SYSTEM TEST AND BALANCE (TAB) SHALL BE PROVIDED BY AN INDEPENDENT NEBB OR AABC CERTIFIED TEST AND BALANCE COMPANY, WORKING AS A SUBCONTRACTOR OF THE GENERAL CONTRACTOR. THE TAB SHALL BE COMPLETED AND RESULTS SENT TO THE MECHANICAL ENGINEER OF RECORD. THE RESULTS WILL BE REVIEWED BY THE ENGINEER WHO WILL NOTE ANY DEFICIENCIES IN HIS REPORT. THE MECHANICAL CONTRACTOR SHALL THEN CORRECT ANY SYSTEM DEFICIENCIES AND RESUBMIT THE TAB REPORT TO THE ENGINEER. ALL SYSTEM DEFICIENCIES SHALL BE ADDRESSED BY MECHANICAL CONTRACTOR AND THE TAB REPORT SHALL BE APPROVED BY THE MECHANICAL ENGINEER OF RECORD PRIOR TO BUILDING OCCUPANCY.

DUCT SMOKE DETECTORS

- MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL DUCT-MOUNTED SMOKE DETECTORS, ONE IN THE SUPPLY DUCT, AND ONE IN THE RETURN DUCT OF EACH AIR HANDLING UNIT WHERE INDICATED ON THE PLANS.
- EACH DETECTOR SHALL BE WIRED SUCH THAT WHEN THE DETECTOR ACTIVATES, IT SHUTS DOWN THE UNIT IN WHICH IT IS INSTALLED.
- THE DETECTORS SHALL BE IONIZATION TYPE. AN ACCESS DOOR SHALL BE PROVIDED IN THE DUCT TO ALLOW FOR TESTING OF THE DETECTOR.
- THE MONITORING STATION SHALL BE WIRED TO THE DETECTORS TO DISPLAY AN ALARM WHEN EITHER OF THE TWO DETECTORS IS ACTIVATED (WIRED IN SERIES).
- THE DETECTORS SHALL BE PROVIDED WITH A SET OF AUXILIARY CONTACTS FOR THE ELECTRICAL CONTRACTOR TO MAKE A CONNECTION TO THE FIRE ALARM PANEL. THE CONNECTION ALLOWS THE FIRE ALARM CONTROL PANEL (FACP) TO SENSE WHEN A DETECTOR IS IN THE ALARM MODE. MONITORING OF DETECTOR STATUS SHALL BE AT THE ALARM PANEL. THE FACP DOES NOT SHUT DOWN THE AIR HANDLING UNIT, THE DETECTOR SHUTS DOWN THE UNIT IF THE DETECTOR ACTIVATES. THE MECHANICAL CONTRACTOR SHALL WIRE THE DETECTORS TO SHUT-DOWN THE UNIT IN THE EVENT THAT SMOKE IS DETECTED.

HVAC UNIT TAGS

- TYPE OF UNIT
AH AIR HANDLING UNIT
CU CONDENSING UNIT
DF DUCT FURNACE
GF GAS FURNACE
HP HEAT PUMP
PG PACKAGED GAS UNIT
PT PACKAGED TERMINAL UNIT
- UNIT NUMBER
- LETTER DESIGNATES MORE THAN ONE UNIT WITHIN A ZONE



MECHANICAL DRAWING INDEX

- M100 MECHANICAL LEGEND NOTES AND SCHEDULES
- M101 MECHANICAL SCHEDULES
- M102 MECHANICAL SCHEDULES
- M200 MECHANICAL DETAILS
- M201 MECHANICAL DETAILS
- M300 MECHANICAL HVAC: FIRST FLOOR PLAN
- M301 MECHANICAL HVAC: SECOND FLOOR PLAN
- M302 MECHANICAL HVAC: THIRD FLOOR PLAN
- M303 MECHANICAL HVAC: FOURTH FLOOR PLAN
- M304 MECHANICAL HVAC: ROOF PLAN

DEDICATED OUTDOOR AIR (DOAS) - PACKAGED ROOFTOP UNIT

UNIT INFORMATION	
MARK	MAU-1
WEIGHT (LBS)	6000
SUPPLY CFM	10,000
SUPPLY ESP (IN.W.G.)	2.50
COOLING SECTION	
TOTAL CAPACITY	855.10 MBH
SENSIBLE CAPACITY	317.66 MBH
ENTERING AIR TEMP	85.7 °F DB / 80.25 °F WB
LEAVING AIR TEMP	55.43 °F DB / 55.23 °F WB
HEATING SECTION	
INPUT CAPACITY	810.00 MBH
OUTPUT CAPACITY	648.00 MBH
ENTERING AIR TEMP	17.6 °F
LEAVING AIR TEMP	77.5 °F
SUPPLY FAN	
HP	15.0
FRPM	1188
ELECTRICAL DATA	
VOLTAGE	208/3
COMP FLA	4 X 55.8
EWAP FAN FLA	46.2
COND FAN FLA	6 X 7.0
MCA	325
MAX FUSE	350
STANDARD OF PERFORMANCE	
AAON RN-070-8-0-BA04-309	
REMARKS:	
<p>1. FACTORY ASSEMBLED, PIPED, WIRED AND TESTED AS A SINGLE PACKAGE</p> <p>2. UNIT SHALL INCLUDE A 100X OUTSIDE AIR HOOD WITH 2 POSITION MOTORIZED DAMPER</p> <p>3. UNIT SHALL INCLUDE 4 STAGE COOLING, 4 COMPRESSOR CIRCUITS WITH INTERLACED-CIRCUIT DX COIL (HORIZONTAL SPLIT NOT ACCEPTABLE)</p> <p>4. UNIT SHALL INCLUDE 5:1 MODULATING NATURAL GAS HEATING WITH 304 SERIES STAINLESS STEEL HEAT EXCHANGER WITH A 25 YEAR WARRANTY (PARTS ONLY)</p> <p>5. UNIT SHALL INCLUDE HOT GAS BYPASS ON FIRST REFRIGERATION CIRCUIT (FROST-STAT COMPRESSOR CYCLING NOT ACCEPTABLE)</p> <p>6. UNIT SHALL INCLUDE MODULATING HOT GAS REHEAT COIL FOR DEHUMIDIFICATION (2-POSITION OR DEDICATED HEAT PUMP CIRCUIT NOT ACCEPTABLE)</p> <p>7. UNIT SHALL INCLUDE STAINLESS STEEL DRAIN PAN</p> <p>8. UNIT SHALL INCLUDE MANUAL RESET HIGH PRESSURE SWITCHES & AUTO RESET LOW PRESSURE SWITCHES</p> <p>9. UNIT SHALL INCLUDE ECM CONDENSER FAN MOTORS FOR CONDENSER HEAD PRESSURE CONTROL</p> <p>10. UNIT SHALL INCLUDE 4" MERV 12 FILTERS AND 2" MERV 8 PRE-FILTERS</p> <p>11. CONTROLS: WATMASTER/ORION VCMX CONTROLLER WITH AMBIENT DEWPOINT SENSOR; ELECTRONIC SEQUENCING OF COMPRESSORS AND HEATING AND MODULATING HOT GAS RE-HEATING.</p> <p>THE INTENTION OF THIS UNIT IS TO PROVIDE CONTINUOUS DEHUMIDIFICATION OF OUTSIDE AIR WHILE ALSO PROVIDING TEMPERATURE CONTROL TO THE SPACE IT SERVES. IF THIS CAUSES OVERCOOLING IN THE SPACE, THE MODULATING HOT GAS REHEAT VALVE SHALL OPEN TO SATISFY THE CONDITIONED SPACE REQUIREMENT. FIELD MOUNTED CONTROLS SHALL INCLUDE A DUCT MOUNTED LEAVING AIR STAT AND A WALL MOUNTED STAT (SEE PLANS FOR LOCATION). ALL UNIT MOUNTED CONTROLS FOR COMPLETE OPERATION SHALL BE INSTALLED BY THE EQUIPMENT MANUFACTURER.</p> <p>12. 2" FOAM INJECTED INSULATED (MINIMUM R13 VALUE) DOUBLEWALL CABINET CONSTRUCTION</p> <p>13. UNIT SHALL INCLUDE INTEGRAL NON-FUSED DISCONNECT</p> <p>14. DUCT MOUNTED SMOKE DETECTOR PROVIDED BY ELECTRICAL, INSTALLED BY MECHANICAL</p> <p>15. UNIT SHALL INCLUDE A 36" HIGH FACTORY ASSEMBLED AND INSULATED ROOF CURB/PLENUM WITH VIBRATION ISOLATION RAILS</p> <p>16. UNIT SHALL BE AHRI LISTED AND CERTIFIED (COIL ONLY CERTIFICATION IS NOT ACCEPTABLE)</p> <p>17. COMPRESSORS SHALL HAVE 5 YEAR WARRANTY (PARTS ONLY)</p> <p>18. CONTACT GARY GORHAM @ GORHAM/SCHAFFLER, INC. FOR INFORMATION PHONE: 1-901-345-6100</p>	

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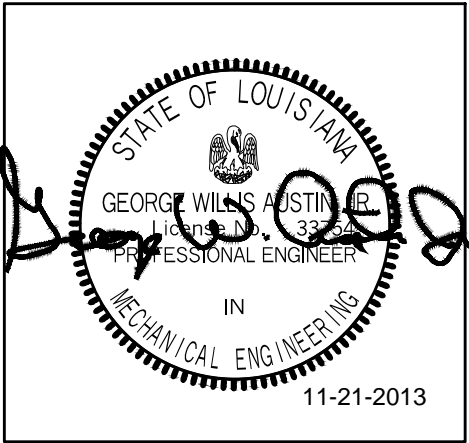
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REVISIONS		
No.	Date	Description

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KEY PLAN

Southern Hospitality
Services

Hampton Inn and
Suites

5400 I-20 & Frontage Rd.
Monroe, LA 71201

Drawing Title
Mechanical HVAC
Notes, Schedules, and
Legend

Phase
FOR CONSTRUCTION

Project No.	12-111	Sheet No.	M100
Prepared by	CDC		
Checked by	GWA		
Date	September 16, 2013		

Released for

Hampton Inn and Suites