

- RUSKIN FSD60 OBV DAMPER DETAIL**
- ITEM DESCRIPTION
- ACTUATOR (LOCATION MAY VARY). DAMPER MAY BE SUPPLIED WITHOUT ACTUATOR INSTALLED. RUSKIN'S UL LISTED FIRE DAMPER ACTUATORS MAY BE FIELD INSTALLED IF PROPERLY LABELED. SEE ACTUATOR INSTALLATION INSTRUCTIONS FOR FIELD MOUNTING OF DAMPER ACTUATORS.
  - OPTIONAL FIRESTAT OR SP100
  - AUXILIARY OPERATING JACK SHAFT
  - DAMPER
  - OVER CENTER LOCK
  - SLEEVE
  - CAULKING MATERIAL (MAY BE ON EITHER SIDE OF DAMPER FRAME)
  - PPMA OR CONVENTIONAL MOUNTING ANGLES
  - JOINT/DUCT MATE, SLEEVE TO DUCT

**AIR COOLED CHILLER SYSTEM**

UNIT DESIGNATION	CHILLER-1
LOCATION	ROOF
EEER	105
DESIGN MANUFACTURER	TRANE
MANUFACTURER'S MODEL NUMBER	CGAM 52
MINIMUM CAPACITY, TONS OF REFRIGERATION	52
WATER FLOW, GPM	123.4
WATER TEMP, °F, ENTERING/LEAVING	55/45
MAXIMUM WATER PRESSURE DROP, FT OF H2O	142
FOULING FACTOR	0.00010
ELECTRICAL SERVICE	240-3-60
TOTAL MINIMUM CIRCUIT AMPACITY (MCA)	731
TOTAL MAXIMUM OVERCURRENT PROTECTION (MOP)	736
OPERATING WEIGHT, LBS.	4310
TYPE	SCROLL
NUMBER OF COMPRESSORS	4
MAXIMUM MOTOR FLA/LRA	44.3/35
MAXIMUM MOTOR INPUT DESIGN, KW	
ELECTRICAL SERVICE	240-3-60
STARTER TYPE	ACROBSS LINE
UNLOADING STEPS - % OF CAPACITY	25/50/75/100
REFRIGERANT TYPE	R410A
TYPE	AIR COOLED
NUMBER OF FANS	4
AMBIENT AIR TEMPERATURE, °F	95
FAN MOTOR HP, (EACH)	5 KW
TOTAL FULL LOAD/LOCKED ROTOR AMPS	
ELECTRICAL SERVICE AVAILABLE	240-3-60
DRIVE TYPE	

- CHILLER SYSTEM DESCRIPTION**
- SELF CONTAINED UNITARY HIGH EFFICIENCY SYSTEM WITH FACTORY INTEGRATED SINGLE POINT ELECTRICAL AND CHILLED WATER LINES AND ALL ADDITIONAL MAJOR COMPONENTS NOTED BELOW AS REQUIRED FOR OPERATION.
  - DUAL HIGH HEAD PUMP PACKAGE (54) FT H2O AVAILABLE HEAD (PRESSURE)
  - 5HP PUMP
  - 5-GALLON EXPANSION TANK
  - VARIABLE SPEED FLOW CONTROL
  - SINGLE POINT ELECTRICAL CONNECTION
  - SINGLE POINT CHILLED WATER LINES CONNECTIONS
  - MAKE-UP WATER CONNECTION
  - CENTRAL CONTROL SYSTEM

**FAN COIL UNIT SCHEDULE**

UNIT DESIGNATION	FCU-1	FCU-2	FCU-3	FCU-4	FCU-5	FCU-6	FCU-7	FCU-8	FCU-9
AREA SERVED	LOBBY (2)	ROOMS							
LOCATION	FCU CEILING FLENUM								
MOUNTING TYPE	HORIZONTAL								
TOTAL CFM	150	400	300	530	220	490	260	350	560
VENT AIR CFM	90	40	35	40	25	40	25	40	40
EXTERNAL STATIC PRESS, IN OF H2O	0.5								
MOTOR (WATTS)	300								
MOTOR SPEED, RPM									
COIL TYPE / NUMBER OF ROWS	4								
TOTAL CAPACITY, BTU/H	24,100	12,100	9,400	15,000	6,800	14,200	7,500	10,000	16,100
TOTAL SENSIBLE BTU/H	19,100	9,750	7,400	11,600	5,350	11,000	6,100	8,400	13,600
ENTERING AIR TEMP, DB / WB °F	11.3/65.1	16.2/64.5	11.0/64.8	16.6/64.2	11.3/64.9	16.2/64.3	16.3/64.6	11.2/65.0	16.5
WATER TEMP °F ENTERING/LEAVING	45/55								
CHILLED WATER FLOW RATE, GPM	5	25	2	3	14	2.8	15	22	32
CHILLED WATER PRESS. DROP, FT. OF H2O									
FILTER TYPE	1\"/>								
ACCESSORIES	SEE FCU DESCRIPTION								
DESIGN MANUFACTURER	TRANE								
MANUFACTURER'S MODEL NUMBER	FCDB0604J	FCDB0404J	FCDB0304J	FCDB0604J	FCDB0204J	FCDB0604J	FCDB0404J	FCDB0604J	FCDB0604J
ELECTRICAL SERVICE	240-1-60								
HEATING KW	3.0	2.0	2.0	2.0	1.0	3.0	1.0	2.0	3.0
NOMINAL SIZE (WxDxH)	26x50x10								
WEIGHT (POUNDS)	150								

**HVAC DESIGN**

	YES	NO
DUCT SMOKE DETECTOR		●
FIRE DAMPER(S)	●	
SMOKE DAMPER(S)		●
FIRE RATED ENCLOSURE	●	
FIRE RATED ROOF/FLOOR CEILING ASSEMBLY		●
FIRE STOPPING	●	
SMOKE CONTROL		●

- FCU'S DESCRIPTION**
- FAN COIL UNIT, HORIZONTAL CABINET
  - 240V 1P 60 HZ
  - WITH FRING, RIGHT HAND CONNECTION
  - BACK DUCT COLLAR RETURN
  - FRONT DUCT COLLAR SUPPLY
  - HIGH STATIC FAN MOTOR
  - STAINLESS STEEL DRAIN PAN
  - MANUAL AIR VENT
  - DISCONNECT CIRCUIT BREAKER
  - 1\"/>

**OUTSIDE AIR CALCULATIONS**

ASHRAE STANDARD 62-2004 (FBC MECHANICAL TABLE 403.3)

MINIMUM OUTSIDE AIR FORMULA:  $V_{v2} + R_{p2} + R_{a2}$  (EQUATION 4-1)

$V_{v2}$  = OUTSIDE AIR  
 $R_{p2}$  = PEOPLE OUTDOOR AIRFLOW RATE  
 $Fz$  = ESTIMATED MAXIMUM OCCUPANCY  
 $R_{a2}$  = AREA OUTDOOR AIRFLOW RATE (CFM/5F)  
 $Az$  = CONDITIONED NET FLOOR AREA FOR FCU (NET 5F)

FCU-1 - LOBBY  
 $= (15 \text{ CFM/PERSON} \times (1600 \text{ SF}) \times (30\%/1000 \text{ SF})) + (0.06 \times 1600 \text{ SF NET}) = 11 \text{ CFM}$   
 DESIGN O/A PROVIDED = 100 CFM

FCU-2 - ROOM15  
 $= (5 \text{ CFM/PERSON} \times (1330 \text{ SF}) \times (10\%/1000 \text{ SF})) + (0.06 \times 1330 \text{ SF NET}) = 38 \text{ CFM}$   
 DESIGN O/A PROVIDED = 40 CFM

FCU-3 - ROOM16  
 $= (5 \text{ CFM/PERSON} \times (1300 \text{ SF}) \times (10\%/1000 \text{ SF})) + (0.06 \times 1300 \text{ SF NET}) = 33 \text{ CFM}$   
 DESIGN O/A PROVIDED = 35 CFM

FCU-4 - ROOM16  
 $= (5 \text{ CFM/PERSON} \times (1330 \text{ SF}) \times (10\%/1000 \text{ SF})) + (0.06 \times 1330 \text{ SF NET}) = 34 \text{ CFM}$   
 DESIGN O/A PROVIDED = 35 CFM

FCU-5 - ROOM16  
 $= (5 \text{ CFM/PERSON} \times (1200 \text{ SF}) \times (10\%/1000 \text{ SF})) + (0.06 \times 1200 \text{ SF NET}) = 22 \text{ CFM}$   
 DESIGN O/A PROVIDED = 25 CFM

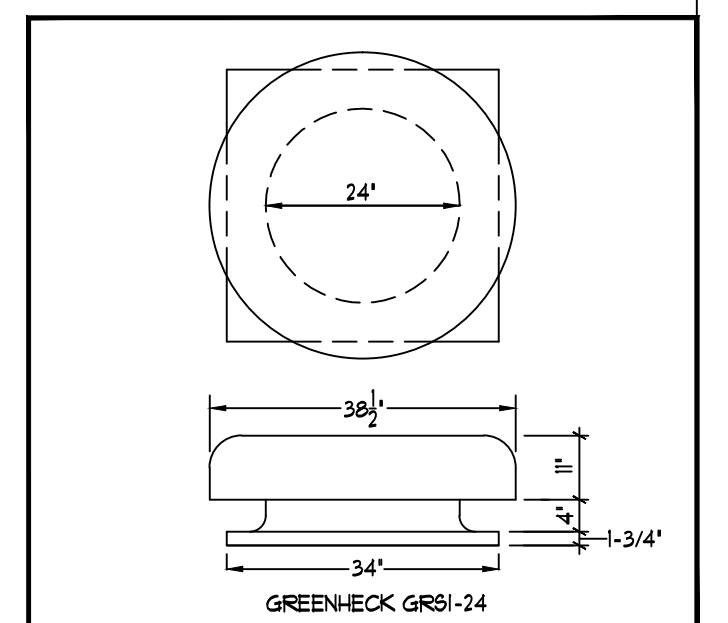
FCU-6 - ROOM16  
 $= (5 \text{ CFM/PERSON} \times (1340 \text{ SF}) \times (10\%/1000 \text{ SF})) + (0.06 \times 1340 \text{ SF NET}) = 33 \text{ CFM}$   
 DESIGN O/A PROVIDED = 40 CFM

FCU-7 - ROOM16  
 $= (5 \text{ CFM/PERSON} \times (1230 \text{ SF}) \times (10\%/1000 \text{ SF})) + (0.06 \times 1230 \text{ SF NET}) = 24 \text{ CFM}$   
 DESIGN O/A PROVIDED = 25 CFM

FCU-8 - ROOM16  
 $= (5 \text{ CFM/PERSON} \times (1350 \text{ SF}) \times (10\%/1000 \text{ SF})) + (0.06 \times 1350 \text{ SF NET}) = 36 \text{ CFM}$   
 DESIGN O/A PROVIDED = 40 CFM

FCU-9 - ROOM16  
 $= (5 \text{ CFM/PERSON} \times (1440 \text{ SF}) \times (10\%/1000 \text{ SF})) + (0.06 \times 1440 \text{ SF NET}) = 46 \text{ CFM}$   
 DESIGN O/A PROVIDED = 50 CFM

DESIGN EXCEEDS MINIMUM OUTSIDE AIR REQUIREMENTS



**OUTSIDE AIR INTAKE HOOD**

UNIT DESIGNATION	OAI-1
AREA SERVED	ENTIRE BUILDING O/A FROM FCU'S
WEIGHT LBS	---
LOCATION	ROOF INTAKE GRAVITY VENT
FAN TYPE	---
TOTAL AIR CFM--DESIGN/MAXIMUM RATING	2160/2438
DRIVE TYPE	---
FAN WHEEL TYPE	---
FAN SPEED, RPM	---
TOTAL STATIC PRESSURE, IN OF H2O	0
FAN MOTOR HP (NON OVERLOAD)	---
SONES	---
FAN MOTOR STARTER TYPE	---
ELECTRICAL SERVICE AVAILABLE	---
MASONRY OPENING REQUIRED	26x26
SERVICE SWITCH	---
FIRESTAT UL APPROVED	---
FIRE DAMPER	---
CONSTRUCTION	ALUMINUM
MULTI-LAID BACKDRAFT DAMPER	YES
BIRDSCREEN	YES
COMPANION CURB MODEL	YES
VARIABLE SPEED CONTROL	---
DESIGN MANUFACTURER	GREENNECK
DESIGN MFR. MODEL NUMBER	GRS1-24

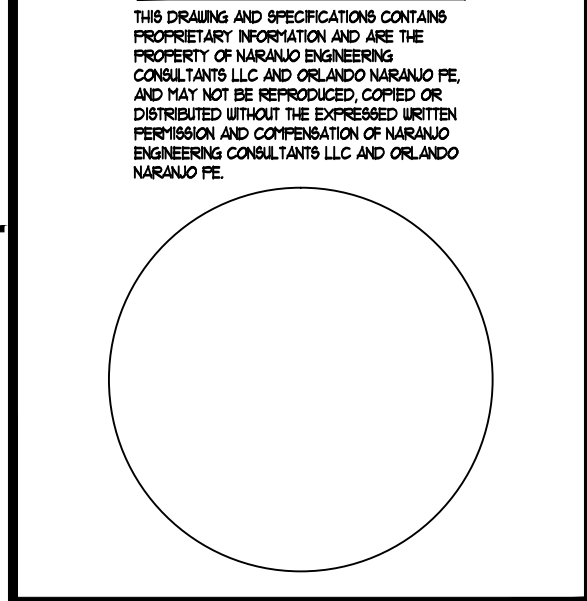
**AIR DISTRIBUTION SCHEDULE**

USE	TYPE	MODEL	COMMENTS
A OUTSIDE AIR WALL LOUVER	BIRDSCREEN	RUSKIN ELF811-55	SIZE AS NOTED ON PLAN

- HVAC UNITS CONDENSATE DRAIN**
- PROVIDE 2\"/>

NOTE: BEFORE COMMENCING WORK, CONTRACTOR SHALL FIELD VERIFY MANUFACTURER'S REQUIRED CLEARANCES AND ALIGN OPENINGS ALONG CENTERLINE OF JOISTS. FIELD COORDINATE WITH ARCHITECT AND STRUCTURAL ENGINEER.

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PROJECT:  
**VENEZIA HOTEL**  
 3865 INDIAN CREEK DR. MIAMI BEACH FLORIDA, 33140  
 MECHANICAL SYSTEM REPLACEMENT AND EXTERIOR FACADE IMPROVEMENTS

MANAGEMENT:

#	REVISIONS	DATE
Δ	BLDG DEPT REV	3-28-14

DATE: 3-7-2014 PERMIT  
 PROJECT No.: 14-002  
 DRAWN BY: SS, MS  
 CHECKED BY: ON  
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SHEET TITLE:  
**SCHEDULES & DETAILS**