IAQ – VENTILATION DESIGN CRITERIA

AREA SERVED	DESIGN OCCUPANCY AREA	VENTILATION RATE CFM/SQFT	VENTILATION RATE CFM/PEOPLE	VENTILATION REQUIRE CFM	VENTILATION PROVIDE CFM
AC #1 BAY 101	17 PEOPLE 1180 SQFT	0.12	7.5	269	275
AC #2 BAY 102 102 104 105 106 108	10 PEOPLE 660 SQFT	0.12	7.5	154	155
AC #3 BAY 109 110 111	13 PEOPLE 860 SQFT	0.12	7.5	200	205
AC #4 BAY 112 113 114 115 116 117 118 119 120	8 PEOPLE 530 SQFT	0.12	7.5	123	125
AC #2 BAY 121	12 PEOPLE 815 SQFT	0.12	7.5	187	195
RTU #1 BAY 201 221	17 PEOPLE 1185 SQFT	0.12	7.5	269	275
RTU #2 BAY 202 203 204 205 206 207 208	10 PEOPLE 660 SQFT	0.12	7.5	154	155
RTU #3 BAY 209 210 211	13 PEOPLE 890 SQFT	0.12	7.5	204	205
RTU #2 BAY 212 213 214 215 216 217 218 219 220	12 PEOPLE 765 SQFT	0.12	7.5	181	185

NOTES:

1. DESIGN BASED ON THE VENTILATION RATE PROCEDURE PER F.B.C. MECH. TABLE 403.3.
2. THE DESIGN WILL NEED TO BE RE-EVALUATED IF, AT A LATER TIME, CHANGES OCCUR IN THE USAGE OF THE SPACE, OR IF UNUSUALLY STRONG SOURCES OF SPECIFIC CONTAMINANTS ARE INTRODUCED INTO THE SPACE.

SPLIT A/C UNIT SCHEDULE

	UNIT DESIGNATION	AHU #1 (1 UNIT)	AHU #2 (8 UNITS)	AHU #3 (3 UNITS)	AHU #4 (9 UNITS)
AIR HANDLER UNIT	LOCATION	BAY 101	102,103,104,105,106,107,108,121	109,110,111	BAY 112,113,114,115,116,117,118,119,120
	DESIGN MANUFACTURER	CARRIER	CARRIER	CARRIER	CARRIER
	MODEL NO.	FX4DNF061	FX4DNF037	FX4DNF049	FX4DNF025
	SEER / EER	13.5/	14.5/	14.5/	14.5/
	TOTAL AIR, CFM (NOMINAL)	2000	1200	1600	800
	OUTDOOR AIR, CFM	SEE VENTILATION DESIGN CRITERIA	SEE VENTILATION DESIGN CRITERIA	SEE VENTILATION DESIGN CRITERIA	SEE VENTILATION DESIGN CRITERIA
	EXT. STATIC PRESS., INCHES OF H2O	0.4	0.4	0.4	0.4
	FAN MOTOR FLA – HP	6.0 – 3/4	4.1 – 1/2	6.0 – 3/4	2.8 – 1/3
	ELECTRIC HEAT, KW, MCA, MOCP	10.0, 53.8, 60	8.0, 44.7, 45	8.0, 44.7, 45	5.0, 26.0, 30
	TOTAL CAPACITY, MBH	58.3	36.2	49.8	24.5
	TOTAL SENSIBLE CAPACITY, MBH	43.4	28.6	39.0	18.9
	ENTERING AIR TEMP. °F DB/WB	80/67	80/67	80/67	80/67
	COIL AREA (sq.ft)	--	--	--	--
	ELECTRICAL SERVICE	208–240/1/60	208–240/1/60	208–240/1/60	208–240/1/60
	OPERATING WEIGHT, LBS.	201	157	185	122
	UNIT DIMENSIONS DXWXH (IN)	22 X 25 X 59	22 X 21 X 50	22 X 25 X 54	22 X 18 X 50
AIR COOLED CONDENSING UNIT	UNIT DESIGNATION	CU #1	CU #2	CU #3	CU #4
	DESIGN MANUFACTURER	CARRIER	CARRIER	CARRIER	CARRIER
	MODEL NO.	24ABB360A	24ABB336A	24ABB348A	24ABB324A
	NOMINAL CAPACITY (TONS)	5.0	3.0	4.0	2.0
	TYPE OF FAN	PROPELLER	PROPELLER	PROPELLER	PROPELLER
	NO. OF FANS, FLA – HP	1, 1.2 & 1/4	1 1.4 – 1/4	1, 1.4 & 1/4	1 0.77 – 1/10
	AMBIENT AIR TEMP., DB °	95°	95°	95°	95°
	CONDENSING TEMP., F DB°	--	--	--	--
	NO. OF COMPRESSORS	1/SCROLL	1/SCROLL	1/SCROLL	1/SCROLL
	COMPRESSORS R.L.A. / L.R.A.	26.4 / 134.0	15.3 / 77.0	19.9 / 109.0	13.5 / 58.3
	CAPACITY REDUCTION	--	--	--	--
	MCA/MOCP	34.2 / 50	21.5 / 30	26.2 / 40	17.6 / 25
	ELECTRICAL SERVICE	208–240/1/60	208–240/1/60	208–240/1/60	208–240/1/60
	OPERATING WEIGHT,LBS.	190	141	186	110
	UNIT DIMENSIONS LXWXH (IN)	32 X 32 X 26	26 X 26 X 33	32 X 32 X 36	23 X 23 X 26
	REF. LINE GAS, REF. TYPE, CHARGE (lb–oz)	1–1/8, R–410A, --	7/8, R–410A, --	7/8, R–410A, --	3/4, R–410A, --
	REF LINE LIQUID	3/8	3/8	3/8	3/8

NOTES:

1. CONDENSING UNIT LINE VOLTAGE – AIR HANDLER AVAILABLE ONLY IN 208/230–1–60.
2. ALL THERMOSTATS SHALL BE PROGRAMABLE TYPE.
3. UNITS RATED WITH 25FT OF LINESET LENGTH. SEE VAPOR LINE SIZING & COOLING CAPACITY LOSS TABLE WHEN USING OTHER SIZES/LENGTHS.
4. ALL EXTERIOR COILS TO BE COATED.
5. HIGH EFFICIENCY ECM BLOWER MOTOR – FIVE (5) SPEED.

HVAC NOTES:

GENERAL NOTES:

1. ALL MECHANICAL SYSTEMS ARE TO BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE SECTIONS OF THE NFPA STANDARDS, ANSI STANDARDS, THE LOCAL BUILDING CODE, NOISE & HEIGHT ORDINANCES, PLANS AND SPECIFICATIONS.
2. ALL MATERIALS SHALL BE NEW AND ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE LOCAL CODES, PRODUCT APPROVAL, RULES AND ORDINANCES, ANY DAMAGED EQUIPMENT SHALL BE REPLACED OR RESTORED TO ORIGINAL CONDITION.
3. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, ACCESS PANELS, CONTROL SYSTEMS, DEVICES, PERMITS AND SERVICES NECESSARY FOR FURNISHING AND INSTALLING A COMPLETE OPERABLE MECHANICAL SYSTEM.
4. ALL LOUVERS, GRILLES, PIPING, ETC. SHALL BE PAINTED TO MATCH SURROUNDING COLOR AND TEXTURES AS REQUIRED BY ARCHITECT. VERIFY COLOR AND TEXTURE WITH ARCHITECT. PAINT ALL EXPOSED MECHANICAL EQUIPMENT WITH BENJAMIN MOORE EPOXY ENAMEL 182.
5. ALL CUTTING, PATCHING, STRUCTURAL STEEL, WEATHER PROOFING, PAINTING, AND WALL OPENINGS SHALL BE BY THE GENERAL CONTRACTOR.
6. ALL OPENINGS IN BUILDING STRUCTURE, FOR DUCTWORK, PIPING, ETC. TO BE 1/2" LARGER (ON ALL SIDES) THEN THE OUTSIDE DIMENSIONS. FILL VOIDS WITH FIRE RETARDANT SILICONE FOAM (I.E. CHASE–FOAM CTC PR–855 BY CHASE TECHNOLOGY CORP.).
7. BUILDING HVAC CALCULATIONS ARE BASED ON THE FOLLOWING:
   A. INDOOR DESIGN: SUMMER 75 DDB/50% RH, WINTER 70 DDB.
   B. OUTDOOR DESIGN: SUMMER 95 DDB/79 DWB, WINTER 46 DDB.
   C. BUILDING CONDITIONS:
      GLASS U VALUE 0.95
      GLASS S.C. 0.85
      WALL U VALUE 0.2
      ROOF U VALUE 0.05
8. ALL STORAGE ROOMS, TOILETS, ETC. , WILL HAVE UNDERCUT DOORS TO PROVIDE VENTILATION REQUIRED WHEN DOOR OR TRANSFER GRILLES ARE NOT SHOWN. IF APPLICABLE.
9. PROVIDE THERMOSTAT CONTROL OF ALL FANS THAT EXHAUST MECHANICAL AND ELECTRICAL ROOMS. IF APPLICABLE.
10. PROVIDE FLEXIBLE DUCT CONNECTORS, RATED AS REQUIRED, TO ALL FANS, A/C UNITS, OR MECHANICAL EQUIPMENT.
11. PROVIDE MAINTENANCE AND OPERATION MANUAL ON ALL MECHANICAL EQUIPMENT OR SYSTEMS. PROVIDE 5 SETS OF SUBMITTALS ON ALL HVAC EQUIPMENT. SUBMITTALS SHALL HAVE A SUMMARY SHEET SHOWING ALL SCHEDULED INFORMATION.
12. HVAC CONTRACTOR WILL WARRANTY ALL MECHANICAL SYSTEMS, DUCTWORK, THERMOSTATS, AND ALL OTHER EQUIPMENT,PARTS AND LABOR UNDER THESE DRAWINGS AND SPECIFICATIONS FOR A PERIOD OF ONE (1) YEAR AFTER C.O. OF BUILDING. ANY REPAIRS REQUIRING SYSTEM SHUT DOWN WILL BE DONE DURING NON OPERATIONAL PERIODS.

MECHANICAL EQUIPMENT NOTES:

1. ALL MECHANICAL EQUIPMENT SHALL BE ARI & U.L. LISTED WHERE APPLICABLE AND RATED FOR THE REQUIRED SERVICE, PRESSURES, TEMPERATURES, AND SHALL BE PROVIDED WITH ALL NECESSARY TRANSFORMERS, SEALS, VALVES, CONNECTIONS, ETC. TO FUNCTION PROPERLY.
2. PROVIDE SMOKE DETECTORS WITH ACCESS DOORS IN ALL SUPPLY AIR DUCTS FOR FAN AND AHU'¾ SERVING A COMMON PLENUM OF 2000 CFM OR ABOVE. ALL SMOKE DETECTORS SHALL BE BY ONE MANUFACTURE. COORDINATE VOLTAGE ETC. WITH ELECTRICAL CONTRACTOR AND FIRE ALARM SYSTEM BEFORE ORDERING. UPON DETECTION, SMOKE DETECTORS SHALL SHUT DOWN ASSOCIATED AIR MOVING EQUIPMENT AND ALL AIR MOVING EQUIPMENT SERVING THAT COMMON PLENUM.
3. PROVIDE TYPE "B" FIRE DAMPERS IN ALL DUCTS OR OPENINGS PENETRATING FIRE RATED WALLS, MECHANICAL AND ELECTRICAL EQUIPMENT ROOMS. TENANT SEPARATION, PARTITIONS, FLOORS OR ROOF SLABS AND AT FRESH AIR INTAKES (SEE ARCHITECTS PLANS FOR RATINGS). PROVIDE RADIATION DAMPERS IN RATED CEILINGS FOR ALL CEILINGS OPENINGS, CEILING FANS, DIFFUSERS OR GRILLES RATED FOR USE IN THE CEILING ASSEMBLY AS SPECIFIED BY ARCHITECT. IF APPLICABLE.
4. PROVIDE BACK DRAFTS DAMPERS ON ALL EXHAUST FANS AND/OR IN–LINE FANS.
5. PROVIDE VIBRATION ISOLATORS ON ALL MECHANICAL EQUIPMENT AS CALLED FOR IN THE SPECIFICATIONS. IF NOT SPECIFIED, AS RECOMMENDED BY MANUFACTURER FOR QUIET OPERATION (WITH 99% ISOLATION EFFICIENCY).
6. PROVIDE A MIN. OF 10' CLEARANCE BETWEEN O/A INTAKES AND VTR OR EXHAUST OPENINGS.
7. THERMOSTAT LOCATION SHALL BE APPROVED BY OWNER, ENGINEER AND ARCHITECT/INTERIOR DESIGNER BEFORE INSTALLATION.
8. RUN INSULATED FIRE RATED CONDENSATE DRAINS AS PER MECHANICAL DRAWINGS. IF APPLICABLE.
9. MOUNT ALL ROOFTOP EQUIPMENT FOR WIND LOADS AND MOUNTING HEIGHTS AS REQUIRED BY LOCAL CODES. ALL CURBS SHALL EXTEND 8" MIN. ABOVE FINISHED ROOF.
10. PROVIDE STRANDED COPPER CONTROL WIRING.
11. ALL PIPING AND DUCTWORK SHALL BE SLEEVED THRU WALLS, BEAMS, SLABS, ETC, AS REQUIRED AND COORDINATED WITH THE STRUCTURAL ENGINEER. REWORK BAR JOIST CROSS BRACING AND PROVIDE NECESSARY TRANSITIONS AS REQUIRED FOR DUCTWORK INSTALLATION.
12. ALL INSULATION WILL HAVE FIRE/SMOKE RATING LESS THAN 25/50.
13. PROVIDE A MIN. OF 3' CLEARANCE IN FRONT OF ALL 120–240 VOLT PANELS AND 4' CLEARANCE IN FRONT OF 480 VOLT PANEL. PROVIDE ADEQUATE SIDE CLEARANCE PER NEC.
14. PROVIDE MOTOR STARTERS AS FOLLOWS (UNLESS OTHERWISE RECOMMENDED BY MOTOR / EQUIPMENT MANUFACTURER):
    A: PROVIDE OVERLOAD PROTECTION – 1/3 HP AND ABOVE (ALL PHASES).
    B: PROVIDE REDUCED VOLTAGE STARTING 25 HP AND ABOVE.
    C: PROVIDE ACROSS THE LINE VOLTAGE STARTING BELOW 25 HP.
15. ALL OUTDOOR EQUIPMENT SHALL COMPLY WITH LOCAL ZONING NOISE ORDINANCES OR NOT EXCEED A NOISE LEVEL OF 65 DB AS MEASURED RADIALLY 30 FEET FROM THE EQUIPMENT IN ALL DIRECTIONS.
16. FOR ALL BELT DRIVEN AHU'S PROVIDE ONE SET OF ADJUSTABLE PULLEY'S FOR PRELIMINARY BALANCE, AND REPLACE WITH FIXED PULLEYS AFTER FINAL FAN RPM BEEN SET.
17. VERIFY WITH ARCHITECT ALL LOCATIONS OF LOUVERS, GRILLES, SWITCHES, ACCESS PANELS ETC... BEFORE INSTALLATION.

AIR DISTRIBUTION / DUCTWORK NOTES :

1. REFER TO ARCHITECTURAL PLANS FOR CEILING TYPE.
2. PROVIDE OFF WHITE FINISH (SUBJECT TO ARCHITECT'S APPROVAL).
3. USE SPIN IN COLLAR WITH VOLUME DAMPER AT TRUNK TO FLEX DUCT CONNECTION. (SEE DETAIL)
4. ALL DUCTWORK WHERE ALLOWED BY LOCAL CODES AND CEILING RATING SHALL BE AS FOLLOWS:
   A. SUPPLY AIR – RIGID FIBER GLASS DUCT BOARD 1–1/2" THICK (R–6) INSULATION. OPERATING STATIC PRESSURE ±2 IN. WG. (500 PA)
   B. RETURN AIR – SAME AS SUPPLY AIR DUCT WORK.
   C. EXHAUST AIR – MINIMUM 30 GAGE, GALVANIZED METAL OR MINIMUM 26 GAGE ALUMINUM.
   D. OUT SIDE AIR – NOT LIGHTER THAN 30 GAGE, GALVANIZED METAL OR 26 GAGE MINIMUM ALUMINUM INSULATED (R–6).
   E. DRYER DUCTWORK: 26 GA. MIN. GALVINIZED STEEL, HAVING A SMOOTH INTERIOR SURFACE WITH JOINTS RUNNING IN THE DIRECTION OF AIRFLOW AND WITHOUT SHEET METAL SCREWS OR OTHER FASTNERS IN THE AIR STREAM. MAXIMUM LENGTH SHALL NOT EXCEED 25 FEET. WALL CAPS SHALL BE PROVIDED WITH BACKDRAFT DAMPER. NO SCREEN. IF APPLICABLE.
5. ALL DUCTWORK AND DIFFUSERS SHALL BE RATED FOR THE USE, PRESSURE AND TEMPERATURE SPECIFIED AND AS REQUIRED BY THE CEILING SYSTEM RATING.
6. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH "SMACNA" STANDARDS AND LOCAL BUILDING CODES.
7. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS.
8. SEAL ALL DUCTS, JOINTS AND SEAMS IN AN APPROVED MANNER AND INSURE AGAINST LEAKAGE.
9. PROVIDE ACCESS DOORS AS REQUIRED FOR ALL MECHANICAL EQUIPMENT TO SERVICE AND VISUALLY CHECK ROTATION OF FANS AND MOTORS, POSITION OF DAMPERS, REPLACE FIRE DAMPER LINKS, ADJUST OR REPLACE CONTROLS, ETC.
10. PROVIDE VANED ELBOWS IN ALL CASES, SPLITTER DAMPERS WHERE INDICATED ON DRAWINGS AND VOLUME CONTROL DAMPERS IN ALL BRANCH DUCTS OR DIFFUSER CONNECTIONS.
11. TERMINAL AIR DISTRIBUTION DEVICES SHALL BE AS FOLLOWS: CEILING DIFFUSER: EQUIV. TO TITUS AS SPECIFIED IN AIR DISTRIBUTION SCHEDULE; RETURN REGISTER: EQUIV. TO TITUS AS SPECIFIED IN AIR DISTRIBUTION SCHEDULE (NEW AC DIFF/GRILLES SHALL MATCH EXISTING; IF APPLICABLE).
12. FILTERS SHALL BE IN PLACE DURING CONSTRUCTION. PROVIDE A NEW SET PRIOR TO TEST AND BALANCE AND A FINAL SET AT THE END OF ONE YEAR SERVICE PERIOD. IF APPLICABLE.
13. AIR QUALITY SHOULD BE TESTED BEFORE OCCUPANCY AND SHOULD BE INSTRUMENTE AND MONITORED THEREAFTER, OR AT LEAST AT REGULAR INTERVALS
14. TEST AND ADJUST SUPPLY AND RETURN AIR TEMPERATURES TO BE WITHIN 5% OF DESIGN REQUIREMENTS.
15. INDEPENDENT CONTRACTOR SHALL TEST AND BALANCE ALL MECHANICAL EQUIPMENT AIR DEVICES, EXTRACTORS, DAMPERS, AHU'S & FAN RATES, ETC. TO PROVIDE THE DESIGN QUANTITIES AS SHOWN ON THE PLANS OR SCHEDULES. PROVIDE T & B REPORT IN ACCORDANCE WITH THE AIR BALANCE COUNCIL STANDARDS, SIGNED AND SEALED BY A REGISTERED FLORIDA ENGINEER. PROVIDE FINAL BALANCING FOR ALL SYSTEMS TO SATISFACTION OF OWNER AND ENGINEER.T & B CONTRACTOR SHALL VISIT JOB SITE DURING CONSTRUCTION TO ENSURE THAT ALL DUCTS, DAMPERS, ETC. ARE INSTALLED FOR PROPER AND QUIET AIR DELIVERY.

COORDINATION NOTES:

1. A/C CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE HIS WORK FOR SIZE, LOCATION, CLEARANCE, ACCESS AND ELECTRICAL CHARACTERISTICS WITH ALL OTHER TRADES AND TO PROVIDE SHOP DRAWINGS TO THE ENGINEER FOR REVIEW BEFORE INSTALLATION OF DUCTWORK OR EQUIPMENT. SHOP DRAWING WILL INCLUDE BEAM OR STRUCTURE ELEVATION & REQUIRED EQUIPMENT ACCESS AREAS.
2. WALL, ROOF, AND CEILING OPENINGS INDICATED ON CONTRACTOR DRAWINGS ARE NOMINAL DIMENSIONS ONLY AND ALL DUCT, PIPE OR EQUIPMENT PENETRATIONS SHALL BE SLEEVED AND FIRE RATED AS REQUIRED, ADJUST OPENINGS
3. COORDINATE LOCATION OF CEILING DIFFUSERS, GRILLES AND REGISTERS IN THE FIELD WITH LIGHTS, SPRINKLERS AND ARCHITECTURAL ELEMENTS.
4. COORDINATE LOCATION OF A/C UNITS, THERMOSTATS, FANS AND DUCTWORK WITH BUILDING STRUCTURE AND OTHER TRADES SO THAT NO INTERFERENCES OCCUR.
5. IN GENERAL, DUCT OFFSETS HAVE NOT BEEN SHOWN. A/C CONTRACTOR TO COORDINATE THESE AS REQUIRED.
6. MECHANICAL PLANS IN GENERAL, ARE DIAGRAMMATIC IN NATURE, AND ARE TO BE READ IN CONJUNCTION WITH ARCH. PLUMBING, ELECTRICAL AND STRUCTURAL PLANS AND SHALL BE CONSIDERED AS ONE SET OF DOCUMENTS. DUCT AND PIPING OFFSETS, BENDS AND TRANSITIONS WILL BE REQUIRED TO PROVIDE AND INSTALL A COMPLETE FUNCTIONAL SYSTEM AND SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
7. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO BIDDING, ORDERING, FABRICATION OR INSTALLATION OF MATERIALS OR EQUIPMENT.

CONTROLS / EQUIPMENT SEQUENCE OF OPERATION:

1. ALL THERMOSTATS SHALL BE INSTALLED 42" TO 55" A.F.F. VERIFY EXACT LOCATION WITH ARCHITECT / INTERIOR DESIGNER.
2. UPON DETECTION OF SMOKE, SMOKE DETECTORS SHALL SHUT DOWN REQUIRED ASSOCIATED AIR MOVING EQUIPMENT AND ALL AIR MOVING EQUIPMENT SERVING THAT COMMON PLENUM.

DIFFUSER SCHEDULE

TYPE	SERVICE	CFM RANGE MIN	CFM RANGE MAX	SIZE	NECK	MANUFACTURER/MODEL
A	DUCT MOUNT SUPPLY AIR DIFFUSER	0	100	6X6	6"	TITUS 250 AA
		101	150	8X8	8"	TITUS 250 AA
		151	240	10x10	8"	TITUS 250 AA
		241	350	12X12	10"	TITUS 250 AA
		351	460	14x14	12"	TITUS 250 AA
		461	600	16x16	12"	TITUS 250 AA
		601	800	18X18	14"	TITUS 250 AA
B	DUCT MOUNT RETURN AIR GRILLE (EGGCRATE)	711	1800	20X20	--	TITUS 50F
		1801	2625	24X24	--	TITUS 50F

1 PROVIDE ALL UNITS WITH OPPOSED BLADE DAMPERS
2 DIFFUSER RUNOUT SIZE SHALL BE DIFFUSER NECK SIZE, UNLESS OTHERWISE NOTED ON PLANS.
3 ALL SUPPLY AIR DIFFUSER AIR THROW PATTERNS ARE 4–WAY UNLESS OTHERWISE INDICATED ON MECHANICAL PLANS
4 PROVIDE SURFACE MOUNT HARDWARE IN ALL INACCESSABLE CEILING SYSTEMS
5 PROVIDE LAY–IN MOUNT HARDWARE IN ALL SUSPENDED CEILING SYSTEMS
6 PROVIDE FULL LENGTH PLENUM FOR SIDEWALL AND LINEAR SLOTS
7 REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR LOCATIONS OF DIFFUSERS
8 PROVIDE SELECTION BASED ON A MAXIMUM RADIATED NOISE OF NC–19

VENTILATION FAN SCHEDULE

	UNIT DESIGNATION	EF–1
	AREA SERVED	BATHROOMS MOP SINK
	OPERATING WEIGHT, LBS	17
	LOCATION	CEILING
	FAN TYPE	CEILING FAN
FAN	TOTAL AIR, CFM	50
	DRIVE TYPE	DIRECT
	FAN WHEEL TYPE	CENTRIFUGAL
	FAN TIP SPEED, FPM MAX.	---
	FAN SPEED, RPM	950
	TOTAL STATIC PRESSURE, IN OF W.C.	0.25"
	FAN MOTOR POWER	.58A / 49W
	FAN MOTOR STARTER TYPE	WALL SWITCH
	STARTER FURNISHED BY	MC
	ELECTRICAL SERVICE	120–1–60
	UNIT DIMENSIONS WXLXH (IN)	14 X 11 X 11
	SONES	1.6
	DESIGN MANUFACTURER	GREENHECK
	MODEL NUMBER	SPA – 90
ACCESSORIES	SERVICE SWITCH	YES
	SMOKE DETECTOR (U.L. APPROVED)	NO
	FIRE DAMPER	---
	CONSTRUCTION	ALUM/STEEL
	DAMPER SIZE	BUILT–IN
	DUCT SIZE	6"ø
	ROOF OPENING	NO
	THERMOSTAT CONTROL	NO
	FACTORY FABRICATED CURB	NO
	FILTER AND FILTER FRAME	NO

HVAC SYMBOL LEGEND

SYMBOL	DESCRIPTION
	SUPPLY DUCT
	RETURN/EXHAUST DUCT
.....	FLEXIBLE DUCT
	ELBOW W/ TURNING VALVES
REF. S&L	REFRIGERANT SUCTION & LIQUID LINES
EF #	EXHAUST FAN # CFM
SD	DUCT SMOKE DETECTOR
T	COOLING THERMOSTAT
X A X B #	AXB: NECK SIZE X: AIR DEVICE TYPE # CFM
SA	SUPPLY AIR
RA	RETURN AIR
CFM	CUBIC FEET PER MINUTE
AHU	AIR HANDLER UNIT
CU	CONDENSER UNIT
VD	VOLUME DAMPER
M	MOTORIZED DAMPER

PACKAGED ROOFTOP AIR CONDITIONING EQUIPMENT SCHEDULE

SELECTION BASE ON CARRIER

MARK	MODEL	CFM TOTAL	CFM OA	HEATER KW	HEATER STEP	INDOOR FAN ESP	INDOOR FAN HP	INDOOR FAN FLA/ LRA	COMPRESSOR NO.	COMPRESSOR RLA	COMPRESSOR LRA	COND. FAN NO.	COND. FAN FLA	COND. FAN HP	TOTAL MAX MCA	TOTAL MAX FUSE	SYSTEM KW	ELECTRICAL VOLTS/PH/HZ	CAPACITY T.MBH	CAPACITY S.MBH	CAPACITY TONS	CAPACITY Db/Wb	CAPACITY Ambient	SEER / EER	WT LBS	DIMENSIONS (INCHES) H X W X L	REF. TYPE CHARGE (LBS)	SERVICE
RTU#1	50TCA06–3	2000	SEE CALCS.	5.0	1	1.2	1.5	7.0/--	1	26.2	134.0	1	1.5	1/4	41.3	60	--	208/1/60	61.9	47.7	5.0	80/67	95	13.0 / --	524	34 X 47 X 75	R–410A, --	201, 221
RTU#2	50TCA04–3	1200	SEE CALCS.	5.0	1	1.2	1.2	4.9/--	1	16.6	79	1	1.5	1/4	27.3	40	--	208/1/60	34.8	25.1	3.0	80/67	95	13.0 / --	438	34 X 47 X 75	R–410A, --	202 203 204 205 206 207 208 212 213 214 215 216 217 218 219 220
RTU#3	50TCA05–3	1600	SEE CALCS.	5.0	1	1.2	1.2	7.0/--	1	21.8	117	1	1.5	1/4	33.7	50	--	208/1/60	44.8	34.6	4.0	80/67	95	13.0 / --	438	34 X 47 X 75	R–410A, --	209 210 211

ROOFTOP AC NOTES:

1. OUTSIDE AIR DESIGN CONDITIONS: 92°FDB – 78°FWB.
2. PROVIDE A/C UNITS WITH HEATING AND COOLING PROGRAMMABLE THERMOSTAT.
3. PROVIDE 0–25 % MOTORIZED OUTSIDE AIR INTAKE DAMPER. DAMPER SHALL CLOSE UPON INDOOR FAN SHUTOFF. RAINHOOD AND FILTER SHALL BE PROVIDED.
4. PROVIDE 14" FACTORY FABRICATED ROOFCURB WITH PROPER VIBRATION ISOLATORS.
5. PROVIDE SINGLE POINT KIT FOR ELECTRICAL HOOK–UP. RETARDANT ARMAFLEX.
6. PROVIDE DISCONNECT SWITCH WITH ALL ROOFTOP PACKAGE UNITS.
7. FACTORY CONDENSER COIL PRE–COAT FOR CORROSION RESISTANCE

HVAC DESIGN REQUIRES

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

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VILLAGE AT ATLANTIC SHORES

801 N. FEDERAL HIGHWAY
HALLANDALE BEACH, FL

CLIENT: ATLANTIC VILLAGE 1, LLC.

REV	DATE	DESCRIPTION

DESIGN DELIVERABLE: **PERMIT SET**

ISSUE DATE: **05-11-16**

PROJECT NUMBER: **1177 - 150203**

DRAWN BY: **O.F.**

CHECKED BY: **A.R.**

SHEET TITLE:

MECHANICAL SCHEDULES AND NOTES

SHEET NUMBER:

M-10

JOB # 16-0402

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1 MECHANICAL SCHEDULES AND NOTES
SCALE: N.T.S.