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PHASE:	REVISION No.	DATE:
100% Issued for Permit	-	03/18/2022
Bldg. Comments	1	04/22/2022
Bldg. Comments	2	05/02/2022
HRS Comments	3	06/17/2022
Owners changes	4	01/24/2023

100% ISSUED FOR PERMIT

STRUCTURAL ENGINEER

THM Structural Consulting
9719 South Dixie Hwy, Suite 2
Miami, Florida 33156
T: (786) 431-1753

MEP ENGINEER

Luseo Engineering Group
7875 SW 104 Street, Suite 203
Miami, Florida 33156
T: (305) 351-2960
CA#32708

CIVIL ENGINEER

Zamora & Associates, Inc
11410 N. Kendall Drive, Suite 302
Miami, Florida 33176
T: (305) 273-7801

LANDSCAPE ARCHITECT

Andres Montero Landscape Arch.
2208 NE 26th Street, Unit 1
Fort Lauderdale, FL 33305
T: (954) 591-5606

SEAL

Evelio Rodriguez

Signature signed by Evelio Rodriguez
DN: CN=Evelio Rodriguez,
OU=ASUS10000001738411215000,
30365 On Unaffiliated, C=US
(Revoked) I am the author of this
document
Date: 2023.03.30 15:34:41 -05'00'

EVELIO RODRIGUEZ

P.E.# 74127

PROJECT
PINECREST RESIDENCE
12020 SW 77th Avenue
Pinecrest, FL 33156

OWNER
KEVIN HUBER & MILA KHOMIAK
12020 SW 77th Avenue
Pinecrest, FL 33156

TITLE

MECHANICAL
NOTES AND
SCHEDULES

SCALE PROJECT NUMBER
1/4" = 1'-0" 2103

SHEET
M-1.0
DATE DRAWING NUMBER
03/18/2022 1 OF 5

NOT VALID UNLESS SIGNED & SEALED
"IN MY PROFESSIONAL JUDGEMENT
AND TO THE BEST OF MY
KNOWLEDGE AND BELIEF, THESE
PLANS AND SPECIFICATIONS COMPLY
WITH APPLICABLE BUILDING CODES."

SYSTEM NUMBER	AC-1	AC-2	AC-3
AREA SERVED	SEE PLANS	SEE PLANS	SEE PLANS
LOCATION	1ST-FLOOR EAST MECH. RM	1ST-FLOOR WEST MECH. RM	1ST-FLOOR EAST MECH. RM
DESIGN MANUFACTURER CARRIER PERFORMANCE SERIES SINGLE CIRCUIT - 2 STAGES	PERFORMANCE SERIES 2 STAGES	PERFORMANCE SERIES 2 STAGES	PERFORMANCE SERIES 2 STAGES
NOM TONS	5	4	5
SEER	17	17	17
CFM @ 0.5" NOMINAL (HIGH /LOW)	2000/1600	1600/1400	2000/1600
CFM @ 0.5" DEHUMIDITY (HIGH /LOW)	1600/1200	1400/1120	1600/1200
CFM OUTSIDE AIR	75	75	75
REFRIGERANT	R-410A	R-410A	R-410A
AMBIENT	95	95	95
CAP (MBH) HIGH @ 80/67 (TC/SC)	58.5 / 43.6	49.1 / 36.2	58.5 / 43.6
CAP (MBH) LOW @ 80/67 (TC/SC)	45.8/40.0	34.4 / 24.8	45.8/40.0
CAP (MBH) HIGH @ 75/62 (TC/SC)	54.0 / 45.9	45.7 / 34.7	54.0 / 45.9
CAP (MBH) LOW @ 75/62 (TC/SC)	42.4/36.76	31.2 / 26.6	42.4/36.76
ELECTRICAL SERVICE	208/1/60	208/1/60	208/1/60
CONDENSING UNIT DATA:			
CU UNIT DESIGNATION	CU-1	CU-2	CU-3
MODEL NO:	24ACB760-3	24ACB760-3	24ACB760-3
COMPRESSOR QTY / TYPE	1 / SCROLL	1 / SCROLL	1 / SCROLL
COMPRESSOR RLA-LRA	23.0 - 118.0	21.2 - 96.0	23.0 - 118.0
COND. FAN QTY / FLA - HP	1.3 - 1/4	1.3 - 1/4	1.3 - 1/4
MCA	30.1	27.8	30.1
MOCP	50	40	50
DIMENSIONS (LxWxH) (IN)	35 x 35 x 46	35 x 35 x 46	35 x 35 x 46
STD WEIGHT (LBS)	316	277	316
AIR HANDLER DATA:			
AHU UNIT DESIGNATION	AHU-1	AHU-2	AHU-3
MODEL NO:	FV4CNB006	FV4CNB006	FV4CNB006
EVAP. FAN FLA - BHP	6.8 - 3/4	6.8 - 3/4	6.8 - 3/4
HEATER KW	10	10	10
MCA	53.8	53.8	53.8
MOCP	60	60	60
DIMENSIONS (LxWxH) (IN)	22 x 25 x 60	22 x 25 x 60	22 x 25 x 60
STD WEIGHT (LBS)	207	207	207
SUCTION LINE (SEE MANUFACTURER)			
LIQUID LINE (SEE MANUFACTURER)			
NEED TO BE FIELD VERIFIED NOTES:			
A. REFRIGERANT LINE SIZES FOR TUBE SETS UP TO 50' LINEAR LENGTH			
B. UNITS SHALL CONFORM TO FLORIDA BUILDING CODE 5TH EDITION FOR HVHZ INSTALLATION.			
C. PROVIDE 2-STAGE THERMOSTAT, MODEL: T6-PRH01-B, WITH HUMIDITY CONTROL.			

FAN SCHEDULE	FAN SCHEDULE
UNIT DESIGNATION	EF-1
AREA SERVED	BATHROOM
OPERATING WEIGHT, LBS	11.9
LOCATION	CEILING
FAN TYPE	CLG. BLOWER
TOTAL AIR, CFM	FROM 30 TO 110, IN 10 CFM INCREMENTS
SPEED CONTROL SETTING	SEE PLAN
DRIVE TYPE	SIROCCO
FAN WHEEL TYPE	CENTRIFUGAL
POWER CONS., W.	2.4 TO 9.9
FAN SPEED, RPM	--
TOTAL STATIC PRESSURE, IN OF W.C.	0.25"
FAN MOTOR (AMPS)	
FAN MOTOR STARTER TYPE	WALL SWITCH
STARTER FURNISHED BY	MC
ELECTRICAL SERVICE	120-1-60
UNIT DIMENSIONS HxWxD (IN)	12 x 14 x 12
SONES	2.5
DESIGN MANUFACTURER	GREENHECK
MODEL NUMBER	SP-A390-VG
SERVICE SWITCH	YES
SMOKE DETECTOR (U.L. APPROVED)	NO
FIRE DAMPER	----
CONSTRUCTION	ALUM/PLASTIC
BACKDRAFT DAMPER	YES
ELECTRONIC SAFETY CONTROL	YES
THERMAL FUSE PROTECTION	NO
SPEED CONTROL	YES
NOTES:	NOTES:
1- UL LISTED FOR TUB/SOWER ENCLOSURE.	1- UL LISTED FOR TUB/SOWER ENCLOSURE.
2- MFG IN ISO 9001 CERTIFIED FACILITY.	2- MFG IN ISO 9001 CERTIFIED FACILITY.

AIR DISTRIBUTION SCHEDULE			
TAG	USE	TYPE	DESIGN MANUFACTURER & MODEL Mo.
A	SUPPLY AIR	CEILING DIFFUSER	TITUS 250-AA
B	RETURN AIR/ TRANSFER	CEILING/WALL	TITUS 350 FL
C	SUPPLY AIR	FLOWBAR	TITUS FL-15 (JETHROW)
D	SUPPLY AIR	FLOWBAR	TITUS FL-15 (HIGHTHROW)
E	RETURN AIR	FLOWBAR	TITUS FL-15 (JETHROW)

- NOTE:
- PROVIDE SPIN-IN COLLAR WITH VOLUME DAMPER AT TRUNK TO BRANCH CONNECTION.
 - PROVIDE 4 WAY DIFFUSION UNLESS NOTE ON PLAN.
 - REFER TO ARCHITECT PLANS FOR CEILING TYPE.
 - FINAL COLOR SELECTION SUBJECT TO ARCHITECT APPROVAL.
 - PROVIDE INSULATION ON THE BACK OF DIFFUSER IF IN UNCONDITIONED SPACE.
 - MAXIMUM NG 19.

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

R - VALUES:
-ROOF R-30
-EXPOSED FLOOR R-19
-Ext WALLS R-4.1
-GLASS IMPACT, U=0.96, SC=0.47, SHGC=0.4

HVAC NOTES

- GENERAL
 - ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH THE APPLICABLE NATIONAL, STATE (FLORIDA BUILDING CODE) AND LOCAL CODES, RULES AND ORDINANCE.
 - MECHANICAL PLANS IN GENERAL, ARE DIAGRAMMATIC IN NATURE, AND ARE TO BE READ IN CONJUNCTION WITH ARCHITECTURAL, 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. DO NOT SCALE DRAWINGS FOR THE EXACT LOCATION OF EQUIPMENT, PIPING, DUCTWORK, ETC.
 - THESE DRAWINGS ARE NOT INTENDED TO SHOW EVERY MINOR DETAIL, BUT THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS REQUIRED FOR A COMPLETE ACCEPTABLE WORKING INSTALLATION.
 - ALL WORK SHALL BE PERFORMED BY A LICENSED CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETE SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTANCE BY THE ARCHITECT AND / OR ENGINEER MUST BE CONDITION OF THE CONTRACT.
 - ALL REQUIRED INSURANCE SHALL BE PROVIDED BY THE CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
 - THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD NOT LESS THAN 1 YEAR FROM THE DATE OF ACCEPTANCE, UNLESS OTHERWISE NOTED.
 - CONTRACTOR WILL PAY FOR ALL PERMITS, FEES, INSPECTIONS AND TESTS.
 - THE CONTRACTOR SHALL VISIT THE JOB SITE AND THOROUGHLY FAMILIARIZE WITH EXISTING CONDITIONS.
 - PRIOR TO INSTALLING EQUIPMENT AND / OR FABRICATING DUCTWORK, HVAC CONTRACTOR SHALL CHECK THAT THERE IS SUFFICIENT CLEARANCES FOR EQUIPMENT, DUCTWORK, ETC. AND ALSO TO AVOID ANY INTERFERENCE WITH THE PROCESS OF CONSTRUCTION.
- DUCTWORK TRUNK LINE AND DROP LOCATIONS MAY VARY FROM PLAN DUE TO TRUSS CONFIGURATION.
- AS BUILT DRAWINGS SHALL BE SUBMITTED TO OWNER AT THE COMPLETION OF PROJECT.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL EQUIPMENT, FOR REVIEW PRIOR TO PURCHASING.
- DESIGN PARAMETERS:
 - OUTDOOR DESIGN TEMPERATURE (SUMMER): 91°F DB AND 77°F WB
 - OUTDOOR DESIGN TEMPERATURE (WINTER): 46°F
 - INDOOR DESIGN TEMPERATURE (SUMMER): 75°F DB
 - INDOOR DESIGN TEMPERATURE (WINTER): 70°F DB
- ALL THERMOSTATS SHALL HAVE HEATING MODE MAXIMUM SETTING OF 75 F, AND COOLING MODE MINIMUM SETTING OF 70 F. THE THERMOSTAT SHALL BE ARRANGED TO PREVENT THE SIMULTANEOUS OPERATION OF HEATING AND COOLING.
- ELECTRICAL CONTROLS AND POWER WIRING: UNDER ELECTRICAL CONTRACT.
- EQUIPMENT SPECIFIED BY MANUFACTURER'S NUMBER SHALL INCLUDE ALL ACCESSORIES, CONTROLS, ETC., LISTED IN THE CATALOG AS STANDARD WITH THE EQUIPMENT. OPTIONAL OR ADDITIONAL ACCESSORIES SHALL BE FURNISHED AS SPECIFIED.
- MATERIALS:
 - REFRIGERANT PIPING: SHALL BE TYPE L SOFT DRAWN, COPPER TUBING, DEHYDRATED FOR REFRIGERANT USE. SIZED AS SHOWN ON DRAWINGS OR AS PER AIR CONDITIONING EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
 - INSULATION: REFRIGERANT SUCTION PIPING SHALL BE INSULATED WITH 1/2" THICK FOAMED PLASTIC INSULATION, FIRE RETARDANT TYPE. INSULATION SHALL BE INSTALLED IN PIPING BEFORE ASSEMBLY. NO SPLIT INSULATION WILL BE ACCEPTABLE. SEAL JOINTS WITH MANUFACTURER'S APPROVED ADHESIVE AND GREY TAPE.
- DUCTWORK:
 - ALL HVAC DUCTWORK SHALL CONFORM TO SMACNA STANDARDS. ALL EXTERIOR DUCTWORK SHALL BE GALVANIZED SHEETMETAL. ALL INTERIOR DUCTWORK SHALL BE FIBERGLASS BOARD UNLESS OTHERWISE NOTED AND CONFORM WITH LOCAL CODES. FIBERGLASS DUCT BOARD SHALL BE RESISTANT TO CONDENSATION, MOLD, BACTERIAL GROWTH AND SHALL BE TREATED WITH AND EPA-REGISTERED ANTI MICROBIAL AGENT. DUCTWORK SHALL BE 1-1/2" THICK (R-6.0) OPERATING STATIC PRESSURE ±2 IN. WG. (500 PA)
 - EXHAUST AIR - MINIMUM 30 GAGE, GALVANIZED METAL OR MINIMUM 26 GAGE ALUMINUM. RANGE HOOD TO BE 400 CFM MAXIMUM. IF MORE THAN 400 CFM MAKE UP AIR MUST BE SHOWN AS PER FBC MECH 505.2. MECH. CONTRACTOR SHALL FIELD COORDINATE WITH EQUIPMENT MANUFACTURER PRIOR TO EQUIPMENT INSTALLATION.
 - ALL DUCT DIMENSIONS ARE CLEAR INSIDE DIMENSIONS.
 - FLEXIBLE INSULATED DUCTWORK WITH 1 1/2" FIBERGLASS INSULATION WITH FRK VAPOR BARRIER, CLASS 1 AIR DUCT, U.L. R-6.0 MIN.
 - DRYER DUCTWORK: 26 GA. MIN. GALVANIZED STEEL, HAVING A SMOOTH INTERIOR SURFACE WITH JOINTS RUNNING IN THE DIRECTION OF AIRFLOW AND WITHOUT SHEET METAL SCREWS OR OTHER FASTENERS IN THE AIR STREAM. MAXIMUM LENGTH SHALL NOT EXCEED 25 FEET. WALL CAPS SHALL BE PROVIDED WITH BACKDRAFT DAMPER.
- AIR DISTRIBUTION DEVICES AND ACCESSORIES SHALL BE TITUS OR APPROVED EQUAL.
- ALL HVAC DUCT ELBOWS MUST BE FURNISHED WITH APPROVED TURNING VANES.
- CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENTS OR REPAIRS OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED OR IS NOT OPERATING PROPERLY.
- PROVIDE METAL ROUND FITTINGS WITH SCOOP AT ALL FLEXIBLE DUCT CONNECTION TO SUPPLY DUCT.
- PROVIDE ACCESS DOORS AS REQUIRED FOR ALL MECHANICAL EQUIPMENT TO SERVICE AND VISUALLY CHECK ROTATION OF FANS AND MOTORS, ADJUST OR REPLACE CONTROLS, ETC.
- TEST AND BALANCE: AN INDEPENDENT CONTRACTOR SHALL TEST AND BALANCE ALL VENTILATION AND AIR CONDITIONING SYSTEMS. SUBMIT FOUR COPIES OF TEST AND BALANCE REPORT TO OWNER FOR APPROVAL.
- ARCHITECTURAL AND / OR ENGINEERING EXPENSES THAT ARE INCURRED DUE TO REVISIONS FOR SUBSTITUTIONS BY THE CONTRACTOR SHALL BE PAID FOR BY THE CONTRACTOR.
- ALL MATERIALS SHALL BE NEW AND SHALL BEAR UNDERWRITER'S LABEL WHERE APPLICABLE.
- CONTROLS: AIR CONDITIONING UNITS SHALL BE STARTED AND STOPPED THRU INDIVIDUAL THERMOSTAT. INDIVIDUAL THERMOSTATS SHALL START/STOP SUPPLY FANS AND ACTIVATE COOLING/HEATING SYSTEMS AS SELECTED.
- IF THERE ARE ANY CHANGES IN ENGINEER'S DRAWINGS, IN DESIGN OR IN EQUIPMENT, WITHOUT ENGINEER'S CONSENT, THE AC CONTRACTOR SHALL ASSUME ALL RESPONSIBILITIES FOR THE PROJECT.
- NO SUBSTITUTION WILL BE CONSIDERED PRIOR TO BID UNLESS WRITTEN REQUEST FOR APPROVAL HAS BEEN RECEIVED BY THE ARCHITECT OR ENGINEER AT LEAST 10 DAYS PRIOR TO THE DATE OF BID. SUCH REQUEST SHALL INCLUDE THE NAME OF EQUIPMENT OR MATERIAL FOR WHICH IT IS TO BE SUBSTITUTED.