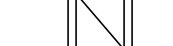
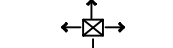
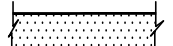


HVAC GENERAL NOTES:

1. THE WORK THAT IS TO BE DONE UNDER THIS HEADING INCLUDES THE FURNISHING OF ALL LABOR, MATERIALS, EQUIPMENT, PERMITS, FEES, INSPECTIONS, TEST, INSURANCE, ETC. REQUIRED FOR THE COMPLETION OF THE AIR CONDITIONING SYSTEM SHOWN ON THE DRAWINGS AND/OR LISTED BELOW.
2. OBTAIN FULL INFORMATION REGARDING PECULIARITIES AND LIMITATIONS OF SPACE AVAILABLE FOR INSTALLATION OF THE EQUIPMENT AND MATERIALS UNDER CONTRACT AND PROVIDE READY ACCESSIBILITY TO DAMPERS, VALVES AND OTHER APPURTENANCES INCLUDING ANY PART OF THE SYSTEM REQUIRED TO BE REACHED FOR BALANCING, TESTING, MAINTENANCE AND OPERATION.
3. PLANS ARE GENERALLY DIAGRAMMATIC IN NATURE, AND ARE TO BE READ IN CONJUNCTION WITH ARCHITECTURAL, PLUMBING, ELECTRICAL AND STRUCTURAL PLANS AND ALL PLANS RELATED TO PROJECT 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 AS NECESSARY AT NO ADDITIONAL COST TO THE OWNER.
4. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION AND IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS. WORK SHALL ALSO BE COORDINATED WITH STRUCTURE AND AVAILABLE SPACE TO ENSURE FIT AND PROPER CLEARANCES ARE BEING PROVIDED. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT - ENGINEER IMMEDIATELY.
5. CUT ALL OPENINGS AND CHASES REQUIRED TO ACCOMMODATE THE WORK UNDER THIS DIVISION, AND REPAIR ALL FLOORS, WALLS, ETC. DAMAGED BY WORK. ALL WORK PERFORMED UNDER THIS HEADING SHALL CONFORM IN EVERY RESPECT TO THE FINISH AND QUALITY OF MATERIALS AND WORKMANSHIP SPECIFIED UNDER APPROPRIATE SECTIONS FOR THE BUILDING.
6. FLEXIBLE DUCT SHALL BE STEEL HELIX WIRE ON 1/8 INCH CENTERS, ENCAPSULATED IN A CONTINUOUS SOFT VINYL FILM JOINED BY MOLECULAR WELDING TO FORM AN AIR TIGHT INNER CORE. THE CORE IS TO BE INSULATED WITH FIBERGLASS INSULATION (R-6), AND SHEATHED IN A REINFORCED, ALUMINUM METALIZED POLYESTER VAPOR BARRIER JACKET. PROVIDE SPIN COLLAR WITH DAMPER AND EXTRACTOR WHERE FLEXIBLE DUCT CONNECTS TO RIGID DUCTWORK. PROVIDE STANDOFF QUADRANT TO EXTEND DAMPER ACTUATOR HANDLE OUTSIDE INSULATION.
7. AIR CONDITIONING SYSTEM CONTROLS SHALL BE AS INDICATED ON THESE DRAWINGS.
8. ALL EQUIPMENT SHALL BE PROVIDED WITH VIBRATION ISOLATION IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS TO REDUCE/ELIMINATE NOISE AND VIBRATION FROM TRANSFERRING TO THE OCCUPIED SPACE.
9. IN COMPLIANCE WITH THE FLORIDA BUILDING CODE MECHANICAL 307.3, PROVIDE, INSTALL AND CONNECT APPROVED WATER LEVEL DETECTOR OR FLOAT SWITCH TO CONTROL OVERFLOW BY AUTOMATICALLY SHUTTING DOWN EQUIPMENT UPON ACTIVATION OF
10. PROVIDE NEW FILTERS FOR ALL AIR CONDITIONING EQUIPMENT PRIOR TO STARTUP, AND REPLACE PRIOR TO FINAL ACCEPTANCE BY OWNER.
11. THERMOSTAT LOCATION SHALL BE CONFIRMED AND APPROVED BY OWNER AND ARCHITECT/ENGINEER BEFORE INSTALLATION. DEVICES SHALL BE MOUNTED AT 48 INCHES ABOVE FINISHED FLOOR IN ACCORDANCE WITH A.D.A. REQUIREMENTS.



LEGEND

RIGID DUCTWORK R=60

FLEXIBLE DUCT, CLASS I
R= 60

CEILING SUPPLY GRILLE

BATHROOM EXHAUST FAN

RETURN AIR GRILLE WITH 1" FILTER

PROGRAMMABLE THERMOSTAT

ABBREVIATIONS

AC	AIR CONDITIONING	LWT	LEAVING WATER
AD	ACCESS DOOR		TEMPERATURE
AF	ABOVE FINISHED FLOOR	MAX	MAXIMUM
AHU	AIR HANDLING UNIT	MBH	THOUSAND BTUH
AI	ANALOG INPUT	MD	MOTORIZED DAMPER
AO	ANALOG OUTPUT	NC	NORMALLY CLOSED
BHP	BRAKE HORSE POWER	NC	NOT IN CONTRACT
BTUH	BRITISH THERMAL UNIT HOUR	NO	NORMALLY OPENED
CFM	CUBIC FEET PER MINUTE	O/A	OUTSIDE AIR
DB	DRY BULB	OBD	OPPOSED BLADE DAMPER
DDC	DIRECT DIGITAL CONTROL	PD	PRESSURE DROP
EF	EXHAUST FAN	RA	RETURN AIR
EL	ELEVATION	RD	ROOF DRAIN
EXIST	EXISTING	RLA	RUNNING LOAD AMPs
FSD	FIRE AND SMOKE DAMPER	RAG	RETURN AIR GRILLE
FLD	FAKE LINEAL DIFFUSER	RAG.T	RETURN AIR GRILLE TRANSFER
HP	HORSE POWER	SD	SMOKE DAMPER
HVAC	HEATING VENTILATION AND AIR CONDITIONING	SA	SUPPLY AIR
HW	HOT WATER	SEER	SEASONAL ENERGY EFFICIENCY RATIO
HWR	HOT WATER RETURN	SP	STATIC PRESSURE
HWS	HOT WATER SUPPLY		TEMPERATURE
HX	HEAT EXCHANGER	TYP	TYPICAL
KW	KILOWATT	VD	VOLUME DAMPER
LAT	LEAVING AIR TEMPERATURE	VTR	VENT THRU ROOF
		W	WASTE
LD	LINEAL DIFFUSER	WB	WET BULB

HVAC SCHEDULE (NEW)		
SELECTION DATA	AREA SERVED	ADDITION
	SEER2 / HSPF (HEATING)	172/850
	REFRIGERANT TYPE/ LBS.	R-410A
	UNIT TAG	AC-3
	UNIT TYPE	SPLIT SYST
AIR HANDLING UNIT	MANUFACTURER	DAIKIN
	MODEL	FIT SERIES
	UNIT TAG	AHU-3
	SUPPLY AIR FLOW (CFM)	800
	OUTSIDE AIR FLOW (CFM)	---
	TOTAL COOLING CAPACITY (MBH)	2220
	SENSIBLE COOLING CAPACITY (MBH)	16.7
	ENT. AIR TEMP. (DB/WB)	(°F) 80/61
	LEAV. AIR TEMP. (DB/WE)	(°F) 55/56
	EXTERNAL STATIC PRESSURE(ESP)	(IN) 0.15
	HEATER TYPE	HEAT PUMP
	HEATER CAPACITY (KW)	---
	HEATING CAPACITY (kBtu/hr)	2320
	STAGE	--
	FAN MOTOR HP / FLA	1/2 / 3.9
ELECT DATA	MIN. CIR. AMPACITY	50
	MAX. FUSE SIZE	20
	ELECTRICAL SERVICE (VOLT/PH/Hz)	240/1/60
	AHU MODEL NUMBER	DFVE14BFI400A+
	SHIPPING WEIGHT (LBS)	90
GEN DATA	DIMENSION (LxWxH) (IN)	33X33X31
	UNIT TAG	CU-3
	SEER2	172
	UNIT TYPE	HEAT PUMP
	MODEL	D76V8A2410A+
COND. COIL DATA	MANUFACTURER	DAIKIN
	NOMINAL TONNAGE (TONS)	2.0
	ENT. AIR TEMP. (°F)	95
	COMPRESSOR QTY /TYPE	1/SCROLL
	COMPRESSOR LRA / FLA (AMPS)	--/13.4
	CONDENSER FAN FLA / LRA (AMPS)	1/5 / --
	MIN. CIR. AMPACITY	10.8
	MAX. FUSE SIZE	20
	ELECTRICAL SERVICE (VOLT/PH/Hz)	240/1/60
	SHIPPING WEIGHT (LBS)	137
	DIMENSION (LxWxH) (IN)	33X33X27
	REFRIGERANT LINES (LBS/LLL)	(N) 3/4 / 3/8
	UNIT TAG	CU-3
	SEER2	172
	UNIT TYPE	HEAT PUMP

TAG SIZE CFM AIR DISTRIBUTION SCHEDULE									
TAG	MANUF. # MODEL	FACE SIZE	NECK SIZE	MATERIAL	FRAME	DAMPER	NC	CFM RANGE	NOTES
(A)	TITUS 300 FS CEILING GRILLE	10x8, 6x6	SEE PLAN	ALUM	SURFACE	O.B.D.	MAX 20	SEE PLAN	(*) (**) (***)
(*) EQUIVALENT MANUFACTURER: METALAIRE, CARNES, T & B, NAILOR									
GENERAL NOTES: 1. REFER TO ARCHITECT PLANS FOR CEILING TYPE. 2. FINAL COLOR SELECTION SUBJECT TO INTERIOR DESIGNER APPROVAL. 3. FLEX DUCT SIZE TO BE SAME AS DIFFUSER NECK SIZE. 4. PROVIDE SPIN-IN COLLAR AT TRUNK TO FLEX DUCT CONNECTION (SEE DETAIL). 5. PROVIDE TYPICAL 4-WAY DIFFUSER, 2-WAY OR 3-WAY ONLY WHERE INDICATED ON PLANS.									

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

Balanced return air (Duct Calculation), FBCM 601.6.		
Supply Duct Diameter (in)	Area (in)	Required Transfer Area (1.5 times)
4.00	12.56	18.84
6.00	28.26	42.39
8.00	50.24	75.36
10.00	78.50	117.75
12.00	113.04	169.56
14.00	153.86	230.79
16.00	200.96	301.44
18.00	254.34	381.51
20.00	314.00	471.00

EXHAUST FAN SCHEDULE	
FAN DESIGNATION	EF-3
AREA SERVED	BATHROOM
LOCATION	CEILING
FAN TYPE	CENTRIFUGAL
TOTAL AIR CFM	50
DRIVE TYPE	DIRECT
FAN WHEEL TYPE	BACKWARD INCLINED
FAN SPEED RPM	800
TOTAL STATIC PRESS IN OF H2O	0.25
FAN MOTOR HP, (NON OVERLOAD)	1/6
SONES	8
ELECTRICAL SERVICE AVAILABLE	120/1/60
DESIGN MANUFACTURER	BROAN
MANUFACTURER'S MODEL NO.	760

PROJECT APPLICABLE CODES:

ALL WORK SHALL CONFORM WITH THE FLORIDA BUILDING CODE 8th Edition-2023, THE MIAMI-DADE CODE OF ORDINANCES AND EVERY OTHER LOCAL, STATE OR FEDERAL ORDINANCE GOVERNING THE INSTALLATION OF THE HVAC SYSTEM.

RESIDENTIAL KITCHEN EXHAUST SYSTEM NOTE: (AS PER FBC MECH CHAPTER 5)

505.2 MAKEUP AIR REQUIRED.

EXHAUST HOOD SYSTEMS CAPABLE OF EXHAUSTING IN EXCESS OF 400 CFM (0.19 M3/S) SHALL BE PROVIDED WITH MAKE-UP AIR AT A RATE APPROXIMATELY EQUAL TO THE EXHAUST AIR RATE. SUCH MAKE-UP AIR SYSTEMS SHALL BE EQUIPPED WITH A MEANS OF CLOSURE AND SHALL BE AUTOMATICALLY CONTROLLED TO START AND OPERATE SIMULTANEOUSLY WITH THE EXHAUST SYSTEM.

EXCEPTION: IN A SINGLE-FAMILY DWELLING, MAKEUP AIR IS NOT REQUIRED FOR RANGE HOOD EXHAUST SYSTEMS CAPABLE OF EXHAUSTING:

(A) FOUR HUNDRED CUBIC FEET PER MINUTE OR LESS; OR

(B) MORE THAN 400 CUBIC FEET PER MINUTE BUT NO MORE THAN 800 CUBIC FEET PER MINUTE IF THERE ARE NO GRAVITY VENT APPLIANCES WITHIN THE CONDITIONED LIVING SPACE OF THE STRUCTURE.

FLOOD NOTE:

ALL ELECTRICAL SYSTEMS, EQUIPMENT AND COMPONENTS: HEATING, VENTILATION, AIR CONDITIONING: PLUMBING APPLIANCES AND PLUMBING FIXTURES: DUCT SYSTEMS: AND OTHER SERVICE EQUIPMENT (WATER HEATERS, GENERATORS, ELECTRICAL PANELS, ETC.) SHALL BE ELEVATED AT OR ABOVE DESIGN FLOOD ELEVATION'. (ASCE 24-14 CH. 1.0).

CODE NOTE:

WHERE THE AIR INFILTRATION RATE IN A DWELLING UNIT IS LESS THAN 3 AIR CHANGES PER HOUR WHEN TESTED WITH A BLOWER DOOR AT A PRESSURE OF 0.2-INCH WATER COLUMN (50 PA) IN ACCORDANCE WITH SECTION 402.4.12 OF THE FLORIDA BUILDING CODE, ENERGY CONSERVATION, THE DWELLING UNIT SHALL BE VENTILATED BY MECHANICAL MEANS IN ACCORDANCE WITH SECTION 403, FBC R-303.4.

NOTE:

AS PER FBC TABLE M1601.1.1 'DUCT CONSTRUCTION MINIMUM SHEET METAL THICKNESS' BATHROOM EXHAUST DUCT MADE OF GALVANIZED STEEL (GA) AND WITH DUCT DIAMETER UP TO 12 IN SHALL HAVE 0.013 IN THICKNESS.

NOTE:

AS PER FBC R-M1502.4.1 DRYER EXHAUST DUCTS/MATERIALS AND SIZE:

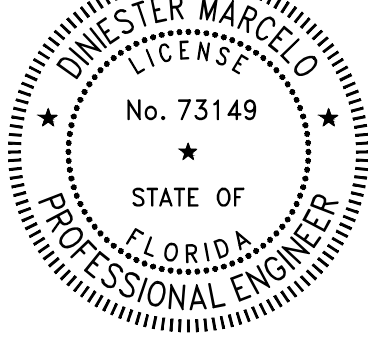
EXHAUST DUCTS SHALL HAVE A SMOOTH INTERIOR FINISH AND BE CONSTRUCTED OF METAL HAVING A MINIMUM THICKNESS OF 0.0151 INCH (28 GAUGE). THE DUCT SHALL BE 4 INCHES (102 MM) NOMINAL IN DIAMETER.

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(786) 883 - 8229

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SEAL:



THIS ITEM HAVE BEEN ELECTRONICALLY SIGNED AND SEALED BY DINIESTER MARCELO ON THE ADJACENT DATE USING A DIGITAL SIGNATURE.
PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

PROJECT NAME AND LOCATION:

VICTOR LAU
RESIDENCE ADDITION

12805 SW 69nd Court
Miami, FL 33156

KEY PLAN:



SUBMITTALS:

NO.	DATE	DESCRIPTION:

REVISIONS:

NO.	DATE	DESCRIPTION:

DRAWING TITLE:

HVAC GENERAL NOTES
AND SCHEDULES

PROJECT PHASE:	PERMIT SET
ISSUE DATE:	04/25/2024
DRAWN BY:	APPROVED BY:

SHEET NUMBER