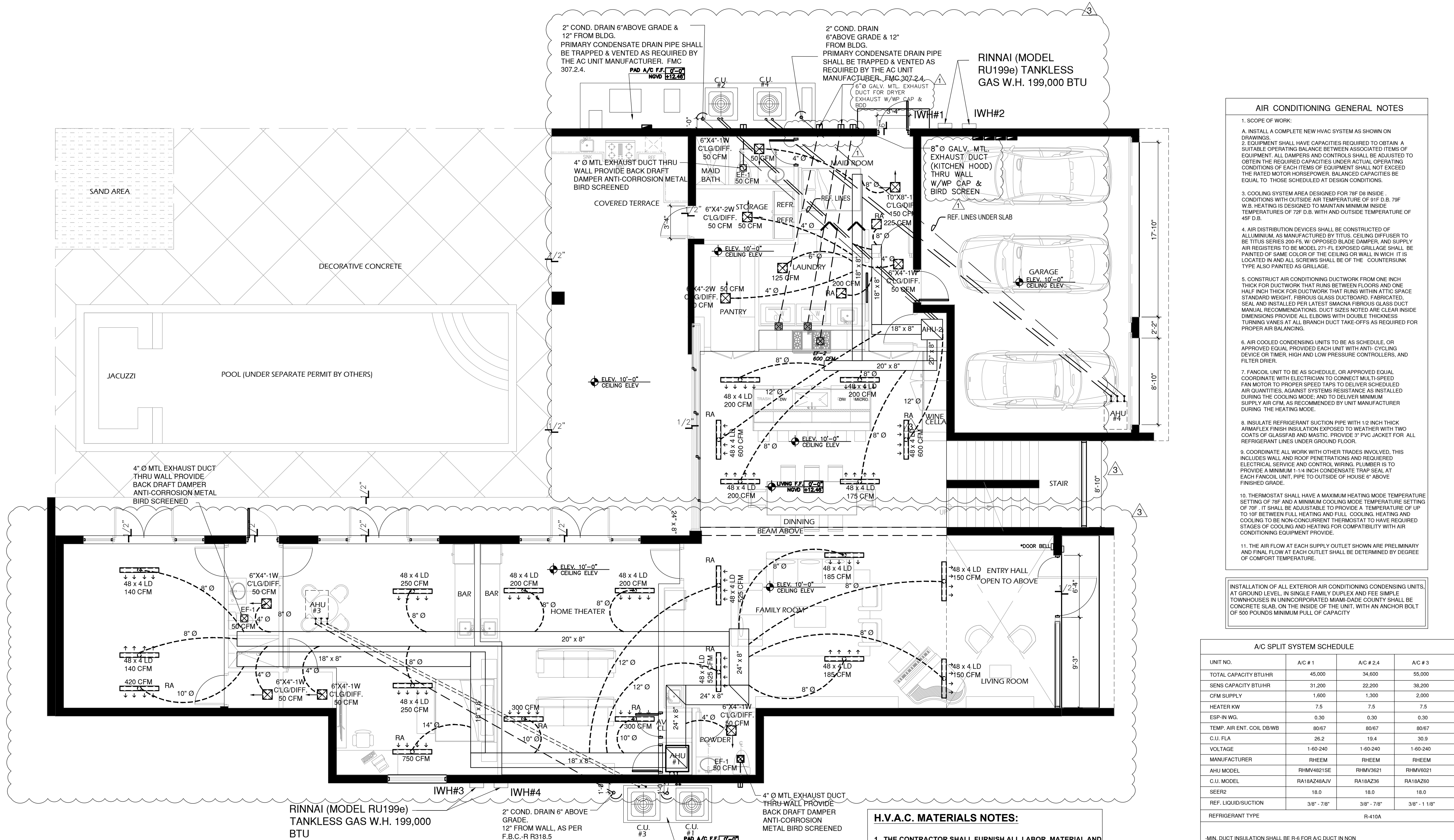




MECHANICAL GROUND FLOOR PLAN

SCALE: 3/16" = 1'-0"

PRIMARY CONDENSATE DRAIN PIPE SHALL BE TRAPPED & VENTED AS REQUIRED BY THE AC UNIT MANUFACTURER. FMC 307.2.4.

ALL EXHAUST DISCHARGES, EXCEPT THE DRYER ONE, SHALL BE PROVIDED WITH INSECT SCREENS AS PER FBCM 501.3.2

AIR EXHAUST OPENINGS SHALL TERMINATE NOT LESS THAN 3 FEET FROM OPERABLE AND NON-OPERABLE OPENINGS INTO THE BUILDING

EXTERIOR INSULATION SHALL BE COVERED WITH A PROTECTIVE MATERIAL TO PREVENT DAMAGE FROM SUNLIGHT, MOISTURE, LANDSCAPING OPERATIONS, EQUIPMENT MAINTENANCE, AND WIND. ADHESIVE TAPE SHALL NOT BE PERMITTED.

EXHAUST DUCT FOR DOMESTIC DRYER SHALL HAVE A SMOOTH INTERIOR FINISH AND SHALL BE CONSTRUCTED OF METAL A MIN. OF 28 GAGE. DUCT SIZE SHALL BE 4 INCHES NOMINAL IN DIAMETER.

HOOD VENTILATION SYSTEM TO BE PROVIDED WITH A BACK DRAFT DAMPER AND CORROSION RESISTANT SCREEN AS PER 2020 FMC-R1503.1 AND FBCR-R303.6

THERMAL VALUES

CMU WALL INSULATION R-7.1
WOOD WALL INSULATION R-11
ROOF INSULATION R-30
ROOF INSULATION UNDER SLAB R-7.1
WINDOW U-VALUE 1.06
WINDOW SHGC 0.43

EXHAUST FAN SCHEDULE

EF-1 SHALL BE BROAN MODEL N. 770 @ 120V/1 PH60 HZ.
1/4" SP 50 CFM W/BACKRAFT DAMPER.

EF-2 SHALL BE BROAN MODEL N. 676 @ 120V/1 PH60 HZ.
1/4" SP 110 CFM W/BACKRAFT DAMPER

EF-3 SHALL BE DAYTON 4D430T. @ 118" SP. PROVIDE BACK DRAFT DAMPER.

H.V.A.C. MATERIALS NOTES:

- THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL AND EQUIPMENT FOR A COMPLETE H.V.A.C. SYSTEM IN ACCORDANCE WITH THESE DRAWINGS. THE FLORIDA BUILDING CODE AND THE LATEST EDITION OF THE FOLLOWING PUBLICATIONS:
A) ANS B9.1 MECHANICAL REFRIGERATION
B) NFPA PAMPHLETS 90A & 91
C) SMACNA
D) ASHORE.
- ALL AIR CONDITIONING DUCTWORK SHALL BE 1-1/2 INCH STANDARD DUTY FOIL REINFORCED FIBERGLASS WITH MANUFACTURED LOGO PRINTED ON THE VAPOR BARRIER.
- DUCT SIZE SHOWN ARE NET FREE AREA.
- ALL AIR DEVICES (DIFFUSERS, REGISTERS AND GRILLES) SHALL BE ALL ALUMINUM CONSTRUCTION, WITH EXPOSED SURFACE CHEMICALLY TREATED TO RECEIVE PAINT TO MATCH COLOR OR AIR GUIDE OR APPROVED EQUAL.
- PROVIDE OPPOSED BLADE DAMPERS AT ALL DIFFUSERS AND REGISTERS.
- PROVIDE TURNING VANES AND EXTRACTORS ALL ELBOWS AND TAKE OFF.
- THERMOSTATS SHALL BE COMBINATION COOLING/HEATING WITH SYSTEM COOL/AUTO/HEAT/OFF AND FAN ON/AUTO SELECTOR SWITCHES.
- FAN COIL SHALL BE MOUNTED ON A STRUCTURAL STEEL BASE WITH CONTINUOUS STRIP OF ISO MODE AROUND ITS PERIMETER. CONDENSING UNIT SHALL BE ANCHORED TO ITS BASE PER MANUFACTURER'S SPECIFICATIONS.
- REFRIGERANT PIPING SHALL BE COPPER TYPE "L" ARMA-FLEX INSULATION SHALL BE PROVIDED FOR SUCTION LINES.
- PROVIDE NEW FILTERS FOR FAN COIL BEFORE STARTING. THESE FILTERS MUST ALSO BE REPLACED PRIOR TO FINAL ACCEPTANCE BY OWNER.
- REFRIGERANT SUCTION LINE TO BE INSULATED WITH INSULATION HAVING A THERMAL RESISTIVITY OF AT LEAST R-4 AND HAVING AN EXTERNAL PERMANENT NOT EXCEEDING 0.05 PERM WHEN TESTED IN ACCORDANCE WITH ASTM E 96. FMC-M1411.5

HVAC DESIGN REQUIRES	YES	NO
DUCT SMOKE DETECTOR	X	
FIRE DAMPER(S)	X	
SMOKE DAMPER(S)	X	
FIRE RATED ENCLOSURE	X	
FIRE RATED ROOF CEILING ASSEMBLY	X	
FIRE STOPPING	X	
SMOKE CONTROL	X	
CEILING FANS	X	
PROGRAMMABLE THERMOSTAT	X	

TABLE 43 C2.2.1. DEFAULT WINDOW ENERGY VALUE FOR RESIDENTIAL APPLICATIONS

TYPE	U - FACTOR	SOLAR HEAT COEFFICIENT (SHGC)
SINGLE PANE CLEAR		
SINGLE PANE TINT	1.02	0.25
DOUBLE PANE CLEAR		
DOUBLE PANE TINT		

GENERAL MECHANICAL SYSTEM REQUIREMENTS

M1301.2 IDENTIFICATION
EACH LENGTH OF PIPE AND TUBING AND EACH PIPE FITTING UTILIZED IN A MECHANICAL SYSTEM SHALL BEAR THE IDENTIFICATION OF THE MANUFACTURER

M1301.5 THIRD PARTY TESTING AND CERTIFICATION
PIPING, TUBING AND FITTINGS SHALL COMPLY WITH THE APPLICABLE REFERENCED STANDARDS. SPECIFICATIONS AND PERFORMANCE CRITERIA OF THIS CODE AND SHALL BE IDENTIFIED IN ACCORDANCE WITH SECTION M1301.2. PIPING, TUBING AND FITTING SHALL EITHER BE TESTED BY AN APPROVED THIRD-PARTY TESTING AGENCY OR CERTIFIED BY AN APPROVED THIRD-PARTY CERTIFICATION AGENCY.

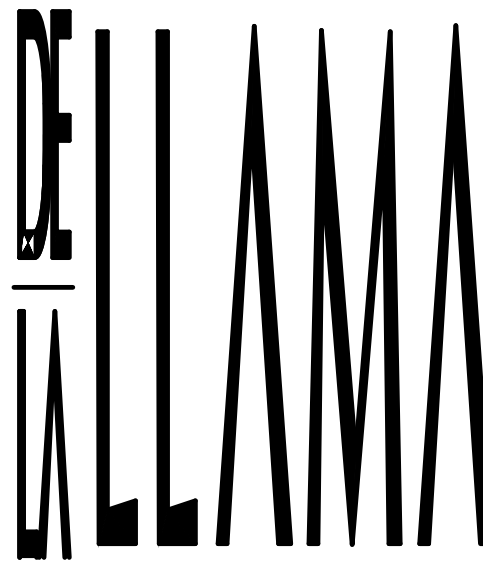
AIR CONDITIONING GENERAL NOTES

- SCOPE OF WORK:
A. INSTALL A COMPLETE NEW HVAC SYSTEM AS SHOWN ON DRAWINGS.
B. EQUIPMENT SHALL HAVE CAPACITIES REQUIRED TO OBTAIN A SUITABLE OPERATING BALANCE BETWEEN ASSOCIATED ITEMS OF EQUIPMENT. ALL DAMPERS AND CONTROLS SHALL BE ADJUSTED TO OBTAIN THE REQUIRED CAPACITIES UNDER ACTUAL OPERATING CONDITIONS OF EACH ITEM OF EQUIPMENT SHALL NOT EXCEED THE RATED MOTOR HORSEPOWER. BALANCED CAPACITIES BE EQUAL TO THOSE SCHEDULED AT DESIGN CONDITIONS.
- COOLING SYSTEM AREA DESIGNED FOR 78°F DB INSIDE CONDITIONS WITH OUTSIDE AIR TEMPERATURE OF 91°F DB. 75°F WB. HEATING IS DESIGNED TO MAINTAIN MINIMUM INSIDE TEMPERATURES OF 70°F DB WITH AN OUTSIDE TEMPERATURE OF 45°F DB.
- AIR DISTRIBUTION DEVICES SHALL BE CONSTRUCTED OF ALUMINUM, AS MANUFACTURED BY TITUS. CEILING DIFFUSERS TO BE TITUS SERIES 200-F5, W/ OPPOSED BLADE DAMPER, AND SUPPLY AIR REGISTERS TO BE MODEL 271-FL EXPOSED GRILLAGE SHALL BE PAINTED OF SAME COLOR OF THE CEILING OR WALL IN WHICH IT IS LOCATED IN AND ALL SCREWS SHALL BE OF THE COUNTERSUNK TYPE ALSO PAINTED AS GRILLAGE.
- CONSTRUCT AIR CONDITIONING DUCTWORK FROM ONE INCH THICK FOR DUCTWORK THAT RUNS BETWEEN FLOORS AND ONE HALF INCH THICK FOR DUCTWORK THAT RUNS WITHIN ATTIC SPACE STANDARD WEIGHT, FIBROUS GLASS DUCTBOARD, FABRICATED, SEAL, AND INSTALLED PER LATEST SMACNA FIBROUS GLASS DUCT MANUAL RECOMMENDATIONS. DUCT SIZES NOTED ARE CLEAR INSIDE DIMENSIONS PROVIDE ALL ELBOWS WITH DOUBLE THICKNESS TURNING VANES AT ALL BRANCH DUCT TAKE-OFFS AS REQUIRED FOR PROPER AIR BALANCING.
- AIR COOLED CONDENSING UNITS TO BE AS SCHEDULE, OR APPROVED EQUAL PROVIDED EACH UNIT WITH ANTI-CYCLING DEVICE OR TIMER, HIGH AND LOW PRESSURE CONTROLLERS, AND FILTER DRIER.
- FANCOIL UNIT TO BE AS SCHEDULE, OR APPROVED EQUAL COORDINATE WITH ELECTRICIAN TO CONNECT MULTI-SPEED FAN MOTOR TO PROPER SPEED TAPS TO DELIVER SCHEDULED AIR QUANTITIES, AGAINST SYSTEMS RESISTANCE AS INSTALLED DURING THE COOLING MODE, AND TO DELIVER MINIMUM SUPPLY AIR CFM, AS RECOMMENDED BY UNIT MANUFACTURER DURING THE HEATING MODE.
- INSULATE REFRIGERANT SUCTION PIPE WITH 1/2 INCH THICK ARMA-FLEX FINISH INSULATION EXPOSED TO WEATHER WITH TWO COATS OF GLASSFAB AND MASTIC. PROVIDE 3" PVC JACKET FOR ALL REFRIGERANT LINES UNDER GROUND FLOOR.
- COORDINATE ALL WORK WITH OTHER TRADES INVOLVED, THIS INCLUDES WALL AND ROOF PENETRATIONS AND REQUIRED ELECTRICAL SERVICE AND CONTROL WIRING. PLUMBER IS TO PROVIDE A MINIMUM 1-1/4 INCH CONDENSATE TRAP SEAL AT EACH FANCOIL UNIT, PIPE TO OUTSIDE OF HOUSE 6" ABOVE FINISHED GRADE.
- THERMOSTAT SHALL HAVE A MAXIMUM HEATING MODE TEMPERATURE SETTING OF 78°F AND A MINIMUM COOLING MODE TEMPERATURE SETTING OF 70°F. IT SHALL BE ADJUSTABLE TO PROVIDE A TEMPERATURE OF UP TO 10°F BETWEEN FULL HEATING AND FULL COOLING. HEATING AND COOLING TO BE NON-CONCURRENT THERMOSTAT TO HAVE REQUIRED STAGES OF COOLING AND HEATING FOR COMPATIBILITY WITH AIR CONDITIONING EQUIPMENT PROVIDE.
- THE AIR FLOW AT EACH SUPPLY OUTLET SHOWN ARE PRELIMINARY AND FINAL FLOW AT EACH OUTLET SHALL BE DETERMINED BY DEGREE OF COMFORT TEMPERATURE.

INSTALLATION OF ALL EXTERIOR AIR CONDITIONING CONDENSING UNITS, AT GROUND LEVEL, IN SINGLE FAMILY DUPLEX AND FEE SIMPLE TOWNHOUSES IN UNINCORPORATED MIAMI-DADE COUNTY SHALL BE CONCRETE SLAB, ON THE INSIDE OF THE UNIT, WITH AN ANCHOR BOLT OF 500 POUNDS MINIMUM PULL OF CAPACITY

A/C SPLIT SYSTEM SCHEDULE

UNIT NO.	A/C # 1	A/C # 2,4	A/C # 3
TOTAL CAPACITY BTU/HR	45,000	34,600	55,000
SENS CAPACITY BTU/HR	31,200	22,200	38,200
CFM SUPPLY	1,600	1,300	2,000
HEATER KW	7.5	7.5	7.5
ESP-IN WG.	0.30	0.30	0.30
TEMP. AIR ENT. COIL DBWB	80/67	80/67	80/67
C.U. FLA	26.2	19.4	30.9
VOLTAGE	1-60-240	1-60-240	1-60-240
MANUFACTURER	RHEEM	RHEEM	RHEEM
AHU MODEL	RHMV4821SE	RHMV3621	RHMV6021
C.U. MODEL	RA18AZ48AJV	RA18AZ36	RA18AZ60
SEER2	18.0	18.0	18.0
REF. LIQUID/SUCTION	3/8" - 7/8"	3/8" - 7/8"	3/8" - 1 1/8"
REFRIGERANT TYPE	R-410A		
-MIN. DUCT INSULATION SHALL BE R-6 FOR A/C DUCT IN NON AIR CONDITIONING SPACES			
-PROVIDE PROGRAMMABLE THERMOSTAT			



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13100 SW 80TH AVE
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FILE NAME

**JUNCO
RESIDENCE**

DATE

DEC 16, 2024

REVISION	DATE	BY
1	REVISION 2-6-25	
2	REVISION 5-14-25	
3	REVISION 6-24-25	

DRAWING NAME

DESIGN BY:

ZECKY DA COSTA

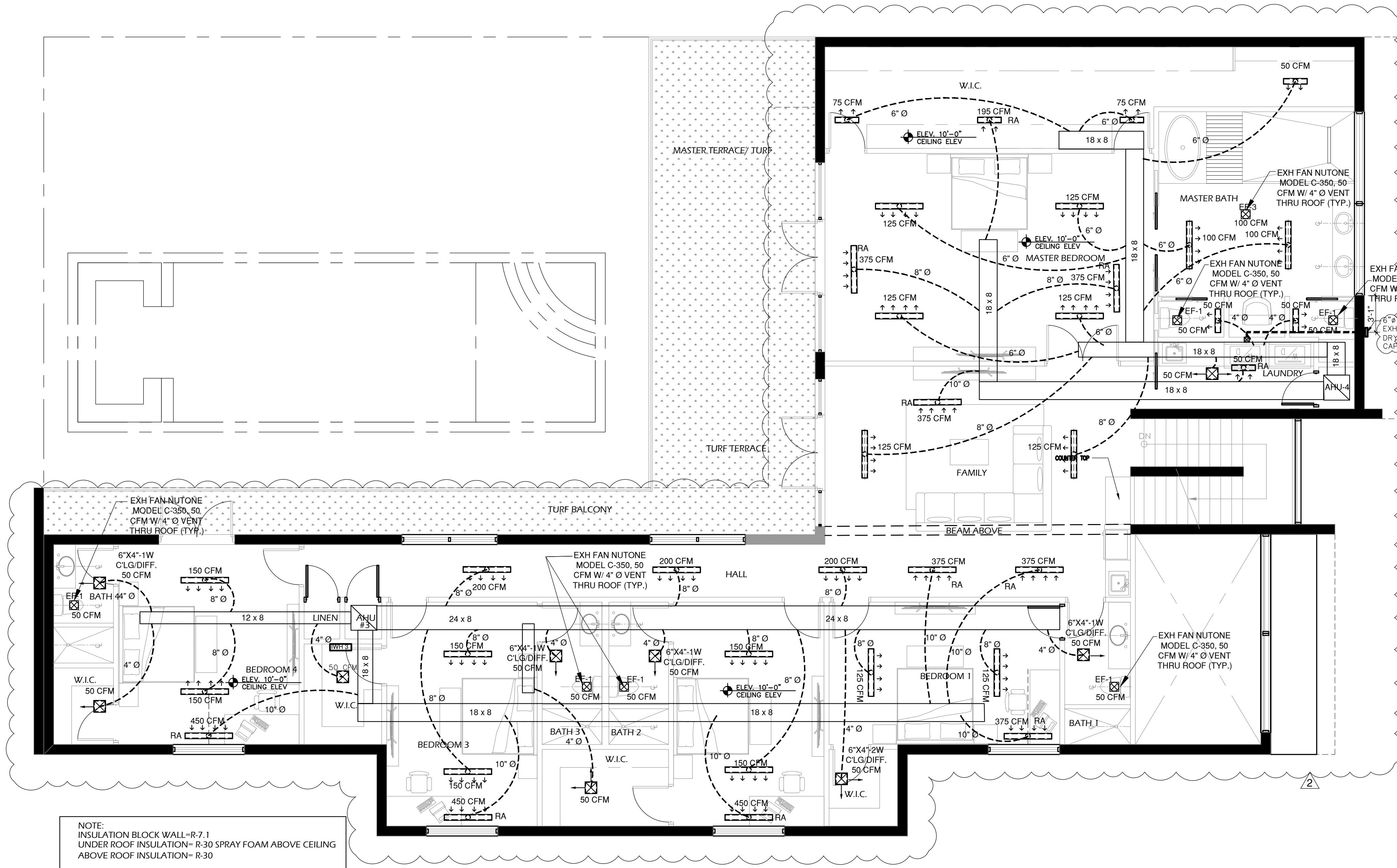
DRAWN BY:

HUMBERTO LANTIGUA

SHEET NO.

MECHANICAL
GROUND FLOOR PLAN

M-1



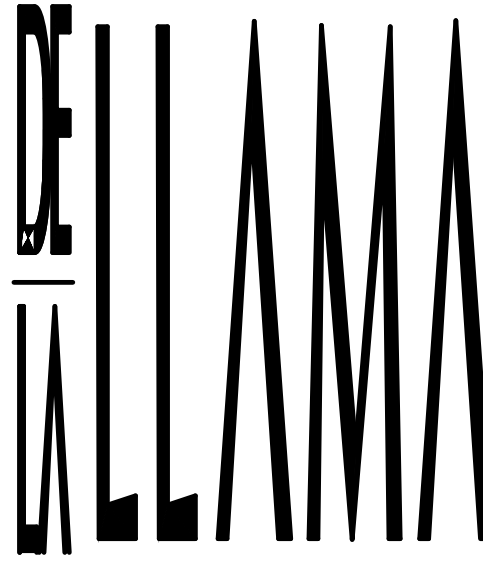
MECHANICAL SECOND FLOOR PLAN

SCALE: 3/16" = 1'-0"

AIR CONDITIONING GENERAL NOTES

- SCOPE OF WORK:
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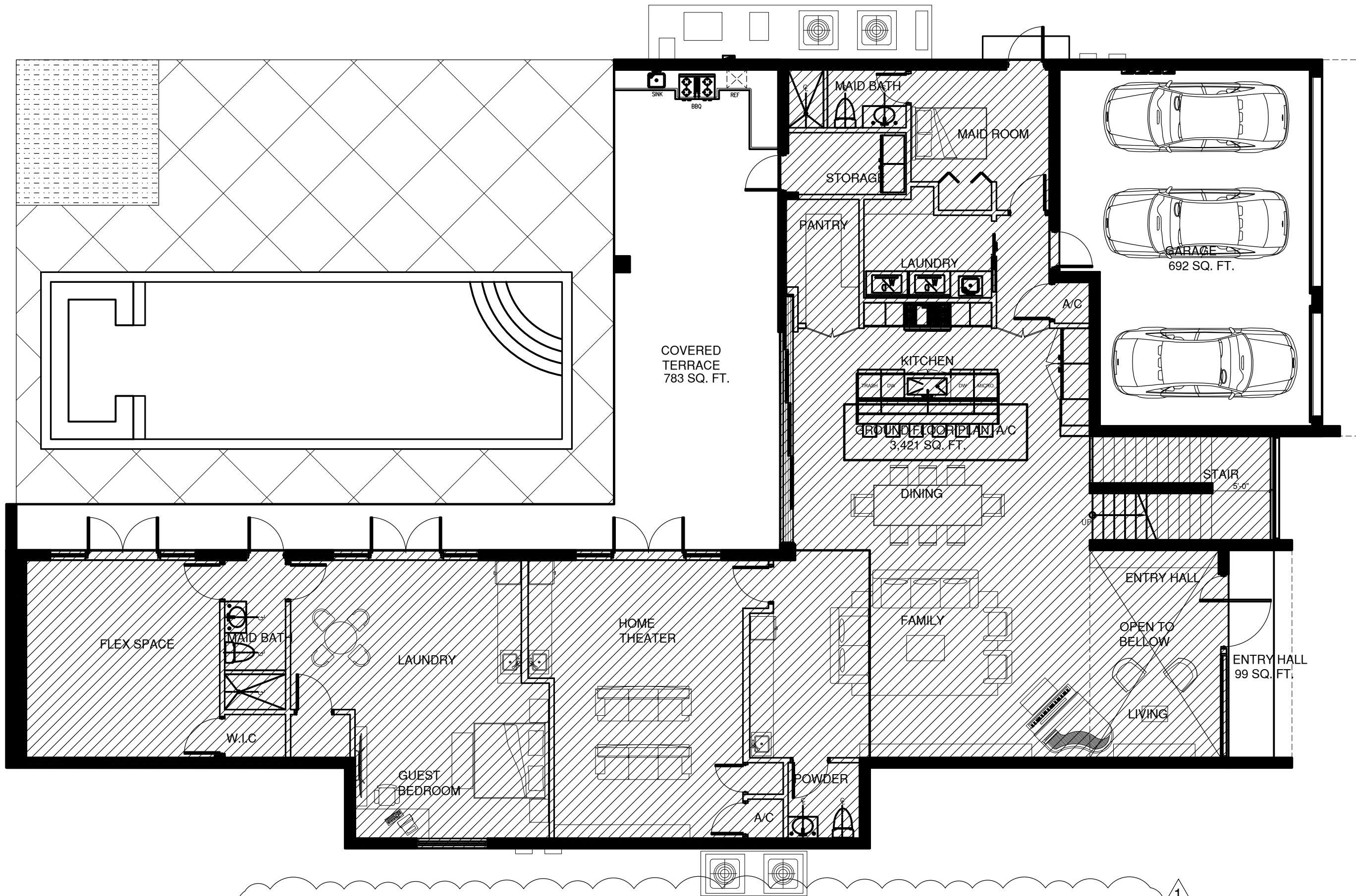
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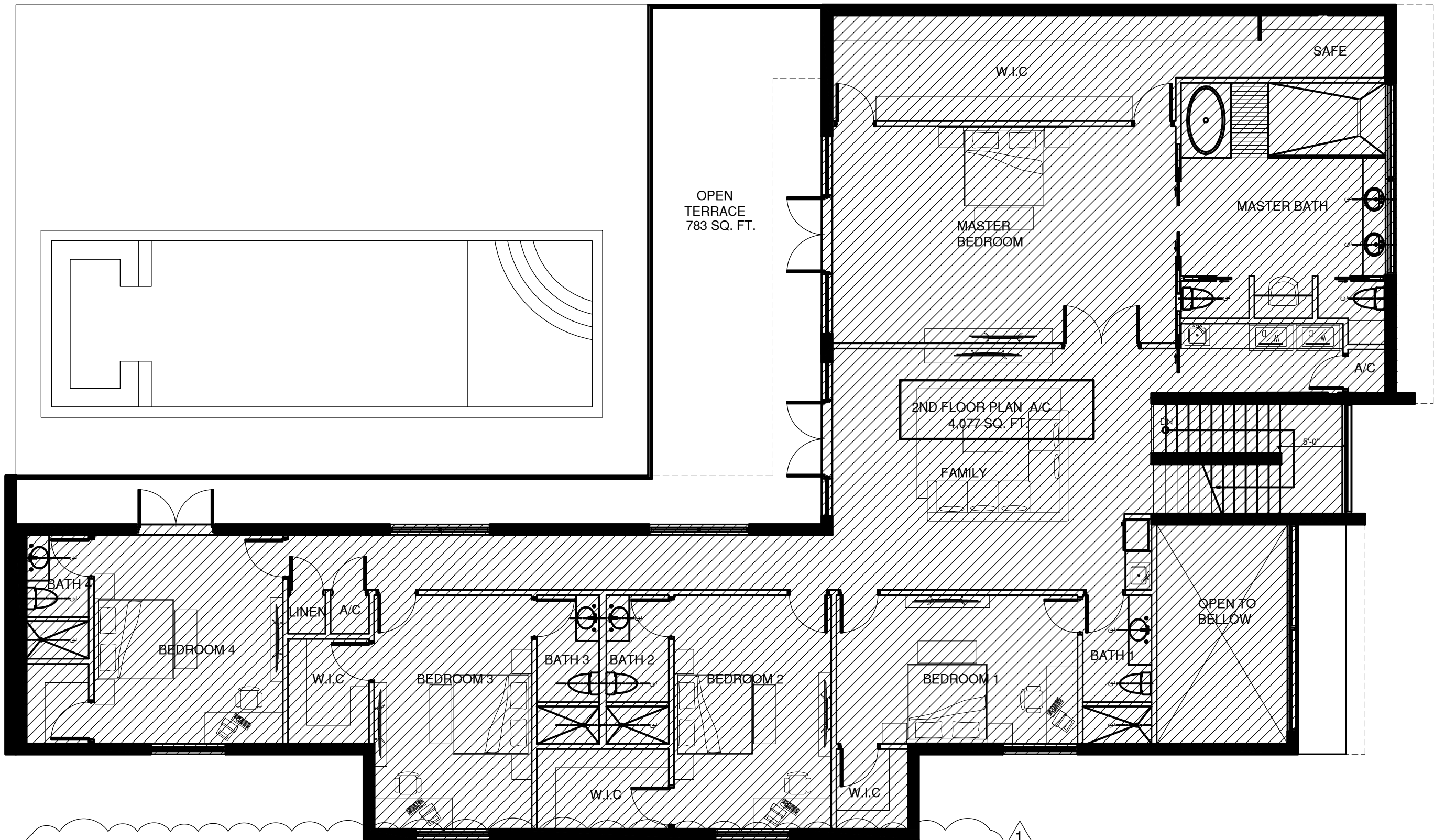
SHEET NO.

MECHANICAL
2ND FLOOR PLAN
M-2



PERIMETER LINE DRAWING A/C - GROUD FLOOR PLAN

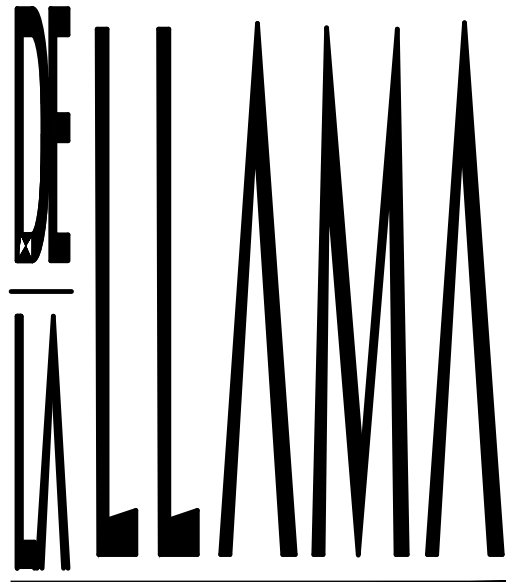
SCALE: 1/8" = 1'-0"



PERIMETER LINE DRAWING A/C - SECOND FLOOR PLAN

SCALE: 1/8" = 1'-0"

CONSTRUCTION AREA CALCULATIONS:		(F.A.R) AREA CALCULATIONS:	
GROUND FLOOR:		GROUND FLOOR:	
A/C AREA (F.A.R)	3,384 SQ. FT.	A/C AREA (F.A.R)	3,384 SQ. FT.
GARAGE (F.A.R)	692 SQ. FT.	GARAGE (F.A.R)	692 SQ. FT.
COVERED TERRACE	783 SQ. FT.	TOTAL	4,076SQ. FT.
COVER ENTRY	99 SQ. FT.	SECOND FLOOR:	
TOTAL	4,958 SQ. FT.	A/C AREA (F.A.R)	4,076 SQ. FT.
SECOND FLOOR:		OPEN TO BELOW	185 SQ. FT.
A/C AREA (F.A.R)	4,076 SQ. FT.	OPEN TERRACE	783 SQ. FT.
OPEN TERRACE	783 SQ. FT.	TOTAL	5,044 SQ. FT.
TOTAL	4,859 SQ. FT.	TOTAL CONST. AREA CALC. 9,817 SQ. FT.	



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FILE NAME

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DIC. 17, 2024

REVISION	DATE	BY
1	9-04-25	REVISION

DRAWING NAME

DESING BY:
ZECKY DA COSTA

DRAWN BY:
RAMSES TERRERO / HERMES PEREZ

SHEET NO.
MECHANICAL
PERIMETER A/C
M-4