



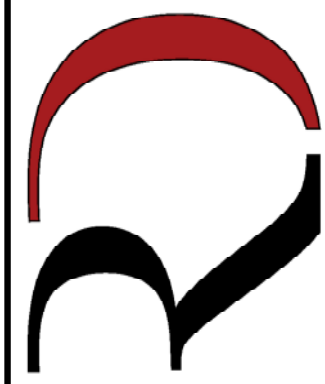
FRONT ELEVATION
SCALE: 1/4" = 1'-0"



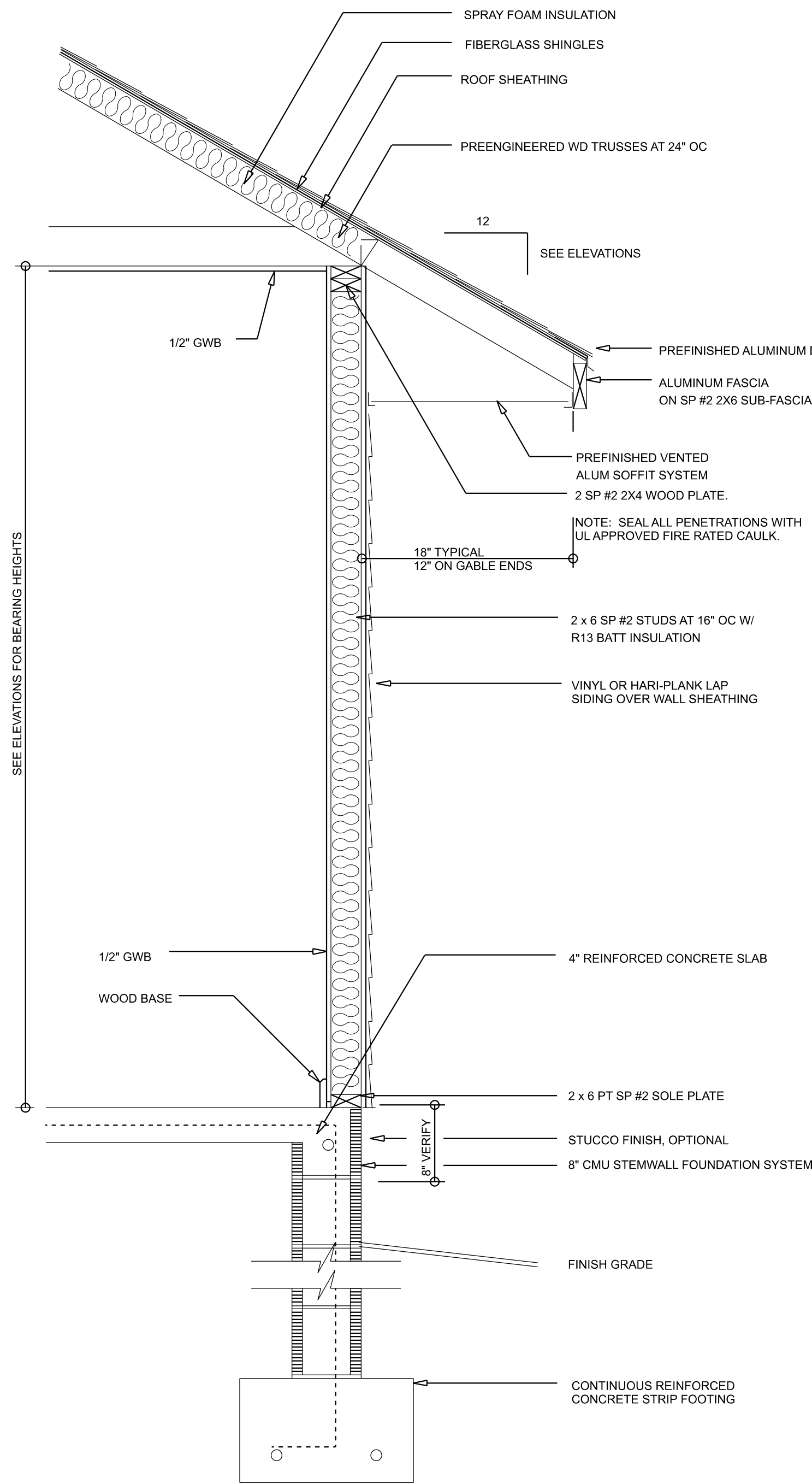
REAR ELEVATION
SCALE: 1/4" = 1'-0"

REVISIONS SCHEDULE	
PROPOSAL	Jan. 18th, 2024
REVISIONS	June 14th, 2024

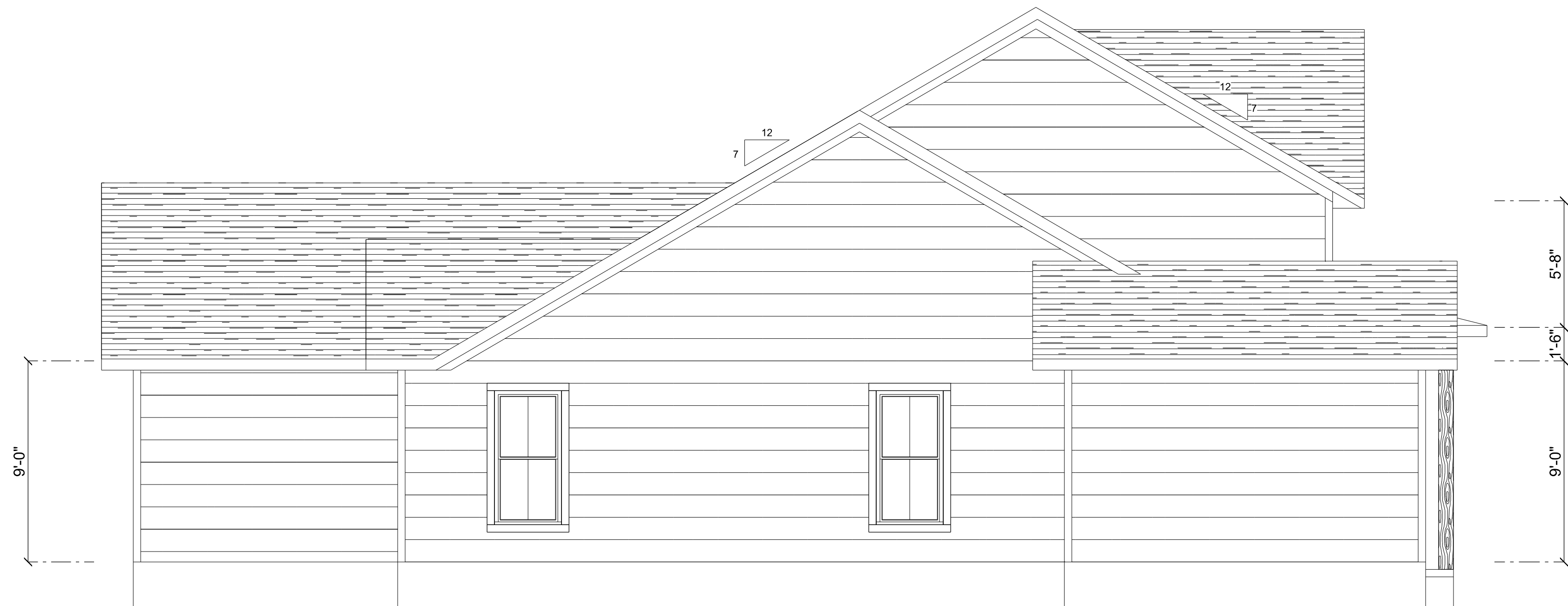
CUSTOM HOME FOR:
BOOTLE RESIDENCE
COLUMBIA COUNTY, FL

**RIDGEPOINT
DESIGN**

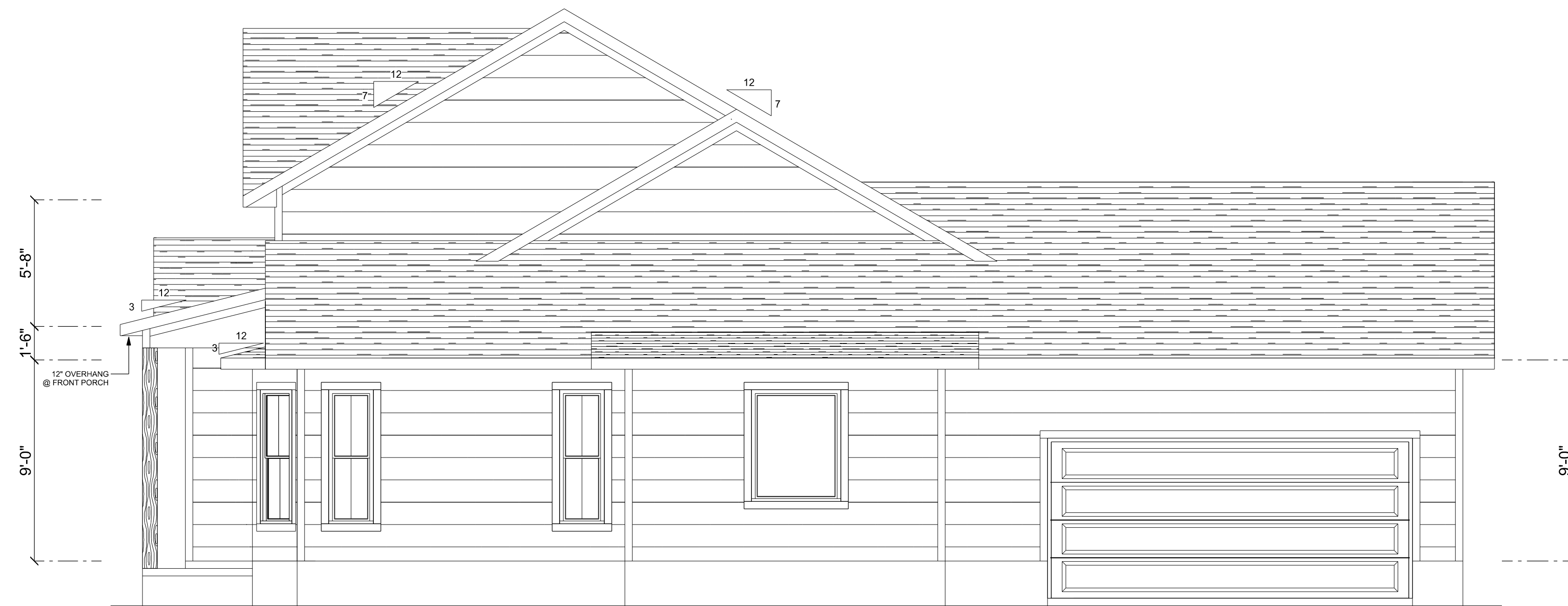
566 SW ARLINGTON BLVD. STE. 101, LAKE CITY, FL 32025
P: 385-288-1188
E: RIDGEPOINTDESIGN@GMAIL.COM



TYPICAL WALL SECTION
SCALE: 1" = 1'-0"



LEFT ELEVATION
SCALE: 1/4" = 1'-0"

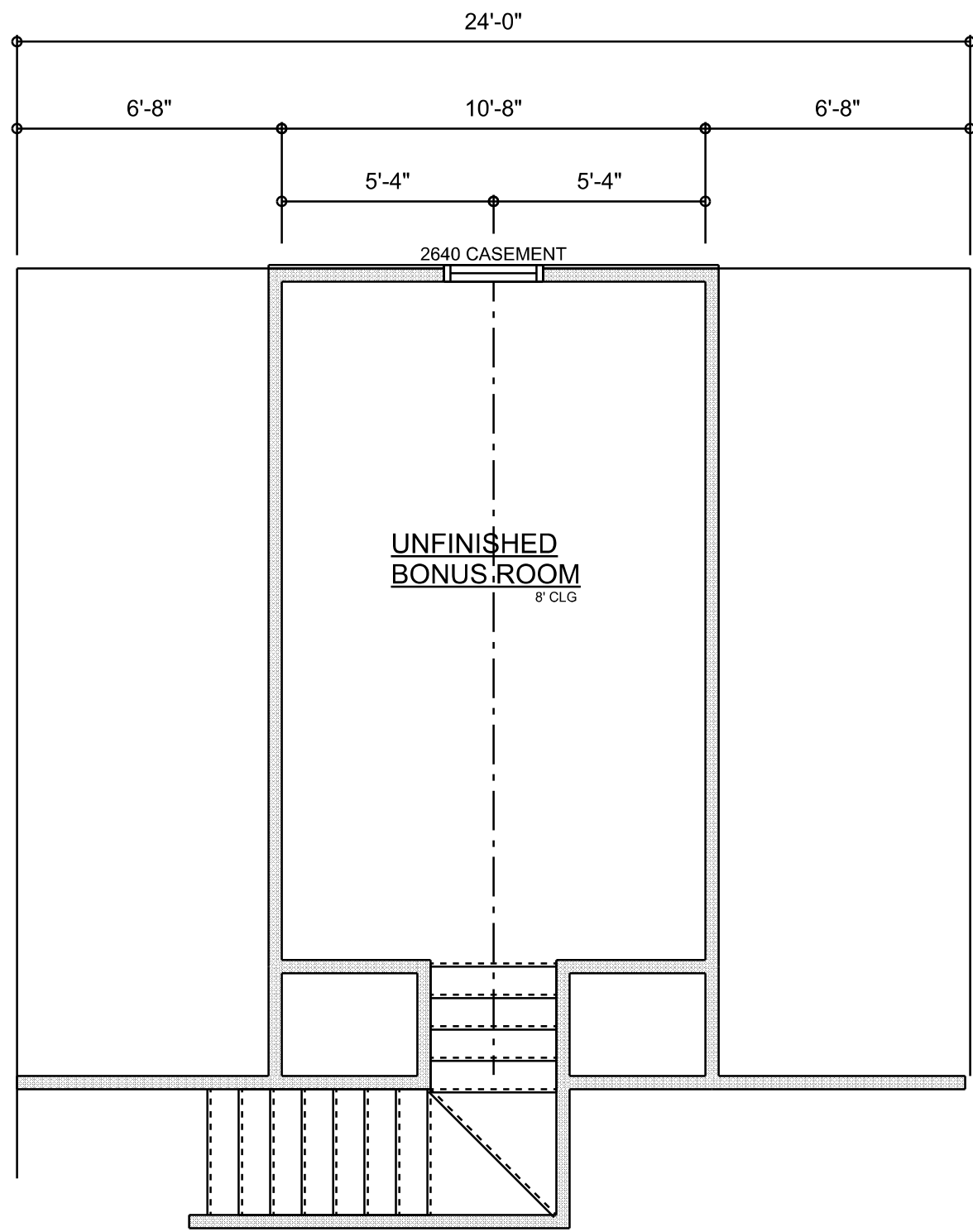


RIGHT ELEVATION
SCALE: 1/4" = 1'-0"

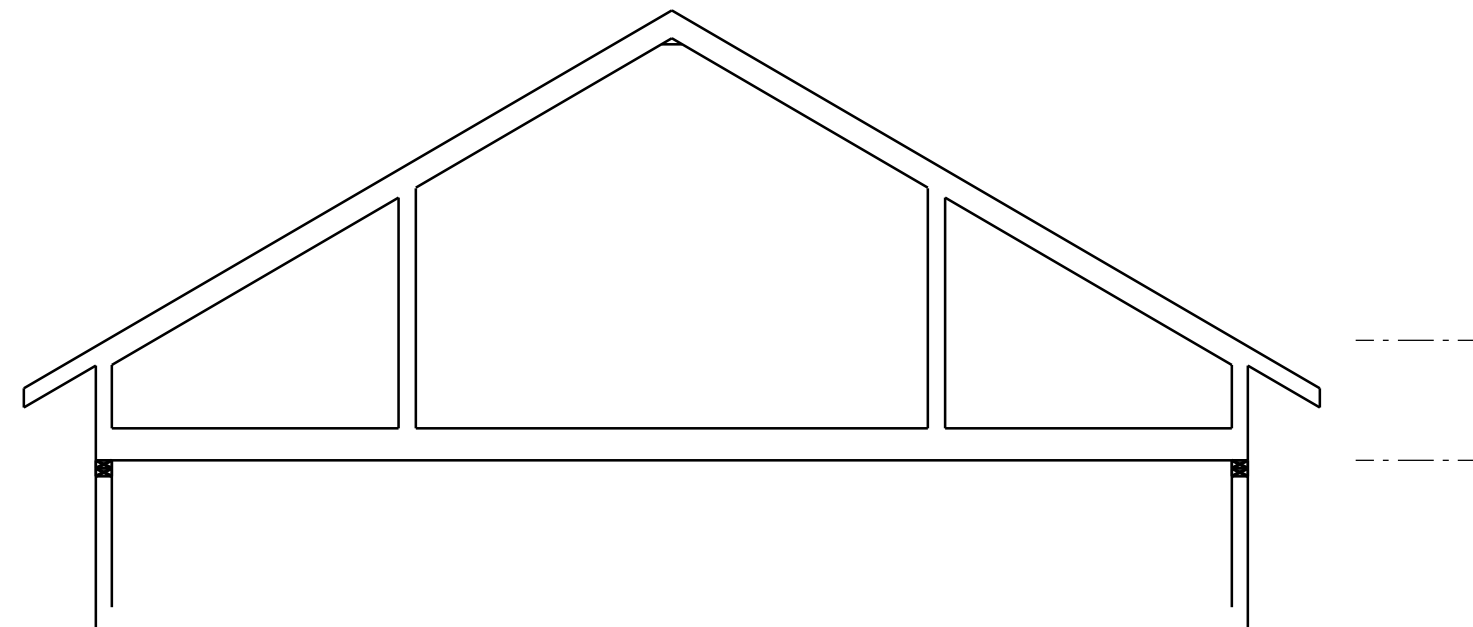
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CUSTOM HOME FOR:
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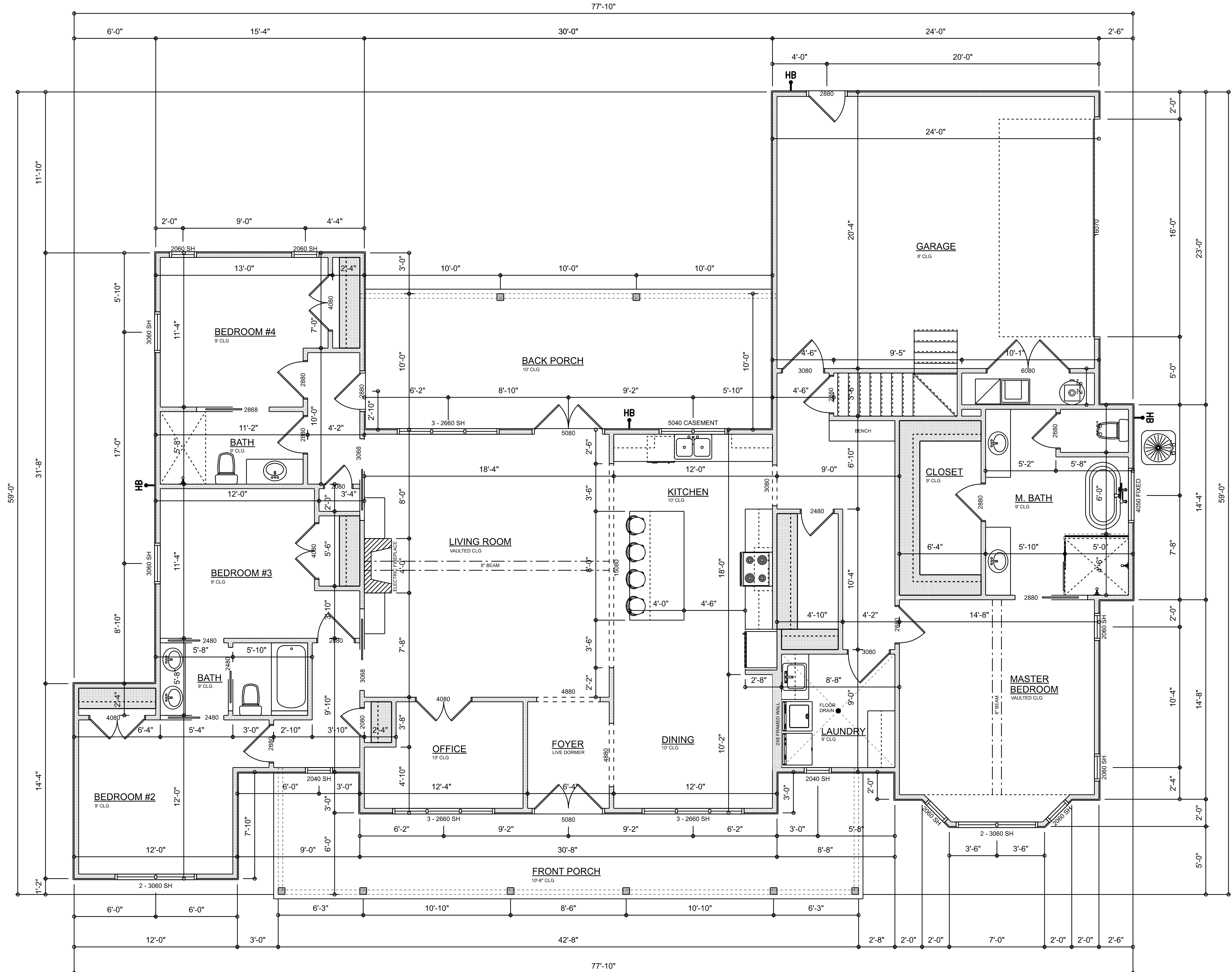
UNFINISHED BONUS ROOM
SCALE: 1/4" = 1'-0"



PROPOSED BONUS TRUSS
SCALE: 1/4" = 1'-0"

Garage fire separations shall comply with the following:

1. The private garage shall be separated from the dwelling unit and its attic area by means of a minimum 1/2-inch (12.7 mm) gypsum board applied to the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 5/8-inch Type X gypsum board or equivalent. Door openings between a private garage and the dwelling unit shall be equipped with either solid wood doors, or solid or honeycomb core steel doors not less than 13/8 inches (34.9 mm) thick, or doors in compliance with Section 715.3.3. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted.
2. Ducts in a private garage and ducts penetrating the walls or ceilings separating the dwelling unit from the garage shall be constructed of a minimum 0.019-inch (0.48 mm) sheet steel and shall have no openings into the garage.
3. A separation is not required between a Group R-3 and U carport provided the carport is entirely open on two or more sides and there are not enclosed areas above.
4. When installing an attic access and/or pull-down stair unit in the garage, devise shall have a minimum 20 min. fire rating.



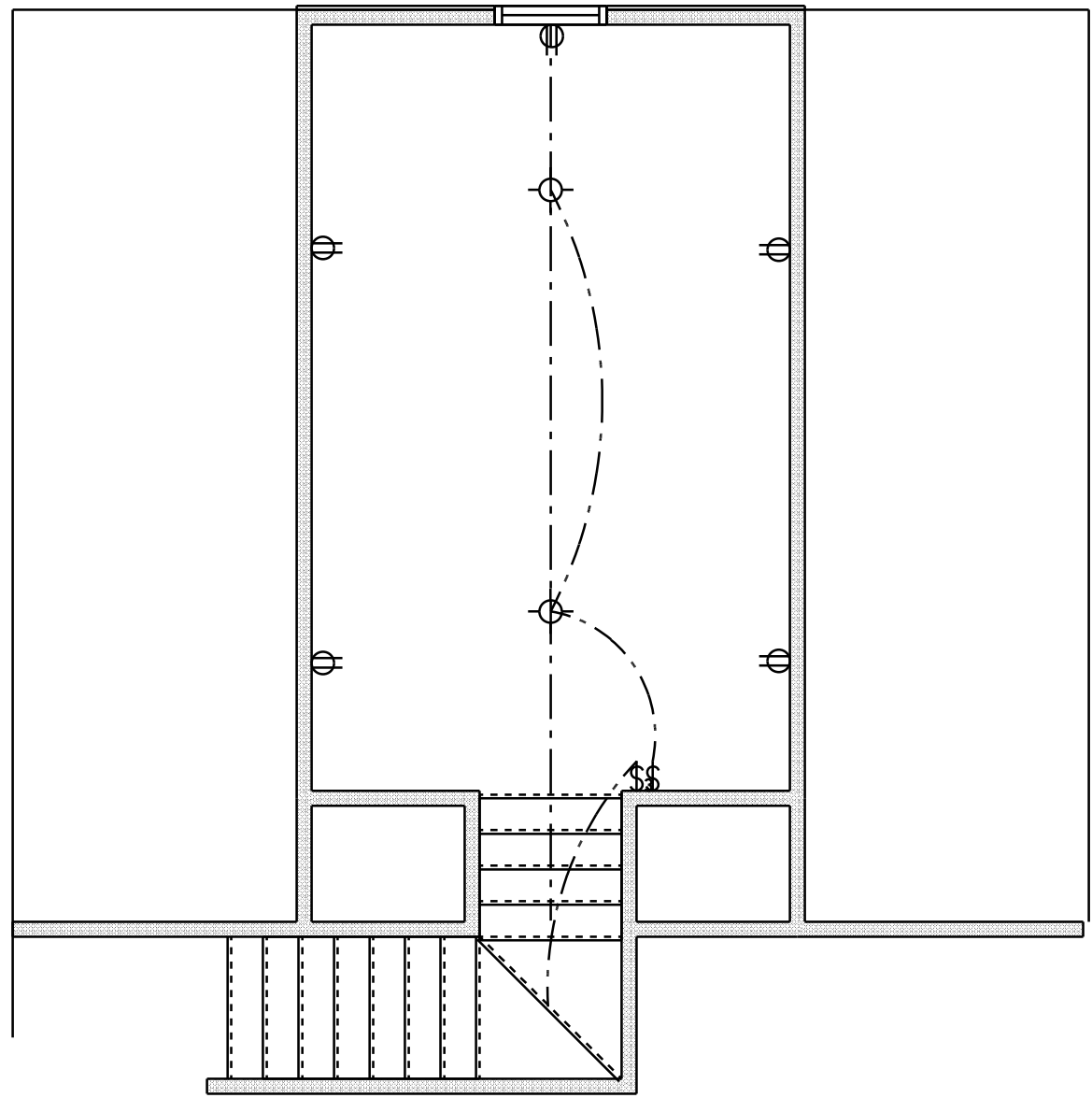
DIMENSIONED FLOOR PLAN
SCALE: 1/4" = 1'-0"

AREA SUMMARY		
LIVING	2,328	S.F.
ENTRY PORCH	274	S.F.
REAR PORCH	298	S.F.
GARAGE	525	S.F.
TOTAL AREA	3,425	S.F.

REVISIONS SCHEDULE

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CUSTOM HOME FOR:
BOOTLE RESIDENCE
COLUMBIA COUNTY, FL



ELECTRICAL LEGEND		
ELECTRICAL	COUNT	SYMBOL
CEILING FAN	7	
CAN LIGHT 6inch	53	
CHANDELIER	2	
LED CEILING LIGHT 1x4	2	
PENDANT LIGHT	2	
EXTERIOR SCENCE	3	
MOTION SECURITY LIGHT	5	
AC DISCONNECT	2	
CABLE TV OUTLET	6	
CARBON DETECTOR	3	
EXHAUST FAN	3	
OUTLET	49	
OUTLET 220v	3	
OUTLET GFI	20	
OUTLET WP	9	
SMOKE DETECTOR	8	
STANDARD LIGHT	4	
SWITCH	33	
SWITCH 3 WAY	27	
VANITY BAR LIGHT - SMALL	5	

ELECTRICAL PLAN NOTES:

INSTALLATION SHALL BE PER LATEST NAT'L. ELECTRIC CODE.
WIRE ALL APPLIANCES, HVAC UNITS AND OTHER EQUIPMENT PER MANUF. SPECIFICATIONS

CONSULT WITH THE OWNER FOR THE NUMBER OF SEPERATE TELEPHONE LINES TO BE INSTALLED

ALL SMOKE DETECTORS SHALL BE 120V W/ BATTERY BACKUP OF THE PHOTOELECTRIC TYPE, AND SHALL BE INTERLOCKED TOGETHER. INSTALL INSIDE AND NEAR ALL BEDROOMS

TELEPHONE, TELEVISION AND OTHER LOW VOLTAGE DEVICES OR OUTLETS SHALL BE AS PER THE OWNER'S DIRECTIONS, & IN ACCORDANCE W/ APPLICABLE SECTIONS OF NEC-LATEST EDITION.

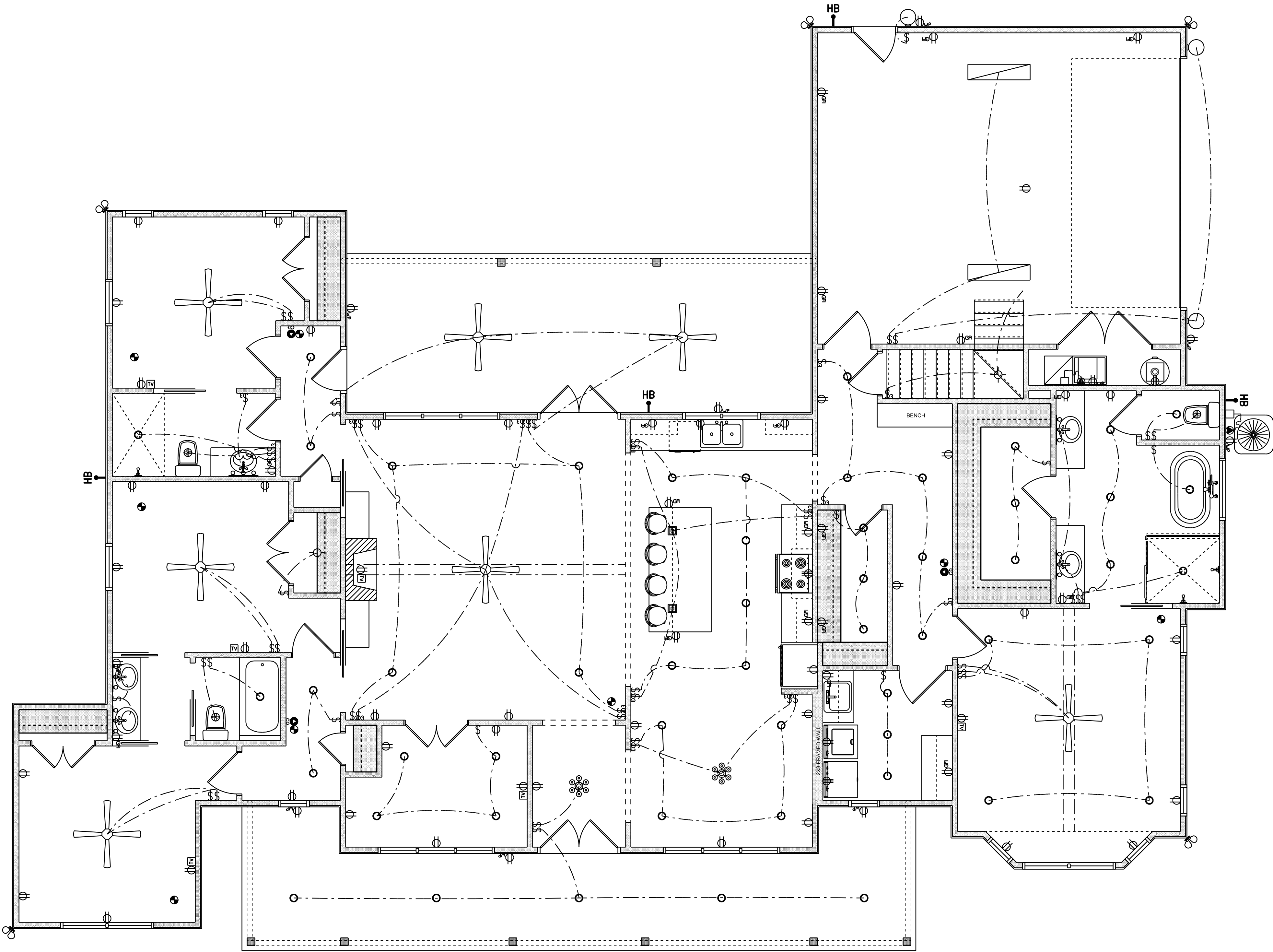
ELECTRICAL CONTR SHALL PREPARE "AS-BUILT" SHOP DWGS INDICATING ALL ELECTRICAL WORK, INCLUDING ANY CHANGES TO THE ELEC. PLAN, ADD'NS TO THE ELEC. PLAN, RISER DIAGRAM, AS-BUILT PANEL SCHEDULE W/ ALL CKTS IDENTIFIED W/ CKT N°, DESCRIPTION & BRKR, SERVICE ENT. & ALL UNDERGROUND WIRE

LOCATIONS/ROUTING / DEPTH, RISER DIA. SHALL INCLUDE WIRE SIZES/TYPE & EQUIPMENT TYPE W/ RATINGS & LOADS.

CONTRACTOR SHALL PROVIDE 1 COPY OF AS-BUILT DWGS TO OWNER & 1 COPY TO THE PERMIT ISSUING AUTHORITY ALL RECEPTICALS, NOT OTHERWISE NOTED, SHALL BE ARC FAULT INTERRUPTER TYPE, EXCEPT DEDICATED OUTLETS

ALL RECEPTICALS IN WET AREAS SHALL BE GROUND FAULT INTERRUPTER TYPE (GFI)

ALL EXTERIOR RECEPTICALS SHALL BE WEATHERPROOF GROUND FAULT INTERRUPTER TYPE (WP/GFI)



ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"

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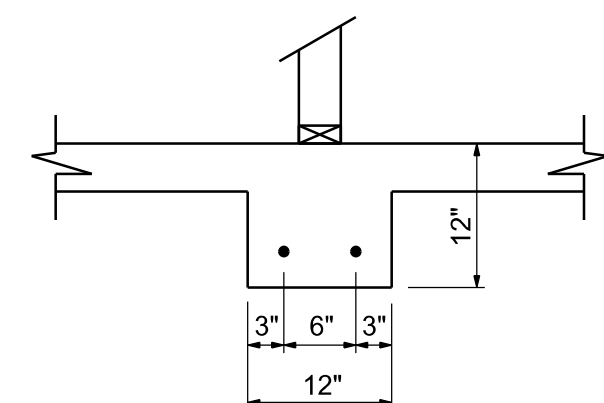
CUSTOM HOME FOR:
BOOTLE RESIDENCE
COLUMBIA COUNTY, FL

RIDGEPOINT

DESIGN

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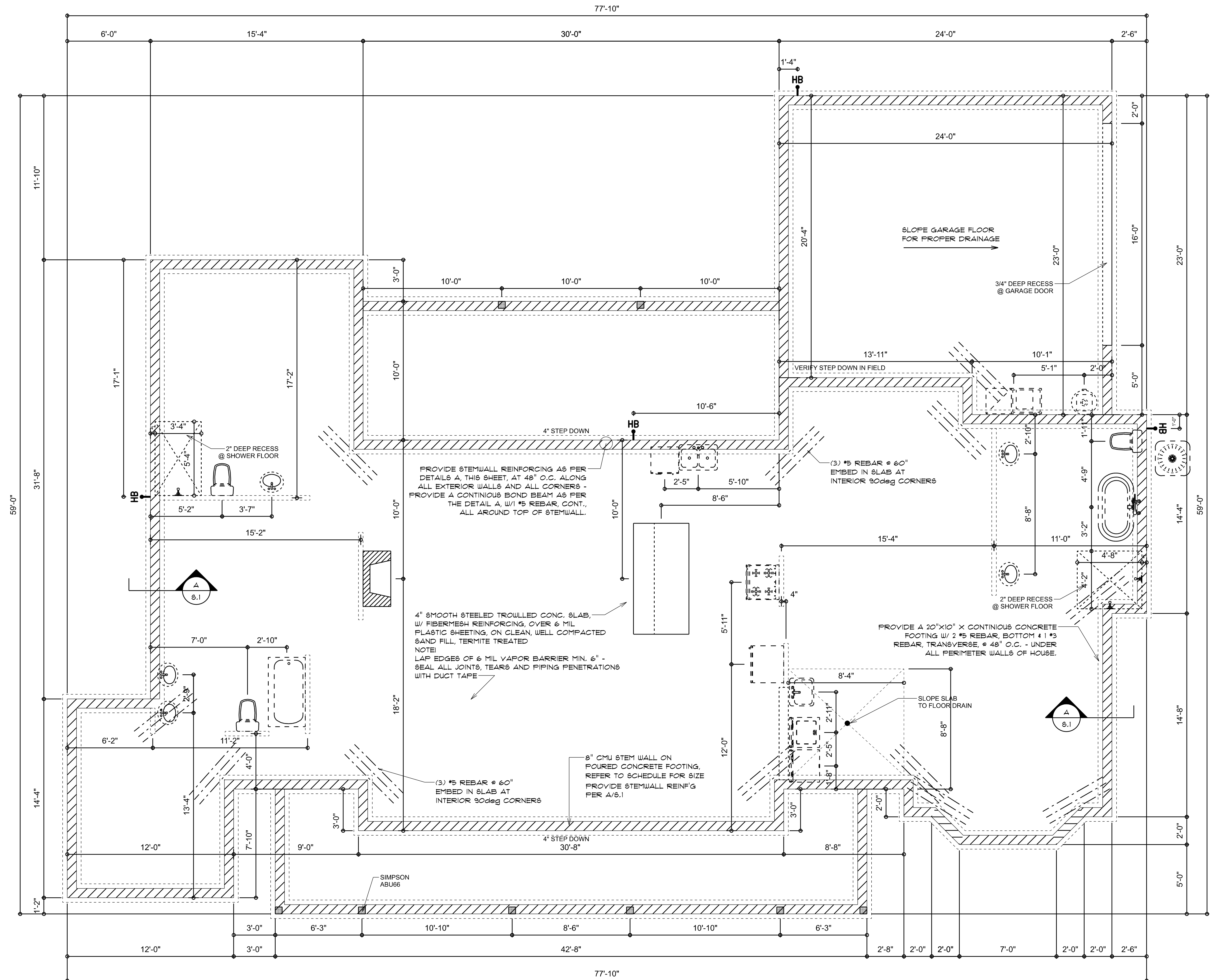
1. DESIGN SOIL BEARING PRESSURE: 1500 PSF.
2. EXPANSIVE SOILS: WHERE DIRECTED BY THE SOILS ENGINEER, SOIL AUGMENTATION FOR THE SOILS ENGINEER'S SPECIFICATIONS SHALL BE IMPLEMENTED PRIOR TO PLACING ANY FOUNDATIONS - TESTS AS SPECIFIED SHALL BE PERFORMED TO DETERMINE THE SUITABILITY OF THE SUB-GRADE TO SUPPORT THE DESIGN LOADS.
3. CLEAN SAND FILL OVER STRIPPED AND COMPACTED EXISTING GD. SHALL BE PLACED IN 12" LIFTS. BOTH SUB-SOIL AND FILL COMPACTION SHALL BE NOT LESS THAN 98% AS MEASURED BY A MODIFIED PROCTOR TEST AT THE RATE OF ONE TEST FOR EACH 1000 SF OF BUILDING FAD AREA, OR FRACTION THEREOF, FOR EACH 12" LIFT.
4. REINFORCING STEEL SHALL BE GRADE 40 AND MEET THE REQUIREMENTS OF ASTM A615, ALL BENDS SHALL BE MADE COLD.
5. WELDED WIRE MESH SLAB REINFORCING SHALL MEET THE REQUIREMENTS OF ASTM A185 - MIN. YIELD STRESS = 85 KSI.
6. CONCRETE SHALL BE STANDARD MIX F'c = 3000 PSI FOR ALL FTGS, SLABS, COLUMNS AND BEAMS OR SHALL BE STANDARD PUMP MIX F'c 3000 PSI. STRENGTH SHALL BE ATTAINED WITHIN 28 DAYS OF PLACEMENT. MIXING, PLACING AND FINISHING SHALL BE AS PER ACI STANDARDS.
7. CONCRETE BLOCK SHALL BE AS PER MANUFACTURER'S PRODUCT GUIDE FOR ASTM C-90 REQUIREMENTS WITH MEDIUM SURFACE FINISH - F'm = 1500 PSI.
8. MORTAR SHALL BE TYPE "M" OR "N" FOR ALL MASONRY UNITS.
9. STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 STANDARDS FOR STRENGTH. BOLTS SHALL BE ASTM A307 / GRADE 1 OR A325, AS PER PLAN REQUIREMENTS.
10. WELDS SHALL BE AS PER "AMERICAN WELDING SOCIETY" STANDARDS FOR STRUCTURAL STEEL APPLICATIONS.
11. 2x4 P/T WOOD SILL CONT., ALL AROUND, W/ 5/8" - A.B. W/ 3" SQ. x 1/4" PLATE WASHERS WITHIN 12" FROM EACH CORNER, EA. WAY, & WITHIN 8-12" FROM ALL WALL OPENINGS / ENDS - 1/2" - A.B. W/ 2" SQ. WASHERS ALONG EACH RUN = 48" O.C., MAX. - ALL ANCHOR BOLTS SHALL HAVE A MINIMUM OF 8" EMBEDMENT INTO THE CONCRETE.



SCALE: 3/4" = 1'-0"

NOTE:
H.V.A.C. CONTRACTOR SHALL PREPARE "AS-BUILT" SHOP
DRAWINGS INDICATING ALL H.V.A.C. WORK, INCLUDING ALL
DUCTWORK LOC., SIZES, LINES, EQUIPMENT SCH. & BALANCING
REPORT - CONTR SHALL PROVIDE 1 COPY OF AS-BUILT DWGS
TO OWNER & 1 COPY TO THE PERMIT ISSUING AUTHORITY.

NOTE:
VERIFY INTERIOR BEARING WALLS WITH
TRUSS MANUFACTURE DRAWINGS! USE DETAIL
"B" THIS PAGE AT ALL INTERIOR BEARING LOC



SCALE: $1/4" = 1'-0"$

June 14th, 2024

BOOTLE RESIDENCE
COLUMBIA COUNTY, FL

**NICHOLAS PAUL
GEISLER
ARCHITECT**
■ ■ ■
N.C.A.R.B. Certified
1750 NW Brown Rd.
Lake City, FL 32055

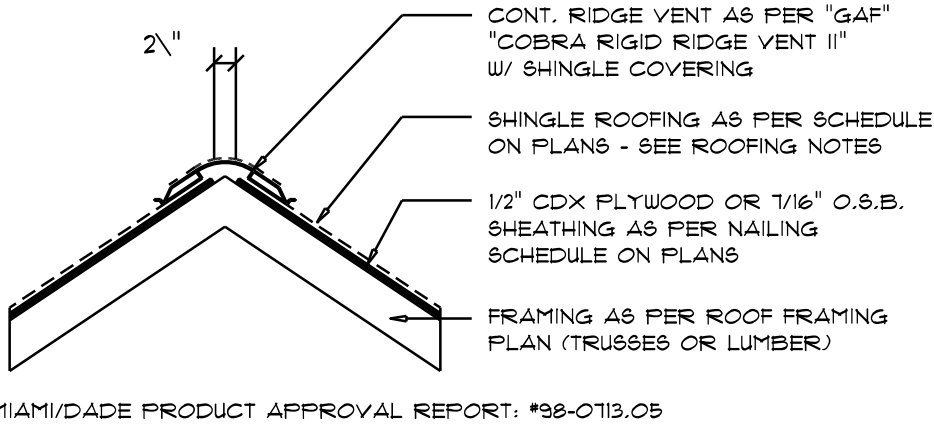
4 SHEETS

(

WOOD STRUCTURAL NOTES

1. TEMPORARY BRACING OF THE STRUCTURE DURING ERECTION, REQUIRED FOR SAFE AND STABLE CONSTRUCTION, SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR SO ENGAGED. TEMPORARY & PERMANENT BRACING OF ROOF TRUSSES SHALL BE AS PER THE STANDARD GUIDELINES OF THE "TRUSS PLATE INSTITUTE".
2. ALL TRUSSES SHALL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER & SHALL BE SIGNED AND SEALED BY SAME. TRUSS DESIGN SHALL INCLUDE PLACEMENT PLANS, TRUSS DETAILS, TRUSS TO TRUSS CONNECTIONS & THE STANDARD SPECIFICATIONS & RECOMMENDATIONS OF INSTALLATION OF THE "TRUSS PLATE INSTITUTE".
3. WOOD STUDS IN EXTERIOR WALLS & INTERIOR BEARING WALLS SHALL BE NOT LESS THAN N.2 HEM-FIR OR BETTER.
4. CONNECTORS FOR WOOD FRAMING SHALL BE GALVANIZED METAL OR BLACK METAL AS MANUFACTURED OR AS CALLED FOR IN THE PLANS AND BE OF A DESIGN SUITABLE FOR THE LOADS AND USE INTENDED. REFER TO THE JOINT REINFORCEMENT SCHEDULE FOR PRINCIPLE CONNECTIONS.

AREA OF ATTIC	REQ'D L.F. OF VENT	NET FREE AREA OF INTAKE
1600 SF	20 LF	410 SQ.IN.
1800 SF	24 LF	490 SQ.IN.
2200 SF	28 LF	570 SQ.IN.
2800 SF	32 LF	650 SQ.IN.
3600 SF	36 LF	750 SQ.IN.
3100 SF	40 LF	820 SQ.IN.
3600 SF	44 LF	900 SQ.IN.

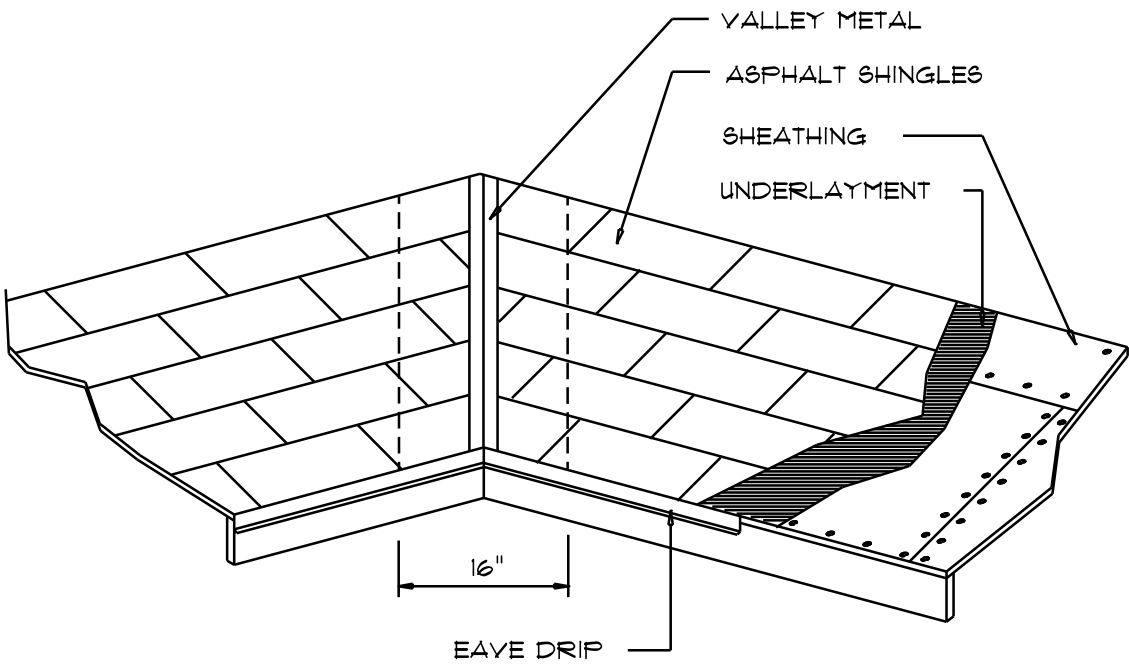


MIAMI/DADE PRODUCT APPROVAL REPORT: #38-0713.05

Ridge Vent DETAIL

SCALE: 3/4" = 1'-0"

B



VALLEY FLASHING

ROOFING METALS for FLASHING/ROOFING MINIMUM THICKNESS REQUIREMENTS			
MATERIAL	MINIMUM THICKNESS (in)	GAGE	WEIGHT (OZ.)
COPPER			16
ALUMINUM	0.024		
STAINLESS STEEL		28	
GALVANIZED STEEL	0.0178	26 (ZINC COATED G90)	
ZINC ALLOY LEAD PAINTED TERNE	0.021		40 20

Roofing/Flashing DETS.

SCALE: NONE

A

STANDARD HEADER SCHEDULE

0'-0" UP TO 6'-0" OPENINGS

DOUBLE 2x8 No.12 SOUTHERN PINE WITH 1/2" OSB SOLID CONTINUOUS SPACER GLUED AND NAILED WITH 10d x 0.128" x 3" NAILS IN 2 ROWS @ 12" O.C. STAGGERED EACH SIDE WITH 1 - SIMPSON MSTA15 TOP AND 1 - SIMPSON SPH4R BOTTOM EACH SIDE OF OPENING WITH 1 - HEADER STUD AND 1 FULL HEIGHT STUD EACH SIDE OF OPENING

6'-0" UP TO 9'-0" OPENINGS

DOUBLE 2x12 No.12 SOUTHERN PINE WITH 1/2" OSB SOLID CONTINUOUS SPACER GLUED AND NAILED WITH 10d x 0.128" x 3" NAILS IN 2 ROWS @ 12" O.C. STAGGERED EACH SIDE WITH 1 - SIMPSON MSTA24 TOP AND 2 - SIMPSON SPH4R BOTTOM EACH SIDE OF OPENING WITH 1 - HEADER STUD AND 2 FULL HEIGHT STUDS EACH SIDE OF OPENING

9'-0" UP TO 16'-0" OPENINGS

DOUBLE 2x12 No.12 SOUTHERN PINE WITH 1/2" OSB SOLID CONTINUOUS SPACER GLUED AND NAILED WITH 10d x 0.128" x 3" NAILS IN 2 ROWS @ 12" O.C. STAGGERED EACH SIDE WITH 3 - SIMPSON MSTA15 EACH SIDE OF OPENING WITH 2 - HEADER STUDS AND 3 FULL HEIGHT STUDS EACH SIDE OF OPENING

16'-0" GARAGE DOOR OPENINGS

2 PLY 1 1/4" X 11 1/8" 2.0E MICROLAMM LVL HEADER GLUED AND NAILED WITH 10d x 0.128" x 3" NAILS IN 2 ROWS @ 12" O.C. STAGGERED EACH SIDE WITH 3 - SIMPSON MSTA15 EACH SIDE OF OPENING WITH 2 - HEADER STUDS AND 3 FULL HEIGHT STUDS EACH SIDE OF OPENING

NOTE:

SHEATH ROOF w/ PLYWOOD or OSB PLACED w/ LONG DIMENSION PERPENDICULAR TO THE ROOF TRUSSES, SECURE TO FRAMING w/ 8d NAILS - AS PER DETAIL ON SHEET S.4

NOTE:

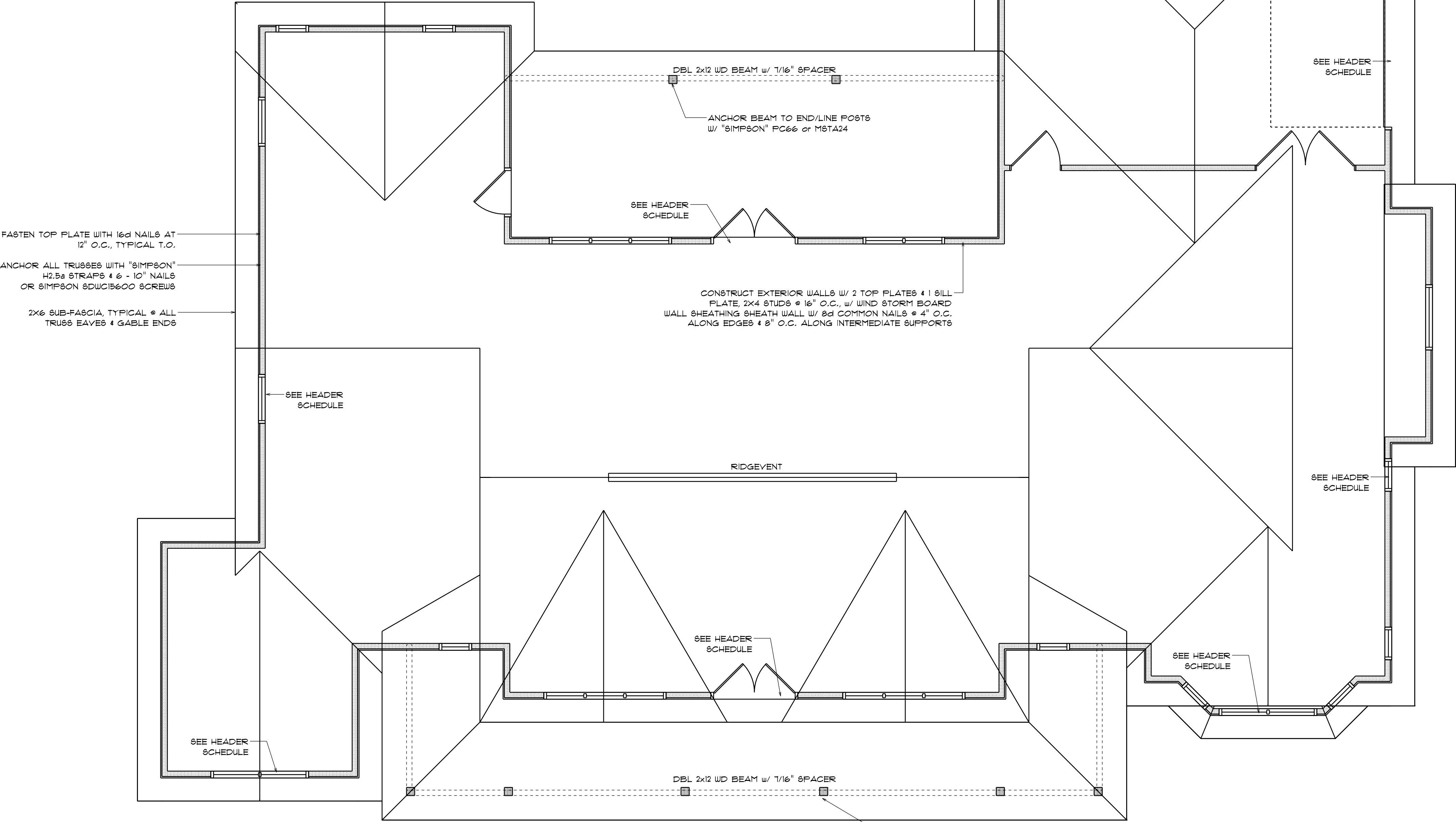
THE DESIGN WIND SPEED FOR THIS PROJECT IS 130 MPH PER FBC 1609 AND LOCAL JURISDICTION REQUIREMENTS

NOTE:

ALL PENETRATIONS OF THE TOP PLATE OF ALL LOAD BEARING WALLS SHALL BE SEALED WITH FIRE RETARDANT CAULKING, INCLUDING WIRING, PLUMBING OR OTHER SUCH PENETRATIONS. WALLS OVER 8'-0" TALL SHALL HAVE CONTINUOUS BLOCKING TO LIMIT CAVITY HEIGHT TO 8'-0". PENETRATIONS THROUGH SUCH BLOCKING SHALL BE TREATED IN THE SAME MANNER AS TOP PLATES, NOTED ABOVE

NOTE:

ANCHOR GIRDER TRUSSES(ES) TO HEADER WITH 2 "SIMPSON" LGT12, 3 OR 4), ANCHOR HEADER TO KING STUDS w/ 2 "SIMPSON" ST22 EA. END - TYP., T.O.



ROOF FRAMING PLAN

SCALE: 1/4" = 1'-0"

GENERAL TRUSS NOTES:

1. TRUSSES SHALL BE DESIGNED BY A LICENSED ENGINEER, AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE 'NATIONAL FOREST PRODUCTS ASSOCIATION' MANUAL FOR 'STRESS RATED LUMBER AND ITS CONNECTIONS', LATEST Ed., ALONG w/ THE 'TRUSS PLATE INSTITUTE' SUGGESTED GUIDELINES FOR TEMPORARY AND PERMANENT BRACING, AND HANDLING OF TRUSSES. TRUSS SHOP DRAWINGS SHALL INCLUDE TRUSS DESIGN, PLACEMENT PLANS, DETS, & TRUSS TO TRUSS CONNECTIONS.
2. TRUSS SHOP DRAWINGS SHALL BE SIGNED & SEALED BY THE DESIGNING ENGINEER.
3. FOLLOWING DEVELOPMENT OF TRUSS SHOP DRAWINGS, ADJUSTMENTS TO THE ANCHOR REQUIREMENTS MAY BE REQUIRED DEPENDING ON THE ENGINEERED GRAVITY AND WIND UPLIFT REQUIREMENTS OF TRUSSES OR GIRDERS. THE CONTRACTOR SHALL MAKE AVAILABLE A COMPLETE SET OF TRUSS SHOP DRAWINGS TO THE ARCHITECT FOR THE PURPOSE OF REVIEW OF LOADS IMPOSED ON THE BALANCE OF THE STRUCTURE. ANY SUCH REQUIRED CHANGE SHALL BE INCORPORATED INTO THE CONSTRUCTION OF THIS STRUCTURE.

ROOF PLAN NOTES

- R-1 SEE ELEVATIONS FOR ROOF PITCH
- R-2 ALL OVERHANG 18" (12" on gables) UNLESS OTHERWISE NOTED
- R-3 PROVIDE ATTIC VENTILATION IN ACCORDANCE WITH SCHEDULE ON SD.3
- R-4 SEE EXTERIOR ELEVATIONS AND FLOOR PLANS TO VERIFY PLATE AND HEEL HEIGHTS
- R-5 MOVE ALL VENTS AND OTHER ROOF PENETRATIONS TO REAR

REVISIONS	
June 14th, 2024	

CUSTOM HOME FOR:
BOOTLE RESIDENCE
COLUMBIA COUNTY, FL

NICHOLAS PAUL GEISLER ARCHITECT
N.C.A.R.B. Certified
1758 NW Brown Rd.
Lake City, FL 32055

SHEET NUMBER
S.2
OF 4 SHEETS

AR0007005

General Roofing NOTES:

DECK REQUIREMENTS:
ASPHALT SHINGLES SHALL BE FASTENED TO SOLIDLY SHEATHED DECKS.

SLOPE:
ASPHALT SHINGLES SHALL BE USED ONLY ON ROOF SLOPES OF 2:12 OR GREATER. FOR ROOF SLOPES FROM 2:12 TO 4:12, DBL. UNDERLAYMENT IS REQUIRED.

UNDERLAYMENT:
UNLESS OTHERWISE NOTED, UNDERLAYMENT SHALL CONFORM W/ ASTM D 226, TYPE I, OR ASTM D 4863, TYPE I.

SELF-ADHERING POLYMER MODIFIED BITUMEN SHEET:
SELF ADHERING POLYMER MODIFIED BITUMEN SHALL COMPLY W/ ASTM D 1970.

ASPHALT SHINGLES:
ASPHALT SHINGLES SHALL HAVE SELF SEAL STRIPS OR BE INTERLOCKING, AND COMPLY WITH ASTM D 225 OR ASTM D 3462.

FASTENERS:
FASTENERS FOR ASPHALT SHINGLES SHALL BE GALVANIZED, STAINLESS STEEL, ALUMINUM OR COPPER ROOFING NAILS, MINIMUM 12 GAUGE SHANK WITH A MINIMUM 3/8 INCH DIAMETER HEAD, OF A LENGTH TO PENETRATE THROUGH THE ROOFING MATERIAL AND A MINIMUM 3/4" INTO THE ROOF SHEATHING. WHERE THE SHEATHING IS LESS THAN 3/4" THICK, THE NAILS SHALL PENETRATE THROUGH THE SHEATHING.

ATTACHMENT:
ASPHALT SHINGLES SHALL BE SECURED TO THE ROOF WITH NOT LESS THAN FOUR FASTENERS PER STRIP SHINGLE OR TWO FASTENERS PER INDIVIDUAL SHINGLE, WHERE ROOFS LOCATED IN BASIC WIND SPEED OF 110 MPH OR GREATER. SPECIAL METHODS OF FASTENING ARE REQUIRED. UNLESS OTHERWISE NOTED, ATTACHMENT OF ASPHALT SHINGLES SHALL CONFORM WITH ASTM D 3161 OR M-DC PA 107-95.

UNDERLAYMENT APPLICATION:
FOR ROOF SLOPES FORM 2:12 TO 4:12, UNDERLAYMENT SHALL BE A MINIMUM OF TWO LAYERS APPLIED AS FOLLOWS:
1. STARTING AT THE EAVE, A 19 INCH STRIP OF UNDERLAYMENT SHALL BE APPLIED PARALLEL WITH THE EAVE AND FASTENED SUFFICIENTLY TO STAY IN PLACE.

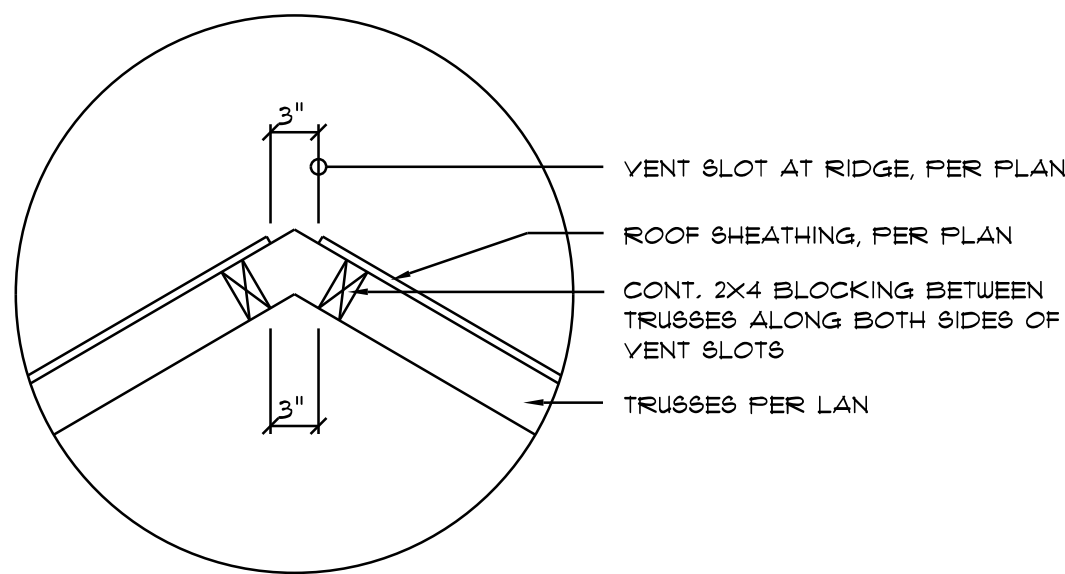
2. STARTING AT THE EAVE, 36 INCH WIDE STRIPS OF UNDERLAYMENT FELT SHALL BE APPLIED OVERLAPPING SUCCESSIVE SHEETS 19 INCHES AND FASTENED SUFFICIENTLY TO STAY IN PLACE.

FOR ROOF SLOPED 4:12 AND GREATER, UNDERLAYMENT SHALL BE A MINIMUM OF ONE LAYER OF UNDERLAYMENT FELT APPLIED AS FOLLOWS:
STARTING AT THE EAVE, UNDERLAYMENT SHALL BE APPLIED SHINGLE FASHION PARALLEL TO THE EAVE, LAPPED 2 INCHES, AND FASTENED SUFFICIENTLY TO STAY IN PLACE.

BASE AND CAP FLASHINGS:
BASE AND CAP FLASHING SHALL BE INSTALLED IN ACCORDANCE W/ MFGR'S INSTALLATION INSTRUCTIONS. BASE FLASHING SHALL BE OF EITHER CORROSION RESISTANT METAL OF MINIMUM NOMINAL THICKNESS 0.019 INCH OR MINERAL SURFACE ROLL ROOFING WEIGHING A MINIMUM OF 71 LB5 PER 100 SQUARE FEET. CAP FLASHING SHALL BE CORROSION RESISTANT METAL OF MINIMUM NOMINAL THICKNESS OF 0.019 INCH.

VALLEYS:
VALLEY LININGS SHALL BE INSTALLED IN ACCORDANCE W/ MANUFACTURER'S INSTALLATION INSTRUCTIONS BEFORE APPLYING ASPHALT SHINGLES. VALLEY LININGS OF THE FOLLOWING TYPES SHALL BE PERMITTED:

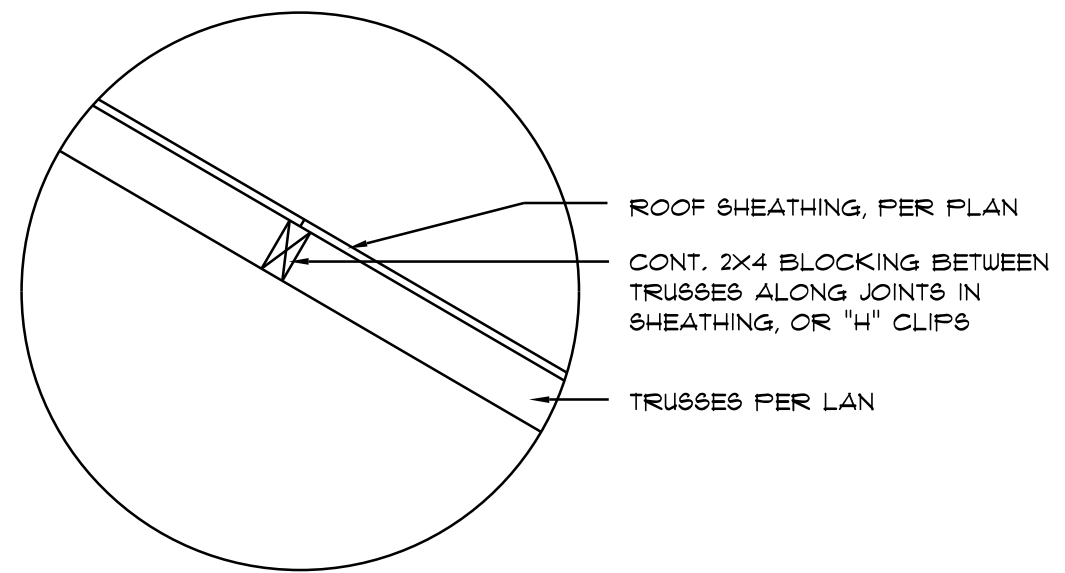
- FOR OPEN VALLEYS LINED WITH METAL, THE VALLEY LINING SHALL BE AT LEAST 16" WIDE AND OF ANY OF THE CORROSION RESISTANT METALS IN FBC TABLE 1503.3.9.2.
- FOR OPEN VALLEYS, VALLEY LINING OF TWO PLYS OF MINERAL SURFACE ROLL ROOFING SHALL BE PERMITTED. THE BOTTOM LAYER SHALL BE 19 INCHES AND THE TOP LAYER A MINIMUM OF 36 INCHES WIDE.
- FOR CLOSED VALLEYS VALLEY LINING SHALL BE ONE OF THE FOLLOWING:
 - BOTH TYPES 1 AND 2 ABOVE, COMBINED.
 - ONE PLY OF SMOOTH ROLL ROOFING AT LEAST 36 INCHES WIDE AND COMPLYING WITH ASTM D 224.
 - SPECIALTY UNDERLAYMENT AT LEAST 36 INCHES WIDE AND COMPLYING WITH ASTM D 1970.



Vent DETAIL

SCALE: NONE

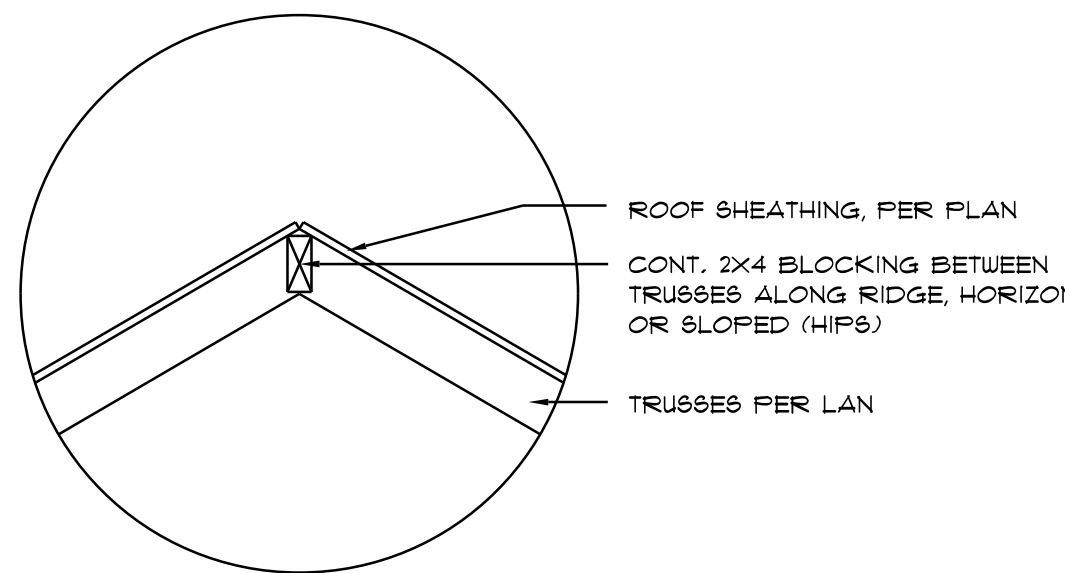
A1



Joint DETAIL

SCALE: NONE

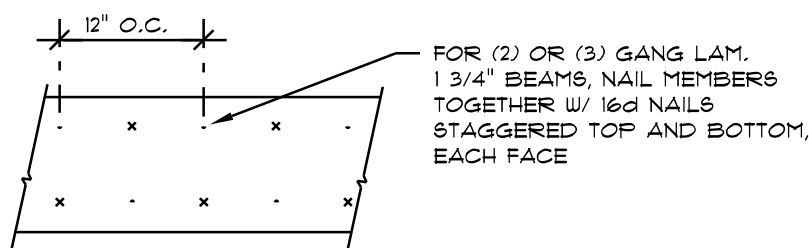
A2



Ridge DETAIL

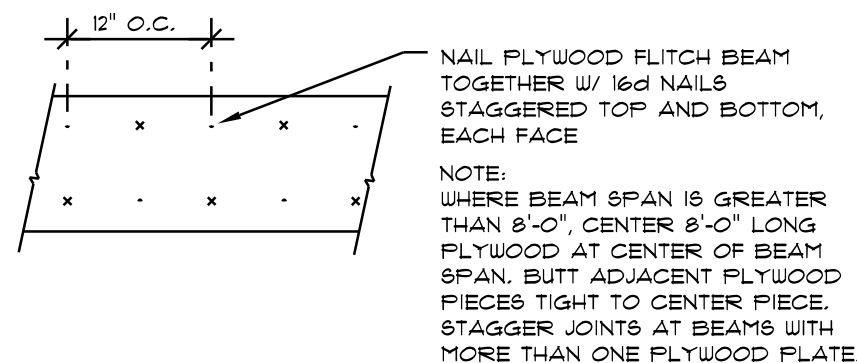
SCALE: NONE

A3



MULTIPLE GANG LAM. DETAIL

NOT TO SCALE



PLYWOOD FLITCH BEAM DETAIL

NOT TO SCALE

B/U Beam DETAILS

SCALE: NONE

B

FRAMING ANCHOR SCHEDULE

APPLICATION	MANUF'R/MODEL	CAP.
TRUSSES TO WALL:	SIMPSON H2.5a or SDWC15600	600*
GIRDER TRUSSES TO POST/HEADER:	SIMPSON LGT, W/ 2B - 16d NAILS	1185*
HEADER TO KING STUD(S):	SIMPSON ST22	1310*
PLATE TO STUD:	NO CONNECTION REQ. WHEN USING WINDSTORM BOARD	
STUD TO SILL:	NO CONNECTION REQ. WHEN USING WINDSTORM BOARD	
PORCH BEAM TO POST:	SIMPSON PC44 or (2) 5/8" LAG BOLTS EA. POST	1100*
PORCH POST TO FND.:	SIMPSON ABU44	2200*
MISC. JOINTS	SIMPSON A34	315*/240*

NOTE:
ALL ANCHORS SHALL BE SECURED W/ NAILS AS PRESCRIBED BY THE MANUFACTURER FOR MAXIMUM JOINT STRENGTH, UNLESS NOTED OTHERWISE.

NOTE:
REFER TO THE INCLUDED STRUCTURAL DETAILS FOR ADDITIONAL ANCHORS/ JOINT REINFORCEMENT AND FASTENERS.

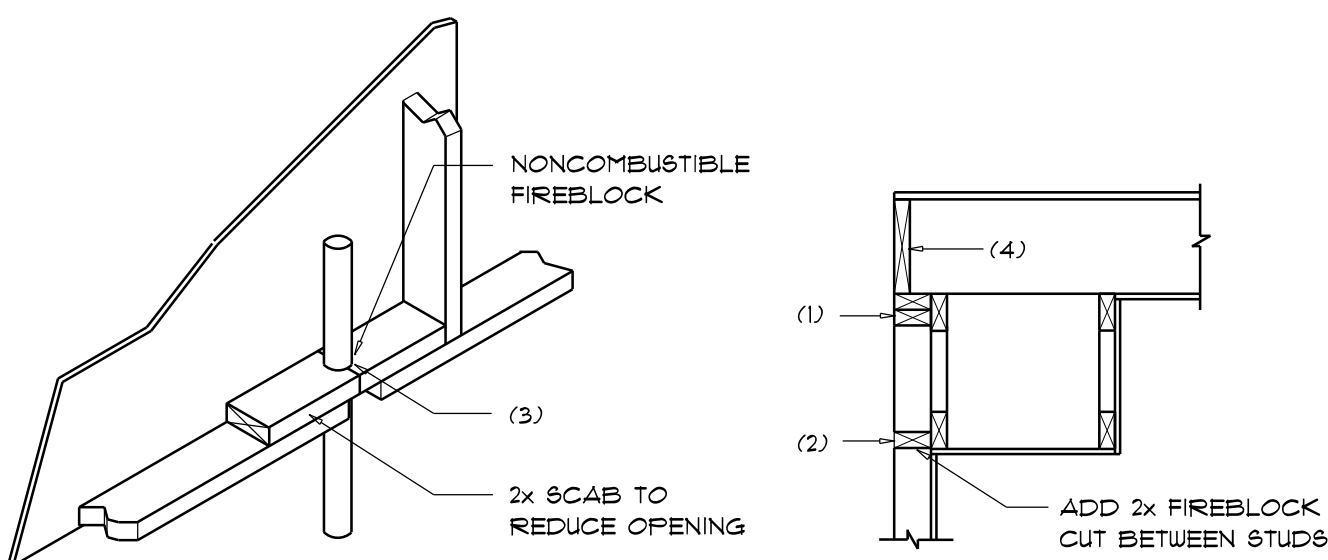
NOTE:
ALL UNLISTED JOINTS IN THE LOAD PATH SHALL BE REINFORCED WITH SIMPSON A34 FRAMING ANCHORS, TYPICAL T.O.

NOTE:
"SEMCO" PRODUCT APPROVAL:
MIAMI/DADE COUNTY REPORT #35-0818.15

NOTE:
"SIMPSON" PRODUCT APPROVALS:
MIAMI/DADE COUNTY REPORT #37-0107.05, #36-1126.11, #39-0623.04
BCCI NER-443, NER-393

		BUILDING COMPONENTS & CLADDING LOADS MEAN BUILDING HEIGHT = 30.0', EXPOSURE "B" ROOF ANGLE 1° TO 21°			
ROOF TO 1'-0"	ZONE	WIND SPEED	WIND	WIND	WIND
	1	10	12.0 / -19.9	14.9 / -23.1	17.9 / -27.8
	1	20	11.4 / -19.4	13.6 / -23.0	16.0 / -27.0
	1	50	10.0 / -18.6	11.9 / -22.2	13.9 / -26.0
	2	10	12.9 / -34.1	14.9 / -41.3	17.9 / -48.4
	2	20	11.4 / -31.9	13.6 / -38.0	16.0 / -44.6
WALL	2	50	10.0 / -28.2	11.9 / -33.6	13.9 / -39.4
	3	10	12.9 / -51.3	14.9 / -61.0	17.9 / -71.6
	3	20	11.4 / -47.9	13.6 / -57.1	16.0 / -67.0
	3	50	10.0 / -43.5	11.9 / -51.8	13.9 / -60.8
	4	10	21.8 / -23.6	25.9 / -34.1	30.4 / -33.0
	4	20	20.9 / -22.6	24.7 / -32.4	29.0 / -31.6
	4	50	19.9 / -21.3	23.2 / -25.4	27.2 / -29.8
	5	10	21.8 / -29.1	25.9 / -34.1	30.4 / -40.1
	5	20	20.9 / -27.2	24.7 / -32.4	29.0 / -38.0
	5	50	19.9 / -24.6	23.2 / -29.3	27.2 / -34.3
	5	10	21.8 / -29.1	25.9 / -34.1	30.4 / -40.1
	5	20	20.9 / -27.2	24.7 / -32.4	29.0 / -38.0

HEIGHT & EXPOSURE ADJUSTMENT COEFFICIENTS FOR BUILDING COMPONENTS & CLADDING			
BLDG HEIGHT	EXPOSURE "B"	EXPOSURE "C"	EXPOSURE "D"
15	.82	1.21	1.41
20	.84	1.23	1.55
25	.84	1.35	1.61
30	1.00	1.40	1.66



PENETRATIONS

FIREBLOCKING NOTES:

FIREBLOCKING SHALL BE INSTALLED IN WOOD FRAME CONSTRUCTION IN THE FOLLOWING LOCATIONS:

- IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS INCLUDING FURRED SPACES AT CEILING AND FLOOR LEVELS.
- AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS, COVE CEILINGS, ETC.
- AT OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS AND FIREPLACES AT CEILING AND FLOOR LEVELS WITH "FYPANEL MULTIFLEX SEALANT"
- AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL STUD WALL OR PARTITION SPACES AND CONCEALED SPACES CREATED BY AN ASSEMBLY OF FLOOR JOISTS. FIREBLOCKING SHALL BE PROVIDED FOR THE FULL DEPTH OF THE JOISTS AT THE ENDS AND OVER THE SUPPORTS.

Fire Stopping DETAILS

SCALE: NONE

A

FLORIDA BUILDING CODE

Compliance Summary

TYPE OF CONSTRUCTION

Roof: Gable Construction, Wood Trusses @ 24" O.C.
Walls: 2x4 Wood Studs @ 16" O.C.
Floor: 4" Thk. Concrete Slab w/ Fiberglass Concrete Additive
Foundation: Continuous Footer/Stem Wall

ROOF DECKING

Material: 1/2" CDX Plywood or 1/16" O.S.B.
Sheet Size: 48"x96" Sheets Perpendicular to Roof Framing
Fasteners: .113 RING SHANKED Nails per schedule on sheet 6.4

SHEARWALLS

Material: 1/16" O.S.B. WINDSTORM BOARD
Sheet Size: 48"x96" Sheets Placed Vertical
Fasteners: .113 COMMON Nails @ 4" O.C. Edges @ 8" O.C. Interior
Diaphragm: Double Top Plate (5"x8"x1/2") w/16d Nails @ 12" O.C.
Wall Studs: 2x4 Studs @ 16" O.C.

HURRICANE UPLIFT CONNECTORS

Truss Anchors: SIMPSON H2.5a @ Ea. Truss End (Typ. U.O.N.)
Wall Tension: Wall Sheathing Nailing is Adequate - 8d @ 4" O.C. Top @ Bot.
Anchor Bolts: 1/2" A307 Bolts @ 48" O.C. - 1st Bolt 6" from corner
Corner Hold-down Device: (1) HD5a @ each corner
Porch Column Base Connector: Simpson ABU66 @ each column
Porch Column to Beam Connector: Simpson MSTA20 (2 ea. side) or Simpson EPC66 or 2 - 5/8" thru bolts

FOOTINGS AND FOUNDATIONS

Footings: 20"x10" Cont. W/ 2 - #5 Bars Cont. on wire/plastic chairs @ 48" o.c.
Stemwall: 8" C.M.U. w/1-#5 Vertical Dowel @ 48" O.C.
Int. Footings: 12"x12" x Cont. W/ 2 - #5 Bars Cont. on wire/plastic chairs @ 48" o.c.

STRUCTURAL DESIGN CRITERIA:

1. THE DESIGN COMPLIES WITH THE REQUIREMENTS OF THE 2023 FLORIDA, 8th EDITION BUILDING CODE - SECTION 1609 AND OTHER REFERENCED CODES AND SPECIFICATIONS. ALL CODES AND SPECIFICATIONS SHALL BE LATEST EDITION AT TIME OF PERMIT.

2. WIND LOAD CRITERIA: RISK CATEGORY: 2, EXPOSURE: "B"

BASED ON ANSI/ASCE 7-22, 2023 FBC 1609-A WIND VELOCITY: V_{ULT} = 130 MPH
V_{ASD} = 101 MPH

3. ROOF DESIGN LOADS:

SUPERIMPOSED DEAD LOADS: .20 PSF

SUPERIMPOSED LIVE LOADS: .20 PSF

4. FLOOR DESIGN LOADS:

SUPERIMPOSED DEAD LOADS: .25 PSF

SUPERIMPOSED LIVE LOADS: .25 PSF

RESIDENTIAL .40 PSF

BALCONIES .60 PSF

5. WIND NET UPLIFT: ARE AS INDICATED ON PLANS

TERMITE PROTECTION NOTES:

SOIL CHEMICAL BARRIER METHOD:

1. A PERMANENT SIGN WHICH IDENTIFIES THE TERMITE TREATMENT PROVIDER AND NEED FOR REINSPECTION AND TREATMENT CONTRACT RENEWAL SHALL BE PROVIDED. THE SIGN SHALL BE POSTED NEAR THE WATER HEATER OR ELECTRIC PANEL. FBC 1404.2.6

2. CONDENSATE AND ROOF DOWNSPOUTS SHALL DISCHARGE AT LEAST 1'-0" AWAY FROM BUILDING SIDE WALLS. FBC 1503.4.4

3. IRRIGATION/SPRINKLER SYSTEMS INCLUDING ALL RISERS AND SPRAY HEADS SHALL NOT BE INSTALLED WITHIN 1'-0" FROM BUILDING SIDE WALLS. FBC 1503.4.4

4. TO PROVIDE FOR INSPECTION FOR TERMITE INFESTATION, BETWEEN WALL COVERINGS AND FINAL EARTH GRADE SHALL NOT BE LESS THAN 6". EXCEPTION: PAINT AND DECORATIVE CEMENTIOUS FINISH LESS THAN 5/8" THICK ADHERED DIRECTLY TO THE FOUNDATION WALL. FBC 1403.1.6

5. INITIAL TREATMENT SHALL BE DONE AFTER ALL EXCAVATION AND BACKFILL IS COMPLETE. FBC 1816.1.1

6. SOIL DISTURBED AFTER THE INITIAL TREATMENT SHALL BE RETREATED INCLUDING SPACES BOXED OR FORMED. FBC 1816.1.2

7. BOXED AREAS IN CONCRETE FLOOR FOR SUBSEQUENT INSTALLATION OF TRAPS, ETC., SHALL BE MADE WITH PERMANENT METAL OR PLASTIC FORMS. PERMANENT FORMS MUST BE OF A SIZE AND DEPTH THAT WILL ELIMINATE THE DISTURBANCE OF SOIL AFTER THE INITIAL TREATMENT. FBC 1816.1.3

8. MINIMUM 6 MIL VAPOR RETARDER MUST BE INSTALLED TO PROTECT AGAINST RAINFALL DILUTION, IF RAINFALL OCCURS BEFORE VAPOR RETARDER PLACEMENT, RETREATMENT IS REQUIRED. FBC 1816.1.4

9. CONCRETE OVERPOUR AND MORTAR ALONG THE FOUNDATION PERIMETER MUST BE REMOVED BEFORE EXTERIOR SOIL TREATMENT. FBC 1816.1.5

10. SOIL TREATMENT MUST BE APPLIED UNDER ALL EXTERIOR CONCRETE OR GRADE WITHIN 1'-0" OF THE STRUCTURE SIDEWALLS. FBC 1816.1.6

11. AN EXTERIOR VERTICAL CHEMICAL BARRIER MUST BE INSTALLED AFTER CONSTRUCTION IS COMPLETE INCLUDING LANDSCAPING AND IRRIGATION. ANY SOIL DISTURBED AFTER THE VERTICAL BARRIER IS APPLIED, SHALL BE RETREATED. FBC 1816.1.6

12. ALL BUILDINGS ARE REQUIRED TO HAVE PER-CONSTRUCTION TREATMENT. FBC 1816.1.7

13. A CERTIFICATE OF COMPLIANCE MUST BE ISSUED TO THE BUILDING DEPARTMENT BY A LICENSED PEST CONTROL COMPANY BEFORE A CERTIFICATE OF OCCUPANCY WILL BE ISSUED. THE CERTIFICATE OF COMPLIANCE SHALL STATE: "THE BUILDING HAS RECEIVED A COMPLETE TREATMENT FOR THE PREVENTION OF SUBTERRANEAN TERMITES. THE TREATMENT IS IN ACCORDANCE WITH THE RULES AND LAWS OF THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES". FBC 1816.1.7

14. AFTER ALL WORK IS COMPLETED, LOOSE WOOD AND FILL MUST BE REMOVED FROM BELOW AND WITHIN 1'-0" OF THE BUILDING. THIS INCLUDES ALL GRADE STAKES, TUB TRAP BOXES, FORMS, SHORING OR OTHER CELLULOSE CONTAINING MATERIAL. FBC 2303.1.3

15. NO WOOD, VEGETATION, STUMPS, CARDBOARD, TRASH, ETC., SHALL BE BURIED WITHIN 15'-0" OF ANY BUILDING OR PROPOSED BUILDING. FBC 2303.1.4

REVISIONS

June 14th, 2024

CUSTOM HOME FOR:

BOOTLE RESIDENCE

COLUMBIA COUNTY, FL

NICHOLAS PAUL GEISLER ARCHITECT
1153 NW Brown Rd.
Lake City, FL 32095
N.C.A.R.B. Certified

SHEET NUMBER

S.3

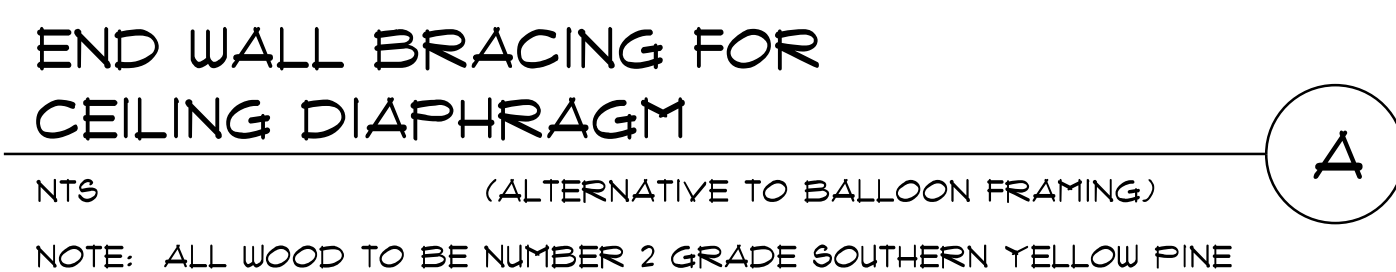
OF 4 SHEETS

AR0007005

CUSTOM HOME FOR:
BOOTLE RESIDENCE
COLUMBIA COUNTY, FL

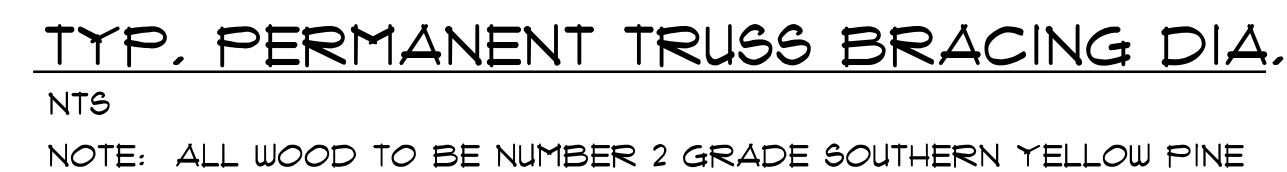
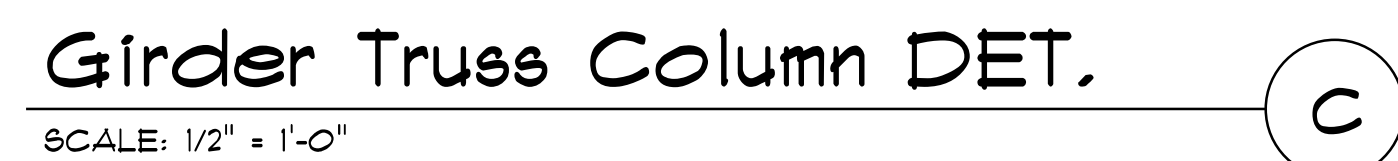
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S.4
OF 4 SHEETS

AR0007005

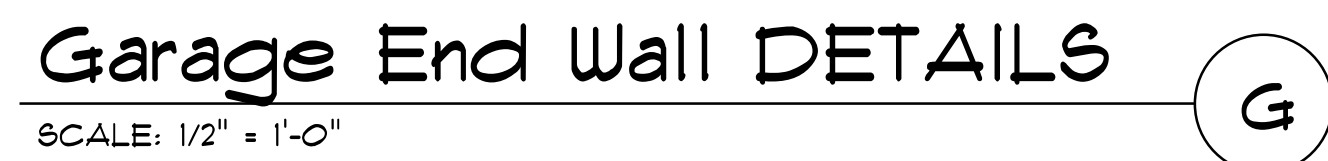


The diagrams illustrate the nailing zones for roof sheathing on different roof types. The left diagram shows a hip roof with zones labeled 1 through 5, indicating the placement of nails. The right diagram shows a gable roof with zones labeled 1 through 5, indicating the placement of nails. The diagrams are labeled 'ROOF SHEATHING NAILING ZONES (HIP ROOF)' and 'ROOF SHEATHING NAILING ZONES (GABLE ROOF)'.

B



D



ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 76

The lower the EnergyPerformance Index, the more efficient the home.

„FL,

1. New construction or existing	New (From Plans)	10. Wall Types(2626.7 sqft.)	Insulation	Area
2. Single family or multiple family	Detached	a. Frame - Wood, Exterior	R=19.0	2350.00 ft ²
3. Number of units, if multiple family	1	b. Frame - Wood, Adjacent	R=13.0	276.67 ft ²
4. Number of Bedrooms	4	c. N/A		
5. Is this a worst case?	No	d. N/A		
6. Conditioned floor area above grade (ft ²)	2328	11. Ceiling Types(2328.0 sqft.)	Insulation	Area
Conditioned floor area below grade (ft ²)	0	a. Single assembly, no ai (Unvented)	R=30.0	2328.00 ft ²
7. Windows**	Description	b. N/A		
a. U-Factor:	Dbl, U=0.26	c. N/A		
SHGC:	SHGC=0.20	12. Roof(Comp. Shingles, Unvent) Deck	R=30.0	2695 ft ²
b. U-Factor:	N/A	13. Ducts, location & insulation level	R	ft ²
SHGC:		a. Sup: Main, Ret: Main, AH: Garage	6	454
c. U-Factor:	N/A	b.		
SHGC:		c.		
Area Weighted Average Overhang Depth:	1.500 ft	14. Cooling Systems	kBtu/hr	Efficiency
Area Weighted Average SHGC:	0.200	a. Central Unit	42.0	SEER2:14.30
8. Skylights	Description	15. Heating Systems	kBtu/hr	Efficiency
U-Factor:(AVG)	N/A	a. Electric Heat Pump	42.0	HSPF2:7.50
SHGC(AVG):	N/A			
9. Floor Types	Insulation	16. Hot Water Systems		
a. Slab-On-Grade Edge Insulation	R= 0.0	a. Electric		Cap: 50 gallons
b. N/A	R=			EF: 0.920
c. N/A	R=	b. Conservation features		
		17. Credits		None
				Pstat

I certify that this home has complied with the Florida Energy Efficiency Code for Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: _____ Date: _____

Address of New Home: _____ City/FL Zip: „FL,



*Note: This is not a Building Energy Rating. If your Index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida Energy Rating. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

**Label required by Section R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

Residential System Sizing Calculation

Summary

Project Title:
Bootle Residence

, FL

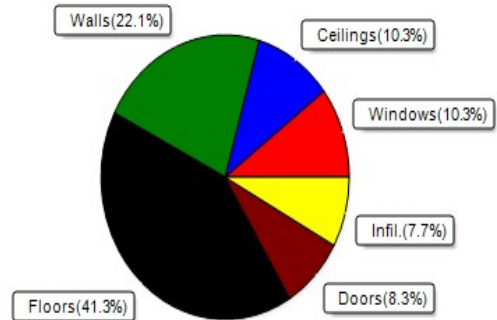
6/21/2024

Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(100 ft.) Temp Range(M)			
Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(51gr.)			
Winter design temperature(TMY3 99%)	30 F	Summer design temperature(TMY3 99%)	94 F
Winter setpoint	70 F	Summer setpoint	75 F
Winter temperature difference	40 F	Summer temperature difference	19 F
Total heating load calculation	30760 Btuh	Total cooling load calculation	20966 Btuh
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	136.5 42000	Sensible (SHR = 0.85)	198.7 35700
Heat Pump + Auxiliary(0.0kW)	136.5 42000	Latent	209.8 6300
		Total (Electric Heat Pump)	200.3 42000

WINTER CALCULATIONS

Winter Heating Load (for 2328 sqft)

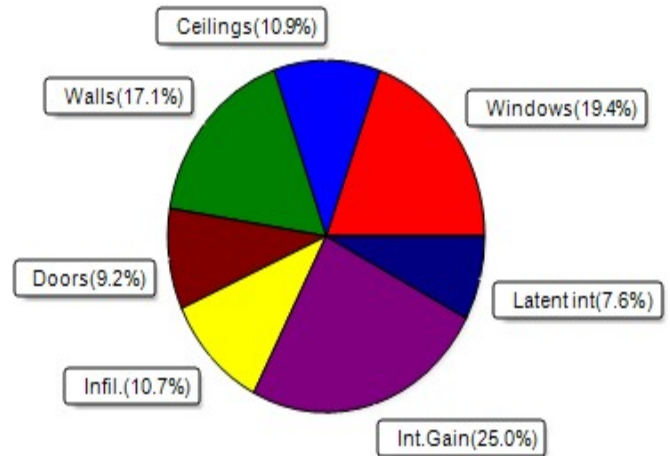
Load component	Load
Window total 304 sqft	3162 Btuh
Wall total 2163 sqft	6801 Btuh
Door total 160 sqft	2560 Btuh
Ceiling total 2328 sqft	3166 Btuh
Floor total 2328 sqft	12697 Btuh
Infiltration 54 cfm	2374 Btuh
Duct loss	0 Btuh
Subtotal	30760 Btuh
Ventilation Ex:0 cfm; Sup:0 cfm	0 Btuh
TOTAL HEAT LOSS	30760 Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 2328 sqft)

Load component	Load
Window total 304 sqft	4077 Btuh
Wall total 2163 sqft	3585 Btuh
Door total 160 sqft	1920 Btuh
Ceiling total 2328 sqft	2296 Btuh
Floor total	0 Btuh
Infiltration 41 cfm	846 Btuh
Internal gain	5240 Btuh
Duct gain	0 Btuh
Sens.Ventilation Ex:0 cfm; Sup:0 cfm	0 Btuh
Blower Load	0 Btuh
Total sensible gain	17963 Btuh
Latent gain(ducts)	0 Btuh
Latent gain(infiltration)	1403 Btuh
Latent gain(ventilation)	0 Btuh
Latent gain(internal/occupants/other)	1600 Btuh
Total latent gain	3003 Btuh
TOTAL HEAT GAIN	20966 Btuh



8th Edition

EnergyGauge® System Sizing

PREPARED BY: _____

DATE: 6-21-24

System Sizing Calculations - Summer

Residential Load - Whole House Component Details

Project Title:
Bootle Residence

, FL

6/21/2024

Reference City: Gainesville, FL (Defaults)
Humidity difference: 51gr.

Temperature Difference: 19.0F(TMY3 99%)
Summer Setpoint: 75 °F (Required Manual J default)

Component Loads for Whole House

Window	Type*					Overhang		Window Area(sqft)			HTM		Load		
	Panes	SHGC	U	InSh	IS Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded			
1	2 NFRC	0.20, 0.26	No	No	N	1.5ft	2.3ft	12.0	0.0	12.0	9	9	110	Btuh	
2	2 NFRC	0.20, 0.26	No	No	N	1.5ft	2.3ft	8.0	0.0	8.0	9	9	73	Btuh	
3	2 NFRC	0.20, 0.26	No	No	E	1.5ft	2.3ft	20.0	0.0	20.0	9	24	484	Btuh	
4	2 NFRC	0.20, 0.26	No	No	E	1.5ft	2.3ft	30.0	0.0	30.0	9	24	727	Btuh	
5	2 NFRC	0.20, 0.26	No	No	S	1.5ft	2.3ft	36.0	36.0	0.0	9	11	329	Btuh	
6	2 NFRC	0.20, 0.26	No	No	S	1.5ft	2.3ft	8.0	8.0	0.0	9	11	73	Btuh	
7	2 NFRC	0.20, 0.26	No	No	S	1.5ft	2.3ft	90.0	90.0	0.0	9	11	823	Btuh	
8	2 NFRC	0.20, 0.26	No	No	S	1.5ft	2.3ft	8.0	8.0	0.0	9	11	73	Btuh	
9	2 NFRC	0.20, 0.26	No	No	S	1.5ft	2.3ft	36.0	36.0	0.0	9	11	329	Btuh	
10	2 NFRC	0.20, 0.26	No	No	W	1.5ft	2.3ft	36.0	0.0	36.0	9	24	872	Btuh	
11	2 NFRC	0.20, 0.26	No	No	N	1.5ft	1.3ft	20.0	0.0	20.0	9	9	183	Btuh	
	Window Total								304 (sqft)					4077	Btuh
Walls	Type					U-Value	R-Value	Area(sqft)		HTM		Load			
						Cav/Sheath									
1	Frame - Wood - Ext					0.08	19.0/0.0	136.7		1.7		226		Btuh	
2	Frame - Wood - Ext					0.08	19.0/0.0	130.0		1.7		215		Btuh	
3	Frame - Wood - Ext					0.08	19.0/0.0	180.7		1.7		299		Btuh	
4	Frame - Wood - Adj					0.09	13.0/0.0	252.7		1.7		426		Btuh	
5	Frame - Wood - Ext					0.08	19.0/0.0	241.7		1.7		400		Btuh	
6	Frame - Wood - Ext					0.08	19.0/0.0	112.3		1.7		186		Btuh	
7	Frame - Wood - Ext					0.08	19.0/0.0	20.0		1.7		33		Btuh	
8	Frame - Wood - Ext					0.08	19.0/0.0	75.3		1.7		125		Btuh	
9	Frame - Wood - Ext					0.08	19.0/0.0	70.0		1.7		116		Btuh	
10	Frame - Wood - Ext					0.08	19.0/0.0	180.0		1.7		298		Btuh	
11	Frame - Wood - Ext					0.08	19.0/0.0	30.0		1.7		50		Btuh	
12	Frame - Wood - Ext					0.08	19.0/0.0	80.3		1.7		133		Btuh	
13	Frame - Wood - Ext					0.08	19.0/0.0	78.3		1.7		130		Btuh	
14	Frame - Wood - Ext					0.08	19.0/0.0	87.3		1.7		144		Btuh	
15	Frame - Wood - Ext					0.08	19.0/0.0	146.7		1.7		243		Btuh	
16	Frame - Wood - Ext					0.08	19.0/0.0	60.0		1.7		99		Btuh	
17	Frame - Wood - Ext					0.08	19.0/0.0	280.7		1.7		464		Btuh	
	Wall Total							2163 (sqft)				3585		Btuh	
Doors	Type							Area (sqft)		HTM		Load			
1	Insulated - Exterior							96.0		12.0		1152		Btuh	
2	Wood - Garage							24.0		12.0		288		Btuh	
3	Insulated - Exterior							40.0		12.0		480		Btuh	
	Door Total							160 (sqft)				1920		Btuh	
Ceilings	Type/Color/Surface					U-Value	R-Value	Area(sqft)		HTM		Load			
1	SnglAsmb no airsp/DarkShingle					0.034	30.0/0.0	2328.0		0.99		2296		Btuh	
	Ceiling Total							2328 (sqft)				2296		Btuh	
Floors	Type					R-Value		Size		HTM		Load			
1	Slab On Grade					0.0		2328 (ft-perimeter)		0.0		0		Btuh	
	Floor Total							2328.0 (sqft)				0		Btuh	
	Envelope Subtotal:												11877		Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

Project Title: Climate:FL_GAINESVILLE_REGIONAL_A
 Bootle Residence

, FL

6/21/2024

Infiltration	Type Natural	Average ACH 0.12	Volume(cuft) 20952	Wall Ratio 1	CFM= 40.6	Load 846 Btuh
Internal gain		Occupants 8	Btuh/occupant X 230	Appliance +	3400	Load 5240 Btuh
	Sensible Envelope Load:					17963 Btuh
Duct load	Extremely sealed, Supply(R6.0-Condi), Return(R6.0-Condi) (DGM of 0.000)					0 Btuh
	Sensible Load All Zones					17963 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

Project Title: Climate:FL_GAINESVILLE_REGIONAL_A
 Bootle Residence

, FL

6/21/2024

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	17963 Btuh
	Sensible Duct Load	0 Btuh
	Total Sensible Zone Loads	17963 Btuh
	Sensible ventilation (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Blower	0 Btuh
	Total sensible gain	17963 Btuh
	Latent infiltration gain (for 51 gr. humidity difference)	1403 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	0 Btuh
	Latent occupant gain (8.0 people @ 200 Btuh per person)	1600 Btuh
	Latent other gain	0 Btuh
	Latent total gain	3003 Btuh
	TOTAL GAIN	20966 Btuh

EQUIPMENT

1. Central Unit	#	42000 Btuh
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*Key: Window types (Panels - Number and type of panes of glass)

(SHGC - Shading coefficient of glass as SHGC numerical value)

(U - Window U-Factor)

(InSh - Interior shading device: none(No), Blinds(B), Draperies(D) or Roller Shades(R))

- For Blinds: Assume medium color, half closed

For Draperies: Assume medium weave, half closed

For Roller shades: Assume translucent, half closed

(IS - Insect screen: none(N), Full(F) or Half(½))

(Ornt - compass orientation)



Version 8

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Project Title:
Bootle Residence
Building Type: User

, FL

6/21/2024

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 40.0 °F (TMY3 99%)
Winter Setpoint: 70 °F (Required Manual J default)

Component Loads for Whole House								
Window	Panes/Type	Frame	U	Orientation	Area(sqft)	X	HTM=	Load
1	2, NFRC 0.20	Vinyl	0.26	N	12.0		10.4	125 Btuh
2	2, NFRC 0.20	Vinyl	0.26	N	8.0		10.4	83 Btuh
3	2, NFRC 0.20	Vinyl	0.26	E	20.0		10.4	208 Btuh
4	2, NFRC 0.20	Vinyl	0.26	E	30.0		10.4	312 Btuh
5	2, NFRC 0.20	Vinyl	0.26	S	36.0		10.4	374 Btuh
6	2, NFRC 0.20	Vinyl	0.26	S	8.0		10.4	83 Btuh
7	2, NFRC 0.20	Vinyl	0.26	S	90.0		10.4	936 Btuh
8	2, NFRC 0.20	Vinyl	0.26	S	8.0		10.4	83 Btuh
9	2, NFRC 0.20	Vinyl	0.26	S	36.0		10.4	374 Btuh
10	2, NFRC 0.20	Vinyl	0.26	W	36.0		10.4	374 Btuh
11	2, NFRC 0.20	Vinyl	0.26	N	20.0		10.4	208 Btuh
	Window Total				304.0(sqft)			3162 Btuh
Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area	X	HTM=	Load
1	Frame - Wood	- Ext	(0.077)	19.0/0.0	137		3.09	422 Btuh
2	Frame - Wood	- Ext	(0.077)	19.0/0.0	130		3.09	402 Btuh
3	Frame - Wood	- Ext	(0.077)	19.0/0.0	181		3.09	558 Btuh
4	Frame - Wood	- Adj	(0.089)	13.0/0.0	253		3.55	897 Btuh
5	Frame - Wood	- Ext	(0.077)	19.0/0.0	242		3.09	747 Btuh
6	Frame - Wood	- Ext	(0.077)	19.0/0.0	112		3.09	347 Btuh
7	Frame - Wood	- Ext	(0.077)	19.0/0.0	20		3.09	62 Btuh
8	Frame - Wood	- Ext	(0.077)	19.0/0.0	75		3.09	233 Btuh
9	Frame - Wood	- Ext	(0.077)	19.0/0.0	70		3.09	216 Btuh
10	Frame - Wood	- Ext	(0.077)	19.0/0.0	180		3.09	556 Btuh
11	Frame - Wood	- Ext	(0.077)	19.0/0.0	30		3.09	93 Btuh
12	Frame - Wood	- Ext	(0.077)	19.0/0.0	80		3.09	248 Btuh
13	Frame - Wood	- Ext	(0.077)	19.0/0.0	78		3.09	242 Btuh
14	Frame - Wood	- Ext	(0.077)	19.0/0.0	87		3.09	270 Btuh
15	Frame - Wood	- Ext	(0.077)	19.0/0.0	147		3.09	453 Btuh
16	Frame - Wood	- Ext	(0.077)	19.0/0.0	60		3.09	185 Btuh
17	Frame - Wood	- Ext	(0.077)	19.0/0.0	281		3.09	868 Btuh
	Wall Total				2163(sqft)			6801 Btuh
Doors	Type	Storm	Ueff.		Area	X	HTM=	Load
1	Insulated - Exterior,	n	(0.400)		96		16.0	1536 Btuh
2	Wood - Garage,	n	(0.400)		24		16.0	384 Btuh
3	Insulated - Exterior,	n	(0.400)		40		16.0	640 Btuh
	Door Total				160(sqft)			2560Btuh
Ceilings	Type/Color/Surface		Ueff.	R-Value	Area	X	HTM=	Load
1	Single as/D/Shing		(0.034)	30.0/0.0	2328		1.4	3166 Btuh
	Ceiling Total				2328(sqft)			3166Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

, FL

Project Title:
Bootle Residence
Building Type: User

6/21/2024

Floors 1	Type Slab On Grade Floor Total	Ueff. (1.180)	R-Value 0.0	Size X 269.0 ft(perim.) 2328 sqft	HTM= 47.2	Load 12697 Btuh 12697 Btuh
	Envelope Subtotal:					28385 Btuh
Infiltration	Type Natural	Wholehouse ACH 0.16	Volume(cuft) 20952	Wall Ratio 1.00	CFM= 54.1	2374 Btuh
Duct load	Extremely sealed, R6.0, Supply(Con), Return(Con) (DLM of 0.000)					0 Btuh
All Zones	Sensible Subtotal All Zones					30760 Btuh

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss Ventilation Sens. Heat Loss Total Heat Loss	(Ex:0 cfm; Sup:0 cfm)	30760 Btuh 0 Btuh 30760 Btuh
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EQUIPMENT

1. Electric Heat Pump	#	42000 Btuh
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Key: Window types - NFRC (Requires U-Factor and Shading coefficient(SHGC) of glass as numerical values)
or - Glass as 'Clear' or 'Tint' (Uses U-Factor and SHGC defaults)

U - (Window U-Factor)

HTM - (ManualJ Heat Transfer Multiplier)



Version 8

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION


Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Bootle Residence Street: City, State, Zip: , FL, Owner: Design Location: FL, Gainesville	Builder Name: Permit Office: Permit Number: Jurisdiction: County: Columbia(Florida Climate Zone 2)
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1. New construction or existing New (From Plans) 2. Single family or multiple family Detached 3. Number of units, if multiple family 1 4. Number of Bedrooms 4 5. Is this a worst case? No 6. Conditioned floor area above grade (ft²) 2328 Conditioned floor area below grade (ft²) 0 7. Windows(304.0 sqft.) Description Area a. U-Factor: Dbl, U=0.26 304.00 ft² SHGC: SHGC=0.20 b. U-Factor: N/A ft² SHGC: c. U-Factor: N/A ft² SHGC: Area Weighted Average Overhang Depth: 1.500 ft Area Weighted Average SHGC: 0.200 8. Skylights Description Area U-Factor:(AVG) N/A N/A ft² SHGC(AVG): N/A 9. Floor Types Insulation Area a. Slab-On-Grade Edge Insulation R= 0.0 2328.00 ft² b. N/A R= ft² c. N/A R= ft²	10. Wall Types(2626.7 sqft.) Insulation Area a. Frame - Wood, Exterior R=19.0 2350.00 ft² b. Frame - Wood, Adjacent R=13.0 276.67 ft² c. N/A d. N/A 11. Ceiling Types(2328.0 sqft.) Insulation Area a. Single assembly, no ai (Unvented) R=30.0 2328.00 ft² b. N/A c. N/A 12. Roof(Comp. Shingles, Unvent) Deck R=30.0 2695 ft² 13. Ducts, location & insulation level R ft² a. Sup: Main, Ret: Main, AH: Garage 6 454 b. c. 14. Cooling Systems kBtu/hr Efficiency a. Central Unit 42.0 SEER2:14.30 15. Heating Systems kBtu/hr Efficiency a. Electric Heat Pump 42.0 HSPF2:7.50 16. Hot Water Systems a. Electric Cap: 50 gallons EF: 0.920 b. Conservation features None Pstat 17. Credits
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Glass/Floor Area: 0.131	Total Proposed Modified Loads: 48.05	<div style="font-size: 2em; font-weight: bold; margin: 0;">PASS</div>
	Total Baseline Loads: 63.39	

NOTE: Proposed residence must have annual total normalized Modified Loads that are less than or equal to 95 percent of the annual total loads of the standard reference design in order to comply.

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY: _____ DATE: 6-21-24 I hereby certify that this building, as designed, is in compliance with the Florida Energy Code. OWNER/AGENT: _____ DATE: _____	Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes. <div style="text-align: center;">  </div> BUILDING OFFICIAL: _____ DATE: _____
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- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with R403.3.2.1.
- Compliance with a proposed duct leakage Qn requires a PERFORMANCE Duct Leakage Test Report confirming duct leakage to outdoors, tested in accordance with ANSI/RESNET/ICC 380, is not greater than 0.030 Qn for whole house.
- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires a PERFORMANCE envelope leakage test report with envelope leakage no greater than 4.72 ACH50 (R402.4.1.2).

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:Bootle Residence

Building Type:User

Owner:

Builder Home ID:

Builder Name:

Permit Office:

Jurisdiction:

Family Type:Detached

New/Existing:New (From Plans)

Year Construct:2024

Comment:

Bedrooms:4

Conditioned Area:2328

Total Stories:1

Worst Case:No

Rotate Angle:0

Cross Ventilation:

Whole House Fan:

Terrain:Rural

Shielding:Moderate/Rural

Address type:Street Address

Lot #:---

Block/SubDivision:---

PlatBook:---

Street:

County:Columbia

City, State, Zip: , FL,

CLIMATE

✓

Design Location

Tmy Site

Design Temp

97.5%2.5%

Int Design Temp

WinterSummer

Heating Degree Days

Design Moisture

Daily temp Range

FL, Gainesville

FL_GAINESVILLE_REGIONA

32

92

70

75

1305.5

51

Medium

BLOCKS

✓

Number

Name

Area

Volume

1

Block1

2328

20952 cu ft

SPACES

✓

Number

Name

Area

Volume

Kitchen

Occupants

Bedrooms

Finished

Cooled

Heated

1

Main

2328

20952

Yes

8

4

Yes

Yes

Yes

FLOORS

(Total Exposed Area = 2328 sq.ft.)

✓

#

Floor Type

Space

Exposed Perim(ft)

Area

R-Value Perim.

U-Factor Joist

Slab Insul. Vert/Horiz

Tile

Wood

Carpet

1

Slab-On-Grade Edge Ins

Main

2692328 sqft

0---

0.563

2 (ft)/0 (ft)

0.20

0.60

0.20

ROOF

✓

#

Type

Materials

Roof Area

Gable Area

Roof Color

Rad Barr

Solar Absor.

SA Tested

Emitt

Emitt Tested

Deck Insul.

Pitch (deg)

1

Gable or shed

Composition shingles

2695 ft²680 ft²

DarkN

0.92

No

0.9

No

30

30.26

ATTIC

✓

#

Type

Ventilation

Vent Ratio (1 in)

Area

RBS

IRCC

1

No attic

Unvented

0

2328 ft²

N

N

CEILING

(Total Exposed Area = 2328 sq.ft.)

✓

#

Ceiling Type

Space

R-Value

Ins. Type

Area

U-Factor

Framing Frac.

Truss Type

1

Single assembly, no airspace(Unvented)

Main

30.0Blown

2328.0ft²

0.032

0.11

Wood

INPUT SUMMARY CHECKLIST REPORT

WALLS															(Total Exposed Area = 2627 sq.ft.)				
✓ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	In	Height Ft	In	Area sq.ft.	U-Factor	Sheath R-Value	Frm. Frac.	Solar Absor.	Below Grade				
___ 1	N	Exterior	Frame - Wood	Main	19.0	15.0	8	10.0	0	156.7	0.071		0.23	0.75	0 %				
___ 2	E	Exterior	Frame - Wood	Main	19.0	13.0	0	10.0	0	130.0	0.071		0.23	0.75	0 %				
___ 3	N	Exterior	Frame - Wood	Main	19.0	29.0	8	10.0	0	296.7	0.071		0.23	0.75	0 %				
___ 4	N	Garage	Frame - Wood	Main	13.0	27.0	8	10.0	0	276.7	0.094		0.23	0.75	0 %				
___ 5	E	Exterior	Frame - Wood	Main	19.0	29.0	2	10.0	0	291.7	0.071		0.23	0.75	0 %				
___ 6	S	Exterior	Frame - Wood	Main	19.0	14.0	10	10.0	0	148.3	0.071		0.23	0.75	0 %				
___ 7	W	Exterior	Frame - Wood	Main	19.0	2.0	0	10.0	0	20.0	0.071		0.23	0.75	0 %				
___ 8	S	Exterior	Frame - Wood	Main	19.0	8.0	4	10.0	0	83.3	0.071		0.23	0.75	0 %				
___ 9	E	Exterior	Frame - Wood	Main	19.0	7.0	0	10.0	0	70.0	0.071		0.23	0.75	0 %				
___ 10	S	Exterior	Frame - Wood	Main	19.0	31.0	0	10.0	0	310.0	0.071		0.23	0.75	0 %				
___ 11	W	Exterior	Frame - Wood	Main	19.0	3.0	0	10.0	0	30.0	0.071		0.23	0.75	0 %				
___ 12	S	Exterior	Frame - Wood	Main	19.0	8.0	10	10.0	0	88.3	0.071		0.23	0.75	0 %				
___ 13	E	Exterior	Frame - Wood	Main	19.0	7.0	10	10.0	0	78.3	0.071		0.23	0.75	0 %				
___ 14	S	Exterior	Frame - Wood	Main	19.0	12.0	4	10.0	0	123.3	0.071		0.23	0.75	0 %				
___ 15	W	Exterior	Frame - Wood	Main	19.0	14.0	8	10.0	0	146.7	0.071		0.23	0.75	0 %				
___ 16	N	Exterior	Frame - Wood	Main	19.0	6.0	0	10.0	0	60.0	0.071		0.23	0.75	0 %				
___ 17	W	Exterior	Frame - Wood	Main	19.0	31.0	8	10.0	0	316.7	0.071		0.23	0.75	0 %				

DOORS												(Total Exposed Area = 160 sq.ft.)		
✓ #	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area			
___ 1	N	Exterior	Insulated	Main	None	0.40	12.00	0	8.00	0	96.0ft²			
___ 2	N	Garage	Wood	Main	None	0.40	3.00	0	8.00	0	24.0ft²			
___ 3	S	Exterior	Insulated	Main	None	0.40	5.00	0	8.00	0	40.0ft²			

WINDOWS															(Total Exposed Area = 304 sq.ft.)		
✓ #	Ornt	Wall ID	Frame	Panes	NFRC U-Factor	SHGC	Imp	Storm	Total Area (ft²)	Same Units	Width (ft)	Height (ft)	--Overhang-- Depth (ft)	Sep. (ft)	Interior Shade	Screen	
___ 1	N	3	Vinyl	Low-E Double	Y	0.26	0.20	N	N	12.0	1	3.00	4.00	1.5	2.3	None	None
___ 2	N	3	Vinyl	Low-E Double	Y	0.26	0.20	N	N	8.0	2	1.00	4.00	1.5	2.3	None	None
___ 3	E	5	Vinyl	Low-E Double	Y	0.26	0.20	N	N	20.0	1	4.00	5.00	1.5	2.3	None	None
___ 4	E	5	Vinyl	Low-E Double	Y	0.26	0.20	N	N	30.0	2	2.50	6.00	1.5	2.3	None	None
___ 5	S	6	Vinyl	Low-E Double	Y	0.26	0.20	N	N	36.0	2	3.00	6.00	1.5	2.3	None	None
___ 6	S	8	Vinyl	Low-E Double	Y	0.26	0.20	N	N	8.0	1	2.00	4.00	1.5	2.3	None	None
___ 7	S	10	Vinyl	Low-E Double	Y	0.26	0.20	N	N	90.0	6	2.50	6.00	1.5	2.3	None	None
___ 8	S	12	Vinyl	Low-E Double	Y	0.26	0.20	N	N	8.0	1	2.00	4.00	1.5	2.3	None	None
___ 9	S	14	Vinyl	Low-E Double	Y	0.26	0.20	N	N	36.0	2	3.00	6.00	1.5	2.3	None	None
___ 10	W	17	Vinyl	Low-E Double	Y	0.26	0.20	N	N	36.0	2	3.00	6.00	1.5	2.3	None	None
___ 11	N	1	Vinyl	Low-E Double	Y	0.26	0.20	N	N	20.0	2	2.00	5.00	1.5	1.3	None	None

INFILTRATION										
✓ #	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)	Infiltration Test Volume
___ 1	Wholehouse	Proposed ACH(50)	0.00027	1647	90.36	169.64	0.0969	4.7	All	20952 cu ft

GARAGE					
✓ #	Floor Area	Roof Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
___ 1	495 ft²	495 ft²	64 ft	9 ft	1

