

ELEVATION NOTES:
GRADE ELEVATIONS SHOWN DO NOT NECESSARILY REFER TO THIS OR ANY OTHER LOT. THEY ARE FOR DIAGRAMMATIC PURPOSES ONLY AND MAY VARY. BUILDER IS RESPONSIBLE FOR ADAPTING THIS PLAN TO SUIT THE EXISTING TOPOGRAPHY OF THE SITE.

ROOF VENTILATION TO BE DETERMINED BY BUILDER AS PER CODE.

ALL EGRESS OR RESCUE WINDOWS FROM SLEEPING ROOMS MUST HAVE A MIN. NET CLEAR OPENING OF 4.0 SQ FT. THE MIN NET CLEAR OPENING HEIGHT DIMENSION SHALL BE 27". THE MIN NET CLEAR OPENING WIDTH SHALL BE 20".

EACH EGRESS WINDOW FROM SLEEPING ROOMS MUST HAVE A SILL HIGHT OF NO MORE THAN 44" FROM THE FLOOR. ALL WINDOW SIZES ARE NOMINAL AND ARE TO BE VERIFIED WITH MANUFACTURER FOR AVAILABILITY AND CONFORMITY TO STATE AND LOCAL CODE REQUIREMENTS.

PORCHES, BALCONIES, OR RAISED FLOOR SURFACES LOCATED MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDRAILS NOT LESS THAN 32" IN HEIGHT.

ASSUME NO RESPONSIBILITY FOR ANY DISTANCES AFTER START OF CONSTRUCTION.
CONTRACTOR/BUILDER SHALL CONSULT WITH HOME OWNER ON ALL INTERIOR AND EXTERIOR MOLDINGS, TRIMS, COLORS, FINISHES, CABINET LAYOUTS, AND MANUFACTURERS BEFORE CONSTRUCTION BEGINS.
ALL BEAMS AND FRAMING MEMBERS ARE SIZED BY OTHERS.

1.1 This plan has been drawn to comply with the 2018 NC Building Code

- 1.2 Minimum Design Loads for Building and Other Structures ASCE 7-98
- 2 Roof Dead Load 115 P&F
- 3 Roof Live Load 20 P&F
- 4 Typical Floor Dead Load 10 P&F
- 5 Floor Live Loads
 - 5.1 Rooms other than sleeping rooms 40 P&F
 - 5.2 Sleeping Rooms 30 P&F
 - 5.3 Stairs 40 P&F
 - 5.4 Decks 40 P&F
 - 5.5 Exterior Balconies 60 P&F
- 6 Wind Loads
 - 6.1 Ultimate Design Wind Speeds 15 MPH
 - 6.2 Wind Importance Factor, I_w 1.00
 - 6.3 Exposure B
 - 6.4 Walls (Component and Cladding) 25 P&F
 - 6.5 Roofs (Component and Cladding)
 - 6.5.1 Roof Slopes 2,25/12 to 1/12 34.8 P&F
 - 6.5.2 Roof Slopes 1/12 to 12/12 21 P&F

It is the sole responsibility of the Contractor and/or Builder to perform to all standards, provisions, requirements, methods of construction and uses of materials provided in buildings and/or structures as required by NC Uniform Building Code, Local Agencies and in accordance with good engineering practices. Verify all dimensions prior to construction.

NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.

APPROVED
Limited building only review
Permit holder responsible for full compliance with the code

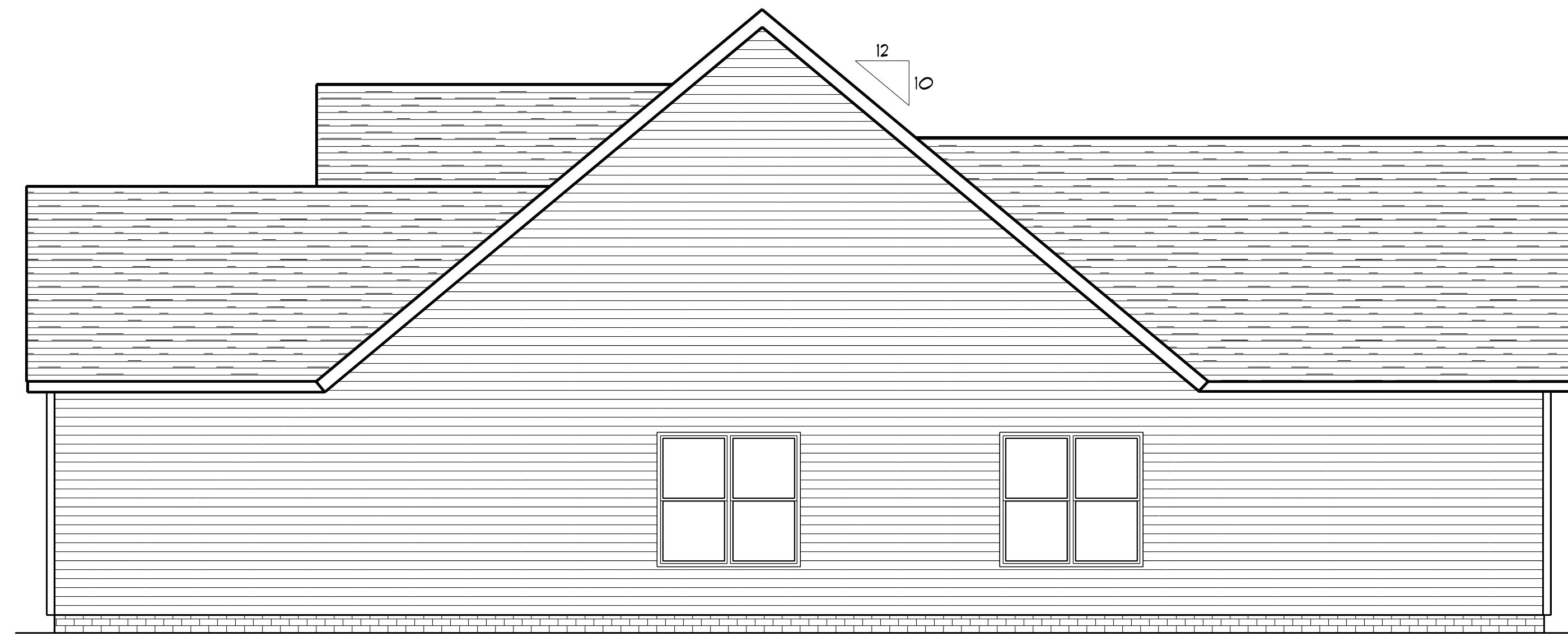
10/28/2024



LEFT ELEVATION
SCALE: 1" = 1/4"



FRONT ELEVATION
SCALE: 1" = 1/4"



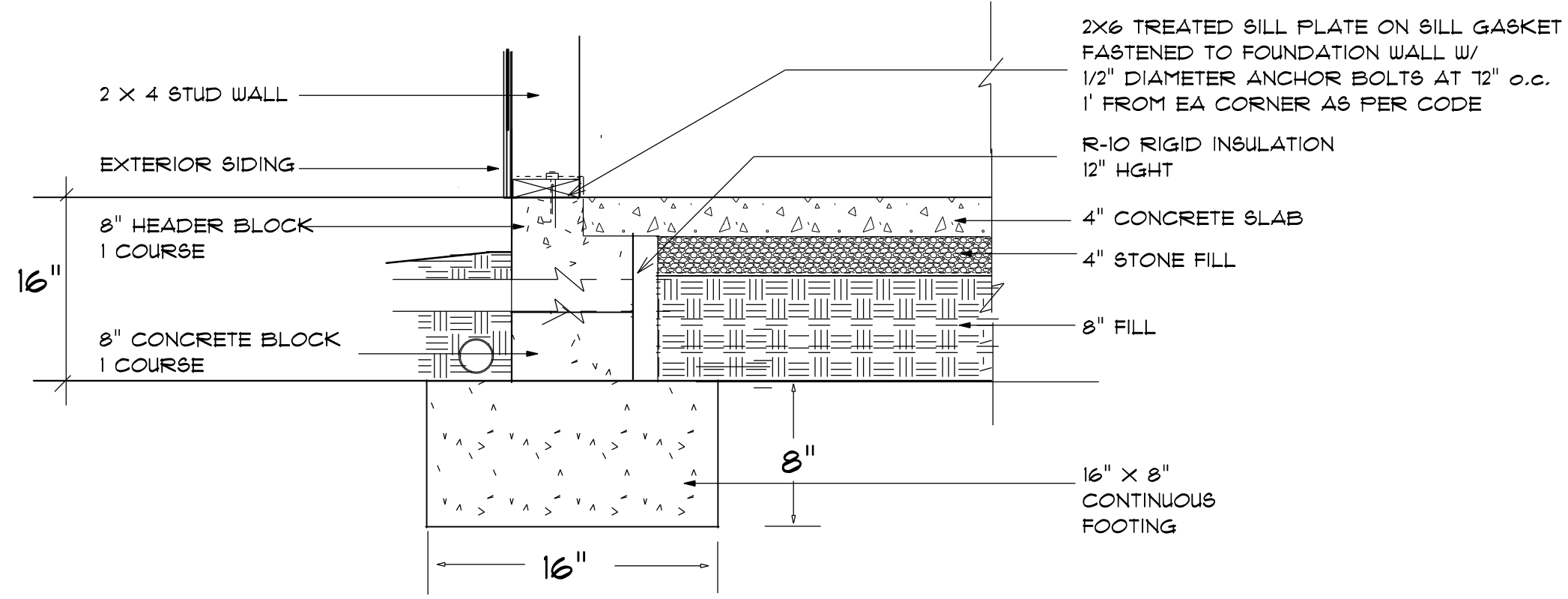
RIGHT ELEVATION
SCALE: 1" = 1/4"



REAR ELEVATION
SCALE: 1" = 1/4"

FOUNDATION NOTES:
 ALL FOOTINGS SHALL BEAR ON ORIGINAL UNDISTURBED SOIL.
 THE 28 DAY COMPRESSIVE STRENGTH OF ALL FOOTINGS IS 3000 PSI.
 PROVIDE WATER PROOFING AND PERIMETER DRAINS AS REQUIRED.
 FOUNDATION CONCRETE MIX TO HAVE 1-1/2" MAX AGGREGATE SIZE. CONCRETE FILL MIX TO HAVE 1/2" MAX AGGREGATE SIZE.
 FOOTING WIDTHS ARE BASED ON A LOAD-BEARING SOIL CAPACITY OF 2000 PSI.
 PROVIDE 6 MIL POLY VAPOR BARRIER TO COVER GROUND SURFACE IN CRAWL SPACE
 ALL ANCHOR BOLTS TO BE 12" LONG, 1/2" DIA. A36 UNO ANCHOR BOLTS SHALL BE SPACE AT A MAX OF 6' OC AND NO MORE THAN 1' FROM EA CORNER.

Termite Soil Treatment: Treat entire slab area soil or crawl space surface before vapor barrier is installed and slab is poured with a state approved termiticide. Termiticide should be applied by a licensed and certified pest control professional by the state of North Carolina.



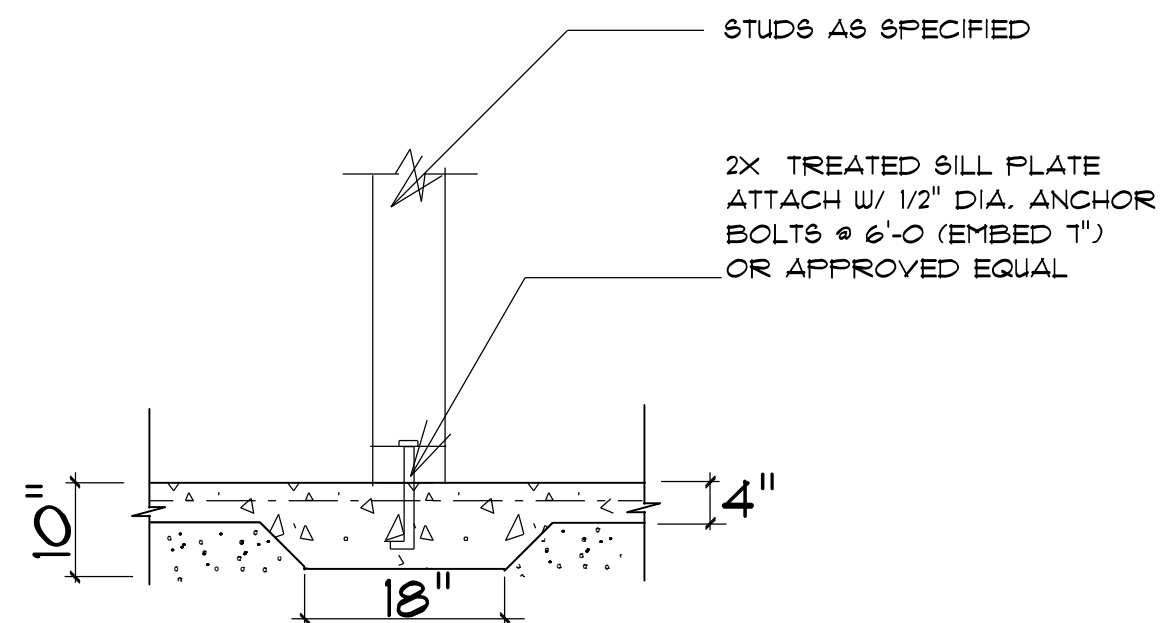
STEM WALL FOUNDATION Detail not to scale

PROVIDE EXPANSION JOINTS AT THE EDGES OF SLABS THAT ARE NOT HEATED OR THAT ARE EXPECTED TO CHANGE TEMPERATURE SIGNIFICANTLY OVER THEIR LIFETIMES. ALSO PROVIDE EXPANSION JOINTS TO ISOLATE BUILDING ELEMENTS THAT PENETRATE SLABS SUCH AS STRUCTURAL COLUMNS, WALLS, OR PLUMBING.

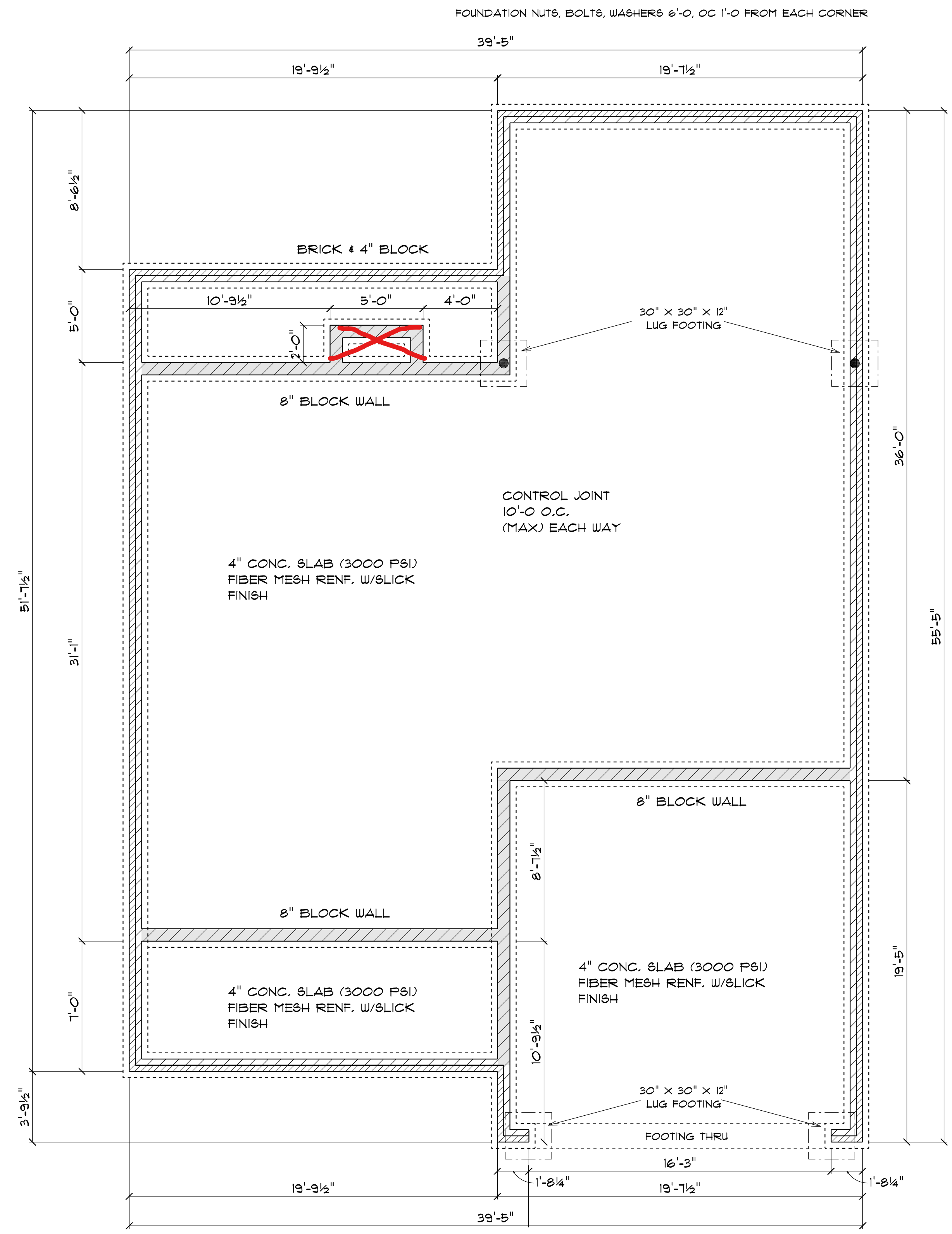
CONTROL JOINTS
 PROVIDE CONTROL JOINTS TO INDUCE CRACKING AT SELECTED LOCATIONS -- TROWEL OR CUT JOINTS INTO THE SURFACE OF SLABS TO ABOUT 1/4 OF THE SLAB DEPTH AND AT 20 FT. INTERVALS -- COLD JOINTS CAN ACT AS CONTROL JTS.

WELDED WIRE MESH OR REBAR REINFORCEMENT
 4" MINIMUM CONCRETE SLAB
 6 MIL POLYETHYLENE CONCRETE RATED MOISTURE BARRIER
 4" MIN. COMPACTED GRAVEL -- GRAVEL MUST BE CLEAN AND FREE FROM ORGANIC MATTER
 SOIL MUST BE SOLID AND FREE OF ORGANIC MATERIAL -- SOME SOILS REQUIRE COMPACTION -- IN TERMITE AREAS THE SOIL MAY REQUIRE CHEMICAL TREATMENT -- CONTRACTOR TO VERIFY COMPACTION AND SOIL TREATMENT REQUIREMENTS OF LOCAL AREA

CONCRETE SLAB DETAILS / NOTES



TYPICAL THICKENED SLAB



FOUNDATION PLAN

SCALE: 1" = 1/4"

GENERAL FRAMING NOTES:

ALL LUMBER IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED.

FRAMING LUMBER SHALL BE SYP #2 GRADE AND/OR SPRUCE PINE FIR #1 AND/OR #2, KILN DRIED.

WHERE PRE-ENGINEERED JOISTS ARE USED, JOIST MANUFACTURER SHALL PROVIDE SHOP DRAWINGS, WHICH BEAR SEAL OF A N.C. ENGINEER.

STUDS AND JOISTS SHALL NOT BE CUT TO INSTALL PLUMBING OR WIRING WITHOUT ADDING METAL OR WOOD SIDE PANELS TO STRENGTHEN THE MEMBER TO ITS ORIGINAL CAPACITY.

NAIL MULTIPLE MEMBERS WITH 2 ROWS OF 16d NAILS STAGGERED 32" OC AN USE 3-16d NAILS 2" IN AT EACH END. DOUBLE ALL STUDS UNDER ROOF FOOT DOWNS UNO.

NAIL FLOOR JOISTS TO BILL PLATE WITH 8d TOE NAILS.

ALL EXPOSED FRAMING ON PORCHES AND DECKS SHALL BE PRESSURE TREATED.

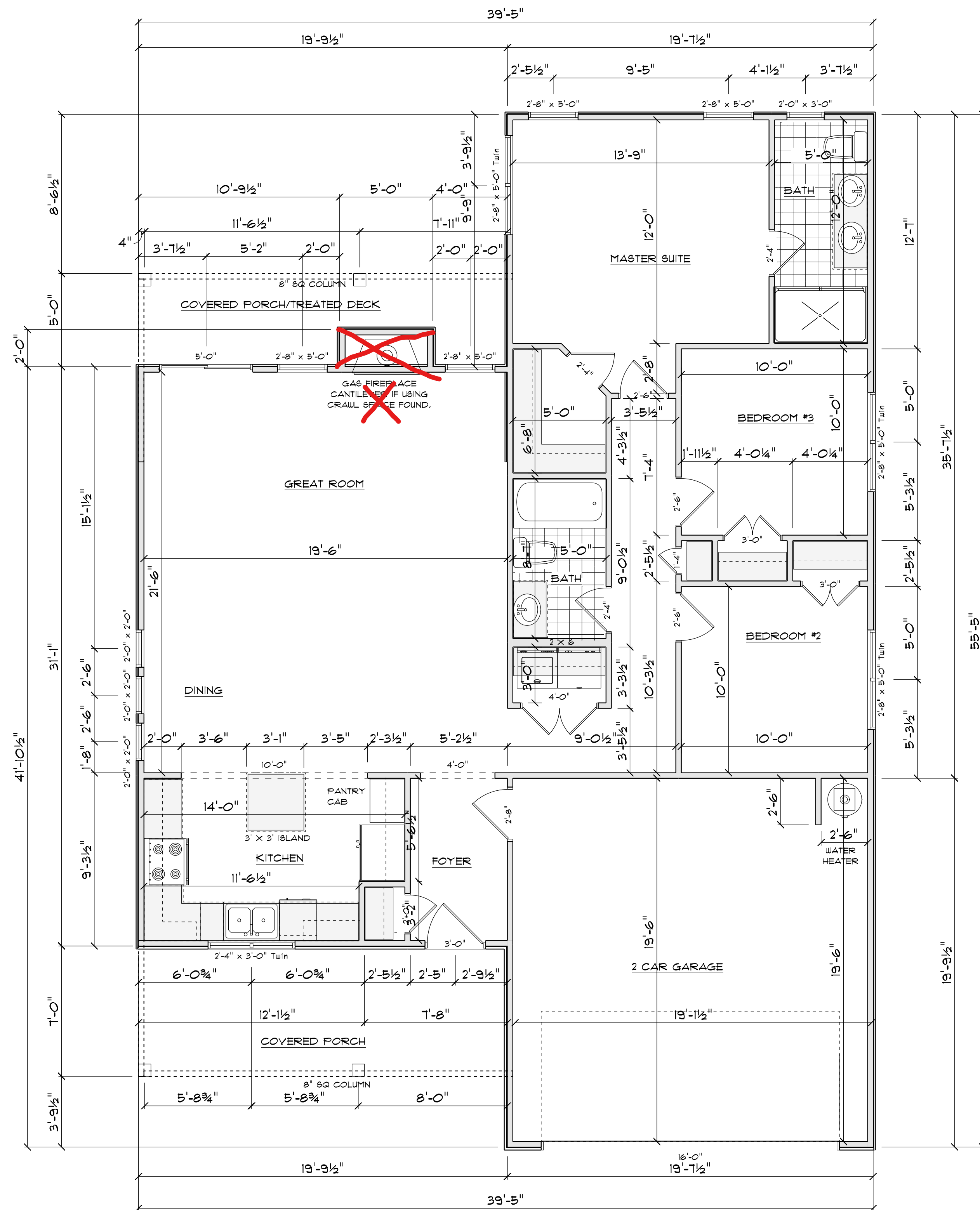
PROVIDE WATERPROOFING AND DRAINS AS REQUIRED.

ALL FRAMING TO BE 16" OC UNO. WALL FRAMING DIMENSIONS ARE BASED ON 2 X 4 STUDS UNO. DOUBLE STUDS UNDER ALL HEADERS.

LVL'S AND TJI'S TO BE SIZED BY OTHERS

EXTERIOR WALLS IN LIVING AREAS ARE 2 X 4

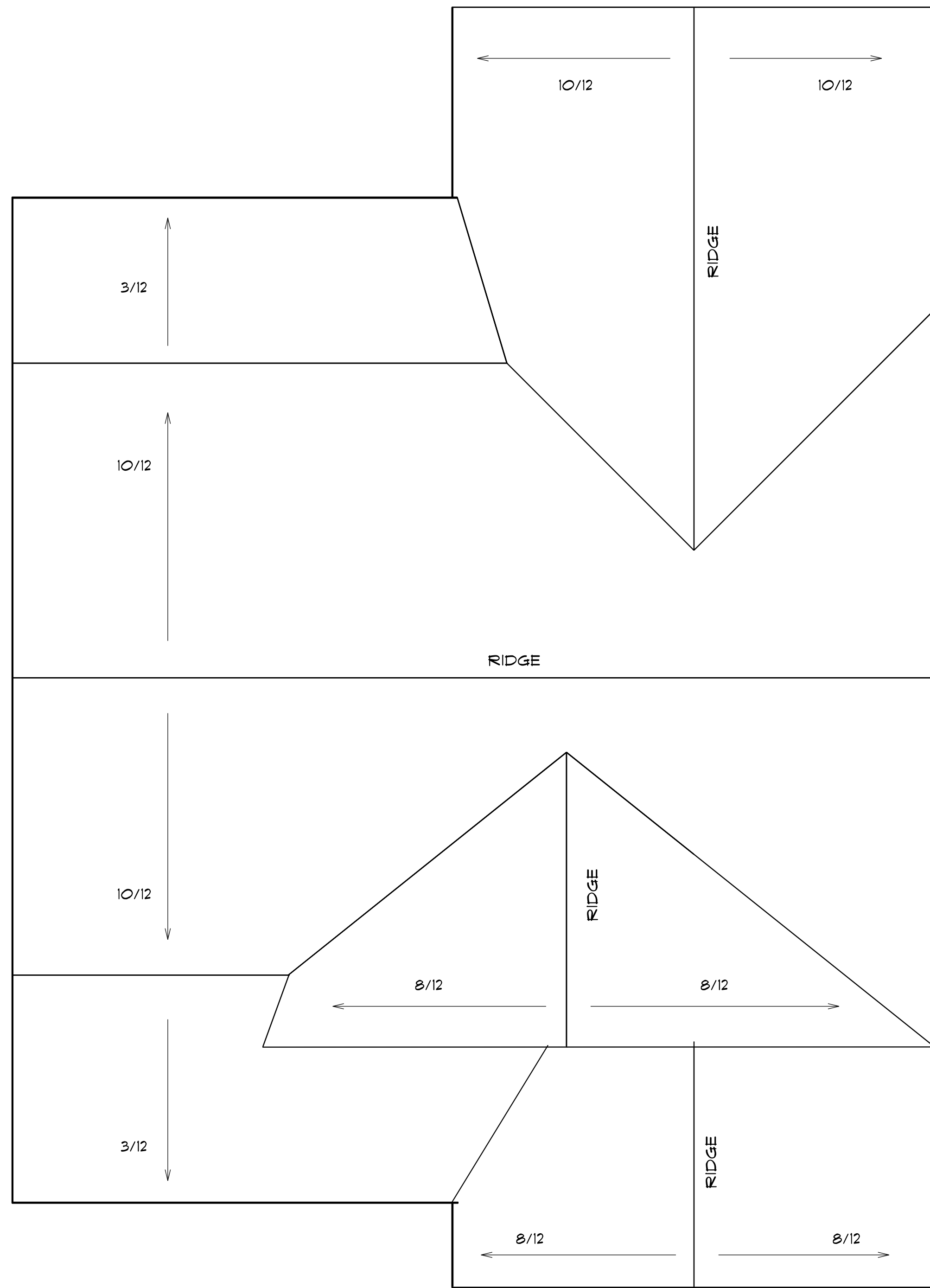
WINDOW SCHEDULE				
SIZE	COUNT	LIBRARY NAME	R.O. WIDTH	R.O. HEIGHT
2'-0" x 2'-0"	3	Window/Casement	24"	24"
2'-0" x 3'-0"	3	Window/Single Hung	24"	36"
2'-8" x 5'-0"	4	Window/Single Hung	32"	60-1/2"
4'-8" x 3'-0" Twin	1	Window/Single Hung	56"	36"
2'-8" x 5'-0" Twin	3	Window/Single Hung	64"	60-1/2"



FLOOR PLAN

SCALE: 1" = 1/4"

AREA SCHEDULE	
NAME	AREA
Heated	1338 sq ft.
Covered Rear Porch	98 sq ft.
Covered Front Porch	138 sq ft.
Garage	394 sq ft.

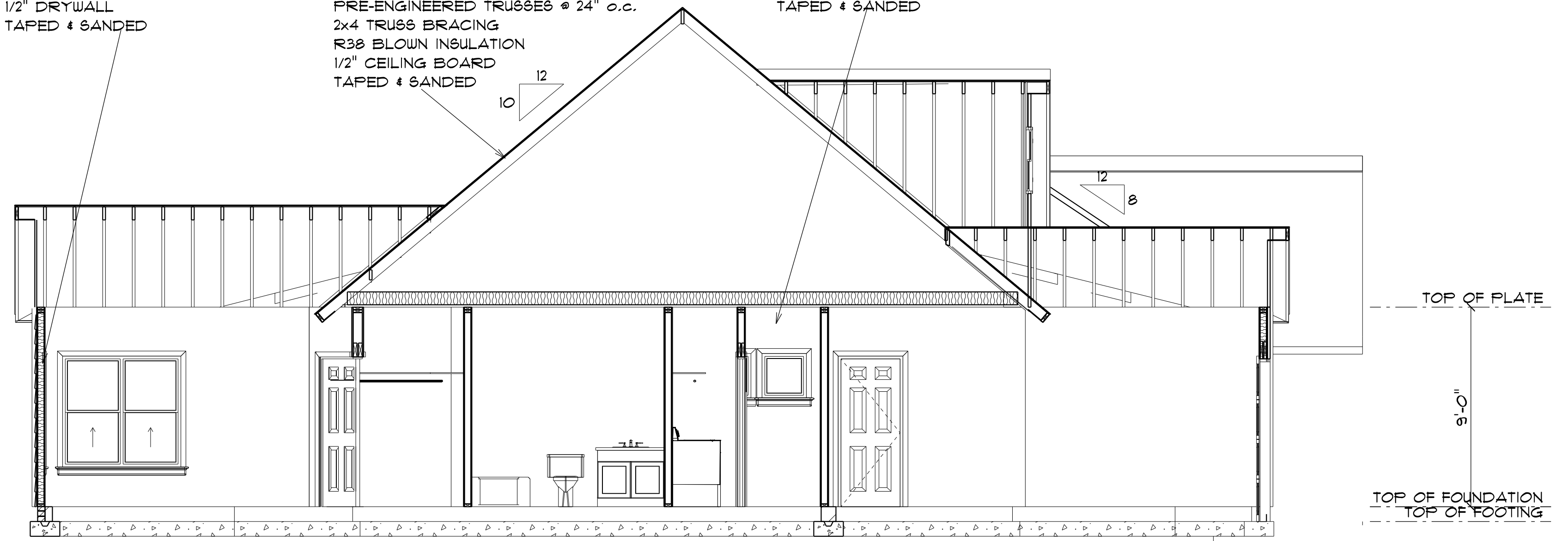


ROOF PLAN 12" OVER HANG ALL
SCALE: 1" = 1/4"

TYPICAL 2x4 SIDING EXTERIOR WALL:
HORIZONTAL SIDING
1/16" PLYWOOD SHEATHING
2x4 STUDS @ 16" o.c.
R15 BATT INSULATION
1/2" DRYWALL
TAPED & SANDED

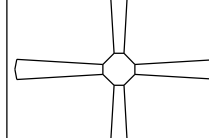


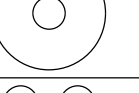
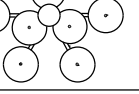






TYPICAL TRUSS ROOF:
SHINGLES
1/16" ROOFING PLYWOOD c/w
4" CLIPS
BLOCK & BRACE PER TRUSS MGR.
PRE-ENGINEERED TRUSSES @ 24" o.c.
2x4 TRUSS BRACING
R38 BLOWN INSULATION
1/2" CEILING BOARD
TAPED & SANDED

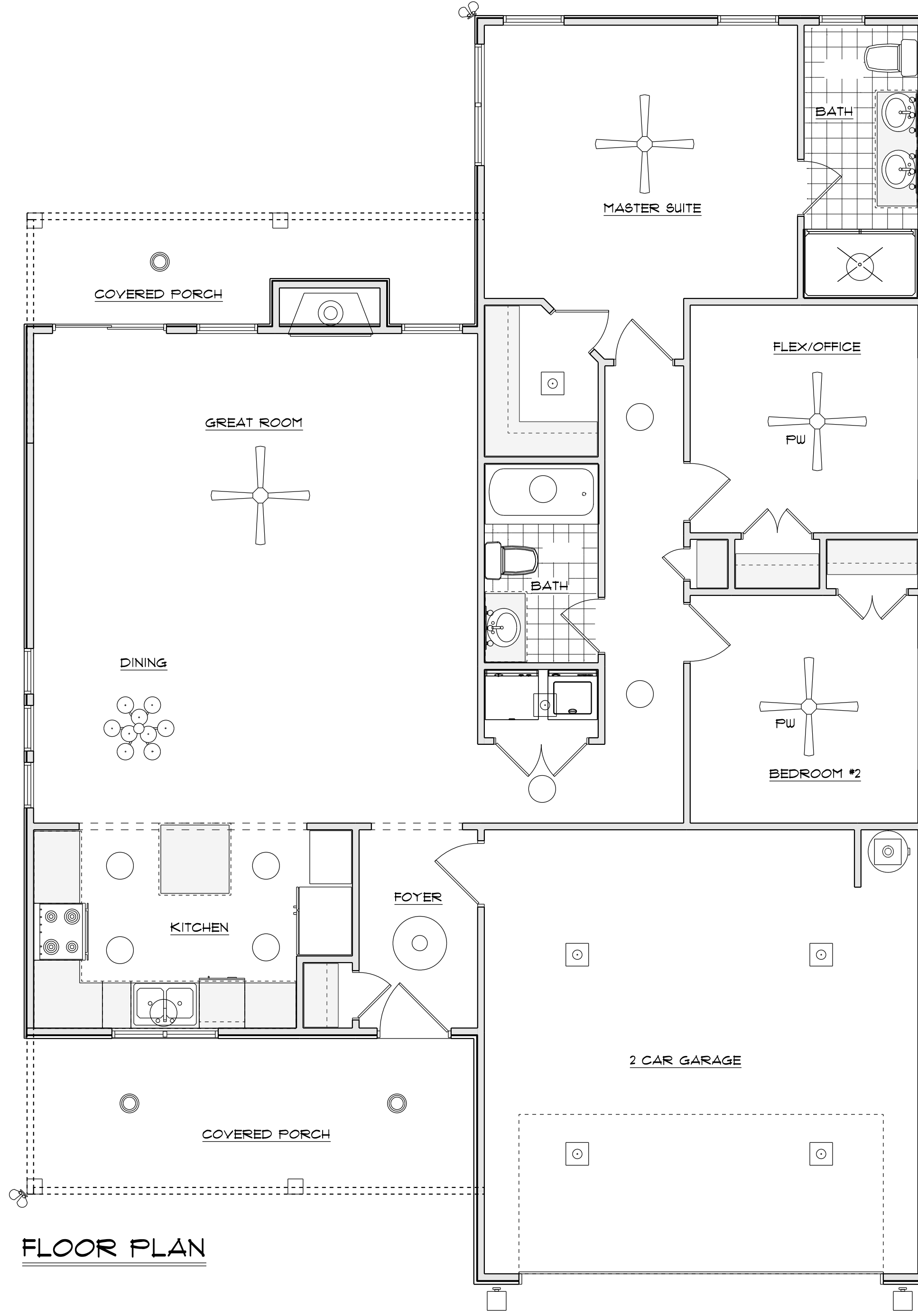
TYPICAL 2x4 WALL:
1/2" DRYWALL
TAPED & SANDED
2x4 STUDS @ 16" o.c.
1/2" DRYWALL
TAPED & SANDED



SECTION A
SCALE: 1" = 1/4"

ROOF NOTES:
TRUSSES, BRACINGS, BRIDGING AND CONNECTORS ARE TO BE DESIGNED BY THE TRUSS MANUFACTURER.
IDENTIFY LUMBER BY OFFICIAL GRADE MARKINGS.
DO NOT CUT OR REMOVE CHORDS OR OTHER TRUSS MEMBERS.
DO NOT NOTCH OR DRILL TRUSS MEMBERS.
WHERE PRE-ENGINEERED ROOF TRUSSES ARE USED, TRUSS MANUFACTURER SHALL PROVIDE SHOP DRAWINGS, WHICH BEAR SEAL OF A N. C. REGISTERED ENGINEER.

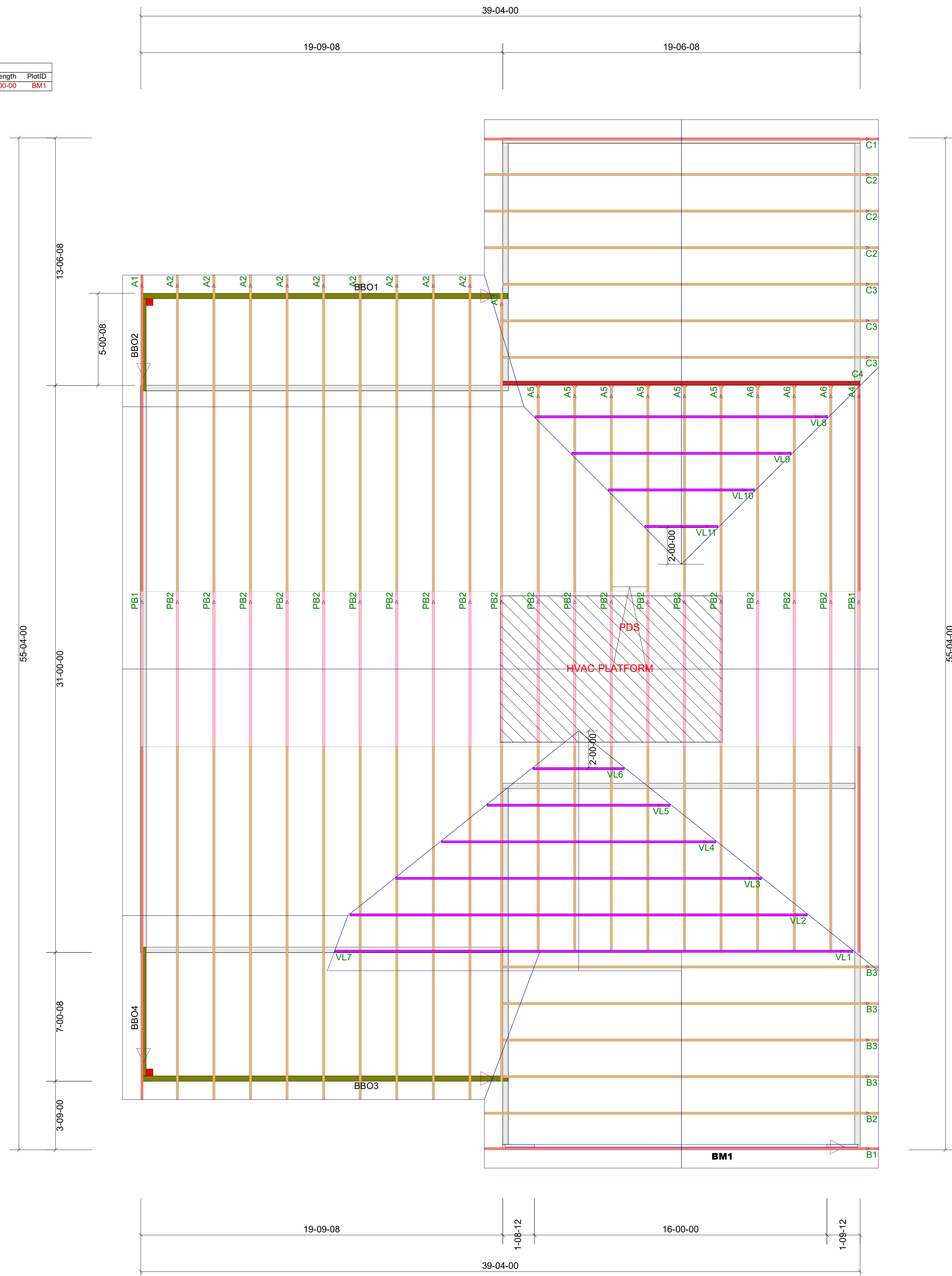
ELECTRICAL LEGEND		
ELECTRICAL	COUNT	SYMBOL
ceiling fan	2	
10" led	6	
7" led	10	
foyer light	1	
dinning room light	1	
coach light	2	
exterior over head light	3	
flood light	2	
vanity bar light	3	
wall sconce		
pendant light		



FLOOR PLAN

Products					
Fab Type	Net Qty	Piles	Product	Length	PlotID
FF	2	2	2.0 RigidLam DF LVL 1-3/4 x 11-7/8	20-00-00	BM1

Truss Connector Total List		
Qty	Product	Manuf
36	One H2.5A	Simpson
36	One RT7A	MiTek
9	THD26	MiTek



ROOF TRUSS FRAMING

DRAWING SCALE : NTS



CRH Homes
Kris B
ROOF TRUSS PLACEMENT PLAN

REVISIONS	
DATE	BY
07-13-22	TK

PROJECT NUMBER
22070031
SHEET NUMBER
1 / 1



Customer:
Job Name:
City:
Customer Ph...

Job Name: **A**
Level: **Roof**
Label: **BM1 - i22**
Type: **Beam**

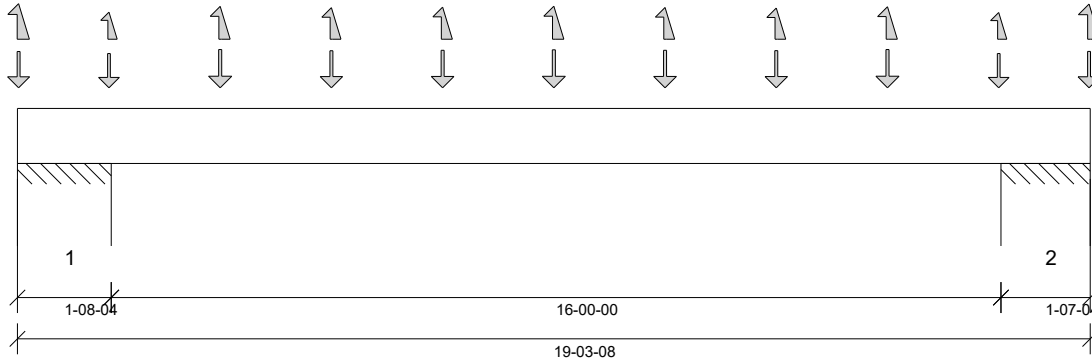
2 Ply Member
2.0 RigidLam DF LVL 1-3/4
x 11-7/8

Status:
Design Passed

Illustration Not to Scale. Pitch: 0/12

Designed by Single Member Design Engine in MiTek® Structure Version 8.7.3.303.Update9.26

Report Version: 2021.03.26 07/19/2024 07:28



DESIGN INFORMATION

Building Code: IRC 2018
Design Methodology: ASD
Risk Category: II (General Construction) Residential
Service Condition: Dry
LL Deflection Limit: L/360, 0.75" (absolute)
TL Deflection Limit: L/240, 1.00" (absolute)

Lateral Restraint Requirements:
Both ends of the member and the outer supports must be laterally restrained. Top and bottom edges of the member must be fully restrained or have the following maximum unbraced length:
Top: 19'- 3 1/2" Bottom: 19'- 3 1/2"

Bearing Stress of Support Material:

- 875 psi Wall @ 0'- 1 1/2"
- 875 psi Wall @ 1'- 6 3/4"
- 875 psi Wall @ 17'- 9 3/4"
- 875 psi Wall @ 19'- 2"

ANALYSIS RESULTS

Design Criteria	Location	Load Combination	LDF	Design	Limit	Result
Max Pos. Moment:	9'- 7 3/4"	D + Lr	1.15	1231 lb ft	18340 lb ft	Passed - 7%
Max Neg. Moment:	17'- 9 3/4"	D + Lr	1.15	2039 lb ft	18340 lb ft	Passed - 11%
Max Shear:	16'- 8 3/8"	D + Lr	1.15	694 lb	9241 lb	Passed - 8%
Live Load (LL) Neg. Defl.:	9'- 7 15/16"	0.6W		0.024"	L/360	Passed - L/999
Total Load (TL) Pos. Defl.:	9'- 8 1/8"	D + Lr		0.038"	L/240	Passed - L/999

SUPPORT AND REACTION INFORMATION

ID	Input Bearing Length	Controlling Load Combination	LDF	Downward Reaction	Uplift Reaction	Resistance of Member	Resistance of Support	Result
1	7-08	0.6D + 0.6W	1.60	331 lb		27391 lb	22969 lb	Passed - 1%
1	7-08	D + Lr	1.15		-1332 lb	-	-	
1	1-00-12	D + Lr	1.15	2269 lb		33469 lb	39047 lb	Passed - 7%
1	1-00-12	0.6D + 0.6W	1.60		-697 lb	-	-	
2	1-00-04	D + Lr	1.15	2356 lb		32156 lb	37516 lb	Passed - 7%
2	1-00-04	0.6D + 0.6W	1.60		-711 lb	-	-	
2	7-00	0.6D + 0.6W	1.60	359 lb		25565 lb	21438 lb	Passed - 2%
2	7-00	D + Lr	1.15		-1327 lb	-	-	

LOADING

Type	Start Loc	End Loc	Source	Face	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
Self Weight	0'	19'- 3 1/2"	Self Weight	Top	11 lb/ft	-	-	-	-
Point	0'- 1/4"	0'- 1/4"	B1(Cond01)	Top	58 lb	-	37 lb	98 lb	32/-217 lb
Point	1'- 7 3/4"	1'- 7 3/4"	B1(Cond01)	Top	69 lb	-	25 lb	88 lb	21/-126 lb
Point	3'- 7 3/4"	3'- 7 3/4"	B1(Cond01)	Top	83 lb	-	36 lb	96 lb	31/-188 lb
Point	5'- 7 3/4"	5'- 7 3/4"	B1(Cond01)	Top	80 lb	-	34 lb	91 lb	28/-174 lb
Point	7'- 7 3/4"	7'- 7 3/4"	B1(Cond01)	Top	81 lb	-	34 lb	92 lb	31/-180 lb
Point	9'- 7 3/4"	9'- 7 3/4"	B1(Cond01)	Top	80 lb	-	35 lb	100 lb	28/-190 lb
Point	11'- 7 3/4"	11'- 7 3/4"	B1(Cond01)	Top	81 lb	-	34 lb	92 lb	31/-176 lb
Point	13'- 7 3/4"	13'- 7 3/4"	B1(Cond01)	Top	80 lb	-	34 lb	91 lb	29/-170 lb
Point	15'- 7 3/4"	15'- 7 3/4"	B1(Cond01)	Top	83 lb	-	36 lb	96 lb	31/-184 lb
Point	17'- 7 3/4"	17'- 7 3/4"	B1(Cond01)	Top	69 lb	-	25 lb	88 lb	21/-122 lb
Point	19'- 3 1/4"	19'- 3 1/4"	B1(Cond01)	Top	58 lb	-	37 lb	98 lb	33/-213 lb

UNFACTORED REACTIONS

ID	Start Loc	End Loc	Source	Dead (D)	Live (L)	Snow (S)	Roof Live (Lr)	Wind (W)
1	0'	1'- 8 1/4"	W8(i19)	1176/-658 lb	-	388/-204 lb	1189/-673 lb	282 lb/-1128 lb
==>	0'- 1 1/2"	0'- 1 1/2"	W8(i19)	-658 lb	-	-204 lb	107/-664 lb	-
==>	1'- 6 3/4"	1'- 6 3/4"	W8(i19)	1176 lb	-	388 lb	1082/-9 lb	-
2	17'- 8 1/4"	19'- 3 1/2"	W7(i12)	1228/-712 lb	-	406/-223 lb	1222/-708 lb	282 lb/-1128 lb
==>	17'- 9 3/4"	17'- 9 3/4"	W7(i12)	1228 lb	-	406 lb	1124 lb	-
==>	19'- 2"	19'- 2"	W7(i12)	-712 lb	-	-223 lb	98/-708 lb	-

DESIGN NOTES

- CAUTION: The maximum net analysis reaction exceeds the user-defined maximum uplift value at one or more supports.
- The dead loads used in the design of this member were applied to the structure as projected dead loads.
- Analysis and Design has been performed using precision loading from actual modeled conditions. Some loads may have been modified to simplify reporting.
- Tributary Loads have been generated based on actual spacing between members in the model which may differ from the default system spacing. The actual loads applied to the member are shown in the Specified Loads table.
- Transfer reactions may differ from design results as allowed per building codes and standard load distribution practices.
- This report is based on modeled conditions input by the user. Source information for the loads and supports are provided for reference only. Verify that all loads and support conditions are correct.
- Review all loads and reactions to ensure that the member/bearing/connector/structure can resist adequately. Unless already specified on this report, anchorage for uplift reactions to be specified by others. Installation of member and accessories (if required) as per manufacturer's instruction.



Customer: Job Name: City: Customer Ph...	Job Name: A Level: Roof Label: BM1 - i22 Type: Beam	2 Ply Member 2.0 RigidLam DF LVL 1-3/4 x 11-7/8	Status: Design Passed
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- Beam Stability Factor used in the calculation for Allowable Max Pos Moment (CL) = 0.58

PLY TO PLY CONNECTION

- Member design assumed proper ply to ply connection by others. Fastener spacing along length of member must not exceed 4 times depth of member. Verify connection between plies according to code specification and follow the manufacturer's installation instruction. Loads assumed to be distributed equally to each ply.