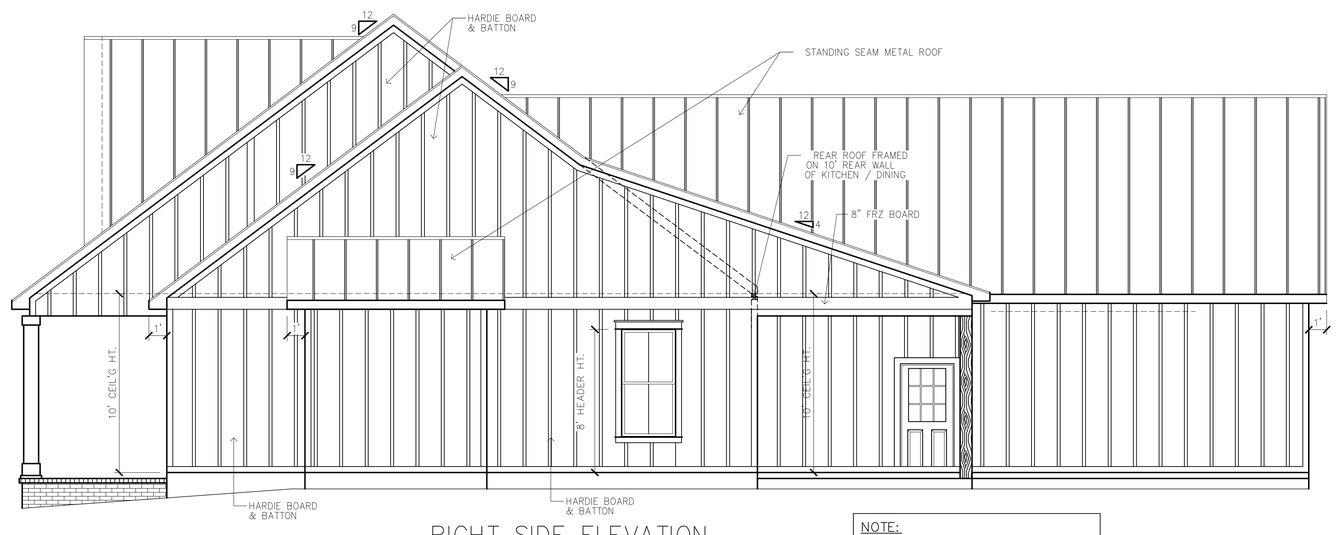
FRONT ELEVATION

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



RIGHT SIDE ELEVATION

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

NOTE:
MAINTAIN MIN. 6" CLEARANCE BETWEEN BOTTOM OF BRICK OR SIDING AND TOP OF FINAL GRADING AND SODDING – TYPICAL ALL AROUND STRUCTURE

Project

RESIDENCE OF
SHARON MCLAMB

MADDEN HOME DESIGN
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Denham Springs, Louisiana
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A|BD

Project No.: SPRINGBLUFF-MIRROR
DATE: JUNE 10, 2022
DRAWN BY: Steven Madden
DESIGNED BY: Steven Madden

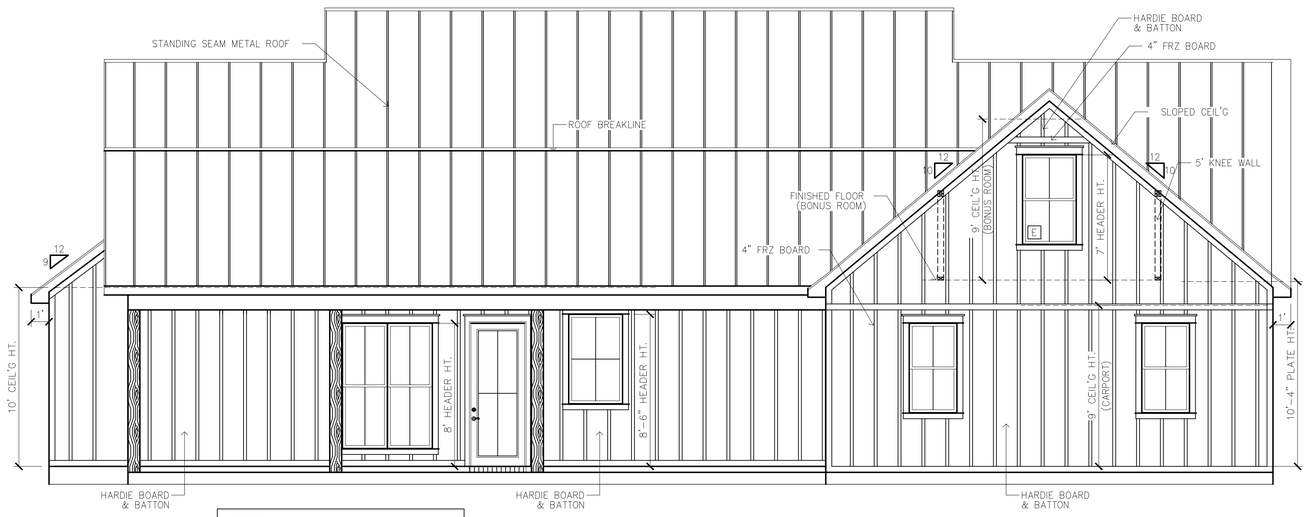
Sheet Title: ELEVATIONS

☐ Preliminary Dwg.
☐ Bidding Doc.
☐ Construction Doc.

Sheet: 1 OF 5

ATTIC VENTILATION:

THE TOTAL NET FREE VENTILATING AREA SHALL NOT BE LESS THAN $\frac{1}{150}$ OF THE AREA OF THE SPACE VENTILATED EXCEPT THAT A REDUCTION OF THE TOTAL AREA TO $\frac{1}{300}$ IS PERMITTED, PROVIDED THAT AT LEAST 50% AND NOT MORE THAN 80% OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3 FEET ABOVE THE EAVE OR CORNICE VENTS WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. THE ATTIC VENTILATION SHALL BE SUFFICIENT TO PROVIDE THE REQUIRED VOLUME OF COMBUSTION AIR. (AS PER SEC. R806 OF THE I.R.C.)



REAR ELEVATION

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

NOTE:

MAINTAIN MIN. 6" CLEARANCE BETWEEN BOTTOM OF BRICK OR SIDING AND TOP OF FINAL GRADING AND SODDING – TYPICAL ALL AROUND STRUCTURE

LEFT SIDE ELEVATION

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

MADDEN HOME DESIGN, LLC NOT BEING AN ARCHITECTURAL OR ENGINEERING FIRM ASSUMES NO LIABILITY FOR STRUCTURAL, OR ARCHITECTURAL DESIGN INTEGRITY. EVERY EFFORT HAS BEEN MADE TO INSURE ALL DIMENSIONS ARE CORRECT AND ENVIRONMENTAL REQUIREMENTS HAVE BEEN MET. IF AN ERROR OR OMISSION DOES OCCUR, IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR OMMISION AT HIS OWN EXPENSE AND NOT THE RESPONSIBILITY OF THE DRAFTING SERVICE. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF DIMENSIONS IN THE FIELD AND SHALL BUILD ONLY IN ACCORDANCE WITH THE INTERNATIONAL RESIDENTIAL CODE 2018.

Project

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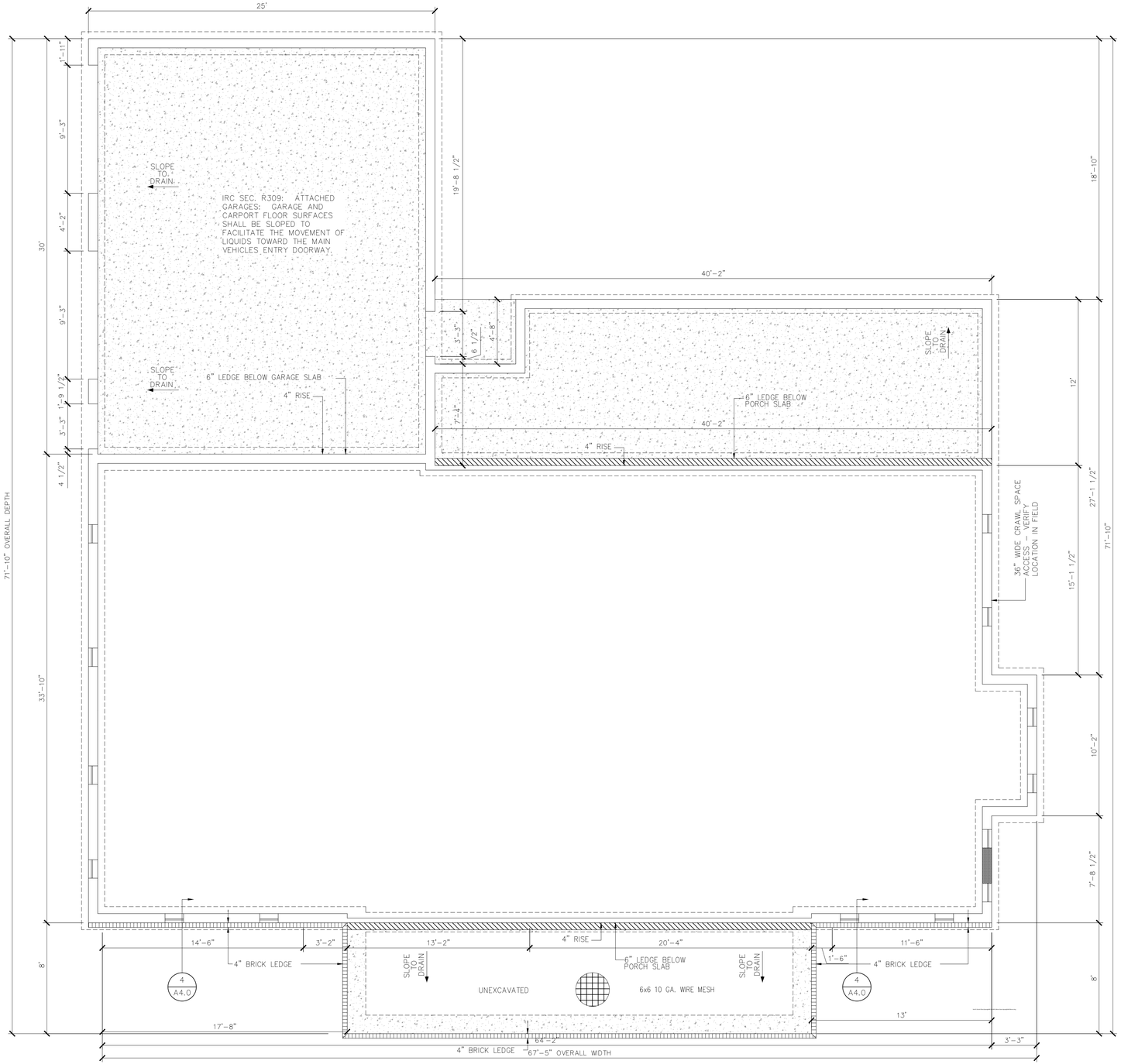
Sheet: 2 OF 5



CRAWL SPACE FOUNDATION PLAN

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

FOUNDATION GENERAL NOTES

THIS GENERIC FOUNDATION PLAN IS DESIGNED FOR NON EXPANSIVE SOILS WITH A BEARING CAPACITY OF AT LEAST 2500 PSF AND AN EFFECTIVE FRICTION ANGLE OF NO LESS THAN 30°. THIS PLAN IS NOT CERTIFIED FOR A SPECIFIC LOCATION, RECOMMENDED SITE GEOTECHNICAL INVESTIGATION AND COORDINATION OF THE FOUNDATION PLAN WITH SITE CONDITIONS BY A LOCAL ENGINEERING FIRM.

1. CONCRETE SHOULD HAVE MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS CONCRETE DESIGN MIX SHOULD BE IN ACCORDANCE WITH ACI-318 (LATEST VERSION).
2. ALL CONVENTIONAL REINFORCING STEEL SHALL MEET ASTM-A615 (GRADE 60). REINFORCING STEEL SHALL BE DETAILED AND ACCESSORIES PROVIDED IN ACCORDANCE WITH THE LATEST "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES"
3. REINFORCEMENT SHALL HAVE 3" COVER IN THE GRADE BEAM BOTTOMS, 3" COVER IN THE BEAM SIDES AND TOP, 1-1/2" COVER IN THE SLAB TOPS AND THE BOTTOMS, UNLESS NOTED OTHERWISE.
4. 1 LAYER OF 6 MIL POLYETHYLENE VAPOR BARRIER.
5. CONCRETE SHALL BE WELL CONSOLIDATED.
6. THE CONTRACTOR SHALL VERIFY ALL DROPS, OFF-SET, BRICK LEDGES, AND BLOCK OUTS AN ARCHITECTURAL PLANS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT MAY EXIST.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF THE STRUCTURAL DRAWINGS WITH ALL OTHER DRAWINGS.
8. ALTERATION TO OR DEVIATION FROM THE INFORMATION SHOWN ON THIS SHEET WITHOUT THE WRITTEN ADVANCED APPROVAL FROM THE ENGINEER WILL VOID DESIGNERS RESPONSIBILITY.
9. THIS PLAN IS FOR GRADE BEAM LOCATION AND REBAR LAYOUT ONLY.
10. ALL SUBGRADE FILL SHALL BE SELECT GRANULAR MATERIAL COMPACTED TO 95%%% MODIFIED PROCTOR DENSITY IN A MAXIMUM OF 6" LIFTS.
11. A MINIMUM OF 4" OF CONCRETE SHALL BE MAINTAINED THROUGHOUT THE ENTIRE SLAB.
12. ALL RUNOFF WATER SHALL BE CARRIED AWAY FROM THE SLAB TO PREVENT SATURATION OF THE SUBBASE.
13. ALL TREES WITHIN CLOSE PROXIMITY SHALL BE MOVED TO PREVENT THE ROOTS FROM EXTENDING UNDER THE SLAB.
14. REMOVE A MINIMUM OF 6" OF EXISTING SOIL PRIOR TO PLACING ANY FILL.
15. A MAXIMUM OF 2.0 FEET TO FILL MAY BE PLACED ON THE SITE.
16. FOLLOW REQUIREMENTS OF LOCAL JURISDICTIONS FOR REQUIRED DEPTH TO FROST LINE. CONTACT ENGINEER SHOULD REQUIREMENTS EXCEED THE LIMITS OF THIS DESIGN
17. NO FIELD SUPERVISION PROVIDED UNDER THIS SEAL UNLESS OTHERWISE NOTED.

*ASSUMED 0.5 SF OF NET FREE AREA PER VENT – FIELD VERIFY
**MINIMUM ONE VENT WITHIN 3'-0" OF EACH CORNER AND ONE VENT EACH SIDE OF STRUCTURE

Project

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A|B 3D®

Project No.: SPRINGBLUFF-MIRROR
DATE: JUNE 10, 2022
DRAWN BY: Steven Madden
DESIGNED BY: Steven Madden

Sheet Title: FOUNDATION

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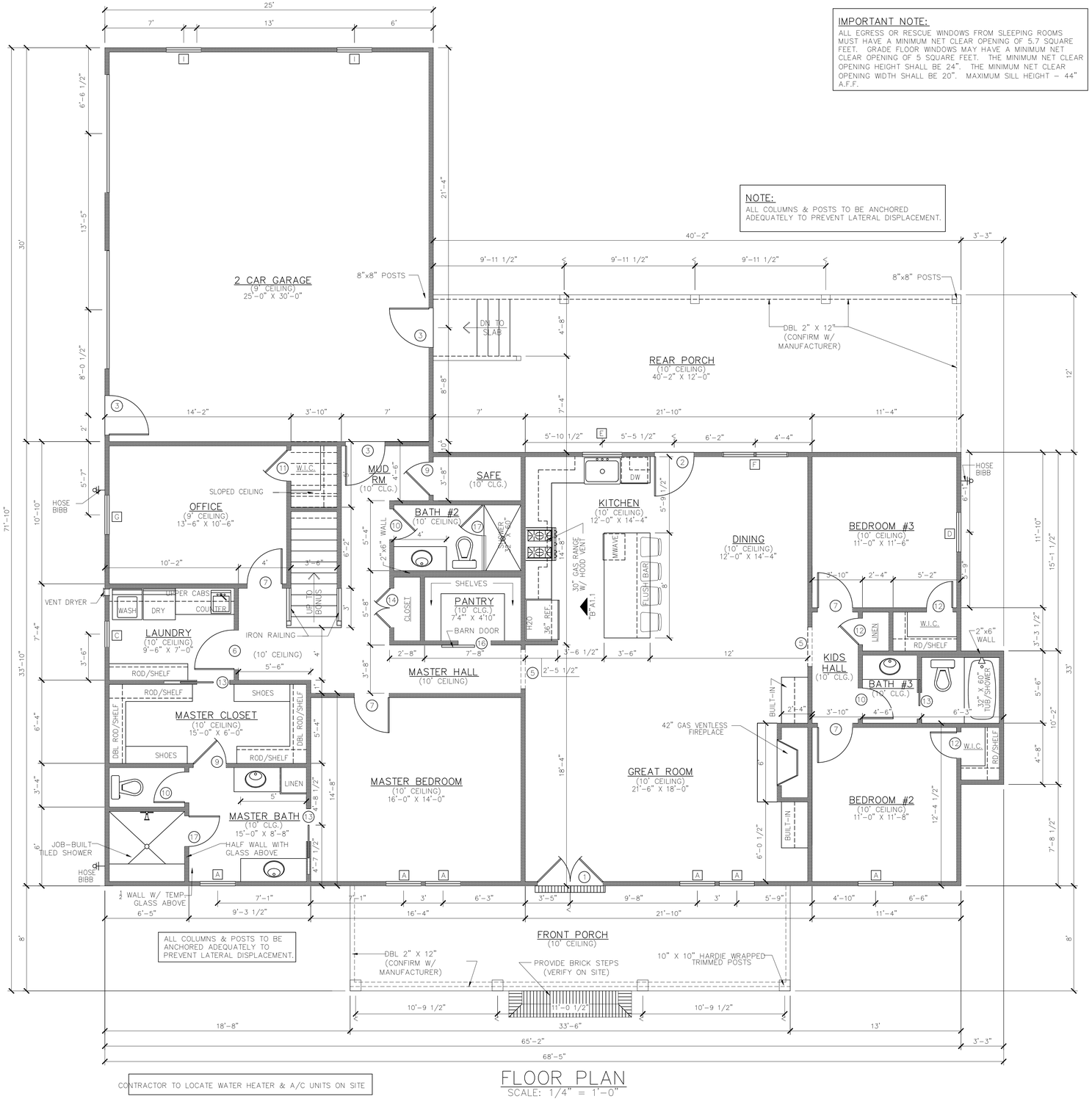
☐ Construction Doc.

Sheet: 3 OF 5

IMPORTANT NOTE:
ALL EGRESS OR RESCUE WINDOWS FROM SLEEPING ROOMS MUST HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET. GRADE FLOOR WINDOWS MAY HAVE A MINIMUM NET CLEAR OPENING OF 5 SQUARE FEET. THE MINIMUM NET CLEAR OPENING HEIGHT SHALL BE 24". THE MINIMUM NET CLEAR OPENING WIDTH SHALL BE 20". MAXIMUM SILL HEIGHT – 44" A.F.F.

NOTE:
ALL COLUMNS & POSTS TO BE ANCHORED ADEQUATELY TO PREVENT LATERAL DISPLACEMENT.



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

DOOR SCHEDULE

MARK ○	SIZE	DESCRIPTION	QTY.
1	DBL 2'6" X 8'0"	EXTERIOR 4 LITE 3/4 FRENCH SOLID WOOD DOORS	1 PAIR
2	3'0" X 8'0"	EXTERIOR 4 LITE FULL FRENCH WOOD DOOR	1
3	3'0" X 7'0"	EXTERIOR 4 LITE 1/2 FRENCH METAL DOOR	3
4	2'8" X 8'0"	EXTERIOR 6 PANEL METAL DOOR	1
5	3'0" X 8'0"	CASED OPENING	2
6	3'0" X 8'0"	INTERIOR HORIZONTAL 6 PANEL H.C. MASONITE DOOR	1
7	2'8" X 8'0"	INTERIOR HORIZONTAL 6 PANEL H.C. MASONITE DOOR	4
8	2'8" X 6'8"	INTERIOR HORIZONTAL 6 PANEL H.C. MASONITE DOOR	2
9	2'6" X 8'0"	INTERIOR HORIZONTAL 6 PANEL H.C. MASONITE DOOR	2
10	2'4" X 8'0"	INTERIOR HORIZONTAL 6 PANEL H.C. MASONITE DOOR	3
11	2'4" X 6'8"	INTERIOR HORIZONTAL 6 PANEL H.C. MASONITE DOOR	1
12	2'0" X 8'0"	INTERIOR HORIZONTAL 6 PANEL H.C. MASONITE DOOR	4
13	2'6" X 8'0"	INTERIOR HORIZONTAL 6 PANEL H.C. MASONITE POCKET DOOR	3
14	DBL 1'6" X 6'8"	INTERIOR HORIZONTAL PANEL H.C. MASONITE DOORS	1 PAIR
15	2'8" X 6'8"	6 PANEL SOLID CORE MASONITE ATTIC ACCESS DOOR	1
16	2'4" X 8'0"	SLIDING BARN DOOR – OWNER SELECT	1
17	2'4" X 6'0"	TEMPERED FRAMELESS GLASS SHOWER DOOR	2

WINDOW SCHEDULE

MARK □	OPENING SIZE	DESCRIPTION	QTY.
A	2'8" X 6'0"	2/2 LITE VINYL SINGLE HUNG WINDOW INSULATED	6
B	4'0" X 4'0"	DBL 4 LITE VINYL CASEMENT WINDOW INSULATED	1
C	2'0" X 3'0"	2/2 LITE VINYL SINGLE HUNG WINDOW INSULATED	1
D	3'0" X 6'0"	2/2 LITE VINYL SINGLE HUNG WINDOW INSULATED	0
E	3'0" X 5'0"	4 LITE VINYL FIXED WINDOW INSULATED	2
F	DBL 2'6" X 7'0"	2/2 LITE VINYL SINGLE HUNG WINDOWS INSULATED	1 PAIR
G	3'0" X 5'0"	2/2 LITE VINYL SINGLE HUNG WINDOWS INSULATED	2
H	2'6" X 4'0"	2/2 LITE VINYL FIXED WINDOW INSULATED (SEE ELEVS)	2
I	2'8" X 5'0"	2/2 LITE VINYL SINGLE HUNG WINDOWS INSULATED	2

SQUARE FOOTAGE

1ST FLOOR LIVING	2147
BONUS ROOM	339
FRONT PORCH	268
REAR PORCH	506
GARAGE	750
TOTAL LIVING	2486
TOTAL SQ. FT.	3836

RESIDENCE OF
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Project No.: SPRINGBLUFF-MIRROR
DATE: JUNE 10, 2022
DRAWN BY: Steven Madden
DESIGNED BY: Steven Madden

Sheet Title: 1ST FLOOR

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☐ Bidding Doc.
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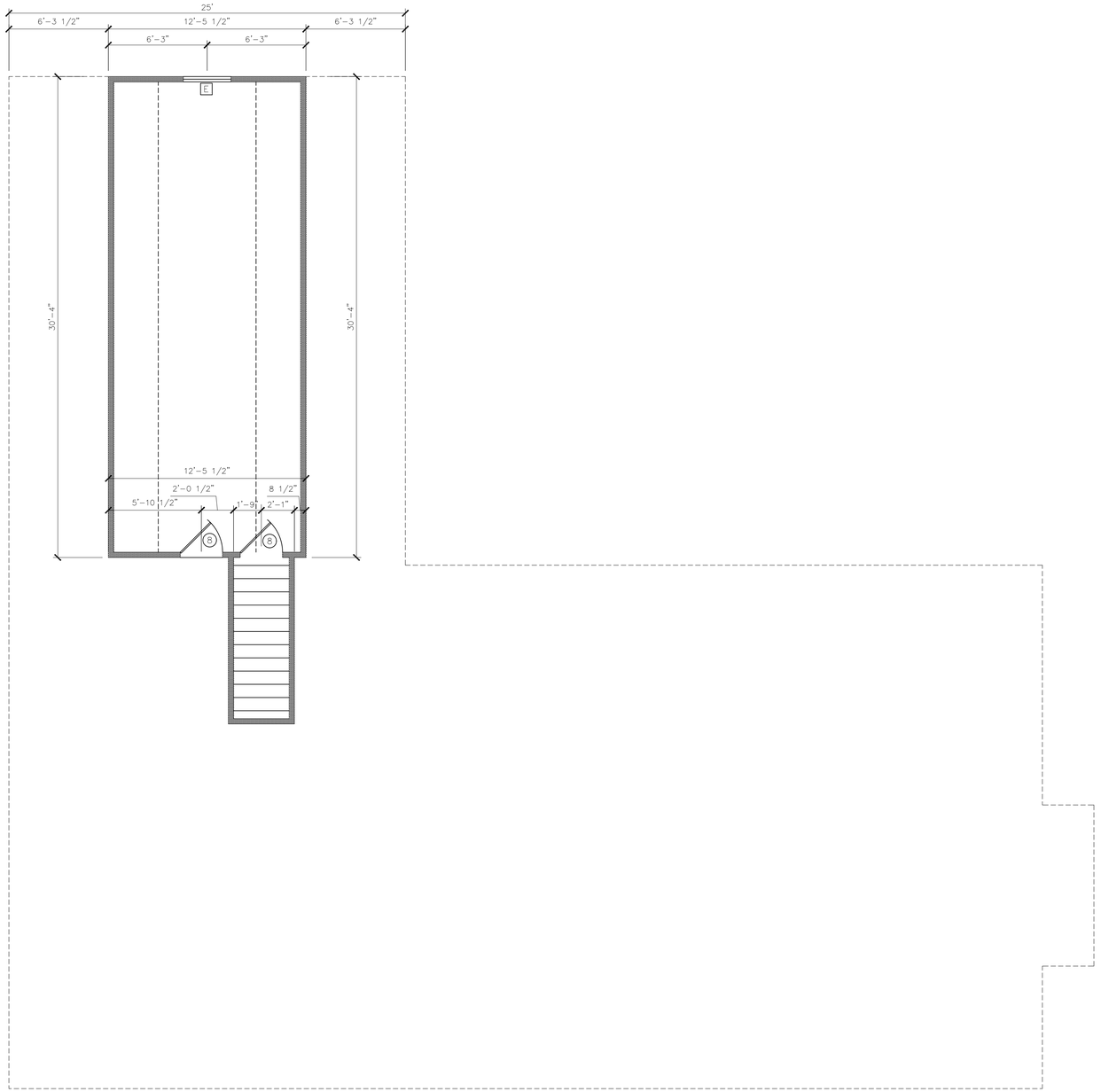

BONUS ROOM
SCALE: 1/4" = 1'-0"

RESIDENCE OF
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Project

A | B | D

MADDEN HOME DESIGN
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Phone: (225) 791-2912

Project No.: SPRINGBLUFF-MIRROR
DATE: JUNE 10, 2022
DRAWN BY: Steven Madden
DESIGNED BY: Steven Madden

Sheet Title: Second Floor

☐ Preliminary Dwg.
☐ Bidding Doc.
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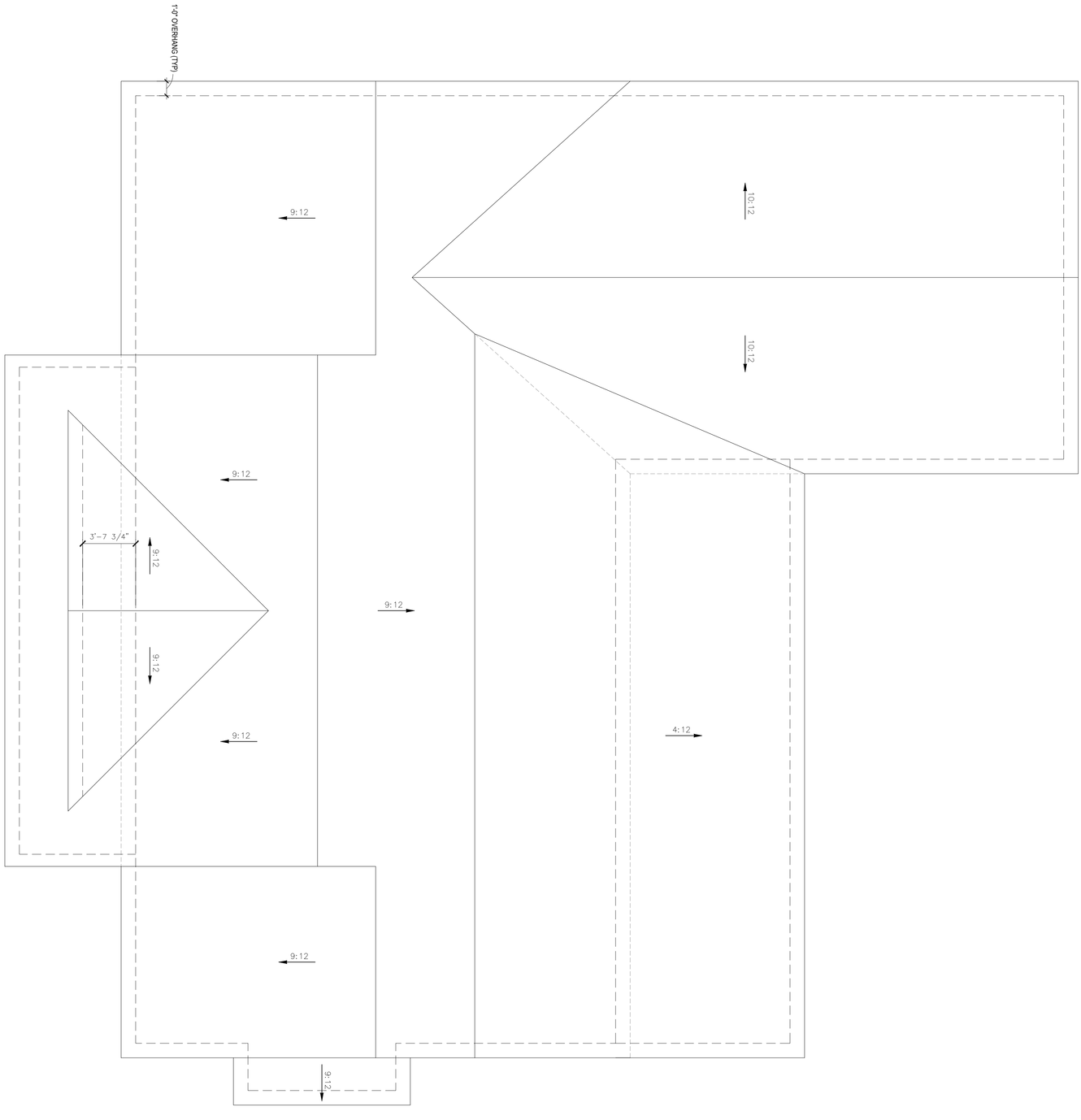
Sheet: 5 OF 6



NOTE:
ANY ROOF PITCH 4:12 OR LESS SHALL BE PROPERLY WATERPROOFED PER BLDG. CODE

ROOF PLAN

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

MADDEN HOME DESIGN

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Denham Springs, Louisiana
70726
Phone: (225) 791-2912

Project

RESIDENCE OF

SHARON MCLAMB

Project No.: SPRINGBLUFF-MIRROR

DATE: JUNE 10, 2022

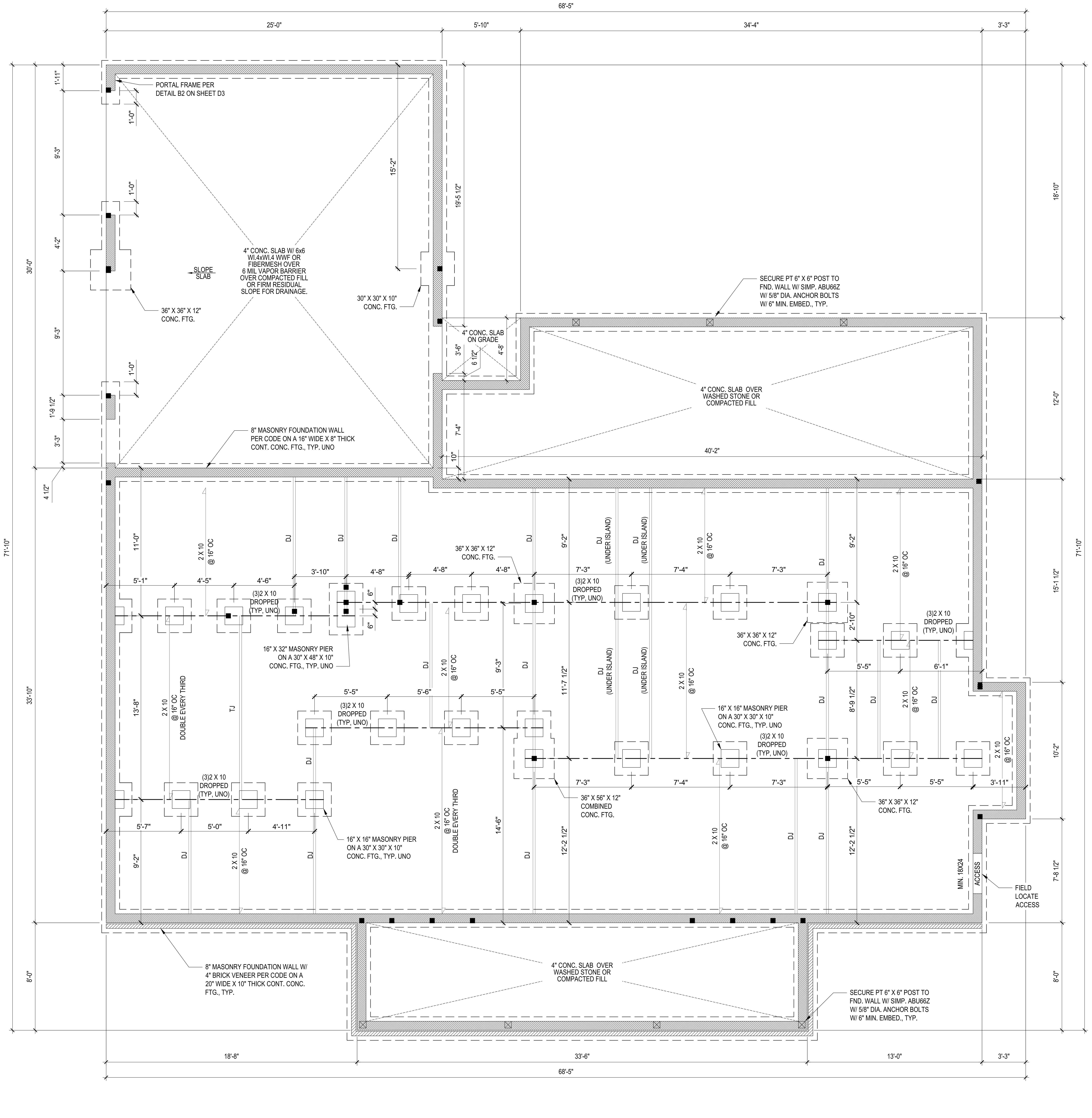
DRAWN BY: Steven Madden

DESIGNED BY: Steven Madden

Sheet Title: ROOF

☐ Preliminary Dwg.
☐ Bidding Doc.
☐ Construction Doc.

Sheet: 6 OF 6



FOUNDATION PLAN

1/4" = 1'-0"

DESIGN LOADS

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION LL	DEFLECTION TL
FLOOR (primary)	40	10	L/360	L/240
FLOOR (secondary)	40	10	L/360	L/240
ATTIC (w/ storage)	20	10	L/240	L/180
ATTIC (no access)	10	5	L/240	L/180
EXTERNAL BALCONY	40	10	L/360	L/240
ROOF	20	10	L/240	L/180
ROOF TRUSS	20	20	L/240	L/180
WIND LOAD	BASED ON 120 MPH (EXPOSURE B)			
SEISMIC	BASED ON SEISMIC ZONES A, B & C			

STRUCTURAL NOTES:

1) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF "NORTH CAROLINA STATE 2018 RESIDENTIAL BUILDING CODE", IN ADDITION TO ALL LOCAL CODES AND REGULATIONS.
2) IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, PA IS NOT RESPONSIBLE FOR DIMENSIONS AND SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.
3) ALL LUMBER SHALL BE SYP #2 (UNO)
ALL LVL LUMBER TO BE 1.75" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2600 PSI, E = 1.9M PSI
(I.E. iLEVEL MICROLAM)
ALL LSL LUMBER IS TO BE 1.55E (Fb = 2325 PSI)
4) ALL LOAD BEARING EXTERIOR WINDOW HEADERS ARE TO BE (2) 2x10 w/ (1) 2x4 JACK STUD (U.N.O.) AND KING STUDS PER TABLE R602.7.5, AND TOGETHER w/ (2) 10d NAILS @ 8" O.C., PROVIDED THAT THE TOP OF THE WINDOW HEIGHT IS 6'-8", MINIMUM BOTTOM OF THE WINDOW HEIGHT IS 1'-6". OTHERWISE REFER TO TABLES R602.7(1) AND R602.7(2).
5) ALL INTERIOR LOAD BEARING HEADERS TO BE (2) 2x10 (U.N.O.) REFER TO TABLES R602.7(1) AND R602.7(2) FOR JACK STUD REQUIREMENTS FOR HEADER SPANS FOR INTERIOR AND EXTERIOR LOAD CONDITIONS (UNO)
6) REFER TO 2018 NC BUILDING CODE SECTION R602 FOR CONSTRUCTION OF ALL WALLS OVER 10'-0" IN HEIGHT.
7) ALL STRUCTURAL STEEL SHALL BE ASTM A992 GRADE 50
Fy = 50 KSI MIN. (UNO)
8) ALL EXTERIOR LUMBER TO BE #2 SYP PT
9) ALL CONCRETE, fc = 3000 PSI MIN.
10) PRESUMPTIVE BEARING CAPACITY = 2000 PSF
11) 1/2"Ø ANCHOR BOLTS SPACED AT MAXIMUM OF 6'-0" O.C. AND NOT MORE THAN 12" FROM THE CORNER. THERE SHALL BE A MINIMUM OF (2) BOLTS PER PLATE SECTION. ANCHOR BOLTS SHALL BE SPACED AT 3'-0" O.C. FOR BASEMENTS. ANCHOR BOLT SHALL EXTEND 7" INTO CONCRETE OR MASONRY.
12) PSL COLUMNS DESIGNED WITH MAX. HEIGHT OF 9'-0" (UNO)
13) PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS. (U.N.O.)
14) PROVIDE CONTINUOUS SHEATHING PER SECTION 602.10.4 OF THE 2018 IRC.
15) MAXIMUM MASONRY PIER HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST HORIZONTAL DIMENSION.
16) UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION.
17) METAL HANGERS SHALL BE SIMPSON OR APPROVED EQUAL.

2080 SQ. FT. OF CRAWL SPACE / 150 = 13.87 SQ. FT. OF REQ'D VENTILATION WITHOUT CROSS VENTILATION
13.87 SQ. FT. OF VENTILATION REQ'D / 0.88 SQ.FT. PER VENT = 16 VENTS REQ'D (BASED ON 8" X 16" VENTS)1

-OR-

2080 SQ. FT. OF CRAWL SPACE / 1500 = 1.39 SQ. FT. OF REQ'D VENTILATION WITH CROSS VENTILATION
1.39 SQ. FT. OF VENTILATION REQ'D / 0.88 SQ.FT. PER VENT = 2 VENTS REQ'D (BASED ON 8" X 16" VENTS)2

1) VENT LOCATIONS MAY VARY FROM THOSE SHOWN ON PLAN, HOWEVER VENTS SHALL BE PLACED TO PROVIDE ADEQUATE VENTILATION AT ALL POINTS AND TO PREVENT DEAD AIR POCKETS.

2) THE TOTAL AREA OF VENTILATION OPENINGS MAY BE REDUCED TO 1/1500 OF THE CRAWL SPACE GROUND AREA WHERE THE REQUIRED OPENINGS ARE PLACED SO AS TO PROVIDE CROSS VENTILATION OF THE CRAWL SPACE. THE INSTALLATION OF OPERABLE LOUVERS SHALL NOT BE PROHIBITED. ONE FOUNDATION VENT SHALL BE WITHIN 3 FEET OF EACH CORNER OF THE BUILDING. TO PREVENT RAINWATER ENTRY WHEN THE CRAWL SPACE IS BUILT ON A SLOPED SITE, THE UPHILL FOUNDATION WALLS MAY BE CONSTRUCTED WITHOUT WALL VENT OPENINGS. VENT DAMS SHALL BE PROVIDED WHEN THE BOTTOM OF THE FOUNDATION VENT OPENING IS LESS THAN 4 INCHES ABOVE THE FINISHED EXTERIOR GRADE.

WALL VENTED CRAWL SPACES REQUIRE FULL COVERAGE GROUND VAPOR RETARDERS.

* CRAWL SPACE VENTILATION CALCULATION

NO SCALE

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 036819 ALAN W. LEWIS 10-17-2022

TYNDALL ENGINEERING & DESIGN, P.A.
T 919 773-1200 • F 919 773-9658
280 Shipwash Drive • Garner • North Carolina • 27529
www.tyndallengineering.com

Client: STEVE NORDAN

Plan: MCLAMB RESIDENCE

FOUNDATION PLAN
1ST FLOOR FRAMING

Project #: DRB2201-0186

Date: 10/17/22

Engineered By: AM

DWG. Checked By: AWL

Scale: SEE PLAN

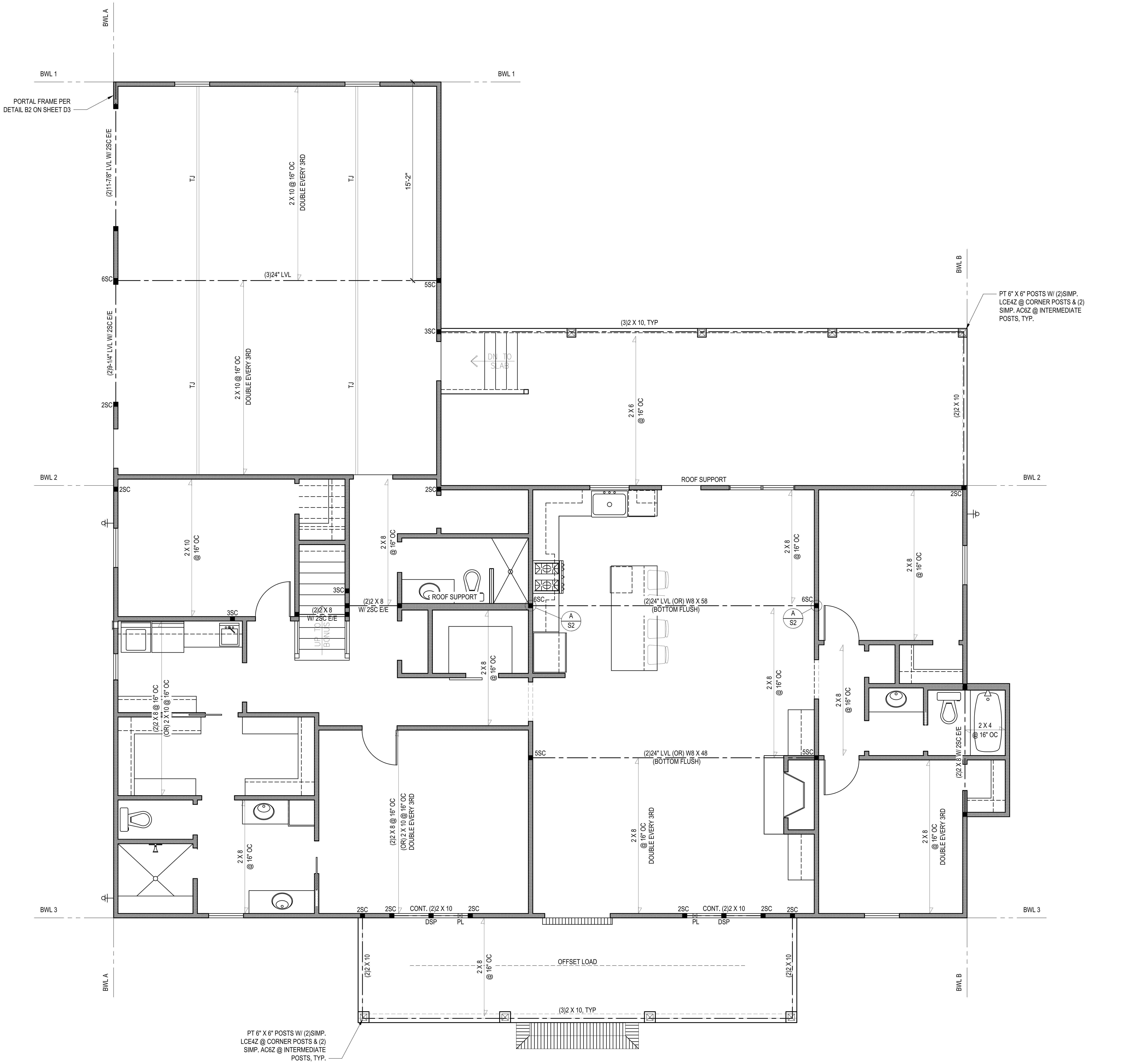
REVISIONS

No.	Date:	Remarks
1		
2		
3		
4		

Sheet Number

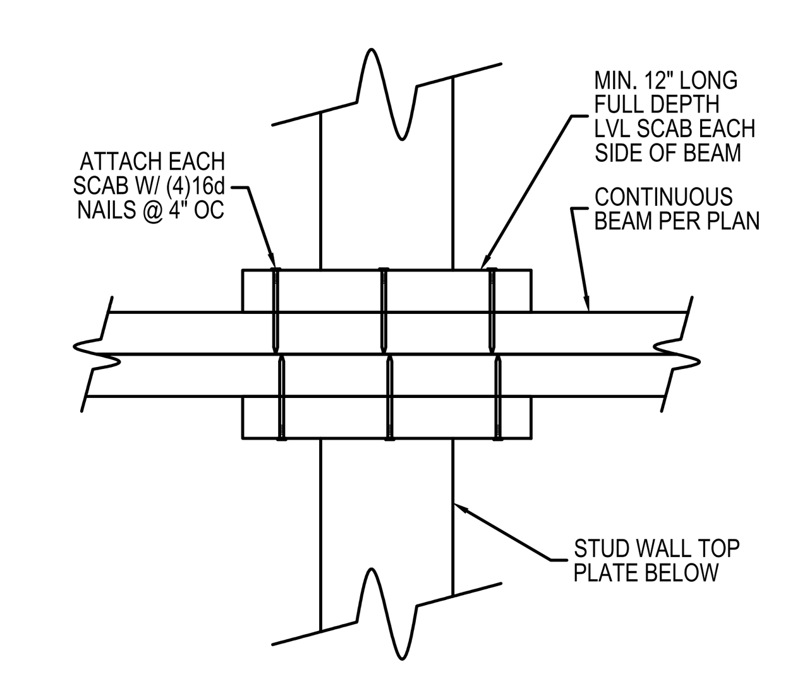
S1

1 of 7



FIRST FLOOR PLAN

1/4" = 1'-0"



A BEAM BEARING ENHANCEMENT

SCALE: 1-1/2" = 1'-0"

DESIGN LOADS

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION	
			LL	TL
FLOOR (primary)	40	10	L/360	L/240
FLOOR (secondary)	40	10	L/360	L/240
ATTIC (w/ storage)	20	10	L/240	L/180
ATTIC (no access)	10	5	L/240	L/180
EXTERNAL BALCONY	40	10	L/360	L/240
ROOF	20	10	L/240	L/180
ROOF TRUSS	20	20	L/240	L/180
WIND LOAD	BASED ON 120 MPH (EXPOSURE B)			
SEISMIC	BASED ON SEISMIC ZONES A, B & C			

STRUCTURAL NOTES:

1) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF "NORTH CAROLINA STATE 2018 RESIDENTIAL BUILDING CODE", IN ADDITION TO ALL LOCAL CODES AND REGULATIONS.
2) IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, PA IS NOT RESPONSIBLE FOR DIMENSIONS AND SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.
3) ALL LUMBER SHALL BE SYP #2 (UNO)
ALL LVL LUMBER TO BE 1.75" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2600 PSI, E = 1.9M PSI
(I.E. iLEVEL MICROLAM)
ALL LSL LUMBER IS TO BE 1.55E (Fb = 2325 PSI)
4) ALL LOAD BEARING EXTERIOR WINDOW HEADERS ARE TO BE (2) 2x10 w/ (1) 2x4 JACK STUD (U.N.O.) AND KING STUDS PER TABLE R602.7.5, AND TOGETHER w/ (2) 10d NAILS @ 8" O.C., PROVIDED THAT THE TOP OF THE WINDOW HEIGHT IS 6'-8", MINIMUM BOTTOM OF THE WINDOW HEIGHT IS 1'-6". OTHERWISE REFER TO TABLES R602.7(1) AND R602.7(2).
5) ALL INTERIOR LOAD BEARING HEADERS TO BE (2) 2x10 (U.N.O.) REFER TO TABLES R602.7(1) AND R602.7(2) FOR JACK STUD REQUIREMENTS FOR HEADER SPANS FOR INTERIOR AND EXTERIOR LOAD CONDITIONS (UNO)
6) REFER TO 2018 NC BUILDING CODE SECTION R602 FOR CONSTRUCTION OF ALL WALLS OVER 10'-0" IN HEIGHT.
7) ALL STRUCTURAL STEEL SHALL BE ASTM A992 GRADE 50
Fy = 50 KSI MIN. (UNO)
8) ALL EXTERIOR LUMBER TO BE #2 SYP PT
9) ALL CONCRETE, fc = 3000 PSI MIN.
10) PRESUMPTIVE BEARING CAPACITY = 2000 PSF
11) 1/2"Ø ANCHOR BOLTS SPACED AT MAXIMUM OF 6'-0" O.C. AND NOT MORE THAN 12" FROM THE CORNER. THERE SHALL BE A MINIMUM OF (2) BOLTS PER PLATE SECTION. ANCHOR BOLTS SHALL BE SPACED AT 3'-0" O.C. FOR BASEMENTS. ANCHOR BOLT SHALL EXTEND 7" INTO CONCRETE OR MASONRY.
12) PSL COLUMNS DESIGNED WITH MAX. HEIGHT OF 9'-0" (UNO)
13) PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS. (U.N.O.)
14) PROVIDE CONTINUOUS SHEATHING PER SECTION 602.10.4 OF THE 2018 IRC.
15) MAXIMUM MASONRY PIER HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST HORIZONTAL DIMENSION.
16) UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION.
17) METAL HANGERS SHALL BE SIMPSON OR APPROVED EQUAL.

BRACING PANEL LENGTHS REQUIRED:
BWL A = 10.0 FT
BWL B = 10.0 FT
BWL 1 = 4.9 FT
BWL 2 = 10.2 FT
BWL 3 = 5.3 FT

BRACING PANEL LENGTHS PROVIDED:
BWL A = 37.83 FT CS-WSP
BWL B = 30.0 FT CS-WSP
BWL 1 = 19.67 FT CS-WSP
BWL 2 = 39.83 FT CS-WSP / GB
BWL 3 = 43.5 FT CS-WSP

STRUCTURAL SHEATHING NOTES

1) DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR LESS.
2) WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10 OF THE 2018 NCRC.
3) BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3.
REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS INCLUDING CONNECTIONS & SUPPORT OF BRACED WALL PANELS.

⟨1⟩ REFERENCE FIGURE R602.10.4.3 OF THE 2018 NCRC.

4) INTERIOR BRACED WALL PANELS (BWP) INDICATED SHALL BE SHEATHED IN ACCORDANCE WITH THE GB METHOD OR WSP METHOD AS PRESCRIBED IN SECTION R602.10.1 (UNO)

⟨2⟩ 1/2" GYPSUM BOARD (GB) MINIMUM LENGTH OF 8'-0" (ISOLATED PANELS) OR 4'-0" (CONTINUOUS SHEATHING). SECURE w/ 5d COOLER NAILS (OR EQUAL PER TABLE R702.3.5) SPACED @ 7" O.C. AT PANEL EDGES, INCLUDING TOP AND BOTTOM PLATES & 7" O.C. AT INTERMEDIATE SUPPORTS

⟨3⟩ 3/8" WOOD STRUCTURAL PANEL (WSP) SECURE w/ 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS

5) EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS-WSP METHOD AS PRESCRIBED IN SECTION R602.10.3 (UNO)
6) ALL SHEATHABLE SURFACES OF EXTERIOR WALLS (INCLUDING AREAS ABOVE AND BELOW OPENINGS AND GABLE END WALLS) SHALL BE CONTINUOUSLY SHEATHED WITH WOOD STRUCTURAL PANEL (WSP) SHEATHING WITH A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH MINIMUM 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND SPACED AT 12" O.C. AT INTERMEDIATE SUPPORTS.
7) MINIMUM BRACED WALL PANEL LENGTHS WITH CS-WSP METHOD SHALL BE AS FOLLOWS:
- 24" ADJACENT TO OPENINGS NOT MORE THAN 67% OF WALL HEIGHT
- 30" ADJACENT TO OPENINGS GREATER THAN 67% AND LESS THAN 85% OF WALL HEIGHT.
- 48" FOR OPENINGS GREATER THAN 85% OF WALL HEIGHT

⟨4⟩ SHEATH INTERIOR & EXTERIOR

8) FOR CS-WSP METHOD, A MINIMUM 24" BRACED WALL PANEL CORNER RETURN SHALL BE PROVIDED AT BOTH ENDS OF A BRACED WALL LINE IN ACCORDANCE WITH FIGURE R602.10.3(4). IN LIEU OF A CORNER RETURN, EITHER A MIN. 48" BRACED WALL PANEL SHALL BE PROVIDED AT THE CORNER OR A HOLD-DOWN DEVICE WITH A MINIMUM UPLIFT DESIGN VALUE OF 800# SHALL BE FASTENED TO THE EDGE OF THE BRACED WALL PANEL CLOSEST TO THE CORNER AND TO THE FOUNDATION OR FRAMING BELOW.

⟨5⟩ MINIMUM 800# HOLD-DOWN DEVICE

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Client: STEVE NORDAN

Plan: MCLAMB RESIDENCE

1ST FLOOR HEADER 2ND FLOOR FRAMING

Project #: DRB2201-0186

Date: 10/17/22

Engineered By: AM

DWG. Checked By: AWL

Scale: SEE PLAN

REVISIONS

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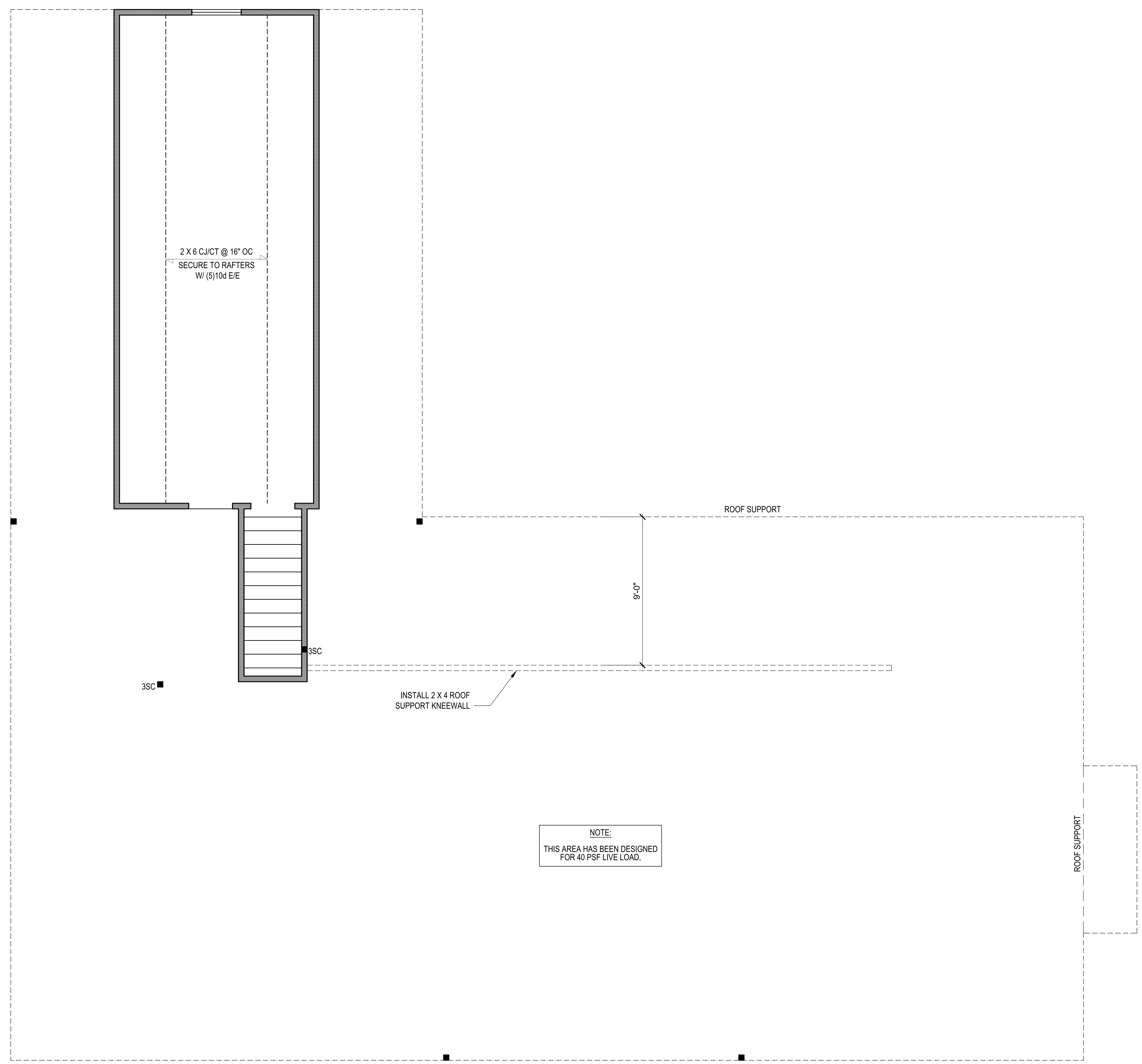
S2



SECOND FLOOR PLAN

1/4" = 1'-0"

DESIGN LOADS

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION	
			LL	TL
FLOOR (primary)	40	10	L/360	L/240
FLOOR (secondary)	40	10	L/360	L/240
ATTIC (w/ storage)	20	10	L/240	L/180
ATTIC (no access)	10	5	L/240	L/180
EXTERNAL BALCONY	40	10	L/360	L/240
ROOF	20	10	L/240	L/180
ROOF TRUSS	20	20	L/240	L/180
WIND LOAD	BASED ON 120 MPH (EXPOSURE B)			
SEISMIC	BASED ON SEISMIC ZONES A, B & C			

STRUCTURAL NOTES:

1) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF "NORTH CAROLINA STATE 2018 RESIDENTIAL BUILDING CODE", IN ADDITION TO ALL LOCAL CODES AND REGULATIONS.
2) IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, PA IS NOT RESPONSIBLE FOR DIMENSIONS AND SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.
3) ALL LUMBER SHALL BE SYP #2 (UNO)
ALL LVL LUMBER TO BE 1.75" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2600 PSI, E = 1.9M PSI
(I.E. iLEVEL MICROLAM)
ALL LSL LUMBER IS TO BE 1.55E (Fb = 2325 PSI)
4) ALL LOAD BEARING EXTERIOR WINDOW HEADERS ARE TO BE (2) 2x10 w/ (1) 2x4 JACK STUD (U.N.O.) AND KING STUDS PER TABLE R602.7.5, AND TOGETHER w/ (2) 10d NAILS @ 8" O.C., PROVIDED THAT THE TOP OF THE WINDOW HEIGHT IS 6'-8", MINIMUM BOTTOM OF THE WINDOW HEIGHT IS 1'-6". OTHERWISE REFER TO TABLES R602.7(1) AND R602.7(2).
5) ALL INTERIOR LOAD BEARING HEADERS TO BE (2) 2x10 (U.N.O.) REFER TO TABLES R602.7(1) AND R602.7(2) FOR JACK STUD REQUIREMENTS FOR HEADER SPANS FOR INTERIOR AND EXTERIOR LOAD CONDITIONS (UNO)
6) REFER TO 2018 NC BUILDING CODE SECTION R602 FOR CONSTRUCTION OF ALL WALLS OVER 10'-0" IN HEIGHT.
7) ALL STRUCTURAL STEEL SHALL BE ASTM A992 GRADE 50 Fy = 50 KSI MIN. (UNO)
8) ALL EXTERIOR LUMBER TO BE #2 SYP PT
9) ALL CONCRETE, fc = 3000 PSI MIN.
10) PRESUMPTIVE BEARING CAPACITY = 2000 PSF
11) 1/2"Ø ANCHOR BOLTS SPACED AT MAXIMUM OF 6'-0" O.C. AND NOT MORE THAN 12" FROM THE CORNER. THERE SHALL BE A MINIMUM OF (2) BOLTS PER PLATE SECTION. ANCHOR BOLTS SHALL BE SPACED AT 3'-0" O.C. FOR BASEMENTS. ANCHOR BOLT SHALL EXTEND 7" INTO CONCRETE OR MASONRY.
12) PSL COLUMNS DESIGNED WITH MAX. HEIGHT OF 9'-0" (UNO)
13) PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS. (U.N.O.)
14) PROVIDE CONTINUOUS SHEATHING PER SECTION 602.10.4 OF THE 2018 IRC.
15) MAXIMUM MASONRY PIER HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST HORIZONTAL DIMENSION.
16) UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION.
17) METAL HANGERS SHALL BE SIMPSON OR APPROVED EQUAL.

NORTH CAROLINA PROFESSIONAL SEAL 036819 10-17-2022 ENGINEER ALAN W. LEWIS

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Client: STEVE NORDAN

Plan: MCLAMB RESIDENCE

2ND FLOOR HEADER
2ND FLR. CLG. FRAMING

Project #:	DRB2201-0186
Date:	10/17/22
Engineered By:	AM
DWG. Checked By:	AWL
Scale:	SEE PLAN

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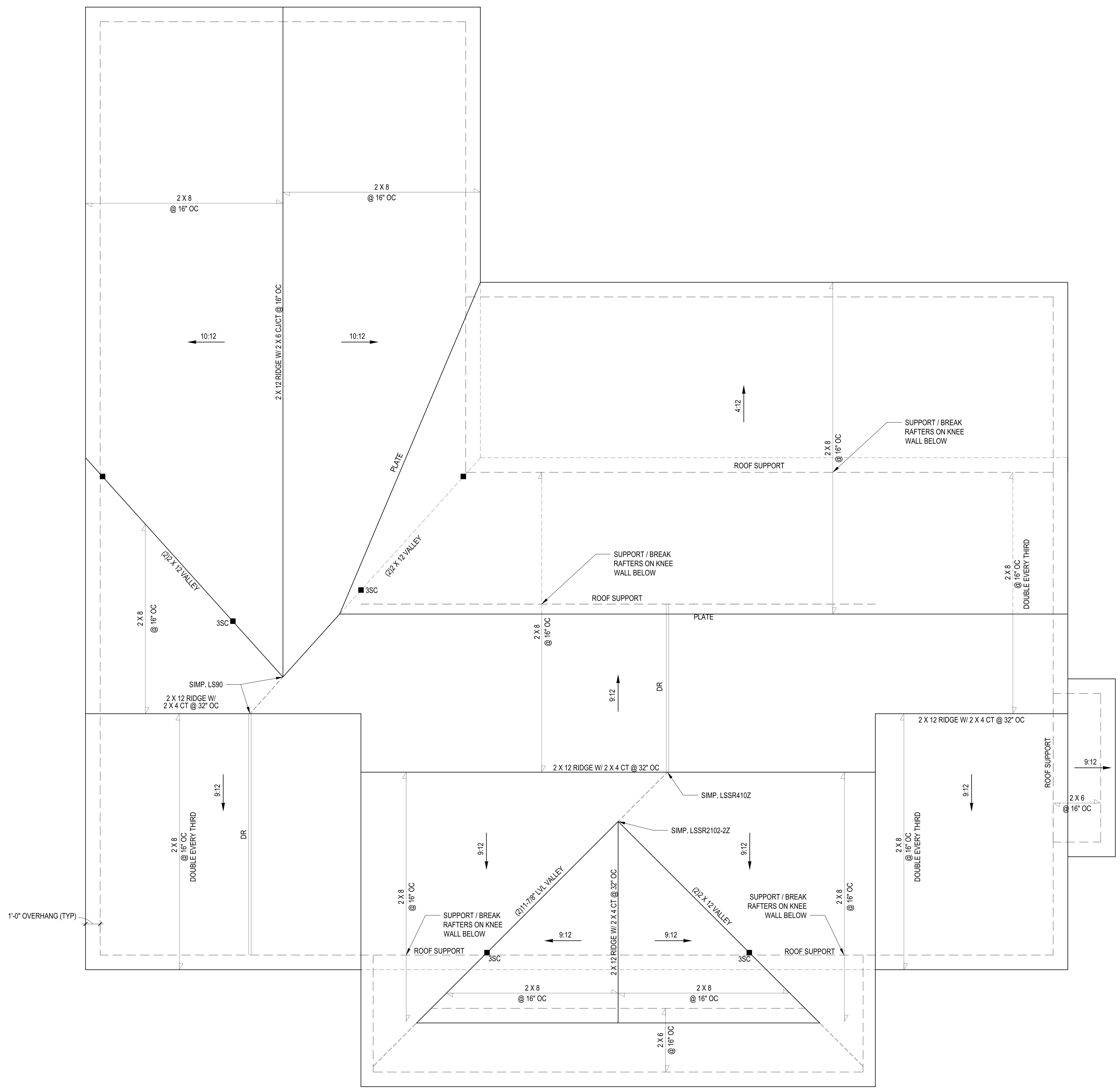

3023 SQ. FT. OF ATTIC / 300 = 10.08 SQ. FT. INLETS/OUTLETS REQUIRED

1) CALCULATION BASED ON VENTILATORS USED AT LEAST 3'-0" ABOVE THE COMICE VENTS WITH THE BALANCE OF VENTILATION PROVIDED BY EAVE VENTS.

2) CATHEDRAL CEILINGS SHALL HAVE A 1" MINIMUM CLEARANCE BETWEEN THE BOTTOM OF THE ROOF DECK AND THE INSULATION.

* ATTIC VENTILATION CALCULATION

NO SCALE

ROOF PLAN

1/4" = 1'-0"

***Engineers seal does not include construction means, methods, techniques, sequences, procedures or safety precaution.**
***Any deviations or discrepancies on plans are to be brought to the immediate attention of Tyndall Engineering & Design, P.A. Failure to do so will void Tyndall Engineering & Design, P.A. liability.**
***Please review these documents carefully. Tyndall Engineering & Design, P.A. will interpret that all dimensions, recommendations, etc. presented in these documents were deemed acceptable once construction begins.**

NORTH CAROLINA PROFESSIONAL SEAL 036819 ENGINEER ALAN W. LEWIS

TYNDALL ENGINEERING & DESIGN, P.A.

Client: STEVE NORDAN

Plan: MCLAMB RESIDENCE

ROOF PLAN

Project #: DRB2201-0186

Date: 10/17/22

Engineered By: AM

DWG. Checked By: AWL

Scale: SEE PLAN

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STRUCTURAL NOTES

1) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF "NORTH CAROLINA STATE 2018 RESIDENTIAL BUILDING CODE", IN ADDITION TO ALL LOCAL CODES AND REGULATIONS.

2) DESIGN LOADS:

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION LL	DEFLECTION TL
ALL FLOORS	40	10	L/360	L/240
ATTIC (w/ walk up stairs)	30	10	L/360	L/240
ATTIC (pull down access)	20	10	L/240	L/180
ATTIC (no access)	10	5	L/240	L/180
EXTERNAL BALCONY	40	10	L/360	L/240
ROOF	20	10	L/240	L/180
ROOF TRUSS	20	20	L/240	L/180
WIND LOAD	BASED ON 120 MPH (EXPOSURE B)			
SEISMIC	SEISMIC ZONES A, B & C			

3) MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF

4) CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF FIVE INCHES UNLESS NOTED OTHERWISE. (U.N.O.)

5) MAXIMUM DEPTH OF UNBALANCED FILL AGAINST FOUNDATION WALLS TO BE LESS THAN 4'-0" WITHOUT USING SUFFICIENT WALL BRACING. REFER TO SECTION R404 OF 2018 NC BUILDING CODE FOR BACKFILL LIMITATIONS BASED ON WALL HEIGHT, WALL THICKNESS, SOIL TYPE, AND UNBALANCED BACKFILL HEIGHT.

6) ALL FRAMING LUMBER SHALL BE SYP #2 (Fb = 800 PSI, BASED ON 2x10) UNO.
ALL FRAMING LUMBER EXPOSED TO THE ELEMENTS SHALL BE TREATED MATERIAL.
ALL LVL LUMBER TO BE 1.75" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2600 PSI, E = 1.9M PSI (U.N.O.)
ALL LSL LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2325 PSI, E = 1.6M PSI (U.N.O.)
ALL PSL LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2400 PSI, E = 1.8M PSI (U.N.O.)

7) ALL LOAD BEARING EXTERIOR HEADERS SHALL BE AT (2) 2x10. (U.N.O.) REFER TO TABLE R602.7(1) & (2) FOR JACK STUD REQUIREMENTS FOR HEADER SPANS FOR INTERIOR AND EXTERIOR LOAD CONDITIONS UNLESS SPECIFICALLY NOTED ON PLANS.

8) ALL STRUCTURAL STEEL W-SHAPES (I-BEAMS) SHALL BE ASTM A992 GRADE 50.
ALL STEEL ANGLES, PLATES, AND C-CHANNELS SHALL BE ASTM A36.
ALL STEEL PIPE SHALL BE ASTM A53 GRADE B.

9) STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3-1/2" AND FULL FLANGE WIDTH. PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO (2) LAG SCREWS (1/2"Ø x 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDED THE JOISTS ARE TOE NAILED TO THE SOLE PLATES, AND THE SOLE PLATES ARE NAILED OR BOLTED TO THE BEAM FLANGES @ 48" O.C.

10) PROVIDE ANCHOR BOLT PLACEMENT PER SECTION 403.1.6: 1/2"Ø ANCHOR BOLTS SPACED AT 6'-0" O.C. AND PLACED 12" FROM THE END OF EACH PLATE SECTION. ANCHOR BOLTS SHALL BE SPACED AT 3'-0" O.C. FOR BASEMENTS. ANCHOR BOLT SHALL EXTEND 7" INTO CONCRETE OR MASONRY. THE BOLTS SHALL BE LOCATED IN THE MIDDLE THIRD OF THE WIDTH OF THE PLATE. THERE SHALL BE A MINIMUM TWO ANCHOR BOLTS PER PLATE SECTION.

11) FOUNDATION DRAINAGE-DAMP PROOFING OR WATERPROOFING PER SECTION 405 AND 406 OF NC BUILDING CODE.

12) WALL AND ROOF CLADDING VALUES:
WALL CLADDING SHALL BE DESIGNED FOR 28.0 POUNDS PER SQUARE FOOT (LBS/SQFT) OR GREATER POSITIVE AND NEGATIVE PRESSURE.
ROOF VALUES BOTH POSITIVE AND NEGATIVE SHALL BE AS FOLLOWS:
39.0 LBS/SQFT FOR ROOF PITCHES 0/12 TO 1.5/12
36.0 LBS/SQFT FOR ROOF PITCHES 1.5/12 TO 6/12
18.0 LBS/SQFT FOR ROOF PITCHES 6/12 TO 12/12
**MEAN ROOF HEIGHT 30'-0" OR LESS

13) FOR ROOF SLOPES FROM 2/12 THROUGH 4/12, BUILDER TO INSTALL 2 LAYERS OF 15# FELT PAPER.

14) REFER TO SECTION R602.3 FOR FRAMING OF ALL WALLS OVER 10'-0" IN HEIGHT.

15) PROVIDE CONTINUOUS SHEATHING PER SECTION 602.10.3 OF THE 2018 NCRC.

16) UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION.

17) REFER TO TABLE N1102.1 FOR PRESCRIPTIVE BUILDING ENVELOPE THERMAL COMPONENT CRITERIA.

18) PSL COLUMNS DESIGNED WITH MAXIMUM HEIGHT OF 9'-0" (U.N.O.)

19) PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS. (U.N.O.)

20) MAXIMUM MASONRY PEIR HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST HORIZONTAL DIMENSION.

21) IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION.
TYNDALL ENGINEERING & DESIGN, PA IS NOT RESPONSIBLE FOR DIMENSION OR SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.

CLIMATE ZONES	FENESTRATION U-FACTOR b,j	SKYLIGHT U-FACTOR b	GLAZED FENESTRATION SHGC b,k	CEILING R-VALUE m	WOOD FRAMED WALL R-VALUE	MASS WALL R-VALUE i	FLOOR R-VALUE	BASEMENT WALL R-VALUE c,o	SLAB R-VALUE AND DEPTH d	CRAWL SPACE WALL R-VALUE c
3	0.35	0.55	0.30	38 or 30 cont	15 or 13 + 2.5 h	5/13 or 5/10 cont	19	5/13 f	0	5/13
4	0.35	0.55	0.30	38 or 30 cont j	15 or 13 + 2.5 h	5/13 or 5/10 cont	19	10/15	10	10/15
5	0.35	0.55	NR	38 or 30 cont j	n 19, or 13 + 5 or 15 + 3 h	13/17 or 13/12.5 cont	30 g	10/15	10	10/19

* TABLE N1102.1 CLIMATE ZONES 3-5
NO SCALE

a. R-VALUES ARE MINIMUMS. U-FACTORS AND SHGC ARE MAXIMUMS. WHEN INSULATION IS INSTALLED IN A CAVITY WHICH IS LESS THAN THE LABEL OR DESIGN THICKNESS OF THE INSULATION, THE INSTALLED R-VALUE OF THE INSULATION SHALL NOT BE LESS THAN THE R-VALUE SPECIFIED IN THE TABLE.

b. THE FENESTRATION U-FACTOR COLUMN EXCLUDED SKYLIGHTS. THE SOLAR HEAT GAIN COEFFICIENT (SHGC) COLUMN APPLIES TO ALL GLAZED FENESTRATION.

c. "10/15" MEANS R-10 CONTINUOUS INSULATED SHEATHING ON THE INTERIOR OR EXTERIOR OF THE HOME OR R-15 CAVITY INSULATION AT THE INTERIOR OF THE BASEMENT WALL OR CRAWL SPACE WALL.

d. FOR MONOLITHIC SLABS, INSULATION SHALL BE APPLIED FROM THE INSPECTION GAP DOWNWARD TO THE BOTTOM OF THE FOOTING OR A MAXIMUM OF 24" BELOW GRADE WHICHEVER IS LESS. FOR FLOATING SLABS, INSULATION SHALL EXTEND TO THE BOTTOM OF THE FOUNDATION WALL OR 24", WHICHEVER IS LESS. R-5 SHALL BE ADDED TO THE REQUIRED SLAB EDGE R-VALUES FOR HEATED SLABS.

e. DELETED

f. BASEMENT WALL INSULATION IS NOT REQUIRED IN WARM-HUMID LOCATIONS AS DEFINED BY FIGURE N1101.7 AND TABLE N1101.7.

g. OR INSULATION SUFFICIENT TO FILL THE FRAMING CAVITY. R-19 MINIMUM.

h. THE FIRST VALUE IS CAVITY INSULATION, THE SECOND VALUE IS CONTINUOUS INSULATION, SO "13+5" MEANS R-13 CAVITY INSULATION PLUS R-5 INSULATED SHEATHING. "15+3" MEANS R-15 CAVITY INSULATION. PLUS R-3 INSULATED SHEATHING. IF STRUCTURAL SHEATHING COVERS 25% OR LESS OF THE EXTERIOR, INSULATING SHEATHING IS NOT REQUIRED WHERE THE STRUCTURAL SHEATHING IS USED. IF STRUCTURAL SHEATHING COVERS MORE THAN 25 PERCENT OF THE EXTERIOR, SHALL BE SUPPLEMENTED WITH INSULATED SHEATHING OF AT LEAST R-2. "13 + 2.5" MEANS R-13 CAVITY INSULATION PLUS R-2.5 SHEATHING.

i. FOR MASS WALLS, THE SECOND R-VALUE APPLIES WHEN MORE THAN HALF THE INSULATION IS ON THE INTERIOR MASS WALL.

j. IN ADDITION TO THE EXEMPTION IN SECTION N1102.3.3, A MAXIMUM OF TWO GLAZED FENESTRATION PRODUCT ASSEMBLIES HAVING A U-FACTOR NO GREATER THAN 0.55 SHALL BE PERMITTED TO BE SUBSTITUTED FOR MINIMUM CODE COMPLIANT FENESTRATION PRODUCT ASSEMBLIES WITHOUT PENALTY.

k. IN ADDITION TO THE EXEMPTION IN SECTION N1102.3.3, A MAXIMUM OF TWO GLAZED FENESTRATION PRODUCT ASSEMBLIES HAVING A SHGC NO GREATER THAN 0.70 SHALL BE PERMITTED TO BE SUBSTITUTED FOR MINIMUM CODE COMPLIANT FENESTRATION PRODUCT ASSEMBLIES WITHOUT PENALTY.

l. R-30 SHALL BE DEEMED TO SATISFY THE CEILING INSULATION REQUIREMENT WHEREVER THE FULL HEIGHT OF UNCOMPRESSED R-30 INSULATION EXTENDS OVER THE WALL TOP PLATE AT THE EAVES. OTHERWISE R-38 INSULATION IS REQUIRED WHERE ADEQUATE CLEARANCE EXISTS OR INSULATION MUST EXTEND TO EITHER THE INSULATION BAFFLE OR WITHIN 1 INCH OF THE ATTIC ROOF DECK.

m. TABLE VALUE REQUIRED EXCEPT FOR ROOF EDGE WHERE THE SPACE IS LIMITED BY THE PITCH OF THE ROOF; THERE THE INSULATION MUST FILL THE SPACE UP TO THE AIR BAFFLE.

n. R -19 FIBERGLASS BATTS COMPRESSED AND INSTALLED IN A NOMINAL 2 × 6 FRAMING CAVITY IS DEEMED TO COMPLY. FIBERGLASS BATTS RATED R-19 OR HIGHER COMPRESSED AND INSTALLED IN A 2X4 WALL IS NOT DEEMED TO COMPLY.

o. BASEMENT WALL MEETING THE MINIMUM MASS WALL SPECIFIC HEAT CONTENT REQUIREMENT MAY USE THE MASS WALL R-VALUE AS THE MINIMUM REQUIREMENT.

DEFINITIONS FOR COMMON ABBREVIATIONS

ALT	=	ALTERNATE
CANT	=	CANTILEVER
CJ	=	CEILING JOIST
CMU	=	CONCRETE MASONRY UNIT
COL	=	COLUMN
CONC	=	CONCRETE
CONT	=	CONTINUOUS
CT	=	COLLAR TIE
DBL	=	DOUBLE
DIA	=	DIAMETER
DJ	=	DOUBLE JOIST
DR	=	DOUBLE RAFTER
EA	=	EACH
EE	=	EACH END
FJ	=	FLOOR JOIST
FND	=	FOUNDATION
FTG	=	FOOTING
GALV	=	GALVANIZED
HORIZ	=	HORIZONTAL
HT	=	HEIGHT
MANUF	=	MANUFACTURER
MAX	=	MAXIMUM
MIN	=	MINIMUM
NOM	=	NOMINAL
O.C.	=	ON CENTER
PL	=	POINT LOAD
PT	=	PRESSURE TREATED
REINF	=	REINFORCED
REQD	=	REQUIRED
RJ	=	ROOF JOIST
RS	=	ROOF SUPPORT
SC	=	STUD COLUMN
SCH	=	SCHEDULE
SPEC	=	SPECIFIED
THK	=	THICK
TJ	=	TRIPLE JOIST
TRTD	=	TREATED
TYP	=	TYPICAL
UNO	=	UNLESS NOTED OTHERWISE
W	=	WIDE FLANGE BEAM
WWF	=	WELDED WIRE FABRIC
XJ	=	EXTRA JOIST

1) MAXIMUM HEIGHT OF DECK SUPPORT POSTS AS FOLLOWS:

POST SIZE	MAX. POST HEIGHT**
4 x 4	8'-0"
6 x 6	20'-0"
***	OVER 20'-0"

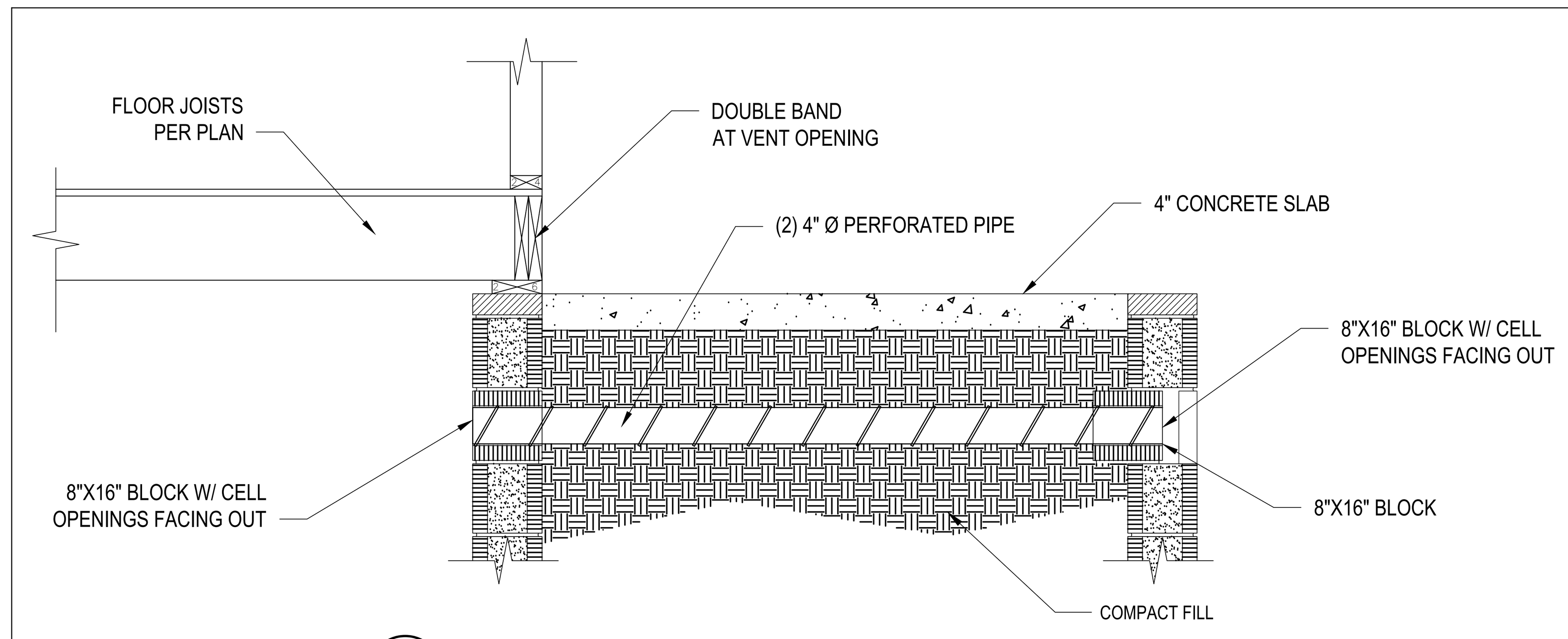
* THIS TABLE IS BASED ON NO. 2 TREATED SOUTHERN PINE POSTS. MAXIMUM TRIBUTARY AREA IS BASED ON 128 TOTAL SQUARE FEET WHICH MAY BE LOCATED AT DIFFERENT LEVELS.
** FROM TOP OF FOOTING TO BOTTOM OF GIRDER
*** DECKS WITH POST HEIGHTS OVER 20'-0" SHALL BE DESIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT.

2) DECKS SHALL BE BRACED TO PROVIDE LATERAL STABILITY BY ONE OF THESE METHODS:

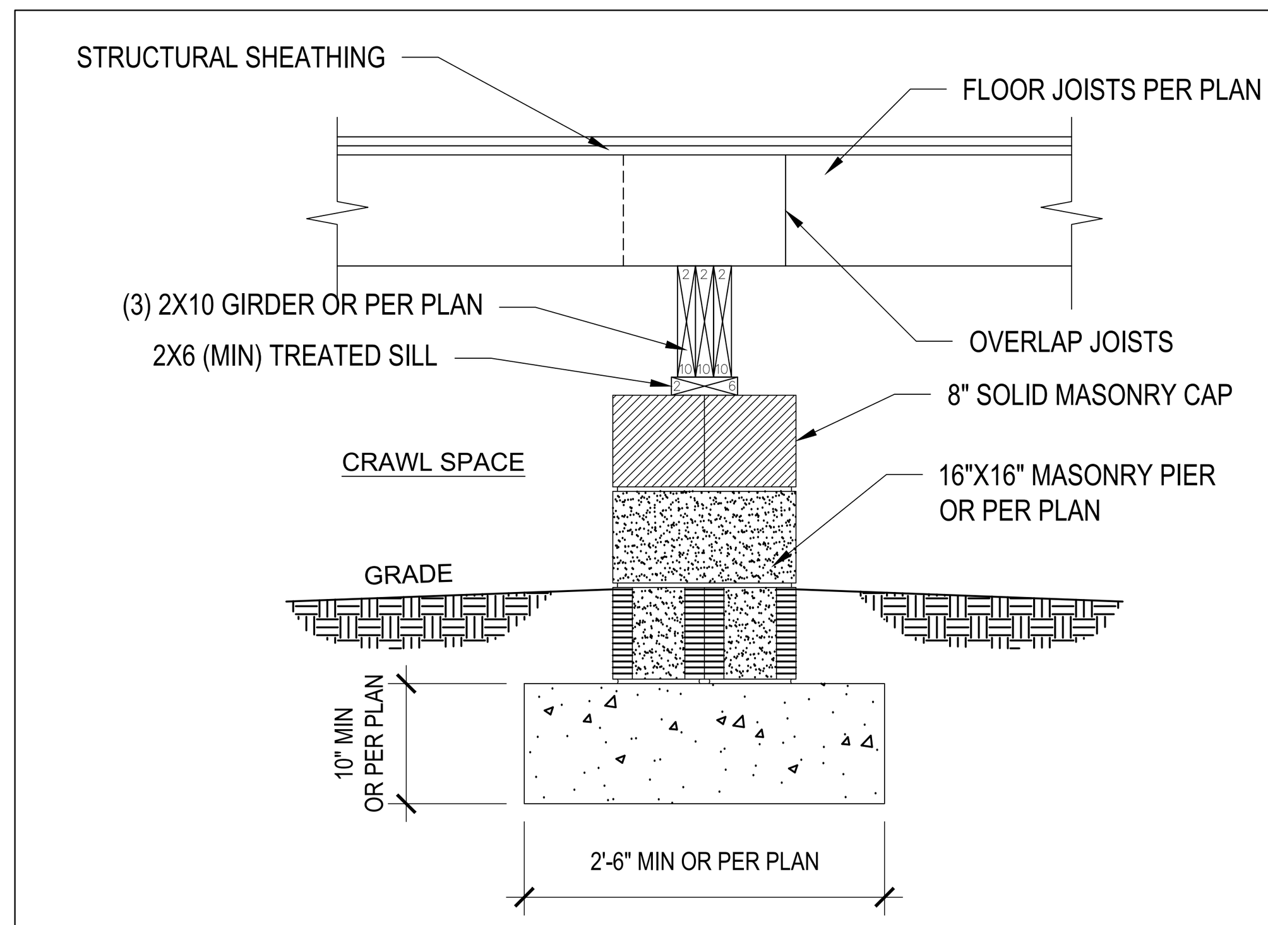
A. THE DECK FLOOR HEIGHT IS LESS THAN 4'-0" AND THE DECK IS ATTACHED TO THE STRUCTURE IN ACCORDANCE WITH SECTION (4) ABOVE. LATERAL BRACING IS NOT REQUIRED.
B. 4 x 4 WOOD KNEE BRACES MAY BE PROVIDED ON EACH COLUMN IN BOTH DIRECTIONS. THE KNEE BRACES SHALL ATTACH TO EACH POST AT A POINT NOT LESS THAN 1/3 OF THE POST LENGTH FROM THE TOP OF THE POST, AND THE BRACES SHALL BE ANGLED BETWEEN 45° AND 60° FROM THE HORIZONTAL. KNEE BRACES SHALL BE BOLTED TO THE POST AND GIRDER WITH ONE 5/8"Ø HOT DIPPED GALVANIZED BOLT AT EACH END OF THE BRACE.
C. FOR FREESTANDING DECKS WITHOUT KNEE BRACES OR DIAGONAL BRACING, LATERAL STABILITY MAY BE PROVIDED BY EMBEDDING THE POSTS IN ACCORDANCE WITH THE FOLLOWING:

POST SIZE	MAX. TRIBUTARY AREA	MAX. POST HEIGHT	EMBEDMENT DEPTH	CONCRETE DIAMETER
4 x 4	48 SQ. FT.	4'-0"	2'-6"	1'-0"
6 x 6	120 SQ. FT.	6'-0"	3'-6"	1'-8"

D. 2 x 6 DIAGONAL VERTICAL CROSS BRACING MAY BE PROVIDED IN TWO (2) PERPENDICULAR DIRECTIONS FOR FREESTANDING DECKS OR PARALLEL TO THE STRUCTURE AT THE EXTERIOR COLUMN LINE FOR ATTACHED DECKS. THE 2 x 6s SHALL BE ATTACHED TO THE POSTS WITH ONE 5/8"Ø HOT DIPPED GALVANIZED BOLT AT EACH END OF EACH BRACING MEMBER.
E. FOR EMBEDMENT OF PILES IN COASTAL REGIONS, SEE CHAPTER 46.



* FOUNDATION VENT DETAIL AT COMPACTED FILL
NO SCALE



* DROPPED GIRDER DETAIL
NO SCALE

*Engineers seal does not include construction means, methods, techniques, sequences, procedures or safety precaution.
*Any deviations or discrepancies on plans are to be brought to the immediate attention of Tyndall Engineering & Design, P.A. Failure to do so will void Tyndall Engineering & Design, P.A. liability.
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NORTH CAROLINA PROFESSIONAL SEAL 036819 ENGINEER ALAN W. LEWIS
10-17-2022

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Client: STEVE NORDAN

Plan: MCLAMB RESIDENCE

STANDARD DETAILS

Project #: DRB2201-0186
Date: 10/17/22
Engineered By: AM
DWG. Checked By: AWL
Scale: SEE PLAN

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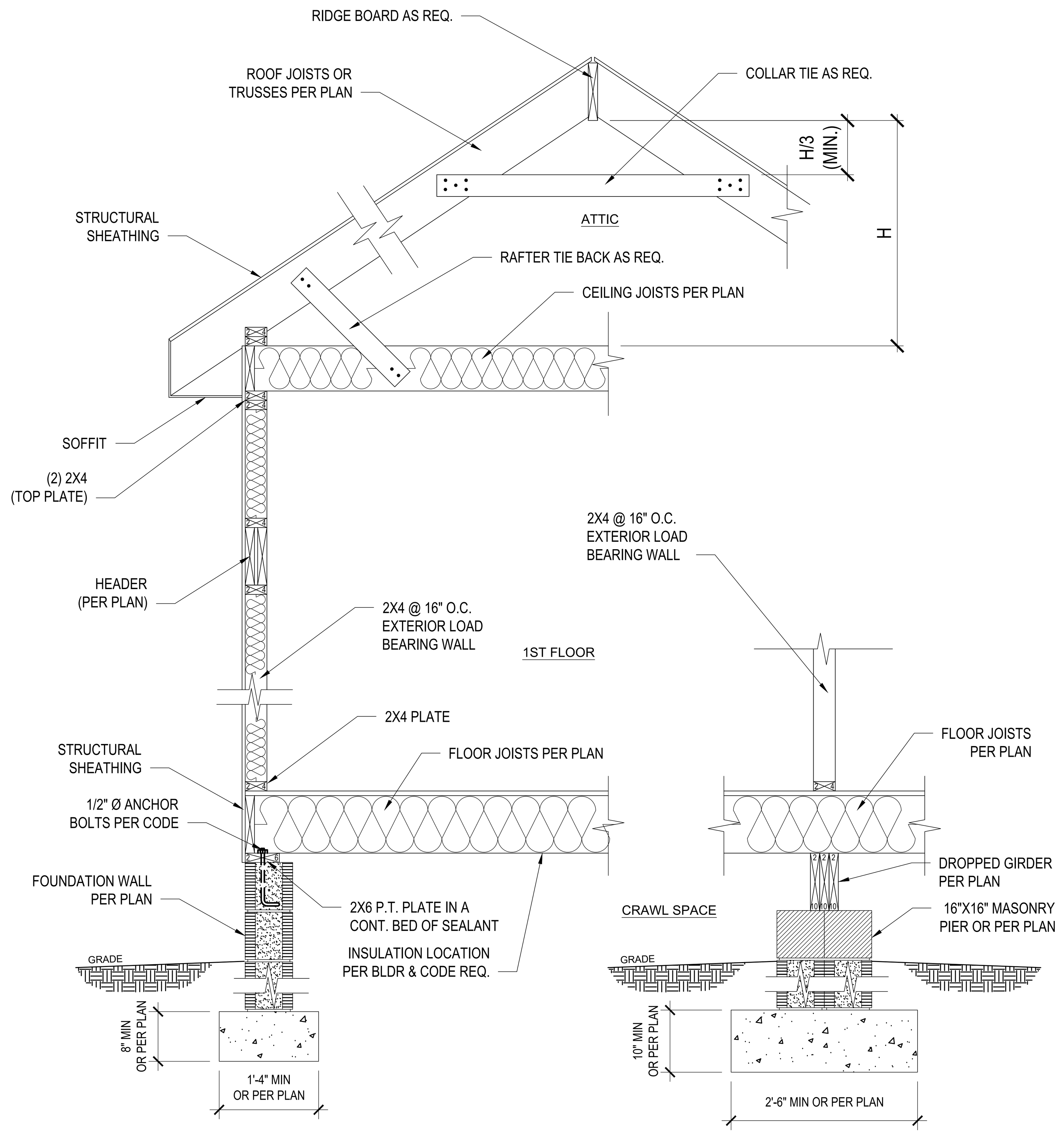
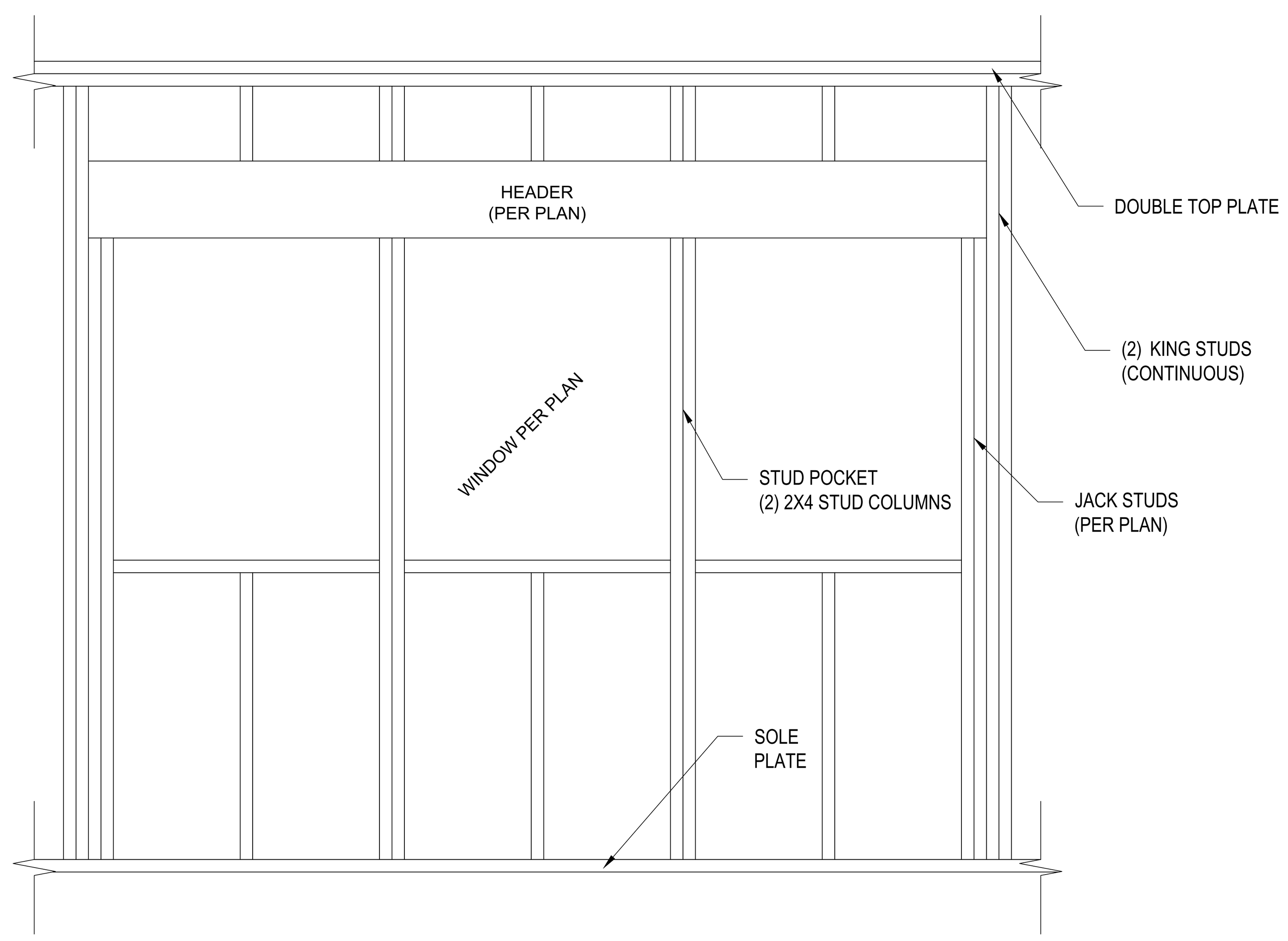
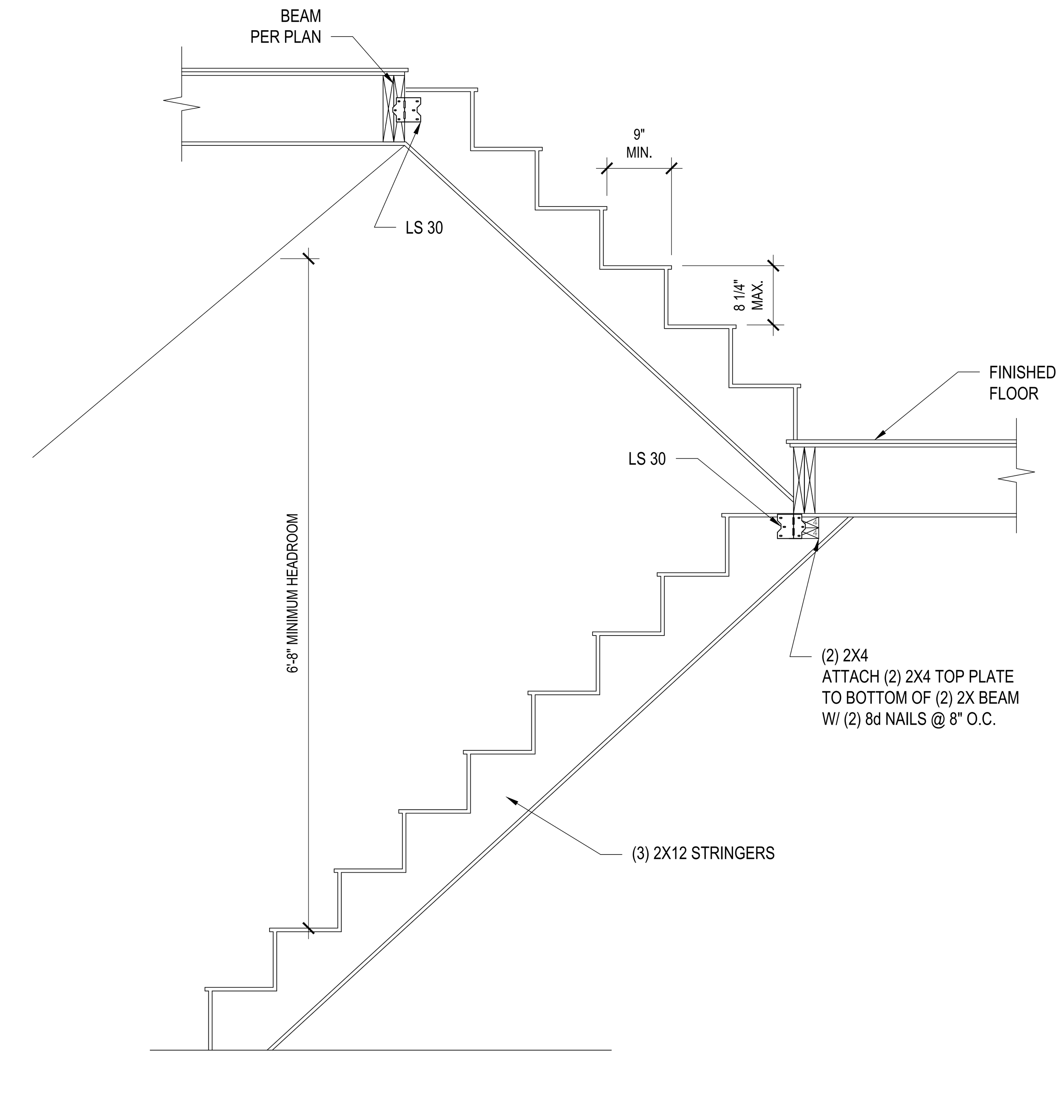


ONE-STORY ON CRAWL
NO SCALE — TYPICAL WALL DETAIL

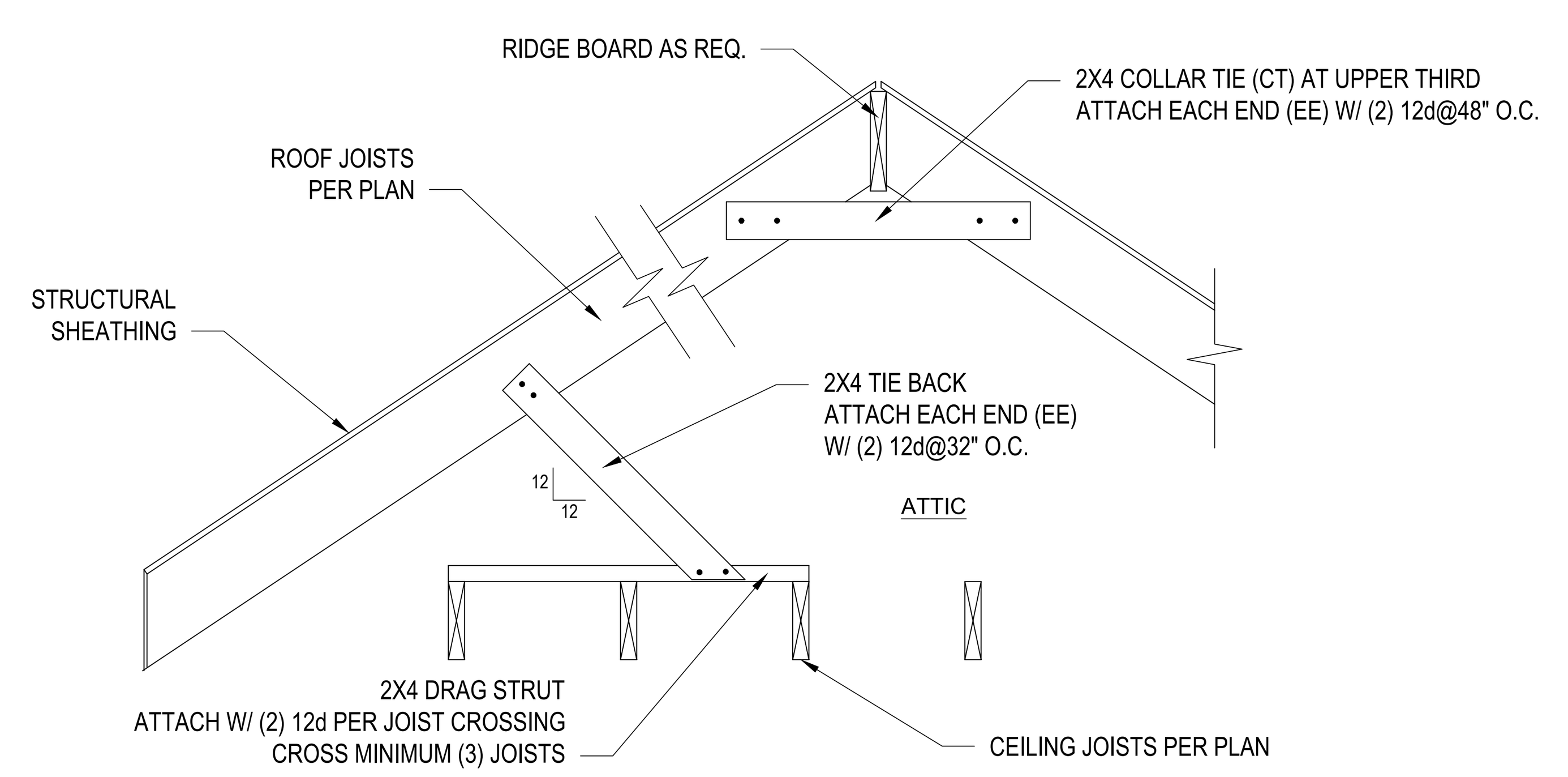


TYPICAL WINDOW STUD POCKET DETAIL
NO SCALE

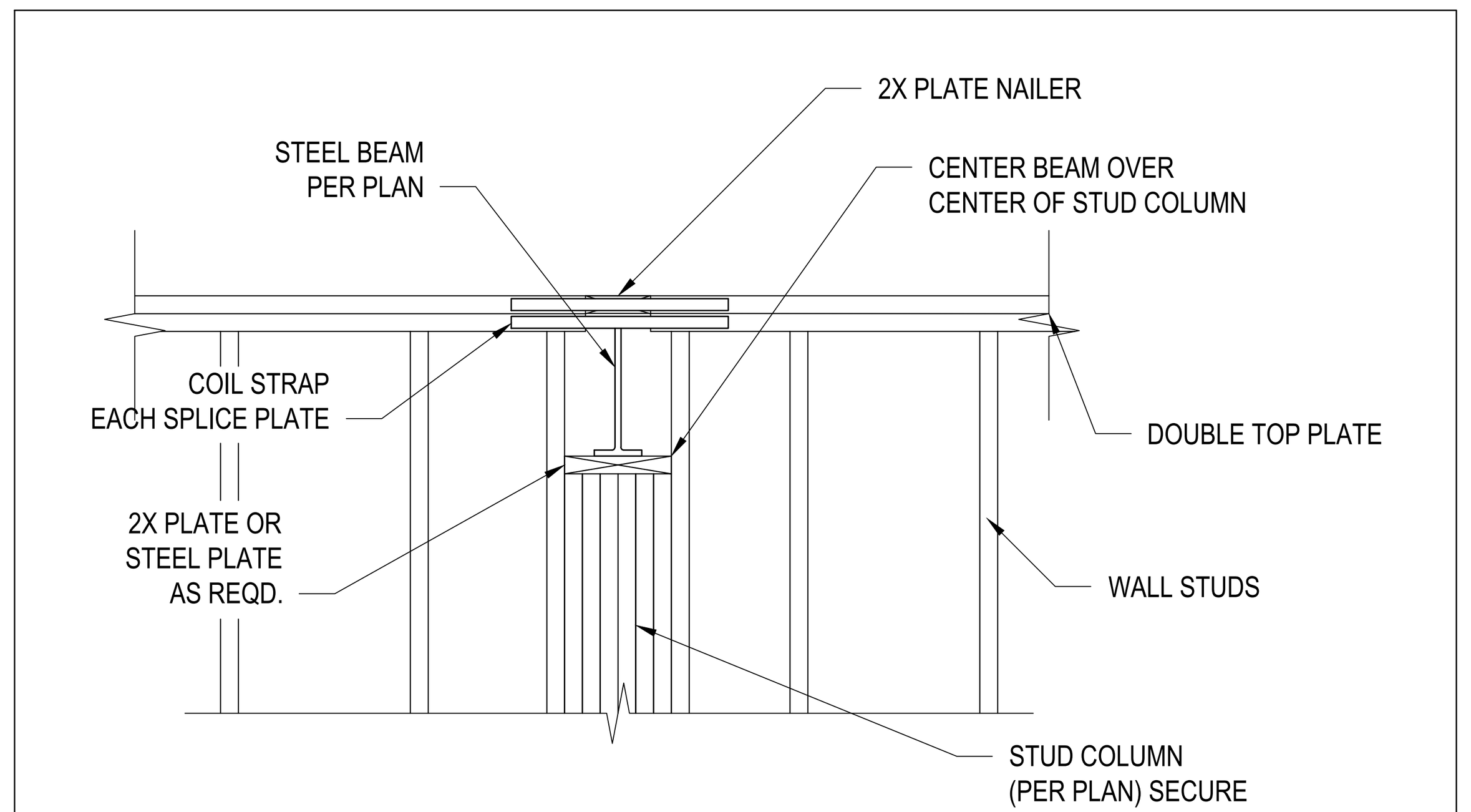


HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH CONTINUOUS RUN OF TREADS OR FLIGHT WITH FOUR OR MORE RISERS. HANDRAIL HEIGHT MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING, OR FINISH SURFACE OF RAMP SLOPE, SHALL NOT BE LESS THAN 30 INCHES AND NOT MORE THAN 38 INCHES.

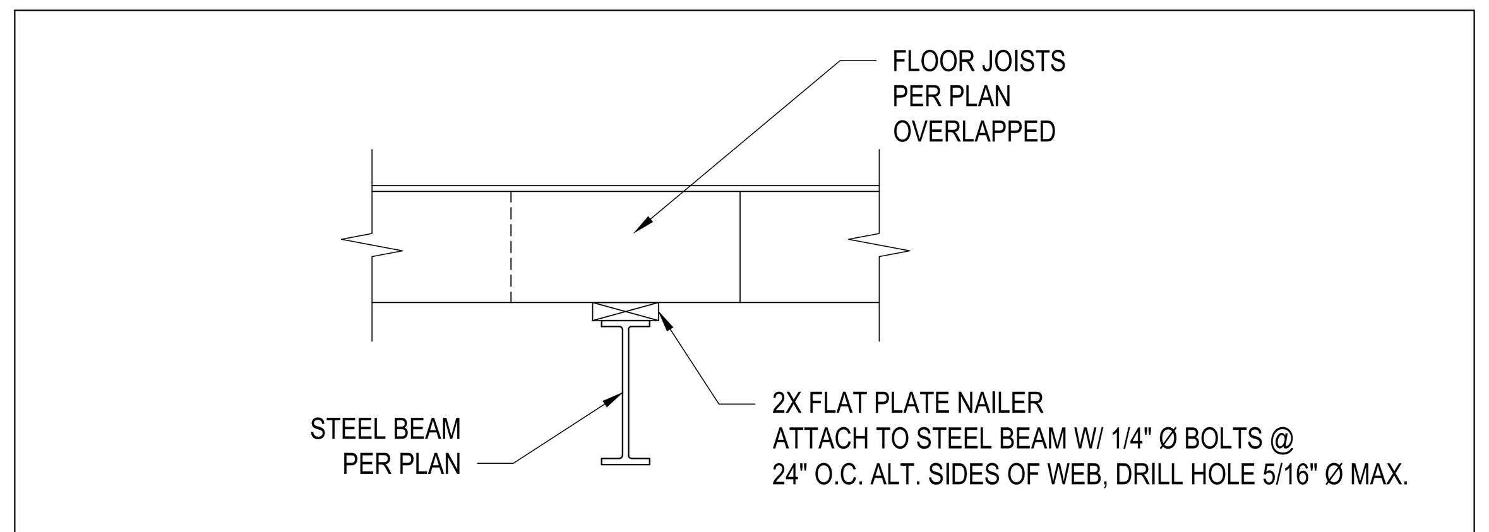
TYPICAL STAIRWAY DETAIL
NO SCALE



RAFTER TIE BACK DETAIL
NO SCALE — CJ PERPENDICULAR TO RAFTERS



DROPPED BEAM TO STUD COLUMN DETAIL
NO SCALE — STEEL BEAM SHOWN/LVL SIMILAR



DROPPED BEAM LATERAL BRACING DETAIL
NO SCALE — STEEL BEAM SHOWN/LVL SIMILAR

*Engineers seal does not include construction means, methods, techniques, sequences, procedures or safety precaution.
*Any deviations or discrepancies on plans are to be brought to the immediate attention of Tyndall Engineering & Design, P.A. Failure to do so will void Tyndall Engineering & Design, P.A. liability.
*Please review these documents carefully. Tyndall Engineering & Design, P.A. will interpret that all dimensions, recommendations, etc. presented in these documents were deemed acceptable once construction begins.

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Client: STEVE NORDAN

Plan: MCLAMB RESIDENCE

STANDARD DETAILS

Project #: DRB2201-0186
Date: 10/17/22
Engineered By: AM
DWG. Checked By: AWL
Scale: SEE PLAN

REVISIONS

No.	Date:	Remarks
1		
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4		

Sheet Number

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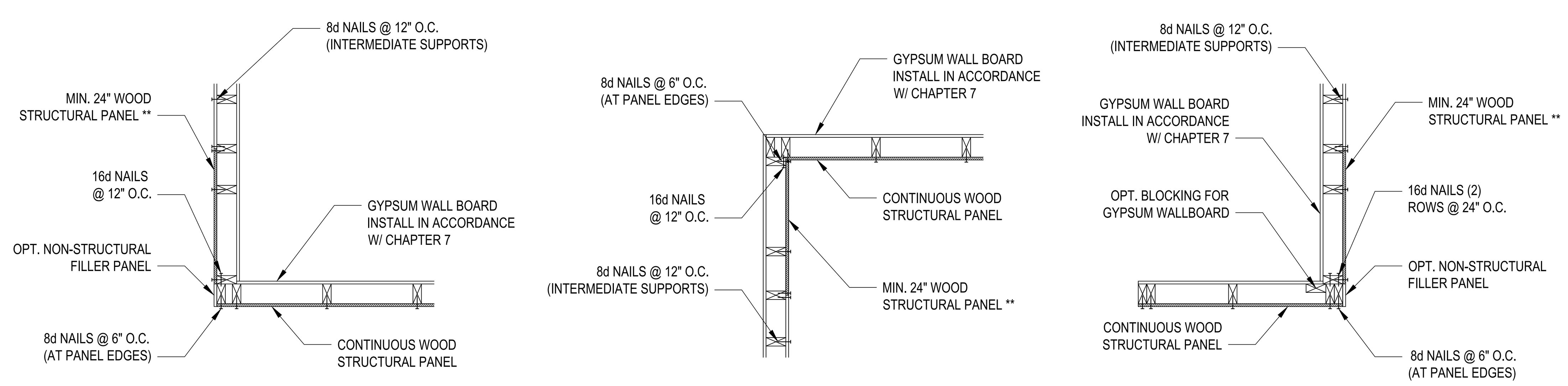
FILENAME: Z:\DRB\DRB_2022\DRB2201-0186_SHARON_MCLAMB\DRB2201-0186_SHARON_MCLAMB\CAD_FILES\DRB2201_0186_E.DWG SAVED BY: PRENTICE TYNDALL LAST PLOT DATE:10/17/2022 8:11 AM



a) OUTSIDE CORNER DETAIL

b) INSIDE CORNER DETAIL

c) GARAGE DOOR CORNER

** IN LIEU OF THE 24" (MIN.) CORNER RETURN, A HOLD-DOWN DEVICE WITH A MINIMUM UPLIFT DESIGN VALUE OF 800# SHALL BE FASTENED TO THE CORNER STUD AND TO THE FOUNDATION OR FRAMING BELOW.

B1: TYPICAL EXTERIOR CORNER FRAMING FOR CONTINUOUS SHEATHING

NO SCALE

STRUCTURAL SHEATHING NOTES

1. DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR LESS.
2. WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10 OF THE 2018 NCRC
3. BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3. REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS INCLUDING CONNECTIONS & SUPPORT OF BRACED WALL PANELS.

   ⟨1⟩ REFERENCE FIGURE R602.10.4.3 OF THE 2018 NCRC.

4. INTERIOR BRACED WALL PANELS (BWP) INDICATED SHALL BE SHEATHED IN ACCORDANCE WITH THE GB METHOD OR WSP METHOD AS PRESCRIBED IN SECTION R602.10.1 (UNO)

   ⟨2⟩ 1/2" GYPSUM BOARD (GB) MINIMUM LENGTH OF 8'-0" (ISOLATED PANELS) OR 4'-0" (CONTINUOUS SHEATHING)

   ⟨3⟩ 3/8" WOOD STRUCTURAL PANEL)WSP) SECURE W/ 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS

5. EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS-WSP METHOD AS PRESCRIBED IN SECTION R602.10.3 (UNO)
6. ALL SHEATHABLE SURFACES OF EXTERIOR WALLS (INCLUDING AREAS ABOVE AND BELOW OPENINGS AND GABLE END WALLS) SHALL BE CONTINUOUSLY SHEATHED WITH WOOD STRUCTURAL PANEL (WSP) SHEATHING WITH A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH MINIMUM 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND SPACED AT 12" O.C. AT INTERMEDIATE SUPPORTS.
7. MINIMUM BRACED WALL PANEL LENGTHS WITH CS-WSP METHOD SHALL BE AS FOLLOWS:
   - 24" ADJACENT TO OPENINGS NOT MORE THAN 67% OF WALL HEIGHT
   - 30" ADJACENT TO OPENINGS GREATER THAN 67% AND LESS THAN 85% OF WALL HEIGHT
   - 48" FOR OPENINGS GREATER THAN 85% OF WALL HEIGHT

   ⟨4⟩ SHEATH INTERIOR AND EXTERIOR

8. FOR CS-WSP METHOD, A MINIMUM 24" BRACED WALL PANEL CORNER RETURN SHALL BE PROVIDED AT BOTH ENDS OF A BRACED WALL LINE IN ACCORDANCE WITH FIGURE R602.10.3 (4). IN LIEU OF A CORNER RETURN, EITHER A MINIMUM 48" BRACED WALL PANEL SHALL BE PROVIDED AT THE CORNER OR A HOLD-DOWN DEVICE WITH A MINIMUM UPLIFT DESIGN VALUE OF 800# SHALL BE FASTENED TO THE EDGE OF THE BRACED WALL PANEL CLOSEST TO THE CORNER AND TO THE FOUNDATION OR FRAMING BELOW

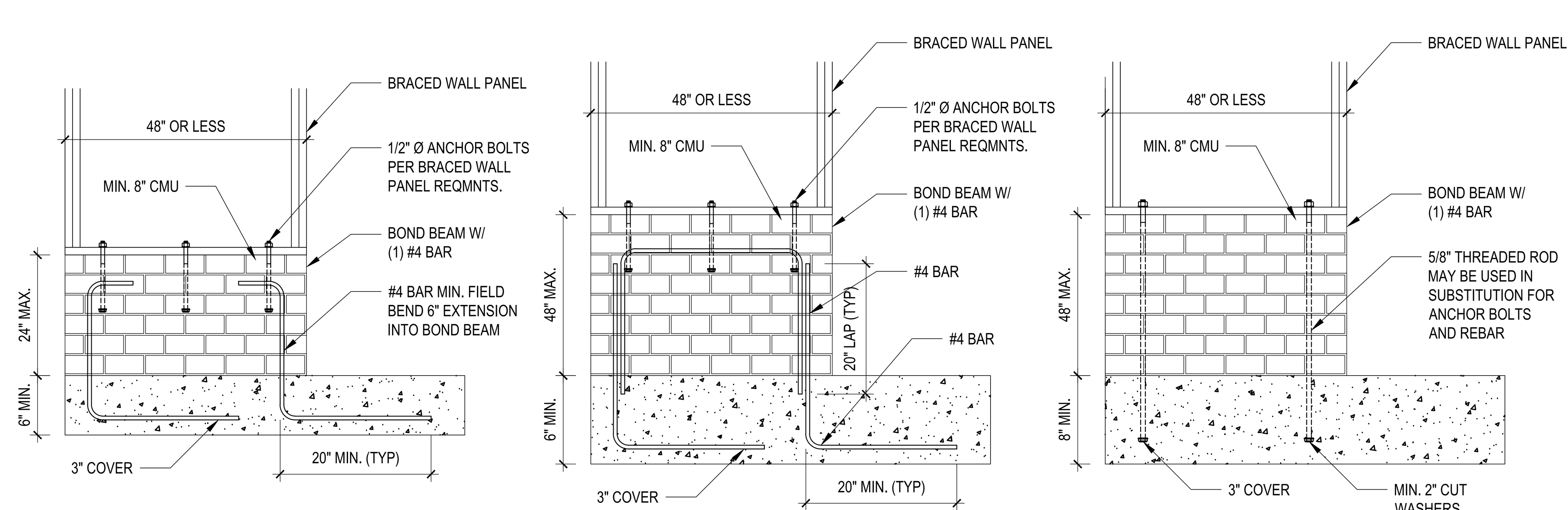
   ⟨5⟩ MINIMUM 800# HOLD-DOWN DEVICE

REQUIRED BRACED WALL PANEL CONNECTIONS				
METHOD	MATERIAL	MIN. THICKNESS	REQUIRED CONNECTION @ PANEL EDGES	REQUIRED CONNECTION @ INTERMEDIATE SUPPORTS
CS-WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.
GB	GYPSUM BOARD	1/2"	5d COOLER NAIL** @ 7" O.C.	5d COOLER NAIL** @ 7" O.C.
WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.

**OR EQUIVALENT PER TABLE R702.3.5

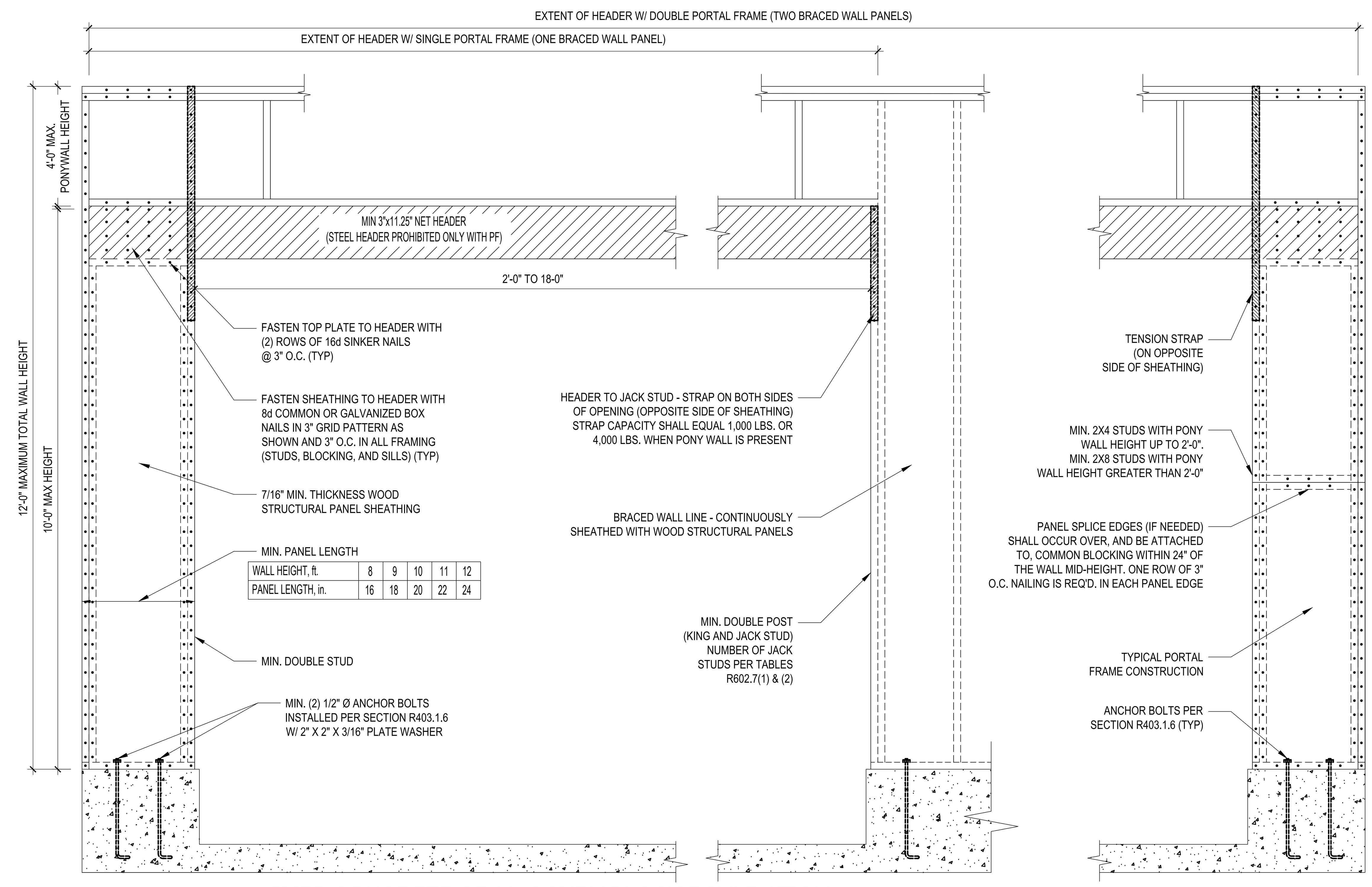
B3: BRACE WALL PANEL CONNECTIONS

NO SCALE

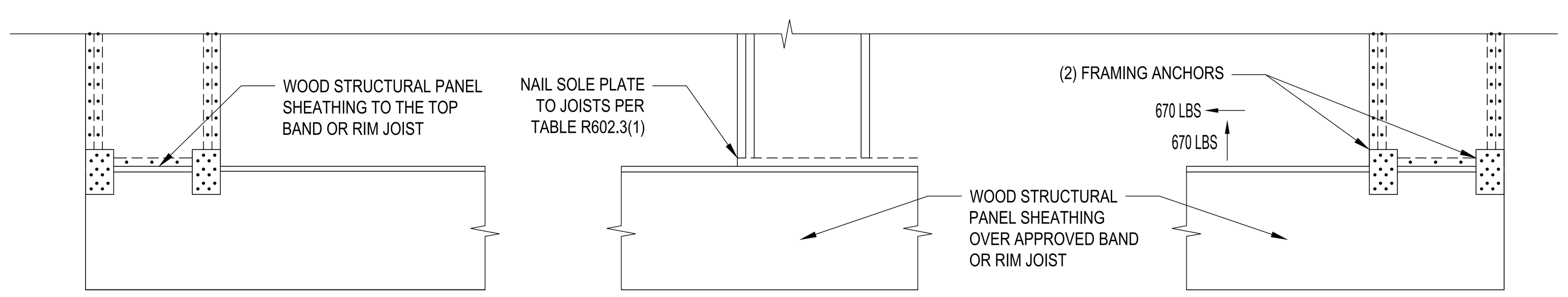


B4: MASONRY STEM WALL SUPPORTING BRACED WALL PANELS

FIGURE R602.10.4.3 OF THE 2018 NCRC
NOTE: GROUT BOND BEAMS AND ALL CELLS WHICH CONTAIN REBAR, THREADED RODS AND ANCHOR BOLTS

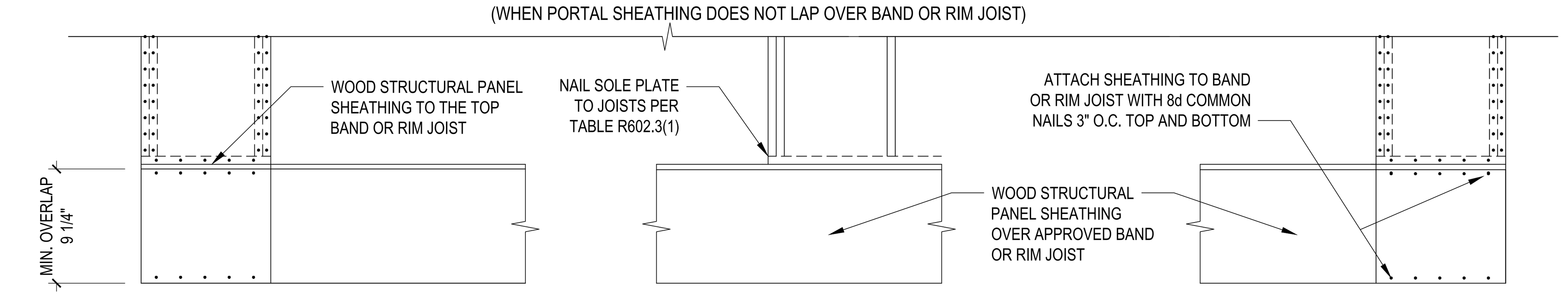


OVER CONCRETE OR MASONRY BLOCK FOUNDATION



OVER RAISED WOOD FLOOR - FRAMING ANCHOR OPTION

(WHEN PORTAL SHEATHING DOES NOT LAP OVER BAND OR RIM JOIST)



OVER RAISED WOOD FLOOR - OVERLAP OPTION

(WHEN PORTAL SHEATHING LAPS OVER BAND OR RIM JOIST)

B2: METHOD PF: PORTAL FRAME CONSTRUCTION

FIGURE R602.10.1

NORTH CAROLINA PROFESSIONAL SEAL 036819 ENGINEER ALAN W. LEWIS 10-17-2022

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Client: STEVE NORDAN

Plan: MCLAMB RESIDENCE

SHEATHING DETAILS

Project #: DRB2201-0186
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