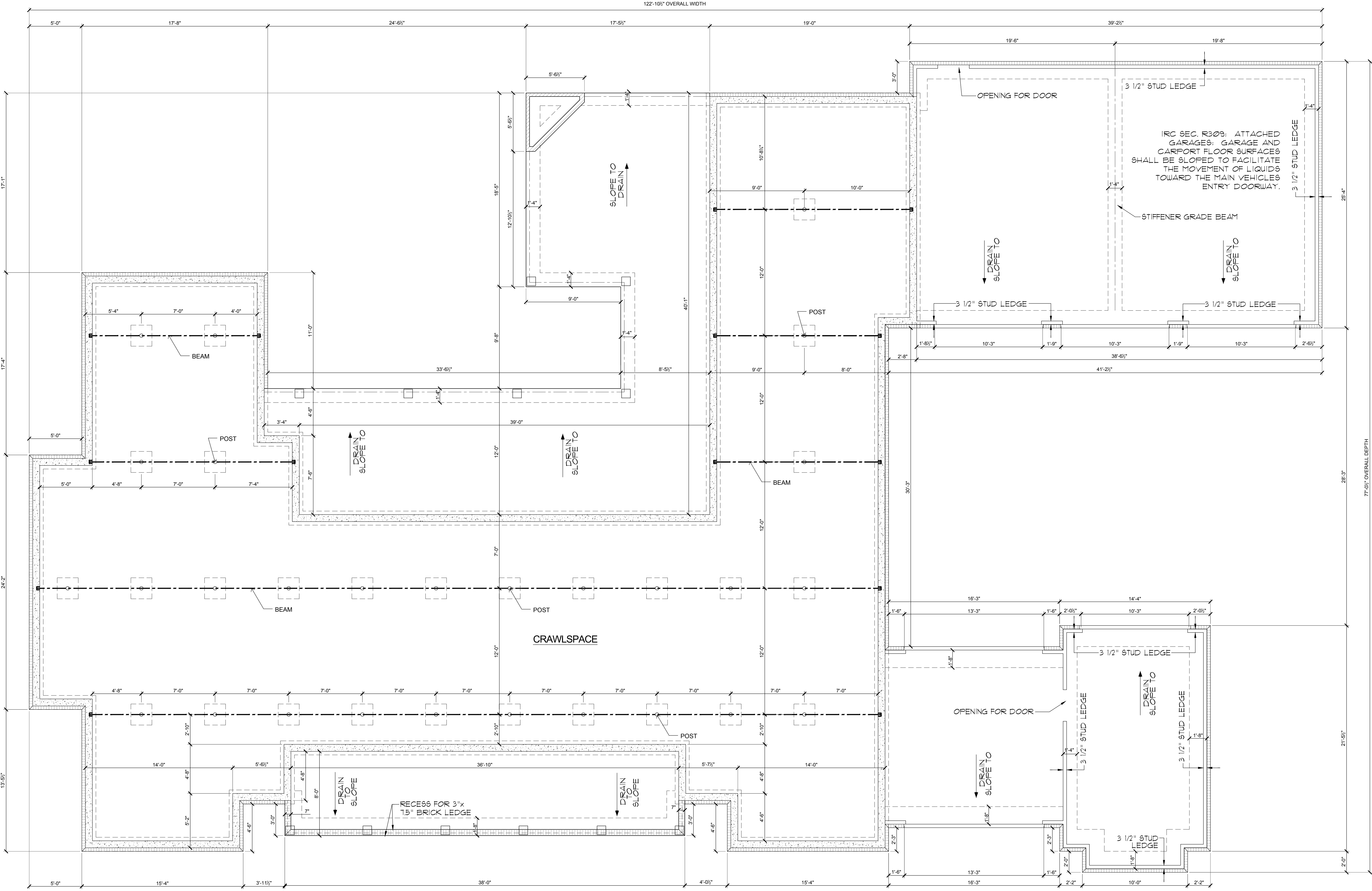


SEE SHEET S1 OF THE SEALED
STRUCTURAL PAGES FOR CRAWL
SPACE FOUNDATION FRAMING



NOTE:
DIMENSIONS INCLUDE 4" BRICK SKIRT

CRAWLSPACE FOUNDATION PLAN
SCALE: 3/16" = 1'-0"



CUSTOM CHANGES

ORIGINAL DESIGN

This plan is a derivative and has been modified by ReDesign HP from the original Madden Home Design LLC stock home plan.

COPYRIGHT

These drawings are the exclusive property of Madden Home Design LLC. Reproduction in whole or in part without the written permission of Madden Home Design LLC is in violation and subject to penalties under the Copyright Laws.

LIMITED LICENSE

*You may use these plans for the construction of one and only one house as depicted by the plans. This license is non-transferable.

*You may change or modify the plans. By changing or modifying the plans, you relieve ReDesign HP and Madden Home Design LLC of all liability associated with the modified design and plans.

*Building codes are subject to various changes and interpretations. The purchaser is responsible for compliance with all local and national building codes, ordinances, site conditions, subdivision restrictions, and structural design. A licensed engineer should review your plans before you apply for a building permit and before construction begins.

*Final selections of materials are the responsibility of the homeowner and/or builder, including, but not limited to proper installation of materials, nailing, gluing, caulking, insulating, flashing, roofing, weatherproofing and many other small items and details not necessarily indicated on the plans, and over which ReDesign HP and Madden Home Design LLC has no control or responsibility. ReDesign HP and Madden Home Design LLC shall not be held liable for any errors, omissions, or deficiencies in any form by any party whatsoever.

*You may loan all or part of the plans to third parties including contractor and sub-contractors for the sole purpose of the construction of your house. You agree to remove all loaned copies of the plans after construction is completed. Mortgage companies and building officials may retain plans for their records.

Madden Home Design LLC retains copyright ownership of the original plans and assumes sole copyright ownership of the modified plans. Your payment of a fee for the use of the plans does not transfer any right, title, or interest in the plans.

*Unauthorized use or copying of the plans, or the design they depict infringes upon rights under the copyright act. Copyright infringement carries penalties of up to \$100,000 per infringement.

The framing notes are a carry over from the original drawings and need to be coordinated and reviewed with a local licensed structural engineer to comply with local codes.

Ashley Dunn
121 Erwin Ave
Erwin, NC 28339

DATE : APR/19/2023

SCALE : AS NOTED

DRAWN BY: _____

PROJECT : Ashley Dunn

SHEET

A1.0

CUSTOM CHANGES

ReDesign HP

ORIGINAL DESIGN

Madden Home Design LLC

This plan is a derivative and has been modified by ReDesign HP from the original Madden Home Design LLC stock home plan.

COPYRIGHT

These drawings are the exclusive property of Madden Home Design LLC. Reproduction in whole or in part without the written permission of Madden Home Design LLC is in violation and subject to penalties under the Copyright Laws.

LIMITED LICENSE

*You may use these plans for the construction of one and only one house as depicted by the plans. This license is non-transferable.

*You may change or modify the plans. By changing or modifying the plans, you relieve ReDesign HP and Madden Home Design LLC of all liability associated with the modified design and plans.

*Building codes are subject to various changes and interpretations. The purchaser is responsible for compliance with all local and national building codes, ordinances, site conditions, subdivision restrictions, and structural design. A licensed engineer should review your plans before you apply for a building permit and before construction begins.

*Final selections of materials are the responsibility of the homeowner and/or builder, including, but not limited to proper insulation of materials, roofing, glazing, caulking, insulating, flashing, roofing, weatherproofing and many other small items and details not necessarily indicated on the plans, and over which ReDesign HP and Madden Home Design LLC has no control or responsibility. ReDesign HP and Madden Home Design LLC shall not be held liable for any errors, omissions, or deficiencies in any form by any party whatsoever.

*You may loan all or part of the plans to third parties including contractor and sub-contractors for the sole purpose of the construction of your house. You agree to remove all loaned copies of the plans after construction is completed. Mortgage companies and building officials may retain plans for their records.

Madden Home Design LLC retains copyright ownership of the original plans and assumes sole copyright ownership of the modified plans. Your payment of a fee for the use of the plans does not transfer any right, title, or interest in the plans.

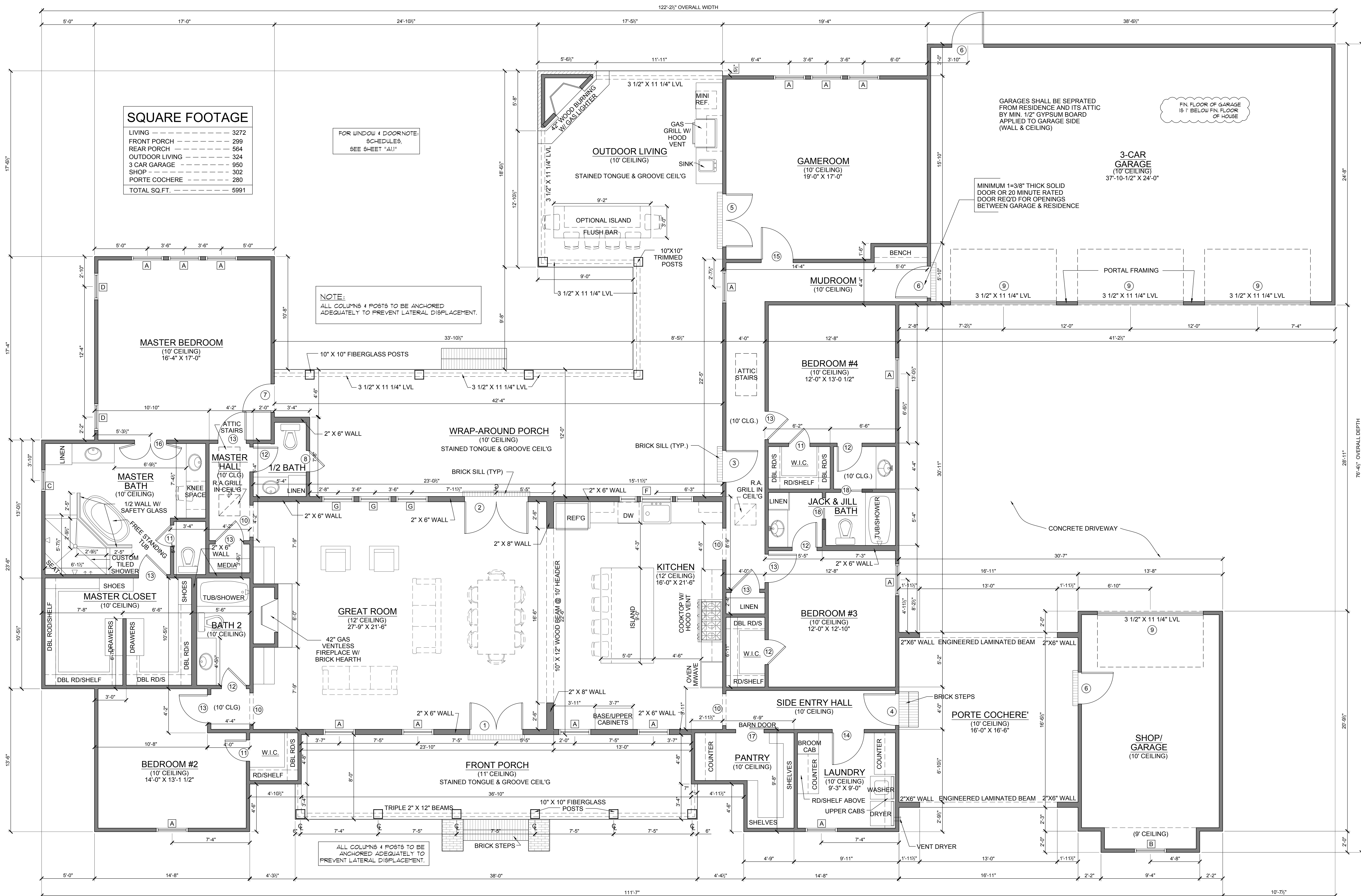
*Unauthorized use or copying of the plans, or the design they depict infringes upon rights under the copyright act. Copyright infringement carries penalties of up to \$10,000 per infringement.

The framing notes are a carry over from the original drawings and need to be coordinated and reviewed with a local licensed structural engineer to comply with local codes.

DATE	: APR/19/2023
SCALE	: AS NOTED
DRAWN BY:	-----
PROJECT	: Ashley Dunn

SHEET

A1.1



BRICK SKIRT NOT SHOWN ON FLOOR PLAN

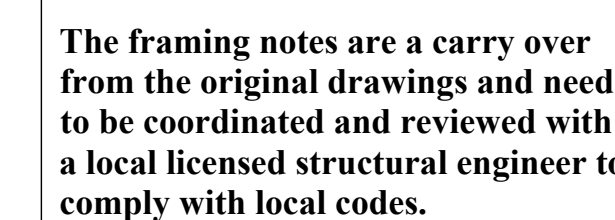
FLOOR PLAN

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

IMPORTANT NOTE:
ALL BEDROOMS OR RESIDE 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" AFF.

MARK	OPENING SIZE	DESCRIPTION	QTY.
A	3'-0" X 1'-0"	2/2 LITE VINYL SINGLE HUNG WINDOW INSULATED	15
B	3'-0" X 4'-0"	2/2 LITE VINYL SINGLE HUNG WINDOW INSULATED	1
C	2'-0" X 4'-0"	2/2 LITE VINYL SINGLE HUNG WINDOW INSULATED	1
D	2'-6" X 6'-0"	2/2 LITE VINYL SINGLE HUNG WINDOW INSULATED	2
E	2'-6" X 4'-6"	4 LITE VINYL FIXED WINDOW INSULATED - DORMER	3
F	3'-0" X 5'-0"	(1) 3'-0" & LITE FIXED WINDOW W/ 2'-0" 3 LITE FIXED SIDELITES	1
G	3'-0" X 1'-0"	2/2 LITE VINYL S.H. WINDOW INSULATED W/ 16" TRANS.	3

MARK	SIZE	DESCRIPTION	QTY.
1	DBL 2'-6" X 8'-0"	EXTERIOR 4 LITE 3/4 FRENCH SOLID WOOD DOORS	1 PAIR
2	DBL 3'-0" X 8'-0"	EXTERIOR 8 LITE FULL FRENCH WOOD DOOR W/ 16" TRANSOM	1 PAIR
3	3'-0" X 8'-0"	EXTERIOR 8 LITE FULL FRENCH METAL DOOR	1
4	3'-0" X 8'-0"	EXTERIOR 4 LITE 1/2 FRENCH METAL DOOR	1
5	DBL 2'-6" X 8'-0"	EXTERIOR 8 LITE FULL FRENCH METAL DOORS	1 PAIR
6	3'-0" X 8'-0"	EXTERIOR 6 PANEL METAL DOOR	1
7	2'-8" X 8'-0"	EXTERIOR 6 PANEL METAL DOOR	1
8	2'-0" X 8'-0"	EXTERIOR 6 PANEL METAL DOOR	1
9	10'-0" X 8'-0"	EXTERIOR OVERHEAD METAL GARAGE DOOR W/ OPENER	4
10	3'-0" X 8'-0"	CASED OPENING	4
11	2'-0" X 8'-0"	INTERIOR HORIZONTAL 6 PANEL H.C. MASONITE DOOR	3
12	2'-4" X 8'-0"	INTERIOR HORIZONTAL 6 PANEL H.C. MASONITE DOOR	5
13	2'-8" X 8'-0"	INTERIOR HORIZONTAL 6 PANEL H.C. MASONITE DOOR	1
14	3'-0" X 8'-0"	INTERIOR HORIZONTAL 6 PANEL H.C. MASONITE DOOR	1
15	3'-0" X 8'-0"	INTERIOR 8 LITE FULL FRENCH WOOD DOOR	1
16	DBL 16" X 8'-0"	INTERIOR MULTI-LITE FULL FRENCH DOORS - OWNER SELECT	1 PAIR
17	2'-8" X 8'-0"	INTERIOR BARN DOOR - OWNER SELECT	1
18	2'-0" X 8'-0"	INTERIOR HORIZONTAL PANEL H.C. MASONITE POCKET DOOR	2



SHEET

A1.2

CUSTOM CHANGES

ReDesign HP

ORIGINAL DESIGN

Madden Home Design LLC

This plan is a derivative and has been modified by ReDesign HP from the original Madden Home Design LLC stock home plan.

COPYRIGHT

These drawings are the exclusive property of Madden Home Design LLC. Reproduction in whole or in part without the written permission of Madden Home Design LLC is in violation and subject to penalties under the Copyright Laws.

LIMITED LICENSE

*You may use these plans for the construction of one and only one house as depicted by the plans. This license is non-transferable.

*You may change or modify the plans. By changing or modifying the plans, you relieve ReDesign HP and Madden Home Design LLC of all liability associated with the modified design and plans.

*Building codes are subject to various changes and interpretations. The purchaser is responsible for compliance with all local and national building codes, ordinances, site conditions, subdivision restrictions, and structural design. A licensed engineer should review your plans before you apply for a building permit and before construction begins.

*Final selections of materials are the responsibility of the homeowner and/or builder, including, but not limited to proper installation of materials, nailing, gluing, caulking, insulating, flashing, roofing, waterproofing and many other small items and details not necessarily indicated on the plans, and over which ReDesign HP and Madden Home Design LLC has no control or responsibility. ReDesign HP and Madden Home Design LLC shall not be held liable for any errors, omissions, or deficiencies in any form by any party whatsoever.

*You may loan all or part of the plans to third parties including contractor and sub-contractors for the sole purpose of the construction of your house. You agree to return all loaned copies of the plans after construction is completed. Mortgage companies and building officials may retain plans for their records.

Madden Home Design LLC retains copyright ownership of the original plans and assumes sole copyright ownership of the modified plans. Your payment of a fee for the use of the plans does not transfer any right, title, or interest in the plans.

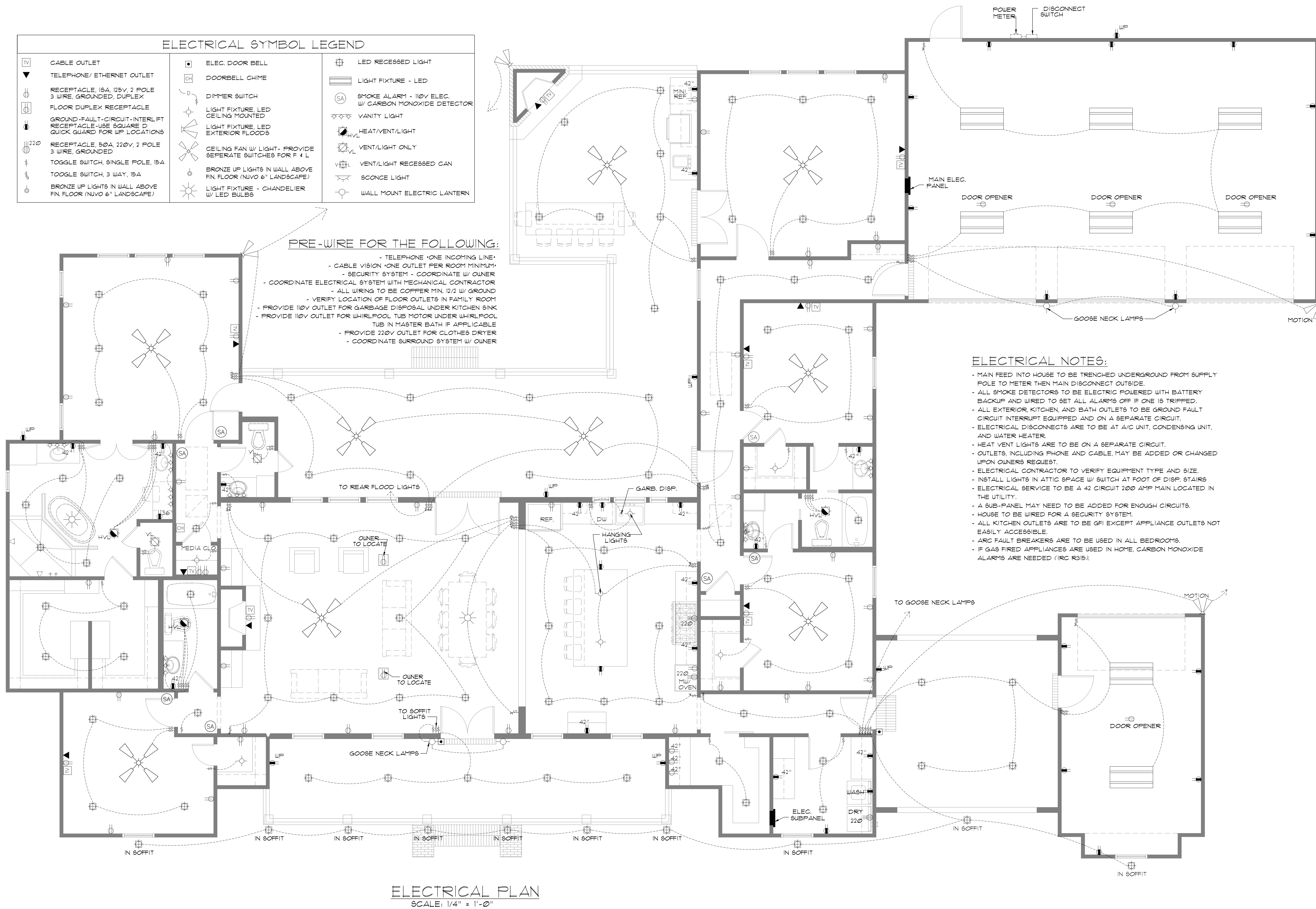
*Unauthorized use or copying of the plans, or the design they depict infringes upon rights under the copyright act. Copyright infringement carries penalties of up to \$100,000 per infringement.

The framing notes are a carry over from the original drawings and need to be coordinated and reviewed with a local licensed structural engineer to comply with local codes.

ASHLEY DUNN
121 ERWIN AVE
ERWIN, NC 28339

DATE	: APR/19/2023
SCALE	: AS NOTED
DRAWN BY:	-----
PROJECT	: Ashley Dunn
SHEET	

A2.0



CUSTOM CHANGES

ReDesign HP

ORIGINAL DESIGN

Madden Home Design LLC

This plan is a derivative and has been modified by ReDesign HP from the original Madden Home Design LLC stock home plan.

COPYRIGHT

These drawings are the exclusive property of Madden Home Design LLC. Reproduction in whole or in part without the written permission of Madden Home Design LLC is in violation and subject to penalties under the Copyright Laws.

LIMITED LICENSE

*You may use these plans for the construction of one and only one house as depicted by the plans. This license is non-transferable.

*You may change or modify the plans. By changing or modifying the plans, you relieve ReDesign HP and Madden Home Design LLC of all liability associated with the modified design and plans.

*Building codes are subject to various changes and interpretations. The purchaser is responsible for compliance with all local and national building codes, ordinances, site conditions, subdivision restrictions, and structural design. A licensed engineer should review your plans before you apply for a building permit and before construction begins.

*Final selections of materials are the responsibility of the homeowner and/or builder, including, but not limited to proper installation of materials, nailing, gluing, caulking, insulating, flashing, roofing, weatherproofing and many other small items and details not necessarily indicated on the plans, and over which ReDesign HP and Madden Home Design LLC has no control or responsibility. ReDesign HP and Madden Home Design LLC shall not be held liable for any errors, omissions, or deficiencies in any form by any party whatsoever.

*You may loan all or part of the plans to third parties including contractor and sub-contractors for the sole purpose of the construction of your house. You agree to remove all loaned copies of the plans after construction is completed. Mortgage companies and building officials may retain plans for their records.

Madden Home Design LLC retains copyright ownership of the original plans and assumes sole copyright ownership of the modified plans. Your payment of a fee for the use of the plans does not transfer any right, title, or interest in the plans.

*Unauthorized use or copying of the plans, or the design they depict infringes upon rights under the copyright act. Copyright infringement carries penalties of up to \$100,000 per infringement.

The framing notes are a carry over from the original drawings and need to be coordinated and reviewed with a local licensed structural engineer to comply with local codes.

Ashley Dunn
121 Erwin Ave
Erwin, NC 28339

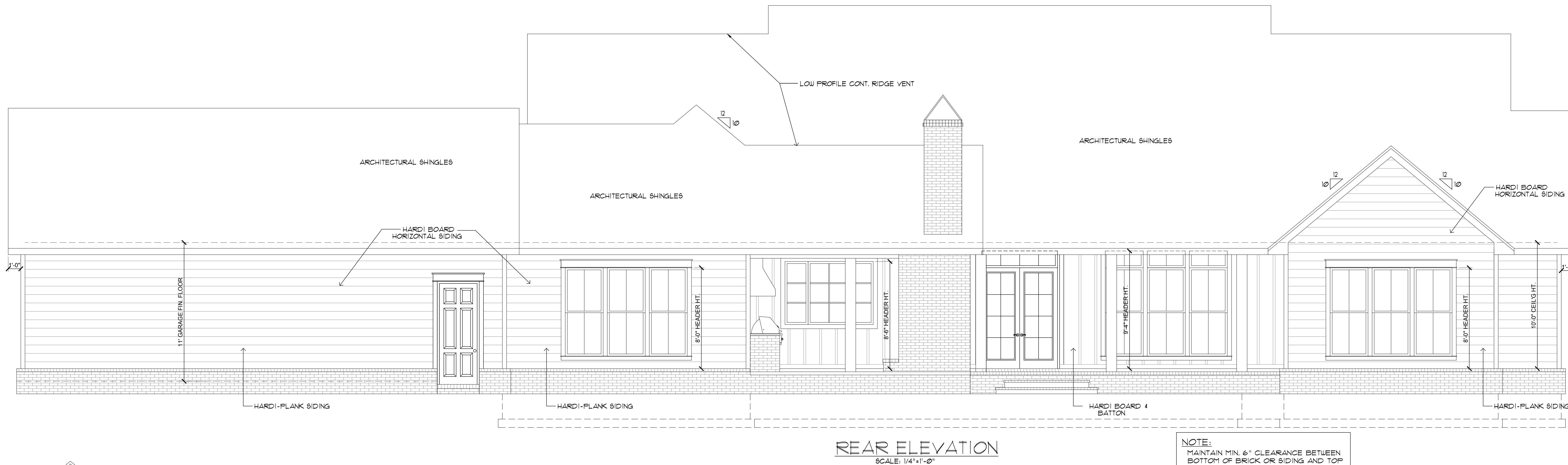
DATE : APR/19/2023
SCALE : AS NOTED
DRAWN BY: _____
PROJECT : Ashley Dunn

SHEET

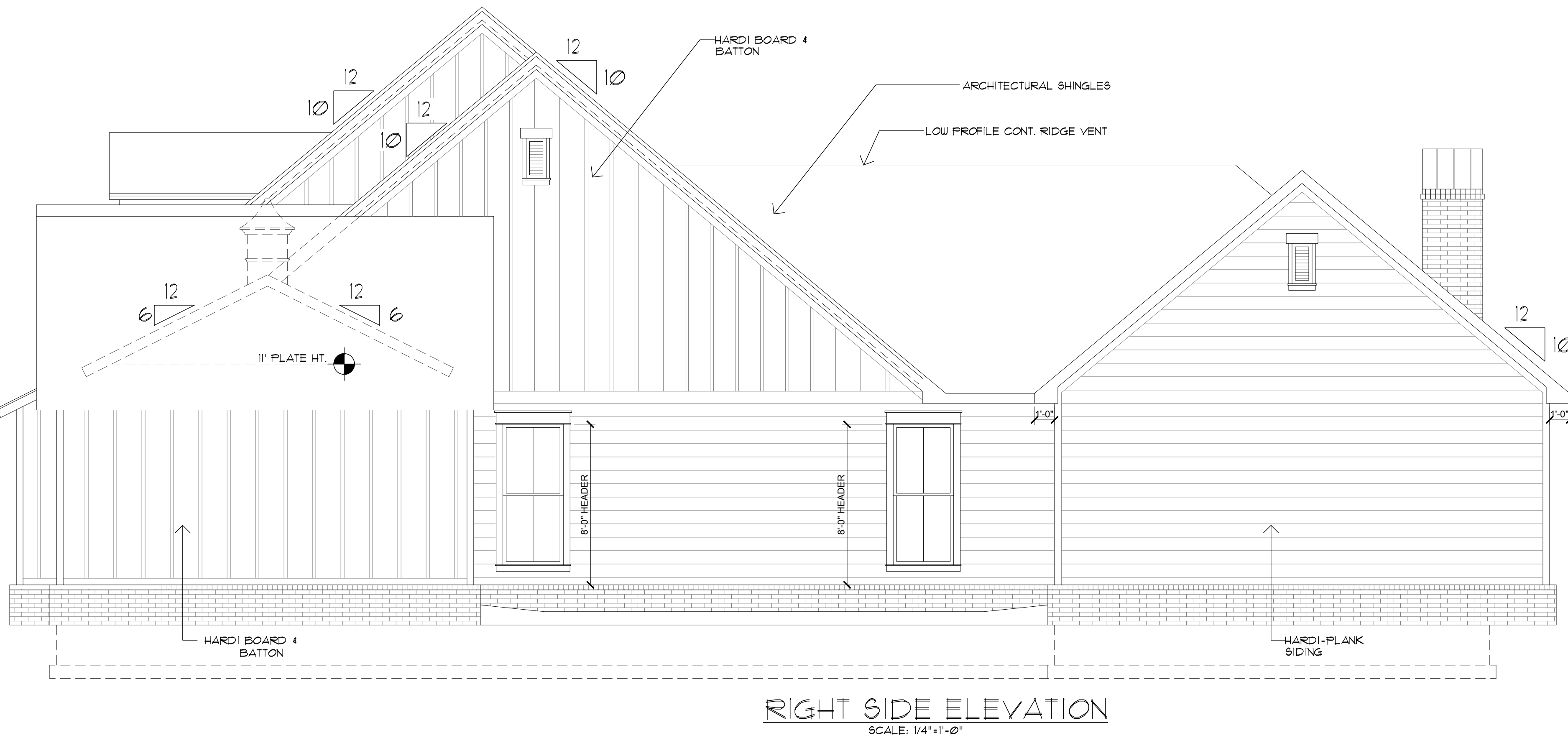
A3.0



ATTIC VENTILATION:
THE TOTAL NET FREE VENTILATING AREA SHALL NOT BE LESS THAN 1/6 OF THE AREA OF THE SPACE VENTILATED EXCEPT THAT A REDUCTION OF THE TOTAL AREA TO 1/12 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. R606 OF THE I.R.C.)



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



CUSTOM CHANGES

ReDesign HP

ORIGINAL DESIGN

Madden Home Design LLC

This plan is a derivative and has been modified by ReDesign HP from the original Madden Home Design LLC stock home plan.

COPYRIGHT

These drawings are the exclusive property of Madden Home Design LLC. Reproduction in whole or in part without the written permission of Madden Home Design LLC is in violation and subject to penalties under the Copyright Laws.

LIMITED LICENSE

*You may use these plans for the construction of one and only one house as depicted by the plans. This license is non-transferable.

*You may change or modify the plans. By changing or modifying the plans, you relieve ReDesign HP and Madden Home Design LLC of all liability associated with the modified design and plans.

*Building codes are subject to various changes and interpretations. The purchaser is responsible for compliance with all local and national building codes, ordinances, site conditions, subdivision restrictions, and structural design. A licensed engineer should review your plans before you apply for a building permit and before construction begins.

*Final selections of materials are the responsibility of the homeowner and/or builder, including, but not limited to proper installation of materials, nailing, gluing, caulking, insulating, flashing, roofing, waterproofing and many other small items and details not necessarily indicated on the plans, and over which ReDesign HP and Madden Home Design LLC has no control or responsibility. ReDesign HP and Madden Home Design LLC shall not be held liable for any errors, omissions, or deficiencies in any form by any party whatsoever.

*You may loan all or part of the plans to third parties including contractor and sub-contractors for the sole purpose of the construction of your house. You agree to remove all loaned copies of the plans after construction is completed. Mortgage companies and building officials may retain plans for their records.

Madden Home Design LLC retains copyright ownership of the original plans and assumes sole copyright ownership of the modified plans. Your payment of a fee for the use of the plans does not transfer any right, title, or interest in the plans.

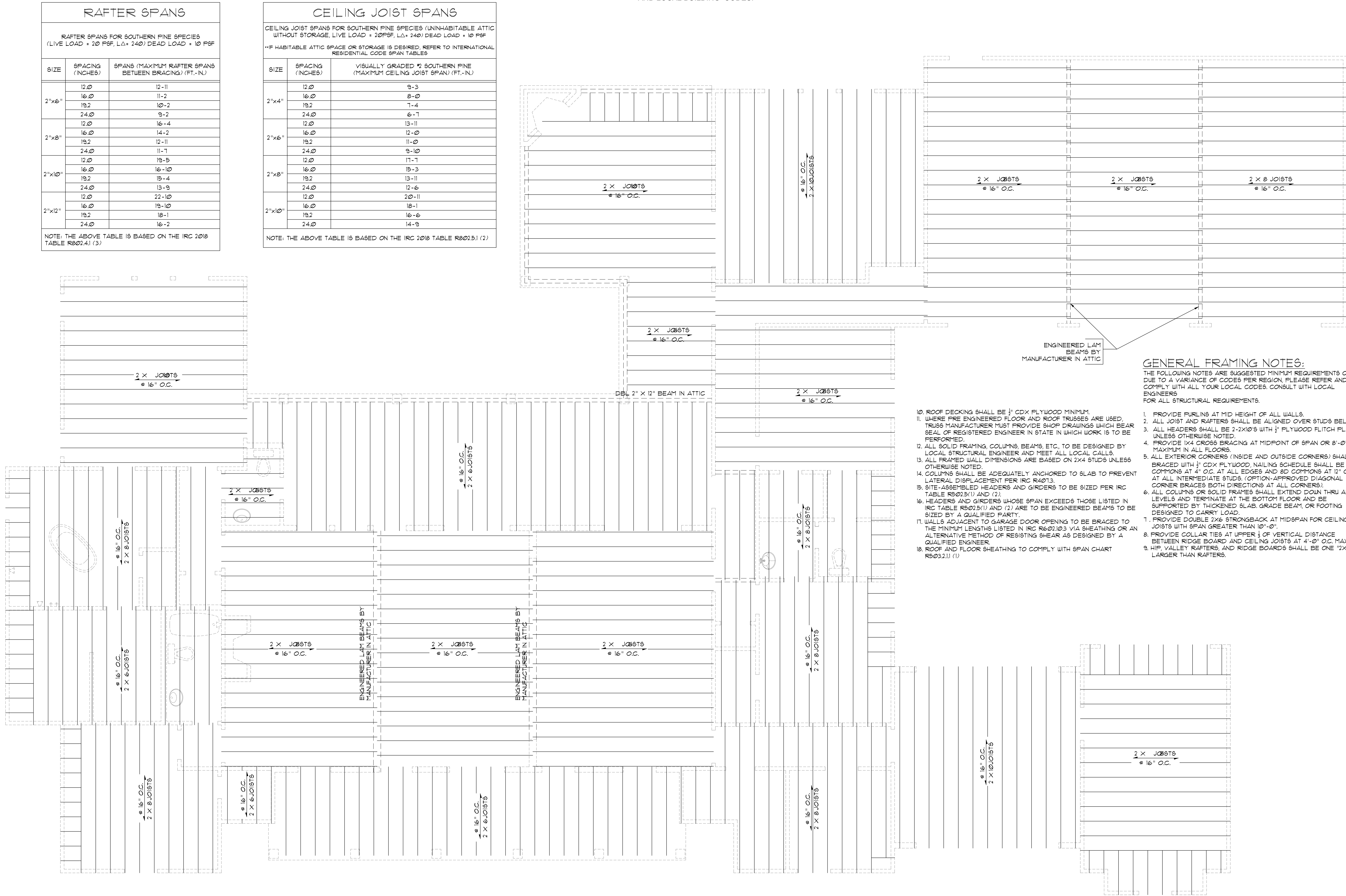
*Unauthorized use or copying of the plans, or the design they depict infringes upon rights under the copyright act. Copyright infringement carries penalties of up to \$100,000 per infringement.

The framing notes are a carry over from the original drawings and need to be coordinated and reviewed with a local licensed structural engineer to comply with local codes.

FOR REFERENCE USE ONLY

NOTE:-

THIS SHEET IS FOR REFERENCE ONLY. THE CONTENT ON THIS SHEET WAS CREATED BY THE ORIGINAL DESIGNER OF THIS PLAN. THIS CONTENT HAS BEEN INCLUDED IN THE DRAWINGS SET TO CONVEY THE INTENT OF THE ORIGINAL DESIGN. NO CHANGES OR UPDATES HAVE BEEN MADE TO THE CONTENT ON THIS SHEET, THEREFORE IT MAY NOT CORRESPOND WITH THE OTHER SHEETS IN THIS DRAWING SET. **ReDesign HP** DOES NOT ENDORSE AND / OR TAKE RESPONSIBILITY FOR THE CONTENT ON THIS SHEET. IT IS THE RESPONSIBILITY OF THE BUILDER TO ASSURE THAT ALL WORK IS IN ACCORDANCE WITH THE LATEST EDITION OF ALL APPLICABLE NATIONAL, STATE, AND LOCAL BUILDING CODES.



CEIL'G JOISTS FRAMING PLAN
SCALE: 1/4" = 1'-0"

Ashley Dunn
121 Erwin Ave
Erwin, NC 28339

DATE : APR/19/2023

SCALE : AS NOTED

DRAWN BY: -----

PROJECT : Ashley Dunn

SHEET

REF-1

CUSTOM CHANGES

ReDesign HP

ORIGINAL DESIGN

Madden Home Design,LLC

"This plan is a derivative and has been modified by ReDesign HP from the original Madden Home Design,LLC stock home plan."

COPYRIGHT

These drawings are the exclusive property of Madden Home Design,LLC. Reproduction in whole or in part without the written permission of Madden Home Design,LLC is in violation and subject to penalties under the Copyright Laws.

LIMITED LICENSE

"You may use these plans for the construction of one and only one house as depicted by the plans. This license is non-transferable.

"You may change or modify the plans. By changing or modifying the plans, you relieve ReDesign HP and Madden Home Design,LLC of all liability associated with the modified design and plans.

"Building codes are subject to various changes and interpretations. The purchaser is responsible for compliance with all local and national building codes, ordinances, site conditions, subdivision restrictions, and structural design. A licensed engineer should review your plans before you apply for a building permit and before construction begins.

"Final selections of materials are the responsibility of the homeowner and/or builder, including, but not limited to proper installation of materials, nailing, gluing, caulking, insulating, flashing, roofing, weatherproofing and many other small items and details not necessarily indicated on the plans, and over which ReDesign HP and Madden Home Design,LLC has no control or responsibility. ReDesign HP and Madden Home Design,LLC shall not be held liable for any errors, omissions, or deficiencies in any form by any party whatsoever.

"You may loan all or part of the plans to third parties including contractor and sub-contractors for the sole purpose of the construction of your house. You agree to remove all loaned copies of the plans after construction is completed. Mortgage companies and building officials may retain plans for their records.

Madden Home Design,LLC retains copyright ownership of the original plans and assumes sole copyright ownership of the modified plans. Your payment of a fee for the use of the plans does not transfer any right, title, or interest in the plans.

"Unauthorized use or copying of the plans, or the design they depict infringes upon rights under the copyright act. Copyright infringement carries penalties of up to \$100,000 per infringement.

The framing notes are a carry over from the original drawings and need to be coordinated and reviewed with a local licensed structural engineer to comply with local codes.

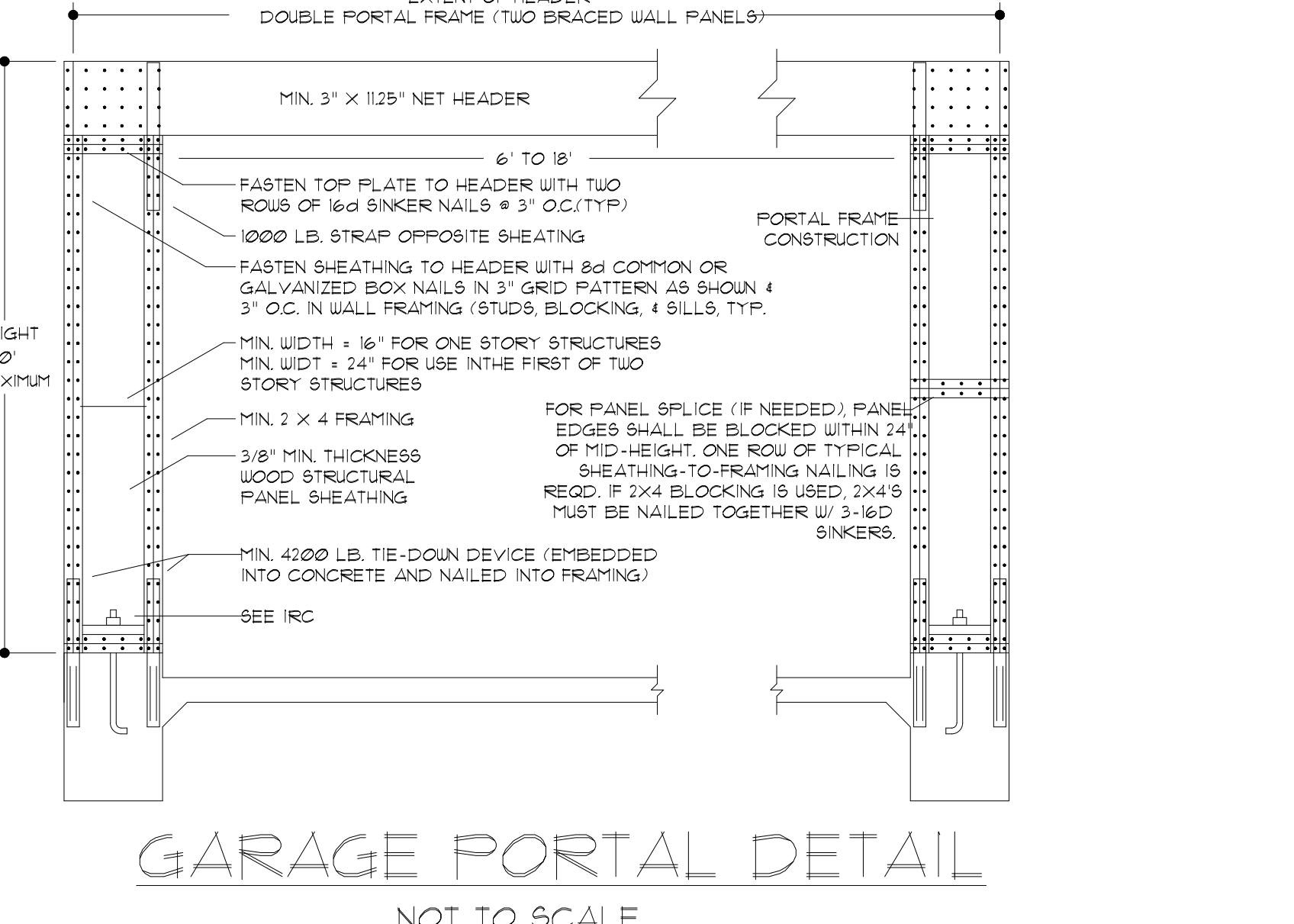
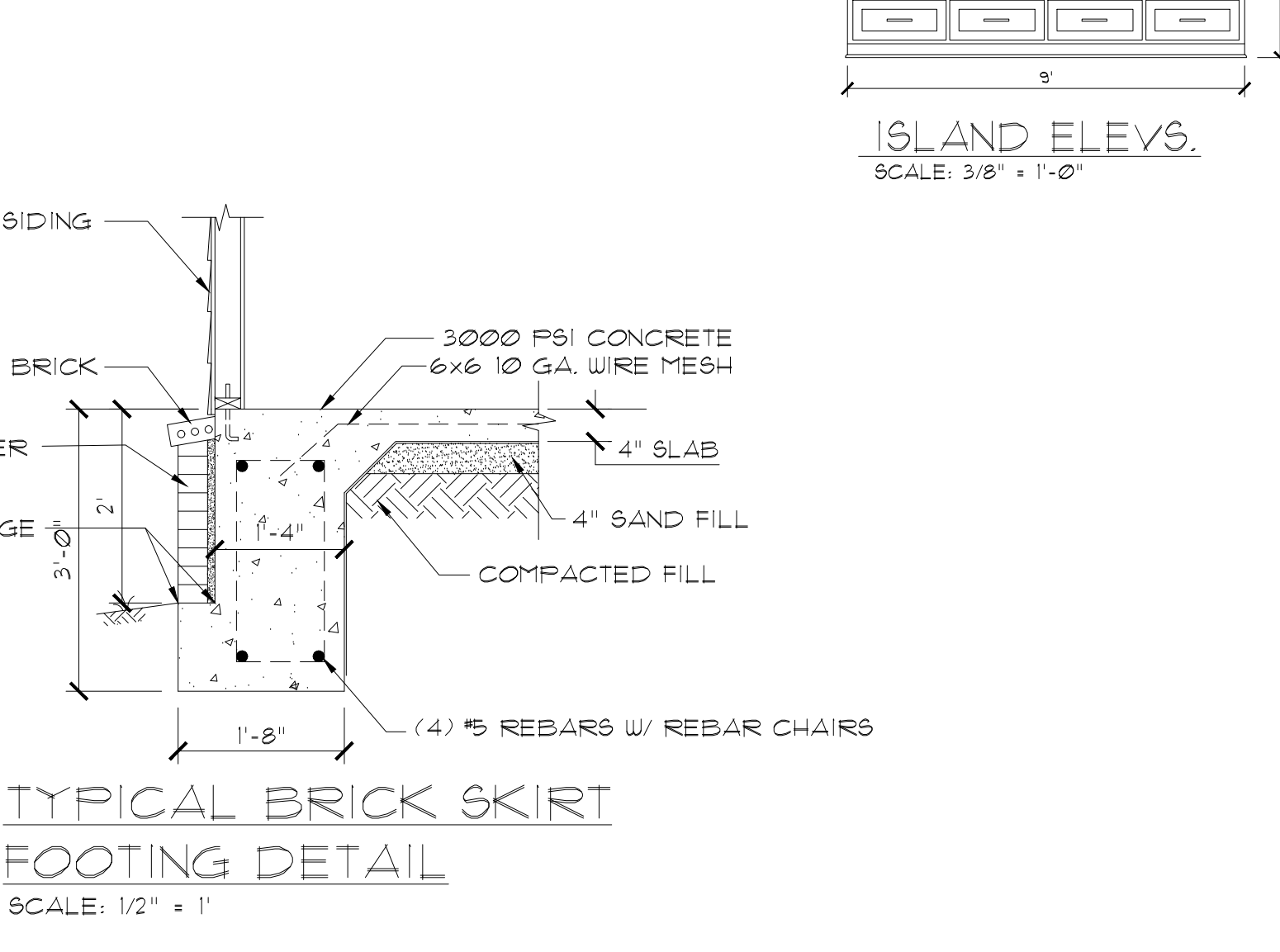
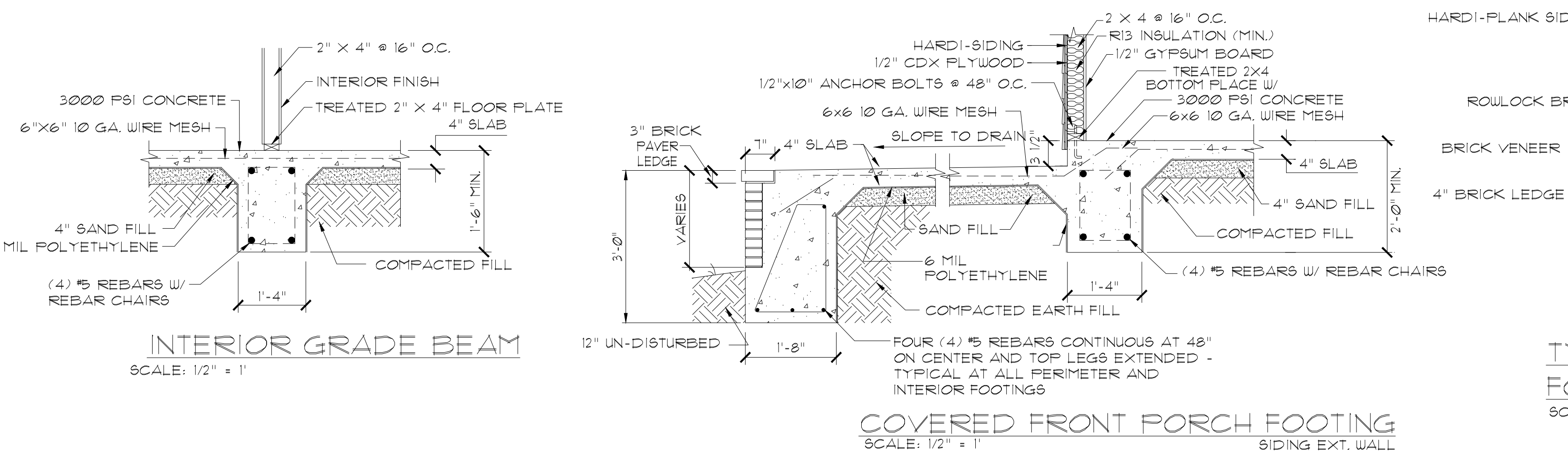
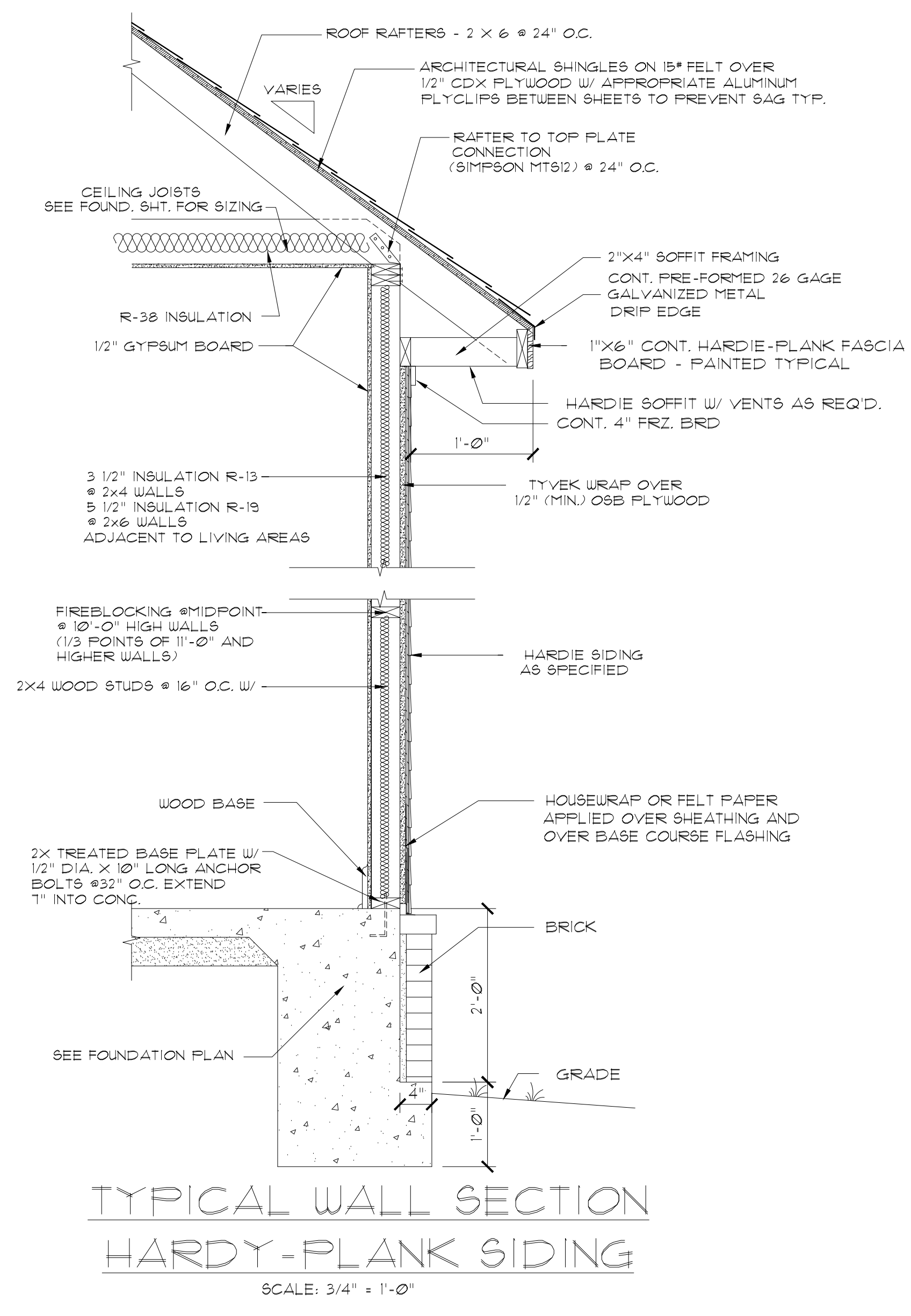
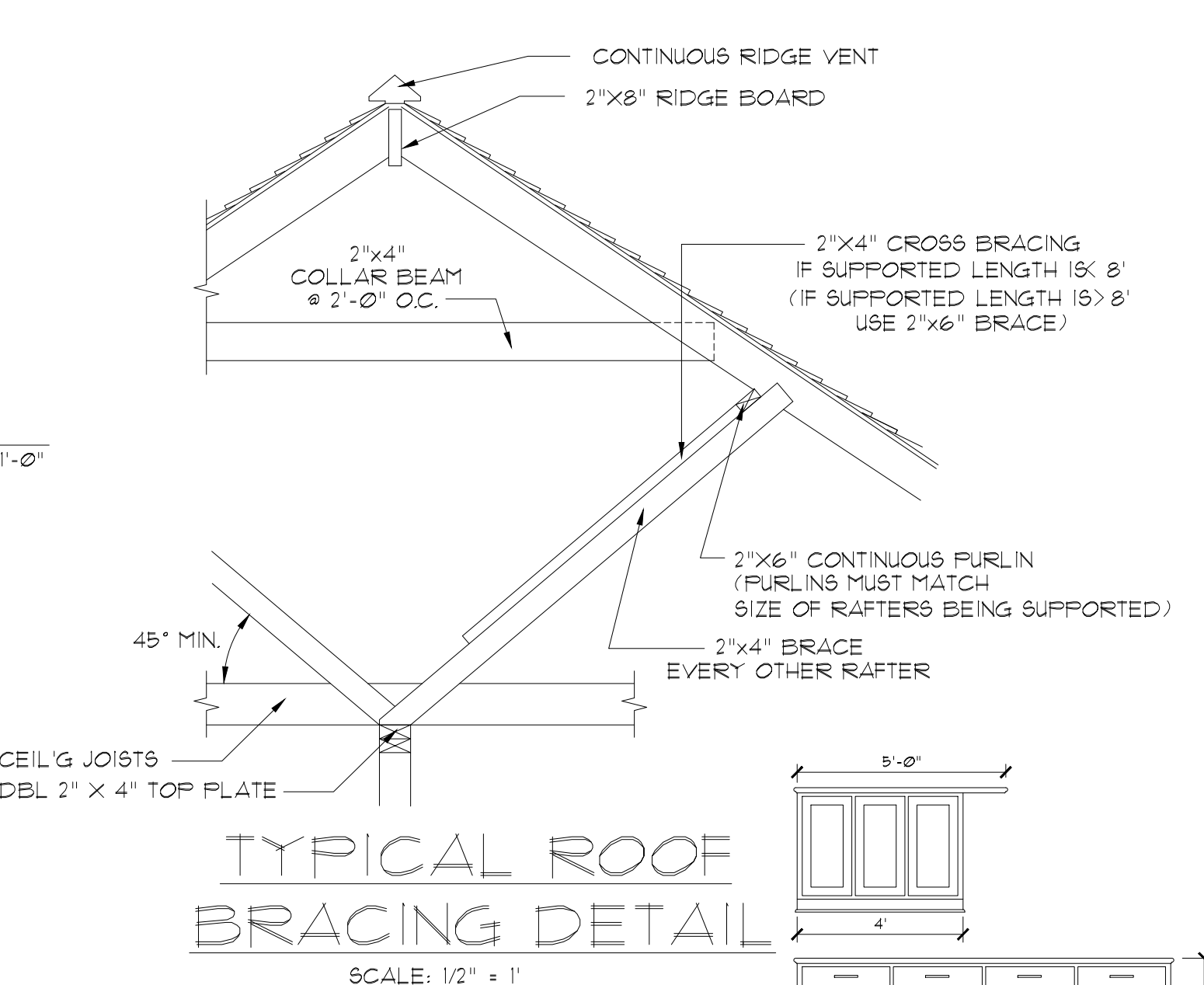
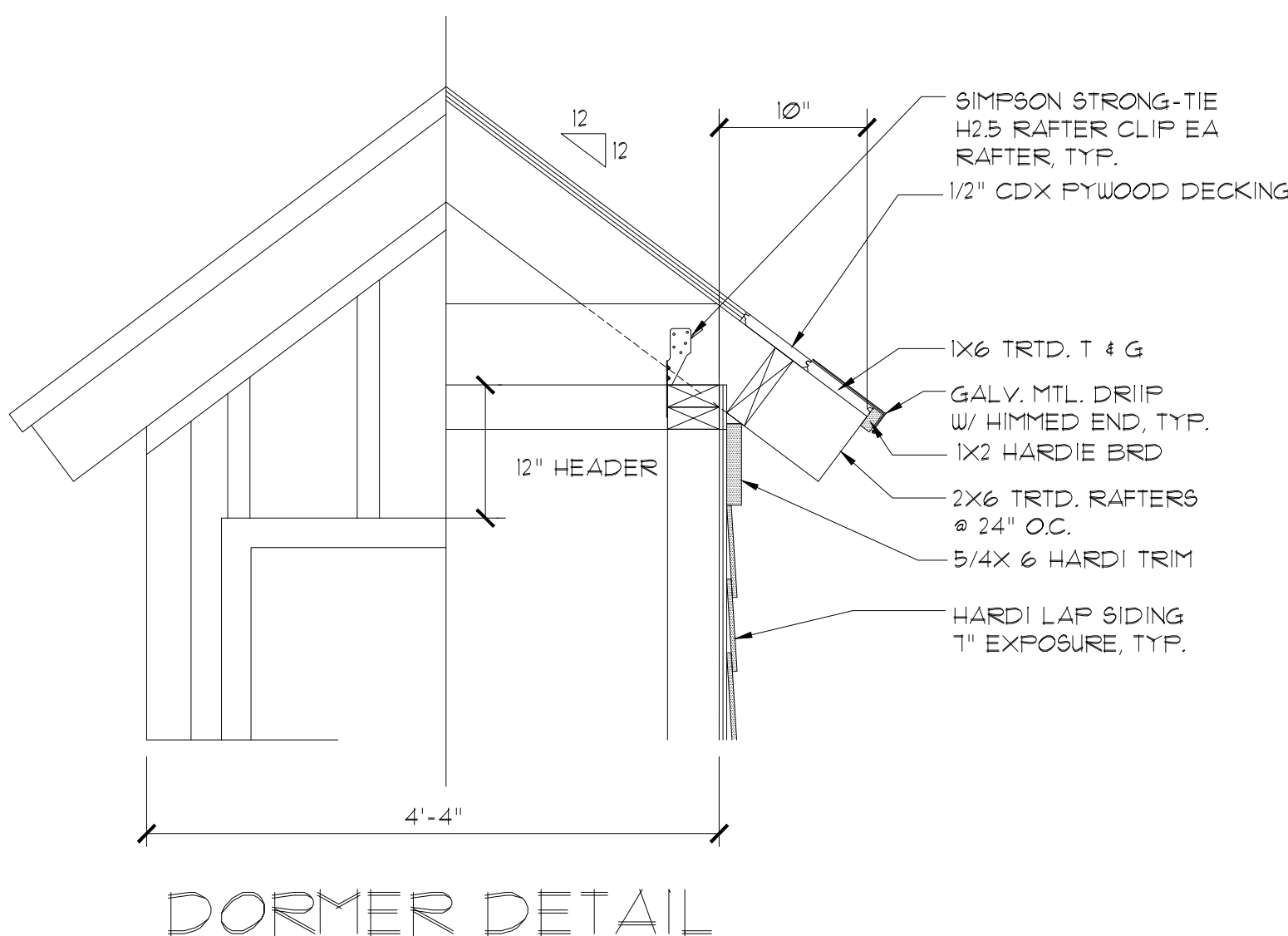
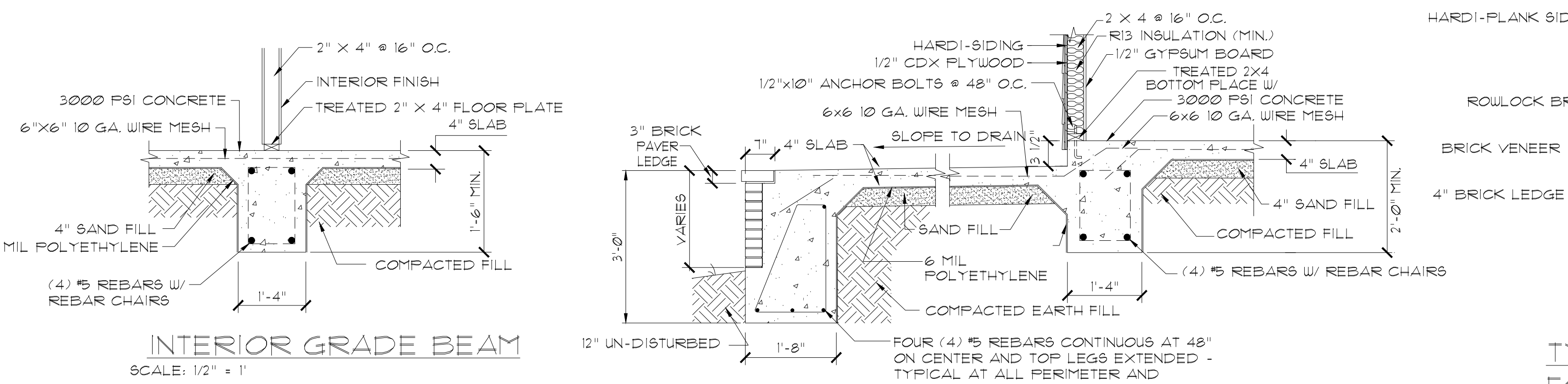
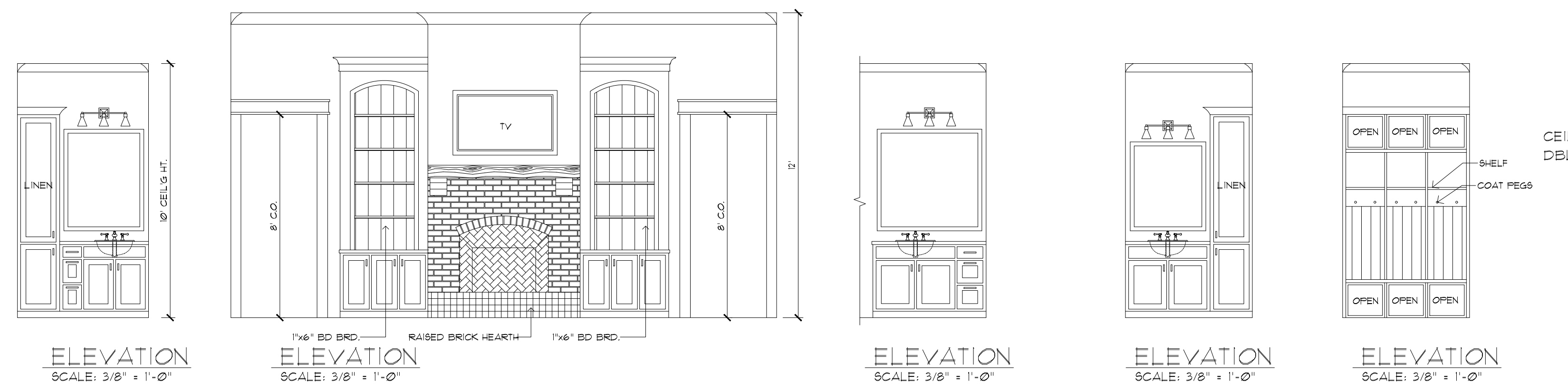
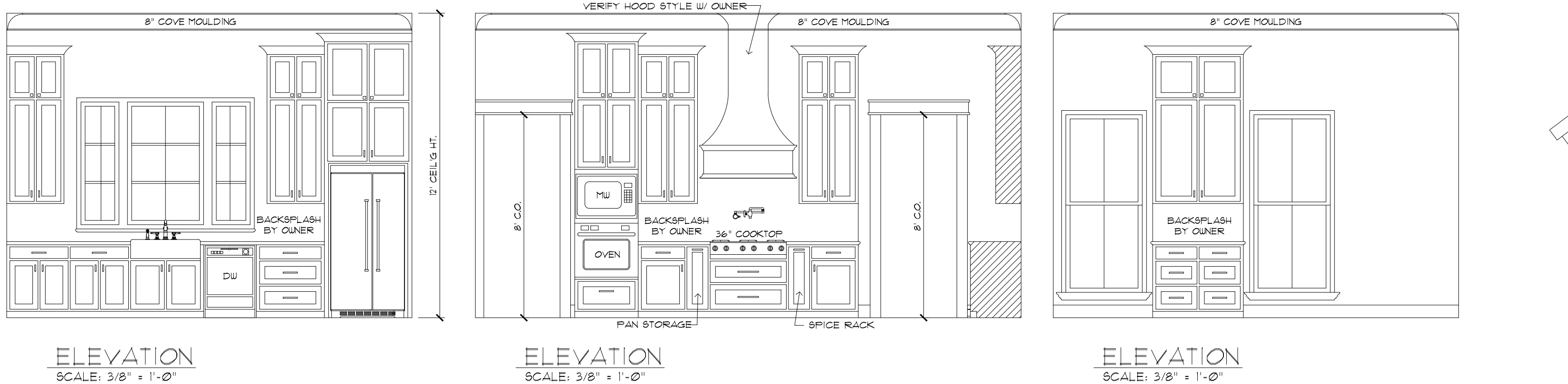
SHEET

REF-2

FOR REFERENCE USE ONLY

NOTE:-

THIS SHEET IS FOR REFERENCE ONLY. THE CONTENT ON THIS SHEET WAS CREATED BY THE ORIGINAL DESIGNER OF THIS PLAN. THIS CONTENT HAS BEEN INCLUDED IN THE DRAWINGS SET TO CONVEY THE INTENT OF THE ORIGINAL DESIGN. NO CHANGES OR UPDATES HAVE BEEN MADE TO THE CONTENT ON THIS SHEET, THEREFORE IT MAY NOT CORRESPOND WITH THE OTHER SHEETS IN THIS DRAWING SET. **ReDesign HP** DOES NOT ENDORSE AND / OR TAKE RESPONSIBILITY FOR THE CONTENT ON THIS SHEET. IT IS THE RESPONSIBILITY OF THE BUILDER TO ASSURE THAT ALL WORK IS IN ACCORDANCE WITH THE LATEST EDITION OF ALL APPLICABLE NATIONAL, STATE, AND LOCAL BUILDING CODES.



DATE : APR/19/2023
SCALE : AS NOTED
DRAWN BY: _____
PROJECT : Ashley Dunn

FOUNDATION PLAN
FIRST FLOOR FRAMING

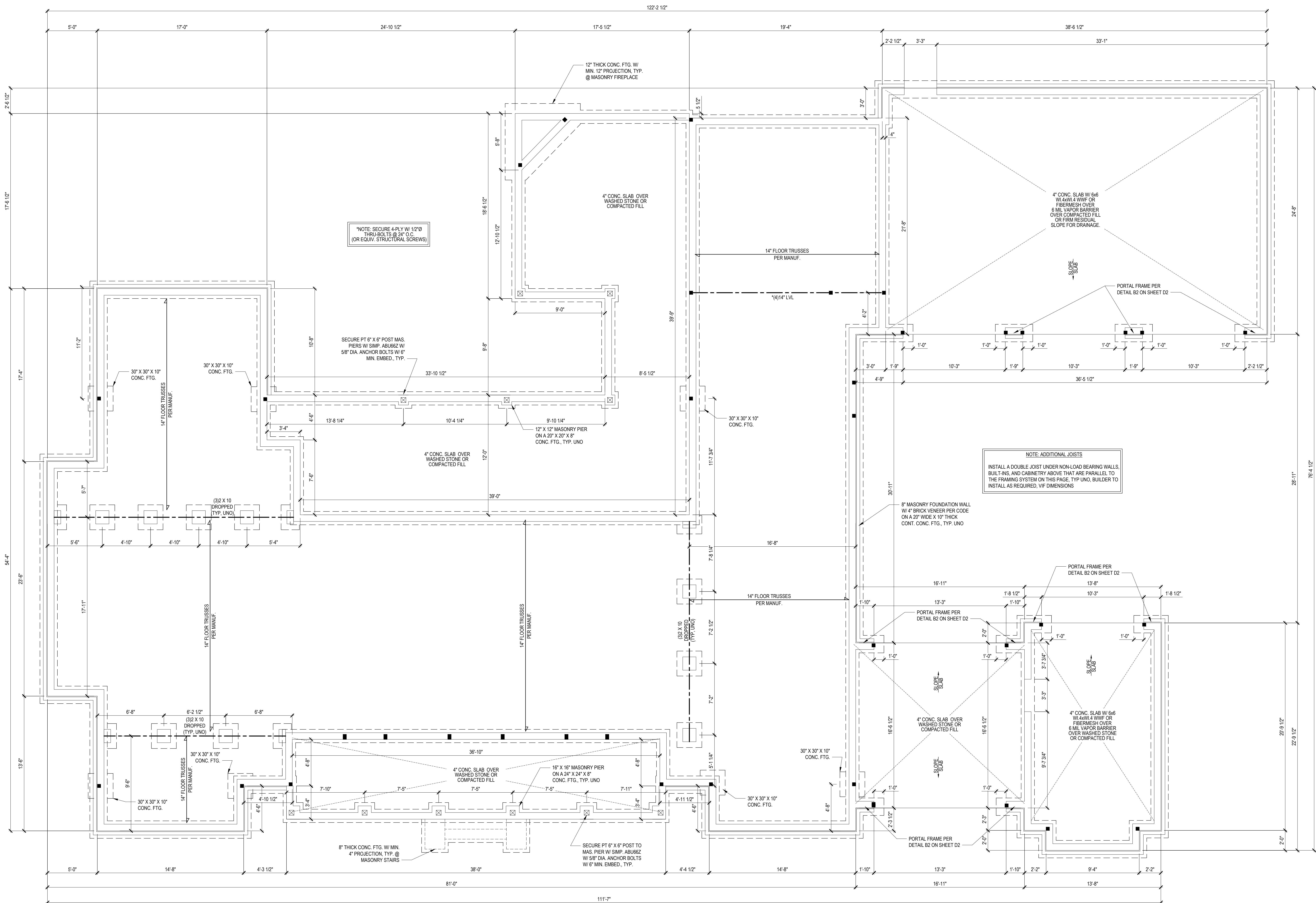
Project #:	2401-010285
Date:	12/9/2024
Engineered By:	HJS
DWG. Checked By:	AM
Scale:	SEE PLAN

REVISIONS		
No.	Date:	Remarks
1		
2		
3		
4		

Sheet Number

S1

1 of 5



FOUNDATION PLAN

1/4" = 1'-0"

DESIGN LOADS				
	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION	
			LL	TL
FLOOR (primary)	40	10	L240	L240
FLOOR (secondary)	40	10	L240	L240
ATTIC (no storage)	20	10	L240	L180
ATTIC (no access)	10	5	L240	L180
EXTERNAL BALCONY	40	10	L360	L240
ROOF	20	10	L240	L180
ROOF TRUSS	20	20	L240	L180
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 1818 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 OF CONSTRUCTION BEGINS. ALL LUMBER SHALL BE:
 - ALL LVL LUMBER TO BE 1.75" WIDE (ACTUAL) EACH SINGLE MEMBER AND S4S 2600 PSI. E = 1.9M PSI (OR GREATER)
(I.E. ILVEL, MICROLAM)
 - ALL LSL LUMBER TO BE 1.55E (F4S = 2325 PSI) (OR GREATER)
 - ALL LVL LUMBER IS TO BE 1.8E (F4S = 2,400 PSI) (OR GREATER)

- | | |
|---|--|
| <p>(1) ALL LEAD BEARING EXTERIOR WINDOW HEADERS ARE TO BE (2) 2x10 @ 16"</p> <p>(2) (1) 2x4 JACK LUG (U.N.O.) AND KING STUDS PER TABLE REG-7.5 AND NOT MORE THAN 8' ON CENTER. PROVIDE THAT THE TOP OF THE WINDOW HEIGHT IS 5'-6". MINIMUM BOTTOM OF THE WINDOW HEIGHT IS 1'-0". OTHER REINFORCEMENT AS REQUIRED.</p> <p>(3) ALL INTERIOR LEAD BEARING HEADERS TO BE (2) 2x10 (U.N.O.) REFER TO TABLE REG-7.5 AND REG-7.7 FOR JOINT SUPPORT REQUIREMENTS</p> <p>(4) PROVIDE HANDS FOR INTERIOR AND EXTERIOR LOAD CONDITIONS OF ALL WALLS OVER 10'-0" IN HEIGHT</p> <p>(5) ALL STRUCTURAL STEEL SHALL BE ASTM A992 GRADE 50
F_y = 50 KSI / F_t = 65 KSI</p> <p>(6) ALL EXTERIOR LIMB SHALL BE #2 SYP PT</p> <p>(7) ALL CONCRETE, f'c = 3000 PSI MP</p> | <p>(8) PRESUMPTIVE BEARING CAPACITY = 2000 PSF</p> <p>(9) 1120 ANCHOR BOLTS SPACED AT MAXIMUM OF 6'-0" O.C. AND NOT MORE THAN 8' FROM FACE OF WALL. MINIMUM OF 2 (U.N.O.) PER PLATE SECTION. ANCHOR BOLTS SHALL BE SPACED AT 3'-0" O.C. WHERE EMBEDMENTS. ANCHOR BOLTS SHALL EXTEND 7" INTO CONCRETE OR MASONRY.</p> <p>(10) PSL CORNERS DESIGNED WITH MAX HEIGHT OF 9'-0" U.N.O. PROVIDE A MINIMUM OF 2 (U.N.O.) ANCHORS CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS (U.N.O.)</p> <p>(11) PROVIDE CONTINUOUS SHEATHING PER SECTION 612.16.3 OF THE 2018 IRC</p> <p>(12) MAXIMUM MAXIMUM SIER HEIGHT SHALL NOT EXCEED FOUR TIMES ITS EAST HORIZONTAL DIMENSION</p> <p>(13) UPLIFT LOADS GREATER THAN 500LB SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION</p> <p>(14) METAL HANGERS SHALL BE SMOOTH OR APPROVED EQUIV.</p> |
|---|--|

FLOOD VENT NOTES

- THERE MUST BE A MINIMUM OF ONE SQUARE INCH OF NET OPEN AREA FOR EACH SQUARE FOOT OF ENCLOSED AREA.
- OPENINGS MUST BE A MINIMUM OF 3" IN EACH DIRECTION IN THE PLANE OF THE WALL
- A MINIMUM OF TWO VENTS PER ENCLOSED AREA, AND EACH MUST BE ON AT LEAST TWO DIFFERENT SIDES OF THE EXTERIOR WALLS
- THE BOTTOM OF THE FLOOD VENT OPENING MUST NOT BE HIGHER THAN 12" ABOVE THE ADJACENT GRADE
- THE TOP OF THE OPENING MUST BE BELOW THE BASE FLOOR ELEVATION (BFE)

3031 SQ. FT. OF CRAWL SPACE / 150 = 20.2 SQ. FT. OF REQ'D VENTILATION WITHOUT CROSS VENTILATION
20.2 SQ. FT. OF VENTILATION REQ'D / 0.88 SQ.FT. PER VENT = 23 VENTS REQ'D (BASED ON 8" X 16" VENTS)

-OR-

3031 SQ. FT. OF CRAWL SPACE / 1500 = 2.02 SQ. FT. OF REQ'D VENTILATION WITH CROSS VENTILATION
2.02 SQ. FT. OF VENTILATION REQ'D / 0.88 SQ.FT. PER VENT = 3 VENTS REQ'D (BASED ON 8" X 16" VENTS)

- 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 UPWILL FOUNDATION WALLS MAY BE CONSTRUCTED WITHOUT WALL VENT OPENINGS. VENT DAMPS SHALL BE PROVIDED WHEN THE BOTTOM OF THE FOUNDATION VENT OPENING IS LESS THAN 4 INCHES ABOVE THE FINISHED GRADE.

WALL VENTED CRAWL SPACES REQUIRE FULL COVERAGE GROUND VAPOR RETARDERS.

 CRAWL SPACE VENTILATION CALCULATION

NO SCALE

FILENAME: C:\P\0001\OFFICE\RESIDENTIAL\ENGINEERING\2024\STRUCTURAL\PROJECTS\2401-010285 - ASHLEY DUNN - DUNN FAMILY HOME\2401-010285_LINING.SVD BY: ENGINEERING LAST PLOT DATE:12/9/2024 4:14 PM

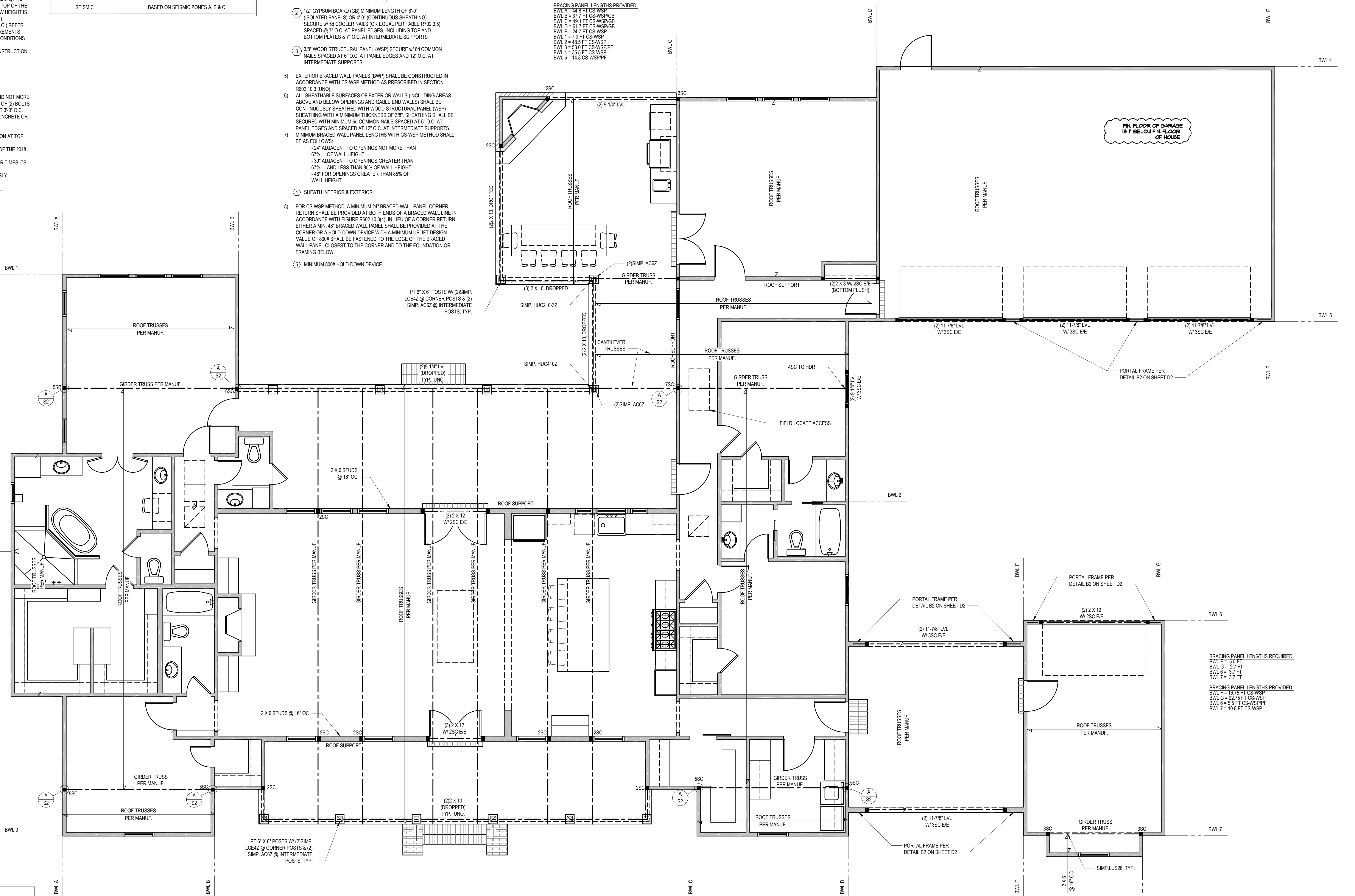
- STRUCTURAL NOTES:**
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF NORTH CAROLINA STATE 2018 RESIDENTIAL BUILDING CODE*, IN ADDITION TO ALL LOCAL CODES AND REGULATIONS.
 - IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, PA IS NOT RESPONSIBLE FOR DIMENSIONS AND SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.
 - ALL LUMBER SHALL BE SYP #2 (UNO).
 - ALL LVL LUMBER TO BE 1.75" WIDE (ACTUAL) EACH SINGLE MEMBER AND $F_b = 2600$ PSI, $E = 1.9M$ PSI (OR GREATER) (I.E. LEVEL, MODUL AN).
 - ALL LVL LUMBER IS TO BE 1.55E ($F_b = 2325$ PSI) (OR GREATER)
 - ALL PSL LUMBER IS TO BE 1.8E ($F_b = 2400$ PSI) (OR GREATER)
 - ALL LOAD BEARING EXTERIOR WINDOW HEADERS ARE TO BE (2) 2x10 w/ (1) 2x4 JACK STUD (UNO) 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'-0". MINIMUM BOTTOM OF THE WINDOW HEIGHT IS 1'-6". OTHERWISE REFER TO TABLES R602.7(1) AND R602.7(2).
 - ALL INTERIOR LOAD BEARING HEADERS TO BE (2) 2x10 (UNO). REFER TO TABLES R602.7(1) AND R602.7(2) FOR JACK STUD REQUIREMENTS FOR HEADER SPANS FOR INTERIOR AND EXTERIOR LOAD CONDITIONS (UNO).
 - REFER TO 2018 NC BUILDING CODE SECTION R602 FOR CONSTRUCTION OF ALL WALLS OVER 10'-0" IN HEIGHT.
 - ALL STRUCTURAL STEEL SHALL BE ASTM A992 GRADE 50 $F_y = 50$ KSI MIN. (UNO)
 - ALL EXTERIOR LUMBER TO BE #2 SYP PT
 - ALL CONCRETE, $f_c = 3000$ PSI MIN.
 - PRESUMPTIVE BEARING CAPACITY = 2000 PSF
 - 12"0" 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.
 - PSL COLUMNS DESIGNED WITH MAX. HEIGHT OF 9'-0" (UNO)
 - PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS (UNO).
 - PROVIDE CONTINUOUS SHEATHING PER SECTION 602.10.3 OF THE 2018 NCRC.
 - MAXIMUM MASONRY PER HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST HORIZONTAL DIMENSION.
 - UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION.
 - METAL HANGERS SHALL BE SIMPSON OR APPROVED EQUAL.

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
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 SHEATHING NOTES**
- DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR LESS
 - WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10 OF THE 2018 NCRC.
 - 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.
 - REFERENCE FIGURE R602.10.4.3 OF THE 2018 NCRC.
 - 12" 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"8" WOOD STRUCTURAL PANEL (WSP) SECURE w/ 5d COMMON NAILS SPACED AT 8" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS
 - EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS-WSP METHOD AS PRESCRIBED IN SECTION R602.10.3 (UNO)
 - 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 8" O.C. AT PANEL EDGES AND SPACED AT 12" O.C. AT INTERMEDIATE SUPPORTS. 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
 - SHEATH INTERIOR & EXTERIOR
 - 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.
 - MINIMUM 800# HOLD-DOWN DEVICE

BRACING PANEL LENGTHS REQUIRED:
BWL A = 8.9 FT
BWL B = 31.6 FT
BWL C = 20.8 FT
BWL D = 19.6 FT
BWL E = 6.4 FT
BWL F = 4.7 FT
BWL 2 = 18.9 FT
BWL 3 = 4.8 FT
BWL 4 = 4.4 FT
BWL 5 = 4.4 FT

BRACING PANEL LENGTHS PROVIDED:
BWL A = 14.5 FT CS-WSP
BWL B = 37.7 FT CS-WSP/GB
BWL C = 49.1 FT CS-WSP/GB
BWL D = 61.7 FT CS-WSP/GB
BWL E = 24.7 FT CS-WSP
BWL F = 7.0 FT CS-WSP
BWL 2 = 48.5 FT CS-WSP
BWL 3 = 53.0 FT CS-WSP/PF
BWL 4 = 35.5 FT CS-WSP
BWL 5 = 14.3 CS-WSP/PF



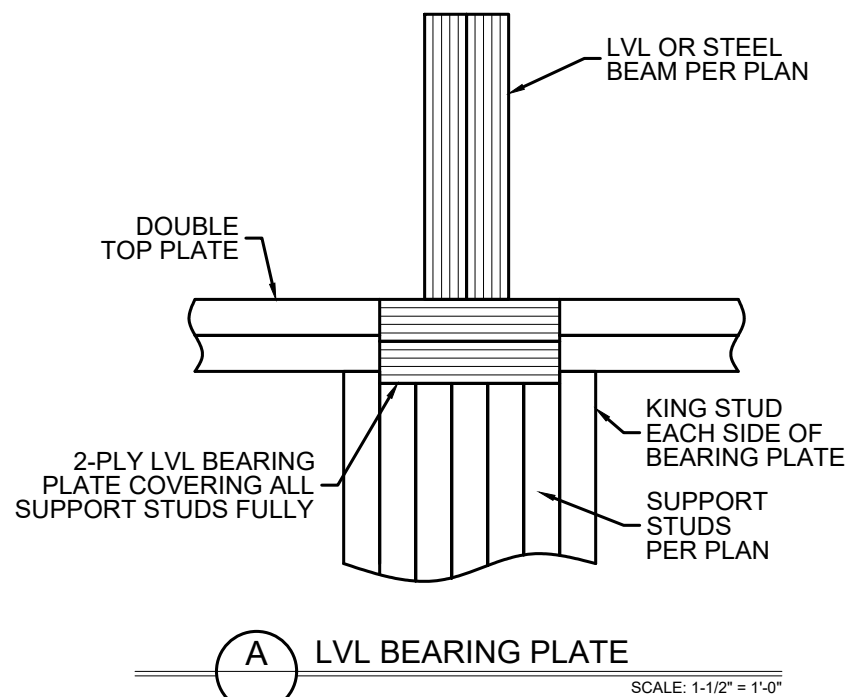
KING STUD SCHEDULE			
HEADER SPAN (FT)	MIN. # OF FULL HEIGHT STUDS (KING) E.E. OF OPENING PER WALL DEPTH		
	2 X 4 STUD WALL	2 X 6 STUD WALL	
UP TO 3'-0"	1	1	
3'-1" TO 6'-0"	2	1	
6'-1" TO 9'-0"	3	2	
9'-1" TO 12'-0"	4	2	
12'-1" TO 15'-0"	5	3	
15'-1" TO 18'-0"	6	3	

NOTES:

- TABLE DENOTES REQUIRED MINIMUM NUMBER OF STUDS E.E. OF HEADER, TYP UNO ON PLANS
- NUMBER OF KING STUDS LISTED ABOVE ARE BASED ON NOMINAL WALL HEIGHT, STUD SPACING OF 16" O.C., AND ULTIMATE WIND SPEED OF 120 MPH (EXPOSURE B)
- HEADER SPANS IN TABLE ARE BASED ON ROUGH OPENINGS. INTERPOLATION BETWEEN SPAN VALUES IS PERMITTED. ROUND UP NUMBER OF KING STUDS. EXTRAPOLATION IS PROHIBITED. CONTACT TYNDALL ENGINEERING AND DESIGN IF HEADER SPANS EXCEED TABLE VALUES

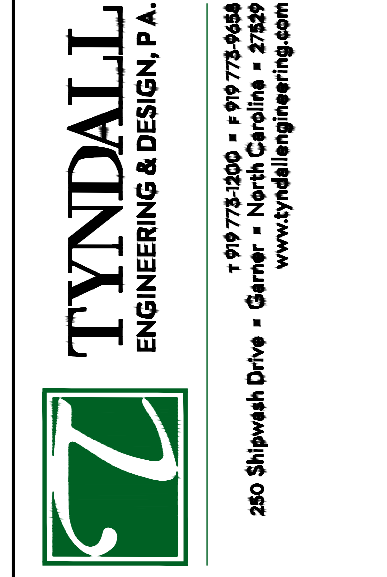
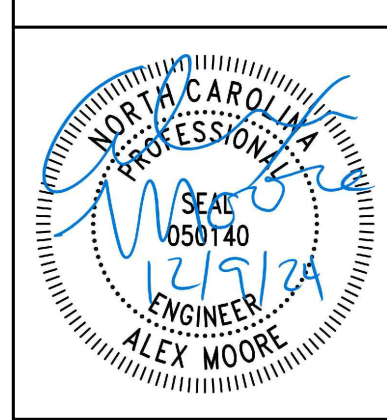
FIRST FLOOR PLAN

1/4" = 1'-0"



SCALE: 1/32" = 1'-0"

*Engineers seal does not include construction means, methods, techniques, sequences, procedures or safety precautions. Any deviation or discrepancy in plans are to be brought to the immediate attention of Tyndall Engineering & Design, P.A. Failure to follow these documents verbatim, Tyndall Engineering & Design, P.A. will not be responsible for any consequences, presented in these documents were deemed acceptable once construction begins.



Client: **ASHLEY DUNN**

File: **DUNN FAMILY HOME**

FIRST FLOOR HEADER

Project #: 2401-010285

Date: 12/9/2024

Engineered By: HJS

DWG. Checked By: AM

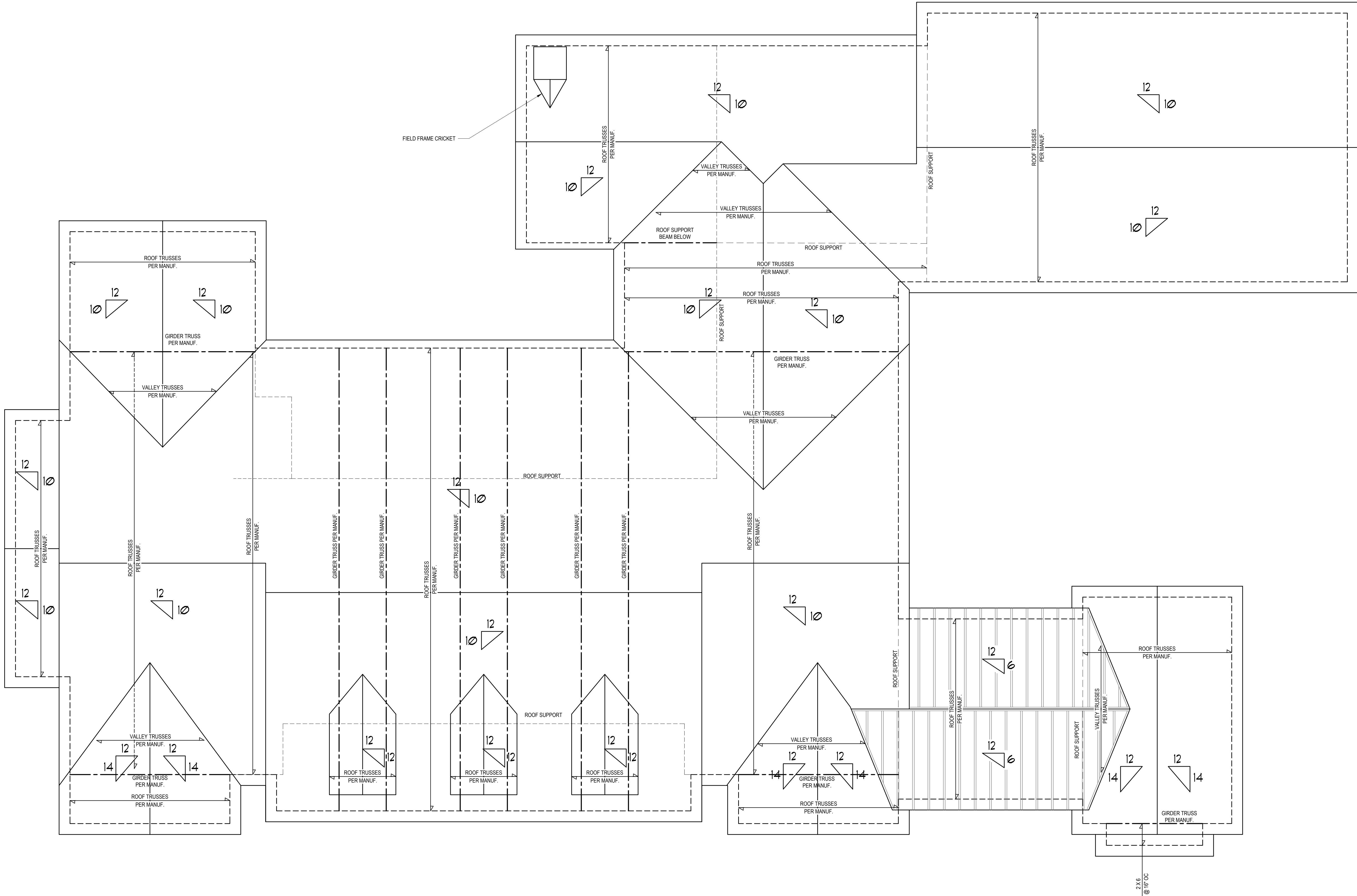
Scale: SEE PLAN

REVISIONS		
No.	Date	Remarks

Sheet Number

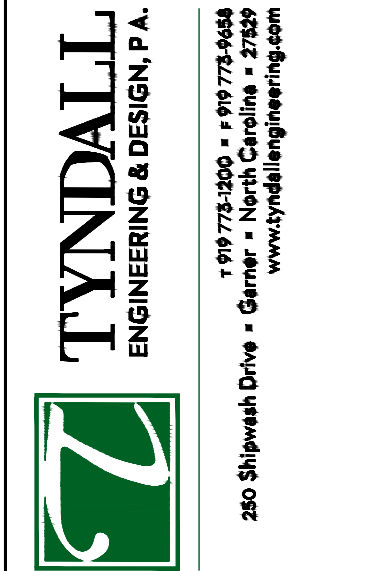
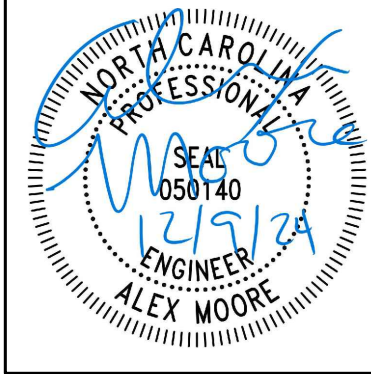
S2

FILENAME: Z:\INLETON OFFICE\RESIDENTIAL ENGINEERING\2024 STRUCTURAL PROJECTS\2401-010285 - DUNN FAMILY HOME\2401-010285_LAYOUTS\2401-010285_LAYOUTS.DWG LAST PLOT DATE:12/9/2024 4:14 PM



ROOF PLAN
1/4" = 1'-0"

"Engineers and does not include construction means, methods, techniques, sequences, procedures or safety precautions. Any deviations or discrepancies in 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. These notes shall document verifiably. Tyndall Engineering & Design, P.A. will interpret the drawings. Recommendations, or presented in these documents were deemed acceptable once construction begins.



Client: **ASHLEY DUNN**
Project: **DUNN FAMILY HOME**

ROOF PLAN

Project #: 2401-010285
Date: 12/9/2024
Engineered By: HJS
DWG. Checked By: AM
Scale: SEE PLAN

REVISIONS		
No.	Date:	Remarks
1		
2		
3		
4		

Sheet Number
S3
3 of 5

FILENAME: C:\VALUED\ OFFICE\RESIDENTIAL ENGINEERING\2024 STRUCTURAL PROJECTS\2401-010285 - DUNN FAMILY HOME\2401-010285-LRW-SAVED BY: ENGINEERING LAST EDIT DATE: 12/9/2024 4:14 PM

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 | 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 (F_b = 800 PSI, BASED ON 2X10) UNDO. ALL FRAMING LUMBER EXPOSED TO THE ELEMENTS SHALL BE TREATED MATERIAL. ALL LVL LUMBER TO BE 175" WIDE NOMINAL EACH SINGLE MEMBER AND F_b = 2600 PSI, E = 1.9M PSI (U.N.O.) ALL LSL LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND F_b = 2325 PSI, E = 1.18M PSI (U.N.O.) ALL PSL LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND F_b = 2400 PSI, E = 1.8M PSI (U.N.O.)
- 7) ALL LOAD BEARING EXTERIOR HEADERS SHALL BE AT (2) 2X10 (U.N.O.) & (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 S80. 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 1/2" AND FULL FLANGE WIDTH. PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ADDED TO EACH SUPPORT WITH TWO (2) LAG SCREWS (1 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 20.0 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 1/12
36.0 LBS/SQFT FOR ROOF PITCHES 1 1/12 TO 4/12
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 PIER 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.

DEFINITIONS FOR COMMON ABBREVIATIONS

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

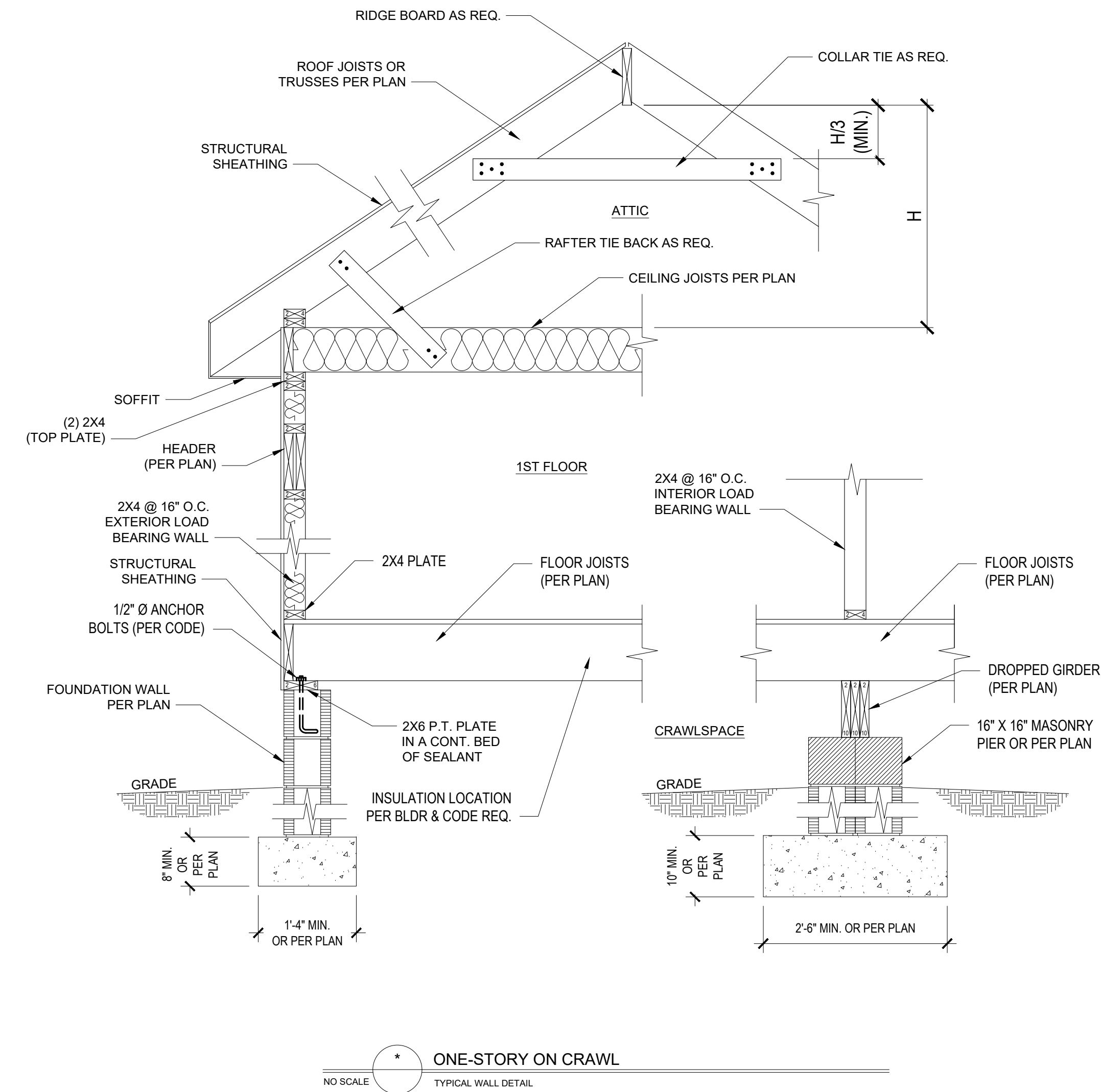
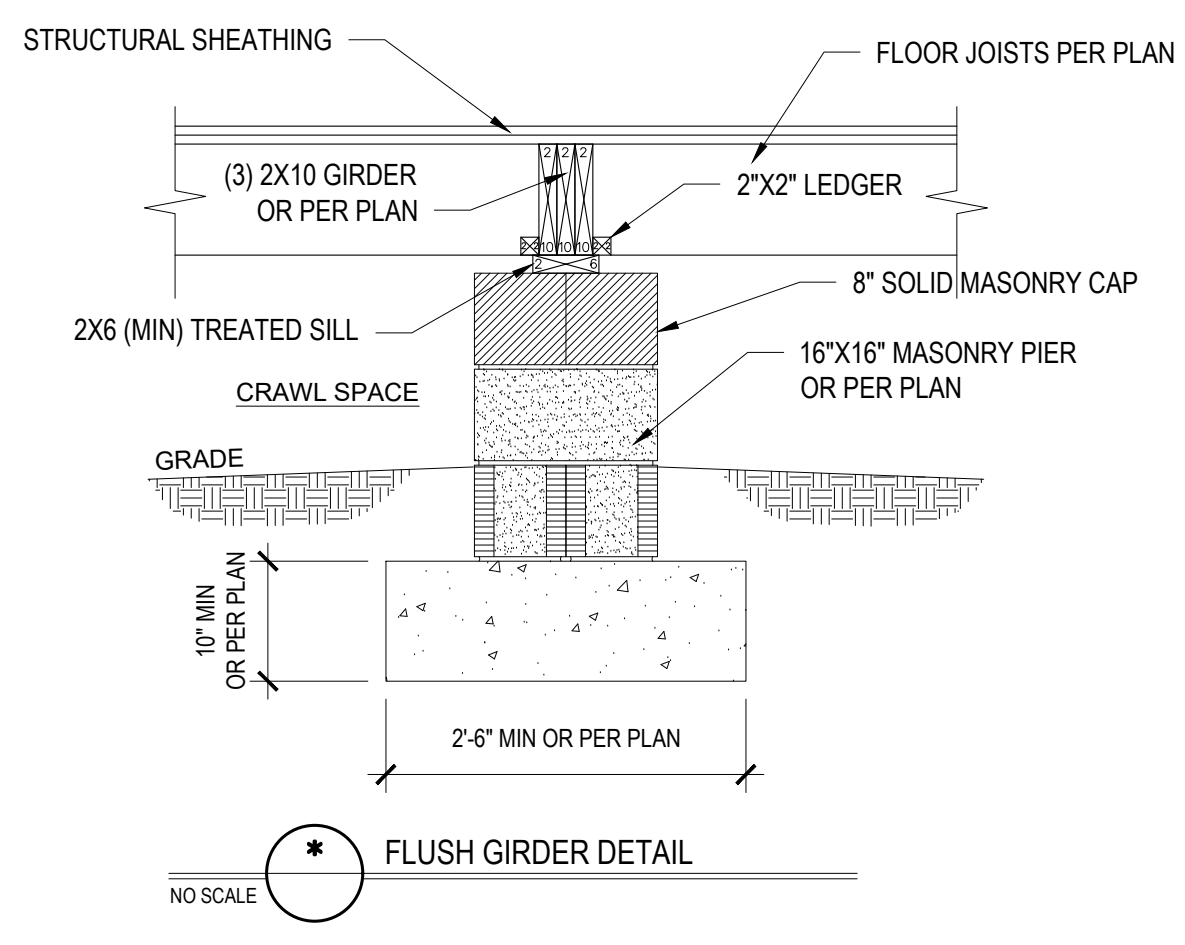
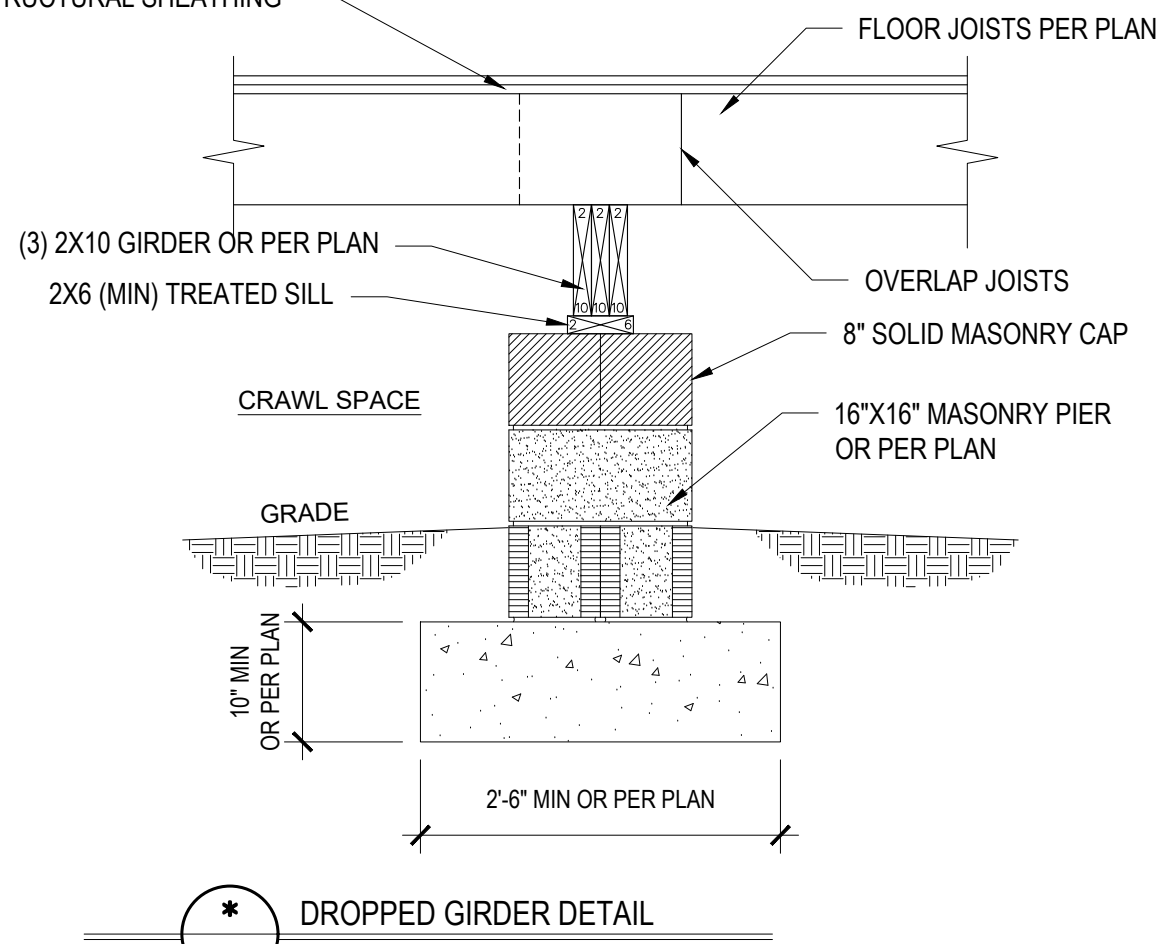
- * THIS TABLE IS BASED ON NO. 2 TREATED SOUTHERN PINE POSTS. MAXIMUM TRIBUTARY AREA IS BASED ON 128 TOTAL SQUARE FEET WHICH MAY BE LOCATED AT DIFFERENT LEVELS.
** FROM TOP OF FOOTING TO BOTTOM OF GIRDER.
*** DECKS WITH POST HEIGHTS OVER 20'-0" SHALL BE DESIGNED AND SEALED BY A PROFESSIONAL ENGINEER 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'-6"

- 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.

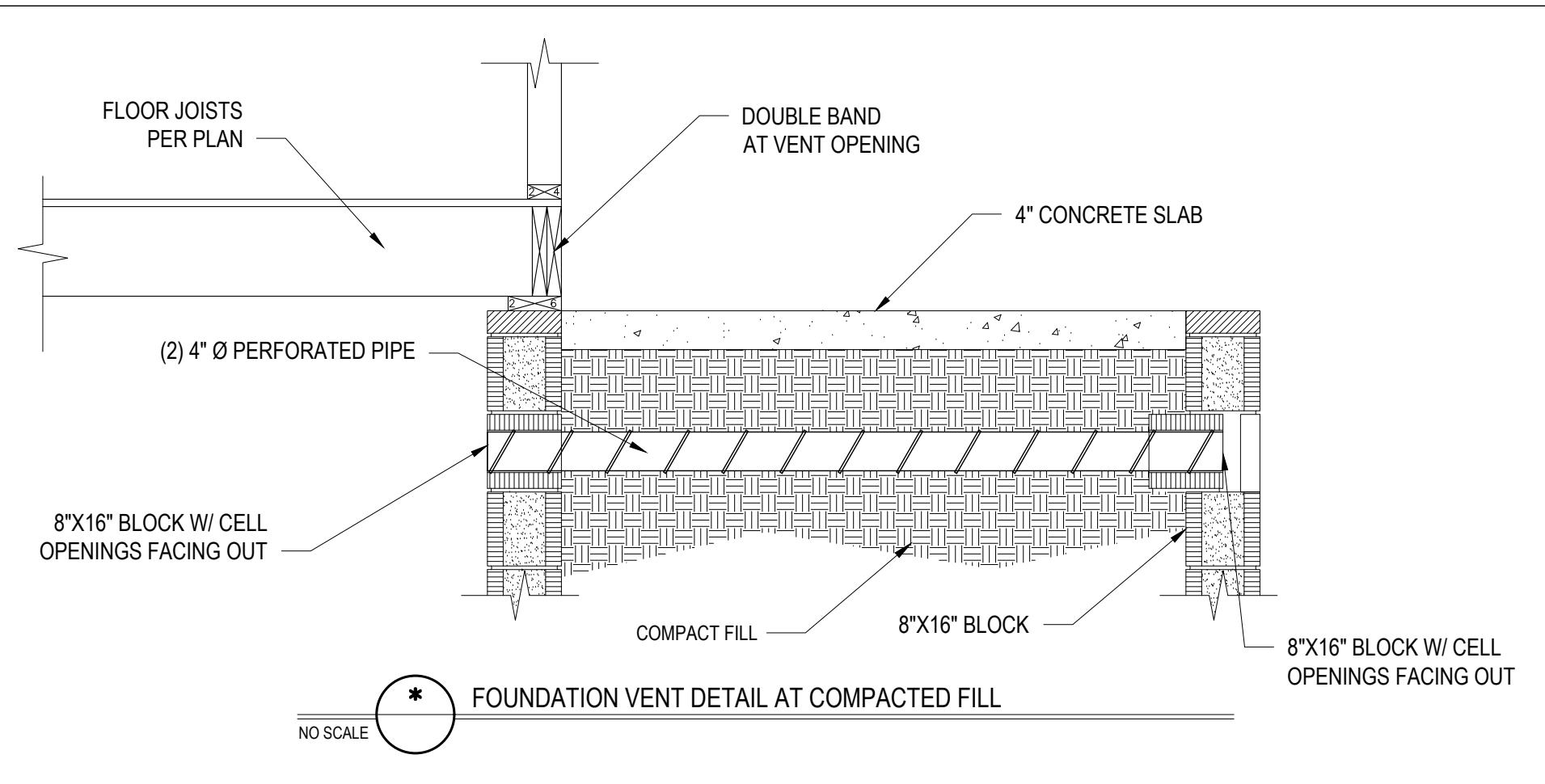
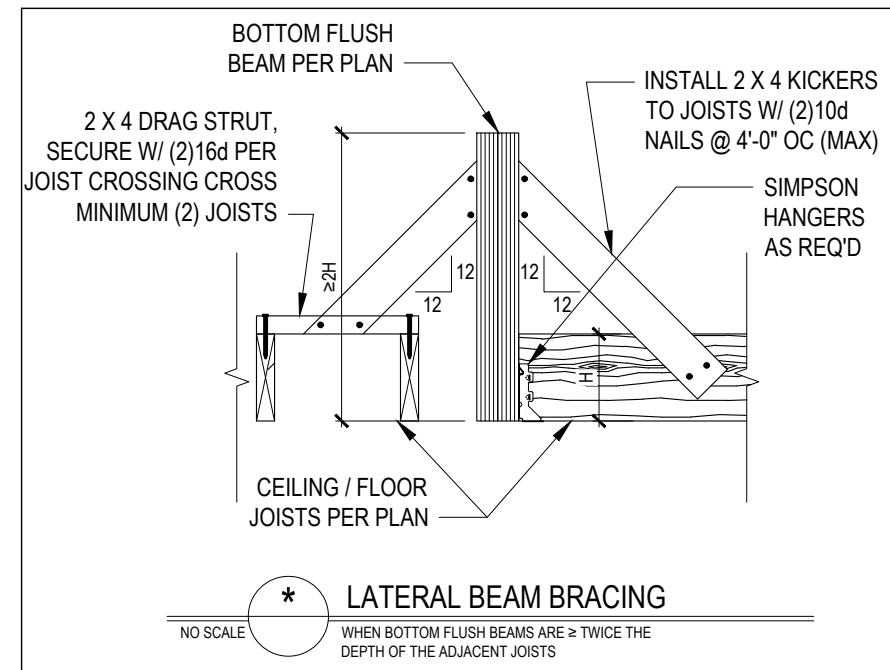
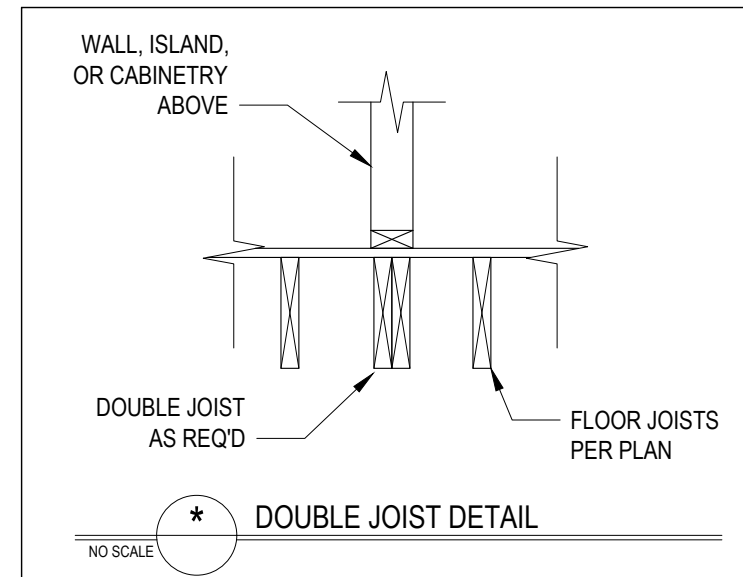
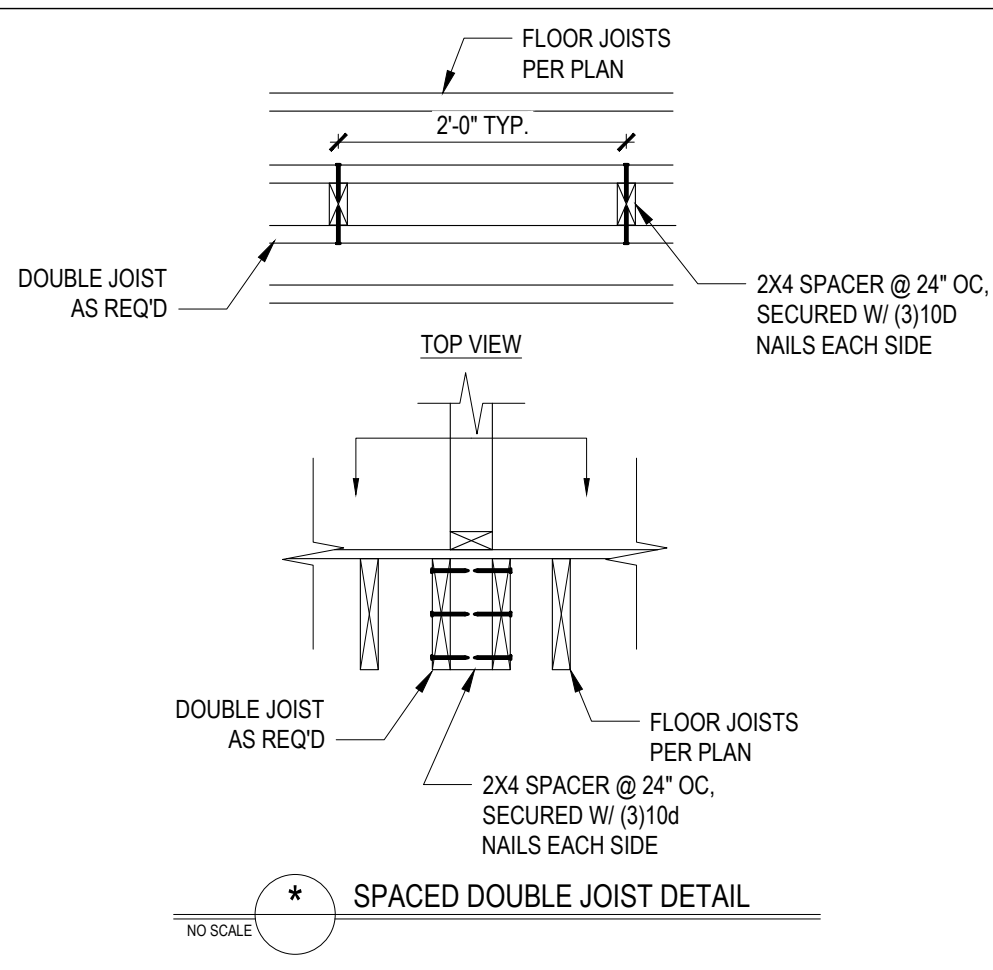
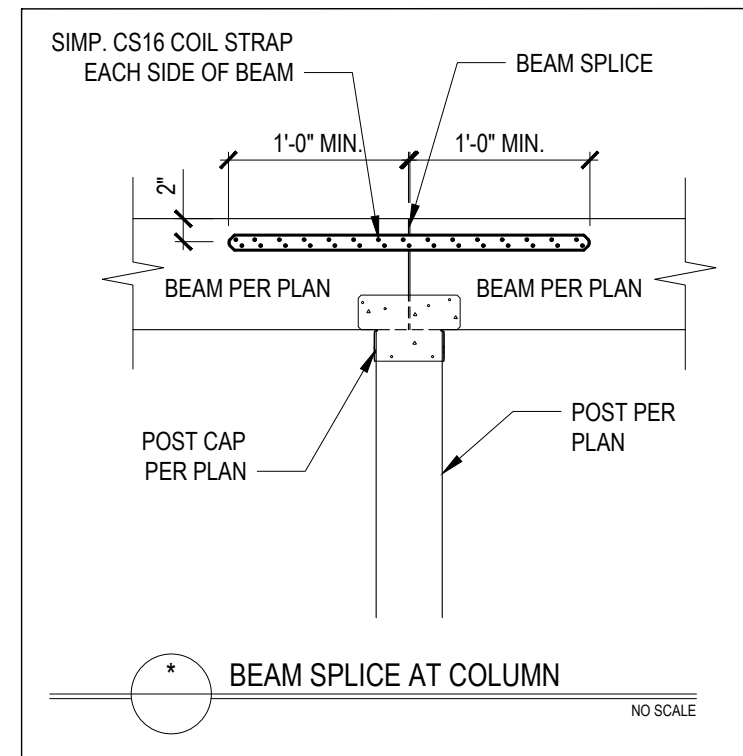
STRUCTURAL SHEATHING



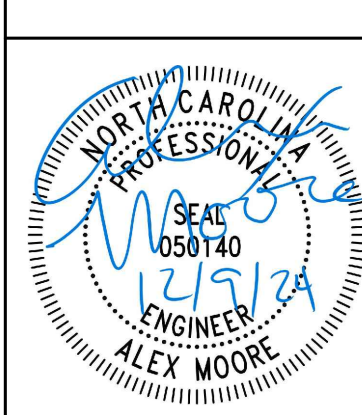
CLIMATE ZONES	FENESTRATION U-FACTOR ¹	SUNLIGHT U-FACTOR ²	GLAZED FENESTRATION SHGC ^{1,3}	CEILING ^{1b} R-VALUE	WOOD FRAMED WALL R-VALUE ¹	MASS WALL R-VALUE ¹	FLOOR R-VALUE	BASEMENT WALL R-VALUE ^{1,2a}	SLAB ^d R-VALUE AND DEPTH	CRAWL SPACE ^c WALL R-VALUE
3	0.35	0.55	0.30	38 or 30 cont	15 or 13 + 2.5 ^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	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	19, or 13 + 5 ^h or 15 + 3 ^h	13/17 or 13/12.5 cont	30 ³	10/15	10	10/19

TABLE N1102.1 CLIMATE ZONES 3-5

- a. R-VALUES ARE MINIMUM. U-FACTORS AND SHGC ARE MAXIMUM. WHEN INSULATION IS INSTALLED IN A CAVITY THINER 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 EXCLUDES SKYLIGHTS. THE SOLAR HEAT GAIN COEFFICIENT (SHGC) COLUMN APPLIES TO ALL GLAZED FENESTRATION.
- c. "30" MEANS R-30 CONTINUOUS INSULATED SHEATHING ON THE INTERIOR OR EXTERIOR OF THE HOME OR R-13 CAVITY INSULATION AT THE INTERIOR OF THE BASEMENT WALL OR CRAWL SPACE WALL.
- d. FOR PERIMETERIC SLAB, INSULATION SHALL BE APPLIED FROM THE INSIDE ON ONE SIDE TO THE BOTTOM OF THE FOOTING OR A MAXIMUM OF 4" BELOW GRADE, WHICHEVER IS LESS. FOR FLOATING SLAB, INSULATION SHALL EXTEND TO THE BOTTOM OF THE FOUNDATION WALL OR 4", WHICHEVER IS LESS. R-9 SHALL BE ADDED TO THE REQUIRED SLAB EDGE R-VALUES FOR HEATED SLABS.
- e. DETAIL:
- f. BASEMENT WALL INSULATION IS NOT REQUIRED IN WARM-HUMID LOCATIONS AS DEFINED BY FIGURE N1102.1 AND TABLE N1102.1.
- 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. 30 "13"-0" MEANS R-13 CAVITY INSULATION PLUS R-13 INSULATED SHEATHING. "13"-0" MEANS R-13 CAVITY INSULATION PLUS R-13 INSULATED SHEATHING. IF STRUCTURAL SHEATHING COVERS 25% OR LESS OF THE EXTERIOR, INSULATED 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-13. "13 + 3" MEANS R-13 CAVITY INSULATION PLUS R-3 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 DESCRIPTION IN SECTION N1102.3.3, A MINIMUM OF TWO GLAZED FENESTRATION PRODUCT ASSEMBLIES HAVING A U-FACTOR NO GREATER THAN 0.35 SHALL BE PERMITTED TO BE SUBSTITUTED FOR MINIMUM CODE COMPLIANT FENESTRATION PRODUCT ASSEMBLIES WITHOUT PENALTY.
- k. IN ADDITION TO THE DESCRIPTION IN SECTION N1102.3.3, A MINIMUM 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-9 SHALL BE DEEMED TO SATISFY THE CEILING INSULATION REQUIREMENT WHEREVER THE FULL HEIGHT OF UNCOMPRESSED R-9 INSULATION EXTENDS OVER THE WALL TOP PLATE.
- m. THE SLAB EDGE COVERAGE R-9 INSULATION IS REQUIRED WHERE APPROPRIATE CLEARANCE EXISTS OR INSULATION MUST EXTEND TO COVER THE INSULATION INSIDE OR OUTSIDE OF THE ATTIC ROOF DECK.
- n. WALL VALUE REQUIREMENT 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 AIRBATTLE.
- o. R-13 FIBERGLASS BATT'S COMPRESSED AND INSTALLED IN A MINIMUM 2" x 6" FRAMING CAVITY IS DEEMED TO COMPLY. FIBERGLASS BATT'S RATED R-19 OR HIGHER COMPRESSED AND INSTALLED IN A 2" x 4" WALL IS NOT PERMITTED TO COMPLY.
- p. BASEMENT WALL MEETING THE MINIMUM MASS WALL SPECIFIC HEAT CONTENT REQUIREMENT MAY USE THE MASS WALL R-VALUE AS THE MINIMUM REQUIREMENT.



"Engineers seal does not include construction means, methods, techniques, sequences, procedures or safety precautions. Any deviation or discrepancy in plans are to be brought to the immediate attention of the engineer who issued the plans. Tyndall Engineering & Design, P.A. Failure to comply with these provisions shall constitute a violation of the Professional Engineer Act, P.A. 99-13, and shall be cause for disciplinary action. Tyndall Engineering & Design, P.A. will not be responsible for any errors or omissions in these documents or for any consequences arising therefrom. No part of these documents may be reproduced without the written consent of Tyndall Engineering & Design, P.A."



Client: ASHLEY DUNN
Project #: 2401-010285
Date: 12/9/2024
Engineered By: HJS
DWG. Checked By: AM
Scale: SEE PLAN
Sheet Number: D1
4 of 5

STANDARD DETAILS

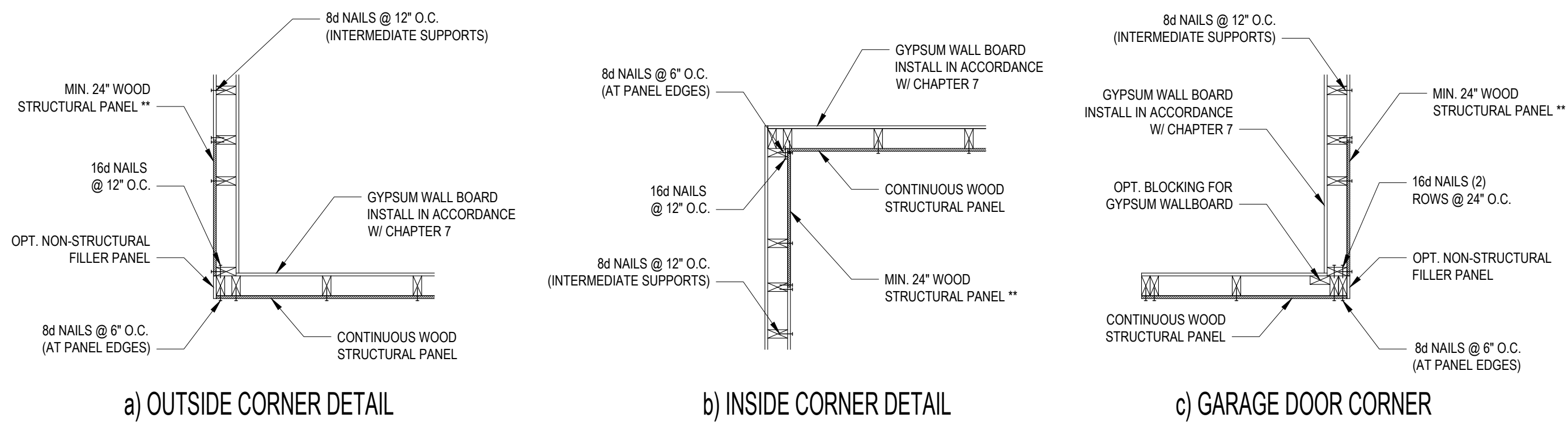
Project #: 2401-010285
Date: 12/9/2024
Engineered By: HJS
DWG. Checked By: AM
Scale: SEE PLAN

Sr.	Date:	Revisions
1		
2		
3		
4		

Sheet Number

D1

FILENAME: C:\VALDES\OFFICE\RESIDENTIAL ENGINEERING\2024 STRUCTURAL PROJECTS\2401-010285 - DUNN FAMILY HOME\2401-010285_LINING DWG.SVD BY: ENGINEERING LAST EDIT DATE: 12/9/2024 4:14 PM



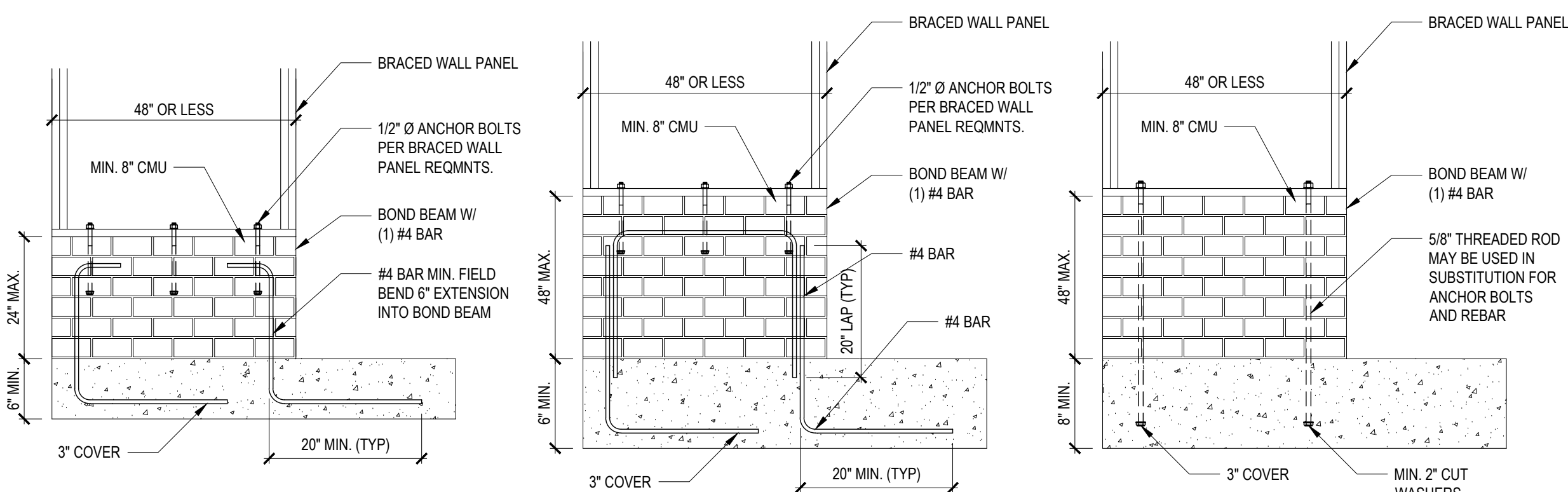
B1: TYPICAL EXTERIOR CORNER FRAMING FOR CONTINUOUS SHEATHING
NO SCALE

STRUCTURAL SHEATHING NOTES

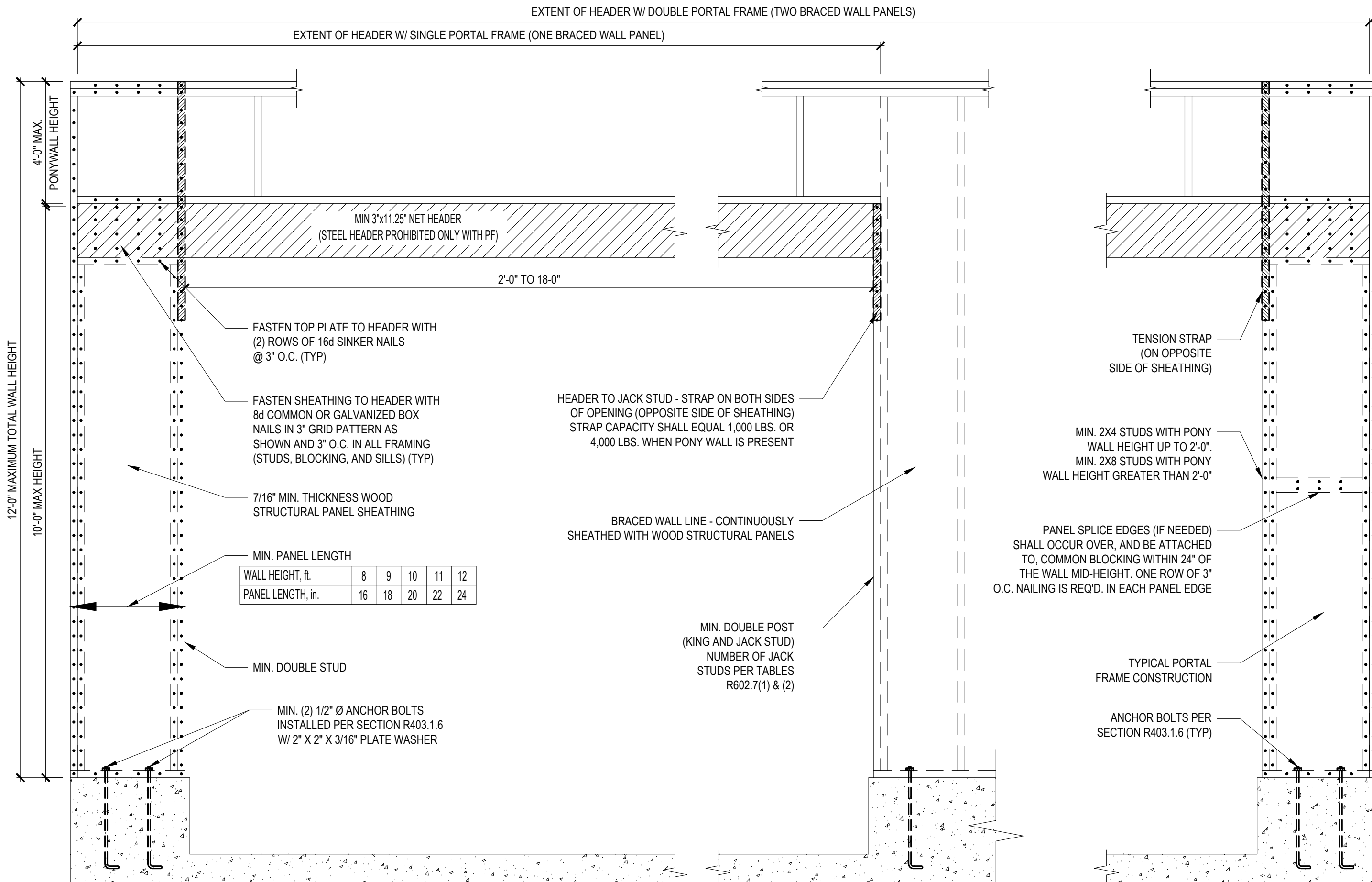
- DESIGNED FOR SEISMIC ZONE A-C AND WIND SPEEDS OF 120 MPH OR LESS.
- WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10.4 OF THE 2018 NCRC.
- BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3. REFER TO SECTION R602.10.4 FOR LOAD PATH DETAILS INCLUDING CONNECTIONS & SUPPORT OF BRACED WALL PANELS.
- REFERENCE FIGURE R602.10.4.3 OF THE 2018 NCRC.
- 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).
- 12" GYPSUM BOARD (GB) MINIMUM LENGTH OF 8' 0" (ISOLATED PANELS) OR 4' 0" (CONTINUOUS SHEATHING).
- 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.
- EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS-WSP METHOD AS PRESCRIBED IN SECTION R602.10.3 (UNO).
- 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.
- 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.
- SHEATH INTERIOR AND EXTERIOR.
- 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.
- MINIMUM 800# HOLD-DOWN DEVICE.

METHOD	MATERIAL	MIN. THICKNESS	REQUIRED CONNECTION	
			@ PANEL EDGES	@ 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.

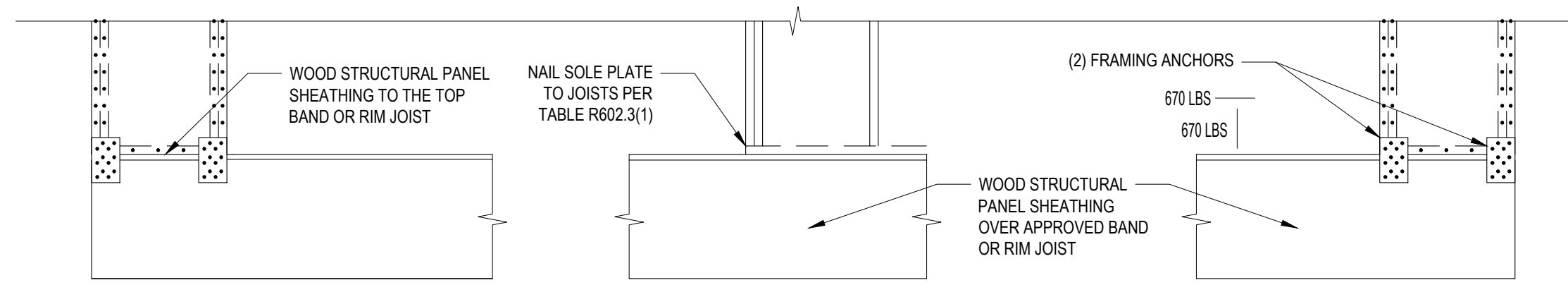
**OR EQUIVALENT PER TABLE R702.3.5
B3: BRACE WALL PANEL CONNECTIONS
NO SCALE



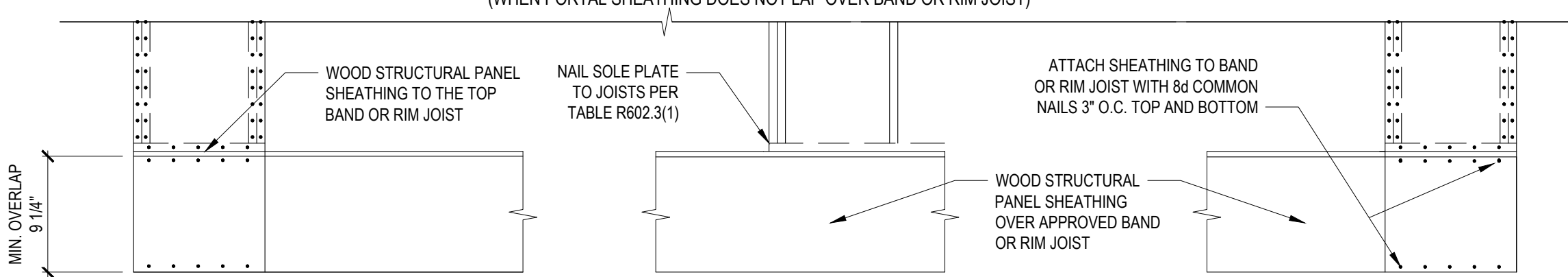
B4: MASONRY STEM WALL SUPPORTING BRACED WALL PANELS
FIGURE R602.10.4.3 OF THE 2018 NCRC
NOTE: GROUT BOND BEAMS AND ALL CELLS WHICH CONTAIN REBAR, THREADED RODS AND ANCHOR BOLTS



OVER CONCRETE OR MASONRY BLOCK FOUNDATION



OVER RAISED WOOD FLOOR - FRAMING ANCHOR OPTION
(WHEN PORTAL SHEATHING DOES NOT LAP OVER BAND OR RIM JOIST)

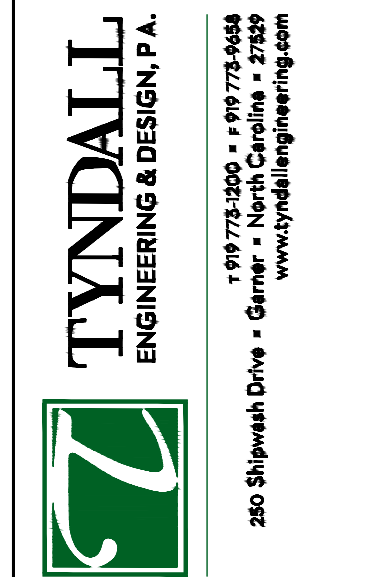
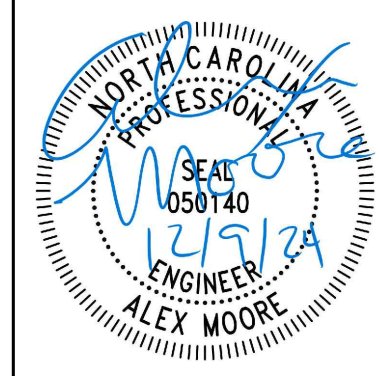


OVER RAISED WOOD FLOOR - OVERLAP OPTION
(WHEN PORTAL SHEATHING LAPS OVER BAND OR RIM JOIST)

B2: METHOD PF: PORTAL FRAME CONSTRUCTION

FIGURE R602.10.1

Engineers and does not include construction means, methods, techniques, sequences, procedures or safety precautions. Any deviation or discrepancies in plans are to be brought to the immediate attention of the Engineer. Tyndall Engineering & Design, P.A. Failure to follow these instructions, Tyndall Engineering & Design, P.A. shall not be responsible for any claims, damages, losses, or expenses, including reasonable attorneys' fees, that may be incurred by the owner or any third party. Tyndall Engineering & Design, P.A. will not be responsible for any claims, damages, losses, or expenses, including reasonable attorneys' fees, that may be incurred by the owner or any third party. Tyndall Engineering & Design, P.A. will not be responsible for any claims, damages, losses, or expenses, including reasonable attorneys' fees, that may be incurred by the owner or any third party.



Client: **ASHLEY DUNN**
Project: **DUNN FAMILY HOME**

SHEATHING
DETAILS

Project #: 2401-010285
Date: 12/9/2024
Engineered By: HJS
DWG. Checked By: AM
Scale: SEE PLAN

REVISIONS		
No.	Date:	Remarks
1		
2		
3		
4		

Sheet Number
D2
5 of 5