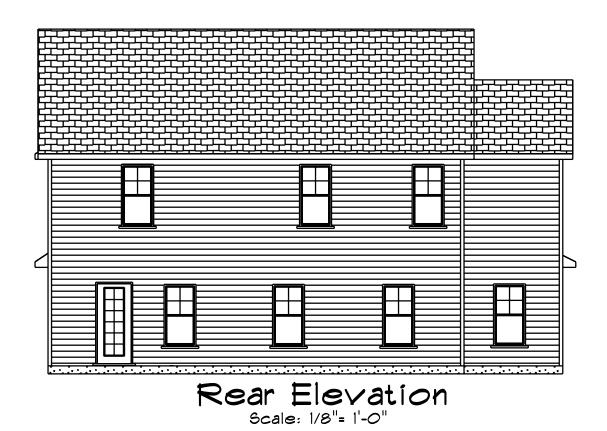
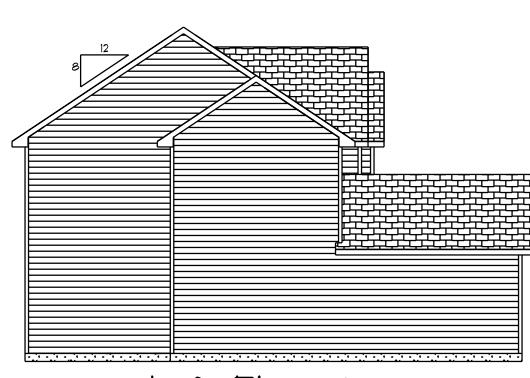




Front Elevation

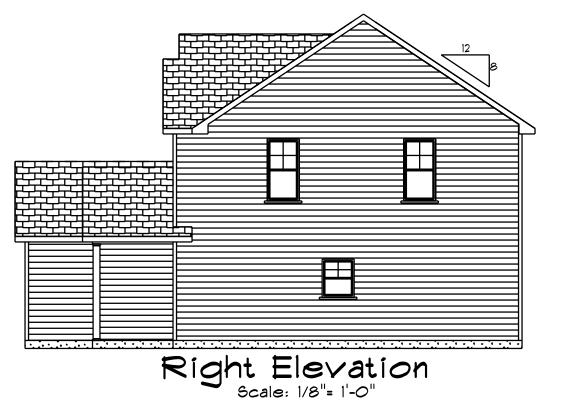
Scale: 1/4"= 1'-0"

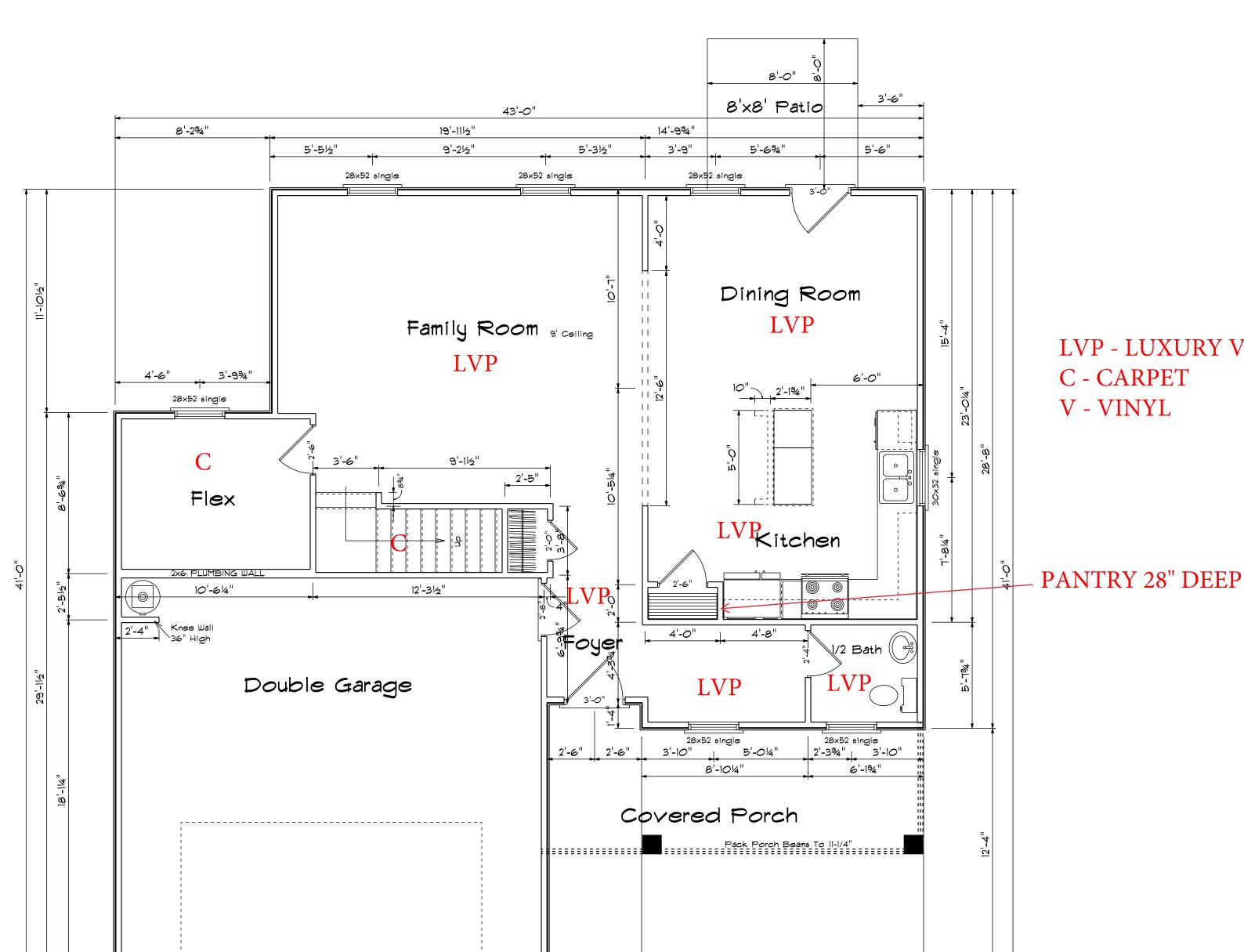




Left Elevation

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





5'-0"

15'-0"

LVP - LUXURY VINYL PLANK

# Areas

ATTIC YENTILATION

YENTILATION MAY BE REDUCED 50%

REQUIRED VENTILATING AREA IS

NOT MORE THAN 80 PERCENT OF THE

PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO

BALANCE OF THE REQUIRED VENTILOTION

PROVIDED BY EAVE OR CORNICE VENTS.

BE YENTILATED AT LEAST 3'-O" ABOYE

EAVE OR CORNICE YENTS WITH THE

1037 SQ.FT. OF ATTIC / 150 = 6.91 SQ.FT. TOTAL NET FREE VENTILATING AREA.

First Floor 955 Second Floor 1037

> ====== 1992

> > 479

Total Heated Garage

Front Porch

137 Opt. Rear Porch 120

First Floor Plan

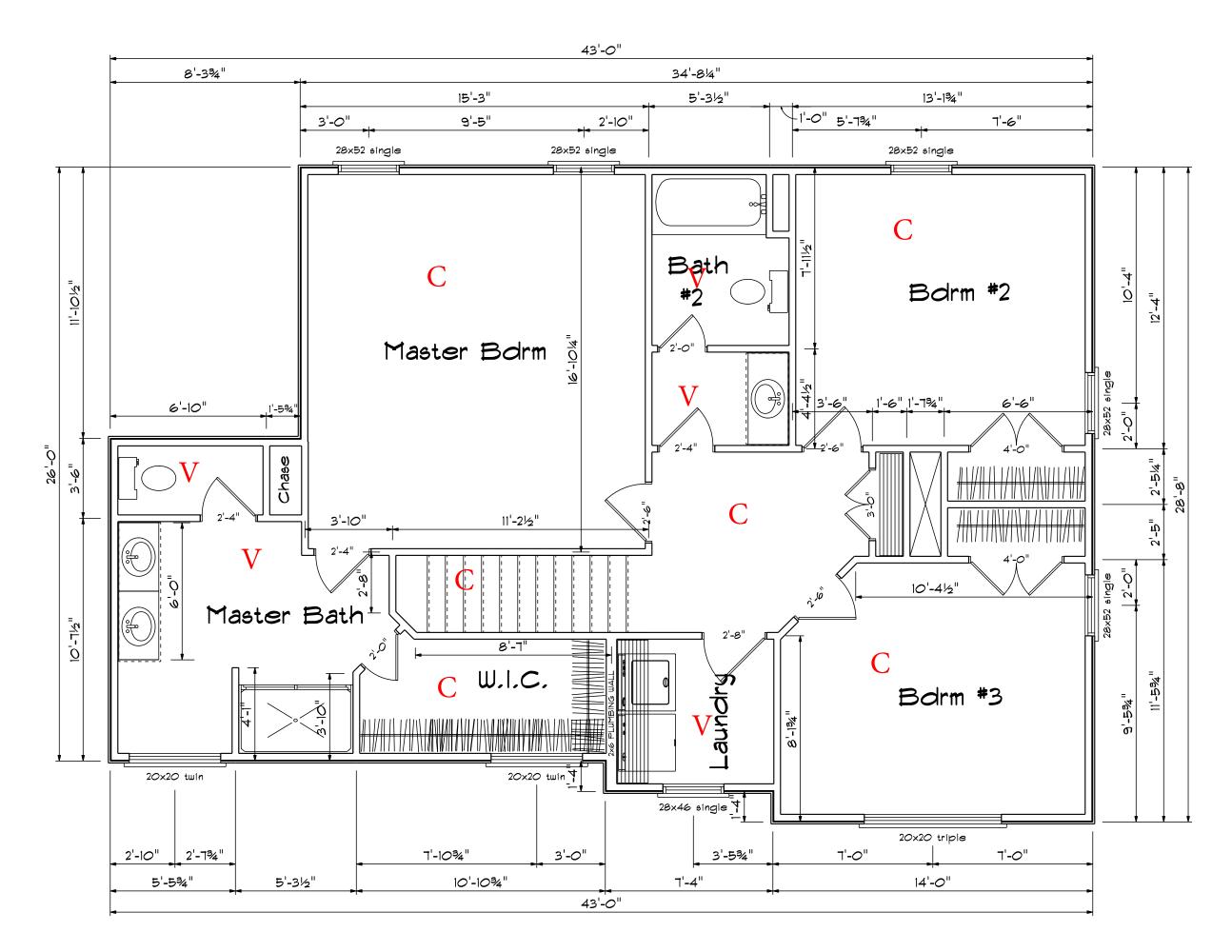
43'-0"

11'-6"

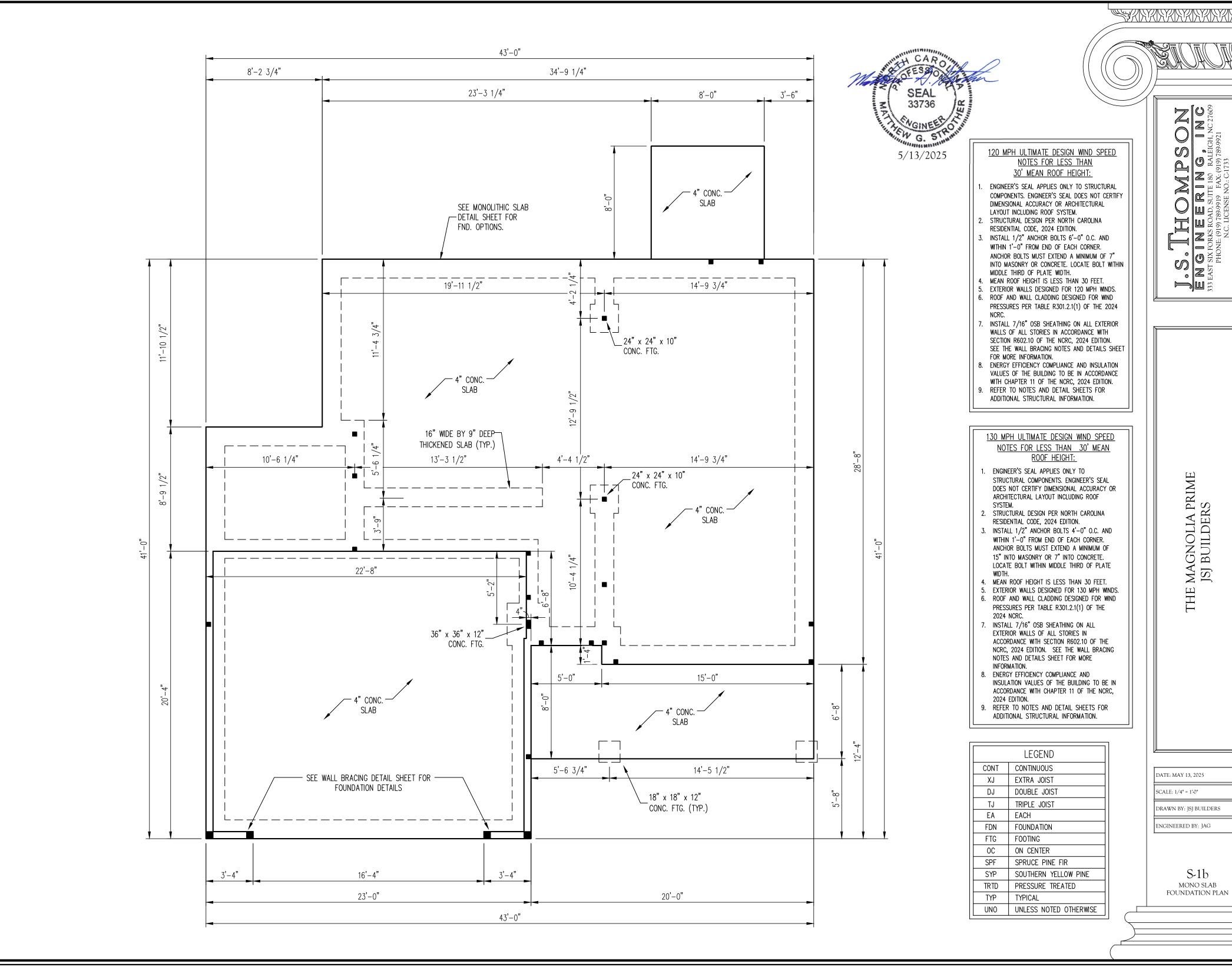
16'-0"

23'-0"

11'-6"



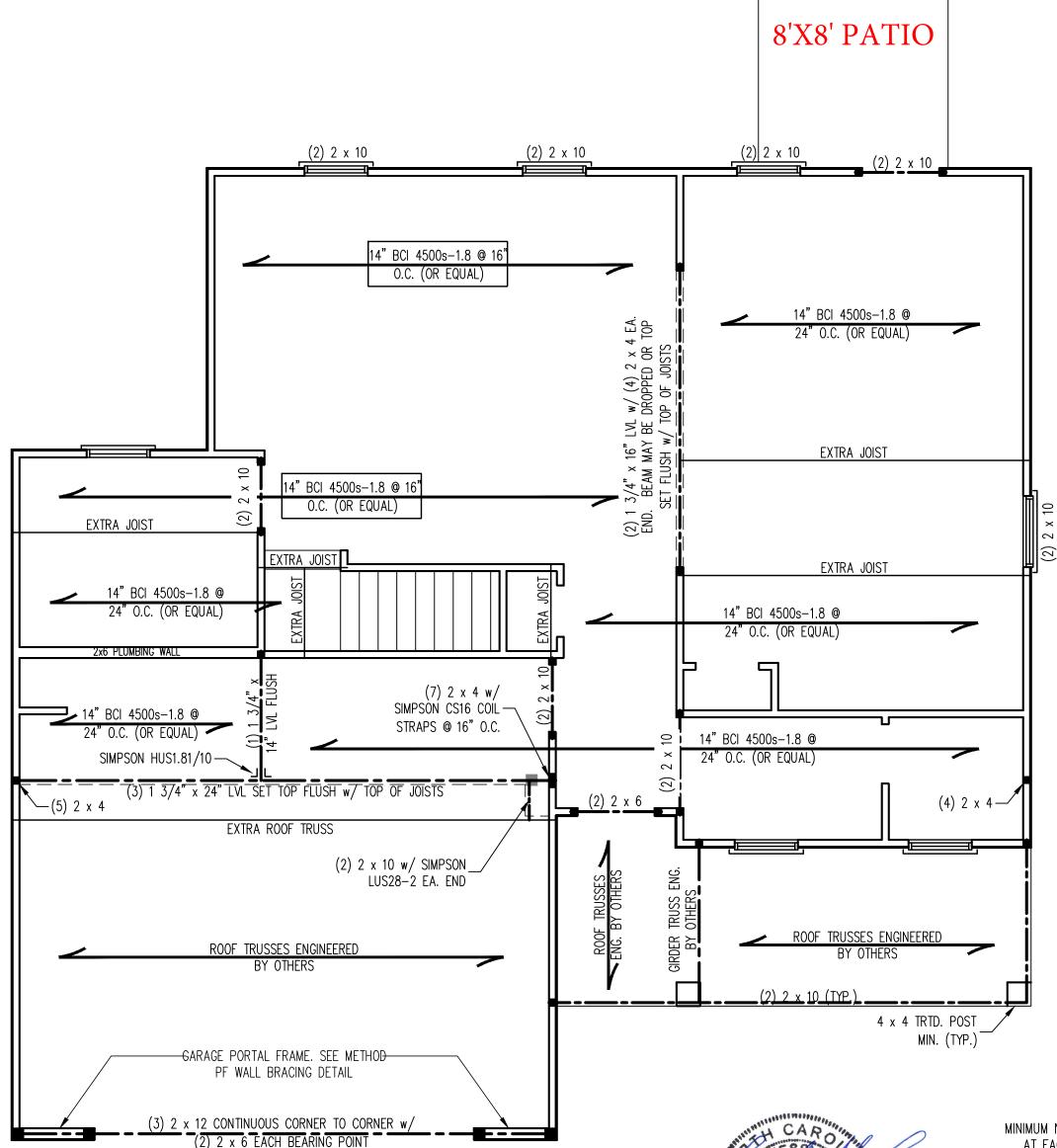
Second Floor Plan



ENGINEERED BY: JAG

S-2 SECOND FLOOR FRAMING PLAN

## 2X6 EXTERIOR WALLS



NOTE:

TJI 110 I-JOISTS MAY BE INSTALLED IN LIEU OF BCI 4500s-1.8 JOISTS AT THE DEPTH AND SPACING INDICATED ON THE PLANS.

### BRACED WALL DESIGN NOTES:

- 1. WALL BRACING IS BY ENGINEERED DESIGN PER SECTION R301.1.3
  "ENGINEERED DESIGN" OF THE NCRC 2024 EDITION USING BRACING
  MATERIALS AND METHODS LISTED IN TABLE R602.10.4 ALONG WITH
  ALTERNATIVE MATERIALS AND METHODS THAT COMPLY WITH ACCEPTED
  ENGINEERING PRACTICE. BRACED WALL DESIGN IS NOT PRESCRIPTIVE.
- 2. SHEATH ALL EXTERIOR WALLS w/ 7/16" OSB TO PROVIDE CS-WSP WALL BRACING THAT WILL BRACE THE STRUCTURE FOR ALL LATERAL LOADS AS REQUIRED BY THE NCRC 2024 EDITION.
- 3. CS-WSP REFERS TO "CONTINUOUSLY SHEATHED WOOD STRUCTURAL PANELS."
  CONTRACTOR IS TO INSTALL 7/16" OSB ON ALL EXTERIOR WALLS WITH
  HORIZONTAL JOINTS BLOCKED. ATTACH SHEATHING w/ 8d NAILS SPACED 6"
  O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD INCLUDING TOP AND
  BOTTOM PLATES.
- 4. GB REFERS TO "GYPSUM BOARD." CONTRACTOR IS TO INSTALL 1/2" (MIN.) GYPSUM BOARD ON BOTH SIDES OF WALL (UNO) WHERE NOTED ON THE PLANS ATTACHED WITH 1 1/4" LONG #6 SCREWS OR 1 5/8" LONG 5d COOLER NAILS SPACED 7" O.C. ALONG PANEL EDGES AND IN THE FIELD INCLUDING TOP AND BOTTOM PLATES. WHERE METHOD GB PANELS ARE INSTALLED HORIZONTALLY, BLOCKING OF HORIZONTAL JOINTS IS NOT REQUIRED.
- 5. BRACED WALL DESIGN APPLIED IN WIND ZONES UP TO 130 MPH. FOR HIGH WIND ZONES, BRACED WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 45 OF THE NCRC 2024 EDITION.
- 6. SEE NOTES AND DETAIL SHEETS FOR ADDITIONAL BRACED WALL INFORMATION.

### STRUCTURAL NOTES:

- 1. ALL FRAMING LUMBER TO BE SPF #2 (UNO). ALL TREATED LUMBER TO BE SYP #2 (UNO.)
- 2. ALL LOAD BEARING HEADERS TO BE (2) 2 x 6 SPF #2 OR SYP #2 (KILN DRIED) (UNO). HEADERS HAVE BEEN DESIGNED BASED ON CALCULATED LOADS. CODE TABLES HAVE NOT BEEN USED.
- 3. PROVIDE AN EXTRA JOIST UNDER ALL WALLS PARALLEL TO FLOOR JOISTS WHERE NOTED ON THE PLANS.
- 4. WINDOW AND DOOR HEADERS TO BE SUPPORTED w/ (1) JACK STUD AND (1) KING STUD EA. END (UNO.). SEE KING STUD TABLE FOR ADDITIONAL KING STUD REQUIREMENTS.
- 5. SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION. ALL SQUARES TO BE (2) STUDS (UNO.)
- 6. ALL 4 x 4 POSTS SHALL BE ANCHORED TO SLABS w/ SIMPSON ABU44
  POST BASES (OR EQUAL) AND 6 x 6 POSTS w/ ABU66 POST BASES (OR
  EQUAL) (UNO). ALL 4 x 4 AND 6 x 6 POSTS TO BE INSTALLED WITH 700
  LB CAPACITY UPLIFT CONNECTORS AT TOP (UNO.)
- 7. FOR FIBERGLASS, ALUMINUM, OR COLUMN ENG. BY OTHERS, SECURE TO SLAB w/ (2) METAL ANGLES USING 2" CONC. SCREWS. FASTEN ANGLES TO COLUMNS w/ 1/4" THROUGH BOLTS w/ NUTS AND WASHERS. LOCATE ANGLES ON OPPOSITE SIDES OF COLUMN. THROUGH BOLTS MUST BE INSTALLED PRIOR TO SETTING COLUMN.
- 8. REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

TABLE R602.7.5

MINIMUM NUMBER OF FULL HEIGHT KING STUDS
AT EACH END OF HEADERS IN EXTERIOR
WALLS IN 120/130 MPH WIND ZONES

	<u> </u>
HEADER SPAN (FEET)	MINIMUM NUMBER OF FULL HEIGHT STUDS (KINGS)
UP TO 4'	1
> 4' TO 8'	2
> 8' TO 14'	3
> 14' TO 18'	4

5/13/2025

LEGEND			
CONT CONTINUOUS			
XT	EXTRA TRUSS		
XJ	EXTRA JOIST		
DJ	DOUBLE JOIST		
TJ	TRIPLE JOIST		
EA	EACH		
( )	NUMBER OF STUDS		
DSP	DOUBLE STUD POCKET		
TSP	TRIPLE STUD POCKET		
OC	ON CENTER		
SPF	SPRUCE PINE FIR		
SYP	SOUTHERN YELLOW PINE		
TRTD	PRESSURE TREATED		
TYP	TYPICAL		
UNO	UNLESS NOTED OTHERWISE		

# MAGNOLIA PRIME JSJ BUILDERS

DATE: MAY 13, 2025 SCALE: 1/4" = 1'-0"

DRAWN BY: JSJ BUILDERS ENGINEERED BY: JAG

ATTIC FLOOR FRAMING PLAN

### BRACED WALL DESIGN NOTES:

(4) 2 x 4 —

ROOF TRUSSES ENGINEERED BY OTHERS

- WALL BRACING IS BY ENGINEERED DESIGN PER SECTION R301.1.3 "ENGINEERED DESIGN" OF THE NCRC 2024 EDITION USING BRACING MATERIALS AND METHODS LISTED IN TABLE R602.10.4 ALONG WITH ALTERNATIVE MATERIALS AND METHODS THAT COMPLY WITH ACCEPTED ENGINEERING PRACTICE. BRACED WALL DESIGN IS NOT PRESCRIPTIVE.
- SHEATH ALL EXTERIOR WALLS w/ 7/16" OSB TO PROVIDE CS-WSP WALL BRACING THAT WILL BRACE THE STRUCTURE FOR ALL LATERAL LOADS AS REQUIRED BY THE NCRC 2024 EDITION.
- . CS-WSP REFERS TO "CONTINUOUSLY SHEATHED WOOD STRUCTURAL PANELS." CONTRACTOR IS TO INSTALL 7/16" OSB ON ALL EXTERIOR WALLS WITH HORIZONTAL JOINTS BLOCKED. ATTACH SHEATHING w/ 8d NAILS SPACED 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD INCLUDING TOP AND BOTTOM PLATES.
- GB REFERS TO "GYPSUM BOARD." CONTRACTOR IS TO INSTALL 1/2" (MIN.) GYPSUM BOARD ON BOTH SIDES OF WALL (UNO) WHERE NOTED ON THE PLANS ATTACHED WITH 1 1/4" LONG #6 SCREWS OR 1 5/8" LONG 5d COOLER NAILS SPACED 7" O.C. ALONG PANEL EDGES AND IN THE FIELD INCLUDING TOP AND BOTTOM PLATES. WHERE METHOD GB PANELS ARE INSTALLED HORIZONTALLY, BLOCKING OF HORIZONTAL JOINTS IS NOT
- BRACED WALL DESIGN APPLIED IN WIND ZONES UP TO 130 MPH. FOR HIGH WIND ZONES, BRACED WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH CHAPTER 45 OF THE NCRC 2024 EDITION.
- 6. SEE NOTES AND DETAIL SHEETS FOR ADDITIONAL BRACED WALL INFORMATION.

### STRUCTURAL NOTES:

- 1. ALL FRAMING LUMBER TO BE #2 SPF (UNO).
- 2. ALL LOAD BEARING HEADERS TO BE (2) 2 x 6 (UNO).
- 3. WINDOW AND DOOR HEADERS TO BE SUPPORTED w/(1)JACK STUD AND (1) KING STUD EA. END (UNO.). SEE KING STUD TABLE FOR ADDITIONAL KING STUD REQUIREMENTS.
- SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION. SQUARES TO BE (2) STUDS (UNO.)
  - REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

LEGEND			
CONT	NT CONTINUOUS		
XT	EXTRA TRUSS		
XJ	EXTRA JOIST		
DJ	DOUBLE JOIST		
TJ	TRIPLE JOIST		
EA	EACH		
( )	NUMBER OF STUDS		
DSP	DOUBLE STUD POCKET		
TSP	TRIPLE STUD POCKET		
OC	ON CENTER		
SPF	SPRUCE PINE FIR		
SYP	SOUTHERN YELLOW PINE		
TRTD	PRESSURE TREATED		
TYP	TYPICAL		
UNO	UNLESS NOTED OTHERWISE		

TABLE R602.7.5 MINIMUM NUMBER OF FULL HEIGHT KING STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS IN 120 /130 MDH WIND 70NES

WALLS IN 12	U/130 MPH WIND ZONES
HEADER SPAN (FEET)	MINIMUM NUMBER OF FULL HEIGHT STUDS (KINGS)
UP TO 4'	1
> 4' TO 8'	2
> 8' TO 14'	3
> 14' TO 18'	4

/—(3) 2 x б GIRDER TRUSS ENGINEERED



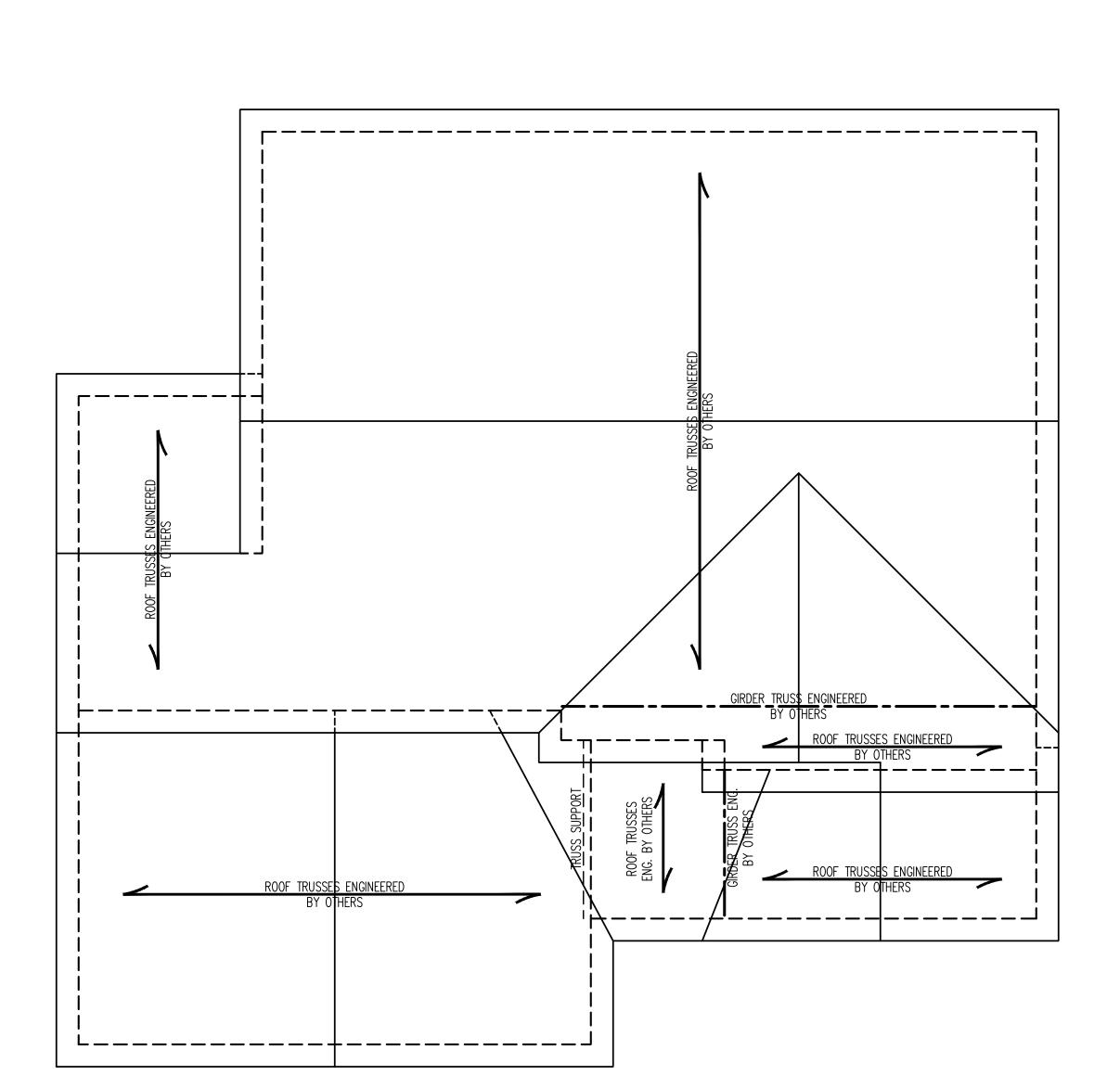
# HE MAGNOLIA PRIME JSJ BUILDERS

DATE: MAY 13, 2025

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

DRAWN BY: JSJ BUILDERS
ENGINEERED BY: JAG

S-4 ROOF FRAMING PLAN



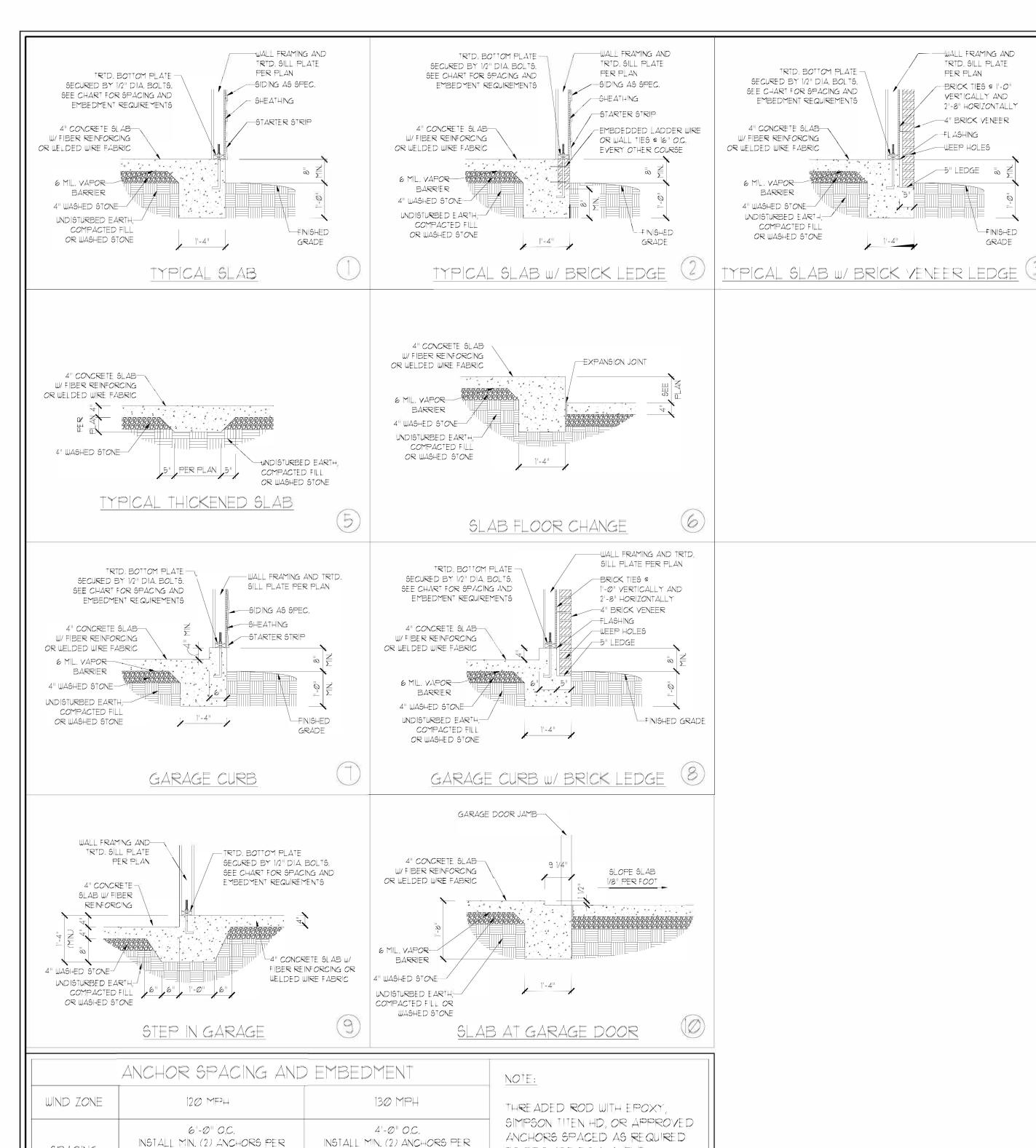
### STRUCTURAL NOTES:

- ALL FRAMING LUMBER TO BE #2 SPF (UNO).
- CIRCLES DENOTE (3) 2 x 4 POSTS FOR ROOF SUPPORT.
- 3. FRAME DORMER WALLS ON TOP OF DOUBLE OR TRIPLE RAFTERS.
- 4. HIP SPLICES ARE TO BE SPACED A MIN. OF 8'-0". FASTEN MEMBERS WITH THREE ROWS OF 12d NAILS @ 16" O.C. (TYP.)
- 5. STICK FRAME OVER-FRAMED ROOF SECTIONS W/ 2 x 8 RIDGES, 2 x 6 RAFTERS @ 16" O.C. AND FLAT 2 x 10 VALLEYS OR USE VALLEY TRUSSES.
- 6. FASTEN FLAT VALLEYS TO RAFTERS OR TRUSSES WITH SIMPSON H2.5A HURRICANE TIES @ 32" O.C. MAX. PASS HURRICANE TIES THROUGH NOTCH IN ROOF SHEATHING. EACH RAFTER IS TO BE FASTENED TO THE FLAT VALLEY WITH A MIN. OF (6) 12d TOE NAILS.
- REFER TO SECTION R802.11 OF THE 2024 NCRC FOR REQUIRED UPLIFT RESISTANCE AT RAFTERS AND TRUSSES.
- REFER TO NOTES AND DETAIL SHEETS FOR ADDITIONAL STRUCTURAL INFORMATION.

NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR ROOF PITCHES, PLATE HEIGHTS, DIMENSIONS, OVERHANG WIDTHS, AND ATTIC VENT CALCS.

	LEGEND		
XR	EXTRA RAFTER		
XT	EXTRA TRUSS		
DR	DOUBLE RAFTER		
TR	TRIPLE RAFTER		
RS	RAFTER SUPPORT		
TS	TRUSS SUPPORT		
CONT	CONTINUOUS		
EA	EACH		
OC	ON CENTER		
SPF	SPRUCE PINE FIR		
SYP	SOUTHERN YELLOW PINE		
TYP	TYPICAL		
UNO	UNLESS NOTED OTHERWISE		

5/13/2025



TO PROVIDE EQUIVALENT

ANCHORAGE TO 1/2" DIAMETER

LIEU OF 1/2" ANCHOR BOLTS.

ANCHOR BOLTS MAY BE USED IN

PLATE SECTION AND (1)

ANCHOR WITHIN 12" OF CORNERS

15" INTO MASONRY

INTO CONCRETE

SPACING

EMBEDMENT

PLATE SECTION AND (1)

ANCHOR WITHIN 12" OF CORNERS

TREATED POST PER PLAN 4" CONCRETE SLAB-POST BASE PER PLAN W/ FIBER REINFORCING OR WELDED WIRE FABRIC -FINISHED GRADE 4" WASHED STONE UNDISTURBED EARTH, COMPACTED FILL OR WASHED STONE PORCH/SCREEN PORCH

SEAL 5/13/2025

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MONOLITHIC SLAB FOUNDATION DETAIL

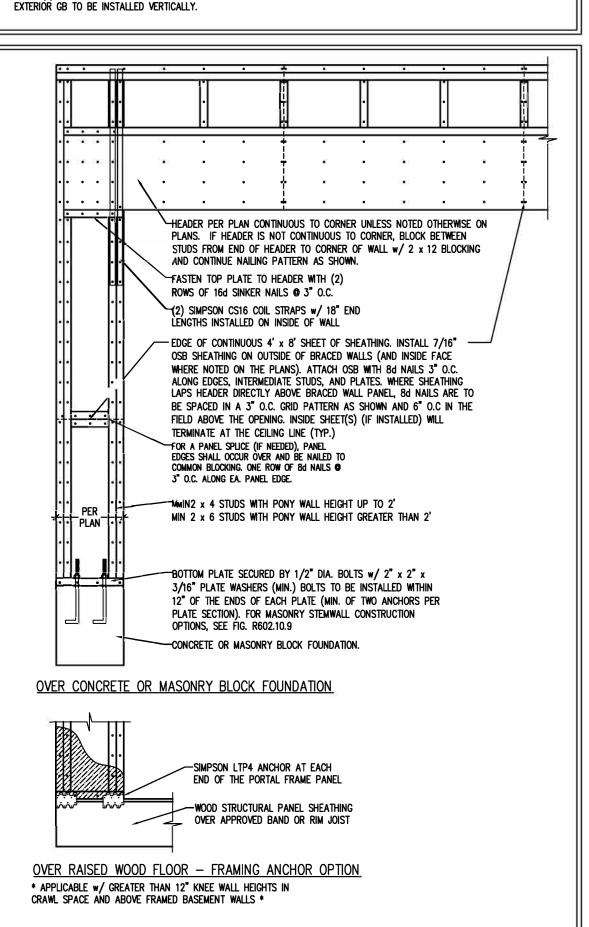
DATE: MAY 13: 2025 SCALE: NTS DRAWN BY: JST

ENGINEERED BY: JST

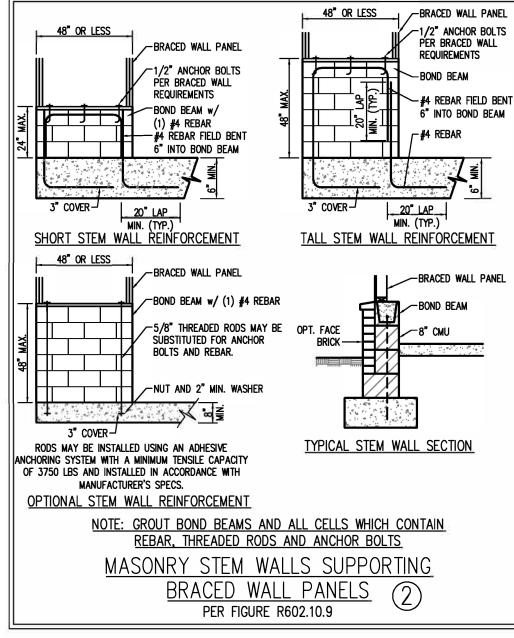
**FOUNDATION DETAILS** 

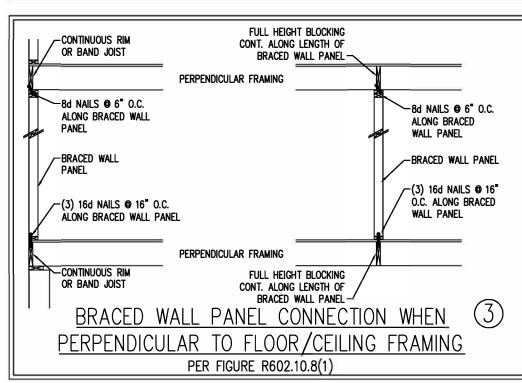
- WALL BRACING IS BY ENGINEERED DESIGN PER SECTION R301.1.3 "ENGINEERED DESIGN" OF THE NCRC 2024 EDITION USING BRACING MATERIALS AND METHODS LISTED IN TABLE R602.10.4 ALONG WITH ALTERNATIVE MATERIALS AND METHODS THAT COMPLY WITH ACCEPTED ENGINEERING PRACTICE. BRACED WALL DESIGN IS NOT PRESCRIPTIVE.
- SEE THIS SHEET FOR GENERAL DETAILS. REFER TO THE 2024 NCRC FOR ADDITIONAL INFORMATION AS NEEDED.
   BRACED EXTERIOR WALLS SUPPORTING ROOF TRUSSES AND RAFTERS, INCLUDING STORIES BELOW THE TOP FLOOR, HAVE BEEN
- DESIGNED PER R602.3.5 (3). WALL SHEATHING AND FASTENERS HAVE BEEN DESIGNED TO RESIST COMBINED UPLIFT AND SHEAR FORCES IN ACCORDANCE WITH ACCEPTED ENGINEERED PRACTICE.
- 4. SEE STRUCTURAL SHEETS FOR HOLD DOWN TYPE AND LOCATIONS WHERE REQUIRED AND ANY SPECIAL NOTES OR REQUIREMENTS.
- 5. ALL EXTERIOR WALLS ARE TO BE SHEATHED WITH CS—WSP IN ACCORDANCE WITH SECTION R602.10 UNLESS NOTED OTHERWISE.
  6. ALL EXTERIOR AND INTERIOR WALLS TO HAVE 1/2" GYPSUM INSTALLED. WHEN NOT USING METHOD "GB", GYPSUM TO BE FASTENED
- PER TABLE R702.3.5. METHOD GB TO BE FASTENED PER TABLE R602.10.4
  7. CS-WSP REFERS TO THE "CONTINUOUS SHEATHING WOOD STRUCTURAL PANELS" WALL BRACING METHOD. 7/16" OSB
  SHEATHING IS TO BE INSTALLED ON ALL EXTERIOR WALLS WITH JOINTS BLOCKED. ATTACH SHEATHING W/ 6d COMMON NAILS OR 8d
- (2 1/2" LONG x 0.113" DIAMETER) NAILS SPACED 6" O.C. ALONG PANEL EDGES AND 12" O.C. IN THE FIELD (U.N.O.).

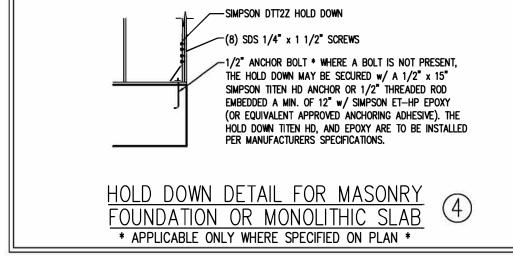
  8. GB REFERS TO THE "GYPSUM BOARD" WALL BRACING METHOD. 1/2" (MIN.) GYPSUM WALL BOARD IS TO BE INSTALLED ON BOTH SIDES OF THE BRACED WALL FASTENED WITH 1 1/4" SCREWS OR 1 5/8" NAILS SPACED 7" O.C. ALONG PANEL EDGES INCLUDING TOP AND BOTTOM PLATES AND INTERMEDIATE SUPPORTS (U.N.O.). VERIFY ALL FASTENER OPTIONS FOR 1/2" AND 5/8" GYPSUM PRIOR TO CONSTRUCTION. FOR INTERIOR FASTENER OPTIONS SEE TABLE R602.3(1). WHERE METHOD GB PANELS ARE INSTALLED HORIZONTALLY, BLOCKING OF HORIZONTAL JOINTS IS NOT REQUIRED.

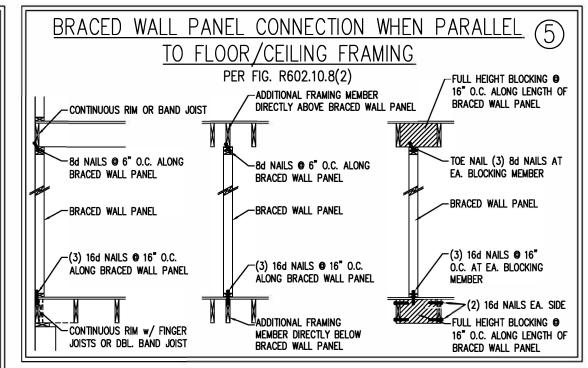


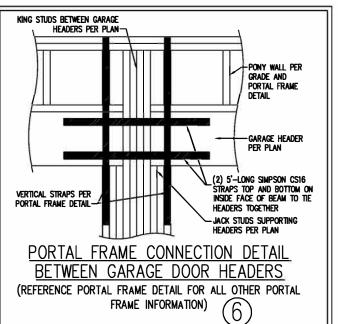
METHOD PF-PORTAL FRAME DETAIL

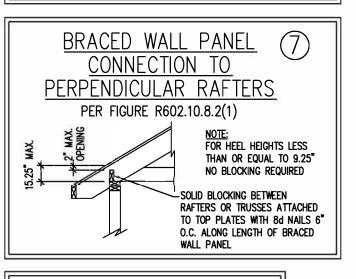


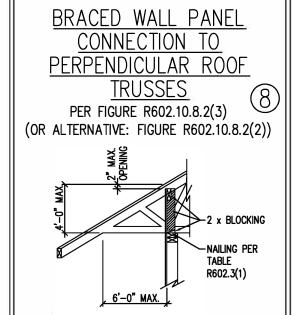














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INC 27609

ENGINEERING, INCOME: (919) 789-9921

WALL BRACING NOTES AND DETAILS

DATE: MAY 13, 2025

SCALE: NOT TO SCALE

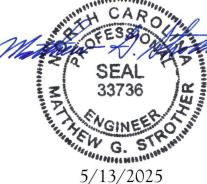
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BRACED WALL NOTES AND DETAILS AND PORTAL FRAME DETAIL

### GENERAL NOTES

- 1. ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPS, VALLEYS, RIDGES, FLOORS, WALLS, BEAMS, HEADERS, COLUMNS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIERS, GIRDER SYSTEM AND FOOTING. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OF ARCHITECTURAL LAYOUT INCLUDING ROOF. ENGINEER'S SEAL DOES NOT APPLY TO I—JOIST OR FLOOR/ROOF TRUSS LAYOUT DESIGN AND ACCURACY.
- 2. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE (NCRC), 2024 EDITION, PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK. NOR WILL THE ENGINEER BE RESPONSIBLE FOR THE CONTRACTORS FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 3. STRUCTURAL DESIGN BASED ON THE PROVISIONS OF THE NCRC, 2024 EDITION (R301.4 R301.7)

DESIGN CRITERIA:	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION (IN)
ATTIC WITH LIMITED STORAGE	20	10	L/240 (L/360 w/ BRITTLE FINISHES)
ATTIC WITHOUT STORAGE	10	10	L/360
DECKS	40	10	L/360
EXTERIOR BALCONIES	40	10	L/360
FIRE ESCAPES	40	10	L/360
HANDRAILS/GUARDRAILS	200	10	L/360
PASSENGER VEHICLE GARAGE	50	10	L/360
ROOMS OTHER THAN SLEEPING ROOM	40	10	L/360
SLEEPING ROOMS	30	10	L/360
STAIRS	40	10	L/360
WIND LOAD		4) WND ZONE AND EXPOSURE)	Marie
GROUND SNOW LOAD: Pg	20 (PSF)		11111



- I-JOIST SYSTEMS DESIGNED WITH 12 PSF DEAD LOAD AND DEFLECTION (IN) OF L/480
- FLOOR TRUSS SYSTEMS DESIGNED WITH 15 PSF DEAD LOAD
- CLADDING DESIGNED FOR:

SEISMIC DESIGN CATEGORY:

120 MPH WIND ZONE			
	8	POS. (PSF) PRESSURE	NEG. (PSF) PRESSURE
	FLAT ROOF	+ 6.3	- 44.5
GABLE ROOF CLADDING	2.25 TO 5/12	+ 9.6	- 49.8
	5 TO 7/12	+ 11.6	- 41.9
	7 TO 12/12	+ 14.2	- 35.3
HIP ROOF CLADDING	2.25 TO 5/12	+ 11.6	- 36.6
	5 TO 7/12	+ 11.6	- 28.7
	7 TO 12/12	+ 11.1	- 35.6
WALL CLADDING		+ 15.5	- 20.8
i i i			

130 MPH WIND ZONE			
			NEG. (PSF) PRESSURE
	FLAT ROOF	+ 7.4	- 52.2
GABLE ROOF	2.25 TO 5/12	+ 11.3	- 58.4
CLADDING	5 TO 7/12	+ 13.6	- 49.2
	7 TO 12/12	+ 16.7	- 41.4
HIP ROOF CLADDING	2.25 TO 5/12	+ 13.6	- 43
	5 TO 7/12	+ 13.6	- 33.7
	7 TO 12/12	+ 13	- 41.7
WALL CLADDING		+ 18.2	- 24.4

140 MPH WIND ZONE				
POS. (PSF) PRESSURE PRESSURE				
	FLAT ROOF	+ 8.6	- 60.6	
GABLE ROOF	2.25 TO 5/12	+ 13.1	- 67.8	
CLADDING	5 TO 7/12	+ 15.8	- 57	
	7 TO 12/12	+ 19.4	- 48	
HIP ROOF CLADDING	2.25 TO 5/12	+ 15.8	- 49.8	
	5 TO 7/12	+ 15.8	- 39.1	
	7 TO 12/12	+ 15.1	- 48.4	
WALL CLADDING		+ 21.1	- 28.3	

150 MPH WIND ZONE				
POS. (PSF) NEG. (PSF) PRESSURE PRESSURE				
GABLE ROOF CLADDING	FLAT ROOF	+ 9.9	- 69.6	
	2.25 TO 5/12	+ 15	- 77.8	
	5 TO 7/12	+ 18.1	- 65.4	
	7 TO 12/12	+ 22.2	- 55.2	
HIP ROOF CLADDING	2.25 TO 5/12	+ 18.1	- 57.2	
	5 TO 7/12	+ 18.1	- 44.9	
	7 TO 12/12	+ 17.3	- 55.6	
WALL CLADDING		+ 24.3	- 32.5	

- 4. FOR 115 AND 120 MPH WND ZONES, FOUNDATION ANCHORAGE IS TO COMPLY WITH SECTION R403.1.6 OF THE NCRC, 2024 EDITION. FOR 130 MPH, 140 MPH, AND 150 MPH WND ZONES, FOUNDATION ANCHORAGE IS TO COMPLY WITH SECTION 4504 OF THE NCRC, 2024 EDITION.
- 5. ENERGY EFFICIENCY COMPLIANCE AND INSULATION VALUES OF THE BUILDING TO BE IN ACCORDANCE WITH CHAPTER 11 OF THE NCRC, 2024 EDITION.

### FOOTING AND FOUNDATION NOTES

- 1. FOUNDATION DESIGN BASED ON A MINIMUM ALLOWABLE BEARING CAPACITY OF 2000 PSF. CONTACT GEOTECHNICAL ENGINEER IF BEARING CAPACITY IS NOT ACHIEVED.
- 2. FOR ALL CONCRETE SLABS AND FOOTINGS, THE AREA WITHIN THE PERIMETER OF THE BUILDING ENVELOPE SHALL HAVE ALL VEGETATION, TOP SOIL AND FOREIGN MATERIAL REMOVED. FILL MATERIAL SHALL BE FREE OF VEGETATION AND FOREIGN MATERIAL. THE FILL SHALL BE COMPACTED TO ASSURE UNIFORM SUPPORT OF THE SLAB, AND EXCEPT WHERE APPROVED, THE FILL DEPTHS SHALL NOT EXCEED 24" FOR CLEAN SAND OR GRAVEL. EXCEPTION: #57 OR #67 STONE MAY BE USED AS FILL FOR MAXIMUM DEPTH OF 4 FEET WITHOUT CONSOLIDATION. A 4" THICK BASED COURSE CONSISTING OF CLEAN GRADED SAND OR GRAVEL SHALL BE PLACED. A BASE COURSE IS NOT REQUIRED WHERE A CONCRETE SLAB IS INSTALLED ON WELL—DRAINED OR SAND—GRAVEL MIXTURE SOILS CLASSIFIED AS GROUP 1, ACCORDING TO THE UNITED SOIL CLASSIFICATION SYSTEM IN ACCORDANCE WITH TABLE R405.1 OF THE NCRC, 2024 EDITION.
- 3. PROPERLY DEWATER EXCAVATION PRIOR TO POURING CONCRETE WHEN BOTTOM OF CONCRETE SLAB IS AT OR BELOW WATER TABLE. IF APPLICABLE, 3/4" 1" DEEP CONTROL JOINTS ARE TO BE SAWED WITHIN 4 TO 12 HOURS OF CONCRETE FINISHING AND WALL LOCATIONS HAVE BEEN MARKED. ADJUST WHERE NECESSARY.
- 4. CONCRETE SHALL CONFORM TO SECTION R402.2 OF THE NCRC, 2024 EDITION. CONCRETE REINFORCING STEEL TO BE ASTM A615 GRADE 60. WELDED WIRE FABRIC TO BE ASTM A185. MAINTAIN A MINIMUM CONCRETE COVER AROUND REINFORCING STEEL OF 3" IN FOOTINGS AND 1 1/2" IN SLABS. FOR POURED CONCRETE WALLS, CONCRETE COVER FOR REINFORCING STEEL MEASURED FROM THE INSIDE FACE OF THE WALL SHALL NOT BE LESS THAN 3/4". CONCRETE COVER FOR REINFORCING STEEL MEASURED FROM THE OUTSIDE FACE OF THE WALL SHALL NOT BE LESS THAN 1 1/2" FOR #5 BARS OR SMALLER, AND NOT LESS THAN 2" FOR #6 BARS OR LARGER.

- 5. MASONRY UNITS TO CONFORM TO ACE 530/ASCE 5/TMS 402. MORTAR SHALL CONFORM TO ASTM C270.
- 6. THE UNSUPPORTED HEIGHT OF MASONRY PIERS SHALL NOT EXCEED FOUR TIMES THEIR LEAST DIMENSION FOR UNFILLED HOLLOW CONCRETE MASONRY UNITS AND TEN TIMES THEIR LEAST DIMENSION FOR SOLID OR SOLID FILLED PIERS. PERS MAY BE FILLED SOLID WITH CONCRETE OR TYPE M OR S MORTAR. PIERS AND WALLS SHALL BE CAPPED WITH 8" OF SOLID MASONRY.
- 7. THE CENTER OF EACH OF THE PIERS SHALL BEAR IN THE MIDDLE THIRD OF ITS RESPECTIVE FOOTING. EACH GIRDER SHALL BEAR IN THE MIDDLE THIRD OF THE PIERS.
- 8. ALL CONCRETE AND MASONRY FOUNDATION WALLS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF SECTION R404 OF THE NCRC, 2024 EDITION OR IN ACCORDANCE WITH ACI 318, ACI 332, NCMA TR68—A OR ACE 530/ASCE 5/TMS 402. MASONRY FOUNDATION WALLS ARE TO BE REINFORCED PER TABLE R404.1.1(1), R404.1.1(2), R404.1.1(3), OR R404.1.1(4) OF THE NCRC, 2024 EDITION. CONCRETE FOUNDATION WALLS ARE TO BE REINFORCED PER TABLE R404.1.2(8) OF THE NCRC, 2024 EDITION. STEP CONCRETE FOUNDATION WALLS TO 2 x 6 FRAMED WALLS AT 16" O.C. WHERE GRADE PERMITS (UNO).

### FRAMING NOTES

- 1. ALL FRAMING LUMBER SHALL BE #2 SPF MINIMUM (Fb = 875 PSI, Fv = 375 PSI, E = 1600000 PSI) UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE #2 SYP MINIMUM (Fb = 975 PSI, E = 1600000 PSI) UNLESS NOTED OTHERWISE (UNO).
- 2. LAMINATED VENEER LUMBER (LVL) SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fb = 2600 PSI, Fv = 285 PSI, E = 1900000 PSI. LAMINATED STRAND LUMBER (LSL) SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fb = 2325 PSI, Fv = 310 PSI, E = 1550000 PSI. PARALLEL STRAND LUMBER (PSL) UP TO 7" DEPTH SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fc = 2500 PSI, E = 1800000 PSI. PARALLEL STRAND LUMBER (PSL) MORE THAN 7" DEPTH SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES: Fc = 2900 PSI, E = 2000000 PSI. INSTALL ALL CONNECTIONS PER MANUFACTURER'S SPECIFICATIONS.
- 3. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS

A. W AND WT SHAPES: ASTM A992
B. CHANNELS AND ANGLES: ASTM A36
C. PLATES AND BARS: ASTM A36
D. HOLLOW STRUCTURAL SECTIONS: ASTM A500 GRADE B
E. STEEL PIPE: ASTM A53, GRADE B, TYPE E OR S

4. STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" AND FULL FLANGE WIDTH (UNO). PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED AT THE BOTTOM FLANGE TO EACH SUPPORT AS FOLLOWS (UNO):

A. WOOD FRAMING

B. CONCRETE

C. MASONRY (FULLY GROUTED)

C. MASONRY (FULLY GROUTED)

D. STEEL PIPE COLUMN

(2) 1/2" DIA. x 4" WEDGE ANCHORS

(2) 1/2" DIA. x 4" LONG SIMPSON TITEN HD ANCHORS

(4) 3/4" DIA. A325 BOLTS OR 3/16" FILLET WELD

LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDING THE JOISTS ARE TOE NAILED TO THE 2x NAILER ON TOP OF THE STEEL BEAM, AND THE 2x NAILER IS SECURED TO THE TOP OF THE STEEL BEAM w/ (2) ROWS OF SELF TAPPING SCREWS @ 16" O.C. OR (2) ROWS OF 1/2" DIAMETER BOLTS @ 16" O.C. IF 1/2" BOLTS ARE USED TO FASTEN THE NAILER, THE STEEL BEAM SHALL BE FABRICATED w/ (2) ROWS OF 9/16" DIAMETER HOLES @ 16" O.C.

- 5. SQUARES DENOTE POINT LOADS WHICH REQUIRE SOLID BLOCKING TO GIRDER OR FOUNDATION. SHADED SQUARES DENOTE POINT LOADS FROM ABOVE WHICH REQUIRE SOLID BLOCKING TO SUPPORTING MEMBER BELOW.
- 6. ALL LOAD BEARING HEADERS TO CONFORM TO TABLE R602.7(1) AND R602.7(2) OF THE NCRC, 2024 EDITION OR BE (2) 2 x 6 WITH (1) JACK AND (1) KING STUD EACH END (UNO), WHICHEVER IS GREATER ALL HEADERS TO BE SECURED TO EACH JACK STUD WITH (4) 8d NAILS. ALL BEAMS TO BE SUPPORTED WITH (2) STUDS AT EACH BEARING POINT (UNO). INSTALL KING STUDS PER SECTION R602.7.5 OF THE NORTH CAROLINA RESIDENTIAL CODE, 2024 EDITION.
- 7. ALL BEAMS, HEADERS, OR GIRDER TRUSSES PARALLEL TO WALL ARE TO BEAR FULLY ON (1) JACK OR (2) STUDS MINIMUM OR THE NUMBER OF JACKS OR STUDS NOTED. ALL BEAMS OR GIRDER TRUSSES PERPENDICULAR TO WALL AND SUPPORTED BY (3) STUDS OR OTHER NOTED COLUMN ARE TO BEAR FULLY ON SUPPORT COLUMN FOR ENTIRE WALL DEPTH (UNO). BEAM ENDS THAT BUTT INTO ONE ANOTHER ARE TO EACH BEAR EQUAL LENGTHS (UNO).
- 8. FLITCH BEAMS SHALL BE BOLTED TOGETHER USING 1/2" DIAMETER BOLTS (ASTM A307) WITH WASHERS PLACED AT THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" CENTERS (MAXIMUM), AND STAGGERED AT TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH (2) BOLTS LOCATED AT 6" FROM EACH END (UNO).
- 9. ALL I—JOIST OR TRUSS LAYOUTS ARE TO BE IN COMPLIANCE WITH THE OVERALL DESIGN SPECIFIED ON THE PLANS. ALL DEVIATIONS ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD PRIOR TO INSTALLATION.
- 10. BRACED WALL PANELS SHALL BE CONSTRUCTED ACCORDING TO THE NORTH CAROLINA RESIDENTIAL CODE 2024 EDITION WALL BRACING CRITERIA. THE AMOUNT, LENGTH, AND LOCATION OF BRACING SHALL COMPLY WITH ALL APPLICABLE TABLES IN SECTION R602.10.
- 11. PROVIDE DOUBLE JOIST UNDER ALL WALLS PARALLEL TO FLOOR JOISTS. PROVIDE SUPPORT UNDER ALL WALLS PARALLEL TO FLOOR TRUSSES OR I—JOISTS PER STRUCTURAL PLAN. INSTALL BLOCKING BETWEEN JOISTS OR TRUSSES FOR POINT LOAD SUPPORT FOR ALL POINT LOADS ALONG OFFSET LOAD LINES.
- 12. FOR ALL HEADERS SUPPORTING BRICK VENEER THAT ARE LESS THAN 8'-0" IN LENGTH, REST A 6" x 4" x 5/16" STEEL ANGLE WITH 6" MINIMUM EMBEDMENT AT SIDES FOR BRICK SUPPORT (U.N.O). FOR ALL HEADERS 8'-0" AND GREATER IN LENGTH, BOLT A 6" x 4" x 5/16" STEEL ANGLE TO HEADER WITH 1/2" LAG SCREWS AT 12" O.C. STAGGERED FOR BRICK SUPPORT. FOR ALL BRICK SUPPORT AT ROOF LINES, BOLT A 6" x 4" x 5/16" STEEL ANGLE TO (2) 2 x 10 BLOCKING INSTALLED w/ (4) 12d NAILS EA. PLY BETWEEN WALL STUDS WITH (2) ROWS OF 1/2" LAG SCREWS AT 12" O.C. STAGGERED AND IN ACCORDANCE WITH SECTION R703.8.2.1 OF THE NCRC, 2024 EDITION.
- 13. FOR STICK FRAMED ROOFS: CIRCLES DENOTE (3) 2 x 4 POSTS FOR ROOF MEMBER SUPPORT. HIP SPLICES ARE TO BE SPACED A MINIMUM OF 8'-0". FASTEN MEMBERS WITH THREE ROWS OF 12d NAILS AT 16" O.C. FRAME DORMER WALLS ON TOP OF DOUBLE OR TRIPLE RAFTERS AS SHOWN (UNO).
- 14. FOR TRUSSED ROOFS: FRAME DORMER WALLS ON TOP OF 2 x 4 LADDER FRAMING AT 24" O.C. BETWEEN ADJACENT ROOF TRUSSES. STICK FRAME OVER-FRAMED ROOF SECTIONS WITH 2 x 8 RIDGES, 2 x 6 RAFTERS AT 16" O.C. AND FLAT 2 x 10 VALLEYS (UNO).
- 15. ALL 4 x 4 AND 6 x 6 POSTS TO BE INSTALLED WITH 700 LB CAPACITY UPLIFT CONNECTORS TOP AND BOTTOM (UNO.) POSTS MAY BE SECURED TO WOOD FRAMING WITH SIMPSON CS16 COIL STRAPPING WITH 9" END LENGTHS OR (2) 6" LONG SIMPSON SDS SCREWS (OR EQUAL) DRIVEN AT AN ANGLE FROM OPPOSITE SIDES. FOR MASONRY OR CONCRETE FOUNDATION USE SIMPSON POST BASE.
- 16. CONSTRUCT ALL WOOD DECKS ACCORDING TO CHAPTER 47-WOOD DECKS.

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STANDARD STRUCTURAL NOTES

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STRUCTURAL NOTES

