

**RESIDENTIAL BUILDING CODE SUMMARY**

- PLANS ARE DESIGNED TO THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.
- HOUSE IS DESIGNED FOR 120 MPH, 3 SECOND GUST (93 MPH FASTEST WIND), EXPOSURE B.
- ANCHOR BOLTS SHALL BE MIN. 1/2" DIAMETER AND SHALL EXTEND 7" MIN. INTO MASONRY OR CONCRETE. BOLTS TO BE NO MORE THAN 6' O.C. AND WITHIN 12" OF ALL PLATE SPLICES AND CORNERS.
- MEAN ROOF HEIGHT: 15'-11"
- COMPONENT 4 CLADDING DESIGNED FOR THE FOLLOWING LOADS:  
MEAN ROOF HGT. UP TO 30'-11" TO 35'-11" TO 40'-11" TO 45'  
ZONE 1 16.5 -18.0 17.3 -18.9 18.0 -19.6 18.5 -20.2  
ZONE 2 16.5 -21.0 17.3 -22.1 18.0 -22.9 18.5 -23.5  
ZONE 3 16.5 -21.0 17.3 -22.1 18.0 -22.9 18.5 -23.5  
ZONE 4 18.0 -19.5 18.9 -20.5 19.6 -21.3 20.2 -21.8  
ZONE 5 18.0 -24.1 18.9 -25.3 19.6 -26.3 20.2 -27.0
- MINIMUM VALUES FOR ENERGY COMPLIANCE: ZONE 3
- MAXIMUM GLAZING U-FACTOR: 0.35
- INSULATING VALUES: CEILING: R-30\* / WALLS: R-15 / FLOOR: R-19 / SLABS: R-0. CODE REFERENCE: TABLE N102.1 (\*R-30 ONLY IF UNCOMPRESSED, R-38 REQUIRED IF COMPRESSED)

**GENERAL NOTES:**

- ALL WORK IS TO BE DONE IN STRICT ACCORDANCE WITH NORTH CAROLINA STATE RESIDENTIAL BUILDING CODE, 2018 EDITION (HEREIN SHOWN AS N.C.S.R.B.C.).
- DIMENSIONS SHOWN ON DRAWINGS GOVERN OVER SCALE.
- STUD WALL DESIGN SHALL CONFORM TO ALL N.C.S.R.B.C. REQUIREMENTS.
- CONTRACTOR SHALL USE TEMPERED SAFETY GLASS IN ALL LOCATIONS AS REQUIRED BY N.C.S.R.B.C., SECTION R308.4
- ANY HABITABLE ROOM SHALL MEET ALL LIGHT/VENTILATION AND EGRESS AS REQUIRED BY N.C.S.R.B.C., SECTIONS R-303.1 AND R-310.1
- ALL WALLS SHOWN ON FLOOR PLANS ARE 2x4 FRAME UNLESS NOTED OTHERWISE.
- ALL ANGLED WALLS SHOWN ON FLOOR PLANS ARE 45° UNLESS NOTED OTHERWISE.
- ALL WINDOWS SHALL HAVE A MINIMUM DFI RATINGS OF 25 BUILDER SHALL VERIFY WITH WINDOW MANUFACTURER THAT UNITS INSTALLED MEET THESE REQUIREMENTS AS PER N.C.S.R.B.C., TABLE 301.2(6).
- ENERGY EFFICIENCY REQUIREMENTS FOR THE SPECIFIC CLIMATE ZONE WHERE STRUCTURE IS BEING BUILT SHALL BE IN ACCORDANCE WITH CHAPTER 11 OF THE NORTH CAROLINA RESIDENTIAL BUILDING CODE, AS SHOWN IN TABLES N101.2 AND N102.1.
- TERMITE TREATMENT - BORATE APPLIED TO ALL FRAME MEMBERS WITHIN 24" AFF.

THE PURPOSE OF THESE DRAWINGS IS TO SHOW THE INTENT OF THE DESIGN AND CONSTRUCTION OF THIS HOME. CONTRACTOR SHOULD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. ONCE A PERMIT HAS BEEN ISSUED, CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY TO THE ACCURACY OF THE PLANS AND ANY CHANGES MADE DURING CONSTRUCTION.

**ATTIC VENTILATION REQUIREMENTS**

NATURAL ROOF VENTILATION	MECHANICAL ROOF VENTILATOR
1966 SQ. FT. = 13.11 SQ. FT. VENT REQ'D.	1966 SQ. FT. = 6.55 SQ. FT. VENT REQ'D.
150	300

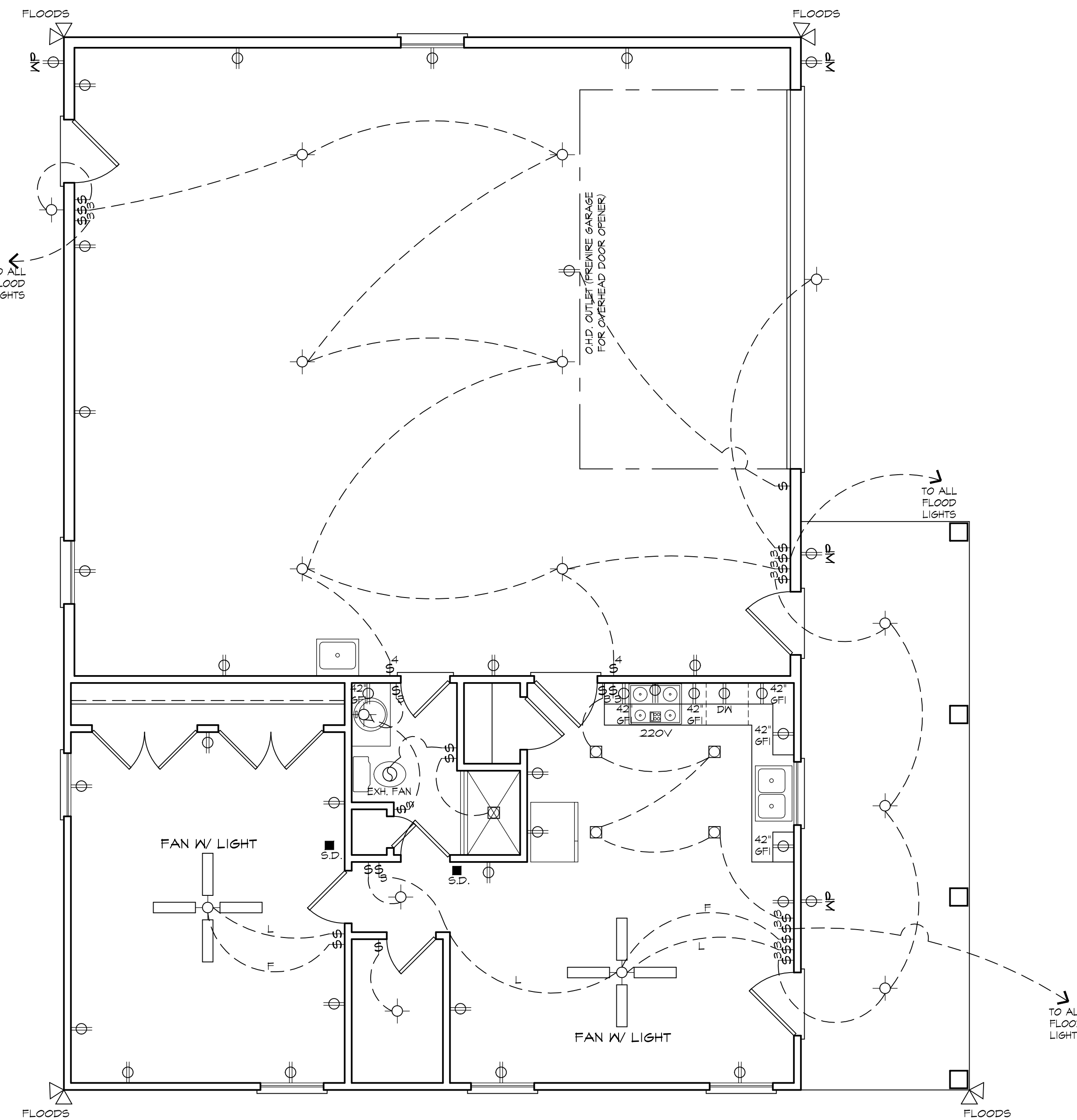
BUILDER TO PROVIDE APPROPRIATE VENTILATING AS REQUIRED PER CODE

**AREA CALCULATIONS**

GARAGE	1062
COVERED PORCH:	216
HEATED AREA:	688
TOTAL:	1966

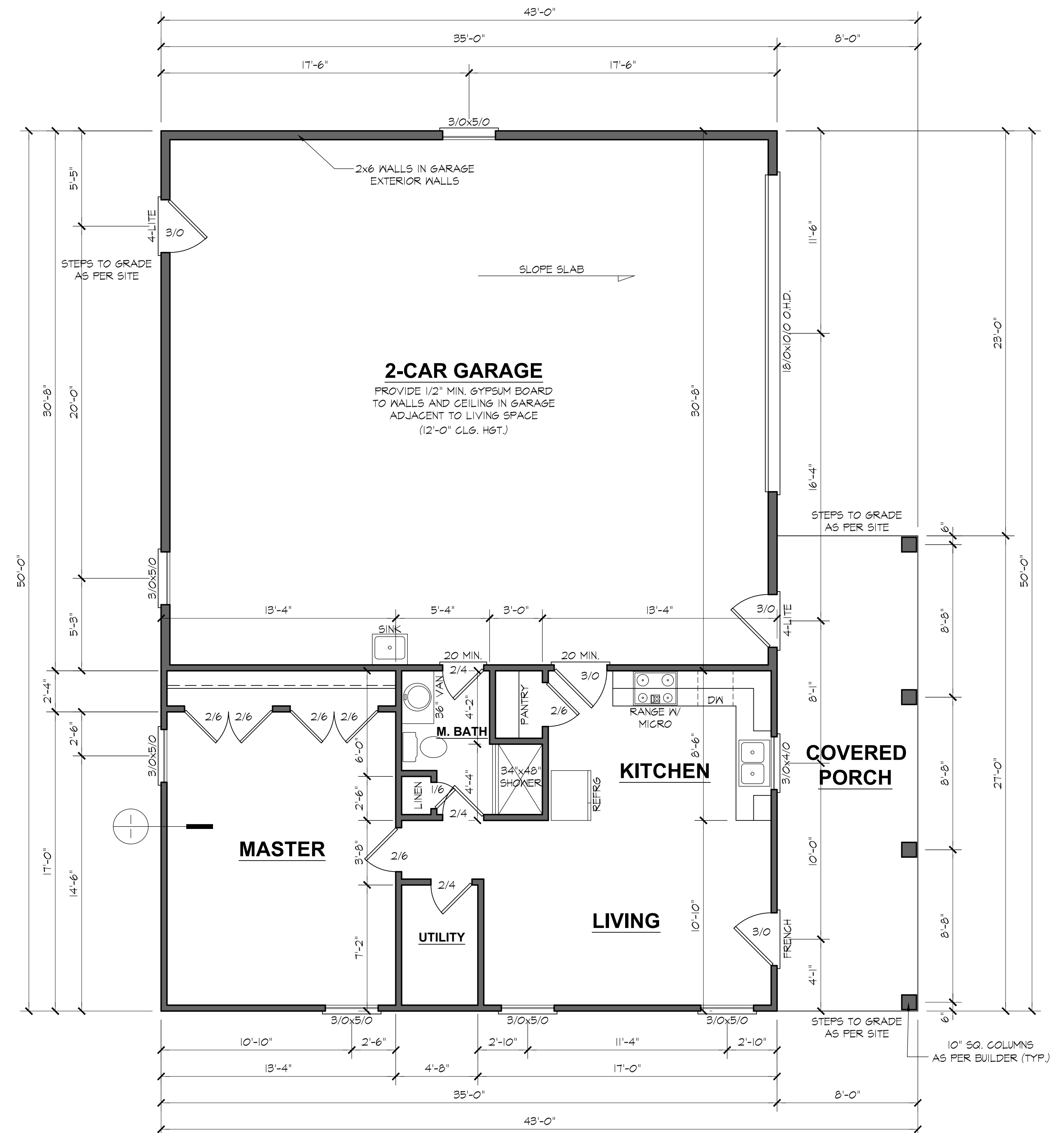
**ELECTRICAL LEGEND**

- - LIGHT FIXTURE
  - - FAN/LIGHT
  - - WATERPROOF OUTLET
  - - RECESSED LIGHTING
  - ⚡ - SINGLE FULL SWITCH
  - ⚡ - 3-WAY SWITCH
  - ⚡ - 4-WAY SWITCH
  - ⚡ - DIMMER SWITCH
  - - SMOKE DETECTOR
  - ⚡ - FLOOD LIGHTS
  - ⚡ - EYEBALL SPOTS
  - ⚡ - DUPLEX RECEPTACLE (110V)
  - ⚡ - 220 VOLT RECEPTACLE
  - ⚡ - SWITCHED RECEPTACLE (TOP WIRE ONLY)
  - ⚡ - GROUND FAULT CIRCUIT INTERRUPTOR
  - ⊕ - CLG FAN/LIGHTS
  - - TRACK LIGHTS
  - - FLUORESCENT LIGHTING
  - - CABLE OUTLET
  - ▲ - TELEPHONE OUTLET
  - △ - COMPUTER DATA OUTLET
  - ⊠ - BURGLAR ALARM
  - - INTERCOM
- NOTE: ALL ELECTRICAL TO BE VERIFIED BY OWNER/BUILDER BEFORE ROUGH-IN.



**ELECTRICAL PLAN**

NOTE - ELECTRICAL RECEPTACLE AND SWITCH QUANTITIES AND LOCATIONS SHOWN ON PLAN ARE FOR ILLUSTRATION PURPOSES ONLY. ACTUAL NUMBER AND LOCATIONS SHALL BE FIELD DETERMINED AS PER CLIENT AND BUILDER EXCEPT WHERE CODE REQUIREMENTS APPLY.



**FLOOR PLAN**

9'-0" (NOM.) CLG. HGT. U.N.O. SCALE: 1/4"=1'-0"  
SET WINDOWS @ 8'-0" U.N.O.

**NOTES:**

ALL DOORS AND CASED OPENINGS TO BE 6'-8" TALL UNLESS NOTED OTHERWISE.

ROUGH FRAME ALL CASED OPENINGS 2" BIGGER THAN FINISHED OPENING CALL FOR

PROVIDE 2x4 BLOCKING FOR TOILET PAPER HOLDER, TOWEL BARS, MEDICINE CABINETS

BOTTOM OF WINDOW CLEAR OPENINGS SHALL BE MORE THAN 24" ABOVE FINISH FLOOR OR A FALL PREVENTION DEVICE SHALL BE INSTALLED IN ACCORDANCE WITH SECTION R612.3 OF THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.



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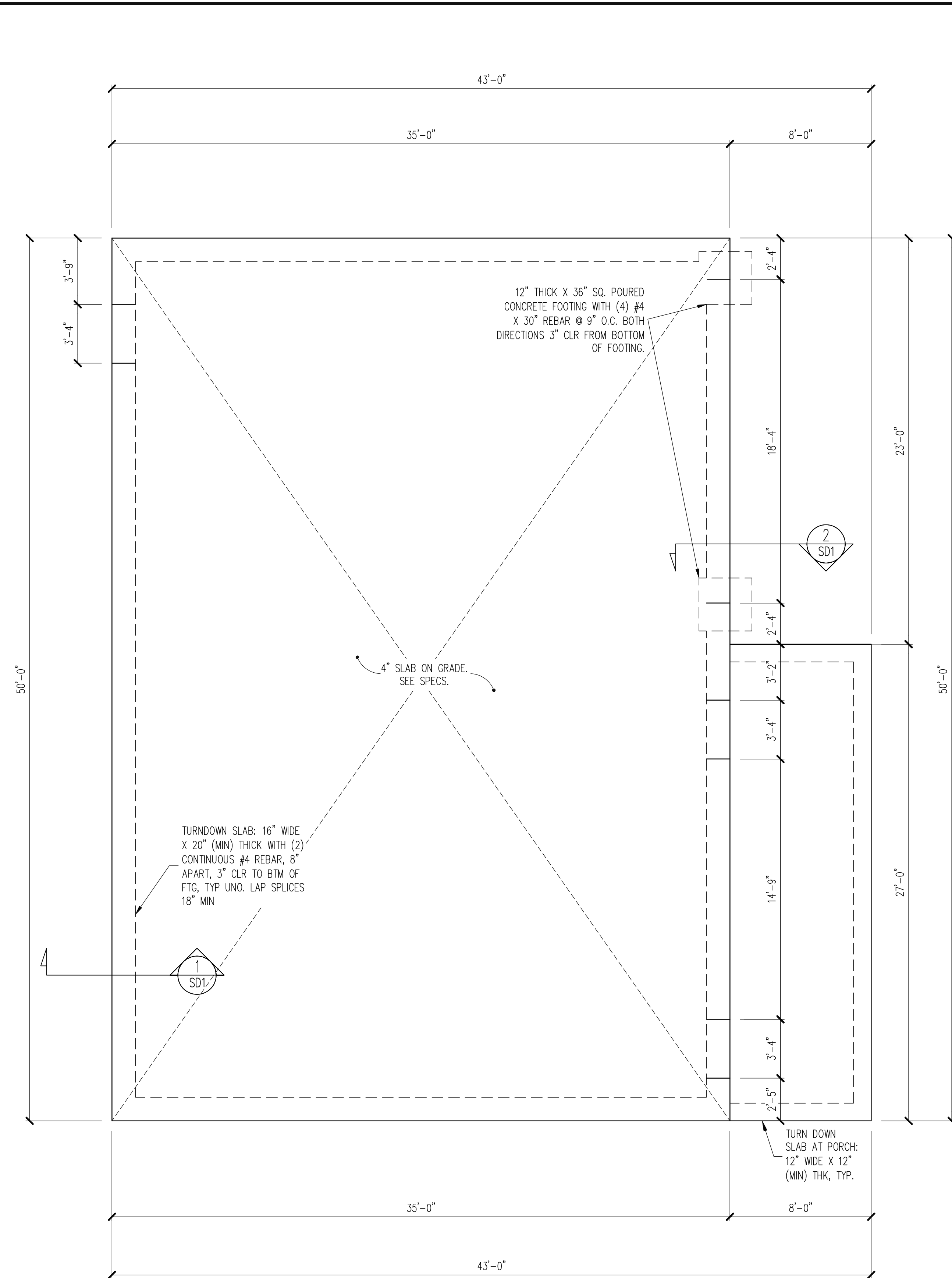
The purpose of these drawings is to show the intent of the design and construction of this home. Contractor should verify all conditions and dimensions prior to construction. Once a permit has been issued, contractor shall assume all responsibility to the accuracy of the plans and any changes made during construction.

**PROJECT INFO:**  
Gammion Construction  
Hamilton Garage Addition  
1083 Chesterfield Lake Road - Angier, NC 27501

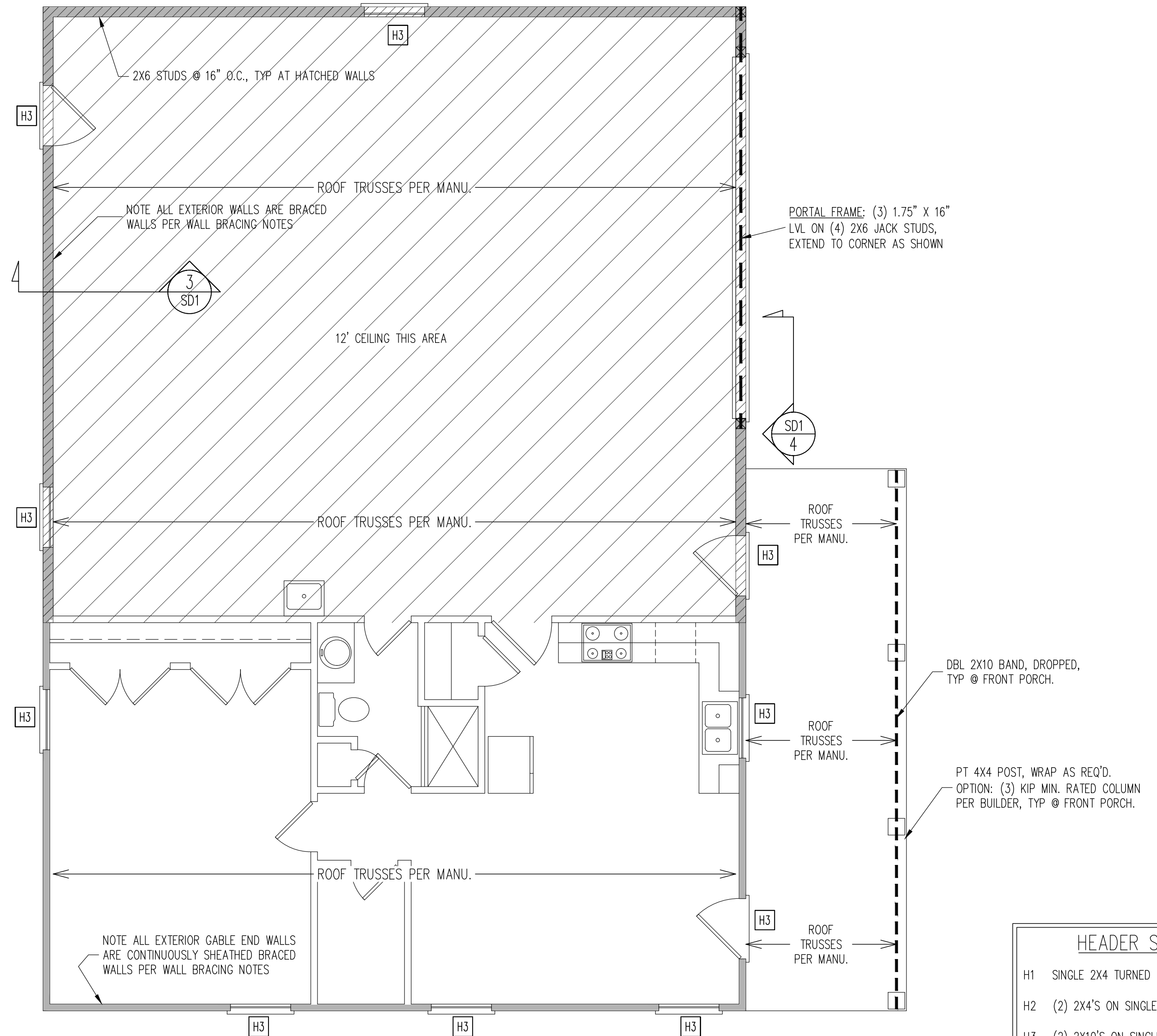
**TITLE:**  
**PROJECT NUMBER:**  
5262  
**DRAWN BY:**  
J.A.D.  
**CHECKED BY:**  
J.T.S.  
**REVISIONS:**

**DATE:**  
11/10/2021

**SHEET:**



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



**NOTES:**  
-HEIGHT AND BACKFILL LIMITATIONS FOR FOUNDATION WALLS ARE TO BE GOVERNED BY THE NCSBC, LATEST EDITION. REINFORCEMENT AND GROUTING SHALL BE DETERMINED BY FINAL SITE CONDITIONS.  
-BUILDER TO FIELD LOCATE CRAWLSPACE ACCESS OPENING WITH MINIMUM DIMENSIONS OF 18X24. DO NOT LOCATE ACCESS OPENING BELOW POINT LOADS FROM ABOVE WITHOUT ENGINEER APPROVAL.  
-PLUMBING SHOWN FOR REFERENCE ONLY. BUILDER VERIFY FINAL FIXTURE LOCATIONS, SIZES AND REQUIREMENTS PRIOR TO INSTALLATION.

**CONSTRUCTION SPECIFICATIONS**  
INSTANT REFERENCES  
REFER TO THE CONSTRUCTION SPECIFICATIONS SECTIONS FOR THE FOLLOWING INFORMATION:  
PART 1.01: CURRENT GOVERNING CODE  
PART 14: STUD SUPPORT FOR BEAMS  
PART 17: KING STUDS FOR EXTERIOR WALLS  
SEE DETAIL / CONSTRUCTION SPECIFICATIONS SHEETS FOR I-JOISTS ALLOWABLE SUBSTITUTIONS

**WALL BRACING**  
SHADED WALLS:  
ALL EXTERIOR STUD WALLS, EXTERIOR SIDE, ARE TO BE CONTINUOUSLY SHEATHED WITH 7/16 APA RATED OSB NAILED TO STUDS WITH 8d NAILS @ 6" O.C. AT PANEL EDGES, 12" O.C. IN PANEL FIELD.  
NOTES:  
PROVIDED CONTINUOUS SHEATHING = 170' MIN.  
REFERENCE PART 16.02 OF CONSTRUCTION SPECIFICATIONS FOR GENERAL WIND BRACING INFORMATION.

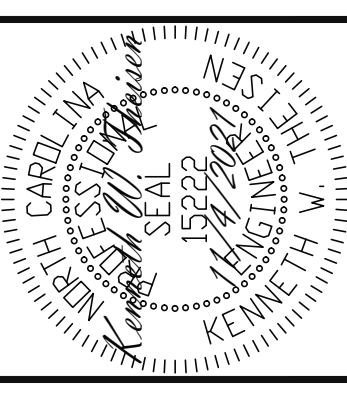
**HEADER SCHEDULE**

H1	SINGLE 2X4 TURNED FLAT (A)
H2	(2) 2X4'S ON SINGLE JACKS (B)
H3	(2) 2X10'S ON SINGLE JACKS (C)
H4	(2) 1.75" X 9.25" LVL'S ON DBL JACKS
H5	(3) 2X10'S ON SINGLE JACKS

(A) TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPENING 38" MAX.  
(B) TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPNG 38" TO 74" MAX.  
(C) TYPICAL FOR ALL CONDITIONS NOT LISTED IN (A) OR (B) UNO.

NOTES:  
-HEADERS IN NON LOAD BEARING INTERIOR WALLS ARE NOT LABELED.

1ST FLOOR FRAMING PLAN  
WALLS AND CEILING  
1/4" = 1'-0"



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STRUCTURAL ENGINEERS  
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318 W Millbrook Rd. Unit 201  
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Phone (919) 844-1661

SCOPE:	GAMMON CONSTRUCTION
	STRUCTURAL ABENDUM
LOC:	1083 CHESTERFIELD LAKE RD
REV #	REF PROJ #
DATE	DATE

ENG: KWT/CR  
DATE: 11/4/2021

PROJECT NO.  
21-18-459

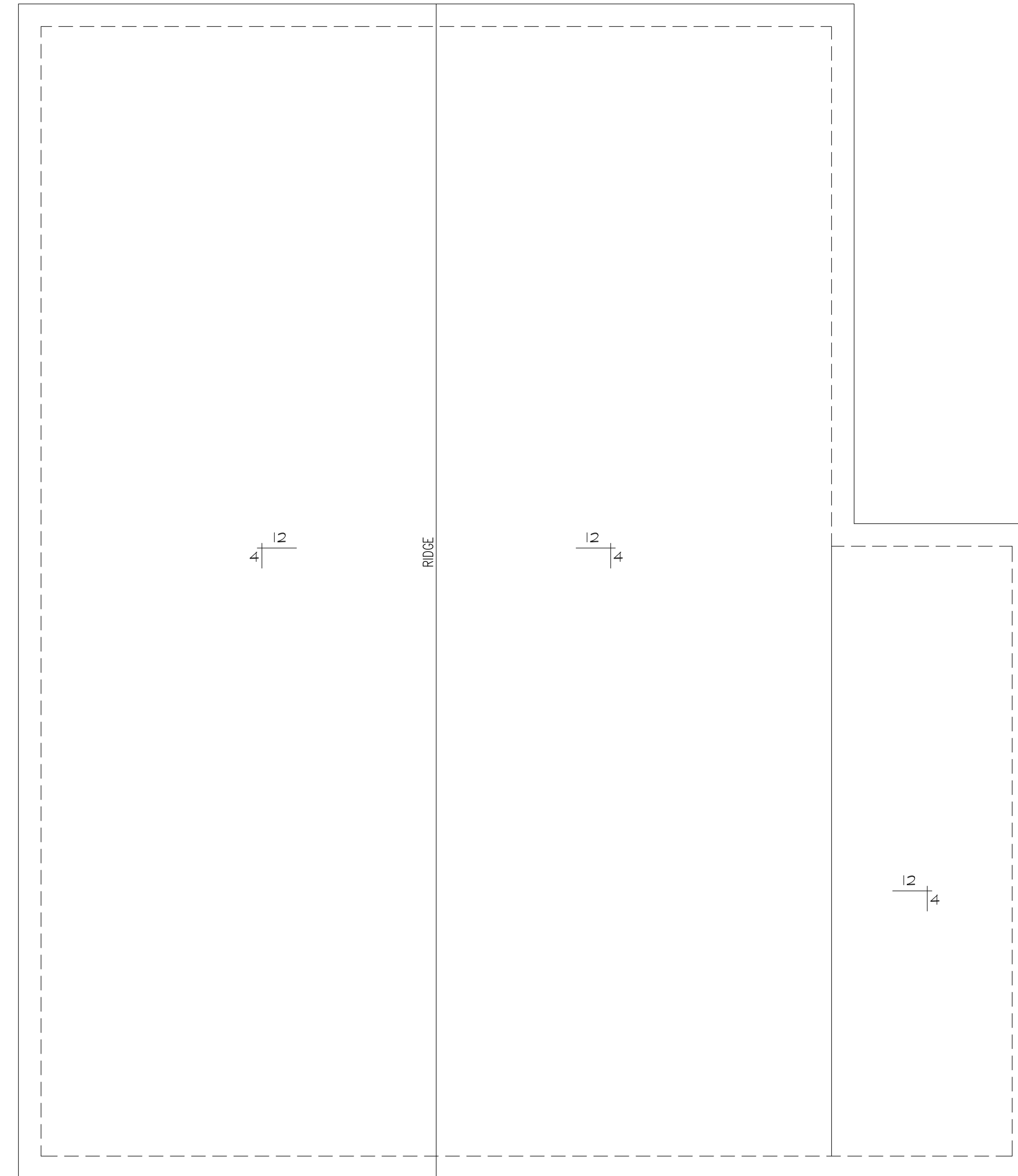
SHEET NO.  
S1  
1 of 3

**TRUSS UPLIFT CONNECTORS**  
 EXPOSURE B, 115 MPH, ANY PITCH  
 24" O.C. MAX ROOF TRUSS SPACING

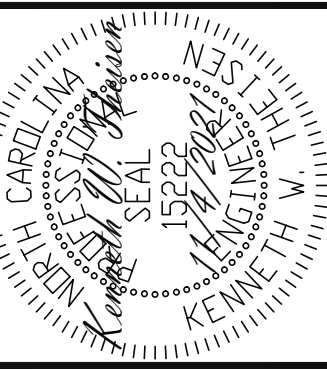
TRUSSES SHALL BE ATTACHED TO SUPPORT WALL FOR UPLIFT RESISTANCE. CONTINUOUS OSB WALL SHEATHING BELOW PROVIDES CONTINUOUS UPLIFT RESISTANCE TO FOUNDATION. ALL TRUSSES SUPPORTED BY INTERMEDIATE SUPPORT WALLS, KNEEWALLS OR BEAMS SHALL BE ATTACHED TO SUPPORTING MEMBER PER SCHEDULE BELOW.

ROOF SPAN IS MEASURED HORIZONTALLY BETWEEN FURTHEST SUPPORT POINTS.

ROOF SPAN	CONNECTOR
UP TO 28'	NAILING PER TABLE 602.3(1) NCRBC 2018 EDITION
OVER 28'	(1) SIMPSON H2.5A HURRICANE CLIP TO DBL TOP PLATE OR BEAM



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



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 DATE: 11/4/2021

PROJECT NO.  
 21-18-459

SHEET NO.  
 S2  
 2 of 3

# CONSTRUCTION SPECIFICATIONS

**PART 1: GENERAL**

1.01 CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE NORTH CAROLINA RESIDENTIAL CODE, 2018 EDITION.

1.02 DIMENSIONS SHOWN SHALL GOVERN OVER SCALE ON THESE DRAWINGS.

1.05 METHODS, PROCEDURES AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR, WHO SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.

**PART 2: DESIGN LOADS**

2.01 DESIGN LOADS SHALL CONFORM WITH THE TABLE BELOW:

USE	LIVE LOAD (PSF)	DEAD LOAD (PSF)
BALCONIES, DECKS, ATTICS WITH FIXED STAIR ACCESS, DWELLING UNITS INCLUDING ATTICS WITH FIXED STAIR ACCESS, STAIRS, FIRE ESCAPES	40	10
GARAGES (PASSENGER CARS ONLY)	50	---
ATTICS (NO STORAGE, LESS THAN 5' HEADROOM)	10	10
ATTICS (WITH STORAGE)	20	10
ROOF	20	10 (15 FOR VAULTS)

**NOTES:**

- INDIVIDUAL STAIR TREADS ARE TO BE DESIGNED FOR THE UNIFORMLY DISTRIBUTED LIVE LOAD OF 40 PSF OR A 300 LB. CONCENTRATED LOAD ACTING OVER AN AREA OF 4 SQ. WHICHEVER PRODUCES THE GREATER STRESS.
- BUILDER TO VERIFY DEAD LOAD DOES NOT EXCEED 10 PSF WHEN HEAVY FLOOR OR ROOF FINISHES SUCH AS TILE OR SLATE ARE UTILIZED. NOTIFY ENGINEERING UNDER THESE CONDITIONS.

2.02 INTERIOR WALLS: 5 PSF LATERAL.

2.03 BASIC WIND DESIGN VELOCITY OF 120 MPH.

2.04 SOIL BEARING CAPACITY 2000 PSF (PRESUMPTIVE).

**PART 3: STRUCTURAL STEEL**

3.01 WIDE FLANGE BEAMS AND TEE SECTIONS SHALL CONFORM TO ASTM A992 MINIMUM GRADE.

3.02 SQUARE AND RECTANGULAR TUBING SHALL CONFORM TO ASTM A500 GRADE B MINIMUM GRADE.

3.03 STEEL PIPE SHALL CONFORM TO ASTM A53 GRADE B, TYPE S, MINIMUM GRADE.

3.04 ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 MINIMUM GRADE.

3.05 STRUCTURAL STEEL CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.

**PART 4: WELDING**

4.01 WELDING ELECTRODES SHALL BE E70XX AND ALL WELDING SHALL BE PERFORMED BY AN AWS CERTIFIED WELDER.

**PART 5: CONCRETE AND SLABS ON GRADE**

5.01 CAST IN PLACE CONCRETE SHALL BE OF NORMAL WEIGHT, 4-6% AIR ENTRAINMENT, FOR EXTERIOR CONCRETE AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS TYP UNO. ALL ITEMS NOTED AS 'CONCRETE' ARE TO BE CAST IN PLACE, TYP UNO.

5.02 REINFORCED CAST IN PLACE CONCRETE SHALL BE PROPORTIONED, MIXED AND PLACED IN ACCORDANCE WITH THE SPECIFICATIONS OF ACI 318, LATEST EDITION.

5.03 SLABS ON GRADE, IF ANY, SHALL BE CAST IN PLACE, CONTAIN SYNTHETIC POLYPROPYLENE FIBRILLATED MICRO FIBERS, FIBER LENGTH 1 1/2", DOSAGE RATE 1 1/2 LBS/CU YD. SLAB TO BE PLACED ON A 6 MIL VAPOR BARRIER ON 4" MIN GRANULAR FILL ON SOIL WITH 90% MIN STANDARD PROCTOR DENSITY. VAPOR BARRIER MAY BE OMITTED FOR SLABS NOT IN ENCLOSED AREAS.

**PART 6: REBAR AND WIRE REINFORCEMENT**

6.01 REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM A615 GRADE 60 TYP UNO.

6.02 LAP SPLICES SHALL BE CLASS B AS DEFINED BY ACI 318, TYP UNO.

6.03 WIRE REINFORCEMENT SHALL BE 9 GA AND SHALL CONFORM TO ASTM A1064.

**PART 7: MASONRY**

7.01 CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 AND C55, NORMAL WEIGHT,

**PART 8: BOLTS AND LAG SCREWS**

8.01 BOLTS SHALL CONFORM TO ASTM A307 MINIMUM GRADE TYP UNO. INSTALL STANDARD STEEL WASHERS (ASTM F844-07a) FOR THE NUT / BOLT HEAD WHEN BOLTING WOOD MEMBERS. HOLES FOR BOLTS SHALL BE ALSO STANDARD HOLES UNO.

8.02 LAG SCREWS SHALL CONFORM TO ANS/ASME STANDARD B18.2.1-1981. PILOT HOLES SHALL BE USED FOR LAG SCREW INSTALLATION AND SHALL BE BORED ACCORDING TO NDS SPECIFICATIONS. INSTALL STANDARD STEEL WASHERS (ASTM F844-07a) FOR SCREW HEAD.

8.03 ANCHOR RODS AND BOLTS SHALL CONFORM TO ASTM F1554-15 GRADE 36 UNO. BENT ANCHOR BOLTS SHALL HAVE A 2" MIN HOOK UNO.

**PART 9: DRIVEN FASTENERS**

9.01 NAILS, SPIKES AND STAPLES SHALL CONFORM TO ASTM F 1667- 05. NAILS ARE TO BE COMMON WIRE OR BOX.

**PART 10: DIMENSIONAL LUMBER**

10.01 SOLID SAWN WOOD FRAMING DESIGN IS BASED ON NO. 2 SPRUCE PINE FIR OR SYP #2 FOR JOISTS, RAFTERS, CHIEFS, BEAMS, STUDS, ETC. MINIMUM ALLOWABLE DESIGN PROPERTIES ARE AS FOLLOWS:  
 $E = 1,400,000$  PSI,  $F_c$  spp = 425 PSI,  $F_x = 285$  PSI, SPECIFIC GRAVITY = 0.42 MIN  
 $F_b = 875$  PSI FOR 2X4, 2X6, 2X8,  $F_b = 800$  PSI FOR 2X10'S, 750 PSI FOR 2X12'S

**PART 11: ENGINEERED LUMBER**

11.01 LVL OR PSL MINIMUM ALLOWABLE DESIGN PROPERTIES ARE AS FOLLOWS:  
 $E = 1,900,000$  PSI,  $F_x = 2600$  PSI,  $F_y = 285$  PSI,  $F_z$  spp = 750 PSI  
 LVL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS:  
 $F_x = 1.3 \times$  TIER PSI,  $F_y = 1700$  PSI,  $F_z = 400$  PSI,  $F_z$  spp = 680 PSI

11.02 LVL OR PSL MEMBERS MAY BE RIPPED FROM DEEPER MEMBERS TO MATCH THE MEMBER DEPTH SPECIFIED IN THE PLANS.

**PART 12: PRESSURE TREATED LUMBER**

12.01 LUMBER IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY SHALL BE PRESSURE TREATED IN ACCORDANCE WITH ANPA STANDARD C-15. ALL OTHER EXPOSED LUMBER SHALL BE TREATED IN ACCORDANCE WITH ANPA STANDARD C-2 OR BY ANY METHOD GIVING EQUAL PROTECTION. THE BUILDING CODE OFFICE MAY ALSO APPROVE A NATURAL DECAY RESISTANT WOOD PER SECTION 19-6(A).

**PART 13: STEEL FLITCH PLATE BEAMS**

13.01 FLITCH PLATE BEAMS SHALL CONSIST OF A CONTINUOUS STEEL PLATE BOLTED BETWEEN TWO PIECES OF CONTINUOUS LUMBER AS SIZED ON THE PLANS. BOLT PIECES TOGETHER USING 1/2" Ø BOLTS SPACED AT 16" O.C. STAGGERED TOP TO BOTTOM OF THE BEAM. MAINTAIN A 2" EDGE DISTANCE. PLACE TWO BOLTS, ONE ABOVE THE OTHER, 16" MAX FROM EACH END OF THE BEAM. TYP UNO.

**PART 14: STUD SUPPORTS FOR BEAMS**

14.01 STEEL, ENGINEERED LUMBER, AND FLITCH PLATE BEAMS BEARING ON A STUD WALL SHALL BEAR AS FOLLOWS:  
 1-WHEN THE BEAM IS PERPENDICULAR TO, OR SKEWED RELATIVE TO THE WALL, THE BEAM SHALL BEAR FULL WIDTH ON THE SUPPORTING WALL INDICATED AND SHALL BE SUPPORTED BY A MINIMUM OF THREE GANGED STUDS, OR A GANGED STUD COLUMN WITH A NUMBER OF STUDS SUCH THAT THE STUD COLUMN IS AT LEAST AS WIDE AS THE TRUE WIDTH OF THE BEAM BEING SUPPORTED, WHICHEVER IS GREATER, TYP UNO. FOR THE SKEWED CONDITION PARTICULAR CARE SHALL BE TAKEN TO ENSURE STUD COLUMN IS CENTERED ON THE BEAM.  
 2-BEAMS BEARING ONTO THE END OF A STUD WALL PARALLEL TO THE BEAM SHALL BEAR A MINIMUM OF 4 1/2" ONTO THE WALL AND BE SUPPORTED BY A TRIP. STUD GANGED COLUMN TYP UNO.

14.02 DIMENSIONAL LUMBER BEAMS BEARING ON A STUD WALL SHALL BEAR AS FOLLOWS:  
 1-WHEN THE BEAM IS PERPENDICULAR TO, OR SKEWED RELATIVE TO THE WALL, THE BEAM SHALL BEAR FULL WIDTH ON THE SUPPORTING WALL INDICATED (LESS 1 1/2" TO ALLOW FOR A CONTINUOUS RIM JOIST WHERE APPLICABLE) AND SHALL BE SUPPORTED BY A GANGED STUD COLUMN THE SAME WIDTH AS THE BEAM TYP UNO. (E.G. A TRIPLE 2X10 IS TO BE SUPPORTED BY (3) STUDS). FOR THE SKEWED CONDITION PARTICULAR CARE SHALL BE TAKEN TO ENSURE STUD COLUMN IS CENTERED ON THE BEAM.

2-BEAMS BEARING ONTO THE END OF A STUD WALL PARALLEL TO THE BEAM SHALL BEAR A MINIMUM OF 3" ONTO THE WALL AND BE SUPPORTED BY A DBL STUD GANGED COLUMN TYP UNO.

14.03 EXTRA JOISTS BEARING ON A STUD WALL PERPENDICULAR TO OR SKEWED RELATIVE TO THE BEAM SHALL BE SUPPORTED BY ONE ADDITIONAL STUD.

14.04 STUDS THAT ARE GANGED TO FORM A COLUMN SHALL HAVE ADJACENT STUDS WITHIN THE COLUMN NAILED TOGETHER WITH ONE ROW OF 10d NAILS AT 8" O.C. (TWO ROWS OF 10d NAILS @ 8" O.C., 3" APART, FOR 2X8 OR 2X10 STUDS) ALL COLUMNS SHALL BE CONTINUOUS DOWN TO THE FOUNDATION OR OTHER PROPERLY DESIGNED STRUCTURAL ELEMENT SUCH AS A BEAM, COLUMNS TRANSFERRING LOADS THROUGH FLOOR LEVELS SHALL BE SOLIDLY BLOCKED FOR THE FULL WIDTH OF THE STUD COLUMN WITHIN THE CAVITY FORMED BY THE FLOOR JOISTS.

**PART 15: NAILING OF MULTI PLY WOOD BEAMS**

15.01 SOLID SAWN LUMBER JOISTS THAT ARE GANGED TO FORM A BEAM SHALL HAVE ADJACENT MEMBERS IN THE BEAM NAILED TOGETHER WITH THREE ROWS OF 10d NAILS @ 16" O.C. FOR 2X10 OR LARGER, TWO ROWS OF 10d NAILS @ 16" O.C. FOR 2X8, ONE ROW OF 10d NAILS @ 16" O.C. FOR 2X6 OR SMALLER. STAGGER ROWS 5" MIN.

15.02 LVL MEMBERS THAT ARE GANGED TO FORM A BEAM SHALL HAVE ADJACENT MEMBERS IN THE BEAM FASTENED TOGETHER PER MANUFACTURERS RECOMMENDATIONS, TYP UNO.

**PART 16: WALL FRAMING AND BRACING**

16.01 STUD WALLS SHALL CONSIST OF 2X4 STUDS SPACED AT 16" O.C. UNO. STUDS SHALL BE CONTINUOUS FROM SOLE PLATE AT FLOOR TO DOUBLE TOP PLATE AT THE CEILING OR ROOF. NO INTERMEDIATE BANDS OR PLATES SHALL CAUSE DISCONTINUITIES IN A STUD WALL EXCEPT AS REQUIRED FOR DOOR OR WINDOW OPENINGS. THE KING STUDS FOR SUCH OPENINGS SHALL BE CONTINUOUS, TYP UNO.  
 MAX ALLOWABLE WALL HEIGHTS FOR EXTERIOR STUD WALLS, INCLUSIVE OF SOLE PLATE AND DBL TOP PLATE AND 7/16" OSS EXTERIOR BRACING AND ROW OF 2X4 2X6 PURLINS AT 8' HEIGHT (AND AT 16' HEIGHT FOR TALL WALLS), TYP UNO:  
 2X4 @ 16" O.C.: 11'-1 1/2", 2X6 @ 16" O.C.: 17'-0"  
 2X4 @ 12" O.C.: 12'-1 1/2", 2X6 @ 12" O.C.: 18'-0"  
 DBL 2X4 @ 16" O.C.: 13'-4", DBL 2X6 @ 16" O.C.: 21'-0"

16.02 FOR WALL BRACING THE FOLLOWING SHALL APPLY:  
 -BLOCKING AT UNSUPPORTED PANEL EDGES IS REQUIRED TYP UNO.  
 -WALL BRACING IS BY ENGINEERED DESIGN AND NOT PRESCRIPTIVE PER SECTION 602.10 OF THE 2018 NRC. CONTINUOUS SHEATHING HAS BEEN PROVIDED, ALONG WITH ALTERNATIVE METHODS TO INSURE THE MINIMUM INTENT OF SECTION 602.10 OF THE 2018 NRC HAS BEEN MET AND EXCEEDED.  
 -BRACED WALL PANELS SHALL BE FASTENED IN ACCORDANCE WITH TABLE 602.3(1) TO PROVIDE CONTINUOUS PANEL UPLIFT RESISTANCE AND COMPLIANCE WITH NRCB 802.3.5 AND 802.3.11 UNLESS NOTED OTHERWISE ON STRUCTURAL PLANS.  
 -MAY SUBSTITUTE WSP FOR DB  
 -SINGLE JOIST, CONTINUOUS RIM JOIST, OR BLOCKING OF EQUAL DEPTH IS REQUIRED ABOVE AND BELOW ALL BRACED WALLS. NAIL BLOCKING ABOVE WALL TO TOP PLATE WITH 16d TOE NAILS @ 6" O.C. NAIL SOLE PLATE OF BRACED WALL TO BLOCKING BELOW WITH (3) 16d NAILS @ 16" O.C. BLOCKING AT HORIZONTAL JOINTS IN BRACED WALL LINES ONLY REQUIRED AT SHADED WALLS, UNO.

**PART 17: KING STUDS**

17.01 KING STUDS FOR OPENINGS IN EXTERIOR WALLS SHALL BE AS FOLLOWS:

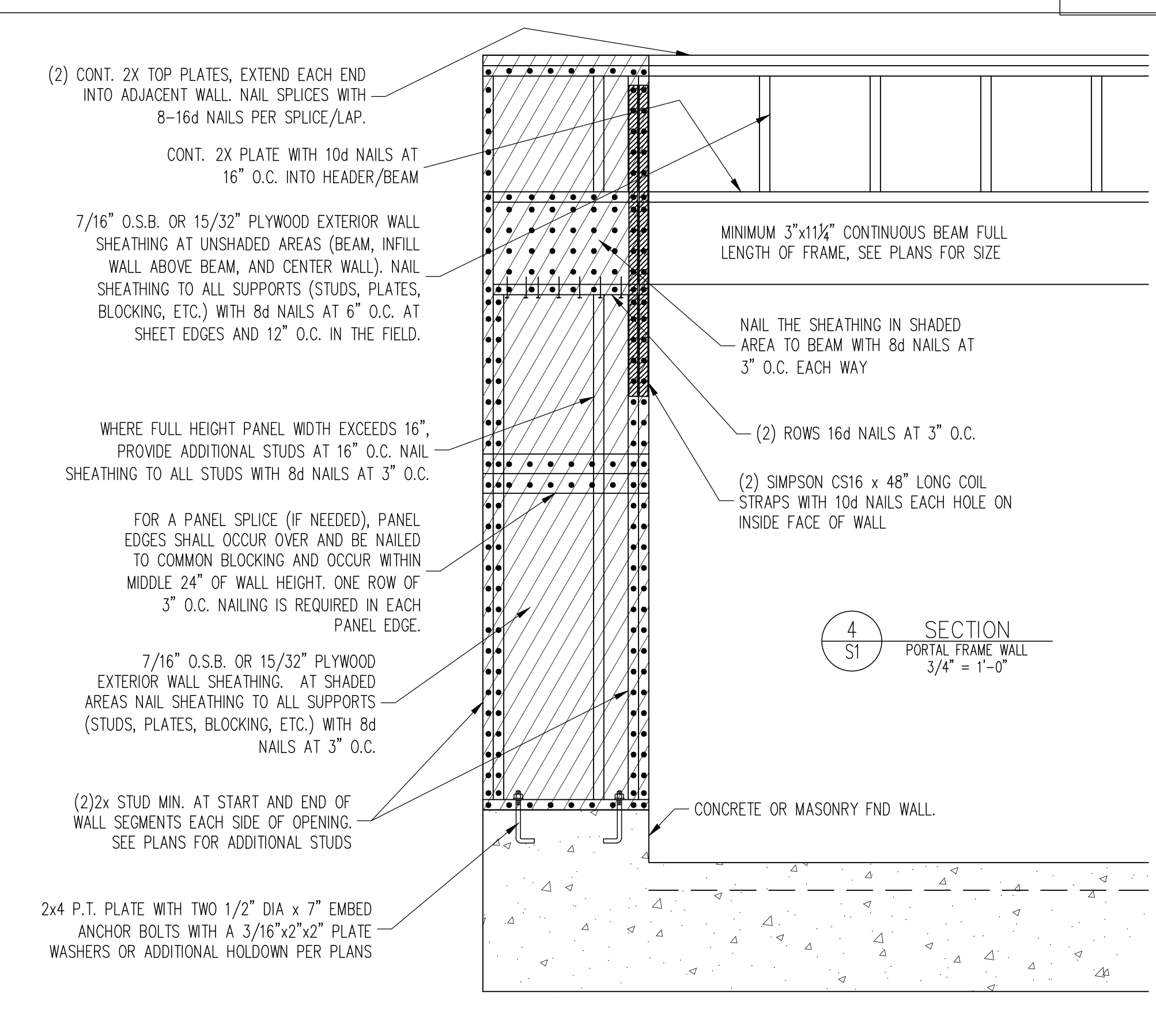
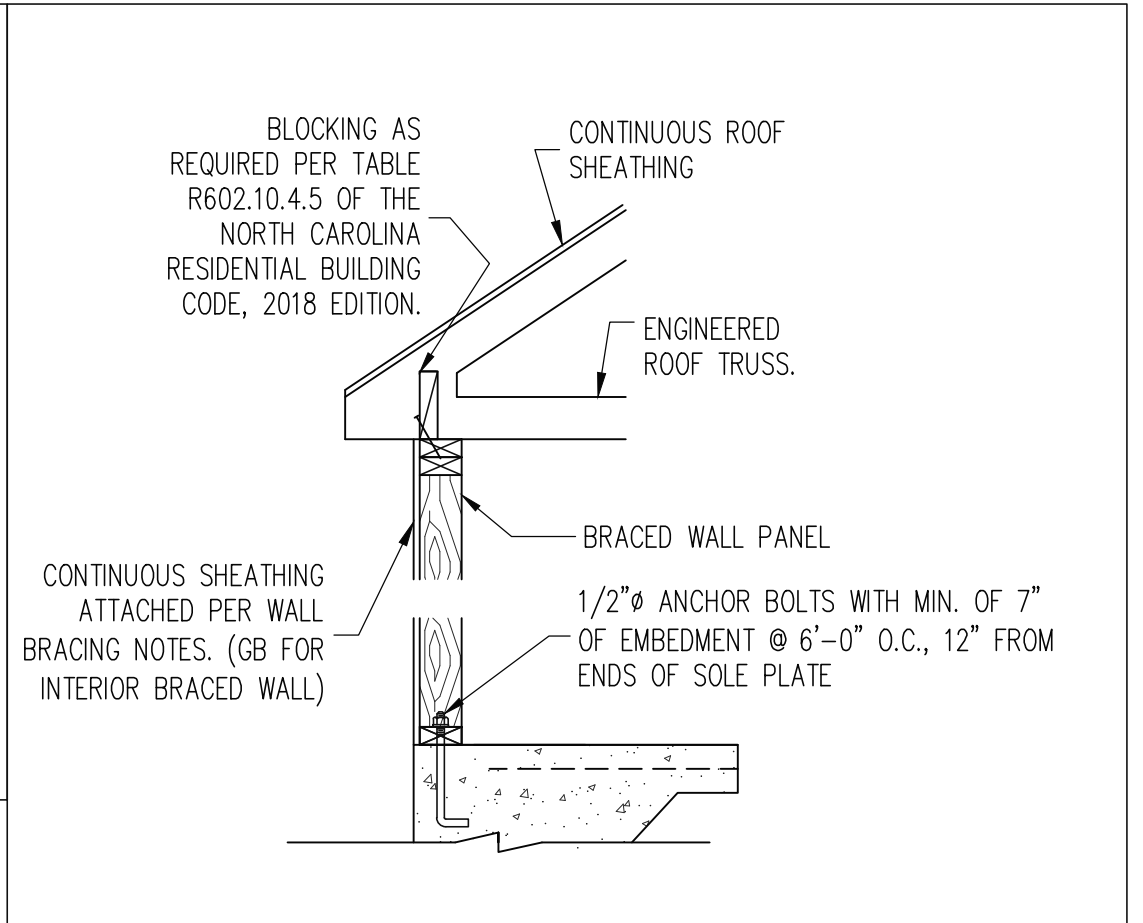
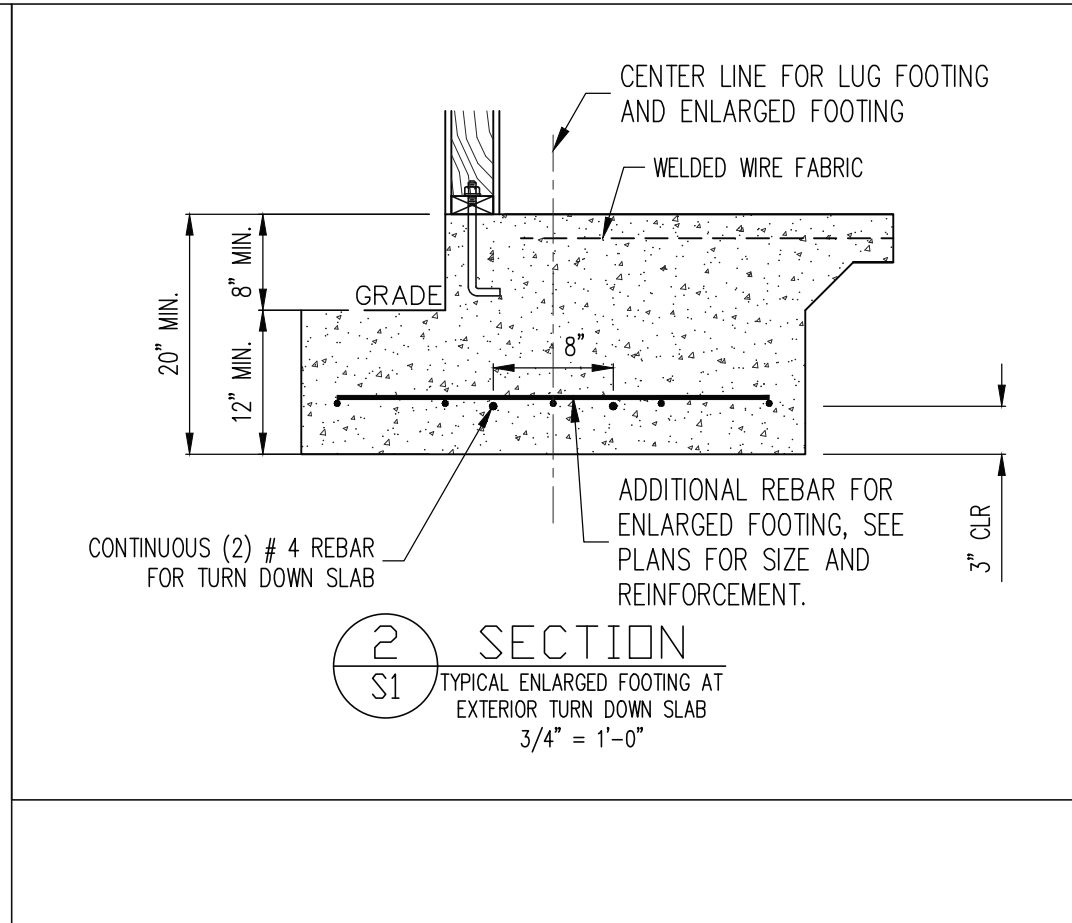
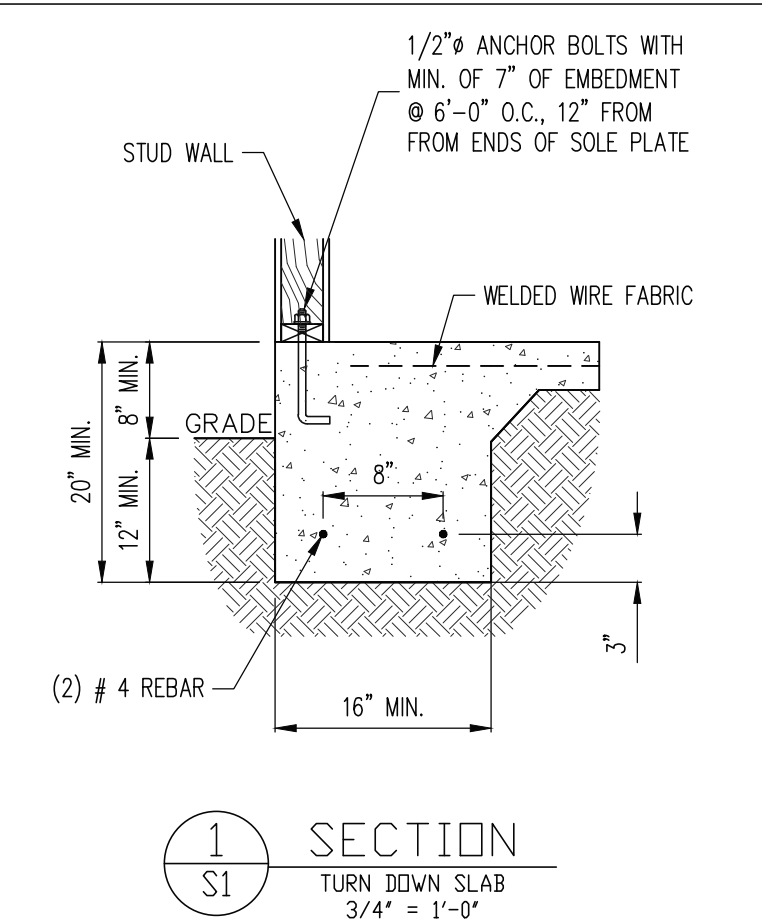
MAX. OPENING WIDTH	NUMBER OF KING STUDS				
	5'-0"	9'-0"	13'-0"	17'-0"	21'-0"
2X4	1	2	3	4	5
2X6	1	1	2	2	2
2X8	1	1	1	1	2

**PART 18: SUBSTITUTIONS**

18.01 MATERIAL OR MEMBER SIZE SUBSTITUTIONS OR PLAN DEVIATIONS REQUIRE THE WRITTEN AUTHORIZATION OF THE DESIGNER. UNAUTHORIZED DEVIATIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

**PART 19: OWNERSHIP OF STRUCTURAL DESIGN**

19.01 THE STRUCTURAL DESIGN OF THIS PLAN IS THE PROPERTY OF ENGINEERING TECH ASSOCIATES (ETA). THESE PLANS ARE FOR THE ONE TIME USE AT THE LOCATION INDICATED AND FOR THE CLIENT LISTED. ETA ASSUMES NO LIABILITY FOR THESE PLANS IF THEY ARE REPRODUCED, IN WHOLE OR IN PART, FOR CONSTRUCTION AT ANY OTHER LOCATION WITHOUT WRITTEN PERMISSION FROM ETA.



**NOTES**

THE BUILDER IS RESPONSIBLE FOR REVIEWING PLANS PRIOR TO CONSTRUCTION. THE BUILDER SHALL IMMEDIATELY CONTACT THE ENGINEER OF RECORD (EOR) BEFORE PROCEEDING IF THE FOLLOWING CONDITIONS ARE NOTED BEFORE OR DURING CONSTRUCTION:

- THE WORKING PLANS DO NOT BEAR THE SEAL OF THE EOR
- THE PLANS CONTAIN DISCREPANT OR INCOMPLETE INFORMATION

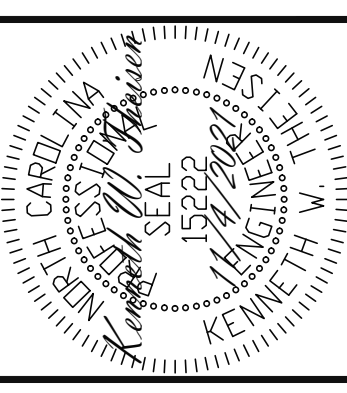
ANY ERRORS DUE TO A FAILURE TO FOLLOW THE ABOVE PROCEDURES SHALL NOT BE THE RESPONSIBILITY OF THE EOR. FURTHERMORE, IT IS THE RESPONSIBILITY OF THE BUILDER TO ENSURE THAT ANY REVISIONS ISSUED BY THE EOR ARE PROMPTLY DISTRIBUTED TO THE SUBCONTRACTORS.

THE EOR DOES NOT PERFORM PENETRATION OR VENTING CALCULATIONS OR ANY OTHER CALCULATIONS THAT ARE NOT DIRECTLY RELATED TO STRUCTURAL ENGINEERING.

ROOF AND FLOOR TRUSSES TO BE DESIGNED BY AN ENGINEER REGISTERED BY THE STATE. FINAL TRUSS DRAWING SHOULD BE SUBMITTED TO THE EOR FOR REVIEW.

**ABBREVIATIONS**

ABV ABOVE	FND FOUNDATION	TJ TRIPLE JOIST
B BOTH	FTG FOOTING	TYP TYPICAL
B.E. BOTH ENDS	HDC HOT DIPPED	TRPL TRIPLE
BTWN BETWEEN	GLV GALVANIZED	TSP TRIPLE STUD POCKET
CIP CAST IN PLACE	HGR HANGER	UNO UNLESS NOTED OTHERWISE
CONC CONCRETE	LVL LAMINATED VENEER LUMBER	XJ EXTRA JOIST
CS CONTINUOUS SHEATHING	LUM LUMBER	
DIA DIAMETER	NTS NOT TO SCALE	
DBL DOUBLE	O.C. ON CENTER	
DJ DOUBLE JOIST	PSL PARALLEL STRAND LUMBER	
DSP DBL STUD POCKET	PT PRESSURE TREATED	
EQ EQUAL	QJ QUAD JOIST	
EA EACH	SP SPACE (OR SPACING)	
FLG FLANGE	SSP SPACE (OR SPACING)	
FL PL FLITCH PLATE	SST SINGLE STUD POCKET	
FLR FLOOR	SQ SQUARE	



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**Engineering Lech ASSOCIATES, P.A.**

GAMMON CONSTRUCTION		
SCOPE:	STRUCTURAL ABENDUM	
LOC:	1083 CHESTERFIELD LAKE RD	
REV #	REF PROJ #	DATE

ENG: KWT/CR  
 DATE: 11/4/2021

PROJECT NO.  
 21-18-459

SHEET NO.  
 SD1  
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