

THE NICHOLAS
VA BUILDERS

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#1064

= 1064 H = 102 = 20 = 32

FIRST FLOOR FRONT PORCH SIDE PORCH

HEATHER HALL 165 HEATHERSTONE CT BENSON NC 27504 (919) 207-1403

H SQUARED HOME DESIGN, INC.





DATE: 09/19/22

I STORY

O81422

44'-0"

09/19/22 I STORY 081422

CRAWLSPACE

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

NOTE ASSUMED SOIL BEARING CAPACITY = 2000 PSF CONTRACTOR MUST VERIFY SITE CONDITIONS AND CONTACT SOILS ENGINEER IF MARGINAL OR UNSTABLE SOILS ARE ENCOUNTERED NOTE: FOR FOUNDATION WALL HEIGHT, THICKNESS, AND BACKFILL REQUIREMENTS, REFER TO TABLE R404.I.I (I THRU 4) 44'-0" 6'-0" 38'-0" BUILDERS NICHOLAS THE M SLAB 8" CMU STEM WALL ON MIN. 16"X8" CONC. FTG. 4" CONC. SLAB (TABLE R402.2) w/FIBERMESH OR WIREMESH ON 6 MILVAPOR RETARDER (AS REQUIRED) ON BASE COURSE (R506.2.2). SEE R506.2.1 FOR FILL REQUIREMENTS. PORCH #106 VERIFY ALL PLUMBING DIMENSIONS PRIOR TO CONSTRUCTION Ģ CONC 1064 102 20 32 33 14'-10" 4'-11" 15'-10" 2'-5" ģ 28, CT 32' 32, H SQUARED HOME DESIGN, INC. <u>"</u>,−0" 12'-8" 17'-11" 1'-10" 13'-4" 8'-0" 5'-0" 11'-8" 6'-0" Ģ Ģ 4" CONC. STOR. SLAB _4" CONC. SLAB ON FILL REFER TO BASIC DETAIL SHEET(S) FOR STANDARD DETAILS, BRACING DETAILS, AND STRUCTURAL NOTES 2'-10" DAMP PROOFING 10/09/2023 44'-0" FOR DAMP PROOFING \$ RAISED SLAB I STORY WATER PROOFING REFER TO FOUNDATION PLAN SECTION 405 \$ 406 IN 2018

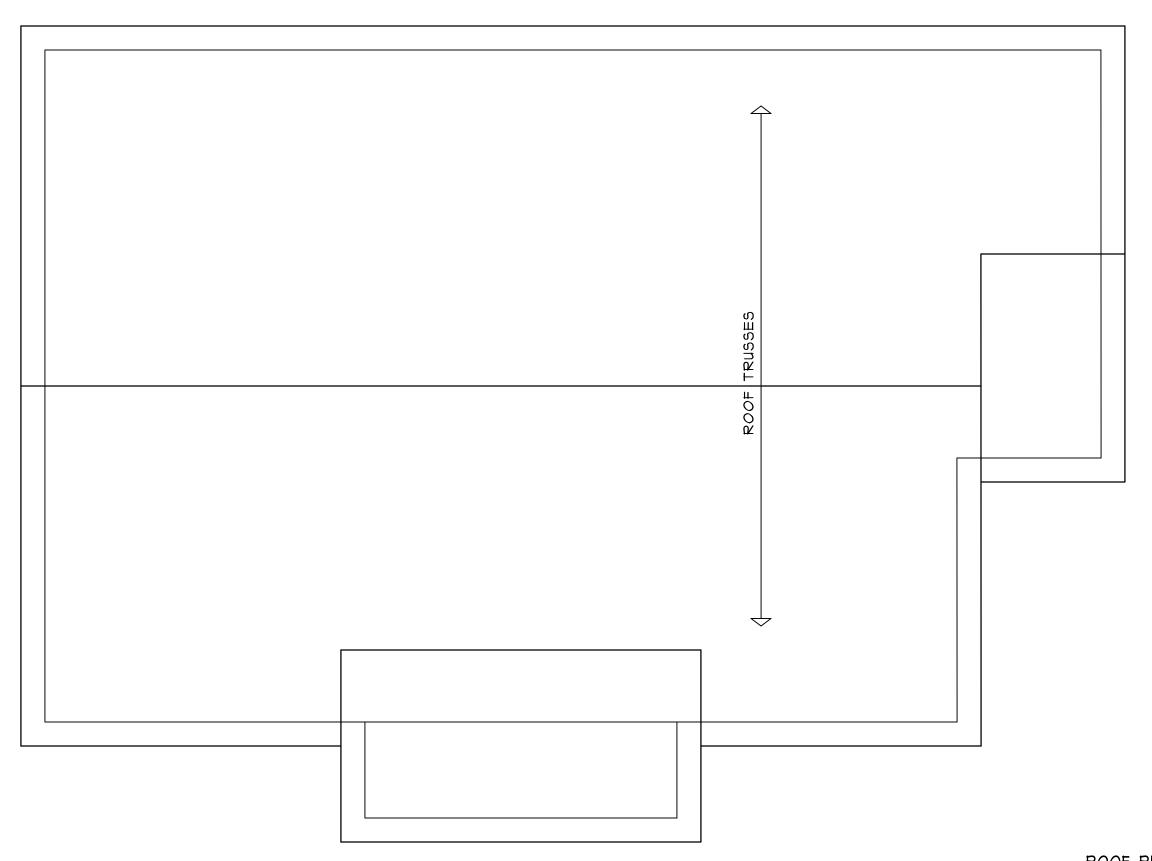
EDITION NC RES. CODES

SCALE 1/4" = 1'-0"

081422

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

STRUCTURAL NOTES

I) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA STATE RESIDENTIAL CODE - 2018 EDITION, PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER OR DESIGNER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK, NOR WILL THE ENGINEER OR DESIGNER BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. "CONSTRUCTION REVIEW" SERVICES ARE NOT PART OF OUR CONTRACT. ALL MEMBERS SHALL BE FRAMED, ANCHORED, TIED AND BRACED IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND THE BUILDING CODE.

2)	DESIGN LOADS (R3OI.4)	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION (LL)
	ROOMS OTHER THAN SLEEPING RO		10	L/340
	SLEEPING ROOMS	30	10	L/360
	ATTIC WITH PERMANENT STAIR	40	io	L/360
	ATTIC WITH OUT PERMANENT STAF		io	L/360
	ATTIC WITH OUT STORAGE	10	10	L/240
	STAIRS	40		L/360
	EXTERIOR BALCONIES	60	10	L/360
	DECKS	40	10	L/360
	GUARDRAILS AND HANDRAILS	200		
	PASSENGER VEHICLE GARAGES	50	10	L/360
	FIRE ESCAPES	40	10	L/360
	SNOW	20		
	WIND LOAD (BASED ON 115/120 M	PH WIND VEL	LOCITY & EXPOS	BURE B)

3) WALL BRACING: BRACED WALL PANELS SHALL BE CONSTRUCTED ACCORDING TO SECTION R602.10.3.

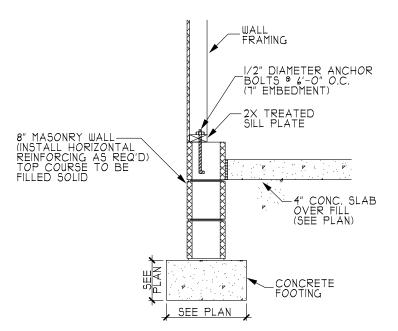
THE AMOUNT AND LOCATION OF BRACING SHALL COMPLY WITH TABLE R402.10.1. THE LENGTH OF BRACED PANELS SHALL BE DETERMINED BY SECTION R602.10.4 LATERAL BRACING SHALL BE SATISFIED PER METHOD 3 BY CONTINUOUSLY SHEATHING WALLS WITH STRUCTURAL SHEATHING PER SECTION R602.10.3. NOTE THAT ANY SPECIFIC BRACED WALL DETAIL SHALL BE INSTALLED AS SPECIFIED.

- 4) CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF 5 INCHES UNLESS NOTED OTHERWISE (UNO). AIR ENTRAINED PER TABLE 402.2. ALL CONCRETE SHALL BE PROPORTIONED, MIXED, HANDLED, SAMPLED, TESTED, AND PLACED IN ACCORDANCE WITH ACI STANDARDS. ALL SAMPLES FOR PUMPING SHALL BE TAKEN FROM THE EXIT END OF THE PUMP.
- 5) ALLOWABLE SOIL BEARING PRESSURE ASSUMED TO BE 2000 PSF. THE CONTRACTOR MUST CONTACT A GEOTECHNICAL ENGINEER AND THE STRUCTUAL ENGINEER IF UNSATISFACTORY SUBSURFACE CONDITIONS ARE ENCOUNTERED. THE SURFACE AREA ADJACENT TO THE FOUNDATION WALL SHALL BE PROVIDED WITH ADEQUATE DRAINAGE, AND SHALL BE GRADED SO AS TO DRAINSURFACE WATER AWAY FROM FOUNDATION WALLS.
- 6) ALL FRAMING LUMBER SHALL BE SPF #2 (Fb = 815 PSI) UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE SYP # 2 (Fb=915 PSI). PLATE MATERIAL MAY BE SPF # 3 OR SYP #3 (Fc(perp) = 425 PSI MIN).
- 1) ALL WOODEN BEAMS AND HEADERS SHALL HAVE THE FOLLOWING END SUPPORTS: (I) 2×4 STUD COLUMN FOR 6'-0'' MAX. BEAM SPAN (UNO), (2) 2×4 STUDS FOR BEAM SPAN GREATER THAN 6'-O" (UNO).
- 8) L.V.L. SHALL BE LAMINATED VENEER LUMBER: Fb=2400 PSI, Fv=285 PSI, E=I.9xl0⁶ PSI. P.S.L. SHALL BE PARALLEL STRAND LUMBER: Fb=2900 PSI, Fv=290 PSI, E=2.0xl0⁶ PSI. L.S.L. SHALL BE LAMINATED STRAND LUMBER: Fb=2250 PSI, Fv=400 PSI, E=I.55xl0⁶ PSI. INSTALL ALL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS.
- 9) ALL ROOF TRUSS AND I-JOIST LAYOUTS SHALL BE PREPARED IN ACCORDANCE MITH ANY SEALED STRUCTURAL DRAWINGS. TRUSSES AND I-JOISTS SHALL BE INSTALLED ACCORDING TO THE MANUFACTURE'S SPECIFICATIONS. ANY CHANGE IN TRUSS OR I-JOIST LAYOUT SHALL BE COORDINATED WITH DESIGNER OR ENGINEER.
- IO) ALL STRUCTURAL STEEL SHALL BE ASTM A-36. STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" INCHES AND FULL FLANGE WIDTH. PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO LAG SCREWS (1/2" DIAMETER x 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDED THE JOIST ARE TOE NAILED TO THE SOLE PLATE, AND SOLE PLATE IS NAILED OR BOLTED TO THE BEAM FLANGE • 48" O.C. . ALL STEEL TUBING SHALL BE ASTM A500.
- II) REBAR SHALL BE DEFORMED STEEL, ASTM615, GRADE 60.
- 12) FLITCH BEAMS SHALL BE BOLTED TOGETHER USING (2) ROWS OF 1/2" DIAMETER BOLTS (ASTM A301) WITH WASHERS PLACED UNDER THE THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" O.C. (MAX), AND STAGGERED AT THE TOP AND BOTTOM OF BEAM (2" EDGE DISTANCE), WITH 2 BOLTS LOCATED AT 6" FROM EACH END.
- 13) BRICK LINTELS SHALL BE 3 1/2"x3 1/2"x1/4" STEEL ANGLE FOR UP TO 6'-O" SPAN AND 6"x4"x5/16" STEEL ANGLE WITH 6" LEG VERTICAL FOR SPANS UP TO 9'-O" (UNO).
- 14) THE POSITIVE AND NEGATIVE DESIGN PRESSURE FOR DOORS AND WINDOWS FOR A MEAN ROOF HEIGHT OF 35 FEET OR LESS SHALL BE 25 PSF.
- I5) THE POSITIVE AND NEGATIVE DESIGN PRESSURES REQUIRED FOR ANY ROOF OR WALL CLADDING APPLICATION NOT SPECIFICALLY ADDRESSED IN THE NORTH CAROLINA STATE RESIDENTIAL CODE 2018 EDITION SHALL BE AS FOLLOWS: ROOF

45.4 PSF - 2.25-12 PITCH OR LESS 34.8 PSF - 2.25:12 TO 7:12 PITCH 21 PSF - 1:12 TO 12:12 PITCH

WALLS:

24.1 PSF - WALLS



GARAGE WALL FOOTING

HEADER/BEAM € COLUMN NOTES

ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN.
(2) 2x6 (4" WALL) OR (3) 2x6 (6" WALL)
WITH (1) SUPPORT STUD, UNLESS NOTED OTHERWISE.

2. THE NUMBER SHOWN AT BEAM AND HEADER SUPPORTS INDICATES THE NUMBER OF SUPPORT STUDS REQUIRED IN STUD POCKET OR COLUMN. THE NUMBER OF KING STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS SHALL BE ACCORDING TO ITEM "d" IN TABLE R602.3(5) OR AS BELOW:

- UP TO 4' SPAN: (I) KING STUD OVER 4' UP TO 8' SPAN: (2) KING STUDS OVER 8' UP TO II' SPAN: (3) KINGS STUDS
- OVER II' SPAN: (4) KING STUDS

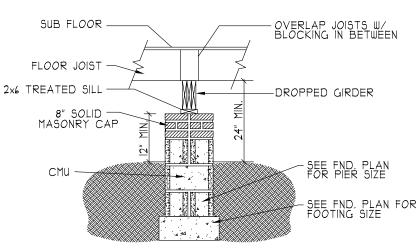
TRUSS SYSTEM REQUIREMENTS NC (2018 NCRC):

TRUSS SYSTEM LAYOUTS (PLACEMENT PLANS) SHALL BE DESIGNED IN ACCORDANCE WITH SEALED TRUSS PROFILES. ANY NEED TO CHANGE TRUSSES SHALL BE COORDINATED WITH THE TRUSS MANUFACTURER.

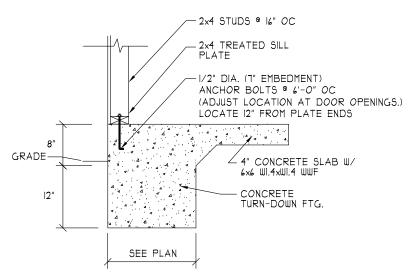
2. TRUSS SCHEMATICS (PROFILES) SHALL BE PREPARED AND SEALED BY TRUSS MANUFACTURER.

ALL TRUSSES SHALL BE DESIGNED FOR BEARING ON SPF #2 OR #3 PLATES OR

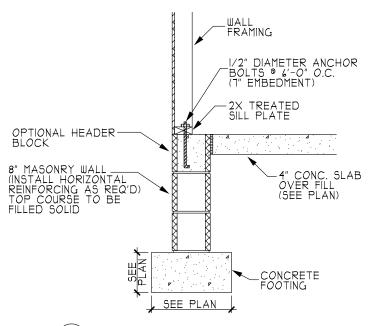
4. ALL REQUIRED ANCHORS FOR TRUSSES DUE TO UPLIFT OR BEARING SHALL MEET THE REQUIREMENTS AS SPECIFIED ON THE TRUSS SCHEMATICS.



DROPPED GIRDER



TURN DOWN SLAB FOOTING



WALL FOOTING



SHEET MPH)

(115/120DETAIL

MA) တ္ဆ ETAL THIS D_O NOT APPI

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H SQUARED HOME DESIGN, INC.

THIS PLAN HAS BEEN DRAWN N ACCORDANCE WITH NORTH CAROLINA STATE RESIDENTAL SULLDING CODES 2018 EDITION.

FILE: