

NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.

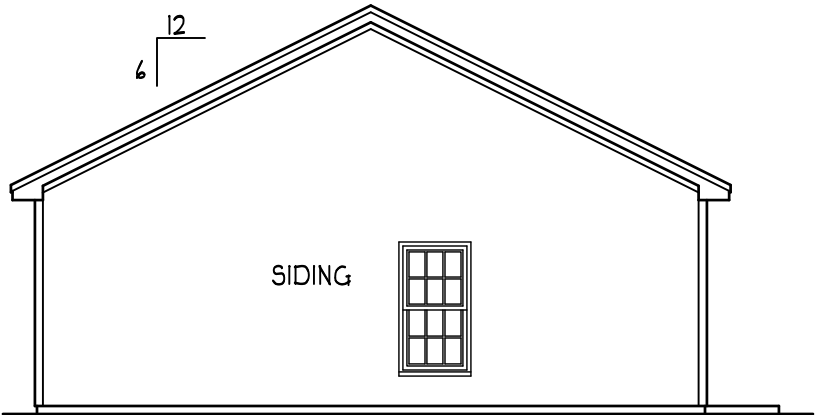
APPROVED
Limited building only review
Permit holder responsible for full compliance with the code

02/17/2021





FRONT ELEVATION
SCALE 1/4" = 1'-0"



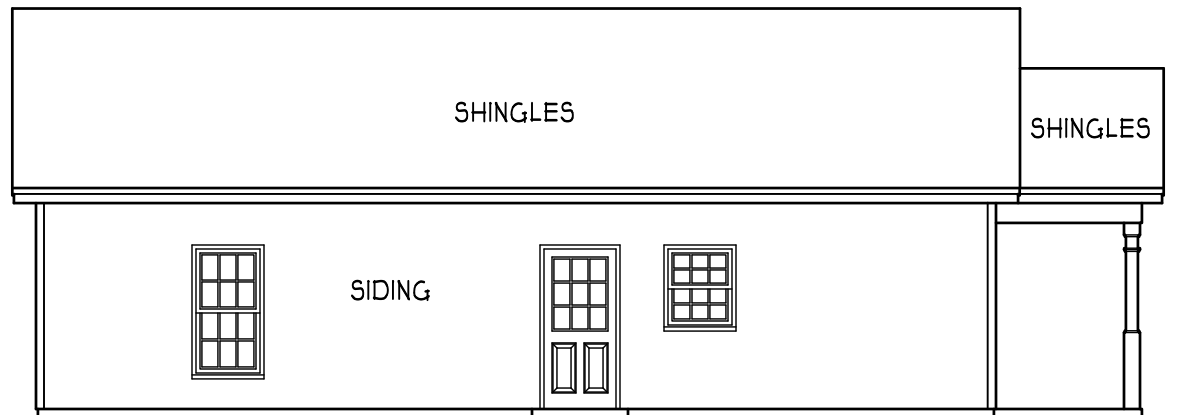
REAR ELEVATION
SCALE 1/8" = 1'-0"

ATTIC VENTILATION:

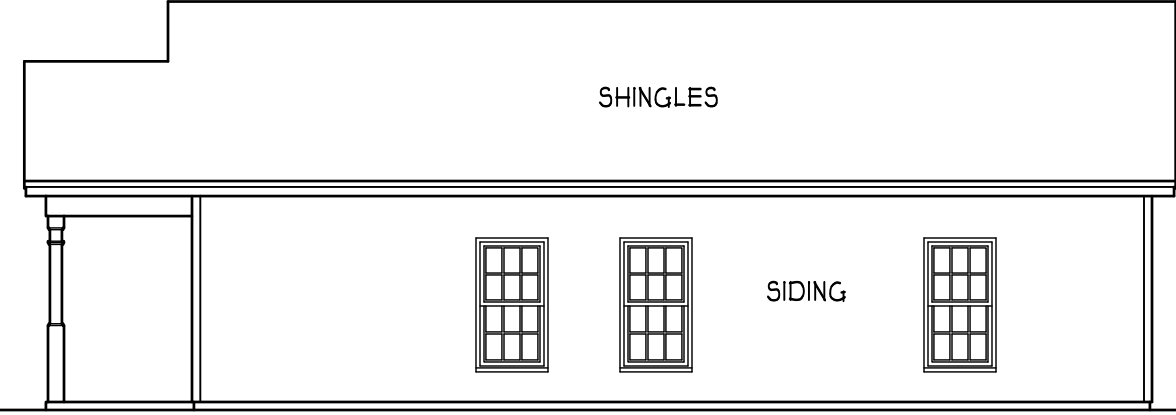
THE NET FREE VENTILATING AREA SHALL BE NOT LESS THAN 1 TO 150 OF THE AREA OF THE SPACE VENTILATED EXCEPT THAT THE AREA MAY BE 1 TO 300 , PROVIDED AT LEAST 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3 FEET ABOVE EAVE OR CORNICE VENTS WITH THE BALANCE OF THE REQUIRED VENTILATION TO BE PROVIDED BY EAVE OR CORNICE VENTS.

GROSS ATTIC AREA TO BE VENTILATED 1228 SQ.FT.
1228/150 = 8.18 SQ.FT. NET FREE AREA

ENERGY COMPLIANCE
ZONE 3A = MAX. GLAZING U-FACTOR .35
R-VALUE = CEILING R38, WALLS R15,
FLOORS R19
ZONE 4A = MAX. GLAZING U-FACTOR .35
R-VALUE = CEILING R38, WALLS R15,
FLOORS R19



LEFT ELEVATION
SCALE 1/8" = 1'-0"



RIGHT ELEVATION
SCALE 1/8" = 1'-0"

THE BENTLEY
HERRING BUILDERS INC.

HEATED FOOTAGE: #1120

SQUARE FOOTAGE: FIRST FLOOR = 1120
FRONT PORCH = 108

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

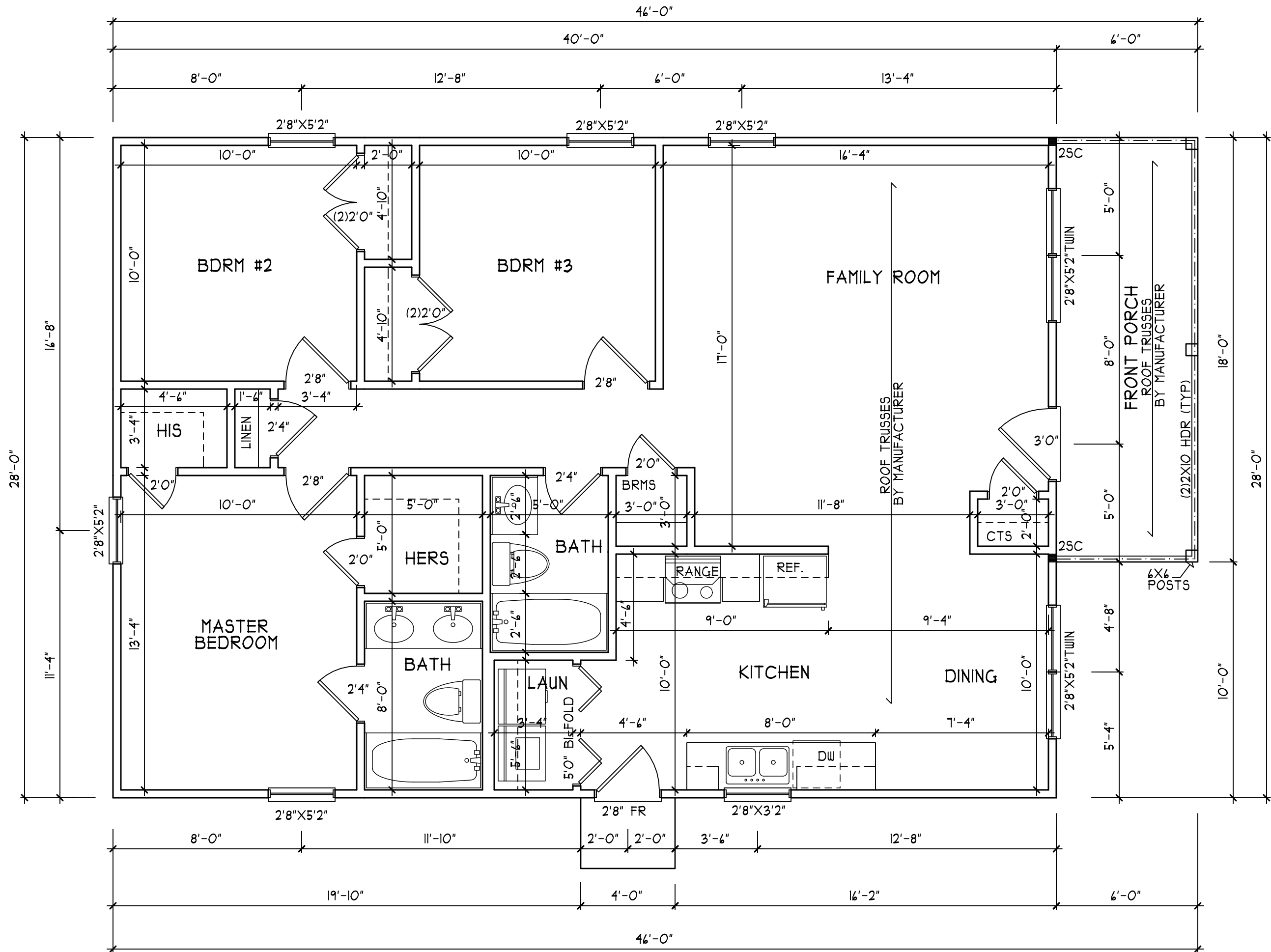
H SQUARED HOME DESIGN, INC.

ANY DEVIATION OF THE DRAWINGS FROM THE PERMITS SHALL BE THE RESPONSIBILITY OF THE PERMITTEE. THIS PLAN HAS BEEN DRAWN IN ACCORDANCE WITH NORTH CAROLINA BUILDING CODES 2018 EDITION.

DATE: 11/12/2020

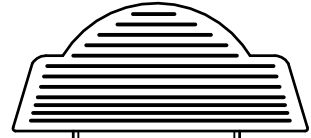
1 STORY

FILE: 080619



REFER TO BASIC DETAIL SHEET(S)
FOR STANDARD DETAILS, BRACING
DETAILS, AND STRUCTURAL NOTES

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



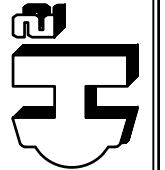
THE BENTLEY
HERRING BUILDERS INC.

HEATED FOOTAGE:
#120

SQUARE FOOTAGE:
FIRST FLOOR = 1120
FRONT PORCH = 108

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

H SQUARED
HOME
DESIGN, INC.

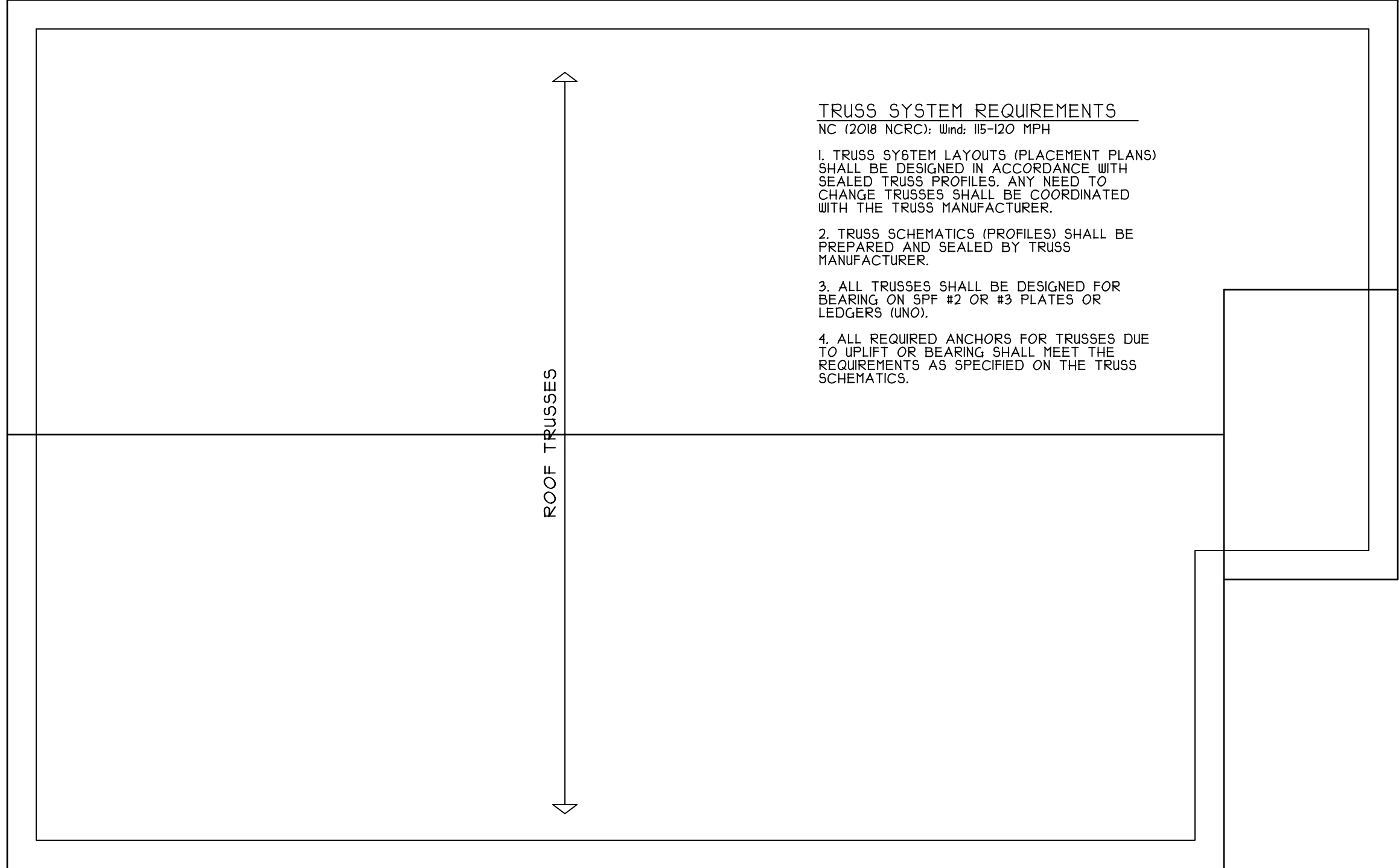


ANY DEVIATION OF THE
DIMENSIONS OR FINISHES
SHOWN ON THIS DRAWING
IS THE RESPONSIBILITY OF
THE CLIENT.
THIS PLAN HAS BEEN DRAWN
IN ACCORDANCE WITH NORTH
CAROLINA BUILDING CODES
2018 EDITION.

DATE:
11/12/2020

1 STORY

FILE:
080619

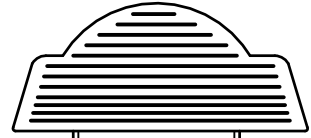


TRUSS SYSTEM REQUIREMENTS

- NC (2018 NCRC): Wind: 115-120 MPH
1. 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.
 3. ALL TRUSSES SHALL BE DESIGNED FOR BEARING ON SPF #2 OR #3 PLATES OR LEDGERS (UNO).
 4. ALL REQUIRED ANCHORS FOR TRUSSES DUE TO UPLIFT OR BEARING SHALL MEET THE REQUIREMENTS AS SPECIFIED ON THE TRUSS SCHEMATICS.

REFER TO BASIC DETAIL SHEET(S) FOR STANDARD DETAILS, BRACING DETAILS, AND STRUCTURAL NOTES

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



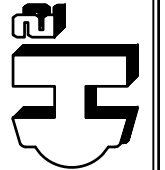
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ANY DEVIATION OF THE REQUIREMENTS SPECIFIED IN THIS DOCUMENT SHALL BE THE RESPONSIBILITY OF THE CLIENT.
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1 STORY

FILE: 080619

STRUCTURAL NOTES

1) 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.

DESIGN LOADS (R301.4)	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION (LL)
ROOMS OTHER THAN SLEEPING ROOMS	40	10	L/360
SLEEPING ROOMS	30	10	L/360
ATTIC WITH PERMANENT STAIR	40	10	L/360
ATTIC WITH OUT PERMANENT STAIR	20	10	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 MPH WIND VELOCITY & EXPOSURE 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 R602.10.1. 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 ENTRAINMENT 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 STRUCTURAL 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 DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS.

6) ALL FRAMING LUMBER SHALL BE SPF #2 (Fb = 875 PSI) UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE SYP #2 (Fb=975 PSI). PLATE MATERIAL MAY BE SPF #3 OR SYP #3 (Fc(perp) = 425 PSI - MIN).

7) ALL WOODEN BEAMS AND HEADERS SHALL HAVE THE FOLLOWING END SUPPORTS: (1) 2x4 STUD COLUMN FOR 6'-0" MAX. BEAM SPAN (UNO), (2) 2x4 STUDS FOR BEAM SPAN GREATER THAN 6'-0" (UNO).

8) L.V.L. SHALL BE LAMINATED VENEER LUMBER: Fb=2400 PSI, Fv=285 PSI, E=1.9x10⁶ PSI. P.S.L. SHALL BE PARALLEL STRAND LUMBER: Fb=2900 PSI, Fv=290 PSI, E=2.0x10⁶ PSI. L.S.L. SHALL BE LAMINATED STRAND LUMBER: Fb=2250 PSI, Fv=400 PSI, E=1.55x10⁶ PSI. INSTALL ALL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS.

9) ALL ROOF TRUSS AND I-JOIST LAYOUTS SHALL BE PREPARED IN ACCORDANCE WITH 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.

10) 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.

11) REBAR SHALL BE DEFORMED STEEL, ASTM#65, GRADE 60.

12) FLITCH BEAMS SHALL BE BOLTED TOGETHER USING (2) ROWS OF 1/2" DIAMETER BOLTS (ASTM A307) 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 4" FROM EACH END.

13) BRICK LINTELS SHALL BE 3 1/2"x3 1/2"x1/4" STEEL ANGLE FOR UP TO 6'-0" SPAN AND 6"x4"x5/16" STEEL ANGLE WITH 6" LEG VERTICAL FOR SPANS UP TO 9'-0". SEE PLANS FOR SPANS OVER 9'-0". SEE ALSO SECTION R103.1.3 LINTELS

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.

15) 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 1:12 PITCH
21 PSF - 1:12 TO 12:12 PITCH

WALLS:
24.1 PSF - WALLS

HEADER/BEAM & COLUMN NOTES

1. ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2) 2x10 (4" WALL) OR (3) 2x10 (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: (1) KING STUD
- OVER 4' UP TO 8' SPAN: (2) KING STUDS
- OVER 8' UP TO 11' SPAN: (3) KING STUDS
- OVER 11' SPAN: (4) KING STUDS

TRUSS SYSTEM REQUIREMENTS

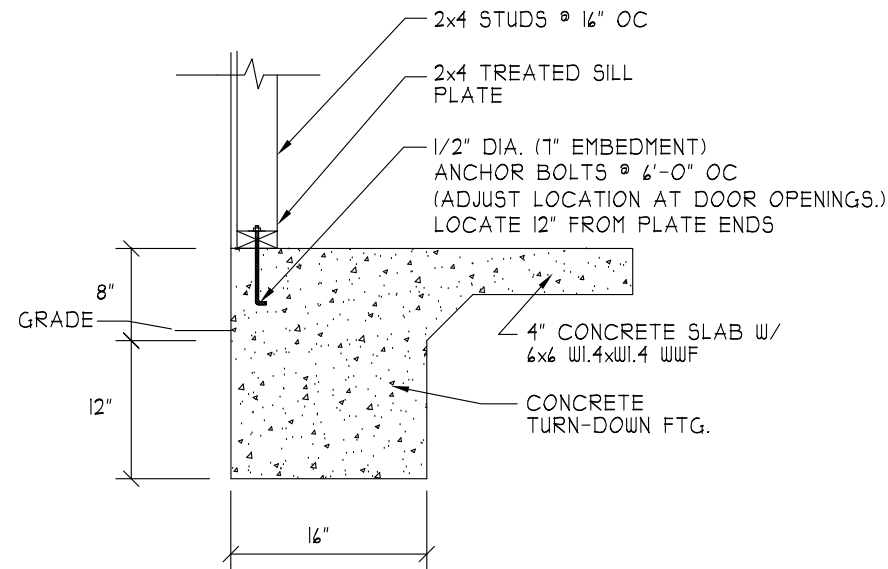
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(A) TURN DOWN SLAB FOOTING
NTS

**THE BENTLEY
HERRING BUILDERS INC.**

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#1120

SQUARE FOOTAGE:
FIRST FLOOR = 1120
FRONT PORCH = 108

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

H SQUARED HOME DESIGN, INC.

ANY DEVIATION OF THE
DESIGN OR CONSTRUCTION
OF THIS PROJECT WITHOUT
THE WRITTEN CONSENT OF
H SQUARED HOME DESIGN,
INC.'S LIABILITY.
THIS PLAN HAS BEEN DRAWN
IN ACCORDANCE WITH NORTH
CAROLINA STATE RESIDENTIAL
BUILDING CODES 2018 EDITION

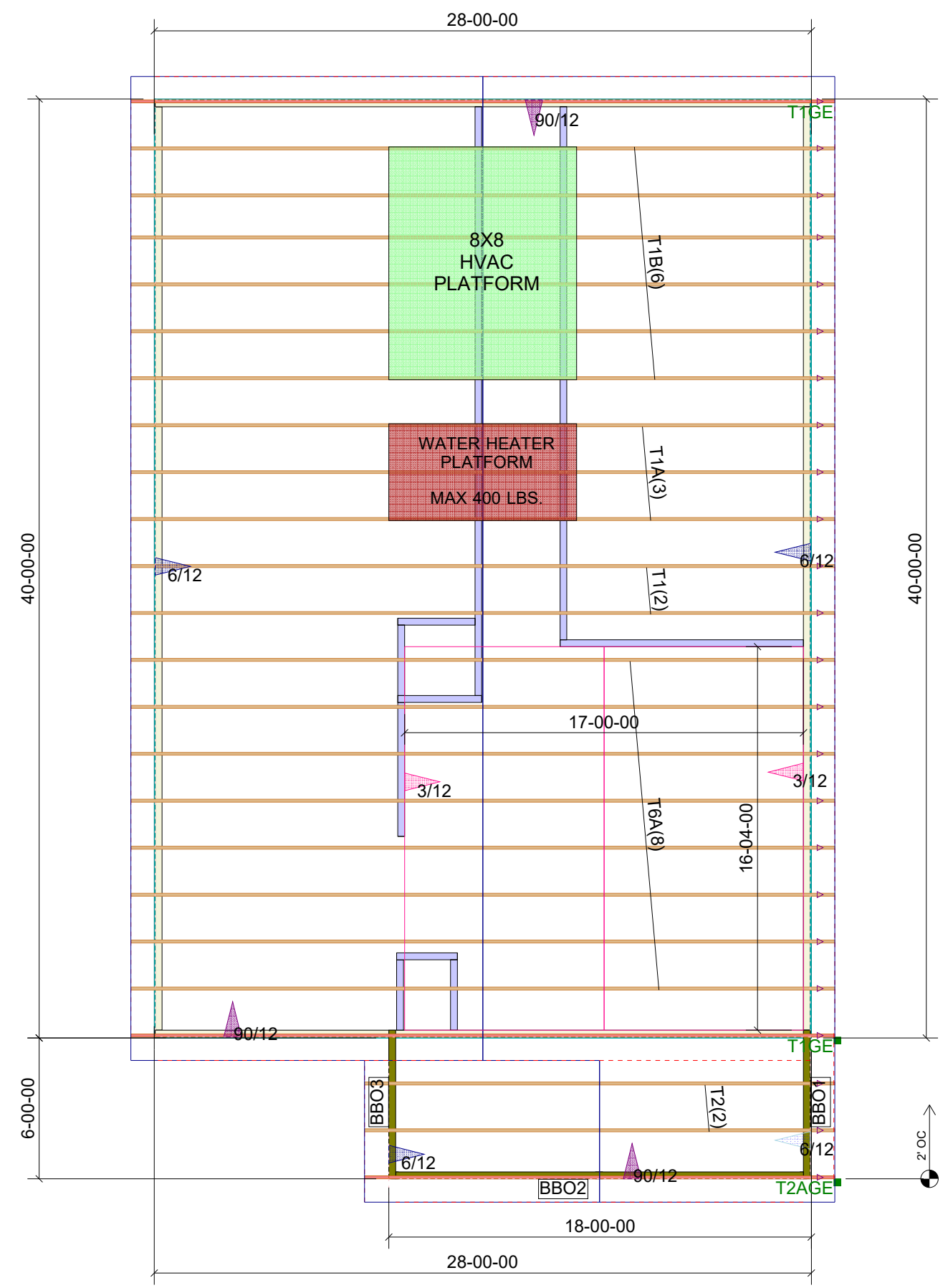
DATE:
11/12/2020

1 STORY

FILE:
080619

THIS LAYOUT IS TO BE USED AS A TRUSS PLACEMENT GUIDE ONLY.
 PLEASE REFER TO BUILDING PLANS FOR BUILDING CONSTRUCTION AND DETAILS,
 SUCH AS PLUMBING OR DUCT DROPS.

CONSTRUCTION COPY-
 FOR FIELD USE



**BENTLEY 2020
 ROOF TRUSSES
 2' OC, 1'-1/2" Overhang**

- Notes:
- Exterior dimensions shown are assumed to be:
 - ☐ Out-to-out of stud
 - ☒ Out-to-out of sheathing
 - Adjust truss locations as needed for plumbing and mechanical clearance. Unless otherwise noted, trusses may be shifted as long as O.C. spacing shown is not exceeded.
 - Do not cut, drill, or otherwise damage any part of any truss without prior approval from Peak Truss.
 - Do not approve drawings if any information herein is unclear. Once ordered trusses will be fabricated as approved.
 - Please contact Peak Truss Builders with any questions. We are available to help any way we can. We can be reached at 919-545-5555 or sales@peaktruss.com

Roof Truss Loading per 2012 NC Residential Code

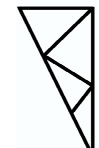
Top Chord Live Load	20# PSF
Top Chord Dead Load	10# PSF
Bottom Chord Live Load	0# PSF
Bottom Chord Dead Load	10# PSF

Trusses are designed for additional storage load wherever a 42"x24" box will fit between the webs.

- △ - This symbol denotes left end of truss as shown on truss drawings
- - Approximate location of toilet drop. Builder please confirm.

Truss connections by others:

- Ⓝ - Nailed
- Ⓛ - Ledger

Job #	P-6558
Date Quoted:	1/29/2020 12:00:00 AM
Designer:	Sarah Billings
Herring Construction	,
 Peak Truss Builders, LLC PO Box 340, New Hill, NC 27562	Bentley 2020 315 Burroughs Rd Holly Ridge NC