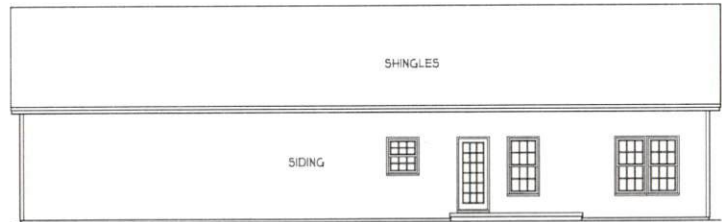




FRONT ELEVATION  
SCALE 1/4" = 1'-0"

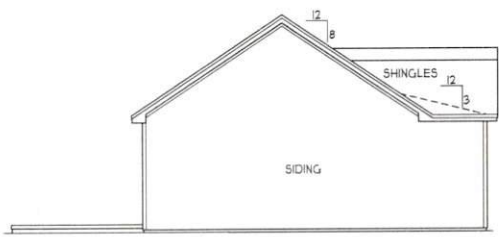
**ATTIC VENTILATION:**

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 1899 SQ.FT.  
1899/150 = 12.66 SQ.FT. NET FREE AREA

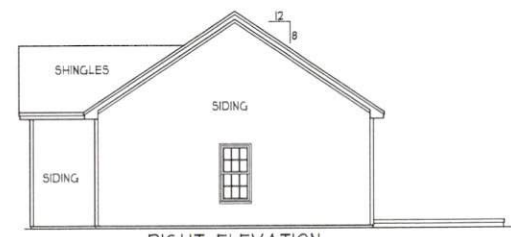


REAR ELEVATION  
SCALE 1/8" = 1'-0"

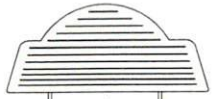
**ENERGY COMPLIANCE**  
ZONE 3 = MAX. GLAZING U-FACTOR .35  
R-VALUE = CEILING R38, WALLS R15,  
FLOORS R19 FOR JOHNSTON, WAYNE COUNTY  
ZONE 4 = MAX. GLAZING U-FACTOR .35  
R-VALUE = CEILING R38, WALLS R15,  
FLOORS R19 FOR WAKE, ORANGE COUNTY



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



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



"THE DAKOTA II"  
(RIGHT HAND GARAGE)  
JRT MANG. PROP.

HEATED FOOTAGE:  
#1240

SQUARE FOOTAGE:  
FIRST FLOOR = 1240  
FRONT PORCH = 86  
PATIO/WOOD DECK = 144  
GARAGE = 572

HEATHER HALL  
185 HEATHERSTONE CT  
BENSON NC 27504  
(819) 207-1403

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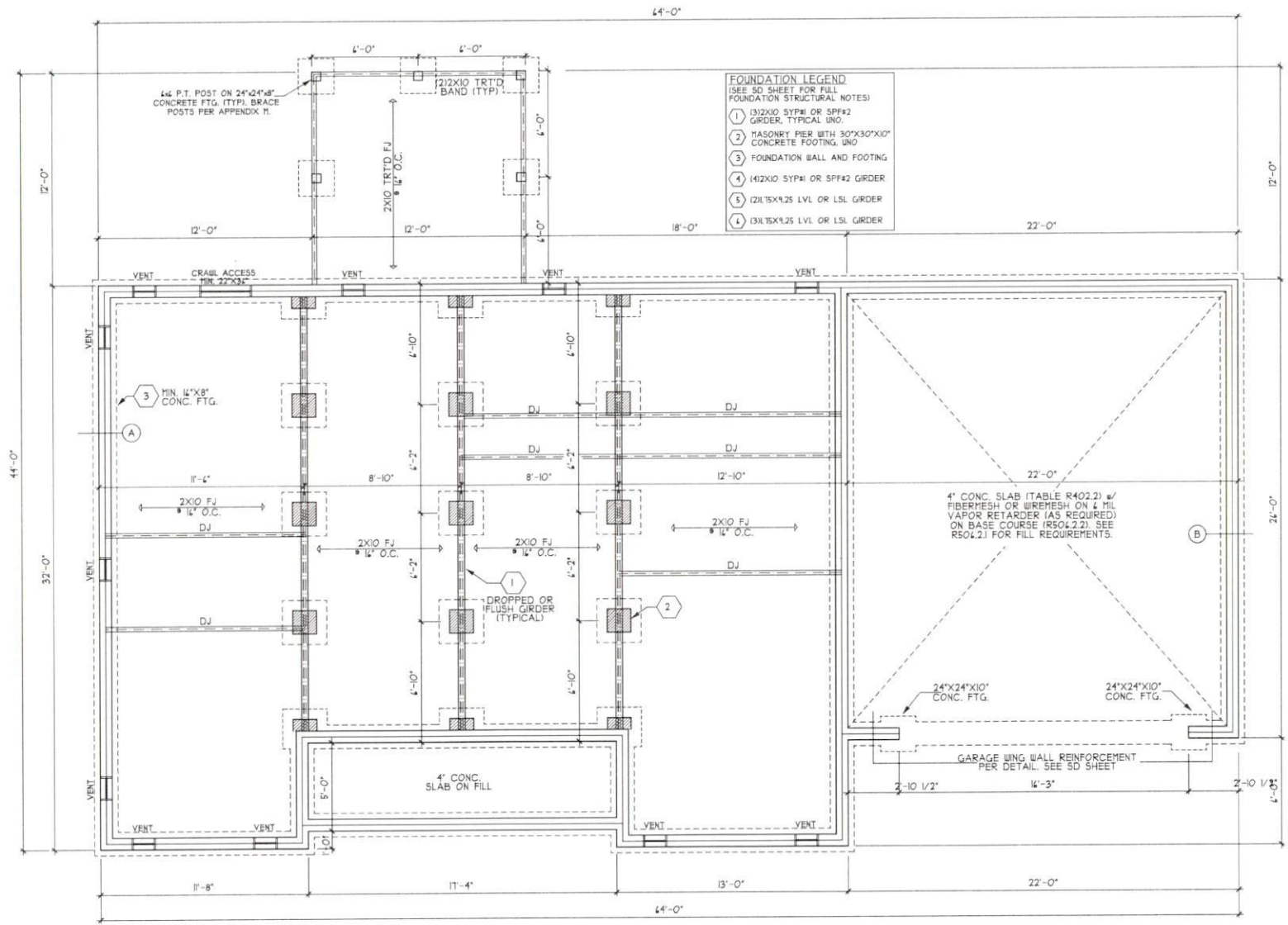
ANY DEVIATION OF THE  
BY ORDINANCE 1000  
IN 2'S HANDLITY  
THIS PLAN HAS BEEN CHAIR  
PLANNING STATE W/ADDITIONAL  
BUILDING CODES 209 EDITION

DATE:  
02/25/2020

1 STORY

FILE:  
020320





**FOUNDATION LEGEND**  
(SEE 3D SHEET FOR FILL FOUNDATION STRUCTURAL NOTES)

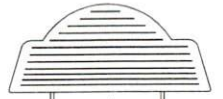
- 1 (3)2X10 5YP#1 OR SPF#2 GIRDER, TYPICAL UNO.
- 2 MASONRY PIER WITH 30"X30"X10" CONCRETE FOOTING UNO.
- 3 FOUNDATION WALL AND FOOTING
- 4 (4)2X10 5YP#1 OR SPF#2 GIRDER
- 5 (2)1.5X1.25 LVL OR LSL GIRDER
- 6 (3)1.5X1.25 LVL OR LSL GIRDER

**DAMP PROOFING**  
FOR DAMP PROOFING & WATER PROOFING REFER TO SECTION 405 & 406 IN 2018 EDITION NC RES. CODES

**FND VENTS**  
1240/150 = 8.3 SQ. FT. REQ'D  
8.3/88 = 9 VENTS  
\*WITH VAPOR BARRIER  
\*ONE VENT MUST BE WITHIN 3'-0" OF EVERY CRNR.

REFER TO 'SD' SHEETS FOR STANDARD DETAILS, BRACING DETAILS, AND STRUCTURAL NOTES

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



**"THE DAKOTA II"**  
(RIGHT HAND GARAGE)  
JRT MANG. PROP.

HEATED FOOTAGE:  
**#1240**

SQUARE FOOTAGE:  
FRONT PORCH = 1240  
PATIO/WOOD DECK = 86  
GARAGE = 144

HEATHER HALL  
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**H SQUARED HOME DESIGN, INC.**

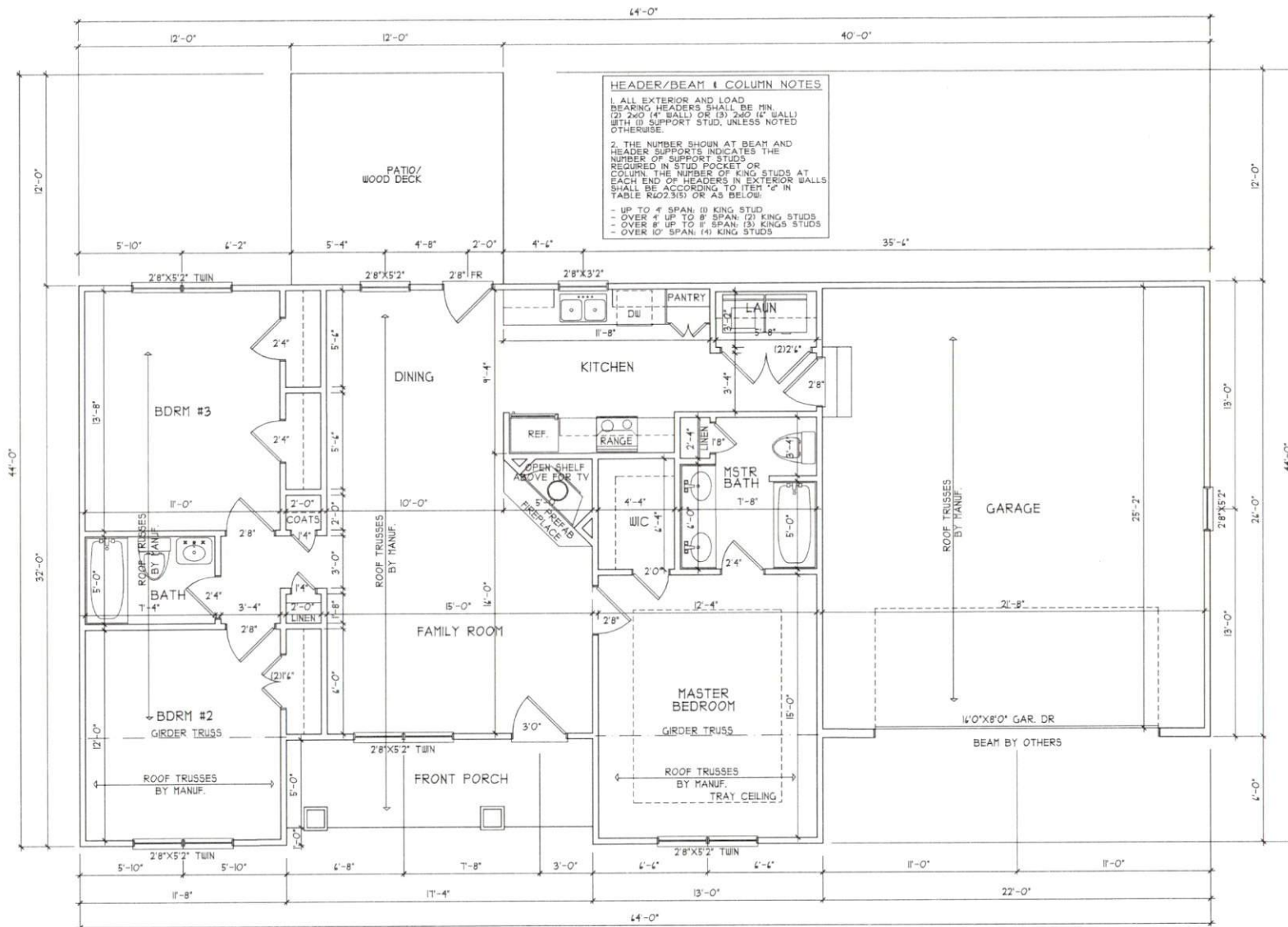


ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.  
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BY ACCORDANCE WITH NORTH CAROLINA CONSTRUCTION CODES.

DATE: 02/25/2020

1 STORY

FILE: 020320



**HEADER/BEAM & COLUMN NOTES**

1. ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2) 2X6 (4 BAY) OR (3) 2X6 (6 BAY) 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 2 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 12' SPAN: (3) KING STUDS
- OVER 12' SPAN: (4) KING STUDS

REFER TO '50' SHEET(S) FOR STANDARD DETAILS, BRACING DETAILS, AND STRUCTURAL NOTES

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



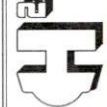
"THE DAKOTA II"  
(RIGHT HAND GARAGE)  
JRT MANG. PROP.

HEATED FOOTAGE  
#1240

SQUARE FOOTAGE:  
= 1240  
FRONT PORCH = 88  
PATIO/WOOD DECK = 144  
GARAGE = 572

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

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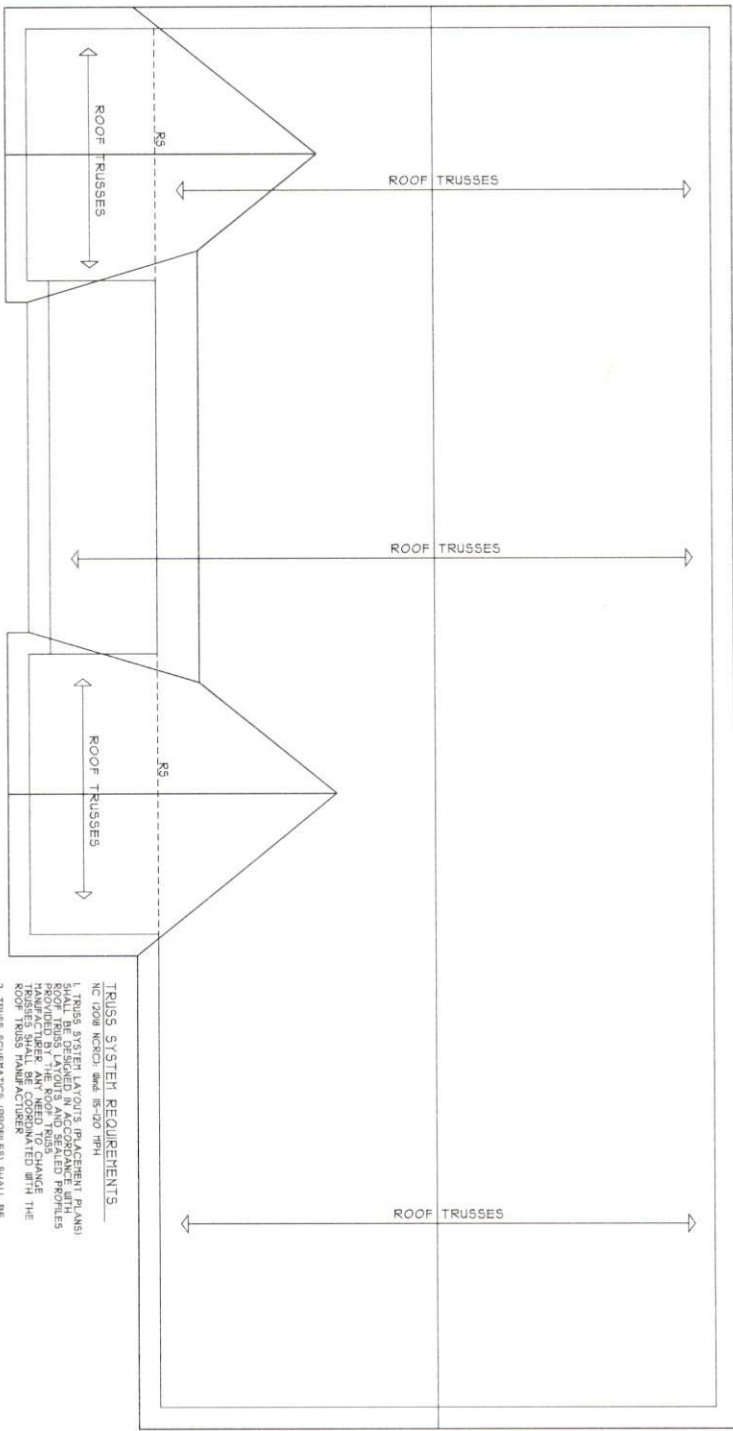


ANY REVISIONS OF THIS PLAN SHALL BE MADE BY THE ARCHITECT OR HIS DESIGNER AND SHALL BE THE ARCHITECT'S LIABILITY. THE PLAN HAS BEEN DRAWN IN ACCORDANCE WITH THE CAROLINA STATE RESIDENTIAL BUILDING CODES FOR DESIGN.

DATE: 02/25/2020

1 STORY


FILE: 020320



**TRUSS SYSTEM REQUIREMENTS**  
 NC 1208 INCHES AND 18-20 1/4 INCH  
 1. TRUSS SYSTEM LAYOUTS (FRAMING PLANS)  
 2. TRUSS SYSTEM LAYOUTS AND SEALED PROFILES  
 3. ALL TRUSSES SHALL BE DESIGNED FOR  
 LEADING ON 2" X 4" OR 2" X 6" PLATES FOR  
 4. ALL REQUIRED ANCHORS FOR TRUSSES DUE  
 TO UPLIFT OR BEARING SHALL MEET THE  
 REQUIREMENTS AS SPECIFIED ON THE TRUSS  
 SCHEMATIC.  
 5. TRUSS MANUFACTURER SHALL BE  
 APPROVED AND SEALED BY TRUSS  
 MANUFACTURER.

REFER TO '207 SHEETS FOR  
 STANDARD DETAILS BRACING  
 DETAILS AND STANDARD NOTES

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

FILE: <b>020320</b>	DATE: 02/25/2020	 <b>H SQUARED HOME DESIGN, INC.</b>	HEATHER HALL 165 HEATHERSTONE CT BENSON NC 27504 (919) 207-1403	SQUARE FOOTAGE: FIRST FLOOR = 1240 FRONT PORCH = 86 PATIO/WOOD DECK = 144 GARAGE = 572	HEATED FOOTAGE: <b>#1240</b>	<b>"THE DAKOTA II"</b> (RIGHT HAND GARAGE) JRT MANG. PROP.
				THIS PLAN HAS BEEN DRAWN IN ACCORDANCE WITH NORTH CAROLINA STATE RESIDENTIAL BUILDING CODES 2018 EDITION.		



**STRUCTURAL NOTES**

0 ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA STATE RESIDENTIAL CODE - 2008 EDITION, PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER OR DESIGNER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION 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 (R301.4)

	LIVE LOAD (LL)	DEAD LOAD (DL)	DEFLECTION (D)
ROOMS OTHER THAN SLEEPING ROOMS 40	10	L/340	
SLEEPING ROOMS 30	10	L/340	
ATTIC WITH PERMANENT STAIR 40	10	L/340	
ATTIC WITH OUT STORAGE 10	10	L/240	
POARS 40	10	L/340	
EXTERIOR BALCONIES 40	10	L/340	
DECKS 40	10	L/340	
GUARDRAILS AND HANDRAILS 200	10	L/340	
PASSENGER VEHICLE GARAGES 50	10	L/340	
FIRE ESCAPES 40	10	L/340	
SNOW 20	10	L/340	

WIND LOAD (BASED ON 15/100 MPH WIND VELOCITY 1 EXPOSURE B)

3) WALL BRACING. BRACED WALL PANELS SHALL BE CONSTRUCTED ACCORDING TO SECTION R402.10.3.

THE AMOUNT AND LOCATION OF BRACING SHALL COMPLY WITH TABLE R402.10.1. THE LENGTH OF BRACED PANELS SHALL BE DETERMINED BY SECTION R402.10.4. LATERAL BRACING SHALL BE SATISFIED PER METHOD 3 BY CONTINUOUSLY SHEATHING WALLS WITH STRUCTURAL SHEATHING PER SECTION R402.10.3.

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 30 AS TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS.

6) ALL FRAMING LUMBER SHALL BE SPF #2 (F<sub>b</sub> = 875 PSF) UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE SYP # 2 (F<sub>b</sub> = 775 PSF). PLATE MATERIAL MAY BE SPF # 3 OR SYP #3 (F<sub>c</sub> = 425 PSF - MIN).

7) ALL WOODEN BEAMS AND HEADERS SHALL HAVE THE FOLLOWING END SUPPORTS:  
(1) 2x4 STUD COLUMN FOR 4'-0" MAX. BEAM SPAN (UNO); (2) 2x4 STUDS FOR BEAM SPAN GREATER THAN 4'-0" (UNO).

8) L.V.L. SHALL BE LAMINATED VENEER LUMBER; F<sub>b</sub> = 2400 PSF, F<sub>v</sub> = 285 PSF, E = 1,940,000 PSI. P.S.L. SHALL BE PARALLEL STRAND LUMBER; F<sub>b</sub> = 2400 PSF, F<sub>v</sub> = 270 PSF, E = 2,040,000 PSI. I.S.L. SHALL BE LAMINATED STRAND LUMBER; F<sub>b</sub> = 2250 PSF, F<sub>v</sub> = 400 PSF, E = 1,550,000 PSI. INSTALL ALL CONNECTIONS PER MANUFACTURER'S 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 MANUFACTURER'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 x 48" O.C.. ALL STEEL TUBING SHALL BE ASTM A500.

11) REBAR SHALL BE DEFORMED STEEL, ASTM#40.

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" x 3 1/2" x 4 1/4" STEEL ANGLE FOR UP TO 4'-0" SPAN AND 1 1/4" x 5/8" STEEL ANGLE WITH 4" LEG VERTICAL FOR SPANS UP TO 9'-0" (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.

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 - 2008 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 1:12 PITCH
- WALLS:
- 24.1 PSF - WALLS

**HEADER/BEAM & COLUMN NOTES**

1. ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2) 2x4 (4" WALL) OR (3) 2x4 (4" 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 R402.3(15) OR AS BELOW:

- UP TO 4' SPAN: (1) KING STUD
- OVER 4' UP TO 8' SPAN: (2) KING STUDS
- OVER 8' UP TO 12' SPAN: (3) KING STUDS
- OVER 12' SPAN: (4) KING STUDS

**FOUNDATION STRUCTURAL NOTES:**

NC (2008 NCRCC) Wind 15-100 MPH

- (1) 3x1 2x40 SYP #2 OR SPF#2 GIRDER, TYPICAL UNO.
- (2) CONCRETE BLOCK PIER SIZE SHALL BE:  
SIZE: HOLLOW MASONRY OR SOLID MASONRY  
8 x 8 UP TO 3' HIGH UP TO 5'-0" HIGH  
12 x 12 UP TO 4' HIGH UP TO 9'-0" HIGH  
16 x 16 UP TO 14' HIGH UP TO 12'-0" HIGH  
24 x 24 UP TO 14' HIGH UP TO 12'-0" HIGH  
WITH 30" x 30" x 10' CONCRETE FOOTING, UNO

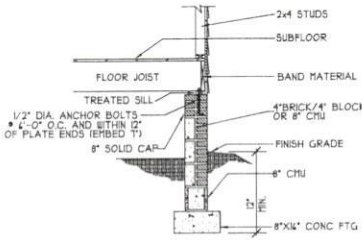
- (3) WALL FOOTING AS FOLLOWS:  
DEPTH: 8" - UP TO 2-1/2 STORY  
10" - 3 STORY  
WIDTH: SIDING (OR EQUAL) 10" - L/340 UP TO 2-1/2 STORY  
- 20" - 3 STORY  
BRICK VENEER 12" - 1 STORY  
- 20" - 2 STORY  
- 24" - 3 STORY

FOR FOUNDATION WALL HEIGHT AND BACKFILL REQUIREMENTS, REFER TO NORTH CAROLINA RESIDENTIAL CODE TABLE R401.1 (THRU 4). NOTE: ASSUMED SOIL BEARING CAPACITY = 2000 PSF. CONTRACTOR MUST VERIFY SITE CONDITIONS AND CONTACT SOILS ENGINEER IF MARGINAL OR UNSTABLE SOILS ARE ENCOUNTERED.

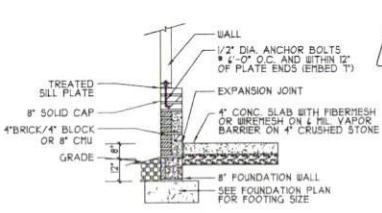
- (4) 1x4 2x40 SYP#2 OR SPF#2 GIRDER.
- (5) (2) 1.75x1.25 LVL OR LSL GIRDER
- (6) (3) 1.75x1.25 LVL OR LSL GIRDER

1. ■ DESIGNATES A SIGNIFICANT POINT LOAD TO HAVE SOLID BLOCKING TO PIER. SOLID BLOCK ALL BEAM BEARING POINTS NOTED TO HAVE THREE OR MORE STUDS TO FIND, TYPICAL.

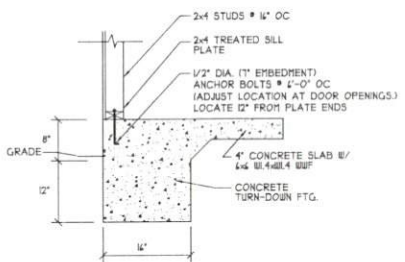
8. ABBREVIATIONS:  
"S" = SINGLE JOIST  
"D" = DOUBLE JOIST  
"T" = TRIPLE JOIST



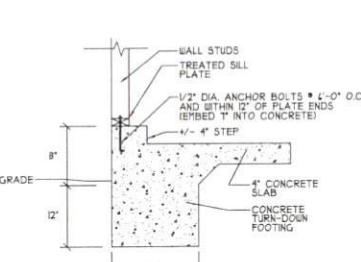
**(A) CRAWL SECTION**  
NTS



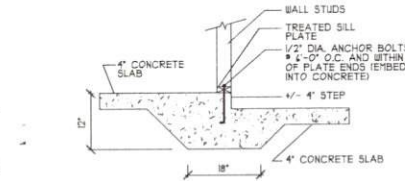
**(B) GARAGE SLAB**  
NTS



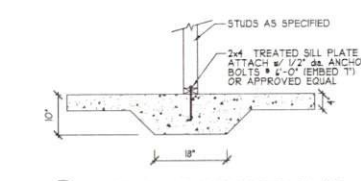
**(C) TURN DOWN SLAB FOOTING**  
NTS



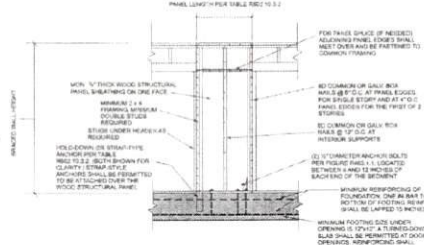
**(D) TURN DOWN SLAB @ GARAGE**  
(SIDING) NTS



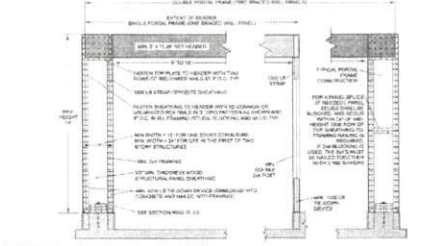
**(E) THICKENED SLAB @ GARAGE**  
NTS



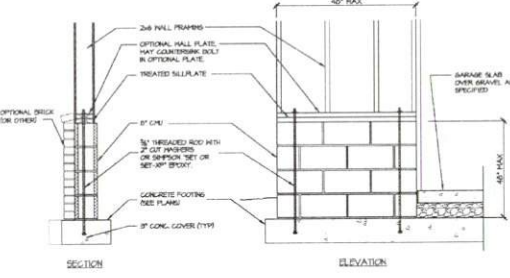
**(F) TYPICAL THICKENED SLAB**  
NTS



**FIGURE 10.3.2 ALTERNATE BRACED WALL PANEL**



**FIGURE 10.3.3 METHOD FOR PORTAL FRAME WITH HOLD-DOWNS**



**GARAGE 'WING WALL' REINFORCING**  
PER IRC, FIGURE R602.10.4.3

BASIC BUILDING  
DETAIL SHEET

\*PLEASE NOTE THAT NOT ALL DETAILS APPLY TO EVERY PLAN.

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ANY DEVIATION OF THE  
DETAILS OF THIS SHEET  
FROM THE ORIGINAL  
DRAWING SHALL BE AT THE  
USER'S RISK AND WITHOUT  
LIABILITY.

DATE:

FILE: