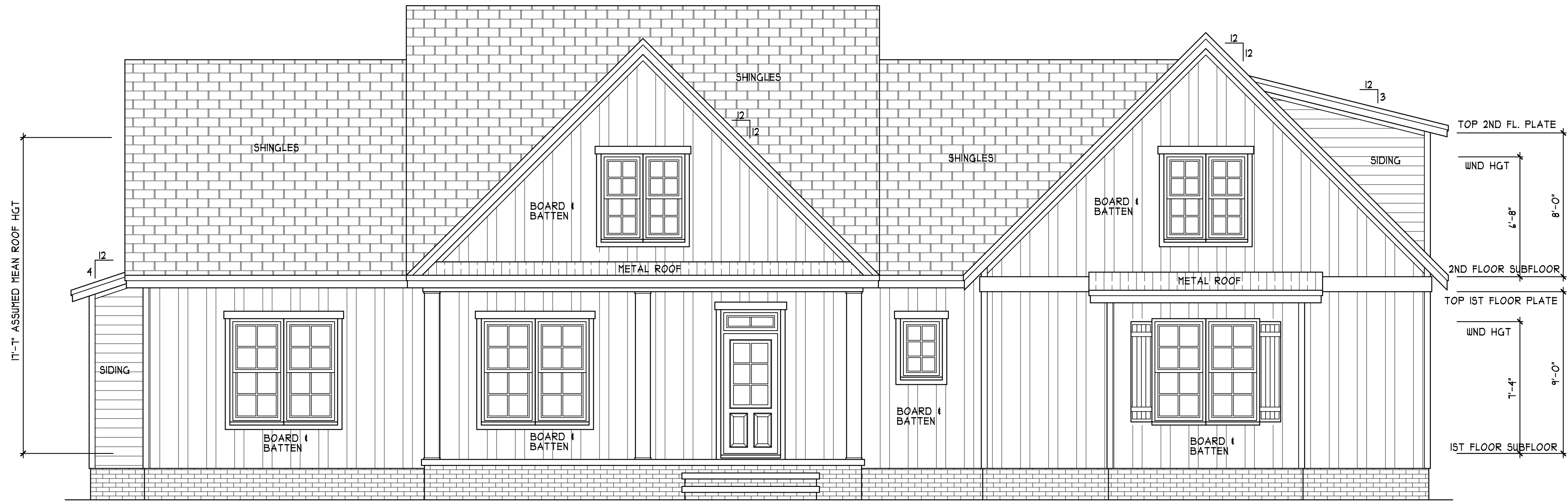


NOTICE TO CONTRACTOR  
 All construction must comply with current NC Building Codes and is subject to field inspection and verification.

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

01/26/2022



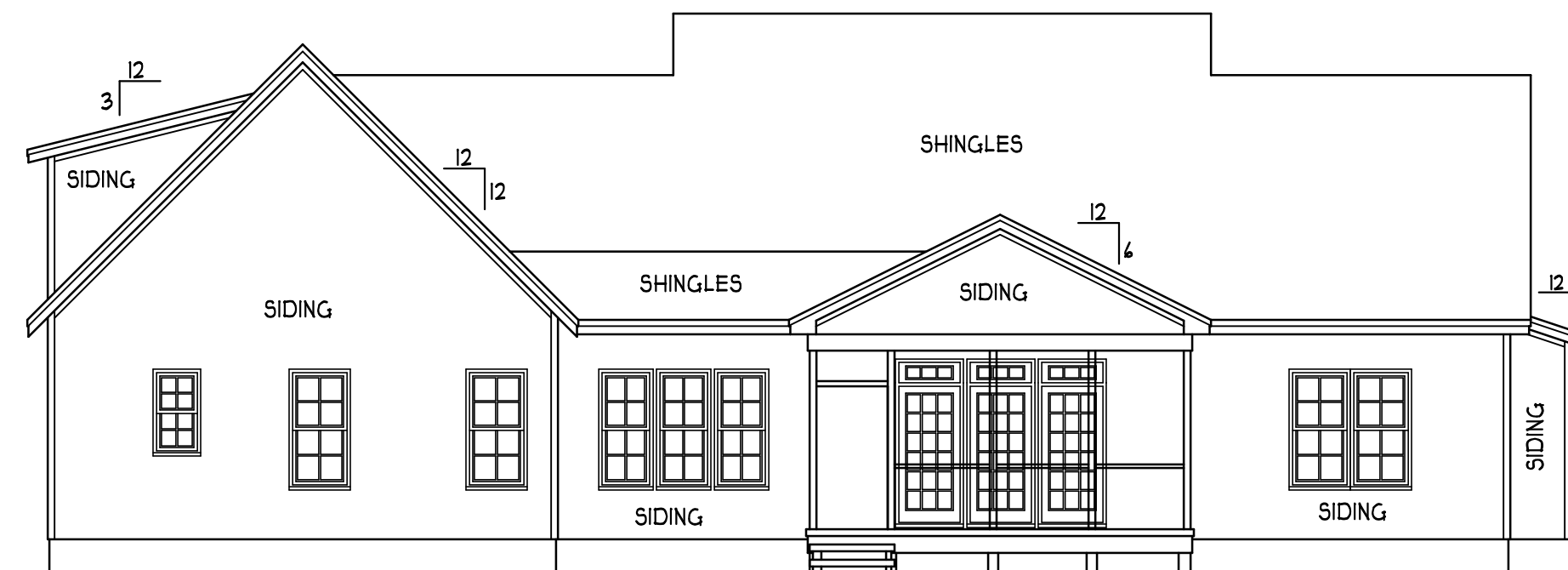


**FRONT ELEVATION**  
 SCALE 1/4" = 1'-0"

**ATTIC VENTILATION:**

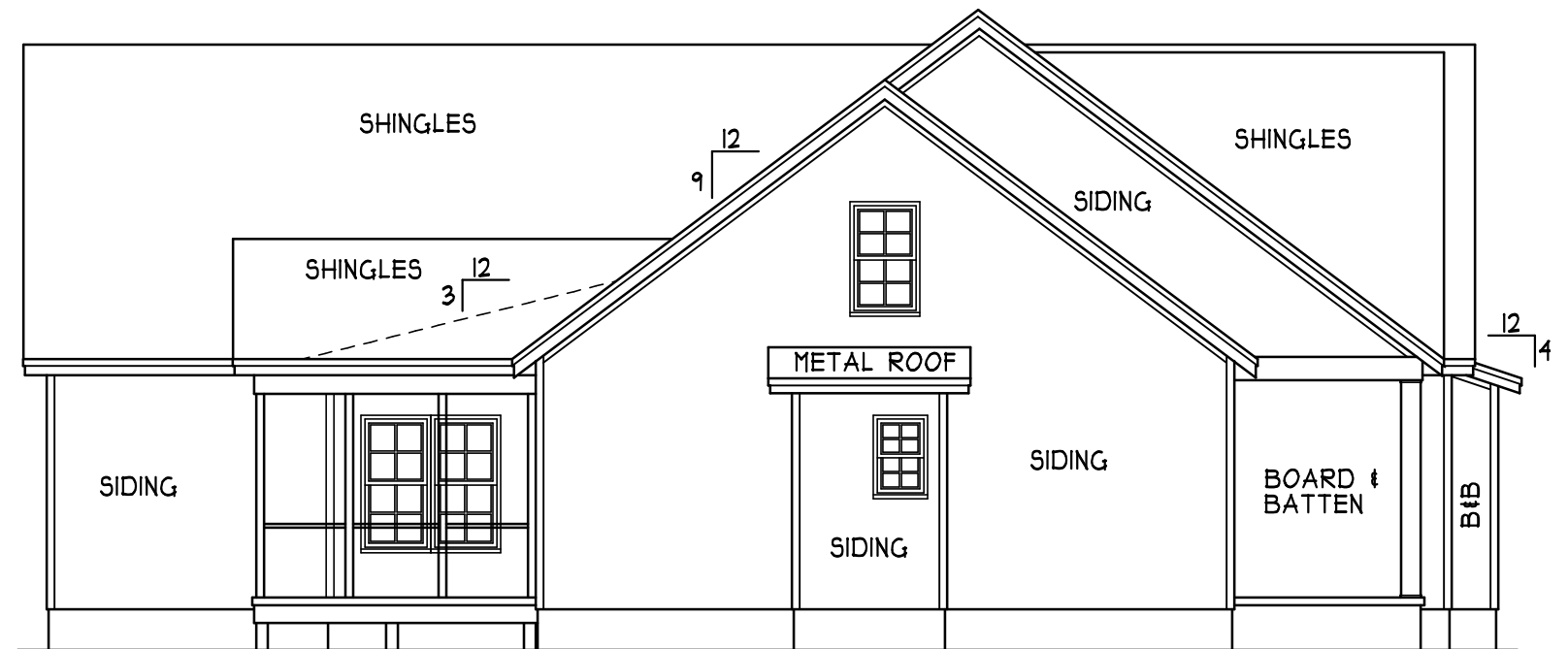
THE NET FREE VENTILATING AREA SHALL BE NOT LESS THAN 1 TO 150 OF THE AREA OF THE SPACE VENTILATED EXCEPT THAT THE AREA MAY BE 1 TO 300 PROVIDED AT LEAST 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3 FEET ABOVE 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 3418 SQ.FT.  
 3418/150 = 22.79 SQ.FT. NET FREE AREA

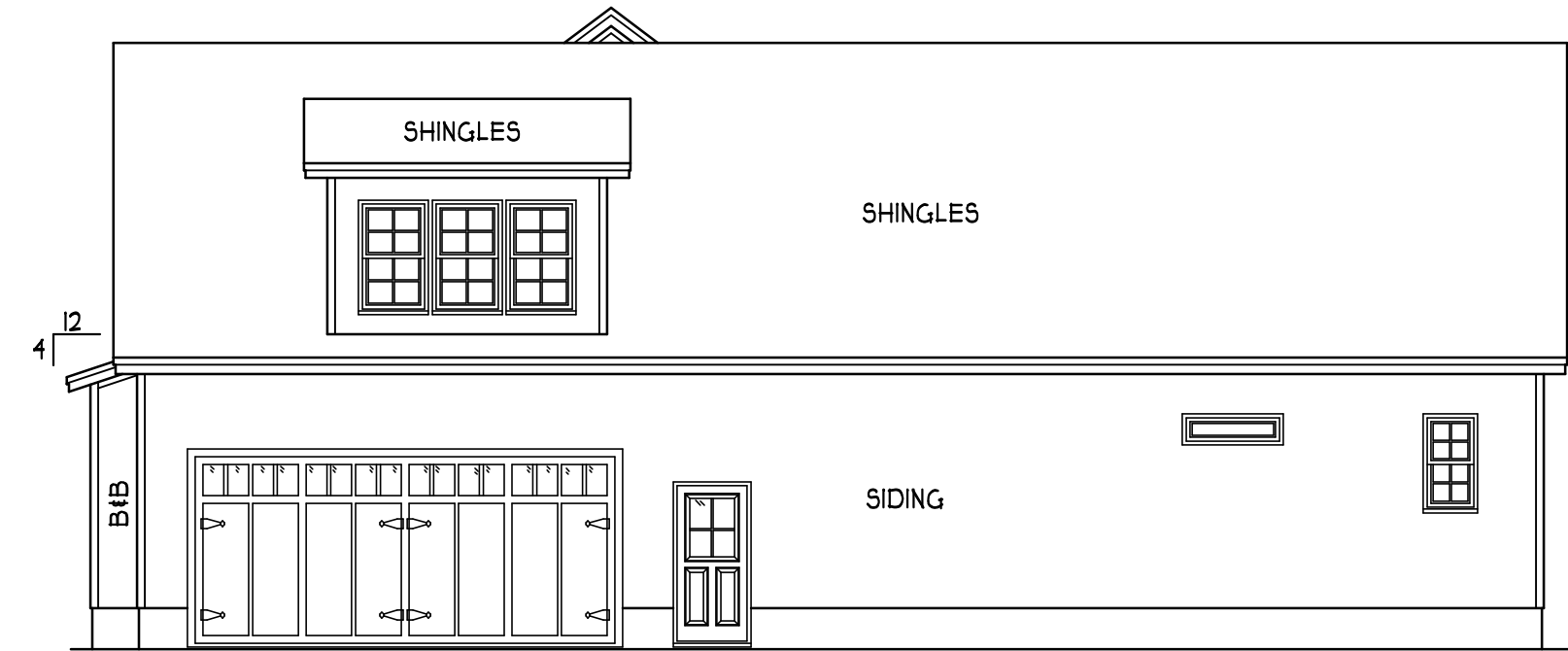


**REAR ELEVATION**  
 SCALE 1/8" = 1'-0"

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



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



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

**JASON & BRITTANY**  
**WEISS RESIDENCE**

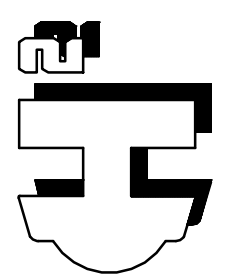
**#2691**

HEATED FOOTAGE:  
 = 2357  
 = 334  
 = 415  
 = 706

SQUARE FOOTAGE:  
 FIRST FLOOR  
 REC ROOM  
 COVD PORCHES  
 GARAGE

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

**H SQUARED HOME DESIGN, INC.**



THIS PLAN HAS BEEN DRAWN IN ACCORDANCE WITH NORTH CAROLINA STATE RESIDENTIAL BUILDING CODES 2018 EDITION.

ANY DEVIATION OF THIS PLAN, DIMENSIONS OR OTHERWISE, H SQUARED HOME DESIGN, INC. IS NOT LIABLE.  
 This plan is to be built by the homeowner or builder as cited in this title block only.  
 Not released for multiple builds.

DATE: 10/04/21

1 1/2 STORY

FILE: 080621

**FOUNDATION STRUCTURAL NOTES:**

- NC (2018 NCRC) Wind: 15-20 MPH
- (1) 2x10 SYP #2 OR SPF#2 GIRDER, TYPICAL UNO.
  - (2) CONCRETE BLOCK PIER SIZE SHALL BE:  
 SIZE HOLLOW MASONRY SOLID MASONRY  
 8 x 16 UP TO 32" HIGH UP TO 5'-0" HIGH  
 12 x 16 UP TO 48" HIGH UP TO 9'-0" HIGH  
 16 x 16 UP TO 64" HIGH UP TO 12'-0" HIGH  
 24 x 24 UP TO 96" 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)  
 - 14" - UP TO 2-1/2 STORY  
 - 20" - 3 STORY  
 BRICK VENEER  
 - 14" - 1 STORY  
 - 20" - 2 STORY  
 - 24" - 3 STORY

FOR FOUNDATION WALL HEIGHT AND BACKFILL REQUIREMENTS, REFER TO NORTH CAROLINA RESIDENTIAL CODE TABLE R404.11 (I 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.

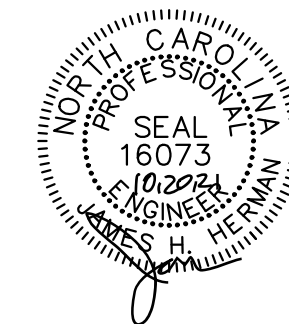
- (4) 2x10 SYP#2 OR SPF#2 GIRDER.
- (5) 1.15X9.25 LVL OR LSL GIRDER
- (6) 1.15X9.25 LVL OR LSL GIRDER

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 FND, TYPICAL.

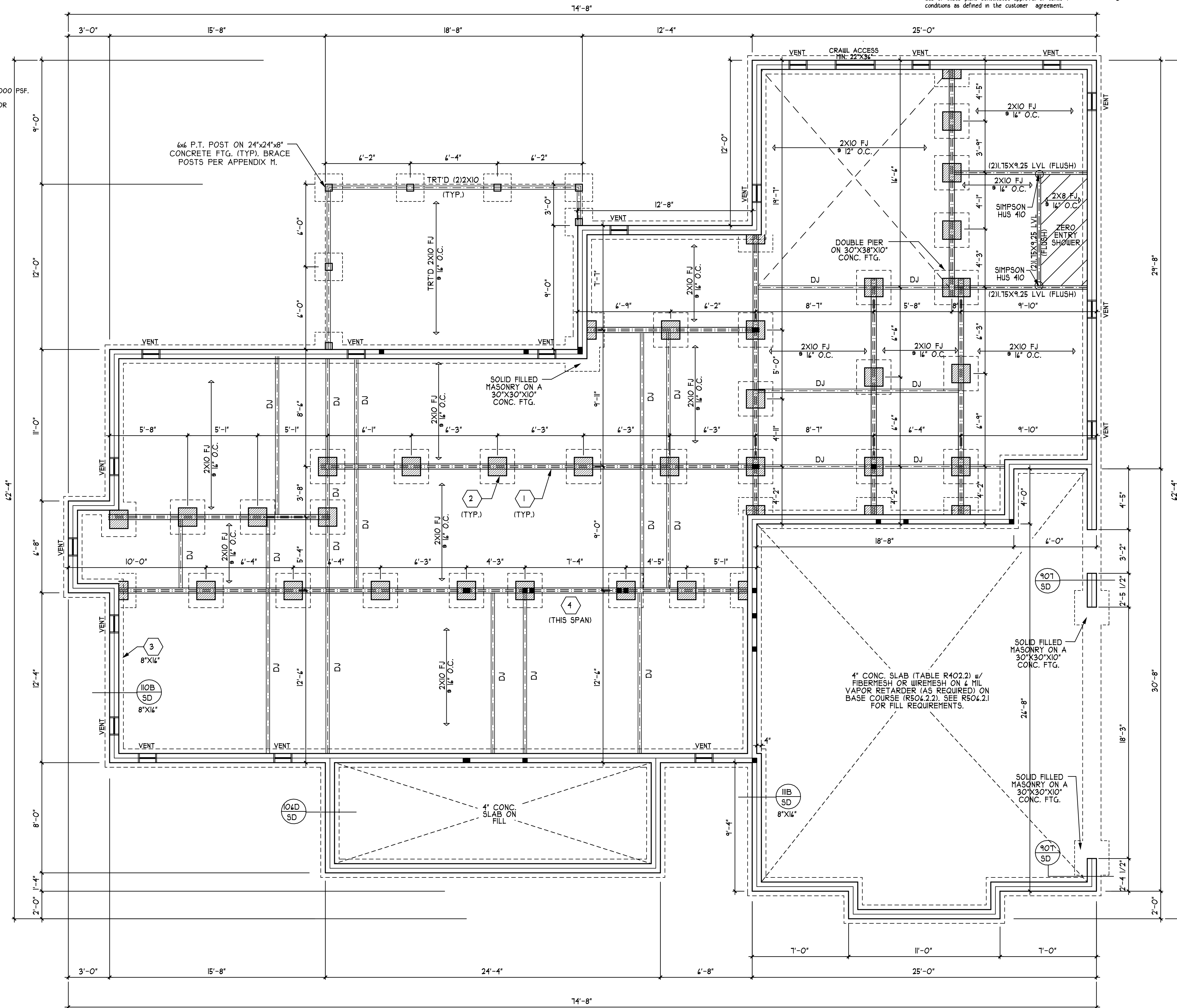
8. ABBREVIATIONS:  
 "S" = SINGLE JOIST  
 "DJ" = DOUBLE JOIST  
 "TJ" = TRIPLE JOIST

STRUCTURAL DESIGN BY:  
 SOUTHERN ENGINEERS, P.A.  
 3716 BENSON DR., RALEIGH, NC 27609  
 LICENSE: C-4112, PHONE: 919-818-1411  
 PROJECT #: 20-2122

- \* Engineers seal applies only to structural components on this document. Seal does not include construction means, methods, techniques, sequences, procedures or safety precautions.
- \* Any deviations or discrepancies on plans are to be brought to the immediate attention of Southern Engineers. Failure to do so will void Southern Engineer's liability.
- \* Seal is valid for a project permitted one year from date of seal.
- \* Use of these plans constitutes approval of terms & conditions as defined in the customer agreement.



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



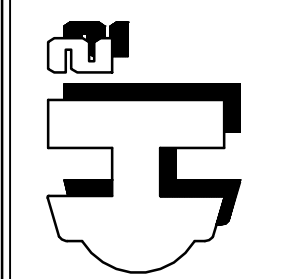
JASON & BRITTANY  
 WEISS RESIDENCE

HEATED FOOTAGE  
 #2691

SQUARE FOOTAGE:  
 FIRST FLOOR = 2357  
 REC ROOM = 334  
 COVD PORCHES = 415  
 GARAGE = 706

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

H SQUARED HOME  
 DESIGN, INC.



THIS PLAN HAS BEEN DRAWN IN ACCORDANCE WITH NORTH CAROLINA STATE RESIDENTIAL BUILDING CODES 2018 EDITION.

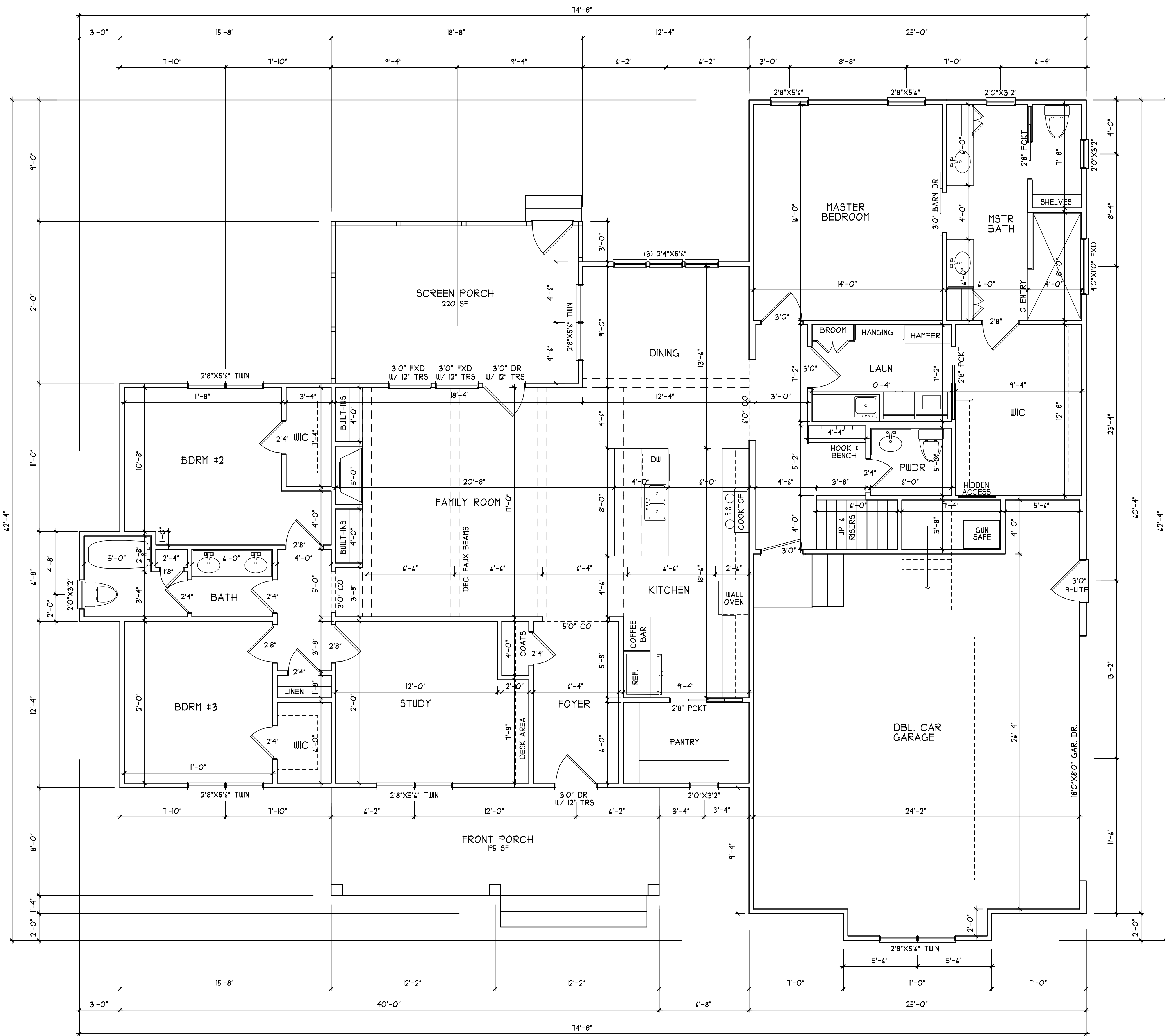
ANY DEVIATION OF THIS PLAN, DIMENSIONS OR OTHERWISE, H SQUARED HOME DESIGN, INC. IS NOT LIABLE.  
 This plan is to be built by the homeowner or builder as cited in this title block only. Not released for multiple builds.

DATE: 10/04/21  
 1 1/2 STORY  
 FILE: 080621

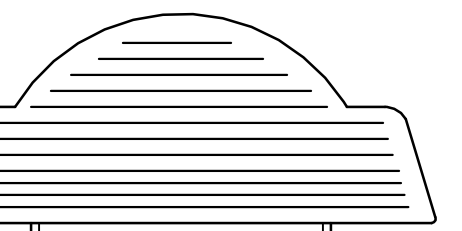
**FND VENTS**  
 2357/150 = 15.71 SQ. FT. REQ'D  
 15.71/88 = 18 VENTS  
 \*WITH VAPOR BARRIER  
 \*ONE VENT MUST BE WITHIN 3'-0" OF EVERY CRNR.

**DAMP PROOFING**  
 FOR DAMP PROOFING & WATER PROOFING REFER TO SECTION 405 & 404 IN 2018 EDITION NC RES. CODES

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



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



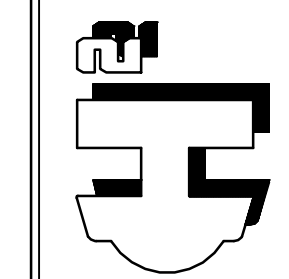
JASON & BRITTANY  
WEISS RESIDENCE

HEATED FOOTAGE:  
**#2691**

SQUARE FOOTAGE:  
FIRST FLOOR = 2357  
REC ROOM = 334  
COVD PORCHES = 415  
GARAGE = 706

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

H SQUARED  
HOME  
DESIGN, INC.



THIS PLAN HAS BEEN DRAWN  
IN ACCORDANCE WITH NORTH  
CAROLINA STATE RESIDENTIAL  
BUILDING CODES 2018 EDITION.

ANY DEVIATION OF THIS PLAN, DIMENSIONS  
OR OTHERWISE, H SQUARED HOME DESIGN  
INC. IS NOT LIABLE.  
This plan is to be built by the homeowner  
or builder as cited in this title block only.  
Not released for multiple builds.

DATE:  
10/04/21

1 1/2 STORY

FILE:  
080621

**HEADER/BEAM & COLUMN NOTES**

- ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2) 2x6 (4" WALL) OR (3) 2x4 (4" WALL) WITH (1) SUPPORT STUD, UNLESS NOTED OTHERWISE.
- 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 PER NCDOT COMMENTARY "KING STUDS AT WALL OPENINGS" REVISED 1-4-2020.
  - UP TO 3' SPAN: (1) KING STUD
  - OVER 3' UP TO 4' SPAN: (2) KING STUDS
  - OVER 4' UP TO 9' SPAN: (3) KING STUDS
  - OVER 9' UP TO 12' SPAN: (4) KING STUDS
  - OVER 12' UP TO 15' SPAN: (5) KING STUDS

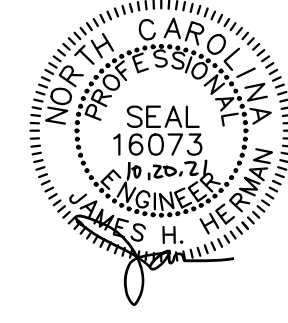
**"HEAVY" WOOD "I" JOISTS**  
(SHALL BE ONE OF THE FOLLOWING)  
(OR EQUAL)

- \*\* TJI 360 BY TJI
  - \*\* LPI 42 PLUS BY LP
  - \*\* BCI 60s 2.0 BY BC
- \* ALL WOOD "I" JOISTS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- \* INSTALL SQUASH BLOCKS, WEB STIFFENERS, ETC. AS REQUIRED BY AND ACCORDING TO THE I-JOIST MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS.
- \* HANGERS FOR I-JOISTS ARE THE RESPONSIBILITY OF THE I-JOIST SUPPLIER.

**PORCH POST NOTES:**

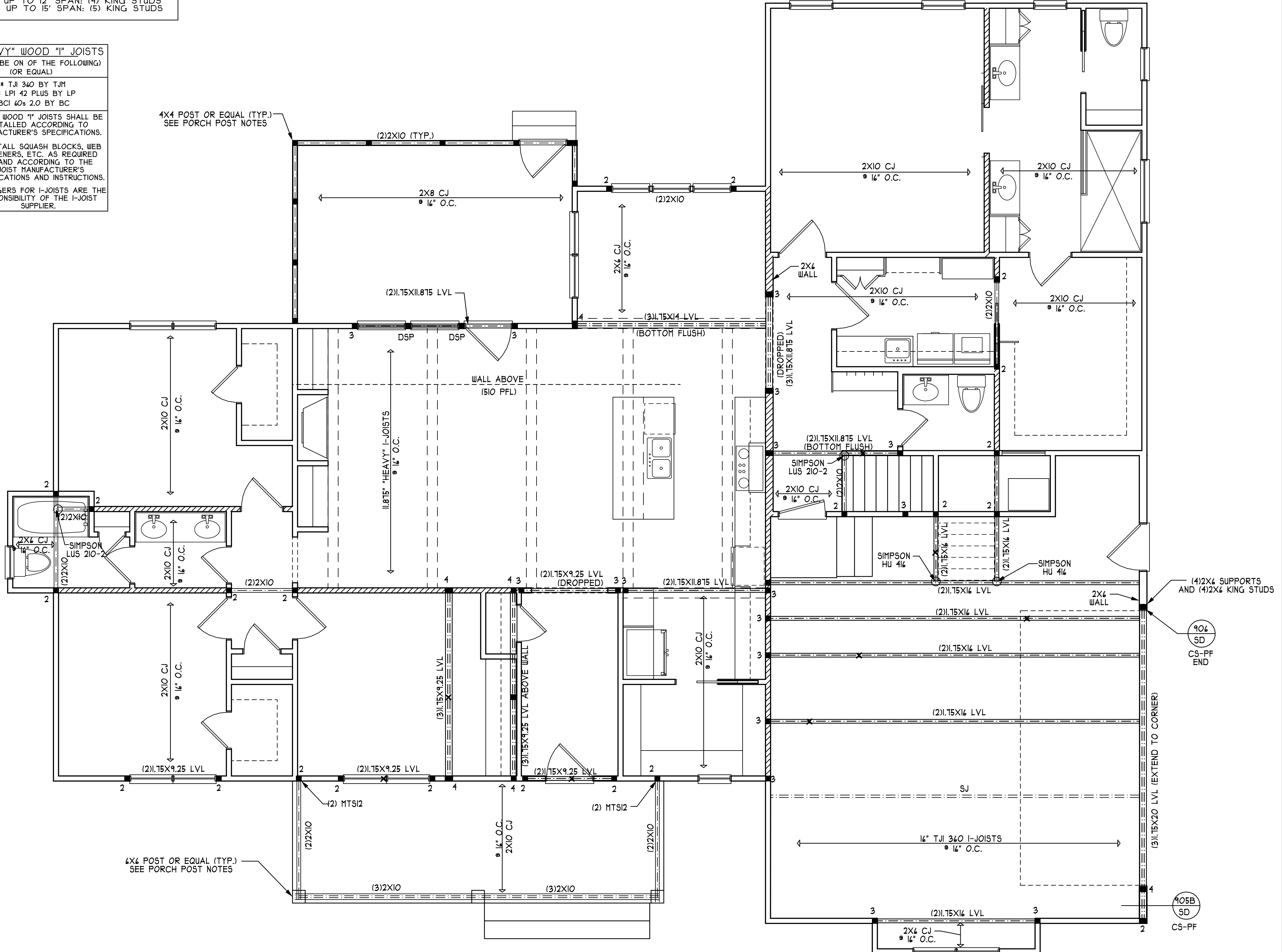
- 4"x4" (4"x4") TRTD POST (OR EQUAL).
  - ATTACH TRUSSES (RAFTERS) AT PORCH WITH HURRICANE CONNECTORS.
- POST CAP: SIMPSON AC4-MAX (AC4-MAX)
  - POST CAP AT CORNER: (2) SIMPSON LCE4 (MITER HEADER AT CORNER), HIGH WIND: ADD (1) SIMPSON HL.
  - POST BASE: SIMPSON ABU44 (ABU44)
    - MONO: 5/8" ANCHOR (EMBED T)
    - CON: 5/8" ANCHOR (EXTEND TO FOOTING - HIGH WIND ONLY)
  - POST BASE: WOOD FOUNDATION: (2) SIMPSON CS4 STRAPS AT POSTS, EXTEND 12" ONTO EACH POST (UPPER AND LOWER) OR TO GIRDER.
- NOTE: EQUIVALENT POST CAP AND BASE ACCEPTABLE.

STRUCTURAL DESIGN BY:  
SOUTHERN ENGINEERS, P.A.  
3716 BENSON DR., RALEIGH, NC 27609  
LICENSE: C-4112, PHONE: 919-818-1471  
PROJECT #: 20-2122



REFER TO "SD" SHEET(S) FOR STANDARD DETAILS, BRACING DETAILS, AND STRUCTURAL NOTES

- \* Engineer's seal applies only to structural components on this document. Seal does not include construction means, methods, techniques, sequences, procedures or safety precautions.
- \* Any deviations or discrepancies on plans are to be brought to the immediate attention of Southern Engineers. Failure to do so will void Southern Engineer's liability.
- \* Seal is valid for a project permitted one year from date of seal.
- \* Use of these plans constitutes approval of terms & conditions as defined in the customer agreement.



**JASON & BRITTANY**  
**WEISS RESIDENCE**

**#2691**

HEATED FOOTAGE:  
= 2357  
= 334  
= 415  
= 706

SQUARE FOOTAGE:  
FIRST FLOOR  
REC ROOM  
COVD PORCHES  
GARAGE

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

**H SQUARED HOME DESIGN, INC.**

THIS PLAN HAS BEEN DRAWN IN ACCORDANCE WITH NORTH CAROLINA STATE RESIDENTIAL BUILDING CODES 2018 EDITION.

ANY DEVIATION OF THIS PLAN, DIMENSIONS OR OTHERWISE, H SQUARED HOME DESIGN, INC. IS NOT LIABLE.  
This plan is to be built by the homeowner or builder as cited in this title block only.  
Not released for multiple builds.

DATE: 10/04/21

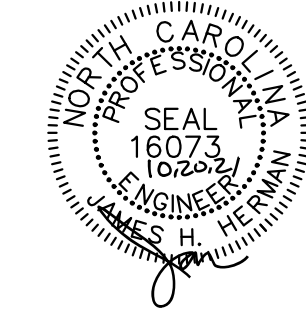
1 1/2 STORY

FILE: 080621

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



STRUCTURAL DESIGN BY:  
SOUTHERN ENGINEERS, P.A.  
3714 BENSON DR., RALEIGH, NC 27609  
LICENSE: C-4112, PHONE: 919-818-1411  
PROJECT #: 20-2122



\* Engineers seal applies only to structural components on this document. Seal does not include construction means, methods, techniques, sequences, procedures or safety precautions.  
\* Any deviations or discrepancies on plans are to be brought to the immediate attention of Southern Engineers. Failure to do so will void Southern Engineer's liability.  
\* Seal is valid for a project permitted one year from date of seal.  
\* Use of these plans constitutes approval of terms & conditions as defined in the customer agreement.

REFER TO "SD" SHEET(S) FOR STANDARD DETAILS, BRACING DETAILS, AND STRUCTURAL NOTES

**FRAMING NOTES:**

NC (2018 NCRC): Wind: 115-120 mph

1. BRACING METHOD AND TYPE: CONTINUOUSLY SHEATHED WSP. CS-WSP. NOTE THAT THE WALL BRACING AMOUNT PROVIDED ON THE PLANS (DETAILS AND SPECIFICATIONS) IS GREATER THAN THE AMOUNT OF WALL BRACING REQUIRED BY THE CODE. SEE NOTES BELOW FOR DETAILS AND SPECIFICATIONS FOR WALL BRACING AND WALL FRAMING.

2. EXTERIOR WALL SHEATHING: WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STORIES WITH WOOD STRUCTURAL PANEL SHEATHING (WSP) (EXPOSURE B: 1/4" EXPOSURE C: 15/32"). SHEATHING SHALL BE ATTACHED WITH 8d NAILS AT A 4"/12" NAILING PATTERN (4" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS). INSTALL BLOCKING AT ALL PANEL EDGES.

3. WSP SHEATHING SHALL EXTEND TO THE UPPERMOST DOUBLE BEARING PLATE, BLOCK AT ROOF AND ATTACH BRACED WALLS PER CODE. WSP SHEATHING BETWEEN FLOORS SHALL BE SPICED ACROSS STUDS (CONTINUOUS ACROSS FLOOR SYSTEM) WITH BLOCKING AT PANEL EDGES, MINIMUM 12" BEYOND FLOOR BREAK) OR OTHER APPROVED METHOD.

4. "HD" = HOLD-DOWN: HOLD-DOWN DEVICE (NOTED AS "HD" ON PLANS) SHALL BE AN 800 POUND CAPACITY ASSEMBLY AS NOTED ON PLANS. SEE DETAILS FOR HD ASSEMBLY.

\*\*GROUND/FIRST FLOOR: USE "HD HOLD-DOWN DETAIL" ON SD SHEET (OR EQUIV).

\*\*UPPER FLOORS: ATTACH BASE OF KING STUD WITH A SIMPSON CS22 STRAP DOWN ACROSS THE BAND AND DOWN TO A STUD BELOW OR HEADER BELOW. EXTEND STRAP 1" MIN ALONG EACH STUD (OR HEADER) AND ATTACH EACH END W/ (1) 8d NAILS.

5. INTERIOR BRACED WALL: (NOTED AS "IBW" ON PLANS). ATTACH 1/2" GYPSUM BOARD (GB) ON EACH SIDE OF WALL WITH A MIN. OF 5d COOLER NAILS OR #4 SCREWS @ 1" O.C. ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.

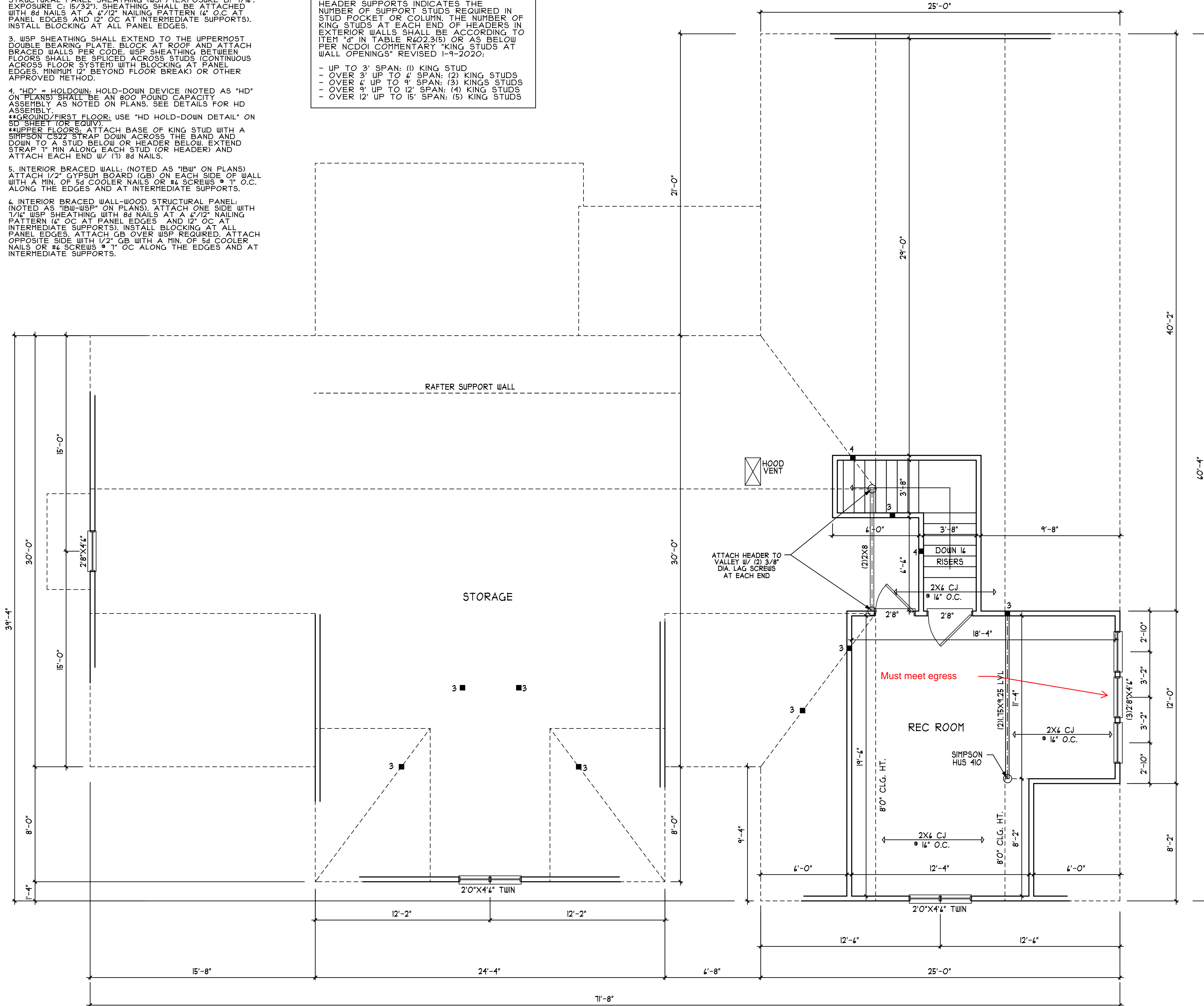
6. INTERIOR BRACED WALL-WOOD STRUCTURAL PANEL: (NOTED AS "IBW-WSP" ON PLANS). ATTACH ONE SIDE WITH 1/4" WSP SHEATHING WITH 8d NAILS AT A 4"/12" NAILING PATTERN (4" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS). INSTALL BLOCKING AT ALL PANEL EDGES. ATTACH GB OVER WSP REQUIRED. ATTACH OPPOSITE SIDE WITH 1/2" GB WITH A MIN. OF 5d COOLER NAILS OR #4 SCREWS @ 1" O.C. ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.

**HEADER/BEAM & COLUMN NOTES**

1. ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2) 2x8 (4" WALL) OR (3) 2x8 (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 R402.3(5) OR AS BELOW PER NCDOI COMMENTARY "KING STUDS AT WALL OPENINGS" REVISED 1-9-2020.

- UP TO 3' SPAN: (1) KING STUD
- OVER 3' UP TO 4' SPAN: (2) KING STUDS
- OVER 4' UP TO 9' SPAN: (3) KING STUDS
- OVER 9' UP TO 12' SPAN: (4) KING STUDS
- OVER 12' UP TO 15' SPAN: (5) KING STUDS

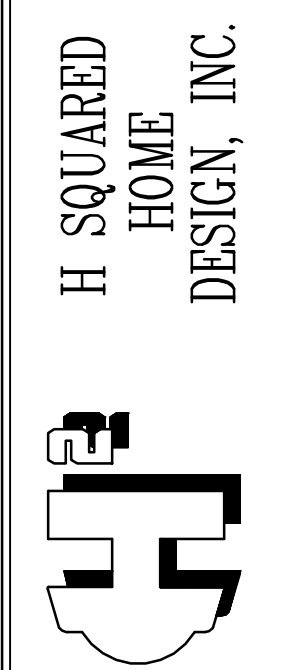


JASON & BRITTANY  
WEISS RESIDENCE

HEATED FOOTAGE  
# 2691

SQUARE FOOTAGE:  
FIRST FLOOR = 2357  
REC ROOM = 334  
COVD PORCHES = 415  
GARAGE = 706

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



THIS PLAN HAS BEEN DRAWN IN ACCORDANCE WITH NORTH CAROLINA STATE RESIDENTIAL BUILDING CODES 2018 EDITION.

ANY DEVIATION OF THIS PLAN, DIMENSIONS OR OTHERWISE, H SQUARED HOME DESIGN, INC. IS NOT LIABLE.  
This plan is to be built by the homeowner or builder as cited in this title block only. Not released for multiple builds.

DATE: 10/04/21

1 1/2 STORY

FILE: 080621

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



**STRUCTURAL NOTES**

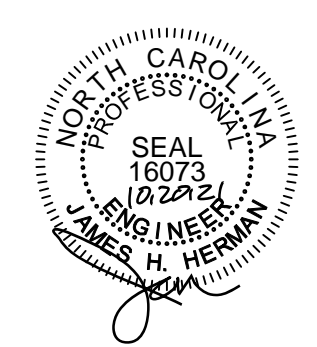
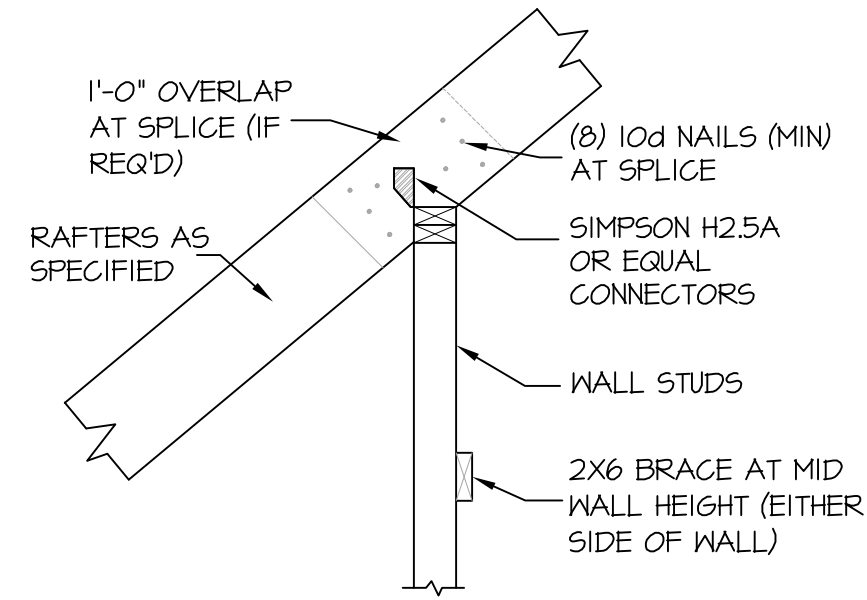
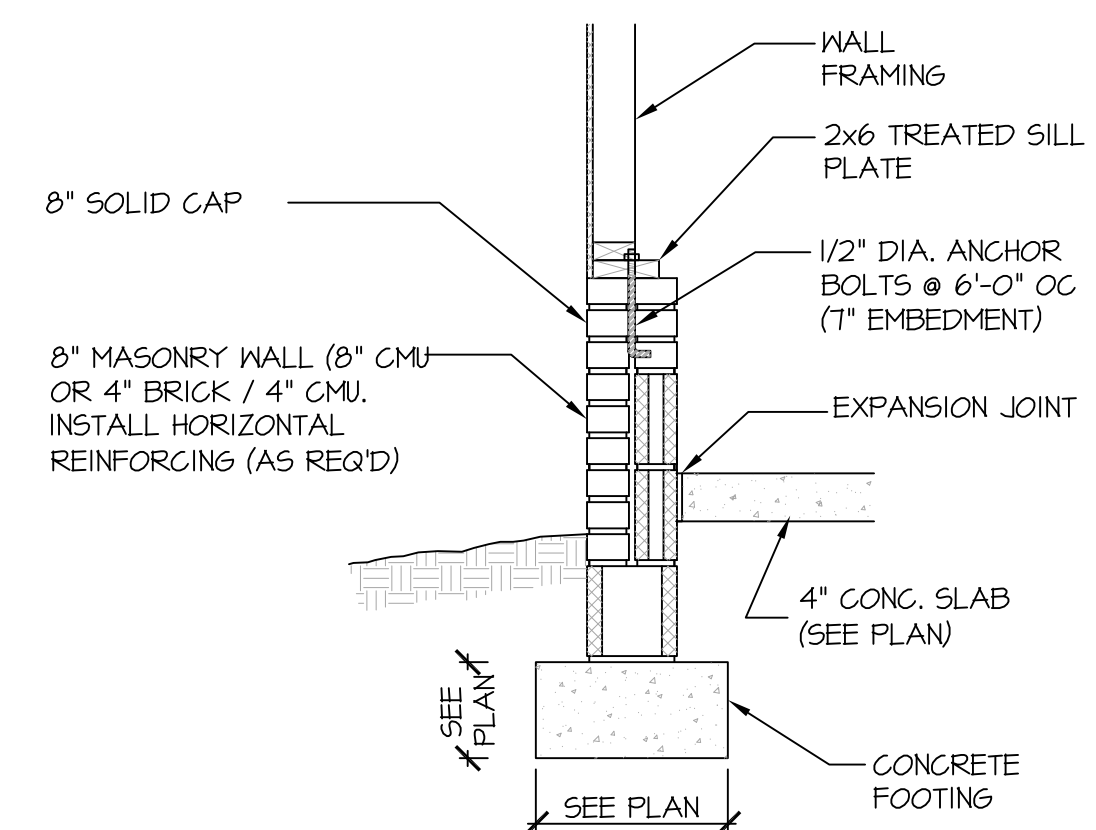
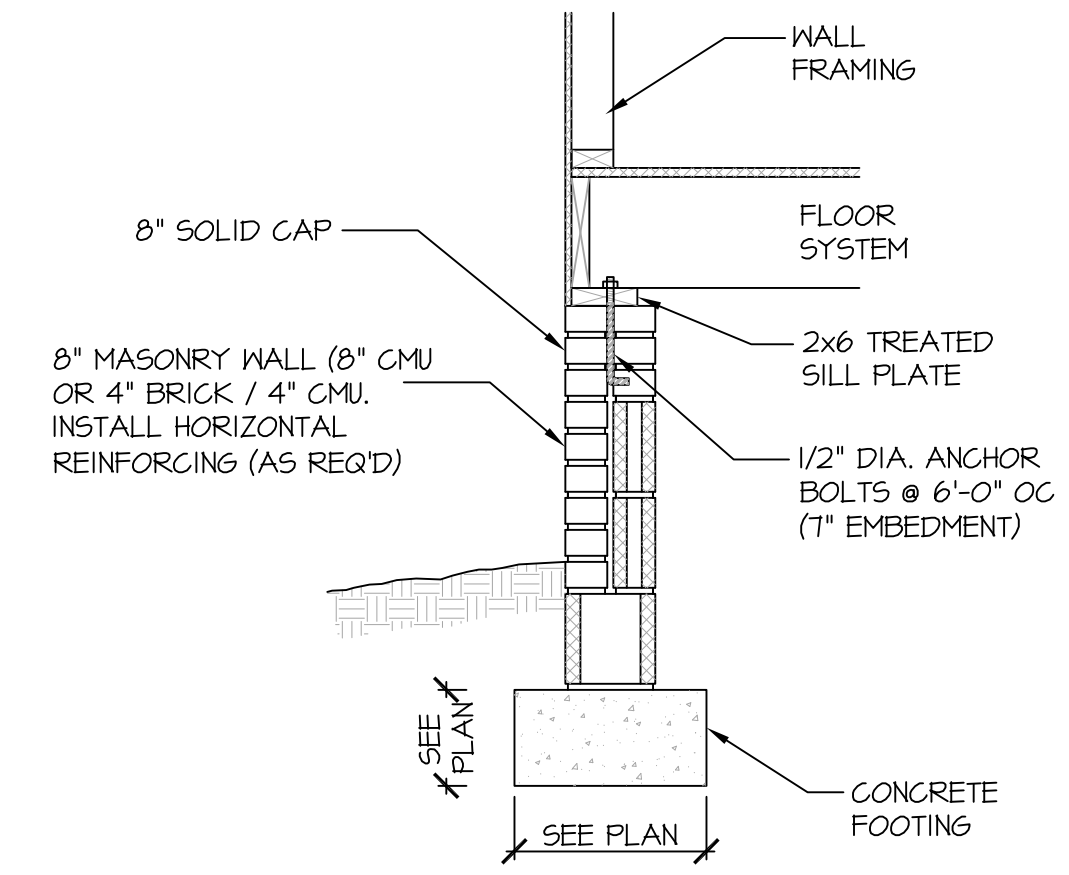
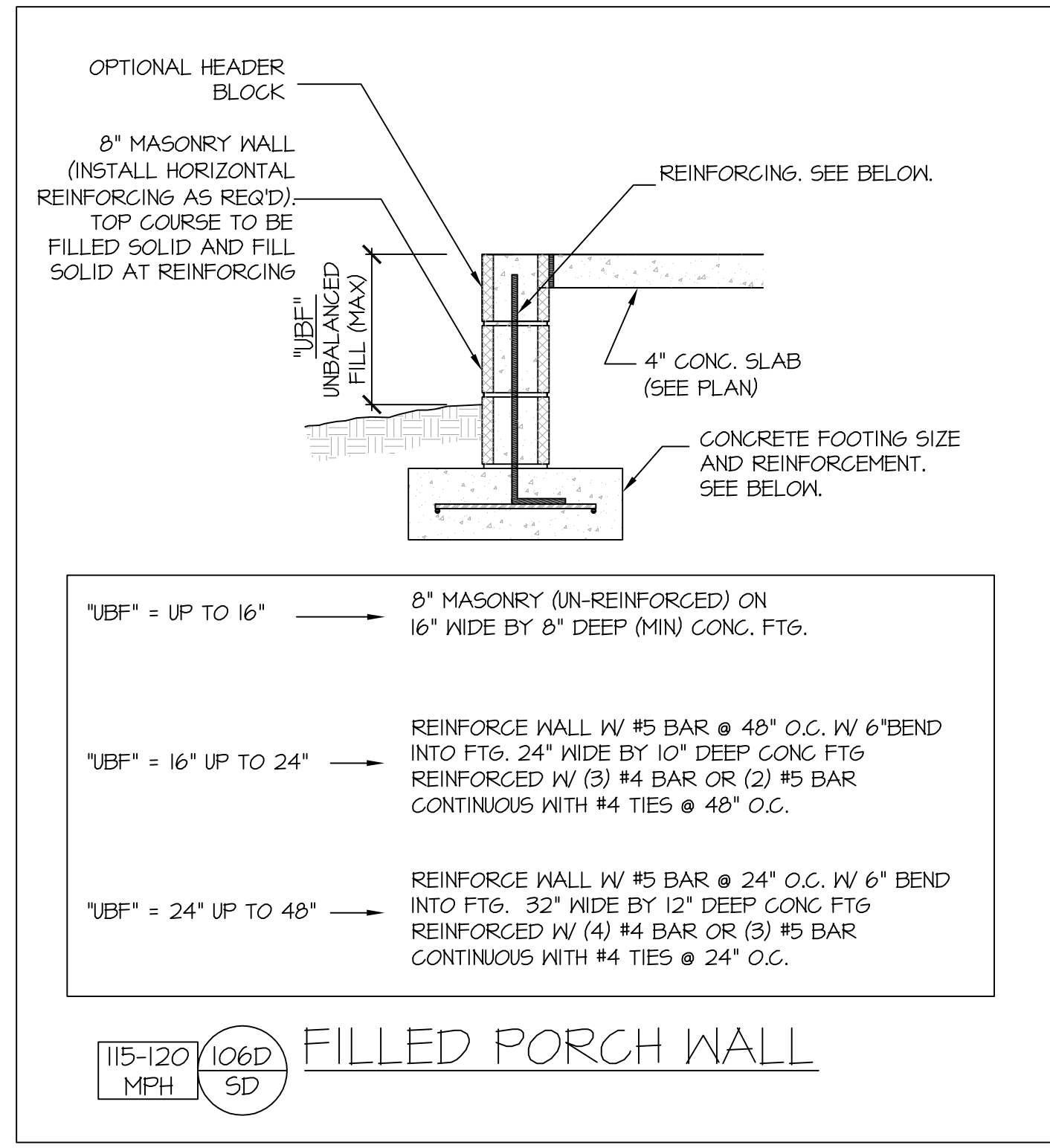
NC (2018 NCRG): Wind: 115-120 mph

- ENGINEER'S SEAL APPLIES ONLY TO STRUCTURAL COMPONENTS INCLUDING ROOF RAFTERS, HIPS, VALLEYS, RIDGES, FLOORS, WALLS, BEAMS AND HEADERS, COLUMNS, CANTILEVERS, OFFSET LOAD BEARING WALLS, PIER & GIRDER SYSTEM, FOOTING, AND PILING SYSTEM. ENGINEER'S SEAL DOES NOT CERTIFY DIMENSIONAL ACCURACY OR ARCHITECTURAL LAYOUT INCLUDING ROOF SYSTEM. ALL REQUIREMENTS FOR PROFESSIONAL CERTIFICATION SHALL BE PROVIDED BY THE APPROPRIATE PROFESSIONAL. SOUTHERN ENGINEERS, P.A. CERTIFIES ONLY THE STRUCTURAL COMPONENTS AS SPECIFICALLY STATED.
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE 2018 NC RESIDENTIAL CODE, 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 FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK, NOR WILL THE ENGINEER 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 (LISTED AS: LIVE LOAD, DEAD LOAD, DEFLECTION)
  - ROOMS OTHER THAN SLEEPING ROOMS: (40 PSF, 10 PSF, L/360)
  - SLEEPING ROOMS: (30 PSF, 10 PSF, L/360)
  - ATTIC WITH PERMANENT STAIR: (40 PSF, 10 PSF, L/360)
  - ATTIC WITHOUT PERMANENT STAIR: (20 PSF, 10 PSF, L/360)
  - ATTIC WITHOUT STORAGE: (10 PSF, 10 PSF, L/240)
  - STAIRS: (40 PSF, 10 PSF, L/360)
  - EXTERIOR BALCONIES: (60 PSF, 10 PSF, L/360)
  - DECKS: (40 PSF, 10 PSF, L/360)
  - GUARDRAILS AND HANDRAILS: (200 LBS)
  - PASSENGER VEHICLE GARAGES: (50 PSF, 10 PSF, L/360)
  - FIRE ESCAPES: (40 PSF, 10 PSF, L/360)
  - SNOW: (20 PSF)
- WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STORIES WITH WOOD STRUCTURAL PANELS. SEE FRAMING NOTES FOR THICKNESS AND NAILING REQUIREMENTS.
- SEE APPENDIX M (DCA6) FOR EXTERIOR DECK REQUIREMENTS INCLUDING ATTACHMENTS FOR LATERAL LOADS.
- 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. CONTROL JOINTS IN SLABS SHALL BE SPACED ON A GRID OF +30 TIMES THE DEPTH (D). CONTROL JOINTS SHALL BE SAWCUT TO A DEPTH OF 1/D. (I.E. 4" CONCRETE SLABS SHALL HAVE 1/4" DEEP CONTROL JOINTS SAWCUT IN SLAB ON A +10'-0" x +10'-0" GRID).
- 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.
- ALL FRAMING LUMBER SHALL BE SPF #2 (Fb = 875 PSI) UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE SYP # 2. PLATE MATERIAL MAY BE SPF # 3 OR SYP #3 (F<sub>c</sub>perp = 425 PSI - MIN).
- L.V.L. SHALL BE LAMINATED VENEER LUMBER: Fb=2600 PSI, Fv=285 PSI, E=1.9x10<sup>6</sup> PSI.
  - P.S.L. SHALL BE PARALLEL STRAND LUMBER: Fb=2900 PSI, Fv=290 PSI, E=2.0x10<sup>6</sup> PSI.
  - L.S.L. SHALL BE LAMINATED STRAND LUMBER: Fb=2250 PSI, Fv=400 PSI, E=1.55x10<sup>6</sup> PSI. INSTALL ALL CONNECTIONS PER MANUFACTURERS INSTRUCTIONS.
- ALL ROOF TRUSS AND I-JOIST LAYOUTS SHALL BE PREPARED IN ACCORDANCE WITH THE 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 SOUTHERN ENGINEERS.
- 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 PROVIDING 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.
- REBAR SHALL BE DEFORMED STEEL, ASTM#615, GRADE 60. LAP ALL REBAR SPLICES 30 BAR DIAMETERS.
- FLITCH BEAMS SHALL BE BOLTED TOGETHER USING (2) ROWS OF 1/2" DIAMETER BOLTS (ASTM A325) 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.
- BRICK LINTELS (WHEN REQUIRED) 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 R703.8.3 LINTELS.

**FRAMING NOTES**

NC (2018 NCRG): Wind: 115-120 mph

- BRACING METHOD AND TYPE: CONTINUOUSLY SHEATHED WSP: C5-WSP. NOTE THAT THE WALL BRACING AMOUNT PROVIDED ON THE PLANS (DETAILS AND SPECIFICATIONS) IS GREATER THAN THE AMOUNT OF WALL BRACING REQUIRED BY SECTION R602.10 OF THE CODE. SEE NOTES BELOW FOR DETAILS AND SPECIFICATIONS FOR WALL BRACING AND WALL FRAMING.
- EXTERIOR WALL SHEATHING: WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STORIES WITH WOOD STRUCTURAL PANEL SHEATHING (WSP) (EXPOSURE B: 7/16", EXPOSURE C: 15/32"). SHEATHING SHALL BE ATTACHED WITH 8d NAILS AT A 6"X12" NAILING PATTERN (6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS). INSTALL BLOCKING AT ALL PANEL EDGES.
- WSP SHEATHING SHALL EXTEND TO THE UPPERMOST DOUBLE BEARING PLATE. BLOCK AT ROOF PER SECTION R602.10.4.5 AND ATTACH BRACED WALLS PER CODE. WSP SHEATHING BETWEEN FLOORS SHALL BE SPLICED ALONG CONTINUOUS BAND OR THE WSP SHEATHING MAY BE SPLICED ACROSS STUDS (CONTINUOUS ACROSS FLOOR SYSTEM) WITH BLOCKING AT PANEL EDGES. (MINIMUM 12" BEYOND FLOOR BREAK) OR OTHER APPROVED METHOD.
  - "HD" = HOLD-DOWN: HOLD-DOWN DEVICE (NOTED AS "HD" ON PLANS) SHALL BE AN 800 POUND CAPACITY ASSEMBLY AS NOTED ON PLANS. SEE DETAILS FOR HD ASSEMBLY.
  - \*\*GROUND/FIRST FLOOR: USE "HD HOLD-DOWN DETAIL" ON SD SHEET (OR EQUIV.)
  - \*\*UPPER FLOORS: ATTACH BASE OF KING STUD WITH A SIMPSON C522 STRAP DOWN ACROSS THE BAND AND DOWN TO A STUD BELOW OR HEADER BELOW. EXTEND STRAP 7" MIN ALONG EACH STUD (OR HEADER) AND ATTACH EACH END W/ (7) 8d NAILS.
- INTERIOR BRACED WALL: (NOTED AS "IBW" ON PLANS) ATTACH 1/2" GYPSUM BOARD (GB) ON EACH SIDE OF WALL WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @ 7" O.C. ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.
- INTERIOR BRACED WALL-WOOD STRUCTURAL PANEL: (NOTED AS "IBW-WSP" ON PLANS). ATTACH ONE SIDE WITH 1/8" WSP SHEATHING WITH 8d NAILS AT A 6"X12" NAILING PATTERN (6" OC AT PANEL EDGES AND 12" OC AT INTERMEDIATE SUPPORTS). INSTALL BLOCKING AT ALL PANEL EDGES. ATTACH GB OVER WSP AS REQUIRED. ATTACH OPPOSITE SIDE WITH 1/2" GB WITH A MIN. OF 5d COOLER NAILS OR #6 SCREWS @ 7" OC ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.



**PROJECT #**  
**21-3260**

Engineers seal applies only to structural components on this document. Seal does not include construction means, methods, techniques, sequences, procedures or safety precautions. Any deviations or discrepancies on plans are to be brought to the immediate attention of Southern Engineers. Failure to do so will void Southern Engineer's liability. Seal is valid for projects permitted one year from date of seal. Use of these plans constitutes approval of terms & conditions as defined in the customer agreement.

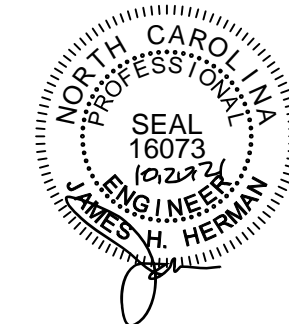
**Southern Engineers, P.A.**  
3716 Benson Drive, Raleigh, NC 27609  
Phone: (919) 878-1617  
License: C-4772  
[www.southernengineers.com](http://www.southernengineers.com)

**H Squared Home Design, Inc.**  
165 Heatherstone Ct,  
Benson, NC 27504  
Phone: (919) 207-1403

**Jason & Brittany Weiss Residence**

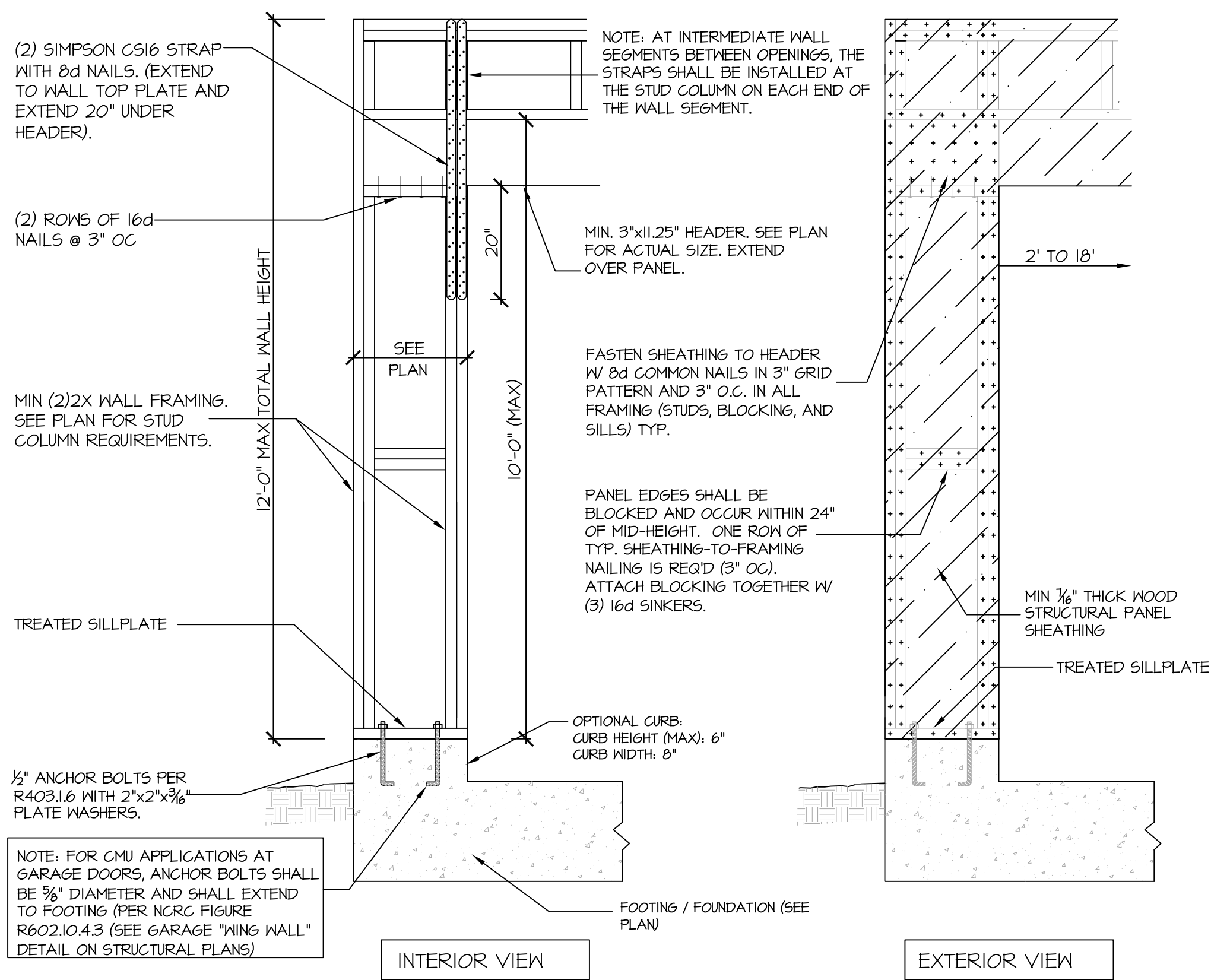
**SD**



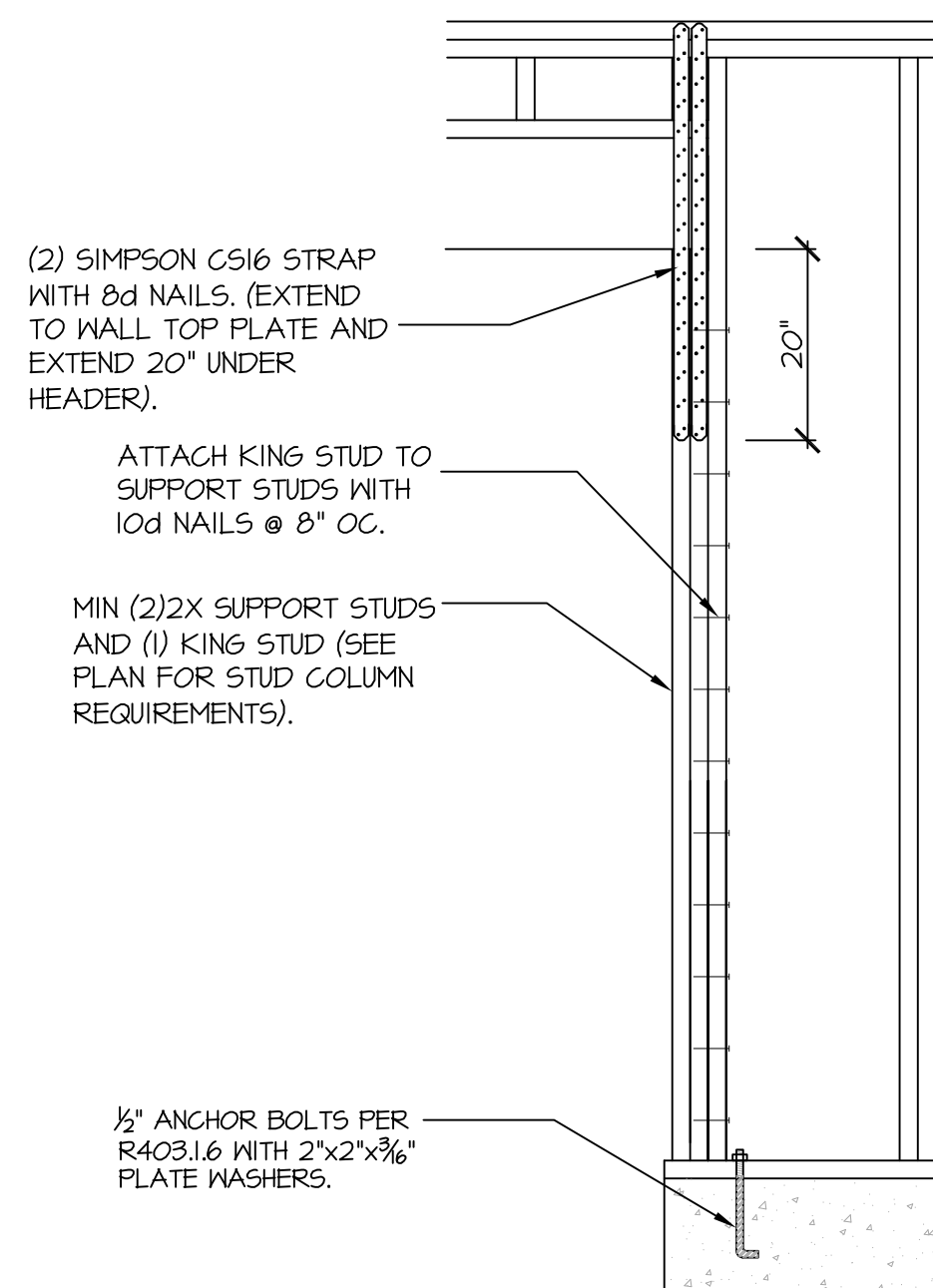


**PROJECT #**  
**21-3260**

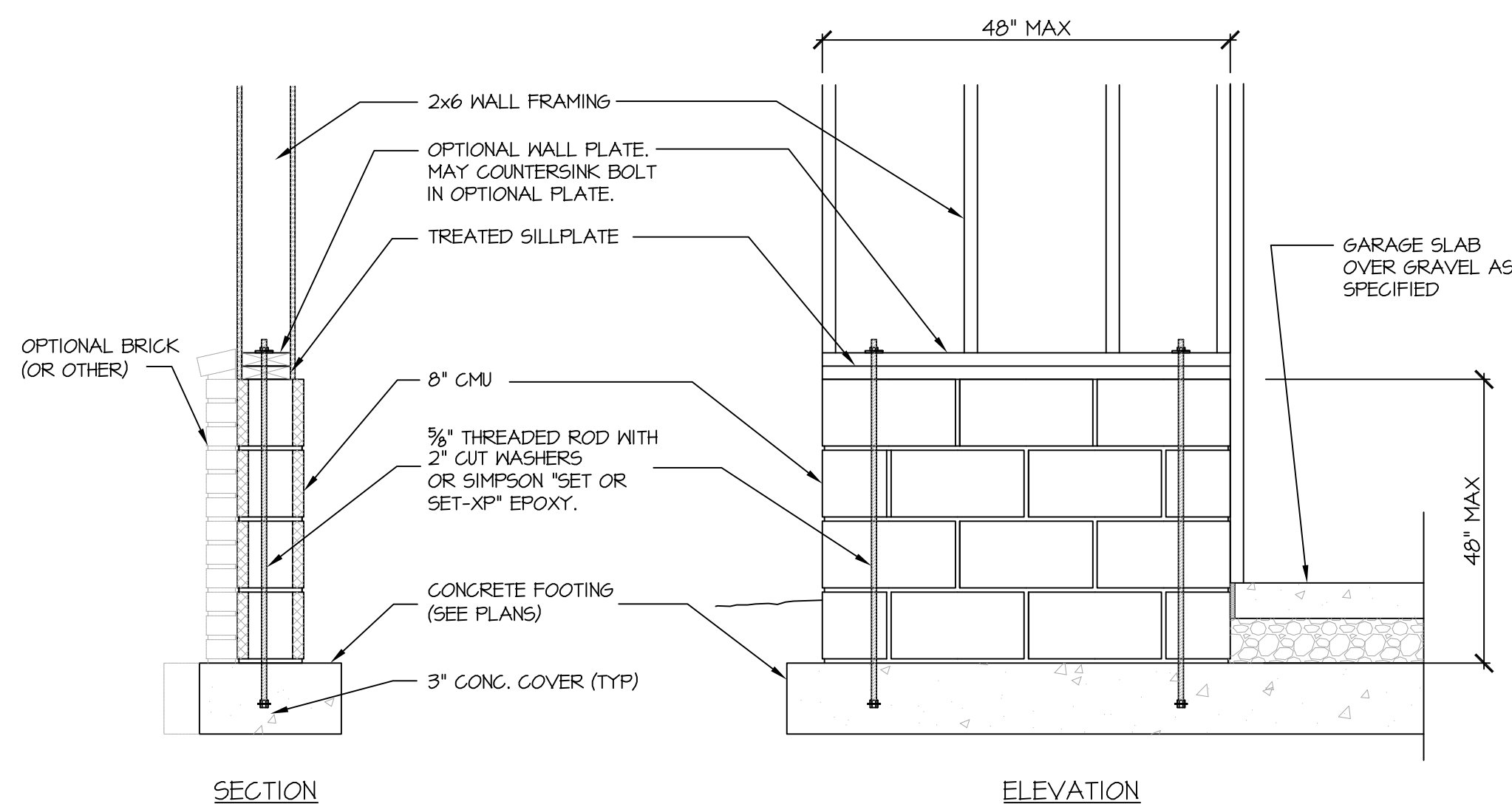
Engineers seal applies only to structural components on this document.  
Seal does not include construction means, methods, techniques, sequences, procedures or safety precautions.  
Any deviations or discrepancies on plans are to be brought to the immediate attention of Southern Engineers. Failure to do so will void Southern Engineer's liability.  
Seal is valid for projects permitted one year from date of seal.  
Use of these plans constitutes approval of terms & conditions as defined in the customer agreement.



905B CS-PF: CONTINUOUS PORTAL FRAME CONSTRUCTION  
SD  
DETAIL AND APPLICATION BASED ON NCRS FIGURE R602.10.1 - PORTAL FRAME CONSTRUCTION



906 CS-PF: END CONDITION DETAIL  
SD  
(FOR USE WITH SINGLE CS-PF CONDITION)  
DETAIL AND APPLICATION BASED ON NCRS FIGURE R602.10.1 - PORTAL FRAME CONSTRUCTION



907 GARAGE "WING WALL" REINFORCING  
SD  
PER IRC FIGURE R602.10.4.3

**Southern Engineers, P.A.**  
3716 Benson Drive, Raleigh, NC 27609  
Phone: (919) 878-1617  
License: C-4772  
[www.southernengineers.com](http://www.southernengineers.com)

**H Squared Home Design, Inc.**  
165 Heatherstone Ct,  
Benson, NC 27504  
Phone: (919) 207-1403

**Jason & Brittany Weiss Residence**

**SD**