

**GENERAL NOTES:**

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT ALL DIMENSIONS, ROOF PITCHES, AND SQUARE FOOTAGE ARE CORRECT PRIOR TO CONSTRUCTION. K&A HOME DESIGNS, INC. IS NOT RESPONSIBLE FOR ANY DIMENSIONING, ROOF PITCH, OR SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.
2. ALL WALLS SHOWN ON THE FLOOR PLANS ARE DRAWN AT 4" UNLESS NOTED OTHERWISE.
3. ALL ANGLED WALL SHOWN ON THE PLANS ARE 45 DEGREES UNLESS NOTED OTHERWISE.
4. STUD WALL DESIGN SHALL CONFORM TO ALL NORTH CAROLINA STATE BUILDING CODE REQUIREMENTS.
5. DO NOT SCALE PLANS. DRAWING SCALE MAY BE DISTORTED DUE TO COPIER IMPERFECTIONS.
6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NORTH CAROLINA RESIDENTIAL STATE BUILDING CODE, 2018 EDITION.

**SQUARE FOOTAGE**

HEATED SQUARE FOOTAGE	UNHEATED SQUARE FOOTAGE
FIRST FLOOR= 661	CARAGE= 272
SECOND FLOOR= 676	FRONT PORCH= 91
THIRD FLOOR= N/A	COVERED PORCH= 57
BASEMENT= N/A	DECK= N/A
	STORAGE= N/A

TOTAL HEATED = 1337 TOTAL UNHEATED = 421

**CRAWL SPACE VENTILATION CALCULATIONS**

VENTILATIONS MAY VARY FROM THOSE SHOWN ON THE PLAN BUT SHOULD BE PLACED TO PROVIDE ADEQUATE VENTILATION AT ALL POINTS TO PREVENT DEAD AIR POCKETS.

100% VAPOR BARRIER MUST BE PROVIDED WITH 1/2" MIN. LAP JOINTS.

-THE TOTAL AREA OF VENTILATION OPENINGS MAY BE REDUCED TO 1/1500 AS LONG AS REQUIRED OPENINGS ARE PLACED SO AS TO PROVIDE CROSS VENTILATION OF THE SPACE. THE INSTALLATION OF OPERABLE EXHAUST FANS SHALL BE PROVIDED, COMPLETE WITH AN CODE MIN. WITH REGARD TO VENT PLACEMENT FROM COMPARTS

661 SQ. FT. OF CRAWL SPACE/1500  
44 SQ. FT. OF REQUIRED VENTILATION

PROVIDED BY: 3 VENTS AT 645 SQ. FT. NET FREE VENTILATION EACH= 135 SQ. FT. OF VENTILATION

\*\*FOUNDATION DRAINAGE- WATERPROOFING PER SECTIONS 405 & 406.

**ATTIC VENTILATION CALCULATIONS**

-CALCULATIONS SHOWN BELOW ARE BASED ON VENTILATORS USED AT LEAST 3 FT. ABOVE THE CORNICE VENTS WITH THE BALANCE OF VENTILATION PROVIDED BE EAVE VENTS.

-CORNER CHIMNEYS SHALL HAVE A MIN. 1" CLEARANCE BETWEEN THE BOTTOM OF THE ROOF DECK AND THE INSULATION.

676 SQ. FT. OF ATTIC/300= 2.25  
FACH OF INLET AND OUTLET REQUIRED.

**WALL AND ROOF CLADDING DESIGN VALUES**

-WALL CLADDING IS DESIGNED FOR A 141 SQ. FT. OR GREATER POSITIVE AND NEGATIVE PRESSURE.

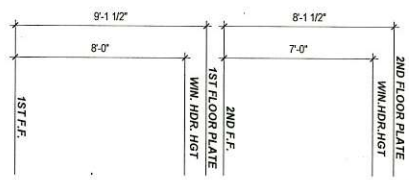
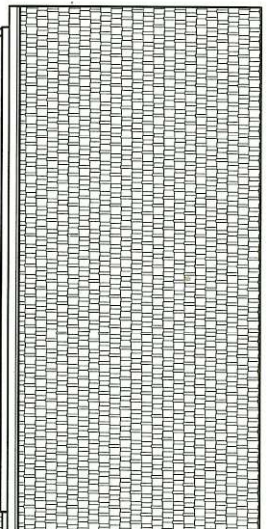
-ROOF VALUES BOTH POSITIVE AND NEGATIVE SHALL BE AS FOLLOWS:

4.5 LBS PER SQ. FT. FOR ROOF PITCHES OF 8/12 TO 2.25/12

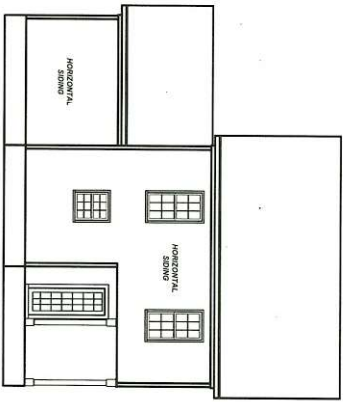
34.8 LBS PER SQ. FT. FOR ROOF PITCHES OF 2.25/12 TO 7/12

21 LBS PER SQ. FT. FOR ROOF PITCHES OF 7/12 TO 12/12

\*\* MEAN ROOF HEIGHT 36.0 FEET



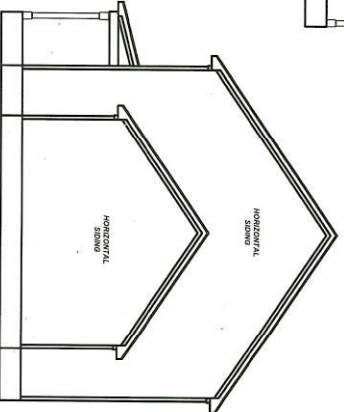
**FRONT ELEVATION**  
1/4" = 1'-0"



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



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



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

REV	DATE	REVISIONS
1	5/19/22	ISSUED FOR PERMITS
2		
3		

DATE	BY	APPROVED
2/21/19		
5/19/22	K&A	

9101 Ten-Ten Rd.  
Raleigh, NC 27603  
Office: (919) 302-0693  
Fax: (919) 661-2632



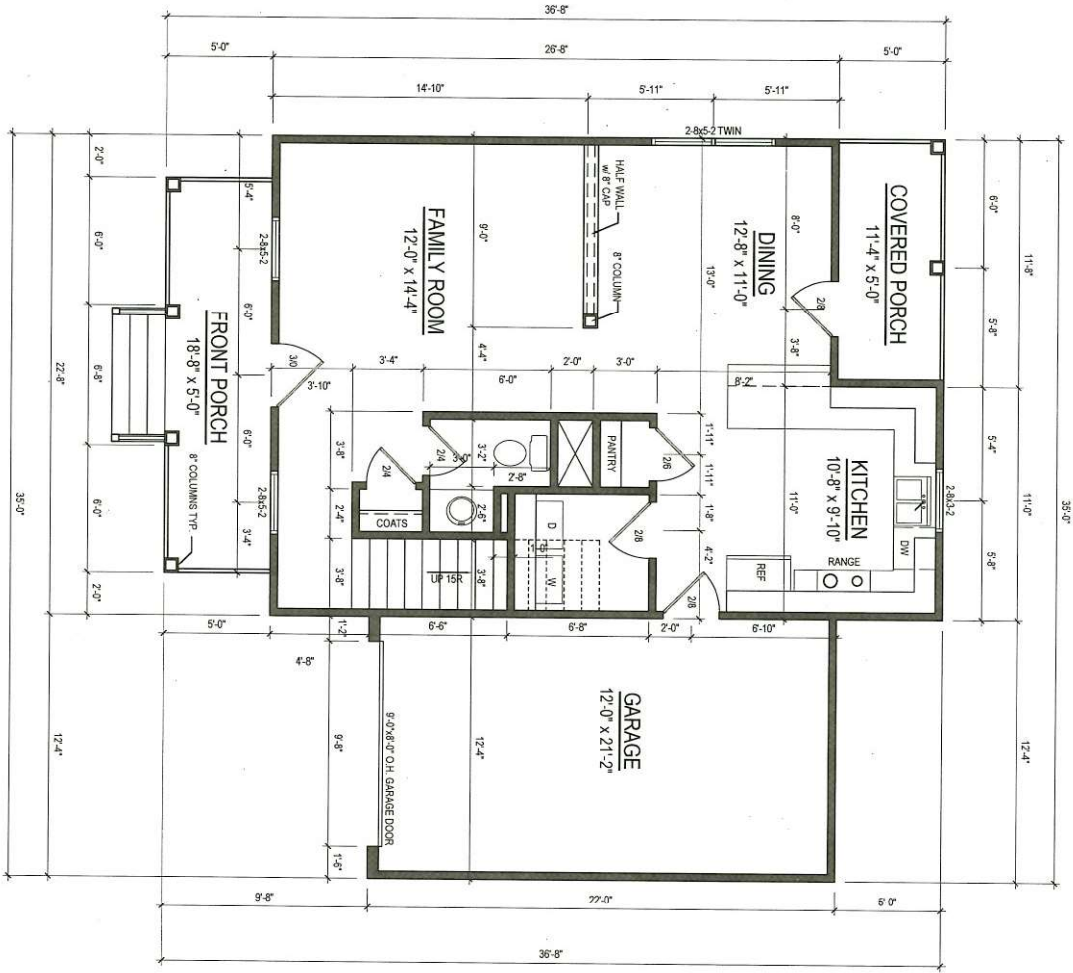
Email: Kent@KandAHomeDesigns.com Website: www.KandAHomeDesigns.com

**Plan 1337**

**STS Construction**  
P.O. Box 1792  
Angier, NC 27501

Sheet Number  
**1**  
of 3

ELEVATIONS



**FIRST FLOOR PLAN**  
 1/4" = 1'-0"  
 CEILING HT. = 9'-0"

Sheet Number:  
**2**  
 of 3

FIRST FLOOR

**STS Construction**  
 P.O. Box 1792  
 Angier, NC 27501

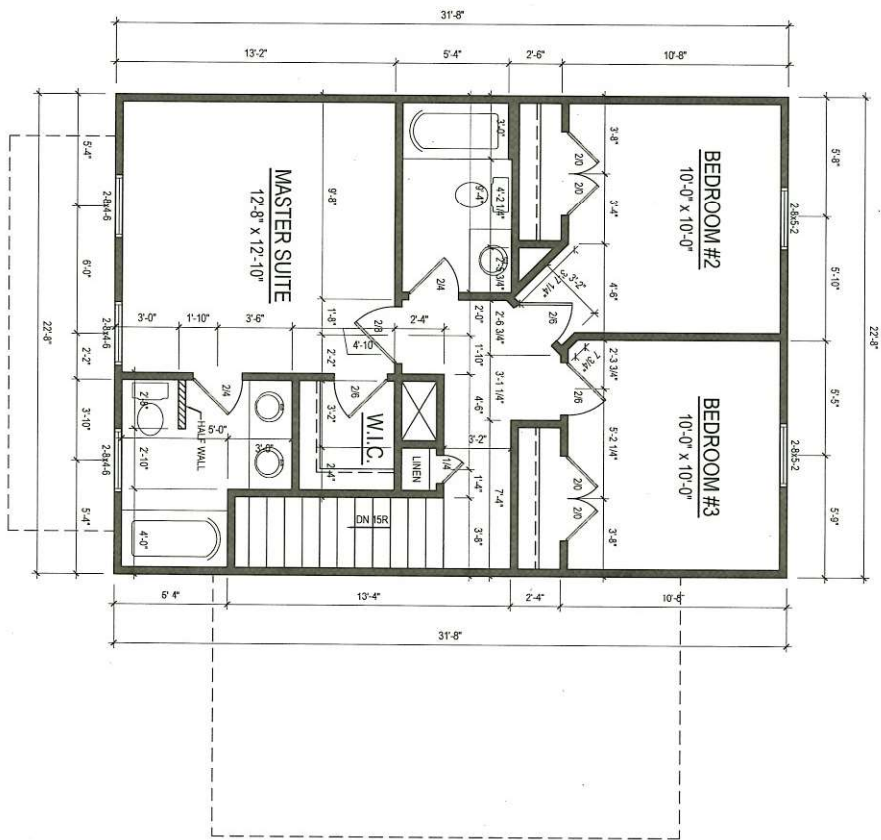
**Plan 1337**



9101 Ten-Ten Rd.  
 Raleigh, NC 27603  
 Office: (919) 302-0693  
 Fax: (919) 661-2632

REV.	DATE	BY	REVISION

DATE	SCALE
22-1-17	1/4"=1'-0"
5-19-22	
12-28	
1-14-23	



**SECOND FLOOR PLAN**  
 1/4" = 1'-0"  
 CEILING HT. = 8'-0"

Sheet Number  
**3**  
 of 3

SECOND FLOOR

**STS Construction**  
 P.O. Box 1792  
 Angier, NC 27501

**Plan 1337**



9101 Ten-Ten Rd.  
 Raleigh, NC 27603  
 Office: (919) 302-0693  
 Fax: (919) 661-2632

Email: Kent@KandAHomeDesigns.com Website: www.KandAHomeDesigns.com

REV	DATE	REVISIONS

DATE	BY	SCALE
2/21/19		
5/19/22		



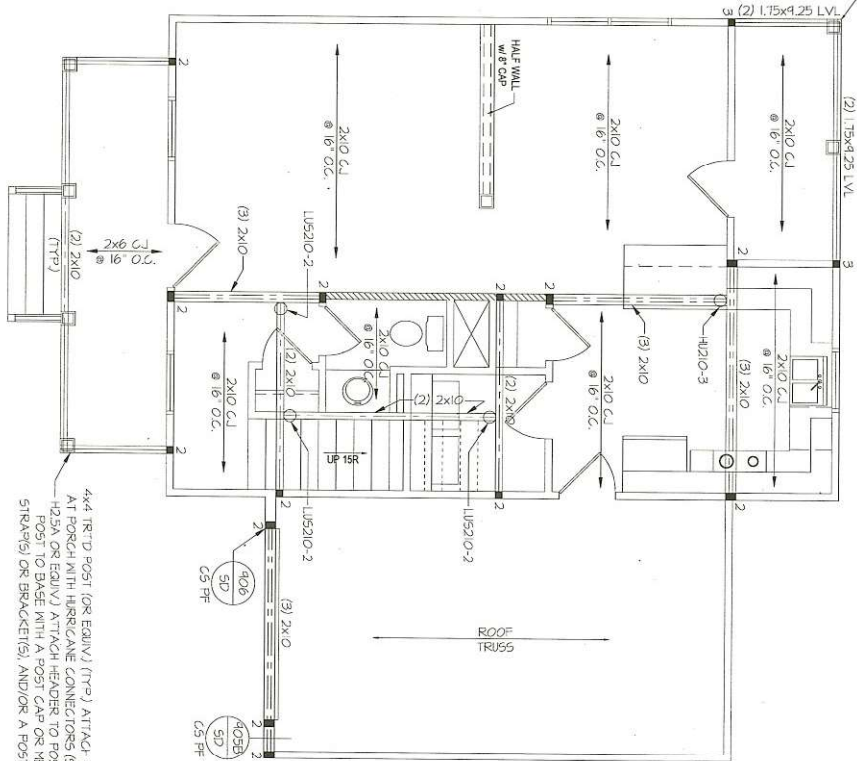




6x6 TRTD POST (OR EQUIV) (TTP) ATTACH RAFTERS AT PORCH WITH HURRICANE CONNECTORS (SIMPSON H25A OR EQUIV) ATTACH HEADER TO POST AND POST TO BASE WITH A POST CAP OR METAL STRAP(S) OR BRACKET(S), AND/OR A POST BASE.

**FRAMING NOTES**

- BRACKING VERTICAL AND TYPE CONTINGENTLY SHEATHED WSP. CS-WSP. NOTE THE HALF BRACKING IS NOT PROVIDED ON THE PLANS (DETAILS AND SPECIFICATIONS IS NOT PROVIDED ON THE PLANS WALL BRACKING REQUIRED BY SECTION R602.0 OF THE CODE. SEE NOTES BELOW FOR DETAILS, AND SPECIFICATIONS FOR WALL BRACKING AND WALL FRAMING.
- EXTERIOR WALL SHEATHING - WALLS SHALL BE BRACED BY SHEATHING WALLS ON ALL STOREYS WITH MOOD STRUCTURAL PANEL SHEATHING (WSP) EXPOSURE B, 7/16" EXPOSURE C, (5/8") SHEATHING SHALL BE ATTACHED WITH 8d NAILS AT A 6"/12" 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 SHEATHED ALONG CONTINUOUS BAND OR THE WSP SHEATHING THAT WILL BE SHEATHED AT PANEL EDGES (MINIMUM 12" BEYOND FLOOR BREAK) OR OTHER APPROVED METHOD.
- "HP" - 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.  
 • "R/D" - R/OVER/UNDER 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 1" MIN ALONG EACH STUD (OR HEADER) AND ATTACH EACH END W/ 1) 8d NAILS.  
 • INTERIOR BRACED WALL: (NOTED AS "IBW" ON PLANS) ATTACH 1/2" GYP-SAN BOARD (GB) ON EACH SIDE OF WALL WITH A MIN OF 5d COOLER NAILS OR 16 SCREWS @ 1' OC, ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.
- INTERIOR BRACED WALL-WOOD STRUCTURAL PANEL: (NOTED AS "IBWSP" ON PLANS) ATTACH ONE SIDE WITH 1/2" WSP SHEATHING WITH 8d NAILS AT A 6"/12" 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 COOLER NAILS OR 16 SCREWS @ 1' OC ALONG THE EDGES AND AT INTERMEDIATE SUPPORTS.



**HEADER/BEAM & COLUMN NOTES**

- 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.
- 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 6 IN TABLE R602.2(5) OR AS BELOW PER NCSDI COMMENTARY KING STUDS AT WALL OPENINGS, REVISED 1-4-2020:  
 • OVER 3' SPAN (1) KING STUD  
 • OVER 3' UP TO 6' SPAN (2) KING STUDS  
 • OVER 6' UP TO 12' SPAN (4) KING STUDS  
 • OVER 12' UP TO 15' SPAN (5) KING STUDS

**TRUSS SYSTEM REQUIREMENTS**

- TRUSS SYSTEM (LAYOUTS (PLACEMENT PLANS) SHALL BE DESIGNED IN ACCORDANCE WITH SEALED STRUCTURAL PLANS. ANY NEED TO CHANGE TRUSSES SHALL BE COORDINATED WITH SOUTHERN ENGINEERS.
- TRUSS SCHEMATICS (PROFILES) SHALL BE PREPARED AND SEALED BY TRUSS MANUFACTURER.
- ALL TRUSSES SHALL BE DESIGNED FOR BEARING ON SFP #2 OR #3 PLATES OR LEDGERS (NO).
- ALL REQUIRED ANCHORS FOR TRUSSES DUE TO UPLIFT OR BEARING SHALL MEET THE REQUIREMENTS AS SPECIFIED ON THE TRUSS SCHEMATICS.

**FIRST FLOOR STRUCTURAL PLAN**

SCALE: 1/4"=1'-0"  
 REFER TO "SD" SHEET(S) FOR STANDARD DETAILS AND STRUCTURAL NOTES

**PROJECT #**  
22-1761

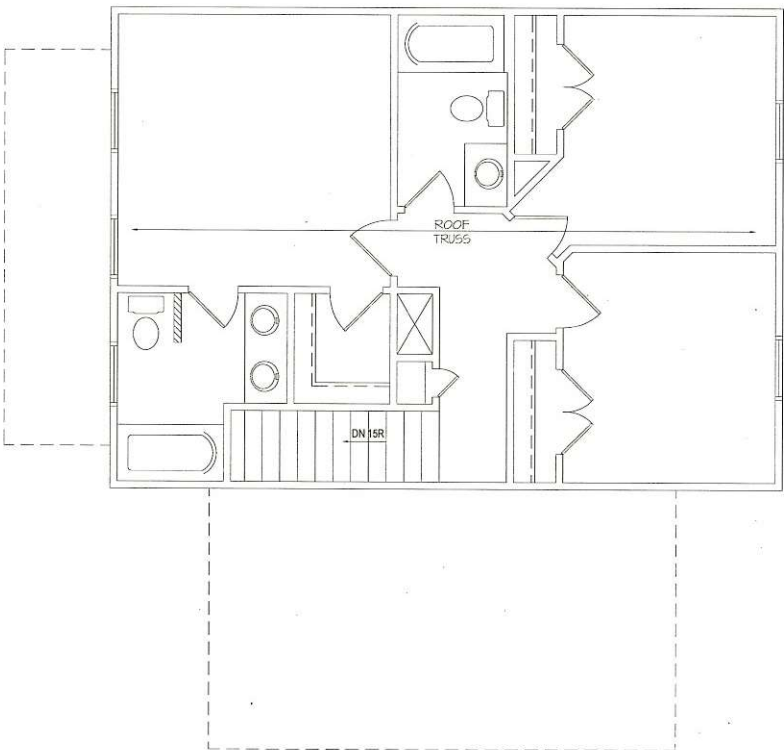
Engineers seal applies only to structural components on this document.  
 Seal does not include construction means, methods, techniques, sequences or procedures as a safety precaution.  
 Any deviations or discrepancies on plans are to be brought to the immediate attention of Southern Engineers. Failure 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)

**K&A HOME DESIGN, INC.**

2075 Hwy. 55 W.  
 Coats, NC 27521  
 "Plan 1337"  
 STS CONSTRUCTION

**S-2**



**HEADER/BEAM & COLUMN NOTES**

1. ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE NIN (2)X10 (4") WALL OR (8)X10 (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 "P" IN TABLE R602.3(5) OR AS BELOW PER NCDOI CONVENTIONAL KING STUDS AT WALL OPENINGS, REVISED 1-4-2020:
  - UP TO 3' SPAN (1) KING STUD
  - OVER 3' UP TO 6' SPAN (2) KING STUDS
  - OVER 6' UP TO 12' SPAN (4) KING STUDS
  - OVER 12' UP TO 15' SPAN (5) KING STUDS

**TRUSS SYSTEM REQUIREMENTS**  
NC (2016 NCRC); IMPD: 115-120 mph

1. TRUSS SYSTEM LAYOUTS (PLACEMENT PLANS) SHALL BE DESIGNED IN ACCORDANCE WITH SEALED STRUCTURAL PLANS. ANY NEED TO CHANGE TRUSSES SHALL BE COORDINATED WITH SOUTHERN ENGINEERS.
2. TRUSS SCHEMATICS (PROFILES) SHALL BE PREPARED AND SEALED BY TRUSS MANUFACTURER.
3. ALL TRUSSES SHALL BE DESIGNED FOR BEARING ON SFR #2 OR #3 PLATES OR LEDGERS (IND).
4. ALL REQUIRED ANCHORS FOR TRUSSES DUE TO UPLIFT OR BEARING SHALL MEET THE REQUIREMENTS AS SPECIFIED ON THE TRUSS SCHEMATICS.

**SECOND FLOOR STRUCTURAL PLAN**

SCALE: 1/4" = 1'-0"  
REFER TO "SFR SHEET(S)" FOR STANDARD DETAILS AND STRUCTURAL NOTES

**PROJECT #**  
22-1761

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)

**K&A HOME DESIGN, INC.**

2075 Hwy. 55 W.  
Coats, NC 27521  
"Plan 1337"  
SIS CONSTRUCTION

**S-3**





PROJECT #  
22-1761

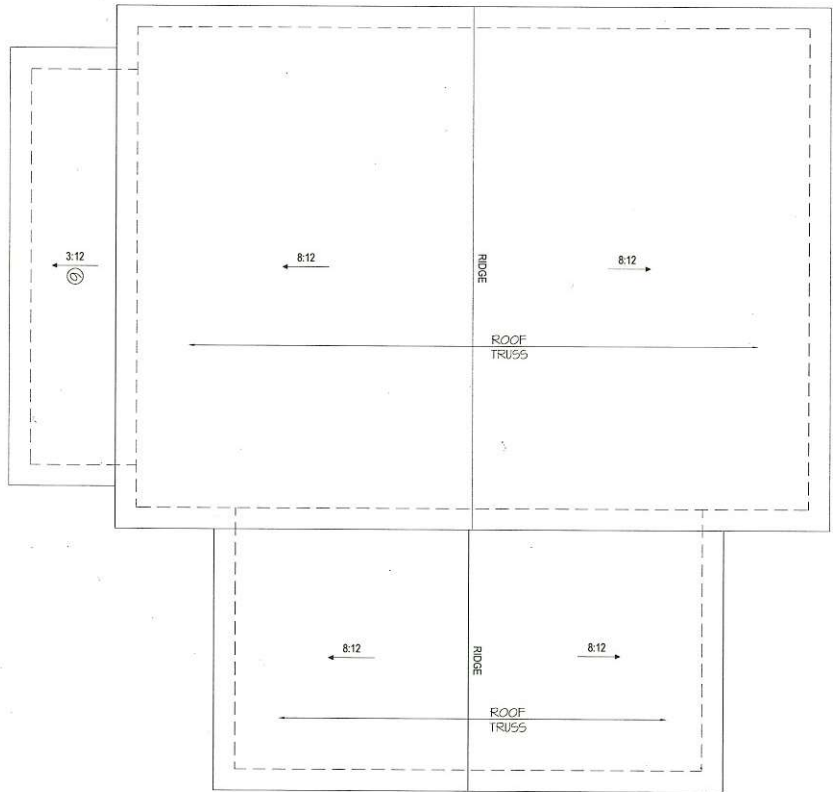
Engineers seal applies only to structural components on this document.  
Seal does not include construction means, methods, techniques, sequences, procedures or safety precautions.  
Any deviations or discrepancies on plans are to be brought to the immediate attention of Southern Engineers. Failure to 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)

**K&A HOME DESIGN, INC.**

2075 Hwy. 55 W.  
Coats, NC 27521  
"Plan 1337"  
STS CONSTRUCTION

S-4



**ROOF FRAMING NOTES:**

- NC (2018 NCRCL) Wind: 115-120 mph
1. 2x6 RAFTERS @ 16" O.C. WITH 2x10 RIDGE JNO.
  2. (2) 2x10 OR 175x187.5 LVL HIP (2) 2x10 HIBS MAY BE REPLACED WITH A MIN. 6'-0" OVERLAP AT CENTER VALLEYS
  3. (2) 2x10 OR 175x125 LVL VALLEY. DO NOT SPLICE
  4. 175x187.5 LVL OR (2)175x125 LVL VALLEY
  5. FALSE FRAME VALLEY ON 2x10 FLAT PLATE
  6. 2x6 RAFTERS @ 16" O.C. W/ 2x6 RIDGE JNO.
  7. 2x10 RAFTERS @ 16" O.C. W/ 2x12 RIDGE JNO.
  8. EXTEND RIDGE 12" BEYOND INTERSECTION
  9. SRI = SINGLE RAFTER
  10. TR = TRIPLE RAFTER
  11. RS = ROOF SUPPORT
  12. \* = (3) STUD OR 4x4 POST FOR ROOF SUPPORT (USE 2x6 STUDS OR 6x6 POST FOR SUPPORT OVER 10'-0" IN HEIGHT)
  13. ATTACH VALUED RAFTERS WITH HURRICANE CLIPS.
  14. GANGES H-25FT OR EQUIVALENT TIES TO BE INSTALLED INSTANT RAFTER TIES AND COLLAR TIES PER SECTION R802.31 OF THE 2018 NC RESIDENTIAL CODE

**TRUSS SYSTEM REQUIREMENTS**

- NC (2018 NCRCL) Wind: 115-120 mph
1. TRUSS SYSTEM LAYOUTS (PLACEMENT PLANS) SHALL BE DESIGNED IN ACCORDANCE WITH SEALED STRUCTURAL PLANS. ANY NEED TO CHANGE TRUSSES SHALL BE COORDINATED WITH SOUTHERN ENGINEERS.
  2. TRUSS SCHEMATICS (PROFILES) SHALL BE PREPARED AND SEALED BY TRUSS MANUFACTURERS
  3. ALL TRUSSES SHALL BE DESIGNED FOR BEARING ON 99# #2 OR #3 PLATES OR LEDGERS (JNO.)
  4. ALL REQUIRED ANCHORS FOR TRUSSES DUE TO UPLIFT OR BEARING SHALL MEET THE REQUIREMENTS AS SPECIFIED ON THE TRUSS SCHEMATICS.

**ROOF STRUCTURAL PLAN**

SCALE: 1/4" = 1'-0"

REFER TO 'SD' SHEETS (S) FOR STANDARD DETAILS AND STRUCTURAL NOTES







PROJECT #  
22-1761

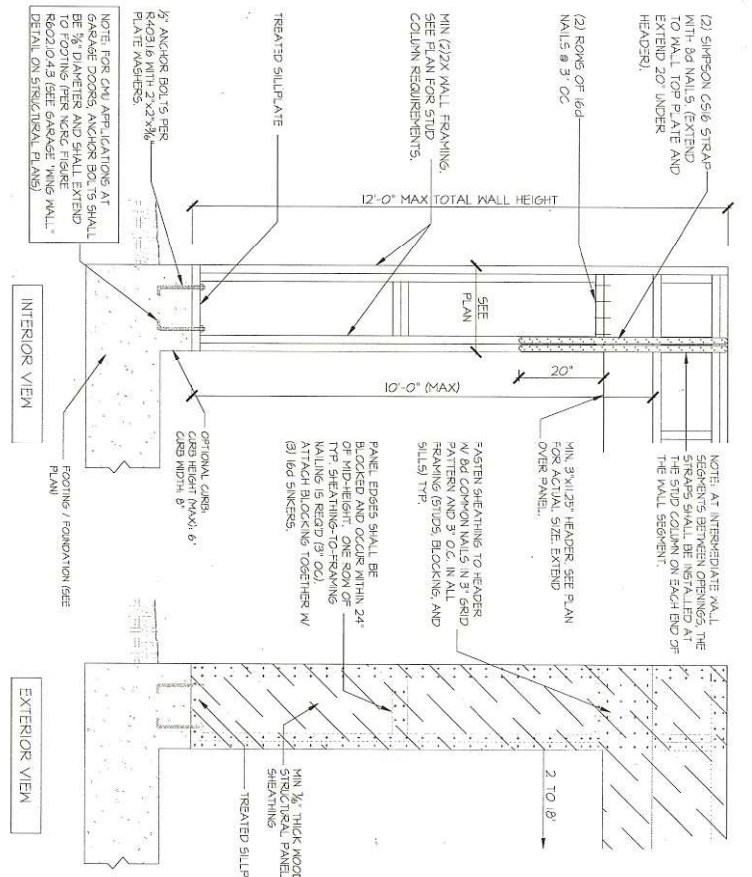
Engineers seal applies only to structural components on this document.  
Seal does not include construction means, methods, techniques, sequences, procedures or safety precautions.  
Any deviations or discrepancies on plans are to be brought to the immediate attention of Southern Engineers. Failure to 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

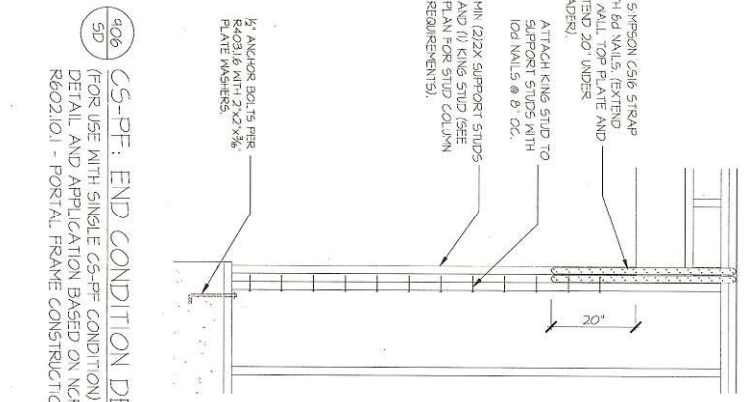
K&A HOME  
DESIGN, INC.

2075 Hwy. 55 W.  
Coats, NC 27521  
"Plan 1337"  
STS CONSTRUCTION

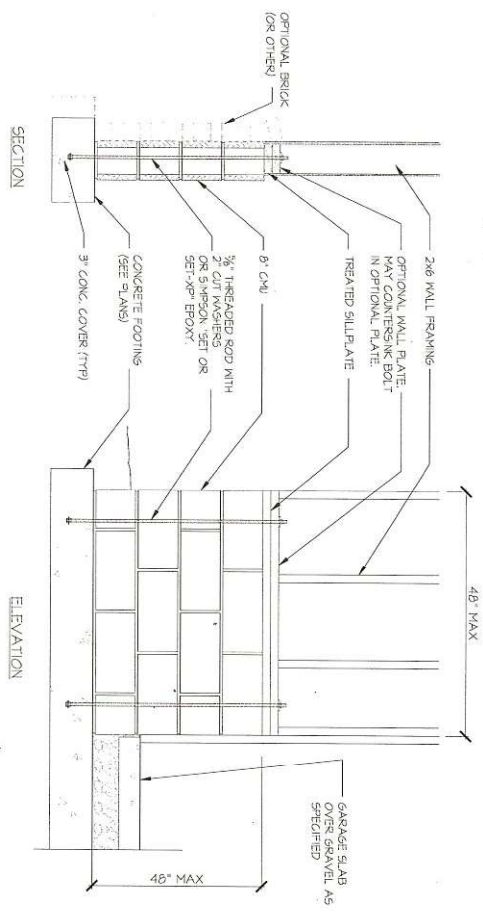
SD



405B) C5-PF: CONTINUOUS PORTAL FRAME CONSTRUCTION  
SD DETAIL AND APPLICATION BASED ON NCRC FIGURE R60210.1 - PORTAL FRAME CONSTRUCTION



406) C5-PF: END CONDITION DETAIL  
SD (FOR USE WITH SINGLE C5-PF CONDITION)  
DETAIL AND APPLICATION BASED ON NCRC FIGURE R60210.1 - PORTAL FRAME CONSTRUCTION



407) GARAGE "MING WALL" REINFORCING  
SD PER IRC FIGURE R60210.4.3