

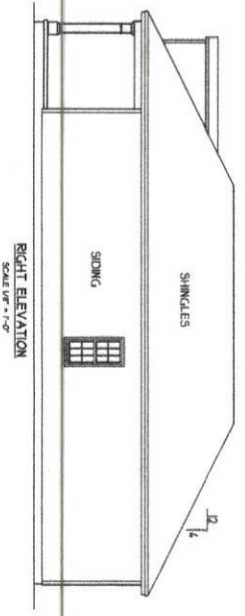
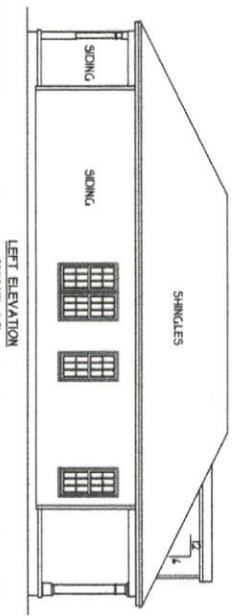
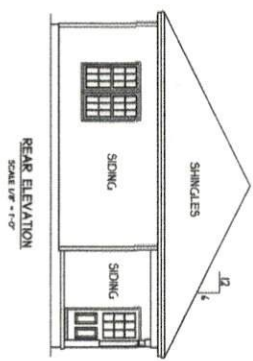
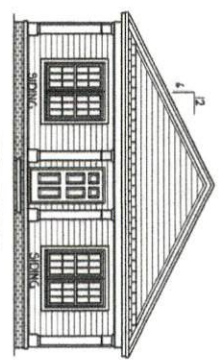
ATTIC VENTILATION:

THE NET FREE VENTILATING AREA SHALL BE NOT LESS THAN 1% OF THE AREA OF THE SPACE VENTILATED. THE FREE VENTILATING AREA SHALL BE MEASURED AT LEAST 80 PERCENT OF THE REQUIRED VENTILATING AREA. THE SPACE TO BE VENTILATED SHALL BE THE SPACE BETWEEN THE ROOF AND THE CEILING OF THE ROOMS VENTILATED. THE BALANCE OF THE REQUIRED VENTILATION TO BE PROVIDED BY THE ROOF SHALL BE PROVIDED BY THE ROOF.

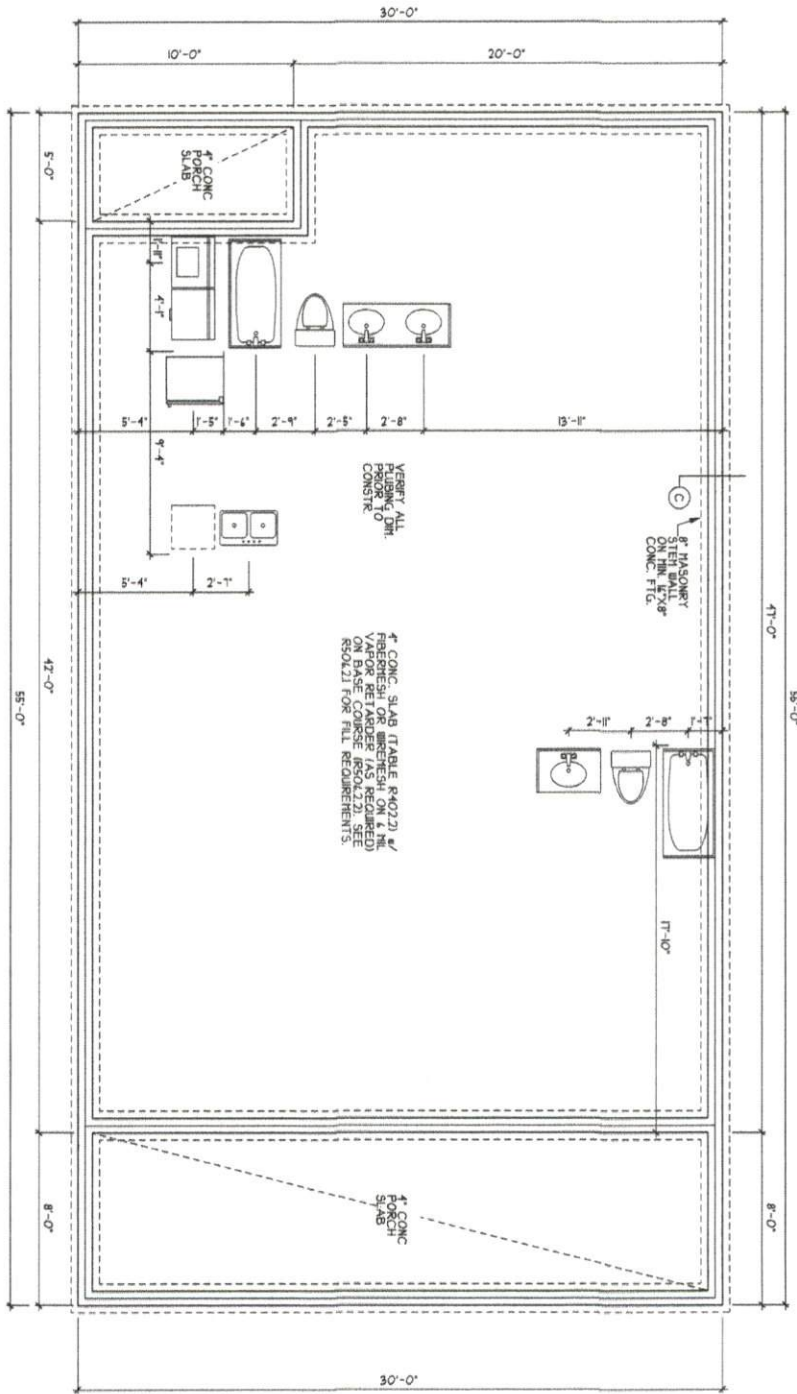
GROSS ATTIC AREA TO BE VENTILATED 140 SQ.FT.
 ASD/80 = 80 SQ.FT. NET FREE AREA

ENERGY COMPLIANCE

ZONE 3 - MAX. GLAZING U-FACTOR .35
 R-VALUE = CEILING, R19 BATTLS INS. COUNTY
 ZONE 4 - MAX. GLAZING U-FACTOR .35
 R-VALUE = CEILING, R19 BATTLS INS. COUNTY
 FLOORS PER FORM BULK, GRANVILLE COUNTY



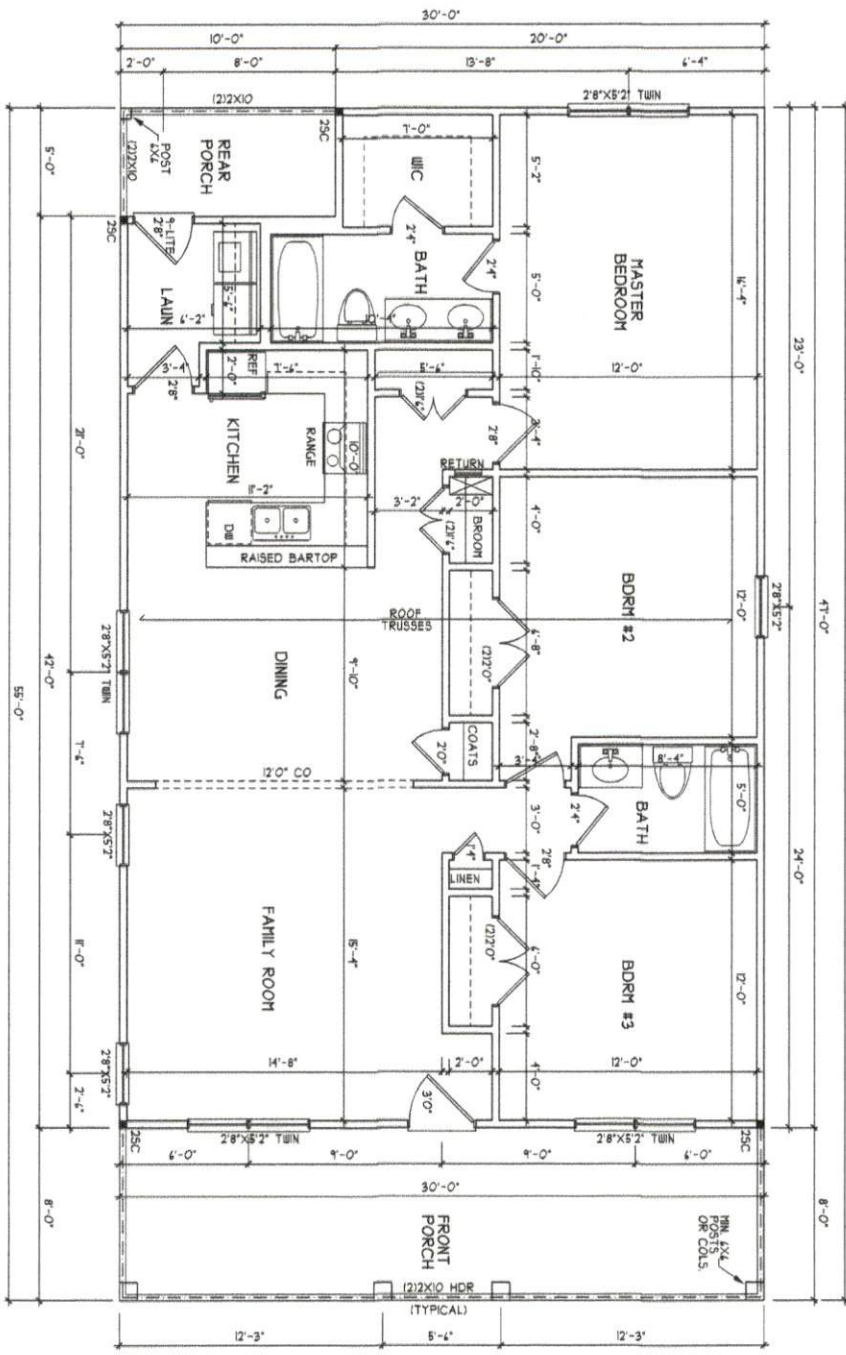
FILE 050521	DATE 05/21/21	ANY DEVIATION OF THE DIMENSIONS OR MEASUREMENTS FROM THE ORIGINAL DESIGN SHALL BE THE RESPONSIBILITY OF THE CLIENT. THIS PLAN HAS BEEN DRAWN IN ACCORDANCE WITH NORTH CAROLINA STATE MINIMUM BUILDING CODES 2008 EDITION.	H SQUARED HOME DESIGN, INC.	HEATHER HALL 165 HEATHERSTONE CT BENSON NC 27504 1919 207-1403	SQUARE FOOTAGE:	HEATED FOOTAGE:	THE CHARLESTON (LEFT HAND) Seven Magnolias Const.
					FIRST FLOOR = 1360 FRONT PORCH = 240 REAR PORCH = 50	#1360	



DAHP PROOFING
 FROM LAMP ROOMING, 1
 SECTION FOR 104 IN 308
 EDITION NC RES CODES

STEM WALL SLAB
 FOUNDATION PLAN
 SCALE 1/4" = 1'-0"

FILE 050521	DATE 05/21/23	ANY DEVIATION OF THE SPECIFIC MEASUREMENTS TO BE SHOWN ON THIS PLAN SHALL BE THE RESPONSIBILITY OF THE CLIENT. THIS PLAN HAS BEEN DRAWN IN ACCORDANCE WITH NORTH CAROLINA STATEMENTAL BUILDING CODES AND EDITION.	H SQUARED HOME DESIGN, INC.	HEATHER HALL 165 HEATHERSTONE CT BENSON NC 27504 1919 207-1403	SQUARE FOOTAGE: FIRST FLOOR = 1360 FRONT PORCH = 240 REAR PORCH = 50	HEATED FOOTAGE: #1360	THE CHARLESTON (LEFT HAND) Seven Magnolias Const.



HEADER/BEAM & COLUMN NOTES

1. ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. 12\"/>

TRUSS SYSTEM REQUIREMENTS


1. TRUSS SYSTEM LAYOUT, PLACEMENT PLANS, SIZES, AND CONNECTIONS SHALL BE COORDINATED WITH THE TRUSS MANUFACTURER.

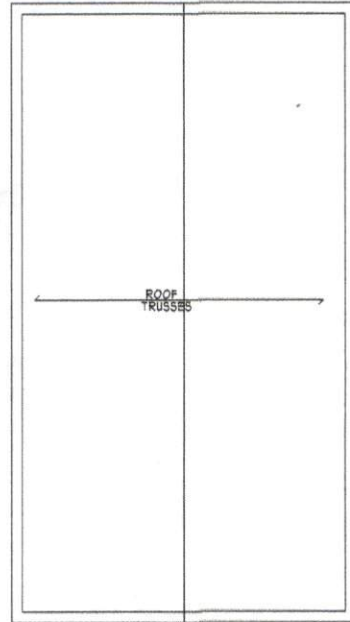
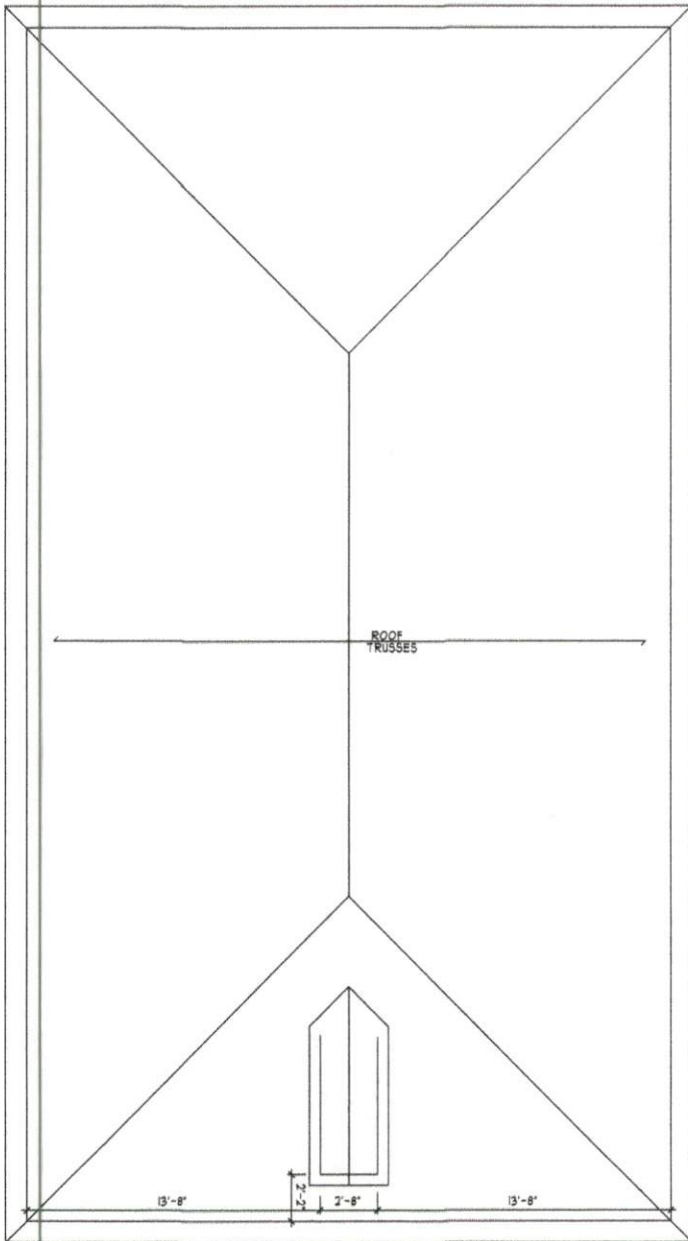
2. ALL TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING LOADS:

3. ALL TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING LOADS:

4. ALL REQUIRED ANCHORS FOR TRUSSES ARE TO BE SET IN CONCRETE AND SHALL MEET THE REQUIREMENTS AS SPECIFIED ON THE TRUSS DRAWINGS.

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

 H SQUARED HOME DESIGN, INC.	HEATHER HALL 165 HEATHERSTONE CT BENSON NC 27504 (919) 207-1403	SQUARE FOOTAGE: FIRST FLOOR = 1360 FRONT PORCH = 240 REAR PORCH = 50	HEATED FOOTAGE: #1360	THE CHARLESTON (LEFT HAND) Seven Magnolias Const.
	DATE: 05/21/21 THIS PLAN HAS BEEN DRAWN IN ACCORDANCE WITH NORTH CAROLINA STATE RESIDENTIAL BUILDING CODES (ROW EDITION)	ANY DEVIATION OF THE SPECIFIED MEASUREMENTS OR DIMENSIONS FROM THIS PLAN SHALL BE AT THE CLIENT'S RISK AND UNDER THE CLIENT'S LIABILITY.	FILE: 050521 I STORY	



CABLE OPT.

- TRUSS SYSTEM REQUIREMENTS**
NC (DOM W/END)
1. TRUSS SYSTEM LAYOUTS (PLACEMENT PLANS) SHALL BE DESIGNED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS AND COORDINATED WITH THE TRUSS MANUFACTURER.
 2. TRUSS SCHEMATICS (PROFILES) SHALL BE MANUFACTURER SEALED BY TRUSS MANUFACTURER.
 3. ALL TRUSSES SHALL BE DESIGNED FOR BEARING ON SP# #2 OR #3 PLATES OR LEOCKERS (ONLY).
 4. ALL REQUIRED ANCHORS FOR TRUSSES DUE TO REQUIREMENTS AS SPECIFIED ON THE TRUSS SCHEMATICS.

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

FILE 050521	DATE 05/24/21	ANY DEVIATION OF THE SPECIFIED REQUIREMENTS OR DIMENSIONS SHALL BE MANUFACTURER'S LIABILITY. THIS PLAN HAS BEEN DRAWN IN ACCORDANCE WITH NORTH CAROLINA STATE RESIDENTIAL BUILDING CODES 2018 EDITION.	H SQUARED HOME DESIGN, INC.	HEATHER HALL 185 HEATHERSTONE CT BENSON NC 27504 (919) 207-1403	SQUARE FOOTAGE:	HEATED FOOTAGE:	#1360	THE CHARLESTON <small>(LEFT HAND)</small> Seven Magnolias Const.
					FIRST FLOOR = 1360 FRONT PORCH = 240 REAR PORCH = 50			



STRUCTURAL NOTES

- 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, 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 (R202.04)

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION (I)
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	40	10	L/360
ATTIC WITH OUT STORAGE	10	10	L/240
STAIRS	40	10	L/360
EXTERIOR BALCONIES	40	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	---	---	----

WIND LOAD (BASED ON 15/20 MPH WIND VELOCITY & EXPOSURE B)
- BALL 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.
- CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF 5 INCHES UNLESS NOTED OTHERWISE (MIN). 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.
- ALLOWABLE SOLE 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 (F_v = #15 PSI) UNLESS NOTED OTHERWISE (MIN). ALL TREATED LUMBER SHALL BE SYP #2 (F_v = #15 PSI). PLATE MATERIAL MAY BE SPF #3 OR SYP #3 (F_v = #15 PSI - MIN).
- ALL WOODEN BEAMS AND HEADERS SHALL HAVE THE FOLLOWING END SUPPORTS: (1) 2x4 STUD COLUMN FOR 4'-0" MAX. BEAM SPAN (MIN); (2) 2x4 STUDS FOR BEAM SPAN GREATER THAN 4'-0" (MIN).
- L.V.L. SHALL BE LAMINATED VENEER LUMBER; F_v=2400 PSI, F_v=285 PSI, E=1,940,000 PSI. P.S.L. SHALL BE PARALLEL STRAND LUMBER; F_v=2700 PSI, F_v=290 PSI, E=2,040,000 PSI. L.S.L. SHALL BE LAMINATED STRAND LUMBER; F_v=2250 PSI, F_v=400 PSI, E=1,550,000 PSI. INSTALL ALL CONNECTIONS PER MANUFACTURER'S INSTRUCTIONS.
- 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.
- 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.
- REBAR SHALL BE DEFORMED STEEL, ASTM#6, GRADE 40.
- FLITCH BEAMS SHALL BE BOLTED TOGETHER USING (2) ROWS OF 1/2" DIAMETER BOLTS (ASTH 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.
- BRICK LINTELS SHALL BE 3 1/2"x3 1/2"x4 1/4" STEEL ANGLE WITH 4" LEG VERTICAL FOR SPANS UP TO 9'-0" (MIN).
- THE POSITIVE AND NEGATIVE DESIGN PRESSURE FOR DOORS AND WINDOWS FOR A MEAN ROOF HEIGHT OF 35 FEET OR LESS SHALL BE 25 PSF.
- THE POSITIVE AND NEGATIVE DESIGN PRESSURE 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

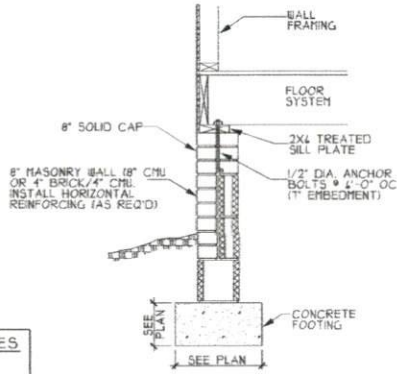
45.4 PSF - 2.25:12 PITCH OR LESS
34.8 PSF - 2.25:12 TO 1:12 PITCH
21 PSF - 1:12 TO 1:12 PITCH

WALLS

741 PSF - WALLS

TRUSS SYSTEM REQUIREMENTS
NC (208 NCR)

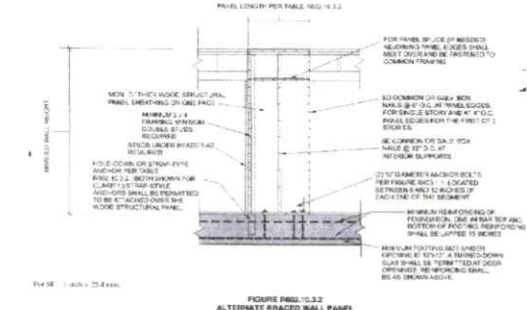
- TRUSS SYSTEM LAYOUTS (PLACEMENT PLANS) SHALL BE DESIGNED IN ACCORDANCE WITH ROOF TRUSS LAYOUTS AND SEALED PROFILES PROVIDED BY THE ROOF TRUSS MANUFACTURER. ANY NEED TO CHANGE TRUSSES SHALL BE COORDINATED WITH THE ROOF TRUSS MANUFACTURER.
- TRUSS SCHEMATICS (PROFILES) SHALL BE PREPARED AND SEALED BY TRUSS MANUFACTURER.
- ALL TRUSSES SHALL BE DESIGNED FOR BEARING ON SPF #2 OR #3 PLATES OR LEDGERS (MIN).
- ALL REQUIRED ANCHORS FOR TRUSSES DUE TO SPLIT OR BEARING SHALL MEET THE REQUIREMENTS AS SPECIFIED ON THE TRUSS SCHEMATICS.



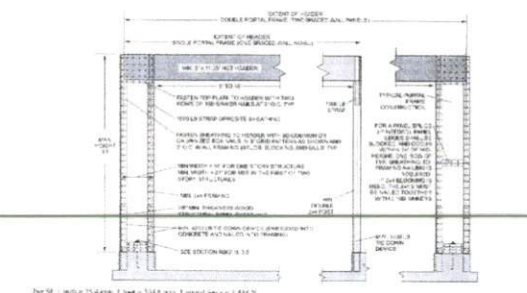
(A) CRAWL SPACE FOOTING
(SIDING @/ BRICK SKIRT)

HEADER/BEAM & COLUMN NOTES

- ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2) 2x10 (4\"/>
 - 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
- 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 4 IN TABLE R602.3(5) OR AS BELOW:

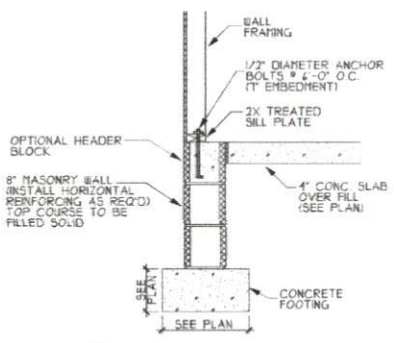


(B) DROPPED GIRDER
NTS

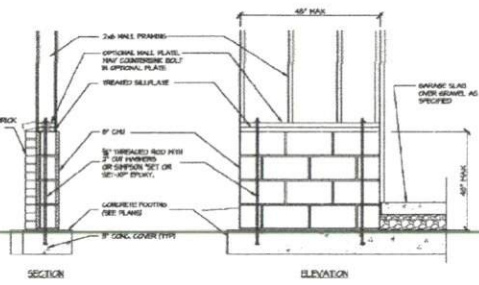


(C) STEM WALL FOOTING

FIGURE R602.10.3 ALTERNATE BRACED WALL PANEL



(A) CRAWL SPACE FOOTING
(SIDING @/ BRICK SKIRT)



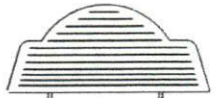
(B) DROPPED GIRDER
NTS

FIGURE R602.10.3 ALTERNATE BRACED WALL PANEL

FIGURE R602.10.3 ALTERNATE BRACED WALL PANEL

FIGURE R602.10.3 ALTERNATE BRACED WALL PANEL

FIGURE R602.10.3 ALTERNATE BRACED WALL PANEL



BASIC BUILDING
DETAIL SHEET
(115-120 MPH)

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

HEATHER HALL
185 HEATHERSTONE CT
BEVSON NC 27504
(818) 207-1403

H SQUARED HOME DESIGN, INC.

H

ALL DIMENSIONS OF THIS SHEET UNLESS OTHERWISE NOTED SHALL BE IN INCHES. DIMENSIONS IN PARENTHESIS ARE TYPICAL. DIMENSIONS IN SQUARE BRACKETS ARE OPTIONAL. DIMENSIONS IN DASHES ARE TO FACE UNLESS OTHERWISE NOTED.

DATE: _____
FILE: _____

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 2861338
2861338

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Stock Building Supply.

Pages or sheets covered by this seal: T24885358 thru T24885361

My license renewal date for the state of North Carolina is December 31, 2021.

North Carolina COA: C-0844



August 2, 2021

Magid, Michael

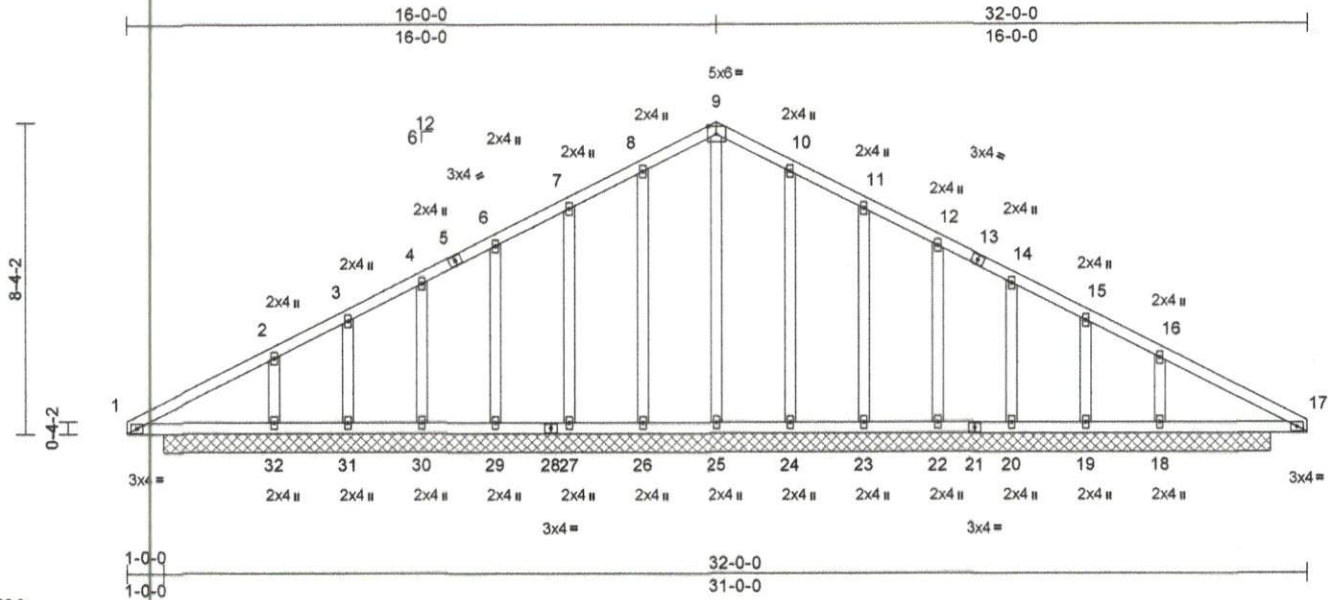
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job 2861338	Truss A1GE	Truss Type Common	Qty 2	Ply 1	2861338 Job Reference (optional)	T24885358
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

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Page: 1



Scale = 1:80.6

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.16	Vert(LL)	n/a	-	n/a	999	244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.37	Horiz(TL)	-0.01	18	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								
											Weight: 189 lb	FT = 20%

LUMBER
 TOP CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP M 31
 BOT CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP M 31
 OTHERS 2x4 SP No.2

BOT CHORD 1-32=-237/75, 31-32=-237/73, 30-31=-237/73, 29-30=-237/73, 27-29=-237/73, 26-27=-237/73, 25-26=-237/73, 24-25=-237/73, 23-24=-237/73, 22-23=-237/73, 20-22=-237/73, 19-20=-237/73, 18-19=-237/73, 17-18=-237/73
WEBS 9-25=-329/0, 8-26=-139/51, 7-27=-116/64, 6-29=-119/58, 4-30=-141/62, 3-31=-67/62, 2-32=-282/94, 10-24=-139/51, 11-23=-116/64, 12-22=-119/58, 14-20=-141/62, 15-19=-67/61, 16-18=-282/94

LOAD CASE(S) Standard

BRACING
 TOP CHORD Structural wood sheathing directly applied or 10-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size)
 18=364/30-0-0, 19=58/30-0-0, 20=185/30-0-0, 22=155/30-0-0, 23=155/30-0-0, 24=179/30-0-0, 25=370/30-0-0, 26=179/30-0-0, 27=155/30-0-0, 29=155/30-0-0, 30=185/30-0-0, 31=58/30-0-0, 32=364/30-0-0
 Max Horiz 32=-105 (LC 11)
 Max Uplift 18=-28 (LC 10), 19=-61 (LC 11), 20=-19 (LC 11), 22=-29 (LC 11), 23=-30 (LC 11), 24=-22 (LC 11), 26=-22 (LC 10), 27=-30 (LC 10), 29=-29 (LC 10), 30=-18 (LC 10), 31=-64 (LC 10), 32=-32 (LC 11)
 Max Grav 18=469 (LC 22), 19=123 (LC 21), 20=208 (LC 22), 22=155 (LC 1), 23=158 (LC 22), 24=179 (LC 1), 25=370 (LC 1), 26=179 (LC 1), 27=158 (LC 21), 29=155 (LC 1), 30=208 (LC 21), 31=123 (LC 22), 32=469 (LC 21)

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 26, 30 lb uplift at joint 27, 29 lb uplift at joint 29, 18 lb uplift at joint 30, 64 lb uplift at joint 31, 32 lb uplift at joint 32, 22 lb uplift at joint 24, 30 lb uplift at joint 23, 29 lb uplift at joint 22, 19 lb uplift at joint 20, 61 lb uplift at joint 19 and 28 lb uplift at joint 18.

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-52/323, 2-3=-7/272, 3-4=0/296, 4-6=0/291, 6-7=0/291, 7-8=0/298, 8-9=0/293, 9-10=0/291, 10-11=0/297, 11-12=0/291, 12-14=0/291, 14-15=0/296, 15-16=-4/272, 16-17=-50/323



August 2, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI 1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20681

ENGINEERING BY
TRENCO
 A MiTek Affiliate

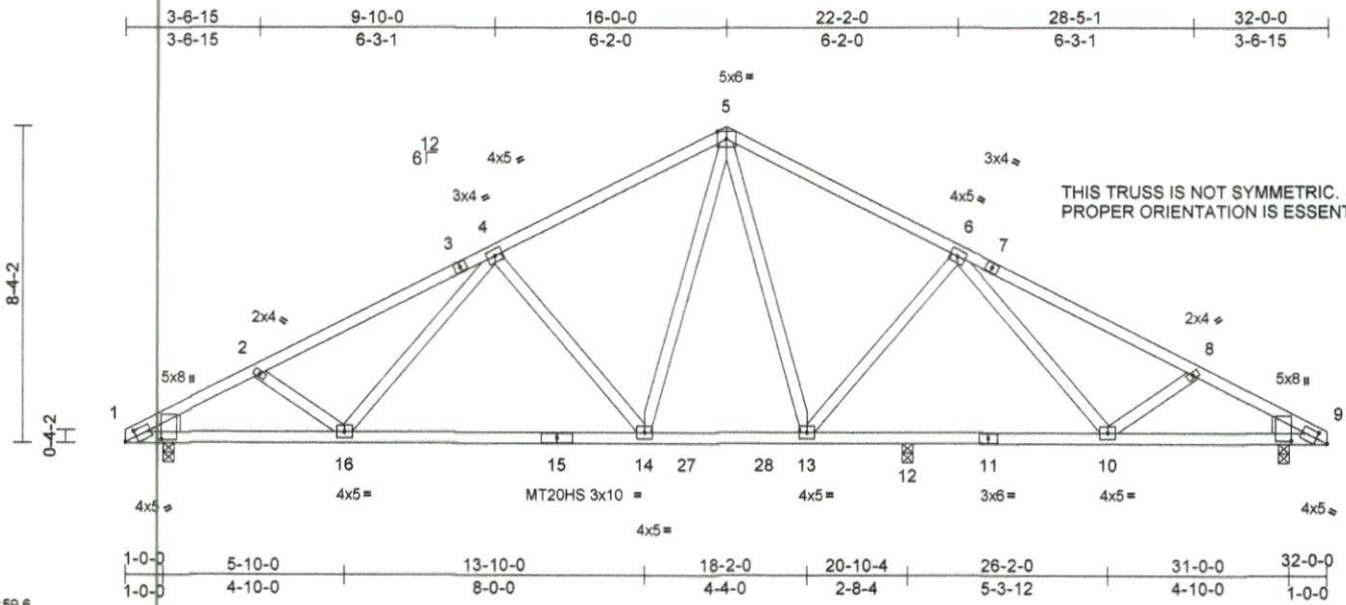
818 Soundside Road
 Edenton, NC 27932

Job 2861338	Truss A2	Truss Type Common	Qty 2	Ply 1	2861338 Job Reference (optional)	T24885359
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557.

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Page: 1



THIS TRUSS IS NOT SYMMETRIC.
PROPER ORIENTATION IS ESSENTIAL.

Scale = 1:59.6

Plate Offsets (X, Y): [1:0-3-12,0-2-0], [1:0-0-13,0-11-7], [9:0-3-12,0-2-0], [9:0-0-13,0-11-7]

Loading	(psf)	Spacing		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.46	Vert(LL)	-0.09	14-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.21	14-16	>999	180	MT20HS	187/143
BCLL	0.0*	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.04	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS								
											Weight: 174 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP M 31
BOT CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP M 31
WEBS 2x4 SP No.2
WEDGE Left: 2x6 SP No.2
Right: 2x6 SF No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-8-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=1175/0-3-8, 9=1075/0-3-8, 12=310/0-3-8
Max Horiz 1=105 (LC 11)
Max Uplift 1=52 (LC 10), 9=64 (LC 11)
Max Grav 1=1175 (LC 1), 9=1075 (LC 1), 12=325 (LC 3)

- 2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 1 and 64 lb uplift at joint 9.

LOAD CASE(S) Standard

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1699/272, 2-4=-1625/256, 4-5=-1294/293, 5-6=-1172/299, 6-8=-1413/286, 8-9=-1502/281
BOT CHORD 1-16=-198/1414, 14-16=-135/1350, 13-14=-11/923, 12-13=-142/1210, 10-12=-142/1210, 9-10=-202/1263
WEBS 5-14=-62/573, 4-14=-463/172, 4-16=0/225, 2-16=-42/116, 6-13=-420/174, 6-10=-24/114, 8-10=-104/108, 5-13=-95/221

NOTES
1) Unbalanced roof live loads have been considered for this design.



August 2, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE Mil-7473 rev. 5/19/2020 BEFORE USE
Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY
TRENCO
A MITEK AFFILIATE

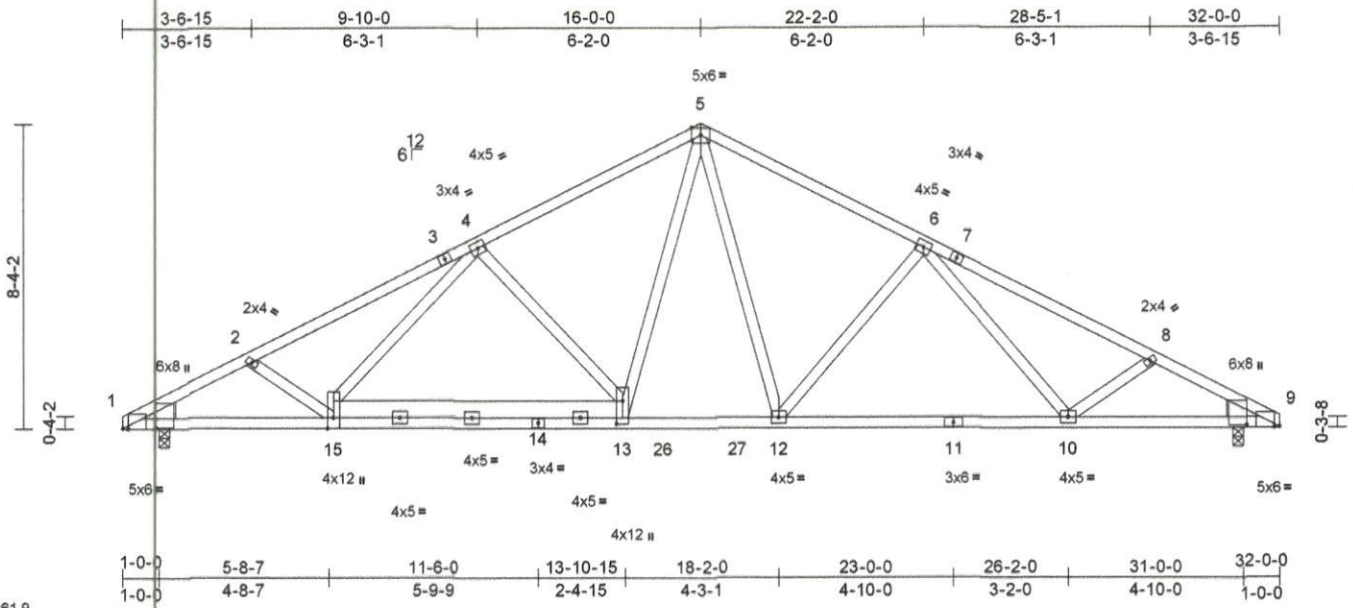
818 Soundside Road
Edenton, NC 27932

Job 2861338	Truss A3	Truss Type Common	Qty 5	Ply 1	2861338 Job Reference (optional)	T24885360
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

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Page: 1



Scale = 1:61.9

Plate Offsets (X, Y): [1:0-1-12,Edge], [1:0-0-5,0-10-15], [9:0-1-12,Edge], [9:0-0-9,0-10-15], [13:0-7-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	Vert(LL)	-0.10	10-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	Vert(CT)	-0.24	10-12	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	Horz(CT)	0.05	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS						Weight: 192 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP M 31
BOT CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP M 31 *Except* 15-13:2x6 SP 2400F 2.0E or 2x6 SP DSS or 2x6 SP M 31
WEBS 2x4 SP No.2
WEDGE Left: 2x6 SP No.2
Right: 2x6 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-1-10 oc pullins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=1280/0-3-8, 9=1280/0-3-8
Max Horiz 1=-105 (LC 11)
Max Uplift 1=37 (LC 10), 9=-37 (LC 11)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1952/279, 2-4=-1893/257,
4-5=-1536/289, 5-6=-1506/283,
6-8=-1814/248, 8-9=-1873/264
BOT CHORD 1-15=-200/1629, 13-15=-136/1583,
12-13=-5/1146, 10-12=-127/1535,
9-10=-189/1558
WEBS 4-15=0/232, 2-15=-21/127, 4-13=-471/175,
5-13=-76/542, 6-12=-457/173, 6-10=0/199,
8-10=-17/136, 5-12=-57/484

NOTES
1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=115mph (3-second gust)
Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 1 and 37 lb uplift at joint 9.
- LOAD CASE(S)** Standard



August 2, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 2861338	Truss A4	Truss Type Common	Qty 20	Ply 1	2861338 Job Reference (optional)	T24885361
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Builders FirstSource (Middlesex, NC), Middlesex, NC - 27557,

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Page: 1

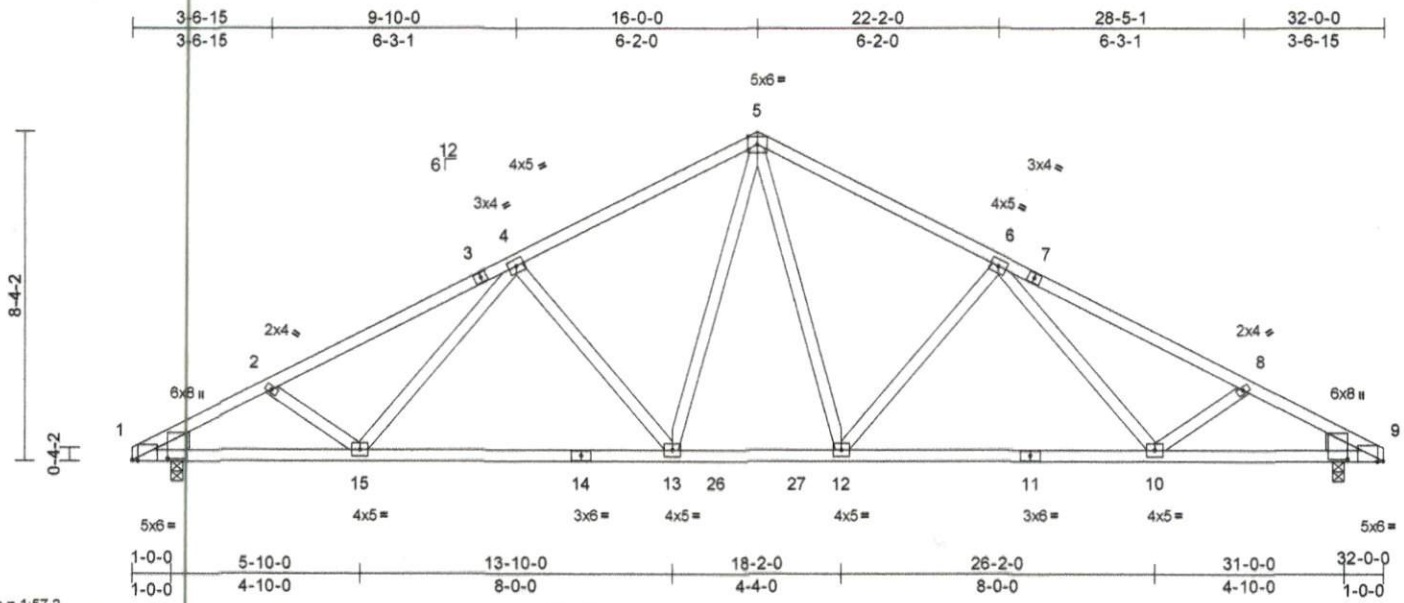


Plate Offsets (X, Y): [1:0-1-12,Edge], [1:0-0-9,0-10-15], [9:0-1-12,Edge], [9:0-0-9,0-10-15]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.51	Vert(LL)	-0.11 13-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.26 13-15	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.05 9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS						Weight: 174 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP M 31
BOT CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP M 31
WEBS 2x4 SP No.2
WEDGE Left: 2x6 SP No.2
Right: 2x6 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-2-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 1=1280/0-3-8, 9=1280/0-3-8
Max Horiz 1=-105 (LC 11)
Max Uplift 1=-37 (LC 10), 9=-37 (LC 11)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1875/264, 2-4=-1816/247,
4-5=-1503/284, 5-6=-1503/284,
6-8=-1816/247, 8-9=-1875/264
BOT CHORD 1-15=-189/1559, 13-15=-127/1534,
12-13=-2/1132, 10-12=-127/1534,
9-10=-189/1559
WEBS 5-13=-65/507, 4-13=-459/172, 4-15=0/206,
2-15=-15/139, 6-12=-459/172, 6-10=0/206,
8-10=-15/139, 5-12=-65/507

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 1 and 37 lb uplift at joint 9.

LOAD CASE(S) Standard

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=15mph (3-second gust)
Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33



August 2, 2021

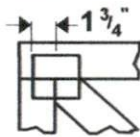
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



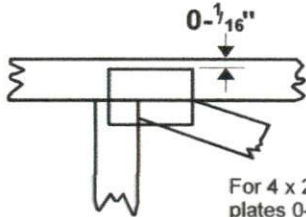
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.



This symbol indicates the required direction of slots in connector plates.

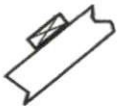
* Plate location details available in MiTek 20/20 software or upon request.

PLATE SIZE

4 x 4

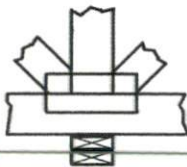
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING

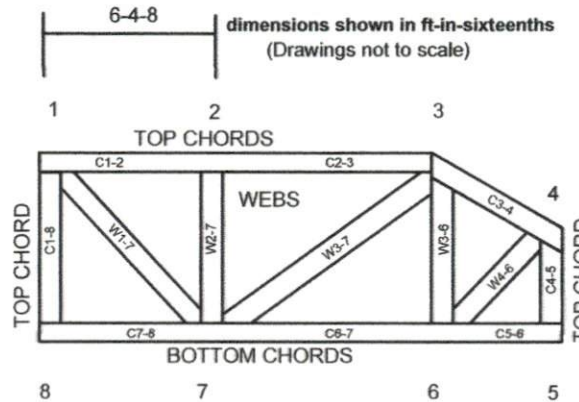


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.