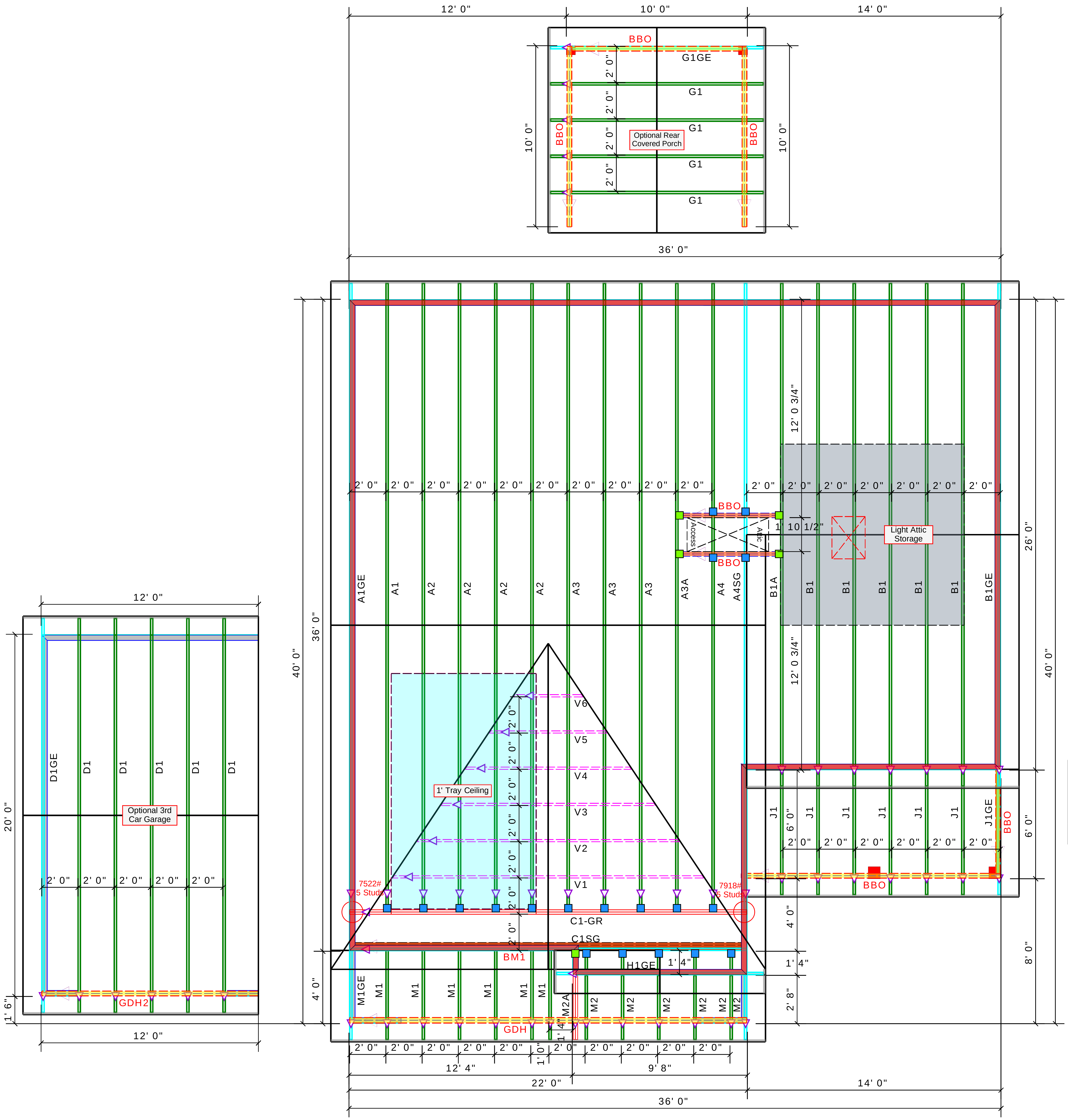


Dimension Notes
1. All exterior wall to wall dimensions are to face of sheathing unless noted otherwise
2. All interior wall dimensions are to face of frame wall unless noted otherwise
3. All exterior wall to truss dimensions are to face of frame wall unless noted otherwise

All Walls Shown Are Considered Load Bearing

Roof Area = 2211.85 sq.ft.
Ridge Line = 83.75 ft.
Hip Line = 0 ft.
Horiz. OH = 189.58 ft.
Raked OH = 233.07 ft.
Decking = 76 sheets

Hatch Legend
- Padded HVAC
- Tray Ceiling
- 2nd Floor Walls
- Drop Beam

Connector Information					Nail Information	
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
(blue)	HUS26	USP	19	NA	16d/3-1/2"	16d/3-1/2"
(green)	THD26-2	USP	5	NA	16d/3-1/2"	10d/3"

Products

PlotID	Length	Product	Plies	Net Qty
BM1	22' 0"	1-3/4"x 16" LVL Kerto-S	3	3
BM2	15' 0"	1-3/4"x 16" LVL Kerto-S	3	3
BM3	7' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
GDH	22' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2

1 Truss Placement Plan
Scale: 1/4"=1'

△ = Indicates Left End of Truss
(Reference Engineered Truss Drawing)
Do NOT Erect Truss Backwards

COMTECH
ROOF & FLOOR TRUSSES & BEAMS
Reilly Road Industrial Park
Fayetteville, N.C. 28309
Phone: (910) 864-8787
Fax: (910) 864-4444

Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables (derived from the prescriptive Code requirements) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature David Landry
David Landry

LOAD CHART FOR JACK STUDS
(BASED ON TABLES R502.5(1) & (b))
NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (UP TO)	REQ'D STUDS FOR (2) PLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (3) PLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (4) PLY HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				

BUILDER	Regency Homes	
JOB NAME	Lot 5 Williams Farm	
PLAN	Brinkley "B" / GL	
SEAL DATE		
QUOTE #		
JOB #	J0921-5286	
CITY / CO.	Harnett	
ADDRESS	Josey Williams Rd.	
MODEL	Roof	
DATE REV.	09/2/21	
DRAWN BY	David Landry	
SALES REP.	Bob Lewis	

RE: J0921-5286
Lot 5 Williams Farm

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Regency Homes Project Name: J0921-5286
Lot/Block: 5 Model: Brinkley
Address: Josey Williams Rd. Subdivision: Williams Farm
City: Erwin State: NC

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.4
Wind Code: ASCE 7-10 Wind Speed: 150 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 29 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	E16001299	A1	8/3/2021	21	E16001319	M1GE	8/3/2021
2	E16001300	A1GE	8/3/2021	22	E16001320	M2	8/3/2021
3	E16001301	A2	8/3/2021	23	E16001321	M2A	8/3/2021
4	E16001302	A3	8/3/2021	24	E16001322	V1	8/3/2021
5	E16001303	A3A	8/3/2021	25	E16001323	V2	8/3/2021
6	E16001304	A4	8/3/2021	26	E16001324	V3	8/3/2021
7	E16001305	A4SG	8/3/2021	27	E16001325	V4	8/3/2021
8	E16001306	B1	8/3/2021	28	E16001326	V5	8/3/2021
9	E16001307	B1A	8/3/2021	29	E16001327	V6	8/3/2021
10	E16001308	B1GE	8/3/2021				
11	E16001309	C1-GR	8/3/2021				
12	E16001310	C1SG	8/3/2021				
13	E16001311	D1	8/3/2021				
14	E16001312	D1GE	8/3/2021				
15	E16001313	G1	8/3/2021				
16	E16001314	G1GE	8/3/2021				
17	E16001315	H1GE	8/3/2021				
18	E16001316	J1	8/3/2021				
19	E16001317	J1GE	8/3/2021				
20	E16001318	M1	8/3/2021				

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Gilbert, Eric
My license renewal date for the state of North Carolina is December 31, 2021
North Carolina COA: C-0844

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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.

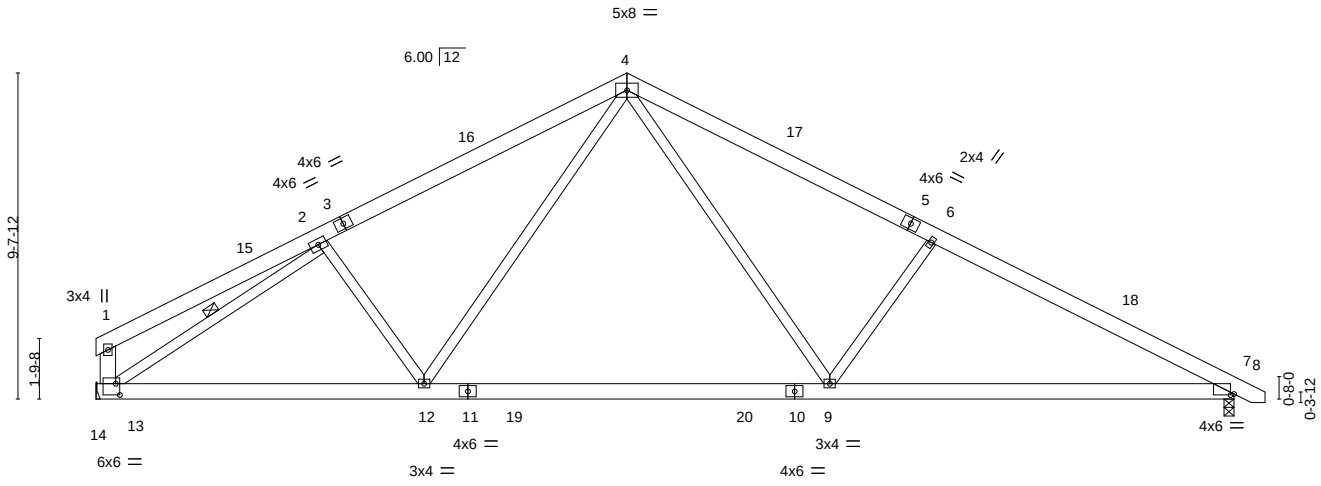
August 03, 2021
Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5286	A1	COMMON	1	1	E16001299
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:20 2021 Page 1
ID:l4HRAT3elT9qoRldAoEs_5z0Axy-pWGVSa9Wmr6nthb4c3R2ZWylUwFIlhR4O_yzMvyrd61

6-8-8 | 15-8-8 | 24-8-8 | 33-8-0 | 34-7-0
6-8-8 | 9-0-0 | 9-0-0 | 8-11-8 | 0-11-0

Scale: 3/16"=1'



9-8-8 | 21-8-8 | 33-8-0
9-8-8 | 12-0-0 | 11-11-8

Plate Offsets (X,Y)-- [7:0-1-4,0-0-7], [13:0-1-8,0-4-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.35	9-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.48	9-12	>833	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.07	7-9	>999	240	Weight: 230 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
1-13: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-9-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-9-4 oc bracing.
WEBS 1 Row at midpt 2-13

REACTIONS. (size) 13=Mechanical, 7=0-3-8
Max Horz 13=-193(LC 13)
Max Uplift 13=-222(LC 12), 7=-263(LC 13)
Max Grav 13=1333(LC 1), 7=1379(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-300/179, 2-4=-1841/805, 4-6=-2084/871, 6-7=-2336/875, 1-13=-254/214
BOT CHORD 12-13=-482/1658, 9-12=-230/1276, 7-9=-635/1990
WEBS 2-12=-242/311, 4-12=-140/593, 4-9=-273/970, 6-9=-522/454, 2-13=-1806/660

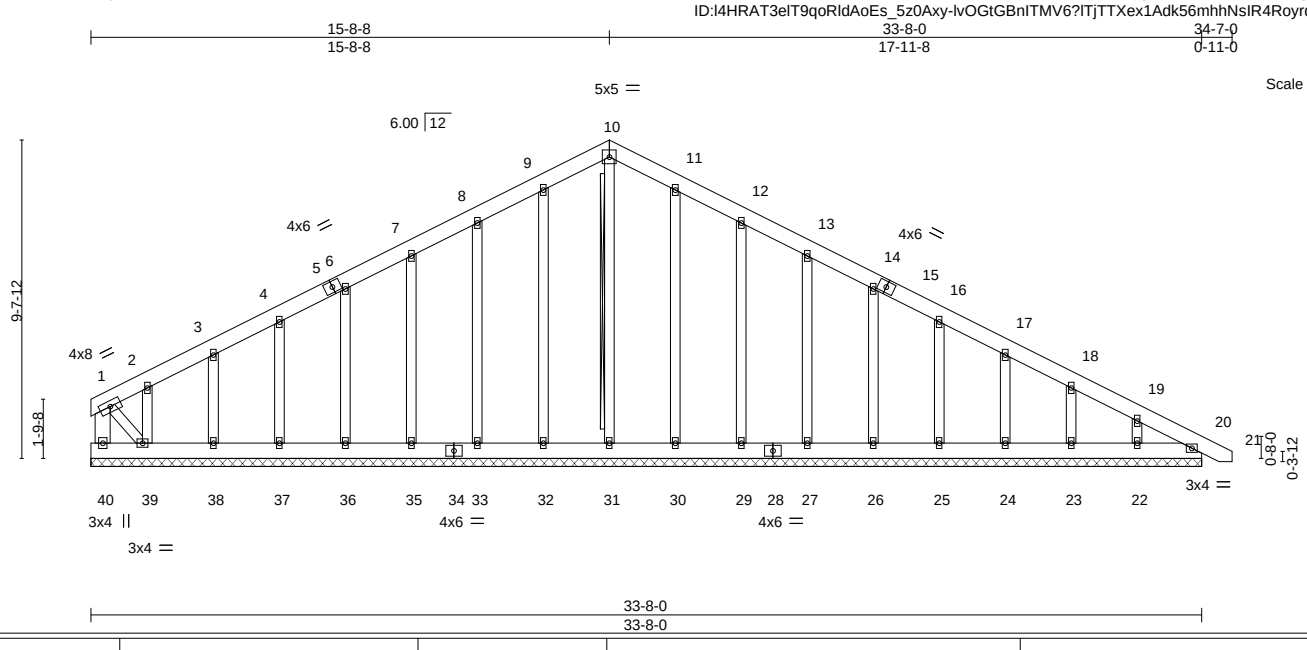
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-1, Interior(1) 4-9-1 to 15-8-8, Exterior(2) 15-8-8 to 20-1-5, Interior(1) 20-1-5 to 34-4-10 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=222, 7=263.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5286	A1GE	COMMON SUPPORTED GAB	1	1	E16001300
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:22 2021 Page 1
ID:l4HRAT3elT9qoRldAoEs_5z0Axy-lvOGtGBnITMV6?lTjTTXex1Adk56mhhNsIR4Royrd6?



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	0.00	20	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	20	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	20	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 288 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x6 SP No.1 *Except* 1-39: 2x4 SP No.2
OTHERS	2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	T-Brace: 2x4 SPF No.2 - 10-31 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS. All bearings 33-8-0.
(lb) - Max Horz 40=-309(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 32, 30, 20 except 40=-119(LC 17), 33=-119(LC 12), 35=-108(LC 12), 36=-107(LC 12), 37=-108(LC 12), 38=-110(LC 12), 39=-341(LC 12), 29=-122(LC 13), 27=-108(LC 13), 26=-107(LC 13), 25=-108(LC 13), 24=-108(LC 13), 23=-107(LC 13), 22=-134(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 31, 32, 33, 35, 36, 37, 38, 39, 30, 29, 27, 26, 25, 24, 23, 22, 20 except 40=328(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-40=-306/120, 7-8=-109/273, 8-9=-138/357, 9-10=-158/412, 10-11=-158/412, 11-12=-138/357, 12-13=-109/273, 19-20=-254/80
BOT CHORD	39-40=-159/298, 38-39=-73/258, 37-38=-73/258, 36-37=-73/258, 35-36=-73/258, 33-35=-73/258, 32-33=-73/258, 31-32=-73/258, 30-31=-73/258, 29-30=-73/258, 27-29=-73/258, 26-27=-73/258, 25-26=-73/258, 24-25=-73/258, 23-24=-73/258, 22-23=-73/258, 20-22=-73/258
WEBS	1-39=-102/304

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 32, 30, 20 except (jt=lb) 40=119, 33=119, 35=108, 36=107, 37=108, 38=110, 39=341, 29=122, 27=108, 26=107, 25=108, 24=108, 23=107, 22=134.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 3,2021

Continued on page 2

TRENCO
818 Soundside Road
Edenton, NC 27932

NOTES-

11) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

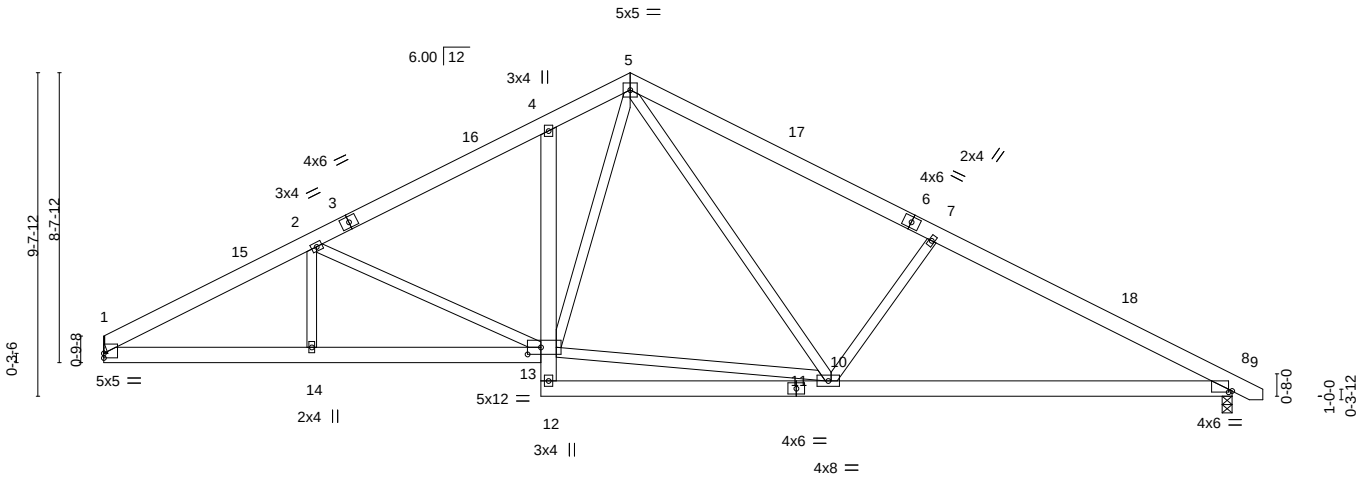
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm E16001301
J0921-5286	A2	Roof Special	4	1	Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:23 2021 Page 1
ID:l4HRAT3elT9qoRldAoEs_5z0Axy-D5ye4cCP3mUMk9KfHB_mB8aGi7KwV25W5xAezEyrd6_

6-2-8	13-0-8	15-8-8	24-8-8	33-8-0	34-7-0
6-2-8	6-10-0	2-8-0	9-0-0	8-11-8	0-11-0

Scale = 1:64.7



6-2-8	13-0-8	21-8-8	33-8-0
6-2-8	6-10-0	8-8-0	11-11-8

Plate Offsets (X,Y)-- [1:0-0-0,0-1-11], [8:0-1-4,0-0-7], [13:0-4-12,0-2-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.14	8-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.31	8-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.07	8-10	>999	240	Weight: 250 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-9-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-7-15 oc bracing.

REACTIONS. (size) 1=Mechanical, 8=0-3-8
Max Horz 1=-180(LC 13)
Max Uplift 1=-232(LC 12), 8=-271(LC 13)
Max Grav 1=1338(LC 1), 8=1391(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2401/917, 2-4=-1846/799, 4-5=-1715/885, 5-7=-1992/885, 7-8=-2282/897
BOT CHORD 1-14=-633/2050, 13-14=-633/2050, 4-13=-270/273, 10-12=-64/251, 8-10=-652/1953
WEBS 2-14=0/303, 2-13=-561/329, 10-13=-188/1073, 5-13=-355/764, 5-10=-253/676, 7-10=-522/457

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-0-12 to 4-5-9, Interior(1) 4-5-9 to 15-8-8, Exterior(2) 15-8-8 to 20-1-5, Interior(1) 20-1-5 to 34-4-10 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=232, 8=271.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

August 3,2021

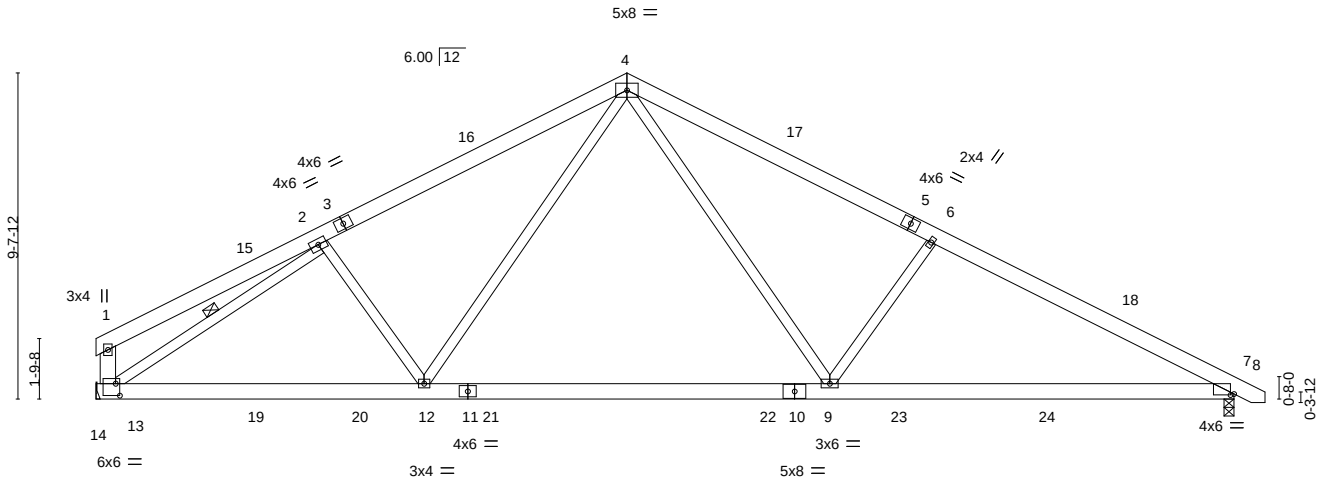
TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5286	A3	COMMON	3	1	E16001302
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:24 2021 Page 1
ID:l4HRAT3elT9qoRldAoEs_5z0Axy-hHW0HxD1q4cDLJurruV?kM6RTXatEVQgJbwBUgyrd5z

6-8-8	15-8-8	24-8-8	33-8-0	34-7-0
6-8-8	9-0-0	9-0-0	8-11-8	0-11-0

Scale: 3/16"=1'



9-8-8	21-8-8	33-8-0
9-8-8	12-0-0	11-11-8

Plate Offsets (X,Y)-- [7:0-1-4,0-0-7], [13:0-1-8,0-4-4]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.30	9-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.42	9-12	>946	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.07	7-9	>999	240	Weight: 230 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2 *Except* 1-13: 2x6 SP No.1

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 4-5-3 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 9-9-4 oc bracing.
WEBS	1 Row at midpt 2-13

REACTIONS. (size) 13=Mechanical, 7=0-3-8
Max Horz 13=-193(LC 13)
Max Uplift 13=-222(LC 12), 7=-263(LC 13)
Max Grav 13=1525(LC 2), 7=1551(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-323/179, 2-4=-2090/805, 4-6=-2413/871, 6-7=-2646/875, 1-13=-255/214
BOT CHORD 12-13=-482/1866, 9-12=-230/1449, 7-9=-635/2287
WEBS 2-12=-242/311, 4-12=-140/683, 4-9=-273/1190, 6-9=-522/454, 2-13=-1940/660

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-1, Interior(1) 4-9-1 to 15-8-8, Exterior(2) 15-8-8 to 20-1-5, Interior(1) 20-1-5 to 34-4-10 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 30.0psf on the bottom chord in all areas where a rectangle 2-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=222, 7=263.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm E16001303
J0921-5286	A3A	COMMON	1	1	Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:25 2021 Page 1
ID:l4HRAT3elT9qoRldAoEs_5z0Axy-AT4OVHDfbOk4zST2Oc1EGZfZ5xt?zvapYFfk06yrd5y

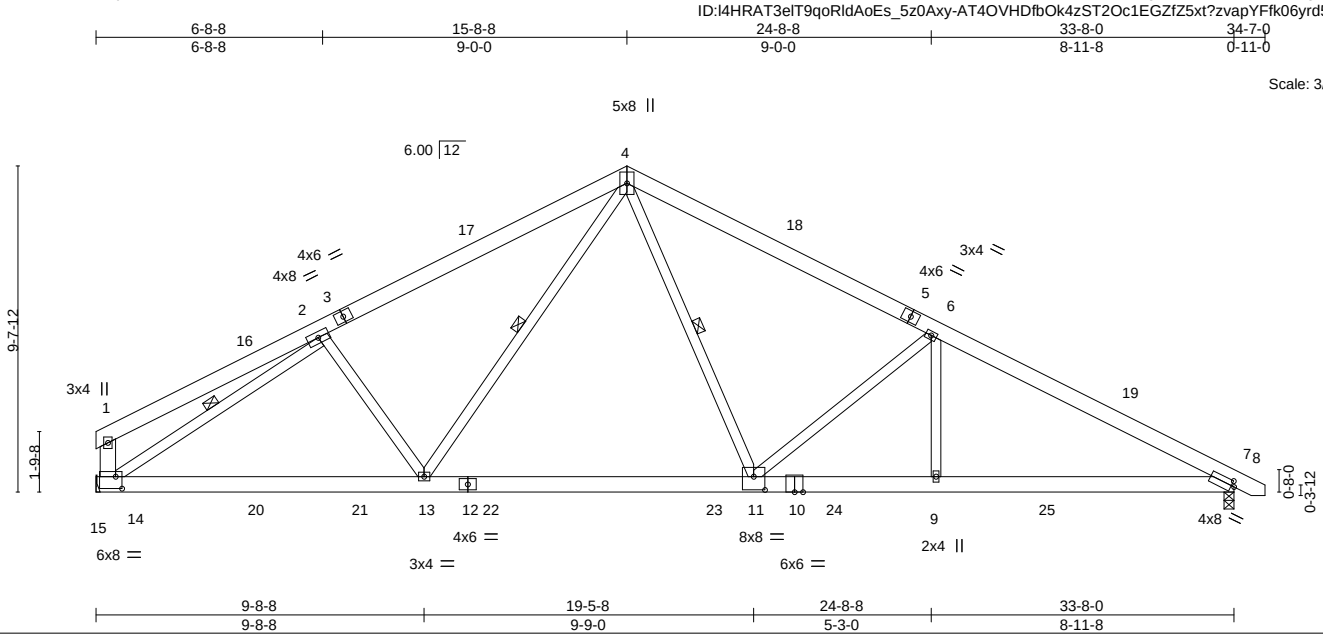


Plate Offsets (X,Y)-- [7:0-1-0,0-1-13], [11:0-4-0,0-4-12], [14:0-2-4,0-4-4]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.19	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.32	11-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.77	Horz(CT)	0.09	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.21	9-11	>999	240	Weight: 237 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
1-14: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-4-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 5-9-3 oc bracing.
WEBS 1 Row at midpt 4-13, 4-11, 2-14

REACTIONS. (size) 14=Mechanical, 7=0-3-8
Max Horz 14=-193(LC 13)
Max Uplift 14=-373(LC 12), 7=-491(LC 13)
Max Grav 14=2046(LC 19), 7=2357(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-435/227, 2-4=-2926/1389, 4-6=-3695/1822, 6-7=-4439/2001, 1-14=-315/241
BOT CHORD 13-14=-948/2587, 11-13=-817/2396, 9-11=-1625/3860, 7-9=-1625/3860
WEBS 2-13=-67/282, 4-13=-80/441, 4-11=-1088/2378, 6-11=-890/520, 2-14=-2661/1191, 6-9=-78/489

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-1, Interior(1) 4-9-1 to 15-8-8, Exterior(2) 15-8-8 to 20-1-5, Interior(1) 20-1-5 to 34-4-10 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 30.0psf on the bottom chord in all areas where a rectangle 2-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=373, 7=491.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 985 lb down and 552 lb up at 19-7-12, and 575 lb down and 322 lb up at 21-9-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 4-8=-60, 7-15=-20

August 3,2021

Continued on page 2

TRENCO
818 Soundside Road
Edenton, NC 27932

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 11=-985(F) 24=-575(F)

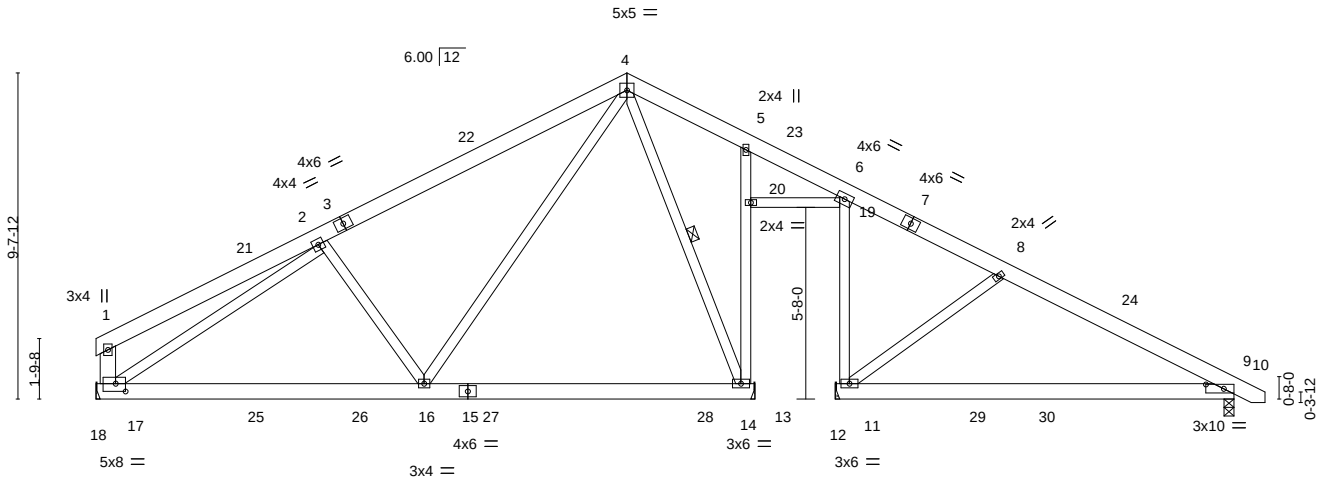
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm E16001304
J0921-5286	A4	GABLE	1	1	Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:26 2021 Page 1
ID:l4HRAT3elT9qoRldAoEs_5z0Axy-egenidEHMhswbc2EyJYTpnCoiLLriKQynvPIZZyrd5x

6-8-8	15-8-8	19-6-0	21-10-8	24-8-8	26-8-8	33-8-0	34-7-0
6-8-8	9-0-0	3-9-8	2-4-8	2-10-0	2-0-0	6-11-8	0-11-0

Scale: 3/16"=1'



9-8-8	19-6-0	21-10-8	33-8-0
9-8-8	9-9-8	2-4-8	11-9-8

Plate Offsets (X,Y)-- [9:0-6-6,0-1-8], [17:0-3-8,0-2-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.17	14-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.34	9-11	>397	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.02	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.02	9-11	>999	240	Weight: 246 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2 *Except* 1-17: 2x6 SP No.1

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 4-14

REACTIONS. All bearings Mechanical except (jt=length) 9=0-3-8.
(lb) - Max Horz 17=-193(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 14 except 17=-182(LC 12), 9=-196(LC 13), 11=-245(LC 13)
Max Grav All reactions 250 lb or less at joint(s) except 17=828(LC 2), 9=504(LC 24), 11=551(LC 1), 14=1061(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	2-4=-908/575, 4-5=-224/500, 5-6=-193/438, 6-8=-168/348, 8-9=-435/462
BOT CHORD	16-17=-303/936, 14-16=-24/294, 9-11=-256/337
WEBS	2-16=-354/361, 4-16=-191/874, 2-17=-850/476, 4-14=-819/68, 8-11=-421/319

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-4-4 to 4-9-1, Interior(1) 4-9-1 to 15-8-8, Exterior(2) 15-8-8 to 20-1-5, Interior(1) 20-1-5 to 34-4-10 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 30.0psf on the bottom chord in all areas where a rectangle 2-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14 except (jt=lb) 17=182, 9=196, 11=245.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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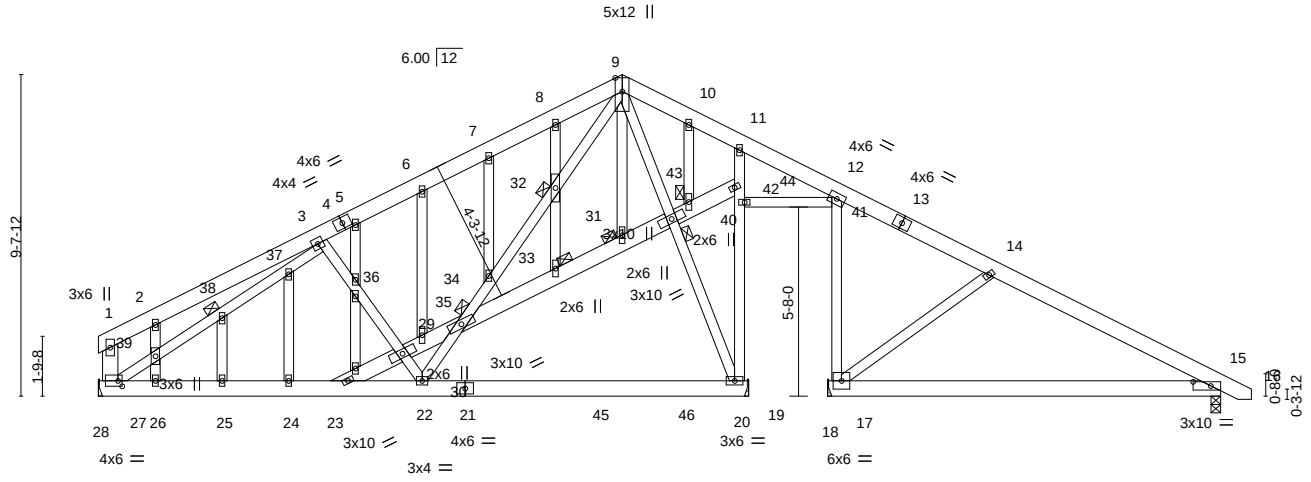
TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5286	A4SG	GABLE	1	1	E16001305
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:28 2021 Page 1
ID:l4HRAT3elT9qoRldAoEs_5z0Axy-a2lX7JGXuJ7eqwCd4kaxuCH9o81XAOWFEDuOdRyrd5v

6-8-8	15-8-8	19-6-0	21-10-8	26-8-8	33-8-0	34-7-0
6-8-8	9-0-0	3-9-8	2-4-8	4-10-0	6-11-8	0-11-0

Scale = 1:65.0



9-8-8	19-6-0	21-10-8	33-8-0
9-8-8	9-9-8	2-4-8	11-9-8

Plate Offsets (X,Y)-- [15:0-6-6,0-1-8], [27:0-1-8,0-2-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.17	15-17	>813	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.34	15-17	>397	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.02	17	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.03	15-17	>999	240	Weight: 322 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2 *Except* 1-27,23-29,29-30,30-43,43-44: 2x6 SP No.1
OTHERS	2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 9-20
JOINTS	1 Brace at Jt(s): 30, 31, 32, 33, 38, 40

REACTIONS. All bearings Mechanical except (jt=length) 15=0-3-8.
(lb) - Max Horz 27=-307(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) except 27=-345(LC 12), 15=-348(LC 13), 17=-387(LC 13), 20=-181(LC 12)
Max Grav All reactions 250 lb or less at joint(s) except 27=767(LC 1), 15=507(LC 1), 17=585(LC 1), 20=827(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD	1-2=-386/256, 2-3=-376/362, 3-5=-810/737, 5-6=-771/742, 6-7=-791/836, 7-8=-777/895, 8-9=-805/959, 9-10=-292/607, 10-11=-307/588, 11-12=-240/505, 12-14=-172/412, 14-15=-442/581, 1-27=-295/181
BOT CHORD	26-27=-425/712, 25-26=-425/712, 24-25=-425/712, 23-24=-425/712, 22-23=-242/463, 15-17=-360/343
WEBS	22-29=-154/289, 22-30=-127/467, 30-34=-414/598, 32-34=-501/656, 9-32=-534/709, 27-39=-521/364, 38-39=-519/353, 37-38=-524/364, 3-37=-604/418, 23-29=-205/333, 29-35=-184/323, 30-35=-263/392, 20-42=-278/170, 42-44=-278/170, 9-43=-528/190, 20-43=-510/147, 14-17=-421/452

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 345 lb uplift at joint 27, 348 lb uplift at joint 15, 387 lb uplift at joint 17 and 181 lb uplift at joint 20.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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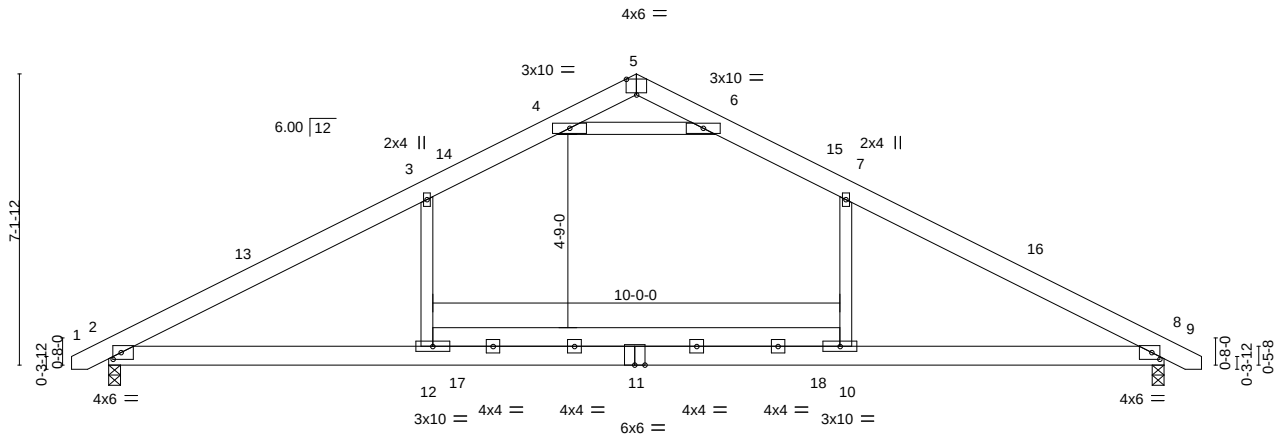
TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5286	B1	COMMON	5	1	E16001306
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:29 2021 Page 1
ID:l4HRAT3elT9qoRldAoEs_5z0Axy-2FJvLfGAfcFVS4npdR5ARPpAaYOWvlAPTtdyAuyrd5u

-0-11-0	7-11-8	12-11-8	17-11-8	25-11-0	26-10-0
0-11-0	7-11-8	5-0-0	5-0-0	7-11-8	0-11-0

Scale = 1:53.3



7-11-8	17-11-8	25-11-0
7-11-8	10-0-0	7-11-8

Plate Offsets (X,Y)-- [2:0-2-6,0-2-0], [5:0-3-0,Edge], [8:0-2-6,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.28	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.46	10-12	>663	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.23	2-12	>999	240	Weight: 174 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-4-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=119(LC 11)
Max Uplift 2=-203(LC 12), 8=-203(LC 13)
Max Grav 2=1140(LC 2), 8=1140(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1772/588, 3-4=-1401/651, 4-5=-286/978, 5-6=-286/978, 6-7=-1401/651, 7-8=-1772/588
BOT CHORD 2-12=-347/1438, 10-12=-350/1438, 8-10=-347/1438
WEBS 3-12=0/497, 7-10=0/497, 4-6=-2532/1014

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 12-11-8, Exterior(2) 12-11-8 to 17-4-5, Interior(1) 17-4-5 to 26-7-10 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 203 lb uplift at joint 2 and 203 lb uplift at joint 8.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

August 3,2021

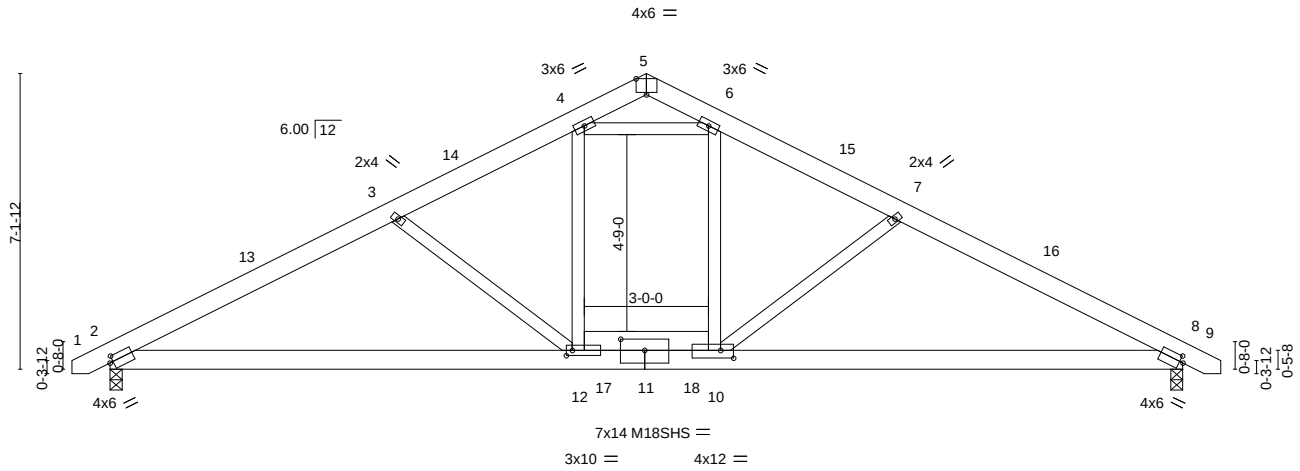
TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm E16001307
J0921-5286	B1A	COMMON	1	1	Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:30 2021 Page 1
ID:I4HRAT3eIT9qoRldAoEs_5z0Axy-WRtHY?HoPwNM3EM?B9cPzdMTaygQeEEYiXNViKyrd5t

-0-11-0	6-11-8	11-5-8	12-11-8	14-5-8	18-11-8	25-11-0	26-10-0
0-11-0	6-11-8	4-6-0	1-6-0	1-6-0	4-6-0	6-11-8	0-11-0

Scale = 1:52.4



11-5-8	14-5-8	25-11-0
11-5-8	3-0-0	11-5-8

Plate Offsets (X,Y)-- [2:0-1-0,0-1-12], [5:0-3-0,Edge], [8:0-1-0,0-1-12], [10:0-3-12,0-2-4], [11:0-7-0,0-3-4], [12:0-1-12,0-1-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.11	2-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.25	2-12	>999	240	M18SHS	244/190
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.48	Horz(CT)	0.06	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.13	2-12	>999	240	Weight: 177 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-9-10 oc bracing.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=119(LC 11)
Max Uplift 2=-396(LC 12), 8=-388(LC 13)
Max Grav 2=1874(LC 1), 8=1840(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3348/1644, 3-4=-3043/1545, 4-5=-292/154, 5-6=-354/189, 6-7=-3015/1532, 7-8=-3289/1611
BOT CHORD 2-12=-1309/2894, 10-12=-1071/2627, 8-10=-1284/2836
WEBS 4-12=-594/1233, 6-10=-482/1041, 4-6=-2325/1271, 3-12=-377/306, 7-10=-304/265

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 12-11-8, Exterior(2) 12-11-8 to 17-4-5, Interior(1) 17-4-5 to 26-7-10 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 396 lb uplift at joint 2 and 388 lb uplift at joint 8.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 985 lb down and 552 lb up at 11-10-12, and 575 lb down and 322 lb up at 14-0-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-60, 5-9=-60, 2-8=-20

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TRENCO
818 Soundside Road
Edenton, NC 27932

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 17=-985(B) 18=-575(B)

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5286	B1GE	COMMON SUPPORTED GAB	1	1	E16001308
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:31 2021 Page 1
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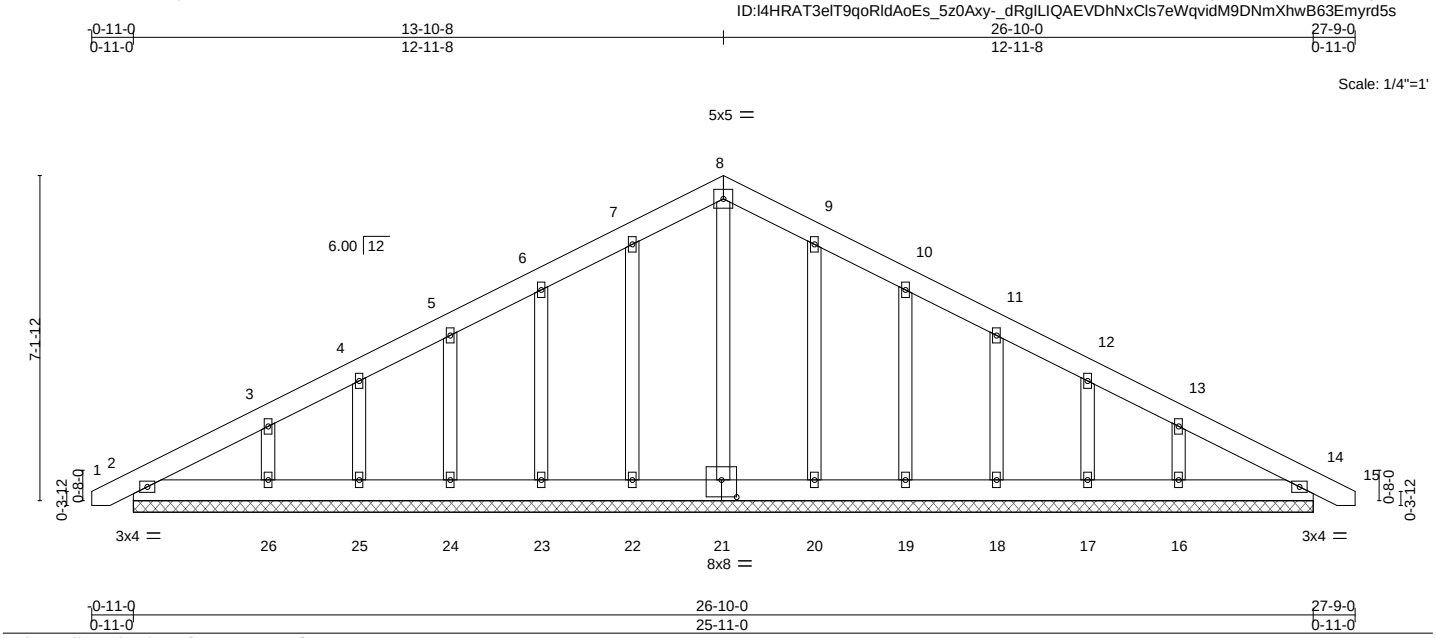

Plate Offsets (X,Y)-- [21:0-4-0,0-4-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	0.00	14	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	14	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 191 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. All bearings 25-11-0.
(lb) - Max Horz 2=184(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 25, 20, 17, 14 except 23=-115(LC 12), 24=-110(LC 12), 26=-171(LC 12), 19=-118(LC 13), 18=-109(LC 13), 16=-167(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 21, 22, 23, 24, 25, 26, 20, 19, 18, 17, 16, 14

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 7-8=-120/304, 8-9=-120/303

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 22, 25, 20, 17, 14 except (jt=lb) 23=115, 24=110, 26=171, 19=118, 18=109, 16=167.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5286	C1-GR	Roof Special Girder	1	2	E16001309
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:33 2021 Page 1
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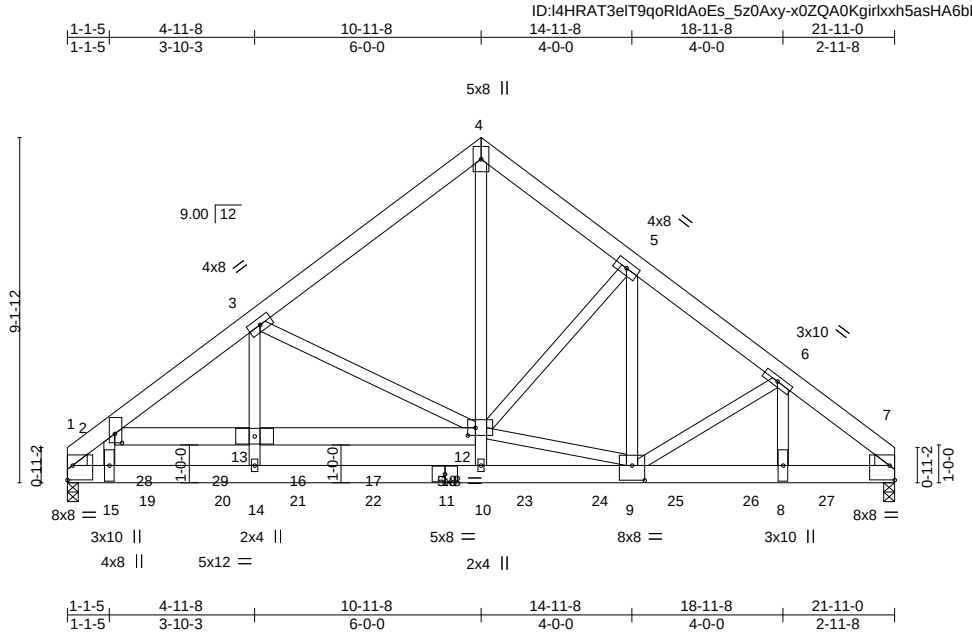

Plate Offsets (X,Y)-- [1:Edge,0-4-10], [2:0-2-14,0-2-4], [7:Edge,0-4-10], [9:0-4-0,0-4-12], [12:0-2-8,0-2-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.15	12-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.31	12-13	>843	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.91	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.15	12-13	>999	240	Weight: 399 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP 2400F 2.0E
WEBS 2x4 SP No.2
WEDGE
Left: 2x4 SP No.2 , Right: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-11-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=0-3-8, 7=0-3-8
Max Horz 1=-275(LC 25)
Max Uplift 1=-1263(LC 8), 7=-1390(LC 9)
Max Grav 1=7583(LC 1), 7=7705(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-10129/1691, 2-3=-9954/1689, 3-4=-6372/1197, 4-5=-6163/1169, 5-6=-8950/1599, 6-7=-10911/1947
BOT CHORD 12-13=-199/1348, 1-15=-1112/6124, 14-15=-1112/6124, 10-14=-1192/6650, 9-10=-1203/6789, 8-9=-1363/7919, 7-8=-1363/7919, 2-13=-266/1793
WEBS 13-14=-158/1269, 3-13=-496/3482, 3-12=-3357/714, 5-9=-681/4032, 10-12=-123/1345, 4-12=-1276/7071, 9-12=-232/708, 5-12=-3363/728, 2-15=-386/1995, 6-9=-955/322, 6-8=-446/2474

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1263, 7=1390.

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Continued on page 2

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NOTES-

8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1313 lb down and 242 lb up at 2-0-12, 1318 lb down and 252 lb up at 4-0-12, 1318 lb down and 252 lb up at 6-0-12, 1318 lb down and 252 lb up at 8-0-12, 1318 lb down and 252 lb up at 10-0-12, 1505 lb down and 242 lb up at 12-0-12, 1505 lb down and 242 lb up at 14-0-12, 1505 lb down and 242 lb up at 16-0-12, and 2003 lb down and 393 lb up at 18-0-12, and 808 lb down and 202 lb up at 20-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-60, 4-7=-60, 12-29=-20, 1-7=-20, 2-29=-20
   Concentrated Loads (lb)
   Vert: 16=-1318(B) 17=-1318(B) 18=-1318(B) 19=-1313(B) 20=-1318(B) 23=-1313(B) 24=-1313(B) 25=-1313(B) 26=-1934(B) 27=-739(B)

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm E16001310
J0921-5286	C1SG	GABLE	1	1	Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:34 2021 Page 1
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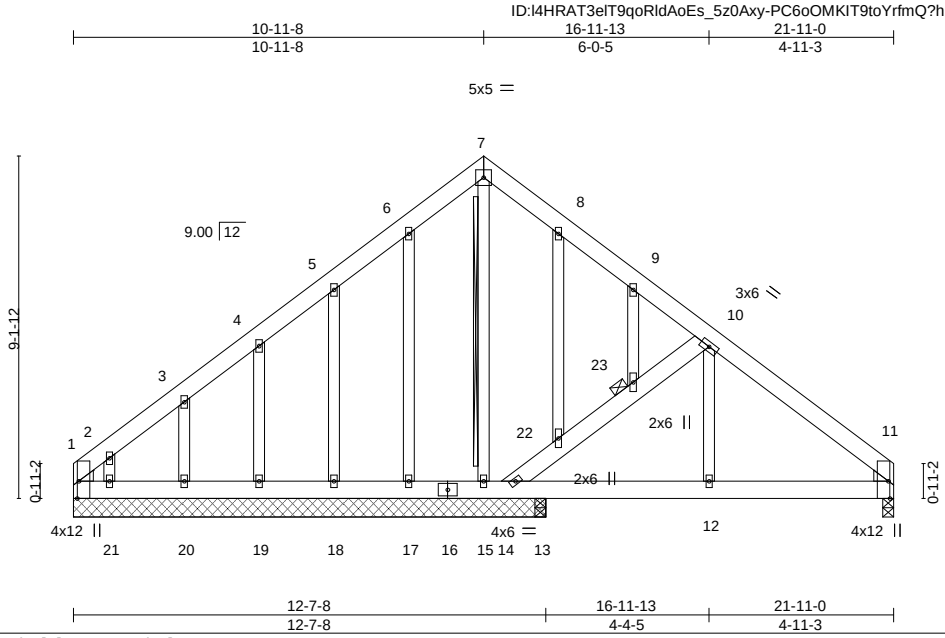

Plate Offsets (X,Y)-- [1:0-5-8,Edge], [11:0-5-8,Edge]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.00	11-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.01	11-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.01	11-12	>999	240	Weight: 191 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1 *Except*
10-12: 2x4 SP No.2
OTHERS 2x4 SP No.2
WEDGE
Left: 2x4 SP No.2 , Right: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 13-14,12-13,11-12.
WEBS T-Brace: 2x4 SPF No.2 - 7-15
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.
JOINTS 1 Brace at Jt(s): 23

REACTIONS. All bearings 12-7-8 except (jt=length) 11=0-3-8, 13=0-3-8.
(lb) - Max Horz 1=-344(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) except 1=-222(LC 10), 11=-139(LC 13), 14=-335(LC 13), 17=-108(LC 12), 18=-159(LC 12), 19=-144(LC 12), 20=-157(LC 12), 21=-257(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 17, 18, 19, 20, 21, 13 except 1=369(LC 12), 11=390(LC 1), 14=281(LC 20), 15=257(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-492/348, 2-3=-311/231, 10-11=-423/170
BOT CHORD 1-21=-247/331, 20-21=-247/331, 19-20=-247/331, 18-19=-247/331, 17-18=-247/331, 15-17=-247/331, 14-15=-247/331, 13-14=-12/279, 12-13=-12/279, 11-12=-12/279
WEBS 14-22=-618/439, 22-23=-539/373, 10-23=-542/374, 2-21=-236/254

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 222 lb uplift at joint 1, 139 lb uplift at joint 11, 335 lb uplift at joint 14, 108 lb uplift at joint 17, 159 lb uplift at joint 18, 144 lb uplift at joint 19, 157 lb uplift at joint 20 and 257 lb uplift at joint 21.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

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Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5286	D1	COMMON	5	1	E16001311
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:35 2021 Page 1
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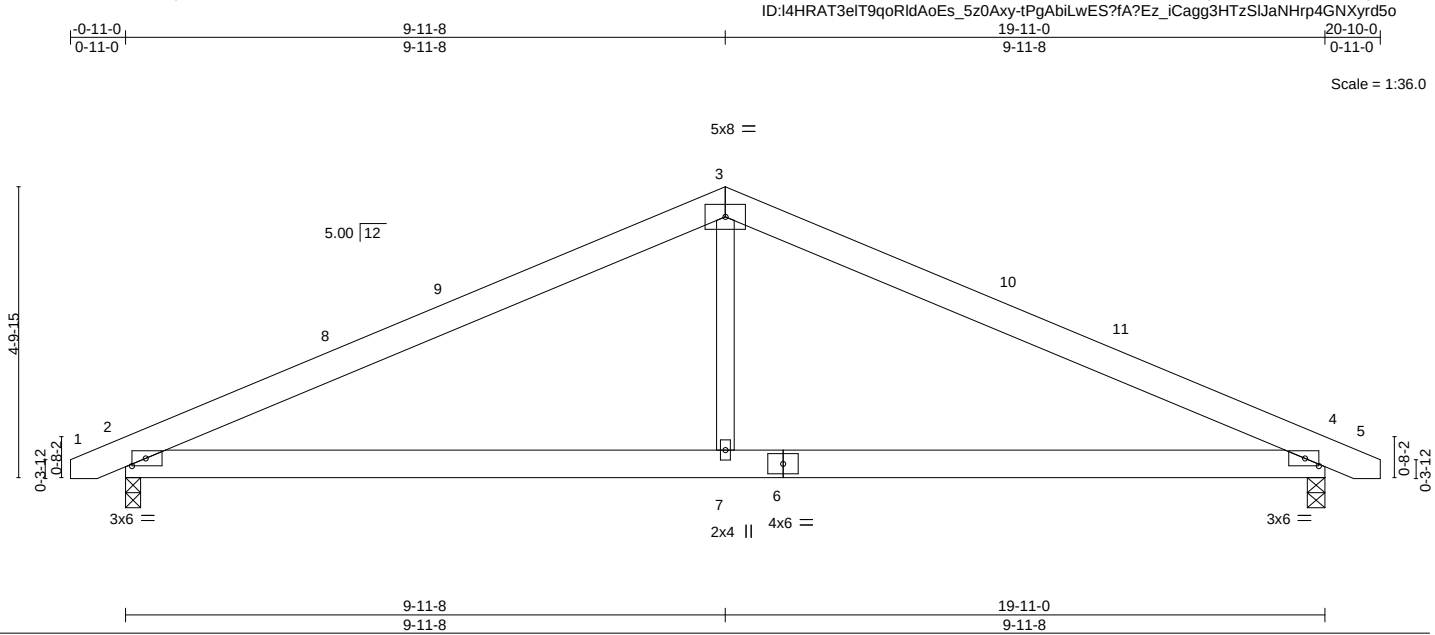

Plate Offsets (X,Y)-- [2:0-2-12,0-1-8], [4:0-2-12,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.05	2-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.13	2-7	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.05	2-7	>999	240	Weight: 108 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-10-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=0-3-8, 2=0-3-0
Max Horz 2=-71(LC 17)
Max Uplift 4=-163(LC 13), 2=-162(LC 12)
Max Grav 4=836(LC 1), 2=835(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1239/498, 3-4=-1240/498
BOT CHORD 2-7=-293/1030, 4-7=-293/1030
WEBS 3-7=0/477

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-6 to 3-8-7, Interior(1) 3-8-7 to 9-11-8, Exterior(2) 9-11-8 to 14-4-5, Interior(1) 14-4-5 to 20-7-6 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 163 lb uplift at joint 4 and 162 lb uplift at joint 2.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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TRENCO
818 Soundside Road
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Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm E16001312
J0921-5286	D1GE	GABLE	1	1	Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:37 2021 Page 1
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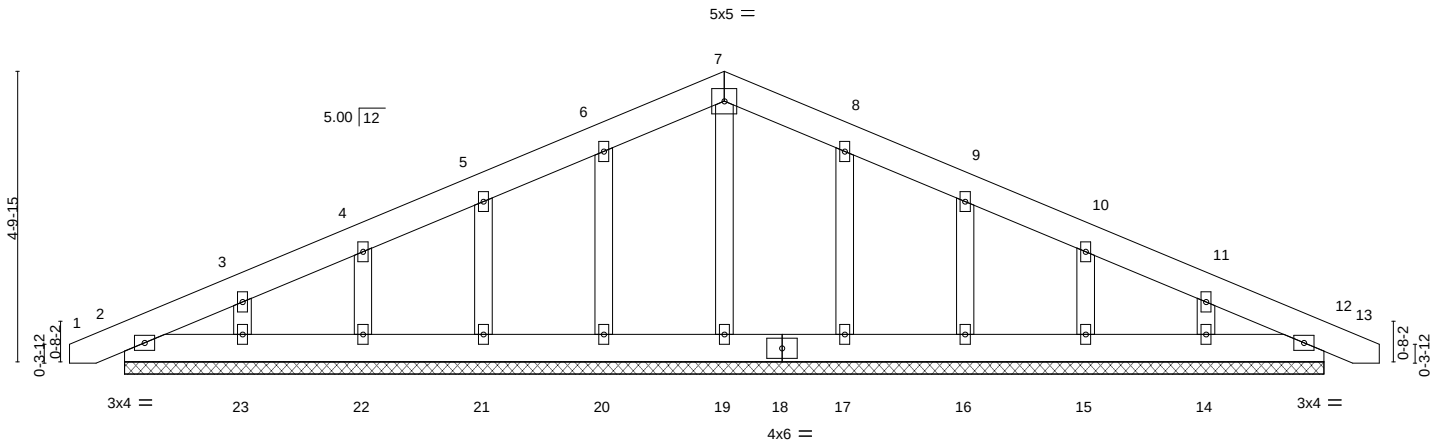

19-11-0
19-11-0

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	0.00	12	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	0.00	12	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 130 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. All bearings 19-11-0.
(lb) - Max Horz 2=-120(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 12, 2, 20, 22, 17, 15 except 21=-102(LC 12), 23=-116(LC 12), 16=-103(LC 13), 14=-112(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 12, 2, 19, 20, 21, 22, 23, 17, 16, 15, 14

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 2, 20, 22, 17, 15 except (jt=lb) 21=102, 23=116, 16=103, 14=112.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5286	G1	COMMON	4	1	E16001313
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:38 2021 Page 1
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-0-11-0	4-11-8	9-11-0	10-10-0
0-11-0	4-11-8	4-11-8	0-11-0

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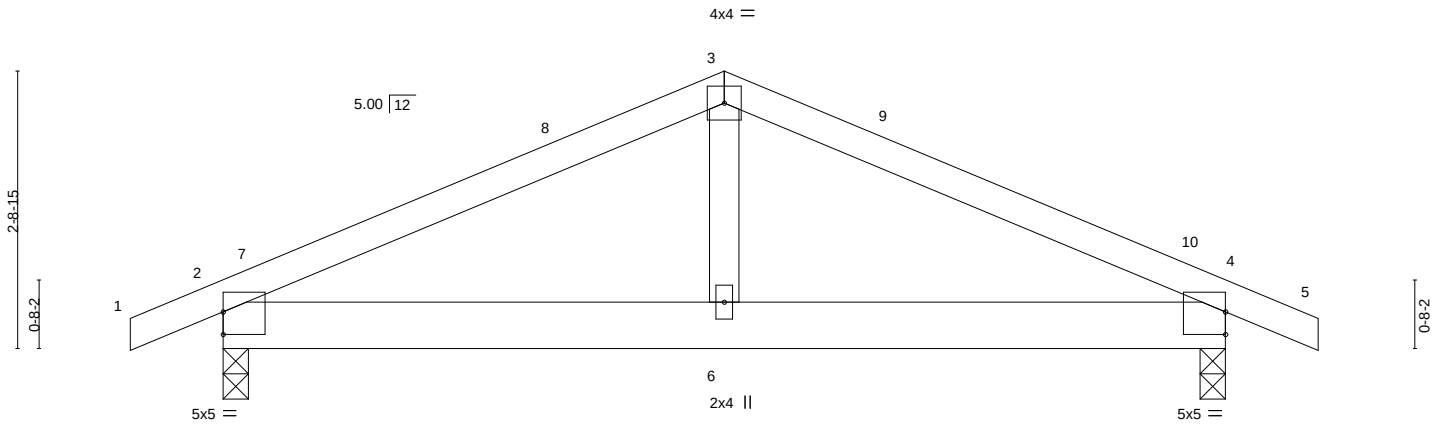

4-11-8	9-11-0
4-11-8	4-11-8

Plate Offsets (X,Y)-- [2:0-0-0,0-2-11], [4:Edge,0-2-11]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	0.03	2-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.01	4-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 45 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-2-9 oc bracing.

REACTIONS. (size) 2=0-3-0, 4=0-3-0
Max Horz 2=-39(LC 17)
Max Uplift 2=-225(LC 8), 4=-225(LC 9)
Max Grav 2=449(LC 1), 4=449(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-554/872, 3-4=-554/872
BOT CHORD 2-6=-667/437, 4-6=-667/437
WEBS 3-6=-461/239

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-0 to 3-5-13, Interior(1) 3-5-13 to 4-11-8, Exterior(2) 4-11-8 to 9-4-5, Interior(1) 9-4-5 to 10-10-0 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=225, 4=225.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm E16001314
J0921-5286	G1GE	GABLE	1	1	Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:38 2021 Page 1
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0-11-0 4-11-8 4-11-8 0-11-0

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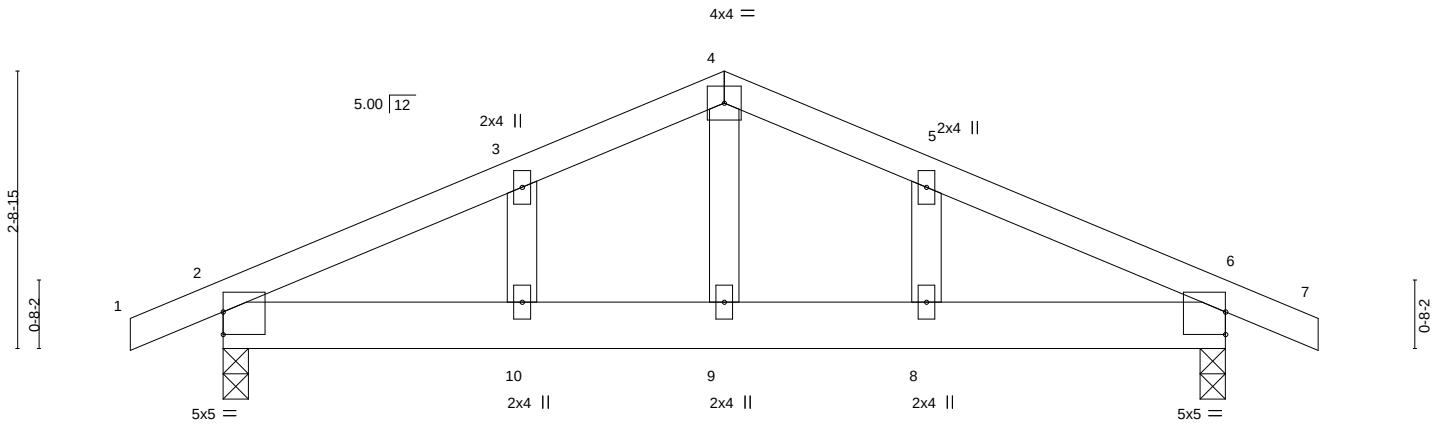

4-11-8 9-11-0
4-11-8 4-11-8

Plate Offsets (X,Y)-- [2:0-0-0,0-2-11], [6:Edge,0-2-11]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	-0.01	8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.02	8	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	-0.01	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.02	8	>999	240	Weight: 49 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
OTHERS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-1-14 oc bracing.

REACTIONS. (size) 2=0-3-0, 6=0-3-0
Max Horz 2=-66(LC 13)
Max Uplift 2=-297(LC 8), 6=-297(LC 9)
Max Grav 2=449(LC 1), 6=449(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-541/873, 3-4=-494/920, 4-5=-494/920, 5-6=-541/873
BOT CHORD 2-10=-688/437, 9-10=-688/437, 8-9=-688/437, 6-8=-688/437
WEBS 4-9=-534/232

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=297, 6=297.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5286	H1GE	COMMON SUPPORTED GAB	1	1	E16001315
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:39 2021 Page 1
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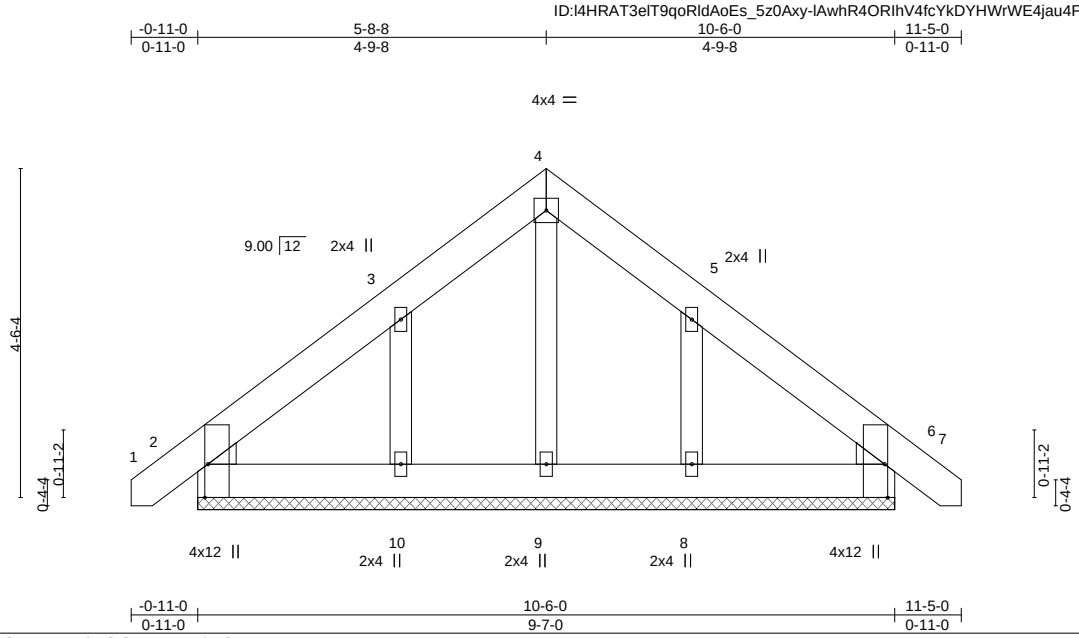

Plate Offsets (X,Y)-- [2:0-5-8,Edge], [6:0-5-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	0.00	6	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	6	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 69 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2
WEDGE
Left: 2x4 SP No.2 , Right: 2x4 SP No.2

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

REACTIONS. All bearings 9-7-0.
(lb) - Max Horz 2=166(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 6 except 10=-229(LC 12), 8=-223(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9 except 10=283(LC 19), 8=277(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-10=-279/241, 5-8=-280/237

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6 except (jt=lb) 10=229, 8=223.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm E16001316
J0921-5286	J1	MONOPITCH	6	1	Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:40 2021 Page 1
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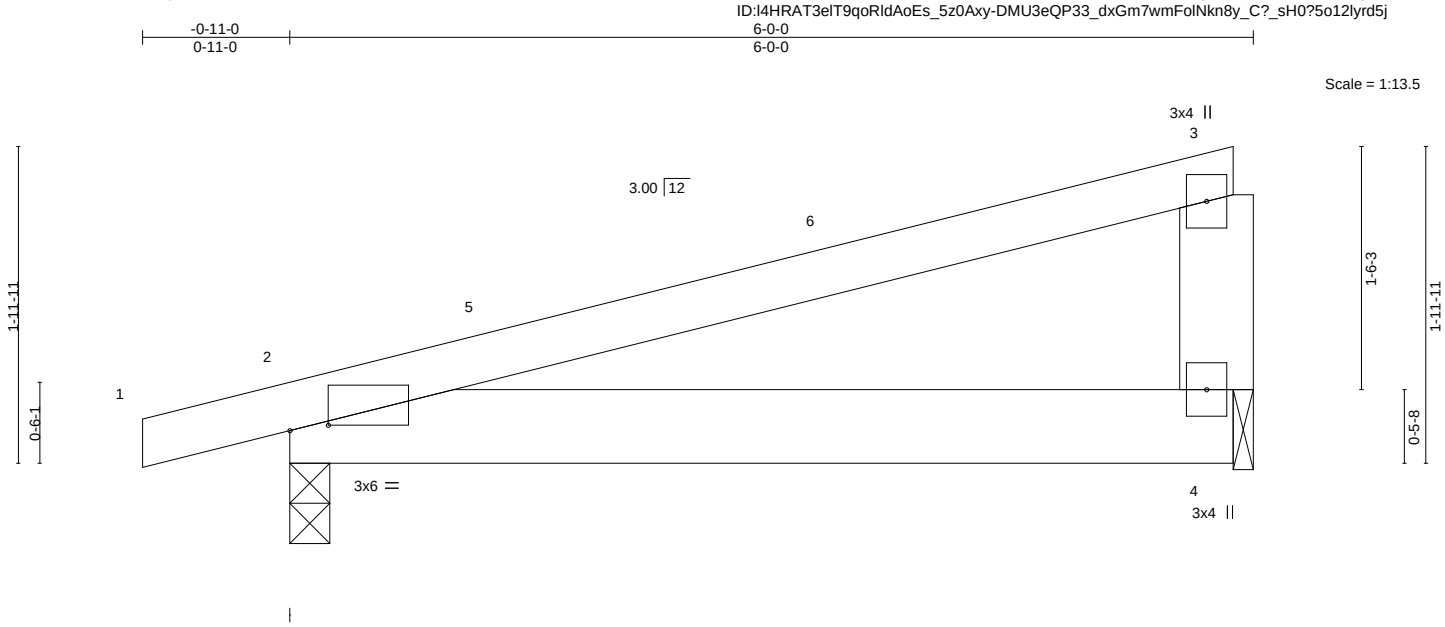

Plate Offsets (X,Y)-- [2:0-2-14,0-0-6]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	0.04	2-4	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.03	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 27 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1

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

REACTIONS. (size) 2=0-3-0, 4=0-1-8
Max Horz 2=75(LC 8)
Max Uplift 2=-188(LC 8), 4=-143(LC 8)
Max Grav 2=294(LC 1), 4=220(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-11-0 to 3-5-13, Interior(1) 3-5-13 to 5-9-4 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=188, 4=143.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5286	J1GE	GABLE	1	1	E16001317
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:41 2021 Page 1
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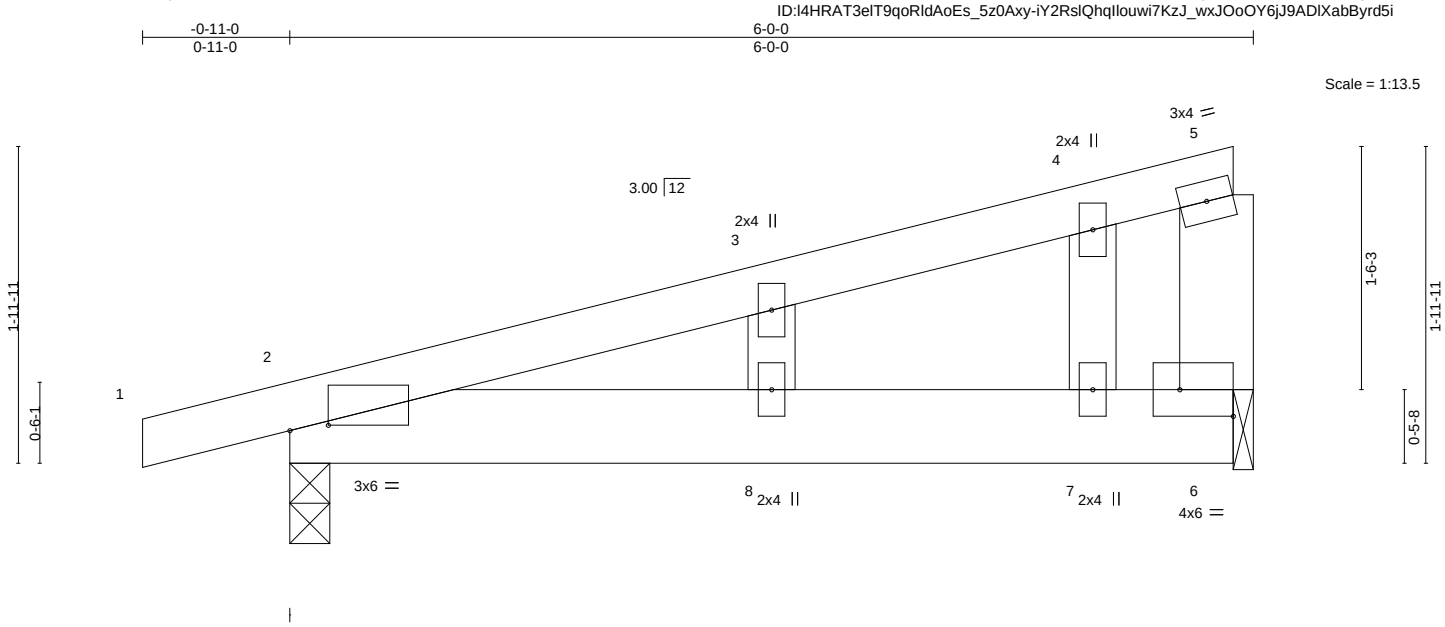

Plate Offsets (X,Y)-- [2:0-2-14,0-0-6], [6:Edge,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	0.04	8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.02	8	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 29 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. (size) 2=0-3-0, 6=0-1-8
Max Horz 2=106(LC 8)
Max Uplift 2=-259(LC 8), 6=-199(LC 8)
Max Grav 2=294(LC 1), 6=220(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD 2-8=-275/133, 7-8=-275/133, 6-7=-275/133

NOTES-
1) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) Gable studs spaced at 2-0-0 oc.
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=259, 6=199.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5286	M1	MONOPITCH	6	1	E16001318
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:41 2021 Page 1
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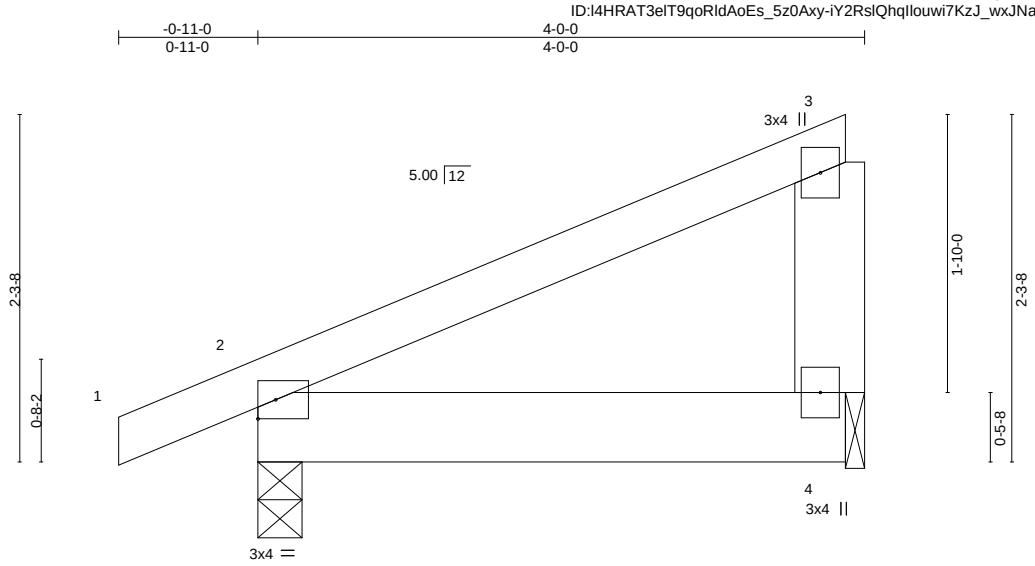

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.00	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.00	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 20 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x6 SP No.1

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

REACTIONS. (size) 2=0-3-8, 4=0-1-8
Max Horz 2=84(LC 12)
Max Uplift 2=-48(LC 8), 4=-52(LC 12)
Max Grav 2=218(LC 1), 4=136(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 3,2021

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5286	M1GE	GABLE	1	1	E16001319
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:42 2021 Page 1
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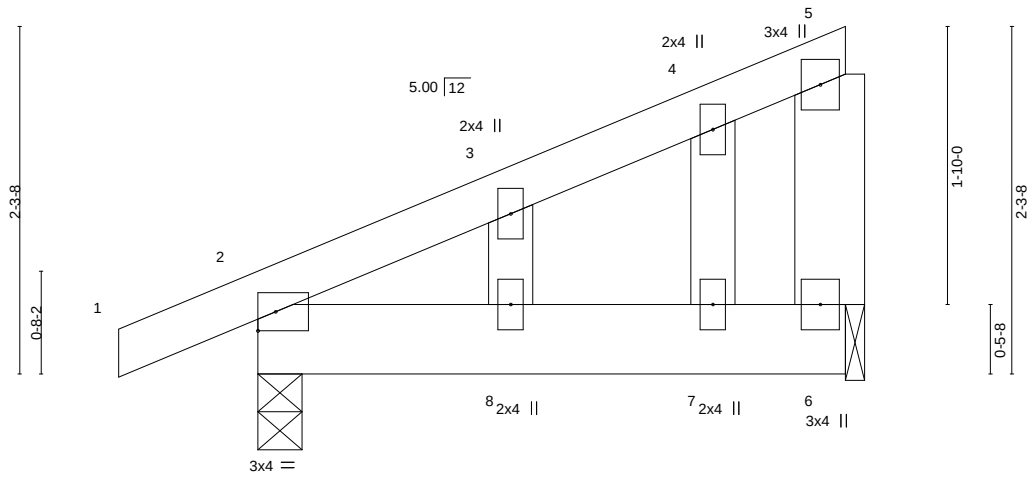

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	0.00	8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.00	8	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	-0.00	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 23 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x6 SP No.1 *Except* 3-8: 2x4 SP No.2
OTHERS	2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 6=0-1-8
Max Horz 2=121(LC 12)
Max Uplift 2=-90(LC 12), 6=-93(LC 12)
Max Grav 2=218(LC 1), 6=136(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

1) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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.
3) Gable studs spaced at 2-0-0 oc.
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5286	M2	HALF HIP	6	1	E16001320
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:43 2021 Page 1
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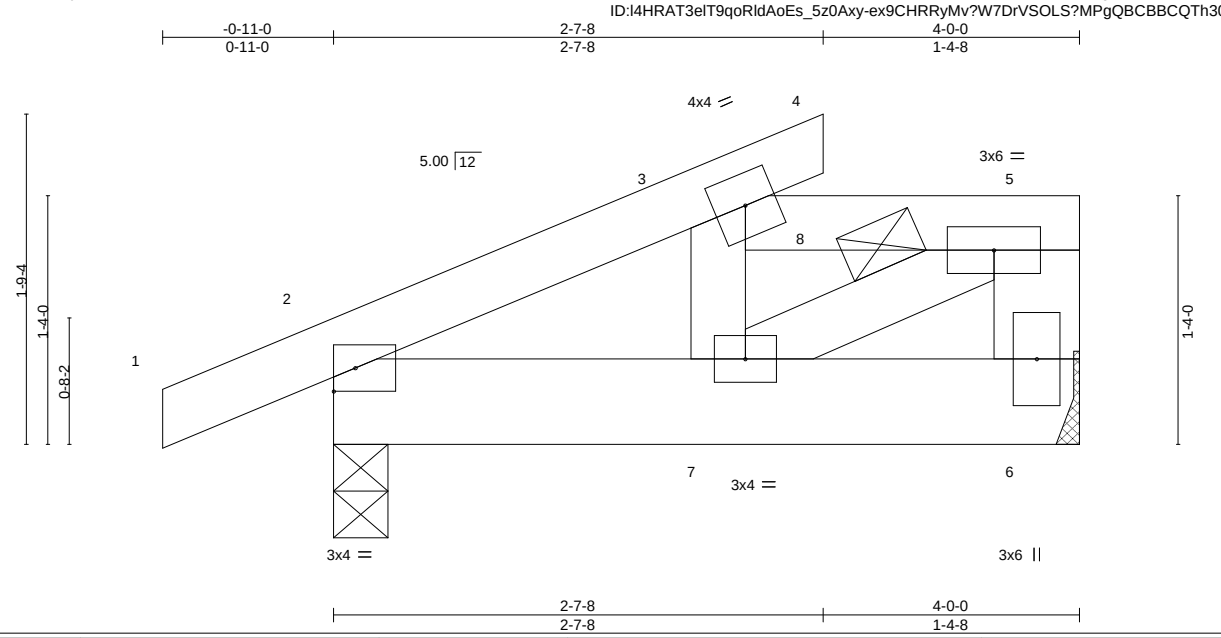

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.00	7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.00	7	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.10	Horz(CT)	-0.00	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P		Wind(LL)	0.01	7	>999	240	Weight: 23 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
5-6: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=Mechanical, 2=0-3-8
Max Horz 2=59(LC 12)
Max Uplift 6=-112(LC 9), 2=-93(LC 8)
Max Grav 6=546(LC 22), 2=387(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-470/402, 3-5=-366/461, 5-6=-489/492
BOT CHORD 2-7=-492/386
WEBS 3-7=-245/382, 5-7=-528/420

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 6=112.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-4=-60, 3-8=-40, 5-8=-80, 2-6=-20
Concentrated Loads (lb)
Vert: 8=-500

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LOAD CASE(S) Standard

2) Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-50, 3-4=-50, 3-8=-100, 5-8=-130, 2-6=-20
   Concentrated Loads (lb)
   Vert: 8=-438
3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-3=-20, 3-4=-20, 3-5=-40, 2-6=-40
   Concentrated Loads (lb)
   Vert: 8=-375
4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=98, 2-3=82, 3-4=207, 3-5=67, 2-6=-12
   Horz: 1-2=-110, 2-3=-94, 3-4=-219
   Concentrated Loads (lb)
   Vert: 8=467
5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=73, 2-3=82, 3-4=73, 3-5=67, 2-6=-12
   Horz: 1-2=-85, 2-3=-94, 3-4=-85
   Concentrated Loads (lb)
   Vert: 8=467
6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=5, 2-3=-54, 3-4=30, 3-5=-64, 2-6=-20
   Horz: 1-2=-25, 2-3=34, 3-4=-50
   Concentrated Loads (lb)
   Vert: 8=-462
7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-45, 2-3=-54, 3-4=-45, 3-5=-64, 2-6=-20
   Horz: 1-2=25, 2-3=34, 3-4=25
   Concentrated Loads (lb)
   Vert: 8=-462
8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=40, 2-3=20, 3-4=11, 3-5=11, 2-6=-12
   Horz: 1-2=-52, 2-3=-32, 3-4=-23
   Concentrated Loads (lb)
   Vert: 8=121
9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=11, 2-3=20, 3-4=41, 3-5=11, 2-6=-12
   Horz: 1-2=-23, 2-3=-32, 3-4=-53
   Concentrated Loads (lb)
   Vert: 8=121
10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=3, 2-3=-6, 3-4=3, 3-5=-15, 2-6=-20
   Horz: 1-2=-23, 2-3=-14, 3-4=-23
   Concentrated Loads (lb)
   Vert: 8=-306
11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=3, 2-3=-6, 3-4=3, 3-5=-15, 2-6=-20
   Horz: 1-2=-23, 2-3=-14, 3-4=-23
   Concentrated Loads (lb)
   Vert: 8=-306
12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=22, 2-3=31, 3-4=22, 3-5=-5, 2-6=-12
   Horz: 1-2=-34, 2-3=-43, 3-4=-34
   Concentrated Loads (lb)
   Vert: 8=121
13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=6, 2-3=15, 3-4=6, 3-5=-5, 2-6=-12
   Horz: 1-2=-18, 2-3=-27, 3-4=-18
   Concentrated Loads (lb)
   Vert: 8=21
14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=22, 2-3=31, 3-4=22, 3-5=-5, 2-6=-12
   Horz: 1-2=-34, 2-3=-43, 3-4=-34
   Concentrated Loads (lb)
   Vert: 8=121

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LOAD CASE(S) Standard

15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=6, 2-3=15, 3-4=6, 3-5=-5, 2-6=-12
Horz: 1-2=-18, 2-3=-27, 3-4=-18
Concentrated Loads (lb)
Vert: 8=21

16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=14, 2-3=5, 3-4=14, 3-5=-31, 2-6=-20
Horz: 1-2=-34, 2-3=-25, 3-4=-34
Concentrated Loads (lb)
Vert: 8=-306

17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-2, 2-3=-11, 3-4=-2, 3-5=-31, 2-6=-20
Horz: 1-2=-18, 2-3=-9, 3-4=-18
Concentrated Loads (lb)
Vert: 8=-306

18) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (plf)
Vert: 1-3=-20, 3-4=-20, 3-5=-120, 2-6=-20
Concentrated Loads (lb)
Vert: 8=-250

19) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-33, 2-3=-40, 3-4=-33, 3-8=-81, 5-8=-111, 2-6=-20
Horz: 1-2=-17, 2-3=-10, 3-4=-17
Concentrated Loads (lb)
Vert: 8=-480

20) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-33, 2-3=-39, 3-4=-33, 3-8=-81, 5-8=-111, 2-6=-20
Horz: 1-2=-17, 2-3=-11, 3-4=-17
Concentrated Loads (lb)
Vert: 8=-480

21) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-24, 2-3=-31, 3-4=-24, 3-8=-93, 5-8=-123, 2-6=-20
Horz: 1-2=-26, 2-3=-19, 3-4=-26
Concentrated Loads (lb)
Vert: 8=-480

22) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-36, 2-3=-43, 3-4=-36, 3-8=-93, 5-8=-123, 2-6=-20
Horz: 1-2=-14, 2-3=-7, 3-4=-14
Concentrated Loads (lb)
Vert: 8=-480

23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-4=-60, 3-8=-40, 5-8=-80, 2-6=-20
Concentrated Loads (lb)
Vert: 8=-500

24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-20, 3-4=-20, 3-8=-40, 5-8=-80, 2-6=-20
Concentrated Loads (lb)
Vert: 8=-500

25) 3rd Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-50, 3-4=-50, 3-8=-100, 5-8=-130, 2-6=-20
Concentrated Loads (lb)
Vert: 8=-438

26) 4th Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-20, 3-4=-20, 3-8=-100, 5-8=-130, 2-6=-20
Concentrated Loads (lb)
Vert: 8=-438

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5286	M2A	HALF HIP	1	2	E16001321
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:44 2021 Page 1
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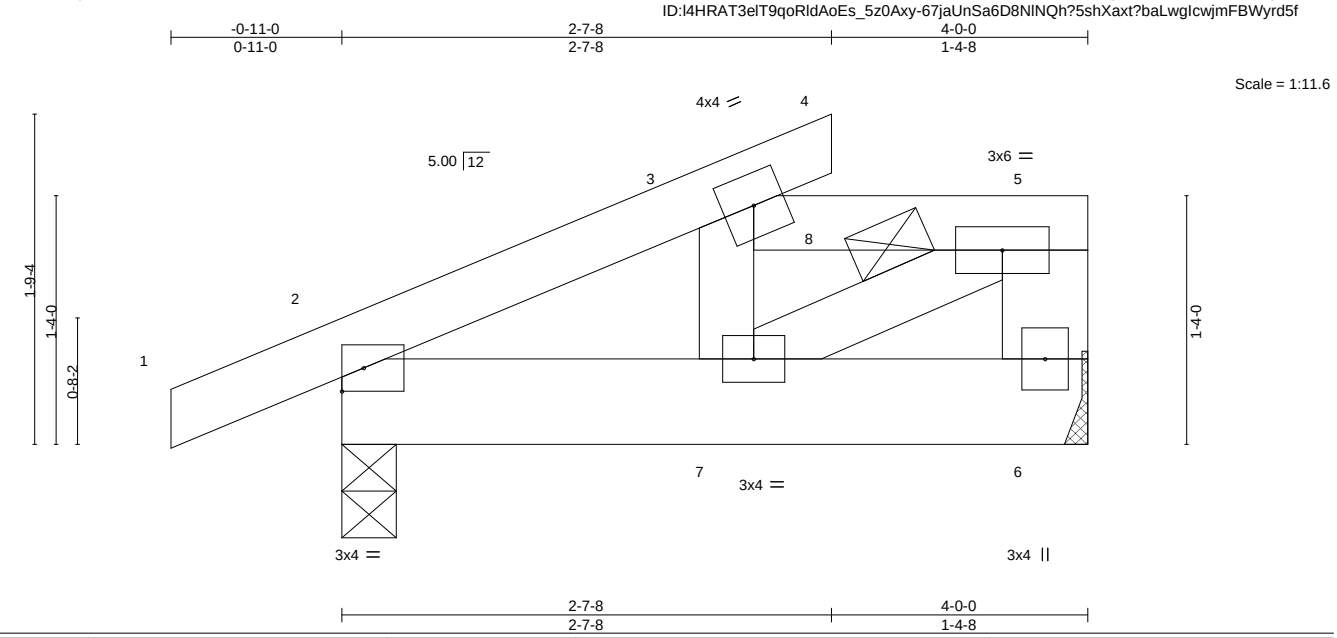

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.00	2	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.00	7	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.06	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P		Wind(LL)	0.00	7	>999	240	Weight: 45 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
5-6: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 6=Mechanical, 2=0-3-8
Max Horz 2=59(LC 8)
Max Uplift 2=-40(LC 4)
Max Grav 6=708(LC 18), 2=439(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-565/0, 3-5=-445/17, 5-6=-641/0
BOT CHORD 2-7=-20/471
WEBS 3-7=-308/37, 5-7=-19/511

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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TRENCO
818 Soundside Road
Edenton, NC 27932

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-60, 3-4=-60, 3-8=-160, 5-8=-200, 2-6=-20
   Concentrated Loads (lb)
   Vert: 8=-500
2) Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-50, 3-4=-50, 3-8=-220, 5-8=-250, 2-6=-20
   Concentrated Loads (lb)
   Vert: 8=-438
3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-3=-20, 3-4=-20, 3-5=-160, 2-6=-40
   Concentrated Loads (lb)
   Vert: 8=-375
4) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=40, 2-3=20, 3-4=11, 3-5=-109, 2-6=-12
   Horz: 1-2=-52, 2-3=-32, 3-4=-23
   Concentrated Loads (lb)
   Vert: 8=121
5) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=11, 2-3=20, 3-4=41, 3-5=-109, 2-6=-12
   Horz: 1-2=-23, 2-3=-32, 3-4=-53
   Concentrated Loads (lb)
   Vert: 8=121
6) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=3, 2-3=-6, 3-4=3, 3-5=-135, 2-6=-20
   Horz: 1-2=-23, 2-3=-14, 3-4=-23
   Concentrated Loads (lb)
   Vert: 8=-306
7) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=3, 2-3=-6, 3-4=3, 3-5=-135, 2-6=-20
   Horz: 1-2=-23, 2-3=-14, 3-4=-23
   Concentrated Loads (lb)
   Vert: 8=-306
8) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=22, 2-3=31, 3-4=22, 3-5=-125, 2-6=-12
   Horz: 1-2=-34, 2-3=-43, 3-4=-34
   Concentrated Loads (lb)
   Vert: 8=121
9) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=6, 2-3=15, 3-4=6, 3-5=-125, 2-6=-12
   Horz: 1-2=-18, 2-3=-27, 3-4=-18
   Concentrated Loads (lb)
   Vert: 8=21
10) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=22, 2-3=31, 3-4=22, 3-5=-125, 2-6=-12
    Horz: 1-2=-34, 2-3=-43, 3-4=-34
    Concentrated Loads (lb)
    Vert: 8=121
11) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=6, 2-3=15, 3-4=6, 3-5=-125, 2-6=-12
    Horz: 1-2=-18, 2-3=-27, 3-4=-18
    Concentrated Loads (lb)
    Vert: 8=21
12) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=14, 2-3=5, 3-4=14, 3-5=-151, 2-6=-20
    Horz: 1-2=-34, 2-3=-25, 3-4=-34
    Concentrated Loads (lb)
    Vert: 8=-306
13) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=-2, 2-3=-11, 3-4=-2, 3-5=-151, 2-6=-20
    Horz: 1-2=-18, 2-3=-9, 3-4=-18
    Concentrated Loads (lb)
    Vert: 8=-306

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LOAD CASE(S) Standard

14) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (plf)
Vert: 1-3=-20, 3-4=-20, 3-5=-240, 2-6=-20
Concentrated Loads (lb)
Vert: 8=-250

15) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-33, 2-3=-40, 3-4=-33, 3-8=-201, 5-8=-231, 2-6=-20
Horz: 1-2=-17, 2-3=-10, 3-4=-17
Concentrated Loads (lb)
Vert: 8=-480

16) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-33, 2-3=-39, 3-4=-33, 3-8=-201, 5-8=-231, 2-6=-20
Horz: 1-2=-17, 2-3=-11, 3-4=-17
Concentrated Loads (lb)
Vert: 8=-480

17) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-24, 2-3=-31, 3-4=-24, 3-8=-213, 5-8=-243, 2-6=-20
Horz: 1-2=-26, 2-3=-19, 3-4=-26
Concentrated Loads (lb)
Vert: 8=-480

18) Dead + 0.75 Roof Live (bal.) + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-36, 2-3=-43, 3-4=-36, 3-8=-213, 5-8=-243, 2-6=-20
Horz: 1-2=-14, 2-3=-7, 3-4=-14
Concentrated Loads (lb)
Vert: 8=-480

19) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-4=-60, 3-8=-160, 5-8=-200, 2-6=-20
Concentrated Loads (lb)
Vert: 8=-500

20) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-20, 3-4=-20, 3-8=-160, 5-8=-200, 2-6=-20
Concentrated Loads (lb)
Vert: 8=-500

21) 3rd Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-50, 3-4=-50, 3-8=-220, 5-8=-250, 2-6=-20
Concentrated Loads (lb)
Vert: 8=-438

22) 4th Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-20, 3-4=-20, 3-8=-220, 5-8=-250, 2-6=-20
Concentrated Loads (lb)
Vert: 8=-438

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm E16001322
J0921-5286	V1	VALLEY	1	1	Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:44 2021 Page 1
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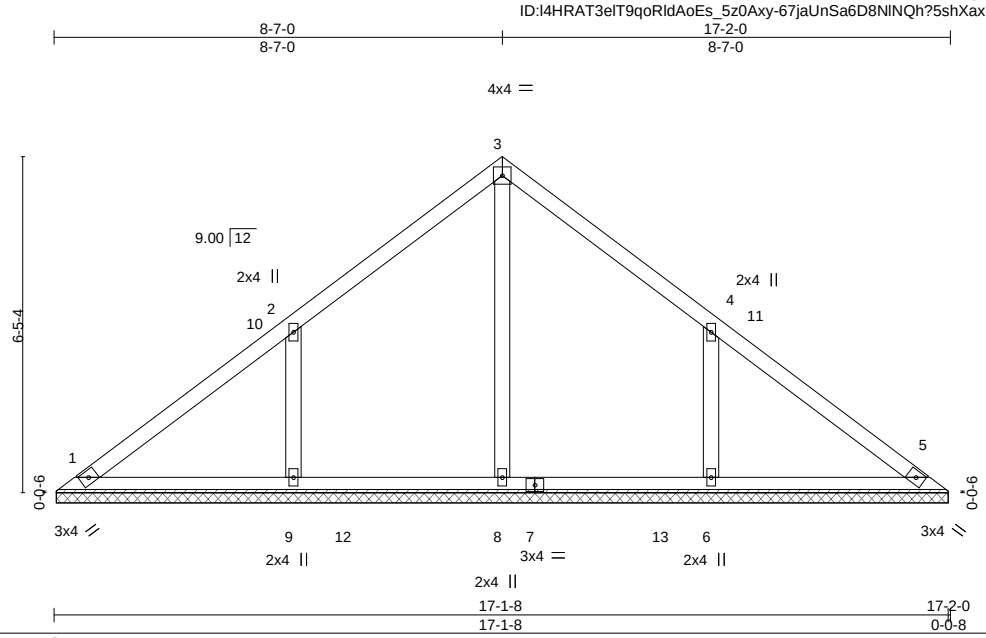

Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 73 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. All bearings 17-1-0.
(lb) - Max Horz 1=195(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=-218(LC 12), 6=-218(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=418(LC 19), 9=496(LC 19), 6=496(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-455/344, 4-6=-455/345

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-5 to 4-7-0, Interior(1) 4-7-0 to 8-7-0, Exterior(2) 8-7-0 to 12-11-13, Interior(1) 12-11-13 to 16-8-11 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 1 except (jt=lb) 9=218, 6=218.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5286	V2	VALLEY	1	1	E16001323
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:45 2021 Page 1
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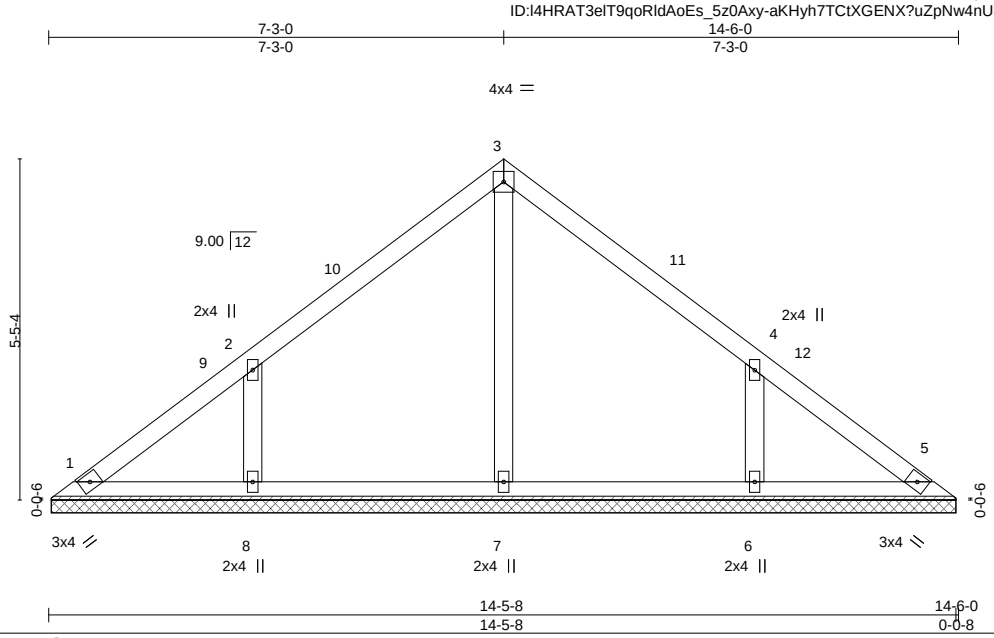

Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 60 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. All bearings 14-5-0.
(lb) - Max Horz 1=163(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-184(LC 12), 6=-184(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=375(LC 19), 6=375(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-388/310, 4-6=-388/310

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-5 to 4-10-1, Interior(1) 4-10-1 to 7-3-0, Exterior(2) 7-3-0 to 11-7-13, Interior(1) 11-7-13 to 14-0-11 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=184, 6=184.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm E16001324
J0921-5286	V3	VALLEY	1	1	Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:46 2021 Page 1
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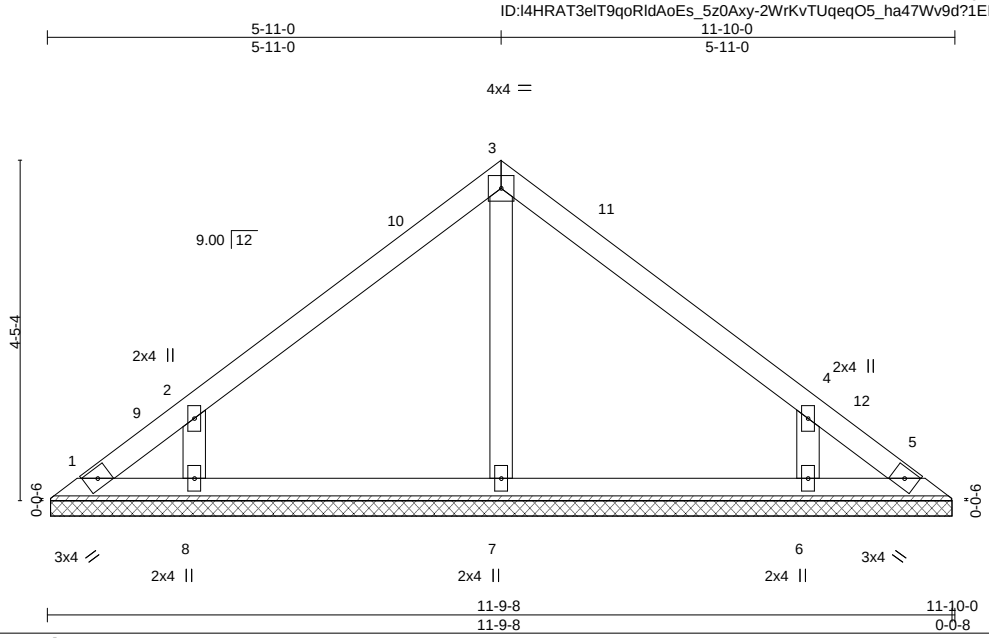

Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 46 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. All bearings 11-9-0.
(lb) - Max Horz 1=-131(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-172(LC 12), 6=-171(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=253(LC 1), 8=343(LC 19), 6=342(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-372/316, 4-6=-372/316

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 0-5-5 to 4-10-1, Interior(1) 4-10-1 to 5-11-0, Exterior(2) 5-11-0 to 10-3-13, Interior(1) 10-3-13 to 11-4-11 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=172, 6=171.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm E16001325
J0921-5286	V4	VALLEY	1	1	Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:47 2021 Page 1
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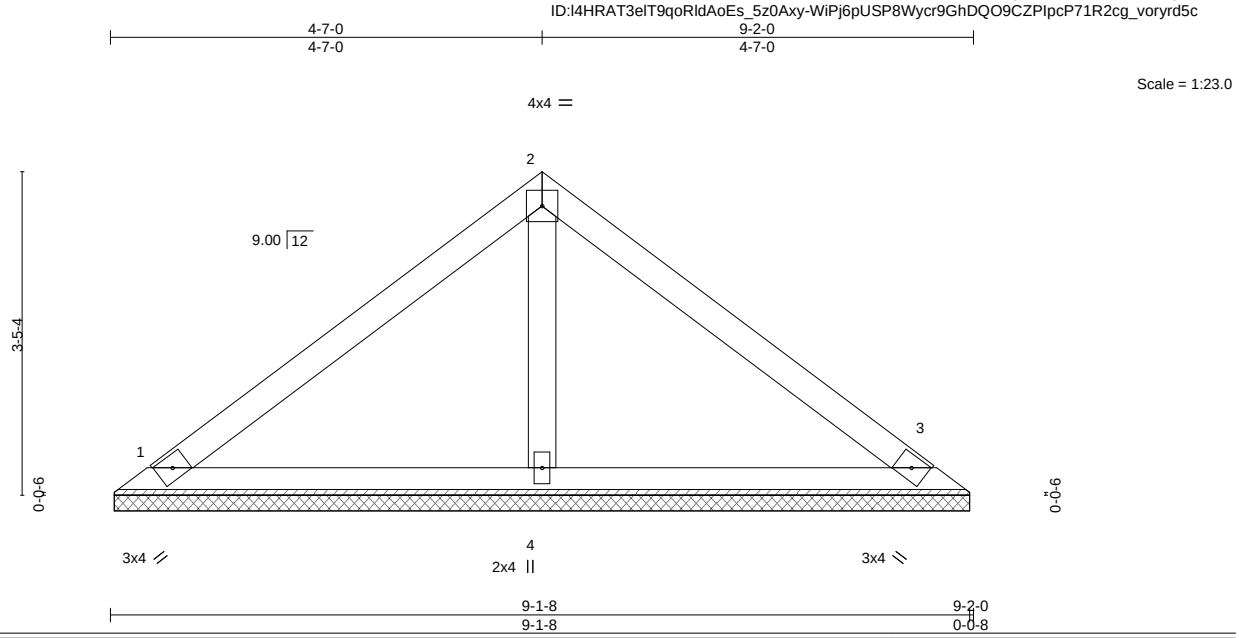

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 33 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. (size) 1=9-1-0, 3=9-1-0, 4=9-1-0
Max Horz 1=99(LC 11)
Max Uplift 1=-42(LC 12), 3=-52(LC 13), 4=-24(LC 12)
Max Grav 1=171(LC 1), 3=172(LC 20), 4=321(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm E16001326
J0921-5286	V5	VALLEY	1	1	Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:48 2021 Page 1
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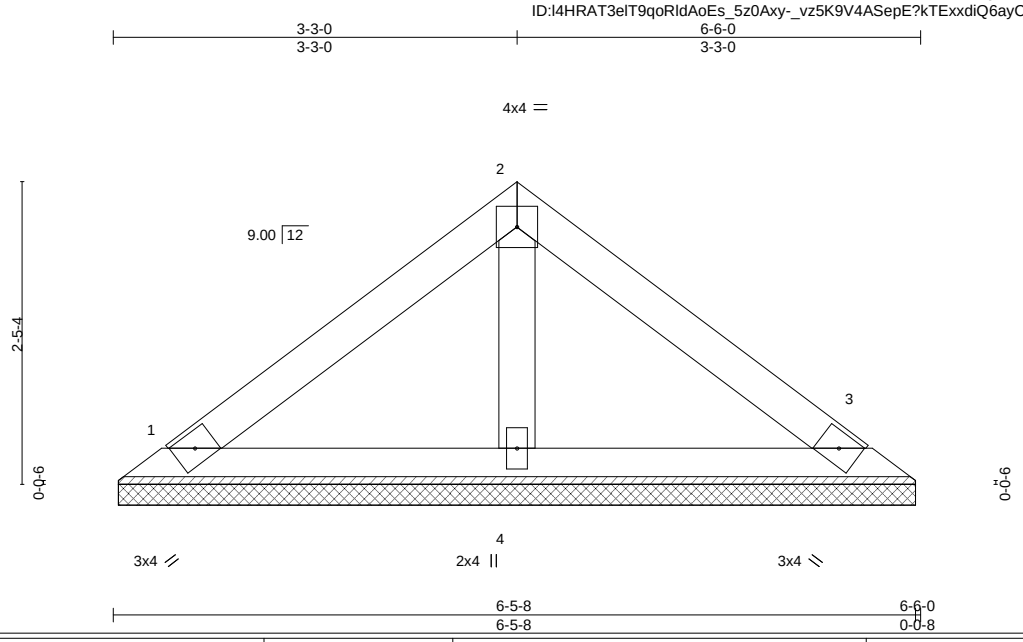

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 23 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. (size) 1=6-5-0, 3=6-5-0, 4=6-5-0
Max Horz 1=-67(LC 8)
Max Uplift 1=-37(LC 12), 3=-44(LC 13)
Max Grav 1=126(LC 1), 3=126(LC 1), 4=197(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5286	V6	VALLEY	1	1	E16001327
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:49 2021 Page 1
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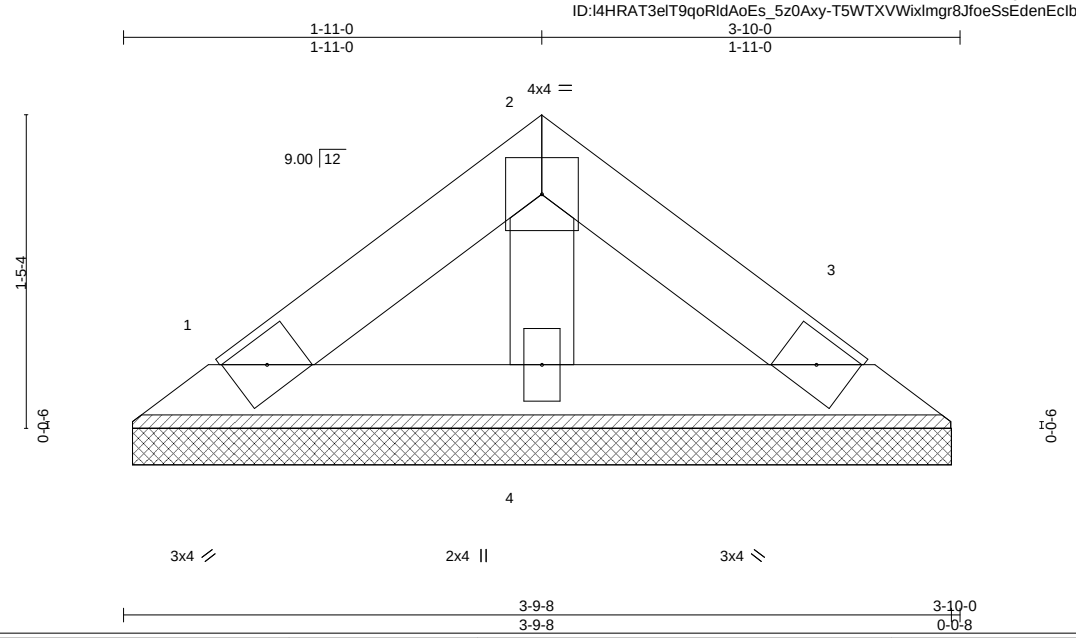


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 12 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-9-0, 3=3-9-0, 4=3-9-0
Max Horz 1=-35(LC 8)
Max Uplift 1=-20(LC 12), 3=-23(LC 13)
Max Grav 1=66(LC 1), 3=66(LC 1), 4=104(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

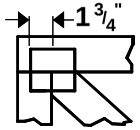
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

August 3,2021

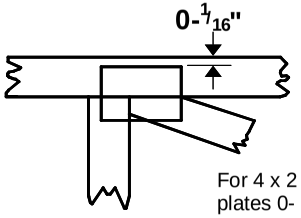
TRENCO
818 Soundside Road
Edenton, NC 27932

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

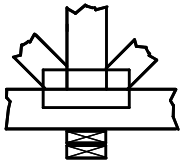
4 x 4

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

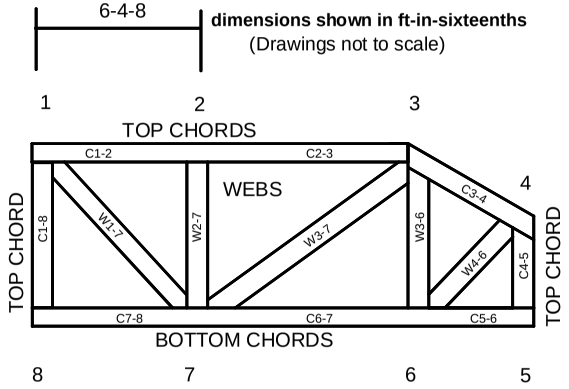


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.

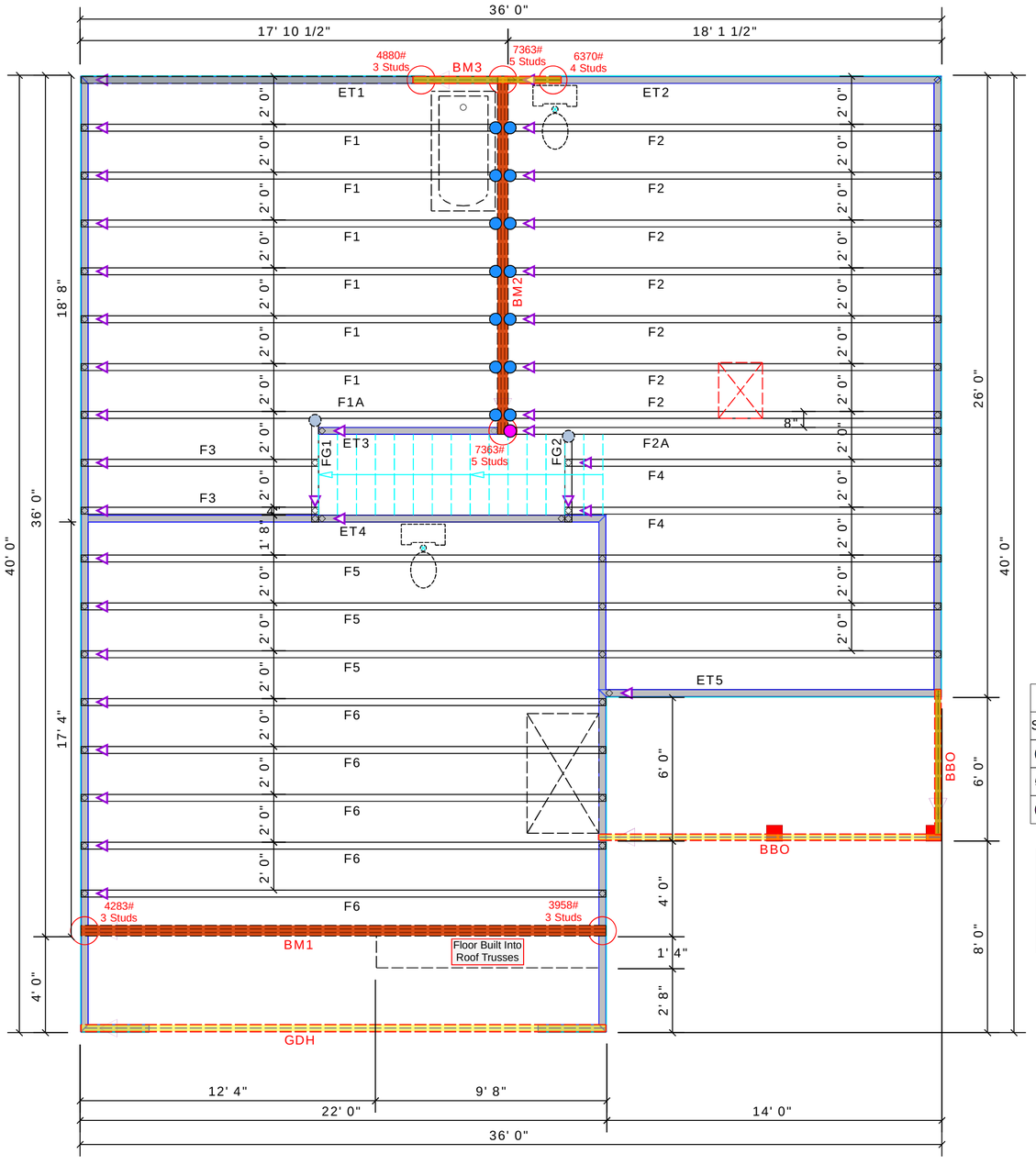
Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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.



1 Truss Placement Plan
Scale: 1/4"=1'

Dimension Notes
1. All exterior wall to wall dimensions are to face of sheathing unless noted otherwise 2. All interior wall dimensions are to face of frame wall unless noted otherwise 3. All exterior wall to truss dimensions are to face of frame wall unless noted otherwise

All Walls Shown Are Considered Load Bearing

Plumbing Drop Notes
1. Plumbing drop locations shown are NOT exact. 2. Contractor to verify ALL plumbing drop locations prior to setting Floor Trusses. 3. Adjust spacing as needed not to exceed 24"oc.

Connector Information					Nail Information	
Sym	Product	Manuf	Qty	Supported Member	Header	Truss
●	HUS410	USP	14	NA	16d/3-1/2"	16d/3-1/2"
●	MSH422	USP	2	Varies	10d/3"	10d/3"
●	HD410IF	USP	1	NA	16d/3-1/2"	10d/3"

Products				
PlotID	Length	Product	Plies	Net Qty
BM1	22' 0"	1-3/4"x 16" LVL Kerto-S	3	3
BM2	15' 0"	1-3/4"x 16" LVL Kerto-S	3	3
BM3	7' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
GDH	22' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2

= Indicates Left End of Truss
(Reference Engineered Truss Drawing)
Do NOT Erect Truss Backwards

COMTECH
ROOF & FLOOR TRUSSES & BEAMS
Reilly Road Industrial Park
Fayetteville, N.C. 28309
Phone: (910) 864-8787
Fax: (910) 864-4444

Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables (derived from the prescriptive Code requirements) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature David Landry

David Landry

LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (2))

NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

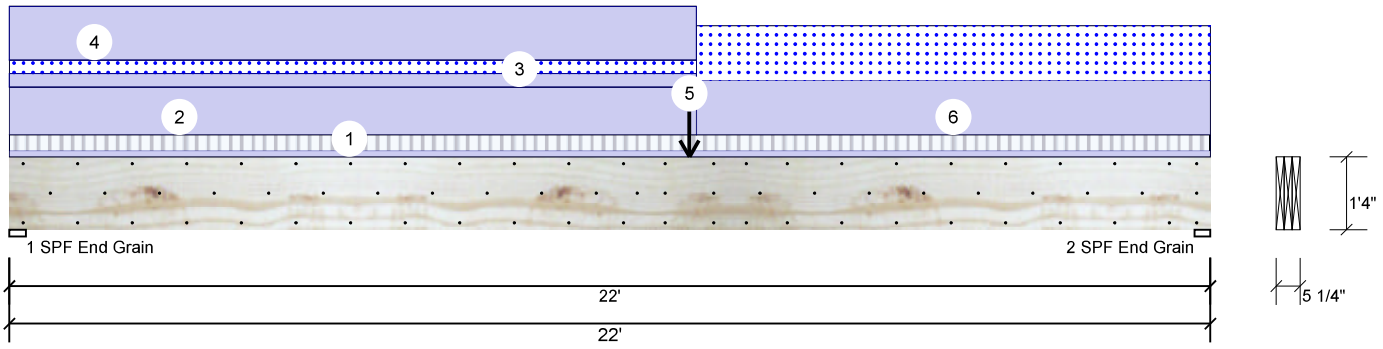
END REACTION (LBS)	REQ'D STUDS FOR (2) PLY HEADER	END REACTION (LBS)	REQ'D STUDS FOR (3) PLY HEADER	END REACTION (LBS)	REQ'D STUDS FOR (4) PLY HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13500	8				
15300	9				

BUILDER	Regency Homes
JOB NAME	Lot 5 Williams Farm
PLAN	Brinkley "B" / GL
SEAL DATE	
QUOTE #	
JOB #	J0921-5287
CITY / CO.	Harnett
ADDRESS	Josey Williams Rd.
MODEL	Floor
DATE REV.	09/2/21
DRAWN BY	David Landry
SALES REP.	Bob Lewis

Client:	Regency Homes	Date:	9/2/2021
Project:		Input by:	David Landry
Address:	Josey Williams Rd.	Job Name:	Lot 5 Williams Farm
		Project #:	J0921-5287

BM1 Kerto-S LVL 1.750" X 16.000" 3-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	Yes
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal	Ceiling:	Gypsum 1/2"
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	440	3406	729	0	0
2	440	2616	1342	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.625"	26%	3406 / 877	4283	L	D+0.75(L+S)
2 - SPF End Grain	3.500"	25%	2616 / 1342	3958	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	23283 ft-lb	11'3 7/8"	62010 ft-lb	0.375 (38%)	D+0.75(L+S)	L
Unbraced	23283 ft-lb	11'3 7/8"	23318 ft-lb	0.999 (100%)	D+0.75(L+S)	L
Shear	4012 lb	1'6 3/4"	20608 lb	0.195 (19%)	D+0.75(L+S)	L
LL Defl inch	0.150 (L/1723)	11'6 1/16"	0.539 (L/480)	0.280 (28%)	0.75(L+S)	L
TL Defl inch	0.566 (L/457)	11'	0.718 (L/360)	0.790 (79%)	D+0.75(L+S)	L

Design Notes

1 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present.
4 Girders are designed to be supported on the bottom edge only.
5 Top loads must be supported equally by all plies.
6 Top must be laterally braced at a maximum of 7'7 1/2" o.c.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Tie-In	0-0-0 to 22-0-0	1-0-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	Floor
2	Part. Uniform	0-0-0 to 12-7-0		Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
3	Part. Uniform	0-0-0 to 12-7-0		Near Face	34 PLF	0 PLF	34 PLF	0 PLF	0 PLF	M1
4	Part. Uniform	0-0-0 to 12-7-0		Top	135 PLF	0 PLF	0 PLF	0 PLF	0 PLF	C1GE
5	Point	12-5-8		Near Face	354 lb	0 lb	354 lb	0 lb	0 lb	M2A

Continued on page 2...

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/24/2023

Manufacturer Info

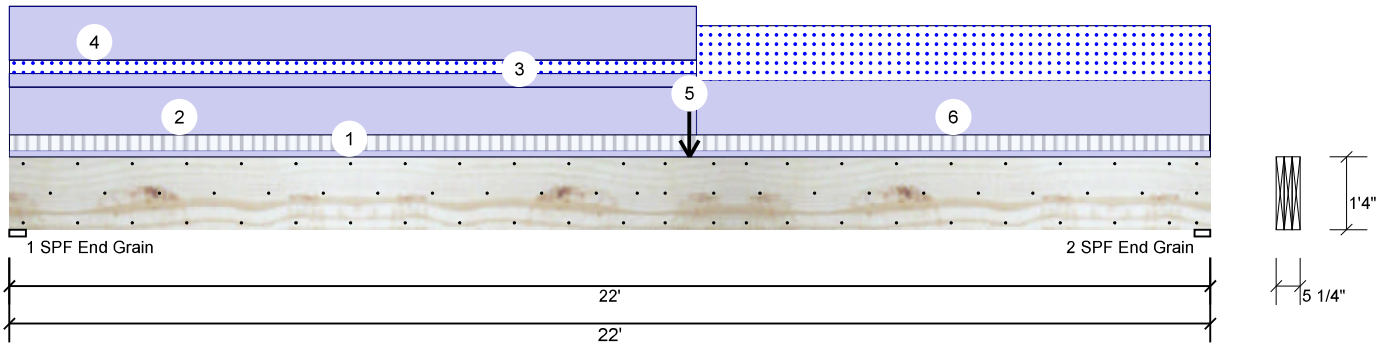
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us
ICC-ES: ESR-3633

Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

Client:	Regency Homes	Date:	9/2/2021
Project:		Input by:	David Landry
Address:	Josey Williams Rd.	Job Name:	Lot 5 Williams Farm
		Project #:	J0921-5287

BM1 Kerto-S LVL 1.750" X 16.000" 3-Ply - PASSED

Level: Level



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ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
6	Part. Uniform	12-7-0 to 22-0-0		Near Face	137 PLF	0 PLF	137 PLF	0 PLF	0 PLF	M2
	Self Weight				19 PLF					

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

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2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

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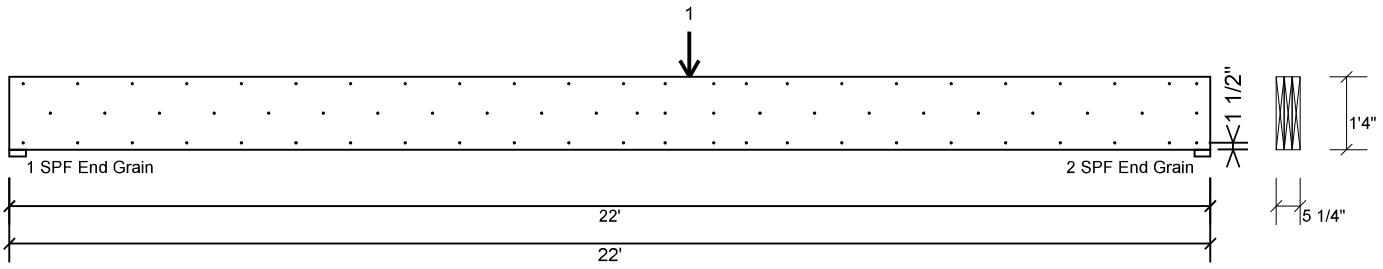
BM1 Kerto-S LVL 1.750" X 16.000" 3-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. except for regions covered by concentrated load fastening. Nail from both sides. Maximum end distance not to exceed 6"

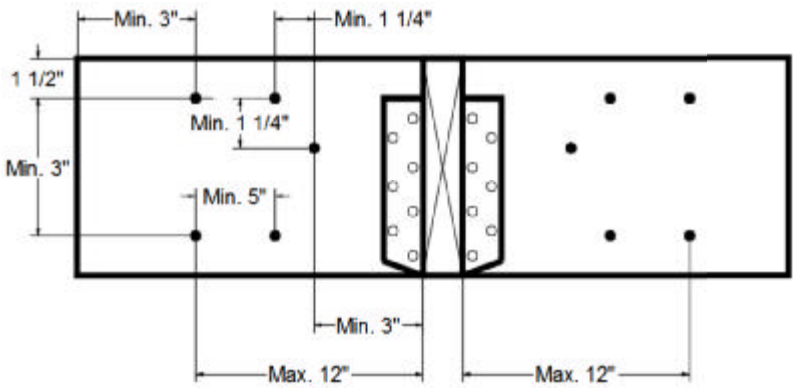
Capacity	64.7 %
Load	182.7 PLF
Yield Limit per Foot	282.4 PLF
Yield Limit per Fastener	94.1 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+S
Duration Factor	1.15

Concentrated Load

Fasten at concentrated side load at 12-5-8 with a minimum of (6) – 10d Box nails (.128x3") in the pattern shown. Repeat fasteners on both sides.

Capacity	83.6 %
Load	472.0lb.
Total Yield Limit	564.7 lb.
Cg	0.9998
Yield Limit per Fastener	94.1 lb.
Yield Mode	IV
Load Combination	D+S
Duration Factor	1.15

Min/Max fastener distances for Concentrated Side Loads



Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/24/2023

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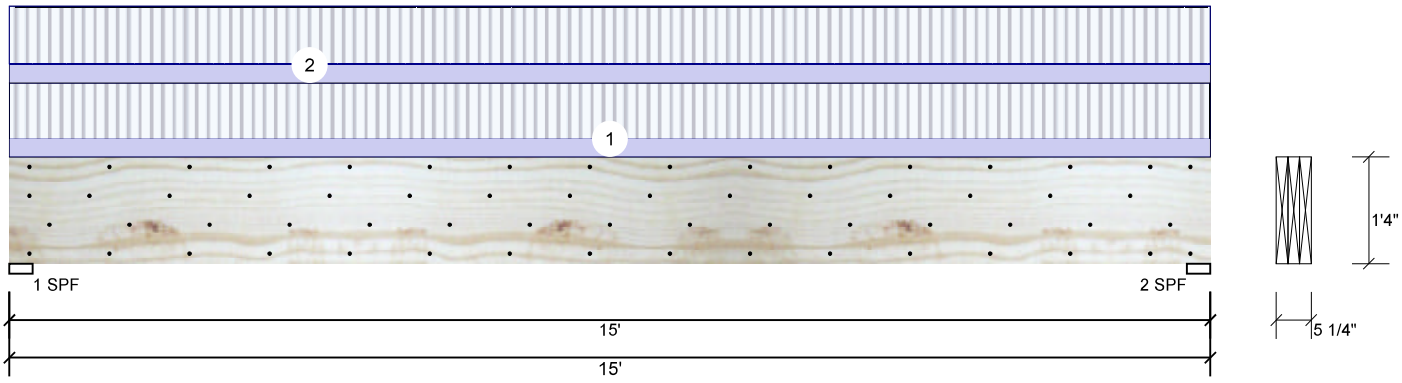
910-864-TRUS

Client:	Regency Homes	Date:	9/2/2021
Project:		Input by:	David Landry
Address:	Josey Williams Rd.	Job Name:	Lot 5 Williams Farm
		Project #:	J0921-5287

BM2 Kerto-S LVL 1.750" X 16.000" 3-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	Yes
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal	Ceiling:	Gypsum 1/2"
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	5415	1948	0	0	0
2	5415	1948	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	94%	1948 / 5415	7363	L	D+L
2 - SPF	3.500"	94%	1948 / 5415	7363	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	26022 ft-lb	7'6"	53922 ft-lb	0.483 (48%)	D+L	L
Unbraced	26022 ft-lb	7'6"	26044 ft-lb	0.999 (100%)	D+L	L
Shear	7123 lb	1'6 5/8"	17920 lb	0.397 (40%)	D+L	L
LL Defl inch	0.230 (L/759)	7'6 1/16"	0.364 (L/480)	0.630 (63%)	L	L
TL Defl inch	0.313 (L/559)	7'6 1/16"	0.485 (L/360)	0.640 (64%)	D+L	L

Design Notes

1 Fasten all plies using 4 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top must be laterally braced at a maximum of 6'8 5/8" o.c.
5 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Far Face	118 PLF	354 PLF	0 PLF	0 PLF	0 PLF	F1
2	Uniform			Near Face	123 PLF	368 PLF	0 PLF	0 PLF	0 PLF	F2
	Self Weight				19 PLF					

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/24/2023

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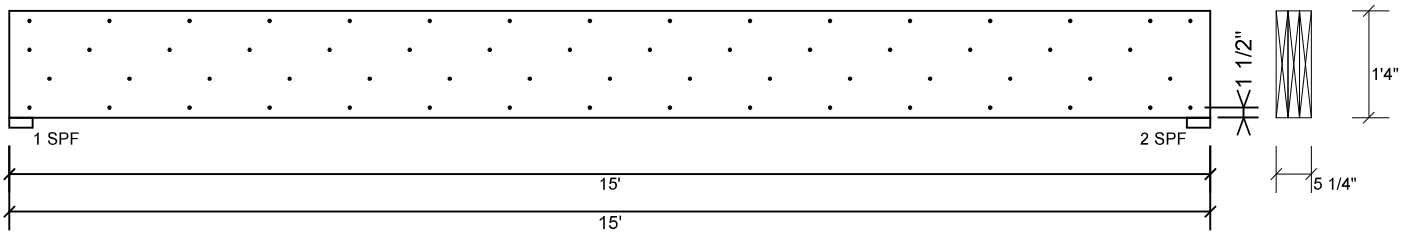
Client:	Regency Homes	Date:	9/2/2021
Project:		Input by:	David Landry
Address:	Josey Williams Rd.	Job Name:	Lot 5 Williams Farm
		Project #:	J0921-5287

BM2 Kerto-S LVL 1.750" X 16.000" 3-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 4 rows of 10d Box nails (.128x3") at 12" o.c.. Nail from both sides. Maximum end distance not to exceed 6"

Capacity	100.0 %
Load	327.3 PLF
Yield Limit per Foot	327.4 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+L
Duration Factor	1.00

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

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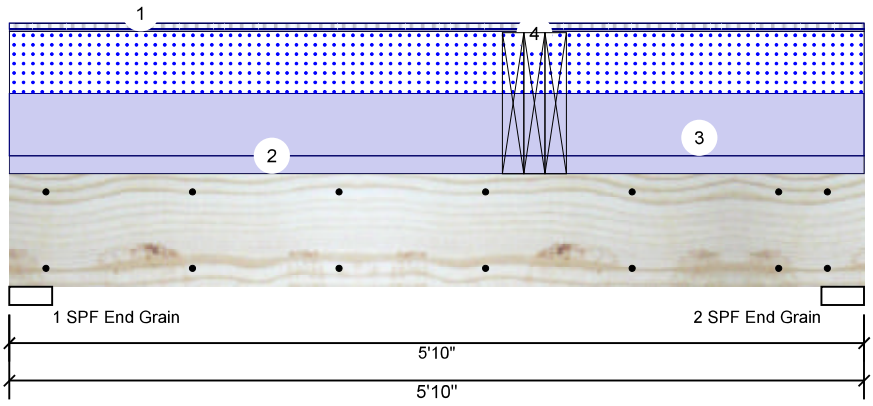
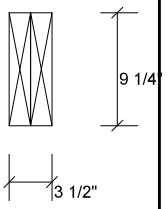
Project:		Input by:	David Landry
Address:	Josey Williams Rd.	Job Name:	Lot 5 Williams Farm
		Project #:	J0921-5287

BM3 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal	Ceiling:	Gypsum 1/2"
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	2153	2357	1210	0	0
2	3496	2840	1210	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	46%	2357 / 2522	4880	L	D+0.75(L+S)
2 - SPF End Grain	3.500"	60%	2840 / 3530	6370	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	11308 ft-lb	3'7"	12542 ft-lb	0.902 (90%)	D+L	L
Unbraced	11308 ft-lb	3'7"	11327 ft-lb	0.998 (100%)	D+L	L
Shear	5739 lb	4'10"	6907 lb	0.831 (83%)	D+L	L
LL Defl inch	0.084 (L/764)	3'4 7/8"	0.134 (L/480)	0.630 (63%)	L	L
TL Defl inch	0.143 (L/451)	3'3 5/8"	0.179 (L/360)	0.800 (80%)	D+L	L

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top must be laterally braced at a maximum of 4'3" o.c.
6 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Tie-In	0-0-0 to 5-10-0	1-0-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	Floor
2	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
3	Uniform			Top	415 PLF	0 PLF	415 PLF	0 PLF	0 PLF	A3
4	Point	3-7-0		Top	1948 lb	5415 lb	0 lb	0 lb	0 lb	BM2 Brg 2
	Self Weight				7 PLF					

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/24/2023

Manufacturer Info

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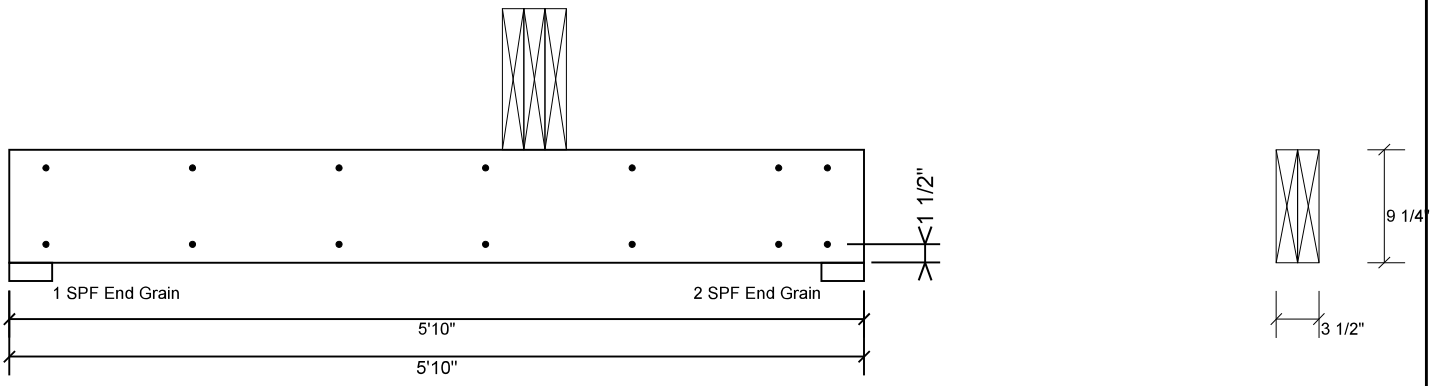
Client:	Regency Homes	Date:	9/2/2021
Project:		Input by:	David Landry
Address:	Josey Williams Rd.	Job Name:	Lot 5 Williams Farm
		Project #:	J0921-5287

BM3 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6"

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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Lumber

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2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

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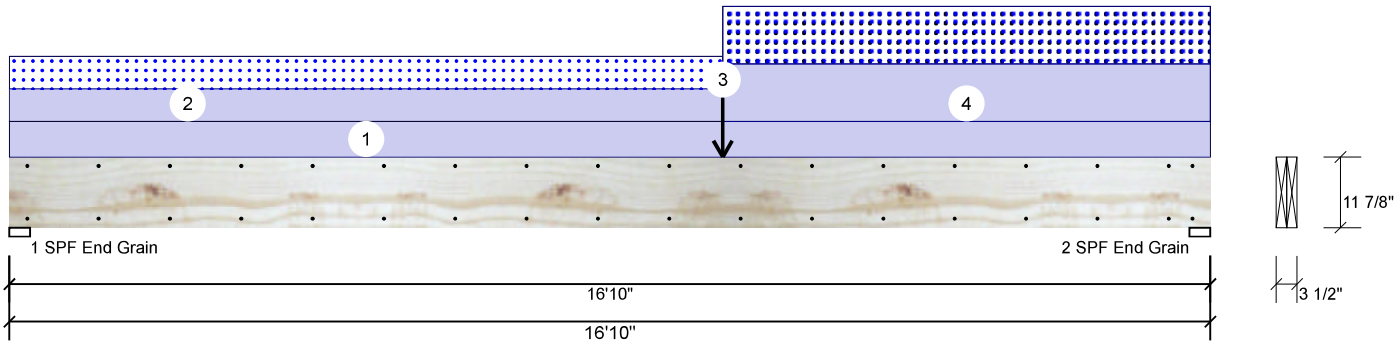
Client:	Regency Homes	Date:	9/2/2021
Project:		Input by:	David Landry
Address:	Josey Williams Rd.	Job Name:	Lot 5 Williams Farm
		Project #:	J0921-5287

GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal	Ceiling:	Gypsum 1/2"
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	1190	608	0	0
2	0	1408	825	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	17%	1190 / 608	1798	L	D+S
2 - SPF End Grain	3.500"	21%	1408 / 825	2233	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8610 ft-lb	10'	22897 ft-lb	0.376 (38%)	D+S	L
Unbraced	8610 ft-lb	10'	8629 ft-lb	0.998 (100%)	D+S	L
Shear	1912 lb	15'7 3/8"	10197 lb	0.188 (19%)	D+S	L
LL Defl inch	0.158 (L/1246)	8'8 13/16"	0.409 (L/480)	0.390 (39%)	S	L
TL Defl inch	0.436 (L/450)	8'7 3/4"	0.546 (L/360)	0.800 (80%)	D+S	L

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top must be laterally braced at a maximum of 11' 3/4" o.c.
6 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	60 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
2	Part. Uniform	0-0-0 to 10-0-0		Top	55 PLF	0 PLF	55 PLF	0 PLF	0 PLF	M1
3	Point	10-0-0		Top	220 lb	0 lb	220 lb	0 lb	0 lb	M2A
4	Part. Uniform	10-0-0 to 16-10-0		Top	97 PLF	0 PLF	97 PLF	0 PLF	0 PLF	M2
	Self Weight				9 PLF					

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/24/2023

Manufacturer Info

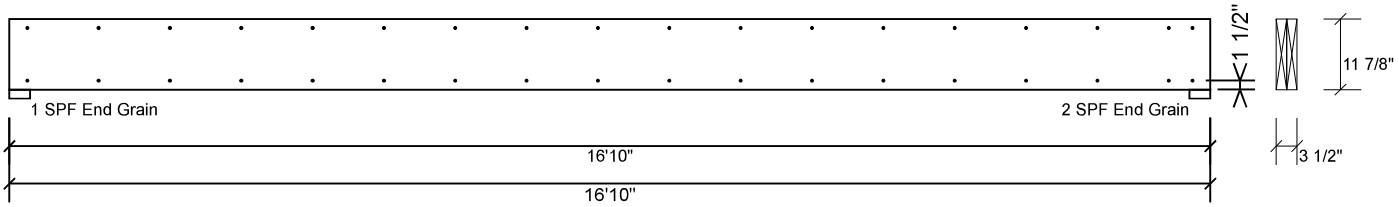
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us
ICC-ES: ESR-3633

Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

Client:	Regency Homes	Date:	9/2/2021
Project:		Input by:	David Landry
Address:	Josey Williams Rd.	Job Name:	Lot 5 Williams Farm
		Project #:	J0921-5287

GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6"

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 4/24/2023

Manufacturer Info

Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us
ICC-ES: ESR-3633

Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

RE: J0921-5287
Lot 5 Williams Farm

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Regency Homes Project Name: J0921-5287
Lot/Block: 5 Model: Brinkley
Address: Josey Williams Rd. Subdivision: Williams Farm
City: Erwin State: NC

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.4
Wind Code: N/A Wind Speed: N/A mph
Roof Load: N/A psf Floor Load: 55.0 psf

This package includes 15 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	E16001328	ET1	8/3/2021
2	E16001329	ET2	8/3/2021
3	E16001330	ET3	8/3/2021
4	E16001331	ET4	8/3/2021
5	E16001332	ET5	8/3/2021
6	E16001333	F1	8/3/2021
7	E16001334	F1A	8/3/2021
8	E16001335	F2	8/3/2021
9	E16001336	F2A	8/3/2021
10	E16001337	F3	8/3/2021
11	E16001338	F4	8/3/2021
12	E16001339	F5	8/3/2021
13	E16001340	F6	8/3/2021
14	E16001341	FG1	8/3/2021
15	E16001342	FG2	8/3/2021

The truss drawing(s) referenced above have been prepared by
Truss Engineering Co. under my direct supervision
based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Gilbert, Eric
My license renewal date for the state of North Carolina is December 31, 2021
North Carolina COA: C-0844

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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.

August 03, 2021
Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5287	ET1	Floor Supported Gable	1	1	E16001328
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:21 2021 Page 1
ID:l4HRAT3elT9qoRldAoEs_5z0Axy-p?F4eYg1ZjAMeONv00DGRzU?uKlB1G4DdehXuLyrd60

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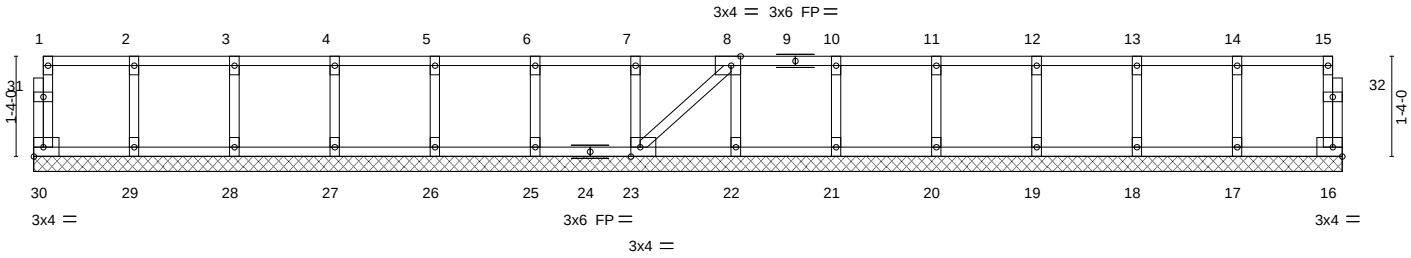

17-4-12
17-4-12

Plate Offsets (X,Y)-- [8:0-1-8,Edge], [23:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	16	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 79 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.1(flat)
BOT CHORD	2x4 SP No.1(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 17-4-12.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 30, 16, 29, 28, 27, 26, 25, 23, 22, 21, 20, 19, 18, 17

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5287	ET2	Floor Supported Gable	1	1	E16001329
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:22 2021 Page 1
ID:I4HRAT3elT9qoRldAoEs_5z0Axy-HCpSsuhgK1IDGYy5ajkWzB1Adk5RmjKNsIR4Royrd6?

0-1-8

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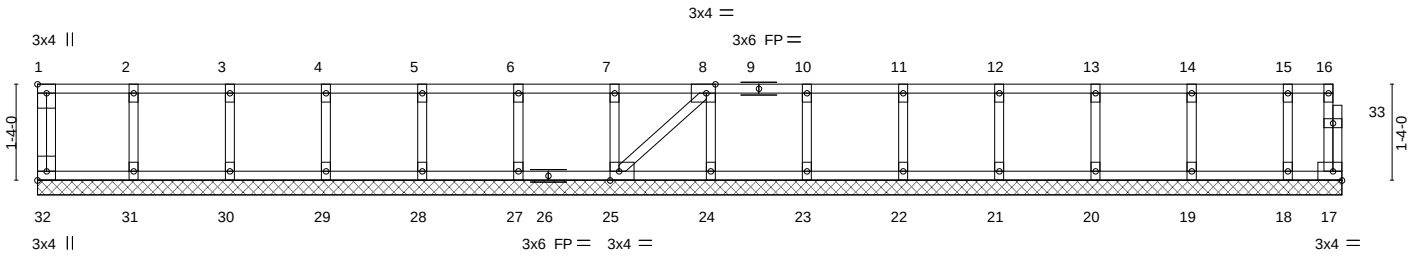

18-1-0
18-1-0

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [8:0-1-8,Edge], [25:0-1-8,Edge], [32:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	17	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 83 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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

REACTIONS. All bearings 18-1-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 32, 17, 31, 30, 29, 28, 27, 25, 24, 23, 22, 21, 20, 19, 18

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm E16001330
J0921-5287	ET3	Floor Supported Gable	1	1	Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:22 2021 Page 1
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0-1-8

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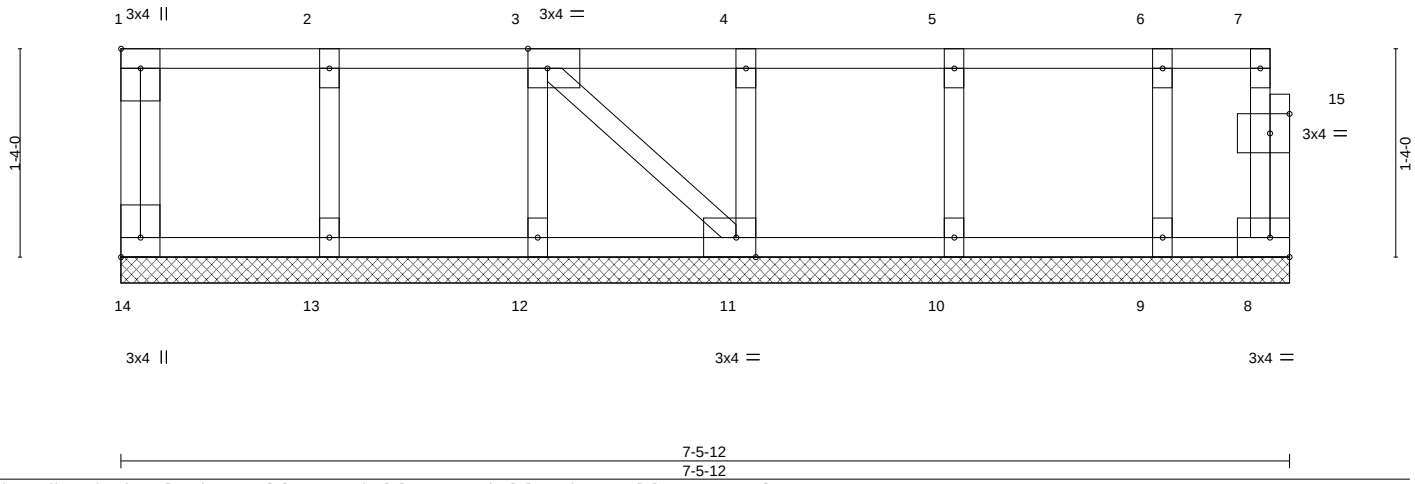

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [3:0-1-8,Edge], [11:0-1-8,Edge], [14:Edge,0-1-8], [15:0-1-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	8	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 39 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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

REACTIONS. All bearings 7-5-12.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 14, 8, 13, 12, 11, 10, 9

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5287	ET4	Floor Supported Gable	1	1	E16001331
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:23 2021 Page 1
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0-1-8

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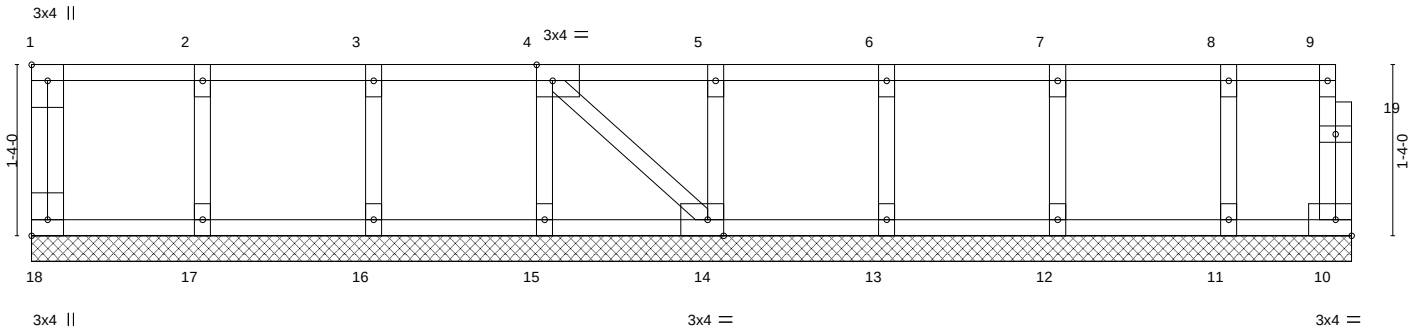

10-3-8
10-3-8

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [4:0-1-8,Edge], [14:0-1-8,Edge], [18:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	10	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 50 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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

REACTIONS. All bearings 10-3-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 18, 10, 17, 16, 15, 14, 13, 12, 11

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5287	ET5	Floor Supported Gable	1	1	E16001332
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:23 2021 Page 1
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0-1-8 0-1-8

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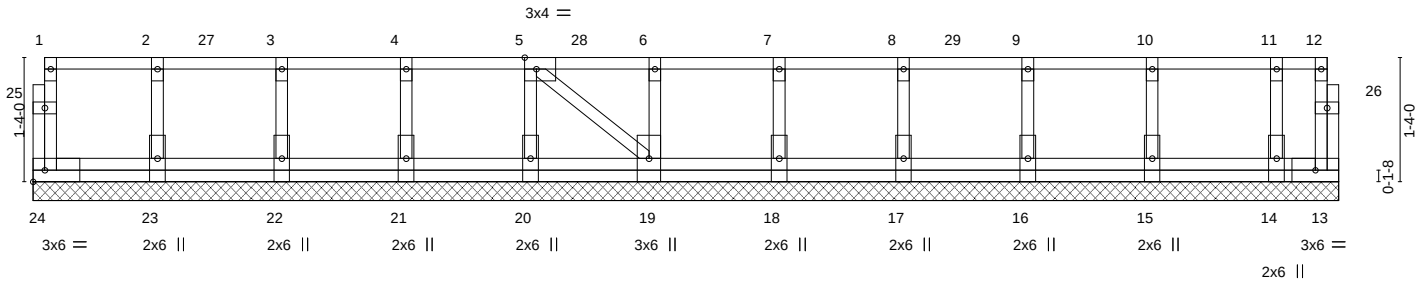

14-0-0
14-0-0

Plate Offsets (X,Y)-- [5:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.00	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	13	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 84 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 14-0-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 24, 23, 22, 21, 20, 19, 18, 17, 16, 15, 14

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 13-24=-10, 1-12=-100
Concentrated Loads (lb)
Vert: 4=-91 7=-91 10=-91 27=-91 28=-91 29=-91

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm E16001333
J0921-5287	F1	Floor	6	1	Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:24 2021 Page 1
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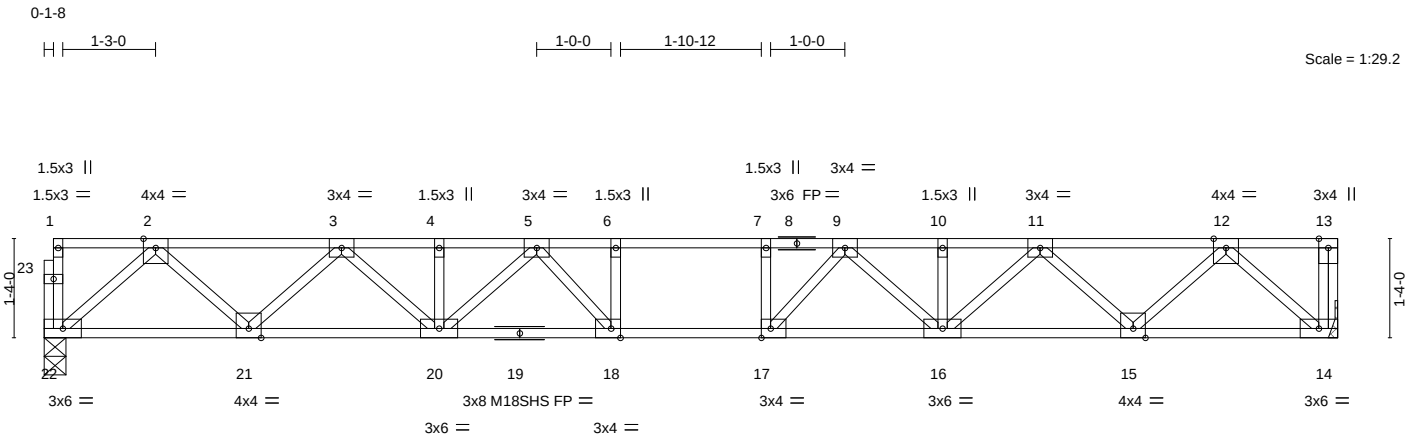

17-4-12
17-4-12

Plate Offsets (X,Y)-- [17:0-1-8,Edge], [18:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.48	Vert(LL)	-0.19	17-18	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.69	Vert(CT)	-0.26	17-18	>777	360	M18SHS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.06	14	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 93 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 22=0-3-8, 14=Mechanical
Max Grav 22=937(LC 1), 14=943(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1705/0, 3-4=-2823/0, 4-5=-2823/0, 5-6=-3312/0, 6-7=-3312/0, 7-9=-3312/0, 9-10=-2823/0, 10-11=-2823/0, 11-12=-1705/0
BOT CHORD 21-22=0/1015, 20-21=0/2365, 18-20=0/3144, 17-18=0/3312, 16-17=0/3144, 15-16=0/2365, 14-15=0/1016
WEBS 2-22=-1349/0, 2-21=0/960, 3-21=-918/0, 3-20=0/622, 5-20=-436/0, 12-14=-1352/0, 12-15=0/959, 11-15=-918/0, 11-16=0/623, 9-16=-436/0, 9-17=-86/552, 7-17=-313/5, 5-18=-86/552, 6-18=-313/5

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm E16001334
J0921-5287	F1A	Floor	1	1	Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:25 2021 Page 1
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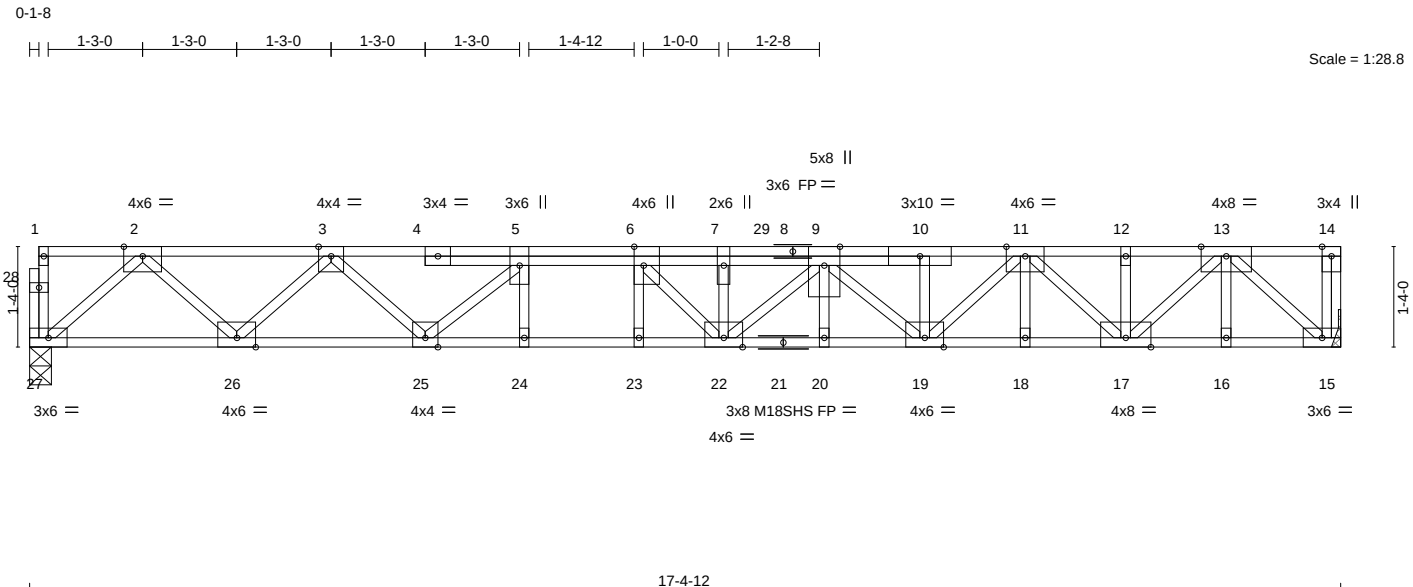

Plate Offsets (X,Y)-- [6:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.41	Vert(LL)	-0.21	22-23	>985	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.65	Vert(CT)	-0.29	22-23	>707	360	M18SHS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.66	Horz(CT)	0.06	15	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 108 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 27=0-3-8, 15=Mechanical
Max Grav 27=1112(LC 1), 15=1169(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2077/0, 3-5=-3610/0, 5-6=-4426/0, 6-7=-4969/0, 7-9=-4969/0, 9-10=-3904/0, 10-11=-3899/0, 11-12=-2304/0, 12-13=-2304/0
BOT CHORD 26-27=0/1224, 25-26=0/2895, 24-25=0/4426, 23-24=0/4426, 22-23=0/4426, 20-22=0/4648, 19-20=0/4648, 18-19=0/3179, 17-18=0/3179, 16-17=0/1273, 15-16=0/1273
WEBS 2-27=-1627/0, 2-26=0/1187, 3-26=-1138/0, 3-25=0/989, 5-25=-1130/0, 13-15=-1684/0, 13-17=0/1391, 11-17=-1180/0, 11-19=0/972, 9-19=-988/0, 9-22=0/469, 7-22=-807/0, 6-22=0/1041

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 1.5x3 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 1 degree rotation about its center.
5) Refer to girder(s) for truss to truss connections.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 481 lb down at 9-9-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 15-27=-10, 1-14=-100
Concentrated Loads (lb)
Vert: 29=-401(F)

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5287	F2	Floor	7	1	E16001335
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:25 2021 Page 1
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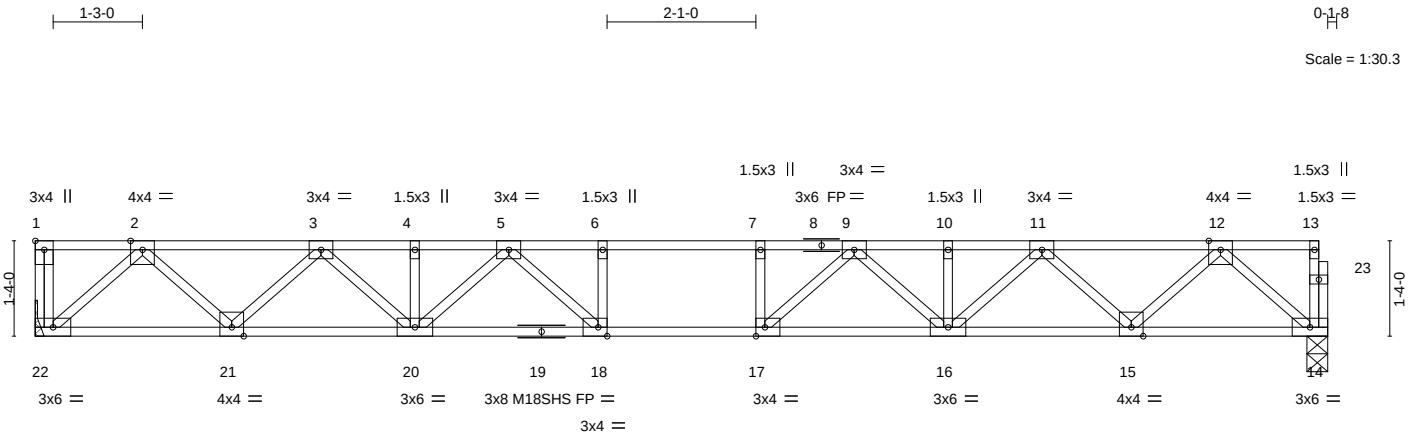

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [17:0-1-8,Edge], [18:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.56	Vert(LL)	-0.22	17-18	>956	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.77	Vert(CT)	-0.31	17-18	>695	360	M18SHS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.06	14	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 96 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 22=Mechanical, 14=0-3-8
Max Grav 22=981(LC 1), 14=975(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1787/0, 3-4=-2985/0, 4-5=-2985/0, 5-6=-3581/0, 6-7=-3581/0, 7-9=-3581/0, 9-10=-2985/0, 10-11=-2985/0, 11-12=-1787/0
BOT CHORD 21-22=0/1058, 20-21=0/2486, 18-20=0/3347, 17-18=0/3581, 16-17=0/3347, 15-16=0/2486, 14-15=0/1058
WEBS 2-22=-1409/0, 2-21=0/1013, 3-21=-972/0, 3-20=0/678, 5-20=-492/0, 5-18=-55/627, 6-18=-316/0, 12-14=-1406/0, 12-15=0/1014, 11-15=-973/0, 11-16=0/678, 9-16=-492/0, 9-17=-55/627, 7-17=-316/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5287	F2A	Floor	1	1	E16001336
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:26 2021 Page 1
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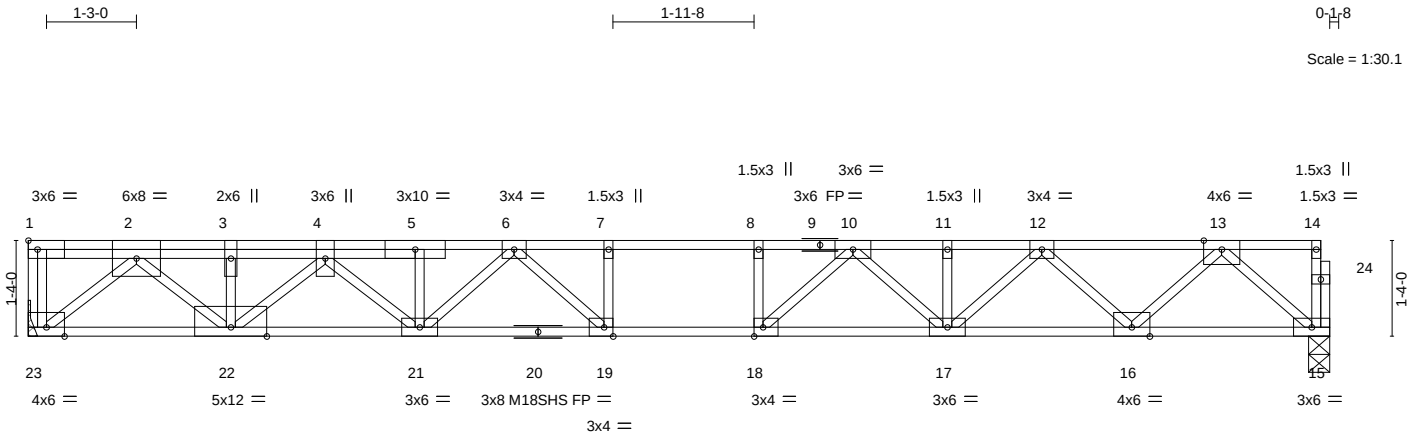

Plate Offsets (X,Y)-- [18:0-1-8,Edge], [19:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.65	Vert(LL)	-0.24	19-21	>893	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.70	Vert(CT)	-0.33	19-21	>643	360	M18SHS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.91	Horz(CT)	0.06	15	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 104 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 23=Mechanical, 15=0-3-8
Max Grav 23=1498(LC 1), 15=1066(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3133/0, 3-4=-3133/0, 4-5=-3993/0, 5-6=-3987/0, 6-7=-4253/0, 7-8=-4253/0, 8-10=-4253/0, 10-11=-3371/0, 11-12=-3371/0, 12-13=-1987/0
BOT CHORD 22-23=0/1699, 21-22=0/3727, 19-21=0/4221, 18-19=0/4253, 17-18=0/3839, 16-17=0/2775, 15-16=0/1163
WEBS 2-23=-2212/0, 2-22=0/1902, 3-22=-712/0, 4-22=-789/0, 4-21=0/346, 13-15=-1545/0, 13-16=0/1146, 12-16=-1097/0, 12-17=0/810, 10-17=-636/0, 10-18=0/862, 8-18=-418/0, 6-21=-318/0, 6-19=-321/322

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 689 lb down at 2-6-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 15-23=-10, 1-14=-100
Concentrated Loads (lb)
Vert: 3=-609(F)

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5287	F3	Floor	2	1	E16001337
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:27 2021 Page 1
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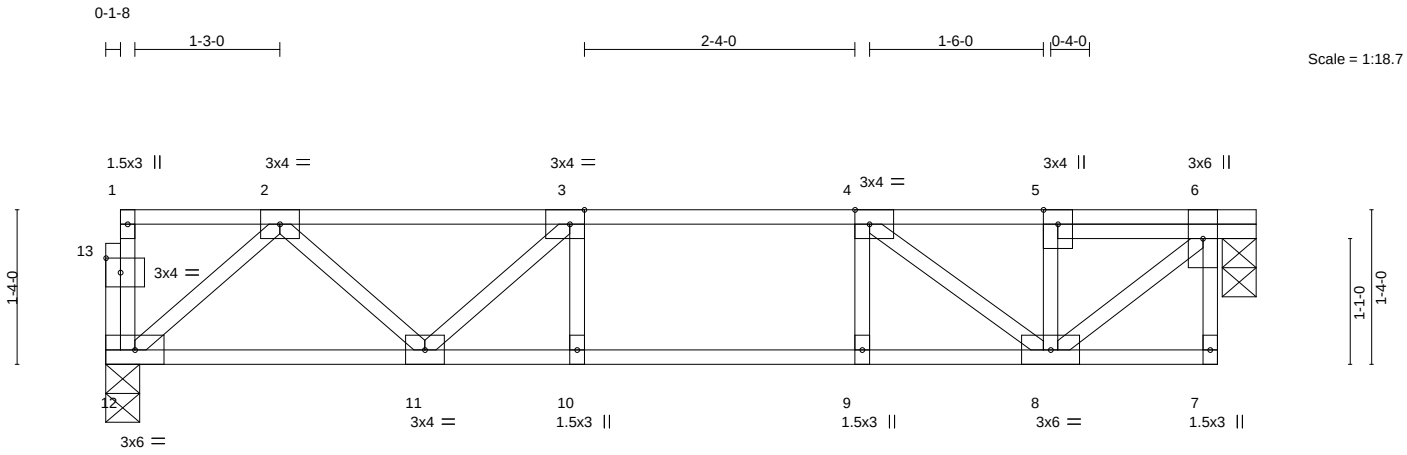

9-7-0 9-11-0
9-7-0 0-4-0

Plate Offsets (X,Y)-- [3:0-1-8,Edge], [4:0-1-8,Edge], [13:0-1-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.40	Vert(LL)	-0.07	10	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.47	Vert(CT)	-0.09	10	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.02	6	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 53 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 12=0-3-8, 6=0-3-8
Max Grav 12=511(LC 1), 6=517(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-781/0, 3-4=-966/0, 4-5=-493/0, 5-6=-497/0
BOT CHORD 11-12=0/541, 10-11=0/966, 9-10=0/966, 8-9=0/966
WEBS 6-8=0/642, 2-12=-718/0, 2-11=0/334, 3-11=-308/0, 4-8=-629/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
5) CAUTION, Do not erect truss backwards.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5287	F4	Floor	2	1	E16001338
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:27 2021 Page 1
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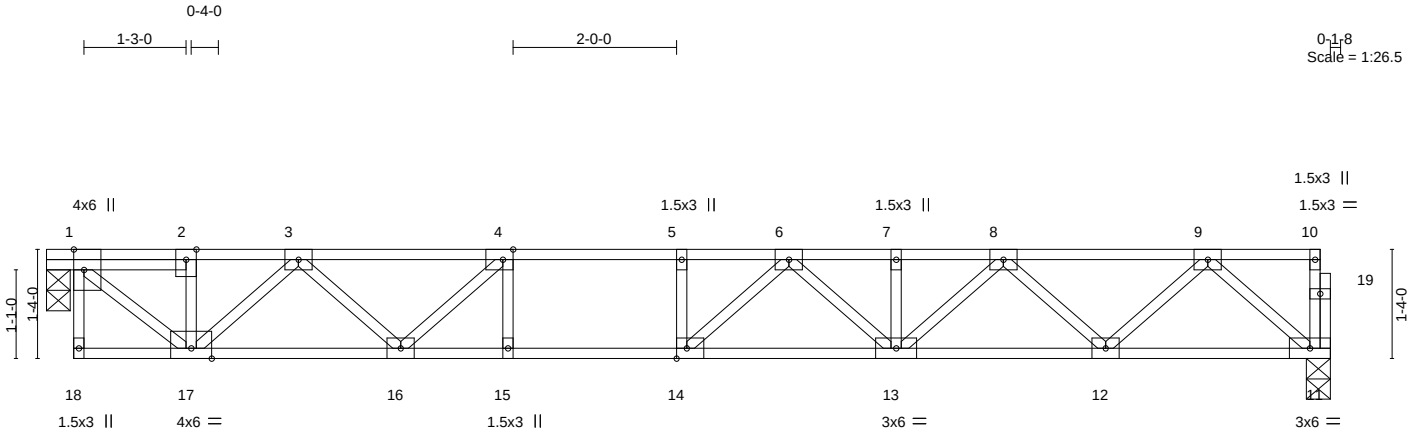

Plate Offsets (X,Y)-- [1:0-3-0,Edge], [4:0-1-8,Edge], [14:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.66	Vert(LL)	-0.21	13-14	>855	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.94	Vert(CT)	-0.29	13-14	>639	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.54	Horz(CT)	0.02	11	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 84 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 14-15.

REACTIONS. (size) 11=0-3-8, 1=0-3-8
Max Grav 11=829(LC 1), 1=835(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-881/0, 2-3=-878/0, 3-4=-1989/0, 4-5=-2524/0, 5-6=-2524/0, 6-7=-2371/0, 7-8=-2371/0, 8-9=-1469/0
BOT CHORD 16-17=0/1534, 15-16=0/2524, 14-15=0/2524, 13-14=0/2568, 12-13=0/2027, 11-12=0/891
WEBS 1-17=0/1143, 3-17=-892/0, 3-16=0/633, 4-16=-792/0, 9-11=-1184/0, 9-12=0/804, 8-12=-776/0, 8-13=0/468, 6-13=-279/0, 6-14=-258/302

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
6) CAUTION, Do not erect truss backwards.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm E16001339
J0921-5287	F5	Floor	3	1	Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:28 2021 Page 1
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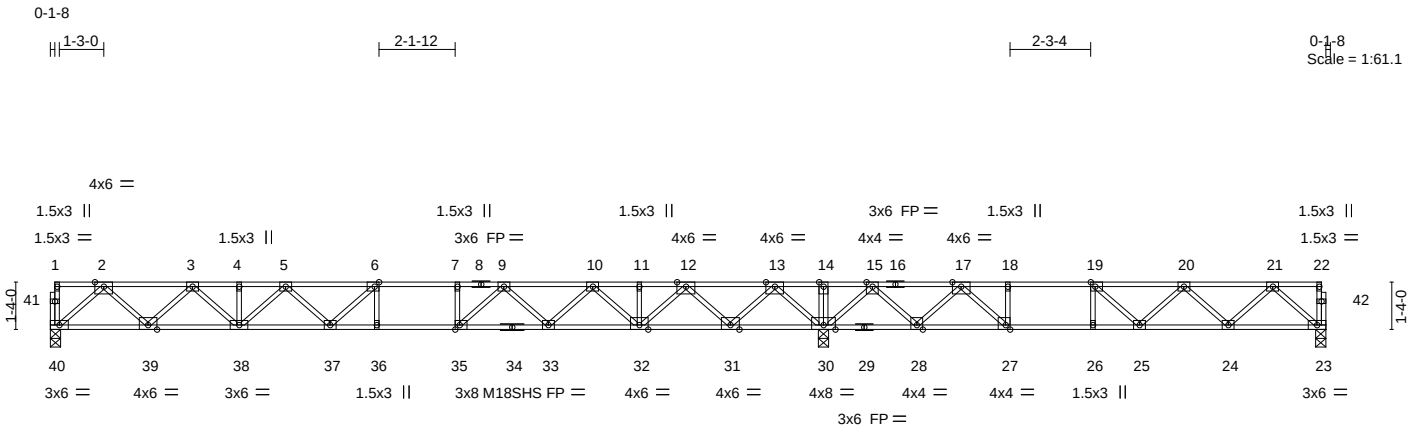

21-9-4 35-11-0
21-9-4 14-1-12

Plate Offsets (X,Y)-- [6:0-1-8,Edge], [19:0-1-8,Edge], [27:0-1-8,Edge], [35:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.76	Vert(LL)	-0.31	36	>829	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.75	Vert(CT)	-0.43	36	>610	360	M18SHS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.06	23	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 184 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 40=0-3-8, 30=0-3-8, 23=0-3-8
Max Grav 40=1057(LC 10), 30=2336(LC 1), 23=679(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1966/0, 3-4=-3327/0, 4-5=-3327/0, 5-6=-4044/0, 6-7=-4202/0, 7-9=-4202/0, 9-10=-3391/0, 10-11=-2151/0, 11-12=-2151/0, 12-13=-239/263, 13-14=0/2770, 14-15=0/2770, 15-17=-494/1577, 17-18=-1640/684, 18-19=-1640/684, 19-20=-1673/310, 20-21=-1153/65
BOT CHORD 39-40=0/1151, 38-39=0/2750, 37-38=0/3828, 36-37=0/4202, 35-36=0/4202, 33-35=0/3869, 32-33=0/2910, 31-32=0/1292, 30-31=-1325/0, 28-30=-1902/0, 27-28=-1197/1100, 26-27=-684/1640, 25-26=-684/1640, 24-25=-121/1577, 23-24=-24/710
WEBS 2-40=-1529/0, 2-39=0/1134, 3-39=-1091/0, 3-38=0/783, 13-30=-1924/0, 13-31=0/1527, 12-31=-1508/0, 12-32=0/1210, 10-32=-1075/0, 10-33=0/705, 9-33=-716/0, 5-38=-681/0, 5-37=0/422, 6-37=-483/199, 9-35=0/824, 7-35=-365/0, 15-30=-1387/0, 15-28=0/969, 17-28=-1088/0, 17-27=0/1206, 21-23=-943/33, 21-24=-57/615, 20-24=-590/78, 20-25=-263/135, 19-25=0/556, 19-26=-365/0, 18-27=-522/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 3x4 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 1 degree rotation about its center.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm E16001340
J0921-5287	F6	Floor	5	1	Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Aug 3 07:54:29 2021 Page 1
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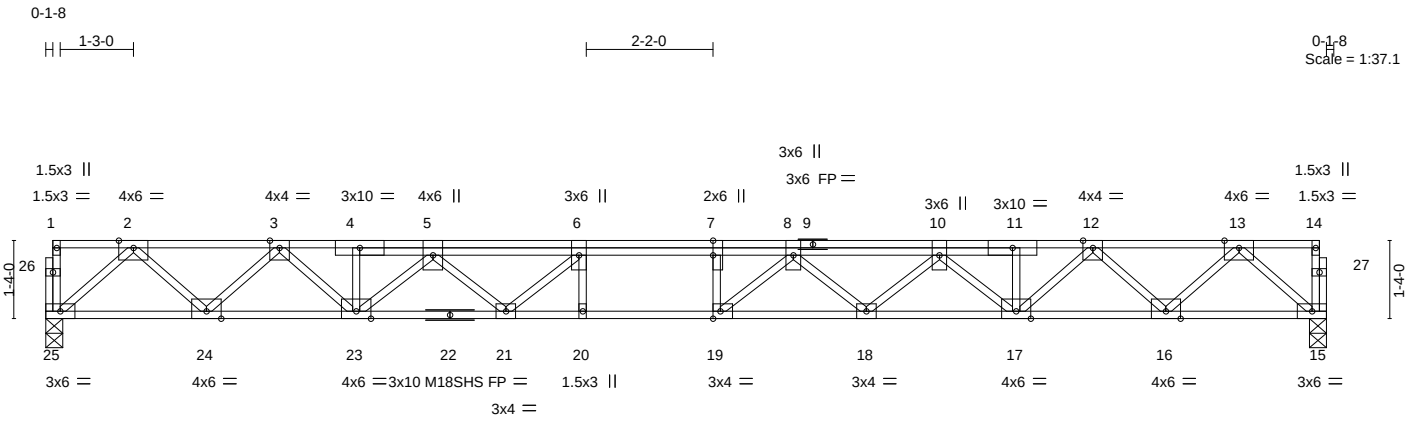

Plate Offsets (X,Y)-- [7:0-3-0,0-0-0], [19:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.24	Vert(LL)	-0.34	19	>763	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.55	Vert(CT)	-0.47	19	>554	360	M18SHS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.09	15	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 129 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 25=0-3-8, 15=0-3-8
Max Grav 25=1185(LC 1), 15=1185(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2243/0, 3-4=-3884/0, 4-5=-3890/0, 5-6=-5113/0, 6-7=-5539/0, 7-8=-5539/0, 8-10=-5100/0, 10-11=-3889/0, 11-12=-3882/0, 12-13=-2243/0
BOT CHORD 24-25=0/1296, 23-24=0/3160, 21-23=0/4694, 20-21=0/5539, 19-20=0/5539, 18-19=0/5456, 17-18=0/4709, 16-17=0/3160, 15-16=0/1296
WEBS 2-25=-1723/0, 2-24=0/1316, 3-24=-1276/0, 3-23=0/984, 13-15=-1723/0, 13-16=0/1317, 12-16=-1276/0, 12-17=0/982, 10-17=-1098/0, 10-18=0/530, 8-18=-483/0, 5-23=-1075/0, 5-21=0/745, 6-21=-802/0, 8-19=-358/654, 7-19=-367/203

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5287	FG1	Floor Girder	1	1	E16001341
					Job Reference (optional)

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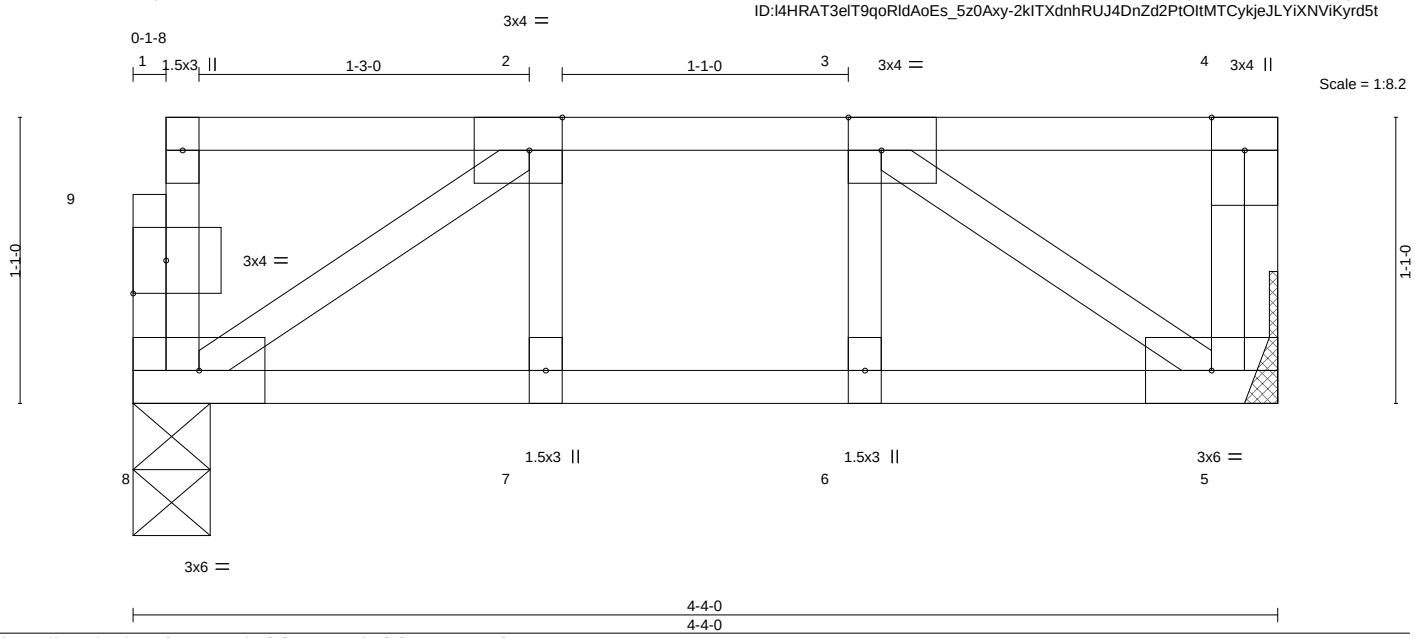

Plate Offsets (X,Y)-- [2:0-1-8,Edge], [3:0-1-8,Edge], [9:0-1-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.28	Vert(LL)	-0.02	5-6	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.36	Vert(CT)	-0.02	5-6	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.16	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 24 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 8=0-3-8, 5=Mechanical
Max Grav 8=810(LC 1), 5=501(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-8=-481/0, 2-3=-558/0
BOT CHORD 7-8=0/558, 6-7=0/558, 5-6=0/558
WEBS 3-5=-671/0, 2-8=-633/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 5-8=-10, 1-4=-100
Concentrated Loads (lb)
Vert: 1=-452 3=-417

August 3,2021

TRENCO
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 5 Williams Farm
J0921-5287	FG2	Floor Girder	1	1	E16001342
					Job Reference (optional)

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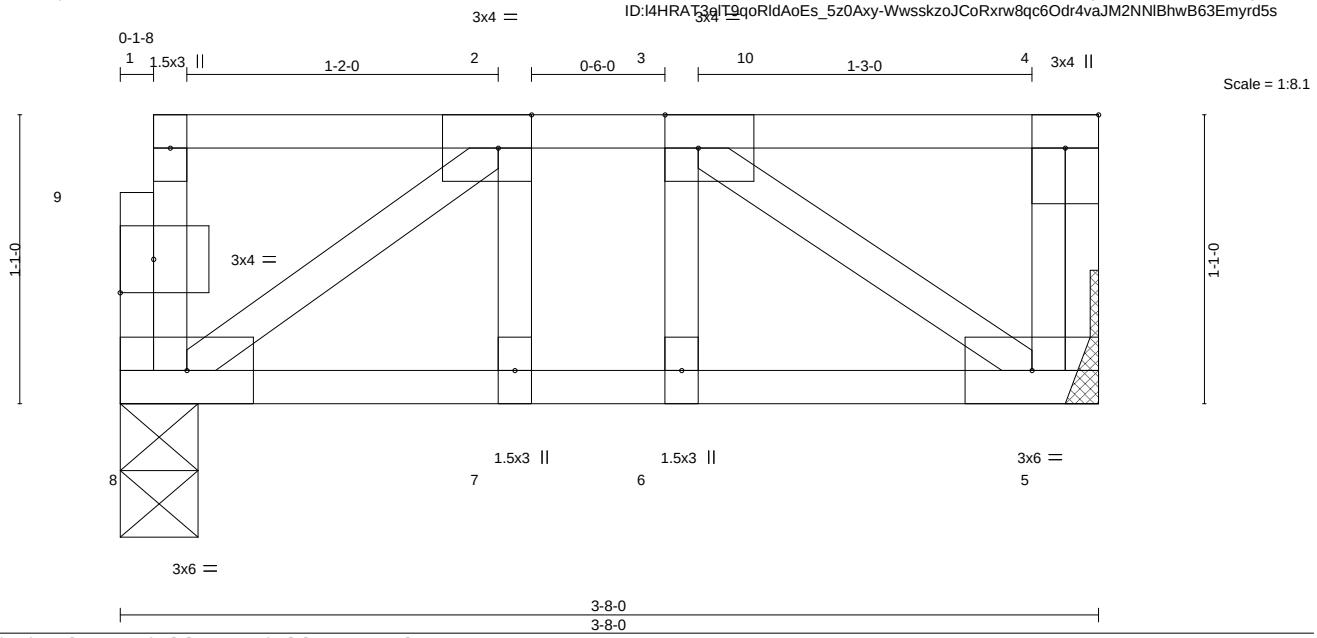


Plate Offsets (X,Y)-- [2:0-1-8,Edge], [3:0-1-8,Edge], [9:0-1-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.58	Vert(LL)	-0.02	5-6	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.46	Vert(CT)	-0.02	5-6	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.18	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 22 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-8-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=0-3-8, 5=Mechanical
Max Grav 8=1167(LC 1), 5=709(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-8=-785/0, 2-3=-649/0
BOT CHORD 7-8=0/649, 6-7=0/649, 5-6=0/649
WEBS 3-5=-780/0, 2-8=-733/0, 2-7=0/274, 3-6=-254/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

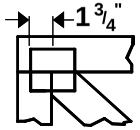
LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 5-8=-10, 1-4=-100
Concentrated Loads (lb)
Vert: 1=-771 10=-735

August 3,2021

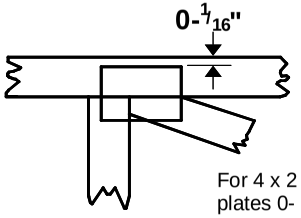
TRENCO
818 Soundside Road
Edenton, NC 27932

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

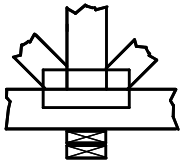
4 x 4

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

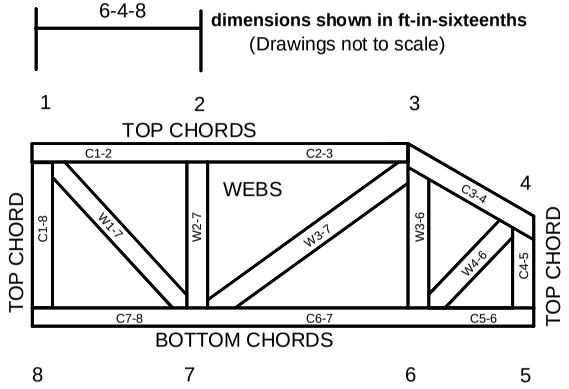


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.

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.