

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 21104397
WAG-5

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

Pages or sheets covered by this seal: I48568466 thru I48568490

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

North Carolina COA: C-0844



October 29, 2021

Sevier, Scott

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

Job 21104397	Truss A1	Truss Type COMMON	Qty 6	Ply 1	WAG-5 Job Reference (optional)	148568467
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The Building Center, Gastonia, NC - 28052,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:47:46 2021 Page 1

ID:uDPvKtjdtsmNrMKV28DLczy5ASp-Yot?416obwp3FxaG6Bx9OgE8z17uLhcjOt8y2lyOtex



Scale: 3/16"=1'

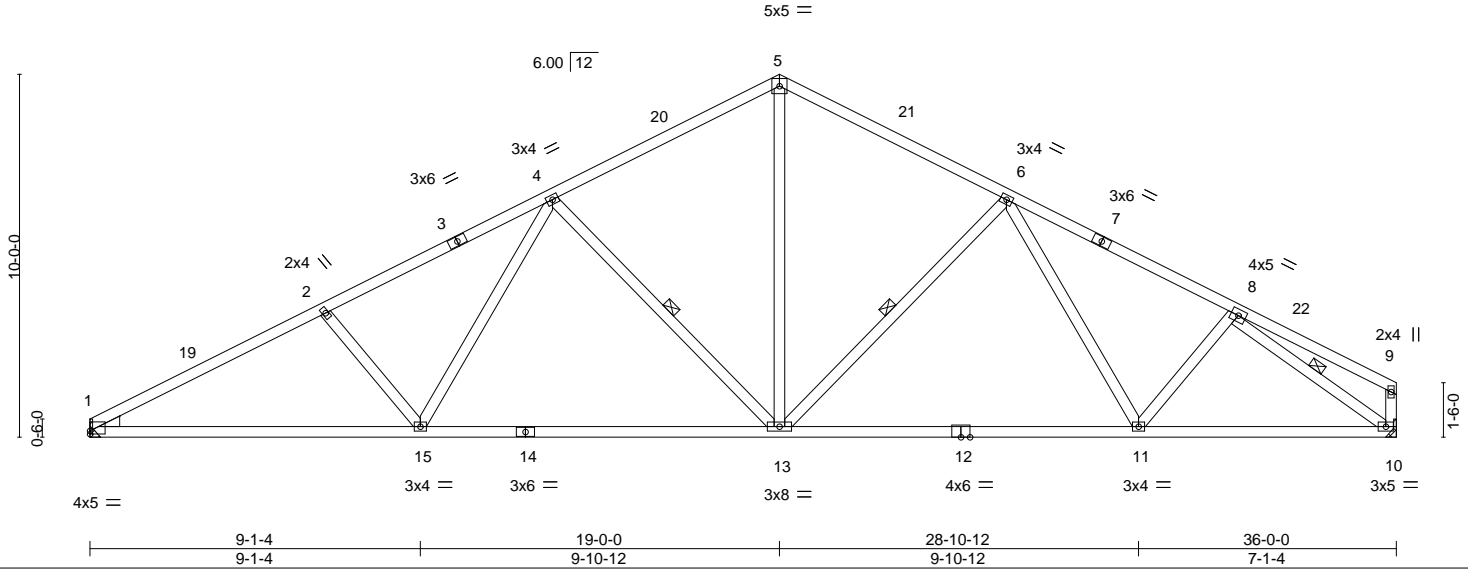


Plate Offsets (X,Y)-- [1:0-0-0,0-1-1]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.44	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.97	Vert(LL) -0.19 11-13 >999 360		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.47	Vert(CT) -0.44 11-13 >973 240		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS	Horz(CT) 0.11 10 n/a n/a		
				Weight: 197 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3
 WEDGE
 Left: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied.
 WEBS 1 Row at midpt 4-13, 6-13, 8-10

REACTIONS.

(size) 1=Mechanical, 10=Mechanical
 Max Horz 1=149(LC 10)
 Max Uplift 1=-136(LC 10), 10=-122(LC 11)
 Max Grav 1=1434(LC 1), 10=1434(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-2612/271, 2-4=-2379/273, 4-5=-1604/259, 5-6=-1604/259, 6-8=-1971/239
 BOT CHORD 1-15=-318/2258, 13-15=-193/1815, 11-13=-111/1651, 10-11=-146/1616
 WEBS 2-15=-331/167, 4-15=-42/532, 4-13=-682/211, 5-13=-84/1005, 6-13=-477/190,
 8-10=-1930/176

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 16-0-0, Exterior(2) 16-0-0 to 22-0-0, Interior(1) 22-0-0 to 32-10-4, Exterior(2) 32-10-4 to 35-10-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=136, 10=122.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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

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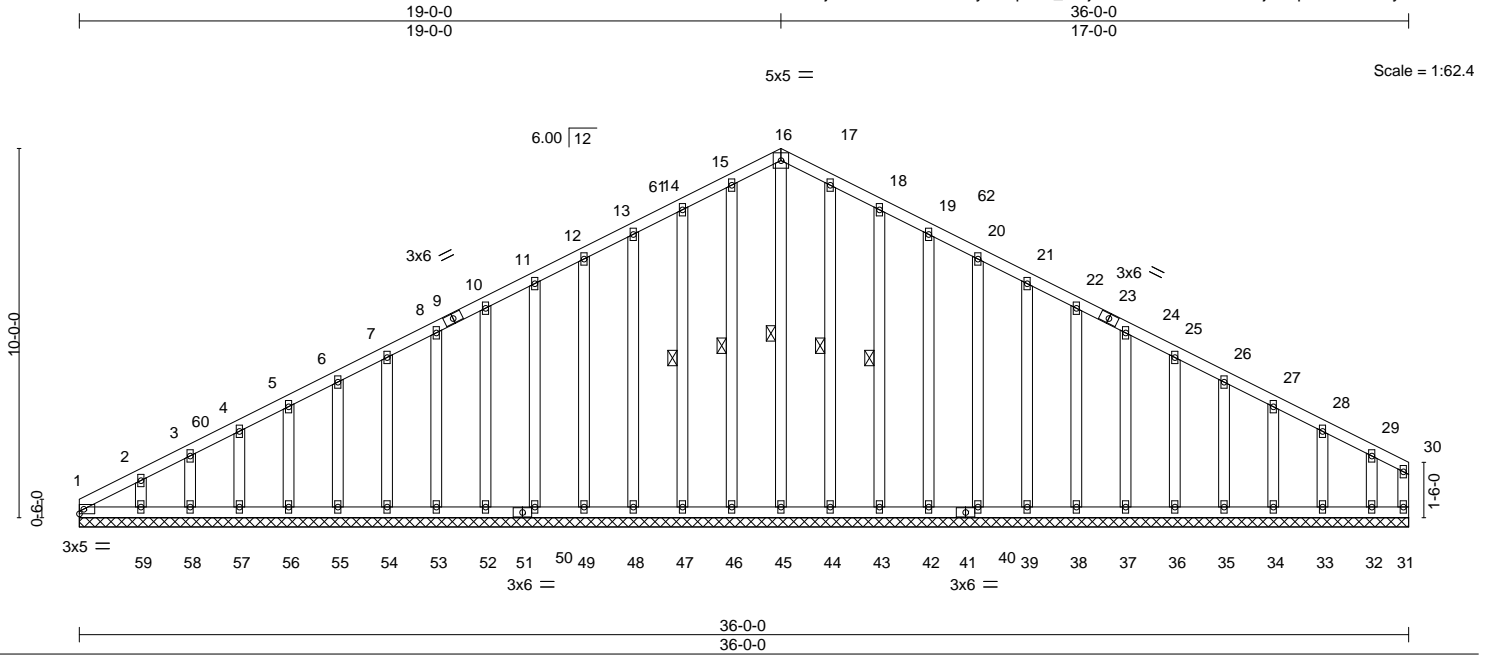
818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WAG-5	148568468
21104397	A1GE	GABLE	1	1		

The Building Center, Gastonia, NC - 28052,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:47:48 2021 Page 1
 ID:uDPvKtjdtsmNrMKV28DLczy5ASp-UA_mVj837X3nUFkEcdT5KZjZ1Pphv0sBd36ByOtev

Job Reference (optional)



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 0.11	Vert(LL)	n/a	-	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	n/a	-	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	31	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 313 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 16-45, 15-46, 14-47, 17-44, 18-43
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 36-0-0.
 (lb) - Max Horz 1=155(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 58, 59, 44, 43, 42, 40, 39, 38, 37, 36, 35, 34, 33 except 32=110(LC 11)
 Max Grav All reactions 250 lb or less at joint(s) 1, 31, 45, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 58, 59, 44, 43, 42, 40, 39, 38, 37, 36, 35, 34, 33, 32

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 13-14=-84/254, 14-15=-94/299, 15-16=-98/326, 16-17=-98/326, 17-18=-94/299, 18-19=-84/254

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-0-0 to 3-7-3, Exterior(2) 3-7-3 to 15-4-13, Corner(3) 15-4-13 to 22-7-3, Exterior(2) 22-7-3 to 32-3-1, Corner(3) 32-3-1 to 35-10-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 58, 59, 44, 43, 42, 40, 39, 38, 37, 36, 35, 34, 33 except (jt=lb) 32=110.

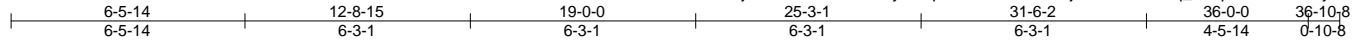


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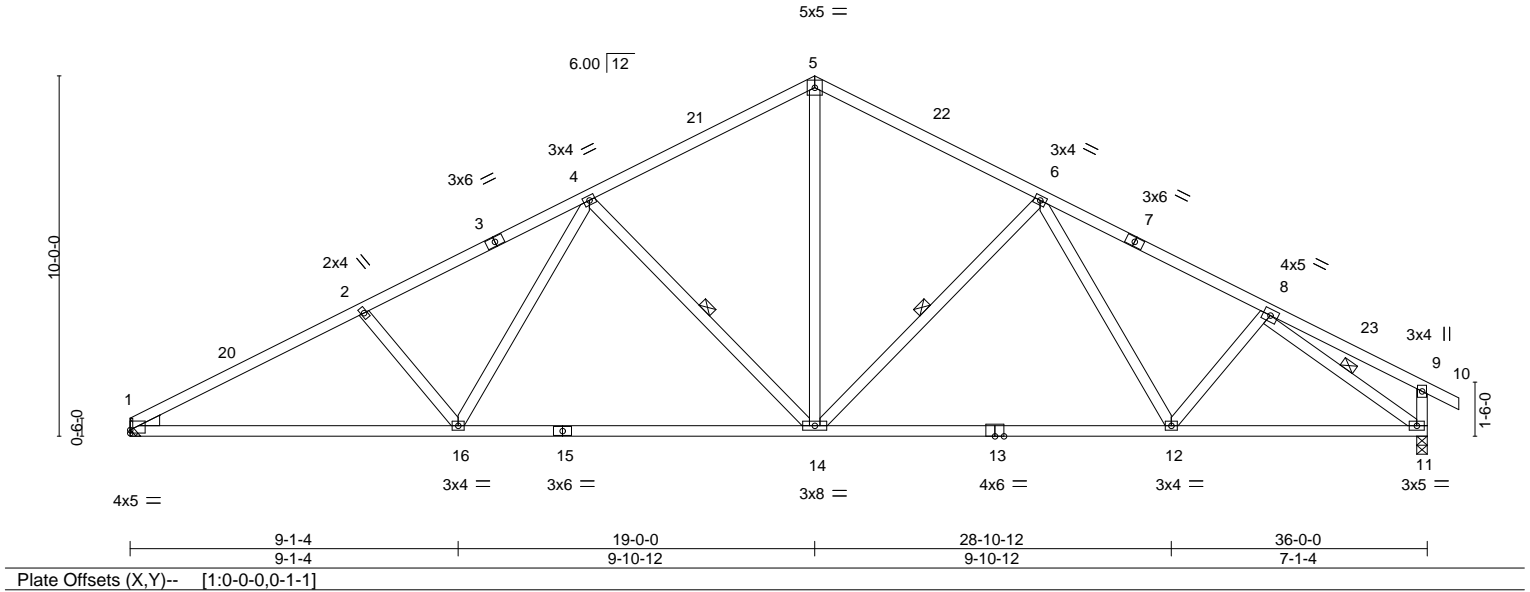
Job	Truss	Truss Type	Qty	Ply	WAG-5	148568469
21104397	A2	COMMON	1	1		

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8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:47:50 2021 Page 1
 ID:uDPvKtjdtsmNrMKV28DLczy5ASp-RZ6WvP9Je8JVjZ1L1?5YWPq_NVqHVeiJV6AB4yOtet



Scale: 3/16"=1'



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.44	Vert(LL) -0.19 12-14 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.97	Vert(CT) -0.44 12-14 >973 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.46	Horz(CT) 0.11 11 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS			
				Weight: 199 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 4-14, 6-14, 8-11
WEDGE	
Left: 2x4 SP No.3	

REACTIONS. (size) 1=Mechanical, 11=0-3-8
 Max Horz 1=142(LC 10)
 Max Uplift 1=-136(LC 10), 11=-139(LC 11)
 Max Grav 1=1433(LC 1), 11=1496(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-2610/269, 2-4=-2377/271, 4-5=-1602/256, 5-6=-1602/257, 6-8=-1964/232
 BOT CHORD 1-16=-311/2256, 14-16=-187/1813, 12-14=-85/1648, 11-12=-113/1606
 WEBS 2-16=-331/167, 4-16=-42/532, 4-14=-682/211, 5-14=-83/1003, 6-14=-475/191, 8-11=-1919/156

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 16-0-0, Exterior(2) 16-0-0 to 22-0-0, Interior(1) 22-0-0 to 33-10-8, Exterior(2) 33-10-8 to 36-10-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=136, 11=139.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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Job	Truss	Truss Type	Qty	Ply	WAG-5	148568470
21104397	A3	COMMON	5	1		

The Building Center, Gastonia, NC - 28052,

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ID:uDPvKjdtSmNfMKV28DLczy5ASp-vlgu7lAxPSRMLiSEvkXK5ky_Pmq30ynSY9sjjWyOtes

-9-10-8	6-5-14	12-8-15	19-0-0	25-3-1	31-6-2	36-0-0	37-10-8
0-10-8	6-5-14	6-3-1	6-3-1	6-3-1	6-3-1	4-5-14	1-10-8

Scale = 1:65.5

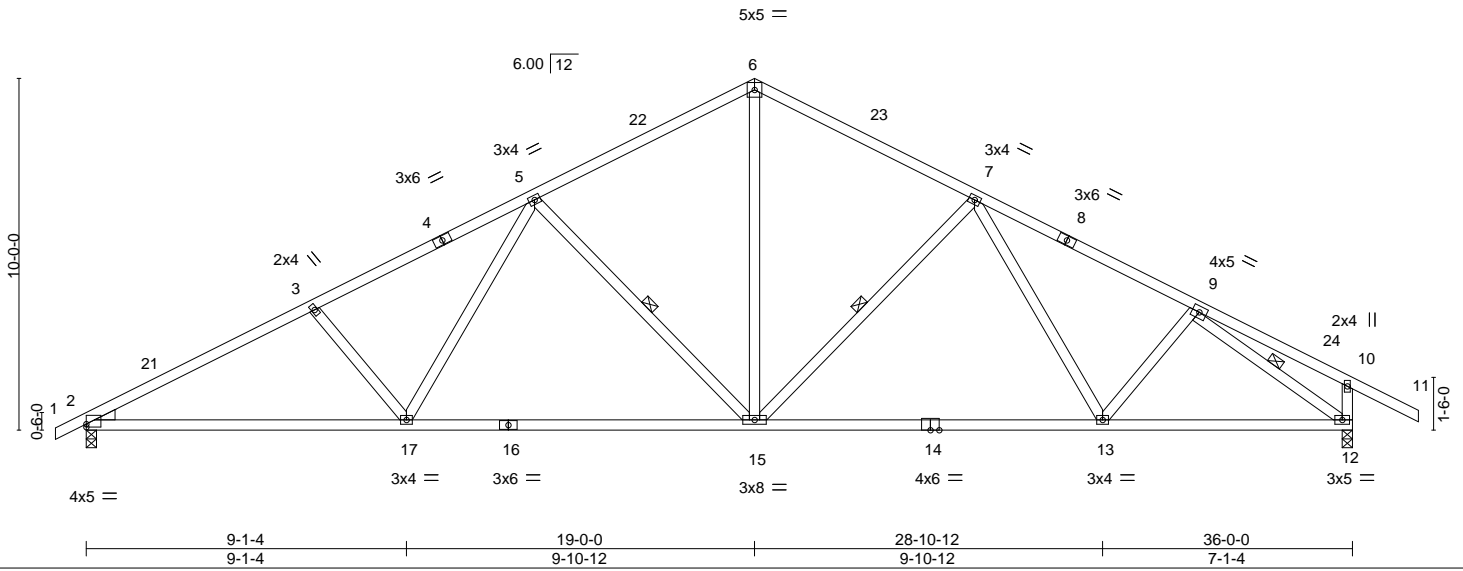


Plate Offsets (X,Y)-- [2:0-0-0,0-1-1]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.46	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.97	Vert(LL) -0.19 13-15 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.47	Vert(CT) -0.44 13-15 >975 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.11 12 n/a n/a		
	Code IRC2015/TPI2014			Weight: 202 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3
 WEDGE
 Left: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied.
 WEBS 1 Row at midpt 5-15, 7-15, 9-12

REACTIONS.

(size) 2=0-3-8, 12=0-3-8
 Max Horz 2=147(LC 10)
 Max Uplift 2=-151(LC 10), 12=-157(LC 11)
 Max Grav 2=1484(LC 1), 12=1558(LC 1)

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

TOP CHORD 2-3=-2599/259, 3-5=-2366/256, 5-6=-1595/249, 6-7=-1596/250, 7-9=-1945/213, 10-12=-282/147
 BOT CHORD 2-17=-303/2245, 15-17=-179/1806, 13-15=-59/1638, 12-13=-94/1579
 WEBS 3-17=-328/166, 5-17=-41/530, 5-15=-680/210, 6-15=-77/998, 7-15=-469/190, 9-12=-1948/165

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 16-0-0, Exterior(2) 16-0-0 to 22-0-0, Interior(1) 22-0-0 to 34-10-8, Exterior(2) 34-10-8 to 37-10-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=151, 12=157.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



October 29, 2021

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818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WAG-5	148568471
21104397	AGE	COMMON SUPPORTED GAB	1	1		

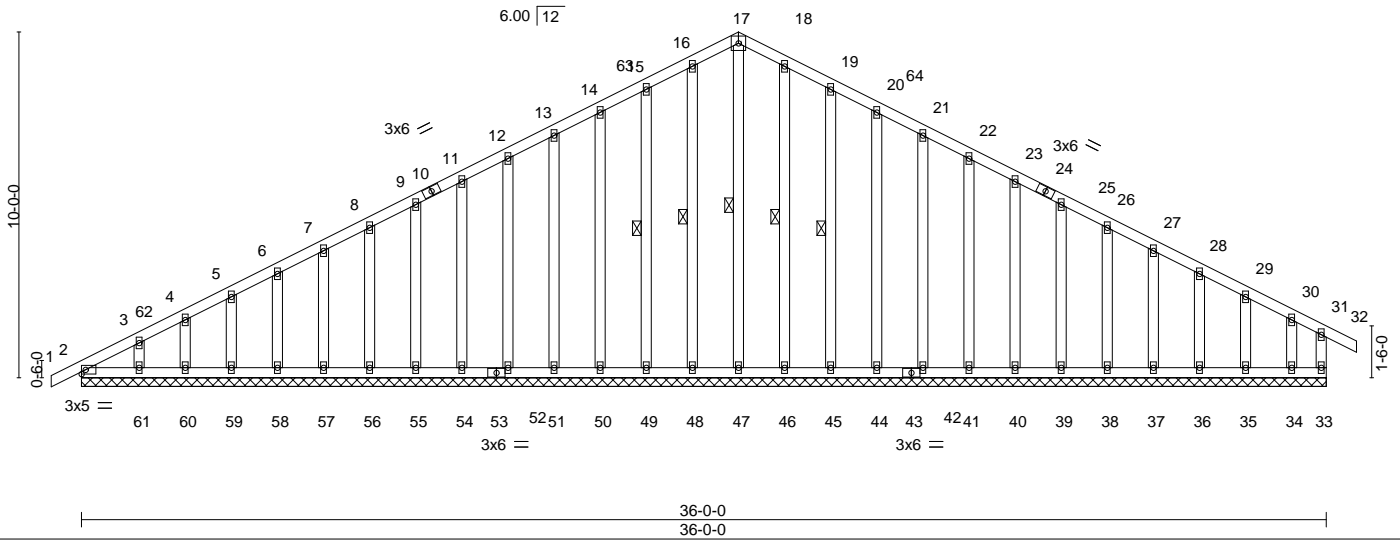
The Building Center, Gastonia, NC - 28052,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:47:54 2021 Page 1
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-0-10-8 19-0-0 36-0-0 36-10-8
 0-10-8 19-0-0 17-0-0 0-10-8

5x5 =

Scale = 1:66.6



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 0.16	Vert(LL)	-0.00	32	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.00	32	n/r	90		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	33	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 316 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 17-47, 16-48, 15-49, 18-46, 19-45
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 36-0-0.
 (lb) - Max Horz 2=155(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 33, 48, 49, 50, 51, 52, 54, 55, 56, 57, 58, 59, 60, 61, 45, 44, 42, 41, 40, 39, 38, 37, 36, 35, 2 except 34=110(LC 11)
 Max Grav All reactions 250 lb or less at joint(s) 33, 47, 48, 49, 50, 51, 52, 54, 55, 56, 57, 58, 59, 60, 61, 46, 45, 44, 42, 41, 40, 39, 38, 37, 36, 35, 34, 2

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 14-15=-79/255, 15-16=-89/296, 16-17=-94/323, 17-18=-94/323, 18-19=-89/296, 19-20=-79/255

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 16-0-0, Corner(3) 16-0-0 to 22-0-0, Exterior(2) 22-0-0 to 33-8-0, Corner(3) 33-8-0 to 36-10-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 33, 48, 49, 50, 51, 52, 54, 55, 56, 57, 58, 59, 60, 61, 45, 44, 42, 41, 40, 39, 38, 37, 36, 35, 2 except (jt=lb) 34=110.



October 29,2021

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ENGINEERING BY
TRENCO
 A MiTek Affiliate

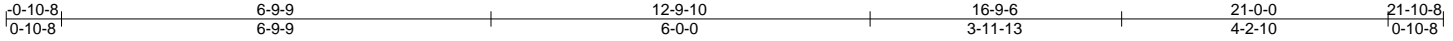
818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WAG-5	148568472
21104397	B	ROOF SPECIAL	5	1		

The Building Center, Gastonia, NC - 28052,

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ID:3KZ3eerWHF9pg2gcByvwYHy5ASe-nWwPz6DSTgxnxqKm?8abGFa6heOHlxjb2TmqwsHyOteo



Scale = 1:36.5

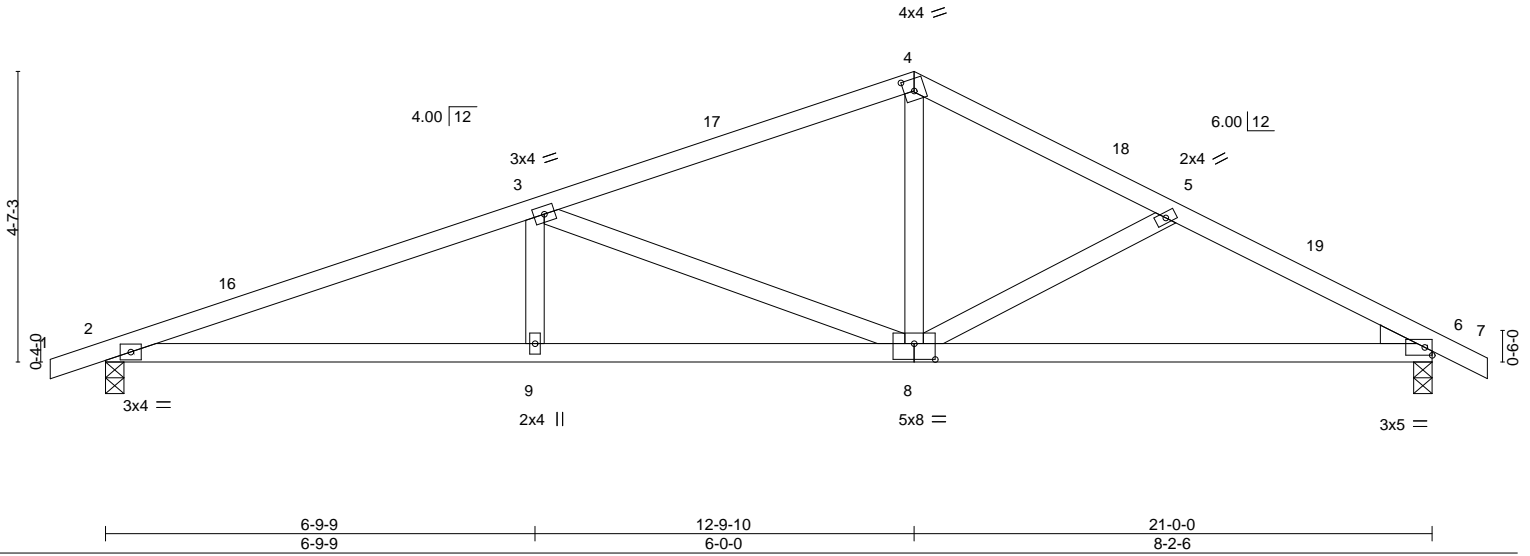


Plate Offsets (X,Y)-- [4:0-1-15,0-2-4], [8:0-4-0,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.45	Vert(LL) -0.09	8-15	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.67	Vert(CT) -0.20	8-15	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.67	Horz(CT) 0.05	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS					Weight: 94 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3
 WEDGE
 Right: 2x4 SP No.3

BRACING-
 TOP CHORD Structural wood sheathing directly applied.
 BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 6=0-3-8
 Max Horz 2=63(LC 10)
 Max Uplift 2=-125(LC 6), 6=-78(LC 11)
 Max Grav 2=893(LC 1), 6=893(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1925/217, 3-4=-1129/171, 4-5=-1181/173, 5-6=-1422/207
 BOT CHORD 2-9=-209/1795, 8-9=-209/1795, 6-8=-113/1221
 WEBS 3-8=-850/178, 4-8=-5/559, 5-8=-275/123

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 9-9-10, Exterior(2) 9-9-10 to 15-9-10, Interior(1) 15-9-10 to 18-10-8, Exterior(2) 18-10-8 to 21-10-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=125.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



October 29, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WAG-5	148568473
21104397	BGE	GABLE	1	1		

The Building Center, Gastonia, NC - 28052,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:47:57 2021 Page 1

ID:3KZ3eerWHF9pg2gcByvwYHy5ASe-jv19OoFi?IBV3dwNG?dkK?C5BB5HPn_Kw4J1xAyOtem



Scale = 1:36.7

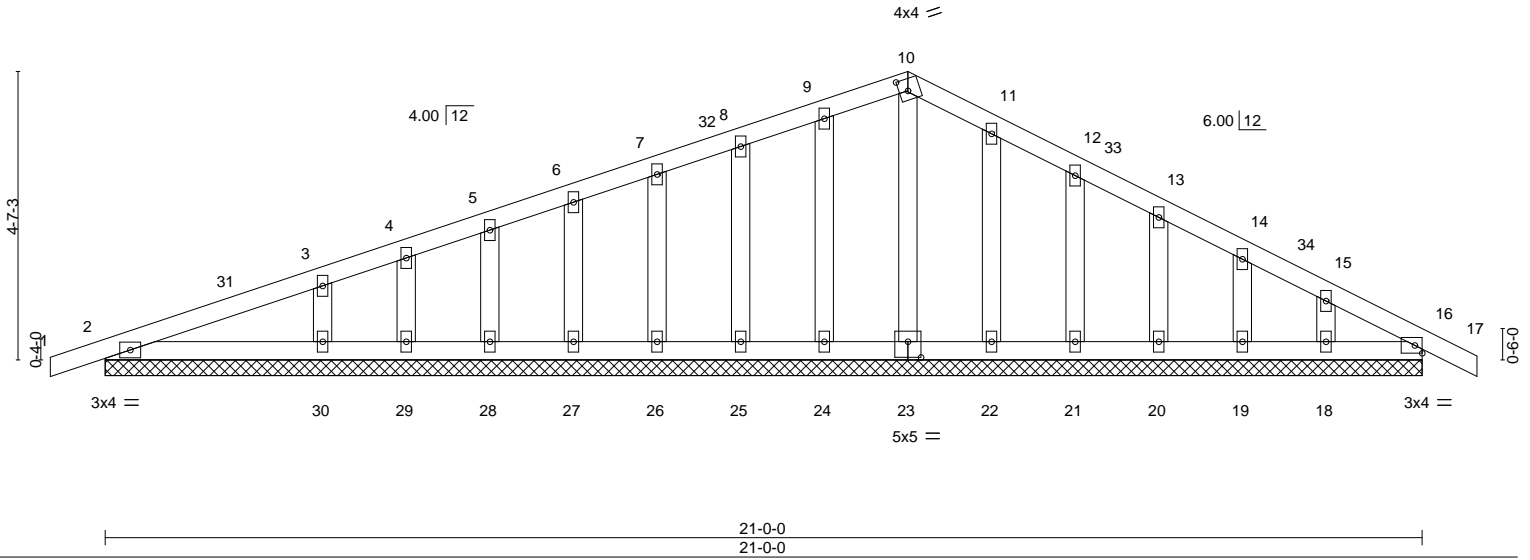


Plate Offsets (X,Y)-- [10:0-1-11,0-2-4], [23:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.12	Vert(LL) -0.00	16	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(CT) -0.00	17	n/r	90		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.04	Horz(CT) 0.00	16	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S						
							Weight: 113 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 OTHERS 2x4 SP No.3

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 21-0-0.
 (lb) - Max Horz 2=62(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 16, 24, 25, 26, 27, 28, 29, 30, 22, 21, 20, 19, 18
 Max Grav All reactions 250 lb or less at joint(s) 2, 16, 23, 24, 25, 26, 27, 28, 29, 22, 21, 20, 19, 18
 except 30=275(LC 21)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 9-9-10, Corner(3) 9-9-10 to 15-9-10, Exterior(2) 15-9-10 to 18-10-8, Corner(3) 18-10-8 to 21-10-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 16, 24, 25, 26, 27, 28, 29, 30, 22, 21, 20, 19, 18.



October 29, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



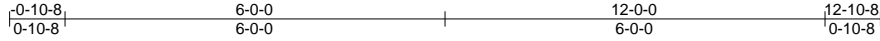
818 Soundside Road
 Edenton, NC 27932

Job 21104397	Truss D	Truss Type COMMON TRUSS	Qty 1	Ply 1	WAG-5 Job Reference (optional)	148568474
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The Building Center, Gastonia, NC - 28052,

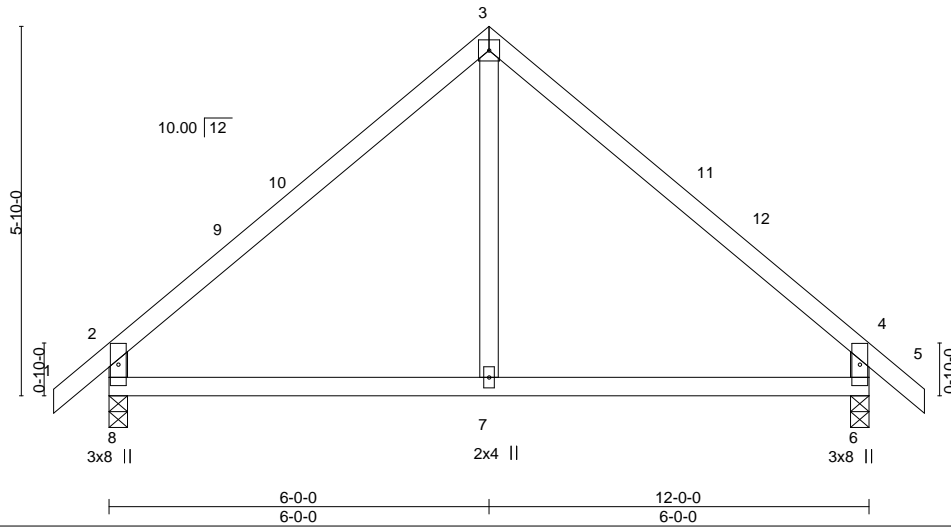
8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:47:58 2021 Page 1

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4x4 =

Scale = 1:36.4



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.50	Vert(LL) -0.02	6-7	>999	360		MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.30	Vert(CT) -0.04	6-7	>999	240			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.10	Horz(CT) 0.01	6	n/a	n/a			
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS						Weight: 54 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 8=0-3-8, 6=0-3-8
 Max Horz 8=-134(LC 8)
 Max Uplift 8=-49(LC 10), 6=-49(LC 11)
 Max Grav 8=530(LC 1), 6=530(LC 1)

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

TOP CHORD 2-3=-479/91, 3-4=-479/91, 2-8=-476/140, 4-6=-476/140
 BOT CHORD 7-8=0/295, 6-7=0/295
 WEBS 3-7=0/252

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-0-0, Exterior(2) 3-0-0 to 9-0-0, Interior(1) 9-0-0 to 9-10-8, Exterior(2) 9-10-8 to 12-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



October 29, 2021

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818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WAG-5	148568475
21104397	DGE	GABLE	1	1		

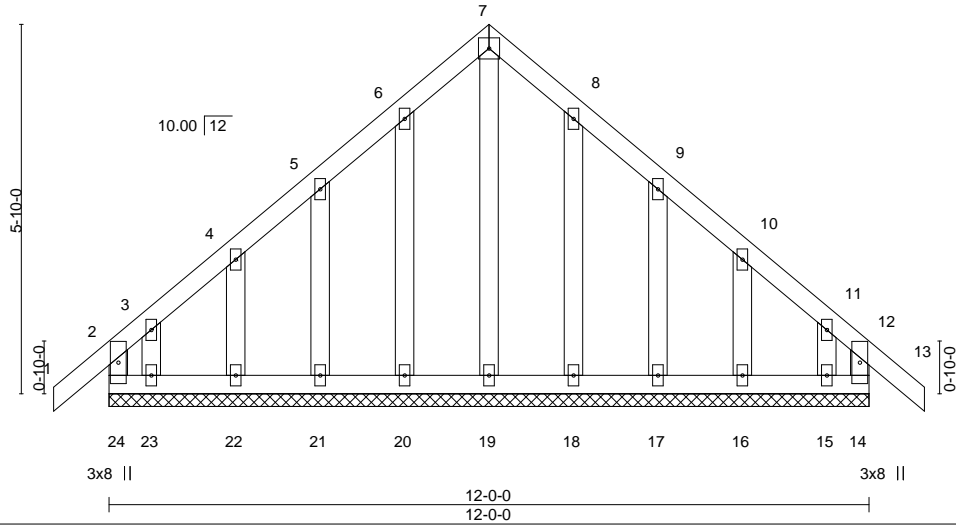
The Building Center, Gastonia, NC - 28052,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:47:59 2021 Page 1

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Scale = 1:36.4



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 0.07	Vert(LL)	-0.00	13	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	13	n/r	90		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	14	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						Weight: 84 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.2
 OTHERS 2x4 SP No.3

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 12-0-0.
 (lb) - Max Horz 24=-134(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 14, 20, 21, 22, 18, 16, 17 except 24=-103(LC 6), 23=-115(LC 10), 15=-103(LC 11)
 Max Grav All reactions 250 lb or less at joint(s) 24, 14, 19, 20, 21, 22, 23, 18, 16, 15, 17

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-0-0, Exterior(2) 2-0-0 to 3-0-0, Corner(3) 3-0-0 to 9-0-0, Exterior(2) 9-0-0 to 9-10-8, Corner(3) 9-10-8 to 12-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 20, 21, 22, 18, 16, 17 except (jt=lb) 24=103, 23=115, 15=103.



October 29, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



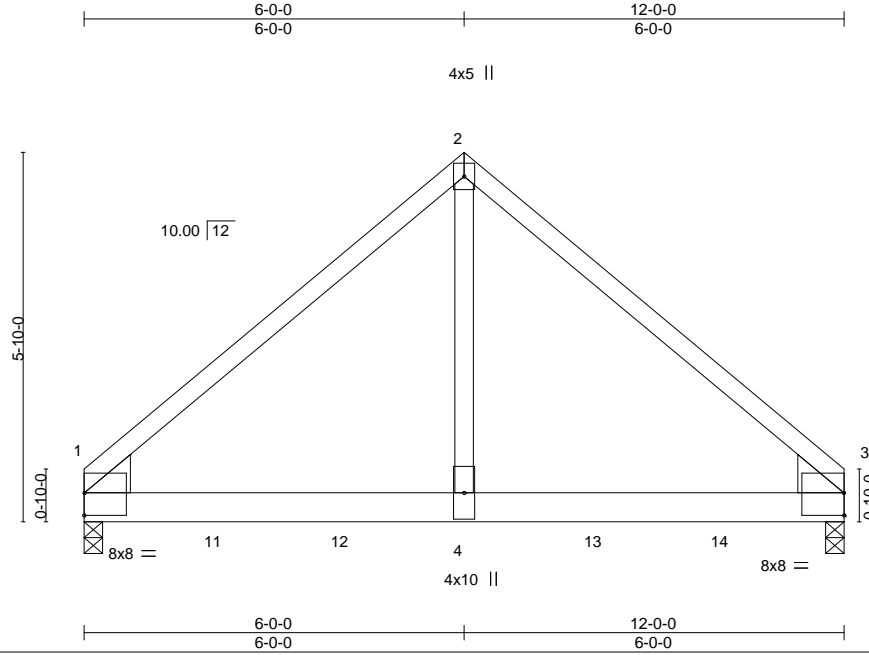
818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WAG-5	148568476
21104397	DGR	COMMON GIRDER	1	2	Job Reference (optional)	

The Building Center, Gastonia, NC - 28052,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:48:00 2021 Page 1

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Scale = 1:36.4

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.53	Vert(LL) -0.06	4-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.57	Vert(CT) -0.11	4-7	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.97	Horz(CT) 0.02	1	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MSH						
							Weight: 128 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x6 SP DSS
 WEBS 2x4 SP No.3
 WEDGE
 Left: 2x8 SP No.2 , Right: 2x8 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-6-13 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=0-3-8, 3=0-3-8
 Max Horz 1=101(LC 24)
 Max Uplift 1=-360(LC 8), 3=-366(LC 9)
 Max Grav 1=3986(LC 1), 3=4045(LC 1)

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

TOP CHORD 1-2=-4052/419, 2-3=-4052/419
 BOT CHORD 1-4=-262/3036, 3-4=-262/3036
 WEBS 2-4=-413/4696

NOTES-

- 2-ply truss to be connected together with 10d (0.148"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row 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.
- 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.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=360, 3=366.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1414 lb down and 142 lb up at 2-0-12, 1414 lb down and 142 lb up at 4-0-12, 1414 lb down and 142 lb up at 6-0-12, and 1414 lb down and 142 lb up at 8-0-12, and 1414 lb down and 142 lb up at 10-0-12 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



October 29,2021

Continued on page 2

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818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WAG-5	148568476
21104397	DGR	COMMON GIRDER	1	2	Job Reference (optional)	

The Building Center, Gastonia, NC - 28052,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:48:00 2021 Page 2
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LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-2=-60, 2-3=-60, 5-8=-20

Concentrated Loads (lb)

Vert: 4=-1414(B) 11=-1414(B) 12=-1414(B) 13=-1414(B) 14=-1414(B)

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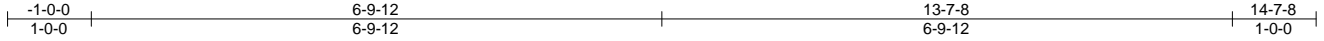


818 Soundside Road
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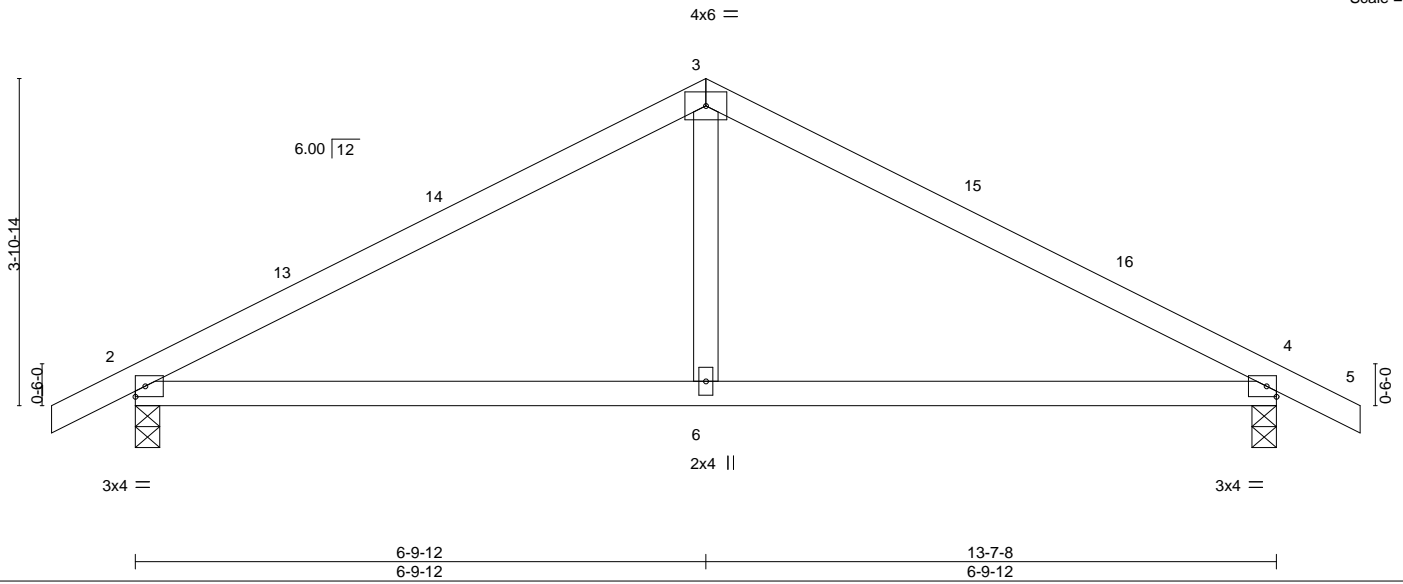
Job	Truss	Truss Type	Qty	Ply	WAG-5	148568477
21104397	F	Common	1	1		

The Building Center, Gastonia, NC - 28052,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:48:01 2021 Page 1
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Scale = 1:27.5



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 0.48	Vert(LL)	-0.05	6-9	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.45	Vert(CT)	-0.10	6-9	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.01	2	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS						Weight: 52 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 2=0-3-8, 4=0-3-8
Max Horz 2=53(LC 10)
Max Uplift 2=67(LC 10), 4=67(LC 11)
Max Grav 2=605(LC 1), 4=605(LC 1)

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

TOP CHORD 2-3=-748/141, 3-4=-748/141
BOT CHORD 2-6=-26/594, 4-6=-26/594
WEBS 3-6=0/300

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 3-9-12, Exterior(2) 3-9-12 to 9-9-12, Interior(1) 9-9-12 to 11-7-8, Exterior(2) 11-7-8 to 14-7-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



October 29, 2021

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

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

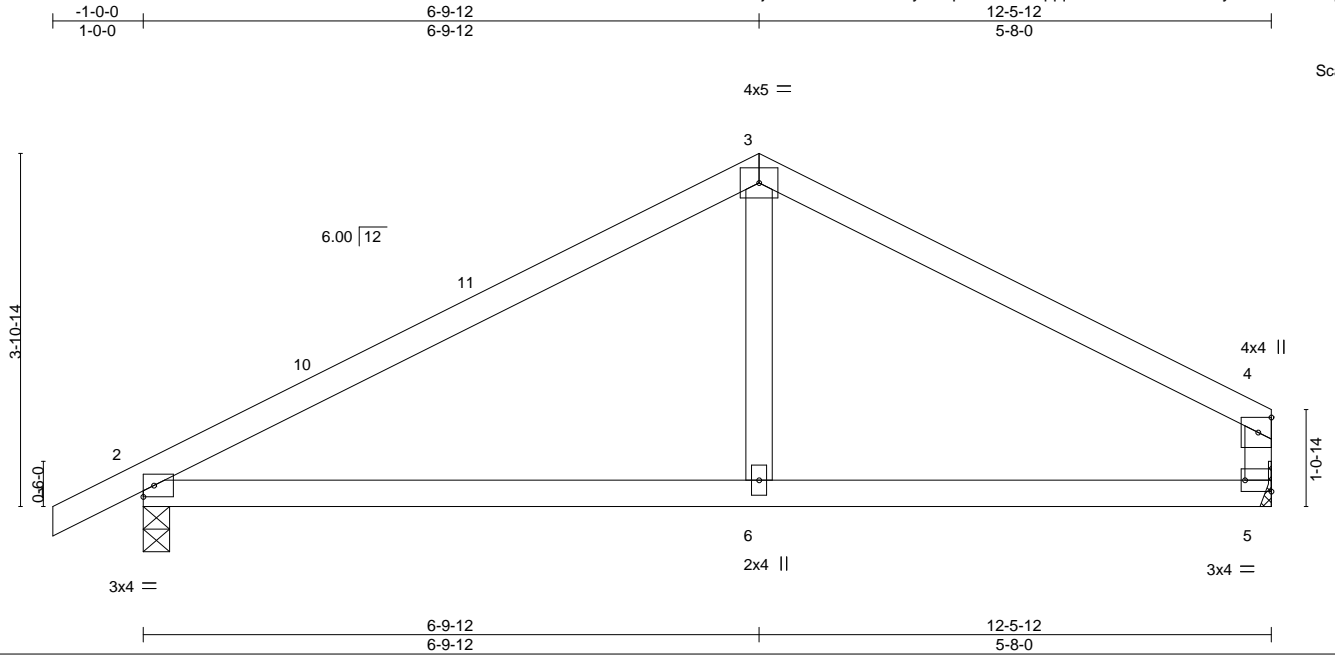


818 Soundside Road
Edenton, NC 27932

Job 21104397	Truss F1	Truss Type Common	Qty 3	Ply 1	WAG-5	148568478
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The Building Center, Gastonia, NC - 28052,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:48:02 2021 Page 1
ID:uDPvKtjdstmNrMKV28DLczy5ASp-4tr2RWJrqqoAPoL2YDv12vmiCky40Q34M0ocNyOteh



Scale = 1:25.5

Plate Offsets (X,Y)-- [5:Edge,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 0.84	Vert(LL)	-0.07	6-9	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.44	Vert(CT)	-0.15	6-9	>962	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.02	2	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-AS						Weight: 47 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 2=0-3-8, 5=Mechanical
Max Horz 2=72(LC 10)
Max Uplift 2=-65(LC 10), 5=-39(LC 11)
Max Grav 2=556(LC 1), 5=491(LC 1)

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

TOP CHORD 2-3=-605/137, 3-4=-600/138, 4-5=-416/131
BOT CHORD 2-6=-61/463, 5-6=-61/463

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 3-9-12, Exterior(2) 3-9-12 to 12-4-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



October 29, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



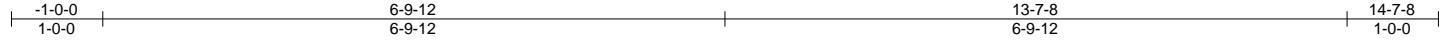
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	WAG-5	148568479
21104397	FGE	Common Supported Gable	1	1		

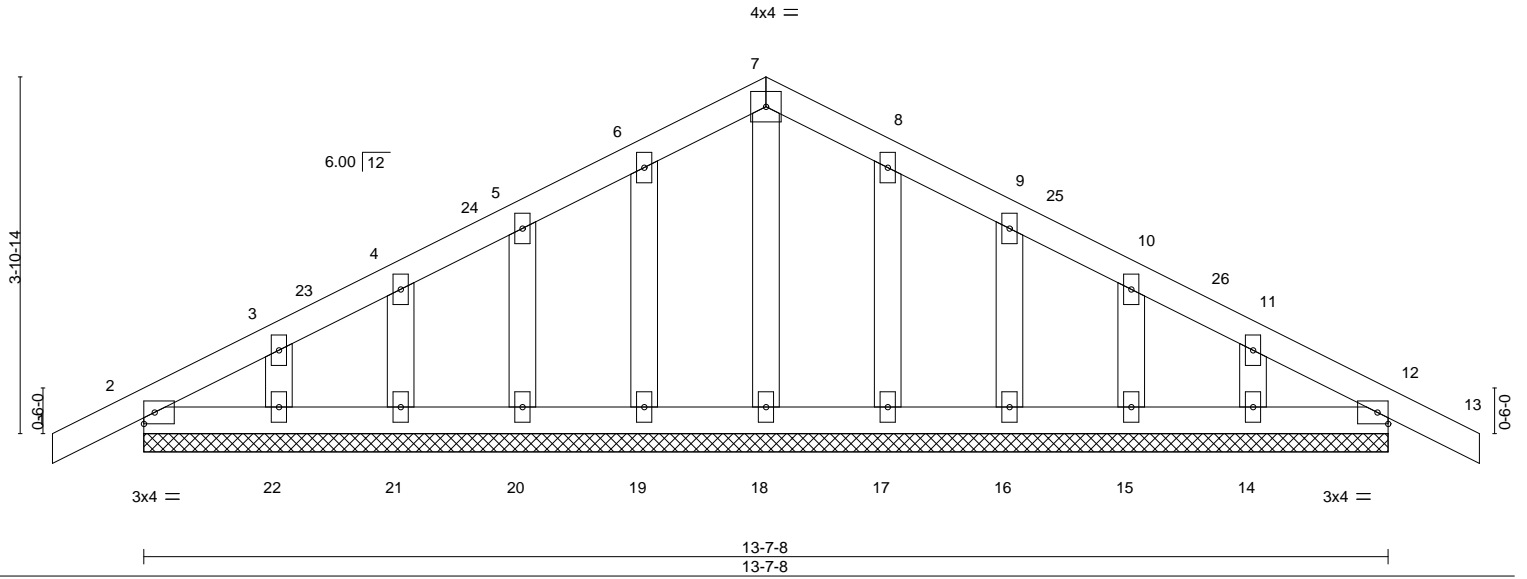
The Building Center, Gastonia, NC - 28052,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:48:03 2021 Page 1

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Scale = 1:25.2



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 0.07	Vert(LL)	-0.00	13	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	13	n/r	90		
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: 72 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 13-7-8.
 (lb) - Max Horz 2=53(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 19, 20, 21, 22, 17, 16, 15, 14
 Max Grav All reactions 250 lb or less at joint(s) 2, 12, 18, 19, 20, 21, 22, 17, 16, 15, 14

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-0-0 to 2-0-0, Exterior(2) 2-0-0 to 3-9-12, Corner(3) 3-9-12 to 9-9-12, Exterior(2) 9-9-12 to 11-7-8, Corner(3) 11-7-8 to 14-7-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12, 19, 20, 21, 22, 17, 16, 15, 14.



October 29, 2021

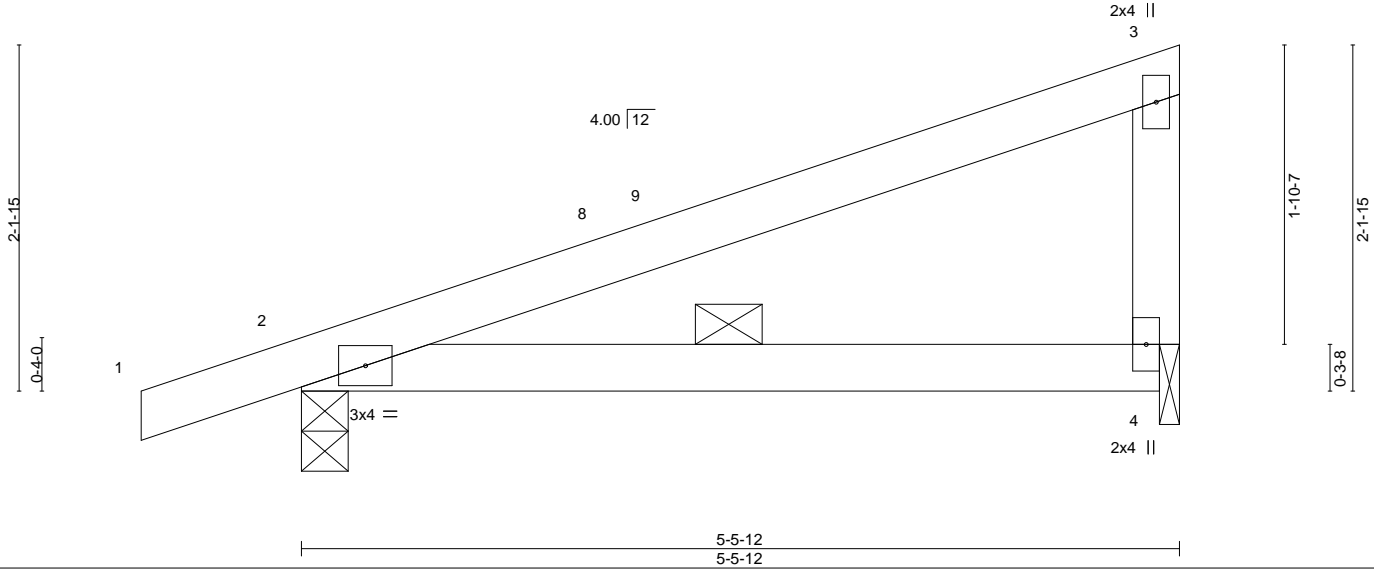
Job 21104397	Truss H	Truss Type Monopitch	Qty 9	Ply 1	WAG-5	148568480
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The Building Center, Gastonia, NC - 28052,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:48:04 2021 Page 1
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Scale = 1:14.4



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.38	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.34	Vert(LL) -0.03 4-7 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.08 4-7 >829 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.00 2 n/a n/a		
	Code IRC2015/TPI2014			Weight: 21 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 3-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 4=0-1-8
Max Horz 2=70(LC 6)
Max Uplift 2=-57(LC 6), 4=-39(LC 10)
Max Grav 2=279(LC 1), 4=208(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 2-4-0, Exterior(2) 2-4-0 to 5-4-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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 design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord.



October 29, 2021

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818 Soundside Road
Edenton, NC 27932

Job 21104397	Truss HGE	Truss Type GABLE	Qty 1	Ply 1	WAG-5	148568481
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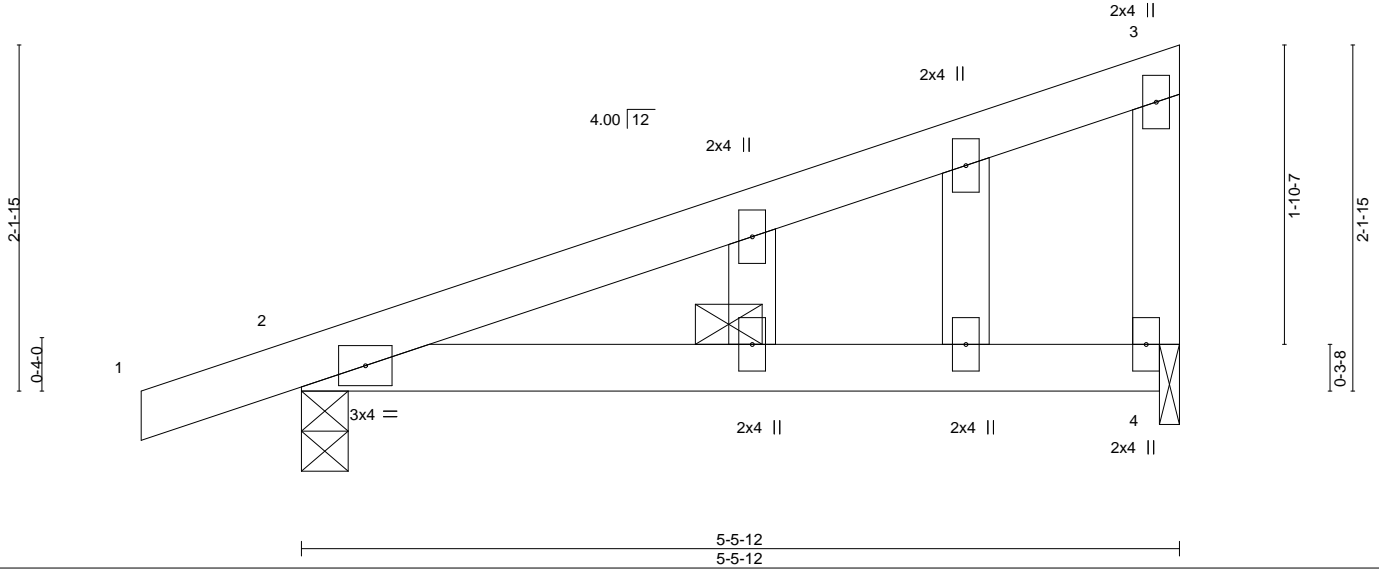
The Building Center, Gastonia, NC - 28052,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:48:05 2021 Page 1

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Scale = 1:14.4



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.38	Vert(LL)	-0.03	4-11	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.34	Vert(CT)	-0.08	4-11	>829	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS						Weight: 23 lb	FT = 20%
	Code IRC2015/TPI2014								

LUMBER-

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3
 OTHERS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD 3-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 4=0-1-8
 Max Horz 2=70(LC 6)
 Max Uplift 2=-57(LC 6), 4=-39(LC 10)
 Max Grav 2=279(LC 1), 4=208(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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 1-4-0 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 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 6) 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord.



October 29, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
 Edenton, NC 27932

Job 21104397	Truss T	Truss Type COMMON TRUSS	Qty 2	Ply 1	WAG-5 Job Reference (optional)	148568482
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The Building Center, Gastonia, NC - 28052,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:48:06 2021 Page 1

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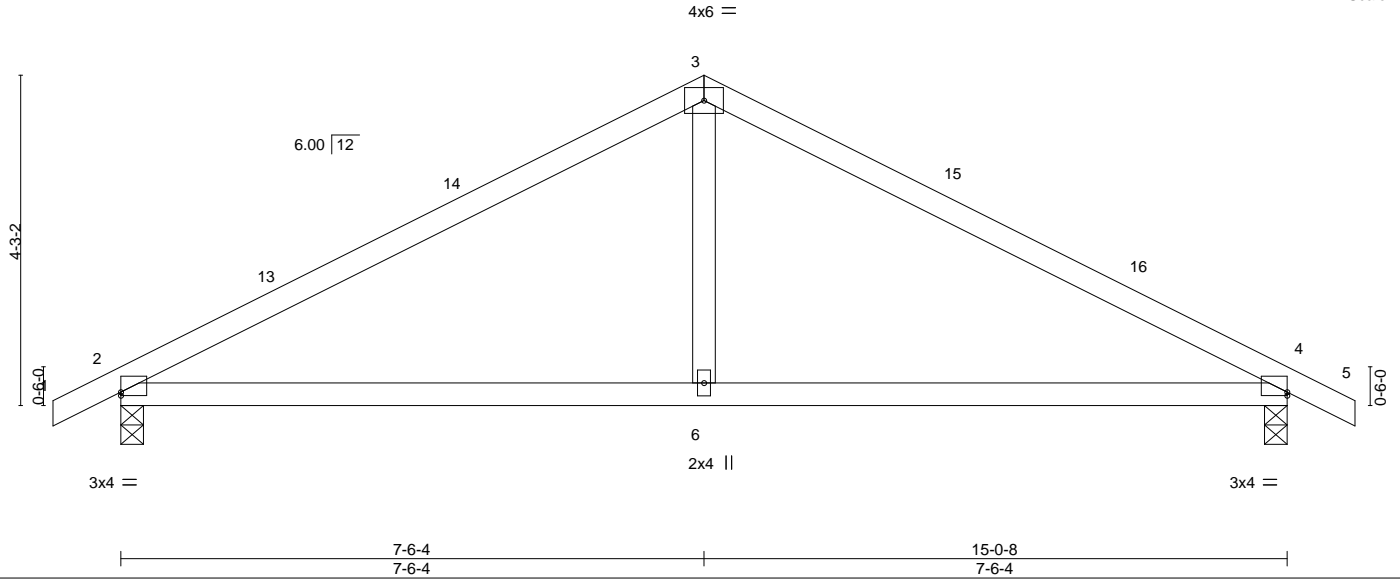


Plate Offsets (X,Y)-- [2:0-0-0,0-0-9], [4:0-0-0,0-0-9]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.61	Vert(LL) -0.07	6-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.55	Vert(CT) -0.14	6-12	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.13	Horz(CT) 0.02	2	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS					Weight: 56 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3

BRACING-
 TOP CHORD Structural wood sheathing directly applied.
 BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 4=0-3-8
 Max Horz 2=57(LC 10)
 Max Uplift 2=-70(LC 10), 4=-70(LC 11)
 Max Grav 2=654(LC 1), 4=654(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-836/145, 3-4=-836/145
 BOT CHORD 2-6=-28/664, 4-6=-28/664
 WEBS 3-6=0/334

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-6-4, Exterior(2) 4-6-4 to 10-6-4, Interior(1) 10-6-4 to 12-11-0, Exterior(2) 12-11-0 to 15-11-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



October 29, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
 Edenton, NC 27932

Job 21104397	Truss TGE	Truss Type GABLE	Qty 1	Ply 1	WAG-5	148568483
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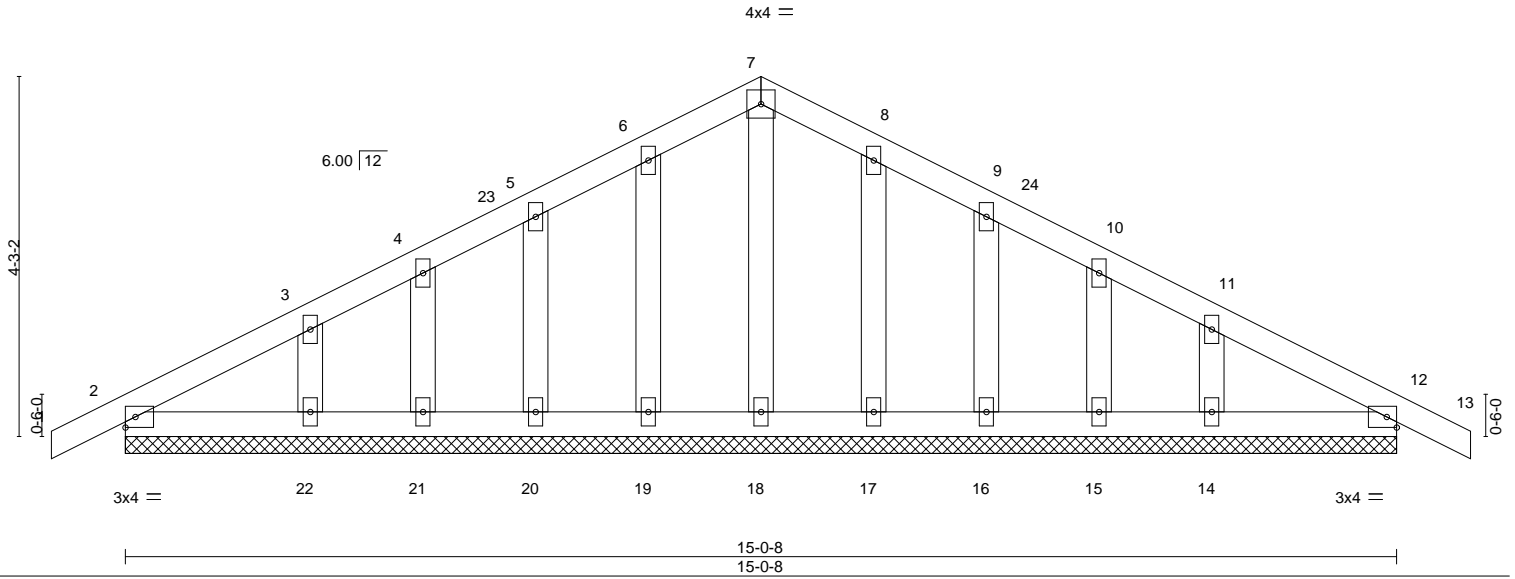
The Building Center, Gastonia, NC - 28052,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:48:07 2021 Page 1

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Scale = 1:27.3



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.06	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(LL) -0.00 12 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Vert(CT) 0.00 12 n/r 90		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Horz(CT) 0.00 12 n/a n/a		
	Code IRC2015/TPI2014			Weight: 80 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 15-0-8.
 (lb) - Max Horz 2=57(LC 14)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 19, 20, 21, 22, 17, 16, 15, 14
 Max Grav All reactions 250 lb or less at joint(s) 2, 12, 18, 19, 20, 21, 22, 17, 16, 15, 14

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-2-4, Exterior(2) 2-2-4 to 4-6-4, Corner(3) 4-6-4 to 10-6-4, Exterior(2) 10-6-4 to 12-10-4, Corner(3) 12-10-4 to 15-11-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12, 19, 20, 21, 22, 17, 16, 15, 14.



October 29, 2021

Job	Truss	Truss Type	Qty	Ply	WAG-5	148568484
21104397	TGR	COMMON GIRDER	1	2		

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8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:48:09 2021 Page 1

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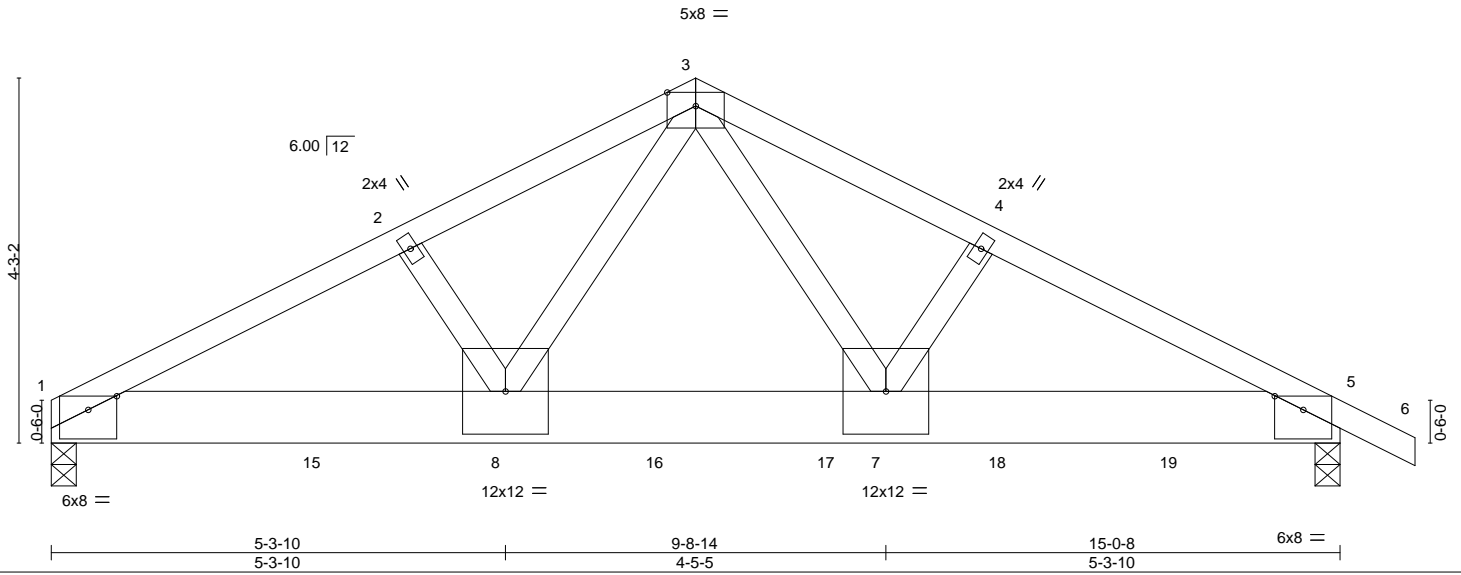


Plate Offsets (X,Y)-- [1:0-4-0,0-1-15], [5:0-4-0,0-1-15]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.50	Vert(LL) -0.10	7-8	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.50	Vert(CT) -0.19	7-8	>958	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.91	Horz(CT) 0.03	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MSH					Weight: 182 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x8 SP DSS
 WEBS 2x4 SP No.3

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 3-9-5 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=0-3-8, 5=0-3-8
 Max Horz 1=-63(LC 13)
 Max Uplift 1=-594(LC 8), 5=-552(LC 9)
 Max Grav 1=5828(LC 1), 5=5327(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-8829/905, 2-3=-8732/915, 3-4=-8767/916, 4-5=-8864/906
 BOT CHORD 1-8=-811/7874, 7-8=-529/5596, 5-7=-755/7904
 WEBS 3-7=-469/4409, 3-8=-465/4345

NOTES-

- 2-ply truss to be connected together with 10d (0.148"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-8-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 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.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=594, 5=552.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1413 lb down and 156 lb up at 1-1-4, 1414 lb down and 156 lb up at 3-1-4, 1414 lb down and 156 lb up at 5-1-4, 1414 lb down and 156 lb up at 7-1-4, 1414 lb down and 156 lb up at 9-1-4, and 1414 lb down and 156 lb up at 11-1-4, and 1414 lb down and 156 lb up at 13-1-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-3=-60, 3-6=-60, 9-12=-20



October 29, 2021

Continued on page 2

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
 Edenton, NC 27932

Job 21104397	Truss TGR	Truss Type COMMON GIRDER	Qty 1	Ply 2	WAG-5 Job Reference (optional)	148568484
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The Building Center, Gastonia, NC - 28052,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:48:09 2021 Page 2
ID:BZKYoGo0D0fNBRMry6r_ORy5ASi-NDmivvOEA_ioVUqhzWrYpXh3H16bD_J5hyDgMTyOtea

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 8=-1414(F) 11=-1413(F) 15=-1414(F) 16=-1414(F) 17=-1414(F) 18=-1414(F) 19=-1414(F)

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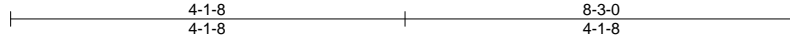


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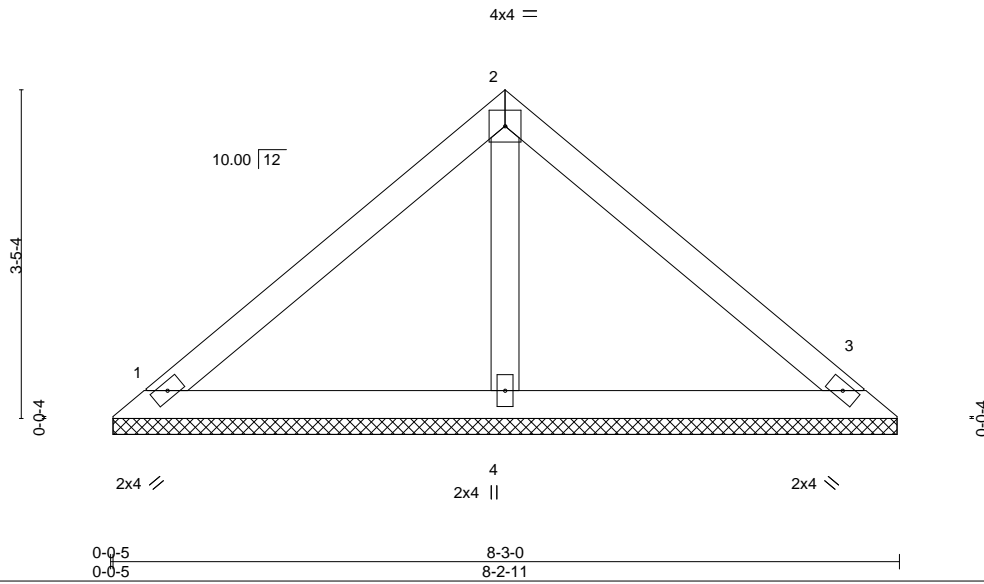
Job	Truss	Truss Type	Qty	Ply	WAG-5	148568485
21104397	V1	Valley	1	1		

The Building Center, Gastonia, NC - 28052,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:48:09 2021 Page 1
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Scale: 1/2"=1'



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.14	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						Weight: 31 lb	FT = 20%
	Code IRC2015/TPI2014								

LUMBER-

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 OTHERS 2x4 SP No.3

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=8-2-6, 3=8-2-6, 4=8-2-6
 Max Horz 1=63(LC 7)
 Max Uplift 1=-29(LC 11), 3=-36(LC 11)
 Max Grav 1=171(LC 1), 3=171(LC 1), 4=254(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



October 29, 2021

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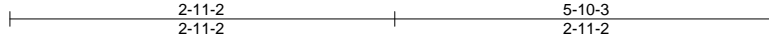
818 Soundside Road
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Job	Truss	Truss Type	Qty	Ply	WAG-5	148568486
21104397	V2	Valley	1	1		

The Building Center, Gastonia, NC - 28052,

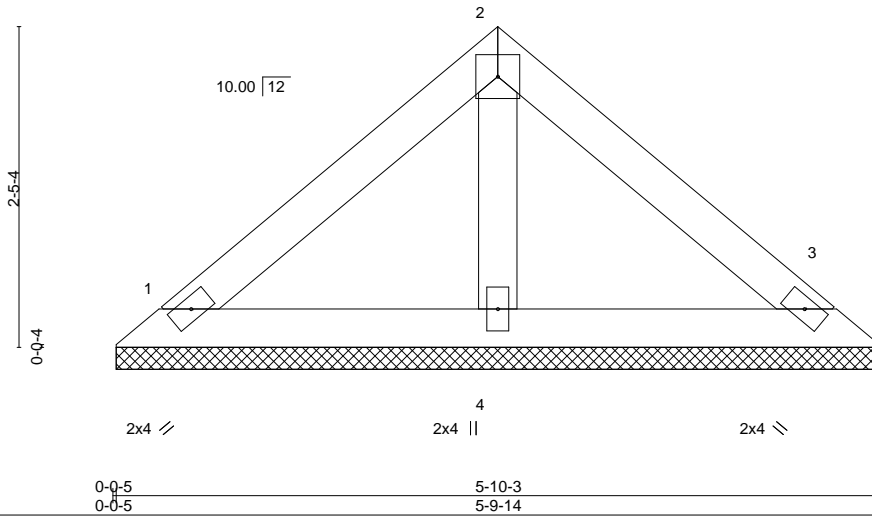
8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:48:10 2021 Page 1

ID:tz2XA9h4EWXnjc7NjliHaWYwVPC-rPK46FPsxHqf7dPtWDMnMkEK2RKeyfSFvdyDuvyOteZ



4x4 =

Scale = 1:17.5



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.12	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.07	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.02	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 21 lb	FT = 20%
	Code IRC2015/TPI2014							

LUMBER-

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 OTHERS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-10-3 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=5-9-10, 3=5-9-10, 4=5-9-10
 Max Horz 1=-43(LC 6)
 Max Uplift 1=-19(LC 11), 3=-25(LC 11)
 Max Grav 1=116(LC 1), 3=116(LC 1), 4=172(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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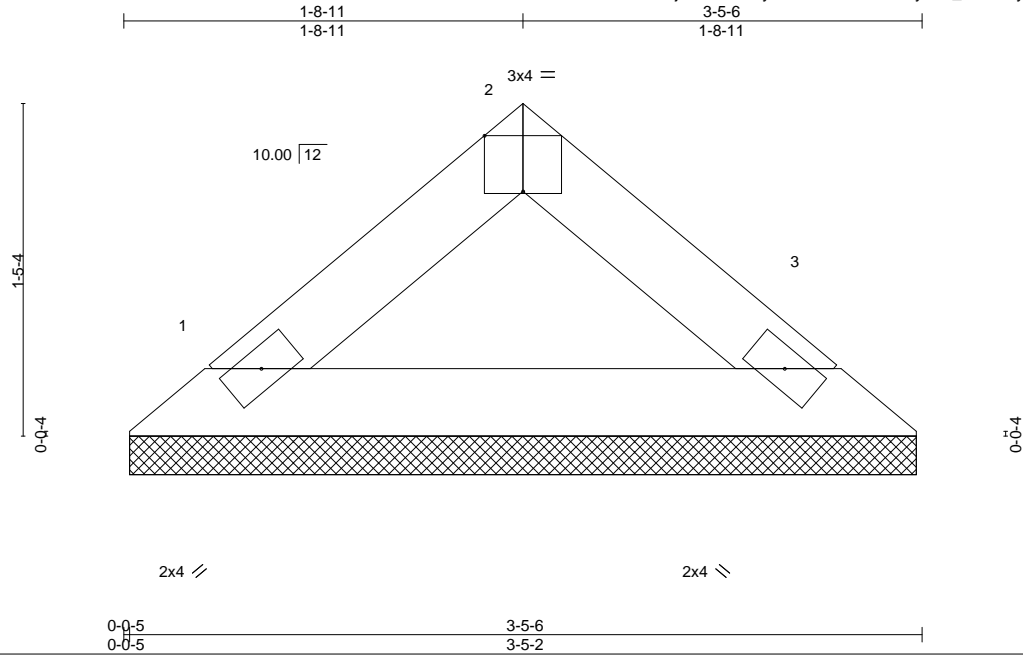


818 Soundside Road
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Job	Truss	Truss Type	Qty	Ply	WAG-5	148568487
21104397	V3	Valley	1	1		

The Building Center, Gastonia, NC - 28052,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:48:11 2021 Page 1
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Scale = 1:10.0

LOADING (psf)	SPACING-	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 0.08	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P					Weight: 10 lb	FT = 20%

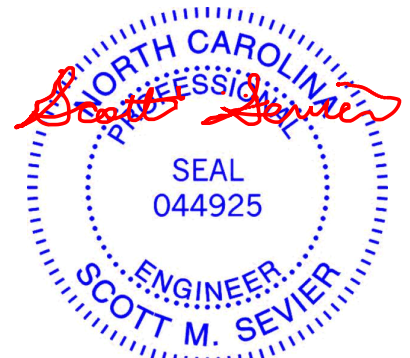
LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 3-5-6 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-4-13, 3=3-4-13
 Max Horz 1=22(LC 7)
 Max Uplift 1=8(LC 10), 3=8(LC 11)
 Max Grav 1=106(LC 1), 3=106(LC 1)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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ENGINEERING BY
TRENCO
 A MiTek Affiliate
 818 Soundside Road
 Edenton, NC 27932

Job 21104397	Truss V5	Truss Type Valley Truss	Qty 1	Ply 1	WAG-5 Job Reference (optional)	148568488
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The Building Center, Gastonia, NC - 28052,

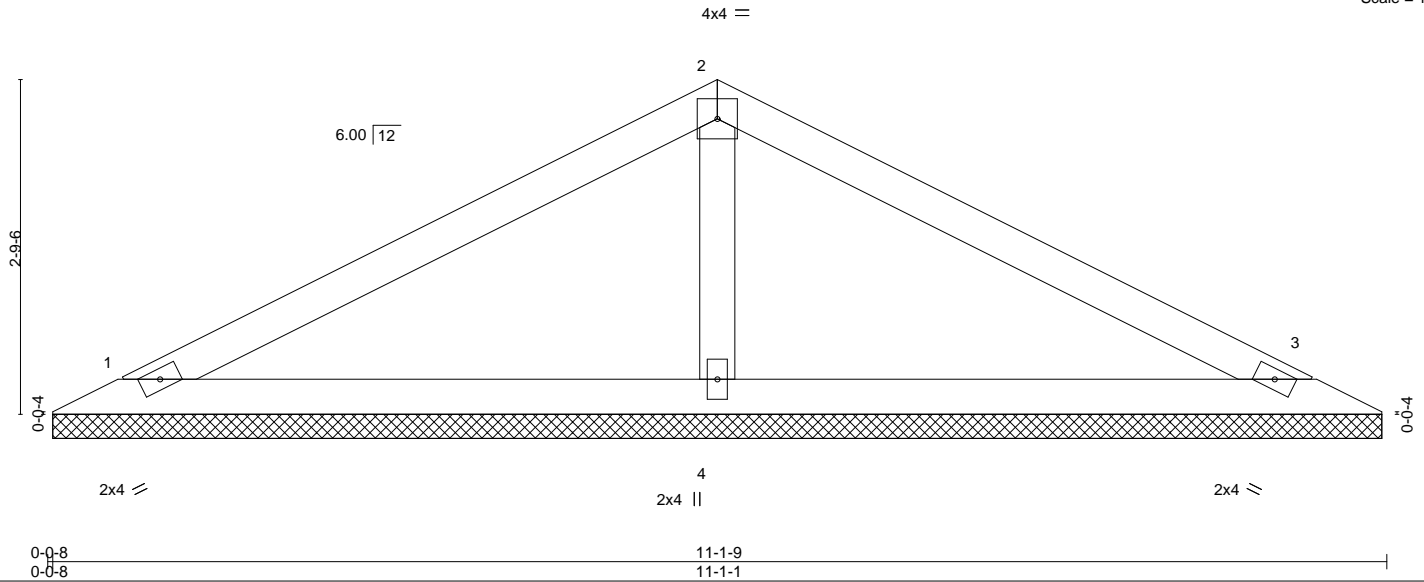
8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:48:13 2021 Page 1

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11-1-9
5-6-12

5-6-12
5-6-12

Scale = 1:19.1



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.35	Vert(LL) n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.24	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT) 0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 36 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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=11-0-9, 3=11-0-9, 4=11-0-9
Max Horz 1=34(LC 10)
Max Uplift 1=-29(LC 10), 3=-35(LC 11), 4=-14(LC 10)
Max Grav 1=182(LC 21), 3=182(LC 22), 4=430(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-285/122

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.



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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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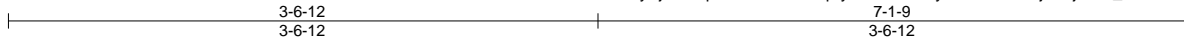


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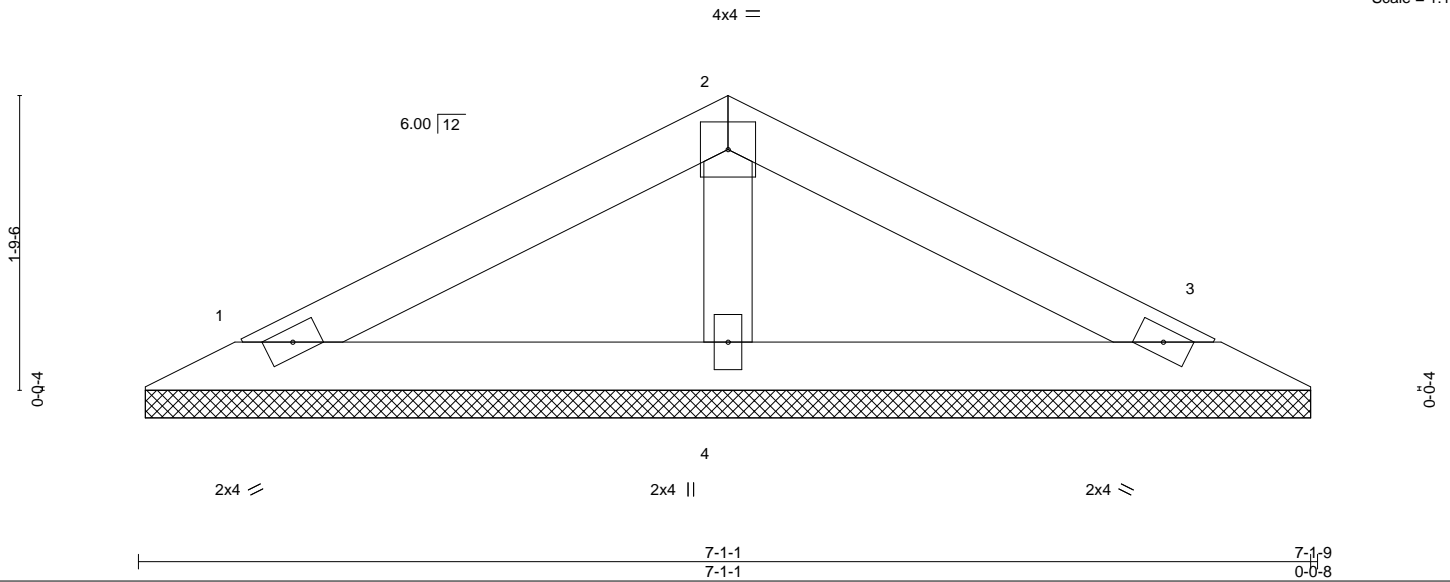
Job	Truss	Truss Type	Qty	Ply	WAG-5	148568489
21104397	V6	Valley Truss	1	1		

The Building Center, Gastonia, NC - 28052,

8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:48:14 2021 Page 1
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Scale = 1:13.9



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.16	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.09	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
	Code IRC2015/TPI2014			Weight: 22 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 OTHERS 2x4 SP No.3

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=7-0-9, 3=7-0-9, 4=7-0-9
 Max Horz 1=20(LC 14)
 Max Uplift 1=22(LC 10), 3=26(LC 11)
 Max Grav 1=119(LC 1), 3=119(LC 1), 4=231(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TC DL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



October 29, 2021

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



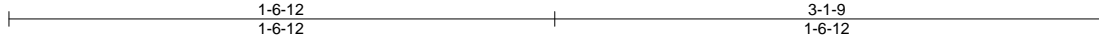
818 Soundside Road
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Job	Truss	Truss Type	Qty	Ply	WAG-5	148568490
21104397	V7	Valley Truss	1	1		

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8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Oct 28 12:48:15 2021 Page 1

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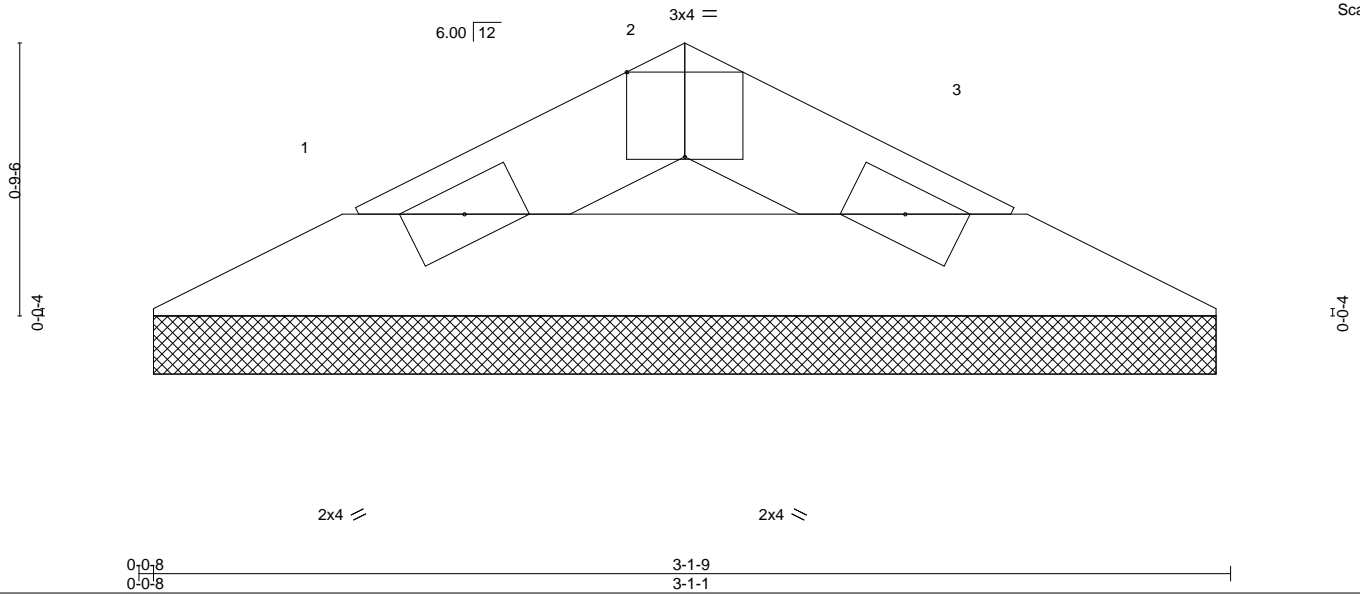


Plate Offsets (X,Y)--	[2:0-2:0,Edge]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.02	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P					Weight: 8 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-1-9 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-0-9, 3=3-0-9
 Max Horz 1=6(LC 10)
 Max Uplift 1=7(LC 10), 3=7(LC 11)
 Max Grav 1=75(LC 1), 3=75(LC 1)

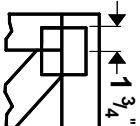
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=115mph Vasd=91mph; TCCL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - 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 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 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.

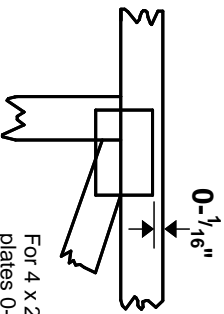


Symbols

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.

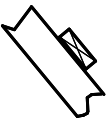
* Plate location details available in **MITek 20/20 software** or upon request.

PLATE SIZE

4 X 4

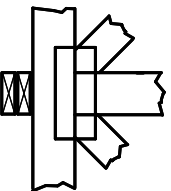
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



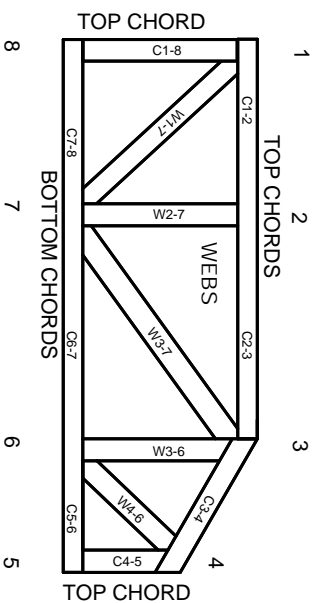
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8
dimensions shown in ft-in-sixteenths
(Drawings not to scale)



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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MITek Engineering Reference Sheet: Mill-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.