ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: CL 3281 A 3 Car
CL 3281 A 3 Car

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Lumber 2383 (Dunn, NC).

Pages or sheets covered by this seal: I69172941 thru I69172972

My license renewal date for the state of North Carolina is December 31, 2024.

North Carolina COA: C-0844

October 28,2024

Gilbert, Eric

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	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car	I69172941
CL 3281 A 3 Car	A	ATTIC	10	1	Job Reference (optional)	

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.82 S Oct 10 2024 Print: 8.820 S Oct 10 2024 MiTek Industries, Inc. Fri Oct 25 10:01:18
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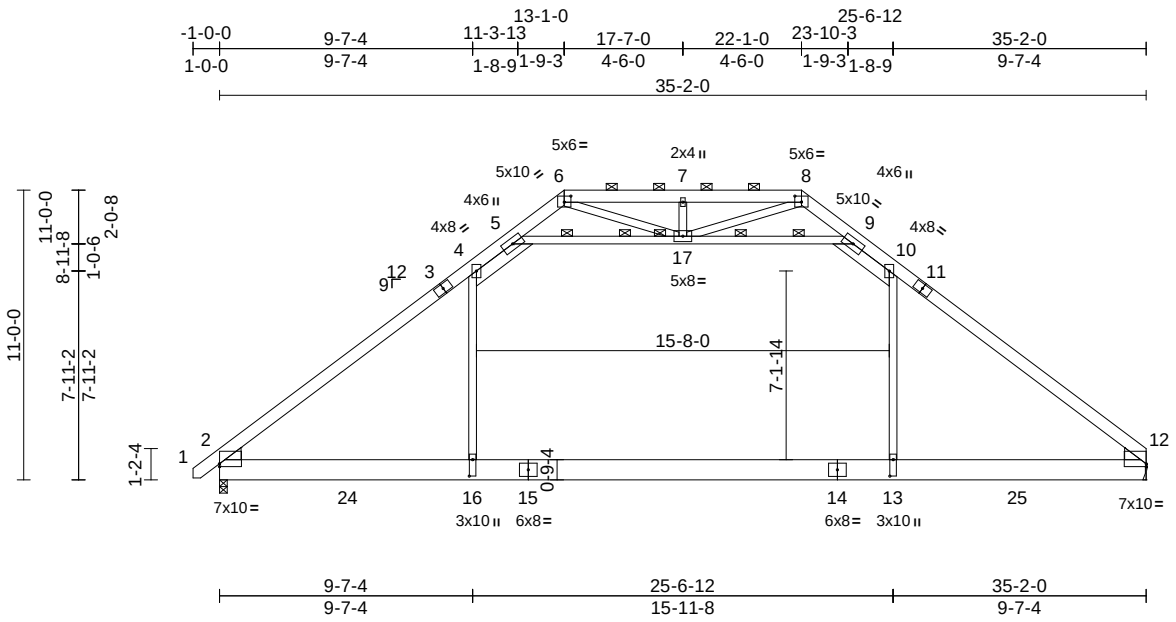

Scale = 1:77.4

Plate Offsets (X, Y): [2:Edge,0-1-5], [6:0-3-0,0-2-12], [8:0-3-0,0-2-12], [12:Edge,0-1-5], [13:0-7-8,0-1-8], [16:0-7-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.43	13-16	>980	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.65	13-16	>651	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.35	Horz(CT)	0.05	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.30	13-16	>646	360	Weight: 311 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2 *Except* 3-6,8-11:2x6 SP DSS
BOT CHORD	2x10 SP DSS
WEBS	2x4 SP No.2 *Except* 7-17,6-17,8-17:2x4 SP No.3
WEDGE	Left: 2x6 SP No.2 Right: 2x6 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD	Rigid ceiling directly applied or 8-11-2 oc bracing.
WEBS	2 Rows at 1/3 pts 5-17, 9-17
JOINTS	1 Brace at Jt(s): 17

REACTIONS (size) 2=0-3-8, 12= Mechanical
Max Horiz 2=255 (LC 9)
Max Grav 2=2132 (LC 2), 12=2088 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/31, 2-4=-3021/53, 4-5=-2087/227, 5-6=-303/367, 6-7=-530/364, 7-8=-530/364, 8-9=-301/368, 9-10=-2088/227, 10-12=-3019/397
BOT CHORD	2-16=-325/2250, 13-16=0/2250, 12-13=-152/2250
WEBS	4-16=0/1227, 5-17=-2783/217, 9-17=-2783/217, 10-13=0/1224, 7-17=-297/143, 6-17=-147/607, 8-17=-147/608

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Ceiling dead load (5.0 psf) on member(s). 4-5, 9-10, 5-17, 9-17; Wall dead load (5.0psf) on member(s).4-16, 10-13
7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 13-16
8) All bearings are assumed to be User Defined .
9) Refer to girder(s) for truss to truss connections.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	A1	ATTIC	2	1	I69172942
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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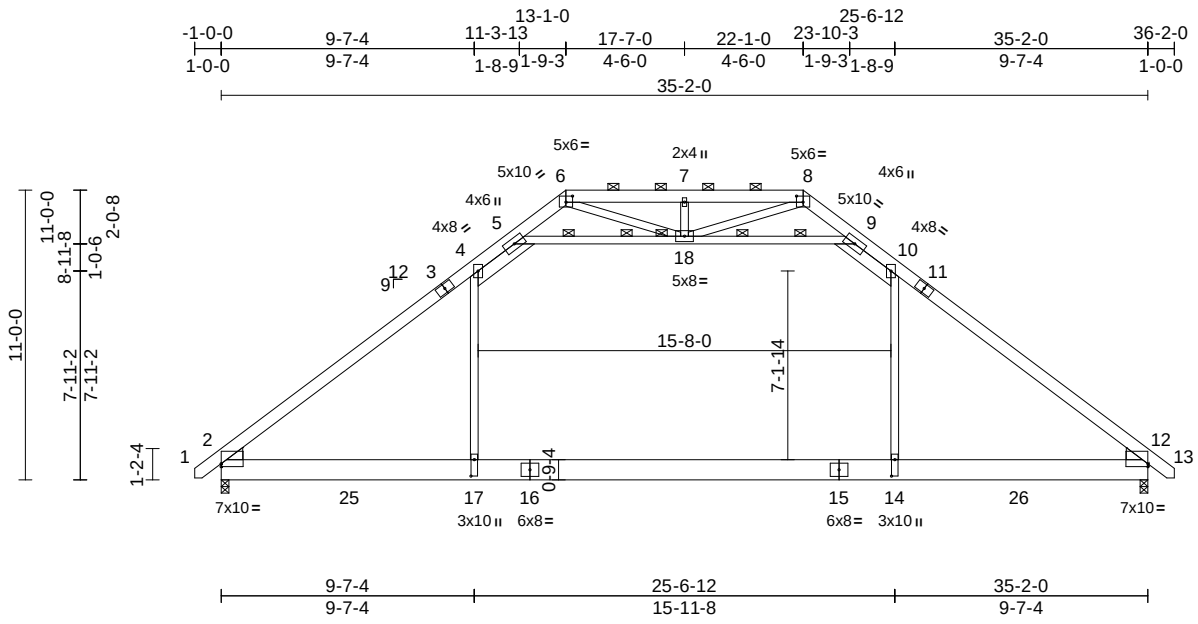

Scale = 1:77.4

Plate Offsets (X, Y): [2:Edge,0-1-5], [6:0-3-0,0-2-12], [8:0-3-0,0-2-12], [12:Edge,0-1-5], [14:0-7-8,0-1-8], [17:0-7-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.43	14-17	>981	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.65	14-17	>652	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.35	Horz(CT)	0.05	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.30	14-17	>647	360	Weight: 314 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2 *Except* 3-6,8-11:2x6 SP DSS
BOT CHORD	2x10 SP DSS
WEBS	2x4 SP No.2 *Except* 7-18,6-18,8-18:2x4 SP No.3
WEDGE	Left: 2x6 SP No.2 Right: 2x6 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD	Rigid ceiling directly applied or 8-11-2 oc bracing.
WEBS	2 Rows at 1/3 pts 5-18, 9-18
JOINTS	1 Brace at Jt(s): 18

REACTIONS (size) 2=0-3-8, 12=0-3-8
Max Horiz 2=-260 (LC 10)
Max Grav 2=2131 (LC 2), 12=2131 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/31, 2-4=-3019/52, 4-5=-2086/227, 5-6=-304/366, 6-7=-531/363, 7-8=-531/363, 8-9=-304/366, 9-10=-2086/227, 10-12=-3019/52, 12-13=0/31
BOT CHORD	2-17=-314/2249, 14-17=0/2249, 12-14=-158/2249
WEBS	4-17=0/1226, 5-18=-2779/215, 9-18=-2778/215, 10-14=0/1226, 7-18=-297/143, 6-18=-147/608, 8-18=-147/608

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Ceiling dead load (5.0 psf) on member(s). 4-5, 9-10, 5-18, 9-18; Wall dead load (5.0psf) on member(s).4-17, 10-14
7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 14-17
8) All bearings are assumed to be User Defined .
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	A1E	GABLE	1	1	I69172943
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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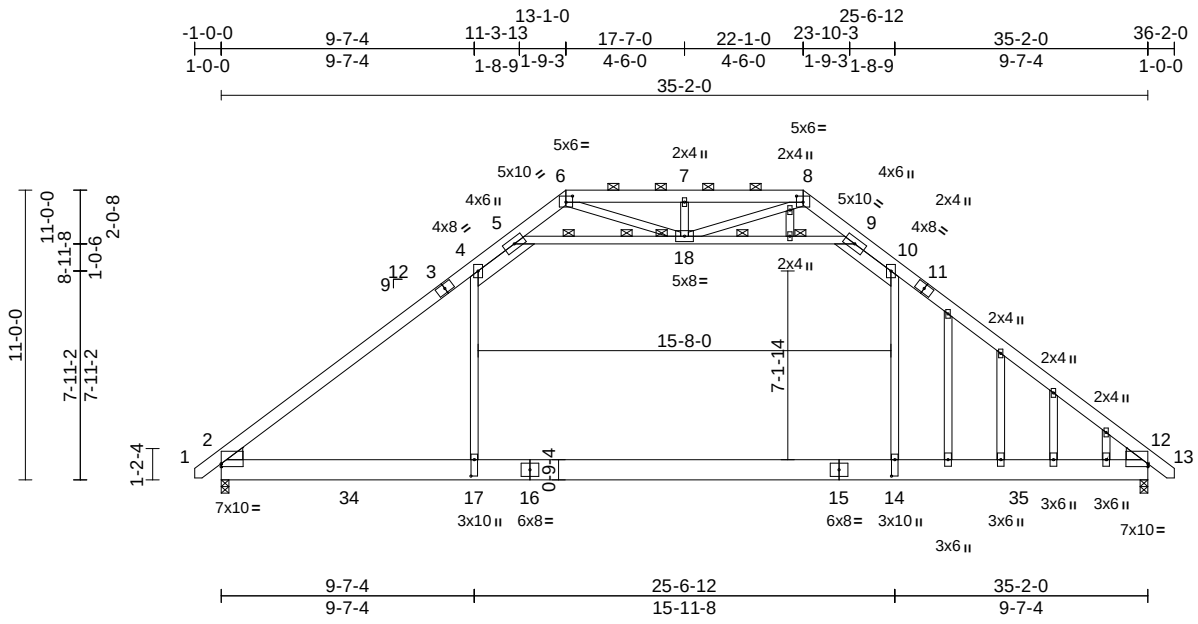


Scale = 1:77.4

Plate Offsets (X, Y): [2:Edge,0-1-5], [6:0-3-0,0-2-12], [8:0-3-0,0-2-12], [12:Edge,0-1-5], [14:0-7-8,0-1-8], [17:0-7-8,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.43	14-17	>981	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.65	14-17	>652	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.35	Horz(CT)	0.05	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.30	14-17	>647	360	Weight: 335 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2 *Except* 3-6,8-11:2x6 SP DSS
BOT CHORD	2x10 SP DSS
WEBS	2x4 SP No.2 *Except* 7-18,6-18,8-18:2x4 SP No.3
OTHERS	2x4 SP No.3
WEDGE	Left: 2x6 SP No.2 Right: 2x6 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 6-8.
BOT CHORD	Rigid ceiling directly applied or 8-11-2 oc bracing.
WEBS	2 Rows at 1/3 pts 5-18, 9-18
JOINTS	1 Brace at Jt(s): 18

REACTIONS (size) 2=0-3-8, 12=0-3-8
Max Horiz 2=-260 (LC 10)
Max Grav 2=2131 (LC 2), 12=2131 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/31, 2-4=-3019/52, 4-5=-2086/227, 5-6=-304/366, 6-7=-531/363, 7-8=-531/363, 8-9=-304/366, 9-10=-2086/227, 10-12=-3019/52, 12-13=0/31
BOT CHORD	2-17=-314/2249, 14-17=0/2249, 12-14=-158/2249
WEBS	4-17=0/1226, 5-18=-2779/215, 9-18=-2778/215, 10-14=0/1226, 7-18=-297/143, 6-18=-147/608, 8-18=-147/608

NOTES

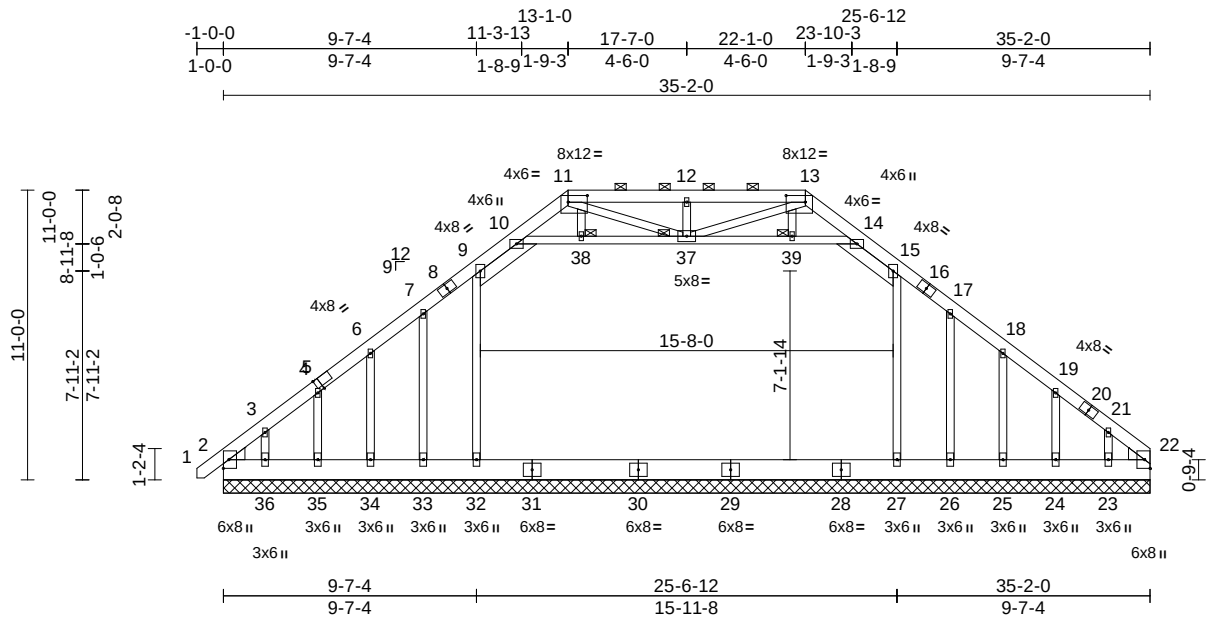
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Ceiling dead load (5.0 psf) on member(s). 4-5, 9-10, 5-18, 9-18; Wall dead load (5.0psf) on member(s).4-17, 10-14
7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 14-17
8) All bearings are assumed to be User Defined .
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	AE	Attic Supported Gable	1	1	I69172944
					Job Reference (optional)



Scale = 1:77.4

Plate Offsets (X, Y): [5:0-2-5,Edge], [11:0-8-12,0-3-0], [13:0-8-12,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.01	22	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 355 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x10 SP DSS
WEBS 2x4 SP No.2 *Except* 12-37,11-37,13-37:2x4 SP No.3
OTHERS 2x4 SP No.3
WEDGE Left: 2x6 SP No.2
Right: 2x6 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
2-0-0 oc purlins (6-0-0 max.): 11-13.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 37, 38, 39

REACTIONS (size) 2=35-2-0, 22=35-2-0, 23=35-2-0, 24=35-2-0, 25=35-2-0, 26=35-2-0, 27=35-2-0, 32=35-2-0, 33=35-2-0, 34=35-2-0, 35=35-2-0, 36=35-2-0
Max Horiz 2=233 (LC 11)
Max Uplift 2=-159 (LC 8), 22=-140 (LC 9), 23=-123 (LC 13), 24=-87 (LC 13), 25=-24 (LC 13), 26=-885 (LC 18), 33=-885 (LC 18), 34=-24 (LC 12), 35=-88 (LC 12), 36=-120 (LC 12)
Max Grav 2=507 (LC 1), 22=438 (LC 1), 23=159 (LC 11), 24=134 (LC 25), 25=390 (LC 21), 26=-128 (LC 9), 27=1321 (LC 18), 32=1321 (LC 18), 33=-134 (LC 8), 34=390 (LC 20), 35=138 (LC 24), 36=155 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/8, 2-3=-570/242, 3-4=-499/210, 4-6=-496/202, 6-7=-500/197, 7-9=-452/240, 9-10=-532/280, 10-11=-651/272, 11-12=-837/389, 12-13=-837/389, 13-14=-651/272, 14-15=-532/280, 15-17=-452/240, 17-18=-500/179, 18-19=-496/177, 19-21=-499/185, 21-22=-558/217
BOT CHORD 2-36=-147/386, 35-36=-147/386, 34-35=-147/386, 33-34=-147/386, 32-33=-147/386, 27-32=-147/386, 26-27=-147/386, 25-26=-147/386, 24-25=-147/386, 23-24=-147/386, 22-23=-147/386
WEBS 9-32=-268/110, 10-38=-91/196, 37-38=-92/196, 37-39=-66/196, 14-39=-66/196, 15-27=-268/89, 12-37=-258/118, 11-37=-184/370, 13-37=-184/370, 11-38=-4/4, 7-33=-104/84, 6-34=-139/98, 4-35=-135/102, 3-36=-106/132, 13-39=-4/4, 17-26=-104/88, 18-25=-139/98, 19-24=-134/100, 21-23=-111/138

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 (||) MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Ceiling dead load (5.0 psf) on member(s). 9-10, 14-15, 10-38, 37-38, 37-39, 14-39; Wall dead load (5.0psf) on member(s).9-32, 15-27
11) All bearings are assumed to be SP DSS .
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car	I69172945
CL 3281 A 3 Car	AGR	ATTIC	1	2	Job Reference (optional)	

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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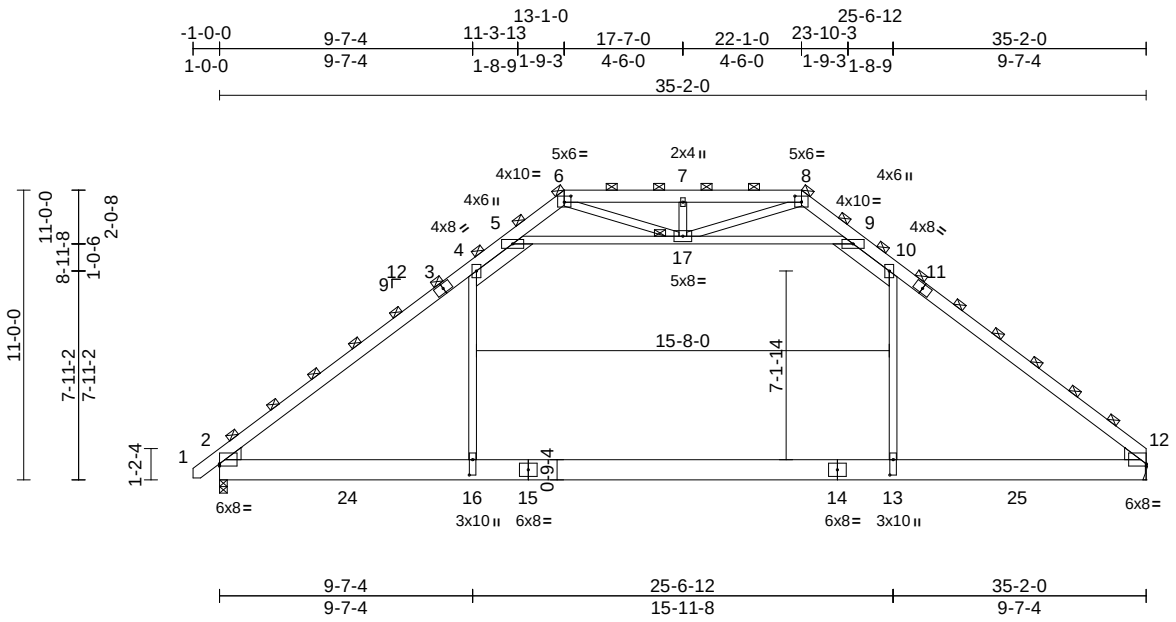

Scale = 1:77.4

Plate Offsets (X, Y): [2:Edge,0-1-1], [6:0-3-0,0-2-12], [8:0-3-0,0-2-12], [12:Edge,0-1-1], [13:0-7-0,0-1-8], [16:0-7-0,0-1-8]

Loading	(psf)	Spacing	2-8-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.29	13-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.44	13-16	>968	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.23	Horz(CT)	0.03	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.20	13-16	>968	360	Weight: 622 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2 *Except* 3-6,8-11:2x6 SP DSS
BOT CHORD	2x10 SP DSS
WEBS	2x4 SP No.2 *Except* 7-17,6-17,8-17:2x4 SP No.3
WEDGE	Left: 2x6 SP No.2 Right: 2x6 SP No.2

BRACING

TOP CHORD	2-0-0 oc purlins (6-0-0 max.) (Switched from sheeted: Spacing > 2-0-0).
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS	1 Brace at Jt(s): 6, 8, 17

REACTIONS (size) 2=0-3-8, 12= Mechanical
Max Horiz 2=340 (LC 9)
Max Grav 2=2842 (LC 2), 12=2784 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/41, 2-4=-4027/69, 4-5=-2782/306, 5-6=-402/486, 6-7=-705/484, 7-8=-705/484, 8-9=-397/489, 9-10=-2784/306, 10-12=-4023/457
BOT CHORD	2-16=-412/3000, 13-16=0/3000, 12-13=-182/3000
WEBS	4-16=0/1637, 5-17=-3709/302, 9-17=-3712/304, 10-13=0/1630, 7-17=-397/192, 6-17=-193/805, 8-17=-192/809

NOTES

1) 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 oc.
Web 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=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Ceiling dead load (5.0 psf) on member(s). 4-5, 9-10, 5-17, 9-17; Wall dead load (5.0psf) on member(s).4-16, 10-13
9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 13-16
10) All bearings are assumed to be User Defined .
11) Refer to girder(s) for truss to truss connections.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car	
CL 3281 A 3 Car	AGR1	ATTIC	1	**2**	Job Reference (optional)	I69172946

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334, Run: 8.82 S Oct 10 2024 Print: 8.820 S Oct 10 2024 MiTek Industries, Inc. Fri Oct 25 10:01:21 Page: 1

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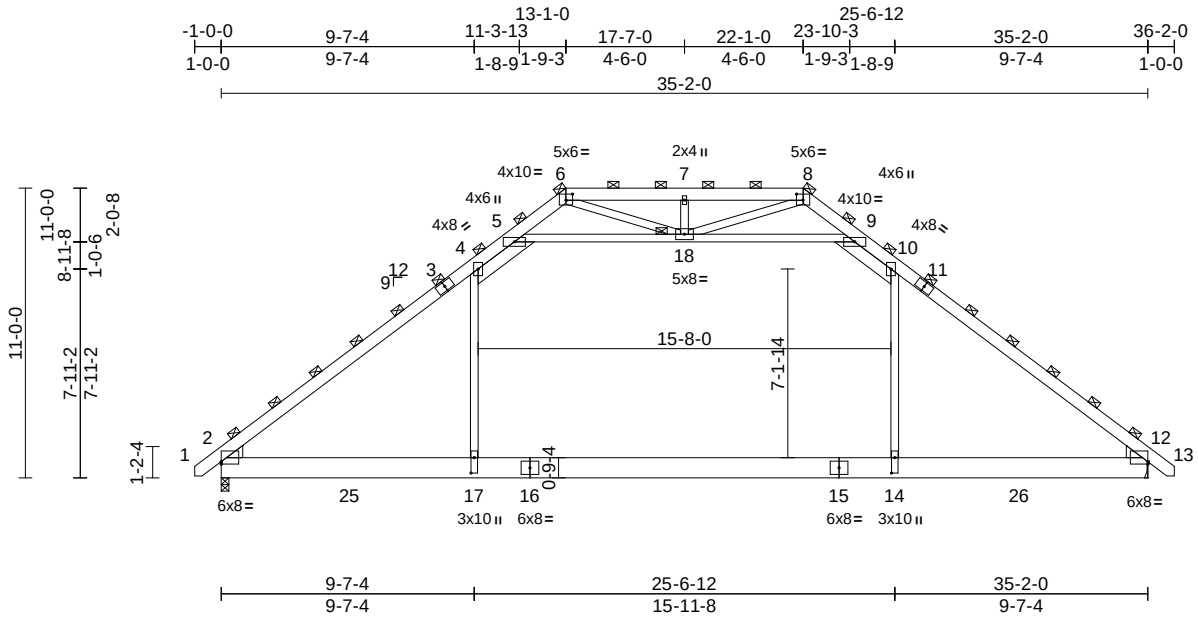

Scale = 1:77.4

Plate Offsets (X, Y): [2:Edge,0-1-1], [6:0-3-0,0-2-12], [8:0-3-0,0-2-12], [12:Edge,0-1-1], [14:0-7-0,0-1-8], [17:0-7-0,0-1-8]

Loading	(psf)	**Spacing**	2-8-0	**CSI**		**DEFL**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.29	14-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.43	14-17	>971	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.23	Horz(CT)	0.03	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.20	14-17	>969	360	Weight: 628 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2 *Except* 3-6,8-11:2x6 SP DSS
BOT CHORD 2x10 SP DSS
WEBS 2x4 SP No.2 *Except* 7-18,6-18,8-18:2x4 SP No.3
WEDGE Left: 2x6 SP No.2
Right: 2x6 SP No.2

BRACING

TOP CHORD 2-0-0 oc purlins (6-0-0 max.)
(Switched from sheeted: Spacing > 2-0-0).
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 6, 8, 18

REACTIONS (size) 2=0-3-8, 12= Mechanical
Max Horiz 2=-347 (LC 10)
Max Grav 2=2842 (LC 2), 12=2842 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/41, 2-4=-4024/68, 4-5=-2781/303, 5-6=-404/484, 6-7=-708/482, 7-8=-708/482, 8-9=-404/484, 9-10=-2781/303, 10-12=-4024/68, 12-13=0/41
BOT CHORD 2-17=-398/2998, 14-17=0/2998, 12-14=-195/2998
WEBS 4-17=0/1636, 5-18=-3702/299, 9-18=-3701/299, 10-14=0/1636, 7-18=-396/192, 6-18=-193/807, 8-18=-193/807

NOTES

1) 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-9-0 oc.
Web 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=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Ceiling dead load (5.0 psf) on member(s). 4-5, 9-10, 5-18, 9-18; Wall dead load (5.0psf) on member(s).4-17, 10-14
9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 14-17
10) All bearings are assumed to be User Defined .
11) Refer to girder(s) for truss to truss connections.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	B	ATTIC	5	1	I69172947
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.82 S Oct 10 2024 Print: 8.820 S Oct 10 2024 MiTek Industries, Inc. Fri Oct 25 10:01:21

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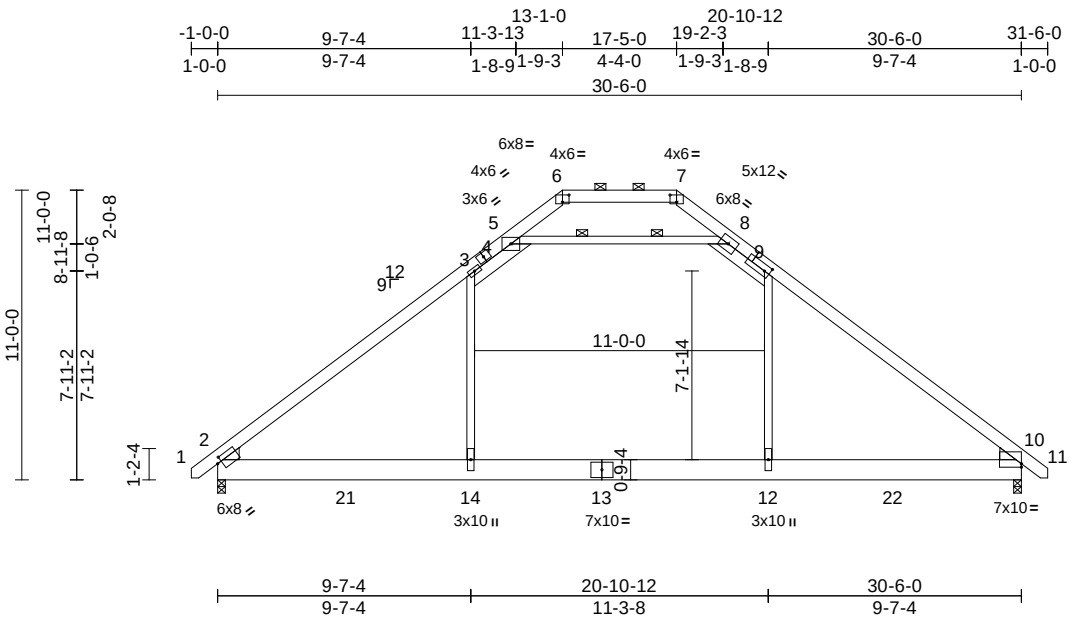

Scale = 1:77.4

Plate Offsets (X, Y): [2:0-2-0,0-2-4], [6:0-3-0,0-3-4], [7:0-3-0,0-3-4], [9:0-2-8,0-2-12], [10:Edge,0-1-9]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.19	12-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.29	12-14	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.27	Horz(CT)	0.03	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.11	12-14	>999	360	Weight: 262 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2 *Except* 4-6,7-9:2x6 SP DSS
BOT CHORD	2x10 SP DSS
WEBS	2x4 SP No.2
WEDGE	Left: 2x6 SP No.2 Right: 2x6 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 3-10-5 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2 Rows at 1/3 pts 5-8

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=260 (LC 11)
Max Grav 2=1793 (LC 20), 10=1791 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/31, 2-3=-2395/65, 3-5=-1777/189, 5-6=-51/545, 6-7=-64/732, 7-8=-54/533, 8-10=-2414/197, 10-11=0/31
BOT CHORD	2-14=-330/1808, 12-14=0/1808, 10-12=-182/1845
WEBS	3-14=0/893, 5-8=-2453/314, 9-12=0/948

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Ceiling dead load (5.0 psf) on member(s). 3-5, 8-9, 5-8; Wall dead load (5.0psf) on member(s).3-14, 9-12
7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 12-14
8) All bearings are assumed to be User Defined .
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	BE	GABLE	1	1	I69172948
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.82 S Oct 10 2024 Print: 8.820 S Oct 10 2024 MiTek Industries, Inc. Fri Oct 25 10:01:21

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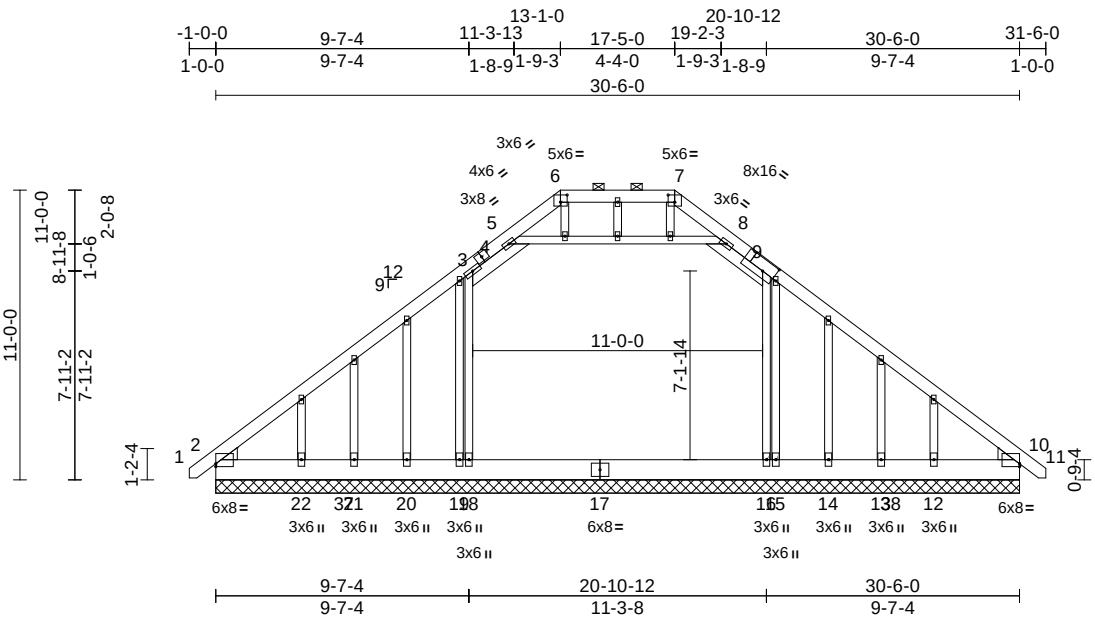

Scale = 1:77.4

Plate Offsets (X, Y): [2:Edge,0-1-5], [6:0-3-0,0-3-4], [7:0-3-0,0-3-4], [9:0-5-12,0-5-0], [10:Edge,0-1-5]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.68	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 323 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2
BOT CHORD	2x10 SP DSS
WEBS	2x4 SP No.2
OTHERS	2x4 SP No.3 *Except* 19-27,15-33:2x4 SP No.2
WEDGE	Left: 2x6 SP No.2 Right: 2x6 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=30-6-0, 10=30-6-0, 12=30-6-0, 13=30-6-0, 14=30-6-0, 15=30-6-0, 16=30-6-0, 18=30-6-0, 19=30-6-0, 20=30-6-0, 21=30-6-0, 22=30-6-0

Max Horiz 2=-260 (LC 10)

Max Uplift 2=-11 (LC 8), 10=-11 (LC 9), 12=-214 (LC 13), 13=-100 (LC 25), 15=-1844 (LC 18), 19=-1843 (LC 18), 21=-86 (LC 24), 22=-203 (LC 12)

Max Grav 2=296 (LC 22), 10=275 (LC 23), 12=395 (LC 21), 13=124 (LC 13), 14=184 (LC 18), 15=-348 (LC 13), 16=2603 (LC 21), 18=2587 (LC 20), 19=-349 (LC 12), 20=183 (LC 18), 21=120 (LC 12), 22=363 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/8, 2-3=-387/212, 3-5=-332/51, 5-6=-323/106, 6-7=-213/86, 7-8=-327/101, 8-10=-368/246, 10-11=0/8
BOT CHORD	2-22=-240/390, 21-22=-240/390, 20-21=-240/390, 19-20=-240/390, 18-19=-240/390, 16-18=-240/390, 15-16=-270/406, 14-15=-270/406, 13-14=-270/406, 12-13=-270/406, 10-12=-270/406
WEBS	3-18=-723/319, 5-8=-50/130, 9-16=-730/390

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 (||) MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Ceiling dead load (5.0 psf) on member(s). 3-5, 8-9, 5-8; Wall dead load (5.0psf) on member(s).3-18, 9-16
11) All bearings are assumed to be User Defined .
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 2, 11 lb uplift at joint 10, 1843 lb uplift at joint 19, 86 lb uplift at joint 21, 203 lb uplift at joint 22, 1844 lb uplift at joint 15, 100 lb uplift at joint 13 and 214 lb uplift at joint 12.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
14) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
15) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	CE	GABLE	1	1	I69172949
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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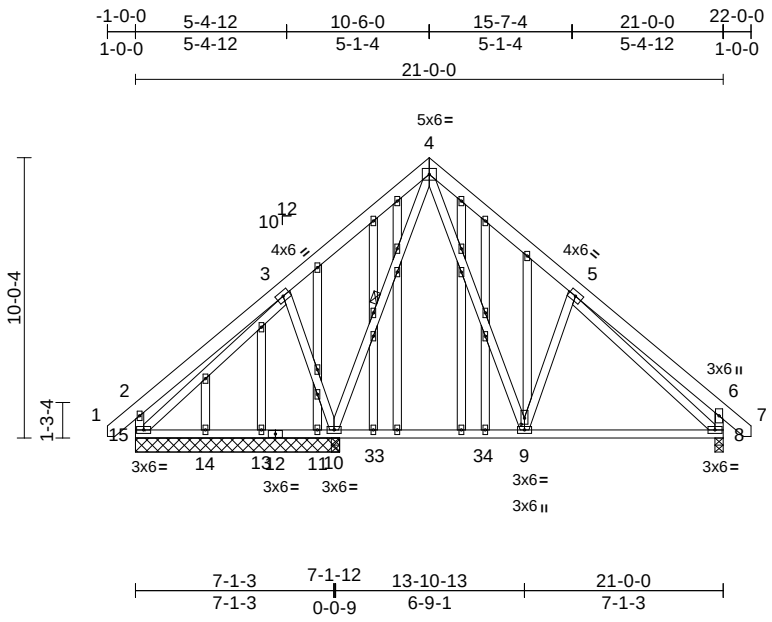

Scale = 1:74.4

Plate Offsets (X, Y): [9:0-2-10,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.07	9-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.11	8-9	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 242 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 9-5,10-3,15-2,8-6:2x4 SP No.3
OTHERS 2x4 SP No.3 *Except* 18-16,20-21:2x4 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 4-10

REACTIONS (size) 8=0-3-8, 10=7-3-8, 11=7-3-8, 13=7-3-8, 14=7-3-8, 15=7-3-8
Max Horiz 15=-269 (LC 10)
Max Uplift 8=-91 (LC 13), 10=-93 (LC 12), 11=-372 (LC 18), 15=-80 (LC 13)
Max Grav 8=623 (LC 1), 10=1121 (LC 19), 11=-53 (LC 13), 13=91 (LC 3), 14=91 (LC 3), 15=325 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-191/174, 3-4=-219/214, 4-5=-528/261, 5-6=-288/162, 6-7=0/39, 2-15=-258/187, 6-8=-326/178
BOT CHORD 14-15=-110/209, 13-14=-110/209, 11-13=-110/209, 10-11=-110/209, 9-10=-31/219, 8-9=0/370
WEBS 4-9=-164/488, 5-9=-305/261, 4-10=-418/0, 3-10=-344/276, 3-15=-183/111, 5-8=-382/0

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
9) All bearings are assumed to be User Defined .
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10, 15, 8, and 11. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	CGR	COMMON GIRDER	1	4	I69172950
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.82 S Oct 10 2024 Print: 8.820 S Oct 10 2024 MiTek Industries, Inc. Fri Oct 25 10:01:22

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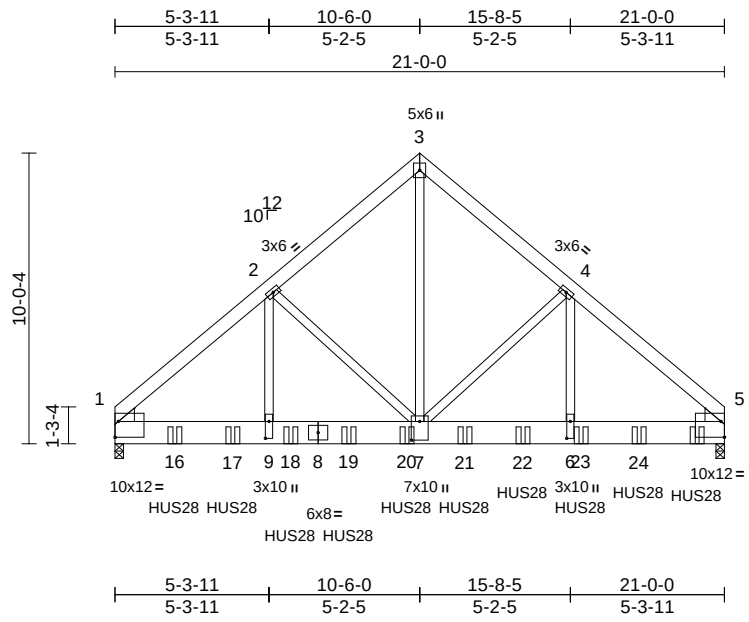


Scale = 1:73.5

Plate Offsets (X, Y): [1:Edge,0-6-9], [5:Edge,0-6-9], [6:0-7-0,0-1-8], [7:0-7-12,0-3-8], [9:0-7-0,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.07	7-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.13	7-9	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 786 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.2
BOT CHORD	2x10 SP DSS
WEBS	2x4 SP No.2 *Except* 4-6,2-9:2x4 SP No.3
WEDGE	Left: 2x6 SP No.2 Right: 2x6 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=0-3-8, 5=0-3-8
Max Horiz 1=-216 (LC 10)
Max Grav 1=10493 (LC 2), 5=11655 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

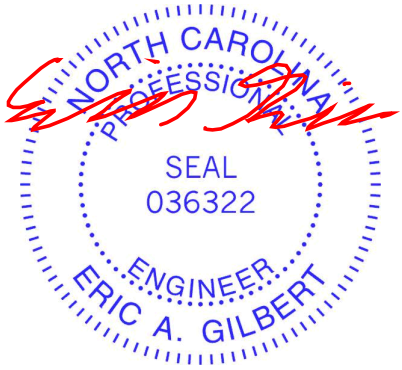
TOP CHORD	1-2=-11828/0, 2-3=-8887/0, 3-4=-8888/0, 4-5=-11833/0
BOT CHORD	1-9=0/8937, 7-9=0/8937, 6-7=0/8918, 5-6=0/8918
WEBS	3-7=0/10845, 4-7=-2946/0, 4-6=0/3899, 2-7=-2935/0, 2-9=0/3893

NOTES

1) 4-ply truss to be connected together with 10d (0.120"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 3 rows staggered at 0-4-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
Attach BC w/ 1/2" diam. bolts (ASTM A-307) in the center of the member w/washers at 4-0-0 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=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SP DSS .
8) Use Simpson Strong-Tie HUS28 (22-16d Girder, 4-16d Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 20-0-12 to connect truss(es) to back face of bottom chord.
9) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

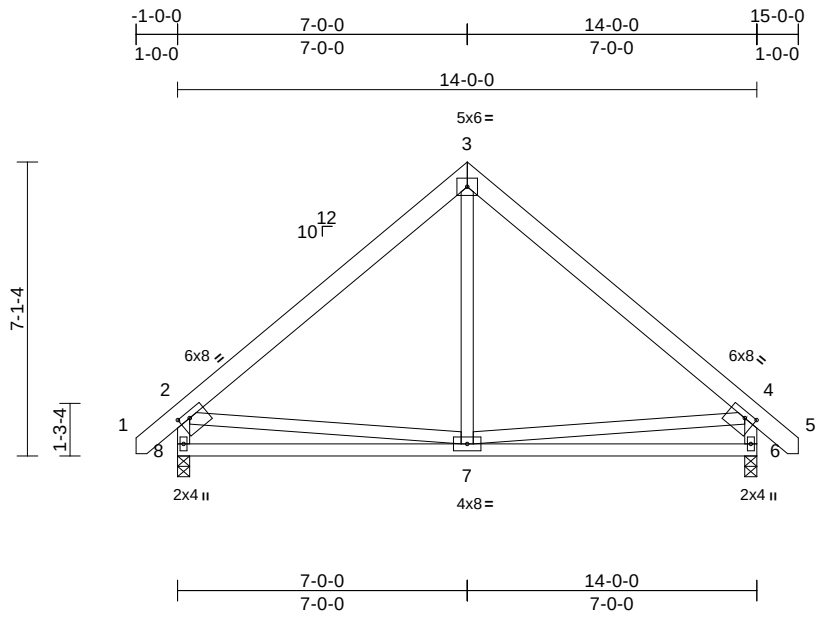
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-60, 3-5=-60, 10-13=-20
Concentrated Loads (lb)
Vert: 15=-1623 (B), 16=-1623 (B), 17=-1623 (B), 18=-1623 (B), 19=-1623 (B), 20=-1623 (B), 21=-1623 (B), 22=-1623 (B), 23=-1623 (B), 24=-1623 (B)



October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	D	Common	1	1	I69172951
					Job Reference (optional)



Scale = 1:50.2

Plate Offsets (X, Y): [2:0-3-0,0-1-12], [4:0-3-0,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.04	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.09	7-8	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 101 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 8-2,6-4:2x4 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 10-0-0 oc bracing.

REACTIONS (size) 6=0-3-8, 8=0-3-8
Max Horiz 8=-197 (LC 10)
Max Uplift 6=-68 (LC 13), 8=-68 (LC 12)
Max Grav 6=609 (LC 1), 8=609 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-543/125, 3-4=-543/125, 4-5=0/39, 2-8=-549/176, 4-6=-549/176
BOT CHORD 7-8=-207/345, 6-7=-112/248
WEBS 3-7=0/279, 2-7=-73/218, 4-7=-84/223

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be User Defined .
6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 6. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	DE	GABLE	1	1	I69172952
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.82 S Oct 10 2024 Print: 8.820 S Oct 10 2024 MiTek Industries, Inc. Fri Oct 25 10:01:23

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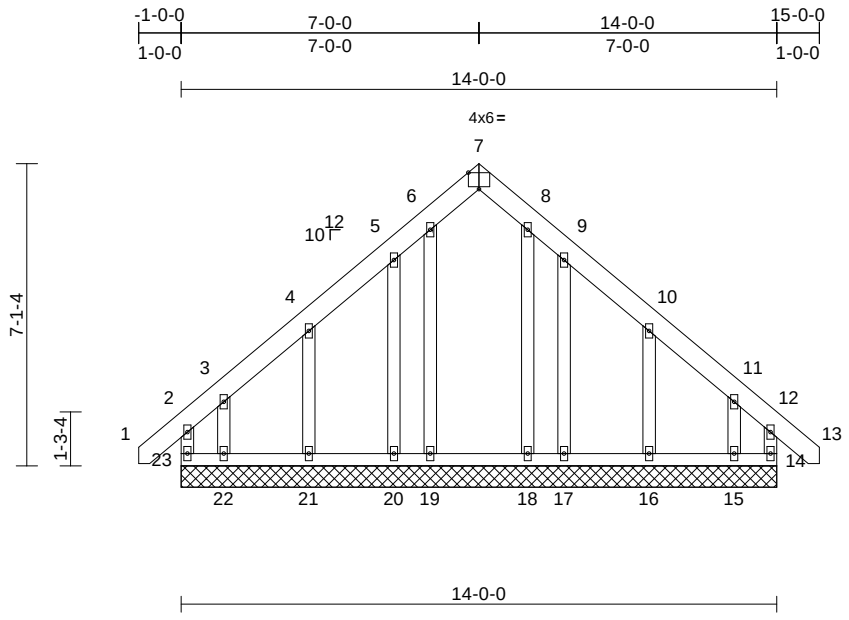

Scale = 1:48.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.16	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	0.07	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 115 lb	FT = 20%

LUMBER

TOP CHORD	2x6 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 or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 14=14-0-0, 15=14-0-0, 16=14-0-0, 17=14-0-0, 18=14-0-0, 19=14-0-0, 20=14-0-0, 21=14-0-0, 22=14-0-0, 23=14-0-0

Max Horiz 23=196 (LC 11)

Max Uplift 14=-107 (LC 9), 15=-155 (LC 13), 16=-99 (LC 13), 17=-81 (LC 13), 20=-80 (LC 12), 21=-97 (LC 12), 22=-163 (LC 12), 23=-137 (LC 8)

Max Grav 14=188 (LC 19), 15=182 (LC 11), 16=185 (LC 20), 17=107 (LC 24), 18=199 (LC 21), 19=204 (LC 22), 20=107 (LC 23), 21=183 (LC 19), 22=202 (LC 10), 23=212 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-23=-165/99, 1-2=0/39, 2-3=-148/132, 3-4=-100/93, 4-5=-109/137, 5-6=-157/205, 6-7=-125/142, 7-8=-125/142, 8-9=-157/205, 9-10=-109/137, 10-11=-85/74, 11-12=-122/105, 12-13=0/39, 12-14=-147/77

BOT CHORD 22-23=-93/105, 21-22=-93/105, 20-21=-93/105, 19-20=-93/105, 18-19=-93/105, 17-18=-93/105, 16-17=-93/105, 15-16=-93/105, 14-15=-93/105

WEBS 6-19=-120/34, 8-18=-114/34, 5-20=-116/94, 4-21=-167/129, 3-22=-128/124, 9-17=-116/94, 10-16=-166/130, 11-15=-132/120

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) All bearings are assumed to be User Defined .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 137 lb uplift at joint 23, 107 lb uplift at joint 14, 80 lb uplift at joint 20, 97 lb uplift at joint 21, 163 lb uplift at joint 22, 81 lb uplift at joint 17, 99 lb uplift at joint 16 and 155 lb uplift at joint 15.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	E	Common	6	1	I69172953
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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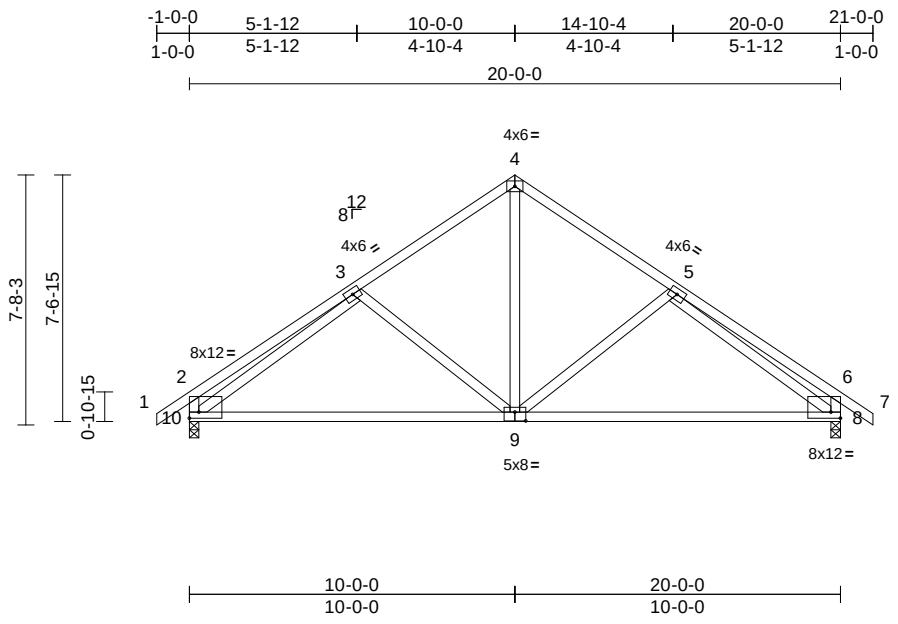

Scale = 1:64.1

Plate Offsets (X, Y): [2:Edge,0-2-4], [8:Edge,0-2-4], [9:0-4-0,0-3-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.18	8-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.37	9-10	>635	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 117 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 10-2,8-6:2x4 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 2-2-0 oc bracing.

REACTIONS (size) 8=0-3-8, 10=0-3-8
Max Horiz 10=206 (LC 11)
Max Uplift 8=-106 (LC 13), 10=-106 (LC 12)
Max Grav 8=857 (LC 1), 10=857 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/38, 2-3=-386/119, 3-4=-770/193, 4-5=-770/193, 5-6=-386/119, 6-7=0/38, 2-10=-378/148, 6-8=-377/148
BOT CHORD 8-10=-130/776
WEBS 4-9=-87/530, 5-9=-252/206, 3-9=-251/205, 3-10=-640/123, 5-8=-640/123

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be User Defined .
6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10 and 8. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car	
CL 3281 A 3 Car	EE	GABLE	1	1	Job Reference (optional)	I69172954

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334, Run: 8.82 S Oct 10 2024 Print: 8.820 S Oct 10 2024 MiTek Industries, Inc. Fri Oct 25 10:01:23 Page: 1

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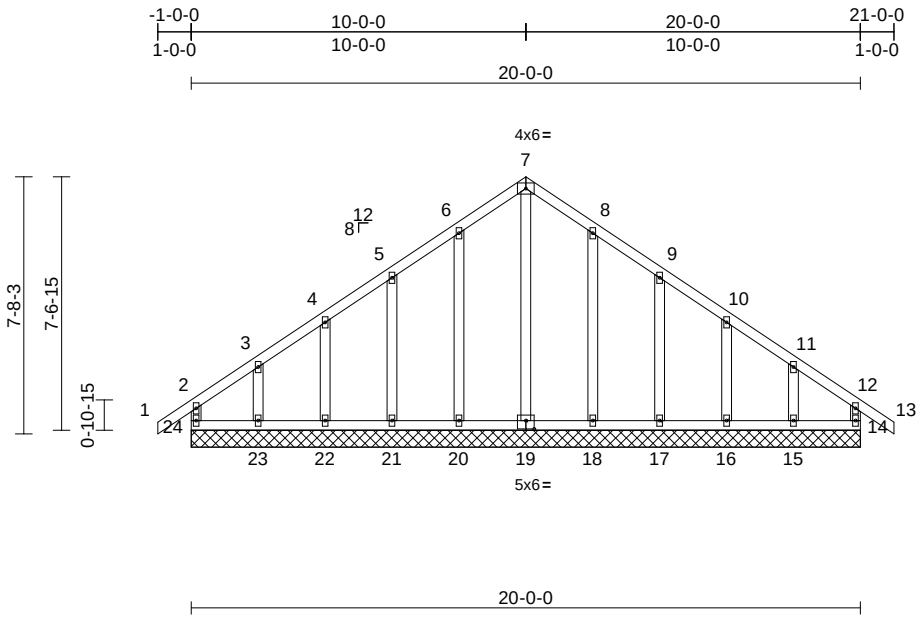

Scale = 1:62.3

Plate Offsets (X, Y): [19:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 125 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3 *Except* 19-7:2x4 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 6-0-0 oc bracing.

REACTIONS (size) 14=20-0-0, 15=20-0-0, 16=20-0-0, 17=20-0-0, 18=20-0-0, 19=20-0-0, 20=20-0-0, 21=20-0-0, 22=20-0-0, 23=20-0-0, 24=20-0-0
Max Horiz 24=-206 (LC 10)
Max Uplift 14=-45 (LC 9), 15=-104 (LC 13), 16=-54 (LC 13), 17=-69 (LC 13), 18=-60 (LC 13), 20=-61 (LC 12), 21=-69 (LC 12), 22=-52 (LC 12), 23=-112 (LC 12), 24=-75 (LC 8)
Max Grav 14=160 (LC 19), 15=188 (LC 20), 16=166 (LC 20), 17=170 (LC 20), 18=178 (LC 20), 19=203 (LC 22), 20=178 (LC 19), 21=170 (LC 19), 22=165 (LC 23), 23=200 (LC 19), 24=184 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/38, 2-3=-133/127, 3-4=-99/101, 4-5=-101/132, 5-6=-151/170, 6-7=-199/226, 7-8=-199/226, 8-9=-151/170, 9-10=-101/115, 10-11=-65/80, 11-12=-95/89, 12-13=0/38, 2-24=-150/66, 12-14=-133/64
BOT CHORD 23-24=-91/103, 22-23=-91/103, 21-22=-91/103, 20-21=-91/103, 18-20=-91/103, 17-18=-91/103, 16-17=-91/103, 15-16=-91/103, 14-15=-91/103
WEBS 7-19=-190/108, 6-20=-139/85, 5-21=-131/91, 4-22=-128/82, 3-23=-140/112, 8-18=-138/85, 9-17=-130/91, 10-16=-130/83, 11-15=-143/107

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) All bearings are assumed to be User Defined .
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 75 lb uplift at joint 24, 45 lb uplift at joint 14, 61 lb uplift at joint 20, 69 lb uplift at joint 21, 52 lb uplift at joint 22, 112 lb uplift at joint 23, 60 lb uplift at joint 18, 69 lb uplift at joint 17, 54 lb uplift at joint 16 and 104 lb uplift at joint 15.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	F	Common	1	1	I69172955
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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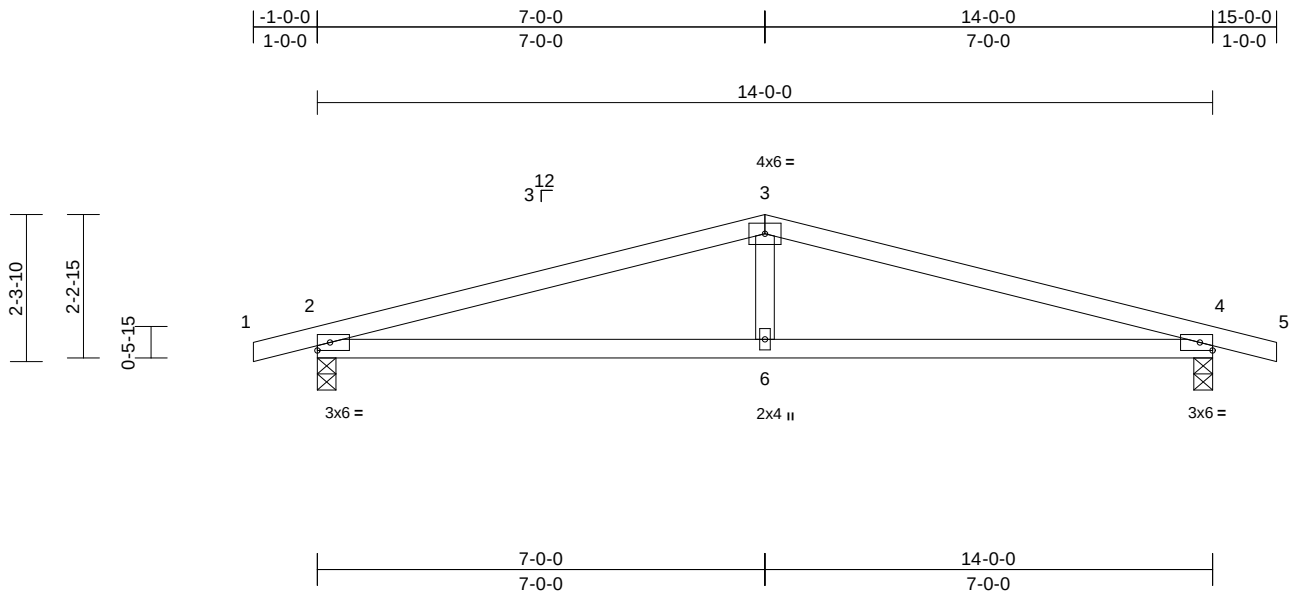

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.07	6-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.13	6-9	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 48 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 or 4-0-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 4=0-3-8
Max Horiz 2=33 (LC 12)
Max Uplift 2=-117 (LC 8), 4=-117 (LC 9)
Max Grav 2=620 (LC 1), 4=620 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-1199/315, 3-4=-1199/315, 4-5=0/15
BOT CHORD 2-6=-243/1115, 4-6=-243/1115
WEBS 3-6=0/293

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be User Defined .
6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	F1	Common	5	1	I69172956
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.82 S Oct 10 2024 Print: 8.820 S Oct 10 2024 MiTek Industries, Inc. Fri Oct 25 10:01:23
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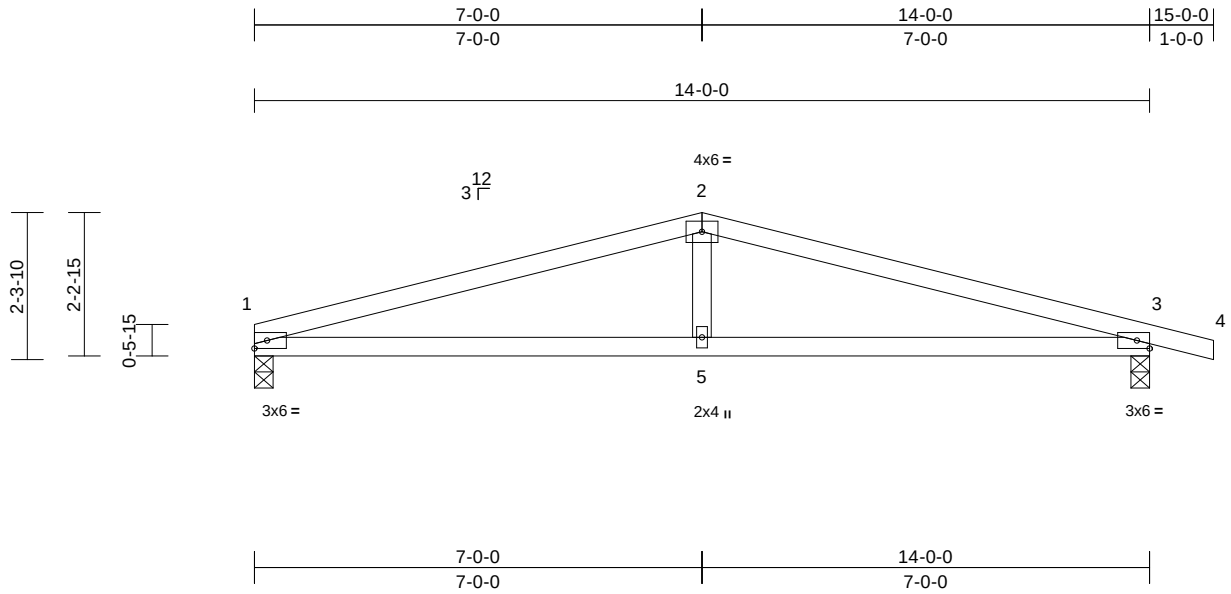

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.07	5-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.14	5-8	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.02	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 46 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 or 3-11-6 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 Horiz 1=-37 (LC 17)
Max Uplift 1=-76 (LC 8), 3=-117 (LC 9)
Max Grav 1=558 (LC 1), 3=622 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1210/324, 2-3=-1210/325, 3-4=0/15
BOT CHORD 1-5=-252/1126, 3-5=-252/1126
WEBS 2-5=0/294

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SP No.2 .
6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	FE	Common Supported Gable	1	1	I69172957
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.82 S Oct 10 2024 Print: 8.820 S Oct 10 2024 MiTek Industries, Inc. Fri Oct 25 10:01:23
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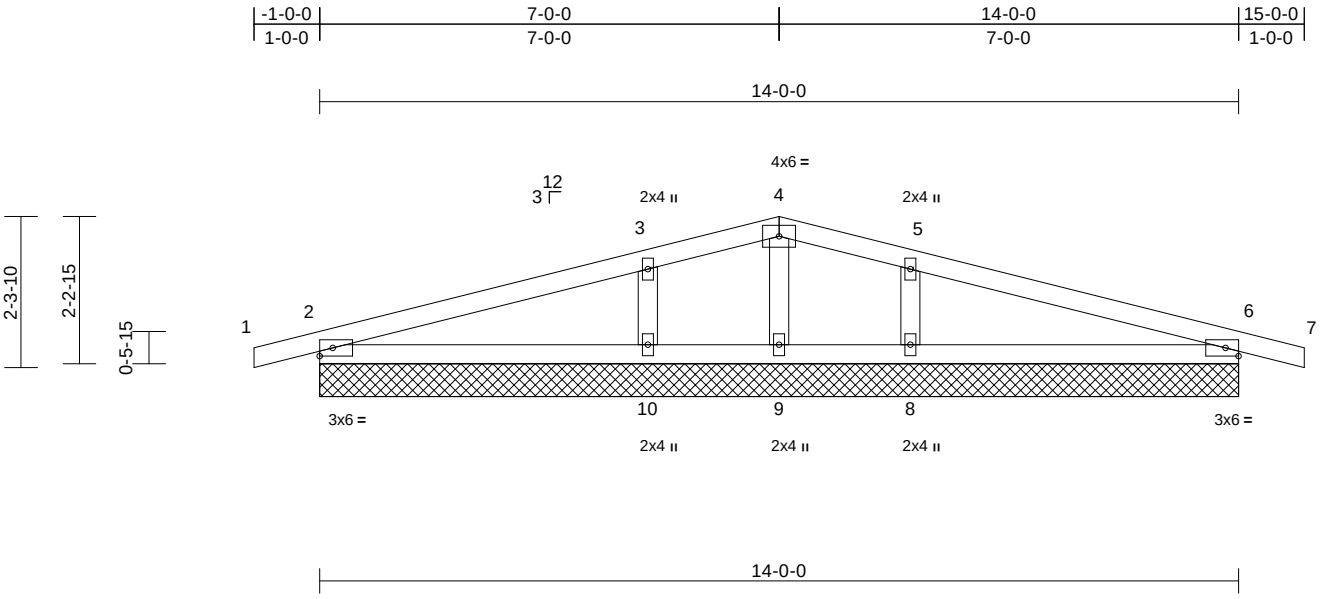

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 52 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 6-0-0 oc bracing.

REACTIONS (size) 2=14-0-0, 6=14-0-0, 8=14-0-0, 9=14-0-0, 10=14-0-0
Max Horiz 2=33 (LC 12)
Max Uplift 2=-70 (LC 8), 6=-74 (LC 9), 8=-85 (LC 13), 9=-60 (LC 1), 10=-86 (LC 12)
Max Grav 2=229 (LC 23), 6=229 (LC 24), 8=421 (LC 1), 9=28 (LC 13), 10=421 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/3, 2-3=-43/55, 3-4=-35/68, 4-5=-35/67, 5-6=-37/46, 6-7=0/3
BOT CHORD 2-10=-9/28, 9-10=-9/28, 8-9=-9/28, 6-8=-9/28
WEBS 4-9=-38/31, 3-10=-295/172, 5-8=-295/172

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be User Defined .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 70 lb uplift at joint 2, 74 lb uplift at joint 6, 60 lb uplift at joint 9, 86 lb uplift at joint 10 and 85 lb uplift at joint 8.

LOAD CASE(S) Standard

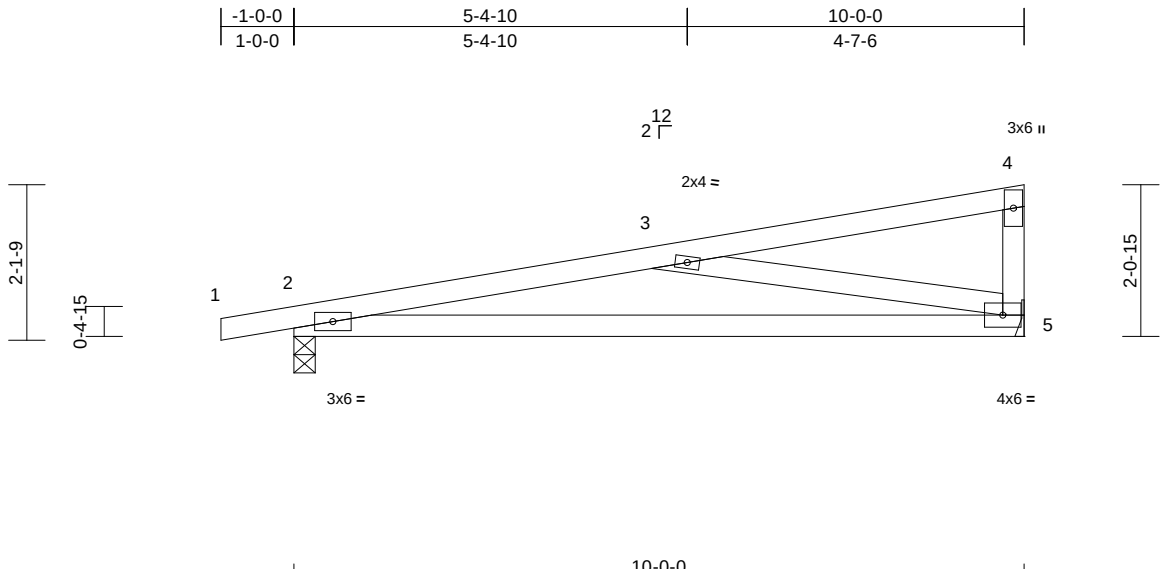
October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	G	Monopitch	9	1	I69172958 Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.82 E Sep 12 2024 Print: 8.820 E Sep 12 2024 MiTek Industries, Inc. Fri Oct 25 16:41:10 ID:Fg8LOi5C4YZciAiqPkKxjZzUkHL-GYtscIAJb9e1R8WcR9anlozrlm86VEF0f7i1MEyPpW7



Scale = 1:30

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.18	5-8	>648	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.38	5-8	>311	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 41 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 or 5-1-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-5-0 oc bracing.

REACTIONS (lb/size) 2=457/0-3-8, 5=391/ Mechanical
Max Horiz 2=70 (LC 11)
Max Uplift 2=-111 (LC 8), 5=-74 (LC 12)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/10, 2-3=-1061/426, 3-4=-109/20, 4-5=-121/101
BOT CHORD 2-5=-469/1042
WEBS 3-5=-981/454

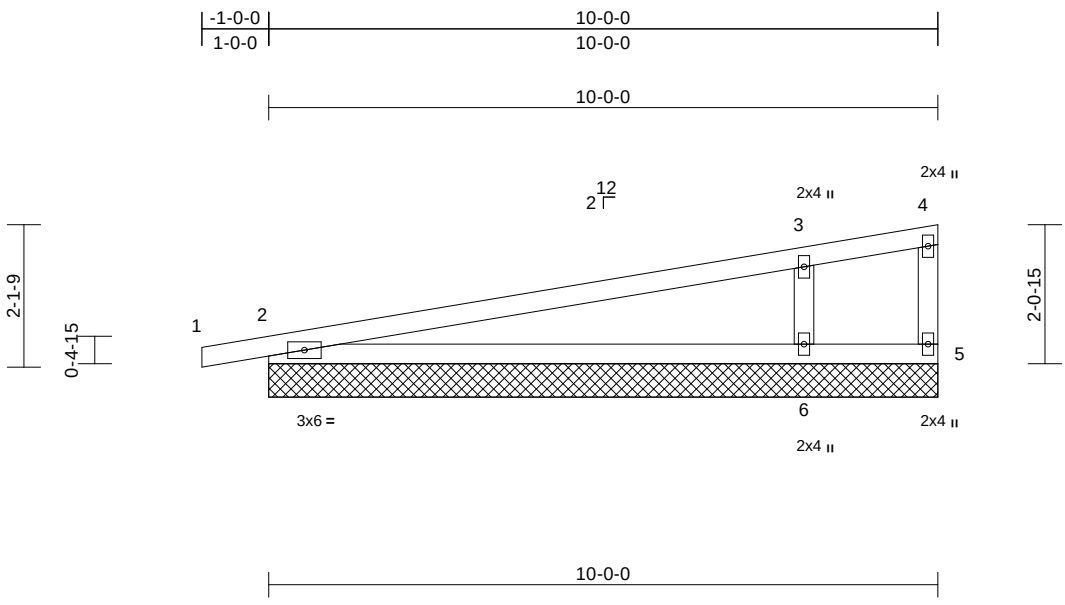
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Bearings are assumed to be: , Joint 2 SP No.2 crushing capacity of 565 psi.
6) Refer to girder(s) for truss to truss connections.
7) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
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.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car	
CL 3281 A 3 Car	GE	Monopitch Supported Gable	1	1	Job Reference (optional)	I69172959



Scale = 1:30

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 35 lb	FT = 20%

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

REACTIONS (size) 2=10-0-0, 5=10-0-0, 6=10-0-0
Max Horiz 2=70 (LC 9)
Max Uplift 2=-83 (LC 8), 5=-237 (LC 1), 6=-150 (LC 12)
Max Grav 2=312 (LC 1), 5=48 (LC 12), 6=773 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/3, 2-3=-96/89, 3-4=-24/35, 4-5=-91/153
BOT CHORD 2-6=-59/44, 5-6=-59/44
WEBS 3-6=-544/339

NOTES
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 requires continuous bottom chord bearing.
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SP No.2 .

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	M1	GABLE	1	1	I69172960
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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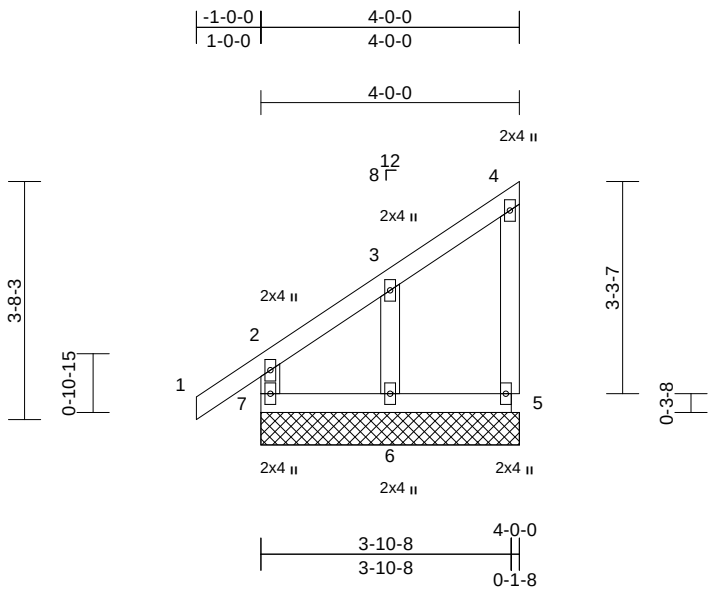

Scale = 1:26.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	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	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 23 lb	FT = 20%

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

REACTIONS (size) 5=4-0-0, 6=4-0-0, 7=4-0-0
Max Horiz 7=131 (LC 9)
Max Uplift 5=-17 (LC 9), 6=-96 (LC 12), 7=-20 (LC 8)
Max Grav 5=72 (LC 19), 6=184 (LC 19), 7=162 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/38, 2-3=-167/152, 3-4=-71/70, 4-5=-70/52, 2-7=-135/75
BOT CHORD	6-7=-56/61, 5-6=-56/61
WEBS	3-6=-180/152

NOTES

1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 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 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be User Defined .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 5, 20 lb uplift at joint 7 and 96 lb uplift at joint 6.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	M1A	Monopitch	3	1	I69172961
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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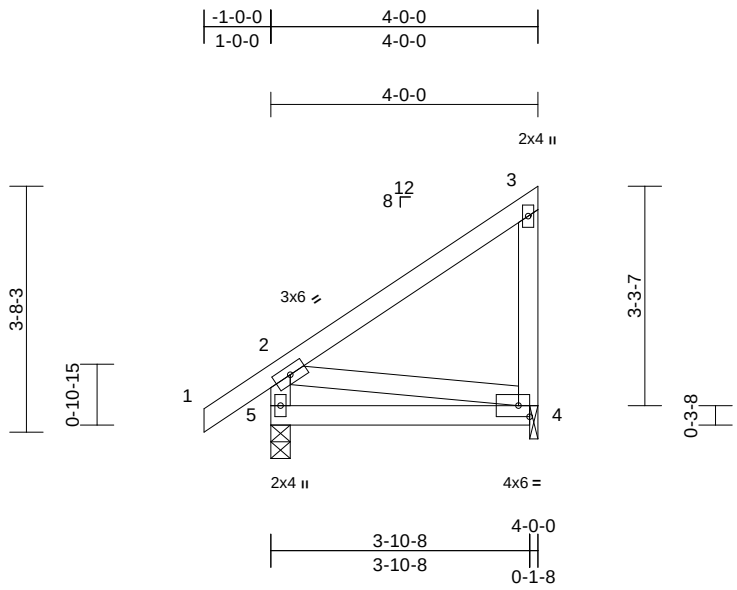

Scale = 1:26.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	-0.01	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.02	4-5	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 25 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 or 4-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4=0-1-8, 5=0-3-8
Max Horiz 5=131 (LC 9)
Max Uplift 4=-49 (LC 12), 5=-30 (LC 12)
Max Grav 4=164 (LC 19), 5=228 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/38, 2-3=-120/114, 3-4=-146/111, 2-5=-191/119
BOT CHORD 4-5=-227/206
WEBS 2-4=-164/191

NOTES
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) All bearings are assumed to be User Defined .
5) 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.
6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
7) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5 and 4. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	M2	GABLE	1	1	I69172962
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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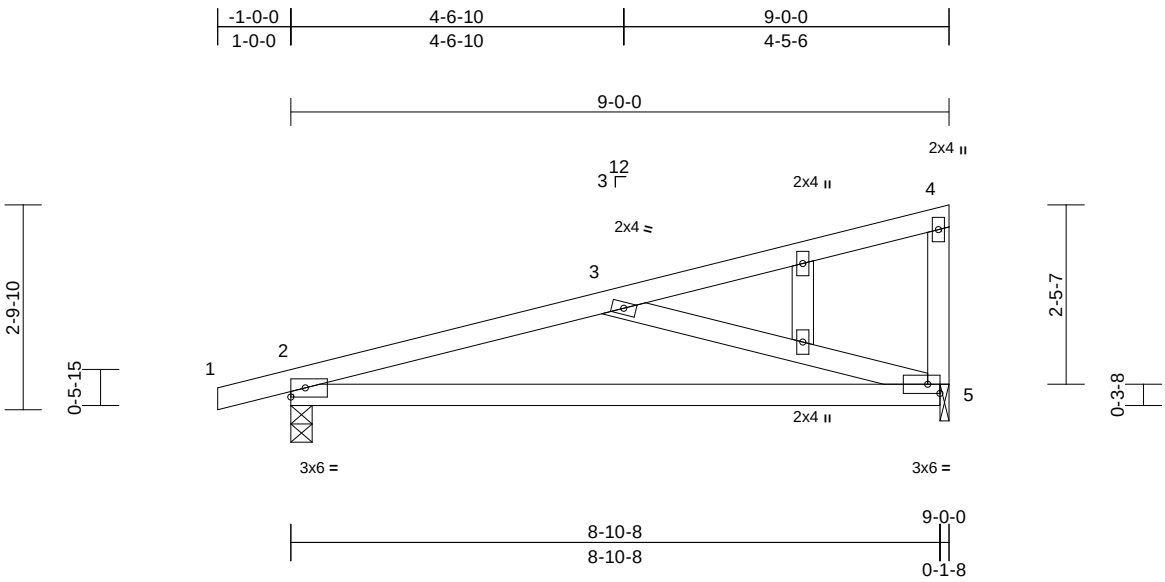

Scale = 1:25.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.18	5-10	>578	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.37	5-10	>289	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 40 lb	FT = 20%

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 or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 9-5-7 oc bracing.

REACTIONS (size) 2=0-3-8, 5=0-1-8
Max Horiz 2=100 (LC 11)
Max Uplift 2=-101 (LC 8), 5=-70 (LC 12)
Max Grav 2=418 (LC 1), 5=351 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/15, 2-3=-661/303, 3-4=-64/47, 4-5=-109/94
BOT CHORD	2-5=-360/631
WEBS	3-5=-654/345

NOTES

1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) All bearings are assumed to be User Defined .
7) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 5. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	M2A	Monopitch	5	1	I69172963
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.82 S Oct 10 2024 Print: 8.820 S Oct 10 2024 MiTek Industries, Inc. Fri Oct 25 10:01:24

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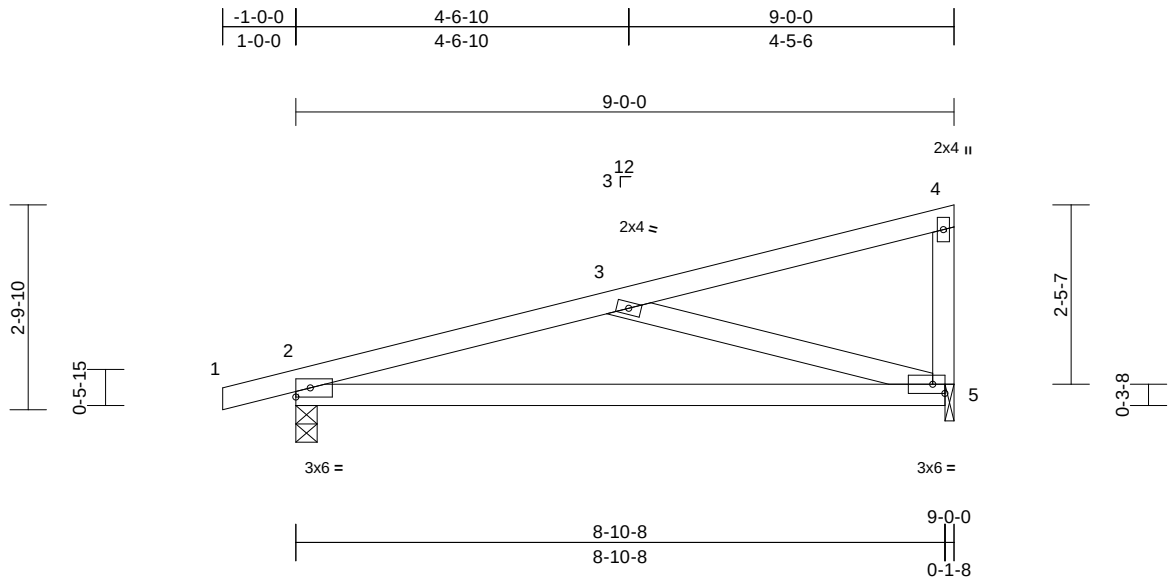


Scale = 1:25.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.18	5-8	>578	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.37	5-8	>289	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 39 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 or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-5-7 oc bracing.

REACTIONS (size) 2=0-3-8, 5=0-1-8
Max Horiz 2=100 (LC 11)
Max Uplift 2=-101 (LC 8), 5=-70 (LC 12)
Max Grav 2=418 (LC 1), 5=351 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-661/303, 3-4=-64/47, 4-5=-109/94
BOT CHORD 2-5=-360/631
WEBS 3-5=-654/345

NOTES

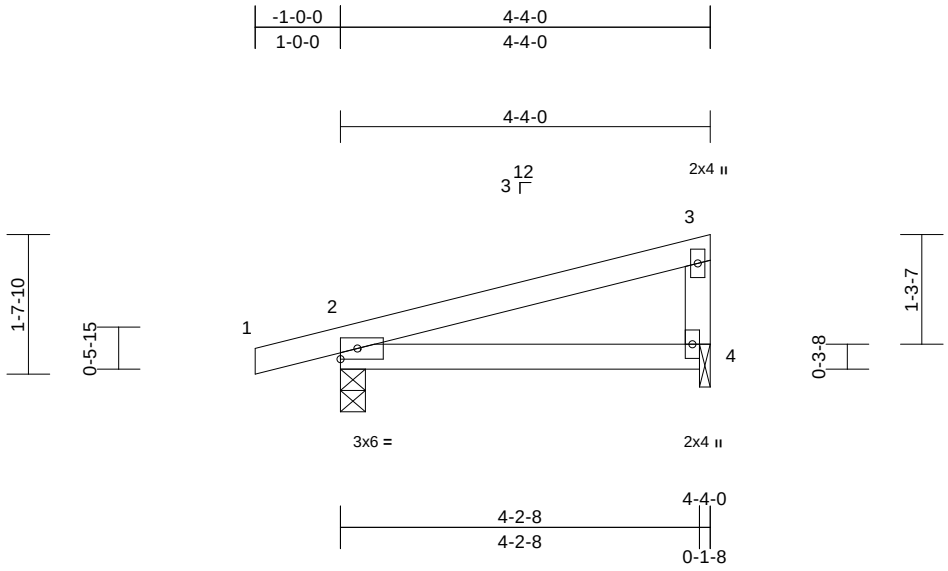
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) All bearings are assumed to be User Defined .
5) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
7) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 5. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	M3	Monopitch	4	1	I69172964
					Job Reference (optional)



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	0.01	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	-0.03	4-7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 16 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 or 4-4-0 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 Horiz 2=53 (LC 11)
Max Uplift 2=-71 (LC 8), 4=-32 (LC 12)
Max Grav 2=235 (LC 1), 4=160 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-70/36, 3-4=-109/87
BOT CHORD 2-4=-62/51

NOTES
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) All bearings are assumed to be User Defined .
5) 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.
6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
7) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	PB1	Piggyback	2	1	I69172965
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334, Run: 8.82 S Oct 10 2024 Print: 8.820 S Oct 10 2024 MiTek Industries, Inc. Fri Oct 25 10:01:25 Page: 1
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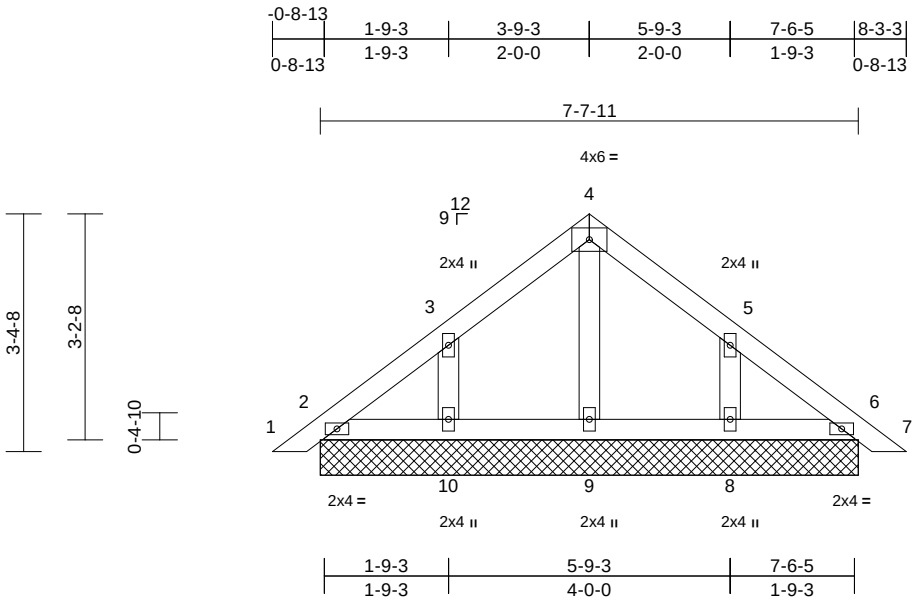

Scale = 1:24.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
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-P							Weight: 35 lb	FT = 20%

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 or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=7-7-11, 6=7-7-11, 8=7-7-11, 9=7-7-11, 10=7-7-11
Max Horiz 2=-79 (LC 10)
Max Uplift 2=-10 (LC 13), 8=-86 (LC 13), 10=-87 (LC 12)
Max Grav 2=98 (LC 1), 6=98 (LC 1), 8=192 (LC 20), 9=114 (LC 22), 10=193 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-74/57, 3-4=-76/71, 4-5=-75/71, 5-6=-56/35, 6-7=0/16
BOT CHORD 2-10=-34/59, 9-10=-34/59, 8-9=-34/59, 6-8=-34/59
WEBS 4-9=-75/0, 5-8=-169/119, 3-10=-169/119

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 4-0-0 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be User Defined .
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 8, and 10. This connection is for uplift only and does not consider lateral forces.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	PB2	Piggyback	14	1	I69172966
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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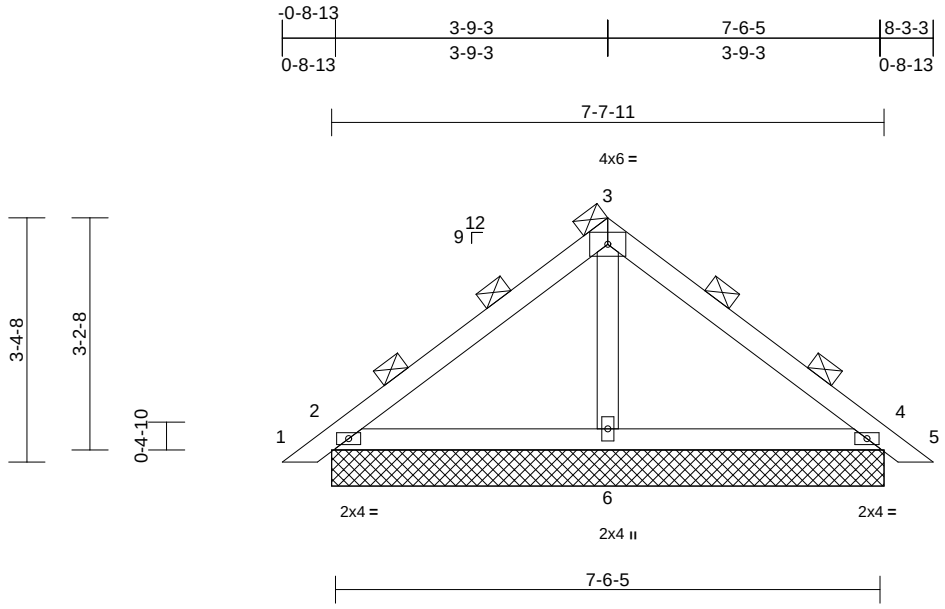

Scale = 1:24.6

Loading	(psf)	Spacing	2-8-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 32 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	2-0-0 oc purlins (6-0-0 max.) (Switched from sheeted: Spacing > 2-0-0).
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=7-7-11, 4=7-7-11, 6=7-7-11
Max Horiz 2=-105 (LC 10)
Max Uplift 2=-64 (LC 12), 4=-78 (LC 13)
Max Grav 2=266 (LC 1), 4=266 (LC 1), 6=350 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/21, 2-3=-147/86, 3-4=-133/77, 4-5=0/21
BOT CHORD	2-6=-23/74, 4-6=-23/74
WEBS	3-6=-225/71

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 4-0-0 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be User Defined .
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	PB3	Piggyback	6	1	I69172967
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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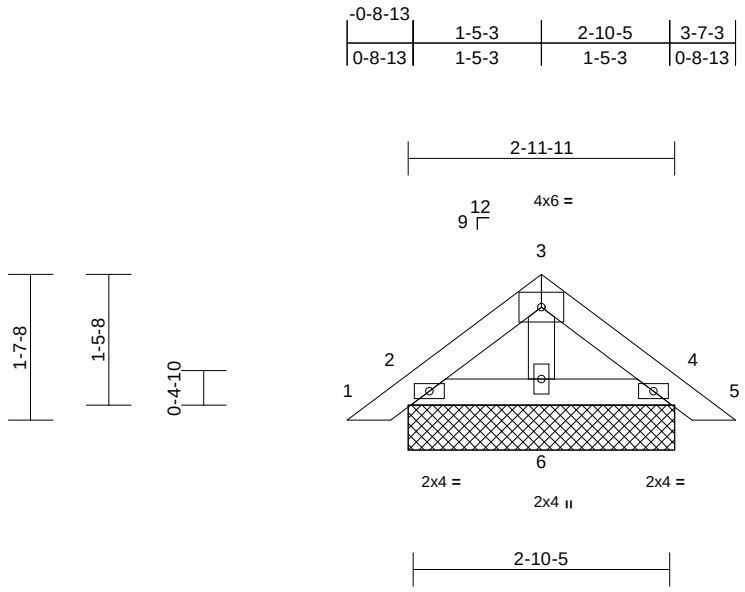

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 13 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 4-4-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=2-11-11, 4=2-11-11, 6=2-11-11
Max Horiz 2=-36 (LC 10)
Max Uplift 2=-27 (LC 12), 4=-32 (LC 13)
Max Grav 2=97 (LC 1), 4=97 (LC 1), 6=94 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-47/26, 3-4=-44/27, 4-5=0/16
BOT CHORD 2-6=-9/29, 4-6=-9/29
WEBS 3-6=-58/14

NOTES

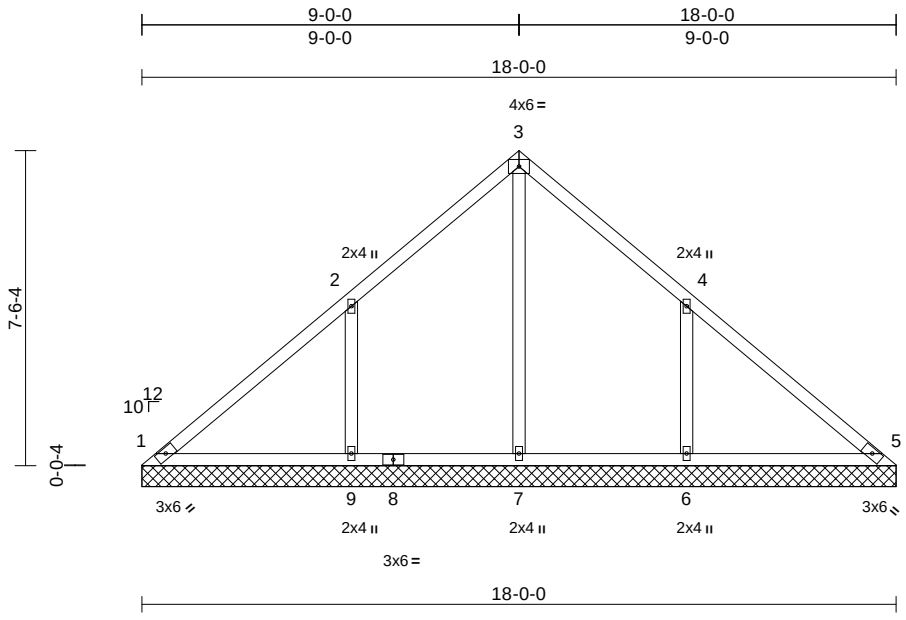
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 4-0-0 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be User Defined .
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car	
CL 3281 A 3 Car	V3	Valley	1	1	Job Reference (optional)	I69172968



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 81 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3 *Except* 7-3:2x4 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=18-0-0, 5=18-0-0, 6=18-0-0, 7=18-0-0, 9=18-0-0
Max Horiz 1=178 (LC 11)
Max Uplift 1=-11 (LC 8), 6=-221 (LC 13), 9=-221 (LC 12)
Max Grav 1=187 (LC 20), 5=172 (LC 1), 6=513 (LC 20), 7=364 (LC 22), 9=513 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-166/141, 2-3=-162/153, 3-4=-162/146, 4-5=-135/101
BOT CHORD 1-9=-76/138, 7-9=-76/138, 6-7=-76/138, 5-6=-76/138
WEBS 3-7=-160/6, 2-9=-360/268, 4-6=-360/268

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 0-0-0 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) All bearings are assumed to be User Defined .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 1, 221 lb uplift at joint 9 and 221 lb uplift at joint 6.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	V4	Valley	1	1	I69172969
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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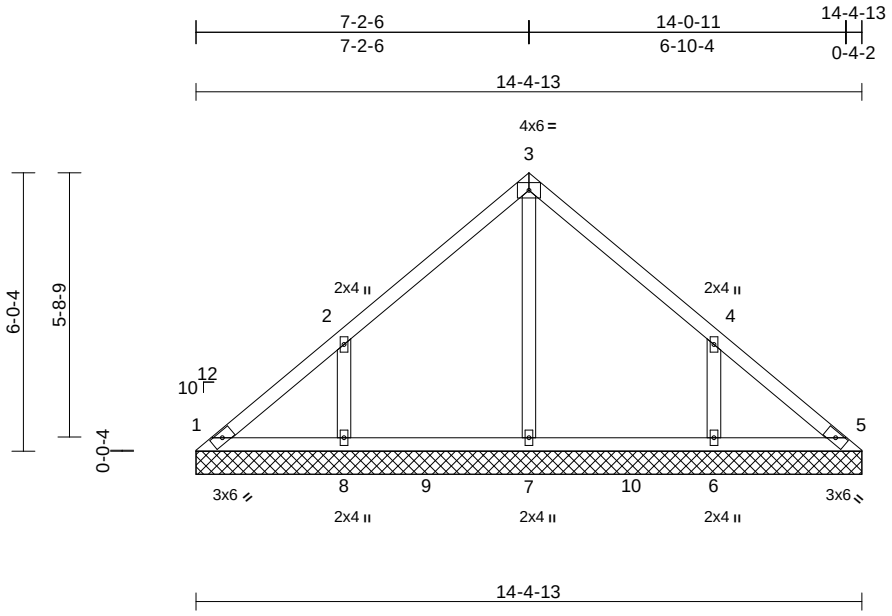

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 62 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=14-4-13, 5=14-4-13, 6=14-4-13, 7=14-4-13, 8=14-4-13
Max Horiz 1=-141 (LC 8)
Max Uplift 1=-24 (LC 8), 6=-175 (LC 13), 8=-175 (LC 12)
Max Grav 1=131 (LC 20), 5=111 (LC 19), 6=369 (LC 20), 7=342 (LC 19), 8=369 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-138/110, 2-3=-146/121, 3-4=-134/113, 4-5=-114/68
BOT CHORD 1-8=-45/102, 7-8=-45/102, 6-7=-45/102, 5-6=-45/102
WEBS 3-7=-158/0, 2-8=-288/216, 4-6=-288/216

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 0-0-0 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) All bearings are assumed to be User Defined .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 1, 175 lb uplift at joint 8 and 175 lb uplift at joint 6.

LOAD CASE(S) Standard

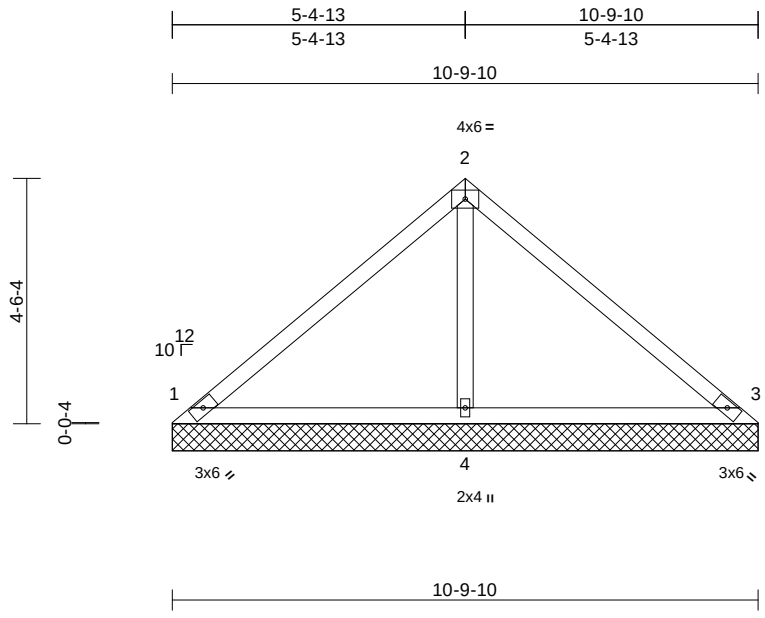
October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	V5	Valley	1	1	I69172970
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.82 S Oct 10 2024 Print: 8.820 S Oct 10 2024 MiTek Industries, Inc. Fri Oct 25 10:01:25 ID:Fg8LOi5C4YZciAiqPkKxjZzUkHL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:38.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 41 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=10-9-10, 3=10-9-10, 4=10-9-10
Max Horiz 1=104 (LC 9)
Max Uplift 1=-35 (LC 13), 3=-48 (LC 13), 4=-7 (LC 12)
Max Grav 1=213 (LC 1), 3=213 (LC 1), 4=378 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-173/90, 2-3=-164/74
BOT CHORD 1-4=-22/77, 3-4=-22/77
WEBS 2-4=-228/74

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 0-0-0 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be User Defined .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 1, 48 lb uplift at joint 3 and 7 lb uplift at joint 4.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	V6	Valley	1	1	I69172971
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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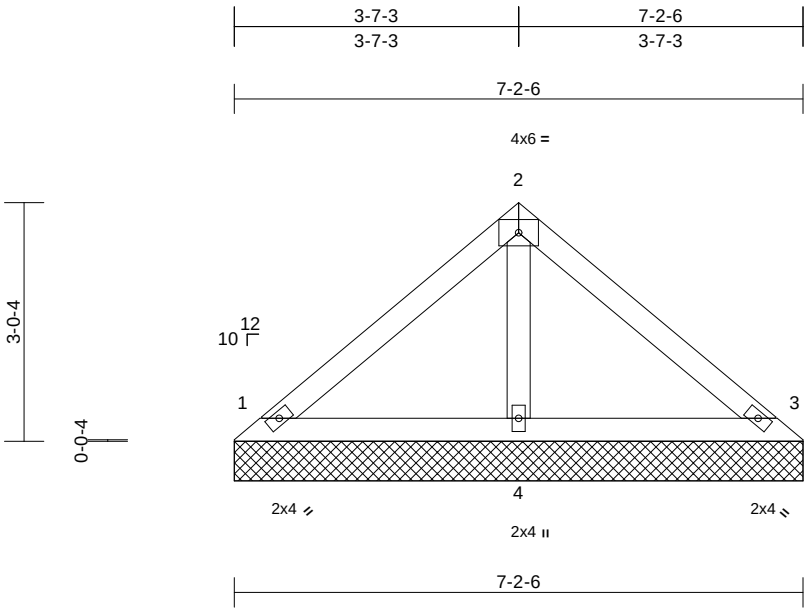

Scale = 1:21.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	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	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 27 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=7-2-6, 3=7-2-6, 4=7-2-6
Max Horiz 1=-66 (LC 8)
Max Uplift 1=-31 (LC 13), 3=-39 (LC 13)
Max Grav 1=148 (LC 1), 3=148 (LC 1), 4=220 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-101/56, 2-3=-92/47
BOT CHORD 1-4=-16/47, 3-4=-16/47
WEBS 2-4=-139/47

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 0-0-0 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be User Defined .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 1 and 39 lb uplift at joint 3.

LOAD CASE(S) Standard

October 28,2024

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

Job	Truss	Truss Type	Qty	Ply	CL 3281 A 3 Car
CL 3281 A 3 Car	V7	Valley	1	1	I69172972
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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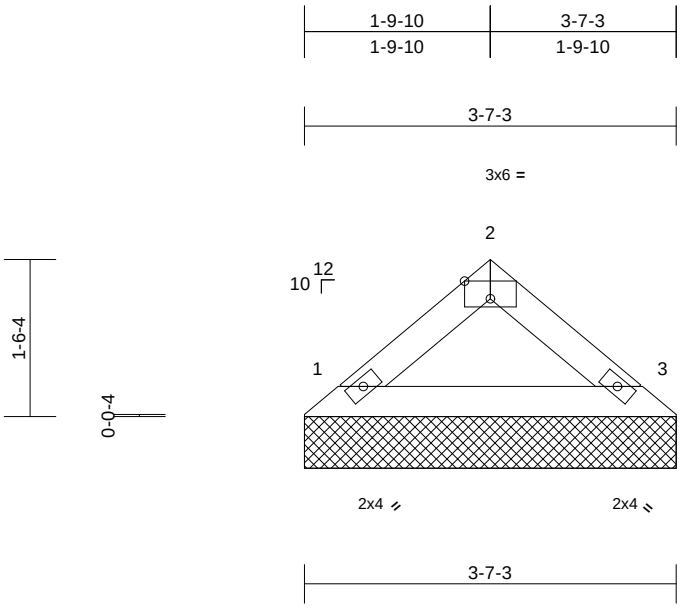


Scale = 1:15.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	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	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 11 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 3-7-13 oc purlins.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-7-3, 3=3-7-3

Max Horiz 1=-29 (LC 8)

Max Uplift 1=-11 (LC 12), 3=-11 (LC 13)

Max Grav 1=114 (LC 1), 3=114 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-88/38, 2-3=-88/38

BOT CHORD 1-3=-8/54

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 0-0-0 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be User Defined .
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 1 and 11 lb uplift at joint 3.

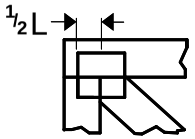
LOAD CASE(S) Standard

October 28,2024

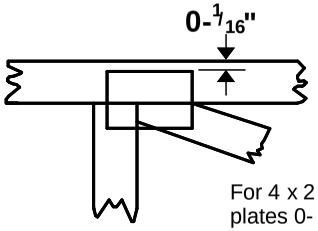
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

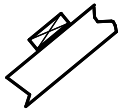
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

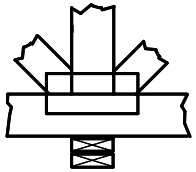
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

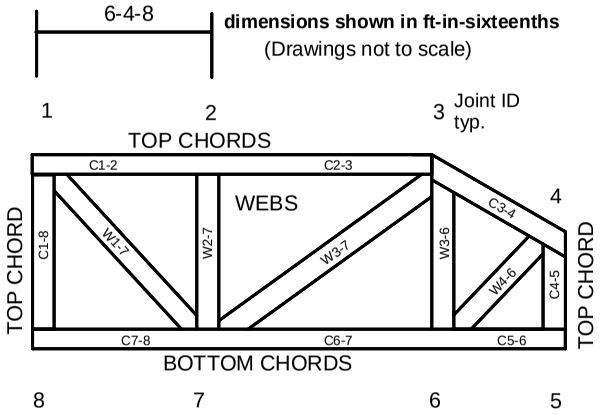


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & 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-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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 BY TRENCO
A MiTek Affiliate

MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

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.