ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J0325-1589
Lot 24 Ducks Landing

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

Pages or sheets covered by this seal: I73797679 thru I73797710

My license renewal date for the state of North Carolina is December 31, 2025.

North Carolina COA: C-0844

May 29,2025

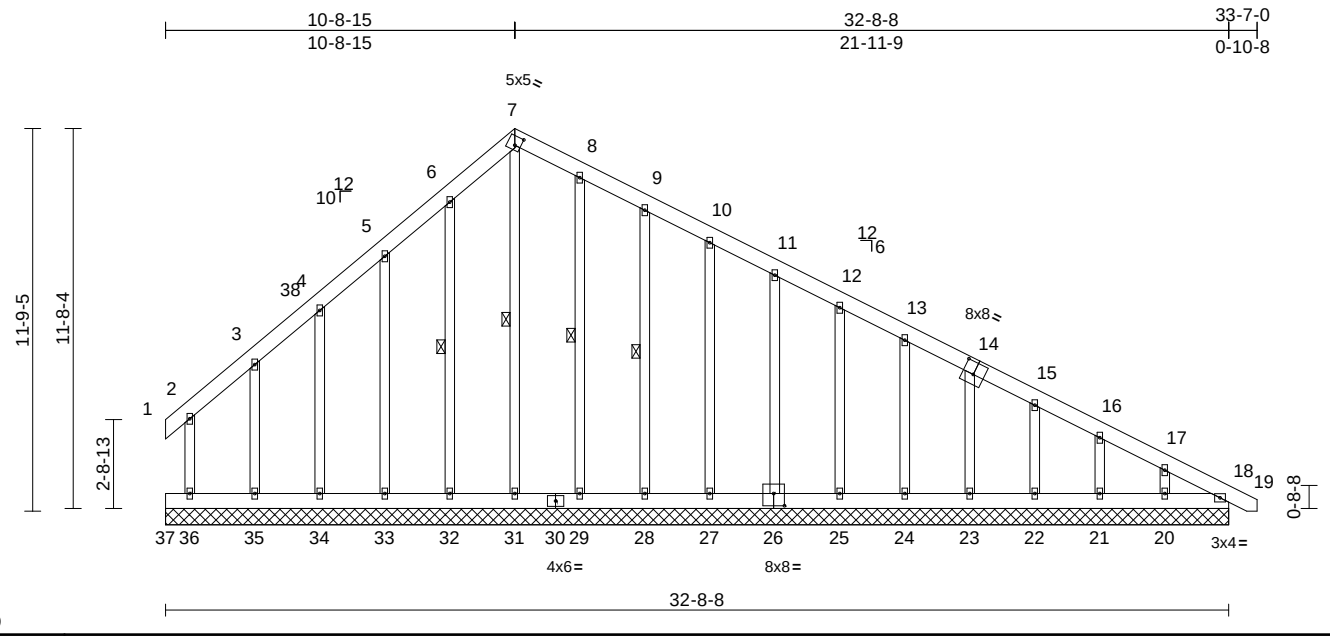
Gilbert, Eric

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	Lot 24 Ducks Landing
J0325-1589	A1	Roof Special Supported Gable	1	1	I73797679 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:18 Page: 1
ID:VwVd4KjLUyJ2BJMRqTiVHXzCGjG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:70.9

Plate Offsets (X, Y): [7:0-2-2,0-3-4], [14:0-4-0,0-4-8], [26:0-4-0,0-4-8]

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	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.02	26	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 307 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 7-31, 6-32, 8-29, 9-28

REACTIONS (size) 1=32-8-8, 18=32-8-8, 20=32-8-8, 21=32-8-8, 22=32-8-8, 23=32-8-8, 24=32-8-8, 25=32-8-8, 26=32-8-8, 27=32-8-8, 28=32-8-8, 29=32-8-8, 31=32-8-8, 32=32-8-8, 33=32-8-8, 34=32-8-8, 35=32-8-8, 36=32-8-8, 37=32-8-8
Max Horiz 1=-275 (LC 8)
Max Uplift 1=-227 (LC 8), 18=-33 (LC 13), 20=-34 (LC 13), 21=-33 (LC 13), 22=-30 (LC 13), 23=-32 (LC 13), 24=-38 (LC 13), 25=-33 (LC 13), 26=-32 (LC 13), 27=-36 (LC 13), 28=-53 (LC 13), 32=-23 (LC 12), 33=-77 (LC 12), 34=-62 (LC 12), 35=-65 (LC 12), 36=-45 (LC 12)
Max Grav 1=98 (LC 11), 18=119 (LC 26), 20=166 (LC 1), 21=160 (LC 1), 22=151 (LC 26), 23=159 (LC 1), 24=168 (LC 26), 25=159 (LC 26), 26=160 (LC 1), 27=159 (LC 1), 28=162 (LC 26), 29=164 (LC 1), 31=369 (LC 13), 32=197 (LC 19), 33=173 (LC 19), 34=176 (LC 19), 35=185 (LC 19), 36=136 (LC 19), 37=1 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-152/362, 2-3=-147/365, 3-4=-140/446, 4-5=-178/558, 5-6=-225/693, 6-7=-241/736, 7-8=-212/653, 8-9=-211/649, 9-10=-186/578, 10-11=-165/518, 11-12=-146/462, 12-13=-126/405, 13-15=-105/343, 15-16=-70/238, 16-17=-50/168, 17-18=-37/78, 18-19=0/8
BOT CHORD 36-37=0/0, 35-36=0/0, 34-35=0/0, 33-34=0/0, 32-33=0/0, 31-32=0/0, 29-31=0/0, 28-29=0/0, 27-28=0/0, 25-27=0/1, 24-25=0/1, 23-24=0/1, 22-23=-6/7, 21-22=-6/7, 20-21=-6/7, 18-20=-6/7
WEBS 7-31=-563/130, 6-32=-157/51, 5-33=-133/189, 4-34=-136/177, 3-35=-144/238, 2-36=-103/173, 8-29=-124/0, 9-28=-122/137, 10-27=-120/109, 11-26=-120/103, 12-25=-119/104, 13-24=-128/113, 14-23=-119/103, 15-22=-110/98, 16-21=-121/132, 17-20=-120/162

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Corner(3E) 2-0-13 to 6-5-10, Exterior(2N) 6-5-10 to 12-9-11, Corner(3R) 12-9-11 to 17-2-8, Exterior(2N) 17-2-8 to 35-5-14 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 227 lb uplift at joint 1, 23 lb uplift at joint 32, 77 lb uplift at joint 33, 62 lb uplift at joint 34, 65 lb uplift at joint 35, 45 lb uplift at joint 36, 53 lb uplift at joint 28, 36 lb uplift at joint 27, 32 lb uplift at joint 26, 33 lb uplift at joint 25, 38 lb uplift at joint 24, 32 lb uplift at joint 23, 30 lb uplift at joint 22, 33 lb uplift at joint 21, 34 lb uplift at joint 20 and 33 lb uplift at joint 18.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 18.

LOAD CASE(S) Standard

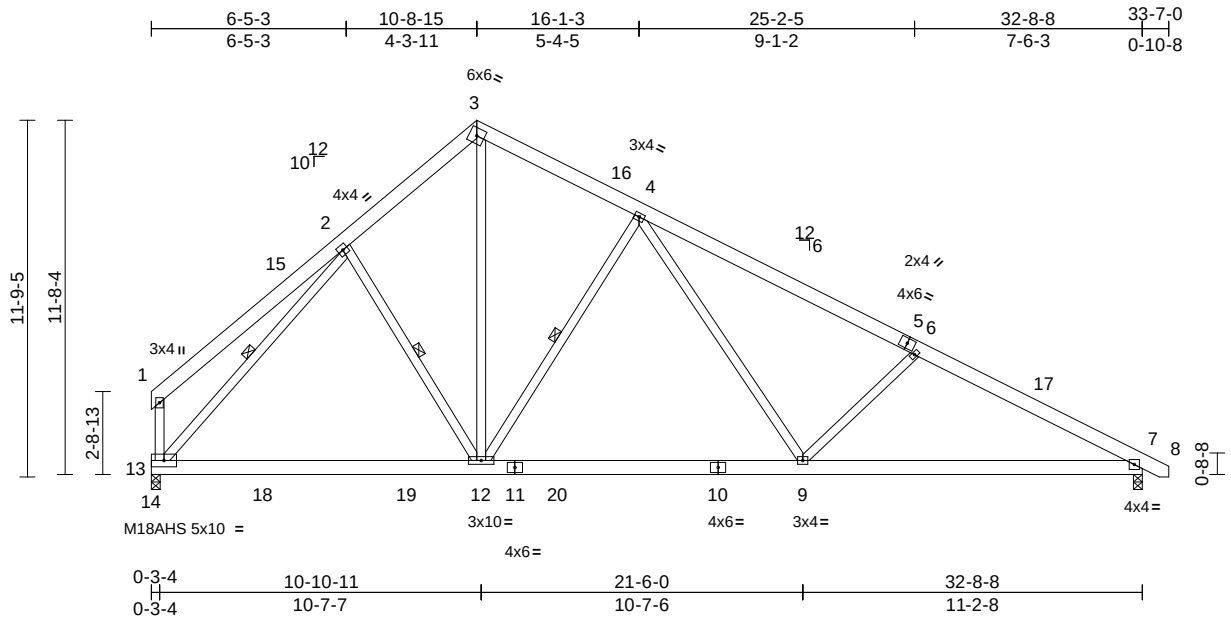
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	A2	Roof Special	8	1	Job Reference (optional)	I73797680

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:19 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:76

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	0.55	Vert(LL)	-0.17	12-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.26	12-13	>999	240	M18AHS	186/179
BCLL	0.0*	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.05	9	>999	240	Weight: 251 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-8-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-13, 4-12, 2-12

REACTIONS (size) 7=0-3-8, 13=0-3-8
Max Horiz 13=-275 (LC 8)
Max Uplift 7=-105 (LC 13), 13=-55 (LC 13)
Max Grav 7=1520 (LC 20), 13=1586 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-296/161, 2-3=-1445/440, 3-4=-1282/405, 4-6=-2283/464, 6-7=-2545/497, 7-8=0/8, 1-13=-307/171
BOT CHORD 13-14=0/0, 12-13=-79/1164, 9-12=-99/1522, 7-9=-334/2201
WEBS 2-13=-1424/218, 3-12=-317/1208, 4-12=-833/314, 2-12=-110/249, 4-9=-74/888, 6-9=-456/277

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 2-4-1 to 6-8-13, Interior (1) 6-8-13 to 12-9-11, Exterior(2R) 12-9-11 to 17-2-8, Interior (1) 17-2-8 to 35-5-14 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 13 and 105 lb uplift at joint 7.

LOAD CASE(S) Standard

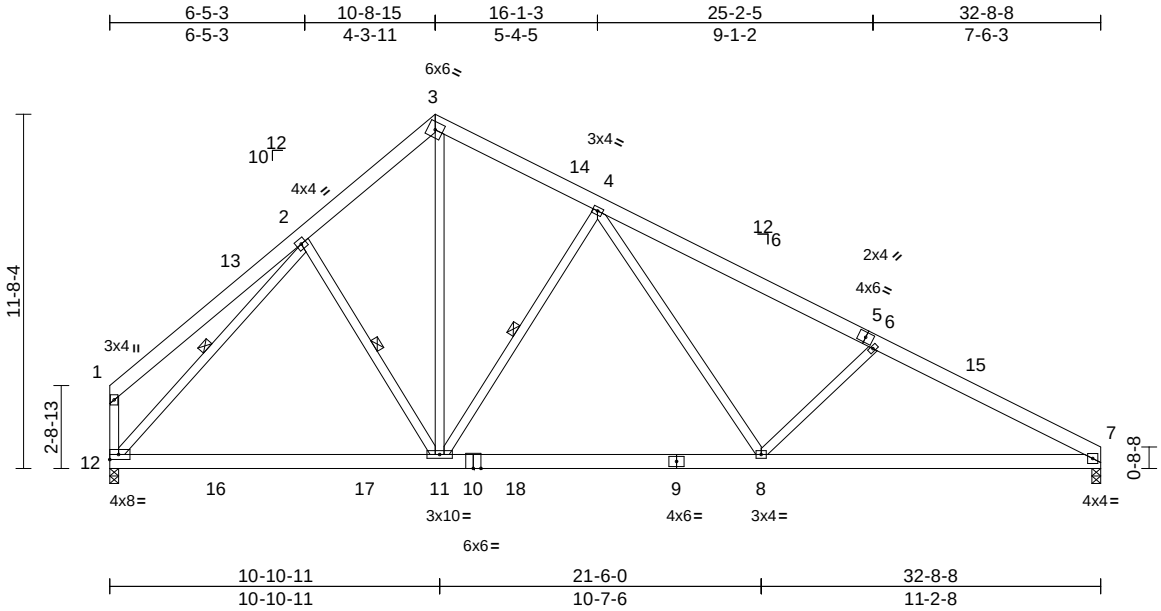
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	A3	Roof Special	2	1	Job Reference (optional)	I73797681

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:19 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:76

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	0.45	Vert(LL)	-0.19	11-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.28	11-12	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.05	8	>999	240	Weight: 249 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-8-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-12, 4-11, 2-11

REACTIONS (size) 7=0-3-8, 12=0-3-8
Max Horiz 12=-273 (LC 8)
Max Uplift 7=-94 (LC 13), 12=-58 (LC 13)
Max Grav 7=1485 (LC 20), 12=1587 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-286/170, 2-3=-1465/444, 3-4=-1299/409, 4-6=-2299/476, 6-7=-2561/512, 1-12=-303/178
BOT CHORD 11-12=-93/1184, 8-11=-111/1536, 7-8=-358/2215
WEBS 2-12=-1456/214, 3-11=-321/1229, 4-11=-832/314, 2-11=-118/255, 4-8=-83/887, 6-8=-457/288

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 2-2-9 to 6-7-5, Interior (1) 6-7-5 to 12-9-11, Exterior(2R) 12-9-11 to 17-2-8, Interior (1) 17-2-8 to 34-7-9 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 12 and 94 lb uplift at joint 7.

LOAD CASE(S) Standard

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

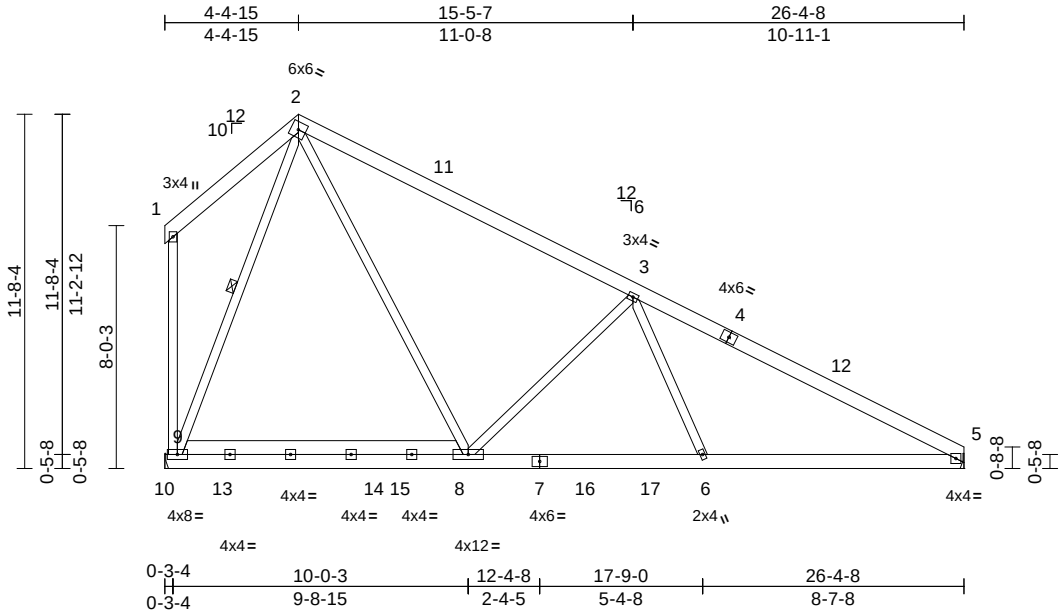
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	A4	Roof Special	8	1	Job Reference (optional)	I73797682

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:19 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:76

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	0.53	Vert(LL)	-0.06	5-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.14	5-6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.03	5-6	>999	240	Weight: 221 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-0-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-9

REACTIONS (size) 5= Mechanical, 9= Mechanical
Max Horiz 9=-293 (LC 13)
Max Uplift 5=-27 (LC 13)
Max Grav 5=1209 (LC 20), 9=1475 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-75/114, 2-3=-1166/209, 3-5=-1939/218, 1-9=-110/119
BOT CHORD 9-10=0/8, 8-9=0/464, 6-8=-89/1517, 5-6=-56/1643
WEBS 2-9=-1134/224, 2-8=-67/1260, 3-8=-845/399, 3-6=0/408

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 8-8-1 to 12-9-12, Exterior(2R) 12-9-12 to 17-2-8, Interior (1) 17-2-8 to 34-8-9 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 4-5-0 from left end, supported at two points, 5-0-0 apart.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 5.

LOAD CASE(S) Standard

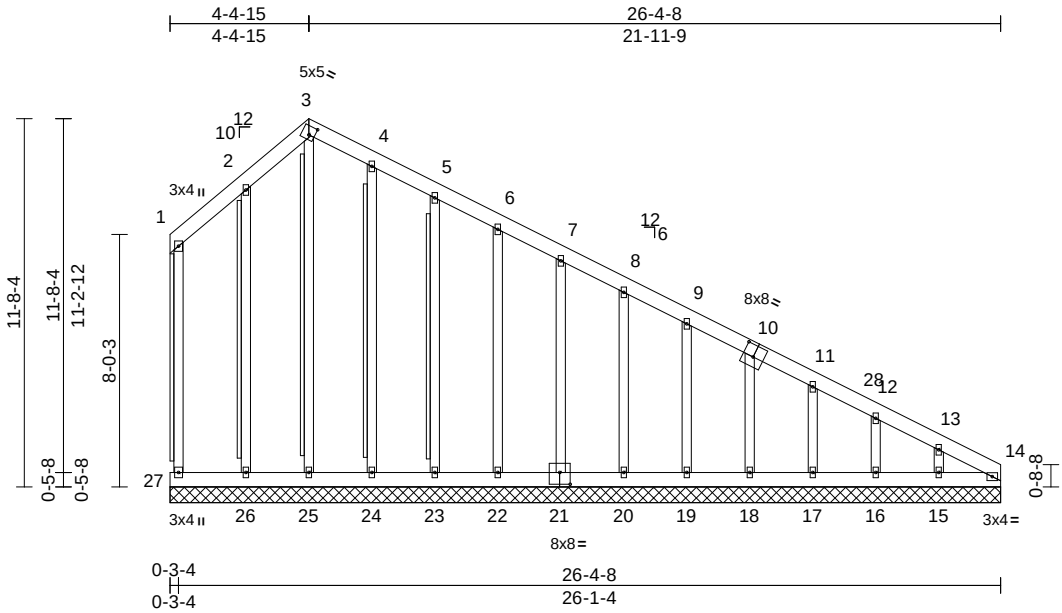
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing
J0325-1589	A5	Roof Special Supported Gable	1	1	I73797683 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:19 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:73.2

Plate Offsets (X, Y): [3:0-2-2,0-3-4], [10:0-4-0,0-4-8], [21:0-4-0,0-4-8]

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	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.01	14	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 253 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2
OTHERS	2x4 SP No.2 *Except* 0-0,0-0,0-0,0-0,0-0:2x4 SPF No.2(flat)

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	T-Brace: 2x4 SPF No.2 - 1-27, 3-25, 2-26, 4-24, 5-23

Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS (size) 14=26-4-8, 15=26-4-8, 16=26-4-8, 17=26-4-8, 18=26-4-8, 19=26-4-8, 20=26-4-8, 21=26-4-8, 22=26-4-8, 23=26-4-8, 24=26-4-8, 25=26-4-8, 26=26-4-8, 27=26-4-8
Max Horiz 27=-431 (LC 13)
Max Uplift 15=-123 (LC 13), 16=-71 (LC 13), 17=-56 (LC 13), 18=-75 (LC 13), 19=-71 (LC 13), 20=-69 (LC 13), 21=-69 (LC 13), 22=-69 (LC 13), 23=-75 (LC 13), 24=-53 (LC 13), 26=-97 (LC 12), 27=-62 (LC 12)
Max Grav 14=227 (LC 13), 15=178 (LC 26), 16=157 (LC 26), 17=151 (LC 1), 18=159 (LC 26), 19=168 (LC 1), 20=159 (LC 26), 21=160 (LC 1), 22=159 (LC 1), 23=162 (LC 26), 24=164 (LC 1), 25=172 (LC 21), 26=204 (LC 19), 27=86 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-27=-69/121, 1-2=-37/93, 2-3=-76/248, 3-4=-78/250, 4-5=-98/213, 5-6=-116/151, 6-7=-133/93, 7-8=-161/73, 8-9=-193/58, 9-11=-292/85, 11-12=-338/103, 12-13=-392/124, 13-14=-481/157
BOT CHORD	26-27=-138/452, 25-26=-138/452, 24-25=-138/452, 23-24=-138/452, 22-23=-138/452, 20-22=-138/452, 19-20=-138/452, 18-19=-138/452, 17-18=-133/446, 16-17=-133/446, 15-16=-133/446, 14-15=-133/446
WEBS	3-25=-134/17, 2-26=-156/215, 4-24=-124/77, 5-23=-122/116, 6-22=-120/106, 7-21=-120/105, 8-20=-119/105, 9-19=-128/109, 10-18=-119/111, 11-17=-111/93, 12-16=-120/146, 13-15=-129/221

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 8-8-1 to 12-9-12, Corner(3R) 12-9-12 to 17-2-8, Exterior(2N) 17-2-8 to 34-9-5 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint 27, 97 lb uplift at joint 26, 53 lb uplift at joint 24, 75 lb uplift at joint 23, 69 lb uplift at joint 22, 69 lb uplift at joint 21, 69 lb uplift at joint 20, 71 lb uplift at joint 19, 75 lb uplift at joint 18, 56 lb uplift at joint 17, 71 lb uplift at joint 16 and 123 lb uplift at joint 15.
11) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

LOAD CASE(S) Standard

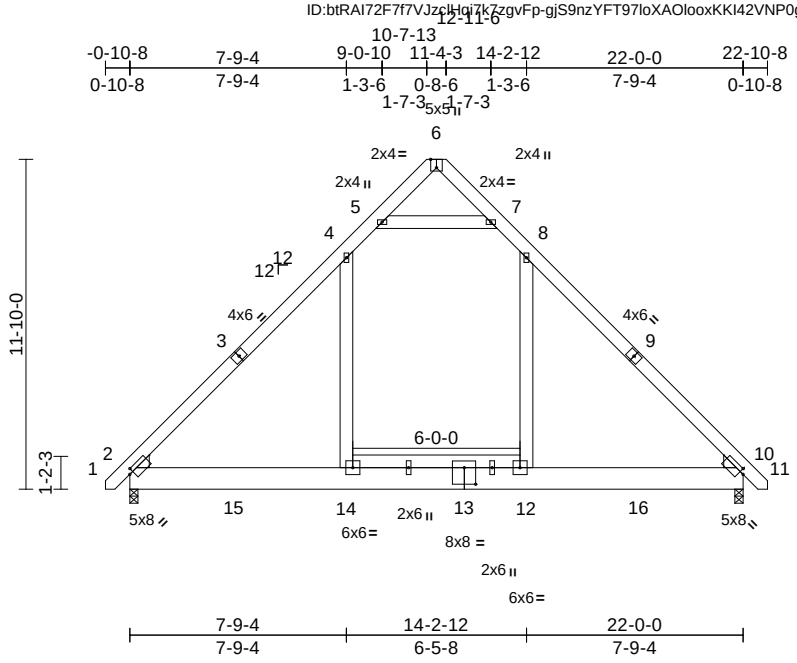
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	B1	ATTIC	1	1	Job Reference (optional)	I73797684

Comtech, Inc, Fayetteville, NC - 28314, Run: 8.63 E Aug 30 2023 Print: 8.630 E Aug 30 2023 MiTek Industries, Inc. Thu May 29 14:14:16 Page: 1

ID:btRAI72F7f7VJzclHqi7kZzgvFp-gjS9nzYFT97loXAOlooxKKI42VNP0gz4_MfZHBzBnMr



Scale = 1:82.7

Plate Offsets (X, Y): [2:0-1-12,0-1-12], [6:0-3-9,Edge], [10:0-1-12,0-1-12], [13:0-4-14,0-7-2]

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	0.43	Vert(LL)	-0.05	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.07	10-12	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.06	2-14	>999	240	Weight: 227 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.1
BOT CHORD	2x10 SP No.1
WEBS	2x6 SP No.1
WEDGE	Left: 2x6 SP No.1
	Right: 2x6 SP No.1

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.

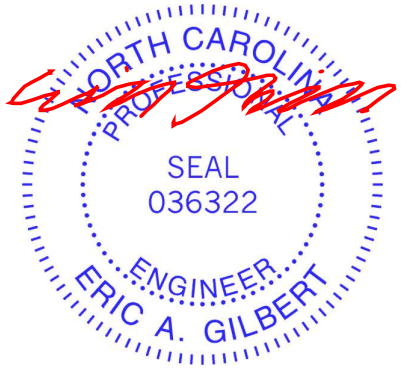
REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=-346 (LC 10)
Max Grav 2=1460 (LC 20), 10=1460 (LC 21)

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

TOP CHORD	2-3=-1737/81, 3-4=-1484/113, 4-5=-877/230, 7-8=-877/230, 8-9=-1484/113, 9-10=-1737/81
BOT CHORD	2-15=0/1110, 14-15=0/1110, 13-14=0/1110, 12-13=0/1110, 12-16=0/1110, 10-16=0/1110
WEBS	5-7=-1274/505, 4-14=-63/736, 8-12=-63/736

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-8-7 to 3-8-6, Exterior(2N) 3-8-6 to 11-0-0, Corner(3R) 11-0-0 to 15-4-13, Exterior (2N) 15-4-13 to 22-8-7 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable studs spaced at 0-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).4-14, 8-12
8) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-14
9) Attic room checked for L/360 deflection.



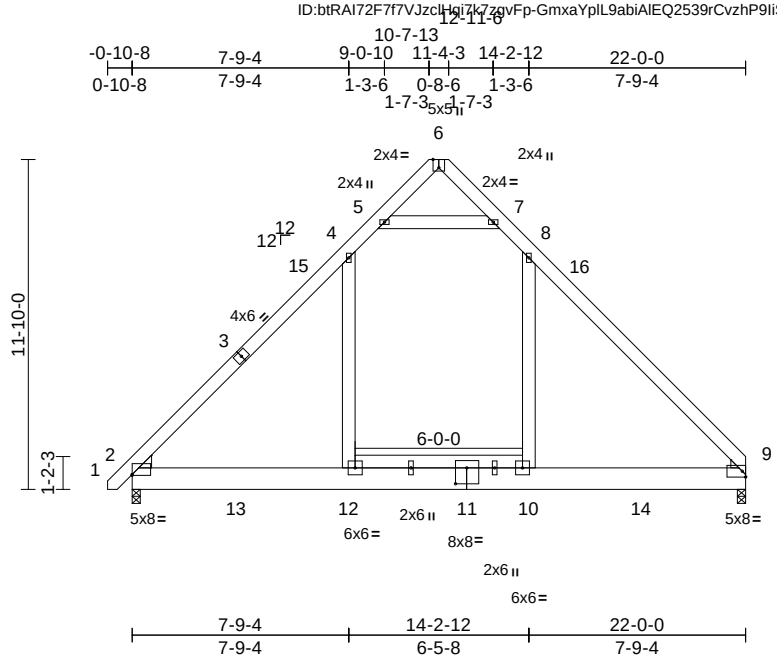
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	B2	ATTIC	3	1	Job Reference (optional)	I73797685

Comtech, Inc, Fayetteville, NC - 28314, Run: 8.63 E Aug 30 2023 Print: 8.630 E Aug 30 2023 MiTek Industries, Inc. Thu May 29 14:15:55 Page: 1

ID:btRAI72F7f7VJzclHqi7k7zgvFp-GmxaYplL9abiAlEQ2539rCvzhP9liSQelG8IGyzBnLI



Scale = 1:82.6

Plate Offsets (X, Y): [2:Edge,0-0-5], [6:0-3-9,Edge], [11:0-6-13,0-4-13]

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	0.52	Vert(LL)	-0.06	9-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.09	9-10	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	9	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.05	9-10	>999	240	Weight: 224 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.1
BOT CHORD 2x10 SP No.1
WEBS 2x6 SP No.1
WEDGE Left: 2x6 SP No.1
Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-6-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 9=0-3-8
Max Horiz 2=275 (LC 9)
Max Grav 2=1466 (LC 20), 9=1425 (LC 20)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1732/0, 3-15=-1492/0, 4-15=-1479/31, 4-5=-868/142, 5-6=-98/262, 7-8=-900/155, 8-16=-1486/6, 9-16=-1723/0
BOT CHORD 2-13=0/1090, 12-13=0/1090, 11-12=0/1090, 10-11=0/1090, 10-14=0/1090, 9-14=0/1090
WEBS 5-7=-1334/337, 4-12=-23/742, 8-10=-34/688

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-8-7 to 3-8-6, Interior (1) 3-8-6 to 11-0-0, Exterior(2R) 11-0-0 to 15-4-13, Interior (1) 15-4-13 to 21-10-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).4-12, 8-10
6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 10-12
7) Attic room checked for L/360 deflection.

May 29,2025

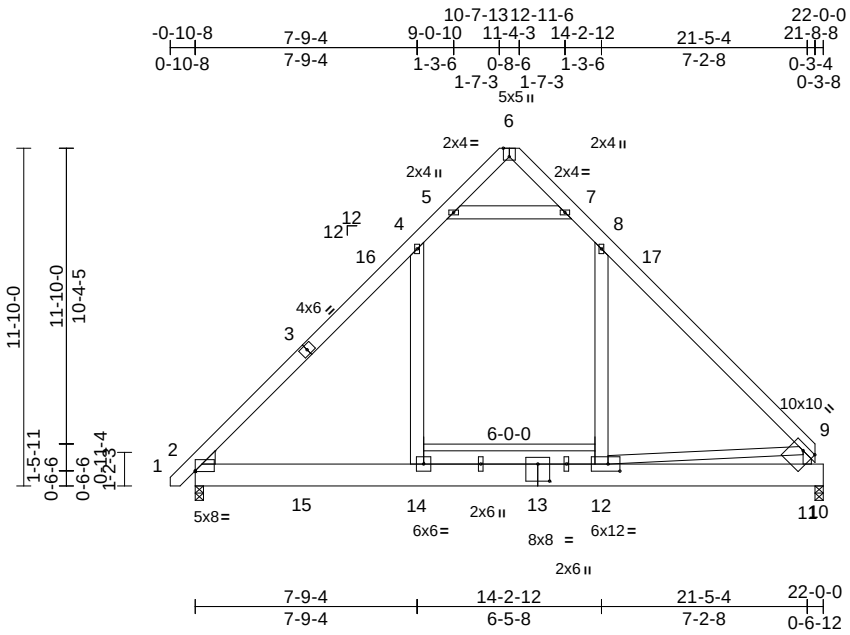
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	B3	ATTIC	1	1	Job Reference (optional)	I73797686

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 E Aug 30 2023 Print: 8.630 E Aug 30 2023 MiTek Industries, Inc. Thu May 29 14:17:49 Page: 1

ID:btRAI72F7f7VJzclHqi7k7zgvFp-wiqgUo7sIbyWrGyKk16uSEdSoM2hQzHQz?lKGLzBnJW



Scale = 1:80.7

Plate Offsets (X, Y): [2:Edge,0-0-5], [6:0-3-9,Edge], [9:0-4-12,0-2-4], [12:0-5-0,0-3-0], [13:0-4-15,0-7-3]

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	0.53	Vert(LL)	-0.07	2-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.09	2-14	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.05	11-12	>999	240	Weight: 234 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.1
BOT CHORD 2x10 SP No.1
WEBS 2x6 SP No.1 *Except* 9-11,9-12:2x4 SP No.2
WEDGE Left: 2x6 SP No.1

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-9-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 11-12.

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=273 (LC 9)
Max Grav 2=1480 (LC 20), 10=1334 (LC 20)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1705/0, 3-16=-1465/0, 4-16=-1452/25, 4-5=-849/139, 5-6=-96/266, 7-8=-894/152, 8-17=-1391/6, 9-17=-1579/0
BOT CHORD 2-15=0/1067, 14-15=0/1067, 13-14=0/1067, 12-13=0/1067
WEBS 5-7=-1314/330, 4-14=-20/730, 8-12=-46/570, 9-11=-1356/37, 9-12=0/1099

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-8-7 to 3-8-6, Interior (1) 3-8-6 to 11-0-0, Exterior(2R) 11-0-0 to 15-4-13, Interior (1) 15-4-13 to 21-5-7 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 40.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).4-14, 8-12
6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-14
7) Attic room checked for L/360 deflection.

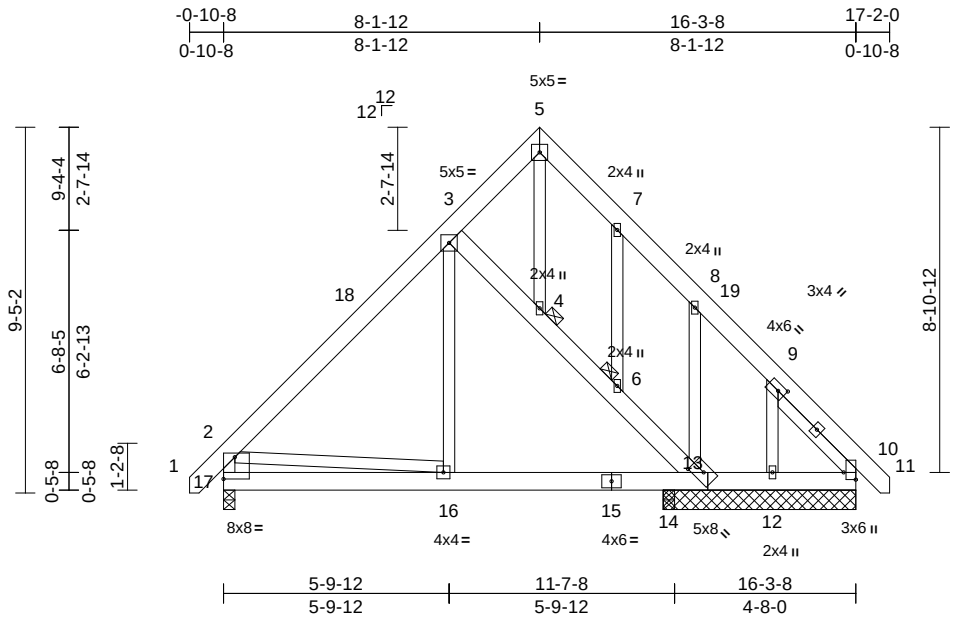
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	C1	Common Structural Gable	1	1	Job Reference (optional)	I73797687

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:20 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:59.4

Plate Offsets (X, Y): [9:0-2-4,0-2-0], [10:Edge,0-3-12], [13:0-4-3,0-2-11], [17:Edge,0-6-12]

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	0.19	Vert(LL)	-0.01	16-17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	16-17	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.00	16-17	>999	240	Weight: 164 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2
OTHERS	2x4 SP No.2
SLIDER	Right 2x4 SP No.2 -- 2-10-13

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.
JOINTS	1 Brace at Jt(s): 4, 6

REACTIONS (size) 10=4-11-8, 12=4-11-8, 13=4-11-8, 14=0-3-8, 17=0-3-8
Max Horiz 17=272 (LC 11)
Max Uplift 10=-6 (LC 11), 12=-221 (LC 13), 13=-349 (LC 12), 17=-36 (LC 12)
Max Grav 10=285 (LC 22), 12=196 (LC 20), 13=297 (LC 1), 14=313 (LC 3), 17=541 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/37, 2-3=-476/58, 3-5=-173/115, 5-7=-106/59, 7-8=-147/0, 8-9=-208/102, 9-10=-410/209, 10-11=0/6, 2-17=-484/111, 3-4=-345/261, 4-6=-362/260, 6-13=-394/299
BOT CHORD	16-17=-279/355, 14-16=-99/364, 12-14=-157/364, 10-12=-155/314
WEBS	2-16=-55/262, 4-5=-52/39, 6-7=-94/101, 8-13=-203/211, 9-12=-183/240, 3-16=0/229

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-9-1 to 3-7-12, Interior (1) 3-7-12 to 8-1-12, Exterior(2R) 8-1-12 to 12-6-9, Interior (1) 12-6-9 to 17-0-9 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable 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 0.0psf on the bottom chord in all areas where a rectangle 0-00 tall by 0-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 17, 349 lb uplift at joint 13, 221 lb uplift at joint 12 and 6 lb uplift at joint 10.
9) 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

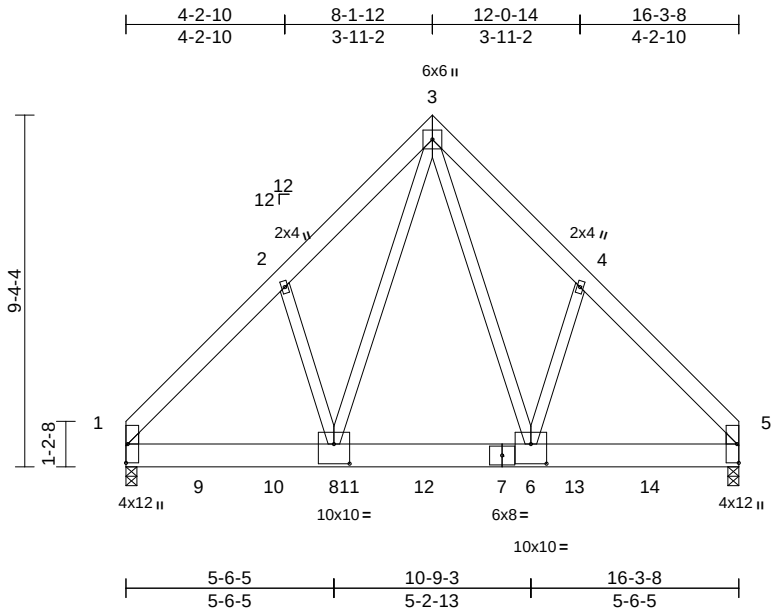
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	C2	Common Girder	1	**2**	Job Reference (optional)	I73797688

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:20 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:61.3

Plate Offsets (X, Y): [6:0-5-0,0-6-4], [8:0-5-0,0-6-4]

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	0.62	Vert(LL)	-0.04	1-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.07	1-8	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.40	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.02	1-8	>999	240	Weight: 291 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x8 SP No.1
WEBS 2x4 SP No.2
WEDGE Left: 2x4 SP No.3
Right: 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=0-3-8, 5=0-3-8
Max Horiz 1=209 (LC 26)
Max Uplift 1=-164 (LC 9), 5=-191 (LC 8)
Max Grav 1=4849 (LC 16), 5=5838 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-5054/217, 2-3=-4730/311, 3-4=-4705/310, 4-5=-5031/216
BOT CHORD 1-8=-167/3341, 6-8=-79/2426, 5-6=-82/3238
WEBS 4-6=-66/423, 3-8=-235/3406, 2-8=-65/418, 3-6=-233/3345

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-7-0 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 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 0.0psf on the bottom chord in all areas where a rectangle 0-00 tall by 0-00 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 164 lb uplift at joint 1 and 191 lb uplift at joint 5.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1189 lb down and 39 lb up at 1-11-4, 1189 lb down and 39 lb up at 3-11-4, 1189 lb down and 39 lb up at 5-11-4, 1189 lb down and 39 lb up at 7-11-4, 1189 lb down and 39 lb up at 9-11-4, 1189 lb down and 39 lb up at 11-11-4, and 1189 lb down and 39 lb up at 13-11-4, and 1197 lb down and 34 lb up at 16-1-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-60, 3-5=-60, 1-5=-20
Concentrated Loads (lb)
Vert: 7=-1046 (F), 5=-1054 (F), 9=-1046 (F), 10=-1046 (F), 11=-1046 (F), 12=-1046 (F), 13=-1046 (F), 14=-1046 (F)

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

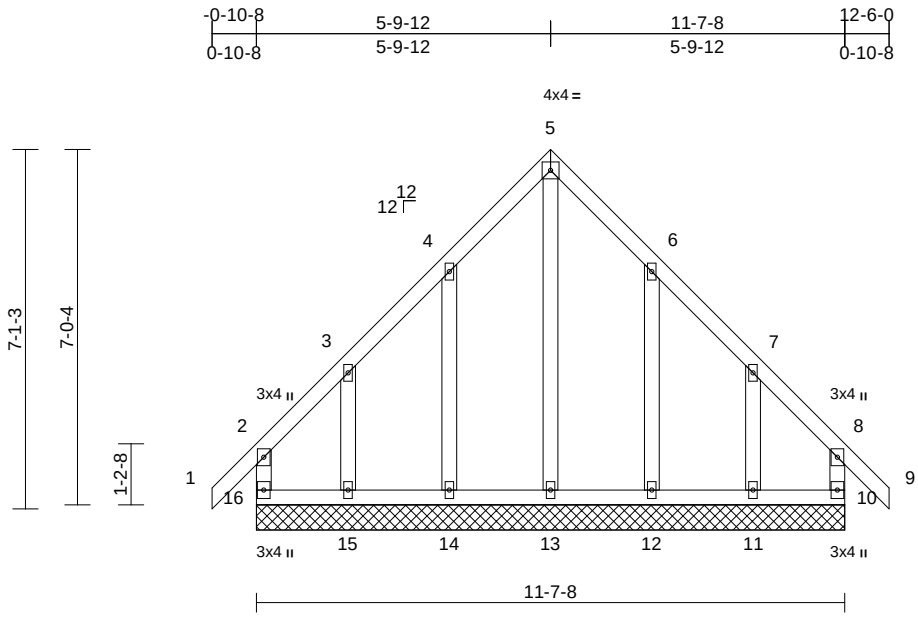
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	D1	Common Supported Gable	1	1	Job Reference (optional)	I73797689

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:20 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:45.5

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	0.16	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	0.37	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R							Weight: 79 lb	FT = 20%

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

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

REACTIONS (size) 10=11-7-8, 11=11-7-8, 12=11-7-8, 13=11-7-8, 14=11-7-8, 15=11-7-8, 16=11-7-8
Max Horiz 16=-200 (LC 10)
Max Uplift 10=-113 (LC 9), 11=-210 (LC 13), 12=-124 (LC 13), 14=-124 (LC 12), 15=-215 (LC 12), 16=-126 (LC 8)
Max Grav 10=187 (LC 19), 11=225 (LC 20), 12=195 (LC 20), 13=290 (LC 13), 14=194 (LC 19), 15=231 (LC 19), 16=198 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-16=-156/138, 1-2=0/43, 2-3=-144/150, 3-4=-108/259, 4-5=-193/431, 5-6=-193/432, 6-7=-106/253, 7-8=-130/137, 8-9=0/43, 8-10=-147/142
BOT CHORD 15-16=-93/139, 14-15=-93/139, 13-14=-93/139, 12-13=-93/139, 11-12=-93/139, 10-11=-93/139
WEBS 5-13=-493/153, 4-14=-163/242, 3-15=-171/287, 6-12=-163/242, 7-11=-172/286

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 3-9-12, Exterior (2N) 3-9-12 to 5-9-12, Corner(3R) 5-9-12 to 10-2-9, Exterior(2N) 10-2-9 to 12-6-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) 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 40.0psf 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 SP No.1 crushing capacity of 565 psi.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 126 lb uplift at joint 16, 113 lb uplift at joint 10, 124 lb uplift at joint 14, 215 lb uplift at joint 15, 124 lb uplift at joint 12 and 210 lb uplift at joint 11.

LOAD CASE(S) Standard

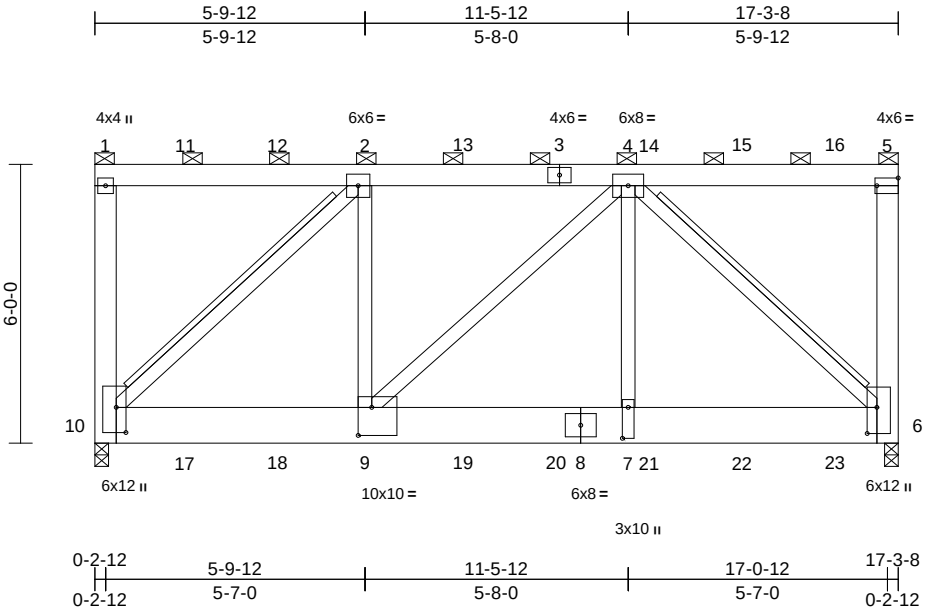
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	H1	FLAT GIRDER	1	2	Job Reference (optional)	I73797690

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:20 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:49.6

Plate Offsets (X, Y): [5:Edge,0-2-0], [6:0-6-12,0-2-8], [7:0-8-0,0-1-8], [9:0-3-8,0-7-4], [10:0-6-8,0-2-8]

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	0.45	Vert(LL)	-0.07	7-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.15	7-9	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.97	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.03	7-9	>999	240	Weight: 353 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x10 SP 2400F 2.0E
WEBS 2x4 SP No.2 *Except* 10-1,5-6:2x6 SP No.1
OTHERS 2x6 SPF No.2(flat)

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-5, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x6 SPF No.2 - 2-10, 4-6
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS (size) 6=0-3-8, 10=0-3-8
Max Grav 6=9773 (LC 15), 10=9211 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-10=-865/305, 1-2=-186/8, 2-4=-7321/0, 4-5=-198/7, 5-6=-1052/362
BOT CHORD 9-10=0/7321, 7-9=0/7264, 6-7=0/7264
WEBS 2-10=-9913/0, 2-9=0/4331, 4-9=0/85, 4-7=0/4221, 4-6=-9817/0

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-7-0 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) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 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.1 crushing capacity of 565 psi.
8) Bearing at joint(s) 10, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 47 lb down and 13 lb up at 0-2-12, 797 lb down and 289 lb up at 1-11-4, 797 lb down and 289 lb up at 3-11-4, 797 lb down and 289 lb up at 5-11-4, 797 lb down and 289 lb up at 7-11-4, 797 lb down and 289 lb up at 9-11-4, 797 lb down and 289 lb up at 11-11-4, and 797 lb down and 289 lb up at 13-11-4, and 797 lb down and 289 lb up at 15-11-4 on top chord, and 1455 lb down at 1-11-4, 1455 lb down at 3-11-4, 1455 lb down at 5-11-4, 1455 lb down at 7-11-4, 1455 lb down at 9-11-4, 1455 lb down at 11-11-4, and 1455 lb down at 13-11-4, and 1455 lb down at 15-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

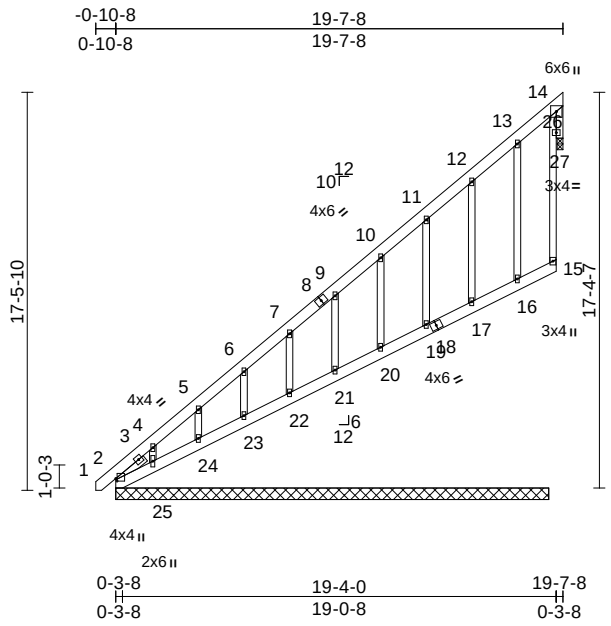
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-5=-60, 6-10=-20
Concentrated Loads (lb)
Vert: 1=-16, 3=-686, 2=-686, 9=-1203 (B), 11=-686, 12=-686, 13=-686, 14=-686, 15=-686, 16=-686, 17=-1203 (B), 18=-1203 (B), 19=-1203 (B), 20=-1203 (B), 21=-1203 (B), 22=-1203 (B), 23=-1203 (B)

May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	M1	Jack-Open Supported Gable	1	1	Job Reference (optional)	I73797691

Comtech, Inc, Fayetteville, NC - 28314, Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:21 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:101.1

Plate Offsets (X, Y): [2:0-1-5,0-0-11]

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	0.09	Vert(LL)	0.00	15	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	15	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	-0.01	27	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-R		Wind(LL)	0.00	15	>999	240	Weight: 174 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
OTHERS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 1-7-3

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, Except:
6-0-0 oc bracing: 17-19,15-16.

REACTIONS (size) 2=19-0-0, 16=19-0-0, 17=19-0-0, 19=19-0-0, 20=19-0-0, 21=19-0-0, 22=19-0-0, 23=19-0-0, 24=19-0-0, 25=19-0-0, 27=0-3-0
Max Horiz 2=541 (LC 12)
Max Uplift 2=-244 (LC 10), 16=-52 (LC 12), 17=-66 (LC 12), 19=-62 (LC 12), 20=-62 (LC 12), 21=-63 (LC 12), 22=-62 (LC 12), 23=-66 (LC 12), 24=-42 (LC 12), 25=-344 (LC 12), 27=-24 (LC 12)
Max Grav 2=666 (LC 12), 16=180 (LC 19), 17=176 (LC 19), 19=178 (LC 19), 20=177 (LC 19), 21=177 (LC 19), 22=177 (LC 19), 23=177 (LC 19), 24=176 (LC 19), 25=240 (LC 10), 27=47 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/7, 2-4=-1270/641, 4-5=-896/463, 5-6=-790/413, 6-7=-682/357, 7-9=-574/302, 9-10=-466/247, 10-11=-358/191, 11-12=-250/136, 12-13=-139/79, 13-14=-42/19, 15-26=0/20, 14-26=0/20
BOT CHORD 2-25=-35/26, 24-25=-17/19, 23-24=-17/18, 22-23=-17/19, 21-22=-17/19, 20-21=-17/19, 19-20=-17/19, 17-19=-18/18, 16-17=-16/20, 15-16=-18/7
WEBS 13-16=-133/132, 12-17=-141/150, 11-19=-137/144, 10-20=-137/144, 9-21=-137/145, 7-22=-137/145, 6-23=-137/146, 5-24=-137/142, 4-25=-305/524, 14-27=-48/45

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Corner(3E) -0-9-0 to 3-7-8, Exterior(2N) 3-7-8 to 19-2-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Bearings are assumed to be: Joint 2 SP No.1 crushing capacity of 565 psi, Joint 27 SP No.2 crushing capacity of 565 psi.
8) Bearing at joint(s) 16, 17, 27 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 16, 66 lb uplift at joint 17, 62 lb uplift at joint 19, 62 lb uplift at joint 20, 63 lb uplift at joint 21, 62 lb uplift at joint 22, 66 lb uplift at joint 23, 42 lb uplift at joint 24, 344 lb uplift at joint 25, 244 lb uplift at joint 2 and 24 lb uplift at joint 27.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

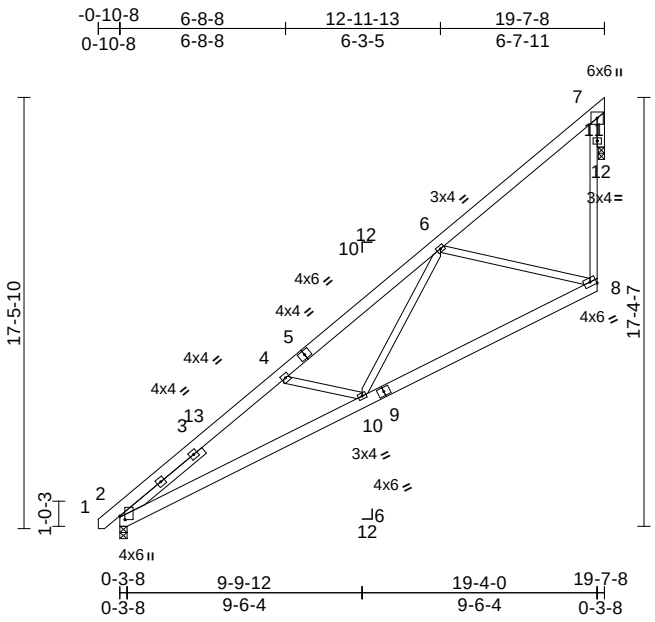
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	M2	Jack-Closed	8	1	Job Reference (optional)	I73797692

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:21 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:93.3

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

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	0.53	Vert(LL)	-0.06	8-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.14	8-10	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.59	Horz(CT)	-0.06	12	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.04	2-10	>999	240	Weight: 156 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2
OTHERS	2x4 SP No.2
SLIDER	Left 2x4 SP No.2 -- 4-4-4

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 8-11-3 oc bracing.

REACTIONS (size) 2=0-3-8, 12=0-3-0
Max Horiz 2=541 (LC 12)
Max Uplift 12=-310 (LC 12)
Max Grav 2=830 (LC 1), 12=832 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/7, 2-4=-1696/292, 4-6=-1364/203, 6-7=-198/29, 8-11=-247/714, 7-11=-247/714
BOT CHORD	2-10=-766/1530, 8-10=-443/937
WEBS	4-10=-268/264, 6-10=-108/672, 6-8=-802/370, 7-12=-851/354

NOTES

1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-9-0 to 3-7-13, Interior (1) 3-7-13 to 19-2-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Bearings are assumed to be: Joint 2 SP No.1 crushing capacity of 565 psi, Joint 12 SP No.2 crushing capacity of 565 psi.
5) Bearing at joint(s) 2, 12 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 capable of withstanding 310 lb uplift at joint 12.

LOAD CASE(S) Standard

May 29,2025

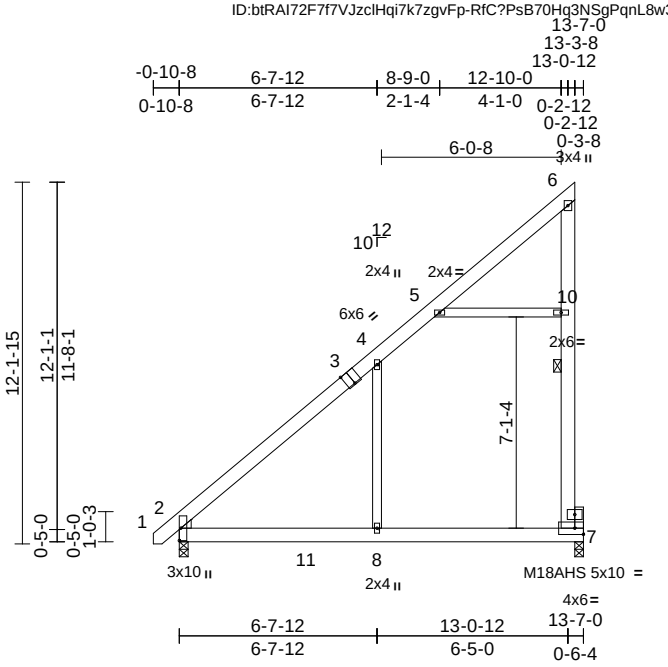
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	I73797693
J0325-1589	M3	MONOPITCH	3	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:21 Page: 1

ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:77.5

Plate Offsets (X, Y): [3:0-3-0,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	0.95	Vert(LL)	-0.32	2-8	>487	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.51	2-8	>305	240	M18AHS	186/179
BCLL	0.0*	Rep Stress Incr	NO	WB	0.18	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.29	2-8	>538	240	Weight: 117 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except* 6-7:2x6 SP No.1
WEDGE Left: 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 6-7

REACTIONS (size) 2=0-3-8, 7=0-3-8
Max Horiz 2=374 (LC 12)
Max Uplift 7=-218 (LC 12)
Max Grav 2=706 (LC 19), 7=847 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/7, 2-4=-510/78, 4-5=-184/29, 5-6=-308/473, 7-10=-417/276, 6-10=-413/274
BOT CHORD 2-8=-111/242, 7-8=-111/242
WEBS 4-8=-123/269, 5-10=-532/241

NOTES

1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-8-12 to 3-8-1, Interior (1) 3-8-1 to 13-0-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) All plates are MT20 plates unless otherwise indicated.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 218 lb uplift at joint 7.

LOAD CASE(S) Standard

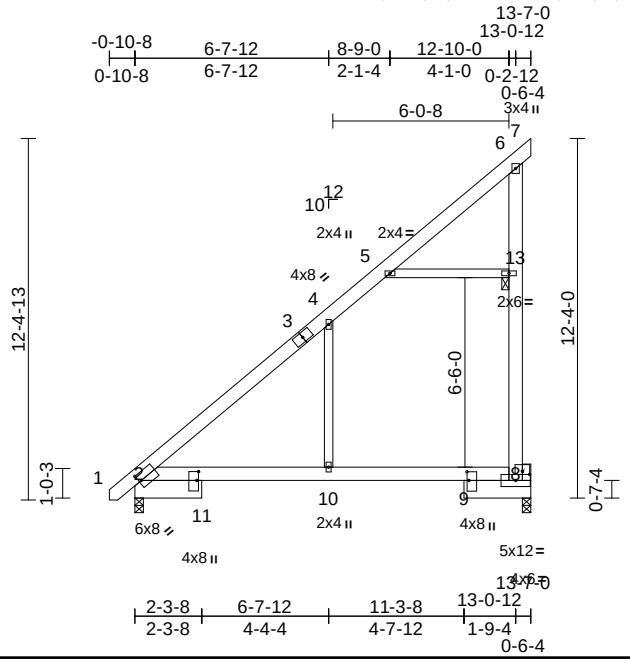
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing
J0325-1589	M4	MONOPITCH	5	1	I73797694 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:21 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:79

Plate Offsets (X, Y): [2:0-1-0,0-3-0], [9:0-3-9,0-0-13], [11:0-3-10,0-0-11], [12:0-3-0,0-1-4]

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	0.88	Vert(LL)	-0.27	10	>572	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.46	10	>340	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.11	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.28	10	>560	240	Weight: 128 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x8 SP No.1 *Except* 2-8:2x6 SP No.1
WEBS 2x4 SP No.2 *Except* 6-8:2x6 SP No.1

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

REACTIONS (size) 2=0-3-8, 8=0-3-8
Max Horiz 2=384 (LC 12)
Max Uplift 8=-233 (LC 12)
Max Grav 2=661 (LC 19), 8=849 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/11, 2-4=-543/50, 4-5=-207/25, 5-6=-341/443, 6-7=-20/0, 8-13=-428/330, 6-13=-424/329
BOT CHORD 2-10=-123/252, 8-10=-123/252
WEBS 4-10=-85/239, 5-13=-516/245

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-8-12 to 3-8-1, Interior (1) 3-8-1 to 13-7-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
4) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 233 lb uplift at joint 8.

LOAD CASE(S) Standard

May 29,2025

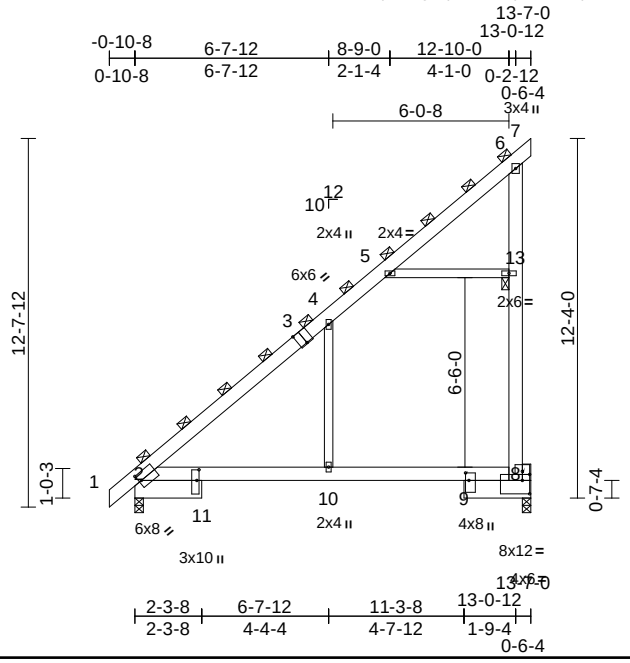
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing
J0325-1589	M4A	MONOPITCH	1	1	I73797695 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 E Aug 30 2023 Print: 8.630 E Aug 30 2023 MiTek Industries, Inc. Thu May 29 14:25:42 Page: 1

ID:btRAI72F7f7VJzclHqi7k7zgvFp-eJokKrqINJIhsfSrpS3K2ZdqnDj?G?qlHnLmIYzBnC9



Scale = 1:79

Plate Offsets (X, Y): [2:0-1-0,0-3-0], [3:0-3-0,Edge], [8:0-3-0,0-5-8], [9:0-3-2,0-1-6], [11:0-4-6,0-0-14], [12:0-3-0,0-1-4]

Loading	(psf)	Spacing	2-3-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.30	10	>509	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.51	10	>303	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.19	Horz(CT)	0.12	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.31	10	>499	240	Weight: 129 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.1
BOT CHORD 2x8 SP No.1 *Except* 2-8:2x6 SP No.1
WEBS 2x4 SP No.2 *Except* 6-8:2x6 SP No.1

BRACING

TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals
(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, 13

REACTIONS (size) 2=0-3-8, 8=0-3-8
Max Horiz 2=436 (LC 12)
Max Uplift 8=-262 (LC 12)
Max Grav 2=754 (LC 19), 8=954 (LC 19)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-611/39, 3-4=-387/57, 5-6=-382/498, 8-13=-481/371, 6-13=-477/369
BOT CHORD 2-11=-135/252, 10-11=-138/283, 9-10=-138/283
WEBS 4-10=-96/269, 5-13=-579/275

NOTES

1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 3-6-5, Interior (1) 3-6-5 to 13-7-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 262 lb uplift at joint 8.
5) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

May 29,2025

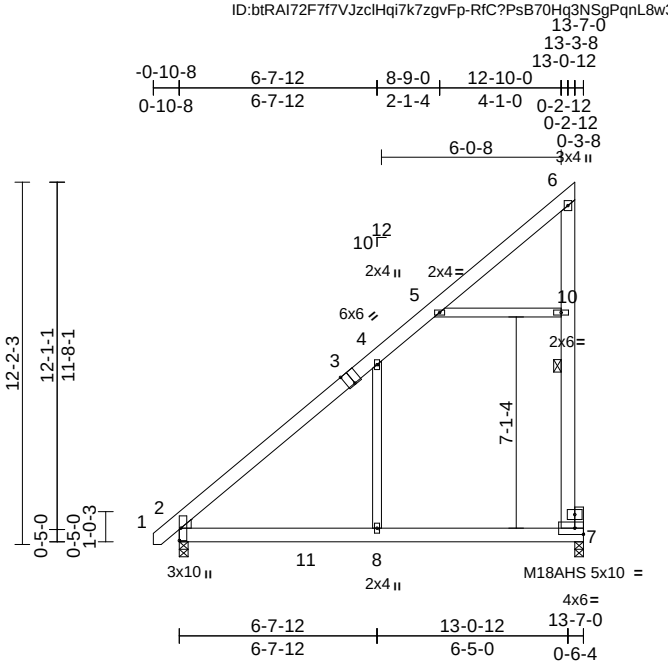
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	M5	MONOPITCH	1	1	Job Reference (optional)	I73797696

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:21 Page: 1

ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:77.5

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

Loading	(psf)	Spacing	2-3-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.33	2-8	>473	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.52	2-8	>296	240	M18AHS	186/179
BCLL	0.0*	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.30	2-8	>521	240	Weight: 117 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except* 6-7:2x6 SP 2400F 2.0E
WEDGE Left: 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 6-7

REACTIONS (size) 2=0-3-8, 7=0-3-8
Max Horiz 2=421 (LC 12)
Max Uplift 7=-245 (LC 12)
Max Grav 2=795 (LC 19), 7=953 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/9, 2-4=-588/71, 4-5=-212/26, 5-6=-360/561, 7-10=-478/315, 6-10=-474/314
BOT CHORD 2-8=-134/291, 7-8=-134/291
WEBS 4-8=-122/316, 5-10=-648/295

NOTES

1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-8-14 to 3-7-14, Interior (1) 3-7-14 to 13-0-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) All plates are MT20 plates unless otherwise indicated.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 245 lb uplift at joint 7.

LOAD CASE(S) Standard

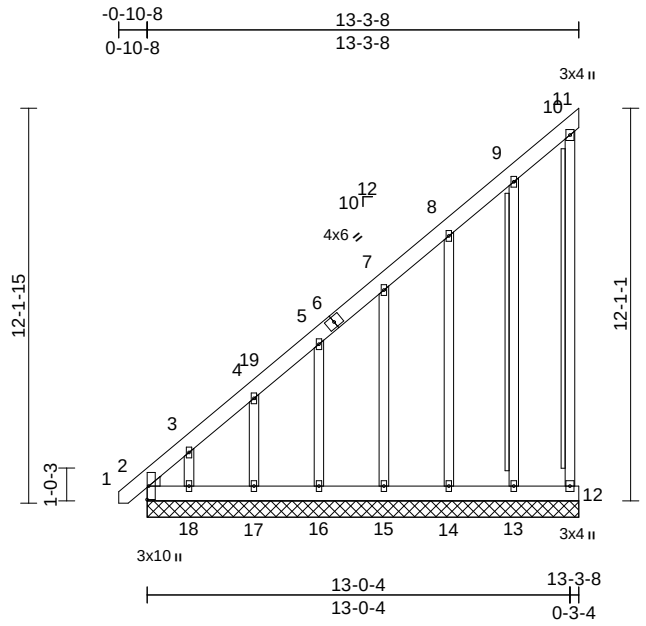
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	M6	MONOPITCH SUPPORTED	1	1	Job Reference (optional)	I73797697

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:21 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:70.9

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	0.05	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	0.17	Horz(CT)	-0.01	11	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 139 lb	FT = 20%

LUMBER

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.2
OTHERS	2x4 SP No.2 *Except* 0-0,0-0:2x4 SPF No.2 (flat)
WEDGE	Left: 2x4 SP No.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	T-Brace: 2x4 SPF No.2 - 10-12, 9-13 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS (size) 2=13-3-8, 11=13-3-8, 12=13-3-8, 13=13-3-8, 14=13-3-8, 15=13-3-8, 16=13-3-8, 17=13-3-8, 18=13-3-8
Max Horiz 2=546 (LC 12)
Max Uplift 2=-165 (LC 10), 11=-38 (LC 12), 12=-21 (LC 12), 13=-104 (LC 12), 14=-117 (LC 12), 15=-110 (LC 12), 16=-108 (LC 12), 17=-122 (LC 12), 18=-279 (LC 12)
Max Grav 2=572 (LC 12), 11=39 (LC 19), 12=44 (LC 19), 13=180 (LC 19), 14=189 (LC 19), 15=183 (LC 19), 16=181 (LC 19), 17=191 (LC 19), 18=201 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/7, 2-3=-1034/492, 3-4=-743/364, 4-5=-585/293, 5-7=-459/232, 7-8=-330/170, 8-9=-196/103, 9-10=-71/37, 10-11=-34/24, 10-12=-30/37
BOT CHORD	2-18=-1/0, 17-18=0/0, 16-17=0/0, 15-16=0/0, 14-15=0/0, 13-14=0/0, 12-13=0/0
WEBS	9-13=-139/172, 8-14=-149/186, 7-15=-143/178, 5-16=-141/173, 4-17=-151/226, 3-18=-219/394

NOTES

1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-8-12 to 3-8-1, Exterior(2N) 3-8-1 to 13-3-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
9) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 11, 21 lb uplift at joint 12, 165 lb uplift at joint 2, 104 lb uplift at joint 13, 117 lb uplift at joint 14, 110 lb uplift at joint 15, 108 lb uplift at joint 16, 122 lb uplift at joint 17 and 279 lb uplift at joint 18.
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
12) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

LOAD CASE(S) Standard

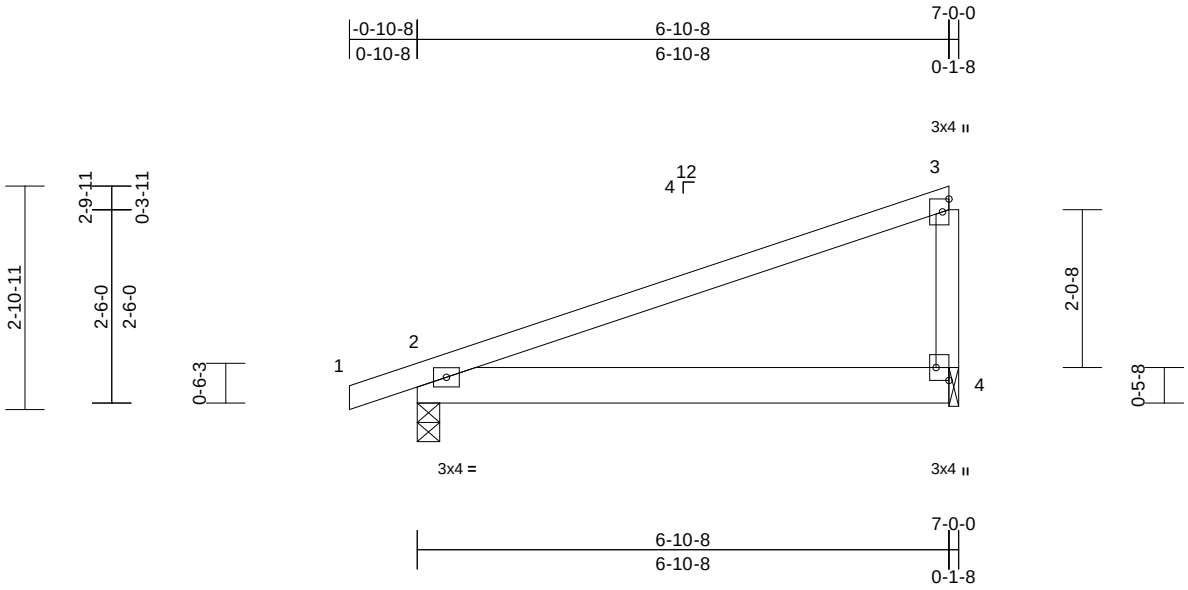
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing
J0325-1589	M7	MONOPITCH	2	1	I73797698 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:21 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:29.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.03	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.29	Vert(CT)	-0.05	2-4	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.09	2-4	>897	240	Weight: 31 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, 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=86 (LC 8)
Max Uplift 2=-129 (LC 8), 4=-114 (LC 8)
Max Grav 2=334 (LC 1), 4=262 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/9, 2-3=-111/54, 3-4=-195/262
BOT CHORD 2-4=-3/2

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 3-6-5, Interior (1) 3-6-5 to 6-9-15 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Bearings are assumed to be: Joint 4 SP No.2 crushing capacity of 565 psi, Joint 2 SP No.1 crushing capacity of 565 psi.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 129 lb uplift at joint 2 and 114 lb uplift at joint 4.

LOAD CASE(S) Standard

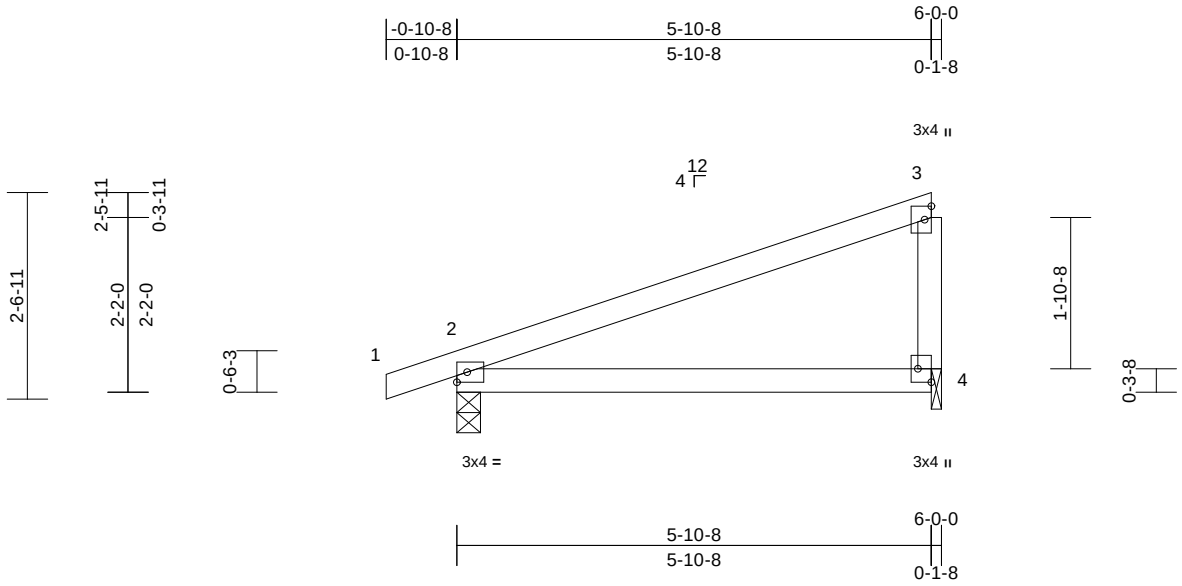
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	M8	GABLE	5	1	Job Reference (optional)	I73797699

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:21 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:28.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	-0.06	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.11	2-4	>615	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.18	2-4	>375	240	Weight: 22 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-8, 4=0-1-8
Max Horiz 2=74 (LC 8)
Max Uplift 2=-115 (LC 8), 4=-98 (LC 8)
Max Grav 2=295 (LC 1), 4=221 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/5, 2-3=-99/51, 3-4=-164/225
BOT CHORD 2-4=-3/2

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 3-6-5, Interior (1) 3-6-5 to 5-9-15 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) Bearings are assumed to be: Joint 2 SP No.1 crushing capacity of 565 psi, Joint 4 SP No.2 crushing capacity of 565 psi.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 115 lb uplift at joint 2 and 98 lb uplift at joint 4.

LOAD CASE(S) Standard

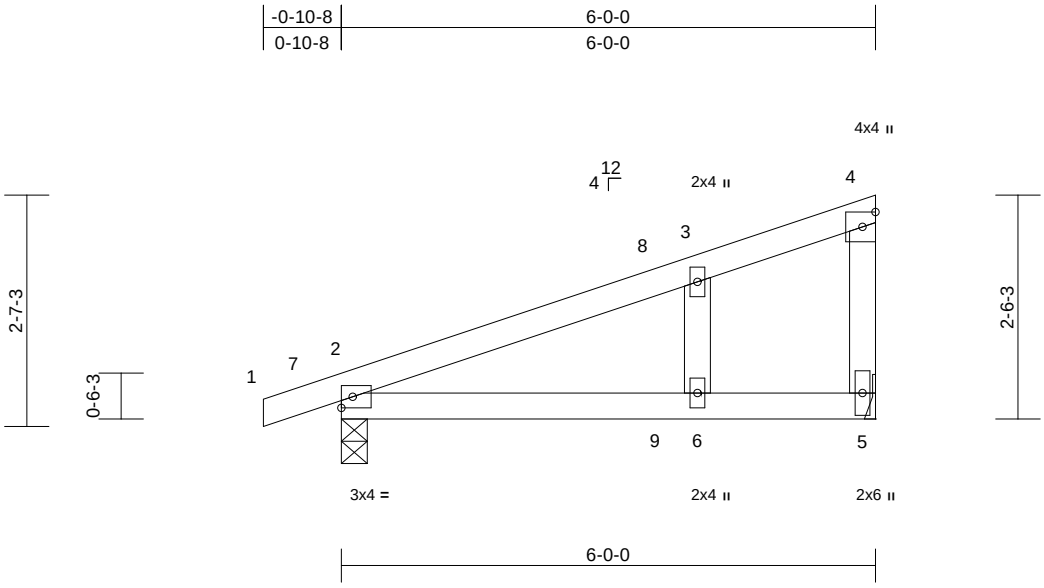
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing
J0325-1589	M9	Roof Special Structural Gable	1	1	I73797700 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 E Aug 30 2023 Print: 8.630 E Aug 30 2023 MiTek Industries, Inc. Thu May 29 14:28:17 ID:btRAI72F7f7VJzclHqi7k7zgvFp-YWn4HXjnPY4QBny0WwN9vgdnmWKEZ2ysNitZJxzBn9i



Scale = 1:25.9

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	0.50	Vert(LL)	0.21	2-6	>320	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.11	2-6	>643	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	n/a	-	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 25 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-8, 5= Mechanical
Max Horiz 2=106 (LC 8)
Max Uplift 2=-166 (LC 8), 5=-227 (LC 8)
Max Grav 2=295 (LC 1), 5=774 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 4-5=-116/261

NOTES
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 3-6-5, Interior (1) 3-6-5 to 5-10-4 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable studs spaced at 2-0-0 oc.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 166 lb uplift at joint 2 and 227 lb uplift at joint 5.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 551 lb down and 107 lb up at 5-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-60, 2-5=-20
Concentrated Loads (lb)
Vert: 5=-551 (F)

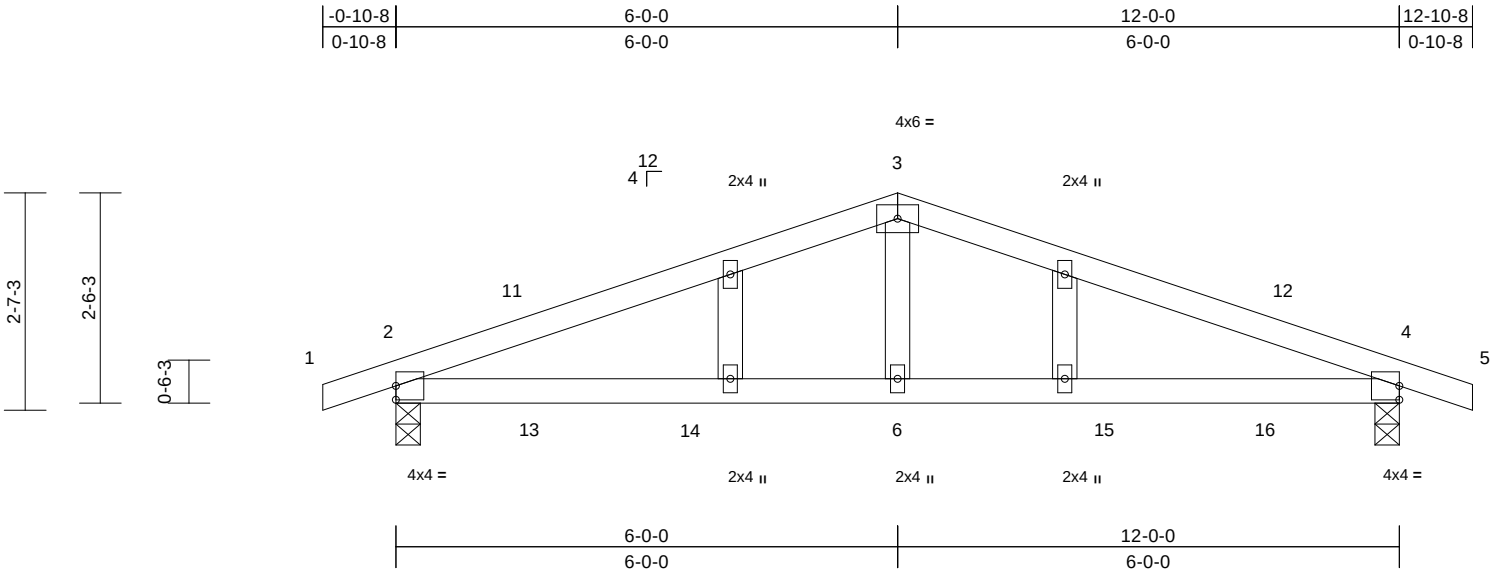
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	P1	GABLE	1	1	Job Reference (optional)	I73797701

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:21 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:27.6

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	0.59	Vert(LL)	0.15	2-6	>933	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.07	4-6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horz(CT)	-0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 46 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 4-6-8 oc bracing.

REACTIONS (size) 2=0-3-8, 4=0-3-8
Max Horiz 2=46 (LC 12)
Max Uplift 2=-292 (LC 8), 4=-292 (LC 9)
Max Grav 2=530 (LC 1), 4=530 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/5, 2-3=-809/1709, 3-4=-809/1709, 4-5=0/5
BOT CHORD 2-6=-1495/700, 4-6=-1495/700
WEBS 3-6=-707/281

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 3-6-5, Exterior(2N) 3-6-5 to 6-0-0, Corner(3R) 6-0-0 to 10-4-13, Exterior(2N) 10-4-13 to 12-10-8 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 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.1 crushing capacity of 565 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 292 lb uplift at joint 2 and 292 lb uplift at joint 4.

LOAD CASE(S) Standard

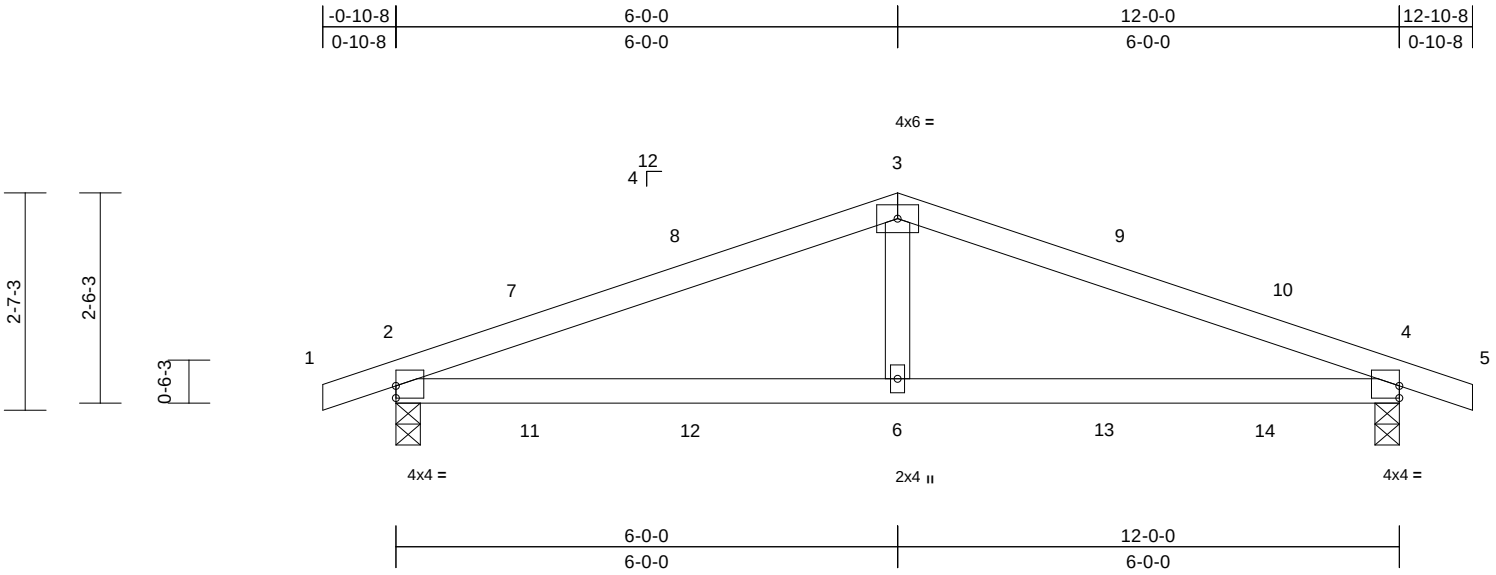
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	P2	COMMON	4	1	Job Reference (optional)	I73797702

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:22 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:27.6

Plate Offsets (X, Y): [2:Edge,0-1-12], [4:Edge,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	0.49	Vert(LL)	0.14	2-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.07	4-6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	-0.02	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 43 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 5-2-14 oc bracing.

REACTIONS (size) 2=0-3-8, 4=0-3-8
Max Horiz 2=-27 (LC 17)
Max Uplift 2=-205 (LC 8), 4=-205 (LC 9)
Max Grav 2=530 (LC 1), 4=530 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/5, 2-3=-809/1320, 3-4=-809/1320, 4-5=0/5
BOT CHORD 2-6=-1157/700, 4-6=-1157/700
WEBS 3-6=-558/281

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 3-6-5, Interior (1) 3-6-5 to 6-0-0, Exterior(2R) 6-0-0 to 10-4-13, Interior (1) 10-4-13 to 12-10-8 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 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.1 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 205 lb uplift at joint 2 and 205 lb uplift at joint 4.

LOAD CASE(S) Standard

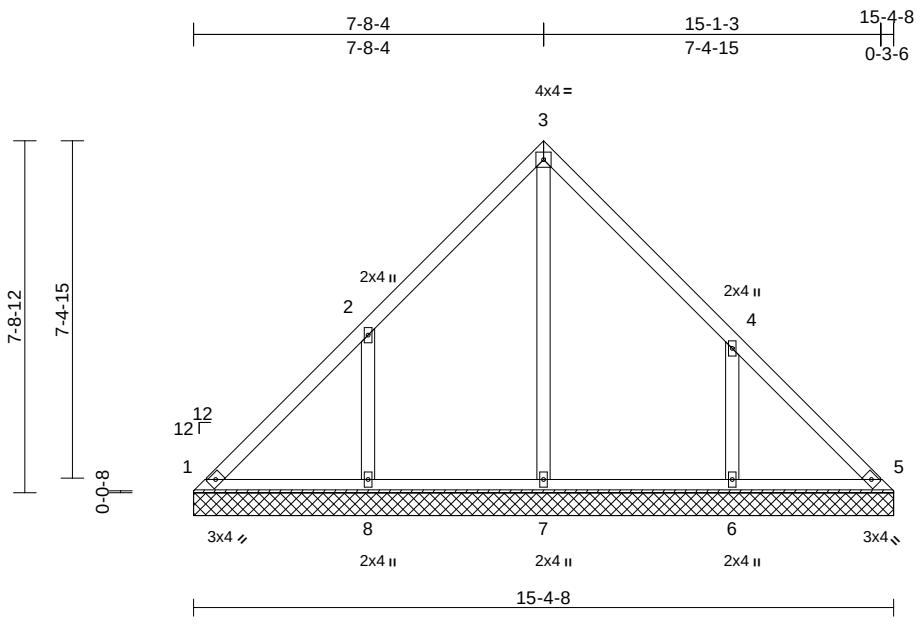
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	VC-1	Valley	1	1	Job Reference (optional)	I73797703

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:22 ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:50.6

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	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 74 lb	FT = 20%

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

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

REACTIONS (size) 1=15-4-8, 5=15-4-8, 6=15-4-8, 7=15-4-8, 8=15-4-8
Max Horiz 1=-177 (LC 8)
Max Uplift 1=-28 (LC 8), 5=-2 (LC 9), 6=-185 (LC 13), 8=-184 (LC 12)
Max Grav 1=183 (LC 20), 5=148 (LC 19), 6=402 (LC 20), 7=212 (LC 22), 8=399 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-175/141, 2-3=-188/155, 3-4=-182/148, 4-5=-137/110
BOT CHORD 1-8=-104/137, 7-8=-104/137, 6-7=-104/137, 5-6=-104/137
WEBS 3-7=-134/7, 2-8=-406/300, 4-6=-414/307

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-4-4 to 4-9-0, Interior (1) 4-9-0 to 7-8-12, Exterior(2R) 7-8-12 to 11-10-8, Interior (1) 11-10-8 to 15-1-5 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 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 0.0psf on the bottom chord in all areas where a rectangle 0-00 tall by 0-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 1, 2 lb uplift at joint 5, 184 lb uplift at joint 8 and 185 lb uplift at joint 6.

LOAD CASE(S) Standard

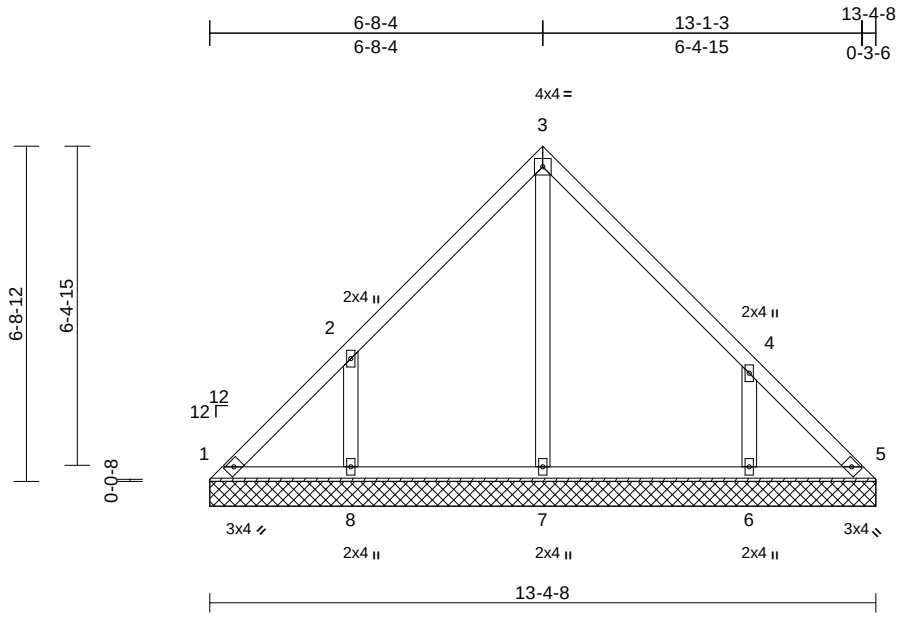
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	VC-2	Valley	1	1	Job Reference (optional)	I73797704

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:22 ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:46.3

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	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	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	IRC2021/TPI2014	Matrix-S							Weight: 62 lb	FT = 20%

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

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

REACTIONS (size) 1=13-4-8, 5=13-4-8, 6=13-4-8, 7=13-4-8, 8=13-4-8
Max Horiz 1=-153 (LC 10)
Max Uplift 1=-36 (LC 8), 5=-19 (LC 11), 6=-168 (LC 13), 8=-163 (LC 12)
Max Grav 1=147 (LC 20), 5=111 (LC 19), 6=361 (LC 20), 7=222 (LC 1), 8=347 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-158/125, 2-3=-168/133, 3-4=-165/128, 4-5=-128/107
BOT CHORD 1-8=-79/111, 7-8=-79/111, 6-7=-79/111, 5-6=-79/111
WEBS 3-7=-138/0, 2-8=-365/272, 4-6=-385/288

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-4-4 to 4-9-0, Interior (1) 4-9-0 to 6-8-12, Exterior(2R) 6-8-12 to 10-10-8, Interior (1) 10-10-8 to 13-1-5 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 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 0.0psf on the bottom chord in all areas where a rectangle 0-00 tall by 0-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 1, 19 lb uplift at joint 5, 163 lb uplift at joint 8 and 168 lb uplift at joint 6.

LOAD CASE(S) Standard

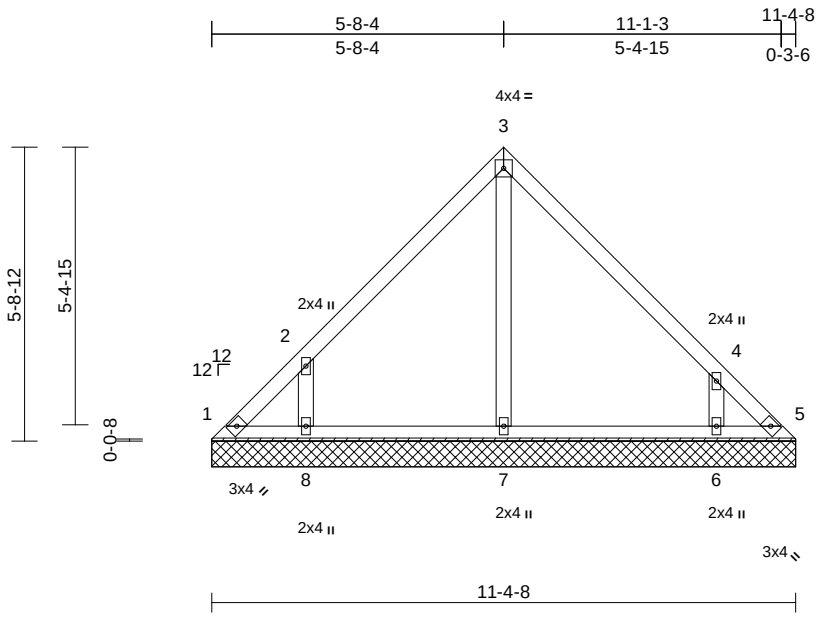
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	VC-3	Valley	1	1	Job Reference (optional)	I73797705

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:22 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:44.9

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	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 51 lb	FT = 20%

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

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

REACTIONS (size) 1=11-4-8, 5=11-4-8, 6=11-4-8, 7=11-4-8, 8=11-4-8
Max Horiz 1=-129 (LC 8)
Max Uplift 1=-65 (LC 10), 5=-79 (LC 11), 6=-172 (LC 13), 8=-154 (LC 12)
Max Grav 1=110 (LC 9), 5=108 (LC 13), 6=362 (LC 20), 7=223 (LC 1), 8=323 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-151/119, 2-3=-160/112, 3-4=-157/108, 4-5=-156/140
BOT CHORD 1-8=-56/86, 7-8=-56/86, 6-7=-56/86, 5-6=-56/86
WEBS 3-7=-137/0, 2-8=-355/268, 4-6=-406/308

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-4-4 to 4-9-0, Interior (1) 4-9-0 to 5-8-12, Exterior(2R) 5-8-12 to 9-10-8, Interior (1) 9-10-8 to 11-1-5 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 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 0.0psf on the bottom chord in all areas where a rectangle 0-00 tall by 0-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 1, 79 lb uplift at joint 5, 154 lb uplift at joint 8 and 172 lb uplift at joint 6.

LOAD CASE(S) Standard

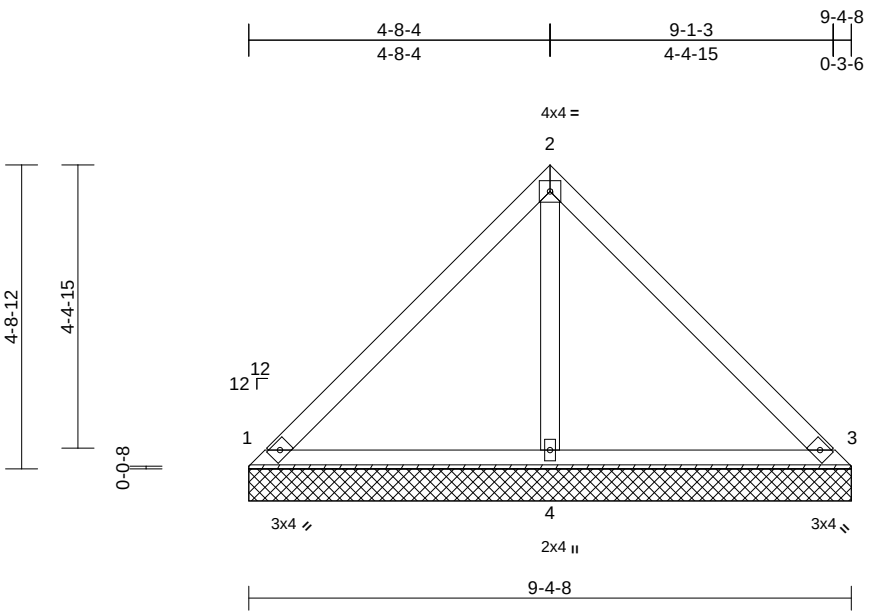
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	VC-4	Valley	1	1	Job Reference (optional)	I73797706

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:22 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:35.9

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	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 38 lb	FT = 20%

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

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

REACTIONS (size) 1=9-4-8, 3=9-4-8, 4=9-4-8
Max Horiz 1=105 (LC 11)
Max Uplift 1=-26 (LC 13), 3=-26 (LC 13)
Max Grav 1=199 (LC 1), 3=199 (LC 1), 4=303 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-174/101, 2-3=-164/125
BOT CHORD 1-4=-27/77, 3-4=-27/77
WEBS 2-4=-172/116

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 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 0.0psf on the bottom chord in all areas where a rectangle 0-00 tall by 0-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 1 and 26 lb uplift at joint 3.

LOAD CASE(S) Standard

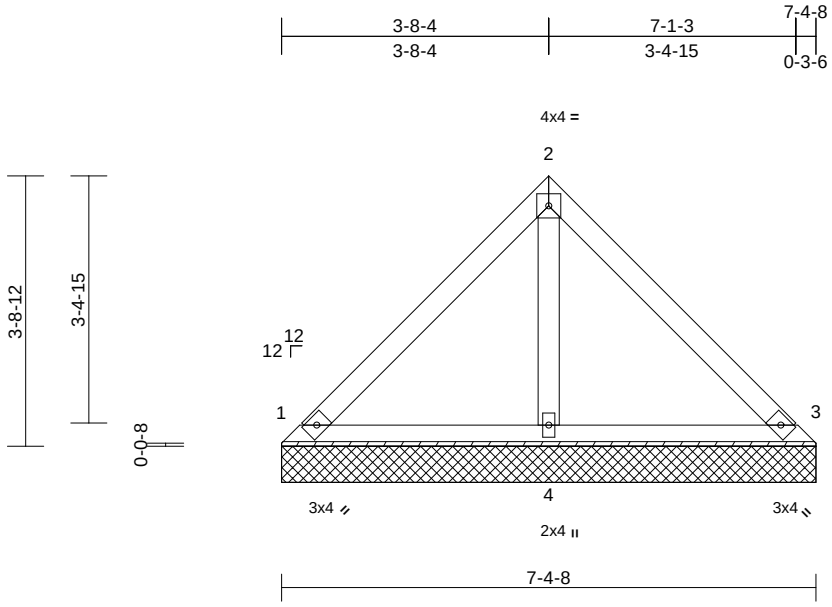
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing
J0325-1589	VC-5	Valley	1	1	I73797707 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:22 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:31.8

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	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	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	IRC2021/TPI2014	Matrix-P							Weight: 30 lb	FT = 20%

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

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

REACTIONS (size) 1=7-4-8, 3=7-4-8, 4=7-4-8
Max Horiz 1=-81 (LC 8)
Max Uplift 1=-29 (LC 13), 3=-29 (LC 13)
Max Grav 1=165 (LC 1), 3=165 (LC 1), 4=211 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-123/60, 2-3=-111/60
BOT CHORD 1-4=-23/55, 3-4=-23/55
WEBS 2-4=-127/47

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 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 0.0psf on the bottom chord in all areas where a rectangle 0-00 tall by 0-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 1 and 29 lb uplift at joint 3.

LOAD CASE(S) Standard

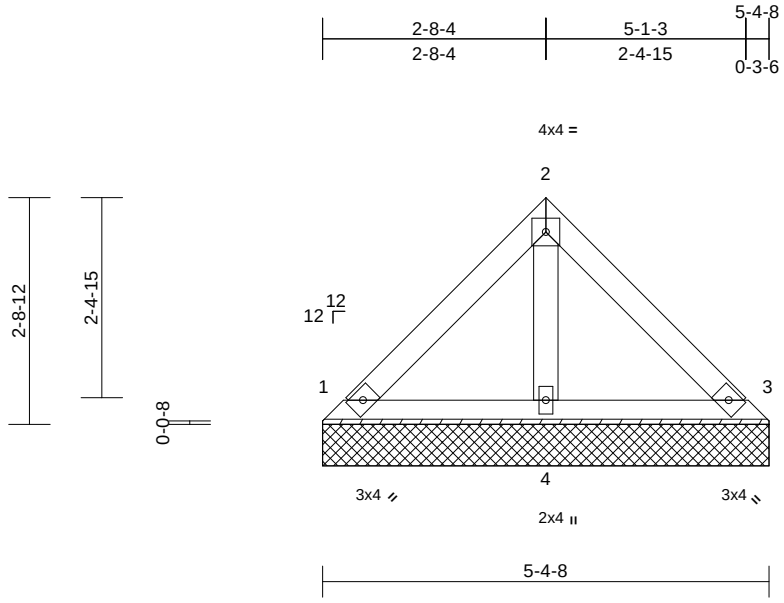
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	VC-6	Valley	1	1	Job Reference (optional)	I73797708

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:22 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:27.8

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	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 21 lb	FT = 20%

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

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

REACTIONS (size) 1=5-4-8, 3=5-4-8, 4=5-4-8
Max Horiz 1=-57 (LC 8)
Max Uplift 1=-21 (LC 13), 3=-21 (LC 13)
Max Grav 1=116 (LC 1), 3=116 (LC 1), 4=149 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-87/67, 2-3=-78/85
BOT CHORD 1-4=-16/46, 3-4=-16/46
WEBS 2-4=-89/80

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 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 0.0psf on the bottom chord in all areas where a rectangle 0-00 tall by 0-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 1 and 21 lb uplift at joint 3.

LOAD CASE(S) Standard

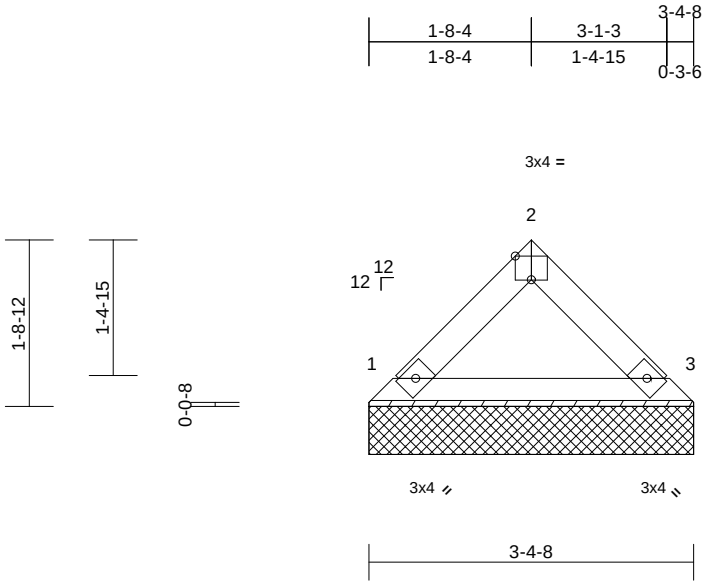
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	VC-7	Valley	1	1	Job Reference (optional)	I73797709

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:22 ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:24

Plate Offsets (X, Y): [2:0-2-0,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	0.06	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	IRC2021/TPI2014	Matrix-P							Weight: 11 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-5-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-4-8, 3=3-4-8
Max Horiz 1=33 (LC 9)
Max Uplift 1=-4 (LC 13), 3=-4 (LC 12)
Max Grav 1=110 (LC 1), 3=110 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-82/40, 2-3=-82/40
BOT CHORD 1-3=-8/47

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 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 0.0psf on the bottom chord in all areas where a rectangle 0-00 tall by 0-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 1 and 4 lb uplift at joint 3.

LOAD CASE(S) Standard

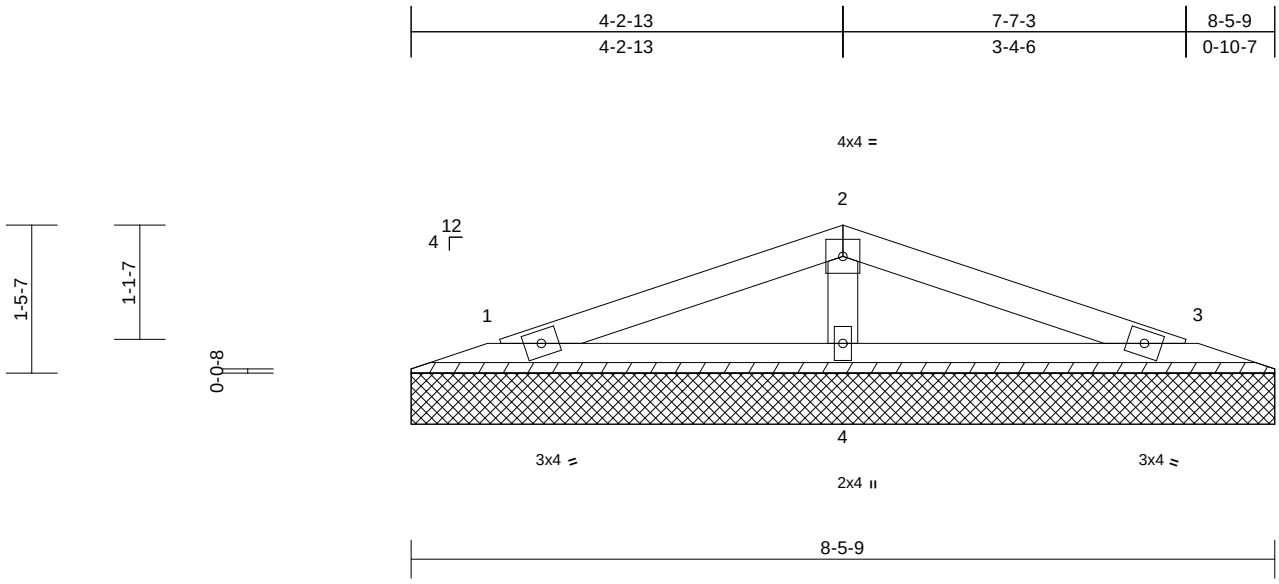
May 29,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 24 Ducks Landing	
J0325-1589	VP-1	Valley	1	1	Job Reference (optional)	I73797710

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.63 S Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Wed May 28 12:12:22 Page: 1
ID:btRAI72F7f7VJzclHqi7k7zgvFp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:22.6

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	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 24 lb	FT = 20%

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

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

REACTIONS (size) 1=8-5-9, 3=8-5-9, 4=8-5-9
Max Horiz 1=-14 (LC 17)
Max Uplift 1=-21 (LC 8), 3=-23 (LC 9)
Max Grav 1=130 (LC 1), 3=130 (LC 1), 4=277 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-39/39, 2-3=-39/45
BOT CHORD 1-4=0/14, 3-4=0/14
WEBS 2-4=-193/230

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 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 30.0psf 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 SP No.1 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 1 and 23 lb uplift at joint 3.

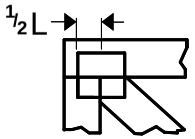
LOAD CASE(S) Standard

May 29,2025

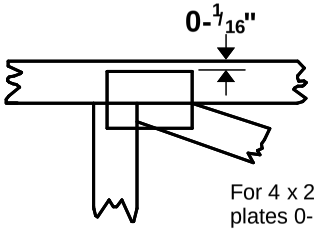
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

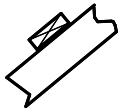
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

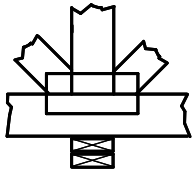
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

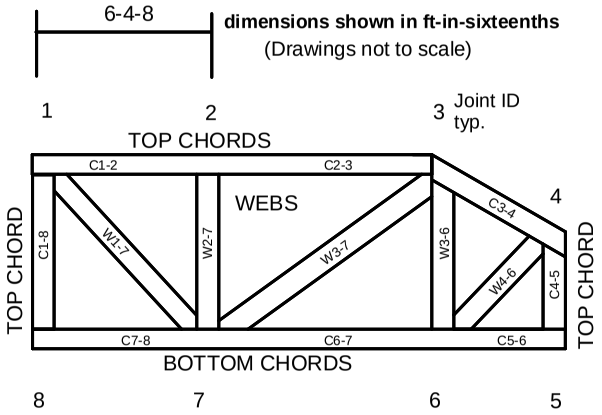


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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.