ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J0325-1347
Lot 1 Mabry Ridge

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: I71948618 thru I71948642

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

North Carolina COA: C-0844

March 12,2025

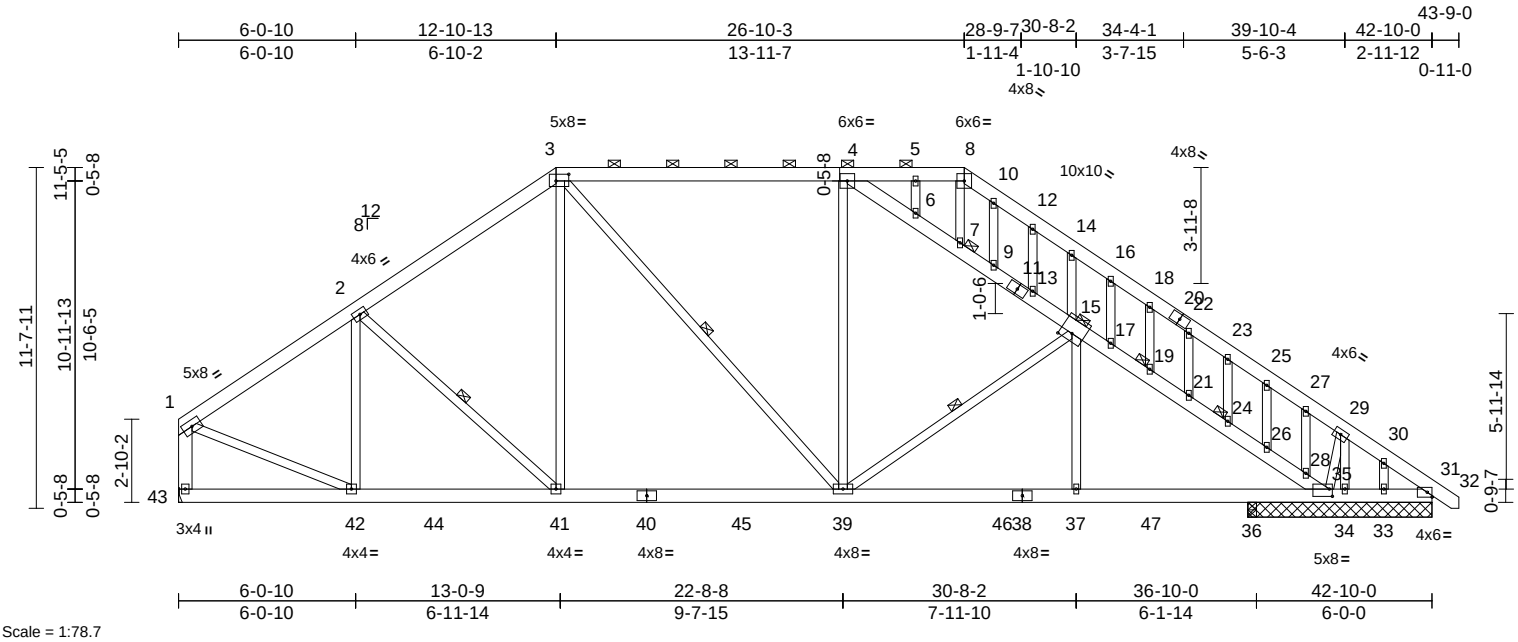
Gilbert, Eric

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 1 Mabry Ridge
J0325-1347	A1-GE	GABLE	1	1	I71948618
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:18 Page: 1
ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:78.7

Plate Offsets (X, Y): [3:0-5-4,0-2-12], [15:0-5-0,0-3-0], [35:0-1-4,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.15	39-41	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.22	39-41	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.38	Horz(CT)	0.05	31	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.04	37-39	>999	240	Weight: 416 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except* 43-1:2x6 SP No.1
OTHERS 2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-6-11 oc purlins, except end verticals, and 2-0-0 oc purlins (5-3-5 max.): 3-8, 4-35.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-41, 3-39, 15-39
JOINTS 1 Brace at Jt(s): 15, 7, 19, 24

REACTIONS (size) 31=6-3-8, 33=6-3-8, 34=6-3-8, 35=6-3-8, 36=0-3-8, 43= Mechanical
Max Horiz 43=-325 (LC 8)
Max Uplift 33=-66 (LC 13), 34=-467 (LC 20), 35=-1035 (LC 13), 43=-224 (LC 12)
Max Grav 31=418 (LC 22), 33=66 (LC 11), 34=498 (LC 13), 35=1928 (LC 20), 36=372 (LC 2), 43=1855 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-1883/274, 2-3=-1933/365, 3-4=-1716/377, 4-5=-348/129, 5-8=-338/128, 8-10=-359/119, 10-12=-408/112, 12-14=-365/46, 14-16=-381/0, 16-18=-380/0, 18-22=-408/0, 22-23=-439/0, 23-25=-474/0, 25-27=-517/0, 27-29=-470/7, 29-30=-480/32, 30-31=-580/10, 31-32=0/14, 1-43=-1752/257, 4-6=-1672/333, 6-7=-1667/329, 7-9=-1647/330, 9-13=-1631/325, 13-15=-1694/371, 15-17=-2015/418, 17-19=-2074/467, 19-21=-2081/473, 21-24=-2100/489, 24-26=-2119/504, 26-28=-2118/510, 28-35=-2278/597
BOT CHORD 42-43=-280/333, 41-42=-314/1615, 39-41=-263/1570, 37-39=-91/2029, 36-37=-91/2029, 35-36=-91/2029, 34-35=-29/452, 33-34=-29/452, 31-33=-29/452
WEBS 2-42=-394/137, 2-41=-229/244, 3-39=-209/364, 3-41=-61/566, 4-39=-3/568, 15-37=0/379, 15-39=-545/241, 1-42=-148/1564, 7-8=-12/68, 5-6=-14/18, 9-10=-16/34, 12-13=-139/106, 16-17=-140/117, 18-19=-19/15, 21-22=-48/39, 23-24=-45/37, 25-26=-9/17, 27-28=-344/204, 29-34=-119/0, 30-33=-5/75, 14-15=-91/120, 29-35=-57/153

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; Gable Roof; Hip Truss; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-2-12 to 4-7-9, Interior (1) 4-7-9 to 12-10-13, Exterior (2R) 12-10-13 to 17-3-9, Interior (1) 17-3-9 to 26-10-3, Exterior(2R) 26-10-3 to 31-3-0, Interior (1) 31-3-0 to 43-7-7 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 2x4 MT20 unless otherwise indicated.
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) Bearings are assumed to be: , Joint 35 SP No.1 crushing capacity of 565 psi, Joint 36 SP No.1 crushing capacity of 565 psi.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 224 lb uplift at joint 43, 467 lb uplift at joint 34, 66 lb uplift at joint 33 and 1035 lb uplift at joint 35.
10) 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

March 12,2025

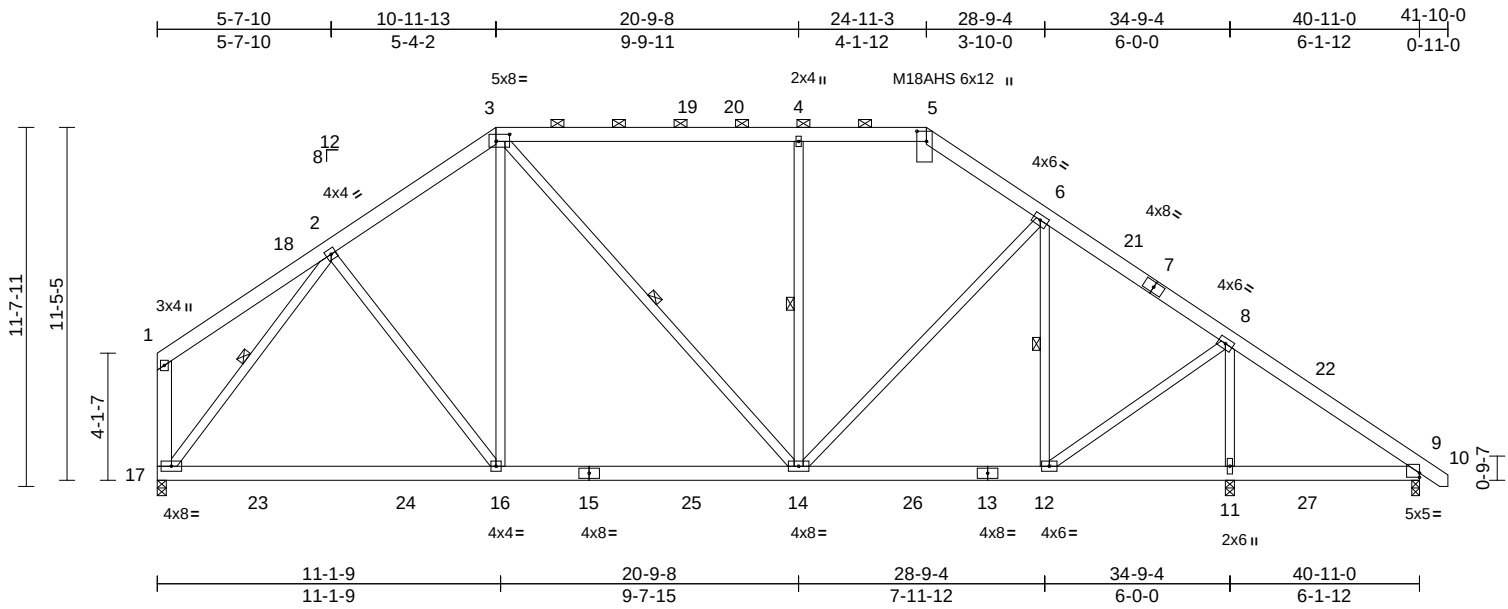
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	A2	Piggyback Base	6	1	I71948619 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:19 ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:74.7

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

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	0.64	Vert(LL)	-0.20	16-17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.30	16-17	>999	240	M18AHS	186/179
BCLL	0.0*	Rep Stress Incr	NO	WB	0.82	Horz(CT)	0.02	11	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.07	14-16	>999	240	Weight: 338 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-11-5 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 3-14, 4-14, 2-17, 6-12

REACTIONS (size) 9=0-3-0, 11=0-3-8, 17=0-3-8
Max Horiz 17=-262 (LC 8)
Max Uplift 9=-633 (LC 27), 11=-97 (LC 13), 17=-28 (LC 12)
Max Grav 9=56 (LC 12), 11=2875 (LC 2), 17=1588 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-210/89, 2-3=-1399/266, 3-4=-1039/263, 4-5=-1038/263, 5-6=-1137/264, 6-8=-773/119, 8-9=-276/1348, 9-10=0/14, 1-17=-239/100
BOT CHORD 16-17=-151/1055, 14-16=-88/1178, 12-14=0/524, 11-12=-1021/260, 9-11=-1021/260
WEBS 2-16=-68/378, 3-16=-4/509, 3-14=-223/85, 4-14=-306/182, 6-14=-162/860, 8-12=-157/1833, 8-11=-2630/426, 2-17=-1430/184, 6-12=-752/202

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) 0-2-12 to 4-7-9, Interior (1) 4-7-9 to 10-11-13, Exterior(2R) 10-11-13 to 17-2-7, Interior (1) 17-2-7 to 24-11-3, Exterior(2R) 24-11-3 to 31-1-14, Interior (1) 31-1-14 to 41-8-7 zone; porch right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) The Fabrication Tolerance at joint 5 = 0%
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, with BCDL = 10.0psf.
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 97 lb uplift at joint 11, 28 lb uplift at joint 17 and 633 lb uplift at joint 9.
10) 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

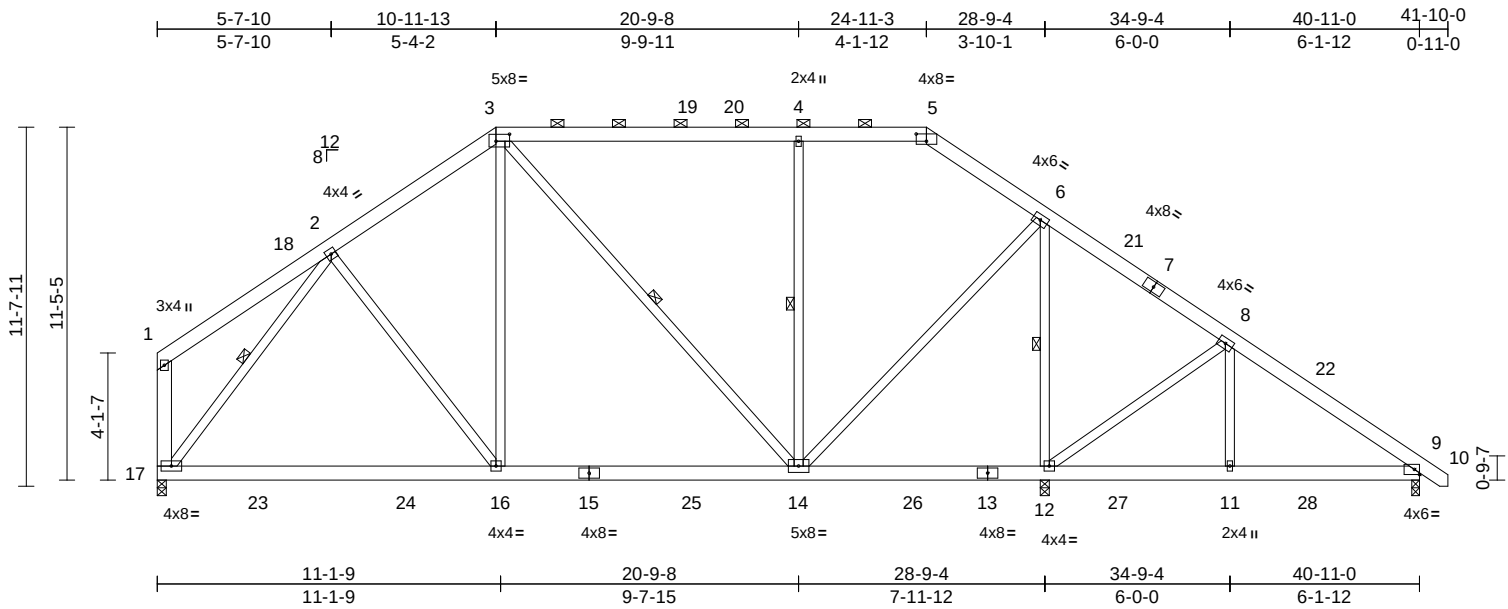
March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	A3	Piggyback Base	3	1	I71948620 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:19 ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:74.7

Plate Offsets (X, Y): [3:0-5-4,0-2-12], [5:0-4-0,0-2-13]

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	0.49	Vert(LL)	-0.19	16-17	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.28	16-17	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.59	Horz(CT)	0.01	12	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.04	14-16	>999	240	Weight: 338 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 3-14, 4-14, 6-12, 2-17

REACTIONS (size) 9=0-3-0, 12=0-3-8, 17=0-3-8
Max Horiz 17=-262 (LC 8)
Max Uplift 9=-74 (LC 8), 12=-178 (LC 8), 17=-21 (LC 12)
Max Grav 9=274 (LC 26), 12=2520 (LC 2), 17=1273 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-202/87, 2-3=-1020/199, 3-4=-468/168, 4-5=-468/168, 5-6=-565/170, 6-8=-171/710, 8-9=-132/420, 9-10=0/14, 1-17=-231/98
BOT CHORD 16-17=-148/843, 14-16=-84/888, 12-14=-591/315, 11-12=-296/113, 9-11=-296/113
WEBS 2-16=-85/236, 3-16=-8/604, 3-14=-565/88, 4-14=-464/188, 6-14=-187/1484, 6-12=-1838/384, 2-17=-1045/122, 8-11=-292/238, 8-12=-529/445

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) 0-2-12 to 4-7-9, Interior (1) 4-7-9 to 10-11-13, Exterior(2R) 10-11-13 to 17-2-7, Interior (1) 17-2-7 to 24-11-3, Exterior(2R) 24-11-3 to 31-1-14, Interior (1) 31-1-14 to 41-8-7 zone; porch right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 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 178 lb uplift at joint 12, 21 lb uplift at joint 17 and 74 lb uplift at joint 9.
8) 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

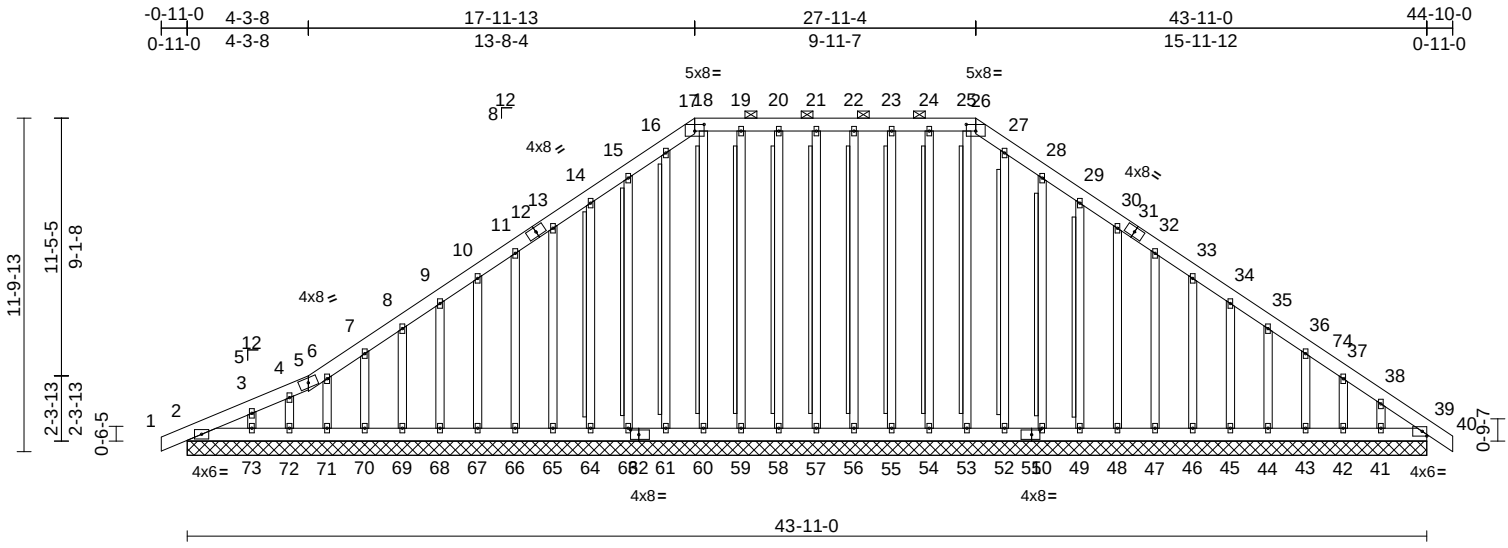
March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	B1-GE	Piggyback Base Supported Gable	1	1	I71948621 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. Wed Mar 12 09:50:26 Page: 1
ID:2GNsYO62BI49KgBFP3SlmayOXVO-aCj61VpYKX9gExpsQoa?ecu4NhVDy7W87Z4inzzbteD



Scale = 1:81.6

Plate Offsets (X, Y): [17:0-4-0,0-2-13], [26:0-4-0,0-2-13], [51:0-3-8,0-2-0], [62:0-3-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	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	0.09	Horz(CT)	0.01	39	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 530 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 17-26.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 25-53, 24-54, 23-55, 22-56, 21-57, 20-58, 19-59, 18-60, 16-61, 15-63, 14-64, 27-52, 28-50, 29-49
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS All bearings 43-11-0.
(lb) - Max Horiz 2=349 (LC 11)
Max Uplift All uplift 100 (lb) or less at joint(s) 39, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73 except 2=-109 (LC 8)
Max Grav All reactions 250 (lb) or less at joint (s) 2, 39, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73

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

TOP CHORD 2-3=-311/201, 3-4=-265/211, 13-14=-140/281, 14-15=-127/340, 15-16=-140/396, 16-17=-143/401, 17-18=-130/383, 18-19=-130/383, 19-20=-130/383, 20-21=-130/383, 21-22=-130/383, 22-23=-130/383, 23-24=-130/383, 24-25=-130/383, 25-26=-130/383, 26-27=-143/401, 27-28=-140/396, 28-29=-121/340, 29-30=-100/281, 38-39=-252/141
BOT CHORD 2-73=-117/272, 72-73=-117/272, 71-72=-117/272, 70-71=-117/272, 69-70=-117/272, 68-69=-117/272, 67-68=-117/272, 66-67=-117/272, 65-66=-117/272, 64-65=-117/272, 63-64=-117/272, 62-63=-117/272, 61-62=-117/272, 60-61=-117/272, 59-60=-117/272, 58-59=-117/272, 57-58=-117/272, 56-57=-117/272, 55-56=-117/272, 54-55=-117/272, 53-54=-117/272, 52-53=-117/272, 51-52=-117/272, 50-51=-117/272, 49-50=-117/272, 48-49=-117/272, 47-48=-117/272, 46-47=-117/272, 45-46=-117/272, 44-45=-117/272, 43-44=-117/272, 42-43=-117/272, 41-42=-117/272, 39-41=-117/272

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; Gable Roof; Common Truss; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-11-0 to 3-7-8, Exterior(2N) 3-7-8 to 17-11-13, Corner (3R) 17-11-13 to 22-3-8, Exterior(2N) 22-3-8 to 27-11-4, Corner(3R) 27-11-4 to 32-4-0, Exterior(2N) 32-4-0 to 44-10-0 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) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

March 12,2025

Continued on page 2

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

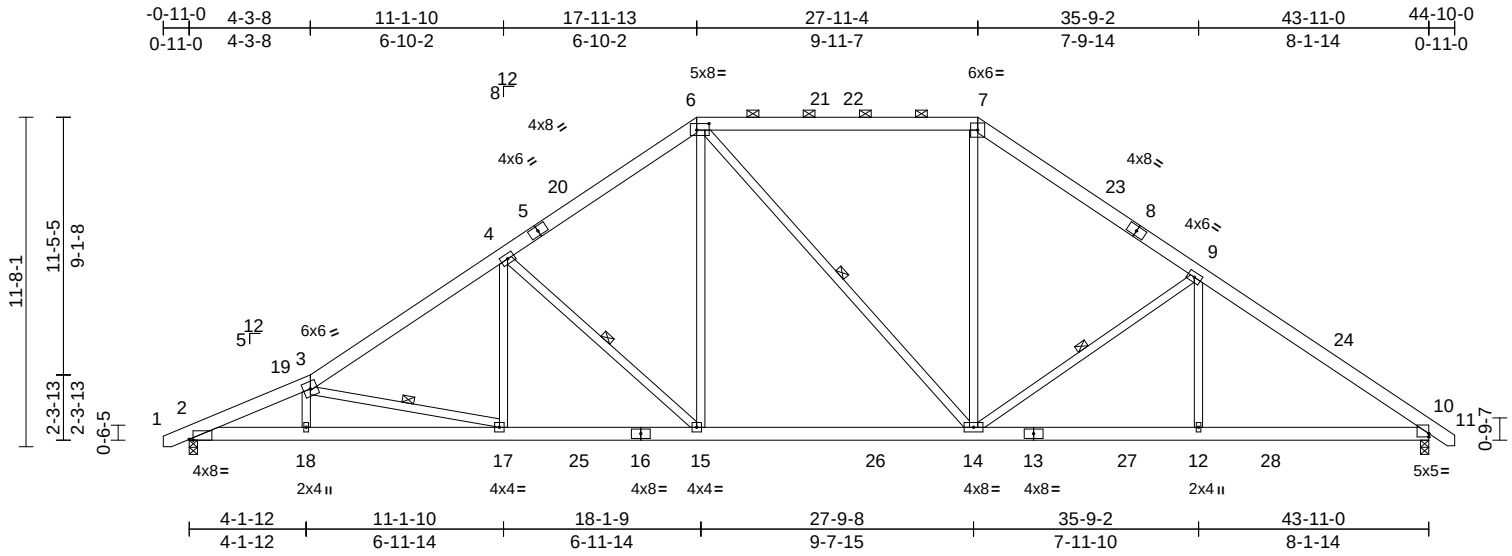
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 39, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 50, 49, 48, 47, 46, 45, 44, 43, 42, 41 except (jt=lb) 2=109.
11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	B2	Piggyback Base	6	1	I71948622 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:20 ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:81.6

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

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	0.56	Vert(LL)	-0.19	14-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.33	14-15	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.11	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 335 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 3-8-0 oc purlins, except 2-0-0 oc purlins (4-9-10 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 7-3-12 oc bracing.
WEBS 1 Row at midpt 6-14, 3-17, 9-14, 4-15

REACTIONS (size) 2=0-3-8, 10=0-3-8
Max Horiz 2=315 (LC 9)
Max Uplift 2=-234 (LC 10), 10=-218 (LC 11)
Max Grav 2=1991 (LC 2), 10=2045 (LC 18)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/16, 2-3=-4341/1345, 3-4=-3181/1094, 4-6=-2436/1001, 6-7=-1873/920, 7-9=-2354/963, 9-10=-2972/985, 10-11=0/14
BOT CHORD 2-18=-1146/4109, 17-18=-1154/4100, 15-17=-691/2751, 14-15=-384/2000, 12-14=-632/2357, 10-12=-632/2357
WEBS 3-18=0/185, 4-17=-69/656, 6-15=-194/1077, 7-14=-130/852, 6-14=-262/175, 9-12=0/412, 3-17=-1396/479, 9-14=-778/335, 4-15=-1036/418

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=5.0psf; h=30ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-9-4 to 3-7-7, Interior (1) 3-7-7 to 13-7-1, Exterior(2R) 13-7-1 to 22-4-8, Interior (1) 22-4-8 to 23-6-8, Exterior(2R) 23-6-8 to 32-3-15, Interior (1) 32-3-15 to 40-3-11, Exterior(2E) 40-3-11 to 44-8-7 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) 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 218 lb uplift at joint 10 and 234 lb uplift at joint 2.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

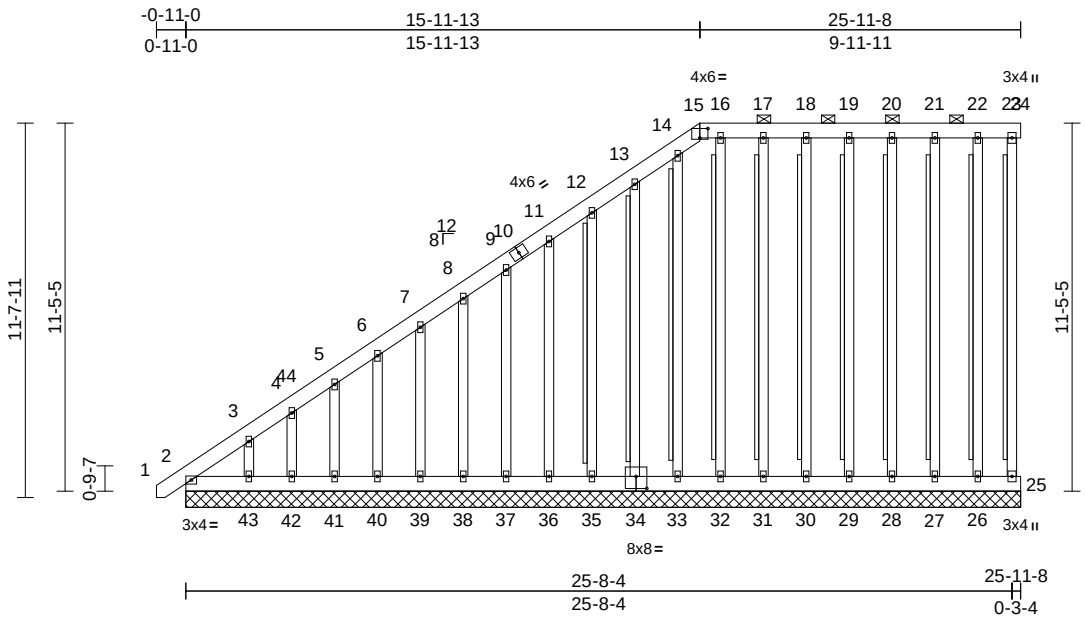
LOAD CASE(S) Standard

March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	C1-GE	GABLE	1	1	I71948623 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:20 Page: 1
ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:71.6

Plate Offsets (X, Y): [15:0-3-0,0-3-8], [34:0-4-0,0-4-8]

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	0.04	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	NO	WB	0.09	Horz(CT)	-0.01	24	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 349 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* 0-0,0-0,0-0,0-0,0-0,0-0,0-0,0-0,0-0,0-0,0-0:2x4 SPF No.2(flat)

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 15-24.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 23-25, 22-26, 21-27, 20-28, 19-29, 18-30, 17-31, 16-32, 14-33, 13-34, 12-35
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=25-11-8, 24=25-11-8, 25=25-11-8, 26=25-11-8, 27=25-11-8, 28=25-11-8, 29=25-11-8, 30=25-11-8, 31=25-11-8, 32=25-11-8, 33=25-11-8, 34=25-11-8, 35=25-11-8, 36=25-11-8, 37=25-11-8, 38=25-11-8, 39=25-11-8, 40=25-11-8, 41=25-11-8, 42=25-11-8, 43=25-11-8
Max Horiz 2=524 (LC 12)
Max Uplift 2=-64 (LC 10), 24=-17 (LC 9), 25=-6 (LC 9), 26=-22 (LC 8), 27=-33 (LC 9), 28=-32 (LC 9), 29=-31 (LC 8), 30=-32 (LC 8), 31=-31 (LC 8), 32=-28 (LC 9), 33=-46 (LC 12), 34=-60 (LC 12), 35=-59 (LC 12), 36=-58 (LC 12), 37=-58 (LC 12), 38=-58 (LC 12), 39=-58 (LC 12), 40=-58 (LC 12), 41=-57 (LC 12), 42=-58 (LC 12), 43=-146 (LC 12)
Max Grav 2=342 (LC 12), 24=30 (LC 1), 25=25 (LC 1), 26=92 (LC 26), 27=111 (LC 1), 28=109 (LC 1), 29=107 (LC 26), 30=108 (LC 26), 31=107 (LC 26), 32=107 (LC 1), 33=106 (LC 1), 34=119 (LC 19), 35=120 (LC 19), 36=118 (LC 19), 37=118 (LC 19), 38=118 (LC 19), 39=118 (LC 19), 40=117 (LC 19), 41=119 (LC 19), 42=108 (LC 19), 43=177 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-3=-616/346, 3-4=-508/280, 4-5=-457/253, 5-6=-408/226, 6-7=-358/199, 7-8=-307/172, 8-9=-257/145, 9-11=-207/118, 11-12=-157/90, 12-13=-107/63, 13-14=-56/36, 14-15=-24/8, 15-16=0/0, 16-17=0/0, 17-18=0/0, 18-19=0/0, 19-20=0/0, 20-21=0/0, 21-22=0/0, 22-23=0/0, 23-24=0/0, 23-25=-17/10
BOT CHORD 2-43=0/0, 42-43=0/0, 41-42=0/0, 40-41=0/0, 39-40=0/0, 38-39=0/0, 37-38=0/0, 36-37=0/0, 35-36=0/0, 33-35=0/0, 32-33=0/0, 31-32=0/0, 30-31=0/0, 29-30=0/0, 28-29=0/0, 27-28=0/0, 26-27=0/0, 25-26=0/0
WEBS 22-26=-66/38, 21-27=-84/49, 20-28=-83/48, 19-29=-81/47, 18-30=-81/48, 17-31=-81/47, 16-32=-80/50, 14-33=-80/63, 13-34=-92/76, 12-35=-92/75, 11-36=-91/74, 9-37=-91/74, 8-38=-91/74, 7-39=-91/74, 6-40=-91/74, 5-41=-90/72, 4-42=-88/79, 3-43=-137/155

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; Gable Roof; Common Truss; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-9-7 to 3-7-6, Exterior(2N) 3-7-6 to 15-11-13, Corner (3R) 15-11-13 to 20-7-8, Exterior(2N) 20-7-8 to 25-11-8 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) Provide adequate drainage to prevent water ponding.

March 12,2025

Continued on page 2

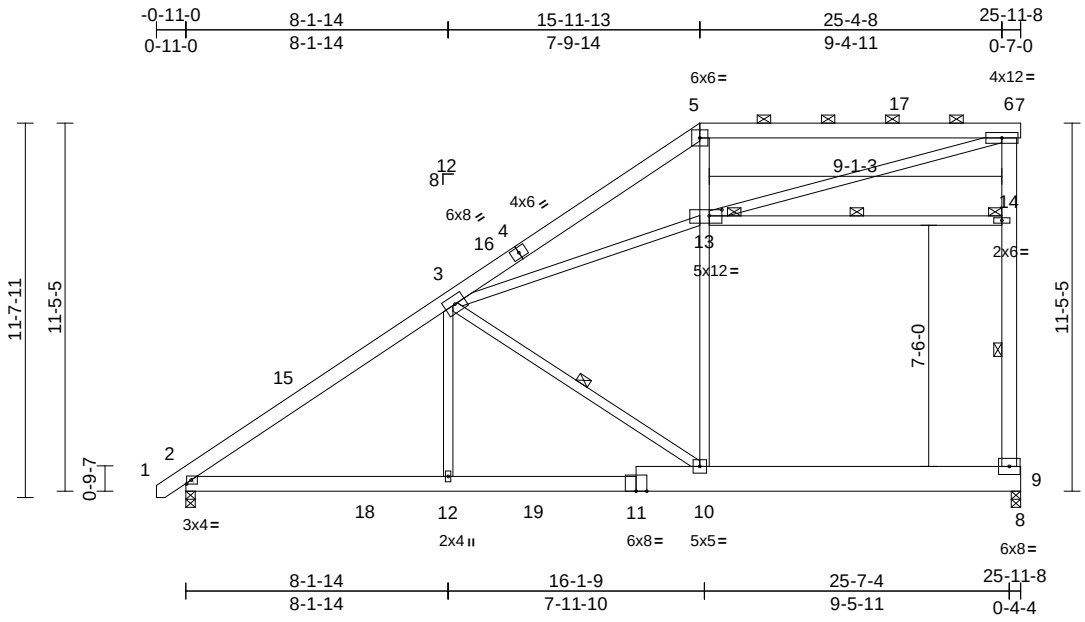
ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 1-4-0 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 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.
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 17 lb uplift at joint 24, 6 lb uplift at joint 25, 64 lb uplift at joint 2, 22 lb uplift at joint 26, 33 lb uplift at joint 27, 32 lb uplift at joint 28, 31 lb uplift at joint 29, 32 lb uplift at joint 30, 31 lb uplift at joint 31, 28 lb uplift at joint 32, 46 lb uplift at joint 33, 60 lb uplift at joint 34, 59 lb uplift at joint 35, 58 lb uplift at joint 36, 58 lb uplift at joint 37, 58 lb uplift at joint 38, 58 lb uplift at joint 39, 58 lb uplift at joint 40, 57 lb uplift at joint 41, 58 lb uplift at joint 42 and 146 lb uplift at joint 43.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
13) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	C2	Piggyback Base	10	1	I71948624 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:20 Page: 1
ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:71.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.21	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.35	10-12	>879	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.81	Horz(CT)	0.02	9	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.12	10-12	>999	240	Weight: 251 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1 *Except* 11-8:2x10 SP No.1
WEBS 2x4 SP No.2 *Except* 6-9:2x6 SP No.1

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-4-2 oc purlins, except end verticals, and 2-0-0 oc purlins (4-4-14 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 9-14, 3-10, 13-14
JOINTS 1 Brace at Jt(s): 13, 14

REACTIONS (size) 2=0-3-8, 9=0-3-8
Max Horiz 2=364 (LC 12)
Max Uplift 2=-24 (LC 12), 9=-124 (LC 9)
Max Grav 2=1363 (LC 19), 9=1393 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-3=-1819/44, 3-5=-3069/477, 5-6=-2551/484, 6-7=0/0, 9-14=-1002/225, 6-14=-1002/225
BOT CHORD 2-12=-314/1492, 10-12=-316/1480, 9-10=-12/93, 8-9=0/0
WEBS 3-12=0/562, 3-10=-1706/375, 10-13=-68/1336, 5-13=-70/1294, 13-14=-118/20, 6-13=-487/2681, 3-13=-486/2475

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) -0-9-7 to 3-7-6, Interior (1) 3-7-6 to 15-11-13, Exterior(2R) 15-11-13 to 22-2-7, Interior (1) 22-2-7 to 25-11-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
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) Bearings are assumed to be: Joint 2 SP No.1 crushing capacity of 565 psi, Joint 9 SP No.1 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 124 lb uplift at joint 9 and 24 lb uplift at joint 2.
7) 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

March 12,2025

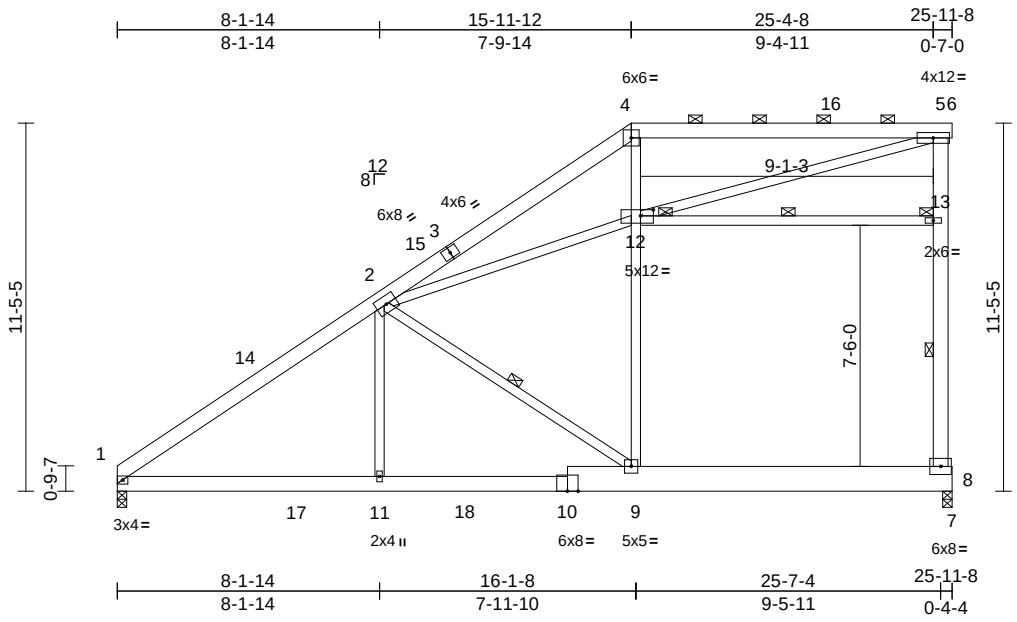
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	C5	Piggyback Base	1	1	I71948625 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:20 ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:71.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.21	9-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.35	9-11	>878	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.81	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.12	9-11	>999	240	Weight: 249 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1 *Except* 10-7:2x10 SP No.1
WEBS 2x4 SP No.2 *Except* 5-8:2x6 SP No.1

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-3-15 oc purlins, except end verticals, and 2-0-0 oc purlins (4-4-14 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 8-13, 2-9, 12-13
JOINTS 1 Brace at Jt(s): 12, 13

REACTIONS (size) 1=0-3-8, 8=0-3-8
Max Horiz 1=358 (LC 12)
Max Uplift 1=-10 (LC 12), 8=-124 (LC 9)
Max Grav 1=1310 (LC 19), 8=1393 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1797/48, 2-4=-3072/479, 4-5=-2554/485, 5-6=0/0, 8-13=-1002/225, 5-13=-1002/225
BOT CHORD 1-11=-314/1496, 9-11=-317/1484, 8-9=-12/93, 7-8=0/0
WEBS 2-11=0/565, 2-9=-1710/376, 9-12=-70/1339, 4-12=-72/1297, 12-13=-118/20, 5-12=-489/2684, 2-12=-487/2477

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) 0-1-12 to 4-6-9, Interior (1) 4-6-9 to 15-11-12, Exterior(2R) 15-11-12 to 22-2-7, Interior (1) 22-2-7 to 25-11-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Provide adequate drainage to prevent water ponding.
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) Bearings are assumed to be: Joint 1 SP No.1 crushing capacity of 565 psi, Joint 8 SP No.1 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 124 lb uplift at joint 8 and 10 lb uplift at joint 1.
7) 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

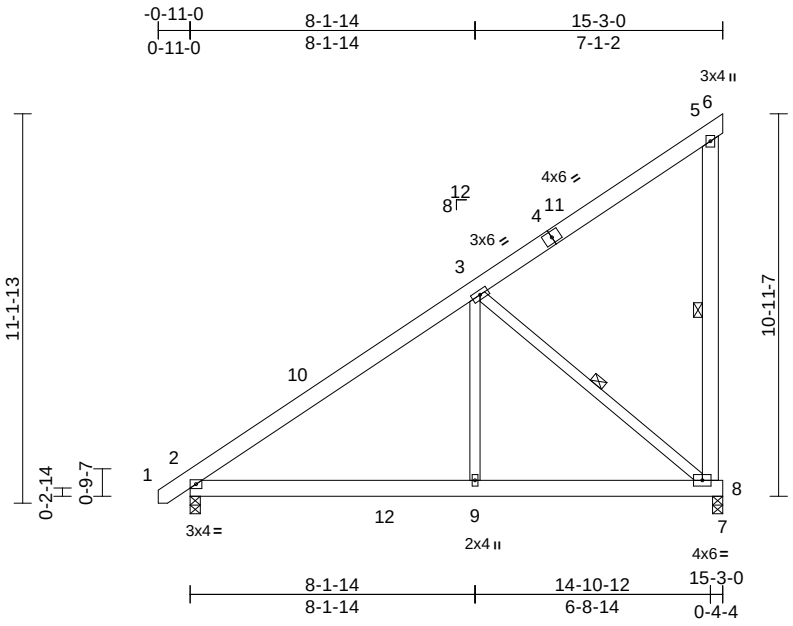
March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	C6	Monopitch	1	1	I71948626 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:20 ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:66

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.04	2-9	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.08	2-9	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.02	2-9	>999	240	Weight: 125 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except* 5-8:2x6 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.
WEBS 1 Row at midpt 5-8, 3-8

REACTIONS (size) 2=0-3-8, 8=0-3-8
Max Horiz 2=345 (LC 12)
Max Uplift 8=-183 (LC 12)
Max Grav 2=763 (LC 19), 8=814 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-3=-773/0, 3-5=-157/85, 5-6=-12/0, 5-8=-185/148
BOT CHORD 2-9=-218/635, 8-9=-218/635, 7-8=0/0
WEBS 3-9=0/450, 3-8=-821/282

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) -0-9-7 to 3-7-6, Interior (1) 3-7-6 to 15-3-0 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 183 lb uplift at joint 8.

LOAD CASE(S) Standard

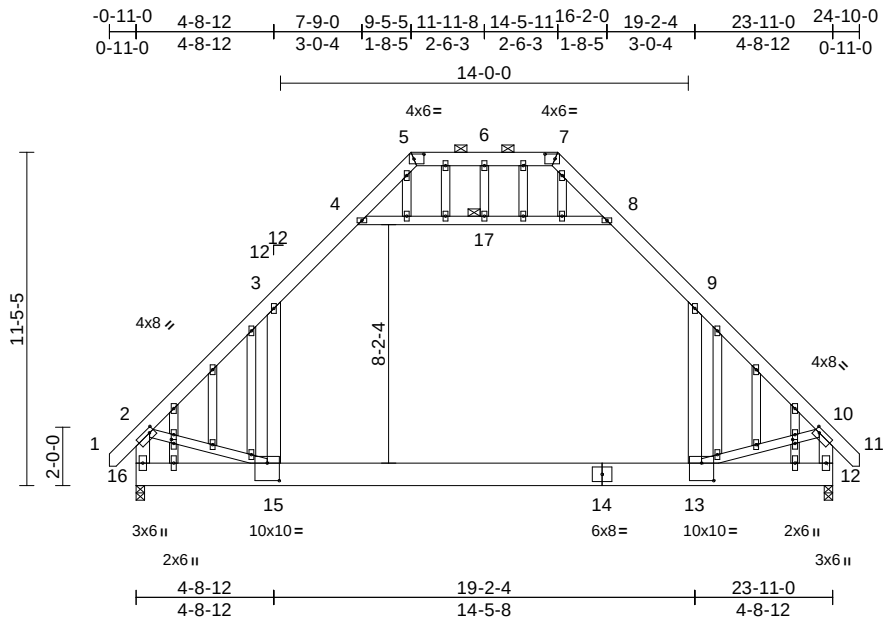
March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	D1-GE	GABLE	1	1	I71948627
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:20 ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:79.1

Plate Offsets (X, Y): [2:0-2-0,0-1-12], [5:0-4-2,0-2-0], [7:0-4-2,0-2-0], [10:0-2-0,0-1-12], [13:0-5-0,0-7-4], [15:0-5-0,0-7-4], [25:0-1-10,0-1-0], [37:0-1-10,0-1-0]

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	0.65	Vert(LL)	-0.31	13-15	>918	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.49	13-15	>570	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.22	Horz(CT)	0.01	12	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.10	13-15	>999	240	Weight: 271 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP 2400F 2.0E *Except* 5-7:2x6 SP No.1
BOT CHORD 2x10 SP 2400F 2.0E
WEBS 2x6 SP No.1 *Except* 4-8:2x4 SP No.1, 17-6,15-2,13-10:2x4 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, and 2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 17

REACTIONS (size) 12=0-3-8, 16=0-3-8
Max Horiz 16=376 (LC 11)
Max Grav 12=1656 (LC 2), 16=1656 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-3=-1884/0, 3-4=-1128/97, 4-5=-275/190, 7-8=-275/190, 8-9=-1128/97, 9-10=-1883/0, 10-11=0/44, 5-6=-66/375, 6-7=-66/375, 2-16=-1856/0, 10-12=-1857/0
BOT CHORD 15-16=-329/590, 13-15=0/1178, 12-13=-82/313
WEBS 3-15=0/930, 9-13=0/930, 4-17=-1379/78, 8-17=-1379/78, 6-17=0/118, 2-15=-24/956, 10-13=-31/961

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; Gable Roof; Hip Truss; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-9-10 to 3-7-3, Interior (1) 3-7-3 to 9-6-7, Exterior(2R) 9-6-7 to 13-11-4, Interior (1) 13-11-4 to 14-4-9, Exterior (2R) 14-4-9 to 18-9-6, Interior (1) 18-9-6 to 24-8-10 zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 1-4-0 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 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.
10) Ceiling dead load (10.0 psf) on member(s). 3-4, 8-9, 4-17, 8-17; Wall dead load (5.0psf) on member(s).3-15, 9-13
11) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 13-15
12) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
14) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

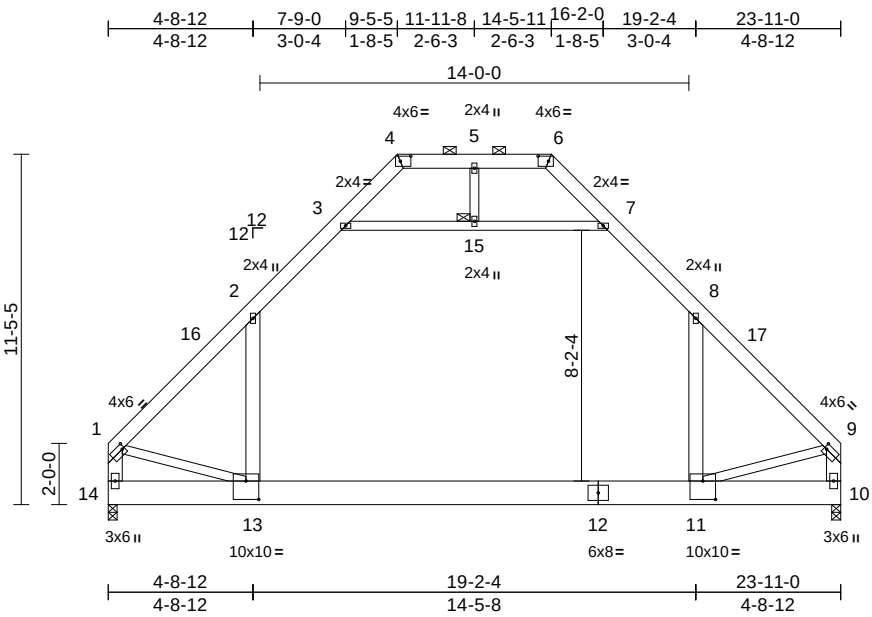
March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	D2	Piggyback Base	10	1	I71948628 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:20 Page: 1
ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:75.2

Plate Offsets (X, Y): [1:0-1-0,0-2-0], [4:0-4-2,0-2-0], [6:0-4-2,0-2-0], [9:0-1-0,0-2-0], [11:0-5-0,0-7-4], [13:0-5-0,0-7-4]

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	0.64	Vert(LL)	-0.31	11-13	>906	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.50	11-13	>561	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.25	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.07	11-13	>999	240	Weight: 229 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP 2400F 2.0E *Except* 4-6:2x6 SP No.1
BOT CHORD 2x10 SP 2400F 2.0E
WEBS 2x6 SP No.1 *Except* 3-7:2x4 SP No.1, 15-5,13-1,11-9:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 15

REACTIONS (size) 10=0-3-8, 14=0-3-8
Max Horiz 14=223 (LC 9)
Max Grav 10=1604 (LC 2), 14=1604 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1875/0, 2-3=-1131/123, 3-4=-268/193, 6-7=-268/193, 7-8=-1131/146, 8-9=-1875/0, 4-5=-59/385, 5-6=-59/385, 1-14=-1825/0, 9-10=-1826/0
BOT CHORD 13-14=-223/404, 11-13=0/1154, 10-11=-41/239
WEBS 2-13=0/899, 8-11=0/899, 3-15=-1391/82, 7-15=-1391/82, 5-15=0/118, 1-13=0/1022, 9-11=0/1025

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) 0-2-12 to 4-8-12, Interior (1) 4-8-12 to 9-6-7, Exterior(2E) 9-6-7 to 14-4-9, Exterior(2R) 14-4-9 to 20-7-4, Interior (1) 20-7-4 to 23-8-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
6) Ceiling dead load (10.0 psf) on member(s). 2-3, 7-8, 3-15, 7-15; Wall dead load (5.0psf) on member(s).2-13, 8-11
7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 11-13
8) All bearings are assumed to be SP 2400F 2.0E crushing capacity of 805 psi.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

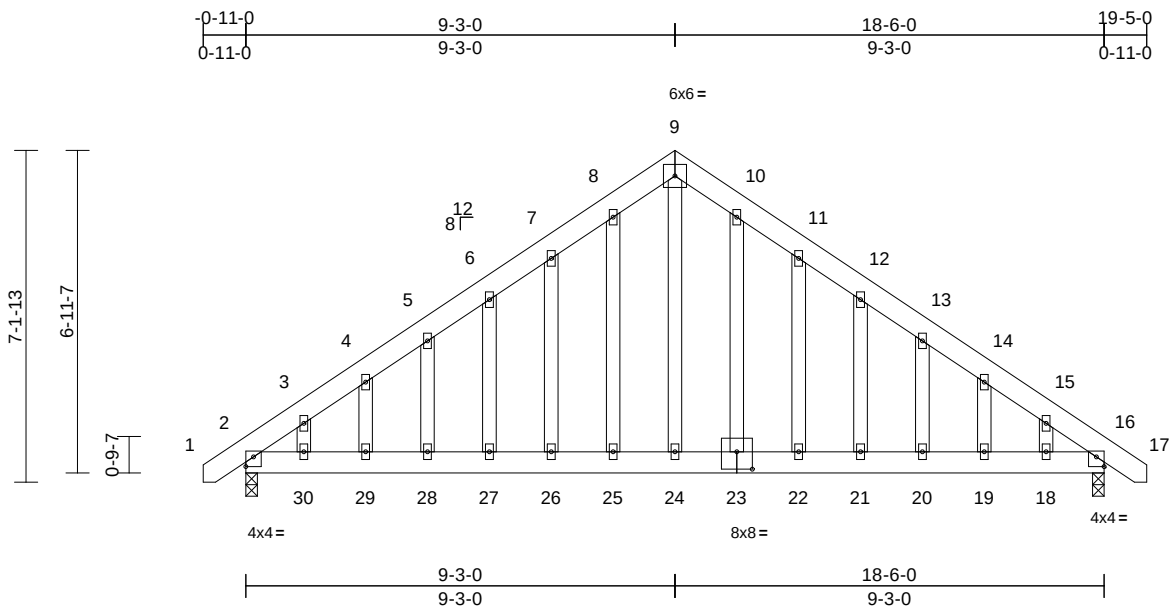
March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	E1-GE	GABLE	1	1	I71948629 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:20 ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:49.7

Plate Offsets (X, Y): [2:Edge,0-2-8], [16:Edge,0-2-8], [23:0-4-0,0-4-8]

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	0.22	Vert(LL)	-0.07	27-28	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.11	27-28	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.01	16	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.10	27-28	>999	240	Weight: 162 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

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=0-3-0, 16=0-3-0
Max Horiz 2=200 (LC 11)
Max Uplift 2=-165 (LC 12), 16=-165 (LC 13)
Max Grav 2=785 (LC 1), 16=785 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/14, 2-3=-894/728, 3-4=-808/691, 4-5=-774/693, 5-6=-749/703, 6-7=-726/712, 7-8=-711/736, 8-9=-669/733, 9-10=-669/734, 10-11=-711/736, 11-12=-726/712, 12-13=-749/703, 13-14=-774/693, 14-15=-808/691, 15-16=-894/728, 16-17=0/14

BOT CHORD 2-30=-464/616, 29-30=-464/616, 28-29=-464/616, 27-28=-464/616, 26-27=-464/616, 25-26=-464/616, 24-25=-464/616, 22-24=-464/616, 21-22=-464/616, 20-21=-464/616, 19-20=-464/616, 18-19=-464/616, 16-18=-464/616

WEBS 9-24=-520/420, 8-25=-35/43, 7-26=-63/57, 6-27=-47/47, 5-28=-49/48, 4-29=-40/46, 3-30=-56/65, 10-23=-35/43, 11-22=-63/57, 12-21=-47/47, 13-20=-49/48, 14-19=-40/46, 15-18=-56/65

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; Gable Roof; Common Truss; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-9-7 to 3-7-6, Interior (1) 3-7-6 to 9-3-0, Exterior(2R) 9-3-0 to 13-7-13, Interior (1) 13-7-13 to 19-3-7 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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 1-4-0 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 165 lb uplift at joint 16 and 165 lb uplift at joint 2.

LOAD CASE(S) Standard

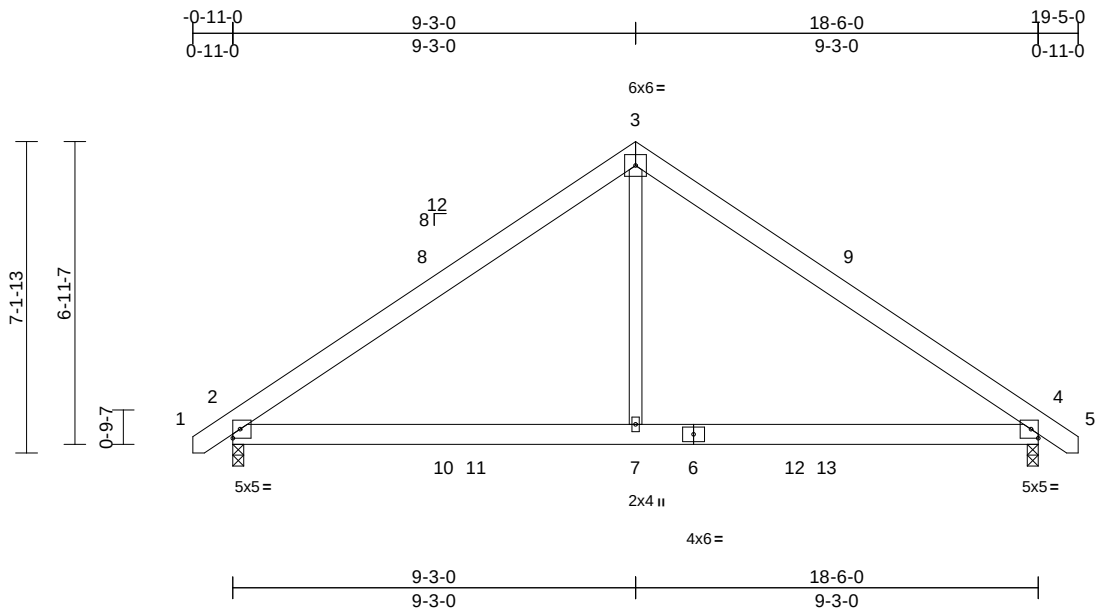
March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	E2	COMMON	2	1	I71948630
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:21 Page: 1

ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:52.9

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	0.41	Vert(LL)	-0.07	2-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.12	2-7	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.11	2-7	>999	240	Weight: 110 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 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-0, 4=0-3-0
Max Horiz 2=160 (LC 11)
Max Uplift 2=-115 (LC 9), 4=-115 (LC 8)
Max Grav 2=931 (LC 2), 4=931 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-3=-1089/793, 3-4=-1089/793, 4-5=0/14
BOT CHORD 2-7=-499/790, 4-7=-499/790
WEBS 3-7=-589/713

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) -0-9-7 to 3-7-6, Interior (1) 3-7-6 to 9-3-0, Exterior(2R) 9-3-0 to 13-7-13, Interior (1) 13-7-13 to 19-3-7 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, 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 115 lb uplift at joint 4 and 115 lb uplift at joint 2.

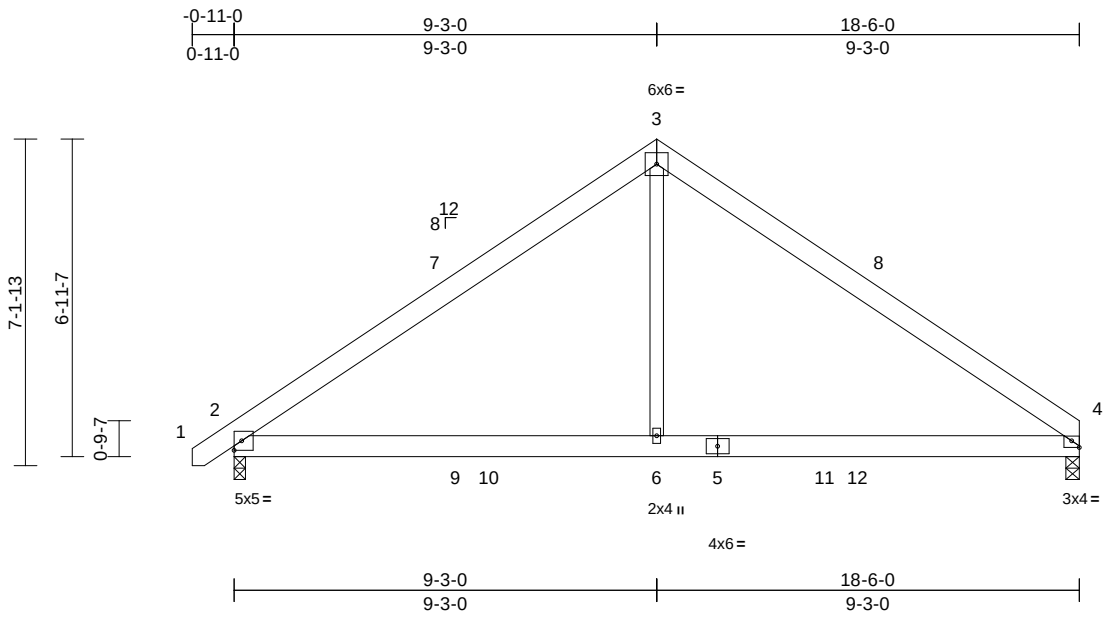
LOAD CASE(S) Standard

March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	E3	COMMON	1	1	I71948631 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:21 Page: 1
ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:50.4

Plate Offsets (X, Y): [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	0.43	Vert(LL)	-0.07	2-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.12	2-6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.11	2-6	>999	240	Weight: 108 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-0, 4=0-3-8
Max Horiz 2=158 (LC 11)
Max Uplift 2=-115 (LC 9), 4=-110 (LC 8)
Max Grav 2=931 (LC 2), 4=884 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-3=-1088/792, 3-4=-1060/793
BOT CHORD 2-6=-514/790, 4-6=-514/790
WEBS 3-6=-587/714

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) -0-9-7 to 3-7-6, Interior (1) 3-7-6 to 9-3-0, Exterior(2R) 9-3-0 to 13-7-13, Interior (1) 13-7-13 to 18-4-4 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, 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 110 lb uplift at joint 4 and 115 lb uplift at joint 2.

LOAD CASE(S) Standard

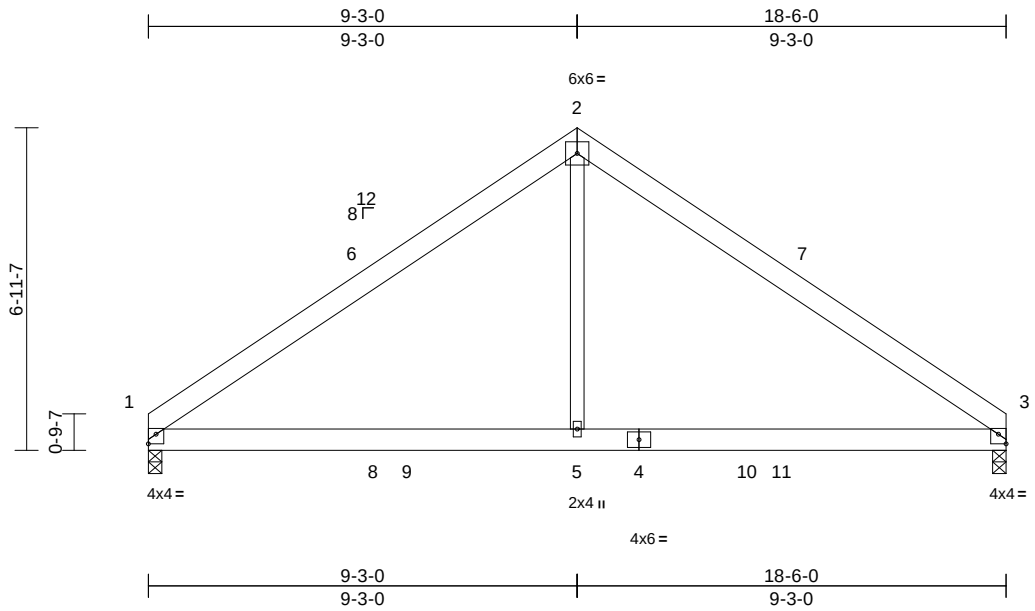
March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge	I71948632
J0325-1347	E4	COMMON	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:21 Page: 1
ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:49.7

Plate Offsets (X, Y): [1:Edge,0-2-8], [3:Edge,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	0.43	Vert(LL)	-0.07	1-5	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.12	1-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.11	1-5	>999	240	Weight: 105 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 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 3=0-3-8
Max Horiz 1=155 (LC 11)
Max Uplift 1=-110 (LC 9), 3=-110 (LC 8)
Max Grav 1=884 (LC 2), 3=884 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1060/791, 2-3=-1060/791
BOT CHORD 1-5=-513/790, 3-5=-513/790
WEBS 2-5=-585/715

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) 0-1-12 to 4-6-9, Interior (1) 4-6-9 to 9-3-0, Exterior(2R) 9-3-0 to 13-7-13, Interior (1) 13-7-13 to 18-4-4 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, 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 110 lb uplift at joint 1 and 110 lb uplift at joint 3.

LOAD CASE(S) Standard

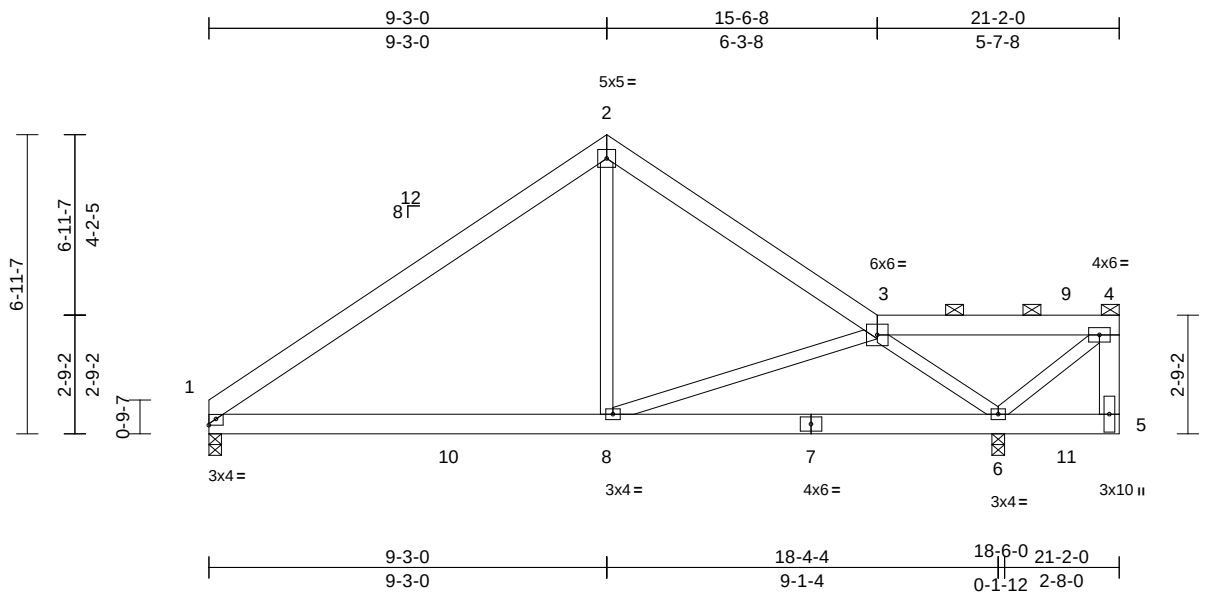
March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	E5	ROOF SPECIAL GIRDER	1	1	I71948633 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:21 ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:53.6

Plate Offsets (X, Y): [1: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)	-0.09	1-8	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.15	1-8	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.40	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S		Wind(LL)	0.04	1-8	>999	240	Weight: 140 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1 *Except* 7-5:2x6 SP 2400F 2.0E
WEBS 2x4 SP No.2 *Except* 4-5:2x6 SP No.1

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=0-3-8, 6=0-3-8
Max Horiz 1=152 (LC 5)
Max Uplift 1=-99 (LC 27), 6=-362 (LC 9)
Max Grav 1=703 (LC 15), 6=3167 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-672/181, 2-3=-653/200, 3-4=-238/1324, 4-5=-177/1142
BOT CHORD 1-8=-116/501, 6-8=-500/286, 5-6=-28/103
WEBS 2-8=-65/299, 3-8=-169/891, 3-6=-1316/188, 4-6=-1912/358

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); Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Bearings are assumed to be: Joint 1 SP No.1 crushing capacity of 565 psi, Joint 6 SP 2400F 2.0E crushing capacity of 805 psi.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 99 lb uplift at joint 1 and 362 lb uplift at joint 6.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 39 lb down and 11 lb up at 19-11-4 on top chord, and 1820 lb down and 236 lb up at 19-11-4, and 145 lb down and 37 lb up at 19-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

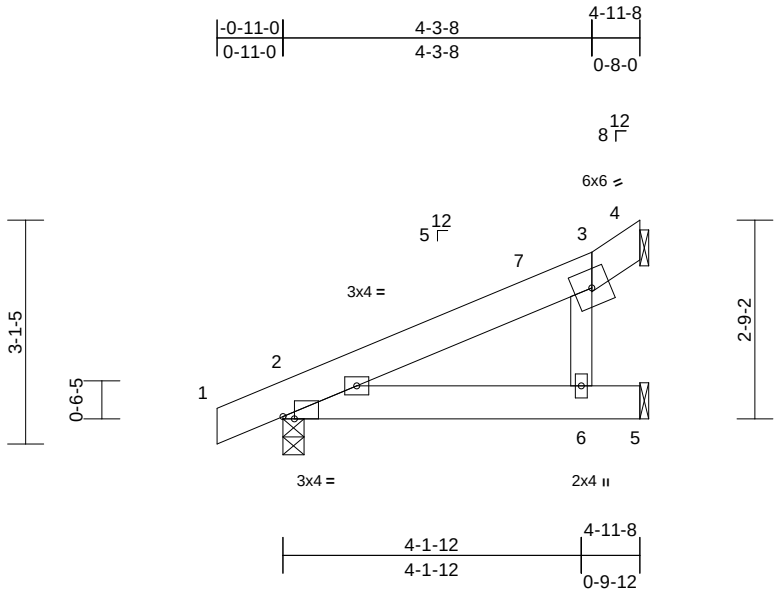
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-60, 2-3=-60, 3-4=-60, 1-5=-20
Concentrated Loads (lb)
Vert: 11=-1674 (F=-145, B=-1529)

March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	J1	JACK-OPEN	1	1	I71948634 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:21 Page: 1
ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:32

Plate Offsets (X, Y): [2:0-1-14,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	0.09	Vert(LL)	-0.01	2-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.02	2-6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P		Wind(LL)	0.01	2-6	>999	240	Weight: 30 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 4-11-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 4= Mechanical, 5= Mechanical
Max Horiz 2=81 (LC 12)
Max Uplift 2=-23 (LC 8), 4=-10 (LC 12), 5=-25 (LC 12)
Max Grav 2=261 (LC 1), 4=20 (LC 19), 5=165 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/19, 2-3=-118/74, 3-4=-20/10
BOT CHORD 2-6=-12/13, 5-6=0/0
WEBS 3-6=-147/169

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) -0-11-0 to 3-5-13, Interior (1) 3-5-13 to 4-10-12 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.
5) Bearings are assumed to be: , Joint 2 SP No.1 crushing capacity of 565 psi.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 4, 23 lb uplift at joint 2 and 25 lb uplift at joint 5.

LOAD CASE(S) Standard

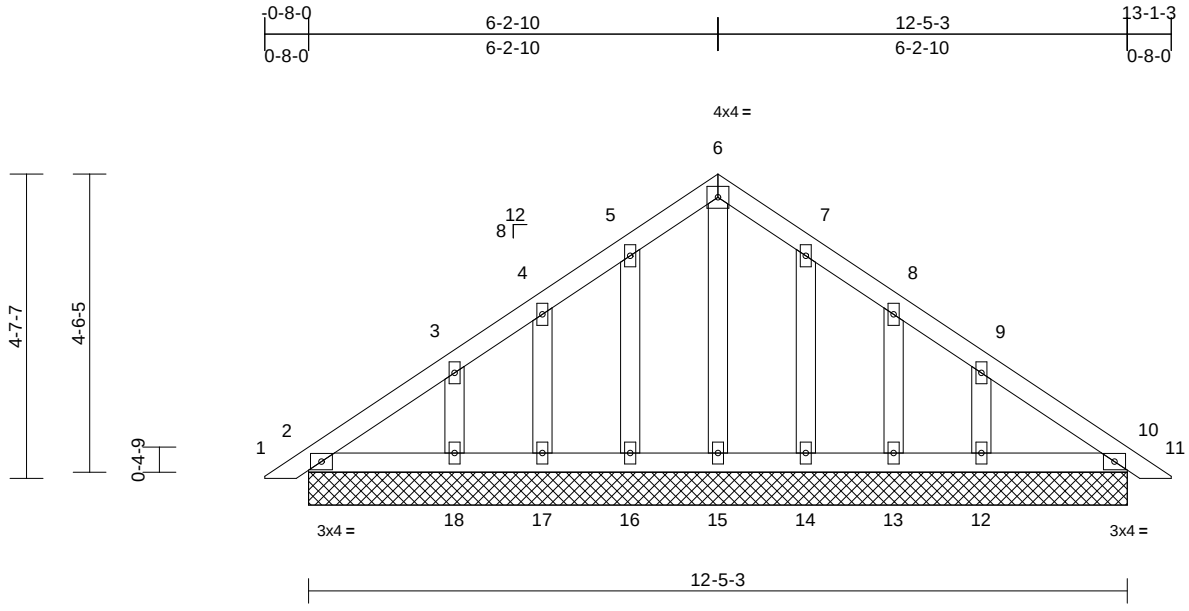
March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	PB1	Piggyback	1	1	I71948635 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:21 ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:35

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	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 69 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) 2=12-5-3, 10=12-5-3, 12=12-5-3, 13=12-5-3, 14=12-5-3, 15=12-5-3, 16=12-5-3, 17=12-5-3, 18=12-5-3
Max Horiz 2=-133 (LC 10)
Max Uplift 2=-17 (LC 8), 12=-97 (LC 13), 13=-49 (LC 13), 14=-54 (LC 13), 16=-57 (LC 12), 17=-48 (LC 12), 18=-98 (LC 12)
Max Grav 2=115 (LC 20), 10=109 (LC 1), 12=194 (LC 20), 13=91 (LC 20), 14=126 (LC 20), 15=113 (LC 22), 16=129 (LC 19), 17=90 (LC 19), 18=195 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/12, 2-3=-107/99, 3-4=-82/69, 4-5=-67/93, 5-6=-91/128, 6-7=-91/128, 7-8=-59/81, 8-9=-47/35, 9-10=-72/54, 10-11=0/12
BOT CHORD 2-18=-47/97, 17-18=-47/97, 16-17=-47/97, 15-16=-47/97, 14-15=-47/97, 13-14=-47/97, 12-13=-47/97, 10-12=-47/97
WEBS 6-15=-87/24, 5-16=-100/73, 4-17=-74/67, 3-18=-142/115, 7-14=-97/70, 8-13=-75/68, 9-12=-141/115

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; Gable Roof; Common Truss; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-4-0 to 4-8-13, Interior (1) 4-8-13 to 6-11-11, Exterior (2R) 6-11-11 to 11-4-8, Interior (1) 11-4-8 to 13-7-7 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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 1-4-0 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 17 lb uplift at joint 2, 57 lb uplift at joint 16, 48 lb uplift at joint 17, 98 lb uplift at joint 18, 54 lb uplift at joint 14, 49 lb uplift at joint 13 and 97 lb uplift at joint 12.
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

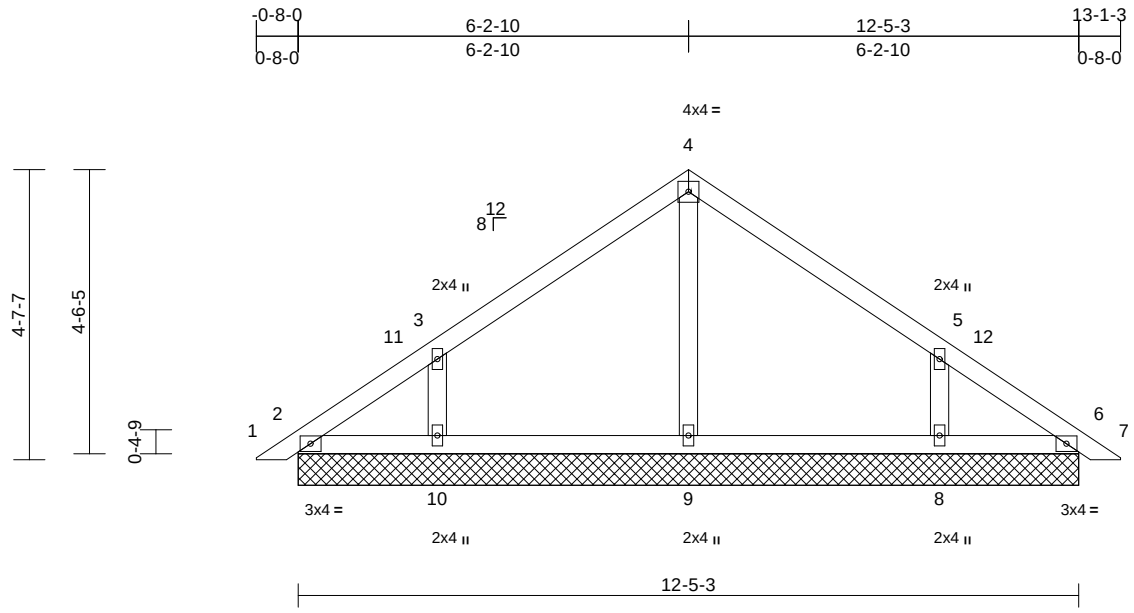
March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	PB2	Piggyback	9	1	I71948636 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:21 ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:36.7

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	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 53 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) 2=12-5-3, 6=12-5-3, 8=12-5-3, 9=12-5-3, 10=12-5-3
Max Horiz 2=-106 (LC 10)
Max Uplift 2=-21 (LC 8), 6=-1 (LC 9), 8=-94 (LC 13), 10=-95 (LC 12)
Max Grav 2=107 (LC 20), 6=99 (LC 1), 8=320 (LC 20), 9=263 (LC 1), 10=321 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/12, 2-3=-101/82, 3-4=-125/122, 4-5=-114/121, 5-6=-73/45, 6-7=0/12
BOT CHORD 2-10=-28/67, 9-10=-28/67, 8-9=-28/67, 6-8=-28/67
WEBS 4-9=-178/22, 3-10=-253/228, 5-8=-252/228

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) 0-4-0 to 4-8-13, Interior (1) 4-8-13 to 6-11-11, Exterior(2R) 6-11-11 to 11-4-8, Interior (1) 11-4-8 to 13-7-7 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 requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be 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 2, 1 lb uplift at joint 6, 95 lb uplift at joint 10 and 94 lb uplift at joint 8.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

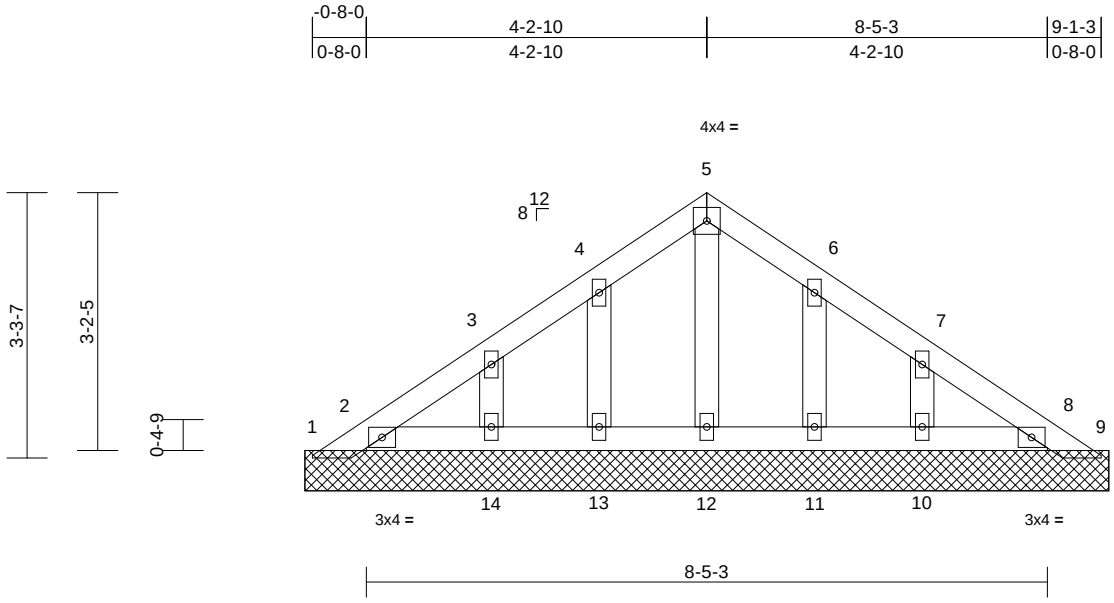
March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	PB3	Piggyback	1	1	I71948637
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:21 Page: 1
ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:28.5

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	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 42 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=9-11-7, 2=9-11-7, 8=9-11-7, 9=9-11-7, 10=9-11-7, 11=9-11-7, 12=9-11-7, 13=9-11-7, 14=9-11-7
Max Horiz 1=93 (LC 9)
Max Uplift 1=-54 (LC 10), 2=-43 (LC 12), 8=-24 (LC 13), 9=-11 (LC 20), 10=-64 (LC 13), 11=-63 (LC 13), 13=-64 (LC 12), 14=-64 (LC 12)
Max Grav 1=59 (LC 9), 2=124 (LC 19), 8=109 (LC 1), 9=18 (LC 13), 10=133 (LC 20), 11=123 (LC 20), 12=95 (LC 22), 13=123 (LC 19), 14=133 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-109/116, 2-3=-76/65, 3-4=-59/74, 4-5=-75/154, 5-6=-75/154, 6-7=-35/59, 7-8=-65/33, 8-9=-15/20
BOT CHORD 2-14=-40/115, 13-14=-40/115, 12-13=-40/115, 11-12=-40/115, 10-11=-40/115, 8-10=-40/115
WEBS 5-12=-87/13, 4-13=-100/157, 3-14=-104/168, 6-11=-100/157, 7-10=-104/168

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; Gable Roof; Common Truss; MWFRS (envelope) exterior zone and C-C Corner(3E) 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 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
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 54 lb uplift at joint 1, 11 lb uplift at joint 9, 43 lb uplift at joint 2, 24 lb uplift at joint 8, 64 lb uplift at joint 13, 64 lb uplift at joint 14, 63 lb uplift at joint 11 and 64 lb uplift at joint 10.
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

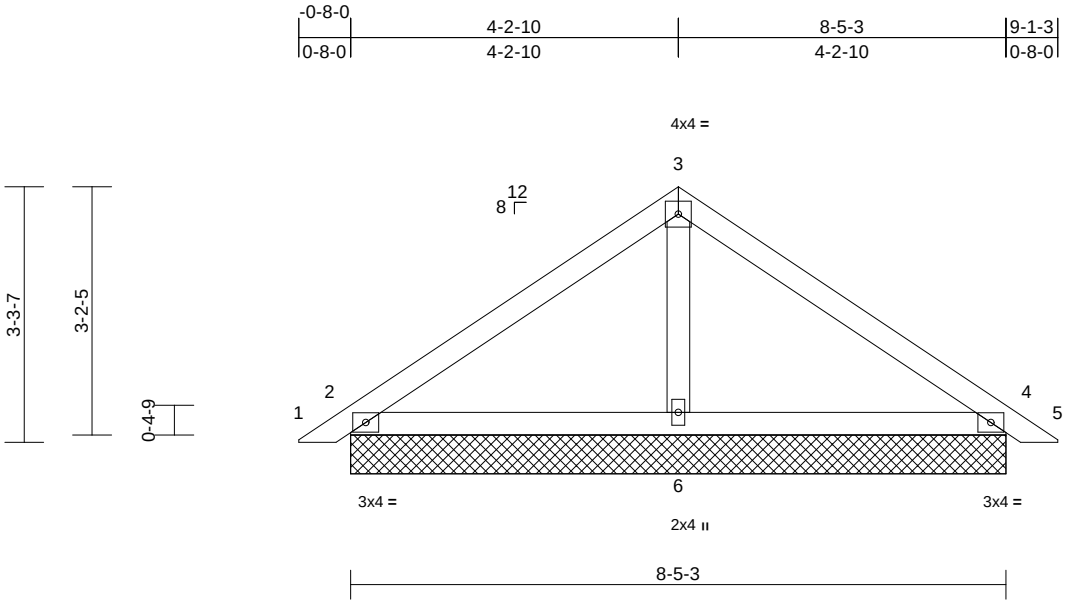
March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	PB4	Piggyback	6	1	I71948638 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:21 ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:29.6

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	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 34 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) 2=8-5-3, 4=8-5-3, 6=8-5-3
Max Horiz 2=-74 (LC 10)
Max Uplift 2=-36 (LC 12), 4=-43 (LC 13)
Max Grav 2=211 (LC 1), 4=211 (LC 1), 6=304 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/12, 2-3=-113/85, 3-4=-103/85, 4-5=0/12
BOT CHORD	2-6=-14/51, 4-6=-14/51
WEBS	3-6=-199/121

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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be 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 2 and 43 lb uplift at joint 4.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

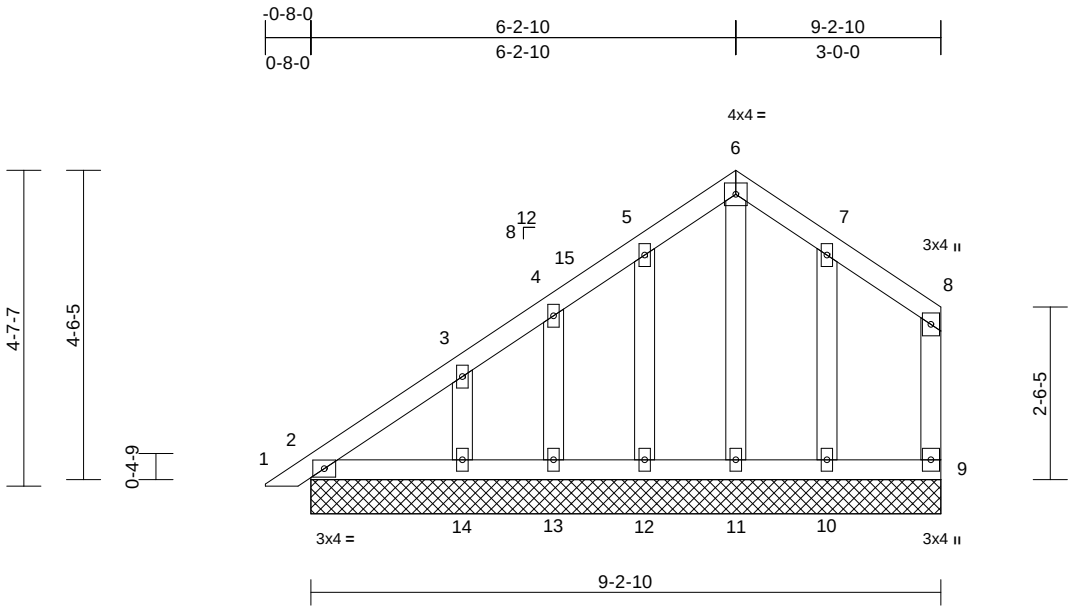
LOAD CASE(S) Standard

March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	PB5	Piggyback	1	1	I71948639 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:21 Page: 1
ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:33.7

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	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	9	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 55 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 10-0-0 oc bracing.

REACTIONS (size) 2=9-2-10, 9=9-2-10, 10=9-2-10, 11=9-2-10, 12=9-2-10, 13=9-2-10, 14=9-2-10
Max Horiz 2=155 (LC 12)
Max Uplift 2=-18 (LC 8), 9=-29 (LC 13), 10=-66 (LC 13), 12=-60 (LC 12), 13=-47 (LC 12), 14=-99 (LC 12)
Max Grav 2=113 (LC 20), 9=59 (LC 20), 10=142 (LC 20), 11=110 (LC 22), 12=131 (LC 19), 13=89 (LC 19), 14=195 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/12, 2-3=-142/114, 3-4=-82/75, 4-5=-68/87, 5-6=-69/157, 6-7=-70/153, 7-8=-29/53, 8-9=-48/75
BOT CHORD 2-14=-2/3, 13-14=-2/3, 12-13=-2/3, 11-12=-2/3, 10-11=-2/3, 9-10=-2/3
WEBS 6-11=-85/14, 5-12=-101/111, 4-13=-76/118, 3-14=-147/221, 7-10=-110/163

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; Gable Roof; Common Truss; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-4-0 to 4-8-13, Exterior(2N) 4-8-13 to 6-11-11, Corner (3E) 6-11-11 to 9-9-15 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 1-4-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
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 29 lb uplift at joint 9, 18 lb uplift at joint 2, 60 lb uplift at joint 12, 47 lb uplift at joint 13, 99 lb uplift at joint 14 and 66 lb uplift at joint 10.
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

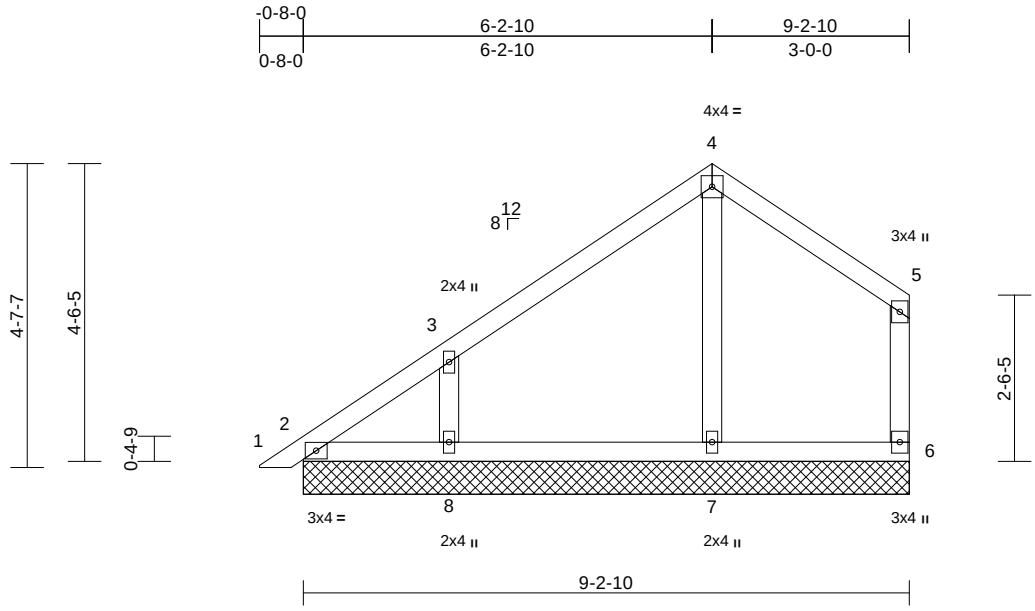
March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	PB6	Piggyback	9	1	I71948640 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:21 ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:35

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-S							Weight: 42 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 10-0-0 oc bracing.

REACTIONS (size) 2=9-2-10, 6=9-2-10, 7=9-2-10, 8=9-2-10
Max Horiz 2=104 (LC 12)
Max Uplift 2=-23 (LC 8), 6=-37 (LC 13), 8=-95 (LC 12)
Max Grav 2=93 (LC 20), 6=117 (LC 20), 7=271 (LC 19), 8=326 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/12, 2-3=-128/107, 3-4=-106/75, 4-5=-61/78, 5-6=-95/95
BOT CHORD	2-8=-7/10, 7-8=-7/10, 6-7=-7/10
WEBS	4-7=-195/88, 3-8=-266/272

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) 0-4-0 to 4-8-13, Interior (1) 4-8-13 to 6-11-11, Exterior(2E) 6-11-11 to 9-9-15 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 6, 23 lb uplift at joint 2 and 95 lb uplift at joint 8.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

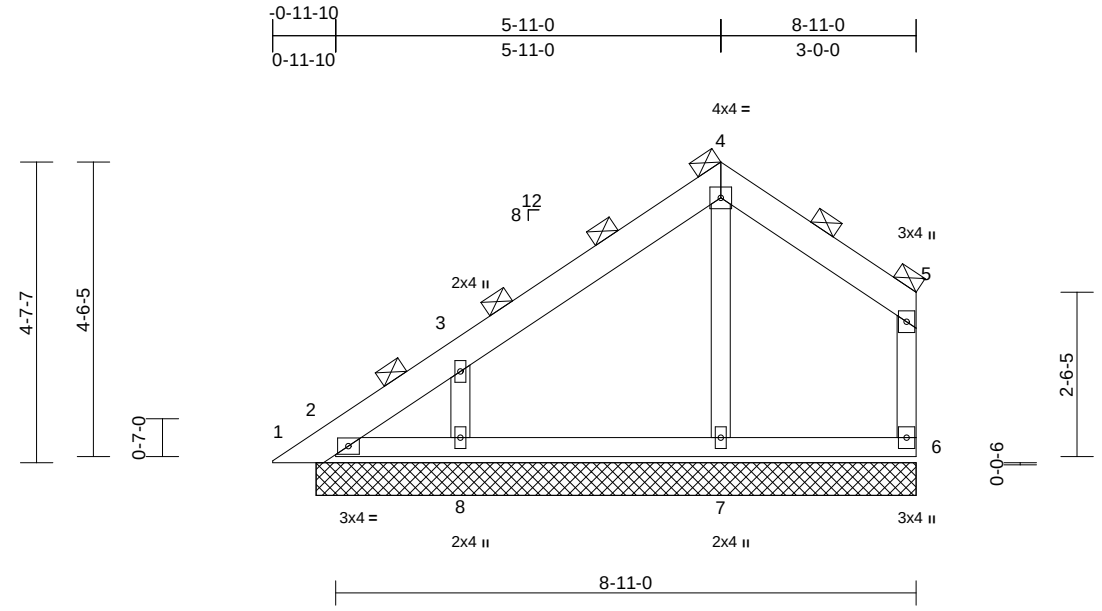
March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	PB7	Piggyback	2	1	I71948641 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:22 ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:35.4

Loading	(psf)	Spacing	3-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.08	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 52 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	2-0-0 oc purlins (6-0-0 max.), except end verticals (Switched from sheeted: Spacing > 2-8-0).
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=9-2-10, 2=9-2-10, 6=9-2-10, 7=9-2-10, 8=9-2-10
Max Horiz 1=153 (LC 12)
Max Uplift 1=-15 (LC 8), 2=-6 (LC 8), 6=-57 (LC 13), 8=-165 (LC 12)
Max Grav 1=70 (LC 20), 2=59 (LC 20), 6=170 (LC 20), 7=393 (LC 1), 8=520 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-216/130, 2-3=-221/186, 3-4=-150/97, 4-5=-77/111, 5-6=-148/154
BOT CHORD	2-8=0/0, 7-8=0/0, 6-7=0/0
WEBS	4-7=-275/110, 3-8=-437/459

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) 0-5-13 to 4-10-10, Interior (1) 4-10-10 to 6-11-11, Exterior(2E) 6-11-11 to 9-9-15 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 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 1, 57 lb uplift at joint 6, 6 lb uplift at joint 2 and 165 lb uplift at joint 8.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

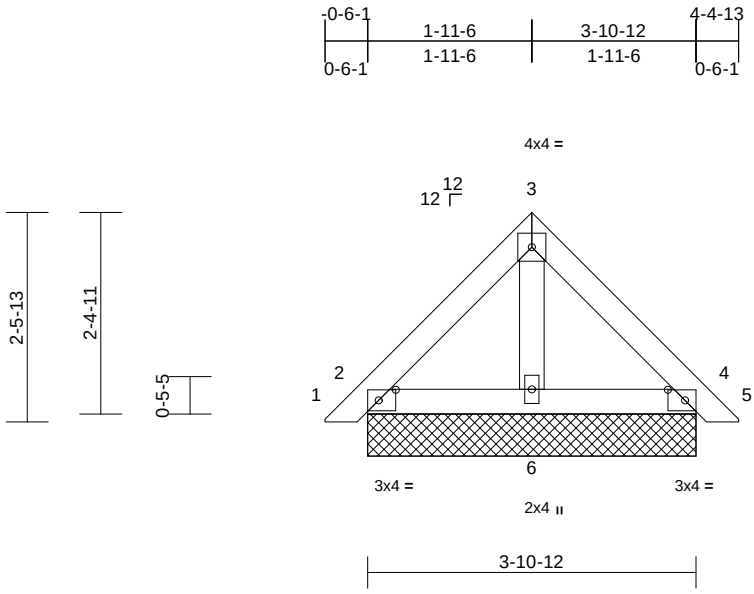
March 12,2025

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

Job	Truss	Truss Type	Qty	Ply	Lot 1 Mabry Ridge
J0325-1347	PB8	Piggyback	11	1	I71948642 Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314,

Run: 8.96 S 8.63 Sep 26 2024 Print: 8.630 S Sep 26 2024 MiTek Industries, Inc. Tue Mar 11 10:33:22 ID:2GNsYO62BI49KgBFP3SlmayOXVO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:27.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2021/TPI2014	Matrix-P							Weight: 19 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 5-0-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=3-10-12, 4=3-10-12, 6=3-10-12
Max Horiz 2=68 (LC 11)
Max Uplift 2=-39 (LC 13), 4=-44 (LC 13)
Max Grav 2=116 (LC 1), 4=116 (LC 1), 6=121 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/11, 2-3=-77/49, 3-4=-66/39, 4-5=0/11
BOT CHORD 2-6=-22/48, 4-6=-22/48
WEBS 3-6=-70/23

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; Gable Roof; Common Truss; MWFRS (envelope) exterior zone 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 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.1 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 2 and 44 lb uplift at joint 4.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

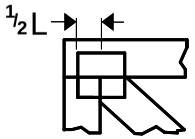
LOAD CASE(S) Standard

March 12,2025

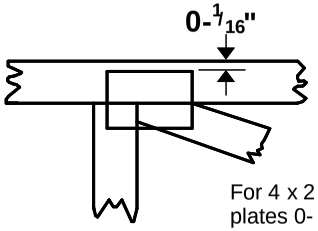
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

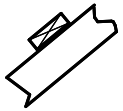
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

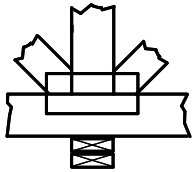
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

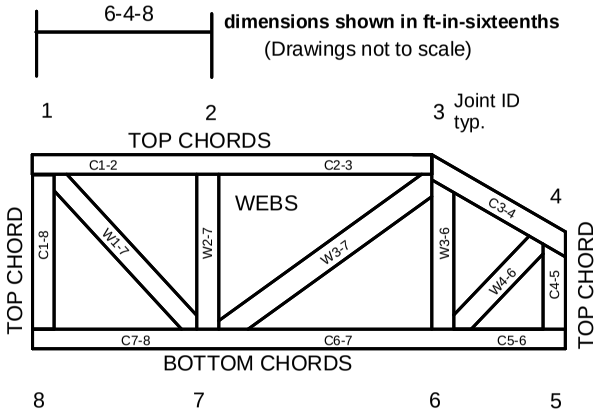


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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.