

Trenco
818 Soundside Rd
Edenton, NC 27932

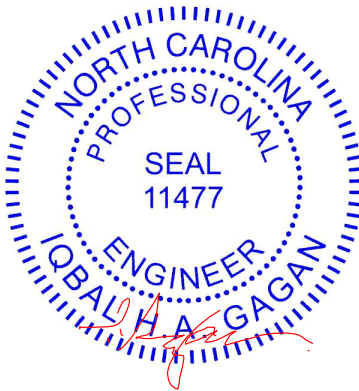
Re: CC 2424
CC 2424

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

Pages or sheets covered by this seal: I70775753 thru I70775775

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

North Carolina COA: C-0844



January 15, 2025

Gagan, Iqbal

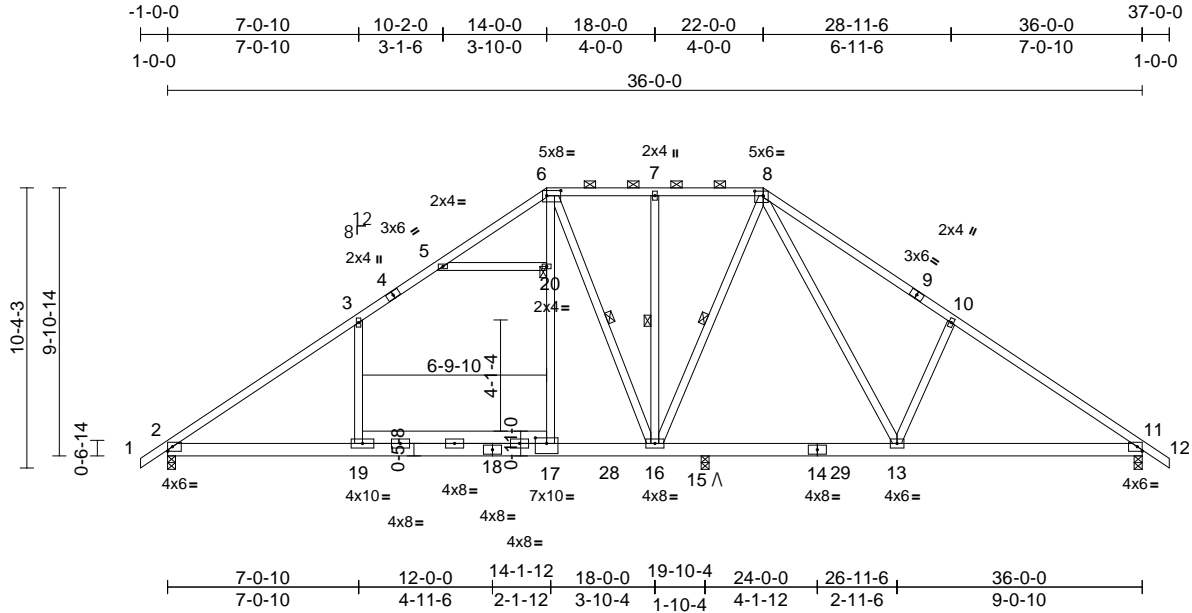
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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 CC 2424	Truss A1	Truss Type ROOF TRUSS	Qty 1	Ply 1	CC 2424 Job Reference (optional)	170775753
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:03
ID:No3derHdWkHocaZM86gtV2zFa64-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:76.6

Plate Offsets (X, Y): [6:0-6-4,0-2-4], [8:0-3-12,0-2-0], [17:0-5-0,0-2-8]

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	0.73	Vert(LL)	0.40	19-23	>596	240
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.61	19-23	>393	180
BCLL	0.0*	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.03	2	n/a	n/a
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.13	17-19	>665	360

Weight: 258 lb FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x6 SP DSS *Except* 19-17:2x6 SP No.2
 WEBS 2x4 SP No.2 *Except* 19-3,13-10,5-20:2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-1-9 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-8.
 BOT CHORD Rigid ceiling directly applied or 7-7-14 oc bracing.
 WEBS 1 Row at midpt 7-16, 8-16, 6-16
 JOINTS 1 Brace at Jt(s): 20

REACTIONS

(size) 2=0-3-8, 11=0-3-8, 15=0-3-8
 Max Horiz 2=248 (LC 10)
 Max Uplift 2=-122 (LC 12), 11=-141 (LC 13), 15=REL
 Max Grav 2=1176 (LC 20), 11=1058 (LC 1), 15=994 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/33, 2-3=-1317/231, 3-5=-1269/397, 5-6=-1042/378, 6-7=-608/369, 7-8=-608/369, 8-10=-1226/479, 10-11=-1376/384, 11-12=0/33
 BOT CHORD 2-19=-131/1089, 17-19=-78/1089, 16-17=-73/1053, 15-16=-20/675, 13-15=-20/675, 11-13=-196/1063
 WEBS 3-19=-352/283, 17-20=-190/1375, 6-20=-192/1381, 7-16=-235/131, 8-16=-241/142, 8-13=-181/615, 10-13=-424/282, 6-16=-1211/248, 5-20=-195/63

NOTES

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 17-19
- 7) All bearings are assumed to be User Defined.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 122 lb uplift at joint 2 and 141 lb uplift at joint 11.
- 9) "A" indicates Released bearing: allow for upward movement at joint(s) 15.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 11) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

LOAD CASE(S) Standard



January 15, 2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



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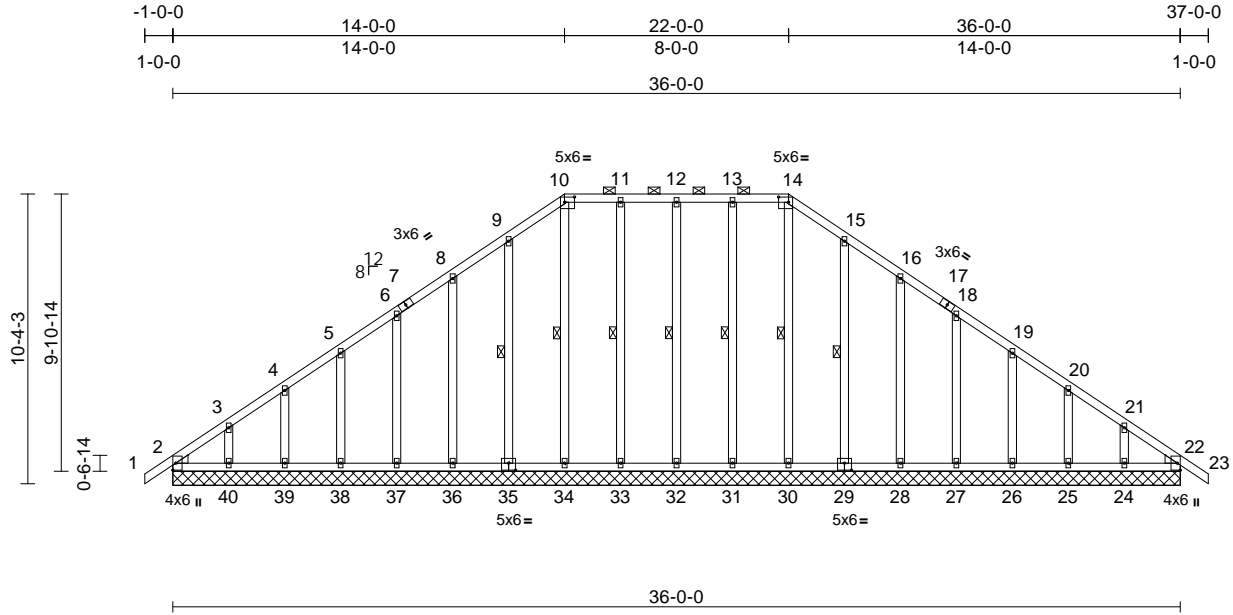
Job CC 2424	Truss A1E	Truss Type Piggyback Base Supported Gable	Qty 1	Ply 1	CC 2424 Job Reference (optional)	170775754
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:04

Page: 1

ID:No3derHdWkHocaZM86gtV2zFa64-RfC?PsB70Hq3NSgPqnL8w3UtXbGKWrCDoi7J4zJC?f



Scale = 1:74.5

Plate Offsets (X, Y): [10:0-4-4,0-2-4], [14:0-4-4,0-2-4], [29:0-3-0,0-3-0], [35:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	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	0.11	Horz(CT)	0.01	22	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 274 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.2 *Except*
37-6,38-5,39-4,40-3,27-18,26-19,25-20,24-21
:2x4 SP No.3
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

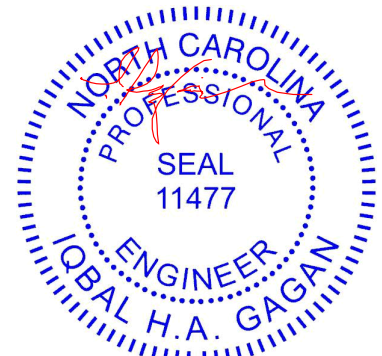
BRACING
TOP CHORD Structural wood sheathing directly applied or
6-0-0 oc purlins, except
2-0-0 oc purlins (6-0-0 max.): 10-14.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc
bracing.
WEBS 1 Row at midpt 14-30, 13-31, 12-32,
11-33, 10-34, 9-35, 15-29

REACTIONS (size)
2=36-0-0, 22=36-0-0, 24=36-0-0,
25=36-0-0, 26=36-0-0, 27=36-0-0,
28=36-0-0, 29=36-0-0, 30=36-0-0,
31=36-0-0, 32=36-0-0, 33=36-0-0,
34=36-0-0, 35=36-0-0, 36=36-0-0,
37=36-0-0, 38=36-0-0, 39=36-0-0,
40=36-0-0
Max Horiz 2=-248 (LC 10)
Max Uplift 2=-78 (LC 8), 22=-11 (LC 9),
24=-82 (LC 13), 25=-63 (LC 13),
26=-64 (LC 13), 27=-63 (LC 13),
28=-66 (LC 13), 29=-64 (LC 13),
31=-33 (LC 9), 32=-31 (LC 8),
33=-32 (LC 9), 34=-7 (LC 9),
35=-66 (LC 12), 36=-65 (LC 12),
37=-63 (LC 12), 38=-64 (LC 12),
39=-63 (LC 12), 40=-90 (LC 12)

Max Grav 2=194 (LC 20), 22=153 (LC 1),
24=177 (LC 20), 25=170 (LC 20),
26=170 (LC 20), 27=170 (LC 20),
28=170 (LC 20), 29=177 (LC 20),
30=158 (LC 22), 31=168 (LC 23),
32=158 (LC 23), 33=168 (LC 24),
34=175 (LC 22), 35=179 (LC 19),
36=169 (LC 19), 37=170 (LC 19),
38=170 (LC 19), 39=170 (LC 19),
40=185 (LC 19)
FORCES
(lb) - Maximum Compression/Maximum
Tension
TOP CHORD 1-2=0/23, 2-3=-245/212, 3-4=-179/174,
4-5=-154/152, 5-6=-137/146, 6-8=-119/173,
8-9=-166/210, 9-10=-216/249,
10-11=-189/226, 11-12=-189/226,
12-13=-189/226, 13-14=-189/226,
14-15=-216/249, 15-16=-166/191,
16-18=-116/131, 18-19=-68/73,
19-20=-66/48, 20-21=-93/69,
21-22=-170/127, 22-23=0/23
BOT CHORD 2-40=-112/173, 39-40=-112/173,
38-39=-112/173, 37-38=-112/173,
36-37=-112/173, 34-36=-112/173,
33-34=-112/173, 32-33=-112/173,
31-32=-112/173, 30-31=-112/173,
28-30=-112/173, 27-28=-112/173,
26-27=-112/173, 25-26=-112/173,
24-25=-112/173, 22-24=-112/173
WEBS 14-30=-118/30, 13-31=-128/57,
12-32=-118/60, 11-33=-128/56,
10-34=-135/36, 9-35=-139/90, 8-36=-129/89,
6-37=-130/87, 5-38=-130/88, 4-39=-131/87,
3-40=-153/113, 15-29=-137/88,
16-28=-130/90, 18-27=-130/87,
19-26=-130/88, 20-25=-130/87,
21-24=-154/106

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 (||) MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be User Defined.

NOTES



January 15, 2025

Continued on page 2

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818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss A1E	Truss Type Piggyback Base Supported Gable	Qty 1	Ply 1	CC 2424 Job Reference (optional)	I70775754
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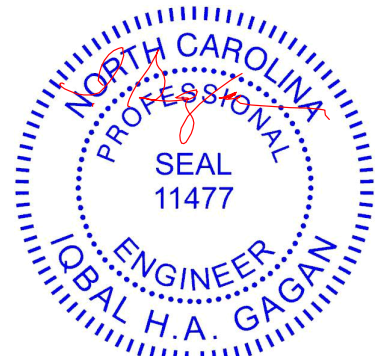
84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:04
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Page: 2

- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 78 lb uplift at joint 2, 33 lb uplift at joint 31, 31 lb uplift at joint 32, 32 lb uplift at joint 33, 7 lb uplift at joint 34, 66 lb uplift at joint 35, 65 lb uplift at joint 36, 63 lb uplift at joint 37, 64 lb uplift at joint 38, 63 lb uplift at joint 39, 90 lb uplift at joint 40, 64 lb uplift at joint 29, 66 lb uplift at joint 28, 63 lb uplift at joint 27, 64 lb uplift at joint 26, 63 lb uplift at joint 25, 82 lb uplift at joint 24 and 11 lb uplift at joint 22.
- 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



January 15, 2025

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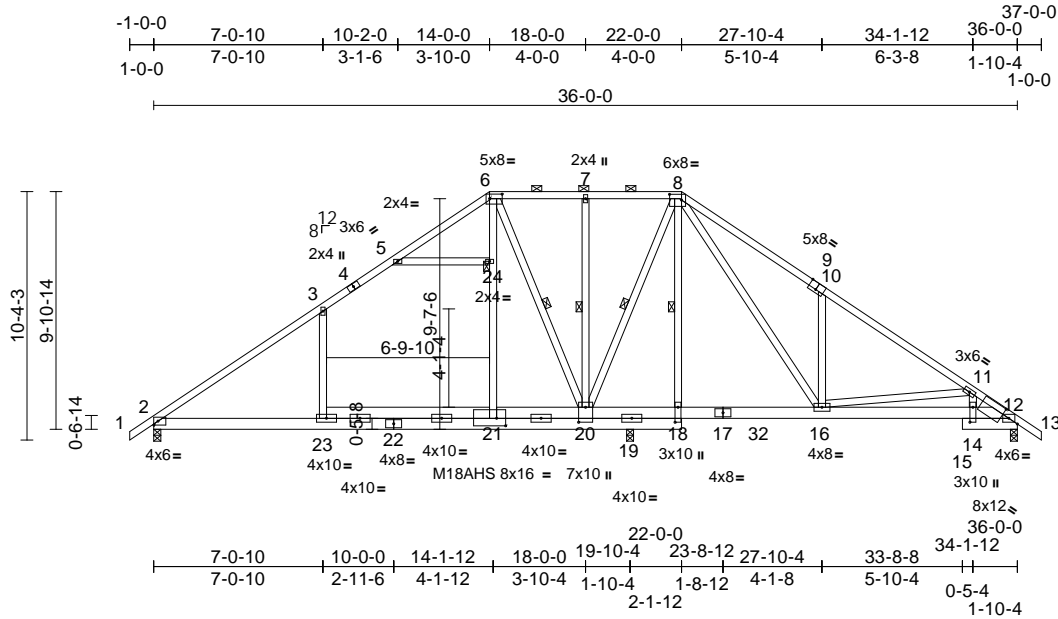
818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss A2	Truss Type ROOF TRUSS	Qty 2	Ply 1	CC 2424 Job Reference (optional)	170775755
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:05
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Page: 1



Scale = 1:82.3

Plate Offsets (X, Y): [6:0-6-4,0-2-4], [8:0-6-0,0-2-14], [9:0-4-0,Edge], [12:0-1-4,Edge], [12:0-8-12,0-3-1], [14:0-7-8,0-1-8], [18:0-7-8,0-1-8], [20:0-7-8,0-3-8], [21:0-4-8,0-3-12]

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	0.64	Vert(LL)	0.32	23-27	>733	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.49	23-27	>485	180	M18AHS	186/179
BCLL	0.0*	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	0.10	21-23	>831	360	Weight: 301 lb	FT = 20%

LUMBER

- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x6 SP No.2 *Except* 2-22:2x6 SP DSS, 18-8:2x4 SP No.2
- WEBS 2x4 SP No.2 *Except* 3-23,10-16,5-24,11-14:2x4 SP No.3

BRACING

- TOP CHORD Structural wood sheathing directly applied or 4-4-14 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-8.
- BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except: 6-0-0 oc bracing: 8-18
- WEBS 1 Row at midpt 7-20, 8-20, 6-20
- JOINTS 1 Brace at Jt(s): 24

REACTIONS

- (size) 2=0-3-8, 12=0-3-8, 19=0-3-8
- Max Horiz 2=-249 (LC 10)
- Max Uplift 2=-132 (LC 12), 12=-98 (LC 13), 19=-80 (LC 13)
- Max Grav 2=927 (LC 20), 12=669 (LC 1), 19=1549 (LC 1)

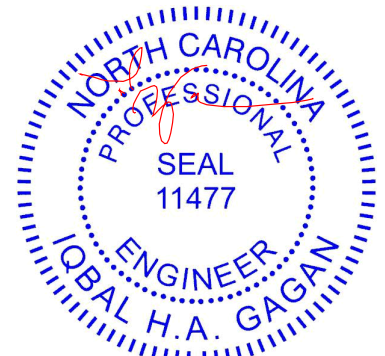
FORCES

- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/33, 2-3=-909/82, 3-5=-869/249, 5-6=-648/229, 6-7=-134/178, 7-8=-134/178, 8-10=-735/342, 10-11=-686/160, 11-12=-1020/193, 12-13=0/38
- BOT CHORD 2-23=-157/786, 21-23=-155/824, 20-21=-150/754, 19-20=-135/251, 18-19=-135/251, 16-18=-135/249, 14-16=-121/854, 12-14=-82/810, 8-18=-459/109
- WEBS 3-23=-364/287, 21-24=-247/1497, 6-24=-250/1503, 8-16=-278/842, 10-16=-432/288, 11-16=-439/167, 7-20=-248/131, 8-20=-261/116, 6-20=-1549/284, 5-24=-187/62, 11-14=-48/181

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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.
- Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 21-23
- All bearings are assumed to be User Defined.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 132 lb uplift at joint 2, 98 lb uplift at joint 12 and 80 lb uplift at joint 19.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

LOAD CASE(S) Standard



January 15, 2025

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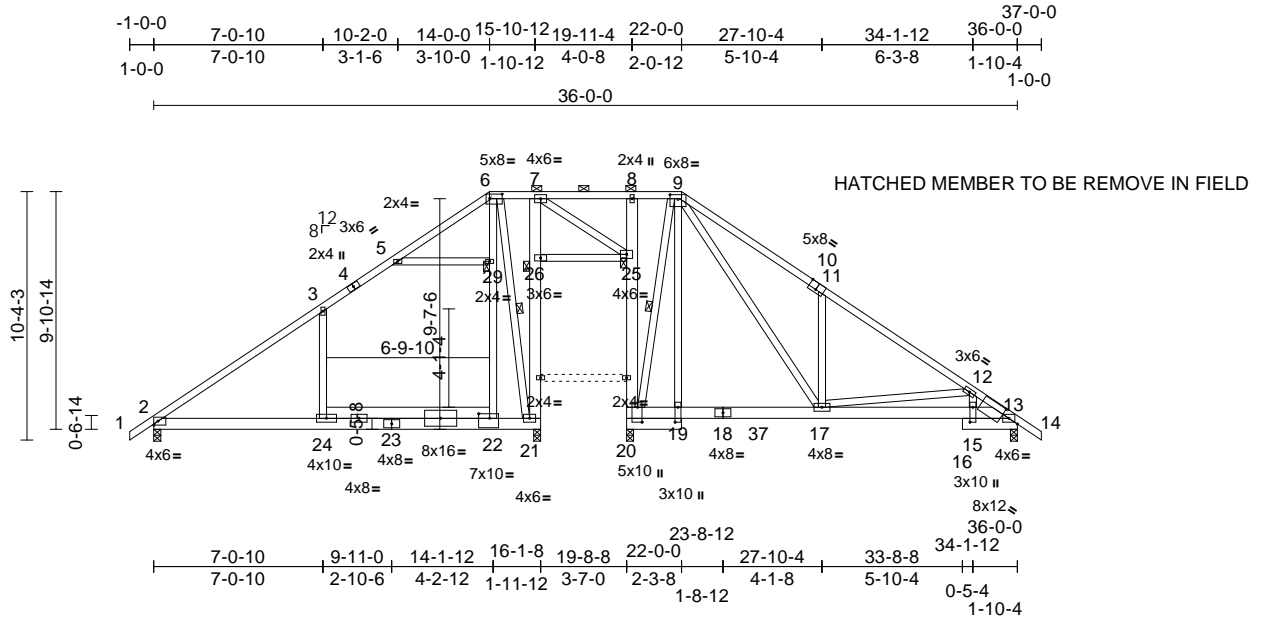
818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss A3	Truss Type ROOF TRUSS	Qty 4	Ply 1	CC 2424 Job Reference (optional)	170775756
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:05
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Page: 1



Scale = 1:82.3

Plate Offsets (X, Y): [6:0-6-4,0-2-4], [9:0-4-0,0-2-6], [10:0-4-0,Edge], [13:0-1-4,Edge], [13:0-8-12,0-3-1], [15:0-7-8,0-1-8], [19:0-7-8,0-1-8], [20:0-7-8,0-2-4], [22:0-5-8,0-2-4]

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	0.65	Vert(LL)	0.37	24-32	>504	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.59	24-32	>320		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.03	20	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.13	22-24	>671	Weight: 325 lb	FT = 20%

LUMBER
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x6 SP No.2 *Except* 2-23,23-21:2x6 SP DSS, 19-9:2x4 SP No.2
 WEBS 2x4 SP No.3 *Except* 22-6,17-9,17-12,21-6,9-20:2x4 SP No.2, 7-21,8-20:2x6 SP No.2
 OTHERS 2x4 SP No.3

WEBS
 3-24=-343/279, 22-29=-382/1852,
 6-29=-385/1859, 7-25=-24/7, 9-17=-290/847,
 11-17=-431/285, 12-17=-422/145,
 21-26=-178/124, 7-26=-178/124,
 20-25=-214/98, 8-25=-210/102, 25-26=-3/13,
 6-21=-2097/420, 9-20=-640/0, 5-29=-212/67,
 12-15=-45/183

BRACING
 TOP CHORD Structural wood sheathing directly applied or 5-3-3 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-9.
 BOT CHORD Rigid ceiling directly applied or 6-8-13 oc bracing.
 WEBS 1 Row at midpt 6-21, 9-20
 JOINTS 1 Brace at Jt(s): 25, 26, 29

REACTIONS (size) 2=0-3-8, 13=0-3-8, 20=0-3-8, 21=0-3-8
 Max Horiz 2=-249 (LC 10)
 Max Uplift 2=-142 (LC 13), 13=-257 (LC 13), 21=-120 (LC 9)
 Max Grav 2=709 (LC 1), 13=763 (LC 21), 20=765 (LC 1), 21=905 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/33, 2-3=-628/271, 3-5=-632/409, 5-6=-444/387, 6-7=-301/382, 7-8=-286/373, 8-9=-298/381, 9-11=-967/578, 11-12=-865/386, 12-13=-1182/409, 13-14=0/38
 BOT CHORD 2-24=-114/407, 22-24=-89/407, 21-22=-75/373, 9-19=0/219, 19-20=0/143, 17-19=0/146, 15-17=-300/986, 13-15=-261/935

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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.
 - Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 22-24
 - All bearings are assumed to be User Defined.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 142 lb uplift at joint 2, 257 lb uplift at joint 13 and 120 lb uplift at joint 21.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

LOAD CASE(S) Standard



January 15, 2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



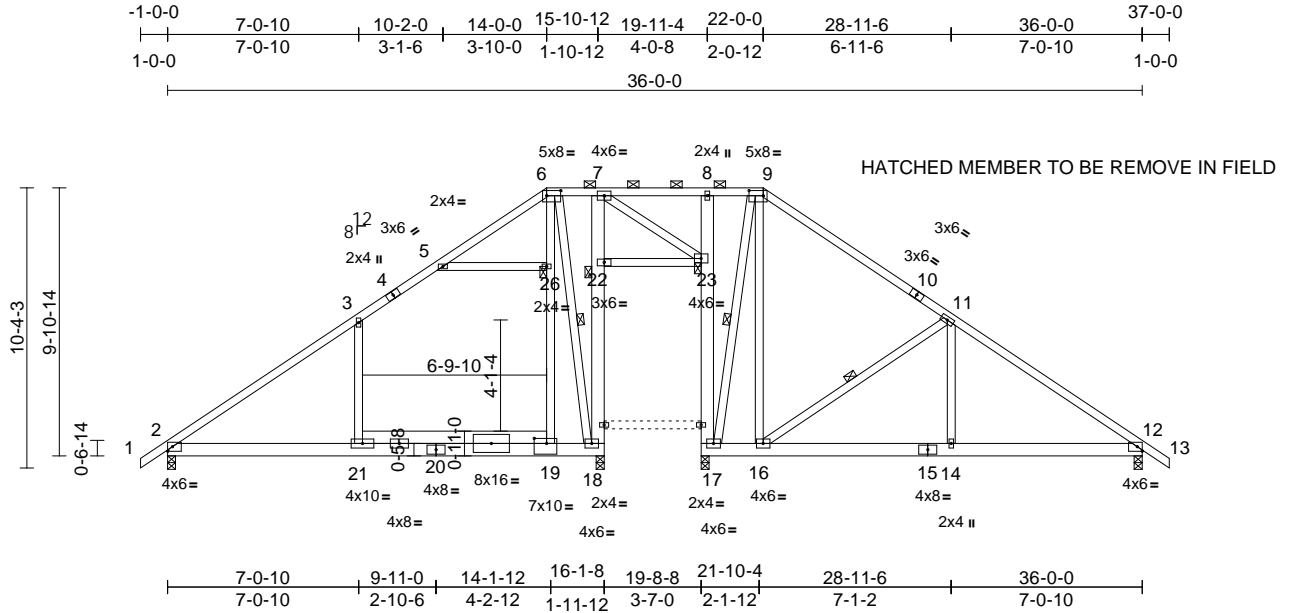
818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss A4	Truss Type ROOF TRUSS	Qty 1	Ply 1	CC 2424 Job Reference (optional)	170775757
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:06
ID:No3derHdWkHocaZM86gtV2zFa64-RfC?PsB70Hq3NSgPqnL8w3uITxBzGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:76.6

Plate Offsets (X, Y): [6:0-6-4,0-2-4], [9:0-6-4,0-2-4], [19:0-5-8,0-2-4]

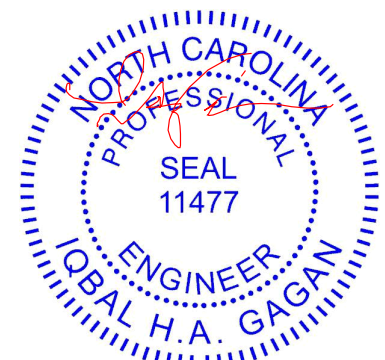
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	0.37	21-29	>504	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.59	21-29	>320	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.03	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.13	19-21	>671	360	Weight: 304 lb	FT = 20%

- LUMBER**
- TOP CHORD 2x4 SP No.2
- BOT CHORD 2x6 SP No.2 *Except* 2-20,20-18:2x6 SP DSS
- WEBS 2x4 SP No.3 *Except* 19-6,18-6,17-9,16-9,16-11:2x4 SP No.2, 8-17,7-18:2x6 SP No.2
- OTHERS**
- 2x4 SP No.3
- BRACING**
- TOP CHORD Structural wood sheathing directly applied or 5-8-7 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-9.
- BOT CHORD Rigid ceiling directly applied or 6-8-13 oc bracing.
- WEBS 1 Row at midpt 6-18, 9-17, 11-16
- JOINTS 1 Brace at Jt(s): 22, 23, 26
- REACTIONS** (size) 2=0-3-8, 12=0-3-8, 17=0-3-8, 18=0-3-8
- Max Horiz 2=-248 (LC 10)
- Max Uplift 2=-143 (LC 13), 12=-254 (LC 13), 17=-5 (LC 8), 18=-115 (LC 9)
- Max Grav 2=709 (LC 24), 12=721 (LC 21), 17=782 (LC 1), 18=908 (LC 20)
- FORCES** (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/33, 2-3=-628/272, 3-5=-633/407, 5-6=-444/385, 6-7=-302/382, 7-8=-288/375, 8-9=-295/381, 9-11=-419/378, 11-12=-847/379, 12-13=0/33
- BOT CHORD 2-21=-114/406, 19-21=-89/406, 18-19=-75/373, 16-17=0/110, 14-16=-185/607, 12-14=-185/607

- WEBS**
- 3-21=-343/279, 19-26=-382/1852, 6-26=-385/1859, 6-18=-2095/420, 9-17=-602/0, 9-16=-49/447, 11-16=-617/233, 11-14=0/327, 17-23=-211/113, 8-23=-201/112, 18-22=-180/122, 7-22=-180/121, 22-23=-3/14, 7-23=-24/11, 5-26=-212/67

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - Bottom chord live load (20.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 19-21
 - All bearings are assumed to be User Defined.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 143 lb uplift at joint 2, 115 lb uplift at joint 18, 5 lb uplift at joint 17 and 254 lb uplift at joint 12.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

LOAD CASE(S) Standard



January 15, 2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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A MiTek Affiliate

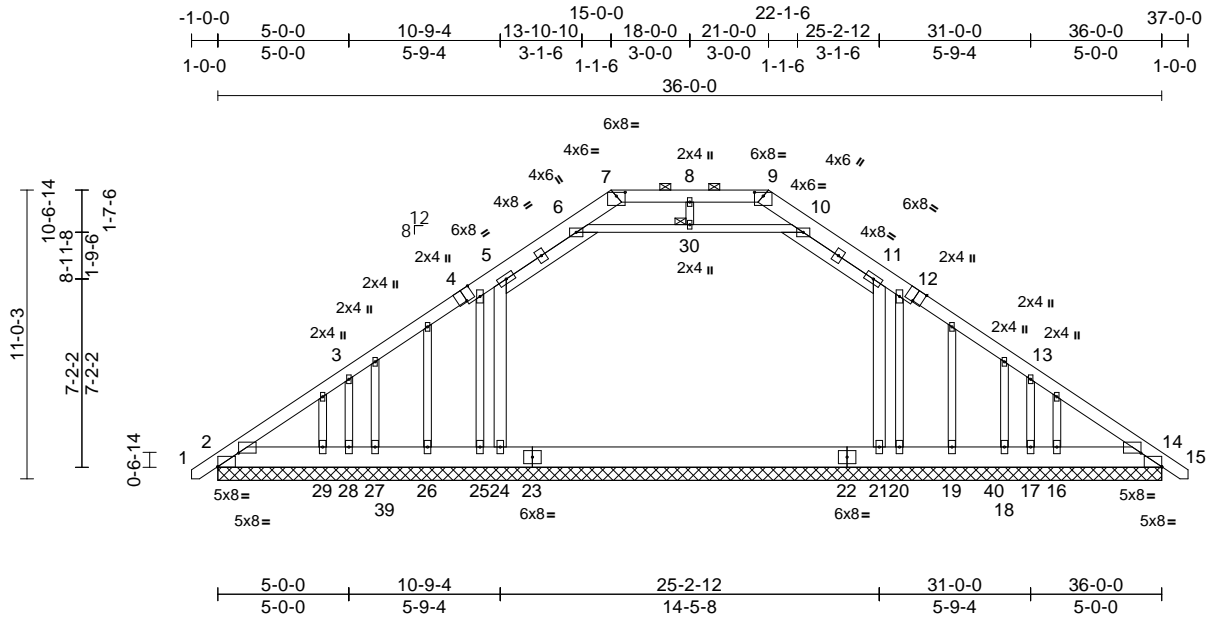
818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss AT2E	Truss Type GABLE	Qty 1	Ply 1	CC 2424 Job Reference (optional)	170775758
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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ID:No3derHDwkHocaZM86gtV2zFa64-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:79.3

Plate Offsets (X, Y): [2:Edge,0-0-4], [2:0-9-8,0-6-3], [4:0-4-0,Edge], [7:0-4-0,0-1-11], [9:0-4-0,0-1-11], [12:0-4-0,Edge], [14:Edge,0-0-4], [14:0-9-8,0-6-3]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.01	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 376 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2 *Except* 4-7,9-12:2x8 SP DSS
BOT CHORD 2x10 SP DSS
WEBS 2x4 SP No.3 *Except* 11-21,5-24:2x6 SP No.2, 6-10:2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 6'-0" oc purlins, except 2'-0" oc purlins (6'-0" max.): 7-9.
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.

JOINTS 1 Brace at Jt(s): 30

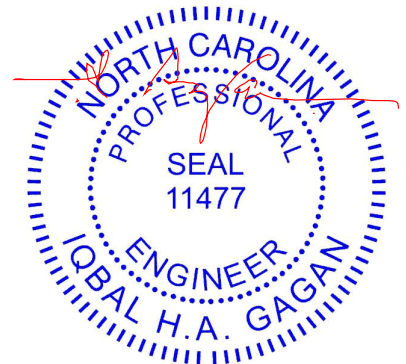
REACTIONS (size)
2=36-0-0, 14=36-0-0, 16=36-0-0, 17=36-0-0, 18=36-0-0, 19=36-0-0, 20=36-0-0, 21=36-0-0, 24=36-0-0, 25=36-0-0, 26=36-0-0, 27=36-0-0, 28=36-0-0, 29=36-0-0
Max Horiz 2=-262 (LC 10)
Max Uplift 2=-23 (LC 8), 14=-13 (LC 9), 17=-150 (LC 13), 20=-1516 (LC 18), 25=-1516 (LC 18), 28=-169 (LC 12)
Max Grav 2=453 (LC 1), 14=451 (LC 1), 16=213 (LC 3), 17=307 (LC 21), 18=58 (LC 3), 19=255 (LC 18), 20=303 (LC 9), 21=2231 (LC 18), 24=2195 (LC 18), 25=-303 (LC 8), 26=255 (LC 18), 27=59 (LC 3), 28=268 (LC 20), 29=219 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/31, 2-3=-562/145, 3-5=-548/140, 5-6=-605/193, 6-7=-644/150, 7-8=-582/139, 8-9=-582/139, 9-10=-646/149, 10-11=-607/191, 11-13=-563/127, 13-14=-548/125, 14-15=0/31

BOT CHORD 2-29=-87/454, 28-29=-87/454, 27-28=-87/454, 26-27=-87/454, 25-26=-87/454, 24-25=-87/454, 21-24=-87/454, 20-21=-87/454, 19-20=-87/454, 18-19=-87/454, 17-18=-87/454, 16-17=-87/454, 14-16=-87/454
WEBS 3-28=-362/194, 13-17=-393/177, 11-21=-574/129, 5-24=-545/160, 6-30=-49/206, 10-30=-49/206, 8-30=0/57

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), or consult qualified building designer as per ANSI/TPI 1.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 3x6 (||) MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2'-0" oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-0"-0" tall by 2'-0"-0" wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Ceiling dead load (5.0 psf) on member(s): 5-6, 10-11, 11-13, 6-30, 10-30; Wall dead load (5.0psf) on member (s): 3-28, 13-17, 11-21, 5-24
 - All bearings are assumed to be User Defined.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 2, 169 lb uplift at joint 28, 150 lb uplift at joint 17, 13 lb uplift at joint 14, 1516 lb uplift at joint 25 and 1516 lb uplift at joint 20.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
 - Attic room checked for L/360 deflection.
- LOAD CASE(S)** Standard



January 15, 2025

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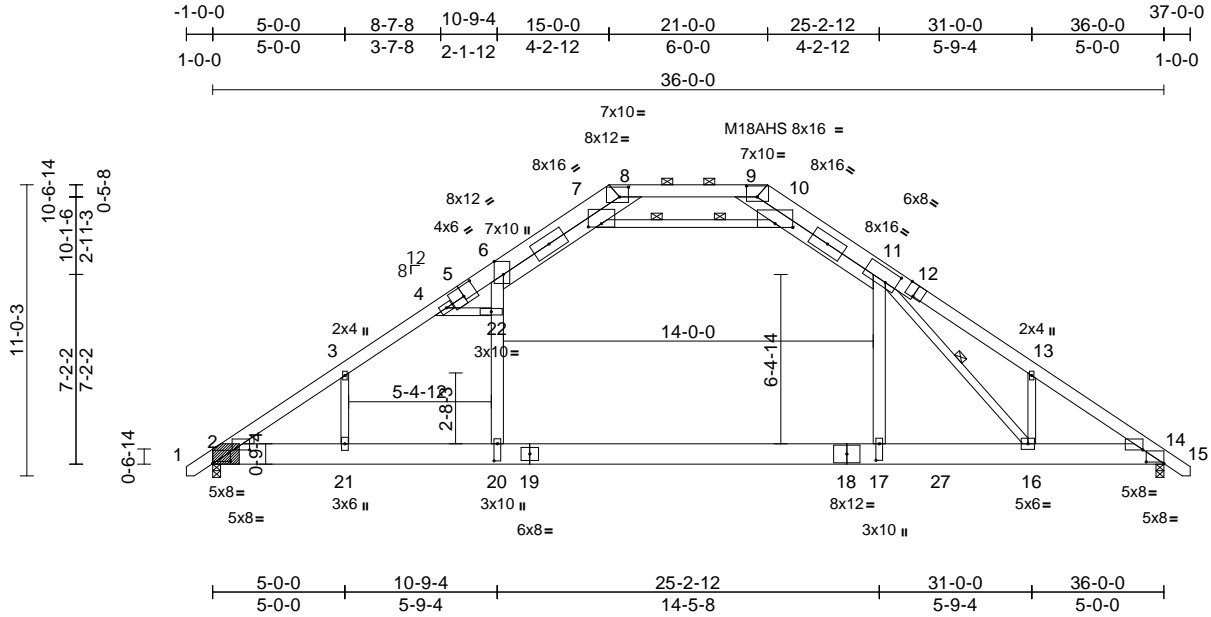
818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss AT3	Truss Type ROOF TRUSS	Qty 4	Ply 1	CC 2424 Job Reference (optional)	170775759
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:07
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Page: 1



Scale = 1:79.3

Plate Offsets (X, Y): [2:0-8-0,0-1-0], [2:1-4-12,0-6-3], [5:0-6-0,0-4-8], [6:0-5-15,Edge], [7:0-6-0,0-1-8], [8:0-4-0,0-4-8], [9:0-4-12,0-5-0], [10:0-8-0,0-1-12], [11:0-5-0,0-5-12], [12:0-4-0,Edge], [14:0-8-0,0-0-12], [14:0-9-8,0-6-3], [17:0-7-8,0-1-8], [20:0-7-12,0-1-8]

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	0.93	Vert(LL)	-0.37	17-20	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.59	17-20	>730	n/a	M18AHS	186/179
BCLL	0.0*	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.05	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.18	17-20	>974	360		Weight: 356 lb FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2 *Except* 5-8,9-12:2x8 SP DSS, 1-5,12-15:2x6 SP DSS
BOT CHORD 2x10 SP DSS
WEBS 2x4 SP No.3 *Except* 11-17,6-20:2x6 SP DSS, 16-11:2x4 SP No.2
OTHERS 2x4 SP DSS *Except* 4-5:2x4 SP No.3
WEDGE Left: 2x4 SP No.3

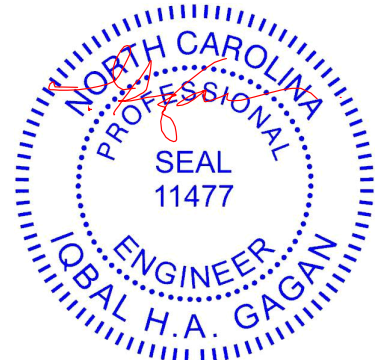
BRACING
TOP CHORD Structural wood sheathing directly applied or 3-9-5 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 8-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 11-16
WEBS 2 Rows at 1/3 pts 7-10

REACTIONS (size) 2=0-3-8, (req. 0-3-11), 14=0-3-8
Max Horiz 2=-262 (LC 10)
Max Grav 2=2353 (LC 20), 14=2121 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/28, 2-3=-3356/0, 3-4=-3443/35, 4-6=-2795/27, 6-7=-2404/195, 7-8=0/2681, 8-9=0/3224, 9-10=0/2600, 10-11=-2459/195, 11-13=-3671/249, 13-14=-3448/102, 14-15=0/28
BOT CHORD 2-21=0/2807, 20-21=0/2807, 17-20=0/2624, 16-17=0/2624, 14-16=0/2798
WEBS 3-21=-520/102, 13-16=-756/234, 11-17=0/1406, 20-22=0/1570, 6-22=0/1594, 7-10=-5760/90, 11-16=-422/794, 4-22=-793/98

- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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.
 - Ceiling dead load (5.0 psf) on member(s). 3-4, 10-11, 7-10, 4-22; Wall dead load (5.0psf) on member(s). 3-21, 11-17, 20-22
 - Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 20-21, 17-20
 - WARNING: Required bearing size at joint(s) 2 greater than input bearing size.
 - All bearings are assumed to be User Defined.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Attic room checked for L/360 deflection.
- LOAD CASE(S)** Standard

NOTES
1) 2x10 SP DSS bearing block 12" long at jt. 2 attached to front face with 5 rows of 10d (0.120"x3") nails spaced 3" o.c. 20 Total fasteners. User Defined Bearing crushing capacity= 425psi.



January 15, 2025

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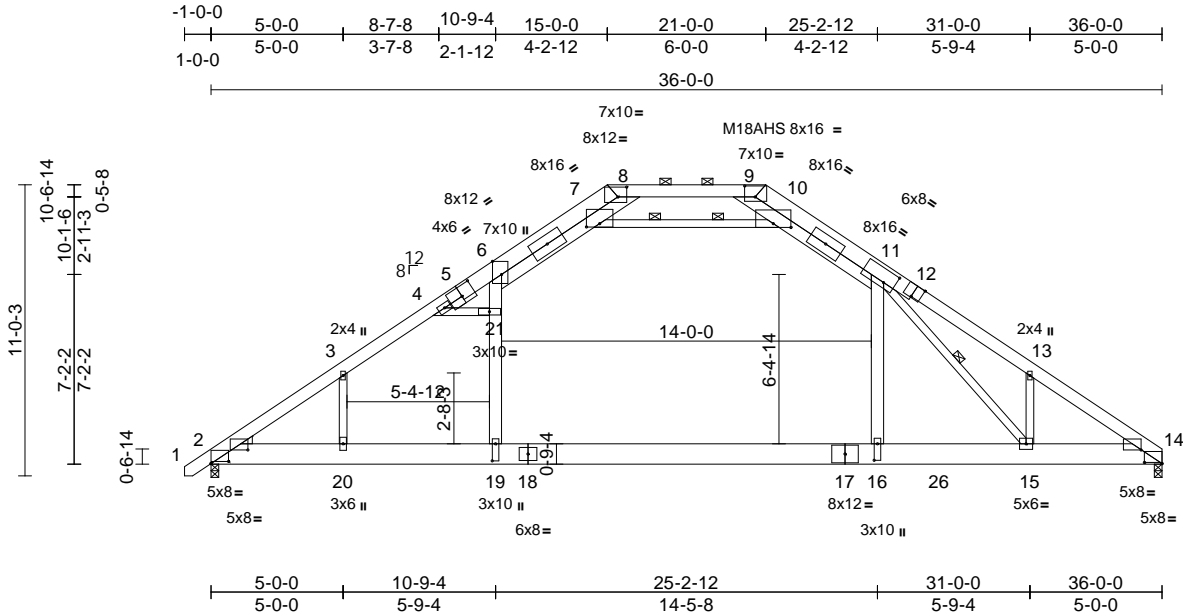
818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss AT3A	Truss Type ROOF TRUSS	Qty 4	Ply 1	CC 2424 Job Reference (optional)	170775760
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:07
ID:No3derHDwkHocaZM86gtV2zFa64-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:79.3

Plate Offsets (X, Y): [2:0-8-0,0-1-0], [2:1-4-12,0-6-3], [5:0-6-0,0-4-8], [6:0-5-15,Edge], [7:0-6-0,0-1-8], [8:0-4-0,0-0-4-8], [9:0-4-12,0-0-5-0], [10:0-8-0,0-0-1-12], [11:0-5-0,0-0-5-12], [12:0-4-0,Edge], [14:0-8-0,0-0-8], [14:0-9-8,0-0-6-3], [16:0-7-8,0-0-1-8], [19:0-7-12,0-0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.37	16-19	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.59	16-19	>730	180	M18AHS	186/179
BCLL	0.0*	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.05	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS	Attic		-0.18	16-19	>974	360		

LUMBER
TOP CHORD 2x6 SP No.2 *Except* 5-8,9-12:2x8 SP DSS, 1-5,12-14:2x6 SP DSS
BOT CHORD 2x10 SP DSS
WEBS 2x4 SP No.3 *Except* 11-16,6-19:2x6 SP DSS, 15-11:2x4 SP No.2
OTHERS 2x4 SP DSS *Except* 4-5:2x4 SP No.3
WEDGE Left: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-9-4 oc purlins, except 2-0-0 oc purlins (10-0-0 max.): 8-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 11-15
WEBS 2 Rows at 1/3 pts 7-10

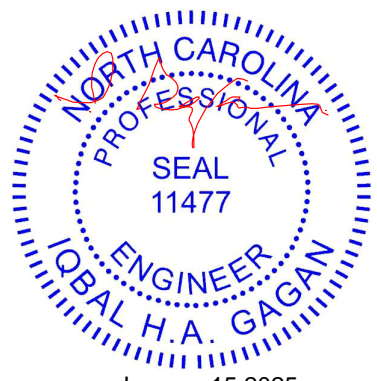
REACTIONS
(size) 2=0-3-8, 14=0-3-8
Max Horiz 2=258 (LC 9)
Max Grav 2=2354 (LC 20), 14=2072 (LC 21)

FORCES
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/28, 2-3=-3357/0, 3-4=-3444/38, 4-6=-2797/28, 6-7=-2405/196, 7-8=0/2682, 8-9=0/3225, 9-10=0/2601, 10-11=-2460/197, 11-13=-3679/255, 13-14=-3456/107
BOT CHORD 2-20=0/2801, 19-20=0/2801, 16-19=0/2618, 15-16=0/2618, 14-15=-9/2809
WEBS 3-20=-520/102, 13-15=-758/235, 11-16=0/1405, 19-21=0/1570, 6-21=0/1594, 7-10=-5761/94, 11-15=-427/803, 4-21=-792/98

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates 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 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.
- 7) Ceiling dead load (5.0 psf) on member(s). 3-4, 10-11, 7-10, 4-21; Wall dead load (5.0psf) on member(s). 3-20, 11-16, 19-21
- 8) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 19-20, 16-19
- 9) Bearings are assumed to be: Joint 2 SP DSS, Joint 14 User Defined.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 11) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

NOTES
1) Unbalanced roof live loads have been considered for this design.



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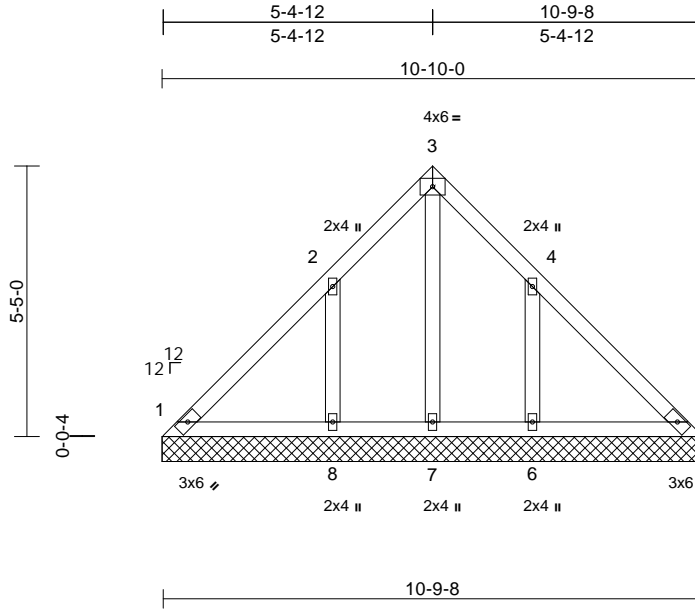
TRENCO
ENGINEERING BY
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss AV1	Truss Type GABLE	Qty 1	Ply 1	CC 2424 Job Reference (optional)	170775761
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:08
ID:No3derHDwkHocaZM86gtV2zFa64-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:41.9

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	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 53 lb	FT = 20%

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

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

REACTIONS (size) 1=10-10-0, 5=10-10-0, 6=10-10-0, 7=10-10-0, 8=10-10-0
Max Horiz 1=-125 (LC 10)
Max Uplift 1=-10 (LC 8), 6=-171 (LC 13), 8=-171 (LC 12)
Max Grav 1=130 (LC 20), 5=114 (LC 19), 6=295 (LC 20), 7=116 (LC 13), 8=295 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-119/107, 2-3=-108/103, 3-4=-108/103, 4-5=-101/85
BOT CHORD 1-8=-76/115, 7-8=-76/115, 6-7=-76/115, 5-6=-76/115
WEBS 3-7=-100/58, 2-8=-254/197, 4-6=-254/197

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.

- Gable studs spaced at 0-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be User Defined .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1, 171 lb uplift at joint 8 and 171 lb uplift at joint 6.

LOAD CASE(S) Standard



January 15, 2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



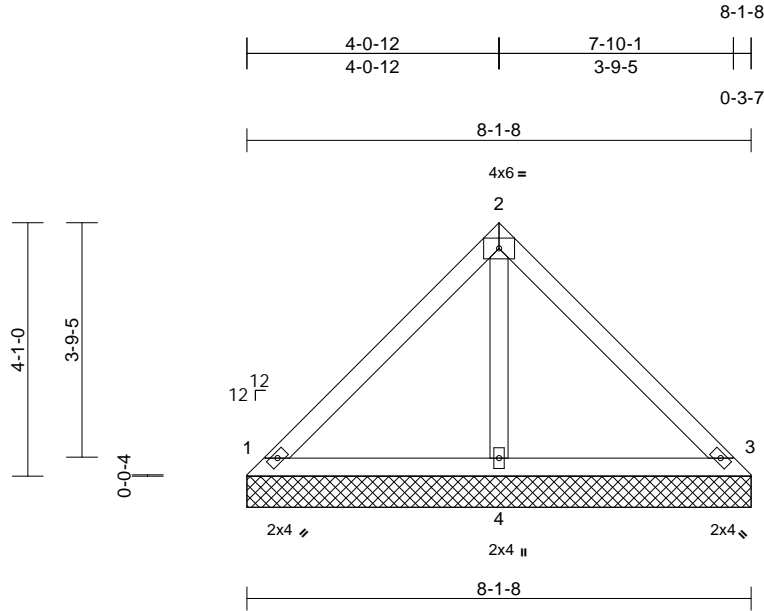
818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss AV2	Truss Type Valley	Qty 1	Ply 1	CC 2424 Job Reference (optional)	170775762
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:08
ID:No3derHDwkHocaZM86gtV2zFa64-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 33 lb	FT = 20%

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

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

REACTIONS (size) 1=8-1-8, 3=8-1-8, 4=8-1-8
 Max Horiz 1=-92 (LC 8)
 Max Uplift 1=-43 (LC 13), 3=-43 (LC 13)
 Max Grav 1=179 (LC 1), 3=179 (LC 1), 4=239 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-133/71, 2-3=-118/57
 BOT CHORD 1-4=-27/65, 3-4=-27/65
 WEBS 2-4=-146/45

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 0-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - All bearings are assumed to be User Defined.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 1 and 43 lb uplift at joint 3.
- LOAD CASE(S)** Standard



January 15, 2025

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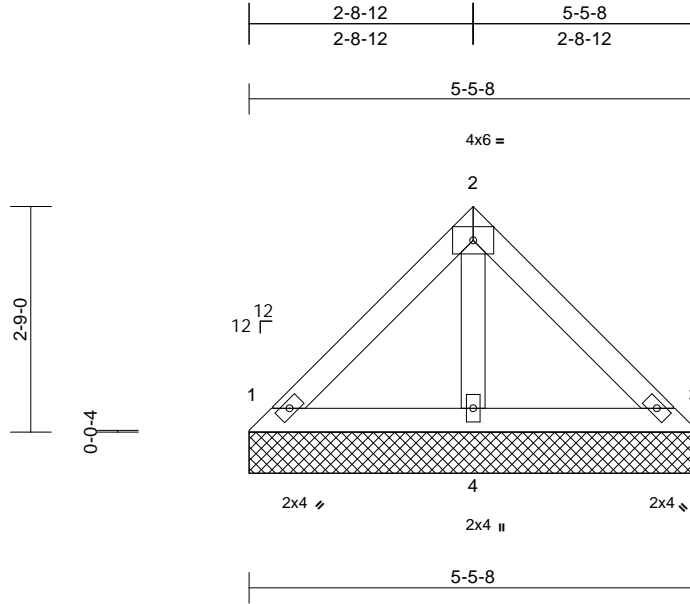
818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss AV3	Truss Type Valley	Qty 1	Ply 1	CC 2424 Job Reference (optional)	170775763
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:08
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Page: 1



Scale = 1:20.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 21 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 1=5-5-8, 3=5-5-8, 4=5-5-8
Max Horiz 1=59 (LC 9)
Max Uplift 1=-28 (LC 13), 3=-28 (LC 13)
Max Grav 1=115 (LC 1), 3=115 (LC 1), 4=154 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-85/47, 2-3=-76/38
BOT CHORD 1-4=-17/41, 3-4=-17/41
WEBS 2-4=-95/30

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 0-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be User Defined.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 1 and 28 lb uplift at joint 3.

LOAD CASE(S) Standard



January 15, 2025

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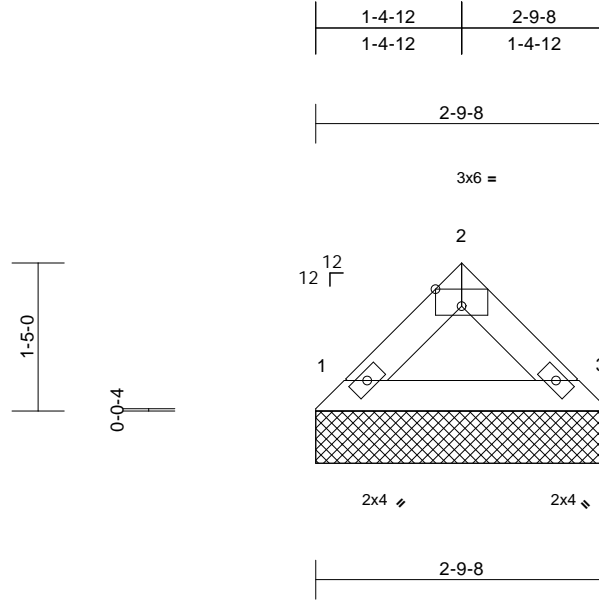
818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss AV4	Truss Type Valley	Qty 1	Ply 1	CC 2424 Job Reference (optional)	170775764
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:08
ID:No3derHDwkHocaZM86gtV2zFa64-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRcDoi7J4zJC?f

Page: 1



Scale = 1:15

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 9 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-10-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-9-8, 3=2-9-8

Max Horiz 1=-26 (LC 8)
Max Uplift 1=-7 (LC 13), 3=-7 (LC 13)
Max Grav 1=85 (LC 1), 3=85 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-63/27, 2-3=-63/27
BOT CHORD 1-3=-7/36

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 0-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- All bearings are assumed to be User Defined .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 1 and 7 lb uplift at joint 3.

LOAD CASE(S) Standard



January 15, 2025

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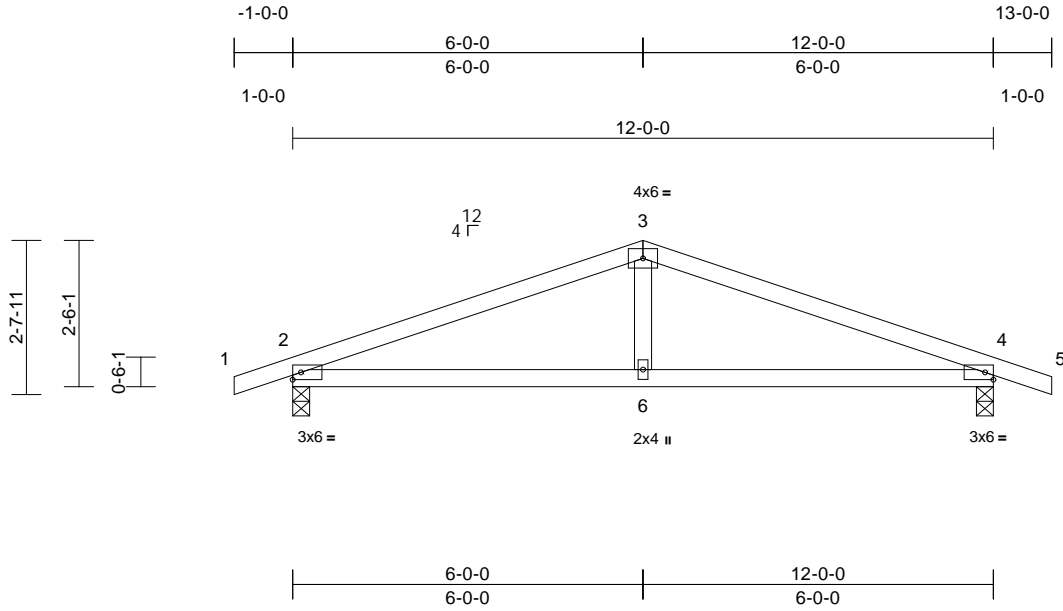
818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss B1	Truss Type Common	Qty 1	Ply 1	CC 2424 Job Reference (optional)	170775765
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:09
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Page: 1



Scale = 1:33.9

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	0.44	Vert(LL)	-0.03	6-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.07	6-12	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 43 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-8-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 4=0-3-8

Max Horiz 2=-39 (LC 13)
Max Uplift 2=-108 (LC 8), 4=-108 (LC 9)
Max Grav 2=540 (LC 1), 4=540 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/19, 2-3=-818/239, 3-4=-818/239, 4-5=0/19

BOT CHORD 2-6=-150/723, 4-6=-150/723
WEBS 3-6=0/254

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 108 lb uplift at joint 2 and 108 lb uplift at joint 4.

LOAD CASE(S) Standard



January 15, 2025

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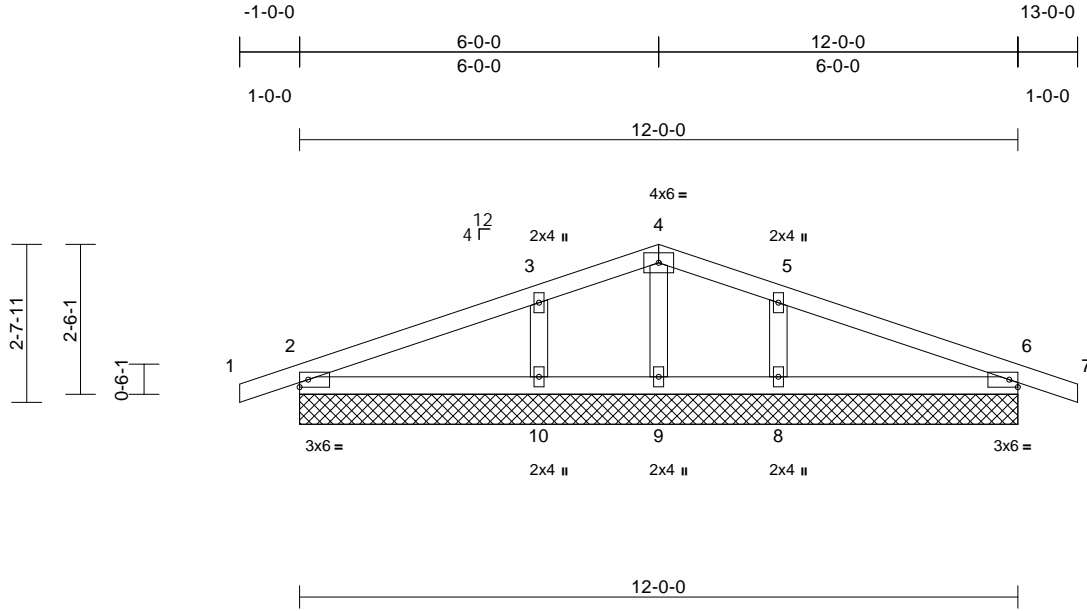
818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss B1E	Truss Type Common Supported Gable	Qty 1	Ply 1	CC 2424 Job Reference (optional)	170775766
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:09
ID: _84EydMoqRdHbNSOXwUPAOzvD0j-RfC?PsB70Hq3NSgPqnL8w3uTXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:33

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	0.38	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	-0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 47 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 2=12-0-0, 6=12-0-0, 8=12-0-0, 9=12-0-0, 10=12-0-0
Max Horiz 2=-39 (LC 13)
Max Uplift 2=-94 (LC 24), 8=-110 (LC 9), 9=-41 (LC 9), 10=-79 (LC 12)
Max Grav 2=121 (LC 23), 8=443 (LC 1), 9=231 (LC 1), 10=388 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/19, 2-3=-243/517, 3-4=-180/473, 4-5=-177/472, 5-6=-244/522, 6-7=0/19
BOT CHORD 2-10=-450/278, 9-10=-450/278, 8-9=-450/278, 6-8=-450/278
WEBS 4-9=-297/123, 3-10=-252/156, 5-8=-279/166

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; 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.2 .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 94 lb uplift at joint 2, 41 lb uplift at joint 9, 79 lb uplift at joint 10, 110 lb uplift at joint 8 and 94 lb uplift at joint 2.

LOAD CASE(S) Standard



January 15, 2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



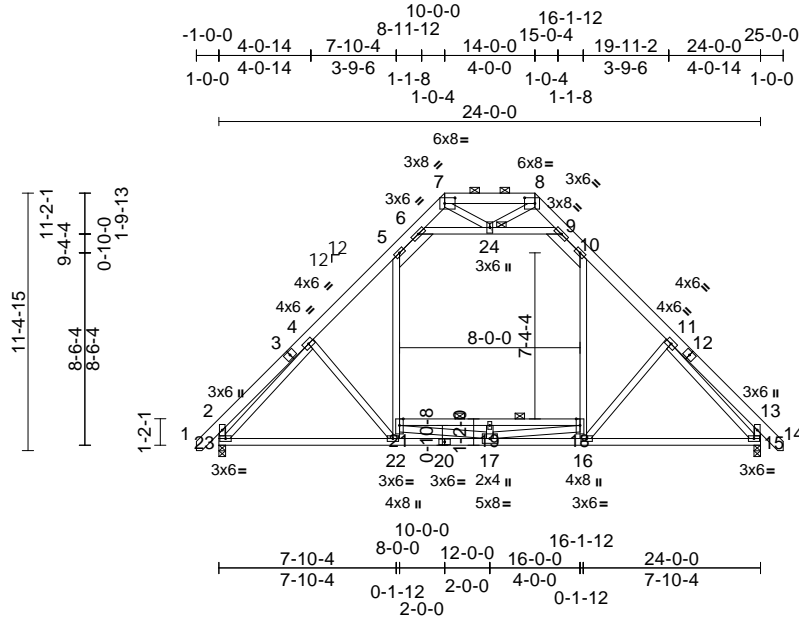
818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss C1	Truss Type ATTIC	Qty 1	Ply 1	CC 2424 Job Reference (optional)	170775767
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:09
ID:No3derHDwkHocaZM86gtV2zFa64-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:88.4

Plate Offsets (X, Y): [7:0-5-8,0-3-0], [8:0-5-8,0-3-0]

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)	0.14	22-23	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.21	22-23	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.04	15	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.09	18-21	>999	360	Weight: 229 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 5-22,6-9,10-16:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-7-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.
BOT CHORD Rigid ceiling directly applied or 3-10-5 oc bracing.
JOINTS 1 Brace at Jt(s): 24

REACTIONS (size) 15=0-3-8, 23=0-3-8
Max Horiz 23=302 (LC 11)
Max Grav 15=1359 (LC 2), 23=1359 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/44, 2-4=-397/102, 4-5=-1419/53, 5-6=-842/133, 6-7=-170/143, 7-8=-13/162, 8-9=-170/143, 9-10=-842/133, 10-11=-1419/53, 11-13=-396/102, 13-14=0/44, 2-23=-402/137, 13-15=-401/137
BOT CHORD 22-23=-27/1122, 17-22=0/1005, 16-17=0/889, 15-16=0/952, 19-21=-1106/0, 18-19=-1106/0
WEBS 4-22=-185/273, 21-22=-87/309, 5-21=-7/695, 6-24=-1212/129, 9-24=-1212/129, 16-18=-87/309, 10-18=-7/696, 4-23=-1184/0, 11-16=-186/273, 17-19=-520/0, 17-21=0/1198, 17-18=0/1198, 7-24=-135/203, 8-24=-135/203, 11-15=-1184/0

NOTES
1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Ceiling dead load (5.0 psf) on member(s). 5-6, 9-10, 6-24, 9-24; Wall dead load (5.0psf) on member(s).5-21, 10-18
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 19-21, 18-19
- All bearings are assumed to be User Defined .
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.

LOAD CASE(S) Standard



January 15, 2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

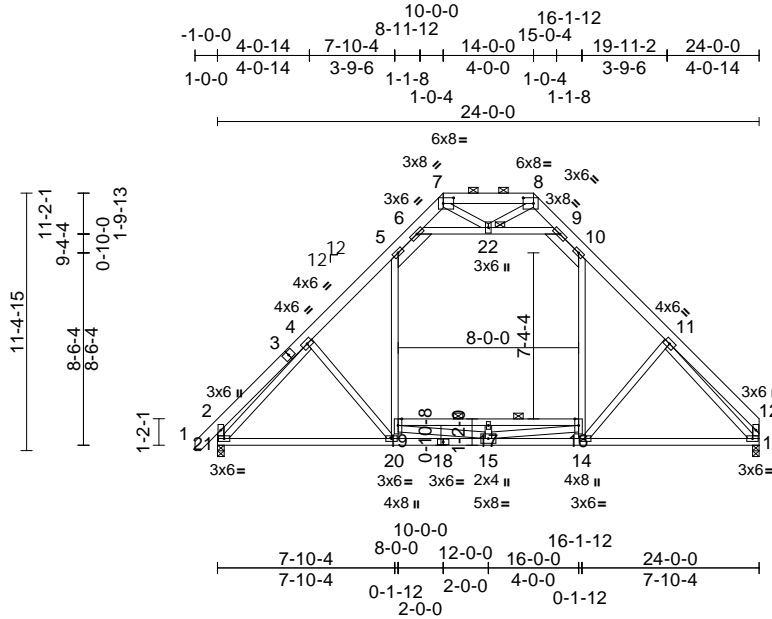
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss C1A	Truss Type ATTIC	Qty 3	Ply 1	CC 2424 Job Reference (optional)	170775768
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:09
ID:No3derHDwkHocaZM86gtV2zFa64-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:88.4

Plate Offsets (X, Y): [7:0-5-8,0-3-0], [8:0-5-8,0-3-0]

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)	0.14	20-21	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.21	20-21	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.04	13	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.09	16-19	>999	360	Weight: 226 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3 *Except* 5-20,6-9,10-14:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-7-8 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.
 BOT CHORD Rigid ceiling directly applied or 3-10-5 oc bracing.

JOINTS 1 Brace at Jt(s): 22

REACTIONS (size) 13=0-3-8, 21=0-3-8
 Max Horiz 21=294 (LC 9)
 Max Grav 13=1307 (LC 2), 21=1361 (LC 2)

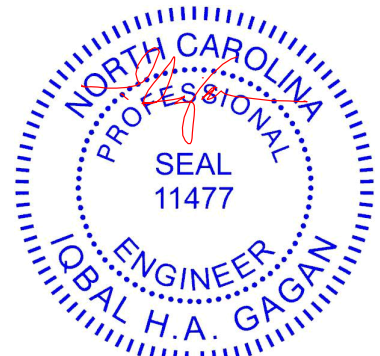
FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/44, 2-4=-397/102, 4-5=-1420/53, 5-6=-844/133, 6-7=-170/143, 7-8=-13/161, 8-9=-171/143, 9-10=-843/133, 10-11=-1424/53, 11-12=-360/76, 2-21=-403/137, 12-13=-311/76
 BOT CHORD 20-21=-37/1111, 15-20=0/993, 14-15=0/877, 13-14=0/960, 17-19=-1106/0, 16-17=-1106/0, 4-20=-185/273, 19-20=-87/309, 5-19=-7/695, 6-22=-1214/129, 9-22=-1211/129, 14-16=-87/312, 10-16=-8/702, 4-21=-1185/0, 11-14=-190/274, 15-17=-520/0, 15-19=0/1198, 15-16=0/1198, 7-22=-135/204, 8-22=-135/202, 11-13=-1224/0

NOTES

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 6) Ceiling dead load (5.0 psf) on member(s). 5-6, 9-10, 6-22, 9-22; Wall dead load (5.0psf) on member(s). 5-19, 10-16
- 7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 17-19, 16-17
- 8) All bearings are assumed to be User Defined .
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard



January 15, 2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



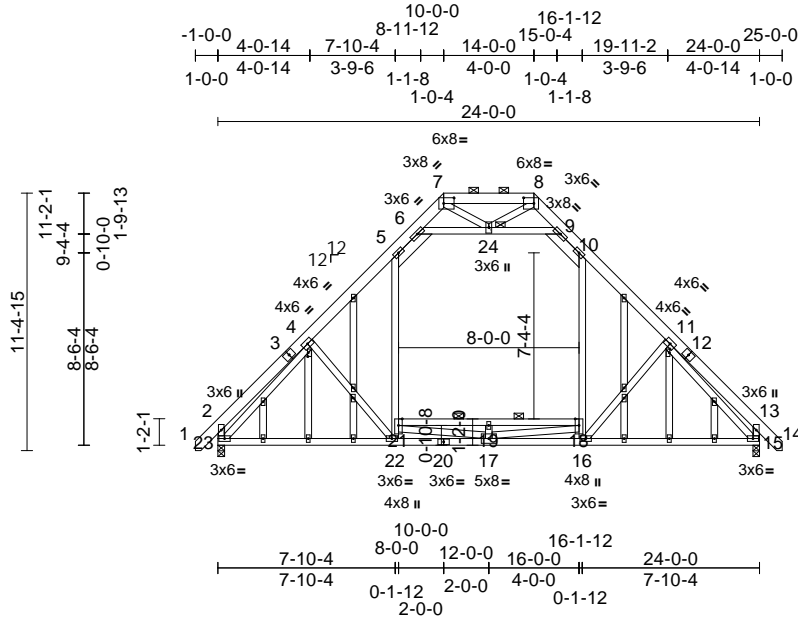
818 Soundside Road
 Edenton, NC 27932

Job CC 2424	Truss C1E	Truss Type GABLE	Qty 1	Ply 1	CC 2424 Job Reference (optional)	170775769
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:10
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Page: 1



Scale = 1:88.4
 Plate Offsets (X, Y): [7:0-5-8,0-3-0], [8:0-5-8,0-3-0], [29:0-2-0,0-0-5], [36:0-2-0,0-0-5]

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	0.49	Vert(LL)	0.14	22-23	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.21	22-23	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.04	15	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.09	18-21	>999	360	Weight: 265 lb	FT = 20%

LUMBER
 TOP CHORD 2x6 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3 *Except* 5-22,6-9,10-16:2x4 SP No.2
 OTHERS 2x4 SP No.3

BRACING
 TOP CHORD Structural wood sheathing directly applied or 5-7-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.
 BOT CHORD Rigid ceiling directly applied or 3-10-5 oc bracing.

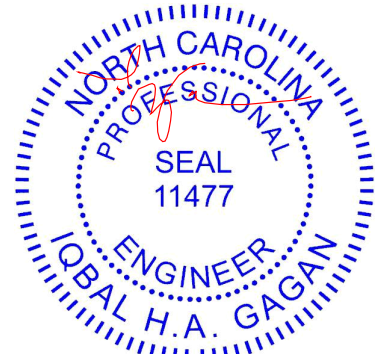
JOINTS 1 Brace at Jt(s): 24
REACTIONS (size) 15=0-3-8, 23=0-3-8
 Max Horiz 23=302 (LC 11)
 Max Grav 15=1359 (LC 2), 23=1359 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/44, 2-4=-397/102, 4-5=-1419/53, 5-6=-842/133, 6-7=-170/143, 7-8=-13/162, 8-9=-170/143, 9-10=-842/133, 10-11=-1419/53, 11-13=-396/102, 13-14=0/44, 2-23=-402/137, 13-15=-401/137
 BOT CHORD 22-23=-27/1122, 17-22=0/1005, 16-17=0/889, 15-16=0/952, 19-21=-1106/0, 18-19=-1106/0
 WEBS 4-22=-185/273, 21-22=-87/309, 5-21=-7/695, 6-24=-1212/129, 9-24=-1212/129, 16-18=-87/309, 10-18=-7/696, 4-23=-1184/0, 11-16=-186/273, 17-19=-520/0, 17-21=0/1198, 17-18=0/1198, 7-24=-135/203, 8-24=-135/203, 11-15=-1184/0

NOTES
 1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 (||) MT20 unless otherwise indicated.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Ceiling dead load (5.0 psf) on member(s). 5-6, 9-10, 6-24, 9-24; Wall dead load (5.0psf) on member(s). 5-21, 10-18
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 19-21, 18-19
- All bearings are assumed to be User Defined.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.

LOAD CASE(S) Standard



January 15, 2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



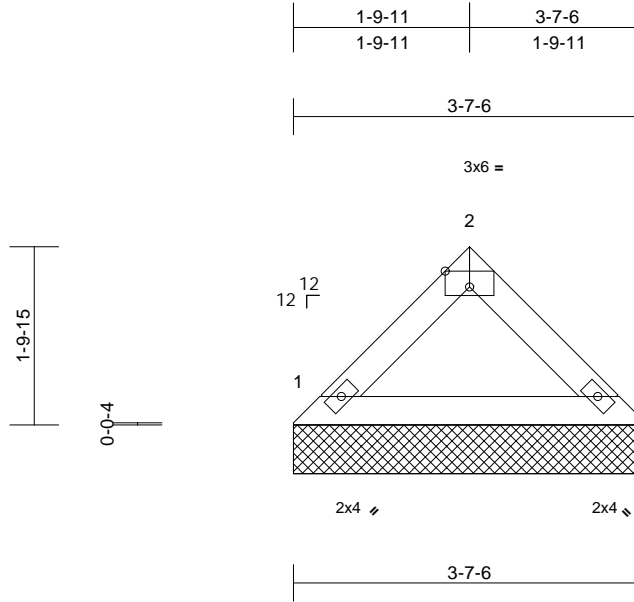
818 Soundside Road
 Edenton, NC 27932

Job CC 2424	Truss CV1	Truss Type Valley	Qty 1	Ply 1	CC 2424 Job Reference (optional)	170775770
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:10
ID:No3derHDwkHocaZM86gtV2zFa64-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:16.6

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 12 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-7-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-7-6, 3=3-7-6

Max Horiz 1=37 (LC 11)
Max Uplift 1=9 (LC 13), 3=9 (LC 13)
Max Grav 1=118 (LC 1), 3=118 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

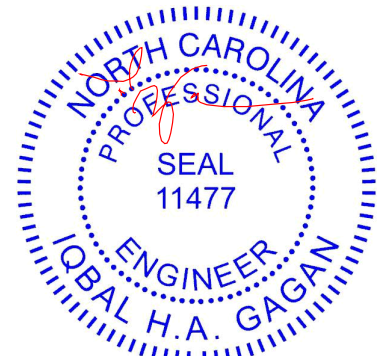
TOP CHORD 1-2=-88/37, 2-3=-88/37
BOT CHORD 1-3=-9/51

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 0-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- All bearings are assumed to be User Defined .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 1 and 9 lb uplift at joint 3.

LOAD CASE(S) Standard



January 15, 2025

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

ENGINEERING BY
TRENCO
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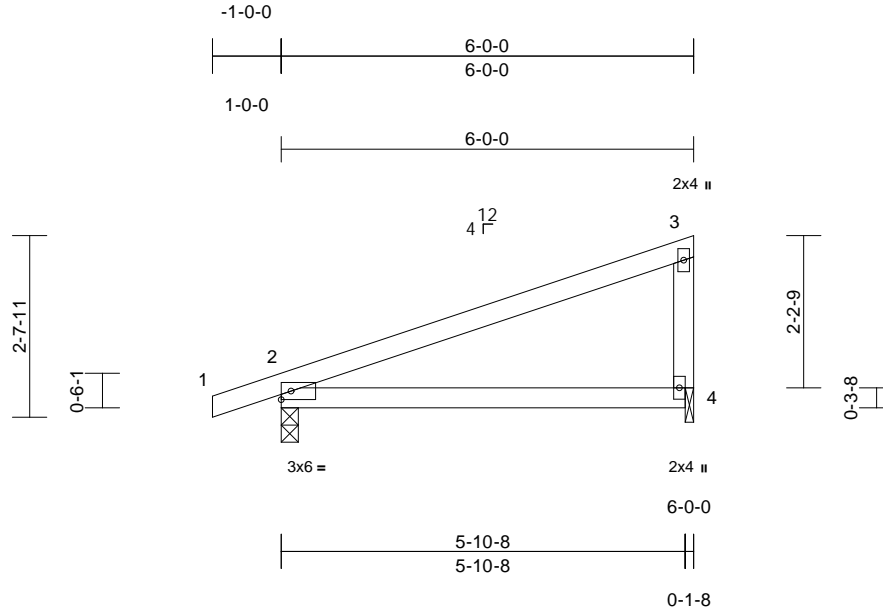
818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss M1	Truss Type MONOPITCH	Qty 5	Ply 1	CC 2424 Job Reference (optional)	170775771
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:11
ID:No3derHDwkHocaZM86gtV2zFa64-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:23.8

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	0.54	Vert(LL)	0.06	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.12	4-7	>602	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 23 lb	FT = 20%

LUMBER

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

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 78 lb uplift at joint 2 and 49 lb uplift at joint 4.

LOAD CASE(S) Standard

BRACING

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

REACTIONS (size) 2=0-3-0, 4=0-1-8

Max Horiz 2=95 (LC 11)
Max Uplift 2=-78 (LC 8), 4=-49 (LC 12)
Max Grav 2=299 (LC 1), 4=229 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/19, 2-3=-168/88, 3-4=-156/133
BOT CHORD 2-4=-174/105

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be User Defined.
- Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.



January 15, 2025

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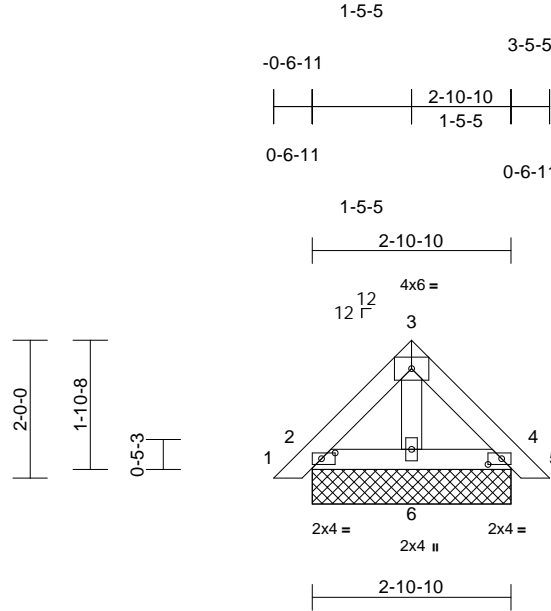
818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss PB1	Truss Type PIGGYBACK	Qty 5	Ply 1	CC 2424 Job Reference (optional)	170775772
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:11
ID:No3derHDwkHocaZM86gtV2zFa64-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:21.6

Plate Offsets (X, Y): [2:0-2-6,0-1-0], [4:0-2-6,0-1-0]

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	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 14 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 2=2-10-10, 4=2-10-10, 6=2-10-10
Max Horiz 2=-44 (LC 10)
Max Uplift 2=-22 (LC 12), 4=-27 (LC 13)
Max Grav 2=93 (LC 1), 4=93 (LC 1), 6=89 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension

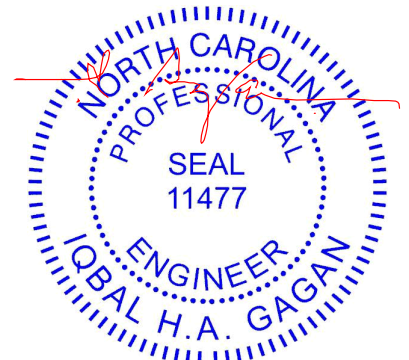
TOP CHORD 1-2=0/13, 2-3=-59/30, 3-4=-54/28, 4-5=0/13
BOT CHORD 2-6=-15/35, 4-6=-15/35
WEBS 3-6=-51/12

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be User Defined.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 2 and 27 lb uplift at joint 4.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



January 15, 2025

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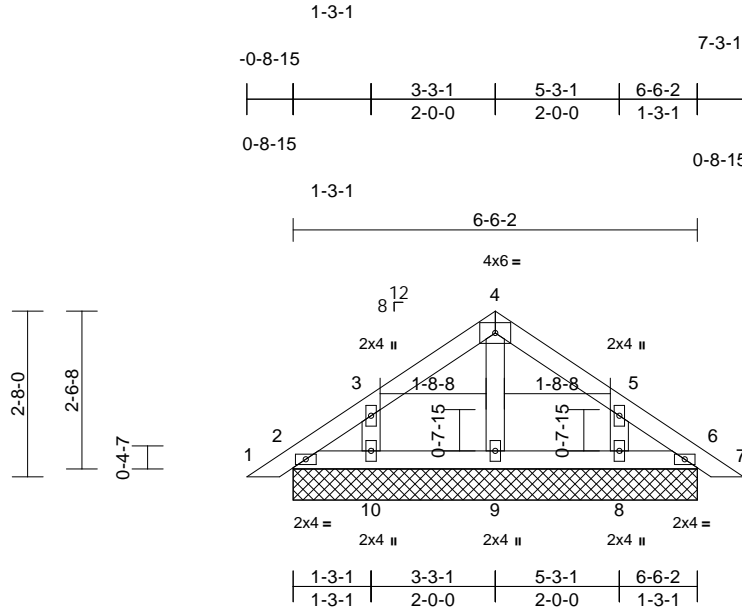
818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss PB4	Truss Type PIGGYBACK	Qty 1	Ply 1	CC 2424 Job Reference (optional)	170775773
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:11
ID:No3derHDwkHocaZM86gtV2zFa64-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:25.1

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 29 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 2=6-6-2, 6=6-6-2, 8=6-6-2, 9=6-6-2, 10=6-6-2
Max Horiz 2=-62 (LC 10)
Max Uplift 2=-8 (LC 13), 6=-1 (LC 13), 8=-68 (LC 13), 10=-69 (LC 12)
Max Grav 2=73 (LC 1), 6=73 (LC 1), 8=166 (LC 20), 9=122 (LC 1), 10=167 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension

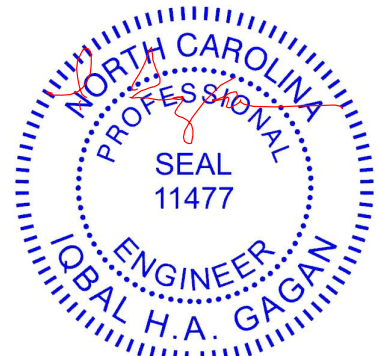
TOP CHORD 1-2=0/14, 2-3=-56/45, 3-4=-62/57, 4-5=-62/57, 5-6=-40/25, 6-7=0/14
BOT CHORD 2-10=-22/42, 9-10=-22/42, 8-9=-22/42, 6-8=-22/42
WEBS 4-9=-80/0, 5-8=-145/98, 3-10=-145/98

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- All bearings are assumed to be User Defined .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 2, 1 lb uplift at joint 6, 68 lb uplift at joint 8 and 69 lb uplift at joint 10.
- Non Standard bearing condition. Review required.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



January 15, 2025

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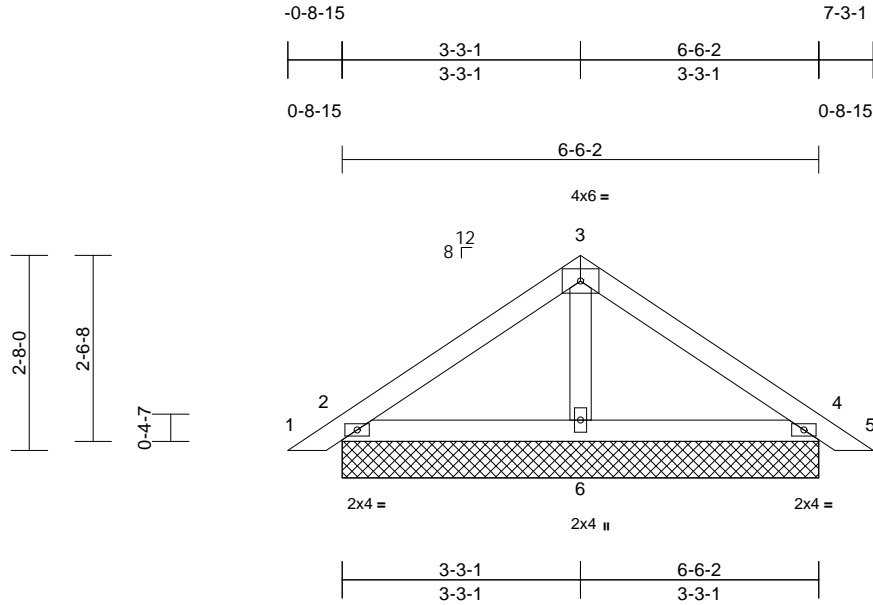
818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss PB4A	Truss Type PIGGYBACK	Qty 8	Ply 1	CC 2424 Job Reference (optional)	170775774
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:11
ID:No3derHDwkHocaZM86gtV2zFa64-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?F

Page: 1



Scale = 1:23

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	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	IRC2015/TPI2014	Matrix-P							Weight: 27 lb	FT = 20%

LUMBER

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

- 7) Non Standard bearing condition. Review required.
8) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

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=6-6-2, 4=6-6-2, 6=6-6-2
Max Horiz 2=-62 (LC 10)
Max Uplift 2=-43 (LC 12), 4=-51 (LC 13)
Max Grav 2=172 (LC 1), 4=172 (LC 1), 6=235 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/14, 2-3=-86/52, 3-4=-78/48, 4-5=0/14
BOT CHORD 2-6=-12/42, 4-6=-12/42
WEBS 3-6=-154/53

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be User Defined.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 2 and 51 lb uplift at joint 4.



January 15, 2025

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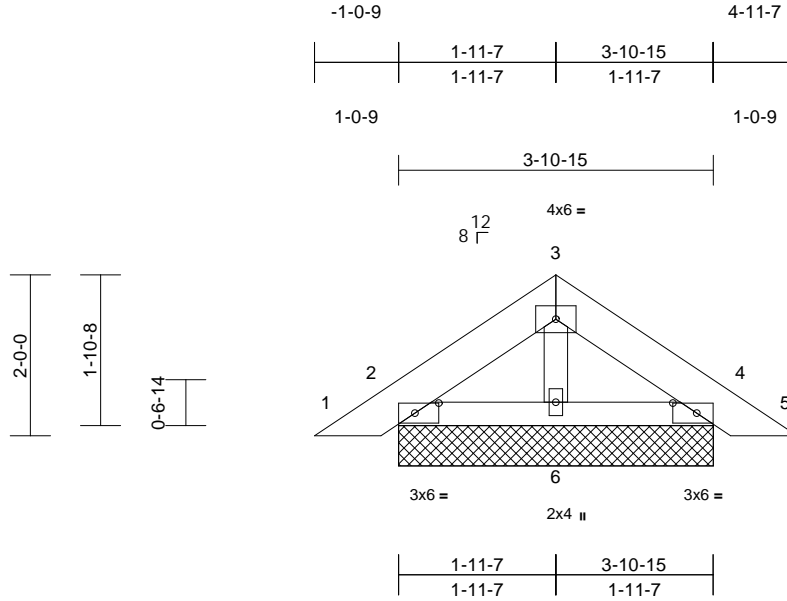
818 Soundside Road
Edenton, NC 27932

Job CC 2424	Truss PB5	Truss Type PIGGYBACK	Qty 9	Ply 1	CC 2424 Job Reference (optional)	170775775
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84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Dec 4 2024 Print: 8.830 S Dec 4 2024 MiTek Industries, Inc. Wed Jan 15 05:26:11
ID:No3derHDwkHocaZM86gtV2zFa64-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRcDoi7J4zJC?#

Page: 1



Scale = 1:19.7

Plate Offsets (X, Y): [2:0-3-9,0-1-8], [4:0-3-9,0-1-8]

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	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 24 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING

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

REACTIONS

(size) 2=3-10-15, 4=3-10-15, 6=3-10-15
Max Horiz 2=-43 (LC 10)
Max Uplift 2=-37 (LC 12), 4=-43 (LC 13)
Max Grav 2=131 (LC 1), 4=131 (LC 1), 6=126 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

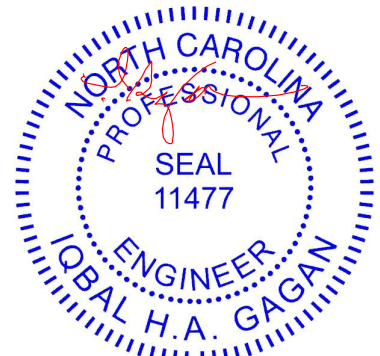
TOP CHORD 1-2=0/15, 2-3=-67/38, 3-4=-62/39, 4-5=0/15
BOT CHORD 2-6=-7/30, 4-6=-7/30
WEBS 3-6=-77/18

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) All bearings are assumed to be User Defined .
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 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



January 15, 2025

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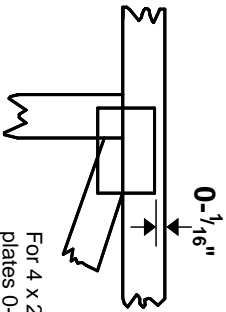
818 Soundside Road
Edenton, NC 27932

Symbols

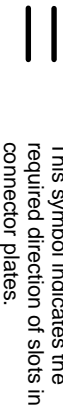
PLATE LOCATION AND ORIENTATION



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

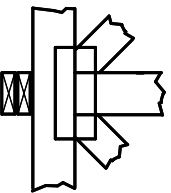
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

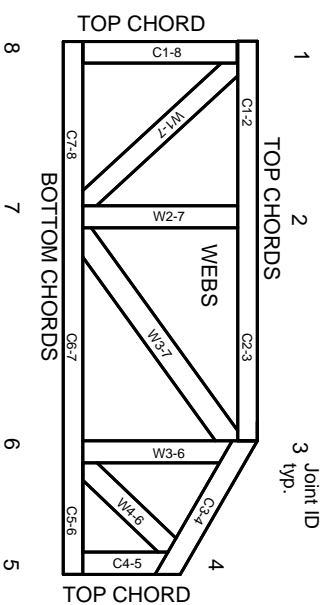


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1: 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/TP1 section 6.3. These truss designs rely on Lumber values established by others.

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ENGINEERING BY
TRENGO
A MITek Affiliate

MITek Engineering Reference Sheet: MIL-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/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.