

RE: 27210-27210A
Aberdeen Loft Vlt Mst

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: D.R. HORTON - RAL - 055 Project Name: 27210-27210A
Lot/Block: Model: 1906 / ABERDEEN / 2ND FLOOR/ CATH MSTR
Address: Subdivision:
City: ROCKY MOUNT State: NC

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

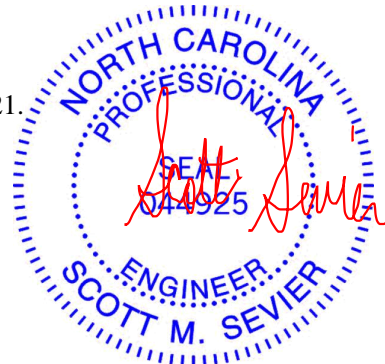
Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.5
Wind Code: ASCE 7-10 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 17 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I46497202	A	6/10/2021
2	I46497203	A1	6/10/2021
3	I46497204	A2	6/10/2021
4	I46497205	A3	6/10/2021
5	I46497206	A4	6/10/2021
6	I46497207	A4GR	6/10/2021
7	I46497208	A5	6/10/2021
8	I46497209	A5E	6/10/2021
9	I46497210	A5GR	6/10/2021
10	I46497211	AE	6/10/2021
11	I46497212	B	6/10/2021
12	I46497213	B1	6/10/2021
13	I46497214	C	6/10/2021
14	I46497215	D	6/10/2021
15	I46497216	PB1	6/10/2021
16	I46497217	PB2	6/10/2021
17	I46497218	V1	6/10/2021

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.
Truss Design Engineer's Name: Sevier, Scott
My license renewal date for the state of North Carolina is December 31, 2021.
North Carolina COA: C-0844

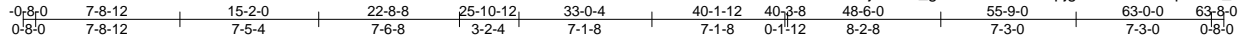
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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 27210-27210A	Truss A	Truss Type ATTIC	Qty 4	Ply 1	Aberdeen Loft Vlt Mst Job Reference (optional)	146497202
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84 Components, Dunn, NC 28334

8.500 s Feb 23 2021 MiTek Industries, Inc. Wed Jun 9 15:25:33 2021 Page 1
ID:hSPrWMHNLcMfmXJlhBDjGz8N_g-NtA49OxB4Mopjg3ZhdW4dfr2qnCsm_xrSyNsWDz7z10



Scale = 1:123.5

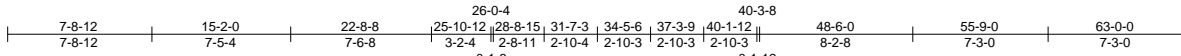
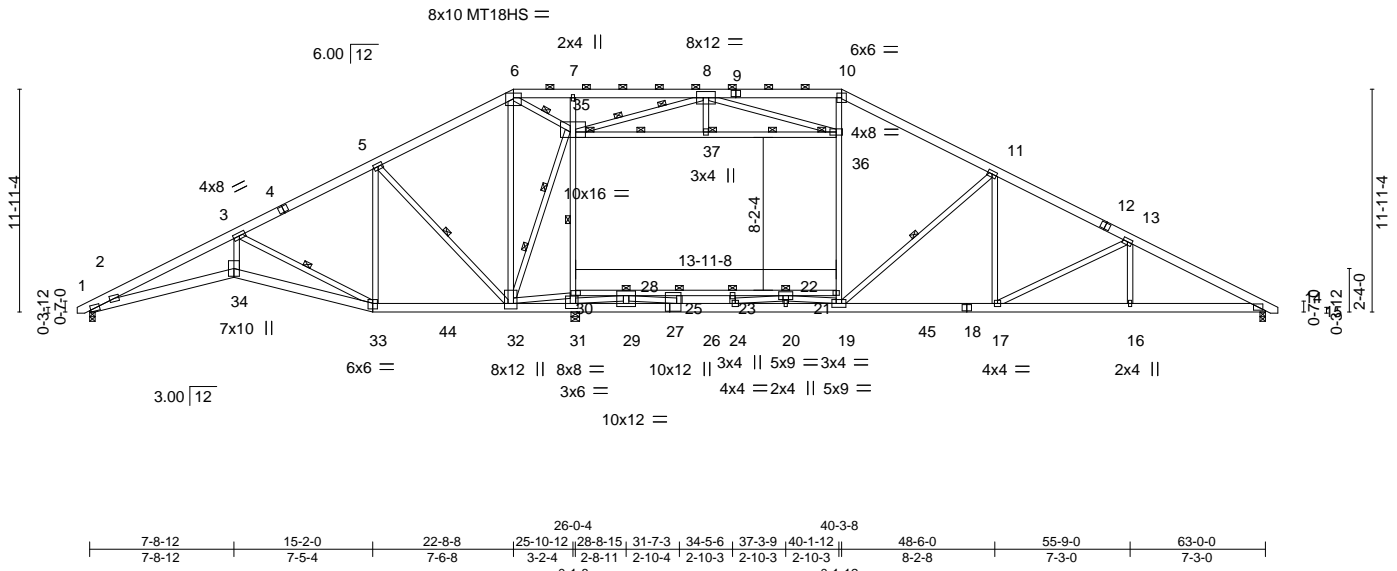


Plate Offsets (X,Y)--	[2:0-0-12,Edge], [6:0-5-0,0-3-0], [27:0-5-0,0-2-12], [28:0-6-0,0-3-0], [31:0-1-8,0-3-4], [32:0-3-8,0-4-0], [33:0-3-0,0-3-8], [35:0-8-0,0-3-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.95	Vert(LL)	-0.45	21-22	>990	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.89	Vert(CT)	-0.91	21-22	>487	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.98	Horz(CT)	0.32	14	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Attic	-0.23	21-30	742		
								Weight: 552 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-0-13 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 6-10.
BOT CHORD 2x6 SP No.2 *Except* 27-33,18-27: 2x6 SP DSS, 21-30: 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 8-4-10 oc bracing: 31-32 8-9-4 oc bracing: 29-31. 3-3-0 oc bracing: 21-30
WEBS 2x4 SP No.3 *Except* 6-32,6-35,35-36,8-35,8-36: 2x4 SP No.2 or 2x4 SPF No.2 7-31,10-19: 2x4 SP DSS, 32-35: 2x4 SP No.1	WEBS 1 Row at midpt 3-33, 5-32, 6-35, 30-35, 11-19, 35-37, 36-37 2 Rows at 1/3 pts 8-35, 32-35 1 Brace at Jt(s): 35, 36, 37
	JOINTS

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

REACTIONS. (lb/size) 2=1390/0-3-8 (min. 0-2-3), 31=2564/0-5-8 (min. 0-4-8), 14=1882/0-3-8 (min. 0-3-4)
Max Horz 2=194(LC 16)
Max Uplift 2=-7(LC 12), 14=-119(LC 13)
Max Grav 2=1414(LC 2), 31=2862(LC 2), 14=2067(LC 27)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4626/516, 3-4=-2003/238, 4-5=-1955/264, 5-6=-1403/191, 6-7=-190/3209,
7-8=-201/3365, 8-9=-2567/234, 9-10=-2567/234, 10-11=-2803/193, 11-12=-3384/298,
12-13=-3530/262, 13-14=-3994/366
BOT CHORD 2-34=-369/4192, 33-34=-361/4050, 33-44=0/1739, 32-44=0/1739, 31-32=0/2265,
29-31=0/2437, 27-29=0/2437, 26-27=0/2437, 24-26=0/4428, 20-24=0/4001, 19-20=0/4001,
19-45=-12/3097, 18-45=-12/3097, 17-18=-12/3097, 16-17=-223/3507, 14-16=-223/3507,
28-30=0/573, 25-28=-2515/0, 23-25=-2515/0, 22-23=-2515/0
WEBS 3-34=-102/2083, 3-33=-2484/429, 5-33=-34/542, 5-32=-919/344, 6-32=-197/3053,
6-35=-5040/480, 30-31=-1749/420, 30-35=-1720/529, 7-35=-447/153, 19-21=0/1214,
21-36=0/1443, 10-36=0/910, 11-19=-978/366, 11-17=-31/545, 13-17=-566/237,
13-16=0/262, 35-37=-1807/0, 36-37=-1805/0, 28-29=-706/0, 25-26=-304/0, 23-24=-281/0,
8-35=-3988/486, 8-36=0/2112, 32-35=-3123/0, 28-31=-1062/156, 26-28=0/2089,
19-22=-1893/0, 22-24=-150/637

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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



Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job 27210-27210A	Truss A	Truss Type ATTIC	Qty 4	Ply 1	Aberdeen Loft Vlt Mst Job Reference (optional)	146497202
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84 Components, Dunn, NC 28334

8.500 s Feb 23 2021 MiTek Industries, Inc. Wed Jun 9 15:25:33 2021 Page 2
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NOTES-

- 3) **WARNING:** This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) All plates are 4x6 MT20 unless otherwise indicated.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) Ceiling dead load (5.0 psf) on member(s). 35-37, 36-37; Wall dead load (5.0psf) on member(s).30-35, 21-36
- 10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 28-30, 25-28, 23-25, 22-23, 21-22
- 11) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 2 and 119 lb uplift at joint 14.
- 13) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 14) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 16) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

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

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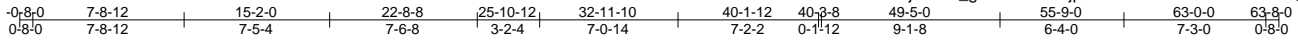
818 Soundside Road
Edenton, NC 27932

Job 27210-27210A	Truss A1	Truss Type ATTIC	Qty 2	Ply 1	Aberdeen Loft Vlt Mst 146497203
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84 Components (Dunn), Dunn, NC - 28334,

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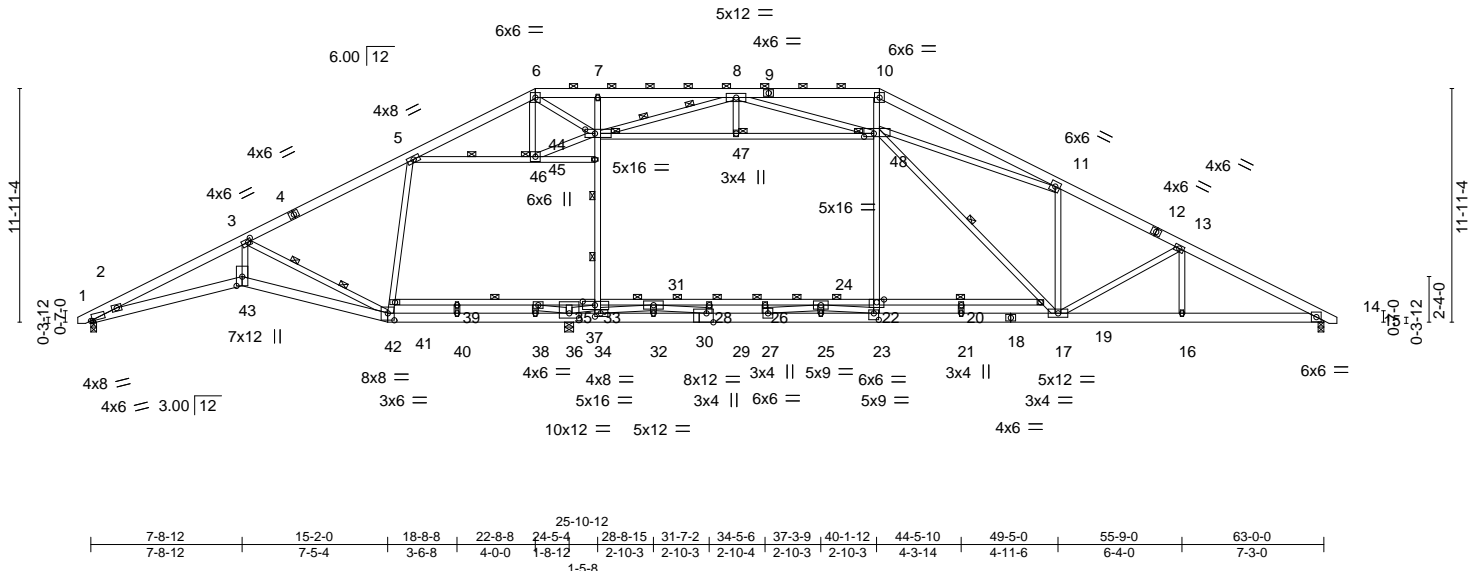


Plate Offsets (X, Y)--	[2:0-1-0-0-0-5], [3:0-2-4,0-2-0], [23:0-3-0,0-4-0], [30:0-4-4,Edge], [33:0-7-8,0-2-4], [34:0-3-8,0-2-0], [35:0-6-0,0-3-0], [42:0-4-0,0-4-4], [43:0-5-11,0-3-8], [44:0-6-0,0-2-8], [48:0-6-0,0-2-0]
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LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc)	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.73	Vert(LL) -0.56 24-26 >830 240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.98	Vert(CT) -1.09 24 >425 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.97	Horz(CT) 0.34 14 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Attic -0.24 22-33 703 360	Weight: 576 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 10-12: 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied or 2-10-14 oc purlins, except
BOT CHORD 2x6 SP No.2 *Except* 30-42,18-30: 2x6 SP DSS, 22-33,19-22: 2x4 SP No.2 or 2x4 SPF No.2 33-41: 2x4 SP No.1	BOT CHORD 2-0-0 oc purlins (2-4-4 max.): 6-10. Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
WEBS 2x4 SP No.3 *Except* 7-34,10-23: 2x4 SP DSS 44-48,5-42,8-44,8-48,17-48: 2x4 SP No.2 or 2x4 SPF No.2	WEBS 2-6-0 oc bracing: 22-33 6-0-0 oc bracing: 19-22 10-0-0 oc bracing: 33-41
REACTIONS. (size) 2=0-3-8, 36=0-5-8, 14=0-3-8 (req. 0-3-9) Max Horz 2=-194(LC 17) Max Uplift 14=32(LC 13) Max Grav 2=1490(LC 2), 36=2864(LC 2), 14=2257(LC 27)	JOINTS 1 Row at midpt 5-46, 17-48 2 Rows at 1/3 pts 3-42, 33-44, 8-44 1 Brace at Jt(s): 44, 46, 47, 48

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

TOP CHORD 2-3=-4937/224, 3-5=-2150/58, 5-6=-1015/493, 6-7=-1167/2100, 7-8=-1195/2157, 8-10=-5992/0, 10-11=-6327/0, 11-13=-4015/126, 13-14=-4387/194

BOT CHORD 2-43=-106/4476, 42-43=-109/4327, 40-42=0/1473, 38-40=0/1473, 36-38=0/1473, 34-36=-134/3013, 32-34=0/4564, 29-32=0/4564, 27-29=0/5371, 25-27=0/4298, 23-25=0/4298, 21-23=0/2356, 17-21=0/2356, 16-17=-66/3854, 14-16=-66/3854, 31-33=-966/474, 28-31=-3513/0, 26-28=-3513/0, 24-26=-3513/0, 22-24=-507/5, 39-41=0/431, 37-39=0/431, 35-37=0/2043, 33-35=0/2043, 20-22=-262/5, 19-20=-262/5

WEBS 3-43=0/2233, 3-42=-2639/382, 33-34=-309/475, 33-45=-2037/536, 44-45=-1955/561, 7-44=-455/167, 22-23=0/905, 22-48=0/1213, 10-48=0/2467, 11-17=-934/197, 13-17=-448/220, 44-47=-338/1730, 47-48=-338/1730, 41-42=0/549, 5-41=0/526, 5-46=-1775/518, 45-46=-16/523, 6-46=-106/842, 44-46=-2074/365, 8-44=-4017/541, 8-48=0/2626, 6-44=-1986/757, 37-38=0/611, 33-36=-3614/253, 36-37=-1880/0, 28-29=-312/0, 26-27=-301/0, 31-34=-2250/0, 29-31=0/1168, 23-24=-2047/0, 24-27=0/1313, 19-48=-218/2029, 17-19=-236/1815, 11-48=0/2088

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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



Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 27210-27210A	Truss A1	Truss Type ATTIC	Qty 2	Ply 1	Aberdeen Loft Vlt Mst I46497203 Job Reference (optional)
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84 Components (Dunn), Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 11:38:37 2021 Page 2
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NOTES-

- 3) **WARNING:** This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Ceiling dead load (5.0 psf) on member(s). 44-47, 47-48, 5-46, 45-46; Wall dead load (5.0psf) on member(s).33-45, 44-45, 22-48
- 9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 31-33, 28-31, 26-28, 24-26, 22-24
- 10) **WARNING:** Required bearing size at joint(s) 14 greater than input bearing size.
- 11) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 12) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 36, and 14. This connection is for uplift only and does not consider lateral forces.
- 13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 15) Attic room checked for L/360 deflection.

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

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818 Soundside Road
Edenton, NC 27932

Job 27210-27210A	Truss A2	Truss Type ATTIC	Qty 1	Ply 1	Aberdeen Loft Vlt Mst Job Reference (optional)	146497204
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84 Components (Dunn), Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 11:39:30 2021 Page 1

ID:hSPrWMHNLcMfmXJlhBDjGz8N_g-lasjInLHB9NIUKZOUhwbu?cMESEiRtOUeKPgzsz812x
 -0-8-0 4-1-2 | 7-8-12 | 11-2-10 | 15-2-0 | 22-8-8 | 25-10-12 | 32-11-10 | 40-1-12 | 40-3-8 | 49-5-0 | 55-9-0 | 63-0-0 | 63-8-0
 0-8-0 4-1-2 | 3-7-10 | 3-5-14 | 3-11-6 | 7-6-8 | 3-2-4 | 7-0-14 | 7-2-2 | 0-1-12 | 9-1-8 | 6-4-0 | 7-3-0 | 0-8-0

Scale = 1:121.4

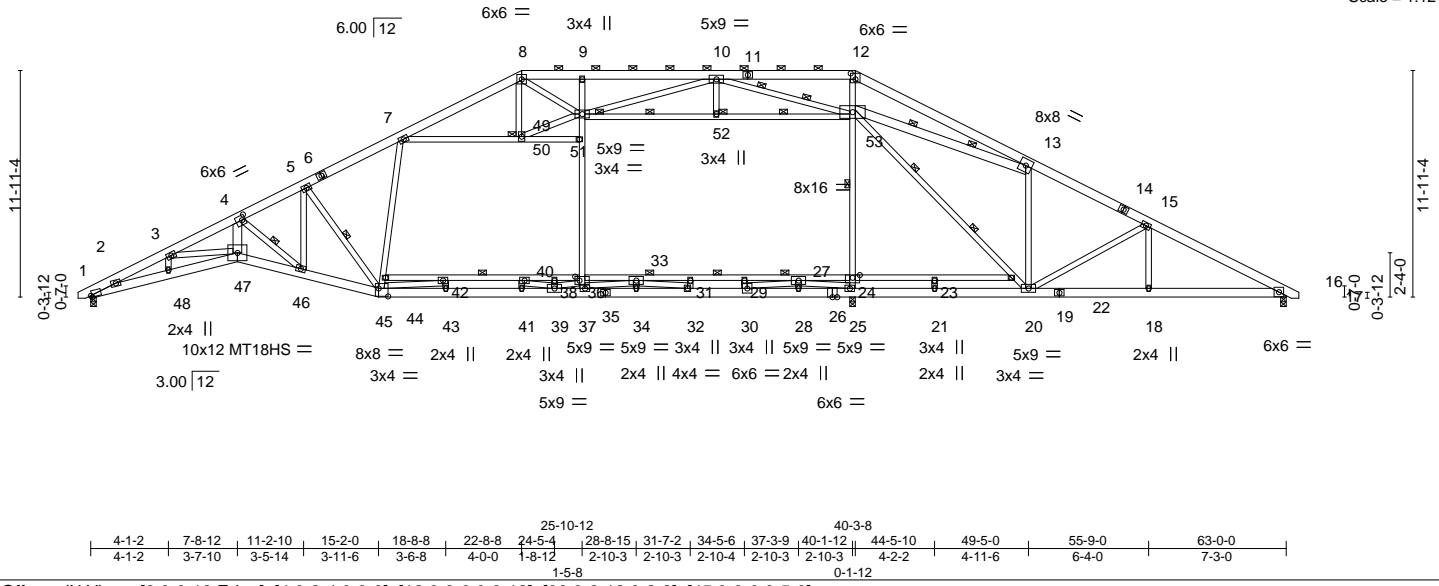


Plate Offsets (X,Y)-- [2:0-0-12,Edge], [4:0-2-4,0-3-0], [12:0-3-0,0-3-12], [36:0-2-12,0-2-8], [45:0-6-0,0-5-0]

LOADING (psf)	SPACING-	1-7-3	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.34	Vert(LL)	-0.43	45	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.63	Vert(CT)	-1.06	45	>453	MT18HS	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.91	Horz(CT)	0.32	16	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Attic	-0.16	24-36	1061	360	Weight: 606 lb FT = 20%

LUMBER-
 TOP CHORD 2x6 SP DSS
 BOT CHORD 2x6 SP DSS *Except*
 24-36,36-44,22-24: 2x4 SP No.2 or 2x4 SPF No.2
 WEBS 2x4 SP No.3 *Except*
 4-47,13-53: 2x6 SP No.2
 9-37,12-25,49-53,7-50,20-53: 2x4 SP No.2 or 2x4 SPF No.2

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 2-10-8 oc purlins, except
 2-0-0 oc purlins (5-1-9 max.): 8-12.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
 4-5-0 oc bracing: 24-36
 6-0-0 oc bracing: 36-44
 WEBS 1 Row at midpt 24-53, 49-52, 52-53, 4-46, 5-45
 2 Rows at 1/3 pts 10-53, 20-53, 13-53
 JOINTS 1 Brace at Jt(s): 49, 51, 52

REACTIONS. (size) 2=0-3-8, 25=0-3-8, 16=0-3-8
 Max Horz 2=-155(LC 13)
 Max Uplift 2=-32(LC 12)
 Max Grav 2=2121(LC 24), 25=1600(LC 27), 16=1802(LC 1)

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

TOP CHORD
 2-3=-6970/540, 3-4=-7425/499, 4-5=-4691/336, 5-7=-3659/277, 7-8=-2435/0,
 8-9=-2720/0, 9-10=-2701/0, 10-12=0/1778, 12-13=0/1842, 13-15=-3059/367,
 15-16=-3466/412

BOT CHORD
 2-48=-438/6281, 47-48=-445/6353, 46-47=-346/6822, 45-46=-143/4366, 43-45=0/2933,
 41-43=0/2933, 39-41=0/2933, 37-39=-85/2005, 34-37=0/3200, 32-34=0/3200,
 30-32=0/4096, 28-30=0/2924, 25-28=0/2924, 21-25=0/2825, 20-21=0/2825,
 18-20=-281/3034, 16-18=-281/3034, 33-36=0/1020, 31-33=-1531/0, 29-31=-1531/0,
 27-29=-1531/0, 24-27=0/533, 40-42=-200/311, 38-40=-29/1024, 36-38=-29/1024
 4-47=-165/3227, 36-37=0/745, 36-50=0/1078, 49-50=0/1088, 24-25=-936/130,
 24-53=-848/249, 12-53=-1177/179, 13-20=0/742, 15-20=-413/163, 49-52=-1825/316,
 52-53=-1827/316, 44-45=-40/551, 7-44=-31/617, 7-51=-1179/389, 8-51=-101/450,
 49-51=-1029/341, 10-49=0/1455, 10-53=-3268/0, 8-49=0/942, 40-41=0/254, 36-39=0/594,
 39-40=-956/0, 27-28=-415/0, 33-37=-1456/0, 32-33=0/1061, 25-27=-794/313,
 27-30=0/1244, 22-53=-827/56, 20-22=-691/43, 13-53=-4395/452, 4-46=-3198/266,
 5-46=-108/1628, 3-47=0/531, 42-45=-195/357, 5-45=-1854/237

NOTES-
 1) Unbalanced roof live loads have been considered for this design.
 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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



June 10, 2021

Job	Truss	Truss Type	Qty	Ply	Aberdeen Loft Vlt Mst	I46497204
27210-27210A	A2	ATTIC	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 11:39:31 2021 Page 2
ID:hSPrWMHNLcMfmXJhBDjGz8N_g-DmQ5ziMvxSVc5u8a2OSqQC8X_saxAKedtz8DVlz812w

NOTES-

- 3) **WARNING:** This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) All plates are 4x6 MT20 unless otherwise indicated.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Ceiling dead load (5.0 psf) on member(s). 49-52, 52-53, 7-51, 50-51; Wall dead load (5.0psf) on member(s).36-50, 49-50, 24-53
- 10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 33-36, 31-33, 29-31, 27-29, 24-27
- 11) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 12) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 16. This connection is for uplift only and does not consider lateral forces.
- 13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 15) Attic room checked for L/360 deflection.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Aberdeen Loft Vlt Mst	146497205
27210-27210A	A3	ATTIC	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 11:40:46 2021 Page 1

ID:hSPrWMHNLcMfmXJlhBDjGz8N_g-WBSSiMGyHVyzbQN_xelPz1iL_4AmFE4g78pheSz811l

-0-8-0	4-1-2	7-8-12	11-2-10	15-2-0	22-8-8	25-10-12	32-11-10	40-1-12	40-3-8	49-5-0	55-9-0	63-0-0	63-8-0
0-8-0	4-1-2	3-7-10	3-5-14	3-11-6	7-6-8	3-2-4	7-0-14	7-2-2	0-1-12	9-1-8	6-4-0	7-3-0	0-8-0

Scale = 1:121.4

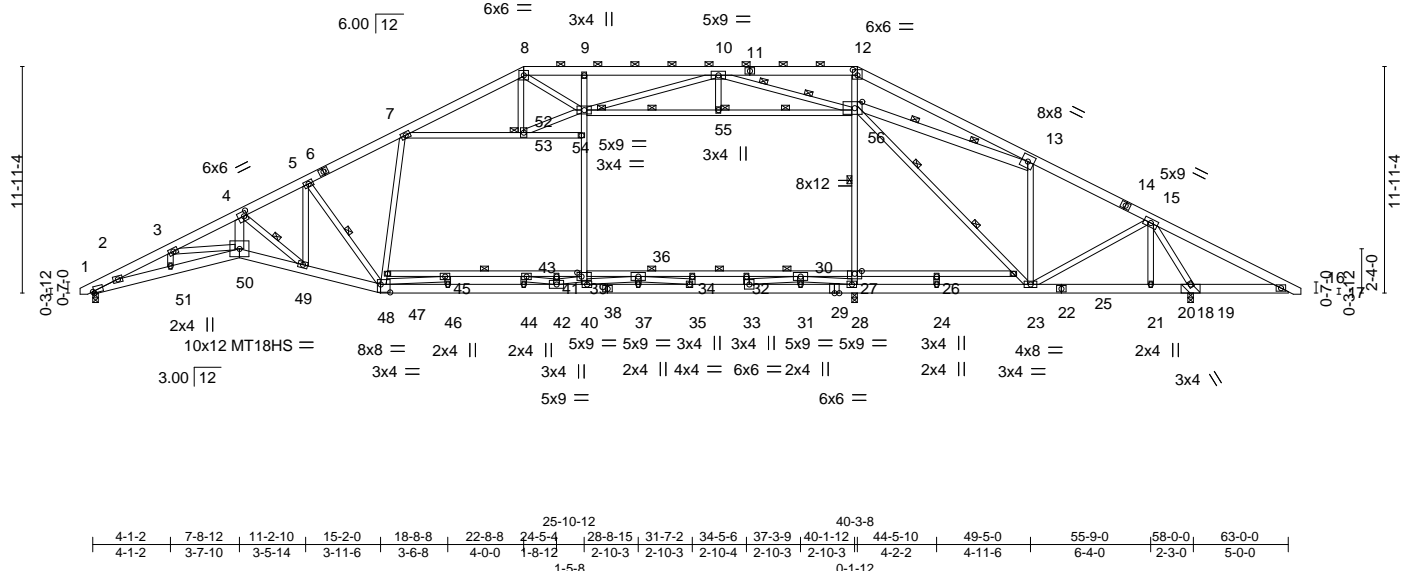


Plate Offsets (X,Y)--	[2:0-0-12,Edge], [4:0-2-4,0-3-0], [12:0-3-0,0-3-8], [39:0-2-12,0-2-8], [48:0-6-0,0-5-0], [56:0-4-12,0-4-0]
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LOADING (psf)	SPACING-	1-7-3	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.35	Vert(LL)	-0.41	48	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.61	Vert(CT)	-1.01	48	>477	MT18HS	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.98	Horz(CT)	0.30	19	n/a		
BCDL 10.0	Code IRC2015/TP12014		Matrix-MS	Attic	-0.15	27-39	1103	360	Weight: 614 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied or 2-10-3 oc purlins, except
BOT CHORD 2x6 SP DSS *Except* 27-39,39-47,25-27: 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 16-19. 4-6-0 oc bracing: 27-39 6-0-0 oc bracing: 39-47
WEBS 2x4 SP No.3 *Except* 4-50,13-56: 2x6 SP No.2 9-40,12-28,52-56,7-53: 2x4 SP No.2 or 2x4 SPF No.2 23-56: 2x4 SP DSS	WEBS 1 Row at midpt 27-56, 52-55, 55-56, 4-49, 5-48 2 Rows at 1/3 pts 10-56, 23-56, 13-56
REACTIONS. (size) 2=0-3-8, 28=0-3-8, 19=(0-3-8 + bearing block) (req. 0-3-12) Max Horz 2=-155(LC 17) Max Uplift 2=-31(LC 12) Max Grav 2=2144(LC 24), 28=1094(LC 27), 19=2374(LC 1)	JOINTS 1 Brace at Jt(s): 52, 54, 55

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-7049/556, 3-4=-7515/518, 4-5=-4749/348, 5-7=-3712/287, 7-8=-2476/0, 8-9=-2771/0, 9-10=-2763/0, 10-12=0/1557, 12-13=0/1606, 13-15=-2402/284, 15-16=-115/395
BOT CHORD 2-51=-453/6352, 50-51=-459/6424, 49-50=-363/6908, 48-49=-154/4416, 46-48=0/2945, 44-46=0/2945, 42-44=0/2945, 40-42=-89/2019, 37-40=0/3199, 35-37=0/3199, 33-35=0/4116, 31-33=0/2958, 28-31=0/2958, 24-28=0/2786, 23-24=0/2786, 21-23=-15/976, 19-21=-15/976, 16-19=-289/170, 36-39=0/1081, 34-36=-1500/14, 32-34=-1500/14, 30-32=-1500/14, 27-30=0/608, 43-45=-166/355, 41-43=-28/1062, 39-41=-28/1062, 26-27=0/326, 25-26=0/326
WEBS 4-50=-173/3266, 39-40=0/747, 39-53=0/1081, 52-53=0/1091, 27-28=-443/208, 27-56=-354/363, 12-56=-1062/161, 13-23=0/616, 15-23=-71/1303, 52-55=-1752/308, 55-56=-1753/308, 47-48=-39/548, 7-47=-30/611, 7-54=-1197/391, 8-54=-103/464, 52-54=-1069/346, 10-52=0/1401, 10-56=-3191/0, 8-52=0/967, 43-44=0/253, 39-42=0/598, 42-43=-950/0, 30-31=-390/0, 36-40=-1455/0, 35-36=0/1079, 28-30=-839/248, 30-33=0/1232, 25-56=-1609/0, 23-25=-1402/0, 13-56=-3578/340, 4-49=-3239/274, 5-49=-111/1638, 3-50=0/543, 45-48=-186/391, 5-48=-1854/239, 15-19=-2422/319

NOTES-
 1) 2x6 SP DSS bearing block 12" long at jt. 19 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners. User Defined Bearing crushing capacity= 425psi.
 2) Unbalanced roof live loads have been considered for this design.
 3) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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



Continued on page 2

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY TRENCO A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 27210-27210A	Truss A3	Truss Type ATTIC	Qty 1	Ply 1	Aberdeen Loft Vlt Mst 146497205 Job Reference (optional)
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84 Components (Dunn), Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 11:40:46 2021 Page 2
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NOTES-

- 4) **WARNING:** This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are MT20 plates unless otherwise indicated.
- 7) All plates are 4x6 MT20 unless otherwise indicated.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Ceiling dead load (5.0 psf) on member(s). 52-55, 55-56, 7-54, 53-54; Wall dead load (5.0psf) on member(s).39-53, 52-53, 27-56
- 11) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 36-39, 34-36, 32-34, 30-32, 27-30
- 12) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 13) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 14) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 16) Attic room checked for L/360 deflection.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



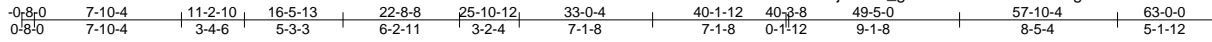
818 Soundside Road
Edenton, NC 27932

Job 27210-27210A	Truss A4	Truss Type ATTIC	Qty 2	Ply 1	Aberdeen Loft Vlt Mst Job Reference (optional)	146497206
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84 Components (Dunn), Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 11:41:52 2021 Page 1

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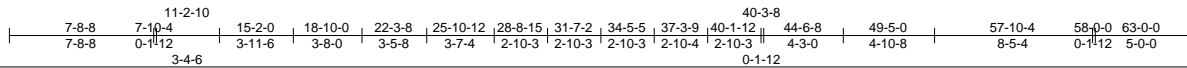
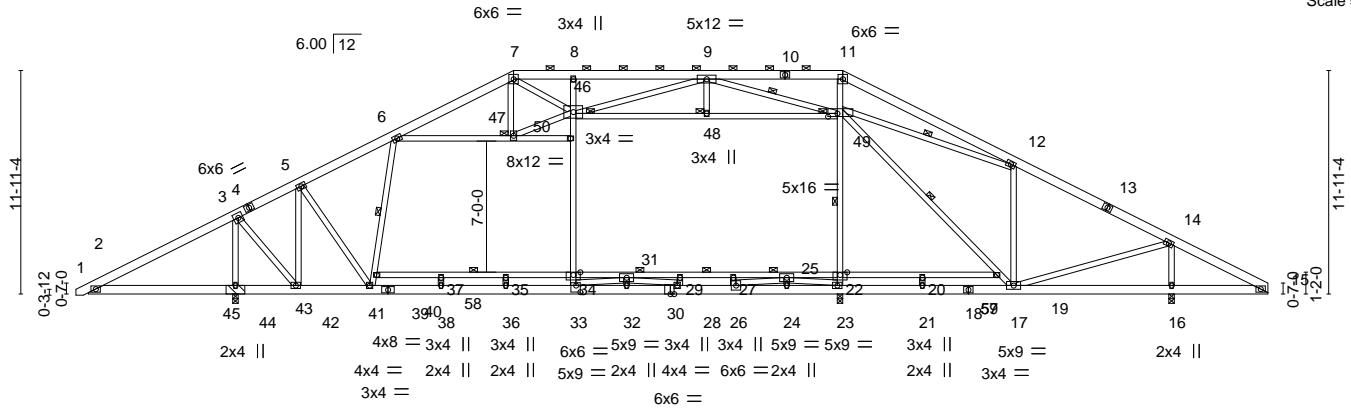


Plate Offsets (X,Y)-- [30:0-2-6,0-0-0], [33:0-2-12,0-4-4], [49:0-6-0,0-2-0]

LOADING (psf)	SPACING-	1-7-3	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.39	Vert(LL)	-0.26	36-38	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.96	Vert(CT)	-0.46	36-38	>839		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.99	Horz(CT)	0.05	16	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Attic	-0.13	22-34	1340	360	
								Weight: 587 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-6-7 oc purlins, except
BOT CHORD 2x6 SP No.2 *Except* 22-34,34-40,19-22: 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except: 4-3-0 oc bracing: 22-34 10-0-0 oc bracing: 34-40
WEBS 2x4 SP No.3 *Except* 8-33,11-23,46-49,17-49: 2x4 SP No.2 or 2x4 SPF No.2	WEBS 1 Row at midpt 6-41, 22-49, 9-49, 17-49, 12-49
	JOINTS 1 Brace at Jt(s): 46, 47, 48, 49

REACTIONS. (size) 44=(0-3-8 + bearing block) (req. 0-4-1), 23=0-3-8, 16=0-3-8
 Max Horz 44=158(LC 16)
 Max Uplift 44=32(LC 12), 16=5(LC 13)
 Max Grav 44=2576(LC 26), 23=1713(LC 27), 16=1694(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-144/550, 3-5=-995/31, 5-6=-1860/47, 6-7=-2505/0, 7-8=-3732/0, 8-9=-3746/0,
 9-11=0/420, 11-12=0/417, 12-14=-1609/155, 14-15=-50/268
 BOT CHORD 2-44=-409/198, 42-44=-409/185, 41-42=0/927, 38-41=0/1761, 36-38=0/1761,
 33-36=0/1761, 32-33=0/2381, 28-32=0/2381, 26-28=0/3288, 24-26=0/2064, 23-24=0/2064,
 21-23=0/1627, 17-21=0/1627, 29-31=-1656/0, 27-29=-1656/0, 25-27=-1656/0,
 22-25=0/371
 WEBS 3-44=-2318/239, 3-42=-21/1832, 5-42=-1646/17, 5-41=0/1446, 40-41=-669/79,
 6-40=-611/96, 7-46=0/1875, 33-34=0/983, 34-50=0/1308, 46-50=0/1346, 22-23=-941/106,
 22-49=-857/225, 11-49=-510/123, 12-17=-178/301, 14-17=-48/1593, 14-16=-1536/263,
 46-48=-164/722, 48-49=-164/722, 46-47=0/304, 9-46=0/1692, 9-49=-2816/0,
 19-49=-656/27, 17-19=-581/11, 12-49=-1704/163, 31-32=-290/0, 24-25=-362/0,
 23-25=-834/0, 25-26=0/1270, 31-33=-850/0, 28-31=0/988, 6-47=0/509

- NOTES-**
- 2x6 SP No.2 bearing block 12" long at jt. 44 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners. User Defined Bearing crushing capacity= 425psi.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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
 - WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
 - Provide adequate drainage to prevent water ponding.
- 5) Provide adequate drainage to prevent water ponding.
 6) All plates are grade MT20 unless otherwise indicated.



June 10, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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 ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

Job 27210-27210A	Truss A4	Truss Type ATTIC	Qty 2	Ply 1	Aberdeen Loft Vlt Mst I46497206 Job Reference (optional)
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84 Components (Dunn), Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 11:41:58 2021 Page 2
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NOTES-

- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) Ceiling dead load (5.0 psf) on member(s). 46-48, 48-49, 6-47, 47-50; Wall dead load (5.0psf) on member(s).34-50, 46-50, 22-49
- 10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 31-34, 29-31, 27-29, 25-27, 22-25
- 11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 44 and 16. This connection is for uplift only and does not consider lateral forces.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) Attic room checked for L/360 deflection.

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

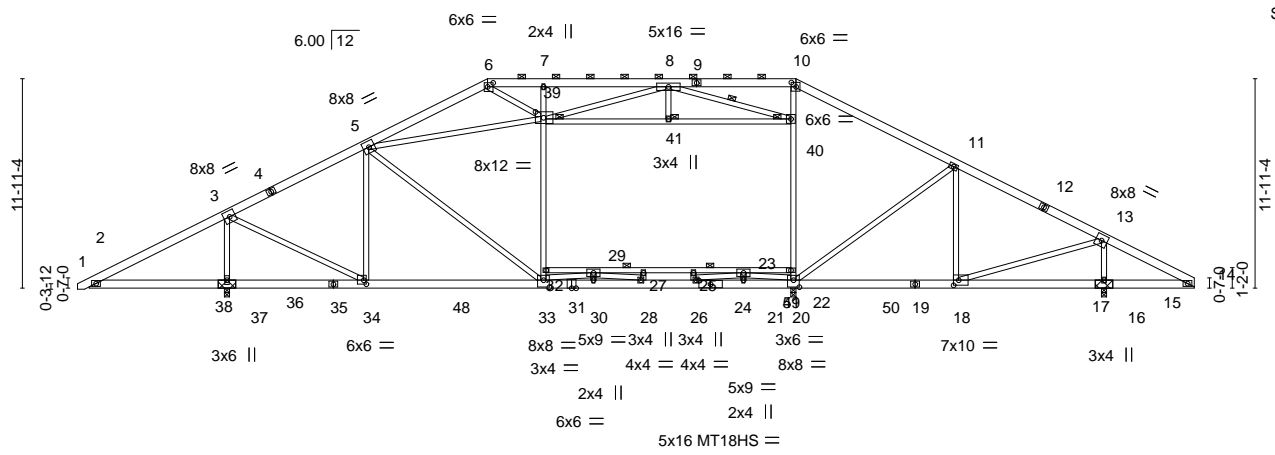
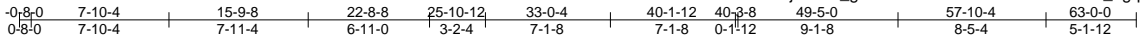
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

Job 27210-27210A	Truss A4GR	Truss Type ATTIC GIRDER	Qty 1	Ply 2	Aberdeen Loft Vlt Mst 146497207
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84 Components (Dunn), Dunn, NC - 28334, 8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 11:44:01 2021 Page 1



Scale = 1:131.4

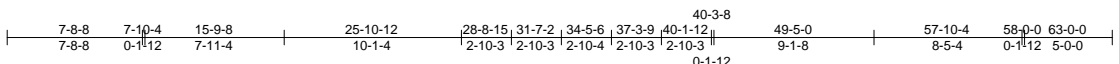


Plate Offsets (X, Y)-- [6:0-3-12,0-2-12], [10:0-3-4,0-3-0], [18:0-3-8,0-3-8], [20:0-4-0,0-4-12], [24:0-7-14,0-2-8], [33:0-4-0,0-4-12], [34:0-1-12,0-2-12], [39:0-5-8,0-4-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.65	Vert(LL)	-0.36	33	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.78	Vert(CT)	-0.76	30-33	>515	MT18HS	244/190
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.97	Horz(CT)	0.10	16	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Attic	0.18	22-32	971		
								Weight: 1089 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 6-9: 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied or 4-5-2 oc purlins, except 2-0-0 oc purlins (4-0-0 max.): 6-10.
BOT CHORD 2x6 SP No.2 *Except* 22-32: 2x4 SP No.2 or 2x4 SPF No.2, 19-24,24-31,31-35: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except: 6-0-0 oc bracing: 22-32
WEBS 2x4 SP No.3 *Except* 3-34,13-18,39-40,5-33: 2x4 SP No.2 or 2x4 SPF No.2 6-39: 2x4 SP No.1, 7-33,10-20: 2x4 SP DSS	WEBS 1 Row at midpt 8-40 JOINTS 1 Brace at Jt(s): 39, 40, 41

REACTIONS. (size) 37=(0-3-8 + bearing block) (req. 0-6-3), 20=0-3-8, 16=(0-3-8 + bearing block) (req. 0-4-15)
 Max Horz 37=198(LC 12)
 Max Uplift 37=1048(LC 12), 20=1460(LC 24), 16=750(LC 13)
 Max Grav 37=7879(LC 24), 20=660(LC 9), 16=6335(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-166/643, 3-5=-7452/1509, 5-6=-10962/2165, 6-7=-16875/3283, 7-8=-16990/3305, 8-10=-8056/1762, 10-11=-9157/1909, 11-13=-7582/1546
 BOT CHORD 2-37=-464/228, 34-37=-464/213, 33-34=-1081/6587, 30-33=-1041/9768, 28-30=-1041/9768, 26-28=-991/11647, 21-26=-1075/9537, 20-21=-1075/9537, 18-20=-1166/6672, 29-32=-16/334, 27-29=-3482/0, 25-27=-3482/0, 23-25=-3482/0, 22-23=-260/1539
 WEBS 3-37=-7625/1628, 3-34=-1427/7867, 5-34=-3374/746, 6-39=-1524/8409, 32-33=-950/5148, 32-39=-940/5365, 7-39=-22/253, 20-22=-460/2103, 22-40=-422/2072, 10-40=-601/3673, 11-18=-2270/546, 13-18=-1289/7064, 13-16=-5989/1304, 39-41=-923/4853, 40-41=-922/4851, 5-39=-146/1349, 5-33=-405/2470, 27-28=-330/0, 25-26=-278/0, 11-20=-372/2051, 8-39=-601/4347, 8-40=-5340/1011, 29-33=-2089/0, 28-29=0/1950, 20-23=-3026/15, 23-26=0/2189

- NOTES-**
- 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc, 2x4 - 1 row at 0-9-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 7-33 2x4 - 1 row at 0-5-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - 2x6 SP No.2 bearing block 12" long at jt. 37 attached to each face with 3 rows of 10d (0.148"x3") nails spaced 3" o.c. 12 Total fasteners per block. User Defined Bearing crushing capacity= 425psi.
 - 2x6 SP No.2 bearing block 12" long at jt. 16 attached to each face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners per block. User Defined Bearing crushing capacity= 425psi.
 - Unbalanced roof live loads have been considered for this design.



Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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 ANSITPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

Job	Truss	Truss Type	Qty	Ply	Aberdeen Loft Vlt Mst	146497207
27210-27210A	A4GR	ATTIC GIRDER	1	2	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 11:44:02 2021 Page 2
ID:hSPrWMMHNLcMfmXJlhBDjGz8N_g-nvYrNeu7jeA6XMfQppNvMtmk503AtvWBel3W5z81_h

NOTES-

- 6) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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
- 7) **WARNING:** This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
- 8) Provide adequate drainage to prevent water ponding.
- 9) All plates are MT20 plates unless otherwise indicated.
- 10) All plates are 4x6 MT20 unless otherwise indicated.
- 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 13) Ceiling dead load (5.0 psf) on member(s). 39-41, 40-41; Wall dead load (5.0psf) on member(s).32-39, 22-40
- 14) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 29-32, 27-29, 25-27, 23-25, 22-23
- 15) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 750 lb uplift at joint 16.
- 16) LGT2 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 37 and 20. This connection is for uplift only and does not consider lateral forces.
- 17) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 18) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 19) 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.
- 20) LGT2 Hurricane ties must have two studs in line below the truss.
- 21) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 6100 lb down and 1423 lb up at 25-10-12, and 1200 lb down and 280 lb up at 36-7-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 22) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-6=-60, 6-10=-60, 10-14=-60, 42-45=-20, 22-32=-30, 39-40=-10
Drag: 32-39=-10, 22-40=-10
Concentrated Loads (lb)
Vert: 33=-6100(F) 49=-1200(F)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



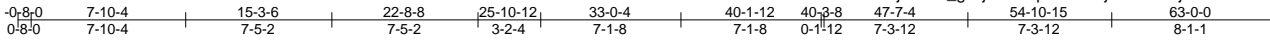
818 Soundside Road
Edenton, NC 27932

Job 27210-27210A	Truss A5	Truss Type ATTIC	Qty 2	Ply 1	Aberdeen Loft Vlt Mst Job Reference (optional)	146497208
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84 Components (Dunn), Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 11:46:11 2021 Page 1

ID:hSPrWMHNLcMfmXJlhBDjGz8N_g-VjbJvUCplMus5MjSTPddeZjIF5?xuENVsC2NY6z80yg



Scale = 1:117.1

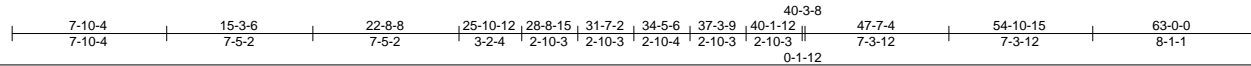
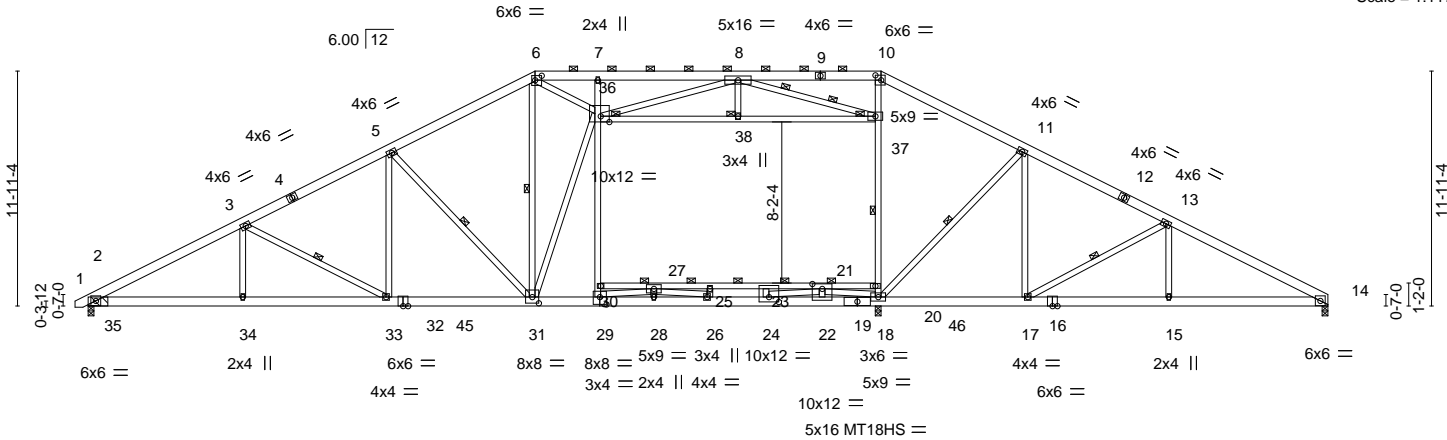


Plate Offsets (X, Y)--	[6:0-4-0,0-2-12], [10:0-3-8,0-3-0], [21:0-6-0,0-3-0], [23:0-6-0,0-3-0], [29:0-4-0,0-4-8], [31:0-4-0,0-3-12], [36:0-5-4,0-3-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.90	Vert(LL)	-0.50	27-30	>971	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.99	Vert(CT)	-1.02	27-30	>476	MT18HS	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.93	Horz(CT)	0.20	14	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Attic	-0.25	20-30	682		Weight: 551 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-1-3 oc purlins, except
BOT CHORD 2x6 SP No.2 *Except*	2-0-0 oc purlins (2-2-0 max.): 6-10.
20-30: 2x4 SP No.2 or 2x4 SPF No.2, 16-19,19-29: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
WEBS 2x4 SP No.3 *Except*	3-0-0 oc bracing: 20-30
6-36: 2x4 SP No.1, 7-29,10-18: 2x4 SP DSS	WEBS 1 Row at midpt 3-33, 5-31, 6-31, 20-37, 11-18, 13-17
36-37: 2x4 SP No.2 or 2x4 SPF No.2	2 Rows at 1/3 pts 8-37
	JOINTS 1 Brace at Jt(s): 36, 37, 38

REACTIONS. (size) 2=(0-3-8 + bearing block) (req. 0-3-12), 18=0-3-8, 14=0-3-8
 Max Horz 2=198(LC 16)
 Max Uplift 2=103(LC 12)
 Max Grav 2=2388(LC 26), 18=2044(LC 27), 14=1860(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-4675/549, 3-5=-4171/472, 5-6=-3544/406, 6-7=-6934/483, 7-8=-6987/481,
 8-10=-2130/315, 10-11=-2536/304, 11-13=-3009/381, 13-14=-3599/456
 BOT CHORD 2-34=-387/4110, 33-34=-387/4110, 31-33=-159/3663, 29-31=0/2398, 28-29=0/4335,
 26-28=0/4335, 24-26=0/4673, 22-24=0/2792, 18-22=0/2792, 17-18=-73/2617,
 15-17=-302/3149, 14-15=-302/3149, 27-30=-308/18, 25-27=-2807/0, 23-25=-2807/0,
 21-23=-2807/0, 20-21=0/642
 WEBS 3-34=0/289, 3-33=-620/259, 5-33=-24/525, 5-31=-883/333, 6-31=-1074/8,
 6-36=-78/4509, 29-30=0/692, 30-36=0/899, 7-36=-270/179, 18-20=-550/51,
 20-37=-560/157, 10-37=0/815, 11-18=-745/337, 11-17=-48/424, 13-17=-708/263,
 13-15=0/335, 36-38=-304/2781, 37-38=-303/2779, 8-37=-3152/332, 8-36=0/2058,
 31-36=-250/2056, 25-26=-281/0, 23-24=-307/0, 21-22=-532/0, 27-29=-2029/0,
 26-27=-119/635, 18-21=-1533/0, 21-24=0/1965

- NOTES-**
- 2x6 SP No.2 bearing block 12" long at jt. 2 attached to front face with 3 rows of 10d (0.131"x3") nails spaced 3" o.c. 12 Total fasteners. User Defined Bearing crushing capacity= 425psi.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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
 - WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
 - Provide adequate drainage to prevent water ponding.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
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TRENCO
 ENGINEERING BY
 A MiTek Affiliate
 818 Soundside Road
 Edenton, NC 27932

Job 27210-27210A	Truss A5	Truss Type ATTIC	Qty 2	Ply 1	Aberdeen Loft Vlt Mst 146497208 Job Reference (optional)
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84 Components (Dunn), Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 11:46:26 2021 Page 2
ID:hSPrWMHNLcMfmXJhBDjGz8N_g-Zc?_3cNDDznkOgMKs2O8jjqJS87Sv04jJ2Agakz80yR

NOTES-

- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) Ceiling dead load (5.0 psf) on member(s). 36-38, 37-38; Wall dead load (5.0psf) on member(s).30-36, 20-37
- 10) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 27-30, 25-27, 23-25, 21-23, 20-21
- 11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 18, and 14. This connection is for uplift only and does not consider lateral forces.
- 12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 14) Attic room checked for L/360 deflection.

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

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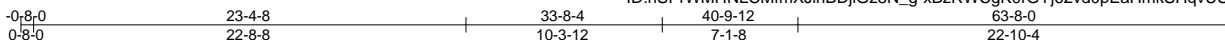
818 Soundside Road
Edenton, NC 27932

Job 27210-27210A	Truss A5E	Truss Type GABLE	Qty 1	Ply 1	Aberdeen Loft Vlt Mst Job Reference (optional)	146497209
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84 Components (Dunn), Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 11:48:13 2021 Page 1

ID:hSPrWMHNLcMfmXJlhBDjiGz8N_g-xBzRWcGk0rGYj62vd0pEaHmkSHqvUSjTvBbqq1z80wm



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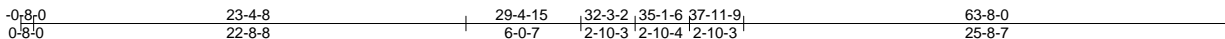
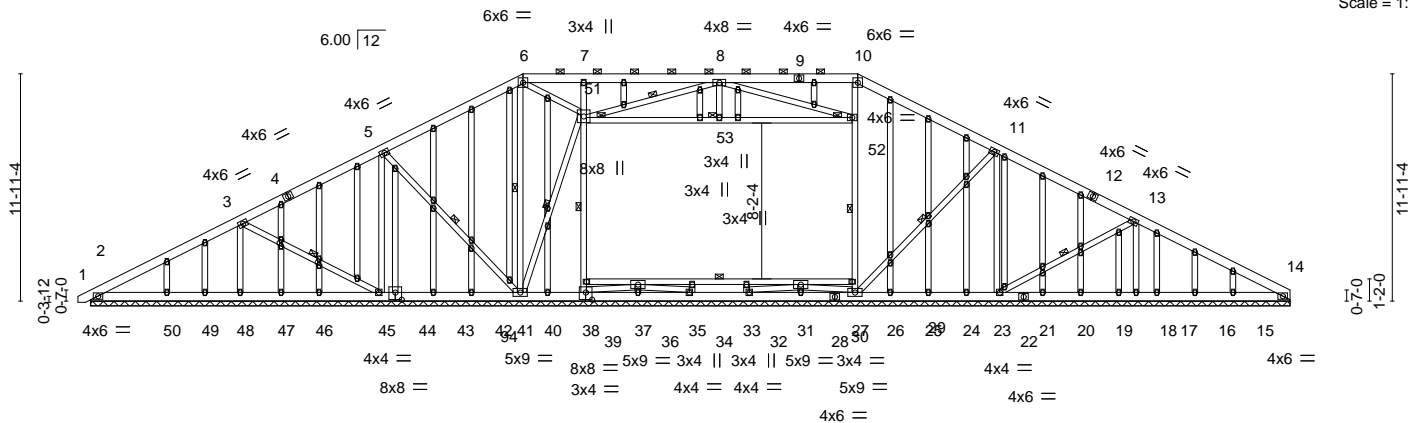


Plate Offsets (X, Y)-- [38:0-4-0-0-4-8], [44:0-4-0-0-4-8], [56:0-1-15,0-1-0], [58:0-1-15,0-1-0]

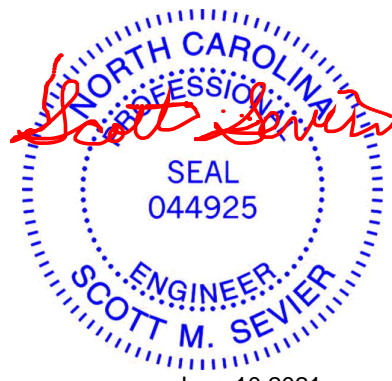
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.33	Vert(LL)	0.00	1	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.79	Horz(CT)	0.01	14	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 736 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 6-10.
BOT CHORD 2x6 SP No.2 *Except* 29-39: 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 43-45,42-43,41-42. 10-0-0 oc bracing: 29-39
WEBS 2x4 SP No.3 *Except* 7-38,10-27,51-52: 2x4 SP No.2 or 2x4 SPF No.2	WEBS 1 Row at midpt 3-45, 5-41, 6-41, 39-51, 29-52, 11-27, 13-23, 8-51, 41-51
OTHERS 2x4 SP No.3	JOINTS 1 Brace at Jt(s): 51, 52, 53

REACTIONS. All bearings 63-0-0.
 (lb) - Max Horz 2=196(LC 12)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 38, 27, 14, 50, 49, 16, 15 except 48=181(LC 12), 45=151(LC 12), 41=145(LC 9), 23=163(LC 13), 18=177(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 37, 35, 33, 31, 50, 49, 47, 46, 43, 42, 40, 26, 25, 24, 21, 20, 19, 17, 16, 15 except 2=266(LC 24), 48=489(LC 24), 45=411(LC 24), 41=738(LC 1), 38=545(LC 1), 27=816(LC 1), 23=420(LC 25), 18=493(LC 25), 14=252(LC 25)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 11-13=254/138, 13-14=256/63
 BOT CHORD 40-41=-44/258, 38-40=-44/258
 WEBS 3-48=-429/206, 5-45=-321/148, 38-39=-495/61, 39-51=-469/160, 7-51=-378/162, 27-29=-728/54, 29-52=-705/152, 10-52=-375/113, 11-23=-377/163, 13-18=-491/229, 51-53=-196/692, 52-53=-196/691, 8-52=-751/210, 8-51=-1050/329, 41-51=-408/124

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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
 - 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.
 - WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Aberdeen Loft Vlt Mst	146497209
27210-27210A	A5E	GABLE	1	1	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 11:48:14 2021 Page 2
ID:hSPrWMHNLcMfmXJlhBDjiGz8N_g-PNWpkYhzn8OPLGc5AkkT7VJvCgA8Dvzc8rLOMUz80wl

NOTES-

- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 11) Ceiling dead load (5.0 psf) on member(s). 51-53, 52-53; Wall dead load (5.0psf) on member(s).39-51, 29-52
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 38, 27, 50, 49, 16, 15 except (jt=lb) 48=181, 45=151, 41=145, 23=163, 18=177.
- 13) n/a
- 14) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 16) Attic room checked for L/360 deflection.

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

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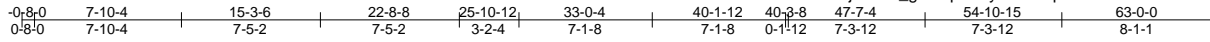
818 Soundside Road
Edenton, NC 27932

Job 27210-27210A	Truss A5GR	Truss Type ATTIC	Qty 1	Ply 3	Aberdeen Loft Vlt Mst Job Reference (optional)	146497210
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84 Components (Dunn), Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 11:49:58 2021 Page 1

ID:hSPRWMHNLcMfmXJlhBDjGz8N_g-MOp7Y6yCH6VfqFZ4GaCsLQcdlbt2augw21Xu1Sz80v7



Scale = 1:123.2

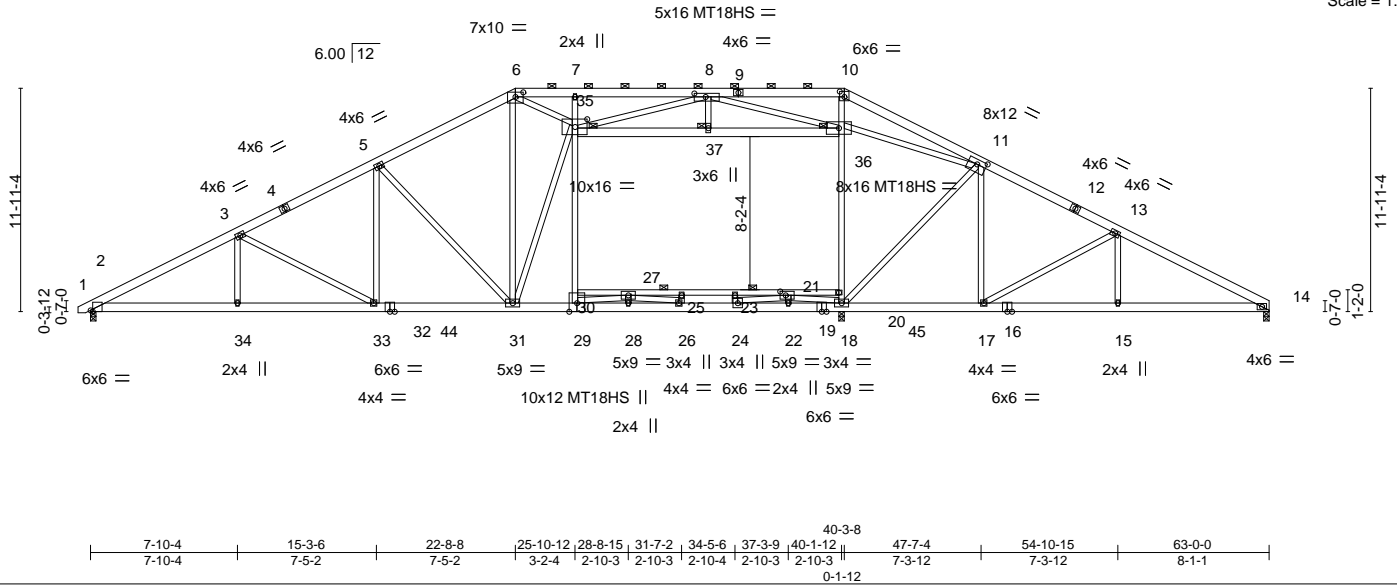


Plate Offsets (X,Y)-- [2:0-1-6,Edge], [6:0-5-0,0-3-0], [8:0-7-4,0-2-4], [10:0-3-0,0-3-8], [11:0-6-0,0-3-0], [21:0-3-8,0-2-8], [35:0-7-12,0-5-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.60	Vert(LL)	-0.65	29	>746	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.99	Vert(CT)	-1.00	29	>484	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.99	Horz(CT)	0.23	14	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Attic	-0.32	20-30	535		Weight: 1712 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 6-9: 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (5-3-11 max.): 6-10.
BOT CHORD 2x6 SP DSS *Except* 2-32,14-16: 2x6 SP No.2, 20-30: 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 2-34.
WEBS 2x4 SP No.3 *Except* 6-35: 2x4 SP No.1, 7-29,10-18,8-36,8-35,11-36: 2x4 SP DSS	JOINTS 6-0-0 oc bracing: 20-30 1 Brace at Jt(s): 35, 36, 37
35-36: 2x6 SP No.2	

REACTIONS. (size) 2=(0-3-8 + LGT3-SDS2.5 Simpson Strong-Tie) (req. 0-4-0), 18=0-3-8, 14=0-3-8
 Max Horz 2=198(LC 16)
 Max Uplift 2=727(LC 12), 14=423(LC 13)
 Max Grav 2=7705(LC 20), 18=3476(LC 2), 14=5022(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-16142/2208, 3-5=-15871/2167, 5-6=-15405/2116, 6-7=-27336/3419,
 7-8=-27608/3447, 8-10=-763/6704, 10-11=-872/6935, 11-13=-9939/1414,
 13-14=-10433/1475
 BOT CHORD 2-34=-1865/14432, 33-34=-1865/14432, 31-33=-1678/14337, 29-31=-1315/12911,
 28-29=-1195/16235, 26-28=-1195/16235, 24-26=-690/15395, 22-24=-556/11093,
 18-22=-556/11093, 17-18=-998/8962, 15-17=-1209/9236, 14-15=-1209/9236,
 27-30=-2170/280, 25-27=-3258/0, 23-25=-3258/0, 21-23=-3258/0, 20-21=-57/917
 WEBS 3-33=-430/213, 5-33=-0/449, 5-31=-824/318, 6-31=-1476/89, 6-35=-1684/15612,
 29-30=-1048/10002, 30-35=-1014/10118, 7-35=-44/764, 18-20=-5093/653,
 20-36=-5100/769, 10-36=-3484/584, 11-18=-556/4939, 11-17=-124/280, 13-17=-614/243,
 13-15=0/319, 35-37=-1366/202, 36-37=-1364/202, 8-36=-18572/2472, 8-35=-1910/17271,
 31-35=-418/2981, 27-28=-110/480, 25-26=-271/0, 23-24=-363/0, 21-22=-1592/150,
 27-29=-1877/0, 26-27=-882/525, 18-21=-682/753, 21-24=-139/4464, 11-36=-18614/2477

- NOTES-**
- 3-ply truss to be connected together with 10d (0.120"x3") nails as follows:
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc, 2x4 - 1 row at 0-9-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 7-29 2x4 - 2 rows staggered at 0-4-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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



June 10, 2021

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Aberdeen Loft Vlt Mst	146497210
27210-27210A	A5GR	ATTIC	1	3	Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 11:49:59 2021 Page 2
 ID:hSPrWMMHNLcMfmXJlhBDjGz8N_g-qaMvmRyq2PdWRP8GqHj5te9oV?pHJLw3HhGRZuz80v6

NOTES-

- 5) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
- 6) Provide adequate drainage to prevent water ponding.
- 7) All plates are MT20 plates unless otherwise indicated.
- 8) The Fabrication Tolerance at joint 29 = 16%, joint 29 = 16%
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 11) Ceiling dead load (5.0 psf) on member(s). 35-37, 36-37; Wall dead load (5.0psf) on member(s).30-35, 20-36
- 12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 27-30, 25-27, 23-25, 21-23, 20-21
- 13) LGT3-SDS2.5 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 14) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 18. This connection is for uplift only and does not consider lateral forces.
- 15) Two H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14. This connection is for uplift only and does not consider lateral forces.
- 16) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 17) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 18) LGT3 Hurricane ties must have three studs in line below the truss.
- 19) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 10231 lb down and 1423 lb up at 25-10-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 20) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-6=-60, 6-10=-60, 10-14=-60, 38-41=-20, 20-30=-30, 35-36=-10
 - Drag: 30-35=-10, 20-36=-10
 - Concentrated Loads (lb)
 - Vert: 29=-6100(F)

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

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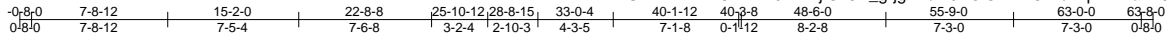


818 Soundside Road
 Edenton, NC 27932

Job 27210-27210A	Truss AE	Truss Type GABLE	Qty 1	Ply 1	Aberdeen Loft Vlt Mst 146497211
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84 Components, Dunn, NC 28334

ID:hSPRWMHNLcMfmXJhBDjGz8N_gjglYfbM0w6iOVYYOWcfMp1wmazV9akTZK48QJz7zn3
8.500 s Feb 23 2021 MiTek Industries, Inc. Wed Jun 9 15:23:22 2021 Page 1



Scale = 1:130.8

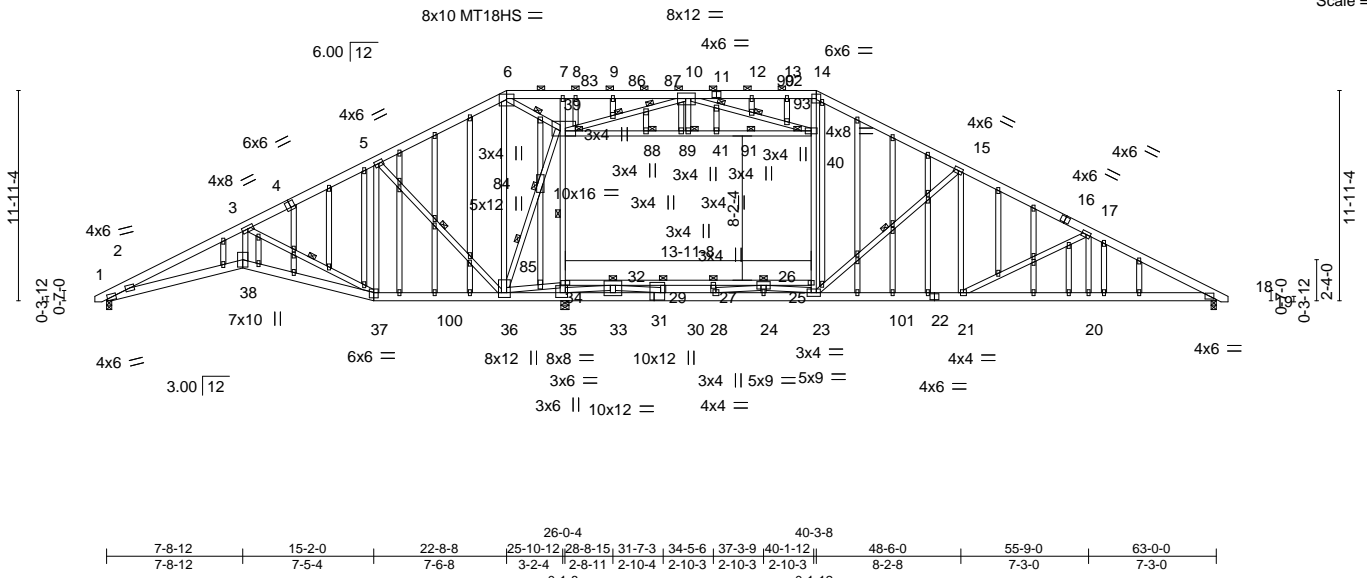


Plate Offsets (X,Y)--	[2:0-0-12,Edge], [4:0-3-0,0-4-4], [6:0-5-0,0-3-0], [10:0-5-8,0-3-12], [31:0-5-0,0-2-12], [32:0-6-0,0-3-0], [35:0-1-8,0-3-4], [36:0-3-4,0-2-0], [37:0-3-0,0-3-8], [39:0-5-8,0-3-8], [54:0-1-15,0-1-0], [76:0-1-14,0-1-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.46	Vert(LL) -0.46 25-26 >973 240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.89	Vert(CT) -0.93 25-26 >479 180	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr YES	WB 0.99	Horz(CT) 0.31 18 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Attic -0.23 25-34 732 360		
				Weight: 725 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 6-11: 2x6 SP DSS BOT CHORD 2x6 SP No.2 *Except* 31-37,22-31: 2x6 SP DSS, 25-34: 2x4 SP No.2 or 2x4 SPF No.2 WEBS 2x4 SP No.3 *Except* 6-36,6-39,39-40,10-39,10-40,36-39: 2x4 SP No.2 or 2x4 SPF No.2 7-35,14-23: 2x4 SP DSS OTHERS 2x4 SP No.3	TOP CHORD Structural wood sheathing directly applied or 3-1-2 oc purlins, except 2-0-0 oc purlins (4-3-12 max.): 6-14. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 8-0-15 oc bracing: 35-36 8-11-2 oc bracing: 33-35. 3-3-0 oc bracing: 25-34 WEBS 1 Row at midpt 3-37, 5-36, 6-39, 34-39, 15-23, 40-41, 10-86, 36-84 JOINTS 1 Brace at Jt(s): 39, 40, 41, 84, 86, 88, 90, 92 <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide. </div>

REACTIONS. (lb/size) 2=1373/0-3-8 (min. 0-2-3), 35=2592/0-5-8 (min. 0-4-8), 18=1870/0-3-8 (min. 0-3-4)
 Max Horz 2=-194(LC 13)
 Max Uplift 2=-4(LC 12), 18=-122(LC 13)
 Max Grav 2=1400(LC 2), 35=2885(LC 2), 18=2061(LC 27)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4571/510, 3-4=-1970/234, 4-5=-1922/260, 5-6=-1388/188, 6-7=-227/3203, 7-8=-221/3328, 8-9=-174/3156, 9-10=-174/3156, 10-11=-2555/233, 11-12=-2555/233, 12-13=-2555/233, 13-14=-2555/233, 14-15=-2789/191, 15-16=-3373/294, 16-17=-3519/259, 17-18=-3982/363
BOT CHORD 2-38=-363/4142, 37-38=-355/4001, 37-100=0/1709, 36-100=0/1709, 35-36=0/1447, 33-35=0/2423, 31-33=0/2423, 30-31=0/2423, 28-30=0/4419, 24-28=0/4006, 23-24=0/4006, 23-101=-9/3088, 22-101=-9/3088, 21-22=-9/3088, 20-21=-220/3496, 18-20=-220/3496, 32-34=0/607, 29-32=-2522/0, 27-29=-2522/0, 26-27=-2522/0
WEBS 3-38=-99/2060, 3-37=-2463/427, 5-37=-35/541, 5-36=-911/342, 6-36=-216/3219, 6-83=-5108/532, 39-83=-4796/497, 34-35=-1919/375, 34-39=-1892/485, 23-25=0/1212, 25-40=0/1443, 14-40=0/887, 15-23=-983/364, 15-21=-31/546, 17-21=-565/238, 17-20=0/262, 39-88=-1775/0, 88-89=-1773/0, 41-89=-1799/0, 41-91=-1799/0, 40-91=-1799/0, 32-33=-698/0, 29-30=-305/0, 27-28=-280/0, 39-86=-3728/443, 86-87=-3798/444, 10-87=-3801/453, 10-90=0/2129, 90-92=0/2113, 92-93=0/2080, 40-93=0/2118, 36-85=0/809, 35-85=0/853, 36-84=-3436/0, 39-84=-2405/0, 32-35=-1089/120, 30-32=0/2095, 23-26=-1901/0, 26-28=-163/626, 83-84=-618/71, 84-85=0/550, 8-39=-767/199, 9-86=-1/271

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



Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	Aberdeen Loft Vlt Mst	I46497211
27210-27210A	AE	GABLE	1	1	Job Reference (optional)	

84 Components, Dunn, NC 28334

8.500 s Feb 23 2021 MiTek Industries, Inc. Wed Jun 9 15:23:22 2021 Page 2
 ID:hSPrWMHNLcMfmXJhBDjGz8N_g-jglYfbM0w6iOVYYOWcfMp1wmazV9akTZK48QQJz7zn3

NOTES-

- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) **WARNING:** This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are MT20 plates unless otherwise indicated.
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 11) Ceiling dead load (5.0 psf) on member(s). 39-88, 88-89, 41-89, 41-91, 40-91; Wall dead load (5.0psf) on member(s).34-39, 25-40
- 12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 32-34, 29-32, 27-29, 26-27, 25-26
- 13) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 2 and 122 lb uplift at joint 18.
- 15) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 16) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 17) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 18) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

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

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818 Soundside Road
 Edenton, NC 27932

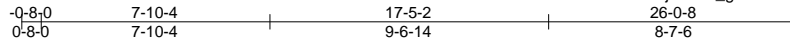
Job 27210-27210A	Truss B	Truss Type MONOPITCH	Qty 2	Ply 1	Aberdeen Loft Vlt Mst 146497212
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84 Components (Dunn),

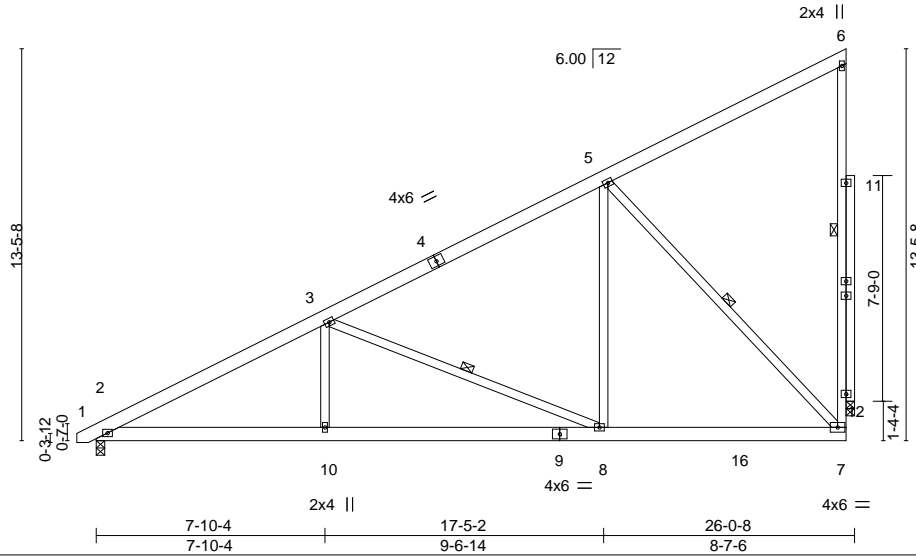
Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 11:53:27 2021 Page 1

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Scale = 1:79.1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	-0.06	8-10	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.44	Vert(CT)	-0.13	8-10	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.76	Horz(CT)	0.02	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS					Weight: 209 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.3 *Except*
 6-7: 2x4 SP No.2 or 2x4 SPF No.2
 OTHERS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-3-6 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 9-8-3 oc bracing.
 WEBS 1 Row at midpt 6-7, 3-8, 5-7

REACTIONS.

(size) 2=0-3-8, 12=0-3-8
 Max Horz 2=502(LC 12)
 Max Uplift 2=-72(LC 12), 12=-313(LC 12)
 Max Grav 2=1052(LC 1), 12=1024(LC 1)

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

TOP CHORD 2-3=-1740/131, 3-5=-927/10, 7-12=-248/845
 BOT CHORD 2-10=-566/1507, 8-10=-566/1507, 7-8=-265/719
 WEBS 3-10=0/360, 3-8=-855/326, 5-8=-4/643, 5-7=-1049/389

NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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
- 2) All plates are 3x4 MT20 unless otherwise indicated.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 12. This connection is for uplift only and does not consider lateral forces.
- 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



June 10, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component

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



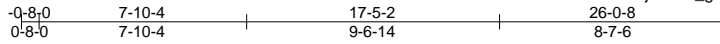
818 Soundside Road
 Edenton, NC 27932

Job 27210-27210A	Truss B1	Truss Type MONOPICH	Qty 5	Ply 1	Aberdeen Loft Vlt Mst 146497213
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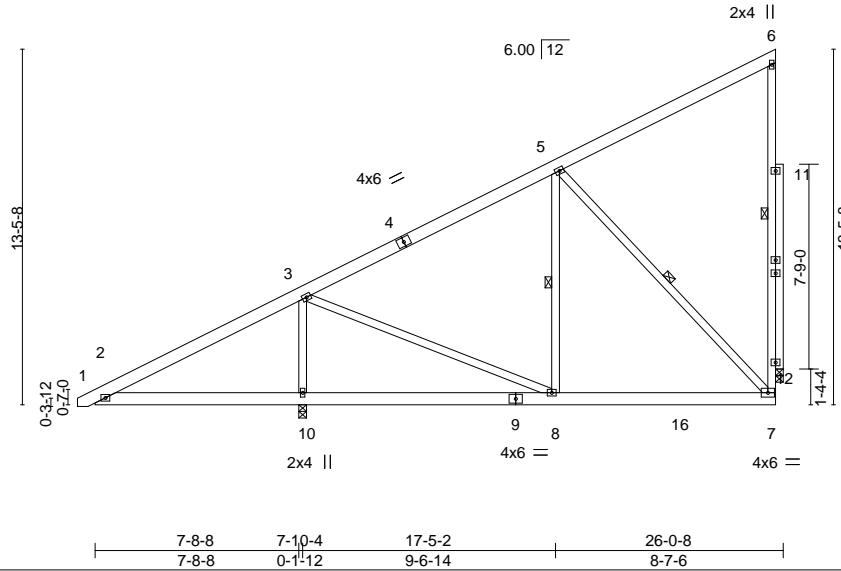
84 Components (Dunn), Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 11:55:32 2021 Page 1

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Scale = 1:87.2



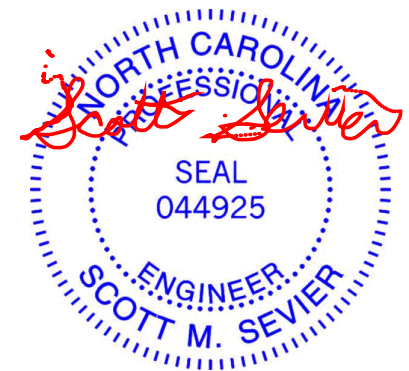
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.53	Vert(LL)	-0.05	7-8	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.29	Vert(CT)	-0.09	7-8	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.42	Horz(CT)	-0.02	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS					Weight: 209 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 6-7, 5-8, 5-7
6-7: 2x4 SP No.2 or 2x4 SPF No.2	
OTHERS 2x4 SP No.3	

REACTIONS. (size) 10=0-3-8, 12=0-3-8
 Max Horz 10=502(LC 12)
 Max Uplift 10=104(LC 12), 12=281(LC 12)
 Max Grav 10=1518(LC 1), 12=580(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-178/684, 3-5=-447/0, 7-12=-198/422
 BOT CHORD 2-10=-500/237, 8-10=-534/0, 7-8=-219/303
 WEBS 3-10=-1284/267, 3-8=0/847, 5-7=-436/320

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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
 - 2) All plates are 3x4 MT20 unless otherwise indicated.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 5) Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10, 12, and . This connection is for uplift only and does not consider lateral forces.
 - 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



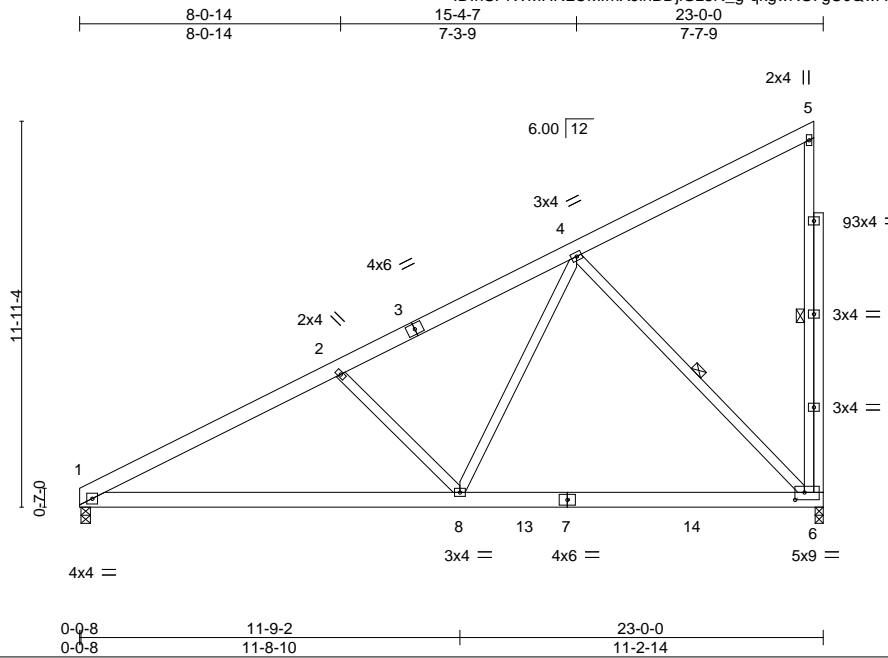
Job 27210-27210A	Truss C	Truss Type MONOPICH	Qty 7	Ply 1	Aberdeen Loft Vlt Mst 146497214
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84 Components (Dunn),

Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 11:57:06 2021 Page 1

ID:hSPrWMHNLcMfmXJlhBDjGz8N_g-qkgwNS7gUcQwA0HLLStDhhLq_7eGsaDwTcCX2ez80rR



Scale = 1:71.3

Plate Offsets (X,Y)--	[6:0-3-8,0-2-12]						
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.32	Vert(LL)	-0.18	6-8	>999
TCDL 10.0	Lumber DOL	1.15	BC 0.60	Vert(CT)	-0.27	6-8	>999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.50	Horz(CT)	0.02	6	n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS				
							PLATES
							MT20
							GRIP
							244/190
							Weight: 178 lb
							FT = 20%

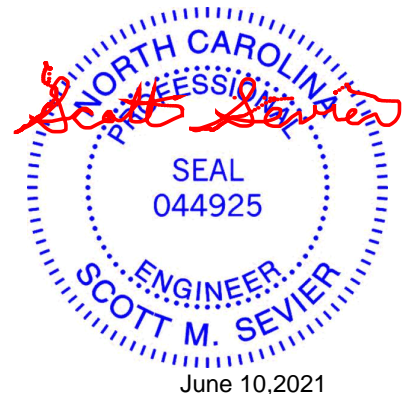
LUMBER-
 TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.3
 OTHERS 2x4 SP No.3

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 5-8-1 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 5-6, 4-6

REACTIONS. (size) 1=0-3-8, 6=0-3-0
 Max Horz 1=436(LC 12)
 Max Uplift 1=-56(LC 12), 6=-273(LC 12)
 Max Grav 1=908(LC 1), 6=900(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-1404/119, 2-4=-1097/74
 BOT CHORD 1-8=-484/1208, 6-8=-250/612
 WEBS 2-8=-460/291, 4-8=-78/722, 4-6=-877/365

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 4) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 6. This connection is for uplift only and does not consider lateral forces.



June 10, 2021

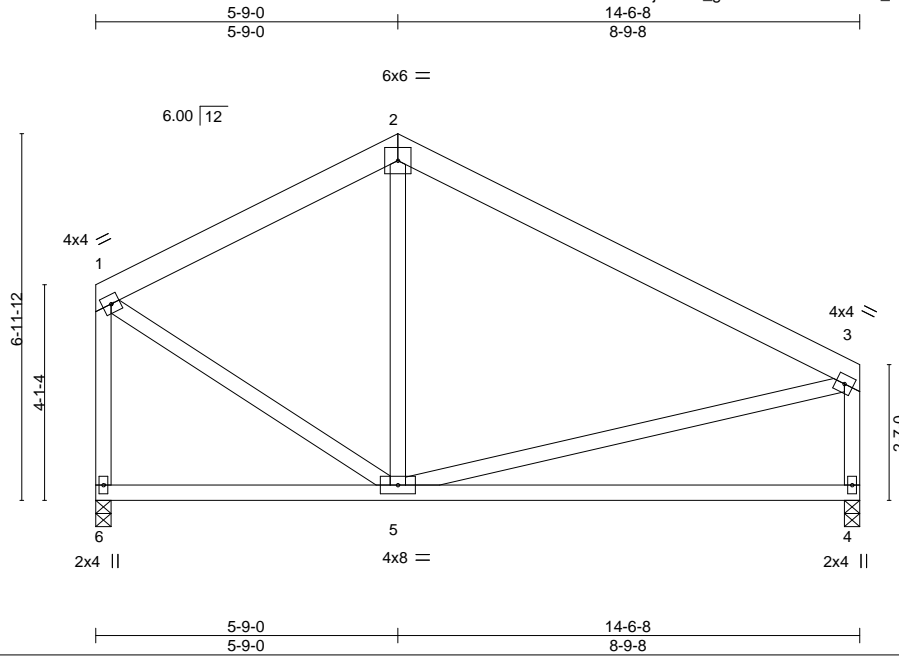
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

Job 27210-27210A	Truss D	Truss Type Common	Qty 7	Ply 1	Aberdeen Loft Vlt Mst 146497215
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84 Components (Dunn), Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 11:58:43 2021 Page 1
ID:hSPrWMHNLcMfmXJhBDjiGz8N_g-UO1bkdlWePe9JwC_XK6z78sKeEkn5XdCnCCAXwz80mw



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.70	Vert(LL)	-0.19	4-5	>923	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.68	Vert(CT)	-0.37	4-5	>459		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP					Weight: 100 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS. (size) 6=0-3-8, 4=0-3-8
 Max Horz 6=-106(LC 13)
 Max Uplift 6=-59(LC 13), 4=-57(LC 13)
 Max Grav 6=570(LC 1), 4=570(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-414/138, 2-3=-446/106, 1-6=-539/182, 3-4=-500/177
 WEBS 1-5=-60/381, 3-5=0/327

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 5) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6 and 4. This connection is for uplift only and does not consider lateral forces.



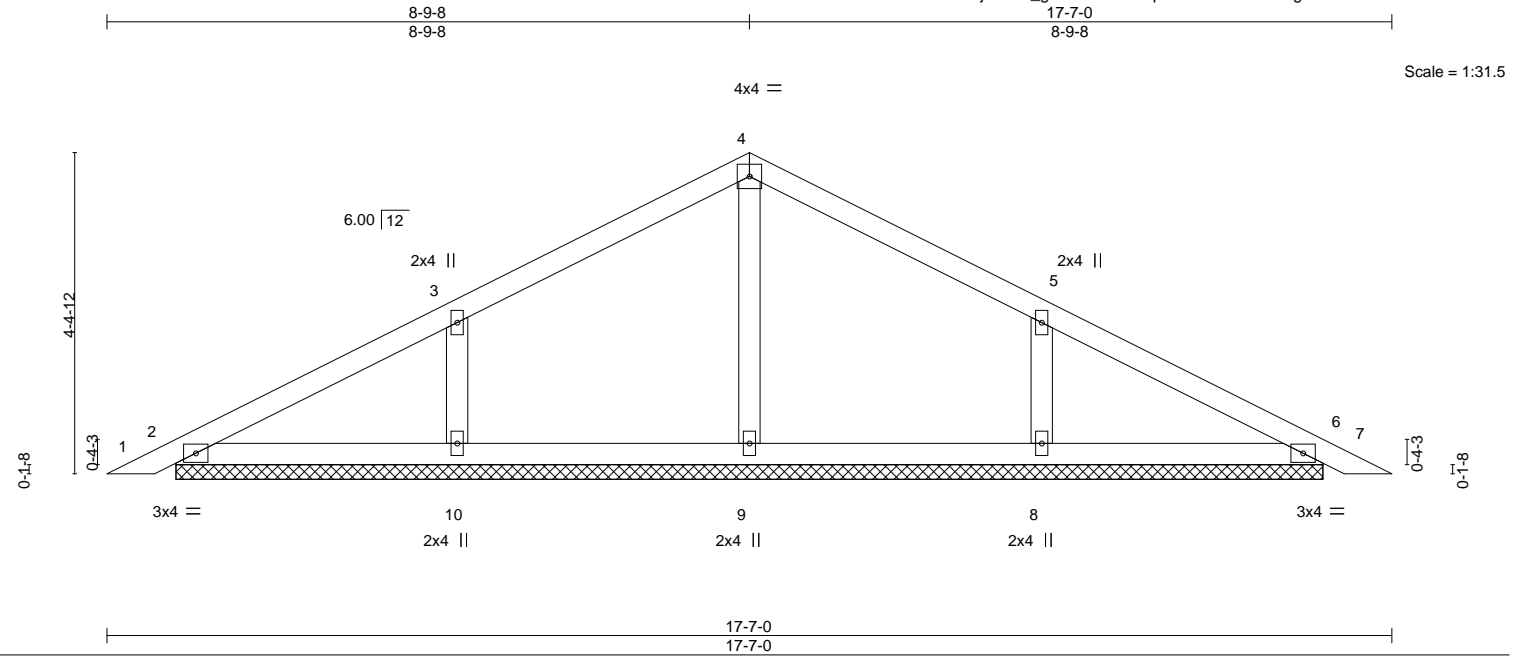
June 10, 2021

Job 27210-27210A	Truss PB1	Truss Type Piggyback	Qty 14	Ply 1	Aberdeen Loft Vlt Mst 146497216
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84 Components (Dunn), Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 12:00:35 2021 Page 1

ID:hSPrWMHNLcMfmXJlhBDjiGz8N_g-CxoxFwfmGqIGk8mV5s7EfmVagN4VKDrhXdK5t1z80IA



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	0.00	7	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	0.01	7	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 63 lb	FT = 20%

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

REACTIONS. All bearings 15-8-6.
 (lb) - Max Horz 2=-71(LC 13)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 6 except 10=-123(LC 12), 8=-123(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9 except 10=379(LC 1), 8=379(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-10=-290/209, 5-8=-290/209

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) Gable requires continuous bottom chord bearing.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 6) n/a
 - 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



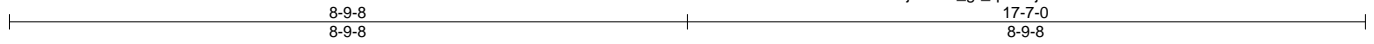
June 10, 2021

Job 27210-27210A	Truss PB2	Truss Type Piggyback	Qty 2	Ply 1	Aberdeen Loft Vlt Mst 146497217
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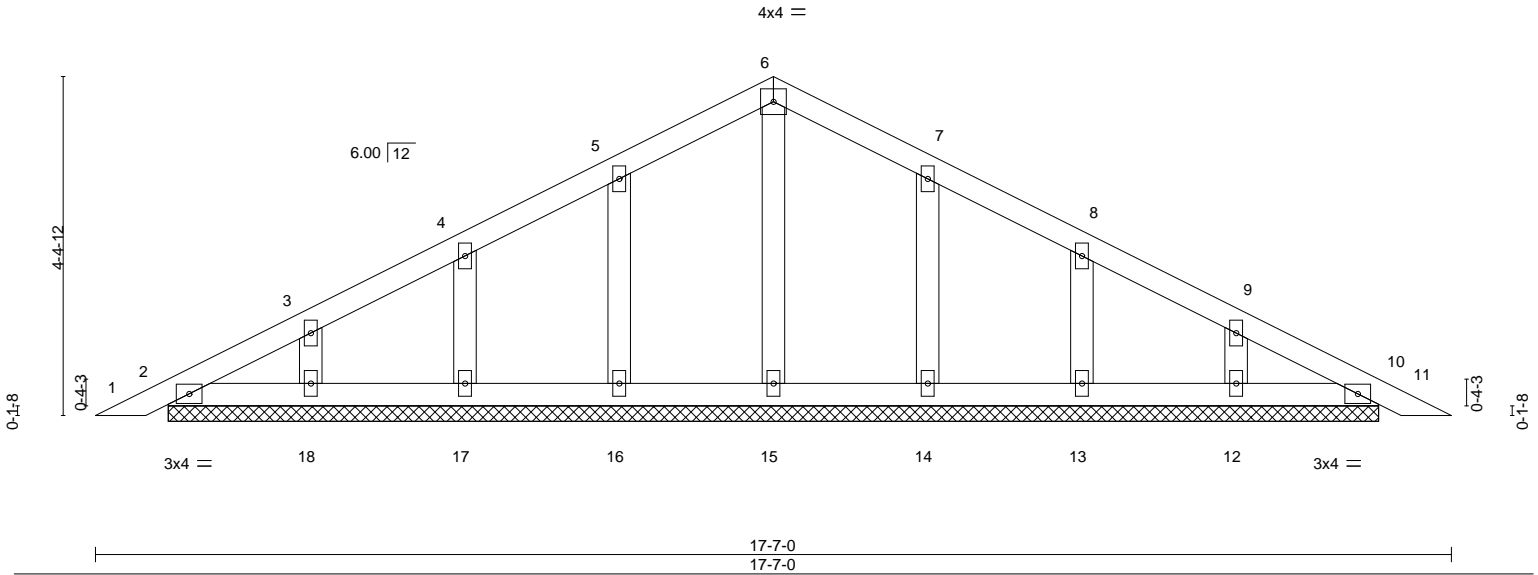
84 Components (Dunn), Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 12:02:08 2021 Page 1

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Scale = 1:29.9



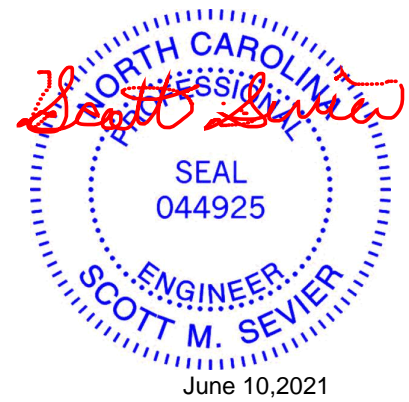
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	0.00	10	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	0.00	10	n/r	90		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 73 lb	FT = 20%

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

REACTIONS. All bearings 15-8-6.
 (lb) - Max Horz 2=71(LC 12)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 17, 13, 18, 16, 14, 12
 Max Grav All reactions 250 lb or less at joint(s) 2, 10, 15, 17, 13, 18, 16, 14, 12

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) All plates are 2x4 MT20 unless otherwise indicated.
 - 4) Gable requires continuous bottom chord bearing.
 - 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 7) n/a
 - 8) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



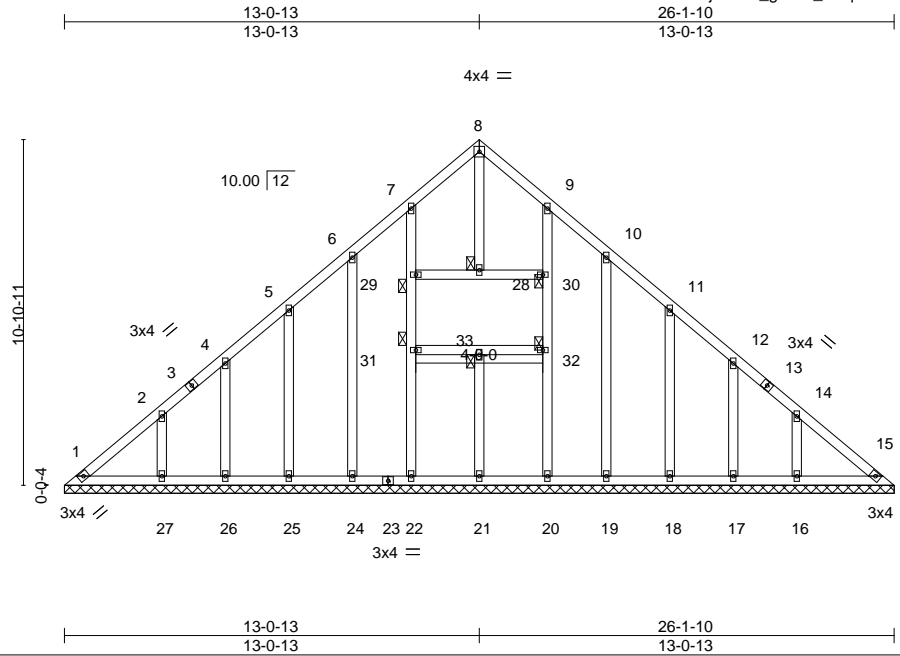
Job 27210-27210A	Truss V1	Truss Type GABLE	Qty 1	Ply 1	Aberdeen Loft Vlt Mst 146497218
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84 Components (Dunn),

Dunn, NC - 28334,

8.510 s Jun 1 2021 MiTek Industries, Inc. Wed Jun 9 12:04:57 2021 Page 1

ID:hSPrWMHNLcMfmXJlhBDjiGz8N_g-XLd_EVq6ZJm5APosRtqgH0LNa?WjjhTFnOoz4rz80h4



Scale = 1:72.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.01	15	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 190 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 JOINTS 1 Brace at Jt(s): 28, 29, 30, 31, 32, 33

REACTIONS.

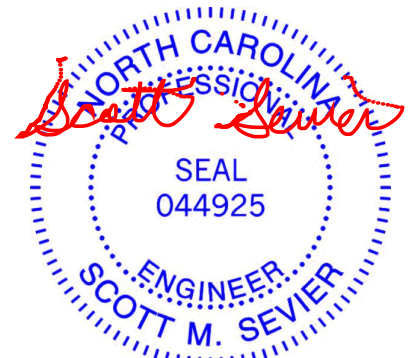
All bearings 26-1-10.
 (lb) - Max Horz 1=261(LC 9)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 22, 24, 25, 26, 20, 19, 18, 17, 15 except 27=-115(LC 12),
 16=-115(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 1, 22, 24, 25, 26, 27, 20, 19, 18, 17, 16, 15, 21

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

TOP CHORD 1-2=-385/241, 2-4=-275/145, 12-14=-259/145, 14-15=-369/241
 BOT CHORD 1-27=-200/315, 26-27=-200/315, 25-26=-200/315, 24-25=-200/315, 22-24=-200/315,
 21-22=-200/316, 20-21=-200/316, 19-20=-200/315, 18-19=-200/315, 17-18=-200/315,
 16-17=-200/315, 15-16=-200/315

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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
- 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



June 10, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component

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



818 Soundside Road
 Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.



This symbol indicates the required direction of slots in connector plates.

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

PLATE SIZE

4 X 4

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

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING



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

Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

Lumber design values are in accordance with ANSI/TP1 section 6.3 These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/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.