

1
S-3

TRUSS BRACING DETAILS

SCALE: 1/4" = 1'-0"

TRUSS BRACING NOTES:

- IF TRUSS DOES NOT APPEAR ON THIS TRUSS BRACING SHEET, NO ADDITIONAL LATERAL BRACING IS REQUIRED.
- 2X4 SPP#2 LATERAL BRACES SHALL BE NAILED TO MINIMUM (3) TRUSS MEMBERS WITH MINIMUM (2) 10D NAILS. PROVISIONS MUST BE MADE AT ENDS OR SPECIFIED INTERVALS TO RESTRAIN OR ANCHOR LATERAL BRACING.
- WEB "I" BRACE, DETAIL 3/RF-1c, IS REQUIRED WHERE LATERAL BRACING IS NOT CONTINUOUS ACROSS THREE (3) OR MORE TRUSSES AND MAY BE USED IN LIEU OF 2X4 LATERAL BRACING.
- DIAGONAL BRACING REQUIRED WHEN LATERAL BRACING IS REQUIRED (4/RF-1c)
- STUDDED GABLE BRACING DETAIL (1/RF-1c) TO BE UTILIZED FOR TRUSSES 6'-4" IN HEIGHT OR GREATER.
- PARTIALLY SHEATHED GABLES, SEE (5/RF-1c) FOR "L" BRACING WHEN REQUIRED.
- LATERAL BRACING CAN BE APPLIED TO EITHER SIDE OF THE WEB MEMBER IDENTIFIED IN THE DRAWING.
- SHEATHING (OSB OR GYPSUM) REPLACES LATERAL AND DIAGONAL TRUSS BRACING.

SHEET NO.

S-3

MODEL

ARUBA BAY

SET NO.

ABY00

VERSION

02

RELEASE

NO. ----

DRAWN BY

DATE:

OPTION

OPTION

MODEL

ARUBA BAY

SET NO.

ABY00

VERSION

02

RELEASE

NO. ----

DRAWN BY

DATE:

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MODEL

ARUBA BAY

SET NO.

ABY00

VERSION

02

RELEASE

NO. ----

DRAWN BY

DATE:

OPTION

OPTION

SHEET NO.

22

MODEL

ARUBA BAY

SET NO.

ABY00

VERSION

02

RELEASE

NO. ----

DRAWN BY

DATE:

OPTION

OPTION

MODEL

ARUBA BAY

SET NO.

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ARUBA BAY

SET NO.

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02

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22

MODEL

ARUBA BAY

SET NO.

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VERSION

02

RELEASE

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DATE:

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SET NO.

ABY00

VERSION

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NO. ----

DRAWN BY

DATE:

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SHEET NO.

22

MODEL

ARUBA BAY

SET NO.

ABY00

VERSION

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NO. ----

DRAWN BY

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SET NO.

ABY00

VERSION

02

RELEASE

NO. ----

DRAWN BY

DATE:

OPTION

OPTION

MODEL

ARUBA BAY

Job ORDERS	Truss SE-22198	Truss Type COMN	Qty 1	Ply 1	10_Southeast 158967546
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NVR, Frederick, MD - 21703,

8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 15 10:07:34 2023 Page 1
ID:6y08fdlBKOJI8iZXmHX1zFZU1-RfC?PsB70Hq3NSgPqnL8w3ulTxbGKWrcDoi7J4zJC?f

-0-11-4 0-11-4	5-0-3 5-0-3	9-6-0 4-5-13	13-11-13 4-5-13	19-0-0 5-0-3	19-11-4 0-11-4
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Scale = 1:33.8

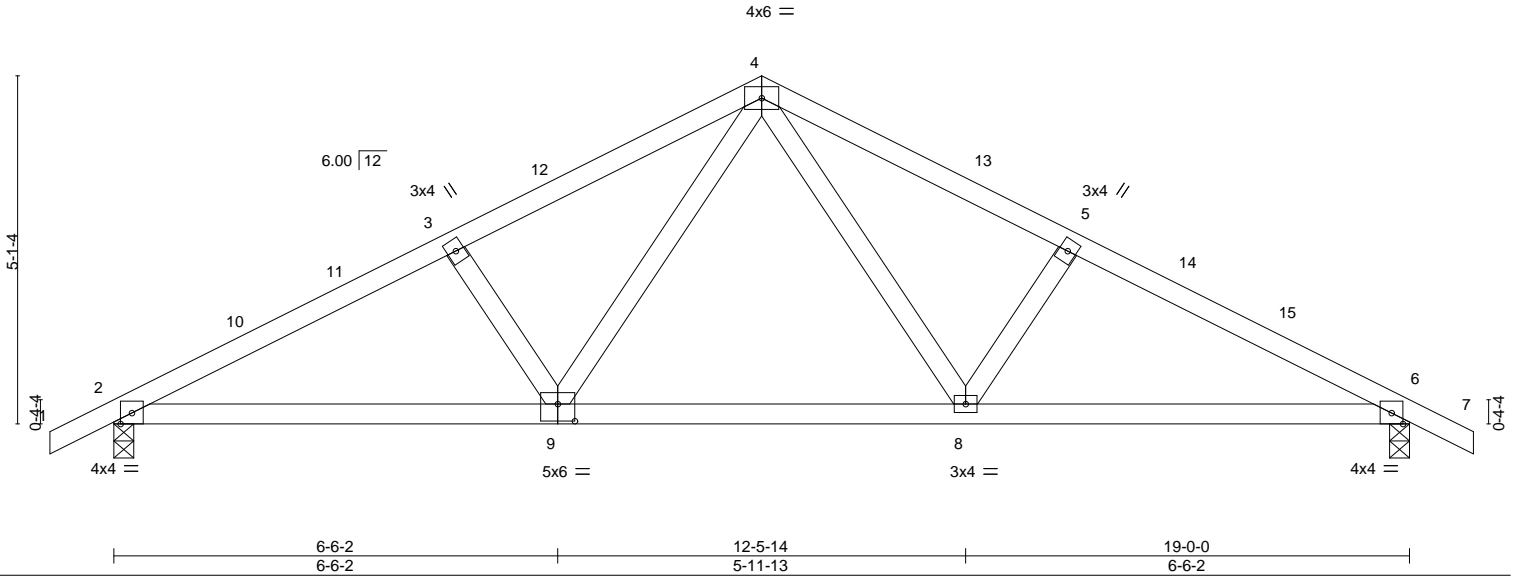


Plate Offsets (X,Y)-- [9:0-3-0,0-3-0]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 30.0 (Roof Snow=30.0)	2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IBC2021/TPI2014	TC 0.52 BC 0.55 WB 0.28 Matrix-S	Vert(LL) -0.06 Vert(CT) -0.12 Horz(CT) 0.04 Wind(LL) 0.03	9 2-9 6 9	>999 >999 n/a >999	360 240 n/a 240	MT20	197/144
TCDL 10.0							Weight: 87 lb	FT = 20%
BCLL 0.0 *								
BCDL 10.0								

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 or 2x4 SPF Stud

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
Max Horz 2=90(LC 16)
Max Uplift 2=-121(LC 12), 6=-121(LC 13)
Max Grav 2=1094(LC 19), 6=1094(LC 20)

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

TOP CHORD 2-3=-1781/312, 3-4=-1530/322, 4-5=-1530/322, 5-6=-1781/312
BOT CHORD 2-9=-186/1510, 8-9=-54/913, 6-8=-186/1510
WEBS 3-9=-503/174, 4-9=-85/658, 4-8=-86/658, 5-8=-503/174

NOTES- (8-11)

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 6-6-0, Exterior(2R) 6-6-0 to 12-6-0, Interior(1) 12-6-0 to 16-11-4, Exterior(2E) 16-11-4 to 19-11-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 18.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 2 and 121 lb uplift at joint 6.
- 8) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
- 9) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
- 10) Design checked for ASCE 7-10 ultimate wind speed at 115 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 90 mph.
- 11) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.



June 16,2023

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	Truss	Truss Type	Qty	Ply	10_Southeast
ORDERS	SE-22202	SPEC	1	1	158967550
Job Reference (optional)					

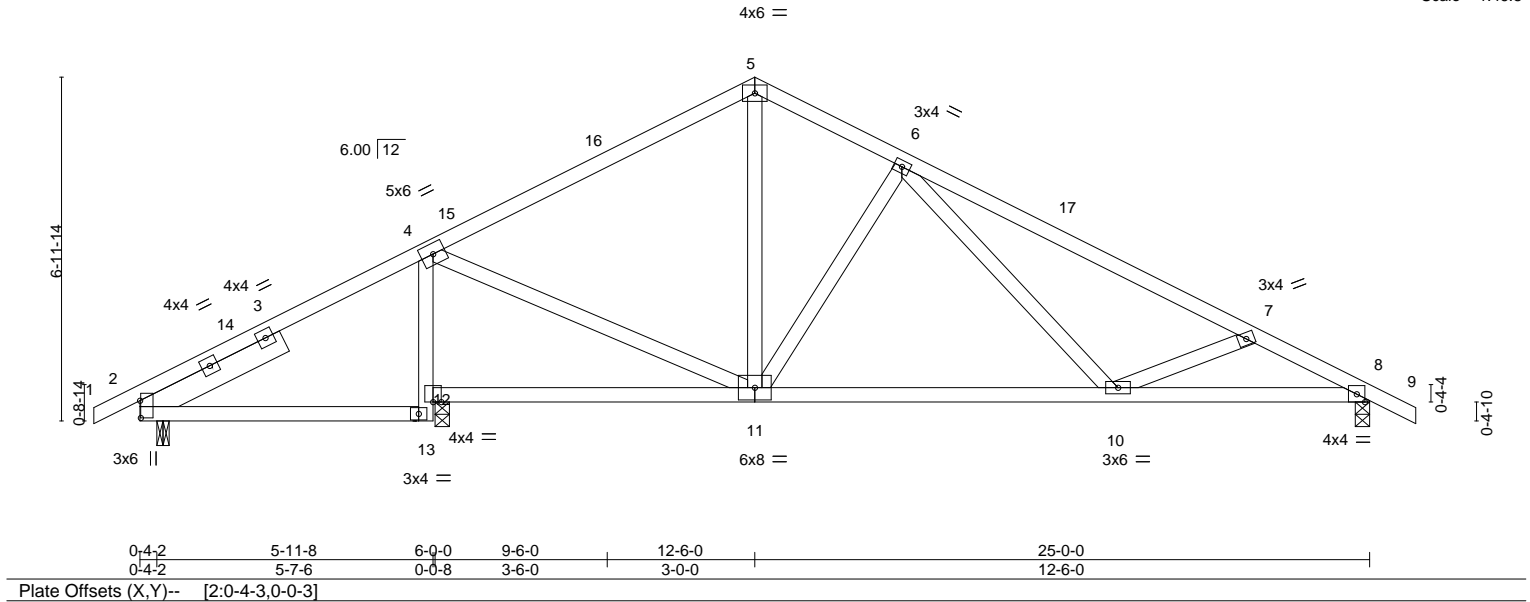
NVR, Frederick, MD - 21703,

8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 15 10:07:37 2023 Page 1

ID:6y08fdlBKOJl8iZXMnHX1zFZU1-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

0-11-4 5-11-8 12-6-0 15-5-14 22-5-14 25-0-0 25-11-4
0-11-4 5-11-8 6-6-8 2-11-14 7-0-0 2-6-2 0-11-4

Scale = 1:46.8



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 30.0	2-0-0	TC 0.82	in (loc) l/defl L/d	MT20	197/144
(Roof Snow=30.0)	Plate Grip DOL 1.15	BC 0.51	Vert(LL) -0.06 10-11 >999 360		
TCDL 10.0	Lumber DOL 1.15	WB 0.52	Vert(CT) -0.14 10-11 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.03 8 n/a n/a		
BCDL 10.0	Code IBC2021/TPI2014		Wind(LL) 0.03 10-11 >999 240	Weight: 135 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
WEBS 2x4 SP No.3 or 2x4 SPF Stud
SLIDER Left 2x6 SP No.2 3-2-11

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-7-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 2=0-3-0, 12=0-3-8, 8=0-3-8
Max Horz 12=117(LC 17)
Max Uplift 2=74(LC 12), 12=100(LC 12), 8=139(LC 13)
Max Grav 2=314(LC 19), 12=1349(LC 19), 8=1093(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=-856/195, 5-6=-863/227, 6-7=-1644/219, 7-8=-2035/310
BOT CHORD 4-12=-1229/219, 10-11=-51/1066, 8-10=-251/1805
WEBS 5-11=-89/476, 6-11=-777/214, 6-10=-21/423, 7-10=-495/255, 4-11=-6/834

- NOTES-** (8-11)
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 9-6-0, Exterior(2R) 9-6-0 to 15-5-14, Interior(1) 15-5-14 to 22-8-2, Exterior(2E) 22-8-2 to 25-11-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) This truss has been designed for greater of min roof live load of 18.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
 - 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 2, 100 lb uplift at joint 12 and 139 lb uplift at joint 8.
 - 8) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
 - 9) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
 - 10) Design checked for ASCE 7-10 ultimate wind speed at 115 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 90 mph.
 - 11) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.



June 16,2023

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

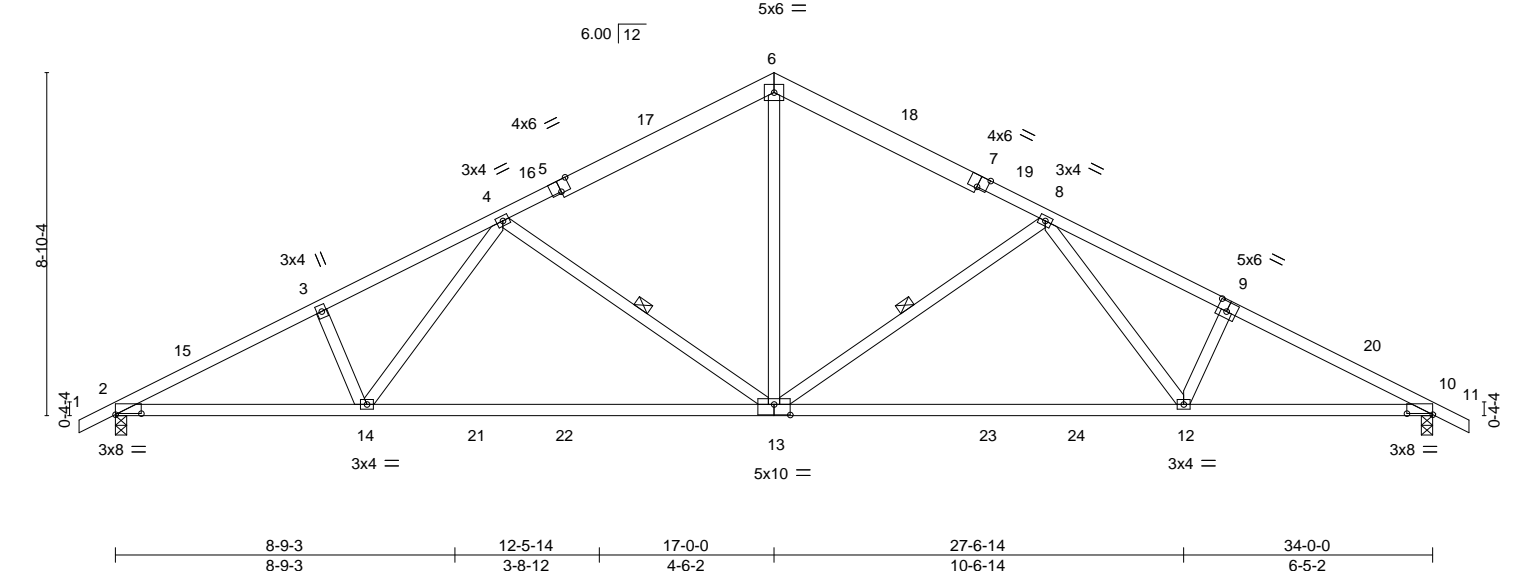
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	10_Southeast	I58967551
ORDERS	SE-22203	COMN	1	1	Job Reference (optional)	

NVR, Frederick, MD - 21703, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 15 10:07:38 2023 Page 1
ID:ohdzKV9G?y7BSGCeIYVzPJyGyXY-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

0-11-4 6-0-3 10-0-0 11-6-2 12-5-14 17-0-0 24-0-0 28-8-2 29-1-7 34-0-0 34-11-4
0-11-4 6-0-3 3-11-13 1-6-2 0-11-13 4-6-2 7-0-0 4-8-2 0-5-5 4-10-9 0-11-4

Scale = 1:59.5



LOADING (psf)	SPACING	CSI	DEFL.	PLATES	GRIP
TCLL 30.0	2-0-0	TC 0.99	in (loc) l/defl L/d	MT20	197/144
(Roof Snow=30.0)	Plate Grip DOL 1.15	BC 0.58	Vert(LL) -0.23 13-14 >999 360		
TCDL 10.0	Lumber DOL 1.15	WB 0.48	Vert(CT) -0.49 13-14 >826 240		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.11 10 n/a n/a		
BCDL 10.0	Code IBC2021/TPI2014		Wind(LL) 0.09 13-14 >999 240	Weight: 183 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except*	TOP CHORD Structural wood sheathing directly applied.
9-11,1-5: 2x4 SP No.2 or 2x4 SPF No.2, 7-9: 2x4 SP No.2D	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
BOT CHORD 2x4 SP 2250F 1.9E or 2x4 SPF 2100F 1.8E	WEBS 1 Row at midpt 4-13, 8-13
WEBS 2x4 SP No.3 or 2x4 SPF Stud	

REACTIONS.	(size) 2=0-3-8, 10=0-3-8
	Max Horz 2=152(LC 16)
	Max Uplift 2=199(LC 12), 10=199(LC 13)
	Max Grav 2=1772(LC 1), 10=1772(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-3228/312, 3-4=-3061/348, 4-6=-2043/311, 6-8=-2043/311, 8-9=-3057/347, 9-10=-3228/313
BOT CHORD	2-14=-349/2780, 13-14=-253/2335, 12-13=-149/2337, 10-12=-198/2780
WEBS	6-13=-55/1107, 4-13=-881/254, 4-14=-56/567, 3-14=-298/164, 8-13=-885/256, 8-12=-54/561, 9-12=-297/163

- NOTES- (8-11)
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-4 to 2-0-12, Interior(1) 2-0-12 to 14-0-0, Exterior(2R) 14-0-0 to 20-0-0, Interior(1) 20-0-0 to 31-11-4, Exterior(2E) 31-11-4 to 34-11-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 3) Unbalanced snow loads have been considered for this design.
 - 4) This truss has been designed for greater of min roof live load of 18.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
 - 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, with BCDL = 10.0psf.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 199 lb uplift at joint 2 and 199 lb uplift at joint 10.
 - 8) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
 - 9) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
 - 10) Design checked for ASCE 7-10 ultimate wind speed at 115 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 90 mph.
 - 11) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.



June 16,2023

Job	Truss	Truss Type	Qty	Ply	10_Southeast	I58967552
ORDERS	SE-22204	CONN	1	1	Job Reference (optional)	

NVR, Frederick, MD - 21703,

8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 15 10:07:40 2023 Page 1

ID:5lb56nez?NGp7jN5pS3vTuyrxGa-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDoi7J4zJC?f

19-0-0

19-11-4

0-11-4

0-11-4

9-6-0

9-6-0

9-6-0

0-11-4

Scale = 1:34.7

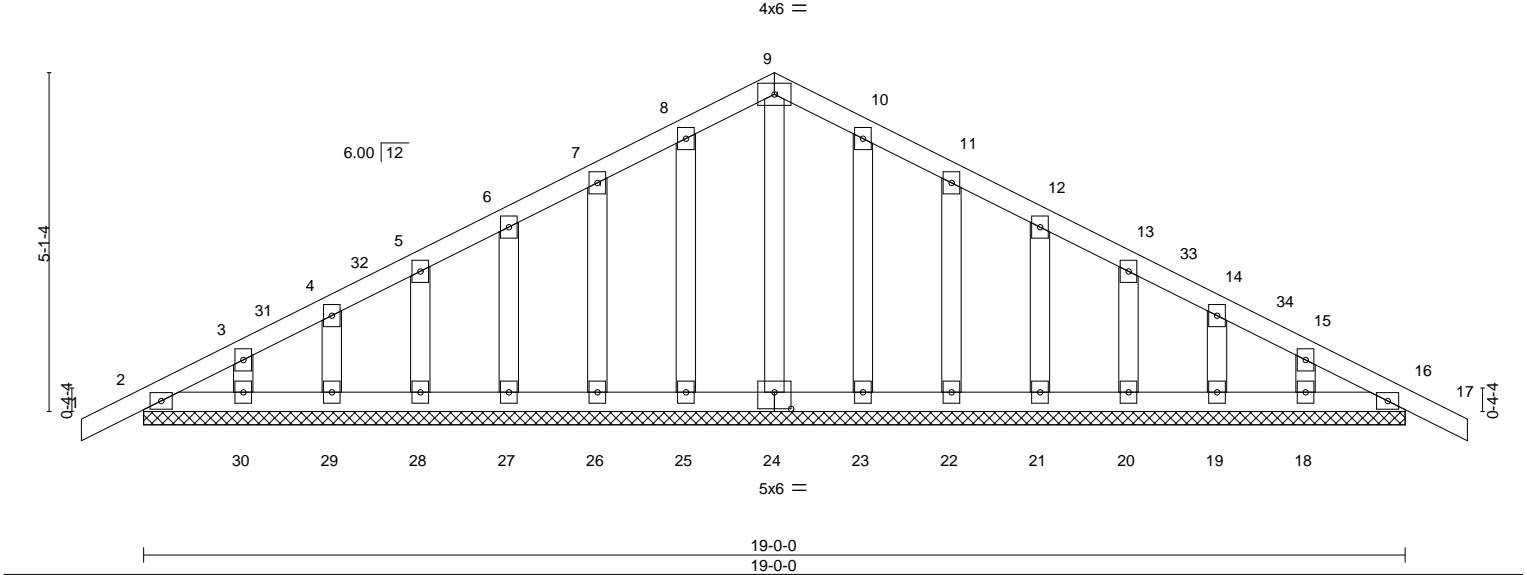


Plate Offsets (X,Y)-- [24:0-3-0,0-3-0]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d
TCLL 30.0		Plate Grip DOL	1.15	TC 0.08		Vert(LL)	0.00 17	n/r	120
(Roof Snow=30.0)		Lumber DOL	1.15	BC 0.03		Vert(CT)	0.00 16	n/r	120
TCDL 10.0		Rep Stress Incr	YES	WB 0.07		Horz(CT)	0.00 16	n/a	n/a
BCLL 0.0 *		Code IBC2021/TPI2014		Matrix-S					
BCDL 10.0									
								PLATES	GRIP
								MT20	197/144
								Weight: 110 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 or 2x4 SPF Stud		

REACTIONS. All bearings 19-0-0.

(lb) - Max Horz 2=90(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 18, 16

Max Grav All reactions 250 lb or less at joint(s) 2, 24, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 18, 16

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

- NOTES-** (12-15)
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-4 to 2-0-12, Exterior(2N) 2-0-12 to 6-6-0, Corner(3R) 6-6-0 to 12-6-0, Exterior(2N) 12-6-0 to 16-11-4, Corner(3E) 16-11-4 to 19-11-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 18.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
 - All plates are 3x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 18, 16.
 - Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
 - Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
 - Design checked for ASCE 7-10 ultimate wind speed at 115 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 90 mph.
 - Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.



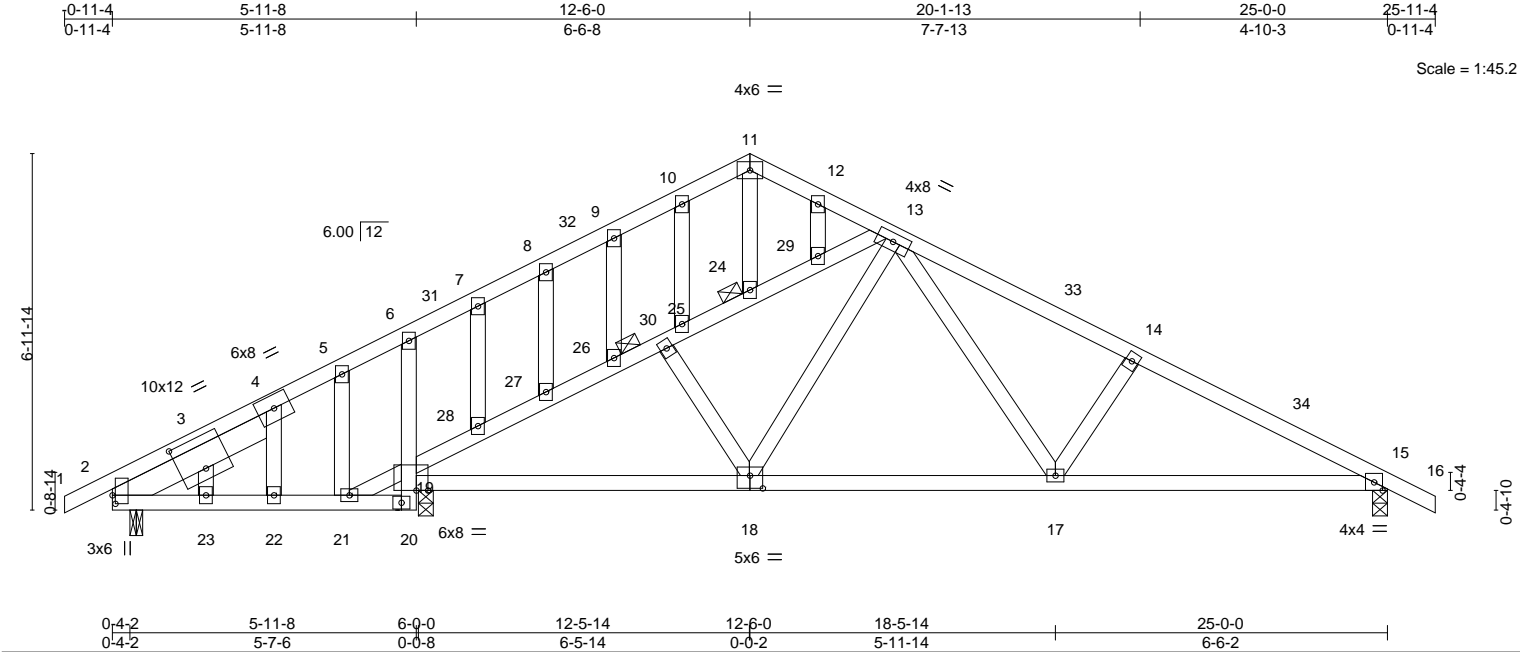
June 16,2023

Job	Truss	Truss Type	Qty	Ply	10_Southeast	158967554
ORDERS	SE-22206	SPEC	1	1	Job Reference (optional)	

NVR, Frederick, MD - 21703,

8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 15 10:07:43 2023 Page 1

ID:6y08fdIBKOIJ8iZXmHX1zFZU1-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcD0i7J4zJC?f



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	30.0	Plate Grip DOL	2-0-0	TC	0.44	in (loc)	l/defl	L/d	MT20	197/144	
(Roof Snow=30.0)		Lumber DOL	1.15	BC	0.57	Vert(LL)	-0.07 17-18	>999 360			
TCDL	10.0	Rep Stress Incr	YES	WB	0.70	Vert(CT)	-0.12 15-17	>999 240			
BCLL	0.0 *	Code IBC2021/TPI2014		Matrix-S		Horz(CT)	0.04 15	n/a n/a			
BCDL	10.0					Wind(LL)	0.03 17	>999 240			
								Weight: 164 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 3-11-0 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, Except:
WEBS	2x4 SP No.3 or 2x4 SPF Stud		6-0-0 oc bracing: 20-21.
OTHERS	2x4 SP No.3 or 2x4 SPF Stud	JOINTS	1 Brace at Jt(s): 24, 26
SLIDER	Left 2x6 SP No.2 3-5-3		

REACTIONS. (size) 2=0-3-0, 15=0-3-8, 19=0-3-8
Max Horz 19=-117(LC 17)
Max Uplift 15=-129(LC 13), 19=-202(LC 12)
Max Grav 2=427(LC 1), 15=1145(LC 20), 19=1237(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-341/0, 6-7=-253/5, 12-13=-289/77, 13-14=-1679/217, 14-15=-1891/204
BOT CHORD 20-21=-261/116, 6-19=-374/182, 18-19=-39/1153, 17-18=-0/1114, 15-17=-97/1608
WEBS 19-28=-1174/236, 27-28=-1123/226, 26-27=-1096/217, 26-30=-1076/200,
25-30=-1079/192, 24-25=-1076/159, 24-29=-1091/174, 13-29=-1050/160, 19-21=0/472,
18-30=-277/97, 13-18=-1/418, 13-17=-83/542, 14-17=-379/170

- NOTES-** (11-14)
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-4 to 1-9-5, Interior(1) 1-9-5 to 9-6-0, Exterior(2R) 9-6-0 to 15-4-9, Interior(1) 15-4-9 to 22-11-4, Exterior(2E) 22-11-4 to 25-11-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - TCLL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 18.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
 - All plates are 3x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=129, 19=202.



June 16,2023

Job	Truss	Truss Type	Qty	Ply	10_Southeast
ORDERS	SE-22206	SPEC	1	1	I58967554
Job Reference (optional)					

NVR, Frederick, MD - 21703,

8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 15 10:07:43 2023 Page 2
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- 11) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
- 12) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
- 13) Design checked for ASCE 7-10 ultimate wind speed at 115 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 90 mph.
- 14) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.

Job	Truss	Truss Type	Qty	Ply	10_Southeast	I58967557
ORDERS	SE-22209	SPEC	1	1	Job Reference (optional)	

NVR, Frederick, MD - 21703, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Jun 15 10:07:46 2023 Page 1
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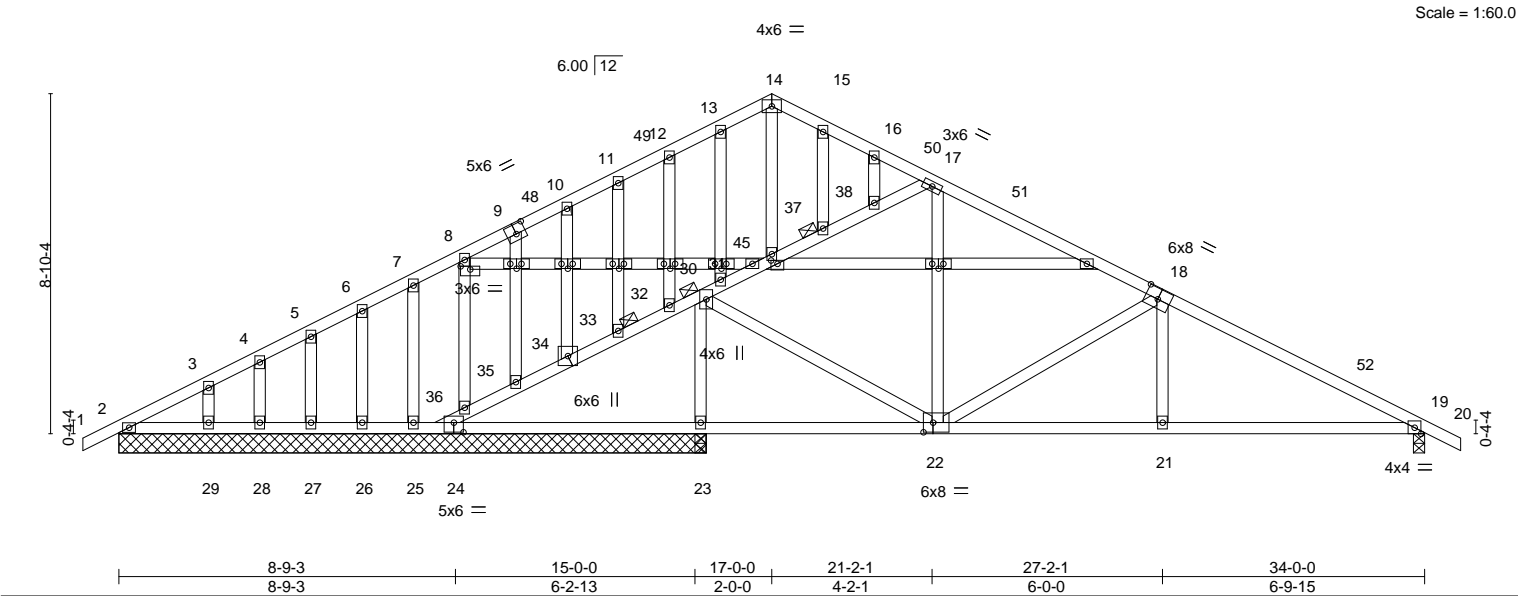


Plate Offsets (X,Y)--	[9:0-3-0,0-3-0], [18:0-4-0,0-3-4], [22:0-3-0,0-3-0], [24:0-3-0,0-3-0], [39:0-3-0,0-1-0], [40:0-1-8,0-1-8], [41:0-1-8,0-1-8], [42:0-1-8,0-1-8], [43:0-1-8,0-1-8], [44:0-1-8,0-1-8], [45:0-2-0,0-1-1], [46:0-1-8,0-1-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 30.0	Plate Grip DOL 1.15	TC 0.74	Vert(LL) -0.07	19-21	>999	360	MT20	197/144
(Roof Snow=30.0)	Lumber DOL 1.15	BC 0.64	Vert(CT) -0.15	19-21	>999	240		
TCDL 10.0	Rep Stress Incr YES	WB 0.73	Horz(CT) 0.03	19	n/a	n/a		
BCLL 0.0 *	Code IBC2021/TPI2014	Matrix-S	Wind(LL) 0.05	19-21	>999	240	Weight: 256 lb	FT = 20%
BCDL 10.0								

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-0-14 oc purlins.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
WEBS 2x4 SP No.2 or 2x4 SPF No.2 *Except*	10-0-0 oc bracing: 21-22,19-21.
23-30,17-22,22-30,18-21,18-22,16-38,24-34: 2x4 SP No.3 or 2x4 SPF	JOINTS 1 Brace at Jt(s): 30, 33, 37
Stud	
OTHERS 2x4 SP No.3 or 2x4 SPF Stud	

REACTIONS.	All bearings 15-3-8 except (jt=length) 19=0-3-8.
(lb) - Max Horz 2=154(LC 12)	
Max Uplift All uplift 100 lb or less at joint(s) 23, 25, 26, 27, 28, 29 except	
19=150(LC 13), 24=186(LC 12)	
Max Grav All reactions 250 lb or less at joint(s) 2, 25, 26, 27, 28, 29 except	
23=1310(LC 20), 23=1307(LC 1), 19=1077(LC 20), 24=679(LC 19)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-329/155, 3-4=-280/127, 4-5=-254/134, 17-18=-931/162, 18-19=-1650/204	
BOT CHORD 2-29=-131/275, 28-29=-131/275, 27-28=-131/275, 26-27=-131/275, 25-26=-131/275,	
24-25=-131/275, 21-22=-87/1365, 19-21=-86/1367	
WEBS 24-36=-588/333, 35-36=-283/220, 34-35=-318/227, 33-34=-271/212, 30-31=-841/226,	
31-45=-761/209, 37-45=-758/223, 37-38=-709/206, 17-38=-716/208, 23-30=-1174/150,	
22-30=-62/899, 18-21=0/283, 18-22=-739/201, 13-31=-353/98, 12-32=-260/69,	
8-36=-424/166	

- NOTES-** (11-14)
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-4 to 2-4-0, Interior(1) 2-4-0 to 14-0-0, Exterior(2R) 14-0-0 to 20-0-0, Interior(1) 20-0-0 to 31-11-4, Exterior(2E) 31-11-4 to 34-11-4 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 3) TCCL: ASCE 7-16; Pf=30.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) This truss has been designed for greater of min roof live load of 18.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
 - 6) All plates are 3x4 MT20 unless otherwise indicated.
 - 7) Gable studs spaced at 1-4-0 oc.
 - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 9) * This truss has been designed for a live load of 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.

Continued on page 2



June 16,2023

Job	Truss	Truss Type	Qty	Ply	10_Southeast	I58967557
ORDERS	SE-22209	SPEC	1	1	Job Reference (optional)	

- NOTES-** (11-14)
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 23, 25, 26, 27, 28, 29 except (jt=lb) 19=150, 24=186.
 - 11) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust), wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 115 mph.
 - 12) Design checked for ASCE 7-10 ultimate wind speed at 130 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 100 mph, wind reaction x 0.78 will adjust wind uplift reaction to a wind speed of 90 mph.
 - 13) Design checked for ASCE 7-10 ultimate wind speed at 115 mph (3-second gust) meets or exceeds IRC2012 nominal wind speed of 90 mph.
 - 14) Metal hangers, of any seat size, can be used in place of wood bearing, of any seat size, provided the hanger has been sized for the required maximum reaction.

