Lumber design values are in accordance with ANSI/TPI 1 section 6.3
These truss designs rely on lumber values established by others.

RE: 2742669 - NORRIS - SPEC STONEHENGE

MiTek USA, Inc.
6904 Parke East Blvd.
Tampa, FL 33610-4115

Site Information:
Customer Info: John Norris Const. Project Name: Spec Hse Model: Custom
Lot/Block: TBD Subdivision: Stonehenge
Address: 279 SW Stonehenge, N/A
City: Columbia Cty State: FL

Name Address and License # of Structural Engineer of Record, If there is one, for the building.
Name: License #:
Address:
City: State:

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):
Design Code: FBC2020/TPI2014 Design Program: MiTek 20/20 8.4
Wind Code: N/A Wind Speed: 130 mph
Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 28 individual, Truss Design Drawings and 0 Additional Drawings.
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	T23511404	CJ01	4/12/21	23	T23511426	T10	4/12/21
2	T23511405	CJ01A	4/12/21	24	T23511427	T11	4/12/21
3	T23511406	CJ03	4/12/21	25	T23511428	T12	4/12/21
4	T23511407	CJ03A	4/12/21	26	T23511429	T13	4/12/21
5	T23511408	CJ03B	4/12/21	27	T23511430	T14	4/12/21
6	T23511409	CJ05	4/12/21	28	T23511431	T15	4/12/21
7	T23511410	CJ05A	4/12/21				
8	T23511411	EJ01	4/12/21				
9	T23511412	EJ02	4/12/21				
10	T23511413	EJ03	4/12/21				
11	T23511414	HJ08	4/12/21				
12	T23511415	HJ10	4/12/21				
13	T23511416	HJ10A	4/12/21				
14	T23511417	T01	4/12/21				
15	T23511418	T02	4/12/21				
16	T23511419	T03	4/12/21				
17	T23511420	T04	4/12/21				
18	T23511421	T05	4/12/21				
19	T23511422	T06	4/12/21				
20	T23511423	T07	4/12/21				
21	T23511424	T08	4/12/21				
22	T23511425	T09	4/12/21				

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource-Jacksonville.

Truss Design Engineer's Name: Lee, Julius
My license renewal date for the state of Florida is February 28, 2023.

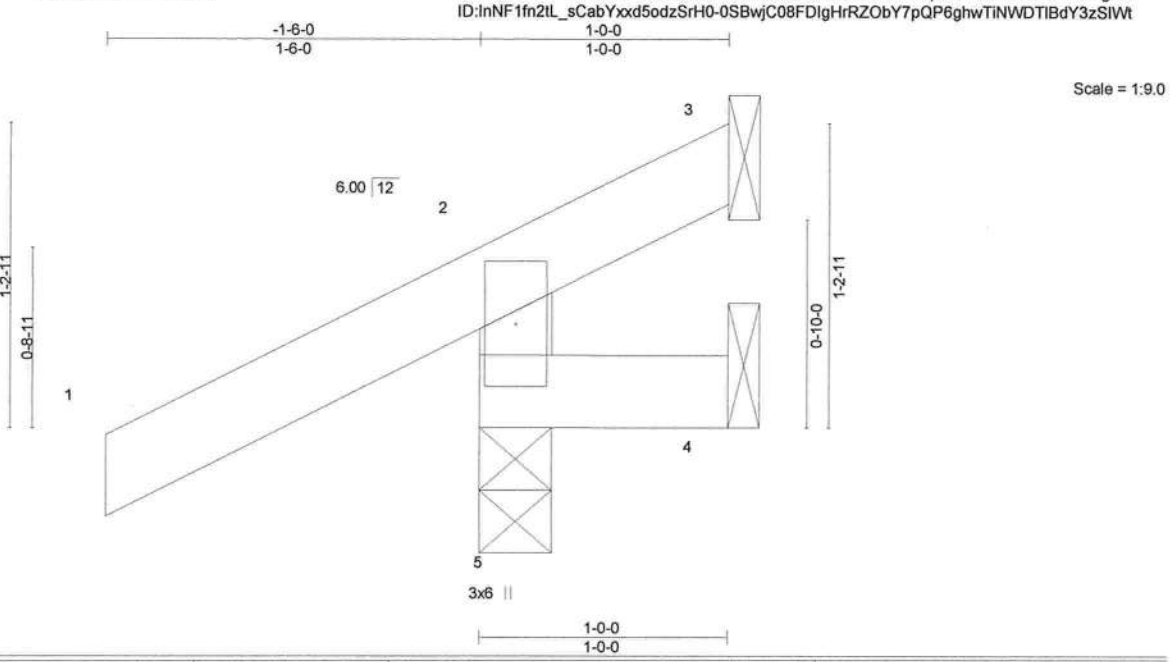
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE	T23511404
2742669	CJ01	Jack-Open	14	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:25:58 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-0SBwjC08FDlgHrRZObY7pQP6ghwTiNWDTlBdY3zSlWt



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.18	Vert(LL)	0.00	5	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.04	Vert(CT)	0.00	5	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MR							Weight: 6 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=39(LC 12)
Max Uplift 5=-63(LC 12), 3=-40(LC 1), 4=-16(LC 1)
Max Grav 5=207(LC 1), 3=13(LC 8), 4=10(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE	T23511405
2742669	CJ01A	JACK-OPEN	2	1	Job Reference (optional)	

Builders FirstSource, Lake City, FL 32055 — 8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 12 09:19:10 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-p4YqLvv9stPvkpuhQ0BIcRchZaPFsw47KHRh3BzRWWI

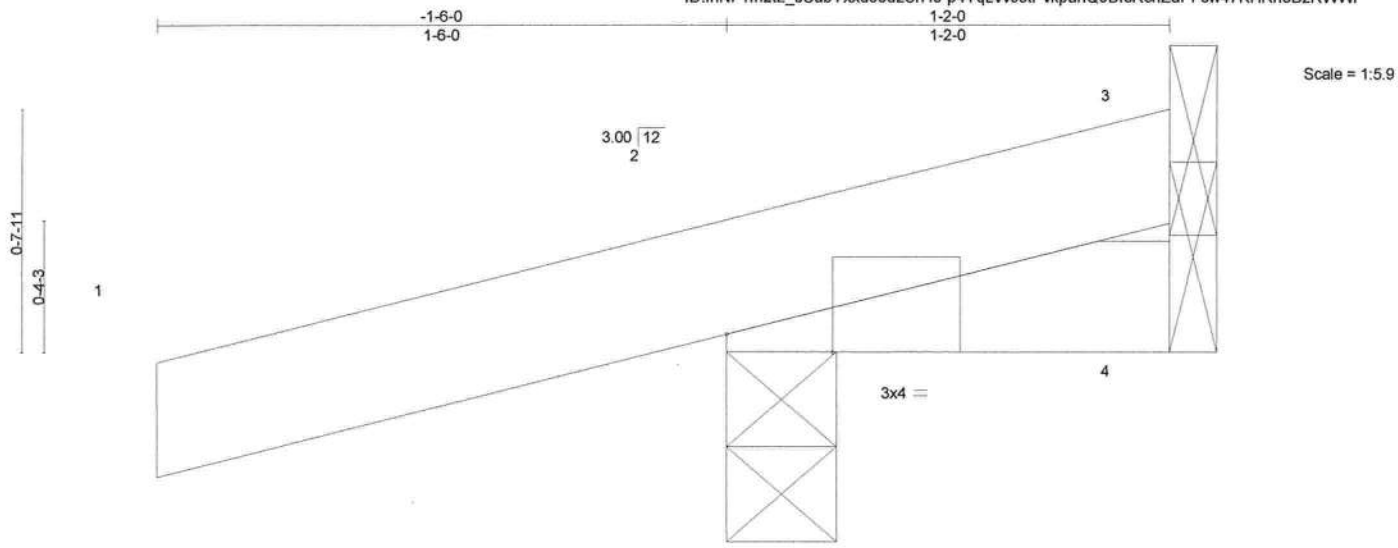


Plate Offsets (X,Y)-- [2:0-3-6,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.13	Vert(LL)	0.00	5	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.02	Vert(CT)	-0.00	5	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	2	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 6 lb	FT = 20%

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

BRACING-
TOP CHORD Sheathed or 1-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 2=176/0-3-8, 4=-14/Mechanical, 3=5/Mechanical
Max Horz 2=27(LC 8)
Max Uplift 2=-114(LC 8), 4=-14(LC 1), 3=-4(LC 9)
Max Grav 2=176(LC 1), 4=15(LC 8), 3=12(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 114 lb uplift at joint 2, 14 lb uplift at joint 4 and 4 lb uplift at joint 3.

LOAD CASE(S) Standard

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE	T23511406
2742669	CJ03	Jack-Open	12	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:25:59 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-UeIlwY1m0WQWu?0lxJ4MLdyH?5EiRqmMiPwB4VzSlWs

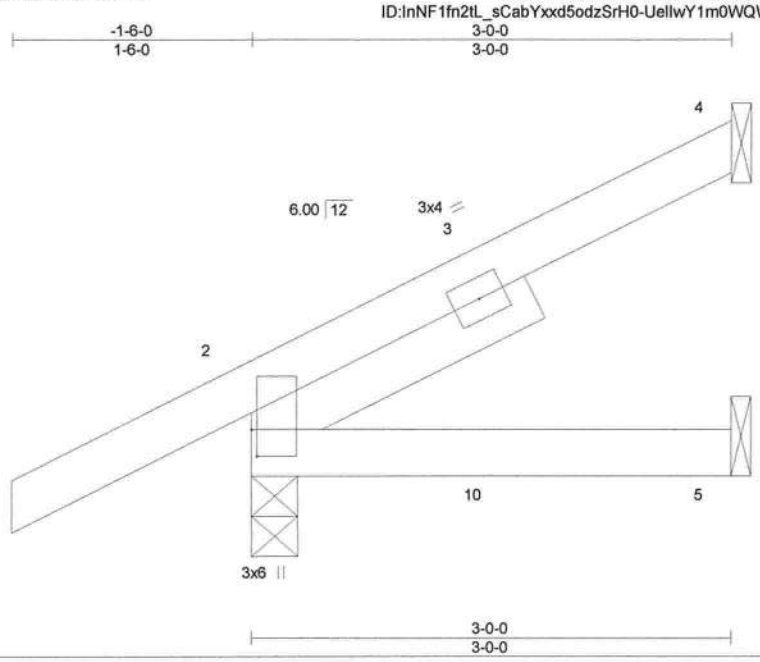


Plate Offsets (X,Y)-- [2:0-2-0,0-0-6]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.14	Vert(LL)	0.01	5-8	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.10	Vert(CT)	-0.01	5-8	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	2	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 15 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.3 -t 1-11-8

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=73(LC 12)
Max Uplift 4=-41(LC 12), 2=-49(LC 12), 5=-17(LC 9)
Max Grav 4=60(LC 1), 2=210(LC 1), 5=48(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 2-11-4 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

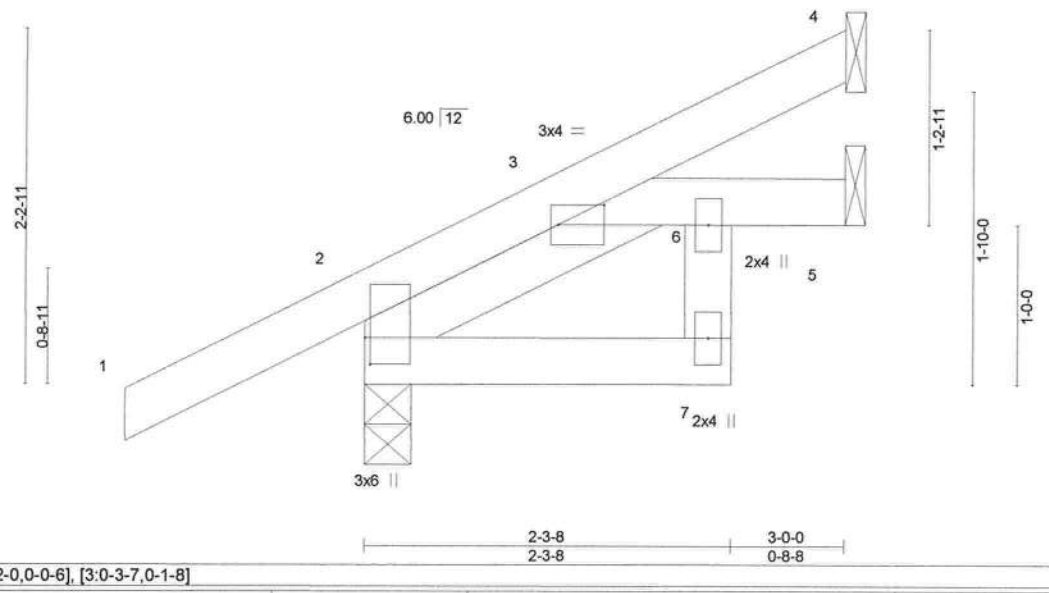
MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE	T23511407
2742669	CJ03A	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:00 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-yrJh7t2OnqYNW8byV0bburUSrUamAH0WW3gkcyzSlWr

-1-6-0 2-3-8 3-0-0
1-6-0 2-3-8 0-8-8

Scale = 1:14.0



2-3-8 3-0-0
2-3-8 0-8-8

Plate Offsets (X,Y)-- [2:0-2-0,0-0-6], [3:0-3-7,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.14	Vert(LL)	-0.00	10	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.12	Vert(CT)	-0.00	7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MR							Weight: 18 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
6-7: 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -t 1-11-12

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=73(LC 12)
Max Uplift 4=-23(LC 12), 2=-47(LC 12), 5=-15(LC 12)
Max Grav 4=45(LC 1), 2=218(LC 1), 5=69(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-2-8, Interior(1) 1-2-8 to 2-11-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE	T23511408
2742669	CJ03B	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:01 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-Q1s3LD20Y8gE8lA83k6qQ21enuwCvkGf9jPH9OzSlWq

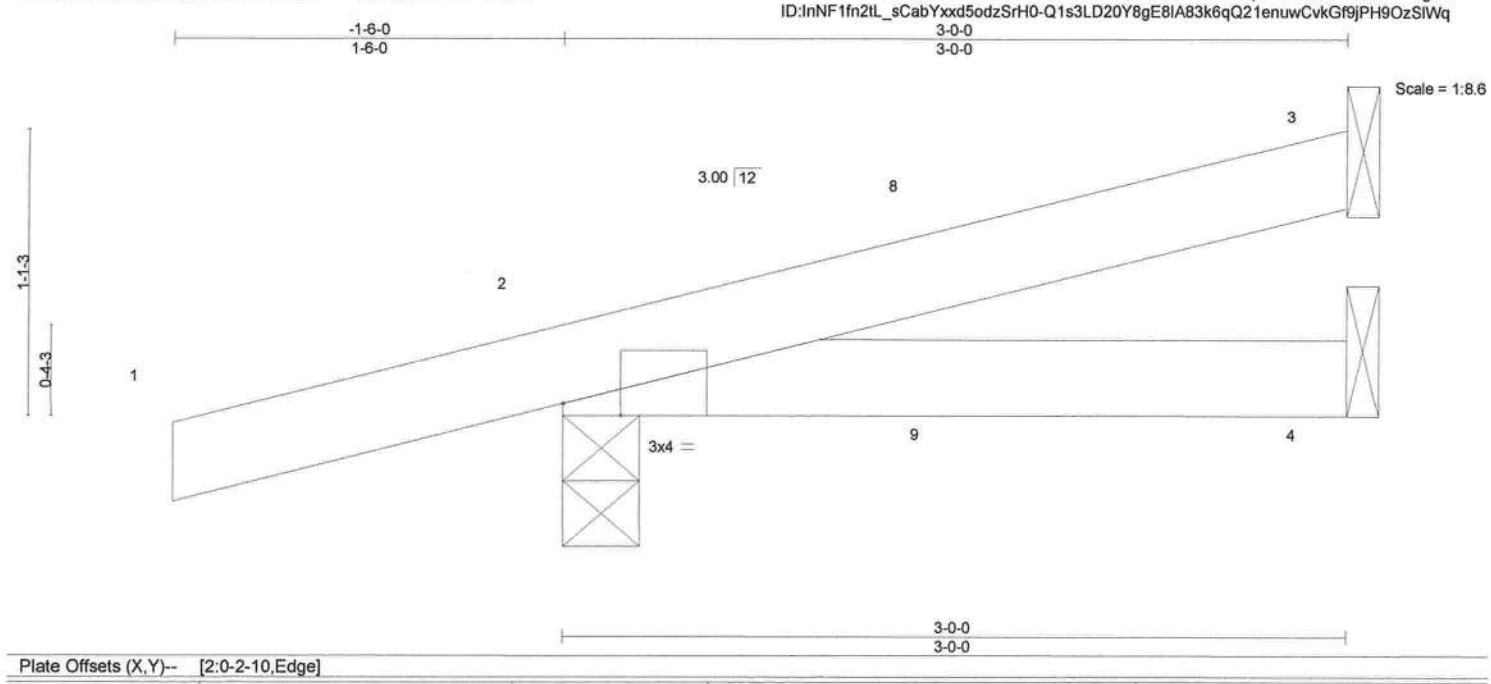


Plate Offsets (X,Y)-- [2:0-2-10,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.12	Vert(LL)	0.01	4-7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.10	Vert(CT)	0.01	4-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 11 lb	FT = 20%

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

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=42(LC 8)
Max Uplift 3=-28(LC 8), 2=-121(LC 8), 4=-15(LC 9)
Max Grav 3=57(LC 1), 2=210(LC 1), 4=47(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 2-11-4 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=121.

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE	T23511409
2742669	CJ05	Jack-Open	12	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:01 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-Q1s3LD20Y8gE8IA83k6qQ21ZPusuvkGf9jPH9OzSlWq

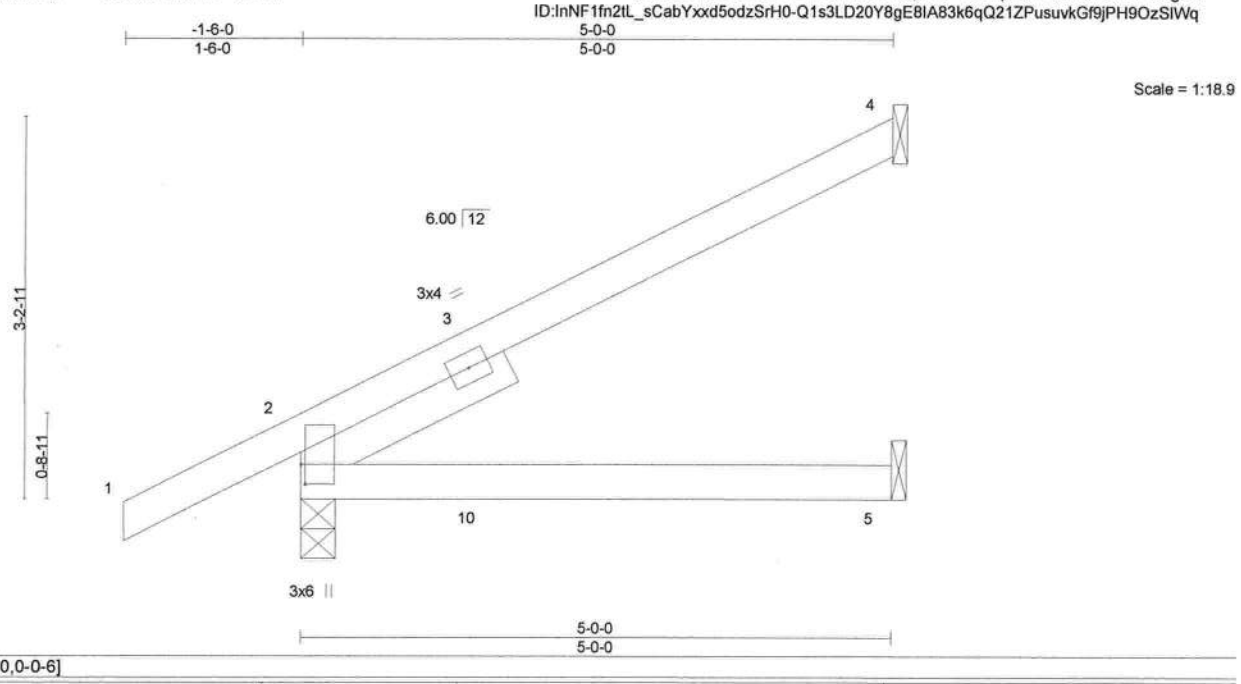


Plate Offsets (X,Y)-- [2:0-2-0,0-0-6]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.40	Vert(LL)	0.09	5-8	>667	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.38	Vert(CT)	0.08	5-8	>759	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.02	2	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 21 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.3 -t 1-11-8

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=107(LC 12)
Max Uplift 4=-71(LC 12), 2=-57(LC 12), 5=-30(LC 9)
Max Grav 4=113(LC 1), 2=276(LC 1), 5=86(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-191/272

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 4-11-4 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE
2742669	CJ05A	Jack-Open	2	1	T23511410
					Job Reference (optional)

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:02 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-uDQRYZ3eJRo5lSlKdRd3zGan5lDOeBWpON9rhqzSlWp

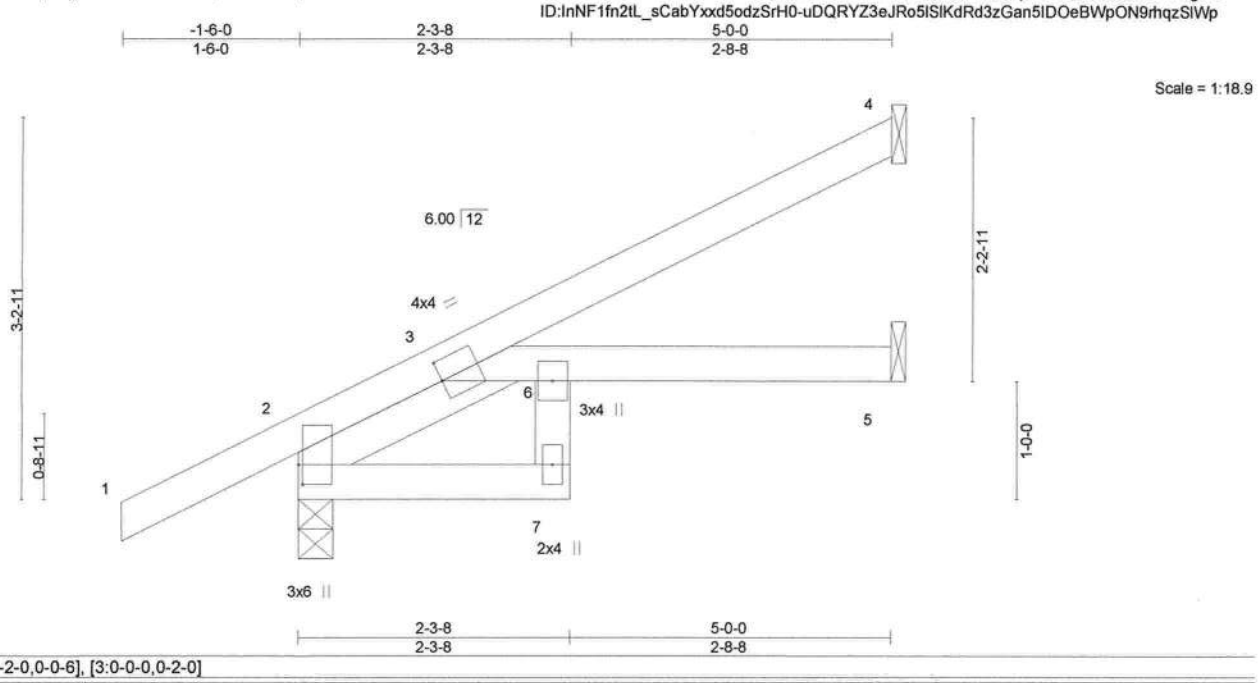


Plate Offsets (X,Y)-- [2:0-2-0,0-0-6], [3:0-0-0,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.22	Vert(LL)	0.04	5-6	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.30	Vert(CT)	-0.05	5-6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MR							Weight: 24 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
6-7: 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -t 1-11-12

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=107(LC 12)
Max Uplift 4=-57(LC 12), 2=-54(LC 12), 5=-15(LC 12)
Max Grav 4=102(LC 1), 2=288(LC 1), 5=94(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-2-8, Interior(1) 1-2-8 to 4-11-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE	T23511411
2742669	EJ01	Jack-Partial	27	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:03 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-MQ_pmv4G3lwyNcKXA98lWT6qOiSCNemyc1uODGzSlWo

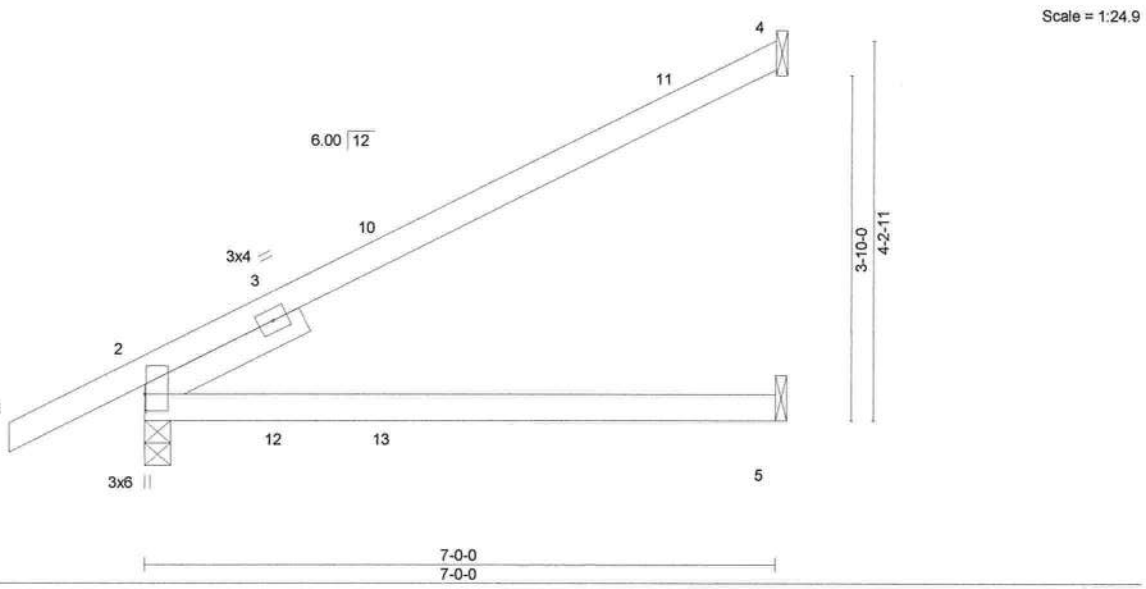


Plate Offsets (X,Y)-- [2:0-2-4,0-0-2]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.76	Vert(LL)	0.31	5-8	>266	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.71	Vert(CT)	0.27	5-8	>311	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.06	4	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 28 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
SLIDER Left 2x4 SP No.3 -t 1-11-8

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=137(LC 12)
Max Uplift 4=-89(LC 12), 2=-70(LC 9), 5=-42(LC 9)
Max Grav 4=164(LC 1), 2=346(LC 1), 5=124(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-346/319

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 6-11-4 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE
2742669	EJ02	Jack-Partial	3	1	T23511412
					Job Reference (optional)

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:03 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-MQ_pmv4G3lwyNcKXA98lWT6tsiUtNemyc1uODGzSlWo

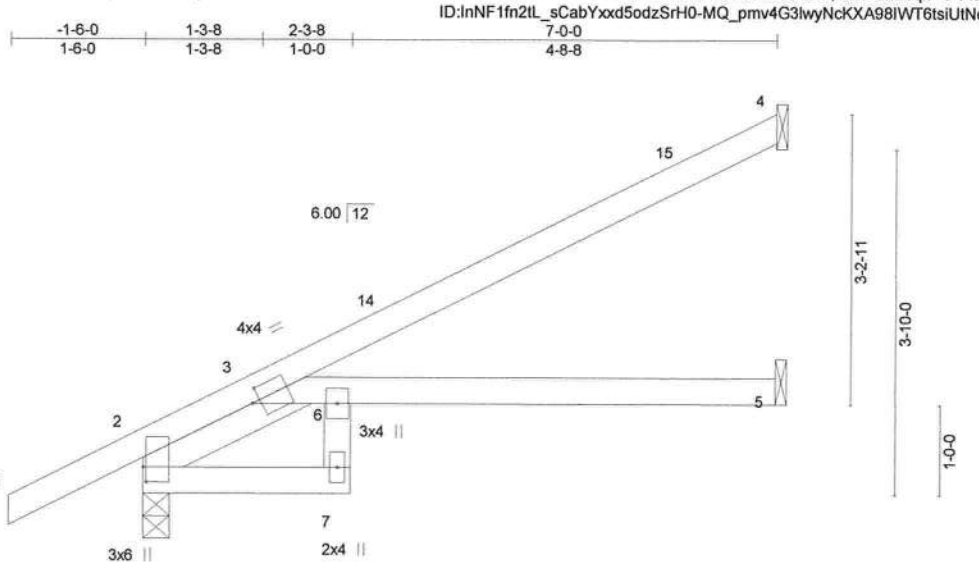


Plate Offsets (X,Y)-- [2:0-2-0,0-0-6], [3:0-1-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.53	Vert(LL)	0.14	5-6	>584	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.60	Vert(CT)	-0.23	5-6	>357	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.09	5	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MR							Weight: 30 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
6-7: 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -t 1-11-12

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=137(LC 12)
Max Uplift 4=-77(LC 12), 2=-65(LC 12), 5=-13(LC 12)
Max Grav 4=154(LC 1), 2=361(LC 1), 5=128(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-2-8, Interior(1) 1-2-8 to 6-11-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

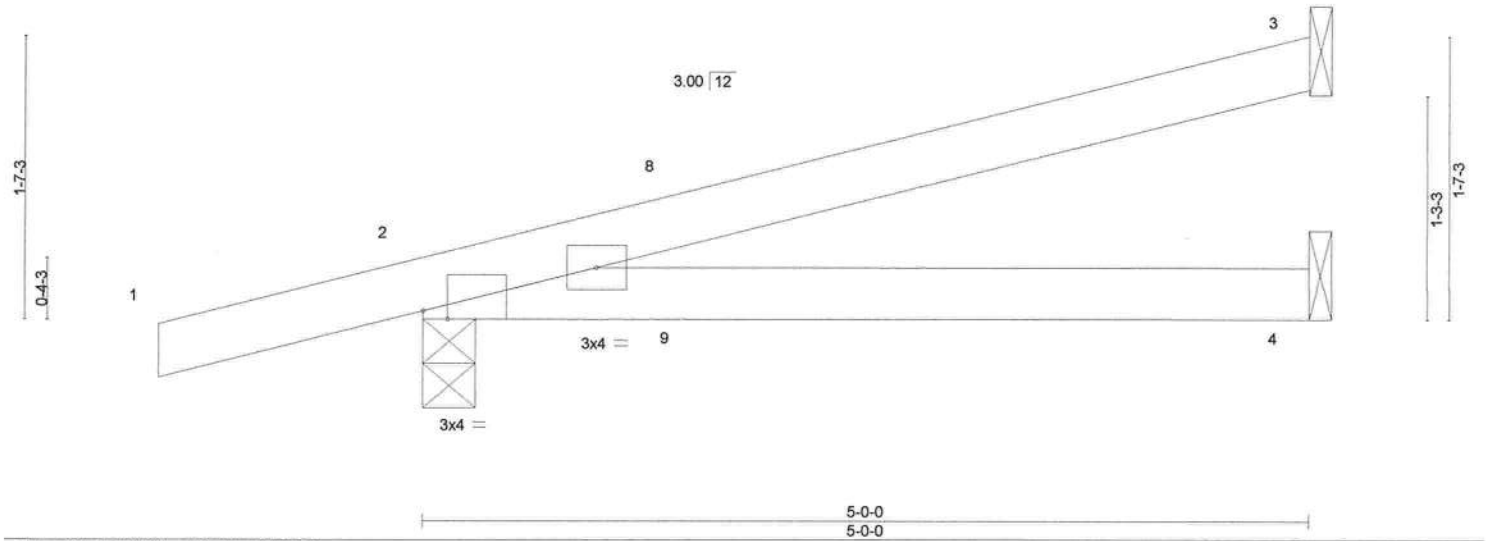
MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE	T23511413
2742669	EJ03	Jack-Open	10	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:04 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-rcYBzF5uq32p?mvjksfX2hf5O6uW65?5rheyljzSlWn

-1-6-0 / 1-6-0 | 5-0-0 / 5-0-0

Scale = 1:12.7



5-0-0 / 5-0-0

Plate Offsets (X,Y)-- [2:0-1-10,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.36	Vert(LL)	0.09	4-7	>673	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.38	Vert(CT)	0.08	4-7	>767	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP							Weight: 18 lb	FT = 20%

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

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=60(LC 8)
Max Uplift 3=-57(LC 8), 2=-149(LC 8), 4=-30(LC 8)
Max Grav 3=110(LC 1), 2=276(LC 1), 4=85(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 4-11-4 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=149.

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

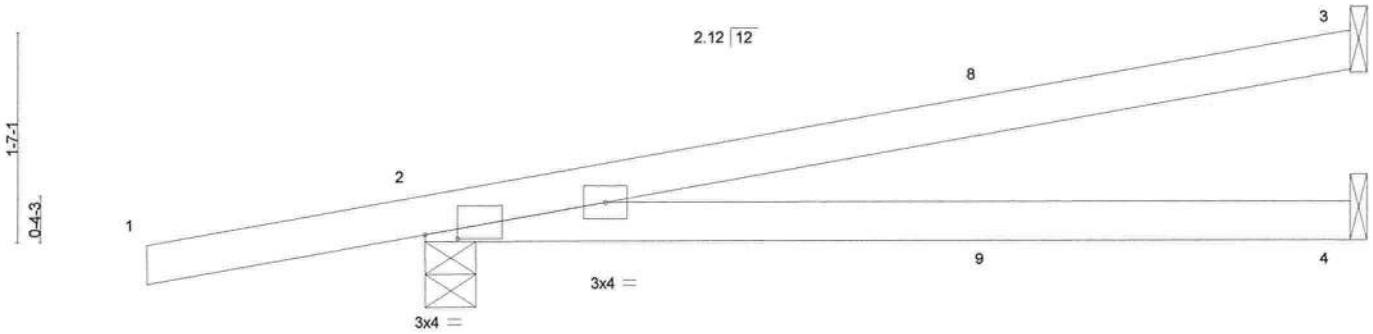
MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE	T23511414
2742669	HJ08	Diagonal Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:05 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-Jo6aBb6XbMAgcwTvIaAmbuCBgVAjrYFF4LNVl9zSlWm

-2-1-7 / 2-1-7 | 7-0-2 / 7-0-2

Scale = 1:17.0



7-0-2 / 7-0-2

Plate Offsets (X,Y)-- [2:0-2-15,0-0-6]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.64	Vert(LL)	0.14	4-7	>596	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.51	Vert(CT)	-0.21	4-7	>400	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 24 lb	FT = 20%

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

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

REACTIONS. (size) 3=Mechanical, 2=0-4-9, 4=Mechanical
Max Horz 2=59(LC 22)
Max Uplift 3=-78(LC 4), 2=-219(LC 4), 4=-44(LC 4)
Max Grav 3=157(LC 1), 2=394(LC 1), 4=121(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=219.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 21 lb down and 33 lb up at 4-4-0, and 21 lb down and 33 lb up at 4-4-0 on top chord, and 44 lb down and 22 lb up at 1-6-1, 44 lb down and 22 lb up at 1-6-1, and 18 lb down and 23 lb up at 4-4-0, and 18 lb down and 23 lb up at 4-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-3=-54, 4-5=-20
Concentrated Loads (lb)
Vert: 8=-0(F=-0, B=-0) 9=-13(F=-7, B=-7)

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE	T23511415
2742669	HJ10	Diagonal Hip Girder	6	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:06 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-n?gyOx69MglXE325sHi?76kNavVkaw?OJ?72qbzSlWl

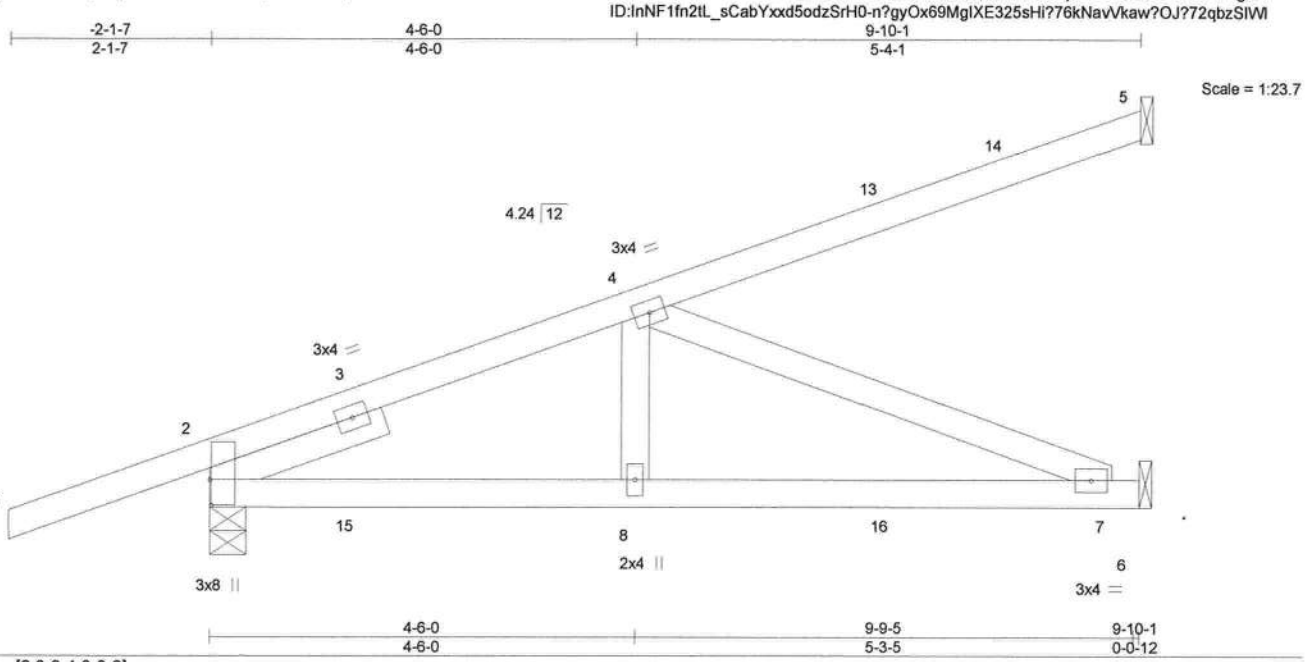


Plate Offsets (X,Y)-- [2:0-3-4,0-0-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.63	Vert(LL)	0.09	7-8	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.59	Vert(CT)	-0.12	7-8	>963	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.35	Horz(CT)	-0.02	5	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 47 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -t 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-6-0 oc bracing.

REACTIONS. (size) 5=Mechanical, 2=0-4-9, 6=Mechanical
Max Horz 2=149(LC 4)
Max Uplift 5=-85(LC 4), 2=-253(LC 4), 6=-171(LC 5)
Max Grav 5=156(LC 1), 2=478(LC 1), 6=283(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-609/315
BOT CHORD 2-8=-352/551, 7-8=-352/551
WEBS 4-8=-78/251, 4-7=-593/379

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 2=253, 6=171.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 56 lb down and 116 lb up at 1-6-1, 56 lb down and 116 lb up at 1-6-1, 23 lb down and 43 lb up at 4-4-0, 23 lb down and 43 lb up at 4-4-0, and 44 lb down and 82 lb up at 7-1-15, and 44 lb down and 82 lb up at 7-1-15 on top chord, and 29 lb down and 44 lb up at 1-6-1, 29 lb down and 44 lb up at 1-6-1, 18 lb down and 25 lb up at 4-4-0, 18 lb down and 25 lb up at 4-4-0, and 40 lb down and 45 lb up at 7-1-15, and 40 lb down and 45 lb up at 7-1-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-5=-54, 6-9=-20
Concentrated Loads (lb)
Vert: 8=-7(F=-4, B=-4) 4=-0(F=-0, B=-0) 3=60(F=30, B=30) 13=-73(F=-37, B=-37) 16=-58(F=-29, B=-29)

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date: April 12,2021

MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE
2742669	HJ10A	Diagonal Hip Girder	1	1	T23511416
					Job Reference (optional)

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:07 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-FBEKbH7n7_QOsDdIP_DEgJHU4JqDJKEYXfscM2zSlWk

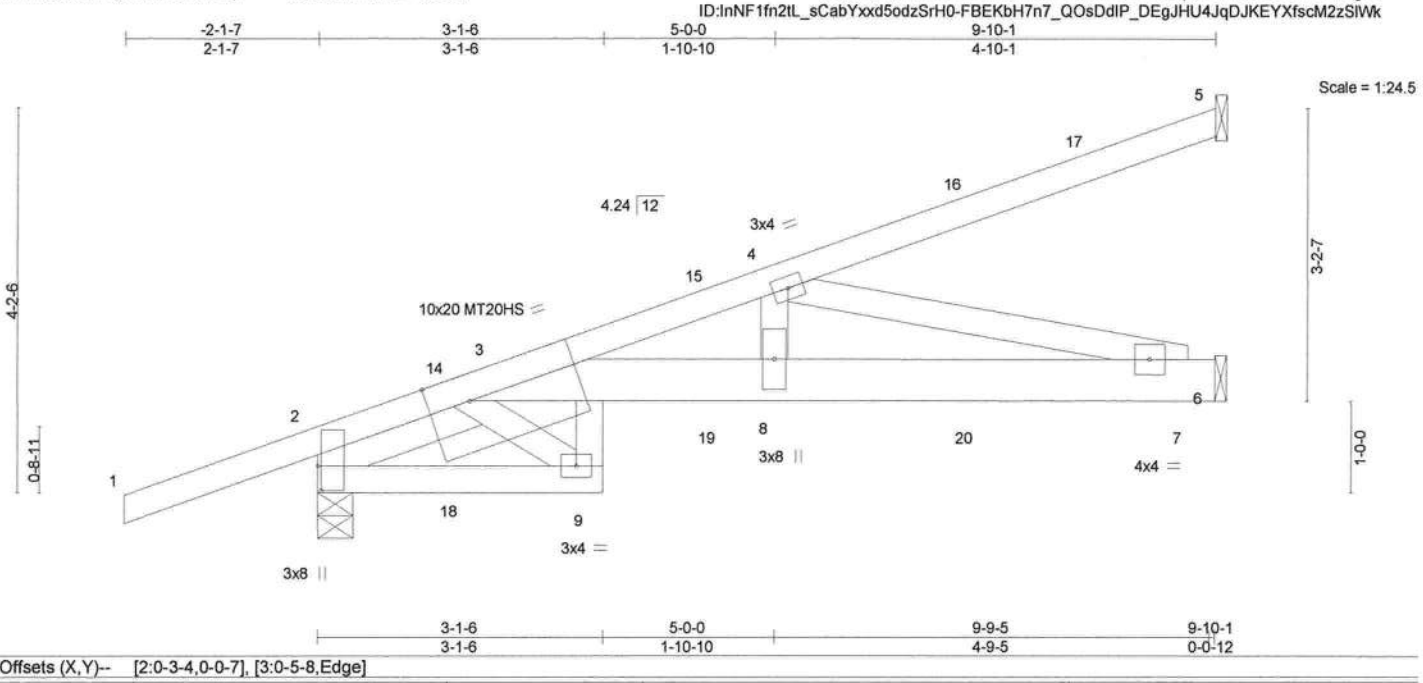


Plate Offsets (X,Y)-- [2:0-3-4,0-0-7], [3:0-5-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.84	Vert(LL)	0.09	9	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.70	Vert(CT)	-0.15	9	>768	180	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.55	Horz(CT)	0.07	6	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 57 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
3-9: 2x4 SP No.3, 3-6: 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -t 1-10-3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-9-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 5=Mechanical, 2=0-4-9, 6=Mechanical
Max Horz 2=149(LC 4)
Max Uplift 5=-60(LC 4), 2=-197(LC 4), 6=-126(LC 8)
Max Grav 5=124(LC 1), 2=515(LC 1), 6=348(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-1248/464
BOT CHORD 3-8=-518/1166, 7-8=-517/1164
WEBS 4-8=-127/441, 4-7=-1198/532

NOTES-
1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 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) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 2=197, 6=126.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 56 lb down and 116 lb up at 1-6-1, 56 lb down and 116 lb up at 1-6-1, 18 lb down and 24 lb up at 4-4-0, 18 lb down and 24 lb up at 4-4-0, and 42 lb down and 67 lb up at 7-1-15, and 42 lb down and 67 lb up at 7-1-15 on top chord, and 6 lb down and 44 lb up at 1-6-1, 6 lb down and 44 lb up at 1-6-1, 35 lb down and 28 lb up at 4-4-0, 35 lb down and 28 lb up at 4-4-0, and 47 lb down and 32 lb up at 7-1-15, and 47 lb down and 32 lb up at 7-1-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-3=-54, 3-5=-54, 9-10=-20, 3-6=-20

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
April 12,2021

Continued on page 2

MiTek
6904 Parke East Blvd.
Tampa, FL 36610

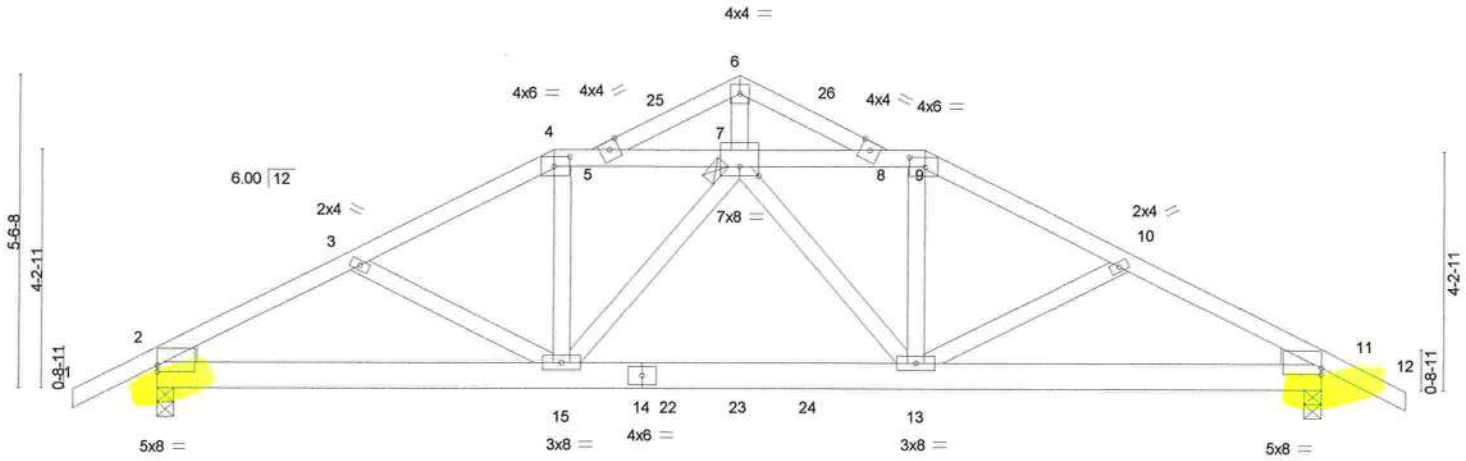
LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 14=60(F=30, B=30) 16=-51(F=-25, B=-25) 19=-51(F=-25, B=-25) 20=-94(F=-47, B=-47)

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE
2742669	T01	Hip Girder	1	1	T23511417
					Job Reference (optional)

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:09 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-BZL40y91fbg65XngXPFilkMp77U0nJ2q?yLiRwzSlWi

-1-6-0	3-6-12	7-0-0	10-3-8	13-7-0	17-0-4	20-7-0	22-1-0
1-6-0	3-6-12	3-5-4	3-3-8	3-3-8	3-5-4	3-6-12	1-6-0

Scale = 1:39.7



7-0-0	13-7-0	20-7-0
7-0-0	6-7-0	7-0-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.93	Vert(LL)	0.17	13-15	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.81	Vert(CT)	-0.24	13-15	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.06	11	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 134 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except* 5-6,6-8: 2x4 SP No.3
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-5-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-9-1 oc bracing.
JOINTS 1 Brace at Jt(s): 7

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=83(LC 8)
Max Uplift 2=-691(LC 8), 11=-698(LC 9)
Max Grav 2=1559(LC 1), 11=1585(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2616/1241, 3-4=-2509/1232, 4-5=-2246/1144, 5-7=-1620/855, 7-8=-1662/875, 8-9=-2289/1156, 9-10=-2559/1261, 10-11=-2665/1257, 5-6=-735/361, 6-8=-735/370
BOT CHORD 2-15=-1109/2256, 13-15=-1076/2252, 11-13=-1040/2299
WEBS 4-15=-259/540, 9-13=-213/512, 6-7=-93/334

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 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 100 lb uplift at joint(s) except (jt=lb) 2=691, 11=698.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 150 lb down and 95 lb up at 7-0-0, 150 lb down and 107 lb up at 9-0-12, 150 lb down and 102 lb up at 10-3-8, and 150 lb down and 107 lb up at 11-6-4, and 286 lb down and 193 lb up at 13-7-0 on top chord, and 319 lb down and 262 lb up at 7-0-0, 84 lb down and 62 lb up at 9-0-12, 84 lb down and 62 lb up at 10-3-8, and 84 lb down and 62 lb up at 11-6-4, and 319 lb down and 262 lb up at 13-6-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date: April 12,2021

Continued on page 2

MiTek
6904 Parke East Blvd.
Tampa, FL 36610

LOAD CASE(S) Standard

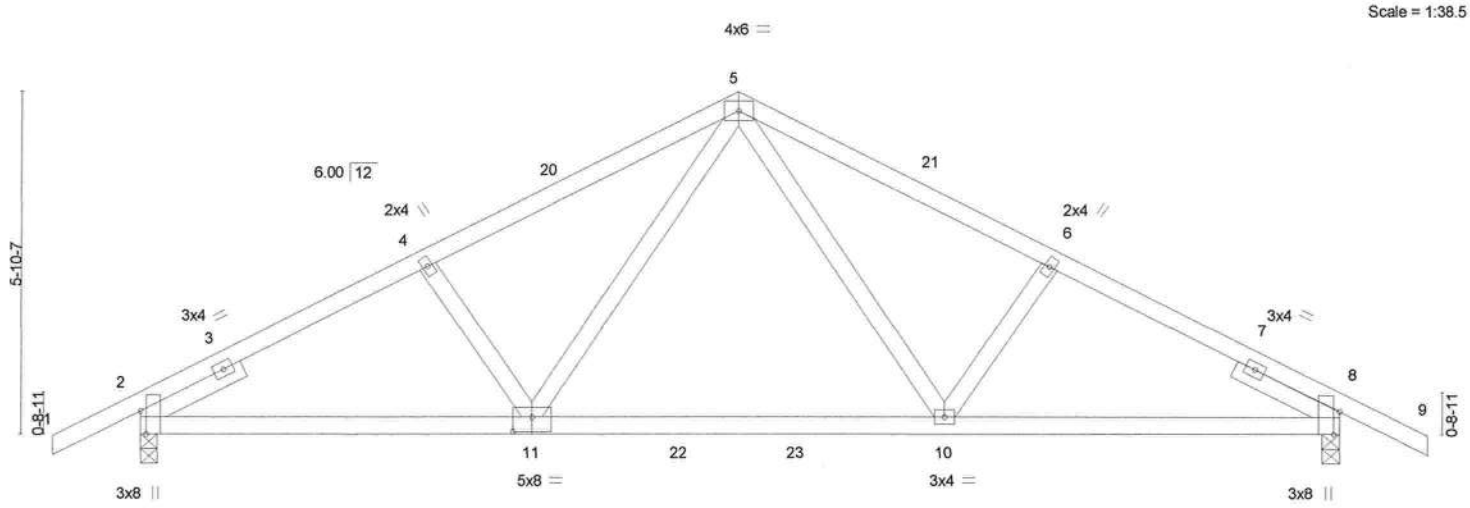
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-4=-54, 4-5=-54, 8-9=-54, 9-12=-54, 16-19=-20, 5-6=-54, 6-8=-54
   Concentrated Loads (lb)
   Vert: 4=-110(B) 9=-190(B) 15=-319(B) 13=-319(B) 6=-110(B) 22=-64(B) 23=-64(B) 24=-64(B) 25=-110(B) 26=-110(B)

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE
2742669	T02	Common	4	1	T23511418
					Job Reference (optional)

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:10 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-fmvTEI9fQvozjhMt57mxlyv2LWprWmW_Dc5GzNzSlWh

-1-6-0	4-11-7	10-3-8	15-7-9	20-7-0	22-1-0
1-6-0	4-11-7	5-4-1	5-4-1	4-11-7	1-6-0

Scale = 1:38.5



6-9-0	13-10-0	20-7-0
6-9-0	7-1-0	6-9-0

Plate Offsets (X,Y)-- [2:0-4-12,Edge], [8:0-4-12,Edge], [11:0-4-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.65	Vert(LL)	-0.20	10-11	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.84	Vert(CT)	-0.37	10-11	>661	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.25	Horz(CT)	0.05	8	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 104 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
8-11: 2x4 SP M 31
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -t 1-11-8, Right 2x4 SP No.3 -t 1-11-8

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

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=88(LC 16)
Max Uplift 2=-247(LC 12), 8=-247(LC 13)
Max Grav 2=1078(LC 2), 8=1078(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1632/471, 4-5=-1542/476, 5-6=-1552/478, 6-8=-1642/474
BOT CHORD 2-11=-338/1433, 10-11=-182/1021, 8-10=-345/1418
WEBS 5-10=-172/668, 5-11=-168/653

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 10-3-8, Exterior(2R) 10-3-8 to 13-3-8, Interior(1) 13-3-8 to 22-1-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=247, 8=247.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-5=-54, 5-9=-54, 11-12=-20, 10-11=-80(F=-60), 10-16=-20

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE	T23511419
2742669	T03	Common	3	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:11 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-7yTrReAHBCxpLrx3eqHAq9SD3w86FCi7SGqpVpzSlWg

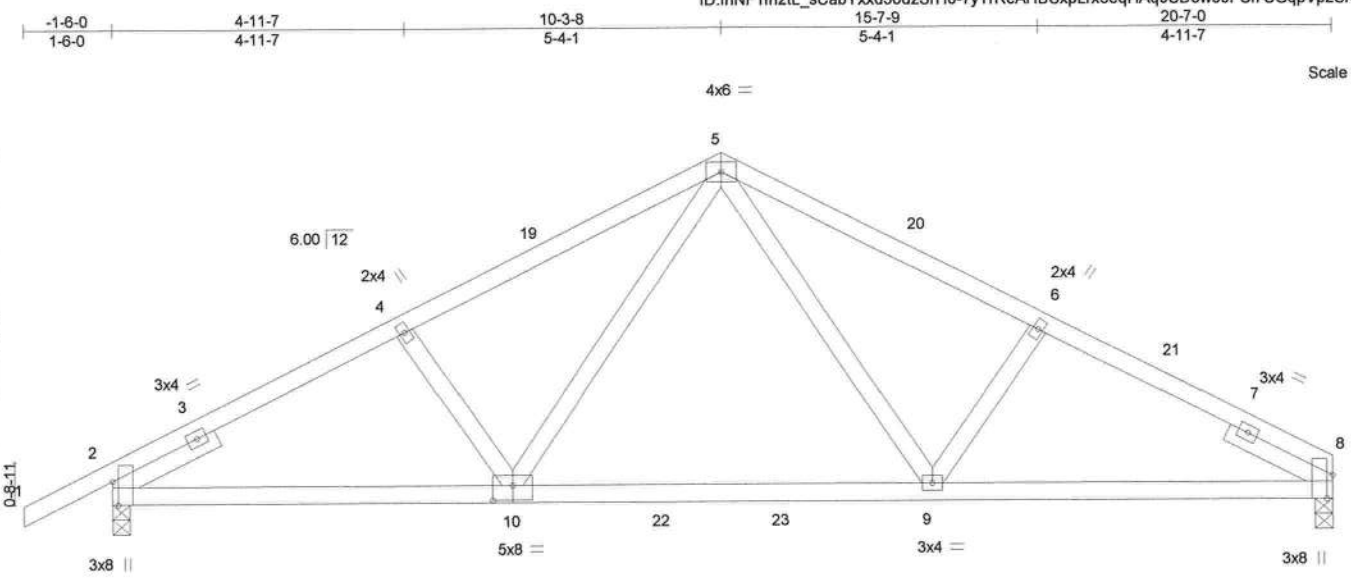


Plate Offsets (X,Y)-- [2:0-4-12,Edge], [8:0-4-12,Edge], [10:0-4-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.65	Vert(LL)	-0.20	9-10	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.83	Vert(CT)	-0.37	9-10	>666	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.26	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 102 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
8-10: 2x4 SP M 31
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -t 1-11-8, Right 2x4 SP No.3 -t 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-7-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-6-2 oc bracing.

REACTIONS. (size) 8=0-3-8, 2=0-3-8
Max Horz 2=99(LC 16)
Max Uplift 8=-214(LC 13), 2=-247(LC 12)
Max Grav 8=1009(LC 2), 2=1080(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1636/477, 4-5=-1547/482, 5-6=-1565/493, 6-8=-1656/488
BOT CHORD 2-10=-373/1427, 9-10=-214/1015, 8-9=-376/1433
WEBS 5-9=-178/680, 5-10=-168/652

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 10-3-8, Exterior(2R) 10-3-8 to 13-3-8, Interior(1) 13-3-8 to 20-7-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=214, 2=247.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-5=-54, 5-8=-54, 10-15=-20, 9-10=-80(F=-60), 9-11=-20

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE	T23511420
2742669	T04	Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource, Lake City, FL 32055

8.430 s Mar 22 2021 MiTek Industries, Inc. Mon Apr 12 09:31:31 2021 Page 1

ID:InNF1fn2tL_sCabYxxd5odzSrH0-deqzsHtzMYmm7h15K8z38hoCLHBVzx6Cj3RPakzRWLA

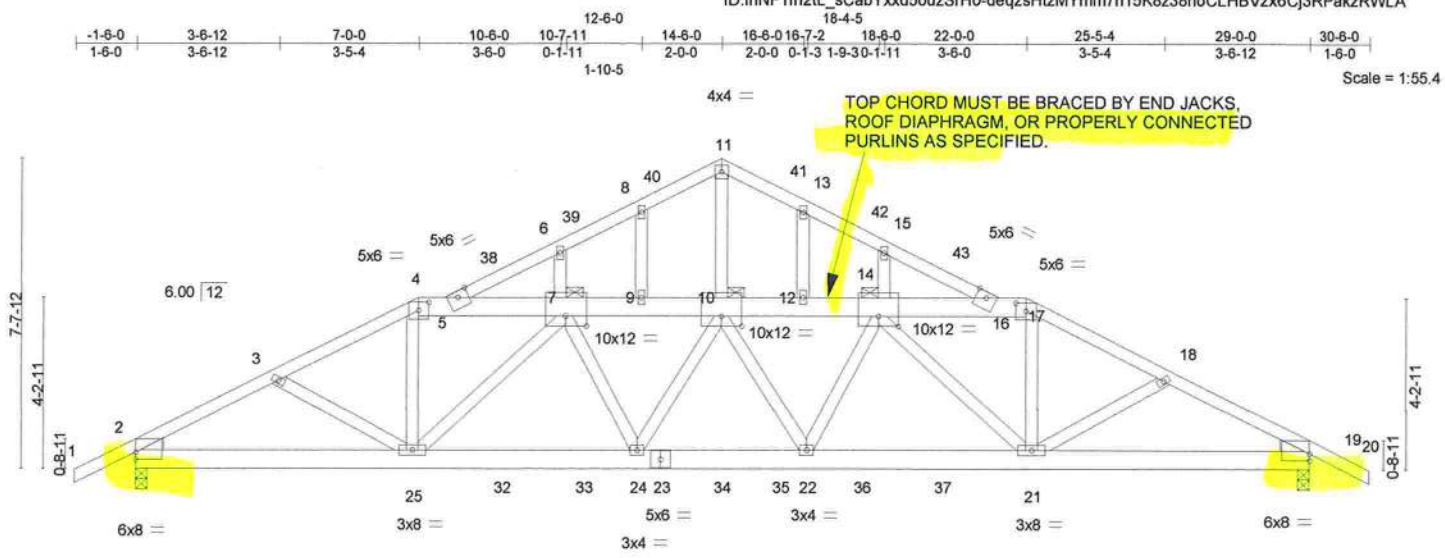


Plate Offsets (X,Y)-- [2:Edge,0-2-2], [4:0-3-0,0-2-7], [7:0-6-0,0-3-0], [10:0-6-0,0-3-0], [14:0-6-0,0-3-0], [17:0-3-0,0-2-7], [19:0-0-0,0-2-2]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.59	Vert(LL)	0.17	24-25	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.47	Vert(CT)	-0.26	21-22	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.48	Horz(CT)	0.08	19	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 229 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP M 31 *Except* 4-17: 2x6 SP No.2
BOT CHORD 2x6 SP M 26
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

REACTIONS. (lb/size) 2=2211/0-3-8, 19=2252/0-3-8
Max Horz 2=-114(LC 9)
Max Uplift 2=-990(LC 8), 19=-1008(LC 9)

BRACING-

TOP CHORD Sheathed or 3-5-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 7-4-7 oc bracing.
JOINTS 1 Brace at Jt(s): 7, 10, 14

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.

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

TOP CHORD 2-3=-3834/1794, 3-4=-3783/1810, 4-5=-3270/1603, 5-7=-1759/936, 7-9=-2061/1060, 9-10=-2061/1060, 10-12=-2082/1077, 12-14=-2082/1077, 14-16=-1833/983, 16-17=-3344/1637, 17-18=-3864/1847, 18-19=-3912/1831, 5-38=-1837/867, 6-38=-1758/839, 6-39=-1850/908, 8-39=-1770/883, 8-40=-1812/921, 11-40=-1754/900, 11-41=-1754/907, 13-41=-1812/934, 13-42=-1770/897, 15-42=-1850/923, 15-43=-1758/854, 16-43=-1837/882

BOT CHORD 2-25=-1627/3325, 25-32=-1811/3752, 32-33=-1811/3752, 24-33=-1811/3752, 23-24=-1562/3334, 23-34=-1562/3334, 34-35=-1562/3334, 22-35=-1562/3334, 22-36=-1772/3792, 36-37=-1772/3792, 21-37=-1772/3792, 19-21=-1545/3394

WEBS 4-25=-321/664, 7-25=-560/312, 7-24=-278/184, 10-24=-347/667, 10-22=-371/681, 14-22=-290/207, 14-21=-510/270, 17-21=-298/642, 10-11=-638/1248, 6-7=-314/201, 14-15=-314/201

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 990 lb uplift at joint 2 and 1008 lb uplift at joint 19.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date: April 12,2021

Continued on page 2

MiTek
6904 Parke East Blvd.
Tampa, FL 36610

NOTES-

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 150 lb down and 96 lb up at 7-0-0, 150 lb down and 107 lb up at 9-0-12, 150 lb down and 107 lb up at 11-0-12, 150 lb down and 107 lb up at 13-0-12, 150 lb down and 102 lb up at 14-6-0, 150 lb down and 107 lb up at 15-11-4, 150 lb down and 107 lb up at 17-11-4, and 150 lb down and 107 lb up at 19-11-4, and 286 lb down and 194 lb up at 22-0-0 on top chord, and 319 lb down and 262 lb up at 7-0-0, 84 lb down and 62 lb up at 9-0-12, 84 lb down and 62 lb up at 11-0-12, 84 lb down and 62 lb up at 13-0-12, 84 lb down and 62 lb up at 14-6-0, 84 lb down and 62 lb up at 15-11-4, 84 lb down and 62 lb up at 17-11-4, and 84 lb down and 62 lb up at 19-11-4, and 319 lb down and 262 lb up at 21-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

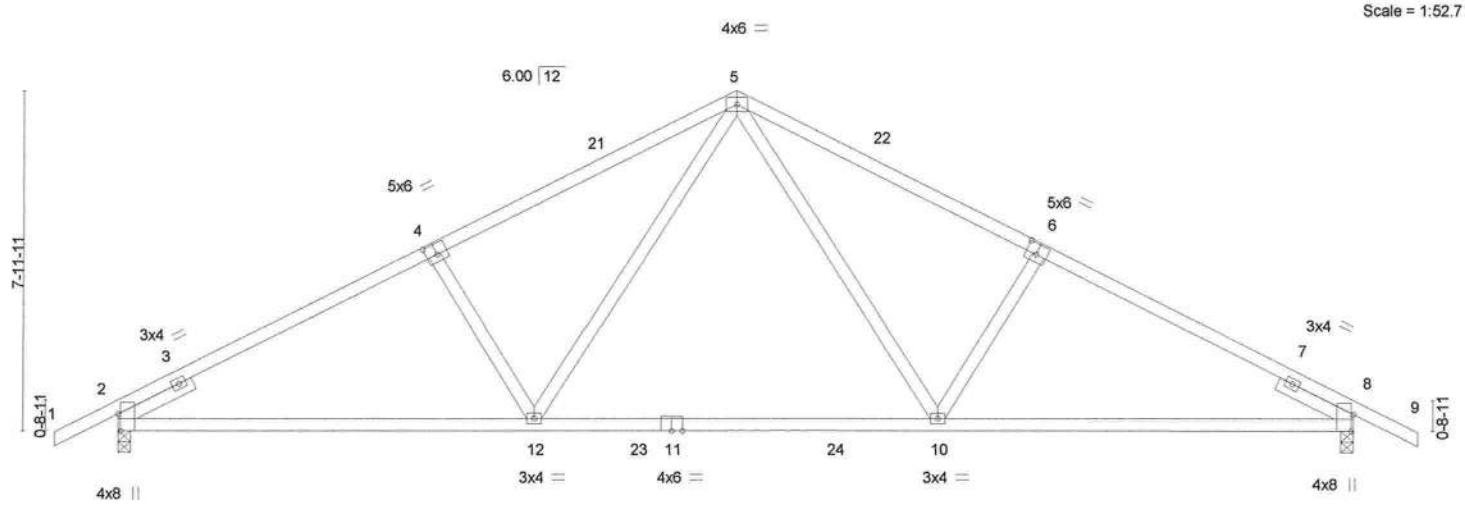
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-4=-54, 4-5=-54, 16-17=-54, 17-20=-54, 26-29=-20, 5-11=-54, 11-16=-54
   Concentrated Loads (lb)
   Vert: 4=-110(F) 17=-190(F) 23=-64(F) 25=-319(F) 21=-319(F) 11=-110(F) 32=-64(F) 33=-64(F) 34=-64(F) 35=-64(F) 36=-64(F) 37=-64(F) 38=-110(F) 39=-110(F) 40=-110(F) 41=-110(F) 42=-110(F) 43=-110(F)

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE	T23511421
2742669	T05	Common	3	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:15 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-0jjMH0DoFRRFpSEqtgM6??cvGXVEB0PjNuo1eazSlWc

-1-6-0	7-5-0	14-6-0	21-7-0	29-0-0	30-6-0
1-6-0	7-5-0	7-1-0	7-1-0	7-5-0	1-6-0

Scale = 1:52.7



9-9-3	19-2-13	29-0-0
9-9-3	9-5-11	9-9-3

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.63	Vert(LL)	-0.34	10-12	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.95	Vert(CT)	-0.52	10-12	>672	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 142 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -t 1-11-8, Right 2x4 SP No.3 -t 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-2-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=119(LC 16)
Max Uplift 2=-254(LC 12), 8=-254(LC 13)
Max Grav 2=1246(LC 2), 8=1246(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1869/364, 4-5=-1739/382, 5-6=-1739/382, 6-8=-1869/364
BOT CHORD 2-12=-341/1621, 10-12=-132/1123, 8-10=-241/1621
WEBS 5-10=-176/721, 6-10=-352/235, 5-12=-176/721, 4-12=-352/235

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 14-6-0, Exterior(2R) 14-6-0 to 17-6-0, Interior(1) 17-6-0 to 30-6-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=254, 8=254.

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

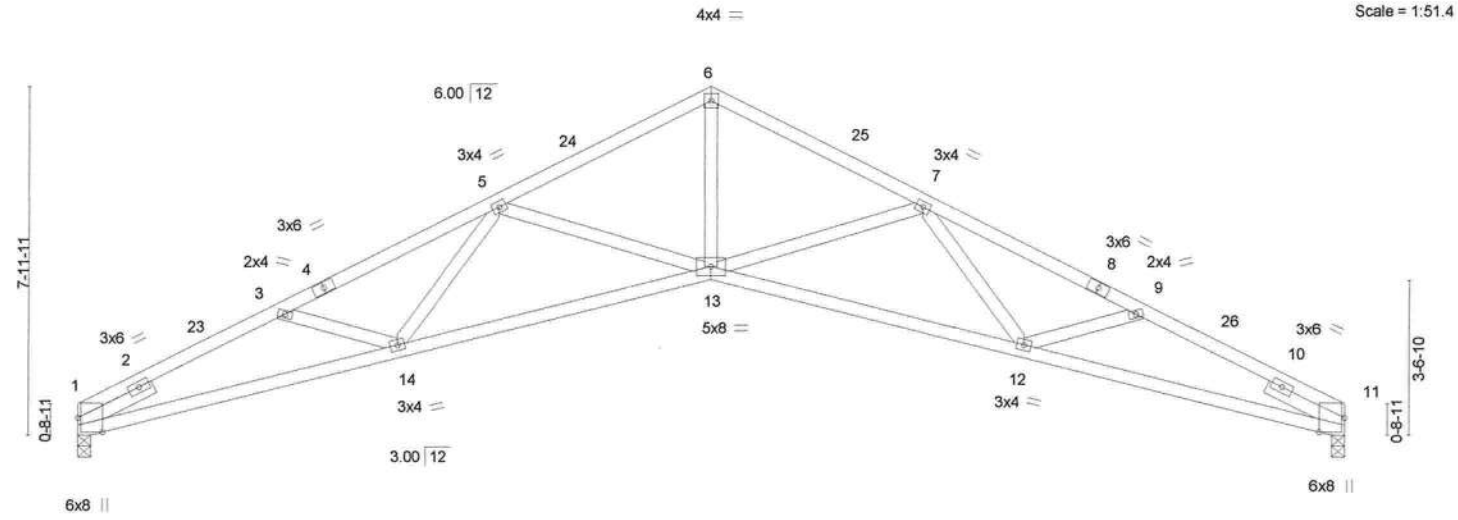
MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE	T23511422
2742669	T06	Scissor	6	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:16 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-UwGkUMEQ0IZ6Rcp0RNtLXD93UxqFwNqscYYaA0zSlWb

4-9-0	9-7-11	14-6-0	19-4-5	24-3-0	29-0-0
4-9-0	4-10-11	4-10-5	4-10-5	4-10-11	4-9-0

Scale = 1:51.4



7-3-14	14-6-0	21-8-2	29-0-0
7-3-14	7-2-2	7-2-2	7-3-14

Plate Offsets (X,Y)-- [1:0-3-15,Edge], [11:0-3-15,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.67	Vert(LL)	-0.29	13-14	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.96	Vert(CT)	-0.59	13-14	>588	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.37	11	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 139 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
1-4,8-11: 2x4 SP M 31
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -t 1-11-8, Right 2x4 SP No.3 -t 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS. (size) 1=0-3-8, 11=0-3-8
Max Horz 1=-108(LC 13)
Max Uplift 1=-221(LC 12), 11=-221(LC 13)
Max Grav 1=1073(LC 1), 11=1073(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-2857/666, 3-5=-2792/595, 5-6=-2216/440, 6-7=-2216/448, 7-9=-2792/550, 9-11=-2857/595
BOT CHORD 1-14=-657/2528, 13-14=-528/2507, 12-13=-406/2507, 11-12=-486/2528
WEBS 6-13=-291/1708, 7-13=-561/273, 7-12=-31/272, 5-13=-561/267, 5-14=-18/272

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 14-6-0, Exterior(2R) 14-6-0 to 17-6-0, Interior(1) 17-6-0 to 29-0-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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) Bearing at joint(s) 1, 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=221, 11=221.

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

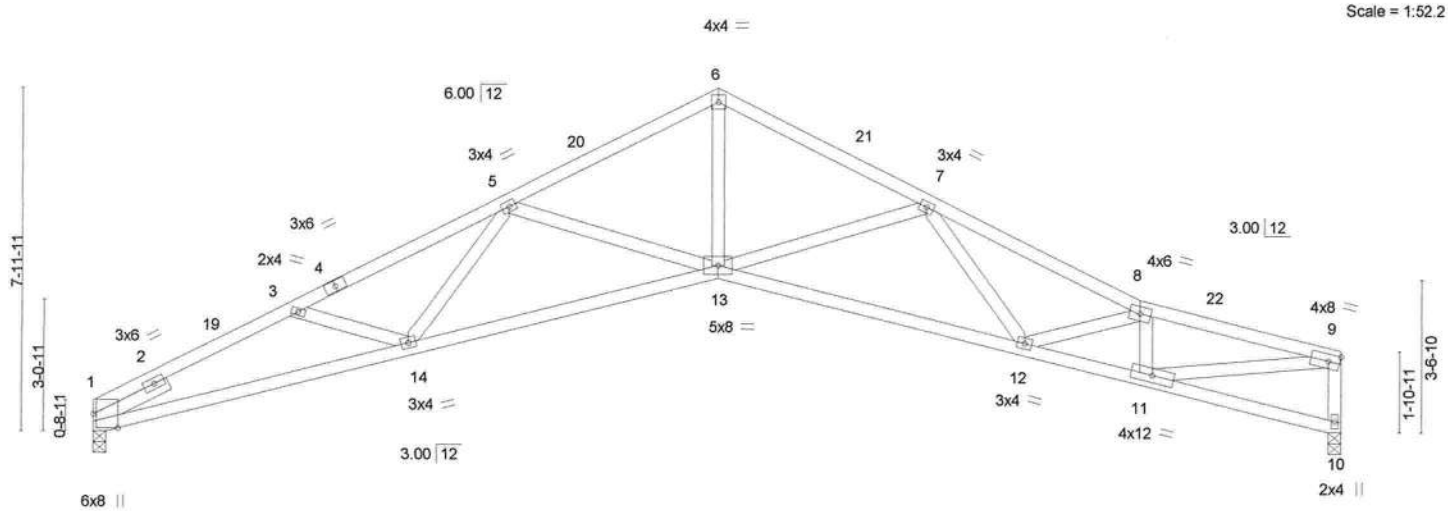
MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE
2742669	T07	Roof Special	5	1	T23511423
					Job Reference (optional)

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:18 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-QIOUv1GgXMpqgvzPZovpceEP2lWqODd93s1hFvzSlWZ

4-9-0	9-7-11	14-6-0	19-4-5	24-4-0	29-0-0
4-9-0	4-10-11	4-10-5	4-10-5	4-11-11	4-8-0

Scale = 1:52.2



7-3-14	14-6-0	21-8-1	24-4-0	29-0-0
7-3-14	7-2-2	7-2-1	2-7-15	4-8-0

Plate Offsets (X,Y)-- [1:0-3-15,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.66	Vert(LL)	-0.28	13-14	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.96	Vert(CT)	-0.56	13-14	>619	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.33	10	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 146 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except* 1-4: 2x4 SP M 31
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -t 1-11-8

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

REACTIONS. (size) 10=0-3-8, 1=0-3-8
Max Horz 1=132(LC 12)
Max Uplift 10=-221(LC 13), 1=-219(LC 12)
Max Grav 10=1068(LC 1), 1=1068(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-2841/786, 3-5=-2774/740, 5-6=-2194/599, 6-7=-2190/607, 7-8=-2810/744, 8-9=-2478/661, 9-10=-1021/297
BOT CHORD 1-14=-703/2515, 13-14=-628/2487, 12-13=-606/2463, 11-12=-660/2539
WEBS 5-14=-17/275, 5-13=-561/266, 6-13=-413/1676, 7-13=-541/264, 7-12=-28/301, 8-11=-879/257, 9-11=-603/2327

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 14-6-0, Exterior(2R) 14-6-0 to 17-6-0, Interior(1) 17-6-0 to 28-10-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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) Bearing at joint(s) 10, 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=221, 1=219.

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

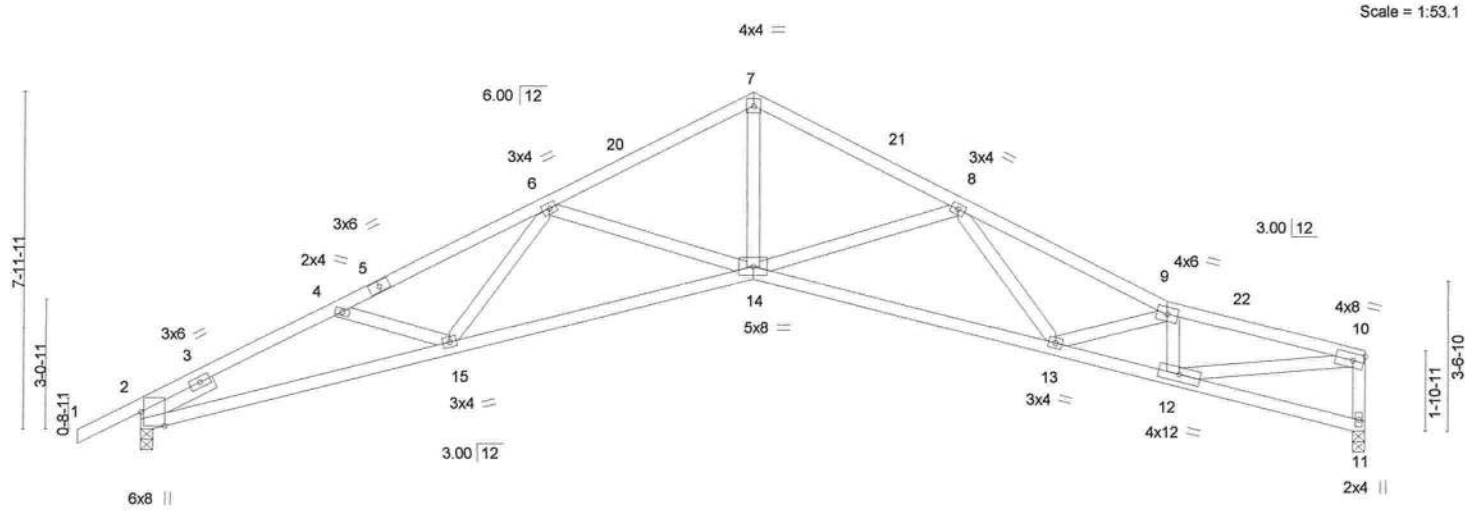
MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE
2742669	T08	Roof Special	1	1	T23511424
					Job Reference (optional)

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:19 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-uVys7NGJlgxhI3Yb6WR29rnac8ru7gvJIWmEnLzSIWY

-1-6-0	4-9-0	9-7-11	14-6-0	19-4-5	24-4-0	29-0-0
1-6-0	4-9-0	4-10-11	4-10-5	4-10-5	4-11-11	4-8-0

Scale = 1:53.1



7-3-14	14-6-0	21-8-1	24-4-0	29-0-0
7-3-14	7-2-2	7-2-1	2-7-15	4-8-0

Plate Offsets (X,Y)-- [2:0-3-15,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.68	Vert(LL)	-0.28	14-15	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.97	Vert(CT)	-0.56	14-15	>616	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.33	11	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 149 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except* 1-5: 2x4 SP M 31
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -t 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS. (size) 11=0-3-8, 2=0-3-8
Max Horz 2=154(LC 12)
Max Uplift 11=-221(LC 13), 2=-252(LC 12)
Max Grav 11=1065(LC 1), 2=1151(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2806/772, 4-6=-2749/732, 6-7=-2186/597, 7-8=-2182/604, 8-9=-2802/741, 9-10=-2472/659, 10-11=-1019/296
BOT CHORD 2-15=-691/2478, 14-15=-624/2473, 13-14=-604/2456, 12-13=-658/2533
WEBS 6-15=-12/271, 6-14=-554/263, 7-14=-411/1669, 8-14=-542/264, 8-13=-28/301, 9-12=-876/256, 10-12=-601/2321

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 14-6-0, Exterior(2R) 14-6-0 to 17-6-0, Interior(1) 17-6-0 to 28-10-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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) Bearing at joint(s) 11, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=221, 2=252.

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

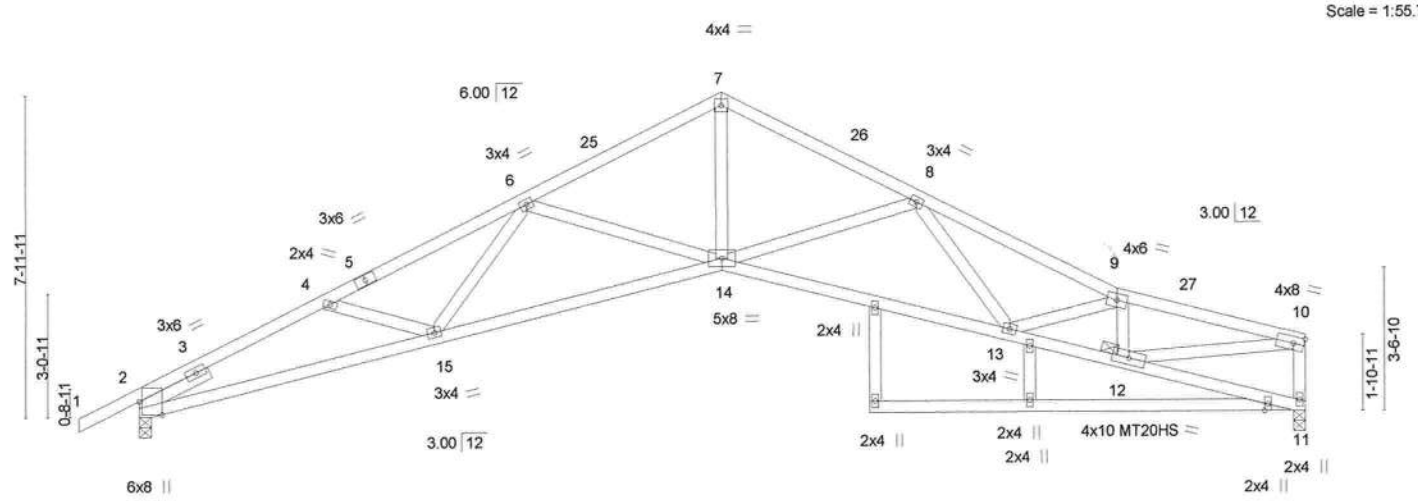
MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE	T23511425
2742669	T09	Roof Special	3	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:20 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-NhWEKjHx3z3YwD7ogDyHi3JIMYB7s79SXAWoKnzSlWX

-1-6-0	4-9-0	9-7-11	14-6-0	19-4-5	24-4-0	29-0-0
1-6-0	4-9-0	4-10-11	4-10-5	4-10-5	4-11-11	4-8-0

Scale = 1:55.7



7-3-14	14-6-0	18-2-0	21-8-2	24-4-0	29-0-0
7-3-14	7-2-2	3-8-0	3-6-2	2-7-14	4-8-0

Plate Offsets (X,Y)-- [2:0-3-15,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.68	Vert(LL)	-0.28	14-15	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.97	Vert(CT)	-0.56	14-15	>616	180	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.33	11	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 170 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except* 1-5: 2x4 SP M 31
BOT CHORD 2x4 SP No.2 *Except* 16-17: 2x4 SP No.3
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -t 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-6-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
JOINTS 1 Brace at Jt(s): 12

REACTIONS. (size) 11=0-3-8, 2=0-3-8
Max Horz 2=154(LC 12)
Max Uplift 11=-221(LC 13), 2=-252(LC 12)
Max Grav 11=1065(LC 1), 2=1151(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2806/772, 4-6=-2749/732, 6-7=-2186/597, 7-8=-2182/604, 8-9=-2802/741, 9-10=-2472/659, 10-11=-1019/296
BOT CHORD 2-15=-691/2478, 14-15=-624/2473, 13-14=-604/2456, 12-13=-658/2533
WEBS 6-15=-12/271, 6-14=-554/263, 7-14=-411/1669, 8-14=-542/264, 8-13=-28/302, 9-12=-876/256, 10-12=-601/2321

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 14-6-0, Exterior(2R) 14-6-0 to 17-6-0, Interior(1) 17-6-0 to 28-10-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Bearing at joint(s) 11, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=221, 2=252.

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

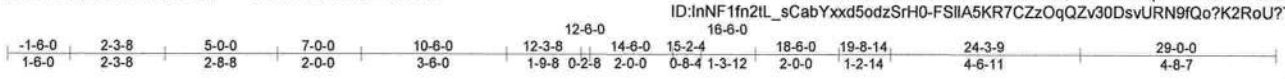
MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE
2742669	T10	HALF HIP GIRDER	1	2	T23511426

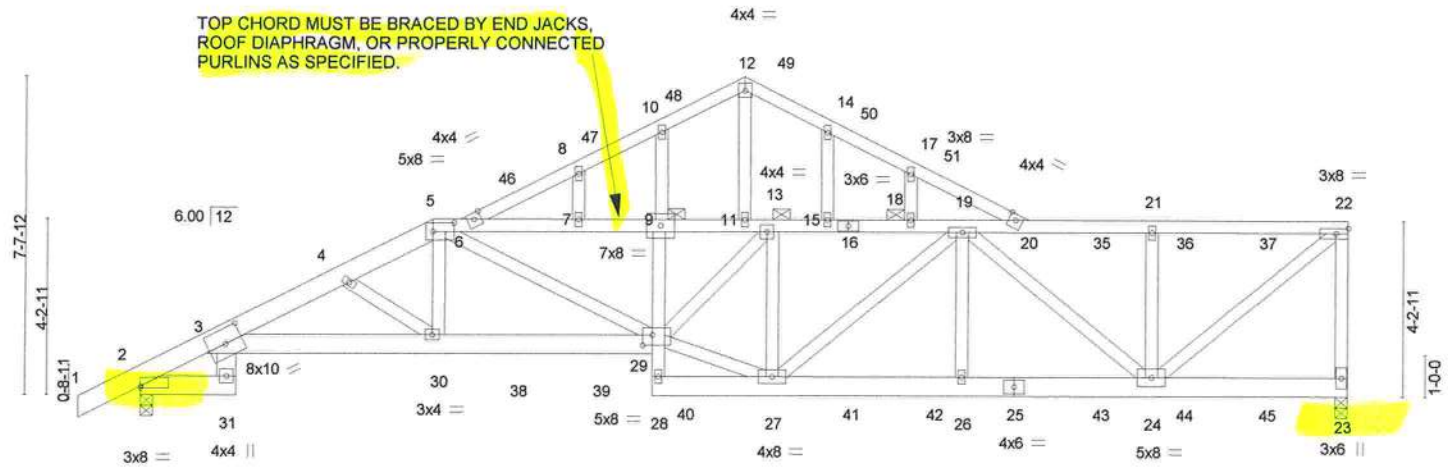
Job Reference (optional)

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:24 2021 Page 1

ID:InNF1fn2tL_sCabYxxd5odzSrH0-FSIlA5KR7CZzOqQZv30DsvURN9fQo?K2RoU?TZzSlWT



Scale = 1:53.8



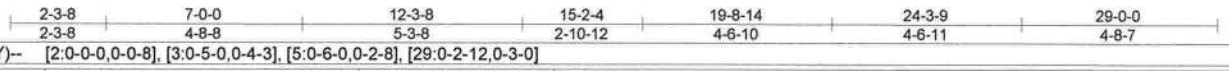


Plate Offsets (X,Y)-- [2:0-0-0,0-0-8], [3:0-5-0,0-4-3], [5:0-6-0,0-2-8], [29:0-2-12,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.67	Vert(LL)	0.19	29	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.56	Vert(CT)	-0.31	29-30	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.62	Horz(CT)	0.20	23	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 477 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
1-5: 2x6 SP M 26
BOT CHORD 2x6 SP No.2 *Except*
3-29: 2x6 SP M 26, 9-28: 2x4 SP No.3
WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-1-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 9, 13, 18

REACTIONS. (size) 23=0-3-8, 2=0-3-8
Max Horz 2=197(LC 8)
Max Uplift 23=-1063(LC 9), 2=-803(LC 8)
Max Grav 23=2420(LC 1), 2=2184(LC 1)

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.

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

TOP CHORD 3-33=-1365/470, 3-4=-6014/2371, 4-5=-5385/2140, 5-6=-4909/2030, 6-7=-3725/1611, 7-9=-3725/1611, 9-11=-3637/1573, 11-13=-3637/1573, 13-15=-2271/1008, 15-18=-2271/1008, 18-19=-2271/1008, 19-20=-1248/636, 20-21=-2436/1052, 21-22=-2436/1052, 22-23=-2320/1035, 6-8=-1385/558, 8-10=-1339/572, 10-12=-1376/614, 12-14=-1309/585, 14-17=-1439/619, 17-20=-1343/545
BOT CHORD 3-31=-313/746, 3-30=-2370/5680, 29-30=-1989/4818, 27-28=-196/415, 26-27=-1590/3713, 24-26=-1590/3713
WEBS 5-30=-528/1501, 27-29=-1356/3239, 13-29=-827/1968, 13-27=-709/302, 19-27=-383/218, 19-26=-79/362, 19-24=-1671/725, 21-24=-728/356, 22-24=-1360/3157, 11-12=-355/816, 9-10=-272/176, 17-18=-478/254, 4-30=-1148/499

NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
6) Provide adequate drainage to prevent water ponding.
7) All plates are 2x4 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.

Continued on page 2

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date: April 12,2021

MiTek
6904 Parke East Blvd.
Tampa, FL 36610

NOTES-

10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 23=1063, 2=803.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 140 lb down and 88 lb up at 7-0-0, 140 lb down and 96 lb up at 9-0-12, 140 lb down and 96 lb up at 11-0-12, 150 lb down and 107 lb up at 13-0-12, 150 lb down and 105 lb up at 15-0-12, 150 lb down and 107 lb up at 17-0-12, 150 lb down and 107 lb up at 19-0-12, 150 lb down and 97 lb up at 21-3-12, 150 lb down and 93 lb up at 23-0-12, 150 lb down and 93 lb up at 25-0-12, and 150 lb down and 93 lb up at 27-0-12, and 156 lb down and 92 lb up at 28-10-4 on top chord, and 399 lb down and 187 lb up at 7-0-0, 88 lb down and 33 lb up at 9-0-12, 88 lb down and 33 lb up at 11-0-12, 84 lb down and 62 lb up at 13-0-12, 84 lb down and 62 lb up at 15-0-12, 84 lb down and 62 lb up at 17-0-12, 84 lb down and 62 lb up at 19-0-12, 84 lb down and 62 lb up at 21-0-12, 84 lb down and 62 lb up at 23-0-12, and 84 lb down and 62 lb up at 25-0-12, and 84 lb down and 62 lb up at 27-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

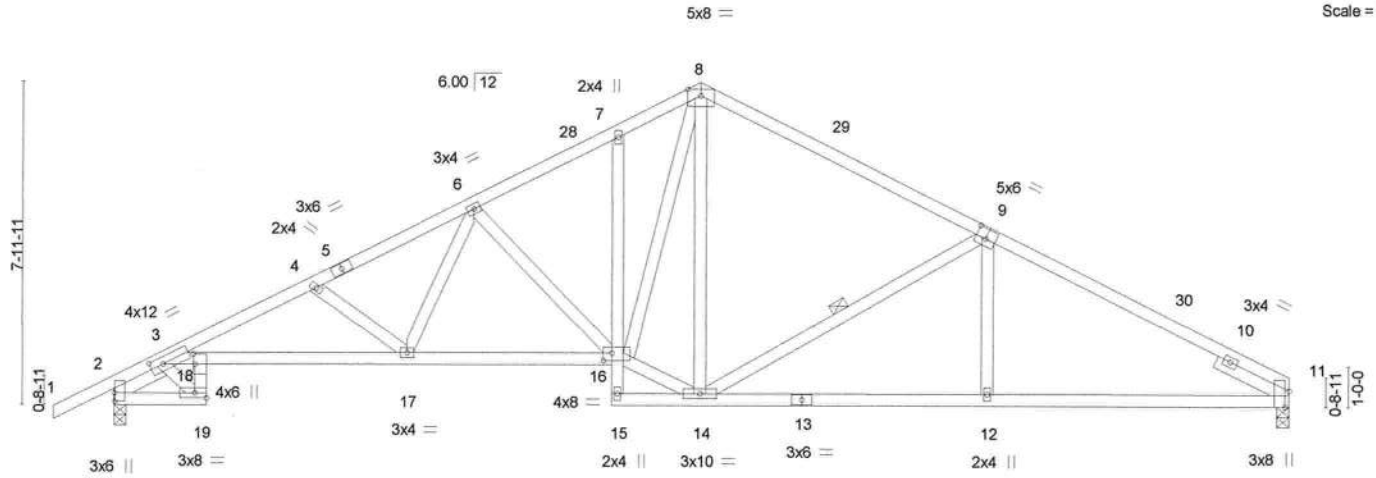
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-3=-54, 3-5=-54, 5-6=-54, 20-22=-54, 31-32=-20, 3-29=-20, 23-28=-20, 6-12=-54, 12-20=-54
   Concentrated Loads (lb)
   Vert: 5=-100(B) 22=-138(B) 25=-64(B) 30=-399(B) 27=-64(B) 20=-110(B) 35=-110(B) 36=-110(B) 37=-110(B) 38=-79(B) 39=-79(B) 40=-64(B) 41=-64(B) 42=-64(B) 43=-64(B) 44=-64(B) 45=-64(B) 46=-100(B) 47=-100(B) 48=-110(B) 49=-110(B) 50=-110(B) 51=-110(B)

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE
2742669	T11	Roof Special	3	1	T23511427
					Job Reference (optional)

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:26 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-BrtWbmMifpphe8ax1U3hxKZpOzESGy4Lv6z6XRzSIWR

-1-6-0	2-3-8	5-0-0	8-10-11	12-3-8	14-6-0	21-7-0	29-0-0
1-6-0	2-3-8	2-8-8	3-10-12	3-4-13	2-2-8	7-1-0	7-5-0

Scale = 1:55.4



2-3-8	7-2-14	12-3-8	14-6-0	21-7-0	29-0-0
2-3-8	4-11-6	5-0-10	2-2-8	7-1-0	7-5-0

Plate Offsets (X,Y)-- [2:0-2-8,0-0-2], [3:0-3-12,0-2-0], [9:0-3-0,0-3-0], [11:0-4-12,Edge], [16:0-2-8,0-2-4], [18:0-3-0,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.51	Vert(LL)	-0.21	17-18	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.97	Vert(CT)	-0.42	17-18	>827	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.23	11	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 172 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except* 8-9,1-5: 2x4 SP M 31
BOT CHORD 2x4 SP No.2 *Except* 18-19,7-15: 2x4 SP No.3, 3-16: 2x4 SP M 31
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -t 1-4-4, Right 2x4 SP No.3 -t 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-8-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 9-14

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=130(LC 16)
Max Uplift 2=-254(LC 12), 11=-221(LC 13)
Max Grav 2=1156(LC 1), 11=1071(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-21=-772/160, 3-4=-2543/565, 4-6=-2267/495, 6-7=-1548/370, 7-8=-1492/408, 8-9=-1250/324, 9-11=-1736/372
BOT CHORD 2-19=-283/974, 18-19=-364/1287, 3-18=-568/2312, 17-18=-577/2323, 16-17=-365/1729, 12-14=-261/1493, 11-12=-261/1493
WEBS 4-17=-448/197, 6-17=-144/610, 6-16=-568/212, 14-16=-114/1072, 8-16=-281/1006, 9-14=-557/247, 9-12=0/272, 3-19=-1463/424

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-5-2, Interior(1) 1-5-2 to 14-6-0, Exterior(2R) 14-6-0 to 17-6-0, Interior(1) 17-6-0 to 29-0-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=254, 11=221.

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

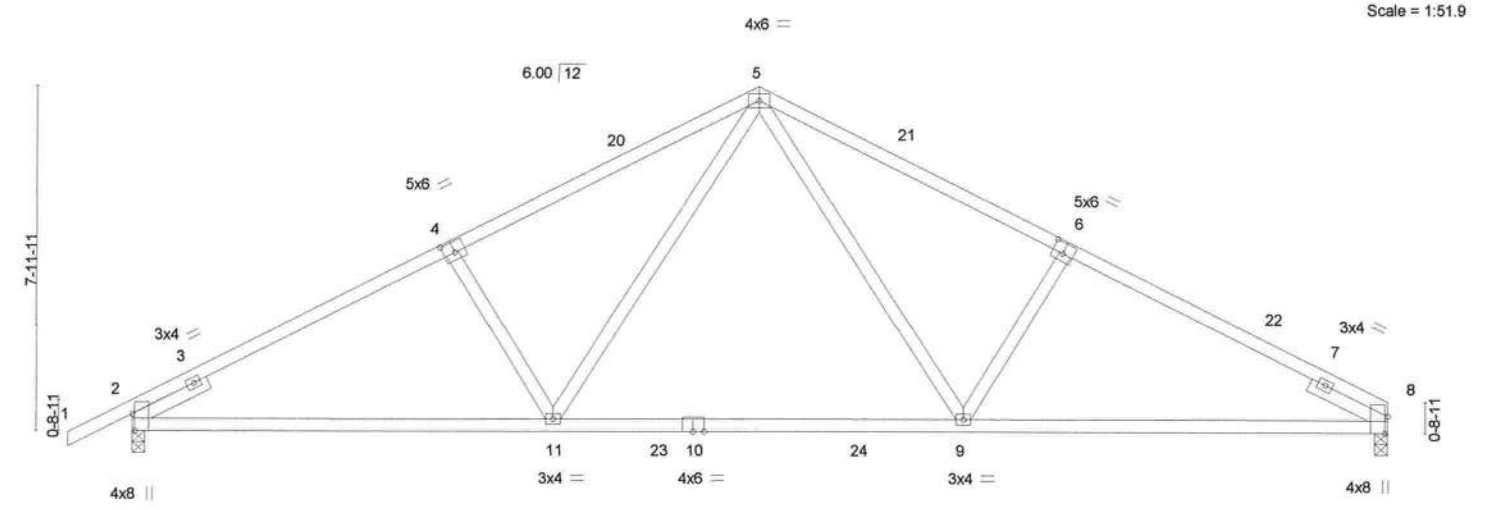
MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE
2742669	T12	Common	1	1	T23511428
					Job Reference (optional)

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:27 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-f1Ruo6NKQ7yYFI98aBawUX6zBNb_?RHU8mif3tzSIWQ

-1-6-0 | 7-5-0 | 14-6-0 | 21-7-0 | 29-0-0
1-6-0 | 7-5-0 | 7-1-0 | 7-1-0 | 7-5-0

Scale = 1:51.9



9-9-3 | 19-2-13 | 29-0-0
9-9-3 | 9-5-11 | 9-9-3

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.64	Vert(LL)	-0.34	9-11	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.95	Vert(CT)	-0.51	9-11	>681	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.07	8	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 139 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -t 1-11-8, Right 2x4 SP No.3 -t 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-2-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=130(LC 16)
Max Uplift 2=-254(LC 12), 8=-221(LC 13)
Max Grav 2=1248(LC 2), 8=1178(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1872/367, 4-5=-1742/384, 5-6=-1748/396, 6-8=-1879/379
BOT CHORD 2-11=-352/1623, 9-11=-143/1127, 8-9=-266/1631
WEBS 5-9=-180/730, 6-9=-359/237, 5-11=-176/720, 4-11=-352/235

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 14-6-0, Exterior(2R) 14-6-0 to 17-6-0, Interior(1) 17-6-0 to 29-0-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=254, 8=221.

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

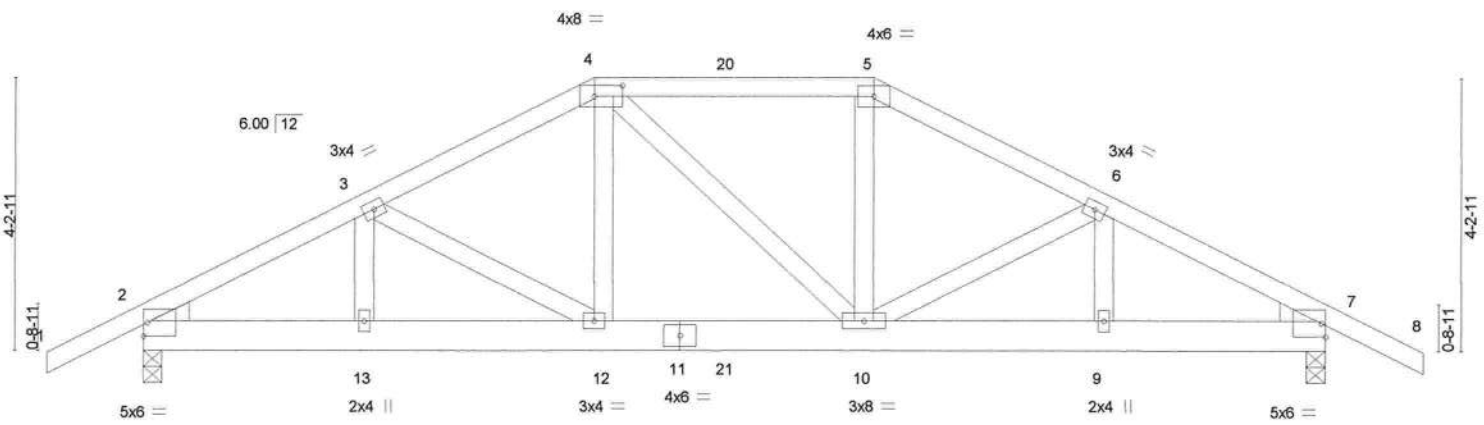
MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE
2742669	T13	Hip Girder	1	1	T23511429
					Job Reference (optional)

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:28 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-8D?G0SNyBR4PtSkK8v590lf2tnzpkvYdMQSDcKzSlWP

-1-6-0	3-5-3	7-0-0	11-4-0	14-10-13	18-4-0	19-10-0
1-6-0	3-5-3	3-6-13	4-4-0	3-6-13	3-5-3	1-6-0

Scale = 1:34.8



3-5-3	7-0-0	11-4-0	14-10-13	18-4-0
3-5-3	3-6-13	4-4-0	3-6-13	3-5-3

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.90	Vert(LL)	0.08	10-12	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.79	Vert(CT)	-0.12	10-12	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.22	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 114 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-5-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 7-6-2 oc bracing.

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=63(LC 8)
Max Uplift 2=-618(LC 8), 7=-621(LC 4)
Max Grav 2=1394(LC 1), 7=1409(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2126/1006, 3-4=-2198/1107, 4-5=-1988/1030, 5-6=-2228/1121, 6-7=-2153/1022
BOT CHORD 2-13=-887/1843, 12-13=-887/1843, 10-12=-964/1963, 9-10=-867/1867, 7-9=-867/1867
WEBS 4-12=-262/573, 5-10=-225/556

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 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 100 lb uplift at joint(s) except (jt=lb) 2=618, 7=621.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 128 lb down and 93 lb up at 7-0-0, 110 lb down and 87 lb up at 9-0-12, and 110 lb down and 87 lb up at 9-3-4, and 237 lb down and 185 lb up at 11-4-0 on top chord, and 319 lb down and 262 lb up at 7-0-0, 84 lb down and 62 lb up at 9-0-12, and 84 lb down and 62 lb up at 9-3-4, and 319 lb down and 262 lb up at 11-3-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-54, 4-5=-54, 5-8=-54, 14-17=-20

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date: April 12,2021

Continued on page 2

MiTek
6904 Parke East Blvd.
Tampa, FL 36610

LOAD CASE(S) Standard

Concentrated Loads (lb)

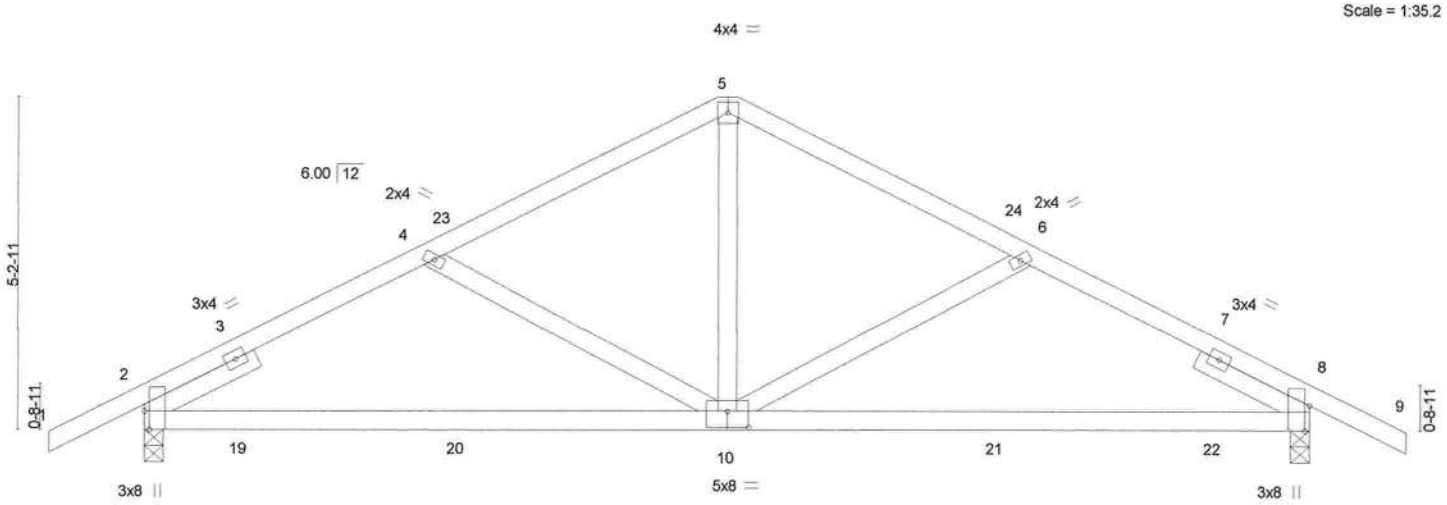
Vert: 4=-110(B) 5=-190(B) 12=-319(B) 10=-319(B) 20=-219(B) 21=-129(B)

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE	T23511430
2742669	T14	QUEENPOST	1	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:29 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-cQZeDoOaykCGVcJWiccOZyBOlALrTLunb4Bm8mzSlWO

-1-6-0	4-6-10	9-2-0	13-9-6	18-4-0	19-10-0
1-6-0	4-6-10	4-7-6	4-7-6	4-6-10	1-6-0

Scale = 1:35.2



9-2-0	18-4-0
9-2-0	9-2-0

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [8:0-4-12,Edge], [10:0-4-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.25	Vert(LL)	0.18	10-17	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.67	Vert(CT)	-0.18	10-13	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 91 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -t 1-11-8, Right 2x4 SP No.3 -t 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-9-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-3-8 oc bracing.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=79(LC 12)
Max Uplift 2=-190(LC 9), 8=-190(LC 8)
Max Grav 2=759(LC 1), 8=759(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-978/857, 4-5=-782/783, 5-6=-782/783, 6-8=-978/857
BOT CHORD 2-10=-710/845, 8-10=-722/845
WEBS 5-10=-573/446

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 9-2-0, Exterior(2R) 9-2-0 to 13-4-15, Interior(1) 13-4-15 to 19-10-0 zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=190, 8=190.

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

April 12,2021

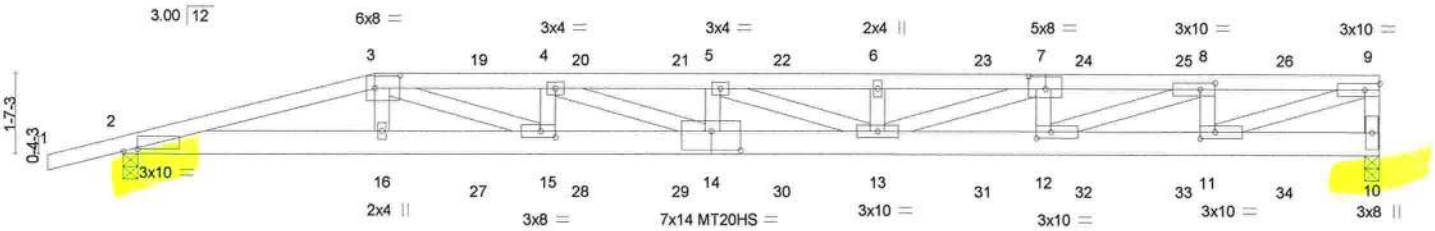
MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	NORRIS - SPEC STONEHENGE	T23511431
2742669	T15	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.430 s Mar 22 2021 MiTek Industries, Inc. Thu Apr 8 14:26:31 2021 Page 1
ID:InNF1fn2tL_sCabYxxd5odzSrH0-YogPeUQqTMS_kvTvp1eseNHYw_1Ex7Z42OgtCfzSlWM

-1-6-0	5-0-0	8-5-1	11-8-7	14-11-12	18-3-1	21-6-7	24-11-8
1-6-0	5-0-0	3-5-1	3-3-5	3-3-5	3-3-5	3-3-5	3-5-1

Scale = 1:44.5



5-0-0	8-5-1	11-8-7	14-11-12	18-3-1	21-6-7	24-11-8
5-0-0	3-5-1	3-3-5	3-3-5	3-3-5	3-3-5	3-5-1

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.97	Vert(LL)	0.82	13-14	>364	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.61	Vert(CT)	-1.16	13-14	>257	180	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.78	Horz(CT)	0.09	10	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							Weight: 135 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP M 26
WEBS 2x4 SP No.3 *Except*
3-15,4-14,5-13,7-13,8-12,9-11: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 5-1-0 oc bracing.

REACTIONS. (size) 10=0-3-8, 2=0-3-8
Max Horz 2=61(LC 4)
Max Uplift 10=-753(LC 4), 2=-760(LC 4)
Max Grav 10=1474(LC 1), 2=1469(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4868/2468, 3-4=-6555/3351, 4-5=-7350/3758, 5-6=-6878/3516, 6-7=-6878/3516, 7-8=-5768/2948, 8-9=-3374/1725, 9-10=-1329/678
BOT CHORD 2-16=-2406/4706, 15-16=-2422/4738, 14-15=-3351/6555, 13-14=-3759/7353, 12-13=-2938/5748, 11-12=-1725/3374
WEBS 3-16=-133/327, 3-15=-1006/2008, 4-15=-591/298, 4-14=-444/883, 5-13=-507/271, 7-13=-616/1205, 7-12=-695/356, 8-12=-1306/2555, 8-11=-1152/589, 9-11=-1759/3440

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) All plates are MT20 plates 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=753, 2=760.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 75 lb down and 63 lb up at 5-0-0, 56 lb down and 63 lb up at 7-0-12, 56 lb down and 63 lb up at 9-0-12, 56 lb down and 63 lb up at 11-0-12, 56 lb down and 63 lb up at 13-0-12, 56 lb down and 57 lb up at 15-0-12, 56 lb down and 63 lb up at 17-0-12, 56 lb down and 63 lb up at 19-0-12, and 56 lb down and 63 lb up at 21-0-12, and 56 lb down and 63 lb up at 23-0-12 on top chord, and 110 lb down and 113 lb up at 5-0-0, 45 lb down and 45 lb up at 7-0-12, 45 lb down and 45 lb up at 9-0-12, 45 lb down and 45 lb up at 11-0-12, 45 lb down and 45 lb up at 13-0-12, 45 lb down and 45 lb up at 15-0-12, 45 lb down and 45 lb up at 17-0-12, 45 lb down and 45 lb up at 19-0-12, and 45 lb down and 45 lb up at 21-0-12, and 45 lb down and 45 lb up at 23-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

Continued on page 2

LOAD CASE(S) Standard

Julius Lee PE No.34869
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date: April 12,2021

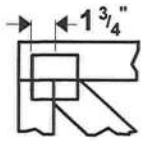
MiTek
6904 Parke East Blvd.
Tampa, FL 36610

LOAD CASE(S) Standard

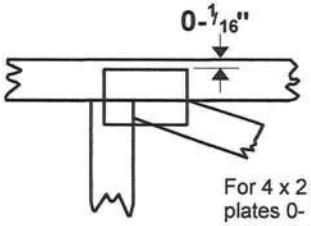
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-3=-54, 3-9=-54, 2-10=-20
   Concentrated Loads (lb)
   Vert: 3=-56(F) 16=-102(F) 6=-56(F) 13=-40(F) 19=-56(F) 20=-56(F) 21=-56(F) 22=-56(F) 23=-56(F) 24=-56(F) 25=-56(F) 26=-56(F) 27=-40(F) 28=-40(F) 29=-40(F) 30=-40(F) 31=-40(F) 32=-40(F) 33=-40(F) 34=-40(F)

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

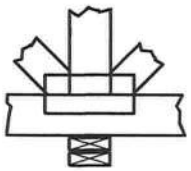
4 x 4

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

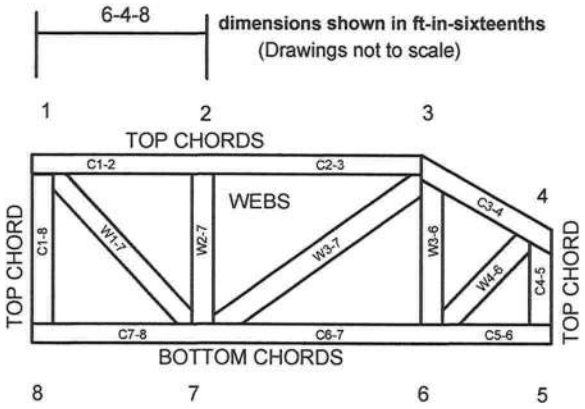


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek

MiTek Engineering Reference Sheet: MII-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/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

AUGUST 1, 2016	T-BRACE / I-BRACE DETAIL WITH 2X BRACE ONLY	MII-T-BRACE 2

MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate

Note: T-Bracing / I-Bracing to be used when continuous lateral bracing is impractical. T-Brace / I-Brace must cover 90% of web length.

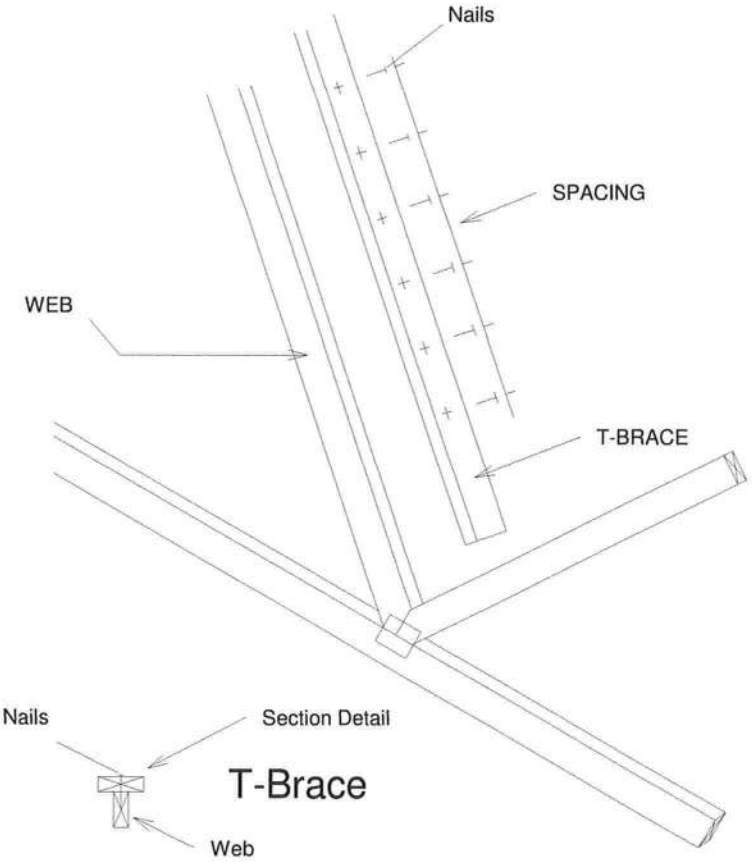
Note: This detail NOT to be used to convert T-Brace / I-Brace webs to continuous lateral braced webs.

Nailing Pattern		
T-Brace size	Nail Size	Nail Spacing
2x4 or 2x6 or 2x8	10d (0.131" X 3")	6" o.c.
Note: Nail along entire length of T-Brace / I-Brace (On Two-Ply's Nail to Both Plies)		

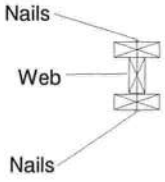
	Brace Size for One-Ply Truss	
	Specified Continuous Rows of Lateral Bracing	
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

	Brace Size for Two-Ply Truss	
	Specified Continuous Rows of Lateral Bracing	
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

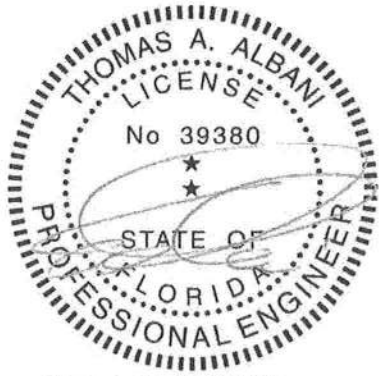
T-Brace / I-Brace must be same species and grade (or better) as web member.



T-Brace



I-Brace



Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018

AUGUST 1, 2016	SCAB-BRACE DETAIL	MII-SCAB-BRACE

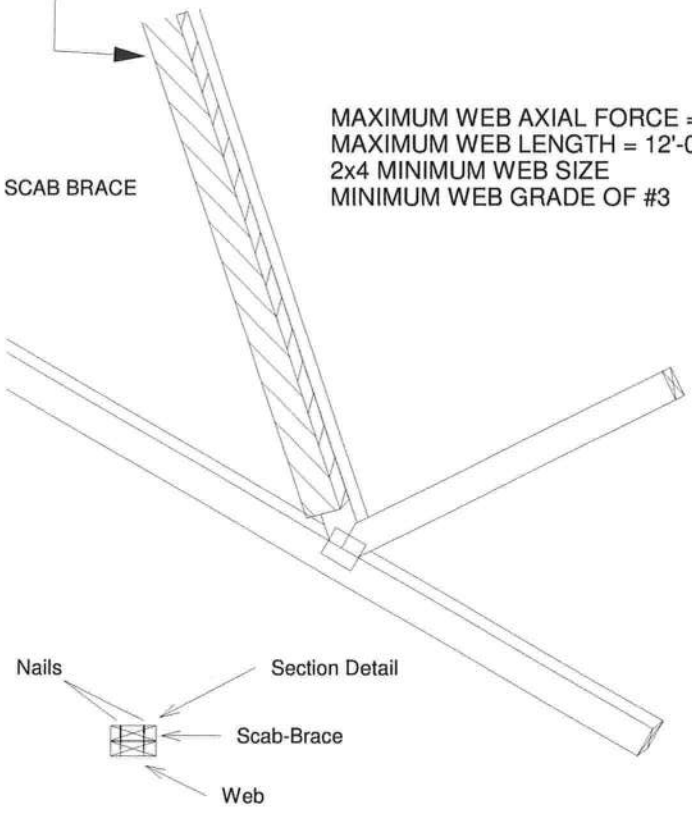
MiTek USA, Inc.

MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate

Note: Scab-Bracing to be used when continuous lateral bracing at midpoint (or T-Brace) is impractical.
Scab must cover full length of web +/- 6".

*** THIS DETAIL IS NOT APLICABLE WHEN BRACING IS *** REQUIRED AT 1/3 POINTS OR I-BRACE IS SPECIFIED.

APPLY 2x___ SCAB TO ONE FACE OF WEB WITH
2 ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
SCAB MUST BE THE SAME GRADE, SIZE AND
SPECIES (OR BETTER) AS THE WEB.



MAXIMUM WEB AXIAL FORCE = 2500 lbs
MAXIMUM WEB LENGTH = 12'-0"
2x4 MINIMUM WEB SIZE
MINIMUM WEB GRADE OF #3

Scab-Brace must be same species grade (or better) as web member.

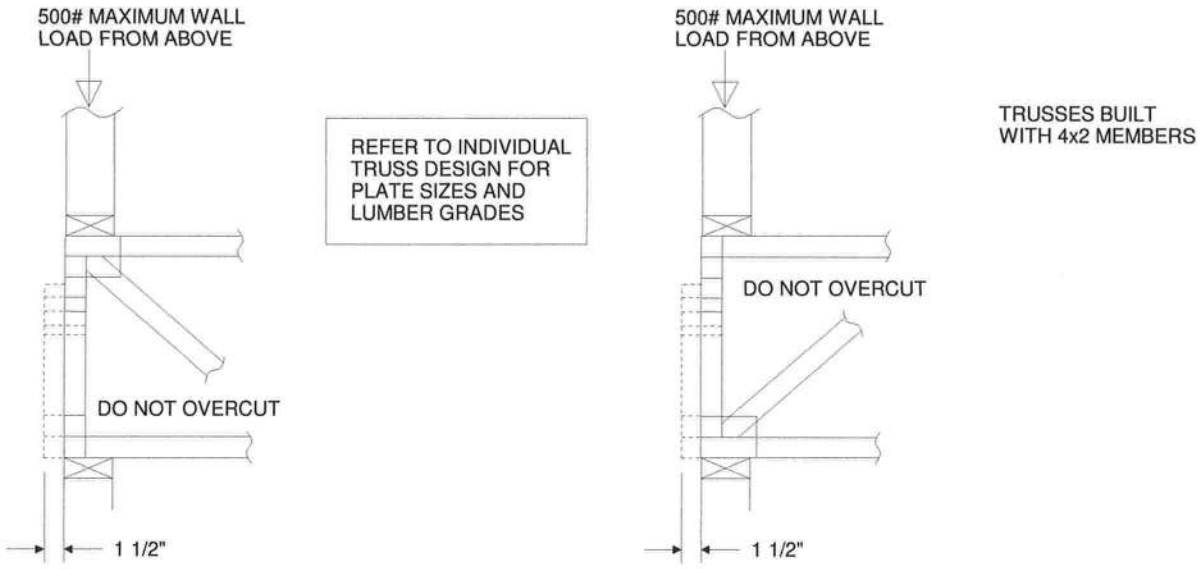
Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

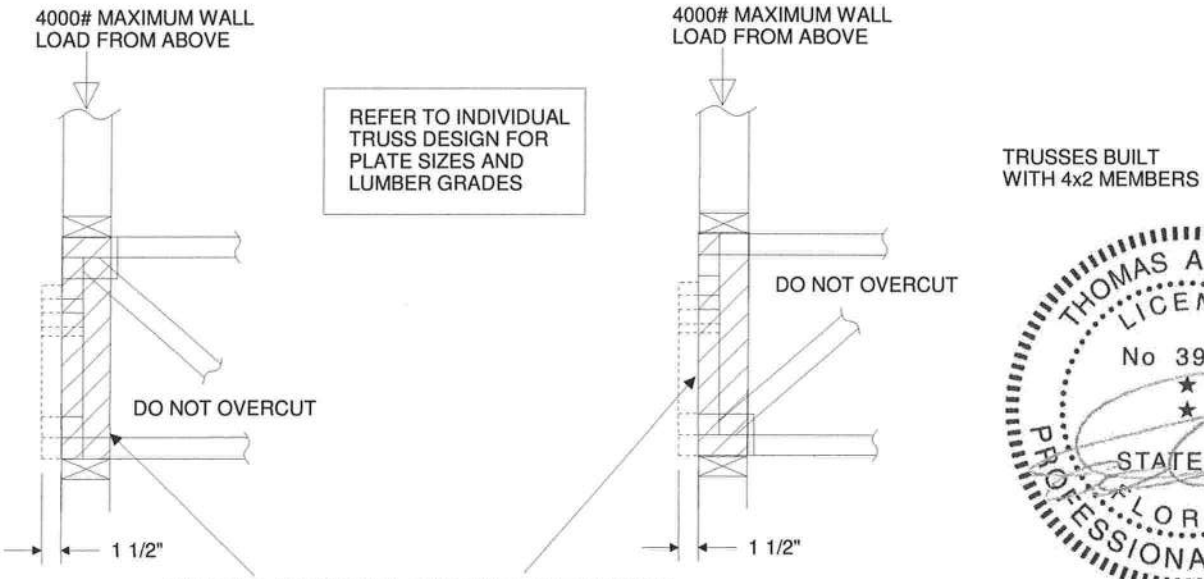
February 12, 2018

AUGUST 1, 2016	STANDARD REPAIR TO REMOVE END VERTICAL (RIBBON NOTCH VERTICAL)	MII-REP05

MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate

1. THIS IS A SPECIFIC REPAIR DETAIL TO BE USED ONLY FOR ITS ORIGINAL INTENTION. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS WILL BE CAPABLE OF SUPPORTING THE LOADS INDICATED.
2. ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE APPLYING REPAIR AND HELD IN PLACE DURING APPLICATION OF REPAIR.
3. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID SPLITTING OF THE WOOD.
4. LUMBER MUST BE CUT CLEANLY AND ACCURATELY AND THE REMAINING WOOD MUST BE UNDAMAGED.
5. THIS REPAIR IS TO BE USED FOR SINGLE PLY TRUSSES IN THE 4X_ ORIENTATION ONLY.
6. CONNECTOR PLATES MUST BE FULLY IMBEDDED AND UNDISTURBED.



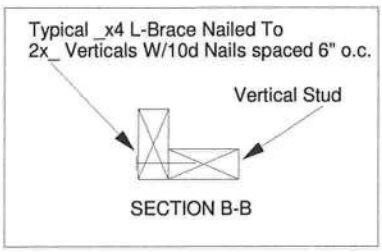


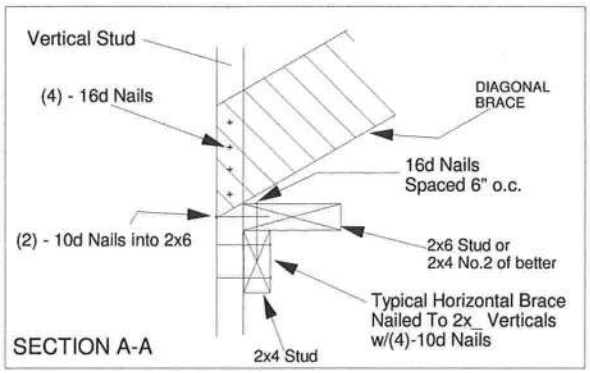
Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

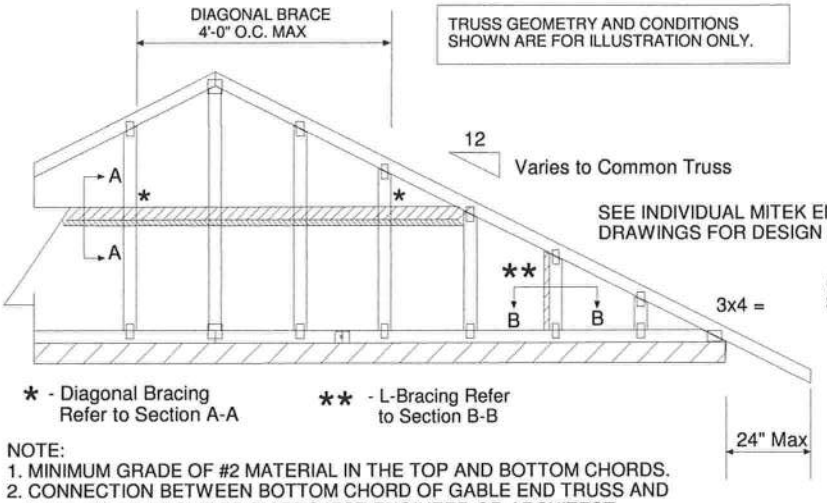
February 12, 2018

AUGUST 1, 2016	Standard Gable End Detail	MII-GE130-D-SP

MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate







TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.

SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA

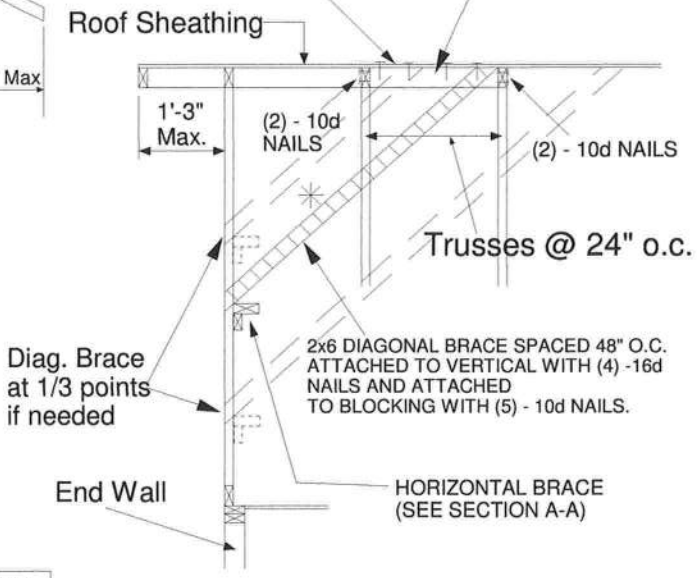
* - Diagonal Bracing Refer to Section A-A

** - L-Bracing Refer to Section B-B

NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK



Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length				
2x4 SP No. 3 / Stud	12" O.C.	3-9-13	4-1-1	5-9-6	7-1-3	11-5-7
2x4 SP No. 3 / Stud	16" O.C.	3-5-4	3-6-8	5-0-2	6-10-8	10-3-13
2x4 SP No. 3 / Stud	24" O.C.	2-9-11	2-10-11	4-1-1	5-7-6	8-5-1

✳ Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE D
ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH
ASCE 7-10 160 MPH
DURATION OF LOAD INCREASE : 1.60

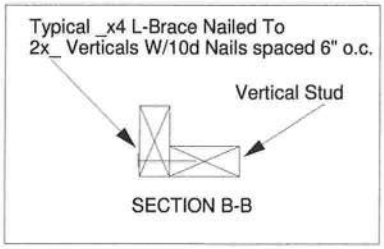
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWFRS.

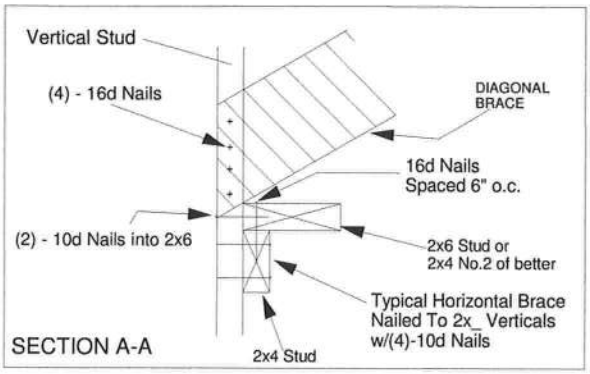
Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018

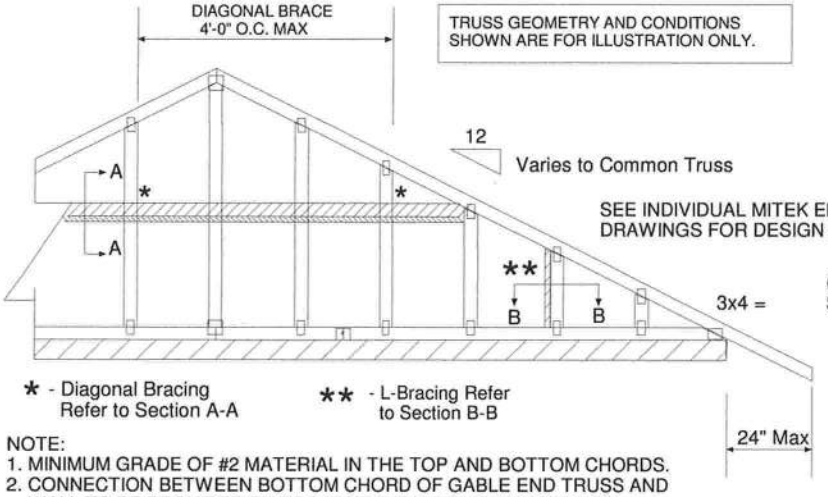
AUGUST 1, 2016	Standard Gable End Detail	MII-GE130-SP

MiTek USA, Inc.

MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate





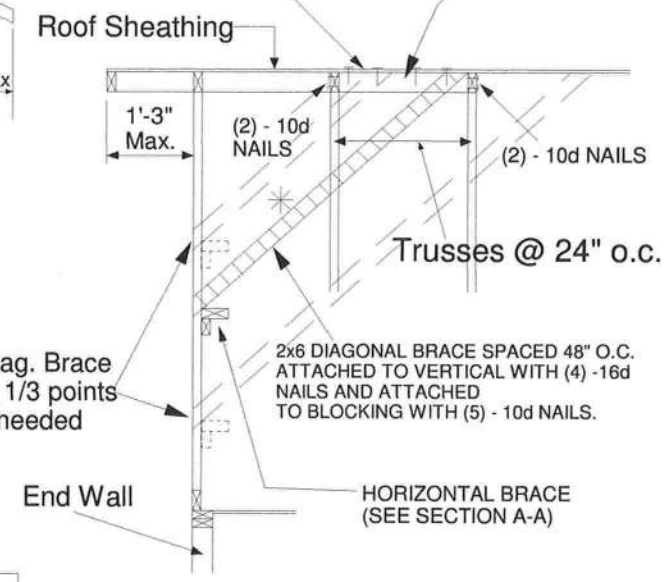


TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.

SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK



* - Diagonal Bracing Refer to Section A-A

** - L-Bracing Refer to Section B-B

NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length				
2x4 SP No. 3 / Stud	12" O.C.	4-0-7	4-5-6	6-3-8	8-0-15	12-1-6
2x4 SP No. 3 / Stud	16" O.C.	3-8-0	3-10-4	5-5-6	7-4-1	11-0-1
2x4 SP No. 3 / Stud	24" O.C.	3-0-10	3-1-12	4-5-6	6-1-5	9-1-15

✳ Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C
ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH
ASCE 7-10 160 MPH
DURATION OF LOAD INCREASE : 1.60

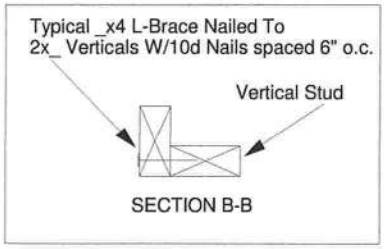
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWFRS.

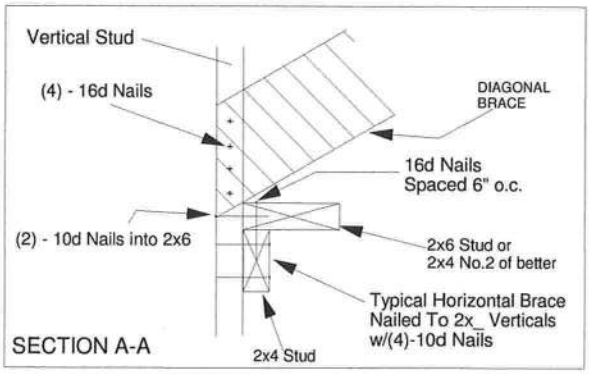
Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018

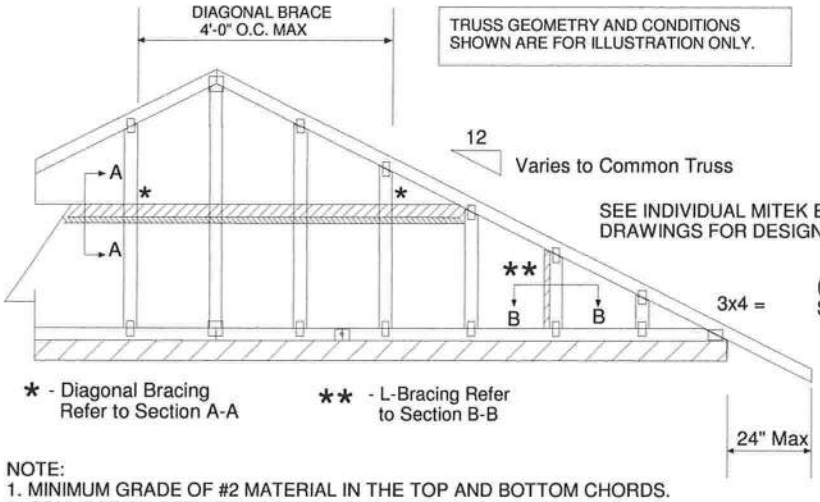
JANUARY 6, 2017	Standard Gable End Detail	MII-GE140-001

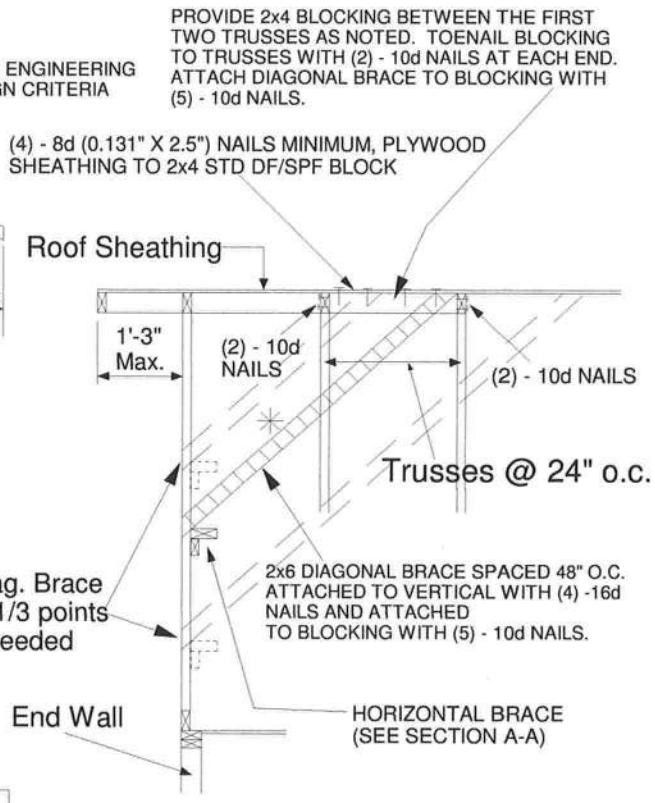
MiTek USA, Inc.

MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate









NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length				
2x4 DF/SPF Std/Stud	12" O.C.	3-10-1	3-11-7	5-7-2	7-8-2	11-6-4
2x4 DF/SPF Std/Stud	16" O.C.	3-3-14	3-5-1	4-10-2	6-7-13	9-11-11
2x4 DF/SPF Std/Stud	24" O.C.	2-8-9	2-9-8	3-11-7	5-5-2	8-1-12

✳ Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of web with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

MAXIMUM WIND SPEED = 140 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C
ASCE 7-98, ASCE 7-02, ASCE 7-05
DURATION OF LOAD INCREASE : 1.60

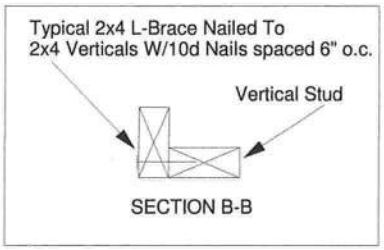
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWFRS.

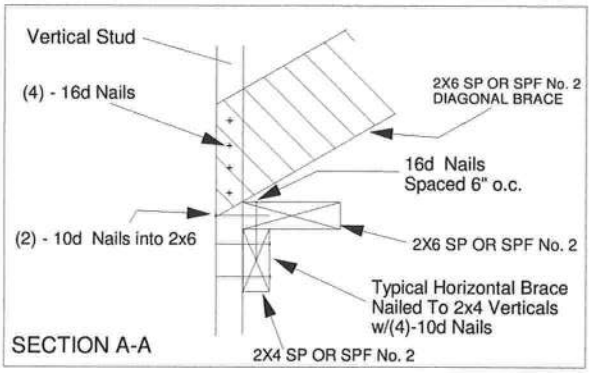
Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

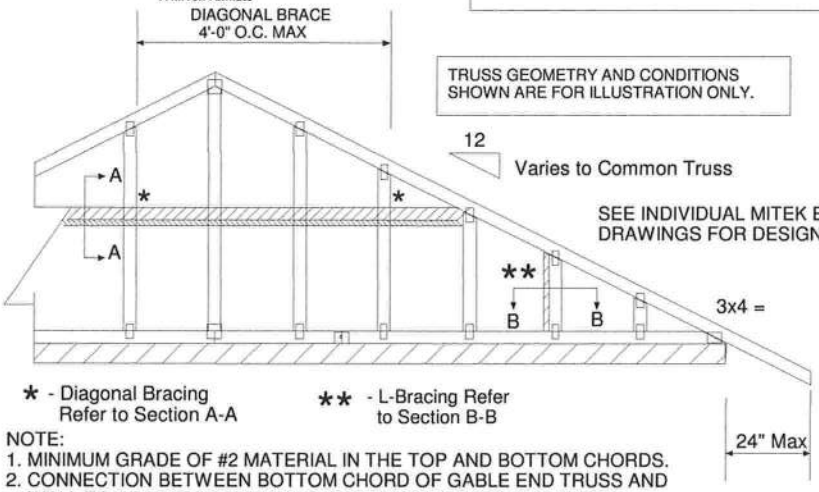
January 19, 2018

AUGUST 1, 2016	Standard Gable End Detail	MII-GE170-D-SP

MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate



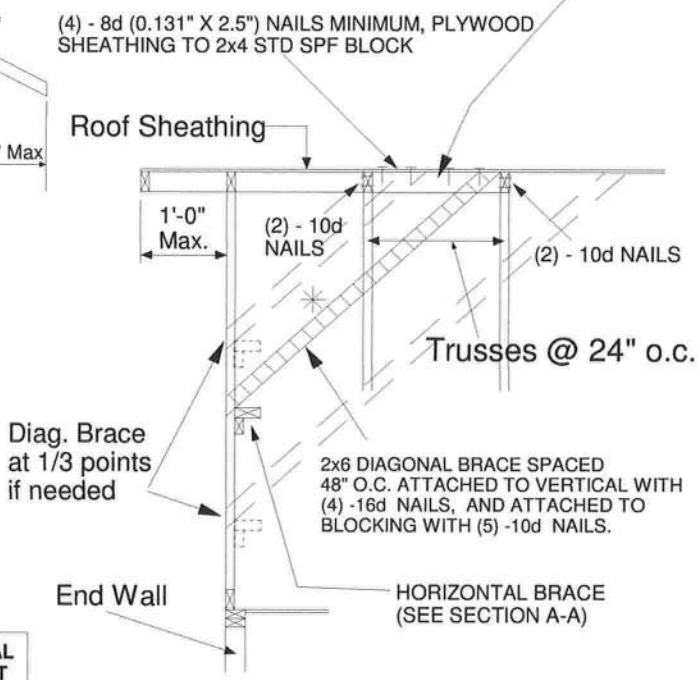




* - Diagonal Bracing Refer to Section A-A

** - L-Bracing Refer to Section B-B

NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH, SPF or SP No.3 OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 AND A 2x4 AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST GABLE STUD. ATTACH TO VERTICAL GABLE STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")



Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length			
2x4 SP No. 3 / Stud	12" O.C.	3-9-7	5-8-8	6-11-1	11-4-4
2x4 SP No. 3 / Stud	16" O.C.	3-4-12	4-11-15	6-9-8	10-2-3
2x4 SP No. 3 / Stud	24" O.C.	2-9-4	4-0-7	5-6-8	8-3-13
2x4 SP No. 2	12" O.C.	3-11-13	5-8-8	6-11-1	11-11-7
2x4 SP No. 2	16" O.C.	3-7-7	4-11-5	6-11-1	10-10-5
2x4 SP No. 2	24" O.C.	3-1-15	4-0-7	6-3-14	9-5-14

✳ Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 6" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length. T or I braces must be 2x4 SPF No. 2 or SP No. 2.

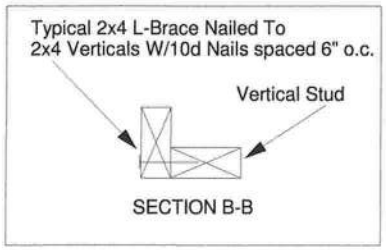
MAX MEAN ROOF HEIGHT = 30 FEET
EXPOSURE D
ASCE 7-10 170 MPH
DURATION OF LOAD INCREASE : 1.60

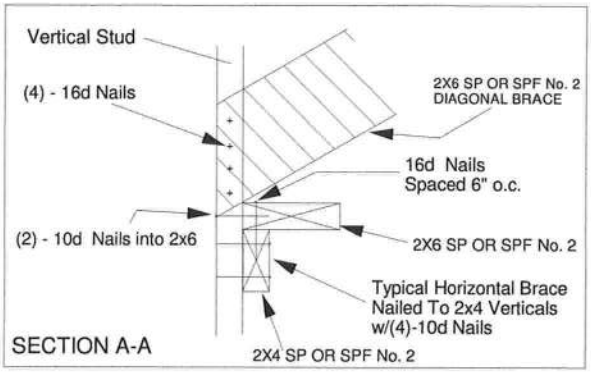
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWFRS.

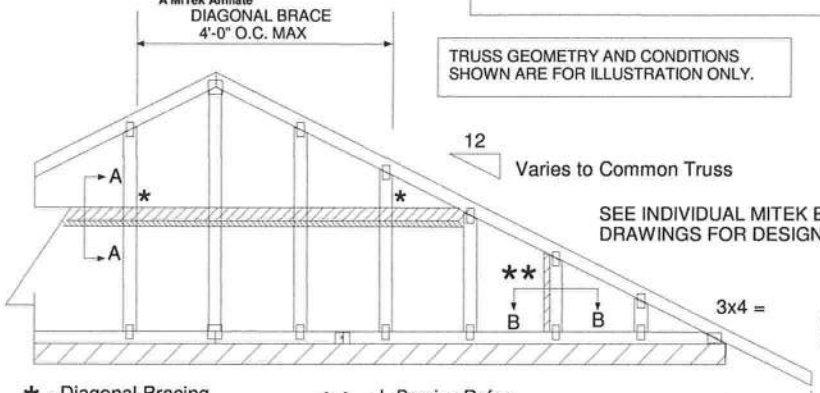
Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018

AUGUST 1, 2016	Standard Gable End Detail	MII-GE180-D-SP

MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate







TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.

SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA

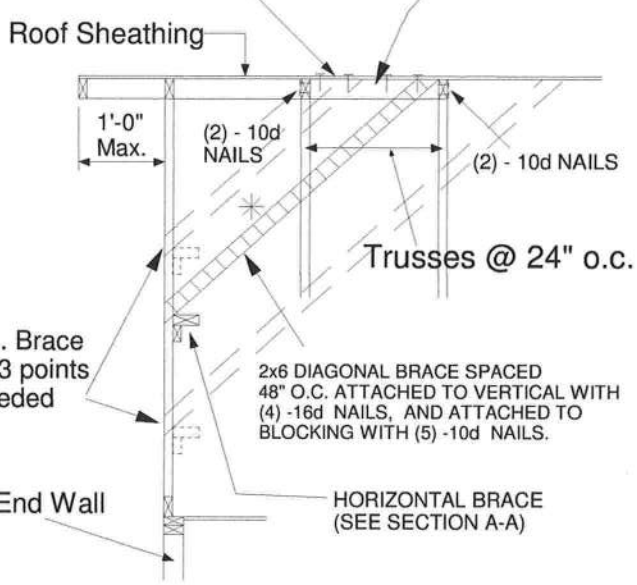
PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK

* - Diagonal Bracing Refer to Section A-A

** - L-Bracing Refer to Section B-B

24" Max



NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH, SPF or SP No.3 OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 AND A 2x4 AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST GABLE STUD. ATTACH TO VERTICAL GABLE STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length			
2x4 SP No. 3 / Stud	12" O.C.	3-7-12	5-4-11	6-2-1	10-11-3
2x4 SP No. 3 / Stud	16" O.C.	3-2-8	4-8-1	6-2-1	9-7-7
2x4 SP No. 3 / Stud	24" O.C.	2-7-7	3-9-12	5-2-13	7-10-4
2x4 SP No. 2	12" O.C.	3-10-0	5-4-11	6-2-1	11-6-1
2x4 SP No. 2	16" O.C.	3-5-13	4-8-1	6-2-1	10-5-7
2x4 SP No. 2	24" O.C.	3-0-8	3-9-12	6-1-1	9-1-9

✳ Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 6in o.c., with 3in minimum end distance. Brace must cover 90% of diagonal length. T or I braces must be 2x4 SPF No. 2 or SP No. 2.

MAX MEAN ROOF HEIGHT = 30 FEET
EXPOSURE D
ASCE 7-10 180 MPH
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWFRS.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018

AUGUST 1, 2016	STANDARD PIGGYBACK TRUSS CONNECTION DETAIL	MII-PIGGY-7-10

MiTek USA, Inc. Page 1 of 1

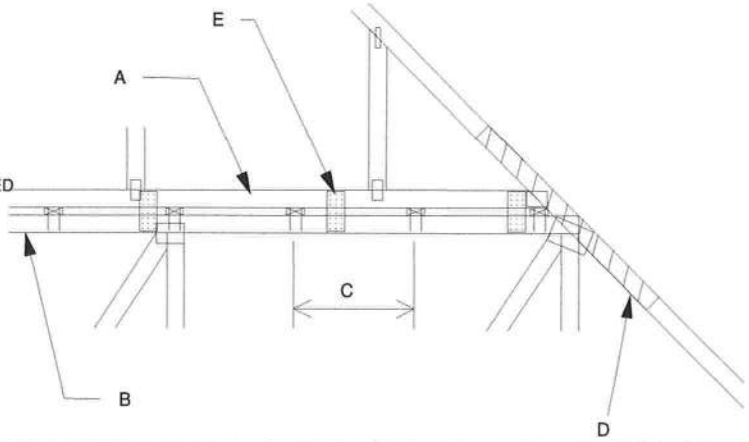
MiTek USA, Inc.

ENGINEERED BY TRENCO
A MiTek Affiliate

MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E MAX MEAN ROOF HEIGHT = 30 FEET MAX TRUSS SPACING = 24 " O.C. CATEGORY II BUILDING EXPOSURE B or C ASCE 7-10 DURATION OF LOAD INCREASE : 1.60
DETAIL IS NOT APPLICABLE FOR TRUSSES TRANSFERING DRAG LOADS (SHEAR TRUSSES). ADDITIONAL CONSIDERATIONS BY BUILDING ENGINEER/DESIGNER ARE REQUIRED.

A - PIGGBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) (0.131" X 3.5") TOE-NAILED.
B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
D - 2 X___ X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
2. WIND SPEED OF 116 MPH TO 160 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.

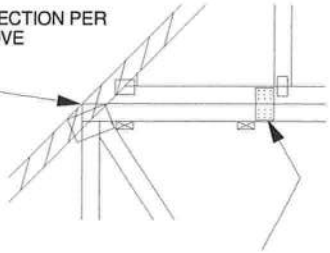
E - FOR WIND SPEEDS BETWEEN 126 AND 160 MPH, ATTACH MITEK 3X8 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 72" O.C. W/ (4) (0.131" X 1.5") NAILS PER MEMBER. STAGGER NAILS FROM OPPOSING FACES. ENSURE 0.5" EDGE DISTANCE. (MIN. 2 PAIRS OF PLATES REQ. REGARDLESS OF SPAN)



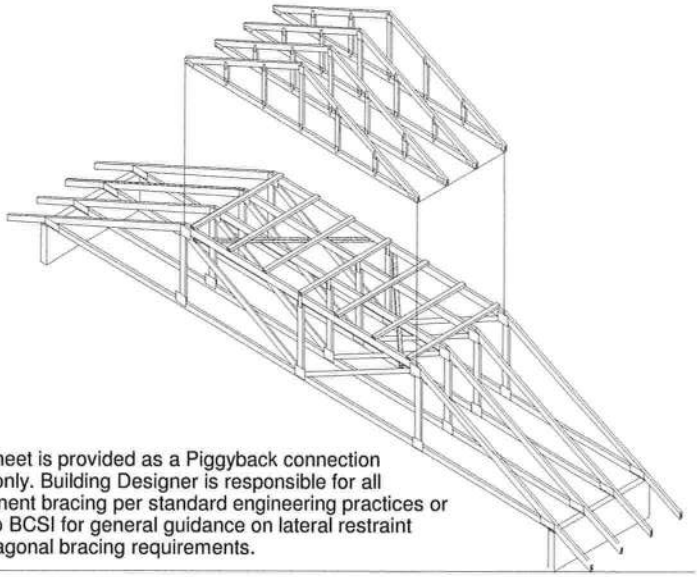
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH Nail-On PLATES AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.

SCAB CONNECTION PER NOTE D ABOVE

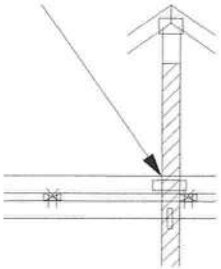


FOR ALL WIND SPEEDS, ATTACH MITEK 3X6 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 48" O.C. W/ (4) (0.131" X 1.5") PER MEMBER. STAGGER NAILS FROM OPPOSING FACES ENSURE 0.5" EDGE DISTANCE.



This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

VERTICAL WEB TO EXTEND THROUGH BOTTOM CHORD OF PIGGYBACK



FOR LARGE CONCENTRATED LOADS APPLIED TO CAP TRUSS REQUIRING A VERTICAL WEB:

1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.
2) ATTACH 2 x ___ x 4'-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 4" O.C. FROM EACH FACE. (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.) (MINIMUM 2X4)
3) THIS CONNECTION IS ONLY VALID FOR A MAXIMUM CONCENTRATED LOAD OF 4000 LBS (@1.15). REVIEW BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS.
4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018

AUGUST 1, 2016	STANDARD PIGGYBACK TRUSS CONNECTION DETAIL	MII-PIGGY-ALT 7-10

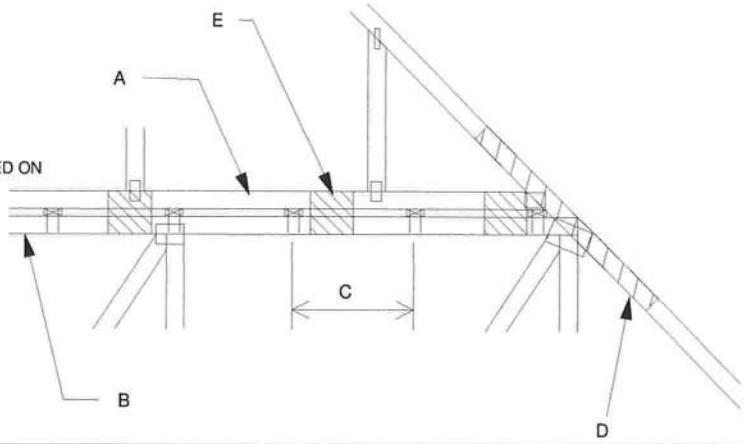
MiTek USA, Inc.

ENGINEERED BY TRENCO
A MiTek Affiliate

MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E
MAX MEAN ROOF HEIGHT = 30 FEET
MAX TRUSS SPACING = 24 " O.C.
CATEGORY II BUILDING
EXPOSURE B or C
ASCE 7-10
DURATION OF LOAD INCREASE : 1.60

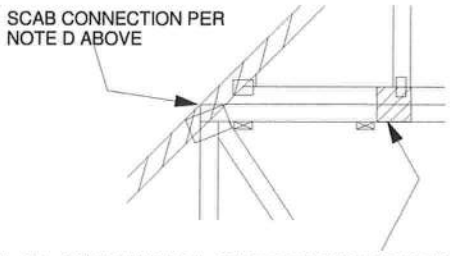
DETAIL IS NOT APPLICABLE FOR TRUSSES TRANSFERING DRAG LOADS (SHEAR TRUSSES). ADDITIONAL CONSIDERATIONS BY BUILDING ENGINEER/DESIGNER ARE REQUIRED.

A - PIGGBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) 0(0.131" X 3.5") TOE-NAILED.
B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
D - 2 X __ X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
  1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
  2. WIND SPEED OF 116 MPH TO 160 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
E - FOR WIND SPEED IN THE RANGE 126 MPH - 160 MPH ADD 9" x 9" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 48" O.C. OR LESS. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)

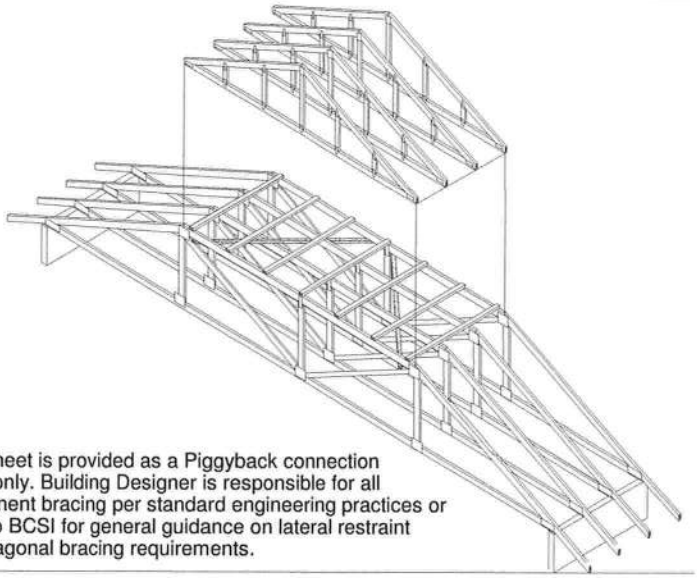


WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH PLYWOOD GUSSETS AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.

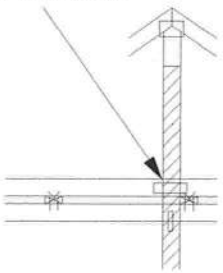


7" x 7" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 24" O.C. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

VERTICAL WEB TO EXTEND THROUGH BOTTOM CHORD OF PIGGYBACK



FOR LARGE CONCENTRATED LOADS APPLIED TO CAP TRUSS REQUIRING A VERTICAL WEB:

1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.
2) ATTACH 2 x ___ x 4'-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 4" O.C. FROM EACH FACE. (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.) (MINIMUM 2X4)
3) THIS CONNECTION IS ONLY VALID FOR A MAXIMUM CONCENTRATED LOAD OF 4000 LBS (@1.15). REVIEW BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS.
4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

January 19, 2018

AUGUST 1, 2016	STANDARD REPAIR DETAIL FOR BROKEN CHORDS, WEBS AND DAMAGED OR MISSING CHORD SPLICE PLATES	MII-REP01A1

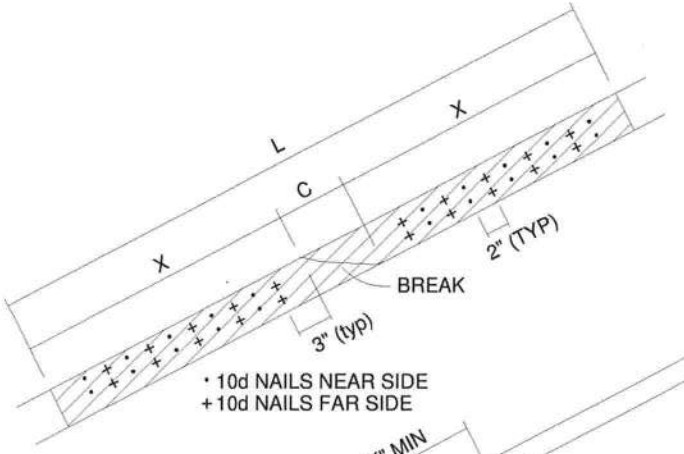
MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate

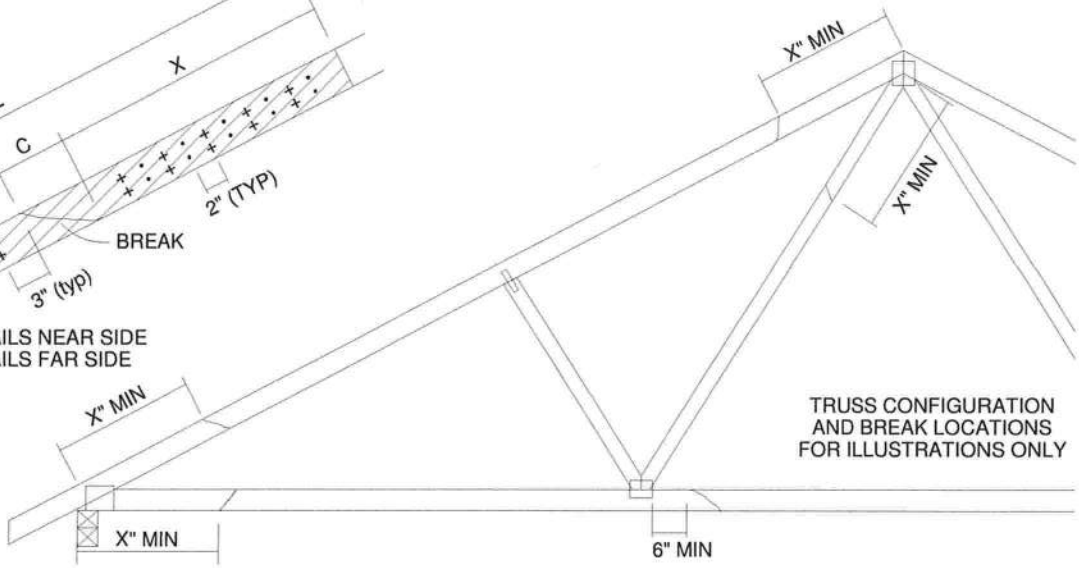
TOTAL NUMBER OF NAILS EACH SIDE OF BREAK *		X INCHES	MAXIMUM FORCE (lbs) 15% LOAD DURATION							
			SP		DF		SPF		HF	
2x4	2x6		2x4	2x6	2x4	2x6	2x4	2x6	2x4	2x6
20	30	24"	1706	2559	1561	2342	1320	1980	1352	2028
26	39	30"	2194	3291	2007	3011	1697	2546	1738	2608
32	48	36"	2681	4022	2454	3681	2074	3111	2125	3187
38	57	42"	3169	4754	2900	4350	2451	3677	2511	3767
44	66	48"	3657	5485	3346	5019	2829	4243	2898	4347

* DIVIDE EQUALLY FRONT AND BACK

ATTACH 2x_ SCAB OF THE SAME SIZE AND GRADE AS THE BROKEN MEMBER TO EACH FACE OF THE TRUSS (CENTER ON BREAK OR SPLICE) WITH 10d (0.131" X 3") NAILS (TWO ROWS FOR 2x4, THREE ROWS FOR 2x6) SPACED 4" O.C. AS SHOWN. STAGGER NAIL SPACING FROM FRONT FACE AND BACK FACE FOR A NET 0-2-0 O.C. SPACING IN THE MAIN MEMBER. USE A MIN. 0-3-0 MEMBER END DISTANCE.

THE LENGTH OF THE BREAK (C) SHALL NOT EXCEED 12". (C=PLATE LENGTH FOR SPLICE REPAIRS)
THE MINIMUM OVERALL SCAB LENGTH REQUIRED (L) IS CALCULATED AS FOLLOWS:
L = (2) X + C





TRUSS CONFIGURATION AND BREAK LOCATIONS FOR ILLUSTRATIONS ONLY

THE LOCATION OF THE BREAK MUST BE GREATER THAN OR EQUAL TO THE REQUIRED X DIMENSION FROM ANY PERIMETER BREAK OR HEEL JOINT AND A MINIMUM OF 6" FROM ANY INTERIOR JOINT (SEE SKETCH ABOVE)

DO NOT USE REPAIR FOR JOINT SPLICES

NOTES:
1. THIS REPAIR DETAIL IS TO BE USED ONLY FOR THE APPLICATION SHOWN. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS WILL BE CAPABLE OF SUPPORTING THE LOADS INDICATED.
2. ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE APPLING REPAIR AND HELD IN PLACE DURING APPLICATION OF REPAIR.
3. THE END DISTANCE, EDGE DISTANCE AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
4. WHEN NAILING THE SCABS, THE USE OF A BACKUP WEIGHT IS RECOMMENDED TO AVOID LOOSENING OF THE CONNECTOR PLATES AT THE JOINTS OR SPLICES.
5. THIS REPAIR IS TO BE USED FOR SINGLE PLY TRUSSES IN THE 2x_ ORIENTATION ONLY.
6. THIS REPAIR IS LIMITED TO TRUSSES WITH NO MORE THAN THREE BROKEN MEMBERS.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

January 19, 2018

AUGUST 1, 2016	LATERAL TOE-NAIL DETAIL	MII-TOENAIL_SP

MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate

NOTES:
1. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 45 DEGREES WITH THE MEMBER AND MUST HAVE FULL WOOD SUPPORT. (NAIL MUST BE DRIVEN THROUGH AND EXIT AT THE BACK CORNER OF THE MEMBER END AS SHOWN.
2. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
3. ALLOWABLE VALUE SHALL BE THE LESSER VALUE OF THE TWO SPECIES FOR MEMBERS OF DIFFERENT SPECIES.

THIS DETAIL APPLICABLE TO THE THREE END DETAILS SHOWN BELOW

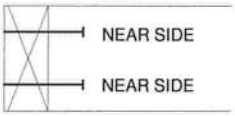
VIEWS SHOWN ARE FOR ILLUSTRATION PURPOSES ONLY

TOE-NAIL SINGLE SHEAR VALUES PER NDS 2001 (lb/nail)

	DIAM.	SP	DF	HF	SPF	SPF-S
3.5" LONG	.131	88.0	80.6	69.9	68.4	59.7
	.135	93.5	85.6	74.2	72.6	63.4
	.162	108.8	99.6	86.4	84.5	73.8
3.25" LONG	.128	74.2	67.9	58.9	57.6	50.3
	.131	75.9	69.5	60.3	59.0	51.1
	.148	81.4	74.5	64.6	63.2	52.5

VALUES SHOWN ARE CAPACITY PER TOE-NAIL.
APPLICABLE DURATION OF LOAD INCREASES MAY BE APPLIED.

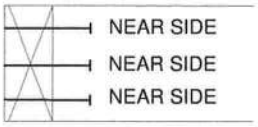
SIDE VIEW
(2x3)
2 NAILS



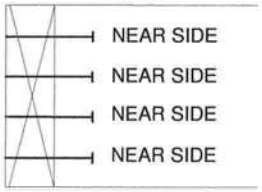
EXAMPLE:
(3) - 16d (0.162" X 3.5") NAILS WITH SPF SPECIES BOTTOM CHORD

For load duration increase of 1.15:
3 (nails) X 84.5 (lb/nail) X 1.15 (DOL) = 291.5 lb Maximum Capacity

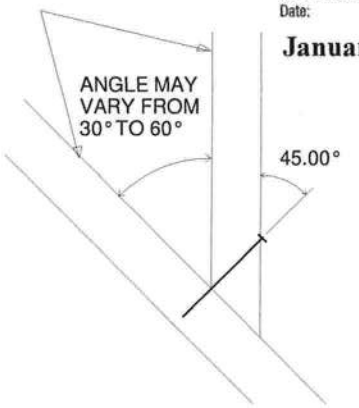
SIDE VIEW
(2x4)
3 NAILS

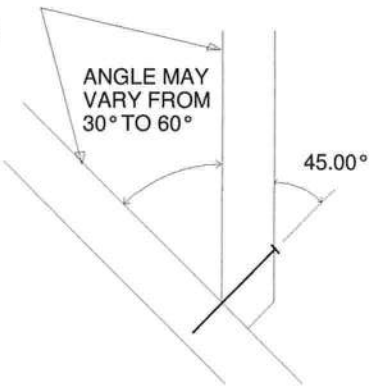


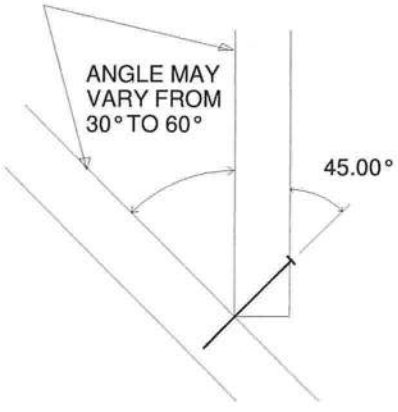
SIDE VIEW
(2x6)
4 NAILS



Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
January 19, 2018





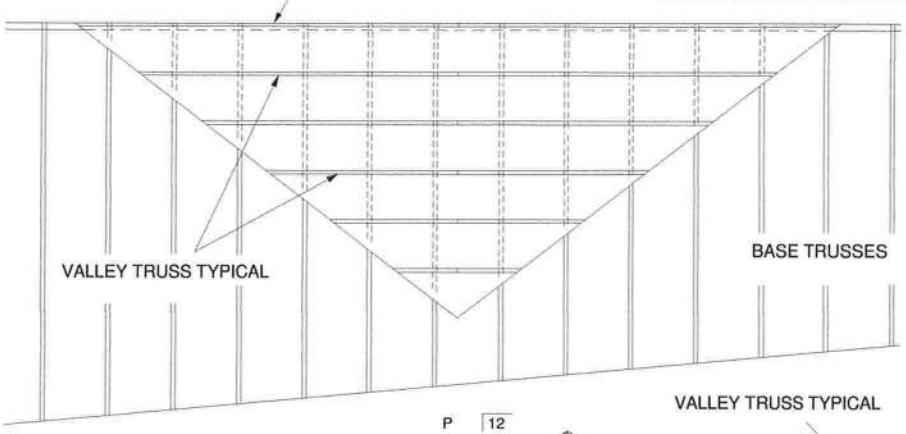


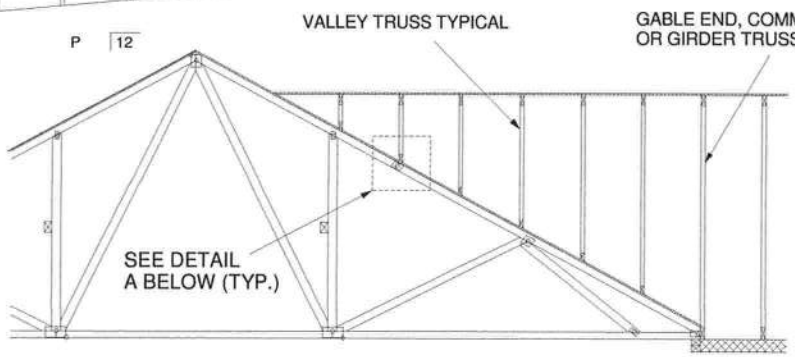
AUGUST 1, 2016	TRUSSED VALLEY SET DETAIL	MII-VALLEY HIGH WIND1

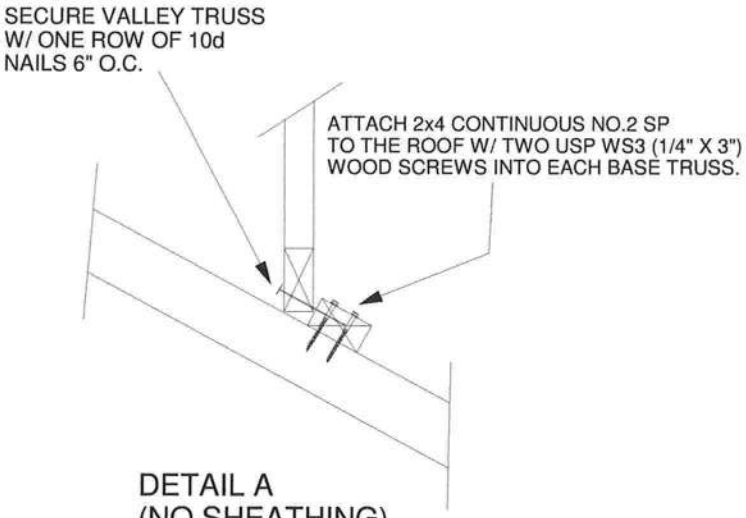
MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate

GENERAL SPECIFICATIONS

1. NAIL SIZE 10d (0.131" X 3")
2. WOOD SCREW = 3" WS3 USP OR EQUIVALENT
   DO NOT USE DRYWALL OR DECKING TYPE SCREW
3. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND
   SECURE PER DETAIL A
4. BRACE VALLEY WEBS IN ACCORDANCE WITH THE
   INDIVIDUAL DESIGN DRAWINGS.
5. BASE TRUSS SHALL BE DESIGNED WITH A PURLIN SPACING
   EQUILIVANT TO THE RAKE DIMENSION OF THE VALLEY TRUSS SPACING.
6. NAILING DONE PER NDS - 01
7. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.







DETAIL A
(NO SHEATHING)
N.T.S.

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH
WIND DESIGN PER ASCE 7-10 160 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12
CATEGORY II BUILDING
EXPOSURE C
WIND DURATION OF LOAD INCREASE : 1.60
MAX TOP CHORD TOTAL LOAD = 50 PSF
MAX SPACING = 24" O.C. (BASE AND VALLEY)
MINIMUM REDUCED DEAD LOAD OF 6 PSF
ON THE TRUSSES

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

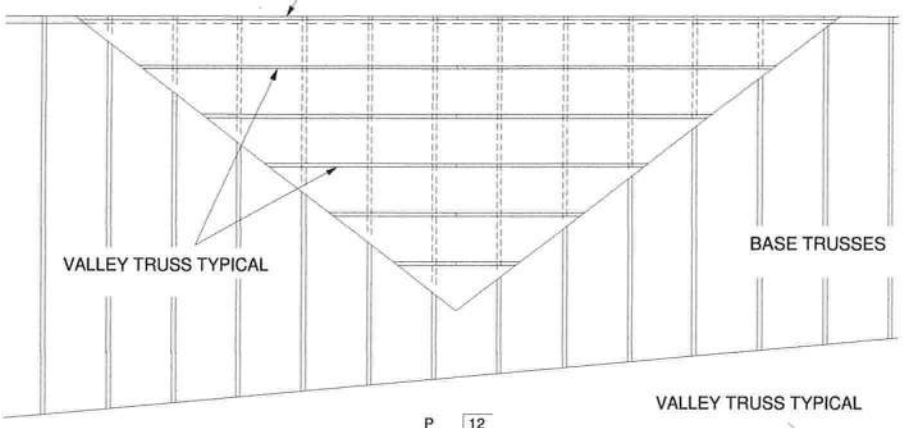
January 19, 2018

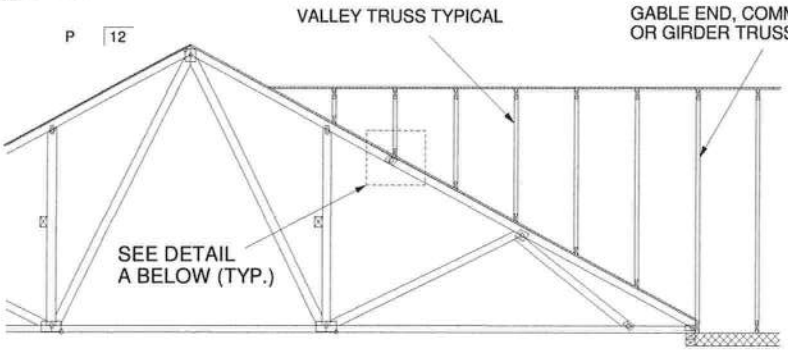
AUGUST 1, 2016	TRUSSED VALLEY SET DETAIL	MII-VALLEY HIGH WIND2

MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate

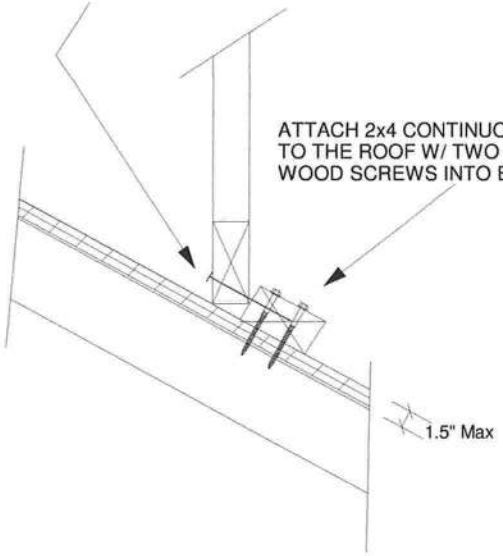
GENERAL SPECIFICATIONS

1. NAIL SIZE 10d (0.131" X 3")
2. WOOD SCREW = 4.5" WS45 USP OR EQUILIVANT
3. INSTALL SHEATHING TO TOP CHORD OF BASE TRUSSES.
4. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE TO BASE TRUSSES AS PER DETAIL A
5. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
6. NAILING DONE PER NDS-01
7. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.





SECURE VALLEY TRUSS W/ ONE ROW OF 10d NAILS 6" O.C.



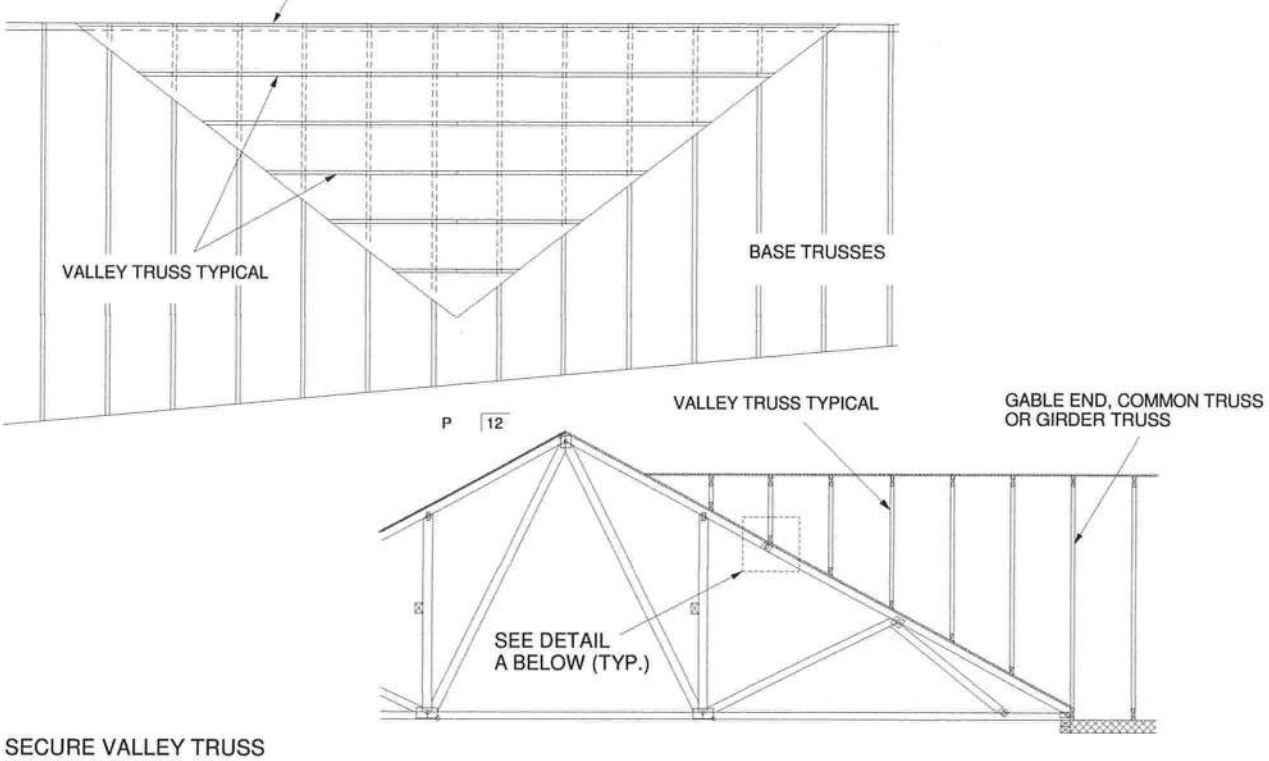
WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH
WIND DESIGN PER ASCE 7-10 160 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12
CATEGORY II BUILDING
EXPOSURE C
WIND DURATION OF LOAD INCREASE : 1.60
MAX TOP CHORD TOTAL LOAD = 50 PSF
MAX SPACING = 24" O.C. (BASE AND VALLEY)
MINIMUM REDUCED DEAD LOAD OF 6 PSF ON THE TRUSSES

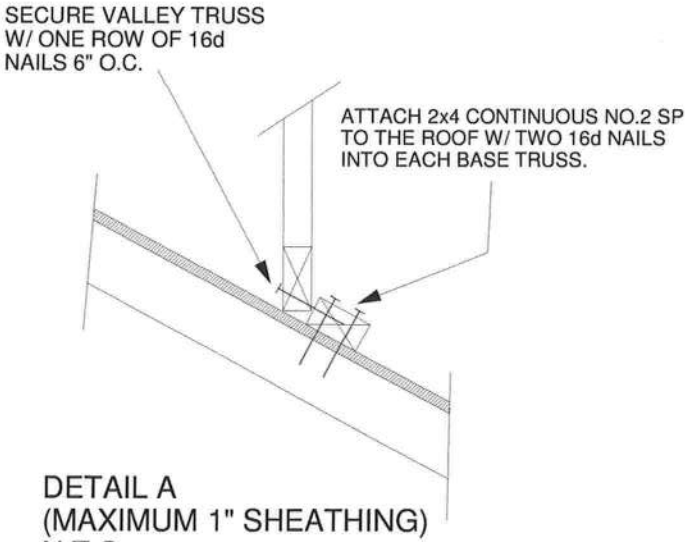
Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018

MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate

GENERAL SPECIFICATIONS

1. NAIL SIZE 16d (0.131" X 3.5")
2. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE PER DETAIL A
3. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
4. BASE TRUSS SHALL BE DESIGNED WITH A PURLIN SPACING EQUILIVANT TO THE RAKE DIMENSION OF THE VALLEY TRUSS SPACING.
5. NAILING DONE PER NDS - 01
6. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.
7. ALL LUMBER SPECIES TO BE SP.





DETAIL A
(MAXIMUM 1" SHEATHING)
N.T.S.

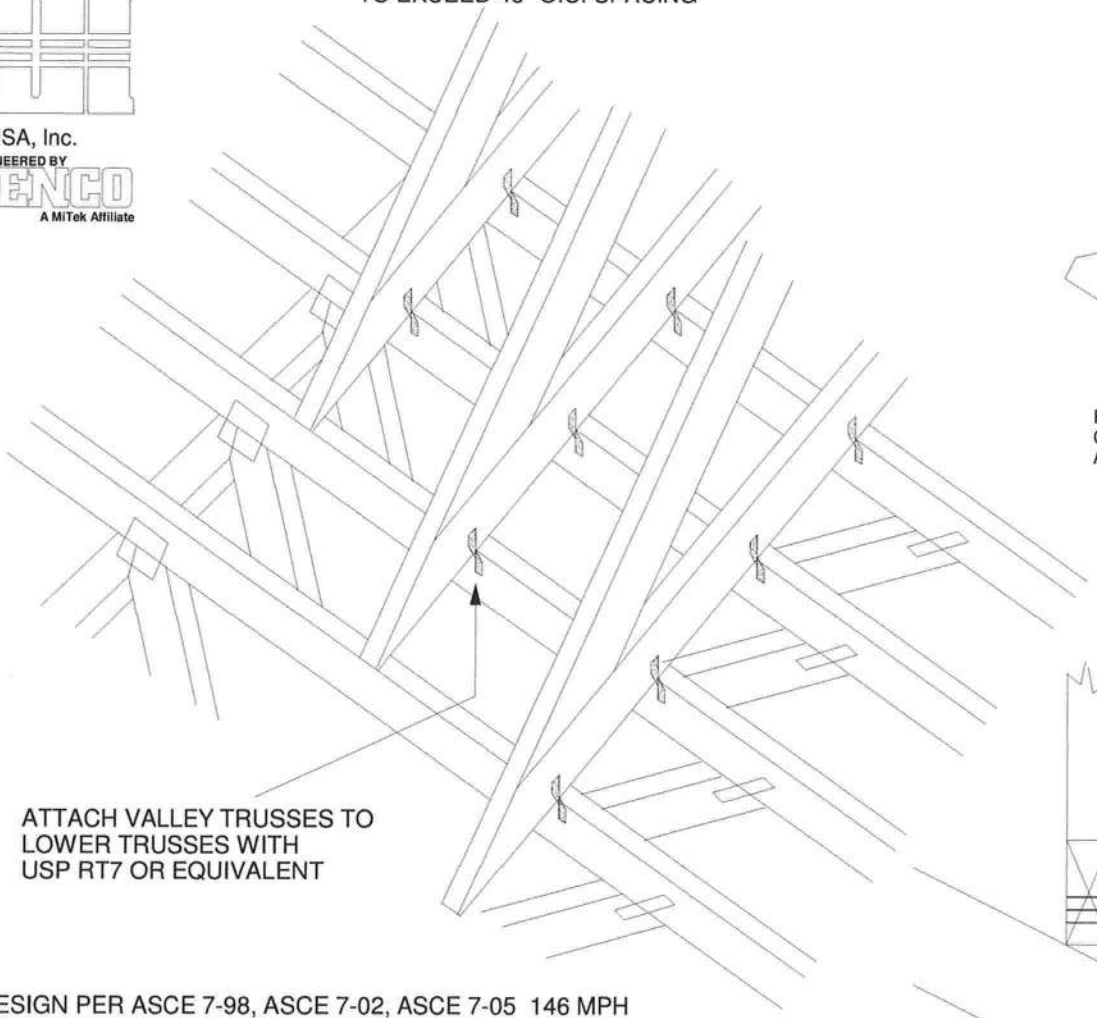
WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 120 MPH
WIND DESIGN PER ASCE 7-10 150 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
ROOF PITCH = MINIMUM 3/12 MAXIMUM 10/12
CATEGORY II BUILDING
EXPOSURE C OR B
WIND DURATION OF LOAD INCREASE : 1.60
MAX TOP CHORD TOTAL LOAD = 60 PSF
MAX SPACING = 24" O.C. (BASE AND VALLEY)
MINIMUM REDUCED DEAD LOAD OF 4.2 PSF ON THE TRUSSES

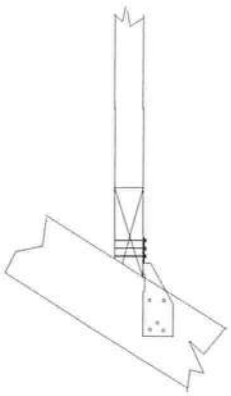
Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018

AUGUST 1, 2016	TRUSSED VALLEY SET DETAIL (HIGH WIND VELOCITY)	MII-VALLEY

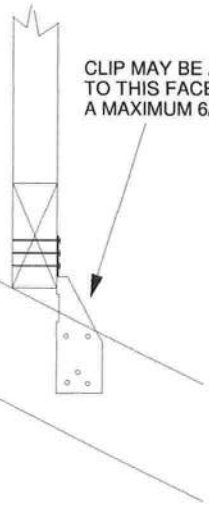
MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate

NOTE: VALLEY STUD SPACING NOT TO EXCEED 48" O.C. SPACING





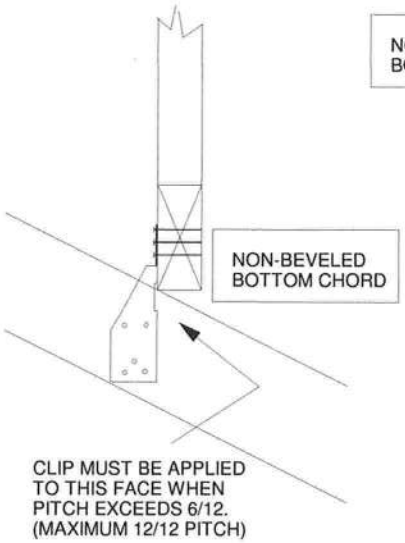
FOR BEVELED BOTTOM CHORD, CLIP MAY BE APPLIED TO EITHER FACE



WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH
WIND DESIGN PER ASCE 7-10 160 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C
WIND DURATION OF LOAD INCREASE : 1.6
MAX TOP CHORD TOTAL LOAD = 50 PSF
MAX SPACING = 24" O.C. (BASE AND VALLEY)

SUPPORTING TRUSSES DIRECTLY UNDER VALLEY TRUSSES MUST BE DESIGNED WITH A MAXIMUM UNBRACED LENGTH OF 2'-10" ON AFFECTED TOP CHORDS.

NOTES:
- SHEATHING APPLIED AFTER INSTALLATION OF VALLEY TRUSSES
- THIS DETAIL IS NOT APPLICABLE FOR SPF-S SPECIES LUMBER.

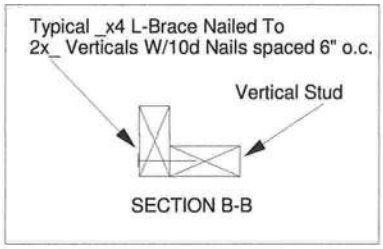


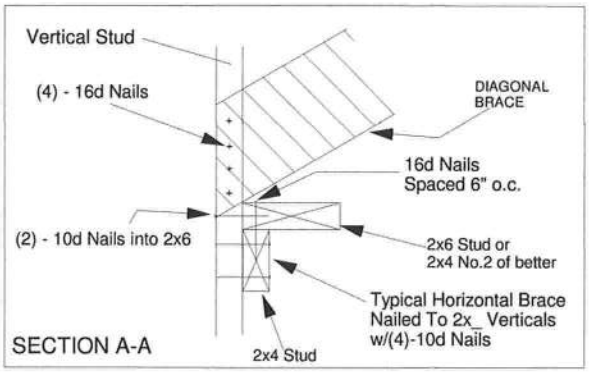
Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

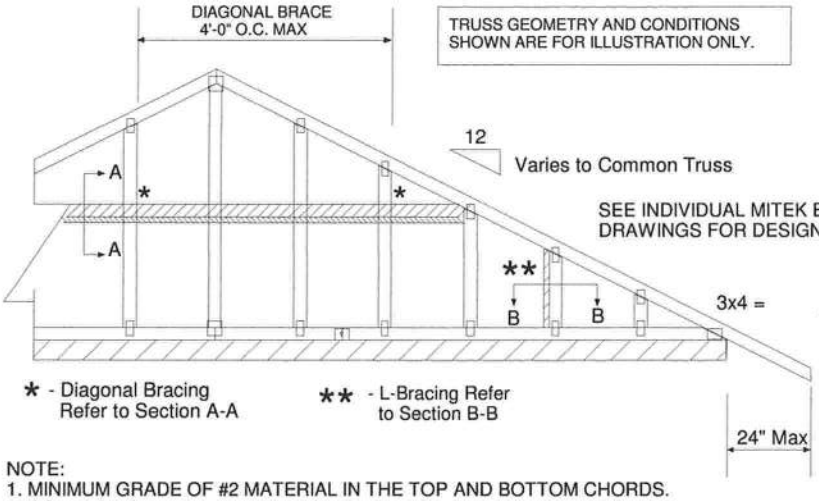
January 19, 2018

AUGUST 1, 2016	Standard Gable End Detail	MII-GE146-001

MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate







TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.

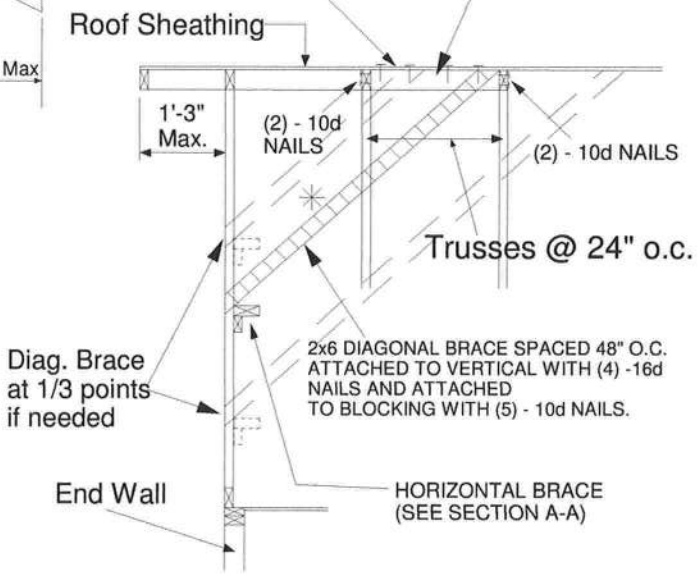
SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SP BLOCK

* - Diagonal Bracing Refer to Section A-A

** - L-Bracing Refer to Section B-B



NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 2x4 No 3/STUD SP OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length			
2x4 SP No 3/Stud	12" O.C.	3-11-3	6-8-0	7-2-14	11-9-10
2x4 SP No 3/Stud	16" O.C.	3-6-14	5-9-5	7-1-13	10-8-11
2x4 SP No 3/Stud	24" O.C.	3-1-8	4-8-9	6-2-15	9-4-7

✳ Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of web with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

MAXIMUM WIND SPEED = 146 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C
ASCE 7-98, ASCE 7-02, ASCE 7-05
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWFRS.

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

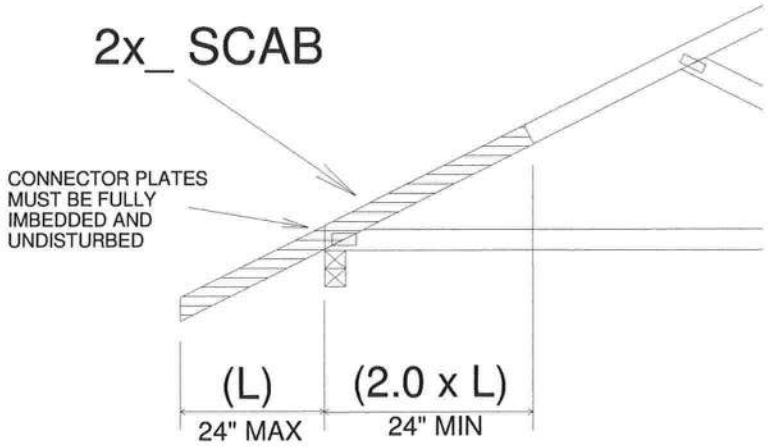
January 19, 2018

OCTOBER 5, 2016	REPLACE BROKEN OVERHANG	MII-REP13B

MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate

TRUSS CRITERIA:
LOADING: 40-10-0-10
DURATION FACTOR: 1.15
SPACING: 24" O.C.
TOP CHORD: 2x4 OR 2x6
PITCH: 4/12 - 12/12
HEEL HEIGHT: STANDARD HEEL UP TO 12" ENERGY HEEL
END BEARING CONDITION

NOTES:
1. ATTACH 2x_ SCAB (MINIMUM NO.2 GRADE SPF, HF, SP, DF) TO ONE FACE OF TRUSS WITH TWO ROWS OF 10d (0.131" X 3") SPACED 6" O.C.
2. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
3. WHEN NAILING THE SCABS, THE USE OF A BACKUP WEIGHT IS RECOMMENDED TO AVOID LOOSENING OF THE CONNECTOR PLATES AT THE JOINTS OR SPLICES.



IMPORTANT
This detail to be used only with trusses (spans less than 40') spaced 24" o.c. maximum and having pitches between 4/12 and 12/12 and total top chord loads not exceeding 50 psf.
Trusses not fitting these criteria should be examined individually.

REFER TO INDIVIDUAL TRUSS DESIGN FOR PLATE SIZES AND LUMBER GRADES

Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018

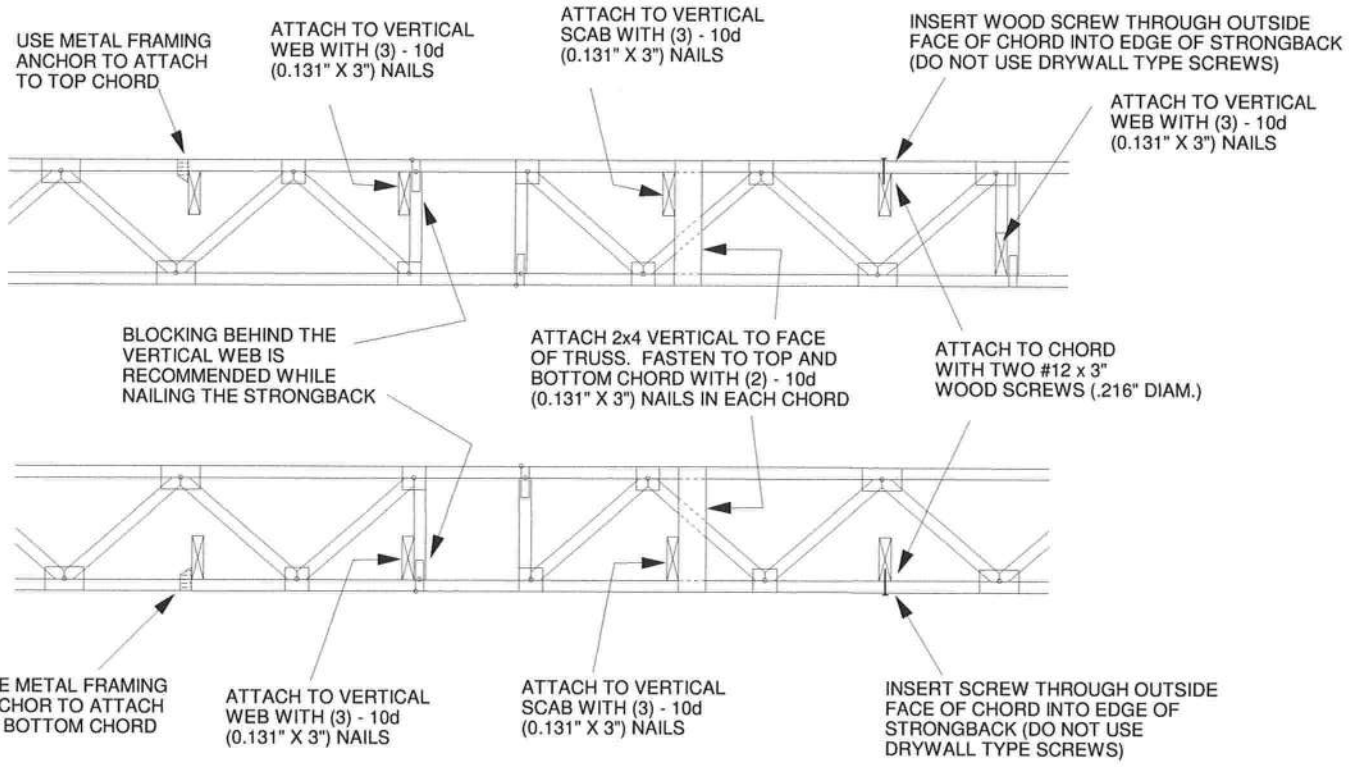
AUGUST 1, 2016	LATERAL BRACING RECOMMENDATIONS	MII-STRGBCK

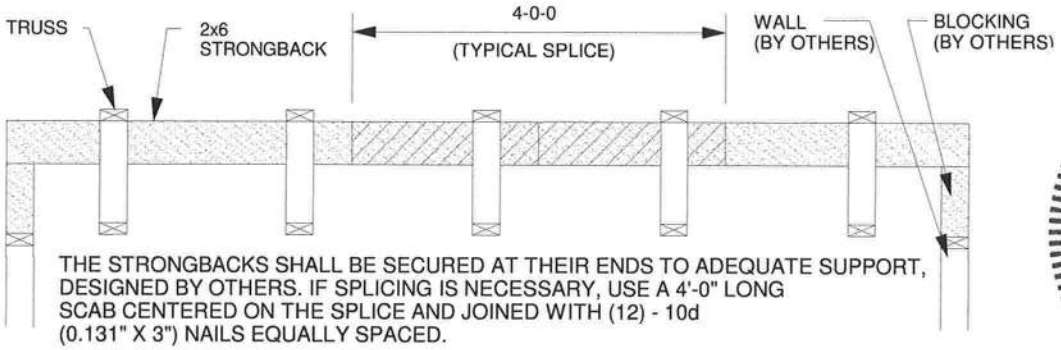
MiTek USA, Inc.
ENGINEERED BY TRENCO
A MiTek Affiliate

TO MINIMIZE VIBRATION COMMON TO ALL SHALLOW FRAMING SYSTEMS, 2x6 "STRONGBACK" IS RECOMMENDED, LOCATED EVERY 8 TO 10 FEET ALONG A FLOOR TRUSS.

NOTE 1: 2X6 STRONGBACK ORIENTED VERTICALLY MAY BE POSITIONED DIRECTLY UNDER THE TOP CHORD OR DIRECTLY ABOVE THE BOTTOM CHORD. SECURELY FASTENED TO THE TRUSS USING ANY OF THE METHODS ILLUSTRATED BELOW.

NOTE 2: STRONGBACK BRACING ALSO SATISFIES THE LATERAL BRACING REQUIREMENTS FOR THE BOTTOM CHORD OF THE TRUSS WHEN IT IS PLACED ON TOP OF THE BOTTOM CHORD, IS CONTINUOUS FROM END TO END, CONNECTED WITH A METHOD OTHER THAN METAL FRAMING ANCHOR, AND PROPERLY CONNECTED, BY OTHERS, AT THE ENDS.

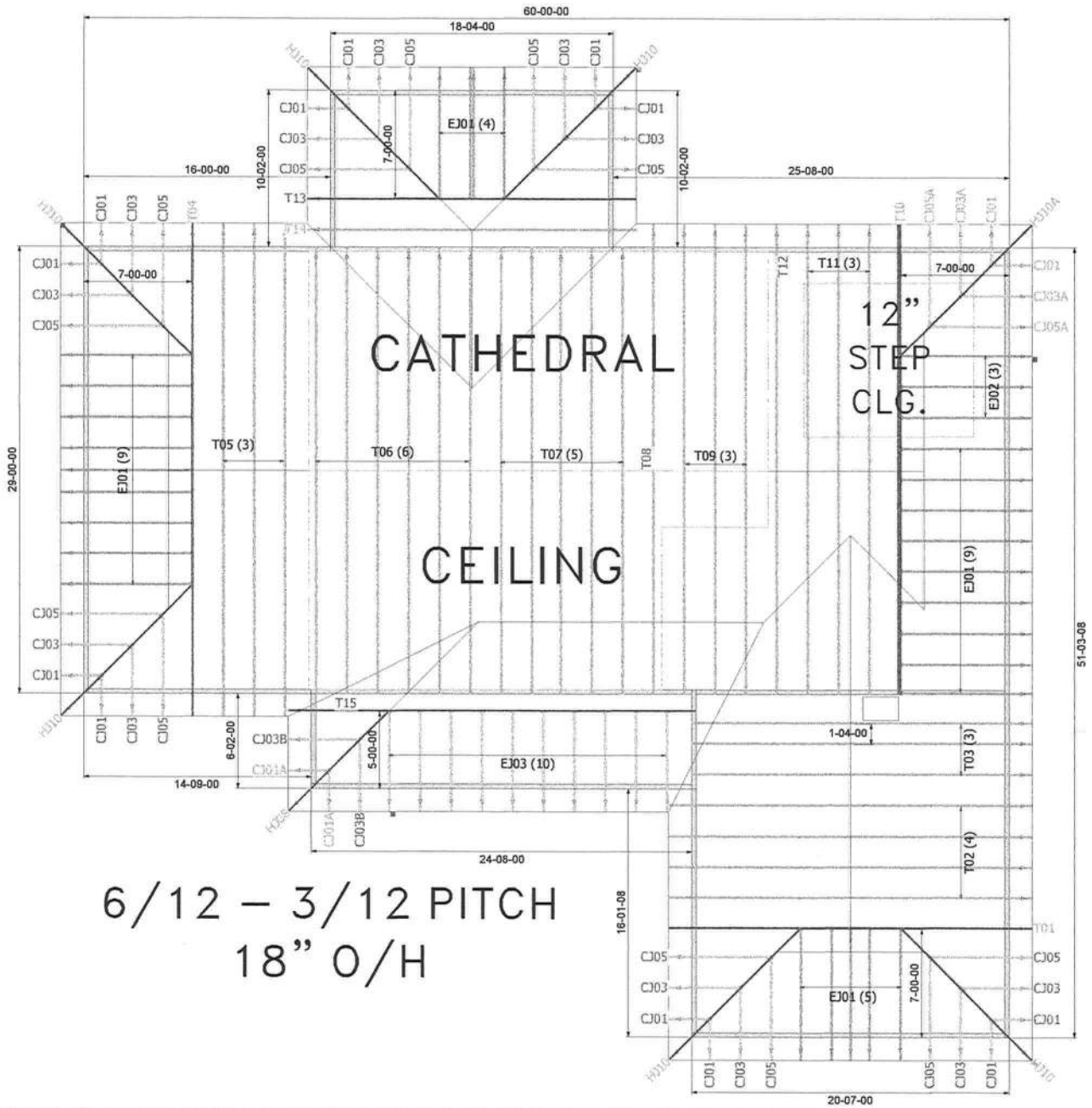




THE STRONGBACKS SHALL BE SECURED AT THEIR ENDS TO ADEQUATE SUPPORT, DESIGNED BY OTHERS. IF SPLICING IS NECESSARY, USE A 4'-0" LONG SCAB CENTERED ON THE SPLICE AND JOINED WITH (12) - 10d (0.131" X 3") NAILS EQUALLY SPACED.

ALTERNATE METHOD OF SPLICING:
OVERLAP STRONGBACK MEMBERS A MINIMUM OF 4'-0" AND FASTEN WITH (12) - 10d (0.131" X 3") NAILS STAGGERED AND EQUALLY SPACED.
(TO BE USED ONLY WHEN STRONGBACK IS NOT ALIGNED WITH A VERTICAL)

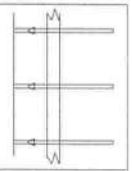
Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:
February 12, 2018



6/12 – 3/12 PITCH
18" O/H

MITEK PLATE APPROVAL #'S 2197.2–2197.4, BOISE EWP PRODUCT #'S LVL FL1644–R2, BCI JOISTS FL1392–R2

THE ARROW HEAD AT THE END OF THE TRUSS ON THE TRUSS PLACEMENT PLAN (LAYOUT) CORRESPONDS WITH THE LEFT SIDE OF THE INDIVIDUAL TRUSS DRAWING. USE THIS AS AN ORIENTATION GUIDE WHEN SETTING THE TRUSSES ON THE STRUCTURE.



General Notes:

- Per ANSI/TPI 1-2002 all "Truss to Wall" connections are the responsibility of the Building Designer, not the Truss Manufacturer.
- Use Manufacturer's specifications for all hanger connections unless noted otherwise.
- Trusses are to be 24" o.c. U.N.O.
- All hangers are to be Simpson or equivalent U.N.O.- Use 10d x 1 1/2" Nails in hanger connections to single ply girder trusses.
- Trusses are not designed to support brick U.N.O.
- Dimensions are Feet-Inches- Sixteenths

Notes:

No back charges will be accepted by Builders FirstSource unless approved in writing first. 850-835-4541

ACQ lumber is corrisive to truss plates. Any ACQ lumber that comes in contact with truss plates (i.e. scabbed on tails) must have an approved barrier applied first.

Refer to BCSI-B1 Summary Sheet-Guide for handling, Installing and Bracing of Metal Plate Connected Wood Truss prior to and during truss installation.

It is the responsibility of the Contractor to ensure of the proper orientation of the truss placement plans as to the construction documents and field conditions of the structure orientation. If a reversed or flipped layout is required, it will be supplied at no extra cost by Builders FirstSource.

It is the responsibility of the Contractor to make sure the placement of trusses are adjusted for plumbing drops, can lights, ect.... so the trusses do not interfere with these type of items.

All common framed roof or floor systems must be designed as to NOT impose any loads on the floor trusses below. The floor trusses have not been designed to carry any additional loads from above.

This truss placement plan was not created by an engineer, but rather by the Builders FirstSource staff and is solely to be used as an installation guide and does not require a seal. Complete truss engineering and analysis can be found on the truss design drawings which may be sealed by the truss design engineer.

Gable end trusses require continuous bottom chord bearing. Refer to local codes for wall framing requirements.

Although all attempts have been made to do so, trusses may not be designed symmetrically. Please refer to the individual truss drawings and truss placement plans for proper orientation and placement.

Builders FIRSTSOURCE

Lake City
PHONE: 386-755-6894
FAX: 386-755-7973

Jacksonville
PHONE: 904-772-6100
FAX: 904-772-1973

Tallahassee
PHONE: 850-576-5177

Builder: NORRIS CONST.

Legal Address: Spec at Stonehenge

Model: Custom

Date:	Drawn By:	Original Ref #:
4-8-21	KLH	2742669
Floor 1 Job#:	Floor 2 Job#:	Roof Job #:
N/A	N/A	2742669