



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

RE: 3277182 - JOHN NORRIS CONST. - J. MOORE RES.

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Site Information:

Customer Info: JOHN NORRIS CONST. Project Name: J. Moore Res. Model: Custom
Lot/Block: N/A Subdivision: N/A
Address: TBD, TBD
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
Wind Code: ASCE 7-16
Roof Load: 37.0 psf

Design Program: MiTek 20/20 8.5
Wind Speed: 130 mph
Floor Load: N/A psf

This package includes 5 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
1	T28708377	T01	9/6/22
2	T28708378	T01A	9/6/22
3	T28708379	T01G	9/6/22
4	T28708380	T02	9/6/22
5	T28708381	T02G	9/6/22

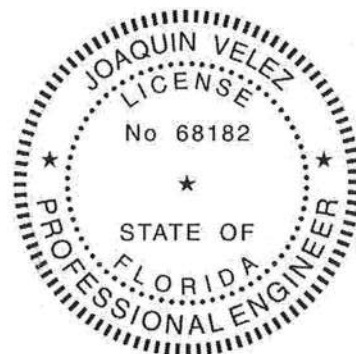


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The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision based on the parameters
provided by Builders FirstSource-Lake City, FL.

Truss Design Engineer's Name: Velez, Joaquin
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.



Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

September 6, 2022

Velez, Joaquin

1 of 1

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS CONST. - J. MOORE RES.
3277182	T01	Attic	4	1	T28708377

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

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ID:7WKr8toudn35dxwKwBAfQtyHta-2JfwNO5IM51TNEm38eboU2_uwOgPBbB7y38ZJsygRVJ

1-4-0	6-2-0	9-10-4	12-5-1	13-1-14	16-0-0	18-10-2	19-6-15	22-1-12	25-10-0	32-0-0	33-4-0
1-4-0	6-2-0	3-8-4	2-6-13	0-8-13	2-10-2	2-10-2	0-8-13	2-6-13	3-8-4	6-2-0	1-4-0

Scale = 1:70.8

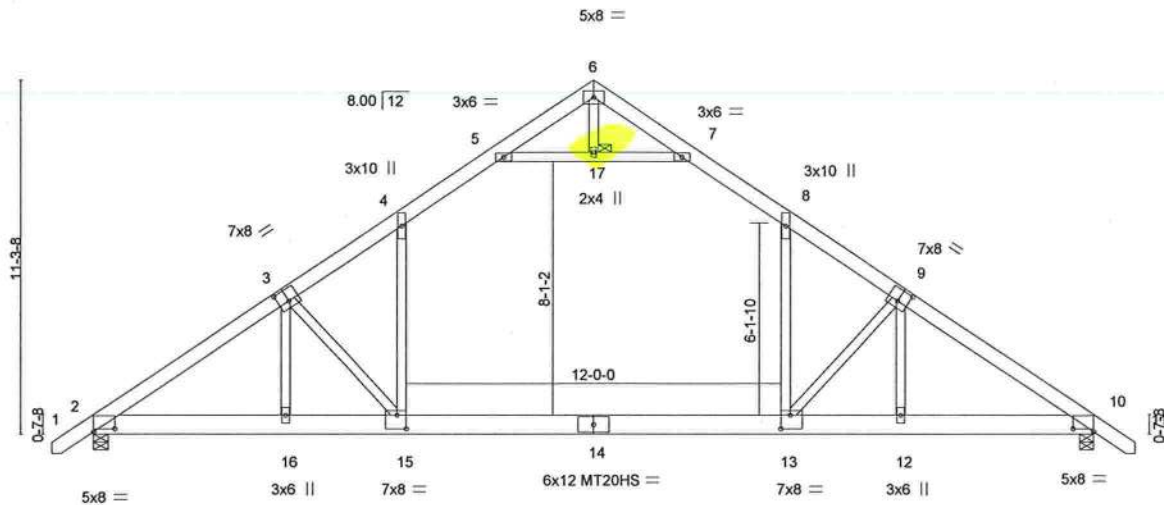


Plate Offsets (X,Y)→	[2:0-8-0,0-1-3], [3:0-4-0,0-4-8], [9:0-4-0,0-4-8], [10:0-8-0,0-1-3], [13:0-3-8,0-5-4], [15:0-3-8,0-5-4]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.65	Vert(LL)	-0.37 13-15	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.49	Vert(CT)	-0.68 13-15	>567	180	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.63	Horz(CT)	0.03 10	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS	Attic	-0.18 13-15	798	360		
								Weight: 253 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP M 26 *Except*
1-3,9-11: 2x6 SP No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-3-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 17

REACTIONS.

(size) 2=0-5-8, 10=0-5-8
Max Horz 2=-252(LC 10)
Max Uplift 2=-83(LC 12), 10=-83(LC 13)
Max Grav 2=1756(LC 20), 10=1756(LC 21)

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

TOP CHORD 2-3=-2672/59, 3-4=-2625/18, 4-5=-1782/100, 5-6=0/509, 6-7=0/509, 7-8=-1782/100,
8-9=-2624/18, 9-10=-2673/60
BOT CHORD 2-16=-108/2377, 15-16=-109/2376, 13-15=0/1975, 12-13=0/2188, 10-12=0/2189
WEBS 5-17=-2499/50, 7-17=-2499/50, 8-13=0/1292, 9-13=-646/307, 9-12=-387/139,
4-15=0/1292, 3-15=-646/306, 3-16=-387/139

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCp=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-2-5 to 2-0-2, Interior(1) 2-0-2 to 16-0-0, Exterior(2R) 16-0-0 to 19-2-4, Interior(1) 19-2-4 to 33-2-5 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Ceiling dead load (5.0 psf) on member(s). 4-5, 7-8, 5-17, 7-17; Wall dead load (5.0psf) on member(s).8-13, 4-15
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 13-15
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
- Attic room checked for L/360 deflection.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Jonquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
Date:

September 6,2022



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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

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1-4-0	6-2-0	9-10-4	12-5-1	13-1-14	16-0-0	18-10-2	19-6-15	22-1-12	25-10-0	32-0-0	33-4-0
1-4-0	6-2-0	3-8-4	2-6-13	0-8-13	2-10-2	2-10-2	0-8-13	2-6-13	3-8-4	6-2-0	1-4-0

Scale = 1:72.2

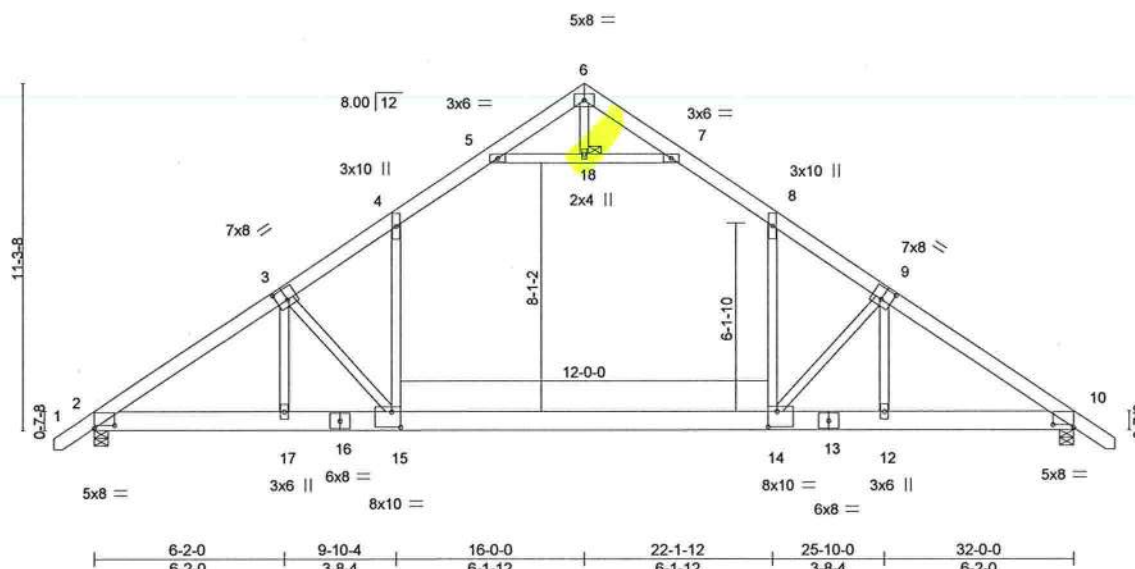


Plate Offsets (X,Y)--		2-0-8-0,0-1-3,	3-0-4-0,0-4-8,	9-0-4-0,0-4-8,	10-0-8-0,0-1-3,	14-0-3-8,0-6-0,	15-0-3-8,0-6-0		
LOADING (psf)			SPACING- 2-4-0		CSI.	DEFL. in (loc)	l/defl L/d	PLATES	GRIP
TCLL 20.0			Plate Grip DOL 1.25		TC 0.87	Vert(LL) -0.44 14-15	>880 240	MT20	244/190
TCDL 7.0			Lumber DOL 1.25		BC 0.63	Vert(CT) -0.79 14-15	>486 180		
BCLL 0.0 *			Rep Stress Incr NO		WB 0.84	Horz(CT) 0.04 10	n/a n/a		
BCDL 10.0			Code FBC2020/TPI2014		Matrix-MS	Attic -0.22 14-15	684 360	Weight: 253 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP M 26 *Except*
 1-3,9-11: 2x6 SP No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SP No.3

BRACING-	
TOP CHORD	Structural wood sheathing directly applied or 3-11-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS	1 Brace at Jt(s): 18

REACTIONS. (size) 2=0-5-8, 10=0-5-8
 Max Horz 2=-295(LC 10)
 Max Uplift 2=-97(LC 12), 10=-97(LC 13)
 Max Grav 2=2048(LC 20), 10=2048(LC 21)

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

TOP CHORD 2-3=-3117/69, 3-4=-3062/21, 4-5=-2079/116, 5-6=0/593, 6-7=0/593, 7-8=-2079/116,
8-9=-3062/21, 9-10=-3118/70

BOT CHORD 2-17=-126/2773, 15-17=-127/2772, 14-15=0/2304, 12-14=0/2552, 10-12=0/2553

WEBS 5-18=-2916/58, 7-18=-2916/58, 8-14=0/1508, 9-14=-754/358, 9-12=-452/163,
4-15=0/1508, 3-15=-754/357, 3-17=-452/163

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCFL=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) -1-2-5 to 2-0-2, Interior(1) 2-0-2 to 16-0-0, Exterior(2R) 16-0-0 to 19-2-4, Interior(1) 19-2-4 to 33-2-5 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) Ceiling dead load (5.0 psf) on member(s). 4-5, 7-8, 5-18, 7-18; Wall dead load (5.0psf) on member(s). 8-14, 4-15
 - 7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 14-15
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
 - 9) Attic room checked for L/360 deflection.

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Date:

September 6, 2022

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

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Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS CONST. - J. MOORE RES.
3277182	T02	Scissor	6	1	T28706380

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

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ID: 7Wkr8toudn35dxwKwBAfQytHla-PGSpQ69tAdfmT?e0xBzB5hkmPK3sok5LrK_4ygRVE

1-4-0 5-7-0 10-3-8 16-0-0 21-8-8 26-5-0 32-0-0 33-4-0
1-4-0 5-7-0 4-8-8 5-8-8 4-8-8 5-7-0 1-4-0

Scale = 1:72.2

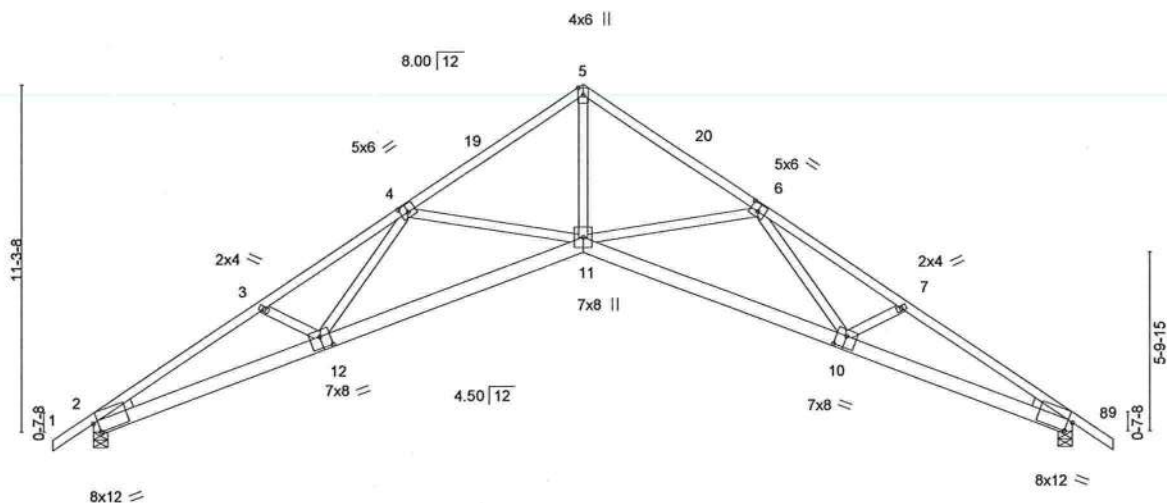


Plate Offsets (X,Y)--	[2:0-1-13,0-4-1], [4:0-3-0,0-3-0], [6:0-3-0,0-3-0], [8:0-1-13,0-4-1], [10:0-4-0,0-4-8], [12:0-4-0,0-4-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.71	Vert(LL)	-0.31 11-12	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.65	Vert(CT)	-0.61 11-12	>630	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.86	Horz(CT)	0.49 8	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 191 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except*
2-12,8-10: 2x6 SP M 26
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 2-3-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-11-3 oc bracing.

REACTIONS.

(size) 2=0-5-8, 8=0-5-8
Max Horz 2=-255(LC 10)
Max Uplift 2=-261(LC 12), 8=-261(LC 13)
Max Grav 2=1256(LC 1), 8=1256(LC 1)

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

TOP CHORD 2-3=-3326/746, 3-4=-3081/695, 4-5=-2387/405, 5-6=-2387/433, 6-7=-3081/498,
7-8=-3326/537
BOT CHORD 2-12=-732/2907, 11-12=-539/2642, 10-11=-314/2618, 8-10=-380/2840
WEBS 5-11=-351/2259, 6-11=-579/348, 6-10=-117/377, 4-11=-564/335, 4-12=-90/377

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=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) -1-4-0 to 1-10-6, Interior(1) 1-10-6 to 16-0-0, Exterior(2R) 16-0-0 to 19-2-6, Interior(1) 19-2-6 to 33-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 2, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=261, 8=261.

This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joaquin Velez PE No.68182
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd.
Chesterfield, MO 63017
Date:

September 6, 2022



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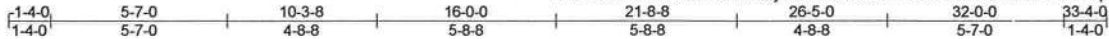
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	JOHN NORRIS CONST. - J. MOORE RES.
3277182	T02G	GABLE	1	1	T28708381

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

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ID:7WKr8toudn35dxwKwBAfQlytHta-LfaaroB8IfvUJoP3cDRGWnAFD5MKtq1ZfKQ2yvgRVC



4x6 =

Scale = 1:69.9

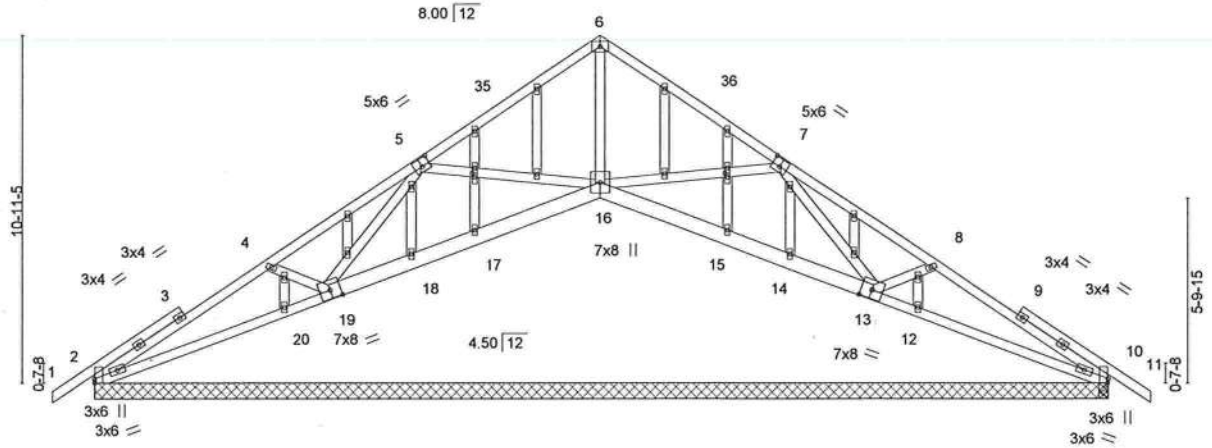


Plate Offsets (X,Y) - [2:0-1-8,0-0-2], [5:0-3-0,0-3-0], [7:0-3-0,0-3-0], [10:0-1-8,0-0-2], [13:0-4-0,0-3-4], [19:0-4-0,0-3-4], [23:0-1-8,0-1-0], [31:0-1-8,0-1-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.32	Vert(LL)	-0.03 10-12	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.28	Vert(CT)	-0.06 10-12	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.19	Horz(CT)	0.01 10	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-S						
								Weight: 214 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
16-19,13-16: 2x6 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

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

REACTIONS. All bearings 32-0-0.
(lb) - Max Horz 2=247(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 16 except 19=272(LC 12),
13=248(LC 13), 2=133(LC 13), 10=136(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 17, 18, 15, 14 except 19=432(LC 19),
13=411(LC 24), 16=576(LC 1), 20=265(LC 3), 12=265(LC 3), 2=316(LC 23),
10=316(LC 24), 10=315(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-294/152, 8-10=-294/140
BOT CHORD 2-20=-165/316, 19-20=-168/278
WEBS 6-16=-353/78, 7-13=-383/156, 8-13=-295/210, 5-19=-383/183, 4-19=-298/212

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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) -1-4-0 to 1-10-6, Interior(1) 1-10-6 to 16-0-0, Exterior(2R) 16-0-0 to 19-2-6, Interior(1) 19-2-6 to 33-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16 except (it=lb) 19=272, 13=248, 2=133, 10=136.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Joaquin Velez PE No.68182
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Date:

September 6,2022

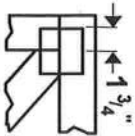
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

MITek

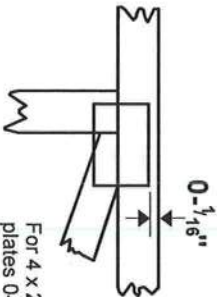
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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- $\frac{1}{16}$ " from outside edge of truss.

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

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

PLATE SIZE

4 X 4

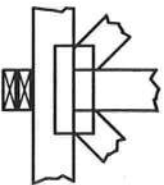
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



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

Industry Standards:

ANSI/TP1: National Design Specification for Metal

DSB-89: Plate Connected Wood Truss Construction.

BCSI: Design Standard for Bracing.

Building Component Safety Information,

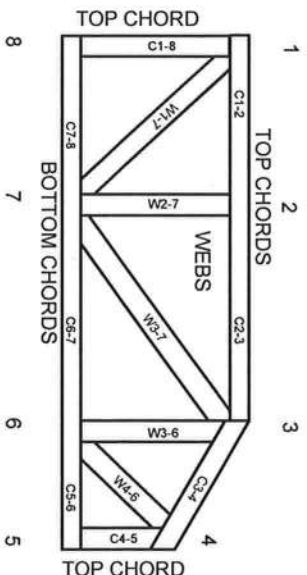
Guide to Good Practice for Handling,

Installing & Bracing of Metal Plate

Connected Wood Trusses.

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

Lumber design values are in accordance with ANSI/TP1 1 section 6.3. These truss designs rely on lumber values established by others.

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



General Safety Notes

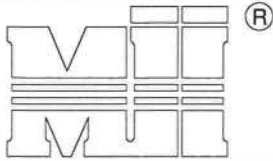
Failure to Follow Could Cause Property Damage or Personal Injury

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 for bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

AUGUST 1, 2016

T-BRACE / I-BRACE DETAIL WITH 2X BRACE ONLY

MII-T-BRACE 2



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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

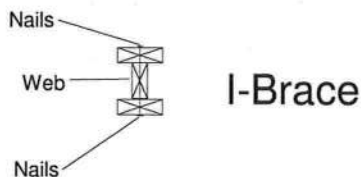
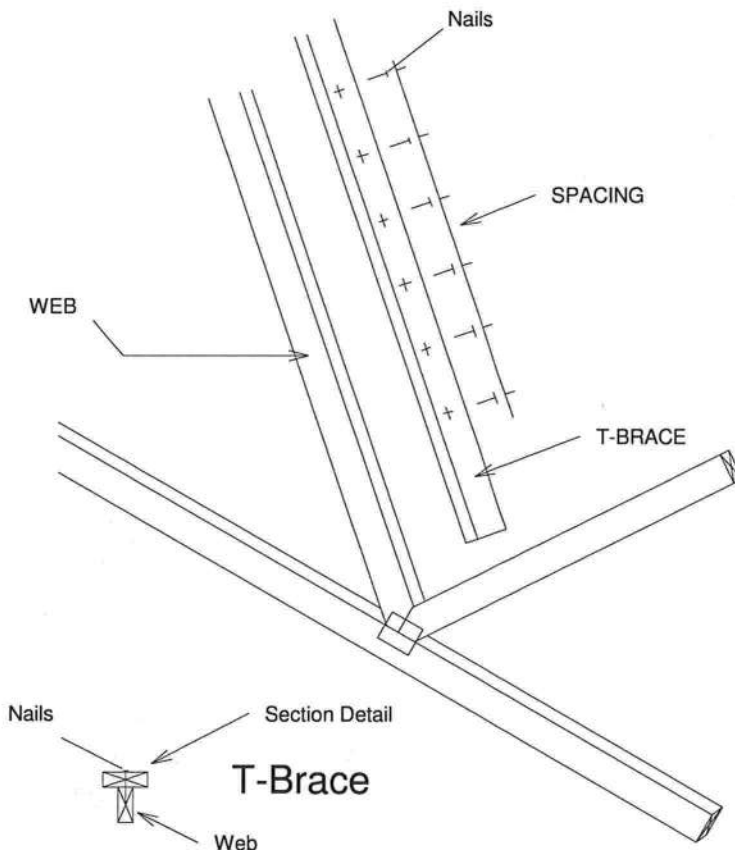
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

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.



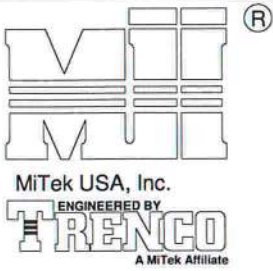
Thomas A. Albani PE No.39380
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

February 12, 2018

AUGUST 1, 2016

SCAB-BRACE DETAIL

MII-SCAB-BRACE



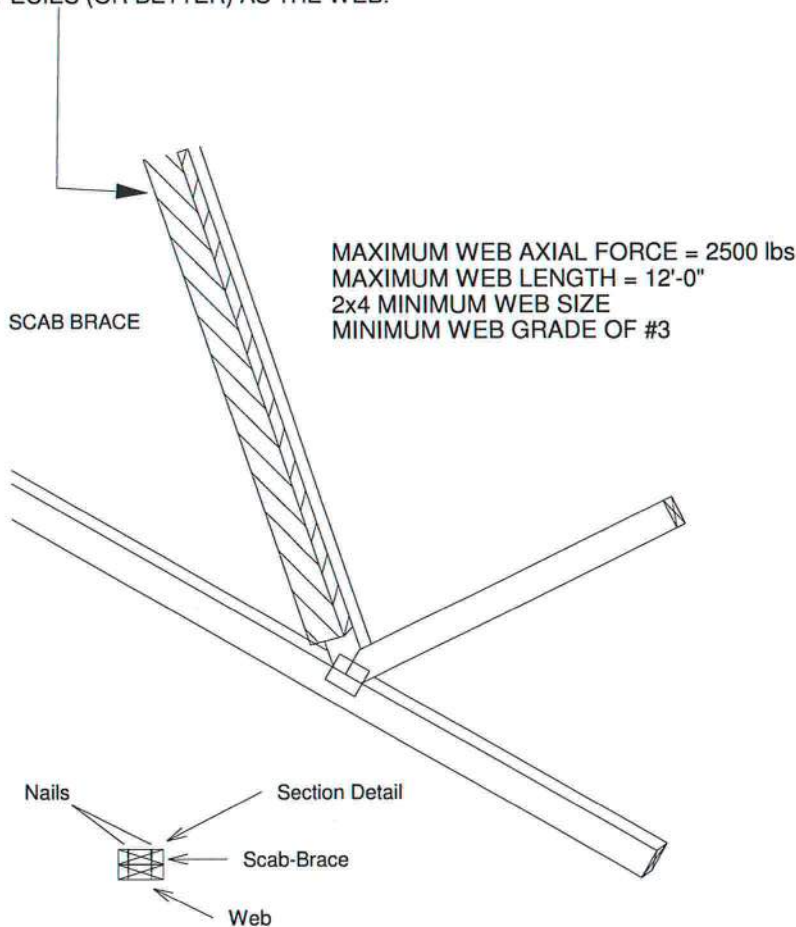
MiTek USA, Inc.

Page 1 of 1

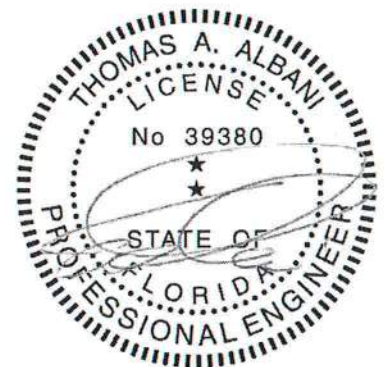
Note: Scab-Bracing to be used when continuous lateral bracing at midpoint (or T-Brace) is impractical.
Scab must cover full length of web +/- 6".

*** THIS DETAIL IS NOT APPLICABLE 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.



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



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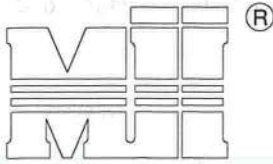
February 12, 2018

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STANDARD REPAIR TO REMOVE END VERTICAL (RIBBON NOTCH VERTICAL)

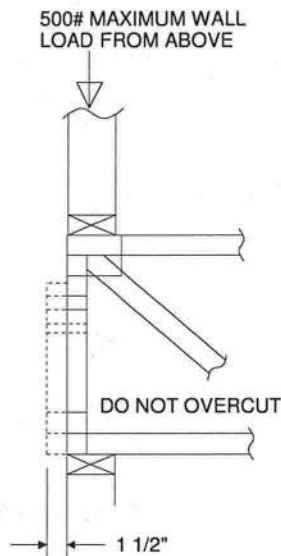
MII-REP05

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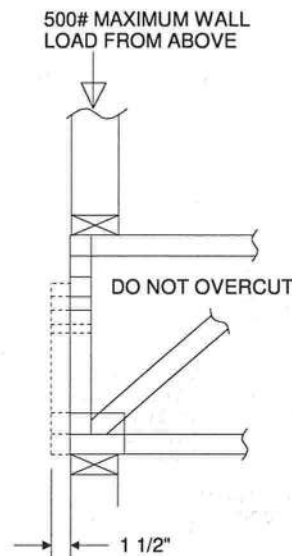


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1. THIS IS A SPECIFIC REPAIR DETAIL TO BE USED ONLY FOR ITS ORIGINAL INTENTION. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN 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.



REFER TO INDIVIDUAL TRUSS DESIGN FOR PLATE SIZES AND LUMBER GRADES



TRUSSES BUILT WITH 4x2 MEMBERS

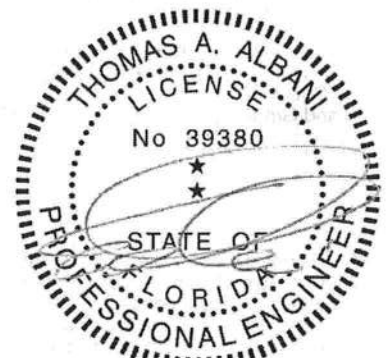


REFER TO INDIVIDUAL TRUSS DESIGN FOR PLATE SIZES AND LUMBER GRADES



TRUSSES BUILT WITH 4x2 MEMBERS

ATTACH 2x4 SQUASH BLOCK (CUT TO FIT TIGHTLY) TO BOTH SIDES OF THE TRUSS AS SHOWN WITH 10d (0.131" X 3") NAILS SPACED 3" O.C.



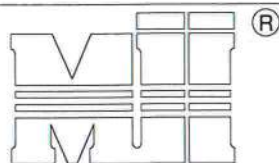
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MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

February 12, 2018

AUGUST 1, 2016

Standard Gable End Detail

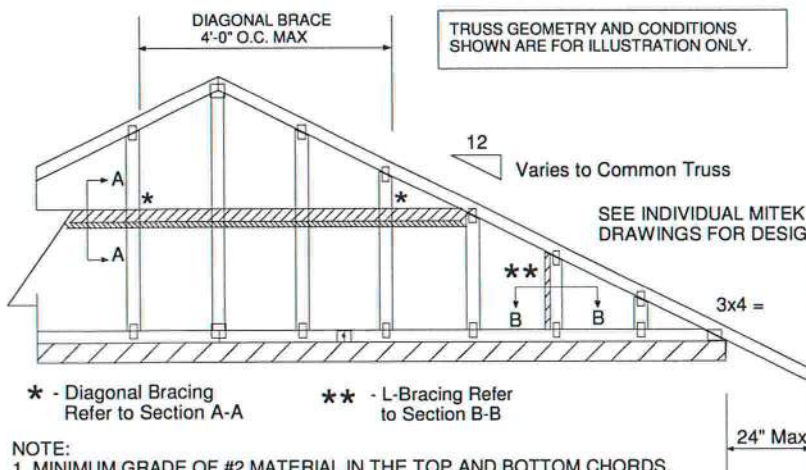
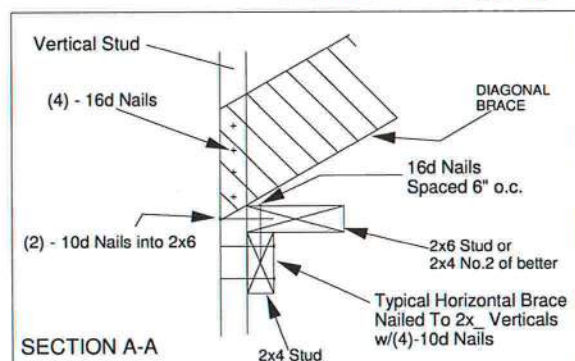
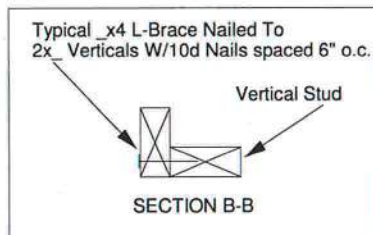
MII-GE130-D-SP



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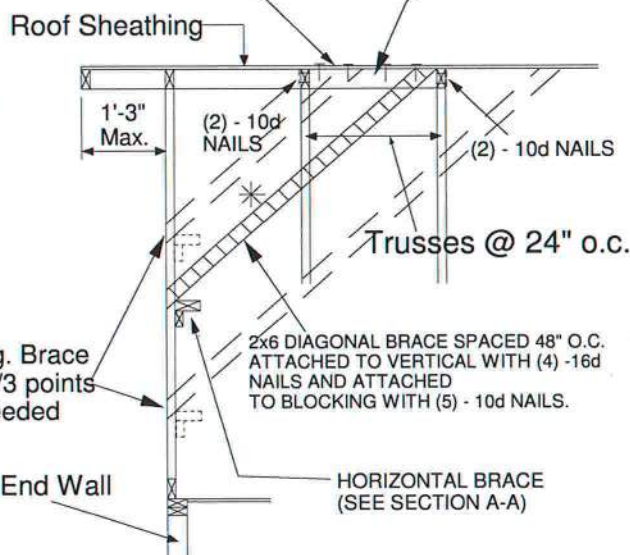
MiTek USA, Inc. Page 1 of 2



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



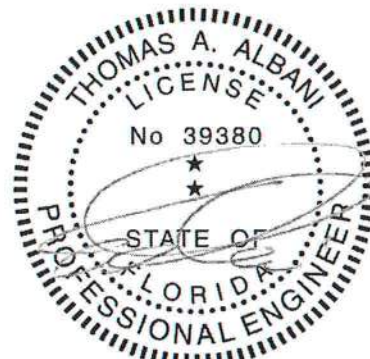
NOTE:

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.	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.

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 Date:

February 12, 2018

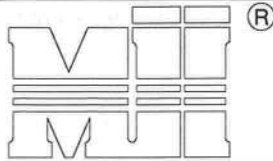
AUGUST 1, 2016

Standard Gable End Detail

MII-GE130-SP

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Page 1 of 2



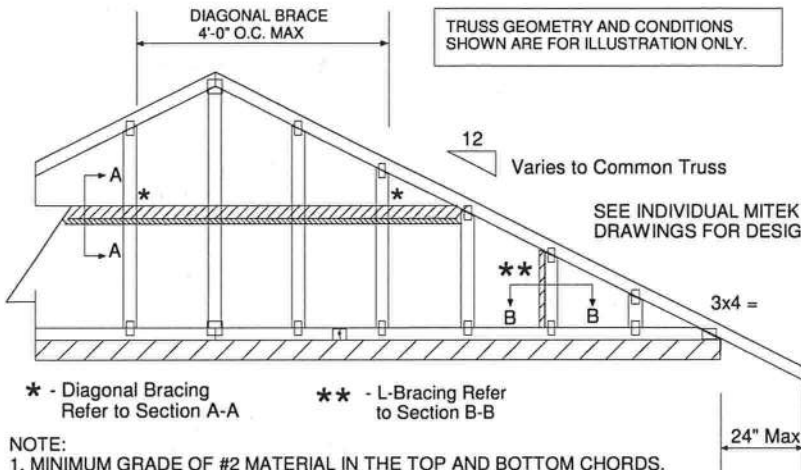
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Typical 1x4 L-Brace Nailed To
2x Verticals w/10d Nails spaced 6" o.c.

Vertical Stud

SECTION B-B

TRUSS GEOMETRY AND CONDITIONS
SHOWN ARE FOR ILLUSTRATION ONLY.



NOTE:

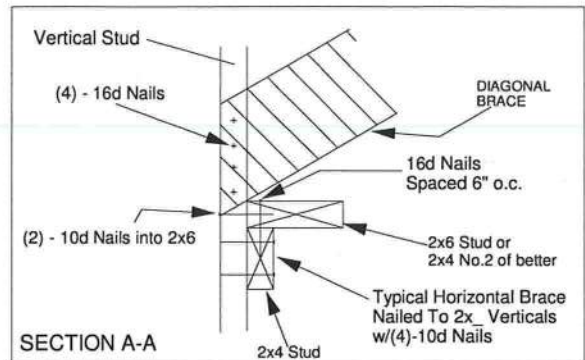
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF 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 l-braces attached to both edges. Fasten T and l 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

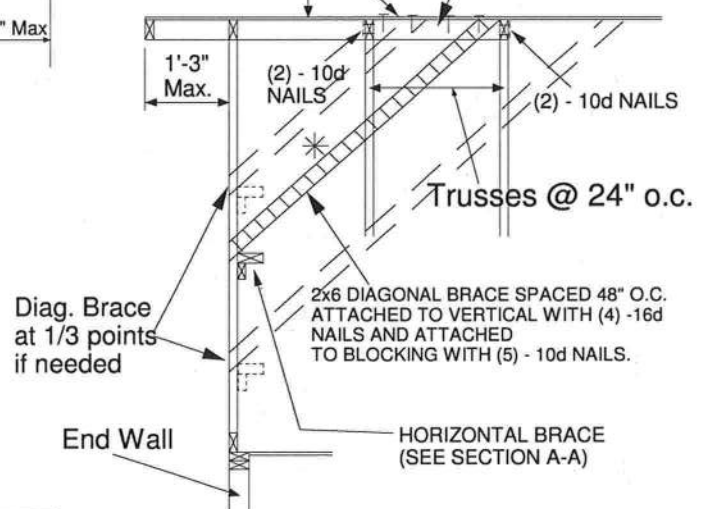
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWFRS.



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

Roof Sheathing



Thomas A. Albani PE No. 39380
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6904 Parke East Blvd. Tampa FL 33610
Date:

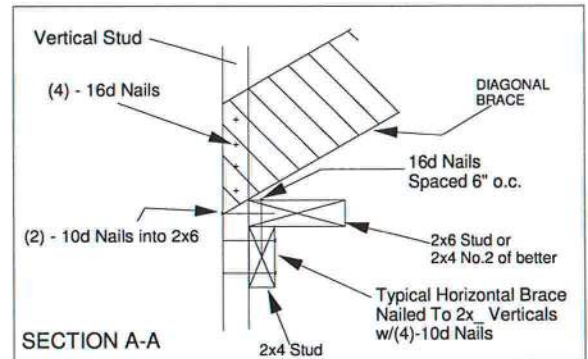
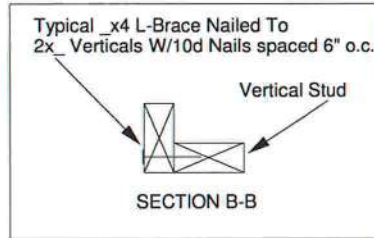
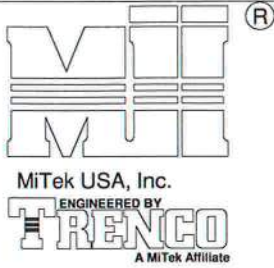
February 12, 2018

JANUARY 6, 2017

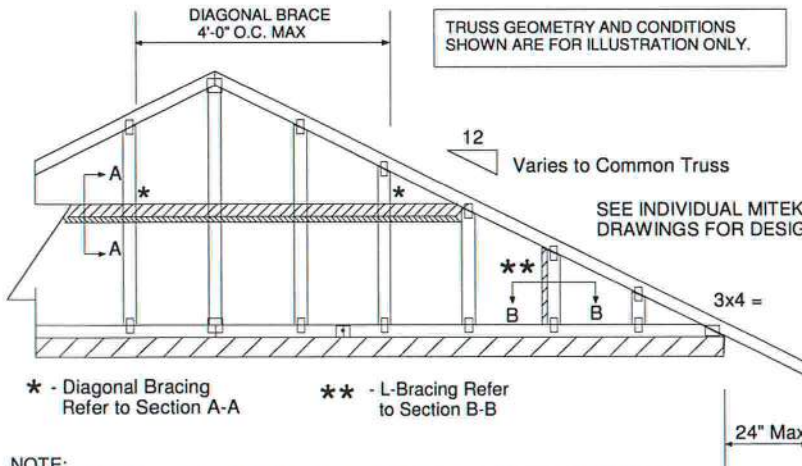
Standard Gable End Detail

MII-GE140-001

MiTek USA, Inc. Page 1 of 2



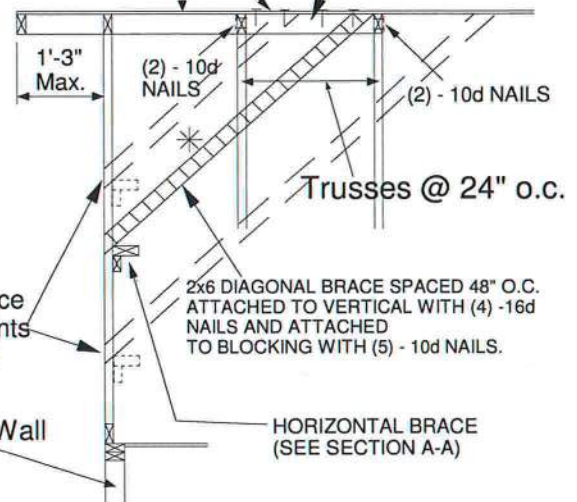
TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.



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 DF/SPF BLOCK

Roof Sheathing



NOTE:

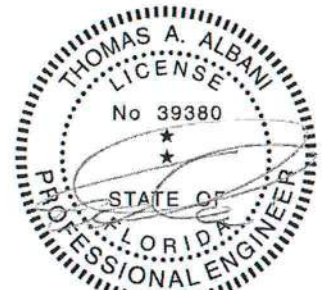
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF 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.



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Date:

January 19, 2018

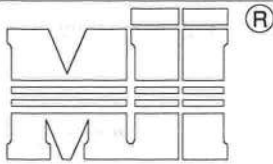
AUGUST 1, 2016

Standard Gable End Detail

MII-GE170-D-SP

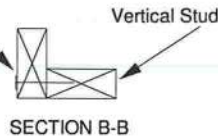
MiTek USA, Inc.

Page 1 of 2



MiTek USA, Inc.
ENGINEERED BY
TRENCO
A MiTek Affiliate

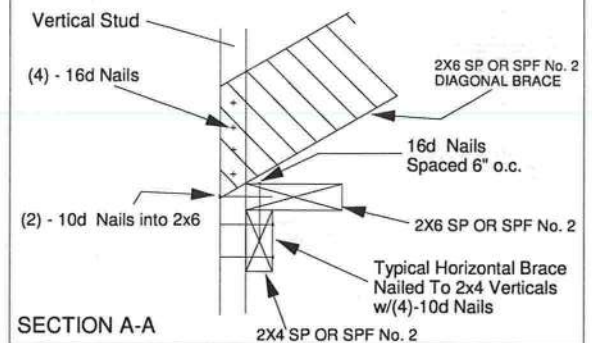
Typical 2x4 L-Brace Nailed To
2x4 Verticals W/10d Nails spaced 6" o.c.



TRUSS GEOMETRY AND CONDITIONS
SHOWN ARE FOR ILLUSTRATION ONLY.

12
Varies to Common Truss

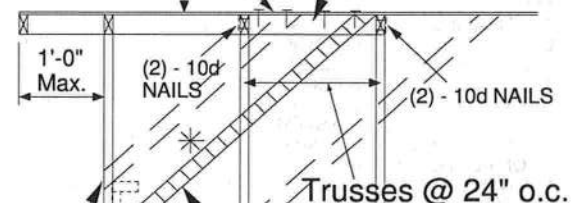
SEE INDIVIDUAL MITEK ENGINEERING
DRAWINGS FOR DESIGN CRITERIA



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

Roof Sheathing



Diag. Brace
at 1/3 points
if needed

2x6 DIAGONAL BRACE SPACED
48" O.C. ATTACHED TO VERTICAL WITH
(4) - 16d NAILS, AND ATTACHED TO
BLOCKING WITH (5) - 10d NAILS.

End Wall

HORIZONTAL BRACE
(SEE SECTION A-A)

* - 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
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.



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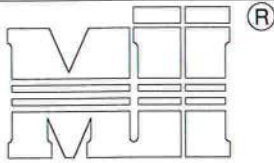
February 12, 2018

AUGUST 1, 2016

Standard Gable End Detail

MII-GE180-D-SP

MiTek USA, Inc. Page 1 of 2



MiTek USA, Inc.

ENGINEERED BY
TRENCOA MiTek Affiliate
DIAGONAL BRACE
4'-0" O.C. MAXTypical 2x4 L-Brace Nailed To
2x4 Verticals W/10d Nails spaced 6" o.c.

Vertical Stud

SECTION B-B

TRUSS GEOMETRY AND CONDITIONS
SHOWN ARE FOR ILLUSTRATION ONLY.12
Varies to Common TrussSEE INDIVIDUAL MITEK ENGINEERING
DRAWINGS FOR DESIGN CRITERIA* - Diagonal Bracing
Refer to Section A-A** - L-Bracing Refer
to Section B-B

NOTE:

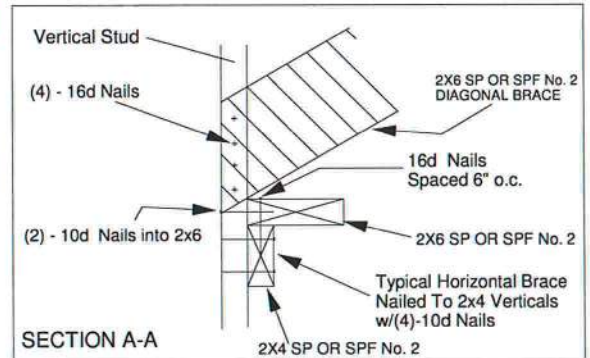
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH, 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
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

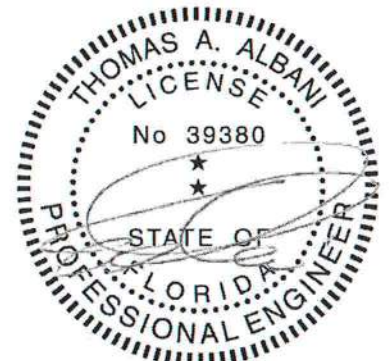
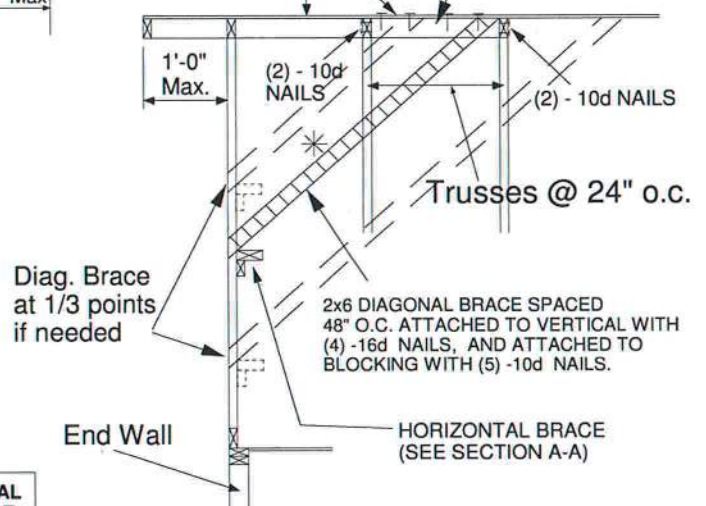
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWFRS.



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

Roof Sheathing



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Date:

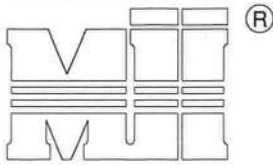
February 12, 2018

AUGUST 1, 2016

STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

MII-PIGGY-7-10

MiTek USA, Inc. Page 1 of 1



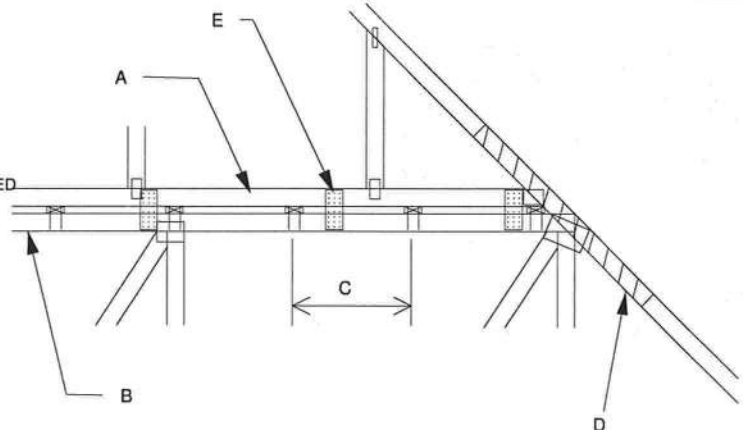
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MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E
MAX MEAN ROOF HEIGHT = 30 FEET
MAX TRUSS SPACING = 24" O.C.
CATEGORY II BUILDING
EXPOSURE B or C
ASCE 7-10
DURATION OF LOAD INCREASE : 1.60

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

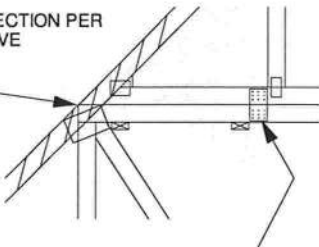
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) (0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
- D - 2 X $\frac{1}{4}$ " 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)



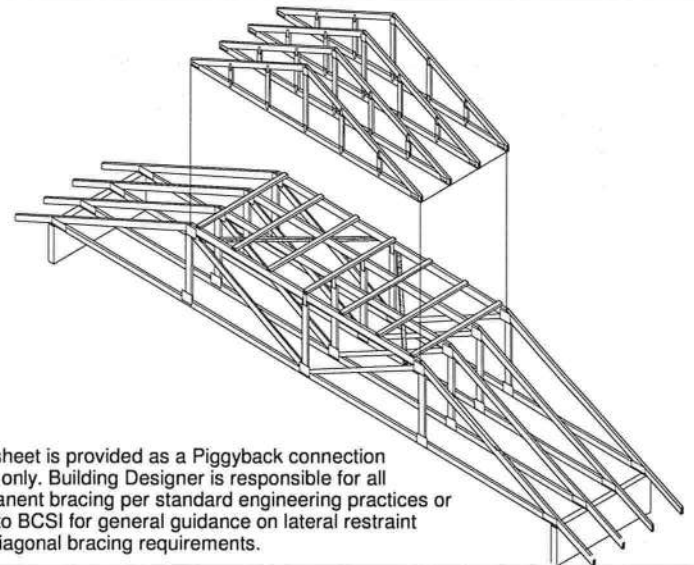
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

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

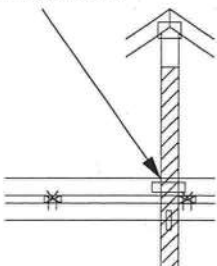


FOR ALL WIND SPEEDS, ATTACH MITEK 3X6 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 48" O.C. W/ (4) (0.131" X 1.5") PER MEMBER. STAGGER NAILS FROM OPPOSING FACES ENSURE 0.5" EDGE DISTANCE.



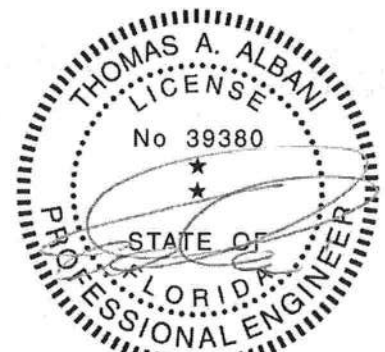
This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

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 $\frac{1}{4}$ " 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.



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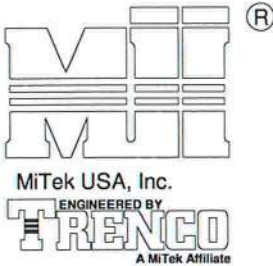
February 12, 2018

AUGUST 1, 2016

STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

MII-PIGGY-ALT
7-10

MiTek USA, Inc. Page 1 of 1



A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) 0(0.131" X 3.5") TOE-NAILED.

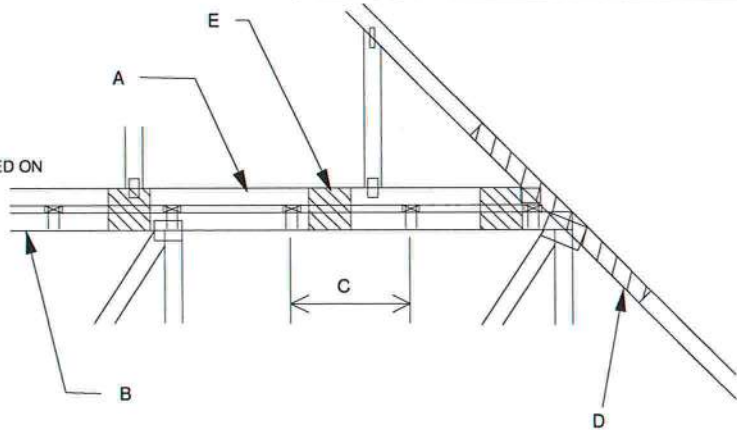
B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.

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 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.

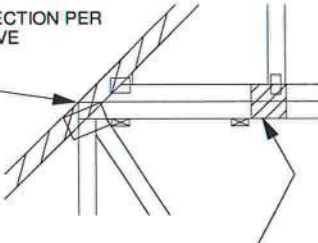
E - FOR WIND SPEED IN THE RANGE 126 MPH - 160 MPH ADD 9" x 9" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 48" O.C. OR LESS. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



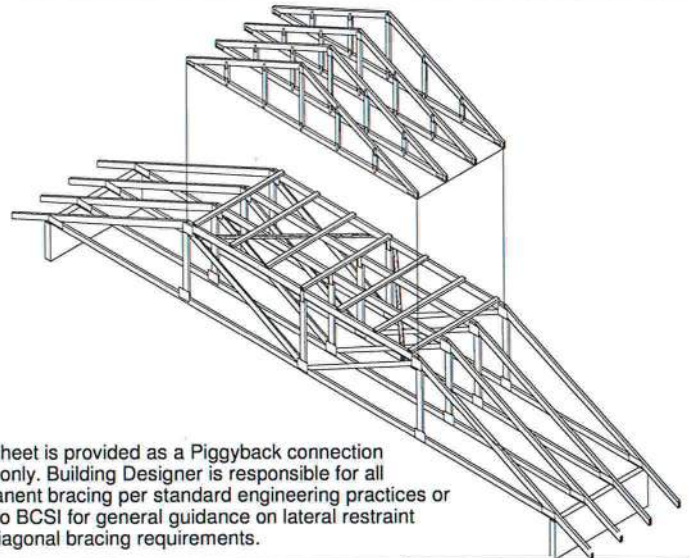
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

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.

SCAB CONNECTION PER NOTE D ABOVE

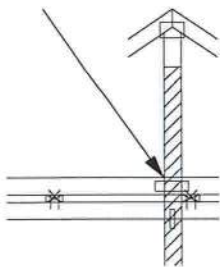


7" x 7" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 24" O.C. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



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 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.



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Date:

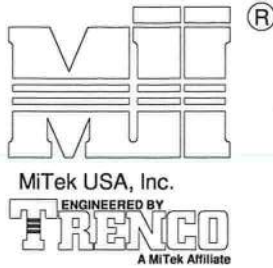
January 19, 2018

AUGUST 1, 2016

STANDARD REPAIR DETAIL FOR BROKEN CHORDS, WEBS
AND DAMAGED OR MISSING CHORD SPLICE PLATES

MII-REP01A1

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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

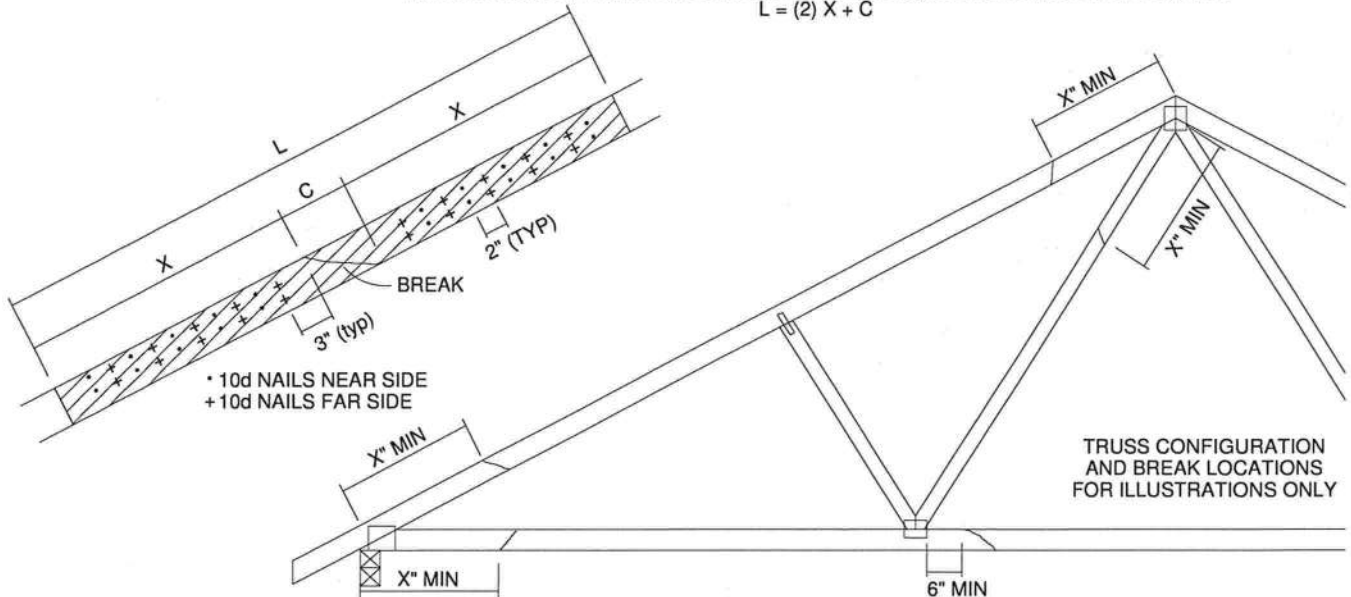
* DIVIDE EQUALLY FRONT AND BACK

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:

$$L = (2) X + C$$



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 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 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.



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Date:

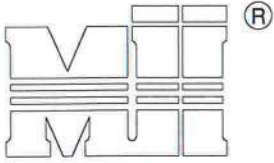
January 19, 2018

AUGUST 1, 2016

LATERAL TOE-NAIL DETAIL

MII-TOENAIL_SP

MiTek USA, Inc. Page 1 of 1



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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

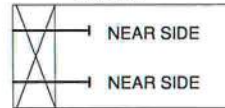
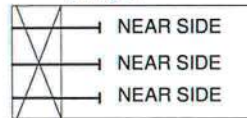
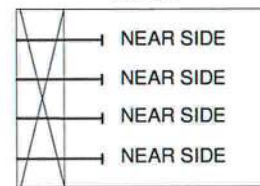
 VALUES SHOWN ARE CAPACITY PER TOE-NAIL.
 APPLICABLE DURATION OF LOAD INCREASES MAY BE APPLIED.

EXAMPLE:

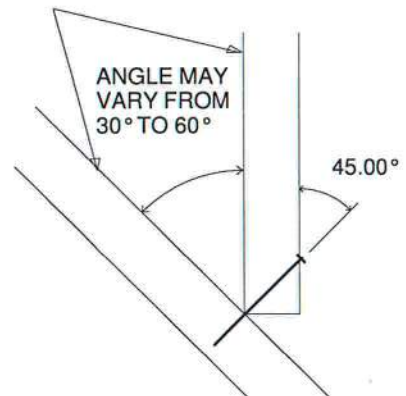
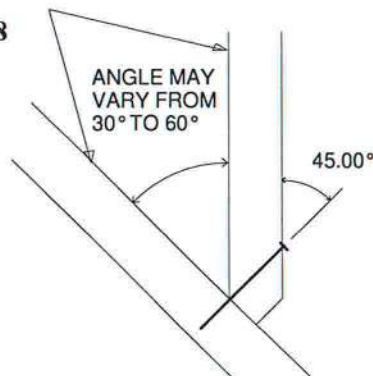
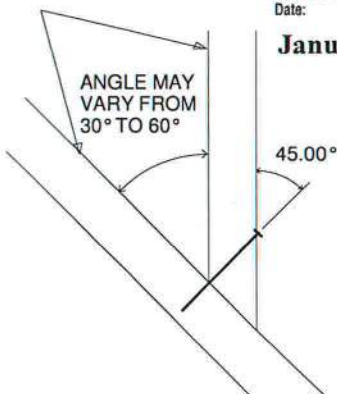
(3) - 16d (0.162" X 3.5") NAILS WITH SPF SPECIES BOTTOM CHORD

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
(2x3)
2 NAILSSIDE VIEW
(2x4)
3 NAILSSIDE VIEW
(2x6)
4 NAILS
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 Date:

January 19, 2018



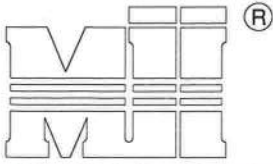
AUGUST 1, 2016

TRUSSED VALLEY SET DETAIL

MII-VALLEY HIGH WIND1

MiTek USA, Inc.

Page 1 of 1

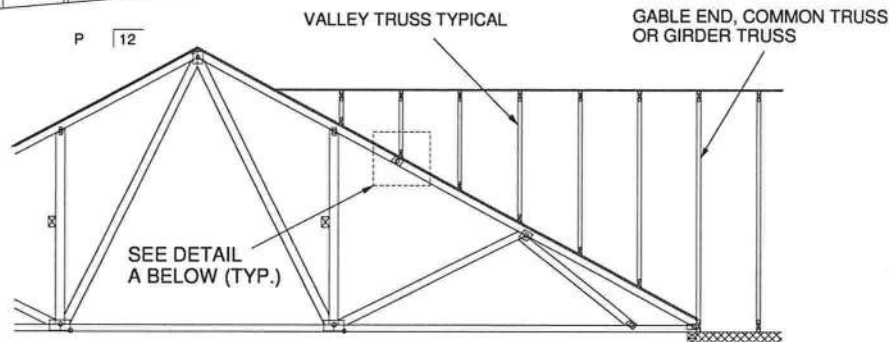
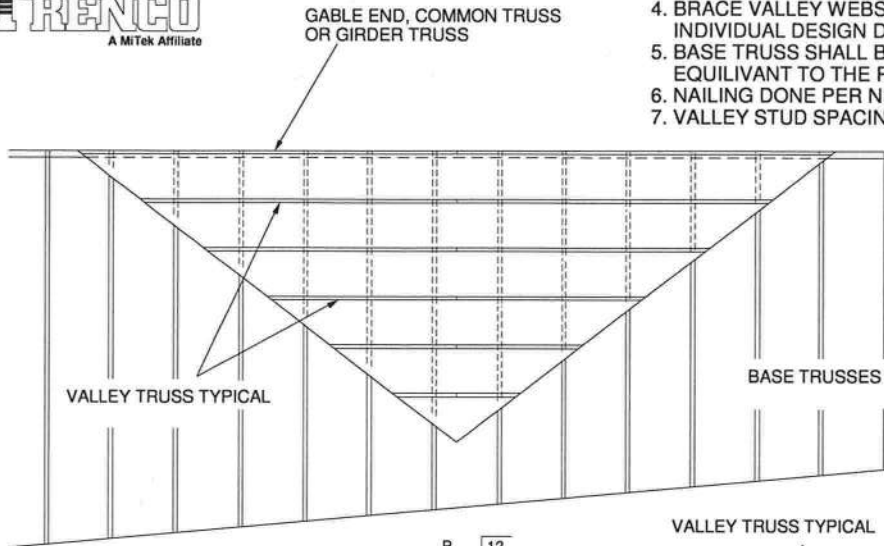


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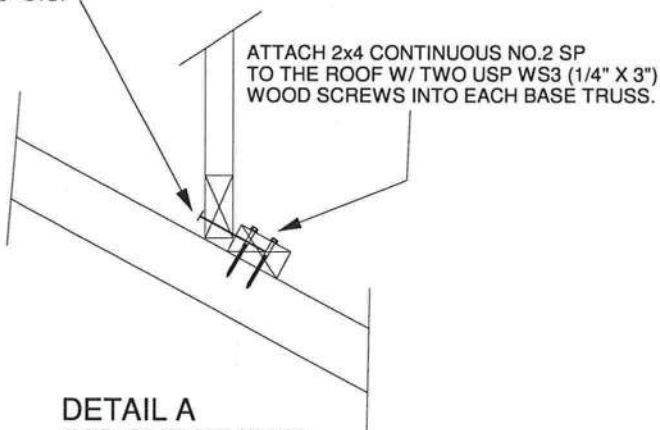
ENGINEERED BY
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GENERAL SPECIFICATIONS

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
EQUIVANT 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.



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



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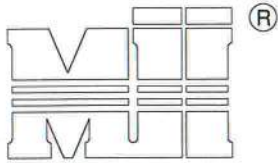
AUGUST 1, 2016

TRUSSED VALLEY SET DETAIL

MII-VALLEY HIGH WIND2

MiTek USA, Inc.

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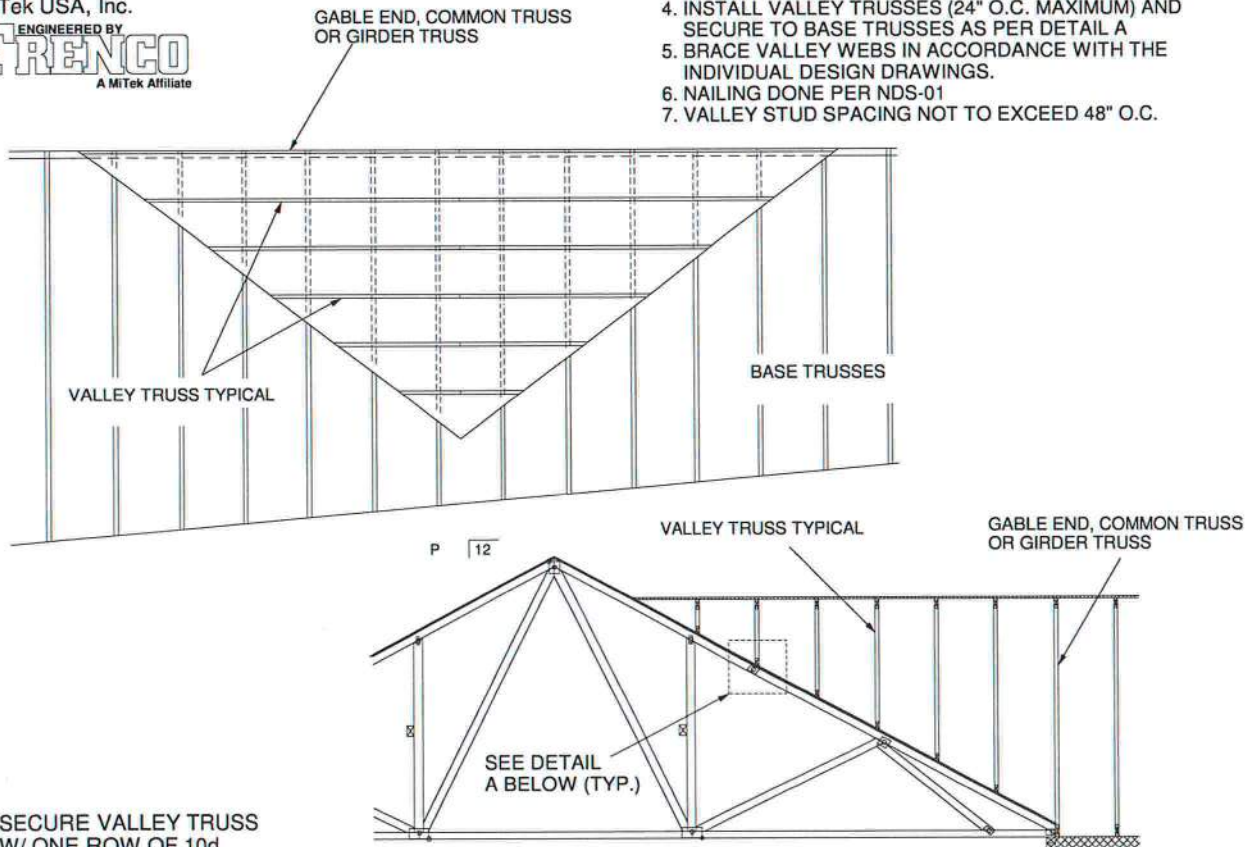


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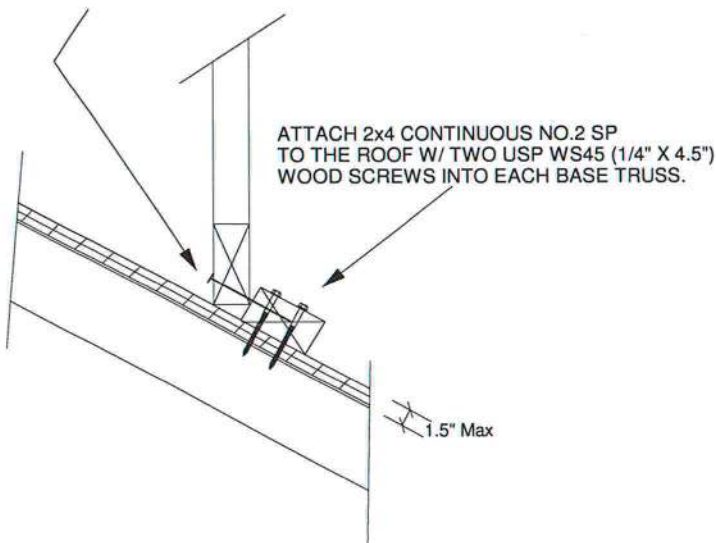
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GENERAL SPECIFICATIONS

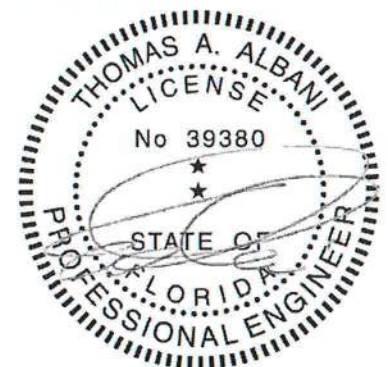
1. NAIL SIZE 10d (0.131" X 3")
2. WOOD SCREW = 4.5" WS45 USP OR EQUIVANT
3. INSTALL SHEATHING TO TOP CHORD OF BASE TRUSSES.
4. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE TO BASE TRUSSES AS PER DETAIL A
5. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
6. NAILING DONE PER 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



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February 12, 2018

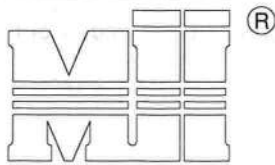
AUGUST 1, 2016

TRUSSED VALLEY SET DETAIL

MII-VALLEY SP

MiTek USA, Inc.

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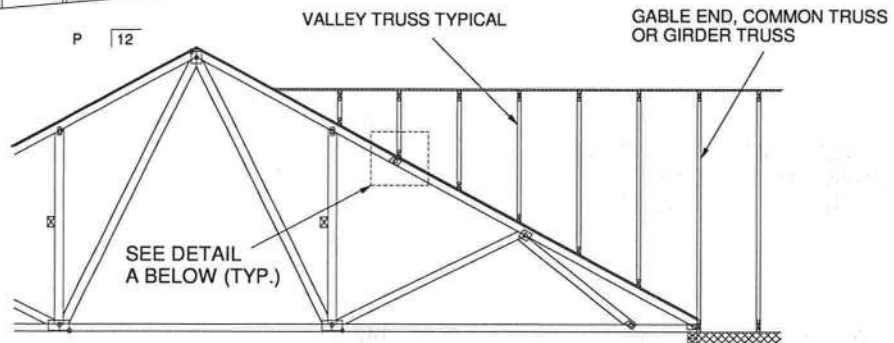
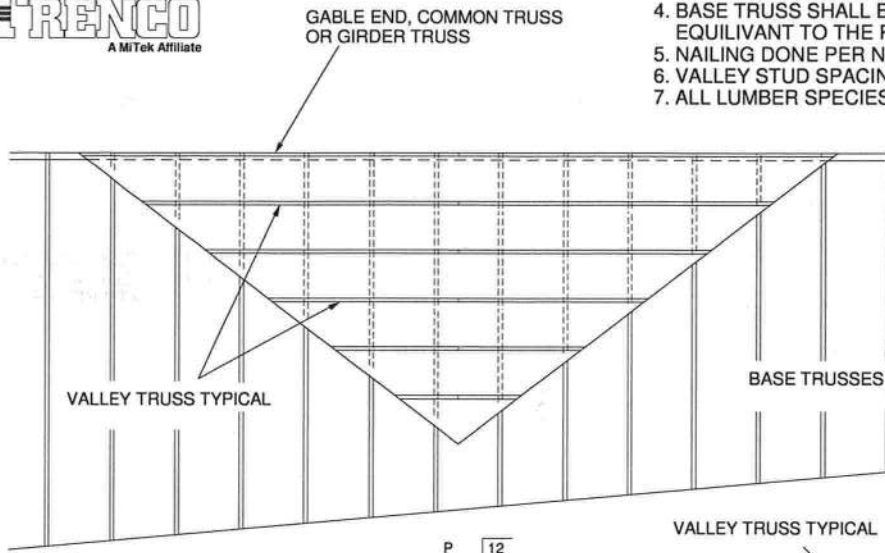


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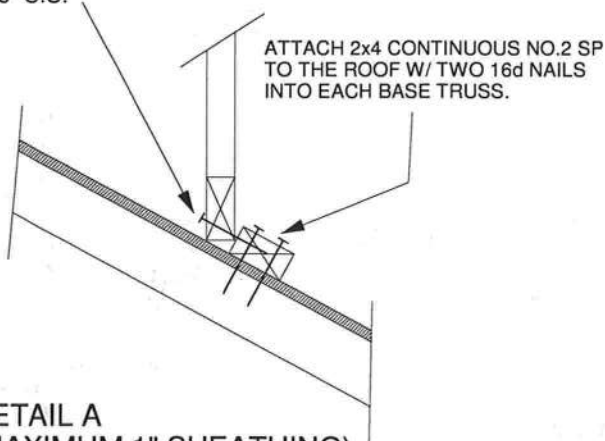
ENGINEERED BY
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GENERAL SPECIFICATIONS

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 EQUIVANT 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.



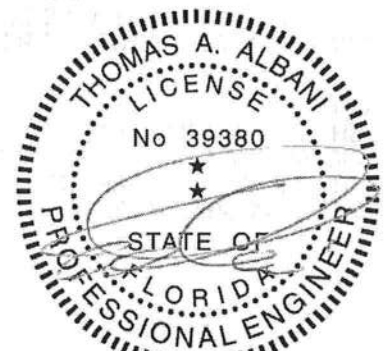
SECURE VALLEY TRUSS
W/ ONE ROW OF 16d
NAILS 6" O.C.



ATTACH 2x4 CONTINUOUS NO.2 SP
TO THE ROOF W/ TWO 16d NAILS
INTO EACH BASE TRUSS.

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



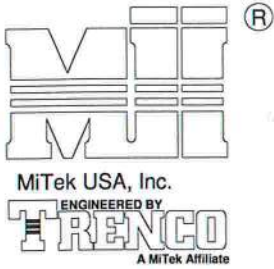
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February 12, 2018

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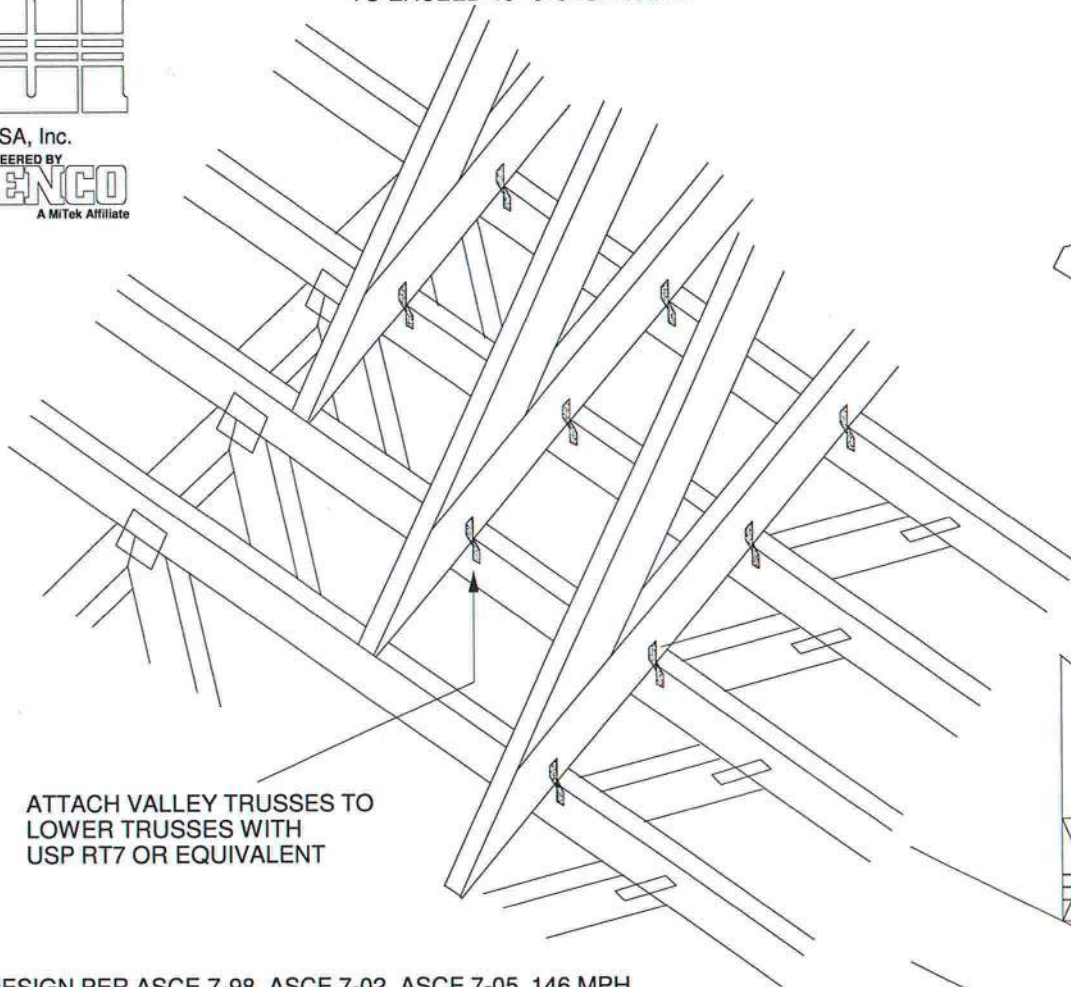
TRUSSED VALLEY SET DETAIL
(HIGH WIND VELOCITY)

MII-VALLEY

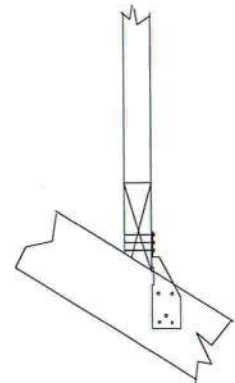


NOTE: VALLEY STUD SPACING NOT
TO EXCEED 48" O.C. SPACING

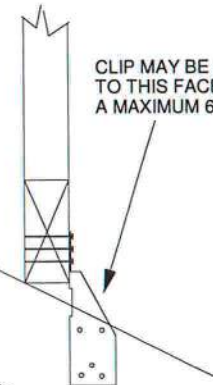
MiTek USA, Inc. Page 1 of 1



ATTACH VALLEY TRUSSES TO
LOWER TRUSSES WITH
USP RT7 OR EQUIVALENT



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



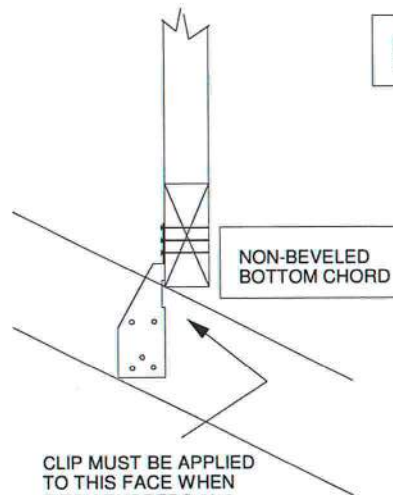
CLIP MAY BE APPLIED
TO THIS FACE UP TO
A MAXIMUM 6/12 PITCH

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.



CLIP MUST BE APPLIED
TO THIS FACE WHEN
PITCH EXCEEDS 6/12.
(MAXIMUM 12/12 PITCH)

NON-BEVELED
BOTTOM CHORD

NON-BEVELED
BOTTOM CHORD



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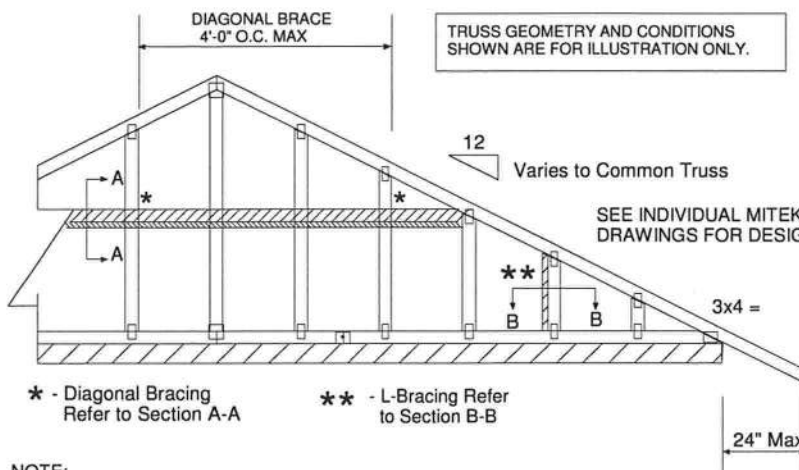
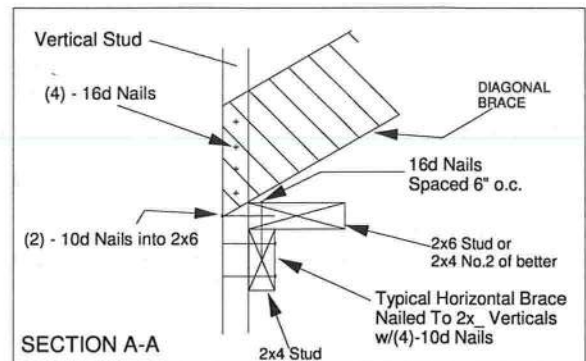
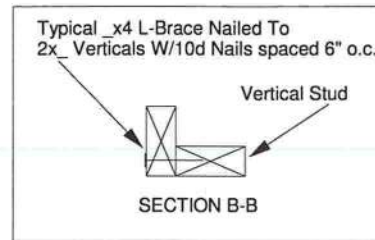
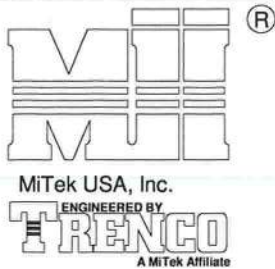
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Standard Gable End Detail

MII-GE146-001

MiTek USA, Inc. Page 1 of 2



NOTE:

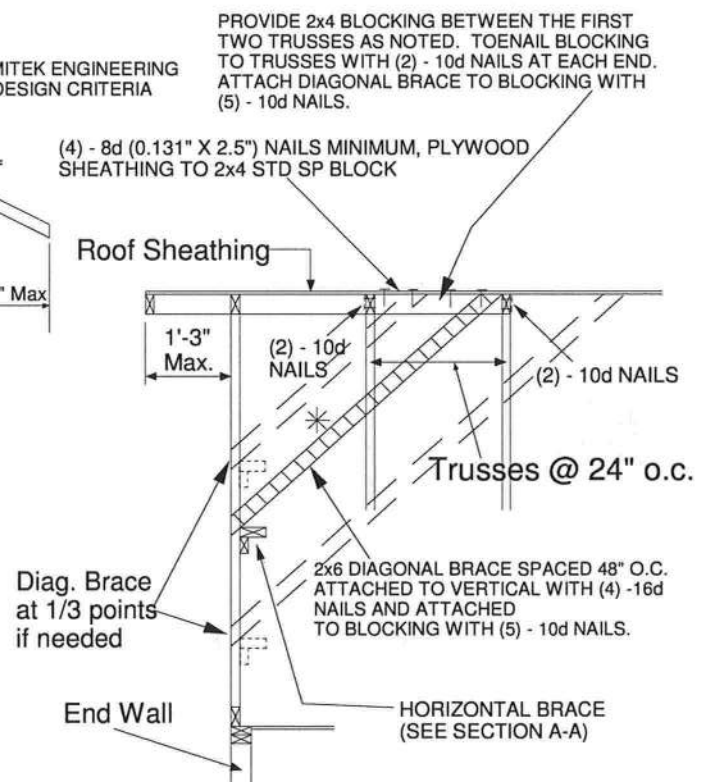
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF 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 l-braces attached to both edges. Fasten T and l 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.



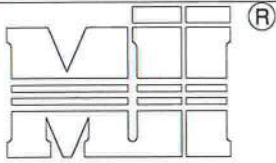
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January 19, 2018

OCTOBER 5, 2016

REPLACE BROKEN OVERHANG

MII-REP13B



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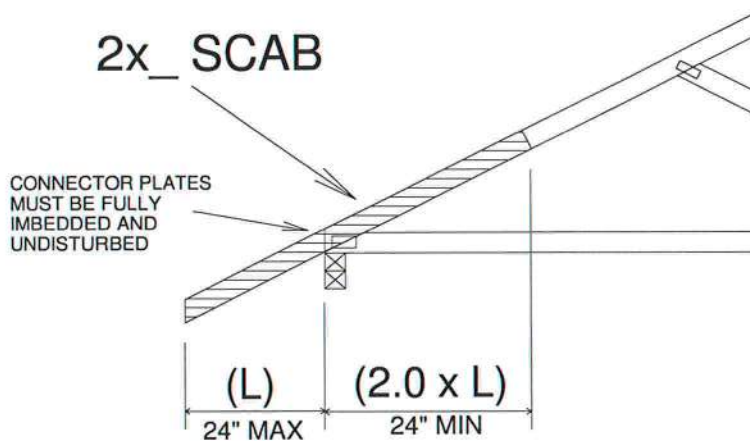
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TRUSS CRITERIA:

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



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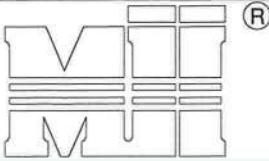
AUGUST 1, 2016

LATERAL BRACING RECOMMENDATIONS

MII-STRGBCK

MiTek USA, Inc.

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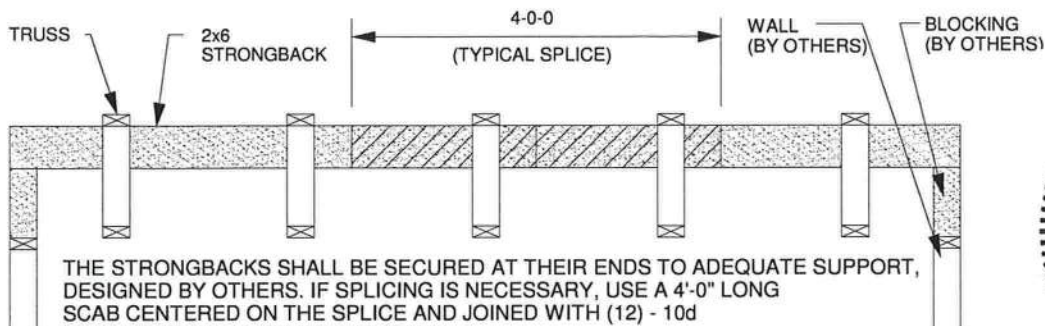
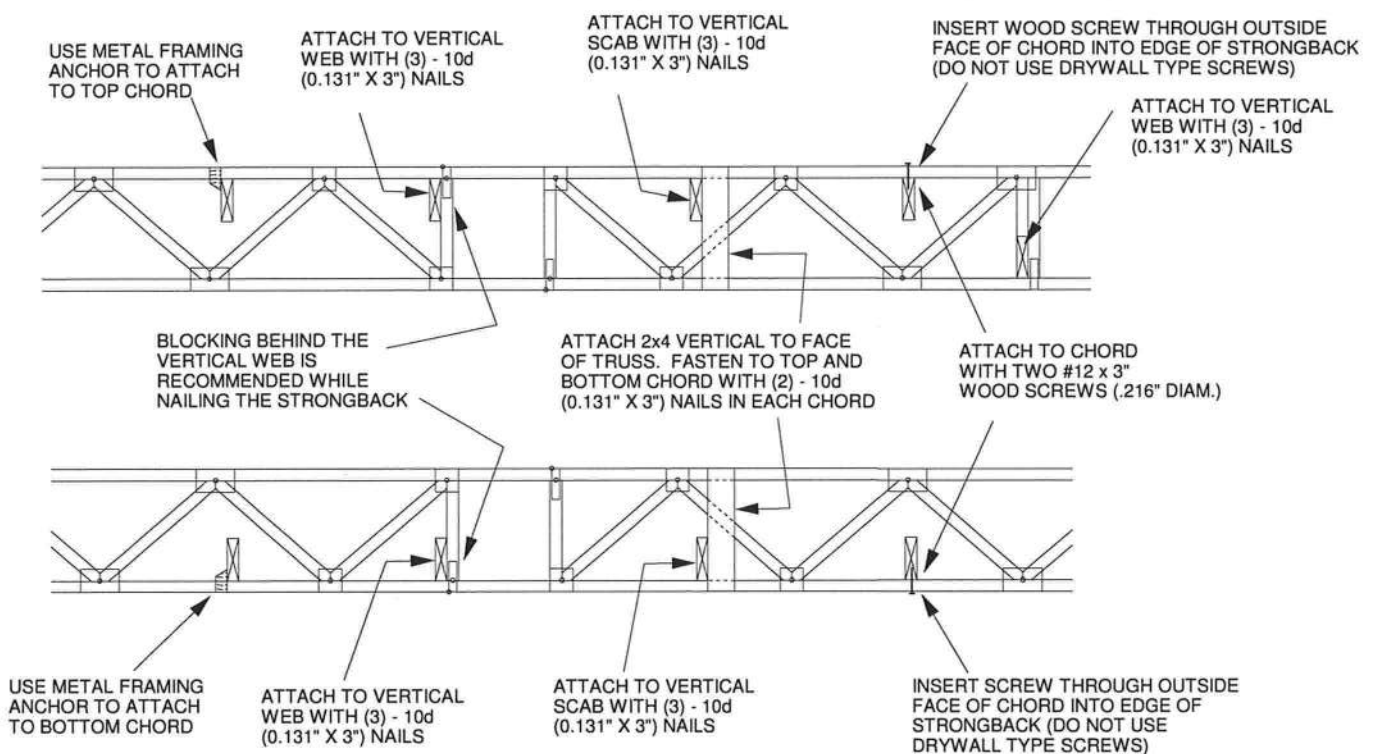
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TO MINIMIZE VIBRATION COMMON TO ALL SHALLOW FRAMING SYSTEMS, 2x6 "STRONGBACK" IS RECOMMENDED, LOCATED EVERY 8 TO 10 FEET ALONG A FLOOR TRUSS.

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.



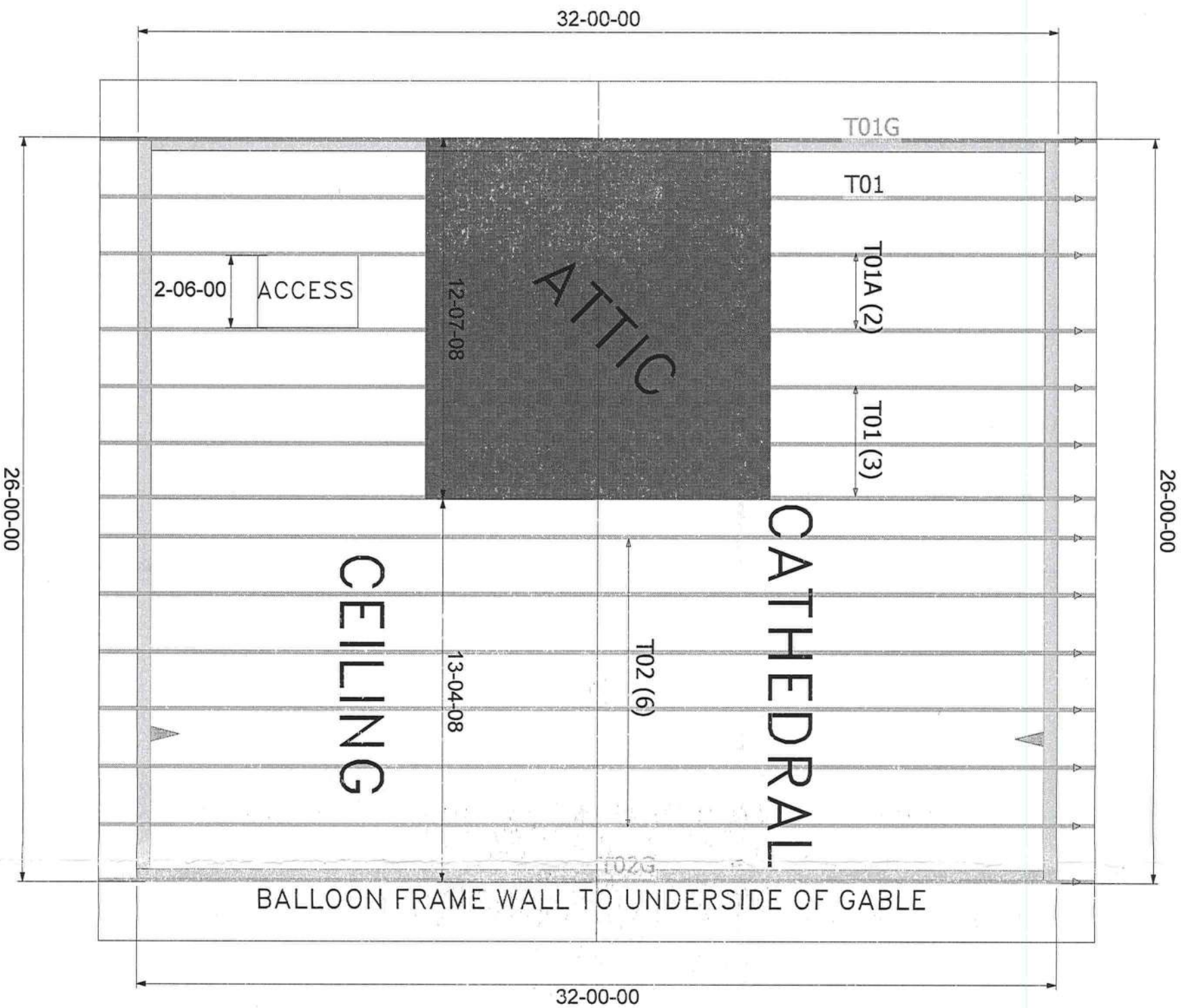
THE STRONGBACKS SHALL BE SECURED AT THEIR ENDS TO ADEQUATE SUPPORT, DESIGNED BY OTHERS. IF SPLICING IS NECESSARY, USE A 4'-0" LONG SCAB CENTERED ON THE SPLICE AND JOINED WITH (12) - 10d (0.131" X 3") NAILS EQUALLY SPACED.

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)

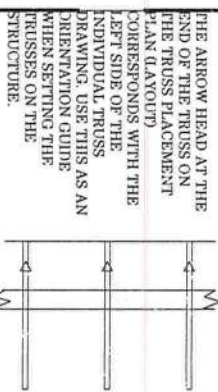


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February 12, 2018



8/12 PITCH
16" OH



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 girders.
- Trusses are not designed to support brick U.N.O.
- Dimensions are Feet-Inches-Sixteenths

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

ACQ lumber is excessive 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 the proper orientation of the truss placement plans as to the structure orientation. If a reversed or dipped 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, car lifts, etc., 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.



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Builder:
JOHN NORRIS CONST.
Aerial Address:
J. Moore Res.

Model:			
Custom			
Date:	Drawn By:	Original Ref #:	
8-25-22	KLH	3277182	
Floor 1 Job #:	Floor 2 Job #:	Ref Job #:	
N/A	N/A	3277182	

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

