



RE: 2718981 - DETAILS

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

Site Information:

Customer Info: DETAILS Project Name: N/A Model: N/A Lot/Block: N/A Subdivision: N/A

Address: N/A, N/A

City: N/A State: N/A

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: ASCE 7-16 Wind Speed: 130 mph Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 20 individual, General Truss Details 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#	Detail Name	Date	No.	Seal#	Detail Name	Date
1	T23399806	MII-REP10	4/2/21	15	T23399820	MII-VALLEY HIGH WIND2	4/2/21
2	T23399807	MII-T-BRACE 2	4/2/21	16	T23399821	MII-VALLEY SP	4/2/21
3	T23399808	MII-SCAB-BRACE	4/2/21	17	T23399822	MII-VALLEY SP	4/2/21
4	T23399809	MII-REP05	4/2/21	18	T23399823	MII-GE146-001	4/2/21
5	T23399810	MII-GE130-D-SP	4/2/21	19	T23399824	MII-REP13B	4/2/21
6	T23399811	MII-GE130-SP	4/2/21	20	T23399825	MII-STRGBCK	4/2/21
/	T23399812	MII-GE140-001	4/2/21				
8	T23399813	MII-GE170-D-SP MII-GE180-D-SP	4/2/21				
9	T23399814	MII-GE180-D-SP	4/2/21				
10 11	T23399815 T23399816	MII-GE 180-D-SP MII-PIGGY-ALT-7-16	4/2/21 4/2/21				
12	T23399817	MII-REP01A1	4/2/21				
13	T23399818	MII-TOENAIL SP	4/2/21				
14	T23399819	MII-VALLEY HIGH WIND1					



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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-Jacksonville.

Truss Design Engineer's Name: ORegan, Philip

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.



Philip J. O'Regan PE No.58126 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610

April 2,2021



RE: \$JOBNAME - \$JOBDESC

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

### **Site Information:**

Customer Info: \$SI\_CUSTOMER Project Name: \$SI\_JOBNAME Model: \$SI\_MODEL Lot/Block: \$SI\_LOTNUM Subdivision: \$SI\_SUBDIV Address: \$SI\_SITEADDR

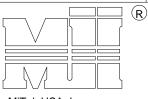
City: \$SI\_SITECITY State: \$SI\_SITESTATE OCTOBER 28, 2016

### STANDARD REPAIR FOR ADDING A FALSE BOTTOM CHORD

MII-REP10 T23399806

MiTek USA, Inc.

Page 1 of 1



MAIN TRUSS MANUFACTURED WITHOUT FALSE BOTTOM CHORD.

MAIN TRUSS (SPACING = 24" O.C.)

MiTek USA, Inc. REFER TO THE BOTTOM CHORD BRACING SECTION OF THE INDIVIDUAL TRUSS DESIGN FOR MAXIMUM SPACING OF CONTINUOUS LATERAL BRACING WHENEVER RIGID CEILING MATERIAL IS NOT DIRECTLY ATTACHED TO THE VERTICAL STUDS @ 48" O.C.. ATTACHED BOTTOM CHORD. WITH (3) - 10d (0.131" X 3") NAILS AT EACH END OF VERTICAL (TYP.). VERTICAL STUDS TO BE 2 x 4 STUD GRADE (OR BETTER) SPF, HF, DF OR SP. (BOARD SIZÉ SPECIFIED IS MINIMUM, LARGER SIZE MAY BE USED) 2 x 4 NO. 2 (OR BETTER) SPF, HF DF OR SP FALSE BOTTOM CHORD (BOARD SIZE SPECIFIED IS MINIMUM, LARGER SIZE MAY BE USED) **FALSE BOTTOM** TRUSS SPAN

### NOTES:

- 1. LOADING: TOP CHORD: (REFER TO THE MAIN TRUSS DESIGN FOR TOP CHORD LOADING). BOTTOM CHORD: LL = 0 PSF, DL = 10 PSF.
- 2. REFER TO THE MAIN TRUSS DESIGN FOR LUMBER AND PLATING REQUIREMENTS.
- 3. MAXIMUM BOTTOM CHORD PITCH = 6/12.
- 4. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID SPLITTING OF THE WOOD.
- 5. FALSE BOTTOM CHORD ONLY DESIGNED TO CARRY VERTICAL LOAD. NO LATERAL (SHEAR) LOAD ALLOWED.
- 6. FILLER MAY EXTEND FOR FULL LENGTH OF TRUSS.

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

### MII-T-BRACE 2 T23399807

MiTek USA, Inc.

Page 1 of 1



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)

	Nails
WEB	SPACING
	T-BRACE
Nails	Section Detail  T-Brace  Web

Nails	
Web	I-Brace
Naile	

	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.

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April 2,2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information

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



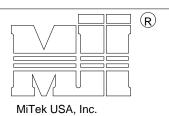
6904 Parke East Blvd. Tampa, FL 36610

### SCAB-BRACE DETAIL

### MII-SCAB-BRACE T23399808

MiTek USA, Inc.

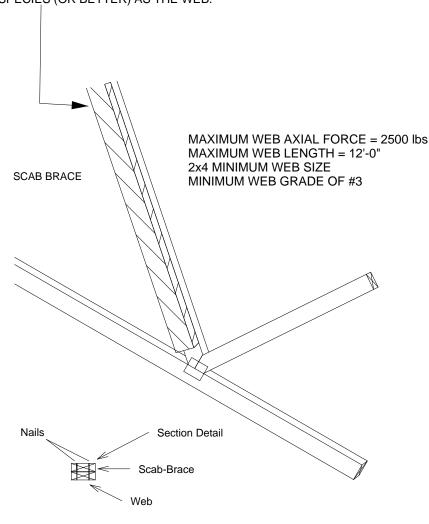
Page 1 of 1



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 APLICABLE WHEN BRACING IS \*\*\* REQUIRED AT 1/3 POINTS OR I-BRACE IS SPECIFIED.

SCAB TO ONE FACE OF WEB WITH APPLY 2x 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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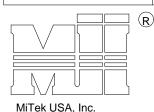
April 2,2021



### STANDARD REPAIR TO REMOVE END **VERTICAL (RIBBON NOTCH VERTICAL)**

### MII-REP05 T23399809

MiTek USA, Inc. Page 1 of 1

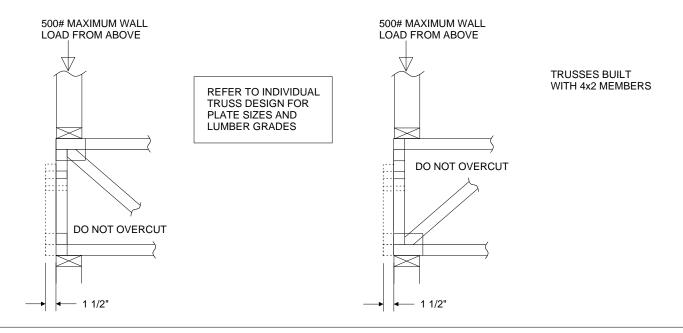


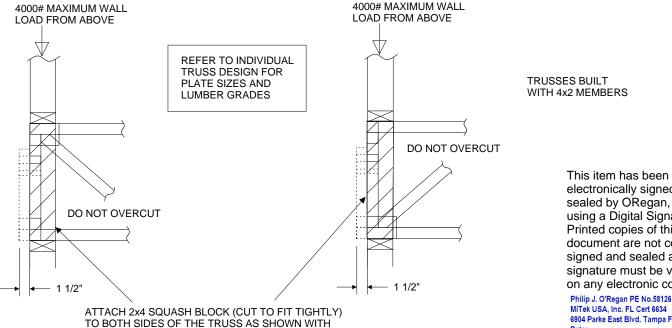
- 1. THIS IS A SPECIFIC REPAIR DETAIL TO BE USED ONLY FOR ITS ORIGINAL INTENTION. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS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





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April 2,2021





10d (0.131" X 3") NAILS SPACED 3" O.C.

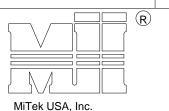
### Standard Gable End Detail

\*\*

- L-Bracing Refer

to Section B-B

### MII-GE130-D-SP T23399810



DIAGONAL BRACE 4'-0" O.C. MAX

Typical \_x4 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. 12 Varies to Common Truss SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA

3x4 =

24" Max

MiTek USA. Inc. Page 1 of 2 DIAGONAL 16d Nails Spaced 6" o.c.

2x6 Stud or

Typical Horizontal Brace Nailed To 2x\_ Verticals w/(4)-10d Nails

2x4 No.2 of better

(2) - 10d NAILS

Trusses @ 24" o.c.

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.

2x4 Stud

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD

Vertical Stud

(4) - 16d Nails

(2) - 10d Nails into 2x6

**SECTION A-A** 

Roof Sheathing

1'-3"

SHEATHING TO 2x4 STD SPF BLOCK

(2) - 10d/

### NOTE:

- Diagonal Bracing

Refer to Section A-A

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
- 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")

<mark>∢ Max.</mark> ▶	NAILS (2) - 10d NA
	Trusses @ 24" o
Diag. Brace	2x6 DIAGONAL BRACE SPACED 48" O.C. ATTACHED TO VERTICAL WITH (4) -16d
at 1/3 points if needed	NAILS AND ATTACHED TO BLOCKING WITH (5) - 10d NAILS.
End Wall	HORIZONTAL BRACE (SEE SECTION A-A)
	<b>\</b>

(SEE SECTION A-A)

Minimum Stud Size Species	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
and Grade		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

MAX MEAN ROOF HEIGHT = 30 FEET

CATEGORY II BUILDING EXPOSURE D

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.

ASCE 7-10, ASCE 7-10 130 MPH

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.

DURANION OF COAD INCREASE LIFE AND READ NOTE ON THE FINANCIAL SECTION MY FIRST MY FIRST



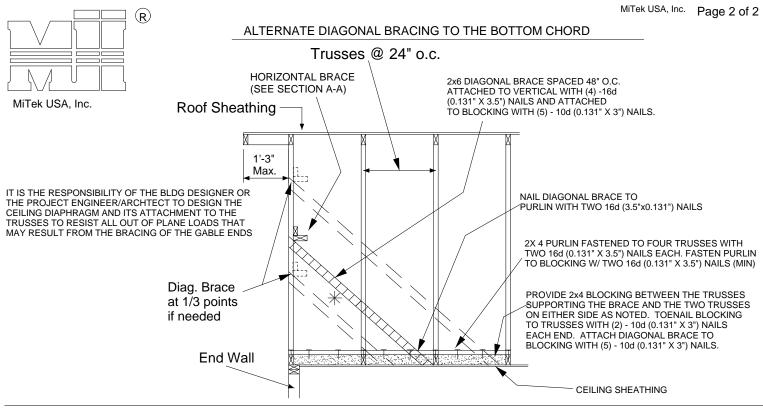
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April 2,2021

### Standard Gable End Detail

MII-SHEET 2 T23399810



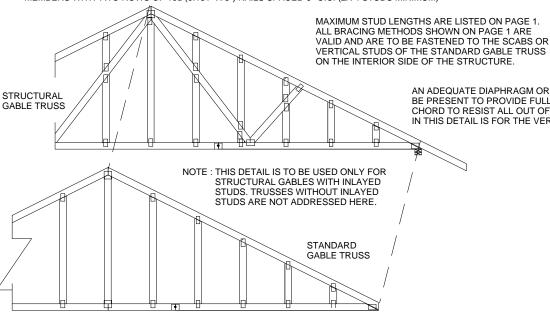
### BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

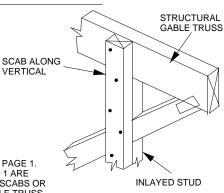
STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED: METHOD 1: ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.

METHOD 2: ATTACH 2X\_SCABS TO THE FACE OF EACH VERTICAL
MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING
NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:

EING SCHEDEL:
- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL
- MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL
- MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)





AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

VERTICAL

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April 2,2021

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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

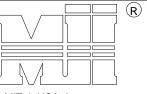


### Standard Gable End Detail

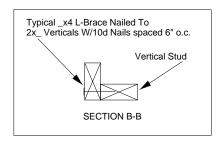
### MII-GE130-SP T23399811

Page 1 of 2

MiTek USA, Inc.



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DIAGONAL BRACE TRUSS GEOMETRY AND CONDITIONS 4'-0" O.C. MAX SHOWN ARE FOR ILLUSTRATION ONLY. 12 Varies to Common Truss SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA 3x4 =

- L-Bracing Refer

to Section B-B

Vertical Stud DIAGONAL (4) - 16d Nails 16d Nails Spaced 6" o.c. (2) - 10d Nails into 2x6 2x6 Stud or 2x4 No.2 of better Typical Horizontal Brace Nailed To 2x\_ Verticals w/(4)-10d Nails **SECTION A-A** 2x4 Stud

> 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

### Roof Sheathing

24" Max

### 1'-3" (2) - 10d/ Max. **NAILS** (2) - 10d NAILS

Trusses @ 24" o.c.

2x6 DIAGONAL BRACE SPACED 48" O.C. Diag. Brace ATTACHED TO VERTICAL WITH (4) -16d at 1/3 points NAILS AND ATTACHED TO BLOCKING WITH (5) - 10d NAILS. if needed

HORIZONTAL BRACE **End Wall** (SEE SECTION A-A)

### NOTE:

- Diagonal Bracing

Refer to Section A-A

- 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)
- GABLE STUD DEFLECTIÓN 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.
- NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
and Grade			Maximur	n Stud Ler	ngth	
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

ASCE 7-36, ASCE 7-20 ISO MPH

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.

DURANION OF GABUNGREASE 1914.60 READ NOT CONNECTION OF BRACTINGRS BASED ON MWFRS. 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 properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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signed and sealed and the

signature must be verified

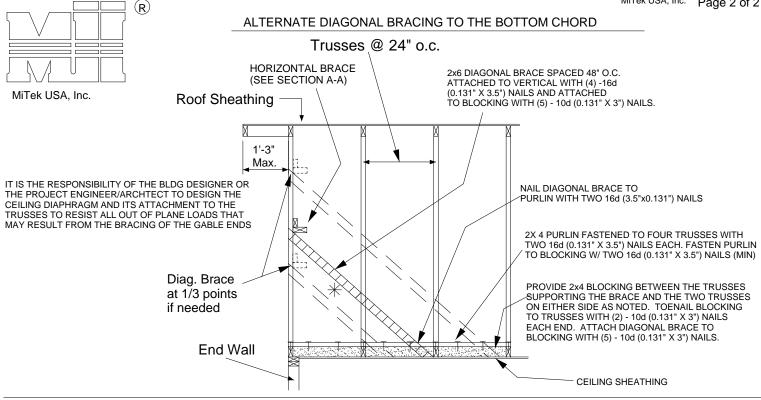
April 2,2021

on any electronic copies.

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EXPOSURE B or C ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH

MiTek USA, Inc. Page 2 of 2



STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE

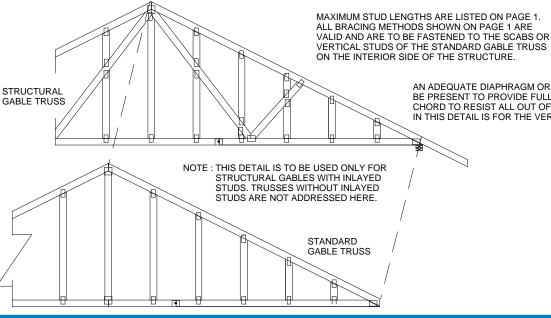
FOLLOWING NAILING SCHEDULE.

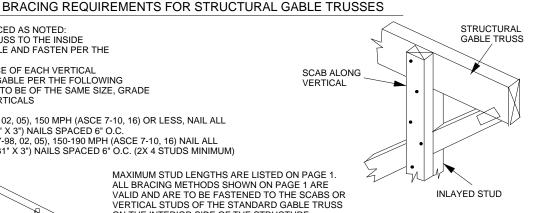
METHOD 2: ATTACH 2X \_ SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

### NAILING SCHEDULE:

FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.

- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, Ó2, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)





AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

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April 2,2021

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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



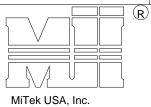
### **JANUARY 6, 2017**

### Standard Gable End Detail

### MII-GE140-001 T23399812

Page 1 of 2

MiTek USA, Inc.



Typical \_x4 L-Brace Nailed To 2x\_ Verticals W/10d Nails spaced 6" o.c. Vertical Stud SECTION B-B

Vertical Stud DIAGONAL (4) - 16d Nails 16d Nails Spaced 6" o.c. (2) - 10d Nails into 2x6 2x6 Stud or 2x4 No.2 of better Typical Horizontal Brace Nailed To 2x\_ Verticals w/(4)-10d Nails **SECTION A-A** 2x4 Stud

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

DIAGONAL BRACE TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY. 4'-0" O.C. MAX Varies to Common Truss SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA 3x4 = Diagonal Bracing L-Bracing Refer

Refer to Section A-A to Section B-B 24"

### 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. "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)
- GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
- THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES. 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")

	Roof Sheathing			
" Max	1'-3" Max.	(2) - 10d NAILS		
		WAILS	Trusses @	10d NAILS
at 1/3	. Brace 3 points	ATTACHED NAILS AND	IAL BRACE SPACED TO VERTICAL WITH ( ATTACHED NG WITH (5) - 10d NA	(4) -16d
if nee	End Wall	F	HORIZONTAL BRACI SEE SECTION A-A)	
	1			

(5) - 10d NAILS. (4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD

SHEATHING TO 2x4 STD DF/SPF BLOCK

Minimum Stud Size Species	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
and Grade		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

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April 2,2021

ASCE 7-98, ASCE 7-02, ASCE 7-05

DURANON-OFIGOAD/INGREASE::pt.6:0 REAP GONNECTION IOFISBASED ON COMPONENTS AND CLADDING.

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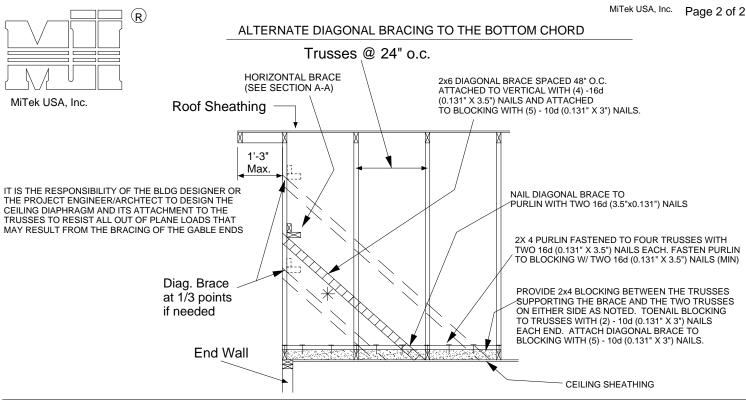
\*\*ANSITP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\*

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



### Standard Gable End Detail

MII-SHEET 2 T23399812



### BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

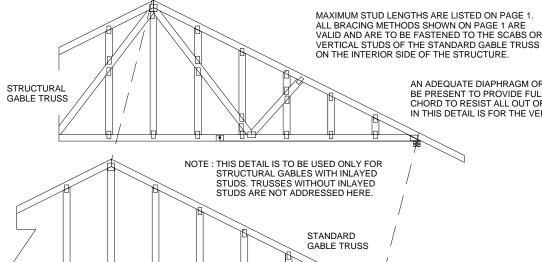
STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:
METHOD 1: ATTACH A MATCHING GABLE TRUSS TO THE INSIDE
FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE
FOLLOWING NAILING SCHEDULE.

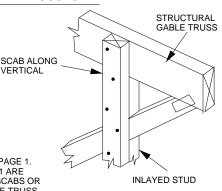
METHOD 2 : ATTACH 2X \_ SCABS TO THE FACE OF EACH VERTICAL
MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING
NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE
AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:

- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C. - FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL

MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)





AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

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Philip J. O'Regan PE No.58126 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

April 2,2021

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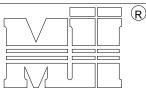
6904 Parke East Blvd. Tampa, FL 36610

### Standard Gable End Detail

### MII-GE170-D-SP T23399813



Page 1 of 2



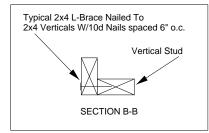
DIAGONAL BRACE

4'-0" O.C. MAX

MiTek USA, Inc.

- Diagonal Bracing

Refer to Section A-A



TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY. Varies to Common Truss SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA \*\* 3x4 =

- L-Bracing Refer

to Section B-B

Vertical Stud 2X6 SP OR SPF No. 2 DIAGONAL BRACE (4) - 16d Nails 16d Nails Spaced 6" o.c. (2) - 10d Nails into 2x6 2X6 SP OR SPF No. 2 Typical Horizontal Brace Nailed To 2x4 Verticals w/(4)-10d Nails SECTION A-A 2X4 SP OR SPF No. 2

> 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

1'-0" 10d/ Max. **NÁILS** (2) - 10d NAILS ∕Trusses @ 24" o.c.

Diag. Brace at 1/3 points if needed

24" Max

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)

### 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.
- "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.
- THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
- 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	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS		
and Grade		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 l-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.

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April 2,2021

MAX MEAN ROOF HEIGHT = 30 FEET EXPOSURE D

TUD DESIGN IS BASED ON COMPONENTS

DURATION OF LOAD INCREASE: 1.60
WARNING - Verify design parameters and READ NOTE CONNECTION OF BRACING IS BASED ON MAYERS: 5/19/2020 BEFORE USE

Design valid for use only with MITek® connectors. This design is based only upon parameters and roperly incorporate this design in the overall 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 

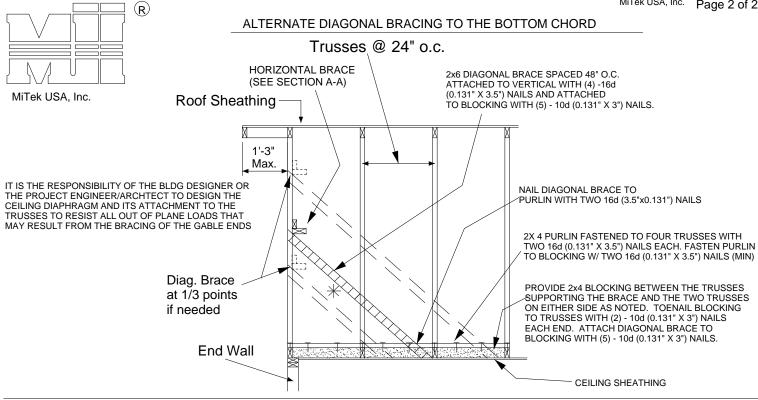
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



### Standard Gable End Detail

### MII-SHEET 2 T23399813

MiTek USA, Inc. Page 2 of 2



### BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

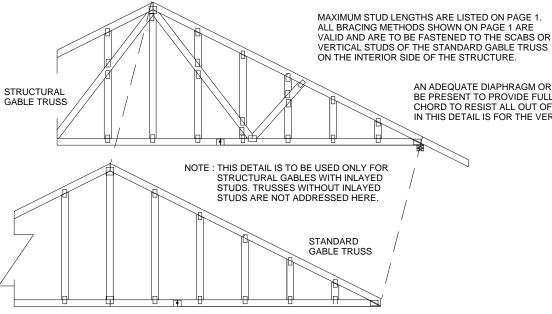
STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED: METHOD 1: ATTACH A MATCHING GABLE TRUSS TO THE INSIDE

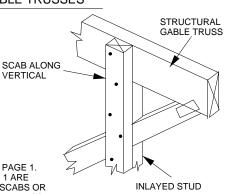
FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.

METHOD 2: ATTACH 2X\_SCABS TO THE FACE OF EACH VERTICAL
MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING
NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:

EING SCHEDEL:
- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL
- MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL
- MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)





AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

VERTICAL

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April 2,2021

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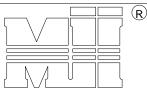


### Standard Gable End Detail

### MII-GE180-D-SP T23399814



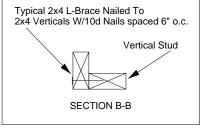
Page 1 of 2



DIAGONAL BRACE

4'-0" O.C. MAX

MiTek USA, Inc.

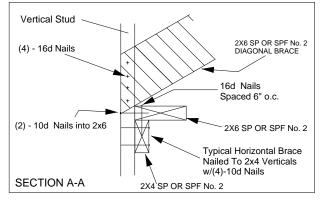


TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.

Varies to Common Truss

B

\*\*



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

(2) - 10d/

NAILS

SHEATHING TO 2x4 STD SPF BLOCK

Roof Sheathing

1'-0'

Max.

End Wall

- 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.
- THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
- 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.
- NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

ľ	
	Diag. Brace at 1/3 points if needed
DIAGONAL	End Wa

SEE INDIVIDUAL MITEK ENGINEERING

24" Max

DRAWINGS FOR DESIGN CRITERIA

3x4 =

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

(2) - 10d NAILS

Trusses @ 24" o.c.

Minimum Stud Size Species	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS				
and Grade		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				
.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 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.

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April 2,2021

MAX MEAN ROOF HEIGHT = 30 FEET EXPOSURE D

DURATION ARIJE OAD, INCREASE 1. 1910 READ NOTES CONNECTION OF BRACING I SEASED ON MAY FRS. 5/19/2020 BEFORE USE

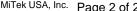
Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 

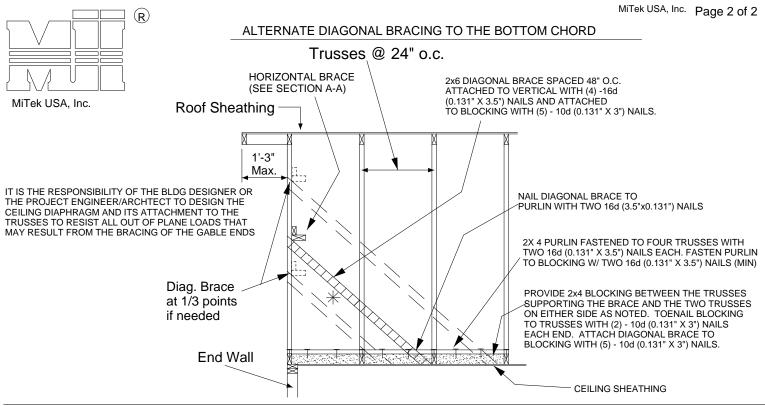
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



### Standard Gable End Detail

### MII-SHEET 2 T23399814





### BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED: METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.

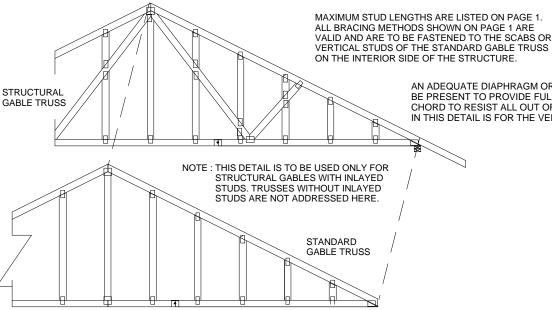
METHOD 2: ATTACH 2X \_ SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE

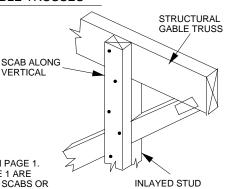
AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:

FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C. FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL

MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)





AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

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Philip J. O'Regan PE No.58126 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610

April 2,2021

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### STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

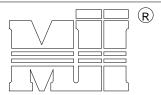
MiTek USA, Inc. Page 1 of 1

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 **ENCLOSED BUILDING** LOADING = 5 PSF TCDL ASCE 7-10, ASCE 7-16

DETAIL IS NOT APPLICABLE FOR TRUSSES TRANSFERING DRAG LOADS (SHEAR TRUSSES).

ADDITIONAL CONSIDERATIONS BY BUILDING ENGINEER/DESIGNER ARE REQUIRED.

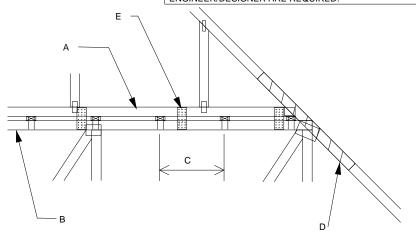
**DURATION OF LOAD INCREASE: 1.60** 



MiTek USA, Inc.

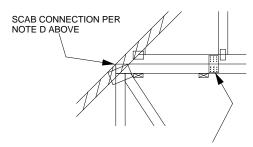
- A PIGGBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- A PIGGBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
  SHALL BE CONNECTED TO EACH PURLIN
  WITH (2) (0.131" X 3.5") TOE-NAILED.
  B BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
  C PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C.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

   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 180 MPH WITH A MAXIMUM
- PIGGYBACK SPAN OF 12 ft.
   FOR WIND SPEEDS BETWEEN 116 AND 180 MPH, ATTACH
  MITEK NP37 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" NAIL EDGE DISTANCE. (MIN. 2 PAIRS OF PLATES REQ. REGARDLESS OF SPAN)

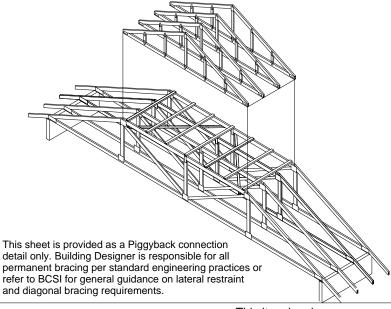


### WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

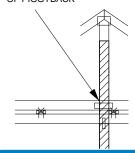
REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH Nail-On PLATES AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.



FOR ALL WIND SPEEDS, ATTACH MITEK NP37 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" NAIL EDGE DISTANCE.



VERTICAL WEB TO EXTEND THROUGH BOTTOM CHORD OF PIGGYBACK



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

- VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL
- 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)
- 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

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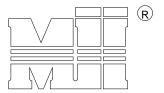


### JANUARY 8, 2019

### STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

### MII-PIGGY-ALT-7-16 T23399816

Page 1 of 1 MiTek USA, Inc.



MiTek USA, Inc.

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 ENCLOSED BUILDING LOADING = 5 PSF TCDL MINIMUM

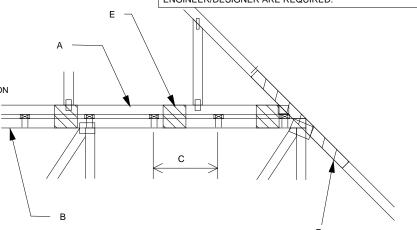
ASCE 7-10, ASCE 7-16 **DURATION OF LOAD INCREASE: 1.60** 

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.

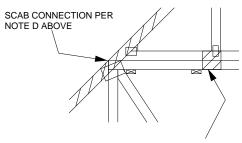
  BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
  - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C.
  UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING.

- UNLESS SPECIFIED CLOSER OIN MITEX TRUSS DESIGN DRAWING.
  CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
   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 180 MPH WITH A MAXIMUM
- PIGGYBACK SPAN OF 12 ft.
  E FOR WIND SPEED IN THE RANGE 116 MPH 180 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)

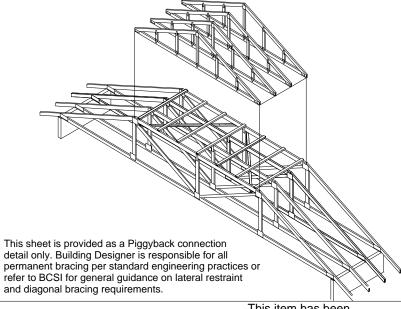


WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

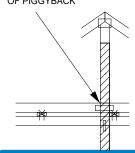
REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH PLYWOOD GUSSETS AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.



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)



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
- 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 ATTACH 2 x VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.) (MINIMUM 2X4)
- 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

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IE PIGGYBACK AND THE BASE TRUSS DESIGN \Lambda WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE

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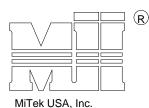


### STANDARD REPAIR DETAIL FOR BROKEN CHORDS, WEBS AND DAMAGED OR MISSING CHORD SPLICE PLATES

### MII-REP01A1 T23399817

MiTek USA, Inc.

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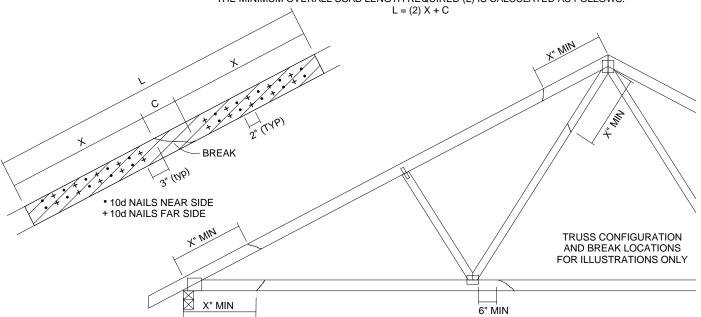


	JMBER OF		MAXIMUM FORCE (lbs) 15% LOAD DURATION							
NAILS EA OF BF	REAK *	X INCHES	S	SP.	С	F	SI	PF	F	IF
2x4	2x6		2x4	2x6	2x4	2x6	2x4	2x6	2x4	2x6
20	30	24"	1706	2559	1561	2342	1320	1980	1352	2028
26	39	30"	2194	3291	2007	3011	1697	2546	1738	2608
32	48	36"	2681	4022	2454	3681	2074	3111	2125	3187
38	57	42"	3169	4754	2900	4350	2451	3677	2511	3767
44	66	48"	3657	5485	3346	5019	2829	4243	2898	4347

<sup>\*</sup> 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:



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

- 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
- THE END DISTANCE, EDGE DISTANCE AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD. WHEN NAILING THE SCABS, THE USE OF A BACKUP WEIGHT IS RECOMMENDED TO AVOID
- LOOSENING OF THE CONNECTOR PLATES AT THE JOINTS OR SPLICES.
  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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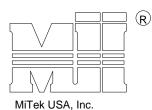


### LATERAL TOE-NAIL DETAIL

MII-TOENAIL SP T23399818

MiTek USA. Inc.

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NOTES:

- 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

> > SIDE VIEW (2x3) 2 NAILS

> > > NEAR SIDE NEAR SIDE

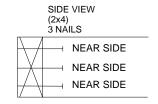
	TOE-NAIL SINGLE SHEAR VALUES PER NDS 2018 (lb/nail)										
	DIAM. SP DF HF SPF SPF-S										
b	.131	88.0	80.6	69.9	68.4	59.7					
LONG	.135	93.5	85.6	74.2	72.6	63.4					
.5" L	.162	108.8	99.6	86.4	84.5	73.8					
ω.											
ā	.128	74.2	67.9	58.9	57.6	50.3					
LONG	.131	75.9	69.5	60.3	59.0	51.1					
3.25"	.148	81.4	74.5	64.6	63.2	52.5					
3.5											

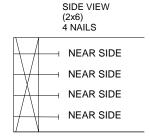
VALUES SHOWN ARE CAPACITY PER TOE-NAIL APPLICABLE DURATION OF LOAD INCREASES MAY BE APPLIED.

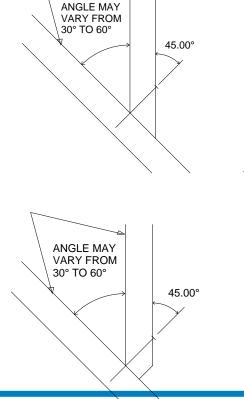
(3) - 16d (0.162" X 3.5") NAILS WITH SPF SPECIES BOTTOM CHORD

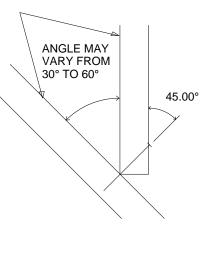
For load duration increase of 1.15:

3 (nails) X 84.5 (lb/nail) X 1.15 (DOL) = 291.5 lb Maximum Capacity









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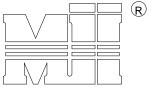


### TRUSSED VALLEY SET DETAIL

### MII-VALLEY HIGH WIND1 T23399819

MiTek USA, Inc.

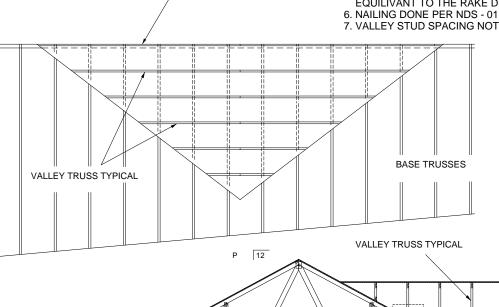
Page 1 of 1



MiTek USA, Inc.

### **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.
- 7. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.



GABLE END, COMMON TRUSS

OR GIRDER TRUSS

GABLE END, COMMON TRUSS OR GIRDER TRUSS

SEE DETAIL A BELOW (TYP.)

SECURE VALLEY TRUSS W/ ONE ROW OF 10d NAILS 6" O.C. ATTACH 2x4 CONTINUOUS NO.2 SP TO THE ROOF W/ TWO USP WS3 (1/4" X 3") WOOD SCREWS INTO EACH BASE TRUSS. **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, ASCE 7-16 160 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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Philip J. O'Regan PE No.58126 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610

April 2,2021

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\*\*ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



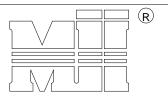
MiTek USA, Inc.

### TRUSSED VALLEY SET DETAIL

### MII-VALLEY HIGH WIND2 T23399820

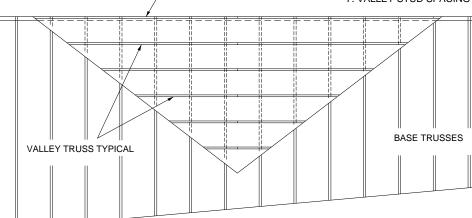
MiTek USA, Inc.

Page 1 of 1



### **GENERAL SPECIFICATIONS**

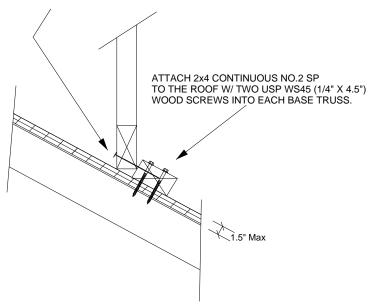
- 1. NAIL SIZE 10d (0.131" X 3")
- 2. WOOD SCREW = 4.5" WS45 USP OR EQUILIVANT
- 3. INSTALL SHEATHING TO TOP CHORD OF BASE TRUSSES.
- INSTALL SHEATING TO TOP CHORD OF BASE TRUS
   INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND
   SECURE TO BASE TRUSSES AS PER DETAIL A
   BRACE VALLEY WEBS IN ACCORDANCE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



GABLE END, COMMON TRUSS OR GIRDER TRUSS

> GABLE END, COMMON TRUSS VALLEY TRUSS TYPICAL OR GIRDER TRUSS 12 SEE DETAIL A BELOW (TYP.)

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, ASCE 7-16 160 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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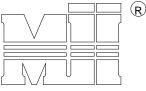


### TRUSSED VALLEY SET DETAIL

### MII-VALLEY SP T23399821

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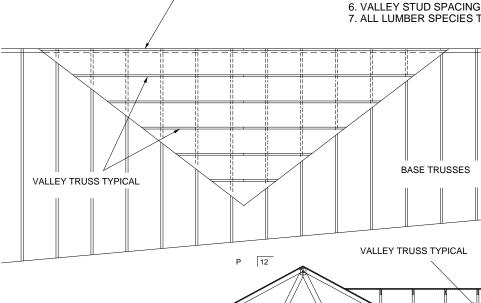
Page 1 of 1



MiTek USA, Inc.

### **GENERAL SPECIFICATIONS**

- 1. NAIL SIZE 16d (0.131" X 3.5")
- 2. INSTALL VALLÈY 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.



GABLE END, COMMON TRUSS OR GIRDER TRUSS

GABLE END, COMMON TRUSS OR GIRDER TRUSS

SEE DETAIL A BELOW (TYP.)

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. THE REAL PROPERTY. **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, ASCE 7-16 150 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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### TRUSSED VALLEY SET DETAIL

### MII-VALLEY SP T23399822

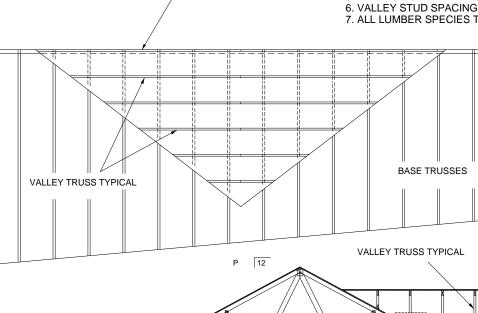
MiTek USA, Inc.

Page 1 of 1



### **GENERAL SPECIFICATIONS**

- 1. NAIL SIZE 16d (0.131" X 3.5")
- 2. INSTALL VALLÈY 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.



GABLE END, COMMON TRUSS OR GIRDER TRUSS

GABLE END, COMMON TRUSS OR GIRDER TRUSS

SEE DETAIL A BELOW (TYP.) 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. THE REAL PROPERTY. **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, ASCE 7-16 150 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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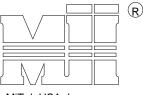


### Standard Gable End Detail

### MII-GE146-001 T23399823



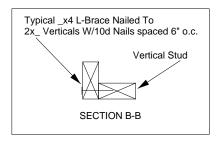
Page 1 of 2



DIAGONAL BRACE

4'-0" O.C. MAX

MiTek USA, Inc.



TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY. Varies to Common Truss SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA 3x4 =Ŕ

Vertical Stud DIAGONAL (4) - 16d Nails 16d Nails Spaced 6" o.c. (2) - 10d Nails into 2x6 2x6 Stud or 2x4 No.2 of better Typical Horizontal Brace Nailed To 2x\_ Verticals w/(4)-10d Nails **SECTION A-A** 2x4 Stud

> 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

### NOTE:

Diagonal Bracing

Refer to Section A-A

- 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.

- L-Bracing Refer

to Section B-B

- 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.
- THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES
- 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	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS		
and Grade		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

SHEATHING TO 2x4 STD SP BLOCK Roof Sheathing 24" Max 1'-3' (2) - 10d/ Max. **NÁILS** (2) - 10d NAILS Trusses @ 24" o.c. 2x6 DIAGONAL BRACE SPACED 48" O.C. Diag. Brace ATTACHED TO VERTICAL WITH (4) -16d at 1/3 points NAILS AND ATTACHED TO BLOCKING WITH (5) - 10d NAILS. if needed HORIZONTAL BRACE **End Wall** (SEE SECTION A-A)

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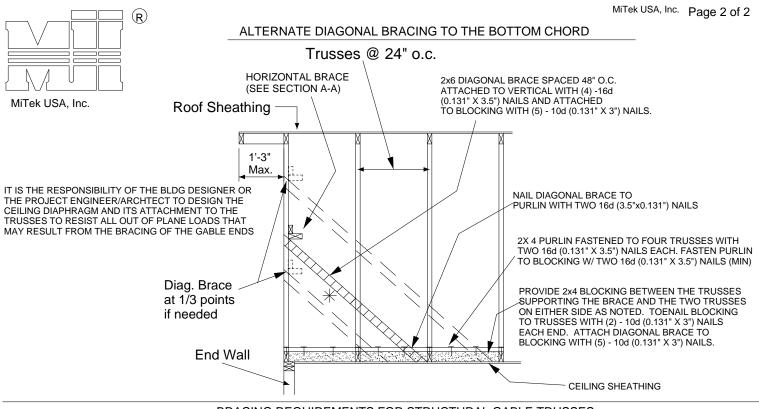
ASCE 7-98, ASCE 7-02, ASCE 7-05
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
DURANOMONONO ON COMPONENTS AND CLADDING.
DURANOMONO ON COMPONENTS AND CLADDING.
DURANOMONO ON COMPONENTS AND CLADDING.

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### Standard Gable End Detail

MII-SHEET 2 T23399823



### BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED: METHOD 1: ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE

FOLLOWING NAILING SCHEDULE.

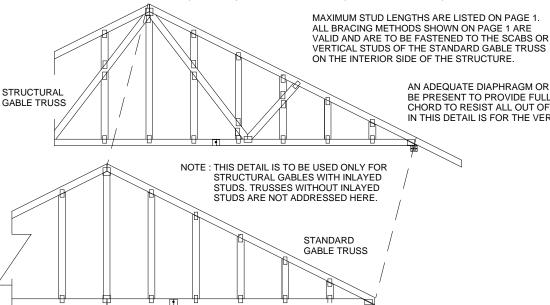
METHOD 2: ATTACH 2X SCABS TO THE FACE OF EACH VERTICAL

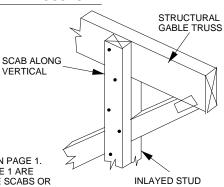
MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING

NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C. - FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL

MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)





AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

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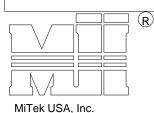
### **OCTOBER 5, 2016**

### REPLACE BROKEN OVERHANG

MII-REP13B T23399824

MiTek USA. Inc.

Page 1 of 1



TRUSS CRITERIA:

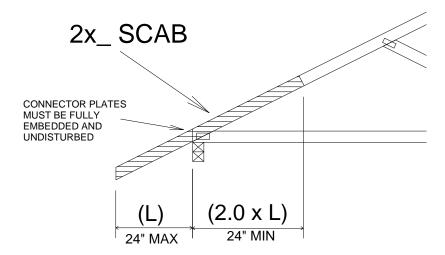
LOADING: 40-10-0-10 DURATION FACTOR: 1.15 SPACING: 24" O.C. TOP CHORD: 2x4 OR 2x6 PITCH: 4/12 - 12/12

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 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.

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Philip J. O'Regan PE No.58126 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

April 2,2021



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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information

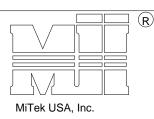
available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd. Tampa, FL 36610

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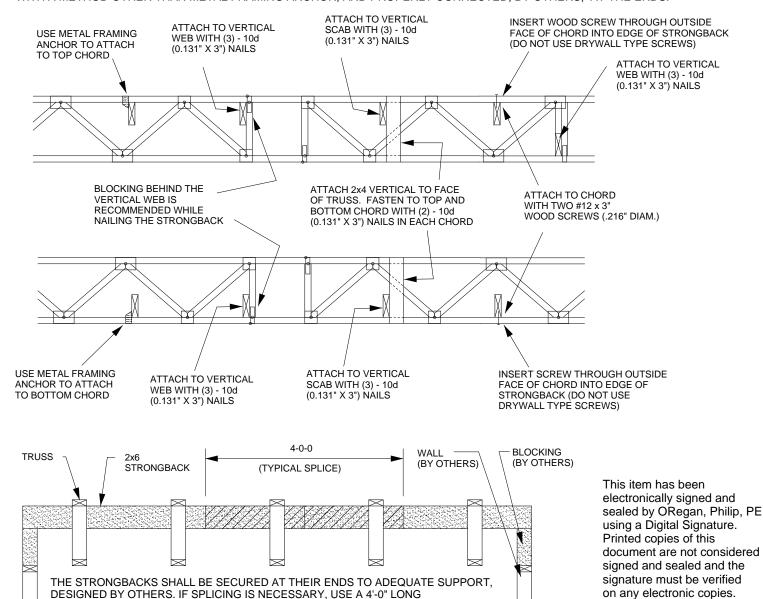
Page 1 of 1



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.



(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)

DESIGNED BY OTHERS. IF SPLICING IS NECESSARY, USE A 4'-0" LONG SCAB CENTERED ON THE SPLICE AND JOINED WITH (12) - 10d

April 2,2021



Philip J. O'Regan PE No.58126

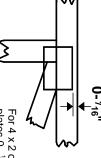
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### Symbols

## 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- <sup>1</sup>/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



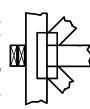
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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.

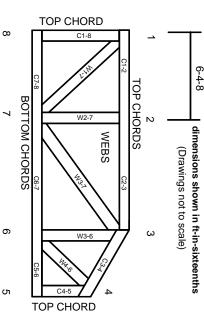
Min size shown is for crushing only

### Industry Standards:

National Design Specification for Metal Plate Connected Wood Truss Construction. Design Standard for Bracing.
Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

ANSI/TPI1: DSB-89:

## **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.

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MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

# **General Safety Notes**

# Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- 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.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.

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- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other.

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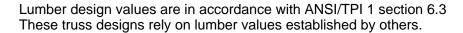
- Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

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Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber

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- Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
- Connections not shown are the responsibility of others.
- Do not cut or alter truss member or plate without prior approval of an engineer.
- 17. Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
- 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.



6/18/21 6/18/21 6/18/21 6/18/21 6/18/21 6/18/21



RE: 2623364 - HOUSECRAFT - LAW RES.

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

Site Information:

Customer Info: Housecraft Homes Project Name: Law Res. Model: Custom

Subdivision: N/A Lot/Block: N/A

Address: PARCEL RO 4572-001, 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: ASCE 7-16 Wind Speed: 130 mph Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 21 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	T24379585	CJ01	6/18/21	15	T24379599	T06	6/18/2
2	T24379586	CJ03	6/18/21	16	T24379600	<u>T</u> 07	6/18/2 <sup>-</sup>
3	T24379587	CJ03A	6/18/21	17	T24379601	<u>T</u> 08	6/18/2 <sup>-</sup>
4	T24379588	CJ05	6/18/21	18	T24379602	<u>T</u> 09	6/18/2 <sup>-</sup>
5 6	T24379589	CJ05A	6/18/21	19	T24379603	<u>T</u> 10	6/18/2 <sup>-</sup>
6	T24379590	EJ01	6/18/21	20	T24379604	T11_	6/18/2 <sup>-</sup>
7	T24379591	EJ02	6/18/21	21	T24379605	T11G	6/18/2 <sup>-</sup>
8	T24379592	HJ10	6/18/21				
9	T24379593	HJ10A	6/18/21				
10	T24379594	T01	6/18/21				
11	T24379595	T02	6/18/21				
12	T24379596	<u>T</u> 03	6/18/21				
13	T24379597	<u>T04</u>	6/18/21				
14	T24379598	T05	6/18/21				



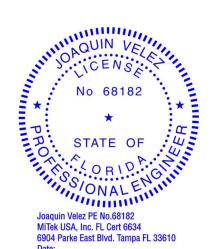
This item has been electronically signed and sealed by Velez, Joaquin, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

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.

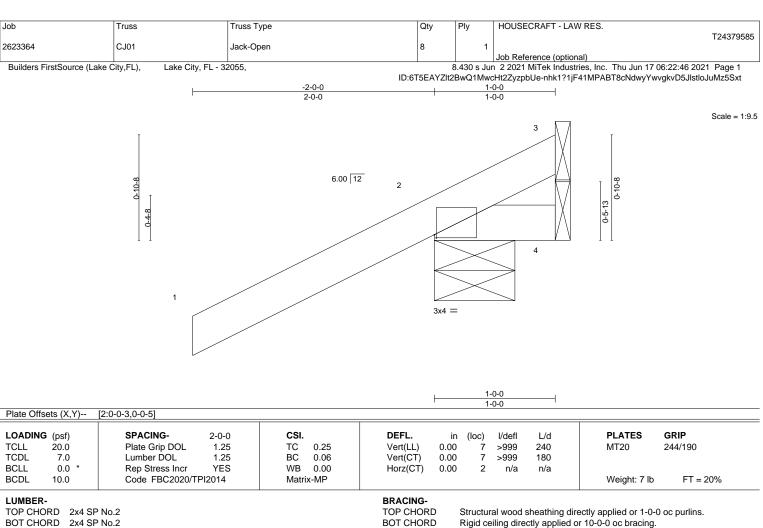
Truss Design Engineer's Name: Velez, Joaquin

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.



June 18,2021



REACTIONS. (size) 3=Mechanical, 2=0-8-0, 4=Mechanical Max Horz 2=46(LC 12)

Max Uplift 3=-27(LC 1), 2=-102(LC 12), 4=-46(LC 1) Max Grav 3=16(LC 16), 2=254(LC 1), 4=29(LC 16)

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

### NOTES-

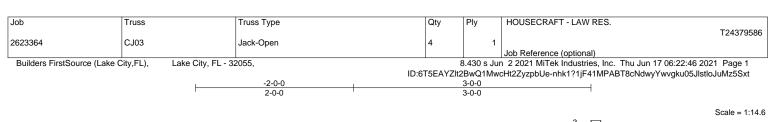
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / 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.
- \* 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 27 lb uplift at joint 3, 102 lb uplift at joint 2 and 46 lb uplift at joint 4.

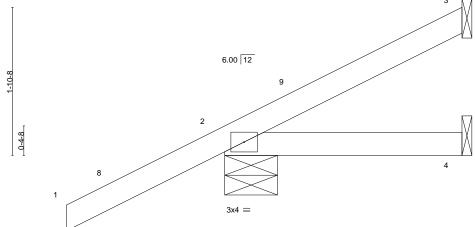
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June 18,2021









fl L/d	PLATES	0.D.I.D.
9 240 9 180 a n/a	MT20	<b>GRIP</b> 244/190 FT = 20%

**BRACING-**

**TOP CHORD** 

**BOT CHORD** 

3-0-0

Structural wood sheathing directly applied or 3-0-0 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

LUMBER-

REACTIONS.

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

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

Max Horz 2=80(LC 12)

Max Uplift 3=-31(LC 12), 2=-76(LC 12)

Max Grav 3=52(LC 1), 2=253(LC 1), 4=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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 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.
- \* 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 31 lb uplift at joint 3 and 76 lb uplift at joint 2.

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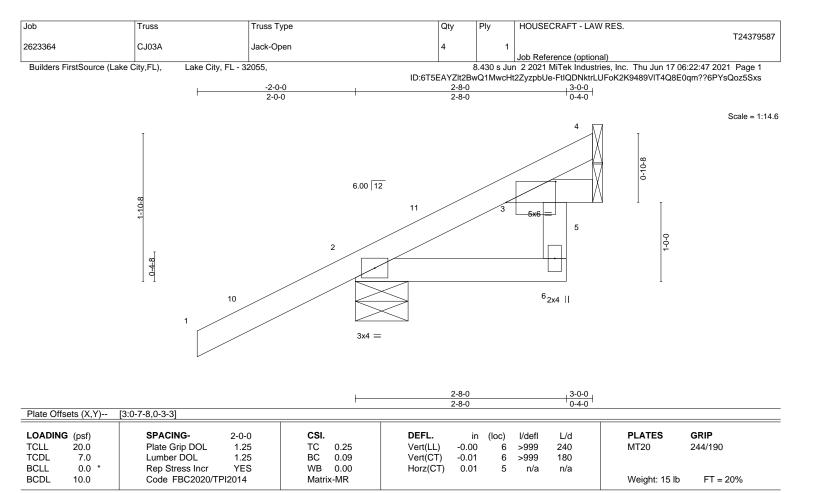
June 18,2021

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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 chorembers 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/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x4 SP No.2 2x4 SP No.2 \*Except\* **BOT CHORD** 

3-6: 2x4 SP No.3

REACTIONS. (size) 4=Mechanical, 2=0-8-0, 5=Mechanical

Max Horz 2=80(LC 12)

Max Uplift 4=-17(LC 12), 2=-76(LC 12), 5=-6(LC 12) Max Grav 4=42(LC 1), 2=255(LC 1), 5=45(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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 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 17 lb uplift at joint 4, 76 lb uplift at joint 2 and 6 lb uplift at joint 5.

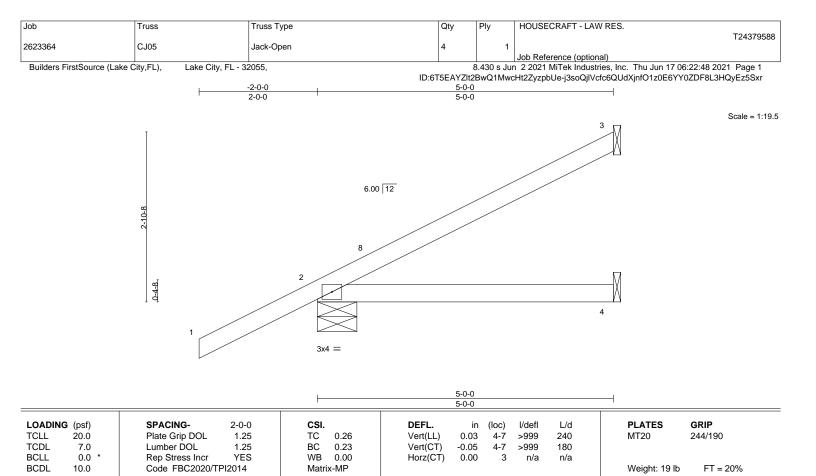
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June 18,2021

6904 Parke East Blvd

Structural wood sheathing directly applied or 3-0-0 oc purlins.

Rigid ceiling directly applied or 6-0-0 oc bracing.



LUMBER-

REACTIONS.

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

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

Max Horz 2=114(LC 12)

Max Uplift 3=-64(LC 12), 2=-80(LC 12)

Max Grav 3=108(LC 1), 2=313(LC 1), 4=87(LC 3)

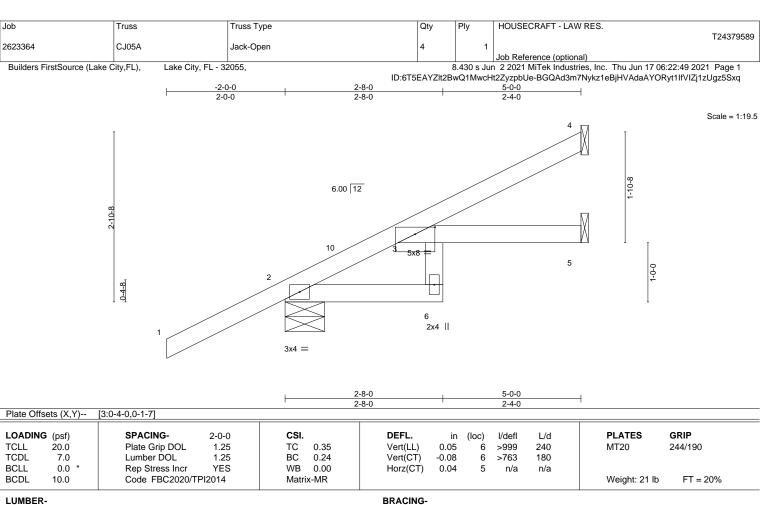
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

### 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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 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.
- \* 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 64 lb uplift at joint 3 and 80 lb uplift at joint 2.

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June 18,2021



TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x4 SP No.2 2x4 SP No.2 \*Except\* **BOT CHORD** 

3-6: 2x4 SP No.3

REACTIONS. (size) 4=Mechanical, 2=0-8-0, 5=Mechanical

Max Horz 2=114(LC 12)

Max Uplift 4=-50(LC 12), 2=-79(LC 12), 5=-10(LC 12) Max Grav 4=97(LC 1), 2=316(LC 1), 5=82(LC 3)

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

### NOTES-

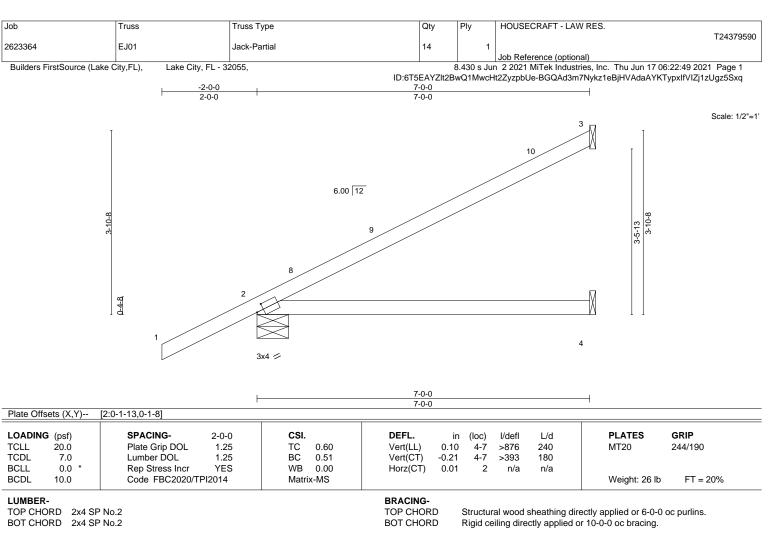
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 4-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 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 50 lb uplift at joint 4, 79 lb uplift at joint 2 and 10 lb uplift at joint 5.

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June 18,2021

Structural wood sheathing directly applied or 5-0-0 oc purlins.

Rigid ceiling directly applied or 6-0-0 oc bracing.



(size) 3=Mechanical, 2=0-8-0, 4=Mechanical Max Horz 2=144(LC 12)

Max Uplift 3=-84(LC 12), 2=-90(LC 12) Max Grav 3=160(LC 1), 2=380(LC 1), 4=125(LC 3)

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

### NOTES-

REACTIONS.

- 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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 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.
- \* 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 84 lb uplift at joint 3 and 90 lb uplift at joint 2.

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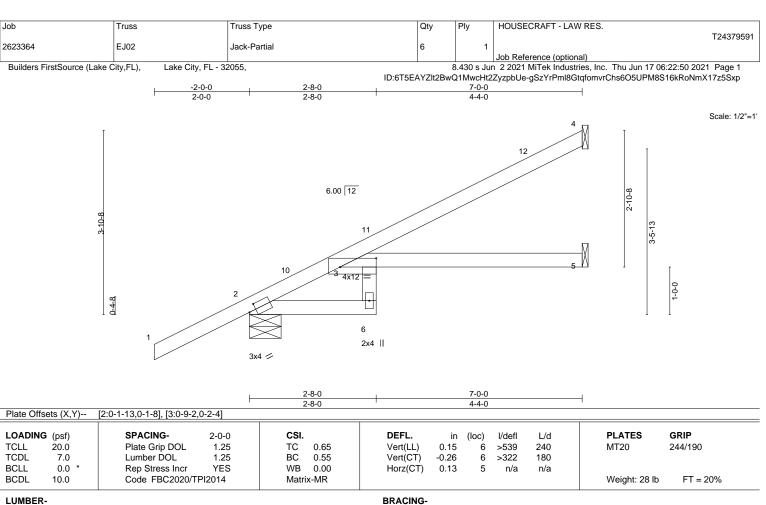
June 18,2021

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TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

TOP CHORD 2x4 SP No.2 2x4 SP No.2 \*Except\* **BOT CHORD** 

3-6: 2x4 SP No.3

(size) 4=Mechanical, 2=0-8-0, 5=Mechanical

Max Horz 2=144(LC 12)

Max Uplift 4=-70(LC 12), 2=-89(LC 12), 5=-10(LC 12) Max Grav 4=149(LC 1), 2=384(LC 1), 5=119(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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 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.
- Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 70 lb uplift at joint 4, 89 lb uplift at joint 2 and 10 lb uplift at joint 5.

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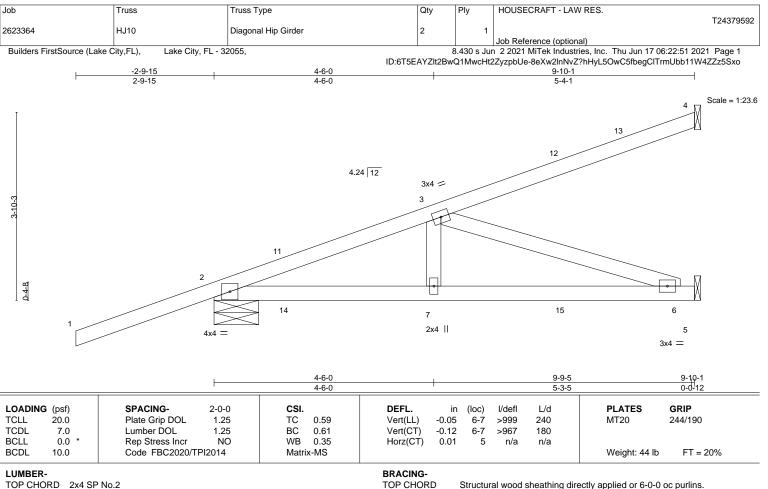
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Structural wood sheathing directly applied or 6-0-0 oc purlins.

Rigid ceiling directly applied or 6-0-0 oc bracing.



BOT CHORD

Rigid ceiling directly applied or 10-0-0 oc bracing

TOP CHORD

2x4 SP No.2

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

REACTIONS.

(size) 4=Mechanical, 2=0-10-15, 5=Mechanical

Max Horz 2=160(LC 4)

Max Uplift 4=-79(LC 4), 2=-168(LC 4), 5=-43(LC 8) Max Grav 4=150(LC 1), 2=463(LC 1), 5=266(LC 3)

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

TOP CHORD 2-3=-672/142

**BOT CHORD** 2-7=-180/581 6-7=-180/581

3-6=-611/190 WEBS

### 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) 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 79 lb uplift at joint 4, 168 lb uplift at joint 2 and 43 lb uplift at joint 5.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 56 lb down and 103 lb up at 1-6-1, 56 lb down and 103 lb up at 1-6-1, 62 lb down and 33 lb up at 4-4-0, 62 lb down and 33 lb up at 4-4-0, and 41 lb down and 75 lb up at 7-1-15, and 41 lb down and 75 lb up at 7-1-15 on top chord, and 21 lb down and 74 lb up at 1-6-1, 21 lb down and 74 lb up at 1-6-1, 24 lb down and 2 lb up at 4-4-0, 24 lb down and 2 lb up at 4-4-0, and 42 lb down at 7-1-15, and 42 lb down 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: 1-4=-54, 5-8=-20

Concentrated Loads (lb)

Vert: 7=5(F=2, B=2) 11=50(F=25, B=25) 12=-64(F=-32, B=-32) 14=70(F=35, B=35) 15=-49(F=-24, B=-24)

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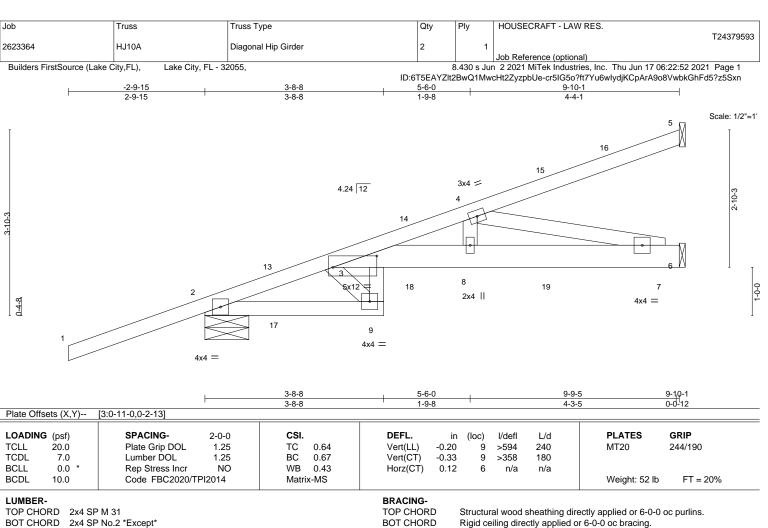
June 18,2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





3-9: 2x4 SP No.3, 3-6: 2x6 SP No.2

WEBS 2x4 SP No.3

REACTIONS. (size) 5=Mechanical, 2=0-10-15, 6=Mechanical

Max Horz 2=160(LC 4)

Max Uplift 5=-49(LC 4), 2=-187(LC 4), 6=-97(LC 8) Max Grav 5=110(LC 1), 2=486(LC 1), 6=312(LC 1)

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

TOP CHORD 3-4=-1162/373

3-8=-425/1105, 7-8=-427/1112 BOT CHORD **WEBS** 4-8=-68/353, 4-7=-1141/438

### 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) 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
- Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 5, 187 lb uplift at joint 2 and 97 lb uplift at joint 6.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 56 lb down and 103 lb up at 1-6-1, 56 lb down and 103 lb up at 1-6-1, 66 lb down and 18 lb up at 4-4-0, 66 lb down and 18 lb up at 4-4-0, and 42 lb down and 60 lb up at 7-1-15, and 42 lb down and 60 lb up at 7-1-15 on top chord, and 21 lb down and 74 lb up at 1-6-1, 21 lb down and 74 lb up at 1-6-1, 25 lb down and 15 lb up at 4-4-0, 25 lb down and 15 lb up at 4-4-0, and 42 lb down and 26 lb up at 7-1-15, and 42 lb down and 26 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: 1-3=-54, 3-5=-54, 9-10=-20, 3-6=-20

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June 18,2021

Continued on page 2

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

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see 

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job	Truss	Truss Type	Qty	Ply	HOUSECRAFT - LAW RES.	П
			_		T24379593	3
2623364	HJ10A	Diagonal Hip Girder	2	1		
					Llob Reference (optional)	

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jun 17 06:22:52 2021 Page 2 ID:6T5EAYZlt2BwQ1MwcHt2ZyzpbUe-cr5IG5o?ft7Yu6wlydjKCpArA9o8VwbkGhFd5?z5Sxn

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 13=50(F=25, B=25) 14=-3(F=-1, B=-1) 15=-41(F=-21, B=-21) 17=70(F=35, B=35) 18=-21(F=-11, B=-11) 19=-77(F=-39, B=-39)

6904 Parke East Blvd. Tampa, FL 36610

HOUSECRAFT - LAW RES. Job Truss Truss Type Qtv Plv T24379594 2623364 T01 Hip Girder 2 Job Reference (optional) Builders FirstSource (Lake City,FL), 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jun 17 06:22:56 2021 Page 1 Lake City, FL - 32055

4-9-0

1-8-0

4-4-0

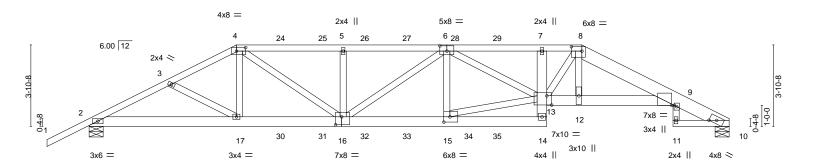
Structural wood sheathing directly applied or 5-0-7 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

ID:6T5EAYZlt2BwQ1MwcHt2ZyzpbUe-UcLp5SrWj6d\_NjE3BToGMfLY0mAeRfGKAJDrEmz5Sxj 17-0-0 21-9-0 23-5-0 27-9-0 30-5-0 3-10-15 12-0-14 4-11-2

2-8-0

Scale = 1:54.7



		7-0-0	_ 1	2-0-14	17-0-0	21-9-0	23-	5-0 27-9-0	30-5-0
	ı	7-0-0	'	5-0-14	4-11-2	4-9-0	1-8	i-0 <sup>1</sup> 4-4-0	2-8-0
Plate Offse	ets (X,Y)	[4:0-5-4,0-2-0], [6:0-4-0,0-	3-0], [8:0-6-0,	0-2-8], [9:0-1-8,	0-0-0], [10:0-4-0,0-1-15], [ <sup>1</sup>	13:0-2-12,0-5-4],	[15:0-3-8,0-3-	-0], [16:0-3-8,0-4-8]	
LOADING	(nof)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl L	/d <b>PLATI</b>	S GRIP
	VI /					( /		-	
TCLL	20.0	Plate Grip DOL	1.25		.52 Vert(LL)	-0.20 15-16	>999 24		244/190
TCDL	7.0	Lumber DOL	1.25	BC 0	.63 Vert(CT)	-0.37 15-16	>985 18	30	
BCLL	0.0 *	Rep Stress Incr	NO	WB 0	.77 Horz(CT)	0.18 10	n/a n	/a	
BCDL	10.0	Code FBC2020/TF	12014	Matrix-N	/IS			Weigh	t: 394 lb FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

2-0-0

3-10-15

3-1-1

5-0-14

TOP CHORD 2x4 SP No.2 \*Except\*

8-10: 2x8 SP 2400F 2.0E

2x6 SP No.2 \*Except\* **BOT CHORD** 

9-13: 2x6 SP M 26, 9-11,10-11: 2x4 SP No.2

WEBS 2x4 SP No.3

REACTIONS. (size) 10=0-8-0, 2=0-8-0

Max Horz 2=82(LC 31)

Max Uplift 10=-589(LC 9), 2=-591(LC 8) Max Grav 10=2237(LC 1), 2=2287(LC 1)

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

TOP CHORD  $2\text{-}3\text{=-}4482/1137, \, 3\text{-}4\text{=-}4321/1094, \, 4\text{-}5\text{=-}5257/1355, \, 5\text{-}6\text{=-}5270/1361, \, 6\text{-}7\text{=-}5737/1539, \, 6\text{-}6\text{=-}5270/1361, \, 6\text{-}7\text{=-}5737/1539, \, 6\text{-}6\text{=-}5737/1539, \, 6\text{-}6\text{-}6\text{-}6\text{--}5737/1539, \, 6\text{-}6\text{--}6\text{--}5737/1539, \, 6\text{-}6\text{--}5737/1539, \, 6\text{--}6\text{--}5737/1539, \, 6\text{--}6\text{--}5737/1539, \, 6\text{--}6\text{-$ 

7-8=-5904/1573, 8-9=-6010/1577, 9-20=-1122/319

BOT CHORD 2-17=-1022/3969, 16-17=-936/3865, 15-16=-1354/5437, 14-15=-367/1509,

12-13=-1394/5597, 9-12=-1370/5504, 9-11=-66/276

**WEBS** 4-17=-45/655, 4-16=-504/1745, 5-16=-606/318, 6-15=-649/312, 13-15=-1010/4023,

6-13=-141/362, 8-13=-173/606, 8-12=-403/1590

### NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:

Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x8 - 2 rows staggered 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 589 lb uplift at joint 10 and 591 lb uplift at joint 2.

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June 18,2021

### Continued on page 2

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

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\*\*ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job	Truss	Truss Type	Qty	Ply	HOUSECRAFT - LAW RES.
2623364	T01	Hip Girder	1	_	T24379594
202004	101	The Chack	'	2	Job Reference (optional)

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jun 17 06:22:56 2021 Page 2 ID:6T5EAYZlt2BwQ1MwcHt2ZyzpbUe-UcLp5SrWj6d\_NjE3BToGMfLY0mAeRfGKAJDrEmz5Sxj

### NOTES-

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 125 lb down and 88 lb up at 7-0-0, 106 lb down and 88 lb up at 9-0-12, 106 lb down and 88 lb up at 11-0-12, 106 lb down and 88 lb up at 13-0-12, 106 lb down and 82 lb up at 15-0-12, 106 lb down and 82 lb up at 15-0-12, 106 lb down and 88 lb up at 17-4-4, 106 lb down and 88 lb up at 19-4-4, and 106 lb down and 88 lb up at 21-4-4, and 113 lb down and 74 lb up at 23-5-0 on top chord, and 294 lb down and 70 lb up at 7-0-0, 85 lb down at 9-0-12, 85 lb down at 11-0-12, 85 lb down at 13-0-12, 85 lb down at 15-0-12, 85 lb down 17-4-4, 85 lb down at 19-4-4, and 85 lb down at 21-6-4, and 358 lb down and 156 lb up at 23-4-4 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: 1-4=-54, 4-8=-54, 8-9=-54, 9-20=-54, 2-14=-20, 9-13=-20, 10-11=-20

Concentrated Loads (lb)

Vert: 4=-106(F) 8=-95(F) 14=-61(F) 7=-106(F) 17=-284(F) 12=-358(F) 24=-106(F) 25=-106(F) 26=-106(F) 27=-213(F) 28=-106(F) 29=-106(F) 30=-61(F) 31=-61(F) 32=-61(F) 33=-122(F) 34=-61(F) 35=-61(F)

Ply HOUSECRAFT - LAW RES. Job Truss Type Truss Qtv T24379595 2623364 T02 Hip Job Reference (optional) Builders FirstSource (Lake City,FL), Lake City, FL - 32055 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jun 17 06:22:57 2021 Page 1 ID:6T5EAYZIt2BwQ1MwcHt2ZyzpbUe-yovBJos8UPIr?tpFIAJVvsuiuAUoA7dTPzzOnDz5Sxi 21-9-0 24-5-0 0-4-0 2-8-0 21-5-0 27-9-0 30-5-0 32-5-0

6-2-8

6-2-8

2-0-0 Scale = 1:55.0

2-8-0

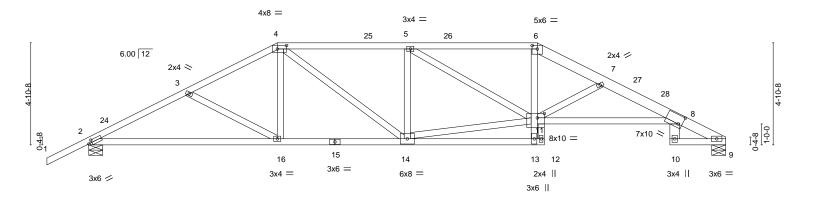
3-4-0

Structural wood sheathing directly applied or 3-9-14 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing, Except:

9-1-3 oc bracing: 2-16

6-0-0 oc bracing: 11-12.



L	9-0-0	15-2-8		21-5-0	21 <sub>1</sub> -9 <sub>1</sub> -0	27-9-0	30-5-0
	9-0-0	6-2-8		6-2-8	0-4-0	6-0-0	2-8-0
Plate Offsets (X,Y)	[2:0-1-15,0-1-8], [4:0-5-4,0-2-0], [6:0-3-	0,0-2-0], [8:0-2-4,0-4-15], [1	1:0-4-0,0-2-8]				
LOADING (psf) TCLL 20.0 TCDL 7.0 BCLL 0.0 * BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.25 Lumber DOL 1.25 Rep Stress Incr YES Code FBC2020/TPI2014	CSI. TC 0.57 BC 0.76 WB 0.69 Matrix-MS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) -0.23 8-11 -0.47 8-11 0.25 9	l/defl L/d >999 240 >777 180 n/a n/a	PLATES MT20 Weight: 17	<b>GRIP</b> 244/190  70 lb FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

2-0-0

4-9-8

4-2-8

TOP CHORD 2x4 SP No.2 \*Except\*

6-9: 2x6 SP M 26

**BOT CHORD** 2x4 SP No.2 \*Except\*

11-12: 2x4 SP No.3, 8-11: 2x4 SP M 31, 8-10: 2x6 SP No.2

WEBS 2x4 SP No.3

REACTIONS. (size) 9=0-8-0, 2=0-8-0

Max Horz 2=98(LC 12)

Max Uplift 9=-234(LC 13), 2=-285(LC 12) Max Grav 9=1124(LC 1), 2=1225(LC 1)

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

TOP CHORD  $2\text{-}3\text{--}2046/450,\ 3\text{-}4\text{--}1787/377,\ 4\text{-}5\text{--}1865/434,\ 5\text{-}6\text{--}1912/432,\ 6\text{-}7\text{--}2313/480,}$ 

7-8=-2880/599, 8-19=-557/135

BOT CHORD 2-16=-417/1790, 14-16=-281/1557, 11-12=-411/0, 8-11=-507/2746

**WEBS** 3-16=-276/154, 4-16=-24/382, 4-14=-159/476, 5-14=-431/174, 11-13=0/579,

6-11=-139/892, 11-14=-338/1744, 7-11=-897/256

### 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) -2-0-0 to 1-0-8, Interior(1) 1-0-8 to 9-0-0, Exterior(2R) 9-0-0 to 13-3-10, Interior(1) 13-3-10 to 21-5-0, Exterior(2R) 21-5-0 to 25-8-10, Interior(1) 25-8-10 to 30-1-0 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) 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.
- \* 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 234 lb uplift at joint 9 and 285 lb uplift at joint 2.

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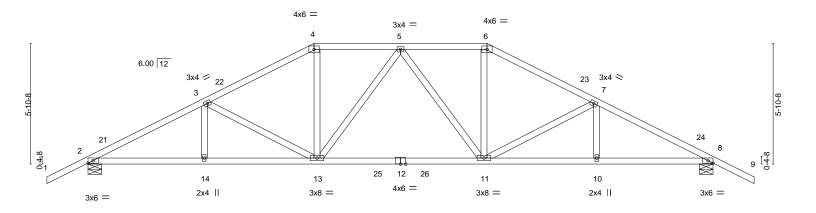
June 18,2021





Qty HOUSECRAFT - LAW RES. Job Truss Type Truss Plv T24379596 2623364 T03 Hip Job Reference (optional) Builders FirstSource (Lake City,FL), 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jun 17 06:22:58 2021 Page 1 Lake City, FL - 32055, ID:6T5EAYZIt2BwQ1MwcHt2ZyzpbUe-R?SaW8smFjtic1NSJuqkR4QxyapmvfVdediyJfz5Sxh 19-5-0 30-5-0 2-0-0 5-7-15 5-4-1 4-2-8 4-2-8 5-4-1 5-7-15 2-0-0

Scale = 1:56.1



		5-7-15	11-0-0	1	19-5-0	1 24-9-1	30-5-0	
	1	5-7-15	5-4-1	ı	8-5-0	5-4-1	5-7-15	
Plate Offse	ets (X,Y)	[8:0-2-15,Edge]						
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 0.30	Vert(LL) -0.22	11-13 >999 240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC 0.78	Vert(CT) -0.39	11-13 >941 180		
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.33	Horz(CT) 0.09	8 n/a n/a		
BCDL	10.0	Code FBC2020/7	ΓPI2014	Matrix-MS			Weight: 162 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

**WEBS** 2x4 SP No.3

REACTIONS. (size) 2=0-8-0, 8=0-8-0 Max Horz 2=97(LC 12)

Max Uplift 2=-284(LC 12), 8=-284(LC 13) Max Grav 2=1307(LC 2), 8=1307(LC 2)

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

2-3=-2243/426, 3-4=-1807/361, 4-5=-1579/355, 5-6=-1579/355, 6-7=-1807/361, TOP CHORD

7-8=-2243/426

2-14=-389/1964, 13-14=-389/1964, 11-13=-216/1648, 10-11=-297/1964, 8-10=-297/1964 BOT CHORD

**WEBS**  $3-13=-461/188,\ 4-13=-78/589,\ 5-13=-252/112,\ 5-11=-252/112,\ 6-11=-77/589,$ 

7-11=-461/189

### 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) -2-0-0 to 1-0-8, Interior(1) 1-0-8 to 11-0-0, Exterior(2R) 11-0-0 to 15-2-8, Interior(1) 15-2-8 to 19-5-0, Exterior(2R) 19-5-0 to 23-8-10, Interior(1) 23-8-10 to 32-5-0 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.
- 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 284 lb uplift at joint 2 and 284 lb uplift at joint 8.

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June 18,2021



Structural wood sheathing directly applied or 3-9-10 oc purlins.

Rigid ceiling directly applied or 9-5-7 oc bracing.

Ply HOUSECRAFT - LAW RES. Job Truss Type Truss Qtv T24379597 2623364 T04 Hip Job Reference (optional) Builders FirstSource (Lake City,FL), 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jun 17 06:22:59 2021 Page 1 Lake City, FL - 32055, ID:6T5EAYZIt2BwQ1MwcHt2ZyzpbUe-vB0ykUtO01?YEAyesbLz\_Hz4p\_DEe3DmtHSVr5z5Sxg

1<u>7-5-0</u>

4-5-0

23-6-14

6-1-14

13-0-0

6-1-14

Scale = 1:57.0

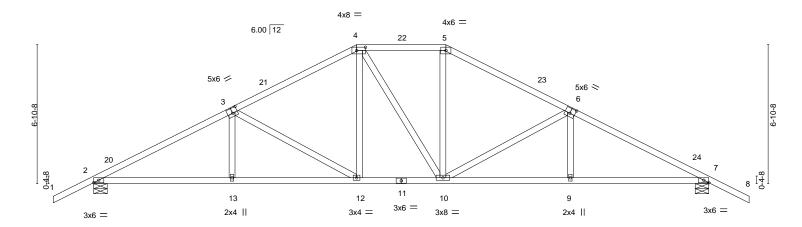
2-0-0

30-5-0

6-10-2

Structural wood sheathing directly applied or 3-9-2 oc purlins.

Rigid ceiling directly applied or 9-6-4 oc bracing.



		6-10-2	1 1	13-0-0	17-5-0	23-6-14	30-5-0	
	I	6-10-2	' 6	S-1-14	4-5-0	6-1-14	6-10-2	1
Plate Offsets	(X,Y)	[3:0-3-0,0-3-0], [4:0-5-4,0-2-0	0], [6:0-3-0,0-3	i-0], [7:0-2-15,Edge	]			
LOADING (p	osf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc) I/defl L/d	PLATES	GRIP
TCLL 20	O.Ó	Plate Grip DOL	1.25	TC 0.42	Vert(LL)	-0.10 12 >999 240	MT20	244/190
TCDL 7	7.0	Lumber DOL	1.25	BC 0.57	Vert(CT)	-0.20 12-13 >999 180		
BCLL (	0.0 *	Rep Stress Incr	YES	WB 0.56	Horz(CT)	0.08 7 n/a n/a		
BCDL 10	0.0	Code FBC2020/TPI2	014	Matrix-MS			Weight: 162 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

2-0-0

6-10-2

REACTIONS. (size) 2=0-8-0, 7=0-8-0

Max Horz 2=112(LC 12) Max Uplift 2=-281(LC 12), 7=-281(LC 13) Max Grav 2=1233(LC 1), 7=1233(LC 1)

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

TOP CHORD 2-3=-2039/408. 3-4=-1502/352. 4-5=-1276/350. 5-6=-1503/352. 6-7=-2039/409 2-13=-378/1762, 12-13=-377/1763, 10-12=-181/1275, 9-10=-283/1763, 7-9=-283/1761 BOT CHORD  $3-13=0/278,\ 3-12=-569/226,\ 4-12=-77/401,\ 5-10=-70/401,\ 6-10=-568/226,\ 6-9=0/278$ WEBS

### 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) -2-0-0 to 1-0-8, Interior(1) 1-0-8 to 13-0-0, Exterior(2E) 13-0-0 to 17-5-0, Exterior(2R) 17-5-0 to 21-8-10, Interior(1) 21-8-10 to 32-5-0 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) 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.
- \* 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 281 lb uplift at joint 2 and 281 lb uplift at ioint 7.

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June 18,2021

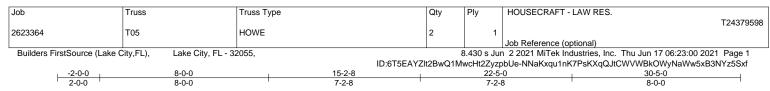


WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

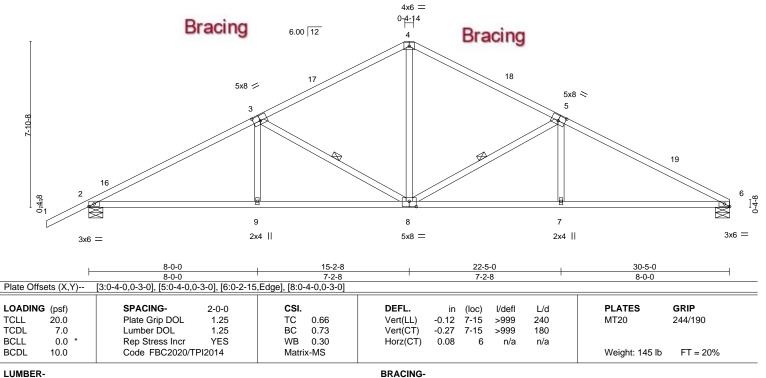
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chorembers 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/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





Scale = 1:54.7



TOP CHORD

**BOT CHORD** 

WFBS

LUMBER-

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

REACTIONS. (size) 2=0-8-0, 6=0-8-0 Max Horz 2=142(LC 16)

Max Uplift 2=-278(LC 12), 6=-233(LC 13) Max Grav 2=1237(LC 1), 6=1122(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-1993/389, 3-4=-1367/317, 4-5=-1368/325, 5-6=-2012/401 2-9=-378/1710, 8-9=-379/1706, 7-8=-279/1726, 6-7=-278/1729 BOT CHORD WEBS 3-9=0/321, 4-8=-142/791, 5-7=0/324, 3-8=-669/269, 5-8=-692/281

### 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) -2-0-0 to 1-0-8, Interior(1) 1-0-8 to 15-2-8, Exterior(2R) 15-2-8 to 19-6-2, Interior(1) 19-6-2 to 30-5-0 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.
- \* 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 278 lb uplift at joint 2 and 233 lb uplift at joint 6

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June 18,2021





Structural wood sheathing directly applied or 3-1-13 oc purlins.

3-8. 5-8

Rigid ceiling directly applied or 9-4-4 oc bracing.

1 Row at midpt

Qty HOUSECRAFT - LAW RES. Job Truss Truss Type Plv T24379599 2623364 T06 Hip Girder 2 Job Reference (optional) Builders FirstSource (Lake City,FL), 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jun 17 06:23:04 2021 Page 1 Lake City, FL - 32055 ID:6T5EAYZlt2BwQ1MwcHt2ZyzpbUe-F8qrnBxXrZdrLyrbf8x8hLgvz?vCJHzV0YAGWJz5Sxb

4-1-4

19-3-12

4-1-4

23-5-0

4-1-4

Scale = 1:54.7

30-5-0

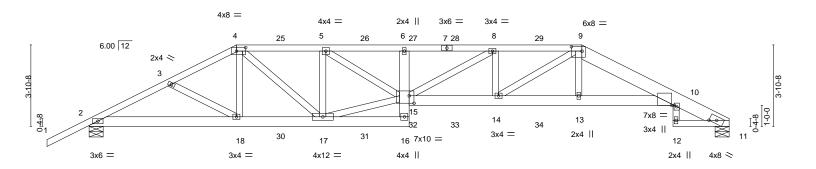
2-8-0

27-9-0

4-4-0

Structural wood sheathing directly applied or 4-2-14 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.



<u> </u>	3-10-15 3-10-15	7-0-0 3-1-1	11-1-4 4-1-4	15-2-8 4-1-4	19-3		23-5-0 4-1-4			30-5-0 2-8-0
Plate Offsets (X,Y)	- [4:0-5-4,0-2-0], [	9:0-6-0,0-2-8], [10	:0-1-8,0-0-0], [11:	0-4-0,0-1-15],	[15:0-2-12,0-4-4]					
LOADING (psf) TCLL 20.0 TCDL 7.0 BCLL 0.0 * BCDL 10.0	SPACING Plate Grip Lumber D Rep Stres Code FB6	DOL 1.25 DOL 1.25	CSI. TC BC WB Matr	0.52 0.58 0.72 ix-MS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) -0.26 14-15 -0.49 14-15 0.20 11	>999 24 >747 18	/d 40 80 <sub>h</sub> /a	PLATES MT20 Weight: 387 lb	<b>GRIP</b> 244/190 FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*

9-11: 2x8 SP 2400F 2.0E

3-10-15

3-10-15

3-1-1

4-1-4

2-0-0

**BOT CHORD** 2x4 SP No.2 \*Except\*

2-16,6-16: 2x6 SP No.2, 10-15: 2x6 SP M 26

WEBS 2x4 SP No.3

REACTIONS. (size) 11=0-8-0, 2=0-8-0

Max Horz 2=82(LC 31)

Max Uplift 11=-630(LC 9), 2=-621(LC 8) Max Grav 11=2242(LC 1), 2=2290(LC 1)

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

 $2\hbox{-}3\hbox{-}4489/1205, 3\hbox{-}4\hbox{-}4319/1158, 4\hbox{-}5\hbox{-}5067/1401, 5\hbox{-}6\hbox{-}-7235/1991, 6\hbox{-}8\hbox{-}-7583/2087,}$ TOP CHORD

8-9=-7032/1980, 9-10=-5984/1690, 10-21=-1124/340

BOT CHORD  $2-18 = -1082/3977, \ 17-18 = -992/3860, \ 16-17 = -379/1412, \ 15-16 = 0/263, \ 6-15 = -482/243, \ 16-17 = -379/1412, \ 15-16 = 0/263, \ 16-17 = -379/1412$ 

14-15=-1918/7032, 13-14=-1491/5545, 10-13=-1476/5486, 10-12=-71/277

**WEBS** 4-18=-52/640, 4-17=-514/1628, 5-17=-1884/648, 15-17=-990/3775, 5-15=-744/2579,

8-15=-184/681, 8-14=-753/280, 9-14=-526/1819, 9-13=-261/1020

### NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:

Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x8 - 2 rows staggered 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 630 lb uplift at joint 11 and 621 lb uplift at joint 2.

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June 18,2021

### Continued on page 2

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chorembers 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

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Job	Truss	Truss Type	Qty	Ply	HOUSECRAFT - LAW RES.	
						T24379599
2623364	T06	Hip Girder	1	2		
					Job Reference (optional)	

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jun 17 06:23:04 2021 Page 2 ID:6T5EAYZIt2BwQ1MwcHt2ZyzpbUe-F8qrnBxXrZdrLyrbf8x8hLgvz?vCJHzV0YAGWJz5Sxb

### NOTES-

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 125 lb down and 88 lb up at 7-0-0, 106 lb down and 88 lb up at 9-0-12, 106 lb down and 88 lb up at 11-0-12, 106 lb down and 88 lb up at 15-0-12, 106 lb down and 82 lb up at 15-0-12, 95 lb down and 68 lb up at 15-4-4, 95 lb down and 74 lb up at 17-4-4, 95 lb down and 74 lb up at 19-4-4, and 95 lb down and 74 lb up at 21-4-4, and 113 lb down and 74 lb up at 23-5-0 on top chord, and 294 lb down and 70 lb up at 7-0-0, 85 lb down at 9-0-12, 85 lb down at 11-0-12, 85 lb down at 13-0-12, 85 lb down at 14-11-12, 79 lb down and 30 lb up at 15-4-4, 79 lb down and 30 lb up at 17-4-4, 79 lb down and 30 lb up at 19-4-4, and 79 lb down and 30 lb up at 21-4-4, and 358 lb down and 156 lb up at 23-4-4 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: 1-4=-54, 4-9=-54, 9-10=-54, 10-21=-54, 2-16=-20, 10-15=-20, 11-12=-20

Concentrated Loads (lb)

Vert: 4=-106(B) 9=-95(B) 16=-61(B) 6=-106(B) 18=-284(B) 17=-61(B) 5=-106(B) 8=-95(B) 14=-75(B) 13=-358(B) 25=-106(B) 26=-106(B) 27=-95(B) 28=-95(B) 29=-95(B) 30=-61(B) 31=-61(B) 32=-75(B) 33=-75(B) 34=-75(B)

Ply HOUSECRAFT - LAW RES. Job Truss Type Truss Qtv T24379600 2623364 T07 Hip Job Reference (optional) Builders FirstSource (Lake City,FL), Lake City, FL - 32055 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jun 17 06:23:05 2021 Page 1 ID:6T5EAYZlt2BwQ1MwcHt2ZyzpbUe-jLOD\_Xy9ctliy5QoDsSNDYD3UPDn2nHfFCvp3lz5Sxa 21-5-0 24-5-0 27-9-0 30-5-0 32-5-0

6-2-8

3-0-0

3-4-0

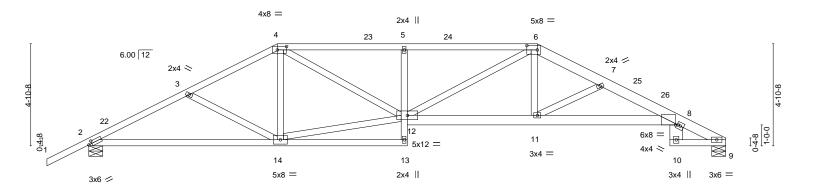
Structural wood sheathing directly applied or 3-3-12 oc purlins.

Rigid ceiling directly applied or 9-1-10 oc bracing.

6-2-8

2-0-0 Scale = 1:55.0

2-8-0



	<u> </u>	9-0-0			15-2-8		21-5-0		-		27-9-0		30-5-0
Plate Offse	ets (X,Y)	9-0-0 [2:0-1-15,0-1-8], [4:0-5-4,	0-2-0], [6:0-6-0	),0-2-8], [8:0-	6-2-8 1-8,0-0-0]		6-2-8				6-4-0		2-8-0
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLAT	ES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.60	Vert(LL)	-0.21	8-11	>999	240	MT20		244/190
TCDL BCLL	7.0 0.0 *	Lumber DOL Rep Stress Incr	1.25 YES	BC WB	0.75 0.52	Vert(CT) Horz(CT)	-0.39 0.23	8-11	>932 n/a	180 n/a			
BCDL	10.0	Code FBC2020/TF	PI2014	Matri	x-MS	, ,					Weigh	it: 177 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

2-0-0

4-9-8

4-2-8

TOP CHORD 2x4 SP No.2 \*Except\*

6-9: 2x6 SP M 26

**BOT CHORD** 2x4 SP No.2 \*Except\*

5-13: 2x4 SP No.3, 8-12: 2x6 SP M 26, 8-10: 2x8 SP 2400F 2.0E

WEBS 2x4 SP No.3

REACTIONS. (size) 9=0-8-0, 2=0-8-0

Max Horz 2=98(LC 12)

Max Uplift 9=-236(LC 13), 2=-284(LC 12) Max Grav 9=1119(LC 1), 2=1225(LC 1)

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

TOP CHORD 2-3=-2047/447, 3-4=-1793/378, 4-5=-2383/523, 5-6=-2398/527, 6-7=-2367/484,

7-8=-2898/603, 8-17=-636/152

BOT CHORD 2-14=-415/1790, 5-12=-379/184, 11-12=-319/2066, 8-11=-501/2715

**WEBS** 3-14=-272/155, 12-14=-252/1375, 4-12=-247/989, 6-12=-174/502, 6-11=-103/700,

7-11=-762/235

### 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) -2-0-0 to 1-0-8, Interior(1) 1-0-8 to 9-0-0, Exterior(2R) 9-0-0 to 13-3-10, Interior(1) 13-3-10 to 21-5-0, Exterior(2R) 21-5-0 to 25-8-10, Interior(1) 25-8-10 to 30-1-0 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) 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.
- \* 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 236 lb uplift at joint 9 and 284 lb uplift at joint 2.

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June 18,2021



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

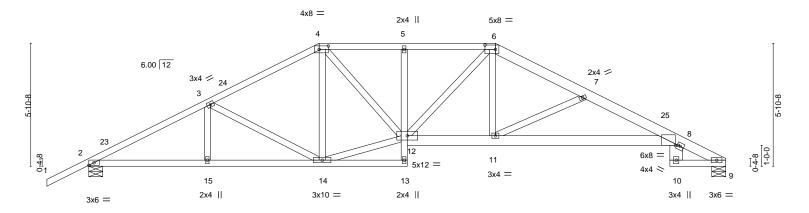
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Qty HOUSECRAFT - LAW RES. Job Truss Type Truss Plv T24379601 2623364 T08 Hip Job Reference (optional) Builders FirstSource (Lake City,FL), 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jun 17 06:23:06 2021 Page 1 Lake City, FL - 32055, ID:6T5EAYZIt2BwQ1MwcHt2ZyzpbUe-CXxbCtznMAuZaF?\_nZ\_cmmlEEodpnF1oUsfNbBz5SxZ 11-0-0 19-5-0 23-7-0 27-9-0 30-5-0 32-5-0 2-0-0 5-7-15 5-4-1 4-2-8 4-2-8 4-2-0 4-2-0 2-8-0 2-0-0

Scale = 1:55.0



<u> </u>	5-7-15	11-0-0	15-2-8		-		27-9-0		30-5-0
Plate Offsets (X,Y)	5-7-15 [4:0-5-4,0-2-0], [6:0-6-6	5-4-1 0,0-2-8], [8:0-1-8,0		4-2-8			8-4-0	·	2-8-0
LOADING (psf) TCLL 20.0 TCDL 7.0 BCLL 0.0 * BCDL 10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code FBC2020	1.25 YES	CSI. TC 0.60 BC 0.51 WB 0.49 Matrix-MS	Vert(LL) -0.2	n (loc) 3 8-11 5 8-11 4 9	l/defl >999 >803 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 186 lb	<b>GRIP</b> 244/190  FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*

6-9: 2x6 SP M 26

**BOT CHORD** 2x4 SP No.2 \*Except\*

5-13: 2x4 SP No.3, 8-12: 2x6 SP M 26, 8-10: 2x8 SP 2400F 2.0E

WEBS 2x4 SP No.3

REACTIONS. (size) 9=0-8-0, 2=0-8-0

Max Horz 2=113(LC 12)

Max Uplift 9=-234(LC 13), 2=-282(LC 12) Max Grav 9=1119(LC 1), 2=1225(LC 1)

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

TOP CHORD  $2\text{-}3\text{=-}2062/420,\ 3\text{-}4\text{=-}1628/370,\ 4\text{-}5\text{=-}1838/437,\ 5\text{-}6\text{=-}1842/439,\ 6\text{-}7\text{=-}2076/437,}$ 

7-8=-2671/561, 8-18=-636/151

BOT CHORD 2-15=-400/1791, 14-15=-400/1791, 5-12=-254/124, 11-12=-253/1787, 8-11=-457/2487 **WEBS** 3-14=-456/184, 12-14=-225/1291, 4-12=-136/692, 6-11=-111/703, 7-11=-800/278

- 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) -2-0-0 to 1-0-8, Interior(1) 1-0-8 to 11-0-0, Exterior(2R) 11-0-0 to 15-0-12, Interior(1) 15-0-12 to 19-5-0, Exterior(2R) 19-5-0 to 23-10-4, Interior(1) 23-10-4 to 30-1-0 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) 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.
- \* 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 234 lb uplift at joint 9 and 282 lb uplift at joint 2.

This item has been electronically signed and sealed by Velez, Joaquin, 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 USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

June 18,2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chorembers 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/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Structural wood sheathing directly applied or 3-11-14 oc purlins.

Rigid ceiling directly applied or 9-4-4 oc bracing.

Qty Ply HOUSECRAFT - LAW RES. Job Truss Type Truss T24379602 2623364 T09 Hip Job Reference (optional)

Builders FirstSource (Lake City,FL),

2-0-0

Lake City, FL - 32055,

6-10-2

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jun 17 06:23:07 2021 Page 1

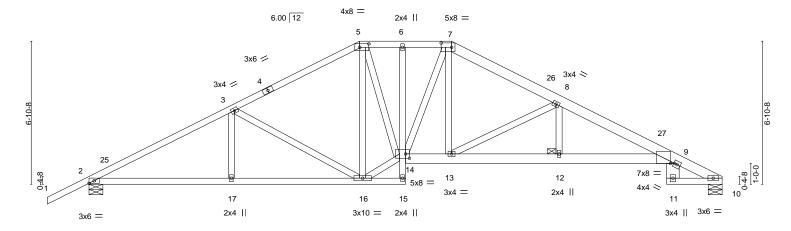
Structural wood sheathing directly applied or 3-9-4 oc purlins.

Rigid ceiling directly applied or 6-0-0 oc bracing.

1 Brace at Jt(s): 12

ID:6T5EAYZIt2BwQ1MwcHt2ZyzpbUe-gjVzPDzQ7U0QCPaAKHVrlzIP\_Cx1WdUxiWOw7ez5SxY 17-5-0 22-7-0 27-9-0 30-5-0 6-1-14 2-2-8 2-2-8 5-2-0 5-2-0 2-8-0 2-0-0

Scale = 1:55.3



	6-10-2	13-0-0	15-2-8	17-5-0	22-7-0	27-9-0	30-5-0
	6-10-2	6-1-14	2-2-8	2-2-8	5-2-0	5-2-0	2-8-0
Plate Offsets (X,Y	) [5:0-5-4,0-2-0], [7:0-6-0,0-2-8],	[9:0-2-7,0-0-0], [14:0-2-4,0-2-8]					
LOADING         (psf)           TCLL         20.0           TCDL         7.0           BCLL         0.0           BCDL         10.0	Plate Grip DOL 1. Lumber DOL 1.	0-0 CSI. 25 TC 0.60 25 BC 0.58 ES WB 0.73 4 Matrix-MS	Ver	t(LL) -0.21	9-12 >999 24 9-12 >946 18	0	<b>GRIP</b> 244/190 lb FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

JOINTS

LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*

7-10: 2x6 SP M 26

2x4 SP No.2 \*Except\* **BOT CHORD** 

6-15: 2x4 SP No.3, 9-14: 2x6 SP M 26, 9-11: 2x8 SP 2400F 2.0E

WEBS 2x4 SP No.3

REACTIONS. (size) 10=0-8-0, 2=0-8-0

Max Horz 2=128(LC 12)

Max Uplift 10=-231(LC 13), 2=-279(LC 12) Max Grav 10=1119(LC 1), 2=1225(LC 1)

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

TOP CHORD 2-3=-2019/411, 3-5=-1485/358, 5-6=-1496/386, 6-7=-1501/387, 7-8=-1738/398,

8-9=-2688/535, 9-20=-636/149

BOT CHORD  $2-17 = -388/1743,\ 16-17 = -388/1743,\ 13-14 = -192/1475,\ 12-13 = -418/2429,\ 9-12 = -418/2429$ **WEBS** 

3-17=0/275, 3-16=-566/225, 5-16=-282/44, 14-16=-198/1331, 5-14=-107/713,

7-13=-105/541, 8-13=-1096/323, 8-12=-29/439

### 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) -2-0-0 to 1-0-8, Interior(1) 1-0-8 to 13-0-0, Exterior(2E) 13-0-0 to 17-5-0, Exterior(2R) 17-5-0 to 21-8-10, Interior(1) 21-8-10 to 30-1-0 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) 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.
- \* 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 231 lb uplift at joint 10 and 279 lb uplift at joint 2.

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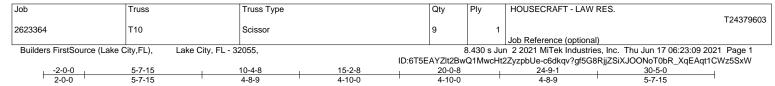
June 18,2021

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

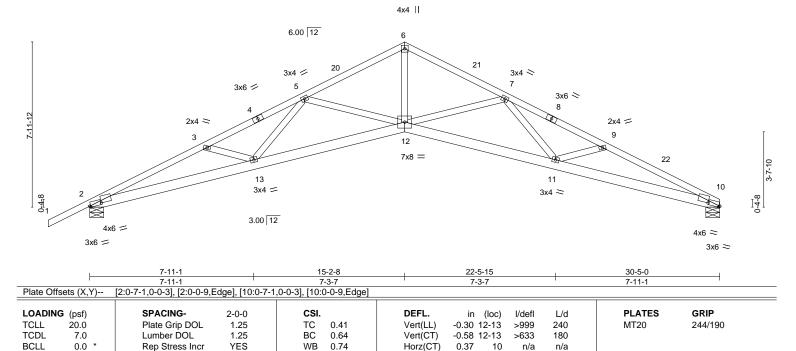
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chorembers 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/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





Scale = 1:55.6



**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

**BCDL** 

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

10.0

2x4 SP No.3 (size) 2=0-8-0, 10=0-8-0

Max Horz 2=143(LC 12) Max Uplift 2=-277(LC 12), 10=-233(LC 13) Max Grav 2=1237(LC 1), 10=1122(LC 1)

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

Code FBC2020/TPI2014

2-3=-3665/805, 3-5=-3372/696, 5-6=-2509/462, 6-7=-2509/474, 7-9=-3423/637, TOP CHORD

9-10=-3712/723

BOT CHORD 2-13=-795/3324, 12-13=-577/2881, 11-12=-442/2897, 10-11=-606/3373 **WEBS** 6-12=-319/1952, 7-12=-660/299, 7-11=-92/474, 9-11=-276/194, 5-12=-643/287,

5-13=-69/466, 3-13=-265/185

### 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) -2-0-0 to 1-0-7, Interior(1) 1-0-7 to 15-2-8, Exterior(2R) 15-2-8 to 18-3-0, Interior(1) 18-3-0 to 30-5-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate arip DOL=1.60

Matrix-MS

- 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.
- \* 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) 2, 10 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 277 lb uplift at joint 2 and 233 lb uplift at joint 10.

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June 18,2021

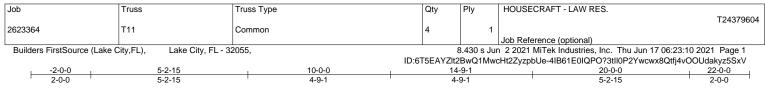


Weight: 166 lb

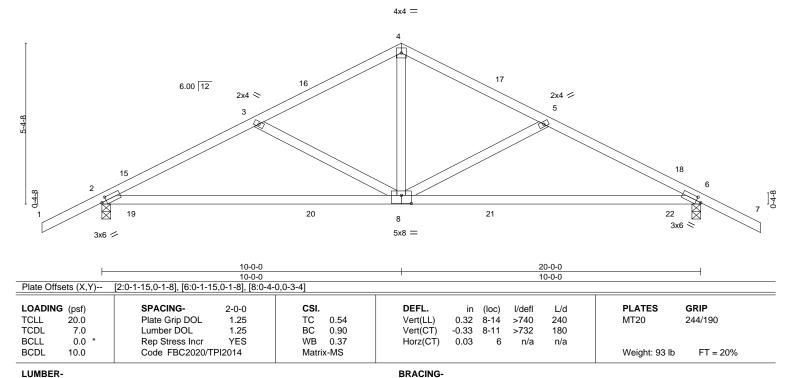
Structural wood sheathing directly applied or 2-10-1 oc purlins.

Rigid ceiling directly applied or 8-3-3 oc bracing

FT = 20%



Scale = 1:38.5



TOP CHORD

**BOT CHORD** 

LUMBER-

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

REACTIONS. (size) 2=0-3-8, 6=0-3-8 Max Horz 2=89(LC 12)

Max Uplift 2=-211(LC 9), 6=-211(LC 8) Max Grav 2=848(LC 1), 6=848(LC 1)

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

TOP CHORD 2-3=-1203/1107, 3-4=-910/966, 4-5=-910/966, 5-6=-1203/1107

BOT CHORD 2-8=-917/1048, 6-8=-938/1048

WEBS 4-8=-753/563, 5-8=-344/283, 3-8=-344/284

### 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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 22-0-0 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.
- \* 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 211 lb uplift at joint 2 and 211 lb uplift at joint 6

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June 18,2021



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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

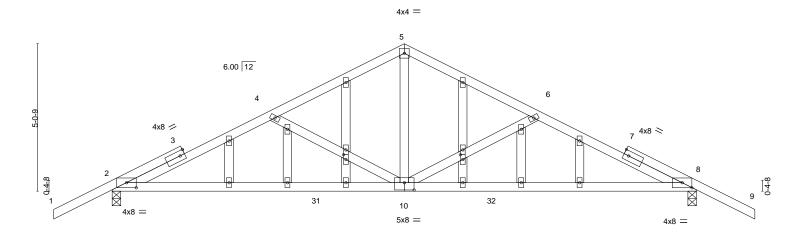


Structural wood sheathing directly applied or 5-2-4 oc purlins.

Rigid ceiling directly applied or 5-1-13 oc bracing.

Job Truss Type HOUSECRAFT - LAW RES. Truss Qtv T24379605 T11G 2623364 GABLE Job Reference (optional) 8.430 s Feb 12 2021 MiTek Industries, Inc. Fri Jun 18 09:52:58 2021 Page 1 ID:6T5EAYZIt2BwQ1MwcHt2ZyzpbUe-7IDKOr5bNX0OqgkWXoz2rlc\_YuhEH4qgq\_C6h7z55f3 Builders FirstSource, Lake City, FL 32055 -2-0-0 5-6-14 10-0-0 14-5-2 20-0-0 22-0-0 2-0-0 5-6-14 4-5-2 4-5-2 2-0-0

Scale = 1:39.4



10-0-0 20-0-0 10-0-0 10-0-0 Plate Offsets (X,Y)--[2:0-4-0,0-2-1], [8:0-4-0,0-2-1], [10:0-4-0,0-3-0], [11:0-1-15,0-1-0], [20:0-1-15,0-1-0] **PLATES** GRIP LOADING (psf) SPACING-(loc) I/defI L/d TCLL 20.0 Plate Grip DOL 1.25 TC 0.87 Vert(LL) 0.33 10-27 >718 240 MT20 244/190 TCDL Lumber DOL 1.25 вс 0.82 Vert(CT) -0.29 10-27 7.0 >812 180 WB 0.39 **BCLL** 0.0 Horz(CT) 0.03 Rep Stress Incr YES 8 n/a n/a Code FBC2020/TPI2014 Weight: 117 lb BCDI 10.0 Matrix-MS FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

**OTHERS** 2x4 SP No.3

REACTIONS. (lb/size) 2=845/0-3-8 (min. 0-1-8), 8=845/0-3-8 (min. 0-1-8)

Max Horz 2=84(LC 12)

Max Uplift 2=-210(LC 9), 8=-210(LC 8)

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

TOP CHORD 2-3=-1252/1335, 3-4=-1235/1341, 4-5=-935/1113, 5-6=-935/1113, 6-7=-1235/1340,

7-8=-1252/1335

**BOT CHORD** 2-31=-1163/1127, 10-31=-1163/1127, 10-32=-1170/1127, 8-32=-1170/1127

**WEBS** 4-10=-397/420, 5-10=-908/598, 6-10=-397/419

- 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 Corner(3E) -2-0-0 to 1-1-11, Exterior(2N) 1-1-11 to 10-0-0, Corner(3R) 10-0-0 to 13-0-0, Exterior(2N) 13-0-0 to 22-0-0 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 210 lb uplift at joint 2 and 210 lb uplift at ioint 8.

LOAD CASE(S) Standard

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Structural wood sheathing directly applied or 4-0-12 oc purlins.

Rigid ceiling directly applied or 4-6-12 oc bracing.

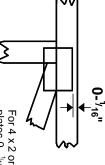
June 18,2021

## 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



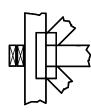
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

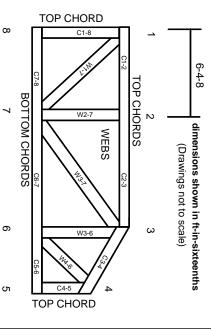
## Industry Standards:

National Design Specification for Metal

Plate Connected Wood Truss Construction. Design Standard for Bracing. Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

ANSI/TPI1: DSB-89:

# **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.

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MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

# **General Safety Notes**

# Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- 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.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.

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- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other.

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- 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.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

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Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber

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- Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- 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
- Do not cut or alter truss member or plate without prior approval of an engineer.
- 17. Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
- 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.