

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

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: State:
City:

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
7	T23399812	MII-GE140-001	4/2/21				
8	T23399813	MII-GE170-D-SP	4/2/21				
9	T23399814	MII-GE180-D-SP	4/2/21				
10	T23399815	MII-GE180-D-SP	4/2/21				
11	T23399816	MII-PIGGY-ALT-7-16	4/2/21				
12	T23399817	MII-REP01A1	4/2/21				
13	T23399818	MII-TOENAIL SP	4/2/21				
14	T23399819	MII-VALLEY HIGH WIND1	4/2/21				

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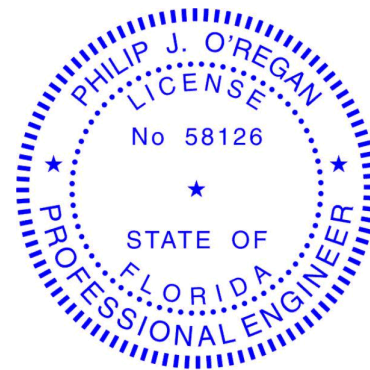
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The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision based on the parameters
provided by Builders FirstSource-Jacksonville.

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
Date:

April 2, 2021

ORegan, Philip

1 of 1



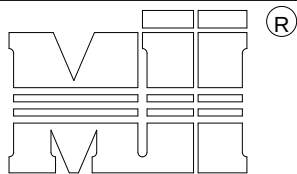
RE: \$JOBNAME - \$JOBDESC

MiTek USA, Inc.

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Tampa, FL 33610-4115

Site Information:

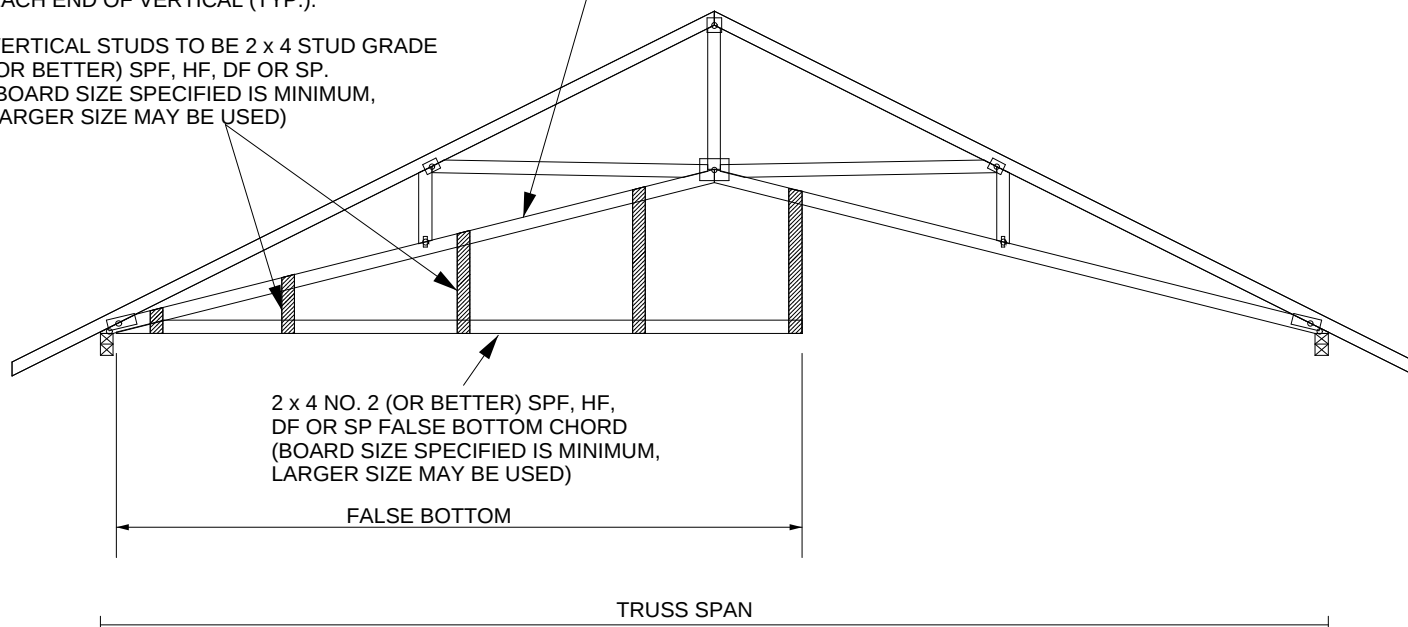
Customer Info: \$SI_CUSTOMER Project Name: \$SI_JOBNAME Model: \$SI_MODEL
Lot/Block: \$SI_LOTNUM Subdivision: \$SI_SUBDIV
Address: \$SI_SITEADDR
City: \$SI_SITECITY State: \$SI_SITESTATE



MiTek USA, Inc.

MAIN TRUSS MANUFACTURED WITHOUT
FALSE BOTTOM CHORD.

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

VERTICAL STUDS @ 48" O.C.. ATTACHED
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 SIZE SPECIFIED IS MINIMUM,
LARGER SIZE MAY BE USED)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
BOTTOM CHORD.

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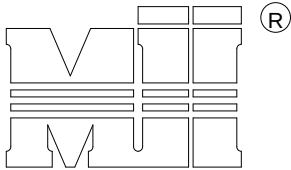
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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

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



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Tampa, FL 33610



MiTek USA, Inc.

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

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

Nailing Pattern

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

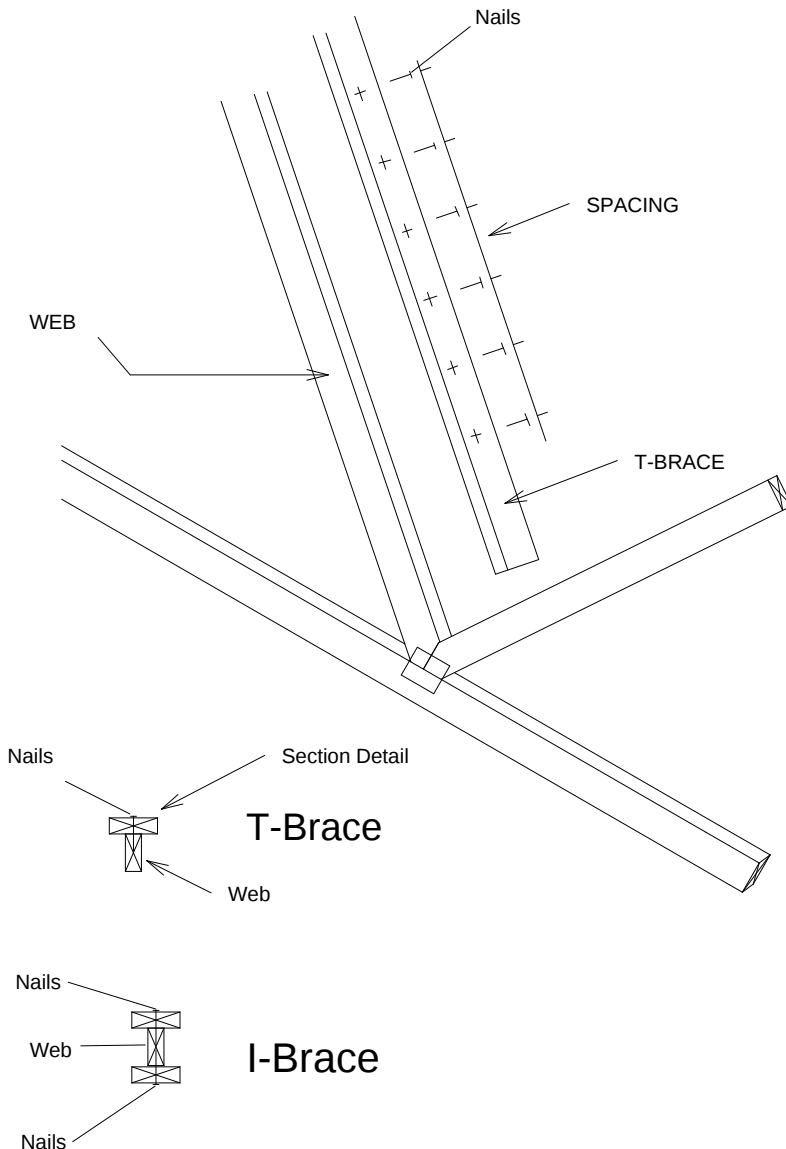
Brace Size
for One-Ply TrussSpecified Continuous
Rows of Lateral Bracing

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 TrussSpecified 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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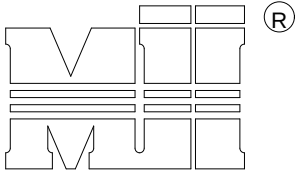
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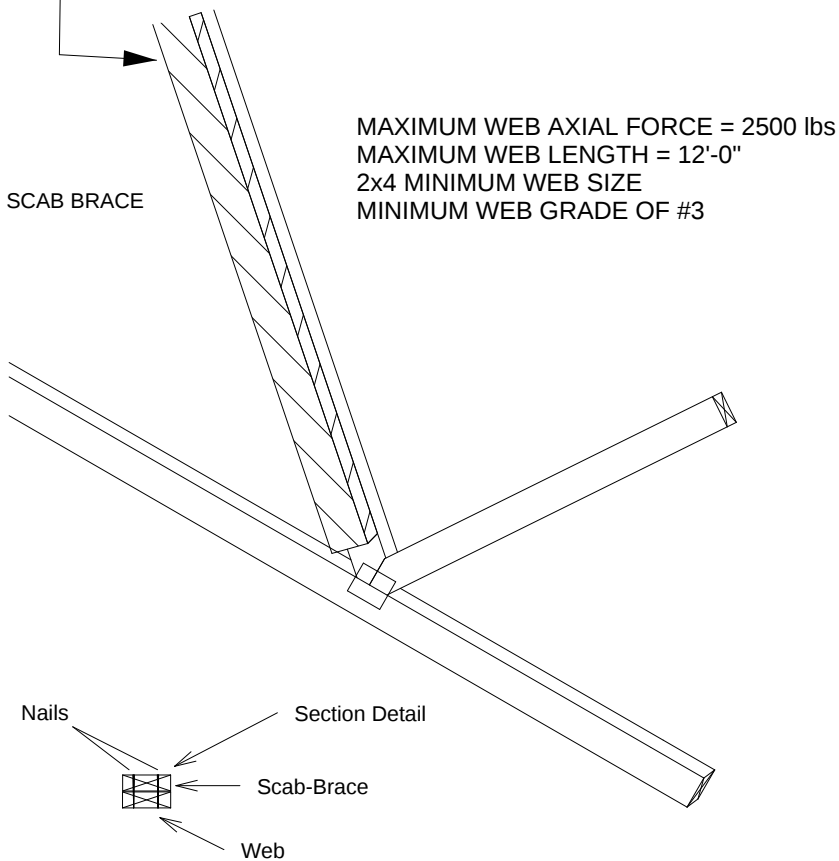
MiTek USA, Inc.

Page 1 of 1

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

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

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



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

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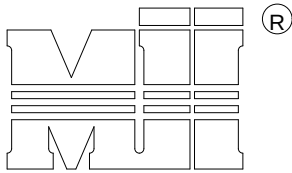
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

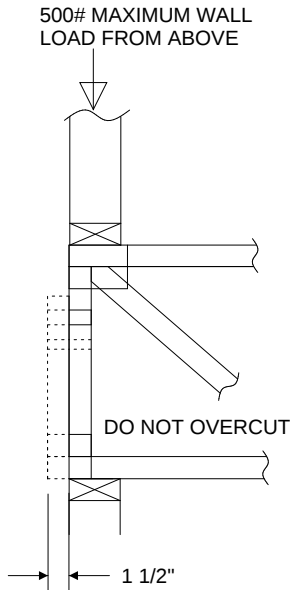


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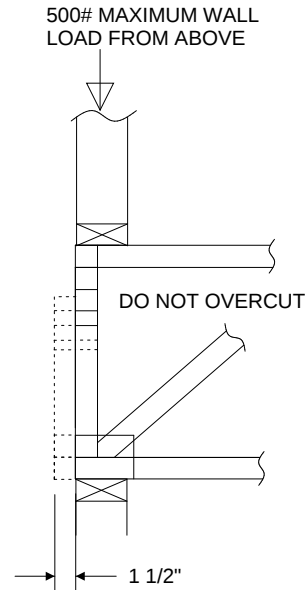


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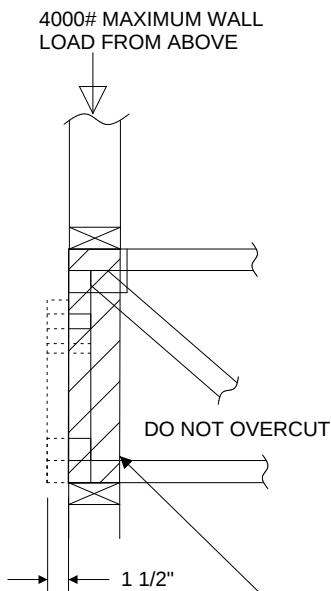
1. THIS IS A SPECIFIC REPAIR DETAIL TO BE USED ONLY FOR ITS ORIGINAL INTENTION. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS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



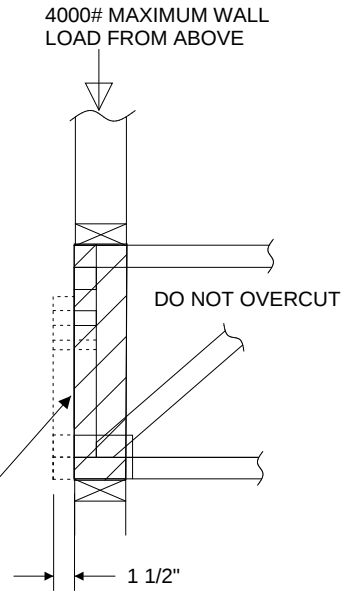
REFER TO INDIVIDUAL
TRUSS DESIGN FOR
PLATE SIZES AND
LUMBER GRADES



TRUSSES BUILT
WITH 4x2 MEMBERS



REFER TO INDIVIDUAL
TRUSS DESIGN FOR
PLATE SIZES AND
LUMBER GRADES



TRUSSES BUILT
WITH 4x2 MEMBERS

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

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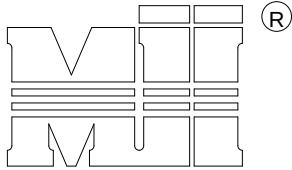
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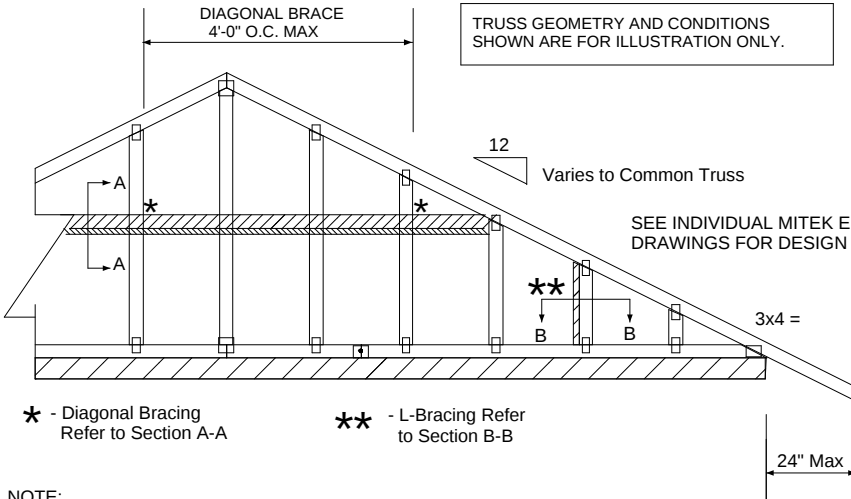
MiTek USA, Inc.

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

Vertical Stud

SECTION B-B

TRUSS GEOMETRY AND CONDITIONS
SHOWN ARE FOR ILLUSTRATION ONLY.

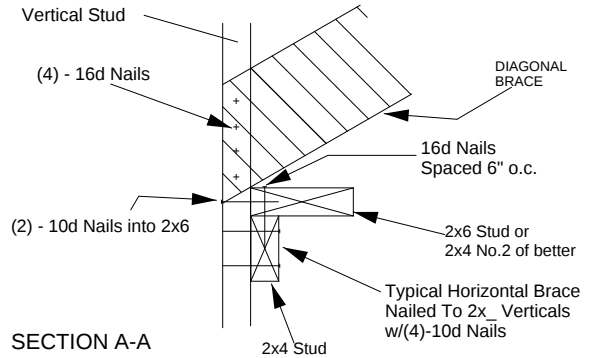


* - Diagonal Bracing
Refer to Section A-A

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

NOTE:

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

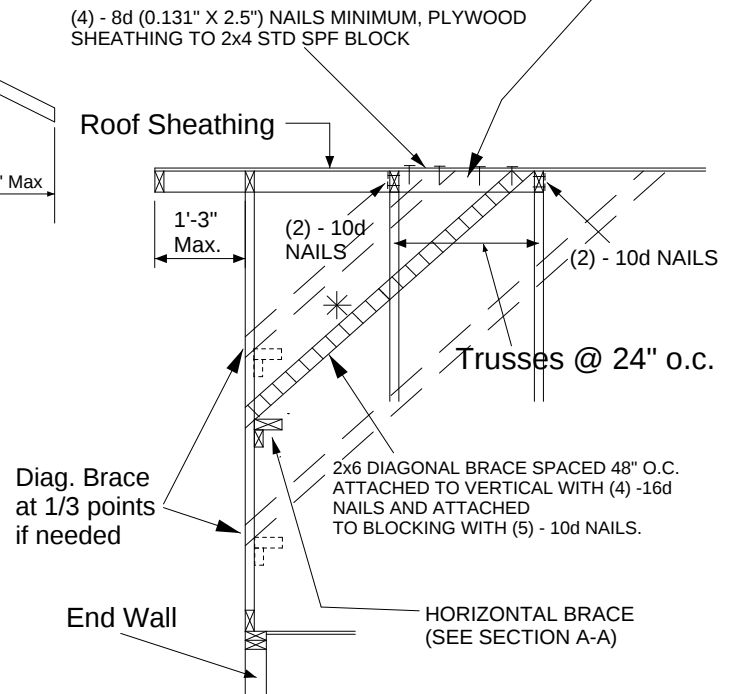


SECTION A-A

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



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

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

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

April 2, 2021

MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE D
ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH
ASCE 7-10, ASCE 7-16 160 MPH
DURATION OF LOAD INCREASE 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWFRS. Rev. 5/19/2020 BEFORE USE.

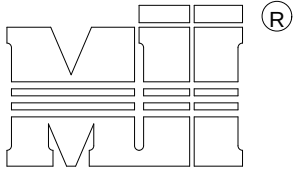
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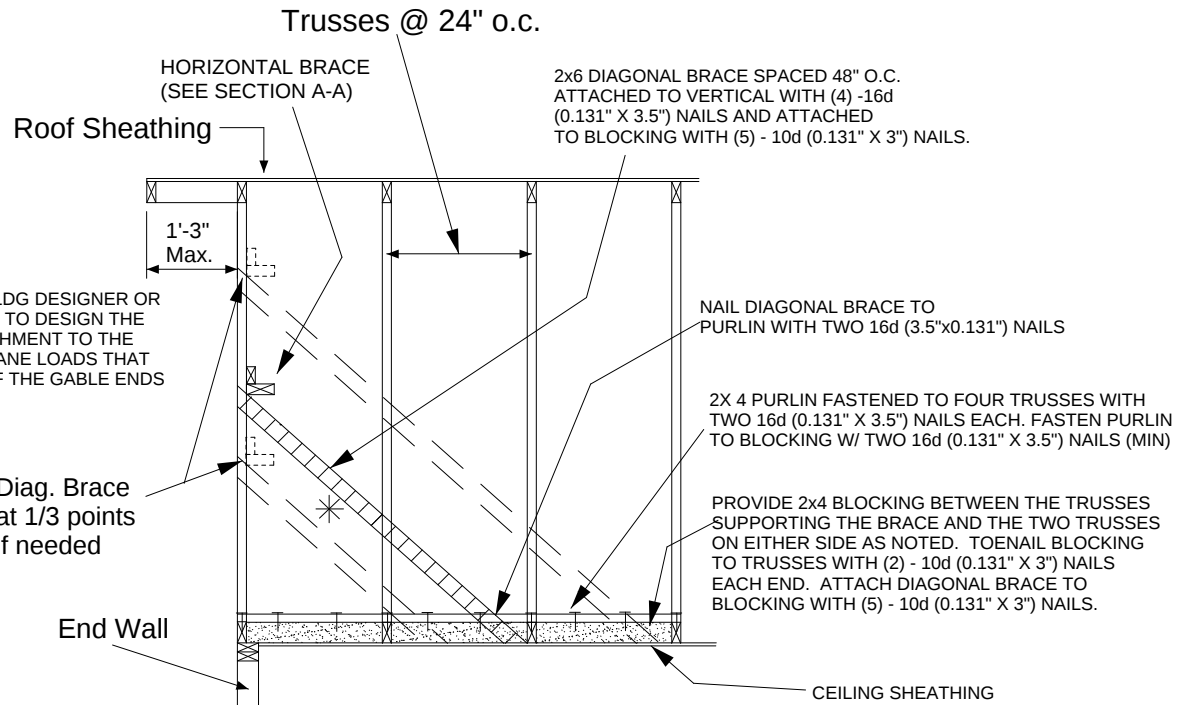


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MiTek USA, Inc.

ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



IT IS THE RESPONSIBILITY OF THE BLDG DESIGNER OR THE PROJECT ENGINEER/ARCHTCT TO DESIGN THE CEILING DIAPHRAGM AND ITS ATTACHMENT TO THE TRUSSES TO RESIST ALL OUT OF PLANE LOADS THAT MAY RESULT FROM THE BRACING OF THE GABLE ENDS

BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

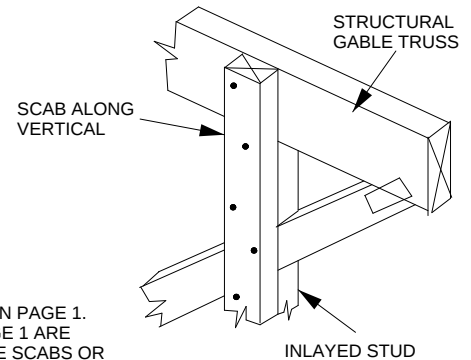
STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

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:

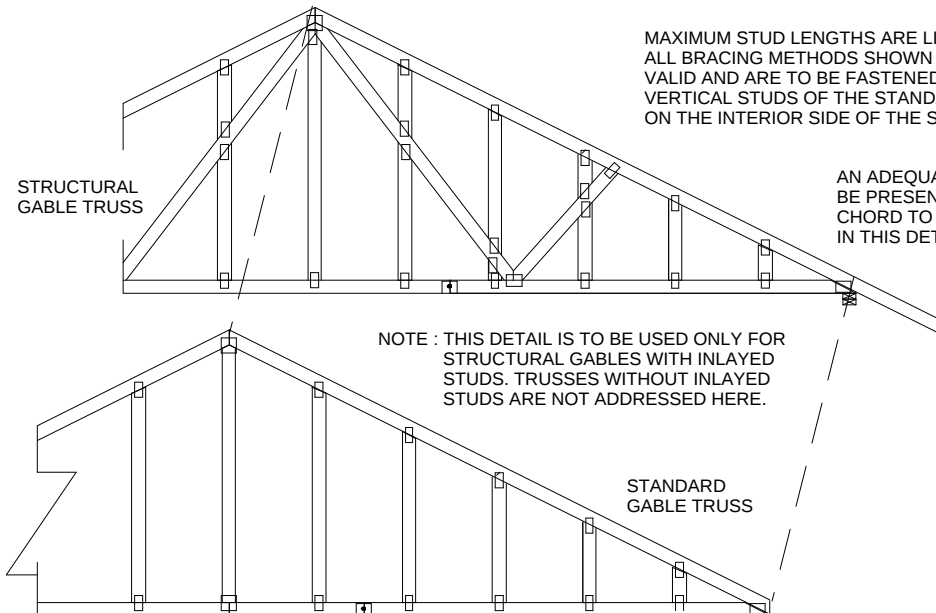
- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C.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



MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.

STRUCTURAL GABLE TRUSS

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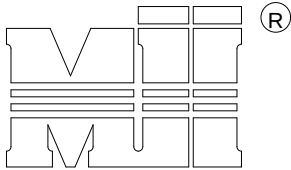
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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

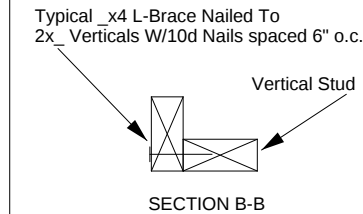
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



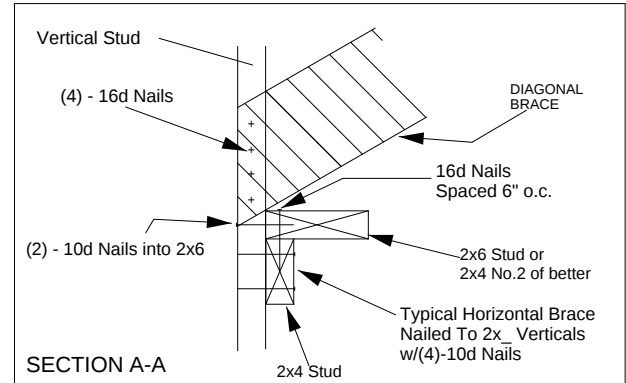
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SECTION B-B



SECTION A-A

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

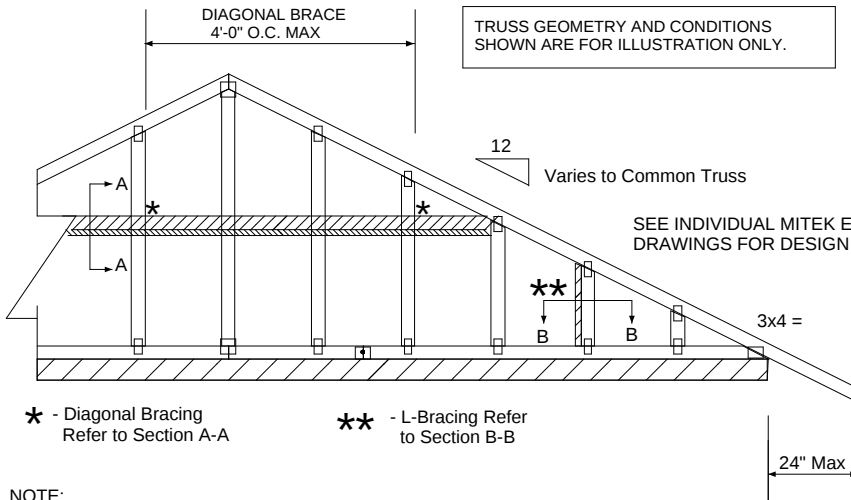
(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK

Roof Sheathing

Diag. Brace at 1/3 points if needed

End Wall

HORIZONTAL BRACE (SEE SECTION A-A)



* - Diagonal Bracing Refer to Section A-A

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

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

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

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

MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C
ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH
ASCE 7-10, ASCE 7-16 160 MPH
DURATION OF LOAD INCREASE = 1.60

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

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

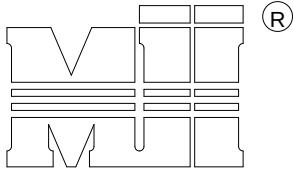
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Date:

April 2, 2021

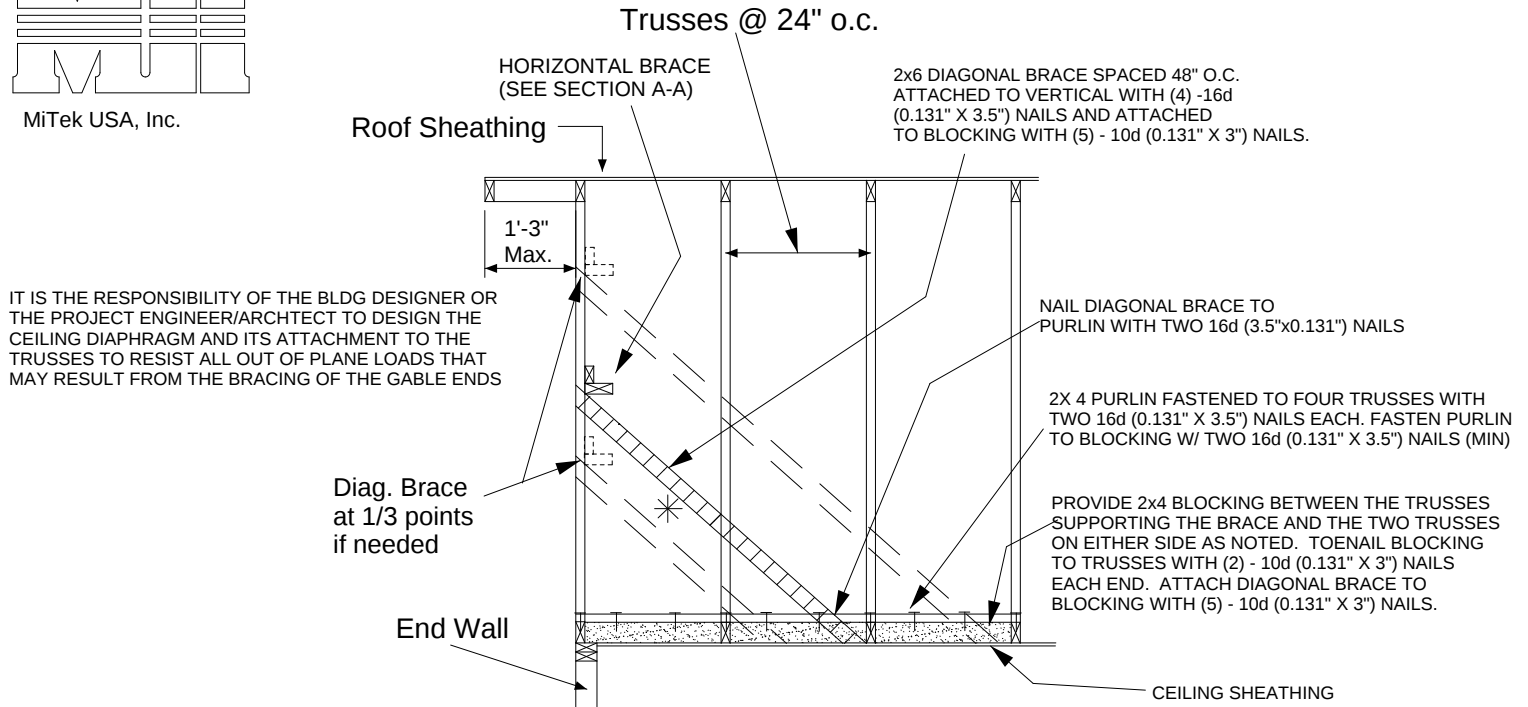


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MiTek USA, Inc.

ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

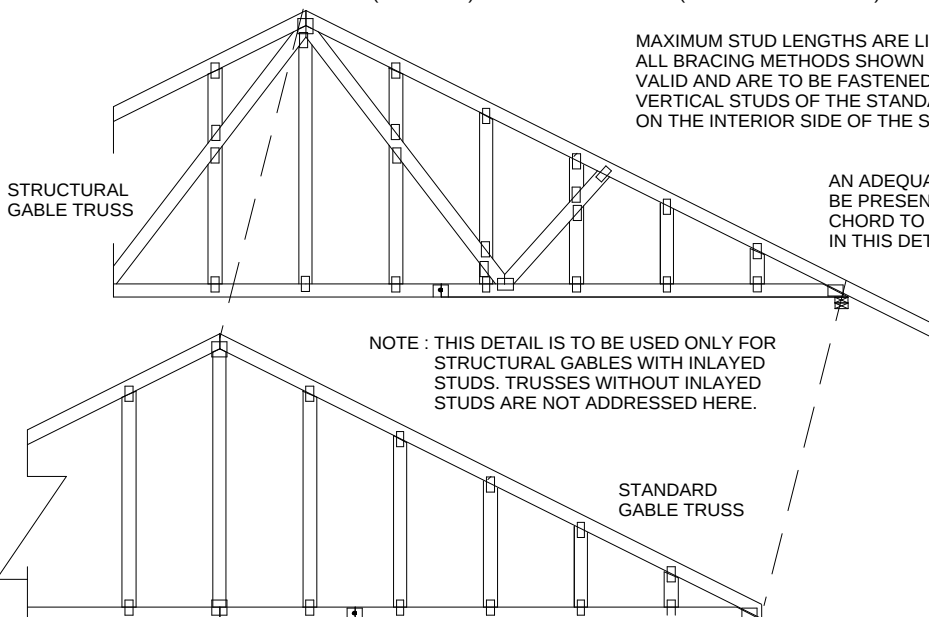
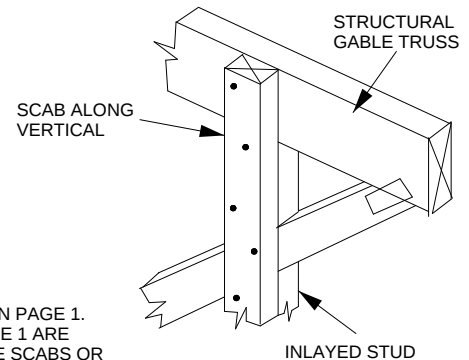
STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

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)



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



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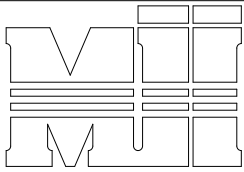
JANUARY 6, 2017

Standard Gable End Detail

MII-GE140-001
T23399812

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Page 1 of 2



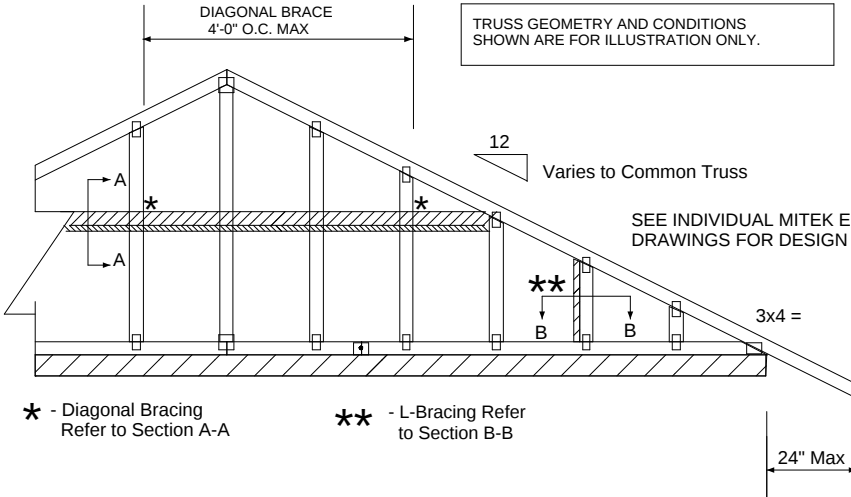
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Typical 1x4 L-Brace Nailed To
2x Verticals W/10d Nails spaced 6" o.c.

Vertical Stud

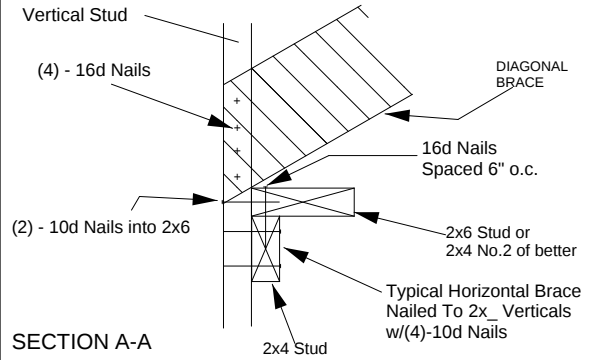
SECTION B-B

TRUSS GEOMETRY AND CONDITIONS
SHOWN ARE FOR ILLUSTRATION ONLY.



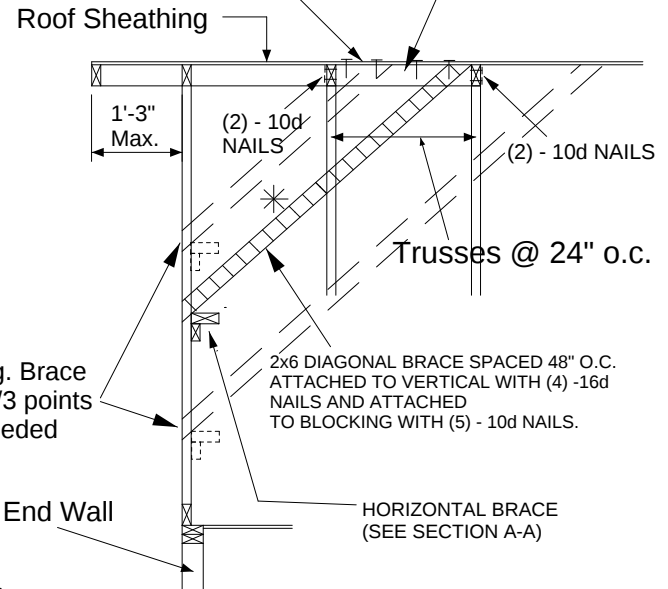
NOTE:

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



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

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



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



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

MAXIMUM WIND SPEED = 140 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C

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

DURATION OF LOAD INCREASE = 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.

CONNECTION OF BRACING IS BASED ON MWPRS 473 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

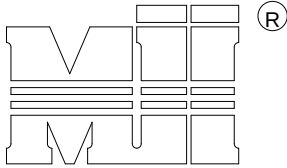
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Date:

April 2, 2021

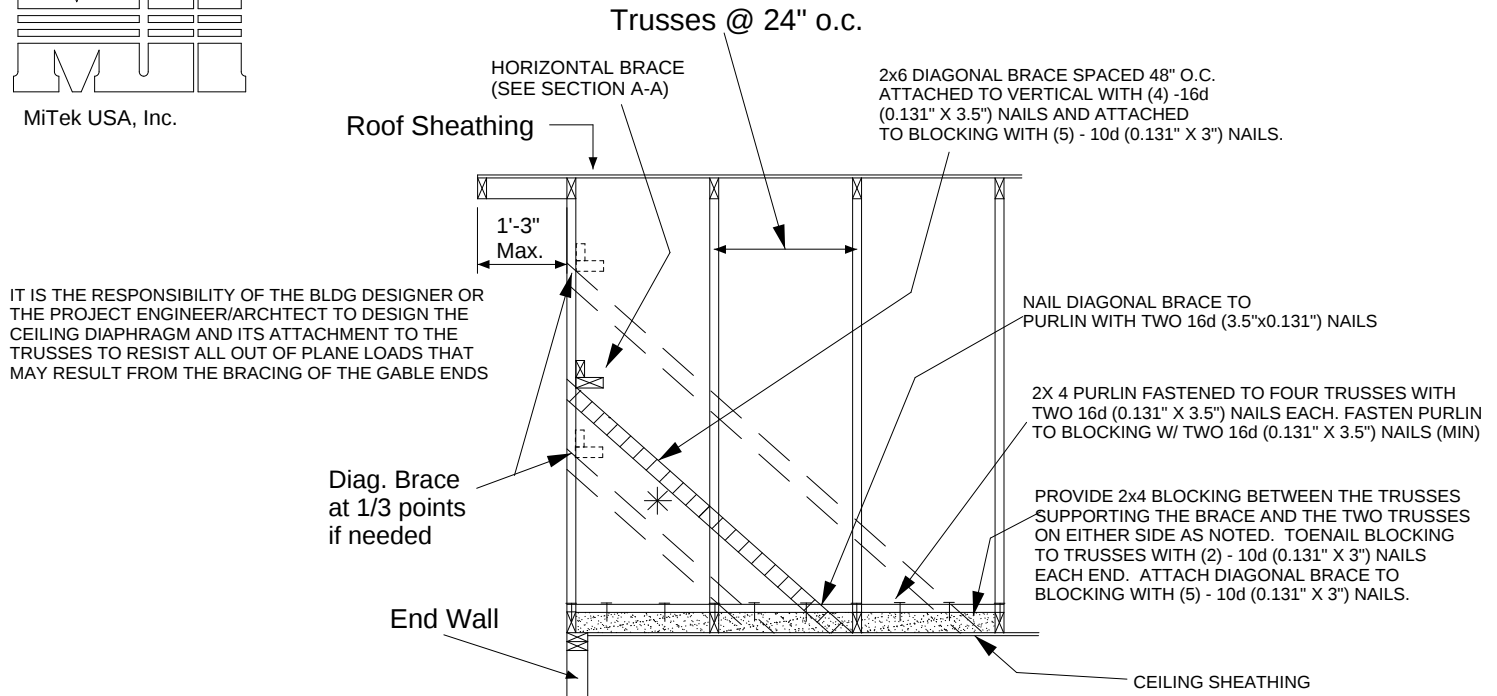


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MiTek USA, Inc.

ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



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 4 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)

MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.

STRUCTURAL GABLE TRUSS

SCAB ALONG VERTICAL

INLAYED STUD

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.

NOTE : THIS DETAIL IS TO BE USED ONLY FOR STRUCTURAL GABLES WITH INLAYED STUDS. TRUSSES WITHOUT INLAYED STUDS ARE NOT ADDRESSED HERE.

STANDARD GABLE TRUSS

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Date:

April 2, 2021

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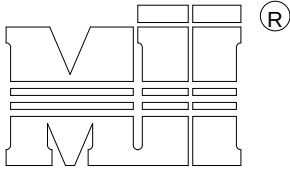
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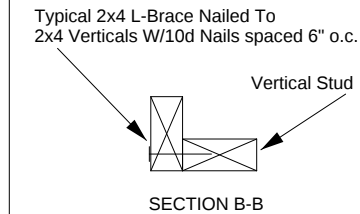
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



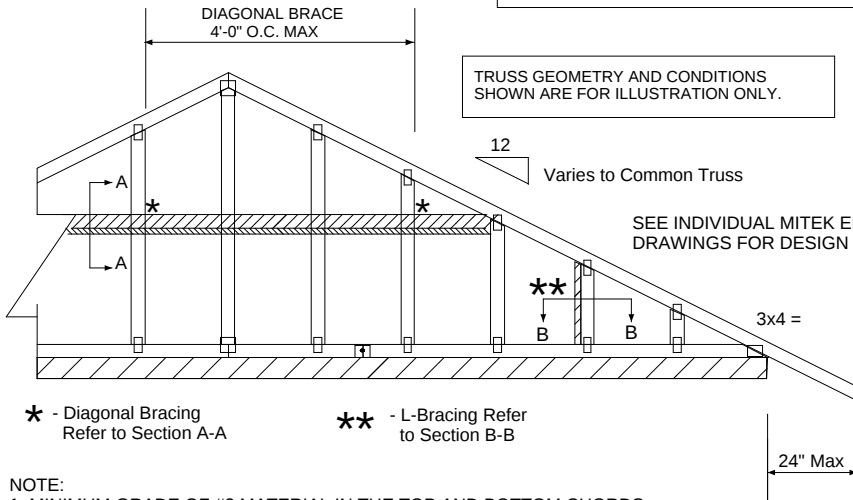
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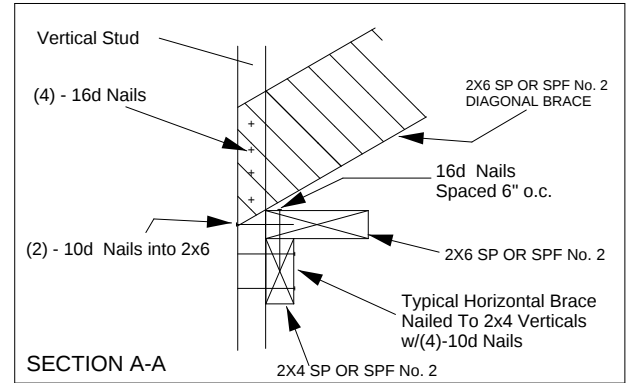


SECTION B-B

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

NOTE:

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



SECTION A-A

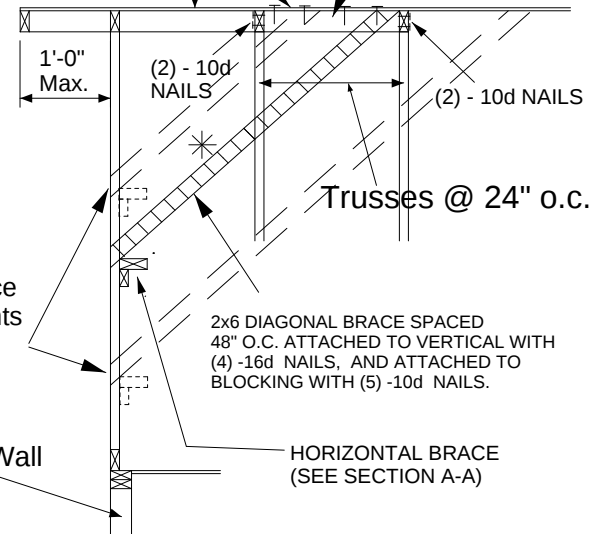
PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

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

Roof Sheathing

Diag. Brace
at 1/3 points
if needed

End Wall



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



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

MAX MEAN ROOF HEIGHT = 30 FEET
EXPOSURE DASCE 7-10, ASCE 7-16 170 MPH
DURATION OF LOAD INCREASE : 1.60STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWFRS.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIP-7/3 rev. 5/19/2020 BEFORE USE.

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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

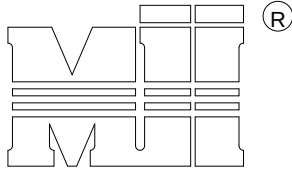
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Date:

April 2, 2021

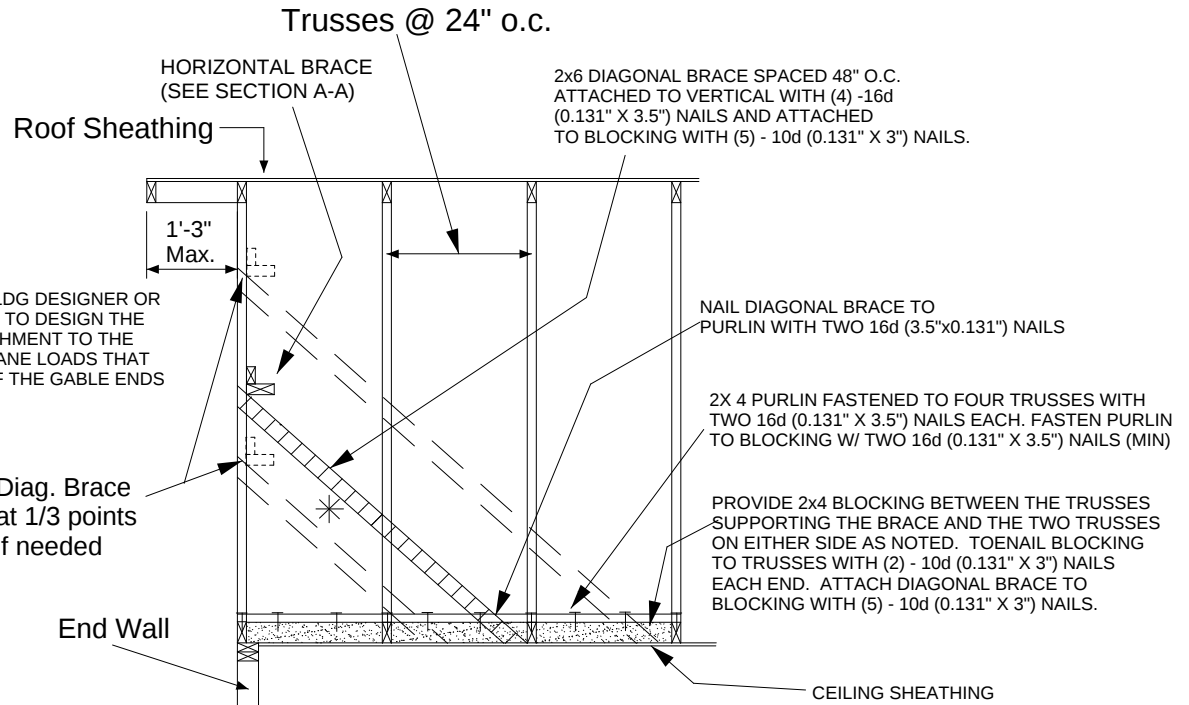


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ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

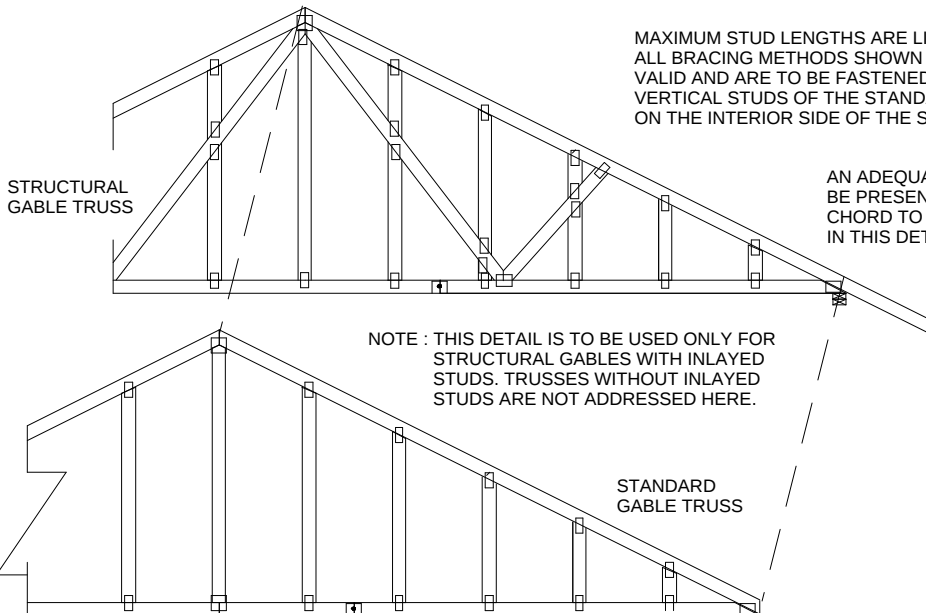
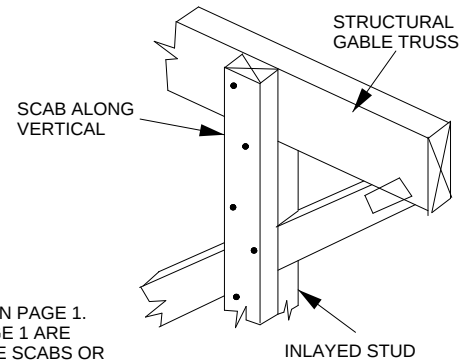
STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

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)



MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1. ALL BRACING METHODS SHOWN ON PAGE 1 ARE VALID AND ARE TO BE FASTENED TO THE SCABS OR VERTICAL STUDS OF THE STANDARD GABLE TRUSS ON THE INTERIOR SIDE OF THE STRUCTURE.

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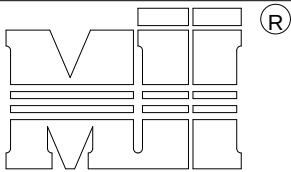
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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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



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MiTek USA, Inc.

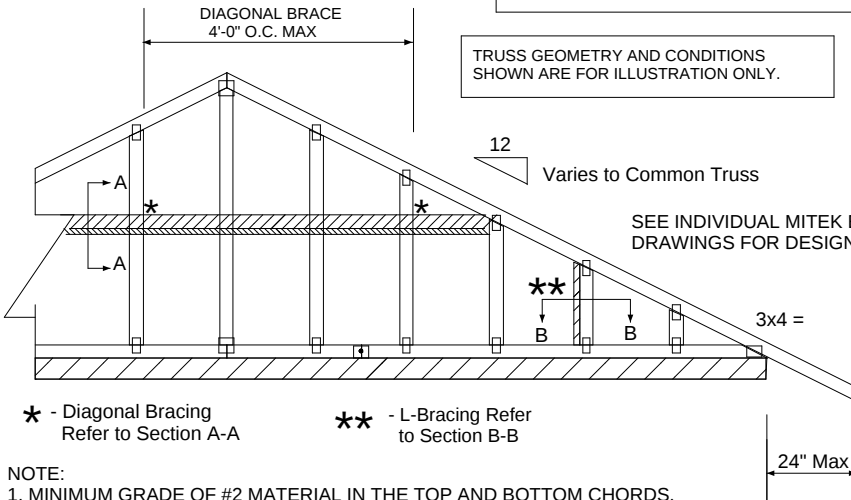
Typical 2x4 L-Brace Nailed To
2x4 Verticals w/10d Nails spaced 6" o.c.

Vertical Stud

SECTION B-B

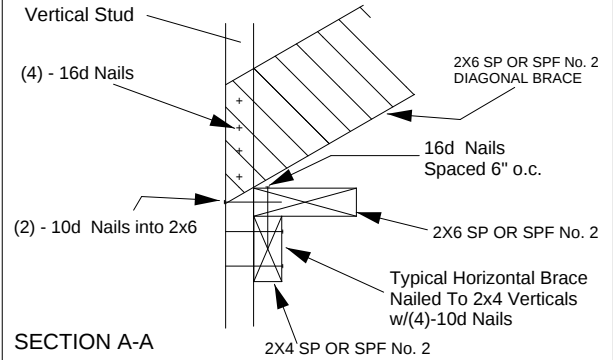
TRUSS GEOMETRY AND CONDITIONS
SHOWN ARE FOR ILLUSTRATION ONLY.

Varies to Common Truss

SEE INDIVIDUAL MITTEK ENGINEERING
DRAWINGS FOR DESIGN CRITERIA* - Diagonal Bracing
Refer to Section A-A** - L-Bracing Refer
to Section B-B

NOTE:

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



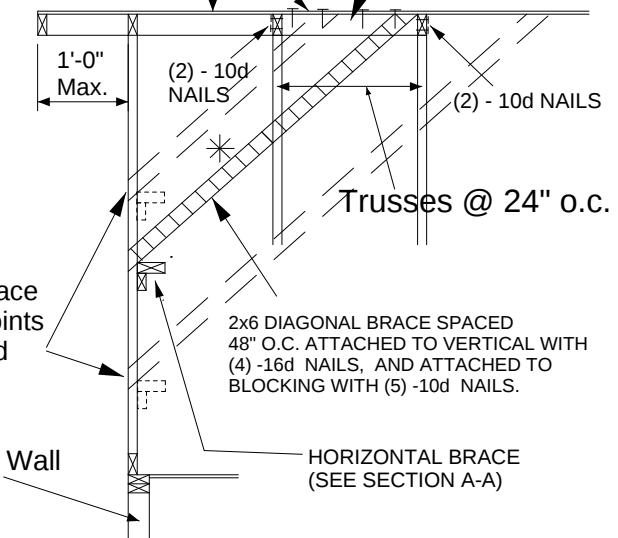
PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

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

Roof Sheathing

Diag. Brace
at 1/3 points
if needed

End Wall



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



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

MAX MEAN ROOF HEIGHT = 30 FEET
EXPOSURE DASCE 7-10, ASCE 7-16 180 MPH
DURATION OF LOAD INCREASE = 1.60STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
CONNECTION OF BRACING IS BASED ON MWFRS.

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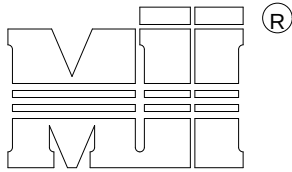
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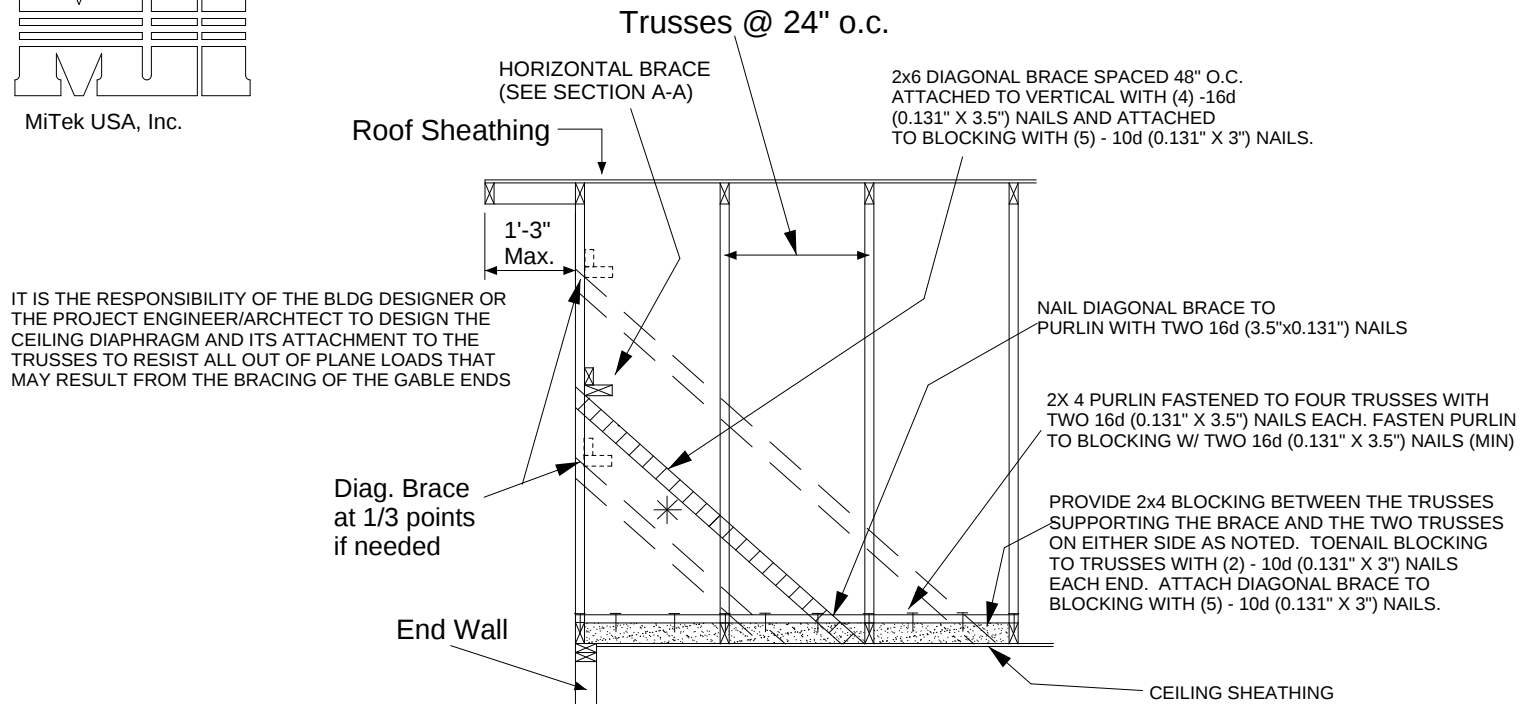


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ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

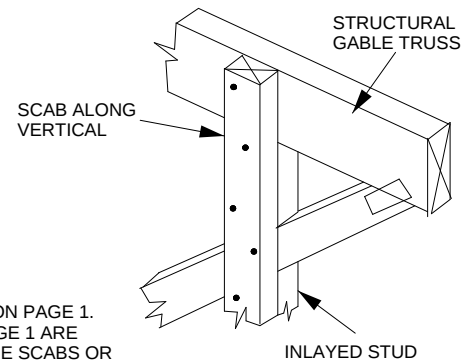
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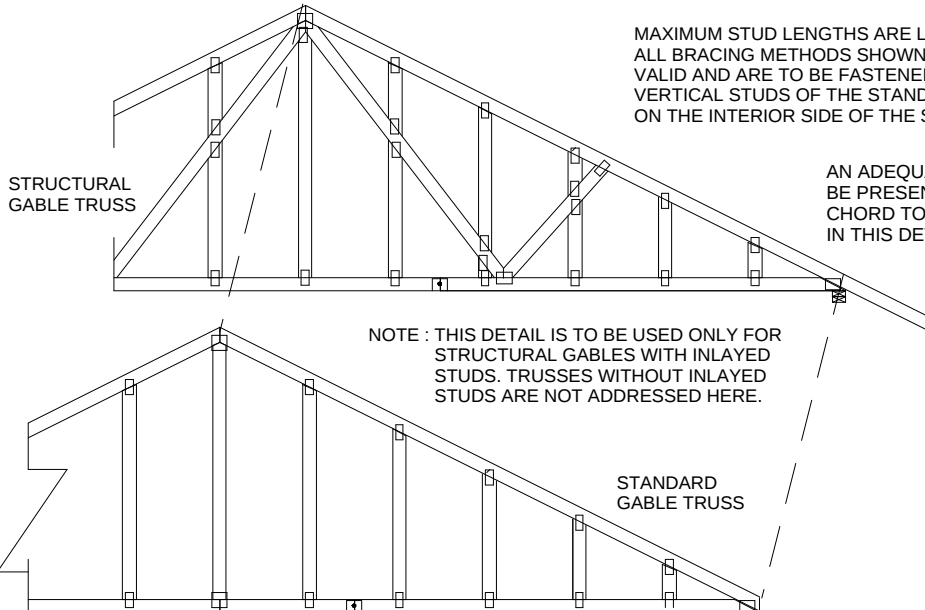
METHOD 2 : ATTACH 2X _ SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

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)



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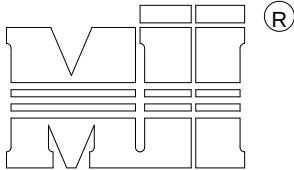
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



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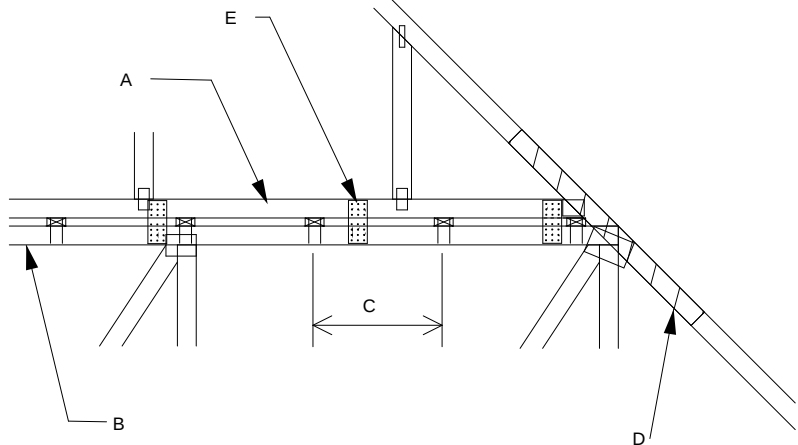


MiTek USA, Inc.

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

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

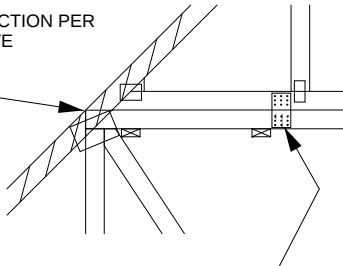
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) (0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING.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



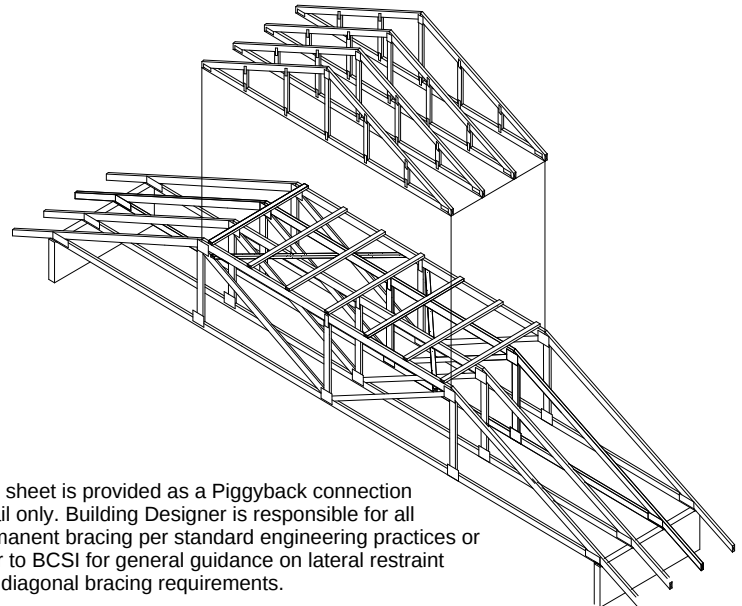
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

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.

SCAB CONNECTION PER
NOTE D ABOVE

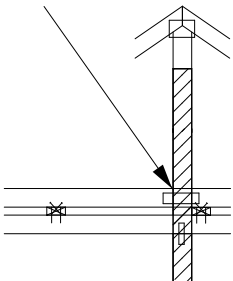


FOR ALL WIND SPEEDS, ATTACH MITEK NP37 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 48" O.C. W/ (4) (0.131" X 1.5") PER MEMBER. STAGGER NAILS FROM OPPOSING FACES ENSURE 0.5" NAIL EDGE DISTANCE.



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VERTICAL WEB TO
EXTEND THROUGH
BOTTOM CHORD
OF PIGGYBACK



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

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

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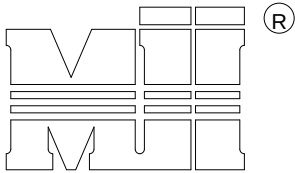
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JANUARY 8, 2019

STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

MII-PIGGY-ALT-7-16
T23399816

MiTek USA, Inc. Page 1 of 1

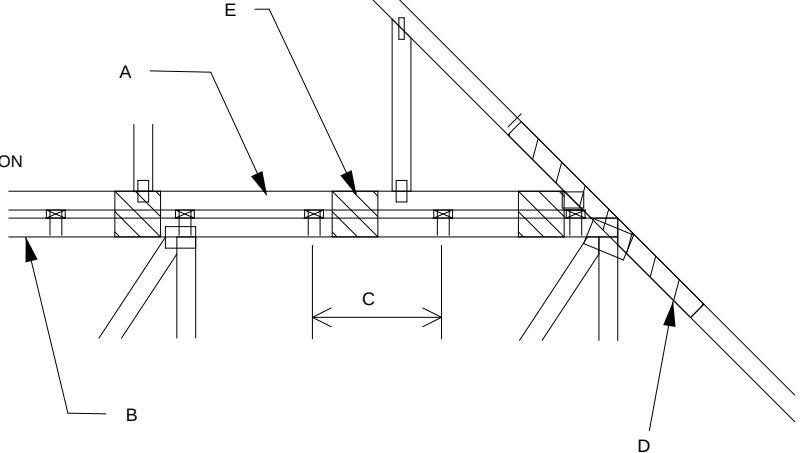


MiTek USA, Inc.

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.

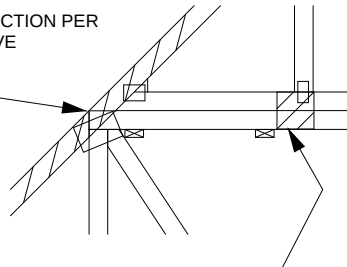
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- D - 2 X ____ X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
 2. WIND SPEED OF 116 MPH TO 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)



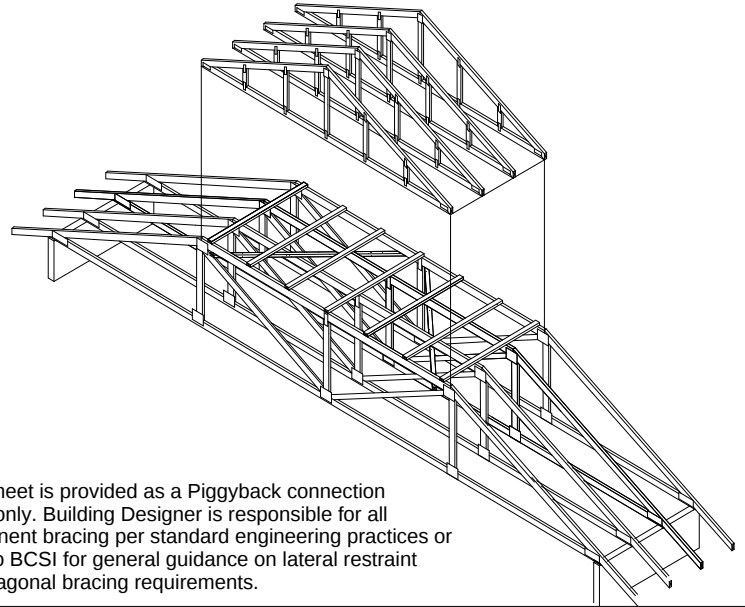
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SCAB CONNECTION PER
NOTE D ABOVE

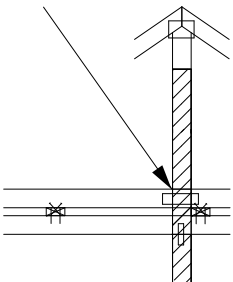


7" x 7" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 24" O.C. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



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VERTICAL WEB TO
EXTEND THROUGH
BOTTOM CHORD
OF PIGGYBACK



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

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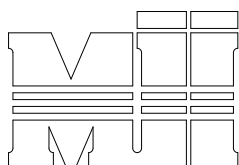
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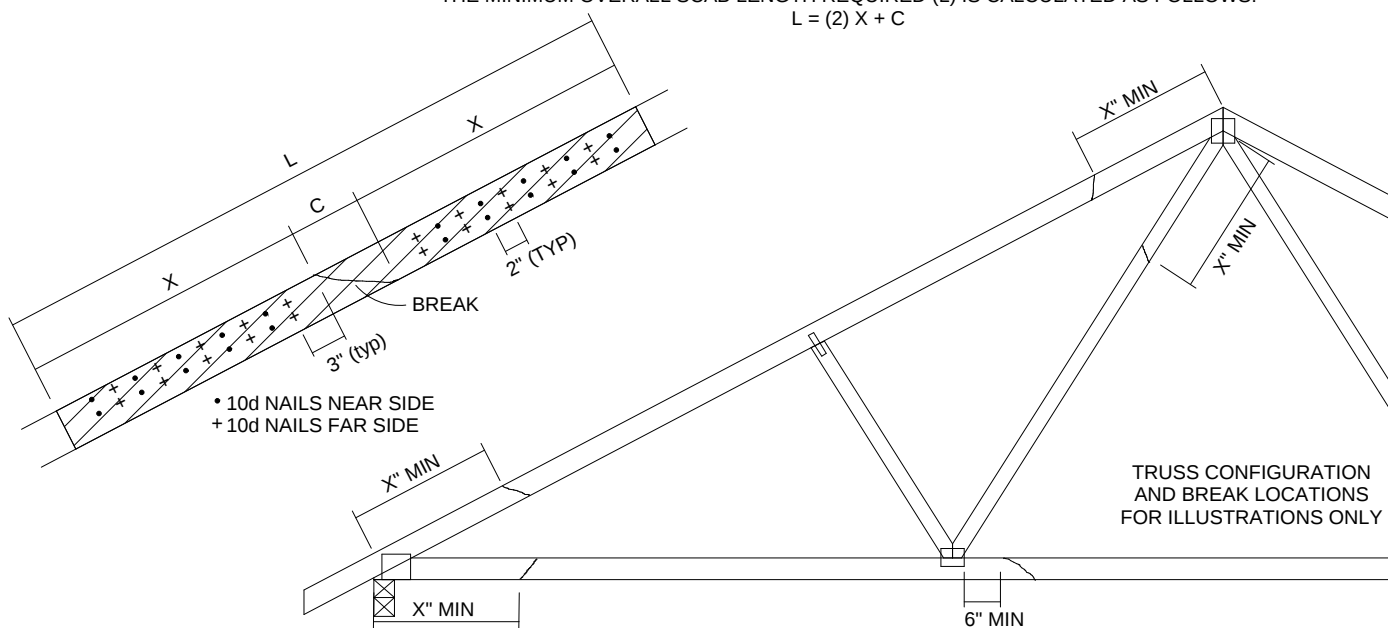
MiTek USA, Inc.

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

* DIVIDE EQUALLY FRONT AND BACK

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

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



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

DO NOT USE REPAIR FOR JOINT SPLICES

NOTES:

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

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Philip J. O'Regan PE No. 58126
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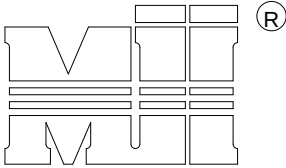
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



6904 Parke East Blvd.
Tampa, FL 33610



MiTek USA, Inc.

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.)
- THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
- ALLOWABLE VALUE SHALL BE THE LESSER VALUE OF THE TWO SPECIES FOR MEMBERS OF DIFFERENT SPECIES.

THIS DETAIL APPLICABLE TO THE
THREE END DETAILS SHOWN BELOW

VIEWS SHOWN ARE FOR
ILLUSTRATION PURPOSES ONLY

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

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

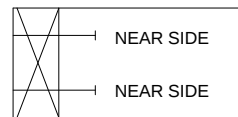
EXAMPLE:

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

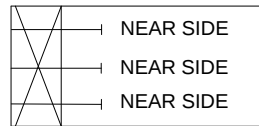
For load duration increase of 1.15:

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

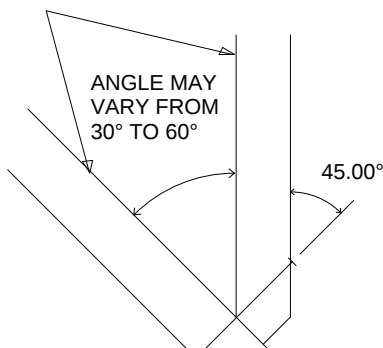
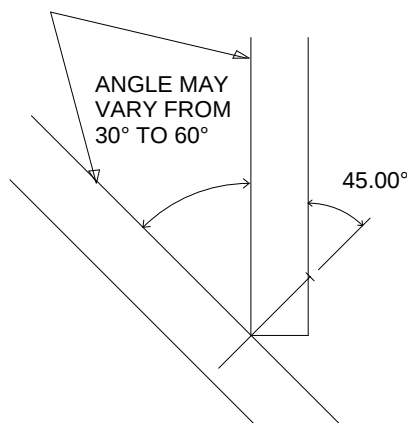
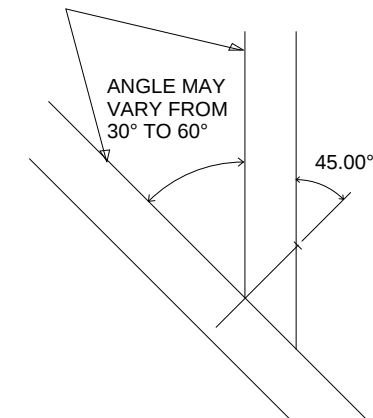
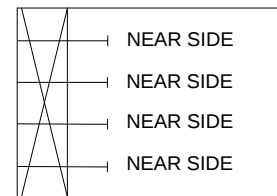
SIDE VIEW
(2x3)
2 NAILS



SIDE VIEW
(2x4)
3 NAILS



SIDE VIEW
(2x6)
4 NAILS



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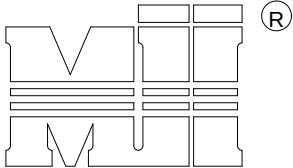
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



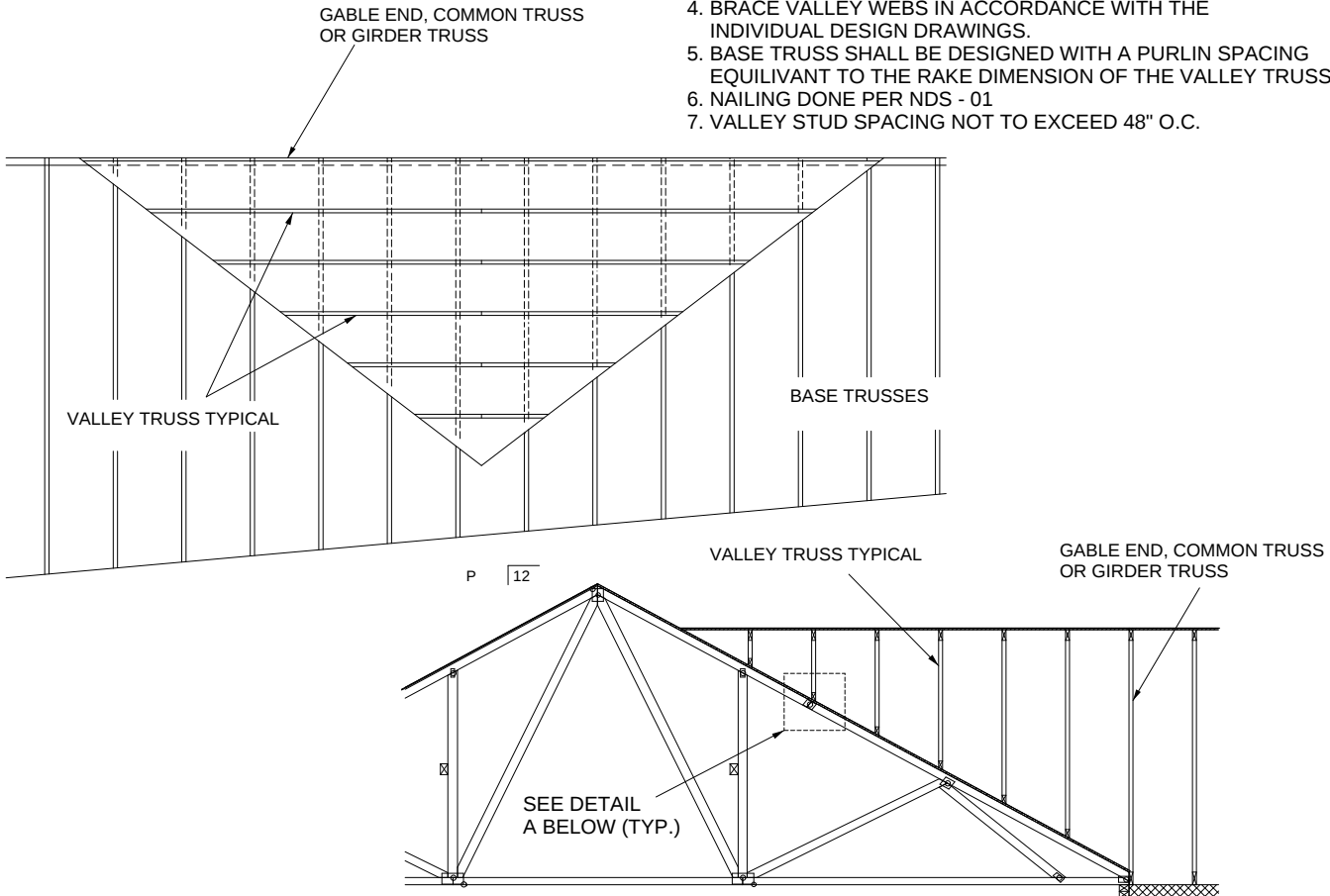
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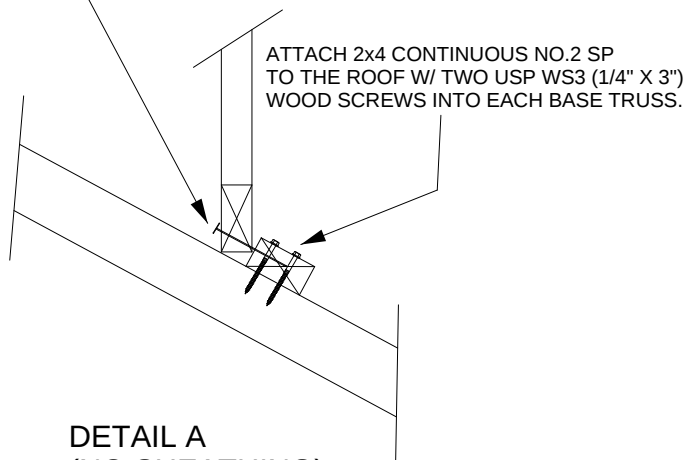
MiTek USA, Inc.

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 EQUIVANT TO THE RAKE DIMENSION OF THE VALLEY TRUSS SPACING.
6. NAILING DONE PER NDS - 01
7. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.



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



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

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH
WIND DESIGN PER ASCE 7-10, 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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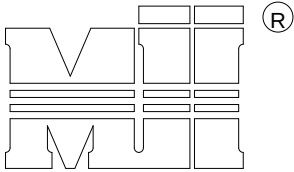
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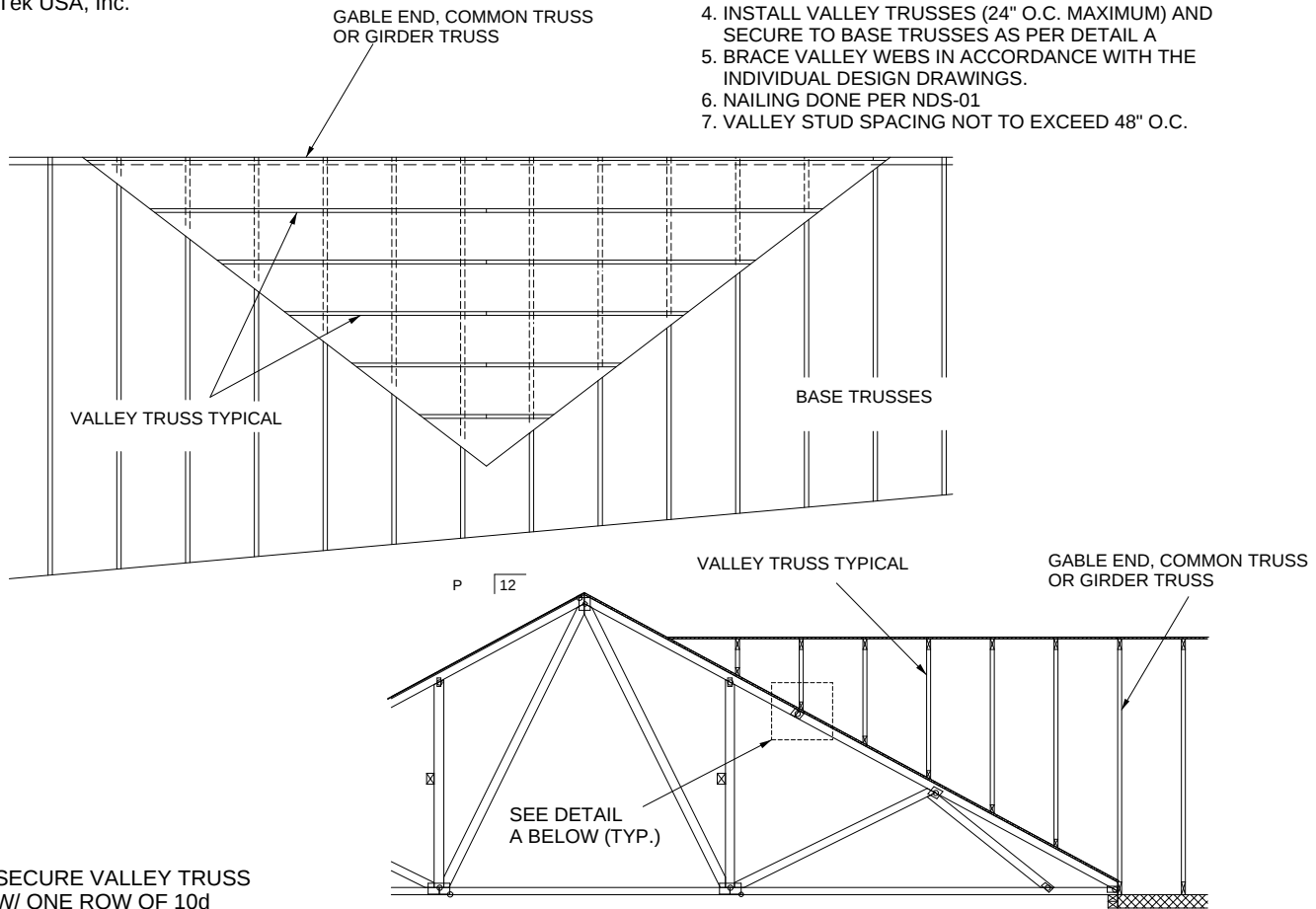
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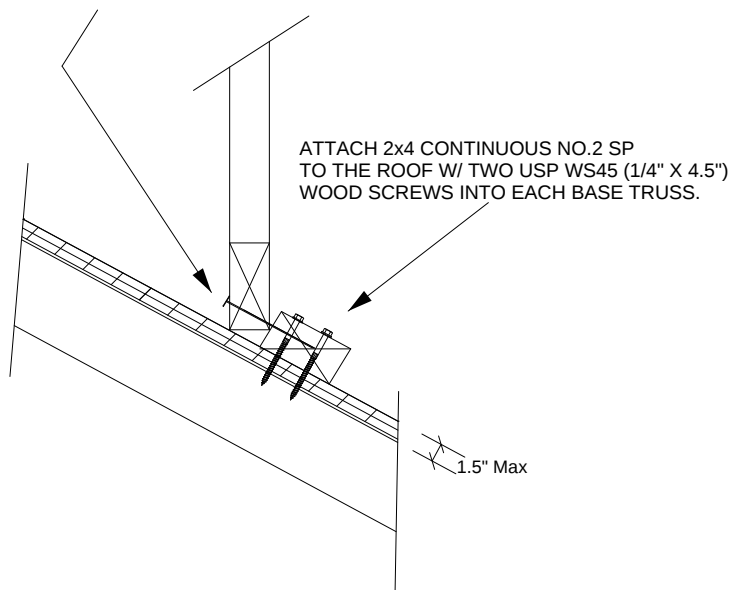
MiTek USA, Inc.

GENERAL SPECIFICATIONS

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



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



WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH
WIND DESIGN PER ASCE 7-10, 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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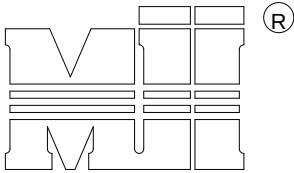
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



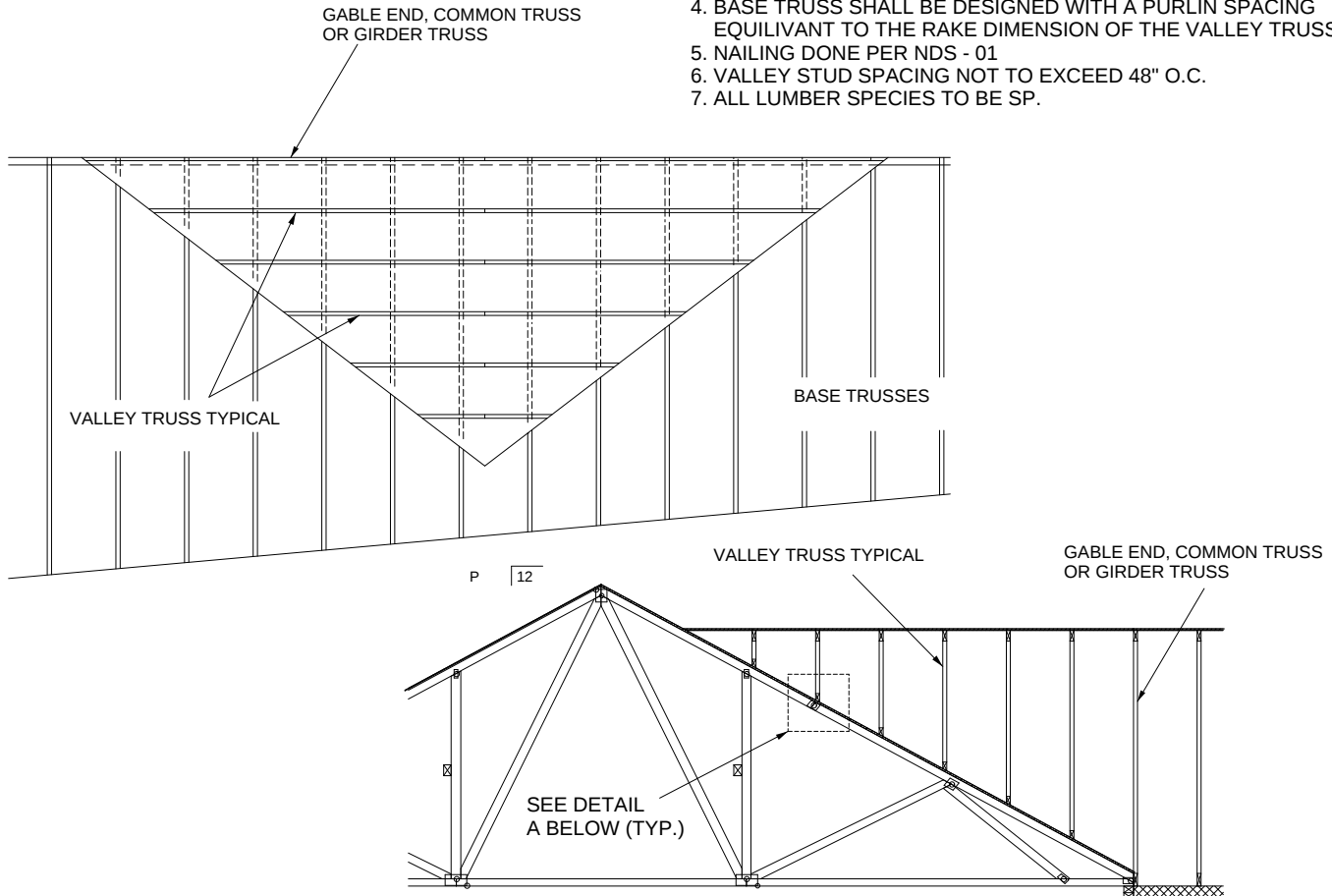
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Tampa, FL 36610



MiTek USA, Inc.

GENERAL SPECIFICATIONS

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



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

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

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

April 2, 2021

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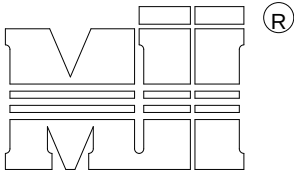
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



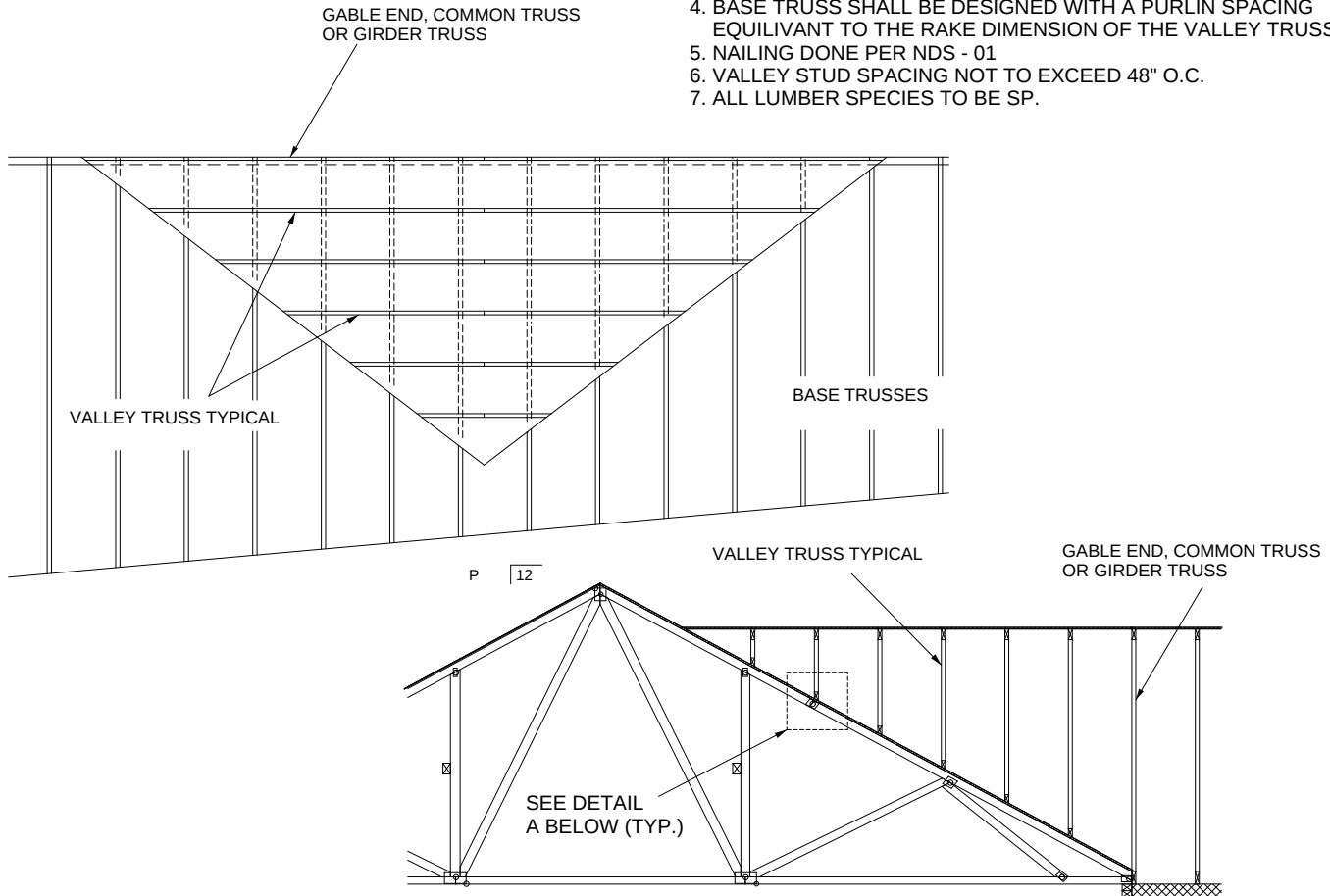
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Tampa, FL 33610



MiTek USA, Inc.

GENERAL SPECIFICATIONS

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



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

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

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

April 2, 2021

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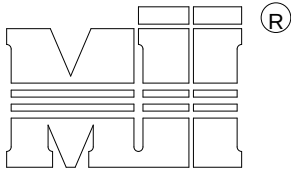
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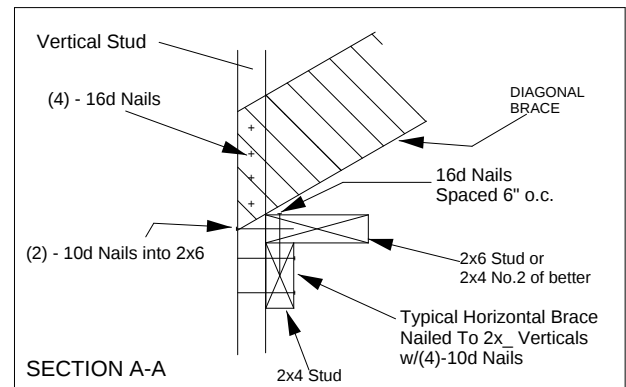
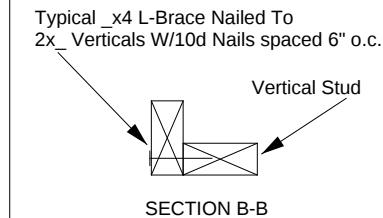
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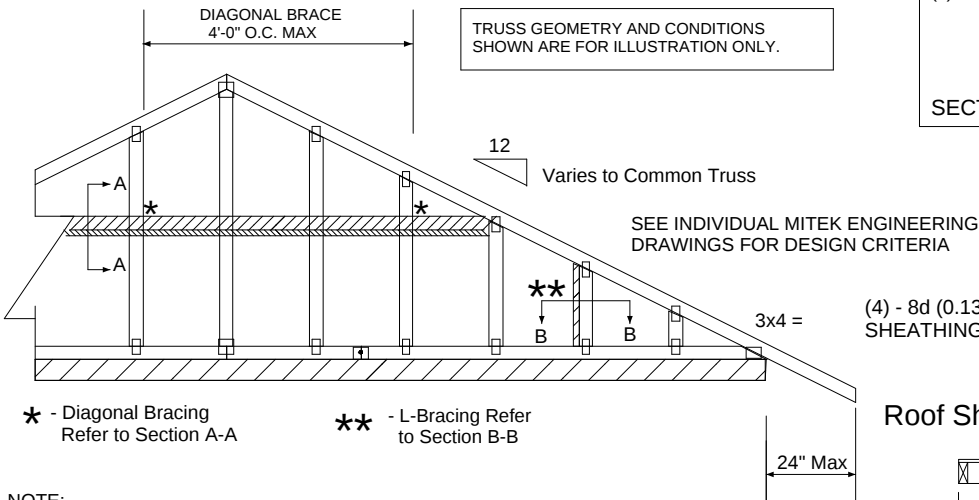
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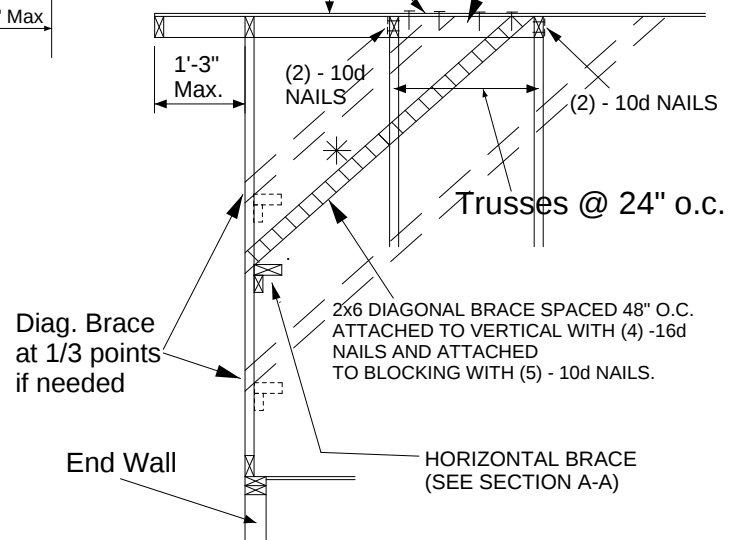
TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.

* - Diagonal Bracing
Refer to Section A-A** - L-Bracing Refer
to Section B-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 SHEATHING TO 2x4 STD SP BLOCK

Roof Sheathing



NOTE:

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

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

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

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MAXIMUM WIND SPEED = 146 MPH
MAX MEAN ROOF HEIGHT = 30 FEET
CATEGORY II BUILDING
EXPOSURE B or C

ASCE 7-98, ASCE 7-02, ASCE 7-05
DURATION OF LOAD INCREASE = 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.

CONNECTION OF BRACING IS BASED ON MWPRS 473 rev. 5/19/2020 BEFORE USE.

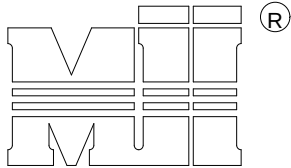
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

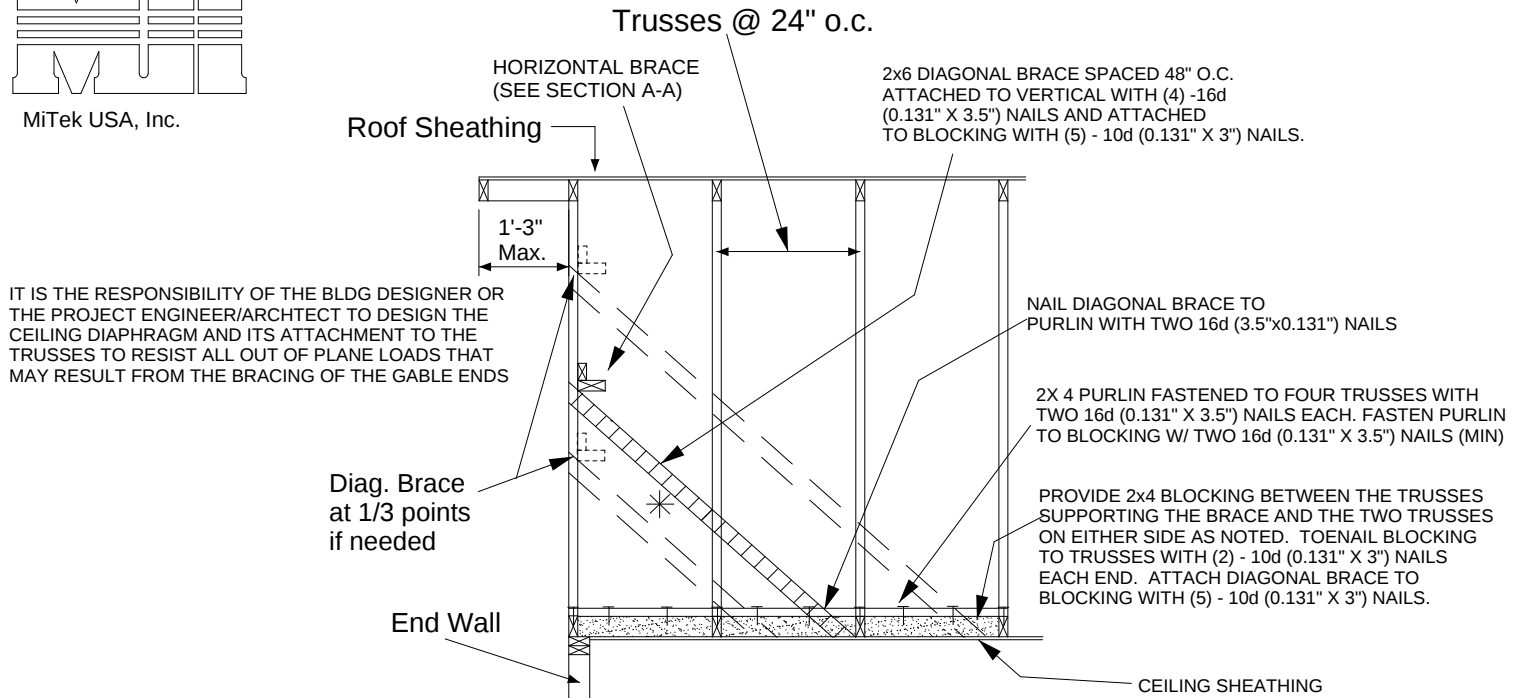


6904 Parke East Blvd.
Tampa, FL 36610



MiTek USA, Inc.

ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD



BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

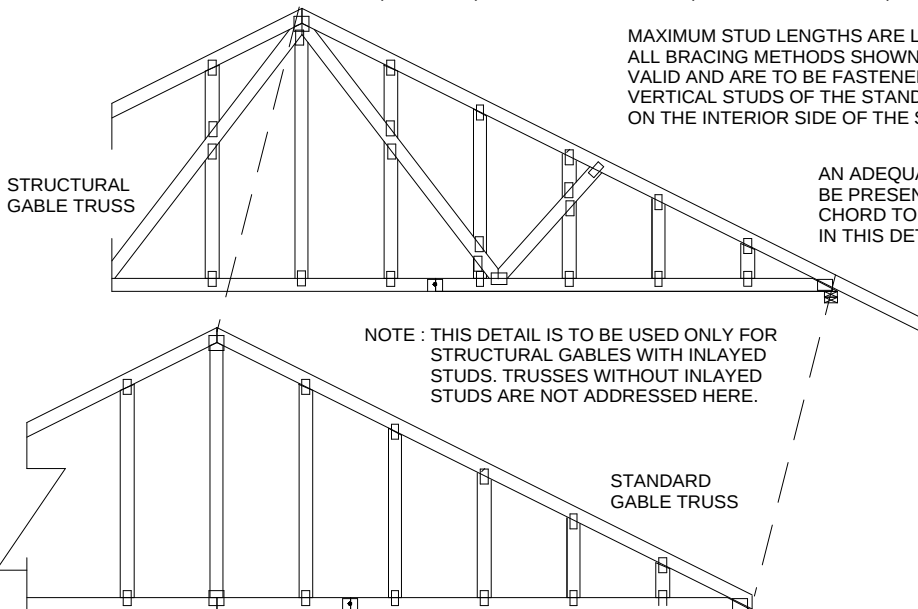
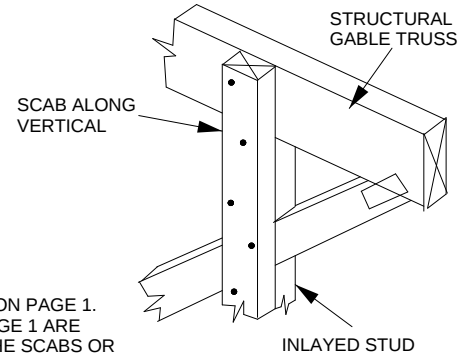
STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

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)



MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1.
ALL BRACING METHODS SHOWN ON PAGE 1 ARE
VALID AND ARE TO BE FASTENED TO THE SCABS OR
VERTICAL STUDS OF THE STANDARD GABLE TRUSS
ON THE INTERIOR SIDE OF THE STRUCTURE.

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.

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

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

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.

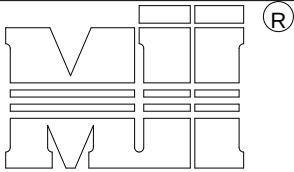
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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

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



6904 Parke East Blvd.
Tampa, FL 36610



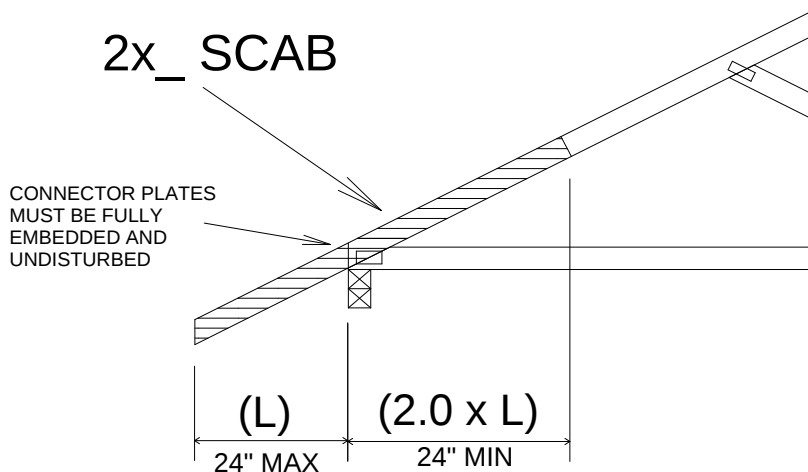
MiTek USA, Inc.

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

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

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.

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

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



6904 Parke East Blvd.
Tampa, FL 36610

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

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.

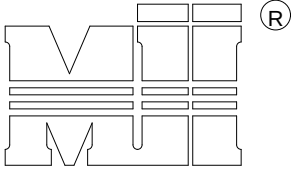
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



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Tampa, FL 36610

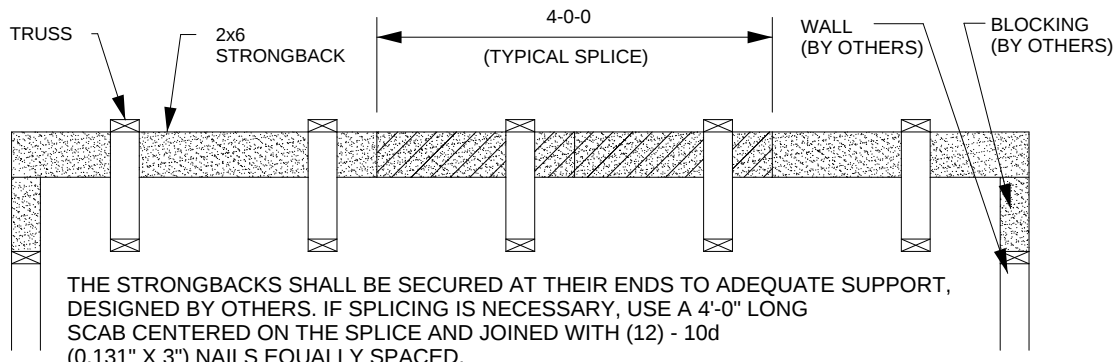
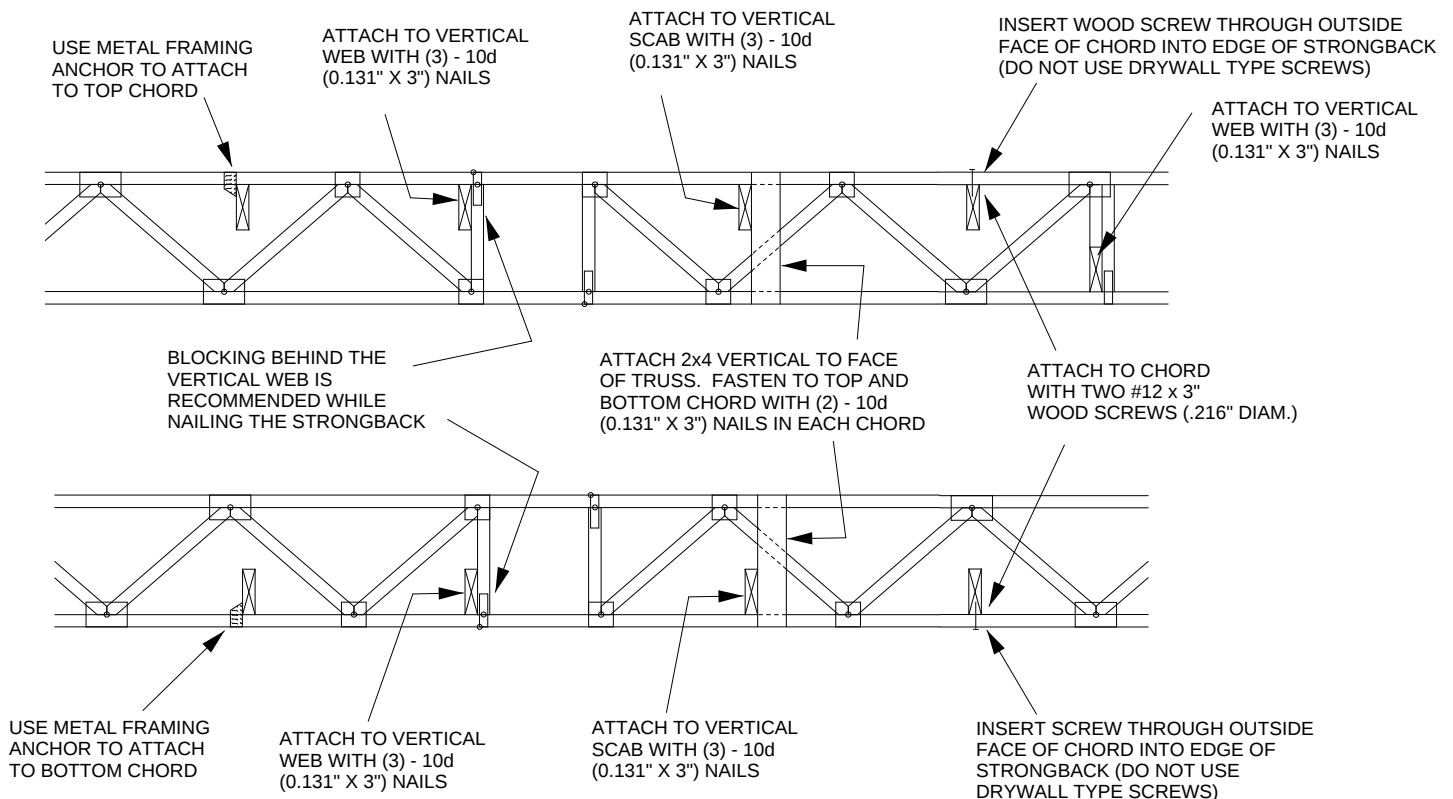


MiTek USA, Inc.

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.



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)

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

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

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.

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

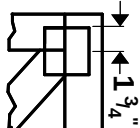
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



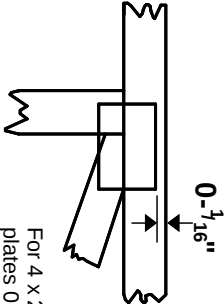
6904 Parke East Blvd.
Tampa, FL 33610

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- $\frac{3}{16}$ " from outside edge of truss.

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

*** Plate location details available in MiTek 2012 software or upon request.**

PLATE SIZE

4 X 4

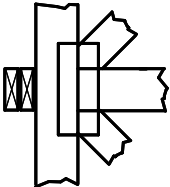
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



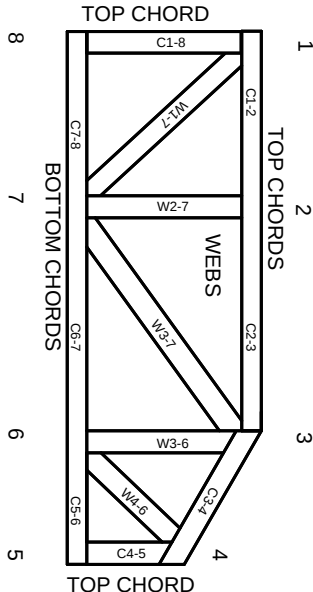
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

Lumber design values are in accordance with ANSI/TP1 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

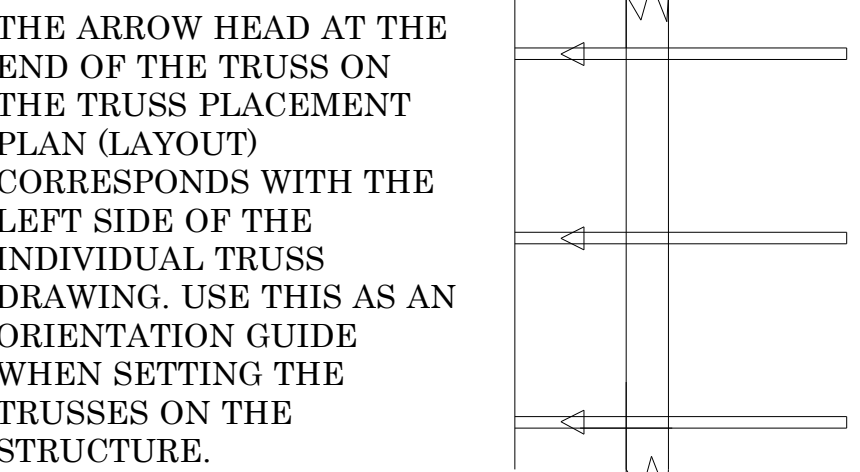
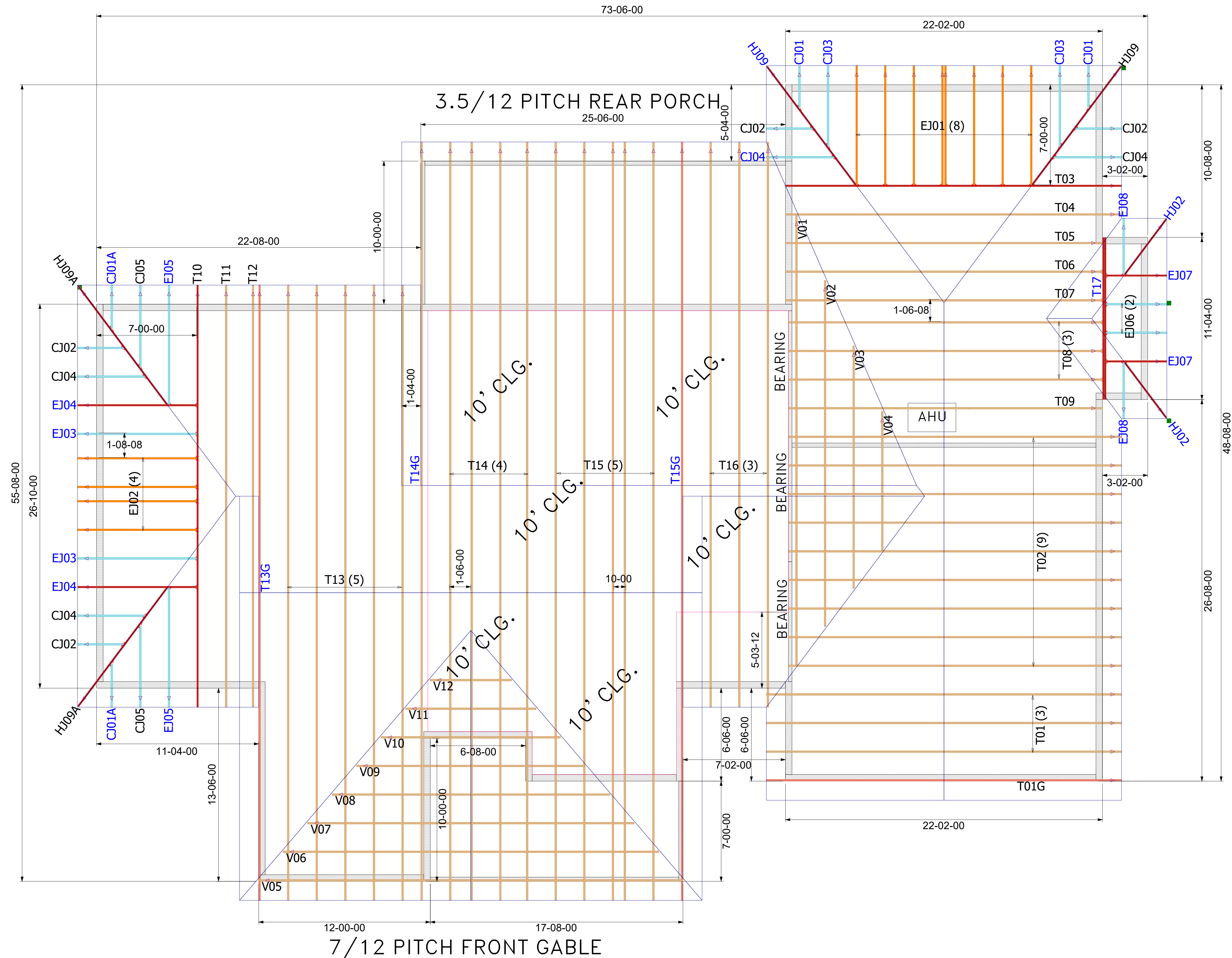


General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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

8/12-6/12 PITCH - 16" O/H



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

Notes:

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

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

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

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

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

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

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

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

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



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

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

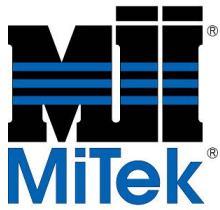
Tallahassee
PHONE: 850-576-5177

Builder: **HARTLEY BROTHERS**

Legal Address: **McGill Res.**

Model: **Custom**

Date:	Drawn By:	Original Ref #:
2-6-23	KLH	3410237
Floor 1 Job#	Floor 2 Job#:	Roof Job #:
N/A	N/A	3410237



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

RE: 3410237 - HARTLEY - MCGILL RES.

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Site Information:

Customer Info: HARTLEY BROTHERS Project Name: McGill Res. Model: Custom
Lot/Block: N/A Subdivision: N/A
Address: TBD SW Sterling Terrace, TBD
City: Columbia Cty State: FL

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

Name: License #:
Address:
City: State:

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

Design Code: FBC2020/TPI2014 Design Program: MiTek 20/20 8.5
Wind Code: ASCE 7-16 Wind Speed: 130 mph
Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 50 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	T30140656	CJ01	3/24/23	15	T30140670	HJ02	3/24/23
2	T30140657	CJ01A	3/24/23	16	T30140671	HJ09	3/24/23
3	T30140658	CJ02	3/24/23	17	T30140672	HJ09A	3/24/23
4	T30140659	CJ03	3/24/23	18	T30140673	T01	3/24/23
5	T30140660	CJ04	3/24/23	19	T30140674	T01G	3/24/23
6	T30140661	CJ05	3/24/23	20	T30140675	T02	3/24/23
7	T30140662	EJ01	3/24/23	21	T30140676	T03	3/24/23
8	T30140663	EJ02	3/24/23	22	T30140677	T04	3/24/23
9	T30140664	EJ03	3/24/23	23	T30140678	T05	3/24/23
10	T30140665	EJ04	3/24/23	24	T30140679	T06	3/24/23
11	T30140666	EJ05	3/24/23	25	T30140680	T07	3/24/23
12	T30140667	EJ06	3/24/23	26	T30140681	T08	3/24/23
13	T30140668	EJ07	3/24/23	27	T30140682	T09	3/24/23
14	T30140669	EJ08	3/24/23	28	T30140683	T10	3/24/23

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature.

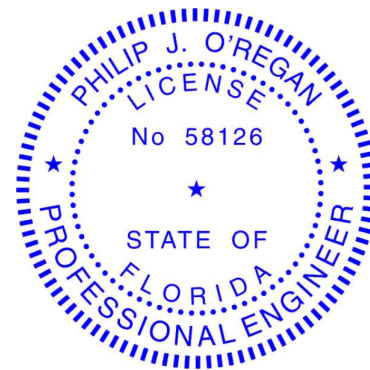
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

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: ORegan, Philip

My license renewal date for the state of Florida is February 28, 2025.

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.

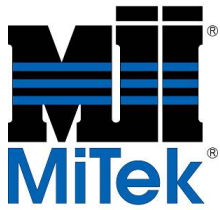


Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24, 2023

ORegan, Philip

1 of 2



RE: 3410237 - HARTLEY - MCGILL RES.

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Site Information:

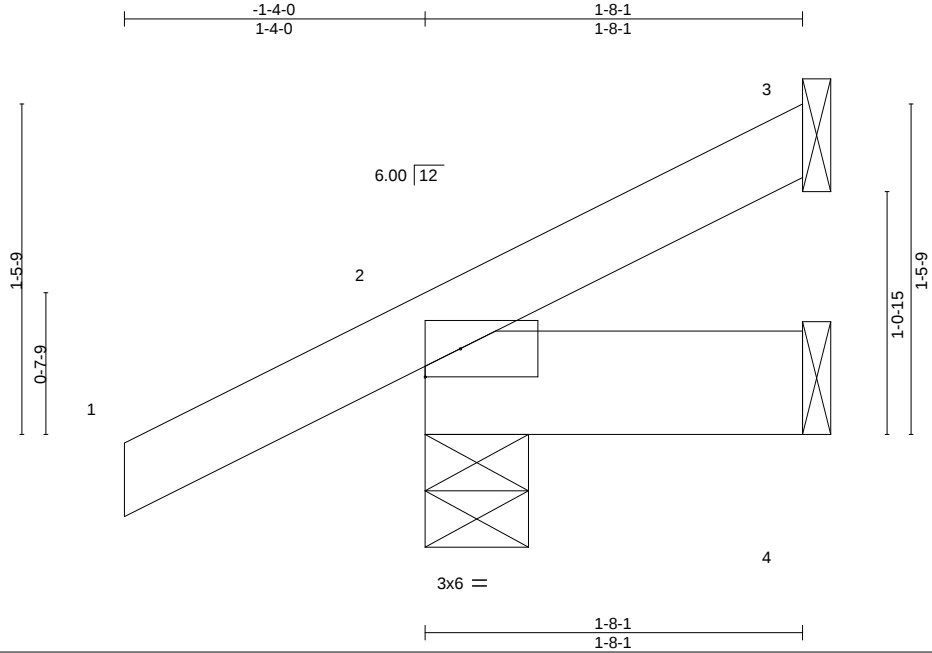
Customer Info: HARTLEY BROTHERS Project Name: McGill Res. Model: Custom
Lot/Block: N/A Subdivision: N/A
Address: TBD SW Sterling Terrace, TBD
City: Columbia Cty State: FL

No.	Seal#	Truss Name	Date
29	T30140684	T11	3/24/23
30	T30140685	T12	3/24/23
31	T30140686	T13	3/24/23
32	T30140687	T13G	3/24/23
33	T30140688	T14	3/24/23
34	T30140689	T14G	3/24/23
35	T30140690	T15	3/24/23
36	T30140691	T15G	3/24/23
37	T30140692	T16	3/24/23
38	T30140693	T17	3/24/23
39	T30140694	V01	3/24/23
40	T30140695	V02	3/24/23
41	T30140696	V03	3/24/23
42	T30140697	V04	3/24/23
43	T30140698	V05	3/24/23
44	T30140699	V06	3/24/23
45	T30140700	V07	3/24/23
46	T30140701	V08	3/24/23
47	T30140702	V09	3/24/23
48	T30140703	V10	3/24/23
49	T30140704	V11	3/24/23
50	T30140705	V12	3/24/23

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140657
3410237	CJ01A	Jack-Open	2	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:14 2023 Page 1
ID:YknxKhruOWTfiBjOKav9cEznwiS-PgWHj1kB1vpHecNeGney7f3anXzqV?EMJ1xR5PzY0rN



Scale = 1:10.2

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.11	Vert(LL)	0.00	7	>999	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.02	Vert(CT)	-0.00	7	>999		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MP					Weight: 9 lb	FT = 20%
	Code FBC2020/TPI2014							

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-8-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 2=0-5-8, 4=Mechanical
Max Horz 2=48(LC 12)
Max Uplift 3=-18(LC 12), 2=-46(LC 12)
Max Grav 3=27(LC 1), 2=162(LC 1), 4=28(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;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 18 lb uplift at joint 3 and 46 lb uplift at joint 2.

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

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

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

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

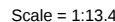
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:15 2023 Page 1
ID:YknxKhruOWTfBjOKav9cEznwS-tt4fwMlpoCx8FlyqqVABgtckCxJUESUWYhh?erzY0rM



LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 1-10-1 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2		
WEBS	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

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; TC DL=4.2psf; BC DL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 5, 27 lb uplift at joint 3 and 3 lb uplift at joint 4.

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.

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24.2023



Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for the 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 personnel 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 Code**

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

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



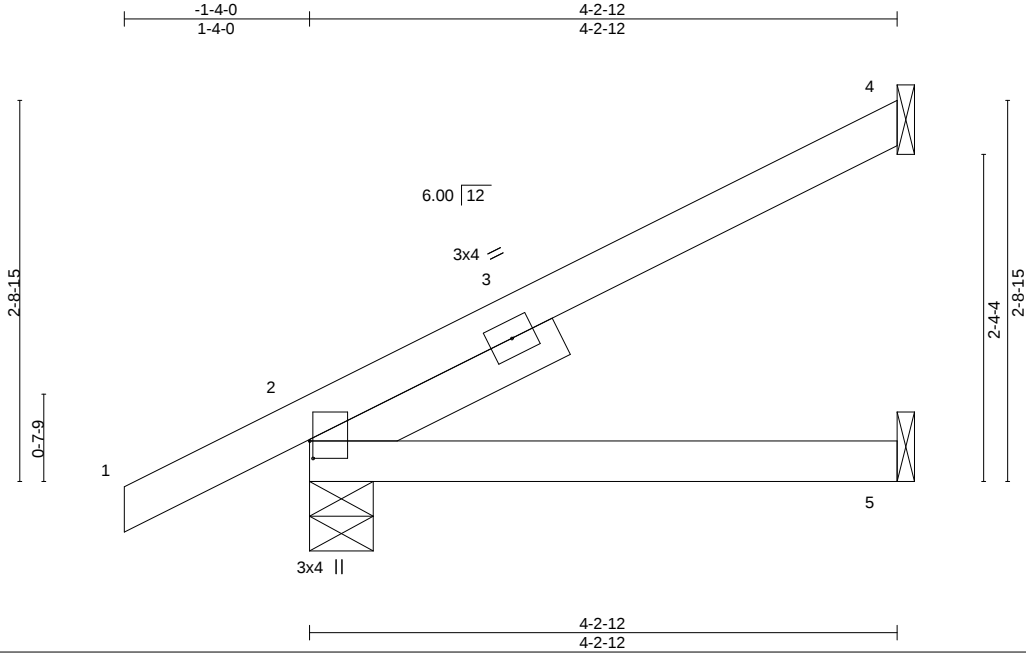
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140659
3410237	CJ03	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:16 2023 Page 1
ID:YknxKhruOWTfIBjOKav9cEznwiS-L3e18ilRZW3?tvX00ChQC49v_LdvzvknLQYAHZy0rL



Scale = 1:16.6

Plate Offsets (X,Y)--		[2:0-1-8,0-0-5]													
LOADING	(psf)	SPACING-		CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP			
TCLL	20.0	Plate Grip DOL	1.25	TC	0.19	Vert(LL)	0.02	5-8	>999	240	MT20	244/190			
TCDL	7.0	Lumber DOL	1.25	BC	0.17	Vert(CT)	-0.02	5-8	>999	180					
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a					
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP											
												Weight: 19 lb	FT = 20%		

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-2-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 2=0-5-8, 5=Mechanical
Max Horz 2=91(LC 12)
Max Uplift 4=-58(LC 12), 2=-51(LC 12), 5=-3(LC 12)
Max Grav 4=94(LC 1), 2=238(LC 1), 5=71(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 4-2-0 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 58 lb uplift at joint 4, 51 lb uplift at joint 2 and 3 lb uplift at joint 5.

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

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

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

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

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

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



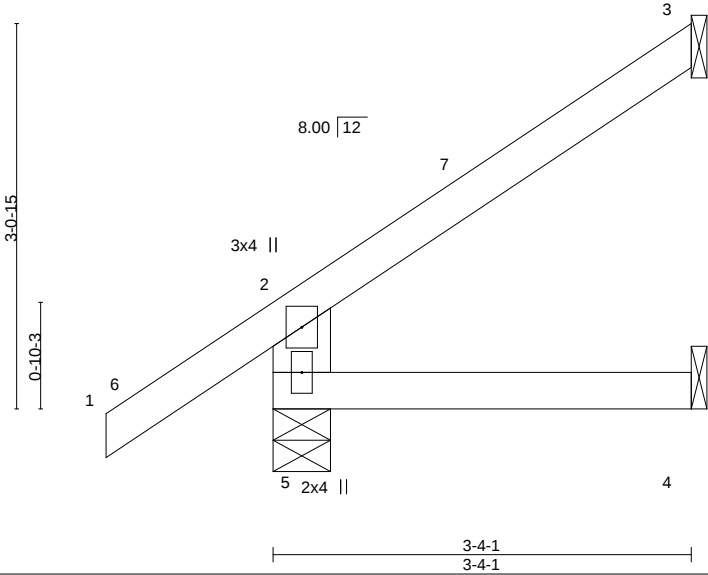
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.
3410237	CJ04	Jack-Open	4	1	T30140660

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Mar 9 2023
MiTek Industries, Inc.
Thu Mar 23 14:38:17 2023
Page 1
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Scale = 1:18.4



LOADING (psf)	SPACING-		CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2-0-0	TC 0.18		Vert(LL)	0.01	4-5	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.12		Vert(CT)	-0.01	4-5	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00		Horz(CT)	0.01	3	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MR							Weight: 15 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 3-4-1 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x6 SP No.2		

REACTIONS. (size) 5=0-5-8, 3=Mechanical, 4=Mechanical
Max Horz 5=93(LC 12)
Max Uplift 5=-32(LC 12), 3=-57(LC 12), 4=-5(LC 12)
Max Grav 5=219(LC 1), 3=72(LC 19), 4=54(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 3-3-5 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 5) Refer to girder(s) for truss to truss connections.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 5, 57 lb uplift at joint 3 and 5 lb uplift at joint 4.

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.

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

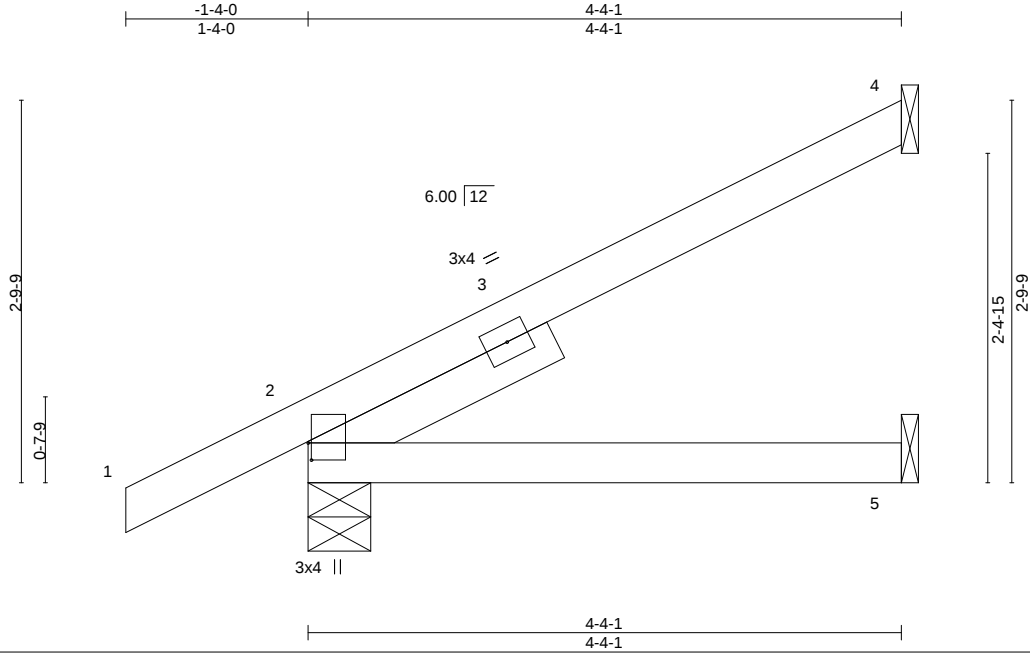
March 24,2023



Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140661
3410237	CJ05	Jack-Open	2	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:18 2023 Page 1
ID:YknxKhruOWTfBjOKav9cEznwiS-HSmmYOnh57Jj6DgPvdjuIVEEI8JCRpDyEfvfEAzY0rJ



Scale = 1:16.9

Plate Offsets (X,Y)--		[2:0-1-8,0-0-5]	
LOADING (psf)		SPACING-	2-0-0
TCLL 20.0		Plate Grip DOL	1.25
TCDL 7.0		Lumber DOL	1.25
BCLL 0.0 *		Rep Stress Incr	YES
BCDL 10.0		Code	FBC2020/TPI2014
		CSI.	
		TC 0.20	
		BC 0.18	
		WB 0.00	
		Matrix-MP	
		DEFL.	in (loc)
		Vert(LL)	0.02 5-8 >999 240
		Vert(CT)	-0.03 5-8 >999 180
		Horz(CT)	0.01 2 n/a n/a
		PLATES	GRIP
		MT20	244/190
		Weight: 19 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-4-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 2=0-5-8, 5=Mechanical
Max Horz 2=93(LC 12)
Max Uplift 4=-59(LC 12), 2=-51(LC 12), 5=-3(LC 12)
Max Grav 4=97(LC 1), 2=241(LC 1), 5=73(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 4-3-5 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 59 lb uplift at joint 4, 51 lb uplift at joint 2 and 3 lb uplift at joint 5.

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

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

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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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140662
3410237	EJ01	Jack-Partial	8	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Mar 9 2023
MiTek Industries, Inc.
Thu Mar 23 14:38:19 2023
Page 1

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7-0-0
7-0-0

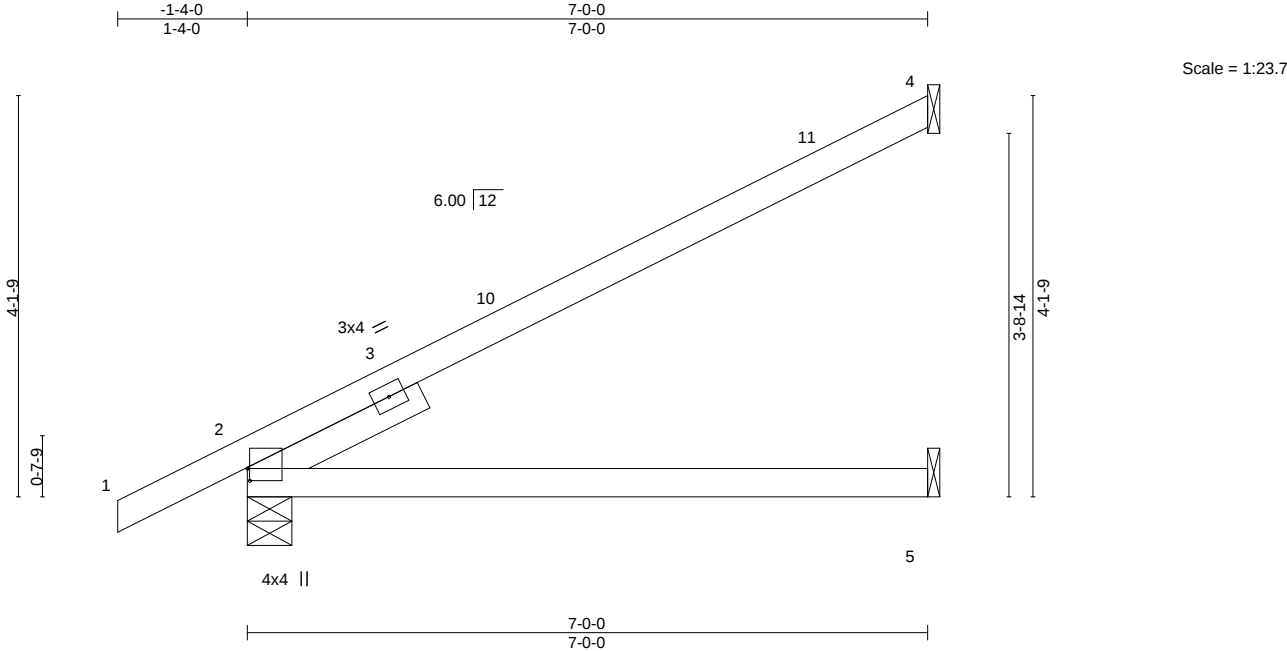


Plate Offsets (X,Y)--		[2:0-1-8,0-0-5]	
LOADING (psf)		SPACING-	2-0-0
TCLL 20.0		Plate Grip DOL	1.25
TCDL 7.0		Lumber DOL	1.25
BCLL 0.0 *		Rep Stress Incr	YES
BCDL 10.0		Code	FBC2020/TPI2014
		CSI.	
		TC 0.63	
		BC 0.50	
		WB 0.00	
		Matrix-MS	
		DEFL.	
		in (loc)	I/defl L/d
		Vert(LL) 0.13 5-8	>664 240
		Vert(CT) -0.22 5-8	>382 180
		Horz(CT) 0.04 4	n/a n/a
		PLATES	GRIP
		MT20	244/190
		Weight: 27 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
SLIDER	Left 2x4 SP No.3 1-11-8		

REACTIONS. (size) 4=Mechanical, 2=0-5-8, 5=Mechanical
Max Horz 2=134(LC 12)
Max Uplift 4=-87(LC 12), 2=-67(LC 12), 5=-3(LC 12)
Max Grav 4=164(LC 1), 2=336(LC 1), 5=124(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-367/58

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 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.
 - 5) Refer to girder(s) for truss to truss connections.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 87 lb uplift at joint 4, 67 lb uplift at joint 2 and 3 lb uplift at joint 5.

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.

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140663
3410237	EJ02	Jack-Partial	4	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Mar 9 2023
MiTek Industries, Inc.
Thu Mar 23 14:38:20 2023
Page 1
ID:YknxKhruOWTfIBjOKav9cEznwiS-EquYz4oydIZRMXqod2IMNwJa1ywnViQFizOmJ3zY0rH



Scale = 1:31.6

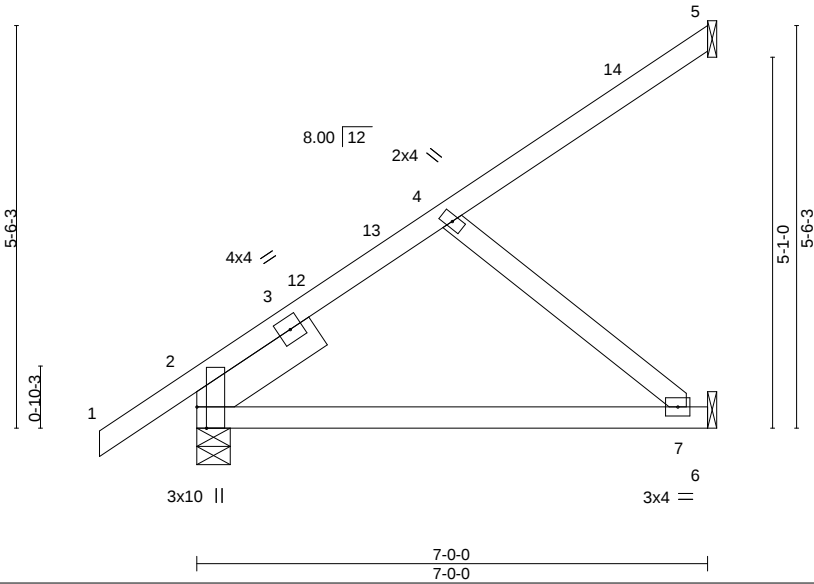


Plate Offsets (X,Y)--		[2:0-3-8,Edge]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)		l/defl L/d		PLATES		GRIP			
TCLL	20.0	Plate Grip DOL	1.25	TC	0.25	Vert(LL)	-0.06	7-10	>999	240	MT20	244/190			
TCDL	7.0	Lumber DOL	1.25	BC	0.39	Vert(CT)	-0.13	7-10	>649	180					
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.01	2	n/a	n/a					
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS										Weight: 36 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		
SLIDER	Left 2x6 SP No.2 1-11-8		

REACTIONS. (size) 5=Mechanical, 2=0-5-8, 6=Mechanical
Max Horz 2=179(LC 12)
Max Uplift 5=-46(LC 12), 2=-39(LC 12), 6=-72(LC 12)
Max Grav 5=78(LC 19), 2=336(LC 1), 6=187(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-527/8

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 6-11-4 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 5) Refer to girder(s) for truss to truss connections.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 46 lb uplift at joint 5, 39 lb uplift at joint 2 and 72 lb uplift at joint 6.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023



Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140664
3410237	EJ03	Jack-Open	2	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:20 2023 Page 1

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Scale = 1:32.9

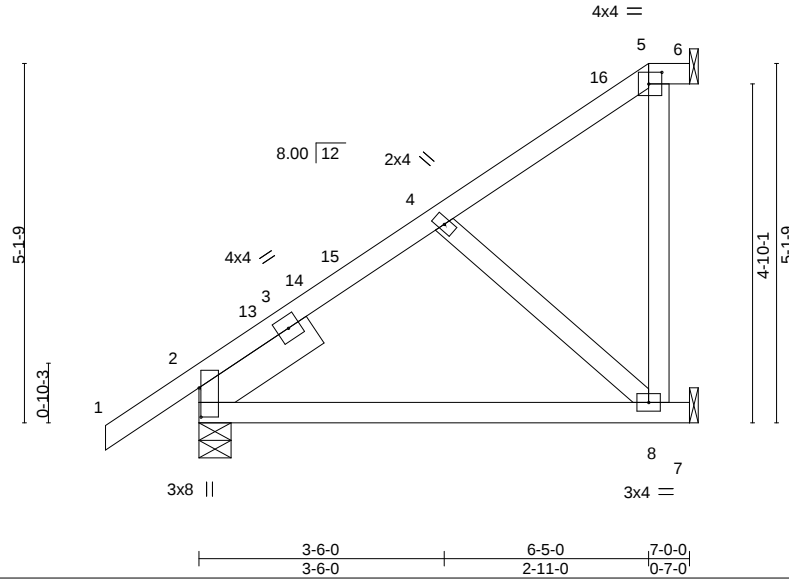


Plate Offsets (X,Y)--		[2:0-5-0,0-0-5], [5:0-2-4,0-2-0]							
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.20	Vert(LL)	-0.05 8-11 >999	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.34	Vert(CT)	-0.11 8-11 >780		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.02 6 n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS				Weight: 43 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.2 1-11-8

BRACING-

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

REACTIONS.

(size) 6=Mechanical, 2=0-5-8, 7=Mechanical
Max Horz 2=171(LC 12)
Max Uplift 6=-8(LC 12), 2=-44(LC 12), 7=-101(LC 12)
Max Grav 6=155(LC 3), 2=336(LC 1), 7=146(LC 19)

FORCES.

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

TOP CHORD 2-4=-465/51

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 6-5-0, Exterior(2E) 6-5-0 to 6-11-4 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 6, 44 lb uplift at joint 2 and 101 lb uplift at joint 7.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

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

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

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

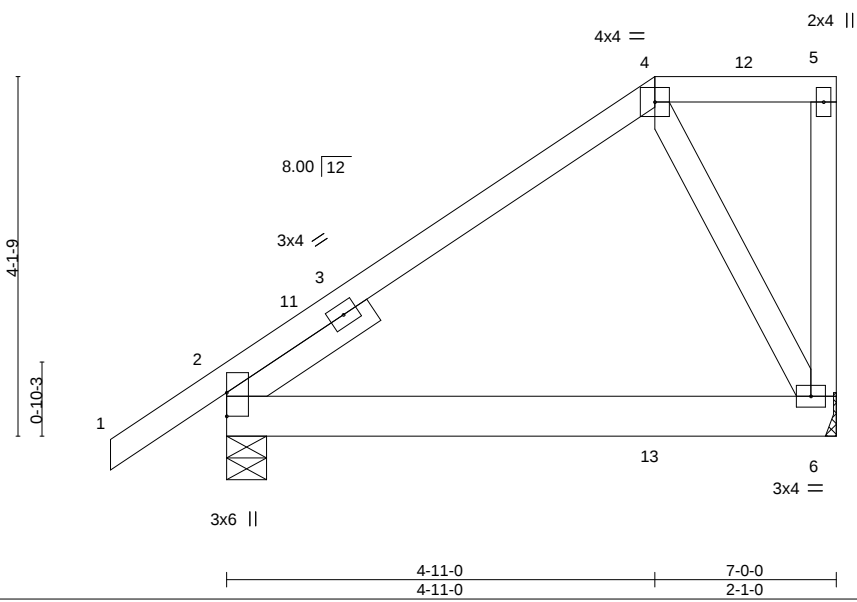
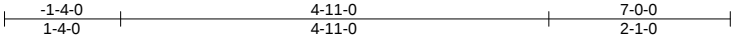
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.
3410237	EJ04	Jack-Open Girder	2	1	T30140665

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Mar 9 2023
MiTek Industries, Inc.
Thu Mar 23 14:38:21 2023
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LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2-0-0	TC 0.31	Vert(LL)	-0.05	6-9	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.54	Vert(CT)	-0.11	6-9	>758	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.10	Horz(CT)	0.02	2	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS						Weight: 45 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		
SLIDER	Left 2x4 SP No.3 1-11-8		

REACTIONS. (size) 2=0-5-8, 6=Mechanical
Max Horz 2=140(LC 8)
Max Uplift 2=-106(LC 8), 6=-190(LC 8)
Max Grav 2=423(LC 1), 6=476(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-424/123
WEBS 4-6=-276/161

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - Provide adequate drainage to prevent water ponding.
 - 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.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 106 lb uplift at joint 2 and 190 lb uplift at joint 6.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 127 lb down and 92 lb up at 4-11-0 on top chord, and 220 lb down and 125 lb up at 4-11-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 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

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)
Vert: 1-4=-54, 4-5=-54, 6-7=-20

Concentrated Loads (lb)
Vert: 4=-110(B) 13=-209(B)

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140666
3410237	EJ05	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Mar 9 2023
MiTek Industries, Inc.
Thu Mar 23 14:38:22 2023
Page 1
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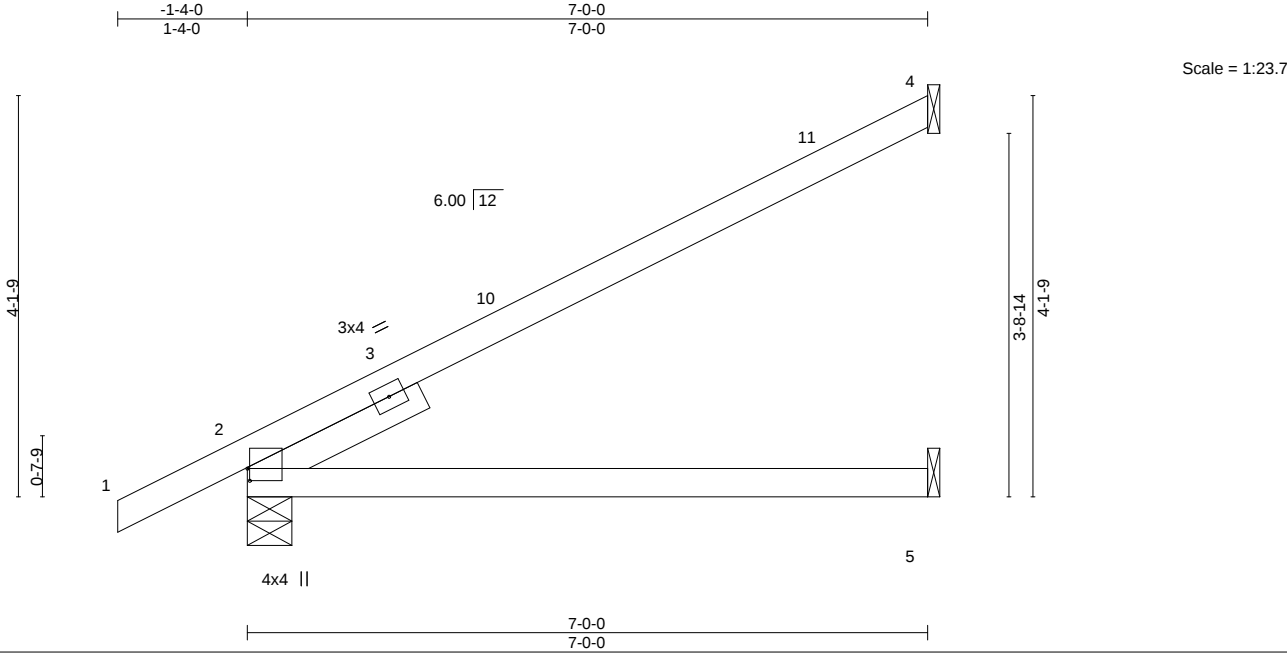


Plate Offsets (X,Y)--		[2:0-1-8,0-0-5]	
LOADING (psf)		SPACING-	2-0-0
TCLL 20.0		Plate Grip DOL	1.25
TCDL 7.0		Lumber DOL	1.25
BCLL 0.0 *		Rep Stress Incr	YES
BCDL 10.0		Code	FBC2020/TPI2014
		CSI.	
		TC 0.63	
		BC 0.50	
		WB 0.00	
		Matrix-MS	
		DEFL.	
		in (loc)	I/defl L/d
		Vert(LL) 0.13 5-8	>664 240
		Vert(CT) -0.22 5-8	>382 180
		Horz(CT) 0.04 4	n/a n/a
		PLATES	GRIP
		MT20	244/190
		Weight: 27 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
SLIDER	Left 2x4 SP No.3 1-11-8		

REACTIONS. (size) 4=Mechanical, 2=0-5-8, 5=Mechanical
Max Horz 2=134(LC 12)
Max Uplift 4=-87(LC 12), 2=-67(LC 12), 5=-3(LC 12)
Max Grav 4=164(LC 1), 2=336(LC 1), 5=124(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-367/58

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 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.
 - 5) Refer to girder(s) for truss to truss connections.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 87 lb uplift at joint 4, 67 lb uplift at joint 2 and 3 lb uplift at joint 5.

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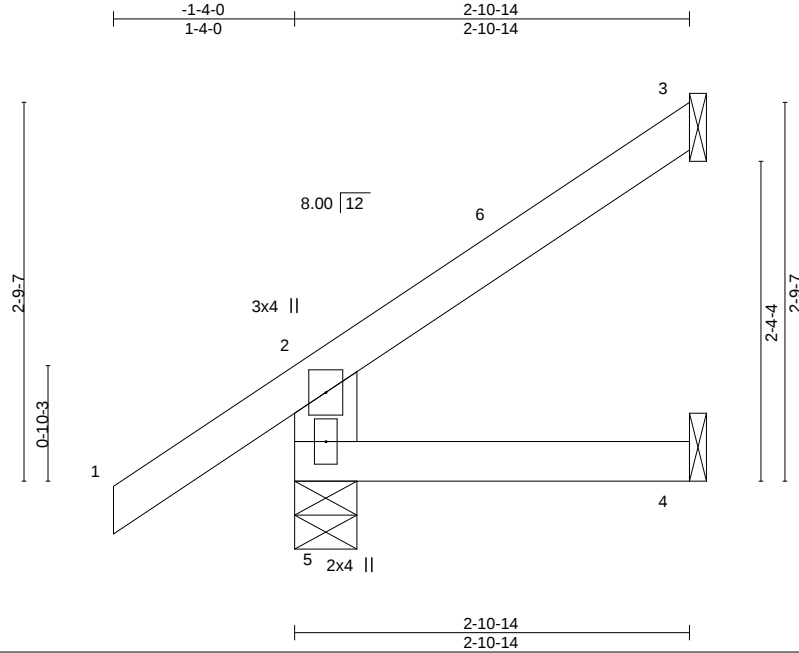
Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140667
3410237	EJ06	Jack-Open	2	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:23 2023 Page 1
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Scale = 1:17.0

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 0.18	Vert(LL)	-0.00	4-5	>999	240	MT20
TCDL 7.0	Lumber DOL	1.25	BC 0.09	Vert(CT)	-0.01	4-5	>999	180	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	3	n/a	n/a	
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MR						Weight: 13 lb FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-10-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-5-8, 3=Mechanical, 4=Mechanical
Max Horz 5=83(LC 12)
Max Uplift 5=-32(LC 12), 3=-49(LC 12), 4=-4(LC 12)
Max Grav 5=206(LC 1), 3=60(LC 19), 4=46(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 2-10-2 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 5, 49 lb uplift at joint 3 and 4 lb uplift at joint 4.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140668
3410237	EJ07	Jack-Open Girder	2	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Mar 9 2023
MiTek Industries, Inc.
Thu Mar 23 14:38:24 2023
Page 1
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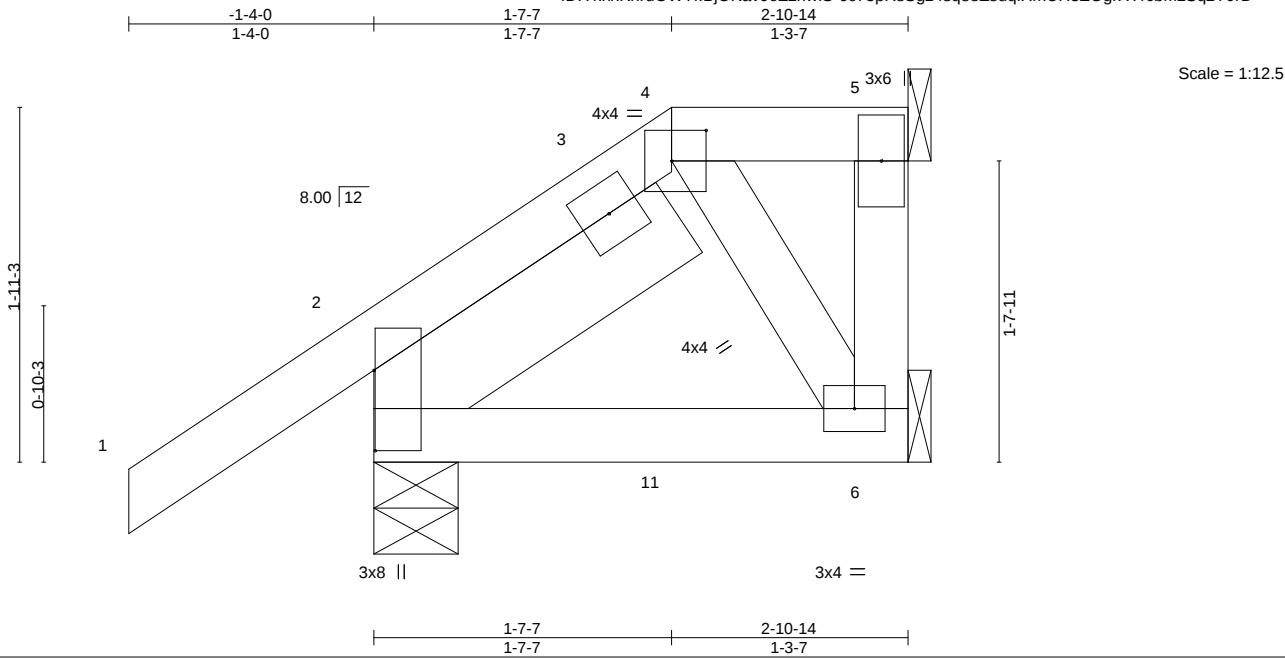


Plate Offsets (X,Y)--		[2:0-5-4,0-0-1], [4:0-2-4,0-2-0]											
LOADING	(psf)	SPACING-		CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.12	Vert(LL)	-0.00	9	>999	240	MT20	244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.05	Vert(CT)	-0.00	6-9	>999	180			
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.01	Horz(CT)	0.00	2	n/a	n/a			
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP							Weight: 21 lb	FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 2-10-14 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		
SLIDER	Left 2x6 SP No.2 1-11-8		

REACTIONS. (size) 2=0-5-8, 6=Mechanical, 5=Mechanical
Max Horz 2=64(LC 8)
Max Uplift 2=-54(LC 8), 6=-29(LC 8), 5=-15(LC 4)
Max Grav 2=195(LC 1), 6=68(LC 3), 5=31(LC 1)

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

- NOTES-**
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; 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; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
4) Provide adequate drainage to prevent water ponding.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 54 lb uplift at joint 2, 29 lb uplift at joint 6 and 15 lb uplift at joint 5.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 34 lb down and 56 lb up at 1-7-7 on top chord, and 41 lb down and 19 lb up at 1-7-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-54, 4-5=-54, 6-7=-20
Concentrated Loads (lb)
Vert: 3=-4(F) 11=-4(F)

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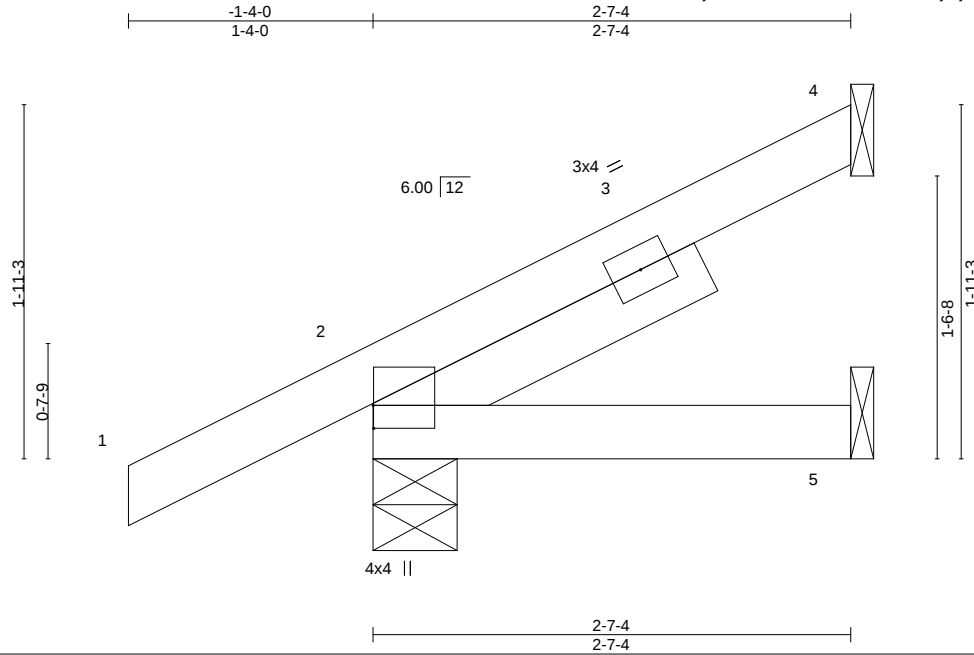
Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140669
3410237	EJ08	Jack-Open	2	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:25 2023 Page 1
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Scale = 1:12.6

Plate Offsets (X,Y)-- [2:Edge,0-0-1]											
LOADING (psf)		SPACING-		CSI.		DEFL.		in	(loc)	I/defl	L/d
TCLL	20.0	Plate Grip DOL	1.25	TC	0.11	Vert(LL)	-0.00	8	>999	240	
TCDL	7.0	Lumber DOL	1.25	BC	0.04	Vert(CT)	-0.00	5-8	>999	180	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a	
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MP							
										Weight: 14 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-7-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 2=0-5-8, 5=Mechanical
Max Horz 2=63(LC 12)
Max Uplift 4=-33(LC 12), 2=-45(LC 12), 5=-1(LC 12)
Max Grav 4=51(LC 1), 2=185(LC 1), 5=39(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 2-6-8 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 33 lb uplift at joint 4, 45 lb uplift at joint 2 and 1 lb uplift at joint 5.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

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

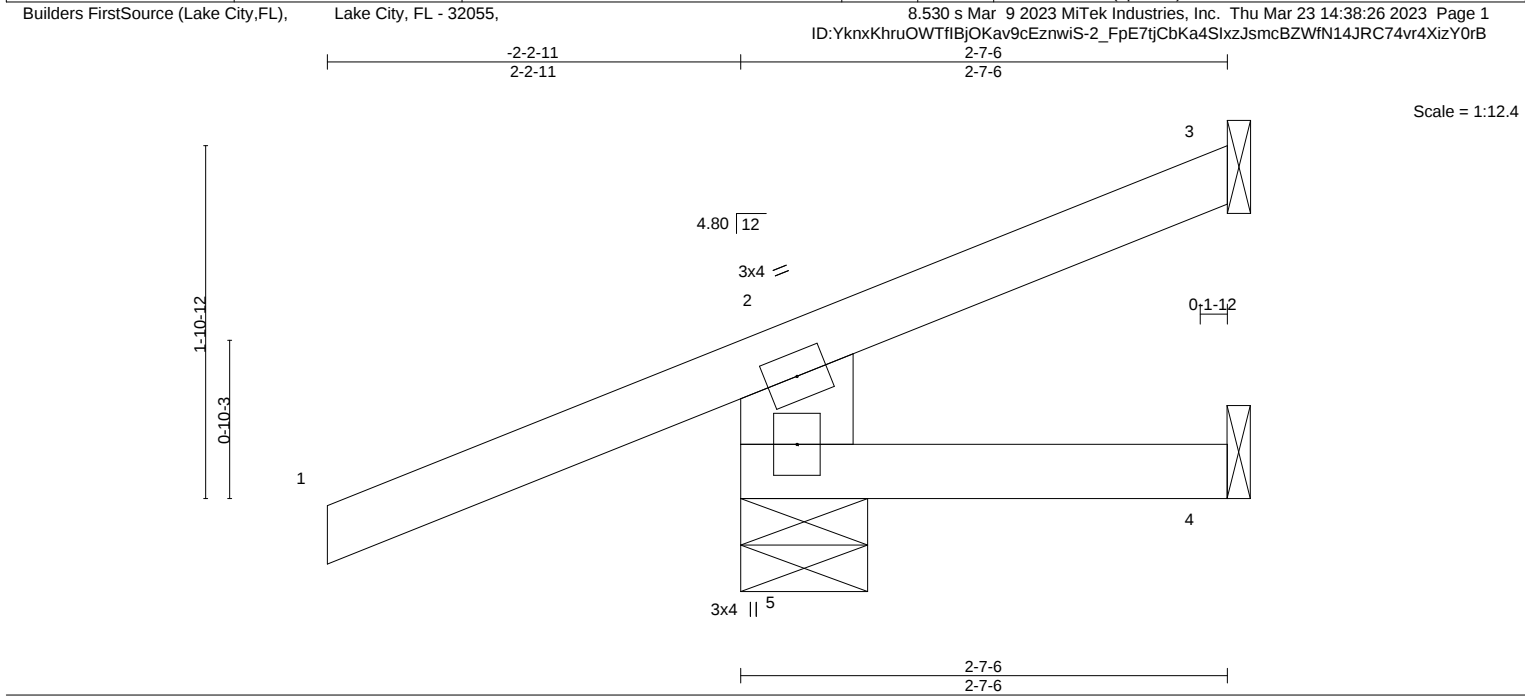
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140670
3410237	HJ02	Jack-Open Girder	2	1	Job Reference (optional)	



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.56	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
TCDL 7.0	1.25	BC 0.18	Vert(CT)	0.00	4-5	>999	180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MR						Weight: 13 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-7-6 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x8 SP 2400F 2.0E	
REACTIONS. (size) 3=Mechanical, 5=0-8-3, 4=Mechanical	
Max Horz 5=65(LC 8)	
Max Uplift 3=-21(LC 12), 5=-121(LC 8), 4=-11(LC 1)	
Max Grav 3=18(LC 1), 5=296(LC 1), 4=32(LC 3)	

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

TOP CHORD 2-5=-240/295

- 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 Corner(3) -2-2-11 to 2-0-4, Exterior(2R) 2-0-4 to 2-6-10 zone; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 3) 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) Gable studs spaced at 2-0-0 oc.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 7) Refer to girder(s) for truss to truss connections.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 3, 121 lb uplift at joint 5 and 11 lb uplift at joint 4.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140671
3410237	HJ09	Diagonal Hip Girder	2	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:27 2023 Page 1
ID:YknxKhruOWTfIBjOKav9cEznwiS-XApBRTuLzuSRhbt8XON?9P6kxmL62thHJZbd39zY0rA

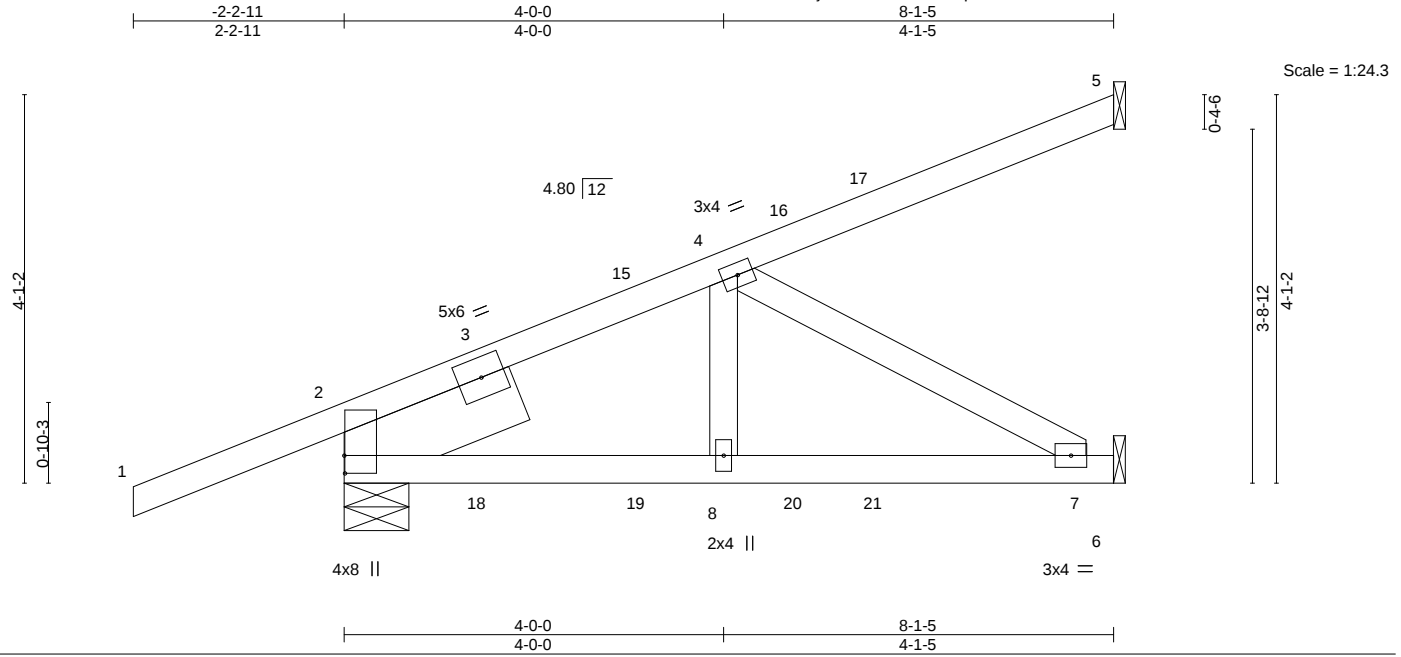


Plate Offsets (X,Y)-- [2:0-2-4,0-0-1]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.33	Vert(LL)	-0.02 7-8 >999	240	MT20 244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.26	Vert(CT)	-0.04 7-8 >999	180	
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.11	Horz(CT)	-0.01 5 n/a	n/a	
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 44 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x8 SP 2400F 2.0E 1-11-8

BRACING-

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

REACTIONS.

(size) 5=Mechanical, 2=0-8-3, 6=Mechanical
Max Horz 2=137(LC 8)
Max Uplift 5=-64(LC 8), 2=-150(LC 4), 6=-79(LC 8)
Max Grav 5=101(LC 1), 2=457(LC 1), 6=187(LC 3)

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

TOP CHORD 2-4=-317/151
BOT CHORD 2-8=-156/255, 7-8=-156/255
WEBS 4-7=-292/179

NOTES-

- 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; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 5, 150 lb uplift at joint 2 and 79 lb uplift at joint 6.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 60 lb down and 10 lb up at 1-5-9, 63 lb down and 24 lb up at 3-1-11, and 36 lb down and 65 lb up at 4-9-9, and 80 lb down and 61 lb up at 5-7-11 on top chord, and 13 lb down and 5 lb up at 1-5-9, 12 lb down and 11 lb up at 3-1-11, and 29 lb down and 15 lb up at 4-9-9, and 29 lb down and 13 lb up at 5-7-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 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

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-5=-54, 6-9=-20
Concentrated Loads (lb)
Vert: 16=-7(F) 17=-2(B) 18=2(F) 19=8(B) 20=-15(F) 21=-2(B)

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Date:

March 24,2023

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140672
3410237	HJ09A	Diagonal Hip Girder	2	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:28 2023 Page 1
ID:YknxKhruOWTfBjOKav9cEznwiS-?NMZfpvzkCaJIRK5kvEicevgAhBnKxQXCKBbbzY0r9

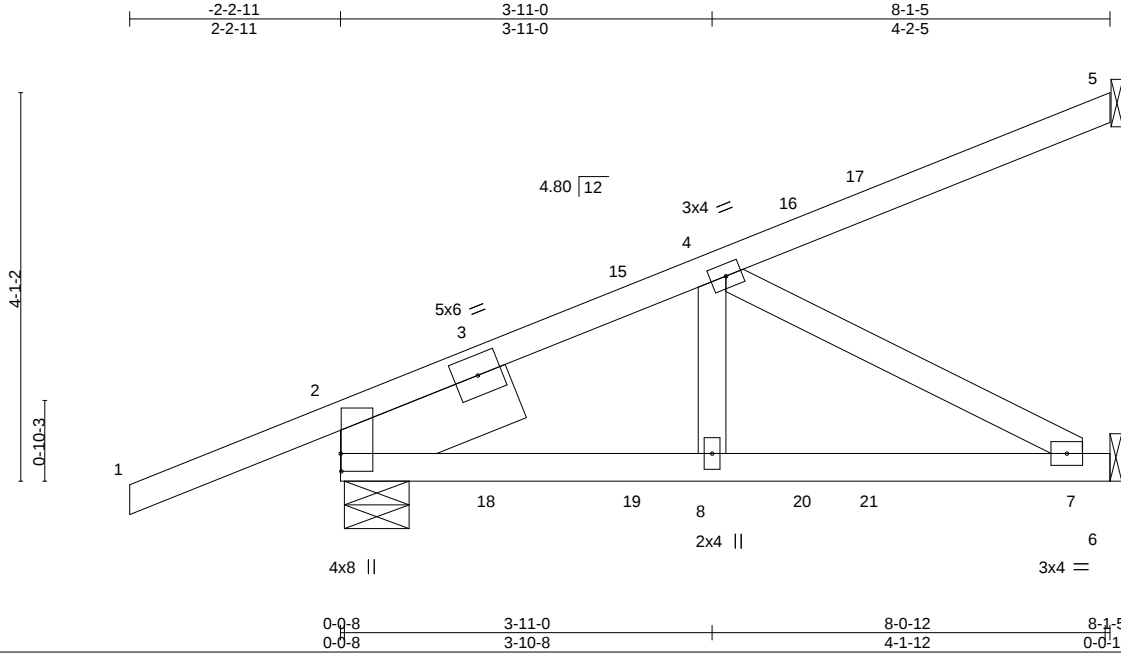


Plate Offsets (X,Y)--		[2:0-2-4,0-0-1]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP			
TCLL	20.0	Plate Grip DOL	1.25	TC	0.33	Vert(LL)	-0.02	7-8	>999	240	MT20	244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.27	Vert(CT)	-0.04	7-8	>999	180			
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.11	Horz(CT)	-0.01	5	n/a	n/a			
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS						Weight: 44 lb FT = 20%			

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x8 SP 2400F 2.0E 1-11-8

BRACING-

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

REACTIONS.

(size) 5=Mechanical, 2=0-8-3, 6=Mechanical
Max Horz 2=137(LC 8)
Max Uplift 5=66(LC 8), 2=-146(LC 4), 6=-77(LC 8)
Max Grav 5=104(LC 1), 2=457(LC 1), 6=186(LC 3)

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

TOP CHORD 2-4=-306/169
WEBS 4-7=-282/176

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; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 66 lb uplift at joint 5, 146 lb uplift at joint 2 and 77 lb uplift at joint 6.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 12 lb down and 14 lb up at 1-7-4, 63 lb down and 24 lb up at 3-1-11, and 37 lb down and 67 lb up at 4-11-4, and 80 lb down and 61 lb up at 5-7-11 on top chord, and 13 lb down and 5 lb up at 1-7-4, 12 lb down and 11 lb up at 3-1-11, and 31 lb down and 16 lb up at 4-11-4, and 29 lb down and 13 lb up at 5-7-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-5=-54, 6-9=-20
Concentrated Loads (lb)
Vert: 16=-8(B) 17=-2(F) 18=5(B) 19=8(F) 20=-17(B) 21=-2(F)

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Philip J. O'Regan PE No.58126
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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

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

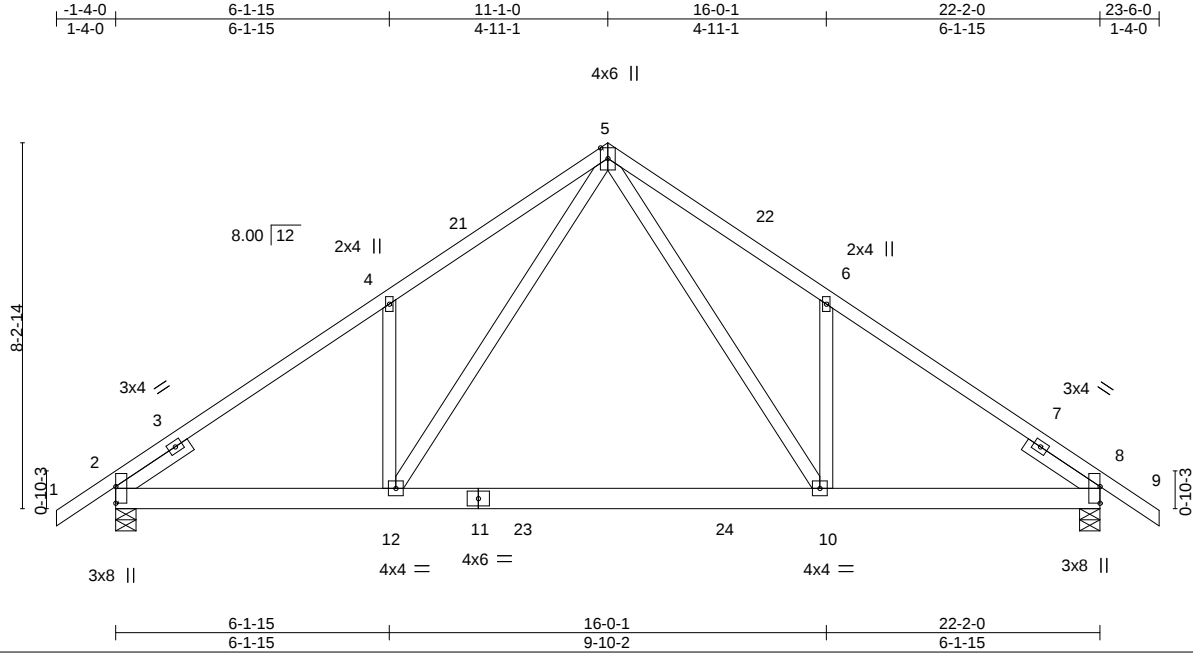


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140673
3410237	T01	Common	3	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:30 2023 Page 1
ID:YknxKhruOWTfIBjOKav9cEznwiS-xlUK4VwDGpq0Y3bjC8xin1kBX_CQF6qj?WpHgUzY0r7



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.63	Vert(LL)	-0.24 10-12	>999	240	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.99	Vert(CT)	-0.44 10-12	>602	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.54	Horz(CT)	0.04 8	n/a	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS					Weight: 141 lb	FT = 20%
	Code FBC2020/TPI2014							

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-7-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-5-8, 8=0-5-8
Max Horz 2=182(LC 11)
Max Uplift 2=-269(LC 12), 8=-269(LC 13)
Max Grav 2=1308(LC 19), 8=1308(LC 20)

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

TOP CHORD 2-4=-1813/359, 4-5=-1838/507, 5-6=-1838/507, 6-8=-1814/359
BOT CHORD 2-12=-305/1558, 10-12=-128/978, 8-10=-213/1456
WEBS 5-10=-334/1091, 6-10=-253/226, 5-12=-334/1091, 4-12=-253/226

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 1-4-0 to 1-8-0, Interior(1) 1-8-0 to 11-1-0, Exterior(2R) 11-1-0 to 14-1-0, Interior(1) 14-1-0 to 23-6-0 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 269 lb uplift at joint 2 and 269 lb uplift at joint 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

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-5=-54, 5-9=-54, 12-13=-20, 10-12=-80(F=-60), 10-17=-20

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March 24, 2023

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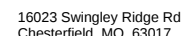
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:32 2023 Page 1
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 -1-4-0 11-1-0 22-2-0 23-6-0
 1-4-0 11-1-0 11-1-0 1-4-0



Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140675
3410237	T02	Common	9	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:33 2023 Page 1

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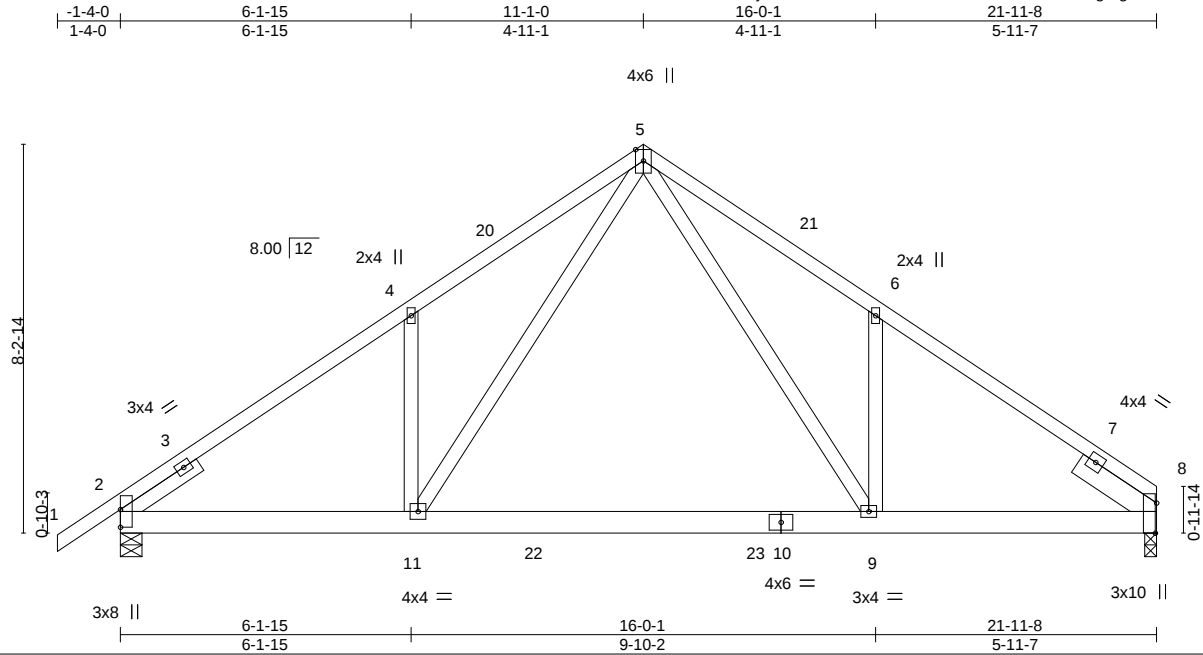


Plate Offsets (X,Y)-- [8:0-7-11,Edge]

LOADING (psf)	SPACING-	CSL.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.73	Vert(LL) -0.24	9-11	>999	240		MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.99	Vert(CT) -0.45	9-11	>591	180			
BCLL 0.0 *	Rep Stress Incr NO	WB 0.54	Horz(CT) 0.04	8	n/a	n/a			
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS						Weight: 140 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.3
 SLIDER Left 2x4 SP No.3 1-11-8, Right 2x6 SP No.2 1-11-8

REACTIONS.

(size) 8=0-3-0, 2=0-5-8
 Max Horz 2=175(LC 9)
 Max Uplift 8=238(LC 13), 2=267(LC 12)
 Max Grav 8=1230(LC 20), 2=1295(LC 19)

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

TOP CHORD 2-4=-1792/356, 4-5=-1817/504, 5-6=-1777/498, 6-8=-1762/354
 BOT CHORD 2-11=-319/1530, 9-11=-141/949, 8-9=-221/1396
 WEBS 4-11=-253/226, 5-11=-334/1092, 5-9=-324/1033

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 11-1-0, Exterior(2R) 11-1-0 to 14-1-0, Interior(1) 14-1-0 to 21-11-8 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=238, 2=267.
- 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

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
 Uniform Loads (plf)
 Vert: 1-5=-54, 5-8=-54, 11-16=-20, 9-11=-80(F=-60), 9-12=-20

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 Date:

March 24,2023

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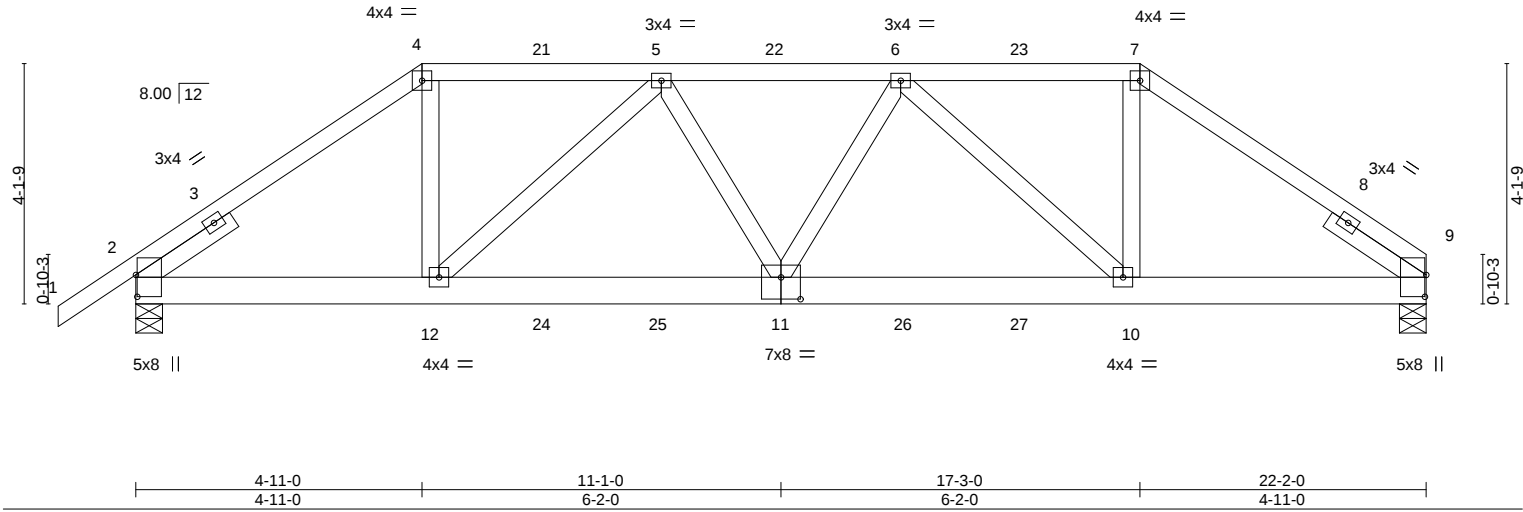
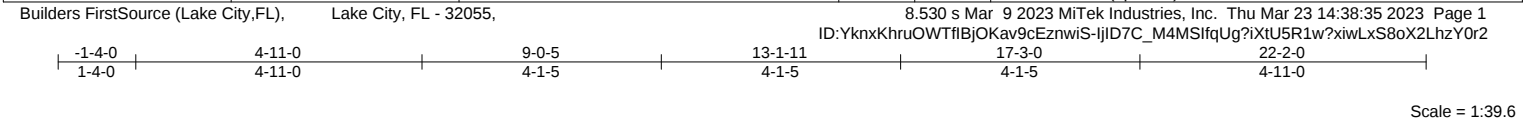
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140676
3410237	T03	Hip Girder	1	1	Job Reference (optional)	



LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.65	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.85	Vert(LL) -0.10 10-11 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.67	Vert(CT) -0.19 10-11 >999 180		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.06 9 n/a n/a		
				Weight: 133 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-10-10 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 7-3-13 oc bracing.
WEBS 2x4 SP No.3	
SLIDER Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8	

REACTIONS.	(size) 9=0-5-8, 2=0-5-8
	Max Horz 2=86(LC 24)
	Max Uplift 9=590(LC 9), 2=606(LC 8)
	Max Grav 9=1694(LC 1), 2=1754(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-4=-2411/861, 4-5=-1976/756, 5-6=-2932/1039, 6-7=-2006/777, 7-9=-2447/887
BOT CHORD	2-12=-694/1936, 11-12=-1011/2801, 10-11=-1002/2806, 9-10=-667/1967
WEBS	4-12=-320/1020, 5-12=-1174/479, 5-11=-47/378, 6-11=-34/375, 6-10=-1138/447, 7-10=-295/999

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=590, 2=606.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 128 lb down and 94 lb up at 4-11-0, 110 lb down and 92 lb up at 6-11-12, 110 lb down and 92 lb up at 8-11-12, 110 lb down and 85 lb up at 10-11-12, 110 lb down and 85 lb up at 11-2-4, 110 lb down and 92 lb up at 13-2-4, and 110 lb down and 92 lb up at 15-2-4, and 187 lb down and 166 lb up at 17-3-0 on top chord, and 221 lb down and 127 lb up at 4-11-0, 84 lb down and 23 lb up at 6-11-12, 84 lb down and 23 lb up at 8-11-12, 84 lb down and 23 lb up at 10-11-12, 84 lb down and 23 lb up at 11-2-4, 84 lb down and 23 lb up at 13-2-4, and 84 lb down and 23 lb up at 15-2-4, and 221 lb down and 127 lb up at 17-2-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 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

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MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140676
3410237	T03	Hip Girder	1	1	Job Reference (optional)	

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
- Uniform Loads (plf)
- Vert: 1-4=-54, 4-7=-54, 7-9=-54, 13-17=-20
- Concentrated Loads (lb)
- Vert: 4=-110(F) 7=-144(F) 11=-132(F) 12=-214(F) 5=-110(F) 6=-110(F) 10=-214(F) 21=-110(F) 22=-219(F) 23=-110(F) 24=-66(F) 25=-66(F) 26=-66(F) 27=-66(F)



Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140677
3410237	T04	Hip	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:36 2023 Page 1
ID:YknxKhruOWTfBjOKav9cEznwiS-mvrbKY?_rfa9H_3sZP260I_GLPKzfvBcNSGct7zY0r1

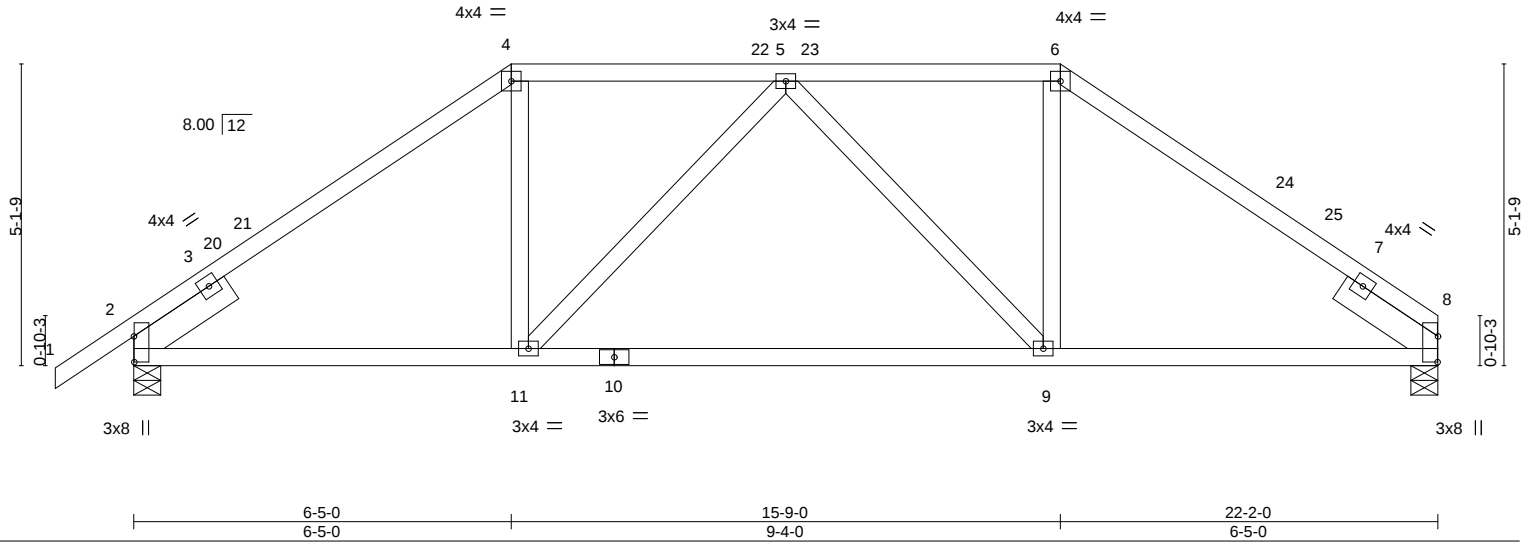
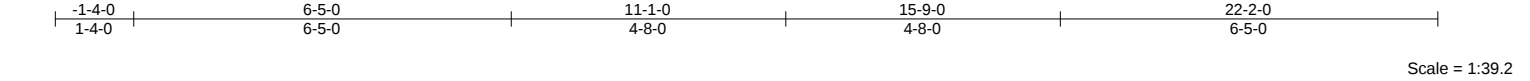


Plate Offsets (X,Y)-- [2:0-5-4,0-0-1], [8:0-5-4,0-0-1]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.42	Vert(LL)	-0.16 9-11 >999	240	MT20 244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.66	Vert(CT)	-0.33 9-11 >812	180	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.04 8 n/a	n/a	
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS					Weight: 114 lb FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.2 1-11-8, Right 2x6 SP No.2 1-11-8

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-11-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=0-5-8, 2=0-5-8
Max Horz 2=108(LC 9)
Max Uplift 8=173(LC 13), 2=202(LC 12)
Max Grav 8=818(LC 1), 2=894(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1046/217, 4-5=-806/233, 5-6=-812/236, 6-8=-1051/219
BOT CHORD 2-11=-162/797, 9-11=-193/939, 8-9=-89/803
WEBS 4-11=-46/360, 5-11=-264/155, 5-9=-259/155, 6-9=-45/360

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 6-5-0, Exterior(2R) 6-5-0 to 10-7-15, Interior(1) 10-7-15 to 15-9-0, Exterior(2R) 15-9-0 to 19-11-15, Interior(1) 19-11-15 to 22-2-0 zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=173, 2=202.

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

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Date:

March 24,2023

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:37 2023 Page 1
 ID:YknxKhruOWTfBjOkav9cEznwiS-E6PzYu0cczi0u8d3662LZWVWQoojYOObIc609PazY0r0
 3-11-13 7-11-0 14-3-0 18-2-3 22-2-0
 3-11-13 3-11-2 6-4-0 3-11-2 3-11-13



LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 5-4-11 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 5-11
SLIDER	Left 2x6 SP No.2 1-11-8. Right 2x6 SP No.2 1-11-8		

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

TOP CHORD	1-3=-1056/247, 3-4=-929/222, 4-5=-744/223, 5-6=-929/222, 6-8=-1056/247
BOT CHORD	1-11=-224/833, 9-11=-74/744, 8-9=-145/833
WEBS	4-11=-29/293, 5-9=-37/292

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 7-11-0, Exterior(2R) 7-11-0 to 12-1-18, Interior(1) 12-1-15 to 14-3-0, Exterior(2R) 14-3-0 to 18-3-11, Interior(1) 18-3-11 to 22-2-0 zone; end vertical 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) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=169, 8=169.

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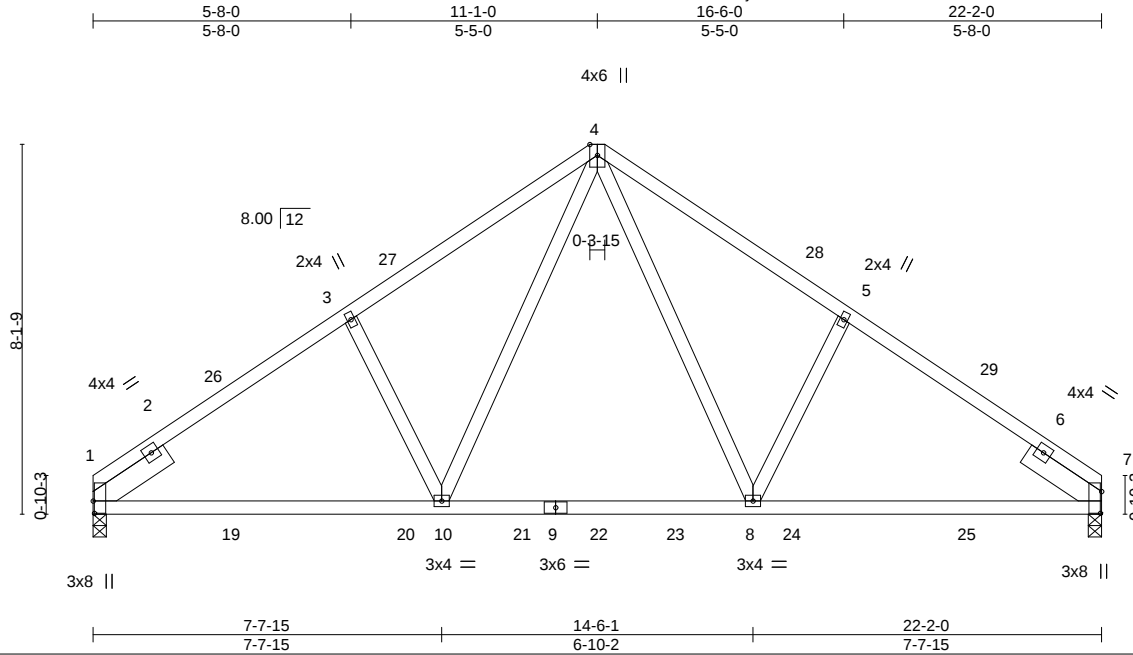
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Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140680
3410237	T07	FINK	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:40 2023 Page 1
ID:YknxKhruOWTfIBjOKav9cEznwiS-eh56Aw2Vvu5blbMeoF62B88z60kEbdVBI4Ep?uzY0qz



Scale = 1:50.6

Plate Offsets (X,Y)--		[1:0-3-4,0-0-5], [7:0-5-12,0-0-5]		[14-6-1,6-10-2]		[22-2-0,7-7-15]	
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc) l/defl L/d
TCLL 20.0		Plate Grip DOL	1.25	TC 0.30		Vert(LL)	-0.11 8-10 >999 240
TCDL 7.0		Lumber DOL	1.25	BC 0.51		Vert(CT)	-0.16 8-10 >999 180
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.59		Horz(CT)	0.03 7 n/a n/a
BCDL 10.0		Code	FBC2020/TPI2014	Matrix-MS			
						PLATES	GRIP
						MT20	244/190
						Weight: 120 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x6 SP No.2 1-11-8, Right 2x6 SP No.2 1-11-8

REACTIONS.

(size) 1=0-3-8, 7=0-3-8
Max Horz 1=-162(LC 8)
Max Uplift 1=-160(LC 12), 7=-160(LC 13)
Max Grav 1=901(LC 2), 7=901(LC 2)

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

TOP CHORD 1-3=-1141/709, 3-4=-1060/748, 4-5=-1060/748, 5-7=-1141/709
BOT CHORD 1-10=-555/906, 8-10=-338/645, 7-8=-536/906
WEBS 4-10=-410/484, 4-8=-410/484

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 11-1-0, Exterior(2R) 11-1-0 to 15-3-15, Interior(1) 15-3-15 to 22-2-0 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
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=160, 7=160.

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140681
3410237	T08	Common	3	1	Job Reference (optional)	



Plate Offsets (X,Y)-- [1:0-3-8,Edge], [7:0-7-11,Edge]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.41	Vert(LL)	-0.12 8-10 >999 240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.60	Vert(CT)	-0.17 8-10 >999 180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.04 7 n/a n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS				Weight: 120 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-10-1 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		
SLIDER	Left 2x6 SP No.2 1-11-8, Right 2x6 SP No.2 1-11-8		

REACTIONS. (size) 1=Mechanical, 7=0-3-0
Max Horz 1=162(LC 9)
Max Uplift 1=-159(LC 12), 7=-157(LC 13)
Max Grav 1=928(LC 19), 7=926(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-1156/226, 3-4=-1086/273, 4-5=-1061/268, 5-7=-1130/223
BOT CHORD 1-10=-220/1024, 8-10=-67/694, 7-8=-123/882
WEBS 3-10=-253/204, 4-10=-161/553, 4-8=-153/507

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 11-1-0, Exterior(2R) 11-1-0 to 14-1-0, Interior(1) 14-1-0 to 21-11-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=159, 7=157.

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Date:

March 24,2023

Builders FirstSource (Lake City, FL) Lake City, FL - 32055, 8530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:42 2023 Page 1
 ID:YknxKhrUOWTfBjOKav9cEznwiS-a3Dsb4IRVLJ7vW0vg9WGZDI3pNR3XdUOjw4nzY0qx
 4-9-12 9-0-0 11-1-0 14-5-0 18-0-8 21-11-8
 4-9-12 4-2-4 2-1-0 3-4-0 3-7-8 3-11-0



LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-0-4 oc purlins.
BOT CHORD	2x4 SP No.2 *Except*	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
	4-14,6-10: 2x4 SP No.3		
WEBS	2x4 SP No.3		
SLIDER	Left 2x6 SP No.2 1-11-8, Right 2x6 SP No.2 1-11-8		

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

TOP CHORD	1-3=-1028/232, 3-4=-1589/342, 4-5=-1140/269, 5-6=-1163/272, 6-7=-1925/345, 7-9=-1007/224
BOT CHORD	1-14=-231/830, 13-14=-184/772, 4-13=-148/615, 12-13=-228/1269, 11-12=-206/1587, 10-11=-99/723, 6-11=-85/714, 9-10=-132/777
WEBS	3-14=-1056/310, 3-13=-236/1247, 4-12=-661/236, 5-12=-254/1079, 6-12=-830/213, 7-11=-209/1550, 7-10=-1005/178

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March 24.2023



Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140683
3410237	T10	Hip Girder	1	1	Job Reference (optional)	

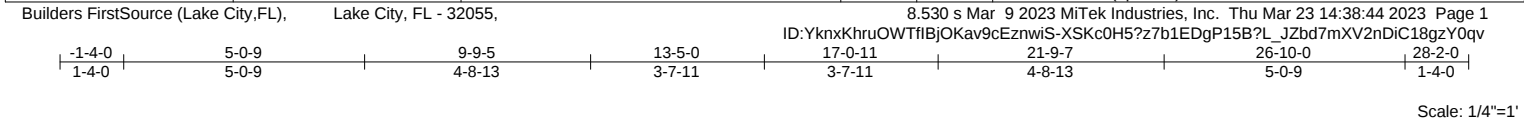


Plate Offsets (X,Y)--		[2:0-1-10,0-2-8], [4:0-5-4,0-2-0], [6:0-5-4,0-2-0], [8:0-1-10,0-2-8], [12:0-4-0,0-4-8]
LOADING (psf)	SPACING-	2-0-0
TCLL 20.0	Plate Grip DOL	1.25
TCDL 7.0	Lumber DOL	1.25
BCLL 0.0 *	Rep Stress Incr	NO
BCDL 10.0	Code	FBC2020/TPI2014
	CSI.	TC 0.66
		BC 0.41
		WB 0.36
		Matrix-MS
	DEFL.	in (loc) l/defl L/d
	Vert(LL)	0.15 13-14 >999 240
	Vert(CT)	-0.26 13-14 >999 180
	Horz(CT)	0.06 8 n/a n/a
	PLATES	GRIP
	MT20	244/190
	Weight: 174 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-8-2 oc purlins.
BOT CHORD 2x6 SP M 26	BOT CHORD Rigid ceiling directly applied or 8-9-2 oc bracing.
WEBS 2x4 SP No.3	
WEDGE	
Left: 2x4 SP No.3 , Right: 2x4 SP No.3	

REACTIONS.	(size) 2=0-5-8, 8=0-5-8
	Max Horz 2=-83(LC 32)
	Max Uplift 2=-742(LC 8), 8=-739(LC 9)
	Max Grav 2=2066(LC 1), 8=2058(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-3720/1366, 3-4=-3297/1276, 4-5=-3062/1220, 5-6=-3062/1220, 6-7=-3280/1270, 7-8=-3705/1362
BOT CHORD	2-14=-1227/3266, 13-14=-1227/3266, 12-13=-1071/2917, 11-12=-1011/2901, 10-11=-1140/3252, 8-10=-1140/3252
WEBS	3-13=-444/192, 4-13=-403/944, 4-12=-156/339, 6-12=-171/367, 6-11=-389/917, 7-11=-446/194

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=742, 8=739.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 141 lb down and 18 lb up at 9-0-12, 66 lb down and 48 lb up at 10-9-4, 66 lb down and 45 lb up at 12-9-4, 66 lb down and 43 lb up at 13-9-4, and 66 lb down and 48 lb up at 15-9-4, and 141 lb down and 18 lb up at 17-9-4 on top chord, and 456 lb down and 210 lb up at 7-0-12, 122 lb down and 121 lb up at 9-0-12, 155 lb down and 92 lb up at 10-9-4, 155 lb down and 92 lb up at 12-9-4, 155 lb down and 92 lb up at 13-9-4, 155 lb down and 92 lb up at 15-9-4, and 122 lb down and 121 lb up at 17-9-4, and 456 lb down and 210 lb up at 19-9-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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.

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140683
3410237	T10	Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Mar 9 2023
MiTek Industries, Inc.
Thu Mar 23 14:38:44 2023
Page 2
ID:YknxKhruOWTfIBjOKav9cEznwiS-XSKc0H5?z7b1EDgP15B?L_JZbd7mXV2nDiC18gzY0qv

LOAD CASE(S)
Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-4=-54, 4-6=-54, 6-9=-54, 15-18=-20

Concentrated Loads (lb)

Vert: 21=-68(F) 22=-20(F) 23=-20(F) 24=-20(F) 25=-20(F) 26=-68(F) 27=-456(F) 28=-122(F) 29=-155(F) 30=-155(F) 31=-155(F) 32=-155(F) 33=-122(F) 34=-456(F)


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

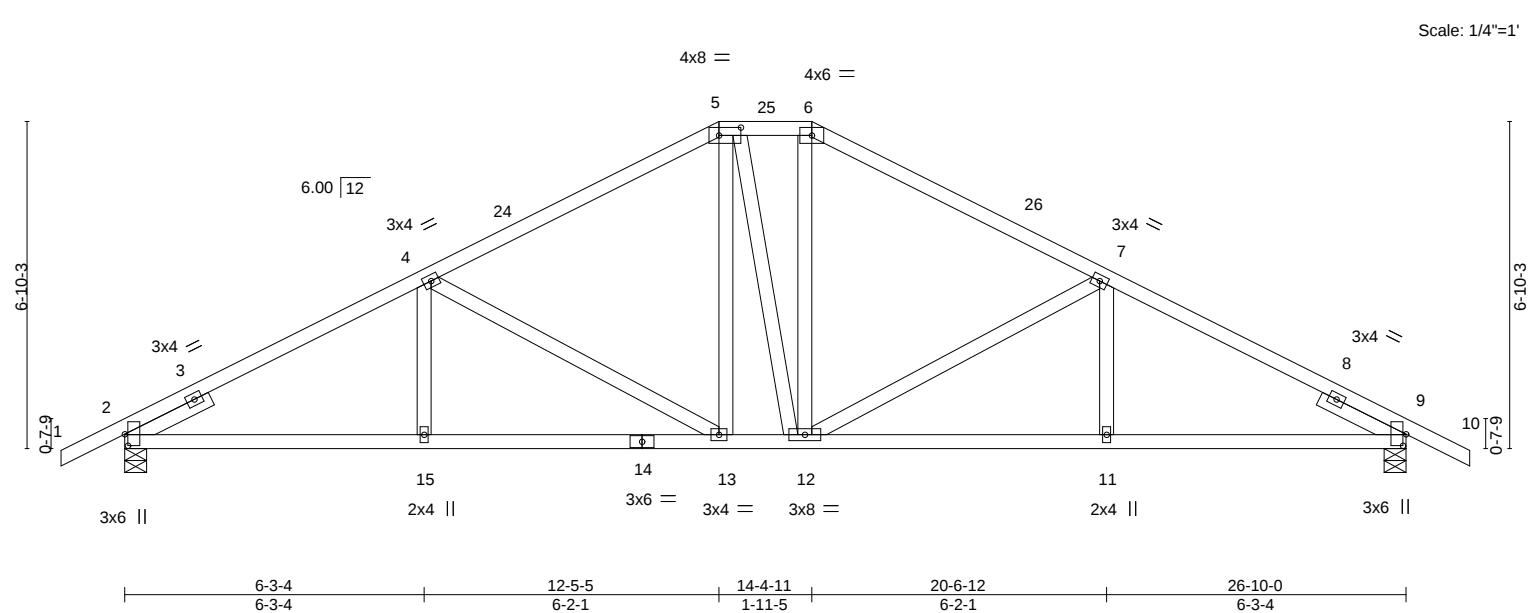
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140684
3410237	T11	Hip	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),	Lake City, FL - 32055,	8.530 s Mar 9 2023	MiTek Industries, Inc.	Thu Mar 23 14:38:45 2023	Page 1	ID:YknxKhruOWTfIBjOKav9cEznwiS-?eu?Dd6dkQjusNFbaoiEuCmD1RbGwbwSMyah6zY0qu
-1-4-0	6-3-4	12-5-5	14-4-11	20-6-12	26-10-0	28-2-0
1-4-0	6-3-4	6-2-1	1-11-5	6-2-1	6-3-4	1-4-0



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.47	Vert(LL)	-0.08 13-15 >999 240	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.50	Vert(CT)	-0.17 13-15 >999 180				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.06 9 n/a n/a				
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							
								Weight: 153 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-3-11 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3		
SLIDER	Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8		

REACTIONS.	
(size)	2=0-5-8, 9=0-5-8
Max Horz	2=-103(LC 13)
Max Uplift	2=-235(LC 12), 9=-235(LC 13)
Max Grav	2=1065(LC 1), 9=1065(LC 1)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-4=-1638/339, 4-5=-1218/293, 5-6=-1025/296, 6-7=-1219/294, 7-9=-1637/339
BOT CHORD	2-15=-321/1418, 13-15=-321/1418, 12-13=-139/1024, 11-12=-229/1417, 9-11=-229/1417
WEBS	4-13=-475/209, 5-13=-73/313, 6-12=-79/317, 7-12=-473/209

NOTES-	
1) Unbalanced roof live loads have been considered for this design.	
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 12-5-5, Exterior(2E) 12-5-5 to 14-4-11, Exterior(2R) 14-4-11 to 18-7-9, Interior(1) 18-7-9 to 28-2-0 zone; end vertical 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) Provide adequate drainage to prevent water ponding.	
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.	
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.	
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=235, 9=235.	

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.

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601		MiTek 16023 Swingley Ridge Rd Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140685
3410237	T12	Common	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:47 2023 Page 1
ID:YknxKhruOWTfIBjOKav9cEznwiS-x10leJ7uG2zb5gO_iDkizdx7oqKkuVDvgRhI_zY0qs



4x6 =

Scale = 1:52.4

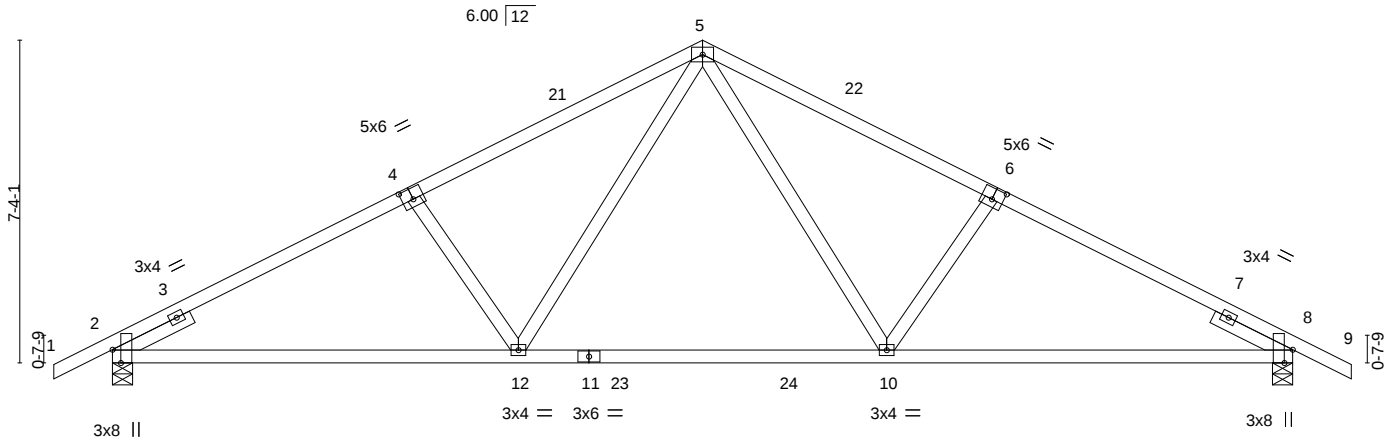


Plate Offsets (X,Y)--		[2:0-3-10,Edge], [4:0-3-0,0-3-0], [6:0-3-0,0-3-0], [8:0-3-10,Edge]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 20.0	2-0-0	TC 0.47	in (loc) l/defl L/d
TCDL 7.0	Plate Grip DOL 1.25	BC 0.80	Vert(LL) -0.21 10-12 >999 240
BCLL 0.0 *	Lumber DOL 1.25	WB 0.25	Vert(CT) -0.31 10-12 >999 180
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.05 8 n/a n/a
	Code FBC2020/TPI2014		
		PLATES	GRIP
		MT20	244/190
		Weight: 131 lb	FT = 20%

LUMBER-

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

REACTIONS.

(size) 2=0-5-8, 8=0-5-8
Max Horz 2=110(LC 12)
Max Uplift 2=-234(LC 12), 8=-234(LC 13)
Max Grav 2=1147(LC 2), 8=1147(LC 2)

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

TOP CHORD 2-4=-1651/367, 4-5=-1608/373, 5-6=-1608/373, 6-8=-1651/367
BOT CHORD 2-12=-323/1520, 10-12=-123/1048, 8-10=-249/1520
WEBS 5-10=-156/659, 6-10=-339/218, 5-12=-156/659, 4-12=-339/218

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 13-5-0, Exterior(2R) 13-5-0 to 16-5-0, Interior(1) 16-5-0 to 28-2-0 zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=234, 8=234.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

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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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140686
3410237	T13	Common	5	1	Job Reference (optional)	

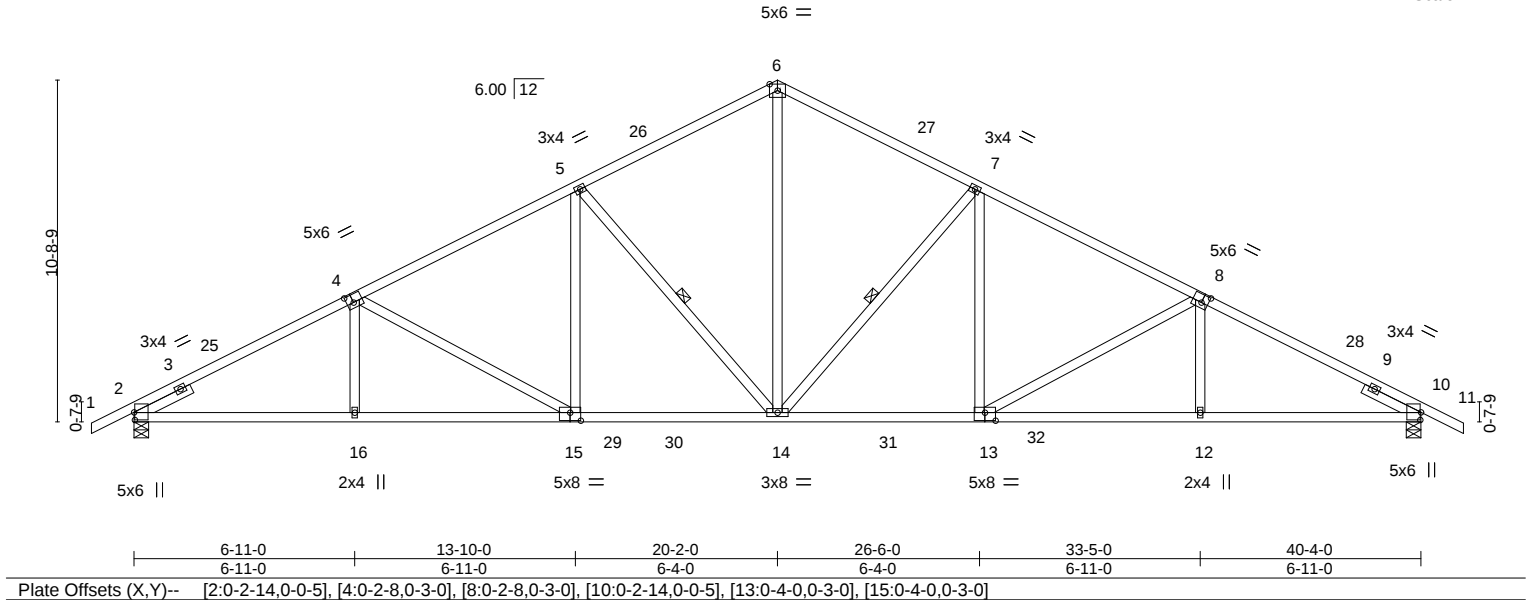
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:48 2023 Page 1

ID:YknxKhruOWTfBjOKav9cEznwIS-PDa7rf8W1L5SjqzAGwGxVqTCkEPNTF3N8KAEHRzY0qr

1-4-0	6-11-0	13-10-0	20-2-0	26-6-0	33-5-0	40-4-0	41-8-0
1-4-0	6-11-0	6-11-0	6-4-0	6-4-0	6-11-0	6-11-0	1-4-0

Scale = 1:72.2



LOADING (psf)	SPACING-	CSL.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.84	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.75	Vert(LL) -0.23 13-14 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.55	Vert(CT) -0.40 13-14 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.14 10 n/a n/a		
	Code FBC2020/TPI2014			Weight: 234 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.1 *Except*
 13-15: 2x4 SP No.2
 WEBS 2x4 SP No.3
 SLIDER Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 8-6-6 oc bracing.
 WEBS 1 Row at midpt 7-14, 5-14

REACTIONS.

(size) 2=0-5-8, 10=0-5-8
 Max Horz 2=160(LC 12)
 Max Uplift 2=-337(LC 12), 10=-337(LC 13)
 Max Grav 2=1694(LC 2), 10=1694(LC 2)

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

TOP CHORD 2-4=-2879/539, 4-5=-2447/490, 5-6=-1886/456, 6-7=-1886/456, 7-8=-2447/490,
 8-10=-2879/540
 BOT CHORD 2-16=-548/2519, 15-16=-547/2524, 14-15=-368/2122, 13-14=-265/2122, 12-13=-388/2524,
 10-12=-389/2519
 WEBS 6-14=-258/1384, 7-14=-767/285, 7-13=-57/502, 8-13=-466/203, 5-14=-767/285,
 5-15=-57/502, 4-15=-466/203

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 2-8-6, Interior(1) 2-8-6 to 20-2-0, Exterior(2R) 20-2-0 to 24-2-6, Interior(1) 24-2-6 to 41-8-0 zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=337, 10=337.

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Philip J. O'Regan PE No.58126
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 24,2023

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140687
3410237	T13G	GABLE	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:51 2023 Page 1

ID:YknxKhruOWTfIBjOKav9cEznwiS-qoFGUGBOJGT1alilx3pe7T5oySU5gc9pqlPvumzY0qo

1-4-0	6-11-0	13-10-0	20-2-0	26-6-0	33-5-0	40-4-0	41-8-0
1-4-0	6-11-0	6-11-0	6-4-0	6-4-0	6-11-0	6-11-0	1-4-0

Scale = 1:75.5

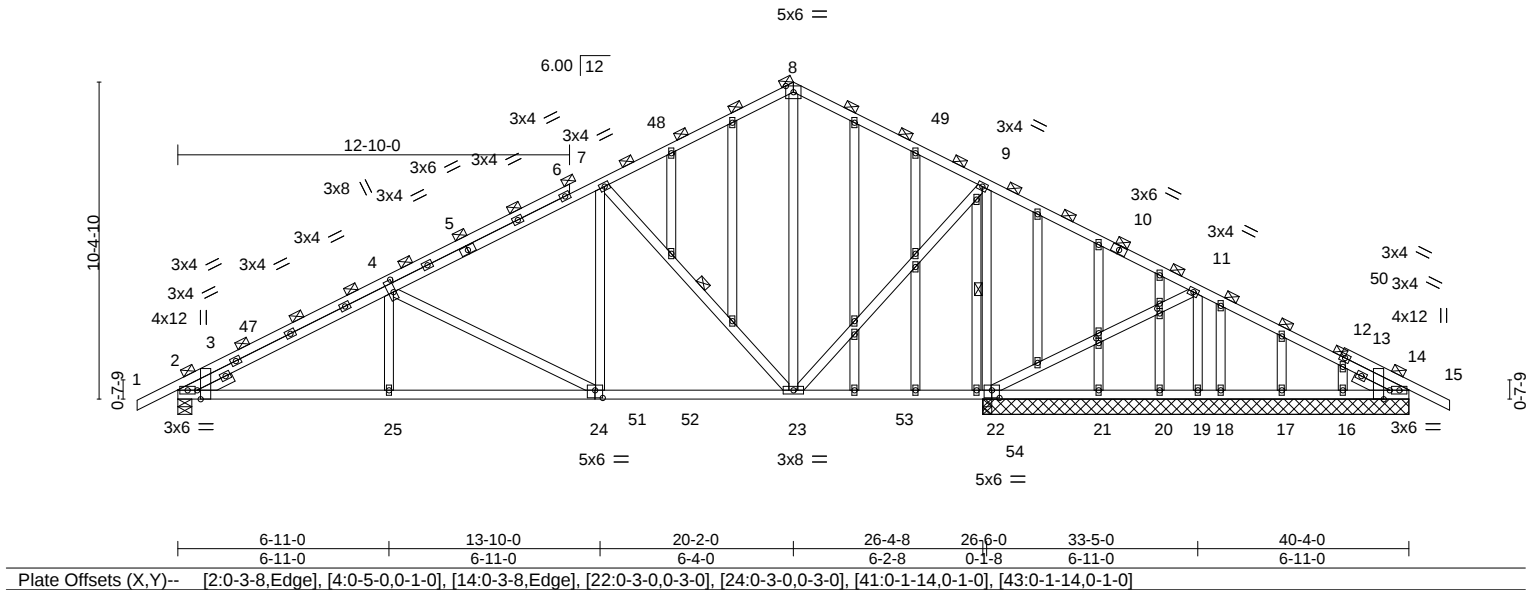


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [4:0-5-0,0-1-0], [14:0-3-8,Edge], [22:0-3-0,0-3-0], [24:0-3-0,0-3-0], [41:0-1-14,0-1-0], [43:0-1-14,0-1-0]
LOADING (psf)	SPACING-	2-0-0
TCLL 20.0	Plate Grip DOL	1.25
TCDL 7.0	Lumber DOL	1.25
BCLL 0.0 *	Rep Stress Incr	YES
BCDL 10.0	Code	FBC2020/TPI2014
	CSI.	TC 0.52
		BC 0.55
		WB 0.53
		Matrix-MS
	DEFL.	in (loc) l/defl L/d
	Vert(LL)	-0.07 23-24 >999 240
	Vert(CT)	-0.13 24-25 >999 180
	Horz(CT)	0.03 22 n/a n/a
	PLATES	MT20
	GRIP	244/190
		Weight: 330 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3
 OTHERS 2x4 SP No.3
 SLIDER Left 2x4 SP No.3 1-2-15, Right 2x4 SP No.3 1-2-15

BRACING-

TOP CHORD 2-0-0 oc purlins (5-11-5 max.).
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
 10-0-0 oc bracing: 2-25,24-25,23-24.
 WEBS 1 Row at midpt 9-22, 7-23

REACTIONS.

All bearings 13-11-8 except (jt=length) 2=0-5-8.

(lb) - Max Horz 2=-155(LC 17)

Max Uplift All uplift 100 lb or less at joint(s) 14, 16 except 2=-244(LC 12), 22=-303(LC 12), 19=-127(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 14, 21, 20, 18, 17, 16 except 2=1058(LC 2), 22=1643(LC 2), 22=1465(LC 1), 19=258(LC 24)

FORCES.

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

TOP CHORD 2-4=-1546/302, 4-7=-1070/245, 7-8=-499/211, 8-9=-501/216, 9-11=-48/379

BOT CHORD 2-25=-338/1364, 24-25=-337/1359, 23-24=-170/941, 22-23=-253/147

WEBS 9-23=-167/931, 9-22=-1308/292, 11-19=-257/134, 7-23=-763/276, 7-24=-49/485, 4-24=-465/188

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 2-8-6, Interior(1) 2-8-6 to 20-2-0, Exterior(2R) 20-2-0 to 24-2-6, Interior(1) 24-2-6 to 41-8-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 16 except (jt=lb) 2=244, 22=303, 19=127.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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.

Philip J. O'Regan PE No.58126
 MiTek Inc. DBA MiTek USA FL Cert 6634
 16023 Swingley Ridge Rd. Chesterfield, MO 63017
 Date:

March 24,2023

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

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

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140689
3410237	T14G	GABLE	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:38:55 2023 Page 1

ID:YknxKhruOWTfBjOKav9cEznwiS-iZVnJ2EvNV_T2v0WAuuaiJGTC3qrcJ_PlvN61XzY0qk

1-4-0	6-0-0	10-2-12	16-6-0	22-8-0	30-2-0	36-6-0	43-5-0	50-4-0	51-8-0
1-4-0	6-0-0	4-2-12	6-3-4	6-2-0	7-6-0	6-4-0	6-11-0	6-11-0	1-4-0

Scale = 1:91.6

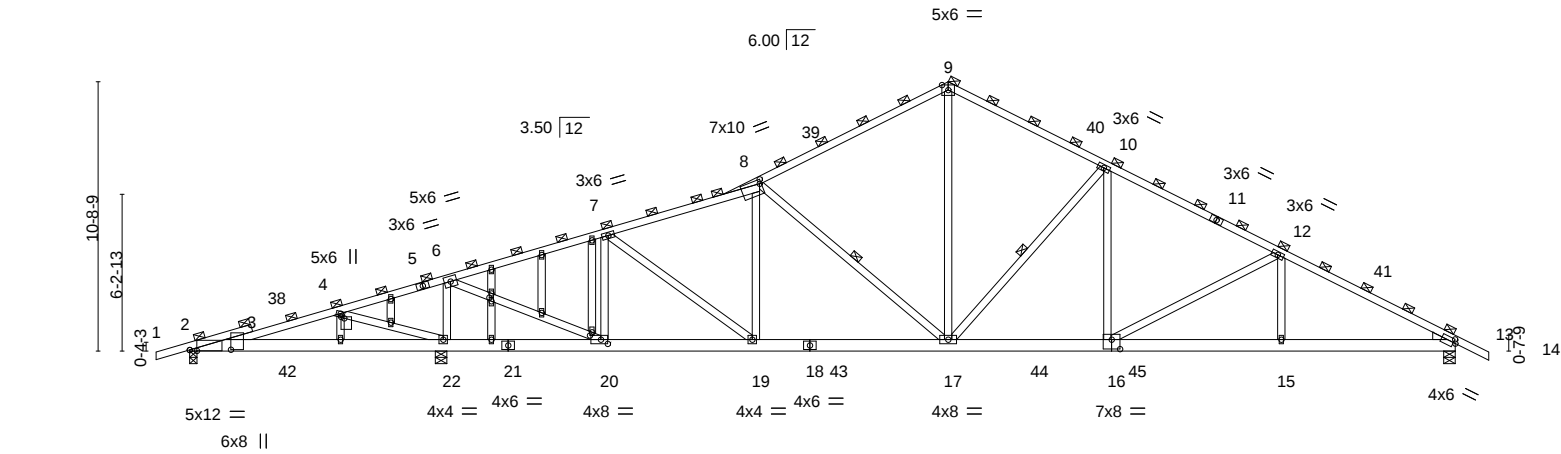


Plate Offsets (X,Y)--	[2:0-3-7,0-0-7], [2:0-0-2,1-7-11], [4:0-0-11,0-1-8], [8:0-0-12,0-2-0], [13:0-1-0,0-1-12], [16:0-4-0,0-4-8], [20:0-3-4,0-2-0], [20:0-1-9,0-1-0], [27:0-1-12,0-1-0]
-----------------------	---

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.54	Vert(LL) 0.13	22-34	>956	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.63	Vert(CT) -0.28	17-19	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.99	Horz(CT) 0.05	13	n/a	n/a		
BCDL 10.0	Code FBC2020/TP12014	Matrix-MS					Weight: 338 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 8-9: 2x4 SP 2850F 2.0E or 2x4 SP M 31	TOP CHORD 2-0-0 oc purlins (3-2-3 max.).
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-22,20-22.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 8-17, 10-17
OTHERS 2x4 SP No.3	
WEDGE	
Right: 2x4 SP No.3	

REACTIONS. (size) 2=0-3-8, 13=0-5-8, 22=0-5-8
Max Horz 2=-161(LC 17)
Max Uplift 2=-166(LC 8), 13=-332(LC 13), 22=-504(LC 12)
Max Grav 2=214(LC 23), 13=1604(LC 2), 22=2426(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-174/727, 4-6=-477/1107, 6-7=-1444/266, 7-8=-2062/472, 8-9=-1739/491,
9-10=-1709/503, 10-12=-2278/569, 12-13=-2762/625
BOT CHORD 2-22=-679/190, 20-22=-1034/545, 19-20=-272/1348, 17-19=-323/1935, 16-17=-305/1966,
15-16=-465/2409, 13-15=-465/2409
WEBS 4-22=-432/370, 6-22=-1948/550, 6-20=-636/2586, 7-20=-878/370, 7-19=-256/746,
8-17=-612/225, 9-17=-237/1185, 10-17=-763/282, 10-16=-63/515, 12-16=-504/210

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 3-8-6, Interior(1) 3-8-6 to 30-2-0, Exterior(2R) 30-2-0 to 35-2-6, Interior(1) 35-2-6 to 51-8-0 zone; end vertical right exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TP1 1.
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 166 lb uplift at joint 2, 332 lb uplift at joint 13 and 504 lb uplift at joint 22.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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

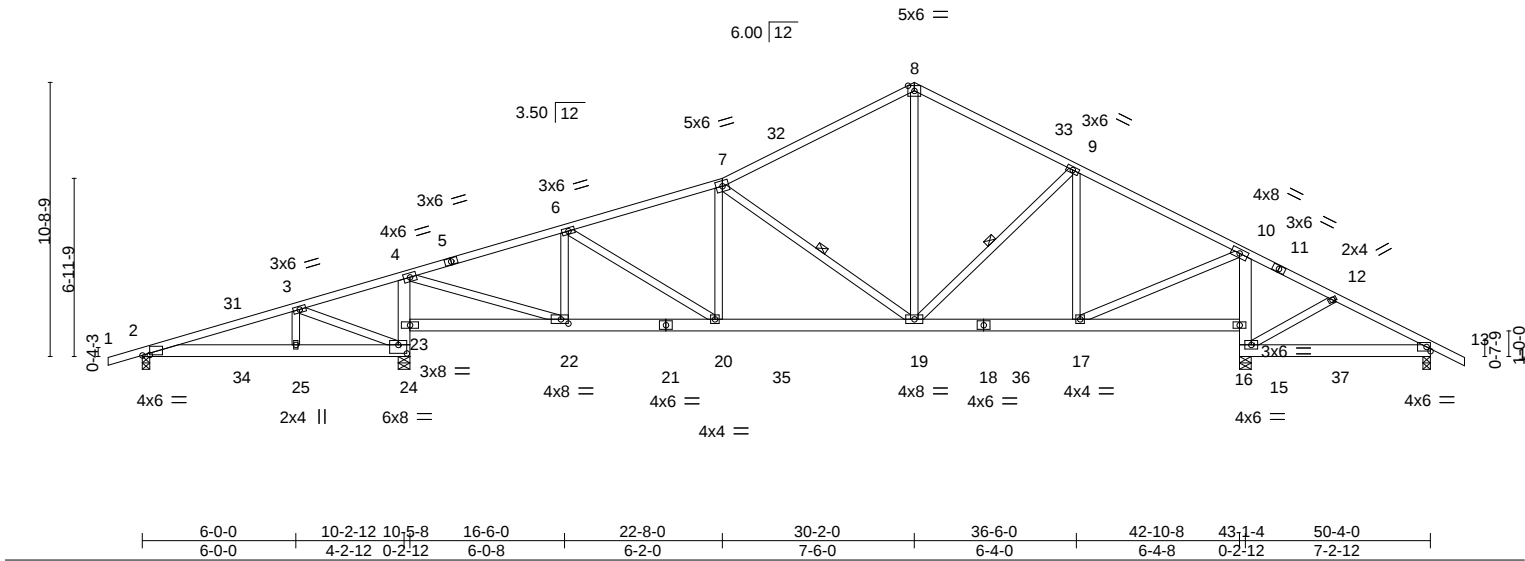
Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140690
3410237	T15	Roof Special	5	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),	Lake City, FL - 32055,	8.530 s Mar 9 2023	MiTek Industries, Inc.	Thu Mar 23 14:38:57 2023	Page 1	ID:YknxKhruOWTfIBjOKav9cEznwiS-eydXkkF9v6EBID9vHJw2NkLk6sZw4GVhCDsD6PzY0qi
1-4-0	6-0-0	10-5-8	16-6-0	22-8-0	30-2-0	36-6-0
1-4-0	6-0-0	4-5-8	6-0-8	6-2-0	7-6-0	6-4-0
						42-10-8
						6-4-8
						3-7-8
						3-10-0
						1-4-0

Scale = 1:90.0



LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.86	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.40	Vert(LL) -0.10 19-20 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.79	Vert(CT) -0.19 19-20 >999 180		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	Horz(CT) 0.01 15 n/a n/a		
				Weight: 321 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 5-4-13 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 7-19, 9-19

REACTIONS.	All bearings 0-3-8 except (jt=length) 15=0-5-8, 24=0-5-8.
(lb) - Max Horz 2=-161(LC 17)	
Max Uplift	All uplift 100 lb or less at joint(s) except 2=-208(LC 8), 15=-302(LC 13), 13=-101(LC 8), 24=-432(LC 12)
Max Grav	All reactions 250 lb or less at joint(s) except 2=351(LC 23), 15=1727(LC 2), 13=271(LC 24), 24=1865(LC 2)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-327/526, 3-4=-149/518, 4-6=-1617/397, 6-7=-1816/506, 7-8=-1247/436, 8-9=-1239/448, 9-10=-1231/409, 10-12=-23/267
BOT CHORD	2-25=-440/285, 24-25=-440/285, 23-24=-1559/424, 4-23=-1423/429, 22-23=-472/284, 20-22=-316/1514, 19-20=-302/1702, 17-19=-161/1043, 15-16=-1504/276, 10-16=-1379/288
WEBS	3-25=-326/269, 3-24=-731/707, 4-22=-524/2080, 6-22=-476/210, 6-20=-59/274, 7-19=-814/269, 8-19=-189/749, 9-17=-376/113, 10-17=-171/1351

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCdL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 3-8-6, Interior(1) 3-8-6 to 30-2-0, Exterior(2R) 30-2-0 to 35-2-6, Interior(1) 35-2-6 to 51-8-0 zone; end vertical right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 208 lb uplift at joint 2, 302 lb uplift at joint 15, 101 lb uplift at joint 13 and 432 lb uplift at joint 24.

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.

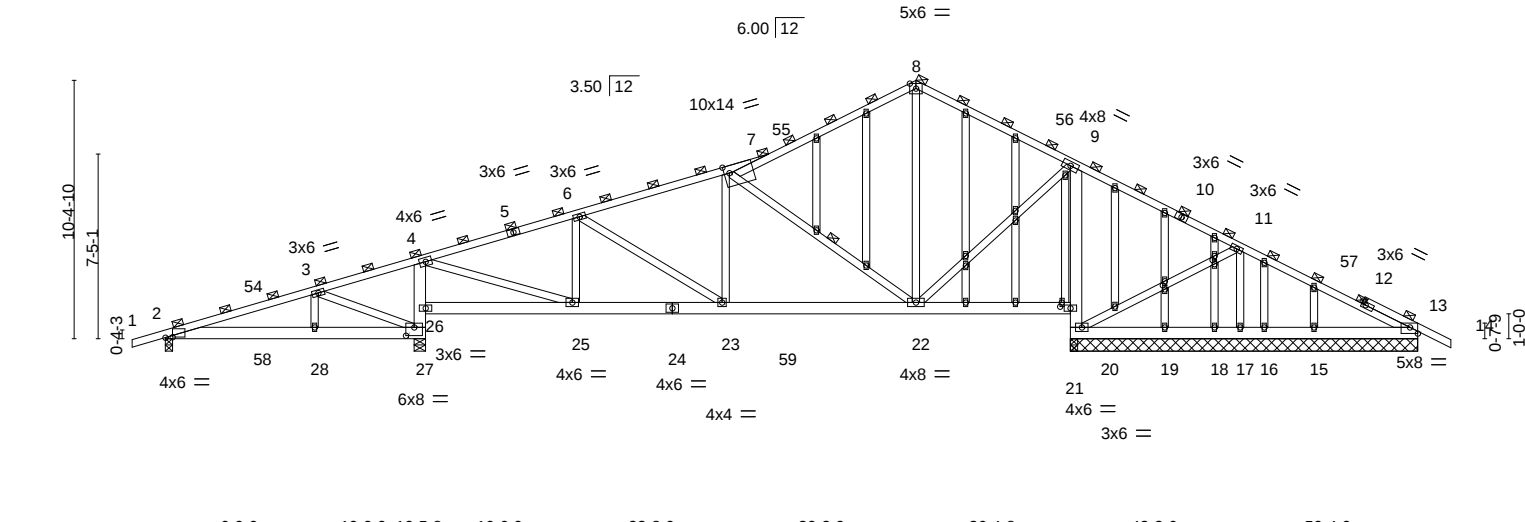
Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140691
3410237	T15G	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),		Lake City, FL - 32055,		8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:39:00 2023 Page 1					
ID:YknxKhruOWTfIBjOKav9cEznwiS-3XlgNIH1C1cl9guUzSTI?MzK94b3Hhp8uB4tikzY0qf									
1-4-0	6-0-0	10-5-8	16-6-0	22-8-0	30-2-0	36-4-8	43-2-6	50-4-0	51-8-0
1-4-0	6-0-0	4-5-8	6-0-8	6-2-0	7-6-0	6-2-8	6-9-14	7-1-10	1-4-0

Scale = 1:92.6



	6-0-0	10-0-0	10-5-8	16-6-0	22-8-0	30-2-0	36-4-8	43-2-6	50-4-0
	6-0-0	4-0-0	0-5-8	6-0-8	6-2-0	7-6-0	6-2-8	6-9-14	7-1-10
Plate Offsets (X,Y)--	[2:0-3-7,0-0-4], [7:0-2-8,Edge], [13:Edge,0-2-15], [27:0-4-0,0-4-0], [39:0-2-0,0-0-12], [44:0-1-15,0-1-0], [46:0-1-15,0-1-0]								

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.55	Vert(LL)	-0.06 22-23	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.37	Vert(CT)	-0.11 22-23	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.56	Horz(CT)	0.01 13	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 393 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD 2-0-0 oc purlins (4-10-1 max.).
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 7-22
7-23: 2x4 SP No.2	
OTHERS 2x4 SP No.3	

REACTIONS.	All bearings 13-11-8 except (jt=length) 2=0-3-8, 27=0-5-8.
(lb) - Max Horz	2=-156(LC 17)
Max Uplift	All uplift 100 lb or less at joint(s) 13, 19, 18, 15 except 2=-210(LC 8), 27=-413(LC 8), 17=-223(LC 13), 21=-236(LC 12), 16=-104(LC 1)
Max Grav	All reactions 250 lb or less at joint(s) 20, 20, 13, 19, 18, 16, 13 except 2=378(LC 25), 27=1509(LC 2), 17=381(LC 24), 21=1384(LC 2), 15=274(LC 20)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-419/556, 3-4=-123/401, 4-6=-1178/292, 6-7=-1149/339, 7-8=-528/261, 8-9=-531/268, 9-11=-10/401
BOT CHORD	2-28=-469/385, 27-28=-469/385, 26-27=-1198/337, 4-26=-1071/344, 25-26=-318/249, 23-25=-259/1096, 22-23=-198/1013, 21-22=-288/162, 9-21=-1276/333
WEBS	3-28=-323/259, 3-27=-722/705, 4-25=-387/1481, 6-25=-310/167, 7-23=-23/326, 7-22=-792/270, 9-22=-141/942, 11-17=-291/189

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) -1-4-0 to 3-8-6, Interior(1) 3-8-6 to 30-2-0, Exterior(2R) 30-2-0 to 35-2-6, Interior(1) 35-2-6 to 51-8-0 zone; end vertical right exposed; porch left 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) N/A	
6) All plates are 2x4 MT20 unless otherwise indicated.	
7) Gable studs spaced at 2-0-0 oc.	
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.	
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.	
10) Bearing at joint(s) 21 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.	
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 19, 18, 15,	
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 Safety Information ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601	This item has been electronically signed and sealed by O'Regan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies. Philip J. O'Regan PE No.58126 MiTek Inc. DBA MiTek USA FL Cert 6634 16023 Swingley Ridge Rd. Chesterfield, MO 63017 Date: March 24,2023 16023 Swingley Ridge Rd Chesterfield, MO 63017
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Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140691
3410237	T15G	GABLE	1	1	Job Reference (optional)	

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

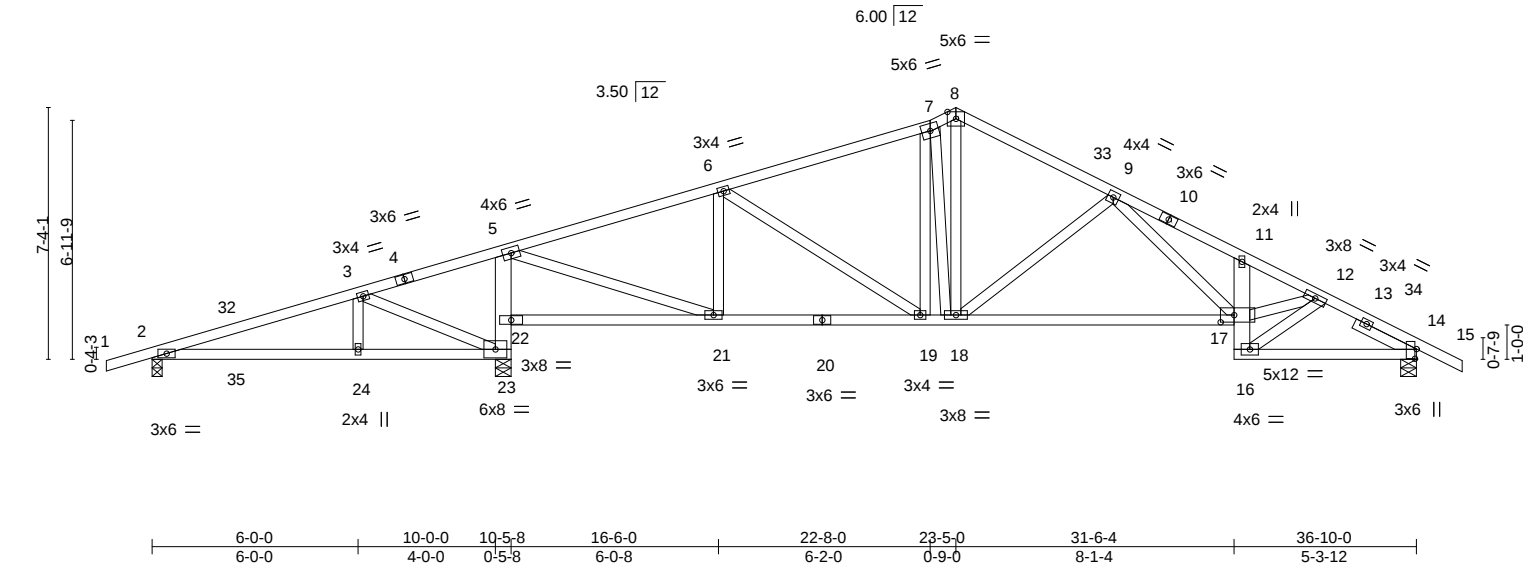
8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:39:00 2023 Page 2
ID:YknxKhruOWTfIBjOKav9cEznwiS-3XlgNIH1C1cl9guUzSTI?MzK94b3Hhp8uB4tikzY0qf

NOTES-
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140692
3410237	T16	Roof Special	3	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL),				Lake City, FL - 32055,				8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:39:02 2023 Page 1													
ID:YknxKhrUOWTfBJOkav9cEznwiS-?vQQnRJkfstO_2s4tWD4n2iEtBXlaeRMVZ_ndzYQqd																					
1-4-0		6-0-0		10-5-8		16-6-0		22-8-0		23-5-0		28-0-0		31-6-4		34-0-6		36-10-0		38-2-0	
1-4-0		6-0-0		4-5-8		6-0-8		6-2-0		0-9-0		4-7-0		3-6-4		2-6-2		2-9-10		1-4-0	

Scale = 1:67.1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.39	Vert(LL)	-0.15 17-18	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.75	Vert(CT)	-0.35 17-18	>925	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.61	Horz(CT)	0.06 14	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS					Weight: 214 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-9-3 oc purlins.
BOT CHORD 2x4 SP No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	
SLIDER Right 2x4 SP No.3 1-11-8	

REACTIONS. (size) 2=0-3-8, 14=0-5-8, 23=0-5-8
Max Horz 2=-111(LC 17)
Max Uplift 2=-200(LC 8), 14=-239(LC 13), 23=-439(LC 8)
Max Grav 2=361(LC 23), 14=1013(LC 1), 23=1518(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-352/545, 3-5=-95/411, 5-6=-1135/310, 6-7=-1149/365, 7-8=-1134/391,
8-9=-1194/364, 9-11=-2333/628, 11-12=-2051/526, 12-14=-1508/413
BOT CHORD 2-24=-463/314, 23-24=-463/314, 22-23=-1244/337, 5-22=-1179/351, 21-22=-469/251,
19-21=-190/1045, 18-19=-129/1054, 17-18=-292/1439, 16-17=-124/634, 11-17=-278/121,
14-16=-302/1287
WEBS 3-24=-294/241, 3-23=-656/690, 5-21=-411/1592, 6-21=-367/172, 7-18=-350/194,
8-18=-240/854, 9-18=-546/234, 9-17=-198/867, 12-17=-297/1452, 12-16=-1048/241

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-4-0 to 2-4-3, Interior(1) 2-4-3 to 23-5-0, Exterior(2R) 23-5-0 to 27-1-3, Interior(1) 27-1-3 to 38-2-0 zone; end vertical right exposed; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=200, 14=239, 23=439.

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

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

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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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140693
3410237	T17	Hip Girder	1	2	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:39:04 2023 Page 1
ID:YknxKhruOWTfIBjOKav9cEznwiS-xlYAC7LYFG6BeHCFCHYh9C86Rh?EDZxjpp25rVzY0qb

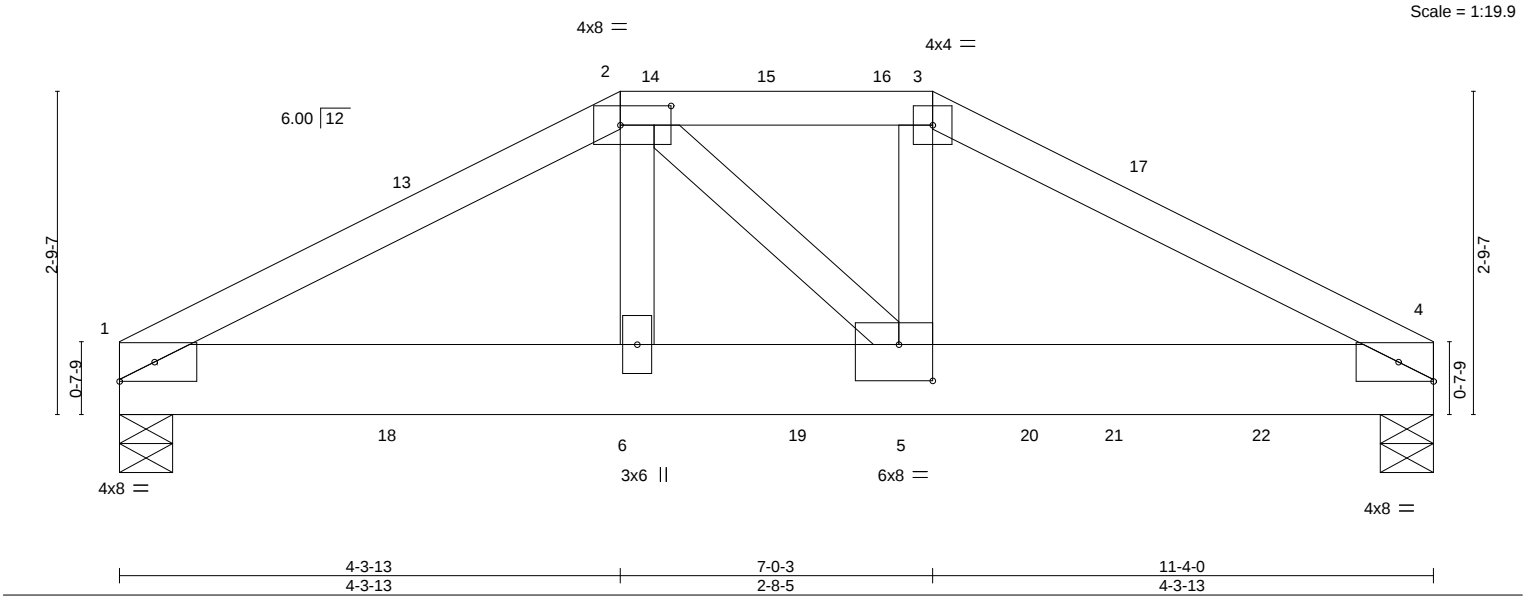


Plate Offsets (X,Y)--		[2:0-5-4,0-2-0], [5:0-3-8,0-3-12]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0		Plate Grip DOL	1.25	TC 0.15		Vert(LL)	-0.03 5	>999	240	MT20	244/190
TCDL 7.0		Lumber DOL	1.25	BC 0.16		Vert(CT)	-0.05 5-6	>999	180		
BCLL 0.0 *		Rep Stress Incr	NO	WB 0.30		Horz(CT)	0.01 4	n/a	n/a		
BCDL 10.0		Code FBC2020/TPI2014		Matrix-MS						Weight: 127 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x8 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS.	(size) 1=0-5-8, 4=0-5-8
	Max Horz 1=-32(LC 9)
	Max Uplift 1=-547(LC 8), 4=-609(LC 9)
	Max Grav 1=2289(LC 1), 4=2726(LC 2)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-3691/869, 2-3=-3490/826, 3-4=-3829/877
BOT CHORD	1-6=-757/3259, 5-6=-775/3345, 4-5=-741/3393
WEBS	2-6=-301/1407, 3-5=-312/1575

- NOTES-**
- 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.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; 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
 - 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.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=547, 4=609.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 23 lb down and 19 lb up at 2-8-0, 67 lb down and 48 lb up at 4-8-0, and 67 lb down and 48 lb up at 6-8-0, and 23 lb down and 19 lb up at 8-8-0 on top chord, and 800 lb down and 185 lb up at 2-4-12, 49 lb down and 42 lb up at 2-8-0, 881 lb down and 180 lb up at 4-4-12, 25 lb down and 10 lb up at 4-8-0, 874 lb down and 179 lb up at 5-11-4, 25 lb down and 10 lb up at 6-8-0, 874 lb down and 179 lb up at 7-11-4, and 49 lb down and 42 lb up at 8-8-0, and 874 lb down and 179 lb up at 9-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140693
3410237	T17	Hip Girder	1	2	Job Reference (optional)	

Builders FirstSource (Lake City,FL),
Lake City, FL - 32055,
8.530 s Mar 9 2023
MiTek Industries, Inc.
Thu Mar 23 14:39:04 2023
Page 2
ID:YknxKhruOWTfIBjOKav9cEznwiS-xlYAC7LYFG6BeHCFCHYh9C86Rh?EDZxjpp25rVzY0qb

LOAD CASE(S)
Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25
- Uniform Loads (plf)

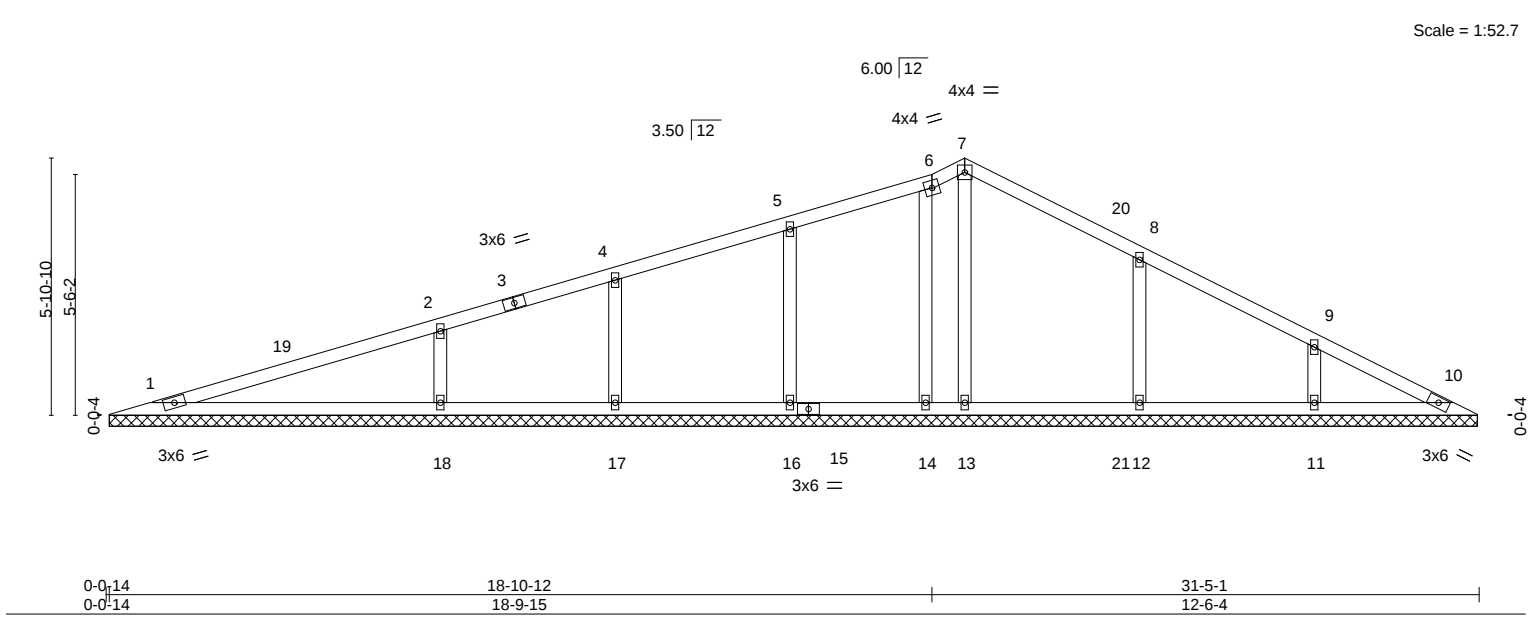
Vert: 1-2=-54, 2-3=-54, 3-4=-54, 7-10=-20
- Concentrated Loads (lb)

Vert: 6=-800(B=-0) 5=-0(B) 14=-1(B) 16=-1(B) 18=-839(F=-800, B=-38) 19=-792(F) 20=-792(F) 21=-38(B) 22=-792(F)



Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.
3410237	V01	Valley	1	1	T30140694

Builders FirstSource (Lake City,FL),	Lake City, FL - 32055,	8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:39:05 2023 Page 1
		ID:YknxKhruOWTfIBjOKav9cEznwiS-PU6YQTLA0aE2FRmRI?3wiQgCO5ldy3Yt2ToeOyzY0qa
		18-10-12 18-10-12 19-7-12 0-9-0 31-5-1 11-9-5



0-0-14 0-0-14	18-10-12 18-9-15	31-5-1 12-6-4
LOADING (psf)	SPACING-	CSI.
TCLL 20.0	Plate Grip DOL 2-0-0 1.25	TC 0.46
TCDL 7.0	Lumber DOL 1.25	BC 0.35
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S
		DEFL.
		in (loc) l/defl L/d
		Vert(LL) n/a - n/a 999
		Vert(CT) n/a - n/a 999
		Horz(CT) 0.00 10 n/a n/a
		PLATES GRIP
		MT20 244/190
		Weight: 129 lb FT = 20%

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

REACTIONS.	All bearings 31-3-11.
(lb) - Max Horz	1=-83(LC 13)
Max Uplift	All uplift 100 lb or less at joint(s) 10, 1, 16, 17, 14 except 18=-155(LC 12), 12=-123(LC 13), 11=-112(LC 13)
Max Grav	All reactions 250 lb or less at joint(s) 10, 1, 17, 14 except 13=271(LC 19), 16=352(LC 25), 18=532(LC 25), 12=360(LC 26), 11=304(LC 2)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS	2-18=-352/183

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 1-0-14 to 4-2-7, Interior(1) 4-2-7 to 19-7-12, Exterior(2R) 19-7-12 to 22-9-5, Interior(1) 22-9-5 to 30-9-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 1, 16, 17, 14 except (jt=lb) 18=155, 12=123, 11=112.

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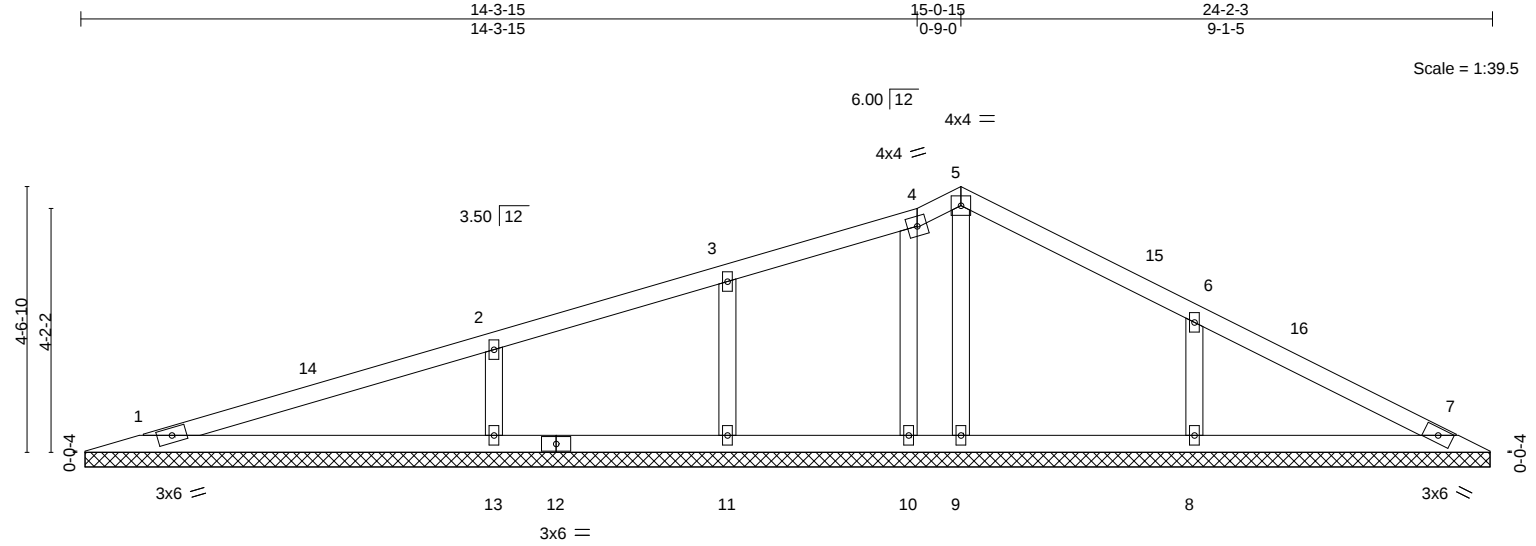
Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.
3410237	V02	Valley	1	1	T30140695

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:39:06 2023 Page 1
ID:YknxKhrUOWTfIBjOKav9cEznwiS-thfxdoMontMvtbLdJia9EdDPOUfphW80H7XBwOzY0qZ



Scale = 1:39.5

0-0-14 0-0-14	14-3-15 14-3-1	24-2-3 9-10-4
LOADING (psf)	SPACING- 2-0-0	CSI.
TCLL 20.0	Plate Grip DOL 1.25	TC 0.38
TCDL 7.0	Lumber DOL 1.25	BC 0.28
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S
DEFL.	in (loc)	l/defl
Vert(LL)	n/a	- n/a
Vert(CT)	n/a	- n/a
Horz(CT)	0.00	7 n/a
PLATES	GRIP	
MT20	244/190	
Weight: 92 lb	FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 24-0-13.
(lb) - Max Horz 1=63(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 11, 10 except 13=-143(LC 12), 8=-148(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 9, 11, 10 except 13=462(LC 1), 8=380(LC 24)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-13=-326/170, 6-8=-272/172

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 1-0-14 to 4-0-14, Interior(1) 4-0-14 to 15-0-15, Exterior(2R) 15-0-15 to 18-0-15, Interior(1) 18-0-15 to 23-6-10 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 11, 10 except (jt=lb) 13=143, 8=148.

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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

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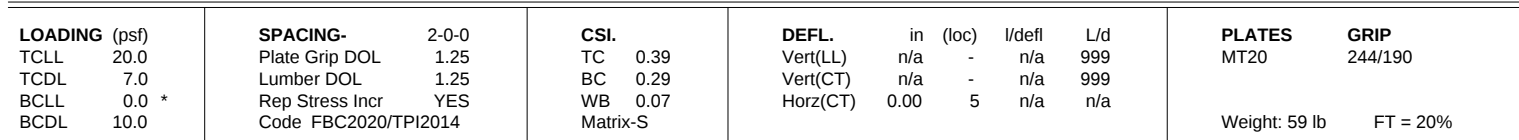
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Lake City,FL),	Lake City, FL - 32055,	8.530 s Mar 9 2023	MiTek Industries, Inc.	Thu Mar 23 14:39:07 2023	Page 1
		ID:YknxKhruOWTfIBjOKav9cEznwiS-MtDjR8NQYBUmVlwqtQ5OnrmZuu?0QyIaVnHISqzY0qY			
	9-9-1	10-6-1		16-11-5	
	9-9-1	0-9-0		6-5-5	



REACTIONS. All bearings 16-10-0.
(lb) - Max Horz 1=43(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 6 except 9=-132(LC 8), 7=-219(LC 24)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 6=509(LC 1), 9=429(LC 1)

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 1-0-14 to 4-0-14, Interior(1) 4-0-14 to 10-6-1, Exterior(2R) 10-6-1 to 13-6-1, Interior(1) 13-6-1 to 16-3-12 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) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 6 except (jt=lb) 9=132, 7=219.

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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16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24, 2023



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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:39:08 2023 Page 1
 ID:YknxKhruOWTfIBjOKav9cEznwiS-q3nh2UO3JVcd6vV0R7cdJ2lOrlOr9QJkR0l?Hz70qX
 5-2-3 5-11-3 9-8-8
 5-2-3 0-9-0 3-9-5

Technical drawing of a roof structure. The drawing shows a gable roof with rafters, ridge, and supports. Dimensions are given in meters (m). The drawing is labeled with numbers 1 through 6.

- 1: Left eave/rafters
- 2: Ridge
- 3: Right eave/rafters
- 4: Right eave/rafters
- 5: Ridge
- 6: Left eave/rafters

Dimensions:

- 1.10-10 (Total height)
- 1.6-2 (Height from eave to ridge)
- 0.0-4 (Height from eave to ridge)
- 3.50 (Half-width of roof)
- 6.00 (Total width of roof)
- 4x4 (Rafter size)
- 2x4 (Ridge size)
- 2x4 (Ridge size)
- 2x4 (Ridge size)

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

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

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 1-0-14 to 4-0-14, Interior(1) 4-0-14 to 5-11-3, Exterior(2E) 5-11-3 to 9-0-15 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) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4, 5, 6.

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March 24.2023



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

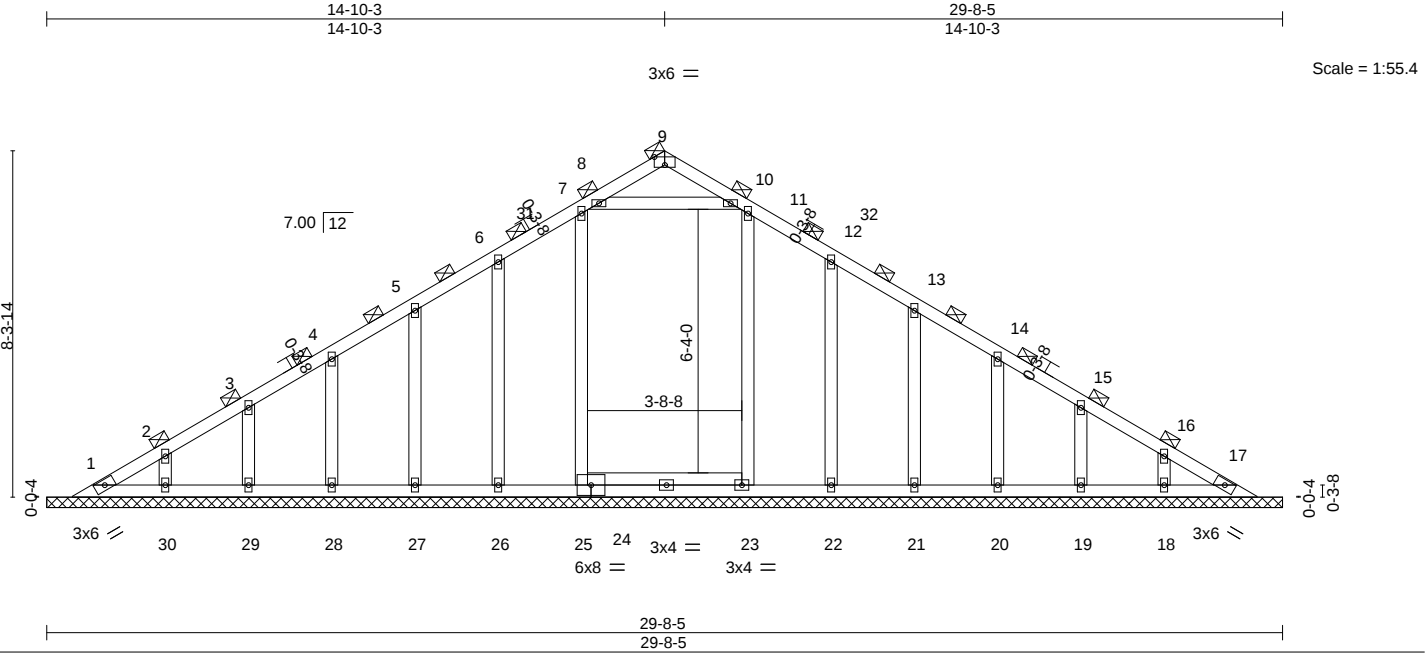


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140698
3410237	V05	GABLE	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:39:10 2023 Page 1
ID:YknxKhruOWTfIBJOKav9cEznwiS-mSvRTAPJr6tLMCfPYyf5OTO9Z64vdlqcBIVP39zY0qV



LOADING (psf)		SPACING-		CSL		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.05	Vert(LL)	n/a	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.08	Vert(CT)	n/a				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00				
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-S							
								Weight: 166 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	2-0-0 oc purlins (6-0-0 max.).
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS	2x4 SP No.3		6-0-0 oc bracing: 23-25.
OTHERS	2x4 SP No.3		

REACTIONS.		NOTES-	
All bearings 29-8-5.		1) Unbalanced roof live loads have been considered for this design.	
(lb) - Max Horz 1=-176(LC 8)		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.,	
Max Uplift All uplift 100 lb or less at joint(s) 1, 17, 25, 26, 27, 28, 29, 30, 22, 21, 20, 19, 18		GCPi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 1-1-7 to 4-1-7, Interior(1) 4-1-7 to 14-10-3, Exterior(2R)	
Max Grav All reactions 250 lb or less at joint(s) 1, 17, 26, 27, 28, 29, 30, 22, 21, 20, 19, 18 except		14-10-3 to 17-10-3, Interior(1) 17-10-3 to 28-6-14 zone;C-C for members and forces & MWFRS for reactions shown; Lumber	
25=314(LC 19), 23=285(LC 20)		DOL=1.60 plate grip DOL=1.60	
		3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific	
		to the use of this truss component.	
		4) All plates are 2x4 MT20 unless otherwise indicated.	
		5) Gable requires continuous bottom chord bearing.	
		6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.	
		7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide	
		will fit between the bottom chord and any other members, with BCDL = 10.0psf.	
		8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 17, 25, 26, 27,	
		28, 29, 30, 22, 21, 20, 19, 18.	
		9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.	

FORCES.		TRUSS DESIGNED FOR WIND LOADS IN THE PLANE	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.		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.	

NOTES-		This item has been	
1) Unbalanced roof live loads have been considered for this design.		electronically signed and	
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.,		sealed by O'Regan, Philip, PE	
GCPi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 1-1-7 to 4-1-7, Interior(1) 4-1-7 to 14-10-3, Exterior(2R)		using a Digital Signature.	
14-10-3 to 17-10-3, Interior(1) 17-10-3 to 28-6-14 zone;C-C for members and forces & MWFRS for reactions shown; Lumber		Printed copies of this	
DOL=1.60 plate grip DOL=1.60		document are not considered	
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific		signed and sealed and the	
to the use of this truss component.		signature must be verified	
4) All plates are 2x4 MT20 unless otherwise indicated.		on any electronic copies.	
5) Gable requires continuous bottom chord bearing.			
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.			
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide			
will fit between the bottom chord and any other members, with BCDL = 10.0psf.			
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 17, 25, 26, 27,			
28, 29, 30, 22, 21, 20, 19, 18.			
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.			

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

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



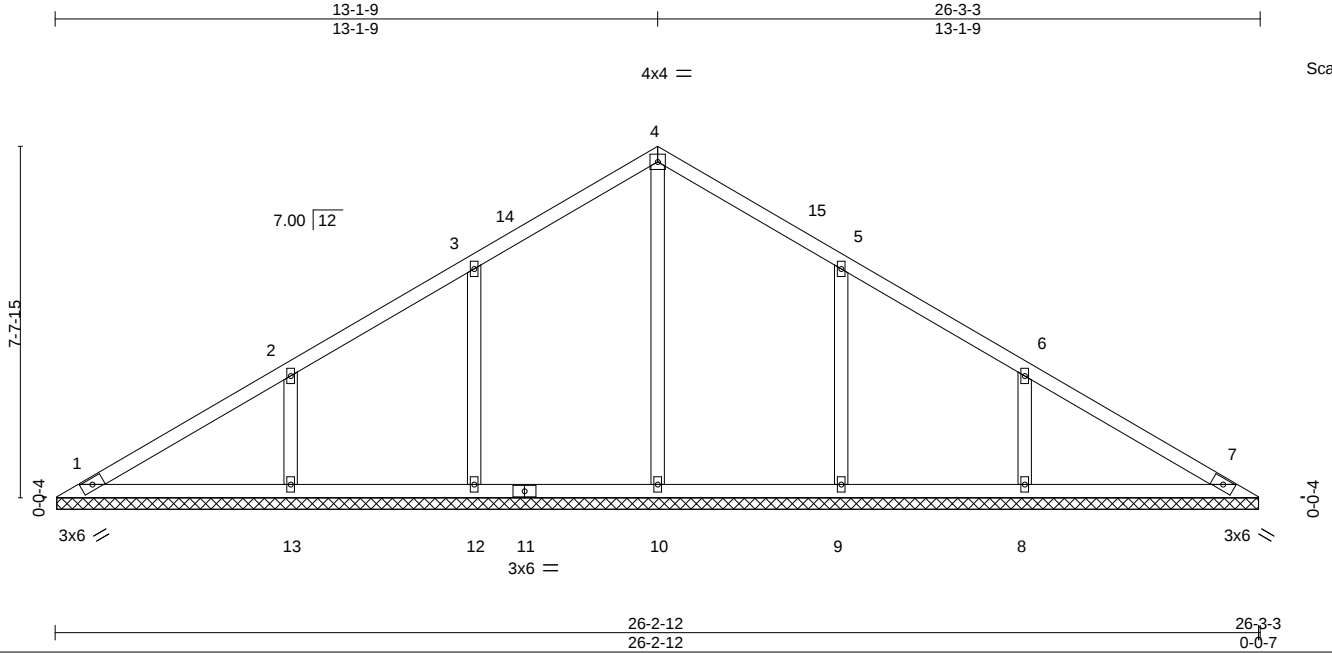
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140699
3410237	V06	Valley	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:39:11 2023 Page 1

ID:YknxKhrUOWTfIBjOKav9cEznwiS-EeTqgWQxcQ?CzMEb6FAKxhwHnVoamIZIQPFybbzY0qU



Scale = 1:50.2

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.21	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.18	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.18	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S					Weight: 114 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-

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

REACTIONS.

All bearings 26-2-5.

(lb) - Max Horz 1=-162(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 12=-129(LC 12), 13=-156(LC 12), 9=-129(LC 13), 8=-156(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=380(LC 22), 12=384(LC 19), 13=448(LC 19), 9=383(LC 20), 8=449(LC 20)

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

WEBS 2-13=-272/177, 6-8=-272/177

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 13-1-9, Exterior(2R) 13-1-9 to 16-1-9, Interior(1) 16-1-9 to 25-8-11 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 12=129, 13=156, 9=129, 8=156.

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

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

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

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

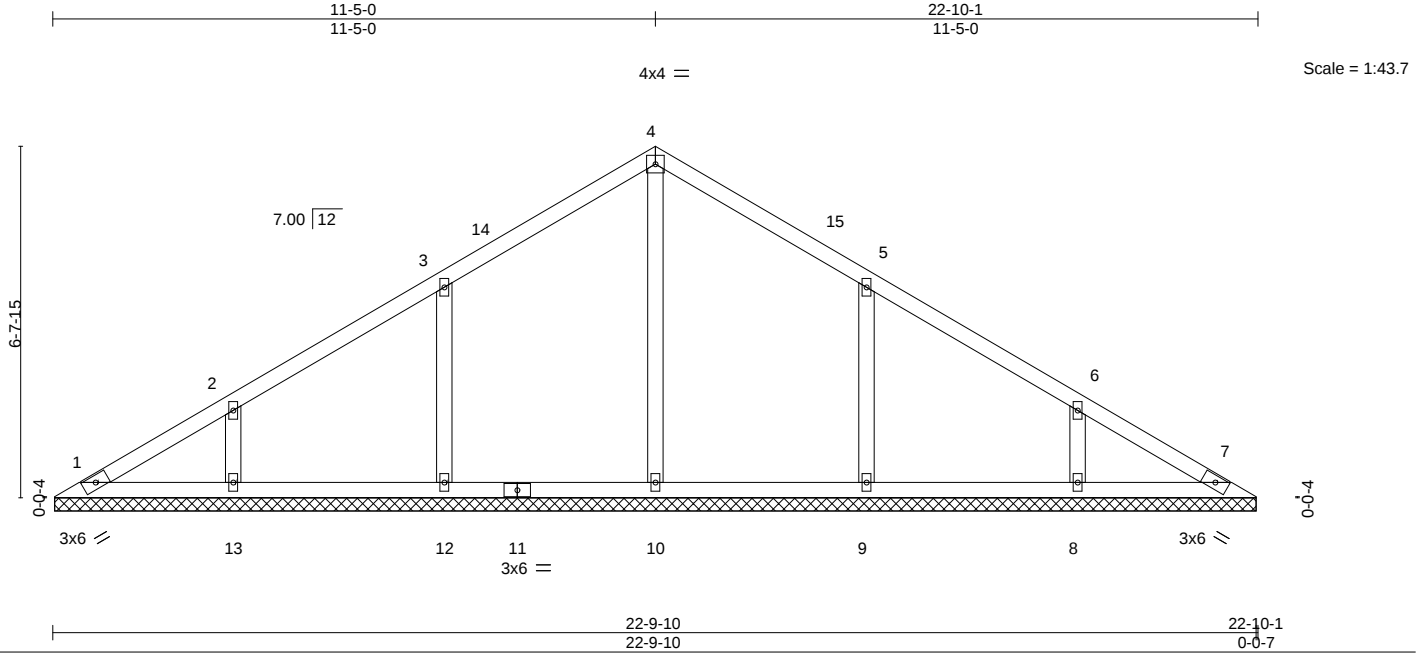


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140700
3410237	V07	Valley	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:39:12 2023 Page 1
ID:YknxKhruOWTfIBjOKav9cEznwiS-ir1CusRZNj72bWpngzhZUuTTDvky5Cbfv3_W82zY0qT



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.16	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.17	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.13	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S					Weight: 96 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-

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

REACTIONS.

All bearings 22-9-3.
(lb) - Max Horz 1=140(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 12=140(LC 12), 13=118(LC 12), 9=140(LC 13), 8=118(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=362(LC 19), 12=417(LC 19), 13=340(LC 19), 9=417(LC 20), 8=340(LC 20)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-5-0, Interior(1) 3-5-0 to 11-5-0, Exterior(2R) 11-5-0 to 14-5-0, Interior(1) 14-5-0 to 22-3-9 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 12=140, 13=118, 9=140, 8=118.

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

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

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

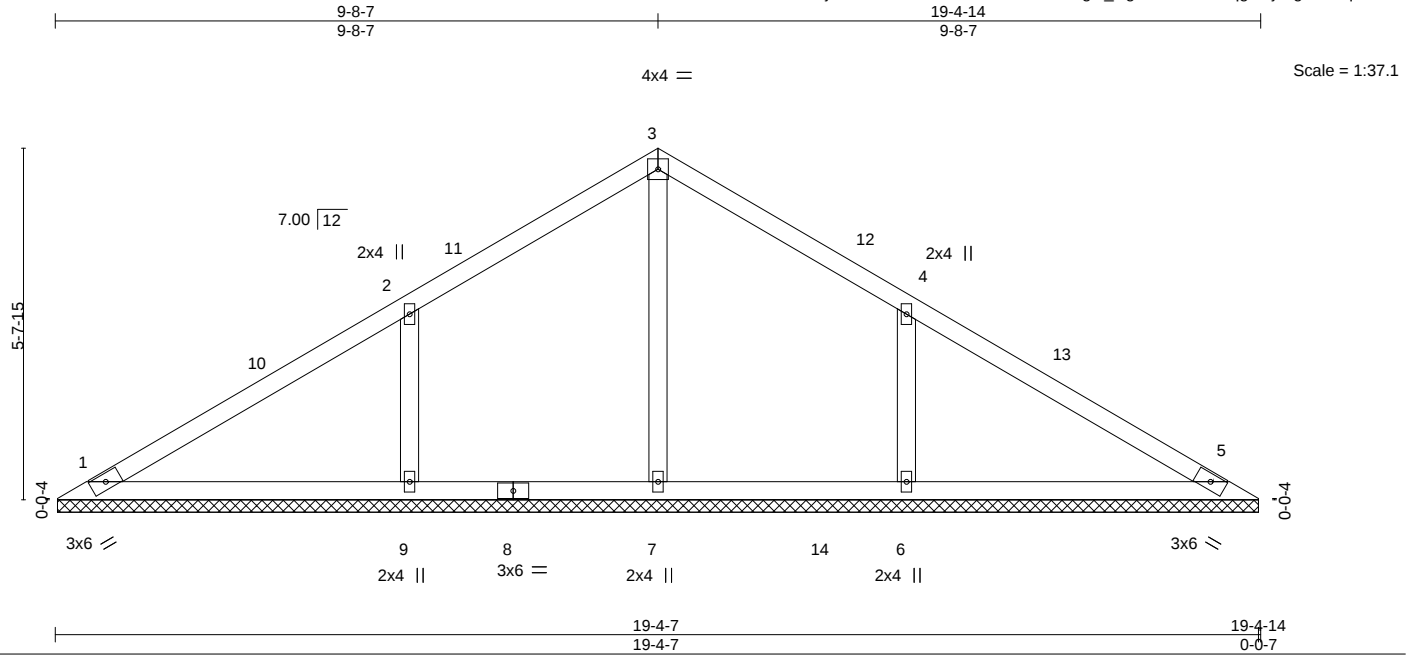


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140701
3410237	V08	Valley	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:39:13 2023 Page 1
ID:YknxKhruOWTfIBjOKav9cEznwiS-A1aa5CSB81FvDgO_DgCo060c2J3Zqgf2ujk3gUzY0qS



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.29	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.21	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S					Weight: 76 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-

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

REACTIONS.

All bearings 19-4-1.
(lb) - Max Horz 1=-118(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=-182(LC 12), 6=-182(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=291(LC 22), 9=523(LC 19), 6=526(LC 20)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-315/205, 4-6=-315/205

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 9-8-7, Exterior(2R) 9-8-7 to 12-8-7, Interior(1) 12-8-7 to 18-10-6 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 9=182, 6=182.

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

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

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

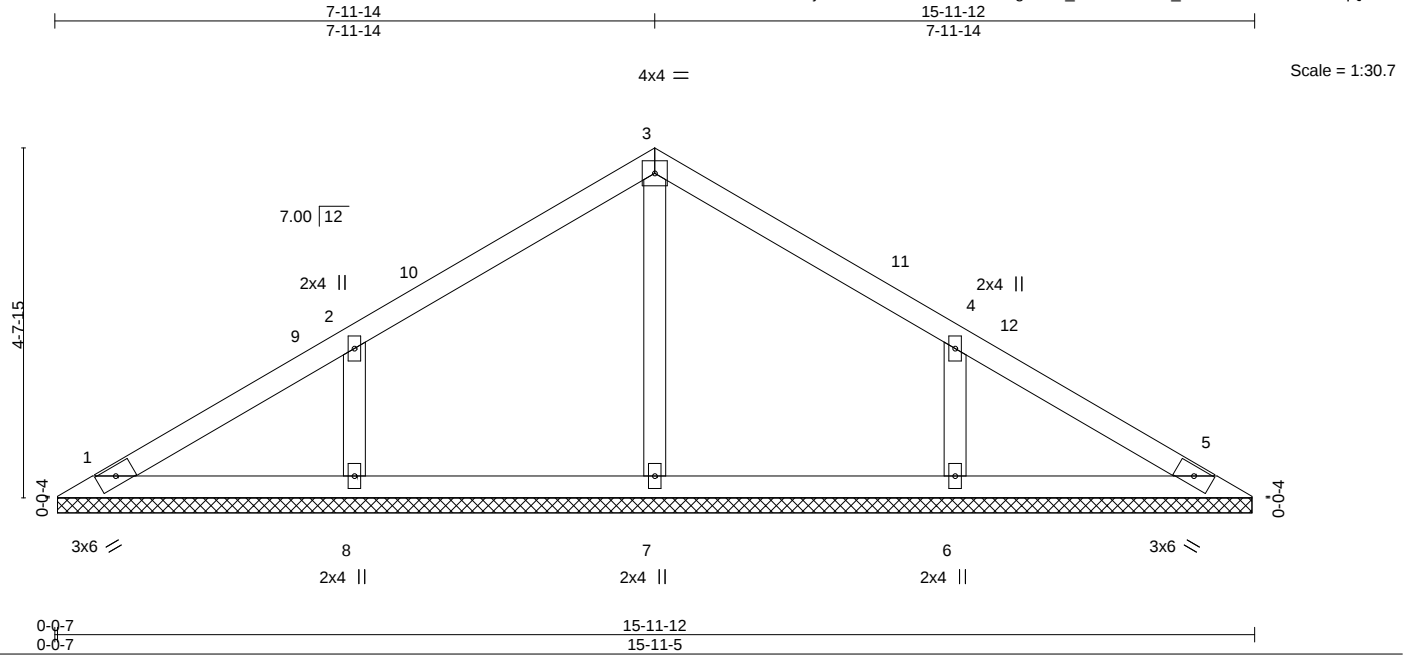


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140702
3410237	V09	Valley	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:39:15 2023 Page 1
ID:YknxKhruOWTfIBjOKav9cEznwiS-7PiKwTTSgeVdS_XML5FG5X5_J7ndlbLLL0DAkNzY0qQ



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.17	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.11	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S					Weight: 61 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-

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

REACTIONS.

All bearings 15-10-14.
(lb) - Max Horz 1=-96(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-144(LC 12), 6=-144(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=335(LC 19), 6=335(LC 20)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 7-11-14, Exterior(2R) 7-11-14 to 10-11-14, Interior(1) 10-11-14 to 15-5-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=144, 6=144.

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

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24, 2023

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

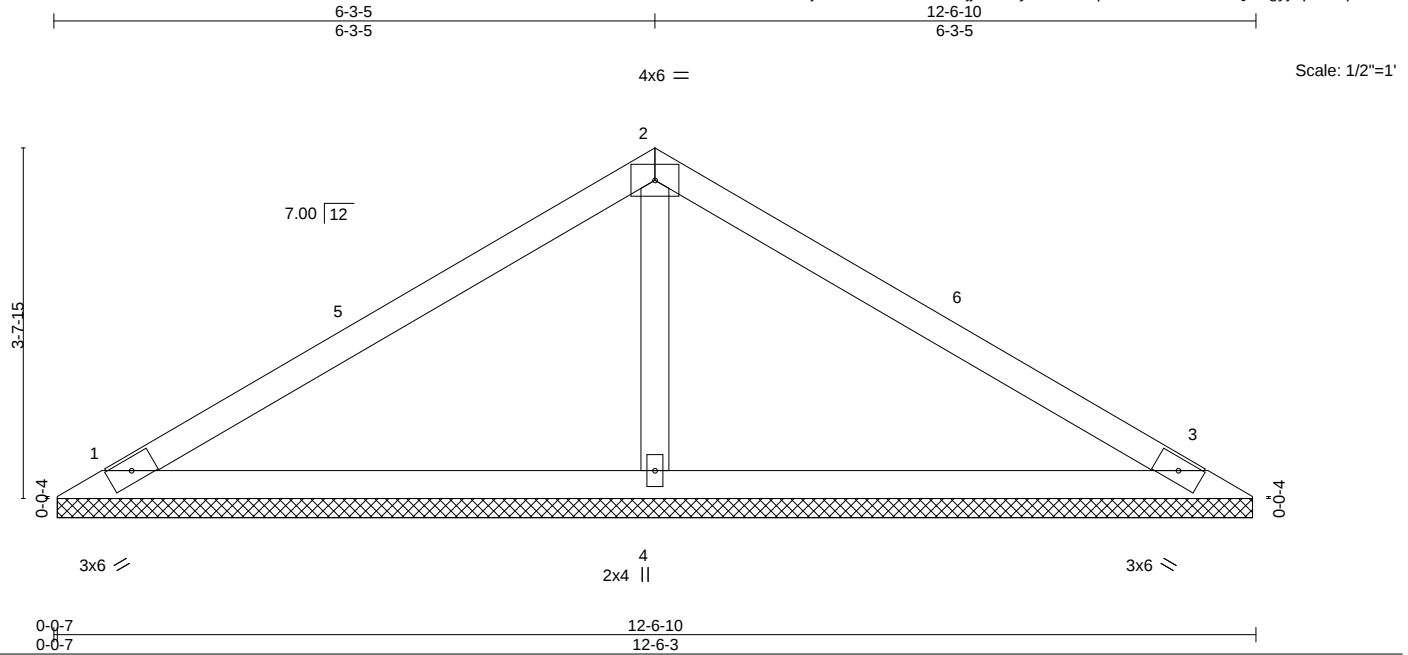


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140703
3410237	V10	Valley	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:39:16 2023 Page 1
ID:YknxKhruOWTfIBjOKav9cEznwiS-bcGjjDU4RydU476YvpmVeke5MW3b11QUagyHpzY0qP



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.41	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.32	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.07	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S					Weight: 43 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-

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

REACTIONS.

(size) 1=12-5-12, 3=12-5-12, 4=12-5-12
Max Horz 1=-74(LC 8)
Max Uplift 1=-55(LC 12), 3=-64(LC 13), 4=-63(LC 12)
Max Grav 1=200(LC 1), 3=200(LC 1), 4=449(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-283/117

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 6-3-5, Exterior(2R) 6-3-5 to 9-3-5, Interior(1) 9-3-5 to 12-0-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

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.

Philip J. O'Regan PE No.58126
MiTek Inc. DBA MiTek USA FL Cert 6634
16023 Swingley Ridge Rd. Chesterfield, MO 63017
Date:

March 24,2023

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

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



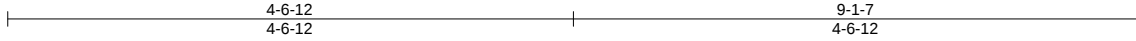
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140704
3410237	V11	Valley	1	1	Job Reference (optional)	

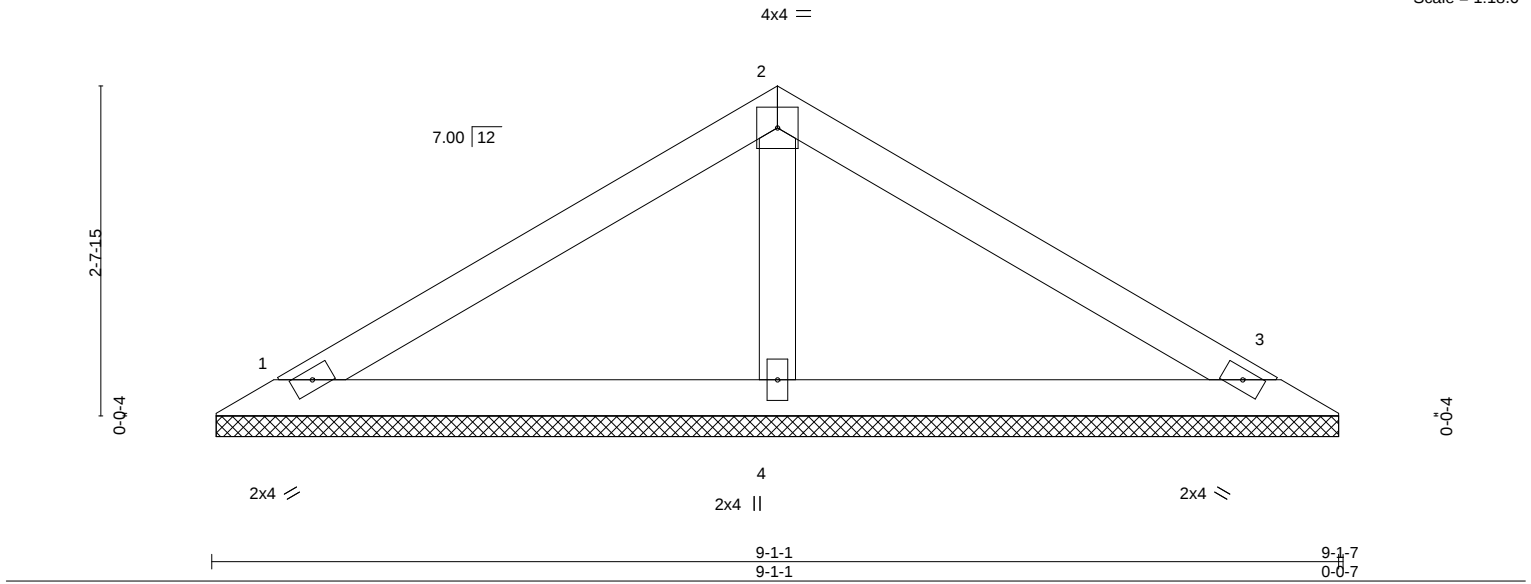
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:39:17 2023 Page 1

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Scale = 1:18.6



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.19	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.16	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.04	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-S					Weight: 30 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-

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

REACTIONS.

(size) 1=9-0-10, 3=9-0-10, 4=9-0-10
Max Horz 1=52(LC 9)
Max Uplift 1=-38(LC 12), 3=-45(LC 13), 4=-44(LC 12)
Max Grav 1=140(LC 1), 3=140(LC 1), 4=315(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 4-6-12, Exterior(2R) 4-6-12 to 7-6-12, Interior(1) 7-6-12 to 8-7-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

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

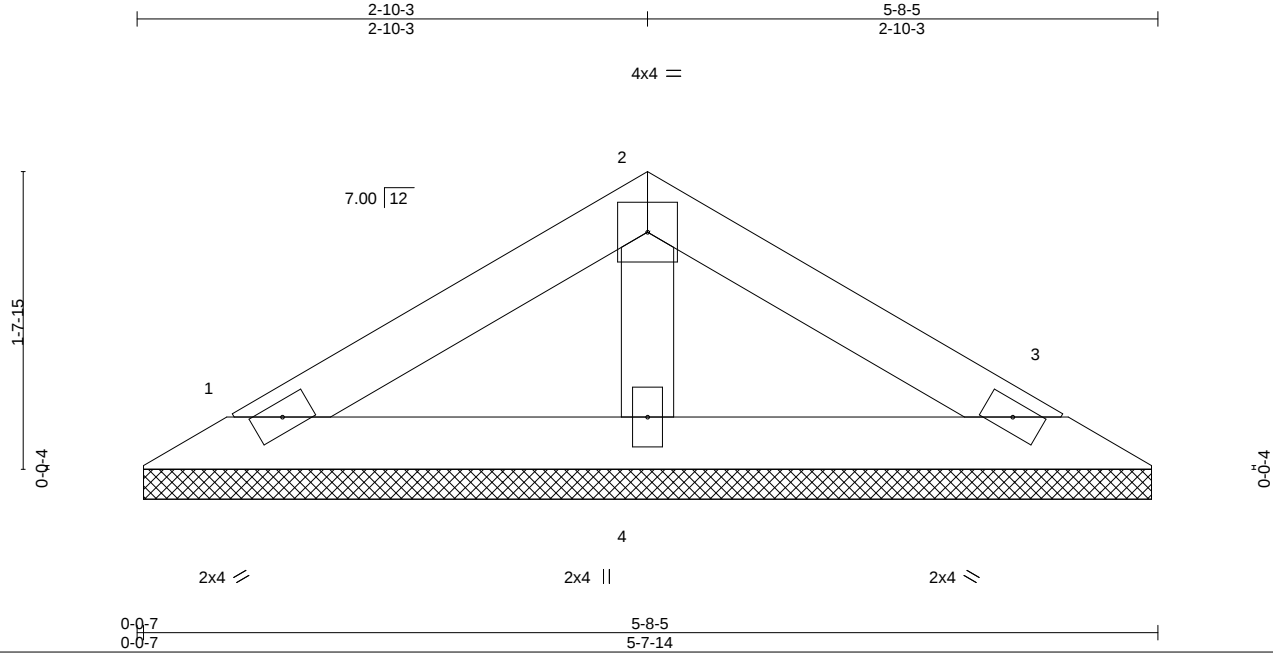


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	HARTLEY - MCGILL RES.	T30140705
3410237	V12	Valley	1	1	Job Reference (optional)	

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

8.530 s Mar 9 2023 MiTek Industries, Inc. Thu Mar 23 14:39:18 2023 Page 1
ID:YknxKhruOWTfBjOKav9cEznwiS-X_OT8vVKyZtCJRGx0Eozj9jW3KpEvYkn1_RqLhzY0qN



Scale = 1:12.9

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.05	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-P						Weight: 18 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-8-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=5-7-7, 3=5-7-7, 4=5-7-7
Max Horz 1=-30(LC 10)
Max Uplift 1=-27(LC 12), 3=-30(LC 13), 4=-16(LC 12)
Max Grav 1=88(LC 1), 3=88(LC 1), 4=164(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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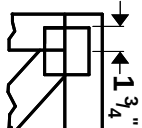
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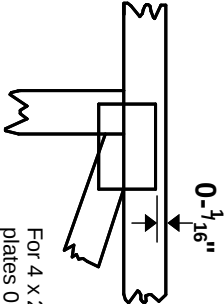
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Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- $\frac{3}{16}$ " from outside edge of truss.

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

*** Plate location details available in MiTek 2012 software or upon request.**

PLATE SIZE

4 X 4

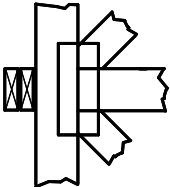
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



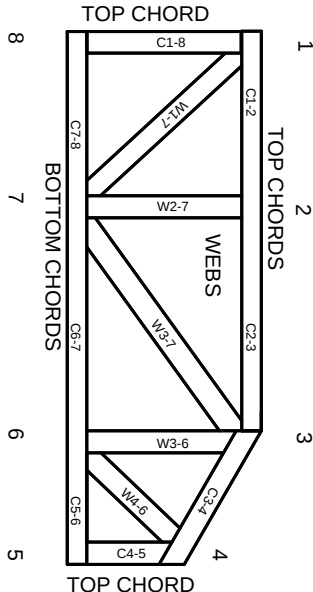
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

Lumber design values are in accordance with ANSI/TP1 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

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