

RE: MP31
 DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE

Trenco
 818 Soundside Rd
 Edenton, NC 27932

Site Information:

Customer: Project Name: MP31
 Lot/Block: Model:
 Address: Subdivision:
 City: State:

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

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.6
 Wind Code: ASCE 7-10 Wind Speed: 120 mph
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 18 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I65579196	A01AG	5/16/2024
2	I65579197	A02	5/16/2024
3	I65579198	A02A	5/16/2024
4	I65579199	A03	5/16/2024
5	I65579200	A04V	5/16/2024
6	I65579201	A05AV	5/16/2024
7	I65579202	A05V	5/16/2024
8	I65579203	A06AVG	5/16/2024
9	I65579204	B01G	5/16/2024
10	I65579205	B02GR	5/16/2024
11	I65579206	P01G	5/16/2024
12	I65579207	P02	5/16/2024
13	I65579208	V01	5/16/2024
14	I65579209	V02	5/16/2024
15	I65579210	V03	5/16/2024
16	I65579211	V04	5/16/2024
17	I65579212	V05	5/16/2024
18	I65579213	V06	5/16/2024

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource (Apex,NC).
 Truss Design Engineer's Name: Gilbert, Eric
 My license renewal date for the state of North Carolina is December 31, 2024.
 North Carolina COA: C-0844

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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.



Job MP31	Truss A01AG	Truss Type GABLE	Qty 1	Ply 1	DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE I65579196
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Apr 26 2024 MiTek Industries, Inc. Tue May 14 15:34:41 2024 Page 1

ID:VULCYJU7zprLimSP7MPFXTyf?FT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-0-8-0 0-8-0	15-8-2 15-8-2	21-0-0 5-3-14	26-3-14 5-3-14	41-8-8 15-4-10
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Scale = 1:72.6

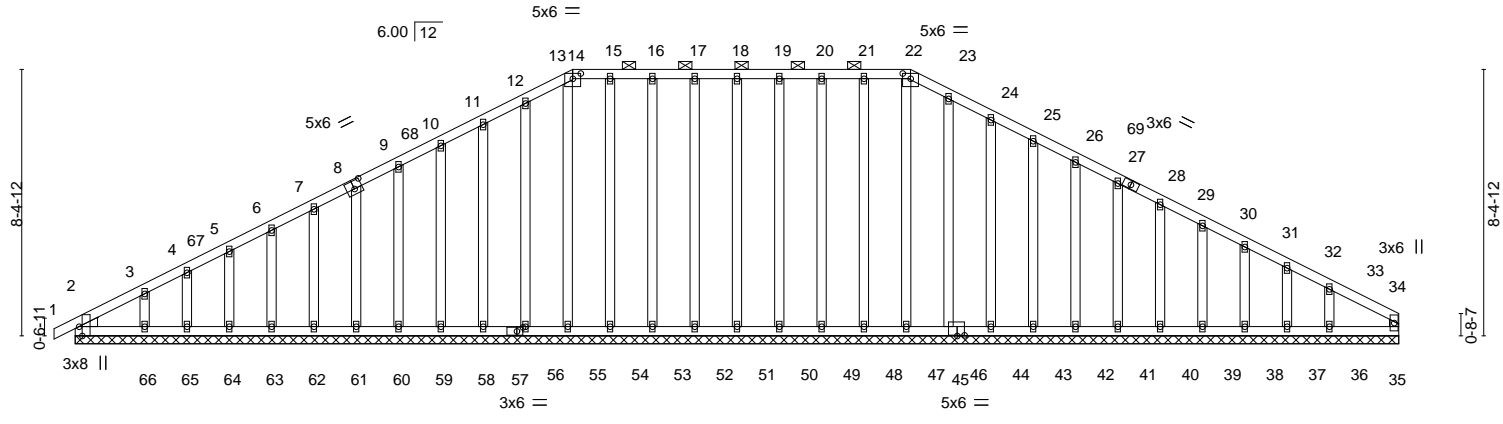


Plate Offsets (X,Y)--	[2:0-3-8,Edge], [8:0-3-0,0-3-0], [14:0-3-0,0-2-0], [22:0-3-0,0-2-0], [45:0-2-12,0-0-4], [57:0-2-4,0-1-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.11	Horz(CT)	0.01	35	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 361 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 14-22.
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	
WEDGE	
Left: 2x4 SP No.3	

REACTIONS. All bearings 41-8-8.
 (lb) - Max Horz 2=121(LC 16)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 51, 52, 53, 54, 56, 58, 59, 60, 61, 62, 63, 64, 65, 66, 50, 49, 48, 46, 44, 43, 42, 41, 40, 39, 38, 37, 36
 Max Grav All reactions 250 lb or less at joint(s) 35, 2, 51, 52, 53, 54, 55, 56, 58, 59, 60, 61, 62, 63, 64, 65, 66, 50, 49, 48, 47, 46, 44, 43, 42, 41, 40, 39, 38, 37, 36

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 12-13=90/259, 22-23=90/253

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-8-0 to 4-1-10, Exterior(2) 4-1-10 to 15-8-2, Corner(3) 15-8-2 to 20-5-12, Exterior(2) 20-5-12 to 26-3-14, Corner(3) 26-3-14 to 31-1-8, Exterior(2) 31-1-8 to 41-6-12 zone; cantilever left and right exposed ; 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
 - 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.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 51, 52, 53, 54, 56, 58, 59, 60, 61, 62, 63, 64, 65, 66, 50, 49, 48, 46, 44, 43, 42, 41, 40, 39, 38, 37, 36.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 16, 2024

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</p> <p>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/TPI Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY TRENCO A MITEK Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job MP31	Truss A02	Truss Type COMMON	Qty 4	Ply 1	DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE 165579197
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Apr 26 2024 MiTek Industries, Inc. Tue May 14 15:34:42 2024 Page 1

ID:VULCYJU7zpRLimSP7MPFxFy?IT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



5x6 = Scale = 1:74.1

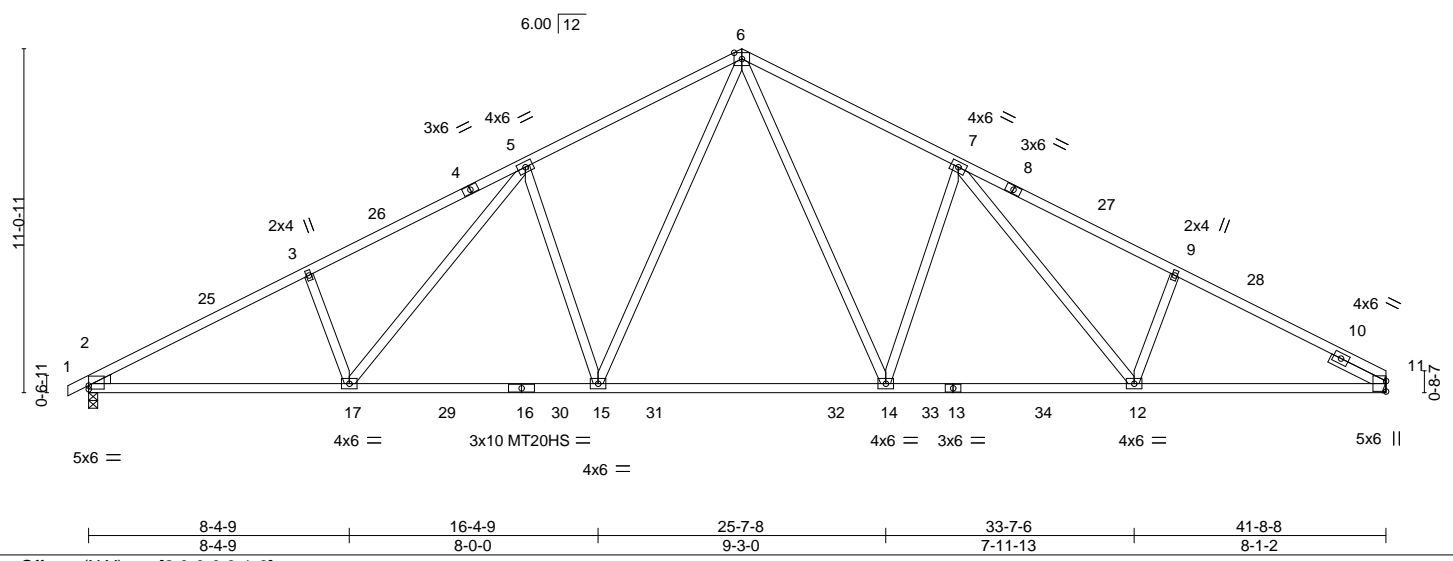


Plate Offsets (X,Y)--	[2:0-0-0,0-1-6]
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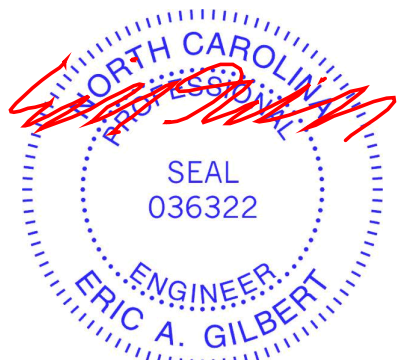
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.97	Vert(LL)	-0.33 14-15	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.85	Vert(CT)	-0.61 14-15	>827	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.76	Horz(CT)	0.15 11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.10 15-17	>999	240		Weight: 230 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 8-11: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
WEDGE	
Left: 2x4 SP No.3	
SLIDER Right 2x4 SP No.3 1-11-12	

REACTIONS. (size) 2=0-3-8, 11=Mechanical
 Max Horz 2=151(LC 12)
 Max Uplift 2=25(LC 12), 11=-12(LC 13)
 Max Grav 2=1709(LC 1), 11=1668(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-3068/235, 3-5=-2946/290, 5-6=-2417/308, 6-7=-2406/306, 7-9=-2848/297, 9-11=-2940/243
 BOT CHORD 2-17=-135/2661, 15-17=-82/2259, 14-15=0/1698, 12-14=-67/2239, 11-12=-136/2557
 WEBS 3-17=-344/179, 5-17=-103/581, 5-15=-673/200, 6-15=-94/988, 6-14=-92/964, 7-14=-646/200, 7-12=-106/492, 9-12=-287/176

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-0 to 4-1-10, Interior(1) 4-1-10 to 21-0-0, Exterior(2) 21-0-0 to 27-11-8, Interior(1) 27-11-8 to 41-8-8 zone; cantilever left and right exposed; 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) All plates are MT20 plates unless otherwise indicated.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 6) Refer to girder(s) for truss to truss connections.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11.
 - 8) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



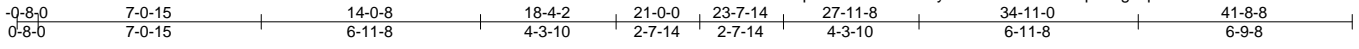
May 16, 2024

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</p> <p>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/TPH Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY</p> <p>TRENCO</p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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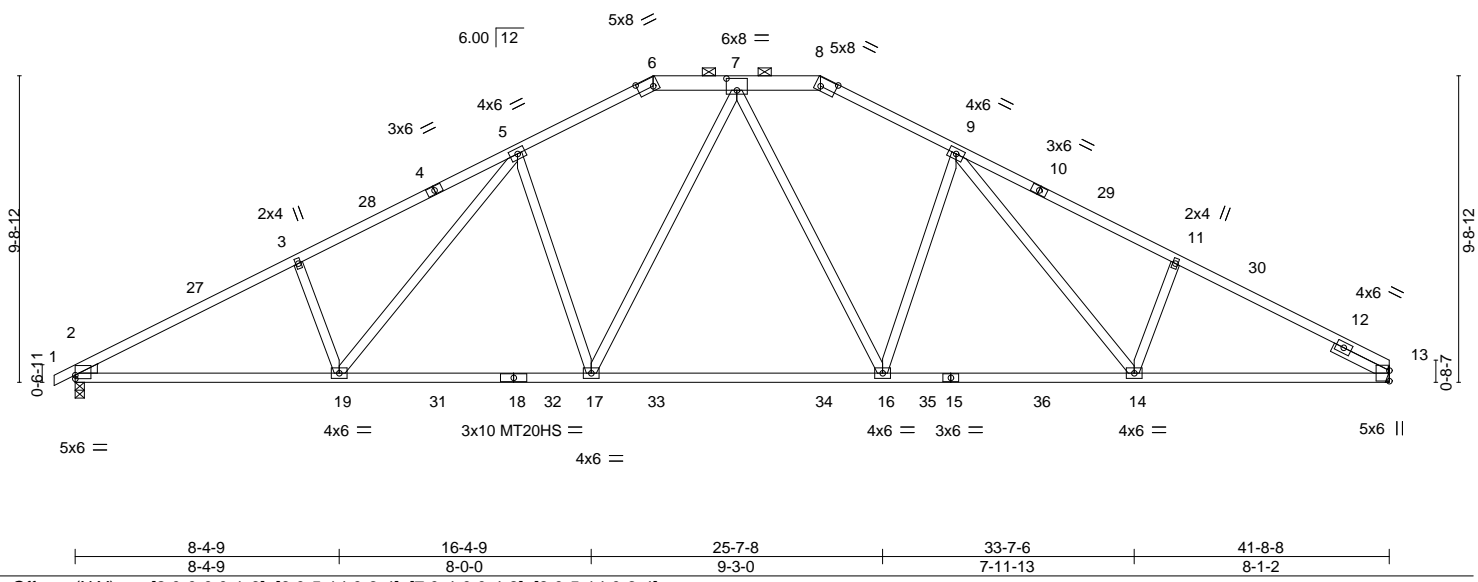
Job MP31	Truss A02A	Truss Type COMMON	Qty 1	Ply 1	DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE I65579198
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Apr 26 2024 MiTek Industries, Inc. Tue May 14 15:34:42 2024 Page 1

ID:VULCYJU7zpRLimSP7MPFXTyf?IT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:73.1



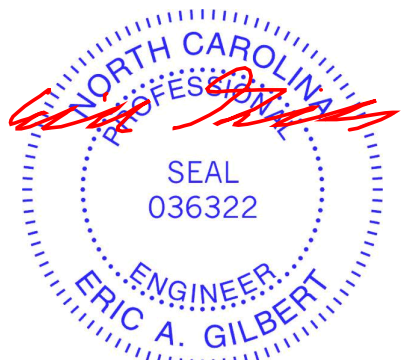
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.97	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.87	Vert(LL) -0.40 16-17 >999 360	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.60	Vert(CT) -0.77 16-17 >649 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.15 13 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.14 17 >999 240	Weight: 230 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1 *Except* 6-8: 2x6 SP 2400F 2.0E or 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-2-2 max.): 6-8.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
WEDGE	
Left: 2x4 SP No.3	
SLIDER Right 2x4 SP No.3 1-11-12	

REACTIONS.	(size) 2=0-3-8, 13=Mechanical
	Max Horz 2=139(LC 12)
	Max Uplift 2=-16(LC 12), 13=-3(LC 13)
	Max Grav 2=1709(LC 1), 13=1668(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-3064/269, 3-5=-2945/324, 5-6=-2355/339, 8-9=-2346/336, 9-11=-2847/331, 11-13=-2935/276, 6-7=-2066/325, 7-8=-2056/322
BOT CHORD	2-19=-190/2660, 17-19=-122/2218, 16-17=-28/1710, 14-16=-107/2199, 13-14=-168/2556
WEBS	3-19=-377/186, 5-19=-110/617, 5-17=-534/187, 7-17=-82/858, 7-16=-81/836, 9-16=-509/186, 9-14=-113/523, 11-14=-319/182

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-0 to 4-1-10, Interior(1) 4-1-10 to 18-4-2, Exterior(2) 18-4-2 to 30-5-5, Interior(1) 30-5-5 to 41-8-8 zone; cantilever left and right exposed; 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
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, 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) 2, 13.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 16, 2024

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Job MP31	Truss A03	Truss Type COMMON	Qty 5	Ply 1	DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE Job Reference (optional)	165579199
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Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MITek Industries, Inc. Thu May 16 09:41:21 2024 Page 1
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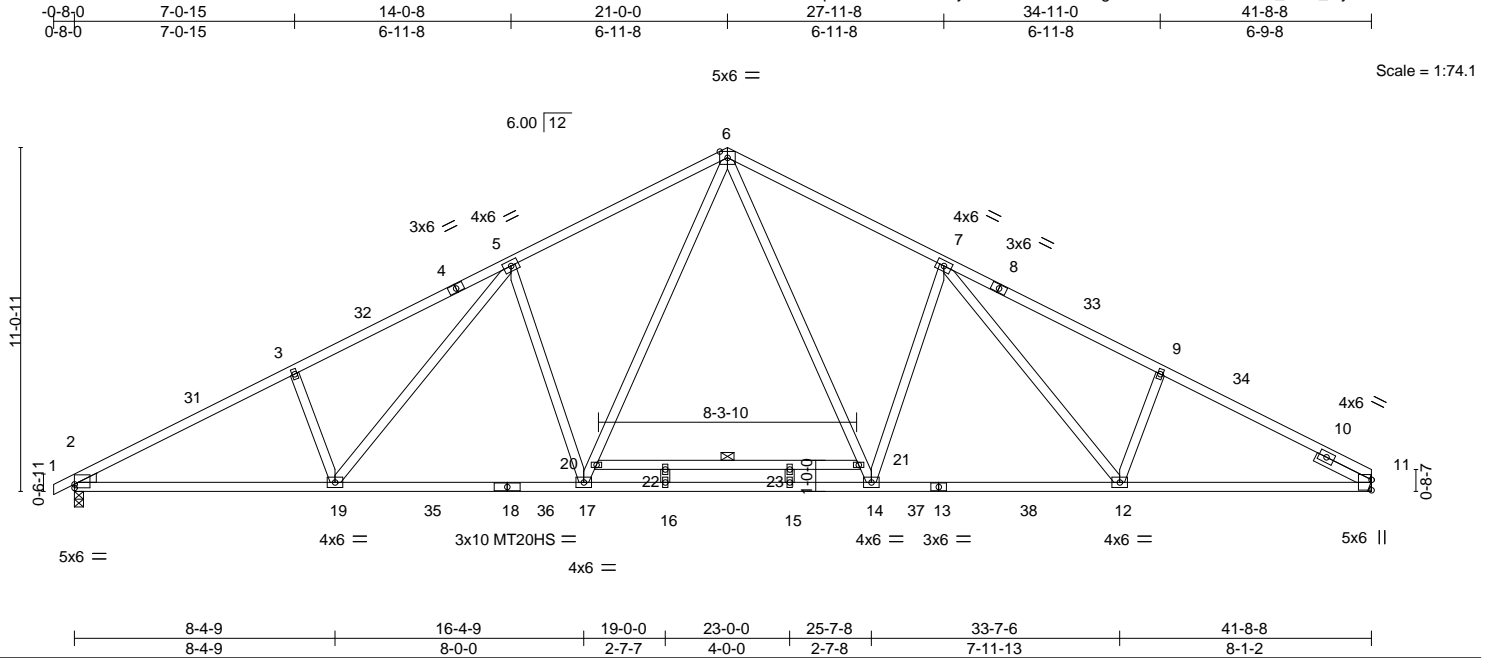


Plate Offsets (X,Y)--	[2:0-0-0,0-1-6]							
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.97	Vert(LL) -0.45	15-16	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.94	Vert(CT) -0.69	15-16	>722	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr NO	WB 0.99	Horz(CT) 0.16	11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.10	17-19	>999	240		
							Weight: 244 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 1-4: 2x4 SP No.1 8-11: 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS	TOP CHORD Structural wood sheathing directly applied. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. WEBS 1 Row at midpt 20-21
BOT CHORD 2x4 SP No.1	
WEBS 2x4 SP No.3	
WEDGE Left: 2x4 SP No.3	
SLIDER Right 2x4 SP No.3 1-11-12	

REACTIONS. (lb/size) 2=1709/0-3-8 (min. 0-2-1), 11=1668/Mechanical
Max Horz 2=151(LC 12)
Max Uplift 2=-25(LC 12), 11=-12(LC 13)
Max Grav 2=1732(LC 2), 11=1701(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-31=-3160/215, 3-31=-3065/235, 3-32=-3037/256, 4-32=-2966/271, 4-5=-2896/289,
5-6=-2508/309, 6-7=-2497/307, 7-8=-2795/297, 8-33=-2871/278, 9-33=-2921/263,
9-34=-2945/242, 10-34=-3030/225, 10-11=-1009/0
BOT CHORD 2-19=-134/2742, 19-35=-83/2341, 18-35=-83/2341, 18-36=-83/2341, 17-36=-83/2341,
16-17=0/1827, 15-16=0/1827, 14-15=0/1827, 14-37=-68/2320, 13-37=-68/2320,
13-38=-68/2320, 12-38=-68/2320, 11-12=-136/2634
WEBS 3-19=-343/180, 5-19=-101/585, 5-17=-673/199, 17-20=-101/962, 6-20=-94/1033,
6-21=-93/1008, 14-21=-99/937, 7-14=-646/199, 7-12=-104/496, 9-12=-286/177

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-0 to 4-1-10, Interior(1) 4-1-10 to 21-0-0, Exterior(2) 21-0-0 to 27-11-8, Interior(1) 27-11-8 to 41-8-8 zone; cantilever left and right exposed ; 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
 - All plates are MT20 plates unless otherwise indicated.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, 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 25 lb uplift at joint 2 and 12 lb uplift at joint 11.
 - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - N/A



May 16, 2024

Continued on page 2

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ENGINEERING BY
TRENCO
A MITek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE	165579199
MP31	A03	COMMON	5	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

ID:VULCYYJU7zpRLimSP7MPFXTyf?FT-cEoswABALbgbLNOHDQFSBFGFv4_X?M_GyaO08FzFz11
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NOTES-

- 11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
- 12) 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)

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-6=-60, 6-11=-60, 24-27=-20
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-6=-50, 6-11=-50, 24-35=-20, 35-36=-50, 36-37=-20, 37-38=-50, 27-38=-20, 20-21=-30(F)
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-6=-20, 6-11=-20, 24-27=-40, 20-21=-40(F)
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=47, 2-31=25, 6-31=14, 6-7=25, 7-11=14, 24-27=-12
Horz: 1-2=-59, 2-31=-37, 6-31=-26, 6-7=37, 7-11=26
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=9, 2-5=14, 5-6=25, 6-34=14, 11-34=25, 24-27=-12
Horz: 1-2=-21, 2-5=-26, 5-6=-37, 6-34=26, 11-34=37
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-12, 2-6=-33, 6-11=-33, 24-27=-20
Horz: 1-2=-8, 2-6=13, 6-11=-13
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-28, 2-6=-33, 6-11=-33, 24-27=-20
Horz: 1-2=8, 2-6=13, 6-11=-13
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=9, 2-6=-2, 6-11=9, 24-27=-12
Horz: 1-2=-21, 2-6=-10, 6-11=21
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=4, 2-6=9, 6-11=-2, 24-27=-12
Horz: 1-2=-16, 2-6=-21, 6-11=10
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-15, 2-6=-20, 6-11=-9, 24-27=-20
Horz: 1-2=-5, 2-6=-0, 6-11=11
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-4, 2-6=-9, 6-11=-20, 24-27=-20
Horz: 1-2=-16, 2-6=-11, 6-11=0
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=17, 2-32=22, 6-32=11, 6-11=3, 24-27=-12
Horz: 1-2=-29, 2-32=-34, 6-32=-23, 6-11=15
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-2, 2-6=3, 6-33=11, 11-33=22, 24-27=-12
Horz: 1-2=-10, 2-6=-15, 6-33=23, 11-33=34
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=7, 2-6=11, 6-11=3, 24-27=-12
Horz: 1-2=-19, 2-6=-23, 6-11=15
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-2, 2-6=3, 6-11=11, 24-27=-12
Horz: 1-2=-10, 2-6=-15, 6-11=23
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=9, 2-32=4, 6-32=-6, 6-11=-15, 24-27=-20
Horz: 1-2=-29, 2-32=-24, 6-32=-14, 6-11=5
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-10, 2-6=-15, 6-33=-6, 11-33=4, 24-27=-20
Horz: 1-2=-10, 2-6=-5, 6-33=14, 11-33=24
- 18) Dead + Uninhabitable Attic Storage: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-6=-20, 6-11=-20, 24-35=-20, 35-36=-60, 36-37=-20, 37-38=-60, 27-38=-20, 20-21=-40(F)
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-46, 2-6=-50, 6-11=-42, 24-35=-20, 35-36=-50, 36-37=-20, 37-38=-50, 27-38=-20, 20-21=-30(F)
Horz: 1-2=-4, 2-6=-0, 6-11=8

Continued on page 3

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE	165579199
MP31	A03	COMMON	5	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523

8.630 s Mar 9 2023 MiTek Industries, Inc. Thu May 16 09:41:21 2024 Page 3
 ID:VULCYJU7zpRLimSP7MPFXTyf?ft-cEoswABALbgbLNOHDQFSBFGFv4_X?M_GyaO08FzFz1i

LOAD CASE(S)

- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
 Uniform Loads (plf)
 Vert: 1-2=-38, 2-6=-42, 6-11=-50, 24-35=-20, 35-36=-50, 36-37=-20, 37-38=-50, 27-38=-20, 20-21=-30(F)
 Horz: 1-2=-12, 2-6=-8, 6-11=0
- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
 Uniform Loads (plf)
 Vert: 1-2=-28, 2-32=-32, 6-32=-40, 6-11=-46, 24-35=-20, 35-36=-50, 36-37=-20, 37-38=-50, 27-38=-20, 20-21=-30(F)
 Horz: 1-2=-22, 2-32=-18, 6-32=-10, 6-11=4
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
 Uniform Loads (plf)
 Vert: 1-2=-43, 2-6=-46, 6-33=-40, 11-33=-32, 24-35=-20, 35-36=-50, 36-37=-20, 37-38=-50, 27-38=-20, 20-21=-30(F)
 Horz: 1-2=-7, 2-6=-4, 6-33=10, 11-33=18
- 23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-6=-60, 6-11=-20, 24-27=-20
- 24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-6=-20, 6-11=-60, 24-27=-20
- 25) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-6=-50, 6-11=-20, 24-35=-20, 35-36=-50, 36-37=-20, 37-38=-50, 27-38=-20, 20-21=-30(F)
- 26) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-6=-20, 6-11=-50, 24-35=-20, 35-36=-50, 36-37=-20, 37-38=-50, 27-38=-20, 20-21=-30(F)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE
MP31	A05AV	SPECIAL	1	1	165579201

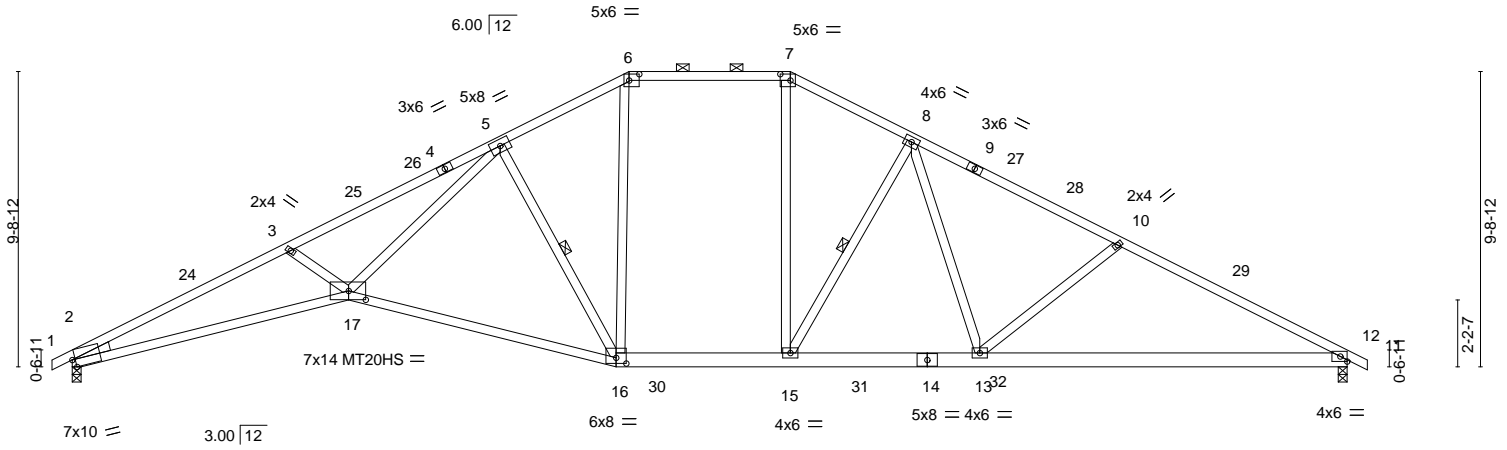
Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.630 s Apr 26 2024 MiTek Industries, Inc. Tue May 14 15:34:44 2024 Page 1

ID:VULCYJU7zpRLimSP7MPFXTyf?FT-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?f

-0-8-0	7-2-5	14-1-3	18-4-2	23-7-14	27-7-12	34-5-4	42-0-0	42-8-0
0-8-0	7-2-5	6-10-13	4-2-15	5-3-12	3-11-14	6-9-8	7-6-12	0-8-0

Scale = 1:75.9



9-1-4	17-11-0	23-7-14	29-10-12	42-0-0
9-1-4	8-9-12	5-8-14	6-2-14	12-1-4

Plate Offsets (X,Y)-- [2:0-1-3,Edge], [6:0-4-0,0-2-8], [7:0-4-0,0-2-8], [16:0-4-0,0-2-4], [17:0-6-12,0-3-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 1.00	Vert(LL)	-0.58 16-17	>875	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.95	Vert(CT)	-1.10 16-17	>458	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.71	Horz(CT)	0.35 11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.31 16-17	>999	240		
								Weight: 241 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1 *Except* 1-4,9-12: 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS 6-7: 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-6-4 max.): 6-7.
BOT CHORD 2x6 SP No.2 *Except* 2-17: 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS 16-17: 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 13-15.
WEBS 2x4 SP No.3 *Except* 5-17: 2x4 SP No.2	WEBS 1 Row at midpt 5-16, 8-15
WEDGE Left: 2x4 SP No.3	

REACTIONS.	(size)
Max Horz	2=134(LC 12)
Max Uplift	2=-15(LC 12), 11=-15(LC 13)
Max Grav	2=1720(LC 1), 11=1720(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-5388/427, 3-5=-5102/409, 5-6=-2190/315, 7-8=-2133/319, 8-10=-2709/279, 10-11=-3069/299, 6-7=-1857/302
BOT CHORD	2-17=-326/4856, 16-17=-140/2587, 15-16=-19/1857, 13-15=-86/2183, 11-13=-190/2665
WEBS	3-17=-269/190, 5-17=-117/2875, 5-16=-1312/220, 6-16=-50/712, 8-15=-802/163, 8-13=-41/631, 10-13=-431/186, 7-15=-51/741

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-0 to 4-1-10, Interior(1) 4-1-10 to 18-4-2, Exterior(2) 18-4-2 to 30-5-5, Interior(1) 30-5-5 to 42-8-0 zone; cantilever left and right exposed; 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
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 11.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 16, 2024

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</p> <p>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/TPH Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job MP31	Truss A05V	Truss Type SPECIAL	Qty 7	Ply 1	DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE 165579202
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Apr 26 2024 MiTek Industries, Inc. Tue May 14 15:34:45 2024 Page 1

Job Reference (optional)
ID:VULCYJU7zpRLimSP7MPFXTyf?FT-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f
-0-8-0 7-2-5 14-1-3 21-0-0 27-7-12 34-5-4 42-0-0 42-8-0
0-8-0 7-2-5 6-10-13 6-10-13 6-7-12 6-9-8 7-6-12 0-8-0

Scale = 1:77.9

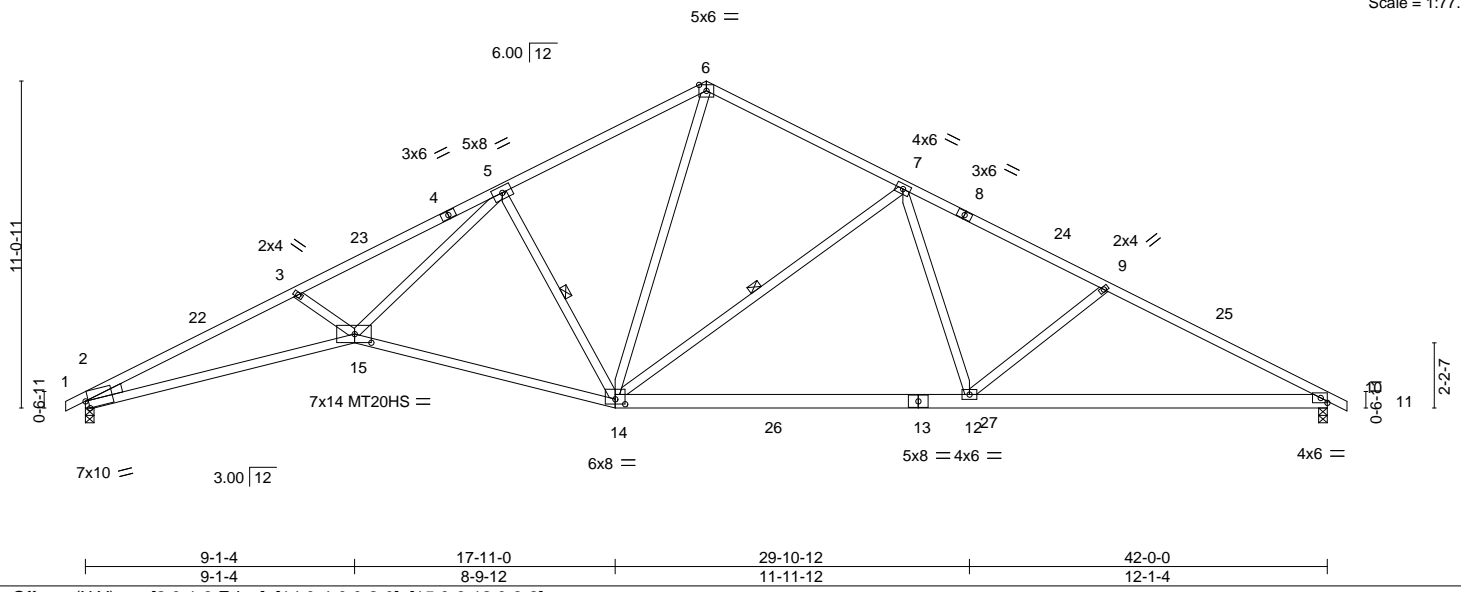


Plate Offsets (X,Y)-- [2:0-1-3,Edge], [14:0-4-0,0-2-0], [15:0-6-12,0-3-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.93	Vert(LL)	-0.43 12-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT)	-0.93 14-15	>542	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.35 10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.23 14-15	>999	240		Weight: 237 lb FT = 20%

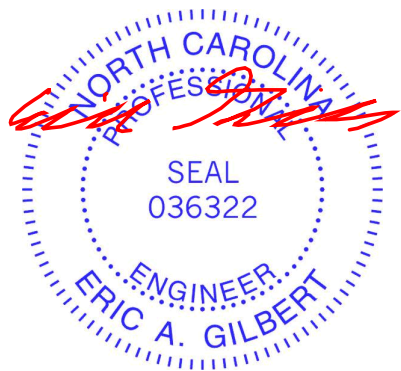
LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS
BOT CHORD 2x6 SP No.2 *Except*
2-15: 2x4 SP 2400F 2.0E or 2x4 SP DSS or 2x4 SP SS
14-15: 2x4 SP No.1
WEBS 2x4 SP No.3 *Except*
5-15: 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-14, 7-14

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=145(LC 16)
Max Uplift 2=-24(LC 12), 10=-24(LC 13)
Max Grav 2=1720(LC 1), 10=1720(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-5378/342, 3-5=-5100/318, 5-6=-2199/287, 6-7=-1766/268, 7-9=-2726/231,
9-10=-3077/255
BOT CHORD 2-15=-228/4845, 14-15=-93/2601, 12-14=-47/2191, 10-12=-122/2670
WEBS 3-15=-264/185, 5-15=-69/2861, 5-14=-1377/212, 6-14=-113/1377, 7-14=-893/139,
7-12=0/671, 9-12=-412/186

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-0 to 4-1-10, Interior(1) 4-1-10 to 21-0-0, Exterior(2) 21-0-0 to 27-7-12, Interior(1) 27-7-12 to 42-8-0 zone; cantilever left and right exposed; 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
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



May 16, 2024

Job MP31	Truss A06AVG	Truss Type GABLE	Qty 1	Ply 1	DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE 165579203
					Job Reference (optional)

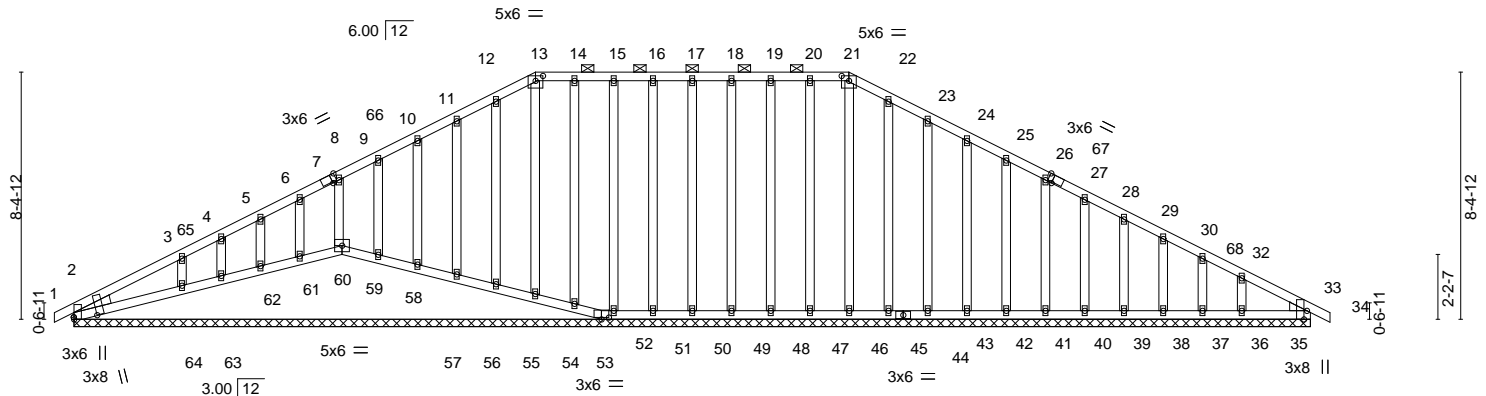
Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.630 s Apr 26 2024 MiTek Industries, Inc. Tue May 14 15:34:46 2024 Page 1

ID:VULCYJU7zpRLimSP7MPFXTyf?FT-RFC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?f

-0-8-0 0-8-0	16-4-2 15-8-2	21-8-0 5-3-14	26-11-14 5-3-14	42-8-0 15-8-2	43-4-0 0-8-0
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Scale = 1:78.3



-0-8-0 0-8-0	9-9-4 9-1-4	18-7-0 8-9-12	42-8-0 24-1-0	43-4-0 0-8-0
Plate Offsets (X,Y)-- [2:0-1-8,0-9-8], [2:0-0-14,Edge], [7:0-1-13,Edge], [13:0-3-0,0-2-0], [21:0-3-0,0-2-0], [27:0-1-13,Edge], [33:0-3-8,Edge], [53:0-3-0,0-0-12]				

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL) 0.00	33	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT) 0.00	34	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT) 0.01	33	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 344 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 13-21.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 63-64.

REACTIONS. All bearings 42-0-0.
(lb) - Max Horz 2=123(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 60, 53, 2, 50, 51, 52, 54, 56, 57, 58, 59, 61, 62, 64, 49, 48, 47, 45, 43, 42, 41, 40, 39, 38, 37, 36, 35
Max Grav All reactions 250 lb or less at joint(s) 60, 53, 2, 33, 50, 51, 52, 54, 55, 56, 57, 58, 59, 61, 62, 63, 49, 48, 47, 46, 45, 43, 42, 41, 40, 39, 38, 37, 36, 35 except 64=306(LC 23)

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 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-0 to 4-1-10, Interior(1) 4-1-10 to 15-8-2, Exterior(2) 15-8-2 to 22-4-0, Interior(1) 22-4-0 to 26-3-14, Exterior(2) 26-3-14 to 33-0-0, Interior(1) 33-0-0 to 42-8-0 zone; cantilever left and right exposed ; 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
 - 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.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 60, 53, 2, 50, 51, 52, 54, 56, 57, 58, 59, 61, 62, 64, 49, 48, 47, 45, 43, 42, 41, 40, 39, 38, 37, 36, 35.
 - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

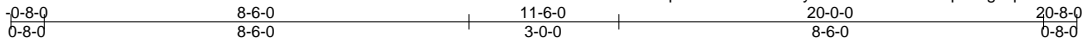


May 16, 2024

Job MP31	Truss B01G	Truss Type GABLE	Qty 1	Ply 1	DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE 165579204
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Apr 26 2024 MiTek Industries, Inc. Tue May 14 15:34:47 2024 Page 1

ID:VULCYJU7zpRLimSP7MPFxFytf?FT-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?f



4x6 ||

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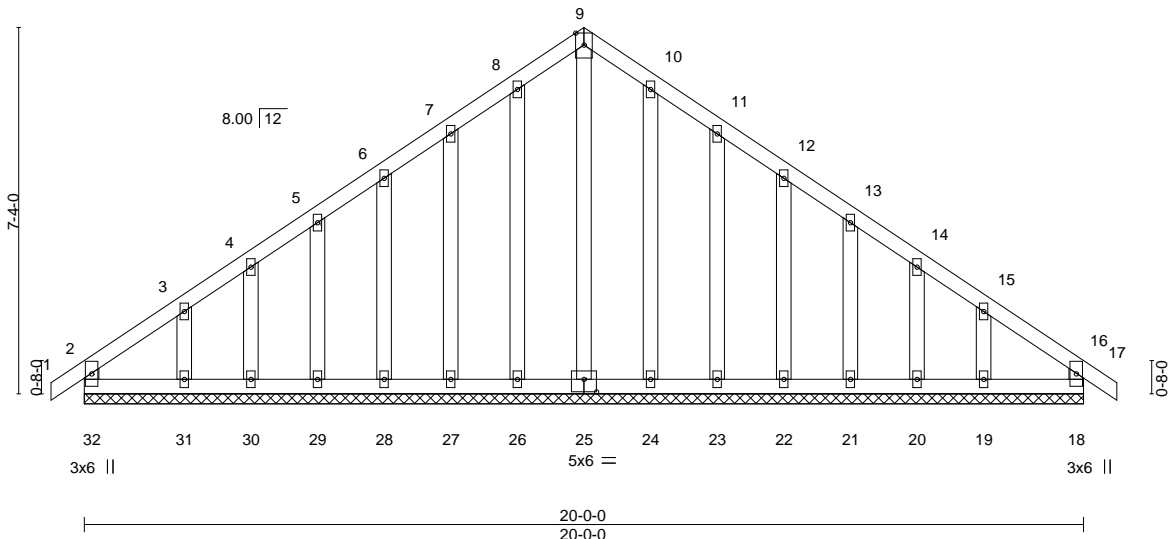


Plate Offsets (X, Y)--	[25:0-3-0,0-3-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	16	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	16	n/r		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.13	Horz(CT)	0.00	18	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						
								Weight: 145 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
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 20-0-0.
 (lb) - Max Horz 32=167(LC 11)
 Max Uplift All uplift 100 lb or less at joint(s) 32, 18, 26, 27, 28, 29, 30, 31, 24, 23, 22, 21, 20, 19
 Max Grav All reactions 250 lb or less at joint(s) 32, 18, 25, 26, 27, 28, 29, 30, 31, 24, 23, 22, 21, 20, 19

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 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-8-0 to 4-1-10, Exterior(2) 4-1-10 to 10-0-0, Corner(3) 10-0-0 to 14-9-10, Exterior(2) 14-9-10 to 20-8-0 zone; cantilever left and right exposed ; 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) 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) All plates are 2x4 MT20 unless otherwise indicated.
 - 5) Gable requires continuous bottom chord bearing.
 - 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - 7) Gable studs spaced at 1-4-0 oc.
 - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 32, 18, 26, 27, 28, 29, 30, 31, 24, 23, 22, 21, 20, 19.



May 16, 2024

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.</p> <p>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 and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)</p>	<p>ENGINEERING BY</p> <p>TRENCO</p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job MP31	Truss B02GR	Truss Type COMMON	Qty 1	Ply 3	DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE 165579205
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Apr 26 2024 MiTek Industries, Inc. Tue May 14 15:34:47 2024 Page 1
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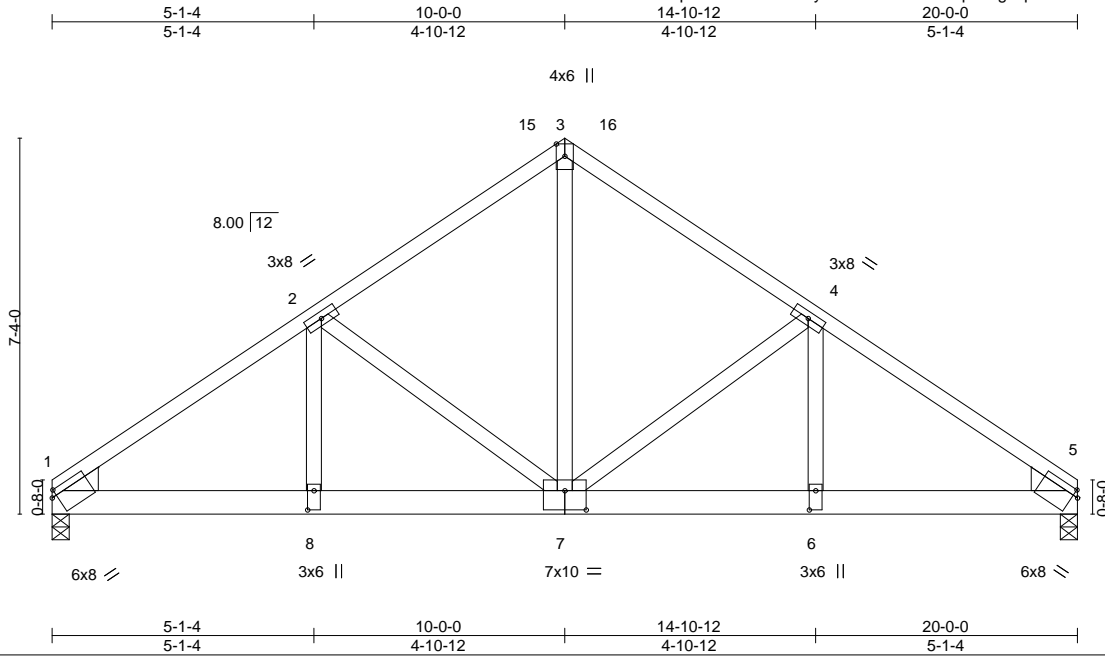


Plate Offsets (X,Y)-- [1:0-1-3,0-1-8], [5:0-1-3,0-1-8], [6:0-4-8,0-1-8], [7:0-5-0,0-4-8], [8:0-4-8,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.50	Vert(LL)	-0.10	7-8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.50	Vert(CT)	-0.21	7-8	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.74	Horz(CT)	0.05	5	n/a		
BCDL 10.0	Code IRC2015/TP12014		Matrix-MS	Wind(LL)	0.09	7-8	>999		
								Weight: 369 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x6 SP 2400F 2.0E or 2x6 SP DSS
 WEBS 2x4 SP No.3 *Except*
 3-7: 2x4 SP No.2

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

WEDGE
 Left: 2x6 SP No.2 , Right: 2x6 SP No.2

REACTIONS. (size) 1=0-4-0, 5=0-4-0
 Max Horz 1=-143(LC 4)
 Max Uplift 1=-1045(LC 8), 5=-1045(LC 9)
 Max Grav 1=9350(LC 1), 5=9350(LC 1)

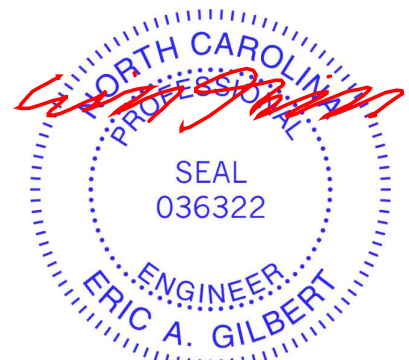
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-12112/1357, 2-3=-8513/1004, 3-4=-8513/1004, 4-5=-12112/1358
 BOT CHORD 1-8=-1180/9986, 7-8=-1180/9986, 6-7=-1061/9986, 5-6=-1061/9986
 WEBS 3-7=-1028/9039, 4-7=-3698/537, 4-6=-420/3967, 2-7=-3698/536, 2-8=-419/3967

NOTES-

- 3-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: 2x6 - 2 rows staggered at 0-4-0 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 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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=1045, 5=1045.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-3=-60, 3-5=-60, 9-12=-875(F=-855)



May 16, 2024

Job MP31	Truss P01G	Truss Type GABLE	Qty 2	Ply 1	DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE 165579206
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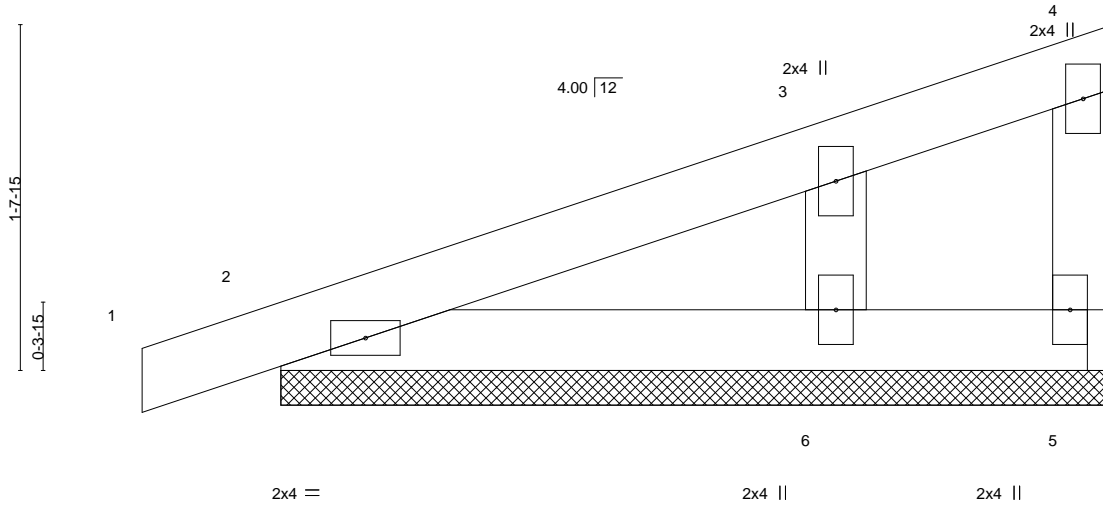
Apex, NC - 27523,

8.630 s Apr 26 2024 MiTek Industries, Inc. Tue May 14 15:34:48 2024 Page 1

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Scale = 1:11.1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 16 lb	FT = 20%

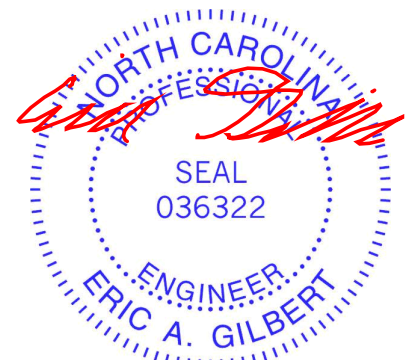
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=4-0-0, 5=4-0-0, 6=4-0-0
Max Horz 2=52(LC 9)
Max Uplift 2=-30(LC 8), 5=-4(LC 11), 6=-33(LC 12)
Max Grav 2=134(LC 1), 5=7(LC 1), 6=208(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; 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
 - 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) Gable requires continuous bottom chord bearing.
 - 4) Gable studs spaced at 1-4-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5, 6.



May 16, 2024

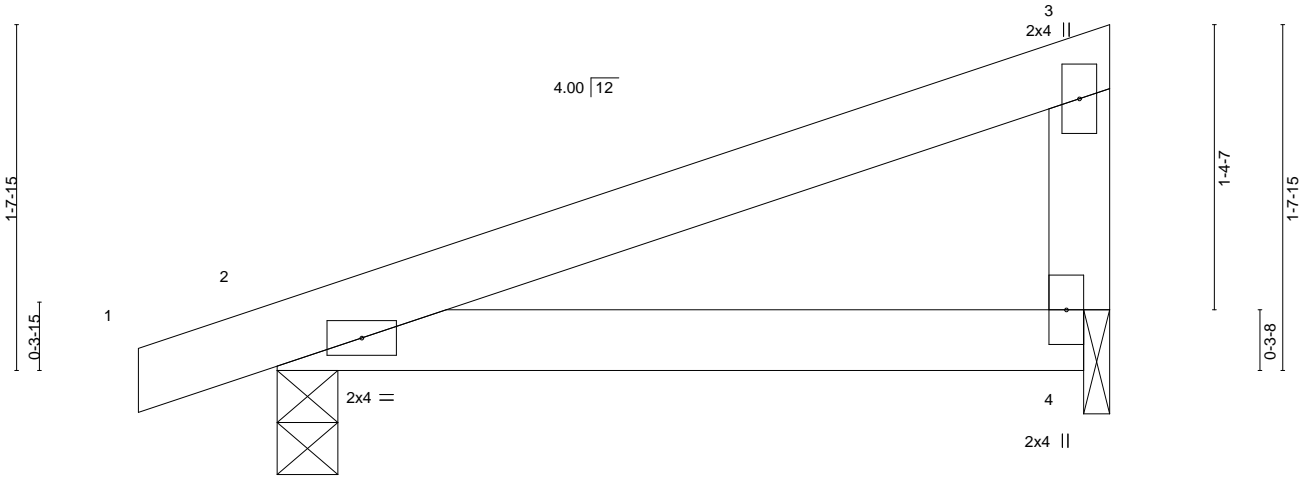
Job MP31	Truss P02	Truss Type MONO TRUSS	Qty 8	Ply 1	DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE 165579207
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Apr 26 2024 MiTek Industries, Inc. Tue May 14 15:34:48 2024 Page 1

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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	-0.01	4-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.02	4-7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP	Wind(LL)	0.01	4-7	>999	240		
									Weight: 15 lb	FT = 20%

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

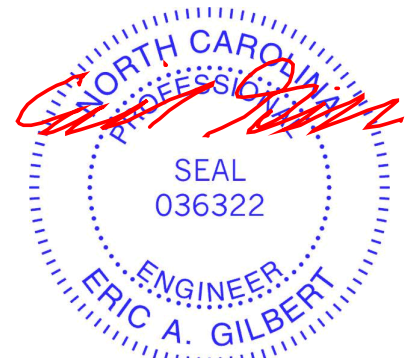
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 4=0-1-8
 Max Horz 2=52(LC 11)
 Max Uplift 2=39(LC 8), 4=21(LC 12)
 Max Grav 2=198(LC 1), 4=151(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TC DL=6.0psf; BC DL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * 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.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



May 16, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

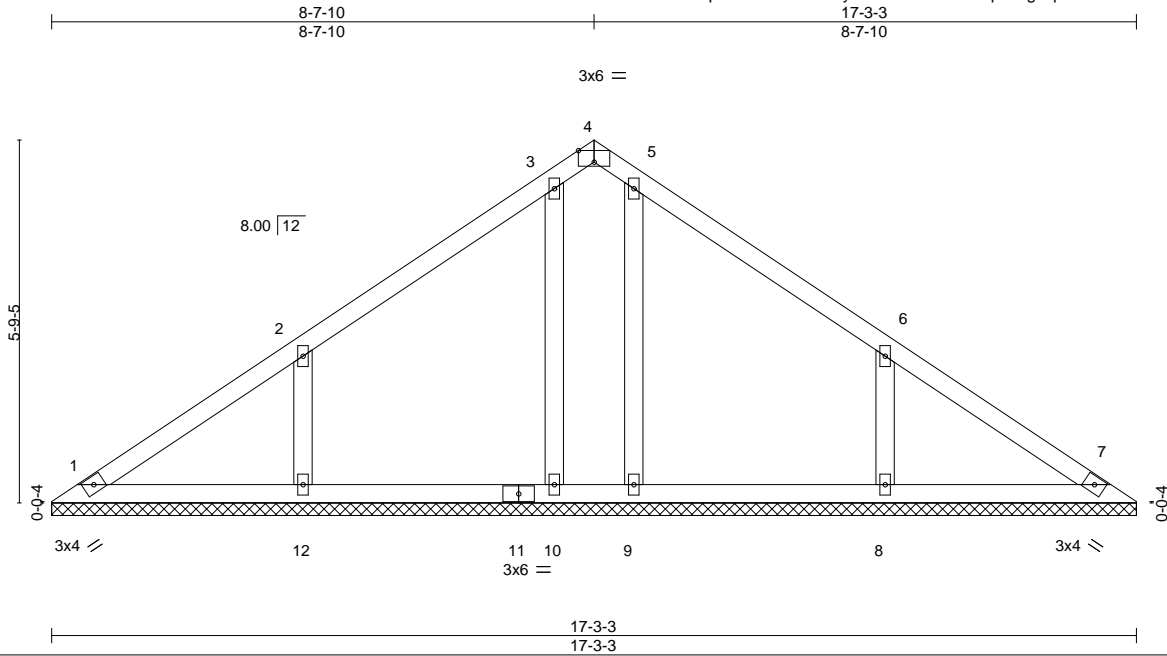
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road
 Edenton, NC 27932

Job MP31	Truss V01	Truss Type GABLE	Qty 1	Ply 1	DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE 165579208
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Apr 26 2024 MiTek Industries, Inc. Tue May 14 15:34:49 2024 Page 1
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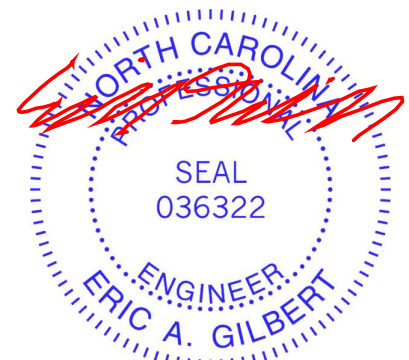
Plate Offsets (X,Y)--	[4:0-3-0,Edge]						
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.36	Vert(LL)	n/a	-	n/a 999
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	n/a	-	n/a 999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	7	n/a n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S				
							PLATES MT20
							GRIP 244/190
							Weight: 76 lb FT = 20%

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

REACTIONS. All bearings 17-3-3.
 (lb) - Max Horz 1=-117(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 9, 10 except 8=-110(LC 13), 12=-109(LC 12)
 Max Grav All reactions 250 lb or less at joint(s) 1, 7, 9, 10 except 8=365(LC 20), 12=364(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 6-8=-272/157, 2-12=-271/156

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-5-6 to 5-3-0, Exterior(2) 5-3-0 to 8-7-10, Corner(3) 8-7-10 to 13-3-3, Exterior(2) 13-3-3 to 16-9-13 zone; cantilever left and right exposed ; 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) 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) All plates are 2x4 MT20 unless otherwise indicated.
 - 5) Gable requires continuous bottom chord bearing.
 - 6) Gable studs spaced at 4-0-0 oc.
 - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 10 except (jt=lb) 8=110, 12=109.



May 16, 2024

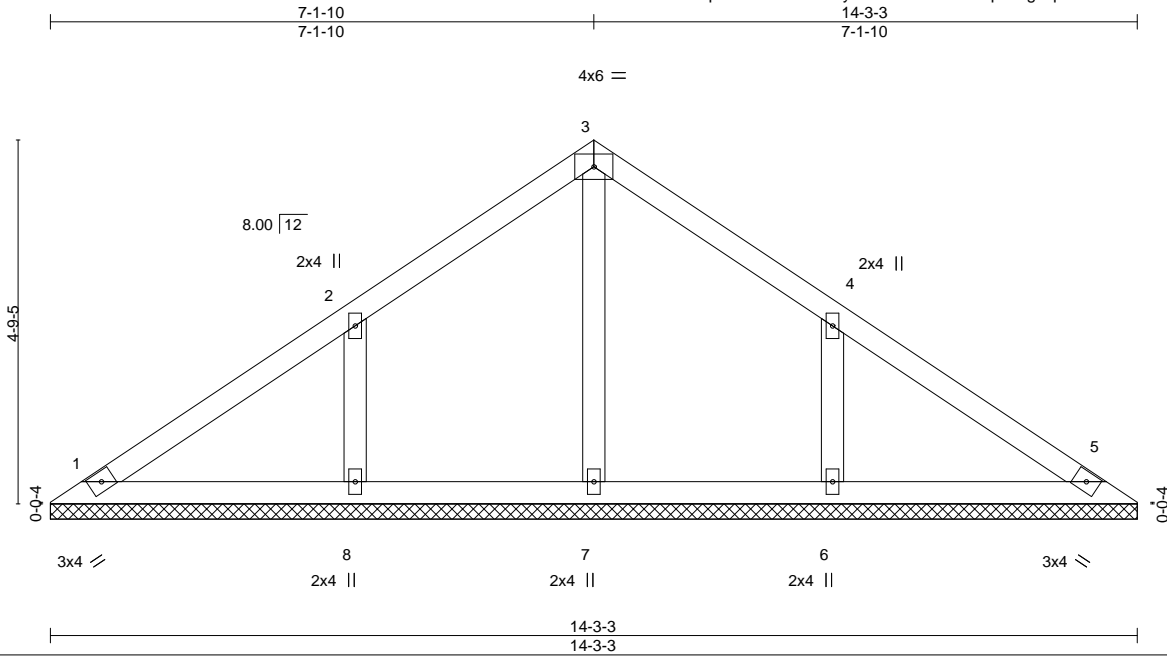
Job MP31	Truss V02	Truss Type GABLE	Qty 1	Ply 1	DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE 165579209
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	n/a	-	n/a	MT20	244/190
BCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 58 lb	FT = 20%

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

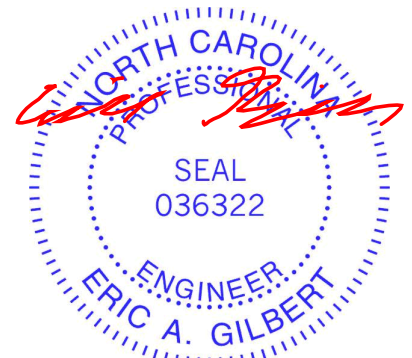
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 14-3-3.
 (lb) - Max Horz 1=96(LC 9)
 Max Uplift All uplift 100 lb or less at joint(s) 1 except 6=101(LC 13), 8=101(LC 12)
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 6=335(LC 20), 8=335(LC 19)

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 7-10; Vult=120mph Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-5-6 to 5-3-0, Exterior(2) 5-3-0 to 7-1-10, Corner(3) 7-1-10 to 11-11-3, Exterior(2) 11-11-3 to 13-9-13 zone; cantilever left and right exposed; 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) 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) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 4-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 6=101, 8=101.



May 16, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road
 Edenton, NC 27932

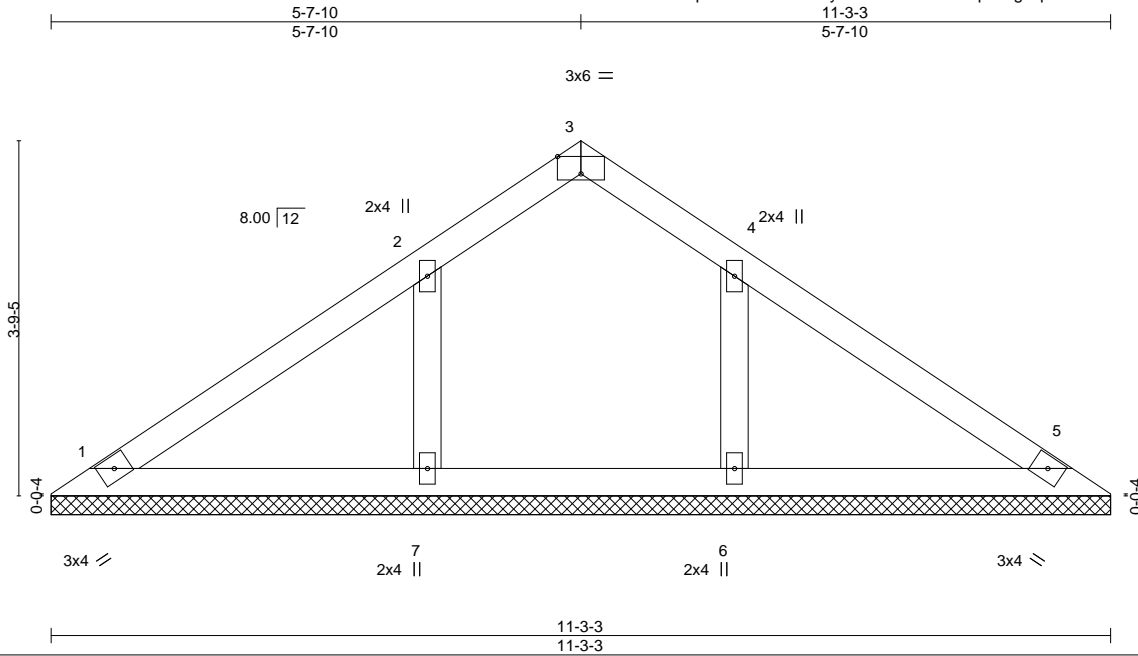
Job MP31	Truss V03	Truss Type GABLE	Qty 1	Ply 1	DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE 165579210
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Apr 26 2024 MiTek Industries, Inc. Tue May 14 15:34:50 2024 Page 1

ID:VULCYJU7zpRLimSP7MPFxFytf?FT-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:24.5

Plate Offsets (X,Y)--	[3:0-3:0,Edge]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 42 lb	FT = 20%

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

REACTIONS. All bearings 11-3-3.
 (lb) - Max Horz 1=74(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 6, 7
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=303(LC 20), 7=306(LC 19)

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 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-5-6 to 5-3-0, Exterior(2) 5-3-0 to 5-7-10, Corner(3) 5-7-10 to 10-5-3, Exterior(2) 10-5-3 to 10-9-13 zone; cantilever left and right exposed; 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
 - 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.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 4-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 7.



May 16, 2024

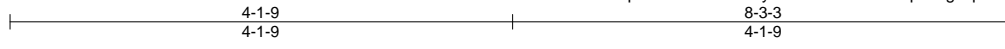
Job MP31	Truss V04	Truss Type GABLE	Qty 1	Ply 1	DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE 165579211
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

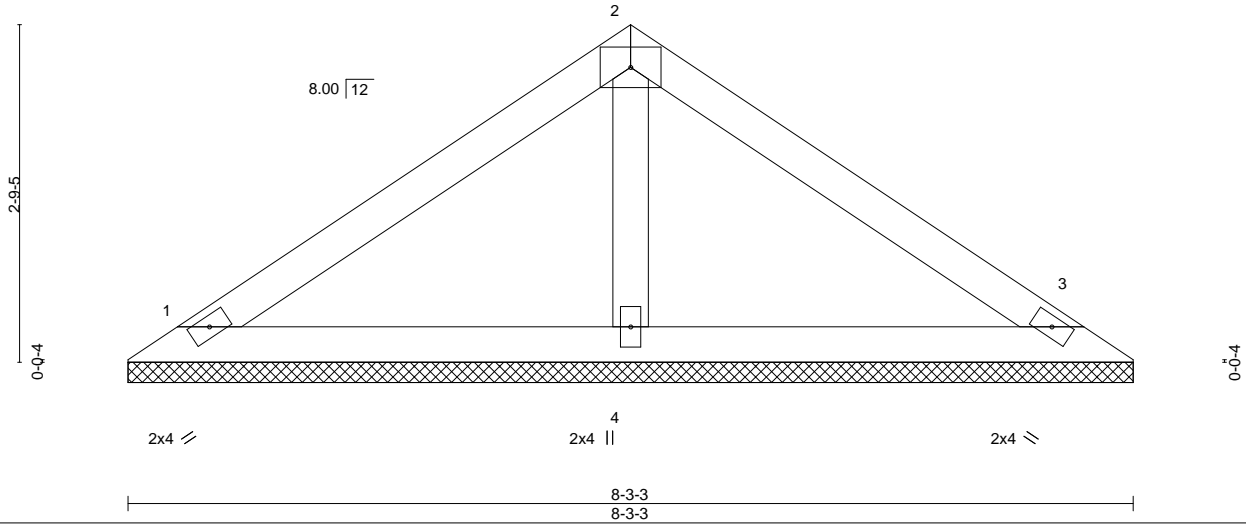
8.630 s Apr 26 2024 MiTek Industries, Inc. Tue May 14 15:34:50 2024 Page 1

ID:VULCYJU7zpRLimSP7MPFxFytf?IT-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



4x6 =

Scale = 1:18.9



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.31	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.23	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 29 lb	FT = 20%
	Code IRC2015/TPI2014							

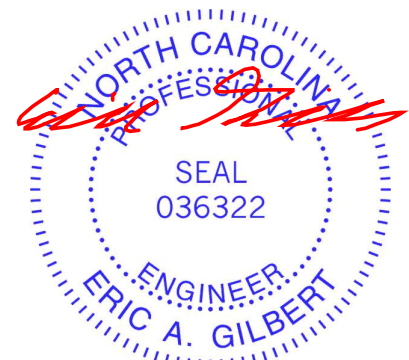
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.3	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

REACTIONS. (size) 1=8-3-3, 3=8-3-3, 4=8-3-3
 Max Horz 1=-53(LC 8)
 Max Uplift 1=-18(LC 12), 3=-25(LC 13)
 Max Grav 1=144(LC 1), 3=144(LC 1), 4=302(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 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; 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) 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) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



May 16, 2024

Job MP31	Truss V05	Truss Type GABLE	Qty 1	Ply 1	DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE 165579212
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

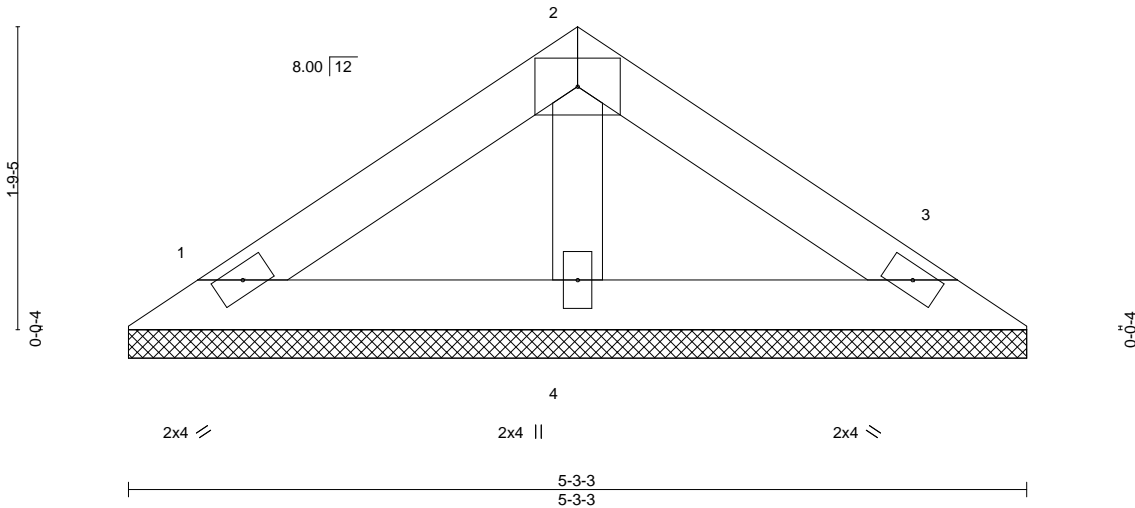
8.630 s Apr 26 2024 MiTek Industries, Inc. Tue May 14 15:34:51 2024 Page 1

ID:VULCYJU7zpRLimSP7MPFXTyf?IT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



4x6 =

Scale = 1:13.5



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.14	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.08	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.02	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						
	Code IRC2015/TPI2014						Weight: 17 lb	FT = 20%

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

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

REACTIONS. (size) 1=5-3-3, 3=5-3-3, 4=5-3-3
 Max Horz 1=31(LC 11)
 Max Uplift 1=15(LC 12), 3=19(LC 13)
 Max Grav 1=93(LC 1), 3=93(LC 1), 4=162(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 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed; 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) 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) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



May 16, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road
 Edenton, NC 27932

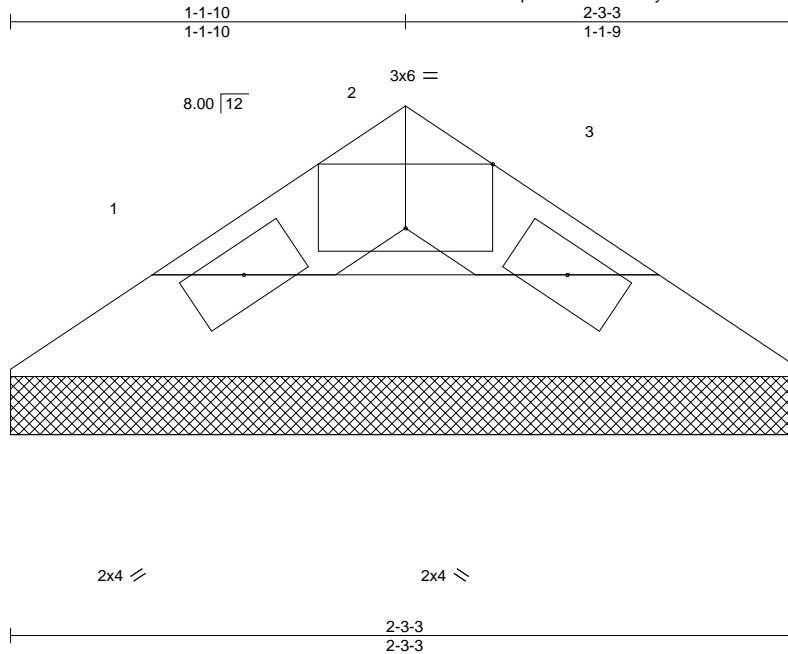
Job MP31	Truss V06	Truss Type GABLE	Qty 1	Ply 1	DRHORTON/WILMINGTON; LOT 31 MCKAY PLACE 165579213 Job Reference (optional)
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.630 s Apr 26 2024 MiTek Industries, Inc. Tue May 14 15:34:51 2024 Page 1

ID:VULCYJU7zRpLimSP7MPFXTyf?IT-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:6.6

Plate Offsets (X,Y)-- [2:0-3-0,Edge]							
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.01	Vert(LL) n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.04	Vert(CT) n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P				Weight: 6 lb	FT = 20%

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

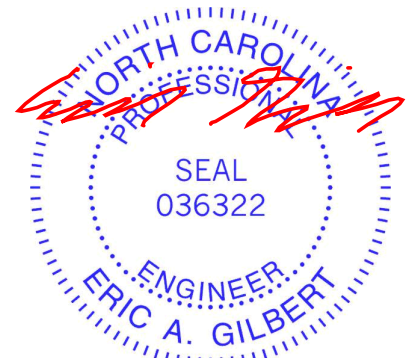
BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-3-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=2-3-3, 3=2-3-3
Max Horz 1=-10(LC 8)
Max Uplift 1=-3(LC 12), 3=-3(LC 13)
Max Grav 1=55(LC 1), 3=55(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 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed; 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) 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) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



May 16, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

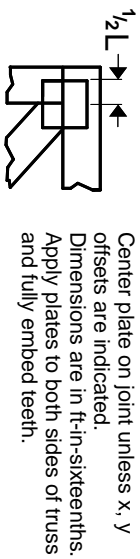
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



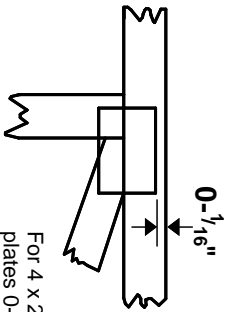
818 Soundside Road
Edenton, NC 27932

Symbols

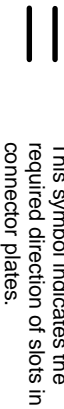
PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- 1/16\" from outside edge of truss.



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

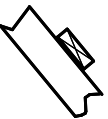
* Plate location details available in MITek software or upon request.

PLATE SIZE

4 X 4

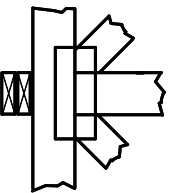
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

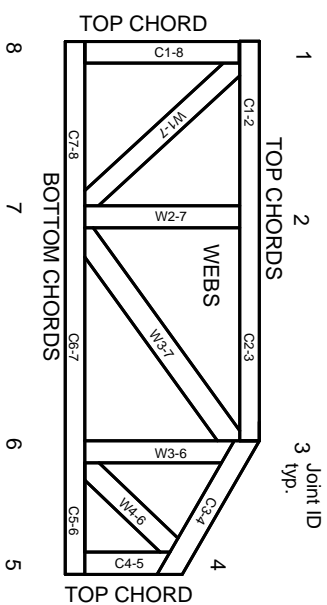


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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

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

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MITek

ENGINEERING BY
TRENGO
A MITek Affiliate

MITek Engineering Reference Sheet: MIL-7473 rev. 1/2/2023

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.