

Job	Truss	Truss Type	Qty	Ply	DAVIDSON HOMES/HICKORY
PERMIT2F	F20	FLOOR	18	1	163511254
Job Reference (optional)					

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

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Feb 7 17:26:21 2024 Page 1

ID:yHPdUBTUQoMxDEWNWC9?sczx5ku-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

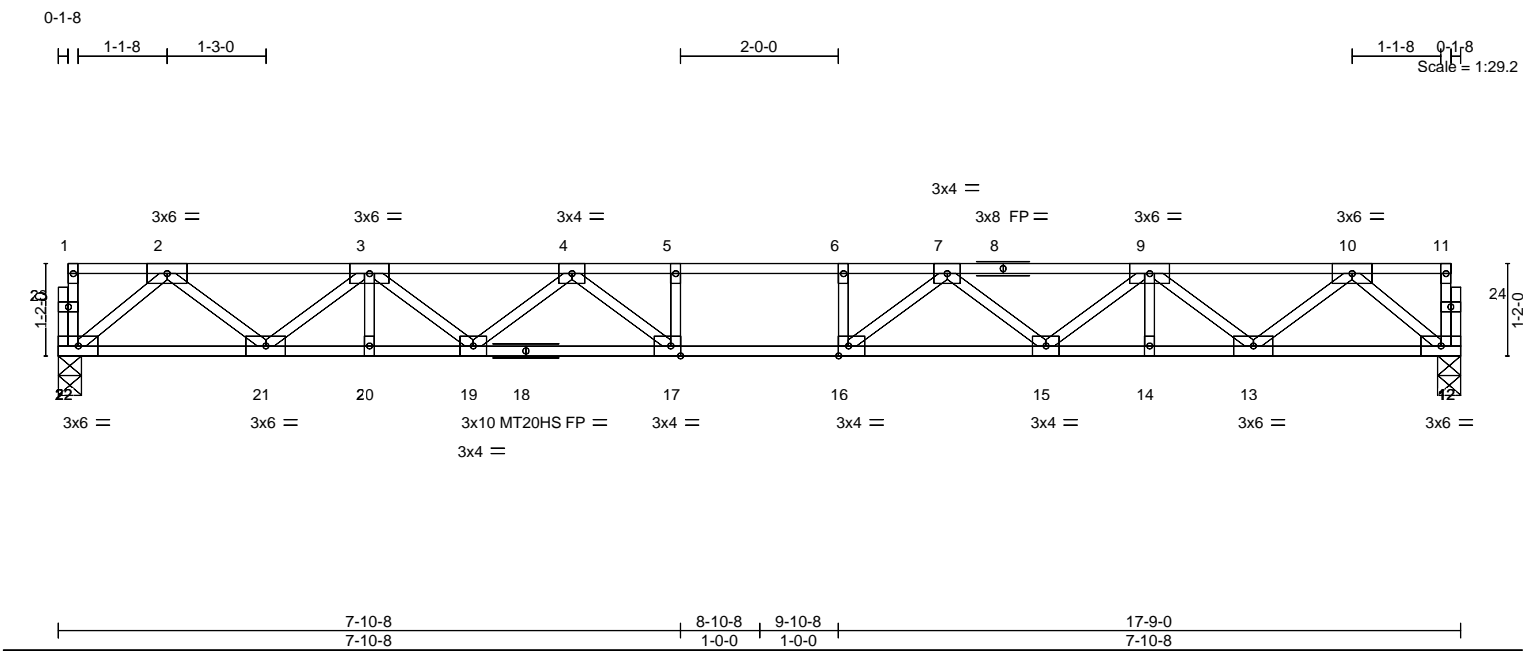


Plate Offsets (X,Y)--		[16:0-1-8,Edge], [17:0-1-8,Edge]	
LOADING (psf)		SPACING-	
TCLL 40.0		1-7-3	
TCDL 10.0		Plate Grip DOL 1.00	
BCLL 0.0		Lumber DOL 1.00	
BCDL 5.0		Rep Stress Incr YES	
		Code IRC2015/TPI2014	
		CSI.	
		TC 0.55	
		BC 0.94	
		WB 0.42	
		Matrix-S	
		DEFL.	
		in (loc) l/defl L/d	
		Vert(LL) -0.25 16-17 >841 480	
		Vert(CT) -0.34 16-17 >611 360	
		Horz(CT) 0.06 12 n/a n/a	
		PLATES GRIP	
		MT20 244/190	
		MT20HS 187/143	
		Weight: 90 lb FT = 20%F, 11%E	

LUMBER-		BRACING-	
TOP CHORD 2x4 SP No.2(flat)		TOP CHORD	
BOT CHORD 2x4 SP No.2(flat)		Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.	
WEBS 2x4 SP No.3(flat)		BOT CHORD	
		Rigid ceiling directly applied or 2-2-0 oc bracing.	

REACTIONS. (size) 22=0-3-8, 12=0-3-8
Max Grav 22=765(LC 1), 12=765(LC 1)

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

TOP CHORD 2-3=-1556/0, 3-4=-2642/0, 4-5=-3192/0, 5-6=-3192/0, 6-7=-3192/0, 7-9=-2642/0, 9-10=-1556/0

BOT CHORD 21-22=0/880, 20-21=0/2238, 19-20=0/2238, 17-19=0/3004, 16-17=0/3192, 15-16=0/3004, 14-15=0/2238, 13-14=0/2238, 12-13=0/880

WEBS 4-17=-68/514, 4-19=-471/0, 3-19=0/516, 3-21=-871/0, 2-21=0/880, 2-22=-1143/0, 7-16=-68/514, 7-15=-471/0, 9-15=0/516, 9-13=-871/0, 10-13=0/880, 10-12=-1143/0

NOTES-

1) Unbalanced floor live loads have been considered for this design.

2) All plates are MT20 plates unless otherwise indicated.

3) All plates are 1.5x3 MT20 unless otherwise indicated.

4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

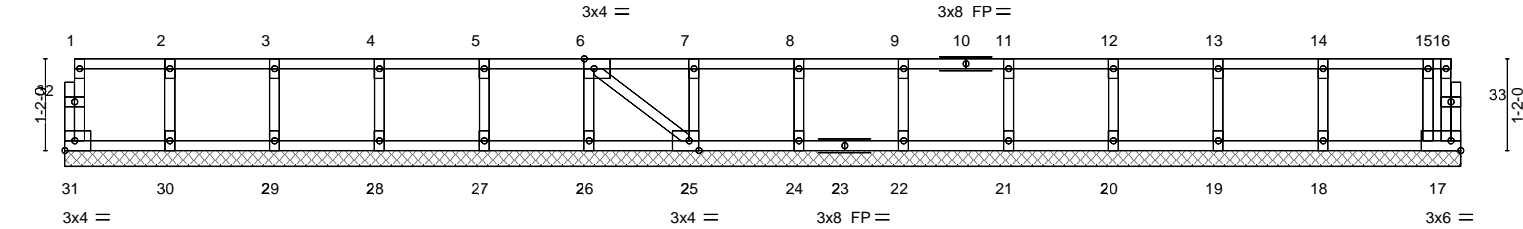


February 9,2024

Job	Truss	Truss Type	Qty	Ply	DAVIDSON HOMES/HICKORY
PERMIT2F	F20L	GABLE	2	1	163511255
Job Reference (optional)					

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Feb 7 17:26:22 2024 Page 1
ID:yHPdUBTUQoMxDEWNWC9?sczx5ku-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

0-1-8 0-1-8
Scale = 1:29.3



1-4-0 2-8-0 4-0-0 5-4-0 6-8-0 8-0-0 9-4-0 10-8-0 12-0-0 13-4-0 14-8-0 16-0-0 17-4-0 17-9-0																
1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 0-5-0																
Plate Offsets (X,Y)-- [6:0-1-8,Edge], [25:0-1-8,Edge]																
LOADING (psf)		SPACING-1-7-3		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP						
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190				
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(CT)	n/a	-	n/a	999						
BCLL	0.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.00	17	n/a	n/a						
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 77 lb	FT = 20%F, 11%E				

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

REACTIONS. All bearings 17-9-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 31, 17, 30, 29, 28, 27, 26, 25, 24, 22, 21, 20, 19, 18

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

- NOTES-
- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
 - 2) Gable requires continuous bottom chord bearing.
 - 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - 4) Gable studs spaced at 1-4-0 oc.
 - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



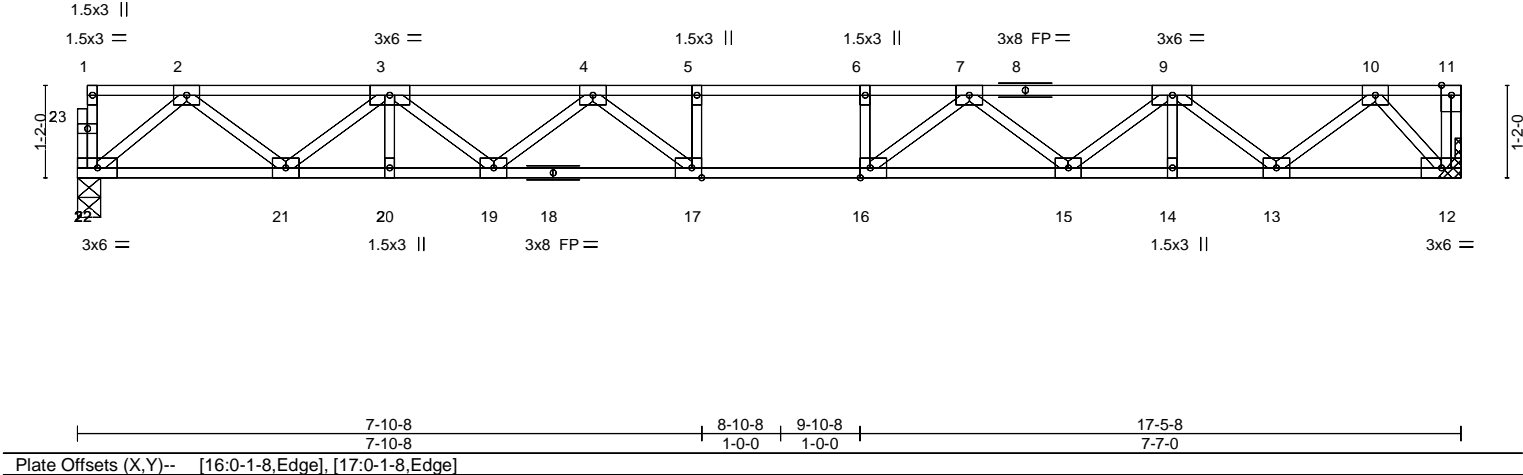
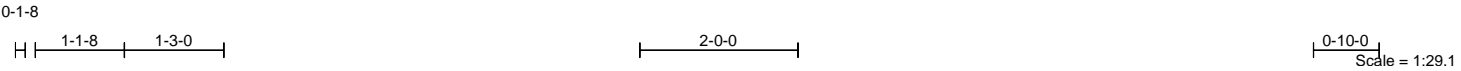
February 9,2024

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.sbcacompnents.com)

ENGINEERING BY
TRENCO
A MITEK COMPANY
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	DAVIDSON HOMES/HICKORY
PERMIT2F	F21	FLOOR	3	1	I63511256
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Feb 7 17:26:24 2024 Page 1
ID:yHPdUBTUQoMxDEWNWC9?sczx5ku-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWCDoi7J4zJC?f



LOADING (psf)	SPACING-	1-4-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.47	Vert(LL)	-0.20	17	>999	480	MT20
TCDL 10.0	Lumber DOL	1.00	BC 0.79	Vert(CT)	-0.27	17	>762	360	244/190
BCLL 0.0	Rep Stress Incr	YES	WB 0.36	Horz(CT)	0.05	12	n/a	n/a	
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
					Weight: 89 lb		FT = 20%F, 11%E		

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2(flat)	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2(flat)	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3(flat)		

REACTIONS. (size) 22=0-3-8, 12=Mechanical
Max Grav 22=627(LC 1), 12=631(LC 1)

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

TOP CHORD 2-3=-1272/0, 3-4=-2153/0, 4-5=-2573/0, 5-6=-2573/0, 6-7=-2573/0, 7-9=-2075/0, 9-10=-1144/0

BOT CHORD 21-22=0/721, 20-21=0/1827, 19-20=0/1827, 17-19=0/2439, 16-17=0/2573, 15-16=0/2392, 14-15=0/1727, 13-14=0/1727, 12-13=0/569

WEBS 4-17=-72/403, 4-19=-373/0, 3-19=0/416, 3-21=-709/0, 2-21=0/717, 2-22=-937/0, 7-16=-31/444, 7-15=-412/0, 9-15=0/444, 9-13=-745/0, 10-13=0/749, 10-12=-840/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) All plates are 3x4 MT20 unless otherwise indicated.
 - 3) Refer to girder(s) for truss to truss connections.
 - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
 - 5) CAUTION, Do not erect truss backwards.



February 9,2024

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

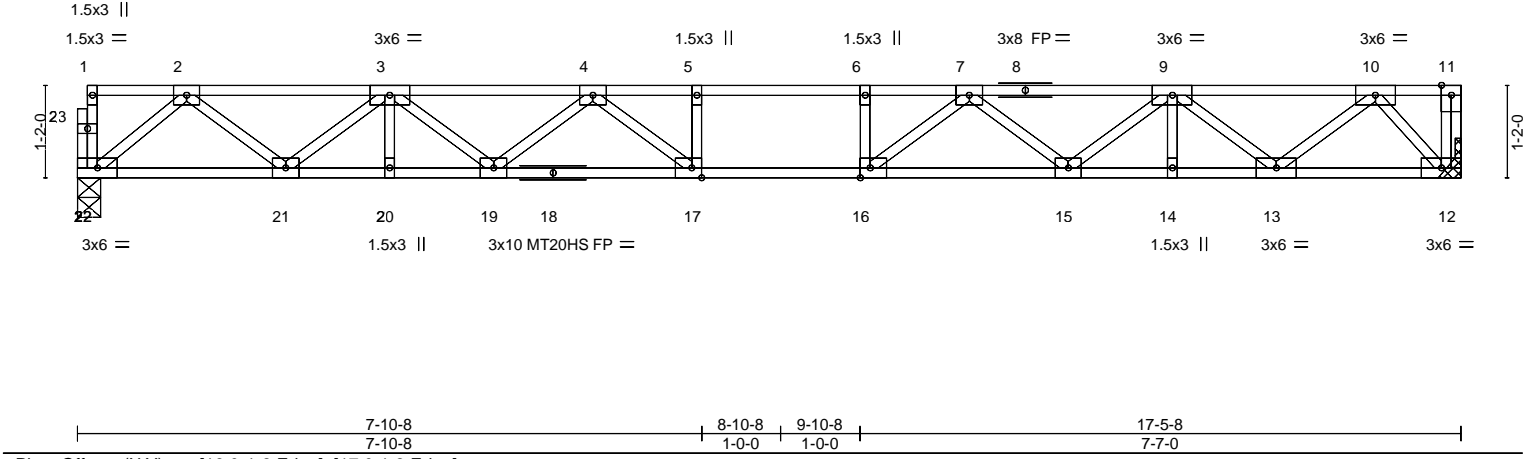
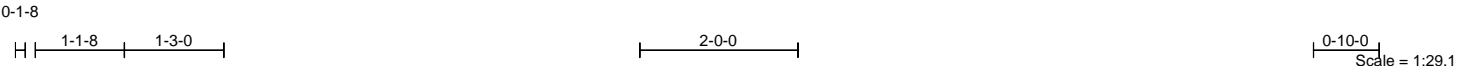
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

ENGINEERING BY
TRENCO
A MITEK COMPANY

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	DAVIDSON HOMES/HICKORY
PERMIT2F	F22	FLOOR	6	1	163511257
Job Reference (optional)					

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Feb 7 17:26:25 2024 Page 1
ID:yHPdUBTUQoMxDEWNWC9?sczx5ku-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 40.0	1-7-3	TC 0.58	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.95	Vert(LL) -0.24 17 >873 480	MT20HS	187/143
BCLL 0.0	Lumber DOL 1.00	WB 0.43	Vert(CT) -0.33 17 >635 360		
BCDL 5.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.06 12 n/a n/a		
	Code IRC2015/TPI2014			Weight: 89 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 17-19,16-17.
WEBS 2x4 SP No.3(flat)	
REACTIONS.	
(size) 22=0-3-8, 12=Mechanical	
Max Grav 22=752(LC 1), 12=757(LC 1)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-1525/0, 3-4=-2582/0, 4-5=-3085/0, 5-6=-3085/0, 6-7=-3085/0, 7-9=-2488/0, 9-10=-1371/0
BOT CHORD	21-22=0/865, 20-21=0/2191, 19-20=0/2191, 17-19=0/2925, 16-17=0/3085, 15-16=0/2868, 14-15=0/2071, 13-14=0/2071, 12-13=0/682
WEBS	4-17=-87/483, 4-19=-447/0, 3-19=0/499, 3-21=-850/0, 2-21=0/860, 2-22=-1124/0, 7-16=-37/533, 7-15=-494/0, 9-15=0/532, 9-13=-894/0, 10-13=0/898, 10-12=-1007/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) All plates are MT20 plates unless otherwise indicated.
 - 3) All plates are 3x4 MT20 unless otherwise indicated.
 - 4) Refer to girder(s) for truss to truss connections.
 - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
 - 6) CAUTION, Do not erect truss backwards.



February 9,2024

Job	Truss	Truss Type	Qty	Ply	DAVIDSON HOMES/HICKORY
PERMIT2F	F23L	GABLE	1	1	I63511258
					Job Reference (optional)

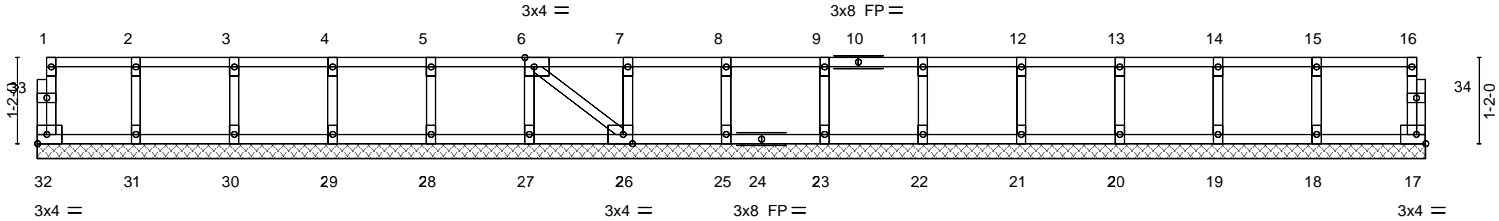
Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Feb 7 17:26:26 2024 Page 1
ID:yHPdUBTUQoMxDEWNWC9?sczx5ku-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWfCDoi7J4zJC?f

0-1-8
H

0-1-8
H

Scale = 1:31.2



1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	16-0-0	17-4-0	18-9-12
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-5-12
Plate Offsets (X,Y)-- [6:0-1-8,Edge], [26:0-1-8,Edge]													
LOADING (psf)		SPACING- 1-7-3		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190	
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999			
BCLL	0.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.00	17	n/a	n/a			
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 80 lb	FT = 20%F, 11%E	

LUMBER-

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

BRACING-

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

REACTIONS.

All bearings 18-9-12.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 32, 17, 31, 30, 29, 28, 27, 26, 25, 23, 22, 21, 20, 19, 18

FORCES.

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

NOTES-

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



February 9,2024

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.sbcacompnents.com)

ENGINEERING BY
TRENCO
A MITEK COMPANY

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	DAVIDSON HOMES/HICKORY
PERMIT2F	F24	FLOOR	6	1	163511259
Job Reference (optional)					

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Feb 7 17:26:27 2024 Page 1
ID:yHPdUBTUQoMxDEWNWC9?sczx5ku-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

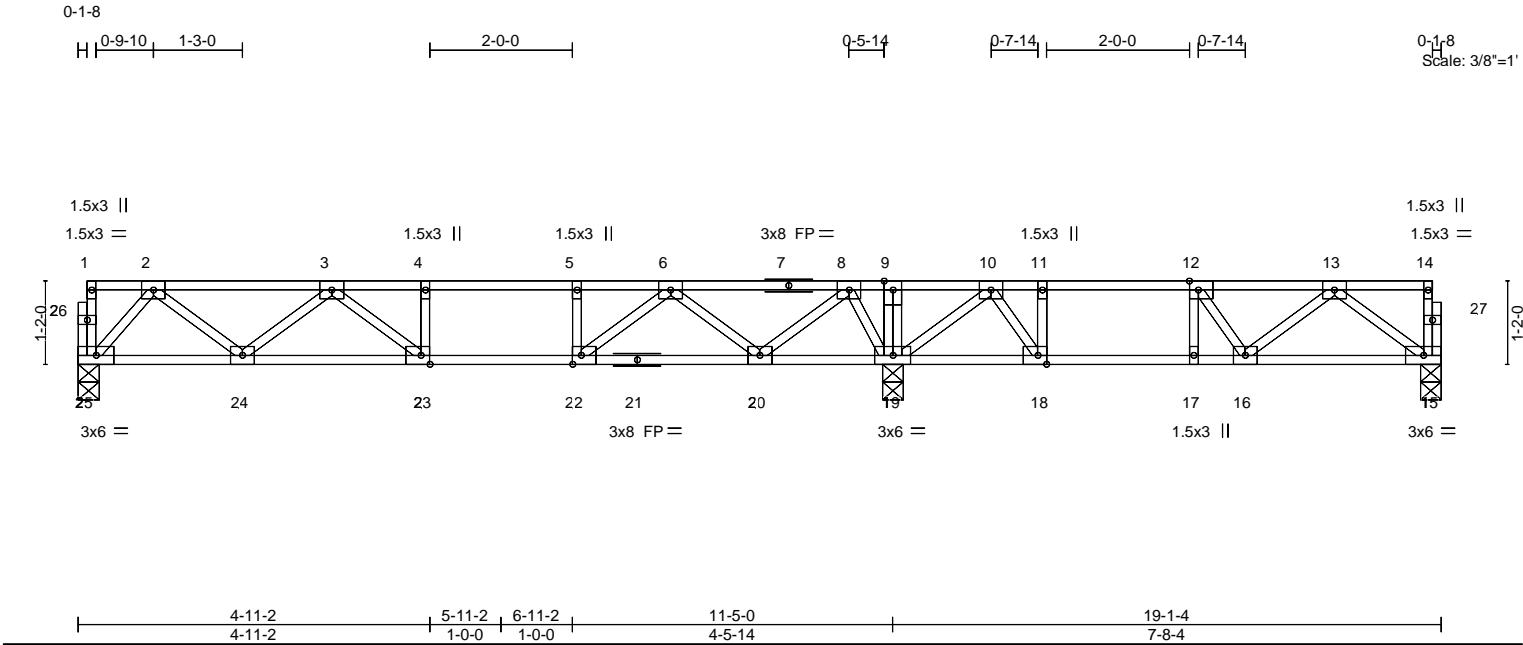


Plate Offsets (X,Y)--		[12:0-1-8,Edge], [18:0-1-8,Edge], [22:0-1-8,Edge], [23:0-1-8,Edge]	
LOADING (psf)	SPACING-	1-7-3	CSI.
TCLL 40.0	Plate Grip DOL	1.00	TC 0.42
TCDL 10.0	Lumber DOL	1.00	BC 0.48
BCLL 0.0	Rep Stress Incr	YES	WB 0.27
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S
		DEFL.	in (loc) l/defl L/d
		Vert(LL)	-0.07 23-24 >999 480
		Vert(CT)	-0.09 23-24 >999 360
		Horz(CT)	0.02 15 n/a n/a
		PLATES	GRIP
		MT20	244/190
		Weight: 97 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

REACTIONS. (size) 25=0-3-8, 15=0-3-8, 19=0-3-8
Max Grav 25=479(LC 10), 15=327(LC 7), 19=878(LC 1)

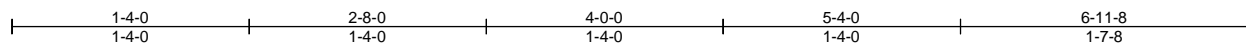
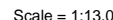
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-787/0, 3-4=-1243/0, 4-5=-1243/0, 5-6=-1243/0, 6-8=-598/0, 8-9=-17/323,
9-10=-16/324, 10-11=-562/2, 11-12=-562/2, 12-13=-529/0
BOT CHORD 24-25=0/425, 23-24=0/1117, 22-23=0/1243, 20-22=0/998, 18-19=-112/369, 17-18=-2/562,
16-17=-2/562, 15-16=0/382
WEBS 3-23=0/274, 3-24=-428/0, 2-24=0/472, 2-25=-639/0, 6-22=0/400, 6-20=-554/0,
8-20=0/566, 8-19=-638/0, 13-15=-476/0, 10-19=-525/0, 10-18=0/447, 11-18=-276/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x4 MT20 unless otherwise indicated.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails.
Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) CAUTION, Do not erect truss backwards.



February 9,2024

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Feb 7 17:26:28 2024 Page 1
ID:vHPdUBTUQoMxDEWNWC9?scsz5ku-RfC?PsB70Hq3NSaPanl8w3uITXbGKWrCDoi7J4zJC?f



LUMBER-

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

BRACING-

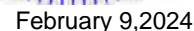
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 6-11-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 12, 7, 11, 10, 9, 8

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

NOTES-

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed on one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



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 Components Association (www.sbcacomponents.com)

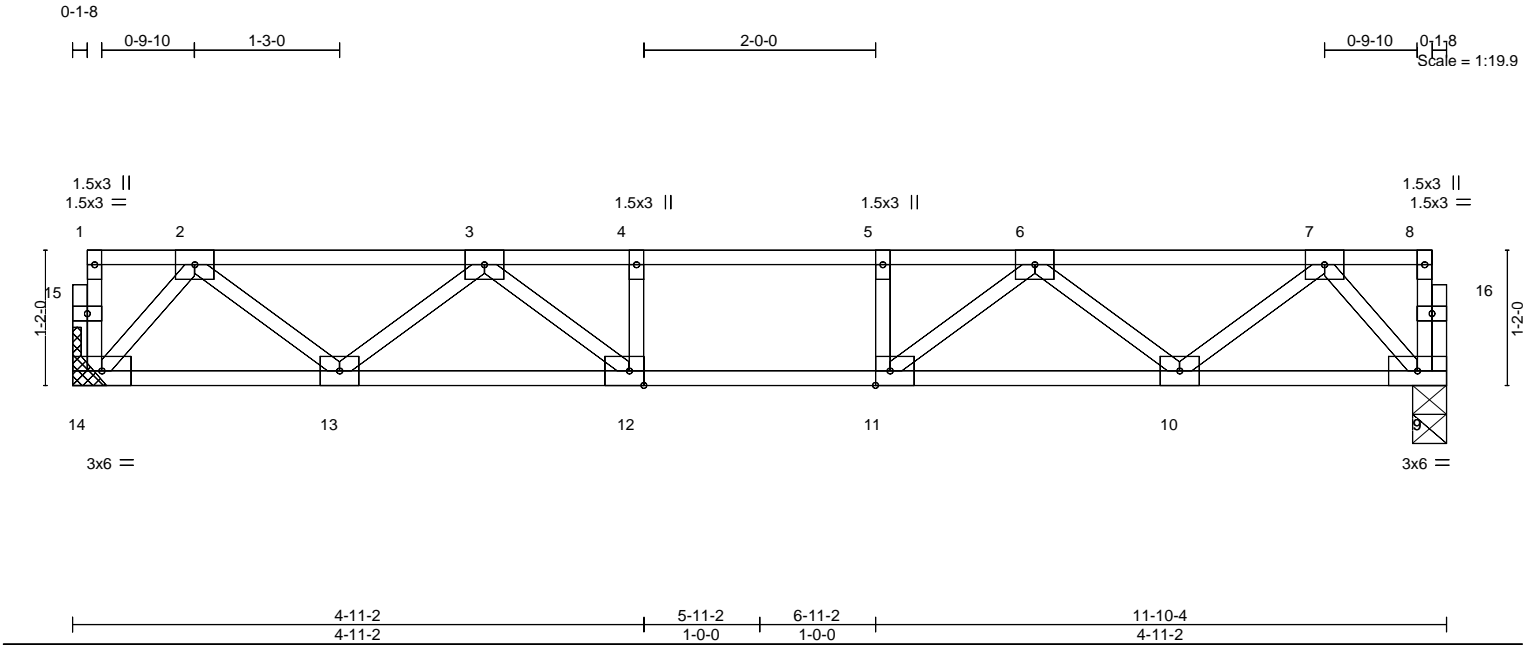


818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	DAVIDSON HOMES/HICKORY
PERMIT2F	F26	FLOOR	7	1	163511261
Job Reference (optional)					

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

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Feb 7 17:26:29 2024 Page 1
ID:yHPdUBTUQoMxDEWNWC9?sczx5ku-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



LOADING (psf)	SPACING-	1-7-3	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.35	Vert(LL)	-0.07 12-13	>999	480	MT20	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.45	Vert(CT)	-0.09 12-13	>999	360		
BCLL 0.0	Rep Stress Incr	YES	WB 0.24	Horz(CT)	0.02 9	n/a	n/a		
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S					Weight: 60 lb	FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

REACTIONS. (size) 14=Mechanical, 9=0-3-8
Max Grav 14=505(LC 1), 9=505(LC 1)

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

TOP CHORD 2-3=-839/0, 3-4=-1390/0, 4-5=-1390/0, 5-6=-1390/0, 6-7=-839/0

BOT CHORD 13-14=0/448, 12-13=0/1204, 11-12=0/1390, 10-11=0/1204, 9-10=0/448

WEBS 3-12=0/381, 3-13=-476/0, 2-13=0/509, 2-14=-674/0, 6-11=0/381, 6-10=-476/0, 7-10=0/509, 7-9=-674/0

NOTES-

1) Unbalanced floor live loads have been considered for this design.

2) All plates are 3x4 MT20 unless otherwise indicated.

3) Refer to girder(s) for truss to truss connections.

4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



February 9,2024

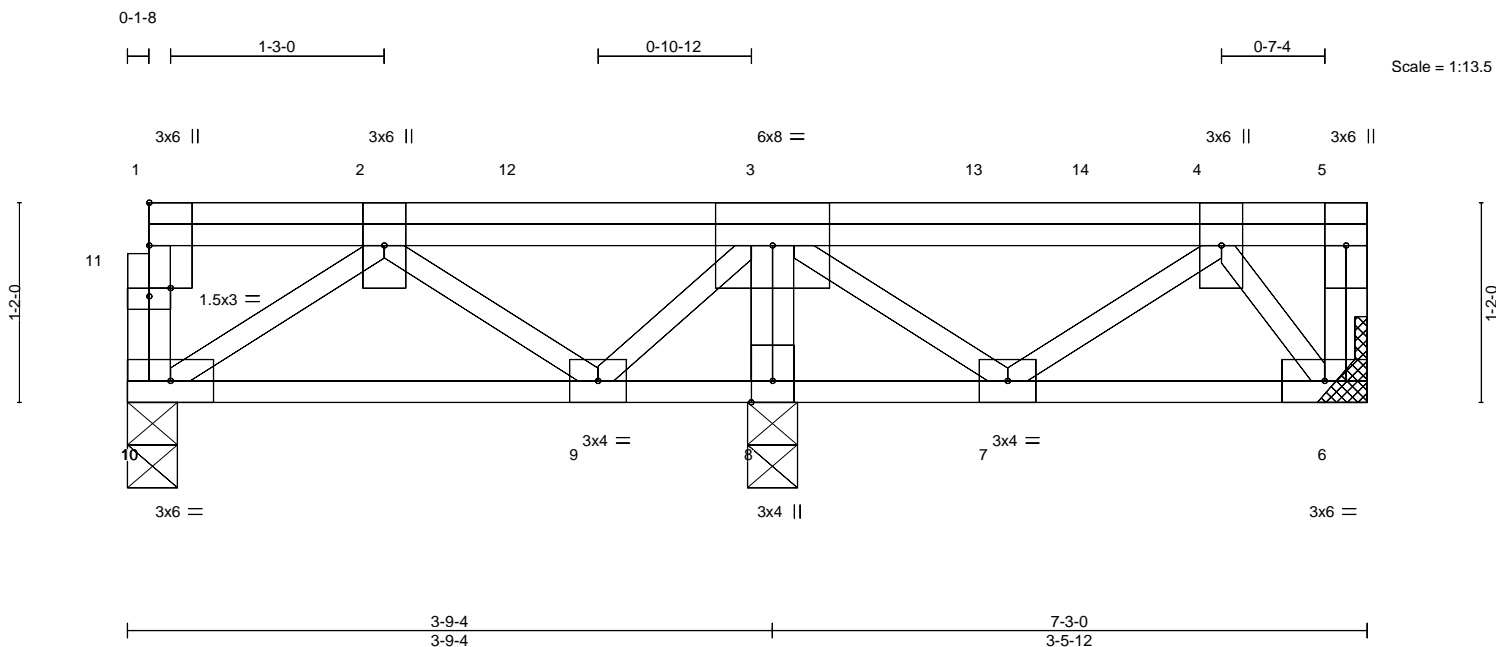


Plate Offsets (X,Y)-- [11:0-1-8,0-0-9]												
LOADING (psf)		SPACING- 1-7-3		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	40.0	Plate Grip DOL	1.00	TC	0.31	Vert(LL)	-0.00	10	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.23	Vert(CT)	-0.01	9-10	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.24	Horz(CT)	0.00	8	n/a	n/a		
BCDL	5.0	Code IRC2015/TPI2014		Matrix-S							Weight: 51 lb	FT = 20%F, 11%E

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2(flat)	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2(flat)	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
WEBS	2x4 SP No.3(flat)		

REACTIONS. (size) 10=0-3-8, 6=Mechanical, 8=0-3-8
Max Uplift 6=31(LC 3)
Max Grav 10=618(LC 3), 6=82(LC 4), 8=1006(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 BOT CHORD 9-10=0/651
 WEBS 3-8=-991/0, 2-10=-787/0, 2-9=-541/0, 3-9=0/502

NOTES-

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Refer to girder(s) for truss to truss connections.
- 3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 6.
- 4) Load case(s) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION. Do not erect truss backwards.

LOAD CASE(S) Standard

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 6-10=-8, 1-3=-380, 3-5=-80
- 2) Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 6-10=-8, 1-3=-380, 3-5=-80
- 3) 1st Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 6-10=-8, 1-3=-380, 3-5=-16
- 4) 2nd Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 6-10=-8, 1-3=-316, 3-5=-80
- 5) 3rd unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 6-10=-8, 1-3=-380, 3-5=-16



February 9, 2024

Continued on page 2



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 Components Association (www.sbcacomponents.com)



818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	DAVIDSON HOMES/HICKORY
PERMIT2F	F27	FLOOR	1	1	I63511262
					Job Reference (optional)

- LOAD CASE(S)** Standard
- 6) 4th unbalanced Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 6-10=-8, 1-3=-316, 3-5=-80
- 7) 1st chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 6-10=-8, 1-12=-380, 3-12=-316, 3-5=-80
- 8) 2nd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 6-10=-8, 1-2=-316, 2-3=-380, 3-5=-80
- 9) 3rd chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 6-10=-8, 1-3=-380, 3-14=-80, 5-14=-16
- 10) 4th chase Dead + Floor Live (unbalanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 6-10=-8, 1-3=-380, 3-13=-16, 5-13=-80
- 11) 5th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 6-10=-8, 1-12=-380, 3-12=-316, 3-5=-80
- 12) 6th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 6-10=-8, 1-2=-316, 2-3=-380, 3-5=-80
- 13) 7th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 6-10=-8, 1-3=-380, 3-14=-80, 5-14=-16
- 14) 8th chase Dead: Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 6-10=-8, 1-3=-380, 3-13=-16, 5-13=-80

 **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	Truss	Truss Type	Qty	Ply	DAVIDSON HOMES/HICKORY
PERMIT2F	F28	FLOOR	5	1	163511263
Job Reference (optional)					

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

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Feb 7 17:26:31 2024 Page 1

ID:yHPdUBTUQoMxDEWNWC9?sczx5ku-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrcDdoi7J4zJC?f

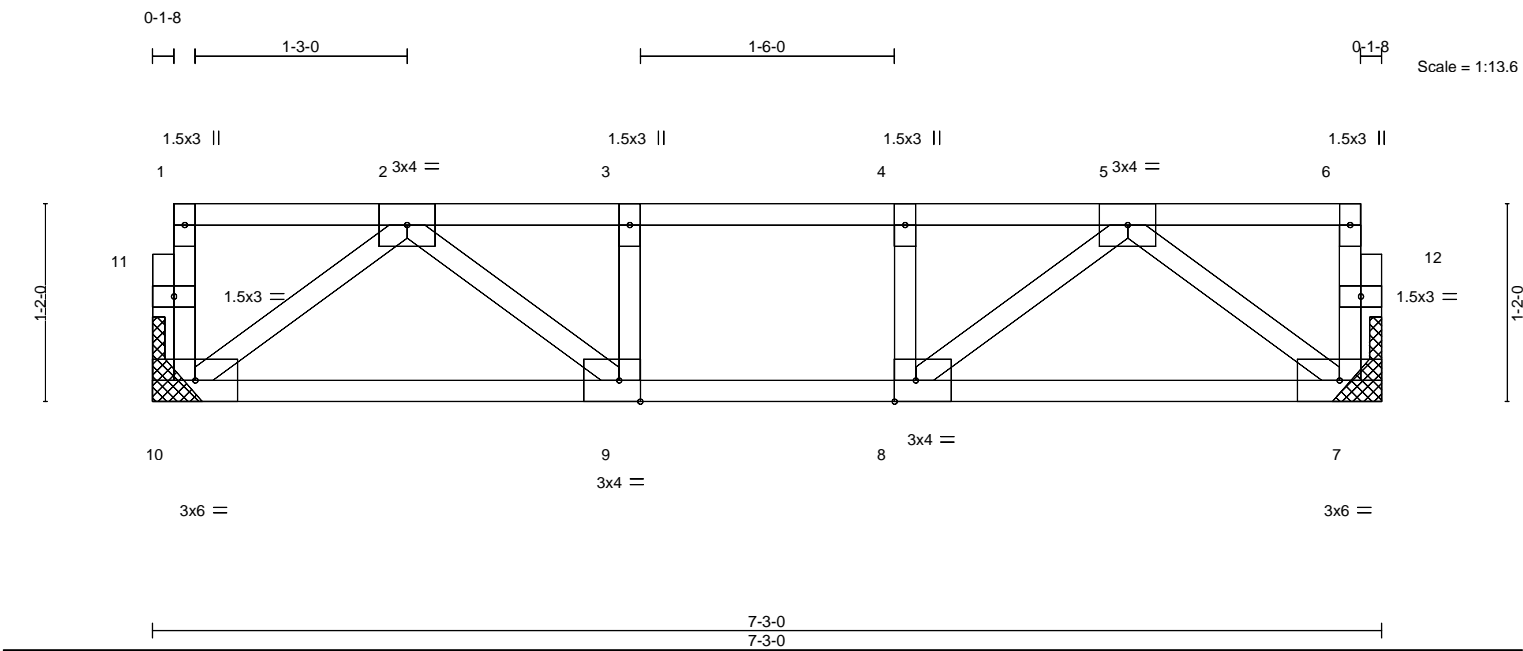


Plate Offsets (X,Y)--		[8:0-1-8,Edge], [9:0-1-8,Edge]		
LOADING (psf)	SPACING- 1-7-3	CSI.	DEFL. in (loc) l/defl L/d	PLATES GRIP
TCLL 40.0	Plate Grip DOL 1.00	TC 0.17	Vert(LL) -0.02 9-10 >999 480	MT20 244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.19	Vert(CT) -0.02 9-10 >999 360	
BCLL 0.0	Rep Stress Incr YES	WB 0.12	Horz(CT) 0.00 7 n/a n/a	
BCDL 5.0	Code IRC2015/TPI2014	Matrix-S		Weight: 38 lb FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

REACTIONS. (size) 10=Mechanical, 7=Mechanical
Max Grav 10=303(LC 1), 7=303(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-504/0, 3-4=-504/0, 4-5=-504/0
BOT CHORD 9-10=0/332, 8-9=0/504, 7-8=0/332
WEBS 5-7=-414/0, 2-10=-414/0, 5-8=0/250, 2-9=0/250

NOTES-

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Refer to girder(s) for truss to truss connections.
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

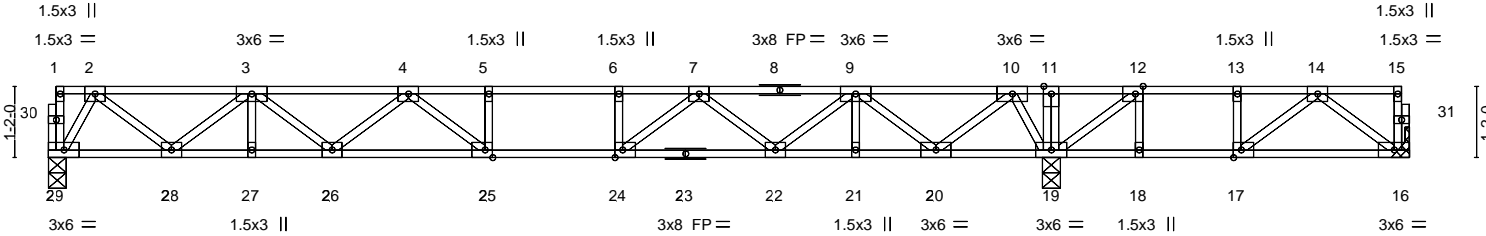


February 9,2024

Job	Truss	Truss Type	Qty	Ply	DAVIDSON HOMES/HICKORY
PERMIT2F	F32	FLOOR	2	1	163511264
Job Reference (optional)					

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

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Feb 7 17:26:32 2024 Page 1
ID:yHPdUBTUQoMxDEWNWC9?sczx5ku-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



7-3-2		8-3-2	9-3-2	16-4-12	22-3-0
7-3-2		1-0-0	1-0-0	7-1-10	5-10-4
Plate Offsets (X,Y)-- [12:0-1-8,Edge], [17:0-1-8,Edge], [24:0-1-8,Edge], [25:0-1-8,Edge]					
LOADING (psf)		SPACING-	CSI.	DEFL.	PLATES
TCLL	40.0	Plate Grip DOL	TC 0.91	in (loc)	MT20
TCDL	10.0	Lumber DOL	BC 0.86	l/defl	GRIP
BCLL	0.0	Rep Stress Incr	WB 0.47	L/d	244/190
BCDL	5.0	Code IRC2015/TPI2014	Matrix-S	Vert(LL) -0.18 25 >999 480	
				Vert(CT) -0.24 25-26 >800 360	
				Horz(CT) 0.04 19 n/a n/a	
				Weight: 115 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)

BRACING-

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

REACTIONS.

(size) 29=0-3-8, 16=Mechanical, 19=0-3-8
Max Uplift 16=101(LC 3)
Max Grav 29=658(LC 10), 16=214(LC 4), 19=1181(LC 1)

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

TOP CHORD 2-3=-1025/0, 3-4=-1991/0, 4-5=-2351/0, 5-6=-2351/0, 6-7=-2351/0, 7-9=-1610/0, 9-10=-406/0, 10-11=0/973, 11-12=0/972, 12-13=-213/467, 13-14=-213/467
BOT CHORD 28-29=0/417, 27-28=0/1639, 26-27=0/1639, 25-26=0/2279, 24-25=0/2351, 22-24=0/2045, 21-22=0/1151, 20-21=0/1151, 19-20=-455/0, 18-19=-467/213, 17-18=-467/213
WEBS 4-25=-111/344, 4-26=-376/0, 3-26=0/449, 3-28=-784/0, 2-28=0/792, 2-29=-804/0, 7-24=0/557, 7-22=-581/0, 9-22=0/595, 9-20=-968/0, 10-20=0/977, 10-19=-1000/0, 14-16=-265/202, 12-19=-857/0, 14-17=-390/0

NOTES-

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x4 MT20 unless otherwise indicated.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 101 lb uplift at joint 16.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION, Do not erect truss backwards.



February 9, 2024

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

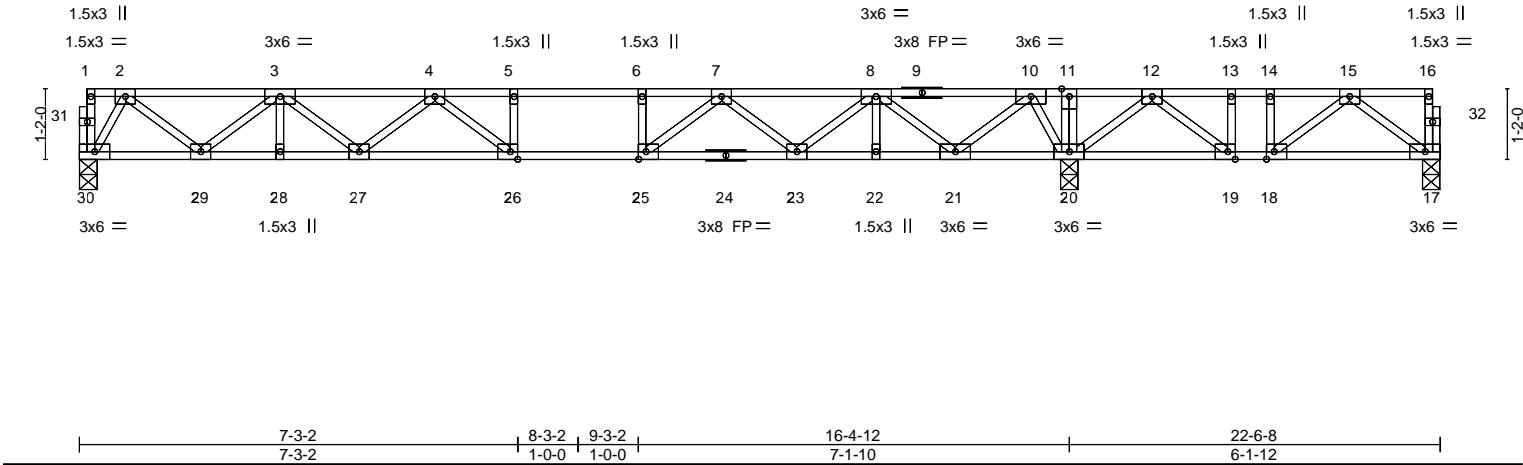
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

ENGINEERING BY
TRENCO
A MITEK COMPANY

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	DAVIDSON HOMES/HICKORY
PERMIT2F	F33	FLOOR	7	1	163511265
Job Reference (optional)					

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Feb 7 17:26:34 2024 Page 1
ID:yHPdUBTUQoMxDEWNWC9?sczx5ku-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



LOADING (psf)	SPACING-	1-7-3	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.00	TC 0.73	Vert(LL)	-0.17	26-27	>999	480	244/190
TCDL 10.0	Lumber DOL	1.00	BC 0.90	Vert(CT)	-0.24	26-27	>814	360	
BCLL 0.0	Rep Stress Incr	YES	WB 0.49	Horz(CT)	0.03	20	n/a	n/a	
BCDL 5.0	Code IRC2015/TPI2014		Matrix-S						
Weight: 118 lb									FT = 20%F, 11%E

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2(flat)	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2(flat)	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3(flat)	

REACTIONS. (size) 30=0-3-8, 17=0-3-8, 20=0-3-8
Max Uplift 17=-187(LC 3)
Max Grav 30=616(LC 3), 17=177(LC 4), 20=1345(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-949/0, 3-4=-1817/0, 4-5=-2024/0, 5-6=-2024/0, 6-7=-2024/0, 7-8=-1131/0, 8-10=0/290, 10-11=0/1516, 11-12=0/1518, 12-13=-148/632, 13-14=-148/632, 14-15=-148/632
BOT CHORD 29-30=0/392, 28-29=0/1508, 27-28=0/1508, 26-27=0/2047, 25-26=0/2024, 23-25=0/1625, 22-23=0/632, 21-22=0/632, 20-21=-1016/0, 19-20=-1074/0, 18-19=-632/148, 17-18=-268/169
WEBS 6-25=-279/0, 4-27=-299/0, 3-27=0/395, 3-29=-714/0, 2-29=0/726, 2-30=-756/0, 7-25=0/633, 7-23=-649/0, 8-23=0/641, 8-21=-1038/0, 10-21=0/1031, 10-20=-955/0, 15-17=-209/336, 12-20=-761/0, 15-18=-465/0, 12-19=0/680, 13-19=-303/0

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) All plates are 3x4 MT20 unless otherwise indicated.
 - 3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 187 lb uplift at joint 17.
 - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
 - 5) CAUTION, Do not erect truss backwards.



February 9,2024

Job	Truss	Truss Type	Qty	Ply	DAVIDSON HOMES/HICKORY
PERMIT2F	F34L	GABLE	1	1	163511266
Job Reference (optional)					

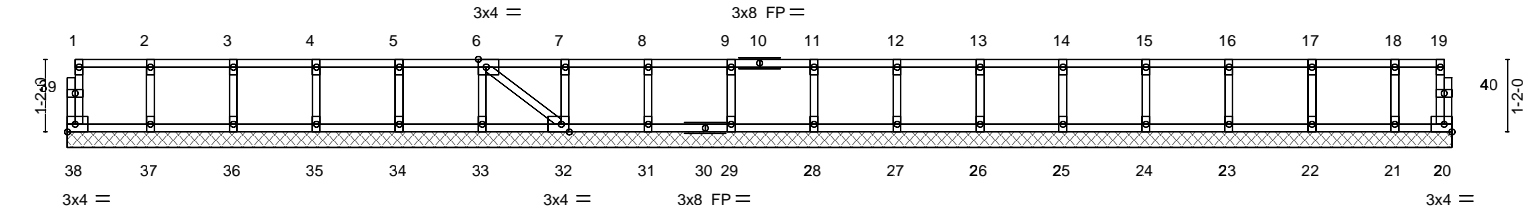
Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Feb 7 17:26:35 2024 Page 1
ID:yHPdUBTUQoMxDEWNWC9?sczx5ku-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrdDoi7J4zJC?f

0-1/8

0-1/8

Scale = 1:37.0



1-4-0 2-8-0 4-0-0 5-4-0 6-8-0 8-0-0 9-4-0 10-8-0 12-0-0 13-4-0 14-8-0 16-0-0 17-4-0 18-8-0 20-0-0 21-4-0 22-3-0		1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 1-4-0 0-11-0	
Plate Offsets (X,Y)--		[6:0-1-8,Edge], [32:0-1-8,Edge]	
LOADING (psf)	SPACING-	1-7-3	CSI.
TCLL 40.0	Plate Grip DOL	1.00	TC 0.07
TCDL 10.0	Lumber DOL	1.00	BC 0.01
BCLL 0.0	Rep Stress Incr	NO	WB 0.03
BCDL 5.0	Code IRC2015/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 20 n/a n/a
			PLATES GRIP
			MT20 244/190
			Weight: 95 lb FT = 20%F, 11%E

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

REACTIONS. All bearings 22-3-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 38, 20, 37, 36, 35, 34, 33, 32, 31, 29, 28, 27, 26, 25, 24, 23, 22, 21

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

NOTES-

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 4) Gable studs spaced at 1-4-0 oc.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



February 9,2024

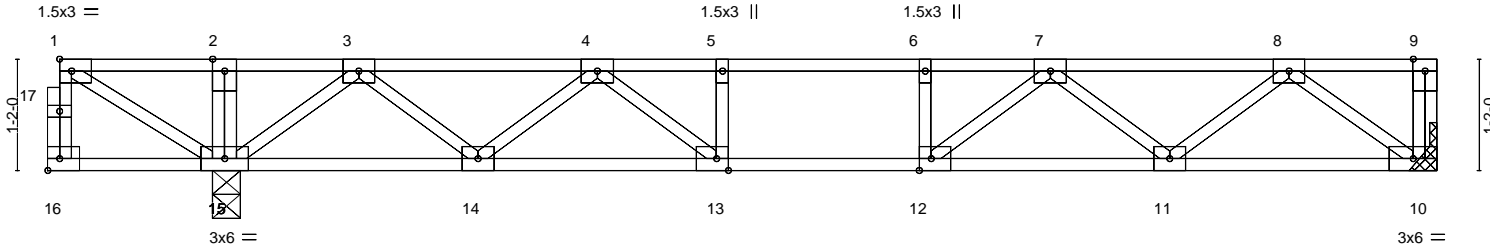
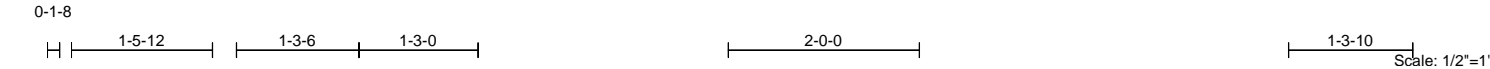
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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)

ENGINEERING BY
TRENCO
A MITEK COMPANY
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	DAVIDSON HOMES/HICKORY
PERMIT2F	F36	FLOOR	5	1	163511268

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

8.630 s Aug 30 2023 MiTek Industries, Inc. Wed Feb 7 17:26:37 2024 Page 1
ID:yHPdUBTUQoMxDEWNWC9?sczx5ku-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



1-8-12	1-10-4	7-1-10	8-1-10	9-1-10	14-6-12
1-8-12	0-1-8	5-3-6	1-0-0	1-0-0	5-5-2
Plate Offsets (X,Y)-- [12:0-1-8,Edge], [13:0-1-8,Edge]					
LOADING (psf)	SPACING-	CSI.	DEFL.		PLATES
TCLL 40.0	1-7-3	TC 0.42	in (loc) l/defl L/d		MT20
TCDL 10.0	Plate Grip DOL 1.00	BC 0.53	Vert(LL) -0.09 11-12 >999 480		
BCLL 0.0	Lumber DOL 1.00	WB 0.25	Vert(CT) -0.12 11-12 >999 360		GRIP
BCDL 5.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.02 10 n/a n/a		244/190
	Code IRC2015/TPI2014				Weight: 75 lb FT = 20%F, 11%E

LUMBER-

TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 15-16.

REACTIONS. (size) 10=Mechanical, 15=0-3-8
Max Grav 10=551(LC 4), 15=710(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-1060/0, 4-5=-1624/0, 5-6=-1624/0, 6-7=-1624/0, 7-8=-1086/0
BOT CHORD 14-15=0/665, 13-14=0/1431, 12-13=0/1624, 11-12=0/1446, 10-11=0/696
WEBS 7-12=0/392, 7-11=-469/0, 8-11=0/507, 8-10=-862/0, 4-13=0/430, 4-14=-498/0, 3-14=0/525, 3-15=-852/0

NOTES-

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x4 MT20 unless otherwise indicated.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 5) CAUTION, Do not erect truss backwards.



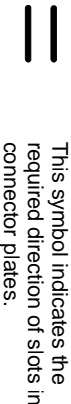
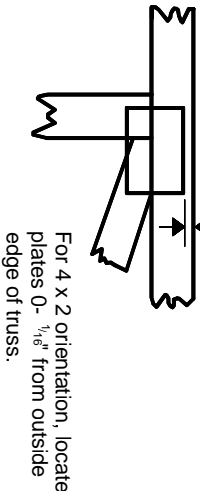
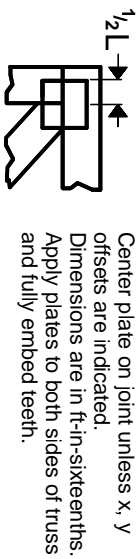
February 9,2024

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.sbcacompnents.com)

ENGINEERING BY
TRENCO
A MITEK COMPANY
818 Soundside Road
Edenton, NC 27932

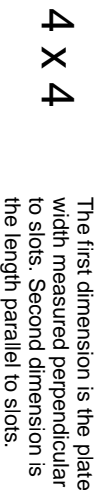
Symbols

PLATE LOCATION AND ORIENTATION



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

PLATE SIZE

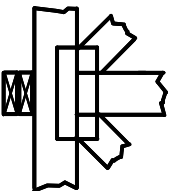


LATERAL BRACING LOCATION



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

BEARING

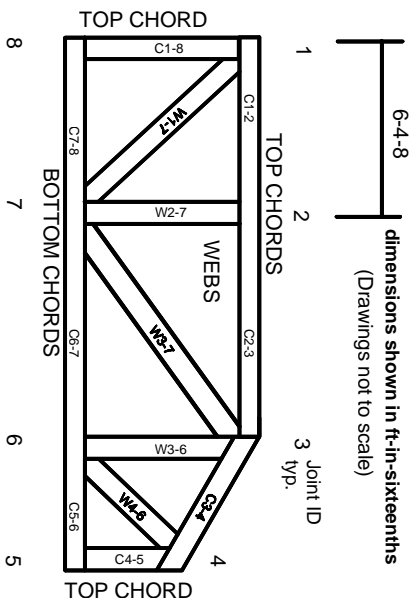


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: 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.

© 2023 MITek® All Rights Reserved

MITek

TRUSCO
ENGINEERING BY
A MITek Affiliate

MITek Engineering Reference Sheet: MLI-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.