ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: Master120
Hayden 120 Roof

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource-Apex,NC.

Pages or sheets covered by this seal: I58754004 thru I58754018

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844

June 6,2023

Gilbert, Eric

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	Hayden 120 Roof
MASTER120	A01	COMMON	1	1	I58754004
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Jun 6 07:31:01 2023 Page 1
ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

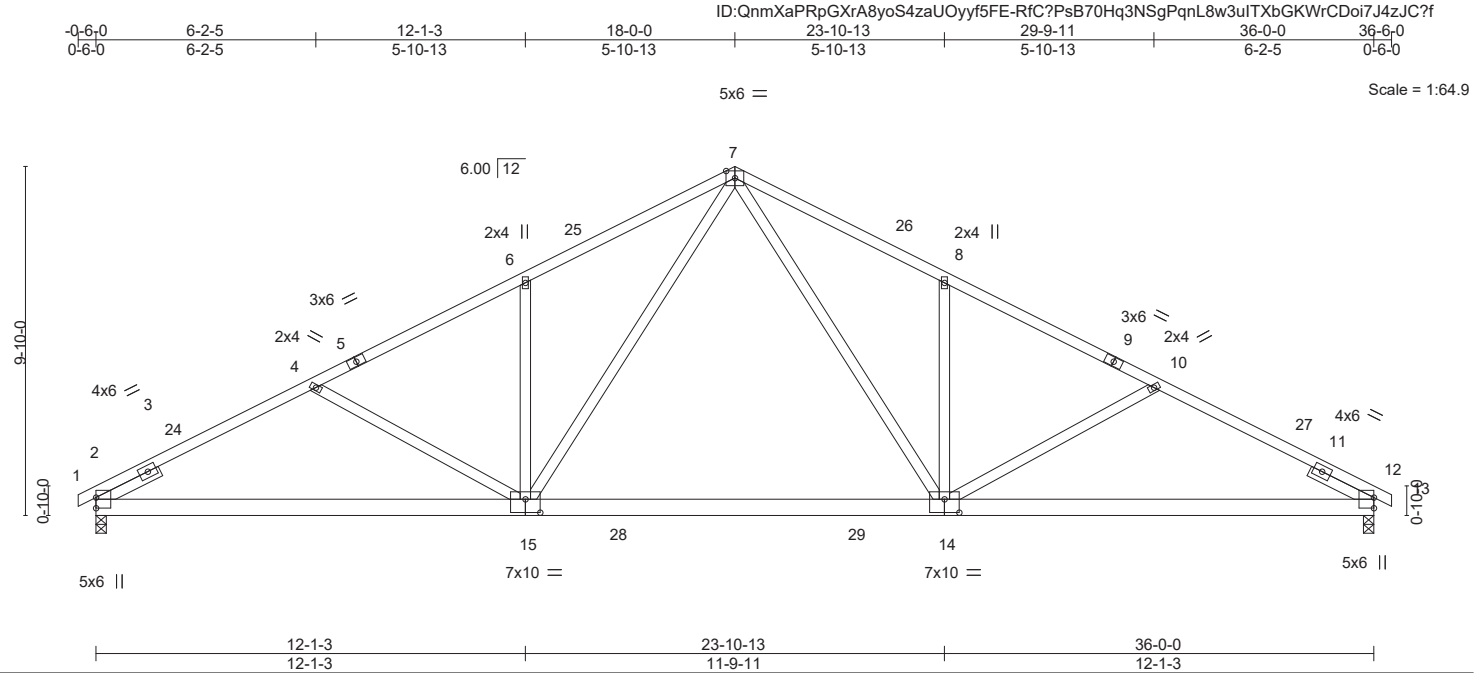


Plate Offsets (X,Y)-- [14:0-5-0,0-4-8], [15:0-5-0,0-4-8]

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	0.75	Vert(LL)	-0.36	14-15	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.56	14-15	>772	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.07	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.08	14-15	>999	240	Weight: 222 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-5-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 12=0-3-8
Max Horz 2=-113(LC 13)
Max Uplift 2=-2(LC 12), 12=-2(LC 13)
Max Grav 2=1470(LC 1), 12=1470(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2413/199, 4-6=-2128/167, 6-7=-2144/259, 7-8=-2144/259, 8-10=-2128/167, 10-12=-2413/199
BOT CHORD 2-15=-93/2096, 14-15=0/1363, 12-14=-93/2096
WEBS 7-14=-80/938, 8-14=-401/164, 10-14=-315/139, 7-15=-80/938, 6-15=-401/164, 4-15=-315/139

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) -0-6-0 to 2-6-0, Interior(1) 2-6-0 to 18-0-0, Exterior(2) 18-0-0 to 22-2-15, Interior(1) 22-2-15 to 36-6-0 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 2 and 2 lb uplift at joint 12.

June 6,2023

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

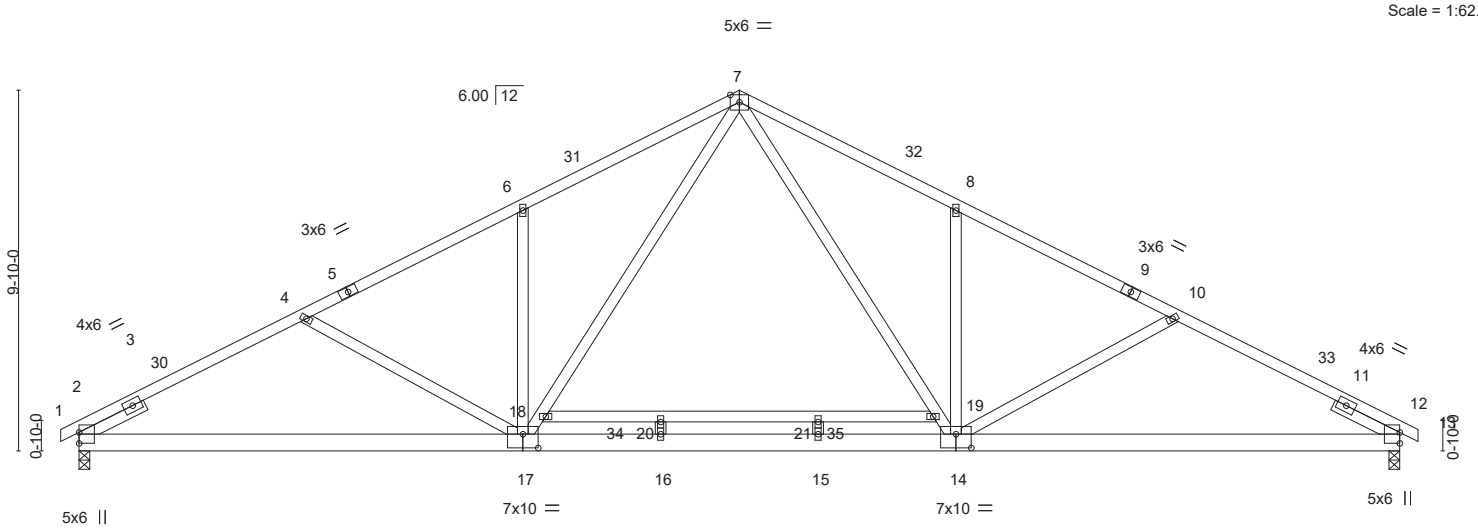
Job	Truss	Truss Type	Qty	Ply	Hayden 120 Roof	I58754005
MASTER120	A01A	COMMON	1	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523 — 8.630 s Mar 9 2023 MiTek Industries, Inc. Tue Jun 6 09:19:52 2023 Page 1

ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-s?XcAkT290ZGagFizdAitiK3U7BPTkuLAP6?04z92Nr

-0-6-0	6-2-5	12-1-3	18-0-0	23-10-13	29-9-11	36-0-0	36-6-0
0-6-0	6-2-5	5-10-13	5-10-13	5-10-13	5-10-13	6-2-5	0-6-0

Scale = 1:62.8



12-1-3	16-0-0	20-0-0	23-10-13	36-0-0
12-1-3	3-10-13	4-0-0	3-10-13	12-1-3

Plate Offsets (X,Y)-- [14:0-5-0,0-4-8], [17:0-5-0,0-4-8]

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	0.84	Vert(LL)	-0.34	15-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.53	15-16	>817	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.83	Horz(CT)	0.07	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.08	15-16	>999	240	Weight: 239 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

BRACING-

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

REACTIONS. (lb/size) 2=1470/0-3-8 (min. 0-1-12), 12=1470/0-3-8 (min. 0-1-12)
Max Horz 2=-113(LC 13)
Max Uplift 2=-2(LC 12), 12=-2(LC 13)

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

TOP CHORD	2-3=-1036/0, 3-30=-2411/175, 4-30=-2385/200, 4-5=-2125/142, 5-6=-2053/167, 6-31=-2141/231, 7-31=-2053/259, 7-32=-2053/259, 8-32=-2141/231, 8-9=-2053/167, 9-10=-2125/142, 10-33=-2385/200, 11-33=-2411/175, 11-12=-1038/0
BOT CHORD	2-17=-93/2094, 16-17=0/1342, 15-16=0/1342, 14-15=0/1342, 12-14=-94/2094
WEBS	7-19=-80/918, 14-19=-82/919, 8-14=-401/164, 10-14=-316/139, 17-18=-82/920, 7-18=-80/930, 6-17=-401/164, 4-17=-316/138

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) -0-6-0 to 2-6-0, Interior(1) 2-6-0 to 18-0-0, Exterior(2) 18-0-0 to 22-2-15, Interior(1) 22-2-15 to 36-6-0 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) All plates are 2x4 MT20 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.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 2 and 2 lb uplift at joint 12.
7) 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.
8) N/A
9) 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: 1-7=-60, 7-13=-60, 22-26=-20

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

June 6,2023

Continued on page 2

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

LOAD CASE(S)

2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-7=-50, 7-13=-50, 22-26=-20, 34-35=-30(F)

3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-7=-20, 7-13=-20, 22-26=-40, 34-35=-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, 2-30=25, 7-30=14, 7-32=25, 12-32=14, 12-13=9, 22-26=-12
Horz: 1-2=-59, 2-30=-37, 7-30=-26, 7-32=37, 12-32=26, 12-13=21

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, 2-31=14, 7-31=25, 7-33=14, 12-33=25, 12-13=47, 22-26=-12
Horz: 1-2=-21, 2-31=-26, 7-31=-37, 7-33=26, 12-33=37, 12-13=59

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, 2-7=-33, 7-12=-33, 12-13=-28, 22-26=-20
Horz: 1-2=-8, 2-7=13, 7-12=-13, 12-13=-8

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, 2-7=-33, 7-12=-33, 12-13=-12, 22-26=-20
Horz: 1-2=8, 2-7=13, 7-12=-13, 12-13=8

8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=9, 2-7=-2, 7-12=9, 12-13=4, 22-26=-12
Horz: 1-2=-21, 2-7=-10, 7-12=21, 12-13=16

9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=4, 2-7=9, 7-12=-2, 12-13=9, 22-26=-12
Horz: 1-2=-16, 2-7=-21, 7-12=10, 12-13=21

10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-15, 2-7=-20, 7-12=-9, 12-13=-4, 22-26=-20
Horz: 1-2=-5, 2-7=-0, 7-12=11, 12-13=16

11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-4, 2-7=-9, 7-12=-20, 12-13=-15, 22-26=-20
Horz: 1-2=-16, 2-7=-11, 7-12=0, 12-13=5

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, 2-4=22, 4-7=11, 7-12=3, 12-13=-2, 22-26=-12
Horz: 1-2=-29, 2-4=-34, 4-7=-23, 7-12=15, 12-13=10

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, 2-7=3, 7-10=11, 10-12=22, 12-13=17, 22-26=-12
Horz: 1-2=-10, 2-7=-15, 7-10=23, 10-12=34, 12-13=29

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, 2-7=11, 7-12=3, 12-13=-2, 22-26=-12
Horz: 1-2=-19, 2-7=-23, 7-12=15, 12-13=10

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, 2-7=3, 7-12=11, 12-13=7, 22-26=-12
Horz: 1-2=-10, 2-7=-15, 7-12=23, 12-13=19

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, 2-4=4, 4-7=-6, 7-12=-15, 12-13=-10, 22-26=-20
Horz: 1-2=-29, 2-4=-24, 4-7=-14, 7-12=5, 12-13=10

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, 2-7=-15, 7-10=-6, 10-12=4, 12-13=9, 22-26=-20
Horz: 1-2=-10, 2-7=-5, 7-10=14, 10-12=24, 12-13=29

18) Dead + Uninhabitable Attic Storage: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
Uniform Loads (plf)
Vert: 1-7=-20, 7-13=-20, 22-26=-20, 34-35=-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, 2-7=-50, 7-12=-42, 12-13=-38, 22-26=-20, 34-35=-30(F)
Horz: 1-2=-4, 2-7=-0, 7-12=8, 12-13=12

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, 2-7=-42, 7-12=-50, 12-13=-46, 22-26=-20, 34-35=-30(F)
Horz: 1-2=-12, 2-7=-8, 7-12=0, 12-13=4

Continued on page 3

LOAD CASE(S)

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, 2-4=-32, 4-7=-40, 7-12=-46, 12-13=-43, 22-26=-20, 34-35=-30(F)
Horz: 1-2=-22, 2-4=-18, 4-7=-10, 7-12=4, 12-13=7

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, 2-7=-46, 7-10=-40, 10-12=-32, 12-13=-28, 22-26=-20, 34-35=-30(F)
Horz: 1-2=-7, 2-7=-4, 7-10=10, 10-12=18, 12-13=22

23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-7=-60, 7-13=-20, 22-26=-20

24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-7=-20, 7-13=-60, 22-26=-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: 1-7=-50, 7-13=-20, 22-26=-20, 34-35=-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: 1-7=-20, 7-13=-50, 22-26=-20, 34-35=-30(F)

Job	Truss	Truss Type	Qty	Ply	Hayden 120 Roof
MASTER120	A01G	GABLE	1	1	I58754006
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Jun 6 07:31:05 2023 Page 1
ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

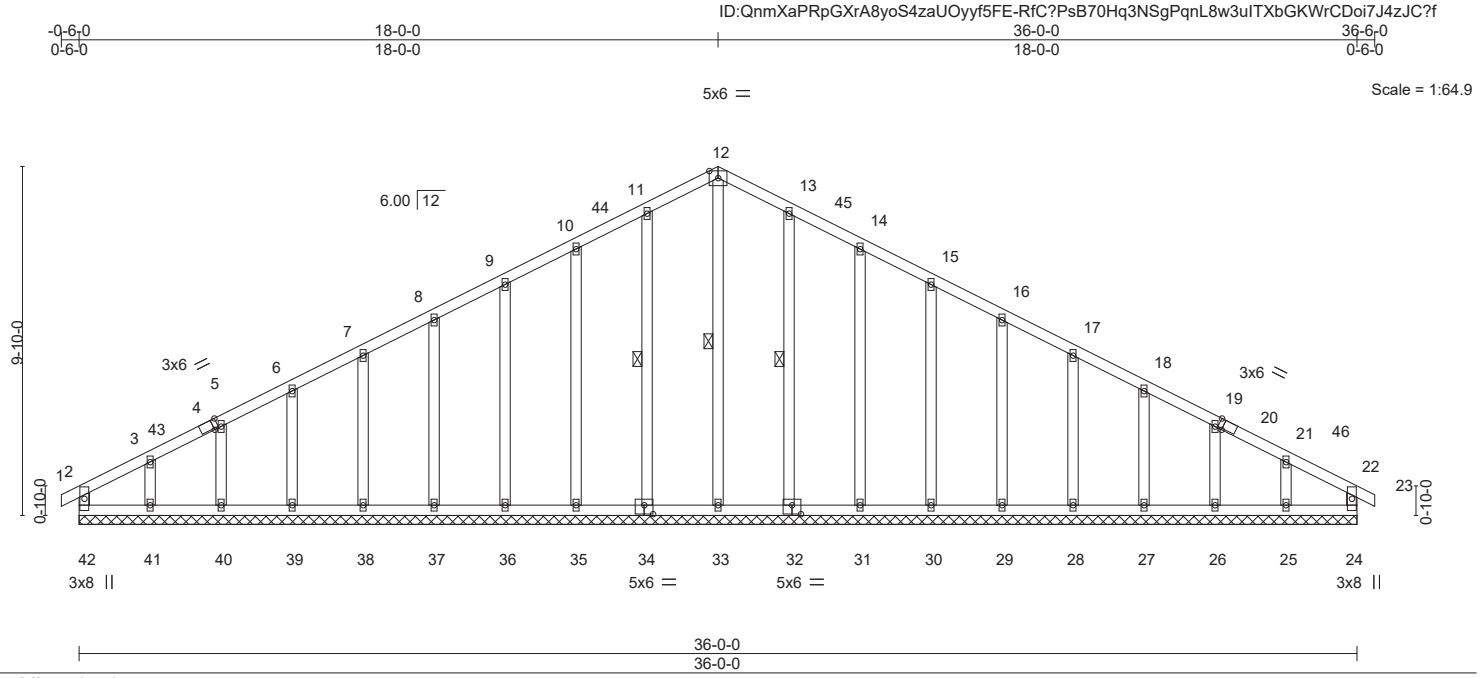


Plate Offsets (X,Y)-- [4:0-1-9,Edge], [20:0-1-9,Edge], [32:0-3-0,0-3-0], [34:0-3-0,0-3-0]

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	0.09	Vert(LL)	-0.00	22	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	0.00	22	n/r	120		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.13	Horz(CT)	0.01	24	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 244 lb	FT = 20%

LUMBER-

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

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.
WEBS	1 Row at midpt 12-33, 11-34, 13-32

REACTIONS. All bearings 36-0-0.
(lb) - Max Horz 42=-117(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 42, 24, 34, 35, 36, 37, 38, 39, 40, 41, 32, 31, 30, 29, 28, 27, 26, 25
Max Grav All reactions 250 lb or less at joint(s) 42, 24, 33, 34, 35, 36, 37, 38, 39, 40, 41, 32, 31, 30, 29, 28, 27, 26, 25

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 10-11=-101/277, 11-12=-115/313, 12-13=-115/308, 13-14=-101/271

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) -0-6-0 to 2-6-0, Exterior(2) 2-6-0 to 18-0-0, Corner(3) 18-0-0 to 21-0-0, Exterior(2) 21-0-0 to 36-6-0 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 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 42, 24, 34, 35, 36, 37, 38, 39, 40, 41, 32, 31, 30, 29, 28, 27, 26, 25.

June 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Hayden 120 Roof
MASTER120	A02	COMMON	1	1	I58754007
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Jun 6 07:31:07 2023 Page 1
ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

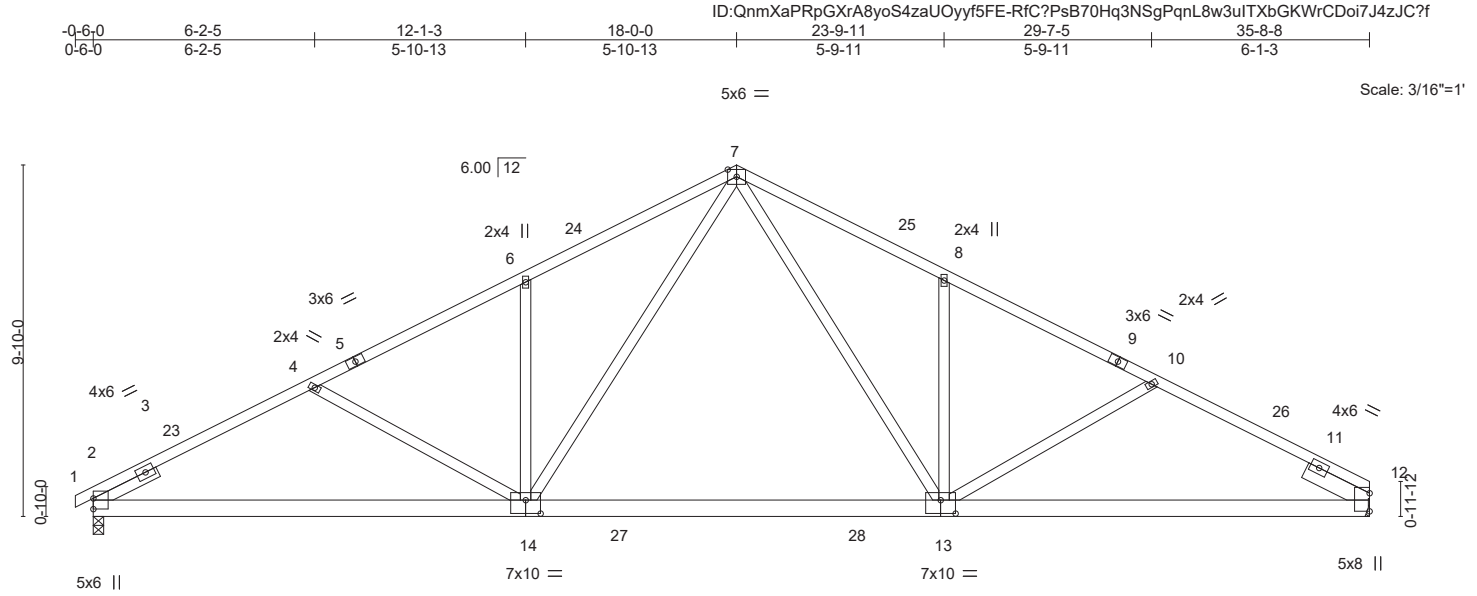


Plate Offsets (X,Y)-- [13:0-5-0,0-4-8], [14:0-5-0,0-4-8]

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)	-0.36	13-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.56	13-14	>767	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.09	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.09	13-14	>999	240	Weight: 222 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x6 SP No.2 1-11-12

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

REACTIONS. (size) 2=0-3-8, 12=Mechanical
Max Horz 2=117(LC 12)
Max Uplift 2=-3(LC 12)
Max Grav 2=1459(LC 1), 12=1428(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2390/198, 4-6=-2105/166, 6-7=-2121/259, 7-8=-2072/256, 8-10=-2059/169, 10-12=-2314/199
BOT CHORD 2-14=-109/2076, 13-14=0/1340, 12-13=-103/1996
WEBS 4-14=-315/138, 6-14=-402/164, 7-14=-81/937, 7-13=-76/888, 8-13=-400/162, 10-13=-274/135

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) -0-6-0 to 2-6-0, Interior(1) 2-6-0 to 18-0-0, Exterior(2) 18-0-0 to 22-2-15, Interior(1) 22-2-15 to 35-8-8 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.

June 6,2023

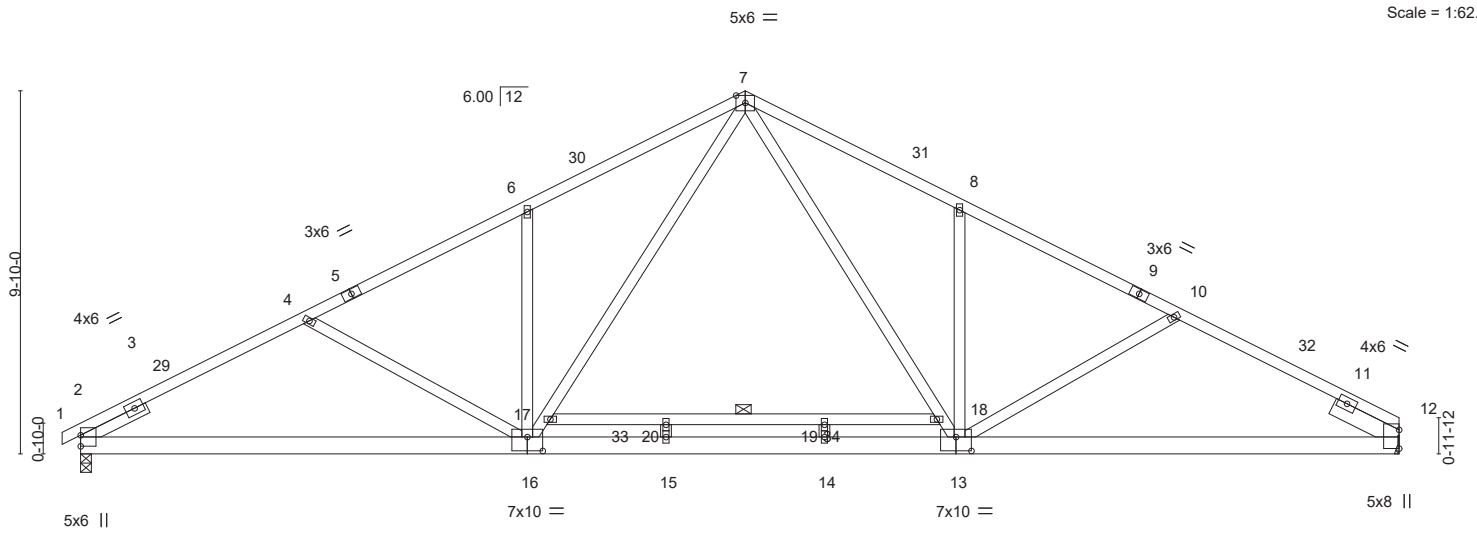
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Hayden 120 Roof	I58754008
MASTER120	A02A	COMMON	1	1	Job Reference (optional)	

Builders FirstSource, Apex, NC 27523 — 8.630 s Mar 9 2023 MiTek Industries, Inc. Tue Jun 6 09:20:06 2023 Page 1
ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RiNv6WeqsJJHGqJOnaQ_SfwTEnz8k6ePPaVlVGz92Nd

-0-6-0 | 6-2-5 | 12-1-3 | 18-0-0 | 23-9-11 | 29-7-5 | 35-8-8
0-6-0 | 6-2-5 | 5-10-13 | 5-10-13 | 5-9-11 | 5-9-11 | 6-1-3

Scale = 1:62.4



12-1-3 | 16-0-0 | 20-0-0 | 23-9-11 | 35-8-8
12-1-3 | 3-10-13 | 4-0-0 | 3-9-11 | 11-10-13

Plate Offsets (X,Y)-- [13:0-5-0,0-4-8], [16:0-5-0,0-4-8]

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	0.82	Vert(LL)	-0.30	14-15	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.48	14-15	>890	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.75	Horz(CT)	0.08	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.08	14-15	>999	240	Weight: 238 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except* 9-12: 2x4 SP No.1
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-12, Right 2x6 SP No.2 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-9-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 17-18

REACTIONS. (lb/size) 2=1459/0-3-8 (min. 0-1-12), 12=1428/Mechanical
Max Horz 2=117(LC 12)
Max Uplift 2=-3(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1039/0, 3-29=-2388/174, 4-29=-2363/199, 4-5=-2102/141, 5-6=-2030/166, 6-30=-2118/231, 7-30=-2030/260, 7-31=-1982/257, 8-31=-2069/229, 8-9=-1989/169, 9-10=-2057/140, 10-32=-2272/199, 11-32=-2312/175, 11-12=-841/0
BOT CHORD 2-16=-110/2075, 15-16=0/1362, 14-15=0/1362, 13-14=0/1362, 12-13=-103/1994
WEBS 4-16=-316/138, 6-16=-401/164, 16-17=-81/908, 7-17=-81/920, 7-18=-77/868, 13-18=-76/844, 8-13=-398/161, 10-13=-276/135

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) -0-6-0 to 2-6-0, Interior(1) 2-6-0 to 18-0-0, Exterior(2) 18-0-0 to 22-2-15, Interior(1) 22-2-15 to 35-8-8 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 2x4 MT20 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.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 2.
8) 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.
9) N/A
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S)
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-7=-60, 7-12=-60, 21-25=-20

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

June 6,2023

Continued on page 2

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

LOAD CASE(S)

2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-7=-50, 7-12=-50, 21-25=-20, 33-34=-30(F)
3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-7=-20, 7-12=-20, 21-25=-40, 33-34=-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, 2-29=25, 7-29=14, 7-31=25, 12-31=14, 21-25=-12
   Horz: 1-2=-59, 2-29=-37, 7-29=-26, 7-31=37, 12-31=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, 2-30=14, 7-30=25, 7-32=14, 12-32=25, 21-25=-12
   Horz: 1-2=-21, 2-30=-26, 7-30=-37, 7-32=26, 12-32=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, 2-7=-33, 7-12=-33, 21-25=-20
   Horz: 1-2=-8, 2-7=13, 7-12=-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, 2-7=-33, 7-12=-33, 21-25=-20
   Horz: 1-2=8, 2-7=13, 7-12=-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, 2-7=-2, 7-12=9, 21-25=-12
   Horz: 1-2=-21, 2-7=-10, 7-12=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, 2-7=9, 7-12=-2, 21-25=-12
   Horz: 1-2=-16, 2-7=-21, 7-12=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, 2-7=-20, 7-12=-9, 21-25=-20
    Horz: 1-2=-5, 2-7=-0, 7-12=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, 2-7=-9, 7-12=-20, 21-25=-20
    Horz: 1-2=-16, 2-7=-11, 7-12=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, 2-4=22, 4-7=11, 7-12=3, 21-25=-12
    Horz: 1-2=-29, 2-4=-34, 4-7=-23, 7-12=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, 2-7=3, 7-10=11, 10-12=22, 21-25=-12
    Horz: 1-2=-10, 2-7=-15, 7-10=23, 10-12=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, 2-7=11, 7-12=3, 21-25=-12
    Horz: 1-2=-19, 2-7=-23, 7-12=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, 2-7=3, 7-12=11, 21-25=-12
    Horz: 1-2=-10, 2-7=-15, 7-12=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, 2-4=4, 4-7=-6, 7-12=-15, 21-25=-20
    Horz: 1-2=-29, 2-4=-24, 4-7=-14, 7-12=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, 2-7=-15, 7-10=-6, 10-12=4, 21-25=-20
    Horz: 1-2=-10, 2-7=-5, 7-10=14, 10-12=24
18) Dead + Uninhabitable Attic Storage: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
    Uniform Loads (plf)
    Vert: 1-7=-20, 7-12=-20, 21-25=-20, 33-34=-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, 2-7=-50, 7-12=-42, 21-25=-20, 33-34=-30(F)
    Horz: 1-2=-4, 2-7=-0, 7-12=8
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, 2-7=-42, 7-12=-50, 21-25=-20, 33-34=-30(F)
    Horz: 1-2=-12, 2-7=-8, 7-12=0

Continued on page 3

LOAD CASE(S)

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, 2-4=-32, 4-7=-40, 7-12=-46, 21-25=-20, 33-34=-30(F)
Horz: 1-2=-22, 2-4=-18, 4-7=-10, 7-12=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, 2-7=-46, 7-10=-40, 10-12=-32, 21-25=-20, 33-34=-30(F)
Horz: 1-2=-7, 2-7=-4, 7-10=10, 10-12=18

23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-7=-60, 7-12=-20, 21-25=-20

24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-7=-20, 7-12=-60, 21-25=-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: 1-7=-50, 7-12=-20, 21-25=-20, 33-34=-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: 1-7=-20, 7-12=-50, 21-25=-20, 33-34=-30(F)

Job	Truss	Truss Type	Qty	Ply	Hayden 120 Roof
MASTER120	A02G	GABLE	1	1	I58754009
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Jun 6 07:31:10 2023 Page 1
ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

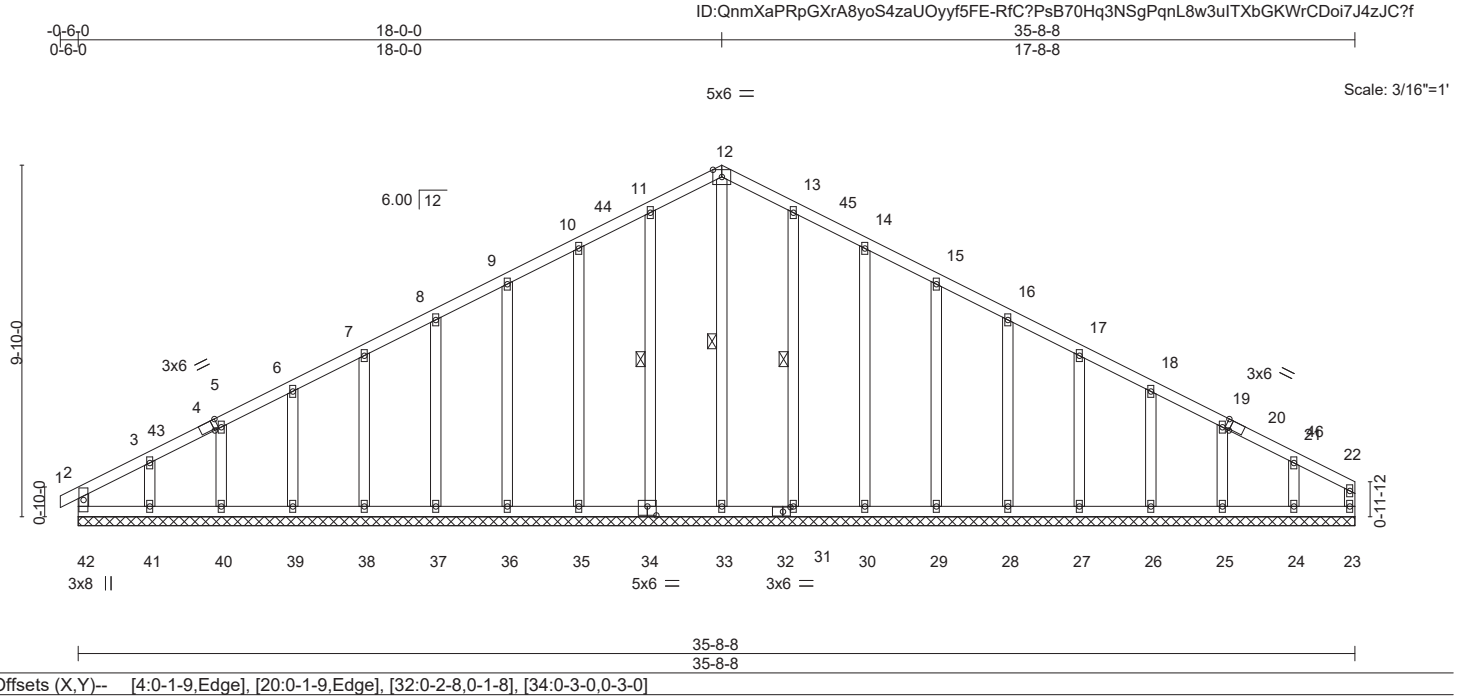


Plate Offsets (X,Y)-- [4:0-1-9,Edge], [20:0-1-9,Edge], [32:0-2-8,0-1-8], [34:0-3-0,0-3-0]

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	0.10	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.13	Horz(CT)	0.00	23	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 243 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2 *Except* 22-23: 2x4 SP No.3
OTHERS	2x4 SP No.3

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.
WEBS	1 Row at midpt 12-33, 11-34, 13-31

REACTIONS. All bearings 35-8-8.
(lb) - Max Horz 42=122(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 42, 23, 34, 35, 36, 37, 38, 39, 40, 31, 30, 29, 28, 27, 26, 25, 24 except 41=-101(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 42, 23, 33, 34, 35, 36, 37, 38, 39, 40, 41, 31, 30, 29, 28, 27, 26, 25, 24

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 10-11=-103/282, 11-12=-117/318, 12-13=-117/309, 13-14=-104/273

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) -0-6-0 to 2-6-0, Exterior(2) 2-6-0 to 18-0-0, Corner(3) 18-0-0 to 21-0-0, Exterior(2) 21-0-0 to 35-6-12 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
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 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 42, 23, 34, 35, 36, 37, 38, 39, 40, 31, 30, 29, 28, 27, 26, 25, 24 except (jt=lb) 41=101.

June 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Hayden 120 Roof
MASTER120	B01	COMMON	1	1	I58754010
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Jun 6 07:31:12 2023 Page 1
ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

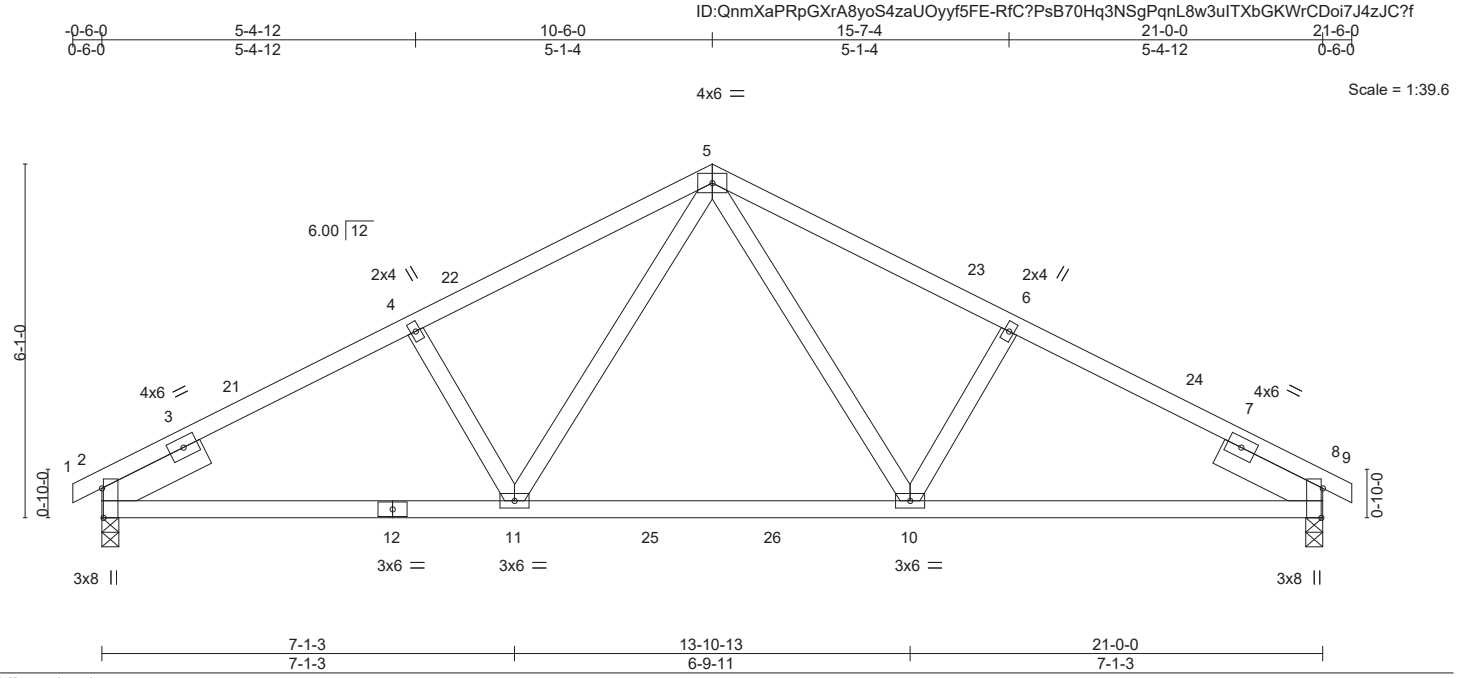


Plate Offsets (X,Y)-- [2:0-6-1,Edge], [8:0-6-1,Edge]

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	0.40	Vert(LL)	-0.11	10-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.19	10-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.03	10-11	>999	240	Weight: 107 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
SLIDER	Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12

BRACING-

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

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=82(LC 12)
Max Uplift 2=-23(LC 12), 8=-23(LC 13)
Max Grav 2=870(LC 1), 8=870(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1250/131, 4-5=-1137/154, 5-6=-1137/154, 6-8=-1250/131
BOT CHORD 2-11=-58/1066, 10-11=0/768, 8-10=-58/1066
WEBS 5-10=-44/401, 6-10=-250/129, 5-11=-44/401, 4-11=-250/129

NOTES-

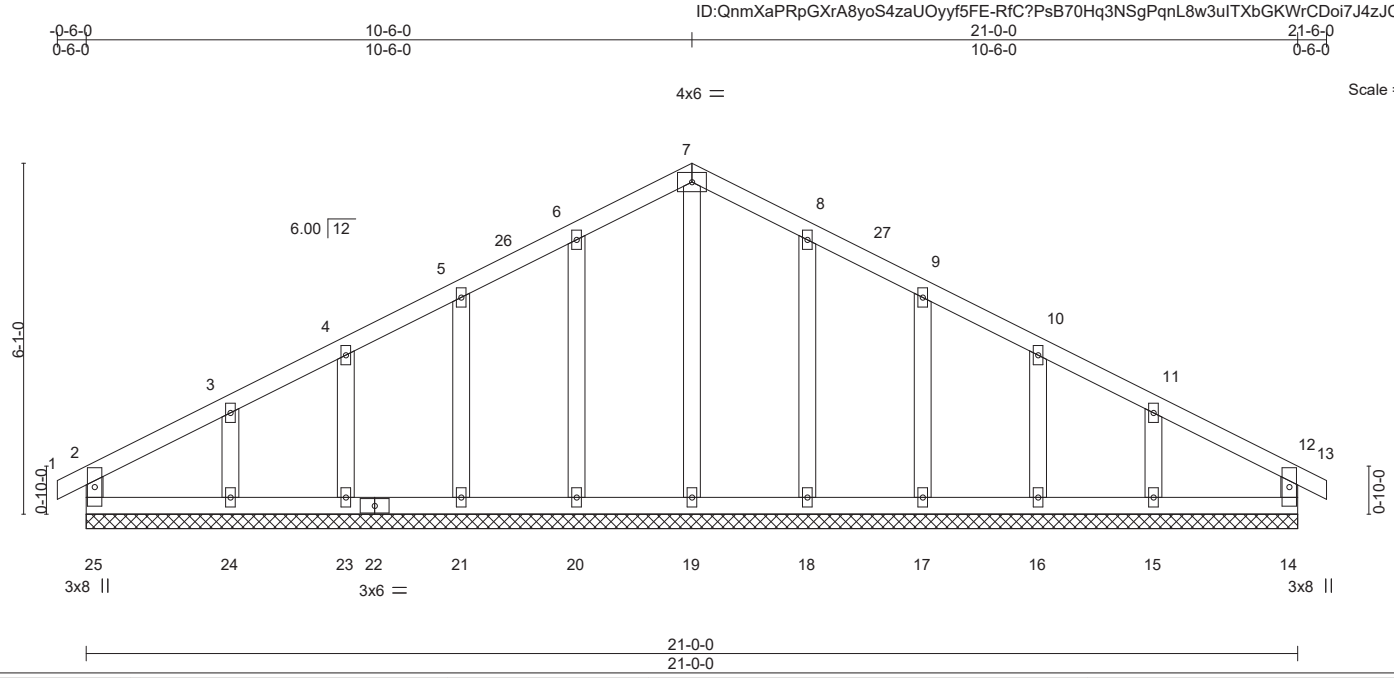
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-6-0 to 2-6-0, Interior(1) 2-6-0 to 10-6-0, Exterior(2) 10-6-0 to 14-8-15, Interior(1) 14-8-15 to 21-6-0 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.

June 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Hayden 120 Roof
MASTER120	B01G	GABLE	1	1	I58754011
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Jun 6 07:31:13 2023 Page 1
ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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	0.06	Vert(LL)	0.00	12	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	12	n/r	120		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.07	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 114 lb	FT = 20%

LUMBER-

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

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 21-0-0.
(lb) - Max Horz 25=77(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 25, 14, 20, 21, 23, 24, 18, 17, 16, 15
Max Grav All reactions 250 lb or less at joint(s) 25, 14, 19, 20, 21, 23, 24, 18, 17, 16, 15

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) -0-6-0 to 2-6-0, Exterior(2) 2-6-0 to 10-6-0, Corner(3) 10-6-0 to 13-6-0, Exterior(2) 13-6-0 to 21-6-0 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 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 25, 14, 20, 21, 23, 24, 18, 17, 16, 15.

June 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Hayden 120 Roof
MASTER120	B01GR	COMMON	1	3	I58754012

Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Jun 6 07:31:15 2023 Page 1
ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

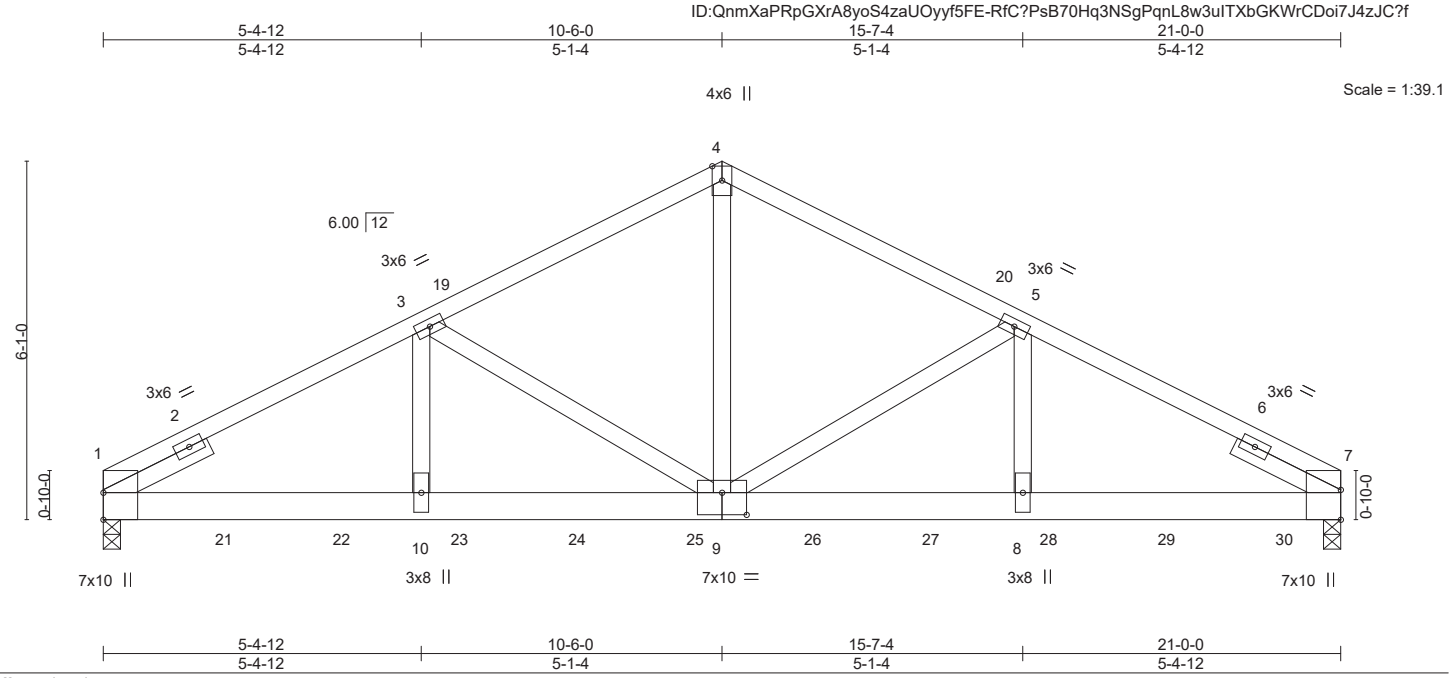


Plate Offsets (X,Y)-- [9:0-5-0,0-4-8]

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	0.97	Vert(LL)	-0.13	9-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.26	9-10	>983	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.61	Horz(CT)	0.06	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.01	9	>999	240	Weight: 369 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP DSS
WEBS 2x4 SP No.3 *Except*
4-9: 2x4 SP No.2
SLIDER Left 2x4 SP No.2 1-11-12, Right 2x4 SP No.2 1-11-12

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-0-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=0-3-8, 7=0-3-8
Max Horz 1=76(LC 8)
Max Grav 1=7473(LC 1), 7=8226(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-11837/0, 3-4=-8886/0, 4-5=-8888/0, 5-7=-11934/0
BOT CHORD 1-10=0/10470, 9-10=0/10470, 8-9=0/10563, 7-8=0/10563
WEBS 4-9=0/7486, 5-9=-3131/0, 5-8=0/2919, 3-9=-3022/0, 3-10=0/2834

NOTES-
1) 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 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; 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
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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1402 lb down at 2-0-12, 1402 lb down at 4-0-12, 1402 lb down at 6-0-12, 1402 lb down at 8-0-12, 1402 lb down at 10-0-12, 1402 lb down at 12-0-12, 1402 lb down at 14-0-12, 1402 lb down at 16-0-12, and 1402 lb down at 18-0-12, and 1404 lb down at 20-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 4-7=-60, 11-15=-20

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

June 6,2023

Continued on page 2

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

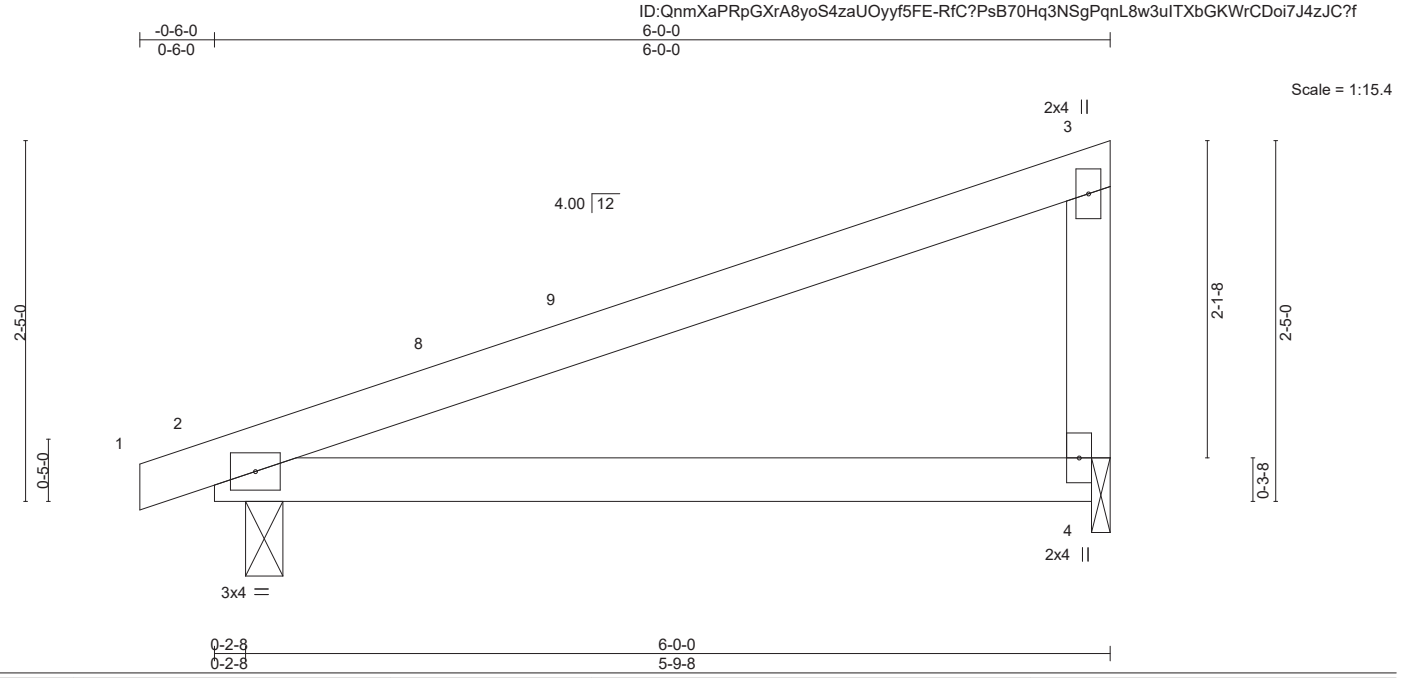
LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 21=-1402(B) 22=-1402(B) 23=-1402(B) 24=-1402(B) 25=-1402(B) 26=-1402(B) 27=-1402(B) 28=-1402(B) 29=-1402(B) 30=-1404(B)

Job	Truss	Truss Type	Qty	Ply	Hayden 120 Roof
MASTER120	P02	JACK	1	1	I58754015
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Jun 6 07:31:18 2023 Page 1
ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



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	0.53	Vert(LL)	-0.05	4-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.12	4-7	>570	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MP		Wind(LL)	0.05	4-7	>999	240	Weight: 22 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-0, 4=0-1-8
Max Horz 2=77(LC 11)
Max Uplift 2=-39(LC 8), 4=-34(LC 12)
Max Grav 2=265(LC 1), 4=233(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) -0-6-0 to 2-6-0, Interior(1) 2-6-0 to 5-10-4 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.

June 6,2023

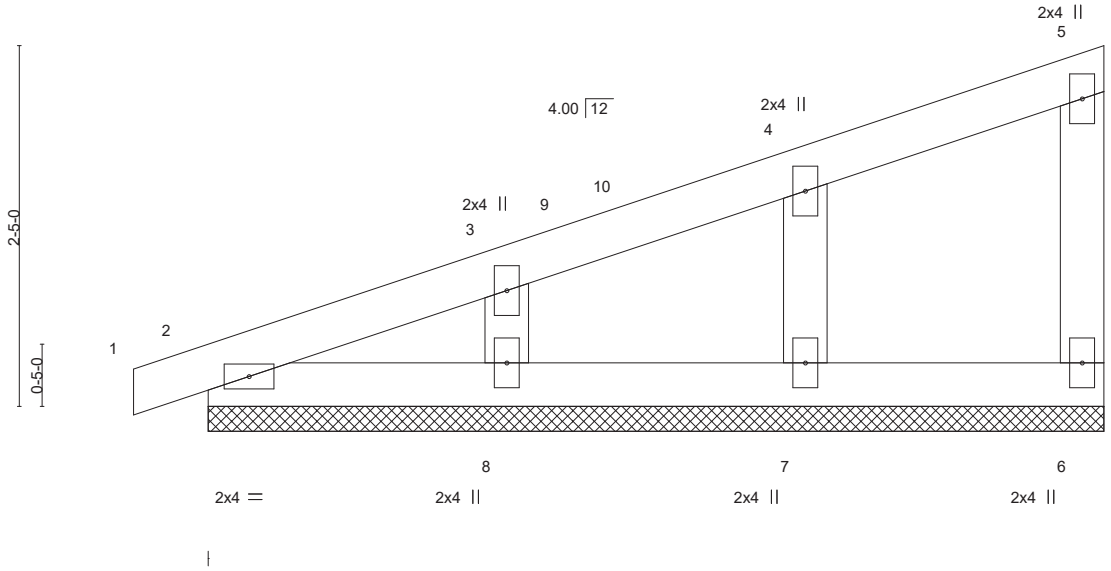
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Hayden 120 Roof
MASTER120	P02G	GABLE	1	1	I58754016
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Jun 6 07:31:19 2023 Page 1
ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-0-6-0 6-0-0
0-6-0 6-0-0

Scale = 1:15.4



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	0.07	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.04	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 25 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. All bearings 6-0-0.
(lb) - Max Horz 2=77(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 6, 2, 7, 8
Max Grav All reactions 250 lb or less at joint(s) 6, 2, 7, 8

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 Corner(3) -0-6-0 to 2-6-0, Exterior(2) 2-6-0 to 5-10-4 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 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2, 7, 8.

June 6,2023

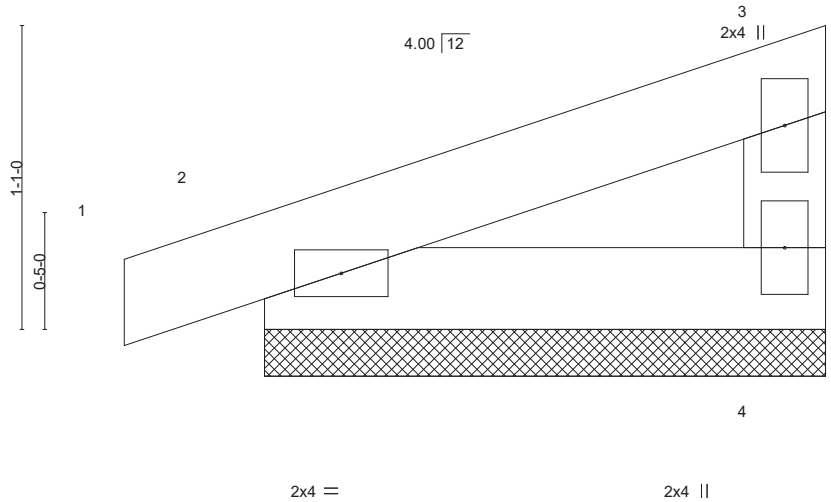
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Hayden 120 Roof
MASTER120	P03G	GABLE	1	1	I58754017
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Jun 6 07:31:20 2023 Page 1
ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-0-6-0 2-0-0
0-6-0 2-0-0

Scale = 1:8.2



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	0.05	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 8 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 2-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=2-0-0, 2=2-0-0
Max Horz 2=28(LC 9)
Max Uplift 4=-10(LC 12), 2=-25(LC 8)
Max Grav 4=70(LC 1), 2=108(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 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
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) 4, 2.

June 6,2023

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

Job	Truss	Truss Type	Qty	Ply	Hayden 120 Roof
MASTER120	V05	GABLE	1	1	I58754018
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Nov 19 2022 MiTek Industries, Inc. Tue Jun 6 07:31:21 2023 Page 1
ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

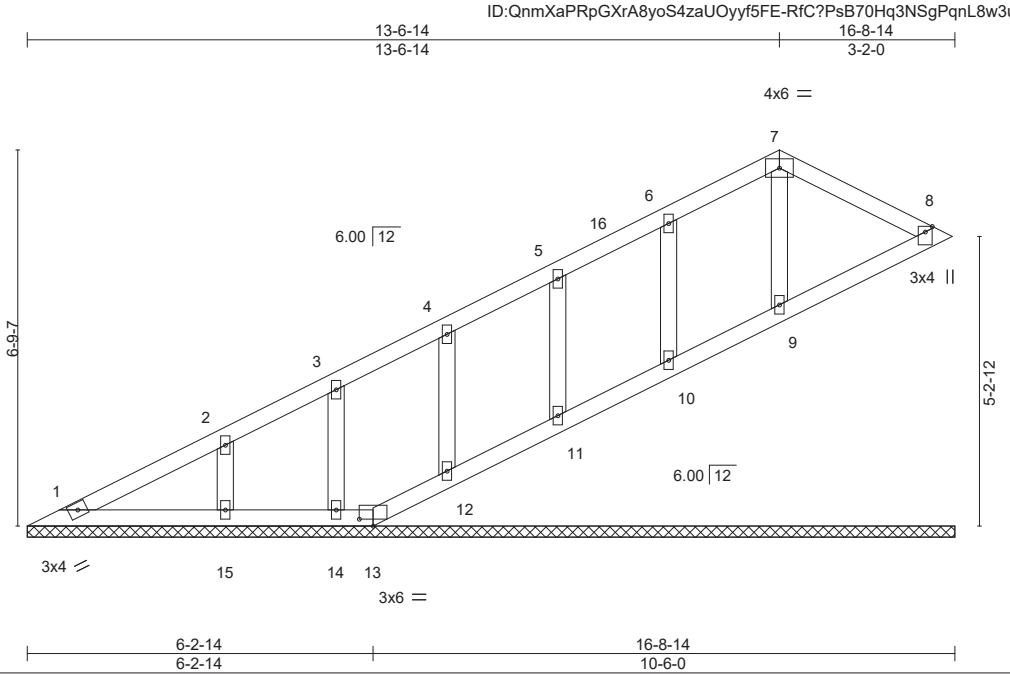


Plate Offsets (X,Y)-- [13:0-3-0,0-1-8]

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	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 74 lb	FT = 20%

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

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

REACTIONS. All bearings 16-8-14.
(lb) - Max Horz 1=191(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 8, 10, 11, 12, 14, 15
Max Grav All reactions 250 lb or less at joint(s) 1, 8, 13, 9, 10, 11, 12, 14, 15

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

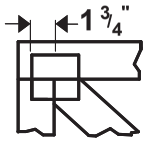
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-7-7 to 3-6-14, Interior(1) 3-6-14 to 13-6-14, Exterior(2) 13-6-14 to 16-4-7 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 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 10, 11, 12, 14, 15.
8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 8, 9, 10, 11, 12.

June 6,2023

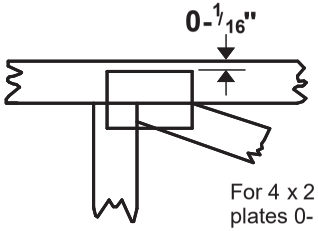
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

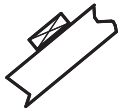
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

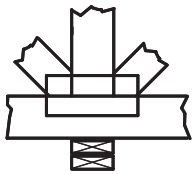
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

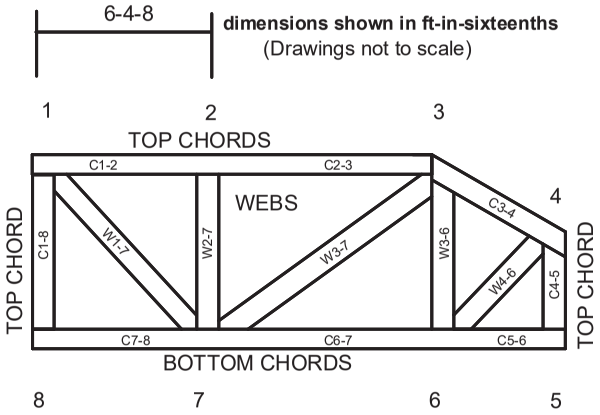


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & 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-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

MiTek

ENGINEERING BY TRENCO
A MiTek Affiliate

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 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/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.