

Trenco 818 Soundside Rd Edenton, NC 27932

Re: Master120

Hayden 120 3637142

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: I60536148 thru I60536166

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

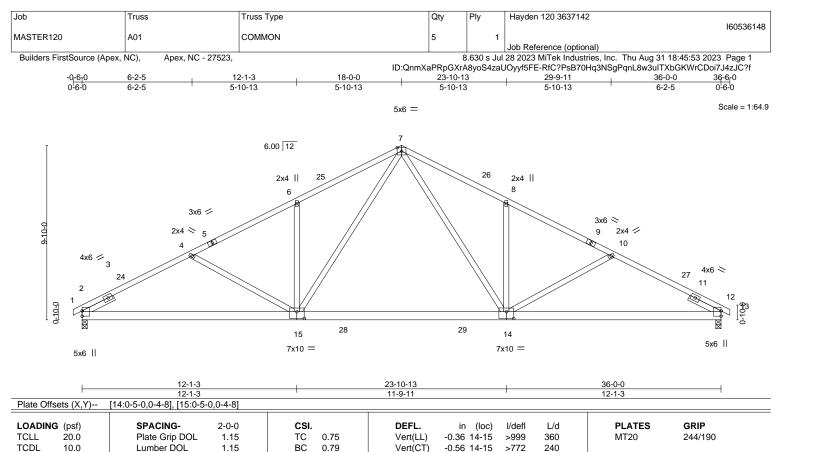
North Carolina COA: C-0844



September 1,2023

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.



Horz(CT)

Wind(LL)

BRACING-

TOP CHORD

BOT CHORD

0.07

0.08 14-15

12

n/a

>999

n/a

240

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

Structural wood sheathing directly applied or 2-5-1 oc purlins.

Weight: 222 lb

FT = 20%

LUMBER-

BCLL

BCDL

WEBS

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

0.0

10.0

SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

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

2x4 SP No.3

Max Uplift 2=-2(LC 12), 12=-2(LC 13)

Rep Stress Incr

Code IRC2015/TPI2014

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,

YES

WB

Matrix-MS

0.39

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,

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.
- * 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, 12.

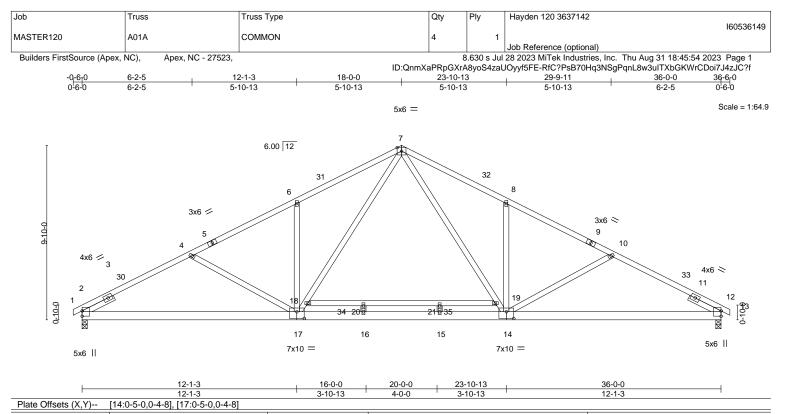


September 1,2023

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/TP11 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)





 TCLL
 20.0
 Plate Grip DOL
 1.15
 TC
 0.84

 TCDL
 10.0
 Lumber DOL
 1.15
 BC
 0.86

Code IRC2015/TPI2014

NO

DEFL. in (loc) I/def L/d Vert(LL) -0.34 15-16 >999 360 Vert(CT) -0.53 15-16 >817 240 Horz(CT) 0.07 12 n/a n/a Wind(LL) 0.08 15-16 >999 240

BRACING-

TOP CHORD

BOT CHORD

 PLATES
 GRIP

 MT20
 244/190

Structural wood sheathing directly applied or 2-7-4 oc purlins.

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

Weight: 239 lb FT = 20%

LUMBER-

BCLL

BCDL

LOADING (psf)

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

0.0

10.0

WEBS 2x4 SP No.3 SLIDER Left 2x4 SP No.3 1-11-12, Right 2x4 SP No.3 1-11-12

SPACING-

Rep Stress Incr

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=-2411/200, 4-6=-2125/167, 6-7=-2141/259, 7-8=-2141/259, 8-10=-2125/167,

10-12=-2411/200

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

CSI.

WB

Matrix-MS

0.83

- 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 100 lb uplift at joint(s) 2, 12.
- 7) Load case(s) 2, 3, 18, 19, 20, 21, 22, 25, 26 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

 Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf)

Vert: 1-7=-60, 7-13=-60, 22-26=-20

 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)

Continued on page 2



and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



September 1,2023

SEAL 036322

818 Soundside Road Edenton, NC 27932

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Job	Truss	Truss Type	Qty	Ply	Hayden 120 3637142
					160536149
MASTER120	A01A	COMMON	4	1	
					Job Reference (optional)

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

8.630 s Jul 28 2023 MiTek Industries, Inc. Thu Aug 31 18:45:54 2023 Page 2 ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

LOAD CASE(S) Standard

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)

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

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

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)

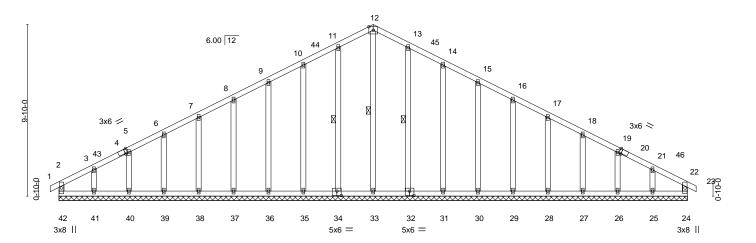


Job Truss Truss Type Qty Ply Hayden 120 3637142 160536150 MASTER120 A01G **GABLE** 1 Job Reference (optional) 8.630 s Jul 28 2023 MiTek Industries, Inc. Thu Aug 31 18:45:56 2023 Page 1

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

ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 36-0-0 -0-6-0 0-6-0 18-0-0 18-0-0 18-0-0 0-6-0

> Scale = 1:66.0 5x6 =



36-0-0

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 (ps	,	SPACING-	2-0-0	CSI.		DEFL.		(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/TF	PI2014	Matri	x-R						Weight: 244 lb	FT = 20%	

BRACING-LUMBER-

2x4 SP No.2 TOP CHORD TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, 2x4 SP No.2 **BOT CHORD** except end verticals. **WEBS**

2x4 SP No.2 **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing. **OTHERS** 2x4 SP No.3 WEBS 12-33, 11-34, 13-32

REACTIONS. All bearings 36-0-0.

Max Horz 42=-117(LC 13) (lb) -

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.

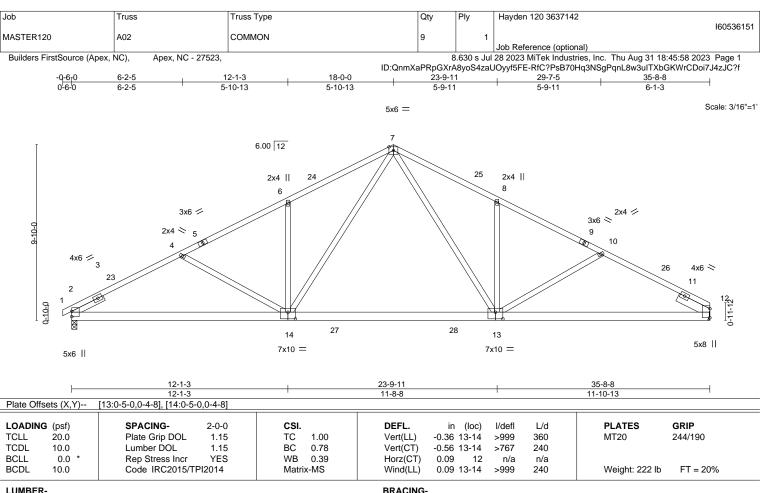
TOP CHORD 10-11=-101/277, 11-12=-115/313, 12-13=-115/308, 13-14=-101/271

- 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.
- 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.
- * 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.



September 1,2023





TOP CHORD

BOT CHORD

Structural wood sheathing directly applied.

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

LUMBER-

WEBS

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

SLIDER Left 2x4 SP No.3 1-11-12, Right 2x6 SP No.2 1-11-12

REACTIONS. (size) 2=0-3-8, 12=Mechanical

2x4 SP No.3

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.
- * 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.



September 1,2023

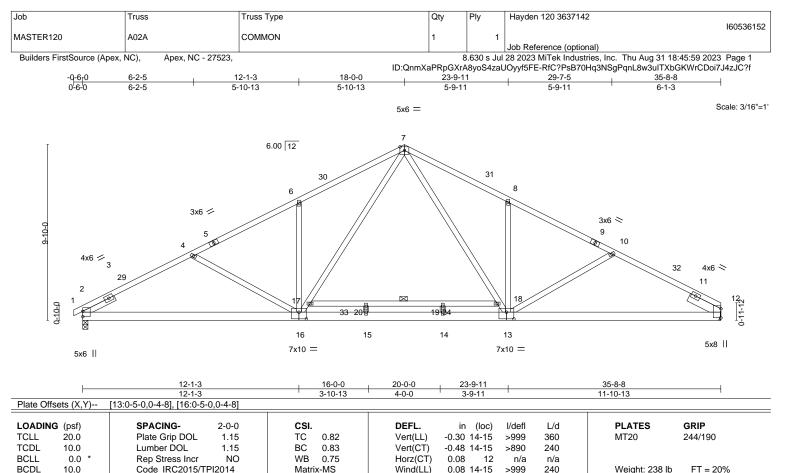


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Wind(LL)

BRACING-

TOP CHORD

BOT CHORD

WEBS

0.08 14-15

>999

1 Row at midpt

240

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

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

17-18

LUMBER-

BCDL

TOP CHORD 2x4 SP No.2 *Except*

10.0

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

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=-2388/199, 4-6=-2102/166, 6-7=-2118/260, 7-8=-2069/257, 8-10=-2057/169,

BOT CHORD $2\text{-}16\text{=-}110/2075,\ 15\text{-}16\text{=}0/1362,\ 14\text{-}15\text{=}0/1362,\ 13\text{-}14\text{=}0/1362,\ 12\text{-}13\text{=-}103/1994}$ **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

Matrix-MS

- 3) All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
- 8) Load case(s) 2, 3, 18, 19, 20, 21, 22, 25, 26 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss
- 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) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Vert: 1-7=-60, 7-12=-60, 21-25=-20

Continued on page 2



September 1,2023

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Job	Truss	Truss Type	Qty	Ply	Hayden 120 3637142
					160536152
MASTER120	A02A	COMMON	1	1	
					Job Reference (optional)

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

8.630 s Jul 28 2023 MiTek Industries, Inc. Thu Aug 31 18:45:59 2023 Page 2 ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

LOAD CASE(S) Standard

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)

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

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

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)





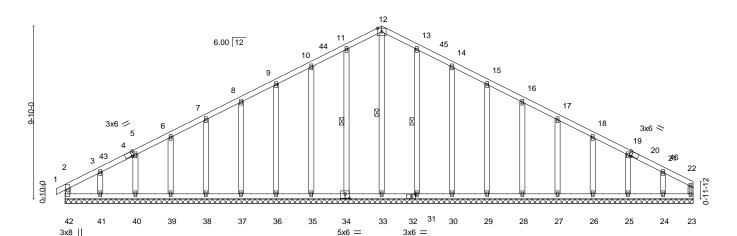
Job Truss Truss Type Qty Ply Hayden 120 3637142 160536153 MASTER120 A02G **GABLE** Job Reference (optional) 8.630 s Jul 28 2023 MiTek Industries, Inc. Thu Aug 31 18:46:01 2023 Page 1

5x6 =

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

ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 18-0-0 35-8-8 18-0-0 17-8-8

Scale = 1:65.5



35-8-8

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]												
LOADIN	G (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/TPI2	2014	Matri	x-R						Weight: 243 lb	FT = 20%

BRACING-LUMBER-TOP CHORD

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

2x4 SP No.2 *Except* 22-23: 2x4 SP No.3

2x4 SP No.3 **OTHERS**

(lb) -

except end verticals. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing. WEBS 12-33, 11-34, 13-31

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

All bearings 35-8-8. 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

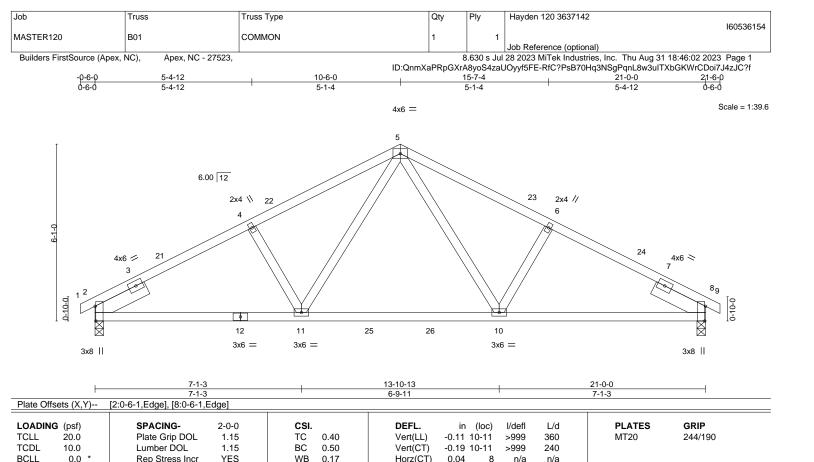
REACTIONS.

- 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.
- 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).
- 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.
- * 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.



September 1,2023





Wind(LL)

BRACING-

TOP CHORD

BOT CHORD

0.03 10-11

>999

240

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

Structural wood sheathing directly applied or 4-7-0 oc purlins.

LUMBER-

BCDL

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

10.0

SLIDER Left 2x6 SP No.2 1-11-12, Right 2x6 SP No.2 1-11-12

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.

Code IRC2015/TPI2014

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

Matrix-MS

- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, 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.



FT = 20%

Weight: 107 lb

September 1,2023



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)



Job Truss Truss Type Qty Ply Hayden 120 3637142 160536155 MASTER120 B01G **GABLE** 1 Job Reference (optional) 8.630 s Jul 28 2023 MiTek Industries, Inc. Thu Aug 31 18:46:03 2023 Page 1 Builders FirstSource (Apex. NC). Apex, NC - 27523 ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f 10-6-0 21-0-0 -0-6-0 0-6-0 10-6-0 10-6-0 Scale = 1:40.6 4x6 = 7 8 6.00 12 27 26 10 11 ¹²13 0-10-0 0-10-0 24 23 22 21 20 19 18 17 16 15 25 3x8 || 3x8 || 3x6 =21-0-0 LOADING (psf) SPACING-2-0-0 CSI. DEFL. (loc) I/defI L/d **PLATES** GRIP Plate Grip DOL Vert(LL) MT20 244/190 **TCLL** 20.0 1.15 TC 0.06 0.00 12 n/r 120 **TCDL** 10.0 Lumber DOL 1.15 BC 0.05 Vert(CT) 0.00 12 n/r 120 **BCLL** WB 0.07 Horz(CT) 0.0 Rep Stress Incr NO 0.00 14 n/a n/a **BCDL** 10.0 Code IRC2015/TPI2014 Matrix-R Weight: 114 lb FT = 20%LUMBER-**BRACING-**TOP CHORD

BOT CHORD

TOP CHORD

2x4 SP No.2 BOT CHORD 2x4 SP No.2

2x4 SP No.2 WFBS **OTHERS** 2x4 SP No.3

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

except end verticals.

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.

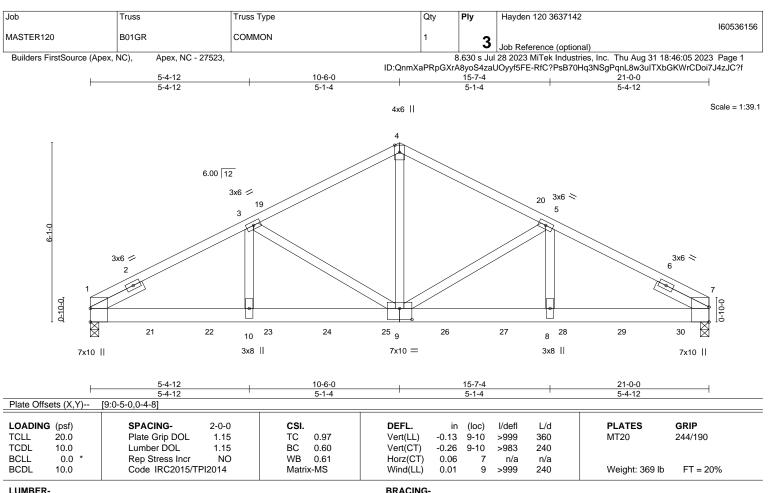
NOTES-

- 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.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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.



September 1,2023





TOP CHORD

BOT CHORD

LUMBER-

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

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.
- 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) 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 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

ORT

Structural wood sheathing directly applied or 4-0-8 oc purlins.

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

September 1,2023

Continued on page 2



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/TP11 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)



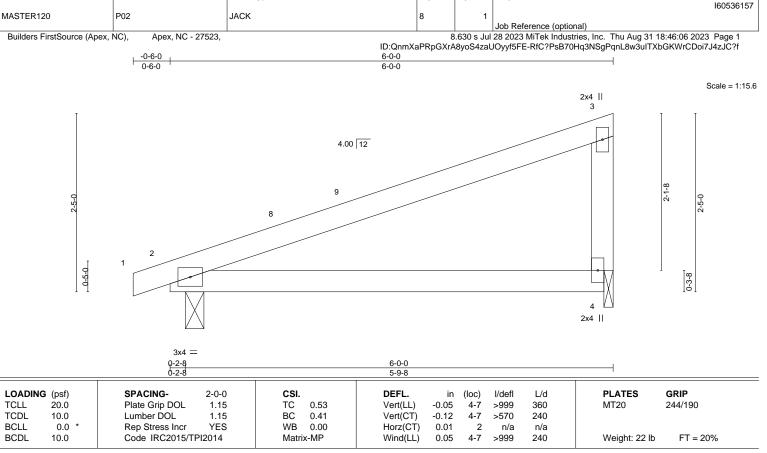
Job	Truss	Truss Type	Qty	Ply	Hayden 120 3637142
MASTER120	B01GR	COMMON	1		160536156
WASTERTED	DOTGIC	COMMON	'	3	Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Jul 28 2023 MiTek Industries, Inc. Thu Aug 31 18:46:05 2023 Page 2 ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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)





BRACING-

TOP CHORD

BOT CHORD

Qty

Ply

Hayden 120 3637142

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

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

except end verticals.

LUMBER-

Job

Truss

Truss Type

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

2x4 SP No.3 **WEBS**

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.

- 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.



September 1,2023



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

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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)



Job Truss Truss Type Qty Ply Hayden 120 3637142 160536158 MASTER120 P02G **GABLE** Job Reference (optional) 8.630 s Jul 28 2023 MiTek Industries, Inc. Thu Aug 31 18:46:06 2023 Page 1

Builders FirstSource (Apex, NC),

Apex, NC - 27523,

-0-6-0 0-6-0

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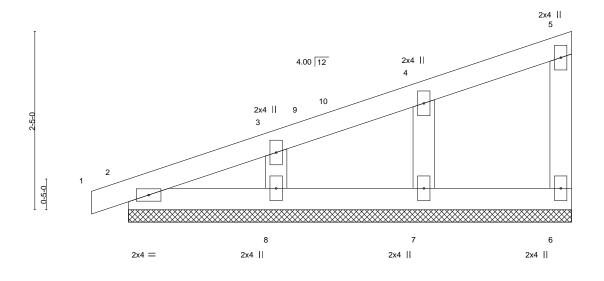
Structural wood sheathing directly applied or 6-0-0 oc purlins,

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

except end verticals.

6-0-0

Scale = 1:15.6



LOADING	VI /	SPACING- 2-0-0	CSI.	DEFL.	,	(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%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

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

2x4 SP No.3 **OTHERS** 2x4 SP No.3

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.
- * 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.



September 1,2023



Job Truss Truss Type Qty Ply Hayden 120 3637142 160536159 MASTER120 **GABLE** P03G Job Reference (optional)

Builders FirstSource (Apex, NC),

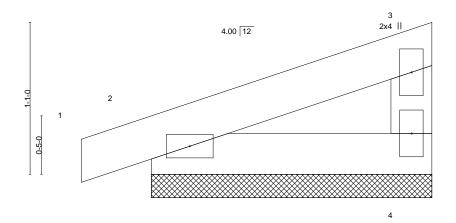
Apex, NC - 27523

-0-6-0 0-6-0

8.630 s Jul 28 2023 MiTek Industries, Inc. Thu Aug 31 18:46:07 2023 Page 1 ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

2-0-0

Scale = 1:8.2



2x4 =

2x4 ||

except end verticals.

LOADING (psf) SPACING-2-0-0 CSI. **TCLL** 20.0 Plate Grip DOL 1.15 TC 0.05 **TCDL** 10.0 Lumber DOL 1.15 BC 0.04 **BCLL** WB 0.00 0.0 Rep Stress Incr YES **BCDL** 10.0 Code IRC2015/TPI2014 Matrix-P

DEFL. in (loc) I/defI L/d Vert(LL) -0.00 n/r 120 Vert(CT) 0.00 n/r 120 Horz(CT) 0.00 4 n/a n/a

BRACING-

TOP CHORD

BOT CHORD

PLATES GRIP MT20 244/190

Structural wood sheathing directly applied or 2-0-0 oc purlins,

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

Weight: 8 lb FT = 20%

LUMBER-

REACTIONS.

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

2x4 SP No.3 **WEBS**

> (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.

- 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.
- * 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.



September 1,2023



Job Truss Truss Type Qty Ply Hayden 120 3637142 160536160 MASTER120 **GABLE** V05 Job Reference (optional) 8.630 s Jul 28 2023 MITek Industries, Inc. Thu Aug 31 18:46:08 2023 Page 1 ID:QnmXaPRpGXrA8yoS4zaUOyyf5FE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Builders FirstSource (Apex, NC), Apex. NC - 27523 13-6-14 16-8-14 13-6-14 3-2-0 Scale = 1:41.9 4x6 =

6 16 6.00 12 3x4 || 10 11 6.00 12 3x4 / 15 13 3x6 =

Plate Offsets (X,Y) [13:0-3-0,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)) I/defl	efl 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/Ti	PI2014	Matri	x-S	, ,					Weight: 74 lb	FT = 20%

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2 **OTHERS** 2x4 SP No.3 BRACING-

TOP CHORD **BOT CHORD** 16-8-14

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

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

6-2-14

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

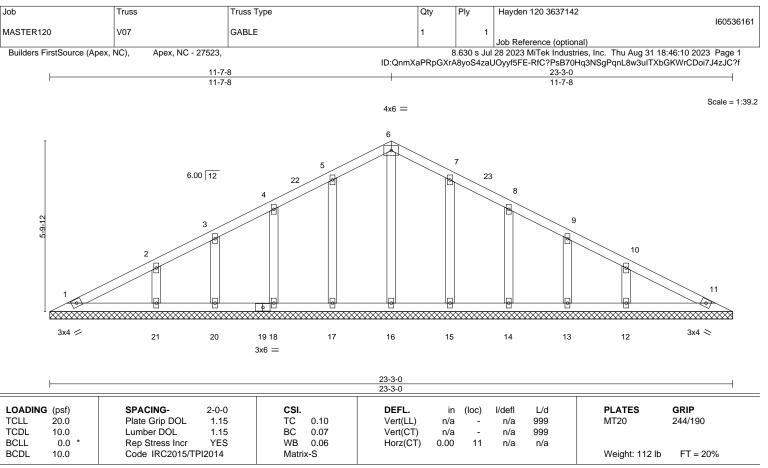
NOTES-

LUMBER-

- 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.
- * 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,
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 8, 9, 10, 11, 12.







LUMBER-

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

BRACING-

TOP CHORD **BOT CHORD** Structural wood sheathing directly applied or 6-0-0 oc purlins.

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

REACTIONS. All bearings 23-3-0.

(lb) -Max Horz 1=80(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 1, 17, 18, 20, 21, 15, 14, 13, 12

Max Grav All reactions 250 lb or less at joint(s) 1, 11, 16, 17, 18, 20, 21, 15, 14, 13, 12

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) 0-7-7 to 3-7-8, Exterior(2) 3-7-8 to 11-7-8, Corner(3) 11-7-8 to 14-7-8, Exterior(2) 14-7-8 to 22-7-9 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 17, 18, 20, 21, 15, 14, 13, 12.

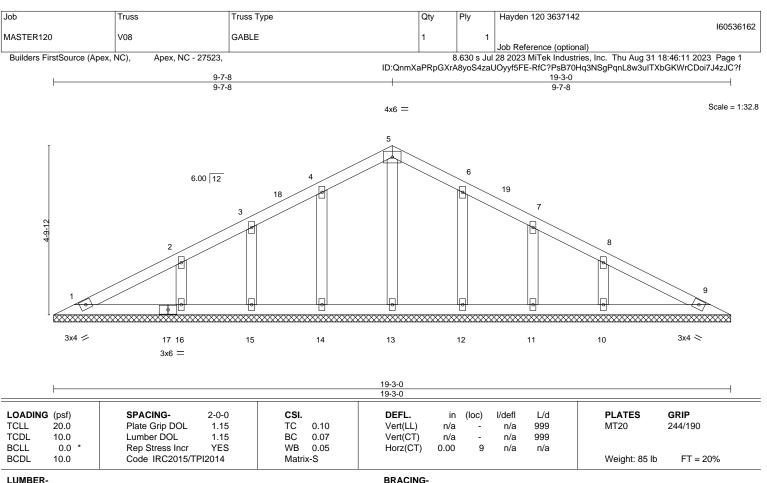




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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 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)





TOP CHORD 2x4 SP No.2

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

BRACING-

TOP CHORD **BOT CHORD** Structural wood sheathing directly applied or 6-0-0 oc purlins.

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

REACTIONS. All bearings 19-3-0.

(lb) -Max Horz 1=65(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 1, 14, 15, 16, 12, 11, 10

Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 16, 12, 11, 10

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) 0-7-7 to 3-7-8, Exterior(2) 3-7-8 to 9-7-8, Corner(3) 9-7-8 to 12-7-8, Exterior(2) 12-7-8 to 18-7-9 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 14, 15, 16, 12,



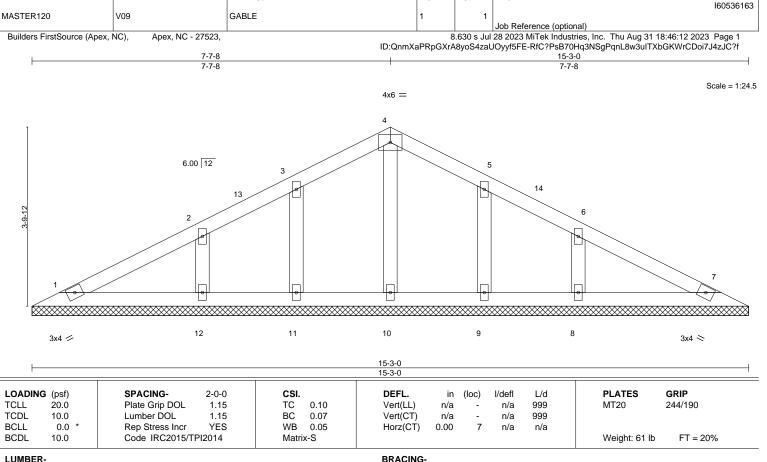
September 1,2023



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TOP CHORD

BOT CHORD

Qty

Ply

Hayden 120 3637142

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

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

LUMBER-

Job

Truss

Truss Type

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

REACTIONS. All bearings 15-3-0. (lb) -

Max Horz 1=51(LC 12) Max Uplift All uplift 100 lb or less at joint(s) 1, 11, 12, 9, 8

Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 11, 12, 9, 8

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) 0-7-7 to 3-7-8, Exterior(2) 3-7-8 to 7-7-8, Corner(3) 7-7-8 to 10-7-8, Exterior(2) 10-7-8 to 14-7-9 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 11, 12, 9, 8.



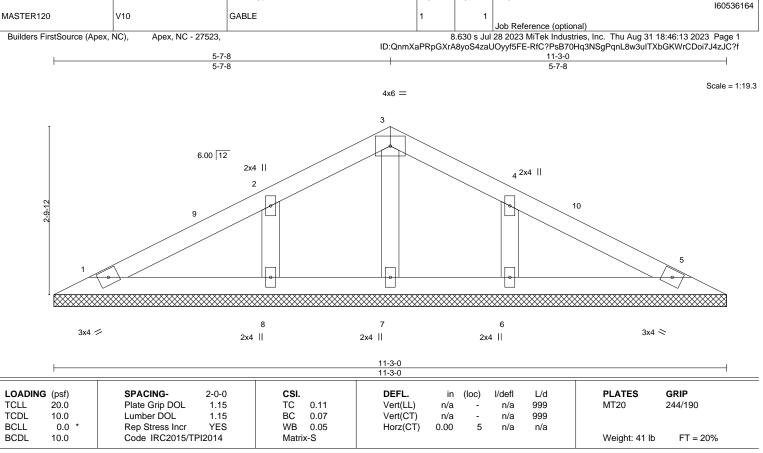
September 1,2023

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Qty

Ply

Hayden 120 3637142

LUMBER-

Job

Truss

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

BRACING-

TOP CHORD BOT CHORD

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

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

REACTIONS. All bearings 11-3-0.

Max Horz 1=36(LC 12) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6

Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=256(LC 23), 6=256(LC 24)

Truss Type

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

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; 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) 0-7-7 to 3-7-8, Exterior(2) 3-7-8 to 5-7-8, Corner(3) 5-7-8 to 8-7-8, Exterior(2) 8-7-8 to 10-7-9 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.
- Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 8, 6.



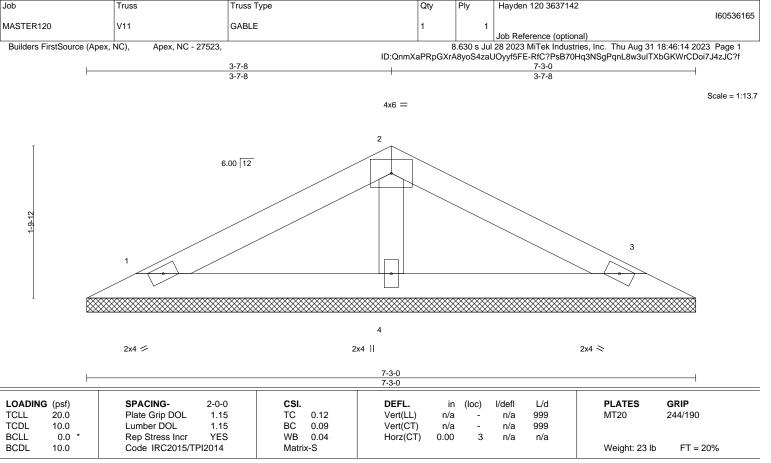


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BRACING-

TOP CHORD

BOT CHORD

LUMBER-

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

REACTIONS. (size) 1=7-3-0, 3=7-3-0, 4=7-3-0

Max Horz 1=22(LC 12)

Max Uplift 1=-15(LC 12), 3=-19(LC 13)

Max Grav 1=111(LC 23), 3=111(LC 24), 4=262(LC 1)

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

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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

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

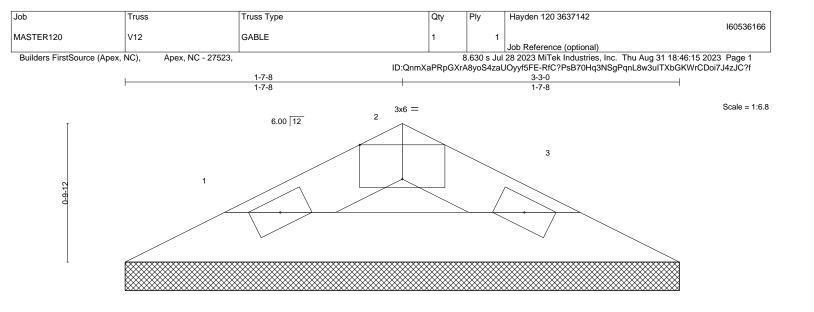


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2x4 / 2x4 🗢

3-3-0

Plate Off	Plate Offsets (X,Y) [2:0-3-0,Edge]											
LOADING	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TI	PI2014	Matri	x-P	, ,					Weight: 8 lb	FT = 20%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

REACTIONS.

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

(size) 1=3-3-0, 3=3-3-0 Max Horz 1=-7(LC 17)

Max Uplift 1=-5(LC 12), 3=-5(LC 13) Max Grav 1=81(LC 1), 3=81(LC 1)

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

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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

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

September 1,2023



Symbols

PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- $\frac{1}{16}$ from outside edge of truss.

₹

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

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

PLATE SIZE

4 × 4

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

LATERAL BRACING LOCATION



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

BEARING



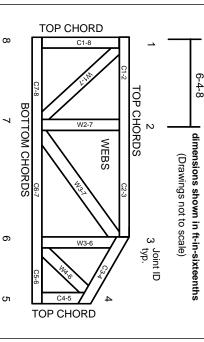
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur Min size shown is for crushing only.

Industry Standards: ANSI/TPI1: National Design Specification for Metal

DSB-22:

Plate Connected Wood Truss Construction.
Design Standard for Bracing.
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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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MiTek®



MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other.

'n

- Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
- Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
- 15. Connections not shown are the responsibility of others
- Do not cut or alter truss member or plate without prior approval of an engineer.
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
- The design does not take into account any dynamic or other loads other than those expressly stated.