RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
10/13/2022 9:13:33

MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Re: 3008835
C&H/157 Cobey Creek/mo

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

Pages or sheets covered by this seal: I54487261 thru I54487265

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

Missouri COA: Engineering 001193

September 30,2022

Sevier, Scott ,Engineer

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.

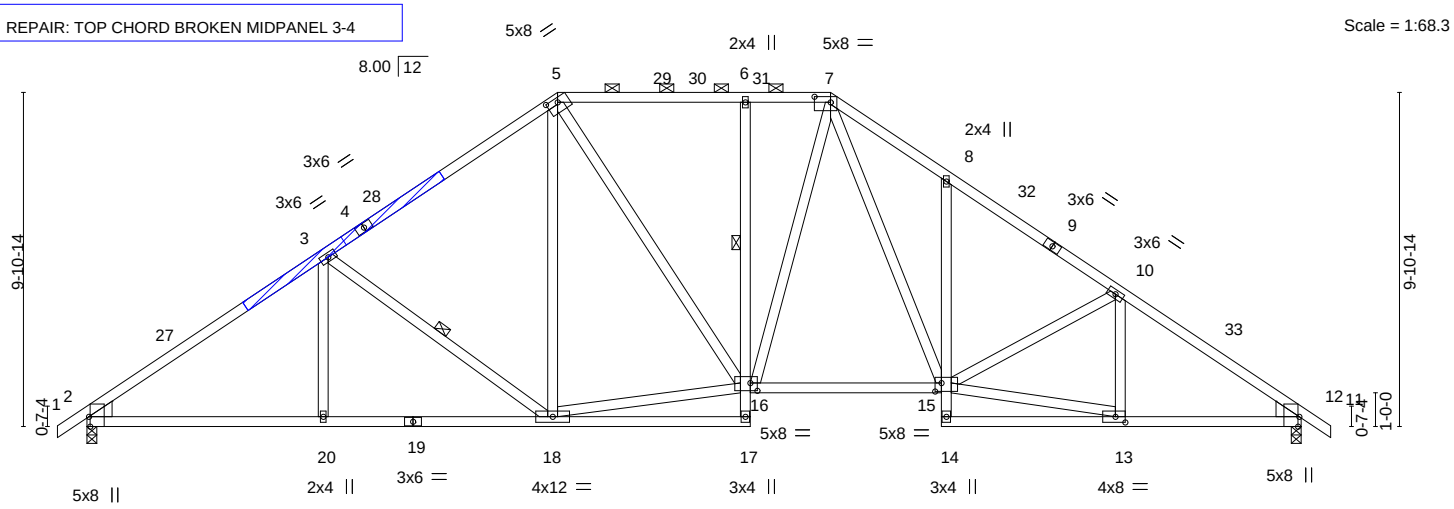
Job	Truss	Truss Type	Qty	Ply	C&H/157 Cobey Creek/mo	
3008835	A4	Piggyback Base	3	1	Job Reference (optional)	I54487261

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Sep 30 09:44:12 2022 Page 1
ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-y7enVe25hlzkkIP62Tva?PigzMSmRyn9uMoAy3yYU31

0-10-8	7-0-1	13-11-7	19-8-0	22-0-9	25-4-0	30-7-11	36-0-0	36-10-8
0-10-8	7-0-1	6-11-6	5-8-9	2-4-9	3-3-7	5-3-11	5-4-5	0-10-8

REPAIR: TOP CHORD BROKEN MIDPANEL 3-4

Scale = 1:68.3



APPLY 2 X 4 X 7' SPF NO.2 SCAB(S) TO EACH FACE OF TRUSS CENTERED ON DAMAGE. ATTACH WITH (0.131" X 3") NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 x 3'S - 1 ROW, 2 x 4'S - 2 ROWS, 2 x 6'S AND LARGER - 3 ROWS: SPACED @ 4" O.C. STAGGER NAIL SPACING FROM FRONT FACE AND BACK FACE FOR A NET 2" O.C SPACING IN THE TRUSS. USE 2" MEMBER END DISTANCE.

7-0-1	13-11-7	19-8-0	22-0-9	25-4-0	30-7-11	36-0-0
7-0-1	6-11-6	5-8-9	2-4-9	3-3-7	5-3-11	5-4-5

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [5:0-4-0,0-1-9], [7:0-5-12,0-2-0], [11:0-3-8,Edge], [13:0-3-8,0-2-0], [15:0-2-4,0-3-0], [16:0-2-8,0-2-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.14	15-16	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.28	15-16	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.12	11	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 191 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x6 SPF No.2 , Right: 2x6 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-2-3 max.): 5-7.
BOT CHORD Rigid ceiling directly applied. Except: 1 Row at midpt 6-16
WEBS 1 Row at midpt 3-18

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=-259(LC 12)
Max Uplift 2=-286(LC 14), 11=-286(LC 15)
Max Grav 2=1681(LC 2), 11=1681(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2412/401, 3-5=-1917/381, 5-6=-1693/359, 6-7=-1694/358, 7-8=-2406/547, 8-10=-2414/412, 10-11=-2429/403
BOT CHORD 2-20=-377/1901, 18-20=-377/1901, 6-16=-331/155, 15-16=-89/1601, 8-15=-349/209, 11-13=-226/1928
WEBS 3-20=0/255, 3-18=-582/273, 5-18=-78/307, 16-18=-151/1449, 5-16=-132/531, 13-15=-216/1859, 10-13=-313/83, 7-16=-176/478, 7-15=-299/884

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-8-11, Interior(1) 2-8-11 to 13-11-7, Exterior(2R) 13-11-7 to 19-0-9, Interior(1) 19-0-9 to 22-0-9, Exterior(2R) 22-0-9 to 27-1-11, Interior(1) 27-1-11 to 36-10-8 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=286, 11=286.
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

September 30,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/157 Cobey Creek/mo
3208835	A6	Piggyback Base	7	1	I54487262

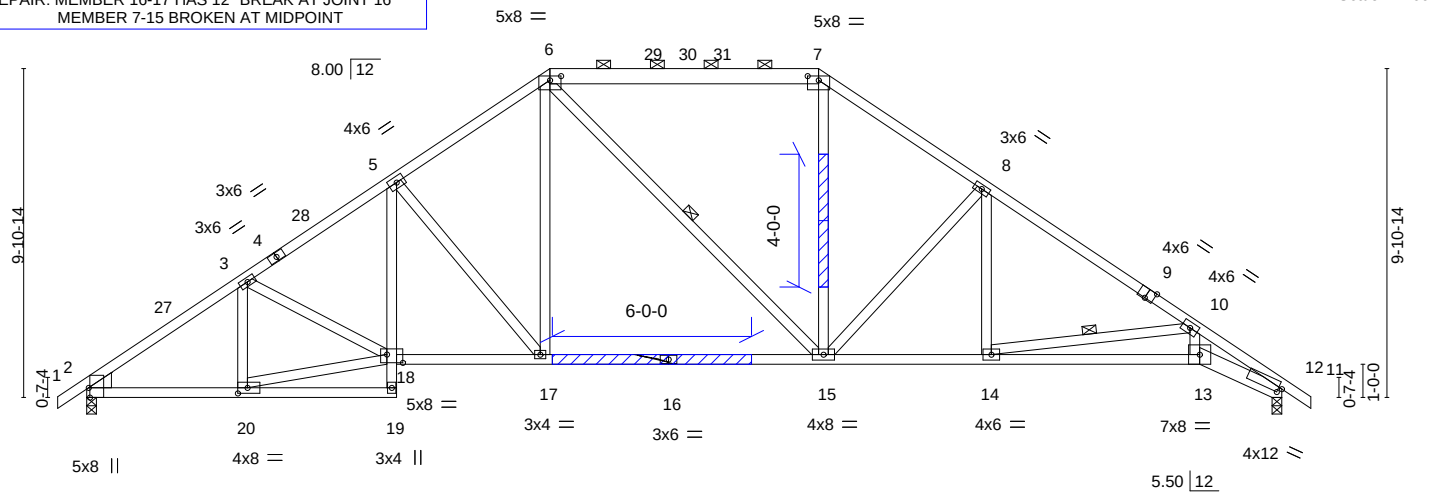
Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Sep 30 09:44:14 2022 Page 1
ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-vVlYwK3LDNDSzcZV9ux24qn_DA6jvqUSMgHG1yyYU3?

0-10-8	4-8-5	9-4-0	13-11-7	18-0-0	22-0-9	26-11-8	27-9-7	33-6-5	36-0-0	36-10-8
0-10-8	4-8-5	4-7-11	4-7-7	4-0-9	4-0-9	4-10-15	0-9-15	5-8-14	2-5-11	0-10-8

REPAIR: MEMBER 16-17 HAS 12" BREAK AT JOINT 16
MEMBER 7-15 BROKEN AT MIDPOINT

Scale = 1:69.4



APPLY 2 X 4 SPF NO.2 SCAB(S) TO EACH FACE OF TRUSS CENTERED ON DAMAGE AS SHOWN. ATTACH WITH (0.131" X 3") NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 x 3'S - 1 ROW, 2 x 4'S - 2 ROWS, 2 x 6'S AND LARGER - 3 ROWS: SPACED @ 4" O.C. STAGGER NAIL SPACING FROM FRONT FACE AND BACK FACE FOR A NET 2" O.C SPACING IN THE TRUSS. USE 2" MEMBER END DISTANCE.

4-8-5	9-4-0	13-11-7	22-0-9	26-11-8	27-9-7	33-6-5	36-0-0
4-8-5	4-7-11	4-7-7	8-1-2	4-10-15	0-9-15	5-8-14	2-5-11

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [6:0-4-0,0-1-9], [7:0-4-0,0-1-9], [9:0-3-0,Edge], [11:0-1-4,0-1-11], [18:0-5-12,0-3-0], [20:0-3-8,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.20	13-14	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.41	15-17	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.22	11	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 182 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except* 6-7: 2x6 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 11-13: 2x6 SPF 2100F 1.8E, 13-16: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
WEDGE	Left: 2x6 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-8-13 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 6-15, 10-14

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=-258(LC 12)
Max Uplift 2=-286(LC 14), 11=-286(LC 15)
Max Grav 2=1681(LC 2), 11=1681(LC 2)

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

TOP CHORD	2-3=-2425/402, 3-5=-2556/470, 5-6=-2070/418, 6-7=-1636/377, 7-8=-2086/396, 8-10=-2647/422, 10-11=-4695/724
BOT CHORD	2-20=-408/1929, 5-18=-97/434, 17-18=-347/2067, 15-17=-171/1642, 14-15=-161/2138, 13-14=-542/3679, 11-13=-567/4003
WEBS	5-17=-666/268, 6-17=-140/661, 7-15=-100/655, 10-14=-1561/386, 10-13=-92/1204, 3-20=-402/131, 18-20=-401/1825, 8-14=-27/404, 8-15=-718/268

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-8-11, Interior(1) 2-8-11 to 13-11-7, Exterior(2R) 13-11-7 to 19-0-9, Interior(1) 19-0-9 to 22-0-9, Exterior(2R) 22-0-9 to 27-1-4, Interior(1) 27-1-4 to 36-10-8 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=286, 11=286.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

Continued on page 2

September 30,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

NOTES

10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

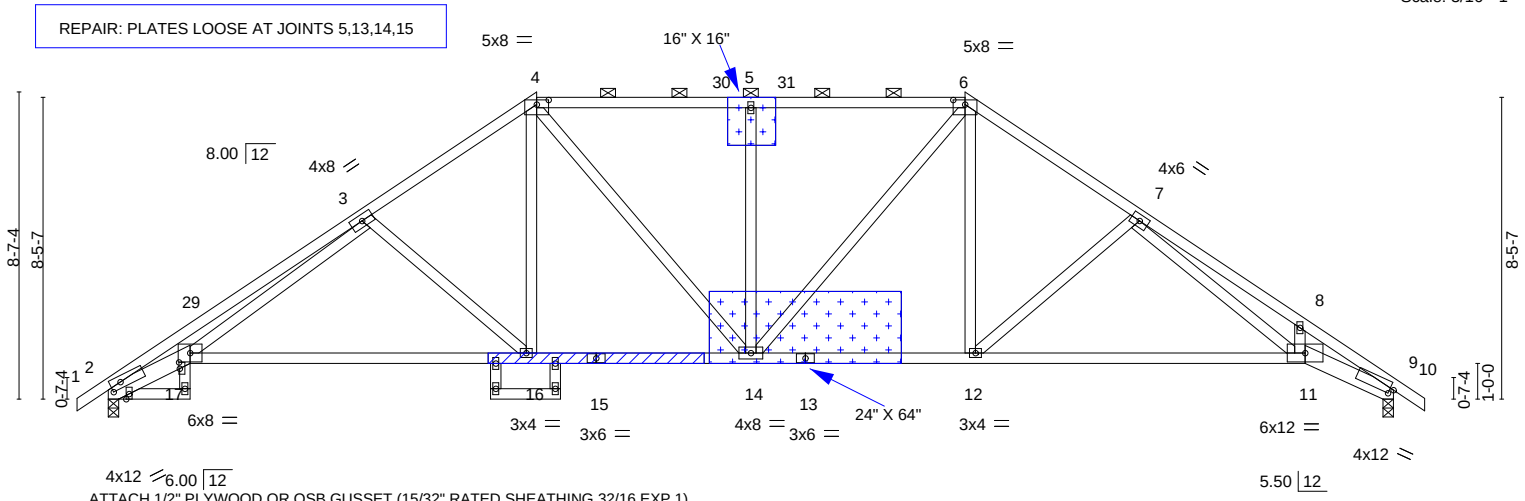
Job	Truss	Truss Type	Qty	Ply	C&H/157 Cobey Creek/mo
3008835	A7	HIP	1	1	I54487263

Job Reference (optional)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Sep 30 09:44:16 2022 Page 1
ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-rutIL05bl_TADvitHJzW9FtGdzmqNlKlp_mN4ryYU2z

Scale: 3/16"=1'

REPAIR: PLATES LOOSE AT JOINTS 5,13,14,15



ATTACH 1/2" PLYWOOD OR OSB GUSSET (15/32" RATED SHEATHING 32/16 EXP 1) TO EACH FACE OF TRUSS WITH (0.131" X 2.5" MIN.) NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 X 3'S - 2 ROWS, 2 X 4'S - 3 ROWS, 2 X 6'S AND LARGER - 4 ROWS: SPACED @ 4" O.C. NAILS TO BE DRIVEN FROM BOTH FACES. STAGGER SPACING FROM FRONT TO BACK FACE FOR A NET 2" O.C. SPACING IN EACH COVERED TRUSS MEMBER. USE 2" MEMBER END DISTANCE.

APPLY 2 X 4 X 6' SPF NO.2 SCAB(S) TO EACH FACE OF TRUSS CENTERED ON SPLICE. ATTACH WITH (0.131" X 3") NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 x 3'S - 1 ROW, 2 x 4'S - 2 ROWS, 2 x 6'S AND LARGER - 3 ROWS: SPACED @ 4" O.C. STAGGER NAIL SPACING FROM FRONT FACE AND BACK FACE FOR A NET 2" O.C SPACING IN THE TRUSS. USE 2" MEMBER END DISTANCE.

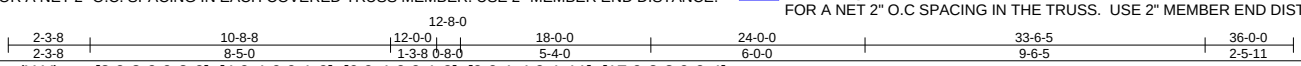


Plate Offsets (X,Y)-- [2:0-3-9,0-2-0], [4:0-4-0,0-1-9], [6:0-4-0,0-1-9], [9:0-1-4,0-1-11], [17:0-2-2,0-0-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.33	16-17	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.76	16-17	>570	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.37	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-MS							Weight: 174 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF 1650F 1.5E *Except* 4-6: 2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 9-11,2-17: 2x6 SPF 2100F 1.8E
WEBS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-6-8 max.): 4-6.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 16-17.

REACTIONS. (size) 9=0-3-8, 2=0-3-8
Max Horz 2=-222(LC 12)
Max Uplift 9=-292(LC 15), 2=-292(LC 14)
Max Grav 9=1681(LC 2), 2=1681(LC 2)

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

TOP CHORD	2-3=-4950/948, 3-4=-2306/442, 4-5=-2070/393, 5-6=-2070/393, 6-7=-2304/413, 7-8=-4554/805, 8-9=-4681/682
BOT CHORD	16-17=-444/2305, 14-16=-229/1829, 12-14=-99/1828, 11-12=-248/2307, 9-11=-515/3966, 2-17=-867/4233
WEBS	4-14=-213/509, 5-14=-513/207, 6-14=-213/512, 6-12=-97/600, 7-12=-612/262, 4-16=-118/609, 7-11=-354/1939, 3-16=-623/295, 3-17=-457/2238

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-8-11, Interior(1) 2-8-11 to 12-0-0, Exterior(2R) 12-0-0 to 17-1-2, Interior(1) 17-1-2 to 24-0-0, Exterior(2R) 24-0-0 to 28-10-11, Interior(1) 28-10-11 to 36-10-8 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Bearing at joint(s) 9, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=292, 2=292.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

September 30,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

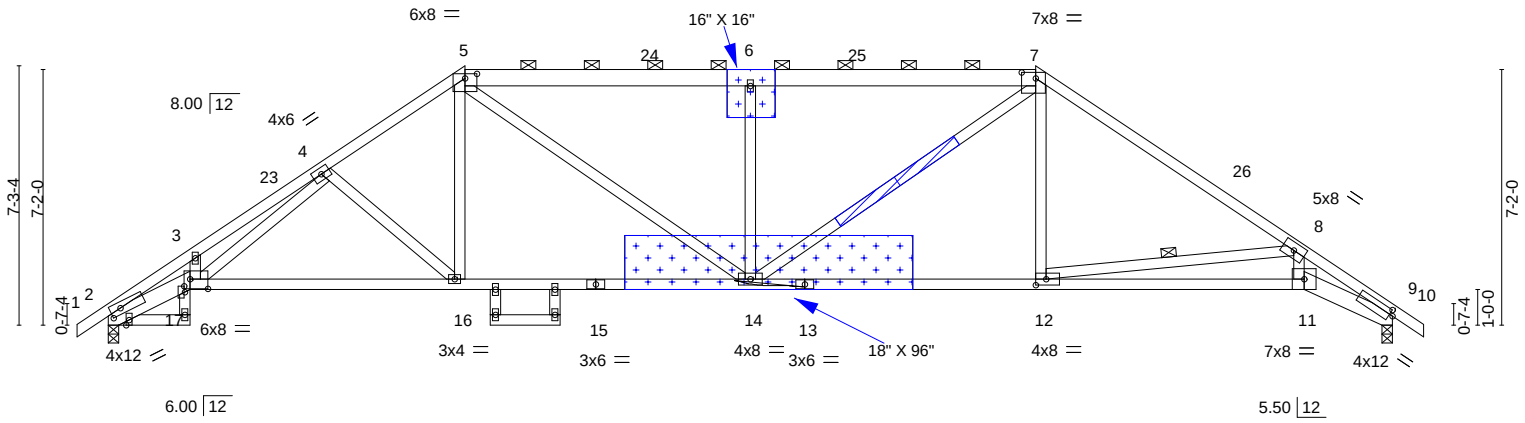
Job	Truss	Truss Type	Qty	Ply	C&H/157 Cobey Creek/mo	
3008835	A6	HIP	1	1		I54487264
					Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Sep 30 09:44:18 2022 Page 1
ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-nG?3mh6sHbjuSDsGOj0_Egyb7nSWrgo1HIFU9jyYU2x

0-10-8	2-3-8	6-1-3	10-0-0	10-8-8	12-8-0	18-0-0	19-4-0	26-0-0	33-6-5	36-0-0	36-10-8
0-10-8	2-3-8	3-9-11	3-10-13	0-8-8	1-11-8	5-4-0	1-4-0	6-8-0	7-6-5	2-5-11	0-10-8

REPAIR: PLATES LOOSE AT JOINT 6
MEMBER 7-14 BROKEN AT MIDPOINT
BOTTOM CHORD 13-15 HAS 24" BREAK STARTING AT JOINT 13

Scale: 3/16"=1'



ATTACH 1/2" PLYWOOD OR OSB GUSSET (15/32" RATED SHEATHING 32/16 EXP 1) TO EACH FACE OF TRUSS WITH (0.131" X 2.5" MIN.) NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 X 3'S - 2 ROWS, 2 X 4'S - 3 ROWS, 2 X 6'S AND LARGER - 4 ROWS: SPACED @ 4" O.C. NAILS TO BE DRIVEN FROM BOTH FACES. STAGGER SPACING FROM FRONT TO BACK FACE FOR A NET 2" O.C. SPACING IN EACH COVERED TRUSS MEMBER. USE 2" MEMBER END DISTANCE.

APPLY 2 X 4 X 4' SPF NO.2 SCAB(S) TO EACH FACE OF TRUSS CENTERED ON DAMAGE. ATTACH WITH (0.131" X 3") NAILS PER THE FOLLOWING NAIL SCHEDULE: 2 x 3'S - 1 ROW, 2 x 4'S - 2 ROWS, 2 x 6'S AND LARGER - 3 ROWS: SPACED @ 4" O.C. STAGGER NAIL SPACING FROM FRONT FACE AND BACK FACE FOR A NET 2" O.C SPACING IN THE TRUSS. USE 2" MEMBER END DISTANCE.

2-3-8	10-0-0	10-8-8	12-8-0	18-0-0	19-4-0	26-0-0	33-6-5	36-0-0
2-3-8	7-8-8	0-8-8	1-11-8	5-4-0	1-4-0	6-8-0	7-6-5	2-5-11

Plate Offsets (X,Y)-- [2:0-3-9,0-2-0], [5:0-4-0,0-1-9], [7:0-4-12,0-2-0], [9:0-1-3,0-1-12], [12:0-3-8,0-2-0], [17:0-6-0,0-3-4], [17:0-2-0,0-0-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.99	Vert(LL)	-0.25	14	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.50	16-17	>858	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.42	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 176 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF 1650F 1.5E *Except* 5-7: 2x6 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except* 9-11,2-17: 2x6 SP 2400F 2.0E, 11-13: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-1-7 max.): 5-7.
BOT CHORD	Rigid ceiling directly applied or 8-9-11 oc bracing.
WEBS	1 Row at midpt 8-12

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=-187(LC 12)
Max Uplift 2=-298(LC 14), 9=-298(LC 15)
Max Grav 2=1678(LC 2), 9=1678(LC 2)

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

TOP CHORD	2-3=-5255/965, 3-4=-4626/976, 4-5=-2464/465, 5-6=-2564/432, 6-7=-2564/431, 7-8=-2550/412, 8-9=-5247/901
BOT CHORD	16-17=-446/2420, 14-16=-318/1984, 12-14=-166/2006, 11-12=-653/3823, 9-11=-735/4440, 2-17=-889/4393
WEBS	8-11=-221/1815, 5-16=-86/535, 7-12=-6/492, 3-17=-52/713, 8-12=-1825/530, 6-14=-701/291, 7-14=-282/831, 5-14=-270/834, 4-16=-553/238, 4-17=-474/1895

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-5-4, Interior(1) 2-5-4 to 10-0-0, Exterior(2R) 10-0-0 to 15-1-2, Interior(1) 15-1-2 to 26-0-0, Exterior(2R) 26-0-0 to 31-1-2, Interior(1) 31-1-2 to 36-10-8 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Bearing at joint(s) 2, 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=298, 9=298.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

September 30,2022

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

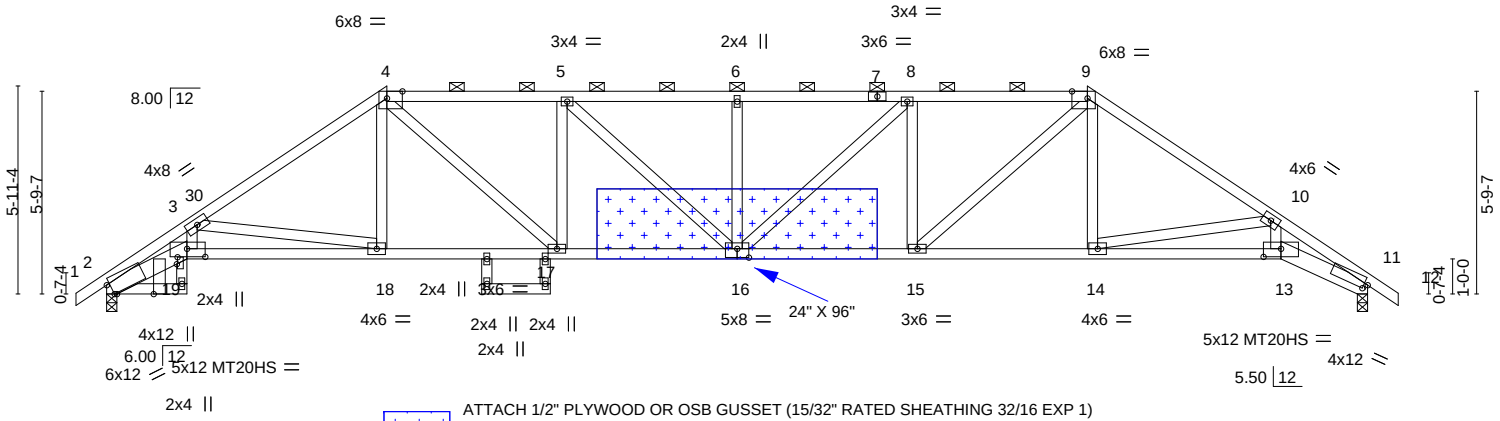
Job	Truss	Truss Type	Qty	Ply	C&H/157 Cobey Creek/mo	
3008835	A9	Hip	1	1		I54487265
					Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jan 6 2022 MiTek Industries, Inc. Fri Sep 30 09:44:19 2022 Page 1
ID:Yzh5jGTdUuk3JFmon9oxEvzZifN-FTZRz17U2vrl4NRSyRXDnuVrUBpHa21BVy?1h9yYU2w

0-10-8	2-3-8	8-0-0	13-0-0	18-0-0	23-0-0	28-0-0	33-6-5	36-0-0	36-10-8
0-10-8	2-3-8	5-8-8	5-0-0	5-0-0	5-0-0	5-0-0	5-6-5	2-5-11	0-10-8

REPAIR: MEMBER 8-16 HAS 6" BREAK AT JOINT 16

Scale = 1:65.8



ATTACH 1/2" PLYWOOD OR OSB GUSSET (15/32" RATED SHEATHING 32/16 EXP 1)
TO EACH FACE OF TRUSS WITH (0.131" X 2.5" MIN.) NAILS PER THE FOLLOWING NAIL SCHEDULE:
2 X 3'S - 2 ROWS, 2 X 4'S - 3 ROWS, 2 X 6'S AND LARGER - 4 ROWS: SPACED @ 4" O.C.
NAILS TO BE DRIVEN FROM BOTH FACES. STAGGER SPACING FROM FRONT TO BACK FACE
FOR A NET 2" O.C. SPACING IN EACH COVERED TRUSS MEMBER. USE 2" MEMBER END DISTANCE.

2-3-8	8-0-0	12-8-0	13-0-0	18-0-0	23-0-0	28-0-0	33-6-5	36-0-0
2-3-8	5-8-8	4-8-0	0-4-0	5-0-0	5-0-0	5-0-0	5-6-5	2-5-11

Plate Offsets (X,Y)-- [2:0-1-1,Edge], [4:0-5-5,Edge], [9:0-5-5,Edge], [11:0-1-4,0-1-11], [13:0-6-0,0-2-12], [16:0-4-0,0-3-0], [19:0-6-4,0-2-12], [19:0-2-6,0-0-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.31	16	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.56	16-17	>774	180	MT20HS	148/108
TCDL	10.0	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.36	11	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-AS							Weight: 167 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
16-19,13-16: 2x4 SPF 1650F 1.5E, 11-13,2-19: 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (2-11-11 max.): 4-9.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=-153(LC 12)
Max Uplift 2=-301(LC 14), 11=-301(LC 15)
Max Grav 2=1681(LC 2), 11=1681(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4895/948, 3-4=-2797/496, 4-5=-3020/543, 5-6=-3275/559, 6-8=-3275/559, 8-9=-3021/521, 9-10=-2788/469, 10-11=-4625/764
BOT CHORD 18-19=-808/3800, 17-18=-417/2271, 16-17=-553/3018, 15-16=-480/3019, 14-15=-255/2267, 13-14=-565/3618, 11-13=-598/3931, 2-19=-873/4189
WEBS 9-14=-33/430, 10-14=-1363/357, 10-13=-114/1154, 3-19=-210/1310, 4-18=-45/431, 3-18=-1537/473, 8-15=-656/247, 6-16=-353/139, 5-17=-655/247, 4-17=-307/1100, 9-15=-304/1104, 8-16=-148/402, 5-16=-147/403

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-5-4, Interior(1) 2-5-4 to 8-0-0, Exterior(2R) 8-0-0 to 13-0-0, Interior(1) 13-0-0 to 28-0-0, Exterior(2R) 28-0-0 to 33-4-9, Interior(1) 33-4-9 to 36-10-8 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) Provide adequate drainage to prevent water ponding.
6) All plates are MT20 plates unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) Bearing at joint(s) 2, 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=301, 11=301.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

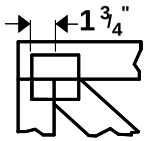
STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

September 30,2022

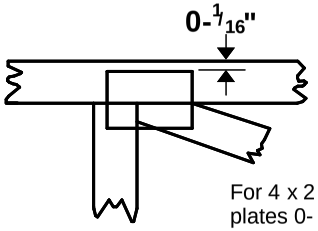
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

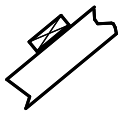
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

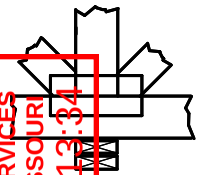
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

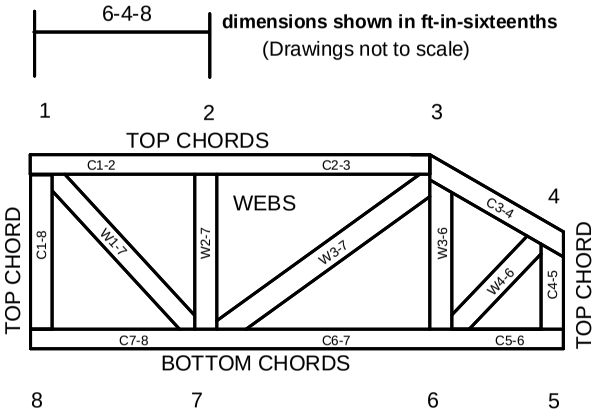


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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 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.