

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

Re: Crash_Champions P220338

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Premier Building Supply (Springhill, KS)20300 W 207th Street.

Pages or sheets covered by this seal: I52937126 thru I52937127

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

Missouri COA: Engineering 001193

OF MISSO

SCOTT M. SEVIER

NUMBER PE-2001018807

ON

Sevier, Scott

SUBMITTAL: Crash Champions - Body SI Wood Truss - shop drawing	nop - s BOSE DESIGN GROUP [™]							
X APPROVED	APPROVED AS NOTED							
By: Chris Bell	07/15/2022							
This review is only for general conformance of the project and general compliance. Corrections or comments made on these drawings during this review do not relieve Subcontractor from compliance with the requirements of the plans and specifications. Subcontractor is responsible for all dimensions and fabrication to be confirmed and correlated at the job site								

July 7,2022

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.

,Engineer



Scale = 1:107.6



<u>8-11-12</u> 8-11-12	17-4-11	<u>25-9-9</u> 8-4-14	34-2-7	42-7-5		51-0 8-4-	-4	60-0-0 8-11-12	
LOADING (psf) TCLL (roof) 25.0 Snow (Ps/Pg) 19.3/25.0 TCDL 15.0 BCLL 0.0 BCDL 10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IBC2021/TPI2	2-0-0 CS 1.15 TC 1.15 BC YES W 014 Ma	51. C 0.97 C 0.54 B 0.74 atrix-S	DEFL. in Vert(LL) -0.60 Vert(CT) -1.11 Horz(CT) 0.28	(loc) 19-21 19-21 14	l/defl >999 >646 n/a	L/d 240 180 n/a	PLATES MT20 MT18HS Weight: 357 lb	GRIP 197/144 197/144 FT = 20%
LUMBER-			BRACIN	G-					

TOP CHORD

BOT CHORD

WEBS

Structural wood sheathing directly applied.

1 Row at midpt

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

7-21, 9-19

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UMBER-
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TOP CHORD 2x6 SPF No 2 BOT CHORD 2x6 SP 2400F 2.0E WEBS 2x4 SPF No.3

REACTIONS. (size) 2=0-5-8, 14=0-5-8 Max Horz 2=-123(LC 14) Max Grav 2=3318(LC 28), 14=3318(LC 29)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. TOP CHORD 2-3=-8077/76, 3-5=-7889/101, 5-7=-7005/134, 7-8=-5728/167, 8-9=-5728/167, 9-11=-7005/134, 11-13=-7890/101, 13-14=-8078/76 BOT CHORD 2-24=-27/7556, 22-24=0/6924, 21-22=0/5900, 19-21=0/4744, 18-19=0/5825, 16-18=0/6832, 14-16=-19/7464 WEBS 3-24=-323/108, 5-24=0/751, 5-22=-831/95, 7-22=0/1319, 7-21=-1332/117, 8-21=-7/1739, 8-19=-7/1739, 9-19=-1332/117, 9-18=0/1319, 11-18=-831/95, 11-16=0/751,

NOTES-

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

13-16=-323/108

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=16ft; B=70ft; L=60ft; eave=7ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -0-10-13 to 5-1-3, Interior(1) 5-1-3 to 30-0-0, Exterior(2R) 30-0-0 to 36-0-0, Interior(1) 36-0-0 to 60-10-13 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=25.0 psf; Ps=19.3 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

4) Roof design snow load has been reduced to account for slope.

5) Unbalanced snow loads have been considered for this design.

6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 19.3 psf on overhangs non-concurrent with other live loads.

7) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.

8) All plates are MT20 plates unless otherwise indicated.

9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

10) * 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.



MiTek 16023 Swingley Ridge Rd Chesterfield, MO 63017

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 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, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

Job	Truss	Truss Type	Qty	Ply	P220338			
					152937127			
CRASH_CHAMPIONS	R1GB	GABLE	2	1				
					Job Reference (optional)			
Premier Building Supply (Sp	ringhill, KS), Spring Hills,	KS - 66083,		8.530 s De	ec 6 2021 MiTek Industries, Inc. Wed Jul 6 14:50:43 2022 Page 1			
		ID:Us	nmMoJ??I	09rs0dz4h	vUoYz4Nax-9UrinjKFEb?HmsTkzC5I1YDA8VaUjNFH2YJjmsz_ldg			
20.0.0			CO 0 0					

30-0-0

30-0-0

27-66

Scale = 1:97.6



1			60-0-0								
			60-0-0								
Plate Offsets (X,Y) [14:0-3-0,0-4-4], [34:0-3-0,0-4-4]											
LOADING (ps TCLL (roof) Snow (Ps/Pg) TCDL BCLL BCDL	f) 25.0 19.3/25.0 15.0 0.0 * 10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCodeIBC2021/TPI2014	CSI. TC 0.04 BC 0.02 WB 0.18 Matrix-S	DEFL. Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 47	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 446 lb	GRIP 197/144 FT = 20%	
LUMBER-			BR	ACING-							
TOP CHORD	2x6 SPF No.2		то	P CHORD	Structural	wood sh	neathing	directly app	olied or 6-0-0 oc purlins.		
BOT CHORD	2x6 SPF No.2		BO	T CHORD	Rigid ceilir	ng direct	tly applie	ed or 10-0-0	oc bracing.		
OTHERS	2x4 SPF No.3 *Ex	cept*	WE	BS	1 Row at n	nidpt		24-69, 23	-70, 22-72, 21-73, 25-68	3, 26-67,	

14-14,34-34: 2x6 SPF No.2

REACTIONS. All bearings 60-0-0.

(lb) - Max Horz 1=-117(LC 14)

Max Grav All reactions 250 lb or less at joint(s) 1, 47, 69, 70, 72, 73, 74, 75, 76, 77, 78, 79, 80, 82, 83, 84, 85, 86, 87, 88, 89, 90, 68, 67, 66, 65, 64, 63, 62, 61, 60, 59, 57, 56, 55, 54, 53, 52, 51, 50, 49 except 91=266(LC 34), 48=266(LC 35)

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

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=6.0psf; h=16ft; B=70ft; L=60ft; eave=7ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-13 to 6-7-13, Interior(1) 6-7-13 to 30-0-0, Exterior(2R) 30-0-0 to 36-0-0, Interior(1) 36-0-0 to 59-4-3 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=25.0 psf; Ps=19.3 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 5) Roof design snow load has been reduced to account for slope.
- 6) Unbalanced snow loads have been considered for this design.
- 7) All plates are 3x4 MT20 unless otherwise indicated.
- 8) Gable requires continuous bottom chord bearing.
- 9) Gable studs spaced at 1-4-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) * 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.



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Max Grav All reactions 250 lb or less at joint(s) 1, 47, 69, 70, 72, 73, 74, 75, 76, 77, 78, 79, 80, 82, 83, 84, 85, 86, 87, 88, 89, 90, 68, 67, 66, 65, 64, 63, 62, 61, 60, 59, 57, 56, 55, 54, 53, 52, 51, 50, 49 except 91=266(LC 34), 48=266(LC 35)

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.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=16ft; B=70ft; L=60ft; eave=7ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-7-13 to 6-7-13, Interior(1) 6-7-13 to 30-0-0, Exterior(2R) 30-0-0 to 36-0-0, Interior(1) 36-0-0 to 59-4-3 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
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LOAD CASE(S) Standard

		20300 W 207TH St Spring Hill, KS 66083							
	PREN BUILDING SUPPLY	TIER OF KANSAS CITY							
Since 1923	Phone: 913.686.1812 www.premierbuildingsupply.c								
Customer									
Rose Design Gro	oup								
Job Name:									
Crash Champion	S								
Address:									
451 SE Oldham	Parkway, Le	e Summit, MO							
Salesperson:									
Tom Lambertz									
Designer:tld									
ROOF LOADING		Scale:							
	(TCII) 25	NTS							
TOP CHORD DEAD LOAD	(TCDL) 23	Date:							
BOTTOM CHORD LIVE LOAD	(BCLL) 0	7/15/2022							
BOTTOM CHORD DEAD LOAD	(BCDL) 10	1/13/2022							
DEFLECTION: (LIVE) (TOTAL)		Job #:							
BUILDING CODE: IRC 2018	P220338								
50.25 NO 0052. NO 2010		1							
TRUSS PL	ACEMENT D	NAGRAM							
	ROOF								

	2-00-00	2-00-00	2-00-00	2-00-00	2-00-00	2-00-00	2-00-00	2-00-00	2-00-00	2-00-00	2-00-00	,2-00-00	2-00-00	2-00-00	2-00-00	2-00-
1GB																
æ																

ALL ROOF TRUSS DIMENSIONS ARE FROM OUTSIDE EDGE OF STUD (u.n.o.) SET ROOF TRUSSES FLUSH WITH FRAMING (u.n.o.)

WARNING: Trusses must be handled with care to prevent damage and injury.

This truss placement diagram is to be used only as an installation aid; it is not a structural diagram. These trusses are designed as individual building components to be incorporated into the building design at the the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing.

Professional advice should be sought regarding handling, installation, temporary and permanent bracing before erecting trusses. Temporary and permanent bracing is required during installation of trusses to prevent possible collapse.

For general guidance regarding bracing, consult "BCSI-06" available jointly from WTCA & TPI.

Premier Building Supply must be notified of any issues requiring a back charge prior to any work being done. Premier Building Supply reserves the right to use it's service staff in lieu of being back charged.

