

Trenco 818 Soundside Rd Edenton, NC 27932

Re: 21030028-A 221 Willowcroft-Roof-2742-S

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carter Components (Sanford, NC)).

Pages or sheets covered by this seal: I45552811 thru I45552924

My license renewal date for the state of North Carolina is December 31, 2021.

North Carolina COA: C-0844



April 8,2021

Johnson, Andrew **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	221 Willowcroft-Roof-2742-S	
21030028-A	A01		Attic Girder		1	1	Job Reference (optional)	
Carter Components	; (Sanford), Sanford, NG	C - 27332,	-1-0-0 1-0-0 1-0-0 2-11-8	Run: 8.43 S Mar 22 20 ID:TCLP8oSm6qVAI1G 9-6-7 5-5-12,7-10-7, 12-5- 2-6-4 2-4-11 2-11- 1-8 ₂ %6 ¢	21 Print: 8. wDZWwlB: -914-1-9 -2 1-8-02- 5x10	430 S Mar 22 zWCsS-RfC3 5-6-4 <u>19-0-</u> 4-11 2-6-4 \$	2021 MiTek Industries, Inc. Wed Apr 07 14:27:02 Page PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f 23-0-0 8 22-0-0 4 2-11-8 1-0-0	ə: 1
Scale = 1:96	Y): [9:0-2-2.Edae].	[11:0-2-2.Edge], [20:]	2 4 4 4 4 4 4 4 4 4 4 4 4 4	5x10 # 9 10 8 1 12 ² 51 44 43 6 0 6	4x6 11 12 12 12 45 129 60 3x5= 45 129 60 3x5= 45 129 129 60 3x5= 45 129 129 60 3x5= 45 129 129 120 120 120 120 120 120 120 120	13 52 14 15 15 14 15 15 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15	3x6 15 16 17 18 19 19 19 19 19 19 19 10 10 10 10 10 10 10 10 10 10	Summing
	1). [9.0-2-2,Euge],	[11.0-2-2,Euge], [20.1	Euge,0-3-oj, [24.0-3-o	,0-4-0], [30.0-30,0-3-12]		0-1-12		
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDI	(psf) 20.0 20.0 10.0 0.0*	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC2018/TPI2014	CSI TC 0.4 BC 0.8 WB 0.8 Matrix-MSH	9 Vert(1 7 Vert(1 80 Horz(Attic	- _L) -0. CT) -0. CT) 0. -0.	in (loc) I/defl L/d PLATES GRIP 14 31-33 >999 240 MT20 244/190 23 31-33 >999 180 24 20 n/a n/a 28 27-37 >999 360 Weight: 284 lb ET = 20%	
LUMBER TOP CHORD 2 BOT CHORD 2 WEBS 2 OTHERS 2 BRACING TOP CHORD 5 JOINTS 1 REACTIONS (si Ma FORCES (TOP CHORD 1 TOP CHORD 1 1 1 1 1 1 1 1 1 1	2x6 SP No.2 *Excep 2400F 2.0E 2x6 SP No.2 *Excep 2x6 SP No.3 *Excep 2x4 SP No.3 Structural wood sheat 5-11-10 oc purlins, 10 2-0-0 oc purlins (10- Rigid ceiling directly yracing. Except: 3-7-0 oc bracing: 28- 5-4 0 oc bracing: 35, 1 Brace at Jt(s): 35, 28, 43 ize) 20=0-3-8, ax Uplift 20=-522 (10, ax Grav 20=2369 (10, 1b) - Maximum Com Fension I-2=0/49, 2-3=-1842 1-50=-2292/472, 6-5 5-50=-2292/472, 6-5 5-50=-2292/472, 1-5 5-51=-1138/291, 7-8 7-10=-85/375, 10-11 1-12=-86/298, 12-1 13-52=-1139/292, 14 4-53=-2294/472, 14 5-16=-1943/390, 16 5-16=-1943/390, 16 7-18=-1842/393, 18 2-42=-2261/474, 18- 2-42=-2261/474, 18-	t* 1-9,11-19:2x6 SP t* 37-27:2x4 SP No.2 t* 7-13:2x4 SP No.2 athing directly applied except end verticals, a 0-0 max.): 9-11. applied or 10-0-0 oc -35 -37, 27-28 42=0-3-8 C 11) LC 13), 42=-523 (LC LC 48), 42=2371 (LC pression/Maximum /395, 3-4=-1796/363, =-2376/461, 1=-1259/286, =-207/216, 8-9=-87/2 =-85/375, 3=-207/216, 1-52=-1260/286, 5-53=-2378/462, 5-17=-1796/361, 3-19=0/49, 20=-2260/473	BOT CHORD and 12) WEBS 98,	$\begin{array}{c} 42-54=-286/308, 41-54=\\ 41-55=-286/308, 40-55=\\ 39-40=-395/1460, 39-56\\ 38-56=-395/1460, 38-57\\ 36-57=-262/1422, 36-56\\ 34-58=-436/3496, 33-34\\ 33-59=-309/4277, 31-56\\ 29-31=-309/4277, 31-56\\ 29-31=-309/4277, 31-56\\ 29-31=-309/4277, 31-56\\ 29-31=-309/4277, 31-56\\ 29-31=-309/4277, 31-56\\ 29-31=-309/4277, 31-56\\ 29-31=-309/4277, 31-56\\ 29-31=-27/40, 37-64=-11\\ 64-65=-1147/32, 35-56\\ 35-66=-2644/176, 32-66\\ 32-67=-2863/121, 30-67\\ 30-68=-2662/198, 28-66\\ 28-69=-1166/358, 69-70\\ 27-70=-1166/358\\ 4-40=-408/35, 4-46=-20\\ 38-46=-259/389, 37-38=\\ 6-37=-380/1503, 24-27=\\ 14-27=-377/1499, 24-48\\ 16-48=-209/343, 16-22=\\ 7-44=-1715/468, 43-44=\\ 43-45=-17111/467, 13-45\\ 2-47=-236/1531, 40-47=\\ 22-49=-237/1560, 18-48\\ 36-37=-349/1408, 26-27\\ 35-36=-159/896, 28-29=\\ 32-34=-450/106, 29-30=\\ 32-33=-93/175, 30-31=\\ 10-43=-109/45, 8-44=-61\\ 2-45=-667/84, 3-47=-8\\ 15-48=-681/94, 23-48=\\ \end{array}$	286/308, 286/308, 286/308, 395/14! 262/14: 3=-436/34! 309/42' 309/42' 309/42' 309/42' 309/42' 309/42' 309/42' 309/42' 309/42' 227/32! 211/12! 246/31' 2863/13, 2662/13 -	60, 22, 96, 77, 77, 83, 54, 87, 87, 33=-27/40, 32, 76, 21, 98, 58, 58, 7, 69, 1, 30, 29, 1, 30, 29,	 NOTES Unbalanced roof live loads have been considered this design. Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0pst; BCDL=6.0pst; h=25 Cat. II; Exp B; Enclosed; MWFRS (envelope) exter zone; cantilever left and right exposed; envelope: and right exposed; Lumber DOL=1.60 plate grip DOL=1.60 Truss designed for wind loads in the plane of the t only. For studs exposed to wind (normal to the fact see Standard Industry Gable End Details as applic or consult qualified building designer as per ANSI/4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL Plate DOL=1.15; Is=1.0; Rough Cat B; Fully Exp.; Ce=(Cs=1.00; Ct=1.10) Unbalanced snow loads have been considered for design. This truss has been designed for greater of min ro load of 12.0 psf or 1.00 times flat roof load of 20.0 overhangs non-concurrent with other live loads. 	for ift; russ ze), able, TPI 1. =1.15 ite 0.9; this of live psf on

Continued on page 2 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 incorporate this design into the applicability of design parameters and NUSTPH1 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	221 Willowcroft-Roof-2742-S	
21030028-A	A01	Attic Girder	1	1	Job Reference (optional)	5552811

Run: 8 43 S. Mar 22 2021 Print: 8 430 S. Mar 22 2021 MiTek Industries. Inc. Wed Apr 07 14:27:02

ID:TCLP8oSm6qVAI1GwDZWwIBzWCsS-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

Carter Components (Sanford), Sanford, NC - 27332,

- 7) Provide adequate drainage to prevent water ponding.
- 8) All plates are 2x4 MT20 unless otherwise indicated.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 10) Gable studs spaced at 2-0-0 oc.
- 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 13) Ceiling dead load (5.0 psf) on member(s). 6-7, 13-14, 7-44, 43-44, 43-45, 13-45; Wall dead load (5.0psf) on member(s).6-37, 14-27
- 14) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 35-37, 32-35, 30-32, 28-30, 27-28
- 15) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 42 and 20. This connection is for uplift only and does not consider lateral forces.
- 16) 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.
- 17) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 18) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 19) Attic room checked for L/360 deflection.
- 20) 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (lb/ft)
 - Vert: 1-2=-60, 2-6=-60, 6-7=-70, 7-9=-60, 9-11=-60, 11-13=-60, 13-14=-70, 14-18=-60, 18-19=-60, 20-42=-20, 27-37=-30, 7-44=-10, 43-44=-10, 43-45=-10, 13-45=-10 Drag: 6-37=-10, 14-27=-10
 - Concentrated Loads (lb)
 - Vert: 25=-54 (F), 34=-196 (F), 29=-196 (F), 54=-5 (F), 55=-54 (F), 56=-54 (F), 57=-54 (F), 58=-173 (F), 59=-196 (F), 60=-173 (F), 61=-54 (F), 62=-54 (F), 63=-5 (F)



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	A02	Attic	3	1	Job Reference (optional)	145552812

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:06 ID:TsjbfETjcU_9AAjF8anzK8zWDjy-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:81.8

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

Loading	(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.91	Vert(LL)	0.17	26-27	>999	240	MT20	244/1	90	
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.74	Vert(CT)	-0.23	23-25	>999	180				
TCDL	10.0	Rep Stress Incr	YES		WB	0.56	Horz(CT)	0.03	11	n/a	n/a				
BCLI	0.0*	Code	IRC20	18/TPI2014	Matrix-MSH		Attic	0.12	14-25	>999	360				
BCDI	10.0						7 1110	02		- 000	000	Weight: 223 lt	D FT = 3	20%	
	1010	1										110.9.1.1 220 1.		2070	•
LUMBER			N	IOTES					12) This	s truss is	s desig	ned in accorda	nce with t	the 2018	
TOP CHORD	2x6 SP No.2		1) Unbalanced	roof live loads have	been o	considered for		Inte	rnationa	I Resi	dential Code se	ctions R5	502.11.1 and	
BOT CHORD	2x4 SP No.2			this design.					R80	02.10.2 a	and ref	ferenced standa	ard ANSI/	TPI 1.	
WEBS	2x4 SP No.3 *Excep	t* 4-7:2x4 SP No.2	2) Wind: ASCE	7-16; Vult=130mph	n (3-seo	ond gust)		13) Gra	phical p	urlin re	epresentation do	oes not de	epict the size	
BRACING				Vasd=103mp	oh; TCDL=6.0psf; B	CDL=6	.0psf; h=25ft;		or t	ne orien	tation	of the purlin alo	ng the top	p and/or	
TOP CHORD	Structural wood she	athing directly applie	d or	Cat. II; Exp E	; Enclosed; MWFR	S (env	elope) exterior	r	bott	om choi	rd.				
	2-2-0 oc purlins, exe	cept end verticals, ar	nd	zone and C-0	C Exterior(2E) -1-0-	0 to 2-0	0-0, Interior (1))	14) Atti	c room c	hecke	d for L/360 defle	ection.		
	2-0-0 oc purlins (6-0	-0 max.): 5-6.		2-0-0 to 5-3-	 Exterior(2R) 5-3- 	8 to 16	-6-7, Interior (*	1)	LOAD	CASE(S) Sta	ndard			
BOT CHORD	Rigid ceiling directly	applied or 9-10-10 o	С	16-6-7 to 20-	0-0, Exterior(2E) 20	0-0-0 to	23-0-0 zone;								
	bracing.			cantilever lef	and right exposed	; end \	ertical left and	d							
JOINTS	1 Brace at Jt(s): 28,			right exposed	1;C-C for members	and for	Ces & MVVFR	S							
	23, 15, 20			for reactions	snown; Lumber DC)L=1.60	plate grip								
REACTIONS	(size) 11=0-3-8.	27=0-3-8		DOL=1.60	7 40 5 00 0 4			4.5							
	Max Horiz 27=323 (L	_C 13)	3) TULL: ASUE	7-16; Pr=20.0 psr	(root LL	LUM DOL=1	.15							
	Max Grav 11=1584	(LC 50), 27=1584 (LC	C 50)		. 15); PI=20.0 pSI (L		Eve : Co-0.0								
FORCES	(lb) - Maximum Com	pression/Maximum	,	Cs=1.00: Ct-	5=1.0, Rough Cat i -1 10	5, Fully	Exp., Ce=0.9	,							
	Tension		4) Unhalanced	snow loads have b	een cor	sidered for th	is							
TOP CHORD	1-2=0/49, 2-29=-146	64/0, 29-30=-1345/0,		design.		0011 001		10							
	30-31=-1308/0, 3-31	=-1306/0, 3-32=-957	7/86, 5) This truss ha	s been designed fo	r areat	er of min roof l	live							
	4-32=-836/110, 4-5=	-250/201, 5-33=-18/3	311,	load of 12.0	osf or 1.00 times fla	t roof le	bad of 20.0 ps	fon							
	6-33=-18/311, 6-7=-	250/201, 7-34=-836/	110,	overhangs n	on-concurrent with	other liv	/e loads.						IIII.		
	8-34=-957/86, 8-35=	-1306/0, 35-36=-130	08/0, 6) Provide adeo	uate drainage to p	revent	water ponding					Dulla C	AD.	11.	
	36-37=-1345/0, 9-37	′=-1464/0, 9-10=0/49	9, 7) All plates are	3x5 MT20 unless	otherwi	se indicated.				1	atho	270	1 des	
	2-27=-1533/0, 9-11=	-1533/0	8) This truss ha	s been designed fo	r a 10.0) psf bottom				7.	OF	dial	A.C.	
BOT CHORD	26-27=-312/381, 24-	-26=-53/1073,		, chord live loa	d nonconcurrent w	ith any	other live load	ds.		- ()	122	riott	to m	Min	
	22-24=0/2207, 21-22	2=0/2483, 19-21=0/2	.483, g) * This truss h	as been designed	for a liv	e load of 20.0	psf		<u> </u>			- 7	1. 2	
	17-19=0/2483, 16-17	7=0/2026, 13-16=0/2	2026,	on the bottor	n chord in all areas	where	a rectangle				8 8		10 10	1. S.	
	12-13=0/897, 11-12=	=-49/91, 23-25=-716/	/42,	3-06-00 tall b	y 2-00-00 wide will	fit betv	veen the botto	m		-		SE/	AL	- E - E -	
	20-23=-1595/0, 18-2	20=-1758/0,		chord and ar	y other members.					-		450	1.1		
	15-18=-1595/0, 14-1	5=-725/53	. 1	Ceiling dead	load (5.0 psf) on m	ember	s). 3-4, 7-8, 4	-28,		=	6 B	458	44	1 - Z -	
WEBS	25-26=-246/51, 3-25	=0/578, 12-14=-250/	/52,	7-28; Wall d	ead load (5.0psf) o	n meml	per(s).3-25, 8-	·14			1 I			1 2	
	8-14=0/578, 4-28=-1	289/136,	~~ /									·	0	123	
	7-28=-1290/137, 2-2	26=0/1002, 9-12=0/10	004, 1	1) Bottom chore	l live load (40.0 psf) and a	dditional botto	m			2.1	1. SNGIN	IEEN.	03	
	5-28=-108/166, 6-28	5=-108/166, 24-25=0/	/867,	chord dead le	oad (5.0 psf) applie	d only t	o room. 23-25	5,			1	00	1.	SIN	
	13-14=0/867, 23-24	=-842/0, 13-15=-842/	/0,	20-23, 18-20	, 15-18, 14-15							1, TEW	IOHE	11	
	22-23=0/376, 15-17=	=0/377,20-22=-259/3	30, 1/45									1111	10.11	1	
	1/-18=-25//36.20-2	21=-33/48, 18-19=-31	1/45										11111		

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/TPI1** Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY ENGINEERING BY A MITAK ATFILIATE A MITAK ATFILIATE B18 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	A03	Attic	2	1	I45552813 Job Reference (optional)	3

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:06 ID:UxqJwUHNcNYWKcwK7s?w5UzWDiu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:81.8

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

Loading	(psf)	Spacing	2-0-0		csi		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.92	Vert(LL)	0.17	25-26	>999	240	MT20	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.74	Vert(CT)	-0.23	14-15	>999	180			
TCDL	10.0	Rep Stress Incr	YES		WB	0.58	Horz(CT)	0.03	10	n/a	n/a			
BCLL	0.0*	Code	IRC20	18/TPI2014	Matrix-MSH		Attic	-0.13	14-24	>999	360			
BCDL	10.0											Weight: 220 lb	FT = 20%	
LUMBER			N	IOTES					12) This	s truss is	s desid	ned in accordan	ce with the 2018	;
TOP CHORD	2x6 SP No.2		1) Unbalanced	roof live loads hav	ve been o	considered for	r	Inte	rnationa	I Resi	, dential Code sec	tions R502.11.1	and
BOT CHORD	2x4 SP No.2			this design.					R80	2.10.2 a	and ref	ferenced standa	d ANSI/TPI 1.	
WEBS	2x4 SP No.3 *Excep	ot* 4-7:2x4 SP No.2	2) Wind: ASCE	7-16; Vult=130mp	ph (3-sec	cond gust)		13) Gra	phical p	urlin re	epresentation do	es not depict the	size
BRACING				Vasd=103m	oh; TCDL=6.0psf;	BCDL=6	0.0psf; h=25ft;		or th	ne orien	tation	of the purlin alon	g the top and/or	
TOP CHORD	Structural wood she	athing directly applie	d or	Cat. II; Exp E	3; Enclosed; MWF	RS (env	elope) exterio	or	bott	om choi	rd.			
	2-2-0 oc purlins, ex	cept end verticals, ar	nd	zone and C-	C Exterior(2E) -1-0	0-0 to 2-0	0-0, Interior (1	1)	14) Attio	c room c	hecke	d for L/360 defle	ction.	
	2-0-0 oc purlins (6-0	0-0 max.): 5-6.		2-0-0 to 5-3-	8, Exterior(2R) 5-3	3-8 to 16	-6-7, Interior ((1)	LOAD	ASE(S) Sta	ndard		
BOT CHORD	Rigid ceiling directly	applied or 9-9-4 oc		16-6-7 to 18-	10-4, Exterior(2E)) 18-10-4	to 21-10-4 zo	one;		•				
	bracing.			cantilever lef	t and right expose	ed;end،	ertical left and	d						
JOINTS	1 Brace at Jt(s): 27,			right expose	d;C-C for member	's and for	rces & MWFR	RS .						
	22, 15, 19			for reactions	snown; Lumber L	OCE-1.60	plate grip							
REACTIONS	(size) 10=0-3-8,	26=0-3-8		DOL=1.60	7 40. Dr. 00.0									
	Max Horiz 26=314 (L	_C 11)	3) TOLL: ASUE	1-16; Pr=20.0 ps	f (root LL	L: LUM DOL=1	1.15						
	Max Grav 10=1525	(LC 50), 26=1585 (L	C 50)	Plate DOL=1 DOL $=1.15$):	.15), PI=20.0 pSi	(Luni DC	$E_{\text{VD}} : C_{\text{O}} = 0.0$	<u>.</u>						
FORCES	(lb) - Maximum Com	pression/Maximum	,	$C_{S}=1.00$ Ct-	-1 10, Kough Cai	с b, Fully	Exp., Ce=0.9	,						
	Tension		4) Unbalanced	snow loads have l	been cor	nsidered for th	nis						
TOP CHORD	1-2=0/49, 2-28=-146	6/0, 28-29=-1347/0,		design.										
	29-30=-1311/0, 3-30)=-1308/0, 3-31=-958	3/83, 5) This truss ha	s been designed	for great	er of min roof	live						
	4-31=-837/107, 4-5=	-248/204, 5-32=-15/	317,	load of 12.0	osf or 1.00 times f	lat roof le	ad of 20.0 ps	sf on						
	6-32=-15/317, 6-7=-	246/205, 7-33=-838/	110,	overhangs n	on-concurrent with	h other liv	ve loads.						1111	
	8-33=-959/86, 8-34=	-1308/0, 34-35=-131	15/0, 6) Provide adeo	quate drainage to	prevent	water ponding] .				What CA	Dalle	
	35-36=-1347/0, 9-36	6=-1466/0, 2-26=-153	36/0, 7) All plates are	3x5 MT20 unless	s otherwi	se indicated.	-				allion	10/11	
	9-10=-1485/0		8) This truss ha	s been designed	for a 10.0	0 psf bottom				1	0	A. Mar	
BOT CHORD	25-26=-322/363, 23-	-25=-64/1059,		chord live loa	ad nonconcurrent	with any	other live load	ds.			E k	right	Mila	in
	21-23=0/2193, 20-2	1=0/2474, 18-20=0/2	2474, g) * This truss h	has been designed	d for a liv	e load of 20.0)psf				:0	N.	20
	16-18=0/2474, 13-10	6=0/2029, 12-13=0/8	98,	on the bottor	n chord in all area	is where	a rectangle				1 1	100	se - 19 an	=
	11-12=0/898, 10-11:	=-46/81, 22-24=-711	/44,	3-06-00 tall b	y 2-00-00 wide w	ill fit betv	veen the botto	om				SEA	L :	=
	19-22=-1595/0, 17-1	9=-1758/0,		chord and ar	y other members					-		159	14	=
WEDO	15-17=-1596/0, 14-1	0=-132/31	1	 Ceiling dead 	load (5.0 psf) on	member	(s). 3-4, 7-8, 4	4-27,		=	0	400	++	=
WEDS	24-23=-244/31, 3-24	1200/12/	/00,	7-27; Wall d	ead load (5.0psf)	on mem	oer(s).3-24, 8-	-14						3
	7-27-1207/136 2-2	25-0/104, 5-0/1005 9-11-0/9	aa ,	0.5.4.1		• •					:7	A	a:2	2
	5-27=-106/167 6-27	7=-108/166 23-24=0	22, 1 /866	1) Bottom chord	a live load (40.0 p	st) and a	aditional botto	om 4			11	VA VGIN	EF	
	13-14=0/868, 22-23	=-843/0. 13-15=-841	/0.		15 17 14 15	ieu oniy i	0 100111. 22-24	4,			11	Ar	"INP.I"	
	21-22=0/378, 15-16	=0/375, 19-21=-262/	38,	19-22, 17-19	, 10-17, 14-10							MSW J	Onin	
	16-17=-256/37, 19-2	20=-33/48, 17-18=-32	2/45									in min	mm	

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/TPI1** 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	221 Willowcroft-Roof-2742-S	
21030028-A	A04	Attic Girder	1	3	Job Reference (optional)	145552814

12-0-0



7-8-2

Page: 1

2-11-8 -1-0-0 $\begin{array}{c} -1 - 0 \\ 1 - 0 \\ 1 - 0 \\ 1 - 0 \\ 1 - 0 \\ 2 - 11 - 8 \end{array} \begin{array}{c} -1 - 0 \\ 5 - 5 - 12 \\ 1 - 0 \\ 2 - 11 - 8 \\ 2 - 6 - 4 \end{array} \begin{array}{c} -1 \\ 2 - 1 - 1 \\ 2 - 6 - 4 \end{array} \begin{array}{c} -1 \\ 2 - 1 - 7 \\ 1 - 5 - 0 \\ 2 - 11 - 8 \\ 2 - 6 - 4 \end{array} \begin{array}{c} -1 \\ 2 - 1 - 7 \\ 2 - 1 - 8 \\ 2 - 1 - 2 \\ 1 - 5 - 0 \\ 1 - 5$ 6x8= 6x8= 6 7 1₉40 3x6 / 5x10 39⁵ 8 12¹² 34 5x10 = 10x12 =1043114412 13 4 3x6 🖌 38 37 3 8-2-6 7-5-5 4x6 2 2-5-9 \mathbf{k} ¥ 28 33 炪 ff. ø 32 31 29 27 25 23 201918 17 16 15 4x8= 3x5= 3x5=

3x5=



3x5 II

3x5 = 4x6 =

Scale = 1:90.2

Plate Offsets	(X, Y): [6:0-5-8,0-3-0],	[7:0-5-8,0-3-0], [9:0	-3-4,0-2-12	2], [11:0-6-0,0-	2-8], [21:0-2-8,0-2	2-0]	v	0 0						
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC201	8/TPI2014	CSI TC BC WB Matrix-MSH	0.86 0.72 0.52	DEFL Vert(LL) Vert(CT) Horz(CT) Attic	in -0.11 -0.15 0.01 -0.11	(loc) 17-18 17-18 14 21-30	l/defl >999 >999 n/a >999	L/d 240 180 n/a 360	PLATES MT20 Weight: 873	GRIP 244/190 3 lb FT = 200	%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD JOINTS	2x6 SP No.2 2x6 SP No.2 *Excep 19-14:2x6 SP 2400F 2x4 SP No.3 *Excep 2x4 SP No.3 Structural wood shee 6-0-0 oc purlins, exc 2-0-0 oc purlins (6-0 Rigid ceiling directly bracing. 1 Brace at Jt(s): 13, 9, 34, 22, 28, 35,	t* 30-21:2x4 SP No. 2.0E t* 5-8:2x4 SP No.2 athing directly applie cept end verticals, ar -0 max.): 6-7, 8-9, 9 applied or 10-0-0 oc	W 2, ed or nd -13.	EBS	3-32=-1639/3, 3-3 30-31=-86/1017, 18-21=-140/782, 1 21-35=-1033/412, 11-36=-7580/0, 8-3 6-34=-3/1154, 7-3 20-21=-92/1236, 2 20-22=-807/362, 2 22-23=-518/250, 1 23-24=-178/963, 2 24-25=-531/53, 11 17-35=-2121/32, 1 12-36=-556/0, 15	81=-182/1 4-30=0/61 9-21=0/1' , 11-35=- 4-36=-70 44=-1015 84=-1058 29-30=-1 28-29=-1: 27-28=-2 26-27=-1: 0-35=-20 11-16=-9 -36=-109	462, 38, 751, 1130/675, 42/0, '54, 2-32=0/1 '38, 416/448, 543/0, 9/1299, 98/0, 46/25, 1/2139, 0/0	452,	 Tru see or c TCC Pla DO Cs= Uni des Thi loar ove Provide 	ss desig y. For sis standa consult q LL: ASC te DOL= iL=1.15); =1.00; C balancec sign. s truss h d of 12.C erhangs i wide ade	ined fo tuds ex rd Indu jualified E 7-16 (1.15); (Is=1.0 t=1.10 d snow has bee 0 psf or non-co equate	r wind loads posed to win stry Gable E J building des ; Pr=20.0 psf (f=20.0 psf (; Rough Cat loads have t an designed f 1.00 times fin ncurrent with drainage to p	in the plane of d (normal to the nd Details as a signer as per A (roof LL: Lum Lum DOL=1.1 B; Fully Exp.; been considered or greater of m at roof load of other live load prevent water p	the truss he face), applicable, NNSI/TPI 1. DOL=1.15 5 Plate Ce=0.9; ed for this hin roof live 20.0 psf on ds. bonding.
REACTIONS	36 (size) 14=0-3-8, Max Horiz 33=-309 (Max Grav 14=9643 ((lb) - Maximum Com	33=0-3-8 LC 8) (LC 39), 33=2355 (L pression/Maximum	N(1) C 48)	3-ply truss to (0.131"x3") r Top chords of staggered at	b be connected to nails as follows: connected as follo t 0-9-0 oc, 2x4 - 1	gether wi ows: 2x6 - row at 0-	th 10d • 2 rows •9-0 oc.		10) All 11) Tru bra 12) Gal 13) Thi	plates al lss to be ced aga ble studs s truss h	fully sl fully sl inst late s space as bee	neathed from eral moveme ed at 1-4-0 oc n designed f	otherwise ind one face or so nt (i.e. diagona c. or a 10.0 psf b	icated. ecurely al web). ottom
TOP CHORD	Tension 1-2=0/49, 2-3=-1800 37-38=-2369/0, 4-38 5-39=-1863/0, 5-6=-3 7-40=-308/50, 8-40= 9-41=-2693/0, 41-42 10-42=-2845/0, 10-4 11-43=-2325/0, 11-4 12-13=-97/66, 13-14 32-33=-243/301, 31- 29-31=0/1601, 27-25 23-25=0/3088, 20-25 18-19=0/2829, 17-18 15-16=0/2672, 14-15 28-30=-389/1504, 22 24-26=-1585/0, 22-2 21-22=-1959/130	//0, 3-37=-2407/0, s=-2357/0, 4-39=-19: 506/33, 6-7=-323/48 -405/34, 8-9=-48/12 2=-2713/0, 13=-2325/0, 14=-97/66, 12-44=-9: 1=-2617/0, 2-33=-22: 322=-13/1389, 9=0/2347, 25-27=0/3 3=0/3726, 19-20=0/2 3=0/3726, 19-20=0/2 3=0/2672, 16-17=0/2 5=0/2672, 5-28=-1585/0, 24=-1836/0,	59/0, 2) 3, 7/66, 3) 3088, 4) 2829, 2672,	All loads are except if not CASE(S) se provided to o unless other Unbalanced this design. Wind: ASCE Vasd=103m Cat. II; Exp I zone; cantile and right exp DOL=1.60	 c) 0-9-0 oc, 2x4 - 1 ted as follows: 2x considered equa ed as front (F) or ction. Ply to ply cc distribute only load wise indicated. roof live loads ha 7-16; Vult=130m ph; TCDL=6.0psf; a; Enclosed; MWF ever left and right bosed; Lumber DC 	row at 0- 4 - 1 row Ily applie back (B) jonnection ds noted we been of ph (3-sec BCDL=6 TRS (env exposed DL=1.60 p	9-0 oc. at 0-9-0 oc. d to all plies, face in the L0 s have been as (F) or (B), considered for cond gust) 5.0psf; h=25ft elope) exteric ; end vertical plate grip	DAD or ; or left		Continue	All	SI 45 SNG	EAL 844	Anna Anna

Continued on page 2



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	A04	Attic Girder	1	3	I Job Reference (optional)	145552814

Run: 8 43 S. Mar 22 2021 Print: 8 430 S. Mar 22 2021 MiTek Industries. Inc. Wed Apr 07 14:27:07

ID:bASaflbwv?ss8ARhUj?8SizWCcn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

Carter Components (Sanford), Sanford, NC - 27332,

- 14) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 15) Ceiling dead load (5.0 psf) on member(s). 4-5, 5-34,
 8-34; Wall dead load (5.0psf) on member(s).4-30, 9-21
- 16) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 28-30, 26-28, 24-26, 22-24, 21-22
- 17) 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.
- 18) Load case(s) 1, 2 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 20) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1123 lb down and 123 lb up at 17-7-12, and 1123 lb down and 123 lb up at 19-7-12, and 1253 lb down and 194 lb up at 21-10-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 21) Attic room checked for L/360 deflection.
- LOAD CASE(S) Standard
- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (lb/ft) Vert: 1-2=-60, 2-4=-60, 4-5=-70, 5-6=-60, 6-7=-60, 7-40=-60, 8-40=-100, 9-41=-100, 10-41=-60, 10-13=-1500, 14-33=-20, 21-30=-30, 5-34=-10,
 - 8-34=-10
 - Drag: 4-30=-10, 9-21=-10
 - Concentrated Loads (lb)
- Vert: 13=-1077, 10=-1011, 44=-1011 2) Dead + Roof Live (balanced): Lumber Increase=1.15,
- Plate Increase=1.15
 - Uniform Loads (lb/ft) Vert: 1-2=-60, 2-4=-60, 4-5=-70, 5-6=-60, 6-7=-60, 7-40=-60, 8-40=-100, 9-41=-100, 10-41=-60, 10-13=-540, 14-33=-20, 21-30=-30, 5-34=-10, 8-34=-10
 - Drag: 4-30=-10, 9-21=-10
 - Concentrated Loads (lb)
 - Vert: 13=-990, 10=-928, 44=-928



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	K01	Common Supported Gable	1	1	Job Reference (optional)	145552815

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:31 ID:TnWYyz4GgPZA1oKaDJYpIZzWCzO-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:57.1

Plate Offsets (X, Y): [12:Edge,0-1-8]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	8/TPI2014	CSI TC BC WB Matrix-MR	0.49 0.23 0.26	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 12	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 114 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood she	athing directly applied	W N(1)	EBS 6 4 7 5 5 5 5 7 5 5 5 7 5 5 5 5 5 5 5 5 5	6-16=-640/183, 5-1 I-18=-172/185, 3-1 7-15=-242/134, 8-1 I-13=-229/208 roof live loads have	7=-242/ 9=-234/ 4=-172/ e been ((134, (213, (185, considered for	r	12) * Th on tl 3-06 chor 13) _{n/a}	is truss he botto 5-00 tall rd and a	has be m cho by 2-0 ny oth	een designed for rd in all areas wh 0-00 wide will fit er members.	a live load of ere a rectang between the	20.0psf Jle bottom
BOT CHORD WEBS REACTIONS	6-0-0 oc purlins, ex. Rigid ceiling directly bracing. 1 Row at midpt (size) 12=13-6-(15=13-6-(18=13-6-(Max Horiz 20=259 (L Max Uplift 12=-468 (14=-103 (17=-91 (L 19=-440 (Max Grav 12=497 (L 14=213 (L 16=335 (L 18=213 (L 18=213 (L) 18=213 (L) 18=2	applied or 6-0-0 cc 6-16 0, 13=13-6-0, 14=13-0 0, 16=13-6-0, 17=13-0 0, 16=13-6-0, 17=13-0 1, 19=13-6-0, 20=13-0 LC 11), 13=-428 (LC LC 15), 15=-91 (LC 1 C 14), 18=-103 (LC 1 LC 11), 20=-482 (LC C 12), 13=517 (LC 1 1, C 22), 15=281 (LC 2 .C 15), 17=281 (LC 2 .C 15), 17=281 (LC 2 .C 12), 19=530 (LC 1 .C 13)	2) 6-0, 6-0, 6-0 10), 5), 3), 2), 1), 4), 2), 4)	Wind: ASCE Vasd=103mp Cat. II; Exp B zone and C-C 2-0-0 to 3-9-C 9-9-0 to 11-6 cantilever left right exposed for reactions DOL=1.60 Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); I	7-16; Vult=130mpl bh; TCDL=6.0psf; E ; Enclosed; MWFF C Corner(3E) -1-0- 0, Corner(3E) 1-1-0- 0, Corner(3E) 11-1- t and right exposed t;C-C for members shown; Lumber DC ed for wind loads in ds exposed to wind I Industry Gable Er alified building des 7-16; Pr=20.0 psf. (15); Pf=20.0 psf (I s=1.0; Rough Cat	a (3-sec 3CDL=6 3S (env) 1 to 2-0 1 to 2-0 1 to 9-9- 6-0 to 1 1; end v and for DL=1.60 a the platic d (norm ad Deta igner as igner as igne as	cond gust) .0psf; h=25ft; elope) exterior -0, Exterior(21 -0, Exterior(21 -4-6-0 zone; vertical left and cces & MWFR 0 plate grip ane of the trus al to the face) ils as applicat s per ANSI/TF .: Lum DOL=1 D=1.15 Plate Exp.; Ce=0.9	or N) d SS ss), ble, PI 1. 1.15);	14) This Inter R80 LOAD C	truss is rnationa 2.10.2 a ASE(S)	desig I Resic and ref Star	ned in accordance dential Code sect erenced standard ndard	e with the 20 ions R502.11 I ANSI/TPI 1.	18 .1 and
FORCES TOP CHORD BOT CHORD	(b) - Maximum Com Tension 2-20=-274/265, 1-2= 3-21=-109/251, 4-21 5-6=-205/520, 6-7=- 8-22=-79/260, 9-22= 9-10=-241/250, 10-1 19-20=-139/126, 18- 17-18=-139/126, 16- 15-16=-139/126, 14- 13-14=-139/126, 12-	e0/49, 2-3=-249/258, =-84/260, 4-5=-146/2 205/520, 7-8=-146/4 -105/251, 1=0/49, 10-12=-265/, -19=-139/126, -15=-139/126, -13=-139/126	5) 408, 6) 08, 7) 257 8) 9) 10 11	Cs=1.00; Ct= Unbalanced: design. This truss ha load of 12.0 p overhangs no All plates are Gable require Truss to be fu braced again) Gable studs s) This truss ha chord live loa	1.10 snow loads have b s been designed fo posf or 1.00 times fla on-concurrent with 2x4 MT20 unless es continuous botto ully sheathed from st lateral movemer spaced at 2-0-0 oc s been designed fo d nonconcurrent w	een cor or greate at roof lo other liv otherwi om chor one fac one fac or a 10.0 vith any	nsidered for the er of min roof bad of 20.0 ps ve loads. se indicated. d bearing. e or securely iagonal web). D psf bottom other live load	his live sf on		Comme.	ESS P	SEA 4584 SEA 4584	L 4 OHNSO	A BUNNING

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/TPI1** 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	221 Willowcroft-Roof-2742-S	
21030028-A	K02	Common	3	1	Job Reference (optional)	145552816

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:32 ID:m8RCQM9f1ZRANtMx7HAS41zWCzH-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

13-6-0

6-9-0

Page: 1

6-9-0 13-6-0 6-9-0 6-9-0 4x5= 2 12 12 9 10 8 11 9-2-9 12 6x8= 5x8 3 2-5-9 4 7 5 × 6 2x4 II 2x4 II 3x8=

+

Scale = 1:59 Plate Offsets (X, Y): [1:Edge.0-1-7], [3:0-3-8.Edge]

DOL=1.60

zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 3-9-0, Exterior(2R) 3-9-0 to 9-9-0, Interior (1)

9-9-0 to 11-6-0, Exterior(2E) 11-6-0 to 14-6-0 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

	(/4, /). [=ugo,	•],	[0:0 0 0,Edg0]											
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(F 2 2 1 1	psf) 20.0 20.0 0.0 0.0 0.0* 0.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	018/TPI2014	CSI TC BC WB Matrix-MSH	0.88 0.38 0.09	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.04 -0.08 0.00	(loc) 6-7 6-7 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 90 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD	 2x4 SP No.1 *1 2x4 SP No.2 2x4 SP No.3 *1 Structural woo 2-2-0 oc purlin Rigid ceiling di bracing. (size) 5=0 Max Horiz 7=-2 Max Uplift 5=-4 Max Grav 5=6 (lb) - Maximun Tension 1-8=-519/129, 2-10=-336/171 1-12=-409/13 1-7=-543/135. 	Except Except od sheat s, exc lirectly a 242 (LC 47 (LC 576 (LC 676 (LC n Comp 8-9=-3 1, 10-1 39, 3-12 3-5=-6	* 2-4:2x4 SP No.2 * 7-1,5-3:2x4 SP No.2 athing directly applie tept end verticals. applied or 10-0-0 oc =0-3-8 C 10) 14), 7=-48 (LC 15) · 22), 7=602 (LC 21) pression/Maximum 339/134, 2-9=-338/1 1=-349/145, 2=-530/120, 3-4=0/4 15/171	o.2 ed or c) 161, 49,	 TCLL: ASCE Plate DOL= DOL=1.15); Cs=1.00; Ct Unbalanced design. This truss ha load of 12.0 overhangs n This truss ha chord live lo * This truss on the botto 3-06-00 tall One RT7A L truss to bear This connec lateral forces This truss is 	E 7-16; Pr=20.0 psf 1.15); Pf=20.0 psf 1.15); Pf=20.0 psf (1s=1.0; Rough Cat =1.10 snow loads have b as been designed fr psf or 1.00 times fli- ion-concurrent with as been designed fr ad nonconcurrent with as been designed fr ad nonconcurrent with as been designed in accorrect ring walls due to UF tion is for uplift only s.	(roof LI Lum DC B; Fully been cor or great at roof le or a 10. with any for a liv s where Il fit betw commen PLIFT at y and dc	L: Lum DOL= DL=1.15 Plate Exp.; Ce=0. Asidered for t er of min roo bad of 20.0 p re loads. D psf bottom other live loa e load of 20. a rectangle veen the bott ded to conne jt(s) 7 and 5 es not consi- ith the 2018	e1.15 e 9; his f live osf on ads. Opsf com ect j. der					
BOT CHORD WEBS NOTES 1) Unbalanc this desig 2) Wind: AS Vasd=103	6-7=-220/277, 2-6=-7/217, 1- ced roof live loads in. iCE 7-16; Vult=13 3mph; TCDL=6.0	5-6=-8 6=-60/2 s have I 80mph	19/135 230, 3-6=-84/236 been considered for (3-second gust) CDL=6.0psf; h=25ft;	r	R802.10.2 a	Residential Code and referenced stan Standard	sections dard AN	ISI/TPI 1.	and		0		WITH CA	ROLL



818 Soundside Road Edenton, NC 27932

SEAL

45844

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	L01	Monopitch	7	1	Job Reference (optional)	145552817

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:32 ID:GRPirEQfVL4cFjrxh?fFl6zWHh3-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

April 8,2021

INFEDING

818 Soundside Road Edenton, NC 27932





Scale = 1:58.6

Loading TCLL (roof) Snow (Pf) TCDL	(psf) 20.0 20.0 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 YES	CSI TC BC WB	0.85 0.56 0.16	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.11 -0.22 0.00	(loc) 6-7 6-7 6	l/defl >704 >352 n/a	L/d 240 180 n/a	PLATES MT20	GRIP 244/190	
BCLL BCDL	0.0* 10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 53 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD WEBS REACTIONS FORCES TOP CHORD BOT CHORD BOT CHORD WEBS NOTES 1) Wind: ASC Vasd=103r Cat. II; Exp zone and C 2-0-0 to 4-1 cantilever 1 right expos for reactior DOL=1.60 2) TCLL: ASC Plate DOL DOL=1.15 Cs=1.00; C 3) Unbalance design.	2x4 SP 2400F 2.0E 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep Structural wood she 6-0-0 oc purlins, exi Rigid ceiling directly bracing. 1 Row at midpt (size) 6= Mecha Max Horiz 7=335 (LC Max Uplift 6=-209 (L Max Grav 6=422 (LC (Ib) - Maximum Com Tension 1-2e0/49, 2-8=-259/ 3-4=-21/0, 3-6=-351. 6-7=-325/205, 5-6=0 2-6=-175/261 2:E 7-16; Vult=130mph mph; TCDL=6.0psf; Bf D B; Enclosed; MWFR: C-C Exterior(2E) -1-0-0 0-0, E	t* 3-6:2x4 SP No.2 athing directly applie cept end verticals. applied or 9-6-4 oc 3-6 inical, 7=0-3-8 C 11) C 11), 7=-45 (LC 10) C 21), 7=419 (LC 29) pression/Maximum 135, 3-8=-216/179, /167, 2-7=-354/103 //0 (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior 0 to 2-0-0, Interior (1) 0 to 7-0-0 zone; ; end vertical left anc and forces & MWRRS L=1.60 plate grip roof LL: Lum DOL=1 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; een considered for thi	 4) This truss h load of 12.0 overhangs 5) This truss h chord live lo d or 6) * This truss on the botto 3-06-00 tall chord and a 7) Refer to gir 8) Provide me bearing pla joint 6. 9) One RT7A truss to bea connection forces. 10) This truss is internationa R802.10.2 LOAD CASE(S 	as been designed f psf or 1.00 times fi non-concurrent with as been designed f bad nonconcurrent v has been designed im chord in all area: by 2-00-00 wide wi ny other members. der(s) for truss to tru- chanical connection te capable of withst USP connectors rea- tring walls due to UI is for uplift only and a designed in accord and referenced star) Standard	or greate a troof lo o other lis or a 10.0 with any I for a liv s where II fit betw uss conr (by oth anding 2 commen PLIFT at I does no dance w sections ndard AN	er of min roof aad of 20.0 p ve loads. 0 psf bottom other live loa e load of 20.1 a rectangle veen the bott nections. ers) of truss i 09 lb uplift a ded to conne i t(s) 7. This ot consider la ith the 2018 i R502.11.1 a ISI/TPI 1.	f live isf on ads. Opsf to t ect ateral and				SEA 4584	ROUTING REF.R. ON THE	
											- minin		

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	M01	Roof Special Supported Gable	1	1	Job Reference (optional)	145552818

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:32 ID:ziO4soEg5wQUo_sjC30XxJzWDFG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

April 8,2021

818 Soundside Road Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	M02	Roof Special	8	1	Job Reference (optional)	145552819

Scale = 1:55.5

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:33 ID:XgwD65Gg80S2K6zTbzJKPjzWCz9-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

oi7J4zJC?f





Plate Offsets (X, Y): [7:0-5-8,0-3-0], [8:0-5-8,0-3-0]													
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MSH	0.64 0.78 0.53	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.38 -0.67 0.19	(loc) 7-8 7-8 6	l/defl >428 >243 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 88 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD WEBS	2x4 SP No.2 2x4 SP No.2 *Excep 2x4 SP No.3 Structural wood shea 3-5-15 oc purlins, ex Rigid ceiling directly bracing. (size) 6=0-3-8, 9 Max Horiz 9=195 (LC Max Uplift 6=-40 (LC Max Grav 6=650 (LC (lb) - Maximum Com Tension 1-9=-751/94, 1-2=-11 2-10=-1787/407, 10- 3-11=-1731/12, 5-65 8-9=-256/289, 8-14= 7-15=-53/402, 6-7=- 3-7=-251/1285, 4-7= 2-9=-214265, 4-7=	t* 8-7:2x4 SP No.1 athing directly applied xcept end verticals. applied or 10-0-0 oc 3=0-3-8 C 11) C 14), 9=-40 (LC 15) C 6), 9=650 (LC 5) pression/Maximum 688/185, -11=-1750/416, 2=-1594/369, -13=-1709/334, -672/67 -53/402, 14-15=-53/41 16/82 -359/288, 5-7=-30/11	3) or 5) 6) 7) 8) 9) 02, 99, LC	TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct Unbalanced design. This truss ha chord live loa * This truss h on the bottom 3-06-00 tall b chord and an Bearing at jo using ANSI/I designer sho One RT7A U truss to beari This connect lateral forces This truss is International R802.10.2 ar	7-16; Pr=20.0 psf .15; Pf=20.0 psf .15; Pf=20.0 psf .15; Pf=20.0 psf .10 snow loads have be s been designed for d nonconcurrent w was been designed for a chord in all areas y 2-00-00 wide will yo other members, v int(s) 9, 6 considers PI 1 angle to grain uld verify capacity SP connectors rec ing walls due to UP ion is for uplift only designed in accord Residential Code s and referenced stance Standard	(roof LL Lum DC B; Fully een cor or a 10. vith any for a liv where fit betw with BC s parall formul of bear ommen 2LIFT at and dc ance w sections dard AN	:: Lum DOL= L=1.15 Plate Exp.; Ce=0.: asidered for t D psf bottom other live loa e load of 20.1 a rectangle ween the bott CDL = 10.0ps el to grain va a. Building ing surface. ded to conne igt(s) 9 and 6 we not consid ith the 2018 c R502.11.1 a ISI/TPI 1.	1.15 e 9; his ads. Opsf f. lue ect der				WITH CA	ROLING
NOTES											53	OFESP	Minano

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) interior zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 3-10-12, Exterior(2R) 3-10-12 to 9-10-12, Interior (1) 9-10-12 to 10-7-12, Exterior(2E) 10-7-12 to 13-7-12 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

SEAL 45844 April 8,2021



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	H01	Common Supported Gable	1	1	Job Reference (optional)	145552820

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:26 ID:TeD7LzvQEDmIJAAWi8NgVWzWD43-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-

Page: 1



Scale = 1:53.8

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MR	0.32 0.14 0.24	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 12	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 109 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS DTHERS BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP No 2x4 SP No 2x4 SP No 2x4 SP No Structural 6-0-0 oc p Rigid ceili bracing. 1 Row at I (size) Max Horiz Max Uplift Max Grav	5.2 5.3 wood shea urlins, exa ng directly midpt 12=13-0-0 15=13-0-0 18=-254 (12=-272 (L 14=-280 (L 14=280 (L 14=280 (L 14=287 (L 18=277 (L	athing directly applie cept end verticals. applied or 6-0-0 oc 6-15), 13=13-0-0, 14=13-) LC 12) LC 11), 13=-200 (LC C 15), 16=-68 (LC 1- LC 11), 18=-172 (LC C 24), 13=316 (LC 2- C 22), 15=329 (LC 2- C 21), 17=320 (LC 2- C 25)	-0-0, 3) -0-0, 3) 2 (10), 4), 2 (10), 4), 2 (10), 4), 2 (10), 5) 2 (10), 5) (10), 5) (10), 6)	Unbalanced this design. Wind: ASCE Vasd=103mp Cat. II; Exp E zone and C-0 2-0-0 to 3-6-0 9-6-0 to 11-0 cantilever lef right exposed for reactions DOL=1.60 Truss design only. For stu see Standarc or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design.	roof live loads have 7-16; Vult=130mpl bh; TCDL=6.0psf; E 5; Enclosed; MWFF C Corner(3E) -1-0- 0, Corner(3E) 11- t and right exposed 4;C-C for members shown; Lumber DC ed for wind loads in ds exposed to wind 1 Industry Gable Er alified building des 7-16; Pr=20.0 psf 15); Pf=20.0 psf	e been of h (3-sec 3CDL=6 RS (envi 0 to 2-0 0 to 2-0 0 to 9-6 0-0 to 1 d; end v ; and for DL=1.60 n the pla d (norm nd Deta igner as (roof LL Lum DC B; Fully een cor	considered for cond gust) .0psf; h=25ft; elope) exterior -0, Exterior(21 4-0-0 zone; vertical left and crease MWFR 0 plate grip ane of the trust al to the face) ils as applicat is per ANSI/TF bl=1.15 Plate Exp.; Ce=0.9 ansidered for th er of min roof	r , , , , , , , , , , , , ,	13) _{N/A} 14) This Inte R8C LOAD C	s truss is rnationa 22.10.2 a ASE(S)	desig I Resi and ref) Sta	ned in accordanc dential Code secti erenced standarc ndard	e with the 201 ons R502.11. ANSI/TPI 1.	8 1 and
FORCES	(lb) - Maxi Tension	mum Com	pression/Maximum	0)	load of 12.0	osf or 1.00 times fla	at roof lo	bad of 20.0 ps	sfon			6	WH CA	RO	
TOP CHORD	2-18=-356 3-19=-181 4-5=-166/ 7-8=-166/ 9-20=-175 10-12=-34	5/361, 1-2= /235, 4-19 406, 5-6=-2 406, 8-20= 5/235, 9-10 9/361	0/49, 2-3=-221/284, ==-156/245, 224/518, 6-7=-224/5 149/245, ==-217/284, 10-11=0,	7) 8) 18, 9) //49, 10	All plates are Gable require Truss to be fi braced again) Gable studs	2x4 MT20 unless es continuous botto ully sheathed from st lateral movemer spaced at 2-0-0 oc s been designed fr	otherwi om chor one fac nt (i.e. d	se indicated. d bearing. e or securely iagonal web).	-			tin	SEA	distis	it south
BOT CHORD	17-18=-13 15-16=-13 13-14=-13	31/124, 16- 31/124, 14- 31/124, 12-	17=-131/124, 15=-131/124, 13=-131/124	12	chord live loa 2) * This truss h	ad nonconcurrent w as been designed	for a liv	other live load e load of 20.0	ds.)psf				4584	4	unu,
WEBS	6-15=-636 4-17=-231 7-14=-243 9-12=-456	6/207, 5-16 /205, 3-18 6/134, 8-13 6/415	=-243/134, =-469/428, =-228/205,		3-06-00 tall b chord and an	y 2-00-00 wide wil y other members.	l fit betv	veen the botto	om			and the second s	NOREW 1	ERION	in and a second s
NOTES													"unun	mm	

NOTES

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/TPI1** Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

 \vdash



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	H02	Common	2	1	Job Reference (optional)	145552821

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:27 ID:loaOb0_Bq3Wv15eg2OU4knzWD3z-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:58

Plate Offsets (X, Y): [2:0-3-8,Edge], [4:0-3-8,Edge]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	77PI2014	CSI TC BC WB Matrix-MSH	0.98 0.35 0.09	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.03 -0.07 0.00	(loc) 5-6 5-6 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 87 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD 30T CHORD WEBS BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep Structural wood shea except end verticals. Rigid ceiling directly bracing.	t* 7-2,5-4:2x4 SP No. athing directly applied applied or 10-0-0 oc	3) .2 4) ^{1,} 5)	TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct= Unbalanced design. This truss ha load of 12.0 overhangs n	7-16; Pr=20.0 psf (.15); Pf=20.0 psf (L ls=1.0; Rough Cat E =1.10 snow loads have be us been designed fo psf or 1.00 times fla on-concurrent with o	roof Ll um DC 3; Fully een cor r great t roof le other li	: Lum DOL= DL=1.15 Plate Exp.; Ce=0.1 nsidered for t er of min root bad of 20.0 p ve loads.	f1.15 e 9; his f live sf on					
REACTIONS FORCES	(size) 5=0-3-8, 7 Max Horiz 7=245 (LC Max Uplift 5=-46 (LC Max Grav 5=585 (LC (lb) - Maximum Com Tension 1-2=0/49 2-8=-511/	7=0-3-8 C 13) 14), 7=-44 (LC 15) C 22), 7=658 (LC 21) pression/Maximum 141 8-9=-341/147	6) 7) 8)	This truss ha chord live loa * This truss h on the bottor 3-06-00 tall h chord and ar One RT7A U	is been designed for ad nonconcurrent with has been designed for in chord in all areas by 2-00-00 wide will by other members. ISP connectors reco- ling walls due to LID	r a 10.4 ith any for a liv where fit betw	D psf bottom other live loa e load of 20.1 a rectangle veen the bott ded to conne	ads. Opsf com ect					
BOT CHORD WEBS NOTES 1) Unbalance this desigr 2) Wind: ASC	3-9=-321/173, 3-10= 10-11=-332/138, 4-1 2-7=-601/174, 4-5=-{ 6-7=-258/280, 5-6=-{ 3-6=-11/205, 2-6=-79 ed roof live loads have 1. CE 7-16; Vult=130mph	-324/164, 1=-502/132, 528/138 63/94 9/230, 4-6=-62/224 been considered for (3-second gust)	9) LO	This connect lateral forces This truss is International R802.10.2 a AD CASE(S)	ing wans due to or i ion is for uplift only is designed in accorda Residential Code s nd referenced stand Standard	and do ance w ections lard AN	ith the 2018 R502.11.1 a	der and		ŝ		OF FESS	ROLIN

Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 3-6-0, Exterior(2R) 3-6-0 to 9-6-0, Interior (1) 9-6-0 to 9-10-4, Exterior(2E) 9-10-4 to 12-10-4 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





Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	H03	Common	8	1	Job Reference (optional)	145552822

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:27 ID:?jBAiR6ST8nUEePbeVgQ8uzWD3p-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



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

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MSH	0.90 0.34 0.09	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.04 -0.07 0.00	(loc) 6-7 6-7 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 86 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS FORCES	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep Structural wood she 2-2-0 oc purlins, ex Rigid ceiling directly bracing. (size) 5= Mecha Max Horiz 7=248 (LI Max Uplift 5=-48 (LC Max Grav 5=575 (LI (lb) - Maximum Con Tension	ot* 7-2:2x4 SP No.2 eathing directly applie cept end verticals. applied or 10-0-0 or anical, 7=0-3-8 C 11) C 14), 7=-41 (LC 15) C 22), 7=648 (LC 21 apression/Maximum	4 5 ed or 6 c 7 8 9) 1	 Unbalanced design. This truss ha load of 12.0 overhangs n This truss ha chord live loa on the bottor 3-06-00 tall l chord and an Refer to gird Provide mec bearing plate 5. On e RT7A L 	snow loads have t as been designed f psf or 1.00 times fl on-concurrent with as been designed f ad nonconcurrent v has been designed in chord in all area by 2-00-00 wide wi hy other members. er(s) for truss to tru hanical connectior e capable of withsta	peen cor or greate at roof lo other lin or a 10.0 with any l for a liv s where ll fit betv uss conr n (by oth anding 4 commen	hsidered for t er of min roof pad of 20.0 p ve loads. D psf bottom other live loa e load of 20.1 a rectangle veen the bott hections. ers) of truss i 8 lb uplift at j ded to conne	his f live sf on ads. Opsf om to joint ect					
BOT CHORD WEBS NOTES 1) Unbalance this design	1-2=0/49, 2-8=-500/ 3-9=-309/174, 3-10: 10-11=-328/143, 4- 2-7=-590/177, 4-5=- 6-7=-261/280, 5-6=- 3-6=-15/193, 2-6=-8 ed roof live loads have	142, 8-9=-330/149, =-308/169, 11=-480/137, 521/139 -54/74 5/220, 4-6=-60/229 been considered fo	1 r	truss to bear connection is forces. 1) This truss is International R802.10.2 a OAD CASE(S)	ing walls due to Ul s for uplift only and designed in accorr Residential Code nd referenced star Standard	PLIFT at does no dance w sections dard AN	it(s) 7. This ot consider la ith the 2018 R502.11.1 a ISI/TPI 1.	ateral		ſ	Lin	MTH CA	ROLIN

 Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 3-6-0, Exterior(2R) 3-6-0 to 9-6-12, Exterior(2E) 9-6-12 to 12-6-12 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

 TCLL: ASCE 7-16; Pr=20.0 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 B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

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



minim

April 8,2021

SEAL

45844

Summer of the

1.

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	H04	Common	1	1	Job Reference (optional)	145552823

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:27 ID:I36qAqBrqHfUZjRxYTI3wMzWD3i-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1.58	

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

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	8/TPI2014	CSI TC BC WB Matrix-MSH	0.90 0.34 0.09	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.04 -0.07 0.00	(loc) 6-7 6-7 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 86 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD WEBS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep Structural wood shea 2-2-0 oc purlins, exc Rigid ceiling directly bracing. (size) 5= Mecha Max Horiz 7=248 (LC Max Uplift 5=-48 (LC Max Grav 5=575 (LC (b) - Maximum Com Tension 1-2=0/49, 2-8=-500/ 3-9=-309/177, 4-5=-4 6-7=-261/280, 5-6=-4 3-6=-15/193, 2-6=-8	t* 7-2:2x4 SP No.2 athing directly applie cept end verticals. applied or 10-0-0 oc nical, 7=0-3-8 211) 14), 7=-41 (LC 15) 22), 7=648 (LC 21) pression/Maximum 142, 8-9=-330/149, 308/169, 1=-480/137, 521/139 54/74 5/220, 4-6=-60/229	4) 5) (d or 6) 5; 7) 7) 8) 9) 10 11	Unbalanced design. This truss ha load of 12.0 overhangs n This truss ha chord live loa * This truss h on the bottor 3-06-00 tall t chord and ar Refer to gird Provide mec bearing platt 5. O ne RT7A L truss to bear connection is forces.) This truss is International R802.10.2 a	snow loads have be snow loads have be psf or 1.00 times fla on-concurrent with is been designed for ad nonconcurrent w has been designed in n chord in all areas by 2-00-00 wide will by other members. er(s) for truss to tru hanical connection e capable of withsta USP connectors reco ing walls due to UP s for uplift only and designed in accord Residential Code s and referenced stand	een cor r great t roof lk tother lin in thany for a liv where fit betw ss conrr (by oth nding 4 pommen LIFT at does n ance w ections lard AN	nsidered for the er of min roof bad of 20.0 p ve loads. 0 psf bottom other live load e load of 20.1 a rectangle veen the botthe nections. ers) of truss t 8 lb uplift at j ded to connet i jt(s) 7. This of consider la ith the 2018 is R502.11.1 a USI/TPI 1.	his f live sf on ds. 0psf om to ioint ect teral					111117
NOTES 1) Unbalance this design	ed roof live loads have n.	been considered for	LC	DAD CASE(S)	Standard					C	أبعيا	ORTHCA	ROLINI

2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 3-6-0, Exterior(2R) 3-6-0 to 9-6-12, Exterior(2E) 9-6-12 to 12-6-12 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

TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 3) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10





Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	G01	Scissor Girder	1	1	Job Reference (optional)	145552824

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:25 ID:TSqyiFZHQ5JA6k5wFJPHH4zWCXe-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



0-3-8	3-10-2	7-4-12	10-11-6	14-6-0	14-9-8
0-3-8	3-6-10	3-6-10	3-6-10	3-6-10	0-3-8

Plate Offsets ((X. Y)	: [15:0-4-0.0-2-0]	[19:0-4-0.0-2-0]
	, . ,	· L		[

Scale = 1:61.9

Loading	(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP					
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.16	Vert(LL)	-0.03	16-17	>999	240	MT20	244/190					
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.29	Vert(CT)	-0.04	17-18	>999	180							
TCDL	10.0	Rep Stress Incr	NO		WB	0.48	Horz(CT)	0.04	13	n/a	n/a							
BCLL	0.0*	Code	IRC2018	3/TPI2014	Matrix-MSH													
BCDL	10.0											Weight: 139 lb	FT = 20%					
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood shea 6-0-0 oc purlins, exi Rigid ceiling directly bracing, Except: 6-0-0 oc bracing: 20	athing directly applied cept end verticals. applied or 10-0-0 oc -21,13-14.	1) 2) d or 3)	Unbalanced this design. Wind: ASCE Vasd=103mp Cat. II; Exp B zone; cantile and right exp DOL=1.60 Truss design only. For stu see Standard or consult au	roof live loads have 7-16; Vult=130mpl bh; TCDL=6.0psf; E s; Enclosed; MWFF ver left and right e> osed; Lumber DOI ed for wind loads ii ds exposed to wind l Industry Gable Er alified building des	e been of h (3-sec 3CDL=6 RS (env cposed L=1.60 p n the pla d (norm nd Deta	considered for cond gust) .0psf; h=25ft; elope) exterior ; end vertical I olate grip ane of the trus al to the face) ils as applicab s per ANS/ITP	r eft ss , ole,	 14) This Inte R800 15) "NA (0.1 16) Han providesi resp 17) In the of the comparison of the comparison	s truss is rnationa (2.10.2 a ILED" in 48"x3.2: ger(s) o vided su ign/sele oonsibilit he LOAE he truss	design I Resid and refu dicate 5") toe- r other fficient ction of y of oth CASE are no	ned in accordan Jential Code sec erenced standar s 3-10d (0.148"x -nails per NDS g connection dey f such connection hers. E(S) section, loa ted as front (F) c	ce with the 201 tions R502.11. ² d ANSI/TPI 1. .3") or 3-12d uidlines. ice(s) shall be entrated load(s n device(s) is the ds applied to the product (B).	8 1 and s) . The he ne face				
REACTIONS	(size) 13=0-3-8, Max Horiz 21=267 (L Max Uplift 13=-90 (L Max Grav 13=812 (L	21=0-3-8 LC 11) C 12), 21=-68 (LC 13 LC 20), 21=840 (LC 1	4) 3) 9)	TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00: Ct=	: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 DOL=1.15; Pf=20.0 psf (Lum DOL=1.15 Plate :1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; .00; Ct=1.10								5, Plate					
FORCES	(lb) - Maximum Com Tension	pression/Maximum	5)	Unbalanced : design.	snow loads have b	nsidered for th	is	13-17=-20 Concentrated Loads (lb)										
TOP CHORD	1-2=0/49, 2-3=-829/9 4-5=-724/146, 5-6=- 7-8=-686/163, 8-9=- 10-11=-842/139, 11- 2-21=-777/83, 12-13	50, 3-4=-779/116, 747/79, 6-7=-683/139 750/120, 9-10=-781/1 -12=-876/94, 3=-741/78	6) 9, 159, 7) 8)	This truss ha load of 12.0 p overhangs no All plates are Truss to be fi	s been designed for osf or 1.00 times fla on-concurrent with 2x4 MT20 unless ully sheathed from	or great at roof lo other liv otherwi	er of min roof bad of 20.0 ps /e loads. se indicated.	live f on	Co	Vert: 15	=-85 (E	Loads (ID) 5 (B), 26=-108 (B), 27=-108 (B)						
BOT CHORD	20-21=-291/259, 19- 18-19=-206/682, 17- 16-17=-70/678, 15-1 14-15=-39/57, 13-14	=-741/78 20=-282/293, 18=-212/709, 6=-81/637, =-39/29		=-741/78 20=-282/293, 18=-212/709, 6=-81/637, =-39/29		5=-741778 8) -20=-282/293, -18=-212/709, 9) 16=-81/637, 10 4=-39/29		braced again Gable studs :) This truss ha	st lateral movement spaced at 2-0-0 oc s been designed for	nt (i.e. d or a 10.0	liagonal web).	10		\int	E LA	AND C	levita	
WEBS NOTES	7-17=-157/758, 17-2 9-24=-188/164, 9-15 5-22=-97/141, 17-22 5-19=-107/24, 2-23= 19-26=0/519, 15-27= 12-25=-45/569, 6-22 4-19=-84/39, 3-23=- 8-24=-101/78, 16-24 11-25=-53/110, 14-2	24=-204/175, i=-134/119, i=-118/152, :0/530, 23-26=0/540, :-43/557, 25-27=-49/ :=-103/75, 18-22=-54 28/95, 20-23=-70/57, i=-53/59, 10-15=-76/3 :5=-85/69	11 577, 12 /55, 13 39, 13	 * This trusts h on the botton 3-06-00 tall b chord and an Bearing at joi value using A designer sho One RT7A U truss to bearing This connect 	as been designed n chord in all areas by 2-00-00 wide wil y other members. int(s) 13, 21 consic NNSI/TPI 1 angle to uld verify capacity SP connectors rec ing walls due to UP ion is for uplift only	for a liv s where l fit betv ders par o grain f of bear ommen PLIFT at	e load of 20.0 a rectangle veen the botto allel to grain ormula. Build ng surface. ded to connec i jt(s) 13 and 2 es not conside	n m ing t 1. er		Station Station	R. M.	SEA 4584 SNGIN	L 44 EEF. SON	annun ann				
												Ac	oril 8,2021					



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	G02	Scissor	4	1	Job Reference (optional)	145552825

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:26 ID:A0m3ImdNurk9QULvI5y2WSzWD4R-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:61.9 Plate Offsets (X, Y): [2:0-3-8,Edge], [4:0-3-8,Edge]

Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior

zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 4-4-12, Exterior(2R) 4-4-12 to 10-4-12, Interior

(1) 10-4-12 to 11-7-12, Exterior(2E) 11-7-12 to 14-7-12 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

Loading TCLL (roof) Snow (Pf) TCDL 3CLL 3CDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MSH	1.00 0.44 0.17	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.10 -0.20 0.03	(loc) 5-6 5-6 5	l/defl >999 >871 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 95 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD	2x4 SP No.1 2x4 SP No.2 2x4 SP No.3 *Except* Structural wood sheat except end verticals. Rigid ceiling directly a bracing.	* 7-2,5-4:2x4 SP No thing directly applied applied or 9-9-15 oc	3) .2 4) d, 5)	TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct= Unbalanced design. This truss ha load of 12.0 U overhangs n This truss ha	5 7-16; Pr=20.0 psf (.15); Pf=20.0 psf (L ls=1.0; Rough Cat E =1.10 snow loads have be us been designed fo psf or 1.00 times fla on-concurrent with 0	roof Ll um DC 3; Fully een cor r great t roof lo other li r a 10	: Lum DOL= DL=1.15 Plate Exp.; Ce=0. nsidered for t er of min roo ad of 20.0 p /e loads. D sef hottom	:1.15 e 9; his f live vsf on					
REACTIONS	(size) 5=0-3-8, 7= Max Horiz 7=267 (LC Max Uplift 5=-51 (LC 1 Max Grav 5=647 (LC 2 (lb) - Maximum Comp	=0-3-8 11) 14), 7=-49 (LC 15) 22), 7=720 (LC 21) pression/Maximum	7)	chord live loa * This truss h on the bottor 3-06-00 tall h chord and ar	ad nonconcurrent w nas been designed f n chord in all areas by 2-00-00 wide will ny other members.	ith any or a liv where fit betv	other live loa e load of 20. a rectangle veen the bott	ads. Opsf tom					
TOP CHORD BOT CHORD WEBS	Tension 1-2=0/49, 2-8=-788/25 9-10=-583/51, 3-10=-5 11-12=-604/73, 12-13 4-13=-780/68, 2-7=-7 6-7=-339/401, 5-6=-93 3-6==26/447, 2-6=0/36	5, 8-9=-640/48, 580/80, 3-11=-577/1 8=-632/71, 24/210, 4-5=-632/13 8/163 69, 4-6=-107/416	8) 105, 39	Bearing at jo using ANSI/ designer sho One RT7A U truss to bear This connect lateral forces	int(s) 7, 5 considers IPI 1 angle to grain ould verify capacity of ISP connectors reco ing walls due to UP ion is for uplift only b.	parall formul of bear ommen LIFT at and do	el to grain va a. Building ing surface. ded to conne jt(s) 7 and 5 es not consid	ilue ect 5. der					
NOTES 1) Unbalance this design 2) Wind: AS(Vasd=103	ed roof live loads have b n. CE 7-16; Vult=130mph (; imph: TCDI =6 0psf: BCI	been considered for 3-second gust) DI =6 0psf: h=25ft	10) LO	This truss is International R802.10.2 a	designed in accorda Residential Code s nd referenced stanc Standard	ance w ections lard AN	ith the 2018 8 R502.11.1 a ISI/TPI 1.	and		0		OR TH CA	ROLLAN

Annu annu ann The second second SEAL 45844 104 mun April 8,2021

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

818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	G03	Roof Special	8	1	Job Reference (optional)	145552826

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:26 ID:PIpSBqk0mctu0tXeJUc9OLzWD4I-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:62.8

Plate Offsets (X, Y): [1:Edge,0-1-7]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	/TPI2014	CSI TC BC WB Matrix-MSH	1.00 0.47 0.35	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.11 -0.22 0.03	(loc) 7-8 7-8 5	l/defl >999 >781 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 99 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHOR BOT CHOR WEBS BRACING TOP CHOR	 2x4 SP No.1 *Excep 2x4 SP No.2 2x4 SP No.3 Structural wood she except end verticals 	t* 2-4:2x4 SP No.2 athing directly applied	3) 4) d, 5)	TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design. This truss ha	7-16; Pr=20.0 psf .15); Pf=20.0 psf (L s=1.0; Rough Cat I :1.10 snow loads have be s been designed fo	(roof LL Lum DC B; Fully een cor or a 10.0	: Lum DOL= L=1.15 Plate Exp.; Ce=0. sidered for the psf bottom	1.15 9; his					
BOT CHOR REACTION FORCES	 Rigid ceiling directly bracing. S (size) 5= Mecha Max Horiz 8=251 (LC Max Uplift 5=-49 (LC Max Grav 5=638 (LC (Ib) - Maximum Com Tension 	applied or 10-0-0 oc nical, 8=0-3-8 2 11) 2 14), 8=-44 (LC 15) 2 22), 8=638 (LC 21) pression/Maximum	6) 7) 8)	chord live loa * This truss h on the botton 3-06-00 tall b chord and an Refer to girde Bearing at joi using ANSI/T designer sho	Id nonconcurrent w as been designed in n chord in all areas y 2-00-00 wide will y other members. er(s) for truss to tru int(s) 8 considers p iPI 1 angle to grain uld werik capacity.	ith any for a liv where fit betw ss conr arallel t formula	other live loa e load of 20.0 a rectangle veen the botto ections. o grain value a. Building pa surface	ads. Opsf om					
TOP CHOR BOT CHOR WEBS	 1-9=-761/32, 2-9=-5 3-10=-722/84, 3-4=- 4-5=-62/74 7-8=-299/360, 6-7=- 2-7=0/429, 3-7=-136 	69/64, 2-10=-551/110 67/123, 1-8=-622/122 69/429, 5-6=-53/414 //212, 3-6=0/167,	6, 9) 2, 10)	Provide mech bearing plate 5. One RT7A U truss to beari	anical connection capable of withsta SP connectors reco ng walls due to UP	(by oth nding 4 ommen LIFT at	ers) of truss t 9 lb uplift at j ded to conne jt(s) 8. This	to joint ect					
NOTES 1) Unbalar this des 2) Wind: A Vasd=1	1-7=0/341, 3-5=-952 ced roof live loads have gn. SCE 7-16; Vult=130mph J3mph; TCDL=6.0psf; B	/100 been considered for (3-second gust) CDL=6.0psf; h=25ft;	11) LO	connection is forces. This truss is o International R802.10.2 ar AD CASE(S)	for uplift only and designed in accord Residential Code s ad referenced stand Standard	does no ance w ections dard AN	ot consider la th the 2018 R502.11.1 a ISI/TPI 1.	and		0	L. I.	WHTH CA	ROLINA

Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 4-4-12, Exterior(2R) 4-4-12 to 10-4-12, Interior (1) 10-4-12 to 11-4-4, Exterior(2E) 11-4-4 to 14-4-4 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





Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	E01	Scissor	1	1	Job Reference (optional)	145552827

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:21 ID:bonv9rWjjh1GGOwlxPNYHzzWD9k-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

Pag



0		4 50
Scale	=	1:59

Plate Offsets (X, Y): [5:0-2-8,Edge], [9:0-4-15,Edge], [11:0-0-1,Edge], [15:0-3-0,Edge], [19:0-0-1,Edge]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	CSI TC BC WB Matrix-MR	0.97 0.92 0.15	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.32 -0.54 0.53	(loc) 16-17 14-15 11	l/defl >483 >287 n/a	L/d 240 180 n/a	PLATES MT20 MT20HS Weight: 95 lb	GRIP 244/190 187/143 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 2-4-4 oc purlins. exi	athing directly applicept of the second s	2) Wind: ASC Vasd=103n Cat. II; Exp zone and C 3-1-12 to 3 (2N) 9-7-12 cantilever lu right expos	E 7-16; Vult=130 nph; TCDL=6.0ps B; Enclosed; MV -C Corner(3E) 0- 7-12, Corner(3R to 11-3-8, Corner oft and right expo ed;C-C for memb	mph (3-sec sf; BCDL=6 VFRS (env -1-12 to 3-1) 3-7-12 to er(3E) 11-3 used ; end v pers and for	ond gust) .0psf; h=25ft elope) exterior -12, Exterior 9-7-12, Exter -8 to 14-3-8 z rertical left ar ces & MWFF	; or (2N) rior zone; nd RS	14) One trus This late 15) This Inte R80 LOAD (e RT7A I s to bea s connec ral force s truss is rnationa 02.10.2 a CASE(S)	JSP co ring wa ction is s. design l Resic and refe	onnectors recomn alls due to UPLIF for uplift only an ned in accordanc dential Code sect erenced standar	mended to conn T at jt(s) 19 and d does not cons e with the 2018 ions R502.11.1 d ANSI/TPI 1.	ect I 11. ider and

for reactions shown; Lumber DOL=1.60 plate grip

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. TCLL: ASCE 7-16; Pr=20.0 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 B; Fully Exp.; Ce=0.9;

5) Unbalanced snow loads have been considered for this

All plates are 2x4 MT20 unless otherwise indicated.

Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).

11) This truss has been designed for a 10.0 psf bottom

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. All plates are MT20 plates unless otherwise indicated.

DOL=1.60

Cs=1.00; Ct=1.10

desian.

3)

4)

6)

7)

8)

9)

	2-4-4 OC putilitis, except end verticals.						
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except:						
	2-2-0 oc bracing: 18-19.						
REACTIONS	(size) 11=0-3-8, 19=0-3-8						
	Max Horiz 19=-250 (LC 12)						
	Max Uplift 11=-45 (LC 14), 19=-47 (LC 15)						
	Max Grav 11=668 (LC 22), 19=595 (LC 21)						
FORCES	(lb) - Maximum Compression/Maximum						
	Tension						
TOP CHORD	1-2=-589/14, 2-20=-518/88, 3-20=-461/100,						
	3-4=-517/212, 4-5=-200/172, 5-6=-354/204,						
	6-7=-536/172, 7-21=-496/74, 21-22=-527/64,						
	8-22=-552/61, 8-9=-643/65, 9-10=0/49,						
	1-19=-532/40, 9-11=-649/100						
BOT CHORD	18-19=-92/350, 17-18=-100/382,						
	16-17=-114/462, 15-16=-91/306,						
	14-15=-56/356, 13-14=-82/414,						
	12-13=-92/360, 11-12=-108/375						
WEBS	2-18=-32/119, 3-17=-185/132, 4-16=-65/365,						
	6-14=-35/156, 7-13=-143/126, 8-12=-20/80						
NOTES							

- Unbalanced roof live loads have been considered for this design.
- chord live load nonconcurrent with any other live loads.
 12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 13) Bearing at joint(s) 19, 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

10) Gable studs spaced at 2-0-0 oc.

SEAL 45844 April 8,2021



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	E02	Scissor	8	1	Job Reference (optional)	145552828

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:21 ID:yJeeLA_BYgxkROPFj5ZiMBzWD97-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Plate Offsets (X, Y): [1:Edge,0-1-7], [3:0-3-8,Edge]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MSH	0.92 0.35 0.14	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.06 -0.13 0.02	(loc) 6-7 6-7 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 86 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.1 *Excep 2x4 SP No.2 2x4 SP No.3 *Excep Structural wood sheat except end verticals. Rigid ceiling directly bracing. (size) 5=0-3-8, 7 Max Horiz 7=-250 (Li	t* 2-4:2x4 SP No.2 t* 7-1,5-3:2x4 SP No athing directly applied applied or 10-0-0 oc 7=0-3-8 C 12)	3) .2 4) d, 5) 6) 7)	TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct= Unbalanced design. This truss ha load of 12.0 overhangs m This truss ha chord live loa	7-16; Pr=20.0 psf (.15); Pf=20.0 psf (L s=1.0; Rough Cat E .1.10 snow loads have be s been designed fo osf or 1.00 times fla on-concurrent with o s been designed fo d nonconcurrent wi	roof LL um DC 3; Fully een cor r greate t roof lo other liv r a 10.0 ith any	: Lum DOL= 'L=1.15 Plate Exp.; Ce=0.9 isidered for the prof min roof pad of 20.0 p re loads. 0 psf bottom other live loag e load of 20.0	1.15 e) his flive sf on uds.					
FORCES TOP CHORD BOT CHORD WEBS NOTES 1) Unbalanc this desig 2) Wind: AS Vasd=10: Cet H: E	Max Uplift 5=-45 (LC Max Grav 5=668 (LC (lb) - Maximum Com Tension 1-8=-688/9, 8-9=-512 2-10=-517/83, 10-11 11-12=-582/51, 3-12 1-7=-577/114, 3-5=-(6-7=-272/342, 5-6=- 2-6=-7/374, 1-6=0/32 ed roof live loads have in. CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; BK CP : Enclared MWER	 14), 7=-47 (LC 15) 22), 7=595 (LC 21) pression/Maximum 2/12, 2-9=-508/41, =-530/54, =-697/43, 3-4=0/49, 666/185 102/174 23, 3-6=-106/372 been considered for (3-second gust) CDL=6.0psf; h=25ft; Convelope) outpring 	9) 10 LC	on the bottor 3-06-00 tall b chord and ar Bearing at jo using ANSI/7 designer sho One RT7A U truss to bear This connect lateral forces International R802.10.2 ar AD CASE(S)	as been designed in a chord in all areas y 2-00-00 wide will y other members. Int(s) 7, 5 considers PI 1 angle to grain uld verify capacity of SP connectors recor- ng walls due to UPI ion is for uplift only designed in accorda Residential Code s and referenced stand Standard	where fit betw formula of beari ommen LIFT at and do ance w ections lard AN	a rectangle arectangle even the bott a. Building ng surface. ded to conne jt(s) 7 and 5 es not consid th the 2018 R502.11.1 a ISI/TPI 1.	om lue der nd		Q	during the second se	WITH CA	ROLINI

Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 3-7-12, Exterior(2R) 3-7-12 to 9-7-12, Interior (1) 9-7-12 to 11-3-8, Exterior(2E) 11-3-8 to 14-3-8 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

Summer The manual minim April 8,2021

818 Soundside Road Edenton, NC 27932

SEAL

45844

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	E03	Roof Special	6	1	Job Reference (optional)	145552829

Scale = 1:58.5

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:22 ID:rcx0JAS1bLkK?DJYx4FcvCzWD8X-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



2-7-1	11-0-1	13-3-8
2-7-1	8-5-0	2-3-7

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MSH	0.44 0.94 0.30	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.34 -0.56 0.14	(loc) 9-10 9-10 7	l/defl >459 >278 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 103 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD BACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD WEBS NOTES 1) Unbalance this design	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex Rigid ceiling directly bracing, Except: 2-2-0 oc bracing: 9- (size) 7=0-3-8, 7 Max Horiz 12=-248 (Max Uplift 7=-45 (LC Max Grav 7=701 (LC (lb) - Maximum Com Tension 1-2=-475/117, 2-13= 13-14=-660/271, 3-1 3-15=-586/322, 15-1 4-16=-720/287, 4-5= 1-12=-666/101, 5-7= 11-12=-224/229, 10 2-10=-402/241, 10-1 17-18=-61/318, 9-18 4-9=-404/241, 7-8=- 1-11=-29/430, 5-8=(0 3-9=-199/394 ed roof live loads have 3-	athing directly applied cept end verticals. applied or 6-0-0 oc 10. 12= Mechanical [LC 10] 2 14), 12=-47 (LC 15) C 6), 12=639 (LC 5) npression/Maximum =-722/263, 14=-625/296, 16=-643/296, =-452/140, 5-6=0/49, =-739/138 1-1=-212/52, 17=-61/318, 8-9=-245/3 32/53 0/445, 3-10=-187/467 been considered for	2, d or 3, 4, 5, 6, 7, 21, 8, 9, 11 1 1 1	 Wind: ASCE Vasd=103mj Cat. II; Exp E zone and C- 3-1-12 to 3-7 (1) 9-7-12 to cantilever lef right expose for reactions DOL=1.60 TCLL: ASCE Plate DOL=1 TCLL: ASCE Plate DOL=1.0; Ct Unbalanced design. This truss ha load of 12.0 overhangs n This truss ha chord live loa * This truss ha chord live loa * This truss ha chord live loa * This truss ha chord and ar Refer to gird Provide mec bearing plate 12. One RT7A L truss to bear connection is forces. This truss is International R802.10.2 a 	7-16; Vult=130mp bh; TCDL=6.0psf; 1 3; Enclosed; MWF C Exterior(2E) 0-1- '-12, Exterior(2E) (2 11-3-1, Exterior(2 t and right expose d;C-C for members shown; Lumber D is 7-16; Pr=20.0 psf (15); Pf=20.0 psf (15)	th (3-see BCDL=6 RS (env- 12 to 3- 3-7-12 tt E) 11-3- d; end s s and fo OL=1.60 f (roof LI (Lum DC B; Fully been col for great lat roof L for a 10. with any l for a liv s where other li l for a 10. with any l for a liv s where commer PLIFT a l does n dance w sections n dard AN	cond gust) 6.0psf; h=25ft elope) exterici 1-12, Interior 0-97-12, Interior 0-97-12, Interior 1 to 14-3-8 z vertical left ar rcres & MWFF 0 plate grip .: Lum DOL= DL=1.15 Plate Exp.; Ce=0.9 midden dr f00.1 pve loads. 0 psf bottom other live load of 20.0 p ve loads. 0 psf bottom other live load s rectangle veen the bott CDL = 10.0psf hections. ers) of truss f 7 Ib uplift at j ided to connet t jt(s) 7. This ot consider la SR02.11.1 a JSI/TPI 1.	; or (1) rior oone; ad 1.15 9; his f live sf on dds. 0psf om f. to joint teral		(thinks		SEA 4584	ROL L L H4 OHNS UNIT III 8,2021
A												101 102 102 10 102 10 102 10 10 10 10 10 10 10 10 10 10 10 10 10	6.0×99.1×6.1×

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/TPI1** 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	221 Willowcroft-Roof-2742-S	
21030028-A	E04	Common	1	1	I4555283 Job Reference (optional)	30

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:22 ID:YYXoPbZIEQ_wCm4TXARyJJzWD8N-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



6-7-12 13-3-8 6-7-12 6-7-12

Scale = 1	:58.6
-----------	-------

Plate Offsets (X, Y): [1:Edge,0-1-7], [3:0-3-8,Edge]

Loading		(psf)	Spacing	2-0-0		csi		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)		20.0	Plate Grip DOL	1.15		TC	0.86	Vert(LL)	-0.04	6-7	>999	240	MT20	244/190
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.37	Vert(CT)	-0.08	6-7	>999	180		
TCDL		10.0	Rep Stress Incr	YES		WB	0.09	Horz(CT)	0.00	5	n/a	n/a		
BCLL		0.0*	Code	IRC2018	3/TPI2014	Matrix-MSH								
BCDL		10.0											Weight: 89 lb	FT = 20%
LUMBER				3)	TCLL: ASCE	7-16; Pr=20.0 psf	(roof Ll	.: Lum DOL=	1.15					
TOP CHORD	2x4 SP No	.1 *Except	t* 2-4:2x4 SP No.2		Plate DOL=1	.15); Pf=20.0 psf (I	Lum DC	DL=1.15 Plate	Э					
BOT CHORD	2x4 SP No	.2 .			DOL=1.15);	Is=1.0; Rough Cat	B; Fully	Exp.; Ce=0.	9;					
WEBS	2x4 SP No	.3 *Except	t* 7-1,5-3:2x4 SP No	.2	Cs=1.00; Ct=	=1.10								
BRACING				4)	Unbalanced	snow loads have b	een cor	nsidered for t	his					
TOP CHORD	Structural v	wood shea	athing directly applie	d or	design.									
	2-2-0 oc pu	urlins, exc	cept end verticals.	5)	This truss ha	is been designed fo	or great	er of min roo	flive					
BOT CHORD	3OT CHORD Rigid ceiling directly applied or 10-0-0 oc					psf or 1.00 times fla on-concurrent with	at roof le other li	oad of 20.0 p ve loads.	sf on					
REACTIONS	(size)	5-0-3-8 7	– Mechanical	6)	This truss ha	is been designed fo	or a 10.	0 psf bottom						
REAGINGING	Max Horiz	7–-248 (I (- Meenanical		chord live loa	ad nonconcurrent w	vith any	other live loa	ads.					
	Max Unlift	5=-45 (I C	14) 7=-47 (I C 15)	7)	* This truss h	has been designed	for a liv	e load of 20.	0psf					
	Max Grav	5=668 (I C	22) 7=595 (I C 21)		on the bottor	n chord in all areas	where	a rectangle						
FORCES	(lb) Movin		prossion/Maximum		3-06-00 tall b	by 2-00-00 wide wil	I fit betw	veen the bott	om					
FUNCES	(ID) - Maxii Tension		pression/maximum	0)	chord and ar	iy other members.		a atiana						
	1_8512/1	30 8-9	36/135 2-9332/16	62 O)	Refer to gira	er(s) for truss to tru	(by oth	nections.	**					
	2-10=-330/	/171 10-1	1=-346/146	9)	boaring plate			The unlift of	ioint					
	11-12=-406	6/139 3-1	2=-522/132 3-4=0/4	9		capable of withsid	anung -	in upint at	joint					
	1-7=-537/1	36. 3-5=-6	509/172	10) One RT74 II	ISP connectors rec	ommon	ded to conne	oct					
BOT CHORD	6-7=-221/2	276, 5-6=-8	36/131	10	truss to bear	ing walls due to LIF	DIFT at	it(s) 5 This	501					
WEBS	2-6=-8/212	2, 1-6=-63/	229, 3-6=-82/234		connection is	s for uplift only and	does n	ot consider la	teral					111.
NOTES					forces.	, ioi apint only and			lional				MUL CA	Dille
1) Unbalance	ed roof live lo	ads have	been considered for	11) This truss is	designed in accord	lance w	ith the 2018					in TH UN	TO 111
this design).	adonaro			International	Residential Code s	sections	R502.11.1 a	and			12	OVERS	K. Alle
2) Wind: AS(CE 7-16: Vult	=130mph	(3-second gust)		R802.10.2 a	nd referenced stan	dard AN	ISI/TPI 1.				· A	rial	Man
Vasd=103	mph; TCDL=	6.0psf; B0	CDL=6.0psf; h=25ft;	LC	AD CASE(S)	Standard					<u> </u>	VV	·0 T	N. 2
Cat. II; Ex	p B; Enclosed	d; MWFRS	6 (envelope) exterior		(-)									
zone and	C-C Exterior((2E) 0-1-1	2 to 3-1-12, Interior (1)								:	SEA	L : =
3-1-12 to 3	3-7-12, Exteri	ior(2R) 3-7	7-12 to 9-7-12, Interio	or							=	:	150/	14 : =
(1) 9-7-12	to 11-3-8, Ex	kterior(2E)	11-3-8 to 14-3-8 zoi	ne;							=	0	4004	H ; :
cantilever	left and right	exposed	end vertical left and	l							-	3		1.3
right expo	sed;C-C for n	nembers a	and forces & MWFRS	5								:7	· . A.	a:25
tor reactio	ns snown; Lu	imber DO	L=1.60 plate grip									11	GIN	EFICON
DOL=1.60												11	An	UN2.1
												11.00	115W J	Onin
													111111	unit.



munin April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	N02	Common	2	1	Job Reference (optional)	145552831

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:35 ID:uvFYjdXTznDwzUfitbiUIMzWCyp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Page: 1





Scale = 1:34.4 Plate Offsets (X, Y): [2:0-3-8,Edge], [4:0-3-8,Edge]

Loading TCLL (roof) Snow (Pf) TCDL BCLL	(psf) 20.0 20.0 10.0 0.0*	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	8/TPI2014	CSI TC BC WB Matrix-MP	0.31 0.27 0.07	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.02 -0.02 0.01	(loc) 6-12 6-12 2	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20	GRIP 244/190
BCDL	10.0	Code	1102010	0/1112014								Weight: 36 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS WEDGE BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD WEBS NOTES 1) Linbalage	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Left: 2x4 SP No.3 Right: 2x4 SP No.3 Structural wood shea 6-0-0 oc purlins. Rigid ceiling directly bracing. (size) 2=0-3-8, 4 Max Horiz 2=87 (LC Max Uplift 2=-45 (LC Max Uplift 2=-45 (LC (Ib) - Maximum Com Tension 1-13=0/21, 2-13=0/4 3-14=-277/114, 3-15 4-15=-398/103, 4-16 2-6=-36/222, 4-6=0/2 3-6=-14/174	athing directly applie applied or 10-0-0 oc 14-0-3-8 13) 14), 4=-45 (LC 15) 2 21), 4=496 (LC 22) pression/Maximum 7, 2-14=-398/103, =-277/114, =0/47, 5-16=0/21 222 been considered for	3) 4) 5) d or 6) 7) 8) 9) LC	TCLL: ASCE Plate DOL=' DOL=1.15); Cs=1.00; Ct: Unbalanced design. This truss ha load of 12.0 overhangs n This truss ha chord live lo: * This truss ha chord and an One RT7A L truss to bear This connec lateral forces This truss is International R802.10.2 a	5 7-16; Pr=20.0 ps 1.15); Pf=20.0 ps Is=1.0; Rough Ca =1.10 snow loads have as been designed psf or 1.00 times t as been designed ad nonconcurrent witl as been designed ad nonconcurrent n chord in all area by 2-00-00 wide w ny other members JSP connectors re ing walls due to U tion is for uplift onl 5. designed in accor Residential Code nd referenced star Standard	f (roof LL (Lum DC t B; Fully been cor for great: flat roof lk n other lin for a 10.1 with any d for a 10.1 with any d for a 10.1 with any d for a 10.1 with any d for a liv is where ill fit betw - commen PLIFT at ly and dc vance w sections ndard AN	L: Lum DOL= DL=1.15 Plate Exp.; Ce=0. Isidered for t er of min roo bad of 20.0 p re loads. D psf bottom other live loa e load of 20. a rectangle veen the bott ded to conne jt(s) 2 and 4 es not consie ith the 2018 ; R502.11.1 a ISI/TPI 1.	1.15 e 9; his f live sf on ads. Opsf om ect der				NITH CA	ROLA
this design	TE 7-16: Vult=130mph	(3-second quet)									R.	nate	Martan

2) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Exterior(2R) 2-0-0 to 5-10-8, Exterior(2E) 5-10-8 to 8-10-8 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





Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	N03	Common Girder	1	2	Job Reference (optional)	145552832

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:35 ID:zdB19XrD9s?VfdT2GonNvkzWCUi-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





7-10-8 3-11-4 3-11-4

Scale -	- 1.32 5
Scale -	- 1.32.3

Loading		(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)		20.0	Plate Grip DOL	1.15		TC	0.20	Vert(LL)	-0.01	4-10	>999	240	MT20	244/190	
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.37	Vert(CT)	-0.02	4-10	>999	180			
TCDL		10.0	Rep Stress Incr	NO		WB	0.29	Horz(CT)	0.00	3	n/a	n/a			
BCLL		0.0*	Code	IRC201	8/TPI2014	Matrix-MP								FT 000/	
BCDL		10.0											Weight: 75 lb	FT = 20%	
LUMBER				4)	Wind: ASCE	7-16; Vult=130mpl	n (3-sec	cond gust)							
TOP CHORD	2x4 SP No	.2			Vasd=103mp	h; TCDL=6.0psf; E	SCDL=6	.0psf; h=25ft	;						
BOT CHORD	2x6 SP No	.2			Cat. II; Exp E	; Enclosed; MWFF	RS (env	elope) exterio	or Left						
WEBS	2x4 SP No	0.3			zone; cantile	ver left and right ex	posed	; end vertical	lett						
BRACING						USeu, Lumber DOL	=1.00	slate grip							
TOP CHORD	Structural 6-0-0 oc p	wood shea urlins.	athing directly applie	d or 5)	TCLL: ASCE	7-16; Pr=20.0 psf	(roof LL	.: Lum DOL=	1.15						
BOT CHORD	Rigid ceilir	ng directly	applied or 10-0-0 oc	;	Plate DOL=1 DOL=1.15): I	.15); Pf=20.0 psf (l s=1.0: Rough Cat	_um DC B: Fullv	L=1.15 Plate Exp.: Ce=0.9)):						
	bracing.	4 0 0 0 0			Cs=1.00; Ct=	:1.10	, . ,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,						
REACTIONS	(size) Max Horiz	1=0-3-8, 3 1=69 (LC	3=0-3-8 36)	6)	Unbalanced	snow loads have b	een cor	nsidered for th	nis						
	Max Uplift	1=-102 (L	C 12), 3=-141 (LC 13	3)	This trues he	a baan daalanad fa	r o 10 /) not hottom							
	Max Grav	1=1304 (L	-C 18), 3=1320 (LC 2	22) ()	chord live los	s been designed it	vith any	other live loa	de						
FORCES	(lb) - Maxir	mum Com	pression/Maximum	, 8)	* This truss h	as been designed	for a liv	e load of 20 (Insf						
	Tension			0,	on the botton	n chord in all areas	where	a rectangle	poi						
TOP CHORD	1-2=-1475	/174, 2-3=	-1460/172		3-06-00 tall b	y 2-00-00 wide will	fit betv	veen the botte	om						
BOT CHORD	1-11=-93/1	1145, 4-11	=-93/1145,		chord and an	y other members.									
	4-12=-93/1	1145, 3-12	=-93/1145	9)	One RT7A U	SP connectors rec	ommen	ded to conne	ct						
WEBS	2-4=-135/1	1511			truss to bear	ng walls due to UF	LIFT at	jt(s) 1 and 3							
NOTES					I his connect	ion is for uplift only	and do	es not consid	ler						
 2-ply truss 	s to be conne	ected toget	ther with 10d	10)) This trues is	designed in accord	ancow	ith the 2018							
(0.131"x3	") nails as fol	lows:		0	International	Residential Code s	sections	R502 11 1 a	ind				minin	1111	
	is connected	as follows	3: 2x4 - 1 10w at 0-9-0	0	R802.10.2 ar	nd referenced stan	dard AN	ISI/TPI 1.				("TH CA	Roil	
Bottom ch	ords connec	ted as follo	ows: 2x6 - 2 rows	11	I) Use USP TH	D26 (With 18-16d	nails int	o Girder &				$\mathcal{D}^{(n)}$	R	··	
staggered	at 0-9-0 oc.		21010		12-10d x 1-1	2 nails into Truss)	or equi	valent spaced	d at			1	U. FESS	Ohiv	-
Web conr	nected as follo	ows: 2x4 -	1 row at 0-8-0 oc.		2-0-0 oc max	. starting at 1-11-4	from th	e left end to				X VX		- ANN	in .
2) All loads a	are considere	ed equally	applied to all plies,		5-11-4 to cor	nect truss(es) to fr	ont face	e of bottom cl	nord.				: Q		-
except if r	noted as front	t (F) or bad	ck (B) face in the LO	AD 12	Fill all nail ho	les where hanger i	s in cor	tact with lum	ber.				SEA	L 3	Ξ
CASE(S)	section. Ply t	o ply conn	ections have been	L	DAD CASE(S)	Standard							450	5	- E
provided t	to distribute o	only loads	noted as (F) or (B),	1)	Dead + Sno	w (balanced): Lum	ber Inc	rease=1.15, I	Plate		=		4584	+4 :	-
unless oth	nerwise indica	ated.			increase=1.	15 						1			-
 Unbalance 	ea root live la	bads have	been considered for		Uniform Loa		20					- 0	· · · ·	a:2	5
uns desig	11.				Concontrat	=-00, 2-3=-00, 5-8= ad Loads (lb)	-20					24	VANGIN	EETO	
						576 (F) 11619 (F	-) 12	603 (F)				11	A	INS.I'	
					ven. 4=-;	$(\Gamma), \Gamma = -010 (\Gamma)$), 1∠=-	003 (F)				100	1, 511 1	OHILIN	

- Unbalanced roof live loads have been considered for 3) this design.
- Uniform Loads (lb/ft) Vert: 1-2=-60, 2-3=-60, 5-8=-20
 - Concentrated Loads (lb)
 - Vert: 4=-576 (F), 11=-618 (F), 12=-603 (F)



minim April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	M03	Roof Special	1	1	Job Reference (optional)	145552833

Run: 8.43 E Feb 12 2021 Print: 8.430 E Feb 12 2021 MiTek Industries, Inc. Thu Apr 08 12:06:43 ID:NH4CUqGZOrp3fSbltBaEZyzWDFD-6SZI0_K1q6zbSqN62n0JhmtA2kGbcYKRENn0oqzSnZQ Page: 1



Scale =	1:78.7

Plate Offsets	(X, Y): [2:0-2-8,Edge],	[5:0-3-8,Edge]												
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL LUMBER	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	18/TPI2014 2) TCLL: ASCE	CSI TC BC WB Matrix-MSH	0.70 0.44 0.57 f (roof Ll	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.06 -0.08 0.01 1.15	(loc) 6-11 6-11 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 123 lb	GRIP 244/190 FT = 20%	
TOP CHORD BOT CHORD WEBS WEDGE BRACING TOP CHORD	UMBER OP CHORD 2x4 SP No.2 OT CHORD 2x4 SP No.2 /EBS 2x4 SP No.3 *Except* 8-1:2x4 SP 2400F 2.0E Right: 2x4 SP No.3 /RACING OP CHORD OP CHORD Structural wood sheathing directly applied of 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2. OT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. I Row at midpt 1-8, 2-7, 4-7				.15); Pf=20.0 psf Is=1.0; Rough Cat =1.10 snow loads have quate drainage to is been designed ad nonconcurrent has been designed	(Lum DC B; Fully been cor prevent for a 10.4 with any d for a liv	DL=1.15 Plate Exp.; Ce=0.9 Insidered for t water pondin 0 psf bottom other live loa re load of 20.0	e 9; his g. ads. 0psf						
BOT CHORD WEBS REACTIONS	2-0-0 oc purlins (6-0-0 max.): 1-2. DT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. EBS 1 Row at midpt 1-8, 2-7, 4-7 (Ib/size) 5=534/ Mechanical, 8=534/ Mechanical Max Horiz 8=-439 (LC 12) Max Uplift 8=-203 (LC 10) Max Grav 5=764 (LC 39), 8=817 (LC 41)				or chord in all area by 2-00-00 wide w by other members. er(s) for truss to tr hanical connection capable of withst designed in accor Residential Code	s where ill fit betw , with BC uss conr n (by oth anding 2 dance w sections	a rectangle ween the both CDL = 10.0ps nections. Jers) of truss = 203 lb uplift a with the 2018 \$ R502.11.1 a	om f. to t						
FORCES	 (lb) - Max. Comp./Ma (lb) or less except with the second sec	ax. Ten All forces : hen shown. 259/208, 3-4=-476/1	250 87,	 R802.10.2 and referenced standard ANSI/TPI 1. 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or 										
BOT CHORD WEBS	7-8=-212/343, 7-12= 6-13=-17/574, 5-13= 1-7=-190/884, 2-7=-3 4-6=0/349	17/574, 6-12=-17/5 17/574 328/310, 4-7=-636/2	^{74,} L 65,	_OAD CASE(S)	Standard					$\left(\right)$	Lin	ORTHOR	ion ne	i.
NOTES 1) Wind: AS Vasd=10 Cat. II; Ez zone and (2R) 1-5- Exterior(2 right export for membre Lumber D	SCE 7-16; Vult=130mph 3mph; TCDL=6.0psf; B(xp B; Enclosed; MWFR3 I C-C Exterior(2E) 0-1-1 13 to 4-5-13, Interior (1) 2E) 10-6-0 to 115-60 zor osed ; end vertical left a bers and forces & MWFf DOL=1.60 plate grip DO	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior 2 to 1-5-13, Exterior 4-5-13 to 10-6-0, ne; cantilever left and nd right exposed;C-1 RS for reactions sho L=1.60	r d C wn;								N. M.	SEA 4584 VOREW J	L 14 OHNSON	annun annun

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/TPI1** Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



101 munnin

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	M04	Roof Special	1	1	Job Reference (optional)	145552834

Run: 8.43 E Feb 12 2021 Print: 8.430 E Feb 12 2021 MiTek Industries. Inc. Thu Apr 08 12:08:00 ID:JfBzvVIpwS3numlg_ccieNzWDFB-MGjsAJGLimfgBfmv3SvNI?ZH4mY79Oemxsxb0tzSnYD





Scale = 1:70.9

Plate Offsets (X, Y): [2:0-2-8,Edge], [5:0-3-8,Edge]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MSH	0.93 0.40 0.49	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.05 -0.07 0.01	(loc) 6-11 6-11 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 120 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS WEDGE BRACING TOP CHORD BOT CHORD WEBS REACTIONS FORCES TOP CHORD BOT CHORD	2x4 SP No.2 *Excep 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep Right: 2x4 SP No.3 Structural wood shee 6-0-0 oc purlins, exi 2-0-0 oc purlins (6-0 Rigid ceiling directly bracing. 1 Row at midpt (lb/size) 5=534/ Mt Machanic Max Horiz 8=-419 (L Max Uplift 8=-193 (L Max Grav 5=739 (LC (lb) - Max. Comp./Ma (lb) or less except wl 1-8=-705/212, 1-2=-i 3-4=-481/185, 4-12= 7-8=-203/328, 6-7=-t	t* 2-3:2x4 SP No.3 t* 8-1:2x4 SP No.1 athing directly applie cept end verticals, ar -0 max.): 1-2. applied or 10-0-0 oc 1-8, 2-7, 4-7 echanical, 8=534/ al C 12) C 10) C 39), 8=756 (LC 41) ax. Ten All forces 2 hen shown. 259/210, 2-3=-277/2 -628/110, 5-12=-826 6/555, 6-13=-6/555,	2) 3) ad or 4) nd 5) 5 6) 7) 8) 250 9) 250 10 6/107	TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct= Unbalanced design. Provide aded This truss ha chord live loa * This truss ha chord live loa * This truss ha chord and ar Refer to gird Provide mec bearing plate joint 8. This truss is International R802.10.2 at 0 Graphical pu or the orienta bottom chord	7-16; Pr=20.0 psf .15); Pf=20.0 psf (is=1.0; Rough Cat =1.10 snow loads have b quate drainage to p is been designed fr ad nonconcurrent w has been designed in chord in all areas by 2-00-00 wide will yo other members, er(s) for truss to tru- hanical connection a capable of withstand designed in accord Residential Code stand rlin representation ation of the purlin a standard	(roof LI Lum DC B; Fully eeen cor orevent 1 or a 10.0 vith any for a liv s where I fit betw with BC iss conn (by oth anding 1 lance w sections dard AN does no long the	:: Lum DOL= DL=1.15 Plate Exp.; Ce=0. asidered for t water pondin 0 psf bottom other live loa e load of 20. a rectangle veen the bott DL = 10.0ps hections. ers) of truss 93 lb uplift a ith the 2018 i R502.11.1 a ISI/TPI 1. ot depict the e top and/or	and size				WITH CA	Rorin	
WEBS NOTES 1) Wind: ASI Vasd=100 Cat. II; Ex zone and 2-0-8 to 5 10-6-0 to end vertic forces & N DOL=1.6(1-7=-178/788, 2-7=- 4-6=0/290 CE 7-16; Vult=130mph mph; TCDL=6.0psf; BG p B; Enclosed; MWFR: C-C Exterior(2E) 0-1-1 -0-8, Interior (1) 5-0-8 t 13-6-0 zone; cantilever al left and right expose WWFRS for reactions sl 0 plate grip DOL=1.60	246/255, 4-7=-590/2 (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior 2 to 2-0-8, Exterior(2 0 10-6-0, Exterior(2 left and right expos d;C-C for members hown; Lumber	r 2R) E) ed ; and	JAD CASE(S)	Stanuaru							SEA 4584	4 ER.SOL	Sommunit



minim April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	M05	Roof Special	1	1	Job Reference (optional)	145552835

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:34 ID:nslL6rJRgmBeWvKtYJ7xAazWDFA-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:63.8

BCDL 10.0 Code 10.2018/19/2014			4	n/a	n/a	Weight: 110 lb	FT = 20%		
LUMBER 3) Unbalance TOP CHORD 2x4 SP No.2 *Except* 2-4:2x4 SP No.3 3) Unbalance BOT CHORD 2x4 SP No.2 4) Provide ac WEBS 2x4 SP No.3 *Except* 7-1:2x4 SP No.2 5) This truss WEDGE Right: 2x4 SP No.3 5) This truss BRACING 6) * This trus on the bot TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins, (6-0-0 max.): 1-2. 7) Refer to g	d snow loads have been col equate drainage to prevent has been designed for a 10. load nonconcurrent with any s has been designed for a liv om chord in all areas where I by 2-00-00 wide will fit betv any other members. rder(s) for truss to truss con	nsidered for this water ponding. 0 psf bottom other live loads. re load of 20.0psf a rectangle ween the bottom nections.							
 CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. 3S 1 Row at midpt 1-7, 2-6 CTIONS (size) 4= Mechanical, 7= Mechanical Max Horiz 7=-365 (LC 12) Max Uplift 4=-4 (LC 15), 7=-167 (LC 10) Max Grav 4=638 (LC 38), 7=577 (LC 38) CFCS (b) - Maximum Compression/Maximum Compressina/Maximum									
TOP CHORD 1-7=-546/156, 1-2=-288/192, 2-11=-319/193, 3-11=-459/155, 3-12=-522/107, 4-12=-728/83	ntation of the purlin along the ord. 6) Standard	e top and/or							
BOT CHORD 6-7=-177/285, 5-6=0/462, 4-5=0/462 WEBS 1-6=-151/548, 2-6=-129/187, 3-6=-443/219, 3-5=0/209						TH CA	Rom		
 NOTES 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Exterior (2R) 3-1-12 to 6-6-8, Interior (1) 6-6-8 to 10-6-0, Exterior (2E) 10-6-0 to 13-6-0 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 2) TCLL: ASCE 7-16; Pr=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10 					A CONTRACTOR	SEA 4584 NOREW J	L EFR. OTTO OHM STUDIO TIL 8,2021		

- zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Exterior (2R) 3-1-12 to 6-6-8, Interior (1) 6-6-8 to 10-6-0, Exterior (2E) 10-6-0 to 13-6-0 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
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 2) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

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/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL06	Valley	1	1	Job Reference (optional)	145552836

Run: 8 43 S. Mar 22 2021 Print: 8 430 S. Mar 22 2021 MiTek Industries. Inc. Wed Apr 07 14:27:43 ID:rcx0JAS1bLkK?DJYx4FcvCzWD8X-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



FORCES (lb) - Maximum Compression/Maximum Tension TOP CHORD 1-9=-4/11, 1-2=-33/38, 2-10=-33/38, 3-10=-33/38, 3-11=-35/39, 4-11=-34/40, 4-5=-106/93 BOT CHORD 8-9=-41/61, 7-8=-41/61, 6-7=-41/61, 5-6=-41/61

WEBS

TCDL

BCLL

BCDL

WEBS

4-6=-224/87, 3-7=-425/114, 2-8=-303/80 NOTES

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

* This truss has been designed for a live load of 20.0psf 10) on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

chord live load nonconcurrent with any other live loads.

This truss has been designed for a 10.0 psf bottom

- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 9, 4 lb uplift at joint 5, 42 lb uplift at joint 6, 65 lb uplift at joint 7 and 39 lb uplift at joint 8.
- 12) 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.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



818 Soundside Road Edenton, NC 27932

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 a duss system: plantieter and property incorporate dust using in the overlain of the optimized and property incorporate and begin into the overlain building design. Bracing indicated is to prevent buckling of individual itruss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent buckling of individual itruss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent buckling of individual itruss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent buckling of individual itruss web and/or chord members only. Additional temporary and permanent bracing fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

9)

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	B03	Roof Special	1	1	Job Reference (optional)	145552837

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:11 ID:SwvJ??pv4nDDkKgFgTj9OrzWDeL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



	0-6-12	5-1-12	10-0-0	17-1-12	20-1-0	
cale = 1:66.3	0-6-12	4-7-0	4-10-4	7-1-12	2-11-4	

Scale = 1:66.3	
Plate Offsets (X, Y):	[5:0-3-0,Edge], [11:0-6-0,0-2-0]

	, i). [0.0 0 0,Euge],	[11:0 0 0,0 2 0]												
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MSH	0.98 0.63 0.48	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.07 -0.14 -0.01	(loc) 9-10 9-10 7	l/defl >999 >862 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 149 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 *Excep 2x4 SP No.3 Structural wood shei 4-2-2 oc purlins, exi Rigid ceiling directly bracing. (size) 7= Mecha Max Horiz 13=366 (L Max Uplift 7=-87 (LC 13=-93 (L) Max Grav 7=424 (LC 13=442 (L	t* 4-10:2x4 SP No.3 athing directly applie cept end verticals. applied or 5-7-1 oc nical, 10=0-3-8, 13= .C 11) : 14), 10=-154 (LC 1- C 10) C 21), 10=999 (LC 2 ⁻ .C 1)	2) 3) d or 4) 0-3-8 5) 4), 6) 1), 7)	TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct Unbalanced design. This truss ha load of 12.0 overhangs n This truss ha chord live loa * This truss ha chord live loa * This truss ha chord live loa * This truss ha chord and ar Refer to gird	57-16; Pr=20.0 psf .15); Pf=20.0 psf (Is=1.0; Rough Cat =1.10 snow loads have t is been designed fr psf or 1.00 times fl on-concurrent with is been designed ad nonconcurrent v has been designed n chord in all areas by 2-00-00 wide will by other members. er(s) for truss to tr	(roof LI Lum DC B; Fully eeen cor or great at roof le other li or a 10. vith any for a liv s where I fit betw uss conr	: Lum DOL= JL=1.15 Plate Exp.; Ce=0.1 er of min rool bad of 20.0 p re loads. D psf bottom other live loa e load of 20.1 a rectangle reen the bott mections.	1.15 e); his f live sf on ads. Opsf om						
FORCES	(lb) - Maximum Com Tension 1-2=0/22, 2-14=-620	pression/Maximum	8)	Bearing at jo using ANSI/1	int(s) 13 considers	paralle formul	to grain valu a. Building	ie						
	3-4=-612/158, 4-5=- 6-7=-160/115, 7-8=-	130/97, 5-6=-84/108 100/381, 2-13=-411/	, 9) 183	Provide mec bearing plate	hanical connection capable of withsta	(by oth anding 8	ers) of truss	to joint						
BOT CHORD	12-13=-375/78, 11-1 10-11=-936/194, 4-1 8-9=-53/156	2=-210/121, 1=-762/265, 9-10=0,	/20, 10	7.) One RT7A U truss to bear	ISP connectors rec	ommen PLIFT at	ded to conne	ect 10.		~		TH CA	RO	
WEBS	4-12=-218/711, 9-11 6-9=-8/231, 6-8=-412 2-12=-25/484	=-68/167, 6-11=-194 2/163, 3-12=-274/13	4/0, 9, 11	This connect lateral forces) This truss is	ion is for uplift only designed in accord	and do	ith the 2018	der		\int	Ex	viates?	and	in
NOTES				International	Residential Code	sections	R502.11.1 a	and		2		2008 States		1
1) Wind: ASC Vasd=103 Cat. II; Ex zone and 2-0-0 to 17 cantilever right expos for reactio DOL=1.60	CE 7-16; Vult=130mph imph; TCDL=6.0psf; B(p B; Enclosed; MWFR; C-C Exterior(2E) -1-0-(7-0-0, Exterior(2E) 17-(left and right exposed sed;C-C for members a ns shown; Lumber DO	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior 0 to 2-0-0, Interior (1 0-0 to 19-11-4 zone; ; end vertical left and and forces & MWFR: L=1.60 plate grip	12) LC S	R802.10.2 ar) Gap between diagonal or v DAD CASE(S)	nd referenced stan n inside of top chor rertical web shall n Standard	dard AN d bearin ot excee	ISI/TPI 1. ng and first ed 0.500in.	-		1111111	Number 1	SEA 4584 WOREW JO	EP.	A

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/TPI1** Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



minim

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	D06	Common	2	1	Job Reference (optional)	145552838

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:20 ID:q?mSvID2c?tpmYWyzfQhmhzWDA7-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:57.1 Plate Offsets (X, Y): [1:0-3-8,Edge]

		1												
Loading	(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.58	Vert(LL)	-0.06	6-8	>999	240	MT20	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.41	Vert(CT)	-0.12	6-8	>999	180			
TCDL	10.0	Rep Stress Incr	YES		WB	0.47	Horz(CT)	0.02	6	n/a	n/a			
BCLL	0.0*	Code	IRC201	8/TPI2014	Matrix-MSH									
BCDL	10.0						-					Weight: 112 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS WEDGE BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Left: 2x4 SP No.3 Structural wood shee 5-3-0 oc purlins, exc Rigid ceiling directly bracing. (size) 1= Mecha Max Horiz 1=239 (LC Max Uplift 1=-59 (LC	athing directly applied cept end verticals. applied or 10-0-0 oc nical, 6=0-3-8 2 13) 14), 6=-59 (LC 14)	3) 4) d or 5) 6) 7)	TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design. This truss ha chord live loa * This truss h on the bottom 3-06-00 tall b chord and an Refer to girdd	7-16; Pr=20.0 psf 15); Pf=20.0 psf (I s=1.0; Rough Cat 1.10 snow loads have b s been designed for d nonconcurrent w as been designed n chord in all areas y 2-00-00 wide will y other members. ar(s) for truss to tru-	(roof LL Lum DC B; Fully een cor or a 10.0 vith any for a liv s where I fit betw uss conr	:: Lum DOL= DL=1.15 Plate Exp.; Ce=0.9 asidered for t D psf bottom other live loa e load of 20.1 a rectangle reen the bott nections.	1.15 9; his ads. Opsf om						
	Max Grav 1=770 (LC	20), 6=756 (LC 21)	8)	Provide mecl	nanical connection	(by oth	ers) of truss	to ioint						
FORCES	(lb) - Maximum Com	pression/Maximum		1.		anung o	s in upilit at	joint						
TOP CHORD	Tension 1-2=-1005/114, 2-13 13-14=-534/131, 3-1 3-15=-460/159, 4-15 5-6=-92/61	=-658/118, 4=-500/153, =-590/138, 4-5=-105	9) /95, 1(One RT7A U truss to beari connection is forces.	SP connectors rec ng walls due to UF for uplift only and	ommen PLIFT at does no	ded to conne jt(s) 6. This ot consider la	ect iteral						
BOT CHORD	1-9=-152/747, 8-9=- 6-7=-50/322	122/747, 7-8=-50/322	2,	International R802.10.2 ar	Residential Code s	sections	R502.11.1 a	and				NUL CA	inin,	
WEBS	4-6=-741/83, 2-9=0/2 3-8=-67/334, 4-8=-39	202, 2-8=-447/191, 9/210	L	DAD CASE(S)	Standard					Δ	J.	RTHUR		
NOTES										_ / 1	-17	rate	MAN	بر
 Unbalanc this design 	ed roof live loads have	been considered for								U	20	200 7	4	
2) Wind: AS Vasd=103 Cat. II; Ex zone and 3-0-0 to 7 Interior (1 17-9-4 zo vertical le forces & M DOL=1.60	CE 7-16; Vult=130mph Bmph; TCDL=6.0psf; BG C-C Exterior(2E) 0-0-0 -11-13, Exterior(2R) 7-) 13-11-13 to 14-9-4, E ne; cantilever left and ri ft and right exposed;C-1 WWFRS for reactions sl 0 plate grip DOL=1.60	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior to 3-0-0, Interior (1) 11-13 to 13-11-13, xterior(2E) 14-9-4 to ight exposed ; end C for members and hown; Lumber								111111	Pint	SEA 4584 SNGINI	4 E.F.R.O.N. DHNSON	WHITE

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/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	C01	Roof Special Girder	1	1	Job Reference (optional)	145552839

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:11 ID:3?Nq01aEhCHn3G0YZ3VR2_zWCe5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

818 Soundside Road Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	C01	Roof Special Girder	1	1	I4. Job Reference (optional)	5552839

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:11

ID:3?Nq01aEhCHn3G0YZ3VR2_zWCe5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

Carter Components (Sanford), Sanford, NC - 27332,

17) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 238 lb down and 103 lb up at 8-0-12, and 238 lb down and 103 lb up at 10-0-12 on top chord, and 708 lb down and 325 lb up at 6-7-11 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.

 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 + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (lb/ft)

Vert: 1-4=-60, 4-7=-60, 7-8=-60, 8-10=-60, 11-20=-20

Concentrated Loads (lb)

Vert: 18=-669 (B), 24=-172 (B), 25=-172 (B), 26=-164 (B), 30=-24 (B), 31=-24 (B), 32=-584 (B)



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	B01	Piggyback Base	9	1	Job Reference (optional)	145552840

17-0-0

5-10-5

10-1-12 11-1-11

0-11-15

5-0-0

2x4 II

254

2-0-0

1.15

1.15

YES

_3.8 12

3

Carter Components (Sanford), Sanford, NC - 27332

Scale = 1:93.8

Loading

TCLL (roof)

Snow (Pf)

LUMBER

TOP CHORD

BOT CHORD

TCDL

BCLL

BCDL

WEBS

OTHERS

BRACING

TOP CHORD

BOT CHORD

WFBS

FORCES

1 Row at midpt 9-16

-1-0-0

i ⊢⊢ 1-0-0

<u>12-0-0</u> <u>4-6-7</u>

7-5-9

1-9-9

Spacing

Code

Plate Grip DOL

Rep Stress Incr

Lumber DOL

26

2x4 i

12-0-0

(psf)

20.0

20.0

10.0

0.0

10.0

2x4 SP No.3

(6-0-0 max.): 8-11.

bracing. Except:

1 Row at midpt

2x4 SP No.2 *Except* 8-11:2x4 SP No.1

2x4 SP No.3 *Except* 16-8:2x4 SP No.2

Structural wood sheathing directly applied,

except end verticals, and 2-0-0 oc purlins

Rigid ceiling directly applied or 4-5-13 oc

8-16

2x4 SP No.2 *Except* 4-22,21-5:2x4 SP No.3

5-1-12

5-1-12

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:09 ID:WR_YI7kzNKMwNjqxCT7LMbzWHgf-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

5x6=

8

30-5-3

7-4-10

32

<u>3</u>3

23-0-9

6-0-9

9¹²

31

31-9-0

0-7-0 2x4 🛛

3491011

2-10-4 4x8 -7 4x8 = 4¹² 5 4 30 6 9-1-12 2-11-14 17 19 18 35 3-0-0 3x8 2-11 σ မှ 15 Щ 4x8= 3x8= 2x4 u 2x4 II 4x8 II 8x12= 3149-0 31-3-12 31-0-4 18-3-7 <u>22-10-13</u> 0-6-12 5-1-12 5-6-15 10-0-0 11-3-7 30-6-15 17-1-12 30-3-7 0-6-12 4-7-0 0-5-3 4-5-1 1-3-7 5-10-5 1-1-11 4-7-6 7-4-10 0-3-8 0-5-5 0-3-8 0-5-4 Plate Offsets (X, Y): [7:0-6-8,0-1-12], [8:0-3-12,0-1-12], [13:0-4-0,0-1-12], [20:0-3-0,Edge], [23:0-6-0,0-1-15] CSI DEFL in (loc) l/defl L/d PLATES GRIP TC 0.91 Vert(LL) -0.15 16-17 >999 240 MT20 244/190 BC 0.64 Vert(CT) -0.25 16-17 >999 180 WB 0.53 Horz(CT) 0.16 14 n/a n/a IRC2018/TPI2014 Matrix-MSH Weight: 252 lb FT = 20% BOT CHORD 25-26=-384/184, 24-25=-355/505, 5) This truss has been designed for greater of min roof live 23-24=-449/0, 22-23=-1465/298, load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on 4-23=-470/154, 21-22=-7/0, 20-21=-18/13, overhangs non-concurrent with other live loads. 5-20=0/127, 19-20=-122/151, 6) Provide adequate drainage to prevent water ponding. 18-19=-213/981, 17-18=-213/981, All plates are 3x5 MT20 unless otherwise indicated. 7) 17-35=-110/536, 16-35=-110/536, This truss has been designed for a 10.0 psf bottom 8) 15-16=-10/63, 16-27=-75/712, chord live load nonconcurrent with any other live loads. 9-27=-906/248, 14-15=-15/51, 9) * This truss has been designed for a live load of 20.0psf 14-28=-521/72, 13-28=-521/72 on the bottom chord in all areas where a rectangle 10-13=-596/107, 12-13=-26/30 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

- 10) Refer to girder(s) for truss to truss connections.
- 11) Bearing at joint(s) 26, 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

Page: 1

- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 208 lb uplift at joint 14
- 13) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 26, 22, and 12. This connection is for uplift only and does not consider lateral forces.



Continued on page 2

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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

WARNING

818 Soundside Road Edenton, NC 27932

4-24=-300/982 NOTES 1) this design. Wind: ASCE 7-16; Vult=130mph (3-second gust) 2) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -1-0-0 to 2-2-2, Interior (1)

- 3) TCLL: ASCE 7-16; Pr=20.0 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 B; Fully Exp.; Ce=0.9; Cs=1.00: Ct=1.10
- Unbalanced snow loads have been considered for this 4) design.

WEBS 5-19=-111/938, 7-19=-193/110, 7-17=-538/129, 8-17=0/618, 8-16=-706/151, 3-25=-302/152, 2-25=-31/359, 27-28=-8/50, 14-27=-674/175, 10-27=-152/783, 20-23=-113/86, 5-23=-1158/180, 21-23=-5/9, Unbalanced roof live loads have been considered for

- **REACTIONS** (size) 12=0-3-8, 14= Mechanical, 22=0-3-8, 26=0-3-8 Max Horiz 26=318 (LC 14) Max Uplift 12=-126 (LC 47), 14=-208 (LC 11), 22=-275 (LC 14), 26=-54 (LC 10) Max Grav 12=118 (LC 53), 14=1094 (LC 42), 22=1506 (LC 5), 26=401 (LC 34) (Ib) - Maximum Compression/Maximum Tension 1-2=0/22, 2-29=-481/76, 3-29=-442/87,
- TOP CHORD 3-30=-480/145, 4-30=-403/154, 4-5=-159/456, 5-6=-1087/84, 6-7=-1039/96, 7-31=-815/112, 8-31=-683/135, 8-32=-143/89, 32-33=-143/89, 33-34=-143/89, 9-34=-143/89, 9-10=-140/86, 10-11=-42/46, 2-26=-356/146, 11-12=-64/184
- 2-2-2 to 19-10-8, Exterior(2R) 19-10-8 to 26-2-11, Interior (1) 26-2-11 to 28-5-2, Exterior(2E) 28-5-2 to 31-7-4 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

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S
21030028-A	B01	Piggyback Base	9	1	I45552840 Job Reference (optional)

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:09

ID:WR_YI7kzNKMwNjqxCT7LMbzWHgf-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

Carter Components (Sanford), Sanford, NC - 27332,

14) 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.

15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL01	Valley	1	1	Job Reference (optional)	145552841

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:41 ID:ziO4soEg5wQUo_sjC30XxJzWDFG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:61.5

Plate Offsets (X, Y): [7:Edge,0-1-8]

				_											
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MSH	0.73 0.32 0.41	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 7	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 81 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP N 2x4 SP N 2x4 SP N 2x4 SP N Structural 6-0-0 oc p Rigid ceili bracing. 1 Row at (size) Max Horiz Max Uplift Max Grav (lb) - Max Tension 1-2=-354/ 4-13=-200	0.2 0.2 0.2 0.3 wood shead burlins, exc midpt 1=14-4-9, 1=374 (LC 8=-144 (Li 1=200 (LC 8=527 (LC 10=346 (Li imum Com 238, 2-3=-3 3/157, 4-5=	athing directly applied cept end verticals. applied or 10-0-0 oc 6-7 7=14-4-9, 8=14-4-9, 10=14-4-9 2 11) 12), 7=-74 (LC 11), C 14), 9=-138 (LC 14 C 14) 2 11), 7=214 (LC 5), 2 5), 9=435 (LC 27), C 23) pression/Maximum 303/202, 3-13=-251/1 -188/123, 5-6=-144/1	1) l or 2) 3)), 4) 5) 6) 7) 54, 8) 48.	Wind: ASCE Vasd=103mp Cat. II; Exp E zone and C-0 3-0-5 to 11-3 cantilever lef right exposed for reactions DOL=1.60 Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design. Gable requird Gable studs This truss ha chord live loa * This truss ha	7-16; Vult=130mph h; TCDL=6.0psf; B b; TCDL=6.0psf; B b; TCDL=6.0psf; B c Exterior(2E) 0-0-5 -3, Exterior(2E) 11-1 t and right exposed j;C-C for members shown; Lumber DC ed for wind loads in ds exposed to wind d Industry Gable En alified building desi 7-16; Pr=20.0 psf (L sel 0.0; Rough Cat E -1.10 snow loads have be sel 0.0; Rough Cat E -1.10 snow loads have be sel 0.0; Rough Cat E -1.10 snow loads have be sel 0.0; Solor 1.0 solor d in onconcurrent wind has been designed for a chord in all arreas	(3-sect CDL=6 S (env; to 3-0 3-3 to); end v and for and for a	orond gust) .0psf; h=25ft; lelope) exterio -5, Interior (1) 14-3-3 zone; rertical left anic ces & MWFR) plate grip ane of the trus ane of the trus al to the face) Is as applicat s per ANSI/TF :: Lum DOL=1 pL=1.15 Plate Exp.; Ce=0.9 Isidered for the d bearing.) psf bottom other live loace e load of 20.00	r) d Ss),)ole,)ole, 1.15 1.15); ds. .0psf		~		WITH CA	ROLA	
BOT CHORD WEBS NOTES	6-7=-169/ 1-10=-156/ 8-9=-156/ 4-8=-382/	69 5/173, 9-10 173, 7-8=- 162, 3-9=-2	l=-156/173, 156/173 261/193, 2-10=-230/1	9) 40 10 LC	3-06-00 tall b chord and an Provide meci bearing plate 1, 74 lb uplift uplift at joint 0) This truss is International R802.10.2 ar DAD CASE(S)	y 2-00-00 wide will y other members, w hanical connection capable of withstar at joint 7, 144 lb up 9 and 86 lb uplift at designed in accorda Residential Code s ad referenced stand Standard	fit betw vith BC (by oth nding 8 lift at ju joint 10 ance w ections ard AN	veen the botto DL = 10.0psf. ers) of truss to 3 lb uplift at jo bint 8, 138 lb b. R502.11.1 an ISI/TPI 1.	om o oint nd		Cannun and and and and and and and and and an	E.C.	SEA 4584	4 EFR. 60	Summing



818 Soundside Road Edenton, NC 27932

JUM
Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL02	Valley	1	1	Job Reference (optional)	145552842

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:41 ID:RuyS38FIsEYLP8RvImXmTXzWDFF-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:45.3

Plate Offsets (X, Y): [3:0-5-3,Edge]

				-											
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MSH	0.43 0.30 0.16	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.01	(loc) - - 5	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 60 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD	2x4 SP No 2x4 SP No 2x4 SP No 2x4 SP No 2x4 SP No Structural 6-0-0 oc p 2-0-0 oc p Rigid celli brocing	0.2 0.3 0.3 wood she burlins, ex burlins (6-0 ng directly	athing directly applie cept end verticals, ar -0 max.): 3-4. applied or 10-0-0 oc	2) d or nd ; 3)	Wind: ASCE Vasd=103mp Cat. II; Exp E zone and C-(3-0-5 to 4-9- (2E) 9-0-11 t exposed ; en members and Lumber DOL Truss design only. For stu	7-16; Vult=130mpl bh; TCDL=6.0psf; E b; Enclosed; MWFF C Exterior(2E) 0-0- 12, Exterior(2R) 4-9 o 11-7-3 zone; can d vertical left and r d forces & MWFRS =1.60 plate grip DC ed for wind loads in ds exposed to wind	n (3-sec 3CDL=6 8S (env 5 to 3-0 9-12 to tilever I ight exp 6 for rea DL=1.60 n the pla d (norm	iond gust) .0psf; h=25ft; elope) exterio -5, Interior (1) 9-0-11, Exteriu eft and right iosed;C-C for ctions shown;) ane of the trus al to the face)	r or ss	LOAD	ASE(S)	Star	ndard		
REACTIONS	(size) Max Horiz Max Uplift Max Grav	1=11-8-9, 7=11-8-9 1=228 (LC 1=-4 (LC (LC 11), 7 1=238 (LC 6=342 (LC	5=11-8-9, 6=11-8-9, 10), 5=-21 (LC 10), 6 =-173 (LC 14) 2 41), 5=139 (LC 36) 2 39), 7=703 (LC 39)	, 4) 5=-57 , 5)	see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design	d Industry Gable Er alified building des 7-16; Pr=20.0 psf .15); Pf=20.0 psf (I Is=1.0; Rough Cat I =1.10 snow loads have b	nd Deta igner as (roof LL Lum DC B; Fully een cor	ils as applicat s per ANSI/TP .: Lum DOL=1 DL=1.15 Plate Exp.; Ce=0.9 asidered for th	ole, PI 1. .15 ; is						
FORCES	(lb) - Max Tension 1-10=-322 11-12=-17	imum Com 2/116, 10-1 73/127, 2-1	pression/Maximum 1=-174/119, 2=-161/206,	6) 7) 8) 9)	Provide adec Gable require Gable studs This truss ha	quate drainage to p es continuous botto spaced at 4-0-0 oc s been designed fo	revent om chor or a 10.0	water ponding d bearing.) psf bottom						Della	
BOT CHORD WEBS NOTES 1) Unbalance this design	2-3=-195/ 1-7=-98/2 5-6=-98/1 3-6=-207/ ed roof live l- n.	112, 3-4=- 42, 7-13=- 08 115, 2-7=- oads have	101/110, 4-5=-115/50 98/108, 6-13=-98/100 467/231 been considered for	0 8, 10 1 12	chord live loa) * This truss h on the bottom 3-06-00 tall b chord and ar 1) Provide mecl bearing plate 5, 4 lb uplift a uplift at joint 2) This truss is - International R802.10.2 ar	ad nonconcurrent w has been designed in chord in all areas by 2-00-00 wide will by other members, hanical connection o capable of withsta at joint 1, 57 lb uplif 7. designed in accord Residential Code s and referenced stand	vith any for a liv where l fit betw with BC (by oth anding 2 t at join ance w sections dard AN	other live load e load of 20.0 a rectangle veen the botto DL = 10.0psf. ers) of truss to 1 lb uplift at jo t 6 and 173 lb ith the 2018 R502.11.1 at ISI/TPI 1.	ds. psf o pint nd		1. Thursday	() V	SEA 4584		
				13	 Graphical pu 	rlin representation	does no	ot depict the si	ize			11	PEIN	UN?,"	

13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

818 Soundside Road Edenton, NC 27932

100000 104

April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL03	Valley	1	1	Job Reference (optional)	552843

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:42 ID:RuyS38FIsEYLP8RvImXmTXzWDFF-RfC?PsB70Hq3NSqPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL08	Valley	1	1	Job Reference (optional)	145552844

Scale = 1:53.3 Loading

TCLL (roof)

Snow (Pf)

LUMBER

TOP CHORD

BOT CHORD

TCDL

BCLL

BCDL

WEBS

WEBS

FORCES

TOP CHORD

BOT CHORD

DOL=1.60

WEBS

NOTES

1)

OTHERS

BRACING

TOP CHORD

BOT CHORD

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:43 ID:TNhim9imE?dAmZNFC3ahJwzWD4K-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

818 Soundside Road Edenton, NC 27932



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, 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	221 Willowcroft-Roof-2742-S	
21030028-A	VL09	Valley	1	1	Job Reference (optional)	145552845

9-2-0

Carter Components (Sanford), Sanford, NC - 27332

Scale = 1:42.2 Loading

TCLL (roof)

Snow (Pf)

LUMBER

TOP CHORD

BOT CHORD

TCDL

BCLL

BCDL

WEBS

OTHERS

BRACING

TOP CHORD

BOT CHORD

FORCES

TOP CHORD

BOT CHORD

WFBS

2)

NOTES 1)

Run: 8 43 S. Mar 22 2021 Print: 8 430 S. Mar 22 2021 MiTek Industries. Inc. Wed Apr 07 14:27:44 ID:TNhim9imE?dAmZNFC3ahJwzWD4K-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

2x4 II 3 2x4 II 10 2 2 6-10-12 9 ę ٺ 8 912 0-0-4 4 511 2x4 ı 2x4 II 3x5 🖌 9-2-0 Spacing 2-0-0 CSI DEFL l/defl L/d PLATES GRIP (psf) in (loc) 20.0 Plate Grip DOL 1.15 TC 0.46 Vert(LL) n/a n/a 999 MT20 244/190 BC 20.0 1 15 Lumber DOL 0.26 Vert(TL) n/a n/a 999 10.0 Rep Stress Incr YES WB 0.13 Horiz(TL) 0.01 4 n/a n/a 0.0 Code IRC2018/TPI2014 Matrix-MSH 10.0 Weight: 44 lb FT = 20%TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 3) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate 2x4 SP No.2 2x4 SP No.2 DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 2x4 SP No.3 Cs=1.00; Ct=1.10 4) Unbalanced snow loads have been considered for this 2x4 SP No.3 desian. Gable requires continuous bottom chord bearing. 5) Structural wood sheathing directly applied or Gable studs spaced at 4-0-0 oc. 6) 6-0-0 oc purlins, except end verticals. 7) This truss has been designed for a 10.0 psf bottom Rigid ceiling directly applied or 10-0-0 oc chord live load nonconcurrent with any other live loads. bracing * This truss has been designed for a live load of 20.0psf 8) REACTIONS (size) 1=9-2-0, 4=9-2-0, 5=9-2-0 on the bottom chord in all areas where a rectangle Max Horiz 1=234 (LC 11) 3-06-00 tall by 2-00-00 wide will fit between the bottom 4=-50 (LC 11), 5=-154 (LC 14) Max Uplift chord and any other members, with BCDL = 10.0psf. Max Grav 1=233 (LC 28), 4=192 (LC 5), Provide mechanical connection (by others) of truss to 9) 5=597 (LC 5) bearing plate capable of withstanding 50 lb uplift at joint (lb) - Maximum Compression/Maximum 4 and 154 lb uplift at joint 5. Tension 10) This truss is designed in accordance with the 2018 1-8=-315/116, 8-9=-167/123, 2-9=-167/168, International Residential Code sections R502.11.1 and 2-10=-159/59, 3-10=-134/81, 3-4=-158/60 R802.10.2 and referenced standard ANSI/TPI 1. 1-5=-104/237, 5-11=-104/113, 4-11=-104/113 LOAD CASE(S) Standard 2-5=-433/248 Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior C zone and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 4-9-11, Exterior(2R) 4-9-11 to 9-0-9 zone; cantilever left and right exposed ; end vertical left and and the states right exposed;C-C for members and forces & MWFRS SEAL for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 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. mm April 8,2021 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/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

818 Soundside Road Edenton, NC 27932

The second second second

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL10	Valley	1	1	Job Reference (optional)	145552846

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:44 ID:TNhim9imE?dAmZNFC3ahJwzWD4K-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:33.6

-														
Loading		(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)		20.0	Plate Grip DOL	1.15			0.33	Vert(LL)	n/a	-	n/a	999	M120	244/190
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.12	Vert(IL)	n/a	-	n/a	999		
TODL		10.0	Rep Stress Incr	YES		VVB	0.08	Horiz(TL)	0.00	4	n/a	n/a		
BCLL		10.0	Code	IRC201	8/1912014	Matrix-MP							Waight: 20 lb	ET - 200/
BCDL		10.0		-									Weight. 29 lb	FT = 20%
LUMBER				4)	Unbalanced	snow loads have b	een cor	nsidered for th	his					
TOP CHORD	2x4 SP No.2	2			design.									
BOT CHORD	2x4 SP No.2	2		5)	Gable require	es continuous botto	om chor	d bearing.						
WEBS	2x4 SP No.3	3		6)	Gable studs	spaced at 4-0-0 oc								
OTHERS	2x4 SP No.3	3		7)	This truss ha	s been designed fo	or a 10.0	0 psf bottom						
BRACING				0)	chord live loa	d nonconcurrent w	/ith any	other live loa	ids.					
TOP CHORD	Structural w	ood shea	athing directly applied	dor ⁸⁾	^ This truss h	as been designed	for a liv	e load of 20.0	Upst					
	6-0-0 oc pu	rlins, exc	cept end verticals.			v 2 00 00 wido will	fit boty	a reclarigie	om					
BOT CHORD	Rigid ceiling	g directly	applied or 10-0-0 oc		chord and an	v other members.			UIII					
DEADTIONO				9)	Provide mecl	nanical connection	(by oth	ers) of truss t	to					
REACTIONS	(SIZE) 1	=6-6-0, 4	=6-6-0, 5=6-6-0		bearing plate	capable of withsta	inding 3	89 lb uplift at j	joint					
	Max Liplift 1	= 103 (LC	, 1 1) 10)		4, 21 lb uplift	at joint 1 and 122	lb uplift	at joint 5.						
		=-21 (LU	(10), 4=-39 (LC 11),	10) This truss is	designed in accord	lance w	ith the 2018						
	Max Grav 1	-96 (I C	24 $4-195$ (LC 20)		International	Residential Code s	sections	s R502.11.1 a	and					
	5	=466 (LC	24), 4=100 (20 20),		R802.10.2 ar	nd referenced stand	dard AN	ISI/TPI 1.						
FORCES	(lb) - Maxim	um Com	pression/Maximum	LO	DAD CASE(S)	Standard								
	Tension													
TOP CHORD	1-8=-159/11	l0, 2-8=-´	148/125, 2-9=-142/74	4,										
	3-9=-72/76,	3-4=-163	3/57											
BOT CHORD	1-5=-75/82,	4-5=-75/	82											
WEBS	2-5=-401/26	65											mm	111.
NOTES													WHI CA	Pall
1) Wind: AS	CE 7-16; Vult=	:130mph	(3-second gust)								~	1	all	
Vasd=103	Smph; TCDL=6	6.0psf; BC	CDL=6.0psf; h=25ft;									S	O' EFSS	h: All
Cat. II; Ex	p B; Enclosed	; MWFRS	6 (envelope) exterior									KA I	inghto	Mintin
zone and	C-C Exterior(2	(E) zone;	cantilever left and rig	gnt									:0° P	K
exposed,	and forces &		for reactions shown:										OFA	
Lumber D	OI = 1.60 plate	arin DO	I = 1.60										SEA	Le la
2) Truss des	ianed for wind	loads in	the plane of the trus	\$									4584	4 : 5
only. For	studs exposed	d to wind	(normal to the face).	~							=	8		1 - E - E
see Stand	lard Industry G	Sable End	Details as applicabl	le,							1		1	1. 2
or consult	qualified build	ling desig	ner as per ANSI/TPI	11.								-7	1. ENO	CR: SS
3) TCLL: AS	CE 7-16; Pr=2	20.0 psf (r	oof LL: Lum DOL=1.	.15								11	GIN	E.F. GUN
Plate DOL	_=1.15); Pf=20).0 psf (Li	um DOL=1.15 Plate									1	REIAL	OHN
DOL=1.15	5); Is=1.0; Rou	gh Cat B	; Fully Exp.; Ce=0.9;										VI, VV J	

- 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.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate 3) DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10



minim

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL11	Valley	1	1	Job Reference (optional)	145552847

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:44 ID:TNhim9imE?dAmZNFC3ahJwzWD4K-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



3x5 🍫



Scale =	1:25.5
---------	--------

Loading TCLL (roof) Snow (Pf) TCDL	(psf) 20.0 20.0 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 YES	CSI TC BC WB	0.27 0.30 0.00	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 3	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20	GRIP 244/190
BCDL	10.0	Code	IRC2018/1PI2014	Matrix-MP							Weight: 16 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 3-10-5 oc purlins, e Rigid ceiling directly bracing. (size) 1=3-10-5, Max Horiz 1=92 (LC Max Uplift 1=-6 (C	athing directly applie xcept end verticals. applied or 10-0-0 oc , 3=3-10-5 11) 14) 3=-41 (I C 14)	7) This truss chord live 8) * This trus on the bo 3-06-00 ta chord and 9) Provide m bearing p 3 and 6 lb 10) This truss Internatio R802.10.2	has been designed load nonconcurrent is has been designe tom chord in all are all by 2-00-00 wide v any other members echanical connection ate capable of withs uplift at joint 1. is designed in accor- nal Residential Code and referenced stat	I for a 10.0 t with any ed for a liv as where will fit betw s. on (by oth standing 4 ordance w e sections andard AN	D psf bottom other live loa e load of 20.0 a rectangle veen the botto ers) of truss t 1 lb uplift at j ith the 2018 i R502.11.1 a ISI/TPI 1.	ds. Dpsf om oint				<u>.</u>	
FORCES	Max Grav 1=219 (LC (Ib) - Maximum Com Tension	C 20), 3=219 (LC 20) pression/Maximum) LOAD CASE(S) Standard								
TOP CHORD	1-2=-279/72, 2-3=-1 1-3=-76/216	47/69										
NOTES	10-10/210											
1) Wind: ASC Vasd=103 Cat. II; Exp zone and 0 exposed ; members a Lumber D0	CE 7-16; Vult=130mph mph; TCDL=6.0psf; B p B; Enclosed; MWFR C-C Exterior(2E) zone end vertical left and rig and forces & MWFRS OL=1.60 plate grip DC	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterioi ; cantilever left and r ght exposed;C-C for for reactions shown; DL=1.60	r ight						^		WITH CA	ROLIN
 Truss desi only. For see Stands or consult 	igned for wind loads in studs exposed to wind ard Industry Gable En qualified building desi	the plane of the trus (normal to the face) d Details as applicab oper as per ANSI/TP	ss , ble, Pl 1						U		A A A A A A A A A A A A A A A A A A A	Maria
3) TCLL: AS(Plate DOL DOL=1.15 Cs=1.00; (CE 7-16; Pr=20.0 psf (=1.15); Pf=20.0 psf (L); Is=1.0; Rough Cat E Ct=1.10	roof LL: Lum DOL=1 um DOL=1.15 Plate 3; Fully Exp.; Ce=0.9	;						THUR.		4584	14
 Unbalance design. 	ed snow loads have be	een considered for th	is								NO SNGIN	EERSOLIN
 Gable required Gable stude 	uires continuous botto ds spaced at 4-0-0 oc.	m chord bearing.									TEW J	OHNIII

April 8,2021

818 Soundside Road Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL19	Valley	1	1	Job Reference (optional)	145552848

1-7-8 1-7-8

Carter Components (Sanford), Sanford, NC - 27332,

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:47 ID:L3pWLGwcJKZF5kUySdQhjRzWD5K-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

4-11-2

3-3-10







5-3-12

Scal	ما	- 1	.28	

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	CSI TC BC WB Matrix-P	0.27 0.08 0.04	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 3	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 22 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD 2x4 SP N BOT CHORD 2x4 SP N WEBS 2x4 SP N OTHERS 2x4 SP N BRACING TOP CHORD Structura 5-4-1 oc BOT CHORD Rigid ceil bracing. REACTIONS (size) Max Horiz Max Uplift	0.2 0.2 0.3 0.3 I wood she purlins, exi ing directly 3=5-3-12, 5=-74 (LC 3=-17 (LC (LC 14) 3=146 (LC 5=72 (LC	athing directly applie cept end verticals. applied or 10-0-0 oc 4=5-3-12, 5=5-3-12 10) 15), 4=-1 (LC 10), 5 2 21), 4=226 (LC 21) 20)	4) TCLL: AS Plate DOL DOL=1.15 Cs=1.00; 5) Unbalance design. 6) Gable req 7) Gable stur 8) This truss chord live 9) * This truss on the bot s=-26 chord and 10) Provide m bearing pl	CE 7-16; Pr=20.0 p =1.15); Pf=20.0 ps); Is=1.0; Rough C Ct=1.10 d snow loads have uires continuous b is spaced at 4-0-0 has been designe load nonconcurrer s has been designe load nonconcurrer s has been designe load nonconcurrer a has been designe load nonconcurrer s has been designe load nonconcurrer s has been designe load nonconcurrer s has been designe load nonconcurrer s has been designe tom chord in all are Il by 2-00-00 wide any other membe echanical connecti ate capable of with	besf (roof LI sf (Lum DC cat B; Fully e been cor- ottom chor oc. d for a 10. tt with any ed for a liv eas where will fit betv rs. ion (by oth standing 2	:: Lum DOL=)L=1.15 Plate Exp.; Ce=0.9 asidered for th d bearing. D psf bottom other live load e load of 20.0 a rectangle veen the botto ers) of truss to 61 buplift at jo	.15 ; is ds. psf om o					
FORCES (Ib) - Max Tension TOP CHORD 1-5=-71/7	imum Com 76, 1-2=-58	/76, 2-6=-56/71,	5, 17 lb up 11) This truss Internatior R802.10.2	is designed in acc al Residential Coc and referenced st	ordance w de sections andard Al	Joint 4. ith the 2018 SR502.11.1 a JSI/TPI 1.	nd					
3-6=-81/4 BOT CHORD 4-5=-50/6 WEBS 2-4=-158 NOTES	14 64, 3-4=-50, /51	/64	LOAD CASE(S) Standard							UNITE CA	Rout
 Unbalanced roof live this design. Wind: ASCE 7-16; VL Vasd=103mph; TCDL Cat. II; Exp B; Enclos zone and C-C Exterior exposed ; end vertica members and forces Lumber DOL=1.60 pl: Truss designed for wir only. For studs expos see Standard Industry 	leads have =6.0psf; Be ed; MWFR; r(2E) zone; & MWFRS ate grip DO nd loads in sed to wind y Gable Ene	been considered for (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior ; cantilever left and ri ght exposed; C-C for for reactions shown; 'L=1.60 the plane of the trus (normal to the face), d Details as applicab	ght s						C	tie P	SEA 4584	L LA

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/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



minim April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL20	Valley	1	1	Job Reference (optional)	145552849

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:47 ID:KYr4treJC2jJw8NH?mK_ImzWCun-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

> 0-7-10 0-4-10

2-0-8 1-7-14

Page: 1

0-0-0-4



1-0-4 1-0-4

2x4 🍫

2x4 💊

2-0-8

Scale = 1:25.1

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

	(X, T): [2:0-2-0,Euge]													
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/T	PI2014	CSI TC BC WB Matrix-MP	0.02 0.04 0.00	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 3	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 5 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 Structural wood she 2-0-8 oc purlins. Rigid ceiling directly bracing. (size) 1=2-0-8, 3 Max Horiz 1=-14 (LC Max Uplift 1=-7 (LC Max Grav 1=90 (LC	athing directly applie applied or 10-0-0 oc 3=2-0-8 : 12) 14), 3=-7 (LC 15) 20), 3=90 (LC 21)	7) * dor 8) F 9) T F LOA	This truss h on the botton 3-06-00 tall b chord and an Provide mecl bearing plate and 7 lb uplif This truss is - nternational R802.10.2 ar D CASE(S)	has been designe n chord in all are by 2-00-00 wide v by other members hanical connecti c capable of withs t at joint 3. designed in acco Residential Cod nd referenced sta Standard	ed for a live will fit betw s. on (by othe standing 7 ordance wi e sections andard AN	e load of 20.0 a rectangle veen the botto ers) of truss t Ib uplift at joi th the 2018 R502.11.1 a ISI/TPI 1.	Dpsf om int 1 nd						
FORCES TOP CHORD BOT CHORD	(lb) - Maximum Com Tension 1-2=-105/48, 2-3=-6 1-3=-25/79	7/39												
NOTES 1) Unbalanc this design 2) Wind: AS Vasd=100 Cat. II; Ex zone and exposed ; members Lumber D JOL=1.1t CS=1.00; 4) Unbalanc design. 5) Gable rec 6) This truss chord live	ed roof live loads have n. CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; Br qp B; Enclosed; MWFR3 C-C Exterior(2E) zone; end vertical left and rig and forces & MWFR3 ODL=1.60 plate grip DO CE 7-16; Pr=20.0 psf (L L=1.15); Pf=20.0 psf (L 5); Is=1.0; Rough Cat B Ct=1.10 red snow loads have be quires continuous bottor is has been designed for load nonconcurrent wi	been considered for (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior ; cantilever left and ri pht exposed;C-C for for reactions shown; IL=1.60 um DOL=1.15 Plate B; Fully Exp.; Ce=0.9; then considered for this m chord bearing. r a 10.0 psf bottom th any other live load	ght .15 is is							Ochimmer		SEA 4584	L H4 EEER.CO	A Standard



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/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

April 8,2021



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL17	Valley	1	1	Job Reference (optional)	45552850

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:46 ID:9QgwZ4WPogLt6R1AryePpSzWCuy-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:46.7

Plate Offsets (X, Y): [2:0-5-3,Edge]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	77PI2014	CSI TC BC WB Matrix-SH	0.46 0.24 0.18	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 63 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS DTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood sh 6-0-0 oc purlins, e 2-0-0 oc purlins (6 Rigid ceiling direct bracing. (size) 4=12-3- 7=12-3- Max Horiz 7=-233 Max Uplift 4=-8 (LC 6=-57 (L Max Grav 4=238 () 6=352 ()	eathing directly applie xcept end verticals, a 0-0 max.): 1-2. y applied or 10-0-0 or 11, 5=12-3-11, 6=12-3 11 LC 12) 2 11), 5=-183 (LC 15) C 10), 7=-22 (LC 11) LC 39), 5=702 (LC 41) LC 34), 7=161 (LC 36	2) ed or nd c 3) 3-11, 4) , 5)	Wind: ASCE Vasd=103mp Cat. II; Exp E zone and C-(3-0-0 to 6-0-(8-10-12 to 11 exposed ; en members anu Lumber DOL Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design.	7-16; Vult=130m h; TCDL=6.0psf; b; Enclosed; MWF C Exterior(2E) 0 0, Interior (1) 6-0- 1-10-12 zone; car d vertical left and d forces & MWFF =1.60 plate grip I ed for wind loads ds exposed to wid I Industry Gable alified building dc 7-16; Pr=20.0 psf s=1.0; Rough Ca 1.10 snow loads have	ph (3-sec BCDL=6 FRS (envi- 1-12 to 3- 0 to 8-10 tilever le right exp S for rea DOL=1.6(in the pla nd (norm End Deta ssigner at sis f(roof LL (Lum DC t B; Fully been cor	ond gust) .0psf; h=25ft; elope) exterior(2 -12, Exteri	r 2R) 2E) ss , , ole, , 11. .15 ; is	LOAD	CASE(S)) Star	ndard		
FORCES	(lb) - Maximum Co Tension	mpression/Maximum	6) 7)	Provide adec Gable require	uate drainage to	prevent v ttom chor	vater ponding d bearing.							
TOP CHORD	1-7=-130/55, 1-2=- 8-9=-167/72, 3-9=- 4-10=-199/118	104/113, 2-8=-126/11 198/70, 3-10=-181/20	1, 8))9, 9)	Gable studs This truss ha chord live loa	spaced at 4-0-0 c s been designed ad nonconcurrent	oc. for a 10.0 with any) psf bottom other live load	ds.		~		TH CA	Roit	
3OT CHORD WEBS NOTES 1) Unbalance this design	6-7=-117/183, 5-6- 2-6=-215/117, 3-5- ed roof live loads hav n.	117/183, 4-5=-117/1 473/240 e been considered fo	183 10) r 11) 12)	* This truss h on the bottom 3-06-00 tall b chord and an Provide mech bearing plate 7, 8 lb uplift at uplift at joint This truss is	as been designe n chord in all area by 2-00-00 wide w by other members hanical connection capable of withs at joint 4, 57 lb up 5. designed in acco	d for a liv as where vill fit betw s, with BC on (by oth tanding 2 lift at join rdance w	e load of 20.0 a rectangle reen the botto DL = 10.0psf. ers) of truss to 2 lb uplift at jo t 6 and 183 lb th the 2018	psf om o pint		Continue	AND	SEA 4584	bigner L 14	Ammin

International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1. 13) Graphical purlin representation does not depict the size

or the orientation of the purlin along the top and/or bottom chord.

818 Soundside Road Edenton, NC 27932

Unin

April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL18	Valley	1	1	Job Reference (optional)	145552851

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:46 ID:za1Bq7bANW50qMUKCDlp2jzWCus-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:76.2

Loading TCLL (roof) Snow (Pf) TCDL	(psf) 20.0 20.0 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 YES	CSI TC BC WB	0.65 0.31 0.30	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.01	(loc) - - 7	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20	GRIP 244/190	
BCLL BCDL	0.0* 10.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 98 lb	FT = 20%	

LUMBER		
TOP CHORD	2x4 SP N	0.2
BOT CHORD	2x4 SP N	0.2
WEBS	2x4 SP N	0.2
OTHERS	2x4 SP N	o.3 *Except* 11-2:2x4 SP No.2
BRACING		
TOP CHORD	Structural 6-0-0 oc p	l wood sheathing directly applied or ourlins, except end verticals.
BOT CHORD	Rigid ceili bracing.	ing directly applied or 10-0-0 oc
WEBS	1 Row at	midpt 1-12, 2-11
REACTIONS	(size)	7=14-11-11, 8=14-11-11,
		9=14-11-11, 10=14-11-11,
		11=14-11-11, 12=14-11-11
	Max Horiz	12=-368 (LC 10)
	Max Uplift	7=-114 (LC 13), 8=-113 (LC 15),
		9=-137 (LC 15), 10=-135 (LC 15),
		11=-22 (LC 10), 12=-144 (LC 28)
	Max Grav	7=215 (LC 10), 8=338 (LC 27),
		9=437 (LC 27), 10=492 (LC 27),
		11=404 (LC 27), 12=18 (LC 15)
FORCES	(lb) - Max	imum Compression/Maximum
	Tension	
TOP CHORD	1-12=-288	8/320, 1-2=-292/326,
	2-13=-15	3/163, 3-13=-170/148,
	3-14=-182	2/146, 4-14=-201/137,
DOT OUODD	4-5=-247/	161, 5-6=-303/208, 6-7=-358/243
BOT CHORD	11-12=-18	34/291, 10-11=-184/291, 4/201
	9-10=-184	4/291, 8-9=-184/291, 7-8=-184/291
WEB2	Z-11=-340	0/330, 4-1U=-205/100, /196 6 9- 225/154
	5-9=-263/	100, 0-0=-223/134
NOTES		

 Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 0-8-0, Exterior(2R) 0-8-0 to 3-8-0, Interior (1) 3-8-0 to 11-6-12, Exterior(2E) 11-6-12 to 14-6-12 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
- 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=20.0 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 B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 144 lb uplift at joint 12, 22 lb uplift at joint 11, 135 lb uplift at joint 10, 137 lb uplift at joint 9, 113 lb uplift at joint 8 and 114 lb uplift at joint 7.
- 11) 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.
 LOAD CASE(S) Standard





Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL16	Valley	1	1	Job Reference (optional)	145552852

Scale = 1:29

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:46 ID:oTt1WNSGz8ia0g9C3P2E6OzWCv1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

9-7-11



Loading		(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)		20.0	Plate Grip DOL	1.15		TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.19	Vert(TL)	n/a	-	n/a	999		
TCDL		10.0	Rep Stress Incr	YES		WB	0.08	Horiz(TL)	0.00	4	n/a	n/a		
BCLL		0.0*	Code	IRC20	18/TPI2014	Matrix-SH								
BCDL		10.0					-					Weight: 39 lb	FT = 20%	
LUMBER				3) Truss desigr	ned for wind loads	s in the pla	ane of the tru	SS					
TOP CHORD	2x4 SP N	0.2			only. For st	uds exposed to wi	ind (norm	al to the face),					
BOT CHORD	2x4 SP N	0.2			see Standar	d Industry Gable	End Deta	ils as applical	ole,					
WEBS	2x4 SP N	lo.3			or consult qu	ualified building de	esigner a	s per ANSI/TF	기 1.					
OTHERS	2x4 SP N	0.3		4) TCLL: ASCE	= 7-16; Pr=20.0 ps	sf (roof LL	: Lum DOL=	1.15					
BRACING					Plate DOL=	1.15); Pt=20.0 pst	(Lum DC	L=1.15 Plate						
TOP CHORD	Structura	I wood shea	athing directly applie	d or	DOL=1.15);	IS=1.0; Rough Ca -1 10	at B; Fully	Exp.; Ce=0.9);					
	6-0-0 oc	purlins, exe	cept end verticals, ar	nd _r) Unbalanced	snow loads have	heen cor	sidered for th	nie					
	2-0-0 oc	purlins (6-0	-0 max.): 1-3.		design	Show loads have			110					
BOT CHORD	Rigid ceil bracing.	ing directly	applied or 6-0-0 oc	6) Provide ade	quate drainage to	prevent	water ponding	j .					
REACTIONS	(size)	4=9-7-11,	5=9-7-11, 6=9-7-11,	, <i>'</i>) Gable requil	res continuous bo	ttom chor	d bearing.						
	()	7=9-7-11	,	΄ Έ) Gable studs	spaced at 4-0-0 d	DC.							
	Max Horiz	7=-90 (LC	: 10)	5) This truss ha	as been designed	with onv	other live lea	de					
	Max Uplift	4=-3 (LC	15), 5=-48 (LC 10), 6	6=-66 1	0) * This truss	has been designe	d for a liv	e load of 20.0	us.)psf					
	Max Grav	4-192 (1 ((10 + 4) (21) 5-367 (1 C 21)		on the botto	m chord in all area	as where	a rectangle						
		6=430 (LC	C 34), 7=15 (LC 41)	,	3-06-00 tall chord and a	by 2-00-00 wide w ny other members	vill fit betv 3.	een the botto	om					
FORCES	(lb) - Max Tension	kimum Com	pression/Maximum	1	 Provide med bearing plate 	chanical connection e capable of withs	on (by oth standing 1	ers) of truss t 2 lb uplift at j	o oint					
TOP CHORD	1-7=-8/13 3-8=-41/4	3, 1-2=-40/4 17, 3-9=-42/	l5, 2-8=-41/46, /105, 4-9=-122/36		7, 3 lb uplift uplift at joint	at joint 4, 48 lb up 6.	olift at join	t 5 and 66 lb					UNU CA	Della
BOT CHORD	6-7=-46/7	70, 5-6=-46	/70, 4-5=-46/70	1	This truss is	designed in acco	rdance w	ith the 2018			^		"atn a	10/11/
WEBS	3-5=-247	/127, 2-6=-3	366/111		Internationa	Residential Code	e sections	R502.11.1 a	nd		- I ·	1	OVERSS	B: All
NOTES					R802.10.2 a	ind referenced sta	andard AN	ISI/TPI 1.				XX	right	Unineria
 Unbalance this design 	ed roof live n.	loads have	been considered for	• 1	Graphical pu or the orient	urlin representatio ation of the purlin	n does no along the	ot depict the s top and/or	ize				ie P	R.
2) Wind: AS	CE 7-16; Vu	lt=130mph	(3-second gust)		bottom chor	d.					=		SEA	L 1 1
Vasd=103	3mph; TCDL	.=6.0psf; B0	CDL=6.0psf; h=25ft;	L	OAD CASE(S)	Standard					=	:	150	1
Cat. II; Ex	p B; Enclos	ed; MWFR	S (envelope) exterior	r							=		4384	++ ; :
zone and	C-C Exterio	or(2E) 0-1-1	2 to 3-1-12, Exterior								-	3		1. 3
(2R) 3-1-1	12 to 6-2-12	, Exterior(2	E) 6-2-12 to 9-2-12									:7	· . A.	a:23
zone; can	tilever left a	nd right exp	bosed ; end vertical l	eft								11	VGIN	EFICON
and right of	exposed;C-	tor memb	ers and forces &									11	Ar	UNS. M
	-1 60	snown; Lu	mber DOL=1.60 plat	le								11.00	1,SW J	01
grip DOL=	=1.00												111111	I Martin Contraction of the second sec

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/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



100000 104

April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL15	Valley	1	1	Job Reference (optional)	145552853

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:45 ID:xZF4_VjO?II1OjyRmn5wr8zWD4J-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



20-5-12

Scale = 1:63.8

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20 ⁷	18/TPI2014	CSI TC BC WB Matrix-MSH	0.88 0.24 0.22	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 8	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 96 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex Rigid ceiling directly bracing. 1 Row at midpt (size) 1=20-5-1. 11=20-5- 13=20-5- Max Horiz 1=352 (LI Max Uplift 1=-14 (LC 9=-132 (L 12=-71 (L Max Grav 1=188 (LI 9=493 (LI) 12=402 (J	eathing directly applie cept end verticals. r applied or 10-0-0 oc 7-8 2, 8=20-5-12, 9=20-5 12, 12=20-5-12, 12 C 11) C 10), 8=-71 (LC 11), C 14), 11=-66 (LC 1 C 14), 13=-73 (LC 12) C 24), 8=205 (LC 23) C 23), 11=442 (LC 5) C 20) 13=413 (LC 5)	1 d or -12, -12, -12, -12, -12, -12, -12, -12,	 Wind: ASCE Vasd=103mp Cat. II; Exp E zone and C-1 3-0-12 to 17- cantilever lef right exposed for reactions DOL=1.60 Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct=1 Unbalanced design. All plates are Gable requir. 	7-16; Vult=130m; bh; TCDL=6.0psf; 3; Enclosed; MWF C Exterior(2E) 0-0 4-12, Exterior(2E) t and right expose d;C-C for member shown; Lumber D ed for wind loads tds exposed to wird d Industry Gable E alified building de 7-16; Pr=20.0 psf (s=1.0; Rough Cat =1.10 snow loads have 1 e 2x4 MT20 unless es continuous bott	bh (3-see BCDL=6 RS (env -12 to 3-) 17-4-12 d ; end v s and fo DOL=1.60 in the pl nd (norm End Deta signer a: f (roof LL (Lum DC t B; Fully been con s otherwit	cond gust) a Opsf; h=25ft; elope) exterico 0-12, Interior 2 to 20-4-12 z vertical left an rcces & MWFF 0 plate grip ane of the tru al to the face ils as applical s per ANSI/TF 12=1.15 Plate Exp.; Ce=0.5 nsidered for th se indicated. d bearing.	or (1) one; d 2S ss), ble, PI 1. 1.15 9; his					
FORCES	(lb) - Maximum Con Tension 1-16=-422/71, 2-16=	pression/Maximum =-270/79, 2-17=-253/	41, 9	 This truss ha chord live loa * This truss h 	ad nonconcurrent	for a 10.0 with any d for a liv	0 psf bottom other live loa e load of 20.0	ds.)psf				TH CA	Roin
BOT CHORD	3-17=-239/61, 3-4=- 5-6=-206/146, 6-18= 7-8=-119/71 1-13=-132/280, 12- ⁻	·213/93, 4-5=-205/11 =-180/88, 7-18=-133/ 13=-132/145,	5, 111, 1	on the bottor 3-06-00 tall t chord and ar 0) Provide mec	n chord in all area by 2-00-00 wide w by other members hanical connection	is where ill fit betw , with BC n (by oth	a rectangle veen the botto DL = 10.0psf ers) of truss t	om o		\int	t	on the second	et inter
WEBS	11-12=-132/145, 10 9-10=-132/145, 8-9= 6-9=-283/167, 4-11= 3-12=-334/119, 2-13	-11=-132/145, =-132/145 =-336/120, 3=-264/109	1	bearing plate 1. 1) _{n/a}	capable of withst	anding 1	4 lb uplift at j	oint				SEA 458	L 44
NOTES			1 L	2) This truss is International R802.10.2 ar OAD CASE(S)	designed in accor Residential Code nd referenced star Standard	dance w sections ndard AN	ith the 2018 8 R502.11.1 a ISI/TPI 1.	nd			N. A.	NOREW J	EER. OHNS



April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL14	Valley	1	1	Job Reference (optional)	145552854

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:45 ID:xZF4_VjO?II1OjyRmn5wr8zWD4J-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





14-5-12

Coolo		1.51	4
Scale	=	1:5 I	. 1

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MSH	0.55 0.66 0.10	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.01	(loc) - - 6	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 64 lb	GRIP 244/190 FT = 20%
BCDL 10.0 LUMBER TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 WEBS 2x4 SP No.3 OTHERS 2x4 SP No.3 BRACING TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. BOT CHORD BOT CHORD Structural wood sheathing directly applied or 10-0-0 oc bracing. BEACTIONS (size) REACTIONS (size) 1=14-5-12, 6=14-5-12, 7=14-5-12, 8=14-5-12 Max Horiz 1=272 (LC 11) Max Horiz 1=272 (LC 11) Max Uplift 1=-44 (LC 10), 6=-60 (LC 11), 7=-116 (LC 14), 8=-99 (LC 10) Max Grav 1=266 (LC 5), 6=215 (LC 23), 7=401 (LC 23), 8=684 (LC 20) 7=401 (LC 23), 8=684 (LC 20)			2) 3) 3) 3) 3, 4) 5, -12, 6) 7) 8) 0	Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct= Uhbalanced design. Gable requir Gable studs This truss for on the bottor 3-06-00 tall h	hed for wind loads uds exposed to w d Industry Gable alified building dr 5.7-16; Pr=20.0 ps 1.15); Pf=20.0 ps 1.15); Pf=20.0 ps 1.10; Rough Ca =1.10 snow loads have es continuous bo spaced at 4-0-0 d as been designed d nonconcurrent has been designed n chord in all area by 2-00-00 wide v	in the pl ind (norm End Deta ssigner a: sf (roof Ll (Lum DC t B; Fully been cor ttom chor oc. for a 10. with any d for a 11 as where vill fit bett	ane of the tru lal to the face ils as applica is per ANSI/T .: Lum DOL= DL=1.15 Plate Exp.; Ce=0.1 risidered for t d bearing. 0 psf bottom other live loa re load of 20.1 a rectangle veen the bott	ss), ble, PI 1. 1.15 9; his ds. Dpsf				-	
FORCES	(lb) - Maximum Con Tension	npression/Maximum	9)	Provide mec	hanical connections capable of withs	on (by oth	ers) of truss t 4 lb uplift at i	O oint					
TOP CHORD	1-11=-630/103, 1-1 1-12=-203/58, 2-12 3-4=-177/128, 4-13 5-6=-121/67	1=-613/106, =-192/98, 2-3=-179/1 =-160/68, 5-13=-107/	00, 10 '90,	1.)) n/a			apint at j	0				mmm	11111
BOT CHORD WEBS NOTES 1) Wind: ASI Vasd=103 Cat. II; Ex zone and 2 0 12 to	1-8119/592, 7-8= 4-7=-253/205, 2-8= CE 7-16; Vult=130mph mph; TCDL=6.0psf; B p B; Enclosed; MWFR C-C Exterior(2E) 0-0- 14 4 12 Exterior(2E) 0	-107/117, 6-7=-107/1 -472/140 n (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterio 12 to 3-0-12, Interior 14 4 10 to 44 412 ar	17 11 L(r (1)	I) This truss is International R802.10.2 a DAD CASE(S)	designed in acco Residential Code nd referenced sta Standard	rdance w e sections indard AN	ith the 2018 \$ R502.11.1 a \SI/TPI 1.	ind		(Bà	ORTH CA	

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



818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty Ply 221 Willowcroft-Roof-2742-S		221 Willowcroft-Roof-2742-S	
21030028-A	VL13	Valley	1	1	Job Reference (optional)	145552855

Scale = 1:39.1

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:45 ID:xZF4_Vj0?II10jyRmn5wr8zWD4J-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1





7-6-13

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	CSI TC BC WB Matrix-MP	0.46 0.19 0.09	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 35 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex Rigid ceiling directly bracing. (size) 1=8-6-8, 4 Max Horiz 1=191 (L0 Max Grav 1=157 (L0 5=542 (L0	Pathing directly applie cept end verticals. r applied or 10-0-0 oc 4=8-6-8, 5=8-6-8 C 11) C 11), 5=-123 (LC 14 C 24), 4=183 (LC 20) C 20)	3) TCLL: ASC Plate DOL= DOL=1.15) Cs=1.00; C 4) Unbalanced design. 5) Gable requi 6) Gable studs 7) This truss h chord live lo 8) * This truss on the bott 3-06-00 tall chord and a), 9) n/a	E 7-16; Pr=20.0 psf (1.15); Pf=20.0 psf (L Is=1.0; Rough Cat B =1.10 I snow loads have be res continuous botto a spaced at 4-0-0 oc. as been designed fo bad nonconcurrent w has been designed i m chord in all areas by 2-00-00 wide will ny other members.	(roof LL Lum DC 3; Fully een cor m chor r a 10.0 ith any for a liv where fit betw	Lum DOL= DL=1.15 Plate Exp.; Ce=0.9 d bearing. D psf bottom other live loa e load of 20.0 a rectangle veen the bottom	1.15); ds. 0psf om					
	(lb) - Maximum Com Tension 1-8=-361/130_2-8=-	npression/Maximum	(5 10) Beveled pla	te or shim required t	o provi	de full bearing	7					
BOT CHORD WEBS NOTES 1) Wind: ASC Vasd=103 Cat. II; Exj zone and	3-4=-159/64 1-5=-87/263, 4-5=-8 2-5=-420/268 CE 7-16; Vult=130mph mph; TCDL=6.0psf; B p B; Enclosed; MWFR C-C Exterior(2E) 0-0-0	r (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterio 10 3-0-0 Interior (1)	11) This truss is Internationa R802.10.2 ; LOAD CASE(S	truss chord at joint(s designed in accord I Residential Code s and referenced stanc) Standard	ance w ections dard AN	ith the 2018 R502.11.1 a ISI/TPI 1.	nd		ſ	1-1-1	NITH CA	ROLIN

- Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 5-4-12, Exterior(2E) 5-4-12 to 8-4-12 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
- 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.





Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL05	Valley	1	1	Job Reference (optional)	145552856

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:42 ID:NQNd6qROq1cUN4kMOMkNM_zWD8Y-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f 11-8-5 18-5-3 5-0-7 5-0-7 6-7-14 6-8-14 6x8 = 19 20 6 0-2-2 H 5 21 7 -2-2 \square 12 9 Г 18 4-9-12 6-6-3 4 6-8-5 6-6-3 3x5 ≠ 3¹⁷ 12 4 Г 2 16 0-0-4 8 13 12 22 11 109 3x5 ≠ 3x5= 18-5-3

Scale = 1:44.8

Plate Offsets	(X, Y): [5:0-5-3	3,Edge]													
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	18/TPI2014	CSI TC BC WB Matrix-MSH	0.40 0.17 0.29	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 8	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 89 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wo 6-0-0 oc purl 2-0-0 oc purl Rigid ceiling	ood shea lins, exc lins (6-0 directly	athing directly applie cept end verticals, ar -0 max.): 5-7. applied or 10-0-0 oc	2 ed or nd) Wind: ASCE Vasd=103mp Cat. II; Exp E zone and C-1 3-0-12 to 8-9 14-9-1 to 15 cantilever lef right expose for reactions DOL=1.60	7-16; Vult=130mph bh; TCDL=6.0psf; B 3; Enclosed; MWFR C Exterior(2E) 0-0- -1, Exterior(2R) 8-5 4-3, Exterior(2R) 14 t and right exposed t;C-C for members shown; Lumber DC	a (3-sec CDL=6 S (envi 12 to 3- 0-1 to 1 5-4-3 to ; end v and for DL=1.60	cond gust) .0psf; h=25ft; elope) exterior 0-12, Interior (4-9-1, Interior (0-18-4-3 zone; vertical left and ces & MWFRS) plate grip	14) Gra or th bott LOAD C	phical prine orient om chor CASE(S)	urlin re ation d d. Sta	epresentation doe of the purlin along ndard	s not depict the size I the top and/or	:	
REACTIONS	bracing. (size) 1= 11 Max Horiz 1= Max Uplift 1= 9= 12 Max Grav 1= 92	=18-5-3, I=18-5-3 =231 (LC =-32 (LC 2=-130 (I =154 (LC =486 (LC 2=547 (L	8=18-5-3, 9=18-5-3, ; 12=18-5-3, 13=18- ; 11) 10), 8=-11 (LC 11), 10), 11=-71 (LC 11), LC 14), 13=-64 (LC - ; 41), 8=105 (LC 44) ; 44), 11=411 (LC 46 C 47), 13=406 (LC 3;	, -5-3), 10) , 5), 35)	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. TCLL: ASCE 7-16; Pr=20.0 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 B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10 Unbalanced snow loads have been considered for this design.										
FORCES	(lb) - Maximu Tension	um Com	pression/Maximum	7) All plates are) Gable require	2x4 MT20 unless	otherwi	se indicated.						inin,	
TOP CHORD	1-16=-272/73 3-17=-166/10 4-18=-188/72 19-20=-92/10 7-21=-91/100	3, 2-16= 01, 4-17 2, 5-18= 02, 6-20 0, 7-8=-7	-169/86, 2-3=-169/9 =-148/168, -129/120, 5-19=-91/ =-92/102, 6-21=-91/ 75/63	9, 9 1 102, 100, 1	 Gable studs This truss ha chord live loa This truss has the bottom 	spaced at 4-0-0 oc. s been designed fo ad nonconcurrent w has been designed n chord in all areas	or a 10.0 ith any for a liv) psf bottom other live load e load of 20.0p a rectangle	s. osf		C	e de la compañía de	ORTH CA	My Kern	J
BOT CHORD	1-13=-95/24 11-22=-91/99 8-991/99	5, 12-13 9, 10-11	=-91/99, 12-22=-91/9 =-91/99, 9-10=-91/99	99, 9, 1	3-06-00 tall t chord and ar	by 2-00-00 wide will by other members, v	fit betv with BC	veen the bottor DL = 10.0psf.	m				SEA		
WEBS 5-11=-233/117, 4-12=-407/196, 2-13=-281/98, 6-9=-381/112 bearing plate capable of withstanding 32 lb uplift at joint 1, 11 lb uplift at joint 8, 71 lb uplift at joint 11, 130 lb uplift at joint 12, 64 lb uplift at joint 13 and 62 lb uplift at joint										ER. A					
 Unbalanced roof live loads have been considered for this design. 					 9. 13) 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. 										

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/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



April 8,2021

Page: 1

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL04	Valley	1	1	Job Reference (optional)	145552857

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:42 ID:vEpFuUQm3kUdlw9AqfD8qnzWD8Z-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:65.6

Plate Offsets ((X, Y): [7:0-5-3,Edge],	[8:Edge,0-1-8], [9:Edg	ge,0-1-8]										
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MSH	0.64 0.29 0.43	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a -0.01	(loc) - - 9	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 127 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex 2-0-0 oc purlins (6-0 Rigid ceiling directly bracing. 1 Row at midpt (size) 1=24-5-3, 11=24-5-3 (1=24-5-3) Max Horiz 1=383 (LC Max Uplift 1=-30 (LC 10=-81 (L 13=-61 (L 15=-68 (L Max Grav 1=190 (LC 10=438 (IL 13=411 (L 15=460 (I	athing directly applied cept end verticals, and -0 max.): 7-8. applied or 10-0-0 oc 8-9, 7-10 9=24-5-3, 10=24-5-3, 3, 13=24-5-3, 14=24-5 2 11) 2 10), 9=-29 (LC 11), C 11), 11=-155 (LC 14 C 14), 14=-84 (LC 10) C 10) C 20), 9=225 (LC 44), C 46), 11=617 (LC 47) C 36), 14=402 (LC 41).	WF NC 1) lor 2) d ,, 3) (4), ,, 4) 7), 5)	DTES Unbalanced this design. Wind: ASCE Vasd=103my Cat. II; Exp E zone and C-1 3-0-12 to 17' (2E) 21-4-3 ti exposed; er members an Lumber DOL Truss design only. For stt see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct= Unbalanced	7-10=-259/162, 6-1 5-13=-290/115, 3-1 2-15=-332/109 roof live loads have 7-16; Vult=130mpf b; TCDL=6.0psf; B 3; Enclosed; MWFR C Exterior(2E) 0-0- 5-1, Exterior(2R) 1: o 24-4-3 zone; cant id vertical left and ri d forces & MWFRS =1.60 plate grip DC ned for wind loads in ids exposed to winc d Industry Gable En ialified building desi 7-16; Pr=20.0 psf (L 1.15); Pf=20.0 psf (L 1.51.); Rough Cat E =1.10 snow loads have bo	1=-416, 4=-333, been of CDL=6	210, 136, considered for cond gust) .0psf; $h=25ft$; elope) exterio 0-12, Interior - 0 21-4-3, Exter eff and right cosed;C-C for ctions shown;) ane of the trus al to the face) ils as applicat s per ANSI/TP .: Lum DOL=1 DL=1.15 Plate Exp.; Ce=0.9 sidered for th	r (1) rior ; ss ; ble, 11. .15 ; ;	12) Pro bea 1, 2 upli 14 a 13) This R80 14) Gra or ti bott LOAD (vide mea ring plat 9 lb upli ft at join and 68 lb s truss is s truss is phical p he orient som chor CASE(S)	chanic e capa ft at joi t 11, 6 o uplift a desig l Resi and ref furlin re tation o d.) Sta	al connection (by able of withstandi nt 9, 81 lb uplift at 1 lb uplift at joint at joint 15. ned in accordand dential Code sect erenced standard presentation doe of the purlin along ndard	others) of truss to ng 30 lb uplift at joint it joint 10, 155 lb 13, 84 lb uplift at joint we with the 2018 ions R502.11.1 and d ANSI/TPI 1. is not depict the size g the top and/or
FORCES TOP CHORD BOT CHORD	(lb) - Maximum Compression/Maximum 6) Tension 7) Al D 1-18=-427/79, 2-18=-296/87, 2-3=-275/112, 3-4=-249/148, 4-5=-239/160, 5-19=-247/143, 9) 8) Ga 19-20=-234/144, 6-20=-217/201, 6-21=-236/119, 21-22=-170/133, 7-22=-169/145, 7-23=-144/161, 8-23=-145/160, 8-9=-179/102 10) Th D 1-15=-141/268, 14-15=-141/157, 13-14=-141/157, 12-13=-141/157, 12-13=-141/157, 11-12=-141/157, 12-13=-141/157, 6h 9) Ga			Provide adec All plates are Gable requir Gable studs) This truss ha chord live loa on the bottor 3-06-00 tall t chord and ar	adequate drainage to prevent water ponding. are 2x4 MT20 unless otherwise indicated. quires continuous bottom chord bearing. Jds spaced at 4-0-0 oc. s has been designed for a 10.0 psf bottom e load nonconcurrent with any other live loads. Iss has been designed for a live load of 20.0psf othord in all areas where a rectangle tall by 2-00-00 wide will fit between the bottom d any other members, with BCDL = 10.0psf.							SEA 4584 SNGIN	EEP. ON

April 8,2021



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/TPI1 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	221 Willowcroft-Roof-2742-S	
21030028-A	O02	Monopitch Supported Gable	1	1	Job Reference (optional)	145552858

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:36 ID: bqsKq2elcsUVA0QdThuqiTzWCyf-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?ff

Page: 1





Scale = 1:35.6

Loading	(psf)	Spacing	2-0-0		csi		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.35	Vert(LL)	0.02	8-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.20	Vert(CT)	-0.02	8	>999	180		
TCDL	10.0	Rep Stress Incr	YES		WB	0.03	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC20	18/TPI2014	Matrix-MR								
BCDL	10.0											Weight: 25 lb	FT = 20%
LUMBER			Ę	 This truss has 	as been designed fo	or great	er of min root	f live					
TOP CHORD	2x4 SP No.2			load of 12.0	psf or 1.00 times fla	at roof le	oad of 20.0 p	sf on					
BOT CHORD	2x4 SP No.2			overhangs n	on-concurrent with	other liv	ve loads.						
WEBS	2x4 SP No.3		6	Truss to be f	ully sheathed from	one fac	e or securely	/					
OTHERS	2x4 SP No.3			braced agair	nst lateral movemen	nt (i.e. d	liagonal web)).					
BRACING			7	 Gable studs 	spaced at 2-0-0 oc								
TOP CHORD	Structural wood she	athing directly applie	d or 8	This truss hat	as been designed fo	or a 10.0	0 psf bottom						
	4-7-12 oc purlins, e	except end verticals.		chord live loa	ad nonconcurrent w	vith any	other live loa	ads.					
BOT CHORD	Rigid ceiling directly	applied or 10-0-0 oc	; 9	 This truss I on the bottor 	has been designed	for a liv	e load of 20.	0psf					
	bracing.			3-06-00 tall b	2-00-00 wide wil	l fit hetv	veen the hott	om					
REACTIONS	(size) 7= Mecha	anical, 9=0-3-8		chord and ar	v other members	i ili boti	veen the bott	om					
	Max Horiz 9=119 (L	C 13)		0) Refer to gird	er(s) for truss to tru	iss conr	nections.						
	Max Uplift 7=-43 (LC	C 11), 9=-63 (LC 10)		1) Provide mec	hanical connection	(bv oth	ers) of truss	to					
	Max Grav 7=247 (L	C 21), 9=345 (LC 21))	bearing plate	e capable of withsta	anding 4	3 lb uplift at	joint					
FORCES	(lb) - Maximum Con	npression/Maximum		7.		0							
	Tension			2) One RT7A L	ISP connectors rec	ommen	ded to conne	ect					
TOP CHORD	2-9=-273/242, 1-2=(0/32, 2-3=-88/40, 0_4-7157/120		truss to bear	ing walls due to UF	PLIFT at	jt(s) 9. This	4 1					
BOT CHORD	8-9-47/36 7-8-47	1/36 6-7-0/0		connection is	s for uplift only and	does no	ot consider la	iteral					
WEBS	3-872/103	/30, 0-7=0/0		2) This truce is	decigned in eccore		ith the 2019						
NOTEO	0 0= 72/100			International	Residential Code	ance w	P502 11 1	and					
NUIES		(2 accord such)		R802 10 2 a	nd referenced stan	dard AN	ISI/TPI 1	anu					
I) Wind: AS	CE 7-16; Vuit=130mpr	CDL Const h 25th			Ctondard							1111111	
	mpn; TCDL=6.0psi; B	CDL=6.0pSI; n=25it;	۱ ۲	LOAD CASE(S)	Standard						. (WAH CA	Rollin
zone and	C-C Corner(3E) zone:	cantilever left and rid	ı nht							~	N	R	. Allala
evnosed .	end vertical left and ri	abt exposed C-C for	gin									UNEESS	On Via
members	and forces & MWFRS	for reactions shown.									1	in ser	runn
Lumber D	OL=1.60 plate grip DC)L=1.60										:2	× • · · · · ·
2) Truss des	igned for wind loads in	the plane of the trus	s								8	CEA	1 1 1
only. For	studs exposed to wind	(normal to the face)									:	SLA	- : =
see Stand	lard Industry Gable En	d Details as applicab	, ole,							=	:	4584	4 : :
or consult	qualified building desi	gner as per ANSI/TP	Y 1.							-			
3) TCLL: AS	CE 7-16; Pr=20.0 psf ((roof LL: Lum DOL=1	.15								-		1 1 K S 1
Plate DOI	_=1.15); Pf=20.0 psf (L	um DOL=1.15 Plate									-, 7	1. SNO.	CER. SS
DOL=1.15	5); Is=1.0; Rough Cat E	B; Fully Exp.; Ce=0.9	;								1	O, GIN	F.F. GUN
Cs=1.00;	Ct=1.10										1	REIN	OHN
 Inholono 	ad anow loada have he	on annoidered for th	in										

- 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) TCLL: ASCE 7-16; Pr=20.0 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 B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.

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/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



minim

April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	O01	Monopitch	3	1	Job Reference (optional)	145552859

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:35 ID:i3cp_gbEYd_3hP6rErpuYdzWCyj-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page: 1

. .





Scale = 1:34.8

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MP	0.43 0.21 0.04	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.02 -0.04 0.00	(loc) 6-7 6-7 6	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 28 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.3 Structural we 4-7-12 oc pu Rigid ceiling bracing. (size) 6= Max Horiz 7= Max Uplift 6= Max Grav 6=	ood shea Irlins, ex directly = Mecha =119 (LC =-43 (LC =247 (LC	athing directly applier xcept end verticals. applied or 10-0-0 oc nical, 7=0-3-8 2 13) 11), 7=-63 (LC 10) 2 21), 7=345 (LC 21)	6) 7) d or 8) 9) 1(* This truss h on the bottor 3-06-00 tall b chord and ar Refer to gird Provide mec bearing plate 6. One RT7A U truss to bear connection is forces.)) This truss is International	has been designe in chord in all area by 2-00-00 wide w by other members er(s) for truss to the hanical connection of apable of withs ISP connectors re- ing walls due to L is for uplift only an designed in accoor Residential Code	d for a liv as where vill fit betv s. russ conr on (by oth tanding 4 ecommen JPLIFT at d does no rdance w e sections	e load of 20.1 a rectangle veen the bott nections. ers) of truss i 3 lb uplift at j ded to conne jt(s) 7. This ot consider la ith the 2018 i R502.11.1 a	Opsf om ioint ect iteral					
FORCES TOP CHORD	(lb) - Maximu Tension 1-2=0/32, 2- 3-6199/13	um Com 3=-74/43	pression/Maximum 3, 3-4=-8/0, 303/206	L	R802.10.2 ar DAD CASE(S)	nd referenced sta Standard	ndard AN	ISI/TPI 1.						
BOT CHORD WEBS	6-7=-112/6, 2-6=-6/131	5-6=0/0	505/200											
NOTES 1) Wind: ASC Vasd=103 Cat. II; Exj zone and (exposed; members a Lumber DO 2) TCLL: ASC	CE 7-16; Vult= mph; TCDL=6 p B; Enclosed; C-C Exterior(2 end vertical le and forces & M OL=1.60 plate CE 7-16; Pr=20	130mph .0psf; B0 MWFRS E) zone; ft and rig 1WFRS grip DO 0.0 psf (I	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior cantilever left and ri ht exposed;C-C for for reactions shown; L=1.60 roof LL: Lum DOL=1	ght .15							0		ORTH CA	ROLIN

- 2) Fold: ASCE 7-16, Pf=20.0 psf (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 B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 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.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

SEAL 45844 WGINEERSOT



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	O08	Monopitch Supported Gable	1	1	Job Reference (optional)	145552860

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:37 ID:fXrGgcR838o859SIKY3JNOzWCxd-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:34.9

-

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MR	0.25 0.11 0.02	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.01 -0.01 0.00	(loc) 8-9 8 7	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 21 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural w 3-8-12 oc pu Rigid ceiling bracing. (size) 7 Max Horiz 9 Max Uplift 7 Max Grav 7	2 2 3 3 4 directly = Mecha =107 (LC =-44 (LC =193 (LC	athing directly applied coept end verticals. applied or 10-0-0 oc nical, 9=0-3-8 (11) 11), 9=-61 (LC 10) (21), 9=297 (LC 21)	5) 6) 7) d or 8) 9) 1(11	 This truss ha load of 12.0 p overhangs no Truss to be fi braced again Gable studs s This truss ha chord live loa This truss ha on the botton 3-06-00 tall b chord and an Refer to girdd Provide mech bearing plate 	s been designed fo osf or 1.00 times fla on-concurrent with ully sheathed from st lateral movemen spaced at 2-0-0 oc. s been designed fo d nonconcurrent w as been designed fo n chord in all areas y 2-00-00 wide will y other members. er(s) for truss to tru nanical connection capable of withsta	r greate the roof lo other liv one fact it (i.e. d r a 10.0 ith any for a liv where fit betw ss conr (by oth nding 4	er of min roof bad of 20.0 p re loads. e or securely iagonal web) 0 psf bottom other live loa e load of 20.1 a rectangle veen the botth nections. ers) of truss f 4 lb uplift at i	live sf on ds. Dpsf om oint					
FORCES	(lb) - Maxim Tension	um Com	pression/Maximum	1:	7. 2) One RT7A U	SP connectors reco	ommen	ded to conne	ct					
TOP CHORD BOT CHORD WEBS	2-9=-242/22 3-4=-53/68, 8-9=-46/19, 3-8=-49/67	5, 1-2=0 4-5=-8/0 7-8=-46/	/32, 2-3=-63/40, , 4-7=-127/99 19, 6-7=0/0	1:	truss to beari connection is forces. 3) This truss is	ng walls due to UP for uplift only and designed in accorda	LIFT at does no ance w	jt(s) 9. This ot consider la ith the 2018	teral					
NOTES 1) Wind: ASG Vasd=103 Cat. II; Exi zone and exposed; members Lumber D 2) Truss desi only. For see Stand or consult 3) TCLL: ASG Plate DOL DOL=1.15 Cs=1.00; 4) Unbeloace	CE 7-16; Vult= imph; TCDL=6 p B; Enclosed; C-C Corner(3E end vertical le and forces & N OL=1.60 plate igned for wind studs exposed ard Industry G qualified build CE 7-16; Pr=2 =1.15); Pf=20 i); Is=1.0; Rou Ct=1.10	130mph :0ps; BC : MWFRS : Zone; : MWFRS : zone; : f and rig WFRS grip DO loads in t to wind :able Enc ing desig 0.0 psf (Lu gh Cat B	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior cantilever left and rig ht exposed;C-C for for reactions shown; L=1.60 the plane of the truss (normal to the face), d Details as applicabl ner as per ANSI/TPI oof LL: Lum DOL=1. J Dotall S Plate ; Fully Exp.; Ce=0.9; con appeidered for the	Lt ht s e, 1. 15	International R802.10.2 ar OAD CASE(S)	Residential Code s id referenced stand Standard	ections Jard AN	. R502.11.1 г	ind		Continue	Law Print	SEAL SEAL	ROLING AND

- Truss designed for wind loads in the plane of the truss 2) 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.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 3) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.



818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	O09	Monopitch	3	1	Job Reference (optional)	145552861

3-8-12

Carter Components (Sanford), Sanford, NC - 27332,

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:37 ID:UhCYxfWvfzYHp4wShpAjdfzWCxX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:33.9

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MP	0.22 0.13 0.03	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.01 -0.01 0.00	(loc) 6-7 6-7 6	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 23 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD BOT CHORD BOT CHORD WEBS NOTES 1) Wind: AS(Vasd=103 Cat. II; EX zone and exposed ;	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shea 3-8-12 oc purlins, e: Rigid ceiling directly bracing. (size) 6= Mecha Max Horiz 7=107 (LC Max Uplift 6=-44 (LC Max Grav 6=193 (LC (lb) - Maximum Com Tension 1-2=0/32, 2-3=-63/32 2-7=-264/177 6-7=-100/6, 5-6=0/0 2-6=-3/115 CE 7-16; Vult=130mph mph; TCDL=6.0psf; BC p B; Enclosed; MWFR3 C-C Exterior(2E) zone; end vertical left and rig	athing directly applie xcept end verticals. applied or 10-0-0 oc nical, 7=0-3-8 2 11) 2 11), 7=-61 (LC 10) 2 21), 7=297 (LC 21) pression/Maximum 2, 3-4=-8/0, 3-6=-154 (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior cantilever left and ri pht exposed;C-C for	6) 7) bd or 8) 5 9) 10 4/93, LC	* This truss h on the botton 3-06-00 tall b chord and an Refer to girde Provide mecl bearing plate 6. One RT7A U truss to beari connection is forces. This truss is ' International R802.10.2 ar	as been designed as been designed or chord in all areas y 2-00-00 wide will y other members. er(s) for truss to tru- nanical connection capable of withsta SP connectors rec- ng walls due to UP for uplift only and designed in accord Residential Code s ad referenced stand Standard	for a liv where I fit betw ss conr (by oth nding 4 commen PLIFT at does no ance w sections dard AN	e load of 20.0 a rectangle veen the both nections. ers) of truss t 4 lb uplift at j ded to conne jt(s) 7. This ot consider la ith the 2018 R502.11.1 a ISI/TPI 1.	Opsf om to joint ect teral			1.11	NITH CA	ROLA	
members Lumber D 2) TCLL: AS Plate DOL DOL=1.15 Cs=1.00; 3) Unbalanco design. 4) This truss load of 12 overhangg 5) This truss	and forces & MWFRS OL=1.60 plate grip DO CE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L 5); Is=1.0; Rough Cat B Ct=1.10 ed snow loads have be has been designed for .0 psf or 1.00 times flat s non-concurrent with o	for reactions shown; L=1.60 roof LL: Lum DOL=1 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9 een considered for th greater of min roof I t roof load of 20.0 ps ther live loads.	.15 ; is live f on							Commun.	AND .	SEA 4584	L 4	Amminine.

- Cs=1.00; Ct=1.10 3) Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live 4) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

818 Soundside Road Edenton, NC 27932

munin

April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL25	Valley	1	1	Job Reference (optional)	145552862

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:48 ID:Pr4wZIFVbrl63tQAn1NbrRzWDdn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



6-11-3 3-3-14 Page: 1



7-2-10

Scale = 1:31.5

Loading		(psf)	Spacing	2-0-0		csi		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)		20.0	Plate Grip DOL	1.15		тс	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.29	Vert(TL)	n/a	-	n/a	999		
TCDL		10.0	Rep Stress Incr	YES		WB	0.16	Horiz(TL)	0.00	3	n/a	n/a		
BCLL		0.0*	Code	IRC2018	8/TPI2014	Matrix-MP								
BCDL		10.0											Weight: 29 lb	FT = 20%
LUMBER				3)	Truss design	ed for wind load	s in the pl	ane of the tru	SS					
TOP CHORD	2x4 SP N	0.2			only. For stu	ids exposed to v	vind (norm	al to the face),					
BOT CHORD	2x4 SP N	o.2			see Standard	d Industry Gable	End Deta	ils as applica	ble,					
OTHERS	2x4 SP N	0.3			or consult qu	alified building o	lesigner a	s per ANSI/T	PI 1.					
BRACING				4)	TCLL: ASCE	7-16; Pr=20.0 p	sf (roof LL	_: Lum DOL=	1.15					
TOP CHORD	Structura	I wood she	athing directly applied	d or	Plate DOL=1	.15); Pt=20.0 ps	f (Lum DC	DL=1.15 Plate))					
	7-2-10 oc	purlins.			DOL=1.15);	IS=1.0; Rough C	at B; Fully	Exp.; Ce=0.	9;					
BOT CHORD	Rigid ceil	ing directly	applied or 6-0-0 oc	5)	Uphalanced	=1.10 snow loads hav	boon cor	neidered for t	hic					
	bracing.			5)	design	Show loads have		ISIGEIEG IOI I	115					
REACTIONS	(size)	1=7-2-10,	3=7-2-10, 4=7-2-10,	6)	Gable requir	es continuous bo	ottom chor	d bearing						
		9=7-2-10		7)	Gable studs	spaced at 4-0-0	OC.	a boarnig.						
	Max Horiz	1=-80 (LC	; 10)	8)	This truss ha	is been designed	d for a 10.0	0 psf bottom						
	Max Uplift	1=-116 (L	C 21), 3=-2 (LC 15),	- /	chord live loa	ad nonconcurrer	t with any	other live loa	ids.					
		4=-37 (LC	(LC 15), 9=-2 (LC 15)		* This truss h	nas been design	ed for a liv	e load of 20.	Opsf					
	Max Grav	1=112 (LC	20), 3=3 (LC 21), 4=	=728	on the bottor	n chord in all are	eas where	a rectangle						
		(LC 21), 9	=3 (LC 21)		3-06-00 tall b	by 2-00-00 wide	will fit betv	veen the bott	om					
FORCES	(Ib) - Max	imum Com	pression/Maximum		chord and ar	y other member	'S.							
	1 ension	001 1 10	CA/200 A 44 E2/20	10) Provide mec	hanical connecti	on (by oth	ers) of truss	iO					
TOP CHORD	2-11-33	/201, 1-10= /220 2-12-	04/200, 1-11=-53/30 34/376 3-1254/30)1,)1	bearing plate	e capable of with	standing 1	16 ID UPIIIT a						
	3-13=-19	5/318 3-13		,	1, ∠ ib upiiit a	at joint 3, 37 id u	plint at join	it 4 and 2 lb t	ipiin					
BOT CHORD	1-4=-213/	138 3-4=-	213/138	11) This truss is	designed in acc	ordance w	ith the 2018						• 1340 TO 1
WEBS	2-4=-598/	/169	2.0,.00		International	Residential Coc	le sections	R502.11.1 a	and				minin	ing.
NOTES					R802.10.2 a	nd referenced st	andard AN	NSI/TPI 1.	-			. ("TH CA	Ro."
NOTES						A . I							all	· · · ·

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-4 to 3-0-4, Exterior(2R) 3-0-4 to 4-2-14, Exterior(2E) 4-2-14 to 7-2-14 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
- LOAD CASE(S) Standard





Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL23	Valley	1	1	Job Reference (optional)	145552863

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:48 ID:Pr4wZIFVbrl63tQAn1NbrRzWDdn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



So

BRACING

TOP CHORD

Scale = 1:29													
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999			
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	3	n/a	n/a			
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP									
BCDL	10.0							_	_		Weight: 24 lb	FT = 20%	
LUMBER			5) Unbalance	d snow loads hav	e been cor	sidered for th	his						
TOP CHORD	2x4 SP No.2		design.										
BOT CHORD	2x4 SP No.2		Gable requ	ires continuous b	ottom chor	d bearing.							
OTHERS	2x4 SP No.3		Gable stud	s spaced at 4-0-0	OC.								

2x4 SP No.3 8) Structural wood sheathing directly applied or 9) 5-11-8 oc purlins.

- BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. REACTIONS (size) 1=5-11-8, 3=5-11-8, 4=5-11-8
- Max Horiz 1=-66 (LC 10) Max Uplift 4=-66 (LC 14) 1=104 (LC 20), 3=104 (LC 21), Max Grav 4=401 (LC 20) FORCES
- (Ib) Maximum Compression/Maximum Tension TOP CHORD 1-2=-84/150, 2-3=-64/150 BOT CHORD 1-4=-115/138, 3-4=-115/138 2-4=-267/164 WFBS

NOTES

- Unbalanced roof live loads have been considered for 1) this design
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 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
- Truss designed for wind loads in the plane of the truss 3) 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.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 4) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- Gable studs spaced at 4-0-0 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 3-06-00 tall by 2-00-00 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 66 lb uplift at joint 4.
- 11) 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. LOAD CASE(S) Standard
- Manual Internet Summer of the num April 8,2021



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL24	Valley	1	1	Job Reference (optional)	145552864

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:48 ID:KIOPKkcxamEusLWYRMLFzZzWDY8-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

2-8-1

1-2-5

1-5-12

2-11-8

Page: 1





1-6-0



2-11-8

3x5 =

Scale = 1:25.9

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

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	3/TPI2014	CSI TC BC WB Matrix-MP	0.07 0.06 0.00	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 3	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 9 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 Structural w 2-11-8 oc pu Rigid ceiling bracing. (size) 1: Max Horiz 1: Max Uptif 1: Max Grav 1:	2 2 urlins. 1 directly =2-11-8, =30 (LC =-8 (LC 1 =139 (LC	athing directly applied applied or 10-0-0 oc 3=2-11-8 13) 14), 3=-8 (LC 15) 2 20), 3=139 (LC 21)	7) 8) 9) 1 or 10 11	Gable studs a This truss ha chord live loa * This truss h on the botton 3-06-00 tall b chord and an) Provide mecl bearing plate and 8 lb uplif) This truss is a International 8802 10.2 ar	spaced at 4-0-0 oc. s been designed fo d nonconcurrent w as been designed n chord in all areas y 2-00-00 wide will y other members. nanical connection capable of withsta t at joint 3. designed in accord Residential Code s dr teferenced stan	or a 10.0 vith any for a liv where I fit betw (by oth nding 8 ance w sections dard AN) psf bottom other live load e load of 20.0 a rectangle veen the botto ers) of truss to lb uplift at joi ith the 2018 R502.11.1 a SU/TP1	ds. Ipsf om nt 1 nd					
FORCES	(lb) - Maxim	um Com	pression/Maximum	LC	OAD CASE(S)	Standard	Jaru An	ISI/TELT.						
TOP CHORD	1-2=-162/73	, 2-3=-83	3/51											
NOTES 1) Unbalance this design 2) Wind: ASC Vasd=103 Cat. II; Ext zone and (exposed; members : Lumber D0 3) Truss desi only. For	ad roof live loa CE 7-16; Vult= mph; TCDL=6 p B; Enclosed; C-C Exterior(2 end vertical le and forces & N OL=1.60 plate igned for wind	ds have 130mph .0psf; B0 ; MWFRS E) zone; ft and rig /WFRS f grip DO loads in to wind	been considered for (3-second gust) DL=6.0psf; h=25ft; 5 (envelope) exterior cantilever left and rig th exposed;C-C for for reactions shown; L=1.60 the plane of the trust (normal to the face)	ght							0		TH CA	ROLIN
only. For s see Stand. or consult 4) TCLL: AS(Plate DOL DOL=1.15 Cs=1.00; (5) Unbalance design.	studs exposed ard Industry G qualified build CE 7-16; Pr=2 =1.15); Pf=20); Is=1.0; Rou Ct=1.10 ed snow loads	a to wind able Enc ing desig 0.0 psf (r .0 psf (Lu gh Cat B have be	(normal to the face), d Details as applicabl mer as per ANSI/TPI roof LL: Lum DOL=1. um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; en considered for this	e, 1. 15							HUIL .	Philippin	4584	ER. ON

- 5) Unbalanced snow loads have been considered for this design.
- 6) Gable requires continuous bottom chord bearing.

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/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

818 Soundside Road Edenton, NC 27932

Junumin 101

April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	PB07	Piggyback	1	1	Job Reference (optional)	145552865

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:40 ID:Ry0HK1_p99o6qhgjGjr51AzWCve-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

0-10-12 -0-6-9 1-9-8 0-10-12 0-6-9 0-6-9 0-10-12 12 12 ⊏





2x4 = 2x4 =

1-9-8

Scale =	1:33.2
---------	--------

Plate Offsets (X, Y): [2:0-2-6,0-1-0], [3:0-2-8,Edge], [4:0-2-6,0-1-0]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL LUMBER	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	/TPI2014	CSI TC BC WB Matrix-MP	0.02 0.02 0.00	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 9 lb	GRIP 244/190 FT = 20%
TOP CHORD BOT CHORD BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 Structural wood shea 2-11-2 oc purlins. Rigid ceiling directly bracing. (size) 2=1-9-8,4 Max Horiz 2=29 (LC Max Uplift 2=-11 (LC 6=-11 (LC Max Grav 2=114 (LC 6=114 (LC)	athing directly applied applied or 10-0-0 oc 4=1-9-8, 6=1-9-8, 9=1 3), 6=29 (LC 13) : 14), 4=-11 (LC 15), : 14), 9=-11 (LC 15), : 21), 4=114 (LC 22), : 21), 9=114 (LC 22)	-9-8 10)	design. This truss ha load of 12.0 p overhangs n Gable requir Gable studs This truss ha chord live loa * This truss h on the botton 3-06-00 tall b chord and ar One RT7A U truss to beari	s been designed for opsf or 1.00 times fla on-concurrent with se continuous botto spaced at 2-0-0 oc. s been designed for d nonconcurrent w as been designed for n chord in all areas y 2-00-00 wide will y other members. SP connectors recor- ng walls due to UP	r great at roof le other li m chor ith any for a liv where fit betw commen LIFT at	er of min roof pad of 20.0 ps /e loads. d bearing. D psf bottom other live loa e load of 20.0 a rectangle yeen the botto ded to conne it(s) 2 and 4.	live live of on ds. lpsf om ct					
 FORCES TOP CHORD BOT CHORD NOTES 1) Unbalance this design 2) Wind: ASC Vasd=103i Cat. II; Exp zone and C exposed ; members a Lumber DC 3) Truss desi only. For s see Stand or consult 4) TCLL: ASC Plate DOL DOL=1.15 Cs=1.00; C 	(lb) - Maximum Com Tension 1-2=0/21, 2-3=-45/34 2-4=-5/54 ed roof live loads have b. DE 7-16; Vult=130mph mph; TCDL=6.0psf; BG p B; Enclosed; MWFRS C-C Exterior(2E) zone; end vertical left and rig and forces & MWFRS OL=1.60 plate grip DO JCL=1.60 plate grip DO Gigned for wind loads in studs exposed to wind ard Industry Gable Enc qualified building desig CE 7-16; Pr=20.0 psf (Li =1.15); Pf=20.0 psf (Li -); Is=1.0; Rough Cat B Ct=1.10	pression/Maximum 4, 3-4=-45/34, 4-5=0/2 been considered for (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior ; cantilever left and rig ght exposed;C-C for for reactions shown; L=1.60 the plane of the truss (normal to the face), d Details as applicabl gner as per ADS/TPI gner as per ADS/TPI toof LL: Lum DOL=1. um DOL=1.15 Plate i; Fully Exp.; Ce=0.9;	21 12) 13) LO ght e, 1. 15	This connect lateral forces This truss is International R802.10.2 ar See Standard Detail for Co consult qualit AD CASE(S)	ion is for uplift only designed in accord Residential Code s d referenced stand d Industry Piggybac nnection to base tru ied building design Standard	and dc ance w ections dard AN ck Trus uss as a er.	es not consid ith the 2018 FR502.11.1 a ISI/TPI 1. s Connection applicable, or	nd		Continues		SEA 458 SEA SEA SEA SEA SEA SEA SEA SEA SEA SEA	EER. OTIM

- З
- DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

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/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	PB08	Piggyback	6	1	Job Reference (optional)	145552866

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:40 ID:XTbrEYRT5skRwsZt19IVFjzWDk_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1







2x4 = 2x4 =

1-9-8

┝

Scale =	1:33.2
---------	--------

Plate Offsets (X, Y): [2:0-2-6,0-1-0], [3:0-2-8,Edge], [4:0-2-6,0-1-0]

Loading	(psf)	Spacing	2-0-0		csi		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190	
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.02	Vert(CT)	n/a	-	n/a	999			
TCDL	10.0	Rep Stress Incr	YES		WB	0.00	Horz(CT)	0.00	4	n/a	n/a			
BCLL	0.0*	Code	IRC2018/TPI20	14	Matrix-MP									
BCDL	10.0											Weight: 9 lb	FT = 20%	
LUMBER			5) Unbal	anced	snow loads have be	en cor	sidered for th	nis						
TOP CHORD	2x4 SP No.2		desigr	ı.										
BOT CHORD	2x4 SP No.2		6) This ti	uss ha	is been designed for	r great	er of min roof	live						
BRACING			load o	f 12.0	psf or 1.00 times flat	t roof lo	oad of 20.0 p	sf on						
TOP CHORD	Structural wood shea	athing directly applied	dor overh	angs n	on-concurrent with c	other liv	/e loads.							
	2-11-2 oc purlins.		7) Gable	requir	es continuous bottor	m chor	d bearing.							
BOT CHORD	Rigid ceiling directly bracing.	applied or 10-0-0 oc	8) Gable 9) This ti	studs uss ha	spaced at 4-0-0 oc. Is been designed for	a 10.0) psf bottom							
REACTIONS	(size) 2=1-9-8, 4	1=1-9-8 , 6=1-9-8 , 9= 1	I-9-8 chord	live loa	ad nonconcurrent wi	th any	other live loa	ds.						
	Max Horiz 2=29 (LC	13), 6=29 (LC 13)	10) " This	truss r	has been designed to	or a liv	e load of 20.0	Jpst						
	Max Uplift 2=-11 (LC	C 14), 4=-11 (LC 15),	3-06-0	loniod Hall A	2-00-00 wide will	fit hotv	a rectangle	h						
	6=-11 (LC	; 14), 9=-11 (LC 15)	chord	and ar	v other members.	in boti	veen me bola	5111						
	Max Grav 2=114 (LC	C 21), 4=114 (LC 22)	11) One F	T7A L	ISP connectors reco	mmen	ded to conne	ct						
	6=114 (LC	C 21), 9=114 (LC 22)	truss t	o bear	ing walls due to UPL	IFT at	jt(s) 2 and 4.							
FORCES	(lb) - Maximum Com	pression/Maximum	This c	onnect	ion is for uplift only a	and do	es not consid	ler						
	Tension		lateral	forces	5.									
TOP CHORD	1-2=0/21, 2-3=-45/34	4, 3-4=-45/34, 4-5=0/	21 12) This ti	uss is	designed in accorda	ance w	ith the 2018							
BOT CHORD	2-4=-5/54		Intern	ational	Residential Code se	ections	R502.11.1 a	ind						
NOTES			R802.	10.2 a	nd referenced stand	ard AN	ISI/TPL1.							
 Unbalance 	ed roof live loads have	been considered for	13) See S	tandar	d Industry Piggybac	K Irus	s Connection					201111	117.	
this design). NE 7 40: V/ult 400mmh	(2 accord such)	Detail	IOI CO It auali	fied building designed	ss as a sr	applicable, or					11111 01	- Martin	
 Wind: ASC Vood 102; 	E 7-16; Vuit=130mpn	(3-second gust)				51.				_		"TH UT	ROM	
	B: Enclosed: MW/ER	S (envelope) exterior	LOAD CA	5E(5)	Standard						1	A SEdic	A. SIA!	
zone and (C-C Exterior(2E) zone:	cantilever left and riv	aht								FA	M. WOLEY	Unic	in
exposed .	end vertical left and ric	ht exposed C-C for	gin							U U		in T	7.	1
members a	and forces & MWFRS	for reactions shown:										. ~		Ξ
Lumber DC	OL=1.60 plate grip DO	L=1.60										SEA	L	
3) Truss desig	gned for wind loads in	the plane of the trus	S							-	:	450	4.4	=
only. For s	studs exposed to wind	(normal to the face),								=	e :	4584	44 :	-
see Standa	ard Industry Gable End	d Details as applicabl	e,								1 1			2
or consult	qualified building desig	gner as per ANSI/TPI	1.								- 7	·	.0.2	5
4) TCLL: ASC	CE 7-16; Pr=20.0 psf (I	roof LL: Lum DOL=1.	15								11	VGIN	EE	2
Plate DOL:	=1.15); Pt=20.0 psf (Li	um DOL=1.15 Plate									11	A	"IN2.1	
DUL=1.15)), is=1.0; Kough Cat B	s, Fully Exp.; Ce=0.9;									11.00	WISW J	01111	
US=1.00; C	JI=1.1U											in min	mm	
												Ac	oril 8.2021	

ENGINEERING BY EREPTION A MITER Attiliate 818 Soundside Road Edenton, NC 27932

À 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/TPI1 Quality Criteria, DSB-89 and BCSI Building Compone
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	O03	Jack-Open Structural Gable	2	1	Job Reference (optional)	145552867

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:36 ID:Tb5qfPhFg4_xfejOiXymtJzWCyb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

818 Soundside Road Edenton, NC 27932





Scale = 1:41.2

Loading TCLL (roof) Snow (Pf) TCDL BCLL	(psf) 20.0 20.0 10.0 0.0*	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	CSI TC BC WB Matrix-MSH	0.21 0.12 0.04	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.00 0.00	(loc) 4-5 4-5 4	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20	GRIP 244/190
BCDL	10.0										Weight: 22 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 2-4-14 oc purlins, e Rigid ceiling directly bracing. (size) 4= Mecha	eathing directly applie except end verticals. / applied or 6-0-0 oc anical, 5=0-5-13	5) This truss chord live 6) * This trus on the bott 3-06-00 ta chord and 7) Refer to gi 8) Provide m bearing pla joint 4. 9) One PT45	has been designed f load nonconcurrent to s has been designec om chord in all area Il by 2-00-00 wide wi any other members. rder(s) for truss to tr echanical connection ate capable of withst	for a 10. with any d for a liv s where ill fit betv uss conr n (by oth anding 1	D psf bottom other live load e load of 20.0 a rectangle veen the botto nections. ers) of truss to 09 lb uplift at	ds. 0psf om 0					
REACTIONS (size) 4= Mechanical, 5=0-5-13 Max Horiz 90 One RT16A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.												
FORCES TOP CHORD	(lb) - Maximum Con Tension 1-2=0/67, 2-3=-52/1	npression/Maximum 45, 3-4=-96/135,	10) This truss Internation R802.10.2	is designed in accorr al Residential Code and referenced star	dance w sections ndard AN	ith the 2018 R502.11.1 a ISI/TPI 1.	nd					
BOT CHORD WEBS	2-6=-239/247 5-6=-39/78, 4-5=-54 3-5=-187/101	1/60	LOAD CASE(5) Standard								
NOTES												
1) Wind: ASC Vasd=103 Cat. II; Exp zone and exposed ; members a Lumber De	CE 7-16; Vult=130mpf imph; TCDL=6.0psf; B p B; Enclosed; MWFR C-C Corner (3) zone; end vertical left and ri and forces & MWFRS OL=1.60 plate grip DC	n (3-second gust) CDL=6.0psf; h=25ft; cs (envelope) exterior cantilever left and rig ght exposed;C-C for for reactions shown; DL=1.60	, ht						(2 in	ORTH CA	ROLIN
2) TCLL: AS(Plate DOL DOL=1.15 Cs=1.00; (CE 7-16; Pr=20.0 psf (_=1.15); Pf=20.0 psf (L 5); Is=1.0; Rough Cat E Ct=1.10	(roof LL: Lum DOL=1 Lum DOL=1.15 Plate 3; Fully Exp.; Ce=0.9;	.15 ;								SEA 4584	L 111
 Unbalance design. This truss 	ed snow loads have be has been designed fo	een considered for thi	is live							T.T.	ENGIN'	EERSOLIN
load of 12. overhangs	.0 psf or 1.00 times fla s non-concurrent with	tt roof load of 20.0 ps other live loads.	fon								Ap	OHN ril 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	O04	Jack-Open	6	1	Job Reference (optional)	145552868

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:36 ID:E8asL8oHnY?ocsKwAC5eB?zWCyT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:33.7

Plate Offsets (X, Y): [2:0-1-12,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
Snow (Pf)	0.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	4 Matrix-MP								
BCDL	10.0				_						Weight: 15 lb	FT = 20%
LUMBER			5) This tru	ss has been designed	d for a 10.0	0 psf bottom						
TOP CHORE	2x4 SP No.2		chord li	ve load nonconcurren	nt with any	other live loa	ads.					
BOT CHORE	2x4 SP No.2		6) * This t	uss has been designe	ed for a liv	e load of 20.	0psf					
NEBS	2x4 SP No.3		on the l	ottom chord in all are	eas where	a rectangle						
BRACING			3-06-00	tall by 2-00-00 wide	will fit betv	veen the bott	om					
TOP CHORE	Structural wood she	eathing directly applie	ed or chord a	nd any other member	rs.							
	4-0-0 oc purlins, ex	cept end verticals.	 Refer to Refer to 	girder(s) for truss to	Truss conr	nections.	4.0					
BOT CHORE	 Rigid ceiling directly bracing. 	/ applied or 10-0-0 oc	bearing	plate capable of with	ion (by oth istanding 1	12 lb uplift a	to t joint					
REACTIONS	(size) 4= Mecha	anical, 5=0-3-8	4. 0) This tru	es is designed in acc	ordance w	ith the 2019						
	Max Horiz 5=113 (L	C 11)	John Structure S	ional Residential Cod	le sections	R502 11 1 2	and					
	Max Uplift 4=-112 (L	_C 11)	R802.1	0.2 and referenced st	andard AN	ISI/TPI 1.						
	Max Grav 4=87 (LC	24), 5=247 (LC 21)		F(S) Standard								
FORCES	(lb) - Maximum Con Tension	npression/Maximum	LOAD GAG									
FOP CHORE	2-5=-211/0, 1-2=0/6	65, 2-3=-105/0										
BOT CHORE	4-5=-292/71											
NEBS	2-4=-105/429											
NOTES												
1) Wind: AS	SCE 7-16; Vult=130mph	n (3-second gust)										New Street
Vasd=10	3mph; TCDL=6.0psf; B	CDL=6.0psf; h=25ft;										11111
Cat. II; E	xp B; Enclosed; MWFR	S (envelope) exterior	r								IN TH UA	Roill
zone and	I C-C Exterior(2E) zone	e; cantilever left and r	ight						/	1.5	A	Sin Alate
exposed	; end vertical left and ri	gni exposed;C-C for							-	+ .	V. OFEST	Mis Kaina
l umber l	OOI = 1.60 plate grip DC	101 reactions shown;							- 0	X	Many	
	SCE 7-16: Pr-20.0 pef /	(roof LL · Lum DO! -1	15						-	8		1. N. 1. 1.
Plate DO	I = 1.15). Pf=20.0 psf (I	um DOI =1 15 Plate	.15								SEA	1 I I I
DOL=1.1	5): Is=1.0: Rough Cat E	B: Fully Exp.: Ce=0.9	:								450	
Cs=1.00;	Ct=1.10	-, ,	,						=		4584	44 : :
3) Unbaland	ced snow loads have be	een considered for th	is						-	3 3		1 2
design.										- 0	·	a:23
 This trus: 	s has been designed fo	or greater of min roof	live							24	VANGIN	EETON
load of 1	2.0 psf or 1.00 times fla	at roof load of 20.0 ps	f on							11	Op	. NS IN
overhang	s non-concurrent with	other live loads.								100	1, EW .	OHIM
											- minu	mm
											Ar	oril 8 2021
											~	



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	007	Jack-Open Structural Gable	1	1	Job Reference (optional)	145552869

4-0-0

-1-0-0

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:37 ID:JZ2NdvO0FbAr?OaLY?U8gKzWCxi-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:32.2

Plate Offsets (X, Y): [7:0-2-12,0-2-0]

Loading TCLL (roof)	(psf) 20.0 20.0	Spacing Plate Grip DOL	2-0-0 1.15 1.15		CSI TC BC	0.18	DEFL Vert(LL) Vert(CT)	in 0.00 0.00	(loc) 6-7 6-7	l/defl >999	L/d 240 180	PLATES MT20	GRIP 244/190	
	10.0	Rep Stress Incr	YES		WB	0.00	Horz(CT)	0.00	5	_000	n/a			
BCU	0.0*	Code	IRC201	8/TPI2014	Matrix-MP	0.12	11012(01)	0.00	Ũ	n/a	11/0			
BCDL	10.0	0000	110201	0/11/12/01/1								Weight: 28 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD WEBS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood shea 4-0-0 oc purlins, exc Rigid ceiling directly bracing. (size) 5= Mecha Max Horiz 7=130 (LC Max Uplift 5=-61 (LC Max Uplift 5=-61 (LC Max Grav 5=190 (LC (LC 21) (lb) - Maximum Com Tension 1-9=0/19, 2-9=0/57, 4-5=-125/41, 2-7=-31 6-7=-128/79, 5-6=-11 2-8=-63/167, 5-8=-61	athing directly applie cept end verticals. applied or 10-0-0 oc 11) 14), 7=-36 (LC 14) 2 21), 6=93 (LC 7), 7 pression/Maximum 2-3=-101/50, 3-4=-7 00/137 28/79 9/177, 3-8=-107/74	4) 5) d or 7) 8) 3-8 9) '=315 10 11 0/63, 12	Unbalanced design. This truss ha load of 12.0 µ overhangs no Truss to be fi braced again Gable studs This truss ha chord live loa * This truss ha chord live loa * This truss ha on the bottom 3-06-00 tall b chord and an D) Refer to girdd) Provide mech bearing plate 5.	snow loads have b s been designed for performation 1.00 times fit on-concurrent with ully sheathed from sist lateral movemer spaced at 2-0-0 oc s been designed for ad nonconcurrent w has been designed n chord in all areas by 2-00-00 wide will by other members. er(s) for truss to tru hanical connection a capable of withsta	een cor or great at roof lo other liv one fac or a 10.0 vith any for a liv s where I fit betw uss conr (by oth anding 6	nsidered for the er of min roof pad of 20.0 ps ve loads. e or securely iagonal web) 0 psf bottom other live loa e load of 20.0 a rectangle veen the botto nections. ers) of truss t it lb uplift at ju	his live sf on ds. opsf om oint					1111 ₁₁	
NOTES			13	This truss is	designed in accord	lance w	ith the 2018					"TH CA	Roily	
 Wind: AS Vasd=10: Cat. II; E> zone and exposed members Lumber E Truss dee only. For see Stant or consuli TCLL: AS Plate DO DOL=1.1: Cs=1.00; 	CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; B(sp B; Enclosed; MWFR3; C-C Exterior(2E) zone; end vertical left and rig and forces & MWFRS VDL=1.60 plate grip DO signed for wind loads in studs exposed to wind bard Industry Gable End t qualified building desig CE 7-16; Pr=20.0 psf (L L=1.15); Pf=20.0 psf (L 5); Is=1.0; Rough Cat B Ct=1.10	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior; cantilever left and right exposed;C-C for for reactions shown; L=1.60 the plane of the trus (normal to the face) d Details as applicab gner as per ANSI/TP roof LL: Lum DOL=1 um DOL=1.15 Plate i; Fully Exp.; Ce=0.9	r L (ight s, le, l 1. .15	International R802.10.2 ar DAD CASE(S)	Residential Code s nd referenced stand Standard	sections dard AN	: R502.11.1 a ISI/TPI 1.	nd		0.00000000	ALL	SEA 4584	L H4 OHNSO	And Announce

Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10



April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	O06	Jack-Closed	3	1	Job Reference (optional)	145552870

4-0-0

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:37 ID:fFJr6oEU3vfYYYf1rUGKBozWCxu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



4-0-0	l

Scale = 1:33.4

Plate Offsets (X, Y): [5:0-2-12,0-2-0]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TP	912014	CSI TC BC WB Matrix-MP	0.39 0.16 0.05	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.01 -0.02 0.00	(loc) 4-5 4-5 4	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 26 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD BOT CHORD BOT CHORD WEBS NOTES 1) Wind: ASC Vasd=103 Cat. II; Exj zone and 0 exposed ; members ; Lumber DD 2) TCLL: ASC Plate DOL DOL=1.15 Cs=1.00; (3) Unbalance design. 4) This truss load of 12 overhands	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 4-0-0 oc purlins, exi Rigid ceiling directly bracing. (size) 4= Mecha Max Horiz 5=130 (LC Max Uplift 4=-46 (LC Max Uplift 4=-46 (LC (Ib) - Maximum Com Tension 2-5=-300/137, 1-6=0 2-3=-123/84, 3-4=-1 4-5=-128/79 2-4=-65/170 CE 7-16; Vult=130mph mph; TCDL=6.0psf; Bf p B; Enclosed; MWFRS C-C Exterior(2E) zone; end vertical left and rig and forces & MWFRS OL=1.60 plate grip DO CE 7-16; Pr=20.0 psf (L =1.15); Is=1.0; Rough Cat E Ct=1.10 ad snow loads have be has been designed for 0 psf or 1.00 times flat	athing directly applie cept end verticals. applied or 10-0-0 oc inical, 5=0-3-8 C 11) 14), 5=-23 (LC 14) C 21), 5=337 (LC 21) pression/Maximum 0/19, 2-6=0/57, 79/77 (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior ; cantilever left and ri ght exposed;C-C for for reactions shown; U=1.60 roof LL: Lum DOL=1 um DOL=1.15 Plate B; Fully Exp.; Ce=0.9; een considered for thi r greater of min roof I t roof load of 20.0 psi ther live loads.	5) Th ch ch 6) *T on 3-(be 4. 9) Or tru co for 10) Th Int Int Int RE LOAD	his truss has ord live loa This truss h the bottom 06-00 tall b ord and an effer to girde rovide mech earing plate the RT7A US iss to bearing onnection is roes. his truss is of ternational 1 302.10.2 an CASE(S)	s been designed fo d nonconcurrent wi as been designed fo h chord in all areas y 2-00-00 wide will y other members. r(s) for truss to trus tranical connection capable of withstar SP connectors reco ng walls due to UP for uplift only and o designed in accorda Residential Code s d referenced stand Standard	r a 10.0 tith any jor a liv where fit betw ss conr (by oth nding 4 ommen LIFT at does no ance w ections lard AN) psf bottom other live load e load of 20.0 a rectangle even the botto ections. ers) of truss to 6 lb uplift at jo ded to conned jt(s) 5. This at consider lat th the 2018 R502.11.1 a SI/TPI 1.	ds. Dpsf om obint ct teral		L'annum		SEA 4584	ROLLA L L HA	"Summing





Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	O05	Jack-Closed Structural Gable	1	1	Job Reference (optional)	145552871

4-0-0

-1-0-0

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:36 ID:3ZTYA03iMcuXtPbL0X01dszWCy6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:32.2

Plate Offsets (X, Y): [7:0-2-12,0-2-0]

Loading TCLL (roof) Snow (Pf) TCDL BCLL	(psf) 20.0 20.0 10.0 0.0*	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MP	0.18 0.03 0.42	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.00 0.00	(loc) 6-7 6-7 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20	GRIP 244/190	
BCDL	10.0											Weight: 28 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD FORCES TOP CHORD BOT CHORD WEBS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 2x4 SP No.3 Structural wood shea 4-0-0 oc purlins, ext Rigid ceiling directly bracing. (size) 5= Mecha Max Horiz 7=130 (LC Max Uplift 5=-61 (LC Max Grav 5=190 (LC (LC 21) (lb) - Maximum Com Tension 1-9=0/19, 2-9=0/57, 4-5=-125/41, 2-7=-31 6-7=-128/79, 5-6=-11 2-8=-63/167, 5-8=-63	athing directly applied sept end verticals. applied or 10-0-0 oc 11) 14), 7=-36 (LC 14) 21), 6=93 (LC 7), 7: pression/Maximum 2-3=-101/50, 3-4=-7(00/137 28/79 9/177, 3-8=-107/74	4) 5) d or 8 9) =315 10 11 0/63, 12	Unbalanced : design. This truss ha load of 12.0 p overhangs nd Truss to be fi braced again Gable studs : This truss ha chord live loa * This truss ha on the botton 3-06-00 tall b chord and an) Refer to girdd) Provide mech bearing plate 5.	snow loads have be s been designed for sof or 1.00 times fla on-concurrent with ully sheathed from st lateral movemer spaced at 2-0-0 oc. s been designed for d nonconcurrent w as been designed n chord in all areas y 2-00-00 wide will y other members. er(s) for truss to tru nanical connection capable of withsta	een cor or great ta roof lo other liv one fac tr (i.e. d or a 10.0 for a liv where fit betv ss conr (by oth nding 6	er of min roof pad of 20.0 ps ve loads. e or securely iagonal web). 0 psf bottom other live load of 20.0 a rectangle veen the botto nections. ers) of truss t 1 lb uplift at ju	nis live sf on ds. opsf om o						
NOTES	2 0 - 00, 101, 0 0 - 0	o, 111, 0 0= 101/11	13) This trues is	designed in accord	ancow	ith the 2018					UNI CA	Dillo	
 Wind: AS Vasd=10: Cat. II; E> zone and exposed ; members Lumber D Truss des only. For see Stanc or consuli TCLL: AS Plate DO! DOL=1.1! Cs=1.00; 	CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; B(p B; Enclosed; MWFR; C-C Exterior(2E) zone; end vertical left and rig and forces & MWFRS IOL=1.60 plate grip DO signed for wind loads in studs exposed to wind lard Industry Gable End c qualified building desig ICE 7-16; Pr=20.0 psf (L L=1.15); Pf=20.0 psf (L 5); Is=1.0; Rough Cat B Ct=1.10	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior cantilever left and ri- ght exposed;C-C for- for reactions shown; L=1.60 the plane of the trus; (normal to the face), d Details as applicabl gner as per ANSI/TPI roof LL: Lum DOL=1. um DOL=1.15 Plate ; Fully Exp.; Ce=0.9;	LC ght s le, 1. 15	nternational R802.10.2 ar	Residential Code s ad referenced stand Standard	sections dard AN	ISI/TPI 1.	nd				SEA 4584	L CHNSON	

DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and



April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	Q01	Monopitch Supported Gable	1	1	Job Reference (optional)	145552872

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:41 ID:kJxwoQ3CWIg7Ali3BhTkpezWCvX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

7-4-8

Page: 1



Scale - 1.57 5

ocale = 1.57.5													
L oading TCLL (roof) Snow (Pf) TCDL	(psf) 20.0 20.0 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 YES	CSI TC BC WB	0.80 0.81 0.26	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a -0.01	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20	GRIP 244/190	
BCLL BCDI	0.0* 10.0	Code	IRC2018/TPI201	4 Matrix-MP							Weight: 62 lb	FT – 20%	
LUMBER TOP CHORD 30T CHORD WEBS BRACING TOP CHORD BOT CHORD WEBS REACTIONS	2x4 SP 2400F 2.0E 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Excep Structural wood she 6-0-0 oc purlins, exi Rigid ceiling directly bracing. 1 Row at midpt (size) 4=7-4-8, 5 Max Horiz 6=308 (LC Max Uplift 4=-101 (L 6=-35 (LC Max Grav 4=59 (LC 6=428 (LC	t* 3-5:2x4 SP No.2 athing directly applie cept end verticals. applied or 10-0-0 oc 3-5 5=7-4-8, 6=7-4-8 C 11) C 20), 5=-181 (LC 1- C 10) 14), 5=537 (LC 20), 24)	5) This tr chord 6) * This on the 3-06-0 d or 7) N/A 8) This tr Interna R802.* 4), LOAD CA	uss has been designe ive load nonconcurren russ has been design bottom chord in all ar 0 tall by 2-00-00 wide and any other membe uss is designed in acc tional Residential Con 0.2 and referenced s SE(S) Standard	d for a 10. Int with any led for a liv eas where will fit betw will fit betw rs, with BC cordance w de sections tandard AN	D psf bottom other live loa e load of 20.1 a rectangle veen the bott DL = 10.0ps ith the 2018 c R502.11.1 a ISI/TPI 1.	ads. Opsf om f.				vveignt: 62 lb	r I = 20%	
FORCES	(lb) - Maximum Com	pression/Maximum											
TOP CHORD	1-7=-119/141, 2-7=- 3-4=-77/60, 3-5=-28	85/156, 2-3=-176/12 4/100, 1-6=-129/136	4,										
BOT CHORD WEBS	6-8=-158/142, 8-9=- 2-5=-226/262, 2-6=-	158/142, 5-9=-158/1 285/135	42									9 <u>0.</u>	
 NOTES Wind: ASI Vasd=100 Cat. II; Ex zone and (1) 7-11-1 exposed; members Lumber D Lumber DD TCLL: AS Plate DOI DOL=1.15 Cs=1.00; Unbalanc design. Gable req 	CE 7-16; Vult=130mph Bmph; TCDL=6.0psf; B(p; B; Enclosed; MWFR: C-C Exterior(2E) 4-11- 3 to 12-2-9 zone; canti end vertical left and rig and forces & MWFRS IOL=1.60 plate grip DO CE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L 5); Is=1.0; Rough Cat E Ct=1.10 ed snow loads have be puires continuous bottom	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior 13 to 7-11-13, Interior lever left and right ght exposed;C-C for for reactions shown; DL=1.60 roof LL: Lum DOL=1 um DOL=1.15 Plate B; Fully Exp.; Ce=0.9; even considered for thi m chord bearing.	or .15 :s							and the second s	SEA 4584	ROL HA L H4 CHNSON	Annound in



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	P01	Monopitch Supported Gable	2	1	Job Reference (optional)	145552873

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:38 ID:JqZpBjbgEpJRX?Nc13H7swzWCxR-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:35.9

Plate Offsets (X, Y): [2:0-2-13,0-3-0]], [5:0-2-8,0-1-4]											
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	18/TPI2014	CSI TC BC WB Matrix-MP	0.11 0.03 0.01	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.00 0.00	(loc) 9 9 2	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 14 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS SLIDER BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Left 2x4 SP No.3 1 Structural wood she: 2-0-0 oc purlins, exit Rigid ceiling directly bracing. (size) 2=0-3-8, 5 Max Horiz 2=71 (LC Max Uplift 2=-15 (LC Max Grav 2=220 (LC	1-6-0 athing directly applic cept end verticals. applied or 10-0-0 o 5= Mechanical 13) 2 14), 5=-28 (LC 14) C 21), 5=108 (LC 21)	ed or s c	 Unbalanced design. This truss ha load of 12.0 overhangs n Gable studs This truss ha chord live loa * This truss h on the bottor 3-06-00 tall b chord and ar Refer to gird Provide mec bearing plate 	snow loads have so been designed psf or 1.00 times on-concurrent w spaced at 2-0-0 is been designed ad nonconcurrer has been design n chord in all are by 2-00-00 wide y other member er(s) for truss to hanical connecti e capable of with	e been cor d for great s flat roof la ith other li oc. d for a 10.0 tt with any ed for a liv as where will fit betv rs. truss conr ion (by oth standing 2	nsidered for t er of min roo bad of 20.0 p ve loads. D psf bottom other live loa e load of 20. a rectangle veen the bott nections. ers) of truss t8 lb uplift at	this f live ssf on ads. 0psf tom to joint					
FORCES TOP CHORD BOT CHORD WEBS NOTES 1) Wind: ASC Vasd=103 Cat II: Exi	(lb) - Maximum Com Tension 1-2=0/56, 2-3=-46/2; 4-5=-38/31, 5-6=-15, 2-9=-32/32, 8-9=-29, 3-9=-26/37 CE 7-16; Vult=130mph mph; TCDL=6.0psf; B(B: Enclosed: MWER:	pression/Maximum 3, 3-4=-36/22, /0, 5-8=-8/37 /32, 7-8=0/0 (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior	1 1 ;	 One RT7A U truss to bear connection is forces. This truss is International R802.10.2 ai Gap between diagonal or v 	ISP connectors in ing walls due to s for uplift only a designed in acco Residential Coo nd referenced st n inside of top of vertical web shal Standard	recommen UPLIFT at nd does no ordance w de sections andard AN nord bearin I not excee	ded to conne jt(s) 2. This ot consider la ith the 2018 is R502.11.1 a ISI/TPI 1. ng and first ad 0.500in.	ect ateral and		(WHTH CA	ROLIN

- zone and C-C Exterior(2E) 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
- Truss designed for wind loads in the plane of the truss 2) 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) TCLL: ASCE 7-16; Pr=20.0 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 B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10





Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	P02	Monopitch	4	1	Job Reference (optional)	145552874

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:38 ID:7_w4SmfRqf3aFwrmOKOX6BzWCxL-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1





Scale = 1:35.9

Plate Offsets (X, Y): [4:0-2-8,0-1-4]

Loading	(ps	sf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20	0.0	Plate Grip DOL	1.15		TC	0.11	Vert(LL)	0.00	7-10	>999	240	MT20	244/190	
Snow (Pf)	20	0.0	Lumber DOL	1.15		BC	0.03	Vert(CT)	0.00	7-10	>999	180			
ICDL	10	0.0	Rep Stress Incr	YES		WB	0.00	Horz(CT)	0.00	2	n/a	n/a			
BCLL	0	0.0*	Code	IRC20	18/1PI2014	Matrix-MP							Mainte 40 lb	FT 000/	
BCDL	10	0.0											weight: 13 lb	FT = 20%	
LUMBER				5) This truss ha	s been designed fo	or a 10.0) psf bottom							
FOP CHORD	2x4 SP No.2				chord live loa	ad nonconcurrent w	vith any	other live loa	ds.						
BOT CHORD	2x4 SP No.2			6) * This truss h	as been designed	for a liv	e load of 20.0	psf						
NEBS	2x4 SP No.3	• •			on the botton	n chord in all areas	where	a rectangle	-						
SLIDER	Left 2x4 SP No.	.3 1-	-6-0		chord and ar	y 2-00-00 wide wil	i ili belv	veen the botto	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
BRACING				. 7) Refer to gird	er(s) for truss to tru	iss conr	ections							
I OP CHORD	Structural wood	d shea	thing directly applied	dor /) Provide mec	chanical connection (by others) of truss to									
	Rigid ceiling dir	rectly a	applied or 10-0-0 oc		bearing plate	capable of withsta	anding 2	8 lb uplift at j	oint						
	bracing.	loony c			4.										
REACTIONS	(size) 2=0-	3-8.4=	= Mechanical	9) One RT7A U	SP connectors rec	ommen	ded to conne	ct						
	Max Horiz 2=71	I (LC 1	3)		truss to bear	ing walls due to UF	'LIFI at	i jt(s) 2. This							
	Max Uplift 2=-1	5 (LC	14), 4=-28 (LC 14)		forces	s for uplift only and	does no	ot consider la	erai						
	Max Grav 2=21	17 (LC	21), 4=105 (LC 21)	1	0) This truss is	designed in accord	lance w	ith the 2018							
FORCES	(lb) - Maximum	Comp	pression/Maximum		International	Residential Code	sections	R502.11.1 a	nd						
	Tension				R802.10.2 a	nd referenced stan	dard AN	ISI/TPI 1.							
FOP CHORD	1-2=0/56, 2-3=-	-62/22	, 3-4=-40/34, 4-5=-1	5/0, 1	1) Gap betweer	n inside of top chor	d bearir	ng and first							
	4-7=0/40	7_0/0			diagonal or v	ertical web shall no	ot excee	ed 0.500in.							
	2-1=-55/52, 0-1	-0/0		L	OAD CASE(S)	Standard									
NUTES	℃E 7-16: \/ult=130) mnh ((3-second quet)											111.	
Vasd=103	Smph TCDI =6 0p	sf: BC	DI = 6 Opsf h = 25 ft										White CA	Dalle	
Cat. II; Ex	p B; Enclosed; M	WFRS	(envelope) exterior								1	1	all	10/11	
zone and	C-C Exterior(2E)	zone;	cantilever left and ri	ght								-	O .EF85	id May	
exposed ;	end vertical left a	and rig	ht exposed;C-C for										month	min	5
members	and forces & MW	FRS fo	or reactions shown;										:0 T	K	-
Lumber D	OL=1.60 plate gri	ip DOL	.=1.60								- 3		OFA		Ξ
2) TCLL: AS	CE 7-16; Pr=20.0	psf (ro	oof LL: Lum DOL=1.	15							-	1	SEA		=
	=1.15); PI=20.0 µ		Fully Exp : Co. 0.0								=	:	4584	4 :	-
Cs=1.00: 0	Ct=1.10	Gai D,	i uny Exp., Ce=0.9,								-	÷ 3			Ξ
3) Unbalance	ed snow loads ha	ve bee	en considered for thi	s									N	- 1 - X	
design.												2.11	VSNGINI	ENON	
 This truss 	has been designed	ed for	greater of min roof li	ive								11	Op	TINS I'	
load of 12.	.0 psf or 1.00 time	es flat	roof load of 20.0 psf	on								7.9	1, EW 1	OHILIN	
overhangs	s non-concurrent v	with ot	ner live loads.										111.		

- d snow loads have been considered for this 3) Unbala design.
- 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.

100000 April 8,2021



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S		
21030028-A	VL07	Valley	1	1	Job Reference (optional)	145552875	

2-7-11

2-7-11

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:43 ID:RuyS38FIsEYLP8RvImXmTXzWDFF-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

4-10-12

2-3-1

5-3-5

0-4-10

3



Page: 1



5-3-5

Scale = 1:25

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI20)14	CSI TC BC WB Matrix-MP	0.11 0.13 0.04	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 4	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 18 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 5-3-5 oc purlins. Rigid ceiling directly bracing. (size) 1=5-3-5, Max Horiz 1=-43 (LC (LC 14) Max Grav 1=91 (LC (LC 20)	eathing directly applie y applied or 6-0-0 oc 3=5-3-5, 4=5-3-5 C 10) 14), 3=-9 (LC 15), 4= C 20), 3=91 (LC 21), 4	5) Unba desig 6) Gabl 7) Gabl 8) This chorc 9) * This on th 3-06- chorc 10) Provi bear 1,9 1 11) This Interr R802	lanced s in. e require e studs s truss ha t live loas s truss h e bottom 00 tall b d and an de mech ng plate b uplift a truss is o national	snow loads have b es continuous both spaced at 4-0-0 oc s been designed fi d nonconcurrent v as been designed n chord in all areas y 2-00-00 wide wii y other members. nanical connection capable of withst t joint 3 and 34 lb designed in accord Residential Code d referenced stan	peen cor om chor c. or a 10.0 vith any for a liv s where Il fit betw a (by oth anding 1 uplift at dance w sections danc AN	sidered for the d bearing.) psf bottom other live loa e load of 20.0 a rectangle veen the botto ers) of truss t lb uplift at joi joint 4. ith the 2018 R502.11.1 a ISI/TPI 1.	nis ds. Dpsf om o int nd					
FORCES (lb) - Maximum Compression/Maximum Tension LOAD CASE(S) TOP CHORD 1-2=-86/124, 2-3=-36/124 BOT CHORD 1-4=-93/93, 3-4=-93/93 VEBS 2-4=-209/109 NOTES													
 Unbalance this design Wind: ASC Vasd=103i Cat. II; Exp zone and (exposed ; members a Lumber DC Truss desi only. For s see Standa or consult TCLL: ASC Plate DOL DOL=1.15 Cs=1.00; C 	ed roof live loads have a coof live loads have mph; TCDL=6.0ps; B o B; Enclosed; MWFR C-C Exterior(2E) zone end vertical left and ri and forces & MWFRS OL=1.60 plate grip DC gned for wind loads ir studs exposed to wind ard Industry Gable Er qualified building des CE 7-16; Pr=20.0 psf =1.15); Pf=20.0 psf (L); Is=1.0; Rough Cat I Ct=1.10	e been considered for h (3-second gust) CDL=6.0psf; h=25ft; SS (envelope) exterior ; cantilever left and r ight exposed;C-C for for reactions shown; DL=1.60 h the plane of the trus d (normal to the face) id Details as applicat igner as per ANSI/TP (roof LL: Lum DOL=1 Lum DOL=1.15 Plate B; Fully Exp.; Ce=0.9	r ight ss , le, 11. .15 ;							Output		SEA 4584	L H4 OHNSOTITI



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	D04	Piggyback Base Girder	1	2	Job Reference (optional)	145552876

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:19 ID:c06cNvNCGcxnEqn1vaELQrzWDF4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Plate Offsets (X, Y): [2:0-3-12,0-1-12], [4:0-3-12,0-1-12]

Scale = 1:89.1

Loading	(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.35	Vert(LL)	-0.06	12-13	>999	240	MT20	244/190		
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.42	Vert(CT)	-0.10	12-13	>999	180				
TCDL	10.0	Rep Stress Incr	NO		WB	0.54	Horz(CT)	0.08	11	n/a	n/a				
BCLL	0.0*	Code	IRC201	8/TPI2014	Matrix-MSH										
BCDL	10.0											Weight: 469 lb	FI = 20%		
		4* 4 0:0:4 CD No 0	1	2-ply truss to	be connected toge	ether wi	th 10d		12) Bea	ring at j	oint(s)	11 considers pa	arallel to grain value		
POT CHORD	2x4 SP No.2 Excep	1 1-2:2X4 SP NO.3	^	Top chords of	connected as follows.	15·2v4.	1 row at 0-9.	-0	des	igner sh	ould v	erify canacity of	hearing surface		
WEBS	2x4 SF N0.2 Excep	+* 17-2 17-4-2×4 SF NU.	2 No 2	00.		0. 2.4 1	1100 0100	0	13) One	RT7A	ISP o	onnectors recon	mended to connect		
REACING		1112,11 4.2.4 01	140.2	Bottom chore	ds connected as fol	lows: 2	x6 - 2 rows		trus	s to bea	rina w	alls due to UPLI	FT at it(s) 11 and 19.		
	Structural wood sho	othing directly applie	dor	staggered at	0-9-0 oc, 2x4 - 1 re	ow at 0-	9-0 oc.		This connection is for uplift only and does not consider						
		cent end verticals ar	nd	Web connec	ted as follows: 2x4	- 1 row	at 0-9-0 oc.		lateral forces.						
	2-0-0 oc purlins (6-0	-0 max.): 2-4.	2	All loads are	considered equally	/ applie	d to all plies,		14) This truss is designed in accordance with the 2018						
BOT CHORD	Rigid ceiling directly	applied or 10-0-0 oc	;	except if note CASE(S) see	ed as front (F) or ba ction. Ply to ply con	DAD	International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.								
WEBS	1 Row at midnt	1-19		provided to d	listribute only loads	noted	as (F) or (B),		15) Graphical purlin representation does not depict the size						
REACTIONS	(size) 11-0-4-8	19-0-3-8		unless other	wise indicated.				or t	ne orien	tation	of the purlin alor	ng the top and/or		
REAGNOND	(3120) 11=0 4 0, Max Horiz 19-389 (3	Unbalanced	roof live loads have	e been (considered fo	or	bot	om choi	d.				
	Max Uplift 11=-193 (LC 13) 19=-484 (LC	: 13)	this design.	7 40 34 4 400	(0			16) Use	USP T	HD26	(With 18-16d na	ils into Girder &	_	
	Max Grav 11=1229 ((LC 47), 19=1616 (LC	C 46)	Wind: ASCE	7-16; Vult=130mpl	n (3-sec	cond gust)		12-	10d x 1-	1/2 na	ils into Truss) or	equivalent at 14-1-13	3	
FORCES	(lb) - Maximum Com	pression/Maximum	0 .0,	Cot II: Exp E	on; ICDL=6.0pst; E		o.upst; n=25tt;	; >r	fron	n the left	end to	o connect truss(es) to back face of		
TOROLO	Tension	pression/maximum		zone: cantile	ver left and right ex	nosed	· end vertical	left	dea	down	u, ske	wed 0.0 deg.to	the right, sloping 0.0		
TOP CHORD	1-2=-385/216. 2-20=	-569/283.		and right exc	osed: Lumber DOI	_=1.60 I	plate grip	ion	17) Fill	all nail h	oles w	/here hanger is i	in contact with lumber	,	
	20-21=-569/283, 3-2	1=-569/283,		DOL=1.60	20000, 2011201 200		piato grip		18) "NA	II FD" ir	ndicate	s 3-10d (0 148"	x3") or 3-12d	•	
	3-4=-569/283, 4-5=-	861/326, 5-6=-964/2	99, 5	TCLL: ASCE	7-16; Pr=20.0 psf	(roof LL	.: Lum DOL=	1.15	(0.1	48"x3.2	5") toe	-nails per NDS	auidlines.		
	6-22=-1218/305, 22-	23=-1293/290,	Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate												
	7-23=-1367/279, 7-8	=-1841/301,		DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9;					WHILL CAP						
	8-9=-3440/475, 9-10	=0/37, 9-11=-1235/2	204,	Cs=1.00; Ct=	=1.10					^	1	A	- Ultr		
	1-19=-1501/537	04 400/070	6	Unbalanced	snow loads have b	een cor	nsidered for th	his			5.	0'.:: E9	SIC		
BOLCHORD	18-19=-215/323, 18-	-24=-168/378,	-	design.	- h						L	mary	2 man	7	
	24-20=-100/370, 17-	20=-100/370, 27115/758	1	I his truss ha	is been designed fo	or great	er of min roof	live				:0	K : =		
	16-27=-115/758 15-	16=-26/1069		overbangs n	psi or 1.00 times ha	other liv	Jau of 20.0 p	51 011			8	CE	A 1 1 1		
	14-15=-26/1067 13-	14=-101/1438	8	Provide ader	unate drainage to p	revent	ve loaus.	~		-		SER	∧∟ <u>:</u> =		
	12-13=-315/2489, 11	1-12=-15/175	q	All plates are	3x5 MT20 unless	otherwi	se indicated	y.		=		458	44 : :	1	
WEBS	2-18=-940/384, 2-17	′=-361/1025,	1)) This truss ha	is been designed fo	or a 10.0	0 psf bottom			-			1		
	3-17=-410/111, 4-17	'=-491/184,		chord live loa	ad nonconcurrent w	ith any	other live loa	ids.					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
	4-16=-136/795, 6-16	i=-765/208,	1	1) * This truss h	has been designed	for a liv	e load of 20.0	Opsf			-, 7,	1. SNO	FER. ON		
	6-14=-58/546, 7-14=	-623/154, 7-13=0/43	35,	on the bottor	n chord in all areas	where	a rectangle				11	O. GIN	E. G.		
	8-13=-1111/219, 8-1	2=-84/1112,		3-06-00 tall b	by 2-00-00 wide wil	l fit betv	veen the botto	om			1	1, TEW	OHN		
	9-12=-339/2710, 1-1	8=-450/1377		chord and ar	ny other members,	with BC	DL = 10.0psf	f.				1111			
NOTES													1111		

April 8,2021



NOILS

Job Truss		Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S		
21030028-A	D04	Piggyback Base Girder	1	2	Job Reference (optional)	145552876	
Carter Components (Sanford), Sa	Run: 8.43 S Mar 22 2	2021 Print: 8	.430 S Mar 2	2 2021 MiTek Industries, Inc. Wed Apr 07 14:27:19	Page: 2		

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:19 ID:c06cNvNCGcxnEqn1vaELQrzWDF4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate 1) Increase=1.15
 - Uniform Loads (lb/ft)

Vert: 1-2=-60, 2-4=-60, 4-9=-60, 9-10=-60,

12-19=-20, 11-12=-20 Concentrated Loads (lb)

Vert: 24=-557 (B), 25=-6 (B), 26=9 (B)


Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	PB06	Piggyback	1	1	Job Reference (optional)	145552877

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:40 ID:G2JjKBJ3R4JV73v361eAjozWDF9-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



2x4 =

2x4 🛛

2x4 =

	6-0-9
Scale = 1:32.4	
Plate Offsets (X, Y): [2:0-2-5,0-1-0], [4:0-2-5,0-1-0]	

2-9-7

		-															
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MP	0.18 0.18 0.03	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 2	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 26 lb	GRIP 244/190 FT = 20%	%			
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 6-0-0 oc purlins. Rigid ceiling directly bracing. (size) 2=6-0-9, 4 7=6-0-9, 1 Max Horiz 2=61 (LC Max Uplift 2=-77 (LC 6=-103 (L 11=-84 (L Max Grav 2=241 (LC 6=244 (LC 11=236 (L (lb) - Maximum Com	athing directly applied applied or 10-0-0 oc 4=6-0-9, 6=6-0-9, 11=6-0-9 13), 7=61 (LC 13) ; 14), 4=-84 (LC 15), C 14), 7=-77 (LC 14) C 15) C 21), 4=236 (LC 22) C 24), 7=241 (LC 21) C 22), pression/Maximum	2) d or 3) , 4) , 5) 6)	Wind: ASCE Vasd=103mp Cat. II; Exp E zone and C-(3-3-1 to 4-2-: cantilever lef right exposed for reactions DOL=1.60 Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design. This truss ha	nd: ASCE 7-16; Vult=130mph (3-second gust) sd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; t. II; Exp B; Enclosed; MWFRS (envelope) exterior re and C-C Exterior(2E) 0-3-1 to 3-3-1, Exterior(2R) i-1 to 4-2-3, Exterior(2E) 4-2-3 to 7-2-3 zone; tilever left and right exposed ; end vertical left and t exposed;C-C for members and forces & MWFRS reactions shown; Lumber DOL=1.60 plate grip IL=1.60 iss designed for wind loads in the plane of the truss y. For studs exposed to wind (normal to the face), e Standard Industry Gable End Details as applicable, consult qualified building designer as per ANSI/TPI 1. LL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 ite DDL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; =1.00; Ct=1.10 balanced snow loads have been considered for this sign. is truss has been designed for greater of min roof live						 13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer. 14) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines. 15) 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 + Snow (balanced): Lumber Increase=1.15, Plat Increase=1.15 Uniform Loads (lb/ft) Vert: 1-3=-60, 3-5=-60, 7-11=-20 Concentrated Loads (lb) Vert: 16=23 (B) 						
Construction Washingth Compression/Maximum Tension Tension OP CHORD 1-2=0/25, 2-14=-157/125, 14-15=-80/99, 3-15=-69/107, 3-16=-58/99, 4-16=-136/132, 4-5=0/25 OT CHORD 2-6=-43/78, 4-6=-41/78 /EBS 3-6=-113/89 OTES Uhbalanced roof live loads have been considered for this design.				load of 12.0 overhangs n Gable requirin Gable studs This truss ha chord live loa) * This truss h on the bottor 3-06-00 tall b chord and ar) N/A	psf or 1.00 times fla on-concurrent with es continuous botts spaced at 4-0-0 oc is been designed fo ad nonconcurrent w has been designed n chord in all areas by 2-00-00 wide will by other members.	at roof k other liv or a 10.0 //ith any for a liv swhere I fit betw	ad of 20.0 ps re loads. d bearing.) psf bottom other live load e load of 20.0 a rectangle reen the botto th the 2018	ds.)psf		Continue	to a	SEA 4584	IL 44	All Annunun			
			International	Residential Code s	sections	R502.11.1 a	nd			1	REW	OHN	112				

- this design.
- 12) 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.



minim

April 8,2021

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/TPI1** 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	221 Willowcroft-Roof-2742-S	
21030028-A	D03	Piggyback Base	2	1	Job Reference (optional)	145552878

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:17 ID:S15RxRmbxrEppQMBB2SOZizWDQC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





Scale = 1:89.4 Plate Offsets (X, Y): [1:0-2-0,0-1-8], [2:0-3-0,0-2-2], [3:0-10-0,0-2-0], [7:0-2-8,0-2-8]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	8/TPI2014	CSI TC BC WB Matrix-MSH	0.95 0.89 0.92	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.16 -0.28 0.17	(loc) 13-14 10-12 9	l/defl >999 >993 n/a	L/d 240 180 n/a	PLATES MT20 MT20HS Weight: 187 lb	GRIP 244/190 187/143 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD	2x4 SP No.2 *Excep 2-3:2x4 SP 2400F 2. 2x4 SP No.2 2x4 SP No.3 *Excep Structural wood shee 3-1-10 oc purlins, e: 2-0-0 oc purlins (6-0 Rigid ceiling directly bracing.	t* 1-2:2x4 SP No.3, OE t* 10-7:2x4 SP No.2 athing directly applied xcept end verticals, a -0 max.): 2-3. applied or 10-0-0 oc	2) I or nd 3)	 2) Wind: ASCE /-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 12-4-5 to 13-9-11, Exterior (2R) 13-9-11 to 25-5-13, Interior (1) 25-5-13 to 33-9-1, Exterior(2E) 33-9-1 to 36-9-1 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=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; 13) Graphical purlin representation does not d or the orientation of the purlin along the top bottom chord. LOAD CASE(S) Standard 									
WEBS WEBS REACTIONS	1 Row at midpt 2 Rows at 1/3 pts (size) 9=0-4-8, 1 Max Horiz 15=-391 (Max Uplift 9=-121 (L Max Grav 9=1157 (L	2-14, 3-13, 5-13 1-15 5=0-3-8 LC 10) C 15), 15=-113 (LC 1 .C 52), 15=1082 (LC	4) 5) 5) 47)	DOL=1.15); I Cs=1.00; Ct= Unbalanced design. This truss ha load of 12.0 p	s=1.0, Rough Cal 1.10 snow loads have l s been designed to osf or 1.00 times f	b; Fully been cor or great lat roof lo	exp.; Ce=0.9 Insidered for the er of min roof bad of 20.0 ps	is live sf on					
FORCES	(lb) - Maximum Com	pression/Maximum	6) 7)	Provide adec	uate drainage to	orevent	vater ponding	. d					
TOP CHORD	1-2=-322/225, 2-16= 16-17=-622/199, 17- 3-18=-622/199, 3-4= 4-19=-791/152, 5-19 5-20=-1353/149, 6-2 6-21=-3263/282, 7-2 7-9=-1151/112, 1-15	 on 322/225, 2-16=-622/199, -622/199, 3-4=-785/173, -791/152, 5-19=-938/133, -1353/149, 6-20=-1500/125, -3263/282, 7-21=-3323/280, 7-8=0/37, 1151/112, 115=-1212/155 All plates are MT20 plates 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf. Descript at indicated. 								C	to	ORTH CA	ROLL
BOT CHORD	14-15=-218/323, 14- 13-22=-157/338, 12- 11-12=-189/2410, 10 9-10=0/138	22=-157/338, 13=0/1167, 0-11=-189/2410,	11	using ANSI/T designer sho) One RT7A U truss to bear	PI 1 angle to grai uld verify capacity SP connectors re- ng walls due to L	of bear commen	a. Building ng surface. ded to connect it(s) 9 and 15	ct				SEA 4584	L 4
WEBS	2-14=-891/286, 2-13 3-13=-66/223, 5-13= 6-12=-1321/243, 6-1 7-10=-219/2681, 1-1	=-150/826, -831/222, 5-12=0/42: 0=-8/1134, 4=-120/1190	3, 12	This connect lateral forces This truss is o International R802.10.2 ar	designed in accor Residential Code nd referenced star	dance w sections	ith the 2018 SISTER STATES AND TO SISTER STATES SISTER STATES AND TO SISTER STATES AND TO SIS	er nd		11.1	A. A.	NOREW 1	EEP. ON
 Unbalance this design 	d roof live loads have	been considered for										"minu	mm

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

April 8,2021



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	PB05	Piggyback	4	1	Job Reference (optional)	145552879

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:39 ID:63IYukiS7JcWieTDOVtDsezWDQH-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





Scale = 1:27.7

Plate Offsets (X, Y): [2:0-2-5,0-1-0], [4:0-2-5,0-1-0]

zone and C-C Exterior(2E) 0-3-1 to 3-3-1, Exterior(2R) 3-3-1 to 4-2-3, Exterior(2E) 4-2-3 to 7-2-3 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

	()) [
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	18/TPI2014	CSI TC BC WB Matrix-MP	0.17 0.18 0.02	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 2	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 26 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD WEBS	2x4 SP N 2x4 SP N 2x4 SP N 2x4 SP N Structural 6-0-0 oc p Rigid ceili bracing. (size) Max Horiz Max Uplift Max Grav (lb) - Max Tension 1-2=0/25, 3-15=-61/ 2-6=-19/5	0.2 0.2 0.3 wood she burlins. ng directly 2=6-0-9, 4 7=6-0-9, 1 2=-61 (LC 2=-31 (LC 2=-31 (LC 6=207 (LC 11=243 (L imum Com 2-14=-144 88, 4-15=- 7, 4-6=-5/5	athing directly applied applied or 10-0-0 oc 1=6-0-9, 6=6-0-9, 1=6-0-9 12), 7=-61 (LC 12) 14), 4=-39 (LC 15), 14), 41=-39 (LC 15), 21), 4=243 (LC 22), 22), 7=243 (LC 21), C 22) pression/Maximum /81, 3-14=-61/88, 144/81, 4-5=0/25 7	3 dor 5 6 7 8 9 1) Truss design only. For stu see Standard or consult qu) TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct:) Unbalanced design.) This truss ha load of 12.0 overhangs n) Gable requir) Gable studs) This truss ha chord live loa 0) * This truss ha chord live loa 1) N/A 	ed for wind loads in ids exposed to wind d Industry Gable Er ialified building des 5 7-16; Pr=20.0 psf (.15); Pf=20.0 psf(.15); Pf=20.0 psf (.15)	h the pla d (norm nd Deta igner as (roof LL Jum DC B; Fully een cor or greate at roof lo other liv orn a 10.0 vith any for a liv where l fit betw	ane of the trus al to the face) Is as applicat s per ANSI/TP : Lum DOL=1 L=1.15 Plate Exp.; Ce=0.9 isidered for the er of min roof bad of 20.0 ps re loads. d bearing. 0 psf bottom other live load e load of 20.0 a rectangle veen the botto	ss ,, ble, l 1. l .15 l; live sf on ds. psf					RO	
 VVEBS 3-6=-83/4 NOTES 1) Unbalanced roof live loads have been considered for this design. 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-3-1 to 3-3-1, Exterior(2R) 			1 1	 2) This truss is International R802.10.2 at 3) See Standar Detail for Co consult quali 	designed in accord Residential Code s nd referenced stand d Industry Piggyba nnection to base tru fied building desigr	ance w sections dard AN ck Trus uss as a ier.	th the 2018 R502.11.1 ar ISI/TPI 1. S Connection applicable, or	nd		Cannus	to	SEA 4584	L 14	Junior	

LOAD CASE(S) Standard



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/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	D02	Piggyback Base	3	1	Job Reference (optional)	145552880

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:16 ID:GCf0yYa2ZERVbb0O5XjxkXzWDT1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:85.6

Plate Offsets (X, Y): [2:0-3-0,0-2-0], [4:0-3-0,0-2-0], [8:0-3-8,Edge], [11:0-4-8,0-2-8]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MSH	0.96 0.91 0.68	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.37 -0.71 0.01	(loc) 14-15 14-15 8	l/defl >708 >369 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 203 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS WEDGE BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP 2400F 2.0E ⁴ No.1, 10-8:2x4 SP N 2x4 SP No.3 *Excep 19-1,4-11,3-18,3-11: Right: 2x4 SP No.3 Structural wood shea 4-3-1 oc purlins, exc 2-0-0 oc purlins (6-0 Rigid ceiling directly bracing. Except: 6-0-0 oc bracing: 13:	*Except* 17-13:2x4 S o.2 t* 2x4 SP No.2 athing directly applied cept end verticals, and -0 max.): 2-4. applied or 10-0-0 oc -17	1) P 2) lor d 3)	Unbalanced roof live loads have been considered for this design. Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 9-4-15 to 10-10-4, Exterior (2R) 10-10-4 to 22-6-7, Interior (1) 22-6-7 to 28-3-11, Exterior(2E) 28-3-11 to 31-3-11 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 TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; CL=1.10 Lubalanced show loads have been considered for this									
WEBS REACTIONS	1 Row at midpt 2-18, 1-19, 3-18 Unbalanced snow loads have been considered for this design. IS (size) 8=0-3-8, 19=0-3-8 Unbalanced snow loads have been considered for this design. Max Horiz 19=-344 (LC 12) 5) 200.01b AC unit load placed on the bottom chord, 6-8-9 Max Grav 8=1211 (LC 51), 19=1432 (LC 46) 5) 200.01b AC unit load placed on the bottom chord, 6-8-9												
FORCES	(lb) - Maximum Com Tension 1-2=-455/166, 2-23= 23-24=-324/112, 24- 3-25=-324/112, 3-4= 5-6=-1343/78, 6-26= 7-27=-1364/0, 7-28= 8-29=-1571/0, 1-19=	pression/Maximum 324/112, 25=-324/112, 849/107, 4-5=-1275/ -1263/6, 26-27=-135(1381/1, 28-29=-148! 1821/0	6) 7) 8) 96, 9) 0/0, 5/0,	 from left end, supported at two points, 5-0-0 apart. Provide adequate drainage to prevent water ponding. 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 3-06-00 tall by 2-00-00 wide will fit between the bottom 								ROLLING	
BOT CHORD	18-19=-178/273, 18- 16-31=0/739, 12-16= 11-32=0/739, 10-11= 8-9=0/1188, 17-33=- 14-15=-91/0, 14-34=	30=0/739, 30-31=0/7 =0/739, 12-32=0/739, =0/1188, 9-10=0/1188 91/0, 15-33=-91/0, -91/0, 13-34=-91/0	39, 10) s, 11)) This truss is o International R802.10.2 ar) Graphical pu or the orienta	designed in accorda Residential Code s ad referenced stand rlin representation of tion of the purlin all	ance w ections lard AN does no ong the	th the 2018 R502.11.1 a SI/TPI 1. of depict the top and/or	and size		and the second s		SEAI 4584	4
WEBS NOTES	1-18=0/1646, 2-18=- 6-11=-298/119, 7-11 17-18=-899/39, 3-17 3-13=-12/689, 11-13 12-14=-4/34	128/229, 7-9=-41/76, =-386/241, 4-11=-5/6 =-742/104, =-82/507, 15-16=-98/	 bottom chord. 677, LOAD CASE(S) Standard 3/0, 								Philippin	Apr	HNSOTIN

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/TPI1** Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	PB04	Piggyback	1	1	Job Reference (optional)	145552881

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:39 ID:rdzuKXXAHJ2wk8HpPP9E6uzWDT4-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

6-0-9





Scale	= 1:27.2	

Plate Offsets (X, Y): [3:0-2-8.0-0-5], [4:0-3-8.0-2-4]

	(,, ,). [0.0 2	- 0,0 0 0],	[4.0 0 0,0 2 4]												
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MP	0.09 0.12 0.02	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 11	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 24 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No 2x4 SP No 2x4 SP No Structural 6-0-0 oc p 2-0-0 oc p Rigid ceilir bracing. (size) Max Horiz Max Uplift Max Grav	.2 .2 .3 wood shea urlins, exc urlins, exc urlins, exc urlins, exc urlins, exc urlins, exc urlins, exc and directly 2=-60-9, f 8=6-0-9, 1 2=-46 (LC 2=-39 (LC 2=-312 (LC 7=136 (LC 7=136 (LC	athing directly applied ept -0 max.): 3-4. applied or 10-0-0 oc i=6-0-9, 7=6-0-9, 1=6-0-9 12), 8=-46 (LC 12) 14), 5=-30 (LC 14), 14), 11=-30 (LC 14), 24), 8=312 (LC 21), C 39)	3) 4) d or 5) 6) 7) 8) 9) 10 11	Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct Unbalanced design. This truss ha load of 12.0 overhangs n Provide aded Gable requiri Gable studs) This truss ha chord live loa) * This truss f	led for wind loads in uds exposed to wind d Industry Gable Er ialified building des 7-16; Pr=20.0 psf (1.15); Pf=20.0 psf (I Is=1.0; Rough Cat I =1.10 snow loads have b as been designed for psf or 1.00 times fla on-concurrent with quate drainage to p es continuous botto spaced at 4-0-0 oc as been designed for ad nonconcurrent with mas been designed	n the pl d (norm nd Deta igner a: (roof LL Lum DC B; Fully een cor or great at roof le other lin revent or chor or a 10. vith any for a liv	ane of the tru al to the face ils as applical s per ANSI/TF .: Lum DOL=: DL=1.15 Plate Exp.; Ce=0.9 nsidered for th er of min roof oad of 20.0 pp we loads. water ponding d bearing. D psf bottom other live loa e load of 20.0	ss), ble, PI 1. 1.15 9 3; his 5; i live sf on g. dds. Dpsf						
11=265 (LC 39) FORCES (Ib) - Maximum Compression/Maximum Tension TOP CHORD 1-2=0/25, 2-3=-2777/117, 3-4=-194/118, 4-5=-263/113, 5-6=0/25 BOT CHORD 2-7=-45/194, 5-7=-45/194 WEBS 4-7=-38/56				12	on the bottor 3-06-00 tall t chord and ar) N/A	n chord in all areas by 2-00-00 wide will ny other members.	where I fit betv	a rectangle veen the botto	om		A		OR EESS	ROLIN	
NOTES 1) Unbalance this design 2) Wind: AS Vasd=10 Cat. II; E: zone and 2-9-8 to 4 cantileve right export for reacting	xed roof live lo n. CE 7-16; Vult 3mph; TCDL= xp B; Enclose C-C Exterior I-7-12, Exterior I-7-12, Exterior r left and right pose shown: L	ads have =130mph =6.0psf; B0 d; MWFR3 (2E) 0-3-1 or(2E) 4-7- c exposed members a unber DO	been considered for (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior to 2-9-8, Exterior(2R) 12 to 7-2-3 zone; ; end vertical left and and forces & MWFRS L=1 60 plate grip	13 14) 15) This truss is International R802.10.2 at See Standar Detail for Co consult quali) Graphical pu or the orienta bottom chord	designed in accord Residential Code s nd referenced stand d Industry Piggyban nnection to base trr fied building design rlfin representation ation of the purlin al d. Standard	lance w sections dard AN ck Trus uss as a ner. does no long the	ith the 2018 R502.11.1 a ISI/TPI 1. s Connection applicable, or ot depict the s e top and/or	and		Dannin		SEA 4584	L L L EER. O	

2-9-8 to 4-7-12, Exterior(2E) 4-7-12 to 7-2-3 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

- 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- LOAD CASE(S) Standard



.10 minim

April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	PB01	Piggyback	8	1	Job Reference (optional)	145552882

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:38 ID:vPCQXCmvtswCyMFmGUBX1DzWDh_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



8-0-1

Scale = 1:44.7

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20 ²	18/TPI2014	CSI TC BC WB Matrix-MP	0.59 0.18 0.10	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 5	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 41 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex Rigid ceiling directly bracing. (size) 2=8-0-1, Max Horiz 2=218 (L	eathing directly applie ccept end verticals. / applied or 10-0-0 oc 5=8-0-1, 6=8-0-1, 7= C 13), 7=218 (LC 13)	3 ed or 5 c 6 8-0-1 8	 TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design. This truss ha load of 12.0 p overhangs no Gable require Gable studs This truss ha chord live loa 	7-16; Pr=20.0 ps 15); Pf=20.0 psf is=1.0; Rough Ca 1.10 snow loads have is been designed psf or 1.00 times ion-concurrent wit es continuous bot spaced at 4-0-0 c s been designed	if (roof LL (Lum DC t B; Fully been cor for greate flat roof lc h other lis tom chor ic. for a 10.0 with any	:: Lum DOL= :)L=1.15 Plate Exp.; Ce=0.9 isidered for the er of min roof bad of 20.0 p: /e loads. d bearing.) psf bottom other live loa	1.15 2; nis live sf on						
FORCES	Max Uplift 2=-12 (L0 6=-154 (L Max Grav 2=205 (L 6=531 (L (lb) - Maximum Con Tancion	C 10), 5=-45 (LC 11), LC 14), 7=-12 (LC 10 C 25), 5=200 (LC 5), C 5), 7=205 (LC 25) npression/Maximum) 9	 * This truss h on the botton 3-06-00 tall b chord and an N/A 	has been designe n chord in all area by 2-00-00 wide w ny other members	d for a liv as where rill fit betw , with BC	e load of 20.0 a rectangle veen the botto DL = 10.0psf	Dpsf Dm						
TOP CHORD	1-2=0/16, 2-11=-18 3-12=-160/151, 3-1 4-5=-160/64 2-6=-98/107 6-14=	4/109, 11-12=-161/13 3=-154/61, 4-13=-108 -98/107 5-14=-98/10	36, 8/83, 1	1) This truss is	designed in acco	rdance w	ith the 2018	und						
WEBS	3-6=-410/283	00,101,011=00,10		R802.10.2 ar	nd referenced sta	ndard AN	ISI/TPI 1.	inu					11111	
NOTES 1) Wind: ASG Vasd=103 Cat. II; Ex zone and 3-3-1 to 4 cantilever right expo	CE 7-16; Vult=130mpf 3mph; TCDL=6.0psf; B p B; Enclosed; MWFR C-C Exterior(2E) 0-3- -3-12, Exterior(2R) 4-3 left and right exposed sed C-C for members	n (3-second gust) ICDL=6.0psf; h=25ft; IS (envelope) exterio 1 to 3-3-1, Interior (1) 3-12 to 8-6-11 zone; I; end vertical left and and forces & MWER	r L d	 See Standard Detail for Conconsult qualit OAD CASE(S) 	d Industry Piggyb nnection to base fied building desig Standard	ack Trus truss as a gner.	s Connection applicable, or				li	SEA 458	L L	

DOL=1.60 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, 2) or consult qualified building designer as per ANSI/TPI 1.

for reactions shown; Lumber DOL=1.60 plate grip



818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	PB02	Piggyback	1	1	Job Reference (optional)	145552883

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:38 ID:ZwFLwske6i95pSZgYpzAglzWCvz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



8-0-1

Scale = 1:44.8 Plate Offsets (X, Y): [2:0-1-13.0-1-0], [4:0-2-8 0-0-5]

	(X, Y): [2:0-1-13,0-1-0], [4:0-2-8,0-0-5]											
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MP	1.00 0.17 0.15	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 2	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 39 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORI BOT CHORI WEBS OTHERS BRACING TOP CHORI BOT CHORI	 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood she except end verticals 4-5. Rigid ceiling directly 	athing directly applied , and 2-0-0 oc purlins	3) 4) ¹ , 5)	Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct: Unbalanced design. This trues he	need for wind loads i lads exposed to win d Industry Gable El lalified building des 7-16; Pr=20.0 psf (1.15); Pf=20.0 psf (Is=1.0; Rough Cat =1.10 snow loads have b	n the pla d (norm nd Deta signer as (roof LL Lum DC B; Fully been cor	ane of the tru al to the face ils as applica is per ANS//TI i: Lum DOL= DL=1.15 Plate Exp.; Ce=0.9 asidered for the	ess), ble, PI 1. 1.15 9; his					
REACTIONS	bracing. (size) 2=8-0-1, 6 Max Horiz 2=195 (LC Max Uplift 2=-35 (LC Max Grav 2=221 (LC 7=773 (LC	6=8-0-1, 7=8-0-1, 8=8 C 13), 8=195 (LC 13) C 10), 7=-177 (LC 14), C 10) C 42), 6=111 (LC 37), C 40), 8=221 (LC 42)	8-0-1 7) 8) 9) 10	load of 12.0 overhangs n Provide adeo Gable requir Gable studs) This truss ha	is been designed in psf or 1.00 times fli on-concurrent with quate drainage to p es continuous botti spaced at 4-0-0 oc is been designed fr ad ponconcurrent v	or great at roof lo other liv prevent om chor c or a 10.0 with any	of of min roof bad of 20.0 pr ve loads. water ponding d bearing.) psf bottom other live loa	sf on g.					
FORCES	(Ib) - Maximum Com Tension 0 1-2=0/16, 2-12=-199	npression/Maximum 9/170, 3-12=-175/236	11)) * This truss h on the bottor 3-06-00 tall h	nas been designed m chord in all areas by 2-00-00 wide wil	for a liv s where Il fit betv	e load of 20.0 a rectangle	Opsf om					
BOT CHORI	5-13=-160/85, 4-13= 5-14=-88/96, 5-6=-4 0 2-7=-88/96, 7-15=-8 3-7=-610/287	- 163/63, 4-14=-88/96 2/15 8/96, 6-15=-88/96	, 12	chord and ar) N/A	ny other members,	with BC	UL = 10.0psi	t.		6	Jun	WITH CA	ROLINI
NOTES 1) Unbalan this desi 2) Wind: AS Vasd=10 Cat. II; E	ced roof live loads have gn. SCE 7-16; Vult=130mph I3mph; TCDL=6.0psf; B' xp B; Enclosed; MWFR	been considered for (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior	13 14) This truss is International R802.10.2 a) See Standar Detail for Co	designed in accord Residential Code and referenced stan d Industry Piggyba nnection to base tr	dance w sections dard AN ick Trus russ as a	ith the 2018 R502.11.1 a ISI/TPI 1. S Connection applicable, or	and		Cumm	5	SEA 4584	L 14

- zone and C-C Exterior(2E) 0-3-1 to 3-3-1, Exterior(2R) 3-3-1 to 7-8-1, Exterior(2E) 7-8-1 to 8-6-11 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
- consult qualified building designer. 15) Graphical purlin representation does not depict the size
- or the orientation of the purlin along the top and/or bottom chord.
- LOAD CASE(S) Standard



818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	M06	Jack-Open Supported Gable	1	1	Job Reference (optional)	145552884

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:34 ID:q0rtaVL3VAK2gA?pVxxzBCzWCz2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:45.3 Plate Offsets (X, Y): [1:0-0-12.Edge]

	(,, , , [1.0	o iz,Eugo	1											
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MP	0.80 0.05 0.11	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.00 0.00	(loc) 1-8 1-8 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 43 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS WEDGE BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP N 2x4 SP N 2x4 SP N 2x4 SP N Left: 2x4 S Structural 6-0-0 oc p Rigid ceil bracing. (size) Max Horiz Max Uplift Max Grav	0.2 0.2 0.3 0.3 SP N0.3 I wood she purlins, exi- ing directly 1=6-0-0, § 1=215 (LC 7=-72 (LC 1=148 (LC (LC 7), 7= 20)	athing directly applied cept end verticals. applied or 6-0-0 oc 5= Mechanical, 6=6-0 3=6-0-0 2 13) 10), 5=-78 (LC 13), 14), 8=-145 (LC 14) 2 24), 5=67 (LC 10), 209 (LC 20), 8=302	2) d or 4, 5, 0-0, 6, 7, 6=17 8, (LC 9)	 Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DDL=1.15); Cs=1.00; Ct=1 Unbalanced design. Gable studs This truss ha chord live loa * This truss ha chord live loa * This truss ha chord live loa * This truss ha chord and ar Refer to gird Provide mec bearing plate 	need for wind loads in ads exposed to wind d Industry Gable Er ialified building des 7-16; Pr=20.0 psf (I Is=1.0; Rough Cat I =1.10 snow loads have b spaced at 2-0-0 oc is been designed fo ad nonconcurrent w has been designed n chord in all areas by 2-00-00 wide will y other members. er(s) for truss to tru hanical connection	n the pl d (norm nd Deta igner a: (roof LL Lum DC B; Fully eeen cor br a 10. vith any for a liv s where l fit betw lss conr (by oth ordina c	ane of the tru al to the face ils as applica s per ANSI/TI :: Lum DOL= DL=1.15 Plate Exp.; Ce=0.9 asidered for the Opsf bottom other live loa e load of 20.0 a rectangle veen the bottom nections. ers) of truss t	ss), ble, Pl 1. 1.15 ; ; ds. 0psf om					
FORCES	(lb) - Max Tension	imum Com	pression/Maximum	1	5. 5.) _{N/A}		anung <i>i</i>	o ib upilit at j	UIII					110.
TOP CHORD	1-2=-314/ 3-4=-156/	/118, 2-9=- /97, 4-5=-1	308/125, 3-9=-295/14 38/151, 5-6=0/0	47,							~		"TH CA	ROIT
BOT CHORD WEBS NOTES	1-8=-111/ 3-8=-247/	/143, 7-8=- /385, 4-7=-	105/139, 6-7=-105/13 179/206	39 1	1) This truss is International R802 10 2 a	designed in accord Residential Code s	lance w sections	ith the 2018 R502.11.1 a	ind		Ũ	t'à	A TOFESS	highin
 Wind: ASC Vasd=103 Cat. II; Ex zone and exposed ; members Lumber D 	CE 7-16; Vu Bmph; TCDL p B; Enclose C-C Corner end vertical and forces a OL=1.60 pla	It=130mph .=6.0psf; B(ed; MWFR (3E) zone; I left and rig & MWFRS ate grip DO	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior cantilever left and rig ght exposed;C-C for for reactions shown; L=1.60	1: ght L	 12) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in. LOAD CASE(S) Standard 						111111	R	SEA 4584	L 44





Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL21	Valley	1	1	Job Reference (optional)	145552885

3-6-10

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:47 ID:S27_bHoT82MT_7tnF?31nWzWCua-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

2x4 II

2

Page: 1

ø 3-6-14 3-6-14 12 12 Г 0 0-0-4 3 2x4 II 3x5 🥠 3-6-10

- 6) Gable studs spaced at 4-0-0 oc.



April 8,2021

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/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

Scale = 1:28

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/T	PI2014	CSI TC BC WB Matrix-MP	0.24 0.27 0.00	DEFL Vert(LL) Vert(TL) Horiz(TL)	in n/a n/a 0.00	(loc) - - 3	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 16 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shee 3-6-10 oc purlins, ei Rigid ceiling directly bracing. (size) 1=3-6-10, Max Horiz 1=113 (LC Max Uplift 3=-50 (LC Max Grav 1=207 (LC (lb) - Maximum Com Tension	athing directly applies xcept end verticals. applied or 10-0-0 oc 3=3-6-10 C 11) C 11) C 20), 3=207 (LC 20) pression/Maximum	7) T c 8) * 3 dor 9) F b 3 10) T l F LOAI	This truss has thord live loa This truss h on the bottom the botto	s been designed fo d nonconcurrent w as been designed n chord in all areas y 2-00-00 wide will y other members. nanical connection capable of withsta designed in accord Residential Code s d referenced stand Standard	r a 10.(ith any for a liv where fit betw (by oth- nding 5 ance wi sections dard AN) psf bottom other live load e load of 20.0 a rectangle veen the botto ers) of truss tr 0 lb uplift at jo 0 lb uplift at jo th the 2018 R502.11.1 a SI/TPI 1.	ds.)psf om oint nd					
TOP CHORD BOT CHORD	1-2=-219/79, 2-3=-14 1-3=-78/151	40/91											
 NOTES 1) Wind: ASC Vasd=103 Cat. II; Exg zone and exposed; members a Lumber Di 2) Truss designon or consult 3) TCLL: ASC Plate DOL DOL=1.15 Cs=1.00; 0 4) Unbalance design. 5) Gable requestion 	CE 7-16; Vult=130mph mph; TCDL=6.0psf; BG o B; Enclosed; MWFRS C-C Exterior(2E) zone; end vertical left and rig and forces & MWFRS DL=1.60 plate grip DO gned for wind loads in studs exposed to wind ard Industry Gable Enc qualified building desig CE 7-16; Pr=20.0 psf (Li ; Is=1.0; Rough Cat B Ct=1.10 ad snow loads have be uires continuous bottor Is spaced at 4-0-0 oc.	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior ; cantilever left and ri ht exposed;C-C for for reactions shown; L=1.60 the plane of the trus (normal to the face), d Details as applicab gner as per ANSI/TPI roof LL: Lum DOL=1 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; een considered for thi m chord bearing.	ght s le, l1. .15 s							Continue	A STATE OF THE STA	SEA 4584	ROLATION

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL22	Valley	1	1	Job Reference (optional)	145552886

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:48 ID:o?wtf?sbza?I5vlk2YfCUZzWCuV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

2-0-14

Page: 1



2x4 🎣

2-0-10

Scale - 1.21 9

00010 = 112110												
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 9 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she: 2-0-14 oc purlins, e: Rigid ceiling directly bracing. (size) 1=2-0-10, Max Horiz 1=59 (LC	athing directly applie xcept end verticals. applied or 10-0-0 oc 3=2-0-10 11)	 7) This truss chord live 8) * This truss on the bott 3-06-00 ta chord and 9) Provide my bearing pla 3. 10) This truss Internation P202 10.2 	has been designed load nonconcurren s has been designed om chord in all are l by 2-00-00 wide v any other member echanical connectiv tate capable of withs is designed in acco al Residential Cod	d for a 10. It with any ed for a liv as where will fit betw 's. on (by oth standing 2 ordance w le sections	0 psf bottom other live loa e load of 20.0 a rectangle veen the botto ers) of truss t 27 lb uplift at j ith the 2018 s R502.11.1 a	ds.)psf om oint nd					
	Max Uplift 3=-27 (LC Max Grav 1=106 (LC	; 14) C 20), 3=106 (LC 20)	LOAD CASE(and referenced sta 5) Standard	andard Ar	NSI/TPT1.						
FORCES	(lb) - Maximum Com Tension	pression/Maximum										
TOP CHORD BOT CHORD	1-2=-107/38, 2-3=-6 1-3=-53/70	5/56										
NOTES 1) Wind: ASt Vasd=103 Cat. II; Ex zone and exposed ; members Lumber D	CE 7-16; Vult=130mph mph; TCDL=6.0psf; B(p B; Enclosed; MWFR3 C-C Exterior(2E) zone; end vertical left and rig and forces & MWFRS OL=1.60 plate grip DO	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior; cantilever left and ri pht exposed;C-C for for reactions shown; L=1.60	ght						\sim	Lann's	NITH CA	AROLINI,
 Truss des only. For see Stand or consult 	igned for wind loads in studs exposed to wind dard Industry Gable End qualified building desig	the plane of the trus (normal to the face), d Details as applicab gner as per ANSI/TP	s le, l 1.						U		SEL	
3) TCLL: AS Plate DOI DOL=1.15 Cs=1.00;	CE 7-16; Pr=20.0 psf (i _=1.15); Pf=20.0 psf (Li 5); Is=1.0; Rough Cat B Ct=1.10	roof LL: Lum DOL=1 um DOL=1.15 Plate 3; Fully Exp.; Ce=0.9;	.15						11111		458	44
 4) Unbalance design. 5) Cable real 	ed snow loads have be	en considered for thi	S								NGIN	EEL SOLL
6) Gable stu	ds spaced at 4-0-0 oc.	m chora bearing.									WIEW J	OHIVIII



April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	VL12	Valley	1	1	Job Reference (optional)	145552887

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:44 ID:TNhim9imE?dAmZNFC3ahJwzWD4K-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

J4ZJU?t



3x5 🖌

5-2-0

Scale = 1	1:29.5
-----------	--------

Loading TCLL (roof) Snow (Pf)	(psf) 20.0 20.0	Spacing Plate Grip DOL Lumber DOL Pep Stress Incr	2-0-0 1.15 1.15 VES	CSI TC BC WB	0.58 0.56	DEFL Vert(LL) Vert(TL)	in n/a n/a	(loc) - -	l/defl n/a n/a	L/d 999 999	PLATES MT20	GRIP 244/190	
BCLL BCDL	0.0*	Code	IRC2018/TPI2014	Matrix-MP	0.00	TION2(TE)	0.01	5	Π/a	Π/α	Weight: 21 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 5-2-0 oc purlins, ex Rigid ceiling directly bracing. (size) 1=5-2-0, 3 Max Horiz 1=127 (LC Max Uplift 1=-8 (LC	athing directly applie cept end verticals. applied or 10-0-0 oc 3=5-2-0 2 11) 14), 3=-56 (LC 14)	 This truss h chord live lo This truss on the botto 3-06-00 tall chord and a Provide mec bearing plat 3 and 8 lb u This truss is Internationa R802.10.2 a 	as been designed ad nonconcurrent has been designed m chord in all area by 2-00-00 wide v ny other members chanical connectic e capable of withs plift at joint 1. designed in acco I Residential Code and referenced sta	I for a 10.0 t with any ed for a liv as where will fit betw s. on (by othe standing 5 ordance wi e sections andard AN) psf bottom other live loa e load of 20.0 a rectangle veen the botto ers) of truss t 6 lb uplift at juth th the 2018 R502.11.1 a SI/TPI 1.	ds. Dpsf om oint nd						
FORCES	Max Grav 1=276 (LC (lb) - Maximum Com Tension 1-2=-367/103, 2-3=-	220), 3=307 (LC 20) pression/Maximum 214/87	LOAD CASE(S)	Standard									
VOTES I) Wind: ASC Vasd=103r Cat. II; Exp zone and C exposed ; o members a Lumber DC 2) Truss desig	E 7-16; Vult=130mph mph; TCDL=6.0psf; B(b B; Enclosed; MWFR; C-C Exterior(2E) zone; end vertical left and rig and forces & MWFRS DL=1.60 plate grip DO gned for wind loads in	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior cantilever left and ri ght exposed;C-C for for reactions shown; L=1.60 the plane of the trus	ight is						$\hat{\mathbf{O}}$	Luili NXX	WH CA	ROLL	in the second
 only. For s see Standa or consult or Plate DOL: DOL=1.15; Cs=1.00; C Unbalance design. Gable requ Gable stud 	studs exposed to wind and Industry Gable En- qualified building desig CE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L); Is=1.0; Rough Cat B Ct=1.10 id snow loads have be uires continuous botton Is spaced at 4-0-0 oc.	(normal to the face), d Details as applicab gner as per ANSI/TP roof LL: Lum DOL=1 um DOL=1.15 Plate ty; Fully Exp.; Ce=0.9; en considered for this n chord bearing.	, l 1. .15 ;						Summer	P	SEA 4584	L 14 EEER.GO	A CONTRACTOR OF A CONTRACTOR O

April 8,2021



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	B02	Piggyback Base Girder	1	2	Job Reference (optional)	145552888

Scale = 1:80

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:10 ID:E2QH3XtT6h6sjV9bjbz4EzzWCf_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Plate Offsets (X, Y): [8:0-6-0,0-2-0], [13:0-5-8,0-2-8], [15:0-5-0,0-4-8], [22:0-4-8,0-3-12]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC2018/	/TPI2014	CSI TC BC WB Matrix-MSH	0.32 0.50 0.86	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.06 -0.09 -0.02	(loc) 18 18-19 21	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 644 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD	2x4 SP No.2 2x6 SP No.2 *Excep 14-10:2x4 SP No.2 2x4 SP No.3 *Excep No.2 Structural wood she 6-0-0 oc purlins, exc	t* 3-21:2x4 SP No.3, t* 17-8,15-8,9-15:2x4 athing directly applie cept end verticals, ar	BO ⁻ 4 SP d or nd	T CHORD 2 2 1 1 2 1 1 2 1 1 1 1	3-24=-354/82, 22-2 1-22=-3270/466, 3- 10-21=-10/0, 20-27= 9-27=-183/1284, 16 8-28=-267/2237, 18 9-30=-240/2090, 17 7-31=-175/1670, 16 6-32=-175/1670, 16 5-33=-2/17, 33-34= 4-25=-2/4, 7-21	23=-469 22=-32 183/1 9-28=-2 3-29=-2 3-29=-2 5-30=-2 5-32=- -2/17,	0/404, 29/117, 284, 267/2237, 240/2090, 240/2090, 175/1670, 175/1670, 34-35=-2/17, 192		4) Wir Vas Cat zon DO 5) TCI Pla DO	d: ASCE d=103m . II; Exp e; cantile right ex L=1.60 L: ASCE te DOL= L=1.15); 4 00: Ct	7-16; ph; TC B; Enc ever le bosed; 5 7-16; 1.15); l Is=1.0	Vult=130mph (3 DL=6.0psf; BCI losed; MWFRS ft and right expo Lumber DOL=1 ; Pr=20.0 psf (ro Pf=20.0 psf (Lun ; Rough Cat B; I	→-second gust))L=6.0psf; h=2 (envelope) ext sed ; end verti .60 plate grip of LL: Lum DC n DOL=1.15 P Fully Exp.; Ce:	25ft; erior cal left DL=1.15 late =0.9;
BOT CHORD	2-0-0 oc purlins (6-0 Rigid ceiling directly bracing. (size) 12=0-3-8, 21=0-3-8, Max Horiz 24=308 (I Max Uplift 12=-197 (21=-449 (Max Grav 12=1871 50), 21=3 28)	-0 max.): 8-11. applied or 6-0-0 oc 14= Mechanical, 24=0-3-8 .C 12) LC 9), 14=-214 (LC 9 LC 12), 24=-47 (LC 9 (LC 44), 14=2061 (LC 312 (LC 5), 24=312 (WE 9), 58) C (^{LC} NO	BS 2 2 4 6 7 7 8 9 9 9 7 7 7 7 7 7 7 7 7 7 7 7 7 7	4-33-2717, 13-14= 0-13=-52/681, 12-1 -23=-5/179, 2-22=- 0-22=-244/1735, 4- -20=-972/201, 4-19 -19=-562/84, 6-18= -18=-110/1266, 7-1 -17=-272/2572, 8-1 -15=-36/461, 13-15 -13=-1045/117, 1-2	3=-299 940/23 -22=-29 9=-162/ 531/7 7=-13 5=-152 5=-316/ 23=-148	102, 3)/47 5, 581/161, 1862, 4, 13/217, 27/194, 2987, 3/307		6) Unt des 7) Pro 8) All 9) Thi: 9) Thi: 10) * Th 0n 1 3-0 cho	ign. vide ade blates are s truss ha rd live lo his truss he botto 5-00 tall rd and a	quate e 3x5 I as bee ad nor has be m choi by 2-0 ny othe	loads have beer drainage to prev MT20 unless oth n designed for a nconcurrent with een designed for d in all areas wf 0-00 wide will fit er members, with	ent water pone erwise indicate 10.0 psf botto any other live a live load of bere a rectang between the b h BCDL = 10.0	or this ding. ed. m loads. 20.0psf le pottom 0psf.
FORCES	(lb) - Maximum Com Tension	pression/Maximum	1)	2-ply truss to (0.131"x3") n Top chords c	be connected toget ails as follows:	ther wi	th 10d	N	11) Ref	er to girc	ler(s) f	or truss to truss	connections.	
TOP CHORD	1-2=-415/200, 2-25= 3-25=-161/680, 3-4= 4-5=-2436/175, 5-6= 6-7=-2667/212, 7-8= 8-9=-1225/152, 9-26 10-26=-323/51, 10-1 11-12=-686/71, 1-24	 tails as follows: connected as follows: 2x4 - 1 row at 0-9-0 ds connected as follows: 2x6 - 2 rows :0-9-0 oc, 2x4 - 1 row at 0-9-0 oc. ted as follows: 2x4 - 1 row at 0-9-0 oc. considered equally applied to all plies, ed as front (F) or back (B) face in the LOAD ction. Ply to ply connections have been distribute only loads noted as (F) or (B), wise indicated. roof live loads have been considered for 				Contraction of the second seco	te Print	SEA 4584	L 14 EER.50	- Summing				

April 8,2021

mun

Page: 1



Continued on page 2

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S					
21030028-A	B02	Piggyback Base Girder	1	2	Job Reference (optional)	145552888				

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:10

ID:E2QH3XtT6h6sjV9bjbz4EzzWCf_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

Carter Components (Sanford), Sanford, NC - 27332,

- Bearing at joint(s) 24 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 214 lb uplift at joint 14.
- 14) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12, 24, and 21. This connection is for uplift only and does not consider lateral forces.
- 15) 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.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 17) Use USP THD26 (With 18-16d nails into Girder & 12-10d x 1-1/2 nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 16-4-0 from the left end to 30-4-0 to connect truss(es) to back face of bottom chord.

18) Fill all nail holes where hanger is in contact with lumber. LOAD CASE(S) Standard

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

Uniform Loads (lb/ft)

Vert: 1-6=-60, 6-8=-60, 8-11=-60, 22-24=-20, 14-21=-20, 12-13=-20

Concentrated Loads (lb)

Vert: 27=-575 (B), 28=-575 (B), 29=-575 (B), 30=-575 (B), 31=-575 (B), 32=-575 (B), 33=-575 (B), 35=-575 (B)



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	PB03	Piggyback	1	1	Job Reference (optional)	145552889

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:39 ID:LGBmDAqz3SbREuspUmv737zWCf2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



8-0-1

Plate Offsets (X, Y):	[2:0-5-0.0-0-14].	[4:0-2-8.0-0-5]

Scale = 1:38.1

3-9-1

	(,,,,), [2:0 0 0,0 0 1.]], [0,0 0 0]												
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MP	0.38 0.29 0.06	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 2	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 35 lb	GRIP 244/190 FT = 20%	5
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 2x4 SP No.3 Structural wood shea 6-0-0 oc purlins; 4-5 Bioid ceiling directly	athing directly applie cept end verticals, ar - applied or 10-0-0 oc	3) 4) nd 5)	 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=20.0 psf (roof LL: Lum DOL=1.15) Plate DOL=1.15); Pf=20.0 psf (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 B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10 5) Unbalanced snow loads have been considered for this design. 17) In the LOAD CASE(S) section, loads applie of the truss are noted as front (F) or back (E LOAD CASE(S) Standard Dead + Snow (balanced): Lumber Increase Increase=1.15 Uniform Loads (lb/ft) Vert: 1-4=-60, 4-5=-60, 6-8=-20 Concentrated Loads (lb) Vert: 5=-18 (B)) the face
REACTIONS	(size) 2=8-0-1, 6 Max Horiz 2=124 (LC Max Uplift 2=-7 (LC (LC 14), 8 Max Grav 2=251 (LC 7=392 (LC	5=8-0-1, 7=8-0-1, 8=i C 13), 8=124 (LC 13) 14), 6=-98 (LC 10), 7 i=-7 (LC 14) C 36), 6=198 (LC 35) C 36), 8=251 (LC 36)	(8-0-1 (7=-72 8) 9) 10 10 10 10 10 10 10 10 10 10	 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 20.0 psf on overhangs non-concurrent with other live loads. 7) Provide adequate drainage to prevent water ponding. 8) Gable requires continuous bottom chord bearing. 9) Gable studs spaced at 4-0-0 oc. 10) This truss has been designed for a 10.0 psf bottom 										
FORCES	(lb) - Maximum Com Tension 1-2=0/25, 2-12=-145 3-4=-117/85, 4-13=- 5-14=-55/60, 5-6=-1	pression/Maximum 5/45, 3-12=-72/94, 55/60, 13-14=-55/60 70/126	, , 12	 11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members. 12) where the bottom chord is a statement of the bottom chord and any other members. 										
BOT CHORD WEBS	2-7=-55/71, 6-7=-55/ 3-7=-251/143	/60								\bigwedge	A.L.	ORTHESS	idina	in
 Unbalanced roof live loads have been considered for this design. Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-3-1 to 3-3-1, Exterior(2R) 3-3-1 to 5-6-11, Exterior(2E) 5-6-11 to 8-6-11 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 				 13) 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. 14) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer. 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord. 16) "NAILED" indicates 3-10d (0.148"x3") or 3-12d 								Anna Anna		

MWFRS (e zone and C-C Exterior(2E) 0-3-1 to 3-3-1, Exterior(2R) 3-3-1 to 5-6-11, Exterior(2E) 5-6-11 to 8-6-11 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

- consult qualified building designer.
- 15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 16) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

mun April 8,2021

818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	I01	Half Hip Girder	1	1	Job Reference (optional)	145552890

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:30 ID:Ud2NFIDbPtStQdU3DtrAomzWCVW-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



 3-3-8
 6-3-7
 11-5-1
 15-2-8

 3-3-8
 3-0-0
 5-1-10
 3-9-7

Plate Offsets (X, Y): [5:0-4-0,0-1-0], [8:Edge,0-4-8], [10:0-4-0,0-3-12]

Scale = 1:61.6

Loading	(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP			
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.89	Vert(LL)	0.15	10-11	>999	240	MT20	244/190			
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.94	Vert(CT)	-0.17	10-11	>999	180					
TCDL	10.0	Rep Stress Incr	NO		WB	0.74	Horz(CT)	0.04	8	n/a	n/a					
BCLL	0.0*	Code	IRC201	8/TPI2014	Matrix-MSH											
BCDL	10.0											Weight: 160 lb	> FT = 20%			
LUMBER TOP CHORD	2x4 SP No.2 *Excep	ot* 5-7:2x6 SP No.2	1) Unbalanced this design.	roof live loads have	been	considered fo	r	13) "NA (0.1	ILED" ir 48"x3.2	ndicate 5") toe	es 3-10d (0.148" -nails per NDS	x3") or 3-12d guidlines.			
BOT CHORD	2x6 SP No.2 *Excep 11-10:2x6 SP 2400F	ot* 12-4:2x4 SP No.2, F 2.0E, 6-9:2x4 SP N	, 2 0.3) Wind: ASCE Vasd=103mp	7-16; Vult=130mph h; TCDL=6.0psf; B	n (3-seo CDL=6	cond gust) 6.0psf; h=25ft;		14) Har pro	nger(s) c vided su	or othe	r connection dev t to support cond	vice(s) shall b centrated load	e d(s) 284		
WEBS	2x4 SP No.3			Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior lb down and							1681	b up at 12-4-12	, and 286 lb (down and		
BRACING				zone; cantilever left and right exposed ; end vertical left 169 lb up at 14-4-1								-12 on top chord	I, and 1230 lb	o down		
TOP CHORD	Structural wood she	athing directly applie	d or	and right exp	osed; Lumber DOL	plate grip		and	021 ID I	up at a	8-4-0 on bottom	chord. The c	design/			
	4-3-2 oc purlins, except end verticals, and DUL=1.60							1 15	roci	oneihili	Such i	bors	Je(5) 15 the			
	2-0-0 oc purlins (6-0)-0 max.): 5-7.	5	Plate DOI –1	15) Pf-20.0 psf (I		Luni DOL=	1.15	15) In t			F(S) section los	ads applied tr	the face		
BOT CHORD	2-0-0 oc purlins (6-0-0 max.): 5-7. Rigid ceiling directly applied or 6-0-0 oc bracing. 1 Douget middle 2.10 Solution Dole 1.15; Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10);	of tl	ne truss	are no	oted as front (F)	or back (B).			
WEBS	1 Row at midpt	7-10	1	Use 1.00, Cle	=1.10 snow loads have b		cidorod for th	vie	LOAD CASE(S) Standard							
WEBS	2 Rows at 1/3 pts	7-8	4	 4) Unbalanced show loads have been considered for this 1) Dead + Snow (balanced): Ludosign 									nper increase=1.15, Plate			
REACTIONS	(size) 8=0-3-8, *	14=0-3-8	5	This trues has been decigned for greater of min roof live												
	Max Horiz 14=289 (I	LC 11)	0	load of 12 0 psf or 1 00 times flat roof load of 20 0 psf on												
	Max Uplift 8=-1165 ((LC 9), 14=-594 (LC ⁻	12)	overhands non-concurrent with other live loads.								0, 12-14=-20),			
	Max Grav 8=2222 (I	LC 37), 14=1609 (LC	38) 6	i) Provide adequate drainage to prevent water ponding							20,8-	-9=-20				
FORCES	(lb) - Maximum Corr	pression/Maximum	7) This truss ha	s been designed fo	r a 10.	0 psf bottom			Vort: 5-	127 (aus (ID) E) 17-127 (E)	19_ 225 (E)	10- 245		
	Tension			chord live loa	ad nonconcurrent w	ith any	other live loa	ds.		(F) 21_	-1038	(E) 23-135 (E)) 24-30 (F),	19=-245 2542		
TOP CHORD	1-2=0/41, 2-15=-135	57/535, 15-16=-1301/	/538, 8) * This truss h	as been designed	for a liv	e load of 20.0)psf		(F)	-1000	(1), 25–100 (1)), 24=-33 (1),	23-42		
	3-16=-1284/549, 3-4	4=-1875/889,		on the botton	n chord in all areas	where	a rectangle			(•)		minin	IIIII.			
	4-5=-1856/959, 5-17	7=-964/553,		3-06-00 tall b	y 2-00-00 wide will	fit betw	veen the botto	om				IN TH CI	ARO			
	6-17=-973/557, 6-18	3=-948/542,		chord and an	y other members, v	with BC	DL = 10.0psf			~	1	A		11.		
	18-19=-948/542, 7-1	19=-948/542,	9) Provide mecl	hanical connection	(by oth	ers) of truss t	0			5.	O'.FES	SIDAN	14		
	7-8=-2100/1105, 2-1	14=-1548/604		bearing plate	capable of withsta	nding 1	165 lb uplift a	at			\mathcal{M}	rain	en	ser and a series of the series		
BOICHORD	13-14=-276/197, 12	-13=-350/231,		joint 8.								:0 T	K :			
	11-12=0/49, 4-11=-	0.21-655/1172	1	0) One RISA U	SP connectors reco	ommen	ded to conne	ct			8	OF	A 1			
	21-22=-655/1173, 2	2-23=-655/1173		truss to bear	ng walls due to UP	LIF I a	I Jt(S) 14. I NIS	torol				SEA	4L	1 -		
	10-23=-655/1173 9	-10=-56/145		forcos	for upint only and	uoes n	or consider la	lerai		=		458	44	: =		
	6-10=-683/351.9-24	4=-298/180.	1	1) This trues is	designed in accord	ancow	ith the 2018									
	24-25=-298/180, 8-2	25=-298/180	i	International	Residential Code s	ection	R502 11 1 a	nd						2. 2		
WEBS	3-13=-999/502, 11-1	13=-817/1534,		R802.10.2 ar	nd referenced stand	dard AN	ISI/TPI 1.				-7	1. ENG	-ER.	53		
	3-11=-357/652, 5-11	1=-592/1220,	1	2) Graphical pu	rlin representation of	does no	ot depict the s	ize			1	S. GIN	Fr. cl	S		
	5-10=-433/179, 8-10)=-250/344,	•	or the orienta	ation of the purlin al	ong the	top and/or	-			1	REIA	OHN.	S		
	7-10=-1118/2065, 2	-13=-423/1201		bottom chord	l.	5						The vv	101111			
NOTES													mm			

April 8,2021

Page: 1



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	102	Half Hip	1	1	Job Reference (optional)	145552891

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:30 ID:q83tXINu2CgDUAf0UqaqakzWD3S-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:67

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

												-		
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MSH	0.70 0.71 0.51	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.07 -0.14 0.12	(loc) 9-10 9-10 7	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 143 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD 1 Row at midpt WEBS REACTIONS	2x4 SP No.2 2x4 SP No.2 *Excep 2x4 SP No.3 *Excep Structural wood she 6-0-0 oc purlins, exx 2-0-0 oc purlins (6-0 Rigid ceiling directly bracing. Except: 5-9 1 Row at midpt (size) 7=0-3-8, 1 Max Horiz 12=367 (L Max Uplift 7=-152 (L Max Grav 7=615 (LC	t* 5-8:2x4 SP No.3 t* 6-7:2x4 SP No.2 athing directly applied cept end verticals, an I-0 max.): 4-6. applied or 6-0-0 oc 6-7, 4-9 12=0-3-8 LC 11) C 11), 12=-49 (LC 14 C 36), 12=775 (LC 36	2) d or d 3) 4) 4) 5)	Wind: ASCE Vasd=103mp Cat. II; Exp E zone and C-0 2-0-0 to 6-9 (2E) 12-0-12 exposed ; en members and Lumber DOL TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design. This truss ha load of 12.0 0	7-16; Vult=130mpl b; TCDL=6.0psf; E 3; Enclosed; MWFF C Exterior(2E) -1-0- 1, Exterior(2R) 6-9- to 15-0-12 zone; c d vertical left and r d forces & MWFRS =1.60 plate grip DC 7-16; Pr=20.0 psf (15); Pf=20.0 psf (15); Pf=20.0 psf (15); or f=20.0 psf (15); or f=20.0 psf (10); nough Cat f=1.10 snow loads have b s been designed for psf or 1.00 times fit	h (3-sec 3CDL=6 3CDL=6 (S (env -0 to 2- -1 to 12 antileve ight exp 5 for rea OL=1.60 (roof LL Lum DC B; Fully een cor or great	ond gust) .0psf; h=25ft elope) exterior -0, Interior (-0-12, Exterior r left and rigil cosed;C-C fo ctions showr) : Lum DOL= = bL=1.15 Plate Exp.; Ce=0.9 isidered for t er of min rool ad of 20.0 p	; or 1) or ht r h; 1.15 e 9; his f live sf on						
FORCES	(lb) - Maximum Com Tension 1-2=0/41, 2-13=-693	pression/Maximum 3/93, 13-14=-582/100	, 6) , 7)	overhangs no Provide adec This truss ha	on-concurrent with quate drainage to p s been designed fo	other liver prevent vor a 10.0	ve loads. water pondin) psf bottom	g.						
BOT CHORD WEBS	$\begin{array}{l} 14-15=-552/117, 3-1\\ 3-16=-430/128, 4-16\\ 4-5=-233/160, 5-17=\\ 6-17=-238/167, 6-7=\\ 11-12=-351/276, 10-\\ 3-10=-25/153, 9-10=\\ 5-9=-269/123, 7-8=-\\ 3-9=-453/188, 4-9=-\\ 6-9=-174/579, 2-11=\\ \end{array}$	1546//123, 5311/159, 338/167, 590/174, 2-12=-736 -11=-66/59, -206/571, 8-9=-28/8 ⁻ 42/16 112/103, 7-9=-166/2 ⁻ 0/423	8) /131 I, 9) I5,	chord live loa * This truss h on the bottom 3-06-00 tall b chord and an One RT7A U truss to beari This connect lateral forces	ad nonconcurrent w has been designed in chord in all areas y 2-00-00 wide will by other members. SP connectors rec ing walls due to UP ion is for uplift only	vith any for a liv s where I fit betv commen PLIFT at r and do	other live loa e load of 20. a rectangle veen the bott ded to conne jt(s) 7 and 1 es not consid	ads. Opsf om ect 2. der		(2	OR FESS	ROLIN	
NOTES 1) Unbalance this design	d roof live loads have	been considered for	10) This truss is International R802.10.2 ar) Graphical pu	designed in accord Residential Code s nd referenced stand rlin representation	lance w sections dard AN does no	ith the 2018 R502.11.1 a ISI/TPI 1. ot depict the s	and		THUR.		4584	4	unun

or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	103	Half Hip	1	1	Job Reference (optional)	145552892

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:31 ID:X3gfdjV9iGxohiQx3wmA_rzWD3I-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:76.3

Plate Offsets ((X, Y): [2:0-2-0,0-1-12]], [4:0-2-1,Edge], [6:0-	-4-0,0-1-	6], [7:Edge,0-2	-0], [10:0-2-4,0-2-0]								
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MSH	0.51 0.69 0.59	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.07 -0.14 0.12	(loc) 10-11 10-11 8	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 156 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD 1 Row at midp WEBS REACTIONS FORCES TOP CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Except 2.0E, 10-6,8-6:2x4 S Structural wood shee 6-0-0 oc purlins, exc 2-0-0 oc purlins, exc 2-0-0 oc purlins (6-0- Rigid ceiling directly bracing. Except: 5-10 1 Row at midpt (size) 8=0-3-8, 1 Max Horiz 13=439 (L Max Uplift 8=-171 (LG Max Grav 8=731 (LC (lb) - Maximum Com Tension 1-2=0/41, 2-14=-661 3-15=-471/119, 15-1 16-17=-330/139, 4-1	t* 7-8:2x4 SP 2400F P No.2 athing directly applied cept end verticals, and -0 max.): 6-7. applied or 6-0-0 oc 7-8, 6-8 3=0-3-8 .C 11) C 11), 13=-29 (LC 14 C 10), 13=745 (LC 36) pression/Maximum /85, 3-14=-560/114, 6=-367/137, 7=-281/152, 366/270, 6-7=-192/20	2) I or d 3) 4) 5)) 6) 7) 8) 9,	Wind: ASCE Vasd=103mp Cat. II; Exp E zone and C-1 2-0-0 to 9-5- 13-8-0 to 15- exposed ; en members an Lumber DOL TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct= Unbalanced design. This truss ha load of 12.0 overhangs n Provide aded This truss ha chord live loa * This truss ha on the bottor 3-06-00 tall b	7-16; Vult=130mp bh; TCDL=6.0psf; 1 3; Enclosed; MWFI C Exterior(2E) -1-0 1, Exterior(2R) 9-5 0-12 zone; cantile d vertical left and d forces & MWFR =1.60 plate grip D ; 7-16; Pr=20.0 psf (15); Pf=20.0 psf (15)	h (3-sec BCDL=6 RS (env -1 to 13 ver left a right exp S for read OL=1.60 (roof LL Lum DC B; Fully been cor or great at roof li other li orevent to or a 10.0 vith any for a liv s where lift better	and gust) .0psf; h=25ft; elope) exterior -0, Interior (' -8-0, Exterior ctions shown): Lum DOL=: DL=1.15 Plate Exp.; Ce=0.5 asidered for the er of min roof pad of 20.0 psi ve loads. water ponding D psf bottom other live load e load of 20.0 cs ve loads. water ponding D psf bottom other live load e load of 20.0 gs ve loads. water ponding D psf bottom other live load e load of 20.0 gs ve load of 20.0 gs ve loads. water bottom other live load e load of 20.0 gs ve load of 20.0 gs ve loads. water bottom other live load b load of 20.0 gs ve load of 20.0 gs ve load of 20.0 gs ve load of 20.0 gs ve load of bottom other live load bottom	; or (2E) ; ; 1.15 ; ; ; ive sf on g. ds.)psf om				WITH CA	Roring	
BOT CHORD	7-8=-199/201, 2-13= 12-13=-421/319, 11- 3-11=-32/153, 10-11 5-10=-384/179, 8-9=	-705/124 12=-78/59, =-225/585, 9-10=-45/ -57/29	9) ′97,	Chord and an One RT7A U truss to bear This connect	ity other members. ISP connectors rec ing walls due to UI ion is for uplift only	commen PLIFT at and do	ded to conne jt(s) 8 and 1 es not consid	ct 3. Ier		6	kin	NICE SS	binto	
WEBS NOTES 1) Unbalance this design	3-10=-418/199, 8-10 6-10=-275/825, 6-8= ed roof live loads have n.	=-199/275, -749/266, 2-12=-7/45 been considered for	5 10 11 L0	 Internal forces This truss is International R802.10.2 ar Graphical pu or the orienta bottom chore CASE(S) 	i. designed in accord Residential Code nd referenced stan rlin representation ation of the purlin a d. Standard	dance w sections dard AN does no long the	ith the 2018 R502.11.1 a ISI/TPI 1. ot depict the s top and/or	ind size		111111	N. M. M.	SEA 4584	4 ER.ON	William .
												Api	il 8,2021	



April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	104	Monopitch	1	1	Job Reference (optional)	145552893

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:31 ID:h4p6kkKxbAQbmgJvn4y2TBzWD?e-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Page: 1



Scale = 1:85.5

REACTIONS (size)

FORCES

TOP CHORD

BOT CHORD

WEBS

NOTES

2)

7=0-3-8, 9=0-3-8

Max Grav 7=859 (LC 23), 9=749 (LC 28)

(Ib) - Maximum Compression/Maximum

1-2=-733/125, 2-3=-224/23, 3-4=-97/138, 4-5=-17/0, 7-10=-310/111, 4-10=-310/111,

2-8=0/342, 2-7=-717/194, 1-8=-57/477,

Max Horiz 9=469 (LC 13)

Max Uplift 7=-204 (LC 14)

8-9=-456/348, 8-11=-180/523, 7-11=-180/523, 6-7=0/0

Tension

1-9=-642/105

2-10=-218/237

DOL=1.60 plate grip DOL=1.60

Cs=1.00; Ct=1.10

1) Wind: ASCE 7-16; Vult=130mph (3-second gust)

Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior

zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior (1)

3-1-12 to 15-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber

TCLL: ASCE 7-16; Pr=20.0 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 B; Fully Exp.; Ce=0.9;

Plate Offsets (>	K, Y): [1:0-2-0,0-1-12]	, [3:0-2-8,Edge]												
Loading	(psf)	Spacing	2-0-0		CSI	0.01	DEFL	in 0.11	(loc)	l/defl	L/d	PLATES	GRIP	
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.91	Vert(CT)	-0.17	7-8 7-8	>999	180	WI120	244/190	
TCDL	10.0	Rep Stress Incr	YES		WB	0.36	Horz(CT)	-0.01	7	n/a	n/a			
BCLL BCDL	0.0* 10.0	Code	IRC201	3/TPI2014	Matrix-MSH							Weight: 120 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD WEBS JOINTS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 *Except Structural wood shee 2-2-0 oc purlins, exc Rigid ceiling directly bracing. 1 Row at midpt 1 Brace at Jt(s): 10	t* 4-7,7-2:2x4 SP N athing directly applic cept end verticals. applied or 8-7-7 oc 7-10, 2-7	3) 4) 0.2 5) ed or 6)	Unbalanced design. This truss h chord live lo * This truss on the botto 3-06-00 tall chord and a One RT7A the truss to beat connection i forces	snow loads have as been designed ad nonconcurrent has been designe m chord in all area by 2-00-00 wide w ny other members JSP connectors re ring walls due to U is for uplift only an	been cor for a 10.0 with any d for a liv as where vill fit betw s, with BC ecommen JPLIFT at d does no	sidered for the opsilon of the side of the other live load of 20.0 a rectangle veen the botti DL = 10.0psi ded to conne jt(s) 7. This ot consider la	his Ids. Dpsf om f. ect teral						

This truss is designed in accordance with the 2018 7) International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	HJ01	Diagonal Hip Girder	1	1	Job Reference (optional)	145552894

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:28 ID:q2oP9qsPEzo?RAmU0HqN7ezWCVz-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1





Scale = 1:62.5

Plate Offsets (X, Y): [6:Edge,0-3-12]	, [7:0-5-4,0-3-12]												
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC2018	5/TPI2014	CSI TC BC WB Matrix-MSH	0.32 0.19 0.50	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.01 -0.01 -0.01	(loc) 8-9 8-9 6	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 96 lb	GRIP 244/190 FT = 20%	,
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x6 SP No.2 *Excep 2x4 SP No.3 Structural wood shea 6-0-0 oc purlins, exc Rigid ceiling directly bracing, Except: 6-0-0 oc bracing: 9-1 (size) 6= Mecha Max Horiz 10=252 (L Max Uplitt 6=-675 (L) Max Grav 6=1073 (L	t* 8-4:2x4 SP No.3 athing directly applie cept end verticals. applied or 10-0-0 oc 0. nical, 10=0-4-13 C 9), 10=-363 (LC 8) C 92), 10=-767 (LC 2)	2) 3) d or 4) 5) 6)	TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design. This truss ha load of 12.0 µ overhangs nu This truss ha load of 12.0 µ overhangs nu This truss ha chord live loa * This truss h on the bottom 3-06-00 tall b	7-16; Pr=20.0 psf .15); Pf=20.0 psf (is=1.0; Rough Cat =1.10 snow loads have b is been designed for psf or 1.00 times file on-concurrent with is been designed for ad nonconcurrent v has been designed in chord in all areas y 2-00-00 wide will we other members	(roof LL Lum DC B; Fully eeen cor or greate at roof lo other list or a 10.0 vith any for a liv s where I fit betw	:: Lum DOL= =1.15 Plate Exp.; Ce=0.9 nsidered for the er of min roof bad of 20.0 ps re loads. 0 psf bottom other live loa e load of 20.0 a rectangle veen the botto	I.15); live sf on ds. lpsf	1) De Inc Ur Cc	ead + Sn crease=' hiform Lc Vert: 1-2 Oncentra Vert: 5= 11=28 (I 16=-1 (F	ow (ba 1.15 bads (II 2=-60, ted Loa -142 (I F), 12= F), 18=	alanced): Lumbe b/ft) 2-5=-60, 8-10=-2 ads (Ib) F), 6=-139 (F), 8a -20 (B), 13=-36 0 (F), 19=-21 (B)		.15, Plate .133 (F), ; (B),
FORCES TOP CHORD	(lb) - Maximum Com Tension 2-10=-694/321, 1-2= 11-12=-522/322, 3-1	pression/Maximum 0/56, 2-11=-571/331 2=-459/298	7) 8)	 chord and any other members. 7) Refer to girder(s) for truss to truss connections. 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 675 lb uplift at 										
BOT CHORD WEBS NOTES 1) Wind: ASC Vasd=103 Cat. II; Exj	3-13=-511/295, 13-1 4-14=-310/199, 4-15 5-6=-199/117 10-16=-240/153, 16- 9-17=-240/153, 9-18 8-19=-39/51, 7-8-1° 6-7=-251/345 2-9=-328/542, 3-9=- 3-7=-149/164, 4-6=- CE 7-16; Vult=130mph mph; TCDL=6.0psf; BG p B; Enclosed; MWFRS	4=-424/268, =-108/60, 5-15=-76// 17=-240/153, =-39/51, 18-19=-39// 13/150, 4-7=-325/39: 217/28, 7-9=-339/420 768/501 (3-second gust) DDL=6.0psf; h=25ft; 5 (envelope) exterior	9) 51, 10) 5, 11) 0, 11) 12)	 One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10. This connection is for uplift only and does not consider lateral forces. 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. "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines. Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 212 Ib down and 141 Ib up at 6-7-4, and 169 Ib down and 132 Ib up at 7-0-6 on top chord. The design/selection of 										
zone; cant and right e DOL=1.60	ilever left and right exp exposed; Lumber DOL= I	oosed ; end vertical le =1.60 plate grip	eft 13) LO	such connec In the LOAD of the truss a AD CASE(S)	tion device(s) is the CASE(S) section, ire noted as front (Standard	e respoi loads a _l F) or ba	nsibility of oth oplied to the f ck (B).	ers. ace			The second se	NOREW J	EER.	Antin

April 8,2021

818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	CJ03	Jack-Open	1	1	Job Reference (optional)	145552895

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:14 ID:xbMNf2xYaRWr2GPamOWqTLzWDBn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1





Scale = 1:45.9

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TF	PI2014	CSI TC BC WB Matrix-MP	0.20 0.01 0.18	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.00 -0.01	(loc) 5 4-5 3	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 13 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD 30T CHORD WEBS BRACING TOP CHORD 30T CHORD REACTIONS	$\begin{array}{c} 2x4 \text{ SP No.2} \\ 2x4 \text{ SP No.2} \\ 2x4 \text{ SP No.3} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	athing directly applie cept end verticals. applied or 10-0-0 oc nical, 4= Mechanica 11) : 20), 4=-128 (LC 11) : 12) 10), 4=123 (LC 12), 21)	5) Ti ct or 3. dor 7) R 8) P b b b b b b b b b b b b b b b b b b b	his truss has hord live loa This truss h n the bottom -06-00 tall b hord and an tefer to girde rovide mech earing plate onint 4 and 29 he RT7A U: uss to beari onnection is prces. his truss is o tternational 2802.10.2 an	s been designed for d nonconcurrent v as been designed n chord in all areas y 2-00-00 wide wil y other members. er(s) for truss to tru- nanical connection capable of withsta 0 lb uplift at joint 3. SP connectors rec- ng walls due to UF for uplift only and designed in accord Residential Code stan	or a 10.0 vith any for a liv s where I fit betw uss conr (by oth anding 1 commen PLIFT at does no lance wisections dard AN) psf bottom other live loa e load of 20. a rectangle veen the bott ections. ers) of truss 28 lb uplift a ded to conne jt(s) 5. This ot consider la th the 2018 R502.11.1 a ISI/TPI 1.	ads. .0psf tom to tt ect ateral and						
TOP CHORD	(Ib) - Maximum Com Tension 2-5=-319/107, 1-2=0	pression/Maximum 1/76, 2-3=-76/42	LOAD	D CASE(S)	Standard									
BOT CHORD	4-5=-247/51													
	2-4=-124/597													
1) Wind: AS(Vasd=103 Cat. II; Ex zone and exposed ; members Lumber D	CE 7-16; Vult=130mph Bmph; TCDL=6.0psf; B(p B; Enclosed; MWFR; C-C Exterior(2E) zone; end vertical left and rig and forces & MWFRS OL=1.60 plate grip DO	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior ; cantilever left and ri ght exposed;C-C for for reactions shown; L=1.60	ght							Û	City.	ORTH CA	ROLIN	
2) TCLL: AS Plate DOL DOL=1.15 Cs=1.00;	CE 7-16; Pr=20.0 psf (_=1.15); Pf=20.0 psf (L 5); Is=1.0; Rough Cat B Ct=1.10	roof LL: Lum DOL=1 um DOL=1.15 Plate ;; Fully Exp.; Ce=0.9	.15 ;							11111		4584	4	ann a
 Unbalance design. This truss load of 12 	ed snow loads have be has been designed for .0 psf or 1.00 times flat	en considered for th greater of min roof l t roof load of 20.0 ps	is live f on								The second second	REW J	ER.ON	
overnangs	s non-concurrent with c	nner live loads.										- annin	1. Contraction	

818 Soundside Road Edenton, NC 27932

April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	CJ04	Jack-Open	1	1	Job Reference (optional)	145552896

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:14 ID:6jXXzp3S_pvHsylhvCDPQfzWDBc-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:36.3

Plate Offsets (X, Y): [4:Edge,0-1-8]

	, .	• •												
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MP	0.17 0.07 0.13	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.00 0.00	(loc) 4-5 4-5 3	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 20 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD 30T CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP N 2x4 SP N 2x4 SP N Structural 2-8-1 oc p Rigid ceili bracing. (size) Max Horiz Max Uplift	0.2 0.2 0.3 I wood she purlins, ex ing directly 3= Mecha 5=0-3-8 5=113 (L0 3=-62 (L0 2=-06 (J	athing directly applie cept end verticals. applied or 10-0-0 oc anical, 4= Mechanical C 11) C 14), 4=-85 (LC 14)	4) 5) d or 6) I, 7) 8) 9)	This truss ha load of 12.0 overhangs n This truss ha chord live loa * This truss f on the bottor 3-06-00 tall f chord and ar Refer to gird Provide mec bearing plate 3 and 85 lb u This truss is	as been designed for psf or 1.00 times fit on-concurrent with as been designed for ad nonconcurrent with the been designed in chord in all areas by 2-00-00 wide with the other members. er(s) for truss to tru- hanical connection a capable of withsta uplift at joint 4.	or great at roof I other Ii or a 10. vith any for a Iiv s where I fit betv uss coni (by oth anding 6 dance w	er of min roof bad of 20.0 p ve loads. D psf bottom other live loa e load of 20.1 a rectangle veen the bott nections. ers) of truss t i2 lb uplift at j ith the 2018	f live sf on dds. Opsf om to ioint					
FORCES	(lb) - Max	5=275 (L(imum Com	C 21) pression/Maximum	L	R802.10.2 a	Residential Code s nd referenced stan Standard	dard Al	ISI/TPI 1.	and					
TOP CHORD	2-5=-250/ 2-3=-105/	/56, 1-6=0/ /66	16, 2-6=0/72,											
3OT CHORD WEBS	4-5=-317/ 2-4=-109/	/81 /425												90.
NOTES I) Wind: ASG Vasd=103 Cat. II; Ex zone and exposed ;	CE 7-16; Vu 3mph; TCDL p B; Enclose C-C Exterio end vertica	It=130mph =6.0psf; B ed; MWFR r(2E) zone I left and rig	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior ; cantilever left and ri ght exposed;C-C for	ght							6	tic	ORTH CA	ROUNT

- members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 2) TCLL: ASCE 7-16; Pr=20.0 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 B; Fully Exp.; Ce=0.9;
- Cs=1.00; Ct=1.10 3) Unbalanced snow loads have been considered for this design.

SEAL 45844 MONEEER CONTINUE April 8,2021



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	CJ05	Jack-Open	1	1	Job Reference (optional)	145552897

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:14 ID:pe7J3EBkduAt3UWcUIOIqmzWDBS-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

Pi



Scale = 1:41.7

Plate Offsets (X, Y): [4:Edge,0-1-8]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	18/TPI2014	CSI TC BC WB Matrix-MP	0.52 0.19 0.13	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.02 -0.03 -0.01	(loc) 4-5 4-5 3	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 27 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP N 2x4 SP N 2x4 SP N Structural 4-2-1 oc µ Rigid ceil bracing. (size) Max Horiz Max Uplift Max Grav	0.2 0.2 0.3 I wood she burlins, ex ing directly 3= Mecha 5=0-3-8 5=153 (L0 3=-113 (L 3=208 (L0 5=337 (L0	athing directly applie cept end verticals. applied or 9-5-12 oc nical, 4= Mechanica C 14) C 14), 4=-70 (LC 14) C 21), 4=91 (LC 12), C 21)	2 d or 6 : I, 7 8	 this truss has load of 12.0 overhangs in load of 12.0 overhangs in 50 This truss has chord live loo 50 * This truss loon the botton 3-06-00 tall li chord and ai 70 Refer to gird and ai 30 Provide mee bearing plate 3 and 70 lb or 50 This truss is linternational 8802 10.2 a 	as been designed for psf or 1.00 times fla on-concurrent with as been designed for ad nonconcurrent w has been designed m chord in all areas by 2-00-00 wide will ny other members. er(s) for truss to tru- hanical connection e capable of withsta uplift at joint 4. designed in accord Residential Code s of a for proceed stam	or greate at roof le other liv or a 10.0 vith any for a liv where l fit betv ss conr (by oth inding 1 ance w sections	er of min roo bad of 20.0 p ve loads. D psf bottom other live load e load of 20. a rectangle veen the bott nections. ers) of truss 13 lb uplift a ith the 2018 ith the 2018 R502.11.1 t	f live ssf on ads. Opsf tom to to ti joint						
FORCES	(lb) - Max Tension 2-5=-297/	imum Com (29, 1-2=0/-	pression/Maximum 49, 2-3=-174/117	I	-OAD CASE(S)	Standard		O /1111.							
BOT CHORD WEBS	4-5=-382/ 2-4=-133/	'116 '438													
NOTES 1) Wind: ASC Vasd=103 Cat. II; Exp	CE 7-16; Vu mph; TCDL o B; Enclose	lt=130mph =6.0psf; B ed; MWFR	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior	ſ							\int	A. M.	OP. FESS	ROLIN	

- Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 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) TCLL: ASCE 7-16: Pr=20.0 psf (roof LL: Lum DOL=1.15)
- TCLL: ASCE 7-16; Pf=20.0 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 B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.

SEAL 45844 April 8,2021

> ENGINEERING BY EREPACE AMITEK Affiliate 818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	CJ06	Jack-Open	1	1	Job Reference (optional)	145552898

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:14 $ID: Lj5MQiNmspBb_ykhQfhVT8zWDBC-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f$

Page: 1



Scale = 1:47.4

Loading TCLL (roof)		(psf) 20.0	Spacing Plate Grip DOL	2-0-0 1.15		CSI TC	0.41	DEFL Vert(LL)	in 0.02	(loc) 7	l/defl >999	L/d 240	PLATES MT20	GRIP 244/190	
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.90	Vert(CT)	-0.03	5-6	>999	180			
TCDL		10.0	Rep Stress Incr	YES		WB	0.13	Horz(CT)	-0.06	5	n/a	n/a			
BCLL		0.0*	Code	IRC201	8/TPI2014	Matrix-MP									
BCDL		10.0											Weight: 42 lb	FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP N 2x4 SP N 2x4 SP N Structural 5-8-1 oc p Rigid ceili bracing. (size) Max Horiz Max Uplift	0.2 0.2 *Excep 0.3 wood shea ourlins, exc ng directly 4= Mecha 8=0-3-8 8=208 (LC 4=-105 (L	t* 7-3:2x4 SP No.3 athing directly applie cept end verticals. applied or 6-0-0 oc nical, 5= Mechanical C 14) C 14), 5=-113 (LC 14	4; 5; d or 6; i, 7; 8;	This truss ha load of 12.0 overhangs n This truss ha chord live loa * This truss f on the bottor 3-06-00 tall b chord and ar Refer to gird Provide mec bearing plate joint 4 and 1	s been designed for psf or 1.00 times fit on-concurrent with is been designed for ad nonconcurrent v has been designed in chord in all areas by 2-00-00 wide will by 0ther members. er(s) for truss to tru- hanical connection is capable of withsta 13 lb uplift at joint for designed in accorre	or great at roof k other liv or a 10. vith any for a liv for a liv s where Il fit betw uss conr (by oth anding 1 5.	er of min rool bad of 20.0 p ve loads. D psf bottom other live loa e load of 20.1 a rectangle veen the bott nections. ers) of truss 1 05 lb uplift ar	f live isf on ads. 0psf om to t						
	Max Grav	4=184 (LC 8=368 (LC	C 21), 5=154 (LC 21) C 21)	, 9, ,	International R802.10.2 a	Residential Code	sections	ith the 2018 R502.11.1 a ISI/TPI 1.	and						
FORCES	(lb) - Max Tension	imum Com	pression/Maximum	L	DAD CASE(S)	Standard									
TOP CHORD	2-8=-353/ 3-4=-179/	0, 1-2=0/49 99	9, 2-3=-152/8,												
BOT CHORD	7-8=-439/ 5-6=-372/	148, 6-7=-2 215	241/15, 3-6=-217/56											<u>п</u> п	
WEBS	2-7=0/301	l, 3-5=-261	/450										White CA	Dille	
NOTES											1	1.5	ath	10/11	
 Wind: ASC Vasd=103 Cat. II; Exp zone and 0 exposed; members; Lumber D 	CE 7-16; Vu mph; TCDL p B; Enclose C-C Exterio end vertical and forces & OL=1.60 pla	It=130mph =6.0psf; B(ed; MWFR r(2E) zone; l left and rig & MWFRS ate grip DO	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior c cantilever left and ri ght exposed;C-C for for reactions shown; L=1.60	ght							0	Eve	0) (FESS SEA 4584	L 14	
2) TCLL: AS(Plate DOL DOL=1.15 Cs=1 00: (CE 7-16; Pr =1.15); Pf=); Is=1.0; R Ct=1 10	=20.0 psf (20.0 psf (L ough Cat B	roof LL: Lum DOL=1 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9;	.15								T	NGIN	EER. O	inne.
 Unbalance design. 	ed snow loa	ds have be	en considered for thi	S								1	REW J	OHN	

818 Soundside Road Edenton, NC 27932

munin

April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	CJ01	Jack-Open	1	1	Job Reference (optional)	145552899

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:13 ID:e_vldreVE3VF9aazML5CVHzWDC9-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

Pa



Scale = 1:34.2

Plate Offsets (X, Y): [4:Edge,0-1-8]

															_
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC20	18/TPI2014	CSI TC BC WB Matrix-MP	0.15 0.09 0.08	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.00 -0.01 0.00	(loc) 4-5 4-5 3	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 19 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP N 2x4 SP N 2x4 SP N Structural 2-10-12 o Rigid ceili bracing. (size) Max Horiz Max Uplift Max Grav	0.2 0.2 0.3 wood she c purlins, - ng directly 3= Mecha 5=0-3-8 5=94 (LC 3=-52 (LC 3=108 (LC 5=296 (LC	athing directly applie except end verticals. applied or 10-0-0 oc nical, 4= Mechanica 11) 14), 4=-48 (LC 14) 2 21), 4=70 (LC 12), 2 21)	ed or	 This truss ha load of 12.0 overhangs n This truss ha chord live lo. * This truss l on the botton 3-06-00 tall l chord and ai Refer to girld B Provide mec bearing plate 3 and 48 lb i This truss is International R802.10.2 a 	as been designed fc psf or 1.00 times fle on-concurrent with as been designed fc ad nonconcurrent w has been designed m chord in all areas by 2-00-00 wide will ny other members. er(s) for truss to tru hanical connection e capable of withsta uplift at joint 4. designed in accord Residential Code s nd referenced stam	r great at roof lo other li or a 10.1 ith any for a liv where fit betw ss conr (by oth nding 5 ance w ections dard AN	er of min roo' ad of 20.0 p ve loads.) psf bottom other live loa e load of 20. e load of 20. a rectangle veen the bott nections. ers) of truss 2 lb uplift at ith the 2018 R502.11.1 a (SI/TPI 1.	f live Isf on ads. Opsf oom joint						_
FORCES TOP CHORD BOT CHORD	(lb) - Max Tension 2-5=-269/ 4-5=-226/	imum Com 13, 1-2=0/0 70	pression/Maximum 68, 2-3=-94/49	I	OAD CASE(S)	Standard									
NOTES NOTES 1) Wind: ASC Vasd=103 Cat. II; Exp	2-4=-87/2 CE 7-16; Vu mph; TCDL o B; Enclose	/9 lt=130mph =6.0psf; B0 ed; MWFR:	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior	r							A	and a start	OP TESS	ROLIN	

- Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15
- TCLL: ASCE 7-16; Pr=20.0 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 B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.

SEAL 45844 April 8,2021

> ENGINEERING BY AMITEK AMILA B18 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	CJ02	Jack-Open	1	1	Job Reference (optional)	145552900

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:13 ID:LvW4jGmmt8mqM6LuxSGYvOzWDC?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:41

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MP	0.93 0.37 0.10	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.05 -0.10 -0.01	(loc) 4-5 4-5 3	l/defl >999 >629 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 32 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS FORCES TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shea 2-2-0 oc purlins, exc Rigid ceiling directly bracing. (size) $3=$ Mecha 5=0-3-8 Max Horiz $5=149$ (LC Max Grav $3=266$ (LC (lb) - Maximum Com Tension 2-5=-314/0, 1-2=0/4' 3-6=-124/126 4-5=-310/114	athing directly applie cept end verticals. applied or 10-0-0 oc nical, 4= Mechanica 2 14) 2 14, 4=-27 (LC 14) 2 21), 4=108 (LC 7), 2 21) pression/Maximum 1, 2-6=-144/41,	5) 6) (1, 8) (1, 9) (1, 9)	This truss ha chord live loa * This truss h on the bottom 3-06-00 tall b chord and an Refer to girdd Provide mecl bearing plate 3 and 27 lb u This truss is International R802.10.2 ar	s been designed for ad nonconcurrent w has been designed in chord in all areas y 2-00-00 wide will yo other members. er(s) for truss to tru- hanical connection capable of withsta plift at joint 4. designed in accord Residential Code s and referenced stand Standard	or a 10.0 vith any for a liv where I fit betw uss conr (by oth anding 1 dance w sections dard AN) psf bottom other live loa e load of 20.1 a rectangle veen the bott ections. ers) of truss t 17 lb uplift at th the 2018 R502.11.1 a ISI/TPI 1.	ads. Opsf om to t joint and					
WEBS	2-4=-122/330												
NOTES		<i>(</i> 										mun	11m
 Wind: ASC Vasd=103 Cat. II; Exp zone and (exposed; members a Lumber D0 TCLL: ASC Plate DOL D0L=1.15 Cs=1.00; (3) Unbalance 	CE 7-16; Vult=130mph mph; TCDL=6.0psf; BG o B; Enclosed; MWFRS C-C Exterior(2E) zone; end vertical left and rig and forces & MWFRS OL=1.60 plate grip DO CE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L); Is=1.0; Rough Cat B Ct=1.10 ad snow loads have be	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior cantilever left and ri pht exposed;C-C for for reactions shown; L=1.60 roof LL: Lum DOL=1 Jum DOL=1.15 Plate ; Fully Exp.; Ce=0.9; en considered for thi	ght .15 s							O Think the	S. T.	SEA 4584	North Contraction

design.

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. April 8,2021



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	EJ01	Jack-Open	2	1	Job Reference (optional)	145552901

Run: 8,43 S Mar 22 2021 Print: 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:22 ID:Yp3D_PnzEe7VkNtk1FExVuzWD86-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:51.5

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MP	0.47 0.97 0.15	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.02 -0.05 -0.07	(loc) 7 5-6 5	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 43 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 *Excep 2x4 SP No.3 Structural wood shea 6-0-0 oc purlins, exc Rigid ceiling directly bracing. (size) 4= Mecha 8=0-3-8 Max Horiz 8=220 (LC Max Uplift 4=-113 (L Max Grav 4=197 (LC 8=371 (LC	t* 7-3:2x4 SP No.3 athing directly applie cept end verticals. applied or 6-0-0 oc nical, 5= Mechanical C 14), C 14), 5=-114 (LC 14 C 14), 5=-119 (LC 24) C 14), 5=159 (LC 24)	4) 5) d or 6) I, 7) 8) 4) 9)	This truss ha load of 12.0 p overhangs nd This truss ha chord live loa * This truss h on the bottom 3-06-00 tall b chord and ar Refer to girdd Provide mecl bearing plate 4 and 114 lb This truss is International R802.10.2 ar	s been designed f bsf or 1.00 times fl on-concurrent with s been designed f id nonconcurrent v as been designed n chord in all areas y 2-00-00 wide wi y other members. er(s) for truss to tru- nanical connection capable of withsta uplift at joint 5. designed in accord Residential Code nd referenced stan	or great at roof lo or a 10.0 with any for a liv s where Il fit betw uss conr o (by oth anding 1 dance w sections odard AN	er of min roof pad of 20.0 p ve loads.) psf bottom other live load e load of 20.0 a rectangle veen the bott nections. ers) of truss t 13 lb uplift al ith the 2018 k R502.11.1 a ISI/TPI 1.	f live sf on ds. Dpsf om t joint						
FORCES	(lb) - Maximum Com Tension	pression/Maximum	LC	DAD CASE(S)	Standard									
TOP CHORD	2-8=-356/0, 1-2=0/49 3-9=-177/32, 4-9=-14	9, 2-3=-150/4, 47/106												
BOT CHORD	7-8=-451/154, 6-7=-2 5-6=-399/234	229/6, 3-6=-203/50,												
WEBS	2-7=0/286, 3-5=-277	/472											11.	
NOTES											4	WH CA	ROUL	
 Wind: ASI Vasd=100 Cat. II; Exz zone and exposed ; members Lumber D TCLL: AS Plate DOI DOL=1.15 Cs=1.00; Unbalanci design. 	CE 7-16; Vult=130mph mph; TCDL=6.0psf; B(p; B; Enclosed; MWFR3; C-C Exterior(2E) zone; end vertical left and rig and forces & MWFRS IOL=1.60 plate grip DO CE 7-16; Pr=20.0 psf (L L=1.15); Pf=20.0 psf (L 5); Is=1.0; Rough Cat B Ct=1.10 ed snow loads have be	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior; cantilever left and ri jht exposed;C-C for for reactions shown; L=1.60 roof LL: Lum DOL=1 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; en considered for thi	ght .15 is								Oto Marine	SEA 4584 SEA 4584 SNGINI	L L EEP.CO	A STANDARD AND AND AND AND AND AND AND AND AND AN

818 Soundside Road Edenton, NC 27932

100000 April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	EJ02	Jack-Open	2	1	Job Reference (optional)	145552902

Run: 8,43 S Mar 22 2021 Print: 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:23 ID:G?BQee6utxXgTXRx6PDG5bzWD7h-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:49.3

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MP	0.81 0.44 0.14	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.07 -0.14 -0.01	(loc) 4-5 4-5 3	l/defl >997 >499 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 36 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No 2x4 SP No 2x4 SP No 2-2-0 oc pu Rigid ceilin bracing. (size) Max Horiz 4 Max Uplift 5 Max Grav 5	.1 .2 .3 wood shea urlins, exc g directly 3= Mecha 5=0-3-8 5=220 (LC 3=-172 (LC 5=369 (LC 5=369 (LC	athing directly applie cept end verticals. applied or 8-6-10 oc nical, 4= Mechanical (2 14) (2 14), 4=-55 (LC 14) (2 21), 4=117 (LC 7), 221)	5; 6; d or 7; ; 8; ^{I,} 9;) L	This truss ha chord live loa * This truss h on the bottor 3-06-00 tall chord and ar Refer to gird Provide mec bearing plate joint 3 and 55 This truss is International R802.10.2 ar	s been designed for ad nonconcurrent w has been designed in chord in all areas by 2-00-00 wide will by other members. er(s) for truss to tru- hanical connection capable of withsta 5 lb uplift at joint 4. designed in accord Residential Code end referenced stan Standard	or a 10.0 vith any for a liv s where I fit betv uss conr (by oth anding 1 dance w sections dard AN	D psf bottom other live loa e load of 20. a rectangle veen the bott nections. ers) of truss 72 lb uplift a ith the 2018 i R502.11.1 a ISI/TPI 1.	ads. Opsf tom to t					
FORCES	(lb) - Maxir	num Com	pression/Maximum											
TOP CHORD	2-5=-311/9 3-6=-217/1	, 1-2=0/49 63	9, 2-6=-243/86,											
BOT CHORD WEBS	4-5=-451/1 2-4=-166/4	54 83												
NOTES	2													10.
 Wind: ASC Vasd=103 Cat. II; Exj zone and exposed; members : Lumber D0 TCLL: ASC Plate DOL DOL=1.15 Cs=1.00; (Unbalance design. This truss load of 12. overhangs 	CE 7-16; Vult mph; TCDL= p B; Enclosec C-C Exterior(end vertical I and forces & OL=1.60 plat CE 7-16; Pr= =1.15); Pf=2: i); Is=1.0; Roi Ct=1.10 ed snow load has been de .0 psf or 1.00 s non-concurr	=130mph 6.0psf; BG d; MWFRS 2E) zone; eft and rig MWFRS f e grip DO 20.0 psf (r 0.0 psf (LL ugh Cat B s have be signed for times flat ent with o	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior cantilever left and ri iht exposed;C-C for for reactions shown; L=1.60 roof LL: Lum DOL=1 im DOL=1.15 Plate ; Fully Exp.; Ce=0.9; en considered for thi greater of min roof I roof load of 20.0 psi ther live loads.	ight .15 ;; is live f on							Commun.	A A A A A A A A A A A A A A A A A A A	SEA 4584	HOLIN KING

818 Soundside Road Edenton, NC 27932

April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	D05	Hip Girder	1	1	Job Reference (optional)	145552903

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:20 ID:3krOSDMZhz8BWfDH3?hSsPzWCeM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



	4-4-0	8-2-9	13-9-0	17-11-0 ¹⁸⁻²⁻⁸
	4-4-0	3-10-9	5-6-7	4-2-0 0-3-8
Scale = 1:57.3				000
Plate Offsets (X, Y): [2:0-8-0,0-0-14], [4:0-5-3,Edge], [5:0-3-	3,Edge], [8:Edge,0-4-	0], [11:0-3-8,0-4-4]		

Loading	(psf)	Spacing	2-0-0		csi		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.72	Vert(LL)	-0.06	11-12	>999	240	MT20	244/190		
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.50	Vert(CT)	-0.09	11-12	>999	180				
TCDL	10.0	Rep Stress Incr	NO		WB	0.74	Horz(CT)	0.03	8	n/a	n/a				
BCLL	0.0*	Code	IRC2018	3/TPI2014	Matrix-MSH										
BCDL	10.0											Weight: 136 lb	FT = 20%		
LUMBER TOP CHORD BOT CHORD WEBS	2x4 SP No.2 *Except 2.0E 2x6 SP No.2 2x4 SP No.3	t* 4-5:2x4 SP 2400F	2)	Wind: ASCE Vasd=103mp Cat. II; Exp B zone; cantile and right exp	7-16; Vult=130mp bh; TCDL=6.0psf; I 3; Enclosed; MWFf ver left and right e: osed; Lumber DO	h (3-seo BCDL=6 RS (env xposed L=1.60	cond gust) (.0psf; h=25ft; elope) exterior ; end vertical l plate grip	r left	14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 284 lb down and 167 lb up at 10-0-12, and 306 lb down and 131 lb up at 12-0-12 on top chord, and 949 lb down and 399 lb up at 8-4-5 on bottom chord. The design/						
RRACING				DOL=1.60			0 1		sele	ection of	such o	connection device	e(s) is the		
TOP CHORD	Structural wood shea 3-7-1 oc purlins, exc 2-0-0 oc purlins (5-8-	athing directly applied cept end verticals, an -12 max.): 4-5.	tor 3) d	DOL=1.60 selecti 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 respon Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate 15) In the 15) In the DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; of the 06							DAD CASE(S) section, loads applied to the face uss are noted as front (F) or back (B).				
BOT CHORD	Rigid ceiling directly bracing.	applied or 9-10-4 oc	4)	Unbalanced	snow loads have b	been cor	nsidered for th	is	1) De	ad + Sn) Sta low (ba	ndard alanced): Lumbei	Increase=1.15, Plate		
WEBS	1 Row at midpt	4-10		design.					Í	crease="	1.15	,			
REACTIONS	(size) 2=0-3-8, 8 Max Horiz 2=198 (LC Max Uplift 2=-447 (LC Max Grav 2=1729 (L (b) - Maximum Com	8=0-3-8 C 11) C 12), 8=-630 (LC 12 .C 37), 8=2174 (LC 3 pression/Maximum	5)) 6) 7) 7)	I his truss ha load of 12.0 p overhangs no Provide adeo This truss ha	er of min roof bad of 20.0 ps /e loads. water ponding 0 psf bottom	Uniform Loads (lb/ft) Vert: 1-4=-60, 4-5=-60, 5-7=-60, 8-13=-20 Concentrated Loads (lb) Vert: 11=-908 (B), 19=-235 (B), 21=-238 (B), 22=-146 (B), 24=-33 (B), 25=-103 (B), 26=-39 (B),									
TORGEO	Tension	pression/maximum	8)	* This truss h	la nonconcurrent v las been designed	for a liv	e load of 20.0	us. Insf	27=-37 (B), 28=-100 (B), 29=-194 (B), 30=-138 (B)						
TOP CHORD	1-2=0/36, 2-16=-240 3-17=-2298/660, 3-1 4-18=-1940/696, 4-1 19-20=-1158/430, 2C 5-21=-1158/430, 5-2 22-23=-1377/501, 23 6-24=-1493/495, 6-2 7-8=-166/74	0/634, 16-17=-2315// 8=-2142/692, 9=-1158/430,)-21=-1158/430, 2=-1281/436, 3-24=-1432/489, 5=-90/66, 7-25=-143,	644, 9) /75, 10	on the bottom 3-06-00 tall b chord and an One RT7A U truss to beari connection is forces.	n chord in all areas y 2-00-00 wide will y other members. SP connectors rec ing walls due to UF for uplift only and SP connectors rec	s where Il fit betv commen PLIFT at does no	a rectangle veen the botto ded to connec jt(s) 2. This ot consider late ded to connec	om ct eral		(2.	OPTH CA	ROLIN		
BOT CHORD	2-12=-553/1855, 11- 11-26=-545/1639, 26 10-27=-545/1639, 10 9-28=-210/655, 9-29 29-30=-210/655, 8-3	12=-553/1855, 5-27=-545/1639, 0-28=-210/655, =-210/655, 0=-210/655	11	 10) One K18A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8. This connection is for uplift only and does not consider lateral forces. 11) This truss is designed in accordance with the 2018 							SEA 4584	L 14			
WEBS	3-12=-16/97, 3-11=-2 4-11=-359/1252, 4-1 6-10=-317/961, 6-8=	254/214, 0=-750/265, 5-10=0/2 -1875/543	299, 12	R802.10.2 and referenced standard ANSI/TPI 1.) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.						NOREW I	EER. ON				
 Unbalance this design 	ed roof live loads have n.	13	 13) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines. 							April 8,2021					



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	HJ04	Diagonal Hip Girder	1	1	Job Reference (optional)	145552904

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:29 ID:e99GqBKhP2mcfBUiOt8IEmzWCeP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:55.3

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

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC201	8/TPI2014	CSI TC BC WB Matrix-MSH	0.90 0.26 0.42	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.01 -0.02 0.00	(loc) 6-7 6-7 6	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 68 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x6 SP No.2 2x4 SP No.3 Left 2x6 SP No.2 1 Structural wood shea 6-0-0 oc purlins, exc Rigid ceiling directly bracing. (size) 2=0-4-13, Max Horiz 2=209 (LC Max Uplift 2=-193 (LL Max Grav 2=630 (LC (lb) - Maximum Com	I-6-0 athing directly applied cept end verticals. applied or 10-0-0 oc 6= Mechanical C 11) C 12), 6=-379 (LC 9) C 23), 6=963 (LC 22) pression/Maximum	3) 4) 5) d or 6) 7) 8)	Unbalanced design. This truss ha load of 12.0 overhangs n This truss ha chord live loa * This truss h on the bottor 3-06-00 tall th chord and ar Refer to gird Provide mec bearing plate joint 6. One RTZA L	snow loads have b s been designed for our function of the second second second s been designed for d nonconcurrent w has been designed in chord in all areas by 2-00-00 wide will by other members. er(s) for truss to tru- hanical connection capable of withsta	been cor or greate at roof lo other lin or a 10.0 vith any for a liv s where I fit betw iss conr (by oth anding 3	isidered for the er of min roof bad of 20.0 p re loads.) psf bottom other live loa e load of 20.1 a rectangle reen the botthe ections. ers) of truss to 79 lb uplift at	his f live sf on hds. Opsf om to t	Cc	oncentra Vert: 5= 14=-35 (19=-15 (ted Loa -237 (E (B), 15 (F), 20	ads (lb) 3), 6=-41 (B), 12= =-140 (F), 16=-1: =0 (B), 21=-57 (F	28 (B), 13=-1 32 (B), 18=-1), 22=-15 (B)	7 (F), (B),
TOP CHORD BOT CHORD	 (lb) - Maximum Compression/Maximum Tension 1-2=0/51, 2-3=-563/230, 3-12=-733/276, 12-13=-675/269, 13-14=-620/244, 4-14=-587/207, 4-15=-261/149, 15-16=-125/86, 16-17=-91/68, 5-17=-81/115, 5-6=-461/255 2-18=-270/569, 18-19=-270/569, 19-20=-270/569, 7-20=-270/569, 7-21=-270/569, 21-22=-270/569, 6 22=-270/569 			truss to bear connection is forces. I) This truss is International R802.10.2 ar "NAILED" ind NDS guidline t) Hanger(s) or	ing walls due to UF for uplift only and designed in accord Residential Code s ad referenced stan dicates 2-12d (0.14 s. other connection of	PLIFT at does no lance w sections dard AN 8"x3.25 device(s	jt(s) 2. This ot consider la ith the 2018 R502.11.1 a ISI/TPI 1. ") toe-nails p) shall be	and er		\wedge	a start	NH CA	ROLIN	9. 1
WEBS NOTES 1) Wind: ASC Vasd=103 Cat. II; Exp zone; cant and right e	6-22=-270/569 BS 4-7=-6/242, 4-6=-664/321 TES Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip				provided sufficient to support concentrated load(s) 187 Ib down and 126 lb up at 6-7-4, and 168 lb down and 131 lb up at 6-11-15, and 257 lb down and 170 lb up at 9-8-4 on top chord. The design/selection of such connection device(s) is the responsibility of others. 13) 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							L .4	Summing.	

and right exposed; Lumber DOL=1.60 plate grip DOL=1.60 TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15

2) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

Dead + Snow (balanced): Lumber Increase=1.15, Plate 1) Increase=1.15 Uniform Loads (lb/ft)

Vert: 1-5=-60, 6-8=-20

minim

April 8,2021



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	CJ09	Jack-Open	2	1	Job Reference (optional)	145552905

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:15 ID:b_CdSPvkk0cVeYXySBybjCzWDAX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



|-1-0-0||1-1-13| ||1-0-0||1-1-13||





Scale = 1:37.1

Plate Offsets (X, Y): [4:Edge,0-1-8]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	8/TPI2014	CSI TC BC WB Matrix-MP	0.20 0.01 0.07	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.00 0.00	(loc) 5 4-5 3	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 9 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 1-1-13 oc purlins, e Rigid ceiling directly bracing. (size) 3= Mecha 5=0-3-8 Max Horiz 5=61 (LC Max Uplift 3=-30 (LC Max Grav 3=13 (LC (LC 21)	athing directly applie xcept end verticals. applied or 10-0-0 oc anical, 4= Mechanical 14) 2 20), 4=-38 (LC 14) 10), 4=26 (LC 12), 5	4) 5) d or 6) 1, 7) 8) =225 9)	This truss ha load of 12.0 overhangs n This truss ha chord live loa * This truss h on the bottor 3-06-00 tall t chord and ar Refer to gird Provide mec bearing plate 4 and 30 lb u One RT7A U truss to bear	is been designed for psf or 1.00 times fla on-concurrent with is been designed for ad nonconcurrent w has been designed in chord in all areas by 2-00-00 wide will by other members. er(s) for truss to tru hanical connection e capable of withsta plift at joint 3. ISP connectors reco- ing walls due to UP	or great at roof k other liv or a 10.4 ith any for a liv where fit betv ss conr (by oth nding 3 ommen LIFT at	er of min roof pad of 20.0 p: /e loads. D psf bottom other live loa e load of 20.1 a rectangle veen the botto nections. ers) of truss t 8 lb uplift at j ded to conne jt(s) 5. This	f live sf on lds. Opsf om to ioint ect					
FORCES TOP CHORD BOT CHORD	(lb) - Maximum Com Tension 2-5=-214/103, 1-2=(4-5=-191/25 2-430/228	npression/Maximum 0/75, 2-3=-76/42	10	forces.) This truss is International R802.10.2 at	designed in accord Residential Code s nd referenced stand	ance w ections dard AN	ith the 2018 R502.11.1 a ISI/TPI 1.	and					
NOTES 1) Wind: AS(Vasd=103 Cat. II; Exp zone and (CE 7-16; Vult=130mph mph; TCDL=6.0psf; B p B; Enclosed; MWFR C-C Exterior(2E) zone	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior ; cantilever left and ri	LC ght	DAD CASE(S)	Standard					(ORTH CA	ROLIN

- zone and C-C Exterior(2E) 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.1)
- TCLL: ASCE 7-16; Pr=20.0 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 B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.





Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	CJ08	Jack-Open	2	1	Job Reference (optional)	145552906

-1-0-0

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:15 ID:Pt1T8emqKeD3qsBrINF0muzWDAi-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





2-7-13

Scale = 1:29.8

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDI	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	/TPI2014	CSI TC BC WB Matrix-MP	0.17 0.07 0.09	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.00 0.00	(loc) 4-5 4-5 3	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 16 lb	GRIP 244/190 ET = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shea 2-7-13 oc purlins, ex Rigid ceiling directly bracing. (size) 3= Mecha 5=0-3-8 Max Horiz 5=117 (LC Max Grav 3=104 (LC (LC 21)	athing directly applied coept end verticals. applied or 10-0-0 oc nical, 4= Mechanical (14) 14), 4=-17 (LC 14) (21), 4=50 (LC 7), 5:	5) 6) d or 7) 8) , 9) =274 LO	This truss ha chord live loa * This truss h on the bottom 3-06-00 tall b chord and an Refer to girde Provide mech bearing plate 3 and 17 lb u This truss is o International R802.10.2 ar AD CASE(S)	s been designed for d nonconcurrent w as been designed n chord in all areas y 2-00-00 wide will y other members. er(s) for truss to tru nanical connection capable of withsta plift at joint 4. designed in accord Residential Code s d referenced stand Standard	or a 10.0 <i>i</i> th any for a liv where I fit betw liss conr (by oth inding 6 lance w sections dard AN) psf bottom other live loa e load of 20.0 a rectangle veen the botto nections. ers) of truss t 1 lb uplift at ju ith the 2018 .R502.11.1 a ISI/TPI 1.	ds. Dpsf om o oint nd				Wolgin: To ib	
FORCES	(lb) - Maximum Com	pression/Maximum											
TOP CHORD	2-5=-249/42, 1-6=0/1 2-3=-104/66	16, 2-6=0/72,											
WEBS	4-5=-286/53 2-4=-55/296												
NOTES													0.0.
 Wind: ASC Vasd=103 Cat. II; Ex zone and exposed; members Lumber D TCLL: AS Plate DOL DOI = 155 	CE 7-16; Vult=130mph imph; TCDL=6.0psf; BC p B; Enclosed; MWFRS C-C Exterior(2E) zone; end vertical left and rig and forces & MWFRS I OL=1.60 plate grip DO CE 7-16; Pr=20.0 psf (r .=1.15); Pf=20.0 psf (r .=1.15);	(3-second gust) DL=6.0psf; h=25ft; S (envelope) exterior cantilever left and right ht exposed;C-C for for reactions shown; L=1.60 roof LL: Lum DOL=1.15 Plate : Sully, Erry, Co-0.0	ght 15							Comme	di	SEA 4584	ROJULIA
Cs=1.0; Ct=1.10 S=1.00; Ct=1.10 Unbalanced snow loads have been considered for this design.										T	NGIN	EER. OT	
 This truss load of 12 overhangs 	has been designed for .0 psf or 1.00 times flat s non-concurrent with o	greater of min roof li roof load of 20.0 psf ther live loads.	ive f on								11	REW J	OHN

April 8,2021



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	CJ07	Jack-Open	2	1	Job Reference (optional)	145552907

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:14 ID:TDOH98Xwooql2xEBhuQZVu2WDB?-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:32.4

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI2014	CSI TC BC WB Matrix-MP	0.51 0.19 0.11	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.02 -0.03 0.00	(loc) 4-5 4-5 3	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 24 lb	GRIP 244/190 FT = 20%	
BCDL LUMBER TOP CHORD BOT CHORD BRACING TOP CHORD BOT CHORD SOT CHORD BOT CHORD BOT CHORD SOT CHORD BOT CHORD SOT CHORD	10.0 2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 4-1-13 oc purlins, e Rigid ceiling directly bracing. (size) 3= Mecha 5=0-3-8 Max Horiz 5=172 (LC Max Uplift 3=-113 (L Max Grav 3=207 (LC (LC 21) (lb) - Maximum Com Tension 2-5=-296/22, 1-2=0/- 4-5=-351/88 2-4=-89/356 CE 7-16; Vult=130mph mph; TCDL=6.0psf; Br p B; Enclosed; MWFR3 C-C Exterior(2E) zone;	s has been designed e load nonconcurrent iss has been designe ottom chord in all area tail by 2-00-00 wide w d any other members girder(s) for truss to t mechanical connectic olate capable of withs b uplift at joint 4. s is designed in acco onal Residential Code .2 and referenced sta :(S) Standard	for a 10. with any d for a liv as where vill fit betw russ conn n (by oth tranding 1 rdance w e sections undard AN	D psf bottom other live loc e load of 20 a rectangle veen the bot nections. ers) of truss 13 lb uplift a ith the 2018 \$ R502.11.1 ISI/TPI 1.	ads. .0psf tom to at joint and			2.44	Weight: 24 lb	FT = 20%			
 members Lumber D TCLL: AS Plate DOL DOL=1.15 Cs=1.00; Unbalance design. This truss load of 12 overhange 	and forces & MWFRS OL=1.60 plate grip DO CE 7-16; Pr=20.0 psf (=1.15); Pf=20.0 psf (L i); Is=1.0; Rough Cat B Ct=1.10 ed snow loads have be has been designed for .0 psf or 1.00 times flat s non-concurrent with c	for reactions shown; L=1.60 roof LL: Lum DOL=1. um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; uen considered for thi greater of min roof lit roof load of 20.0 psf ther live loads.						Contraction of the second seco	AND THE REAL PROPERTY IN	SEA 4584 VOREW J	L LA FR. OHIM	3	

April 8,2021



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	EJ04	Jack-Open	1	1	Job Reference (optional)	145552908

Scale = 1:38.7 Loading

TCLL (roof)

Snow (Pf)

LUMBER

TOP CHORD

BOT CHORD

TOP CHORD

BOT CHORD

FORCES

TOP CHORD

BOT CHORD

WEBS

NOTES 1)

REACTIONS (size)

bracing.

Max Grav

Tension

TCDL

BCLL

BCDL

WEBS

BRACING

Run: 8 43 S. Mar 22 2021 Print: 8 430 S. Mar 22 2021 MiTek Industries. Inc. Wed Apr 07 14:27:23 ID:_Yzm9xS9VLenvk?SgxEXdCzWD5x-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



April 8,2021



	zone and C-C Extend(zE) zone, cantilever leit and fight
	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)	TCLL: ASCE 7-16; Pr=20.0 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 B; Fully Exp.; Ce=0.9;
	Cs=1.00; Ct=1.10
3)	Unbalanced snow loads have been considered for this
	design.
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
	even de elemente de la companya de la trada en la contra de

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S					
21030028-A	CJ10	Jack-Open	2	1	Job Reference (optional)	145552909				

2-11-1

2-11-1

-1-0-0

1-0-0

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:15 ID:uL7Gwo_75AUV_dZIM9aEVh2WDAQ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





3x8 🛛

2-11-1

Sca	le	_	1	.28	2 1	6	

Plate Offsets (X, Y): [2:0-3-8,Edge]

	(,, ,). [2:0 0 0,2030]											
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018/TPI20	CSI TC BC WB Matrix-MP	0.15 0.11 0.00	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.01 -0.01 0.00	(loc) 4-7 4-7 2	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 13 lb	GRIP 244/190 FT = 20%
 Charlen A. See Service Servic										SEA 4582	ROL HA EEFR.CONTINUE OHNSTITUTE	
											Ap	ril 8,2021



Job	Truss	russ Type Qty Ply 221 Willowcroft-Roof-2742-S		221 Willowcroft-Roof-2742-S			
21030028-A	CJ11	Jack-Open	2 1 Job Reference (optional		Job Reference (optional)	145552910	

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:15 ID:iVUXAr3ug0EfiY0SiQhekyzWDAK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



5-7-1

Scale = 1:33.1

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

		-										
Loading TCLL (roof)	(psf) 20.0	Spacing Plate Grip DOL	2-0-0 1.15	CSI TC	0.75	DEFL Vert(LL)	in -0.08	(loc) 4-7	l/defl >795	L/d 240	PLATES MT20	GRIP 244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.14	4-7	>472	180	-	
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI20	14 Matrix-MP								
BCDL	10.0										Weight: 21 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEDGE BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.2 Left: 2x4 SP No.3 Structural wood sh 5-7-1 oc purlins. Rigid ceiling direct bracing. (size) 2=0-3-8 Mechan Max Horiz 2=176 (Max Uplift 3=-102 Max Grav 2=361 (4=104 (eathing directly applie ly applied or 10-0-0 or , 3= Mechanical, 4= ical LC 14) (LC 14) LC 21), 3=240 (LC 21 LC 7)	5) This t chord 6) * This 3-06-1 chord 7) Refer bearin joint 3 9) This t Intern R802), LOAD CA	russ has been designer live load nonconcurre truss has been designer bottom chord in all a 00 tall by 2-00-00 wide and any other member to girder(s) for truss tr le mechanical connec giglate capable of wit uss is designed in acc ational Residential Co 10.2 and referenced s SE(S) Standard	ed for a 10.0 ent with any ned for a liv reas where e will fit betv ers. o truss conr stion (by oth thstanding 1 cordance w ode sections standard AN	D psf bottom other live loa e load of 20. a rectangle veen the bott nections. ers) of truss 02 lb uplift a ith the 2018 s R502.11.1 a ISI/TPI 1.	ads. Opsf tom to tt					
TOP CHORD	Tension 1-2=0/36, 2-8=-23	1/112, 3-8=-112/113										
BOT CHORD	2-4=-158/120											
NOTES 1) Wind: AS(Vasd=103 Cat. II; Ex zone and exposed; members Lumber D 2) TCLL: AS Plate DOL DOL=1.15 Cs=1.00; 1) Unbalance design. 4) This truss load of 12 overhangs	CE 7-16; Vult=130mp 3mph; TCDL=6.0psf; pB; Enclosed; MWF C-C Exterior(2E) zor end vertical left and and forces & MWFR ODL=1.60 plate grip D CE 7-16; Pr=20.0 psf 5); Is=1.0; Rough Cat Ct=1.10 ed snow loads have I has been designed f 0.0 psf or 1.00 times f s non-concurrent with	th (3-second gust) BCDL=6.0psf; h=25ft; RS (envelope) exterior e; cantilever left and r right exposed;C-C for S for reactions shown OL=1.60 f (roof LL: Lum DOL=1 (Lum DOL=1.15 Plate B; Fully Exp.; Ce=0.9 been considered for th or greater of min roof iat roof load of 20.0 ps o other live loads.	r ight 1.15); iis live sf on						Continue.	A STATE OF	SEA 4584 SEA 4584	EER. OHNSUIT



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	EJ05	Jack-Open	1	1	Job Reference (optional)	145552911

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:23 ID:_qUBjlfpVanNSLojA?1WpozWD5g-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:40.2

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MP	0.81 0.44 0.13	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.07 -0.14 -0.01	(loc) 4-5 4-5 3	l/defl >997 >499 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 33 lb	GRIP 244/190 FT = 20%	
BCDL 10.0 LUMBER 5) TOP CHORD 2x4 SP No.1 BOT CHORD 2x4 SP No.2 BES 2x4 SP No.3 BRACING 6) TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals. BOT CHORD Rigid ceiling directly applied or 8-10-1 oc bracing. BOT CHORD Rigid ceiling directly applied or 8-10-1 oc bracing. REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-3-8 Max Horiz 5=240 (LC 14) Max Grav 3=295 (LC 21), 4=117 (LC 7), 5=369 (LC 21) FORCES (lb) - Maximum Compression/Maximum					s been designed for d nonconcurrent w as been designed n chord in all areas y 2-00-00 wide will y other members. er(s) for truss to tru nanical connection capable of withsta designed in accord Residential Code s id referenced stand Standard	or a 10.0 vith any for a liv s where I fit betw Iss conr (by oth noding 1 lance wi sections dard AN) psf bottom other live loa e load of 20. a rectangle veen the bott rections. ers) of truss 72 lb uplift a th the 2018 R502.11.1 a SI/TPI 1.	ads. Opsf tom to t						
TOP CHORD 30T CHORD WEBS	(i) Maximum Com Tension 2-5=-311/5, 1-2=0/4(3-6=-217/163 4-5=-421/127 2-4=-128/424	9, 2-6=-243/86,												
NOTES 1) Wind: ASC Vasd=103 Cat. II; Ex zone and ' exposed ; members Lumber DD Plate DOL DOL=1.15 Cs=1.00; (1) Unbalance design. 4) This truss load of 12 overhange	CE 7-16; Vult=130mph smph; TCDL=6.0psf; B(p B; Enclosed; MWFR3 C-C Exterior(2E) zone; end vertical left and rig and forces & MWFRS OL=1.60 plate grip DO CE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L ;); Is=1.0; Rough Cat B Ct=1.10 ed snow loads have be has been designed for .0 psf or 1.00 times flat s non-concurrent with c	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior cantilever left and ri ght exposed;C-C for for reactions shown; L=1.60 roof LL: Lum DOL=1 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; een considered for thi r greater of min roof I t roof load of 20.0 ps ther live loads.	ight .15 ; is live f on							Contraction of the second seco	Lun P	SEA 4584	ROLIN L 4	Annun annu

April 8,2021


Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	EJ06	Monopitch Supported Gable	1	1	Job Reference (optional)	145552912

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:24 ID:hl5zqAn58e2yfuZel6DsDvzWD5W-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



6-0-0

Scale = 1:43.1	
00000 - 111011	

Loading	(pst	f)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.	.0	Plate Grip DOL	1.15		TC	0.83	Vert(LL)	-0.06	3-4	>999	240	MT20	244/190
Snow (Pf)	20.	.0	Lumber DOL	1.15		BC	0.41	Vert(CT)	-0.13	3-4	>538	180		
TCDL	10.	.0	Rep Stress Incr	YES		WB	0.07	Horz(CT)	-0.01	2	n/a	n/a		
BCLL	0.	.0^	Code	IRC2018	3/TPI2014	Matrix-MP							Waight 40 lb	FT 200/
BCDL	10.	.0		-									weight: 40 lb	F1 = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.1 2x4 SP No.2 2x4 SP No.3 Structural wood 6-0-0 oc purlins, Rigid ceiling dire bracing. (size) 2= Me 4=0-3 Max Horiz 4=227 Max Uplift 2=-13 Max Grav 2=298	shea , exc ectly a echar 3-8 7 (LC 32 (LC 8 (LC	athing directly applied ept end verticals. applied or 10-0-0 oc nical, 3= Mechanical. 13) C 11), 4=-3 (LC 10) .20), 3=114 (LC 7).	5) d or 7) 8) ,	* This truss h on the bottom 3-06-00 tall b chord and an Refer to girdd Provide mecl bearing plate joint 2. One RT7A U truss to beari connection is forces. This truss is International B202 10 2 az	as been designed in chord in all areas y 2-00-00 wide wi y other members. er(s) for truss to tru- nanical connection capable of withsta SP connectors red ng walls due to Uf for uplift only and designed in accord Residential Code with referenced at me	I for a liv s where II fit betw uss conr b (by oth anding 1 commen PLIFT at does no dance wi sections	e load of 20.0 a rectangle veen the bott ections. ers) of truss t 32 lb uplift at ded to conne jt(s) 4. This ot consider la th the 2018 R502.11.1 a	Opsf om to t ect iteral					
	Wax Grav Z=290 (LC 20), 3=114 (LC 7), 4=291 (LC 20) R802.10.2 and referenced standard ANSI/TPI 1. 10) Gap between inside of top chord bearing and first													
FORCES	ORCES (Ib) - Maximum Compression/Maximum 10) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.													
TOP CHORD	Tension 1-4=-234/59, 1-5 2-3=0/0	5=-19	98/90, 2-5=-156/166,	LC	DAD CASE(S)	Standard								
BOT CHORD	3-4=-224/143													
WEBS	1-3=-113/215													
NOTES			(0 1)										mun	unin.
 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); rls=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10 3) Unbalanced snow loads have been considered for this design. 4) This truss has been designed for a 10.0 psf bottom 														
chord live	chord live load nonconcurrent with any other live loads.													
WARN	IING - Verify design para	ameter	s and READ NOTES ON T	HIS AND IN	CLUDED MITEK RE	FERENCE PAGE MII-7	7473 rev. 5	19/2020 BEFOR	E USE.				ENGINEER	ING BY

- Lumber DOL=1.60 plate grip DOL=1.60 TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 2) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this 3) design.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty Ply 221 Willowcroft-Roof-2742-S		221 Willowcroft-Roof-2742-S	
21030028-A	EJ07	Jack-Open	1	1	Job Reference (optional)	145552913

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:24 ID:pFNuYcxE4eh6jt380LywFezWD5J-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

6-0-0 5-7-5 5-7-5 3x5 🍫 3 2 12 12 ⊏ 6 6-5-11 6-5-11 0-10-6 5 Ř 4 8x10 = 4x6 = 6-0-0

Scale = 1:42.5

Plate Offsets (X, Y):	[2:0-2-8,Edge],	[5:Edge,0-7-4]
-----------------------	-----------------	----------------

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	3/TPI2014	CSI TC BC WB Matrix-MP	0.80 0.36 0.48	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.04 -0.07 0.06	(loc) 4-5 4-5 3	l/defl >999 >951 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 31 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.2 *Excep Structural wood she 6-0-0 oc purlins, ex 2-0-0 oc purlins: 2-3	t* 1-4:2x4 SP No.3 athing directly applie cept end verticals, ar	4) 5) 6) d or 7) nd	Unbalanced design. Provide adec This truss ha chord live loa * This truss h on the bottor 3-06-00 tall b	snow loads have to juate drainage to p s been designed f id nonconcurrent v ias been designed n chord in all area iy 2-00-00 wide wi	prevent v for a 10.0 with any I for a liv s where II fit betv	asidered for the water ponding of bottom other live loa e load of 20.0 a rectangle veen the botto	his g. ids. Opsf om						
BOT CHORD	Rigid ceiling directly bracing. (size) 3= Mecha 5=0-3-8 Max Horiz 5=194 (LC Max Uplift 3=-125 (L Max Grav 3=206 (LC 5=348 (LC	applied or 6-8-13 oc inical, 4= Mechanica C 14) C 14), 4=-25 (LC 14) C 38), 4=129 (LC 7), C 38)	8) 1, 9) 10	chord and an Refer to gird Provide mec bearing plate joint 3 and 29) This truss is International R802.10.2 ar	y other members. er(s) for truss to tru- hanical connectior capable of withst. 5 Ib uplift at joint 4. designed in accord Residential Code nd referenced star	uss conr anding 1 dance w sections idard AN	ections. ers) of truss t 25 lb uplift at th the 2018 R502.11.1 a ISI/TPI 1.	to t and						
FORCES	(lb) - Maximum Com Tension 1-5=-280/0, 1-6=-25	pression/Maximum 5/67, 2-6=-153/108,		or the orienta bottom chore	ation of the purlin a I.	along the	top and/or	5120						
BOT CHORD WEBS	2-3=0/0 4-5=-749/685 1-4=-690/753	,,	LC	DAD CASE(S)	Standard								Della	
NOTES 1) Unbalanc this desig 2) Wind: AS Vasd=103	ed roof live loads have n. CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; B0	been considered for (3-second gust) CDL=6.0psf; h=25ft;								(RTHE	RAL A	1 1111

- Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 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
- TCLL: ASCE 7-16; Pr=20.0 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 B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

SEAL 45844 NGINEER.GO

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/TPI1 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	221 Willowcroft-Roof-2742-S	
21030028-A	EJ08	Jack-Open	1	1	Job Reference (optional)	145552914

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:24 ID:Iv13X6A9cT4PUo0odqnNWfzWD50-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:34.6

Plate Offsets (X, Y): [2:0-3-8,0-2-0]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(pst) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	8/TPI2014	TC BC WB Matrix-MP	0.52 0.87 0.10	Vert(LL) Vert(CT) Horz(CT)	in 0.16 -0.23 0.22	(IOC) 5-6 5-6 3	i/defl >447 >306 n/a	L/d 240 180 n/a	MT20 Weight: 34 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex 2-0-0 oc purlins: 2-3 Rigid ceiling directly	athing directly applie cept end verticals, an applied or 7-6-0 oc	4) 5) 6) ed or 7) nd 8)	Unbalanced design. Provide adec This truss ha chord live loa * This truss h on the bottom 3-06-00 tall b chord and an Refer to girdd	snow loads have b quate drainage to p s been designed for do nonconcurrent v has been designed n chord in all areas by 2-00-00 wide will y other members. pr(c) for truss to tr	prevent or or a 10.0 vith any for a liv s where Il fit betw	nsidered for t water pondin 0 psf bottom other live loa e load of 20. a rectangle ween the bott	his g. ads. Opsf tom					
REACTIONS	(size) 3= Mecha 6=0-3-8 Max Horiz 6=139 (LC Max Uplift 3=-23 (LC Max Grav 3=91 (LC 6=328 (LC	anical, 4= Mechanica C 14) C 10), 4=-72 (LC 14) 37), 4=214 (LC 38), C 38)	ıl, ⁹⁾	Provide mech bearing plate 3 and 72 lb u) This truss is International R802.10.2 ar	capable of withsta plift at joint 4. designed in accord Residential Code and referenced stan	dance w dance w danca AN	ers) of truss 3 lb uplift at tht he 2018 5 R502.11.1 a ISI/TPI 1.	to joint and					
FORCES	(lb) - Maximum Com Tension	pression/Maximum	11,	or the orienta bottom chord	ation of the purlin a	long the	top and/or	size					
TOP CHORD	1-6=-206/0, 1-7=-16 2-3=0/0	4/42, 2-7=-150/110,	LO	AD CASE(S)	Standard								
BOT CHORD WEBS	5-6=-237/106, 4-5=0 2-5=-221/234, 1-5=-)/0 102/233									. 6	TH CA	Route
NOTES 1) Unbalance this design	ed roof live loads have n.	been considered for	r									ORIEES	Diantin
 Wind: ASC Vasd=103 Cat. II; Ex zone and exposed ; members Lumber D TCLL: AS Plate DOL DOL=1.15 	CE 7-16; Vult=130mph mph; TCDL=6.0psf; Bi p B; Enclosed; MWFR C-C Exterior(2E) zone end vertical left and rig and forces & MWFRS OL=1.60 plate grip DC CE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L 5); Is=1.0; Rough Cat E	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) interior; cantilever left and r ght exposed;C-C for for reactions shown; DL=1.60 roof LL: Lum DOL=1 um DOL=1.15 Plate B; Fully Exp.; Ce=0.9	ight ; .15 ;							Summer.	The second s	SEA 4584	L HAR MINING

TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 3) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

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/TPI1** Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



munin

April 8,2021

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	EJ09	Jack-Open	1	1	Job Reference (optional)	145552915

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:24 ID: AIEdkyPiudbautYeo183KtzWD4i-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?ff

Page: 1





Scale = 1:32

Plate Offsets (X, Y): [2:0-3-8,0-2-0]

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC2018	8/TPI2014	CSI TC BC WB Matrix-MP	0.27 0.87 0.06	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.15 -0.24 0.29	(loc) 5 5 3	l/defl >478 >288 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 30 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex 2-0-0 oc purlins: 2-3 Rigid ceiling directly bracing.	athing directly applie cept end verticals, ar applied or 6-10-8 oc	4) 5) 6) ed or 7) nd 2 8) 9)	Unbalanced design. Provide adeo This truss ha chord live loa * This truss h on the bottom 3-06-00 tall b chord and an Refer to girdd Provide mecl	snow loads have b quate drainage to p s been designed fo do nonconcurrent w las been designed n chord in all areas by 2-00-00 wide will y other members. er(s) for truss to tru hanical connection	been cor prevent to or a 10.0 vith any for a liv s where Il fit betw uss conru- (by oth	nsidered for t water pondin 0 psf bottom other live loa e load of 20. a rectangle veen the bott nections. ers) of truss	his g. ads. Opsf com to						
FORCES	(\$126) 7=0-3-8 7=0-3-8 Max Horiz 7=98 (LC Max Uplift 3=-36 (LC Max Grav 3=148 (LC 7=296 (LC (Ib) - Maximum Com Tension	14) 10), 4=-27 (LC 14) 37), 4=153 (LC 37) 38) pression/Maximum	", 10), 11	bearing plate 3 and 27 lb u) This truss is International R802.10.2 ar) Graphical pu or the orienta	capable of withsta plift at joint 4. designed in accord Residential Code s ad referenced stan rlin representation ation of the purlin a	dance w sections dard AN does no long the	36 lb uplift at ith the 2018 3 R502.11.1 a ISI/TPI 1. ot depict the a top and/or	joint and size						
TOP CHORD BOT CHORD WEBS NOTES 1) Unbalanc this desig 2) Wind: AS Vasd=10: Cat. II; E) zone and exposed members Lumber E 3) TCLL: AS Plate DO DOL=1.1: Cs=1.00;	Iension 1-7=-149/0, 1-2=-10 6-7=-120/110, 5-6=- 2-5=-202/124, 1-6=- ed roof live loads have n. CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; Br φ B; Enclosed; MWFR G-C Exterior(2E) zone ; end vertical left and rig and forces & MWFRS DOL=1.60 plate grip DC iCE 7-16; Pr=20.0 psf (L L=1.15); Pf=20.0 psf (L L=1.5); Is=1.0; Rough Cat E Ct=1.10	9/79, 2-3=0/0 4/6, 4-5=0/0 108/120 been considered for (3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterio; cantilever left and r ght exposed;C-C for for reactions shown; L=1.60 roof LL: Lum DOL=1 um DOL=1.15 Plate b; Fully Exp.; Ce=0.9	LC r ight .15 ;	bottom chord	l. Standard					Continue	ALC RANK	SEA 4584	ROLINI	1

TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 3) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

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/TPI1 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	221 Willowcroft-Roof-2742-S	
21030028-A	C02	Roof Special	1	1	Job Reference (optional)	145552916

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:12 ID:6V9H5v96Eht6joOqt3ly3zzWDdu-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

minin

818 Soundside Road Edenton, NC 27932

April 8,2021



R802.10.2 and referenced standard ANSI/TPI 1.

10) Graphical purlin representation does not depict the size

or the orientation of the purlin along the top and/or

 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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

bottom chord.

LOAD CASE(S) Standard

10-29=-21/898, 29-30=-21/898, 9-30=-21/898

4-13=-500/145, 4-12=0/253, 4-10=-518/124,

2-13=-365/167, 3-13=-26/702,

6-9=-1212/45, 7-9=-741/347

5-10=-1237/245, 6-10=-242/1961,

WEBS

NOTES

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	C03	Нір	1	1	. Job Reference (optional)	145552917

Run: 8 43 S. Mar 22 2021 Print: 8 430 S. Mar 22 2021 MiTek Industries. Inc. Wed Apr 07 14:27:13 ID:LECh__GI7S?qIAaYvSP3wszWDdl-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



1-16=-1877/169, 16-17=-1740/170, TOP CHORD 2-17=-1720/192. 2-18=-1510/182. 3-18=-1381/220, 3-19=-1103/228, 19-20=-1104/228, 4-20=-1105/228, 4-21=-918/215, 21-22=-917/215, 5-22=-915/216, 5-23=-1143/215 6-23=-1246/185, 6-24=-68/99, 24-25=-72/97, 25-26=-92/84, 7-26=-126/83, 7-8=-132/68 BOT CHORD 1-12=-200/1529, 11-12=-200/1529, 11-27=-123/1111, 10-27=-123/1111, 10-28=-123/1111, 9-28=-123/1111, 9-29=-77/735, 29-30=-77/735, 8-30=-77/735 WEBS 2-12=0/186, 2-11=-542/204, 3-11=-26/585, 4-11=-148/234, 4-9=-461/158, 5-9=-44/468,

NOTES

TCDL

BCLL

BCDL

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

6-9=-59/433 6-8=-1404/121

- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 1. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 9) International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard





 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/TPI1 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	221 Willowcroft-Roof-2742-S	
21030028-A	HJ03	Roof Special Girder	1	1	Job Reference (optional)	145552918

Run; 8,43 S Mar 22 2021 Print; 8,430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:28 ID:eQhhO?XLOHvCColzuxxkQMzWCe8-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1







Scale = 1:50

-		î .											
Loading	(psf)	Spacing	2-0-0		csi		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.68	Vert(LL)	-0.01	6-7	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.20	Vert(CT)	-0.01	6-7	>999	180		
TCDL	10.0	Rep Stress Incr	NO		WB	0.19	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC201	8/TPI2014	Matrix-MP								
BCDL	10.0											Weight: 53 lb	FT = 20%
LUMBER			3)	Unbalanced	snow loads have b	een cor	sidered for th	his		Vert: 12	=28 (E	s), 14=-17 (F), 15	=-35 (B), 16=-162 (F),
TOP CHORD	2x4 SP No.2			design.						17=-154	4 (B), 1	8=-1 (B), 19=-15	(F), 20=0 (B), 21=-64
BOT CHORD	2x6 SP No.2		4)	This truss ha	s been designed fo	or great	er of min roof	live		(F), 22=	-22 (B)	
WEBS	2x4 SP No.3			load of 12.0	osf or 1.00 times fla	at roof l	bad of 20.0 p	sf on					
SLIDER	Left 2x4 SP No.3	1-6-0	-	overnangs non-concurrent with other live loads.									
BRACING			5	I his truss ha	s been designed fo	ora 10.) pst bottom	do					
TOP CHORD	Structural wood she	athing directly applie	ed or	* This truce h		for a liv	other live loa	lus. Doof					
	6-0-0 oc purlins, ex	cept end verticals.	0	on the bottor	n chord in all areas	where	e ioau oi 20.0	opsi					
BOT CHORD	Rigid ceiling directly	applied or 10-0-0 oc)	3-06-00 tall b	v 2-00-00 wide will	fit bety	veen the bott	om					
DEACTIONS		0 Mashariaal		chord and ar	y other members.								
REACTIONS	(SIZE) Z=0-4-13, Max Hariz 2-190 (1)		7)	Refer to gird	er(s) for truss to tru	ss conr	nections.						
	Max I Inlift $2 = 109$ (L)	C 12) 6305 (I C 0)	8)	Provide mec	hanical connection	(by oth	ers) of truss t	to					
	Max Grav 2=493 (L	C 19), 6=721 (LC 22))	bearing plate	capable of withsta	inding 3	05 lb uplift at	t					
FORCES	(lb) - Maximum Com	pression/Maximum	a'	One RT74 II	SP connectors rec	ommen	ded to conne	oct					
	Tension		5	truss to bear	ing walls due to UP	LIFT at	it(s) 2. This	.01					
TOP CHORD	1-2=0/51, 2-3=-327/	164, 3-12=-481/191,		connection is	for uplift only and	does n	ot consider la	teral					
	12-13=-439/183, 13	-14=-423/187,		forces.									
	4-14=-394/154, 4-15	5=-194/116,	10	0) This truss is	designed in accord	ance w	ith the 2018						
	15-16=-99/92, 16-17	/=-84/86, 5-17=-136/	179,	International	Residential Code s	sections	R502.11.1 a	nd					
	0-0=-338/190	0 000/075		R802.10.2 a	nd referenced stand	dard AN	ISI/TPI 1.						
BOT CHORD	Z-10=-203/375, 10-1 7-10=-203/375, 7-20	19=-203/375,)203/375	1	1) "NAILED" inc	dicates 2-12d (0.14	8"x3.25	") toe-nails p	er				minin	UIII.
	20-21=-203/375 21	-22-203/375		NDS guidline	S.) - h - II h -				0	IN TH CA	ROUL
	6-22=-203/375	22 200,010,	1.	 Hanger(s) or provided cuff 	other connection d	evice(s) snall be	00		· · · · ·	1	R	. Mille
WEBS	4-7=-8/170, 4-6=-44	8/236		Ih down and	121 lh un at 6-7-4	and 17	'9 lb down ar	99 Nd			5.	O'.FESS	Idia Via
NOTES				126 lb up at	6-11-15 on top cho	ord. Th	e desian/sele	ction				ising	2 mg avv
1) Wind: ASC	CE 7-16; Vult=130mph	(3-second gust)		of such conn	ection device(s) is	the res	consibility of				1	<u>.</u> a. A	- *
Vasd=103	mph; TCDL=6.0psf; B	CDL=6.0psf; h=25ft;		others.							÷ ;	SEA	1 1 2
Cat. II; Ex	p B; Enclosed; MWFR	r 1:	3) In the LOAD	CASE(S) section, I	oads a	oplied to the	face				JLA		
zone; can	tilever left and right exp	eft	of the truss a	re noted as front (F	F) or ba	ck (B).			Ξ	6 B	4584	14 :	
and right e	exposed; Lumber DOL	L	LOAD CASE(S) Standard								1 E -		
DUL=1.60		1)	1) Dead + Snow (balanced): Lumber Increase=1.15, Plate										
2) IULL: AS	-1 15): Pr=20.0 pst (IDOI LL: LUM DOL=1	.15	Increase=1	.15						2.11	V.S.NGINI	FERION
Fiale DOL	.= 1.15), PI=20.0 PSI (L	un DOL=1.15 Plate		Uniform Loa	ads (lb/ft)						1	Che Harris	5

DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

Vert: 1-5=-60, 6-8=-20 Concentrated Loads (lb)

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/TPI1** Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

JOHN April 8,2021



TEW JOH

Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	EJ10	Monopitch	2	1	Job Reference (optional)	145552919

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:25 ID:p3yAF2ZE3J6tKjTyVYMtpOzWD4W-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



4-8-8

Scale = 1:40.5

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MP	0.66 0.24 0.08	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.02 -0.05 0.00	(loc) 4-5 4-5 3	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 34 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No. 2x4 SP No. 2x4 SP No. 2x4 SP No. Structural v 4-8-8 oc pu Rigid ceiling bracing. (size) 3 5 Max Horiz 5 Max Uplift 3	2 2 3 vood shea rlins, exa g directly B= Mecha i=0-3-8 i=199 (LC b=-101 (Li	athing directly applied cept end verticals. applied or 10-0-0 oc nical, 4= Mechanical C 11) C 11), 5=-3 (LC 10)	5 6 d or 7 8 , 9	 This truss ha chord live loa * This truss h on the botton 3-06-00 tall b chord and an Refer to girdd Provide mecl bearing plate joint 3. One RT7A U truss to beari connection is forces. 	s been designed for d nonconcurrent w as been designed in chord in all areas y 2-00-00 wide will y other members. er(s) for truss to tru nanical connection capable of withsta SP connectors recon g walls due to UP for uplift only and	or a 10.0 rith any for a liv where fit betw ss conr (by oth nding 1 ommen LIFT at does no	D psf bottom other live loa e load of 20. a rectangle veen the bott nections. ers) of truss 01 lb uplift a ded to connet ; jt(s) 5. This ot consider la	ads. Opsf com to t ect ateral					
FORCES	Max Grav 3 ((lb) - Maxim Tension 1-2=0/49, 2 3-4=0/0, 2-3	8=232 (LC LC 21) num Com -6=-174/6 5=-291/12	C 21), 4=88 (LC 7), 5 pression/Maximum 65, 3-6=-145/130, 26	⁼³³⁵ 1 1 L	 b) This truss is international R802.10.2 ar 1) Gap betweer diagonal or v OAD CASE(S) 	designed in accord Residential Code s ad referenced stand i inside of top chord ertical web shall no Standard	ance w sections dard AN d bearir ot excee	ith the 2018 R502.11.1 a ISI/TPI 1. ng and first ed 0.500in.	and					
BOT CHORD WEBS	4-5=-196/12 2-4=-99/27	20 6			(-)									
NOTES	CE 7-16: \/ul+-	-130mrh	(3-second qust)											un.
 Wind: AS Vasd=103 Cat. II; Ex zone and exposed; members Lumber D TCLL: AS Plate DOI DOL=1.1 Cs=1.00; Unbalanc design. This truss load of 12 	Smph; TCDL=6 pB; Enclosed C-C Exterior(2 end vertical la and forces & OCL=1.60 plate CE 7-16; Pr=2 L=1.15); Pf=2(5); Is=1.0; Rou Ct=1.10 ed snow loads chas been des 2.0 psf or 1.00	6.0psf; B0 6.0psf; B0 1; MWFRS 2E) zone; aft and rig MWFRS a grip DO 20.0 psf (L 0.0 psf (L 1)gh Cat B a have be signed for times flat	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exterior ; cantilever left and ri jht exposed;C-C for for reactions shown; L=1.60 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; reen considered for thi r greater of min roof I t roof load of 20.0 psf	ght .15 is ive f on							Continue	Latin Bi	SEA 4584	L H H H H H H H H H H H H H H H H H H H

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.

April 8,2021

JUMIN

818 Soundside Road Edenton, NC 27932

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/TPI1 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	221 Willowcroft-Roof-2742-S	
21030028-A	EJ11	Jack-Open Girder	1	2	Job Reference (optional)	145552920

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:25 ID:i2ZxzJW5sffUyV8amWvGLxzWCeA-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

7:20 Pi

818 Soundside Road Edenton, NC 27932



THD26

4-8-8

Scale = 1:39.4

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL		(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC2018	3/TPI2014	CSI TC BC WB Matrix-MP	0.36 0.66 0.00	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.04 -0.06 0.03	(loc) 4-7 4-7 3	l/defl >999 >847 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 47 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD SLIDER BRACING TOP CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD NOTES 1) 2-ply trust Top chorc follows: 2: Bottom ct follows: 2: Bottom ct follows: 2: 2) All loads a except if CASE(S) provided t unless ott 3) Wind: ASI Vasd=103 Cat. II; Ex zone; can and right (DOL=1.6(2x4 SP No 2x6 SP No Left 2x4 SF Structural v 4-8-8 oc p Rigid ceilin bracing. (size) 1 Max Horiz Max Uplift Max Grav (lb) - Maxim Tension 1-2=-706/1 1-9=0/0, 9- s to be connet s connected x4 - 1 row at (ords connect x6 - 2 rows st are considere noted as front section. Ply tr to distribute o herwise indica CE 7-16; Vult Bmph; TCDL= p B; Enclosed; Lum D	2 2 2 3 No.3 1 wood sheat urlins. g directly 1=0-3-8, 3 Mechanica 1=165 (LC 1=-36 (LC	1-4-3 athing directly applied applied or 10-0-0 oc 3= Mechanical, 4= al (33) (8), 3=-113 (LC 12), (12) C 18), $3=224$ (LC 18) (218), 3=224 (LC 18) pression/Maximum (132/126) (10=0/0) ther as follows: (0.131^*x3^*) nails as (0.131^*x3^*) nails as (0.13	4) 5) d or 6) 7) 8) 9) 10 11 12 as 13 AD 12 1) 11 12 as 13 11 12 12 as	TCLL: ASCE Plate DOL=1 DOL=1.15); I Cs=1.00; Ct= Unbalanced design. This truss ha chord live loa * This truss ha chord live loa * This truss ha chord and an Refer to girdd Provide med 3 and 70 lb u One RT7A U truss to bearing plate 3 and 70 lb u One RT7A U truss to bearing connection is forces. This truss is International R802.10.2 ar Use USP TH 12-10d x 1-1, 2-0-0 oc max to connect tru Fill all nail ho DACASE(S) Dead + Snc Increase=1. Uniform Loa Vert: 1-3: Concentrate Vert: 9=-	7-16; Pr=20.0 psf (15); Pf=20.0 psf (1 s=1.0; Rough Cat (1.10) snow loads have b s been designed for d nonconcurrent w as been designed for chord in all areas y 2-00-00 wide will y other members. ar(s) for truss to tru- nanical connection capable of withsta plift at joint 4. SP connectors recong walls due to UF for uplift only and designed in accorc Residential Code st and referenced stan D26 (With 18-16d 2 nails into Truss) . starting at 0-9-4 I uss(es) to back fac les where hanger i Standard w (balanced): Lum 15 ads (lb/ft) =-60, 4-5=-20 d Loads (lb) 754 (B), 10=-750 (li	(roof LL Lum DC B; Fully eeen cor or a 10.0 vith any for a liv s where ll fit betw uss conr (by oth anding 1 commen PLIFT at does no dance wi sections dard AN nails int or equiv from the cof bot is in con her Incl	: Lum DOL= IL=1.15 Plate Exp.; Ce=0. Isidered for t 0 psf bottom other live loz e load of 20. a rectangle recen the bott ections. ers) of truss 13 lb uplift a ded to conne jt(s) 1. This ot consider la th the 2018 R502.11.1 a SI/TPI 1. o Girder & valent space left end to 2 tom chord. tact with lum rease=1.15,	1.15 e 9; his ads. Opsf om to t joint ect and d at -9-4 ober. Plate				SEA 4584	ROZ 944-4- 	



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	D01	Нір	1	1	Job Reference (optional)	145552921

Scale = 1:81.8

Loading

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:15 ID:deJ2o8iKwv6uCQYuLKzum2zWDY1-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



DEFL

Vert(LL)

Vert(CT)

Horz(CT)

0.98

1.00

0.69

in

0.49

-0.69

0.05

(loc)

9-22

12-16

8

l/defl

>539

>380

bottom chord.

LOAD CASE(S) Standard

n/a n/a

L/d

240

180

PLATES

Weight: 195 lb

11) Graphical purlin representation does not depict the size

or the orientation of the purlin along the top and/or

MT20

GRIP

244/190

FT = 20%

CSI

TCLL (roof) 20.0 Plate Grip DOL 1.15 тс Snow (Pf) 20.0 Lumber DOL 1.15 BC TCDL 10.0 Rep Stress Incr WB YES BCLL 0.0 Code IRC2018/TPI2014 Matrix-MSH BCDL 10.0 WEBS LUMBER 1-18=0/1661, 2-18=-137/212, 7-9=-207/114, 17-18=-974/75, 3-17=-827/137, TOP CHORD 2x4 SP No.2 6-11=-539/311, 3-13=-22/729, 2x4 SP 2400F 2.0E *Except* 17-13:2x4 SP BOT CHORD 11-13=-114/612, 15-16=-78/11, No.2, 10-8:2x4 SP No.1 WERS 2v4 SP No 3 *Excent* 12-14=-127/61. 4-11=-144/903 NOTES

Spacing

	19-1,3-18,3-11,4-11:2x4 SP No.2
WEDGE	Right: 2x4 SP No.3
BRACING	
TOP CHORD	Structural wood sheathing directly applied or
	2-2-0 oc purlins, except end verticals, and
	2-0-0 oc purlins (6-0-0 max.): 2-4.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc
	bracing, Except:
	2-2-0 oc bracing: 9-11.
	6-0-0 oc bracing: 13-17
WEBS	1 Row at midpt 2-18, 1-19, 3-18
REACTIONS	(size) 8=0-3-8, 19=0-3-8
	Max Horiz 19=-343 (LC 12)
	Max Grav 8=1247 (LC 51), 19=1445 (LC 46)
FORCES	(lb) - Maximum Compression/Maximum
	Tension
TOP CHORD	1-2=-437/152, 2-23=-325/106,
	23-24=-326/106, 3-24=-328/106,
	3-4=-912/120, 4-5=-1528/209,
	5-6=-1559/193, 6-25=-1272/10,
	25-26=-1402/1, 7-26=-1405/0, 7-27=-1343/0,
	27-28=-1405/0, 8-28=-1514/0, 1-19=-1820/0
BOT CHORD	18-19=-178/272, 18-29=0/754, 29-30=0/754,
	16-30=0/754, 12-16=0/754, 12-31=0/754,
	11-31=0/754, 11-32=0/1128, 10-32=0/1128,
	9-10=0/1128, 8-9=0/1128, 17-33=-88/0,
	15-33=-88/0. 14-15=-88/0. 14-34=-88/0.

13-34 = -88/0

(psf)

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

2-0-0

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 9-4-15 to 10-11-12, Exterior (2R) 10-11-12 to 22-4-15, Interior (1) 22-4-15 to 28-3-11, Exterior(2E) 28-3-11 to 31-3-11 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
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 3) Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00: Ct=1.10
- Unbalanced snow loads have been considered for this 4) design.
- 5) 200.0lb AC unit load placed on the bottom chord, 6-8-9 from left end, supported at two points, 5-0-0 apart.
- 6) Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated. 7)
- This truss has been designed for a 10.0 psf bottom 8)
- chord live load nonconcurrent with any other live loads. * This truss has been designed for a live load of 20.0psf 9) on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 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.



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 Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job	Truss	Truss Type	Qty	Ply	221 Willowcroft-Roof-2742-S	
21030028-A	N01	Hip Girder	1	1	Job Reference (optional)	145552922

3-0-5

3-0-5

-1-0-0 1-0-0

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:34 ID:ju8dGSkZG5tn4EHKEP6G1qzWCUr-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

4-10-3

1-9-13

7-<u>10-8</u>

3-0-5

8-10-8

1-0-0

Page: 1



2-10-9	4-11-15	7-10-8	
2-10-9	2-1-5	2-10-9	

Scale = 1:36.1

Plate Offsets (X, Y):	[3:0-4-0,0-2-0], [4:0-4-0,0-2-0]
-----------------------	----------------------------------

			-										
Loading	(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15		тс	0.18	Vert(LL)	0.00	7-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.10	Vert(CT)	-0.01	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	NO		WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018	/TPI2014	Matrix-MP								
BCDL	10.0											Weight: 47 lb	FT = 20%
LUMBER			5)	This truss ha	s been designed fo	r great	er of min roof	live					
TOP CHORD	2x4 SP No.2			load of 12.0	osf or 1.00 times fla	t roof l	oad of 20.0 ps	sf on					
BOT CHORD	2x6 SP No.2			overhangs no	on-concurrent with	other li	/e loads.						
WEBS	2x4 SP No.3		6)	Provide adec	uate drainage to pr	revent	water ponding] .					
BRACING			7)	This truss ha	s been designed fo	r a 10.) psf bottom						
TOP CHORD	Structural wood she	athing directly applie	d or	chord live loa	d nonconcurrent w	ith any	other live loa	ds.					
	6-0-0 oc purlins, ex	cept	8)	* This truss h	as been designed f	for a liv	e load of 20.0)psf					
	2-0-0 oc purlins (6-0)-0 max.): 3-4.		on the botton	n chord in all areas	where	a rectangle						
BOT CHORD	Rigid ceiling directly	applied or 10-0-0 oc		3-06-00 tall b	y 2-00-00 wide will	fit betw	veen the botto	om					
	bracing.		0)		y other members.		dod to conno	ot					
REACTIONS	(size) 2=0-3-8,	5=0-3-8	9)	truss to bear	or walls due to LIP	LIFT at	it(c) 2 and 5	CL					
	Max Horiz 2=-72 (LC	C 10)		This connect	ion is for unlift only	and do	es not consid	er					
	Max Uplift 2=-154 (L	.C 12), 5=-154 (LC 13	3)	lateral forces									
	Max Grav 2=585 (L	C 37), 5=585 (LC 37)	10)	This truss is	designed in accord	ance w	ith the 2018						
FORCES	(lb) - Maximum Con	npression/Maximum	- /	International	Residential Code s	ections	R502.11.1 a	nd					
	Tension			R802.10.2 ar	nd referenced stand	ard AN	ISI/TPI 1.						
TOP CHORD	1-2=0/57, 2-3=-563/	191, 3-15=-373/173,	11)	Graphical pu	rlin representation of	does no	ot depict the s	ize					
	4-15=-373/173, 4-5	=-566/191, 5-6=0/57	7	or the orienta	tion of the purlin al	ong the	e top and/or						
BUICHURD	2-8=-132/394, 7-8=	-128/385, 5-7=-113/36	57	bottom chord			0.401						
WEBS	3-8=-70/154, 3-7=-3	68/44, 4-7=-68/154	12)	"NAILED" inc	licates 3-10d (0.148	3"x3") (or 3-12d						L
NOTES			10)	(0.148°X3.25) toe-nails per NDS	s guiaii	nes.						in the second se
1) Unbalance	ed roof live loads have	been considered for	13)	Hanger(S) or	other connection a	evice(s) shall be	0 16				I'TH UA	ROUL
this design	n.			down and 90	Ib up at 3-0-5 and		down and 90	o ID Ih		6	S	1	in Delate
2) Wind: AS	CE 7-16; Vult=130mpr	(3-second gust)		un at 4-9-7 c	in bottom chord T	he des	an/selection	nf			SD	- FE	Orthan
	mpn; TCDL=6.0psi; B	CDL=6.0psi; n=25it;		such connec	ion device(s) is the	respo	sibility of oth	ers			C a		1.7.7
ZODE: C2D	tilever left and right ex	nosed · end vertical l	oft 14)	In the LOAD	CASE(S) section. I	oads a	oplied to the f	ace		-		. 4	N : E
and right	exposed: Lumber DOI	=1 60 plate grip	, ,	of the truss a	re noted as front (F) or ba	ck (B).			- E	1 J	SEA	L 3 E
DOL=1.60	DOL=1.60 LOAD CASE(S) Standard												
3) TCLL: AS	CE 7-16: Pr=20.0 psf	roof LL: Lum DOL=1	.15 1)	Dead + Sno	w (balanced): Lum	ber Inc	rease=1.15. F	Plate		=	:	4584	+4 : :
Plate DOL	_=1.15); Pf=20.0 psf (L	um DOL=1.15 Plate	,	Increase=1.	15		,				5 S		1 2 2
DOL=1.15	5); Is=1.0; Rough Cat I	3; Fully Exp.; Ce=0.9;		Uniform Loa	ads (lb/ft)						- 7	·	a: 23
Cs=1.00;	Ct=1.10			Vert: 1-3:	=-60, 3-4=-60, 4-6=	-60, 9-	12=-20				2.1	VGIN	EENON
4) Unbalance	ed snow loads have be	een considered for thi	s	Concentrate	ed Loads (lb)						11	DA	INS,"
design.				Vert: 4=-	5 (F), 8=-93 (F), 7=-	-93 (F)	3=-5 (F)				100	1, 5W .I	OHIM
												"Innu	inne.



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/TPI1** 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	221 Willowcroft-Roof-2742-S	
21030028-A	HJ02	Jack-Open Girder	2	1	Job Reference (optional)	145552923

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:28 ID:yY4JuH0ZAyR8VAG_HWZQ8OzWCVm-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:29.7

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

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 NO IRC201	8/TPI2014	CSI TC BC WB Matrix-MP	0.93 0.16 0.13	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.00 -0.01 0.00	(loc) 4-5 4-5 4	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 18 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORE BOT CHORE WEBS BRACING TOP CHORE BOT CHORE REACTIONS	 2x4 SP No.1 2x4 SP No.2 2x4 SP No.2 *Except Structural wood sheat 3-2-0 oc purlins, exc Rigid ceiling directly bracing. (size) 4= Mechat Max Horiz 5=108 (LC 	t* 2-4:2x4 SP No.3 athing directly applic cept end verticals. applied or 10-0-0 o nical, 5=0-4-13 2 9)	6) 7) ed or 8) c 9)	* This truss on the botto 3-06-00 tall chord and a Refer to girc Provide mec bearing plate 4. One RT7A L truss to beau connection i forces.	has been designed m chord in all area by 2-00-00 wide winy other members. ler(s) for truss to tr shanical connectior e capable of withst JSP connectors re- ring walls due to U s for uplift only and	d for a liv is where ill fit betw uss conr n (by oth anding 3 commen PLIFT at d does no	e load of 20. a rectangle veen the bott nections. ers) of truss 5 lb uplift at ded to conne jt(s) 5. This ot consider la	Opsf om to joint ect iteral					
FORCES TOP CHORE BOT CHORE WEBS	Max Opinit 4=-35 (LC Max Grav 4=125 (LC (Ib) - Maximum Com Tension 2-5=-376/54, 1-2=0/5 0 4-5=-227/477 2-4=-488/232	9), 5=-30 (LC 9) 2 19), 5=411 (LC 19 pression/Maximum 92, 2-3=-153/0)) 1(L()) This truss is Internationa R802.10.2 a DAD CASE(S)	designed in accor Residential Code nd referenced star Standard	dance w sections ndard AN	ith the 2018 SR502.11.1 a ISI/TPI 1.	and					
NOTES 1) Wind: AS Vasd=10 Cat. II; E zone; caa and right DOL=1.6 2) TCLL: AS Plate DC DOL=1.1 Cs=1.00	SCE 7-16; Vult=130mph i3mph; TCDL=6.0psf; BC xp B; Enclosed; MWFR? ntilever left and right exp exposed; Lumber DOL= 50 SCE 7-16; Pr=20.0 psf (tr $J_L=1.15$); Pf=20.0 psf (L1 (5); Is=1.0; Rough Cat B Ct=1 10	(3-second gust) CDL=6.0psf; h=25ft; S (envelope) exteric loosed ; end vertical =1.60 plate grip roof LL: Lum DOL= Jm DOL=1.15 Plate ; Fully Exp.; Ce=0.5	or left 1.15 9;							0	to	OR THESE SEA	ROLIN

- Unbalanced snow loads have been considered for this design.
- 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.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

SEAL 45844 April 8,2021



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/TPI1** 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	221 Willowcroft-Roof-2742-S	
21030028-A	EJ03	Jack-Open	2	1	Job Reference (optional)	145552924

-1-0-0

1-0-0

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.43 S Mar 22 2021 Print: 8.430 S Mar 22 2021 MiTek Industries, Inc. Wed Apr 07 14:27:23 ID:Os6TD8HNo2tmEaxmr?_F3FzWD69-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1







2-0-0

2-0-0

Scale = 1:29.4

Loading	(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.18	Vert(LL)	0.00	4-5	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.04	Vert(CT)	0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES		WB	0.08	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018	3/TPI2014	Matrix-MP								
BCDL	10.0											Weight: 13 lb	FT = 20%
LUMBER			5)	This truss ha	s been designed fo	or a 10.0) psf bottom						
TOP CHORD	2x4 SP No.2 chord live load nonconcurrent with any other live loads.												
BOT CHORD	2x4 SP No.2		6)	* This truss h	as been designed	for a liv	e load of 20.0)pst					
WEBS	2x4 SP No.3			on the botton	1 chord in all areas	where	a rectangle						
BRACING				3-06-00 tall b	y 2-00-00 wide will	TIT DETV	veen the botto	om					
TOP CHORD	Structural wood sh 2-0-0 oc purlins, e	eathing directly applie xcept end verticals.	d or 7)	Refer to girde	er(s) for truss to tru	ss conr	nections.						
BOT CHORD	Rigid ceiling direct bracing.	y applied or 10-0-0 oc	; 8)	Provide mech bearing plate	nanical connection capable of withsta	(by oth Inding 2	ers) of truss to 4 lb uplift at jo	o oint					
REACTIONS	(size) 3= Mech	nanical, 4= Mechanical	l, 9)	4 and 38 lb u This truss is o	plift at joint 3. designed in accord	ance w	ith the 2018						
	Max Horiz 5=95 (L	7 . 14)		International	Residential Code s	sections	R502.11.1 a	nd					
	Max Uplift 3=-38 (I	C 14) 4=-24 (I C 14)		R802.10.2 ar	id referenced stand	dard AN	ISI/TPI 1.						
	Max Grav 3=56 (1)	C(21) = 4=37 (C(7)) = 5=	259 LC	AD CASE(S)	Standard								
	(LC 21)												
FORCES	(lb) - Maximum Co	mpression/Maximum											
	Tension												
TOP CHORD	2-5=-240/53, 1-2=)/80, 2-3=-90/54											
BOT CHORD	4-5=-259/42												
WEBS	2-4=-44/275												
NOTES													
1) Wind: ASC Vasd=103 Cat. II; Ex zone and exposed ; members Lumber D	CE 7-16; Vult=130mp mph; TCDL=6.0psf; p B; Enclosed; MWF C-C Exterior(2E) zor end vertical left and and forces & MWFR OL=1.60 plate grip D	h (3-second gust) BCDL=6.0psf; h=25ft; RS (envelope) exterior e; cantilever left and ri right exposed;C-C for S for reactions shown; OL=1.60	ght							С	T.	WHTH CA	ROLLING
2) TCLL: AS(Plate DOL DOL=1.15 Cs=1.00; (CE 7-16; Pr=20.0 psi .=1.15); Pf=20.0 psf ;); Is=1.0; Rough Cat Ct=1.10	(roof LL: Lum DOL=1 Lum DOL=1.15 Plate B; Fully Exp.; Ce=0.9;	.15 ;							THUN.		SEA 4584	4
 Unbalance design.) Unbalanced snow loads have been considered for this design.										ER! AS		
 This truss load of 12 overhangs 	has been designed f .0 psf or 1.00 times f s non-concurrent with	or greater of min roof I at roof load of 20.0 psi other live loads.	live f on									OREW J	OHNSUIT

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/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

818 Soundside Road Edenton, NC 27932

SINEERING

April 8,2021

