

Trenco 818 Soundside Rd Edenton, NC 27932

Re: 24040155-01 136 Serenity-Roof-329 A COP GLH

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: I65500357 thru I65500419

My license renewal date for the state of North Carolina is December 31, 2024.

North Carolina COA: C-0844



May 13,2024

Tony Miller

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	136 Serenity-Roof-329 A COP GLH	
24040155-01	CJ2	Jack-Open	2	1	Job Reference (optional)	165500357

-0-10-8

0-10-8

2

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

1-0-2

2-0-0

1.15

1 15

Spacing

Plate Grip DOL

Lumber DOL

(psf)

20.0

20.0

Run: 8,73 S Apr 25 2024 Print: 8,730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:18 ID:YprCWWo9qqGjtf1nvILLX0yi1PG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

0-9-12

l/defl

n/a n/a

L/d

240

180

PLATES

Weight: 7 lb

MT20

GRIP

244/190

FT = 20%



10.0 Rep Stress Incr YES WB 0.00 Horz(CT) 0.00 0.0 Code IRC2018/TPI2014 Matrix-MP 10.0 * This truss has been designed for a live load of 20.0psf 6) on the bottom chord in all areas where a rectangle 2x4 SP No.2 2x4 SP No.2 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members. Bearings are assumed to be: , Joint 2 User Defined . 7) Structural wood sheathing directly applied or Refer to girder(s) for truss to truss connections. 8) 1-11-11 oc purlins. Provide mechanical connection (by others) of truss to 9) Rigid ceiling directly applied or 10-0-0 oc bearing plate capable of withstanding 4 lb uplift at joint 4, bracing. 8 lb uplift at joint 3 and 86 lb uplift at joint 2. **REACTIONS** (size) 2=0-3-8, 3= Mechanical, 4= 10) This truss is designed in accordance with the 2018 Mechanical International Residential Code sections R502.11.1 and Max Horiz 2=29 (LC 10) R802.10.2 and referenced standard ANSI/TPI 1. 2=-86 (LC 10), 3=-8 (LC 14), 4=-4 Max Uplift LOAD CASE(S) Standard (LC 11) 2=234 (LC 21), 3=25 (LC 21), 4=20 Max Grav (LC 7) (lb) - Maximum Compression/Maximum Tension 1-2=0/17, 2-3=-115/125 2-4=-121/139 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; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip

CSI

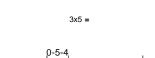
тс

BC

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



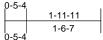
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing fabricated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing fabricated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing fabricated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing fabricated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing fabricated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing fabricated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing fabricated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing fabricated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing fabricated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing fabricated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing fabricated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing fabricated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing fabricated is to prevent buckling of individual truss web and/or chord members on the permanent bracing temporary and permanent bracing temporary and permanent bracing temporary and permanent bracing tempora and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



0.08

0.07

-0



DEFL

Vert(LL)

Vert(CT)

in

0.00

0.00

(loc)

5 >999

5 >999

3

1-11-11

1-11-11

12 3 Г

Scale = 1:23.7

Loading

TCLL (roof)

Snow (Pf)

LUMBER

BRACING

TOP CHORD

BOT CHORD

TOP CHORD

BOT CHORD

FORCES

NOTES

TOP CHORD

BOT CHORD

DOI = 1.60

TCDL

BCLL

BCDL

SEAL 023594 May 13,2024	
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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	HJ57	Diagonal Hip Girder	1	1	Job Reference (optional)	165500358

3-5-0

3-5-0

2-10-1

0-6-15

-1-2-14 1-2-14

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

1-6-2

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:20 ID:nMTt61WohGqC4tdJQuQQzgyi1OK-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

5-7-7

2-2-7



12 2.12 L 2x4 🛛 3x5 = 4 3 12 0 1-3-12 U F ПП 5 13 6 2x4 II 3x6 = 3x5 = NAILED NAILED 0-6-15 3-5-0 5-7-7

2-2-7

NAILED

Scale = 1:34.7

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	0.19	Vert(LL)	0.00	6	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.01	6	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 23 lb	FT = 20%
LUMBER			6) * This truss I	nas been designed f	or a liv	e load of 20.	0psf					
TOP CHORD	2x4 SP No.2			m chord in all areas								
BOT CHORD	2x4 SP No.2			by 2-00-00 wide will	fit betv	veen the bott	om					
WEBS	2x4 SP No.3 *Excep	ot* 4-5:2x6 SP No.2		ny other members.								
BRACING				are assumed to be l								
TOP CHORD	Structural wood she	athing directly applied		er(s) for truss to trus								
	5-7-7 oc purlins, ex	cept end verticals.		hanical connection (
BOT CHORD	Rigid ceiling directly	applied or 10-0-0 oc		e capable of withstar	nding 6	5 lb uplift at j	joint					
	bracing.		5.									
REACTIONS	(size) 2=0-4-10,	, 5= Mechanical		Simpson Strong-Tie								
	Max Horiz 2=46 (LC	33)		ed to connect truss to		0						
	Max Uplift 2=-146 (L	_C 8), 5=-65 (LC 8)		(s) 2. This connectio sider lateral forces.	n is ior	upint only a	ia					
	Max Grav 2=430 (L0	C 19), 5=214 (LC 19)		designed in accorda		ith the 2019						
FORCES	(lb) - Maximum Com	noression/Maximum		Residential Code se			nd					
	Tension	iprocolori, maximum		nd referenced stand			anu					
TOP CHORD	1-2=0/17, 2-3=-366/	/243, 3-4=-15/10,		dicates 3-10d (0.148								
	4-5=-75/24			5") toe-nails per NDS								
BOT CHORD	2-6=-240/346, 5-6=-	-100/346		CASE(S) section, lo			face					
WEBS	3-6=-13/82, 3-5=-36	63/105		are noted as front (F								
NOTES			LOAD CASE(S)			- ()						
	CE 7-16; Vult=130mph	(3-second aust)	· · ·	ow (balanced): Lumb	per Inc	rease=1.15.	Plate					
,	Smph; TCDL=6.0psf; B	(0)	,	· · · ·		,						no
	Enclosed; MWFRS (er			ads (lb/ft)								a string and a string of the s
	and right exposed; Lur			=-60, 5-7=-20							IN BIH C	ARO
grip DOL=				ed Loads (lb)							alt ind	Si A INT
2) TCLL: AS	CE 7-16; Pr=20.0 psf ((roof LL: Lum DOL=1.1		=2 (F=1, B=1)						3	Sainter	SIGAT NO
Plate DOL	_=1.15); Pf=20.0 psf (L	um DOL=1.15 Plate		= (· · ·, = ·)						32	Const 1 .	mart

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.



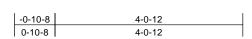
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSUTP11 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcaccomponents.com)

TRENCO A MITek Affiliate

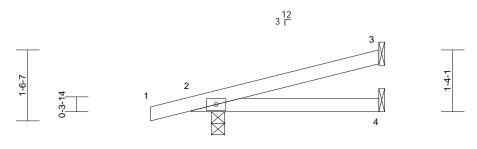
818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	EJ4B	Jack-Open	2	1	Job Reference (optional)	65500359

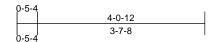
Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:19 ID:gULXnTbdkc2aFYwQ74WH4Ryi1Mx-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f











Scale = 1:24.9

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/TPI2014	CSI TC 0.20 BC 0.14 WB 0.00 Matrix-MP	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.01 -0.02 0.00	(loc) 4-9 4-9 3	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 BRACING TOP CHORD BOT CHORD REACTIONS	 2x4 SP No.2 Structural wood sheat 4-0-12 oc purlins. Rigid ceiling directly bracing. 	applied or 10-0-0 oc B= Mechanical, 4= al 10) C 10), 3=-37 (LC 10), 10) C 21), 3=119 (LC 21),	on the botton 3-06-00 tall chord and ar bearings are 9) Provide mec bearing plate 3, 13 lb uplif 10) This truss is International R802 10 2 a	has been designed for a lin m chord in all areas where by 2-00-00 wide will fit bet ny other members. e assumed to be: , Joint 2 der(s) for truss to truss cor chanical connection (by otf e capable of withstanding i ft at joint 4 and 103 lb uplifi designed in accordance v I Residential Code section and referenced standard Al) Standard	a rectangle ween the bott User Defined anections. hers) of truss i 37 lb uplift at j at joint 2. vith the 2018 s R502.11.1 at	to joint					
FORCES	,										
	2-4=-128/139 CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; BC		Cat.								

II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; porch 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
- 3) Unbalanced snow loads have been considered for this design.
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- This truss has been designed for a 10.0 psf bottom 5) chord live load nonconcurrent with any other live loads.

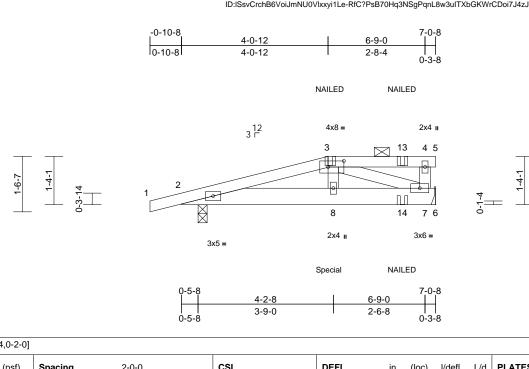
annunnun SEAL 23594 M 1111111111 May 13,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and PCB Building Component Science Michael Component Advancing Component Advancing Component Advancing and PCB and Component Advancing Component Compone and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	MH01	Half Hip Girder	1	1	Job Reference (optional)	165500360

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:20 ID:ISsvCrchB6VoiJmNU0Vlxxyi1Le-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



Scale = 1:31.9

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

	20.0	Dista Cris DOI	4 45		TC	0.00	DEFL	in	(loc)	l/defl >999	L/d	PLATES	GRIP
CLL (roof) Snow (Pf)	20.0 20.0	Plate Grip DOL Lumber DOL	1.15 1.15		BC	0.23 0.24	Vert(LL) Vert(CT)	-0.01 -0.02	8-12 8-12	>999 >999	240 180	MT20	244/190
	10.0	Rep Stress Incr	NO		WB	0.19	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0*	Code		18/TPI2014	Matrix-MP	00		0.00					
BCDL	10.0											Weight: 34 lb	FT = 20%
UMBER			7		is been designed								
OP CHORD	2x4 SP No.2		0		ad nonconcurrent								
BOT CHORD	2x6 SP No.2		8		nas been designe n chord in all area			upsr					
VEBS	2x4 SP No.3				by 2-00-00 wide w			om					
OP CHORD	Structural wood she	eathing directly applie	ad or		y other members								
OF CHORD	6-0-0 oc purlins, ex		9		er(s) for truss to t								
	2-0-0 oc purlins: 3-		1		hanical connectio								
BOT CHORD	Rigid ceiling directly	/ applied or 10-0-0 o	0		e capable of withs	tanding 1	56 lb uplift at	t joint					
	bracing.		1	7. 1) One H2 54 9	Simpson Strong-T	ie conne	rtors						
REACTIONS	· · · ·	7= Mechanical			ed to connect trus			to					
	Max Horiz 2=49 (LC	,		UPLIFT at jt	s) 2. This connec	tion is for	· uplift only ar	nd					
	Max Uplift 2=-182 (I Max Grav 2=550 (L		`		sider lateral force								
ORCES		npression/Maximum	/ 1		designed in accor Residential Code			nd					
ONOLO	Tension	npression/maximum			nd referenced sta			anu					
OP CHORD	1-2=0/17, 2-3=-780	/241, 3-4=0/0, 4-5=0	/0 1		rlin representation			size					
BOT CHORD	2-8=-241/732, 7-8=	,			ation of the purlin	along the	top and/or						
VEBS	3-8=-72/251, 4-7=-7	164/51, 3-7=-818/268		bottom chore		10"0")							
OTES					dicates 3-10d (0.1 ") toe-nails per N								n
) Unbalance this design	d roof live loads have	e been considered fo	r 1		other connection								ANILL
0	E 7-16; Vult=130mpl	n (3-second aust)		provided suf	ficient to support of	concentra	ated load(s) 2					L'ATH U	ARO
	mph; TCDL=6.0psf; E		Cat.		107 lb up at 4-0-					_	X	ON FR	STOMAR
	Enclosed; MWFRS (e				tion of such conne	ection de	vice(s) is the				1. Cal	CALL CALL	Melty
	and right exposed; Lu	mber DOL=1.60 plat	e 1	responsibility	CASE(S) section	loads a	onlied to the	face		· · · · ·	-	10	41 =
grip DOL=1	1.60 CE 7-16; Pr=20.0 psf	(roof LL : Lum DOL -			are noted as front			1400			3	. OF	AL : E
	=1.15); Pf=20.0 psf (I			OAD CASE(S)		()	- ()				-	SE SE	
); Is=1.0; Rough Cat				ow (balanced): Lu	mber Inc	rease=1.15,	Plate			-	023	594 : -
Cs=1.00; Ć	Ct=1.10			Increase=1							3		
,	d snow loads have b	een considered for th	nis	Uniform Lo	. ,						The second second	·	a! 3
design.	haa haan daalamad fo	a analysis of min roof	li ce		=-60, 3-5=-60, 2-6	6=-20					1	NGI	VEENAN
	has been designed fo 0 psf or 1.00 times fla				ed Loads (lb) 213 (B), 3=-59 (B) 1361	(B) 1428	(B)			1	AN	A A A A A A A A A A A A A A A A A A A
	non-concurrent with			ven. 0=-	210 (D), 0=-09 (D	, 1301	(2), 14-20	(5)				11, R.	MILLIN
	lequate drainage to p		J.									in in	mm
												Ma	y 13,2024

WARNING - Verity design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MIT-4/3 fev. 1/2/2023 BEFORE USE. Design valid for use only with MiTeR's connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

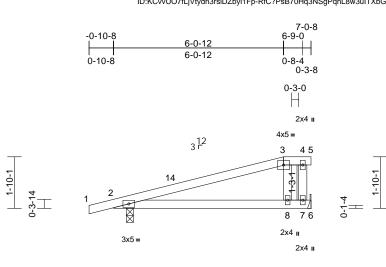
A MITek Affilia 818 Soundside Road Edenton, NC 27932

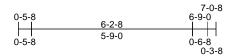
Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	MH02	Half Hip	1	1	Job Reference (optional)	165500361

2-0-7

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:21 ID:KCvvUO7fLjVtydn3rsiDZbyi1Fp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:41.1

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 IRC2018	8/TPI2014	CSI TC BC WB Matrix-MP	0.64 0.57 0.05	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.15 -0.19 0.00	(loc) 8-13 8-13 2	l/defl >535 >421 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 26 lb	GRIP 244/190 FT = 20%
	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood shea 6-0-0 oc purlins, exce 2-0-0 oc purlins: 3-5. Rigid ceiling directly a bracing. (size) 2=0-3-0, 7: Max Horiz 2=66 (LC 1 Max Uplift 2=-139 (LC Max Grav 2=440 (LC	ept applied or 10-0-0 oc = Mechanical 10) C 10), 7=-94 (LC 10)	8) 9) 10	load of 12.0 overhangs n Provide adee This truss ha chord live loa * This truss f on the bottor 3-06-00 tall b chord and ar Refer to gird 0) Provide mec bearing plate 7.	as been designed f psf or 1.00 times f on-concurrent with quate drainage to as been designed f ad nonconcurrent i has been designed m chord in all area by 2-00-00 wide wi hy other members. er(s) for truss to tr hanical connection e capable of withst Simpson Strong-Ti	lat roof le n other lir prevent f for a 10. with any d for a liv s where ill fit betv uss conr n (by oth anding §	bad of 20.0 p ve loads. water pondiny 0 psf bottom other live loa e load of 20.0 a rectangle veen the botto nections. ers) of truss i 4 lb uplift at j	sf on g. ads. Opsf om to					
FORCES TOP CHORD BOT CHORD WEBS NOTES 1) Unbalance this design 2) Wind: ASC Vasd=103	(lb) - Maximum Comp Tension 1-2=0/17, 2-3=-113/1 2-8=-124/136, 7-8=0/ 3-8=-212/177, 4-7=-5 ed roof live loads have t	29, 3-4=0/0, 4-5=0/(/0, 6-7=0/0 56/18 been considered for (3-second gust) CDL=6.0psf; h=25ft; () 12 13 Cat. LC	recommende UPLIFT at jt(does not con) This truss is International R802.10.2 at) Graphical pu	ed to connect truss (s) 2. This connect isider lateral force: designed in accor Residential Code nd referenced star irlin representation ation of the purlin a d.	s to bear tion is for s. dance w sections ndard AN n does no	ing walls due r uplift only ar ith the 2018 s R502.11.1 a ISI/TPI 1. ot depict the s	nd				IN ATH C	AROLIN

Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat.
II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Exterior(2R) 2-1-8 to 6-0-12, Exterior(2E) 6-0-12 to 7-0-8 zone; porch 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

- 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.



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TRENCO A MITek Affiliate

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	L02	Monopitch	8	1	Job Reference (optional)	165500362

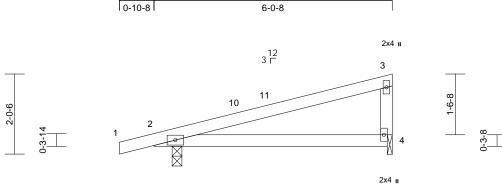
6-0-8

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

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:20 ID:pE4RPXqQnfN4xXkKM5Y2sGyi1ZY-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f







-0-10-8



Scale = 1:29.2

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	0.57	Vert(LL)	0.08	4-9	>882	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.40	Vert(CT)	-0.10	4-9	>689	180		
TCDL	10.0	Rep Stress Incr	YES		WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC201	8/TPI2014	Matrix-MP								
BCDL	10.0											Weight: 21 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.3 Structural wood she 6-0-0 oc purlins, ex Rigid ceiling directly bracing. (size) 2=0-3-0, 4 Max Horiz 2=65 (LC Max Uplift 2=-127 (L Max Grav 2=423 (LC	cept end verticals. applied or 10-0-0 or 4=0-1-8 10) C 10), 4=-83 (LC 10 C 21), 4=271 (LC 21	c 9) 1(on the botton 3-06-00 tall II chord and an Bearings are Bearing at jo using ANSI/ designer sho Provide meo bearing plate 0) One H2.5A S recommende UPLIFT at jt	has been designen n chord in all are: y 2-00-00 wide v hy other members assumed to be: int(s) 4 considers IPI 1 angle to gra vuld verify capacit hanical connectic a at joint(s) 4. Simpson Strong-1 ed to connect trus (s) 4 and 2. This (t consider lateral	as where will fit betw s. Joint 4 SI s parallel t ain formula ty of bear on (by oth Fie conne ss to bear connectio	a rectangle veen the both O No.3 . o grain value a. Building ng surface. ers) of truss ctors ng walls due	tom e to e to					
FORCES	(lb) - Maximum Corr Tension	pression/Maximum	11		designed in acco Residential Code			and					
TOP CHORD	1-2=0/18, 2-3=-117/	137, 3-4=-194/163			nd referenced sta			ana					
BOT CHORD	2-4=-132/141		L	DAD CASE(S)	Standard								
NOTES			_										
Vasd=103 II; Exp B; and C-C E to 2-10-12 left and rig MWFRS f grip DOL= 2) TCLL: AS Plate DOI DOL=1.15 Cs=1.00; 3) Unbalanc design.	CE 7-16; Pr=20.0 psf (L=1.15); Pf=20.0 psf (L 5); Is=1.0; Rough Cat E	CDL=6.0psf; h=25ft; velope) exterior zor 2-1-8, Interior (1) 2- to 5-10-12 zone; po embers and forces & imber DOL=1.60 pla roof LL: Lum DOL=1 um DOL=1.15 Plate 8; Fully Exp.; Ce=0.9 even considered for th	ne 1-8 vrch & tte 1.15 ;							,		SE 023	• -

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.

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818 Soundside Road Edenton, NC 27932

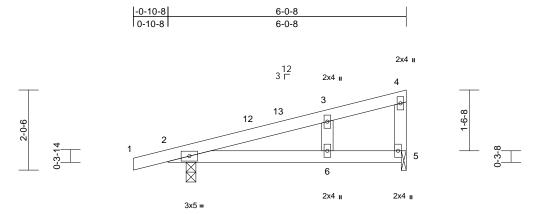
R. M

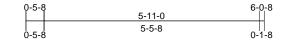
Minimum May 13,2024

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	L01	Monopitch	1	1	Job Reference (optional)	165500363

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:20 ID:xMXwYrDZi?smEC1Qbl601Wyi1XI-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1





Scale = 1:29.2

Loading (psf)		1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof) 20.0		1.15	TC	0.42	Vert(LL)	0.09	6-11	>801	240	MT20	244/190
Snow (Pf) 20.0		1.15	BC	0.46	Vert(CT)	-0.12	6-11	>601	180		
TCDL 10.0		YES	WB	0.02	Horz(CT)	0.00	2	n/a	n/a		
BCLL 0.0*	Code	RC2018/TPI2014	Matrix-MP								
BCDL 10.0										Weight: 23 lb	FT = 20%
BOT CHORD 6-0-0 oc purlins, e: Rigid ceiling directly bracing. REACTIONS (size) 2=0-3-0, Max Horiz 2=63 (LC Max Uplift 2=-123 (Max Grav 2=409 (L	 v applied or 10-0-0 oc 5=0-1-8 (10) (2 10), 5=-81 (LC 10) (2 21), 5=263 (LC 21) npression/Maximum (133, 3-4=-36/32, 0/0 n (3-second gust) (CDL=6.0psf; h=25ft; Ca nvelope) exterior zone 2-1-8, Interior (1) 2-1-8 to 5-10-12 zone; porch nembers and forces & umber DOL=1.60 plate n the plane of the truss d (normal to the face), id Details as applicable, igner as per ANSI/TPI 1 (roof LL: Lum DOL=1.15 plate 	design. 5) This truss he load of 12.0 overhangs n 6) Gable studs 7) This truss ha chord live lo 8) * This truss l on the botton 3-06-00 tall 1 chord and ai 9) Bearings are 10) Bearing at jc using ANSI/ designer sho 11) Provide mec bearing platter 12) One H2.5A S recommend UPLIFT at jt and does no 13) This truss is International R802.10.2 a LOAD CASE(S)	snow loads have b as been designed for psf or 1.00 times fla ion-concurrent with spaced at 2-0-0 oc as been designed for ad nonconcurrent with has been designed m chord in all areas by 2-00-00 wide wil ny other members. a assumed to be: Jo pint(s) 5 considers p TPI 1 angle to grain ould verify capacity chanical connection e at joint(s) 5. Simpson Strong-Tie ed to connect truss (s) 5 and 2. This co to tonsider lateral for designed in accord I Residential Code s and referenced stan Standard	or great at roof lo other liv or a 10.0 with any l for a liv s where Il fit betw oint 5 SI parallel 1 n formult of bear n formult to bear onces. dance w sections	er of min roof pad of 20.0 p: ve loads. D psf bottom other live loa e load of 20.0 e load of 20.0 e load of 20.0 P No.3 . o grain value a. Building ng surface. ers) of truss t ctors ing walls due n is for uplift of ith the 2018 : R502.11.1 a	live sf on ds.)psf om o to only				UNITH C	VEER ER

- 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), 2) 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

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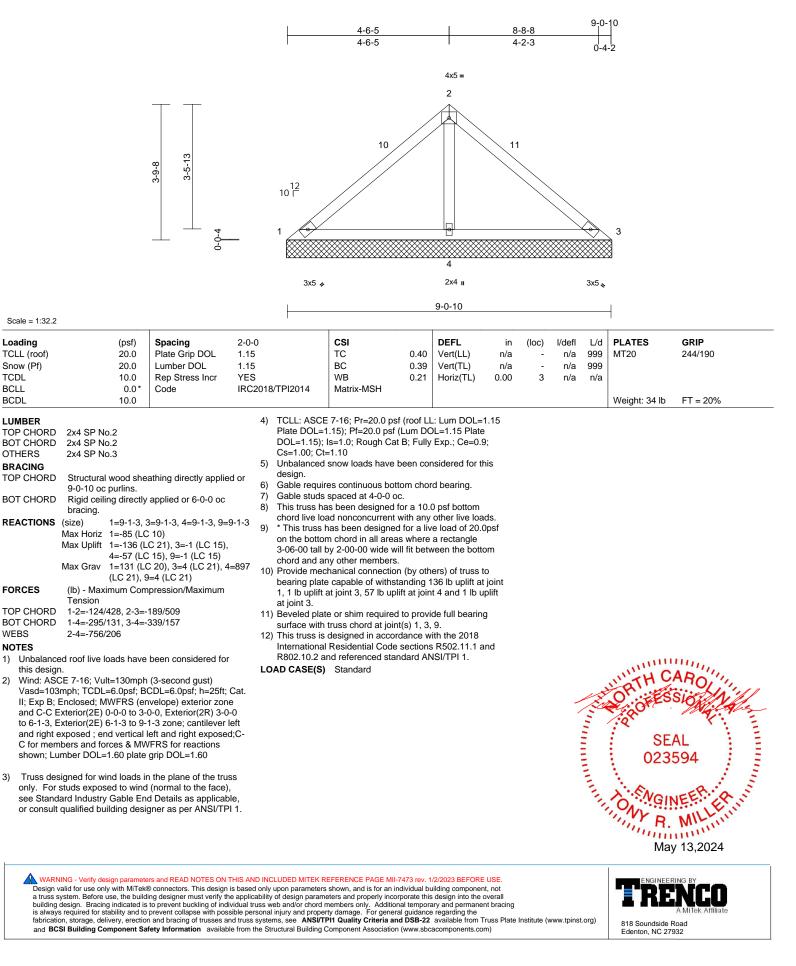
R. M May 13,2024

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLD5	Valley	1	1	Job Reference (optional)	165500364

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:23 ID:NM3Z3jjUOsZCUIcg4sDncXyi376-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Page: 1



Job		Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040	0155-01	VLG5	Valley	1	1	Job Reference (optional)	165500365

2-7-1

2-7-1

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

Run: 8,73 S Apr 25 2024 Print: 8,730 S Apr 25 2024 MiTek Industries. Inc. Fri May 10 10:28:24 ID:NocWnBzN1oTHB2KDr3rn1JyiMMV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

4-9-15

2-2-15

l/defl

n/a 999

n/a 999

n/a n/a

L/d

PLATES

Weight: 19 lb

MT20

GRIP

244/190

FT = 20%

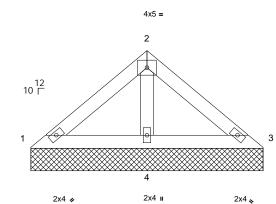


2 1-10-7 12 10 ∟ 2-2-2 7-0-0 4 2x4 II 2x4 🥠 5-2-1 Spacing 2-0-0 CSI DEFL in (loc) Plate Grip DOL 1.15 тс 0.10 Vert(LL) n/a BC Lumber DOL 1 15 0.13 Vert(TL) n/a Rep Stress Incr YES WB 0.04 Horiz(TL) 0.00 4 Code IRC2018/TPI2014 Matrix-MP 5) Unbalanced snow loads have been considered for this design. Gable requires continuous bottom chord bearing. 6) Gable studs spaced at 4-0-0 oc. 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.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 3 and 38 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



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Scale = 1:25.7

Loading

TCLL (roof)

Snow (Pf)

TCDL

BCLL

BCDL

LUMBER		
TOP CHORD	2x4 SP N	0.2
BOT CHORD	2x4 SP N	0.2
OTHERS	2x4 SP N	0.3
BRACING		
TOP CHORD	Structura	wood sheathing directly applied or
	5-2-1 oc p	a 1 1
BOT CHORD	Rigid ceil	ng directly applied or 6-0-0 oc
	bracing.	
REACTIONS	(size)	1=5-2-1, 3=5-2-1, 4=5-2-1
	Max Horiz	1=47 (LC 13)
	Max Uplift	3=-6 (LC 15), 4=-38 (LC 14)
	Max Grav	1=92 (LC 20), 3=92 (LC 21), 4=323
	Max Grav	
FORCES		1=92 (LC 20), 3=92 (LC 21), 4=323
FORCES		1=92 (LC 20), 3=92 (LC 21), 4=323 (LC 21)
FORCES	(lb) - Max Tension	1=92 (LC 20), 3=92 (LC 21), 4=323 (LC 21)
	(lb) - Max Tension 1-2=-84/1	1=92 (LC 20), 3=92 (LC 21), 4=323 (LC 21) imum Compression/Maximum

(psf)

20.0

20.0

10.0

0.0

10.0

NOTES

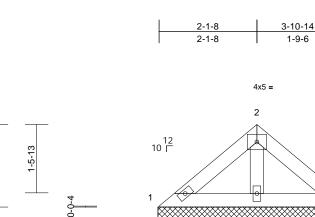
1) Unbalanced roof live loads have been considered for this design.

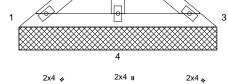
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions 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.
- 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

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLD7	Valley	1	1	Job Reference (optional)	165500366

1-9-8

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:23 ID:CTJXfDa4PaYXYgchQWvHEbyi3?Y-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1





4-3-0

Scale = 1:25

Scale = 1:25													
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	0.06	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	0.03	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018	8/TPI2014	Matrix-MP								
BCDL	10.0											Weight: 15 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3		5) 6) 7) 8)	design. Gable requir Gable studs This truss ha	snow loads have es continuous bo spaced at 4-0-0 d is been designed	ttom chor oc. for a 10.0	d bearing.) psf bottom						
TOP CHORD	Structural wood she 4-3-0 oc purlins.	athing directly applie	ed or 9)		ad nonconcurrent has been designe								
BOT CHORD	Rigid ceiling directly bracing.	applied or 6-0-0 oc			n chord in all area by 2-00-00 wide v			om					
	Max Horiz 1=-38 (LC Max Uplift 1=-1 (LC (LC 14) Max Grav 1=81 (LC (LC 20) (Ib) - Maximum Com	14), 3=-8 (LC 15), 4 20), 3=81 (LC 21), 4	-26 4=251 ¹¹	 Provide mec bearing plate 8 lb uplift at j Beveled plate surface with This truss is 	ty other members hanical connection capable of withs oint 3 and 26 lb u e or shim require truss chord at join designed in acco Residential Code	on (by oth standing 1 uplift at joi d to provi nt(s) 1, 3. ordance w	Ib uplift at jo nt 4. de full bearing ith the 2018	vint 1, g					
	Tension	100			nd referenced sta	andard AN	ISI/TPI 1.						
TOP CHORD BOT CHORD	1-2=-74/83, 2-3=-74, 1-4=-67/73, 3-4=-67,		LC	DAD CASE(S)	Standard								
WEBS	2-4=-169/73	15											
	2-4=-109/13												
NOTES	d roof live loads have	haan aanaidanad fa	_										
this design		been considered to	ſ									minin	uun.
2) Wind: ASC Vasd=103i II; Exp B; E and C-C E exposed ; members a Lumber DC	E 7-16; Vult=130mph mph; TCDL=6.0psf; B Enclosed; MWFRS (er xterior(2E) zone; cant end vertical left and rig and forces & MWFRS DL=1.60 plate grip DC igned for wind loads ir studs exposed to wind	CDL=6.0psf; h=25ft; velope) exterior zor lever left and right ght exposed;C-C for for reactions shown L=1.60 h the plane of the tru	ne ; ISS									SE 023	

N

- 2
- 3) 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 (troof 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; 4) Cs=1.00; Ct=1.10

NGINES R. Minin May 13,2024



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCEL Building Component Science United for the Structure Buckling Component Advance Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLD6	Valley	1	1	Job Reference (optional)	165500367

3-3-14

3-3-14

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

2-5-13

0-0-4

2-9-8

Run: 8,73 S Apr 25 2024 Print: 8,730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:23 ID:NM3Z3jjUOsZCUIcg4sDncXyi376-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

6-3-11

2-11-12



4x5 = 2 9 10 3 4 2x4 u 2x4 💊 6-7-13 GRIP 244/190 FT = 20%

Scale = 1:28.2

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	5/TPI2014	CSI TC BC WB Matrix-MP	0.21 0.22 0.07	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: 25 lb
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD	6-7-13 oc purlins.	eathing directly applied applied or 6-0-0 oc	4) 5) d or 7) 8)	Plate DOL= DOL=1.15); Cs=1.00; Ct: Unbalanced design. Gable requir Gable studs This truss ha	E 7-16; Pr=20.0 p I.15); Pf=20.0 ps Is=1.0; Rough C =1.10 snow loads have es continuous be spaced at 4-0-0 as been designed ad nonconcurren	if (Lum DC at B; Fully e been cor ottom chor oc. d for a 10.0	DL=1.15 Plate Exp.; Ce=0.9 nsidered for th d bearing. D psf bottom	i; iis				
	(size) 1=6-8-7, Max Horiz 1=61 (LC Max Uplift 1=-10 (LC 4=-63 (LC Max Grav 1=101 (L 4=478 (L	C 21), 3=-10 (LC 20), C 14) C 20), 3=101 (LC 21)	9) 7 10)	* This truss I on the bottor 3-06-00 tall I chord and an Provide med	ad nonconcurren has been design m chord in all are by 2-00-00 wide hy other member thanical connecti e capable of with	ed for a liv eas where will fit betw s. on (by oth	e load of 20.0 a rectangle veen the botto ers) of truss t)psf om o				
FORCES TOP CHORD BOT CHORD WEBS	(lb) - Maximum Con Tension 1-2=-86/201, 2-3=-8 1-4=-160/140, 3-4=- 2-4=-376/180		,	1, 10 lb uplif Beveled plat surface with This truss is	t at joint 3 and 63 e or shim require truss chord at jo designed in acco Residential Cod	3 lb uplift a ed to provi int(s) 1, 3. ordance w	it joint 4. de full bearing ith the 2018	9				

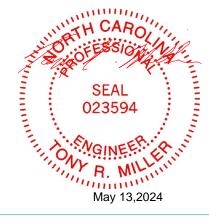
12 10 ∟

2x4 🦼

NOTES

- 1) Unbalanced roof live loads have been considered for 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) 0-0-0 to 3-0-0, Exterior(2R) 3-0-0 to 3-8-7, Exterior(2E) 3-8-7 to 6-8-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.

- R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S) Standard



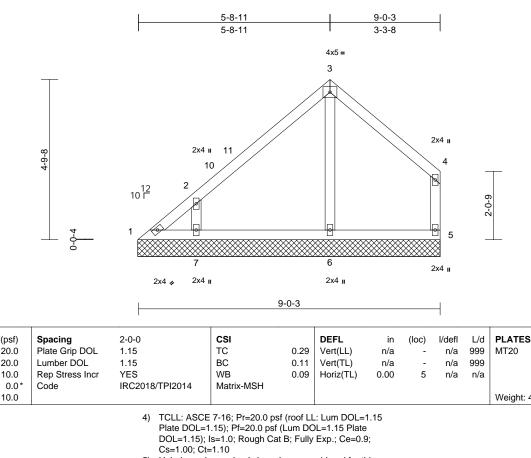
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and PCB Building Component Science Michael Component Advancing Component Advancing Component Advancing and PCB and Component Advancing Component Compone 818 Soundside Road Edenton, NC 27932 and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLD4	Valley	1	1	Job Reference (optional)	165500368

Run: 8,73 S Apr 25 2024 Print: 8,730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:23 ID:vAVBsNisdZRLs81UW9iY4Kyi377-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:34.4

Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(ps 20. 20. 10. 0. 10.	0 Plate Grip DOL 0 Lumber DOL 0 Rep Stress Incl 0* Code	1.15 r YES	018/TPI2014	CSI TC BC WB Matrix-MSH	0.29 0.11 0.09	DEFL Vert(LL) Vert(TL) Horiz(TL)	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: 40 lb	GRIP 244/190 FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD BOT CHORD REACTIONS	6-0-0 oc purlins Rigid ceiling dire bracing. (size) 1=9-0 Max Horiz 1=130 Max Uplift 1=-61 Max Grav 1=93	sheathing directly ap except end verticals ectly applied or 10-0-(1-8, 5=9-0-8, 6=9-0-8, 0 (LC 11) 0 (LC 10), 5=-59 (LC 2 (LC 13), 5=218 (LC 2 0 (LC 20), 7=-378 (LC	plied or 5. 0 oc 7=9-0-8 15), 14)	Plate DOL=1 DOL=1.15); Cs=1.00; Cs=1.00; Cs=1.00	F-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 bot spaced at 4-0-0 o is been designed ad nonconcurrent has been designed n chord in all area by 2-00-00 wide w hanical connectio e capable of withs	(Lum DC t B; Fully been con tom choi c. for a 10. with any d for a liv s where ill fit betv n (by oth	DL=1.15 Plate v Exp.; Ce=0.9 nsidered for t rd bearing. 0 psf bottom other live loa ve load of 20.1 a rectangle ween the bott hers) of truss i	e e; his ds. Dpsf om					
FORCES TOP CHORD BOT CHORD WEBS	(lb) - Maximum Tension 1-2=-160/148, 2 4-5=-192/130	Compression/Maximu -3=-161/125, 3-4=-14 =-24/42, 5-6=-24/42	ım 5/141,	uplift at joint 11) Beveled plat surface with 12) This truss is International	t at joint 1, 11 lb u 7. e or shim required truss chord at joir designed in accol Residential Code nd referenced sta	to provi it(s) 1. dance w sections	ide full bearin ⁄ith the 2018 s R502.11.1 a	g					
this design 2) Wind: ASC Vasd=103 II; Exp B; and C-C E	n. CE 7-16; Vult=130 Imph; TCDL=6.0ps Enclosed; MWFRS Exterior(2E) 0-0-0 t	ave been considered mph (3-second gust) ff; BCDL=6.0psf; h=2 6 (envelope) exterior : o 3-0-0, Exterior(2R)	l for 5ft; Cat. zone 3-0-0	LOAD CASE(S)	Standard					~	in the second se	ORTH C ORTH C SPOFES	ARO
left and rig exposed;0 reactions = DOL=1.60 3) Truss des	yht exposed ; end C-C for members a shown; Lumber D() signed for wind loa	o 8-10-12 zone; canti vertical left and right ind forces & MWFRS DL=1.60 plate grip ds in the plane of the wind (normal to the fa	for truss								THE REAL PROPERTY OF THE PROPE	023	

- II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Exterior(2R) 3-0-0 to 5-9-0, Exterior(2E) 5-9-0 to 8-10-12 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 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.

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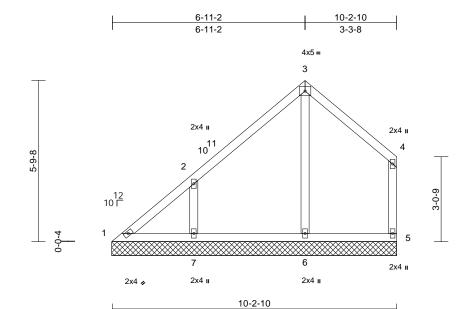


818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLD3	Valley	1	1	Job Reference (optional)	165500369

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:22 ID:vAVBsNisdZRLs81UW9iY4Kyi377-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:41.4

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	0.30	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)		20.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
TCDL		10.0	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	5	n/a	n/a		
BCLL		0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL		10.0										Weight: 49 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS BRACING TOP CHORD	2x4 SP No. 2x4 SP No. 2x4 SP No. Structural v 6-0-0 oc pu	.2 .3 .3 wood shea urlins, exc	athing directly applied	only. For s see Standa or consult c 4) TCLL: ASC Plate DOL= DOL=1.15) Cs=1.00; C	gned for wind load uds exposed to wi rd Industry Gable ualified building de E 7-16; Pr=20.0 ps 1.15); Pf=20.0 psf Is=1.0; Rough Ca t=1.10 I snow loads have	ind (norm End Deta esigner as sf (roof LL (Lum DC at B; Fully	al to the face ils as applica s per ANSI/TI .: Lum DOL= DL=1.15 Plate Exp.; Ce=0.9	e), ble, PI 1. 1.15 9;					
BOT CHORD	Rigid ceilin bracing.	g directly	applied or 10-0-0 oc	design.	res continuous bo			1115					
	Max Horiz Max Uplift Max Grav	1=-48 (LC 6=-20 (LC 1=141 (LC		 8) This truss h chord live k 9) * This truss on the botto 3-06-00 tall 	s spaced at 4-0-0 of as been designed bad nonconcurrent has been designe om chord in all area by 2-00-00 wide w	for a 10.0 with any d for a liv as where will fit betw	other live loa e load of 20.0 a rectangle	0psf					
FORCES			pression/Maximum	10) Provide me	ny other members chanical connections are capable of withs	on (by oth							
TOP CHORD	1-2=-185/1 4-5=-179/1		164/137, 3-4=-127/15		ft at joint 1, 20 lb ι								
BOT CHORD WEBS	1-7=-35/12 3-6=-236/7		5/49, 5-6=-35/49 26/244	11) Beveled pla	te or shim require		de full bearin	g					1111.
	3-0=-230/7	0, 2-7=-3.	20/244		truss chord at joir		ub ub a 0040					and C	AD
,		ads have	been considered for	Internationa	designed in acco Residential Code and referenced sta	e sections	s R502.11.1 a	and			1º	ORTH O	Sin LA
Vasd=103 II; Exp B; and C-C E to 3-11-6, 6-11-6 to forces & N	CE 7-16; Vulta Bmph; TCDL= Enclosed; MV Exterior(2E) 0 Exterior(2R) 10-1-2 zone; al left and rigi	6.0psf; B0 WFRS (en -0-0 to 2- ⁻ 3-11-6 to cantilever ht expose eactions sl	(3-second gust) CDL=6.0psf; h=25ft; (ivelope) exterior zone 11-6, Interior (1) 2-11 6-11-6, Exterior(2E) · left and right expose d;C-C for members a hown; Lumber	LOAD CASE(S Cat. -6 d ;						1		SE 023	VEEP. FALL

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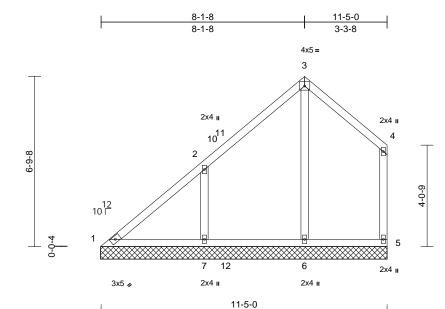
818 Soundside Road Edenton, NC 27932

R. M China Minin May 13,2024

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLD2	Valley	1	1	Job Reference (optional)	165500370

Run: 8,73 S Apr 25 2024 Print: 8,730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:22 ID:vAVBsNisdZRLs81UW9iY4Kyi377-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:46

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	0.30	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL		10.0	Rep Stress Incr	YES		WB	0.20	Horiz(TL)	0.00	5	n/a	n/a		
BCLL		0.0*	Code	IRC201	8/TPI2014	Matrix-MSH								
BCDL		10.0											Weight: 58 lb	FT = 20%
LUMBER				3)	Truss desig	ned for wind load	ls in the p	lane of the tru	JSS					
TOP CHORD	2x4 SP No	0.2		,	only. For stu	ids exposed to w	ind (norm	al to the face),					
BOT CHORD	2x4 SP No	o.2				d Industry Gable								
WEBS	2x4 SP No	0.3				alified building d								
OTHERS	2x4 SP No	0.3		4)		7-16; Pr=20.0 p								
BRACING						.15); Pf=20.0 ps								
TOP CHORD			athing directly applied cept end verticals.		Cs=1.00; Ct=		, ,	• *	,					
BOT CHORD			applied or 10-0-0 oc	5)	design.	snow loads have			his					
REACTIONS	0	1=11-5-5	5=11-5-5, 6=11-5-5,	6)		es continuous bo		d bearing.						
	(0.20)	7=11-5-5	0 11 0 0, 0 11 0 0,	7)		spaced at 4-0-0								
	Max Horiz	1=202 (LC	C 11)	8)		s been designed								
	Max Uplift	1=-42 (LC	(LC 10), 5=-53 (LC 10),	0)		ad nonconcurrent as been designe								
	-	6=-29 (LC	11), 7=-177 (LC 14)	9)		n chord in all are			ры					
	Max Grav		C 30), 5=203 (LC 6),			y 2-00-00 wide v			om					
		6=411 (LC	C 24), 7=502 (LC 24)			y other members								
FORCES		imum Com	pression/Maximum	10		hanical connection	,							
	Tension				<i>'</i>	capable of with		,						
TOP CHORD	1-2=-269/ 4-5=-173/		177/156, 3-4=-123/173	3,		at joint 1, 29 lb u								
BOT CHORD	1-7=-50/2	11, 6-7=-4	6/70, 5-6=-46/70	1.		e or shim require	d to provi	de full bearin	a					
WEBS	3-6=-250/	80, 2-7=-3	64/245			truss chord at joi			3				UNTH C	in the
NOTES				12		designed in acco	· · /	ith the 2018					"TH C	ARO
1) Unbalance	ed roof live l	oads have	been considered for		International	Residential Code	e sections	s R502.11.1 a	ind				R	and the
, به اه ما مه ا					D902 10 2 a	ad referenced etc	ndard AN						LIVES	SIG

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) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 5-1-13, Exterior(2R) 5-1-13 to 8-1-13, Exterior(2E) 8-1-13 to 11-3-9 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

R802.10.2 and referenced standard ANSI/TPI 1.

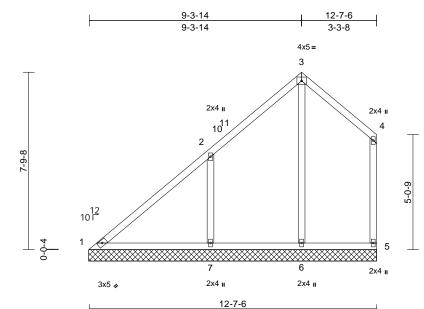
LOAD CASE(S) Standard



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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLD1	Valley	1	1	Job Reference (optional)	165500371

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:22 ID:vAVBsNisdZRLs81UW9iY4Kyi377-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

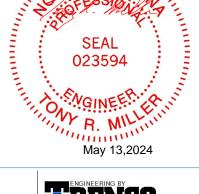


Scale = 1:50.6

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	0.38	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	0.27	Horiz(TL)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC201	8/TPI2014	Matrix-MSH								
BCDL	10.0											Weight: 66 lb	FT = 20%
LUMBER			3)	Truss desig	ned for wind loads	s in the p	lane of the tru	JSS					
TOP CHORD	2x4 SP No.2			only. For stu	uds exposed to wi	nd (norm	al to the face),					
BOT CHORD	2x4 SP No.2				d Industry Gable I								
WEBS	2x4 SP No.3				alified building de								
OTHERS	2x4 SP No.3		4)		7-16; Pr=20.0 ps								
BRACING					1.15); Pf=20.0 psf								
TOP CHORD	Structural wood she	athing directly applie	d or		Is=1.0; Rough Ca	t B; Fully	'Exp.; Ce=0.9	9;					
	6-0-0 oc purlins, ex		E)	Cs=1.00; Ct=		haan aa	opidorod for th	nio					
BOT CHORD	Rigid ceiling directly bracing.	applied or 10-0-0 oc	5)	design.	snow loads have	been cor	isidered for ti	115					
REACTIONS	0	1, 5=12-7-11, 6=12-7	6)		es continuous bot		rd bearing.						
REACTIONO	7=12-7-11	, ,	'', 7)		spaced at 4-0-0 c								
	Max Horiz 1=238 (LC		8)		as been designed								
	Max Uplift 1=-37 (LC	,	0)		ad nonconcurrent								
		11), 7=-211 (LC 14)			has been designe			Jpst					
	Max Grav 1=253 (LC	C 25), 5=207 (LC 25)	,		m chord in all area by 2-00-00 wide w			h					
	6=389 (LC	C 24), 7=608 (LC 24)			ny other members								
FORCES	(lb) - Maximum Com	pression/Maximum	10		hanical connectio								
	Tension			/	e capable of withs		,						
TOP CHORD	1-2=-340/214, 2-3=- 4-5=-170/157	192/180, 3-4=-134/1	95,		t at joint 1, 38 lb u								
BOT CHORD	1-7=-63/283, 6-7=-6	0/90, 5-6=-60/90	11		e or shim required	to provi	de full bearin	n					
WEBS	3-6=-256/100, 2-7=-	418/258			truss chord at joir			9				minin	11111
NOTES			12		designed in acco		ith the 2018					W'TH C	ARO
1) Unbalance this design	ed roof live loads have	been considered for			Residential Code nd referenced sta			ind				NUM TH C	Stor MA
	1. CE 7-16; Vult=130mph	(3-second quist)		DAD CASE(S)		nualu Ar	NOI/1111.				3.	2/2017	marias
			<u> </u>	AD CASE(S)	Stanualu						-	7:00	· · · ·

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) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 6-4-3, Exterior(2R) 6-4-3 to 9-4-3, Exterior(2E) 9-4-3 to 12-5-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLG6	Valley	1	1	Job Reference (optional)	165500372

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:24 ID:_TGVzwPShYnlowCr7nxwhhyiMJM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

 1-4-10
 2-5-2

 1-4-10
 1-0-8

12 10 Г

9⁸

1

0-10-7

1-2-2

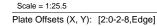
3x5 =

2

3

Page: 1

0-0-4 2x4 🍬 2x4 💊 2-9-4



818 Soundside Road Edenton, NC 27932

a duss system. Belore use, the building designer must verify the application of design plantiteters and properly incorporate rule design must remove and 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 buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality** Criteria and DBS-22 available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLG4	Valley	1	1	Job Reference (optional)	165500373

3-9-7

3-9-7

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

Run: 8,73 S Apr 25 2024 Print: 8,730 S Apr 25 2024 MiTek Industries. Inc. Fri May 10 10:28:24 ID:n6mDrPobKViGVuGX17aVTMyiMMj-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

5-0-7

1-3-0



9 3 9 8 2-1-10



4x5 = 2 2x4 🛛 3-2-2 12 10 ┌ 0 0-0-4 4 5 2x4 II 2x4 II 2x4 🥠



Scale = 1:27.8

Scale = 1:27.8		-											
Loading TCLL (roof) Snow (Pf)	(psf) 20.0 20.0	Spacing Plate Grip DOL Lumber DOL	2-0-0 1.15 1.15		CSI TC BC	0.20 0.25	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
TCDL	10.0	Rep Stress Incr	YES		WB	0.23	Horiz(TL)	0.00	4	n/a	999 n/a		
BCLL	0.0*	Code		8/TPI2014	Matrix-MP	0.00		0.00	•				
BCDL	10.0											Weight: 23 lb	FT = 20%
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 5-0-7 oc purlins, ex Rigid ceiling directly bracing. (size) 1=5-0-12, Max Horiz 1=90 (LC Max Horiz 1=90 (LC Max Grav 1=145 (LC 5=294 (LC	cept end verticals. applied or 10-0-0 oc 4=5-0-12, 5=5-0-12 14) : 35), 5=-60 (LC 14) 2 20), 4=27 (LC 21),	ed or 9) c 10	design. Gable requir Gable studs This truss ha chord live loa * This truss h on the bottor 3-06-00 tall b chord and ar 9) Provide mec bearing platt 4 and 60 b u) Beveled plat surface with	snow loads have es continuous bot spaced at 4-0-0 o s been designed ad nonconcurrent nas been designe n chord in all area y 2-00-00 wide w hy other members of capable of withs plift at joint 5. e or shim required truss chord at joir designed in accoi	tom chor oc. for a 10. with any d for a liv as where rill fit betv i. n (by oth tanding 3 d to provint(s) 1.	d bearing. O psf bottom other live loa e load of 20.0 a rectangle veen the botto ers) of truss t 15 lb uplift at ju de full bearing	ds.)psf om oint					
FORCES	(lb) - Maximum Com Tension	pression/Maximum		Ínternational	Residential Code	sections	s R502.11.1 a	nd					
TOP CHORD BOT CHORD WEBS	1-2=-172/63, 2-3=-2 1-5=-120/171, 4-5=0 2-5=-145/82		L	R802.10.2 a DAD CASE(S)	nd referenced sta Standard	ndard Af	NSI/TPI 1.						
NOTES													
1) Unbalance	d roof live loads have	been considered for	r										1111
 this design. Wind: ASC Vasd=103rn II; Exp B; E and C-C Ex to 3-9-12, E members a Lumber DC Truss desi only. For s see Standa or consult c or CLL: ASC Plate DOL= 	E 7-16; Vult=130mph mph; TCDL=6.0psf; Bi inclosed; MWFRS (er kterior(2E) 0-0-0 to 3- Exterior(2E) 3-9-12 to and forces & MWFRS DL=1.60 plate grip DC gned for wind loads ir ituds exposed to wind ard Industry Gable En qualified building desi E 7-16; Pr=20.0 psf (L ; Is=1.0; Rough Cat E	(3-second gust) CDL=6.0psf; h=25ft; welope) exterior zon 0-0, Exterior(2R) 3-0 4-11-0 zone;C-C for for reactions shown; L=1.60 the plane of the tru (normal to the face) d Details as applicat gner as per ANSI/TP roof LL: Lum DOL=1 um DOL=1.15 Plate	Cat. e 0 ss , , ole, e, 1.15									INY D	

5-0-7

- to 3-9-12, Exterior(2E) 3-9-12 to 4-11-0 zone;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), 3)
- 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

R. M Summer Street May 13,2024

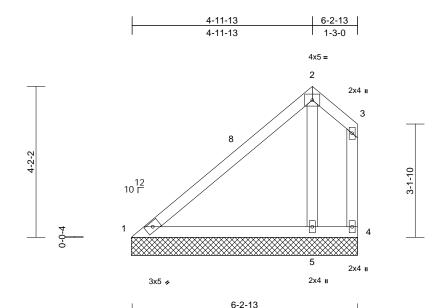
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCEL Building Component Schut Information, purplication component of component development properties. and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLG3	Valley	1	1	Job Reference (optional)	165500374

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:24 ID:8XWFmUSO9a2NXRYyqXZioEyiMNA-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:31.9

Scale = 1:31.9		_				_							
Loading TCLL (roof) Snow (Pf) TCDL	(psf) 20.0 20.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 YES		CSI TC BC WB	0.37 0.41 0.06	DEFL Vert(LL) Vert(TL)	in n/a n/a 0.01	(loc) - -	l/defl n/a n/a n/a	L/d 999 999	PLATES MT20	GRIP 244/190
BCLL	10.0 0.0*	Code		18/TPI2014	Matrix-MP	0.06	Horiz(TL)	0.01	4	n/a	n/a		
BCDL	10.0	Couc	intozt	10/11/2014								Weight: 30 lb	FT = 20%
LUMBER TOP CHORD : BOT CHORD : WEBS : OTHERS : BRACING TOP CHORD BOT CHORD REACTIONS (s M M FORCES TOP CHORD	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.	cept end verticals. applied or 10-0-0 od 4=6-3-2, 5=6-3-2 C 14) 3 55), 5=-93 (LC 14) C 20), 4=17 (LC 14), C 20) pression/Maximum 0/36, 3-4=-58/45	ed or	 design. Gable requir Gable studs This truss ha chord live loc * This truss I on the bottor 3-06-00 tall th chord and ar Provide mec bearing plate 4 and 93 lb u Beveled plat surface with This truss is International 	snow loads have es continuous bo spaced at 4-0-0 d is been designed ad nonconcurrent has been designed by 2-00-00 wide yo 2-00-00 wide yo other members hanical connectio capable of withs uplift at joint 5. e or shim require truss chord at joi designed in acco Residential Code nd referenced sta Standard	ttom chor oc. I for a 10.1 t with any ed for a liv as where vill fit betv s. on (by oth standing 7 d to provi nt(s) 1. ordance w e sections	d bearing.) psf bottom other live loa e load of 20.0 a rectangle veen the botto ers) of truss t 8 lb uplift at j de full bearing ith the 2018 i R502.11.1 a	ds. Dpsf om oint g					
WEBS	2-5=-189/123												
NOTES													
,	roof live loads have	been considered for	r										11111
Vasd=103m II; Exp B; En and C-C Ext to 5-0-2, Ext members an	7-16; Vult=130mph ph; TCDL=6.0psf; B closed; MWFRS (er erior(2E) 0-0-0 to 3- erior(2E) 5-0-2 to 6- d forces & MWFRS =1.60 plate grip D0	CDL=6.0psf; h=25ft; ivelope) exterior zor 0-0, Exterior(2R) 3-0 1-6 zone;C-C for for reactions shown	ne D-0							-	110	ORTH C ORTOFES	AROJIII
 Truss desig only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 	ned for wind loads in Jds exposed to wind d Industry Gable En Jalified building desig 7-16; Pr=20.0 psf (L 1.15); Pf=20.0 psf (L Is=1.0: Rough Cat E	n the plane of the tru (normal to the face) d Details as applicat gner as per ANSI/TF roof LL: Lum DOL=1 um DOL=1.15 Plate), ble, PI 1. 1.15										

- 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), 3) 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

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R. M

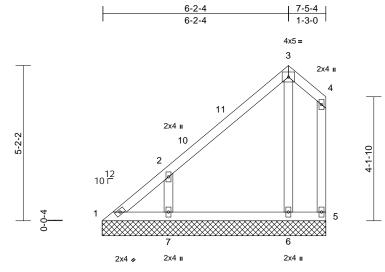
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May 13,2024

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLG2	Valley	1	1	Job Reference (optional)	165500375

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:23 ID:f3RS_KE6O2nxMgAUnIFT3RyiMNS-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1





7-5-4

2x4 II

Scale = 1:38.4

00010 - 1.00.4													
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		ТС	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES		WB	0.10	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC20	8/TPI2014	Matrix-MP								
BCDL	10.0											Weight: 39 lb	FT = 20%
UMBER			4) TCLL: ASCE	E 7-16; Pr=20.0 p	sf (roof Ll	L: Lum DOL=	1.15					
TOP CHORD	2x4 SP No.2			Plate DOL=	I.15); Pf=20.0 ps	f (Lum DC	DL=1.15 Plate						
BOT CHORD	2x4 SP No.2				Is=1.0; Rough C	at B; Fully	Exp.; Ce=0.9	9;					
VEBS	2x4 SP No.3			Cs=1.00; Ct									
DTHERS	2x4 SP No.3		5	·	snow loads have	e been coi	nsidered for th	nis					
BRACING				design.									
TOP CHORD			ied or 6		es continuous bo		d bearing.						
	6-0-0 oc purlins, ex		7		spaced at 4-0-0 as been designed								
BOT CHORD	0 0 ,	applied or 10-0-0 c	_{bc} 8		ad nonconcurren			de					
	bracing.		9		has been designed								
REACTIONS		5=7-5-8, 6=7-5-8, 7	=7-5-8		m chord in all are			psi					
	Max Horiz 1=164 (LC				by 2-00-00 wide			om					
	Max Uplift 1=-27 (LC				ny other member								
		C 14), 7=-146 (LC 1		0) Provide med	hanical connecti	on (by oth	ers) of truss t	0					
	Max Grav 1=111 (L0				e capable of with								
		C 20), 7=343 (LC 24	,		t at joint 1, 23 lb	uplift at jo	int 6 and 146	lb					
FORCES	(lb) - Maximum Corr Tension	pression/iviaximum		uplift at joint									
TOP CHORD		102/66 2 1- 20/22	1		e or shim require		de full bearing	g					
	4-5=-58/40	102/00, 3-4=-30/33			truss chord at jo								
BOT CHORD		5-6=0/0	1		designed in acco Residential Cod			nd					
WEBS	3-6=-155/97, 2-7=-3	,			nd referenced st			nu					
NOTES				OAD CASE(S)		anuaru Ai	NOI/1111.					, mm	11111
	ed roof live loads have	been considered fo		OAD CASE(S)	Stanuaru							WH C	ARO
this design												R	me liter
	CE 7-16; Vult=130mph	(3-second gust)									Z	0 FES	SIGNIN
	3mph; TCDL=6.0psf; B		; Cat.							1	N	RACY/	Magin
II; Exp B;	Enclosed; MWFRS (er	velope) exterior zo	ne								Ξ.	.2	K 1 - E
and C-C E	Exterior(2E) 0-0-0 to 3-	0-0, Exterior(2R) 3-	0-0								-	: 05	AL : -
	Exterior(2E) 6-2-9 to 7-										=	SE	
	and forces & MWFRS		ר;								=	: 023	594 : =
	OL=1.60 plate grip DC										-	A	1 2
	signed for wind loads in										The second second		1 3
	studs exposed to wind										3	X. ENG	-ERIA S
	dard Industry Gable En t qualified building desi										1	O	NEF
or consult	r quanneu bunung desi	gilei as per ANSI/T	FT 1.									I. VY D	MILLIN
												111 R.	MILLIN





R. M May 13,2024

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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLG1	Valley	1	1	Job Reference (optional)	165500376

7-4-10

7-4-10

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

Run: 8,73 S Apr 25 2024 Print: 8,730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:23 ID:Y15h7GgdScsbER4SWOvSfXyiMOB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

8-7-10

1-3-0 4x5 = 3

> 2x4 🛛 4

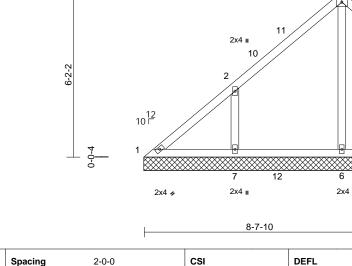
Page: 1

10 2 5-1-10 e 12 10 □ 5 12 6 2x4 🛚 2x4 🛛 2x4 2x4 🛛 8-7-10 DEFL CSI L/d PLATES in (loc) l/defl GRIP 244/190 18 lb FT = 20% THILL AND AND AND SEAL 3594

mann May 13,2024

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818 Soundside Road Edenton, NC 27932



Scale = 1:43.1

Loading		(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES
TCLL (roof)		20.0	Plate Grip DOL	1.15		TC	0.25	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.13	Vert(TL)	n/a	-	n/a	999	
TCDL		10.0	Rep Stress Incr	YES		WB	0.10	Horiz(TL)	0.00	5	n/a	n/a	
BCLL		0.0*	Code	IRC201	8/TPI2014	Matrix-MP							
BCDL		10.0											Weight: 48
LUMBER				4) TCLL: ASCE	7-16; Pr=20.0 p	sf (roof LL	.: Lum DOL=	=1.15				
TOP CHORD	2x4 SP N	0.2			Plate DOL=1	.15); Pf=20.0 ps	f (Lum DC	DL=1.15 Plate	е				
BOT CHORD	2x4 SP N	0.2			DOL=1.15);	ls=1.0; Rough C	at B; Fully	Exp.; Ce=0.	.9;				
WEBS	2x4 SP N	lo.3			Cs=1.00; Ct:	=1.10							
OTHERS	2x4 SP N	lo.3		5) Unbalanced	snow loads have	e been cor	nsidered for t	this				
BRACING					design.								
TOP CHORD	Structura	l wood she	athing directly applie	dor ⁶		es continuous bo		d bearing.					
			cept end verticals.	7		spaced at 4-0-0							
BOT CHORD	Rigid ceil	ing directly	applied or 10-0-0 oc	8		is been designed							
	bracing.			0		ad nonconcurren							
REACTIONS	(size)	1=8-7-15,	5=8-7-15, 6=8-7-15,	9		nas been design n chord in all are			.upsi				
		7=8-7-15				by 2-00-00 wide			tom				
	Max Horiz	1=200 (LC	C 14)			by 2-00-00 wide							
	Max Uplift		: 15), 6=-20 (LC 14),	1		hanical connecti							
		7=-167 (L	,			capable of with							
	Max Grav		C 26), 5=51 (LC 21),			t at joint 6 and 16			,				
			C 24), 7=462 (LC 24)	1	, i	e or shim require			ng				
FORCES		imum Com	pression/Maximum		surface with	truss chord at jo	int(s) 1.		0				
	Tension			1	2) This truss is	designed in acco	ordance w	ith the 2018					
TOP CHORD			103/64, 3-4=-30/31,			Residential Cod			and				
	4-5=-58/3				R802.10.2 a	nd referenced st	andard AN	ISI/TPI 1.					
BOT CHORD WEBS		20, 6-7=0/0	,	L	OAD CASE(S)	Standard							
	3-0=-150/	/89, 2-7=-3	14/299										WITH
NOTES													N'AH

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) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 4-4-15, Exterior(2R) 4-4-15 to 7-4-15, Exterior(2E) 7-4-15 to 8-6-3 zone;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.

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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	PBA4	Piggyback	1	1	Job Reference (optional)	165500377

1-4-3

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:21 ID:HBnipX?q_HaSfOcSIgUcbbyiJct-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

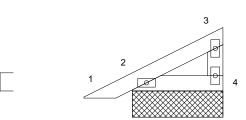
2x4 🛛

-2-9

Page: 1

0-11-1 12 6 Г

-0-11-1



2x4 = 2x4 II

1-8-12

1-8-12

1-8-12

Scale - 1.22

Scale = 1:22													
Loading	· · ·	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)		Plate Grip DOL	1.15		TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)		Lumber DOL	1.15		BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL		Rep Stress Incr	YES		WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC201	8/TPI2014	Matrix-MP								
BCDL	10.0											Weight: 8 lb	FT = 20%
FORCES TOP CHORD BOT CHORD NOTES	Max Horiz 2=39 (LC 1 Max Uplift 2=-17 (LC 5=-17 (LC Max Grav 2=144 (LC 5=144 (LC (Ib) - Maximum Comp Tension 1-2=0/23, 2-3=-23/18, 2-4=-5/20	ept end verticals. applied or 10-0-0 oc 4=1-8-12, 5=1-8-12 (4), 5=39 (LC 14) 14), 4=-13 (LC 14), 14), 4=-13 (LC 14), 21), 4=75 (LC 21), 21) oression/Maximum , 3-4=-48/34	; 9) 10 11 12	load of 12.0 overhangs i Gable requi Gable stud: This truss h chord live lo * This truss on the botto 3-06-00 tall chord and a 0) Provide me bearing plat 4, 17 lb upli 1) This truss is Internationa R802.10.2 a (2) See Standa Detail for C	as been designer psf or 1.00 times non-concurrent w res continuous b as spaced at 4-0-0 as been designer bad nonconcurrer has been design om chord in all are by 2-00-00 wide iny other member chanical connecti te capable of with ft at joint 2 and 1' s designed in acc and referenced st yrd Industry Piggy onnection to bass lified building des) Standard	s flat roof le ith other lip ottom chor oc. d for a 10.1 t with any ed for a liv asa where will fit betv 's. on (by oth standing 1 7 lb uplif t ordance w le sections andard AN back Truss as a	bad of 20.0 p ve loads. d bearing. D psf bottom other live loa e load of 20. a rectangle veen the bott ers) of truss i 3 lb uplift at j ti joint 2. ith the 2018 s R502.11.1 at SI/TPI 1. s Connection	ads. Opsf tom joint and					
,	CE 7-16; Vult=130mph (. 0 /	0-1										
	8mph; TCDL=6.0psf; BC Enclosed: MWERS (env											mini	in the

II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

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.



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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	PBA3	Piggyback	2	1	Job Reference (optional)	165500378

-0-11-1

0-11-1

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

1-11-12

Run: 8,73 S Apr 25 2024 Print: 8,730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:21 ID:7_DWPyn153XQCG6H4kihg?yiJfk-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

2x4 II

2-11-15

2-11-15

12 6 ∟

Page: 1

3 1-10-2 2 0 R 4 2x4 = 2x4 II 2-11-15 2-0-0 CSI DEEI l/dofl in (loc)GRIP 244/190 3 lb FT = 20% 11111111 Solution and the second and the second s SEAL 23594

Scale = 1:23.9

Loading

Loading	(pst)	Spacing	2-0-0		CSI		DEFL	ın	(IOC)	I/defi	L/d	PLATES
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.13	Vert(CT)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES		WB	0.00	Horz(CT)	0.00	2	n/a	n/a	
BCLL	0.0*	Code	IRC201	8/TPI2014	Matrix-MP							
BCDL	10.0				-							Weight: 13
LUMBER			5) This truss ha	as been designe	ed for great	er of min roo	f live				
TOP CHORD	2x4 SP No.2			load of 12.0	psf or 1.00 time	s flat roof l	oad of 20.0 p	osf on				
BOT CHORD	2x4 SP No.2			overhangs n	on-concurrent w	vith other li	ve loads.					
WEBS	2x4 SP No.3		6) Gable requir	es continuous b	ottom choi	rd bearing.					
BRACING			7) Gable studs	spaced at 4-0-0) oc.						
TOP CHORD	Structural wood sh	eathing directly applie	ed or ⁸) This truss ha	as been designe	ed for a 10.	0 psf bottom					
		except end verticals.			ad nonconcurre							
BOT CHORD		y applied or 10-0-0 o			has been desigr			0psf				
	bracing.	, ,,,			m chord in all ar							
REACTIONS	(size) 2=2-11-	15, 4=2-11-15, 5=2-1	1-15		by 2-00-00 wide		ween the both	tom				
	Max Horiz 2=62 (LO				ny other membe							
		.C 14), 4=-28 (LC 14)	. 1		hanical connect							
	5=-18 (L		,		e capable of with			joint				
	(_C 21), 4=153 (LC 21).		t at joint 2 and 1							
	5=218 (I		// 1		designed in acc			I				
FORCES	`	mpression/Maximum			Residential Co nd referenced s			and				
1011020	Tension											
TOP CHORD	1-2=0/25, 2-3=-48/	37. 3-4=-104/73	1		d Industry Pigg							
BOT CHORD	2-4=-25/43				ified building de		applicable, 0					
NOTES					0	signer.						
	CE 7-16; Vult=130mp	h (3-second quet)	L	OAD CASE(S)	Standard							
i) winu. Ao	CE 7-10, vuit=130mp	ii (J-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;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

(nef)

Spacing

- 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 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.

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M 1111111111 May 13,2024

818 Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	PBA2	Piggyback	1	1	Job Reference (optional)	165500379

-0-11-1

0-11-1

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

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:21 ID:7_DWPyn153XQCG6H4kihg?yiJfk-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

3-3-7

0-9-5

5

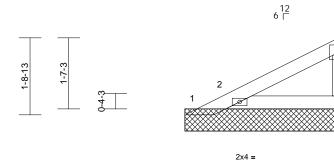
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4x5 =

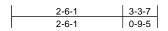
3

6

Page: 1







2-6-1

2-6-1

Scale = 1:26

oading	(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	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.10	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES		WB	0.03	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC20 ²	18/TPI2014	Matrix-MP								
BCDL	10.0											Weight: 14 lb	FT = 20%
UMBER			5) Unbalanced	snow loads have	been co	nsidered for th	his					
OP CHORD	2x4 SP No.2			, design.									
BOT CHORD	2x4 SP No.2		6		as been designed								
/EBS	2x4 SP No.3				psf or 1.00 times f			sf on					
RACING				0	on-concurrent with								
OP CHORD	Structural wood she	athing directly applie	ed or 7		es continuous bot		rd bearing.						
	3-11-8 oc purlins.		8		spaced at 4-0-0 o								
OT CHORD	Rigid ceiling directly	applied or 10-0-0 o	с 9		as been designed			-1-					
	bracing.		4		ad nonconcurrent								
EACTIONS	(size) 1=3-11-8,	2=3-11-8, 6=3-11-8	3, ¹		nas been designed m chord in all area			Upst					
	7=3-11-8				by 2-00-00 wide w		0	om					
	Max Horiz 1=51 (LC	,			ny other members		ween the bott	om					
	Max Uplift 1=-53 (LC		, 1		pint(s) 2, 1, 2 consi		rallel to grain						
	7=-52 (LC				ANSI/TPI 1 angle			dina					
	Max Grav 1=38 (LC				ould verify capacity								
		C 1), 7=236 (LC 21)			hanical connection			to					
ORCES	(lb) - Maximum Corr	pression/Maximum			e capable of withst								
	Tension			2, 53 lb uplif	t at joint 1 and 52	lb uplift a	at joint 2.						
OP CHORD	1-2=-88/85, 2-3=-32	/40, 3-4=0/31	1	3) This truss is	designed in accor	dance w	ith the 2018						
OT CHORD	2-6=-19/2, 5-6=0/0			International	Residential Code	sections	s R502.11.1 a	and					
/EBS	3-6=-116/108				nd referenced star								
IOTES			1		d Industry Piggyb								<u>нн.</u>
) Unbalance	ed roof live loads have	been considered fo	r		nnection to base t		applicable, or						A.D. 111
this desigr					fied building desig	gner.						N'THU	AHO
 Wind: ASC 	CE 7-16; Vult=130mph	(3-second gust)	L	OAD CASE(S)	Standard						13	A	Siz ANIA

- 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) zone;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

LOAD CASE(S) Sta



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⁸¹⁸ Soundside Road Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	PBA1	Piggyback	8	1	Job Reference (optional)	165500380

1-7-3

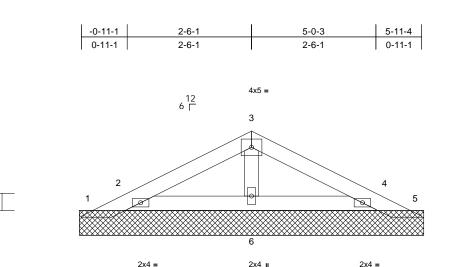
-4-3

1-8-13

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:21 ID:?8ITrSbZAyBKSCdSL9yiiLyiJhG-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

818 Soundside Road Edenton, NC 27932



5-0-3

2x4 =

Scale = 1:23.2

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	0.12 0.07 0.02	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	GRIP 244/190
BCLL BCDL	0.0* 10.0	Code	IRC2018/TPI2014	Matrix-MP							Weight: 20 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD		1	only. For s	gned for wind loa tuds exposed to v ard Industry Gable	vind (norm	al to the face	e),					
OTHERS BRACING TOP CHORD	2x4 SP No.3	eathing directly applie	or consult (4) TCLL: ASC Plate DOL:	qualified building o E 7-16; Pr=20.0 p =1.15); Pf=20.0 ps	designer a osf (roof Ll of (Lum DC	s per ANSI/T _: Lum DOL=)L=1.15 Plate	PI 1. 1.15					
BOT CHORD	6-0-0 oc purlins. Rigid ceiling direct bracing.	ly applied or 10-0-0 o	c Cs=1.00; Č 5) Unbalance	; Is=1.0; Rough C tt=1.10 d snow loads hav		• *	,					
FORCES TOP CHORD	5=6-11- 10=6-1' Max Horiz 1=-25 (I Max Uplift 1=-53 (I 4=-48 (I Max Grav 1=25 (L 4=277 (6=170 (10=2777 (Ib) - Maximum Co Tension	LC 15) LC 21), 2=-47 (LC 14) LC 15), 5=-50 (LC 22) LC 14), 10=-48 (LC 15 C 14), 2=290 (LC 21), LC 22), 5=14 (LC 15), LC 21), 7=290 (LC 21) (LC 22) mpression/Maximum	 (a) Gable required (b) Gable studing (c) Gable studing	ires continuous b s spaced at 4-0-0 has been designe oad nonconcurrer has been design om chord in all are by 2-00-00 wide any other membe achanical connect the capable of with fif at joint 4, 53 lb b uplift at joint 2 a s designed in acc al Residential Coo and referenced st	oc. d for a 10. ht with any ed for a liv eas where will fit betw rs. ion (by oth sstanding 4 uplift at joi nd 48 lb u ordance w de sections	0 psf bottom other live loa re load of 20. a rectangle veen the bott ers) of truss 17 lb uplift at int 1, 50 lb up lift at joint 4 ith the 2018 s R502.11.1 a	Opsf om to joint Jlift at				winnin Maria C	
BOT CHORD WEBS NOTES		2/28	12) See Stand Detail for C	and referenced si ard Industry Piggy connection to base alified building des	back Trus truss as a	s Connection				THE	OFES	Sign N
this desig 2) Wind: AS Vasd=103 II; Exp B; and C-C E exposed ; members	n. CE 7-16; Vult=130mp 3mph; TCDL=6.0psf; Enclosed; MWFRS (Exterior(2E) zone; ca ; end vertical left and	BCDL=6.0psf; h=25ft; envelope) exterior zor ntilever left and right right exposed;C-C for S for reactions shown	Cat.	•	_					The second s	WWY R.	•

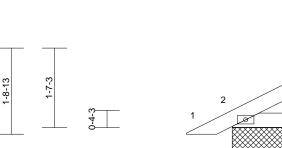
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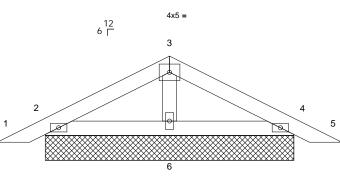
	Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
2	24040155-01	PBA	Piggyback	1	1	Job Reference (optional)	165500381

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:21 ID:XgDf3INHPQvtHRF_HNdUzYyiJhY-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1







2x4 II

5-0-3

2x4 =

Scale = 1:23.2

Scale = 1:23.2												
Loading TCLL (roof) Snow (Pf) TCDL BCLL PCDL	(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/TPI20	CSI TC BC WB Matrix-MP	0.09 0.10 0.02	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	GRIP 244/190
	6-0-0 oc purlins. Rigid ceiling directly bracing. (size) 2=5-0-3, 11=5-0-3 Max Horiz 2=25 (LC Max Uplift 2=-31 (LC (LC 14), 7 15) Max Grav 2=196 (LC	: 14), 7=25 (LC 14) C 14), 4=-35 (LC 15) 7=-31 (LC 14), 11=-3 C 21), 4=196 (LC 22 C 21), 7=196 (LC 21	Plate DOL: Cs=1 5) Unbz desig 6) This c load over 5-0-3, 8) Gabl 9) This chorr 55 (LC on this 55 (LC on this), 3-06	ASCE 7-16; Pr=20.0 DOL=1.15); Pf=20.0 =1.15); Is=1.0; Rough .00; Ct=1.10 lanced snow loads ha n. truss has been desigr of 12.0 psf or 1.00 tim angs non-concurrent e requires continuous e studs spaced at 4-0 truss has been desigr d live load nonconcurr s truss has been desig e bottom chord in all 00 tall by 2-00-00 wic d and any other memt de mechanical conne	psf (Lum DC Cat B; Fully we been con- ed for great es flat roof I with other li bottom choi- 0 oc. ed for a 10. ent with any med for a liva areas where e will fit betw ers.	DL=1.15 Plate Exp.; Ce=0.9 nsidered for the er of min roof pad of 20.0 pi- ve loads. d bearing. D psf bottom other live loa e load of 20.0 a rectangle veen the bottom); live sf on ds. 0psf				Weight: 20 lb	FT = 20%
 this design Wind: ASC Vasd=103 II; Exp B; I and C-C E exposed ; members Lumber Di Truss des only. For see Stand 	Tension 1-2=0/24, 2-3=-57/5 2-6=-5/35, 4-6=0/35 3-6=-101/44 ed roof live loads have	been considered for h (3-second gust) iCDL=6.0psf; h=25ft; hvelope) exterior zor tilever left and right ght exposed;C-C for for reactions shown DL=1.60 n the plane of the trud d (normal to the face d Details as applical	2, 35 joint 12) This R802 13) See r Deta cons LOAD C, CCat. ne ; ; iss), ole,	ng plate capable of w Ib uplift at joint 4, 3 lk 2 and 35 lb uplift at jo russ is designed in an national Residential C .10.2 and referenced Standard Industry Pig I for Connection to ba alt qualified building d ASE(S) Standard	uplift at join nt 4. ccordance wo ode sections standard AN gyback Trus se truss as	t 6, 31 lb upli ith the 2018 s R502.11.1 a ISI/TPI 1. s Connection	ft at .nd				SE 023	VEER.ER

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NGINEERING

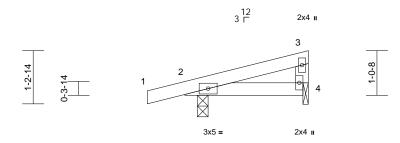
May 13,2024

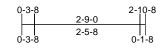
Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	H02	Jack-Closed	9	1	Job Reference (optional)	165500382

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:19 ID:JZY989jmNtkp0yAOw6RgmPyiMvh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1







Scale = 1:26.8

Loading TCLL (roof)	(psf) 20.0	Spacing Plate Grip DOL	2-0-0 1.15		CSI TC	0.09	DEFL Vert(LL)	in 0.00	(loc) 4-7	l/defl >999	L/d 240	PLATES MT20	GRIP 244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.10	Vert(CT)	-0.01	4-7	>999	180		210,000
TCDL	10.0	Rep Stress Incr	YES		WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018	/TPI2014	Matrix-MP								
BCDL	10.0											Weight: 11 lb	FT = 20%
BOT CHORD WEBS BRACING TOP CHORD BOT CHORD REACTIONS (M M	2x4 SP No.2 2x4 SP No.2 2x4 SP No.3 Structural wood she 2-10-8 oc purlins, e Rigid ceiling directly bracing. size) 2=0-3-0, 4 Max Horiz 2=36 (LC Max Uplift 2=-76 (LC Max Grav 2=221 (LC (lb) - Maximum Com	xcept end verticals. applied or 10-0-0 oc 4=0-1-8 10) 5 10), 4=-39 (LC 10) C 21), 4=127 (LC 21)	8) 9) 10)	on the botton 3-06-00 tall b chord and an Bearings are 4 SP No.3. Bearing at joi using ANSI/T designer sho Provide mecl bearing plate One H2.5A S recommende UPLIFT at jt(as been designed n chord in all areas y 2-00-00 wide wi y other members. assumed to be: Ju- int(s) 4 considers j PI 1 angle to grair uld verify capacity nanical connection at joint(s) 4. simpson Strong-Tid d to connect truss s) 4 and 2. This co consider lateral fo	s where Il fit betw oint 2 Us parallel t n formula of bearin (by oth e connection ponnection	a rectangle veen the bott ser Defined , to grain value a. Building ng surface. ers) of truss ctors ing walls due	om Joint e to					
	Tension		11)	This truss is	designed in accord	dance w							
	1-2=0/17, 2-3=-68/3 2-4=-50/52	3, 3-4=-83/75			Residential Code			and					
NOTES	2-4=-50/52		10	AD CASE(S)	nd referenced stan Standard	idard AN	151/TPLT.						
 Wind: ASCE Vasd=103m II; Exp B; Er and C-C Ex exposed;C-reactions sh DOL=1.60 TCLL: ASCI Plate DOL= DOL=1.15); Cs=1.00; CI Unbalanced design. This truss h load of 12.0 overhangs r This truss h 	E 7-16; Vult=130mph pph; TCDL=6.0psf; B4 nclosed; MWFRS (en terior(2E) zone; porc C for members and fo nown; Lumber DOL=' E 7-16; Pr=20.0 psf (L 1.1.15); Pf=20.0 psf (L 1.1.15); Pf=20.0 psf (L 1.1.15); Pf=20.0 psf (L 1.1.15); Pf=20.0 psf (D 1.1.15); Pf=20.0 psf (D 1.1.1	CDL=6.0psf; h=25ft; ivelope) exterior zone h left and right orces & MWFRS for 1.60 plate grip roof LL: Lum DOL=1. um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; then considered for thi greater of min roof I thor for load of 20.0 pst ther live loads. a 10.0 psf bottom	Cat. 9 15 s ive									SE/ 0235	• -

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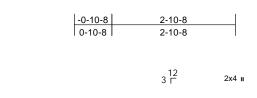
NGINEERING

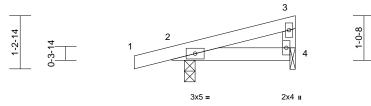
818 Soundside Road Edenton, NC 27932

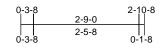
May 13,2024

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	H01	Jack-Closed	2	1	Job Reference (optional)	165500383

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:19 ID:JZY989jmNtkp0yAOw6RgmPyiMvh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1







Scale = 1:26.8

Loading TCLL (roof)	(psf) 20.0	Spacing Plate Grip DOL	1-11-4 1.15		CSI TC	0.09	DEFL Vert(LL)	in 0.00	(loc) 4-7	l/defl >999	L/d 240	PLATES MT20	GRIP 244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.10	Vert(CT)	-0.01	4-7	>999	180		
TCDL	10.0	Rep Stress Incr	YES		WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018	3/TPI2014	Matrix-MP								
BCDL	10.0											Weight: 11 lb	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 shea 2-10-8 oc purlins, ex Rigid ceiling directly bracing.	xcept end verticals. applied or 10-0-0 oc	9)	This truss ha chord live loa * This truss h on the bottor 3-06-00 tall h chord and an Bearings are 4 SP No.3.	spaced at 2-0-0 o as been designed ad nonconcurrent has been designed in chord in all area by 2-00-00 wide w by other members a assumed to be: J int(s) 4 considers	for a 10.0 with any d for a liv s where ill fit betw loint 2 Us	other live loa e load of 20. a rectangle veen the bott ser Defined ,	0psf om Joint					
REACTIONS	(size) 2=0-3-0, 4 Max Horiz 2=35 (LC Max Uplift 2=-73 (LC Max Grav 2=214 (LC	10) : 10), 4=-38 (LC 10)	11	using ANSI/ designer sho Provide mec	TPI 1 angle to grai puld verify capacity hanical connection at joint(s) 4.	n formula / of beari	a. Building ng surface.						
FORCES	(lb) - Maximum Com Tension	pression/Maximum	12) One H2.5A \$	Simpson Strong-Ti ed to connect trus			e to					
TOP CHORD BOT CHORD	1-2=0/17, 2-3=-66/32 2-4=-48/51	2, 3-4=-80/73			(s) 4 and 2. This c t consider lateral f		n is for uplift	only					
Vasd=103	CE 7-16; Vult=130mph 3mph; TCDL=6.0psf; B0 Enclosed; MWFRS (en	CDL=6.0psf; h=25ft;	Cat.	International	designed in accor Residential Code nd referenced star Standard	sections	R502.11.1 a	and					
	Exterior(2E) zone; porcl C-C for members and fo											annin C	A Martin

exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss

only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TP11.

- 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.
- 5) 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.



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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	K01	Piggyback Base	1	1	Job Reference (optional)	165500384

Scale = 1:72.1

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:20 ID:xa10s7ns4F4A5BZ91BVIt8yi2Be-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

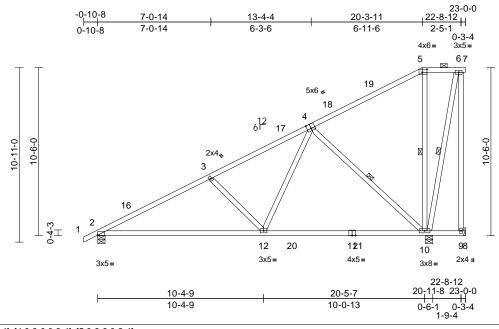


Plate Offsets ((X, Y): [2:Edge,0-0-4]	, [4:0-3-0,0-3-4], [5:0	-3-8,0-2-4	.]										
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL	(psf) 20.0 20.0 10.0 0.0* 10.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr Code	2-0-0 1.15 1.15 YES IRC201	8/TPI2014	CSI TC BC WB Matrix-MSH	0.83 0.87 0.53	DEFL Vert(LL) Vert(CT) Horz(CT)		(loc) 10-12 12-15 10	l/defl >902 >577 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 150 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD WEBS REACTIONS FORCES TOP CHORD BOT CHORD BOT CHORD WEBS NOTES	2x4 SP No.2 2x4 SP No.1 *Excep 2x4 SP No.3 *Excep 2x4 SP No.3 *Excep Structural wood she 3-3-7 oc purlins, exx 2-0-0 oc purlins (10 Rigid ceiling directly bracing, Except: 6-0-0 oc bracing: 9- 1 Row at midpt (size) 2=0-5-8, 1 Max Horiz 2=387 (LC Max Uplift 2=-52 (LC 10=-231 (Max Grav 2=919 (LC 10=1643 (lb) - Maximum Con Tension 1-2=0/23, 2-3=-1445 5-6=-5/72, 6-7=0/0 2-12=-329/1354, 10 8-9=0/0 6-9=-38/337, 5-10=- 3-12=-435/200, 4-12 4-10=-1091/250 ed roof live loads have	ot* 10-6:2x4 SP No.2 eathing directly applie co-0 max.): 5-7. r applied or 10-0-0 oc 10. 5-10, 6-10, 4-10 9= Mechanical, 10=0 C 14) C 14), 9=-393 (LC 44 (LC 14) C 40), 9=19 (LC 14), (LC 40) npression/Maximum 9/43, 3-5=-1191/196, -12=-179/732, 9-10= 422/169, 6-10=-330/ 2=-25/826,	ed or -5-8 4 -5-8 5), 6 7 8 -5/1, 9 (25, 1) 1	Vasd=103m II; Exp B; En and C-C Ext to 17-3-11, E 20-3-11 to 2 MWFRS for grip DOL=1.) TCLL: ASCE Plate DOL=' DOL=1.15); Cs=1.00; Ct:) Unbalanced design.) This truss ha load of 12.0 overhangs n Provide adee) This truss ha chord live loa) Tris truss ha chord live loa) This truss ha chord live loa) This truss ha chord live loa) This truss ha chord adea) This truss ha chord live loa) This truss ha chord live loa) This truss ha chord and adea) Refer to gird 0) Provide mec bearing plate 9. 1) One H2.5A S recommende UPLIFT at ju and does no 2) This truss is International	E 7-16; Pr=20.0 ps 1.15); Pf=20.0 psf Is=1.0; Rough Ca	BCDL=6 (envelope to 2-1-8, 11 to 20- or membe Lumber I sf (roof LI (Lum DC (Lum DC ti B; Fully been cool for great flat roof I h other Ii prevent for a 10. with any d for a liv as where vill fit betw, s, with BC russ connen in (by oth tanding 3 "ie connect forces. rdance we sections	6.0psf; h=25ff a) exterior zo Interior (1) 2- 3-11, Exterio zrs and force: DOL=1.60 pl: :: Lum DOL= DL=1.15 Plate Exp.; Ce=0. Insidered for t er of min roo bad of 20.0 p ve loads. water pondin 0 psf bottom other live loa re load of 20. a rectangle veen the bottom other live loa re load of 20. a rectangle veen the bottom DL = 10.0ps hections. ers) of truss 393 lb uplift a ctors ing walls due on is for uplif ith the 2018 s R502.11.1 a	ne -1-8 r(2E) s & ate -1.15 	LOAD) Sta	ndard		
			1	3) Graphical pu	urlin representatio ation of the purlin	n does n	ot depict the	size				R.	MILLEN	N

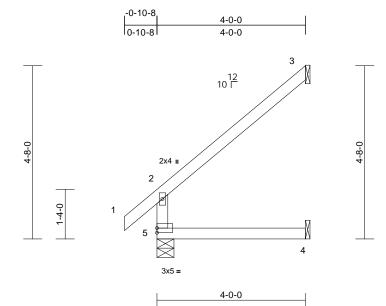
May 13,2024

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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	EJ4	Jack-Open	22	1	Job Reference (optional)	165500385

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:19 ID:d3hD92STipIWgxctoeVD3ZyiMtS-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:31.1

Scale = 1.51.1												
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 IRC2018/TPI2014	CSI TC BC WB Matrix-MR	0.52 0.36 0.00	DEFL Vert(LL) Vert(CT) Horz(CT)	in 0.03 -0.03 -0.06	(loc) 4-5 4-5 3	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 17 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 4-0-0 oc purlins, ex Rigid ceiling directly bracing.	v applied or 10-0-0 or anical, 4= Mechanica C 14) C 14), 4=-8 (LC 14) C 21), 4=-73 (LC 7), 5 npression/Maximum	on the botto 3-06-00 tall chord and a 7) Bearings at 8) Refer to gir 9) Provide me bearing pla 3 and 8 lb d 10) This truss is Internationa R802.10.2 LOAD CASE(S	has been design or chord in all are by 2-00-00 wide any other member re assumed to be: der(s) for truss to chanical connecti te capable of with uplift at joint 4. s designed in acco al Residential Cod and referenced sta) Standard	eas where will fit betw s. , Joint 5 t truss con on (by oth standing 9 ordance w le sections	a rectangle veen the bott Jser Defined nections. ers) of truss i 99 lb uplift at ith the 2018 \$ R502.11.1 a	to joint				vvegnit. Tr ib	11 = 2078
 Vasd=103r II; Exp B; E and C-C E; C for mem shown; Lur 2) TCLL: ASC Plate DOL= DOL=1.15 Cs=1.00; C 3) Unbalance design. 4) This truss I load of 12. overhangs 5) This truss I 	CE 7-16; Vult=130mpf mph; TCDL=6.0psf; B Enclosed; MWFRS (er xterior(2E) zone; end bers and forces & MV mber DOL=1.60 plate CE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L =1.15); Pf=20.0 psf (L); Is=1.0; Rough Cat E Ct=1.10 d snow loads have be has been designed fo 0 psf or 1.00 times fla non-concurrent with in has been designed fo load nonconcurrent w	CDL=6.0psf; h=25ft; nvelope) exterior zor vertical left exposed VFRS for reactions grip DOL=1.60 (roof LL: Lum DOL=1.15 Plate 3; Fully Exp.; Ce=0.9 een considered for th r greater of min roof tt roof load of 20.0 ps other live loads. r a 10.0 psf bottom	e ;C- 1.15 ; is live f on							and a state of the	WY R.	VEEP. FR. III

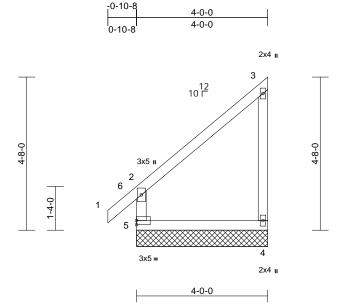


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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	EJ4A	Jack-Open	1	1	Job Reference (optional)	165500386

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:19 ID:ClcXAL8ntWAFIoQVACTkwtyiMoh-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

818 Soundside Road Edenton, NC 27932



Scale = 1:35.1

Scale = 1:35.1			1		'						
Loading (psf) TCLL (roof) 20.0 Snow (Pf) 20.0 TCDL 10.0 BCLL 0.0*	Plate Grip DOL1Lumber DOL1Rep Stress IncrY	2-0-0 1.15 1.15 (ES	CSI TC BC WB	0.41 0.28 0.07	DEFL Vert(LL) Vert(CT) Horz(CT)	in n/a n/a n/a	(loc) - - -	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20	GRIP 244/190
3CLL 0.0* 3CDL 10.0	Code IF	RC2018/TPI2014	Matrix-MSH							Weight: 23 lb	FT = 20%
LUMBER TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.3 BRACING TOP CHORD Structural wood shea 4-0-0 oc purlins, exc BOT CHORD Rigid ceiling directly bracing. REACTIONS (size) 4=4-0-0, 5 Max Horiz 5=126 (LC Max Uplift 4=-105 (LC Max Grav 4=223 (LC FORCES (lb) - Maximum Com Tension TOP CHORD 2-5=-290/64, 1-2=0/4 BOT CHORD 4-5=0/0 WEBS 3-4=-176/178 NOTES 1) Unbalanced roof live loads have this design. 2) Wind: ASCE 7-16; Vult=130mph Vasd=103mph; TCDL=6.0psf; BC I; Exp B; Enclosed; MWFRS (en and C-C Exterior(2E) zone; end v C for members and forces & MW shown; Lumber DOL=1.60 plate ; 3) TCLL: ASCE 7-16; Pr=20.0 psf (L DOL=1.15); Is=1.0; Rough Cat B Cs=1.00; Ct=1.10 4) Unbalanced snow loads have be design. 5) This truss has been designed for load of 12.0 psf or 1.00 times flat overhangs non-concurrent with o 6) Gable requires continuous bottor	applied or 10-0-0 oc 5=4-0-0 C 14) C 14) C 21), 5=317 (LC 21) pression/Maximum 49, 2-3=-140/88 been considered for (3-second gust) CDL=6.0psf; h=25ft; Cat velope) exterior zone vertical left exposed;C- (FRS for reactions grip DOL=1.60 roof LL: Lum DOL=1.15 um DOL=1.15 Plate ; Fully Exp.; Ce=0.9; en considered for this : greater of min roof live roof load of 20.0 psf on ther live loads. n chord bearing.	t.		with any for a liv s where II fit betw s SP No. S SP NO.	other live load e load of 20.0 a rectangle veen the botto 2. ctors ing walls due t uplift only and ith the 2018 r R502.11.1 ar	psf m o d				SE 023	VEER FR.

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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	A03	Нір	1	1	Job Reference (optional)	165500387

25-6-4

19-10-0

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

6-11-14

14-0-0

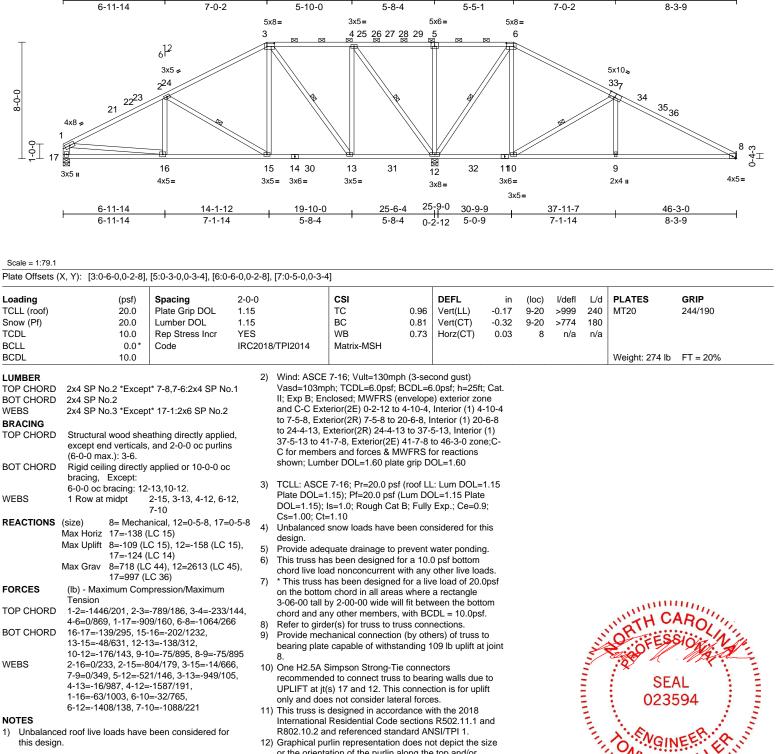
Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:15 ID:d2_gHEcziVw5P8LG6eS_rEyi3?V-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

37-11-7

30-11-5

Page: 1

46-3-0



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

12) 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

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May 13,2024

818 Soundside Road

Edenton, NC 27932

a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overal bilding design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	A02	Нір	1	1	Job Reference (optional)	165500388

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:15 ID:G7I4v5m?S53dyvwRJiljnNyi372-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1

5-5-12 10-8-0 18-6-7 26-3-2 34-3-5 39-5-9 46-3-0 5-5-12 5-2-4 7-10-7 7-8-11 8-0-3 5-2-4 6-9-7 3x5= 5x8= 5x8= 5x6= 6¹² 22 2<u>34</u>24 26 5 27 3 25 6 3x5 🞜 3x5 👟 7 2 28 29 6-4-0 4x8 ≠ 30 21 31 0-0-8 0-4-3 H L. [⊠] 12³⁴ 16 15 32 14 13 33 35 11 10 9 3x5 II 4x5= 4x5= 3x5= 3x6= 3x5= 3x6= 3x10= 2x4 II 3x5= 25-9-0 10-9-12 18-6-7 25-8-0 34-1-9 39-5-9 46-3-0 5-5-12 0-1-0 5-5-12 5-4-0 7-8-11 7-1-9 8-4-9 5-4-0 6-9-7

Scale = 1:79

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

Fiale Oliseis (A, T). [3.0-0-0,0-2-0],	[5.0-3-12,0-3-4], [0.0	-3-0,0-2-	0]	1							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	0.86 0.75 0.97	DEFL Vert(LL) Vert(CT) Horz(CT)	in -0.15 -0.26 0.03	(loc) 10-12 10-12 8	l/defl >999 >965 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 254 lb	GRIP 244/190 FT = 20%	
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD BOT CHORD WEBS REACTIONS	3-10-3 oc purlins, e 2-0-0 oc purlins (4-2 Rigid ceiling directly bracing, Except: 6-0-0 oc bracing: 10 1 Row at midpt	t* 17-1:2x6 SP No.2 athing directly applied xcept end verticals, a -2 max.): 3-6. applied or 10-0-0 oc -12. 3-13, 4-12 anical, 12=0-5-8, 17=(C 19) C 15), 12=-193 (LC 1 LC 14), 12=2604 (LC 4 (LC 36)	d or ind 3) 2-5-8 0), 4)	Vasd=103m II; Exp B; En and C-C Ext 4-10-4 to 17 (2R) 27-8-13 Exterior(2E) right expose for members Lumber DOL TCLL: ASCE Plate DOL=' DOL=1.15); Cs=1.00; Ct: Unbalanced design. Provide ader This truss ha	7-16; Vult=130mp oh; TCDL=6.0psf; closed; MWFRS (erior(2E) 0-2-12 tc ·2-8, Interior (1) 17 to 40-9-13, Interia 41-7-8 to 46-3-0 z d; end vertical left and forces & MW .=1.60 plate grip D F7-16; Pr=20.0 psf Is=1.0; Rough Cat =1.10 snow loads have l quate drainage to as been designed to ad nonconcurrent	BCDL=6 envelope 4-10-4, 7-2-8 to 3 or (1) 40 oone; can and rigg FRS for 00L=1.6 f (roof L1 (Lum DC B; Fully been con prevent for a 10.	.0psf; h=25ft) exterior zor Exterior(2R) 9-13 to 41-7- titlever left an tt exposed;C- reactions sho) :: Lum DOL= DL=1.15 Plate Exp.; Ce=0.5 asidered for th water ponding D psf bottom	ne rior -8, id -C own; 1.15 9; 9; his g.	LOAD	CASE(S) Sta	ndard		
TOP CHORD	Tension 1-2=-1510/216, 2-3= 3-4=-625/180, 4-6=- 7-8=-1306/222, 1-17	369/845, 6-7=-551/18	7) 33,	* This truss I on the bottor 3-06-00 tall I	has been designed m chord in all area by 2-00-00 wide w by other members.	d for a liv s where ill fit betv	e load of 20.0 a rectangle veen the botte	Opsf om				TH C	ARO	
BOT CHORD	16-17=-94/241, 15-1 13-15=-103/965, 12- 10-12=-730/157, 9-1 8-9=-119/1079	-13=-81/601,	8) 9)	Refer to gird Provide med	er(s) for truss to tr hanical connection capable of withst	uss coni n (by oth	nections. ers) of truss t	to		-	20	POFES	Mail	1111
3-13=-698/63, 4-13=0/714, 4-12=-1869/228, 5-12=-1372/266, 5-10=-111/1315, 6-10=-266/93, 7-10=-841/172, 7-9=0/243, 1-16=-110/1078 NOTES 1) Unbalanced roof live loads have been considered for				 One H2.5A \$ recommende UPLIFT at jt only and doe This truss is International R802.10.2 a Graphical put 	Simpson Strong-Ti ed to connect truss (s) 17 and 12. This is not consider late designed in accor Residential Code nd referenced star Irlin representation ation of the purlin a d.	s to bear s connect eral force dance w sections ndard AN n does no	ing walls due tion is for upli es. th the 2018 5 R502.11.1 a ISI/TPI 1. ot depict the s	ift and				WY R.	594 IEER MILLER	WILLING COL

May 13,2024

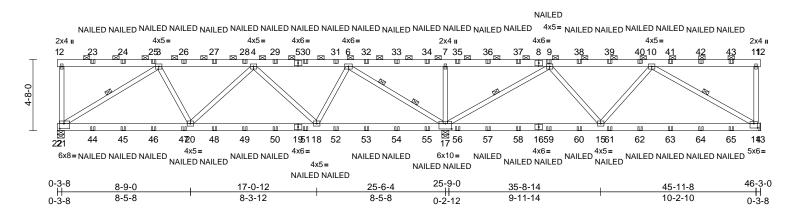
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	A01	Flat	1	1	Job Reference (optional)	165500389

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:14 ID:C?sBVu?G6imTJZQMRH739iyiJIv-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

0-3-8	6-8-1	12-10-14	19-1-11	25-6-4	32-4-9	39-1-3	45-11-8	46-3-0
0-3-8	6-4-9	6-2-13	6-2-13	6-4-9	6-10-5	6-8-9	6-10-5	0-3-8



Scale = 1:75.8

Plate Offsets (X, Y): [14:0-3-0,0-3-8], [17:0-5-0,0-4-4], [21:0-3-8,0-4-0]

Loading	(psf)		2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
CLL (roof)	20.0	1 1	1.15		TC	0.84	Vert(LL)		14-15	>999	240	MT20	244/190
now (Pf)	20.0	Lumber DOL	1.15		BC	0.66	Vert(CT)	-0.26	14-15	>926	180		
CDL	10.0	Rep Stress Incr	YES		WB	0.95	Horz(CT)	0.06	14	n/a	n/a		
BCLL	0.0*	Code	IRC2018	3/TPI2014	Matrix-MSH								
BCDL	10.0											Weight: 322 lb	FT = 20%
UMBER			1)		7-16; Vult=130m					CASE(S			
OP CHORD					ph; TCDL=6.0psf							alanced): Lumbei	Increase=1.15, P
OT CHORD					closed; MWFRS					crease=			
/EBS	2x4 SP No.3				rner (3) 0-0-0 to 5			to	U	niform Lo			
RACING					ner (3) 41-3-0 to 4 nd forces & MWFF), 13-22=-20	
OP CHORD	2-0-0 oc purlins (4-1				L=1.60 plate grip				С	oncentra		()	
BOT CHORD		applied or 10-0-0 oc	2)		E 7-16; Pr=20.0 p			15					24=-118 (F), 25=-1
	bracing, Except:		2)		1.15); Pf=20.0 psf			.15					28=-118 (F), 29=-1 32=-118 (F), 33=-1
	8-5-2 oc bracing: 20				Is=1.0; Rough Ca								36=-118 (F), 33=-1
	7-11-11 oc bracing:			Cs=1.00; Ct		,,		,					40=-118 (F), 41=-1
VEBS VEBS		3-21, 9-17, 10-14	3)		snow loads have	been cor	sidered for th	is					14=-32 (F), 45=-32
	2 Rows at 1/3 pts		,	design.								′=-32 (F), 48=-32	
EACTIONS	()	nanical, 17=0-5-8,	4)	Provide ade	quate drainage to	prevent	water ponding					=-32 (F), 52=-32	
	21=0-5-8		5)	This truss h	as been designed	for a 10.) psf bottom					i=-32 (F), 56=-32	
		(LC 11), 17=-1635 (LC			ad nonconcurrent							=-32 (F), 60=-32	
		584 (LC 11) (LC 1), 17=4241 (LC 1	, 6)		has been designe			psf				s=-32 (F), 64=-32	
	21=1580),		m chord in all are								
ORCES	(lb) - Maximum Corr				by 2-00-00 wide v		veen the botto	m					
ORCES	(ib) - Maximum Corr Tension	ipression/waximum			ny other members								
TOP CHORD		1- 2024/200	7)		ler(s) for truss to t								
OF CHORD	4-6=-1344/528, 6-7=	,	8)		chanical connection							mm	IIIII.
	,)=-1018/366, 10-11=0/	0		e capable of withs		635 lb uplift a	t				WHC.	ARO
	11-12=0/0	5= 1010/000, 10 11=0/	,		432 lb uplift at join							N' Q	01/1
BOT CHORD		778/1833.	9)		son Strong-Tie con to bearing walls						S	OTEES	SIGNA
	18-20=-864/2039, 1				tion is for uplift or						~		NA N
		-15=-520/1168, 13-14=	=0/0	lateral force		lly and do	es not consid	er			20	Leg A	mare
	,				designed in acco	rdance w	ith the 2018				-	: 0	
WEBS	7-17=-858/472, 11-1	14=-308/159,	10		Residential Code			hd			=	: SE/	AL :
	2-21=-269/137, 3-21	1=-2196/932,			nd referenced sta			iu -			=	023	591
	3-20=-50/481, 4-20=	-35/147, 4-18989/47	78, 11		urlin representatio			ize			-	. 025.	
	6-18=-353/1109, 6-1				ation of the purlin						-	1. C	÷
	9-17=-2613/1118, 9			bottom chor							-	N. 6.	ain.
	10-15=-261/247, 10	-14=-1370/610	12		dicates 3-10d (0.1	148"x3") d	or 3-12d				1111000000	A NGIN	AL 594
IOTES			,		5") toe-nails per N						1		1. A. A.
			13		CASE(S) section			ace				The R.	MIL
					are noted as front							2000	unnu.
						-						Ma	40.0004

May 13,2024

Page: 1

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	K02	Attic	3	1	Job Reference (optional)	165500390

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:20 ID:ZXFgd0VIQCtq_cCKGIK2vpyi2Sn-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

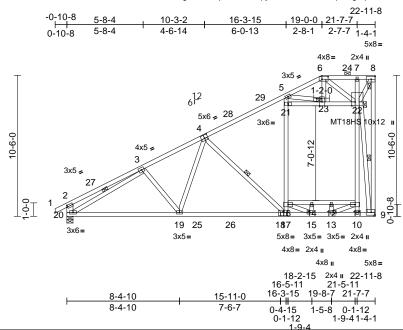
Page: 1



GRIP

244/190

244/190



Scale = 1:85.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.33	17-19	>823	240	MT20
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.58	17-19	>466	180	MT18HS
TCDL	10.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.04	9	n/a	n/a	
DOLL	0.0*	Codo		Matrix MOLL		A.441.0	0.40	44.40	. 500	200	

Plate Offsets (X, Y): [2:0-0-12,0-1-8], [4:0-3-0,0-3-0], [6:0-5-8,0-2-4], [18:0-3-0,0-3-0], [22:0-3-8,0-3-0], [23:0-3-8,0-2-0]

BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH	Attic 0.12	11-16 >529 360	
BCDL	10.0						Weight: 200 lb FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS BRACING TOP CHORD	18-9:2x4 SP No.2 2x4 SP No.3 *Excep No.2, 5-17,7-10:2x4 No.2, 9-22:2x4 SP 2	SP No.1, 20-2:2x6 SI	2	3-19=-110/158, 4-19=-21/ 4-17=-786/198, 16-17=-4 5-21=0/770, 10-11=0/388 7-22=-244/65, 21-23=-52/ 22-23=-1574/106, 3-20=-7 5-23=-2305/157, 9-22=-4 8-22=-3432/295, 6-22=-1 14-15=-113/105, 15-16=-7 12-13=-365/0, 11-13=0/85	0/732, 16-21=0/837, , 11-22=0/879, 697, 1364/0, 6-23=0/303, 391/248, 478/127, 358/133,	Wall dead load (5 11) Bottom chord live chord dead load (12-14, 11-12 12) Refer to girder(s) 13) One H2.5A Simps recommended to UPLIFT at jt(s) 20	(5.0 psf) on member(s). 21-23, 22-23; Opsf) on member(s).16-21, 11-22 load (40.0 psf) and additional bottom 5.0 psf) applied only to room. 14-16, for truss to truss connections. on Strong-Tie connectors connect truss to bearing walls due to This connection is for uplift only and
	2-0-0 oc purlins (10- Rigid ceiling directly bracing. 1 Row at midpt 1 Brace at Jt(s): 22, 23, 8	applied or 6-0-0 oc 4-17, 3-20, 9-22 anical, 20=0-5-8 _C 14) C 14)	 Unbalance this design Wind: ASC Vasd=103 II; Exp B; I and C-C E to 14-9-1, 19-9-12 to for membe lumber D 	ed roof live loads have been E 7-16; Vult=130mph (3-se mph; TCDL=6.0psf; BCDL= Enclosed; MWFRS (envelop ixterior(2E) -0-10-8 to 2-1-8, Exterior(2R) 14-9-1 to 19-9- 22-9-12 zone; end vertical ers and forces & MWFRS fo OL=1.60 plate grip DOL=1.6	cond gust) 6.0psf; h=25ft; Cat. e) exterior zone Interior (1) 2-1-8 12, Exterior(2E) left exposed;C-C r reactions shown;	International Resi R802.10.2 and ret 15) Graphical purlin re	ned in accordance with the 2018 dential Code sections R502.11.1 and erenced standard ANSI/TPI 1. epresentation does not depict the size of the purlin along the top and/or d for L/360 deflection.
FORCES TOP CHORD BOT CHORD	2-3=-506/116, 3-5=- 19-20=-297/1616, 17 15-17=-79/1296, 13-	=-158/1841,]=-432/137, 1-2=0/30, 1728/2, 5-6=-95/967 7-19=-191/1446, =15=0/1087, =-34/681, 14-16=-409/	Plate DOL DOL=1.15 Cs=1.00; (4) Unbalance design. 5) This truss load of 12. overhangs	CE 7-16; Pr=20.0 psf (roof L =1.15); Pf=20.0 psf (Lum D); Is=1.0; Rough Cat B; Full Ct=1.0 ad snow loads have been cc has been designed for grea 0 psf or 1.00 times flat roof c non-concurrent with other l dequate drainage to prevent	OL=1.15 Plate y Exp.; Ce=0.9; unsidered for this ter of min roof live load of 20.0 psf on ive loads.	Number of Street of Street	SEAL 023594

- 6) Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- 8) This truss has been designed for a 10.0 psf bottom
- chord live load nonconcurrent with any other live loads.
 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle
- 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

SEAL 023594 WGINEER MAY R. MILLIN May 13,2024

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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	A08	Attic	2	1	Job Reference (optional)	165500391

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:16 ID:nZLG3VUHdq?4Tuf_s0oesByiIZ6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1

	-0-10-8 5-5-9	10-6-3		<u>19-0-0 22-5-11 25-1</u>	1-5 28-7-7	34-5-2 39	9-5-10	46-3-0 47-1-8
	0-10-8 5-5-9	5-0-10	5-9-12	2-8-1 3-5-11 3-5- 5x6=	10 2-8-2 5x6=	5-9-11 5	5-0-8	6-9-6 0-10-8
ŢŢ		6 ¹² 51 ²	2 5 5x8 = 52 3	x8 = 6 7 0-11-8 7 35 8= 5x8=	8 46 9 36 38 5x8= 5×10=	47 5x10≈ 1₽8		
10-11-0		4x8 = 3		7-0-12			2x4 #	
	50 4x5 II					\$		49
0.0						°°⊤		12 13 m
Τ τ έ	⊥ 34 ⊠ 4x6=	33 42			<u>18 17</u> 11 <u>18</u> 17 11 29 16 15	44 45	14	
			5x8 5x	x= 2x4 II x8 II 2x4 II	2x4 II 3x6= 3x8= 5x10=			4x5=
				3x8=	4x6= 4x6	6=		
	7 (2 10	16-5 16-5 15-11-0 16-3-	5-11 21-10-3 24-3-1	6= 30-4-0 1 27-0-1428-7-7 5-6-4 28-5-11	37-1-12	4	6-3-0
	7-9	9-10 9-10	8-1-6 0-4-1 0-1-	15 1-8-15 1-3-0 1	-2-8 1-4-14 1-6-10 0-1-12	6-9-12		9-1-4
$\frac{\text{Scale} = 1:85.4}{\text{Plate Offsets (}}$	X, Y): [4:0-4-0,0-3-0]	, [6:0-3-0,0-2-0], [8:0-	1	1-2	1-8-9	-0,0-3-0], [35:0-2-8,	0-2-0], [38:0-5-0	,0-1-12]
Loading	(psf)	Spacing	2-0-0	CSI	DEFL ir		L/d PLATES	GRIP
TCLL (roof) Snow (Pf)	20.0 20.0	Plate Grip DOL Lumber DOL	1.15 1.15	TC 0.77 BC 0.92			240 MT20 180	244/190
TCDL BCLL	10.0 0.0*	Rep Stress Incr Code	YES IRC2018/TPI2014	WB 0.92 Matrix-MSH			n/a 360	
BCDL	10.0							35 lb FT = 20%
LUMBER TOP CHORD	2x4 SP No.1		WEBS	30-31=-26/682, 30-37=0/9 16-17=-375/58, 17-38=-33				for greater of min roof live flat roof load of 20.0 psf on
BOT CHORD	2x4 SP 2400F 2.0E No.1	*Except* 30-17:2x4 \$	SP	9-38=-1009/107, 35-37=- 35-36=-1502/46, 36-38=-				th other live loads. prevent water ponding.
WEBS	2x4 SP No.3 *Excep No.1, 37-38:2x4 SP	ot* 5-31,9-16:2x4 SP No.2, 34-2:2x6 SP N	lo.2	10-14=-52/706, 11-14=-3 4-31=-686/200, 4-33=-11	271, 3-33=0/241,	8) This truss ha	s been designed	ss otherwise indicated. I for a 10.0 psf bottom
BRACING TOP CHORD	Structural wood she	athing directly applie	d or	3-34=-2921/43, 19-20=-5 24-25=-19/223, 22-23=-6	78/0,	9) * This truss h	as been designe	t with any other live loads. ed for a live load of 20.0psf
BOT CHORD	2-0-0 oc purlins (5-5 Rigid ceiling directly		nd	7-35=-189/406, 6-35=-9/4 7-36=-767/120, 5-35=-26 9-36=-60/1229, 10-16=-6 4-37=-230/833, 10-38=-2	00/160, 30/266,	3-06-00 tall b chord and ar	y 2-00-00 wide way other members	as where a rectangle will fit between the bottom s, with BCDL = 10.0psf. member(s). 35-37, 35-36,
WEBS	bracing. 1 Row at midpt	35-36, 4-31, 3-34, 1	0-16,	29-30=-435/530, 28-29=- 27-28=-460/230, 26-27=-	311/174,			f) on member(s).30-37,
JOINTS	1 Brace at Jt(s): 35, 36, 21, 18	10-38		25-26=-1381/29, 21-22=0 19-21=-1392/0, 18-19=-1	/1940,	11) Bottom chord		osf) and additional bottom lied only to room. 28-30,
REACTIONS	(size) 12=0-5-8	, 19=0-5-8, 34=0-5-8	NOTES	16-18=-228/1900			, 23-24, 21-23, 2	0-21, 18-20, 17-18
	Max Horiz 34=-168 (Max Uplift 12=-2 (LC Max Grav 12=1775	C 14), 34=-119 (LC 14 (LC 48), 19=2161 (LC	4) 1) Unbalance C this design	d roof live loads have been E 7-16; Vult=130mph (3-se		UPLIFT at jt(ss to bearing walls due to is connection is for uplift teral forces.
FORCES	(lb) - Maximum Com	2111 (LC 38) npression/Maximum	Vasd=103r	mph; TCDL=6.0psf; BCDL= Enclosed; MWFRS (envelop	6.0psf; h=25ft; Cat.			CAP
TOP CHORD	Tension 6-7=-1266/131, 7-8= 2-34=-494/144, 8-9=		to 12-5-8, I	xterior(2E) -0-10-8 to 3-9-0 Exterior(2R) 12-5-8 to 32-5	13, Interior (1)		N'OBT.	SSIS M
	9-11=-3403/570, 11 12-13=0/23, 1-2=0/3	-12=-3581/80,	cantilever I	42-6-0, Exterior(2E) 42-6-0 left and right exposed ; end	vertical left and		S ROMON	May A
BOT CHORD	3-5=-3616/182, 5-6= 33-34=-211/2906, 3	=-1395/137	for reaction	sed;C-C for members and for ns shown; Lumber DOL=1.6		Ē		SEAL
		29=0/3079, 25-27=0/3	3) TOLL: ASC	CE 7-16; Pr=20.0 psf (roof L		-	0	23594
	16-19=-539/898, 14 12-14=0/3151, 28-3	-16=0/2680,		=1.15);				a. 3
	26-28=-1014/686, 2 23-24=-490/1674, 2 20-21=-220/3620, 1 17-18=-39/501	1-23=-490/1674,	,	d snow loads have been o	onsidered for this		in vy	GINEE: FR. 11 R. MILLER May 13,2024
Continued on	page 2							
Design v a truss s building	valid for use only with MiTek ystem. Before use, the build design. Bracing indicated is	® connectors. This design ling designer must verify th s to prevent buckling of indi	is based only upon paramete ne applicability of design para ividual truss web and/or chord	REFERENCE PAGE MII-7473 rev. ers shown, and is for an individual I meters and properly incorporate th d members only. Additional tempo	ouilding component, not is design into the overall rary and permanent bracin	g		SINEERING BY
is always fabricatio	s required for stability and to on, storage, delivery, erectio	prevent collapse with pose on and bracing of trusses ar	sible personal injury and prop nd truss systems, see ANSI/	perty damage. For general guidan /TPI1 Quality Criteria and DSB-2 g Component Association (www.sb	ce regarding the 2 available from Truss Pla	-	- 010 30uli	A MiTek Affiliate dside Road NC 27932
							Luenion,	

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	A08	Attic	2	1	Job Reference (optional)	165500391

- 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 15) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:16 ID:nZLG3VUHdq?4Tuf_s0oesByilZ6-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 2

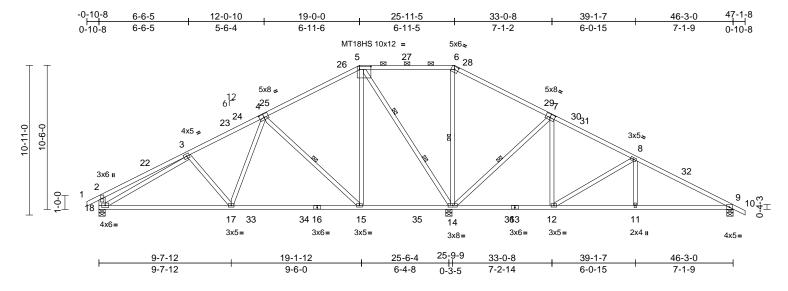


WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	A07	Piggyback Base	1	1	Job Reference (optional)	165500392

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:16 ID:mnZqp49xwCxjCaSirOxFxIyi2dZ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:84

Plate Offsets (X, Y): [4:0-4-0,0-3-0], [5:0-10-0,0-2-8], [6:0-3-0,0-2-7], [7:0-4-0,0-3-0]

oading	(psf)	Spacing	2-0-0		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
CLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.99	Vert(LL)		15-17	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.99	Vert(CT)		15-17	>774	180	MT18HS	244/190
CDL	10.0	Rep Stress Incr	YES		WB	0.82	Horz(CT)	0.03	9	n/a	n/a		210100
BCLL	0.0			8/TPI2014	Matrix-MSH	0.02	11012(01)	0.00	5	Π/α	n/a		
BCDL	10.0	Code	160201	0/1112014								Weight: 277 lb	FT = 20%
UMBER			2)	Wind: ASCE	7-16; Vult=130m	ah (2 aa	and quat)			-			
OP CHORD	2v4 SD No 2 *Evo	ept* 5-6:2x4 SP No.1	(ک		ph; TCDL=6.0psf;			. Cat					
OF CHORD	2x4 SP No.2 Exc 2x4 SP No.2	ept 5-6.2x4 SP NO.1			closed; MWFRS (
EBS		ept* 18-2:2x6 SP No.2			erior(2E) -0-10-8 t								
EDO	14-5:2x4 SP No.3 Exc	ept 10-2.2x0 SP N0.2	,		(terior(2R) 12-5-8	,	()						
RACING	14-3.2.4 SF NU.2				2-6-0, Exterior(2E								
OP CHORD	Structural wood s	neathing directly applie	he	end vertical	left exposed;C-C f	or memb	pers and force	es &					
		als, and 2-0-0 oc purlin		MWFRS for	reactions shown;	Lumber	DOL=1.60 pla	ate					
	(10-0-0 max.): 5-6		0	grip DOL=1.	60		-						
OT CHORD		tly applied or 2-2-0 oc	3)		7-16; Pr=20.0 ps								
	bracing.				1.15); Pf=20.0 psf								
/EBS	1 Row at midpt	6-14, 4-15, 7-14		DOL=1.15);	Is=1.0; Rough Ca	t B; Fully	Exp.; Ce=0.9	9;					
/EBS	2 Rows at 1/3 pts			Cs=1.00; Ct:									
		8, 14=0-5-8, 18=0-5-8	4)		snow loads have	been co	nsidered for t	his					
	Max Horiz 18=-16	design.											
		(LC 15), 14=-145 (LC	15) 5)		as been designed								
		(LC 14)	10),		psf or 1.00 times f			osf on					
		LC 45), 14=2932 (LC	47)		on-concurrent with								
		(LC 37)	(0)		quate drainage to								
ORCES		mpression/Maximum	7)		e MT20 plates unle			ed.					
ONCLO	Tension		8)		as been designed								
OP CHORD		2/163, 3-5=-1113/192	0)		ad nonconcurrent							minin	inin.
		15/1049, 8-9=-798/18			has been designed			Upst				WH C	ARO
	9-10=0/23, 2-18=-	,	σ,		n chord in all area							A	Lite 1
OT CHORD	17-18=-230/1047,				by 2-00-00 wide w						R	(0)::EES	SIG IN 11
	14-15=-123/270,		40		ny other members Simpson Strong-T			1.			X	Alo // .	Naithe
	11-12=-71/645, 9-	,	IC IC					to		/	-	:0	· · · · ·
/EBS	5-15=-57/1019, 6-				ed to connect trus (s) 14, 9, and 18.						-	: .	
-	,	17=-4/625, 7-12=0/64	5.		es not consider lat			upint			-	: SE/	AL : :
		-763/169, 3-18=-805/			designed in accor						=	0235	Q/ :
	4-15=-986/225, 7-		· 11		Residential Code			and			-	. 025	
	5-14=-1671/186				nd referenced star			unu.			2	1. Contraction 1. Con	
OTES			10		Ind representation			size			TITITITI A MANAGEMENT	. A.	al S
	d roof live loads ha	ve been considered fo			ation of the purlin			5120			1	NGIN	EENAN
this design				bottom chore		along th					1		14 N
and debigin			17	DAD CASE(S)								YR	MIL
					Glanuaru							1 million	in the second

R. MILLIN May 13,2024

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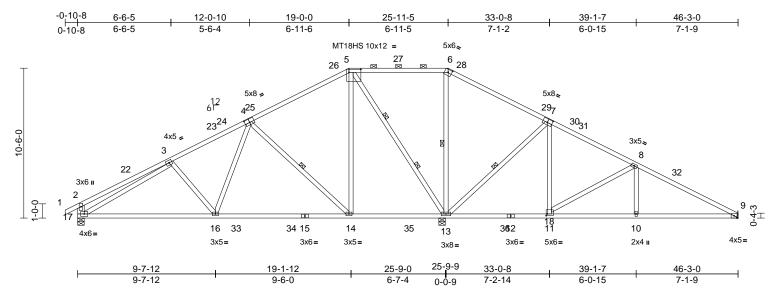
SINEEDING

818 Soundside Road Edenton, NC 27932

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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	A06	Piggyback Base	2	1	Job Reference (optional)	165500393

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:16 ID:86vrdMjsFRcFbhb4agr6Ivyi2gi-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:80.7

Plate Offsets (X, Y): [4:0-4-0,0-3-0], [5:0-10-0,0-2-8], [6:0-3-0,0-2-7], [7:0-4-0,0-3-0], [1:1	0], [11:0-1-0,0-1-8]
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					1	-	1					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		тс	0.99	Vert(LL)	-0.24	14-16	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.98	Vert(CT)	-0.40	14-16	>774	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES		WB	0.82	Horz(CT)	0.03	9	n/a	n/a		
BCLL	0.0*	Code	IRC201	8/TPI2014	Matrix-MSH								
BCDL	10.0											Weight: 275 lb	FT = 20%
LUMBER			2) Wind: ASCE	57-16; Vult=130m	ph (3-seo	cond gust)		14) Gra	aphical p	urlin re	epresentation doe	s not depict the size
TOP CHORD	2x4 SP No.2 *Excep	ot* 5-6:2x4 SP No.1		Vasd=103m	ph; TCDL=6.0psf	BCDL=6	6.0psf; h=25ft	; Cat.	ort	he orien	tation	of the purlin along	the top and/or
BOT CHORD	2x4 SP No.2			II; Exp B; Er	closed; MWFRS	(envelope	e) exterior zo	ne	bot	tom cho	rd.		
WEBS	2x4 SP No.3 *Excep	ot* 17-2:2x6 SP No.2	,		terior(2E) -0-10-8				LOAD	CASE(S) Sta	ndard	
	7-11,13-5:2x4 SP N				xterior(2R) 12-5-8					•	,		
BRACING					1-7-8, Exterior(2E								
TOP CHORD	Structural wood she	athing directly applie	ed.		ft and right expos								
		, and 2-0-0 oc purlin			d;C-C for membe			RS					
	(10-0-0 max.): 5-6.	•			shown; Lumber	DOL=1.6) plate grip						
BOT CHORD	Rigid ceiling directly	applied or 2-2-0 oc	0	DOL=1.60	- 7 40: D: 00 0 -								
	bracing.	3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15											
WEBS	1 Row at midpt	I Row at midpt 6-13, 4-14, 7-13 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;											
WEBS	2 Rows at 1/3 pts	5-13		Cs=1.00; Ct		at D, Fully	Exp., Ce=0.	9,					
REACTIONS	(size) 9= Mecha	anical, 13=0-5-8, 17=	0-5-8 4		snow loads have	heen co	nsidered for t	his					
	Max Horiz 17=-155 (design.	511011 100003 11010			1115					
	Max Uplift 9=-106 (L		15), 5		as been designed	for great	er of min root	live					
	17=-135 (-		psf or 1.00 times								
	Max Grav 9=570 (LC		47),		ion-concurrent wit								
	17=978 (I	,	6		quate drainage to			g.					
FORCES	(lb) - Maximum Com	npression/Maximum	7) All plates ar	e MT20 plates un	less othe	wise indicate	ed.					
	Tension		8) This truss h	as been designed	for a 10.	0 psf bottom						UILL.
TOP CHORD		163, 3-5=-1109/190,		chord live lo	ad nonconcurrent	with any	other live loa	ids.				11" I C	AD
		2/1040, 8-9=-786/184	4, 9		has been designe			0psf				"ath U	ANO MA
	2-17=-474/173			on the botto	m chord in all are	as where	a rectangle				2	ON SEC	Sin A.R.A
BOT CHORD	16-17=-235/1043, 1				by 2-00-00 wide v						5.	20:01-	
	13-14=-119/263, 11				ny other members			f.				and the second s	manas
	10-11=-81/650, 9-10				ler(s) for truss to t						Ξ	:*	
WEBS	,	6=-4/624, 5-14=-57/1	· · ·		chanical connection						-	: SE/	AI
		18=0/315, 7-18=0/62 778/174, 3-17=-801/3			e capable of withs	standing 1	06 lb uplift a	t joint			=	•	
	4-14=-986/225, 7-13			9.							=	023	94
	4-14=-966/225, 7-13 5-13=-1668/187	5=-1133/220,	1:		Simpson Strong-T						1111111111	1	AL 594
NOTEO	3-13=-1000/107				ed to connect trus						-	·	- A 2 - 3
NOTES					(s) 13 and 17. Th			ift			1	X SNOIL	EFT. Q S
,	ed roof live loads have	been considered for			es not consider la						1	O	5.00
this desigr	٦.		1	3) I his truss is	designed in acco	rdance w	ith the 2018					1. VY D	All Lan

International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

R. MILLIN May 13,2024

Page: 1

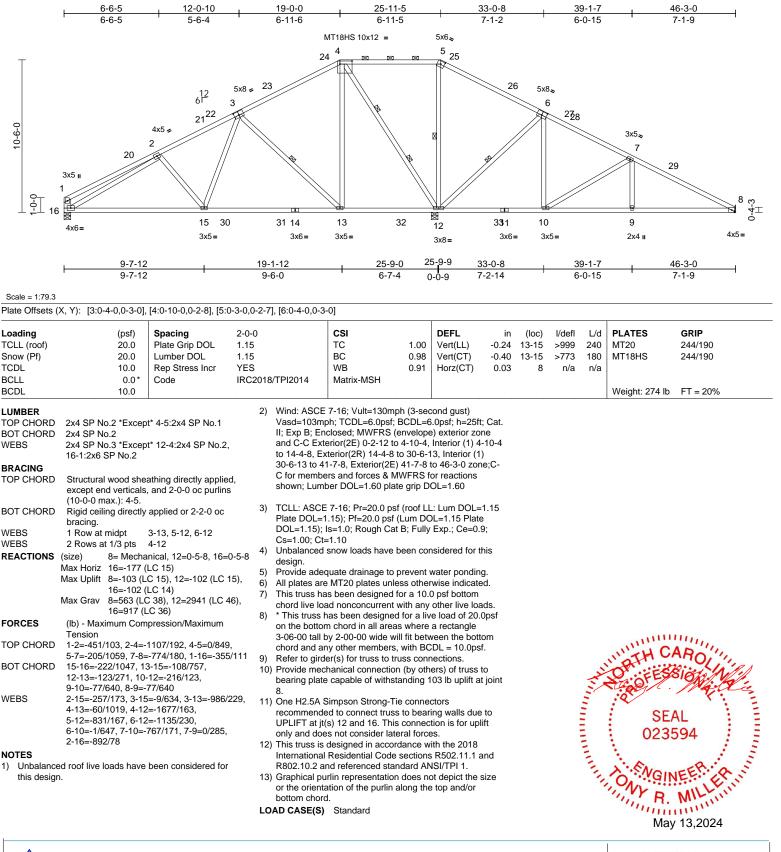
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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	A05	Piggyback Base	3	1	Job Reference (optional)	165500394

Run: 8,73 S Apr 25 2024 Print: 8,730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:16 ID:JB5bLQFGF3C9vTBFkpkf65yi2p3-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



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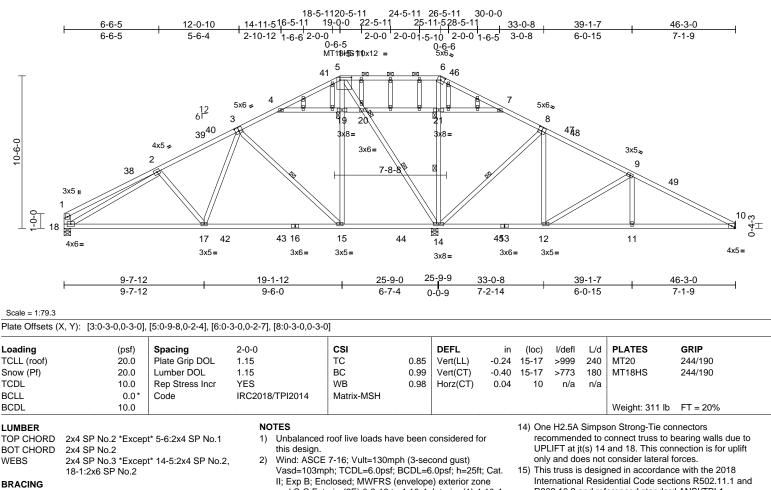


818 Soundside Road

Edenton, NC 27932

Job		Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040	0155-01	A04	Piggyback Base	1	1	Job Reference (optional)	165500395

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:15 ID:nVtzValjZPhBKcQfHQvk1ryi2vS-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



BRACING										
TOP CHORD	5-2-12 oc	wood sheathing directly applied or purlins, except end verticals, and purlins (10-0-0 max.): 5-6.								
BOT CHORD	Rigid ceili bracing.	ng directly applied or 2-2-0 oc								
WEBS	1 Row at	1 Row at midpt 3-15, 14-20, 14-21, 8-14								
JOINTS	1 Brace a 20, 21	1 Brace at Jt(s): 19, 20, 21								
REACTIONS	(size)	10= Mechanical, 14=0-5-8, 18=0-5-8								
	Max Horiz	18=-177 (LC 15)								
	Max Uplift	10=-114 (LC 15), 14=-83 (LC 15),								
		18=-111 (LC 14)								
	Max Grav	10=588 (LC 44), 14=2879 (LC 46),								
		10 000 (20 11); 11 2010 (20 10);								
		18=935 (LC 36)								
FORCES										
FORCES	(lb) - Max Tension	18=935 (LC 36)								
	(lb) - Max Tension 1-2=-434/	18=935 (LC 36) imum Compression/Maximum								
	(lb) - Max Tension 1-2=-434/ 5-6=-35/1	18=935 (LC 36) imum Compression/Maximum 98, 2-4=-1162/188, 4-5=-87/533,								
	(lb) - Max Tension 1-2=-434/ 5-6=-35/1 7-9=-257/ 17-18=-23	18=935 (LC 36) imum Compression/Maximum 98, 2-4=-1162/188, 4-5=-87/533, 220, 1-18=-340/106, 6-7=-89/1386, 791, 9-10=-841/206 39/1097, 15-17=-115/773,								
TOP CHORD	(lb) - Max Tension 1-2=-434/ 5-6=-35/1 7-9=-257/ 17-18=-23 14-15=-45	18=935 (LC 36) imum Compression/Maximum 98, 2-4=-1162/188, 4-5=-87/533, 220, 1-18=-340/106, 6-7=-89/1386, 791, 9-10=-841/206 39/1097, 15-17=-115/773, 5/284, 12-14=-179/145,								
TOP CHORD	(lb) - Max Tension 1-2=-434/ 5-6=-35/1 7-9=-257/ 17-18=-23 14-15=-45 11-12=-10	18=935 (LC 36) imum Compression/Maximum 98, 2-4=-1162/188, 4-5=-87/533, 220, 1-18=-340/106, 6-7=-89/1386, 791, 9-10=-841/206 199/1097, 15-17=-115/773, 5/284, 12-14=-179/145, 02/702, 10-11=-102/702								
TOP CHORD	(lb) - Max Tension 1-2=-434/ 5-6=-35/1 7-9=-257/ 17-18=-23 14-15=-45 11-12=-10 2-17=-282	18=935 (LC 36) imum Compression/Maximum 98, 2-4=-1162/188, 4-5=-87/533, 220, 1-18=-340/106, 6-7=-89/1386, 791, 9-10=-841/206 99/1097, 15-17=-115/773, 5/284, 12-14=-179/145, 5/284, 12-14=-179/145, 20/702, 10-11=-102/702 2/185, 3-17=-19/655,								
TOP CHORD	(lb) - Max Tension 1-2=-434/ 5-6=-35/1 7-9=-257/ 14-15=-4{ 11-12=-1(2-17=-282 3-15=-792	18=935 (LC 36) imum Compression/Maximum 98, 2-4=-1162/188, 4-5=-87/533, 220, 1-18=-340/106, 6-7=-89/1386, 791, 9-10=-841/206 99/1097, 15-17=-115/773, 5/284, 12-14=-179/145, 02/702, 10-11=-102/702 2/185, 3-17=-19/655, 2/170, 15-19=-20/887,								
TOP CHORD	(lb) - Max Tension 1-2=-434/ 5-6=-35/1 7-9=-257/ 17-18=-23 14-15=-44 11-12=-10 2-17=-282 3-15=-792 5-19=-20/	18=935 (LC 36) imum Compression/Maximum 98, 2-4=-1162/188, 4-5=-87/533, 220, 1-18=-340/106, 6-7=-89/1386, 791, 9-10=-841/206 99/1097, 15-17=-115/773, 5/284, 12-14=-179/145, 5/284, 12-14=-179/145, 20/702, 10-11=-102/702 2/185, 3-17=-19/655,								

5-19=-20/889, 5-20=-1687/150, 14-20=-1626/144, 14-21=-916/202, 6-21=-918/202, 8-14=-952/174, 8-12=-8/662, 9-12=-796/183, 9-11=0/284, 2-18=-955/103, 4-19=-562/210, 19-20=-517/212, 20-21=-604/221, 7-21=-547/207

- 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) 0-2-12 to 4-10-4, Interior (1) 4-10-4 to 14-4-8, Exterior(2R) 14-4-8 to 30-3-15, Interior (1) 30-3-15 to 41-7-8, Exterior(2E) 41-7-8 to 46-3-0 zone;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
- 5) Unbalanced snow loads have been considered for this design.
- 6) Provide adequate drainage to prevent water ponding.
- 7) All plates are MT20 plates unless otherwise indicated.
- 8) All plates are 2x4 MT20 unless otherwise indicated.
- 9) Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom
- chord live load nonconcurrent with any other live loads.
 11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 12) Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 114 lb uplift at joint 10.

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

Page: 1

- 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. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

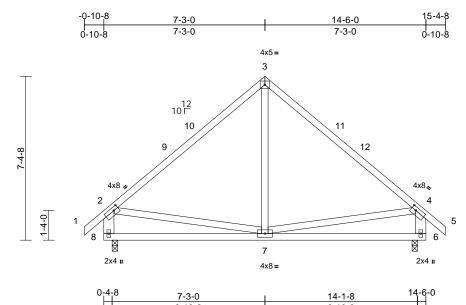


Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	G02	Common	4	1	Job Reference (optional)	165500396

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:19 ID:yXi_UOz?Sc_PgMaEgZ8rkWyiMjI-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:51.9			0-4-8	6-10-8	I	6-10-8		0-4-8	3			
Plate Offsets (X, Y):	[2:0-2-8,0-1-12], [4:0-2-8,0-1-12]									
Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	

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	0.97	Vert(LL)	-0.05	7-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.43	Vert(CT)	-0.10	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES		WB	0.17	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018	8/TPI2014	Matrix-MSH								
BCDL	10.0											Weight: 89 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD	2x4 SP No.2 2x4 SP No.2		4) 5)	design. This truss ha	snow loads have as been designed psf or 1.00 times	for greate	er of min roo	flive					
WEBS	2x4 SP No.3 *Excep	ot* 8-2,6-4:2x6 SP No	0.2		on-concurrent wit			51 011					
BRACING TOP CHORD BOT CHORD	except end verticals	athing directly applie [,] applied or 10-0-0 or	7)	This truss ha chord live loa * This truss h	as been designed ad nonconcurrent nas been designe	for a 10.0 with any d for a liv	0 psf bottom other live loa e load of 20.						
REACTIONS	bracing. (size) 6=0-3-0, 4 Max Horiz 8=200 (L0 Max Uplift 6=-57 (L0 Max Grav 6=703 (L0	C 13) C 15), 8=-57 (LC 14)		3-06-00 tall t chord and ar Provide mec bearing plate	n chord in all are by 2-00-00 wide v by other members hanical connection capable of withs uplift at joint 6.	vill fit betv s. on (by oth	veen the bott ers) of truss	to					
FORCES	(lb) - Maximum Com Tension	pression/Maximum	9)	This truss is	designed in acco Residential Code			and					
TOP CHORD	1-2=0/42, 2-3=-624/ 4-5=0/42, 2-8=-640/		LC		nd referenced sta								
BOT CHORD	7-8=-277/397, 6-7=-	174/368		0/10/10/10/10/10/10/10	Otaridara								
WEBS	3-7=-153/281, 2-7=-	173/286, 4-7=-178/2	287										
NOTES													
this design 2) Wind: ASC	ed roof live loads have n. CE 7-16; Vult=130mph	(3-second gust)										WHITH C	ARO

- Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 4-3-0, Exterior(2R) 4-3-0 to 10-3-0, Interior (1) 10-3-0 to 12-4-8, Exterior(2E) 12-4-8 to 15-4-8 zone; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOI = 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

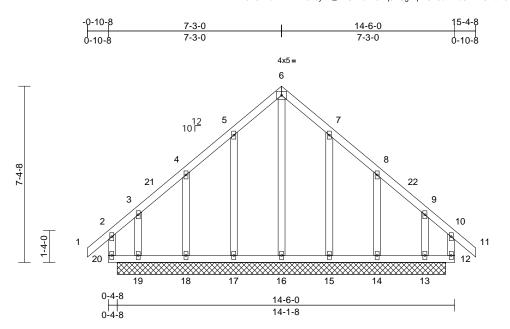
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WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BC2E Building Component Schut beformation, available from the Structure Building Component Advanciation (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	G01	Common Supported Gable	1	1	Job Reference (optional)	165500397

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:19 ID:mLR7vN0R3K1chD22YTDJ1syiMI_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:48.2

Plate Offsets (X, Y): [10:0-0-0,Edge]

	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,												
Loading	(psf)	Spacing	1-11-4		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15		тс	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.16	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES		WB	0.27	Horz(CT)	0.00	13	n/a	n/a		
BCLL	0.0*	Code	IRC201	8/TPI2014	Matrix-MR		- (-)						
BCDL	10.0											Weight: 98 lb	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 10-00 co purlins, e Rigid ceiling directly bracing. (size) 13=13-9-(16=13-9-(19=13-9-(19=13-9-(Max Horiz 19=191 (L Max Uplift 13=-103 (15=-58 (L 18=-135 (Max Grav 13=276 (L 17=276 (L	applied or 6-0-0 oc), 14=13-9-0, 15=13-9), 17=13-9-0, 18=13-9) LC 13) LC 14), 14=-133 (LC C 15), 17=-58 (LC 14) LC 11), 19=-105 (LC C 25), 14=224 (LC 26 LC 22), 18=226 (LC 36 LC 21), 18=226 (LC 36 LC 36)	2) l or 3)-0, 3) 15), 4) 15), 4) 15) 8), 5),	this design. Wind: ASCE Vasd=103mg II; Exp B; En and C-C Cor to 4-3-0, Cor to 12-4-8, CC left and right MWFRS for I grip DOL=1.6 Truss design only. For stu see Standard or consult qu TCLL: ASCE Plate DOL=1 DOL=1.15); Cs=1.00; Ct=	ned for wind load uds exposed to wi d Industry Gable I alified building de 7-16; Pr=20.0 ps .15); Pf=20.0 psf Is=1.0; Rough Ca	ph (3-sec BCDL=6 (envelope) o 2-1-8, E 10-3-0, E to 15-4-8 member: Lumber I s in the p ind (norm End Deta esigner a: of (roof LI (Lum DC (Lum DC tt B; Fully)	cond gust) 6.0psf; h=25ft; e) exterior zor Exterior(2N) 2 xterior(2N) 10 zone; end vei s and forces & DOL=1.60 pla lane of the tru, ils as applical s per ANSI/TF .: Lum DOL=: DL=1.15 Plate Exp.; Ce=0.5	; Cat. ne -1-8)-3-0 rtical & ate sss), ble, P 1. 1.15 ;	bea 17, uplit at jo 13) Nor 14) This Inte	ring pla 135 lb u ft at join bint 13. Standa s truss is rnationa 02.10.2	te capa iplift at t 15, 1 ard bea s desig al Resi and ref	al connection (by able of withstand joint 18, 105 lb u 33 lb uplift at join aring condition. F ned in accordan dential Code sec ferenced standar	y others) of truss to ing 58 lb uplift at joint uplift at joint 19, 58 lb t 14 and 103 lb uplift Review required. ce with the 2018 tions R502.11.1 and
FORCES	19=245 (L (lb) - Maximum Com Tension	,	6)	load of 12.0	is been designed psf or 1.00 times	flat roof l	oad of 20.0 ps					UNIT C	APO
TOP CHORD	2-20=-45/56, 1-2=0/ 3-4=-86/135, 4-5=-8 6-7=-126/282, 7-8=-	38, 2-3=-70/130, 2/192, 5-6=-126/282, 80/193, 8-9=-82/132, 1=0/38, 10-12=-44/55	7) 8)	All plates are Truss to be f braced again	on-concurrent wit 2x4 MT20 unles ully sheathed fror ast lateral movem	s otherwi n one fac ent (i.e. c	se indicated.				in the second	OFES	Sion
BOT CHORD	19-20=-115/98, 18-1 17-18=-113/131, 16- 15-16=-113/131, 14- 13-14=-113/131, 12-	19=-113/131, -17=-113/131, -15=-113/131,	10)) This truss ha chord live loa) * This truss h	spaced at 2-0-0 c is been designed ad nonconcurrent has been designe	for a 10. with any d for a liv	other live loa e load of 20.0				THIN	SE 023	• -
WEBS	6-16=-283/66, 5-17= 4-18=-154/126, 3-19 7-15=-231/115, 8-14 9-13=-149/138	=-231/118, 9=-142/148,		3-06-00 tall b	n chord in all area by 2-00-00 wide w by other members	vill fit betw		om			HILLING WARNESS	, Sheil	WEER LA
NOTES												R.	MILL.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCEL Building Component Science United for the Structure Buckling Component Advance Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

GINEERING

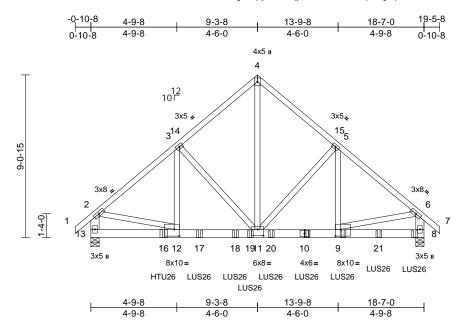
818 Soundside Road Edenton, NC 27932

May 13,2024

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	D02	Common Girder	1	2	Job Reference (optional)	165500398

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:18 ID:MxFwBELagtZwqajGkCZLsqyi1sF-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale	_	1:64.3

Plate Offsets (X, Y): [9:0-3-8,0-4-8], [11:0-4-0,0-4-4], [12:0-3-8,0-4-8]

	· · · · · · · · · · · · · · · · · · ·	,,.	/ -										
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	0.36	Vert(LL)	-0.06	11-12	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.67	Vert(CT)	-0.10	11-12	>999	180		
TCDL	10.0	Rep Stress Incr	NO		WB	0.73	Horz(CT)	0.01	8	n/a	n/a		
BCLL	0.0*	Code	IRC201	8/TPI2014	Matrix-MSH								
BCDL	10.0											Weight: 290 lb	FT = 20%
LUMBER			3	Unbalanced	roof live loads have	ve been	considered fo	or	15) LG	T2 Hurri	cane ti	es must have tw	o studs in line belov
TOP CHORD	2x4 SP No.2			this design.					the	truss.			
BOT CHORD	2x6 SP No.2		4		7-16; Vult=130m							r connection dev	
WEBS	2x4 SP No.3 *Excep	t* 13-2,8-6:2x6 SP I	No.2		ph; TCDL=6.0psf;								centrated load(s) 57
BRACING					nclosed; MWFRS (on bottom chord. Th
TOP CHORD	Structural wood she	athing directly applie	ed or		left and right expo	sed; Lun	nber DOL=1.6	60					on device(s) is the
	6-0-0 oc purlins, ex			plate grip D						ponsibili	•		
BOT CHORD	Rigid ceiling directly		c 5		E 7-16; Pr=20.0 ps					CASE(S			
	bracing.				1.15); Pf=20.0 psf							alanced): Lumbe	er Increase=1.15, PI
REACTIONS	(size) 8=0-5-8, 2	13=0-5-8			Is=1.0; Rough Cat	t B; Fully	Exp.; Ce=0.	9;		crease=			
	Max Horiz 13=-237 (Cs=1.00; Ct					U	niform L	oads (I	b/ft)	
	Max Uplift 8=-757 (L		12) 6		snow loads have	been col	nsidered for t	nis					0, 6-7=-60, 8-13=-2
	Max Grav 8=3999 (L			design.	a been designed	for groot	or of min root	Flive	C	oncentra		· · /	
FORCES	(lb) - Maximum Com	<i>.</i>	· /		as been designed psf or 1.00 times f								8=-555 (B), 16=-11
ICROLO	Tension	pression/maximum			ion-concurrent with			51 011					19=-568 (B), 20=-5
TOP CHORD	1-2=0/42, 2-3=-4126	6/906 3-4=-3118/70	3 8		as been designed					(B), 21=	=-548 (B)	
	4-5=-3119/704, 5-6=				ad nonconcurrent			ade					
	2-13=-3477/751, 6-8		,		has been designed								
BOT CHORD	12-13=-276/440, 11		5		m chord in all area			opor					
	9-11=-474/2784, 8-9				by 2-00-00 wide w			om					
WEBS	4-11=-790/3507, 5-1	1=-770/263,			ny other members								una.
	5-9=-127/715, 3-11=	-1212/460,	1		son Strong-Tie con		recommende	d to					A
	3-12=-383/1245, 2-1	2=-545/2922,			s to bearing walls							WITH U	ARO
	6-9=-423/2522				connection is for u							at	toile INA.
NOTES				consider late	eral forces.						2	SainF50	Spr. Nh
1) 2-ply truss	to be connected toge	ther with 10d	1	1) This truss is	designed in accor	dance w	ith the 2018				27		man
) nails as follows:			Internationa	I Residential Code	sections	s R502.11.1 a	and			2	:4/	S
	s connected as follows	s: 2x4 - 1 row at 0-9-	-0	R802.10.2 a	ind referenced star	ndard Al	NSI/TPI 1.				=	: SE	AL :
oc, 2x6 - 2	2 rows staggered at 0-9	9-0 oc.	1	Use Simpso	n Strong-Tie HTU	26 (20-1	0d Girder,				=	•	
	ords connected as foll			11-10dx1 1/	2 Truss, Single Ply	/ Girder)	or equivalent	t at			=	: 023	594 :
staggered	at 0-9-0 oc.				the left end to con	nect trus	s(es) to back	face				1	· · · ·
	ected as follows: 2x4 -	1 row at 0-9-0 oc.		of bottom ch	ord.						-	N	
2) All loodo a	re especidered equally	applied to all plice	1	3) Lise Simper	n Strong-Tie LUS2	26 (4-10)	Girder 3-10)d			-		

All loads are considered equally applied to all plies, 2) except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

14) Fill all nail holes where hanger is in contact with lumber.

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May 13,2024

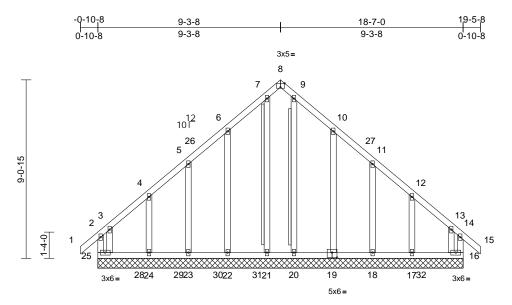
and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

¹³⁾ Use Simpson Strong-Tie LUS26 (4-10d Girder, 3-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 6-0-12 from the left end to 18-0-12 to connect truss(es) to back face of bottom chord.

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	D01	Common Girder	1	1	Job Reference (optional)	165500399

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:18 ID:FxfwZql0vU_XFGKn2XT8rqyiMvf-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



18-7-0

Plate Offsets (X, Y): [8:0-2-8,Edge], [19:0-3-0,0-3-0]

Scale = 1:58.6

Loading		(psf)	Spacing	1-11-4		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP		
TCLL (roof)		20.0	Plate Grip DOL	1.15		TC	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190		
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.09	Vert(CT)	n/a	-	n/a	999				
TCDL		10.0	Rep Stress Incr	NO		WB	0.18	Horz(CT)	0.00	16	n/a	n/a				
BCLL		0.0*	Code	IRC201	8/TPI2014	Matrix-MR										
BCDL		10.0											Weight: 139 lb	FT = 20%		
LUMBER				Т	OP CHORD	2-25=-179/146,	1-2=0/38.2	2-3=-69/68.		9) Tru	ss to be	fullv s	heathed from one	e face or securely		
TOP CHORD	2x4 SP N	0.2				3-4=-160/143, 4-	5=-102/13	5, 5-6=-100/	177,					.e. diagonal web).		
BOT CHORD	2x4 SP N					6-7=-92/235, 7-8	=-54/150,	8-9=-54/147,	,	10) Gab	ole stud	space	ed at 2-0-0 oc. `	o ,		
WEBS	2x4 SP N					9-10=-92/226, 10)-11=-86/1	70, 11-12=-8	9/128,				en designed for a	10.0 psf bottom		
OTHERS			ot* 0-0,0-0:2x4 SP No	2		12-13=-137/121,	13-14=-6	6/66, 14-15=0)/38,					any other live loads		
OTTIERO	(flat)		x 0 0,0 0.2x 1 01 1			14-16=-171/141			,					a live load of 20.0ps		
BRACING	(nat)			В	OT CHORD	24-25=-105/123,	23-24=-1	05/123,					rd in all areas wh			
TOP CHORD	Structure	l wood cho	athing directly applie			22-23=-105/123,								between the bottom		
			cept end verticals.			20-21=-105/123,		,					er members.			
BOT CHORD			applied or 6-0-0 oc			17-18=-104/123,	16-17=-1	04/123		13) Pro	vide me	chanic	al connection (by	others) of truss to		
DOT CHORD	bracing.	ing unectly		W	/EBS	7-21=-146/16, 9-	20=-146/2	, 6-22=-217/	127,					ing 144 lb uplift at jo		
WEBS	T-Brace:		2x4 SP No.2 - 7-21,	0-20		5-23=-135/73, 4-		,						olift at joint 21, 20 lb		
WEB3						3-25=-253/212,	10-19=-21	5/128,		uplift at joint 20, 161 lb uplift at joint 22, 93 lb uplift at						
Fasten (2X) T and I braces to narrow edge c web with 10d (0.131"x3") nails, 6in o.c.,with					11-18=-135/74, 12-17=-180/164,						joint 23, 225 lb uplift at joint 24, 162 lb uplift at joint 19,					
	3in minimum end distance.					13-16=-224/180				89	b uplift a	at joint	18 and 264 lb up	olift at joint 17.		
			90% of web length.	N	OTES					14) This	s truss is	s desig	ned in accordance	ce with the 2018		
REACTIONS			0, 17=18-7-0, 18=18			d roof live loads ha	ave been i	considered fo	r	Inte	rnationa	al Resi	dential Code sec	tions R502.11.1 and		
REACTIONS	(SIZE)			10,	this design.					R80	2.10.2	and ref	erenced standar	d ANSI/TPI 1.		
			0, 20=18-7-0, 21=18 [.] 0, 23=18-7-0, 24=18 [.]	·		E 7-16; Vult=130r	nph (3-sec	ond aust)								
		22=10-7-0		-7-0, -,		nph; TCDL=6.0ps			: Cat.							
	Max Horiz					nclosed; MWFRS										
			(LC 9), 17=-264 (LC	12)		left and right exp								11111		
	wax upint		.C 13), 19=-162 (LC		plate grip D		,						D'I'LLC	AD		
			.C 13), 19=-162 (LC 3			aned for wind load	ds in the p	ane of the tru	JSS				"aTH U	000 M		
			(LC 30), 21=-23 (LC 3 (LC 12), 23=-93 (LC			tuds exposed to w							OF TOR	City N'		
			(LC 12), 25=-93 (LC (LC 12), 25=-144 (LC			rd Industry Gable						2.	a sint for	MAN/ S'		
	May Cray		LC 22), 17=413 (LC 2			ualified building c						-	× control - 4	1 way		
	wax Grav		LC 22), 17=413 (LC 2 LC 20), 19=371 (LC 2			E 7-16; Pr=20.0 p						-	:4	N 1		
			LC 20), 19=371 (LC 2 LC 20), 21=270 (LC 2			1.15); Pf=20.0 ps						-	: SE	Δ1 :		
			LC 20), 21=270 (LC LC 19), 23=271 (LC			Is=1.0; Rough C						=	. OL			
			LC 19), 23=271 (LC LC 22), 25=328 (LC 2		Cs=1.00; C		,,					=	: 023	594 🔅		
	(Ib) N4		<i>.</i>	5) 5	,	snow loads have	e been cor	sidered for th	his			2	1			
FORCES		umum Com	pression/Maximum	- /	design.							-				
	Tension			6	This truss h	as been designed	d for great	er of min roof	live			-	SE 023	-ERIA S		
					load of 12.0	psf or 1.00 times	s flat roof le	ad of 20.0 p	sf on			1	O. GIN	VEL CX		
						non-concurrent w						1	INV -	ALL AN		
				7)	All plates a	e 2x4 MT20 unle	ss otherwi	se indicated.					11, R.	Minin		
				8	Gable requi	res continuous bo	ottom chor	d bearing.						mm		
								-						y 13,2024		

Continued on page 2 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design in 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 onlapse with possible personal injury and properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANS/ITPH Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and RCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	D01	Common Girder	1	1	Job Reference (optional)	165500399

- 15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 113 lb down and 46 lb up at 0-1-12, 108 lb down and 53 lb up at 2-1-8, 108 lb down and 53 lb up at 4-1-8, 108 lb down and 53 lb up at 6-1-8, 108 lb down and 53 lb up at 8-1-8, 108 lb down and 53 lb up at 10-1-8, 108 lb down and 53 lb up at 12-1-8, 108 lb down and 53 lb up at 14-1-8, 108 lb down and 53 lb up at 16-1-8, and 108 lb down and 53 lb up at 16-5-8, and 113 lb down and 46 lb up at 18-5-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 16) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

LOAD CASE(S) Standard

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

Uniform Loads (lb/ft)

Vert: 1-2=-58, 2-8=-58, 8-14=-58, 14-15=-58,

16-25=-19 Concentrated Loads (lb)

Vert: 25=-113, 16=-113, 20=-108, 19=-108, 18=-108, 17=-108, 28=-108, 29=-108, 30=-108, 31=-108,

32=-108

Run: 8,73 S Apr 25 2024 Print: 8,730 S Apr 25 2024 MiTek Industries. Inc. Fri May 10 10:28:18 ID:FxfwZql0vU_XFGKn2XT8rqyiMvf-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

THILL WARNESS SEAL 023594 R. M Minimum May 13,2024

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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLC3	Valley	1	1	Job Reference (optional)	165500400

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:22 ID:6YjZWYB5B7Uvbhl0NmirjpyiMQ5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

3x5 =

2

3-1-1

1-3-1

1-10-0

1-10-0

3-8-0

0-6-15

3

Page: 1

2x4 ਫ਼ 2x4 👟 L 3-8-0 is always required for stability and to prevent collaring of introductances were and/or of memory damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com) 818 Soundside Road Edenton, NC 27932

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

						3-	8-0					
Scale = 1:21.8												
ate Offsets (X, Y): [2:0-2-8,Edge]											
ading (psf) LL (roof) 20.0 ow (Pf) 20.0	Spacing Plate Grip DOL Lumber DOL	2-0-0 1.15 1.15		CSI TC BC	0.10 0.11	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
DL 10.0 LL 0.0* DL 10.0	Rep Stress Incr Code	YES IRC2018/T		WB Matrix-MP	0.00	Horiz(TL)	0.00	3	n/a	n/a	Weight: 10 lb	FT = 20%
ACTIONS 3-8-0 oc purlins. Rigid ceiling directl bracing. (size) 1=3-8-0, Max Horiz 1=12 (LC Max Uplift 1=-15 (L Max Grav 1=164 (L	C 18) C 14), 3=-15 (LC 15) LC 20), 3=164 (LC 21) mpression/Maximum	8)	This truss has chord live load * This truss ha on the bottom 3-06-00 tall by chord and any Provide mech bearing plate 1 and 15 lb up This truss is d International F	esigned in acco Residential Cod d referenced sta	I for a 10.0 t with any ed for a liv as where will fit betw s. on (by othe standing 1 ordance wi e sections	other live loa e load of 20.0 a rectangle veen the botto ers) of truss t 5 lb uplift at ju ith the 2018 R502.11.1 a	Opsf om o oint					
Unbalanced roof live loads have this design. Wind: ASCE 7-16; Vult=130mp Vasd=103mph; TCDL=6.0psf; E II; Exp B; Enclosed; MWFRS (e and C-C Exterior(2E) zone; can exposed ; end vertical left and r members and forces & MWFRS Lumber DOL=1.60 plate grip DU Truss designed for wind loads only. For studs exposed to win see Standard Industry Gable E or consult qualified building des TCLL: ASCE 7-16; Pr=20.0 psf Plate DOL=1.15); Pf=20.0 psf (DOL=1.15); Is=1.0; Rough Cat Cs=1.00; Ct=1.10	h (3-second gust) 3CDL=6.0psf; h=25ft; invelope) exterior zon tillever left and right ight exposed;C-C for S for reactions shown OL=1.60 in the plane of the tru d (normal to the face) nd Details as applicat signer as per ANSI/TF (roof LL: Lum DOL=1.15 Plate	Cat. le sss o, ole, P1 1. 1.15									SE 023	AROL SIONAL AL 594
Unbalanced snow loads have b design. Gable requires continuous botto		is									Ma	MILLE.
WARNING - Verify design parame Design valid for use only with MiTel a truss system. Before use, the buil building design. Bracing indicated is always required for stability and t	k® connectors. This design Iding designer must verify th is to prevent buckling of ind	is based only up he applicability of lividual truss web	pon parameters s of design paramete b and/or chord me njury and property	hown, and is for an ers and properly inc embers only. Addition	individual bu orporate this onal tempora	ilding componen design into the o ry and permaner	it, not overall					A MiTek Affiliate

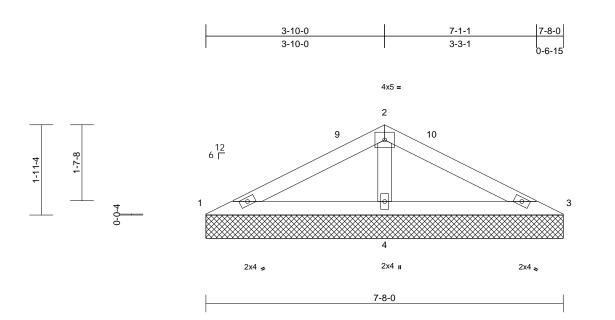
12 6 Г 1 0-0-4

0-11-4

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLC2	Valley	1	1	Job Reference (optional)	165500401

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:22 ID:TF?1?R2a0Rzc9rqigFV1EHyiMQH-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





Scale -	= 1:24.7

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	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.26	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES		WB	0.07	Horiz(TL)	0.00	4	n/a	n/a		
BCLL BCDL	0.0* 10.0	Code	IRC20	18/TPI2014	Matrix-MP							Weight: 24 lb	FT = 20%
	10.0											Weight: 24 lb	11 = 2070
LUMBER			4		7-16; Pr=20.0								
TOP CHORD	2x4 SP No.2				1.15); Pf=20.0 p								
BOT CHORD OTHERS	2x4 SP No.2 2x4 SP No.3			Cs=1.00; Ct	ls=1.0; Rough (-1 10	Jat B; Fully	Exp.; Ce=0.	9,					
BRACING	2X4 3P NU.3		5	,	snow loads hav	e been cor	nsidered for th	nis					
FOP CHORD	Structural wood she	athing directly applic		design.									
OF CHORD	7-8-0 oc purlins.	atting unectly applie	6) Gable requir	es continuous b	ottom chor	d bearing.						
BOT CHORD	Rigid ceiling directly	applied or 6-0-0 oc	7		spaced at 4-0-0								
	bracing.		8		as been designe								
REACTIONS	(size) 1=7-8-0, 3	3=7-8-0, 4=7-8-0	0		ad nonconcurre								
	Max Horiz 1=28 (LC	14)	9	,	nas been desigr m chord in all ar			Jpsi					
	Max Uplift 1=-10 (LC 4=-41 (LC	,, ,, ,,		3-06-00 tall I	oy 2-00-00 wide	will fit betw		om					
	Max Grav 1=113 (LC	,), 1		ny other membe hanical connect		oro) of truco t	~					
	4=514 (L0	C 20)	. 1		e capable of with								
FORCES	(lb) - Maximum Com	pression/Maximum			t at joint 3 and 4			oint					
	Tension		1		designed in acc								
TOP CHORD	1-2=-127/260, 2-3=-			Ínternational	Residential Co	de sections	s R502.11.1 a	ind					
BOT CHORD	1-4=-224/150, 3-4=-	224/150		R802.10.2 a	nd referenced s	tandard AN	ISI/TPI 1.						
WEBS	2-4=-378/206		L	OAD CASE(S)	Standard								
NOTES													
,	ed roof live loads have	been considered for	r										unin.
this dociar												, inner	·····

- Unbalanced roof live loads have been considered for 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) 0-0-8 to 3-0-8, Exterior(2R) 3-0-8 to 4-8-8, Exterior(2E) 4-8-8 to 7-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.

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May 13,2024



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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLC1	Valley	1	1	Job Reference (optional)	165500402

TCDL

BCLL

BCDL

WFBS

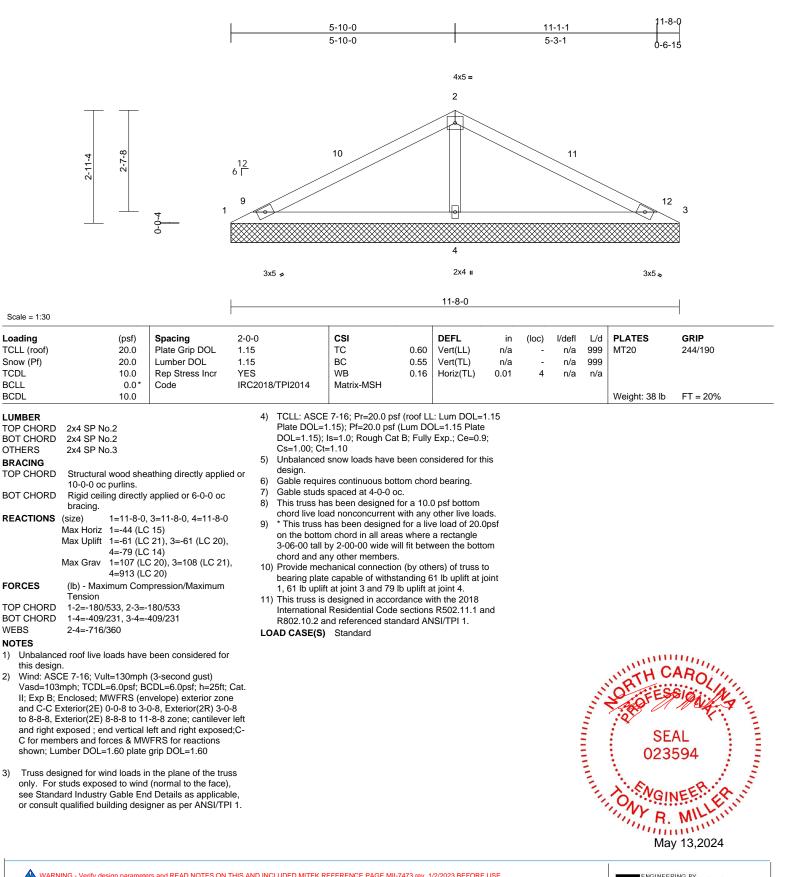
1)

2)

3)

Run: 8,73 S Apr 25 2024 Print: 8,730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:22 ID:tY8k3ftoJ8CbTim0rIFlfKyiMQV-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLB6	Valley	1	1	Job Reference (optional)	165500403

1-10-9

1-10-9

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

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:22 ID:I1WsfNLJadaI6S5S?wRMc2yiMOb-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

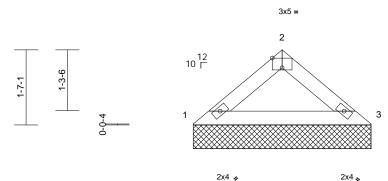
3-5-0

1-6-7

3-9-2

-9-2

Page: 1



2x4 💊

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

Loading (psf) TCLL (roof) 20.0 Snow (Pf) 20.0 TCDL 10.0 PCUL 0.0	Spacing Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 YES	CSI TC BC WB	0.11 0.09 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
BCLL 0.0* BCDL 10.0	Code	IRC2018/TPI201	4 Matrix-MP							Weight: 12 lb	FT = 20%
LUMBER TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 BRACING TOP CHORD Structural wood shea 3-9-2 oc purlins. BOT CHORD Rigid ceiling directly bracing. REACTIONS (size) 1=3-9-2, 3 Max Horiz 1=-33 (LC Max Uplift 1=-12 (LC Max Grav 1=177 (LC FORCES (b) - Maximum Com Tension TOP CHORD 1-2=-230/86, 2-3=-23 BOT CHORD 1-3=-52/168 NOTES 1) Unbalanced roof live loads have this design. 2) Wind: ASCE 7-16; Vult=130mph Vasd=103mph; TCDL=6.0psf; BC II; Exp B; Enclosed; MWFRS (en and C-C Exterior(2E) zone; cantil exposed ; end vertical left and rig members and forces & MWFRS f Lumber DOL=1.60 plate grip DOI 3) Truss designed for wind loads in only. For studs exposed to wind see Standard Industry Gable Enc or consult qualified building desig 4) TCLL: ASCE 7-16; Pr=20.0 psf (L DOL=1.15); Is=-10; Rough Cat B Cs=1.00; Ct=1.10 5) Unbalanced snow loads have be design. 6) Gable requires continuous bottom	applied or 10-0-0 oc =3-9-2 10) 14), 3=-12 (LC 15) : 20), 3=177 (LC 21) pression/Maximum 30/86 been considered for (3-second gust) CDL=6.0psf; h=25ft; velope) exterior zone ever left and right ht exposed; C-C for for reactions shown; =1.60 the plane of the trus (normal to the face), I Details as applicab iner as per ANSI/TP oof LL: Lum DOL=1.15 Plate ; Fully Exp.; Ce=0.9; en considered for thi	8) This tru chord I 9) * This t on the 3-06-00 chord a 10) Provide bearing 1 and 1 11) This tru Interna R802.1 LOAD CAS	tuds spaced at 4-0-0 d ss has been designed ve load nonconcurrent uss has been designe ottom chord in all area to tall by 2-00-00 wide v ind any other members mechanical connectio plate capable of withs 2 lb uplift at joint 3. ss is designed in acco ional Residential Code 0.2 and referenced sta E(S) Standard	for a 10.4 with any d for a liv as where vill fit betw s. on (by oth standing 1 rdance w e sections	other live load e load of 20.0µ a rectangle veen the botto ers) of truss to 2 lb uplift at jo ith the 2018 s R502.11.1 ar	psf m o vint				SE 023	• •

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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

818 Soundside Road Edenton, NC 27932

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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLB5	Valley	1	1	Job Reference (optional)	165500404

2-7-1

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:22 ID:E86BWEAv60hQp8RadHfrVuyiMOq-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

5-9-12

6-1-14



3-0-15 2-8-13 4x5 = 2 2-3-6 12 10 ┌ 0 3 0-0-0 4 2x4 II 2x4 💊

3-0-15



6-1-14

0		4 07	~
Scale	=	1:27	.3

Loading TCLL (roof)	(psf) 20.0	Spacing Plate Grip DOL	2-0-0 1.15		CSI TC	0.17	DEFL Vert(LL)	in n/a	(loc)	l/defl n/a	L/d 999	PLATES MT20	GRIP 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	4	n/a	n/a		
BCLL	0.0*	Code	IRC201	18/TPI2014	Matrix-MP								
BCDL	10.0				-							Weight: 23 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD OTHERS BRACING TOP CHORD BOT CHORD BOT CHORD BOT CHORD BOT CHORD WEBS	2x4 SP No.2 2x4 SP No.3 Structural wood she 6-1-14 oc purlins. Rigid ceiling directly bracing. (size) 1=6-1-14, Max Horiz 1=56 (LC Max Uplift 3=-3 (LC Max Grav 1=100 (LC 4=417 (LC (lb) - Maximum Com Tension 1-2=-88/166, 2-3=-8	applied or 6-0-0 oc 3=6-1-14, 4=6-1-1- 11) 15), 4=-53 (LC 14) 2 20), 3=100 (LC 21 2 21) apression/Maximum 8/166	9 4 1 1), 1	 design. Gable requir Gable studs This truss ha chord live lo * This truss I on the bottoo 3-06-00 tall I chord and a Provide med bearing platt and 53 lb up This truss is International 	designed in acco Residential Cod nd referenced st	ottom chor oc. d for a 10.1 it with any ed for a liv eas where will fit betw rs. on (by oth standing 3 ordance w le sections	d bearing. D psf bottom other live loa e load of 20.1 a rectangle veen the bott ers) of truss t b uplift at jo ith the 2018 s R502.11.1 a	ads. Opsf om to					
NOTES													
,	ed roof live loads have	been considered for	or										
Vasd=103 II; Exp B; I	n. CE 7-16; Vult=130mph Bmph; TCDL=6.0psf; B Enclosed; MWFRS (er Exterior(2E) zone; cant	CDL=6.0psf; h=25ft velope) exterior zo										URTH C	AROLIN

and C-C Exterior(2E) 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.

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



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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLB4	Valley	1	1	Job Reference (optional)	165500405

4-3-6

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

3-7-1

Spacing

Code

Plate Grip DOL

Rep Stress Incr

Lumber DOL

(psf)

20.0

20.0

10.0

0.0

10.0

0-0-4

Run: 8,73 S Apr 25 2024 Print: 8,730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:22 ID:fRGuaS?7PjwP7_NuoKPZxxyiMP2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

8-2-9

Page: 1

4-3-6 3-11-4 4x5 = 2 10 11 12 10 Г q 12 3 4 2x4 II 3x5 🖌 3x5 💊 8-6-11 2-0-0 CSI DEFL l/defl L/d PLATES GRIP in (loc) 1.15 TC 0.40 Vert(LL) n/a n/a 999 MT20 244/190 BC 1 15 0.38 Vert(TL) n/a n/a 999 YES WB 0.14 Horiz(TL) 0.00 4 n/a n/a IRC2018/TPI2014 Matrix-MP Weight: 32 lb FT = 20%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 5) desian. ied or Gable requires continuous bottom chord bearing. 6) Gable studs spaced at 4-0-0 oc. 7) 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. * This truss has been designed for a live load of 20.0psf 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. 4=689 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 1, 47 lb uplift at joint 3 and 104 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

and a superior SEAL 23594 minin May 13,2024

Edenton, NC 27932

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent bucking of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Scale = 1:31.4 Loading TCLL (roof)

Snow (Pf)

TCDL

BCLL

BCDL

LUMBER TOP CHORD BOT CHORD OTHERS		0.2
BRACING		
TOP CHORD	Structural 8-6-11 oc	l wood sheathing directly applie purlins.
BOT CHORD		ing directly applied or 6-0-0 oc
REACTIONS	(size)	1=8-6-11, 3=8-6-11, 4=8-6-11
	Max Horiz	1=80 (LC 11)
	Max Uplift	1=-47 (LC 21), 3=-47 (LC 20), 4=-104 (LC 14)
	Max Grav	. ,
FORCES	(lb) - Max Tension	imum Compression/Maximum
TOP CHORD	1-2=-126/	/318, 2-3=-126/318
BOT CHORD	1-4=-245/	186, 3-4=-245/186
WEBS	2-4=-558/	256
NOTES		

Unbalanced roof live loads have been considered for 1) 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) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 5-7-0, Exterior(2E) 5-7-0 to 8-7-0 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
- 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.



Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLB3	Valley	1	1	Job Reference (optional)	165500406

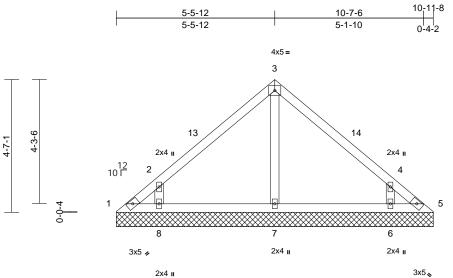
5-5-12

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

Run: 8,73 S Apr 25 2024 Print: 8,730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:21 ID:7MIrD_p5BovgCX9psz7pHZyiMPI-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

10-7-6





10-11-8



Scale =	

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	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL		10.0	Rep Stress Incr	YES		WB	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCLL		0.0*	Code	IRC20	18/TPI2014	Matrix-MSH								
BCDL		10.0											Weight: 44 lb	FT = 20%
LUMBER				3) Truss desig	ned for wind loads	in the p	lane of the tru	JSS					
TOP CHORD	2x4 SP N	0.2			only. For sti	uds exposed to wir	nd (norm	al to the face),					
BOT CHORD	2x4 SP N	lo.2				d Industry Gable E								
OTHERS	2x4 SP N	0.3				alified building de								
BRACING				4		7-16; Pr=20.0 ps								
TOP CHORD	Structura	l wood she	athing directly applie	ed or		1.15); Pf=20.0 psf								
	6-0-0 oc	purlins.				Is=1.0; Rough Cat	B; Fully	Exp.; Ce=0.9	9;					
BOT CHORD	Rigid ceil	ing directly	applied or 10-0-0 oc	; _	Cs=1.00; Ct) Unbalanced	snow loads have	haan aa	acidorad for t	hio					
	bracing.			i.	design.	Show loads have	been coi		115					
REACTIONS	(size)		3, 5=10-11-8, 6=10-1	^{1-8,} 6		es continuous bot	tom choi	d bearing						
			3, 8=10-11-8	7		spaced at 4-0-0 o		a boaring.						
	Max Horiz			ç	,	as been designed		0 psf bottom						
	Max Uplift		(LC 13), 5=-22 (LC 13),			ad nonconcurrent			ids.					
	May Cray	· ·	C 15), 8=-139 (LC 1-) * This truss I	has been designed	d for a liv	e load of 20.0	Opsf					
	wax Grav		11), 5=50 (LC 15), 6 '=248 (LC 21), 8=45		on the botto	m chord in all area	s where	a rectangle						
		(LC 21), 7	=240 (LC 21), 0=45	2 (LC		oy 2-00-00 wide w		veen the bott	om					
FORCES	(lb) Mox	- /	pression/Maximum			ny other members								
TOROLS	Tension			1		hanical connection								
TOP CHORD		/105. 2-3=-	227/110, 3-4=-227/1	10.		e capable of withst								
	4-5=-112	,		,	uplift at joint	t at joint 5, 139 lb	upint at j	oint 8 and 13	מו כ					
BOT CHORD	1-8=-37/7	73, 7-8=-23	/73, 6-7=-23/73,	-		designed in accor	dance w	ith the 2018						
	5-6=-46/7	73		1		Residential Code			nd				minin	11111
WEBS	3-7=-160	/3, 2-8=-46	8/266, 4-6=-468/266			nd referenced star							WHTH C	ARO
NOTES				1	OAD CASE(S)								"A'	
1) Unholono		laada haya	heen considered for			etanadia						~	OT SES	SIN. M

- 1) Unbalanced roof live loads have been considered for 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) 0-0-5 to 3-0-5, Exterior(2R) 3-0-5 to 7-11-13, Exterior(2E) 7-11-13 to 10-11-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - WARNING Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and PCB Building Component Science Michael Component Advancing Component Advancing Component Advancing and PCB and Component Advancing Component Compone and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLB2	Valley	1	1	Job Reference (optional)	165500407

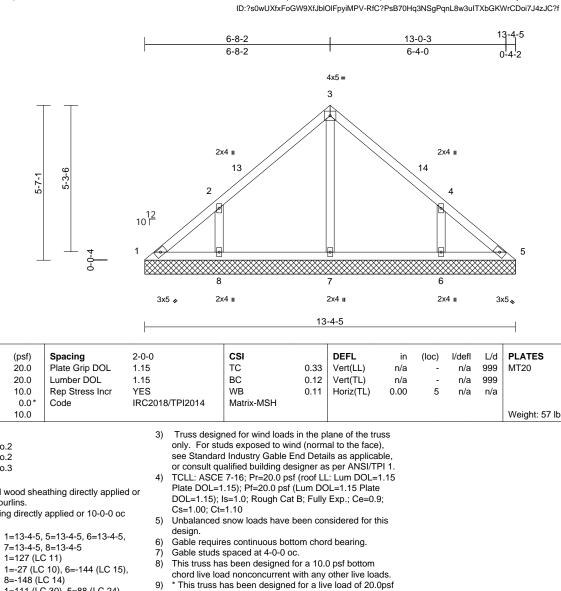
Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:21

Page: 1

GRIP

244/190

FT = 20%



LUMBER TOP CHORD

Scale = 1:41.5

TCLL (roof)

Snow (Pf)

TCDL

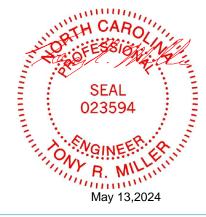
BCLL

BCDL

2x4 SP No.2 BOT CHORD 2x4 SP No.2 2x4 SP No.3 OTHERS BRACING TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. REACTIONS (size) 7=13-4-5, 8=13-4-5 Max Horiz 1=127 (LC 11) Max Uplift 8=-148 (LC 14) Max Grav 1=111 (LC 30), 5=88 (LC 24), 6=440 (LC 21), 7=281 (LC 21), 8=440 (LC 20) FORCES (Ib) - Maximum Compression/Maximum

- Tension TOP CHORD 1-2=-139/114, 2-3=-198/115, 3-4=-198/115, 4-5=-110/74 BOT CHORD 1-8=-45/107, 7-8=-45/86, 6-7=-45/86,
- 5-6=-45/86 WEBS 3-7=-197/0, 2-8=-376/194, 4-6=-376/194 NOTES
- Unbalanced roof live loads have been considered for this design.
 Wind: ASCE 7-16; Vult=130mph (3-second gust)
- Wind: AŠCE 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) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 3-8-7, Exterior(2R) 3-8-7 to 9-8-7, Interior (1) 9-8-7 to 10-4-10, Exterior(2E) 10-4-10 to 13-4-10 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
- 9) This truss has been designed for a live load of 20.0ps 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 1, 148 lb uplift at joint 8 and 144 lb uplift at joint 6.
- 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



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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	VLB1	Valley	1	1	Job Reference (optional)	165500408

TCDL

BCLL

BCDL

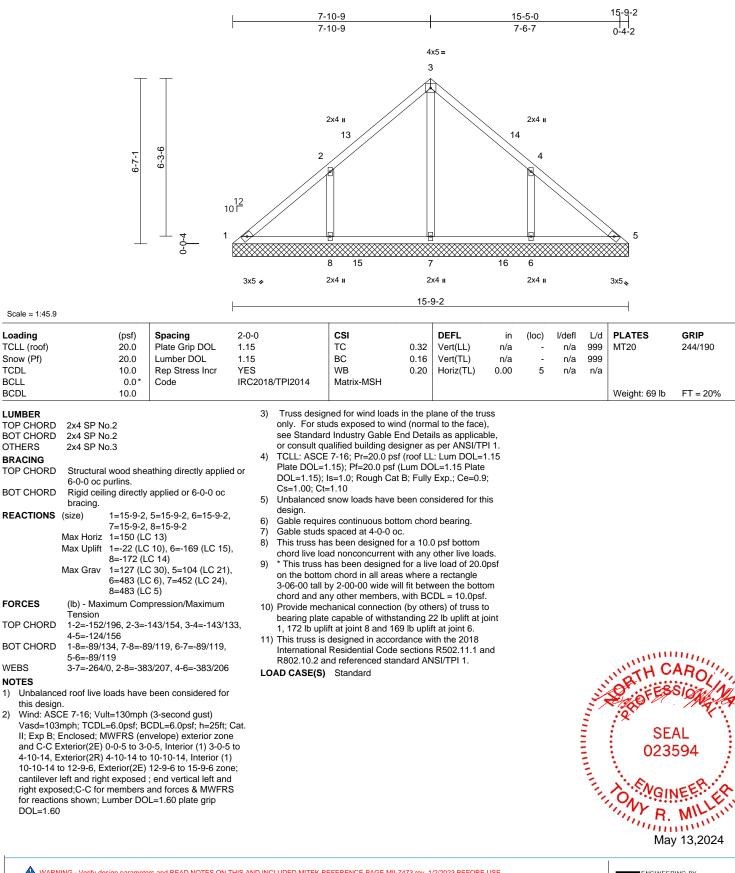
WEBS

1)

2)

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:21 ID:a0pNIiPOyfIMIS7TQY13RbyiMPp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



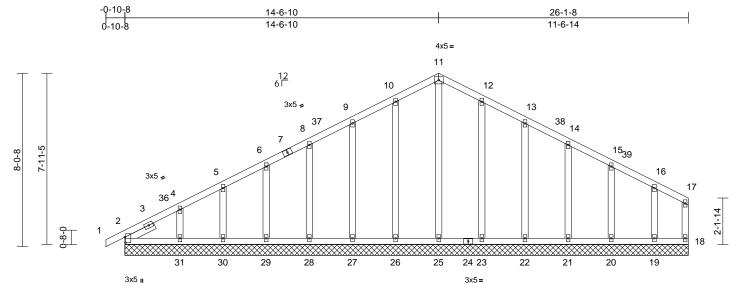


WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall bilding design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	B05	Common Supported Gable	1	1	Job Reference (optional)	165500409

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:17 ID:M4IN5iqbNbjp2?MHQ1tHxmyiM4c-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



26-1	-8
------	----

Scale = 1:53.4

Plate Offsets (X, Y): [2:0-3-1,0-0-5]

			1					1					- 1		
Loading		(psf)	Spacing	2-0-0		CSI		DEFL	in	(le	oc) I/c	efl	L/d	PLATES	GRIP
TCLL (roof)		20.0	Plate Grip DOL	1.15		тс	0.07	Vert(LL)	n/a		- 1	/a	999	MT20	244/190
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.04	Vert(CT)	n/a		- 1	/a	999		
TCDL		10.0	Rep Stress Incr	YES		WB	0.18	Horz(CT)	0.00		2 1	/a	n/a		
BCLL		0.0*	Code	IRC201	8/TPI2014	Matrix-MSH									
BCDL		10.0												Weight: 167 lb	FT = 20%
LUMBER TOP CHORD BOT CHORD WEBS OTHERS SLIDER BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No 2x4 SP No 2x4 SP No Left 2x4 SF Structural 6-0-0 oc pu Rigid ceilin bracing.	.2 .3 P No.3 1 wood she urlins, exa ng directly	athing directly applie cept end verticals. applied or 10-0-0 oc	B(d or W		1-2=0/23, 2-4=-14 5-6=-75/123, 6-8= 9-10=-81/217, 10 12-13=-81/217, 11 14-15=-51/126, 15 17-18=-37/20 2-31=-2/11, 30-31 28-29=-2/11, 23-2 25-26=-2/11, 23-2 21-22=-2/11, 20-2 18-19=-2/11 11-25=-164/28, 10 9-27=-188/21, 82.2	-58/146, 11=-99/2 3-14=-62, 5-16=-38, =-2/11, 2 8=-2/11, 5=-2/11, 1=-2/11, 1=-2/11,	8-9=-62/170, 559, 11-12=-99 /169, /74, 16-17=-20 29-30=-2/11, 26-27=-2/11, 22-23=-2/11, 19-20=-2/11, 5/71,	0/20,	7) 8) 9) 10) 11)	load of overhar All plate Gable r Gable s This tru chord lir * This tr on the b 3-06-00 chord a	2.0 p gs no s are equire tuds s s has re loa uss h ottom tall b nd an	sf or n-coi 2x4 I s cor pace bee d nor as be choi (2-0 / oth	1.00 times flat rc ncurrent with oth MT20 unless oth httinuous bottom of dat 2-0-0 oc. In designed for a nconcurrent with sen designed for rd in all areas with 0-00 wide will fit I er members.	erwise indicated. chord bearing. 10.0 psf bottom any other live loads. a live load of 20.0psf ere a rectangle between the bottom
REACTIONS (size) 2=26-1-8, 18=26-1-8, 19=26-1-8, 20=26-1-8, 21=26-1-8, 22=26-1-8, 23=26-1-8, 23=26-1-8, 25=26-1-8, 27=26-1-8, 31=26-1-8, 32=26-1-8, 30=26-1-8, 31=26-1-8, 31=26-1-8, 32=26-1-8, 30=26-1-8, 31=26-1-8, 32=26-1-8, 32=26-1-8, 32=26-1-8, 32=26-1-8, 32=26-1-8, 31=26-1-8, 32=26-1-8, 32=26-1-8, 31=26-1-8, 32=26-1-8, 32=26-1-8, 31=26-1-8, 32=27, (LC 14), 32=-37, (LC 14), 32=-37, (LC 14), 32=-37, (LC 15), 32=-37, (LC 15), 32=-37, (LC 15), 32=-37, (LC 15), 32=-37, (LC 14), 32=-37, (LC 14), 32=-37, (LC 14), 32=-37, (LC 15), 32=-37, (LC 15), 32=-37, (LC 15), 32=-37, (LC 15), 32=-37, (LC 14), 32=-37, (LC 14), 32=-37, (LC 14), 32=-37, (LC 15), 32=-37, (LC 15), 32=-37, (LC 14), 32=-37, (LC 14), 32=-37, (LC 15), 32=-37, (LC 15)				1-8, 1-8, 1-8 No 1, 1) 5), 1) 5), 2) 4),	 9-27=-188/81, 8-28=-135/76, 6-29=-128/79, 5-30=-119/69, 4-31=-152/111, 12-23=-205/71, 13-22=-188/82, 14-21=-135/74, 15-20=-129/92, 16-19=-117/123 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 Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 11-6-10, Corner(3R) 11-6-10 to 17-6-10, Exterior(2N) 					 26, 45 lb uplift at joint 27, 43 lb uplift at joint uplift at joint 29, 30 lb uplift at joint 30, 89 lb 31, 40 lb uplift at joint 23, 46 lb uplift at joint 21, 41 lb uplift at joint 20, 61 lb 19, 37 lb uplift at joint 2 and 37 lb uplift at joint 13) This truss is designed in accordance with the International Residential Code sections R50 R802.10.2 and referenced standard ANSI/T 					ng 43 lb uplift at joint t at joint 28, 47 lb 30, 89 lb uplift at joint t at joint 22, 44 lb 20, 61 lb uplift at joint olift at joint 2. e with the 2018 ions R502.11.1 and
Max Grav 2=150 (LC 1), 18=50 (LC 1), 19=146 (LC 37), 20=164 (LC 1), 21=174 (LC 22), 22=228 (LC 22), 23=245 (LC 22), 25=197 (LC 28), 26=245 (LC 21), 27=228 (LC 21), 28=174 (LC 21), 29=163 (LC 36), 30=149 (LC 21), 31=199 (LC 36), 32=150 (LC 1) FORCES (Ib) - Maximum Compression/Maximum Tension			22), 28), 21), 3) 36),	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 023594 May 13,2024					

Continued on page 2 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design in 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 properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



Page: 1

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	B05	Common Supported Gable	1	1	Job Reference (optional)	165500409
Carter Components (Sanford, NO	C), Sanford, NC - 27332,	Run: 8.73 S Apr 25 2	Page: 2			

ID:M4IN5iqbNbjp2?MHQ1tHxmyiM4c-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

LOAD CASE(S) Standard



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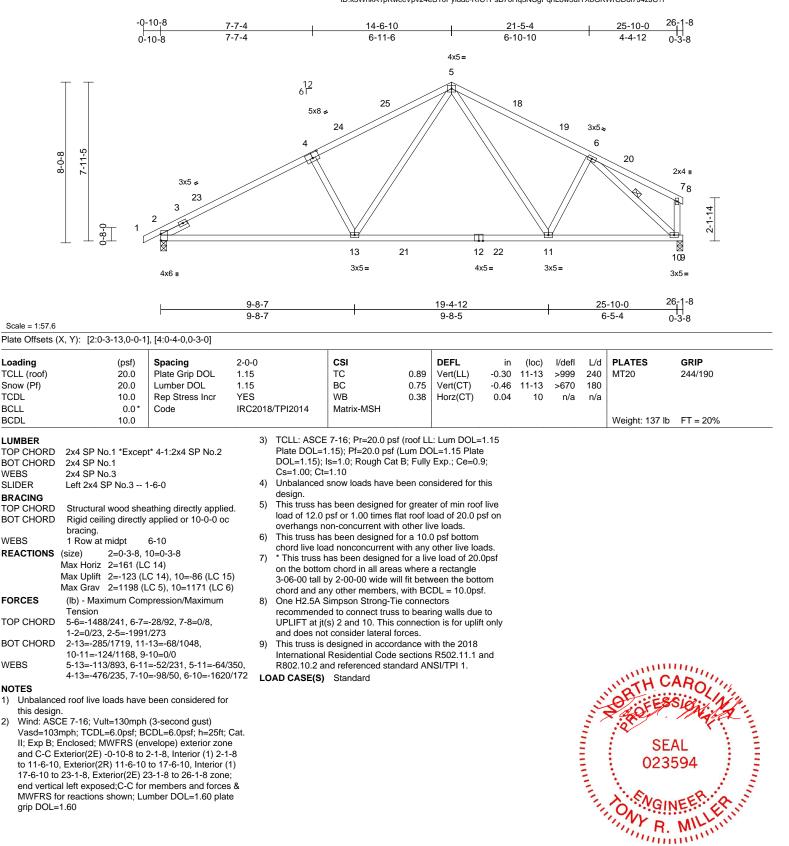


Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	B04	Common	2	1	Job Reference (optional)	l65500410

2)

Run: 8,73 S Apr 25 2024 Print: 8,730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:17 ID:k5WnkA1pKwccVpv24eS10Pyiddc-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



May 13,2024



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall bilding design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

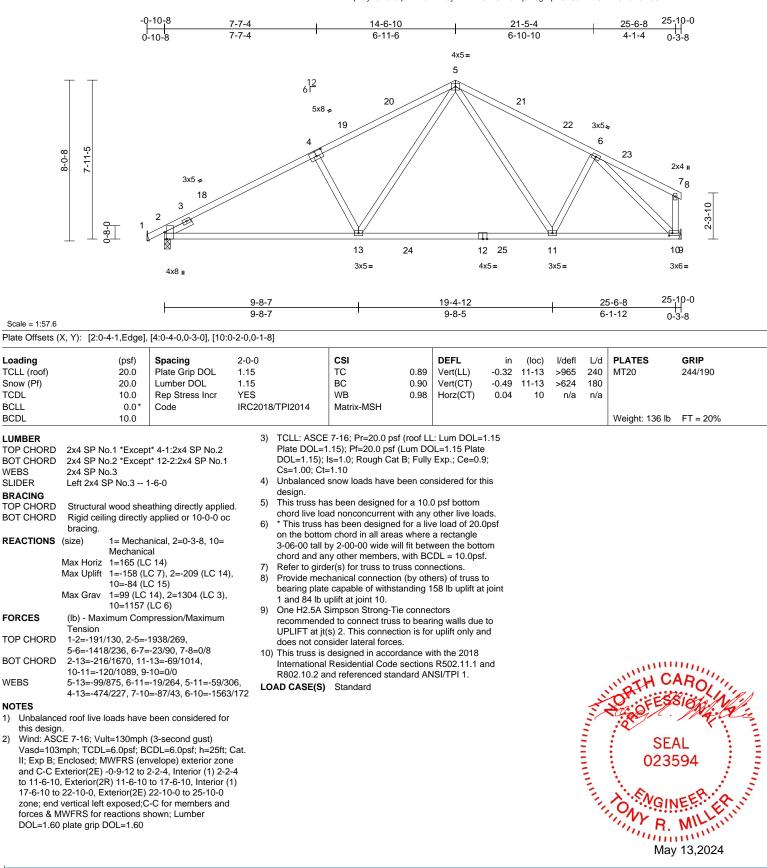
Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	B03	Common	1	1	Job Reference (optional)	l65500411

1)

2)

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:17 ID:qTloy7GVe?cqcW?KuvHXv5yiMxZ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



818 Soundside Road

Edenton, NC 27932

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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	B02	Common	8	1	Job Reference (optional)	165500412

BCDL

FORCES

TOP CHORD

BOT CHORD

this design.

DOL=1.60

WEBS

NOTES 1)

2)

Tension

6-7=0/8

5-9=-1570/174

(Ib) - Maximum Compression/Maximum

1-12=-296/1699, 10-12=-72/1022,

3-12=-479/235, 4-12=-114/901, 4-10=-60/304, 5-10=-19/265, 6-9=-86/43,

Unbalanced roof live loads have been considered for

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 11-6-10, Exterior(2R) 11-6-10 to 17-6-10, Interior (1) 17-6-10 to 22-10-0. Exterior(2E) 22-10-0 to 25-10-0 zone:C-C for members and forces & MWFRS for reactions shown: Lumber DOL=1.60 plate grip

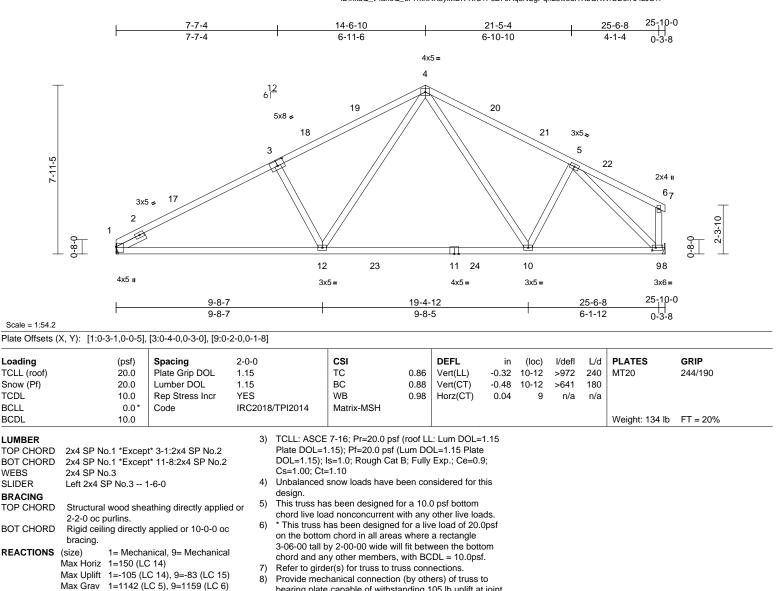
Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat.

9-10=-121/1094, 8-9=0/0

1-4=-1965/276, 4-5=-1425/238, 5-6=-23/90,

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:17 ID:hkaQ_v4an9Q_6Fi1krtRK5yiMDK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



- bearing plate capable of withstanding 105 lb uplift at joint 1 and 83 lb uplift at joint 9. This truss is designed in accordance with the 2018
- International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1. LOAD CASE(S) Standard

Quantum martine. SEAL 3594 M mann May 13,2024

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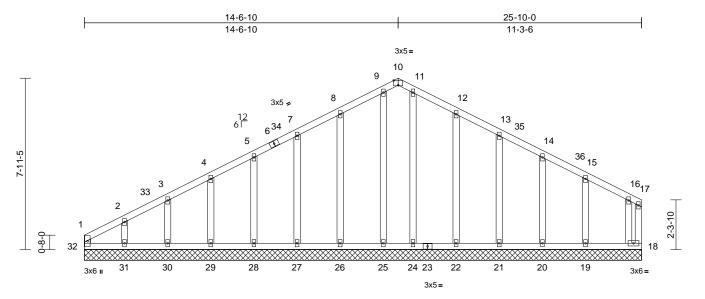
818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	B01	Common Supported Gable	1	1	Job Reference (optional)	165500413

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:17 ID:FNWJPV9PY63BhDnj6k2w3GyiMH5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:53.4

Plate Offsets (X, Y): [10:0-2-8,Edge]

	(, .).	,g-	1											
Loading		(psf)	Spacing	1-11-	4	CSI		DEFL	in	()	oc) l/defl	L/d	PLATES	GRIP
TCLL (roof)		20.0	Plate Grip DOL	1.15		тс	0.12	Vert(LL)	n/a	``	, - n/a	999	MT20	244/190
Snow (Pf)		20.0	Lumber DOL	1.15		BC	0.05	Vert(TL)	n/a		- n/a	999		
TCDL		10.0	Rep Stress Incr	YES		WB	0.15	Horiz(TL)	0.00		18 n/a	n/a		
BCLL		0.0*	Code	IRC2	018/TPI2014	Matrix-MR								
BCDL		10.0											Weight: 168 lb	FT = 20%
LUMBER TOP CHORD	2x4 SP N	lo.2			TOP CHORD	1-32=-84/37, 1-2 3-4=-89/106, 4-5				5)	Unbalance design.	d snow	/ loads have beer	a considered for this
BOT CHORD	2x4 SP N	lo.2				7-8=-82/197, 8-9			,				MT20 unless oth	
WEBS	2x4 SP N	lo.3				10-11=-87/219, 1							ontinuous bottom	
OTHERS	2x4 SP N	lo.3				12-13=-82/198, 1		,		8)				e face or securely
BRACING						14-15=-61/114, 1	15-16=-44	/43, 16-17=-6/	15,					.e. diagonal web).
TOP CHORD	Structura	l wood she	athing directly applie	ed or		17-18=-14/41							ed at 2-0-0 oc.	
			cept end verticals.		BOT CHORD	31-32=-4/21, 30-				10)			en designed for a	
BOT CHORD	Rigid ceil bracing.	ling directly	applied or 10-0-0 oc	>		28-29=-4/21, 27- 25-26=-4/21, 24-	25=-4/21,	22-24=-4/21,		11)	* This trus	s has b	een designed for	any other live loads. a live load of 20.0psf
REACTIONS	(size)	18=25-10	-0, 19=25-10-0,			21-22=-4/21, 20- 18-19=-4/21	21=-4/21,	19-20=-4/21,					ord in all areas wh	
		20=25-10	-0, 21=25-10-0,		WEBS	9-25=-138/1, 11-	21- 121/	0 26- 106/0	4					between the bottom
		22=25-10	-0, 24=25-10-0,		WEDS	9-25=-138/1, 11- 7-27=-169/72, 5-			,	40)			her members.	
		25=25-10	-0, 26=25-10-0,			3-30=-122/80, 2-			74,	12)				others) of truss to ng 36 lb uplift at joint
		27=25-10	-0, 28=25-10-0,			12-22=-197/94, 1								at joint 26, 41 lb uplift
			-0, 30=25-10-0,			14-20=-119/67, 1		,						5 lb uplift at joint 29,
			-0, 32=25-10-0			16-18=-85/33	10 10- 10	0,101,						joint 31, 57 lb uplift at
	Max Horiz				NOTES	10 10 00,00								puplift at joint 20 and
	Max Uplift		C 14), 19=-69 (LC 15),		d reaf live leads by					69 lb uplift			o upint at joint 20 and
			C 15), 21=-42 (LC 1	5),	,	d roof live loads ha	ave been	considered for				at joint	10.	
			C 15), 26=-52 (LC 1		this design 2) Wind: ASC	E 7-16; Vult=130n	nnh (2 ag	cond quat)						nn.
			C 14), 28=-42 (LC 1	4),		nph; TCDL=6.0ps			Cat					A
			C 14), 30=-31 (LC 1			inclosed; MWFRS							WTH U	ARO
			C 14), 32=-36 (LC 1			orner(3E) 0-1-12 to			e				NOT TO	Size Mart
	Max Grav		_C 1), 19=176 (LC 3			1-6-10, Corner(3R						3	Sinter	W. Main
		(_C 21), 21=209 (LC 2			I) 17-6-10 to 22-8-						51		I way to
			_C 21), 24=166 (LC 2			e;C-C for member			for			2	<u>i</u> Q.	N 1 2
			_C 20), 26=237 (LC 2			hown; Lumber DC			101			=	: SE	AL : =
			-C 20), 28=156 (LC 2		DOL=1.60		2=1.00 pi	ato grip				2	: 36/	HL : :
			LC 35), 30=156 (LC			gned for wind load	ds in the n	lane of the true	ss			1	: 023	594 : =
		•	_C 35), 32=114 (LC 2	26)		tuds exposed to w						1	:	1 2
FORCES		kimum Com	pression/Maximum			ard Industry Gable						-	SE 023	AL 594
	Tension					qualified building d						1	Nº. En.	Rias
						E 7-16; Pr=20.0 p						1	GIN	VEE CAS
						=1.15); Pf=20.0 ps			-				1, W	an Levis
						; Is=1.0; Rough C			:				11. R.	MIL
					Cs=1.00; C			p., 22 010	,				19 min	mm
														10.0004

May 13,2024



Continued on page 2 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design in 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 onlapse 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/TPH Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **RCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	B01	Common Supported Gable	1	1	Job Reference (optional)	165500413
Carter Components (Sanford, NO	C), Sanford, NC - 27332,	Run: 8.73 S Apr 25 2	2024 Print: 8.	730 S Apr 25	5 2024 MiTek Industries, Inc. Fri May 10 10:28:17	Page: 2

ID:FNWJPV9PY63BhDnj6k2w3GyiMH5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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.

LOAD CASE(S) Standard

and a second second The second se SEAL 023594 R. Minin R. M May 13,2024

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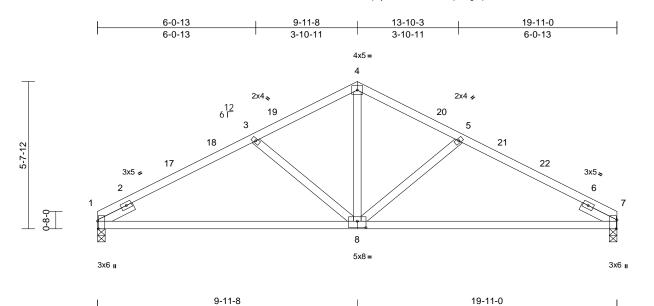


Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	C03	Common	2	1	Job Reference (optional)	165500414

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:18 ID:9d4dhesW3iCMikBVI9aq0ryidW5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

9-11-8

Page: 1



9-11-8

Scale = 1:44.2

Plate Offsets (X, Y): [1:0-3-8,Edge], [7:0-4-1,Edge], [8:0-4-0,0-3-0]

	,, , ,, [o o,,20go],	[,		1		1					1	
Loading	(psf)	Spacing	2-0-0		CSI	• • -	DEFL	in	(loc)	l/defl	L/d		GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15		TC	0.35	Vert(LL)	-0.13	8-11	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.85	Vert(CT)	-0.27	8-11	>869	180		
TCDL	10.0	Rep Stress Incr	YES		WB	0.24	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0*	Code	IRC201	8/TPI2014	Matrix-MSH								FT 000/
BCDL	10.0											Weight: 90 lb	FT = 20%
LUMBER			4)		snow loads have	been co	nsidered for t	his					
TOP CHORD			-	design.									
BOT CHORD			5)		as been designed								
WEBS	2x4 SP No.3				ad nonconcurrent nas been designe								
SLIDER	Left 2x4 SP No.3 7 1-6-0	1-6-0, Right 2x4 SP	No.3 6		n chord in all area			opsi					
BRACING					oy 2-00-00 wide w		veen the bott	tom					
TOP CHORD	Structural wood she	athing directly applie	ed or 7		ny other members Simpson Strong-T		ctors						
BOT CHORD	5-0-4 oc purlins. Rigid ceiling directly	applied or 10-0-0 o	iC ,	recommend	ed to connect trus	s to bear	ing walls due						
	bracing.				(s) 1 and 7. This o t consider lateral		n is for uplift	only					
			8		designed in acco		ith the 2018						
	Max Horiz 1=79 (LC		- 4		Residential Code			and					
	Max Uplift 1=-76 (LC			R802.10.2 a	nd referenced sta	Indard Al	ISI/TPI 1.						
	Max Grav 1=847 (LC		· L'	DAD CASE(S)	Standard								
FORCES	(lb) - Maximum Com	pression/Maximum											
TOP CHORD	Tension 1-3=-1240/268, 3-4=	071/226 / 5- 071	1226										
TOP CHORD	5-7=-1240/268	971/220, 4-5=-971	/220,										
BOT CHORD													
WEBS	4-8=-86/613, 5-8=-4	20/167, 3-8=-420/16	67										nn.
NOTES	,												AD UL
	ed roof live loads have	been considered fo	or									"ATH U	AHO III
this desigr											R	0.08	Signal
	CE 7-16; Vult=130mph		_							-	Z	ALCONT.	Marty
	mph; TCDL=6.0psf; B									1	-	1.9	K : =
	Enclosed; MWFRS (er Exterior(2E) 0-0-0 to 3-										3		AL 1 E
	tterior(2R) 6-11-8 to 12		010								=	SE SE	
	16-11-0, Exterior(2E)										1	023	594 : =
	vertical left and right e										-	:	; ; ;
	and forces & MWFRS		n;								-		1 3
Lumber D	OL=1.60 plate grip DO	DL=1.60									Contraction and the second	X. ENG.	-ERIA S
	CE 7-16; Pr=20.0 psf (1	O	VER EXS
	=1.15); Pf=20.0 psf (L											INY D	MILLIN
	i); Is=1.0; Rough Cat E	3; Fully Exp.; Ce=0.9	9;									Think.	IN THE PARTY
Cs=1.00; 0	Ct=1.10												11111

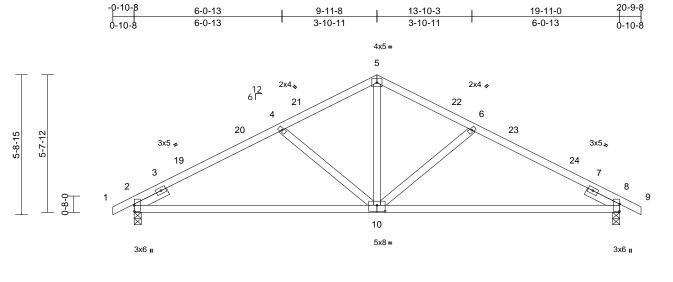
May 13,2024



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Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	C02	Common	9	1	Job Reference (optional)	l65500415

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:18 ID:s0dYfRZTiKBmq2LtL68C2nyidWT-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f Page: 1



9-11-8	19-11-0	
9-11-8	9-11-8	

Plate Offsets (X, Y): [2:0-3-0,0-0-1], [8:0-3-9,0-0-1], [10:0-4-0,0-3-0]

Scale = 1:47.3

Plate Olisets (A, T). [2.0-3-0,0-0-1],	[0.0-3-9,0-0-1], [10.0-	4-0,0-3-0]									
Loading TCLL (roof) Snow (Pf) TCDL BCLL BCDL LUMBER	(psf) 20.0 20.0 10.0 0.0* 10.0	Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 YES IRC2018/TPI20 4) Unba	14 CSI TC BC WB Matrix-MSH	0.34 0.85 0.24	DEFL Vert(LL) Vert(CT) Horz(CT)	-0.27 0.03	(loc) 10-13 10-13 8	l/defl >999 >874 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 93 lb	GRIP 244/190 FT = 20%
TOP CHORD BOT CHORD WEBS SLIDER BRACING TOP CHORD BOT CHORD REACTIONS	2x4 SP No.2 2x4 SP No.3 Left 2x4 SP No.3 1-6-0 Structural wood she 5-0-5 oc purlins. Rigid ceiling directly bracing. (size) 2=0-3-8, { Max Horiz 2=86 (LC Max Uplift 2=-93 (LC Max Grav 2=900 (LC	14) 2 14), 8=-93 (LC 15) 2 21), 8=900 (LC 22)	desig 5) This load c.3 overt 6) This chorc or 7) * This on th 3-06- chorc 8) One recor UPLI and c		ed for great s flat roof I vith other II ed for a 10. nt with any hed for a liv eas where will fit betw rs. -Tie conne uss to bears s connection al forces.	er of min roo oad of 20.0 p ve loads. 0 psf bottom other live loa re load of 20. a rectangle veen the bot ctors ing walls due n is for uplift	of live osf on ads. .0psf tom e to					
FORCES TOP CHORD BOT CHORD	(lb) - Maximum Com Tension 1-2=0/23, 2-4=-1284 5-6=-966/219, 6-8=- 2-8=-194/1097	1/260, 4-5=-966/219,	R802	International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1. LOAD CASE(S) Standard								
WEBS NOTES 1) Unbalance this desigr 2) Wind: ASC Vasd=103 II; Exp B; I and C-CE to 6-11-8, 12-11-8 to end vertica forces & M DOL=1.60 3) TCLI: ASC Plate DOL	5-10=-78/607, 6-10= cd roof live loads have CE 7-16; Vult=130mph imph; TCDL=6.0psf; Br Enclosed; MWFRS (er Exterior(2E) -0-10-8 to Exterior(2R) 6-11-8 to 17-9-8, Exterior(2E) 1 al left and right expose IWFRS for reactions s plate grip DOL=1.60 CE 7-16; Pr=20.0 psf (L =1.15); Pf=20.0 psf (L i); Is=1.0; Rough Cat E	(3-second gust) CDL=6.0psf; h=25f; C ivelope) exterior zone 2-1-8, Interior (1) 2-1-8 12-11-8, Interior (1) 7-9-8 to 20-9-8 zone; d;C-C for members ar hown; Lumber roof LL: Lum DOL=1.1 um DOL=1.15 Plate	rat. 3 nd						-		WY R.	VEER ER



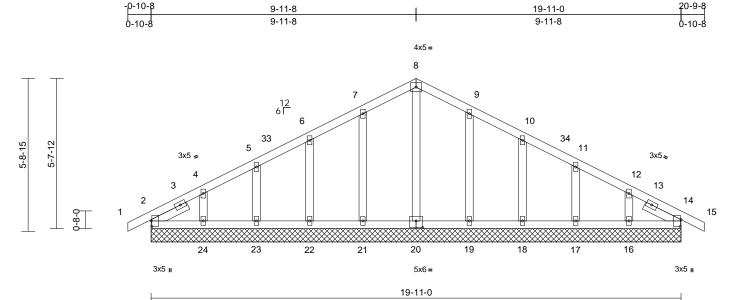
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TP11 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	C01	Common Supported Gable	1	1	Job Reference (optional)	165500416

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:17 ID:HgQOZjQ?_97iryHX?XwsQlyidVM-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Page: 1



Scale = 1:43.3

Plate Offsets (X, Y): [2:0-2-8,0-0-5], [14:0-3-1,0-0-5], [20:0-3-0,0-3-0]

Loading		(nof)	Specing	1-11-4		CSI		DEFL	in	(100)	l/defl	L/d	PLATES	GRIP			
Loading TCLL (roof)		(psf) 20.0	Spacing Plate Grip DOL	1-11-4		TC	0.07	Vert(LL)	in n/a	(loc)	i/defi n/a	L/a 999	MT20	244/190			
		20.0	Lumber DOL	1.15		BC	0.07	Vert(CT)	n/a	-	n/a	999 999	101120	244/190			
Snow (Pf)				YES		WB											
TCDL		10.0	Rep Stress Incr				0.08	Horz(CT)	0.00	14	n/a	n/a					
BCLL		0.0*	Code	IRC20	18/TPI2014	Matrix-MSH											
BCDL		10.0											Weight: 109 lb	FI = 20%			
LUMBER				E	BOT CHORD	2-24=-13/87, 23-	24=-13/87	7, 22-23=-13/8	37,	11) * Th	nis truss	has be	een designed for	a live load of 20.0ps			
TOP CHORD	2x4 SP N	o.2				21-22=-13/87, 19	-21=-13/8	87, 18-19=-13	/87,	on t	he botto	om cho	ord in all areas wh	ere a rectangle			
BOT CHORD	2x4 SP N	0.2				17-18=-13/87, 16	6-17=-13/8	37, 14-16=-13	/87	3-06	6-00 tall	by 2-0	0-00 wide will fit I	between the bottom			
OTHERS	2x4 SP N			١	VEBS	8-20=-104/0, 7-2	1=-199/78	8, 6-22=-182/8	31,	cho	rd and a	any oth	er members.				
SLIDER	Left 2x4 S	SP No.3 1	I-6-0, Right 2x4 SP I	No.3		5-23=-132/77, 4-24=-121/99, 9-19=-199/78,					vide me	chanic	al connection (by	others) of truss to			
	1-6-0		, J			10-18=-182/81, 1		bea	ring pla	te capa	able of withstandi	ng 15 lb uplift at joint					
BRACING						12-16=-121/99				2, 4	4 lb upli	ift at joi	int 21, 44 lb uplift	at joint 22, 37 lb upl			
TOP CHORD	Structural	l wood she	athing directly applie	dor I	NOTES					at jo	oint 23, (67 lb u	plift at joint 24, 43	B lb uplift at joint 19,			
	6-0-0 oc p		aamig ancoay applie	a or		d roof live loads ha	ve been	considered fo	r					joint 17, 59 lb uplift a			
BOT CHORD			applied or 10-0-0 oc		this design		,			join	t 16 and	15 lb	uplift at joint 2.				
	bracing.				2) Wind: ASCE 7-16; Vult=130mph (3-second gust) 13) Beveled plate or shim re												
REACTIONS	0	2-10-11 (), 14=19-11-0,	-		mph; TCDL=6.0psf			Cat.				chord at joint(s) 1				
LACTIONS	(5120)		-0, 17=19-11-0,			Enclosed; MWFRS							ned in accordanc				
			-0, 17=19-11-0, -0, 19=19-11-0,			orner(3E) -0-10-8			-	Inte	rnationa	al Resid	dential Code sect	ions R502.11.1 and			
			-0, 19=19-11-0, -0, 21=19-11-0,			6-11-8, Corner(3R)			erior	R80	2.10.2	and ref	ferenced standard	ANSI/TPI 1.			
			-0, 21=19-11-0, -0, 23=19-11-0,) Sta	ndard				
			-0, 25=19-11-0, -0, 25=19-11-0,		zone; cantilever left and right exposed ; end vertical left												
		29=19-11				xposed;C-C for me											
	Max Hariz					or reactions shown			te								
			14), 25=83 (LC 14)	`	grip DOL=												
	wax upint		15), 16=-59 (LC 15)			igned for wind load	ls in the n	lane of the tru	221								
			C 15), 18=-44 (LC 1	5),		studs exposed to w											
			C 15), 21=-44 (LC 1			ard Industry Gable				IN CAD							
			C 14), 23=-37 (LC 14			qualified building d							N'TH U	AHO MA			
			C 14), 25=-15 (LC 1			CE 7-16; Pr=20.0 p							atting	Size Alala			
	Max Grav		C 21), 14=136 (LC 22	∠),		=1.15); Pf=20.0 ps						E	A FER	SIONO VIII			
			_C 37), 17=170 (LC 2); Is=1.0; Rough C						20	Sing 11	MARIN			
			-C 22), 19=238 (LC 2		Cs=1.00: 0		at D, T ully	Lxp., 0e=0.3	,			5	1	× •			
			-C 28), 21=238 (LC 2			d snow loads have	heen co	eidered for th	vie			2	: 05	NI 1			
			-C 21), 23=170 (LC 2	<u> </u>	design.				10			2	SE/				
			-C 36), 25=136 (LC 2	21), ₆		has been designed	l for areat	er of min roof	livo			=	: 0235	594 :			
		29=136 (L	,	C								-	: 020.				
FORCES	(lb) - Max	timum Com	pression/Maximum		 Cs=1.00; Ct=1.10 Statistic Cs=1.00; Ct=1.10 Unbalanced snow loads have been considered for this design. 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 2x4 MT20 unless otherwise indicated. Gable requires continuous bottom chord bearing. Gable studs spaced at 2-0-0 oc. 								· · · · · · · · · · · · · · · · · · ·				
	Tension			-	overhangs non-concurrent with other live loads.								ai. S				
TOP CHORD	1-2=0/23,	, 2-4=-88/4	6, 4-5=-66/54,		 All plates are 2x4 MT20 unless otherwise indicated. Gable requires continuous bottom chord bearing. 							1	ONV -	IEE AS			
	5-6=-50/7	7, 6-7=-58	/117, 7-8=-72/162,		,							1	, OAM	1. V.N.			
	8-9=-72/162 9-10=-58/117 10-11=-48/70			 9) Gable studs spaced at 2-0-0 oc. 10) This truss has been designed for a 10.0 psf bottom 							MILLON						
													Channa -	in the second se			
			,		chord live	load nonconcurren	t with any	other live loa	ds.					10.0004			

May 13,2024

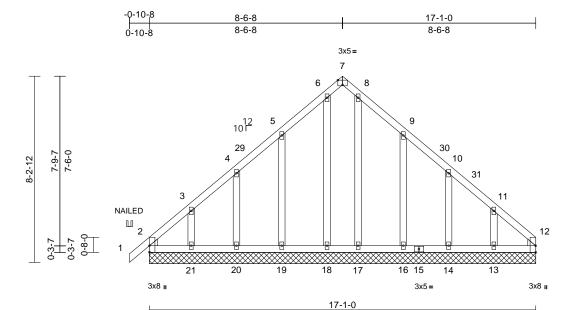
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCEL Building Component Science United for the Structure Buckling Component Advance Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH	
24040155-01	E01	Common Supported Gable	1	1	Job Reference (optional)	l65500417

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:19 ID:msPYNollActYsq9j0KJ?_WyiMxX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:50.9

Plate Offsets (X, Y): [2:Edge,0-0-1], [7:0-2-8,Edge], [12:Edge,0-0-1]

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	0.26	Vert(LL)	n/a	-	n/a	999	MT20	244/190				
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.15	Vert(CT)	n/a	-	n/a	999						
TCDL	10.0	Rep Stress Incr	YES		WB	0.13	Horz(CT)	0.01	12	n/a	n/a						
BCLL	0.0*	Code	IRC2018	8/TPI2014	Matrix-MSH												
BCDL	10.0											Weight: 111 lb	FT = 20%				
LUMBER			ВС	OT CHORD	2-21=-180/204, 20	0-21=-74	/183,		10) Thi	s truss h	nas bee	en designed for a	10.0 psf bottom				
TOP CHORD	2x4 SP No.2				19-20=-74/183, 18	8-19=-74	/183,		cho	ord live lo	oad no	nconcurrent with	any other live loads.				
BOT CHORD	2x4 SP No.2				17-18=-74/183, 16								a live load of 20.0psf				
OTHERS	2x4 SP No.3				14-16=-74/183, 13	3-14=-74	/183,		on the bottom chord in all areas where a rectangle								
WEDGE	Left: 2x4 SP No.3				12-13=-74/183								between the bottom				
	Right: 2x4 SP No.3		W	EBS	6-18=-146/31, 8-1		,	42,				er members.					
BRACING					4-20=-151/118, 3-		,						others) of truss to				
TOP CHORD	Structural wood she	athing directly applie	d or		9-16=-225/140, 10	0-14=-14	8/114,						ng 209 lb uplift at joint				
	6-0-0 oc purlins.				11-13=-156/157								at joint 18, 98 lb uplift				
BOT CHORD	Rigid ceiling directly	applied or 10-0-0 oc		DTES									99 lb uplift at joint 21,				
	bracing.		1)		d roof live loads ha	ve been	considered for	r					joint 14, 128 lb uplift d 33 lb uplift at joint				
REACTIONS	(size) 2=17-1-0,	12=17-1-0, 13=17-1		this design					12.	onit 13,	209 10	upint at joint 2 an	a 55 ib upilit at joint				
), 16=17-1-0, 17=17-			E 7-16; Vult=130m					e truce i	e doeia	ned in accordance	o with the 2018				
), 19=17-1-0, 20=17-			nph; TCDL=6.0psf;								ions R502.11.1 and				
), 22=17-1-0, 26=17-			nclosed; MWFRS			e	R802.10.2 and referenced standard ANSI/TPI 1.								
	Max Horiz 2=178 (LC				orner(3E) -0-10-8 to				14) "NAILED" indicates 3-10d (0.148"x3") or 3-12d								
	Max Uplift 2=-209 (L									(0.148"x3.25") toe-nails per NDS guidlines.							
		LC 15), 14=-63 (LC 5			eft and right expose			ч	 In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B). 								
		C 57), 18=-12 (LC 1			ed;C-C for member												
		C 56), 20=-80 (LC 14			s shown; Lumber D			0	LOAD CASE(S) Standard								
	21=-199 (26=-33 (L	LC 56), 22=-209 (LC	10),	DOL=1.60	s shown, Europer DOL-1.00 plate grip												
	Max Grav 2=301 (LC		a 3)		gned for wind loads	s in the p	lane of the tru	SS				D'un C	AD				
		-C 26), 14=179 (LC 4	<i>י</i> , <i>י</i>		tuds exposed to wi							"ath u	10/ (I)				
		-C 47), 17=178 (LC 2		see Standa	rd Industry Gable I	End Deta	ils as applicat	ole,			N	OF FS	Sin A Nell				
		.C 21), 19=272 (LC 4		or consult of	qualified building de	esigner a	s per ANSI/TF	ข 1.			54	alor //	North				
		_C 25), 21=271 (LC 4		TCLL: ASC	E 7-16; Pr=20.0 ps	sf (roof Ll	.: Lum DOL=1	.15			-		1. 2				
		_C 56), 26=148 (LC 1			=1.15); Pf=20.0 psf						-	<u></u>	1113				
FORCES	(lb) - Maximum Com	<i>.</i>	- /		; Is=1.0; Rough Ca	t B; Fully	Exp.; Ce=0.9	;			=	: SE/	AL : =				
	Tension	p. coolor / Maximum		Cs=1.00; C		_					2	: 000					
TOP CHORD	1-2=-107/87, 2-3=-2	15/130, 3-4=-139/10	_{6.} 5)								=	023	594 : :				
	4-5=-95/81, 5-6=-10	7/137, 6-7=-67/115,	, 	design.					SEAL 023594								
	7-8=-67/115, 8-9=-1		6)		has been designed						-	·	a: 3				
	10-11=-110/67, 11-1	2=-203/101) psf or 1.00 times			st on			2	ON GIN	IEE. AN				
			7)		non-concurrent wit						-		1. V.N				
				 All plates are 2x4 MT20 unless otherwise indicated. Gable requires continuous bottom chord bearing. 					TO D MILLIN								
					s spaced at 2-0-0 c		u beanny.					2000	unnu.				
					s spaceu ai 2-0-0 C	<i>.</i> .						Mos	12 2024				

- Gable requires continuous bottom chord bearing. 8)
- 9) Gable studs spaced at 2-0-0 oc.

Continued on page 2 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road Edenton, NC 27932

May 13,2024

Job	Truss	Truss Type	Qty	Ply	136 Serenity-Roof-329 A COP GLH		
24040155-01	E01	Common Supported Gable	1	1	Job Reference (optional)	165500417	
Carter Components (Sanford, N	Run: 8.73 S Apr 25 2	2024 Print: 8.	730 S Apr 25	2024 MiTek Industries, Inc. Fri May 10 10:28:19	Page: 2		

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

Vert: 1-7=-60, 7-12=-60, 22-26=-20 Concentrated Loads (lb)

Vert: 1=92 (B)



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Job	Truss	Truss Type	Qty	Ply	36 Serenity-Roof-329 A COP GLH		
24040155-01	E02	Common Girder	1	2	Job Reference (optional)	165500418	

8-6-8

4-3-3

4-3-5

4-3-5

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

Run: 8.73 S Apr 25 2024 Print: 8.730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:19 ID:b7_VE9M3qjmyqXpPx6mIdSyiMBg-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

17-1-0

4-3-5

5

Ø

6x8=

12-9-11

4-3-3

4x8 II 3

Page: 1

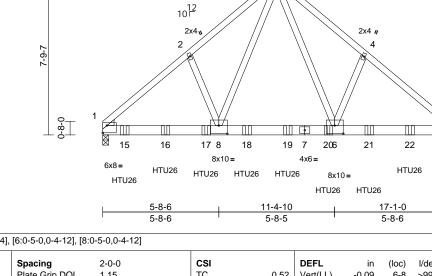


Plate Offsets (X, Y): [1:Edge,0-4-4], [6:0-5-0,0-4-12], [8:0-5-0,0-4-12]

Scale = 1:56.5

	(X, Y): [1:Edge,0-4-4],	[6:0-5-0,0-4-12], [8:0	J-5-0,0-4-	12]											
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	0.52	Vert(LL)	-0.09	6-8	>999	240	MT20	244/190		
Snow (Pf)	20.0	Lumber DOL	1.15		BC	0.47	Vert(CT)	-0.16	6-8	>999	180				
TCDL	10.0	Rep Stress Incr	NO		WB	0.82	Horz(CT)	0.02	5	n/a	n/a				
BCLL	0.0*	Code	IRC201	8/TPI2014	Matrix-MSH										
BCDL	10.0											Weight: 218 lb	FT = 20%		
LUMBER			3) Unbalanced	roof live loads hav	ve been	considered fo	or	LOAD	CASE(S) Sta	ndard			
TOP CHORD	2x4 SP No.2			this design.					1) De	ead + Sr	now (ba	alanced): Lumbei	r Increase=1.15, Plate		
BOT CHORD	2x6 SP 2400F 2.0E		4		7-16; Vult=130m					crease=					
WEBS	2x4 SP No.3				oh; TCDL=6.0psf;				Ui	hiform Lo					
WEDGE	Left: 2x4 SP No.3				closed; MWFRS (Vert: 1-	3=-60,	3-5=-60, 9-12=-2	20		
	Right: 2x6 SP No.2				t and right expose				C	oncentra	ted Lo	ads (lb)			
BRACING				right expose	d; Lumber DOL=1	.60 plate	e grip DOL=1.	60		Vert: 15	=-1037	7 (B), 16=-1037 (B), 17=-1037 (B),		
TOP CHORD	Structural wood she	athing directly applie	d or)=-1037 (B), 21=-1037		
	4-8-7 oc purlins.	annig anoon) appno	5) TCLL: ASCE	7-16; Pr=20.0 ps	f (roof L	_: Lum DOL=	1.15		(B), 22=					
BOT CHORD	Rigid ceiling directly	applied or 10-0-0 oc		Plate DOL=1	.15); Pf=20.0 psf	(Lum DO	DL=1.15 Plate)							
201 0110112	bracing.			DOL=1.15);	ls=1.0; Rough Ca	t B; Fully	Exp.; Ce=0.9	9;							
REACTIONS	0	5-0.2.9		Cs=1.00; Ct=											
REACTIONS	Max Horiz 1=167 (LC		6) Unbalanced	snow loads have	been co	nsidered for t	his							
	(,	2)	design.											
	Max Uplift 1=-542 (L) This truss ha	s been designed	for a 10.	0 psf bottom								
	Max Grav 1=5452 (L	,. , ,		chord live load nonconcurrent with any other live loads.											
FORCES	(lb) - Maximum Com	pression/Maximum	8	3) * This truss has been designed for a live load of 20.0psf											
	Tension			on the bottom chord in all areas where a rectangle											
TOP CHORD	1-2=-5985/622, 2-3=	-5962/706,		3-06-00 tall b	y 2-00-00 wide w	ill fit betv	veen the bott	om							
	3-4=-5914/701, 4-5=	-5969/617		chord and ar	y other members	, with BC	DL = 10.0pst	f.							
BOT CHORD	1-8=-510/4586, 6-8=	9													
	5-6=-425/4542			recommended to connect truss to bearing walls due to											
WEBS 3-8=-491/3950, 2-8=-324/185,				 One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5 and 1. 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. Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-1-0 from the left end to 9-1-0 to connect truss(es) to back face of bottom chord. Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 11-1-0 from the left end to 15-1-0 to connect truss(es) to back face of bottom 							AD 111				
	3-6=-480/3855, 4-6=	-298/197		and does not consider lateral forces.						N'TH UARO, M					
NOTES			1	0) This truss is	designed in accor	rdance w	ith the 2018					1	in land		
	to be connected toge	ther with 10d			Residential Code			and			5	SOFE	WN. No.		
) nails as follows:			R802.10.2 and referenced standard ANSI/TPI 1.							57	X Constant .	maren -		
	ls connected as follows	0 1	11) Use Simpson Strong-Tie HTU26 (20-10d Girder,								N N N				
OC.		5. 2X1 110W at 0 0	0		2 Truss, Single Ply			t			-	. OF	AL 594		
	ords connected as foll	ows: 2x6 - 2 rows			0-0 oc max. starti						-	SE/	AL E		
	at 0-8-0 oc.	0W3.2X0 210W3		end to 9-1-0 to connect truss(es) to back face of bottom								594 : =			
Web connected as follows: 2x4 - 1 row at 0-9-0 oc. chord.									· · · · · · · · · · · · · · · · · · ·						
	are considered equally		1	12) Use Simpson Strong-Tie HTU26 (20-10d Girder,							-	1. Contraction of the second s	- 1 S		
	noted as front (F) or ba			11-10dx1 1/2 Truss, Single Ply Girder) or equivalent							-	·	al S		
		ΛD	spaced at 2-0-0 oc max. starting at 11-1-0 from the left							1	NGIN	IFE AN			
CASE(S) section. Ply to ply connections have been spaced at 2-0-0 oc max. starting at 11-1-0 from the left end to 15-1-0 to connect truss(es) to back face of bottom								1	01	150 N N					
	erwise indicated.		chord.						ALL B MILLIN						
นเทธรร ปไท	iei wise illuicaleu.		1		les where hanger	r is in co	ntact with lum	ber				Then.	in the second se		
			1.		nee where hallyer	13 11 001	naor whith fulli						40.0004		
												May	/ 13,2024		

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Job	Truss	Truss Type	Qty Ply		136 Serenity-Roof-329 A COP GLH	
24040155-01	C04	Common Girder	1	2	Job Reference (optional)	165500419

Loading

TCDL

BCLL

BCDL

WEBS

FORCES

WEBS

NOTES

1)

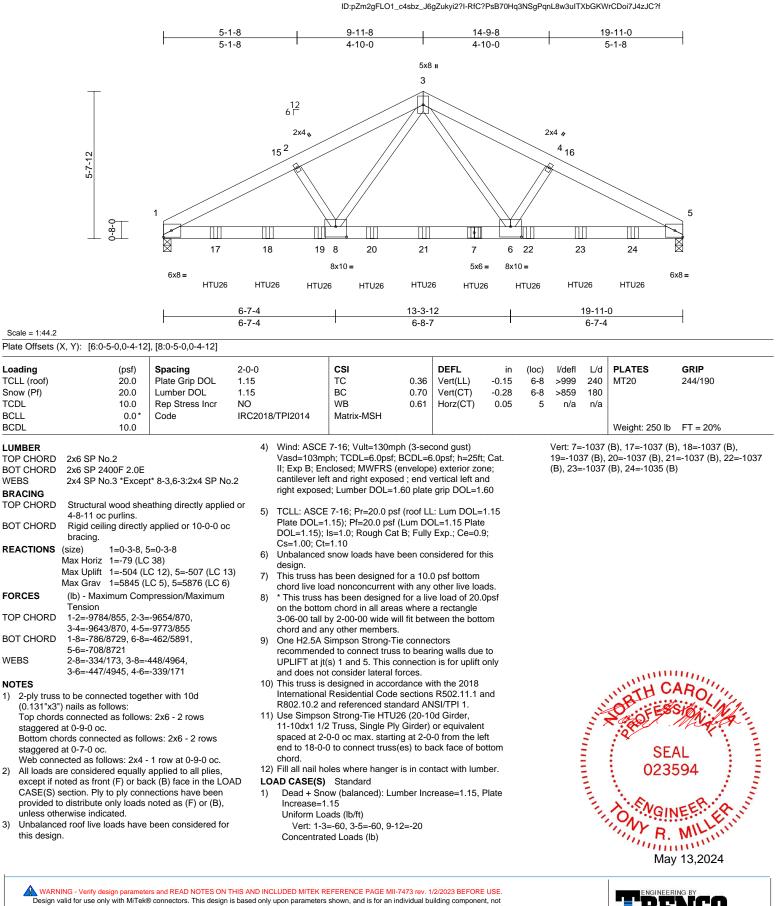
2)

3)

LUMBER

Run: 8,73 S Apr 25 2024 Print: 8,730 S Apr 25 2024 MiTek Industries, Inc. Fri May 10 10:28:18

Page: 1



a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overal bilding design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road

Edenton, NC 27932

