

Trenco 818 Soundside Rd Edenton, NC 27932

Re: 22020373-01 Carolina Seasons Lot 9-Ph2 S2-3119 Elev 'A' Permit-Roof Truss

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 (Lexington, NC).

Pages or sheets covered by this seal: T27214633 thru T27214671

My license renewal date for the state of North Carolina is December 31, 2022.

North Carolina COA: C-0844



March 24,2022

# Lee, Julius

**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.



	<u>6-0-0</u> 6-0-0	<u> </u>	<u>16-0-0</u> 6-0-0	
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0         *           BCDL         10.0	SPACING-2-0-0CSPlate Grip DOL1.15TCLumber DOL1.15BCRep Stress IncrYESWICode IRC2018/TPI2014Mat	DEFL.         in           0.46         Vert(LL)         0.16           0.54         Vert(CT)         -0.19           B         0.08         Horz(CT)         0.03           atrix-AS         Itrix-As         Itrix-As         Itrix-As	(loc)         l/defl         L/d         PLATES         GRIP           8-11         >999         240         MT20         244/190           8-11         >999         180             5         n/a         n/a         Weight: 58 lb         FT = 20%	
LUMBER-		BRACING-		

TOP CHORD

BOT CHORD

Structural wood sheathing directly applied, except

2-0-0 oc purlins (5-2-3 max.): 3-4.

Rigid ceiling directly applied.

#### LUMBER-TOP CHORD

TOP CHORD2x4 SP No.2BOT CHORD2x4 SP No.2WEBS2x4 SP No.3

REACTIONS. (size) 2=0-3-0, 5=0-3-0 Max Horz 2=-20(LC 10) Max Uplift 2=-143(LC 12), 5=-143(LC 12) Max Grav 2=720(LC 1), 5=720(LC 1)

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

TOP CHORD 2-3=-1322/1083, 3-4=-1230/1074, 4-5=-1322/1093

BOT CHORD 2-8=-976/1221, 7-8=-990/1230, 5-7=-975/1221

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 6-0-0, Exterior(2E) 6-0-0 to 10-0-0, Exterior(2R) 10-0-0 to 14-2-15, Interior(1) 14-2-15 to 17-4-0 zone; cantilever left and right exposed; 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 DOL=1.60

3) Provide adequate drainage to prevent water ponding.

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

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

6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 5. This connection is for uplift only and does not consider lateral forces.

7) 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.

8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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



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		2-0-0 2-0-0			4- 2-	-0-0 -0-0	
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0         *           BCDL         10.0	SPACING- 2-0- Plate Grip DOL 1.1 Lumber DOL 1.1 Rep Stress Incr Nr Code IRC2018/TPI2014	0 <b>CSI.</b> 5 TC 0.13 5 BC 0.31 0 WB 0.03 Matrix-MP	DEFL. i Vert(LL) 0.0 Vert(CT) -0.0 Horz(CT) 0.0	in (loc) 02 6 03 6 01 4	l/defl L/c >999 240 >999 180 n/a n/a	d PLATES D MT20 a Weight: 15 lb	<b>GRIP</b> 244/190 FT = 20%
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# LUMBER-

TOP CHORD2x4 SP No.2BOT CHORD2x4 SP No.2WEBS2x4 SP No.3

BRACING-TOP CHORD

 TOP CHORD
 Structural wood sheathing directly applied or 4-0-0 oc purlins, except 2-0-0 oc purlins: 3-4.

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

#### REACTIONS. (size) 4=Mechanical, 2=0-3-0, 5=Mechanical Max Horz 2=30(LC 8) Max Uplift 4=-17(LC 4), 2=-62(LC 8), 5=-19(LC 5)

Max Grav 4=58(LC 1), 2=252(LC 1), 5=97(LC 3)

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

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left exposed; porch left exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

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

Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 4 and 19 lb uplift at joint 5.

8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.

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.

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

11) "NAILED" indicates 3-10d Nails (0.148" x 3") toe-nails per NDS guidelines.

12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

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

Vert: 1-3=-60, 3-4=-60, 5-7=-20 Concentrated Loads (lb)

Vert: 6=-1(F)



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss system. See **MSIVTPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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4-0-0	
4.0.0	

Plate Offsets (X,	[2:0-0-6,Edge]							
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. ir	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.18	Vert(LL) 0.03	4-7	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.18	Vert(CT) -0.02	4-7	>999	180		
BCLL 0.0	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS					Weight: 14 lb	FT = 20%

#### LUMBER-

TOP CHORD2x4 SP No.2BOT CHORD2x4 SP No.2

BRACING-TOP CHORD BOT CHORD

Structural wood sheathing directly applied. Rigid ceiling directly applied.

REACTIONS. (size) 3=Mechanical, 2=0-3-0, 4=Mechanical Max Horz 2=45(LC 12) Max Uplift 3=-19(LC 12), 2=-58(LC 12), 4=-8(LC 12)

Max Grav 3=96(LC 1), 2=251(LC 1), 4=68(LC 3)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 3-11-4 zone; cantilever left and right exposed; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 3 and 8 lb uplift at joint 4.
- 6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 7) 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.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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# Scale = 1:30.4



L	4-0-0	12-0-0	16-0-0
1	4-0-0	8-0-0	4-0-0
LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr NO Code IRC2018/TPI2014	CSI.         DEFL.           TC         0.43         Vert(LL)         0           BC         0.75         Vert(CT)         -0           WB         0.20         Horz(CT)         0           Matrix-MS         Horz(CT)         0	in (loc) I/defi L/d 0.17 8-9 >999 240 0.32 8-9 >598 180 0.05 6 n/a n/a Weight: 67 lb FT = 20%
LUMBER- TOP CHORD 2x4	SP No.2	BRACING- TOP CHORD	Structural wood sheathing directly applied or 3-10-4 oc purlins,

BOT CHORD

except

2-0-0 oc purlins (3-8-11 max.): 3-5.

Rigid ceiling directly applied or 8-9-0 oc bracing.

#### P CHORD

2x4 SP No.1 BOT CHORD WEBS 2x4 SP No.3

REACTIONS. 2=0-3-0, 6=0-3-0 (size) Max Horz 2=-15(LC 6) Max Uplift 2=-198(LC 4), 6=-198(LC 5) Max Grav 2=946(LC 1), 6=947(LC 1)

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

2-3=-2161/437, 3-4=-2065/429, 4-5=-2069/429, 5-6=-2165/437 TOP CHORD

BOT CHORD 2-9=-394/2021, 8-9=-513/2547, 6-8=-389/2025

WEBS 3-9=-87/454, 4-9=-543/123, 4-8=-539/122, 5-8=-87/455

#### NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

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

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

6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.

7) 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.

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

9) "NAILED" indicates 3-10d Nails (0.148" x 3") toe-nails per NDS guidelines.

10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

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

Vert: 1-3=-60, 3-5=-60, 5-7=-60, 10-13=-20

Concentrated Loads (lb)

Vert: 3=-36(F) 5=-36(F) 9=-28(F) 4=-36(F) 8=-28(F) 18=-36(F) 19=-36(F) 22=-67(F) 23=-28(F) 24=-28(F) 25=-28(F) 26=-67(F)



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				2-0-0 2-0-0				
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0         *           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.12 BC 0.03 WB 0.00 Matrix-MP	DEFL. Vert(LL) -0 Vert(CT) -0 Horz(CT) -0	in (loc) 0.00 7 0.00 7 0.00 3	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 8 lb	<b>GRIP</b> 244/190 FT = 20%

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LUMBER-
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TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 TOP CHORD BOT CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-0, 4=Mechanical Max Horz 2=30(LC 12) Max Uplift 3=-5(LC 12), 2=-52(LC 12), 4=-4(LC 9) Max Grav 3=36(LC 1), 2=186(LC 1), 4=30(LC 3)

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

# NOTES-

 Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 1-11-14 zone; cantilever left and right exposed; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

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

4) Refer to girder(s) for truss to truss connections.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 3 and 4 lb uplift at joint 4.

6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.

7) 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.



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ŀ	8-0-0 8-0-0					16-0-0 8-0-0		<u> </u>
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	<b>CSI.</b> TC 0.72 BC 0.69 WB 0.14 Matrix-AS	DEFL.         in           Vert(LL)         0.19           Vert(CT)         -0.24           Horz(CT)         0.02	(loc) 6-12 6-12 4	l/defl >999 >809 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 57 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER-		· · ·	BRACING-					

TOP CHORD

BOT CHORD

Structural wood sheathing directly applied.

Rigid ceiling directly applied.

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JMBER-
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TOP CHORD 2x4 SP No 2 2x4 SP No.2 BOT CHORD WEBS 2x4 SP No.3

REACTIONS. 2=0-3-0, 4=0-3-0 (size) Max Horz 2=-26(LC 10) Max Uplift 2=-143(LC 12), 4=-143(LC 12) Max Grav 2=720(LC 1), 4=720(LC 1)

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

2-3=-1205/875, 3-4=-1205/875 TOP CHORD

BOT CHORD 2-6=-759/1101, 4-6=-759/1101 WEBS 3-6=-339/359

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 8-0-0, Exterior(2R) 8-0-0 to 11-0-0 , Interior(1) 11-0-0 to 17-4-0 zone; cantilever left and right exposed ; 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 DOL=1.60

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

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

5) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.

6) 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.

7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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			I	1-8-4	
	G (psf)	SPACING- 2-0-0	<b>CSI.</b>	DEFL.         in (loc)         //defl         L/d         PLATES         GRIP           Vort(L)         0.00         7         200         240         MT20         244/400	
TCDL	20.0	Lumber DOL 1.15	BC 0.03	Vert(LL) 0.00 7 >999 240 M120 244/190 Vert(CT) -0.00 7 >999 180	
BCLL	0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00 3 n/a n/a	
BCDL	10.0	Code IRC2018/TPI2014	Matrix-MP	Weight: 8 lb FT = 20%	

TOP CHORD

BOT CHORD

LUMBER-

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical

Max Horz 2=53(LC 12)

Max Uplift 3=-7(LC 12), 2=-39(LC 12)

Max Grav 3=31(LC 17), 2=179(LC 1), 4=26(LC 3)

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

# NOTES-

 Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

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

4) Refer to girder(s) for truss to truss connections.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 3.

6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.

7) 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.



Structural wood sheathing directly applied or 1-8-4 oc purlins.

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

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	ŀ		<u>1-8-4</u> 1-8-4				2	3-8-4 2-0-0		
LOADING         (psf)         SPACING-           TCLL         20.0         Plate Grip D           TCDL         10.0         Lumber DO           BCLL         0.0 *         Rep Stress           BCDL         10.0         Code IRC20	2-0-0 OL 1.15 - 1.15 Incr NO 018/TPI2014	CSI. TC BC WB Matri	0.14 0.64 0.05 x-MP	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.03 -0.06 0.04	(loc) 6 6 4	l/defl >999 >718 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 16 lb	<b>GRIP</b> 244/190 FT = 20%

# LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 WEBS 2x4 SP No.3 WEDGE 2x4 SP No.3 BRACING-TOP CHORD

 TOP CHORD
 Structural wood sheathing directly applied or 3-8-4 oc purlins, except 2-0-0 oc purlins: 3-4.

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

# Left: 2x4 SP No.3

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical Max Horz 2=54(LC 27)

Max Uplift 4=-20(LC 4), 2=-38(LC 8), 5=-2(LC 5) Max Grav 4=58(LC 1), 2=337(LC 1), 5=160(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. WEBS 3-6=-256/42

# NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 4 and 2 lb uplift at joint 5.
- 8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 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.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 145 lb down and 15 lb up at 1-8-4, and 33 lb down and 19 lb up at 1-8-4 on top chord, and 45 lb down and 5 lb up at 1-8-4, and 8 lb down and 4 lb up at 1-9-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

# LOAD CASE(S) Standard

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

Vert: 1-3=-60, 3-4=-60, 5-7=-20

#### Continued on page 2



March 24,2022



Job	Truss	Truss Type	Qty	Ply	Carolina Seasons Lot 9-Ph2 S2-3119 Elev 'A' Permit-Roof Truss
				1 1	T27214640
22020373-01	J1A	Jack-Open Girder	3	1	
				í I	Job Reference (optional)
Carter Components (Lexington	on), Lexington, NC - 2729	95,	8	.530 s Dec	5 6 2021 MiTek Industries, Inc. Tue Mar 22 22:12:06 2022 Page 2

ID:R1dAcVhN40z53bONtvnm1LzItw3-NPKUcDcnCuGWYW?6ed1pR4VA5YsWKAoMfh5qctzYFHt

LOAD CASE(S) Standard

Concentrated Loads (lb) Vert: 3=-145(F) 6=-41(F=-45, B=4)





			10-0-0
Plate Offsets (X,Y)	[2:0-1-4,Edge]		
LOADING (psf)	<b>SPACING-</b> 2-0-0	CSI.	DEFL. in (loc) I/defl L/d PLATES GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.84	Vert(LL) -0.19 5-8 >624 240 MT20 244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.69	Vert(CT) -0.42 5-8 >281 180
BCLL 0.0 *	Rep Stress Incr YES	WB 0.14	Horz(CT) 0.01 5 n/a n/a
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Weight: 40 lb FT = 20%
I UMBER-			BRACING-

TOP CHORD

BOT CHORD

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

REACTIONS. (size) 2=0-3-8, 5=Mechanical

Max Horz 2=80(LC 8) Max Uplift 2=-46(LC 8), 5=-21(LC 8)

Max Grav 2=480(LC 1), 5=389(LC 1)

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

TOP CHORD	2-3=-542/129

BOT CHORD 2-5=-179/506

WFBS 3-5=-558/242

NOTES-

1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 9-10-4 zone; cantilever left and right exposed ; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

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

Refer to girder(s) for truss to truss connections.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 5.

6) Two SBP4 MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces

7) 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.

8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.

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LOADING ( TCLL 2 TCDL 1 BCLL BCDL 1	(psf) 20.0 10.0 0.0 * 10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2018/TP	2-0-0 1.15 1.15 YES I2014	<b>CSI.</b> TC BC WB Matrix	0.15 0.11 0.05 -S	DEFL. Vert(LL) Vert(CT) Horz(CT)	in 0.00 0.01 0.00	(loc) 1 1 7	l/defl n/r n/r n/a	L/d 120 120 n/a	<b>PLATES</b> MT20 Weight: 41 lb	<b>GRIP</b> 244/190 FT = 20%	-
LUMBER- TOP CHORI BOT CHORI WEBS	D 2x4 SP N D 2x4 SP N 2x4 SP N	No.2 No.2 No.3				BRACING- TOP CHORI BOT CHORI		Structur except e Rigid ce	ral wood end vertic eiling dire	sheathing dire cals. ectly applied o	ectly applied or 6-0-0 or 10-0-0 oc bracing.	oc purlins,	

WEBS 2x4 SP No.3 OTHERS 2x4 SP No.3

**REACTIONS.** All bearings 10-0-0.

(lb) - Max Horz 2=79(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 7, 2, 8, 9, 10 Max Grav All reactions 250 lb or less at joint(s) 7, 2, 8, 9 except 10=299(LC 1)

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

#### NOTES-

 Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -1-4-0 to 1-8-0, Exterior(2N) 1-8-0 to 9-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

3) All plates are 2x4 MT20 unless otherwise indicated.

4) Gable requires continuous bottom chord bearing.

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

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

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

Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
 a) p/a

9) n/a

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



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Plate Offse	ets (X,Y)	[2:0-2-12,Edge]											
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	20.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	0.36	4-7	>252	240	MT20	244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.29	4-7	>311	180			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	2	n/a	n/a			
BCDL	10.0	Code IRC2018/TF	912014	Matrix	k-AS						Weight: 28 lb	FT = 20%	

TOP CHORD

BOT CHORD

# LUMBER-

TOP CHORD2x4 SP No.2BOT CHORD2x4 SP No.2WEBS2x4 SP No.3

**REACTIONS.** (size) 2=0-3-0, 4=0-1-8

Max Horz 2=64(LC 8) Max Uplift 2=-109(LC 8), 4=-78(LC 8) Max Grav 2=388(LC 1), 4=294(LC 1)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 7-6-4 zone; cantilever left and right exposed; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=109.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4. This connection is for uplift only and does not consider lateral forces.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.

March 24,2022





					5	-9-12 -9-12					—		
Plate Offs	ets (X,Y)	[2:0-2-12,Edge]										_	
LOADING	i (psf)	SPACING-	2-0-0	CSI.			DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.32		Vert(LL)	0.07	6-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25		Vert(CT)	-0.05	6-9	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09		Horz(CT)	-0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/T	PI2014	Matri	x-AS							Weight: 29 lb	FT = 20%

TOP CHORD

BOT CHORD

#### LUMBER-

TOP CHORD2x4 SP No.2BOT CHORD2x4 SP No.2WEBS2x4 SP No.3

**REACTIONS.** (size) 2=0-3-0, 6=0-3-8, 5=0-1-8

Max Horz 2=64(LC 8) Max Uplift 2=-81(LC 8), 6=-108(LC 8), 5=-72(LC 1) Max Grav 2=280(LC 1), 6=473(LC 1), 5=31(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. WEBS 3-6=-317/288

WEBS

 Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 7-6-4 zone; cantilever left and right exposed; end vertical left exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

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

 Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.

 One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6 and 5. This connection is for uplift only and does not consider lateral forces.

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

9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.

March 24,2022

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



			<u>7-6-4</u> 7-6-4	
Plate Offsets (X,Y)	[2:0-3-4,Edge]			
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0         *           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	<b>CSI.</b> TC 0.73 BC 0.58 WB 0.00 Matrix-AS	DEFL.         in         (loc)         l/defl         L/d           Vert(LL)         0.12         5-8         >745         240           Vert(CT)         -0.27         5-8         >329         180           Horz(CT)         0.00         2         n/a         n/a	PLATES         GRIP           MT20         244/190           Weight: 27 lb         FT = 20%

TOP CHORD

BOT CHORD

#### LUMBER-

TOP CHORD2x4 SP No.2BOT CHORD2x4 SP No.2WEBS2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 5=0-1-8 Max Horz 2=65(LC 8)

Max Horz 2=65(LC 8) Max Uplift 2=-44(LC 8), 5=-17(LC 8) Max Grav 2=382(LC 1), 5=294(LC 1)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 7-8-0 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
- 6) Two SBP4 MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.

March 24,2022





Plate Offsets (X,Y)	[2:0-3-4,Edge]			
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0         *           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.77 BC 0.61 WB 0.00 Matrix-AS	DEFL.         in         (loc)         l/defl         L/d           Vert(LL)         0.13         4-7         >704         240           Vert(CT)         -0.29         4-7         >311         180           Horz(CT)         0.00         2         n/a         n/a	PLATES         GRIP           MT20         244/190           Weight: 28 lb         FT = 20%

TOP CHORD

BOT CHORD

# LUMBER-

TOP CHORD2x4 SP No.2BOT CHORD2x4 SP No.2WEBS2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 4=0-1-8

Max Horz 2=64(LC 8) Max Uplift 2=-45(LC 8), 4=-14(LC 8) Max Grav 2=388(LC 1), 4=294(LC 1)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 7-6-4 zone; cantilever left and right exposed; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 6) Two SBP4 MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4. This connection is for uplift only and does not consider lateral forces.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.

March 24,2022





LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. i	in (loc) l/de	fl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.12	Vert(LL) 0.0	0 1 n	/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.11	Vert(CT) 0.0	0 1 n	/r 120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT) 0.0	0 6 n/	'a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P				Weight: 30 lb	FT = 20%
LUMBER-			BRACING-				
TOP CHORD 2x4 SF	No.2		TOP CHORD	Structural wo	ood sheathing dir	ectly applied or 6-0-0	oc purlins,
BOT CHORD 2x4 SF	No.2			except end v	verticals.		
WEBS 2x4 SF	' No.3		BOT CHORD	Riaid ceilina	directly applied of	or 10-0-0 oc bracing.	

# OTHERS 2x4 SP No.3

**REACTIONS.** All bearings 7-8-0.

(lb) - Max Horz 2=62(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 2, 7, 8 Max Grav All reactions 250 lb or less at joint(s) 6, 2, 7 except 8=266(LC 1)

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

#### NOTES-

 Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -1-4-0 to 1-8-0, Exterior(2N) 1-8-0 to 7-6-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60

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

3) Gable requires continuous bottom chord bearing.

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

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

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

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
 8) n/a

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.



March 24,2022





# LUMBER-

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

TOP CHORD BOT CHORD Structural wood sheathing directly applied or 3-8-4 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. 3=Mechanical, 2=0-3-8, 4=Mechanical (size)

Max Horz 2=81(LC 12) Max Uplift 3=-28(LC 12), 2=-23(LC 12)

Max Grav 3=91(LC 1), 2=240(LC 1), 4=66(LC 3)

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

# NOTES-

1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 3-7-8 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

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

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

4) Refer to girder(s) for truss to truss connections.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 3.

6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.

7) 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.



March 24,2022





0-<u>0-7</u> 0-0-7 6-0-0 5-11-9 Plate Offsets (X,Y)--[2:0-3-0,Edge] SPACING-PLATES GRIP LOADING (psf) 2-0-0 CSI. DEFL in (loc) l/defl L/d 244/190 TCLL 20.0 Plate Grip DOL 1.15 тс 0.11 Vert(LL) 999 MT20 n/a n/a TCDL 10.0 Lumber DOL 1.15 BC 0.31 Vert(CT) n/a n/a 999

Horz(CT)

BRACING-

TOP CHORD

BOT CHORD

0.00

3

n/a

n/a

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

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

 IM	RF	R-	

BCLL

BCDL

TOP CHORD2x4 SP No.2BOT CHORD2x4 SP No.2

0.0

10.0

REACTIONS. (size) 1=5-11-2, 3=5-11-2 Max Horz 1=-24(LC 10) Max Uplift 1=-1(LC 12), 3=-1(LC 12) Max Grav 1=197(LC 1), 3=197(LC 1)

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

# NOTES-

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

Rep Stress Incr

Code IRC2018/TPI2014

2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right

WB

Matrix-P

0.00

exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Gable requires continuous bottom chord bearing.

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

YES

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

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

 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. FT = 20%

Weight: 17 lb

March 24,2022



SEAL 035183



TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD

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

REACTIONS. 1=9-11-2, 3=9-11-2, 4=9-11-2 (size) Max Horz 1=-44(LC 10) Max Uplift 1=-11(LC 12), 3=-11(LC 12) Max Grav 1=169(LC 1), 3=169(LC 1), 4=376(LC 1)

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

NOTES-

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

2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 5-0-0, Exterior(2R) 5-0-0 to 8-0-0, Interior(1) 8-0-0 to 9-5-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Gable requires continuous bottom chord bearing.

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

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

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

7) 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.

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

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

March 24,2022





BOT CHORD

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

TOP CHORD2x4 SP No.2BOT CHORD2x4 SP No.2OTHERS2x4 SP No.3

REACTIONS. All bearings 13-11-2. (Ib) - Max Horz 1=64(LC 12

- Max Horz 1=64(LC 11) Max Uplift All uplift 100 lb or less at joint(s) 8, 6

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=274(LC 1), 8=311(LC 23), 6=311(LC 24)

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

#### NOTES-

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

2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 7-0-0, Exterior(2R) 7-0-0 to 10-0-0, Interior(1) 10-0-0 to 13-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Gable requires continuous bottom chord bearing.

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

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

6) n/a

7) 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.



March 24,2022







WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss system. See **MSIVTPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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818 Soundside Road Edenton, NC 27932



#### Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

TRENCO A Mi Tek Affiliate 818 Soundside Road

Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Carolina Seasons Lot 9-Ph2 S2-3119 Elev 'A' Permit-Roof Truss
					T27214653
22020373-01	T2GR	COMMON GIRDER	1	2	
				3	Job Reference (optional)
Carter Components (Lexingt	on), Lexington, NC - 2729	95,	8	.530 s Deo	6 2021 MiTek Industries, Inc. Tue Mar 22 22:12:20 2022 Page 2

ID:R1dAcVhN40z53bONtvnm1Lzltw3-y5AnY?mZvB1XEg4pSZH5?15TYBhVcMhPttUZ63zYFHf

LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-3=-60, 3-6=-60, 11-14=-20

Concentrated Loads (lb)

Vert: 9=-1232(F) 17=-1500(F) 18=-1500(F) 19=-1232(F) 20=-1232(F) 21=-1232(F) 22=-1232(F) 23=-1232(F) 24=-1610(F)





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# March 24,2022





TOP CHORD

BOT CHORD

#### LUMBER-

TOP CHORD2x4 SP No.2BOT CHORD2x4 SP No.2OTHERS2x4 SP No.3WEDGE

Left: 2x4 SP No.3 , Right: 2x4 SP No.3

REACTIONS. All bearings 21-6-0.

(Ib) - Max Horz 2=-120(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 23, 24, 25, 26, 19, 18, 17, 16, 14
 Max Grav All reactions 250 lb or less at joint(s) 2, 21, 23, 24, 25, 26, 20, 19, 18, 17, 16, 14

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

#### NOTES-

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

2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -1-4-0 to 1-8-0, Exterior(2N) 1-8-0 to 10-9-0, Corner(3R) 10-9-0 to 13-9-0, Exterior(2N) 13-9-0 to 22-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

4) All plates are 2x4 MT20 unless otherwise indicated.

5) Gable requires continuous bottom chord bearing.

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

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

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

9) n/a

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



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

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

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#### Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

# March 24,2022



Job	Truss	Truss Type	Qty	Ply	Carolina Seasons Lot 9-Ph2 S2-3119 Elev 'A' Permit-Roof Truss
					T27214656
22020373-01	H1GRA	HALF HIP GIRDER	1	1	
					Job Reference (optional)
Carter Components (Lexingt	on) Lexington NC - 272	95	8	530 s Dec	6 2021 MiTek Industries Inc. Tue Mar 22 22:11:57 2022 Page 2

ID:R1dAcVhN40z53bONtvnm1Lzltw3-8gH4k8V8K78oz7pOcEMiZBeXKwsBjxB1boPspuzYFI0

# NOTES-

- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 39 lb down and 40 lb up at 1-9-0, 64 lb down and 52 lb up at 3-8-4, 68 lb down and 49 lb up at 5-7-12, 68 lb down and 49 lb up at 9-7-12, 64 lb down and 49 lb up at 11-7-12, 64 lb down and 49 lb up at 13-7-12, 64 lb down and 49 lb up at 15-7-12, 64 lb down and 49 lb up at 13-7-12, 64 lb down and 49 lb up at 15-7-12, 64 lb down and 49 lb up at 12-7-12, 68 lb down and 49 lb up at 21-7-12, 68 lb down and 49 lb up at 22-7-12, 68 lb down and 49 lb up at 22-7-12, 68 lb down and 49 lb up at 22-7-12, 68 lb down and 49 lb up at 22-7-12, 68 lb down and 49 lb up at 22-7-12, 68 lb down and 49 lb up at 23-7-12, 68 lb down and 49 lb up at 23-7-12, 68 lb down and 49 lb up at 22-7-12, and 68 lb down and 49 lb up at 22-7-12, and 68 lb down and 49 lb up at 22-7-12, 68 lb down at 140 lb down at 22 lb up at 19-0, 26 lb down at 3-9-0, 26 lb down at 5-7-12, 26 lb down at 7-7-12, 26 lb down at 23-7-12, 26 lb down at 13-7-12, 26 lb down at 13-7-12, 26 lb down at 23-7-12, and 26 lb down at 27-7-12, and 26 lb down at 29-7-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

# LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-3=-60, 3-9=-60, 10-17=-20

Concentrated Loads (lb)

Vert: 3=-31(F) 3=-20(F) 16=-20(F) 11=-20(F) 8=-31(F) 21=-31(F) 23=-31(F) 24=-31(F) 26=-31(F) 27=-31(F) 28=-31(F) 30=-31(F) 31=-31(F) 32=-31(F) 33=-31(F) 34=-31(F) 35=-140(F) 36=-20(F) 37=-20(F) 38=-20(F) 39=-20(F) 40=-20(F) 41=-20(F) 42=-20(F) 43=-20(F) 44=-20(F) 46=-20(F) 46





<b>—</b>	5-8-4		15-8-0 9-11-12		2	5-7-12 -11-12		31-4-0		
Plate Offsets (X,Y)	[2:0-0-0,0-0-13], [3:0-4-0	,0-1-11], [7:0-4	-0,0-1-11], [8:0-0-0,0-0-1:	3], [10:0-4-0,0-3-4]						
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2018/TI	2-0-0 1.15 1.15 YES Pl2014	<b>CSI.</b> TC 0.81 BC 0.84 WB 0.40 Matrix-AS	DEFL. Vert(LL) -C Vert(CT) -C Horz(CT) C	in (loc) .23 9-10 .54 10-11 .11 8	l/defl L/d >999 240 >697 180 n/a n/a		PLATES MT20 Weight: 145 lb	<b>GRIP</b> 244/190 FT = 20%	
LUMBER- TOP CHORD 2x4 SP BOT CHORD 2x4 SP WEBS 2x4 SP WEDGE Left: 2x4 SP No.3 , Rig	No.2 No.1 No.3 ht: 2x4 SP No.3			BRACING- TOP CHORD BOT CHORD WEBS	Structo 2-0-0 c Rigid c 1 Row	ural wood sheath oc purlins (2-2-0 ceiling directly ap at midpt	ning directly a max.): 3-7. oplied. 4-11, 6-	applied, except -9		
REACTIONS. (size Max H Max U Max G	e) 8=Mechanical, 2=0-3 orz 2=65(LC 11) plift 8=-8(LC 12), 2=-43(I rav 8=1252(LC 1), 2=13	3-8 LC 12) 35(LC 1)								
FORCES.(lb) - Max.TOP CHORD2-3=-BOT CHORD2-11=WEBS3-11=	Comp./Max. Ten All fo 2073/14, 3-4=-1686/39, 4 =0/1714, 10-11=-7/2730, =0/721, 4-11=-1246/54, 4	rces 250 (lb) or 4-6=-2855/13, 6 9-10=-9/2734, 8 -10=0/328, 6-10	less except when shown 6-7=-1698/45, 7-8=-2085/ 8-9=0/1726 0=0/327, 6-9=-1241/49, 7	20 7-9=0/720						
NOTES- 1) Unbalanced roof live 2) Wind: ASCE 7-16; V II; Exp B; Enclosed; , Interior(1) 9-11-3 to ; end vertical left and DOL=1.60 3) Provide adequate dr 4) This truss has been will fit between the b 6) Refer to girder(s) for 7) Provide mechanical 8) One RT7A MiTek co only and does not co 9) This truss is designer referenced standard 10) This truss design re sheetrock be applie 11) Graphical purlin rep	e loads have been consid ult=120mph (3-second g MWFRS (directional) and 25-7-12, Exterior(2R) 25 d right exposed;C-C for m ainage to prevent water p designed for a 10.0 psf b n designed for a live load ottom chord and any other truss to truss connection connection (by others) of nnectors recommended innaccordance with the ANSI/TPI 1. equires that a minimum of the directly to the bottom of presentation does not dep	ered for this de ust) Vasd=95m d C-C Exterior(2 5-7-12 to 29-10 nembers and for conding. Nottom chord live of 20.0psf on t er members. is. i truss to bearin to connect truss 2018 Internation of 7/16" structura chord. pict the size or	sign. ph; TCDL=6.0psf; BCDL= 2E) -1-4-0 to 1-8-0, Interio -11, Interior(1) 29-10-11 t rcces & MWFRS for reacti- e load nonconcurrent with he bottom chord in all are g plate capable of withsta s to bearing walls due to to onal Residential Code sec al wood sheathing be app the orientation of the purl	=6.0psf; h=25ft; B=45 or(1) 1-8-0 to 5-8-4, E to 31-4-0 zone; cantile ons shown; Lumber D h any other live loads eas where a rectangle anding 8 lb uplift at joi UPLIFT at jt(s) 2. This ctions R502.11.1 and blied directly to the top in along the top and/o	ft; L=24ft; e xterior(2R) yer left and OL=1.60 p 3-6-0 tall b at 8. connection R802.10.2 o chord and r bottom ch	eave=4ft; Cat. 5-8-4 to 9-11-3 d right exposed late grip by 2-0-0 wide n is for uplift and 1 1/2" gypsum hord.	and a state of the	SE 035	AR AR AL 183 NEER.	

# March 24,2022





L	7-8-4	15-8-0		23-7-12	31-4-0					
I	7-8-4	7-11-12		7-11-12	7-8-4	1				
Plate Offsets (X,Y)	[2:0-0-15,0-1-8], [3:0-4-0,0-1-11], [5:0-4	-0,0-1-11], [6:0-0-15,0-1-8	8], [8:0-4-0,0-3-0]							
LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	<b>CSI.</b> TC 0.73 BC 0.68 WB 0.34 Matrix-AS	DEFL. in Vert(LL) -0.12 Vert(CT) -0.28 Horz(CT) 0.08	(loc) l/defl L/d 8-9 >999 240 8-9 >999 180 6 n/a n/a	PLATES MT20 Weight: 147 lb	<b>GRIP</b> 244/190 FT = 20%				
LUMBER- TOP CHORD 2x4 SP 3-5: 2x BOT CHORD 2x4 SP WEBS 2x4 SP WEDGE Left: 2x4 SP No.3 , Rig	P No.2 *Except* 4 SP No.1 P No.2 P No.3 ht: 2x4 SP No.3		BRACING- TOP CHORD BOT CHORD	Structural wood sheathin 2-0-0 oc purlins (3-1-4 n Rigid ceiling directly app	ng directly applied, except nax.): 3-5. blied.					
REACTIONS. (siz Max H Max U Max G	e) 6=Mechanical, 2=0-3-8 orz 2=85(LC 11) plift 6=-8(LC 12), 2=-43(LC 12) rav 6=1252(LC 1), 2=1335(LC 1)									
FORCES.         (lb) - Max.           TOP CHORD         2-3=-           BOT CHORD         2-9=-           WEBS         3-9=-	Comp./Max. Ten All forces 250 (lb) or 1989/37, 3-4=-2231/68, 4-5=-2231/68, 5 )/1621, 8-9=0/1616, 7-8=0/1624, 6-7=0/ )/310, 3-8=-2/811, 4-8=-559/102, 5-8=0/	less except when shown. 5-6=-1996/41 1629 807, 5-7=0/312								
<ul> <li>BOT CHORD 2-9=0/1621, 8-9=0/1616, 7-8=0/1624, 6-7=0/1629</li> <li>WEBS 3-9=0/310, 3-8=-2/811, 4-8=-559/102, 5-8=0/807, 5-7=0/312</li> <li><b>NOTES-</b> <ol> <li>Unbalanced roof live loads have been considered for this design.</li> <li>Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat.</li> <li>II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 7-8-4, Exterior(2R) 7-8-4 to 11-11-3, Interior(1) 11-11-3 to 23-7-12, Exterior(2R) 23-7-12 to 27-10-11, Interior(1) 27-10-11 to 31-4-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces &amp; MWFRS for reactions shown; Lumber DOL=1.60</li> <li>Provide adequate drainage to prevent water ponding.</li> <li>This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.</li> <li>Refer to girder(s) for truss to truss connections.</li> <li>Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 6.</li> <li>One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.</li> <li>This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TP1 1.</li> <li>This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.</li> </ol> </li> <li>If caphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.</li> </ul>										

March 24,2022

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TENGINEERING BY A MITEK Affiliate 818 Soundside Road Edenton, NC 27932



	0-0-1 -1	1-10	7-11-0		11-15	0-0-1	
Plate Offsets (X,Y) [2	2:0-0-0,0-0-13], [4:0-4-0,0-1-11], [5:0-4	0,0-1-11], [7:0-0-0,0-0-13]					
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	<b>CSI.</b> TC 0.80 BC 0.79 WB 0.31 Matrix-AS	DEFL.         in           Vert(LL)         -0.20           Vert(CT)         -0.38           Horz(CT)         0.08	(loc) l/defl 9-11 >999 9-11 >999 7 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 168 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER-           TOP CHORD         2x4 SP N           4-5: 2x4 3P           BOT CHORD         2x4 SP N           WEBS         2x4 SP N           WEDGE         Left: 2x4 SP N∪.3 , Right	No.2 *Except* SP No.1 No.2 Jo.3 *Except* SP No.2 : 2x4 SP No.3		BRACING- TOP CHORD BOT CHORD WEBS	Structural wood 2-0-0 oc purlins Rigid ceiling dire 1 Row at midpt	sheathing direc (3-2-6 max.): 4- ctly applied. 4-9	tly applied, except 5.	
REACTIONS. (size) Max Hor Max Upli Max Gra	7=Mechanical, 2=0-3-8 z 2=125(LC 11) ift 7=-8(LC 12), 2=-43(LC 12) w 7=1395(LC 18), 2=1477(LC 17)						
FORCES.         (lb) - Max. Co           TOP CHORD         2-3=-21           BOT CHORD         2-12=0,           WEBS         3-11=-3	omp./Max. Ten All forces 250 (lb) or 183/43, 3-4=-1811/81, 4-5=-1511/93, 5 /1879, 11-12=0/1879, 9-11=0/1564, 8- 399/58, 4-11=0/564, 5-9=0/515, 6-9=-4	less except when shown. -6=-1797/83, 6-7=-2179/48 9=0/1791, 7-8=0/1791 .14/65					
NOTES- 1) Unbalanced roof live lo 2) Wind: ASCE 7-16; Vul II; Exp B; Enclosed; M 15-11-3, Interior(1) 15- exposed; end vertical grip DOL=1.60 3) Provide adequate draii 4) This truss has been de 5) * This truss has been de will fit between the bot 6) Refer to girder(s) for tr 7) Provide mechanical cc 8) One RT7A MiTek comr only and does not com 9) This truss is designed referenced standard A 10) This truss design req sheetrock be applied 11) Graphical purlin repr	bads have been considered for this de It=120mph (3-second gust) Vasd=95m WFRS (directional) and C-C Exterior(2 -11-3 to 19-7-12, Exterior(2R) 19-7-12 left and right exposed;C-C for membe nage to prevent water ponding. asigned for a 10.0 psf bottom chord livit designed for a 10.0 psf bottom chord livit designed for a 10.0 psf bottom chord livit tom chord and any other members, wit russ to truss connections. bonnection (by others) of truss to bearin nectors recommended to connect truss sider lateral forces. in accordance with the 2018 Internation INSI/TPI 1. quires that a minimum of 7/16" structural directly to the bottom chord. esentation does not depict the size or the size of the size or the size or the size or the size of the size or the size or the size or the size or the size of the size or the size of the size or the si	sign. ph; TCDL=6.0psf; BCDL=6.0p E) -1-4-0 to 1-8-0, Interior(1) to 23-10-11, Interior(1) 23-10- rs and forces & MWFRS for re a load nonconcurrent with any he bottom chord in all areas w th BCDL = 10.0psf. g plate capable of withstandin s to bearing walls due to UPLII anal Residential Code sections al wood sheathing be applied of the orientation of the purlin alc	sf; h=25ft; B=45ft; L 1-8-0 to 11-8-4, Exte .11 to 31-4-0 zone; c eactions shown; Lurr other live loads. here a rectangle 3-6 g 8 lb uplift at joint 7 =T at jt(s) 2. This co s R502.11.1 and R80 directly to the top ch ng the top and/or bo	=24ft; eave=4ft; C rrior(2R) 11-8-4 tc cantilever left and liber DOL=1.60 pl 6-0 tall by 2-0-0 wi nnection is for upl 02.10.2 and ord and 1/2" gyps	at. right ate de ift	SE 035	AL NEER.

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1	6-8-7	13-8-4	17-7-12	24-7-9	31-4-0	1				
Г	6-8-7	6-11-13	3-11-8	6-11-13	6-8-7	1				
Plate Offsets (X,Y)	Plate Offsets (X,Y) [2:0-0-0,0-0-13], [3:0-2-12,0-3-0], [4:0-4-0,0-1-11], [5:0-4-0,0-1-11], [6:0-2-12,0-3-0], [7:0-0-0,0-0-13]									

LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL         20.0           TCDL         10.0	Plate Grip DOL 1.15 Lumber DOL 1.15	TC 0.55 BC 0.78	Vert(LL) -0.29 11-12 >999 240 Vert(CT) -0.41 11-12 >923 180	MT20 244/190
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Horz(C1) 0.09 7 n/a n/a	Weight: 162 lb FT = 20%
LUMBER- TOP CHORD 2x4 SP	No.2		BRACING- TOP CHORD Structural wood sheathing dire	ectly applied, except

BOT CHORD

2-0-0 oc purlins (4-10-15 max.): 4-5.

Rigid ceiling directly applied.

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

Left: 2x4 SP No.3 , Right: 2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 7=Mechanical

Max Horz 2=144(LC 11) Max Uplift 2=-43(LC 12), 7=-8(LC 12) Max Grav 2=1475(LC 17), 7=1402(LC 18)

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

2-3=-2217/40, 3-4=-1651/93, 4-5=-1344/107, 5-6=-1651/93, 6-7=-2227/45

- BOT CHORD 2-12=0/1926, 11-12=0/1914, 9-11=0/1388, 8-9=0/1823, 7-8=0/1836
- WEBS 3-12=0/268, 3-11=-615/72, 4-11=0/518, 5-9=0/521, 6-9=-626/78, 6-8=0/270

# NOTES-

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

- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 13-8-4, Exterior(2E) 13-8-4 to 17-7-12, Exterior(2R) 17-7-12 to 21-10-11, Interior(1) 21-10-11 to 31-4-0 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

\* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide 5) will fit between the bottom chord and any other members, with BCDL = 10.0psf.

- Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 7.
- 8) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 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.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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- 7) 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.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss system. See MSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601 March 24,2022





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WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANS/TPT (Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

# A MiTek Affiliate

818 Soundside Road Edenton, NC 27932



L	6-8-7	13-8-4	17-7-12	24-7-9		31-4-0	
I	6-8-7	6-11-13	3-11-8	6-11-13	1	6-8-7	I
Plate Offsets (X,Y)	[2:0-0-0,0-0-13], [3:0-2-12,0	-3-0], [4:0-4-0,0-1-11], [5:0-4-0	),0-1-11], [6:0-2-12,0-3-0]	, [7:0-0-0,0-0-13]			
LOADING (psf) TCLL 20.0	SPACING- 2 Plate Grip DOL	2-0-0 <b>CSI.</b> 1.15 TC 0.55	DEFL. Vert(LL)	in (loc) l/defl -0.29 12-13 >999	L/d 240	PLATES MT20	<b>GRIP</b> 244/190
TCDL 10.0 BCLL 0.0 *	Lumber DOL Rep Stress Incr	1.15 BC 0.77 YES WB 0.74	Vert(CT) Horz(CT)	-0.41 12-13 >922 0.09 7 n/a	180 n/a		
BCDL 10.0	Code IRC2018/TPI2	014 Matrix-AS				Weight: 164 lb	FT = 20%
	PNo 2		BRACING-	D Structural way	d choothing di	ractly applied avent	

BOT CHORD

2-0-0 oc purlins (4-11-0 max.): 4-5.

Rigid ceiling directly applied.

TOP CHORD2x4 SP No.2BOT CHORD2x4 SP No.2WEBS2x4 SP No.3WEDGE

Left: 2x4 SP No.3 , Right: 2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 7=0-3-8 Max Horz 2=148(LC 11)

Max Uplift 2=-42(LC 12), 7=-42(LC 12) Max Grav 2=1474(LC 17), 7=1474(LC 18)

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

- TOP CHORD 2-3=-2215/39, 3-4=-1648/91, 4-5=-1342/106, 5-6=-1648/91, 6-7=-2215/39
- BOT CHORD 2-13=0/1932, 12-13=0/1920, 10-12=0/1393, 9-10=0/1809, 7-9=0/1821
- WEBS 3-13=0/268, 3-12=-616/72, 4-12=0/517, 5-10=0/517, 6-10=-616/72, 6-9=0/268

# NOTES-

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

- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-4-0 to 1-8-0, Interior(1) 1-8-0 to 13-8-4, Exterior(2E) 13-8-4 to 17-7-12, Exterior(2R) 17-7-12 to 21-10-11, Interior(1) 21-10-11 to 32-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 7. This connection is for uplift only and does not consider lateral forces.

7) 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.

8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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



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L	6-8-7	11-8-4		19-7-12		1	24-7-9		31-4-0	
	6-8-7	4-11-13	3	7-11-8		1	4-11-1	3	6-8-7	
Plate Uffsets (X,Y) [2:0-0-0,0-0-13], [4:0-4-0,0-1-11], [5:0-4-0,0-1-11], [7:0-0-0,0-0-13]										
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0         *           BCDL         10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2018/TP	2-0-0 1.15 1.15 YES I2014	<b>CSI.</b> TC 0.80 BC 0.79 WB 0.31 Matrix-AS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.20 -0.38 0.08	(loc) 10-12 10-12 7	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 170 lb	<b>GRIP</b> 244/190 FT = 20%
BUMBER-       BRACING-         TOP CHORD       2x4 SP No.2 *Except*       TOP CHORD       Structural wood sheathing directly applied, except         BOT CHORD       2x4 SP No.2 *Except*       BOT CHORD       BOT CHORD       Rigid ceiling directly applied.         WEBS       2x4 SP No.3 *Except*       WEBS       1 Row at midpt       4-10         WEDGE       Left: 2x4 SP No.3 , Right: 2x4 SP No.3       REACTIONS.       (size)       2e-0-38, 7=0-3-8         Max Horz       2=-128(LC 10)       Max Horz       2=-128(LC 12), 7=-42(LC 12), Max Grav       2it SP Site Site Site Site Site Site Site Site										
FORCES.         (lb) - Max.           TOP CHORD         2-3=           BOT CHORD         2-13:           WEBS         3-12:	FORCES. (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown.         TOP CHORD       2-3=-2181/41, 3-4=-1809/80, 4-5=-1507/91, 5-6=-1791/80, 6-7=-2167/41         BOT CHORD       2-13=0/1884, 12-13=0/1884, 10-12=0/1570, 9-10=0/1776, 7-9=0/1776         WEBS       3-12=-399/59, 4-12=0/564, 5-10=0/512, 6-10=-403/59									
NOTES- 1) Unbalanced roof live 2) Wind: ASCE 7-16; M II; Exp B; Enclosed; 15-11-3, Interior(1) exposed ; end vertic grip DOL=1.60 3) Provide adequate d 4) This truss has been 5) * This truss has been will fit between the t 6) One RT7A MiTek cc	e loads have been conside /ult=120mph (3-second gu MWFRS (directional) and 15-11-3 to 19-7-12, Exteric cal left and right exposed;C rainage to prevent water p designed for a 10.0 psf bc en designed for a live load bottom chord and any othe onnectors recommended to	red for this desig st) Vasd=95mpt C-C Exterior(2E vr(2R) 19-7-12 to -C for members onding. totom chord live I of 20.0psf on the r members, with o connect truss t	gn. h; TCDL=6.0psf; B ) -1-4-0 to 1-8-0, I 23-10-11, Interio and forces & MW load nonconcurrer bottom chord in a BCDL = 10.0psf. o bearing walls du	CDL=6.0psf; h=25ft; B nterior(1) 1-8-0 to 11-6 r(1) 23-10-11 to 32-8-0 FRS for reactions show ht with any other live lo all areas where a recta the to UPLIFT at jt(s) 2 a	=45ft; L= -4, Exte zone; c wn; Lum ads. ngle 3-6 and 7. T	=24ft; ea rior(2R) antileve ber DOL -0 tall by his conn	ve=4ft; C 11-8-4 to r left and _=1.60 pla v 2-0-0 wid ection is f	at. right te de or		AR

uplift only and does not consider lateral forces. 7) 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.

8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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



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L	9-8-4	15-8-0	21	-7-12	1		31-4-0	
	9-8-4	5-11-12	5-	1-12	1		9-8-4	1
Plate Offsets (X,Y)	[2:0-0-0,0-1-1], [4:0-4-0,0-1-11], [6:0-4-0	<u>),0-1-11], [8:0-0-0,0-1-1],</u>	[11:0-4-0,0-3-0]					
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.49 BC 0.82 WB 0.28 Matrix-AS	DEFL. Vert(LL) -C Vert(CT) -C Horz(CT) C	in (loc) .16 12-15 .34 12-15 .08 8	l/defl >999 >999 n/a	L/d 240 180 n/a	<b>PLATES</b> MT20 Weight: 167 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER- TOP CHORD 2x4 SP BOT CHORD 2x4 SP WEBS 2x4 SP WEDGE Left: 2x4 SP No.3 , Rig	No.2 No.2 No.3 ht: 2x4 SP No.3		BRACING- TOP CHORD BOT CHORD	Structo 2-0-0 d Rigid d	ural wood oc purlins ceiling dire	sheathing dire (4-0-4 max.): ctly applied.	ectly applied, except 4-6.	
REACTIONS. (size Max H Max U Max G	e) 2=0-3-8, 8=0-3-8 orz 2=-108(LC 10) plift 2=-42(LC 12), 8=-42(LC 12) rav 2=1333(LC 1), 8=1333(LC 1)							
FORCES.         (lb) - Max.           TOP CHORD         2-3=-           BOT CHORD         2-12=           WEBS         4-12=	Comp./Max. Ten All forces 250 (lb) or 1977/59, 3-4=-1748/59, 4-5=-1738/84, 5 =0/1624, 11-12=0/1465, 10-11=0/1465, 8 =0/390, 4-11=-20/463, 5-11=-426/83, 6-1	less except when shown 5-6=-1738/84, 6-7=-1748/ 3-10=0/1624 11=-20/463, 6-10=0/390	n. /59, 7-8=-1977/59					
<ul> <li>NOTES-</li> <li>1) Unbalanced roof live</li> <li>2) Wind: ASCE 7-16; V II; Exp B; Enclosed; 13-11-3, Interior(1) 1</li> <li>exposed; end vertic grip DOL=1.60</li> <li>3) Provide adequate dr</li> <li>4) This truss has been</li> <li>5) * This truss has been will fit between the b</li> <li>6) One RT7A MiTek cc uplift only and does</li> <li>7) This truss is designer referenced standard</li> <li>8) This truss design referenced be applied</li> <li>9) Graphical purlin repr</li> </ul>	e loads have been considered for this de fult=120mph (3-second gust) Vasd=95m MWFRS (directional) and C-C Exterior( (3-11-3 to 21-7-12, Exterior(2R) 21-7-12 al left and right exposed;C-C for member ainage to prevent water ponding. designed for a 10.0 psf bottom chord liv n designed for a live load of 20.0psf on t ottom chord and any other members. nonectors recommended to connect trust not consider lateral forces. ed in accordance with the 2018 Internatio ANSI/TPI 1. quires that a minimum of 7/16" structural d directly to the bottom chord. resentation does not depict the size or th	sign. ph; TCDL=6.0psf; BCDL 2E) -1-4-0 to 1-8-0, Interior to 25-7-6, Interior(1) 25- prs and forces & MWFRS e load nonconcurrent with the bottom chord in all are s to bearing walls due to bonal Residential Code se- l wood sheathing be appl the orientation of the purlin	=6.0psf; h=25ft; B=45 or(1) 1-8-0 to 9-8-4, E 7-6 to 32-8-0 zone; ca for reactions shown; h any other live loads eas where a rectangle UPLIFT at jt(s) 2 and ctions R502.11.1 and ied directly to the top h along the top and/or	ft; L=24ft; e xterior(2R) ntilever left Lumber DC 3-6-0 tall b 8. This con R802.10.2 chord and <sup>2</sup> bottom cho	eave=4ft; C 9-8-4 to and right DL=1.60 pl by 2-0-0 w nection is and 1/2" gypsu ord.	cat. ate de for m	SI OSS	CARO EAL 5183

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	7-8-4	<u>15-8-0</u> 7-11-12		23-7-12		31-4-0			
Plate Offsets (X,Y)	[2:0-0-15,0-1-8], [3:0-4-0,0-1-11], [5:0-4	-0,0-1-11], [6:0-0-15,0-1-8	3], [9:0-4-0,0-3-0]	7 11 12		104			
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	CSI. TC 0.73 BC 0.68 WB 0.33 Matrix-AS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) 0.12 9-10 : 0.28 9-10 : 0.08 6	l/defl L/d >999 240 >999 180 n/a n/a	<b>PLATES</b> MT20 Weight: 149 lb	<b>GRIP</b> 244/190 FT = 20%		
LUMBER- TOP CHORD 2x4 SP 3-5: 2x BOT CHORD 2x4 SP WEBS 2x4 SP WEDGE Left: 2x4 SP No.3 , Rig	No.2 *Except* 4 SP No.1 No.2 No.3 nt: 2x4 SP No.3		BRACING- TOP CHORD BOT CHORD	Structura 2-0-0 oc Rigid ceil	Il wood sheathing dire purlins (3-1-7 max.): : ling directly applied.	ectly applied, except 3-5.			
REACTIONS. (Size Max H Max U Max G	e) 2=0-3-8, 6=0-3-8 prz 2=-88(LC 10) plift 2=-42(LC 12), 6=-42(LC 12) rav 2=1333(LC 1), 6=1333(LC 1)								
FORCES.         (lb) - Max.           TOP CHORD         2-3=-           BOT CHORD         2-10=           WEBS         3-10=	FORCES. (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown.         TOP CHORD       2-3=-1985/36, 3-4=-2226/66, 4-5=-2226/66, 5-6=-1985/36         BOT CHORD       2-10=0/1618, 9-10=0/1613, 8-9=0/1613, 6-8=0/1618         WEBS       3-10=0/310, 3-9=-0/809, 4-9=-559/103, 5-9=-0/809, 5-8=0/310								
<ul> <li>Verbal and the provided of the provid</li></ul>									

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	5-8-4	<u>15-8-0</u> 9-11-12				25-	7-12		31-4-0	
Plate Offsets (X,Y) [2:0-0-0,0-0-13], [3:0-4-0,0-1-11], [7:0-4-0,0-1-11], [8:0-0-0,0-0-13], [11:0-4-0						01	1 12		0.0.4	
LOADING         (psf)           TCLL         20.0           TCDL         10.0           BCLL         0.0           BCDL         10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2018/TPl2	2-0-0 <b>CSI.</b> 1.15 TC 1.15 BC YES WB 2014 Matrix	0.80 0.84 0.40 <-AS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.23 -0.54 0.11	(loc) 10-11 10-11 8	l/defl >999 >697 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 147 lb	<b>GRIP</b> 244/190 FT = 20%
LUMBER- TOP CHORD 2x4 SF BOT CHORD 2x4 SF WEBS 2x4 SF WEDGE Left: 2x4 SP No.3 , Rig	2 No.2 2 No.1 2 No.3 ht: 2x4 SP No.3			BRACING- TOP CHOR BOT CHOR WEBS	D D	Structu 2-0-0 o Rigid co 1 Row a	ral wood s c purlins ( eiling dire at midpt	sheathing d 2-2-0 max. ctly applied	lirectly applied, except ): 3-7. 4-12, 6-10	
REACTIONS. (siz Max H Max U Max G	REACTIONS. (size) 2=0-3-8, 8=0-3-8 Max Horz 2=-68(LC 10) Max Uplift 2=-42(LC 12), 8=-42(LC 12) Max Grav 2=1333(LC 1), 8=1333(LC 1)									
FORCES.         (lb) - Max.           TOP CHORD         2-3=           BOT CHORD         2-12           WEBS         3-12	Comp./Max. Ten All force 2070/12, 3-4=-1683/37, 4-6 =0/1711, 11-12=0/2724, 10- =0/719, 4-12=-1243/52, 4-1	es 250 (lb) or less except 5=-2848/10, 6-7=-1683/37 11=0/2724, 8-10=0/1711 1=0/328, 6-11=0/328, 6-1	when shown. 7, 7-8=-2070/0 0=-1243/52, 7- <sup>2</sup>	10=0/719						
<ul> <li>NOTES-</li> <li>1) Unbalanced roof live loads have been considered for this design.</li> <li>2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) 1-4-0 to 1-8-0, Interior(1) 1-8-0 to 5-8-4, Exterior(2R) 5-8-4 to 9-11-3, Interior(1) 9-11-3 to 25-7-12, Exterior(2R) 5-7-12, Exterior(2R) 2-7-12 to 29-10-11, Interior(1) 29-10-11 to 32-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces &amp; MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60</li> <li>3) Provide adequate drainage to prevent water ponding.</li> <li>4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.</li> <li>5) * This truss has been designed for a 10.0 psf bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.</li> <li>6) One RT7A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 8. This connection is for upilit only and does not consider lateral forces.</li> <li>7) This truss design requires that a minimum of 7/16° structural wood sheathing be applied directly to the top chord and 1/2° gypsum sheetrock be applied directly to the bottom chord.</li> <li>9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.</li> </ul>										







Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see <u>ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component</u> **Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

# March 24,2022



Job	Truss	Truss Type	Qty	Ply	Carolina Seasons Lot 9-Ph2 S2-3119 Elev 'A' Permit-Roof Truss
					T27214671
22020373-01	H1GR	Hip Girder	1	1	
					Job Reference (optional)
Carter Components (Lexington) Lexington NC - 27295				530 s Dec	6 2021 MiTek Industries Inc. Tue Mar 22 22:11:56 2022 Page 2

ID:R1dAcVhN40z53bONtvnm1LzItw3-fTjiWoUWZp0xL\_EB2WrT1z5KiWWk\_U6tM8gJHSzYFI1

#### NOTES-

9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 39 lb down and 40 lb up at 1-9-0, 64 lb down and 52 lb up at 3-8-4, 68 lb down and 49 lb up at 5-7-0, 68 lb down and 49 lb up at 7-7-0, 68 lb down and 49 lb up at 9-7-0, 64 lb down and 49 lb up at 11-7-0, 64 lb down and 49 lb up at 13-7-0, 64 lb down and 49 lb up at 15-7-0, 64 lb down and 49 lb up at 15-7-0, 68 lb down and 49 lb up at 17-7-0, 68 lb down and 49 lb up at 12-7-0, 68 lb down and 49 lb up at 12-7-0, 68 lb down and 49 lb up at 13-7-0, 64 lb down and 49 lb up at 13-7-0, 64 lb down and 49 lb up at 15-7-0, 68 lb down and 49 lb up at 13-7-0, 64 lb down and 49 lb up at 13-7-0, 64 lb down and 49 lb up at 13-7-0, 68 lb down and 49 lb up at 23-7-0, and 68 lb down and 49 lb up at 12-7-0, 68 lb down and 52 lb up at 22-7-12 on top chord, and 140 lb down and 22 lb up at 1-9-0, 26 lb down at 3-9-0, 26 lb down at 3-9-0, 26 lb down at 11-7-0, 26 lb down at 13-7-0, 26 lb down at 23-7-0, 26 lb down

10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

# LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-3=-60, 3-8=-60, 8-10=-60, 16-19=-20

Concentrated Loads (lb)

Vert: 3=-31(B) 5=-31(B) 8=-31(B) 15=-20(B) 14=-20(B) 4=-31(B) 13=-20(B) 6=-31(B) 7=-31(B) 12=-20(B) 11=-20(B) 23=-31(B) 24=-31(B) 26=-31(B) 27=-31(B) 28=-31(B) 30=-31(B) 31=-31(B) 32=-140(B) 33=-20(B) 34=-20(B) 35=-20(B) 35=-2



