

RE: J0322-1508

Cates\Lot 739 Lexington Plantation

Trenco 818 Soundside Rd Edenton, NC 27932

**Site Information:** 

Customer: Project Name: J0322-1508

Lot/Block: Model: Address: Subdivision: City: State:

### General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special **Loading Conditions):**

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.4

Wind Code: ASCE 7-10 Wind Speed: 130 mph Floor Load: N/A psf Roof Load: 40.0 psf

This package includes 15 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	150319666	A1	2/19/2022
2	150319667	A2	2/19/2022
3	150319668	B1	2/19/2022
4	150319669	B2	2/19/2022
5	150319670	B3	2/19/2022
6	I50319671	C1	2/19/2022
7	150319672	C2	2/19/2022
8	150319673	M1	2/19/2022
9	150319674	M2	2/19/2022
10	150319675	P1	2/19/2022
11	150319676	P2	2/19/2022
12	150319677	V1	2/19/2022
13	150319678	V2	2/19/2022
14	150319679	V3	2/19/2022
15	150319680	V4	2/19/2022

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision

based on the parameters provided by Comtech, Inc - Fayetteville.

Truss Design Engineer's Name: Johnson, Andrew

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

North Carolina COA: C-0844

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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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 Cates\Lot 739 Lexington Plantation 150319666 J0322-1508 ATTIC A1 Job Reference (optional) Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Feb 18 09:46:35 2022 Page 1 Comtech, Inc. ID:eo\_4ms57ZKhslxK1ijvAQdyiOuh-YAr0s6pjtwRJuvzW5M56cvZx5dzBTDausIU420zjxcY 10-8-12 13-4-9 2-7-13 17-11-8 22-6-7 30-3-8 35-11-0 25-2-4 4-6-15

2-7-13

4-6-15

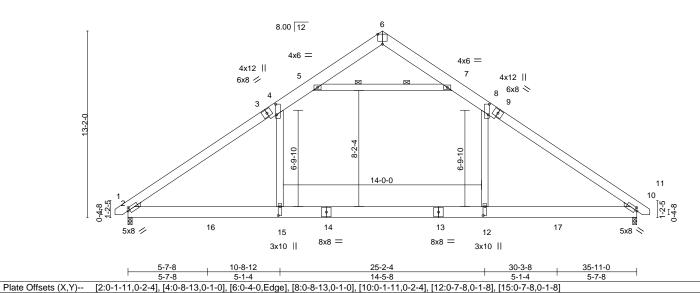
Scale = 1:81.3 6x8 =

Structural wood sheathing directly applied or 4-0-13 oc purlins.

5-7

Rigid ceiling directly applied or 2-2-0 oc bracing.

2 Rows at 1/3 pts



LOADING (psf) SPACING-2-0-0 CSI. DEFL. I/defI **PLATES** GRIP **TCLL** 20.0 Plate Grip DOL 1.15 TC 0.72 Vert(LL) -0.31 12-15 >999 360 MT20 244/190 TCDL 10.0 Lumber DOL 1.15 BC 0.99 Vert(CT) -0.51 12-15 >842 240 WB **BCLL** 0.0 Rep Stress Incr YES 0.64 Horz(CT) 0.05 10 n/a n/a BCDL 10.0 Code IRC2015/TPI2014 Matrix-S Wind(LL) 0.24 2-15 >999 240 Weight: 355 lb FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

WFBS

LUMBER-

TOP CHORD 2x10 SP No.1 \*Except\* 1-3.9-11: 2x8 SP No.1

**BOT CHORD** 2x10 SP No.1 **WEBS** 2x6 SP No.1

WEDGE

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

REACTIONS. (size) 2=0-3-8, 10=0-3-8

Max Horz 2=-369(LC 8) Max Uplift 2=-48(LC 12), 10=-48(LC 13)

Max Grav 2=2319(LC 20), 10=2319(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-4=-3537/83, 4-5=-2510/264, 5-6=-11/443, 6-7=-12/443, 7-8=-2509/264,

8-10=-3537/83

**BOT CHORD** 2-15=0/2748, 12-15=0/2748, 10-12=0/2748 **WEBS** 5-7=-3110/339, 4-15=0/1306, 8-12=0/1306

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-7-5 to 3-9-7, Exterior(2) 3-9-7 to 18-0-0, Corner(3) 18-0-0 to 22-4-13, Exterior(2) 22-4-13 to 36-7-5 zone;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, with BCDL = 10.0psf.
- 5) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).4-15, 8-12
- 6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-15
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
- 8) Attic room checked for L/360 deflection.



February 19,2022

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 chorembers 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, rerection and bracing of trusses and truss systems, see

ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job Truss Truss Type Qty Ply Cates\Lot 739 Lexington Plantation 150319667 J0322-1508 A2 ATTIC Job Reference (optional) Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Feb 18 09:46:36 2022 Page 1 Comtech, Inc. ID:eo\_4ms57ZKhslxK1ijvAQdyiOuh-0MOO4RqLeEZAW3Yjf4cL8757o1JQCgq15yDeaSzjxcX 10-8-12 13-4-9 2-7-13 17-11-8 22-6-7 25-2-4 30-3-8 35-11-0

4-6-15

4-6-15 2-7-13

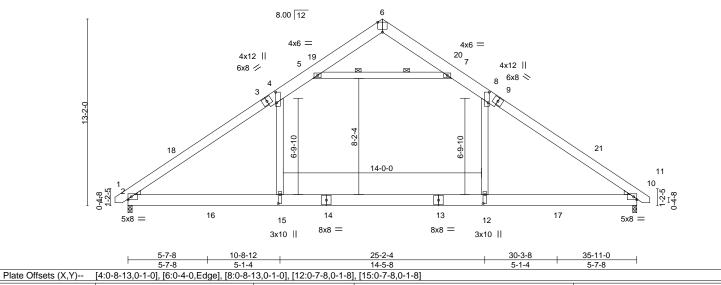
Scale = 1:81.3 6x8 =

Structural wood sheathing directly applied or 4-2-12 oc purlins.

5-7

Rigid ceiling directly applied or 2-2-0 oc bracing.

2 Rows at 1/3 pts



LOADING (psf) SPACING-2-0-0 CSI. DEFL. (loc) I/defI L/d **PLATES** GRIP **TCLL** 20.0 Plate Grip DOL 1.15 TC 0.66 Vert(LL) -0.31 12-15 >999 360 MT20 244/190 TCDL 10.0 Lumber DOL 1.15 BC 0.99 Vert(CT) -0.51 12-15 >842 240 WB **BCLL** 0.0 Rep Stress Incr YES 0.64 Horz(CT) 0.05 10 n/a n/a BCDL 10.0 Code IRC2015/TPI2014 Matrix-S Wind(LL) 0.19 2-15 >999 240 Weight: 355 lb FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

WFBS

LUMBER-TOP CHORD

2x10 SP No.1 \*Except\* 1-3.9-11: 2x8 SP No.1

**BOT CHORD** 2x10 SP No.1 **WEBS** 2x6 SP No.1

WEDGE

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

REACTIONS.

(size) 2=0-3-8, 10=0-3-8

Max Horz 2=-295(LC 8)

Max Grav 2=2317(LC 20), 10=2317(LC 21)

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

 $2\text{-}4\text{--}3529/0,\ 4\text{-}5\text{--}2514/137,\ 5\text{-}6\text{--}0/443,\ 6\text{-}7\text{--}0/443,\ 7\text{-}8\text{--}2513/137,\ 8\text{-}10\text{--}3529/0}$ TOP CHORD

**BOT CHORD** 2-15=0/2729, 12-15=0/2729, 10-12=0/2729 WEBS 5-7=-3126/145, 4-15=0/1306, 8-12=0/1306

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-7-5 to 3-9-7, Interior(1) 3-9-7 to 18-0-0, Exterior(2) 18-0-0 to 22-4-13, Interior(1) 22-4-13 to 36-7-5 zone; 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, with BCDL = 10.0psf.
- 5) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).4-15, 8-12
- 6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-15 7) Attic room checked for L/360 deflection.



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 chorembers 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, rerection and bracing of trusses and truss systems, see

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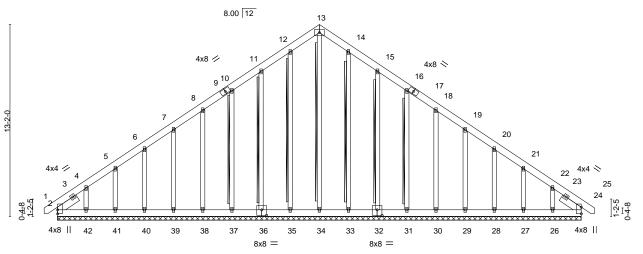
 Job
 Truss
 Truss Type
 Qty
 Ply
 Cates\Lot 739 Lexington Plantation

 J0322-1508
 B1
 GABLE
 1
 1
 1
 Job Reference (optional)

 Comtech, Inc,
 Fayetteville, NC - 28314,
 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Feb 18 09:46:40 2022 Page 1

5x8 =

Scale = 1:79.0



| 35-11-0 | 35-11-0 | | Plate Offsets (X,Y)-- [32:0-4-0,0-4-8], [36:0-4-0,0-4-8]

LOADING (psf) TCLL 20.0	SPACING- 2-0-0 Plate Grip DOL 1.15	<b>CSI.</b> TC 0.06	DEFL.         in (loc)         l/defl         L/d           Vert(LL)         -0.00         24         n/r         120	PLATES         GRIP           MT20         244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.04	Vert(CT) -0.00 24 n/r 120	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.20	Horz(CT) 0.01 24 n/a n/a	
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 365 lb FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2

SLIDER Left 2x6 SP No.1 1-7-5, Right 2x6 SP No.1 1-7-5

BRACING-

TOP CHORD BOT CHORD WEBS Structural wood sheathing directly applied or 6-0-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

T-Brace: 2x4 SPF No.2 - 13-34, 12-35, 11-36, 10-37

, 14-33, 15-32, 16-31

Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS. All bearings 35-11-0.

(lb) - Max Horz 2=-378(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 24, 35, 37, 38, 39, 40, 41, 33, 31,

30, 29, 28, 27 except 2=-163(LC 10), 36=-101(LC 12), 42=-240(LC 12),

32=-105(LC 13), 26=-211(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 24, 35, 36, 37, 38, 39, 40, 41, 42, 33, 32, 31, 30, 29, 28, 27, 26 except 2=297(LC 12), 34=255(LC 13)

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

TOP CHORD 2-4=-453/318, 4-5=-291/242, 5-6=-251/219, 10-11=-200/254, 11-12=-266/303, 12-13=-295/325, 13-14=-295/325, 14-15=-266/287, 22-24=-358/216

BOT CHORD 2-42=-191/292, 41-42=-191/292, 40-41=-191/292, 39-40=-191/292, 38-39=-191/292,

37-38=-191/292, 36-37=-191/292, 35-36=-192/292, 34-35=-192/292, 33-34=-192/292, 32-33=-192/292, 31-32=-191/292, 30-31=-191/292, 29-30=-191/292, 28-29=-191/292, 29-30=-191/292, 28-29=-191/292, 29-30=-191/292, 28-29=-191/292

27-28=-191/292, 26-27=-191/292, 24-26=-191/292

### NOTES-

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

- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-8-15 to 3-7-14, Exterior(2) 3-7-14 to 18-0-0, Corner(3) 18-0-0 to 22-4-13, Exterior(2) 22-4-13 to 36-8-15 zone; 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 24, 35, 37, 38, 39, 40, 41, 33, 31, 30, 29, 28, 27 except (jt=lb) 2=163, 36=101, 42=240, 32=105, 26=211.
- 10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.
- 11) Attic room checked for L/360 deflection.



February 19,2022

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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 parenters 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

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Job Truss Truss Type Qty Ply Cates\Lot 739 Lexington Plantation 150319669 J0322-1508 B2 **ROOF TRUSS** 4 Job Reference (optional) Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Feb 18 09:46:41 2022 Page 1 Comtech, Inc. ID:eo\_4ms57ZKhslxK1ijvAQdyiOuh-NKCH79uUSmBTcqRgSdCWrAp2D251tz\_mFDxPGgzjxcS 8-10-1 17-11-8 27-0-15 35-11-0 36-10-0 0-11-0 8-10-1 9-1-7 8-10-1 Scale = 1:83.1 5x8 = 8.00 12 6 4x8 / 26 25 4x8 <> 2x4 \\ 2x4 //

16 17 19 20 21 13 12 23 15 14 18 4x8 || 4x8 || 4x4 = 6x8 = 4x4 = 6x8 = 11-10-9 13-11-8 21-11-8 24-0-7 35-11-0 11-10-9 2-0-15 8-0-0 2-0-15 11-10-9 LOADING (psf) SPACING-2-0-0 CSI. DEFL in (loc) I/defI L/d **PLATES** GRIP **TCLL** 20.0 Plate Grip DOL 1.15 TC 0.42 Vert(LL) -0.12 2-15 >999 360 MT20 244/190 TCDL Lumber DOL вс 0.64 Vert(CT) -0.23 2-15

Horz(CT)

Wind(LL)

BRACING-TOP CHORD

BOT CHORD

0.05

0.03

LUMBER-

**BCLL** 

BCDL

TOP CHORD 2x6 SP No.1 2x6 SP No.1 \*Except\* BOT CHORD 13-14: 2x10 SP No.1

WFBS 2x4 SP No 2

0.0

10.0

SLIDER Left 2x6 SP No.1 5-3-13, Right 2x6 SP No.1 5-3-13

REACTIONS. (size) 2=0-3-8, 10=0-3-8

Max Horz 2=-303(LC 8)

Max Grav 2=1747(LC 19), 10=1747(LC 20)

Rep Stress Incr

Code IRC2015/TPI2014

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

2-4=-2336/248, 4-6=-2168/357, 6-8=-2169/357, 8-10=-2336/248 TOP CHORD

4x4 /

**BOT CHORD** 2-15=-57/2004, 12-15=0/1343, 10-12=-51/1796

WFBS 4-15=-514/355, 6-15=-72/1086, 6-12=-72/1087, 8-12=-514/355

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-15 to 3-7-14, Interior(1) 3-7-14 to 18-0-0, Exterior(2) 18-0-0 to 22-4-13, Interior(1) 22-4-13 to 36-8-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

WB

Matrix-S

0.45

3) 200.0lb AC unit load placed on the bottom chord, 18-0-0 from left end, supported at two points, 5-0-0 apart. 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

1.15

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, with BCDL = 10.0psf.



9<sup>4x4</sup> ≈

27 4x4 >

>999

n/a

10

15 >999 240

n/a

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

Structural wood sheathing directly applied or 4-10-9 oc purlins.

240

11

Weight: 292 lb

FT = 20%

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Job Truss Truss Type Qty Ply Cates\Lot 739 Lexington Plantation 150319670 J0322-1508 ВЗ **ROOF TRUSS** 5 Job Reference (optional) Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Feb 18 09:46:42 2022 Page 1 Comtech, Inc. ID:eo\_4ms57ZKhslxK1ijvAQdyiOuh-rWmfKVu6D4JKE\_?s0KjlOOLEQRRNcQ\_wTtgyo6zjxcR 17-11-8 17-11-8 Scale = 1:89.4 8x8 = MEMBERS SHOWN DOTTED SHALL BE 8.00 12 REMOVED AFTER TRUSS IS ERECTED AND BRACED. 3x6 = 3x6 = 278 2x6 II 26 2x6 || 6x8 / 6x8 💸 9 24 4x8 🖊 10 4x8 > 2x6 || 14-0-0 13 12 1-2-5

> 19-9-12 27-11-8 35-11-0 3-9-8 7-11-8 8-1-12 7-11-8 8-0-12

20

18

6x8 =

**BRACING-**

TOP CHORD

**BOT CHORD** 

WFBS

JOINTS

17

19

6x8 =

<sup>15</sup> 14

5x8 = 3x10 | I |

10x10 =

1 Row at midpt

1 Brace at Jt(s): 24

30

5x8 =

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

3-21, 11-16

Rigid ceiling directly applied or 4-8-4 oc bracing.

Plate Off	sets (X,Y)	[14:0-7-12,0-1-8], [23:0-7	7-12,0-1-8]									
LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.21	16	>927	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	ВС	0.70	Vert(CT)	-0.45	16	>430	240	M18AHS	186/179
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.71	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TI	PI2014	Matri	x-S	Wind(LL)	0.13	21	>999	240	Weight: 388 lb	FT = 20%

LUMBER-

TOP CHORD 2x10 SP No 1 \*Except\* 1-4,10-13: 2x8 SP No.1

**BOT CHORD** 2x10 SP No.1 \*Except\* 19-22,15-18: 2x10 SP 2400F 2.0E, 18-19: 2x8 SP No.1

**WEBS** 2x4 SP No.2 \*Except\*

6-8,5-21,9-16: 2x6 SP No.1

REACTIONS. All bearings 0-3-8.

Max Horz 2=-295(LC 8) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 12, 2

Max Grav All reactions 250 lb or less at joint(s) except 12=980(LC 21), 2=889(LC

29

23

21

7x14 M18AHS =

3x10 || 5x8 =

5x8 =

21), 20=1295(LC 20), 17=1179(LC 21)

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

TOP CHORD 2-3=-1202/248, 3-5=-374/372, 5-6=-534/334, 6-7=-765/71, 7-8=-768/72, 8-9=-531/333, 9-11=-383/368, 11-12=-1239/245

**BOT CHORD** 2-23=-56/944, 21-23=-55/952, 14-16=-55/884, 12-14=-56/877

**WEBS** 6-24=0/770, 8-24=0/770, 5-21=-710/0, 9-16=-688/0, 3-23=0/2177, 11-14=0/1950,

3-21=-2175/126, 11-16=-2020/126

### NOTES-(10)

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-7-5 to 3-9-7, Interior(1) 3-9-7 to 18-0-0, Exterior(2) 18-0-0 to 22-4-13, Interior(1) 22-4-13 to 36-7-5 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 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) Ceiling dead load (10.0 psf) on member(s). 5-6, 8-9, 6-24, 8-24; Wall dead load (5.0psf) on member(s).5-21, 9-16
- 7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 20-21, 19-20, 17-18, 16-17
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 2.
- 9) Attic room checked for L/360 deflection.
- 10) Remove F1 Non-Structural Bottom Chord after truss has been set and sheeted



February 19,2022



Job Truss Truss Type Qty Ply Cates\Lot 739 Lexington Plantation 150319671 J0322-1508 C1 ATTIC Job Reference (optional)

Fayetteville, NC - 28314, Comtech, Inc.

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Feb 18 09:46:43 2022 Page 1 ID:eo\_4ms57ZKhslxK1ijvAQdyiOuh-JjK1Yrvl\_ORBs8a3Z2E\_xbuMcrssLw03iXQVKYzjxcQ

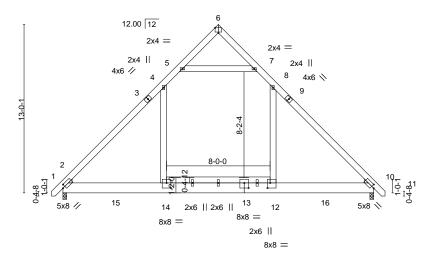
-0<sub>-</sub>10<sub>-</sub>8 3-11-12 0-10-8 3-11-12 7-9-4 9-2-11 12-0-0 14-9-5 16-2-12 20-0-4 1-5-7 2-9-5 2-9-5 1-5-7 3-9-8 24-0-0 24-10-8 3-9-8 3-11-12 0-10-8

Scale = 1:89.0

4x6 =

Structural wood sheathing directly applied or 5-3-11 oc purlins.

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



20-0-4 3-11-12 3-9-8 8-5-8 3-9-8 Plate Offsets (X Y)-- [2:0-2-8 0-2-8] [6:0-3-0 Edge] [10:0-2-8 0-2-8] [12:0-2-8 0-4-12] [13:0-4-0 0-4-12] [14:0-4-0 0-4-12]

Tidle Offices (A, I)	[2.0 2 0,0 2 0], [0.0 3 0,Euge], [10.0 2	0,0 2 0], [12.0 2 0,0 4 12]	, [10.0 + 0,0 + 12], [14.0 + 0,0 + 12]	
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.56	Vert(LL) -0.08 12-14 >999 360	MT20 244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.36	Vert(CT) -0.14 12-14 >999 240	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.29	Horz(CT) 0.01 10 n/a n/a	
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.10 2-14 >999 240	Weight: 250 lb FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

### LUMBER-

TOP CHORD 2x6 SP No 1 BOT CHORD 2x10 SP No.1 WFBS 2x6 SP No.1

WEDGE

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

REACTIONS. (size) 2=0-3-8, 10=0-3-8

Max Horz 2=382(LC 11)

Max Grav 2=1512(LC 20), 10=1512(LC 21)

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

TOP CHORD 2-4=-1944/69, 4-5=-1032/198, 7-8=-1032/199, 8-10=-1944/68

BOT CHORD 2-14=0/1250, 12-14=0/1250, 10-12=0/1250 **WEBS** 5-7=-1324/350, 4-14=-32/817, 8-12=-32/816

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-8-14 to 3-7-15, Exterior(2) 3-7-15 to 12-0-0, Corner(3) 12-0-0 to 16-2-12, Exterior(2) 16-2-12 to 24-8-14 zone; 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, with BCDL = 10.0psf.
- 5) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).4-14, 8-12
- 6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-14
- 7) Attic room checked for L/360 deflection.





Job Truss Truss Type Qty Ply Cates\Lot 739 Lexington Plantation 150319672 J0322-1508 C2 ATTIC 3 Job Reference (optional)

Fayetteville, NC - 28314, Comtech, Inc.

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Feb 18 09:46:44 2022 Page 1 ID:eo\_4ms57ZKhslxK1ijvAQdyiOuh-nvtPlBwNlha2Tl9F7llDTpQX3FC14NDDxB93t?zjxcP

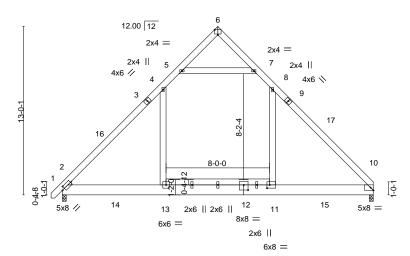
Structural wood sheathing directly applied or 5-1-12 oc purlins.

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

-0<sub>-</sub>10<sub>-</sub>8 3-11-12 0-10-8 3-11-12 7-9-4 9-2-11 12-0-0 14-9-5 16-2-12 20-0-4 1-5-7 2-9-5 2-9-5 1-5-7 3-9-8 24-0-0 3-9-8 3-11-12

4x6 =

Scale = 1:89.0



16-2-12 20-0-4 8-5-8 3-11-12 3-11-12

BRACING-

TOP CHORD

**BOT CHORD** 

Plate Offsets (X,Y)	[2:0-2-8,0-2-8], [6:0-3-0,Edge], [10:0-2-8,Edge], [11:0-2-8,0-3-0], [12:0-4-0,0-4-12]

LOADING (psf)	SPACING- 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) I/defl L/d	PLATES GRIP
TCLL 20.0		TC 0.58	Vert(LL) -0.08 11-13 >999 360	MT20 244/190
TCLL 20.0	Plate Grip DOL 1.15	TC 0.58	Vert(LL) -0.08 11-13 >999 360	M120 244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.37	Vert(CT) -0.14 11-13 >999 240	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.29	Horz(CT) 0.01 10 n/a n/a	
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.07 2-13 >999 240	Weight: 247 lb FT = 20%

LUMBER-

TOP CHORD 2x6 SP No 1 BOT CHORD 2x10 SP No.1 WFBS 2x6 SP No.1

WEDGE

Left: 2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 10=0-3-8

Max Horz 2=302(LC 9)

Max Grav 2=1519(LC 20), 10=1475(LC 20)

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

TOP CHORD 2-4=-1929/4, 4-5=-1029/149, 7-8=-1036/161, 8-10=-1912/0

2-13=0/1220, 11-13=0/1220, 10-11=0/1220 BOT CHORD **WEBS** 5-7=-1346/268, 4-13=0/800, 8-11=-0/767

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-14 to 3-7-15, Interior(1) 3-7-15 to 12-0-0, Exterior(2) 12-0-0 to 16-2-12, Interior(1) 16-2-12 to 23-10-4 zone; 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, with BCDL = 10.0psf.
- 5) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).4-13, 8-11
- 6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 11-13
- 7) Attic room checked for L/360 deflection.





Job Truss Truss Type Qty Ply Cates\Lot 739 Lexington Plantation 150319673 J0322-1508 **GABLE** M1 Job Reference (optional) Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Feb 18 09:46:45 2022 Page 1 Comtech, Inc. ID:eo\_4ms57ZKhslxK1ijvAQdyiOuh-F5RozWx?W?iv5SkRhTGS00ziDfWDpu?MArvcPRzjxcO -0-10-8 6-0-0 0-10-8 6-0-0 Scale = 1:15.2 2x4 || 3 2x4 || 4.00 12 2-0-, 0-4-1 4 2x4 || 2x4 ||

	6-0-0										
LOADING (psf)	SPACING- 2-0-0	CSI.	<b>DEFL</b> . in	(loc) I/de	efl L/d	PLATES GRIP					
TCLL 20.0	Plate Grip DOL 1.15	TC 0.55	Vert(LL) -0.06	2-4 >99	99 360	MT20 244/190					
TCDL 10.0	Lumber DOL 1.15	BC 0.50	Vert(CT) -0.11	2-4 >61	5 240						
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00	4 n	/a n/a						
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P	Wind(LL) 0.00	2 **	** 240	Weight: 24 lb FT =	20%				

6-0-0

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x4 SP No.1 2x4 SP No.1 **BOT CHORD** 

2x4 SP No.2 WFBS **OTHERS** 2x4 SP No.2

REACTIONS. (size) 2=0-3-8, 4=0-1-8 Max Horz 2=109(LC 8)

Max Uplift 2=-105(LC 8), 4=-78(LC 12) Max Grav 2=295(LC 1), 4=221(LC 1)

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

2x4

TOP CHORD 3-4=-164/281

### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 5-9-15 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.
- 3) Gable studs spaced at 2-0-0 oc.
- 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) 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=105.



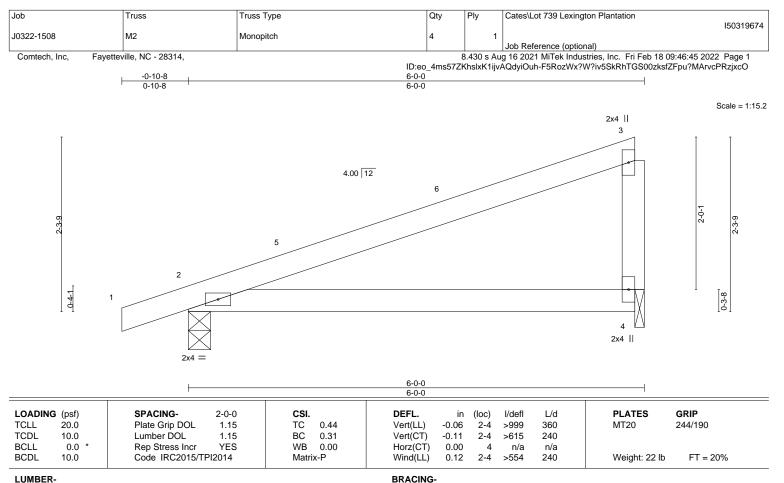
Structural wood sheathing directly applied or 6-0-0 oc purlins,

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

except end verticals.

February 19,2022





TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

WFBS

TOP CHORD 2x4 SP No.1 **BOT CHORD** 2x4 SP No.1

2x4 SP No.2

Max Horz 2=77(LC 8) Max Uplift 2=-117(LC 8), 4=-95(LC 8) Max Grav 2=295(LC 1), 4=221(LC 1)

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

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

### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 5-9-15 zone; 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=117.



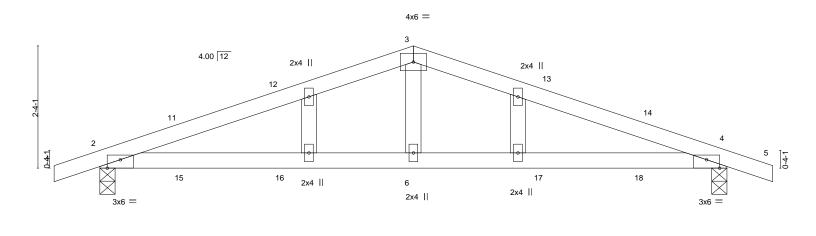
Structural wood sheathing directly applied or 6-0-0 oc purlins,

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

except end verticals.

JOD	I russ	Truss Type	Qty	Ply	Cates\Lot 739 Lexington Plantation		
				-	-	I50319675	
J0322-1508	P1	GABLE	1	1			
					Job Reference (optional)		
Comtech, Inc,	Fayetteville, NC - 28314	,	8.	.430 s Au	g 16 2021 MiTek Industries, Inc. Fri Feb 18 09:46:46 20	122 Page 1	
			ID:eo_4ms57ZKh	slxK1ijvA	- QdyiOuh-jH?AAsxdHJqmjbJeFAnhYEWtN3vYYLGWOV	/eAxtzjxcN	
-0-10-8		6-0-0	1		12-0-0	12-10-8	
0.10.9		6.0.0			6.0.0	0-10-9	

Scale = 1:22.0



		6-0-0					6-0-0		
Plate Offse	ets (X,Y)	[2:0-3-0,Edge], [4:0-3-0,Edge]							
LOADING	(psf)	SPACING- 2-0-0	CSI.	<b>DEFL</b> . ir	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL 1.15	TC 0.46	Vert(LL) 0.09	4-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL 1.15	BC 0.30	Vert(CT) -0.07	2-6	>999	240		
BCLL	0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT) -0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 46 lb	FT = 20%

**BRACING-**

TOP CHORD

BOT CHORD

12-0-0

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

Rigid ceiling directly applied or 6-0-14 oc bracing.

LUMBER-

TOP CHORD 2x4 SP No 1 BOT CHORD 2x4 SP No.1 2x4 SP No.2 WFBS

**OTHERS** 2x4 SP No.2

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

Max Horz 2=-46(LC 17)

Max Uplift 2=-293(LC 8), 4=-293(LC 9) Max Grav 2=530(LC 1), 4=530(LC 1)

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

TOP CHORD 2-3=-859/1155, 3-4=-859/1155

**BOT CHORD** 2-6=-975/759, 4-6=-975/759

WEBS 3-6=-342/281

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 6-0-0, Corner(3) 6-0-0 to 10-4-13, Exterior(2) 10-4-13 to 12-10-8 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
- 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) 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.

6-0-0

- 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) except (jt=lb) 2=293, 4=293.





Job	Truss	Truss Type	Qty	Ply	Cates\Lot 739 Lexington Plantation		
						150319676	;
J0322-1508	P2	Common	6	1			
					Job Reference (optional)		
Comtech, Inc, Fay	etteville, NC - 28314,		3	3.430 s Au	g 16 2021 MiTek Industries, Inc. Fri Feb 18 09:46:47 20	)22 Page 1	
			ID:eo_4ms57Zł	(hslxK1ijv/	AQdyiOuh-BUZYNCyF2cycKluqotJw5R24WSEnHoWfd9	OjTJzjxcM	
<sub>1</sub> -0-10-8	6-	0-0		-	12-0-0	12-10-8	
0-10-8	6.	.0-0			6-0-0	0-10-8	

Scale = 1:22.0

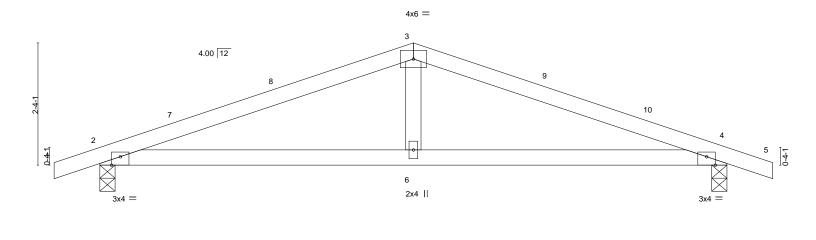


Plate Off	sets (X,Y)	[2:0-2-0,Edge], [4:0-2-0,E	idge]									
LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	0.08	4-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.07	2-6	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TF	PI2014	Matri	x-S						Weight: 42 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

12-0-0

6-0-0

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

Rigid ceiling directly applied or 6-8-11 oc bracing.

LUMBER-

REACTIONS.

TOP CHORD 2x4 SP No 1 BOT CHORD 2x4 SP No.1 2x4 SP No.2 **WEBS** 

(size) 2=0-3-8, 4=0-3-8 Max Horz 2=-27(LC 17)

Max Uplift 2=-205(LC 8), 4=-205(LC 9) Max Grav 2=530(LC 1), 4=530(LC 1)

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

TOP CHORD 2-3=-859/932 3-4=-859/932 **BOT CHORD** 2-6=-802/759, 4-6=-802/759

WFBS 3-6=-357/281

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 6-0-0, Exterior(2) 6-0-0 to 10-4-13, Interior(1) 10-4-13 to 12-10-8 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
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

6-0-0

6-0-0

- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=205, 4=205.



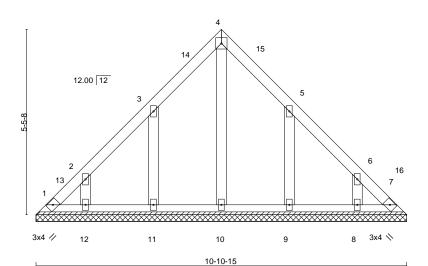


Job Truss Truss Type Qty Ply Cates\Lot 739 Lexington Plantation 150319677 J0322-1508 V1 **GABLE** Job Reference (optional)

Fayetteville, NC - 28314, Comtech, Inc.

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Feb 18 09:46:48 2022 Page 1 ID:eo\_4ms57ZKhslxK1ijvAQdyiOuh-gg7wbYztpw4TyvT0Mbq9efbKPseO0F4osp7G0mzjxcL

> Scale = 1:33.9 4x4 =



10-10-15 LOADING (psf) SPACING-2-0-0 CSI. DEFL. in (loc) I/defI L/d **PLATES** GRIP **TCLL** 20.0 Plate Grip DOL 1.15 TC 0.04 Vert(LL) n/a n/a 999 MT20 244/190 TCDL Lumber DOL 1.15 вс 0.02 Vert(CT) n/a n/a 999 WB **BCLL** 0.0 Rep Stress Incr YES 0.04 Horz(CT) 0.00 n/a n/a

LUMBER-

BCDL

TOP CHORD 2x4 SP No.1 BOT CHORD 2x4 SP No.1 2x4 SP No.2 **OTHERS** 

10.0

**BRACING-**

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

Weight: 56 lb

FT = 20%

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

REACTIONS. All bearings 10-10-15.

Max Horz 1=-153(LC 8) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=-150(LC 12), 12=-121(LC 12), 9=-149(LC 13),

Matrix-S

8=-122(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 11, 12, 9, 8

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

Code IRC2015/TPI2014

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-4 to 4-9-0, Interior(1) 4-9-0 to 5-5-8, Exterior(2) 5-5-8 to 9-10-5, Interior(1) 9-10-5 to 10-6-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 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) 1, 7 except (jt=lb) 11=150, 12=121, 9=149, 8=122.



February 19,2022



Job Truss Truss Type Qty Ply Cates\Lot 739 Lexington Plantation 150319678 J0322-1508 V2 Valley Job Reference (optional) Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Feb 18 09:46:49 2022 Page 1 Comtech, Inc. ID:eo\_4ms57ZKhslxK1ijvAQdyiOuh-8shlou\_VaECKa32CwlLOAs8S0GzJliSy4TtqYCzjxcK 4-1-8 4-1-8 Scale = 1:27.4 4x4 = 12.00 12 3 2x4 || <sup>4</sup> 2x4 // 2x4 \ 8-2-15 8-2-15

LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI	2014	Matri	x-P						Weight: 33 lb	FT = 20%

**BRACING-**

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SP No.1 BOT CHORD 2x4 SP No.1 2x4 SP No.2 **OTHERS** 

REACTIONS. (size) 1=8-2-15, 3=8-2-15, 4=8-2-15

Max Horz 1=-90(LC 8)

Max Uplift 1=-33(LC 13), 3=-33(LC 13)

Max Grav 1=184(LC 1), 3=184(LC 1), 4=236(LC 1)

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 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; 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.



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

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



Job Truss Truss Type Qty Ply Cates\Lot 739 Lexington Plantation 150319679 J0322-1508 V3 Valley Job Reference (optional) Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Feb 18 09:46:50 2022 Page 1 Comtech, Inc. ID:eo\_4ms57ZKhslxK1ijvAQdyiOuh-c3Fh0E?8LXKBBDdPU0sdj4gf2gKUU925J7cN4ezjxcJ 2-9-8 2-9-8 Scale = 1:20.1 4x4 = 2 12.00 12 3 2x4 // 2x4 📏 2x4 || 5-6-15

LOADIN	G (psf)	SPACING- 2-0-0	CSI.	DEFL.	in (I	loc)	I/defI	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL 1.15	TC 0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL 1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr YES	WB 0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014	Matrix-P						Weight: 22 lb	FT = 20%

5-6-15

**BRACING-**

TOP CHORD

BOT CHORD

LUMBER-

REACTIONS.

TOP CHORD 2x4 SP No.1 BOT CHORD 2x4 SP No.1 2x4 SP No.2 **OTHERS** 

(size) 1=5-6-15, 3=5-6-15, 4=5-6-15

Max Horz 1=-58(LC 8)

Max Uplift 1=-21(LC 13), 3=-21(LC 13)

Max Grav 1=119(LC 1), 3=119(LC 1), 4=153(LC 1)

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 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; 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.



Structural wood sheathing directly applied or 5-6-15 oc purlins.

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



Job Truss Truss Type Qty Ply Cates\Lot 739 Lexington Plantation 150319680 J0322-1508 V4 Valley Job Reference (optional) Fayetteville, NC - 28314, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Feb 18 09:46:50 2022 Page 1 Comtech, Inc. ID:eo\_4ms57ZKhslxK1ijvAQdyiOuh-c3Fh0E?8LXKBBDdPU0sdj4ggEgKYU9F5J7cN4ezjxcJ 2-10-15 Scale = 1:10.1 3x4 2 12.00 12 3 2x4 // 2x4 📏 2-10-15 2-10-15 Plate Offsets (X Y)-- [2:0-2-0 Edge]

1 tate Offices (A,1) [2.0.2.0,Edge]					
LOADIN	G (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d PLATES GRIP	
TCLL	20.0	Plate Grip DOL 1.15	TC 0.02	Vert(LL) n/a - n/a 999 MT20 244/190	
TCDL	10.0	Lumber DOL 1.15	BC 0.04	Vert(CT) n/a - n/a 999	
BCLL	0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00 3 n/a n/a	
BCDL	10.0	Code IRC2015/TPI2014	Matrix-P	Weight: 9 lb FT = 20%	

LUMBER-

TOP CHORD 2x4 SP No 1 BOT CHORD 2x4 SP No.1 **BRACING-**

TOP CHORD **BOT CHORD**  Structural wood sheathing directly applied or 2-10-15 oc purlins.

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

REACTIONS. (size) 1=2-10-15, 3=2-10-15

Max Horz 1=-26(LC 8)

Max Uplift 1=-3(LC 13), 3=-3(LC 13) Max Grav 1=88(LC 1), 3=88(LC 1)

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 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone; 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.

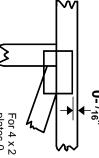


### Symbols

## PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0-  $\frac{1}{16}$  from outside edge of truss.

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

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

### PLATE SIZE

4 × 4

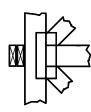
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

### **BEARING**



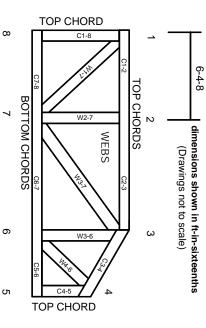
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only

### Industry Standards:

National Design Specification for Metal Plate Connected Wood Truss Construction. Design Standard for Bracing. Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

ANSI/TPI1: DSB-89:

## Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988 ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

# **General Safety Notes**

# Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.

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Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.

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- Cut members to bear tightly against each other
- Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.

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- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
- Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
- 15. Connections not shown are the responsibility of others
- Do not cut or after truss member or plate without prior approval of an engineer.
- 17. Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
- 21. The design does not take into account any dynamic or other loads other than those expressly stated.