

RE: J0721-4252  
 Cates\Lot 693 Lexington Plantation

Trenco  
 818 Soundside Rd  
 Edenton, NC 27932

**Site Information:**

Customer: Project Name: J0721-4252  
 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  
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 23 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	E15843080	A1	8/12/2021	21	E15843100	VC02	8/12/2021
2	E15843081	A1-GE	8/12/2021	22	E15843101	VC03	8/12/2021
3	E15843082	A2	8/12/2021	23	E15843102	VC04	8/12/2021
4	E15843083	A3	8/12/2021				
5	E15843084	A4	8/12/2021				
6	E15843085	B1	8/12/2021				
7	E15843086	B1-GE	8/12/2021				
8	E15843087	C1	8/12/2021				
9	E15843088	D1-GE	8/12/2021				
10	E15843089	E1	8/12/2021				
11	E15843090	E1-GE	8/12/2021				
12	E15843091	H01	8/12/2021				
13	E15843092	J01	8/12/2021				
14	E15843093	J02	8/12/2021				
15	E15843094	M1	8/12/2021				
16	E15843095	M2	8/12/2021				
17	E15843096	M3	8/12/2021				
18	E15843097	M4	8/12/2021				
19	E15843098	M5	8/12/2021				
20	E15843099	VC01	8/12/2021				

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: Gilbert, Eric

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

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.



August 12, 2021

Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843080
J0721-4252	A1	COMMON	5	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

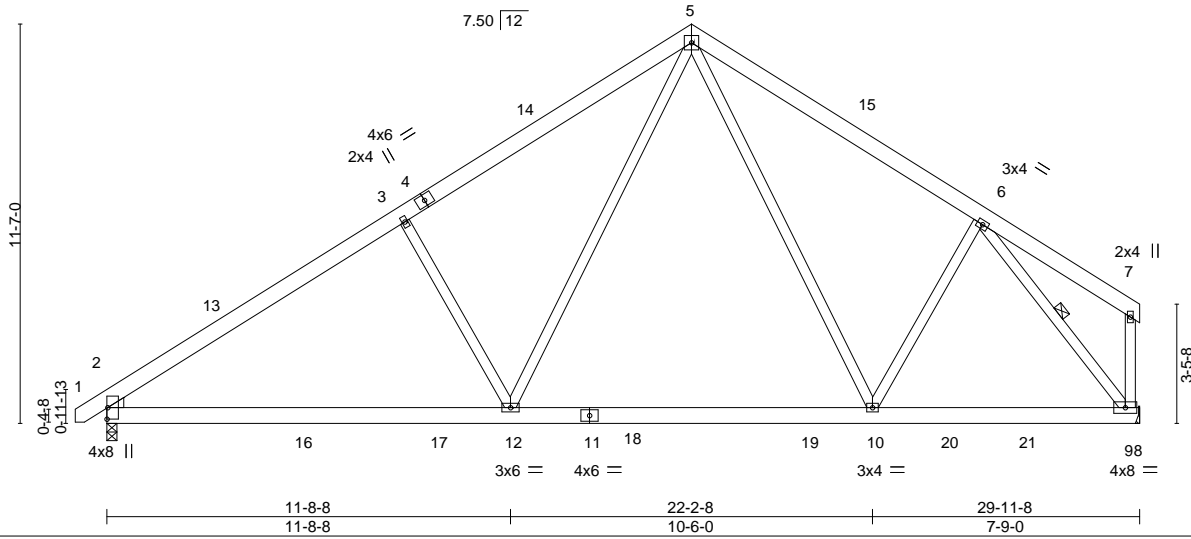
8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Jun 15 12:42:32 2021 Page 1

ID:RoFQORvmtbuV?DZjm98VbzzKksg-c9tNNQlrYgFwhi01kv?5fNoXLBAnZZm6DXIEfOz61Zr



5x5 =

Scale = 1:66.8



<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.41	Vert(LL) -0.21 10-12 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.71	Vert(CT) -0.28 2-12 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.48	Horz(CT) 0.03 9 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.04 2-12 >999 240	Weight: 225 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-1-6 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 6-9
WEDGE	
Left: 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 9=Mechanical  
 Max Horz 2=262(LC 7)  
 Max Uplift 2=108(LC 10), 9=77(LC 11)  
 Max Grav 2=1532(LC 17), 9=1483(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=2072/411, 3-5=-1895/491, 5-6=-1462/424  
 BOT CHORD 2-12=-315/1798, 10-12=-86/1077, 9-10=-195/995  
 WEBS 3-12=-521/315, 5-12=-183/1174, 5-10=-94/370, 6-10=-37/353, 6-9=-1640/330

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; 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 12-7-3, Exterior(2) 12-7-3 to 21-4-13, Interior(1) 21-4-13 to 25-3-15, Exterior(2) 25-3-15 to 29-8-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 40.0psf 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.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 2=108.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

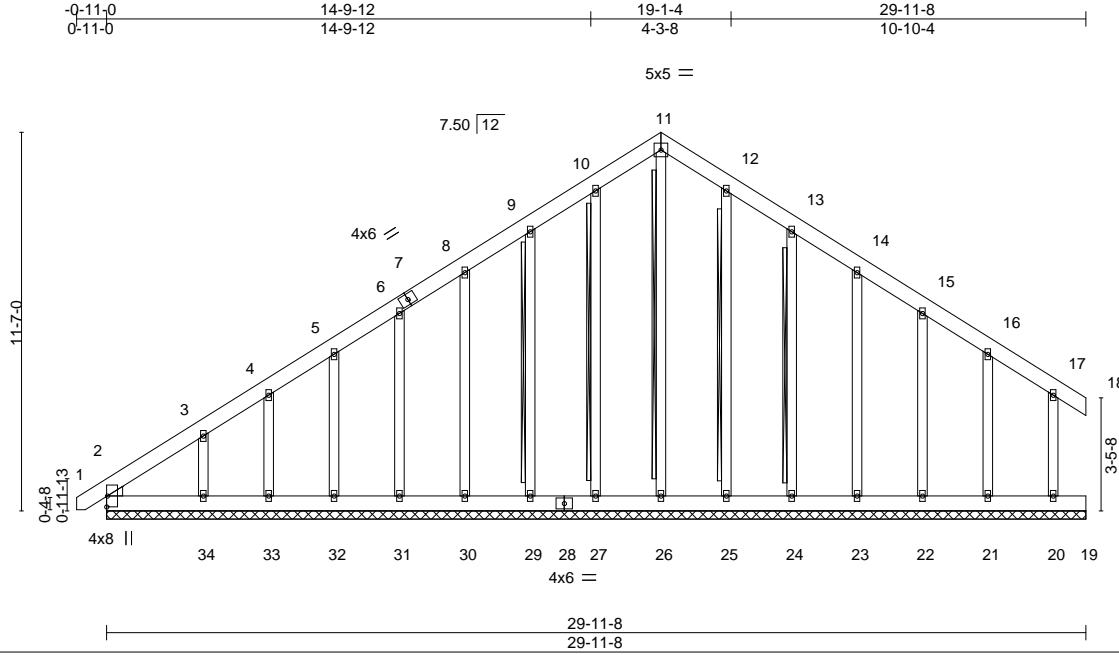


Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843081
J0721-4252	A1-GE	GABLE	1	1	Job Reference (optional)	

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Scale = 1:70.5

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.20	Horz(CT)	0.02	18	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 288 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 OTHERS 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS T-Brace: 2x4 SPF No.2 - 10-27, 9-29, 11-26, 12-25, 13-24  
 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 29-11-8.  
 (lb) - Max Horz 2=322(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) 18, 27, 29, 30, 31, 32, 33, 26, 25, 23, 22, 21, 20 except 2=166(LC 6), 34=176(LC 10), 24=107(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 18, 27, 29, 30, 31, 32, 33, 25, 24, 23, 22, 21, 20, 19 except 2=264(LC 18), 34=289(LC 17), 26=327(LC 11)

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

TOP CHORD 2-3=-381/368, 3-4=-299/294, 4-5=-276/288, 5-6=-259/284, 6-8=-240/317, 8-9=-227/357, 9-10=-290/405, 10-11=-316/411, 11-12=-316/397, 12-13=-290/362, 13-14=-227/283  
 WEBS 11-26=-307/166

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; 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 12-7-3, Corner(3) 12-7-3 to 21-4-13, Exterior(2) 21-4-13 to 25-7-3, Corner(3) 25-7-3 to 30-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 40.0psf 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) 18, 27, 29, 30, 31, 32, 33, 26, 25, 23, 22, 21, 20 except (it=lb) 2=166, 34=176, 24=107.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



June 15, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

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



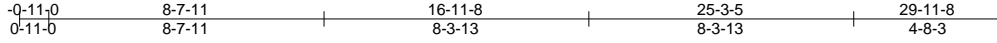
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843082
J0721-4252	A2	COMMON	5	1	Job Reference (optional)	

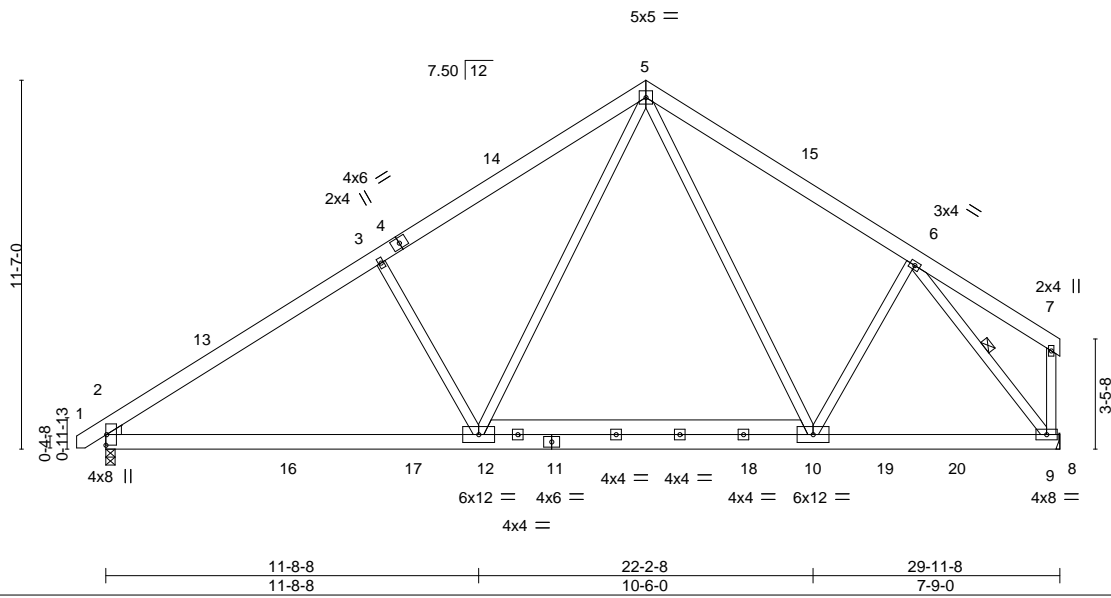
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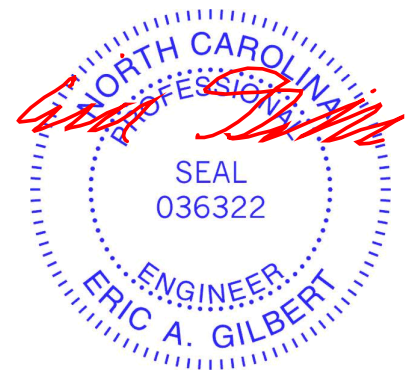
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.40	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.71	Vert(LL) -0.17 2-12 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.48	Vert(CT) -0.30 2-12 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.03 9 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.04 2-12 >999 240	Weight: 248 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-0-13 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except*	WEBS 1 Row at midpt 6-9
10-12: 2x6 SP No.1	
WEDGE	
Left: 2x4 SP No.2	

**REACTIONS.** (size) 2=0-3-8, 9=Mechanical  
 Max Horz 2=262(LC 7)  
 Max Uplift 2=-108(LC 10), 9=-77(LC 11)  
 Max Grav 2=1515(LC 17), 9=1463(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2101/422, 3-5=-1909/491, 5-6=-1454/427  
 BOT CHORD 2-12=-325/1829, 10-12=-87/1081, 9-10=-201/994  
 WEBS 3-12=-517/315, 5-12=-182/1193, 5-10=-92/354, 6-10=-37/345, 6-9=-1616/339

- 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=5.0psf; 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 12-7-3, Exterior(2) 12-7-3 to 21-4-13, Interior(1) 21-4-13 to 25-3-15, Exterior(2) 25-3-15 to 29-8-12 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 40.0psf 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) Refer to girder(s) for truss to truss connections.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 2=108.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843083
J0721-4252	A3	COMMON	4	1		

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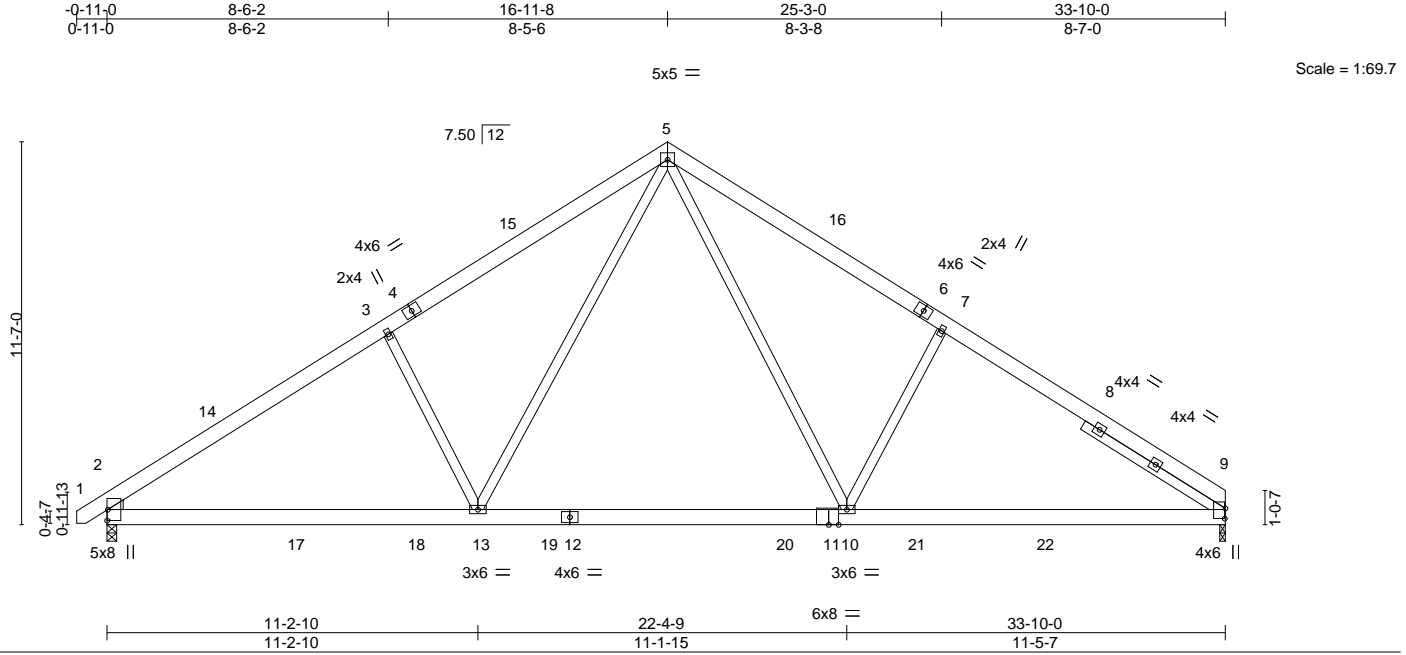


Plate Offsets (X,Y)-- [9:0-3-11,0-0-4], [11:0-3-9,0-0-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.50	Vert(LL) -0.26	10-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.72	Vert(CT) -0.33	10-13	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.53	Horz(CT) 0.05	9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.05	2-13	>999	240		
							Weight: 238 lb	FT = 20%

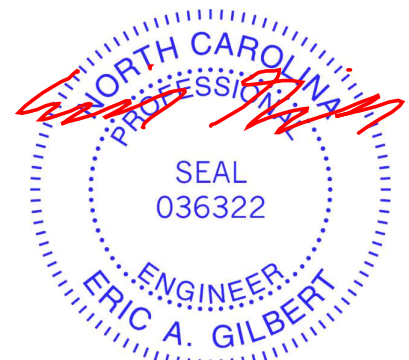
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.2  
 SLIDER Right 2x4 SP No.2 5-0-1

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

**REACTIONS.** (size) 2=0-3-8, 9=0-2-0  
 Max Horz 2=266(LC 7)  
 Max Uplift 2=-119(LC 10), 9=-106(LC 11)  
 Max Grav 2=1746(LC 17), 9=1696(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2475/478, 3-5=-2317/573, 5-7=-2270/563, 7-9=-2444/482  
 BOT CHORD 2-13=-255/2150, 10-13=-27/1430, 9-10=-253/1927  
 WEBS 3-13=-506/314, 5-13=-195/1155, 5-10=-186/1139, 7-10=-499/319

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; 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 12-7-3, Exterior(2) 12-7-3 to 21-4-13, Interior(1) 21-4-13 to 29-5-11, Exterior(2) 29-5-11 to 33-10-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 40.0psf 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=119, 9=106.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



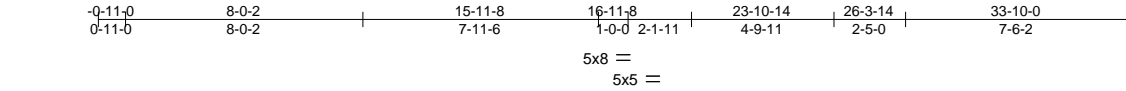
June 15, 2021

Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843084
J0721-4252	A4	GABLE	1	1	Job Reference (optional)	

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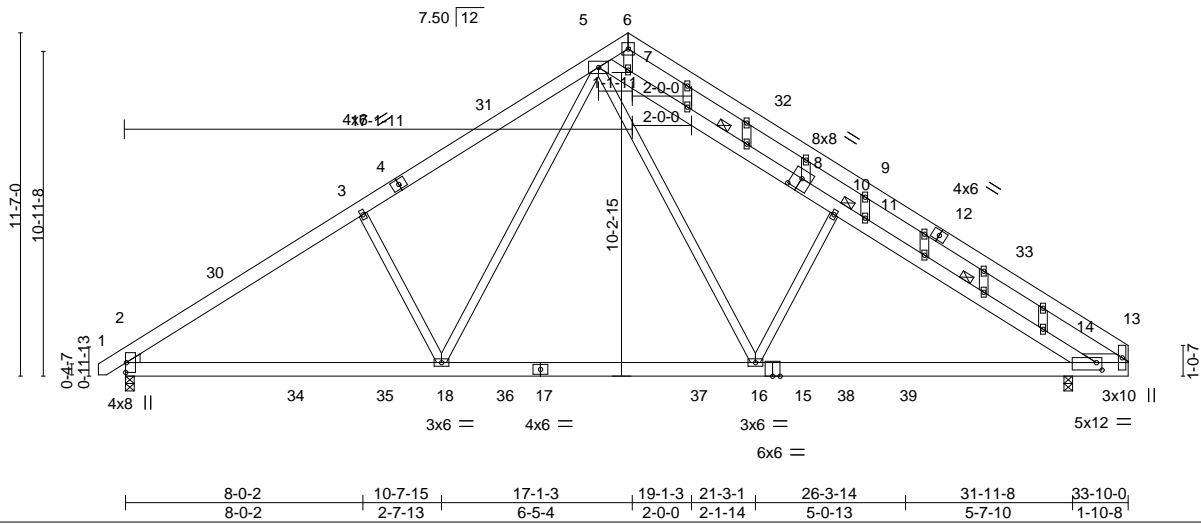


Plate Offsets (X,Y)-- [8:0-4-0,0-4-8], [14:0-2-4,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.46	Vert(LL) -0.23 16-18 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.64	Vert(CT) -0.30 16-18 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.65	Horz(CT) 0.05 14 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.06 2-18 >999 240	Weight: 285 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 OTHERS 2x4 SP No.2  
 WEDGE  
 Left: 2x4 SP No.3  
 SLIDER Right 2x4 SP No.2 1-6-8

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-11-4 oc purlins.  
 Except:  
 1 Row at midpt 5-10, 10-14  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 JOINTS 1 Brace at Jt(s): 10

**REACTIONS.**

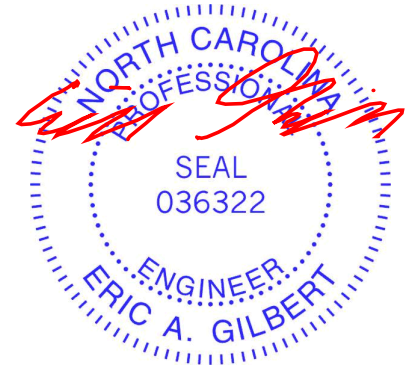
(size) 2=0-3-8, 14=0-3-8  
 Max Horz 2=332(LC 7)  
 Max Uplift 2=312(LC 10), 14=311(LC 11)  
 Max Grav 2=1637(LC 17), 14=1689(LC 18)

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

TOP CHORD 2-3=2303/453, 3-5=2149/538, 5-6=473/273, 5-7=1631/371, 7-10=1552/345,  
 10-11=1538/331, 11-14=1690/513, 6-9=659/299, 9-13=595/0  
 BOT CHORD 2-18=433/2053, 16-18=131/1379, 14-16=236/1783, 13-14=0/420  
 WEBS 5-18=274/1076, 3-18=478/389, 5-16=270/1004, 10-16=450/390, 9-11=627/497

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-8-14 to 3-7-15, Interior(1) 3-7-15 to 12-7-3, Exterior(2) 12-7-3 to 21-4-13, Interior(1) 21-4-13 to 29-5-11, Exterior(2) 29-5-11 to 33-10-8 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 40.0psf 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=312, 14=311.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 15, 2021

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843085
J0721-4252	B1	COMMON	5	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

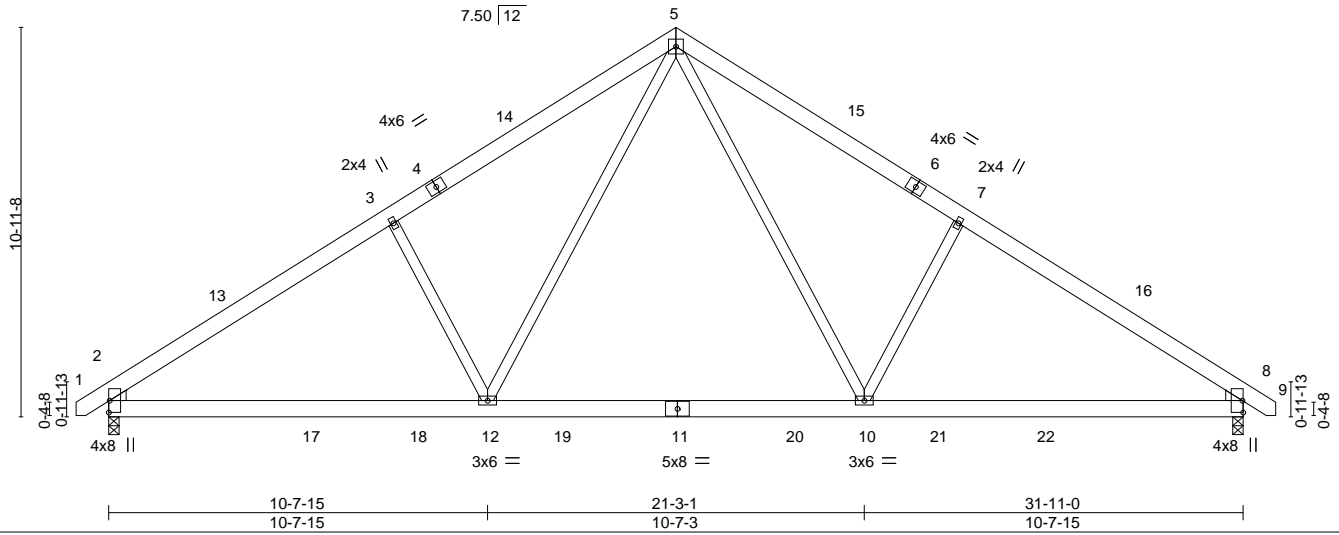
8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Jun 15 12:42:39 2021 Page 1

ID:RoFQORvmtbuV?DZjm98VbzzKksg-vVp0rpqEvp7w1n3NfTdkRrbjw0bliJ8q7v6PUz61Zk

0-11-0 8-0-2 15-11-8 23-10-14 31-11-0 32-10-0  
 0-11-0 8-0-2 7-11-6 7-11-6 8-0-2 0-11-0

5x5 =

Scale = 1:64.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	-0.23 10-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.62	Vert(CT)	-0.29 10-12	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.43	Horz(CT)	0.04 8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.04 2-12	>999	240		
								Weight: 220 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2  
 WEDGE

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-11-15 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 2=0-3-8, 8=0-3-8  
 Max Horz 2=-251(LC 8)  
 Max Uplift 2=-112(LC 10), 8=-112(LC 11)  
 Max Grav 2=1607(LC 17), 8=1607(LC 18)

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

TOP CHORD 2-3=-2262/449, 3-5=-2108/534, 5-7=-2108/534, 7-8=-2263/449  
 BOT CHORD 2-12=-242/1964, 10-12=-27/1306, 8-10=-242/1778  
 WEBS 5-10=-179/1056, 7-10=-473/296, 5-12=-179/1056, 3-12=-473/296

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; 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 11-7-3, Exterior(2) 11-7-3 to 20-4-13, Interior(1) 20-4-13 to 28-4-2, Exterior(2) 28-4-2 to 32-8-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 40.0psf 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=112, 8=112.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 15, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

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



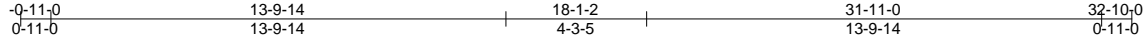
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843086
J0721-4252	B1-GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

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Scale = 1:70.0

Plate Offsets (X,Y)--	[29:0-4-0,0-4-8]
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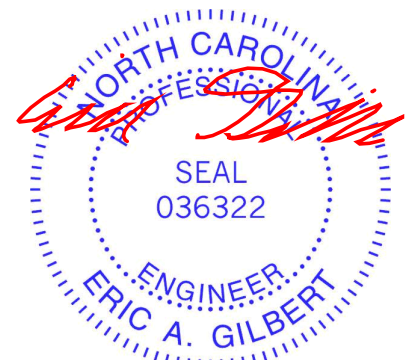
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.04	Vert(LL) -0.00	20	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) 0.00	20	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.16	Horz(CT) 0.01	20	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 290 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	T-Brace: 2x4 SPF No.2 - 11-29, 10-30, 12-28
WEDGE	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.
Left: 2x4 SP No.2 , Right: 2x4 SP No.2	Brace must cover 90% of web length.

**REACTIONS.** All bearings 31-11-0.  
 (lb) - Max Horz 2=314(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 30, 31, 32, 33, 34, 35, 28, 26, 25, 24, 23, 20 except 2=106(LC 6), 36=160(LC 10), 27=100(LC 11), 22=145(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 29, 30, 31, 32, 33, 34, 35, 36, 28, 27, 26, 25, 24, 23, 20, 22

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=346/260, 9-10=216/252, 10-11=249/277, 11-12=249/278, 19-20=265/170

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; 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 11-7-3, Corner(3) 11-7-3 to 20-4-13, Exterior(2) 20-4-13 to 28-4-2, Corner(3) 28-4-2 to 32-8-15 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 40.0psf 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) 30, 31, 32, 33, 34, 35, 28, 26, 25, 24, 23, 20 except (jt=lb) 2=106, 36=160, 27=100, 22=145.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



June 15, 2021

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

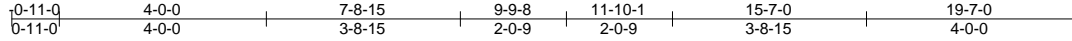


Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843087
J0721-4252	C1	GABLE	1	1		

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Jun 15 12:42:42 2021 Page 1

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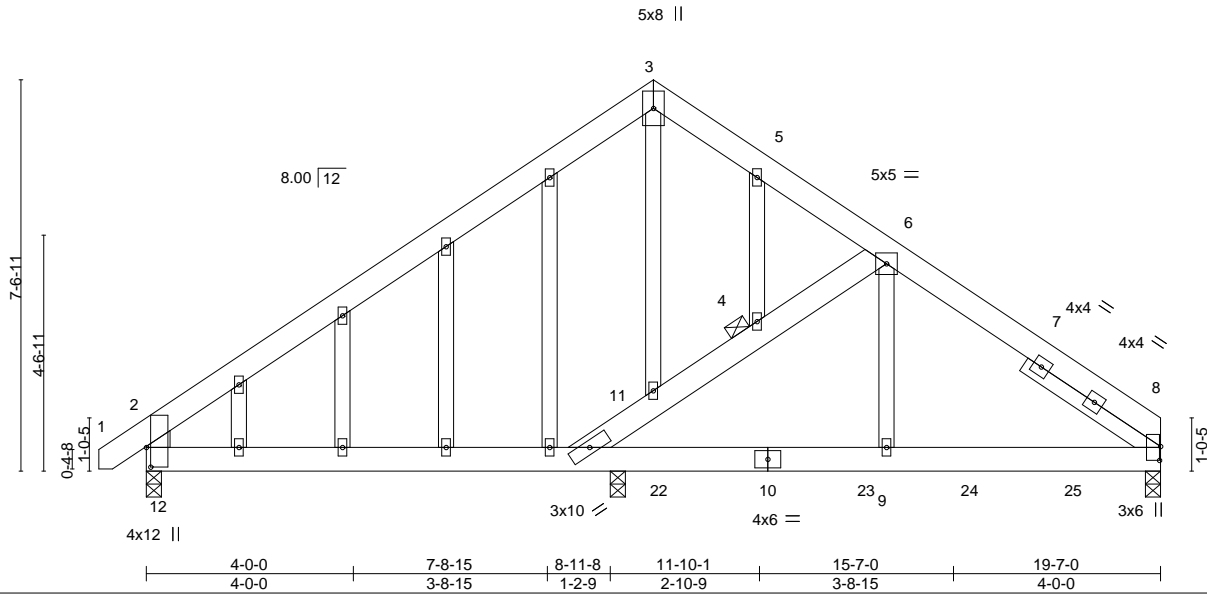


Plate Offsets (X,Y)-- [8:0-3-4,0-0-4], [12:0-4-9,0-1-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.44	Vert(LL)	-0.04 11-12	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.49	Vert(CT)	-0.08 11-12	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.11	Horz(CT)	0.01 8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL)	0.04 11-12	>999	240		
							Weight: 164 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 2-12: 2x6 SP No.1  
 OTHERS 2x4 SP No.2  
 SLIDER Right 2x4 SP No.2 3-1-0

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 JOINTS 1 Brace at Jt(s): 4

**REACTIONS.**

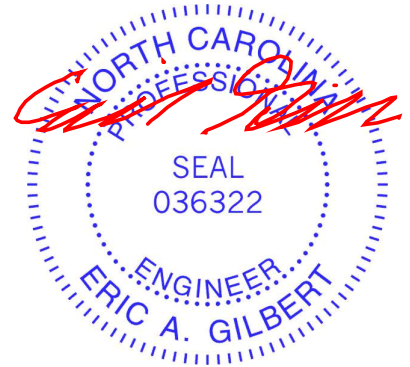
(size) 8=0-3-8, 12=0-3-8, 11=0-3-8  
 Max Horz 12=216(LC 7)  
 Max Uplift 8=97(LC 8), 12=252(LC 27)  
 Max Grav 8=883(LC 1), 12=637(LC 15), 11=757(LC 20)

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

TOP CHORD 2-3=-567/251, 3-5=-401/304, 5-6=-496/354, 6-8=-1036/187, 4-11=-645/128, 4-6=-587/131, 2-12=-584/314  
 BOT CHORD 11-12=-164/442, 9-11=-76/764, 8-9=-76/764  
 WEBS 6-9=0/451

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 40.0psf 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.
- Solid blocking is required on both sides of the truss at joint(s), 11.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 12=252.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 123 lb down at 9-11-4, 123 lb down at 11-11-4, 123 lb down at 13-11-4, and 123 lb down at 15-11-4, and 123 lb down at 17-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



June 15, 2021

**LOAD CASE(S) Standard**

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

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



818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Cates\Lot 693 Lexington Plantation	E15843087
J0721-4252	C1	GABLE	1	1	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Jun 15 12:42:42 2021 Page 2  
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**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-2=-60, 2-3=-60, 3-6=-60, 6-8=-60, 8-12=-20
- Concentrated Loads (lb)
  - Vert: 10=-123(F) 22=-123(F) 23=-123(F) 24=-123(F) 25=-123(F)

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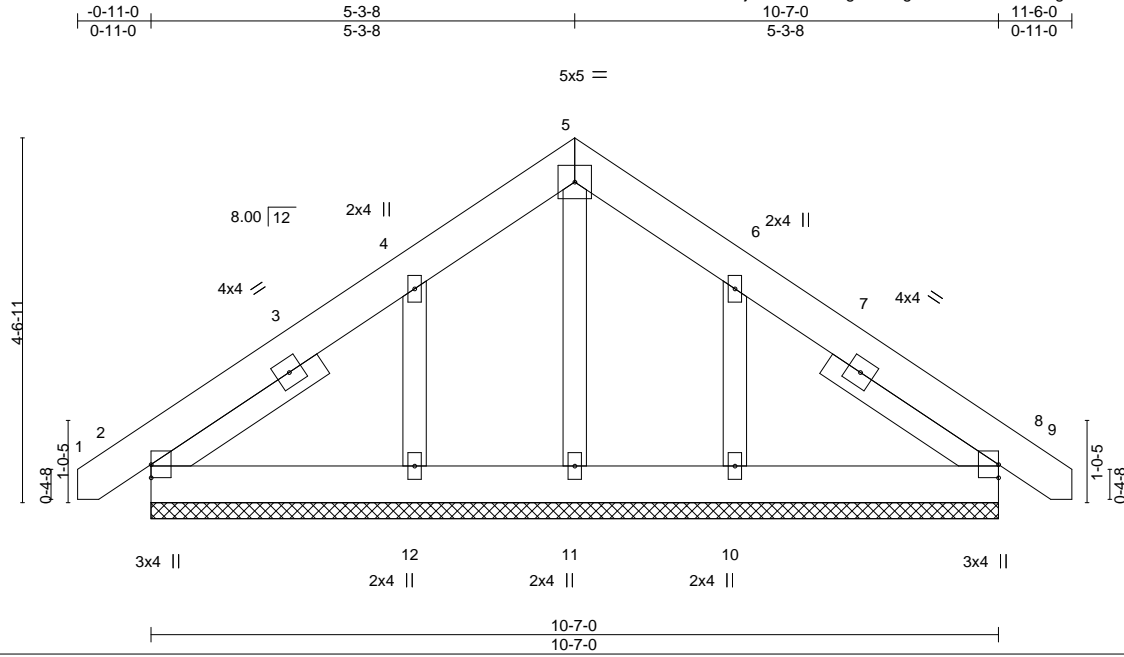
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843088
J0721-4252	D1-GE	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Jun 15 12:42:43 2021 Page 1

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<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.03	Vert(LL)	0.00	8	n/r	120	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(CT)	0.00	8	n/r	120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	8	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						Weight: 80 lb	FT = 20%
	Code IRC2015/TPI2014								

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 OTHERS 2x4 SP No.2  
 SLIDER Left 2x4 SP No.2 2-6-0, Right 2x4 SP No.2 2-6-0

**BRACING-**

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

**REACTIONS.**

All bearings 10-7-0.  
 (lb) - Max Horz 2=121(LC 7)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 8 except 12=-156(LC 10), 10=-150(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 8, 11 except 12=284(LC 17), 10=277(LC 18)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BC DL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 40.0psf 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, 8 except (jt=lb) 12=156, 10=150.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 15, 2021

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**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



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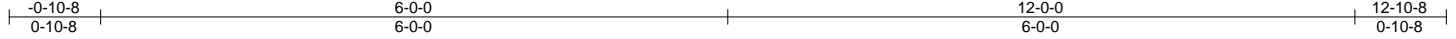
Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843089
J0721-4252	E1	Common	4	1		

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Job Reference (optional)



Scale = 1:22.0

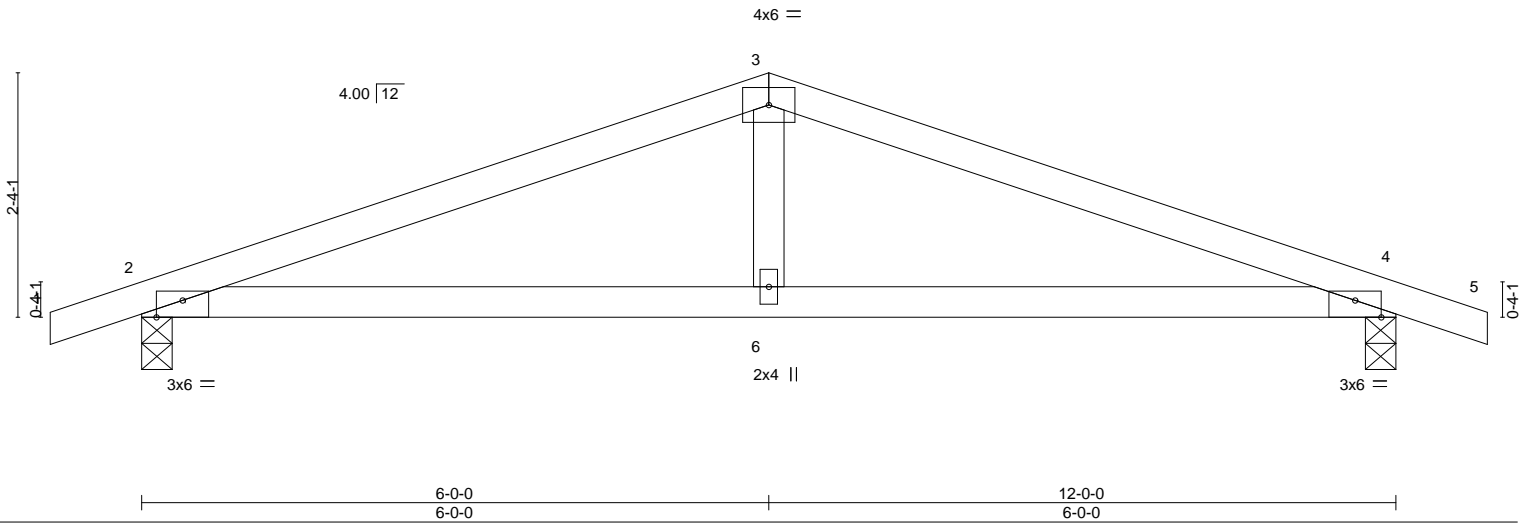


Plate Offsets (X,Y)-- [2:0-3-0,Edge], [4:0-3-0,Edge]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.37	Vert(LL) 0.08	2-6	>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: 42 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-11-14 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-5-11 oc bracing.

**REACTIONS.**

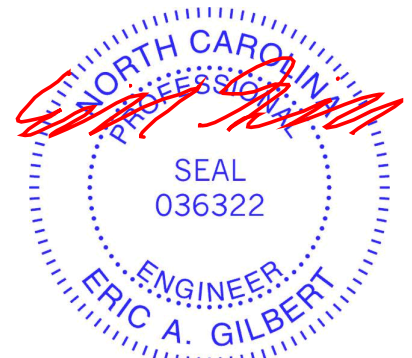
(size) 2=0-3-8, 4=0-3-8  
 Max Horz 2=-27(LC 15)  
 Max Uplift 2=-217(LC 6), 4=-217(LC 7)  
 Max Grav 2=530(LC 1), 4=530(LC 1)

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

TOP CHORD 2-3=-859/1008, 3-4=-859/1008  
 BOT CHORD 2-6=-865/759, 4-6=-865/759  
 WEBS 3-6=-371/281

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 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
- 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 40.0psf 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) except (jt=lb) 2=217, 4=217.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 15, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

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



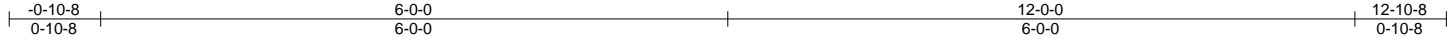
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843090
J0721-4252	E1-GE	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Jun 15 12:42:45 2021 Page 1

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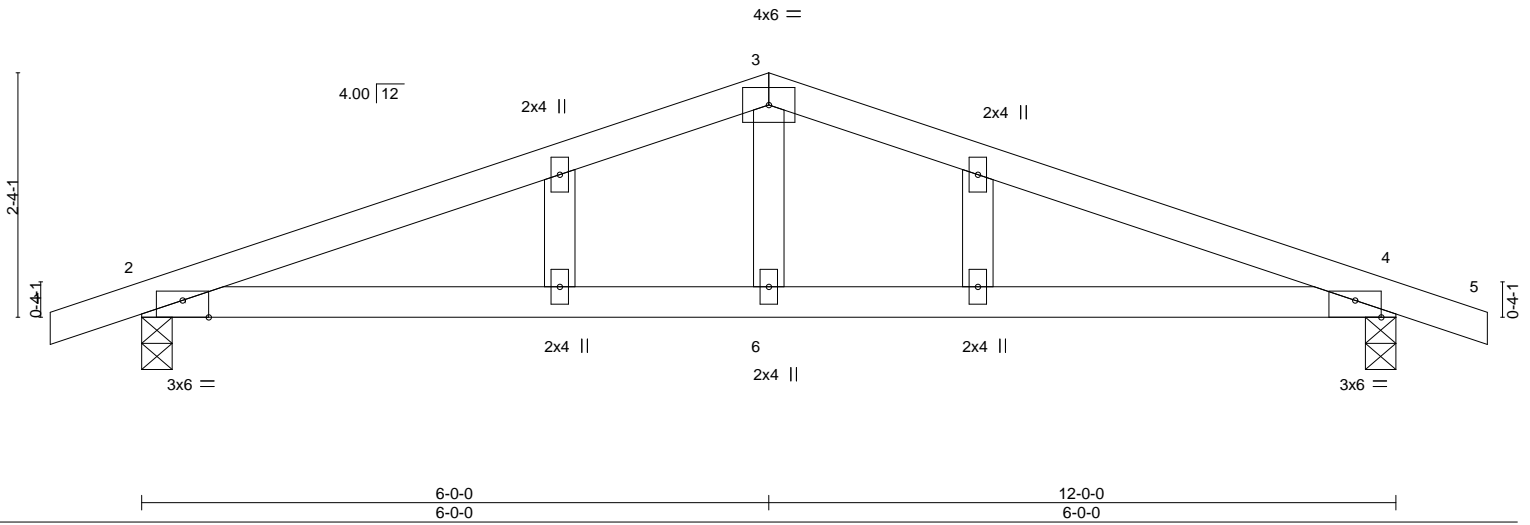


Plate Offsets (X,Y)--	[2:0-3-0,Edge], [4:0-3-0,Edge]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15		TC 0.37	Vert(LL) 0.08	4-6	>999	240		MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.30	Vert(CT) -0.07	4-6	>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%

**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x4 SP No.1  
 WEBS 2x4 SP No.2  
 OTHERS 2x4 SP No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-11-14 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-5-11 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 4=0-3-8  
 Max Horz 2=46(LC 10)  
 Max Uplift 2=-305(LC 6), 4=-305(LC 7)  
 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=-859/1008, 3-4=-859/1008  
 BOT CHORD 2-6=-865/759, 4-6=-865/759  
 WEBS 3-6=-371/281

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 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
- 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.
- Gable studs spaced at 2'-0" oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 40.0psf on the bottom chord in all areas where a rectangle 3'-6" tall by 2'-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) except (jt=lb) 2=305, 4=305.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 15, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

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



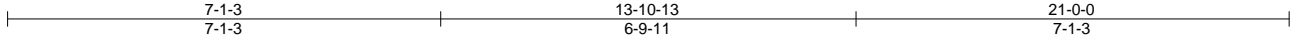
818 Soundside Road  
 Edenton, NC 27932

Job J0721-4252	Truss H01	Truss Type FLAT GIRDER	Qty 1	Ply 2	Cates/Lot 693 Lexington Plantation Job Reference (optional)	E15843091
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Comtech, Inc., Fayetteville, NC - 28314,

8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Jun 15 12:42:48 2021 Page 1

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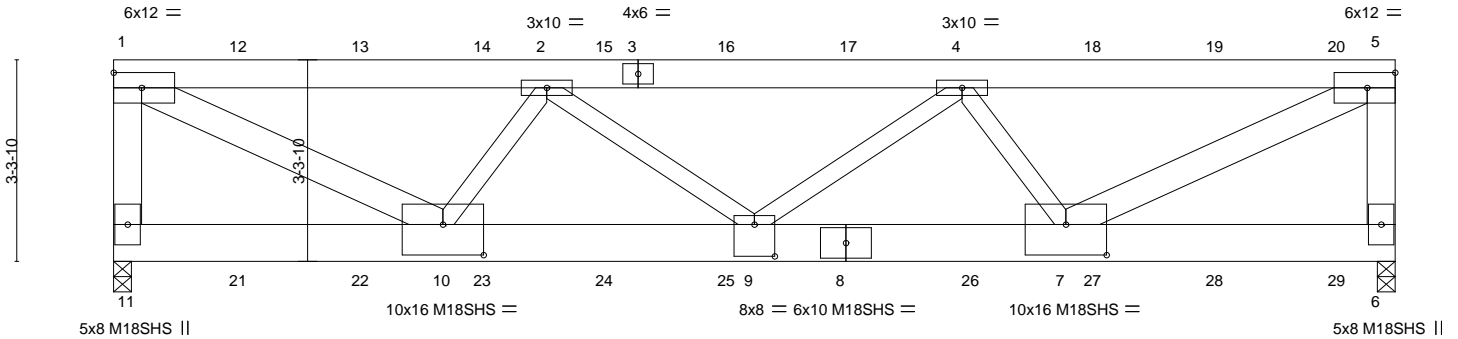


Plate Offsets (X,Y)--	[7:0-8-0,0-6-0], [9:0-4-0,0-6-4], [10:0-8-0,0-6-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.58	Vert(LL) -0.18 9 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.51	Vert(CT) -0.31 9-10 >793 240	M18SHS	244/190
BCLL 0.0 *	Rep Stress Incr NO	WB 0.78	Horz(CT) 0.04 6 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S	Wind(LL) 0.10 9 >999 240	Weight: 340 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-9-1 oc purlins, except end verticals.
BOT CHORD 2x8 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SP No.1 *Except* 2-10,2-9,4-9,4-7: 2x4 SP No.2	

**REACTIONS.** (size) 11=0-3-8, 6=0-3-8  
 Max Uplift 11=-777(LC 4), 6=-792(LC 4)  
 Max Grav 11=7715(LC 2), 6=8431(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-11=-6465/721, 1-2=-11811/1056, 2-4=-15434/1402, 4-5=-11806/1061, 5-6=-6426/696  
 BOT CHORD 10-11=-50/339, 9-10=-1303/13187, 7-9=-1309/13194, 6-7=-53/362  
 WEBS 1-10=-1143/13018, 2-10=-2629/472, 2-9=-127/2898, 4-9=-119/2890, 4-7=-2652/474,  
 5-7=-1145/12985

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-7-0 oc.  
 Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BC DL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 40.0psf 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) except (jt=lb) 11=777, 6=792.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Continued on page 2

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**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate  
 818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843091
J0721-4252	H01	FLAT GIRDER	1	2	Job Reference (optional)	

Comtech, Inc, Fayetteville, NC - 28314,

8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Jun 15 12:42:48 2021 Page 2  
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**NOTES-**

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 89 lb down and 67 lb up at 0-2-12, 96 lb down and 70 lb up at 2-0-12, 96 lb down and 70 lb up at 4-0-12, 96 lb down and 70 lb up at 6-0-12, 96 lb down and 70 lb up at 8-0-12, 96 lb down and 70 lb up at 10-0-12, 98 lb down and 73 lb up at 12-0-12, 98 lb down and 73 lb up at 14-0-12, 98 lb down and 73 lb up at 16-0-12, and 98 lb down and 73 lb up at 18-0-12, and 95 lb down and 72 lb up at 20-0-12 on top chord, and 30 lb down at 2-0-12, 1423 lb down and 97 lb up at 2-0-12, 30 lb down at 4-0-12, 1423 lb down and 97 lb up at 4-0-12, 30 lb down at 6-0-12, 1423 lb down and 97 lb up at 6-0-12, 30 lb down at 8-0-12, 1423 lb down and 97 lb up at 8-0-12, 30 lb down at 10-0-12, 1423 lb down and 97 lb up at 10-0-12, 31 lb down at 12-0-12, 1403 lb down and 97 lb up at 12-0-12, 31 lb down at 14-0-12, 1403 lb down and 97 lb up at 14-0-12, 31 lb down at 16-0-12, 1403 lb down and 97 lb up at 16-0-12, 31 lb down at 18-0-12, 1403 lb down and 97 lb up at 18-0-12, and 37 lb down at 20-0-12, and 1406 lb down and 94 lb up at 20-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-5=-60, 6-11=-20

Concentrated Loads (lb)

Vert: 1=-73(F) 8=-1182(F=-16, B=-1166) 4=-47(F) 12=-38(F) 13=-38(F) 14=-38(F) 15=-38(F) 16=-38(F) 17=-47(F) 18=-47(F) 19=-47(F) 20=-56(F) 21=-1181(F=-15, B=-1166) 22=-1181(F=-15, B=-1166) 23=-1181(F=-15, B=-1166) 24=-1181(F=-15, B=-1166) 25=-1181(F=-15, B=-1166) 26=-1182(F=-16, B=-1166) 27=-1182(F=-16, B=-1166) 28=-1182(F=-16, B=-1166) 29=-1188(F=-19, B=-1169)

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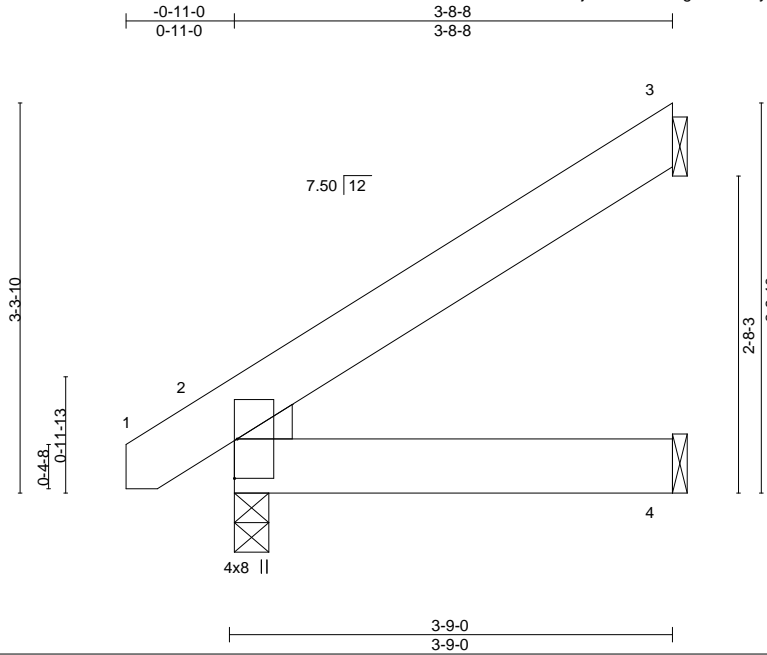
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843092
J0721-4252	J01	JACK-OPEN	6	1	Job Reference (optional)	

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8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Jun 15 12:42:49 2021 Page 1

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<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.08	Vert(LL) -0.00	2-4	>999	360		MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.04	Vert(CT) -0.00	2-4	>999	240			
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	Wind(LL) 0.00	2	****	240		Weight: 23 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEDGE  
 Left: 2x4 SP No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-9-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
 Max Horz 2=90(LC 10)  
 Max Uplift 3=-70(LC 10)  
 Max Grav 3=112(LC 17), 2=203(LC 1), 4=70(LC 3)

**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=5.0psf; 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
- 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 40.0psf 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 100 lb uplift at joint(s) 3.
- 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 15, 2021

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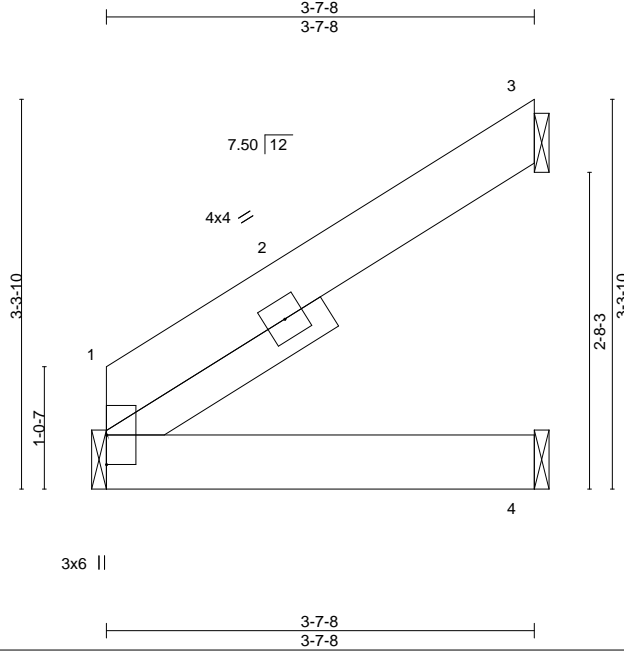


Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843093
J0721-4252	J02	JACK-OPEN	5	1	Job Reference (optional)	

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8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Jun 15 12:42:50 2021 Page 1

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Scale = 1:19.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.09	Vert(LL)	-0.00	1-4	>999	360	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(CT)	-0.00	1-4	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL)	0.00	1	****	240		
	Code IRC2015/TPI2014							Weight: 22 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 SLIDER Left 2x4 SP No.2 2-1-14

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-7-8 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

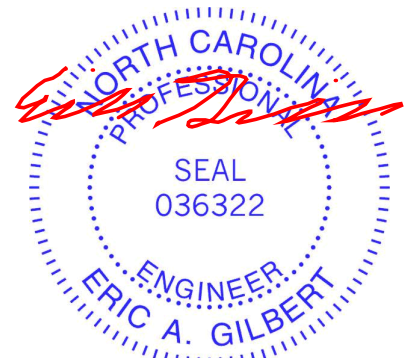
**REACTIONS.**

(size) 1=Mechanical, 3=Mechanical, 4=Mechanical  
 Max Horz 1=90(LC 10)  
 Max Uplift 3=-72(LC 10)  
 Max Grav 1=143(LC 1), 3=120(LC 17), 4=71(LC 3)

**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=5.0psf; 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
- 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 40.0psf 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 100 lb uplift at joint(s) 3.
- 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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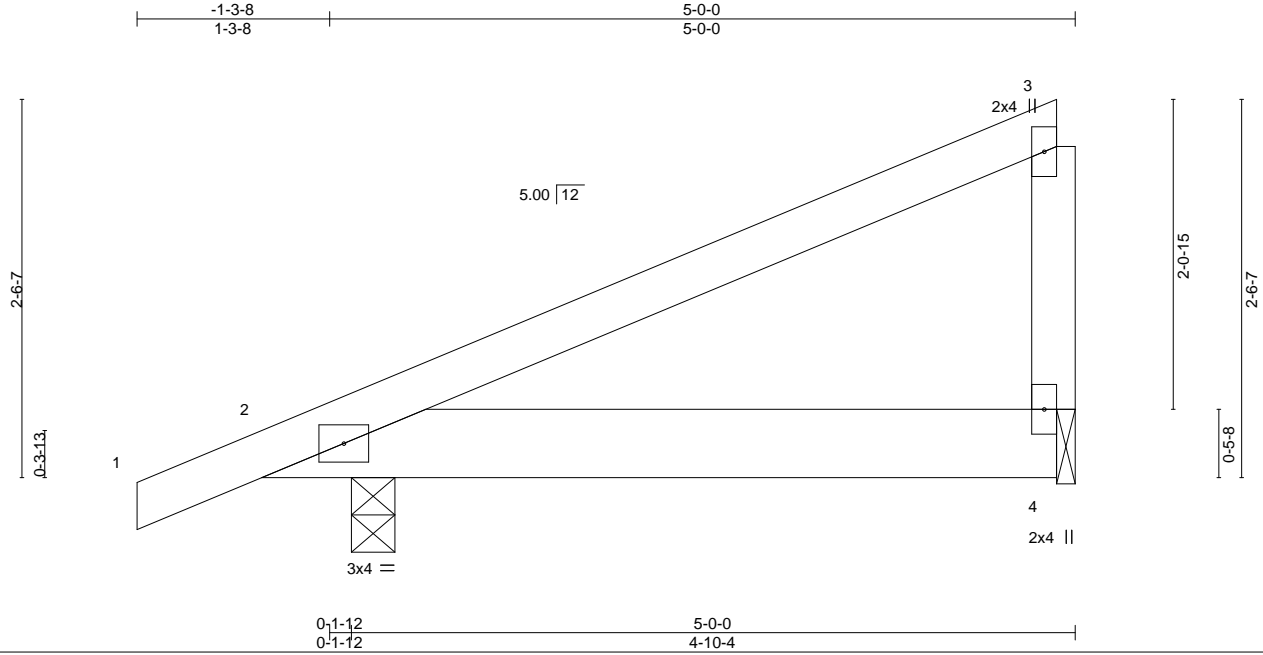
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843094
J0721-4252	M1	MONOPITCH	6	1	Job Reference (optional)	

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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.35	Vert(LL)	-0.01	2-4	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.39	Vert(CT)	-0.02	2-4	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL)	0.02	2-4	>999	Weight: 25 lb	FT = 20%
	Code IRC2015/TPI2014							

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

**REACTIONS.** (size) 4=0-1-8, 2=0-3-8  
 Max Horz 2=80(LC 10)  
 Max Uplift 4=69(LC 6), 2=82(LC 6)  
 Max Grav 4=199(LC 1), 2=271(LC 1)

**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=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 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 40.0psf 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, 2.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843095
J0721-4252	M2	ROOF SPECIAL	4	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC - 28314,

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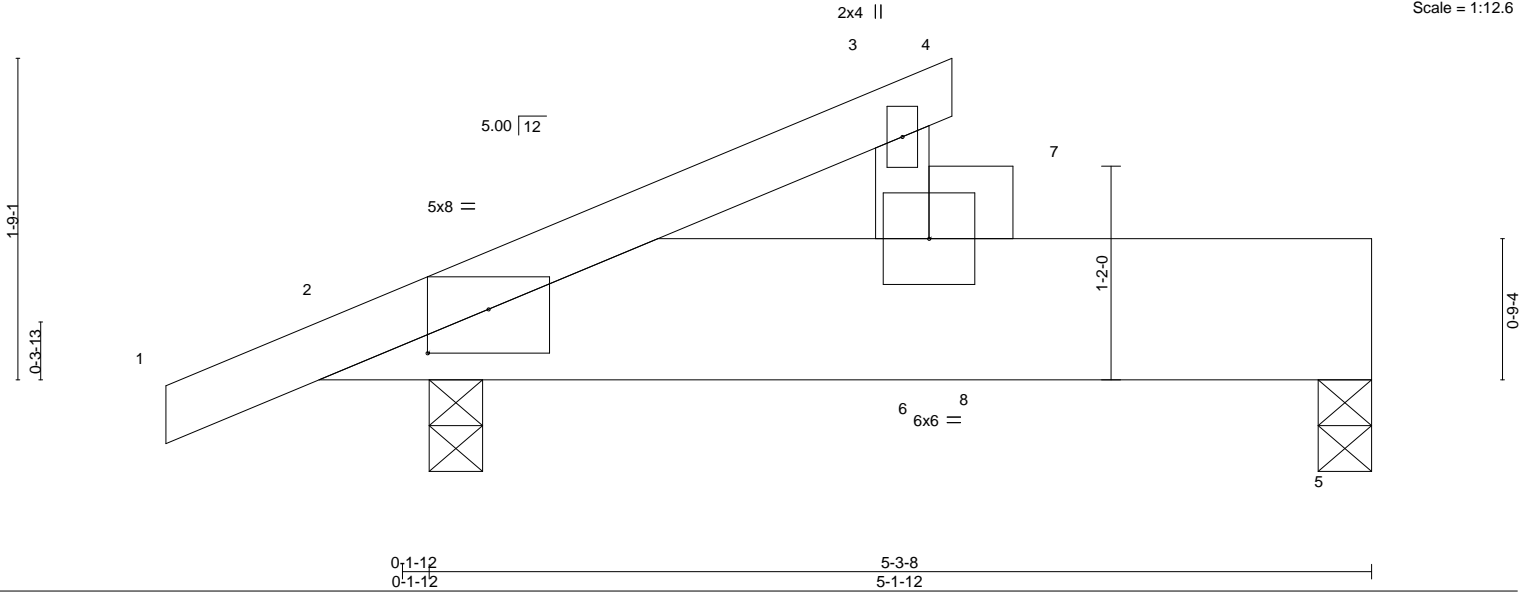


Plate Offsets (X,Y)--	[2:0-4-0,0-2-14]
-----------------------	------------------

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.30	Vert(LL) -0.03	6	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.51	Vert(CT) -0.07	6	>946	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.00	Horz(CT) 0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P	Wind(LL) 0.06	6	>999	240	Weight: 32 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 3-0-0 oc purlins, except end verticals.
BOT CHORD 2x10 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 9-0-12 oc bracing.
WEBS 2x4 SP No.2 *Except* 6-7: 2x6 SP No.1	

**REACTIONS.** (size) 5=0-3-8, 2=0-3-8  
 Max Horz 2=54(LC 10)  
 Max Uplift 5=-217(LC 10), 2=-146(LC 10)  
 Max Grav 5=1784(LC 1), 2=1122(LC 1)

**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=5.0psf; 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
  - 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 40.0psf 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=217, 2=146.
  - 5) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s). The design/selection of such connection device(s) is the responsibility of others.

**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=-20, 2-6=-20, 5-6=-130

Concentrated Loads (lb)  
 Vert: 8=-2300

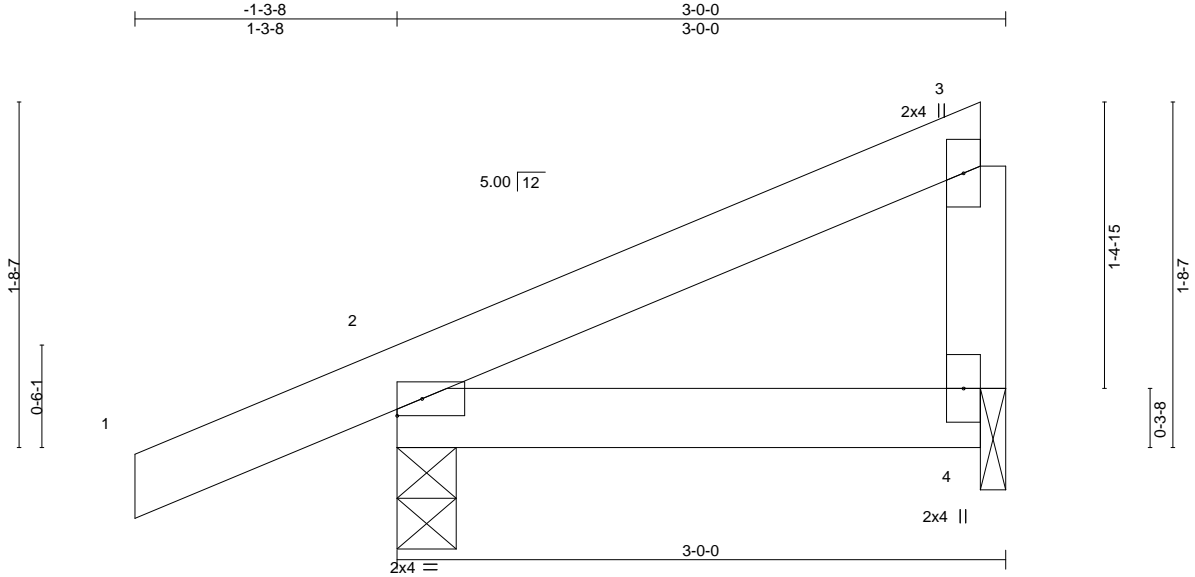


Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843096
J0721-4252	M3	MONOPITCH TRUSS	6	1	Job Reference (optional)	

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Scale = 1:11.4

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	-0.00	2-4	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.01	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P	Wind(LL)	0.01	2-4	>999	240	Weight: 13 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 2=0-3-8, 4=0-1-8  
 Max Horz 4=54(LC 10)  
 Max Uplift 2=-75(LC 6), 4=-29(LC 6)  
 Max Grav 2=217(LC 1), 4=83(LC 1)

**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=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 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 40.0psf 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) 2, 4.
- 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 15, 2021

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**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

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



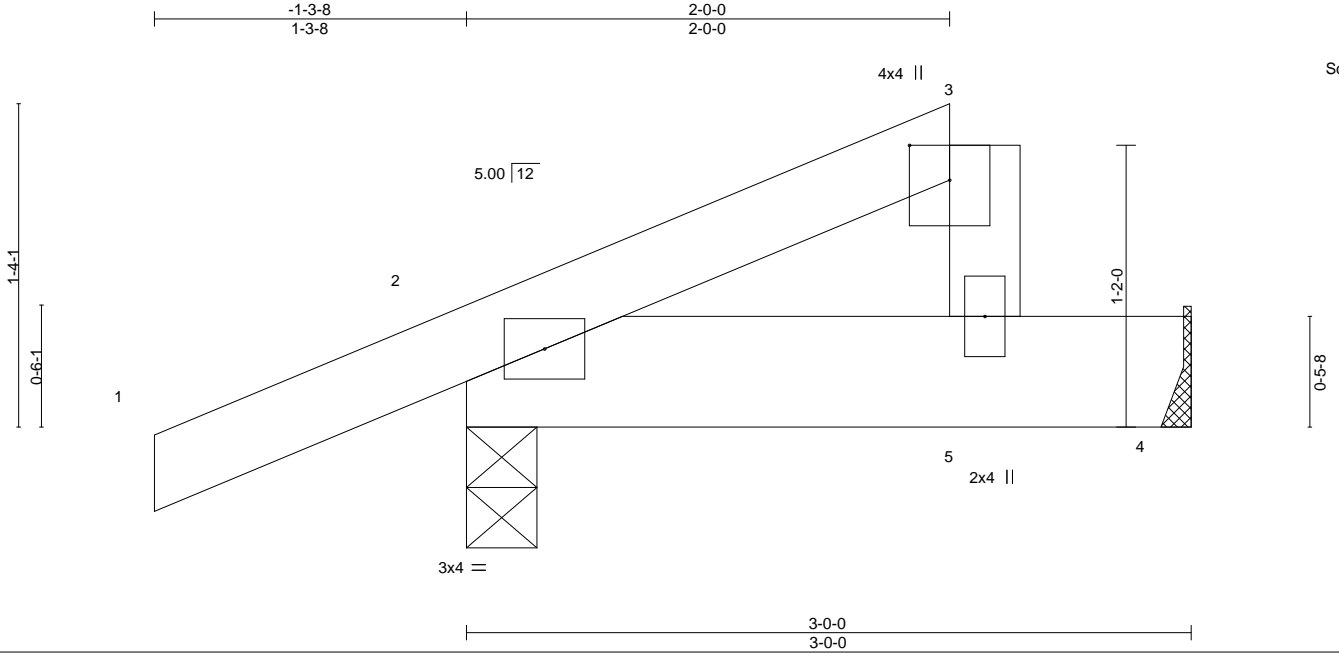
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843097
J0721-4252	M4	MONOPITCH TRUSS	5	1	Job Reference (optional)	

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Scale = 1:9.5

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

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	2-0-0	TC 0.10	Vert(LL) -0.01	5	>999	360		MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.34	Vert(CT) -0.01	2-5	>999	240			
BCLL 0.0 *	Rep Stress Incr NO		WB 0.01	Horz(CT) -0.00	2	n/a	n/a			
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL) 0.02	2-5	>999	240		Weight: 14 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 4=Mechanical, 2=0-3-8  
 Max Horz 4=44(LC 10)  
 Max Uplift 4=-176(LC 6), 2=-128(LC 6)  
 Max Grav 4=569(LC 1), 2=382(LC 1)

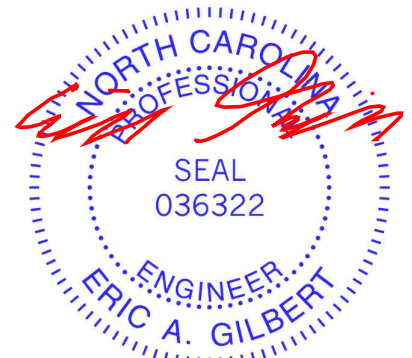
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**NOTES-**

- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 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 40.0psf 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 100 lb uplift at joint(s) except (it=lb) 4=176, 2=128.
- 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 2-5=-20, 4-5=-130  
 Concentrated Loads (lb)  
 Vert: 5=-600



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



818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843098
J0721-4252	M5	MONOPITCH TRUSS	2	1	Job Reference (optional)	

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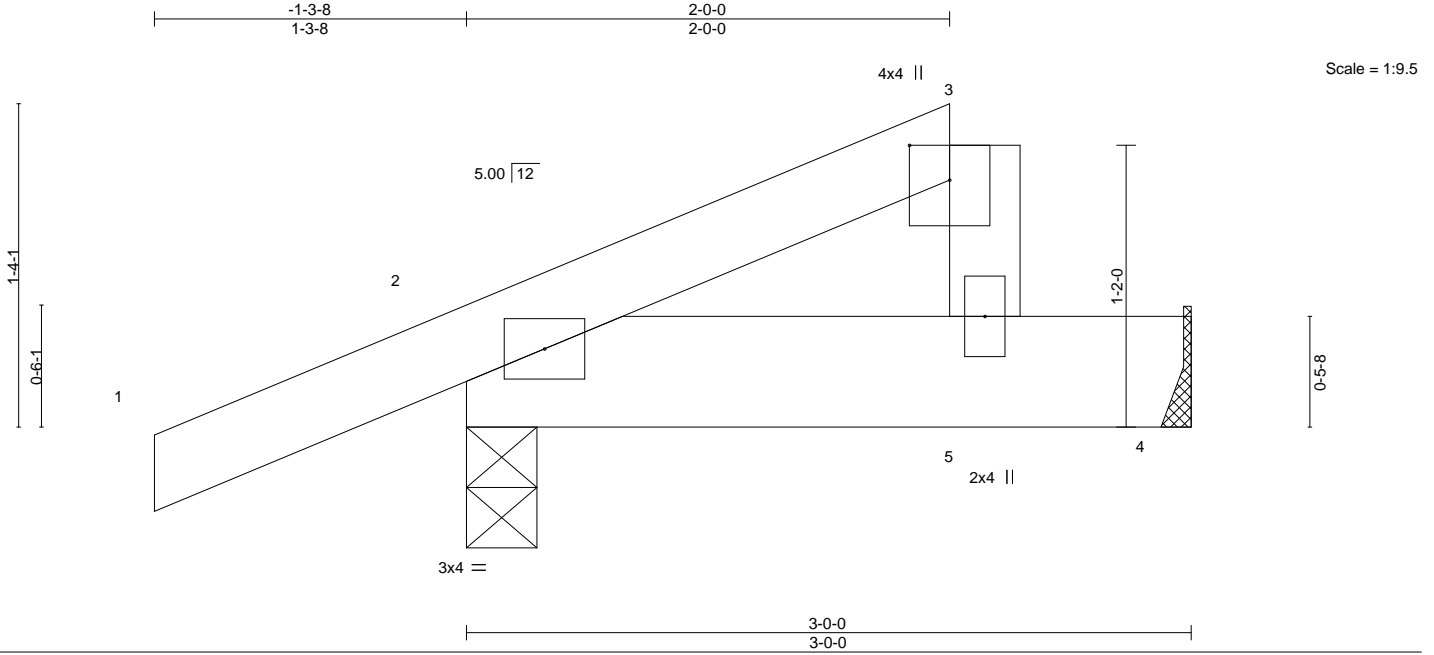


Plate Offsets (X,Y)-- [3:0-1-12,0-2-0]

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 0.10	Vert(LL)	-0.01	5	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.35	Vert(CT)	-0.01	2-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.01	Horz(CT)	-0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S	Wind(LL)	0.02	2-5	>999	240	Weight: 14 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 2-0-0 oc purlins.
BOT CHORD 2x6 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

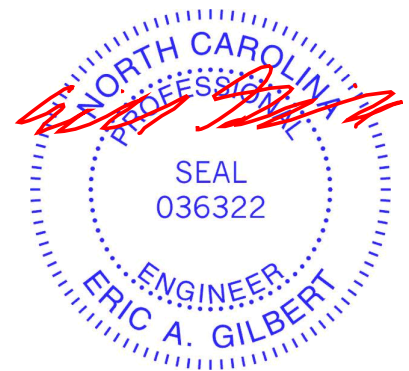
**REACTIONS.** (size) 4=Mechanical, 2=0-3-8  
 Max Horz 4=44(LC 10)  
 Max Uplift 4=-178(LC 6), 2=-128(LC 6)  
 Max Grav 4=576(LC 1), 2=383(LC 1)

**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=5.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) 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 40.0psf 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 100 lb uplift at joint(s) except (it=lb) 4=178, 2=128.
  - 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-60, 2-5=-20, 4-5=-140  
 Concentrated Loads (lb)  
 Vert: 5=-600

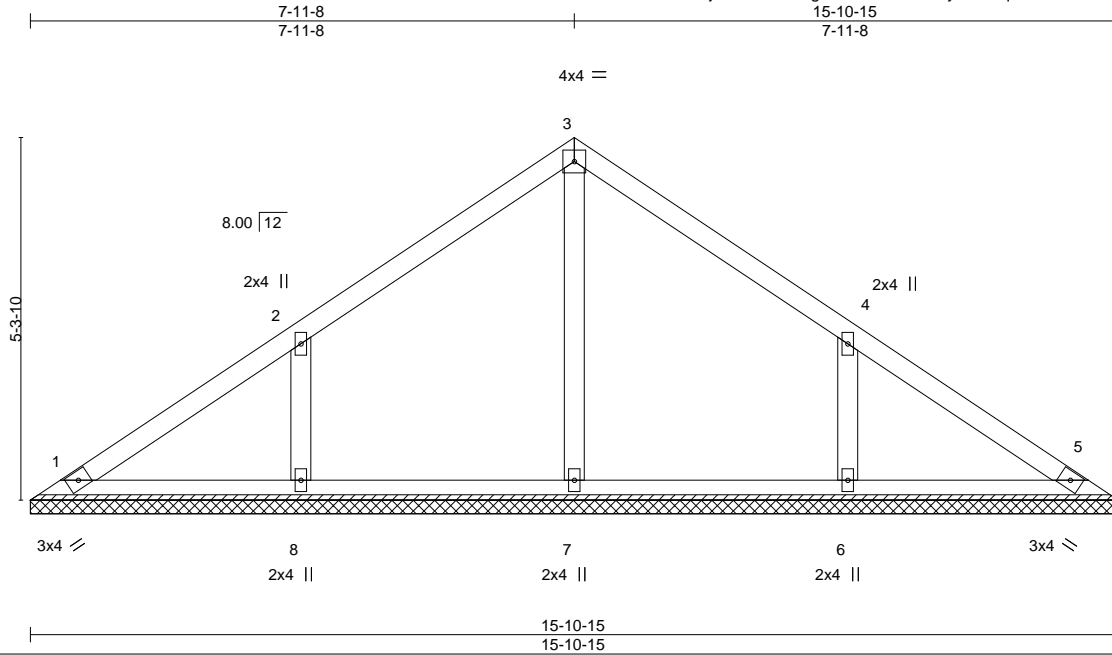


Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843099
J0721-4252	VC01	Valley	1	1	Job Reference (optional)	

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Scale = 1:33.7

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 64 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

All bearings 15-10-15.

(lb) - Max Horz 1=119(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=115(LC 10), 6=115(LC 11)

Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=378(LC 17), 6=378(LC 18)

**FORCES.**

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

WEBS 2-8=-317/225, 4-6=-317/225

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCCL=5.0psf; 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
- Gable requires continuous bottom chord bearing.
- 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 40.0psf 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) 1 except (jt=lb) 8=115, 6=115.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 15, 2021

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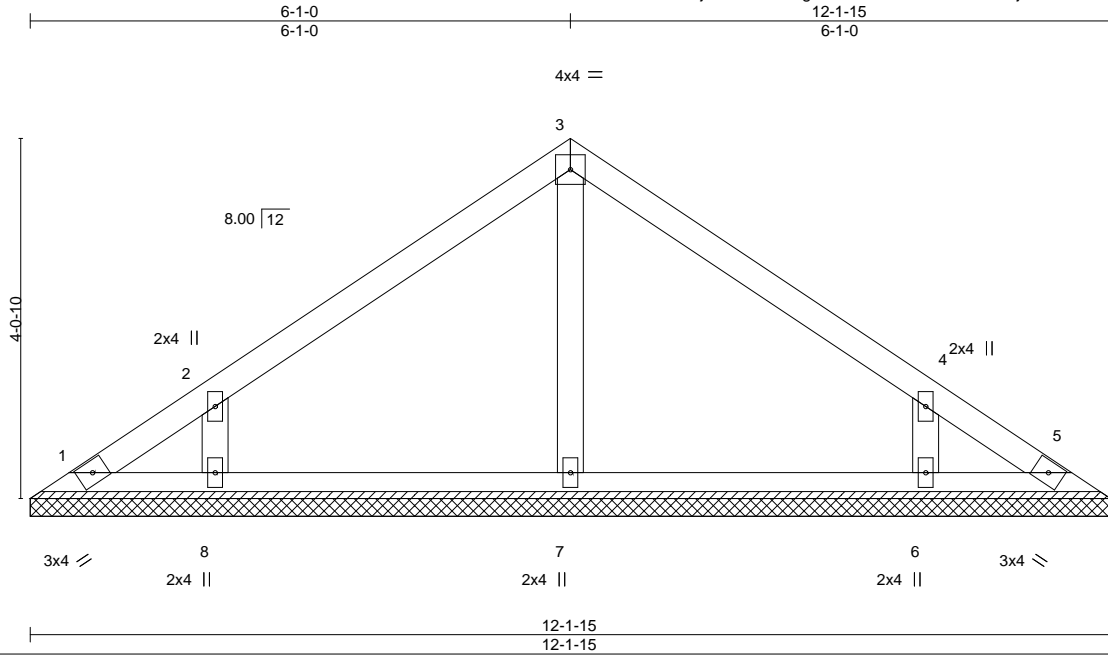
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843100
J0721-4252	VC02	Valley	1	1	Job Reference (optional)	

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Scale = 1:25.9

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.09	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						Weight: 46 lb	FT = 20%
	Code IRC2015/TPI2014								

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

All bearings 12-1-15.

(lb) - Max Horz 1=90(LC 7)

Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=264(LC 1), 8=314(LC 17), 6=314(LC 18)

**FORCES.**

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

WEBS 2-8=-279/206, 4-6=-279/206

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCCL=5.0psf; 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
- Gable requires continuous bottom chord bearing.
- 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 40.0psf 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) 1, 5, 8, 6.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 15, 2021

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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**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



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 Edenton, NC 27932

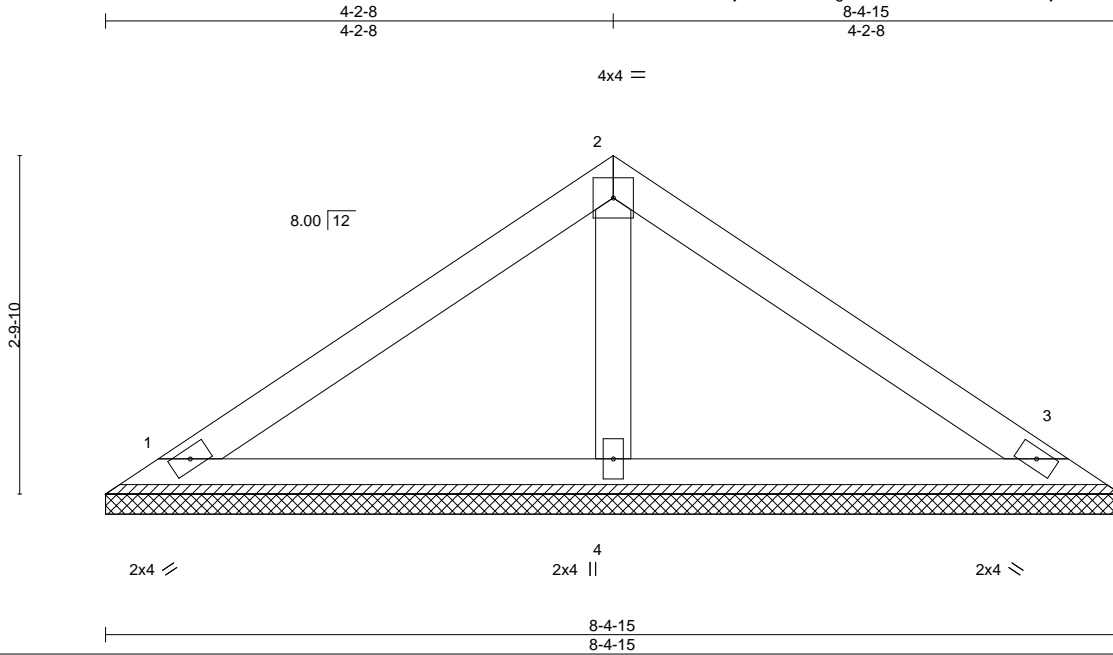


Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843101
J0721-4252	VC03	Valley	1	1	Job Reference (optional)	

Comtech, Inc. Fayetteville, NC - 28314,

8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Jun 15 12:42:56 2021 Page 1

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Scale = 1:19.1

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.19	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 29 lb	FT = 20%
	Code IRC2015/TPI2014							

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 1=8-4-15, 3=8-4-15, 4=8-4-15  
 Max Horz 1=60(LC 6)  
 Max Uplift 1=28(LC 10), 3=34(LC 11)  
 Max Grav 1=162(LC 1), 3=162(LC 1), 4=272(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; 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
- Gable requires continuous bottom chord bearing.
- 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 40.0psf 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) 1, 3.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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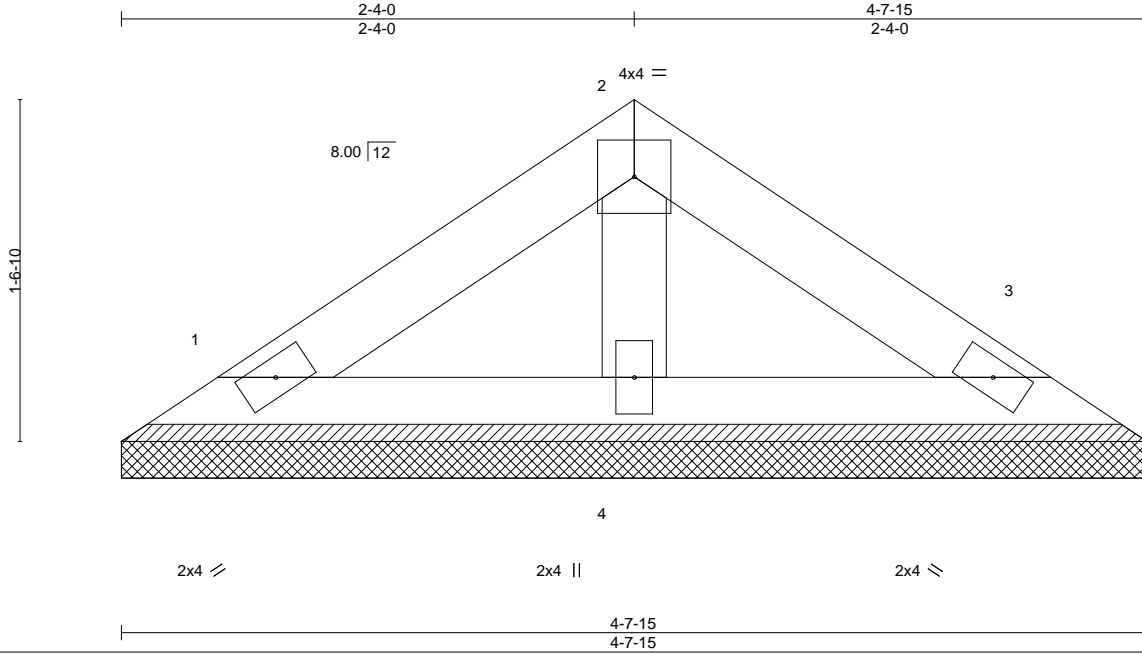
818 Soundside Road  
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Job	Truss	Truss Type	Qty	Ply	Cates/Lot 693 Lexington Plantation	E15843102
J0721-4252	VC04	Valley	1	1	Job Reference (optional)	

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8.430 s Jun 2 2021 MiTek Industries, Inc. Tue Jun 15 12:42:57 2021 Page 1

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Scale = 1:10.5

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						Weight: 15 lb	FT = 20%
	Code IRC2015/TPI2014								

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-7-15 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=4-7-15, 3=4-7-15, 4=4-7-15  
 Max Horz 1=30(LC 7)  
 Max Uplift 1=14(LC 10), 3=17(LC 11)  
 Max Grav 1=80(LC 1), 3=80(LC 1), 4=135(LC 1)

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; 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
- Gable requires continuous bottom chord bearing.
- 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 40.0psf 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) 1, 3.
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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# 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- 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 X 4**

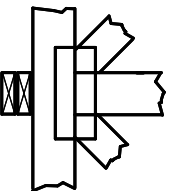
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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



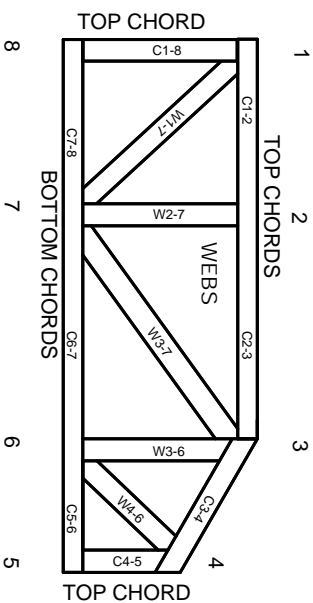
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

6-4-8  
dimensions shown in ft-in-sixteenths  
(Drawings not to scale)



**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: Mill-7473 rev. 5/19/2020



# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. 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.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. 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.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. 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.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. 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.