ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 35842-35842A
53 SERENITY - ROOF

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.

Pages or sheets covered by this seal: I56950003 thru I56950043

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844

March 6,2023

Gilbert, Eric

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	A1E	ROOF TRUSS	1	1	I56950003
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:37:58 2023 Page 1

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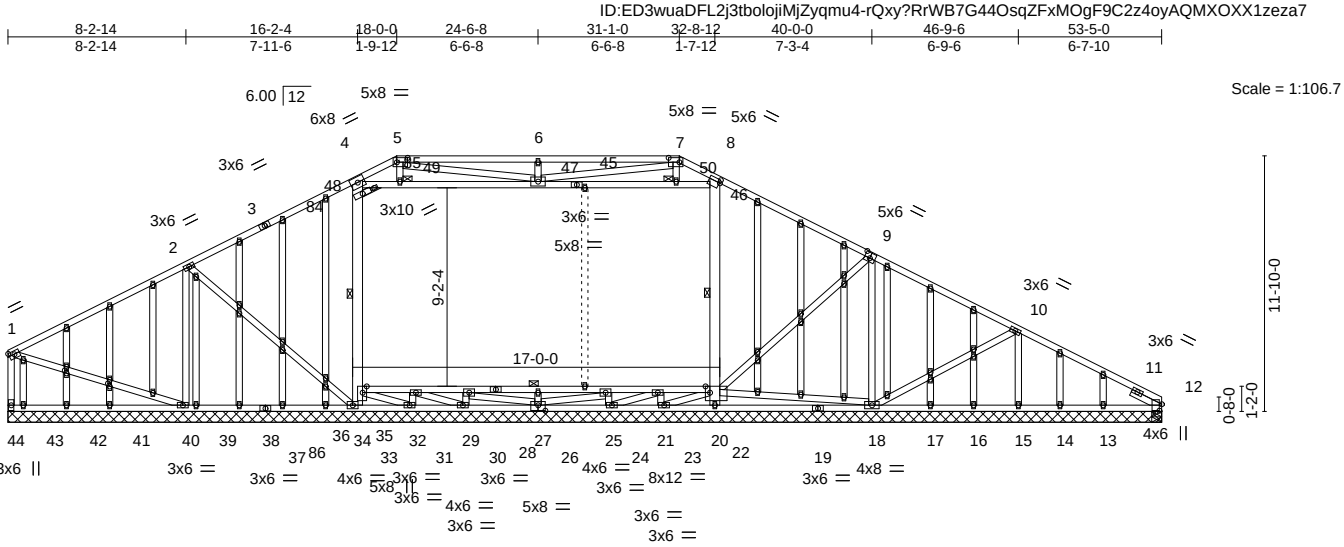

NON-STRUCTURAL STUD(S) SHOWN DASHED FOR TRUSS HANDLING. TO BE REMOVED AFTER TRUSS IS INSTALLED.

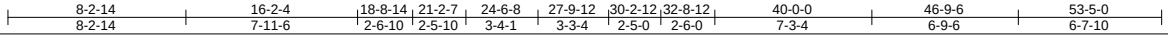

Plate Offsets (X,Y)-- [1:Edge,0-1-12], [5:0-6-0,0-2-8], [7:0-6-0,0-2-8], [8:0-0-5,0-1-12], [9:0-3-0,0-3-0], [12:0-3-9,0-1-5], [22:0-2-8,Edge], [27:0-4-0,0-3-0], [33:Edge,0-2-4], [60:0-1-11,0-1-0], [62:0-1-11,0-1-0]

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	0.90	Vert(LL)	-0.05	18-20	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.11	18-20	>822	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.02	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 553 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2 *Except* 4-34,8-20: 2x6 SP No.2, 1-44: 2x4 SP No.3
OTHERS	2x4 SP No.3 *Except* 51-52,39-57,65-67,74-75,82-83: 2x4 SP No.2
SLIDER	Right 2x4 SP No.3 1-6-6

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 10-0-0 oc bracing: 22-33
WEBS	1 Row at midpt 33-48, 22-46
JOINTS	1 Brace at Jt(s): 49, 50

REACTIONS. All bearings 53-5-0.

(lb) - Max Horz 44=-213(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 44, 40, 34, 18, 39, 43, 13 except 12=-104(LC 11)

Max Grav All reactions 250 lb or less at joint(s) 35, 36, 38, 39, 41, 42, 43, 17, 16, 14, 13 except 44=471(LC 22), 40=678(LC 22), 34=735(LC 1), 20=737(LC 1), 18=665(LC 23), 12=377(LC 23), 12=376(LC 1), 27=438(LC 16), 29=380(LC 16), 25=386(LC 16), 32=349(LC 16), 21=298(LC 16), 15=406(LC 23)

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

TOP CHORD	1-2=-390/95, 2-4=-524/165, 4-5=-784/169, 5-6=-2427/514, 6-7=-2427/514, 7-8=-967/199, 8-9=-586/174, 9-10=-478/151, 10-12=-544/232, 1-44=-408/105
BOT CHORD	39-40=-47/314, 38-39=-47/314, 36-38=-47/314, 35-36=-47/314, 34-35=-47/314, 32-34=0/296, 20-21=0/324, 17-18=-120/387, 16-17=-120/387, 15-16=-120/387, 14-15=-120/387, 13-14=-120/387, 12-13=-120/387
WEBS	2-40=-664/172, 33-34=-773/72, 33-84=-748/155, 48-84=-369/148, 4-48=-522/159, 20-22=-637/106, 22-46=-665/149, 8-46=-579/161, 9-18=-538/93, 26-27=-386/0, 29-30=-320/0, 24-25=-316/0, 48-85=-87/890, 49-85=0/276, 47-49=0/267, 47-50=-36/438, 46-50=-39/431, 6-47=-422/158, 31-32=-298/0, 21-23=-272/0, 5-47=-390/1823, 7-47=-351/1658, 10-15=-363/23, 84-85=-687/106

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 2x4 MT20 unless otherwise indicated.
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, with BCDL = 10.0psf.

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Continued on page 2

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NOTES-

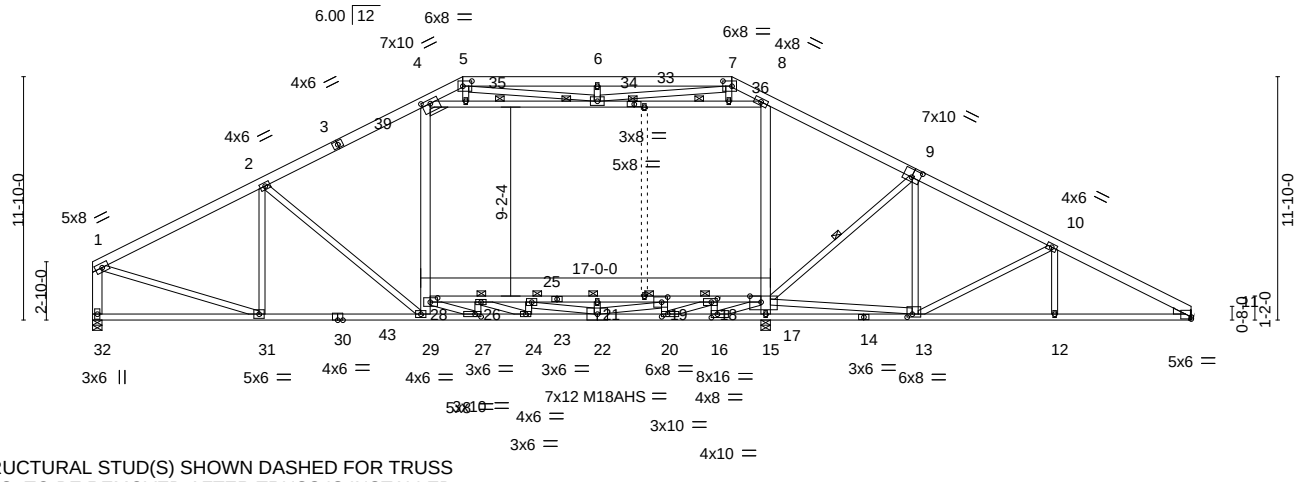
7) Ceiling dead load (5.0 psf) on member(s). 48-85, 49-85, 47-49, 47-50, 46-50; Wall dead load (5.0psf) on member(s).33-84, 48-84, 22-46
8) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 31-33, 30-31, 26-30, 24-26, 23-24, 22-23
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 44, 40, 34, 18, 39, 43, 13 except (jt=lb) 12=104.
10) Attic room checked for L/360 deflection.

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF	I56950004
35842-35842A	A2	ROOF TRUSS	6	1	Job Reference (optional)	

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:01 2023 Page 1
ID:ED3wuaDFL2j3tbolojiMjZyqmu4-F?d5dStOU2efxsbPEOU30JtlZGsp?G5t2VcB8Mzeza4

8-2-14 | 16-2-4 | 18-0-0 | 24-6-8 | 31-1-0 | 32-8-12 | 40-0-0 | 46-9-6 | 53-5-0
8-2-14 | 7-11-6 | 1-9-12 | 6-6-8 | 6-6-8 | 1-7-12 | 7-3-4 | 6-9-6 | 6-7-10

Scale = 1:112.0



NON-STRUCTURAL STUD(S) SHOWN DASHED FOR TRUSS HANDLING. TO BE REMOVED AFTER TRUSS IS INSTALLED.

8-2-14 | 16-2-4 | 18-8-14 | 21-2-7 | 24-6-8 | 26-10-0 | 27-9-12 | 30-2-12 | 32-8-12 | 40-0-0 | 46-9-6 | 53-5-0
8-2-14 | 7-11-6 | 2-6-10 | 2-5-10 | 3-4-1 | 2-3-8 | 0-11-12 | 2-5-0 | 2-6-0 | 7-3-4 | 6-9-6 | 6-7-10

Plate Offsets (X,Y)-- [4:0-5-0,0-2-4], [5:0-5-4,0-3-0], [7:0-5-4,0-3-0], [9:0-5-0,0-4-8], [11:0-0-0,0-1-3], [13:0-3-0,0-1-12], [16:0-3-8,0-2-0], [17:0-6-8,Edge], [18:0-3-8,0-2-0], [19:0-3-8,0-3-0], [20:0-3-8,0-1-8], [27:0-3-8,0-1-8], [28:0-4-4,0-2-8]

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	0.58	Vert(LL)	-0.35	21-25	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.66	24-27	>587	180	M18AHS	186/179
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.14	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Attic	-0.25	17-28	770	360	Weight: 467 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
11-14,14-22: 2x4 SP No.1, 22-30: 2x4 SP DSS
WEBS 2x4 SP No.2 *Except*
4-29,8-15,1-32: 2x6 SP No.2
21-22,24-25,19-20,22-25,19-22,26-27,27-28,24-26,16-18,4-39: 2x4 SP
OTHERS 2x4 SP No.2
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-2-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 29-31
3-11-3 oc bracing: 15-16
4-3-8 oc bracing: 13-15.
3-2-0 oc bracing: 17-28
WEBS 1 Row at midpt 9-17
3-3-0 oc bracing: 4-8

REACTIONS. (size) 32=0-5-8, 15=0-5-8, 11=Mechanical
Max Horz 32=-202(LC 11)
Max Grav 32=2469(LC 24), 15=1382(LC 25), 11=1967(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-3141/48, 2-4=-3319/40, 4-5=-1306/127, 5-6=-2218/456, 6-7=-2218/456, 7-8=-1575/157, 8-9=-3211/62, 9-10=-3310/155, 10-11=-3702/183, 1-32=-2398/77
BOT CHORD 29-31=0/2732, 27-29=0/2956, 24-27=0/4192, 22-24=0/5023, 20-22=0/3225, 16-20=0/964, 15-16=-1856/0, 13-15=-1662/0, 12-13=-90/3212, 11-12=-90/3212, 26-28=-1628/0, 25-26=-2624/0, 21-25=-2529/0, 19-21=-2529/0, 18-19=-825/666, 17-18=0/1939
WEBS 2-31=-595/81, 2-29=0/330, 28-39=0/847, 4-39=0/731, 15-17=-1101/75, 8-17=-13/861, 9-17=-445/287, 9-13=-275/103, 1-31=0/2771, 21-22=-379/0, 24-25=-279/3, 19-20=-754/0, 22-25=-299/39, 19-22=0/1763, 4-35=-1726/46, 34-35=-1699/48, 34-36=-1518/3, 8-36=-1615/0, 6-34=-313/136, 26-27=-639/0, 27-28=0/1696, 24-26=0/1057, 16-18=-1134/0, 18-20=0/2455, 16-17=0/2970, 7-36=0/489, 13-17=0/4288, 5-34=-433/1099, 7-34=-458/1060, 10-13=-464/170

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

Continued on page 2

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

March 6,2023

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Edenton, NC 27932

NOTES-

8) Ceiling dead load (5.0 psf) on member(s). 4-35, 34-35, 34-36, 8-36; Wall dead load (5.0psf) on member(s).28-39, 4-39, 8-17
9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 26-28, 25-26, 21-25, 19-21, 18-19, 17-18
10) Refer to girder(s) for truss to truss connections.
11) Attic room checked for L/360 deflection.

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	A3	ROOF TRUSS	1	1	I56950005
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:04 2023 Page 1

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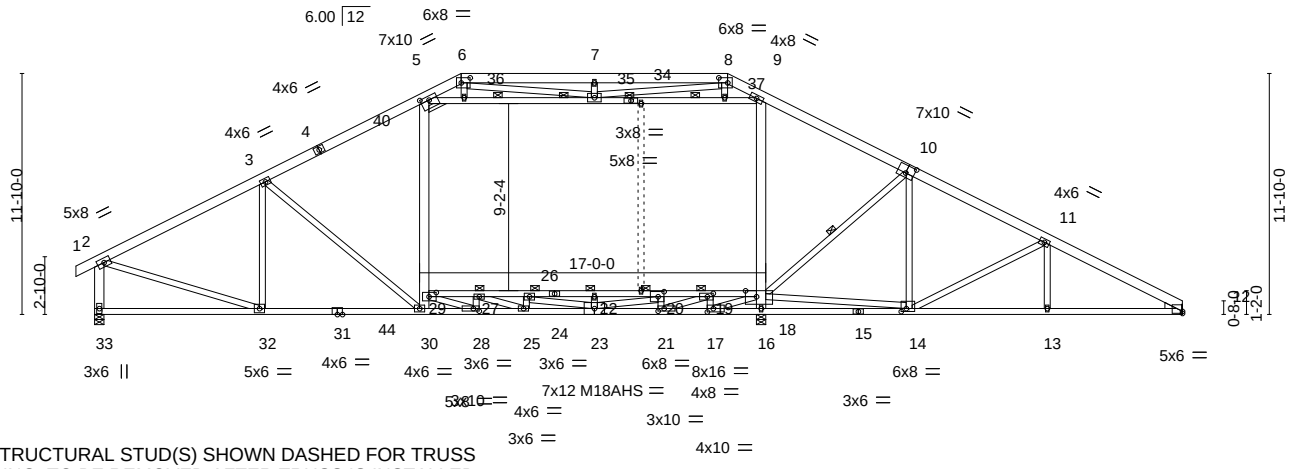
-0-11-0 8-2-14 16-2-4 18-0-0 24-6-8 31-1-0 32-8-12 40-0-0 46-9-6 53-5-0

0-11-0 8-2-14 7-11-6 1-9-12 6-6-8 6-6-8 1-7-12 7-3-4 6-9-6 6-7-10

Scale = 1:113.1



NON-STRUCTURAL STUD(S) SHOWN DASHED FOR TRUSS HANDLING. TO BE REMOVED AFTER TRUSS IS INSTALLED.

27-9-12

8-2-14 16-2-4 18-8-14 21-2-7 24-6-8 26-10-0 30-2-12 32-8-12 40-0-0 46-9-6 53-5-0

8-2-14 7-11-6 2-6-10 2-5-10 3-4-1 2-3-8 2-5-0 2-6-0 7-3-4 6-9-6 6-7-10

0-11-12

Plate Offsets (X,Y)-- [5:0-5-0,0-2-4], [6:0-5-4,0-3-0], [8:0-5-4,0-3-0], [10:0-5-0,0-4-8], [12:0-0-0,0-1-3], [14:0-3-0,0-1-12], [17:0-3-8,0-2-0], [18:0-6-8,Edge], [19:0-3-8,0-2-0], [20:0-3-8,0-3-0], [21:0-3-8,0-1-8], [28:0-3-8,0-1-8], [29:0-4-4,0-2-8]

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	0.58	Vert(LL)	-0.35	22-26	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.67	25-28	>585	180	M18AHS	186/179
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.14	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Attic	-0.25	18-29	770	360	Weight: 469 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.2

BOT CHORD 2x4 SP No.2 *Except*
12-15,15-23: 2x4 SP No.1, 23-31: 2x4 SP DSS

WEBS 2x4 SP No.3 *Except*
3-32,3-30,10-18,10-14,2-32,19-21,17-18,6-35,8-35,11-14: 2x4 SP No.2
5-30,9-16,2-33: 2x6 SP No.2, 9-34,5-34,14-18: 2x4 SP No.1

OTHERS 2x4 SP No.2

WEDGE
Right: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-2-8 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-2-0 oc bracing: 30-32
3-11-2 oc bracing: 16-17
4-3-8 oc bracing: 14-16.
3-2-0 oc bracing: 18-29

WEBS 1 Row at midpt 10-18
3-3-0 oc bracing: 5-9

REACTIONS. (size) 33=0-5-8, 16=0-5-8, 12=Mechanical
Max Horz 33=-194(LC 11)
Max Grav 33=2530(LC 24), 16=1375(LC 25), 12=1971(LC 2)

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

TOP CHORD 2-3=-3144/57, 3-5=-3324/44, 5-6=-1270/124, 6-7=-2196/461, 7-8=-2196/461, 8-9=-1570/158, 9-10=-3221/67, 10-11=-3320/160, 11-12=-3710/187, 2-33=-2459/129

BOT CHORD 30-32=0/2730, 28-30=0/2964, 25-28=0/4199, 23-25=0/5029, 21-23=0/3226, 17-21=0/964, 16-17=-1857/0, 14-16=-1661/0, 13-14=-94/3220, 12-13=-94/3220, 27-29=-1626/0, 26-27=-2621/0, 22-26=-2524/0, 20-22=-2524/0, 19-20=-818/672, 18-19=0/1949

WEBS 3-32=-586/71, 3-30=0/340, 29-40=0/840, 5-40=0/725, 16-18=-1094/76, 9-18=-8/870, 10-18=-445/287, 10-14=-276/102, 2-32=0/2741, 22-23=-379/0, 25-26=-279/4, 20-21=-755/0, 23-26=-300/40, 20-23=0/1766, 5-36=-1787/54, 35-36=-1760/56, 35-37=-1531/7, 9-37=-1628/1, 7-35=-314/136, 27-28=-638/0, 28-29=0/1695, 25-27=0/1055, 17-19=-1134/0, 19-21=0/2457, 17-18=0/2972, 8-37=0/492, 14-18=0/4296, 6-35=-430/1111, 8-35=-461/1039, 11-14=-463/170

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Ceiling dead load (5.0 psf) on member(s). 5-36, 35-36, 35-37, 9-37; Wall dead load (5.0psf) on member(s).29-40, 5-40, 9-18

Continued on page 2

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NOTES-

9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 27-29, 26-27, 22-26, 20-22, 19-20, 18-19
10) Refer to girder(s) for truss to truss connections.
11) Attic room checked for L/360 deflection.

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	A4G	ROOF TRUSS	1	3	I56950006
					Job Reference (optional)

8.630 s Nov 21 2022 MiTek Industries, Inc. Mon Mar 6 07:16:13 2023 Page 1
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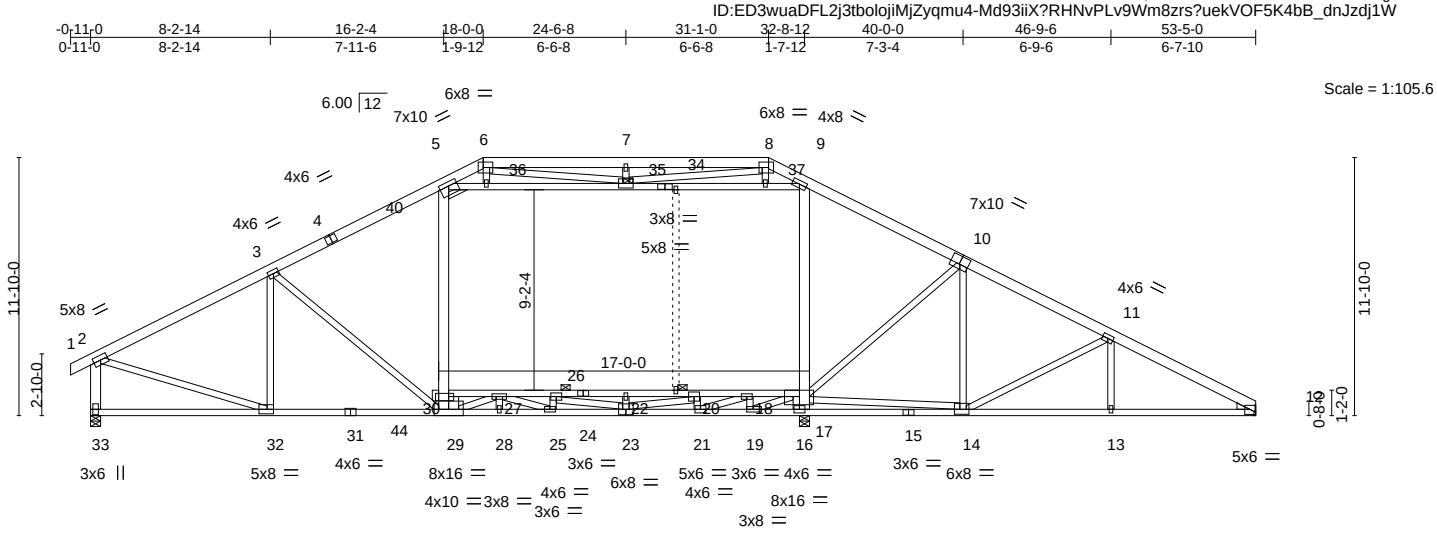


NON-STRUCTURAL STUD(S) SHOWN DASHED FOR TRUSS HANDLING. TO BE REMOVED AFTER TRUSS IS INSTALLED.

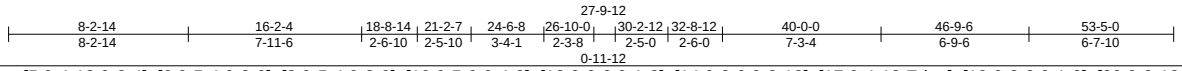


Plate Offsets (X,Y)-- [5:0-4-12,0-2-4], [6:0-5-4,0-3-0], [8:0-5-4,0-3-0], [10:0-5-0,0-4-8], [12:0-0-0,0-1-3], [14:0-3-0,0-2-12], [17:0-4-12,Edge], [19:0-3-8,0-1-8], [30:0-2-12,0-1-12], [32:0-3-8,0-2-8]

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	0.78	Vert(LL)	-0.43	27-30	>909	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.68	27-30	>573	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.89	Horz(CT)	0.16	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Attic	-0.22	17-30	895	360	Weight: 1414 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.2
BOT CHORD	2x4 SP No.2 *Except* 12-15,23-31: 2x4 SP No.1, 15-23,24-30: 2x4 SP No.3
WEBS	2x4 SP No.3 *Except* 5-29: 2x6 SP DSS, 9-16,2-33,29-30: 2x6 SP No.2 2-32,14-17: 2x4 SP No.2, 9-34,5-34: 2x4 SP DSS
OTHERS	2x4 SP No.3
WEDGE	
Right: 2x4 SP No.3	

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, Except: 6-0-0 oc bracing: 16-19,14-16. 6-0-0 oc bracing: 17-30
WEBS	1 Row at midpt 5-9

REACTIONS. (size) 33=0-5-8, 16=0-5-8, 12=Mechanical
Max Horz 33=-194(LC 9)
Max Uplift 33=-226(LC 8), 16=-1951(LC 22), 12=-95(LC 8)
Max Grav 33=7323(LC 16), 16=543(LC 8), 12=5292(LC 2)

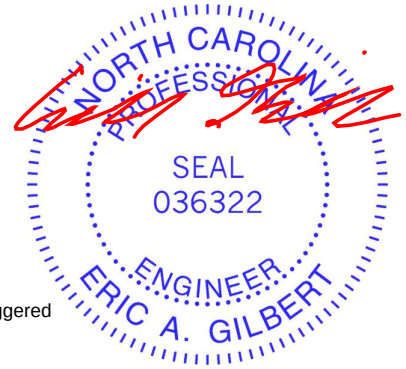
PLY-TO-PLY CONNECTION REQUIRES THAT AN APPROVED FACE MOUNT HANGER (SPECIFIED BY OTHERS) IS REQUIRED AT JOINT 29 FOR LOAD REPORTED IN NOTES. FACE MOUNT HANGER SHALL BE ATTACHED WITH A MINIMUM OF 0.25"x 4.5" SCREWS OR OTHER FASTENERS THAT PENETRATES ALL PLIES, PER HANGER MANUFACTURER SPECIFICATIONS.

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

TOP CHORD	2-3=-9703/304, 3-5=-11522/370, 5-6=-2625/198, 6-7=-2245/463, 7-8=-2245/463, 8-9=-3663/249, 9-10=-11119/404, 10-11=-10422/334, 11-12=-10498/251, 2-33=-7250/269
BOT CHORD	32-33=-122/314, 29-32=-275/8690, 28-29=0/11803, 25-28=0/11803, 23-25=0/11190, 21-23=0/5419, 19-21=0/1982, 16-19=-2131/0, 14-16=-1162/0, 13-14=-174/9195, 12-13=-174/9195, 27-30=-2153/180, 26-27=-1601/0, 22-26=-812/1295, 20-22=-812/1295, 18-20=-646/4824, 17-18=-258/8261
WEBS	3-32=-2404/150, 3-29=-89/2323, 29-30=-166/4307, 30-40=-135/4399, 5-40=-46/3803, 16-17=-447/2228, 9-17=-245/4345, 10-17=-97/976, 10-14=-1158/99, 2-32=-160/8805, 22-23=-445/0, 25-26=-94/278, 20-21=-1233/0, 23-26=-1973/172, 20-23=0/3999, 5-36=-7527/392, 35-36=-7458/394, 35-37=-6883/310, 9-37=-7247/319, 7-35=-309/128, 27-29=-465/762, 25-27=-695/417, 18-19=-1626/0, 18-21=0/3744, 17-19=0/4254, 6-36=0/551, 8-37=-43/1806, 14-17=0/10258, 6-35=-1287/129, 8-35=-1802/114, 11-14=-181/335

NOTES-

1) N/A
2) 3-ply truss to be connected together as follows:
   Top chords connected with 10d (0.131"x3") nails as follows: 2x6 - 3 rows staggered at 0-4-0 oc.
   Bottom chords connected with 10d (0.131"x3") nails as follows: 2x4 - 2 rows staggered at 0-4-0 oc.
   Web connected with 12 Gauge (0.216"x3.5") screws as follows: 2x4 - 1 row at 0-9-0 oc, Except member 30-29 2x4 - 2 rows staggered at 0-6-0 oc, 2x6 - 3 rows staggered at 0-9-0 oc, Except member 30-29 2x6 - 3 rows staggered at 0-6-0 oc.
3) 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.
4) Unbalanced roof live loads have been considered for this design.



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Continued on page 2

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NOTES-

5) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
6) Provide adequate drainage to prevent water ponding.
7) All plates are 2x4 MT20 unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Ceiling dead load (5.0 psf) on member(s). 5-36, 35-36, 35-37, 9-37; Wall dead load (5.0psf) on member(s).30-40, 5-40, 9-17
11) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 27-30, 26-27, 22-26, 20-22, 18-20, 17-18
12) All bearings are assumed to be User Defined crushing capacity of 425 psi.
13) Refer to girder(s) for truss to truss connections.
14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 226 lb uplift at joint 33, 1951 lb uplift at joint 16 and 95 lb uplift at joint 12.
15) 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.
16) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
17) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 5494 lb down and 367 lb up at 16-5-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
18) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-60, 2-6=-60, 6-8=-60, 8-12=-60, 33-41=-20, 17-30=-30, 5-9=-10
   Drag: 5-30=-10, 9-17=-10
   Concentrated Loads (lb)
   Vert: 29=-3291(F)

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Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	A5G	COMMON GIRDER	1	2	I56950007
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:10 2023 Page 1
ID:ED3wuaDFL2j3tbolojiMjZyqmu4-VkgVWX_1MpnNWEn8Gn8AtCkKIu1NcM2B7OIAxLzezZx

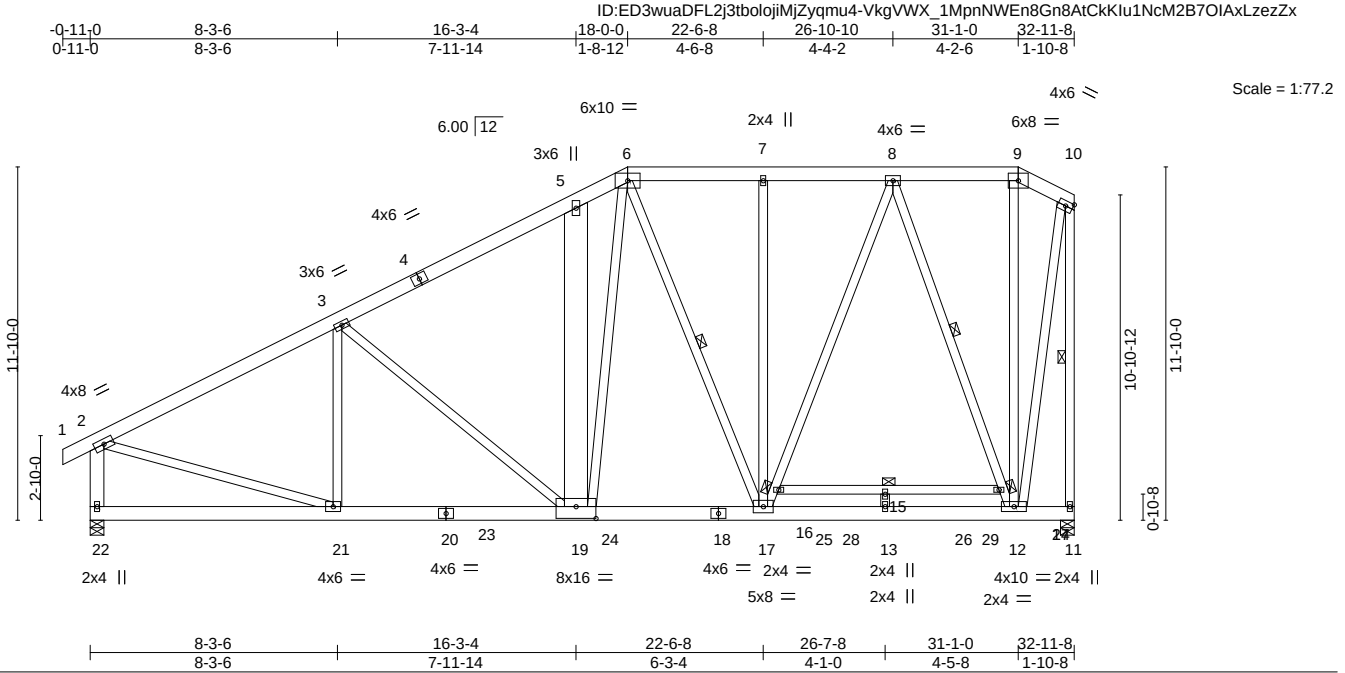

Plate Offsets (X,Y)-- [19:0-8-0,0-4-12]

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	0.45	Vert(LL)	-0.08	19-21	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.17	19-21	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.72	Horz(CT)	0.03	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 772 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2 *Except* 14-16: 2x4 SP No.2
WEBS	2x4 SP No.2 *Except* 5-19: 2x10 SP DSS, 2-22: 2x6 SP No.2, 8-12: 2x4 SP No.1 13-15: 2x4 SP No.3

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. Except: 6-0-0 oc bracing: 14-16
WEBS	1 Row at midpt 6-17, 10-11, 8-14

REACTIONS. (size) 22=0-5-8, 11=0-5-8
Max Horz 22=293(LC 8)
Max Uplift 22=-228(LC 8), 11=-186(LC 5)
Max Grav 22=3073(LC 1), 11=3047(LC 1)

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

TOP CHORD	2-3=-3896/307, 3-5=-4160/377, 5-6=-4032/463, 6-7=-2345/200, 7-8=-2345/200, 8-9=-494/31, 9-10=-587/33, 2-22=-2988/268, 10-11=-3040/133
BOT CHORD	21-22=-320/158, 19-21=-470/3390, 17-19=-312/3092, 13-17=-113/1455, 12-13=-113/1455
WEBS	3-21=-816/154, 3-19=-116/490, 6-19=-530/3440, 6-17=-2015/347, 2-21=-157/3380, 16-17=-254/2487, 8-16=-229/2539, 8-14=-2851/293, 12-14=-2893/267, 10-12=-128/2756

NOTES-

1) 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, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 22=228, 11=186.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 3291 lb down and 367 lb up at 16-3-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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LOAD CASE(S) Standard

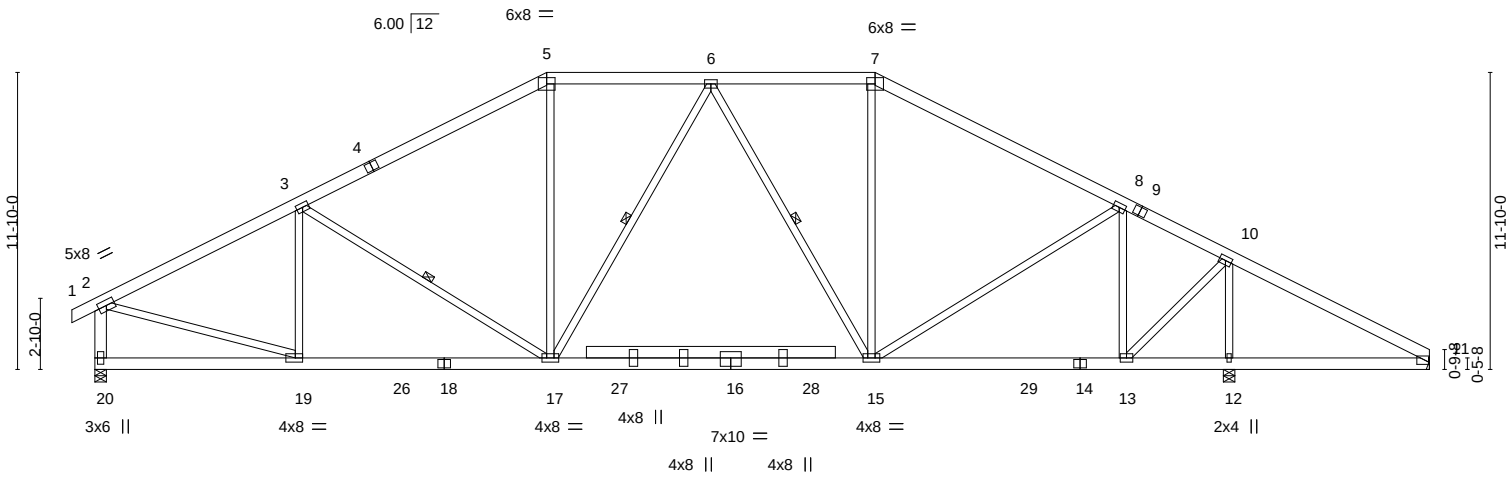
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-60, 2-6=-60, 6-9=-60, 9-10=-60, 11-22=-20, 14-16=-20
   Concentrated Loads (lb)
   Vert: 19=-3291(F)

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	A6	Common	1	1	I56950008
					Job Reference (optional)

8.630 s Nov 21 2022 MiTek Industries, Inc. Mon Mar 6 07:18:15 2023 Page 1
ID:ED3wuaDFL2j3tbolojiMjZyqmu4-n5XBJQ0Ximlb25EcgOKaob2nhvA6qJQ2f9X42Fzdj?c

-0-11-0	8-1-9	18-0-0	24-6-8	31-1-0	40-11-7	45-2-4	53-2-0
0-11-0	8-1-9	9-10-7	6-6-8	6-6-8	9-10-7	4-2-13	7-11-12

Scale = 1:91.8



8-1-9	18-0-0	31-1-0	40-11-7	45-2-4	53-2-0
8-1-9	9-10-7	13-1-0	9-10-7	4-2-13	7-11-12

Plate Offsets (X,Y)-- [16:0-5-0,0-3-0], [19:0-3-8,0-2-0]

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	0.66	Vert(LL)	-0.30	15-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.49	15-17	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.05	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 438 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.2 *Except* 2-20: 2x6 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-9-14 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 3-17, 6-17, 6-15

REACTIONS. (size) 11=Mechanical, 12=0-5-8, 20=0-5-8
Max Horz 20=-190(LC 11)
Max Uplift 11=-64(LC 11), 12=-31(LC 11), 20=-84(LC 10)
Max Grav 11=264(LC 22), 12=2235(LC 2), 20=1852(LC 1)

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

TOP CHORD	2-3=-2212/380, 3-5=-2091/424, 5-6=-1768/439, 6-7=-1582/417, 7-8=-1882/398, 8-10=-1210/290, 10-11=-101/251, 2-20=-1773/355
BOT CHORD	17-19=-180/1910, 15-17=-60/1762, 13-15=-79/1045
WEBS	3-19=-391/176, 3-17=-253/199, 5-17=0/510, 6-15=-536/136, 7-15=0/441, 8-15=-23/698, 8-13=-1032/209, 10-13=-161/1633, 10-12=-2033/336, 2-19=-218/1898

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 4x6 MT20 unless otherwise indicated.
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, with BCDL = 10.0psf.
7) All bearings are assumed to be User Defined crushing capacity of 425 psi.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 11, 31 lb uplift at joint 12 and 84 lb uplift at joint 20.
10) 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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Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	A6A	Common	2	1	I56950009
					Job Reference (optional)

8.630 s Nov 21 2022 MiTek Industries, Inc. Mon Mar 6 07:19:56 2023 Page 1
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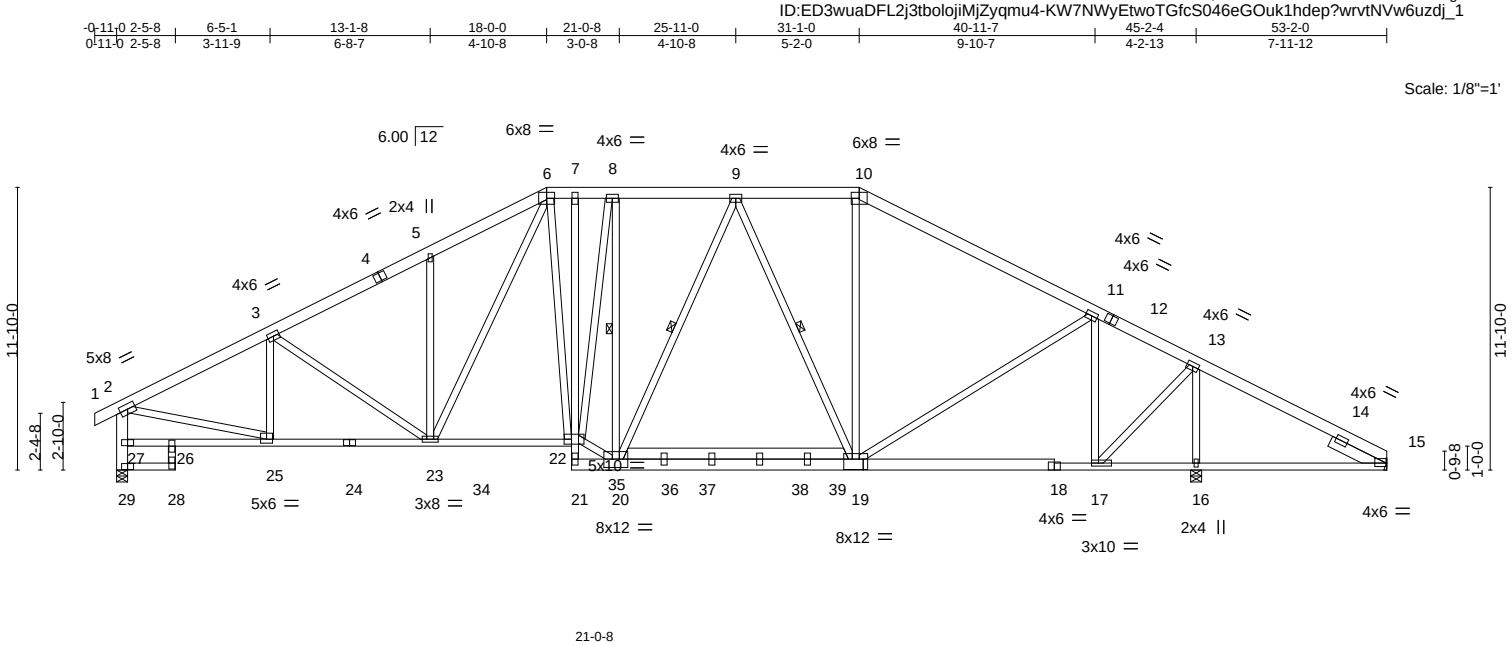

Plate Offsets (X,Y)-- [15:Edge,0-1-12], [17:0-3-8,0-1-8], [19:0-2-4,0-5-4], [20:0-6-0,0-3-12], [22:0-3-12,0-2-8], [25:0-3-0,0-2-0]

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	0.69	Vert(LL)	-0.15	19-20	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.34	19-20	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.11	16	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 484 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.2
BOT CHORD	2x4 SP No.2 *Except* 26-28: 2x4 SP No.3, 18-19,19-21,19-20: 2x6 SP No.2
WEBS	2x4 SP No.2 *Except* 2-25,3-25,13-17,13-16,20-22: 2x4 SP No.3, 2-29: 2x6 SP No.2
SLIDER	Right 2x6 SP No.2 2-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-6-5 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 9-20, 9-19, 8-20

REACTIONS. (size) 15=Mechanical, 16=0-5-8, 29=0-5-8
Max Horz 29=-189(LC 11)
Max Uplift 15=-113(LC 11), 29=-2(LC 10)
Max Grav 15=311(LC 22), 16=2280(LC 1), 29=1946(LC 1)

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

TOP CHORD	2-3=-2557/268, 3-5=-2575/305, 5-6=-2567/424, 6-7=-2015/308, 7-8=-2011/308, 8-9=-1952/289, 9-10=-1703/292, 10-11=-2041/259, 11-13=-1337/274, 13-15=-445/223, 27-29=-1895/256, 2-27=-1864/272
BOT CHORD	26-27=-115/433, 25-26=-151/386, 23-25=-94/2208, 22-23=0/1981, 21-22=-359/0, 19-20=0/1887, 17-19=-66/1153
WEBS	2-25=-153/2036, 3-25=-392/119, 9-20=-20/281, 9-19=-602/103, 10-19=0/510, 11-19=0/796, 11-17=-1084/83, 13-17=-20/1623, 13-16=-2120/185, 5-23=-382/207, 6-22=-4/491, 6-23=-210/595, 8-20=-722/210, 20-22=0/2250, 8-22=-174/408

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 25-11-0 from left end, supported at two points, 5-0-0 apart.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 3x6 MT20 unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) All bearings are assumed to be User Defined crushing capacity of 425 psi.
9) Refer to girder(s) for truss to truss connections.
10) Bearing at joint(s) 29 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 113 lb uplift at joint 15 and 2 lb uplift at joint 29.
12) 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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Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	A7A	Common	3	1	I56950010
					Job Reference (optional)

8.630 s Nov 21 2022 MiTek Industries, Inc. Mon Mar 6 07:30:37 2023 Page 1
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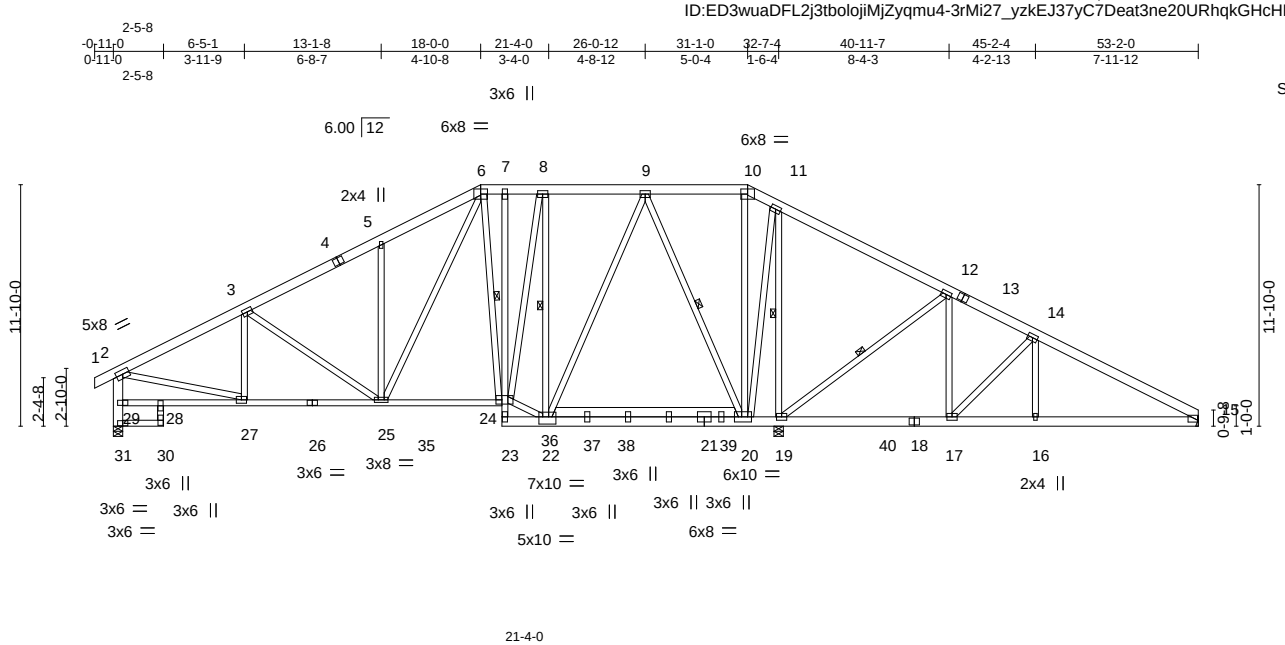

Scale = 1:112.9

Plate Offsets (X,Y)-- [20:0-4-4,0-3-0], [22:0-2-4,0-4-4], [24:0-3-8,0-2-8]

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	0.43	Vert(LL)	-0.11	24-25	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.25	20-22	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.06	15	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 518 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP No.2 *Except* 30-31,26-29,7-23,24-26: 2x4 SP No.2, 28-30: 2x4 SP No.3
WEBS	2x4 SP No.2 *Except* 2-27,3-27,12-17,14-17,14-16,22-24: 2x4 SP No.3, 2-31: 2x6 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 5-7-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 9-20, 12-19, 11-19, 8-22, 6-24

REACTIONS. (size) 15=Mechanical, 19=0-5-8, 31=0-5-8
Max Horz 31=-190(LC 11)
Max Uplift 15=-55(LC 11), 31=-39(LC 10)
Max Grav 15=713(LC 22), 19=2500(LC 1), 31=1357(LC 21)

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

TOP CHORD	2-3=-1683/173, 3-5=-1514/190, 5-6=-1504/309, 6-7=-970/193, 7-8=-967/193, 8-9=-889/172, 11-12=0/345, 12-14=-574/120, 14-15=-1001/123, 29-31=-1312/193, 2-29=-1282/209
BOT CHORD	28-29=-119/375, 27-28=-153/347, 25-27=-84/1430, 24-25=0/1021, 23-24=-287/0, 20-22=0/601, 19-20=-193/261, 17-19=0/467, 16-17=-16/805, 15-16=-16/805
WEBS	2-27=-72/1282, 9-22=-17/862, 9-20=-1229/147, 12-19=-776/223, 12-17=-12/471, 14-17=-490/143, 14-16=0/257, 11-19=-1827/26, 11-20=0/1275, 8-22=-697/190, 5-25=-379/207, 6-25=-221/704, 22-24=0/1102, 8-24=-156/473

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 26-0-12 from left end, supported at two points, 5-0-0 apart.
4) Provide adequate drainage to prevent water ponding.
5) All plates are 4x6 MT20 unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) All bearings are assumed to be User Defined crushing capacity of 425 psi.
9) Refer to girder(s) for truss to truss connections.
10) Bearing at joint(s) 31 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 15 and 39 lb uplift at joint 31.
12) 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.

March 6,2023

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

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	A8	Common	4	1	I56950011
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:17 2023 Page 1
ID:ED3wuaDFL2j3tbolojiMjZyqmu4-o4b8_x4QjyfNsJpUAlmpfhXVzjMElV2Dk_U1hRzezZq

-0-11-0 8-1-9 18-0-0 24-6-8 31-1-0 32-7-4 42-11-7 53-2-0
0-11-0 8-1-9 9-10-7 6-6-8 6-6-8 1-6-4 10-4-3 10-2-9

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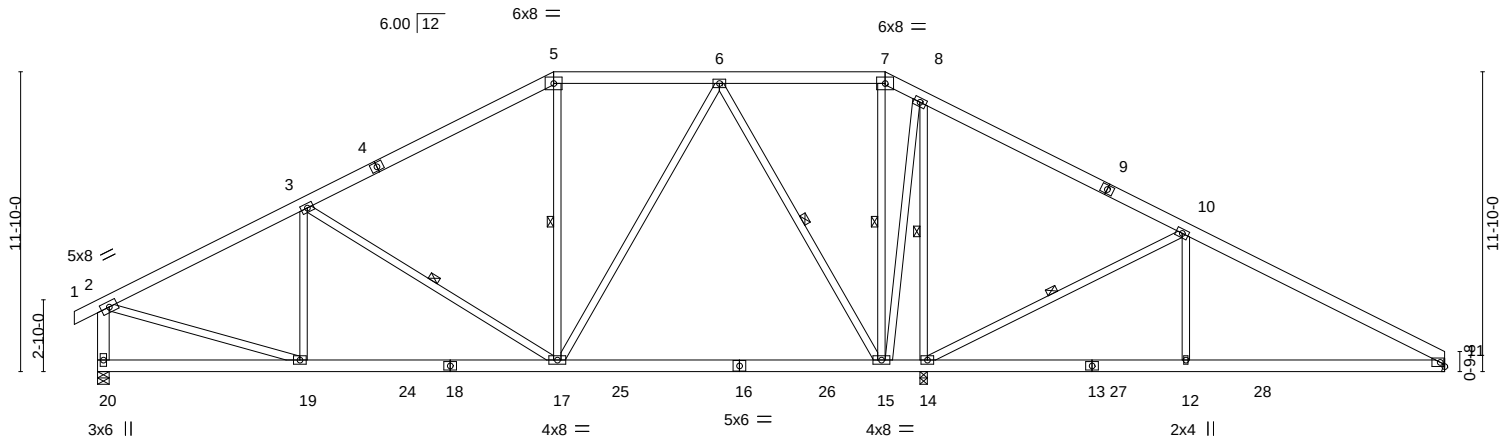

8-1-9 18-0-0 31-1-0 32-7-4 42-11-7 53-2-0
8-1-9 9-10-7 13-1-0 1-6-4 10-4-3 10-2-9

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	0.55	Vert(LL)	-0.27	15-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.44	15-17	>875	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.03	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 430 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 *Except*
2-20: 2x6 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-5-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 14-15.
WEBS 1 Row at midpt 3-17, 5-17, 6-15, 7-15, 8-14, 10-14

REACTIONS. (size) 20=0-5-8, 14=0-3-8 (req. 0-3-9), 11=Mechanical
Max Horz 20=-190(LC 11)
Max Uplift 20=-89(LC 10), 14=-43(LC 11), 11=-64(LC 11)
Max Grav 20=1352(LC 21), 14=2255(LC 2), 11=766(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1517/263, 3-5=-1205/275, 5-6=-970/304, 7-8=-282/251, 10-11=-1062/164, 2-20=-1275/270
BOT CHORD 17-19=-121/1289, 15-17=-42/717, 12-14=-34/864, 11-12=-34/864
WEBS 3-17=-426/205, 6-17=-49/643, 6-15=-1063/209, 8-15=0/1217, 8-14=-1771/236, 10-14=-1017/278, 10-12=0/431, 2-19=-111/1261

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 4x6 MT20 unless otherwise indicated.
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, with BCDL = 10.0psf.
7) WARNING: Required bearing size at joint(s) 14 greater than input bearing size.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 14, 11.

March 6,2023

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

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	A8A	Common	1	1	I56950012
					Job Reference (optional)

8.630 s Nov 21 2022 MiTek Industries, Inc. Mon Mar 6 07:32:31 2023 Page 1
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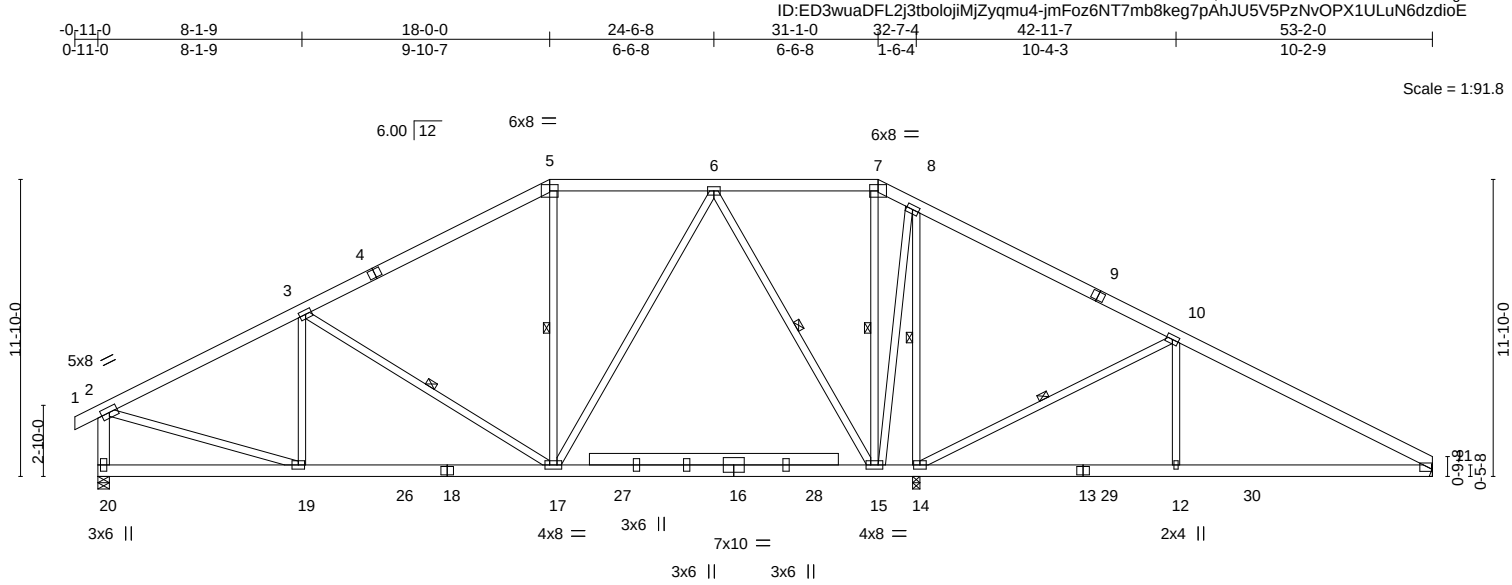

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.26	15-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.43	15-17	>897	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.03	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 453 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 *Except*
2-20: 2x6 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-5-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 14-15.
WEBS 1 Row at midpt 3-17, 5-17, 6-15, 7-15, 8-14, 10-14

REACTIONS. (size) 20=0-5-8, 14=0-3-8, 11=Mechanical
Max Horz 20=-190(LC 11)
Max Uplift 20=-89(LC 10), 14=-43(LC 11), 11=-64(LC 11)
Max Grav 20=1352(LC 21), 14=2246(LC 2), 11=766(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1517/263, 3-5=-1195/275, 5-6=-962/304, 7-8=-275/251, 10-11=-1059/164, 2-20=-1275/270
BOT CHORD 17-19=-121/1283, 15-17=-42/709, 12-14=-34/861, 11-12=-34/861
WEBS 3-17=-426/205, 6-17=-49/640, 6-15=-1063/209, 8-15=0/1200, 8-14=-1753/236, 10-14=-1017/278, 10-12=0/431, 2-19=-111/1256

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are 4x6 MT20 unless otherwise indicated.
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, with BCDL = 10.0psf.
7) All bearings are assumed to be User Defined crushing capacity of 425 psi.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 89 lb uplift at joint 20, 43 lb uplift at joint 14 and 64 lb uplift at joint 11.
10) 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.

March 6,2023

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

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF	I56950013
35842-35842A	A9E	GABLE	1	1	Job Reference (optional)	

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:21 2023 Page 1
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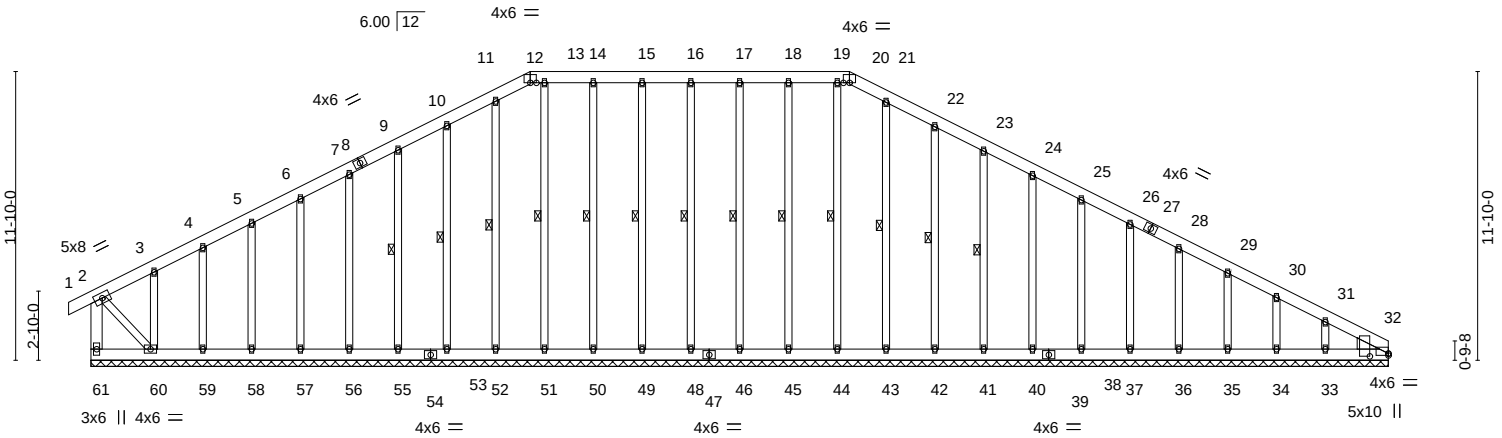

53-2-0
53-2-0

Plate Offsets (X,Y)-- [32:0-0-0,0-0-15], [32:0-1-6,0-9-2]

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	0.06	Vert(LL)	0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	1	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.01	32	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 552 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x6 SP No.2 *Except*
2-60: 2x4 SP No.3
OTHERS 2x4 SP No.2
WEDGE
Right: 2x6 SP No.2

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.
WEBS 1 Row at midpt 17-46, 16-48, 15-49, 14-50, 13-51, 11-52, 10-53, 9-55, 18-45, 19-44, 21-43, 22-42, 23-41

REACTIONS. All bearings 53-2-0.
(lb) - Max Horz 61=-200(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 61, 46, 48, 49, 50, 52, 53, 55, 56, 57, 58, 59, 45, 42, 41, 40, 38, 37, 36, 35, 34, 33 except 60=-190(LC 10)
Max Grav All reactions 250 lb or less at joint(s) 46, 48, 49, 50, 51, 52, 53, 55, 56, 57, 58, 59, 60, 45, 44, 43, 42, 41, 40, 38, 37, 36, 35, 34, 32, 33 except 61=250(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 11-12=-106/266, 12-13=-95/260, 13-14=-95/260, 14-15=-95/260, 15-16=-95/260, 16-17=-95/260, 17-18=-95/260, 18-19=-95/260, 19-20=-95/260, 20-21=-106/267

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever 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) Provide adequate drainage to prevent water ponding.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 61, 46, 48, 49, 50, 52, 53, 55, 56, 57, 58, 59, 45, 42, 41, 40, 38, 37, 36, 35, 34, 33 except (jt=lb) 60=190.

March 6,2023

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

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	B1	Monopitch	5	1	I56950014
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:22 2023 Page 1
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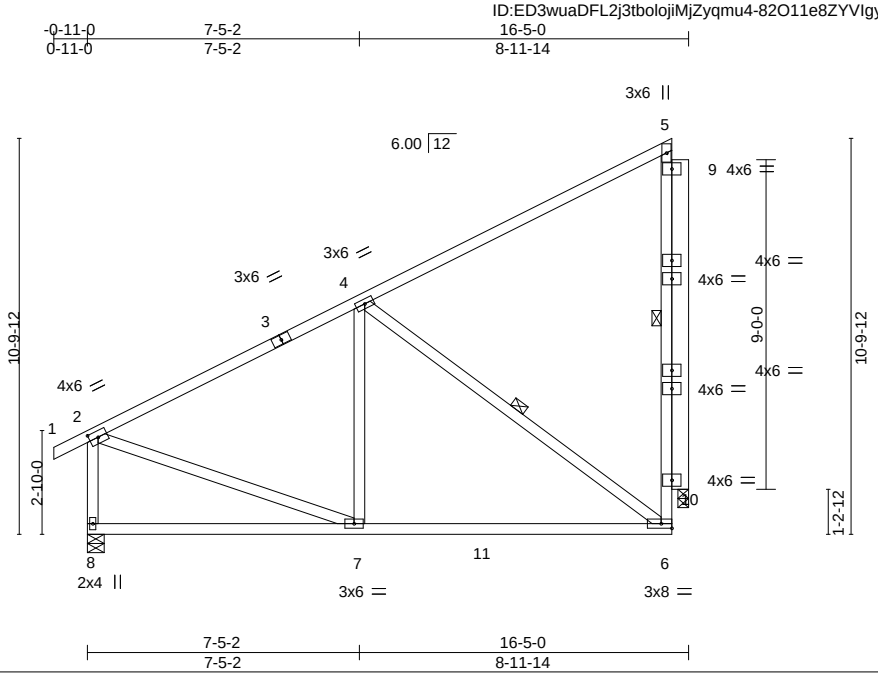

Plate Offsets (X,Y)-- [2:0-2-15,0-2-0]

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	0.90	Vert(LL)	-0.12	6-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.23	6-7	>802	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.28	Horz(CT)	-0.01	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 127 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2 *Except* 2-8: 2x4 SP No.3
OTHERS	2x6 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 5-6, 4-6

REACTIONS. (size) 8=0-5-8, 10=0-3-8
Max Horz 8=273(LC 10)
Max Uplift 10=-179(LC 10)
Max Grav 8=693(LC 1), 10=625(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-611/0, 6-10=-103/428, 2-8=-632/61
BOT CHORD 7-8=-333/139, 6-7=-200/473
WEBS 4-6=-568/245, 2-7=0/454

NOTES-
1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
4) Bearing at joint(s) 10 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 capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=179.

March 6,2023

ENGINEERING BY
TRENCO
A MiTek Affiliate
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	B2	MONOPITCH	4	1	I56950015
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:23 2023 Page 1
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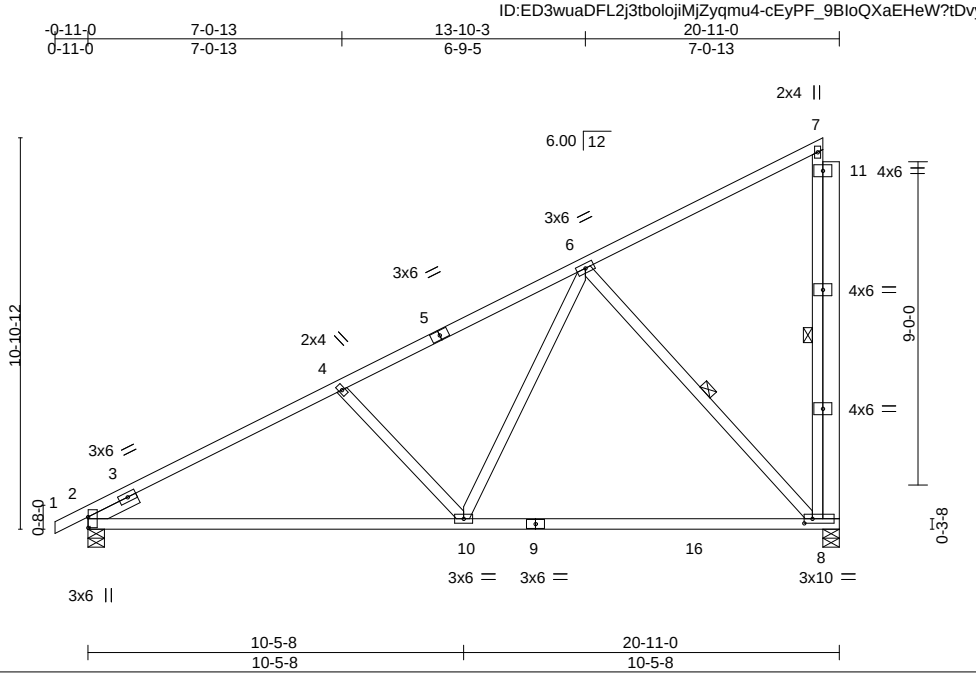

Plate Offsets (X,Y)-- [2:0-3-9,0-0-1], [8:0-2-12,0-1-8]

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	0.55	Vert(LL)	-0.39	8-10	>624	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.60	8-10	>410	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 140 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2
OTHERS	2x6 SP No.2
SLIDER	Left 2x4 SP No.3 1-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 4-10-6 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	1 Row at midpt 7-8, 6-8

REACTIONS. (size) 2=0-5-8, 8=0-5-8
Max Horz 2=347(LC 10)
Max Uplift 2=-18(LC 10), 8=-177(LC 10)
Max Grav 2=875(LC 1), 8=808(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1202/38, 4-6=-943/18
BOT CHORD 2-10=-322/1018, 8-10=-166/528
WEBS 4-10=-379/211, 6-10=-34/613, 6-8=-763/248

NOTES-
1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 8=177.

March 6,2023

ENGINEERING BY
TRENCO
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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	B2A	MONOPITCH	1	1	I56950016
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:24 2023 Page 1
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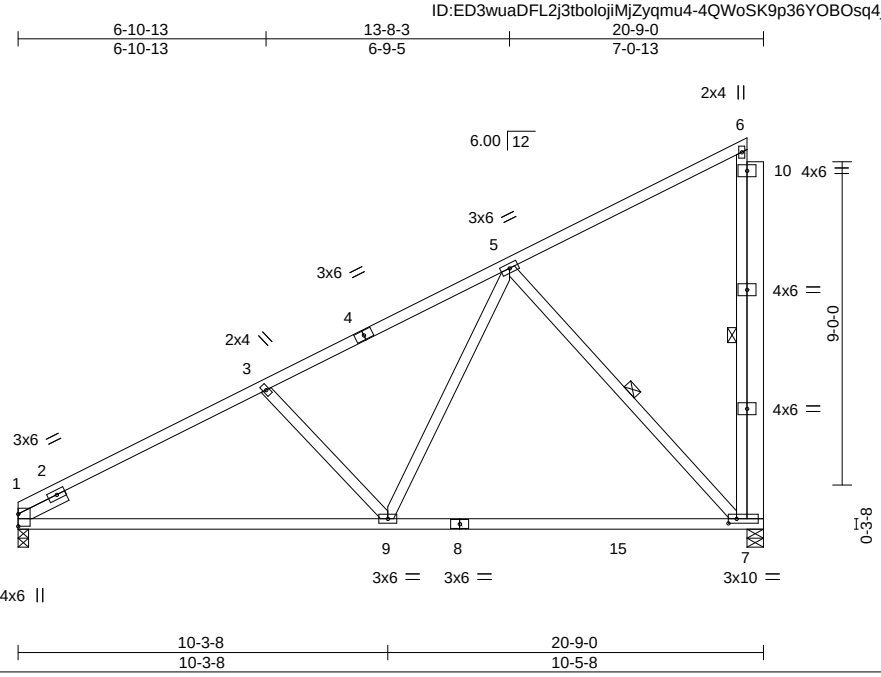

Plate Offsets (X,Y)-- [7:0-2-12,0-1-8]

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	0.55	Vert(LL)	-0.40	7-9	>616	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.61	7-9	>401	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 138 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2
OTHERS	2x6 SP No.2
SLIDER	Left 2x4 SP No.3 1-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 5-1-14 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	1 Row at midpt 6-7, 5-7

REACTIONS. (size) 1=0-3-8, 7=0-5-8
Max Horz 1=332(LC 10)
Max Uplift 1=-1(LC 10), 7=-177(LC 10)
Max Grav 1=812(LC 1), 7=803(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-1114/40, 3-5=-927/19
BOT CHORD 1-9=-324/995, 7-9=-167/523
WEBS 3-9=-364/212, 5-9=-35/598, 5-7=-755/248

NOTES-
1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 7=177.

March 6,2023

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

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	C1	QUEENPOST	5	1	I56950017
					Job Reference (optional)

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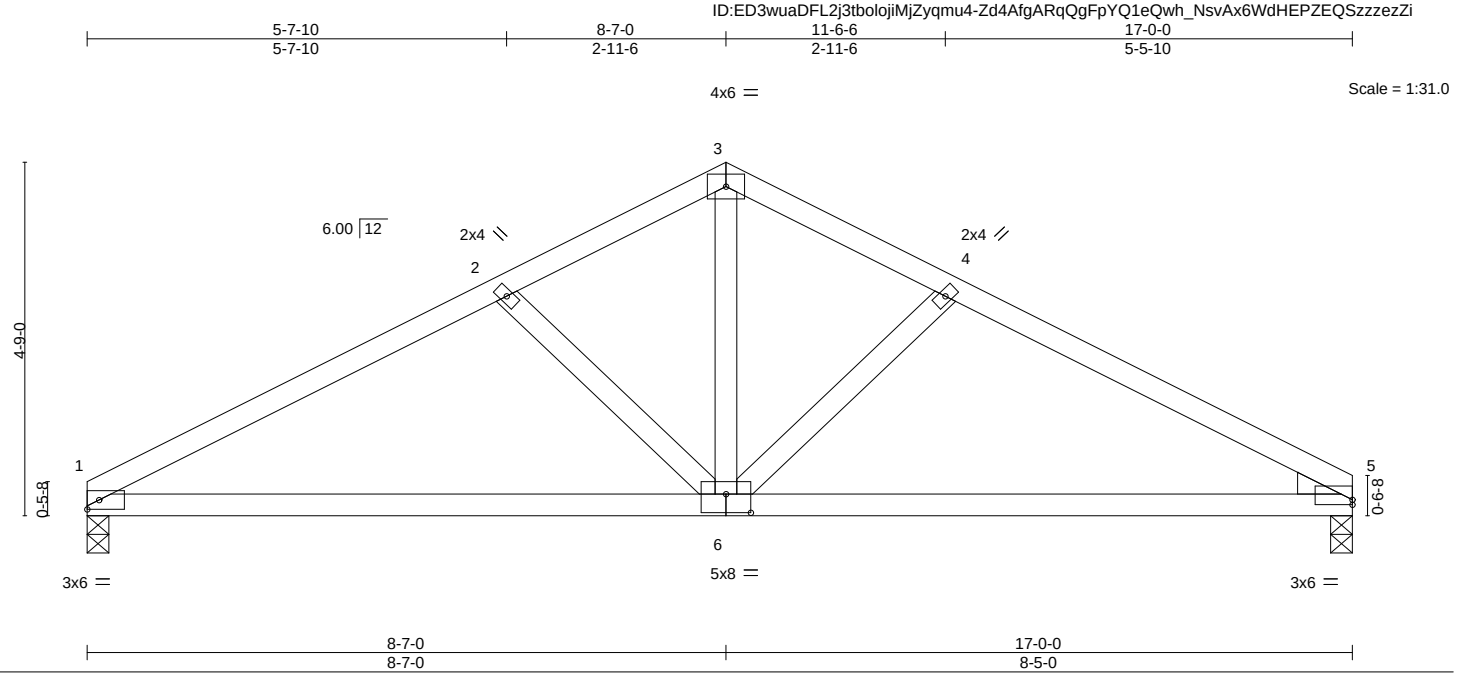

Plate Offsets (X,Y)-- [5:0-0-0,0-0-13], [6:0-4-0,0-3-0]

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	0.34	Vert(LL)	-0.09	6-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.20	6-9	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 73 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-1-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=0-3-8, 5=0-3-8
Max Horz 1=63(LC 10)
Max Uplift 1=-38(LC 10), 5=-37(LC 11)
Max Grav 1=680(LC 1), 5=680(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1063/207, 2-3=-824/174, 3-4=-821/173, 4-5=-1051/205
BOT CHORD 1-6=-121/896, 5-6=-118/878
WEBS 2-6=-301/146, 3-6=-99/575, 4-6=-280/142

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5.

March 6,2023

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	D1E	GABLE	1	1	I56950018

Job Reference (optional)

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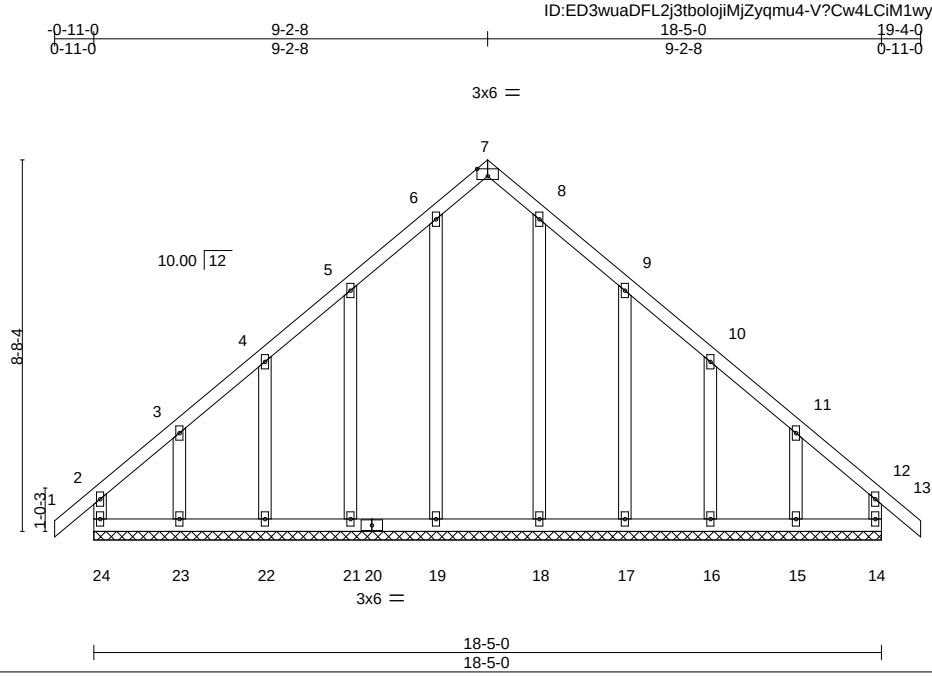

Plate Offsets (X,Y)-- [7:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	-0.00	13	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.00	13	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 124 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3 *Except* 6-19,8-18: 2x4 SP No.2

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.

REACTIONS. All bearings 18-5-0.

(lb) - Max Horz 24=178(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 24, 14, 22, 16 except 21=-100(LC 10), 23=-163(LC 10), 17=-102(LC 11), 15=-158(LC 11)

Max Grav All reactions 250 lb or less at joint(s) 24, 14, 19, 21, 22, 23, 18, 17, 16, 15

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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 24, 14, 22, 16 except (jt=lb) 21=100, 23=163, 17=102, 15=158.

March 6,2023

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	D2G	COMMON GIRDER	1	3	I56950019

Job Reference (optional)

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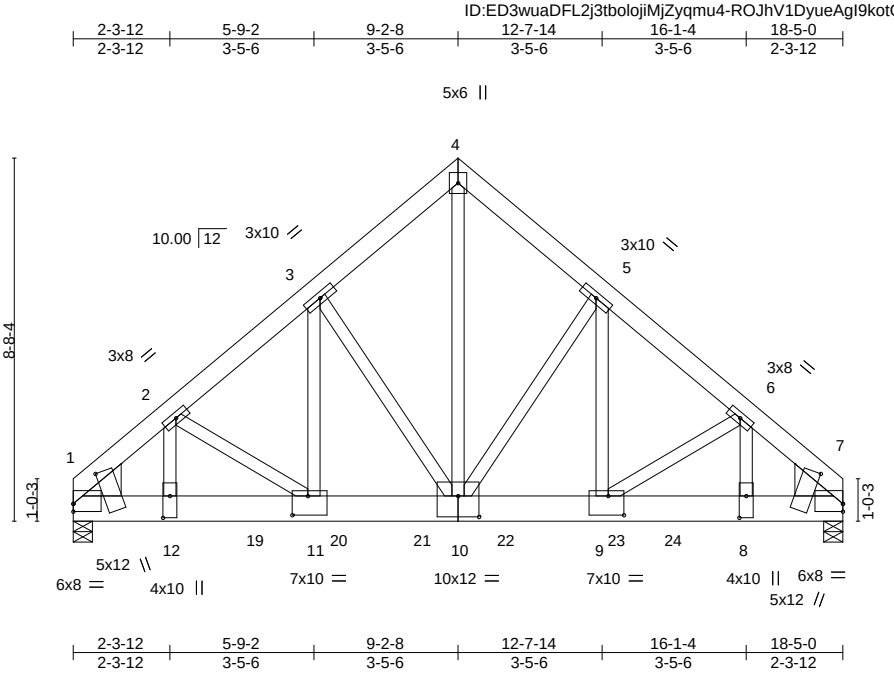

Plate Offsets (X,Y)-- [1:0-0-0,0-2-4], [1:0-5-15,0-8-14], [7:0-0-0,0-2-4], [7:0-5-15,0-8-14], [8:0-6-4,0-2-0], [9:0-4-8,0-5-8], [10:0-6-0,0-6-0], [11:0-4-8,0-5-8], [12:0-6-4,0-2-0]

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	0.57	Vert(LL)	-0.07	11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.14	11	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.79	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 541 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.2
BOT CHORD 2x8 SP DSS
WEBS 2x4 SP No.3 *Except*
4-10: 2x4 SP No.2
WEDGE
Left: 2x10 SP No.2 , Right: 2x10 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=0-5-8 (req. 0-5-14), 7=0-5-8
Max Horz 1=162(LC 26)
Max Grav 1=11278(LC 2), 7=8918(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-13455/0, 2-3=-10767/0, 3-4=-7904/0, 4-5=-7896/0, 5-6=-10118/0, 6-7=-10885/0
BOT CHORD 1-12=0/9863, 11-12=0/9863, 10-11=0/8304, 9-10=0/7774, 8-9=0/7976, 7-8=0/7976
WEBS 4-10=0/9707, 5-10=-3052/0, 5-9=0/3828, 6-9=-294/0, 6-8=0/1026, 3-10=-4013/0, 3-11=0/4995, 2-11=-1900/377, 2-12=-215/3319

NOTES-

1) 3-ply truss to be connected together with WS45 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 0-4-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 6-8 2x4 - 1 row at 0-6-0 oc, member 2-12 2x4 - 1 row at 0-6-0 oc.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
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) WARNING: Required bearing size at joint(s) 1 greater than input bearing size.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 5273 lb down and 115 lb up at 2-3-12, 1951 lb down at 4-3-12, 1947 lb down at 6-3-12, 1947 lb down at 8-3-12, 1947 lb down at 10-3-12, 1947 lb down at 12-3-12, and 1947 lb down at 14-3-12, and 1947 lb down at 16-3-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

Continued on page 2

March 6,2023

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Edenton, NC 27932

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-60, 4-7=-60, 13-16=-20
   Concentrated Loads (lb)
   Vert: 8=-1872(F) 12=-3916(F) 19=-1875(F) 20=-1872(F) 21=-1872(F) 22=-1872(F) 23=-1872(F) 24=-1872(F)

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	E1E	GABLE	1	1	I56950020
					Job Reference (optional)

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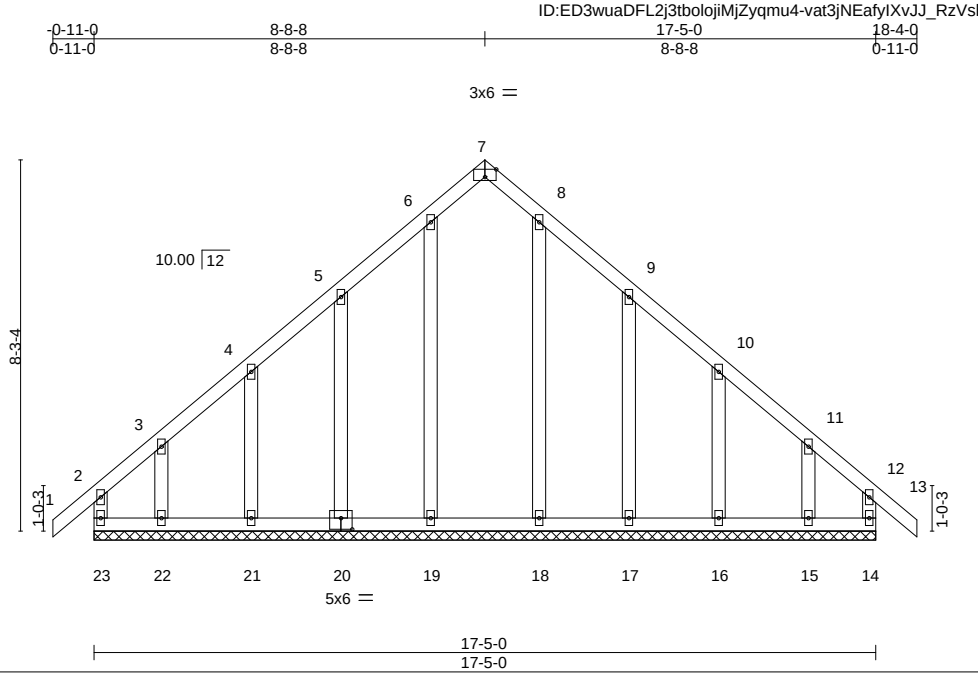

Plate Offsets (X,Y)-- [7:0-3-0,Edge], [20:0-3-0,0-3-0]

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	0.19	Vert(LL)	-0.00	13	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.01	13	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 116 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3 *Except*
6-19,8-18: 2x4 SP No.2

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.

REACTIONS. All bearings 17-5-0.
(lb) - Max Horz 23=169(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 23, 14, 20, 21, 17, 16 except 22=-173(LC 10), 15=-168(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 23, 14, 19, 20, 21, 22, 18, 17, 16, 15

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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 23, 14, 20, 21, 17, 16 except (jt=lb) 22=173, 15=168.

March 6,2023

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	E2E	Common Structural Gable	1	1	I56950021
					Job Reference (optional)

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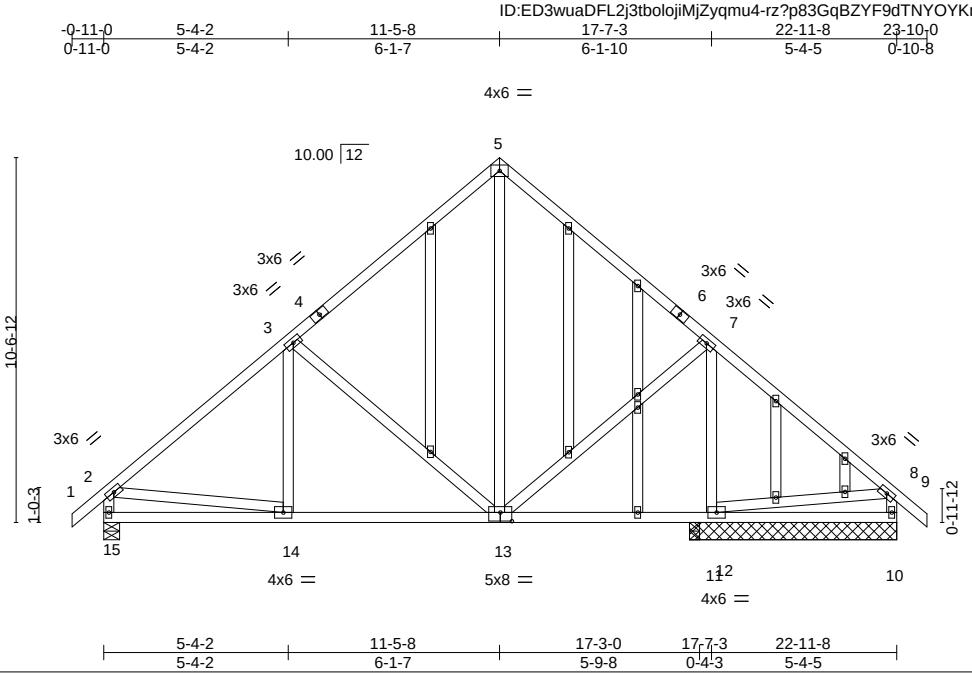

Plate Offsets (X,Y)-- [13:0-4-0,0-3-0]

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	0.46	Vert(LL)	-0.03	13-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.06	13-14	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 187 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
3-13,5-13,7-13: 2x4 SP No.2
OTHERS 2x4 SP No.3 *Except*
16-17,18-19: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 6-0-0 except (jt=length) 15=0-5-8, 12=0-3-8.
(lb) - Max Horz 15=217(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 15, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 12 except 15=759(LC 1), 11=852(LC 1), 10=280(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-784/101, 3-5=-491/163, 5-7=-492/163, 2-15=-712/123
BOT CHORD 14-15=-199/289, 13-14=-81/613
WEBS 3-13=-373/174, 7-13=-1/357, 7-11=-782/151, 2-14=0/422

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 11, 10.

March 6,2023

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	E3G	Common Girder	1	2	I56950022
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:34 2023 Page 1
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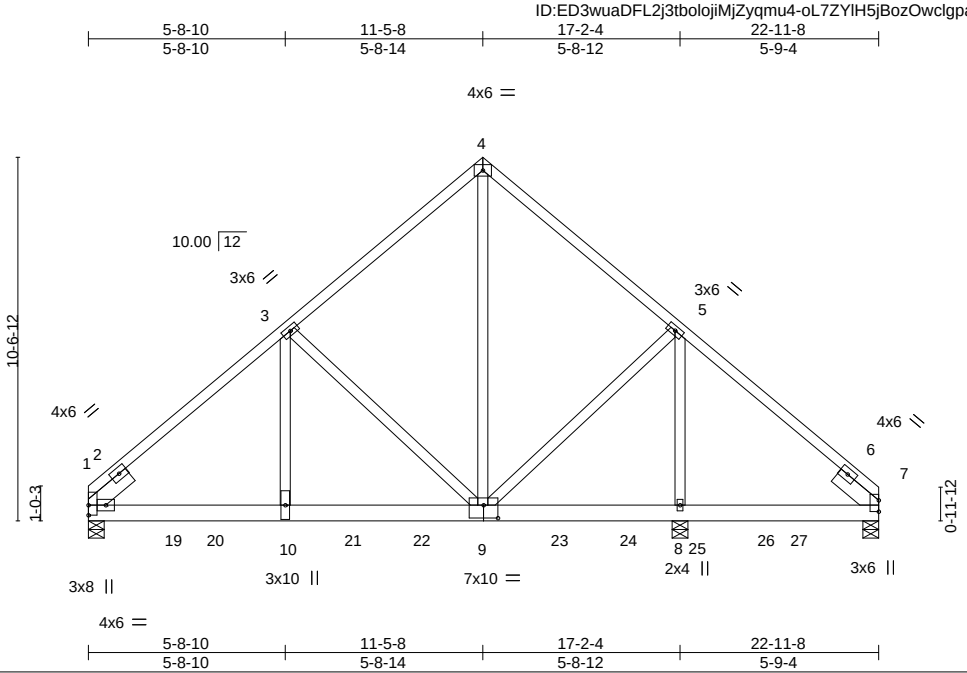

Plate Offsets (X,Y)-- [9:0-5-0,0-4-8]

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	0.32	Vert(LL)	-0.06	9-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.12	9-10	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.44	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 315 lb	FT = 20%

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

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

REACTIONS. (size) 1=0-5-8, 7=0-5-8, 8=0-5-8
Max Horz 1=-202(LC 23)
Max Uplift 1=-333(LC 8), 7=-173(LC 9), 8=-481(LC 8)
Max Grav 1=3555(LC 1), 7=284(LC 20), 8=4646(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-3799/411, 3-4=-2000/330, 4-5=-2013/321, 5-7=-151/259
BOT CHORD 1-10=-345/2844, 9-10=-345/2844
WEBS 3-10=-176/2148, 3-9=-1917/343, 4-9=-305/2097, 5-9=-137/2088, 5-8=-3035/207

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
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) except (jt=lb) 1=333, 7=173, 8=481.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 746 lb down and 84 lb up at 1-7-4, 746 lb down and 84 lb up at 3-7-4, 746 lb down and 84 lb up at 5-7-4, 746 lb down and 84 lb up at 7-7-4, 746 lb down and 84 lb up at 9-7-4, 693 lb down and 75 lb up at 11-7-4, 693 lb down and 75 lb up at 13-7-4, 693 lb down and 75 lb up at 15-7-4, 291 lb down and 133 lb up at 17-7-4, and 291 lb down and 133 lb up at 19-7-4, and 244 lb down and 84 lb up at 20-6-12 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

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Continued on page 2

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LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-4=-60, 4-7=-60, 11-15=-20

Concentrated Loads (lb)

Vert: 10=-746(F) 9=-693(F) 19=-746(F) 20=-746(F) 21=-746(F) 22=-746(F) 23=-693(F) 24=-693(F) 25=-291(F) 26=-291(F) 27=-244(F)

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	M1	Monopitch	5	1	I56950023
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:35 2023 Page 1
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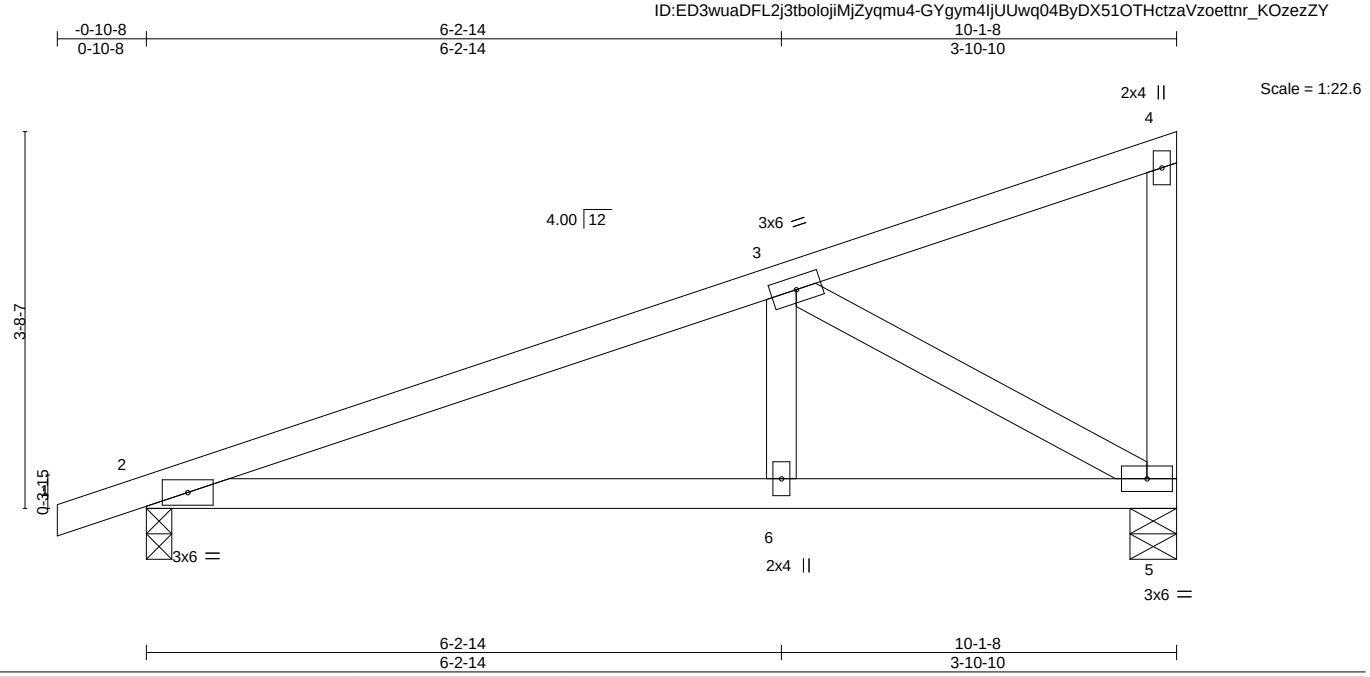

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.04	6-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.10	6-9	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 46 lb	FT = 20%

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

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.

REACTIONS. (size) 2=0-3-0, 5=0-5-8
Max Horz 2=122(LC 6)
Max Uplift 2=-55(LC 6), 5=-62(LC 10)
Max Grav 2=454(LC 1), 5=397(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-623/81
BOT CHORD 2-6=-161/561, 5-6=-161/561
WEBS 3-5=-642/184

NOTES-
1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.

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Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	M2E	Monopitch Supported Gable	2	1	I56950024
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:36 2023 Page 1
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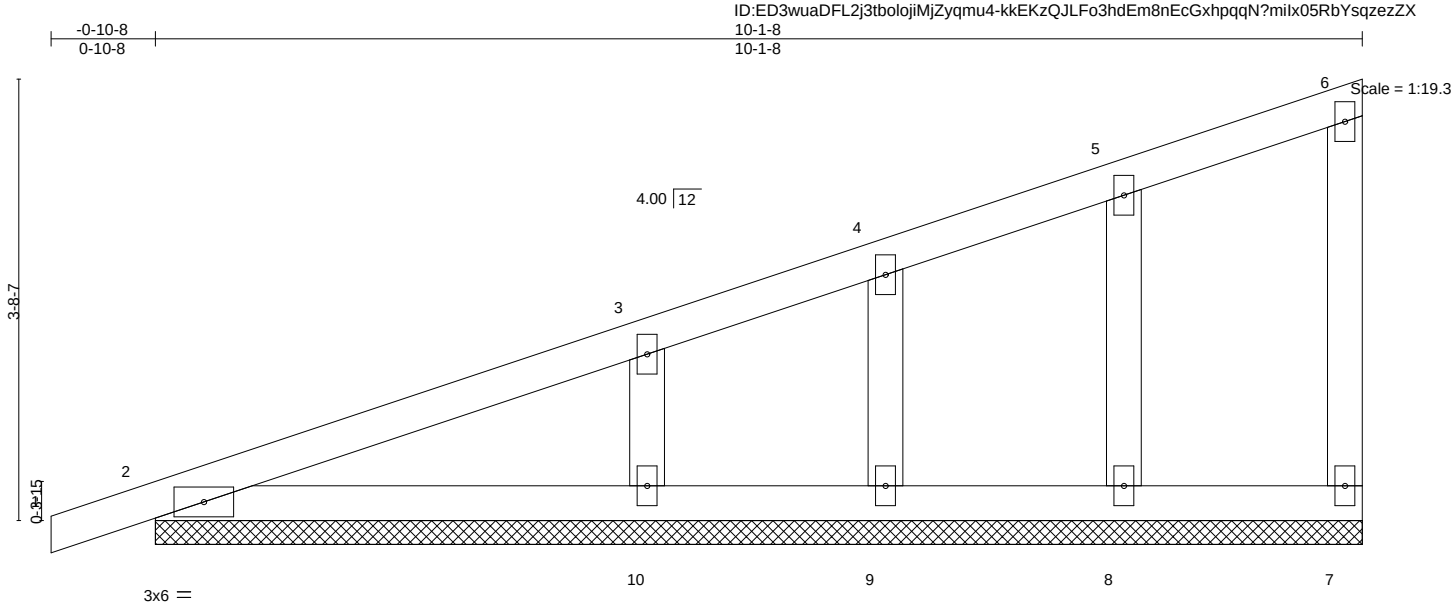

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	0.01	1	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 45 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 10-1-8.
(lb) - Max Horz 2=122(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 7, 2, 8, 9, 10
Max Grav All reactions 250 lb or less at joint(s) 7, 2, 8, 9 except 10=326(LC 1)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2, 8, 9, 10.

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Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	M3E	Monopitch Supported Gable	1	1	I56950025
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:37 2023 Page 1
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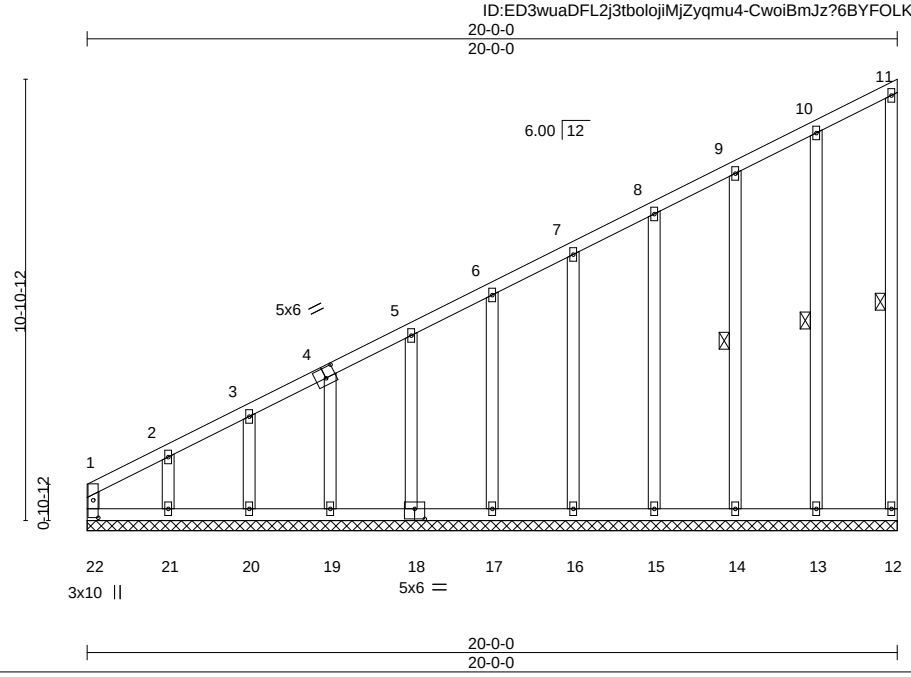

Plate Offsets (X,Y)-- [4:0-3-0,0-3-0], [18:0-3-0,0-3-0], [22:0-5-3,0-1-8]

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	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 151 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
11-12: 2x4 SP No.2
OTHERS 2x4 SP No.3 *Except*
10-13,9-14,8-15,7-16: 2x4 SP No.2

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.
WEBS 1 Row at midpt 11-12, 10-13, 9-14

REACTIONS. All bearings 20-0-0.
(lb) - Max Horz 22=324(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 12, 13, 14, 15, 16, 17, 18, 19 except 21=-216(LC 10)
Max Grav All reactions 250 lb or less at joint(s) 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 except 22=290(LC 10)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-416/149, 2-3=-333/118, 3-4=-306/110, 4-5=-266/99

NOTES-
1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
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) 12, 13, 14, 15, 16, 17, 18, 19 except (jt=lb) 21=216.

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Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	PB1E	GABLE	2	1	I56950026
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:38 2023 Page 1
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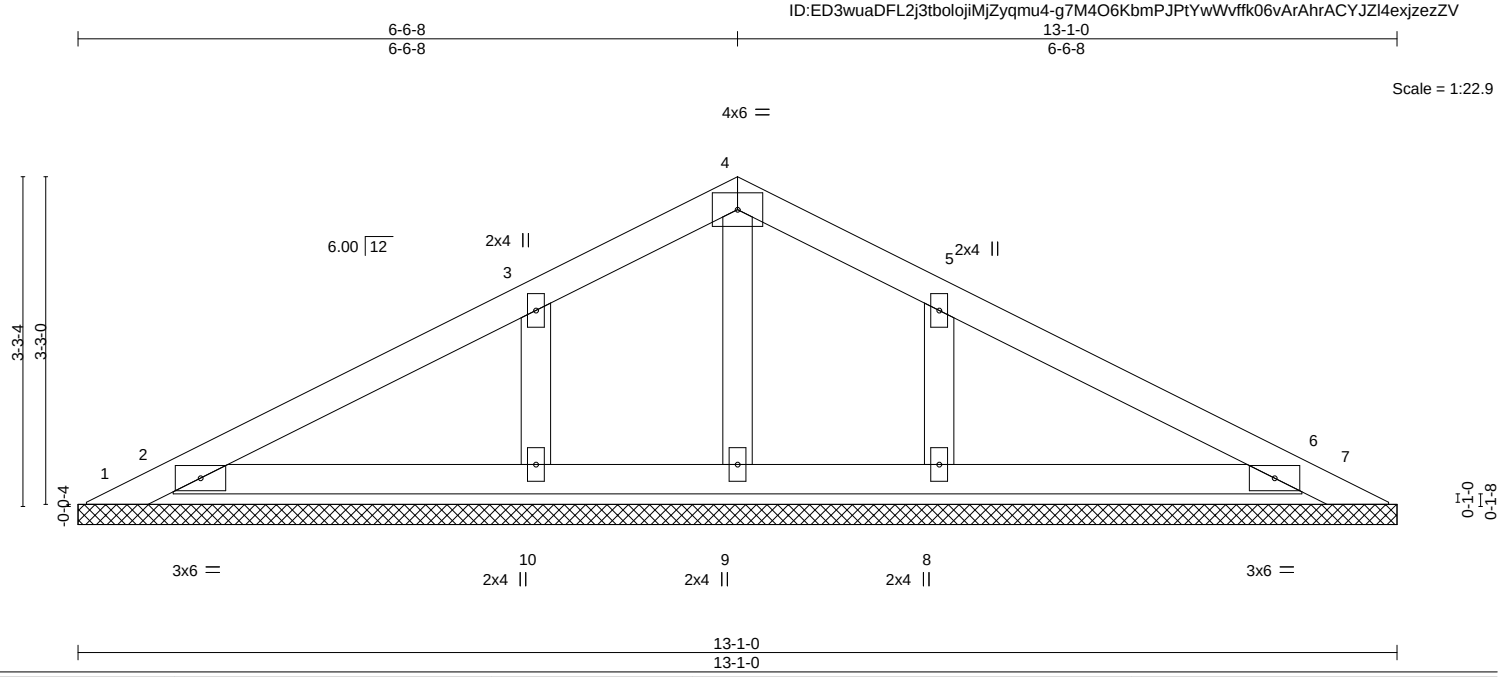

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 47 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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 13-1-0.
(lb) - Max Horz 1=44(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 2, 6, 10, 8
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 9 except 2=289(LC 1), 6=289(LC 1), 10=263(LC 21), 8=263(LC 22)

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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever 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 requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 2, 6, 10, 8.
9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF	I56950027
35842-35842A	PB2	GABLE	18	1	Job Reference (optional)	

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:40 2023 Page 1
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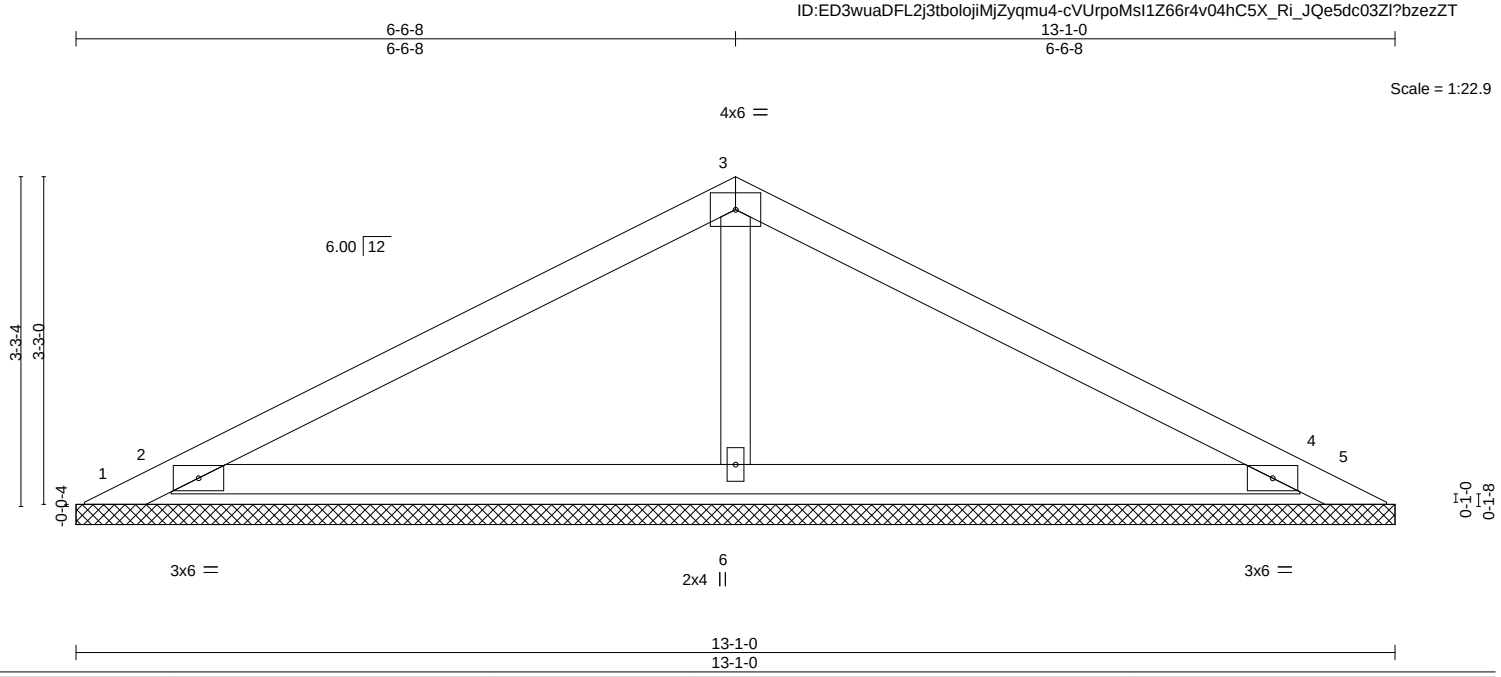

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 42 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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 13-1-0.
(lb) - Max Horz 1=44(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) except 1=-338(LC 21), 5=-338(LC 22), 2=-193(LC 10), 4=-182(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 2=630(LC 21), 4=630(LC 22), 6=408(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-275/103

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever 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 requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 338 lb uplift at joint 1, 338 lb uplift at joint 5, 193 lb uplift at joint 2 and 182 lb uplift at joint 4.
9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	PB3	GABLE	2	2	I56950028

Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:41 2023 Page 1
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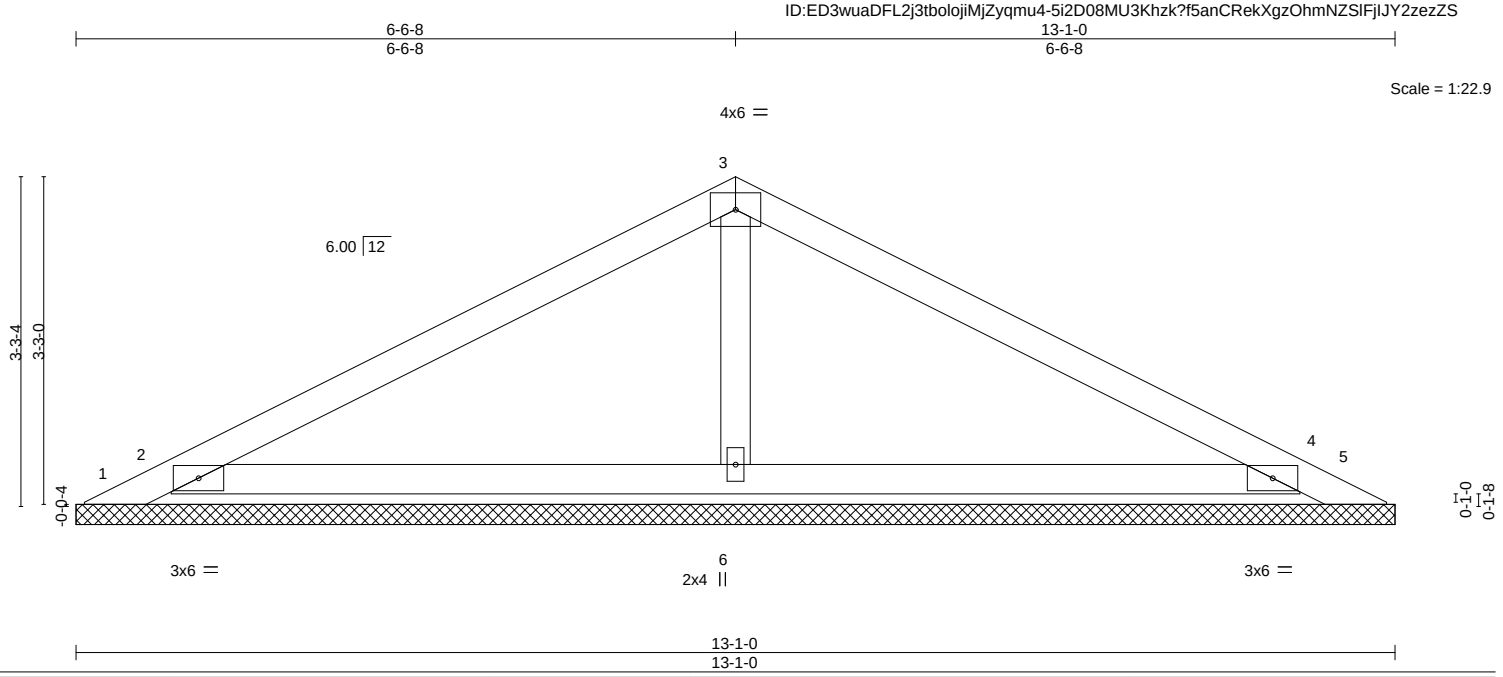

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 84 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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 13-1-0.
(lb) - Max Horz 1=44(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) except 1=-338(LC 21), 5=-338(LC 22), 2=-193(LC 10), 4=-182(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 2=630(LC 21), 4=630(LC 22), 6=408(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-275/103

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) 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.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 338 lb uplift at joint 1, 338 lb uplift at joint 5, 193 lb uplift at joint 2 and 182 lb uplift at joint 4.
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

March 6,2023

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

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	V1	Valley	1	1	I56950029

Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:42 2023 Page 1
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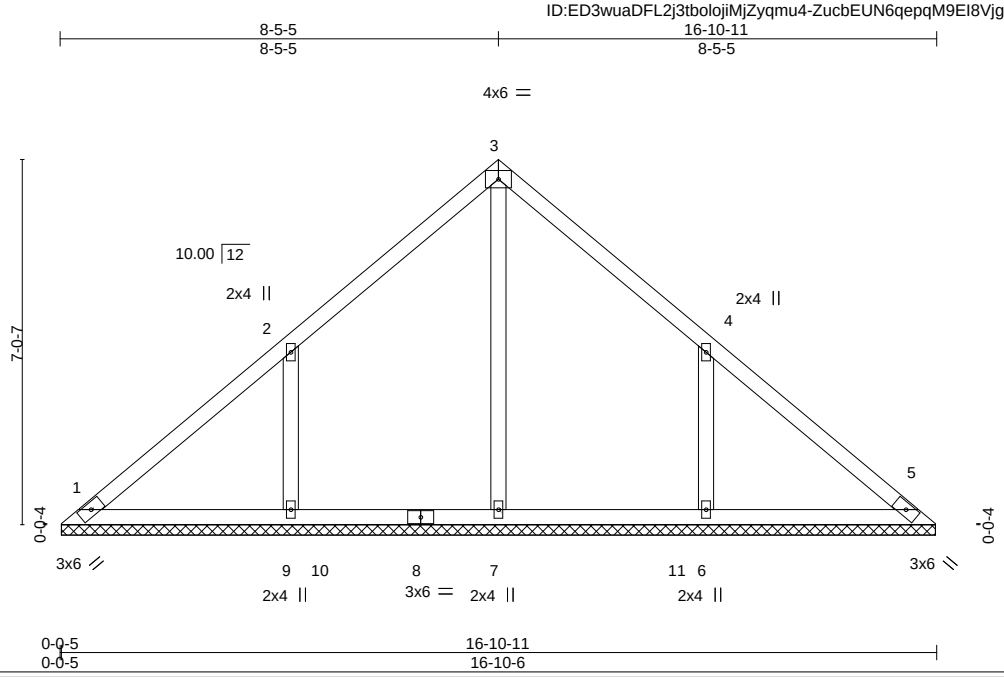

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 75 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3 *Except*
3-7: 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 16-10-1.
(lb) - Max Horz 1=-141(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=-157(LC 10), 6=-157(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=359(LC 20), 9=447(LC 17), 6=447(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-306/204, 4-6=-306/204

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=157, 6=157.

March 6,2023

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	V2	Valley	1	1	I56950030
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:49 2023 Page 1
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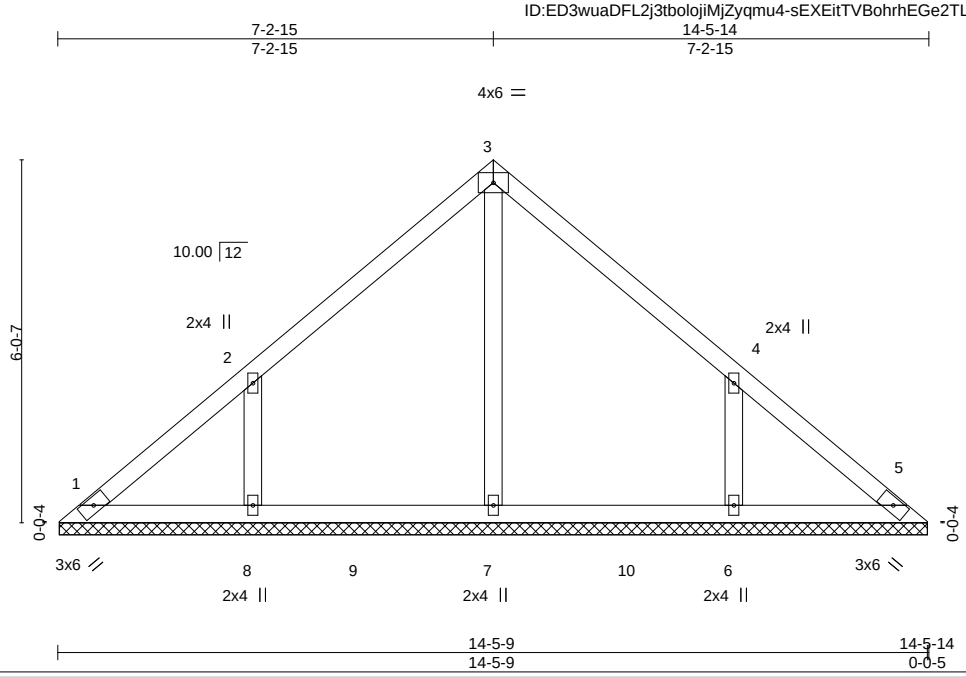

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 62 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3 *Except*
3-7: 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 14-5-4.
(lb) - Max Horz 1=-120(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-136(LC 10), 6=-135(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=343(LC 17), 8=359(LC 17), 6=359(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-265/177, 4-6=-265/177

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=136, 6=135.

March 6,2023

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	V3	Valley	1	1	I56950031
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:50 2023 Page 1
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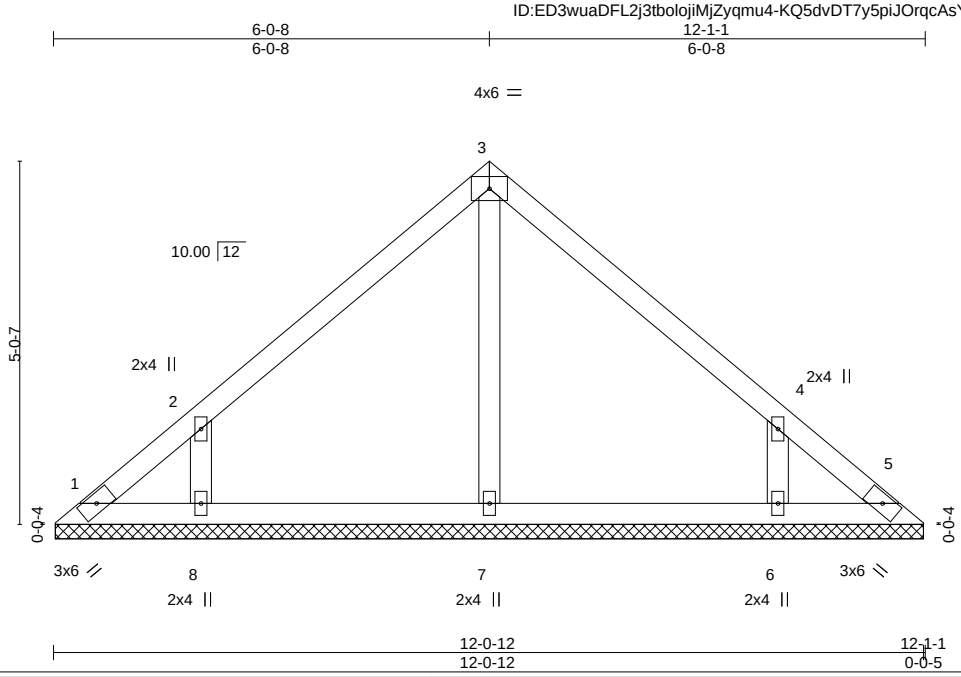

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 50 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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 12-0-7.
(lb) - Max Horz 1=-99(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-126(LC 10), 6=-126(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=311(LC 17), 6=311(LC 18)

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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=126, 6=126.

March 6,2023

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	V4	Valley	1	1	I56950032
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:51 2023 Page 1
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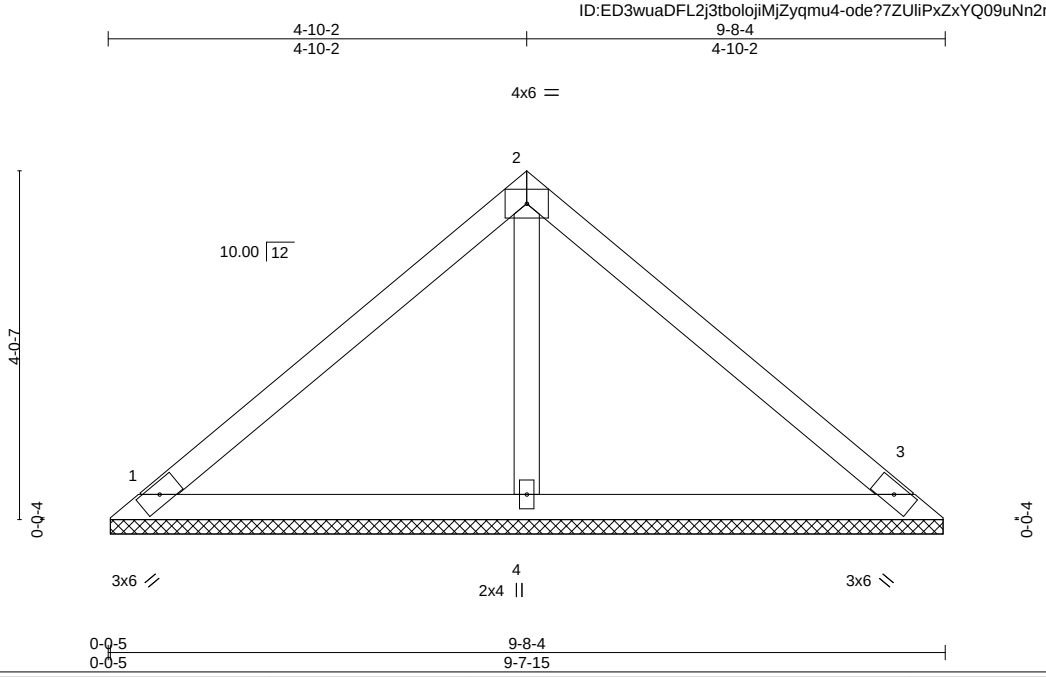

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 37 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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=9-7-11, 3=9-7-11, 4=9-7-11
Max Horz 1=-78(LC 6)
Max Uplift 1=-19(LC 11), 3=-28(LC 11)
Max Grav 1=188(LC 1), 3=188(LC 1), 4=334(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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

March 6,2023

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

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	V5	Valley	1	1	I56950033
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:52 2023 Page 1
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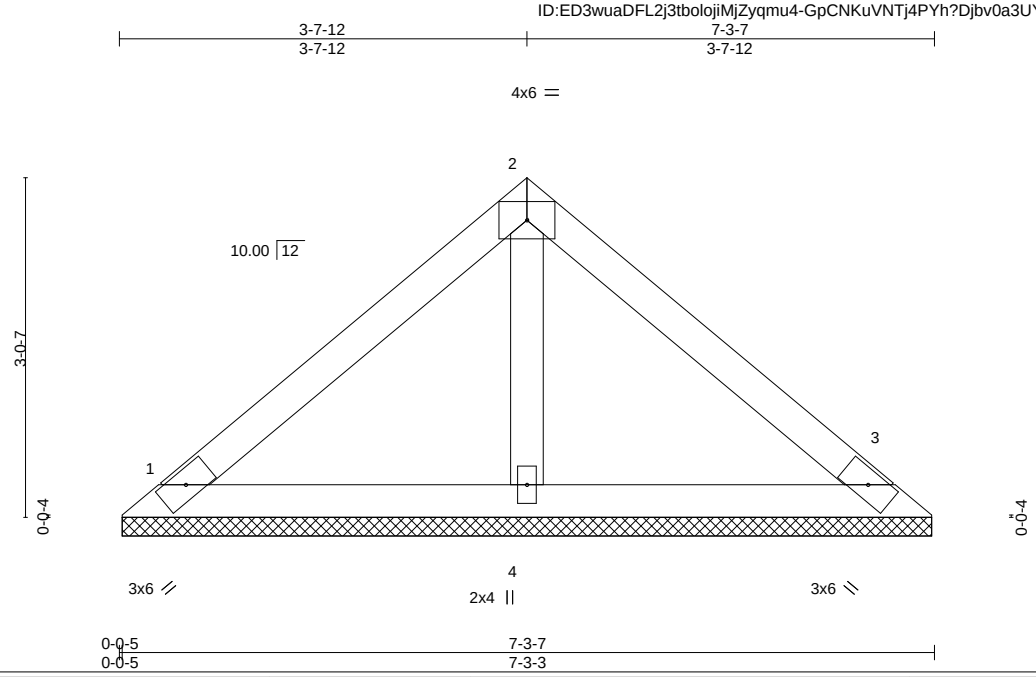

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 27 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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=7-2-14, 3=7-2-14, 4=7-2-14
Max Horz 1=57(LC 7)
Max Uplift 1=-21(LC 11), 3=-28(LC 11)
Max Grav 1=149(LC 1), 3=149(LC 1), 4=221(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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

March 6,2023

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	V6	Valley	1	1	I56950034
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:53 2023 Page 1
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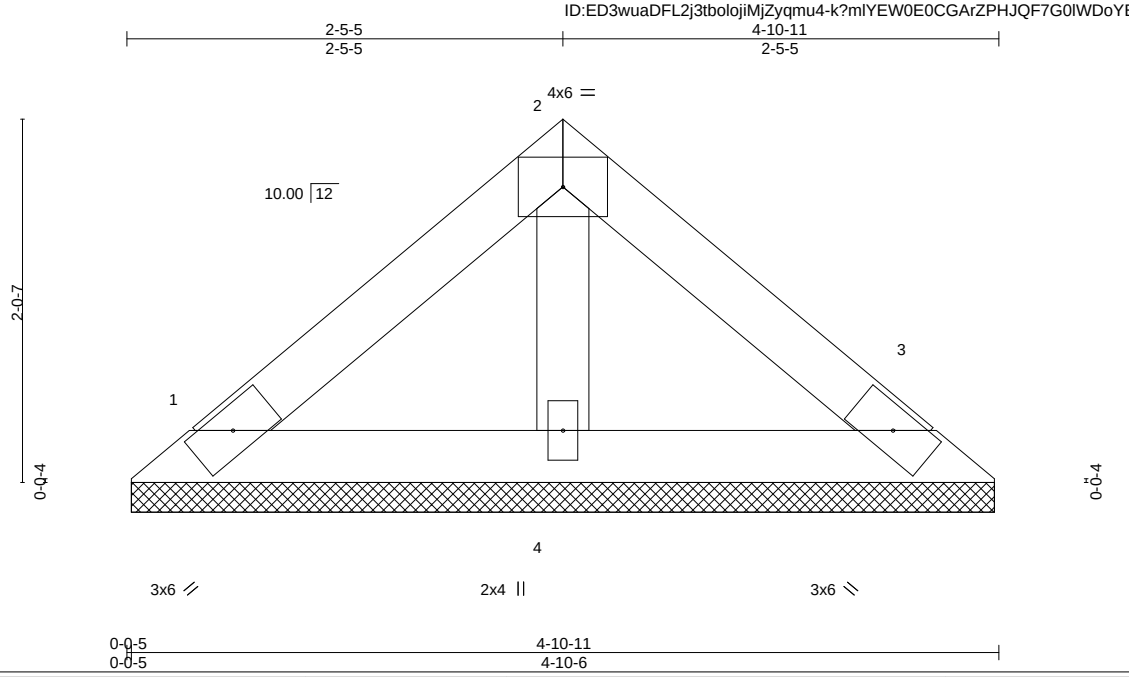

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 17 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.3
BOT CHORD 2x4 SP No.3
OTHERS 2x4 SP No.3

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

REACTIONS. (size) 1=4-10-1, 3=4-10-1, 4=4-10-1
Max Horz 1=36(LC 9)
Max Uplift 1=-13(LC 11), 3=-17(LC 11)
Max Grav 1=93(LC 1), 3=93(LC 1), 4=141(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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

March 6,2023

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

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	V7	Valley	1	1	I56950035
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:54 2023 Page 1
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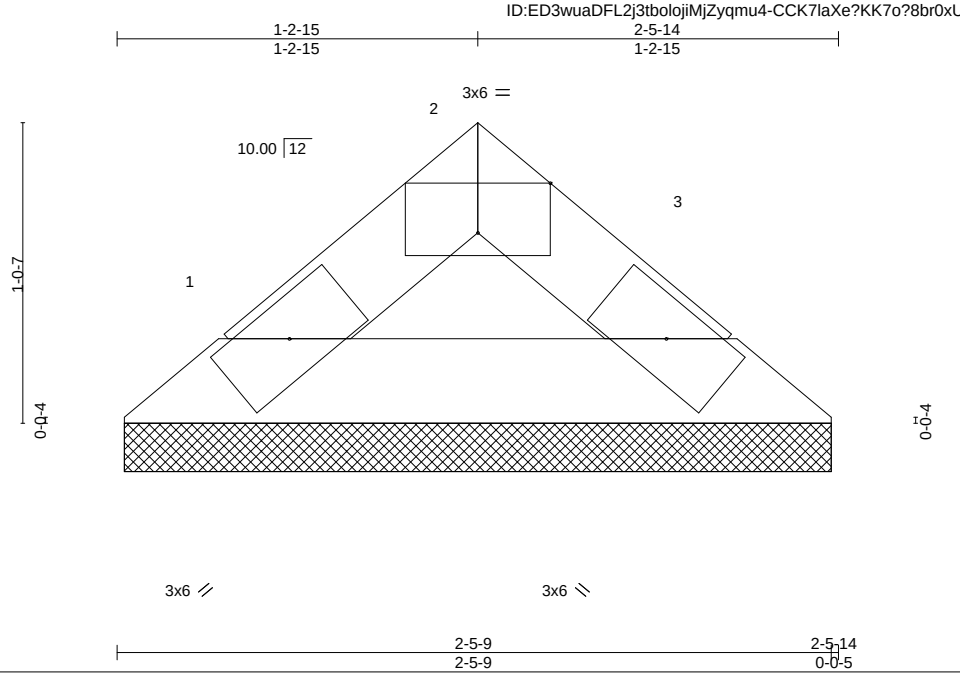

Plate Offsets (X,Y)-- [2:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	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: 7 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.3
BOT CHORD 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-5-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=2-5-4, 3=2-5-4
Max Horz 1=15(LC 7)
Max Uplift 1=-2(LC 10), 3=-2(LC 11)
Max Grav 1=67(LC 1), 3=67(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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

March 6,2023

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

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	V8	Valley	1	1	I56950036

Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:55 2023 Page 1

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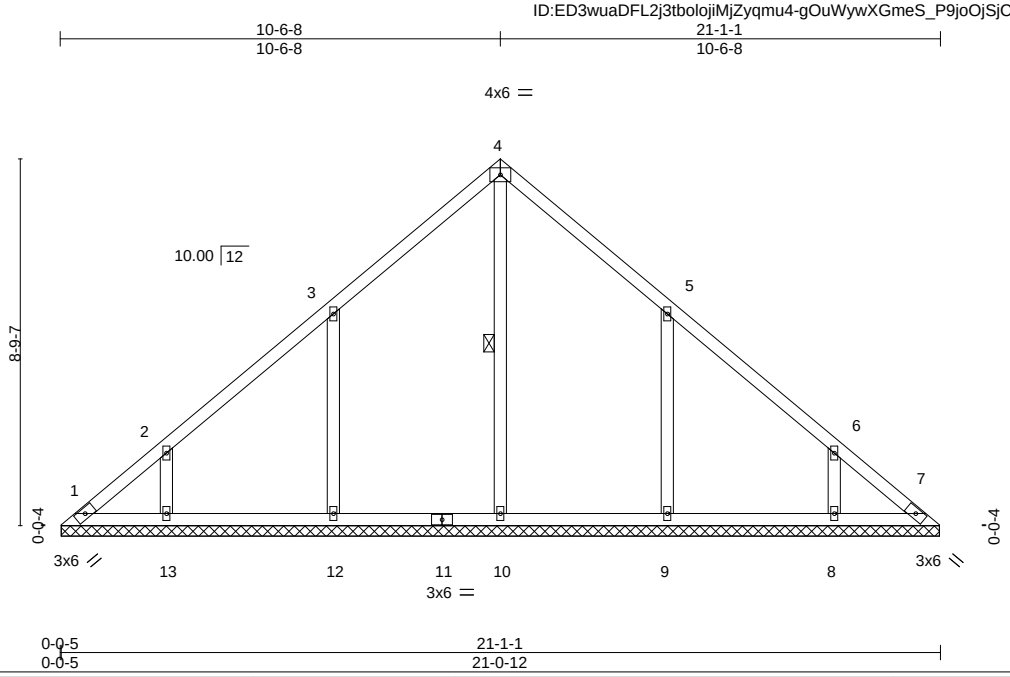

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 102 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3 *Except*
4-10: 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 1 Row at midpt 4-10

REACTIONS. All bearings 21-0-7.
(lb) - Max Horz 1=-178(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 12=-144(LC 10), 13=-106(LC 10), 9=-144(LC 11), 8=-107(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=390(LC 20), 12=428(LC 17), 13=280(LC 17), 9=428(LC 18), 8=280(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-12=-288/193, 5-9=-287/193

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;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, with BCDL = 10.0psf.
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) 12=144, 13=106, 9=144, 8=107.

March 6,2023

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

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	V9	Valley	1	1	I56950037
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:56 2023 Page 1
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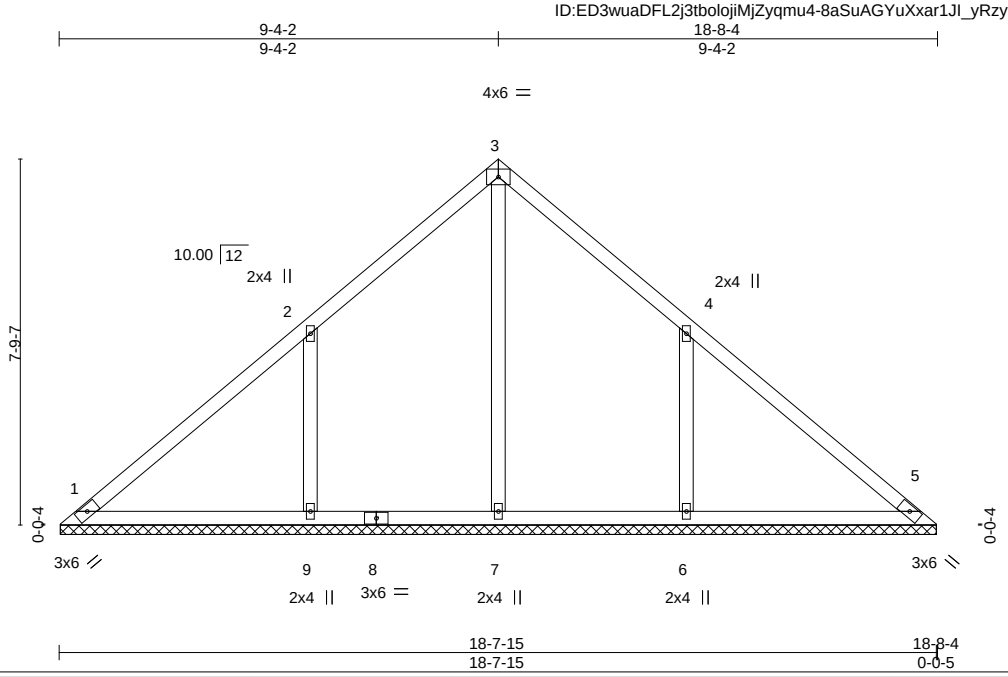

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 85 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3 *Except*
3-7: 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 18-7-11.
(lb) - Max Horz 1=-157(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) except 9=-177(LC 10), 6=-177(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=354(LC 20), 9=520(LC 17), 6=520(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-347/229, 4-6=-346/229

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 177 lb uplift at joint 9 and 177 lb uplift at joint 6.

March 6,2023

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

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	V10	Valley	1	1	I56950038
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:43 2023 Page 1
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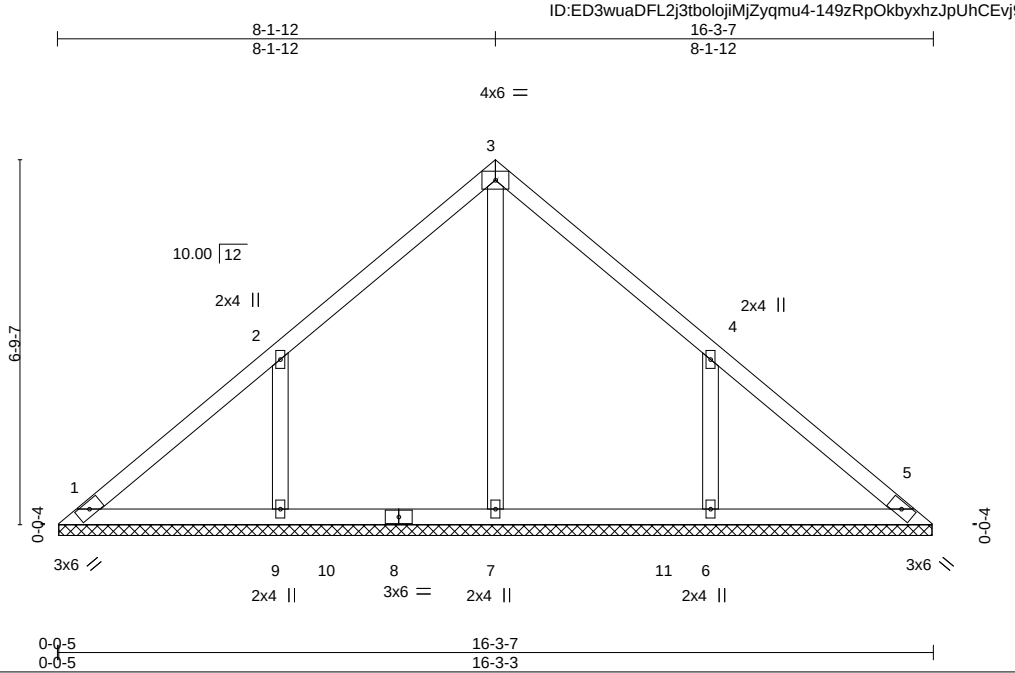

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 72 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3 *Except*
3-7: 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 16-2-14.
(lb) - Max Horz 1=-136(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=-151(LC 10), 6=-151(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=357(LC 20), 9=422(LC 17), 6=422(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-295/196, 4-6=-294/196

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 9=151, 6=151.

March 6,2023

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

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	V11	Valley	1	1	I56950039
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:44 2023 Page 1
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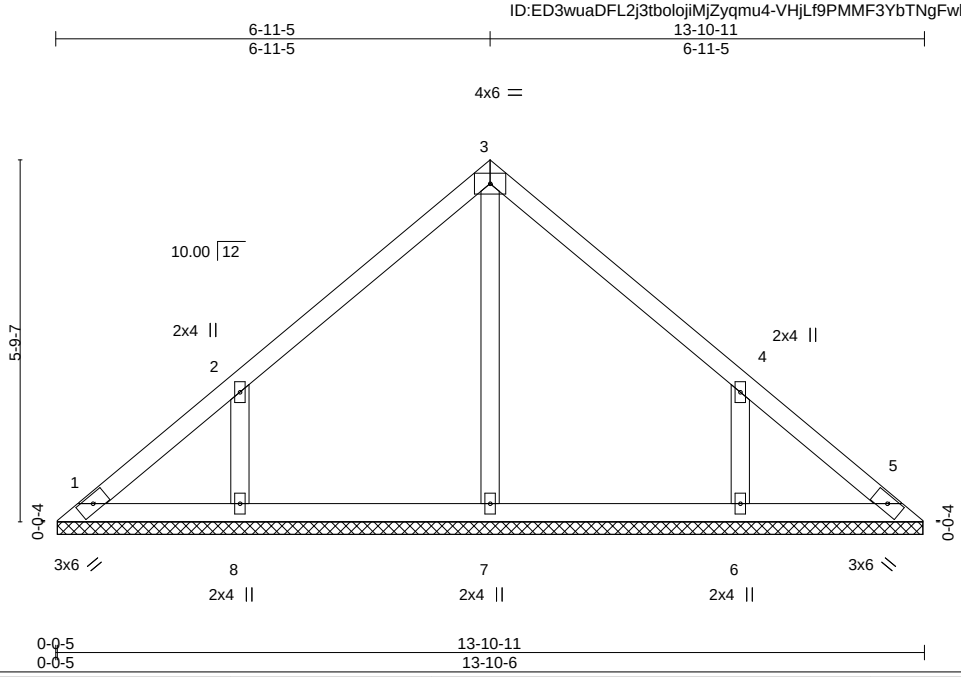

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 59 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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 13-10-1.
(lb) - Max Horz 1=-115(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-132(LC 10), 6=-131(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=331(LC 17), 6=331(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-258/173, 4-6=-258/173

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=132, 6=131.

March 6,2023

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

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	V12	Valley	1	1	I56950040

Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:45 2023 Page 1

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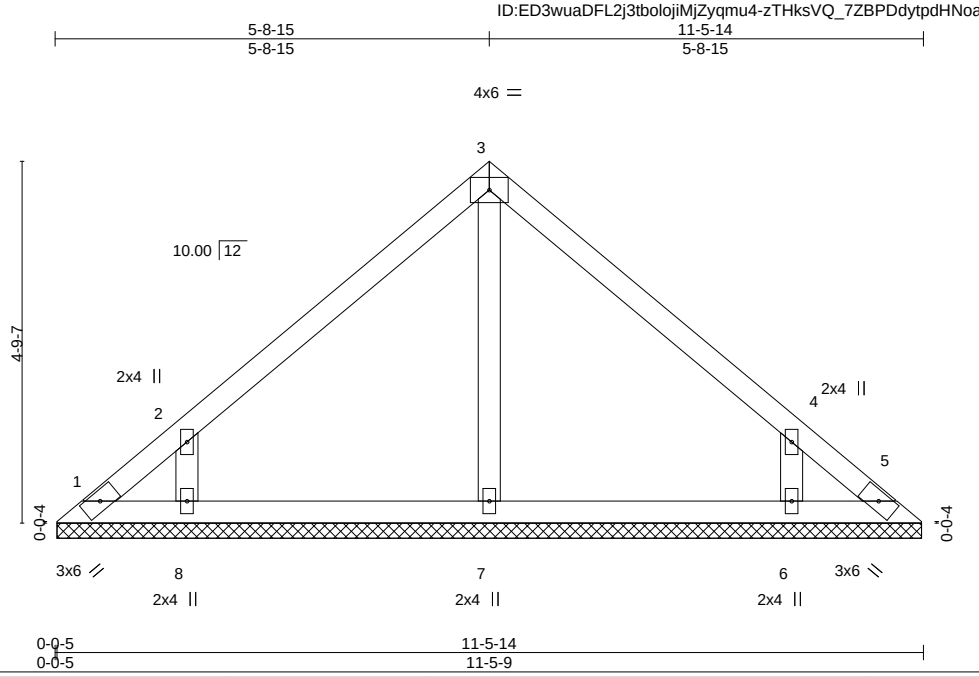

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 47 lb	FT = 20%

LUMBER-

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

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 11-5-4.
(lb) - Max Horz 1=-94(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-129(LC 10), 6=-128(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 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=-255/174, 4-6=-255/173

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=129, 6=128.

March 6,2023

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

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	V13	Valley	1	1	I56950041
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:46 2023 Page 1
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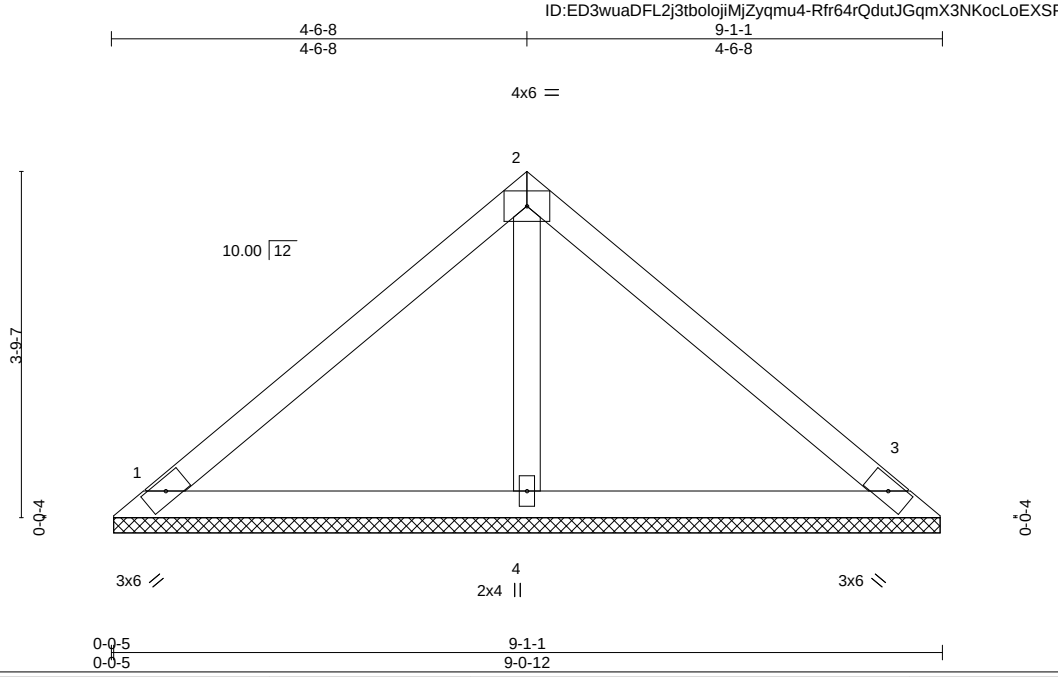

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 34 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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=9-0-7, 3=9-0-7, 4=9-0-7
Max Horz 1=-73(LC 6)
Max Uplift 1=-17(LC 11), 3=-26(LC 11)
Max Grav 1=175(LC 1), 3=175(LC 1), 4=312(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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

March 6,2023

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

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	V14	Valley	1	1	I56950042

Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:47 2023 Page 1
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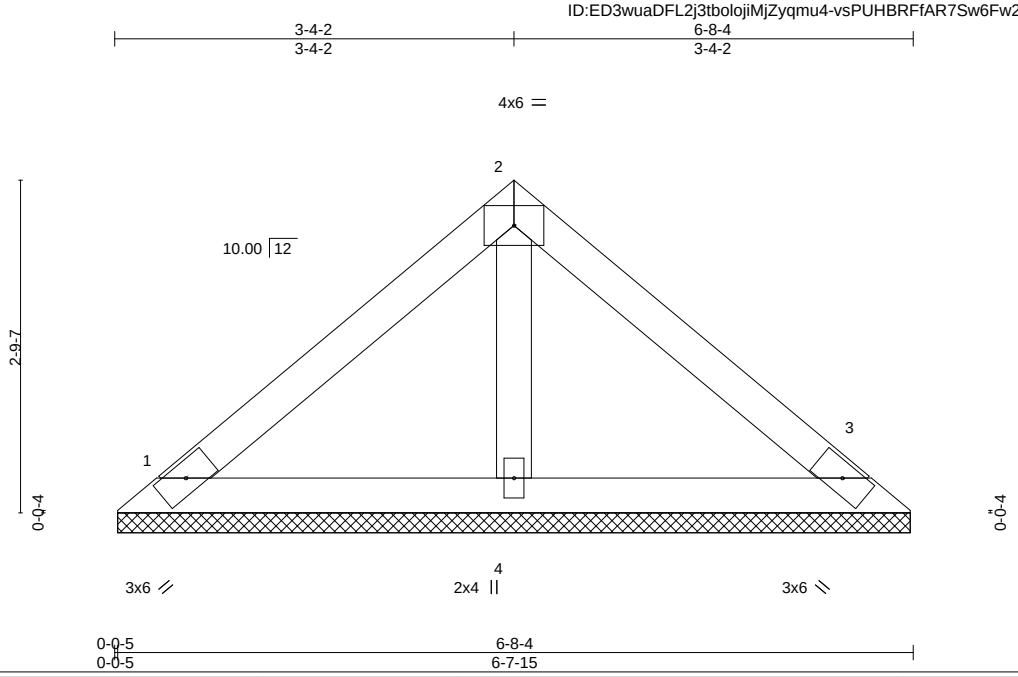

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 25 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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=6-7-11, 3=6-7-11, 4=6-7-11
Max Horz 1=-52(LC 6)
Max Uplift 1=-19(LC 11), 3=-25(LC 11)
Max Grav 1=135(LC 1), 3=135(LC 1), 4=201(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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

March 6,2023

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

Job	Truss	Truss Type	Qty	Ply	53 SERENITY - ROOF
35842-35842A	V15	Valley	1	1	I56950043
					Job Reference (optional)

84 Components (Dunn, NC), Dunn, NC - 28334, 8.630 s Nov 19 2022 MiTek Industries, Inc. Thu Mar 2 11:38:48 2023 Page 1
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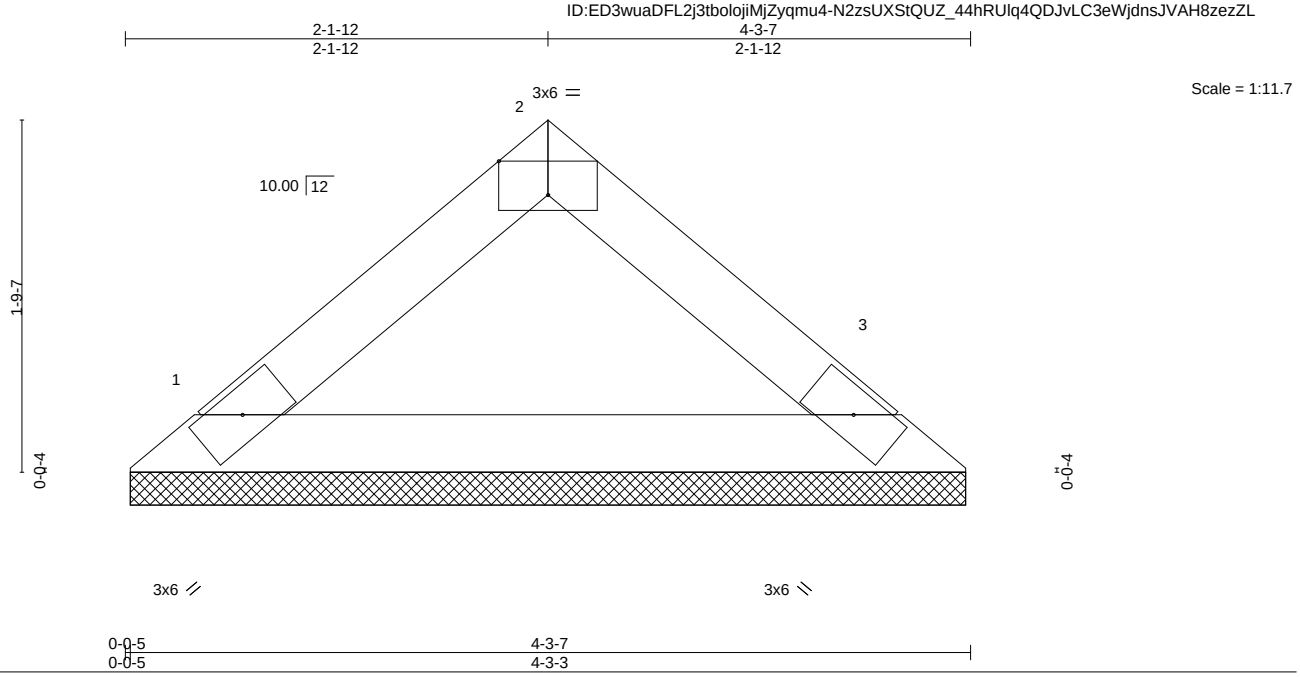


Plate Offsets (X,Y)-- [2:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.25	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: 13 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.3
BOT CHORD 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-3-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-2-14, 3=4-2-14
Max Horz 1=-31(LC 6)
Max Uplift 1=-5(LC 10), 3=-5(LC 11)
Max Grav 1=139(LC 1), 3=139(LC 1)

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

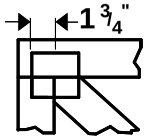
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

March 6,2023

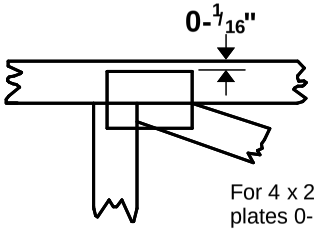
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

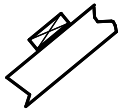
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

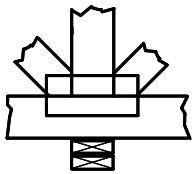
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

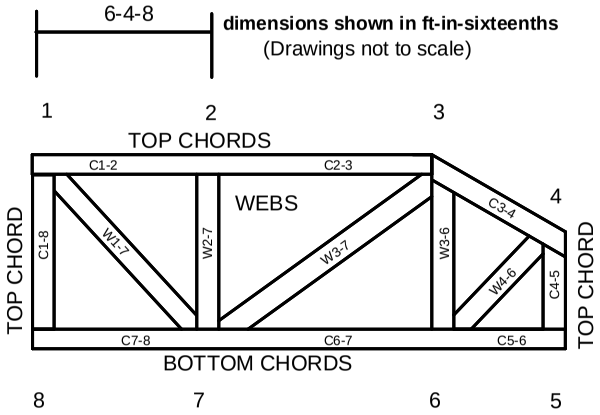


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

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.

MiTek
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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

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.