

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 32559-32559A
61 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: I53753321 thru I53753347

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

North Carolina COA: C-0844



August 19, 2022

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 32559-32559A	Truss A1GE	Truss Type Roof Special Supported Gable	Qty 1	Ply 1	61 SERENITY - ROOF Job Reference (optional)	153753321
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:00 2022 Page 1
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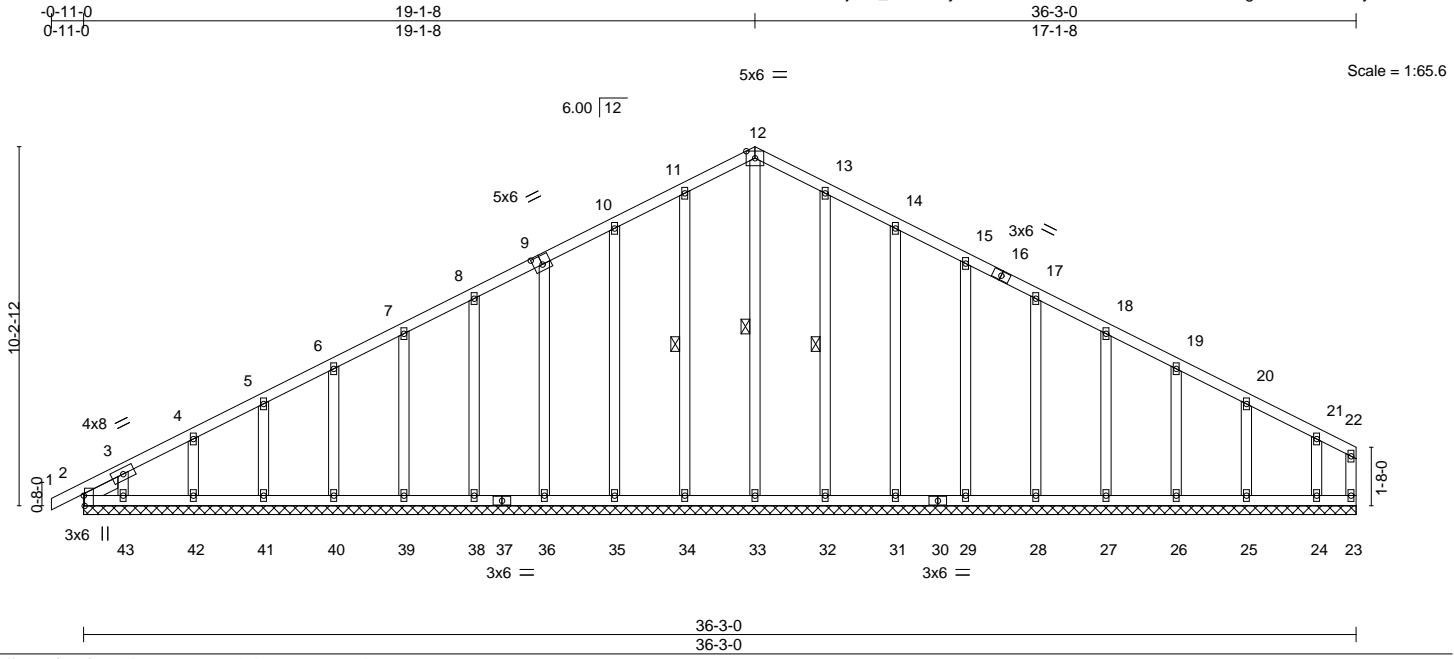


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [9:0-3-0,0-3-0]

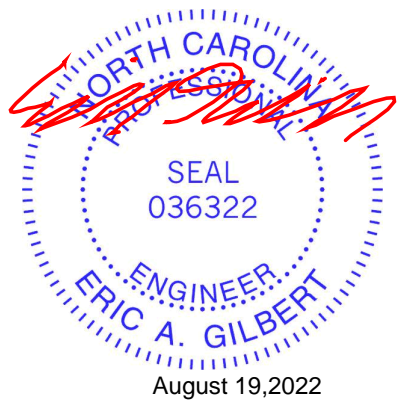
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.08	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(LL) -0.00 1 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.14	Vert(CT) -0.00 1 n/r 90		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 23 n/a n/a		
	Code IRC2015/TPI2014			Weight: 258 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 12-33, 11-34, 13-32
OTHERS 2x4 SP No.2 or 2x4 SPF No.2	
SLIDER Left 2x4 SP No.3 1-1-6	

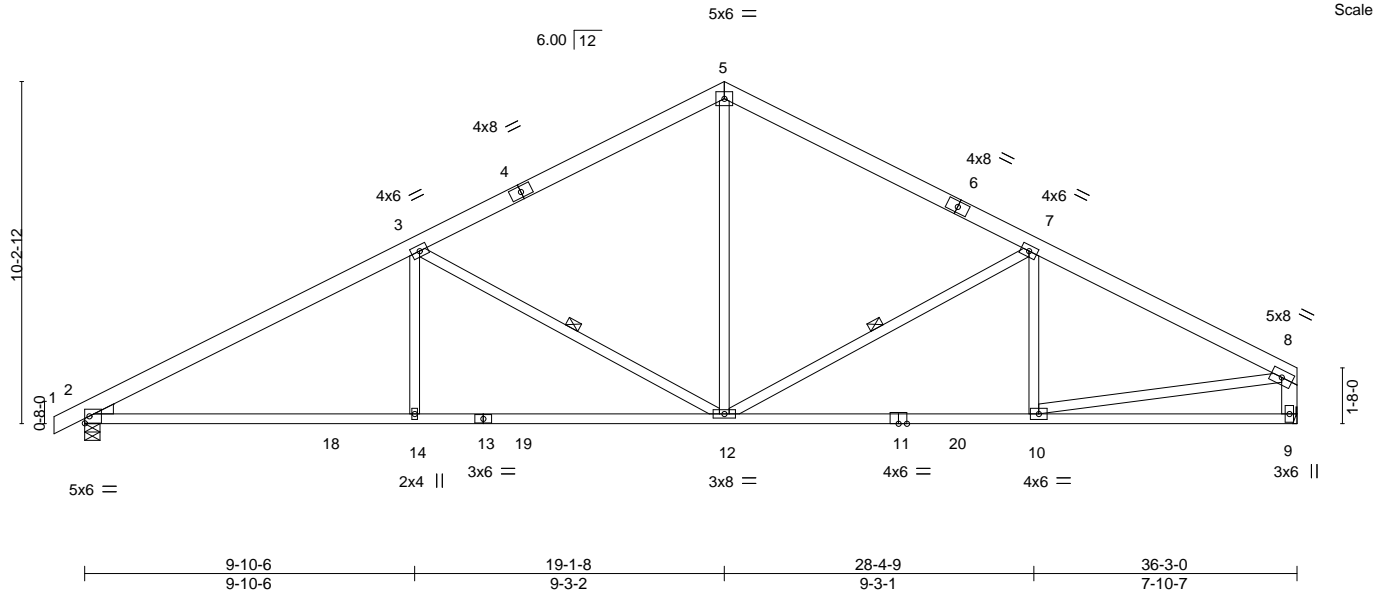
REACTIONS. All bearings 36-3-0.
(lb) - Max Horz 2=148(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 34, 35, 36, 38, 39, 40, 41, 42, 43, 32, 31, 29, 28, 27, 26, 25, 24
Max Grav All reactions 250 lb or less at joint(s) 23, 2, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 32, 31, 29, 28, 27, 26, 25, 24

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 10-11=-114/272, 11-12=-127/308, 12-13=-127/308, 13-14=-114/272

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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 ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 34, 35, 36, 38, 39, 40, 41, 42, 43, 32, 31, 29, 28, 27, 26, 25, 24.



Job 32559-32559A	Truss A2	Truss Type Roof Special	Qty 1	Ply 1	61 SERENITY - ROOF	153753322
84 Components (Dunn), Dunn, NC - 28334,					8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:02 2022 Page 1	
0-11-0 0-11-0					ID:nxbot3WsxISjrAw_FcBFB3yorwP-Zy96IsCYeAVCSmUQH7xAdnggcUPVJ8J8OiPa9aymV23	
9-10-6 9-10-6					28-4-9 9-3-1	
19-1-8 9-3-2					36-3-0 7-10-7	
6.00 $\sqrt{12}$					Scale = 1:68.9	



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 0.49	Vert(LL)	-0.15 14-17	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.93	Vert(CT)	-0.33 14-17	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.47	Horz(CT)	0.09 9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS					Weight: 225 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
 WEBS 2x4 SP No.2 or 2x4 SPF No.2 *Except*
 8-9: 2x6 SP No.2
 WEDGE
 Left: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-2-7 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
 WEBS 1 Row at midpt 3-12, 7-12

REACTIONS.

(size) 2=0-5-8, 9=Mechanical
 Max Horz 2=150(LC 14)
 Max Uplift 2=-100(LC 10), 9=-71(LC 11)
 Max Grav 2=1497(LC 1), 9=1440(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2470/412, 3-5=-1649/368, 5-7=-1646/367, 7-8=-2064/359, 8-9=-1371/260
 BOT CHORD 2-14=-262/2099, 12-14=-262/2099, 10-12=-207/1767
 WEBS 3-14=0/377, 3-12=-908/253, 5-12=-105/859, 7-12=-548/190, 8-10=-199/1635

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 ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 2=100.



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

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

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

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



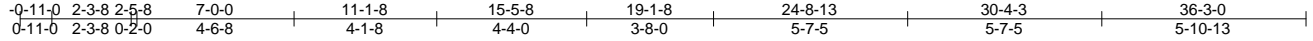
818 Soundside Road
 Edenton, NC 27932

Job 32559-32559A	Truss A3	Truss Type Common	Qty 5	Ply 1	61 SERENITY - ROOF Job Reference (optional)	153753323
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84 Components (Dunn), Dunn, NC - 28334,

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5x10 =

Scale = 1:66.6

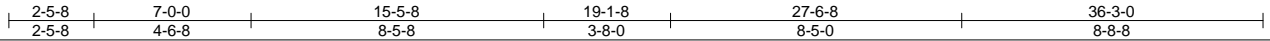
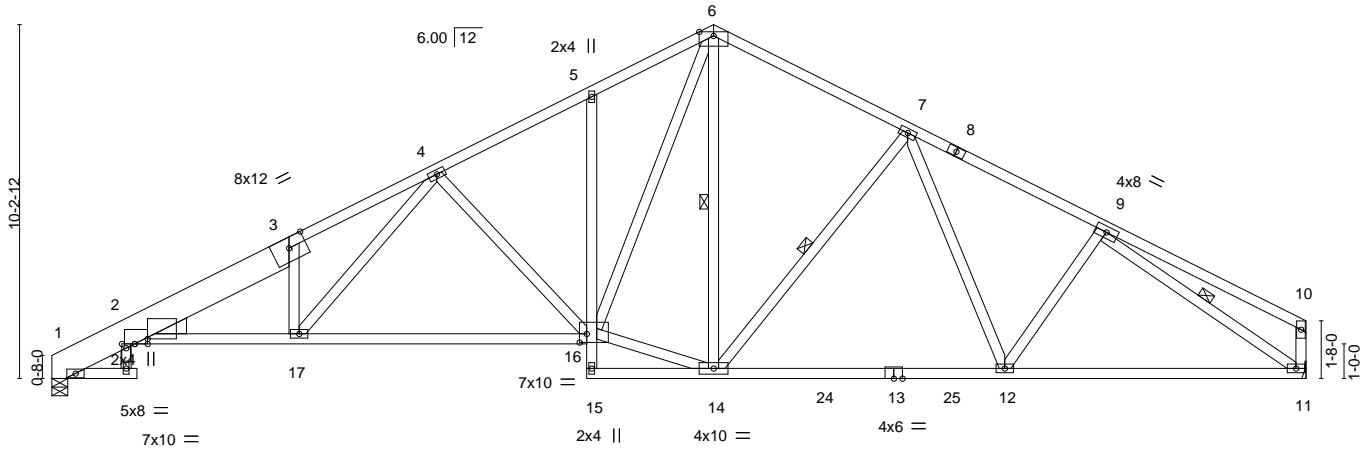


Plate Offsets (X,Y)-- [2:0-4-8,0-0-0], [2:0-4-8,0-1-12], [16:0-2-8,0-3-0], [19:0-1-8,0-1-8]

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 0.49	Vert(LL) -0.23 12-14 >999 240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.83	Vert(CT) -0.47 16-17 >918 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.50	Horz(CT) 0.18 11 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS		Weight: 247 lb	FT = 20%

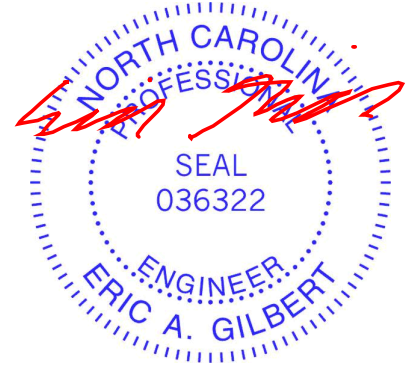
LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2 *Except*
 1-3: 2x10 SP DSS
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2 *Except*
 2-16: 2x4 SP No.1
WEBS 2x4 SP No.2 or 2x4 SPF No.2 *Except*
 10-11: 2x4 SP No.3
OTHERS 2x4 SP No.2 or 2x4 SPF No.2
WEDGE
 Left: 2x6 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-1-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-14, 7-14, 9-11

REACTIONS. (size) 1=0-5-8, 11=Mechanical
 Max Horz 1=140(LC 14)
 Max Uplift 1=74(LC 10), 11=71(LC 11)
 Max Grav 1=1452(LC 1), 11=1436(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-641/113, 2-3=-3092/454, 3-4=-3216/562, 4-5=-2055/414, 5-6=-2025/490, 6-7=-1550/385, 7-9=-1918/385
BOT CHORD 2-17=-341/2856, 16-17=-248/2219, 12-14=-141/1587, 11-12=-212/1630
WEBS 3-17=-534/194, 4-17=-130/949, 4-16=-648/194, 14-16=0/1363, 6-16=-231/1250, 6-14=-90/281, 7-14=-484/178, 7-12=-6/270, 9-11=-1896/280

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - All plates are 3x6 MT20 unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Refer to girder(s) for truss to truss connections.
 - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 11.



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818 Soundside Road
 Edenton, NC 27932

Job 32559-32559A	Truss A4	Truss Type COMMON	Qty 1	Ply 1	61 SERENITY - ROOF	153753324
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84 Components (Dunn),

Dunn, NC - 28334,

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Job Reference (optional)

0-11-0	2-3-8	2-5-8	7-0-0	11-1-8	15-5-8	19-1-8	24-8-13	30-4-3	36-3-0	37-2-0
0-11-0	2-3-8	0-2-0	4-6-8	4-1-8	4-4-0	3-8-0	5-7-5	5-7-5	5-10-13	0-11-0

Scale = 1:67.3

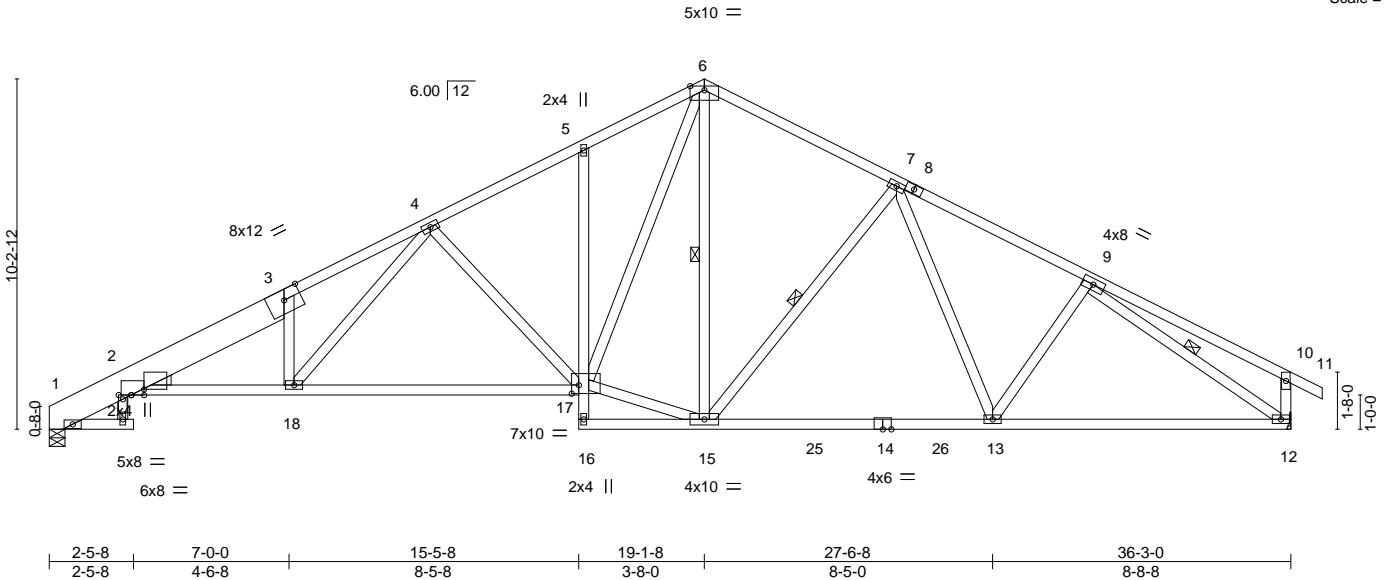


Plate Offsets (X,Y)--	[2:0-4-8,0-0-0], [2:0-4-8,0-2-0], [17:0-2-8,0-3-0], [20:0-1-8,0-1-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.49	Vert(LL)	-0.23	13-15	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.47	17-18	>918		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.50	Horz(CT)	0.18	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 247 lb	FT = 20%

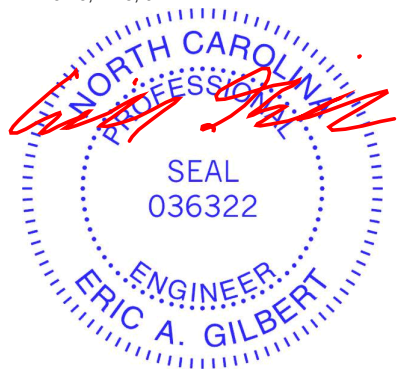
LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2 *Except*
 1-3: 2x10 SP DSS
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2 *Except*
 2-17: 2x4 SP No.1
WEBS 2x4 SP No.2 or 2x4 SPF No.2 *Except*
 10-12: 2x4 SP No.3
OTHERS 2x4 SP No.2 or 2x4 SPF No.2
WEDGE
 Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-1-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 6-15, 7-15, 9-12

REACTIONS. (size) 1=0-5-8, 12=Mechanical
 Max Horz 1=133(LC 14)
 Max Uplift 1=74(LC 10), 12=88(LC 11)
 Max Grav 1=1451(LC 1), 12=1501(LC 1)

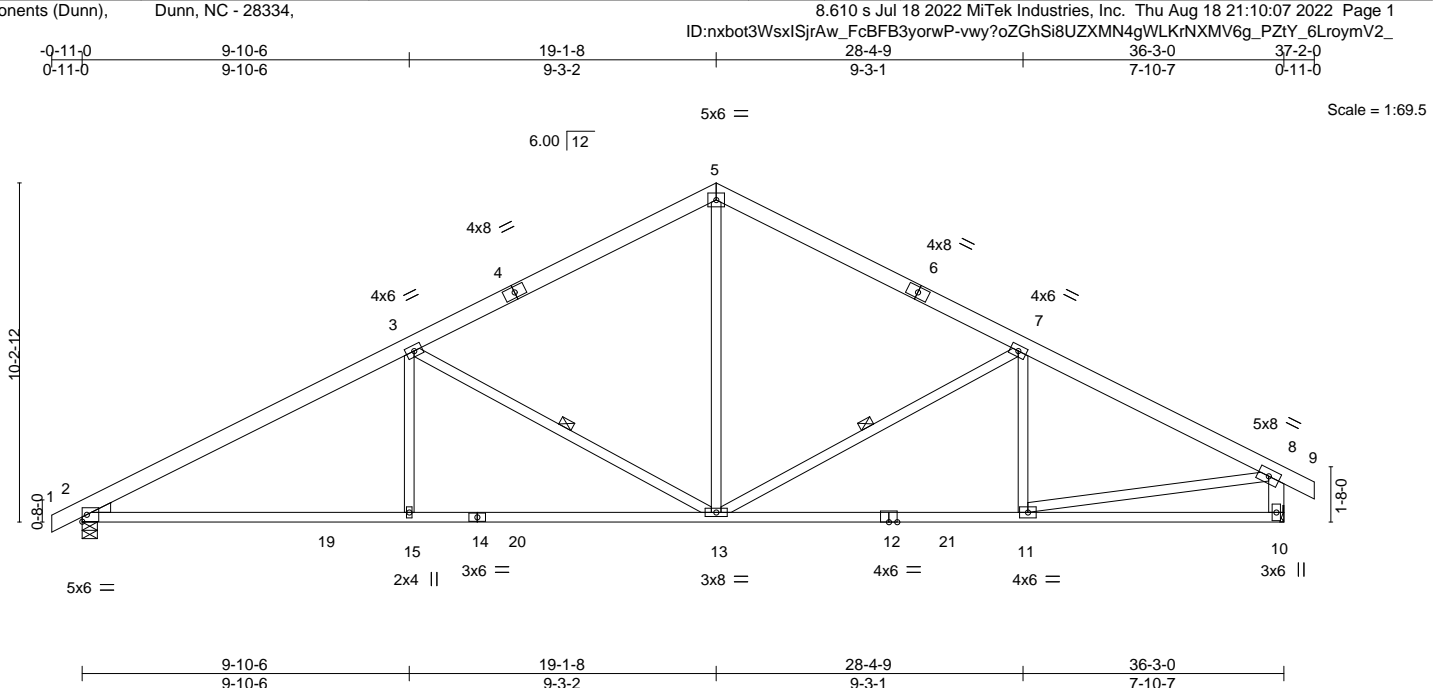
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-641/140, 2-3=-3090/447, 3-4=-3213/552, 4-5=-2053/410, 5-6=-2023/487, 6-7=-1549/386, 7-9=-1910/385, 10-12=-305/168
BOT CHORD 2-18=-302/2854, 17-18=-212/2217, 13-15=-112/1584, 12-13=-181/1620
WEBS 3-18=-534/190, 4-18=-124/948, 4-17=-648/191, 15-17=0/1361, 6-17=-221/1250, 6-15=-95/280, 7-15=-482/179, 7-13=-5/267, 9-12=-1855/243

- 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; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) All plates are 3x6 MT20 unless otherwise indicated.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 6) Refer to girder(s) for truss to truss connections.
 - 7) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 12.



August 19, 2022

Job 32559-32559A	Truss A5	Truss Type ROOF SPECIAL	Qty 5	Ply 1	61 SERENITY - ROOF	153753325
84 Components (Dunn), Dunn, NC - 28334,					8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:07 2022 Page 1	
-0-11-0 0-11-0					9-10-6 9-10-6	
19-1-8 9-3-2					28-4-9 9-3-1	
36-3-0 7-10-7					37-2-0 0-11-0	
Job Reference (optional)						



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 0.49	Vert(LL) -0.15 15-18 >999 240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.93	Vert(CT) -0.33 15-18 >999 180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.47	Horz(CT) 0.09 10 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS			Weight: 228 lb FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
WEBS 2x4 SP No.2 or 2x4 SPF No.2 *Except*
8-10: 2x6 SP No.2

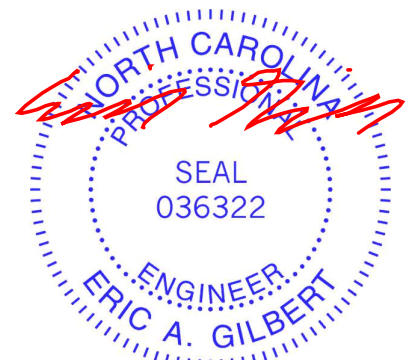
BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-2-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 3-13, 7-13

WEDGE
Left: 2x4 SP No.3

REACTIONS. (size) 2=0-5-8, 10=Mechanical
Max Horz 2=142(LC 14)
Max Uplift 2=-101(LC 10), 10=-89(LC 11)
Max Grav 2=1495(LC 1), 10=1510(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2467/412, 3-5=-1647/369, 5-7=-1643/366, 7-8=-2060/361, 8-10=-1441/313
BOT CHORD 2-15=-230/2097, 13-15=-230/2097, 11-13=-173/1757
WEBS 3-15=0/377, 3-13=-908/253, 5-13=-104/855, 7-13=-539/188, 8-11=-158/1576

- 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 ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 5) Refer to girder(s) for truss to truss connections.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10 except (jt=lb) 2=101.



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Job 32559-32559A	Truss A6	Truss Type GABLE	Qty 1	Ply 1	61 SERENITY - ROOF	153753326
84 Components (Dunn), Dunn, NC - 28334,					8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:08 2022 Page 1	
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9-10-6 9-10-6					28-4-9 9-3-1	
19-1-8 9-3-2					36-3-0 7-10-7	
5x6 =					37-2-0 0-11-0	

Scale = 1:66.1

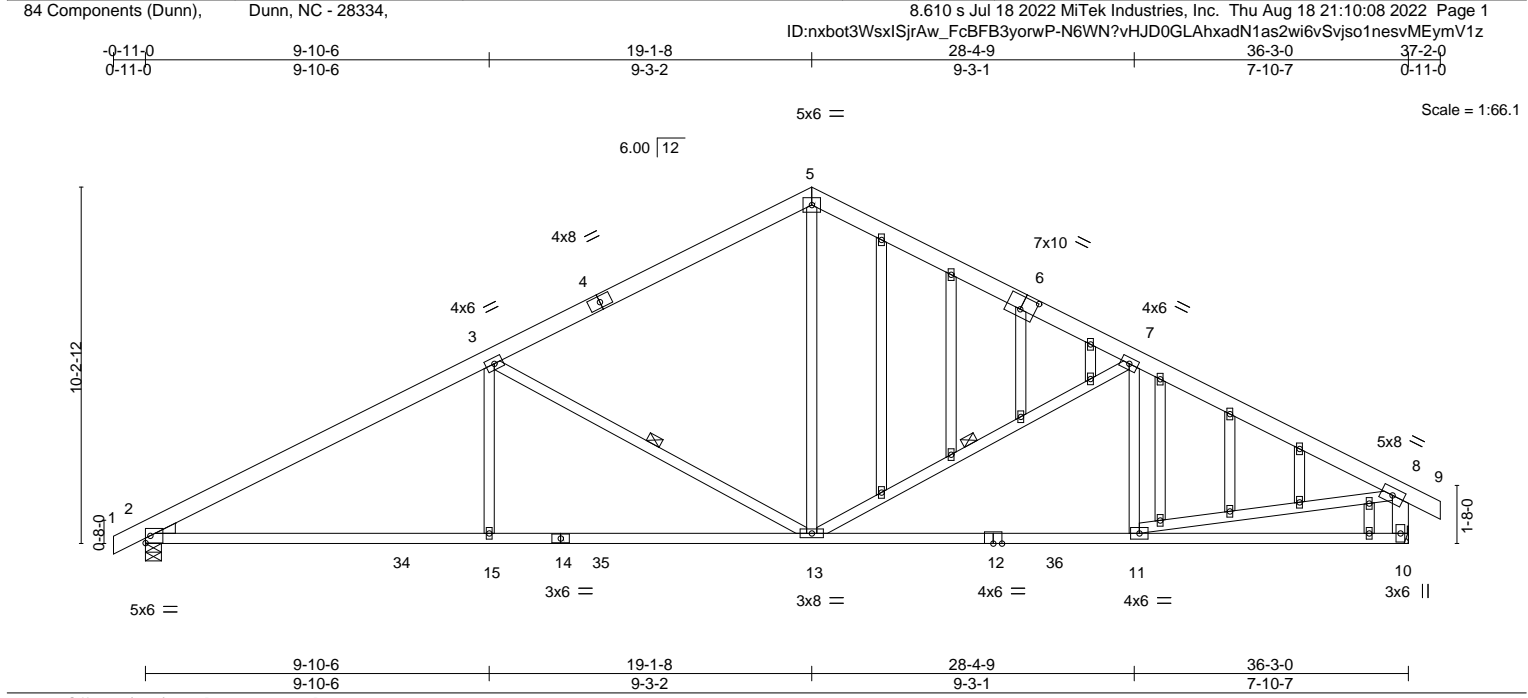


Plate Offsets (X,Y)--	[6:0-5-0,0-4-8]
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LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.49	Vert(LL) -0.15 15-33 >999 240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.93	Vert(CT) -0.33 15-33 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.47	Horz(CT) 0.09 10 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS			
				Weight: 267 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-2-7 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x4 SP No.2 or 2x4 SPF No.2 *Except* 8-10: 2x6 SP No.2	WEBS 1 Row at midpt 3-13, 7-13
OTHERS 2x4 SP No.2 or 2x4 SPF No.2	
WEDGE Left: 2x4 SP No.3	

REACTIONS. (size) 2=0-5-8, 10=Mechanical
Max Horz 2=142(LC 14)
Max Uplift 2=101(LC 10), 10=-89(LC 11)
Max Grav 2=1495(LC 1), 10=1510(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2467/412, 3-5=-1647/369, 5-7=-1643/366, 7-8=-2060/361, 8-10=-1441/313
BOT CHORD 2-15=-230/2097, 13-15=-230/2097, 11-13=-173/1757
WEBS 3-15=0/377, 3-13=-908/253, 5-13=-104/855, 7-13=-539/188, 8-11=-158/1576

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 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.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10 except (jt=lb) 2=101.



August 19, 2022

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

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

ENGINEERING BY

 A MiTek Affiliate

818 Soundside Road
 Edenton, NC 27932

Job 32559-32559A	Truss A7	Truss Type Common	Qty 3	Ply 1	61 SERENITY - ROOF	153753327
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84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:09 2022 Page 1

ID: nxbot3WsxISjrAw_FcBFB3yorwP-sl4IDFHx_KOCorWmB5ZpPGTujJs1SM5A?IbSugymV1y

Job Reference (optional)

0-11-0 9-1-6 17-7-8 26-1-10 35-3-0 36-2-0
 0-11-0 9-1-6 8-6-2 8-6-2 9-1-6 0-11-0

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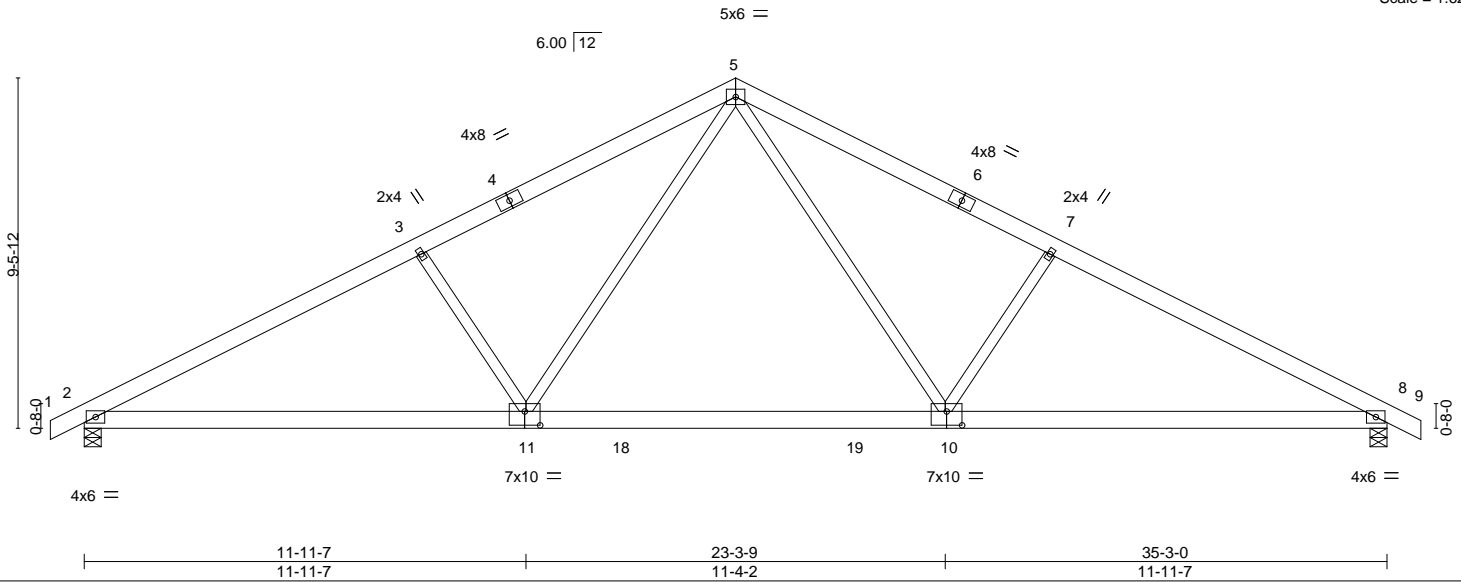


Plate Offsets (X,Y)--	[10:0-5-0,0-4-8], [11:0-5-0,0-4-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.43	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.68	Vert(LL) -0.24 10-11 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.27	Vert(CT) -0.37 10-11 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.06 8 n/a n/a		
	Code IRC2015/TPI2014			Weight: 226 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-4-0 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 or 2x4 SPF No.2	

REACTIONS. (size) 2=0-5-8, 8=0-5-8
 Max Horz 2=-132(LC 11)
 Max Uplift 2=-93(LC 10), 8=-93(LC 11)
 Max Grav 2=1465(LC 1), 8=1465(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2435/430, 3-5=-2161/450, 5-7=-2161/450, 7-8=-2435/430
 BOT CHORD 2-11=-254/2091, 10-11=-47/1390, 8-10=-254/2091
 WEBS 5-10=-114/851, 7-10=-529/275, 5-11=-114/851, 3-11=-529/275

- 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; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.



Job 32559-32559A	Truss A8	Truss Type Common	Qty 6	Ply 1	61 SERENITY - ROOF	153753328
					Job Reference (optional)	

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:10 2022 Page 1

0-11-0 8-11-3 17-7-8 26-3-13 35-3-0 37-8-0
0-11-0 8-11-3 8-8-5 8-8-5 8-11-3 2-5-0

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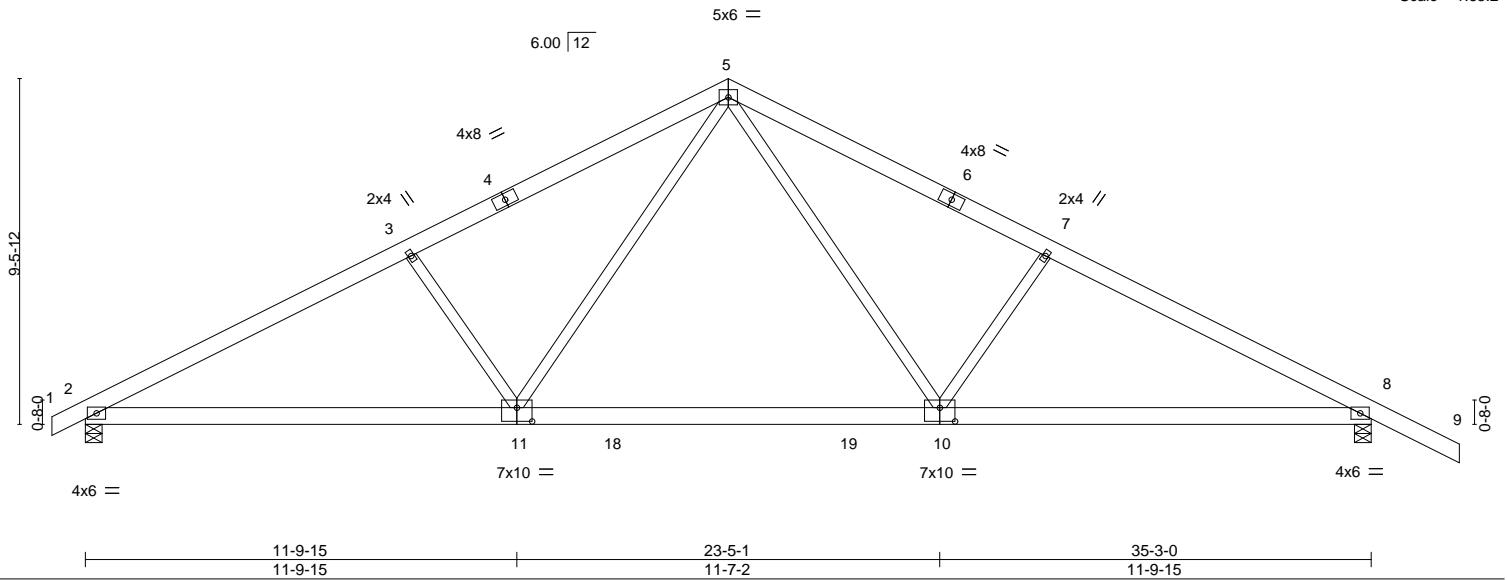


Plate Offsets (X,Y)--	[10:0-5-0,0-4-8], [11:0-5-0,0-4-8]
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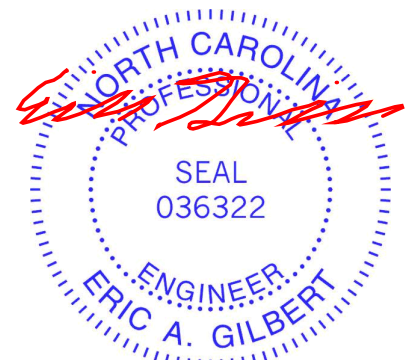
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.43	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.70	Vert(LL) -0.26 10-11 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.27	Vert(CT) -0.39 10-11 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.06 8 n/a n/a		
	Code IRC2015/TPI2014			Weight: 230 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-4-7 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2 or 2x4 SPF No.2	

REACTIONS. (size) 2=0-5-8, 8=0-5-8
Max Horz 2=-153(LC 15)
Max Uplift 2=-93(LC 10), 8=-119(LC 11)
Max Grav 2=1461(LC 1), 8=1559(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2438/425, 3-5=-2157/439, 5-7=-2140/423, 7-8=-2420/408
BOT CHORD 2-11=-209/2096, 10-11=0/1382, 8-10=-189/2076
WEBS 5-10=-87/831, 7-10=-517/263, 5-11=-111/852, 3-11=-530/275

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 8=119.



August 19, 2022

Job 32559-32559A	Truss A9E	Truss Type Common Supported Gable	Qty 1	Ply 1	61 SERENITY - ROOF Job Reference (optional)	153753329
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:12 2022 Page 1
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35-3-0 36-2-0
17-7-8 0-11-0

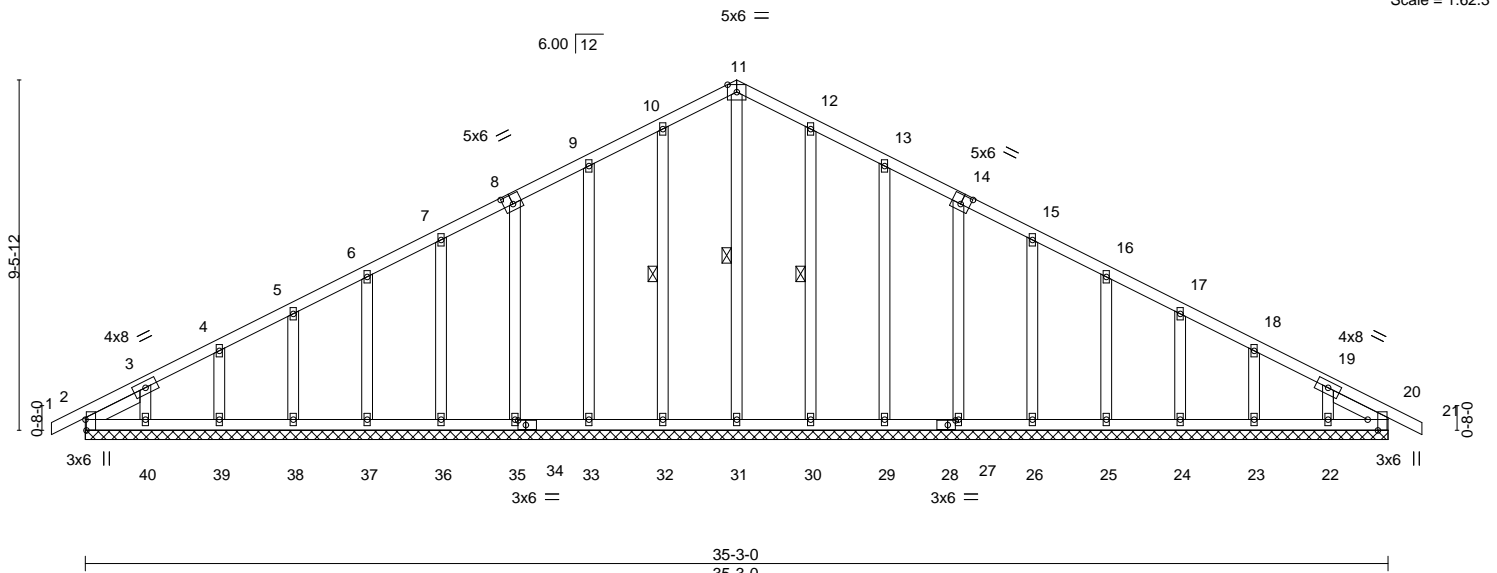


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [8:0-3-0,0-3-0], [14:0-3-0,0-3-0], [20:0-3-8,Edge], [28:0-2-8,0-1-8], [34:0-2-8,0-1-8]

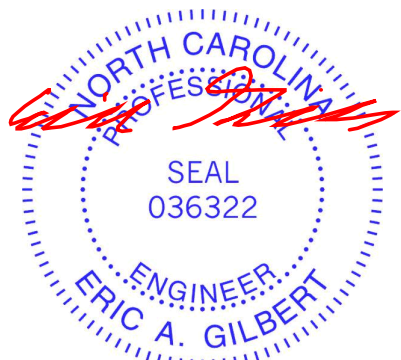
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.06	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) -0.00 20 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.11	Vert(CT) -0.00 21 n/r 90		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 20 n/a n/a		
	Code IRC2015/TPI2014			Weight: 238 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2 or 2x4 SPF No.2	WEBS 1 Row at midpt 11-31, 10-32, 12-30
SLIDER Left 2x4 SP No.3 1-8-2, Right 2x4 SP No.3 1-8-2	

REACTIONS. All bearings 35-3-0.
(lb) - Max Horz 2--132(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 32, 33, 35, 36, 37, 38, 39, 40, 30, 29, 27, 26, 25, 24, 23, 22
Max Grav All reactions 250 lb or less at joint(s) 2, 31, 32, 33, 35, 36, 37, 38, 39, 40, 30, 29, 27, 26, 25, 24, 23, 22, 20

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=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 ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 32, 33, 35, 36, 37, 38, 39, 40, 30, 29, 27, 26, 25, 24, 23, 22.



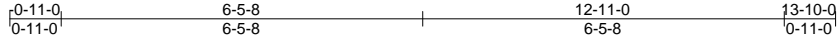
August 19, 2022

Job 32559-32559A	Truss C1E	Truss Type GABLE	Qty 1	Ply 1	61 SERENITY - ROOF Job Reference (optional)	153753330
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84 Components (Dunn),

Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:14 2022 Page 1
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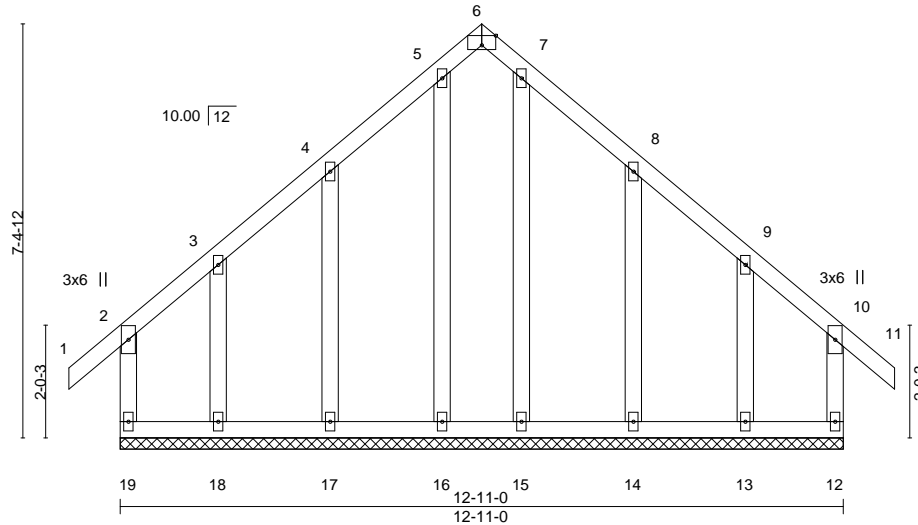


Plate Offsets (X,Y)--	[6:0-3-0,Edge]
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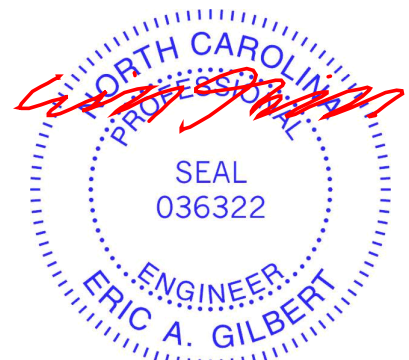
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	-0.00	11	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.00	11	n/r	90		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	-0.00	12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						Weight: 94 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.2 or 2x4 SPF No.2	

REACTIONS. All bearings 12-11-0.
 (lb) - Max Horz 19=185(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 17, 14 except 19=127(LC 6), 12=121(LC 7), 18=135(LC 7), 13=130(LC 6)
 Max Grav All reactions 250 lb or less at joint(s) 19, 12, 16, 17, 18, 15, 14, 13

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=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 ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 14 except (jt=lb) 19=127, 12=121, 18=135, 13=130.



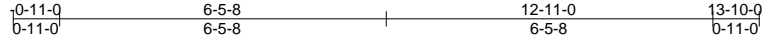
August 19, 2022

Job 32559-32559A	Truss C2	Truss Type Common	Qty 3	Ply 1	61 SERENITY - ROOF Job Reference (optional)	153753331
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84 Components (Dunn),

Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:15 2022 Page 1
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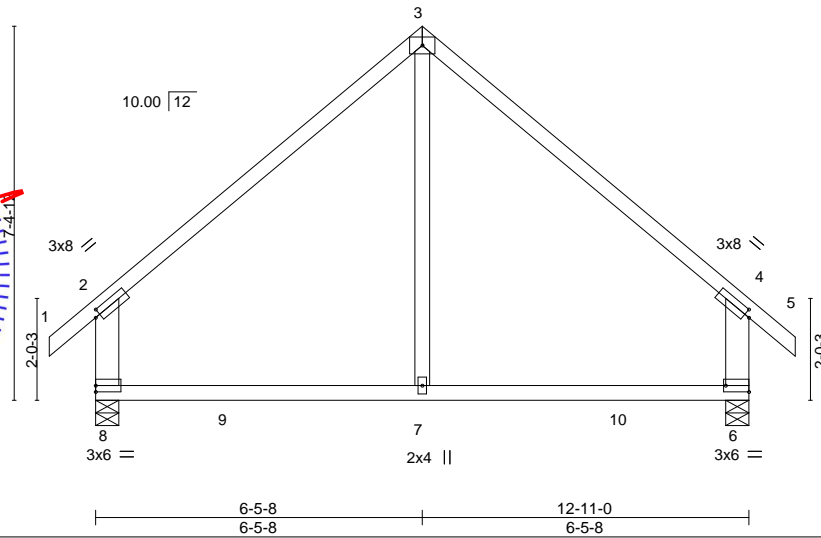


Plate Offsets (X,Y)-- [2:0-1-4,0-1-8], [4:0-1-4,0-1-8], [6:Edge,0-1-8]

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 0.72	Vert(LL)	-0.09	7	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.48	Vert(CT)	-0.16	6-7	>941		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.01	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MR						
								Weight: 67 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
 WEBS 2x6 SP No.2 *Except*
 3-7: 2x4 SP No.2 or 2x4 SPF 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.

(size) 8=0-5-8, 6=0-5-8
 Max Horz 8=-187(LC 8)
 Max Uplift 8=-29(LC 10), 6=-29(LC 11)
 Max Grav 8=613(LC 17), 6=613(LC 18)

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

TOP CHORD 2-3=-521/122, 3-4=-520/122, 2-8=-506/159, 4-6=-506/159
 BOT CHORD 7-8=-18/334, 6-7=-18/334
 WEBS 3-7=0/310

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; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.

August 19,2022

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

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

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

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



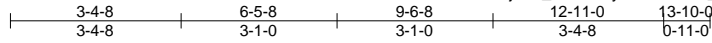
818 Soundside Road
Edenton, NC 27932

Job 32559-32559A	Truss C3G	Truss Type COMMON GIRDER	Qty 1	Ply 2	61 SERENITY - ROOF Job Reference (optional)	153753332
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84 Components (Dunn),

Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:17 2022 Page 1
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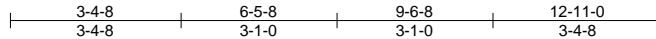
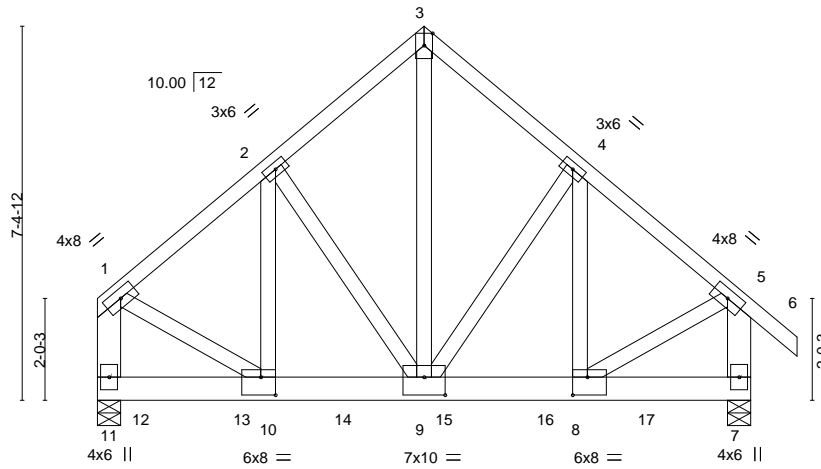


Plate Offsets (X,Y)-- [8:0-3-8,0-4-4], [9:0-5-0,0-4-4], [10:0-3-8,0-4-4]

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)	-0.03	9-10	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.05	9-10	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.44	Horz(CT)	0.01	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 222 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 or 2x4 SPF No.2 *Except*
1-11,5-7: 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.

REACTIONS. (size) 11=0-5-8, 7=0-5-8
Max Horz 11=-178(LC 4)
Max Uplift 11=-284(LC 9), 7=-252(LC 9)
Max Grav 11=5160(LC 1), 7=4410(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-3631/241, 2-3=-2992/256, 3-4=-2990/255, 4-5=-3597/242, 1-11=-3812/226, 5-7=-3876/238
BOT CHORD 10-11=-166/305, 9-10=-193/2734, 8-9=-118/2700
WEBS 3-9=-262/3559, 4-9=-768/139, 4-8=-93/891, 2-9=-828/138, 2-10=-92/950, 1-10=-141/2880, 5-8=-129/2894

NOTES-

- 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, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- 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 ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=284, 7=252.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1420 lb down and 87 lb up at 0-10-4, 1416 lb down and 91 lb up at 2-10-4, 1416 lb down and 91 lb up at 4-10-4, 1416 lb down and 91 lb up at 6-10-4, and 1416 lb down and 91 lb up at 8-10-4, and 1420 lb down and 91 lb up at 10-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

August 19,2022

Continued on page 2

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

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

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

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



818 Soundside Road
Edenton, NC 27932

Job 32559-32559A	Truss C3G	Truss Type COMMON GIRDER	Qty 1	Ply 2	61 SERENITY - ROOF Job Reference (optional)	I53753332
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:17 2022 Page 2
ID:nxbot3WsxISjrAw_FcBFB3yorwP-drZnu_Oy6nO3l47lfmihjyoCXckKyXLrXXtADymV1q

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-60, 3-5=-60, 5-6=-60, 7-11=-20

Concentrated Loads (lb)

Vert: 12=-1420(F) 13=-1416(F) 14=-1416(F) 15=-1416(F) 16=-1416(F) 17=-1420(F)

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818 Soundside Road
Edenton, NC 27932

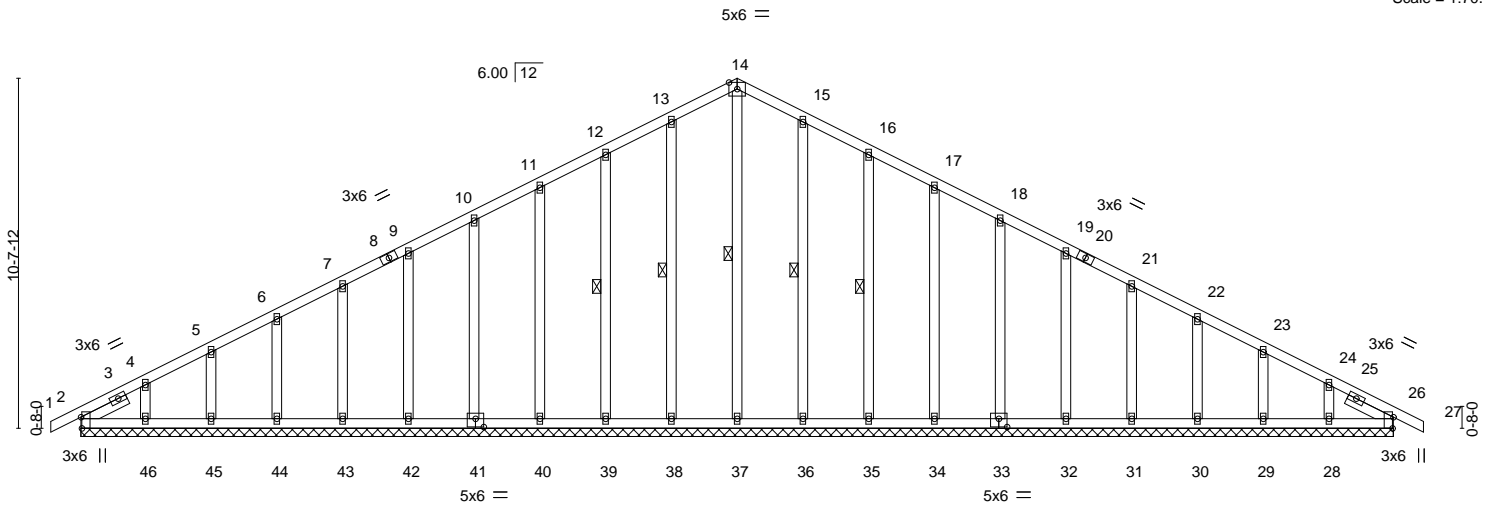
Job 32559-32559A	Truss D1E	Truss Type Common Supported Gable	Qty 1	Ply 1	61 SERENITY - ROOF	153753333
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:19 2022 Page 1
ID:nxbot3Wsx1SjrAw_FcBFB3yowP-ZDgXJgPDeOen?NHhnBk9pNtgzLQbox4eIr0_F5ymV1o

-0-11-0 19-11-8 39-11-0 40-10-0
0-11-0 19-11-8 19-11-8 0-11-0

Scale = 1:70.1



39-11-0
39-11-0

Plate Offsets (X,Y)-- [2:0-4-1,Edge], [26:0-4-1,Edge], [33:0-3-0,0-3-0], [41:0-3-0,0-3-0]

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 0.06	Vert(LL)	-0.00	26	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	26	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.01	26	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 285 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
 OTHERS 2x4 SP No.2 or 2x4 SPF No.2
 SLIDER Left 2x4 SP No.3 1-6-7, Right 2x4 SP No.3 1-6-7

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 14-37, 13-38, 12-39, 15-36, 16-35

REACTIONS.

All bearings 39-11-0.
 (lb) - Max Horz 2=148(LC 11)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 38, 39, 40, 41, 42, 43, 44, 45, 46, 36, 35, 34, 33, 32, 31, 30, 29, 28
 Max Grav All reactions 250 lb or less at joint(s) 2, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 36, 35, 34, 33, 32, 31, 30, 29, 28, 26

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 13-14=103/259, 14-15=103/259

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 38, 39, 40, 41, 42, 43, 44, 45, 46, 36, 35, 34, 33, 32, 31, 30, 29, 28.



August 19, 2022

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

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



818 Soundside Road
 Edenton, NC 27932

Job 32559-32559A	Truss D2	Truss Type Common	Qty 4	Ply 1	61 SERENITY - ROOF Job Reference (optional)	153753334
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84 Components (Dunn),

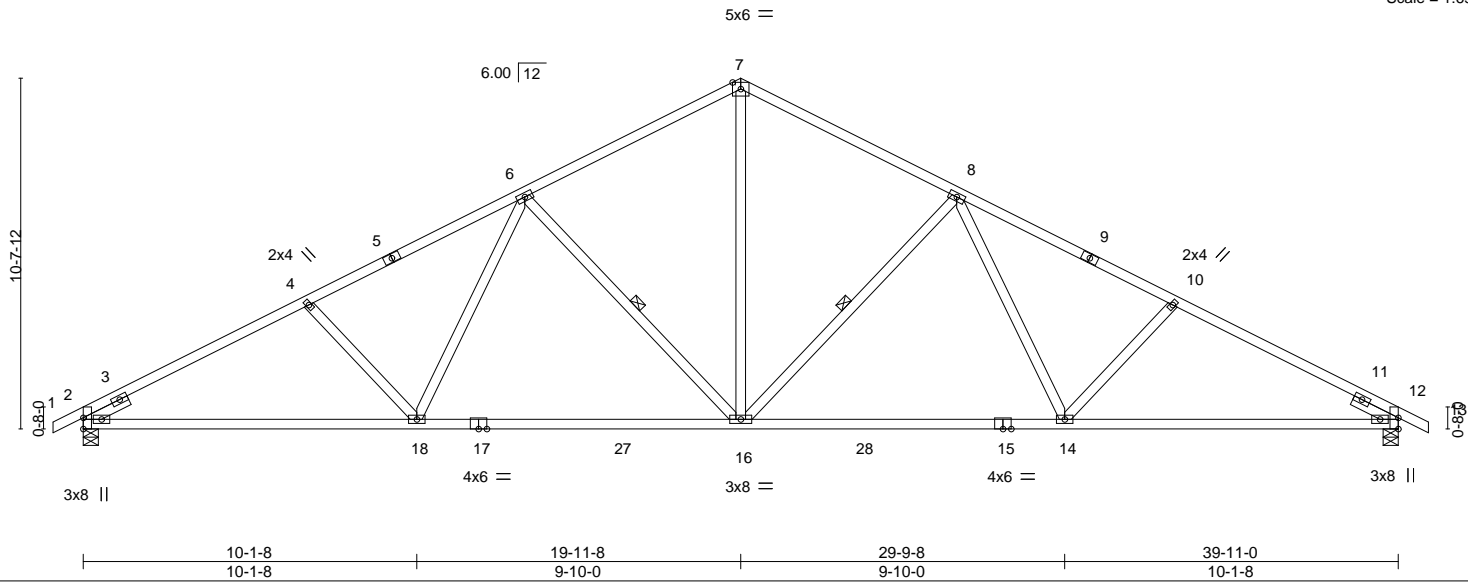
Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:21 2022 Page 1

ID:nxbot3WsxISjrAw_FcBFB3yorwP-VcolkMRT9?uVEhR4ucmduoyqe8uSGlfxm9V5J_ymV1m

-0-11-0	6-10-3	13-4-13	19-11-8	26-6-3	33-0-13	39-11-0	40-10-0
0-11-0	6-10-3	6-6-11	6-6-11	6-6-11	6-6-11	6-10-3	0-11-0

Scale = 1:69.9



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 0.89	Vert(LL)	-0.36 16-18	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.90	Vert(CT)	-0.62 16-18	>771	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.43	Horz(CT)	0.13 12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS					Weight: 213 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2 *Except*
1-5,9-13: 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2 or 2x4 SPF No.2
SLIDER Left 2x4 SP No.3 1-6-0, Right 2x4 SP No.3 1-6-0

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 8-16, 6-16

REACTIONS.

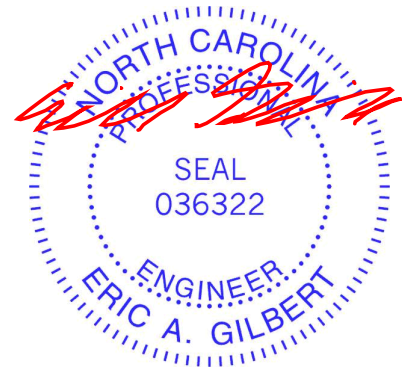
(size) 2=0-5-8, 12=0-5-8
Max Horz 2=148(LC 10)
Max Uplift 2=103(LC 10), 12=103(LC 11)
Max Grav 2=1652(LC 1), 12=1652(LC 1)

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

TOP CHORD 2-4=-2783/482, 4-6=-2554/468, 6-7=-1851/427, 7-8=-1851/427, 8-10=-2554/468,
10-12=-2783/482
BOT CHORD 2-18=-319/2409, 16-18=-190/2035, 14-16=-190/2035, 12-14=-319/2409
WEBS 7-16=-226/1277, 8-16=-705/233, 8-14=-14/494, 10-14=-307/183, 6-16=-705/233,
6-18=-14/494, 4-18=-307/183

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 ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are 3x6 MT20 unless otherwise indicated.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=103, 12=103.



August 19,2022

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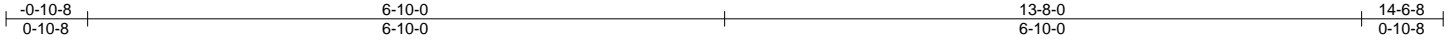
818 Soundside Road
Edenton, NC 27932

Job 32559-32559A	Truss E1E	Truss Type Common Supported Gable	Qty 1	Ply 1	61 SERENITY - ROOF Job Reference (optional)	153753335
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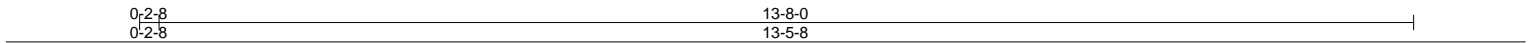
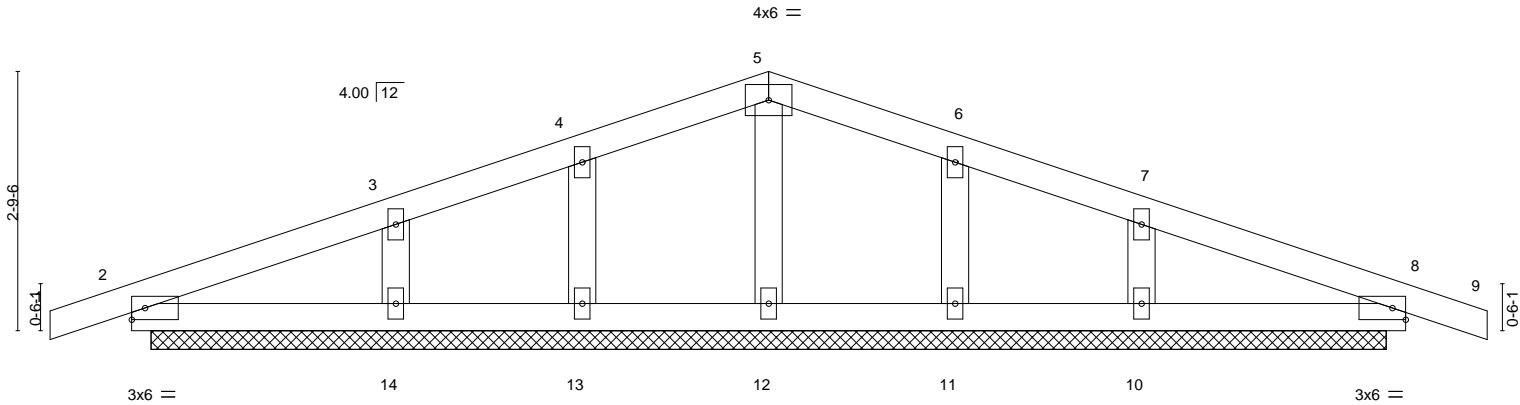
84 Components (Dunn),

Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:22 2022 Page 1
ID:nxbot3WsxISjrAw_FcBFB3yorwP-zoMgXhS5wJ1MsR0GSJIsQ?VB2YSv?I54?pFerQymV11



Scale = 1:24.7



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 0.08	Vert(LL)	0.00	8	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	0.00	9	n/r	90		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 55 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
 BOT CHORD 2x4 SP No.2 or 2x4 SPF 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 13-3-0.
 (lb) - Max Horz 2=37(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10
 Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=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; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 13, 14, 11, 10.
- N/A



August 19, 2022

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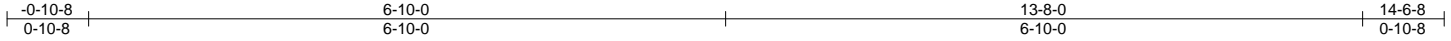
818 Soundside Road
 Edenton, NC 27932

Job 32559-32559A	Truss E2	Truss Type Common	Qty 4	Ply 1	61 SERENITY - ROOF Job Reference (optional)	153753336
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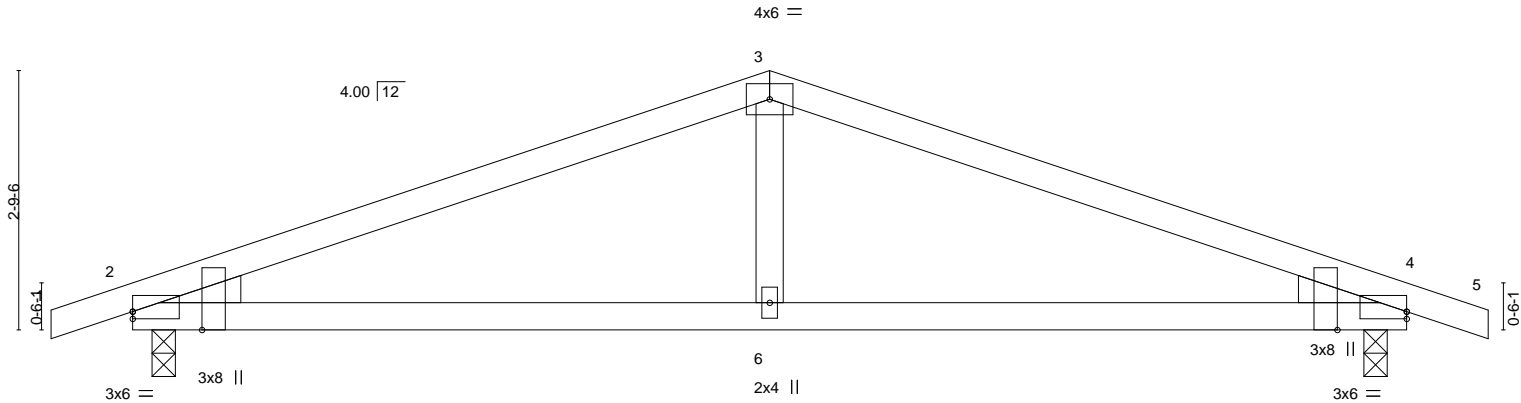
84 Components (Dunn),

Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:23 2022 Page 1
ID:nxbot3WsxISjrAw_FcBFB3yorwP-R?w291Sjhd9DT?bS01p5zD2Frygikk5EDT_COsymV1k



Scale = 1:24.7



0-2-8 0-2-8	6-10-0 6-7-8	13-5-8 6-7-8	13-8-0 0-2-8
Plate Offsets (X, Y)-- [2:0-0-0,0-0-15], [2:0-2-6,Edge], [4:Edge,0-0-15], [4:0-2-6,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 0.52	Vert(LL)	-0.07	6-12	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.53	Vert(CT)	-0.13	6-9	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.01	2	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 51 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
 WEBS 2x4 SP No.3
 WEDGE
 Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-0-8 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

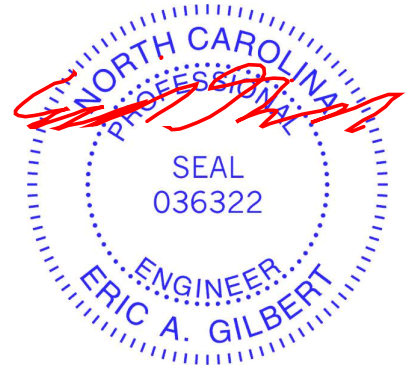
(size) 2=0-3-0, 4=0-3-0
 Max Horz 2=37(LC 14)
 Max Uplift 2=-69(LC 6), 4=-69(LC 7)
 Max Grav 2=599(LC 1), 4=599(LC 1)

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

TOP CHORD 2-3=-951/189, 3-4=-951/189
 BOT CHORD 2-6=-100/855, 4-6=-100/855
 WEBS 3-6=0/292

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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 ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



August 19, 2022

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

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



818 Soundside Road
 Edenton, NC 27932

Job 32559-32559A	Truss M1	Truss Type MONO TRUSS	Qty 9	Ply 1	61 SERENITY - ROOF	I53753337
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:24 2022 Page 1

ID:nxbot3WsxISjrAw_FcBFB3yorwP-vBUQMNTLSwH4589eZkKKWQaSgM_IT3bNS7klwJymV1j

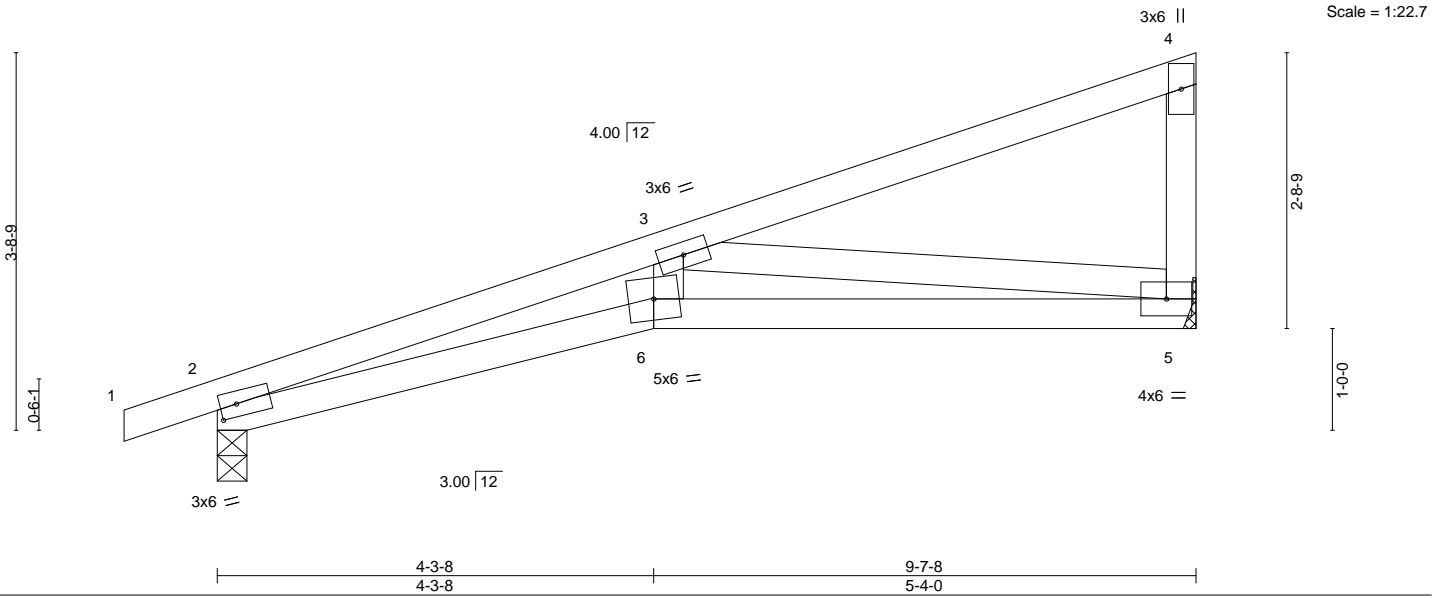
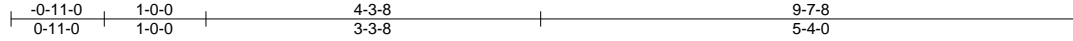


Plate Offsets (X,Y)--	[2:0-1-15,0-1-8]
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LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.39	Vert(LL) -0.08	6	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.61	Vert(CT) -0.16	5-6	>704	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.61	Horz(CT) 0.06	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS					Weight: 42 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-7-4 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 9-8-1 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS. (size) 5=Mechanical, 2=0-3-8
 Max Horz 2=108(LC 7)
 Max Uplift 5=-53(LC 10), 2=-62(LC 6)
 Max Grav 5=377(LC 1), 2=437(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1423/357
 BOT CHORD 2-6=-370/1341, 5-6=-354/1227
 WEBS 3-6=-18/392, 3-5=-1184/381

- 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 ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 4) Refer to girder(s) for truss to truss connections.
 - 5) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2.



August 19, 2022

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 Edenton, NC 27932

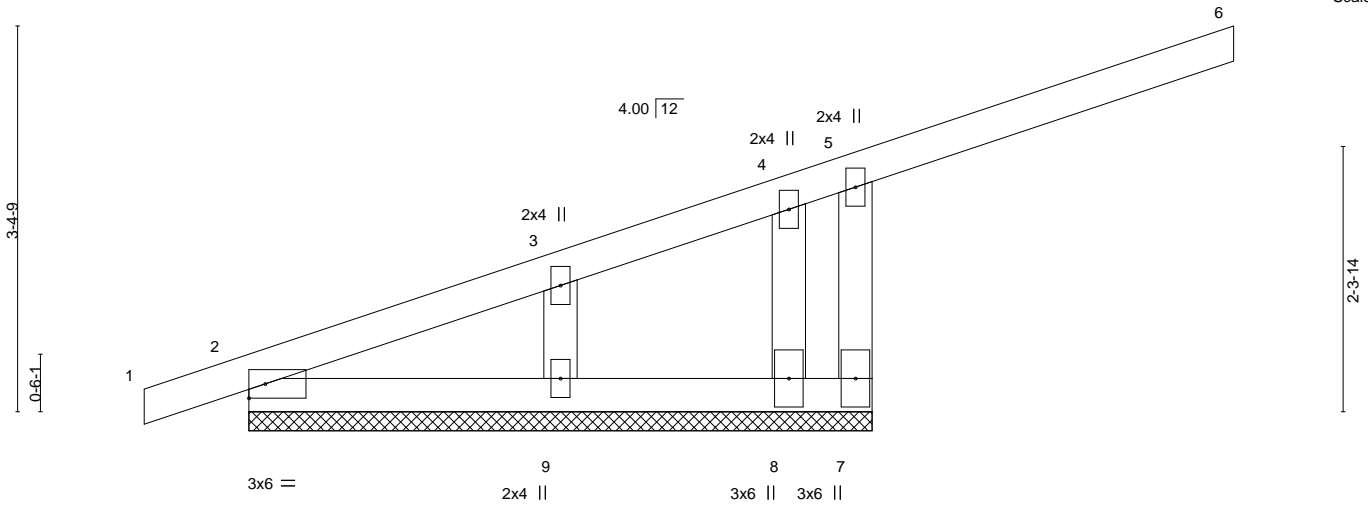
Job 32559-32559A	Truss M1GE	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	61 SERENITY - ROOF Job Reference (optional)	I53753338
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 28 2022 MiTek Industries, Inc. Fri Aug 19 16:29:54 2022 Page 1
ID:nxbot3WsxISjrAw_FcBFB3yorwP-O6sM8PJrGTB?C2YzZ?M7q4IvmGAh0VNpDnY8TsymObh



Scale = 1:20.2



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 0.33	Vert(LL)	0.04	6	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.03	6	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P					Weight: 29 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP DSS
 BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
 WEBS 2x4 SP No.3
 OTHERS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-5-8 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 5-5-8.
 (lb) - Max Horz 2=110(LC 7)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 9 except 7=-312(LC 7), 8=-422(LC 1)
 Max Grav All reactions 250 lb or less at joint(s) 2, 9, 8 except 7=739(LC 1)

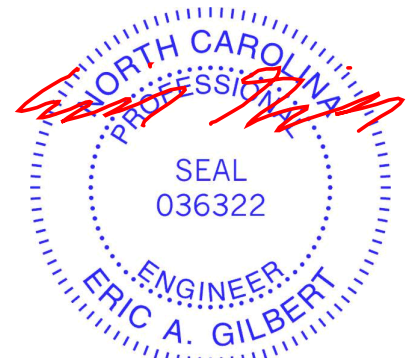
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 5-7=-737/633
 WEBS 4-8=-404/445

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 ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 9 except (jt=lb) 7=312, 8=422.
- 8) 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.

LOAD CASE(S) Standard



August 19, 2022

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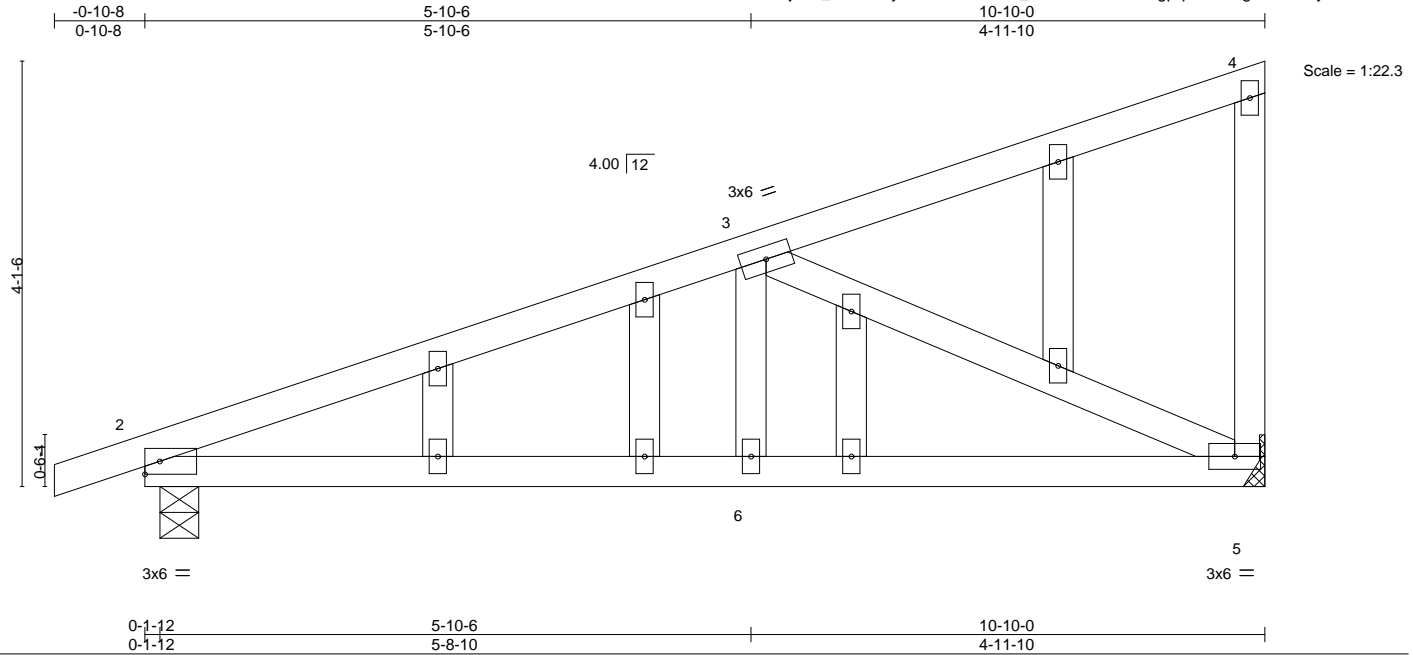


818 Soundside Road
 Edenton, NC 27932

Job 32559-32559A	Truss M2GE	Truss Type GABLE	Qty 1	Ply 1	61 SERENITY - ROOF	153753339
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84 Components (Dunn), Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:26 2022 Page 1
ID:nxbot3WsxISjrAw_FcBFB3yorwP-sabBn3Vc_YXoKSJ1h9Mobrpgq9lmx1wgrDRs?BymV1h



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)	-0.02 6-17	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	-0.06 6-17	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.36	Horz(CT)	0.01 5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS					Weight: 59 lb	FT = 20%

LUMBER-

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

(size) 2=0-4-8, 5=Mechanical
 Max Horz 2=138(LC 9)
 Max Uplift 2=-66(LC 6), 5=-58(LC 10)
 Max Grav 2=482(LC 1), 5=425(LC 1)

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

TOP CHORD 2-3=-704/146
 BOT CHORD 2-6=-119/622, 5-6=-119/622
 WEBS 3-5=-667/191

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 ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.



August 19, 2022

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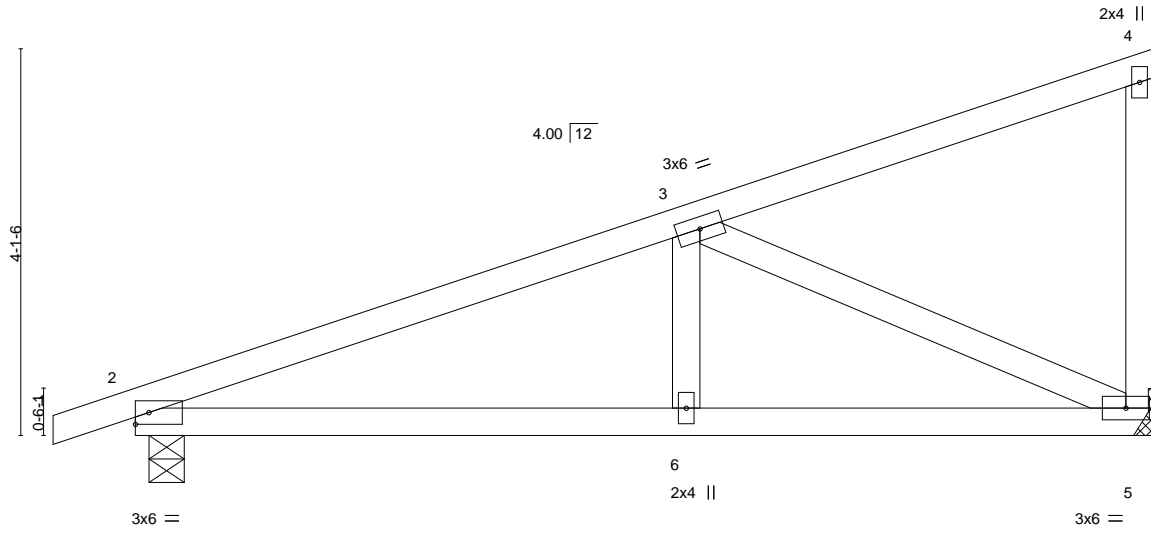
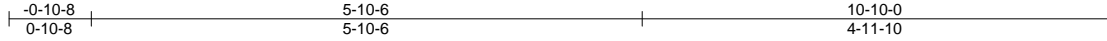
Job 32559-32559A	Truss M3	Truss Type Monopitch	Qty 6	Ply 1	61 SERENITY - ROOF Job Reference (optional)	153753340
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84 Components (Dunn),

Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:26 2022 Page 1

ID:nxbot3WsxISjrAw_FcBFB3yorwP-sabBn3Vc_YXoKKSJ1h9Mobrpgq9lmx1wgrRDs?BymV1h



Scale = 1:24.5



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)	-0.02	6-9	>999	240	MT20	197/144
BCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	-0.06	6-9	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.36	Horz(CT)	0.01	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						Weight: 50 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS. (size) 2=0-4-8, 5=Mechanical
 Max Horz 2=138(LC 9)
 Max Uplift 2=-66(LC 6), 5=-58(LC 10)
 Max Grav 2=482(LC 1), 5=425(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-704/146
 BOT CHORD 2-6=-119/622, 5-6=-119/622
 WEBS 3-5=-667/191

- 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 ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 4) Refer to girder(s) for truss to truss connections.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.



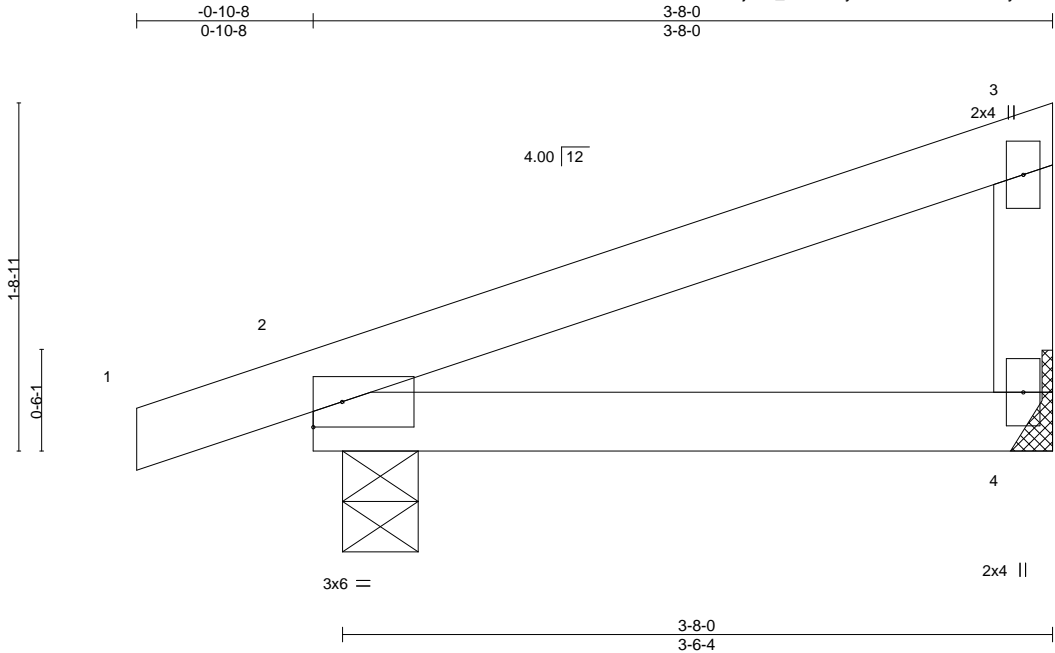
August 19, 2022

Job 32559-32559A	Truss M3GE	Truss Type Monopitch Structural Gable	Qty 1	Ply 1	61 SERENITY - ROOF Job Reference (optional)	I53753341
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84 Components (Dunn),

Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:27 2022 Page 1
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Scale = 1:11.4

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 0.17	Vert(LL)	-0.01	4-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.01	4-7	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP							
									Weight: 14 lb	FT = 20%

LUMBER-

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

BRACING-

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

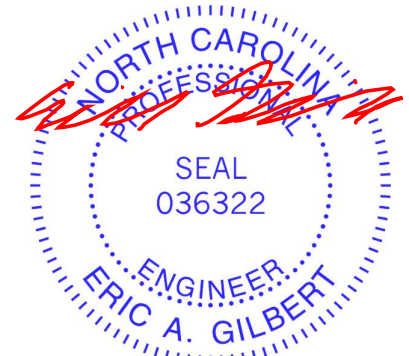
REACTIONS.

(size) 4=Mechanical, 2=0-4-8
Max Horz 2=52(LC 9)
Max Uplift 4=-18(LC 10), 2=-43(LC 6)
Max Grav 4=134(LC 1), 2=200(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; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable studs spaced at 2-0-0 oc.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.



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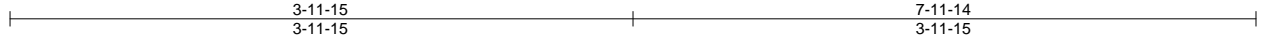
Job 32559-32559A	Truss V1	Truss Type GABLE	Qty 1	Ply 1	61 SERENITY - ROOF Job Reference (optional)	153753342
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84 Components (Dunn),

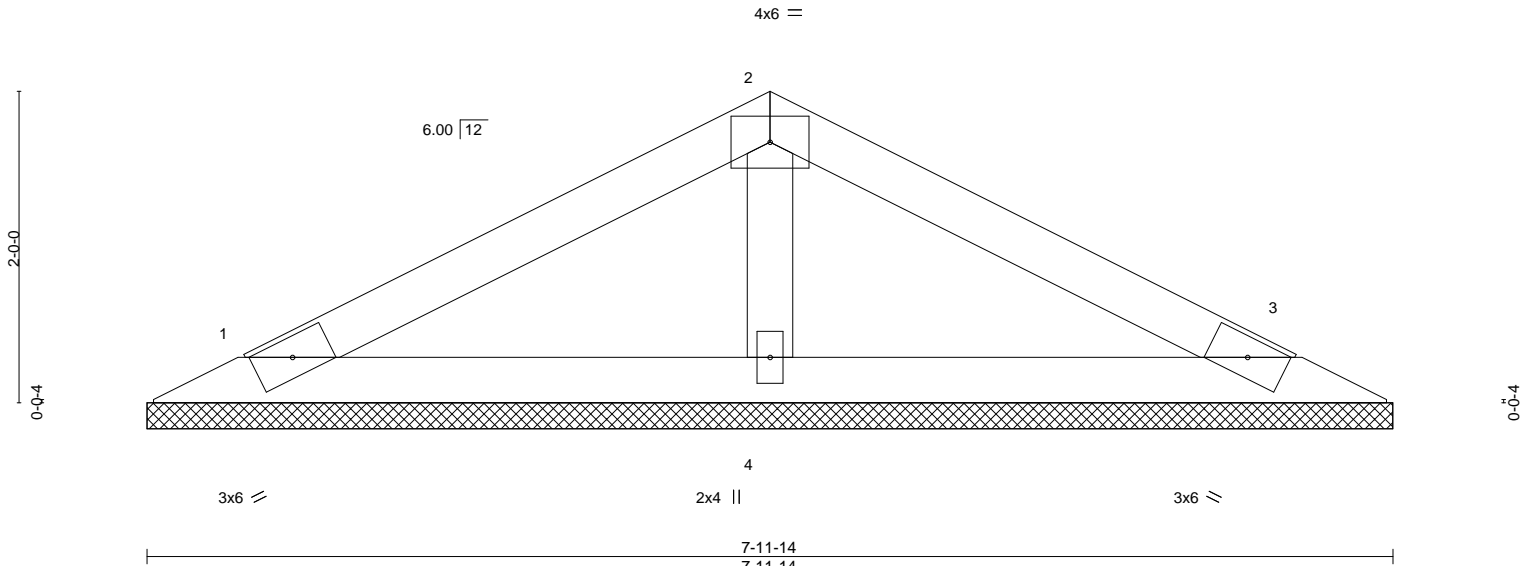
Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:28 2022 Page 1

ID: nxbot3WsxISjrAw_FcBFB3yorwP-oyjxCiWsw9nVamTQoaOGgGIARzUOP0VzNliz34ymV1f



Scale = 1:14.8



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 0.21	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 25 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
 BOT CHORD 2x4 SP No.2 or 2x4 SPF 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=7-11-14, 3=7-11-14, 4=7-11-14
 Max Horz 1=24(LC 14)
 Max Uplift 1=21(LC 10), 3=26(LC 11)
 Max Grav 1=136(LC 1), 3=136(LC 1), 4=266(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; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



August 19, 2022

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

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



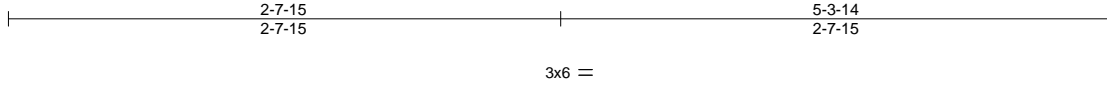
818 Soundside Road
 Edenton, NC 27932

Job 32559-32559A	Truss V2	Truss Type Valley	Qty 1	Ply 1	61 SERENITY - ROOF Job Reference (optional)	153753343
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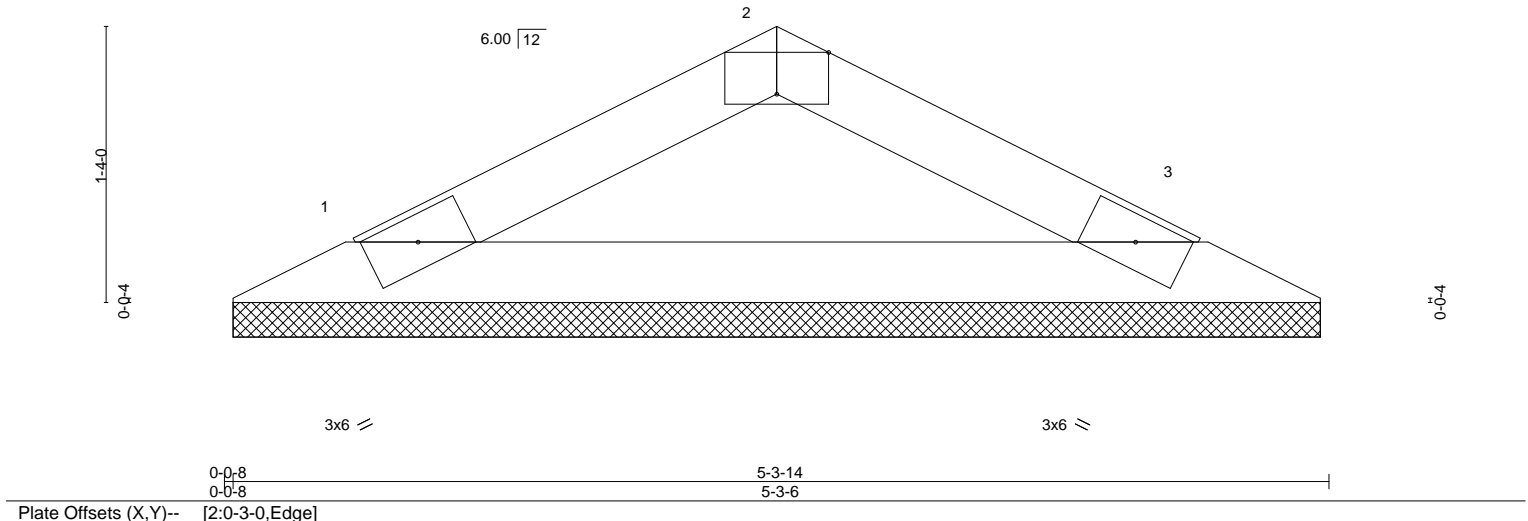
84 Components (Dunn),

Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:29 2022 Page 1
ID:nxbot3WsxISjrAw_FcBFB3yorwP-G9HJQ5XUHTvMCw2cMHwVDUINMNoA8TJ6cPRWbWymV1e



Scale = 1:11.1



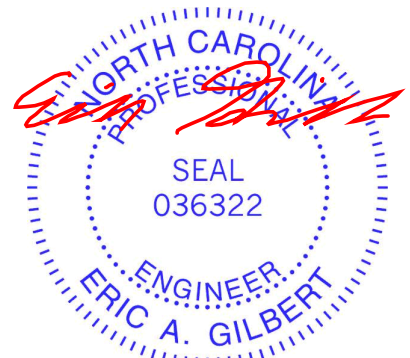
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.07	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.21	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
	Code IRC2015/TPI2014			Weight: 15 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-3-14 oc purlins.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=5-2-14, 3=5-2-14
 Max Horz 1=-15(LC 11)
 Max Uplift 1=-9(LC 10), 3=-9(LC 11)
 Max Grav 1=163(LC 1), 3=163(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; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Gable requires continuous bottom chord bearing.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



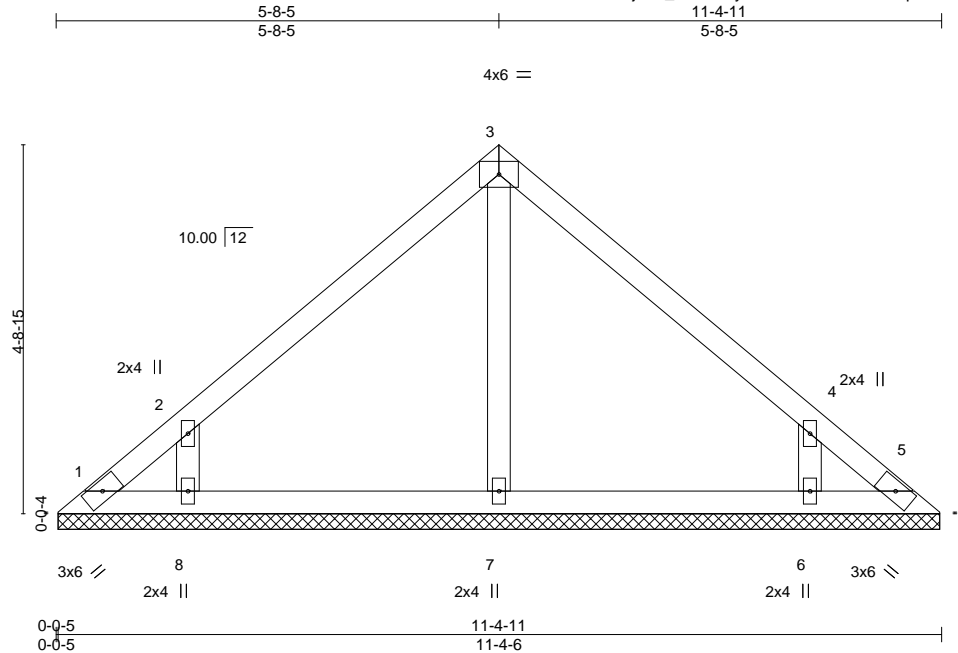
August 19, 2022

Job 32559-32559A	Truss V3	Truss Type Valley	Qty 1	Ply 1	61 SERENITY - ROOF Job Reference (optional)	153753344
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84 Components (Dunn),

Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:30 2022 Page 1
ID:nxbot3WsxISjrAw_FcBFB3yorwP-kLrhdRY62m1Dp4dow?RkIhqXJm9ktwaGq3B38yymV1d



Scale = 1:29.6

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	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 46 lb	FT = 20%

LUMBER-

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

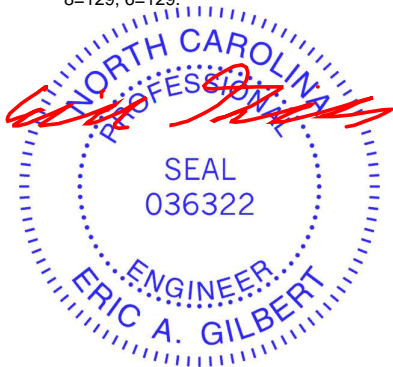
All bearings 11-4-1.
 (lb) - Max Horz 1=93(LC 6)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=129(LC 10), 6=129(LC 11)
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=316(LC 17), 6=316(LC 18)

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

WEBS 2-8=-257/175, 4-6=-257/175

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=129, 6=129.



August 19, 2022

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

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

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

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818 Soundside Road
 Edenton, NC 27932

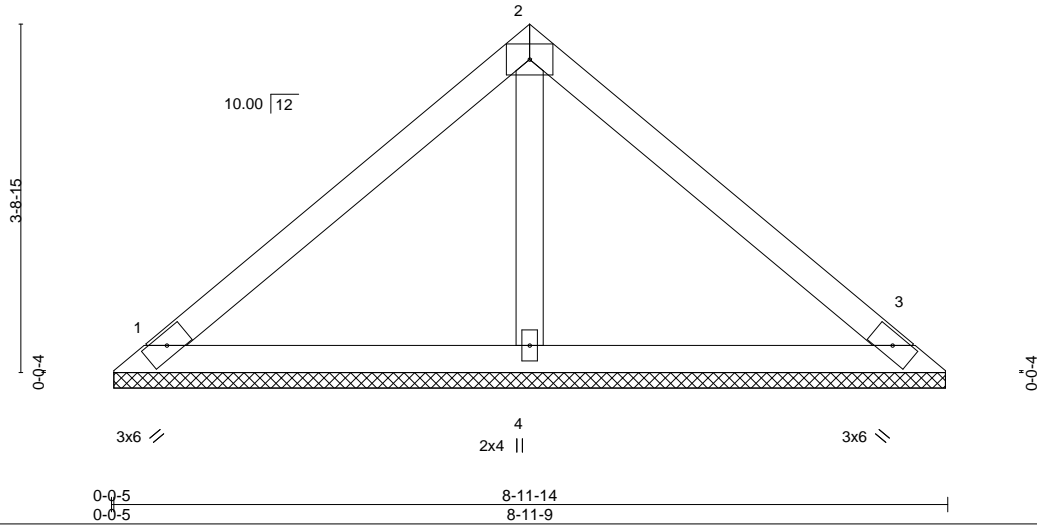
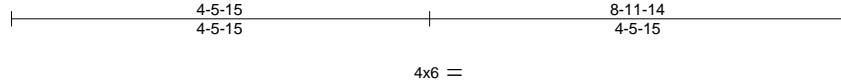
Job 32559-32559A	Truss V4	Truss Type Valley	Qty 1	Ply 1	61 SERENITY - ROOF Job Reference (optional)	153753345
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84 Components (Dunn),

Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:31 2022 Page 1

ID: nxbot3WsxISjrAw_FcBFB3yorwP-CXP4qmYkp494RDC?UiyzIvNfoAUDcN2P3jwdgPymV1c



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.33	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.17	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.05	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 34 lb	FT = 20%
	Code IRC2015/TPI2014							

LUMBER-

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

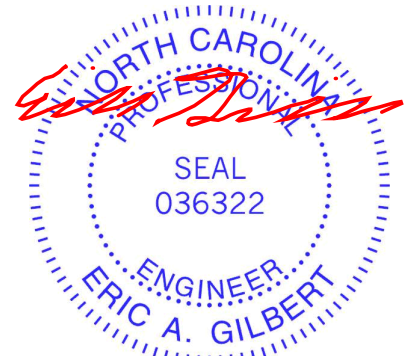
REACTIONS.

(size) 1=8-11-4, 3=8-11-4, 4=8-11-4
 Max Horz 1=72(LC 7)
 Max Uplift 1=26(LC 11), 3=35(LC 11)
 Max Grav 1=188(LC 1), 3=188(LC 1), 4=279(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; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



August 19, 2022

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

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

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

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



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 Edenton, NC 27932

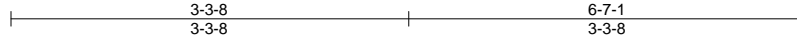
Job 32559-32559A	Truss V5	Truss Type Valley	Qty 1	Ply 1	61 SERENITY - ROOF Job Reference (optional)	153753346
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84 Components (Dunn),

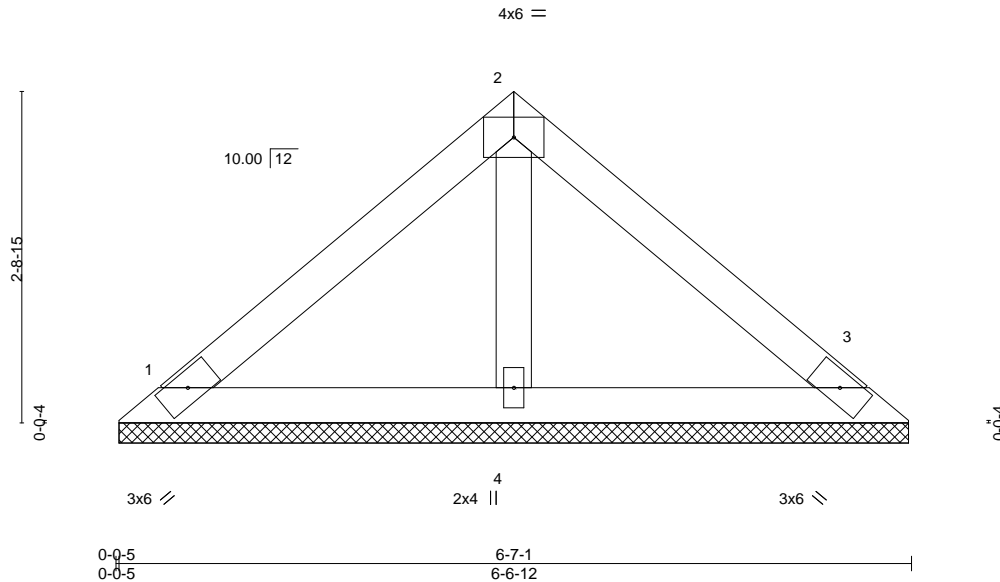
Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:32 2022 Page 1

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Scale = 1:19.1



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.15	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 24 lb	FT = 20%
	Code IRC2015/TPI2014							

LUMBER-

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

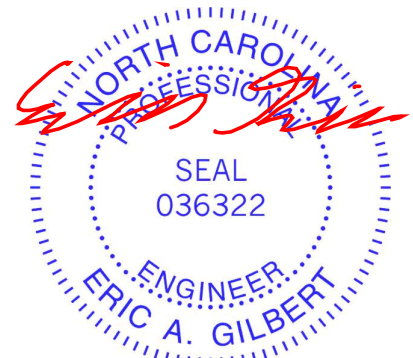
REACTIONS.

(size) 1=6-6-7, 3=6-6-7, 4=6-6-7
 Max Horz 1=-51(LC 6)
 Max Uplift 1=-18(LC 11), 3=-25(LC 11)
 Max Grav 1=133(LC 1), 3=133(LC 1), 4=197(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=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; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



August 19, 2022

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

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

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

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



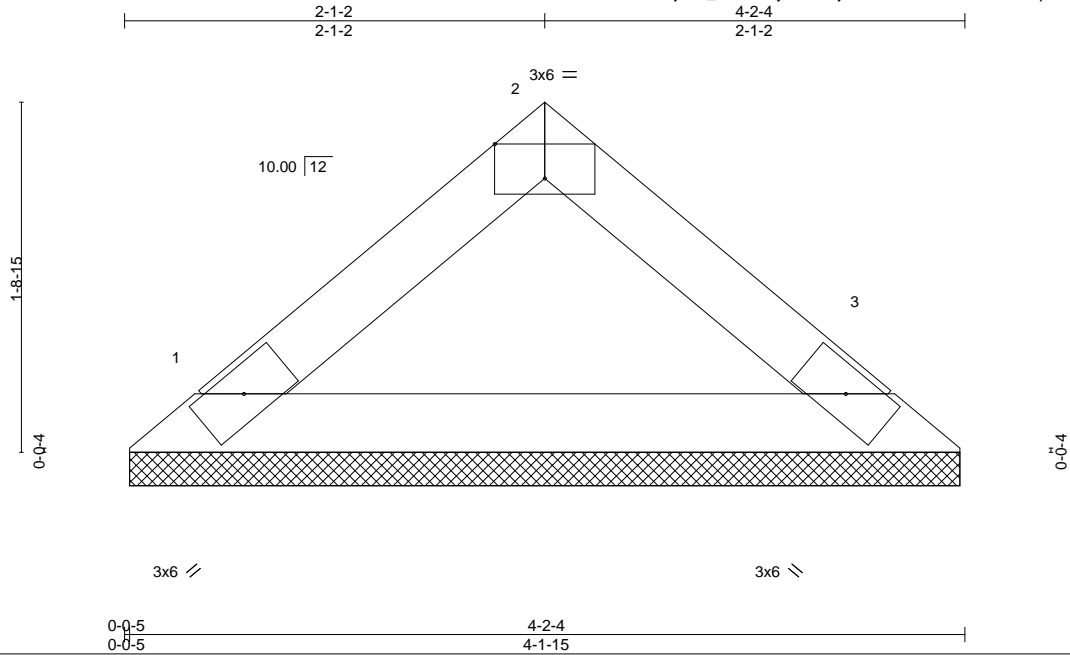
818 Soundside Road
 Edenton, NC 27932

Job 32559-32559A	Truss V6	Truss Type Valley	Qty 1	Ply 1	61 SERENITY - ROOF Job Reference (optional)	153753347
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84 Components (Dunn),

Dunn, NC - 28334,

8.610 s Jul 18 2022 MiTek Industries, Inc. Thu Aug 18 21:10:32 2022 Page 1
ID:nxbot3WsxISjrAw_FcBFB3yorwP-hjzS26ZMaOHx3NnB1QTCq6vwxaqyLq3ZINGACrymV1b



Scale = 1:11.5

Plate Offsets (X,Y)--	[2:0-3-0,Edge]
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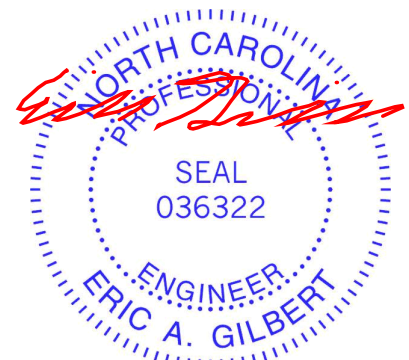
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.05	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.14	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a		
	Code IRC2015/TPI2014			Weight: 13 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-2-4 oc purlins.
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-1-11, 3=4-1-11
 Max Horz 1=30(LC 9)
 Max Uplift 1=5(LC 10), 3=5(LC 11)
 Max Grav 1=135(LC 1), 3=135(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; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Gable requires continuous bottom chord bearing.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



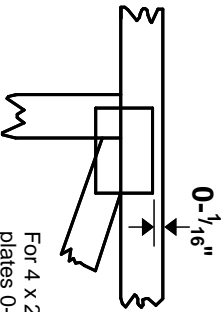
August 19, 2022

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/TP1: 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

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

Lumber design values are in accordance with ANSI/TP1 section 6.3 These truss designs rely on lumber values established by others.

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MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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. Rewriting pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.