ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 2000493-2000493A
RG14-A01 Stanton Tray Master Nook

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: I41899020 thru I41899045

My license renewal date for the state of North Carolina is December 31, 2020.

North Carolina COA: C-0844

July 2,2020

Sevier, Scott

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	A	ROOF TRUSS	5	1	I41899020
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:27:38 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-PEUS_GL0ybEJiH42yfN9A?Fu209V6A3ahkPwjnz07sJ

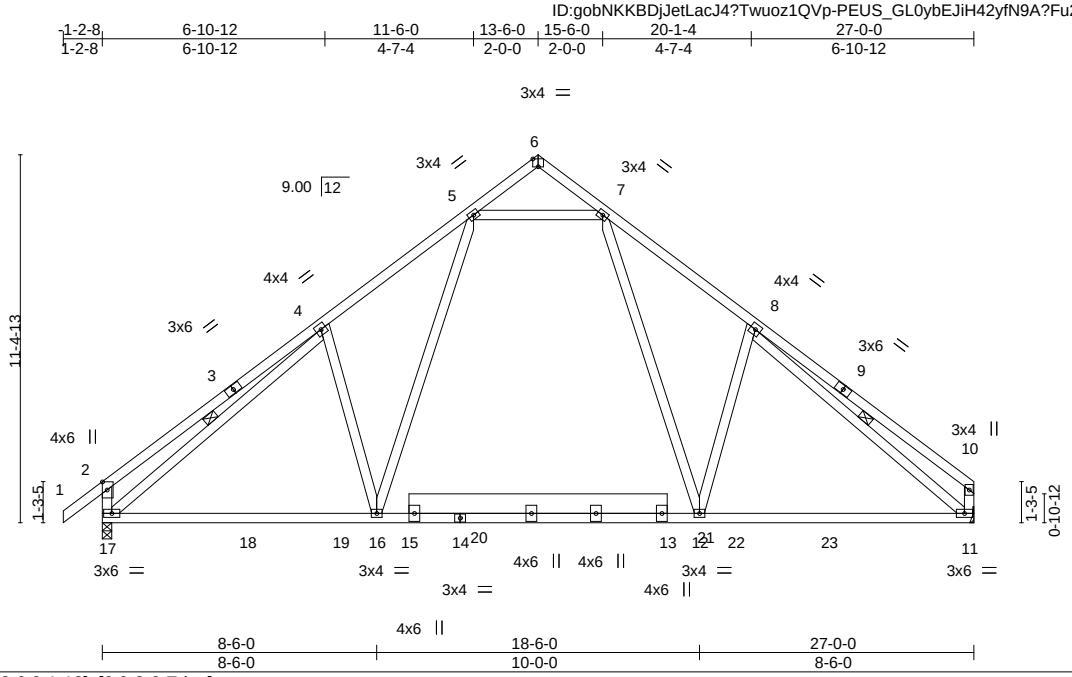


Plate Offsets (X,Y)-- [2:0-3-0,0-1-12], [6:0-2-0,Edge]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	0.20	16-17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.31	16-17	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.03	11	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 199 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 *Except*
13-15: 2x8 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-8-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 4-17, 8-11

REACTIONS. (size) 17=0-3-8, 11=Mechanical
Max Horz 17=303(LC 9)
Max Uplift 17=-131(LC 12), 11=-103(LC 13)
Max Grav 17=1239(LC 20), 11=1160(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-488/277, 4-5=-1317/365, 7-8=-1328/368, 8-10=-418/204, 2-17=-509/273, 10-11=-378/181
BOT CHORD 16-17=-154/1167, 12-16=-15/893, 11-12=-109/1034
WEBS 7-12=-177/664, 8-12=-304/313, 5-16=-171/648, 4-16=-288/308, 4-17=-1104/4, 8-11=-1153/74, 5-7=-778/318

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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) except (jt=lb) 11=103.
7) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17. This connection is for uplift only and does not consider lateral forces.
8) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	A1	Roof Special	1	1	I41899021
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:27:40 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-MdbCPyMGTDU1xaER33PdFQKDAqwAa2Zs92u1nfz07sH

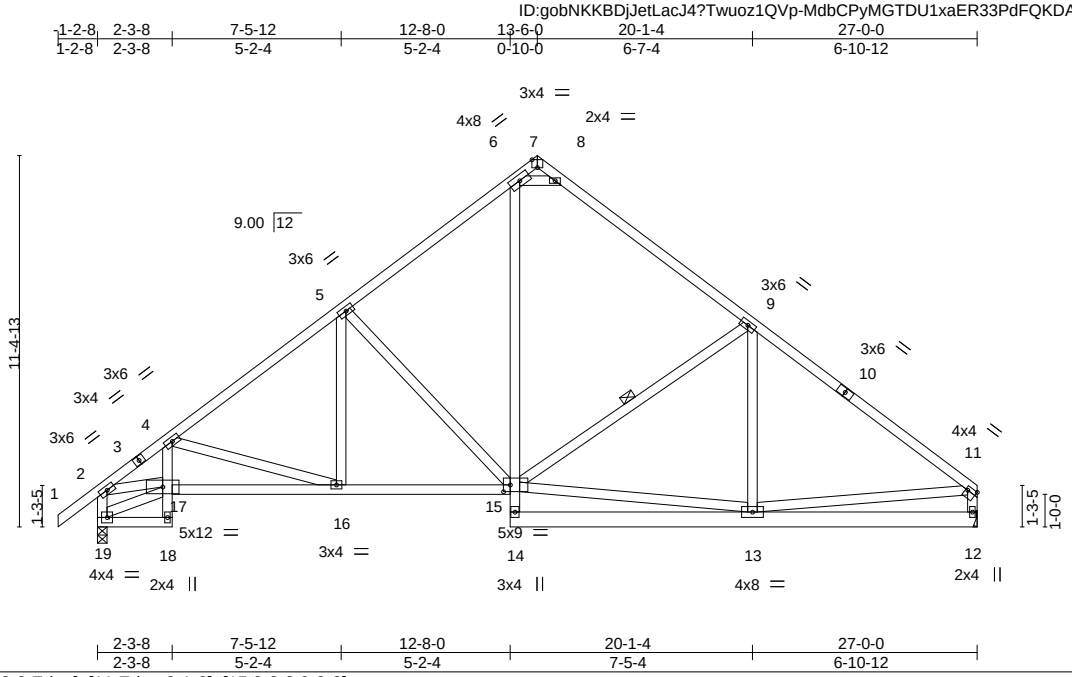


Plate Offsets (X,Y)-- [7:0-2-0,Edge], [11:Edge,0-1-8], [15:0-2-8,0-2-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	0.08	15	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.16	15-16	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.07	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 202 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 *Except*
4-18,6-14: 2x4 SP No.3, 12-14: 2x6 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-9-0 oc bracing.
WEBS 1 Row at midpt 9-15

REACTIONS. (size) 19=0-3-8, 12=Mechanical
Max Horz 19=301(LC 9)
Max Uplift 19=-131(LC 12), 12=-103(LC 13)
Max Grav 19=1152(LC 1), 12=1066(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1564/288, 4-5=-1410/275, 5-6=-1044/307, 6-7=-152/296, 8-9=-998/290, 9-11=-1281/231, 2-19=-1097/217, 11-12=-999/198
BOT CHORD 16-17=-365/1485, 15-16=-152/1136, 6-15=-174/758
WEBS 4-16=-364/221, 5-16=0/297, 5-15=-534/225, 2-17=-185/1222, 11-13=0/730, 17-19=-300/270, 13-15=-78/792, 9-15=-336/212, 6-8=-958/456

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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.
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) except (jt=lb) 12=103.
7) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 19. This connection is for uplift only and does not consider lateral forces.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	A2	Roof Special	3	1	I41899022
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:27:41 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-qp9acINuEWcuZkpddnwtoetOuDGRJVp0NieaK6z07sG

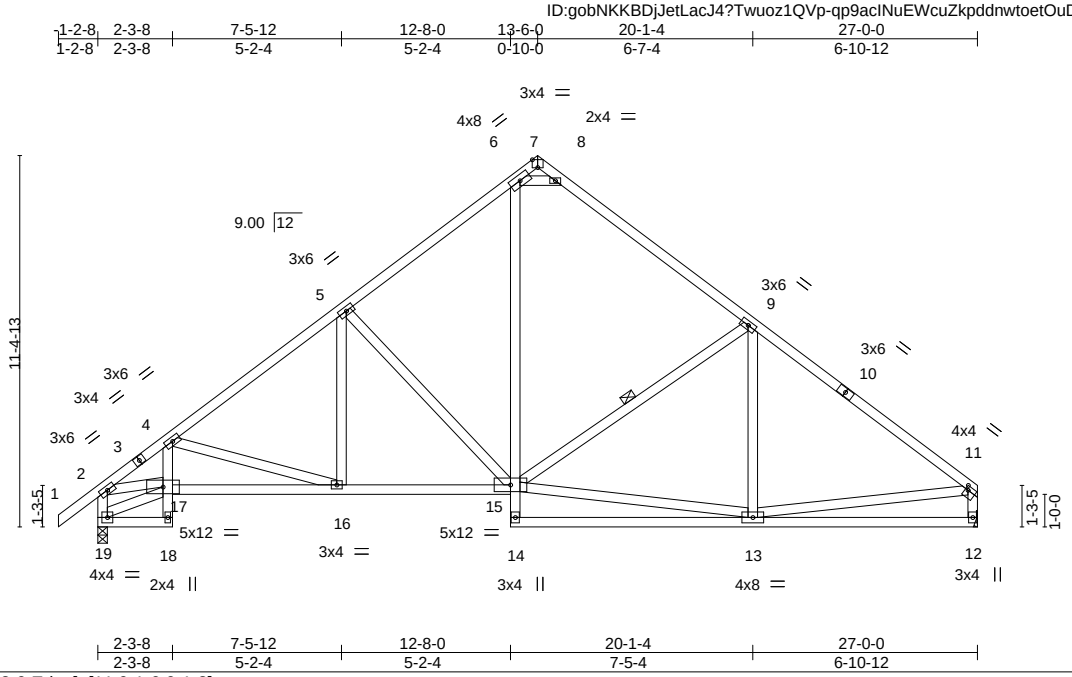


Plate Offsets (X,Y)-- [7:0-2-0,Edge], [11:0-1-0,0-1-8]

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	0.74	Vert(LL)	-0.10	13-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.22	13-14	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.07	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 190 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 *Except*
4-18,6-14: 2x4 SP No.3
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-9-7 oc bracing.
WEBS 1 Row at midpt 9-15

REACTIONS. (size) 19=0-3-8, 12=Mechanical
Max Horz 19=303(LC 9)
Max Uplift 19=-131(LC 12), 12=-103(LC 13)
Max Grav 19=1152(LC 1), 12=1066(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1564/289, 4-5=-1410/275, 5-6=-1044/307, 6-7=-152/296, 8-9=-998/290, 9-11=-1271/231, 2-19=-1097/216, 11-12=-1006/200
BOT CHORD 16-17=-362/1486, 15-16=-151/1137, 6-15=-174/759
WEBS 4-16=-364/220, 5-16=0/297, 5-15=-534/225, 2-17=-184/1222, 11-13=-19/761, 17-19=-302/272, 13-15=-92/817, 9-15=-329/213, 6-8=-959/457

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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.
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) except (jt=lb) 12=103.
7) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 19. This connection is for uplift only and does not consider lateral forces.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	A3	Common	2	1	I41899023
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:27:43 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-mCHL1zP8m8sco2y?kCzLt3ylN1tlnPPJr07hO_z07sE

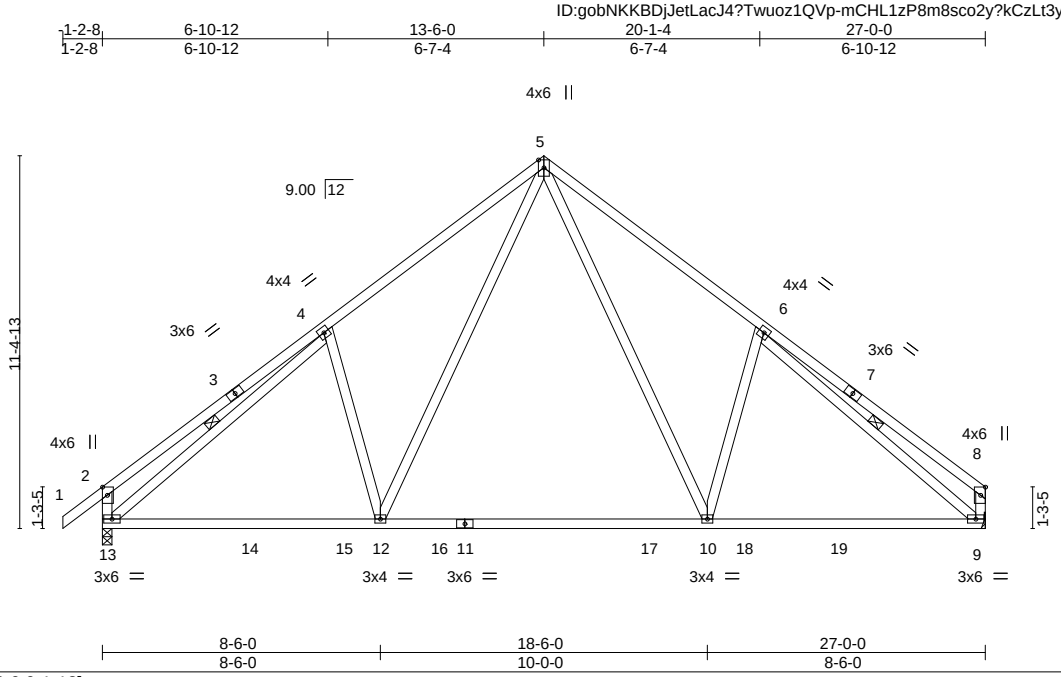


Plate Offsets (X,Y)-- [2:0-3-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.37	10-12	>860	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.56	10-12	>576	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.04	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 175 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 4-1-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 4-13, 6-9

REACTIONS. (size) 13=0-3-8, 9=Mechanical
Max Horz 13=303(LC 9)
Max Uplift 13=-131(LC 12), 9=-103(LC 13)
Max Grav 13=1230(LC 19), 9=1151(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-424/254, 4-5=-1348/396, 5-6=-1356/398, 6-8=-355/192, 2-13=-457/252, 8-9=-335/168
BOT CHORD 12-13=-161/1186, 10-12=0/801, 9-10=-115/1043
WEBS 5-10=-206/738, 6-10=-348/320, 5-12=-203/727, 4-12=-340/316, 4-13=-1174/26, 6-9=-1206/88

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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) except (jt=lb) 9=103.
7) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13. This connection is for uplift only and does not consider lateral forces.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	A4	COMMON	2	1	I41899024
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:27:44 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-EOrjFJQnXR_TQCXCIvUaPGVwYRDYWspS4gsFwRz07sD

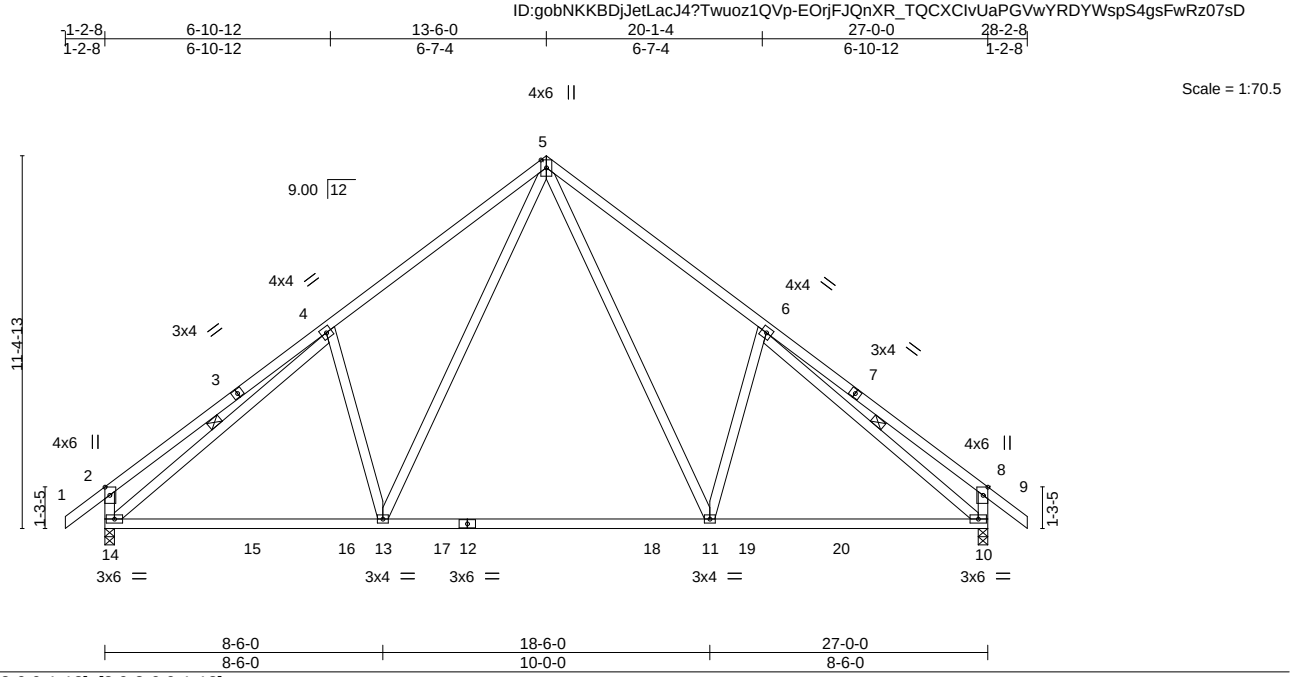


Plate Offsets (X,Y)-- [2:0-3-0,0-1-12], [8:0-3-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.37	11-13	>861	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.56	11-13	>576	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.04	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 177 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 4-1-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 4-14, 6-10

REACTIONS. (size) 14=0-3-8, 10=0-3-8
Max Horz 14=-311(LC 10)
Max Uplift 14=-131(LC 12), 10=-131(LC 13)
Max Grav 14=1229(LC 19), 10=1229(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-424/254, 4-5=-1345/395, 5-6=-1346/395, 6-8=-424/254, 2-14=-458/252, 8-10=-457/252
BOT CHORD 13-14=-145/1197, 11-13=0/812, 10-11=-55/1048
WEBS 5-11=-203/727, 6-11=-340/316, 5-13=-203/726, 4-13=-340/316, 4-14=-1171/25, 6-10=-1171/25

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14 and 10. This connection is for uplift only and does not consider lateral forces.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	A5	Common	1	1	I41899025
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:27:45 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-ibP5SfQPIl6K2L6Osd?pyU25sqYmFJvclJcoTtz07sC

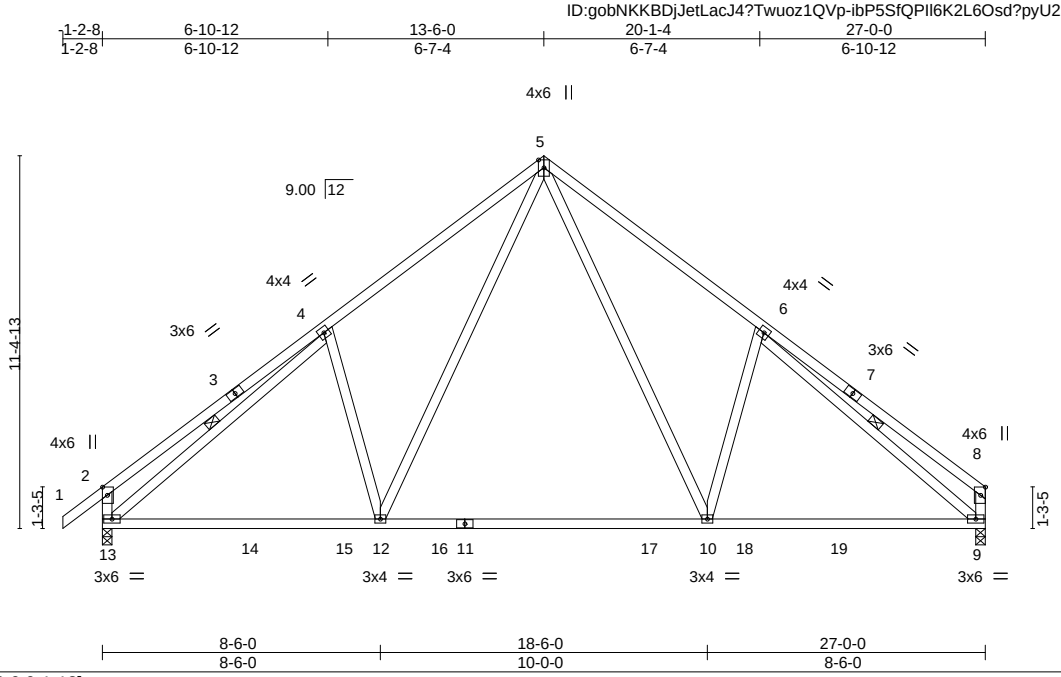


Plate Offsets (X,Y)-- [2:0-3-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.37	10-12	>860	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.56	10-12	>576	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.04	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 175 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 4-1-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 4-13, 6-9

REACTIONS. (size) 13=0-3-8, 9=0-3-8
Max Horz 13=303(LC 9)
Max Uplift 13=-131(LC 12), 9=-103(LC 13)
Max Grav 13=1230(LC 19), 9=1151(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-424/254, 4-5=-1348/396, 5-6=-1356/398, 6-8=-355/192, 2-13=-457/252, 8-9=-335/168
BOT CHORD 12-13=-161/1186, 10-12=0/801, 9-10=-115/1043
WEBS 5-10=-206/738, 6-10=-348/320, 5-12=-203/727, 4-12=-340/316, 4-13=-1174/26, 6-9=-1206/88

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13 and 9. This connection is for uplift only and does not consider lateral forces.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	A6	Common	6	1	I41899026
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:27:46 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-AnzTf?R133EBfVhaQKW2VhaG4Eul_h1lXzLL?Jz07sB

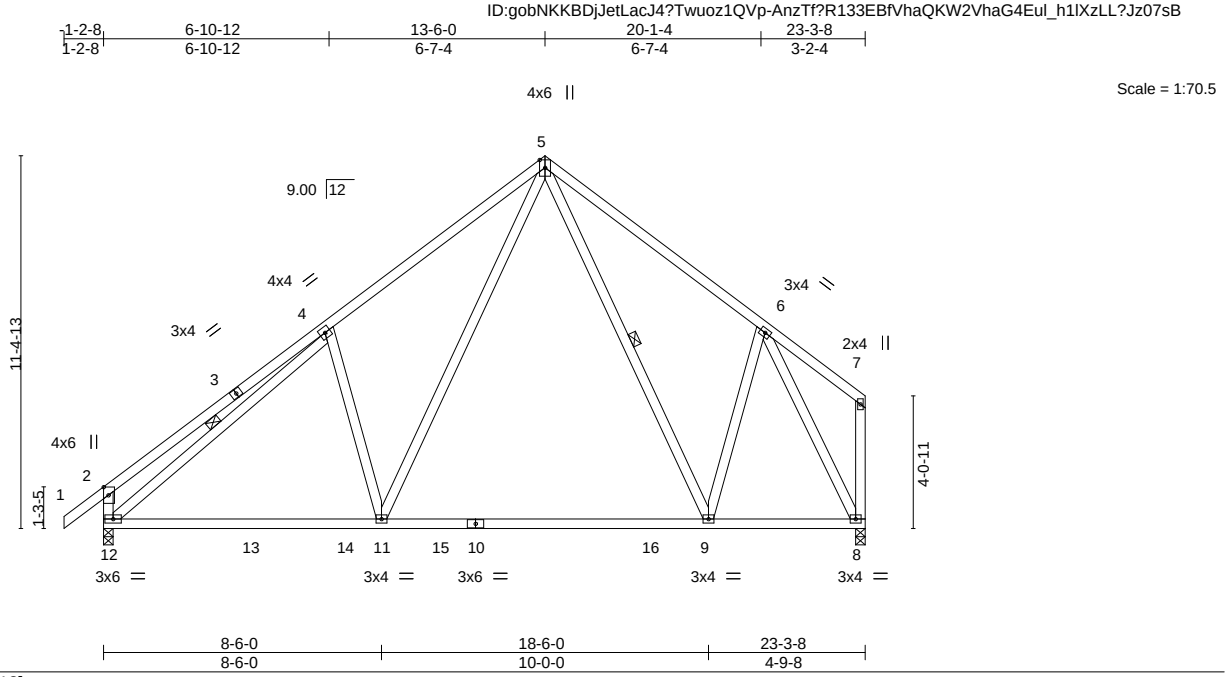


Plate Offsets (X,Y)-- [2:0-3-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.39	9-11	>708	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.59	9-11	>471	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 163 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 4-8-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 1-4-12 oc bracing.
WEBS 1 Row at midpt 5-9, 4-12

REACTIONS. (size) 12=0-3-8, 8=0-3-8
Max Horz 12=339(LC 9)
Max Uplift 12=-119(LC 12), 8=-85(LC 12)
Max Grav 12=1062(LC 19), 8=964(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-411/253, 4-5=-1111/357, 5-6=-814/318, 2-12=-446/252
BOT CHORD 11-12=-224/1000, 9-11=-74/594, 8-9=-126/490
WEBS 4-11=-361/318, 5-11=-201/762, 6-9=-37/344, 4-12=-947/0, 6-8=-1090/207

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12 and 8. This connection is for uplift only and does not consider lateral forces.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	A6E	GABLE	1	1	I41899027
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:27:48 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-7A4E4hTHbgVvvprzXlYWa6gfu2mSSmJ2_HqS4Cz07s9

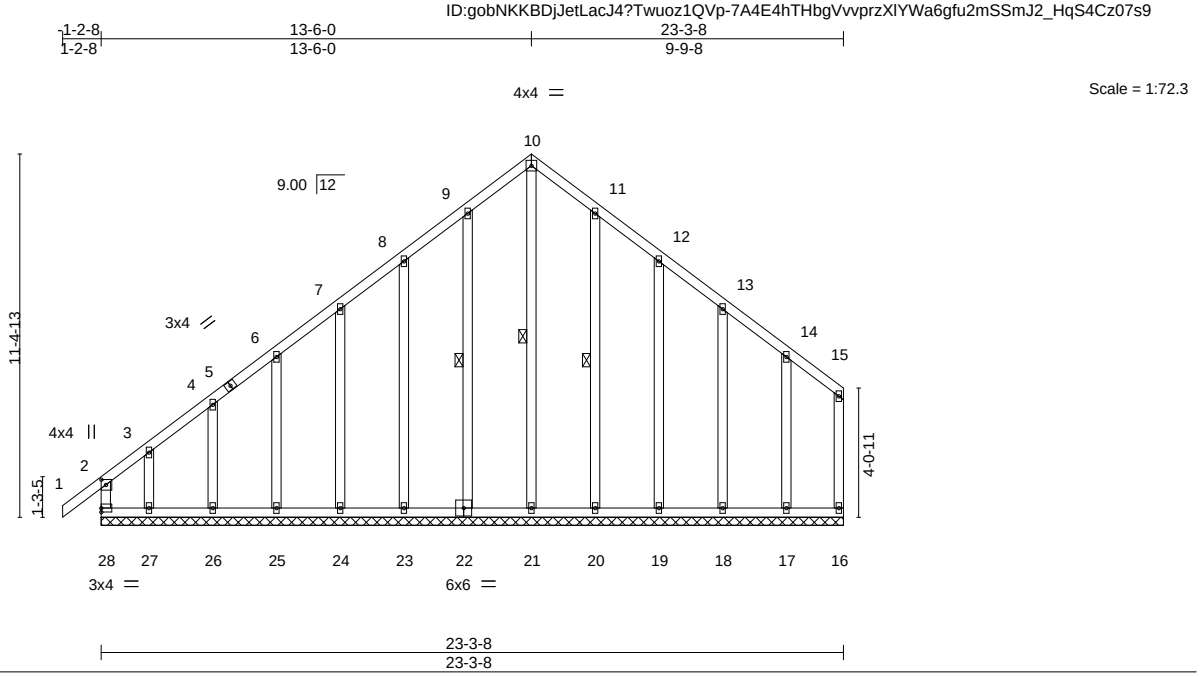


Plate Offsets (X,Y)-- [2:0-2-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.00	1	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.23	Horz(CT)	-0.00	16	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 196 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 6-0-0 oc bracing.
WEBS	1 Row at midpt 10-21, 9-22, 11-20

REACTIONS. All bearings 23-3-8.
(lb) - Max Horz 28=339(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 16, 22, 23, 24, 25, 26, 20, 19, 18, 17 except 28=-349(LC 8), 21=-116(LC 11), 27=-315(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 16, 22, 23, 24, 25, 26, 20, 19, 18, 17 except 28=453(LC 11), 21=311(LC 13), 27=351(LC 10)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-398/347, 3-4=-290/263, 4-6=-282/267, 6-7=-257/260, 7-8=-239/255, 8-9=-271/312, 9-10=-320/370, 10-11=-320/370, 11-12=-273/313, 2-28=-329/258
WEBS 10-21=-370/259

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	A7	Common	1	1	I41899028
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:27:51 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-XlmMjiVAubtTmGaYCt6DBlI7SFb0f_?UhF36gXz07s6

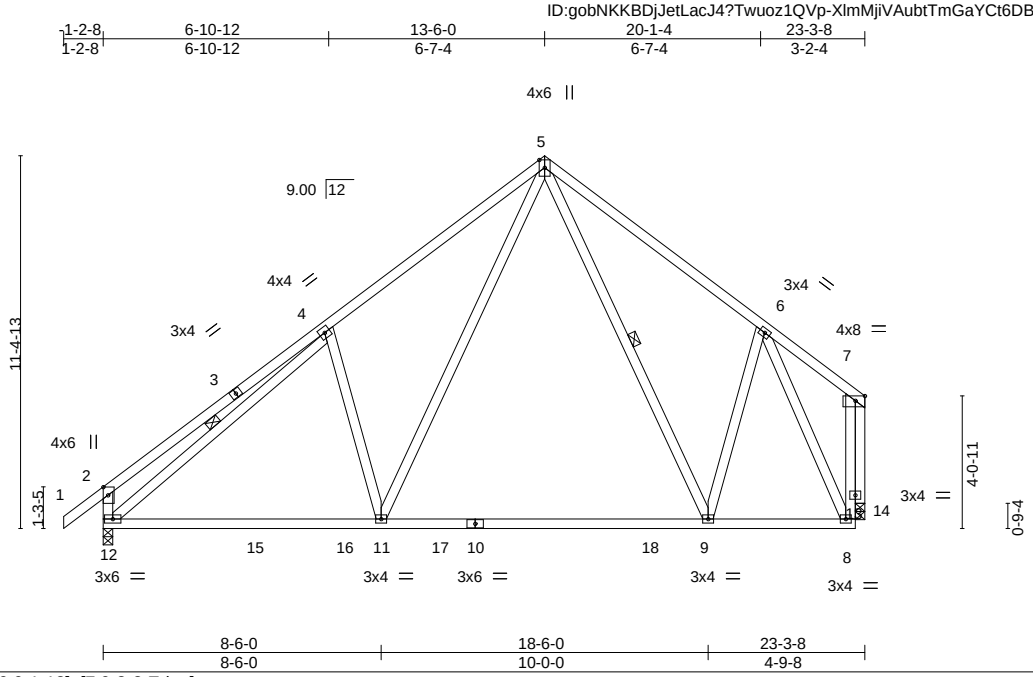


Plate Offsets (X,Y)-- [2:0-3-0,0-1-12], [7:0-3-8,Edge]

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	0.61	Vert(LL)	-0.39	9-11	>708	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.59	9-11	>468	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.03	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 167 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 4-8-14 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	1 Row at midpt 5-9, 4-12

REACTIONS. (size) 12=0-3-8, 14=0-3-8
Max Horz 12=287(LC 9)
Max Uplift 12=-112(LC 12), 14=-93(LC 12)
Max Grav 12=1061(LC 19), 14=943(LC 19)

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

TOP CHORD	2-4=-411/254, 4-5=-1111/344, 5-6=-792/281, 2-12=-445/251, 8-13=-146/885, 7-13=-146/885
BOT CHORD	11-12=-214/976, 9-11=-41/572, 8-9=-88/473
WEBS	4-11=-360/319, 5-11=-202/758, 6-9=-24/341, 4-12=-938/0, 6-8=-996/167, 7-14=-947/153

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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) Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12 and 14. This connection is for uplift only and does not consider lateral forces.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	A7A	Roof Special	3	1	I41899029
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:27:52 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-?xKlw2Wofv?KNQ9kmbdSkyqF8fz_OR8dvvogDzz07s5

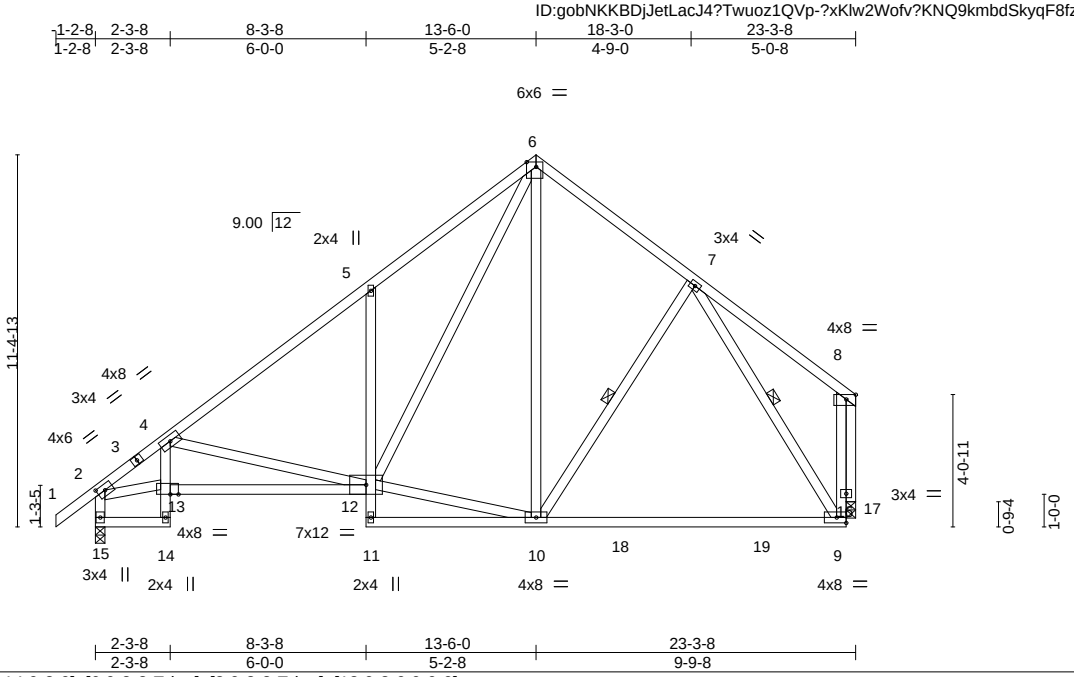


Plate Offsets (X,Y)-- [2:0-2-14,0-2-0], [6:0-3-8,Edge], [8:0-3-8,Edge], [13:0-3-0,0-0-0]

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	0.80	Vert(LL)	-0.30	9-10	>909	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.51	9-10	>540	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.05	17	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 182 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 *Except* 4-14,5-11: 2x4 SP No.3
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-9-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 7-10, 7-9

REACTIONS. (size) 15=0-3-8, 17=0-3-8
Max Horz 15=287(LC 9)
Max Uplift 15=-112(LC 12), 17=-93(LC 12)
Max Grav 15=1003(LC 1), 17=913(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1452/299, 4-5=-1120/238, 5-6=-1125/432, 6-7=-698/260, 2-15=-967/219, 9-16=-64/751, 8-16=-64/751
BOT CHORD 12-13=-506/1455, 5-12=-402/294, 9-10=-88/483
WEBS 4-12=-564/325, 10-12=0/580, 6-12=-353/770, 7-9=-723/134, 2-13=-276/1191, 8-17=-916/154

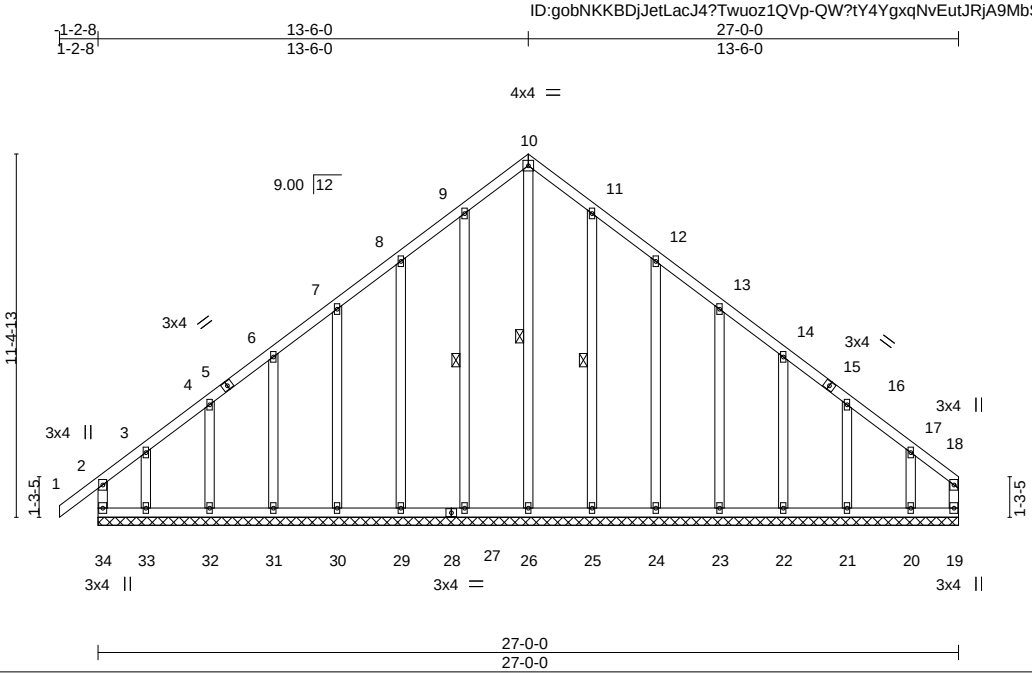
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members 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) Bearing at joint(s) 17 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15 and 17. This connection is for uplift only and does not consider lateral forces.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	AE	GABLE	1	1	I41899030
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:27:55 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-QW?tY4YgxqNvEutJRjA9MbSuXsAMbw44bt1KpIz07s2



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.00	1	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.01	19	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 212 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 6-0-0 oc bracing.
WEBS	1 Row at midpt 10-26, 9-27, 11-25

REACTIONS. All bearings 27-0-0.
(lb) - Max Horz 34=303(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 27, 29, 30, 31, 32, 25, 24, 23, 22, 21 except 34=-207(LC 8), 19=-159(LC 11), 33=-204(LC 12), 20=-185(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 19, 27, 29, 30, 31, 32, 25, 24, 23, 22, 21 except 34=301(LC 20), 26=338(LC 13), 33=260(LC 10), 20=255(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 8-9=-257/310, 9-10=-306/367, 10-11=-306/367, 11-12=-257/310
WEBS 10-26=-367/242

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	B	ATTIC	11	1	I41899031
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:27:57 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-Mu7ezmawTRddUB1iZ8DdR0X5Pgf93oCN3BWRuAz07s0

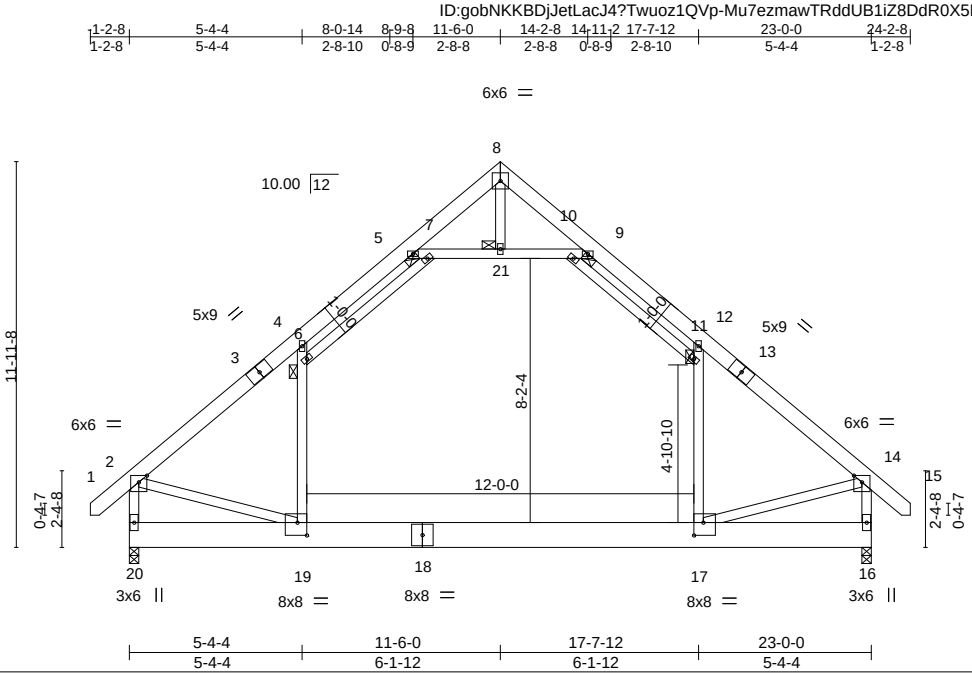


Plate Offsets (X,Y)-- [17:0-3-8,0-4-12], [19:0-3-8,0-4-12]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.29	17-19	>948	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.45	17-19	>611	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.01	16	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Attic	-0.17	17-19	882	360	Weight: 231 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP DSS *Except*
6-7,10-11: 2x4 SP No.2 or 2x4 SPF No.2, 1-3,13-15: 2x6 SP No.2
BOT CHORD 2x10 SP No.2
WEBS 2x4 SP No.3 *Except*
12-17,4-19,5-9: 2x4 SP No.2 or 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-8-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
JOINTS 1 Brace at Jt(s): 21, 6, 7, 10, 11

REACTIONS. (size) 20=0-3-8, 16=0-3-8
Max Horz 20=325(LC 11)
Max Grav 20=1429(LC 20), 16=1429(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1520/6, 4-5=-1095/165, 9-12=-1094/165, 12-14=-1520/6, 2-20=-1504/56, 14-16=-1504/56
BOT CHORD 19-20=-288/379, 17-19=0/1061
WEBS 11-17=-13/652, 11-12=-29/592, 6-19=-13/652, 4-6=-29/592, 5-7=-1335/199, 7-21=-1216/193, 10-21=-1216/193, 9-10=-1335/199, 2-19=0/1002, 14-17=0/1003

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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 2x4 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.
6) Ceiling dead load (5.0 psf) on member(s). 4-5, 9-12, 5-7, 7-21, 10-21, 9-10; Wall dead load (5.0psf) on member(s).11-17, 11-12, 6-19, 4-6
7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 17-19
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Attic room checked for L/360 deflection.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	BE	GABLE	1	1	I41899032
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:27:59 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-IHFOOSbB?2tLjVB4gZF5WRdQuULdXihfWV?Xy3z07s_

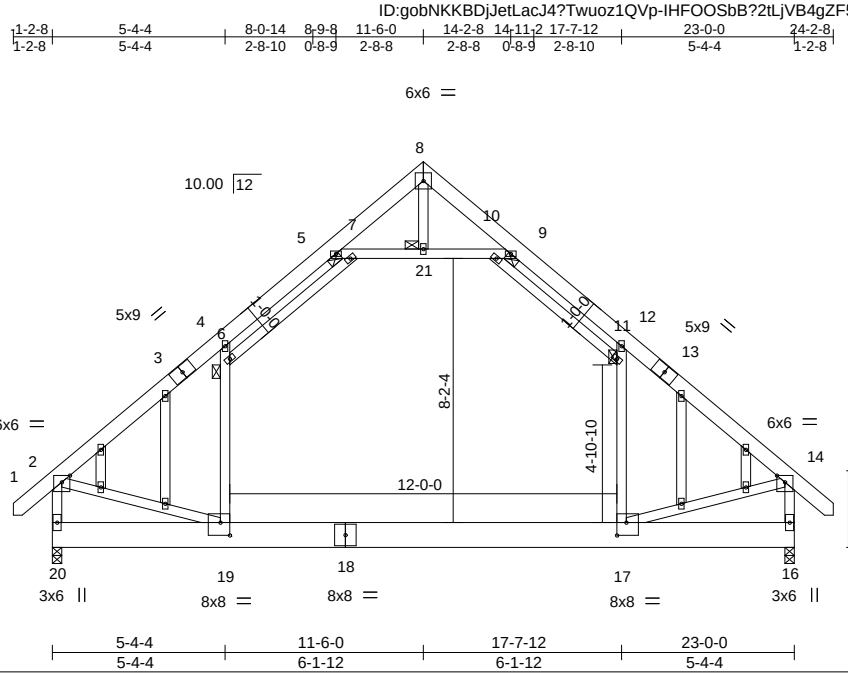


Plate Offsets (X,Y)-- [17:0-3-8,0-4-12], [19:0-3-8,0-4-12]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.83	Vert(LL)	-0.29	17-19	>948	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.45	17-19	>611	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.01	16	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Attic	-0.17	17-19	882	360	Weight: 246 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP DSS *Except*
6-7,10-11: 2x4 SP No.2 or 2x4 SPF No.2, 1-3,13-15: 2x6 SP No.2
BOT CHORD 2x10 SP No.2
WEBS 2x4 SP No.3 *Except*
12-17,4-19,5-9: 2x4 SP No.2 or 2x4 SPF No.2
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-8-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
JOINTS 1 Brace at Jt(s): 21, 6, 7, 10, 11

REACTIONS. (size) 20=0-3-8, 16=0-3-8
Max Horz 20=325(LC 11)
Max Grav 20=1429(LC 20), 16=1429(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1520/6, 4-5=-1095/165, 9-12=-1094/165, 12-14=-1520/6, 2-20=-1504/56, 14-16=-1504/56
BOT CHORD 19-20=-288/379, 17-19=0/1061
WEBS 11-17=-13/652, 11-12=-29/592, 6-19=-13/652, 4-6=-29/592, 5-7=-1335/199, 7-21=-1216/193, 10-21=-1216/193, 9-10=-1335/199, 2-19=0/1002, 14-17=0/1003

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Ceiling dead load (5.0 psf) on member(s). 4-5, 9-12, 5-7, 7-21, 10-21, 9-10; Wall dead load (5.0psf) on member(s).11-17, 11-12, 6-19, 4-6
9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 17-19
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) Attic room checked for L/360 deflection.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	C	Common	2	1	I41899033
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:28:03 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-B2UvEpeh3HOmC6UrvPK1hHnDp5peTV5FR7zl4qz07rw

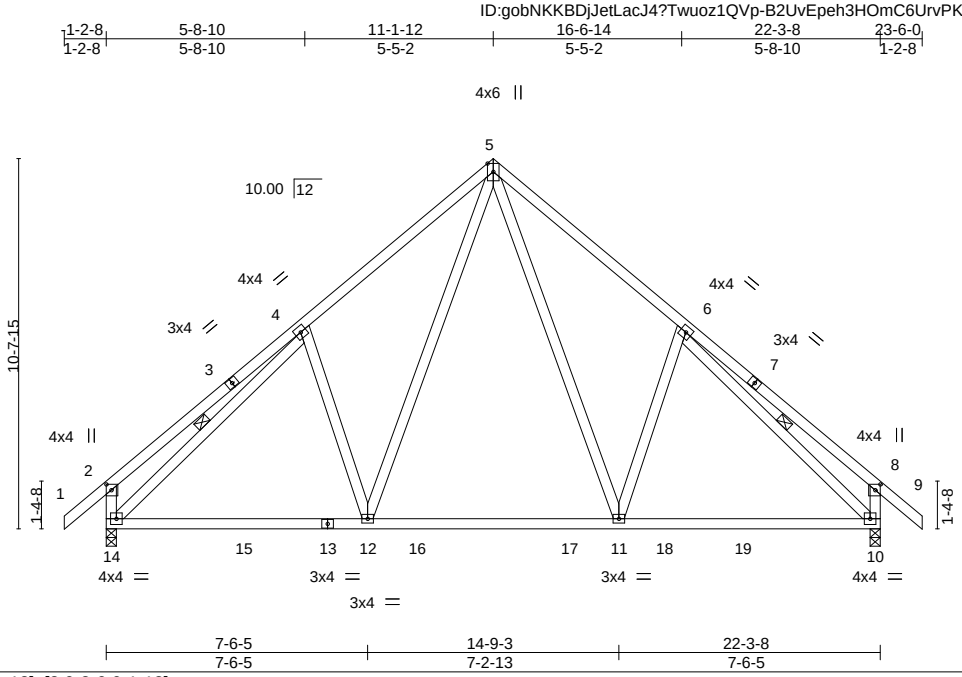


Plate Offsets (X,Y)-- [2:0-2-0,0-1-12], [8:0-2-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.09	11-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.15	12-14	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.02	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 156 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 5-6-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-14, 6-10

REACTIONS. (size) 14=0-3-8, 10=0-3-8
Max Horz 14=-297(LC 10)
Max Uplift 14=-105(LC 12), 10=-105(LC 13)
Max Grav 14=1002(LC 19), 10=1000(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-331/215, 4-5=-968/333, 5-6=-966/333, 6-8=-331/215, 2-14=-380/223, 8-10=-380/223
BOT CHORD 12-14=-109/864, 11-12=-0/609, 10-11=-20/741
WEBS 5-11=-180/528, 6-11=-280/278, 5-12=-180/533, 4-12=-280/278, 4-14=-893/20, 6-10=-891/20

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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) Two H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14 and 10. This connection is for uplift only and does not consider lateral forces.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	CE	GABLE	1	1	I41899034
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:28:05 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-7RcffVgybueURQeE1pMVmitZEuW5xOJYvRSs9jz07ru

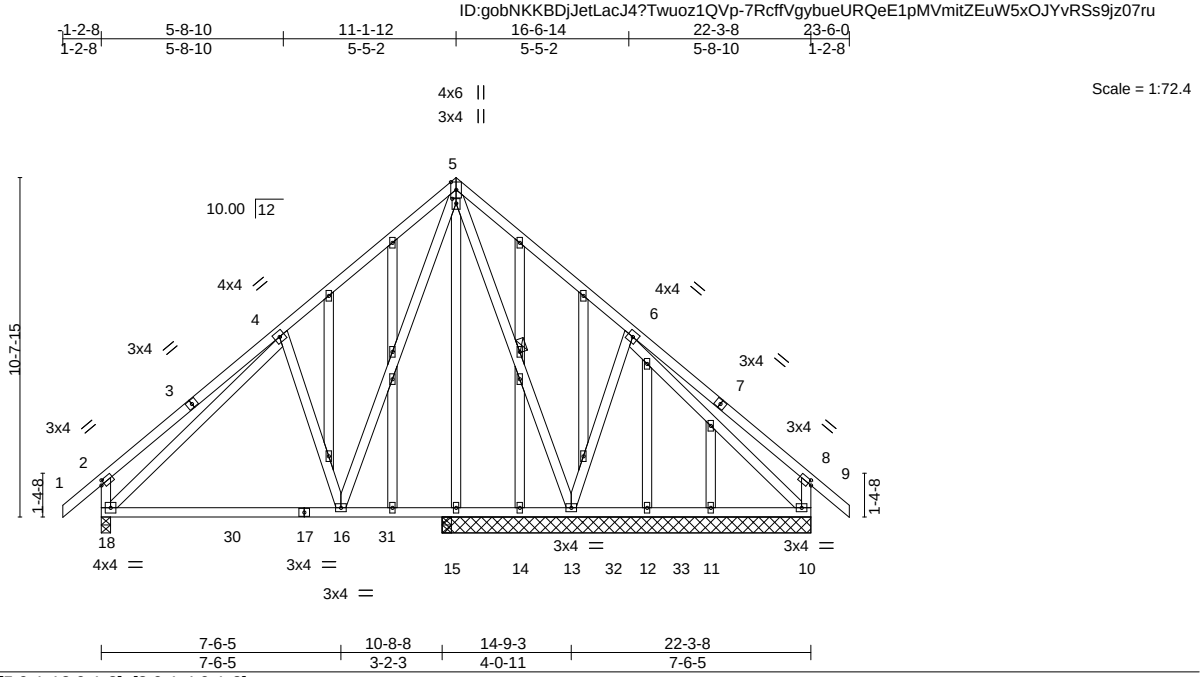


Plate Offsets (X,Y)-- [2:0-1-4,0-1-8], [5:0-1-12,0-1-8], [8:0-1-4,0-1-8]

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	0.39	Vert(LL)	-0.08	16-18	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.16	16-18	>812	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 223 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.
WEBS	1 Row at midpt 5-13

REACTIONS. All bearings 11-7-0 except (jt=length) 18=0-3-8, 15=0-3-8, 15=0-3-8.
(lb) - Max Horz 18=297(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 18, 10 except 13=-152(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 14, 12, 11, 15, 15 except 13=719(LC 1), 18=669(LC 1), 10=366(LC 1)

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

TOP CHORD	2-4=-316/210, 4-5=-542/281, 2-18=-369/221, 8-10=-324/231
BOT CHORD	16-18=-132/533, 15-16=-81/261, 14-15=-81/261, 13-14=-81/261
WEBS	5-13=-508/37, 6-13=-365/290, 5-16=-189/525, 4-16=-329/281, 4-18=-430/15

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	CGR	Common Girder	1	2	I41899035
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:28:08 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-X0IoHXiqtp03IuNpiyvCOKV_06XE8em_bOgWm2z07rr

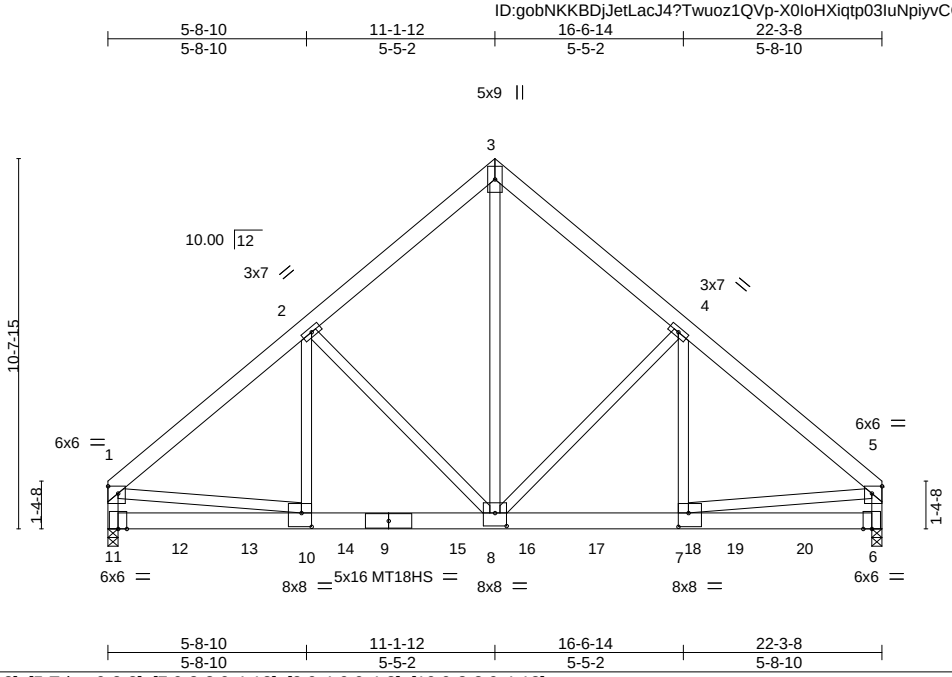


Plate Offsets (X,Y)-- [1:Edge,0-2-8], [5:Edge,0-2-8], [7:0-3-8,0-4-12], [8:0-4-0,0-4-8], [10:0-3-8,0-4-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.08	8-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.16	8-10	>999	180	MT18HS	244/190
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.90	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 381 lb	FT = 20%

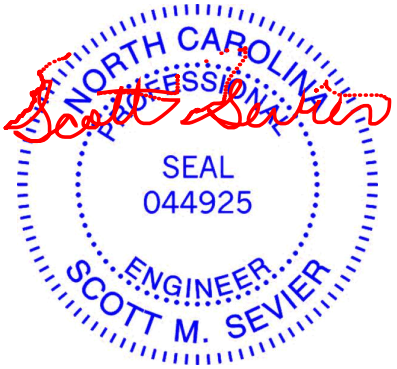
LUMBER-
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP DSS
WEBS 2x4 SP No.3 *Except*
3-8,1-11,5-6: 2x4 SP No.2 or 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-11-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 11=0-3-8, 6=0-3-8
Max Horz 11=-262(LC 8)
Max Uplift 11=-655(LC 12), 6=-647(LC 13)
Max Grav 11=6150(LC 1), 6=6073(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-6798/825, 2-3=-4912/723, 3-4=-4912/723, 4-5=-6786/824, 1-11=-5223/647, 5-6=-5217/646
BOT CHORD 10-11=-322/969, 8-10=-605/5116, 7-8=-554/5107, 6-7=-129/823
WEBS 3-8=-779/5806, 4-8=-2002/397, 4-7=-248/2372, 2-8=-2138/399, 2-10=-250/2606, 1-10=-429/4337, 5-7=-432/4348

NOTES-
1) 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) Bearing at joint(s) 11, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Two H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11 and 6. This connection is for uplift only and does not consider lateral forces.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1105 lb down and 123 lb up at 2-0-12, 1105 lb down and 123 lb up at 4-0-12, 1105 lb down and 123 lb up at 6-0-12, 1105 lb down and 123 lb up at 8-0-12, 1105 lb down and 123 lb up at 10-0-12, 1046 lb down and 123 lb up at 12-0-12, 1046 lb down and 123 lb up at 14-0-12, 1046 lb down and 123 lb up at 16-0-12, and 1046 lb down and 123 lb up at 18-0-12, and 1096 lb down and 123 lb up at 20-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



July 2,2020

Continued on page 2

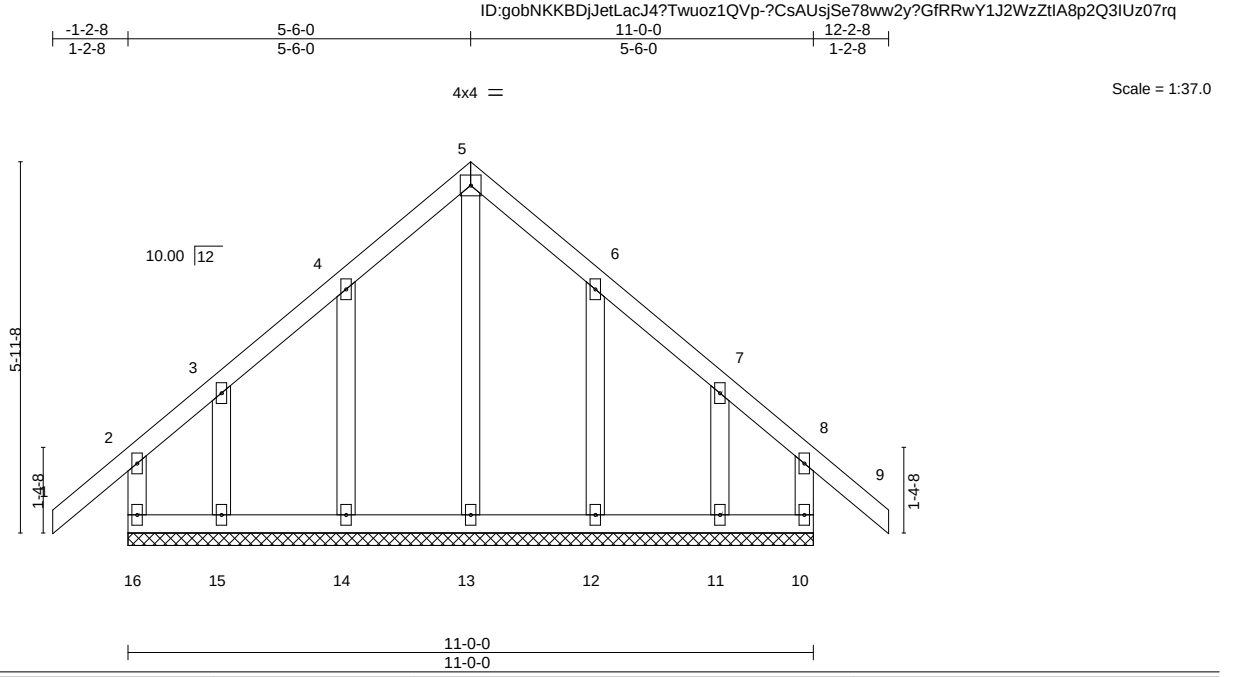
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-60, 3-5=-60, 6-11=-20
   Concentrated Loads (lb)
   Vert: 9=-1046(B) 12=-1046(B) 13=-1046(B) 14=-1046(B) 15=-1046(B) 16=-1046(B) 17=-1046(B) 18=-1046(B) 19=-1046(B) 20=-1046(B)

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	DE	Common Supported Gable	1	1	I41899036
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:28:09 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-?CsAUsjSe78ww2y?GfRRwY1J2WzZtIA8p2Q3lUz07rq



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.01	9	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	9	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	-0.00	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 71 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 6-0-0 oc bracing.

REACTIONS. All bearings 11-0-0.
(lb) - Max Horz 16=-180(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 10, 14, 12 except 16=-105(LC 8), 15=-112(LC 12), 11=-109(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 16, 10, 13, 14, 15, 12, 11

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

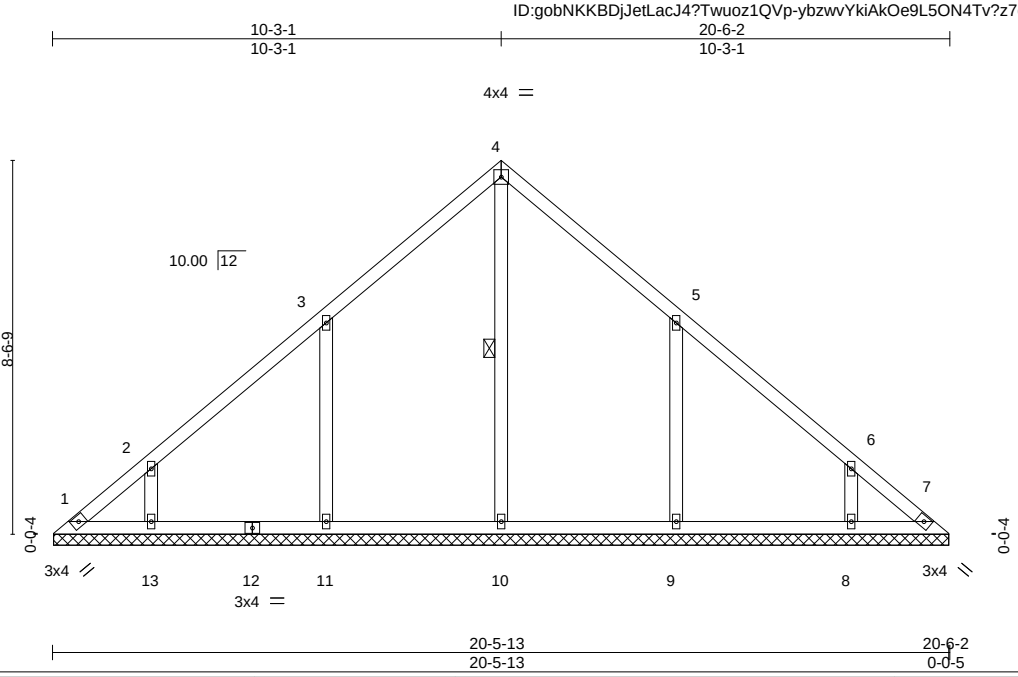
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	V1	Valley	1	1	I41899037
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:28:11 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-ybzwvYkiAkOe9L5ON4Tv?z7eiJdLLAOQHMvANMz07ro



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 98 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.
WEBS 1 Row at midpt 4-10

REACTIONS. All bearings 20-5-8.
(lb) - Max Horz 1=-203(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=-187(LC 12), 13=-135(LC 12), 9=-187(LC 13), 8=-135(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=391(LC 22), 11=442(LC 19), 13=279(LC 19), 9=441(LC 20), 8=279(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-11=-311/237, 5-9=-311/236

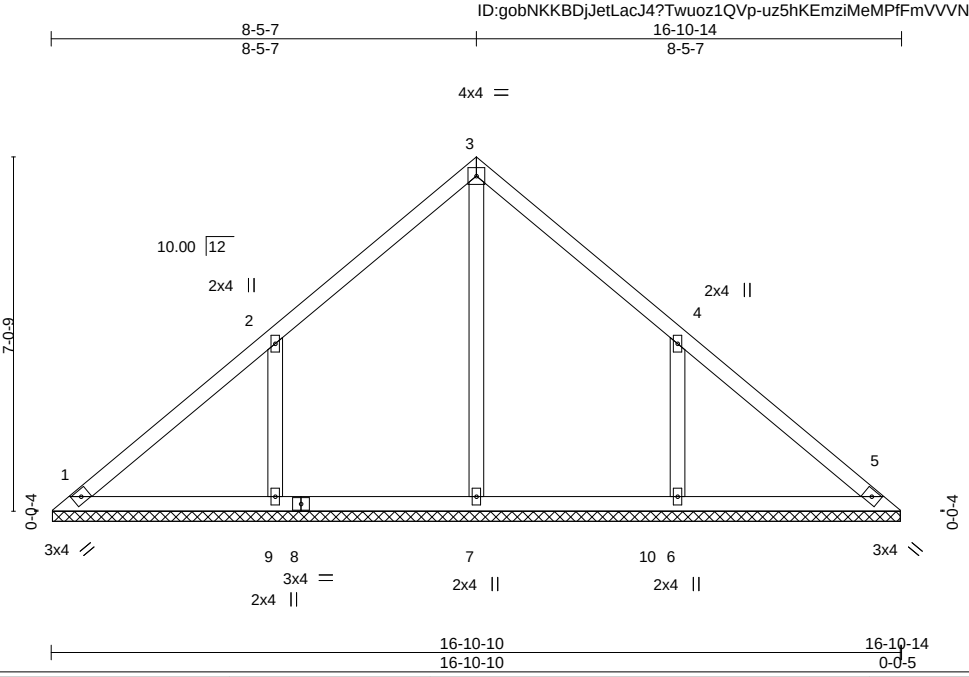
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	V2	Valley	1	1	I41899038
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:28:13 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-uz5hKEmziMeMPfFmVVVN5OCxL7Jyp40jkgOHRFz07rm



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 75 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.3
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 16-10-5.
(lb) - Max Horz 1=-166(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=-204(LC 12), 6=-204(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=362(LC 22), 9=462(LC 19), 6=461(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-333/249, 4-6=-333/249

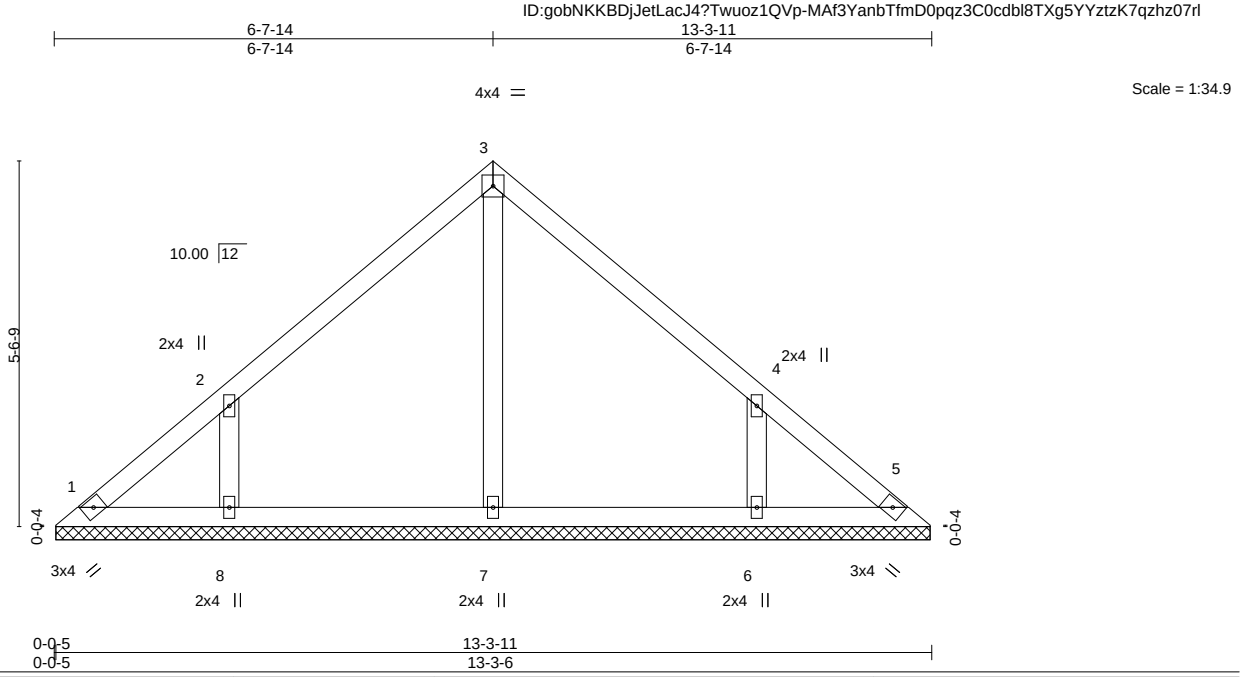
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members 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, with BCDL = 10.0psf.
6) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1, 9, and 6. This connection is for uplift only and does not consider lateral forces.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	V3	Valley	1	1	I41899039
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:28:14 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-MAf3YanbTfmD0pqz3C0cdbl8TXg5YYztzK7qzhz07rl



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	0.30	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 56 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.3
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 13-3-2.
(lb) - Max Horz 1=-129(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-166(LC 12), 6=-166(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=332(LC 19), 6=332(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-275/207, 4-6=-275/207

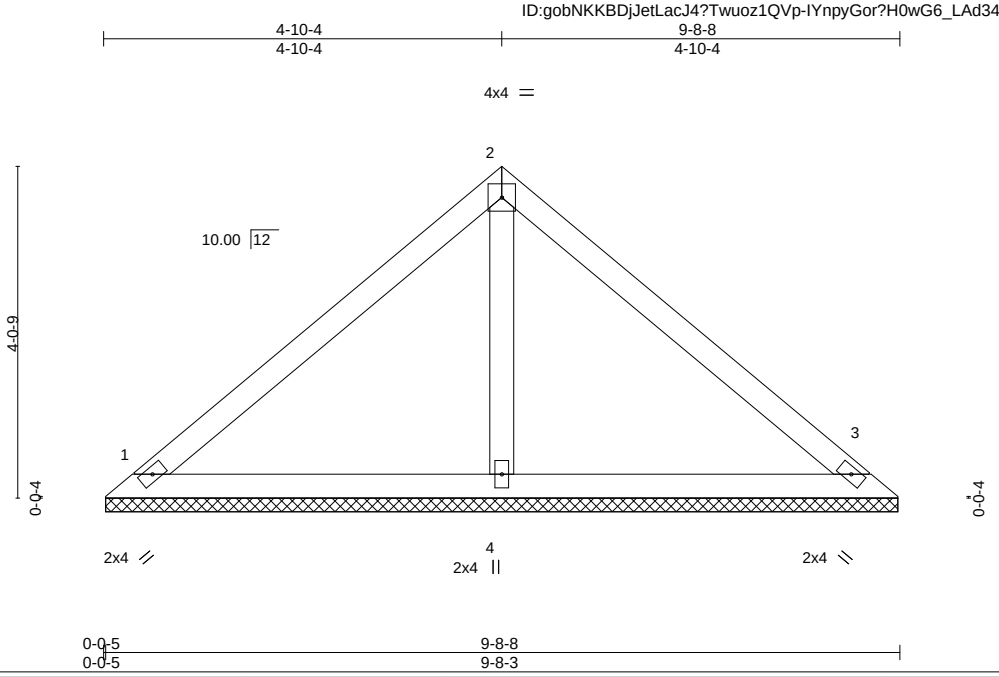
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members 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.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	V4	Valley	1	1	I41899040
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:28:16 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-IYnpyGor?H0wG6_LAd34i0qQCKIA0TqAQecx2az07rj



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	0.48	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 37 lb	FT = 20%

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

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

REACTIONS. (size) 1=9-7-14, 3=9-7-14, 4=9-7-14
Max Horz 1=-92(LC 8)
Max Uplift 1=-30(LC 13), 3=-42(LC 13), 4=-7(LC 12)
Max Grav 1=186(LC 1), 3=186(LC 1), 4=339(LC 1)

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

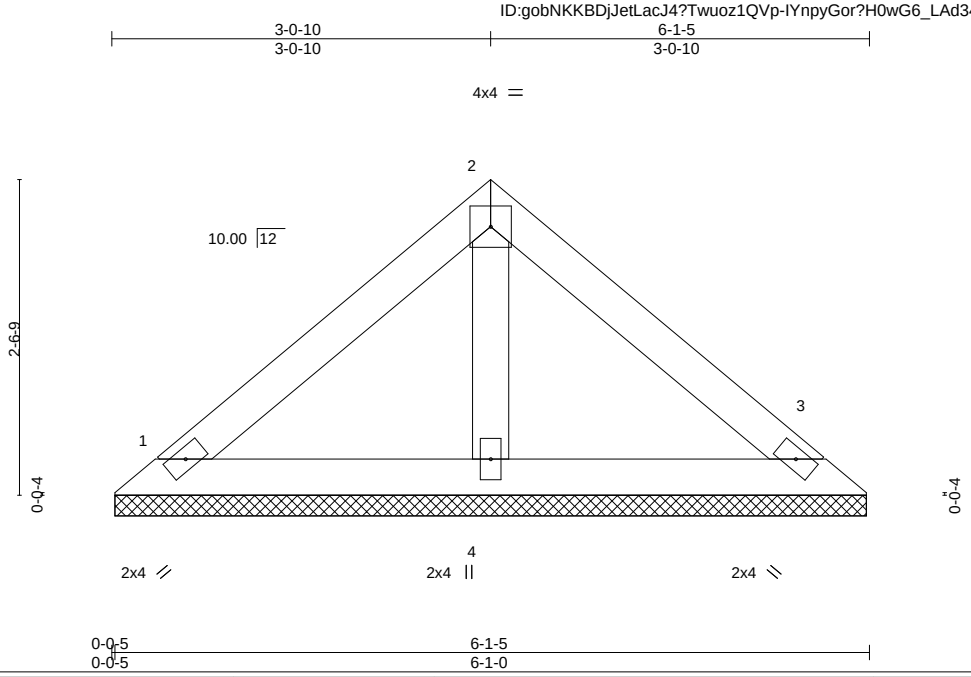
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members 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.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	V5	Valley	1	1	I41899041
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:28:16 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-IYnpyGor?H0wG6_LAd34i0qUEKMZ0TQAQecx2az07rj



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 22 lb	FT = 20%

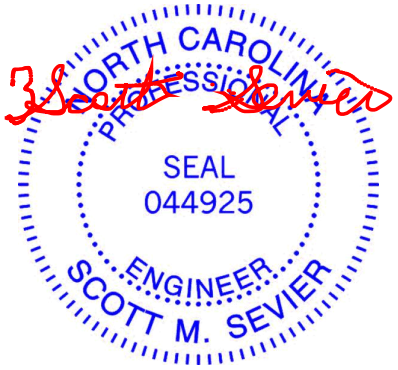
LUMBER-
TOP CHORD 2x4 SP No.3
BOT CHORD 2x4 SP No.3
OTHERS 2x4 SP No.3

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

REACTIONS. (size) 1=6-0-11, 3=6-0-11, 4=6-0-11
Max Horz 1=-55(LC 8)
Max Uplift 1=-25(LC 13), 3=-32(LC 13)
Max Grav 1=121(LC 1), 3=121(LC 1), 4=183(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; 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.



July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	V6	Valley	1	1	I41899042
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:28:17 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-mlKBAbpTma8ntGZYkLaJFEMdlkgxlv8JfIMUa0z07ri

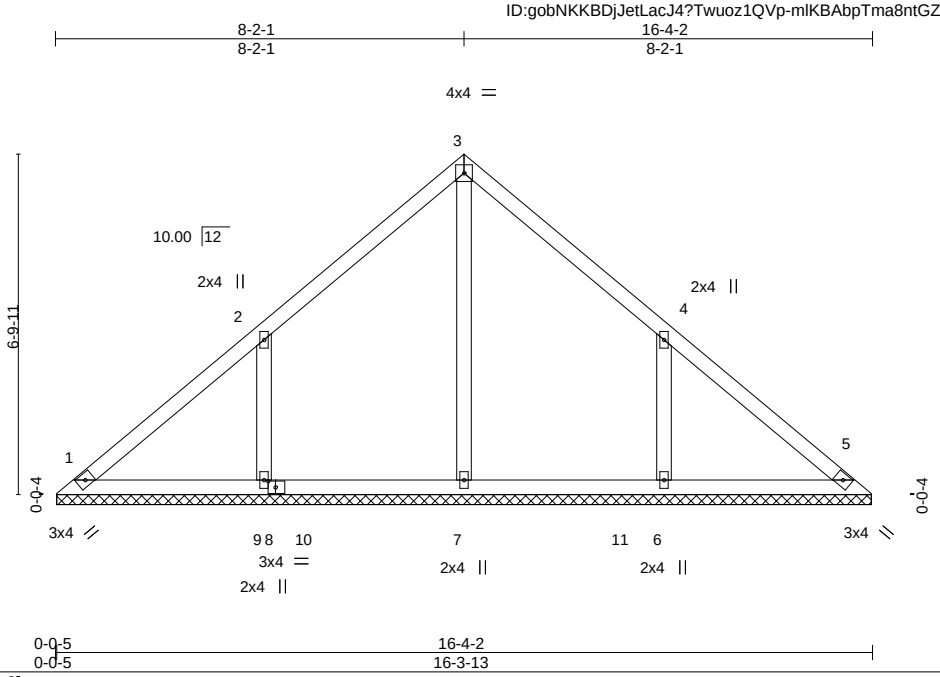


Plate Offsets (X,Y)-- [8:0-1-12,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 72 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.3
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 16-3-8.
(lb) - Max Horz 1=160(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 9=-197(LC 12), 6=-197(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=359(LC 22), 9=437(LC 19), 6=437(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-9=-321/240, 4-6=-321/240

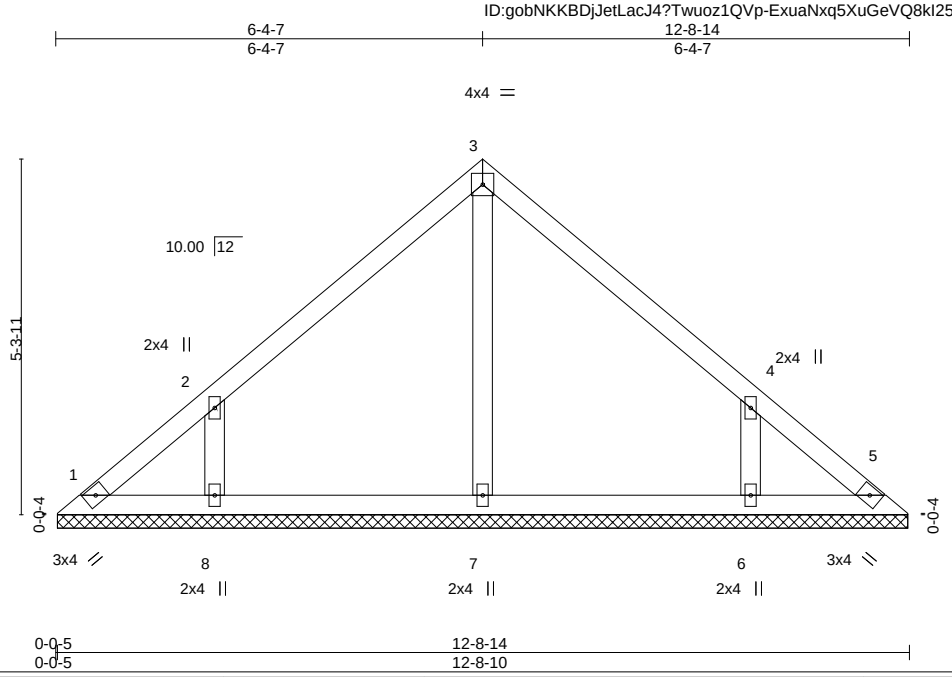
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members 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, with BCDL = 10.0psf.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	V7	Valley	1	1	I41899043
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:28:18 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-ExuaNxq5XuGeVQ8kl25YoRvpT810UM3Suy526Tz07rh



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	0.30	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 53 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.3
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 12-8-5.
(lb) - Max Horz 1=-123(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-163(LC 12), 6=-163(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=325(LC 19), 6=325(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-271/205, 4-6=-271/205

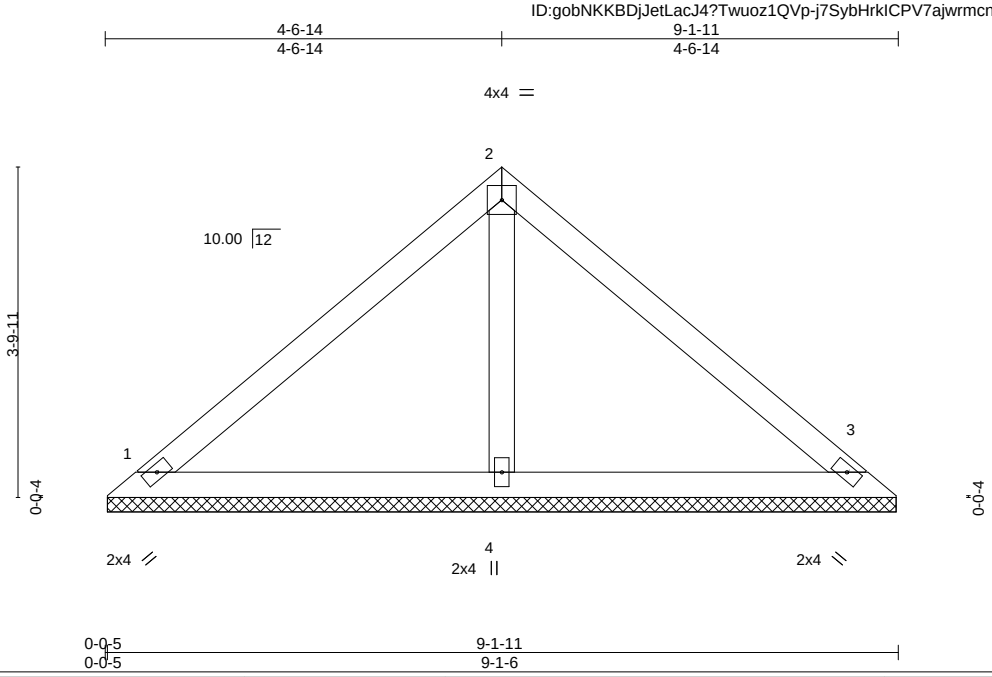
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members 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.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	V8	Valley	1	1	I41899044
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:28:19 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-j7SybHrkICPV7ajwrmcnKfSyQYKWDqhc7crbfvz07rg



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	0.41	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 34 lb	FT = 20%

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

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

REACTIONS. (size) 1=9-1-2, 3=9-1-2, 4=9-1-2
Max Horz 1=86(LC 9)
Max Uplift 1=-29(LC 13), 3=-39(LC 13), 4=-7(LC 12)
Max Grav 1=175(LC 1), 3=175(LC 1), 4=318(LC 1)

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

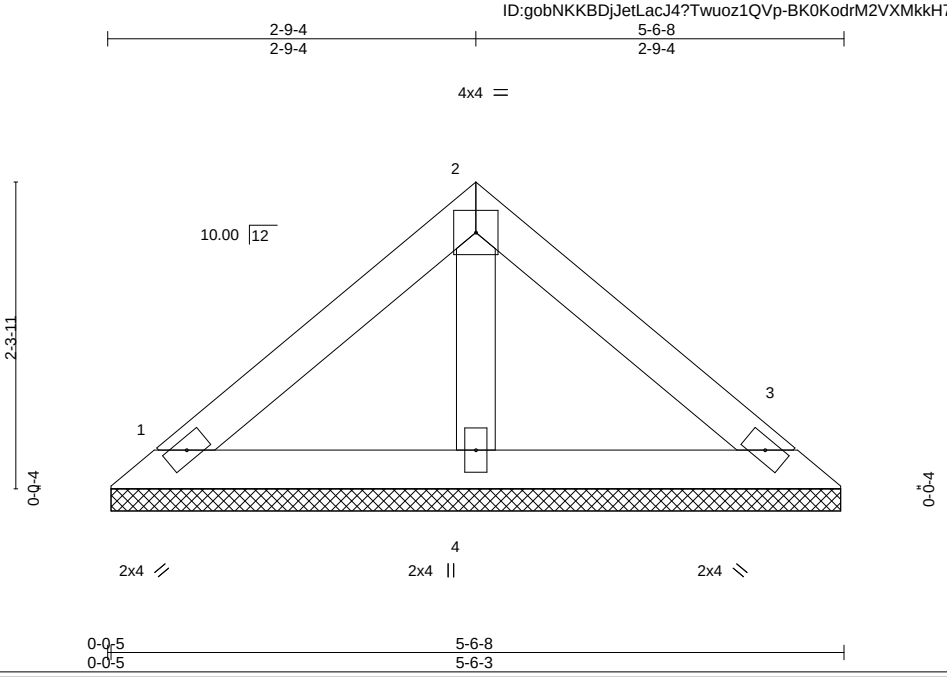
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members 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.

July 2,2020

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

Job	Truss	Truss Type	Qty	Ply	RG14-A01 Stanton Tray Master Nook
2000493-2000493A	V9	Valley	1	1	I41899045
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.330 s May 6 2020 MiTek Industries, Inc. Thu Jul 2 10:28:20 2020 Page 1
ID:gobNKKBDjJetLacJ4?Twuoz1QVp-BK0KodrM2VXMkkH7PT70ts_ByxjtyHTlLGa8BLz07rf



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)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 20 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-6-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=5-5-14, 3=5-5-14, 4=5-5-14
Max Horz 1=-49(LC 8)
Max Uplift 1=-23(LC 13), 3=-29(LC 13)
Max Grav 1=108(LC 1), 3=108(LC 1), 4=164(LC 1)

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

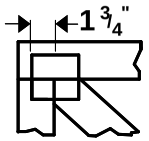
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed;C-C for members 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.

July 2,2020

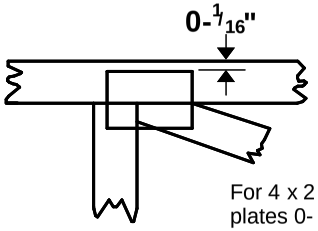
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

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

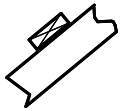
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

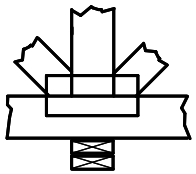
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

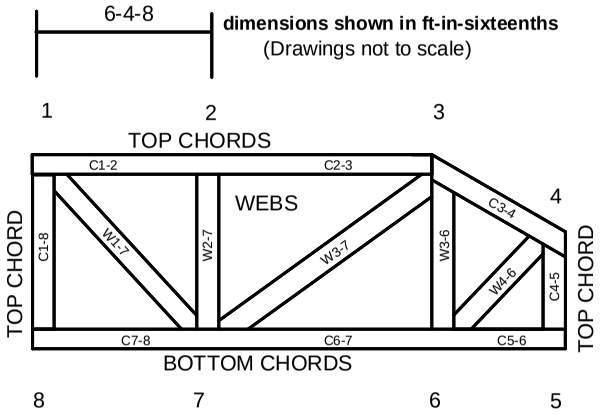


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

MiTek

ENGINEERING BY TRENCO
A MiTek Affiliate

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.