ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: LGI_Homes
Burke Floor

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource (Albermarle,NC).

Pages or sheets covered by this seal: E12213212 thru E12213226

My license renewal date for the state of North Carolina is December 31, 2018.

North Carolina COA: C-0844

September 18,2018

Gilbert, Eric

IMPORTANT NOTE: Truss Engineer's responsibility is solely for design of individual trusses based upon design parameters shown on referenced truss drawings. Parameters have not been verified as appropriate for any use. Any location identification specified is for file reference only and has not been used in preparing design. Suitability of truss designs for any particular building is the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	Burke Floor
LGI_HOMES	F1E	Floor Supported Gable	2	1	E12213212
					Job Reference (optional)

Probuild East, Albemarle , NC 28001 8.220 s May 24 2018 MiTek Industries, Inc. Tue Sep 18 09:26:33 2018 Page 1
ID:r?hMoJZbxPenl_bpb7z5FgypDqB-M9bRrt0SxUQzOV3aZkKPcQE3v5qIpweOaczGMSycRRa

0-1-8

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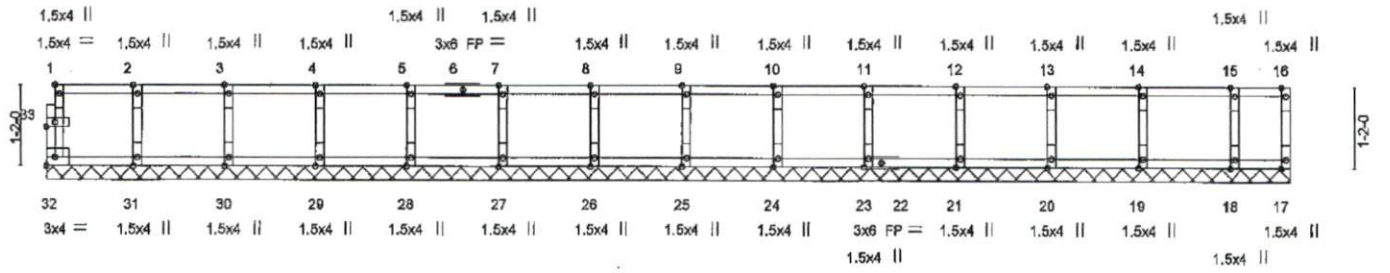

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [33:0-1-8,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(TL)	0.00	17	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-R							Weight: 75 lb	FT = 20%F, 11%E

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

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

REACTIONS. All bearings 18-1-12.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 32, 17, 31, 30, 29, 28, 27, 26, 25, 24, 23, 21, 20, 19, 18

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

NOTES-
1) Gable requires continuous bottom chord bearing.
2) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
3) Gable studs spaced at 1-4-0 oc.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

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Job	Truss	Truss Type	Qty	Ply	Burke Floor	
LGI_HOMES	F2	Floor	8	1	Job Reference (optional)	E12213213

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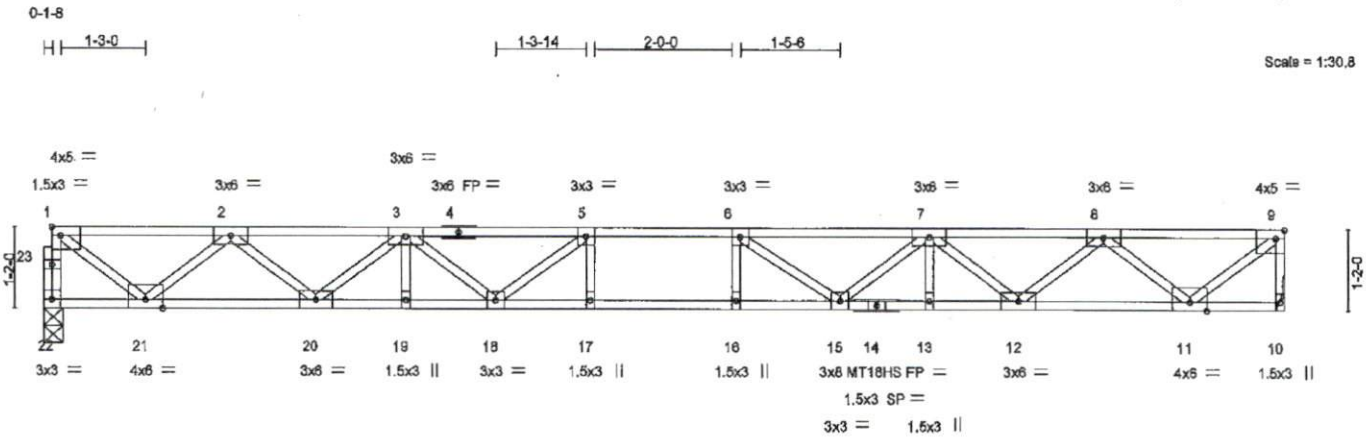

1-6-0	4-0-0	6-7-8	8-0-14	9-0-14	10-0-14	11-7-12	14-3-4	16-9-4	18-1-12
1-6-0	2-6-0	2-7-8	1-5-6	1-0-0	1-0-0	1-6-14	2-7-8	2-6-0	1-4-8

Plate Offsets (X,Y)-- [1:Edge,0-1-8],[9:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.87	Vert(LL)	-0.31	16-17	>694	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.98	Vert(TL)	-0.49	16-17	>443	240	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.67	Horz(TL)	0.08	10	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-SH							Weight: 91 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP DSS(flat) *Except*
10-14: 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 13-15,12-13.

REACTIONS. (lb/size) 22=981/0-3-8, 10=988/Mechanical

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-22=-976/0, 9-10=-981/0, 1-2=-1155/0, 2-3=-2851/0, 3-5=-3875/0, 5-6=-4228/0, 6-7=-3857/0, 7-8=-2821/0, 8-9=-1104/0
BOT CHORD 20-21=0/2174, 19-20=0/3537, 18-19=0/3537, 17-18=0/4228, 16-17=0/4228, 15-16=0/4228, 13-15=0/3515, 12-13=0/3515, 11-12=0/2132
WEBS 1-21=0/1400, 2-21=-1326/0, 2-20=0/880, 3-20=-876/0, 3-18=0/490, 5-18=-714/3, 9-11=0/1410, 8-11=-1338/0, 8-12=0/896, 7-12=-886/0, 7-15=0/488, 6-15=-718/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) The Fabrication Tolerance at joint 14 = 11%
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

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Job	Truss	Truss Type	Qty	Ply	Burke Floor	
LGI_HOMES	F3	Floor	5	1	Job Reference (optional)	E12213214

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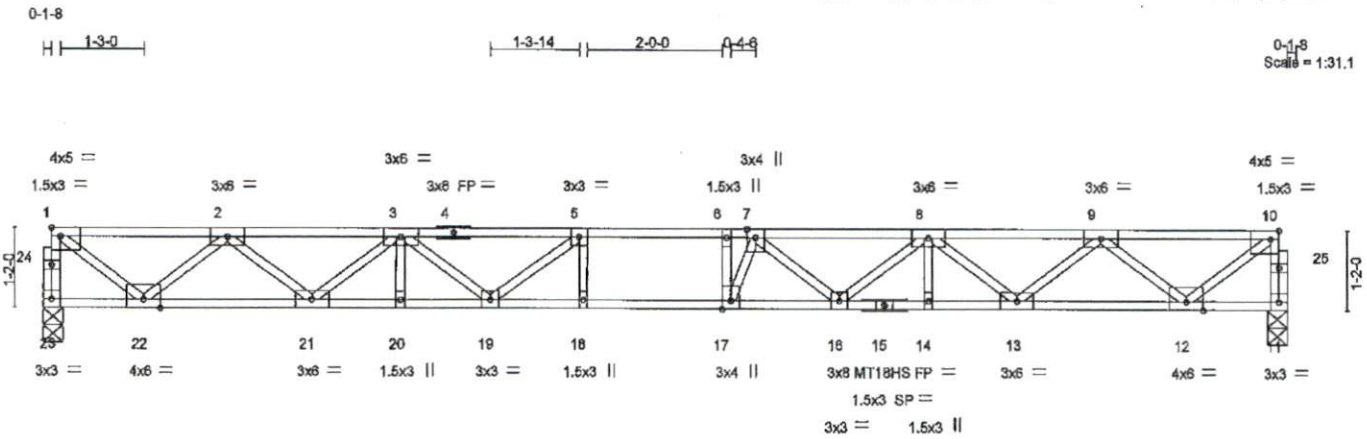


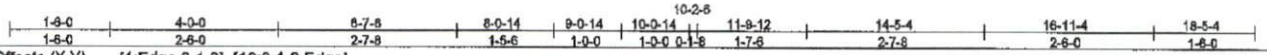


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [10:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	In	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.96	Vert(LL)	-0.35	17-18	>633	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	1.00	Vert(TL)	-0.54	17-18	>404	240	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.68	Horz(TL)	0.09	11	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-SH							Weight: 94 lb	FT = 20%F, 11%E

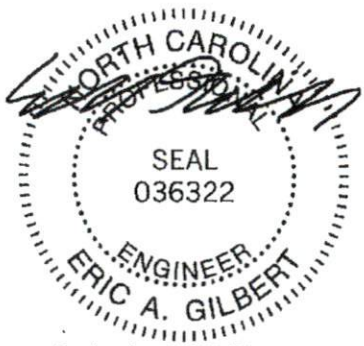
LUMBER-
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.1(flat) *Except* 11-15: 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 1-4-12 oc bracing.

REACTIONS. (lb/size) 23=994/0-3-8, 11=994/0-3-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-23=-989/0, 10-11=-989/0, 1-2=-1172/0, 2-3=-2898/0, 3-5=-3958/0, 5-6=-4323/0, 6-7=-4323/0, 7-8=-3961/0, 8-9=-2898/0, 9-10=-1173/0
BOT CHORD 21-22=0/2207, 20-21=0/3596, 19-20=0/3596, 18-19=0/4323, 17-18=0/4323, 16-17=0/4294, 14-16=0/3594, 13-14=0/3594, 12-13=0/2208
WEBS 6-17=-415/210, 1-22=0/1421, 2-22=-1347/0, 2-21=0/900, 3-21=-892/0, 3-19=0/530, 5-19=-699/0, 10-12=0/1421, 9-12=-1348/0, 9-13=0/898, 8-13=-889/0, 8-16=0/469, 7-16=-542/0, 7-17=-362/617

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) The Fabrication Tolerance at joint 15 = 11%
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



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Job	Truss	Truss Type	Qty	Ply	Burke Floor	
LGI_HOMES	F4E	Floor Supported Gable	1	1	Job Reference (optional)	E12213215

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0-1-8

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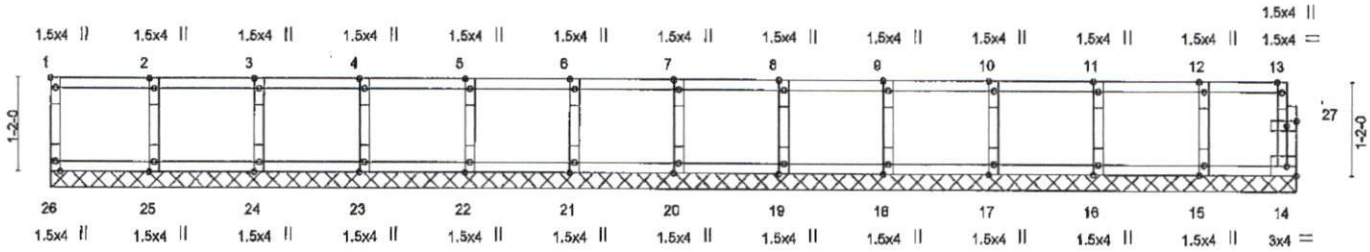

15-10-4
15-10-4

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [27:0-1-8,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	In	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(TL)	0.00	14	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-R							Weight: 66 lb	FT = 20%F, 11%E

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

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

REACTIONS. All bearings 15-10-4.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 26, 14, 25, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15

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

NOTES-
1) Gable requires continuous bottom chord bearing.
2) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
3) Gable studs spaced at 1-4-0 oc.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Burke Floor
LGI_HOMES	F5	Floor	2	1	E12213216

Job Reference (optional)

Probuild East, Albemarle , NC 28001 8.220 s May 24 2018 MiTek Industries, Inc. Tue Sep 18 09:26:36 2018 Page 1

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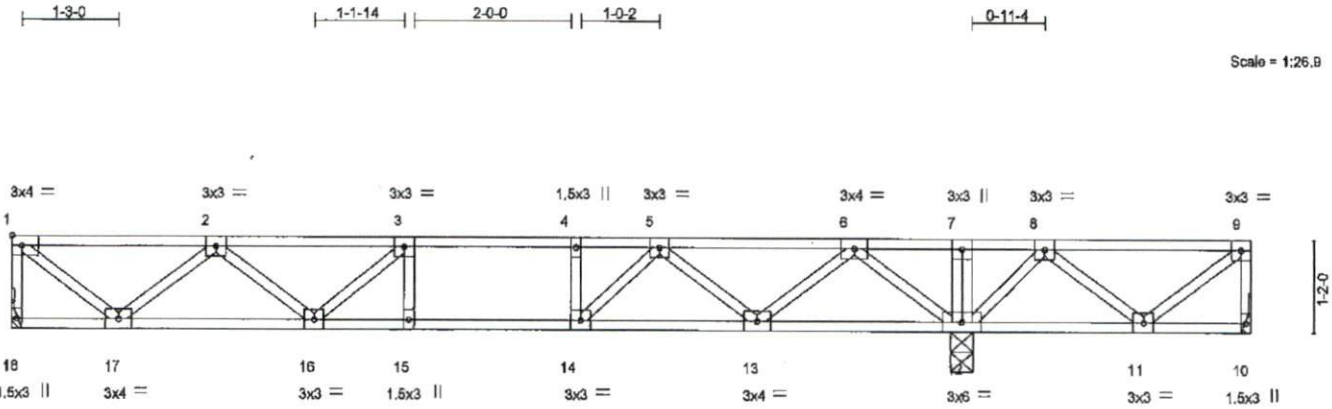

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.61	Vert(LL)	-0.10	15-16	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.80	Vert(TL)	-0.15	15-16	>980	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.37	Horz(TL)	0.02	12	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-SH							Weight: 80 lb	FT = 20%F, 11%E

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 12-13,11-12.

REACTIONS. (lb/size) 18=591/Mechanical, 10=-46/Mechanical, 12=1185/0-3-8
Max Uplift 10=-186(LC 2)
Max Grav 18=593(LC 2), 10=125(LC 3), 12=1185(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-18=-586/0, 1-2=-613/0, 2-3=-1374/0, 3-4=-1477/0, 4-5=-1477/0, 5-6=-606/0, 6-7=0/992, 7-8=0/992, 8-9=-20/266
BOT CHORD 16-17=0/1180, 15-16=0/1477, 14-15=0/1477, 13-14=0/1149, 11-12=-537/18
WEBS 4-14=-261/0, 1-17=0/783, 2-17=-738/0, 2-16=0/254, 6-12=-1127/0, 6-13=0/700, 5-13=-709/0, 5-14=0/536, 9-11=-340/25, 8-11=0/353, 8-12=-681/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 186 lb uplift at joint 10.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

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816 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Burke Floor
LGI_HOMES	F6	Floor	1	1	E12213217

Job Reference (optional)

Probuild East, Albemarle , NC 28001 — 8.220 s May 24 2018 MiTek Industries, Inc. Tue Sep 18 09:26:36 2018 Page 1

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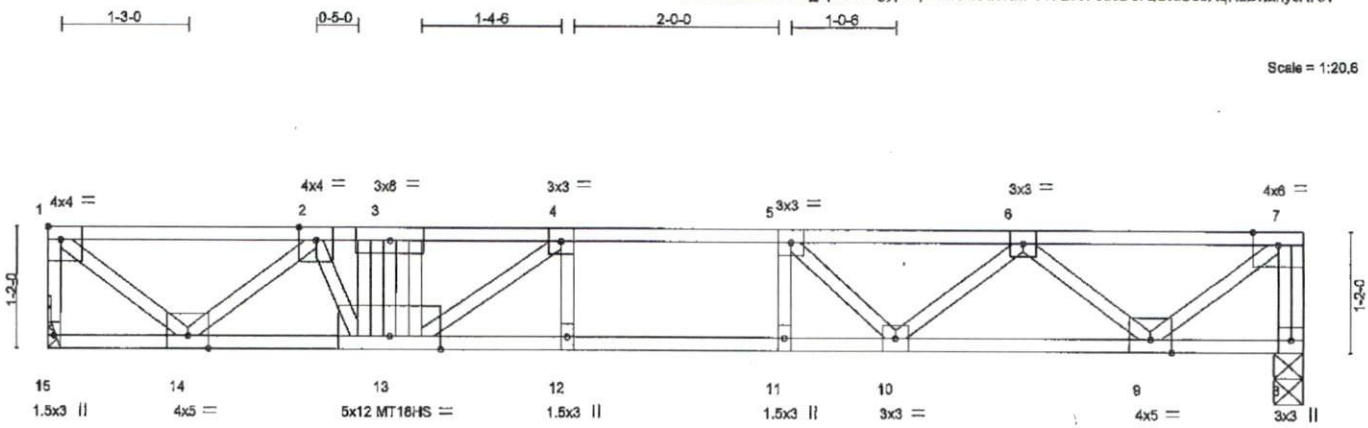


Plate Offsets (X,Y)— [1:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.72	Vert(LL)	-0.15	12-13	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.97	Vert(TL)	-0.21	12-13	>680	240	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.60	Horz(TL)	0.03	8	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-SH							Weight: 68 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.1(flat)
WEBS	2x4 SP No.3(flat)

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. (lb/size) 15=896/Mechanical, 8=752/0-3-8

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

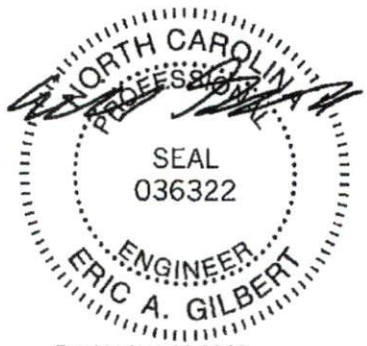
TOP CHORD	1-15=-886/0, 7-8=-749/0, 1-2=-983/0, 2-3=-2291/0, 3-4=-2283/0, 4-5=-2402/0, 5-6=-1989/0, 6-7=-843/0
BOT CHORD	13-14=0/1912, 12-13=0/2402, 11-12=0/2402, 10-11=0/2402, 9-10=0/1575
WEBS	3-13=-441/0, 7-9=0/1058, 6-9=-953/0, 6-10=0/572, 5-10=-698/0, 1-14=0/1255, 2-14=-1209/0, 2-13=0/649, 4-13=-509/145

NOTES-

1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Refer to girder(s) for truss to truss connections.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 315 lb down at 3-4-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
   Vert: 8-15=-10, 1-7=-100
   Concentrated Loads (lb)
   Vert: 3=-315(F)



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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Burke Floor
LGI_HOMES	F7	Floor	1	1	E12213218

Job Reference (optional)

Probuild East, Albemarle , NC 28001 — 8.220 s May 24 2018 MiTek Industries, Inc. Tue Sep 18 09:26:37 2018 Page 1

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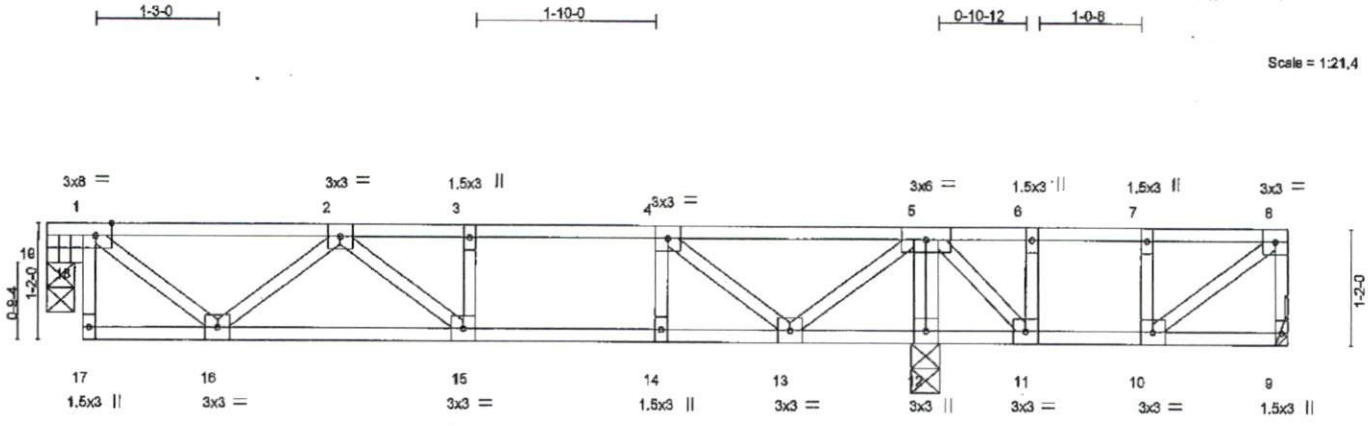

1-9-0 | 7-7-0 | 8-11-8 | 12-7-12

1-9-0 | 5-10-0 | 1-4-8 | 3-8-4

Plate Offsets (X,Y)-- [1:0-2-0,Edge], [19:0-0-12,0-1-10]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	In	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.85	Vert(LL)	-0.06	15-16	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.55	Vert(TL)	-0.10	15-16	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.27	Horz(TL)	0.01	9	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-SH							Weight: 65 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 6-0-0 oc bracing: 12-13,11-12.

REACTIONS. (lb/size) 9=193/Mechanical, 12=688/0-3-8, 19=455/0-3-8
Max Grav 9=235(LC 4), 12=688(LC 1), 19=458(LC 7)

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

TOP CHORD	1-2=-548/0, 2-3=-960/0, 3-4=-960/0, 4-5=-498/0
BOT CHORD	15-16=0/907, 14-15=0/960, 13-14=0/960
WEBS	5-12=-670/0, 1-16=0/545, 5-13=0/574, 2-16=-467/0, 4-13=-611/0, 8-10=0/293, 5-11=0/258, 1-19=-643/0

NOTES-

1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) Bearing at joint(s) 19 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

September 18,2018

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

Job	Truss	Truss Type	Qty	Ply	Burke Floor	
LGI_HOMES	F8	Floor	1	1	Job Reference (optional)	E12213219

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ID:r?hMoJZbxPenl_bpb7z5FgypDqB-j6OKva4al02FVHyYMHwalUxvn6V7UAa7kug11fycRRV

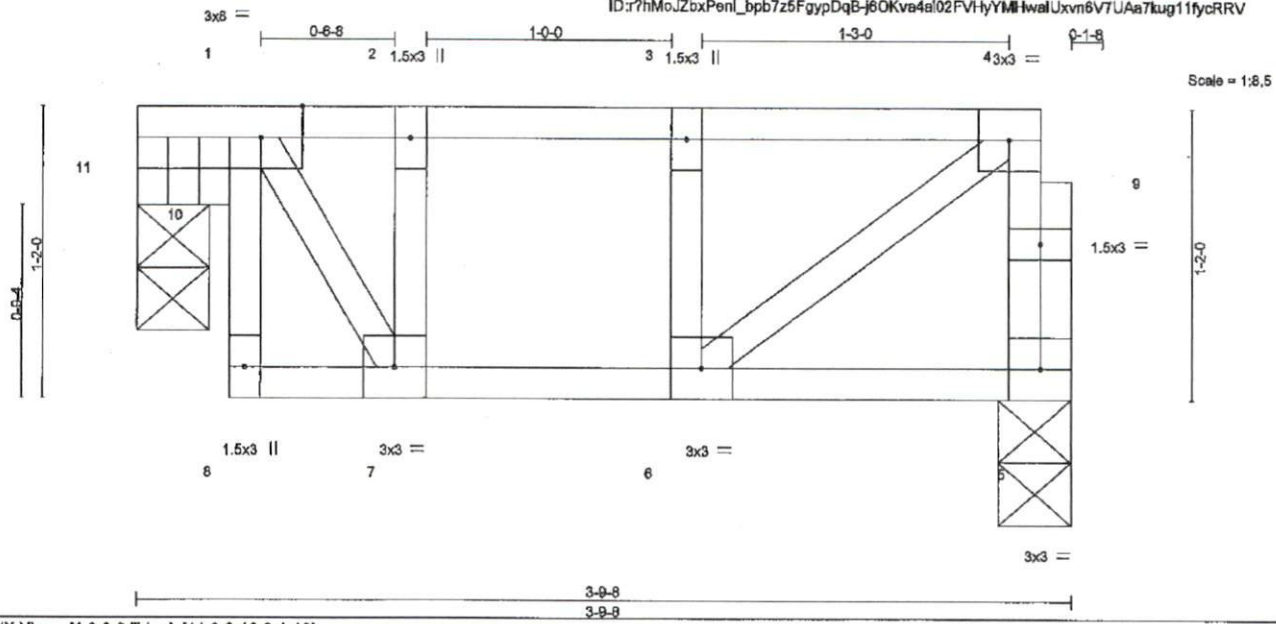

Plate Offsets (X,Y)-- [1:0-2-0,Edge], [11:0-0-12,0-1-10]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	In	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.13	Vert(LL)	-0.01	6	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.13	Vert(TL)	-0.01	6	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(TL)	0.00	5	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-P							Weight: 22 lb	FT = 20%F, 11%E

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 5=182/0-3-8, 11=167/0-3-8

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

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) CAUTION, Do not erect truss backwards.

September 18,2018

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

Job	Truss	Truss Type	Qty	Ply	Burke Floor
LGI_HOMES	F9	Floor	3	1	E12213220

Job Reference (optional)

Probuild East, Albemarle , NC 28001 — 8.220 s May 24 2018 MiTek Industries, Inc. Tue Sep 18 09:26:38 2018 Page 1

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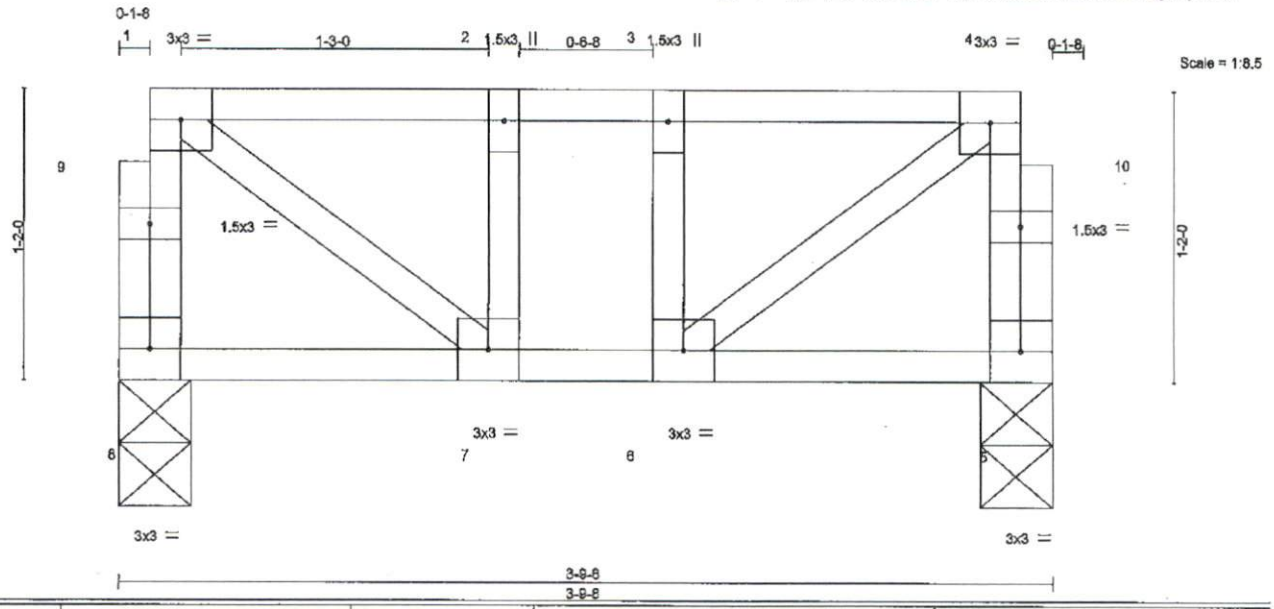

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.12	Vert(LL)	-0.00	7	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.08	Vert(TL)	-0.00	7	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(TL)	0.00	5	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-SH							Weight: 23 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-9-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 8=189/0-3-8, 5=189/0-3-8

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

NOTES-

1) Unbalanced floor live loads have been considered for this design.
2) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

September 18,2018

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

Job	Truss	Truss Type	Qty	Ply	Burke Floor
LGI_HOMES	F10	Floor	2	1	E12213221

Job Reference (optional)

Probuild East, Albemarle , NC 28001 8.220 s May 24 2018 MiTek Industries, Inc. Tue Sep 18 09:26:29 2018 Page 1

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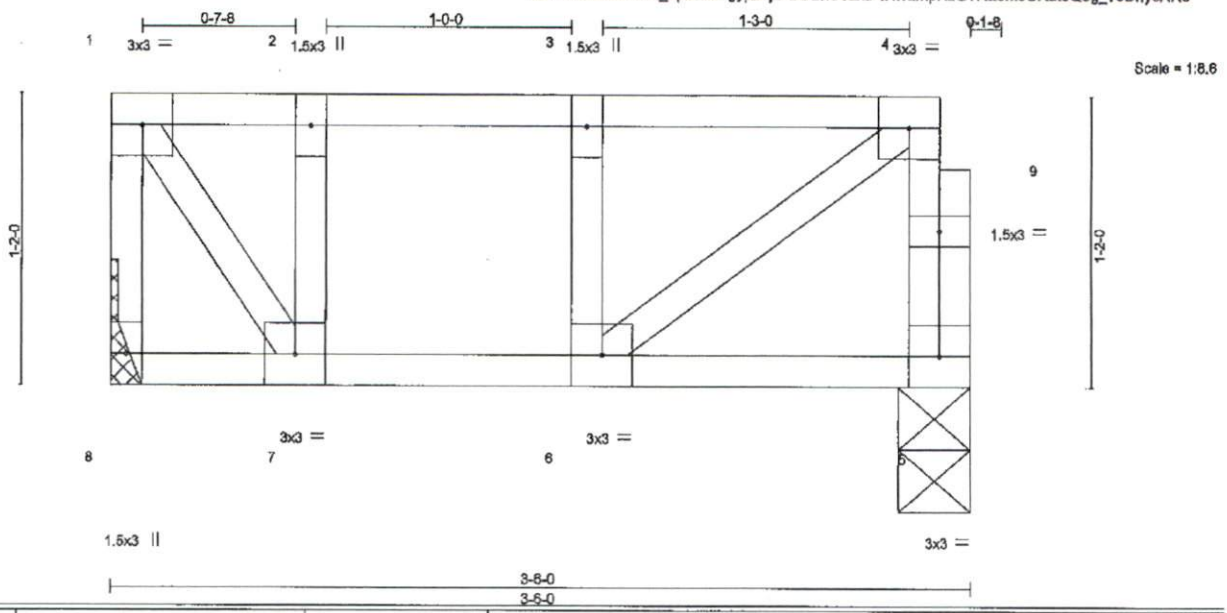

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.13	Vert(LL)	-0.01	6	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.14	Vert(TL)	-0.01	6	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(TL)	0.00	5	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-SH							Weight: 21 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-6-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 8=182/Mechanical, 5=176/0-3-8

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

NOTES-

1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) CAUTION, Do not erect truss backwards.

September 18,2018

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

Job	Truss	Truss Type	Qty	Ply	Burke Floor	
LGI_HOMES	F11	Floor	4	1	Job Reference (optional)	E12213222

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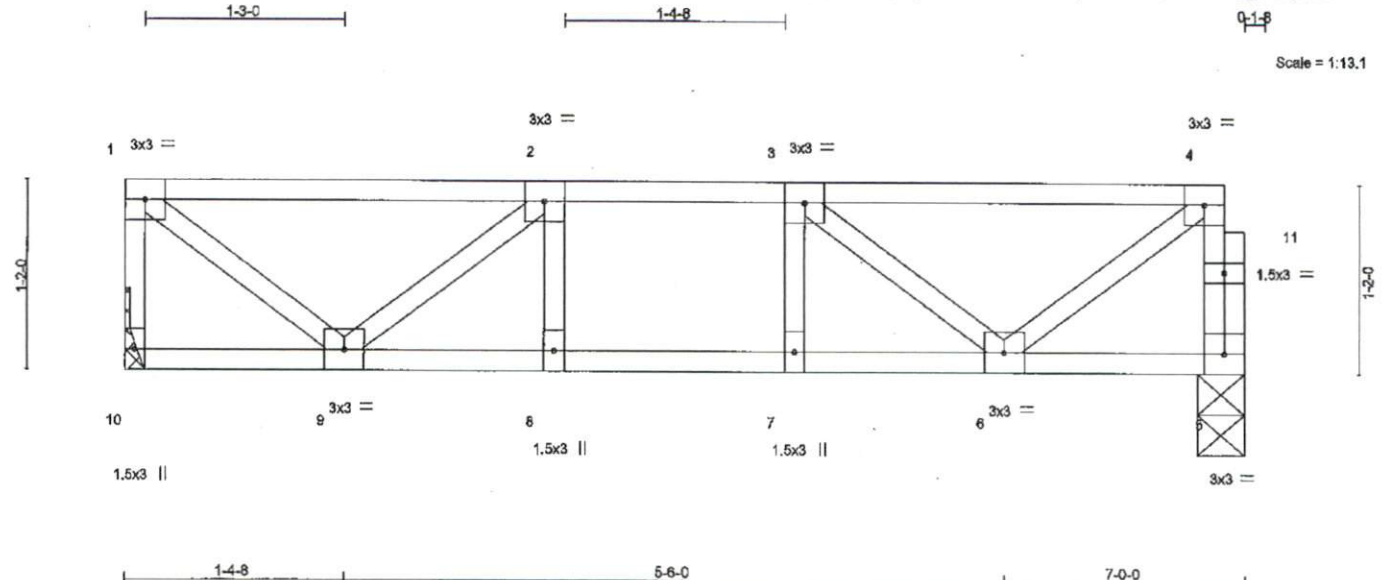

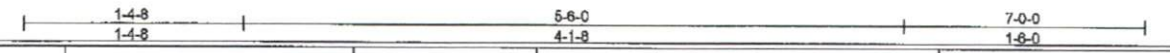

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	In	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.46	Vert(LL)	-0.03	6-7	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.36	Vert(TL)	-0.03	7	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.20	Horz(TL)	0.00	5	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-SH							Weight: 36 lb	FT = 20%F, 11%E

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

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. (lb/size) 10=375/Mechanical, 5=368/0-3-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-10=-368/0, 4-5=-363/0, 1-2=-324/0, 2-3=-632/0, 3-4=-338/0
BOT CHORD 8-9=0/632, 7-8=0/632, 6-7=0/632
WEBS 4-6=0/404, 1-9=0/414, 3-6=-376/0, 2-9=-393/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) CAUTION, Do not erect truss backwards.

September 18,2018

Job	Truss	Truss Type	Qty	Ply	Burke Floor	
LGI_HOMES	F12E	Floor Supported Gable	1	1	Job Reference (optional)	E12213223

Probuild East, Albemarle , NC 28001 Run: 8.210 s Jan 6 2018 Print: 8.220 s Sep 9 2018 MiTek Industries, Inc. Tue Sep 18 11:12:11 2018 Page 1

ID:r?hMoJZbxPenl_bpb7z5FgypDqB-TWbuV1_e7?Jgx46AwBl_G3dzhol4KERPBbD8SlycQmo

0-1-8

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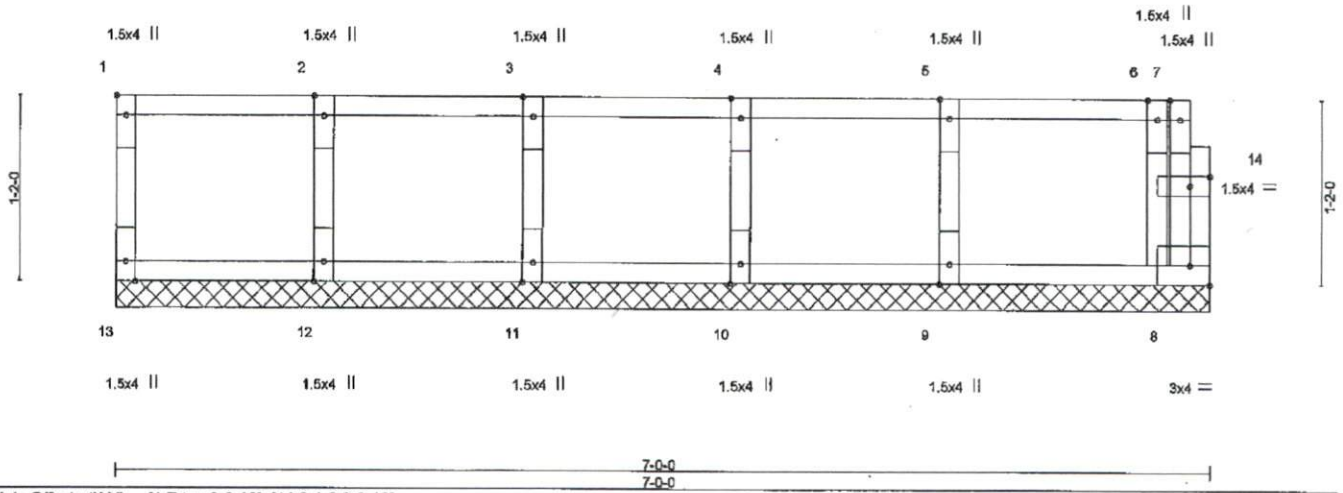


Plate Offsets (X,Y)-- [1:Edge,0-0-12], [14:0-1-8,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(TL)	0.00	8	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-R							Weight: 31 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.2(flat)
BOT CHORD	2x4 SP No.2(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

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. (lb/size) 13=69/7-0-0, 8=78/7-0-0, 12=143/7-0-0, 11=149/7-0-0, 10=143/7-0-0, 9=161/7-0-0

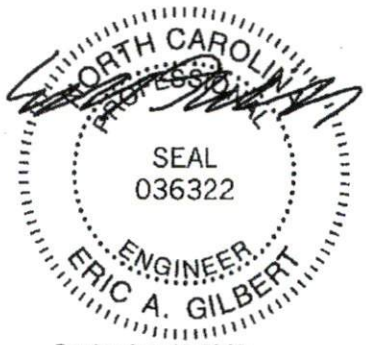
FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-13=-59/0, 8-14=0/19, 7-14=0/19, 1-2=-14/0, 2-3=-14/0, 3-4=-14/0, 4-5=-14/0, 5-6=-14/0, 6-7=-2/0
BOT CHORD	12-13=0/14, 11-12=0/14, 10-11=0/14, 9-10=0/14, 8-9=0/14
WEBS	2-12=-134/0, 3-11=-134/0, 4-10=-131/0, 5-9=-143/0, 6-8=-93/0

NOTES-

1) Gable requires continuous bottom chord bearing.
2) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
3) Gable studs spaced at 1-4-0 oc.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



September 18,2018

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

Job	Truss	Truss Type	Qty	Ply	Burke Floor	
LGI_HOMES	F13E	Floor Supported Gable	1	1	Job Reference (optional)	E12213224

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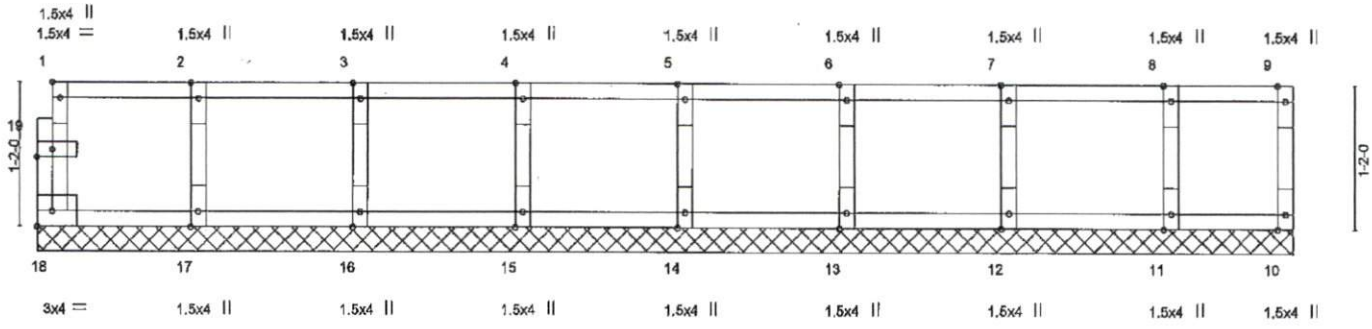


10-4-0
10-4-0

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [19:0-1-8,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(TL)	0.00	10	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-R							Weight: 44 lb	FT = 20%F, 11%E

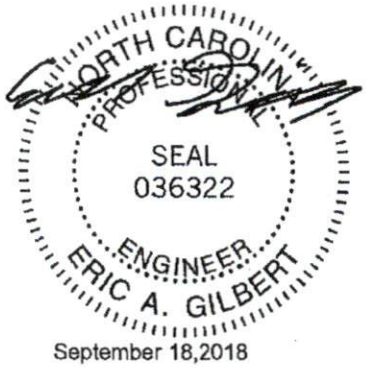
LUMBER-
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.2(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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

REACTIONS. All bearings 10-4-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 18, 10, 17, 16, 15, 14, 13, 12, 11

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

NOTES-
1) Gable requires continuous bottom chord bearing.
2) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
3) Gable studs spaced at 1-4-0 oc.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.



September 18,2018

Job	Truss	Truss Type	Qty	Ply	Burke Floor	
LGI_HOMES	F14	Floor	1	1	Job Reference (optional)	E12213225

Probuild East, Albemarle , NC 28001 — 8.220 s May 24 2018 MiTek Industries, Inc. Tue Sep 18 09:26:31 2018 Page 1
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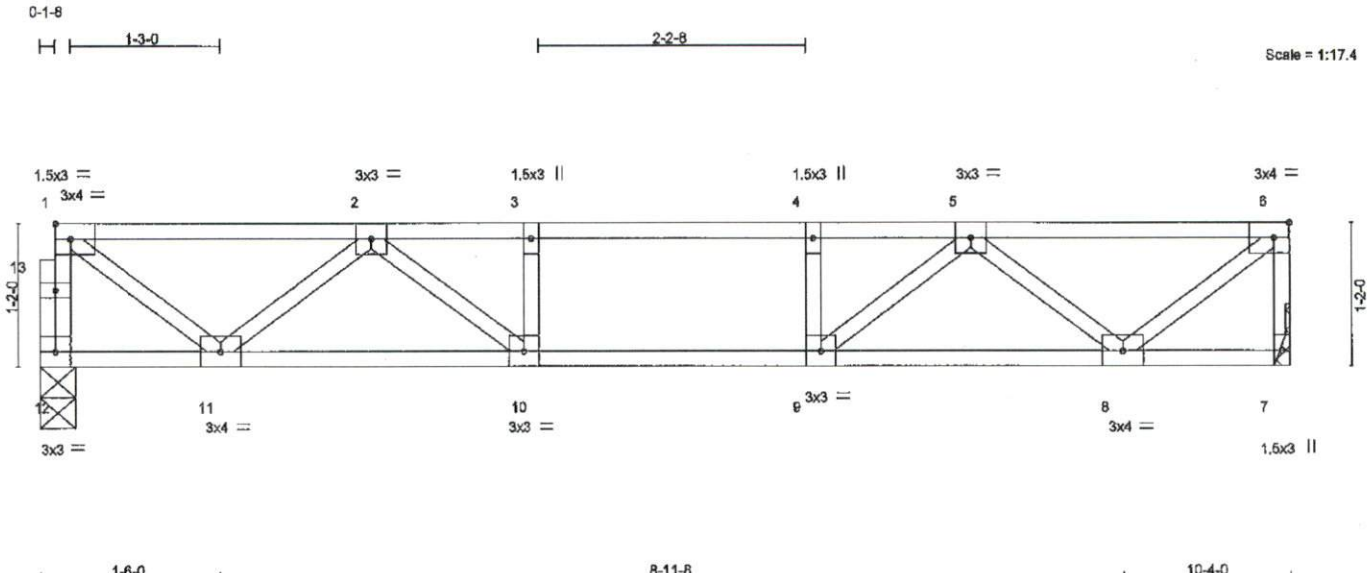

Plate Offsets (X,Y)-- [6:0-1-8 Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.43	Vert(LL)	-0.07	10-11	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.48	Vert(TL)	-0.09	10-11	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.34	Horz(TL)	0.02	7	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-SH							Weight: 51 lb	FT = 20%F, 11%E

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

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. (lb/size) 12=552/0-3-8, 7=558/Mechanical

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-12=-548/0, 6-7=-553/0, 1-2=-567/0, 2-3=-1314/0, 3-4=-1314/0, 4-5=-1314/0, 5-6=-561/0
BOT CHORD 10-11=0/1087, 9-10=0/1314, 8-9=0/1071
WEBS 6-8=0/716, 1-11=0/707, 5-8=-664/0, 2-11=-651/0, 5-9=0/463, 2-10=0/449

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) CAUTION, Do not erect truss backwards.

September 18,2018

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

Job	Truss	Truss Type	Qty	Ply	Burke Floor	E12213226
LGI_HOMES	F15	Floor	9	1	Job Reference (optional)	

Probuild East, Albemarle , NC 28001 — 8.220 s May 24 2018 MiTek Industries, Inc. Tue Sep 18 09:26:32 2018 Page 1
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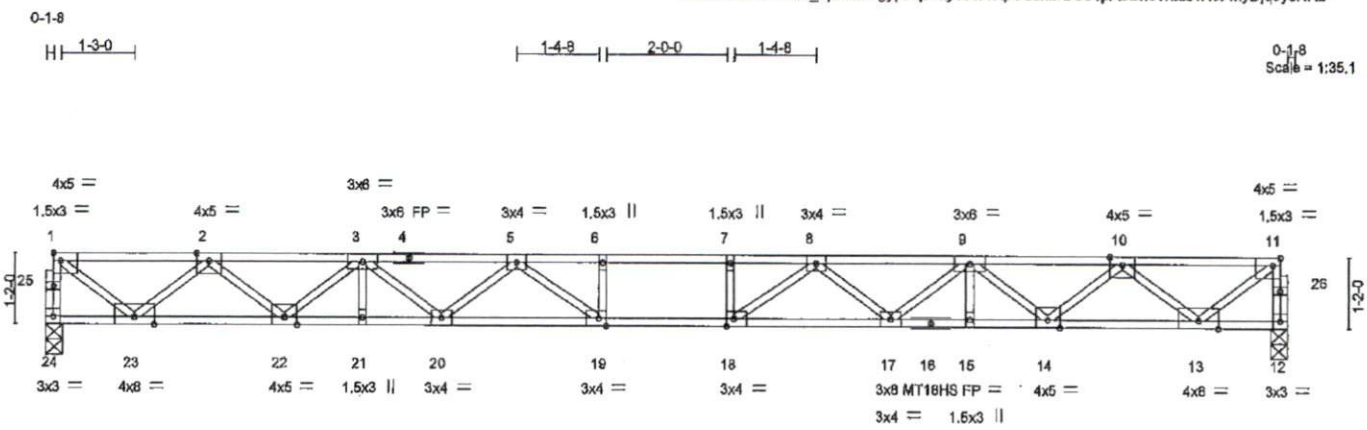

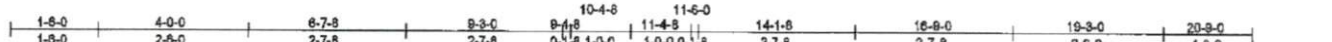

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [11:0-1-8,Edge], [18:0-1-8,Edge], [19:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.48	Vert(LL)	-0.43	18-19	>568	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.59	Vert(TL)	-0.68	18-19	>364	240	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.77	Horz(TL)	0.10	12	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-SH							Weight: 104 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP DSS(flat)
BOT CHORD 2x4 SP DSS(flat)
WEBS 2x4 SP No.3(flat)

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. (lb/size) 24=1121/0-3-8, 12=1121/0-3-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-24=-1116/0, 11-12=-1116/0, 1-2=-1339/0, 2-3=-3369/0, 3-5=-4752/0, 5-6=-5491/0, 6-7=-5491/0, 7-8=-5491/0, 8-9=-4752/0, 9-10=-3369/0, 10-11=-1339/0
BOT CHORD 22-23=0/2526, 21-22=0/4224, 20-21=0/4224, 19-20=0/5225, 18-19=0/5491, 17-18=0/5225, 15-17=0/4224, 14-15=0/4224, 13-14=0/2526
WEBS 6-19=-313/8, 7-18=-313/8, 1-23=0/1624, 2-23=-1545/0, 2-22=0/1098, 3-22=-1091/0, 3-20=0/675, 5-20=-615/0, 5-19=-156/754, 11-13=0/1624, 10-13=-1545/0, 10-14=0/1098, 9-14=-1091/0, 9-17=0/675, 8-17=-615/0, 8-18=-156/754

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

September 18,2018

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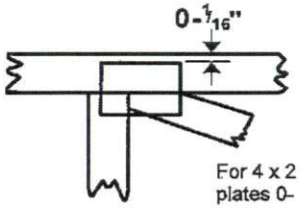
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION

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



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

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

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

PLATE SIZE

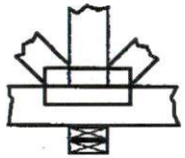
4 x 4

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

LATERAL BRACING LOCATION

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

BEARING

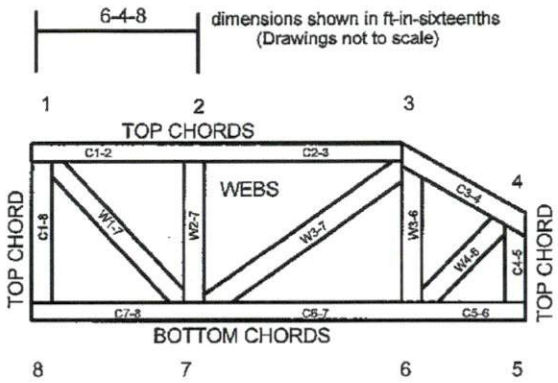


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

MiTek

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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 T or 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.

ROOF TRUSS NOTES:

DO NOT CUT, DRILL, NOTCH, OR OTHERWISE DAMAGE TRUSSES. Contact your BFS Representative for assistance PRIOR TO modifying any truss.

Espanol - (NO CORTE, PERFORE, HAGA MUESCAS O DAÑE DE CUALQUIER OTRA MANERA LAS TRUSSES (CERCHAS DE MADERA). Contacte a su representante de BFS para asistencia ANTES de realizar cualquier modificación.)

1. This Truss Placement Diagram is intended to serve as a guide for truss installation. This Diagram has been prepared by a Truss Technician and is not an engineered drawing.
2. The responsibilities of the Owner, Building Designer, Contractor, Truss Designer, and Truss Manufacturer shall be as defined by the TPI 1 National Standard.
3. The wood components shown on this diagram are to be used in dry service (moisture content<19%) and non-toxic environmental applications. The metal plates and hangers are galvanized to the G60 Standard unless noted otherwise.
4. Refer to the Truss Design Drawings for specific information about each individual truss design.
5. The Truss Technician shall provide Truss-to-Truss Connection Requirements. Any special or other connection shall be the responsibility of the Building Designer.
6. The Truss Placement Diagram and Truss Design Drawings are the property of Builders FirstSource and may not be reused or reproduced in part or in total under any circumstances without prior written authorization.
7. In some cases, field framing may be required to achieve the final appearance shown on the Construction Documents.
8. Field framing, including valley rafters, installed over roof trusses shall have a base brace from the rafter to the truss top chord at intervals of 48" on center (O.C.) or less. Stagger knee braces from adjacent rafters such that the load is distributed uniformly over multiple truss locations and not concentrated at one location or along one truss.
9. Truss Top Chords shall be fully sheathed or have lateral bracing (purlins) spaced at 24" O.C. or less. Truss Bottom Chord Bracing shall not exceed the maximum shown on the Truss Design Drawing. Field based bottom chord floor or ceiling attachments shall be spaced at 24" O.C. or less. Proper Bracing prevents buckling of individual truss members due to design loads.
10. This Placement Diagram is based upon the supporting structure being structurally adequate, dimensionally correct, square, plumb, and level to adequately support the trusses. The foundation design, structural member sizing, load transfer, bearing conditions, and the structure's compliance with the applicable building code are the responsibility of the Owner, Building Designer, and Contractor.
11. If Piggyback Trusses are included in this project, refer to the latest Piggyback Connection Detail applicable for the project details and wind load category.
12. The Contractor shall follow the SBCA TTB Partition Separation Prevention and Solutions for truss [illegible] to non-load bearing walls and carefully complete these details to avoid gypsum wall board related issues.

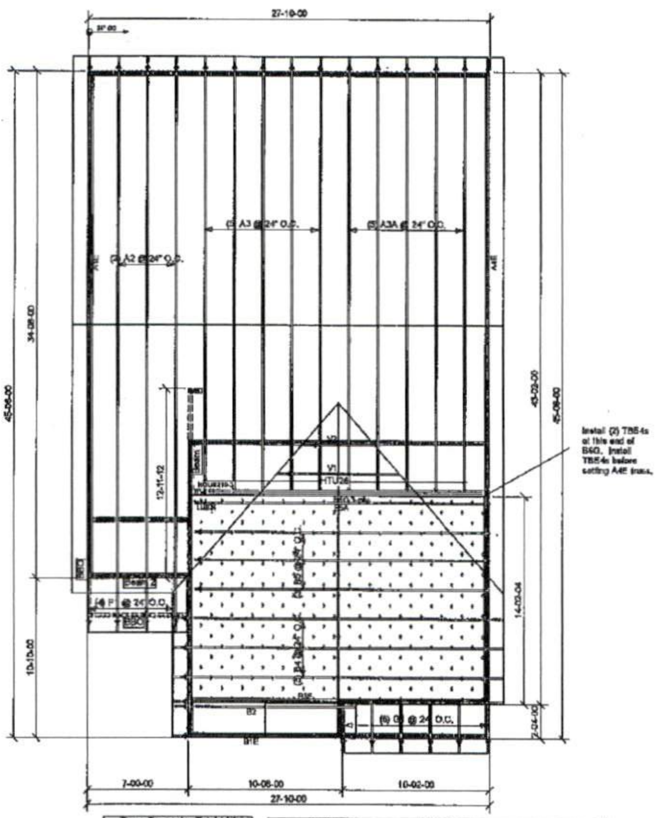
WARNING:

TRUSSES MUST BE BRACED DURING INSTALLATION. FAILURE TO DO SO MAY RESULT IN INJURY OR DEATH.

Espanol - (TRUSSES (CERCHAS) DEBERAN TENER UN SOPORTE DURANTE LA INSTALACION. NO HACERLO PODRIA RESULTAR EN LESIONES O MUERTE.)

1. Trusses shall be installed in a safe manner meeting all code, local, OSHA, TPI, and BCSI Specifications. Failure to follow these specifications may result in injury or death.
2. Buildings under construction are vulnerable to high winds and present a possible safety hazard. The Contractor is responsible for recognizing adverse weather conditions and shall take appropriate action to prevent injury or death.
3. BCSI INSTRUCTIONS SHALL BE FOLLOWED:
BCSI-B1 = Safe Truss Handling and Installation
BCSI-B2 = Installation and Temporary Restraint
BCSI-B3 = Permanent Restraint
BCSI-B4 = Safe Construction Loading
BCSI-B5 = Truss Damage and Modification Guidelines
BCSI-B7 = Floor Truss Installation
BCSI-B8 = Toe-Nailed Connections
BCSI-B9 = Multi-Ply Girders
BCSI-B10 = Post Frame Truss Installation
BCSI-B11 = Fall Protection
4. Follow TPI Requirements for Long Span Trusses (>60').

TOTAL ROOF AREA
1577.24 SQ FT



Truss Connector Total List		
Manuf	Product	Qty
Simpson	HGUS210-3	1
Simpson	TBE4	2
Simpson	HTU26	10
Simpson	LUS24	1

Products			
PlotID	Length	Product	Plies
Beam 1	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2

Hatch Legend: Slope Ceiling

Until this building is completely erected in accordance with plans, the trusses may be unstable and present a safety hazard. Truss instability may increase with building width, height, and length. Buildings under construction are vulnerable to high winds and present a possible safety hazard. It is the responsibility of the contractor and framer to recognize adverse weather conditions and take prompt and appropriate action to protect life and prevent injury. Prior to setting trusses, refer to Building Component Safety Information (BCSI) document produced by SBCA and TPI. Follow BCSI Specifications for Erection and Bracing.

No Scale	
Customer Name: LGI Homes	
Subdivision:	
Lot#:	Plan Name: Burke
File Name	Roof

Builders FirstSource
Albemarle, NC

Revisions:

Drawn By: JEFF BURRIS

DATE: 12/3/2018

Page Number: 1 of 1

ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: LGI_Homes
Burke Roof

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource (Albermarle,NC).

Pages or sheets covered by this seal: E11374086 thru E11374101

My license renewal date for the state of North Carolina is December 31, 2018.

North Carolina COA: C-0844

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

January 18,2018

Strzyzewski, Marvin

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

Job	Truss	Truss Type	Qty	Ply	Burke Roof	E11374086
LGI_HOMES	A1E	Common Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource, Albemarle , NC 28001 — 7.640 s Aug 16 2017 MiTek Industries, Inc. Thu Jan 18 09:50:37 2018 Page 1

ID:r?hMoJZbxPenI_bpb7z5FgypDqB-Hzz6uYZHfpJQYXas2f9rHMFj?g2Z29ZaZoOlznzuAL0

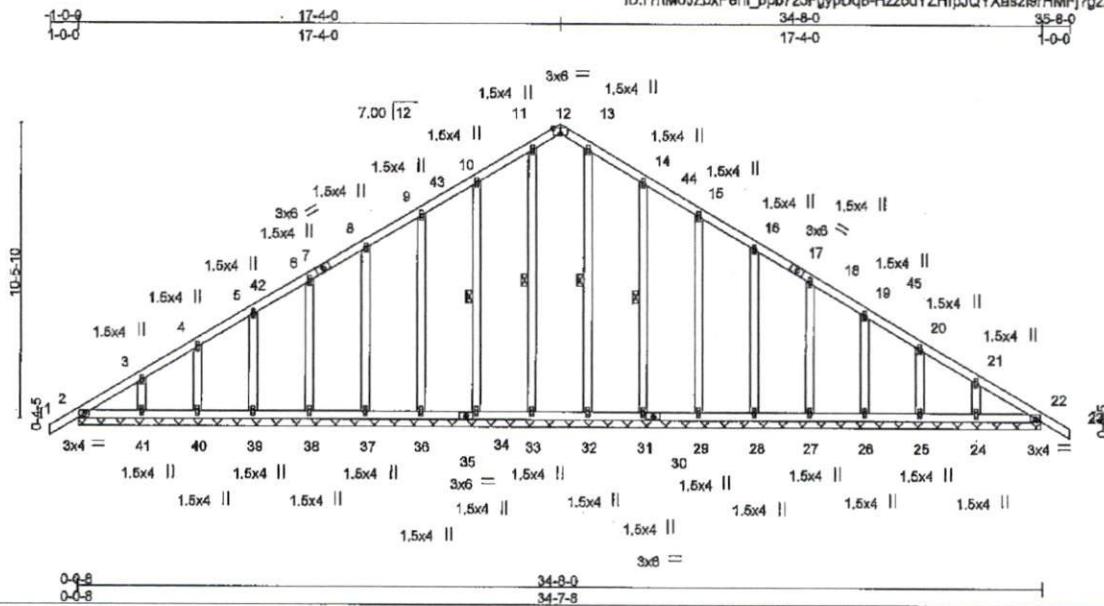


Plate Offsets (X,Y)-- [12:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.00	23	n/r	120	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	-0.00	23	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(TL)	0.01	22	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 240 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 11-33, 10-34, 13-32, 14-31

REACTIONS. (lb/size) 2=162/34-7-0, 33=149/34-7-0, 34=162/34-7-0, 36=160/34-7-0, 37=160/34-7-0, 38=160/34-7-0, 39=161/34-7-0, 40=154/34-7-0, 41=179/34-7-0, 32=149/34-7-0, 31=162/34-7-0, 29=160/34-7-0, 28=160/34-7-0, 27=160/34-7-0, 26=161/34-7-0, 25=154/34-7-0, 24=179/34-7-0, 22=162/34-7-0
Max Horz 2=-294(LC 8)
Max Uplift 2=-56(LC 8), 34=-45(LC 11), 36=-20(LC 10), 37=-24(LC 11), 38=-23(LC 10), 39=-46(LC 10), 40=-58(LC 10), 41=-51(LC 10), 31=-45(LC 11), 29=-20(LC 10), 28=-24(LC 10), 27=-23(LC 11), 26=-46(LC 11), 25=-58(LC 11), 24=-50(LC 11), 22=-8(LC 9)
Max Grav 2=162(LC 1), 33=180(LC 3), 34=199(LC 3), 36=160(LC 1), 37=160(LC 15), 38=160(LC 1), 39=161(LC 15), 40=154(LC 15), 41=179(LC 15), 32=180(LC 4), 31=199(LC 4), 29=160(LC 1), 28=160(LC 16), 27=160(LC 1), 26=161(LC 16), 25=154(LC 16), 24=179(LC 16), 22=162(LC 1)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/28, 2-3=-267/157, 3-4=-226/147, 4-5=-192/144, 5-42=-158/128, 6-42=-152/139, 6-7=-123/124, 7-8=-117/135, 8-9=-89/130, 9-43=-55/119, 10-43=-44/129, 10-11=-60/190, 11-12=-50/166, 12-13=-50/166, 13-14=-60/190, 14-44=-20/129, 15-44=-50/118, 15-16=-50/82, 16-17=-26/44, 17-18=-50/33, 18-45=-61/48, 19-45=-67/37, 19-20=-101/53, 20-21=-135/56, 21-22=-183/65, 22-23=0/28
BOT CHORD 2-41=-42/203, 40-41=-42/203, 39-40=-42/203, 38-39=-42/203, 37-38=-42/203, 36-37=-42/203, 35-36=-42/203, 34-35=-42/203, 33-34=-42/203, 32-33=-42/203, 31-32=-42/203, 30-31=-42/203, 29-30=-42/203, 28-29=-42/203, 27-28=-42/203, 26-27=-42/203, 25-26=-42/203, 24-25=-42/203, 22-24=-42/203
WEBS 11-33=-140/23, 10-34=-159/99, 9-36=-120/69, 8-37=-120/73, 6-38=-120/72, 5-39=-121/73, 4-40=-117/79, 3-41=-132/82, 13-32=-140/0, 14-31=-159/99, 15-29=-120/69, 16-28=-120/73, 18-27=-120/72, 19-26=-121/73, 20-25=-117/79, 21-24=-132/82

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) gable end zone and C-C Corner(3) -1-0-0 to 2-4-0, Exterior(2) 2-4-0 to 17-4-0, Corner(3) 17-4-0 to 20-9-10 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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.

NORTH CAROLINA PROFESSIONAL SEAL 16673 ENGINEER MARVIN A. STRZYZEWSKI

January 18,2018

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

NOTES-

9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 34, 36, 37, 38, 39, 40, 41, 31, 29, 28, 27, 26, 25, 24, and 22. This connection is for uplift only and does not consider lateral forces.

11) Non Standard bearing condition. Review required.

12) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.

Job	Truss	Truss Type	Qty	Ply	Burke Roof	E11374087
LGI_HOMES	A2	Common	3	1	Job Reference (optional)	

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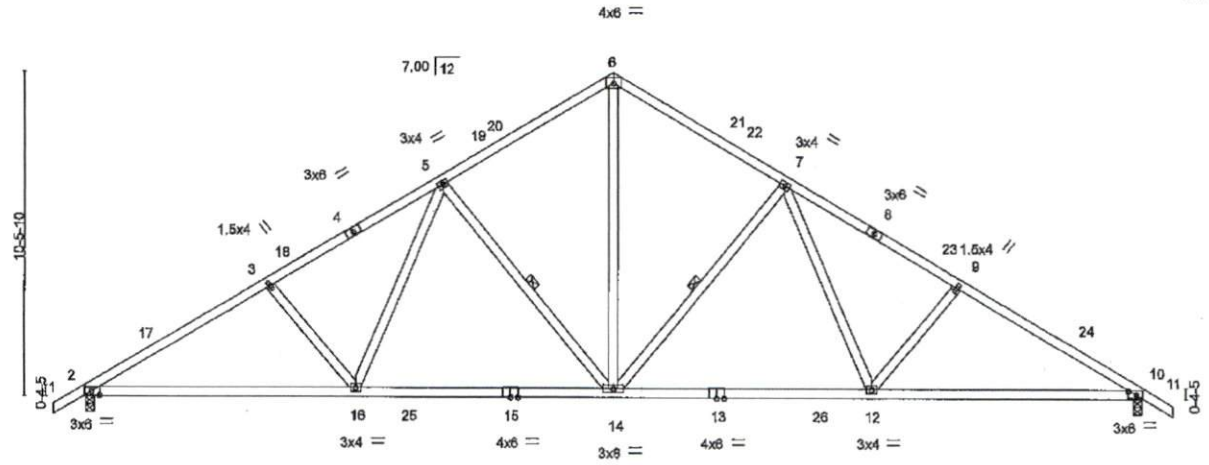
ID:r7hMoJZbxPenL_bpb7z5FgypDqB-EM5IJDaXBQZ8nrkFA7BJMnLw6UVZWylt06ts1fzuAL_

-1-0-0	6-1-1	11-8-8	17-4-0	22-11-8	28-6-15	34-8-0	35-8-0
1-0-0	6-1-1	5-7-8	5-7-8	5-7-8	5-7-8	6-1-1	1-0-0

Scale = 1:68.9



0-0-8	8-10-13	17-4-0	25-9-3	34-7-8	34-8-0
0-0-8	8-10-5	8-5-3	8-5-3	8-10-5	0-0-8

Plate Offsets (X,Y)-- [2:0-3-3,0-1-8], [10:0-3-3,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.26	14-16	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.97	Vert(TL)	-0.49	14-16	>842	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.53	Horz(TL)	0.13	10	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 189 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-11-7 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	1 Row at midpt 7-14, 5-14

REACTIONS. (lb/size) 2=1580/0-3-8, 10=1580/0-3-8
Max Horz 2=294(LC 9)
Max Uplift 2=-160(LC 10), 10=-160(LC 11)

FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/29, 2-17=-2580/202, 3-17=-2500/235, 3-18=-2356/218, 4-18=-2271/231, 4-5=-2200/249, 5-19=-1661/228, 19-20=-1596/238, 6-20=-1570/259, 6-21=-1570/259, 21-22=-1596/238, 7-22=-1661/228, 7-8=-2200/249, 8-23=-2271/231, 9-23=-2356/218, 9-24=-2500/235, 10-24=-2580/202, 10-11=0/29
BOT CHORD	2-16=-108/2139, 16-25=-19/1758, 15-25=-19/1758, 14-15=-19/1758, 13-14=-26/1758, 13-26=-26/1758, 12-26=-26/1758, 10-12=-111/2139
WEBS	6-14=-135/1269, 7-14=-644/157, 7-12=-30/536, 9-12=-287/169, 5-14=-644/157, 5-16=-30/536, 3-16=-287/168

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) -1-0-0 to 2-5-10, Interior(1) 2-5-10 to 17-4-0, Exterior(2) 17-4-0 to 20-9-10 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.
9) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.

January 18,2018

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Burke Roof	E11374088
LGI_HOMES	A3	Common	5	1	Job Reference (optional)	

Builders FirstSource, Albemarle , NC 28001 — 7.640 s Aug 16 2017 MiTek Industries, Inc. Thu Jan 18 09:50:39 2018 Page 1
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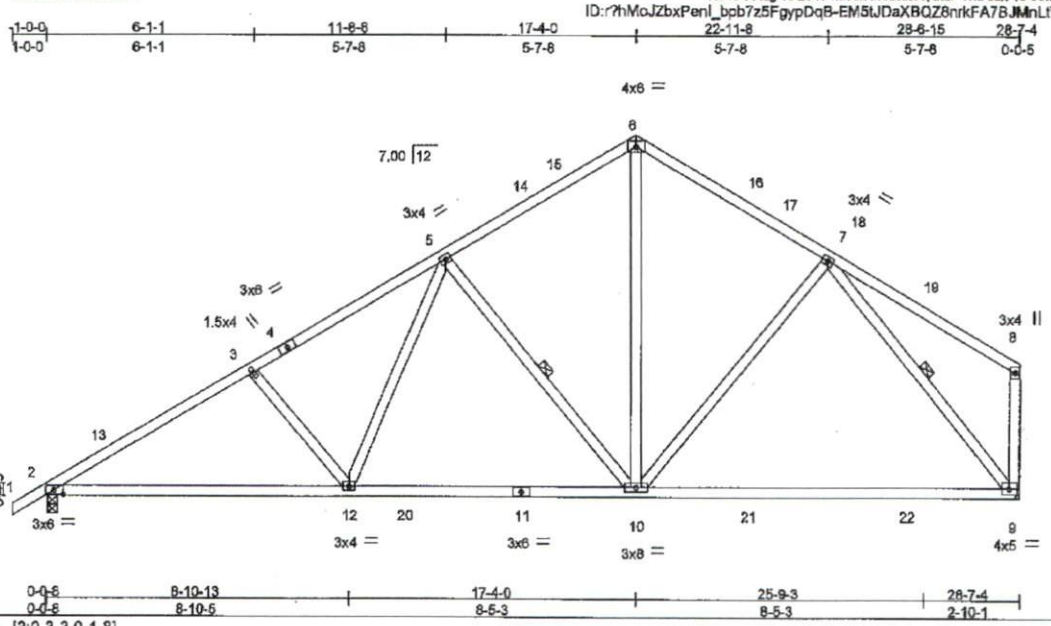

0-0-8	8-10-13	17-4-0	25-9-3	28-7-4
0-0-8	8-10-5	8-5-3	8-5-3	2-10-1

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	In	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.41	9-10	>828	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.78	Vert(TL)	-0.90	9-10	>379	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.53	Horz(TL)	0.06	9	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 169 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except*
9-11: 2x4 SP DSS
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-5-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-10, 7-9

REACTIONS. (lb/size) 2=1317/0-3-8, 9=1340/Mechanical
Max Horz 2=290(LC 9)
Max Uplift 2=-136(LC 10), 9=-95(LC 11)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/29, 2-13=-2046/150, 3-13=-1987/183, 3-4=-1838/166, 4-5=-1683/197, 5-14=-1169/180, 14-15=-1078/183, 6-15=-1077/198, 6-16=-1077/204, 16-17=-1091/185, 17-18=-1160/173, 7-18=-1171/170, 7-19=-68/75, 8-19=-155/57, 8-9=-186/91
BOT CHORD 2-12=-193/1700, 12-20=-104/1321, 11-20=-104/1321, 10-11=-104/1321, 10-21=-75/848, 21-22=-75/848, 9-22=-75/848
WEBS 7-10=-60/237, 5-10=-625/162, 6-10=-83/779, 7-9=-1245/129, 5-12=-31/505, 3-12=-297/155

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 17-4-0, Exterior(2) 17-4-0 to 20-4-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 95 lb uplift at joint 9.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
11) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.

NORTH CAROLINA PROFESSIONAL SEAL 16673 ENGINEER MARVIN A. STRZYZEWSKI

January 18,2018

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

Job	Truss	Truss Type	Qty	Ply	Burke Roof	E11374089
LGI_HOMES	A3A	Common	5	1	Job Reference (optional)	

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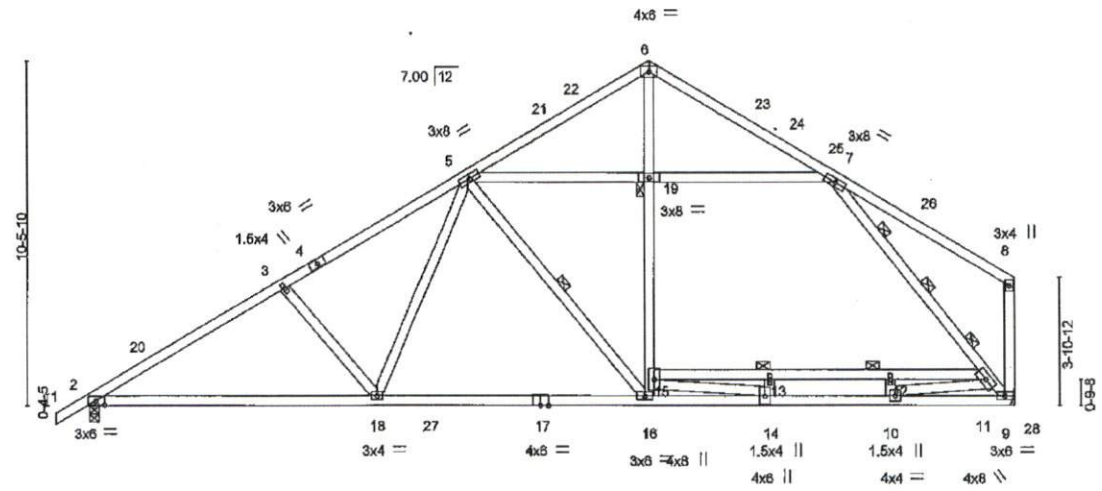
1-0-0	6-1-1	11-8-8	17-4-0	22-11-8	28-6-15	28-7-4
1-0-0	6-1-1	5-7-6	5-7-8	5-7-8	5-7-8	0-0-5

Scale = 1:65.0



0-0-8	8-10-13	17-4-0	21-0-9	24-9-3	25-9-3	28-7-4
0-0-8	8-10-5	8-5-3	3-8-9	3-8-9	1-0-1	2-10-1

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	In	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.24	16-18	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.91	Vert(TL)	-0.46	16-18	>731	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.94	Horz(TL)	0.10	9	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 199 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-2-4 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 2-18. 4-5-0 oc bracing: 11-15
WEBS	1 Row at midpt 5-16; 3 Rows at 1/4 pts 7-9
JOINTS	1 Brace at Jt(s): 19

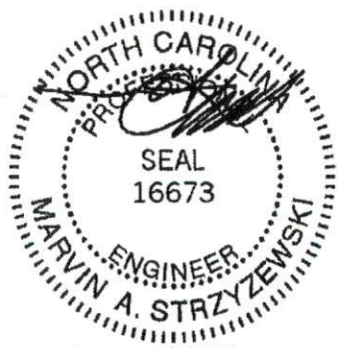
REACTIONS. (lb/size) 2=1476/0-3-8, 9=1785/Mechanical
Max Horz 2=290(LC 9)
Max Uplift 2=-111(LC 10)

FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/29, 2-20=-2381/98, 3-20=-2301/130, 3-4=-2156/113, 4-5=-2002/144, 5-21=-1915/0, 21-22=-1822/0, 6-22=-1821/0, 6-23=-1826/0, 23-24=-1843/0, 24-25=-1911/0, 7-25=-1927/0, 7-26=-7/83, 8-26=-110/65, 8-9=-154/94
BOT CHORD	2-18=-149/1968, 18-27=-64/1587, 17-27=-64/1587, 16-17=-64/1587, 14-16=-66/777, 10-14=0/2529, 10-28=0/1612, 9-28=0/1612, 13-15=-1520/0, 12-13=-1520/0, 11-12=-1520/0
WEBS	5-16=-1057/144, 15-16=-22/1153, 15-19=0/1617, 6-19=0/1607, 7-11=-1613/76, 9-11=-2222/0, 5-18=-19/538, 3-18=-286/157, 5-19=-66/780, 7-19=-71/751, 13-14=-236/0, 14-15=0/1795, 10-12=-132/0, 10-11=0/997

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 17-4-0, Exterior(2) 17-4-0 to 20-4-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) Provide metal plate or equivalent at bearing(s) 9 to support reaction shown.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
11) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.



January 18,2018

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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

Job	Truss	Truss Type	Qty	Ply	Burke Roof	E11374090
LGI_HOMES	A4E	GABLE	1	1	Job Reference (optional)	

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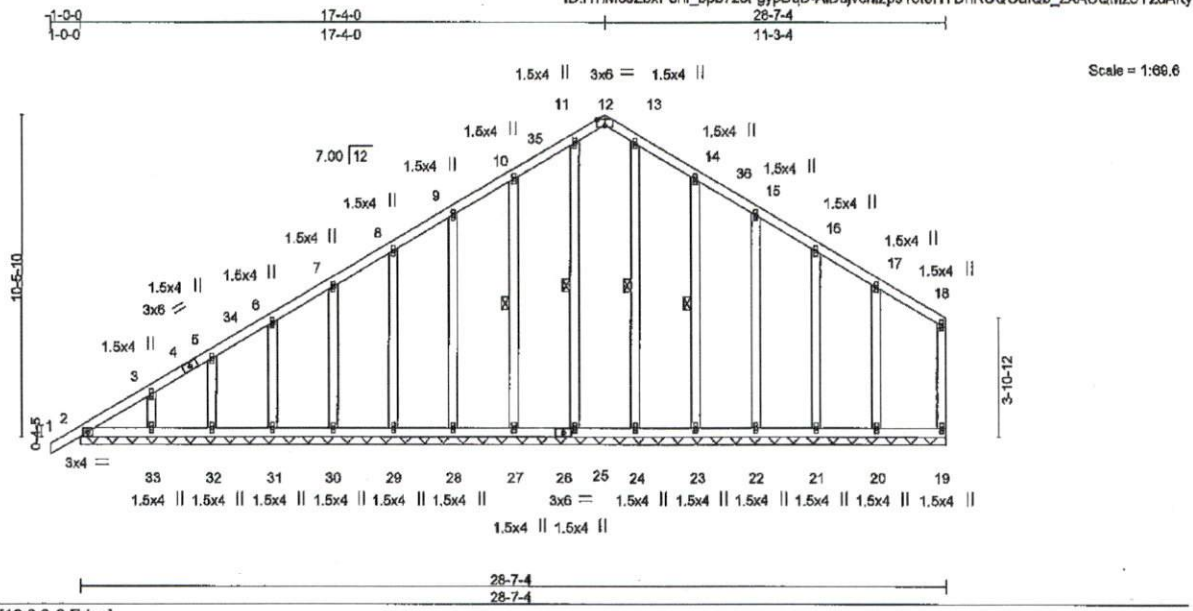


Plate Offsets (X,Y)-- [12:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	0.00	1	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(TL)	0.00	19	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 214 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2
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 11-25, 10-27, 13-24, 14-23

REACTIONS. (lb/size) 19=76/28-7-4, 2=153/28-7-4, 25=159/28-7-4, 27=160/28-7-4, 28=160/28-7-4, 29=160/28-7-4, 30=160/28-7-4, 31=161/28-7-4, 32=154/28-7-4, 33=179/28-7-4, 24=159/28-7-4, 23=159/28-7-4, 22=161/28-7-4, 21=156/28-7-4, 20=179/28-7-4

Max Horz 2=290(LC 9)

Max Uplift 19=-14(LC 11), 2=-95(LC 8), 25=-26(LC 9), 27=-53(LC 11), 28=-20(LC 9), 29=-24(LC 10), 30=-23(LC 11), 31=-33(LC 10), 32=-58(LC 10), 33=-50(LC 10), 23=-51(LC 11), 22=-35(LC 11), 21=-52(LC 11), 20=-72(LC 11)

Max Grav 19=76(LC 1), 2=153(LC 1), 25=171(LC 3), 27=162(LC 15), 28=160(LC 1), 29=160(LC 15), 30=160(LC 1), 31=161(LC 15), 32=154(LC 1), 33=179(LC 15), 24=189(LC 4), 23=197(LC 4), 22=161(LC 1), 21=156(LC 1), 20=180(LC 16)

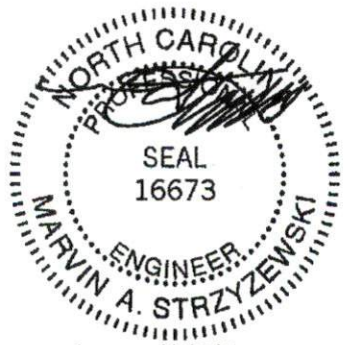
FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/28, 2-3=-310/232, 3-4=-269/211, 4-5=-259/222, 5-34=-235/212, 6-34=-225/219, 6-7=-201/214, 7-8=-167/210, 8-9=-132/206, 9-10=-98/198, 10-35=-64/227, 11-35=-53/237, 11-12=-33/199, 12-13=-38/199, 13-14=-44/237, 14-36=-9/176, 15-36=-34/165, 15-16=-33/135, 16-17=-35/84, 17-18=-31/33, 18-19=-57/29
BOT CHORD	2-33=-1/4, 32-33=-1/4, 31-32=-1/4, 30-31=-1/4, 29-30=-1/4, 28-29=-1/4, 27-28=-1/4, 26-27=-1/4, 25-26=-1/4, 24-25=-1/4, 23-24=-1/4, 22-23=-1/4, 21-22=-1/4, 20-21=-1/4, 19-20=-1/4
WEBS	11-25=-138/50, 10-27=-122/105, 9-28=-120/68, 8-29=-120/73, 7-30=-120/72, 6-31=-121/73, 5-32=-117/79, 3-33=-132/81, 13-24=-149/0, 14-23=-157/105, 15-22=-121/68, 16-21=-117/77, 17-20=-135/94

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) gable end zone and C-C Corner(3) -1-0-0 to 2-0-0, Exterior(2) 2-0-0 to 17-4-0, Corner(3) 17-4-0 to 20-4-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * 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.

Continued on page 2



January 18,2018

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

Job	Truss	Truss Type	Qty	Ply	Burke Roof
LGI_HOMES	A4E	GABLE	1	1	E11374090
					Job Reference (optional)

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NOTES-

11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 19, 2, 25, 27, 28, 29, 30, 31, 32, 33, 23, 22, 21, and 20. This connection is for uplift only and does not consider lateral forces.

12) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.

Job	Truss	Truss Type	Qty	Ply	Burke Roof	
LGI_HOMES	B1E	Common Supported Gable	1	1	Job Reference (optional)	E11374091

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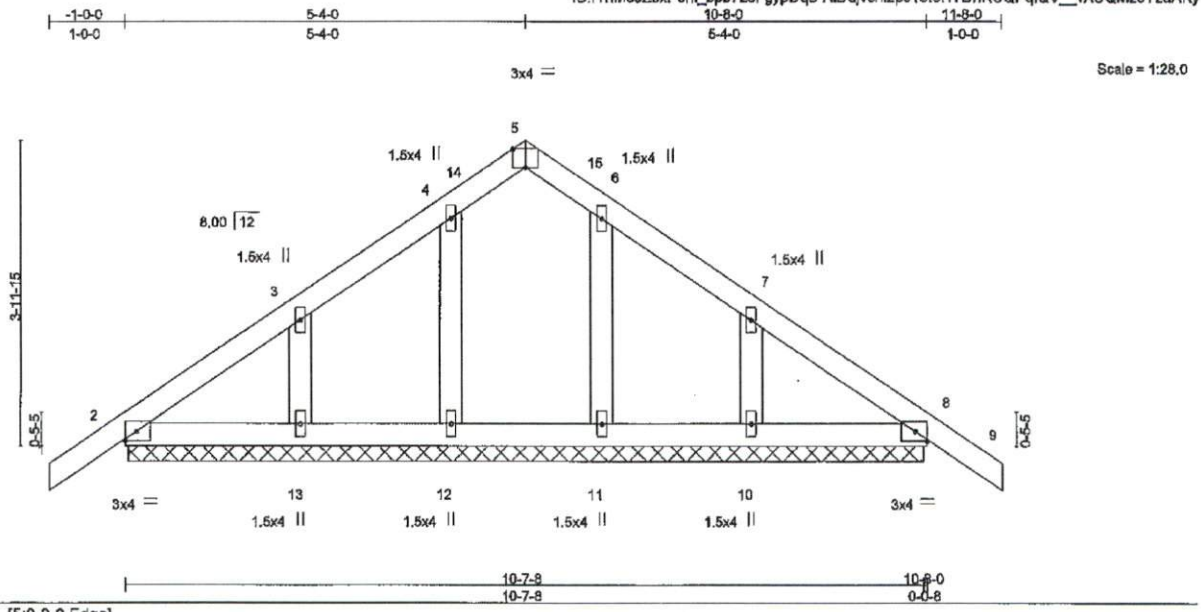

Plate Offsets (X,Y)-- [5:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	In	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	9	n/r	120	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	-0.00	9	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(TL)	0.00	8	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 52 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (lb/size) 2=167/10-7-0, 8=167/10-7-0, 12=139/10-7-0, 13=161/10-7-0, 11=139/10-7-0, 10=161/10-7-0
Max Horz 2=108(LC 9)
Max Uplift 2=-10(LC 10), 8=-12(LC 11), 12=-37(LC 10), 13=-72(LC 10), 11=-33(LC 11), 10=-73(LC 11)
Max Grav 2=167(LC 1), 8=167(LC 1), 12=139(LC 1), 13=182(LC 15), 11=139(LC 1), 10=182(LC 16)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/29, 2-3=-102/35, 3-4=-62/23, 4-14=-52/24, 5-14=-41/28, 5-15=-41/29, 6-15=-52/25, 6-7=-62/14, 7-8=-103/27, 8-9=0/29
BOT CHORD 2-13=-7/139, 12-13=-7/139, 11-12=-7/139, 10-11=-7/139, 8-10=-7/139
WEBS 4-12=-101/59, 3-13=-132/115, 6-11=-101/56, 7-10=-132/115

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) gable end zone and C-C Corner(3) -1-0-0 to 2-0-0, Exterior(2) 2-0-0 to 5-4-0, Corner(3) 5-4-0 to 8-4-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 8, 12, 13, 11, and 10. This connection is for uplift only and does not consider lateral forces.
11) Non Standard bearing condition. Review required.
12) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.

January 18,2018

Job	Truss	Truss Type	Qty	Ply	Burke Roof	E11374092
LGI_HOMES	B2	Common	1	1	Job Reference (optional)	

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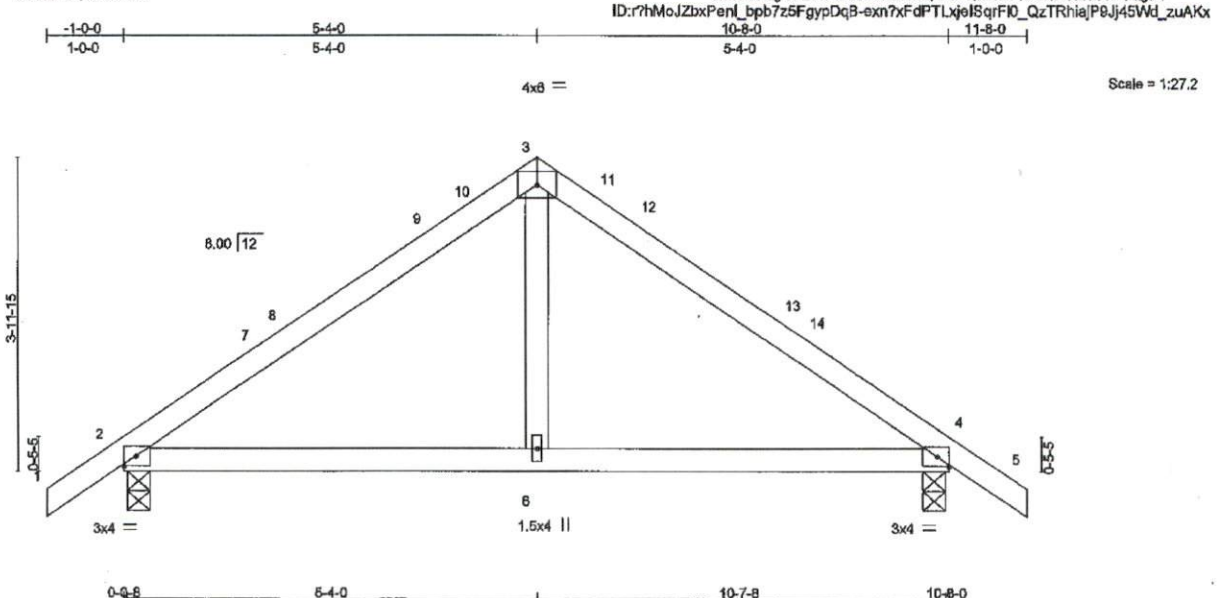

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.02	2-6	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.31	Vert(TL)	-0.05	2-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horz(TL)	0.01	4	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 44 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (lb/size) 2=484/0-3-8, 4=484/0-3-8
Max Horz 2=108(LC 9)
Max Uplift 2=-106(LC 10), 4=-106(LC 11)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-7=-461/33, 7-8=-385/35, 8-9=-366/39, 9-10=-322/48, 3-10=-304/52, 3-11=-304/52, 11-12=-322/48, 12-13=-366/39, 13-14=-385/35, 4-14=-461/33, 4-5=0/30
BOT CHORD 2-6=0/299, 4-6=0/299
WEBS 3-6=0/257

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 5-4-0, Exterior(2) 5-4-0 to 8-4-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
9) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.

January 18,2018

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

Job	Truss	Truss Type	Qty	Ply	Burke Roof	E11374093
LGI_HOMES	B3E	Common Structural Gable	1	1	Job Reference (optional)	

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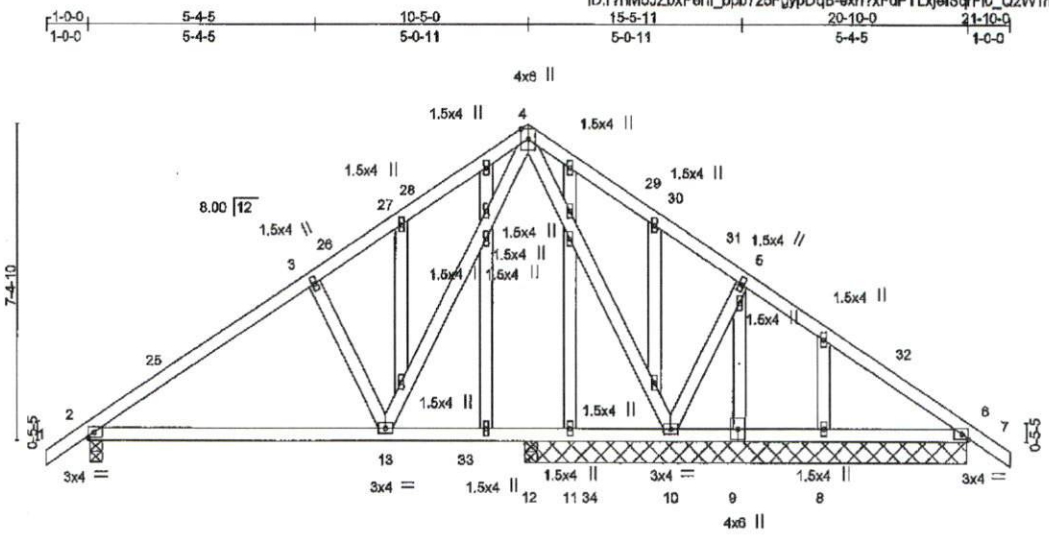


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	In	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.06	2-13	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.40	Vert(TL)	-0.16	2-13	>757	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.66	Horz(TL)	0.01	6	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 144 lb	FT = 20%
BCDL	10.0											

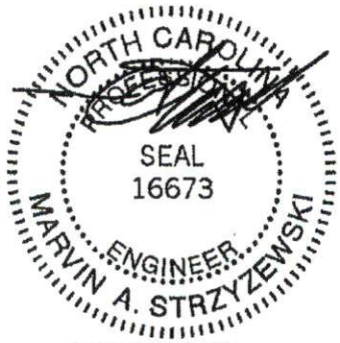
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

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

REACTIONS. (lb/size) 2=578/0-3-8, 10=819/10-5-8, 11=32/10-5-8, 8=109/10-5-8, 6=230/10-5-8, 12=132/0-3-8
Max Horz 2=-205(LC 8)
Max Uplift 2=-109(LC 10), 10=-115(LC 10), 6=-86(LC 11)
Max Grav 2=578(LC 1), 10=819(LC 1), 11=61(LC 5), 8=167(LC 5), 6=249(LC 16), 12=133(LC 3)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-25=-631/61, 3-25=-556/89, 3-26=-496/115, 26-27=-425/126, 27-28=-408/129, 4-28=-399/146, 4-29=0/187, 29-30=0/104, 30-31=0/87, 5-31=-18/71, 5-32=-1/65, 6-32=-155/28, 6-7=0/29
BOT CHORD 2-13=-108/454, 13-33=-37/172, 12-33=-37/172, 11-12=-37/172, 11-34=-37/172, 10-34=-37/172, 9-10=-27/79, 8-9=-27/79, 6-8=-27/79
WEBS 4-10=-555/48, 5-10=-295/175, 4-13=-91/441, 3-13=-287/168

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 10-5-0, Exterior(2) 10-5-0 to 13-5-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 10, and 6. This connection is for uplift only and does not consider lateral forces.
11) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.



January 18,2018

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Burke Roof	
LGI_HOMES	B4	Scissor	3	1	Job Reference (optional)	E11374094

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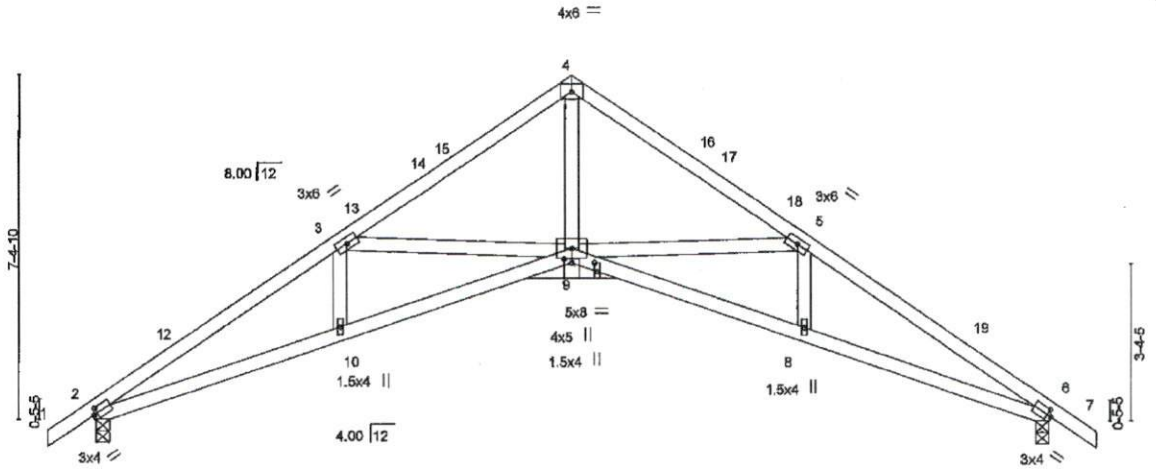

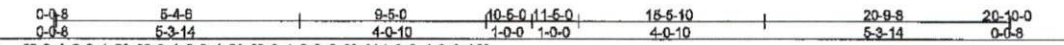

Plate Offsets (X,Y)-- [2:0-1-0,0-1-8], [6:0-1-0,0-1-8], [9:0-1-0,0-2-0], [11:0-2-4,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.11	9	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.98	Vert(TL)	-0.28	8-9	>869	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horz(TL)	0.26	6	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 102 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-8-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 2=890/0-3-8, 6=890/0-3-8
Max Horz 2=206(LC 9)
Max Uplift 2=-128(LC 10), 6=-128(LC 11)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/27, 2-12=-2116/118, 3-12=-2032/141, 3-13=-1479/55, 13-14=-1411/66, 14-15=-1394/69, 4-15=-1389/86, 4-16=-1388/76, 16-17=-1394/60, 17-18=-1411/56, 5-18=-1479/46, 5-19=-2032/138, 6-19=-2116/114, 6-7=0/27
BOT CHORD 2-10=-82/1759, 9-10=-81/1754, 8-9=-44/1754, 6-8=-45/1759
WEBS 3-10=0/225, 3-9=-528/195, 4-9=0/1262, 5-9=-528/201, 5-8=0/225

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 10-5-0, Exterior(2) 10-5-0 to 13-5-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) 2, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 6. This connection is for uplift only and does not consider lateral forces.
10) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.

January 18,2018

ENGINEERING BY
TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Burke Roof	
LGI_HOMES	B5	Scissor	3	1	Job Reference (optional)	E11374095

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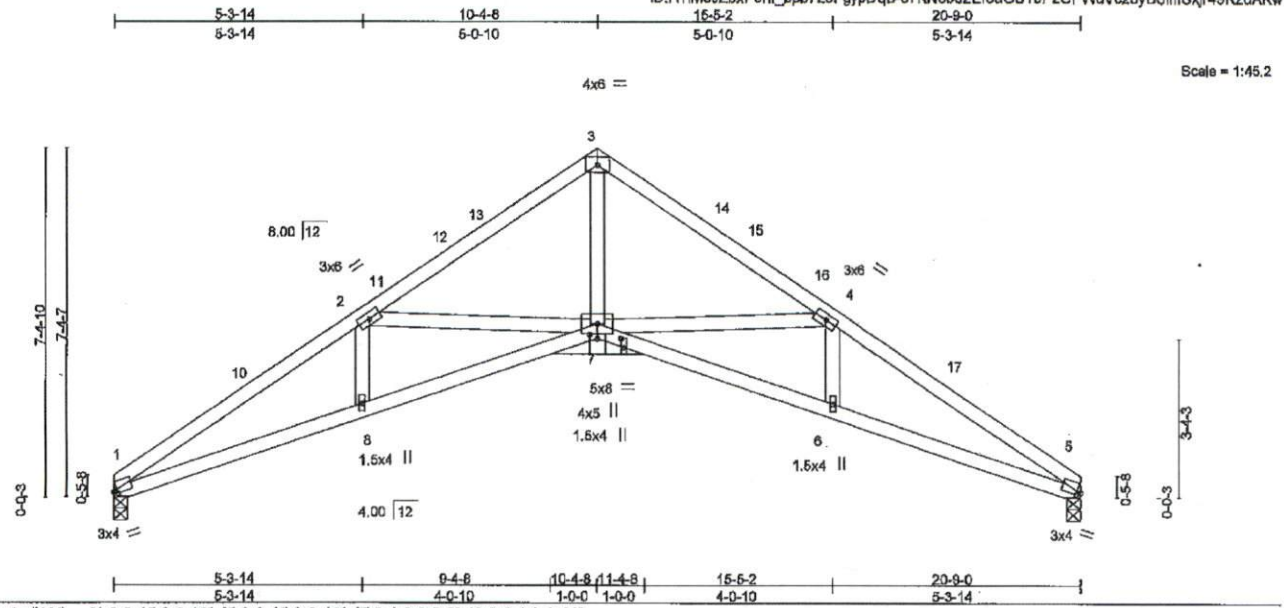


Plate Offsets (X,Y)-- [1:0-0-15,0-0-12], [5:0-0-15,0-0-12], [7:0-1-0,0-2-0], [9:0-2-4,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.11	7	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.61	Vert(TL)	-0.28	6-7	>876	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.52	Horz(TL)	0.26	5	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 98 lb	FT = 20%
BCDL	10.0											

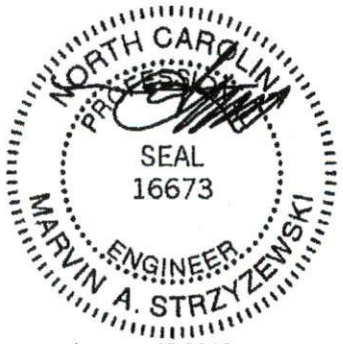
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-6-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=818/0-3-8, 5=818/0-3-8
Max Horz 1=-204(LC 8)
Max Uplift 1=-79(LC 10), 5=-79(LC 11)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-10=-2124/156, 2-10=-2018/176, 2-11=-1481/80, 11-12=-1412/81, 12-13=-1389/96, 3-13=-1387/110, 3-14=-1387/109, 14-15=-1389/94, 15-16=-1412/80, 4-16=-1481/79, 4-17=-2019/175, 5-17=-2124/155
BOT CHORD 1-8=-122/1767, 7-8=-119/1761, 6-7=-80/1761, 5-6=-81/1767
WEBS 2-8=0/227, 2-7=-535/206, 3-7=-9/1264, 4-7=-535/211, 4-6=0/227

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) 0-2-4 to 3-2-4, Interior(1) 3-2-4 to 10-5-0, Exterior(2) 10-5-0 to 13-5-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
4) Unbalanced snow loads have been considered for this design.
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) Bearing at joint(s) 1, 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 5. This connection is for uplift only and does not consider lateral forces.
9) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.



January 18,2018

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

Job	Truss	Truss Type	Qty	Ply	Burke Roof	E11374096
LGI_HOMES	B6A	Roof Special	1	1	Job Reference (optional)	

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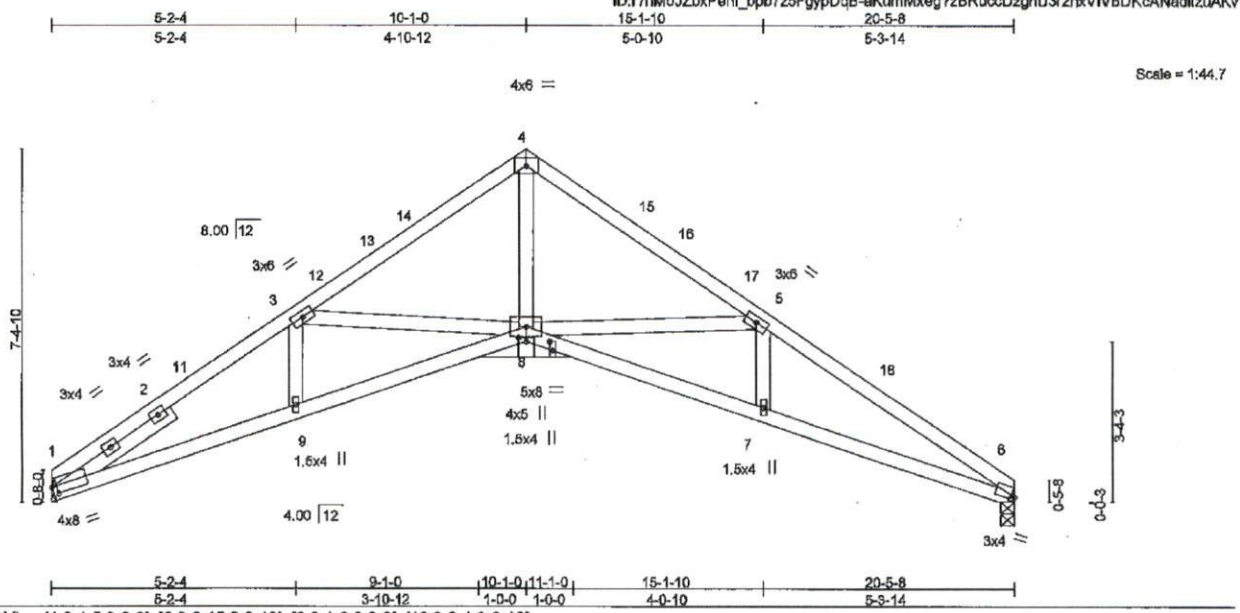

Plate Offsets (X,Y)-- [1:0-1-5,0-2-0], [6:0-0-15,0-0-12], [8:0-1-0,0-2-0], [10:0-2-4,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.10	8	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.60	Vert(TL)	-0.26	8-9	>929	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.50	Horz(TL)	0.24	6	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 101 lb	FT = 20%
BCDL	10.0											

LUMBER-

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

BRACING-

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

REACTIONS. (lb/size) 1=809/Mechanical, 6=809/0-3-8
Max Horz 1=-204(LC 8)
Max Uplift 1=-79(LC 10), 6=-79(LC 11)

FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-1966/143, 2-11=-1879/147, 3-11=-1857/165, 3-12=-1440/79, 12-13=-1377/89, 13-14=-1362/94, 4-14=-1351/109, 4-15=-1356/107, 15-16=-1362/92, 16-17=-1384/79, 5-17=-1452/77, 5-18=-1987/173, 6-18=-2093/153
BOT CHORD	1-9=-109/1609, 8-9=-106/1617, 7-8=-79/1734, 6-7=-80/1740
WEBS	3-9=0/192, 3-8=-434/193, 4-8=-7/1217, 5-8=-533/211, 5-7=0/226

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) 0-1-2 to 3-1-2, Interior(1) 3-1-2 to 10-1-0, Exterior(2) 10-1-0 to 13-1-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
4) Unbalanced snow loads have been considered for this design.
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) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 79 lb uplift at joint 1.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
11) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.

January 18,2018

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

Job	Truss	Truss Type	Qty	Ply	Burke Roof	E11374097
LGI_HOMES	B6G	COMMON GIRDER	1	3	Job Reference (optional)	

Builders FirstSource, Albemarle, NC 28001 — 7.840 s Aug 16 2017 MiTek Industries, Inc. Thu Jan 18 09:50:44 2018 Page 1

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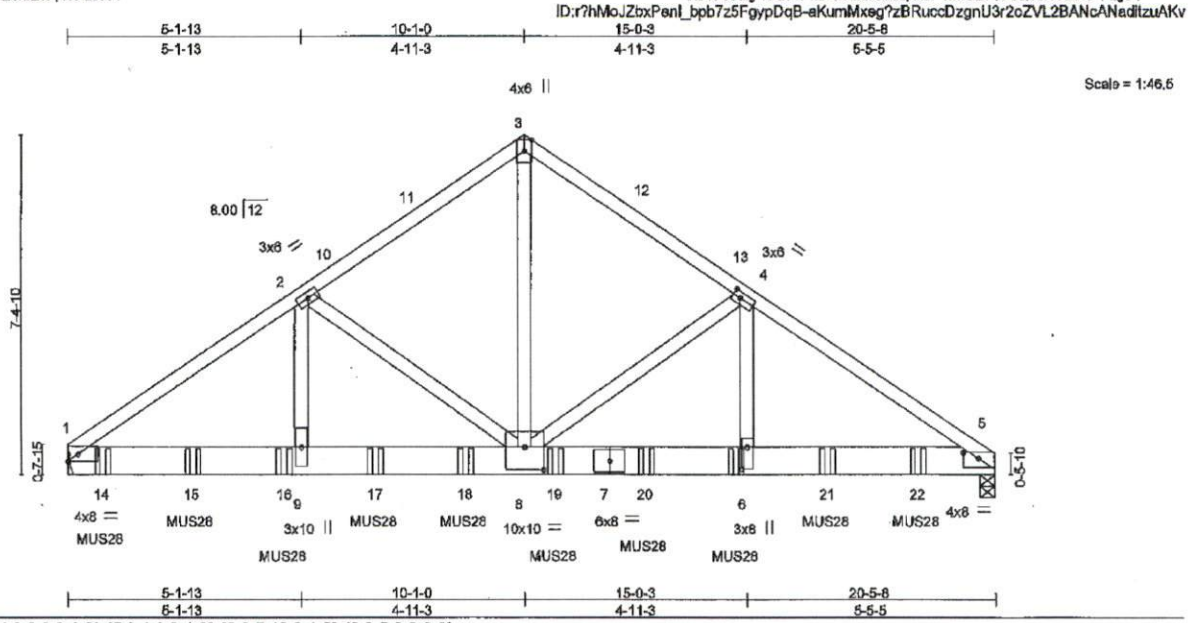

Plate Offsets (X,Y)-- [4:0-2-0,0-1-8], [5:0-4-0,0-1-9], [6:0-5-12,0-1-8], [8:0-5-0,0-6-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.11	6-8	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.44	Vert(TL)	-0.22	6-8	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.69	Horz(TL)	0.04	5	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 409 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x8 SP DSS
WEBS 2x4 SP No.3 *Except*
3-8: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-8-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=8262/Mechanical, 5=8783/0-4-0 (req. 0-4-9)
Max Horz 1=-198(LC 6)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-11009/0, 2-10=-7986/0, 10-11=-7905/0, 3-11=-7896/0, 3-12=-7892/0, 12-13=-7902/0, 4-13=-7984/0, 4-5=-12288/0
BOT CHORD 1-14=0/8924, 14-15=0/8924, 15-16=0/8924, 9-16=0/8924, 9-17=0/8924, 17-18=0/8924, 8-18=0/8924, 8-19=0/10085, 7-19=0/10085, 7-20=0/10085, 6-20=0/10085, 6-21=0/10085, 21-22=0/10085, 5-22=0/10085
WEBS 3-8=0/8470, 4-8=-4365/0, 4-6=0/4787, 2-8=-2927/494, 2-9=-341/3365

NOTES-
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-5-0 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 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) gable end zone; cantilever left and right exposed ; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) WARNING: Required bearing size at joint(s) 5 greater than input bearing size.
10) Refer to girder(s) for truss to truss connections.
11) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.
12) Use Simpson Strong-Tie MUS28 (8-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 0-9-4 from the left end to 8-9-4 to connect truss(es) to back face of bottom chord.
13) Use Simpson Strong-Tie MUS28 (8-10d Girder, 8-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 10-9-4 from the left end to 18-9-4 to connect truss(es) to back face of bottom chord.
14) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

Continued on page 2

NORTH CAROLINA PROFESSIONAL SEAL 16673 ENGINEER MARVIN A. STRZYZEWSKI

January 18,2018

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

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced) + Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-5=-60, 1-5=-20
Concentrated Loads (lb)
Vert: 6=-1765(B) 14=-1323(B) 15=-1320(B) 16=-1320(B) 17=-1320(B) 18=-1320(B) 19=-1765(B) 20=-1765(B) 21=-1765(B) 22=-1765(B)

Job	Truss	Truss Type	Qty	Ply	Burke Roof	E11374098
LGI_HOMES	G1	Monopitch	6	1	Job Reference (optional)	

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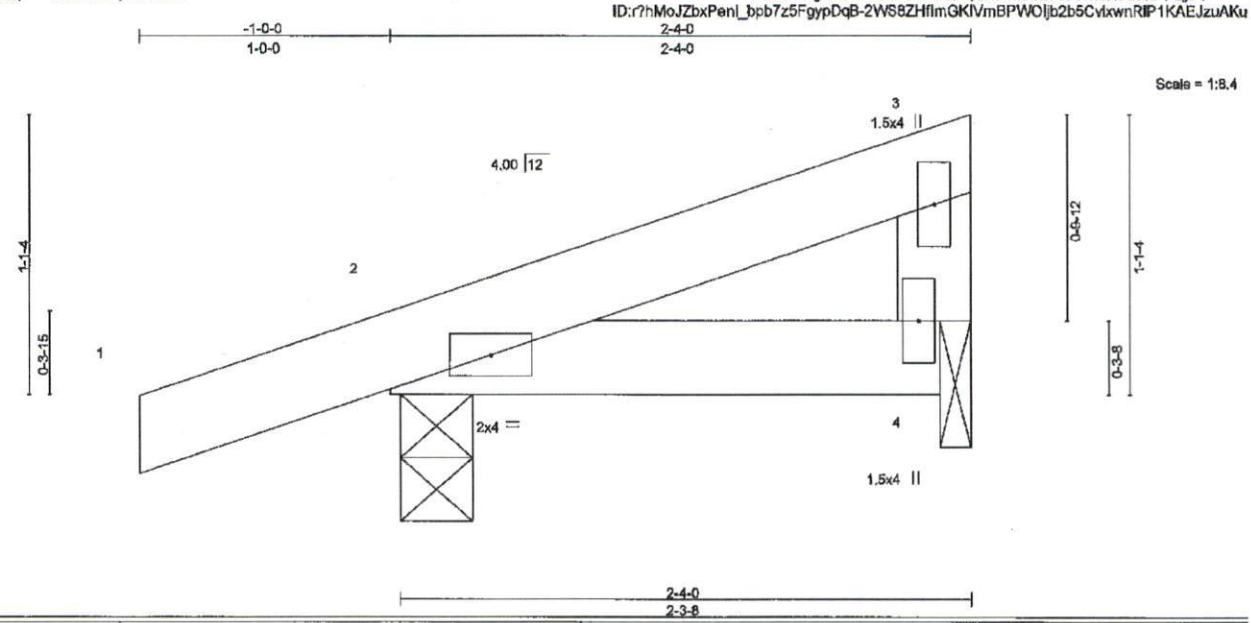


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	-0.00	2-4	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	-0.00	2-4	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(TL)	0.00		n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 9 lb	FT = 20%
BCDL	10.0											

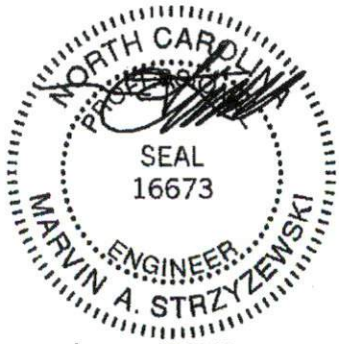
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-4-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 4=62/0-1-8, 2=170/0-3-8
Max Horz 2=45(LC 6)
Max Uplift 4=-12(LC 9), 2=-71(LC 6)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/18, 2-3=-28/10, 3-4=-42/40
BOT CHORD 2-4=0/0

NOTES-
1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) automatic zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
3) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4 and 2. This connection is for uplift only and does not consider lateral forces.
9) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.



January 18,2018

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TRENCO
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Job	Truss	Truss Type	Qty	Ply	Burke Roof	
LGI_HOMES	P1	Monopitch Supported Gable	4	1	Job Reference (optional)	E11374099

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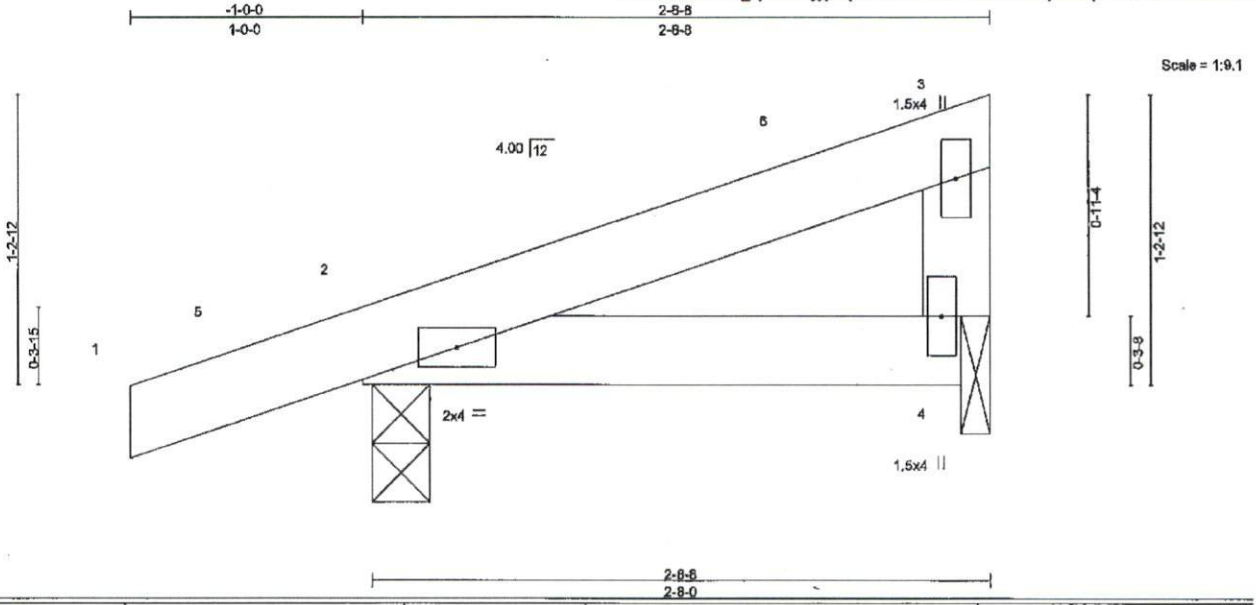

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	-0.00	2-4	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.25	Vert(TL)	-0.01	2-4	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(TL)	0.00		n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 11 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-8-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 2=181/0-3-0, 4=82/0-1-8
Max Horz 2=50(LC 6)
Max Uplift 2=-69(LC 6), 4=-17(LC 9)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-5=0/9, 2-5=0/18, 2-6=-40/0, 3-6=-33/15, 3-4=-58/89
BOT CHORD 2-4=0/0

NOTES-
1) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) automatic zone and C-C Corner(3) -1-0-0 to 2-0-0, Exterior(2) 2-0-0 to 2-6-12 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
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) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
11) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.

January 18,2018

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Job	Truss	Truss Type	Qty	Ply	Burke Roof	
LGI_HOMES	V1	Valley	1	1	Job Reference (optional)	E11374100

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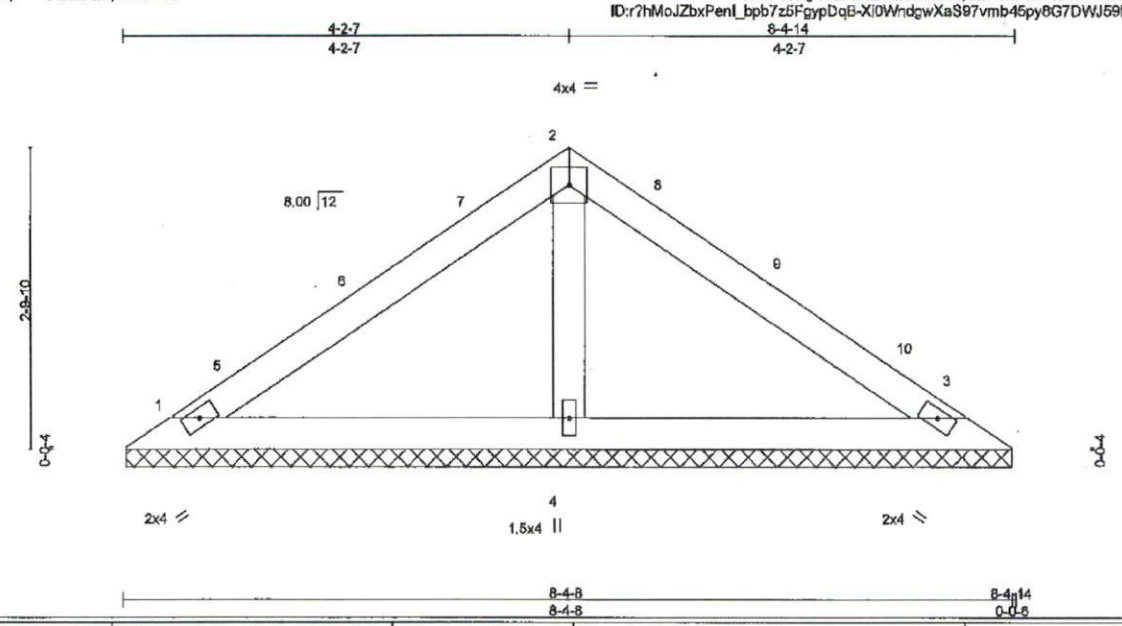

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(TL)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 29 lb	FT = 20%
BCDL	10.0											

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

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

REACTIONS. (lb/size) 1=161/8-4-2, 3=161/8-4-2, 4=274/8-4-2
Max Horz 1=71(LC 9)
Max Uplift 1=-48(LC 10), 3=-49(LC 11), 4=-5(LC 10)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-5=-88/31, 5-6=-38/38, 6-7=-37/39, 2-7=-22/48, 2-8=-13/45, 8-9=-37/36, 9-10=-38/35, 3-10=-88/28
BOT CHORD 1-4=-15/35, 3-4=-15/35
WEBS 2-4=-181/82

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 4-2-7, Exterior(2) 4-2-7 to 7-2-7 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
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) One MTS12 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This connection is for uplift only and does not consider lateral forces.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4. This connection is for uplift only and does not consider lateral forces.
10) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.

January 18,2018

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Job	Truss	Truss Type	Qty	Ply	Burke Roof	
LGI_HOMES	V2	Valley	1	1	Job Reference (optional)	E11374101

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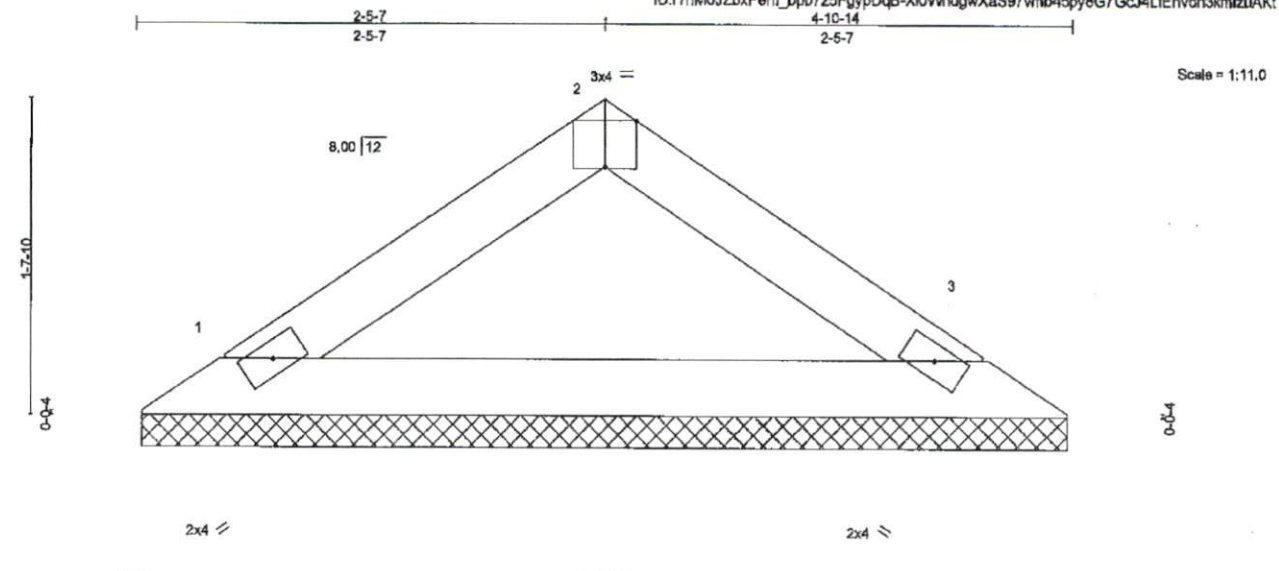

Plate Offsets (X,Y)-- [2:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(TL)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 14 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-10-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=158/4-10-2, 3=158/4-10-2
Max Horz 1=-38(LC 6)
Max Uplift 1=-28(LC 8), 3=-28(LC 8)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-133/59, 2-3=-133/59
BOT CHORD 1-3=-17/89

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 100mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; enclosed; MWFRS (low-rise) automatic zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-05; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1; Min. flat roof snow load governs.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) One MTS12 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This connection is for uplift only and does not consider lateral forces.
8) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.

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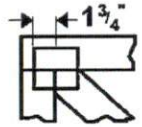
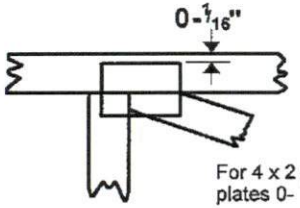
Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

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

PLATE SIZE

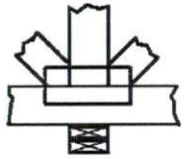
4 x 4

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

LATERAL BRACING LOCATION

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

BEARING

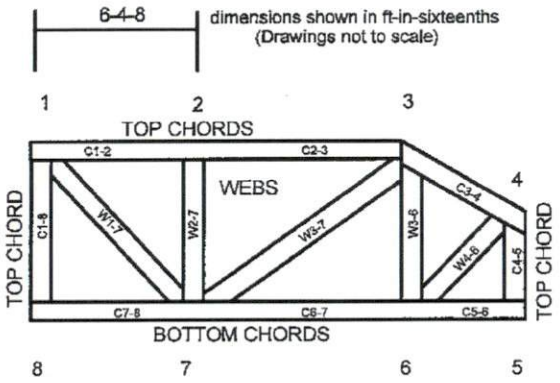


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/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

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.

FLOOR TRUSS NOTES:

DO NOT CUT, DRILL, NOTCH, OR OTHERWISE DAMAGE TRUSSES. Contact your BFS Representative for assistance PRIOR TO modifying any truss. Espanol - (NO CORTE, PERFORE, HAGA MUESCAS O DANE DE CUALQUIER OTRA MANERA LAS VIGUETAS (CERCHAS DE MADERA). Contacte a su representante de BFS para asistencia ANTES de realizar cualquier modificacion.)

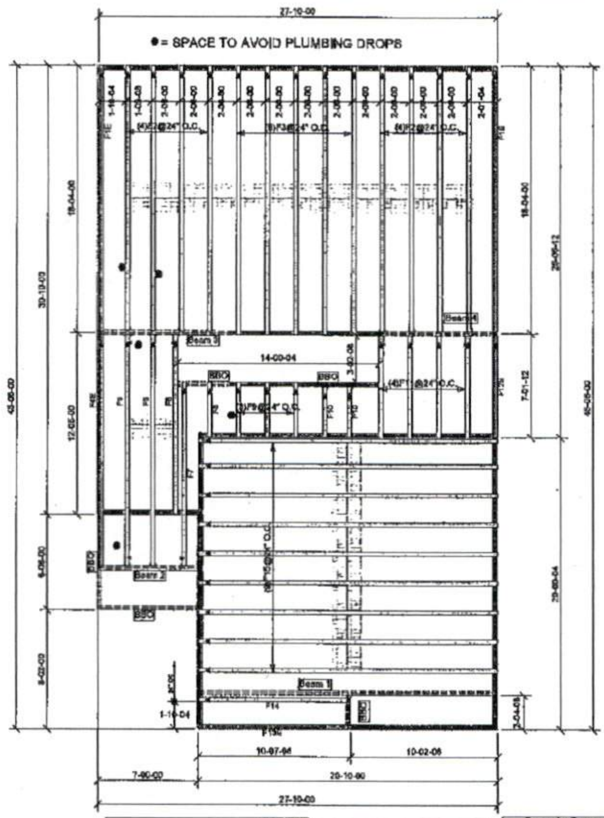
1. This Truss Placement Diagram is intended to serve as a guide for truss installation. This Diagram has been prepared by a Truss Technician and is not an engineered drawing.
2. The responsibilities of the Owner, Building Designer, Contractor, Truss Designer, and Truss Manufacturer shall be as defined by the TPI 1 National Standard.
3. The wood components shown on this diagram are to be used in dry service (moisture content<19%) and non-toxic environmental applications. The metal plates and hangers are galvanized to the G60 Standard unless noted otherwise.
4. Refer to the Truss Design Drawings for specific information about each individual truss design.
5. The Truss Technician shall provide Truss-to-Truss Connection Requirements. Any special or other connection shall be the responsibility of the Building Designer.
6. The Truss Placement Diagram and Truss Design Drawings are the property of Builders FirstSource and may not be altered or reproduced in part or in total under any circumstances without prior written authorization.
7. Floor Trusses have been spaced as specified in the plans or as directed by the contractor / customer. BFS recommends that the contractor / customer consider economics, floor performance, floor coverings, and accessibility when selecting the floor truss spacing.
8. Inflexible floor coverings, such as ceramic tile, require careful consideration and planning by the contractor. The contractor shall select and use an approved floor covering assembly for the chosen floor framing and floor truss spacing used in the project. Ceramic tile assemblies are shown in the TCNA Handbook for Ceramic, Glass, and Stone Installation. Builders FirstSource is not responsible for floor covering related issues.
9. The builder / owner is to inform Builders FirstSource of any additional loads placed on floor trusses, such as loads from structural members, heavy granite island countertops, fireplace materials, etc. If we do not note these additional loads on the placement diagram or truss design drawings, then they have not been included.
10. This Placement Diagram may show approximate plumbing drop locations with a corresponding truss layout. With or without this information, the contractor shall insure that the installer verifies all plumbing locations and installs the trusses to avoid interference. Consider all plumbing such as toilets, tub drain and overflow, showers, etc. The contractor shall also plan for other potential utility conflicts.
11. Floor Truss Spacing may be altered to avoid plumbing interference. Avoid overloading single trusses due to truss spacing shifts. Do not exceed the allowable span rating of the subfloor sheathing used.
12. Floor Trusses shall be fully sheathed on the top chord. The builder shall select structural sheathing that meets the truss spacing requirement as well as the desired long term performance characteristics for the specific assembly.
13. Strongbacks are either recommended or required as shown on the Truss Design Drawings. BFS recommends installing strongbacks for all floor trusses to improve floor performance and allow load sharing between trusses.
14. This Placement Diagram is based upon the supporting structure being structurally adequate, dimensionally correct, square, plumb, and level to adequately support the trusses. The foundation design, structural member sizing, load transfer, bearing conditions, and the structure's compliance with the applicable building code are the responsibility of the Owner, Building Designer, and Contractor.

WARNING:

TRUSSES MUST BE BRACED DURING INSTALLATION. FAILURE TO DO SO MAY RESULT IN INJURY OR DEATH. Espanol - (TRUSSES (CERCHAS) DEBERAN TENER UN SOPORTE DURANTE LA INSTALACION. NO HACERLO PODRIA RESULTAR EN LESIONES O MUERTE.)

1. Trusses shall be installed in a safe manner meeting all code, local, OSHA, TPI, and BCSI Specifications. Failure to follow these specifications may result in injury or death.
2. Floor Trusses shall be temporarily restrained during installation. DO NOT WALK ON UNRESTRAINED FLOOR TRUSSES. Unrestrained floor trusses may suddenly collapse or roll over and may cause injury or death.
3. BCSI INSTRUCTIONS SHALL BE FOLLOWED: BCSI-B7 = Floor Truss Installation

TOTAL FLOOR AREA 1160.76 SQ FT



Products				
PlotID	Length	Product	Plies	Net Qty
Beam 3	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
Beam 4	10-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
Beam 2	8-00-00	1-3/4" x 11-7/8" VERSA-LAM® 2.0 3100 SP	2	2
Beam 1	22-00-00	1-3/4" x 14" VERSA-LAM® 2.0 3100 SP	2	2

Connector Summary		
Qty	Manuf	Product
1	Simpson	THA422
22	Simpson	U 410

No Scale

Customer Name: LGI Homes

Subdivision:

Lot#:

Plan Name: Burke

File Name: BURKE.MMDL

Builders FirstSource
Albemarle, NC

Revisions:

Drawn By: JEFF BURRIS

DATE: 12/3/2018

Page Number: 1 of 1