ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: LGI_Homes
Madison 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: E12139579 thru E12139588

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

North Carolina COA: C-0844

August 27,2018

Strzyzewski, Marvin

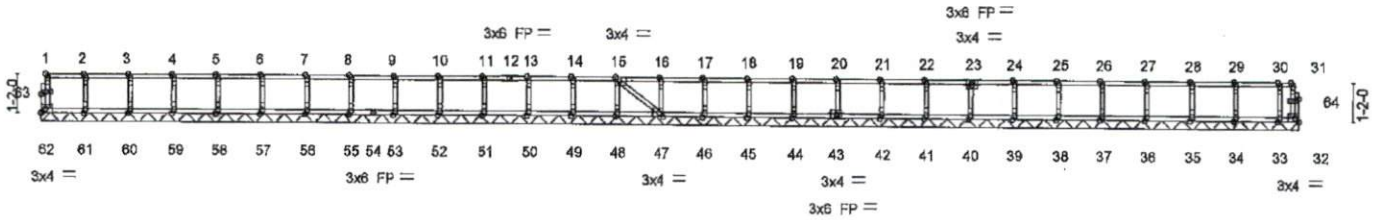
IMPORTANT NOTE: Truss Engineer's responsibility is solely for design of individual trusses based upon design parameters shown on referenced truss drawings. Parameters have not been verified as appropriate for any use. Any location identification specified is for file reference only and has not been used 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	Madison Floor	
LGI_HOMES	F1E	Floor Supported Gable	1	1	Job Reference (optional)	E12139579

Probuild East, Albemarle , NC 28001 — 8.220 s May 24 2018 MiTek Industries, Inc. Mon Aug 27 12:11:31 2018 Page 1
ID:TcUwJoy_j2uszMW5OrUdsozo9is-JfwTztJ?0mhx_PmLEXlubQnM30hrl8B9Lal1z?yjf4w

0-1-8 0-1-8

Scale: 3/16"=1'



37-11-0
37-11-0

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [15:0-1-8,Edge], [47:0-1-8,Edge], [63:0-1-8,0-0-12], [64:0-1-8,0-0-12]

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	47	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-SH							Weight: 158 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 6-0-0 oc bracing.

REACTIONS. All bearings 37-11-0.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) 32
Max Grav All reactions 250 lb or less at joint(s) 62, 32, 61, 60, 59, 58, 57, 56, 55, 53, 52, 51, 50, 49, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33

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

NOTES-
1) All plates are 1.5x4 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 32. This connection is for uplift only and does not consider lateral forces.
6) 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 16673 ENGINEER MARVIN A. STRZYZEWSKI

August 27,2018

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

Job	Truss	Truss Type	Qty	Ply	Madison Floor
LGI_HOMES	F2	Floor	10	1	E12139580

Job Reference (optional)

Probuild East, Albemarle , NC 28001 8.220 s May 24 2018 MiTek Industries, Inc. Mon Aug 27 12:11:33 2018 Page 1
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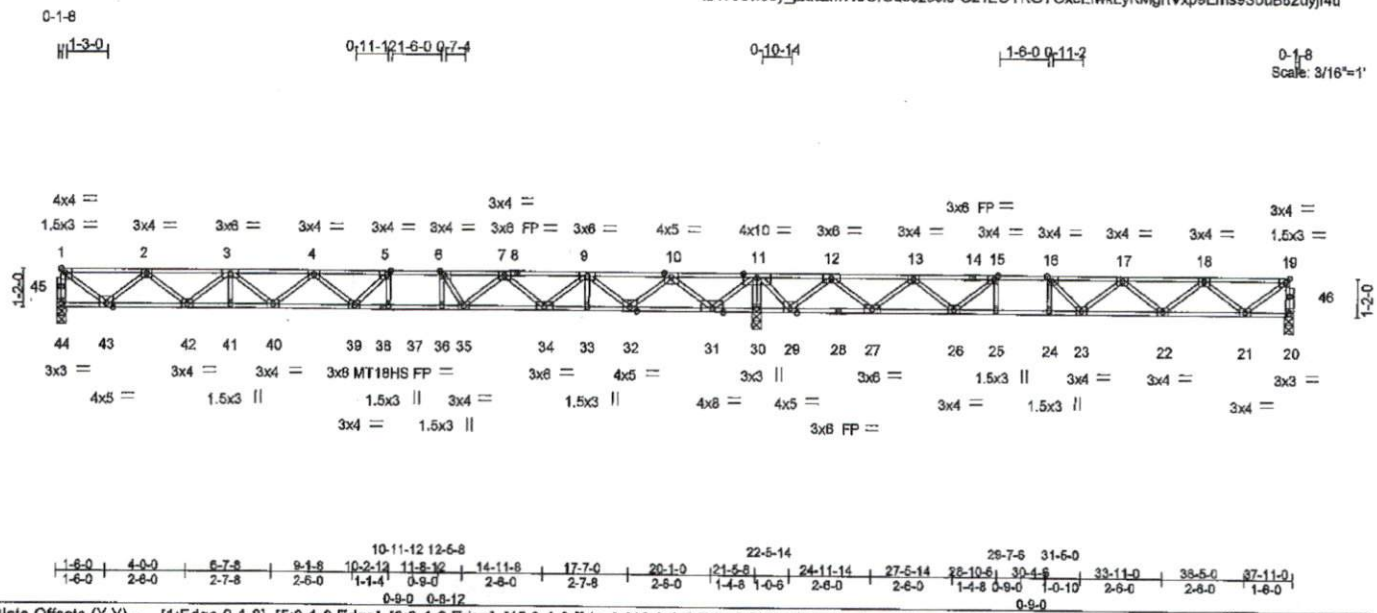

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [5:0-1-8,Edge], [6:0-1-8,Edge], [15:0-1-8,Edge], [16:0-1-8,Edge], [19:0-1-8,Edge]

LOADING (psf)		SPACING-	1-7-3	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.95	Vert(LL)	-0.38	37-39	>681	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.91	Vert(TL)	-0.56	37-39	>460	240	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.77	Horz(TL)	0.06	30	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-SH							Weight: 191 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.1(flat) *Except*
28-38: 2x4 SP DSS(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 6-0-0 oc bracing.

REACTIONS. (lb/size) 44=759/0-3-8, 20=486/0-3-8, 30=2057/0-3-8
Max Grav 44=800(LC 2), 20=598(LC 3), 30=2057(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-44=-796/0, 19-20=-595/0, 1-2=-945/0, 2-3=-2335/0, 3-4=-3204/0, 4-5=-3501/0, 5-6=-3399/0, 6-7=-3102/0, 7-9=-2145/144, 9-10=-611/694, 10-11=0/2181, 11-12=0/2663, 12-13=-478/1608, 13-15=-1456/997, 15-16=-1899/599, 16-17=-1943/341, 17-18=-1591/88, 18-19=-679/0
BOT CHORD 42-43=0/1779, 41-42=0/2897, 40-41=0/2897, 39-40=0/3488, 37-39=0/3399, 36-37=0/3399, 35-36=0/3399, 34-35=0/2717, 33-34=-389/1511, 32-33=-389/1511, 31-32=-1207/0, 30-31=-3488/0, 29-30=-3483/0, 27-29=-1961/0, 26-27=-1293/1081, 25-26=-599/1899, 24-25=-599/1899, 23-24=-599/1899, 22-23=-170/1893, 21-22=-19/1270
WEBS 5-37=-363/3, 6-36=0/494, 15-25=0/346, 16-24=-383/0, 11-30=-2005/0, 1-43=0/1146, 2-43=-1086/0, 2-42=0/723, 3-42=-718/0, 3-40=0/392, 4-40=-370/0, 5-39=-114/473, 11-31=0/1615, 10-31=-1535/0, 10-32=0/1217, 9-32=-1216/0, 9-34=0/874, 7-34=-803/0, 7-35=0/665, 6-35=-840/0, 15-26=-927/0, 13-26=0/685, 13-27=-949/0, 12-27=0/1004, 12-29=-1302/0, 11-29=0/1161, 19-21=0/821, 18-21=-769/29, 18-22=-89/418, 17-22=-394/108, 17-23=-258/65, 16-23=0/533

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Required 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.

August 27,2018

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

Job	Truss	Truss Type	Qty	Ply	Madison Floor	
LGI_HOMES	F3	Floor	2	1	Job Reference (optional)	E12139581

Probuild East, Albemarle , NC 28001 — 8.220 s May 24 2018 MiTek Industries, Inc. Mon Aug 27 12:11:34 2018 Page 1
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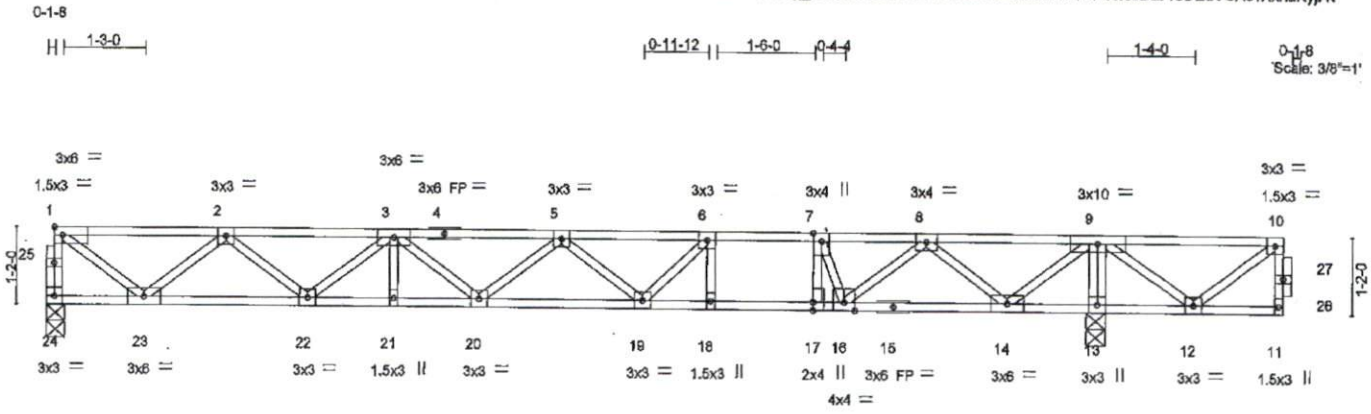

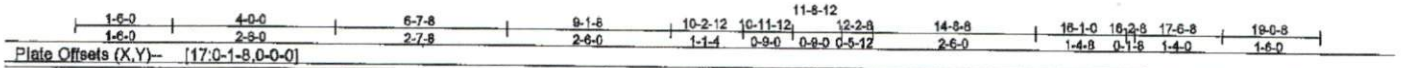

Plate Offsets (X,Y)-- [17:0-1-8,0-0-0]

LOADING (psf)		SPACING-	1-7-3	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.60	Vert(LL)	-0.20	18-19	>937	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.64	Vert(TL)	-0.31	18-19	>608	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.46	Horz(TL)	0.04	13	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-SH							Weight: 99 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP DSS(flat) *Except*
11-15: 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: 13-14,12-13.

REACTIONS. (lb/size) 24=676/0-3-8, 13=967/0-3-8
Max Grav 24=691(LC 2), 13=967(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-24=-687/0, 1-2=-802/0, 2-3=-1929/0, 3-5=-2524/0, 5-6=-2560/0, 6-7=-2273/0, 7-8=-1942/0, 8-9=-730/58
BOT CHORD 22-23=0/1505, 21-22=0/2356, 20-21=0/2356, 19-20=0/2688, 18-19=0/2273, 17-18=0/2273, 16-17=0/2273, 14-16=0/1416, 13-14=-273/0, 12-13=-272/0
WEBS 6-18=-396/0, 7-17=0/701, 9-13=-947/0, 1-23=0/971, 2-23=-916/0, 2-22=0/551, 3-22=-545/0, 5-19=-255/76, 6-19=0/532, 9-14=0/976, 8-14=-893/0, 8-16=0/742, 7-16=-1012/0

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.
3) CAUTION, Do not erect truss backwards.

August 27,2018

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, 216 N. Lee Street, Suite 312, Alexandria, VA 22314.

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Madison Floor	
LGI_HOMES	F4	FLOOR	12	1	Job Reference (optional)	E12139582

Probuild East, Albemarle , NC 28001 — 8.220 s May 24 2018 MiTek Industries, Inc. Mon Aug 27 12:11:35 2018 Page 1
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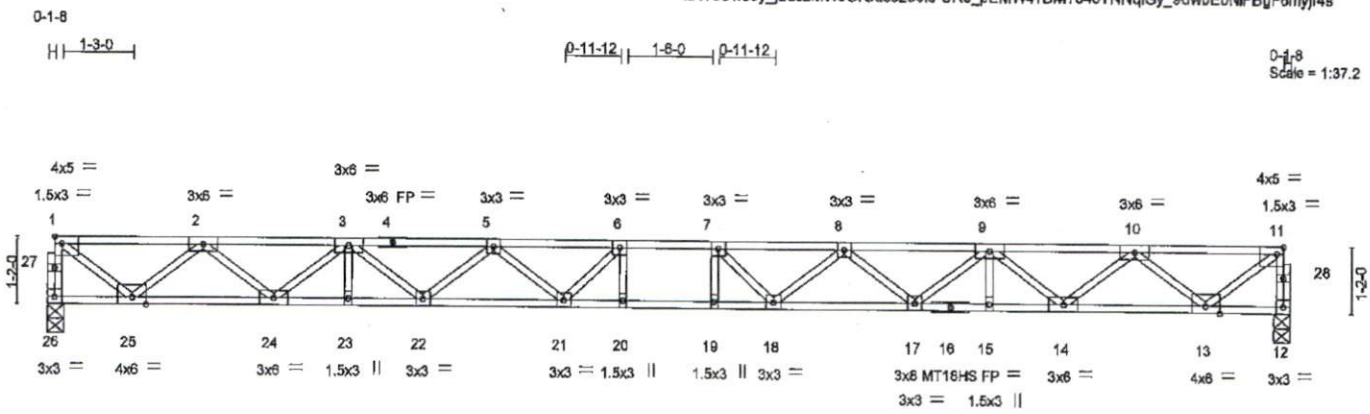


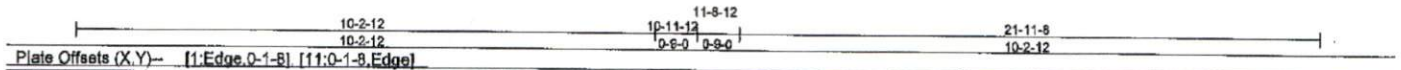


Plate Offsets (X,Y)-- [1:Edge,0-1-8], [11:0-1-8,Edge]

LOADING (psf)		SPACING-	1-7-3	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.33	Vert(LL)	-0.43	19-20	>603	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.53	Vert(TL)	-0.68	19-20	>385	240	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.66	Horz(TL)	0.10	12	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-SH							Weight: 112 lb	FT = 20%F, 11%E

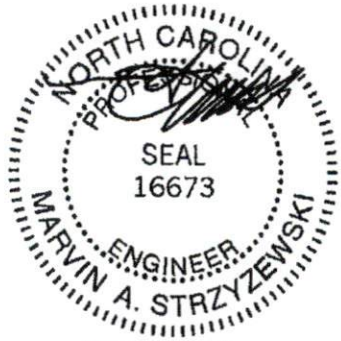
LUMBER-
TOP CHORD 2x4 SP DSS(flat)
BOT CHORD 2x4 SP DSS(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (lb/size) 26=950/0-3-8, 12=950/0-3-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-26=-945/0, 11-12=-945/0, 1-2=-1140/0, 2-3=-2889/0, 3-5=-4133/0, 5-6=-4788/0, 6-7=-4944/0, 7-8=-4788/0, 8-9=-4133/0, 9-10=-2889/0, 10-11=-1140/0
BOT CHORD 24-25=0/2153, 23-24=0/3638, 22-23=0/3638, 21-22=0/4582, 20-21=0/4944, 19-20=0/4944, 18-19=0/4944, 17-18=0/4582, 15-17=0/3638, 14-15=0/3638, 13-14=0/2153
WEBS 1-25=0/1384, 2-25=-1319/0, 2-24=0/958, 3-24=-955/0, 3-22=0/632, 5-22=-585/0, 5-21=0/432, 6-21=-501/148, 11-13=0/1384, 10-13=-1319/0, 10-14=0/958, 9-14=-955/0, 9-17=0/632, 8-17=-585/0, 8-18=0/432, 7-18=-501/148

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Required 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.



August 27,2018

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Madison Floor
LGI_HOMES	F5E	Floor Supported Gable	1	1	E12139583

Job Reference (optional)

Prebuild East, Albemarle , NC 28001 — 8.220 s May 24 2018 MiTek Industries, Inc. Mon Aug 27 12:11:36 2018 Page 1

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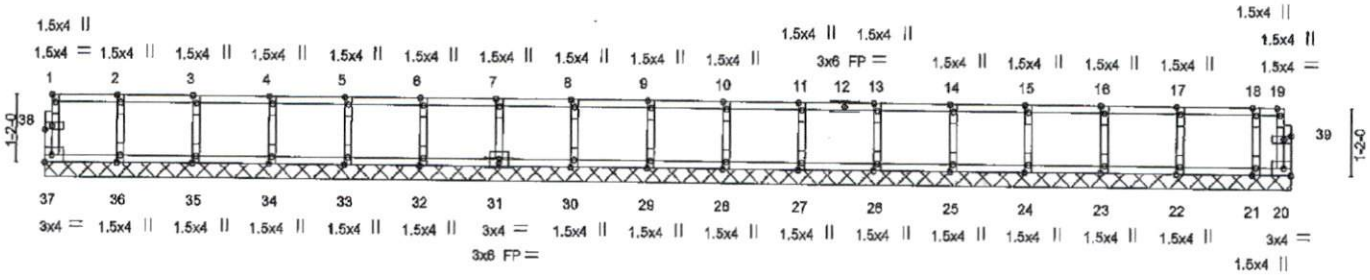
Scale = 1:37.0



21-11-8

21-11-8

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [38:0-1-8,0-0-12], [39:0-1-8,0-0-12]

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	20	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-R							Weight: 92 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-

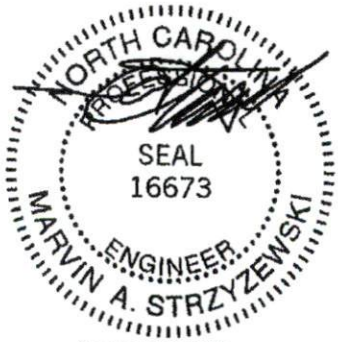
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 21-11-8.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 37, 20, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26, 25, 24, 23, 22, 21

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.



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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Madison Floor	
LGI_HOMES	F6G	Floor Girder	1	1	Job Reference (optional)	E12139584

Probuild East, Albemarle , NC 28001 — 8.220 s May 24 2018 MiTek Industries, Inc. Mon Aug 27 12:11:37 2018 Page 1
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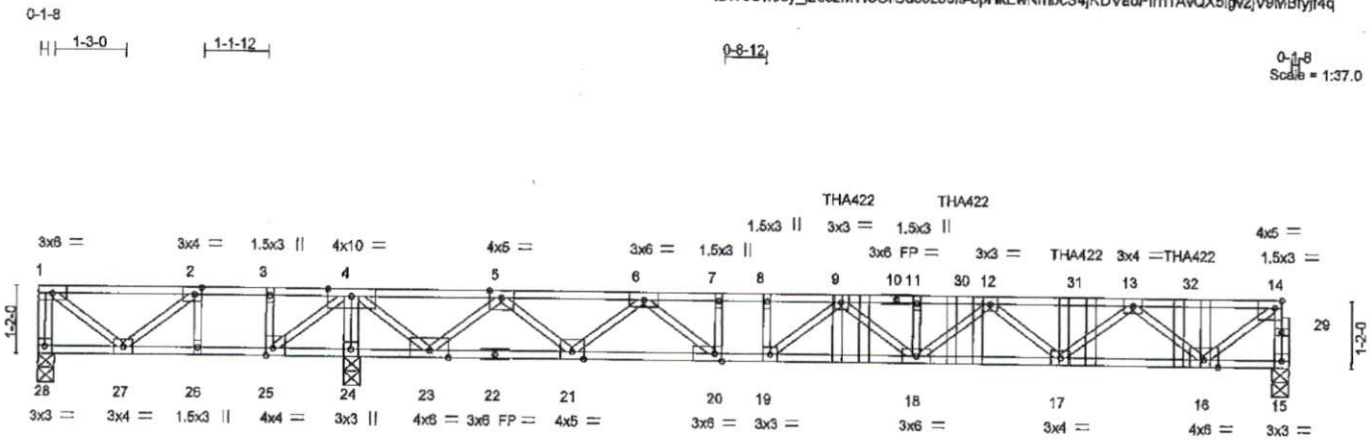


5-4-12 5-6-4 22-0-0
5-4-12 0-1-8 16-5-12

Plate Offsets (X,Y)-- [2:0-1-8,Edge], [14:0-1-8,Edge], [20:0-1-8,Edge], [25:0-1-8,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	0.95	Vert(LL)	-0.23	18-19	>842	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.85	Vert(TL)	-0.38	18-19	>522	240		
BCLL	0.0	Rep Stress Incr	NO	WB	0.76	Horz(TL)	0.04	15	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-SH							Weight: 115 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.2(flat)
BOT CHORD 2x4 SP No.1(flat) *Except*
15-22: 2x4 SP DSS(flat)
WEBS 2x4 SP No.3(flat)

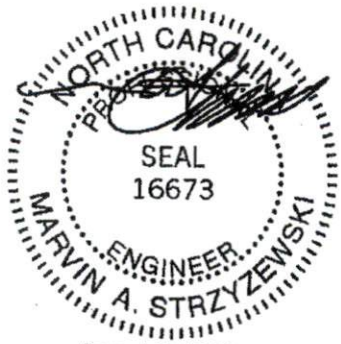
BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-8-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (lb/size) 28=4/0-3-8, 15=1029/0-3-8, 24=1678/0-3-8
Max Uplift 28=-235(LC 3)
Max Grav 28=160(LC 2), 15=1032(LC 4), 24=1678(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 14-15=-1027/0, 1-2=-55/349, 2-3=0/896, 3-4=0/896, 4-5=0/355, 5-6=-1722/0, 6-7=-3174/0, 7-8=-3174/0, 8-9=-3174/0, 9-11=-3571/0, 11-12=-3571/0, 12-13=-2818/0, 13-14=-1200/0
BOT CHORD 26-27=-896/0, 25-26=-896/0, 24-25=-1666/0, 23-24=-1666/0, 21-23=0/956, 20-21=0/2509, 19-20=0/3174, 18-19=0/3574, 17-18=0/3362, 16-17=0/2257
WEBS 4-24=-1817/0, 1-27=-437/69, 4-25=0/1189, 2-27=0/699, 2-26=-412/0, 3-25=-318/0, 4-23=0/1647, 5-23=-1470/0, 5-21=0/1020, 6-21=-1049/0, 6-20=0/959, 7-20=-351/0, 14-16=0/1453, 13-16=-1376/0, 13-17=0/731, 12-17=-709/0, 12-18=0/266, 9-19=-670/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 28. This connection is for uplift only and does not consider lateral forces.
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.
5) Use Simpson Strong-Tie THA422 (Single Chord Girder) or equivalent spaced at 2-0-0 oc max. starting at 14-3-8 from the left end to 20-3-8 to connect truss(es) to back face of top chord.
6) Fill all nail holes where hanger is in contact with lumber.
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: 15-28=-10, 1-14=-100
Concentrated Loads (lb)
Vert: 9=-81(B) 30=-81(B) 31=-81(B) 32=-81(B)



August 27,2018

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Job	Truss	Truss Type	Qty	Ply	Madison Floor	
LGI_HOMES	F7E	Floor Supported Gable	1	1	Job Reference (optional)	E12139585

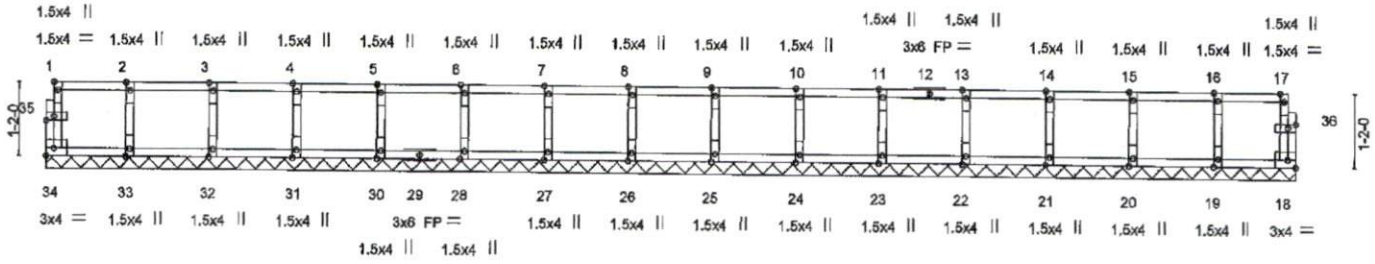
Probuild East, Albemarle , NC 28001

8.220 s May 24 2018 MiTek Industries, Inc. Mon Aug 27 12:11:38 2018 Page 1
ID:TcUwJoy_j2uszMW5OrUdsozo9ls-c0r7RGOOMwaxKTch8VwXNuaYLq4TRJxBy9vvj5yjf4p

0-1-8

0-1-8

Scale = 1:33.5



19-11-0
19-11-0

Plate Offsets (X,Y)-- [1:Edge,0-0-12], [35:0-1-8,0-0-12], [36:0-1-8,0-0-12]

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	18	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-R							Weight: 83 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 19-11-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 34, 18, 33, 32, 31, 30, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19

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.

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Job	Truss	Truss Type	Qty	Ply	Madison Floor	
LGI_HOMES	F8	Floor	10	1	Job Reference (optional)	E12139586

Probuild East, Albemarle , NC 28001 — 8.220 s May 24 2018 MiTek Industries, Inc. Mon Aug 27 12:11:39 2018 Page 1
ID:TcUwJoy_j2uszMW5OrUdsozo9is-4CPVfcP07EloydNuICRnw67fXEJ1Ab7LApeSFXyjf4o

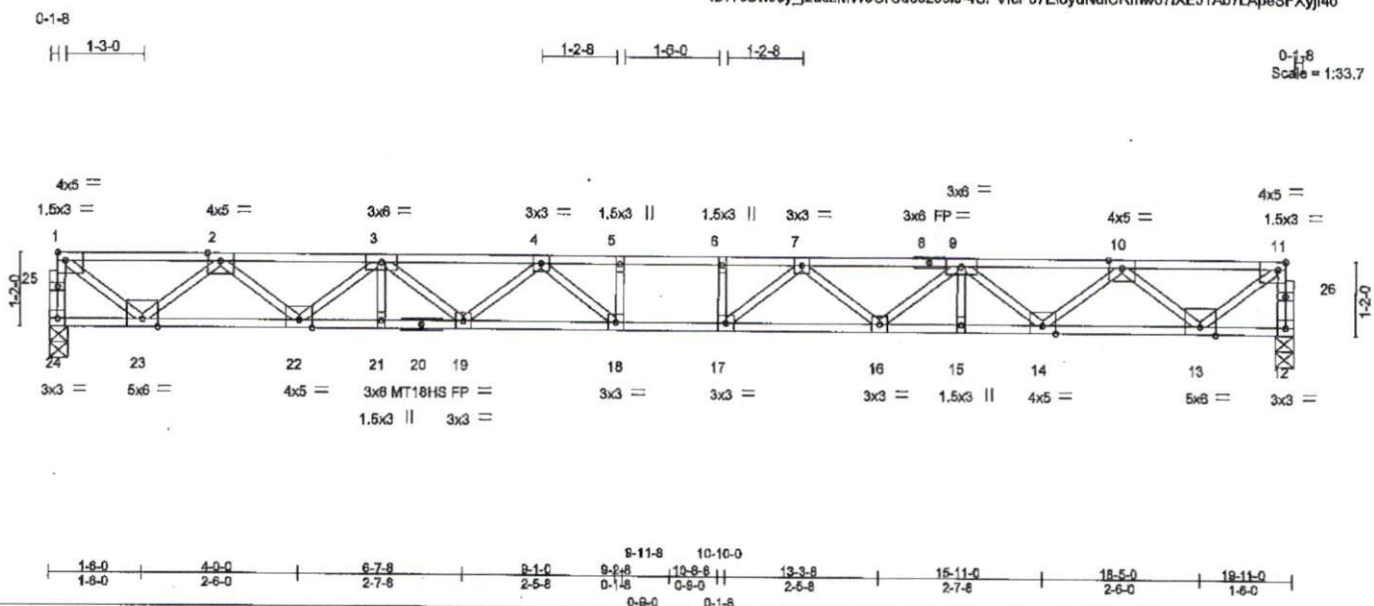

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [11:0-1-8,Edge]

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	0.37	Vert(LL)	-0.37	17-18	>640	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.50	Vert(TL)	-0.58	17-18	>410	240	MT18HS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.74	Horz(TL)	0.09	12	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-SH							Weight: 101 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 24=1075/0-3-8, 12=1075/0-3-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-24=-1070/0, 11-12=-1070/0, 1-2=-1279/0, 2-3=-3199/0, 3-4=-4468/0, 4-5=-5062/0, 5-6=-5062/0, 6-7=-5062/0, 7-8=-4468/0, 9-10=-3199/0, 10-11=-1279/0
BOT CHORD 22-23=0/2411, 21-22=0/3996, 19-21=0/3996, 18-19=0/4887, 17-18=0/5062, 16-17=0/4887, 15-16=0/3996, 14-15=0/3996, 13-14=0/2411
WEBS 5-18=-270/47, 6-17=-270/47, 1-23=0/1551, 2-23=-1474/0, 2-22=0/1026, 3-22=-1017/0, 3-19=0/602, 4-19=-546/0, 4-18=-195/609, 11-13=0/1551, 10-13=-1474/0, 10-14=0/1026, 9-14=-1017/0, 9-16=0/602, 7-16=-546/0, 7-17=-195/609

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.

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Job	Truss	Truss Type	Qty	Ply	Madison Floor	E12139587
LGI_HOMES	F9E	GABLE	1	1	Job Reference (optional)	

Probuild East, Albemarle , NC 28001 — 8.220 s May 24 2018 MiTek Industries, Inc. Mon Aug 27 12:11:39 2018 Page 1
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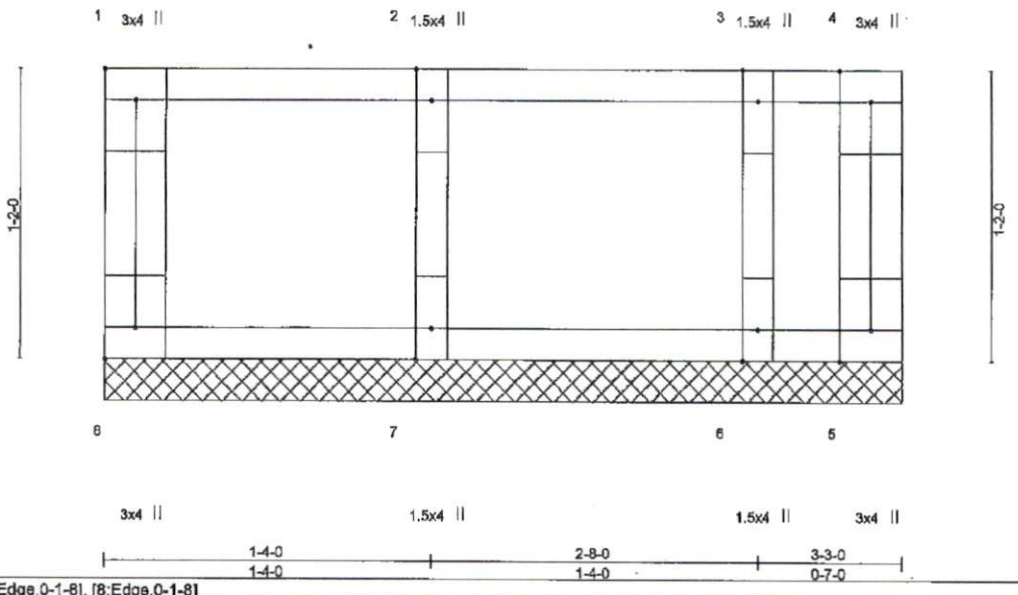

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [8:Edge,0-1-8]

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	0.08	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	5	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-R							Weight: 18 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 3-3-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 3-3-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 8, 5, 7, 6

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.

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Job	Truss	Truss Type	Qty	Ply	Madison Floor	
LGI_HOMES	F10	Floor	4	1	Job Reference (optional)	E12139588

Prebuild East, Albemarle , NC 28001 — 8.220 s May 24 2016 MiTek Industries, Inc. Mon Aug 27 12:11:30 2018 Page 1
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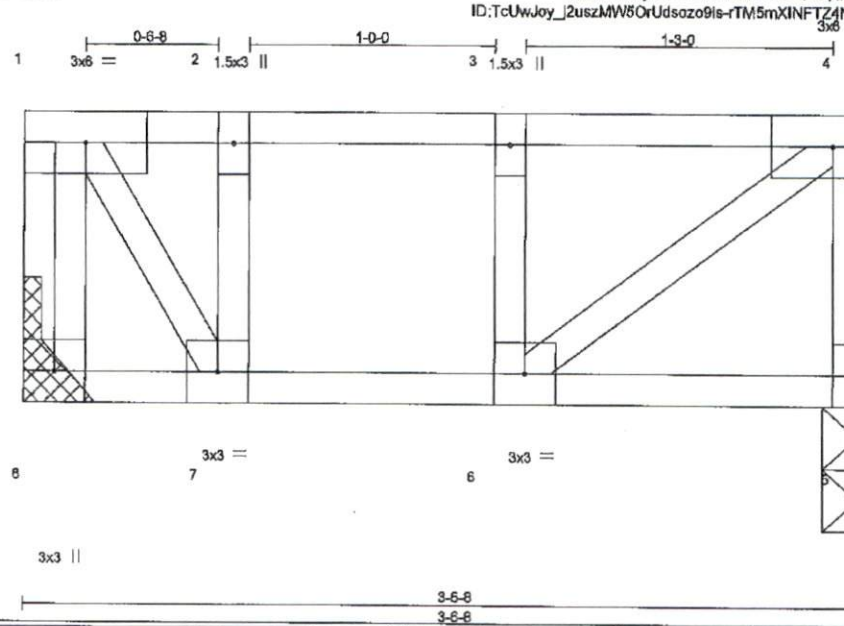

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	In	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.14	Vert(LL)	-0.01	6	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.14	Vert(TL)	-0.01	6	>999	240		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(TL)	0.00	5	n/a	n/a		
BCDL	5.0	Code IRC2009/TPI2007		Matrix-SH							Weight: 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 3-6-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=181/Mechanical, 5=181/0-3-8

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.

August 27,2018

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.

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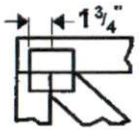
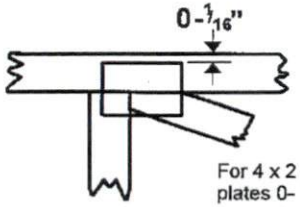
Symbols

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.

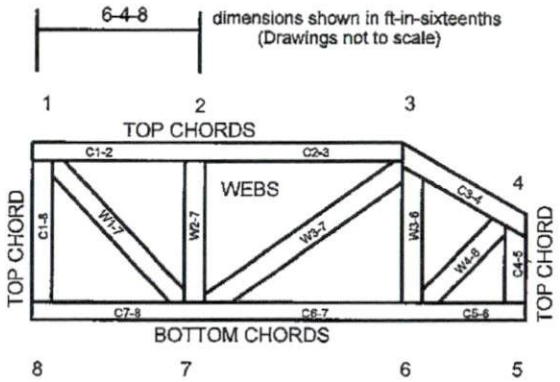
BEARING

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.

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MiTek Engineering Reference Sheet: MII-7473 rev. 10/03/2015

⚠ 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. Español - (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.)

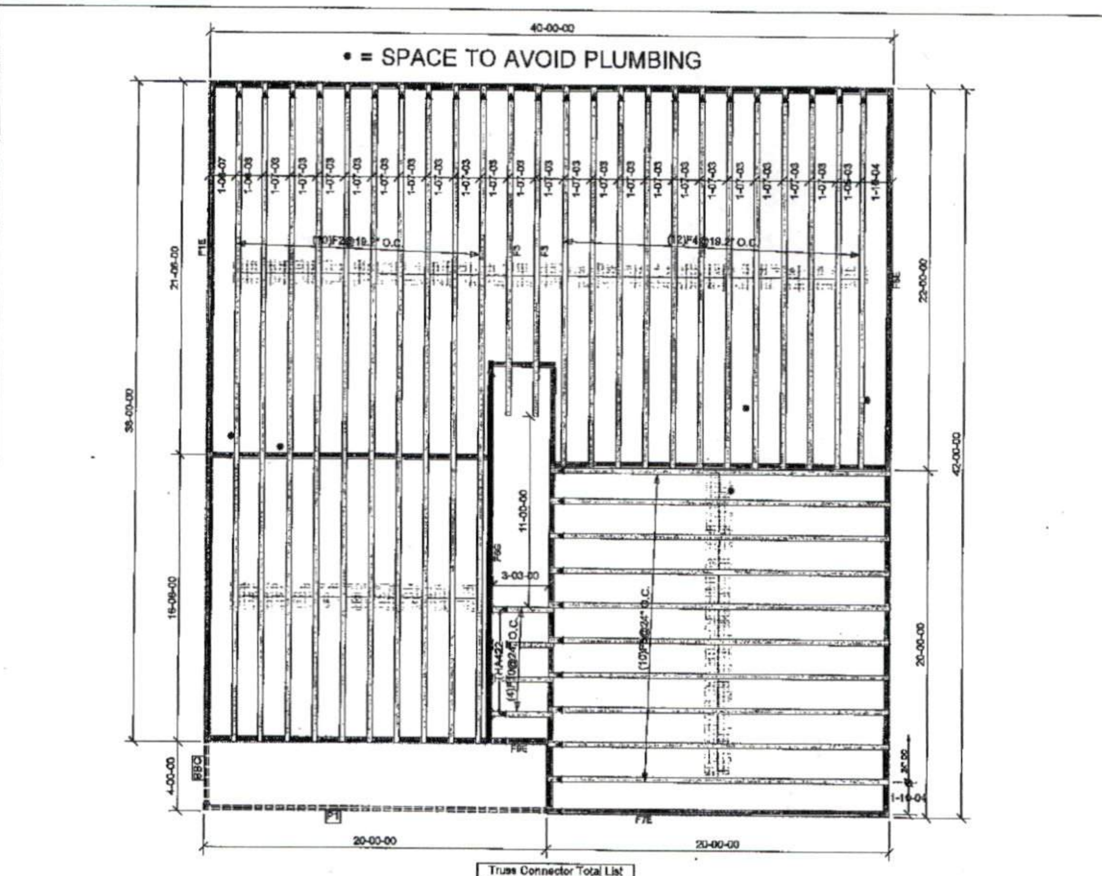
1. This Truss Placement Diagram is intended to serve as a guide for truss installation. This Diagram has been prepared by a Truss Technician and is not an engineered drawing.
2. The responsibilities of the Owner, Building Designer, Contractor, Truss Designer, and Truss Manufacturer shall be as defined 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 application. 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. 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 sheathing and floor truss spacing used in the project. Consult tile assemblies as 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 surrounds, etc. If we do not note these additional loads on the placement diagram or truss design drawings, then they have not been added.
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. Español - (TRUSSES (CERCHAS) DEBERÁN TENER UN SOPORTE DURANTE LA INSTALACIÓN. NO HACERLO PODRÍA 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
1593.17 SQ FT



Truss Connector Total List		
Manuf	Product	Qty
Simpson	THA422	4

No Scale

Customer Name: LGI Homes
Subdivision:
Lot#:
Plan Name: Madison
File Name: Madison

Builders FirstSource
Albemarle, NC

Revisions:

Drawn By: JEFF BURRIS
DATE: 12/5/2018
Page Number
1 of 1

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 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-corrosive 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 revised 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 infrags, installed over roof trusses shall have a knee brace from the rafter to the truss top chord at intervals of 48" on center (O.C.) or less. Stagger knee braces on 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 framed 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 MiTek 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 attachment to non-load bearing walls and carefully complete these details to avoid gypsum wall board related issues.

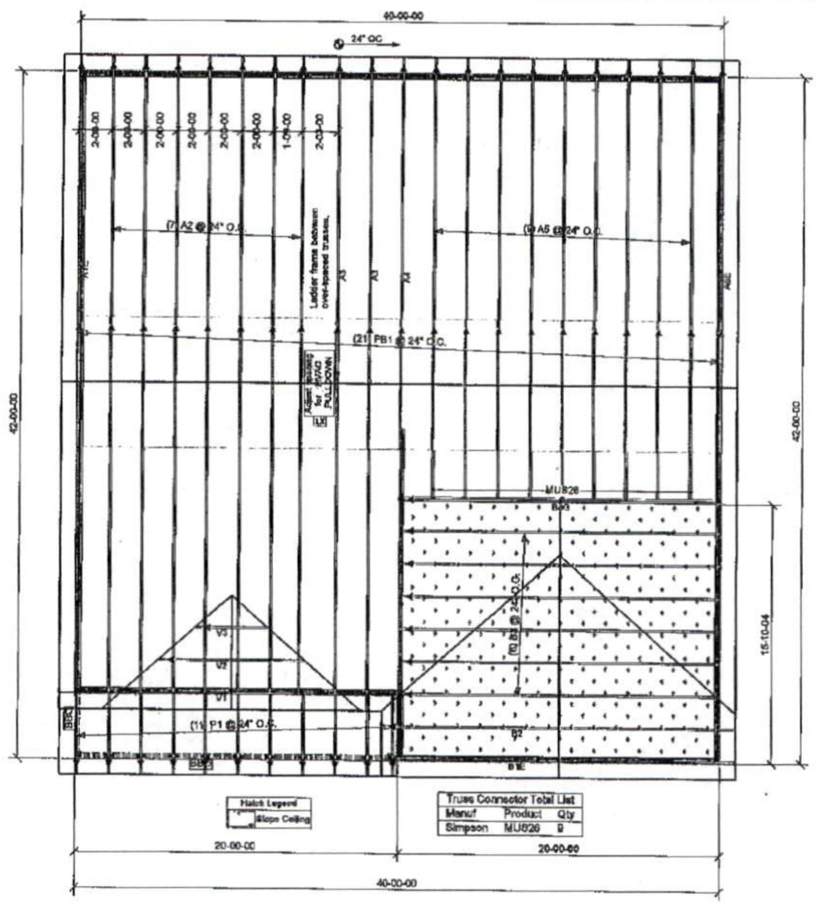
WARNING:

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 state, 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
2223.38 SQ FT



Hatch Legend	
	Slope Ceiling

Truss Connector Total List		
Manuf	Product	Qty
Simpson	MU826	9

Until the 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: Madison 2
File Name	Madison 2

Builders FirstSource
Albemarle, NC

Revisions:

Drawn By: JEFF BURRIS

DATE: 12/5/2018

Page Number
1 of 1

ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: LGI_Homes
Madison 2 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: E10819616 thru E10819630

My license renewal date for the state of North Carolina is December 31, 2017.

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.

August 8,2017

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	Madison 2 Roof	
LGI_HOMES	A1E	Piggyback Base Supported Gable	1	1	Job Reference (optional)	E10819816

Builders FirstSource, Albemarle , NC 28001

7.840 s Apr 16 2016 MiTek Industries, Inc. Tue Aug 08 08:50:30 2017 Page 1

ID:IqyaVap7o01QHXjfK1W0tWzo8rX-3GKqjuMnMteFlNmEg9WcoKYEU1uUlqhrl7Ztisypzhd

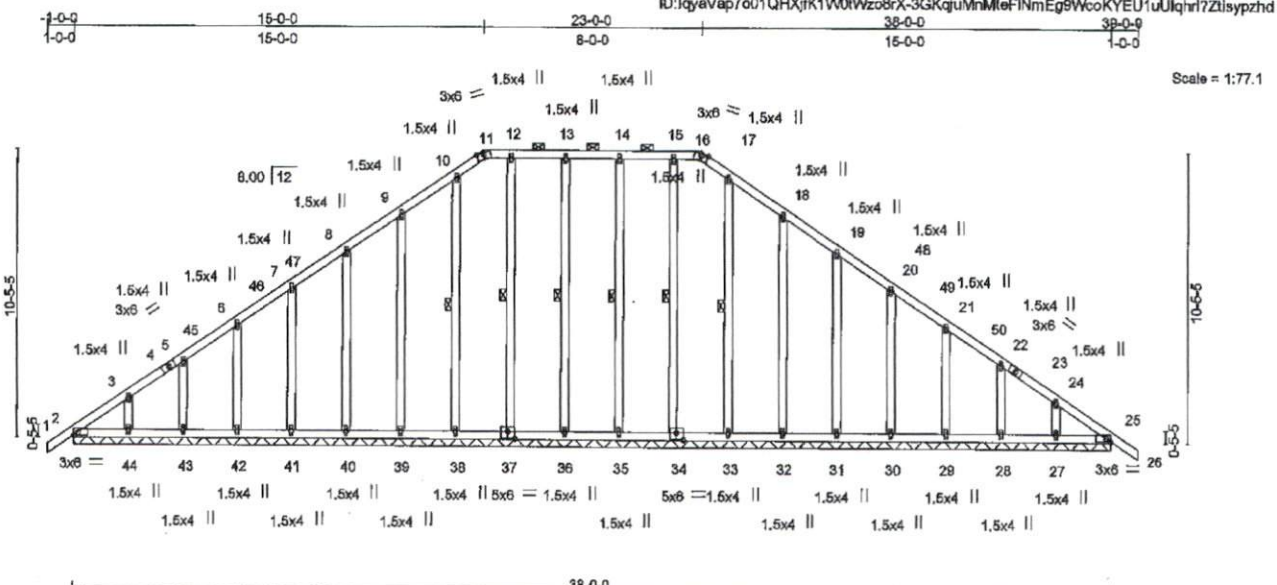


Plate Offsets (X,Y)-- [34:0-3-0,0-3-0], [37:0-3-0,0-3-0]

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	0.10	Vert(LL)	-0.00	26	n/r	120	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	-0.00	26	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.24	Horz(TL)	0.01	25	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 294 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, except 2-0-0 oc purlins (6-0-0 max.): 11-16.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 13-36, 12-37, 10-38, 14-35, 15-34, 17-33

REACTIONS. (lb/size) 2=157/38-0-0, 36=161/38-0-0, 37=153/38-0-0, 38=151/38-0-0, 39=161/38-0-0, 40=160/38-0-0, 41=160/38-0-0, 42=160/38-0-0, 43=161/38-0-0, 44=156/38-0-0, 35=162/38-0-0, 34=153/38-0-0, 33=150/38-0-0, 32=162/38-0-0, 31=160/38-0-0, 30=160/38-0-0, 29=160/38-0-0, 28=161/38-0-0, 27=156/38-0-0, 25=157/38-0-0
Max Horz 2=294(LC 9)
Max Uplift 2=-86(LC 8), 36=-52(LC 8), 37=-31(LC 9), 38=-20(LC 9), 39=-43(LC 11), 40=-26(LC 11), 41=-40(LC 10), 42=-62(LC 10), 43=-65(LC 10), 44=-59(LC 10), 35=-49(LC 8), 34=-22(LC 9), 32=-44(LC 11), 31=-27(LC 10), 30=-40(LC 11), 29=-62(LC 11), 28=-65(LC 11), 27=-57(LC 11), 25=-22(LC 9)
Max Grav 2=157(LC 1), 36=231(LC 19), 37=205(LC 19), 38=203(LC 20), 39=231(LC 20), 40=226(LC 20), 41=227(LC 20), 42=223(LC 20), 43=161(LC 21), 44=156(LC 21), 35=232(LC 19), 34=205(LC 19), 33=203(LC 20), 32=232(LC 20), 31=225(LC 20), 30=227(LC 20), 29=223(LC 20), 28=161(LC 22), 27=156(LC 22), 25=157(LC 1)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/29, 2-3=-275/183, 3-4=-225/159, 4-5=-213/170, 5-45=-184/158, 6-45=-178/166, 6-46=-144/154, 7-46=-132/161, 7-47=-103/143, 8-47=-98/155, 8-9=-76/150, 9-10=-78/202, 10-11=-68/209, 11-12=-21/206, 12-13=-23/206, 13-14=-23/206, 14-15=-23/206, 15-16=-21/206, 16-17=-67/209, 17-18=-78/203, 18-19=-75/136, 19-48=-25/88, 20-48=-76/76, 20-49=-26/54, 21-49=-75/48, 21-50=-72/60, 22-50=-79/52, 22-23=-108/64, 23-24=-120/52, 24-25=-175/74, 25-26=0/29
BOT CHORD 2-44=-47/189, 43-44=-47/189, 42-43=-47/189, 41-42=-47/189, 40-41=-47/189, 39-40=-47/189, 38-39=-47/189, 37-38=-47/189, 36-37=-48/189, 35-36=-48/189, 34-35=-48/189, 33-34=-47/189, 32-33=-47/189, 31-32=-47/189, 30-31=-47/189, 29-30=-47/189, 28-29=-47/189, 27-28=-47/189, 25-27=-47/189
WEBS 13-36=-190/76, 12-37=-164/55, 10-38=-165/43, 9-39=-191/98, 8-40=-185/77, 7-41=-187/80, 6-42=-183/87, 5-43=-120/88, 3-44=-117/89, 14-35=-190/74, 15-34=-165/46, 17-33=-165/9, 18-32=-191/98, 19-31=-185/77, 20-30=-187/80, 21-29=-183/87, 22-28=-120/88, 24-27=-117/88

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 2-9-10, Exterior(2) 2-9-10 to 15-0-0, Corner(3) 15-0-0 to 26-9-10, Exterior(2) 26-9-10 to 39-0-0 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=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
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) Provide adequate drainage to prevent water ponding.

Continued on page 2

NORTH CAROLINA PROFESSIONAL SEAL 16673 ENGINEER MARVIN A. STRZYZEWSKI

August 8,2017

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

NOTES-

8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * 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.
12) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 36, 37, 38, 39, 40, 41, 42, 43, 44, 35, 32, 31, 30, 29, 28, 27 , and 25. This connection is for uplift only and does not consider lateral forces.
13) One MTS12 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 34. This connection is for uplift only and does not consider lateral forces.
14) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.
15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	Madison 2 Roof	
LGI_HOMES	A2	PIGGYBACK BASE	7	1		E10819617

Builders FirstSource, Albemarle , NC 28001

Job Reference (optional)

7.640 s Apr 19 2016 MiTek Industries, Inc. Tue Aug 08 08:50:31 2017 Page 1

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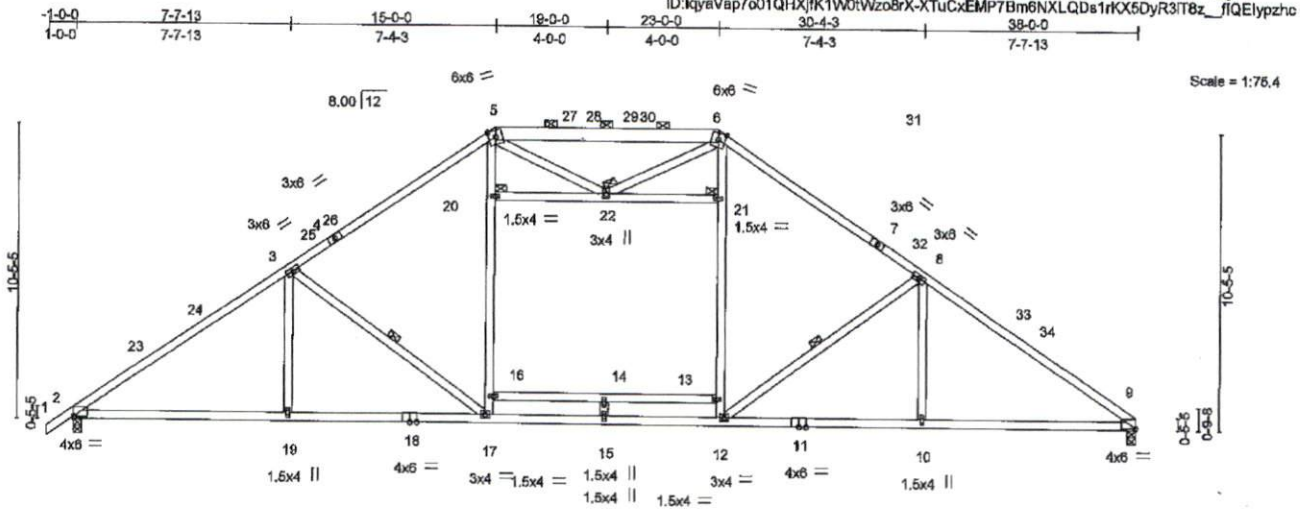


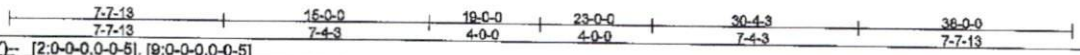


Plate Offsets (X,Y)-- [2:0-0-0,0-0-5], [9:0-0-0,0-0-5]

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	0.88	Vert(LL)	-0.51	12-15	>896	240	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.74	Vert(TL)	-0.78	13-14	>582	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.82	Horz(TL)	0.16	9	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 238 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD 2x4 SP DSS *Except*
5-6: 2x6 SP No.2
BOT CHORD 2x4 SP No.1 *Except*
13-16: 2x4 SP No.2, 11-18: 2x4 SP DSS
WEBS 2x4 SP No.3 *Except*
5-17,6-12: 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (2-5-6 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-17, 8-12
JOINTS 1 Brace at Jt(s): 20, 21, 22

REACTIONS. (lb/size) 2=1993/0-3-8, 9=1922/0-3-8
Max Horz 2=300(LC 9)
Max Uplift 2=-120(LC 10), 9=-72(LC 11)
Max Grav 2=2154(LC 20), 9=2094(LC 20)

FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/30, 2-23=-3363/171, 23-24=-3272/176, 3-24=-3117/204, 3-25=-2790/193, 4-25=-2734/196, 4-26=-2687/201, 5-26=-2578/237, 5-27=-2074/252, 27-28=-2074/252, 28-29=-2074/252, 29-30=-2074/252, 6-30=-2074/252, 6-31=-2579/242, 7-31=-2688/204, 7-32=-2746/199, 8-32=-2791/198, 8-33=-3122/210, 33-34=-3258/184, 9-34=-3347/181
BOT CHORD 2-19=-148/2686, 18-19=-148/2686, 17-18=-148/2686, 15-17=0/2114, 12-15=0/2114, 11-12=-74/2691, 10-11=-74/2691, 9-10=-74/2691, 14-16=0/42, 13-14=0/42
WEBS 3-19=0/311, 3-17=-662/197, 16-17=0/832, 16-20=0/1003, 5-20=0/1007, 12-13=0/834, 13-21=0/1005, 6-21=0/1009, 8-12=-668/204, 8-10=0/160, 14-15=-156/0, 20-22=-169/91, 21-22=-185/92, 5-22=-119/119, 6-22=-122/119

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 2-9-10, Interior(1) 2-9-10 to 15-0-0, Exterior(2) 15-0-0 to 28-4-8, Interior(1) 28-4-8 to 37-10-4 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=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
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) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 9. 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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

August 8,2017

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

Job	Truss	Truss Type	Qty	Ply	Madison 2 Roof	E10819618
LGI_HOMES	A3	PIGGYBACK BASE	2	1	Job Reference (optional)	

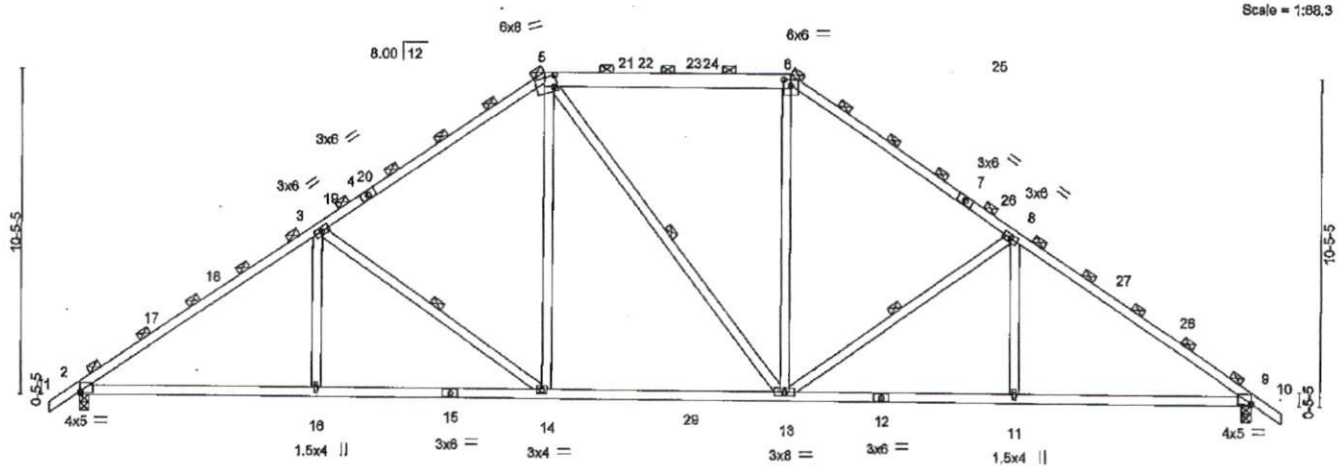
Builders FirstSource, Albemarle , NC 28001

7.640 s Apr 18 2016 MiTek Industries, Inc. Tue Aug 08 08:50:32 2017 Page 1

ID:IqyaVsp7o01QHXjfK1W0tWzo8rX-?fSb8aN1uVuz_hwcnaY4tieMsrKDChd8DJ2zmlypzhb

-1-0-0	7-7-13	15-0-0	23-0-0	30-4-3	36-0-0	38-0-0
1-0-0	7-7-13	7-4-3	8-0-0	7-4-3	7-7-13	1-0-0

Scale = 1:68.3



7-7-13	15-0-0	23-0-0	30-4-3	38-0-0
7-7-13	7-4-3	8-0-0	7-4-3	7-7-13

Plate Offsets (X,Y)-- [2:0-0-0,0-0-9], [5:0-1-8,0-4-4], [6:0-3-0,0-2-3], [9:0-0-0,0-0-9]

LOADING (psf)		SPACING-	2-1-8	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.26	13-14	>999	240	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.98	Vert(TL)	-0.46	13-14	>976	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.34	Horz(TL)	0.16	9	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 221 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SP DSS *Except* 5-6: 2x6 SP No.2
BOT CHORD	2x4 SP No.2 *Except* 12-15: 2x4 SP No.1
WEBS	2x4 SP No.3

BRACING-

TOP CHORD	2-0-0 oc purlins (2-4-4 max.) (Switched from sheeted: Spacing > 2-0-0).
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 3-14, 5-13, 8-13

REACTIONS. (lb/size) 2=1783/0-3-8, 9=1768/0-3-8
Max Horz 2=310(LC 9)
Max Uplift 2=-180(LC 10), 9=-180(LC 11)
Max Grav 2=1955(LC 20), 9=1939(LC 20)

FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/31, 2-17=-3002/266, 17-18=-2905/271, 3-18=-2740/301, 3-19=-2335/298, 4-19=-2287/299, 4-20=-2226/306, 5-20=-2111/344, 5-21=-1745/347, 21-22=-1745/347, 22-23=-1745/347, 23-24=-1745/347, 6-24=-1745/347, 6-25=-2081/344, 7-25=-2196/306, 7-26=-2257/299, 8-26=-2305/298, 8-27=-2713/301, 27-28=-2878/271, 9-28=-2975/266, 9-10=0/31
BOT CHORD	2-16=-209/2385, 15-16=-209/2385, 14-15=-209/2385, 14-29=-119/1771, 13-29=-119/1771, 12-13=-134/2362, 11-12=-134/2362, 9-11=-134/2362
WEBS	3-16=0/342, 3-14=-761/195, 5-14=-11/752, 5-13=-216/176, 6-13=-6/701, 8-13=-765/196, 8-11=0/341

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 2-9-10, Interior(1) 2-9-10 to 15-0-0, Exterior(2) 15-0-0 to 28-4-8, Interior(1) 28-4-8 to 39-0-0 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=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
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) Provide adequate drainage to prevent water ponding.
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, with BCDL = 10.0psf.
9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 9. 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.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

August 8,2017

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

Job	Truss	Truss Type	Qty	Ply	Madison 2 Roof	E10619819
LGI_HOMES	A4	Piggyback Base	1	1	Job Reference (optional)	

Builders FirstSource, Albemarle , NC 28001

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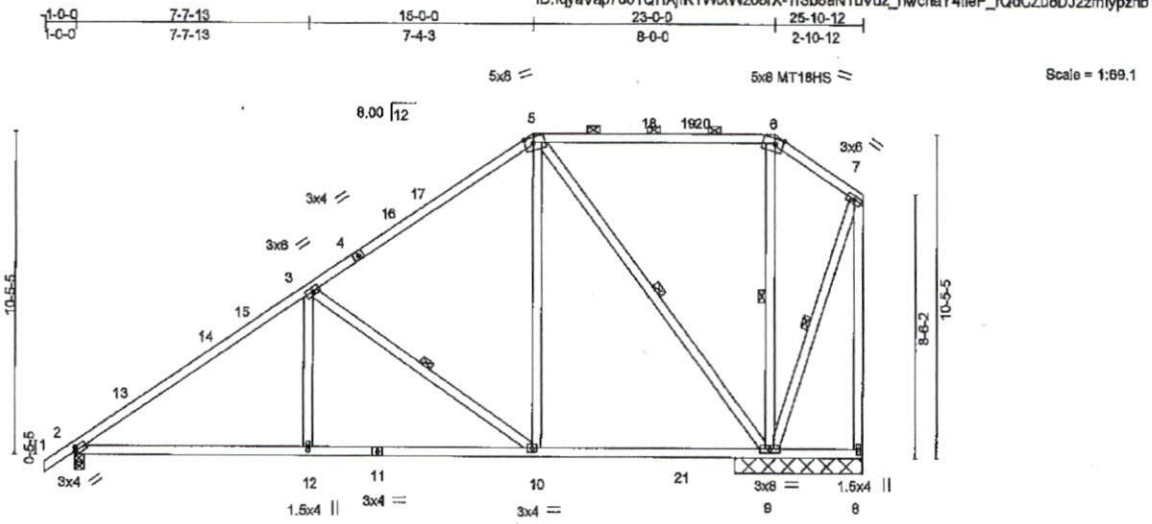

Plate Offsets (X,Y)-- [2:0-1-0,0-1-8], [5:0-3-4,0-2-0], [6:0-3-4,0-2-0]

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 0.80	Vert(LL)	-0.15	9-10	>999	240	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL 1.15	BC 0.64	Vert(TL)	-0.26	9-10	>999	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr YES	WB 0.84	Horz(TL)	0.04	9	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007	(Matrix)						Weight: 178 lb	FT = 20%
BCDL	10.0									

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
5-6: 2x4 SP DSS, 1-4: 2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-4-4 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 8-9.
WEBS 1 Row at midpt 3-10, 5-9, 6-9, 7-9

REACTIONS. (lb/size) 2=978/0-3-8, 8=-242/4-2-4, 9=1571/4-2-4
Max Horz 2=296(LC 10)
Max Uplift 2=-90(LC 10), 8=-278(LC 21), 9=-158(LC 9)
Max Grav 2=1070(LC 20), 8=29(LC 9), 9=1636(LC 20)

FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/30, 2-13=-1484/32, 13-14=-1395/42, 14-15=-1349/51, 3-15=-1238/70, 3-4=-838/63, 4-16=-677/79, 16-17=-630/85, 5-17=-624/107, 5-18=-1/99, 18-19=-1/99, 19-20=-1/99, 6-20=-1/99, 6-7=-22/198, 7-8=-27/235
BOT CHORD 2-12=-218/1145, 11-12=-218/1145, 10-11=-218/1145, 10-21=-97/529, 9-21=-97/529, 8-9=-4/1
WEBS 3-12=0/324, 3-10=-763/167, 5-10=0/728, 5-9=-1025/155, 6-9=-537/163, 7-9=-284/39

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 15-0-0, Exterior(2) 15-0-0 to 25-9-0 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=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
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) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 8, and 9. 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.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

August 8,2017

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

Job	Truss	Truss Type	Qty	Ply	Madison 2 Roof	E10819820
LGI_HOMES	A5	Piggyback Base	9	1	Job Reference (optional)	

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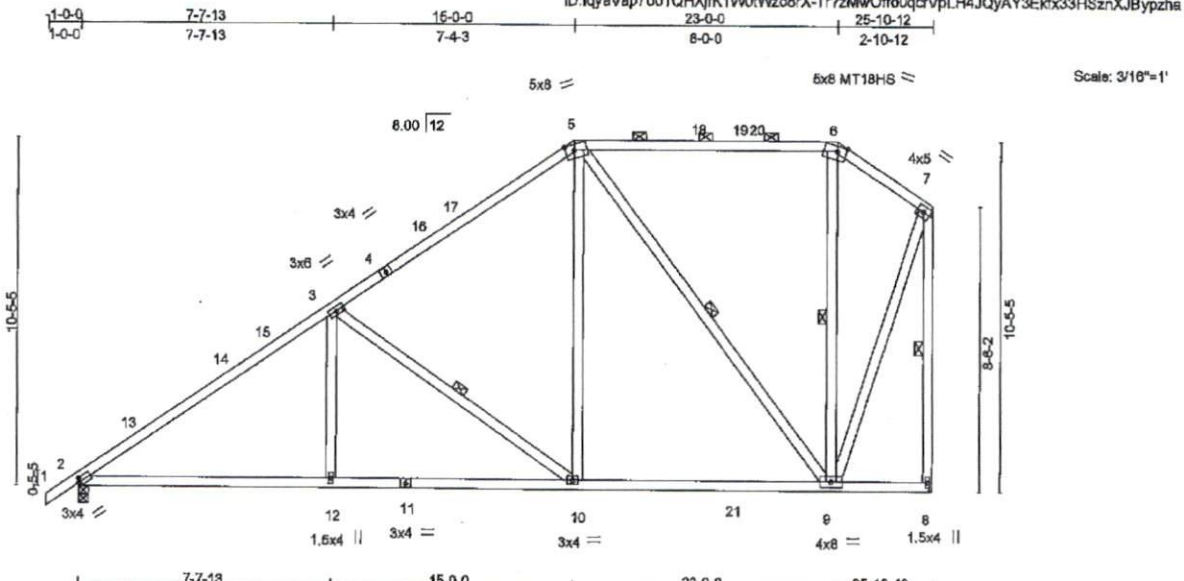

Plate Offsets (X,Y)-- [2:0-1-0,0-1-8], [5:0-3-4,0-2-0], [6:0-3-4,0-2-0]

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	0.91	Vert(LL)	-0.18	9-10	>999	240	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.72	Vert(TL)	-0.31	9-10	>976	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.65	Horz(TL)	0.05	8	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 178 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
5-6: 2x4 SP DSS, 1-4: 2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 6-0-0 oc bracing: 8-9.
WEBS 1 Row at midpt 3-10, 5-9, 6-9, 7-8

REACTIONS. (lb/size) 2=1155/0-3-8, 8=1151/Mechanical
Max Horz 2=296(LC 10)
Max Uplift 2=-102(LC 10), 8=-121(LC 11)
Max Grav 2=1255(LC 20), 8=1181(LC 20)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/30, 2-13=-1807/76, 13-14=-1717/86, 14-15=-1672/95, 3-15=-1561/115, 3-4=-1165/106, 4-16=-1004/122, 16-17=-957/126, 5-17=-951/151, 5-18=-339/108, 18-19=-339/108, 19-20=-339/108, 6-20=-339/108, 6-7=-424/89, 7-8=-1212/185
BOT CHORD 2-12=-254/1410, 11-12=-254/1410, 10-11=-254/1410, 10-21=-123/801, 9-21=-123/801, 8-9=-2/1
WEBS 3-12=0/323, 3-10=-754/166, 5-10=0/728, 5-9=-797/129, 6-9=-281/180, 7-9=-143/1045

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 15-0-0, Exterior(2) 15-0-0 to 25-9-0 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=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
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) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Refer to girder(s) for truss to truss connections.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 8.
12) 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.
13) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

August 8,2017

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Madison 2 Roof	E10619821
LGI_HOMES	A6E	Piggyback Base Supported Gable	1	1	Job Reference (optional)	

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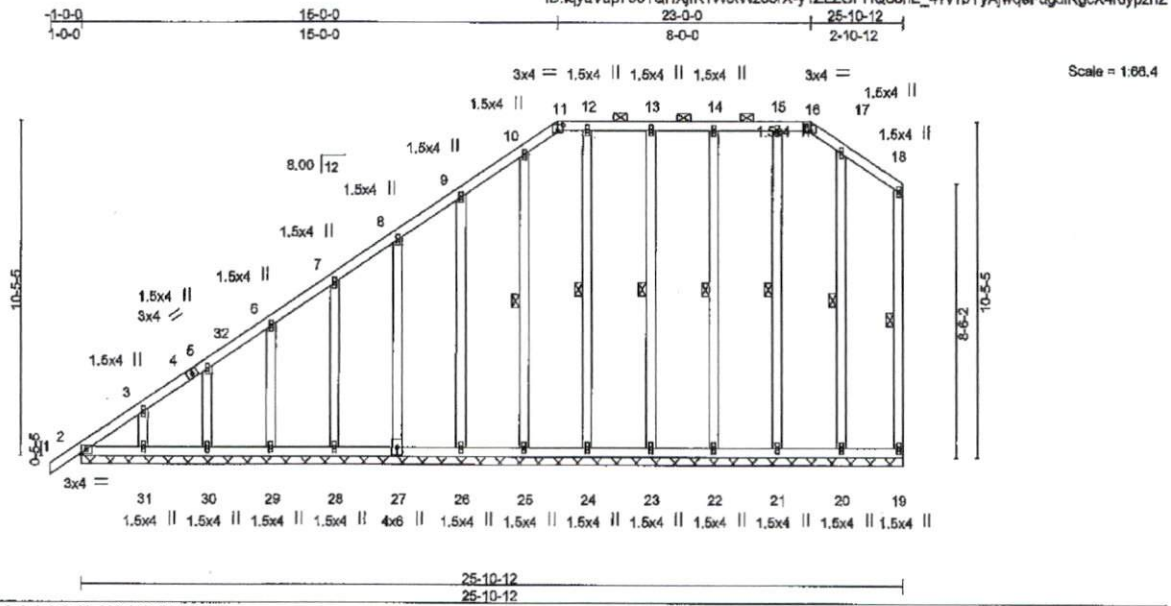

Plate Offsets (X,Y)-- [11:0-2-0,0-2-3], [16:0-2-0,0-2-3]

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	1	n/r	120	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	-0.00	1	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.24	Horz(TL)	0.00	19	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 223 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, and 2-0-0 oc purlins (6-0-0 max.): 11-16.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 18-19, 10-25, 12-24, 13-23, 14-22, 15-21, 17-20

REACTIONS. (lb/size) 19=60/25-10-12, 2=141/25-10-12, 26=160/25-10-12, 27=160/25-10-12, 28=160/25-10-12, 29=160/25-10-12, 30=162/25-10-12, 31=154/25-10-12, 25=160/25-10-12, 24=161/25-10-12, 23=159/25-10-12, 22=159/25-10-12, 21=161/25-10-12, 20=164/25-10-12

Max Horz 2=296(LC 10)

Max Uplift 19=-30(LC 11), 2=-41(LC 8), 26=-35(LC 11), 27=-28(LC 10), 28=-29(LC 11), 29=-44(LC 10), 30=-68(LC 10), 31=-63(LC 10), 25=-30(LC 9), 24=-43(LC 9), 23=-48(LC 8), 22=-45(LC 8), 21=-35(LC 9), 20=-30(LC 11)

Max Grav 19=88(LC 20), 2=170(LC 9), 26=229(LC 20), 27=226(LC 20), 28=227(LC 20), 29=222(LC 20), 30=162(LC 21), 31=154(LC 21), 25=214(LC 20), 24=212(LC 19), 23=229(LC 19), 22=228(LC 19), 21=215(LC 19), 20=216(LC 20)

FORCES. (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/29, 2-3=-342/105, 3-4=-276/83, 4-5=-264/95, 5-32=-220/82, 6-32=-213/90, 6-7=-179/85, 7-8=-138/80, 8-9=-97/74, 9-10=-57/70, 10-11=-48/72, 11-12=-6/71, 12-13=-6/71, 13-14=-6/71, 14-15=-6/71, 15-16=-6/71, 16-17=-46/71, 17-18=-32/52, 18-19=-73/38
BOT CHORD	2-31=-0/1, 30-31=-0/1, 29-30=-0/1, 28-29=-0/1, 27-28=-0/1, 26-27=-0/1, 25-26=-0/1, 24-25=-0/1, 23-24=-0/1, 22-23=-0/1, 21-22=-0/1, 20-21=-0/1, 19-20=-0/1
WEBS	9-26=-189/86, 8-27=-186/79, 7-28=-187/80, 6-29=-182/80, 5-30=-121/90, 3-31=-116/94, 10-25=-174/54, 12-24=-172/67, 13-23=-189/72, 14-22=-188/69, 15-21=-175/59, 17-20=-175/55

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 1-11-6, Exterior(2) 1-11-6 to 15-0-0, Corner(3) 15-0-0 to 25-9-0 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=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.1, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
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) Provide adequate drainage to prevent water ponding.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 2-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

Continued on page 2

NORTH CAROLINA PROFESSIONAL SEAL 16673 ENGINEER MARVIN A. STRZYZEWSKI

August 8,2017

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

Job	Truss	Truss Type	Qty	Ply	Madison 2 Roof
LGI_HOMES	A6E	Piggyback Base Supported Gable	1	1	E10819821
					Job Reference (optional)

Builders FirstSource, Albemarle , NC 28001

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NOTES-

11) * 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.
12) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 19, 2, 26, 27, 28, 29, 30, 31, 25, 24, 23, 22, 21, and 20. This connection is for uplift only and does not consider lateral forces.
13) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	Madison 2 Roof	
LGI_HOMES	B1E	GABLE	1	1	Job Reference (optional)	E10819622

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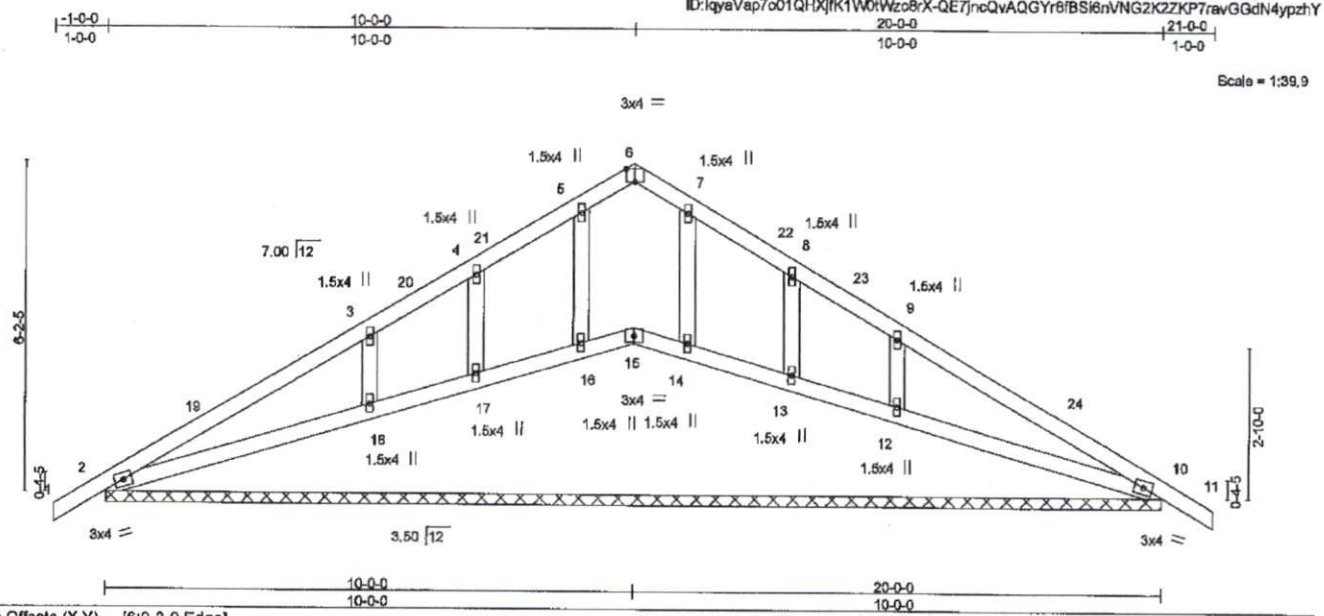

Plate Offsets (X,Y)-- [6:0-2-0,Edge]

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	0.28	Vert(LL)	0.01	11	n/r	120	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	0.03	11	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(TL)	0.00	10	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 87 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 6-0-0 oc bracing.

REACTIONS. (lb/size) 2=232/20-0-0, 15=0/20-0-0, 10=232/20-0-0, 16=181/20-0-0, 17=41/20-0-0, 18=406/20-0-0, 14=181/20-0-0, 13=41/20-0-0, 12=406/20-0-0
Max Horz 2=-173(LC 8)
Max Uplift 2=-57(LC 10), 15=-11(LC 9), 10=-78(LC 11), 16=-14(LC 9), 17=-21(LC 11), 18=-130(LC 10), 13=-18(LC 10), 12=-129(LC 11)
Max Grav 2=232(LC 1), 15=81(LC 11), 10=232(LC 1), 16=193(LC 3), 17=48(LC 3), 18=406(LC 1), 14=193(LC 4), 13=48(LC 4), 12=406(LC 1)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/25, 2-19=-137/80, 3-19=-121/98, 3-20=-69/55, 4-20=-49/66, 4-21=-30/70, 5-21=-26/78, 5-6=-39/79, 6-7=-39/80, 7-22=-8/76, 8-22=-28/68, 8-23=-39/53, 9-23=-69/43, 9-24=-68/46, 10-24=-84/27, 10-11=0/25
BOT CHORD 2-18=-32/146, 17-18=-27/141, 16-17=-25/143, 15-16=-25/140, 14-15=-26/140, 13-14=-24/143, 12-13=-31/142, 10-12=-27/146
WEBS 5-16=-143/38, 4-17=-50/50, 3-18=-281/168, 7-14=-143/13, 8-13=-50/49, 9-12=-281/167

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 10-0-0, Exterior(2) 10-0-0 to 13-0-0 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.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 15, 14 lb uplift at joint 16 , 21 lb uplift at joint 17, 130 lb uplift at joint 18, 18 lb uplift at joint 13 and 129 lb uplift at joint 12.
12) 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.
13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 15, 16, 17, 18, 14, 13, 12.
14) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.

August 8,2017

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

Job	Truss	Truss Type	Qty	Ply	Madison 2 Roof	E10819823
LGI_HOMES	B2	Scissor	1	1	Job Reference (optional)	

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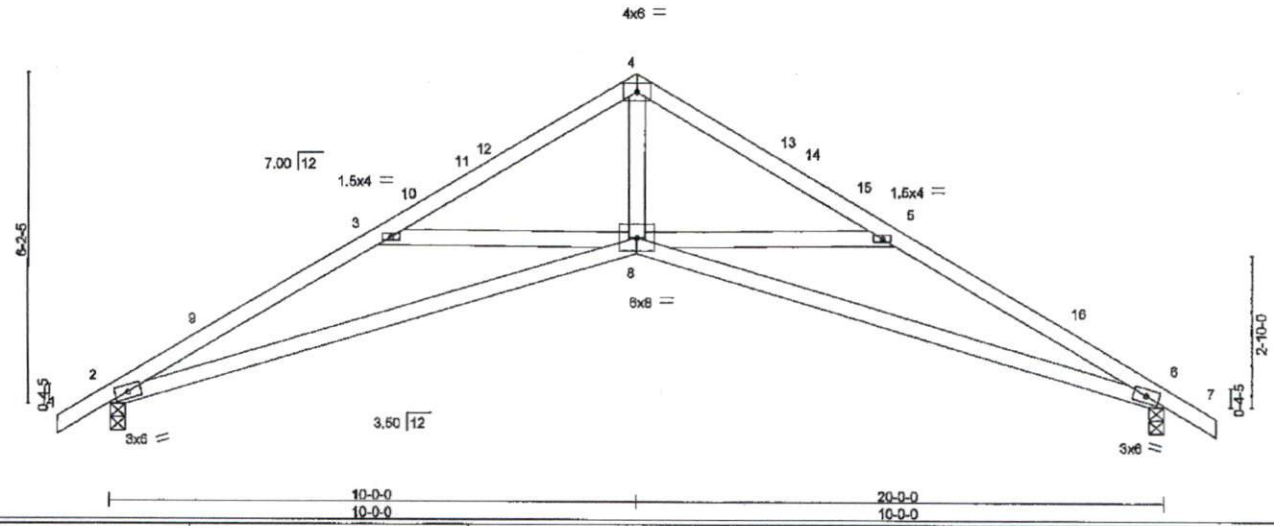

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.26	2-8	>899	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.74	Vert(TL)	-0.73	2-8	>323	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.53	Horz(TL)	0.23	6	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 88 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3

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

REACTIONS. (lb/size) 2=857/0-3-8, 6=857/0-3-8
Max Horz 2=-172(LC 8)
Max Uplift 2=-128(LC 10), 6=-128(LC 11)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/28, 2-9=-2138/198, 3-9=-2094/226, 3-10=-1608/54, 10-11=-1549/63, 11-12=-1536/65, 4-12=-1525/81, 4-13=-1525/73, 13-14=-1536/58, 14-15=-1549/55, 5-15=-1608/46, 5-16=-2094/227, 6-16=-2138/199, 6-7=0/28
BOT CHORD 2-8=-169/1885, 6-8=-141/1885
WEBS 4-8=0/1270, 5-8=-498/254, 3-8=-498/250

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 10-0-0, Exterior(2) 10-0-0 to 13-0-0 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.

August 8,2017

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	Madison 2 Roof	E10819624
LGI_HOMES	B3	Scissor	6	1	Job Reference (optional)	

Builders FirstSource, Albemarle , NC 28001

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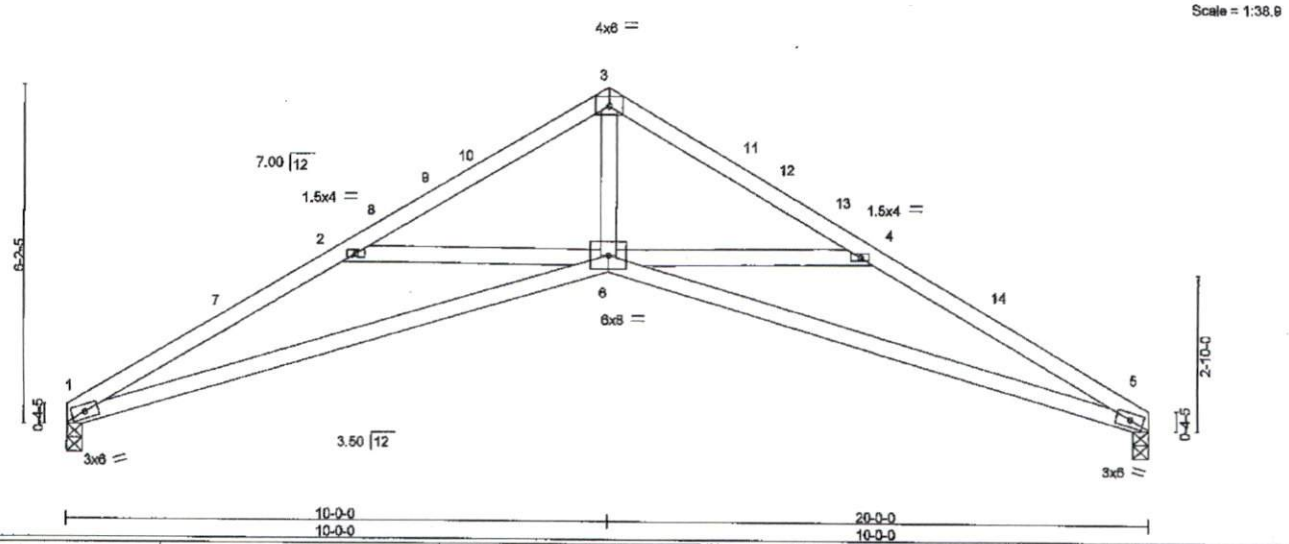

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	In	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.26	1-6	>899	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.75	Vert(TL)	-0.74	1-6	>320	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.53	Horz(TL)	0.24	5	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 84 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-2-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=788/0-3-8, 5=788/0-3-8
Max Horz 1=-170(LC 8)
Max Uplift 1=-79(LC 10), 5=-79(LC 11)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-7=-2163/234, 2-7=-2084/262, 2-8=-1624/82, 8-9=-1566/91, 9-10=-1544/95, 3-10=-1541/109, 3-11=-1541/109, 11-12=-1544/94, 12-13=-1566/90, 4-13=-1624/82, 4-14=-2084/261, 5-14=-2163/233
BOT CHORD 1-6=-208/1911, 5-6=-180/1911
WEBS 3-6=0/1289, 4-6=-510/262, 2-6=-510/259

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) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 10-0-0, Exterior(2) 10-0-0 to 13-0-0 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.

August 8,2017

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

Job	Truss	Truss Type	Qty	Ply	Madison 2 Roof	E10819625
LGI_HOMES	B4G	Common Girder	1	2	Job Reference (optional)	

Builders FirstSource, Albemarle , NC 28001

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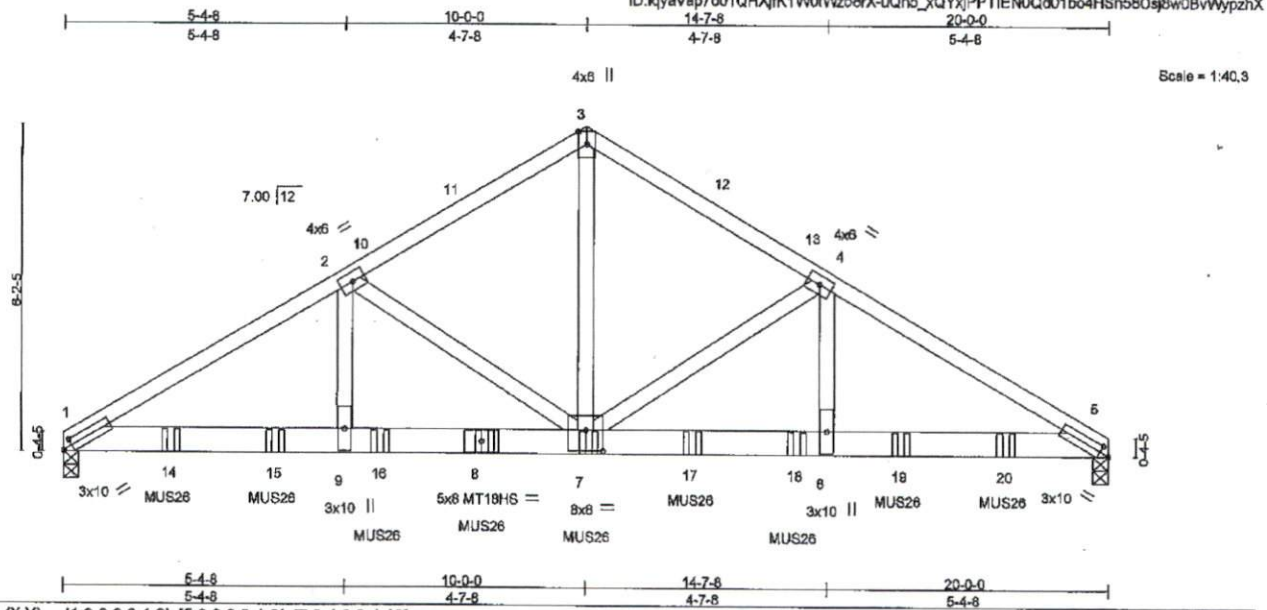

Plate Offsets (X,Y)— [1:0-2-3,0-1-8], [5:0-2-3,0-1-8], [7:0-4-0,0-4-12]

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	0.84	Vert(LL)	-0.14	7-9	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.67	Vert(TL)	-0.30	7-9	>792	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	NO	WB	0.78	Horz(TL)	0.08	5	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 227 lb	FT = 20%
BCDL	10.0											

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-11-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=5855/0-3-8, 5=5905/0-3-8
Max Horz 1=166(LC 7)
Max Uplift 1=-736(LC 8), 5=-742(LC 9)
Max Grav 1=5898(LC 2), 5=5950(LC 2)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-9678/1204, 2-10=-6561/823, 10-11=-6502/833, 3-11=-6501/849, 3-12=-6501/849, 12-13=-6502/833, 4-13=-6562/823, 4-5=-9657/1202
BOT CHORD 1-14=-1004/8296, 14-15=-1004/8296, 9-15=-1004/8296, 9-16=-1004/8296, 8-16=-1004/8296, 7-8=-1004/8296, 7-17=-962/8279, 17-18=-962/8279, 6-18=-962/8279, 6-19=-962/8279, 19-20=-962/8279, 5-20=-962/8279
WEBS 3-7=-785/6322, 4-7=-3221/486, 4-6=-337/3119, 2-7=-3241/488, 2-9=-339/3144

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-05; 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) All plates are MT20 plates unless otherwise indicated.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Two 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.
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 MUS26 (6-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 18-0-12 to connect truss(es) to back face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.

Continued on page 2

LOAD CASE(S) Standard

NORTH CAROLINA PROFESSIONAL SEAL 16673 ENGINEER MARVIN A. STRZYZEWSKI

August 8,2017

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

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-60, 3-5=-60, 1-5=-20

Concentrated Loads (lb)

Vert: 8=-1131(B) 7=-1131(B) 14=-1131(B) 15=-1131(B) 16=-1131(B) 17=-1131(B) 18=-1131(B) 19=-1131(B) 20=-1131(B)

Job	Truss	Truss Type	Qty	Ply	Madison 2 Roof	E10619625
LGI_HOMES	P1	Monopitch Supported Gable	11	1	Job Reference (optional)	

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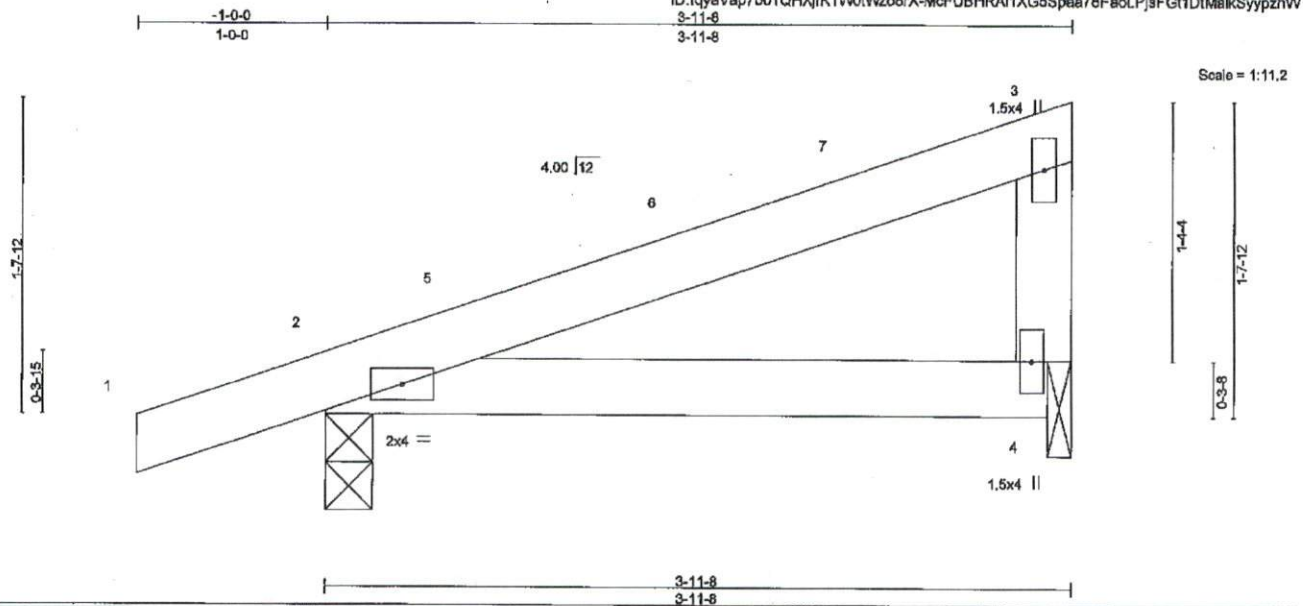


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.01	2-4	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	-0.03	2-4	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(TL)	0.00		n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 15 lb	FT = 20%
BCDL	10.0											

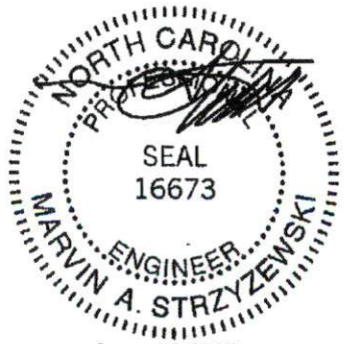
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-11-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 2=225/0-3-0, 4=137/0-1-8
Max Horz 2=66(LC 8)
Max Uplift 2=-72(LC 8), 4=-31(LC 11)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/18, 2-5=-63/0, 5-6=-55/0, 6-7=-55/0, 3-7=-52/26, 3-4=-100/144
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 3-9-12 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) 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) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) 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.
10) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
11) 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.
12) "Semi-rigid pitchbreaks with fixed heels" Member end fixity model was used in the analysis and design of this truss.



August 8,2017

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

Job	Truss	Truss Type	Qty	Ply	Madison 2 Roof	
LGI_HOMES	PB1	Piggyback	21	1	Job Reference (optional)	E10619627

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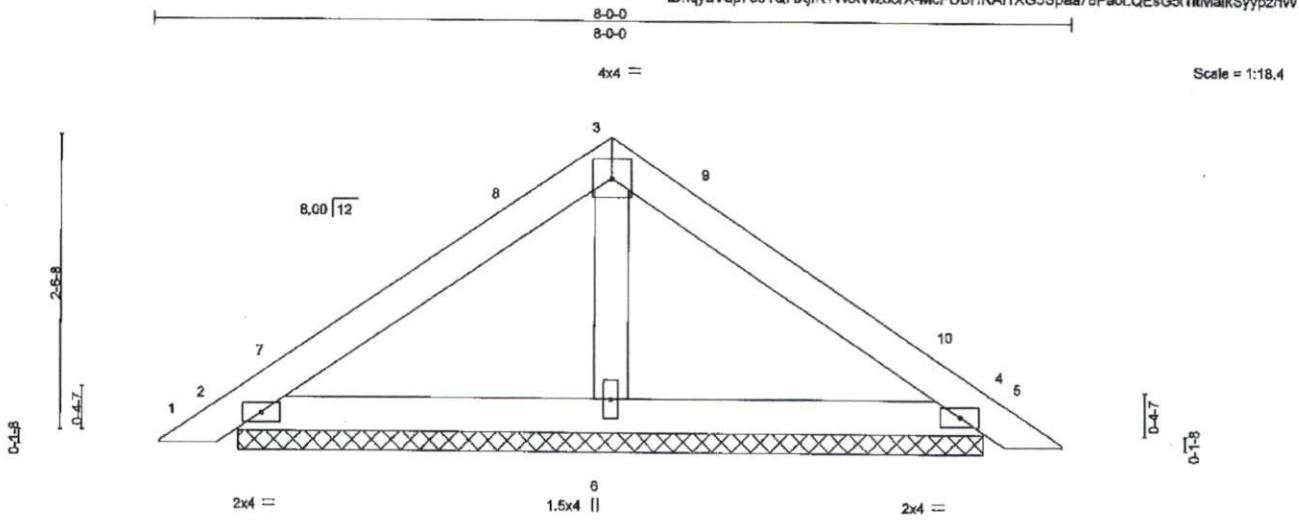

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	0.01	5	n/r	120	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	0.01	5	n/r	120		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(TL)	0.00	4	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 27 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=169/6-6-2, 4=169/6-6-2, 6=236/6-6-2
Max Horz 2=-65(LC 8)
Max Uplift 2=-64(LC 10), 4=-66(LC 11)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/13, 2-7=-78/29, 7-8=-33/37, 3-8=-19/46, 3-9=-12/47, 9-10=-33/38, 4-10=-78/31, 4-5=0/13
BOT CHORD 2-6=-11/35, 4-6=-11/35
WEBS 3-6=-154/50

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) 0-3-11 to 3-3-11, Interior(1) 3-3-11 to 4-0-0, Exterior(2) 4-0-0 to 7-3-1 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) Gable requires continuous bottom chord bearing.
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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 4, 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.
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

August 8,2017

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	Madison 2 Roof	E10619628
LGI_HOMES	V1	GABLE	1	1	Job Reference (optional)	

Builders FirstSource, Albemarle , NC 28001

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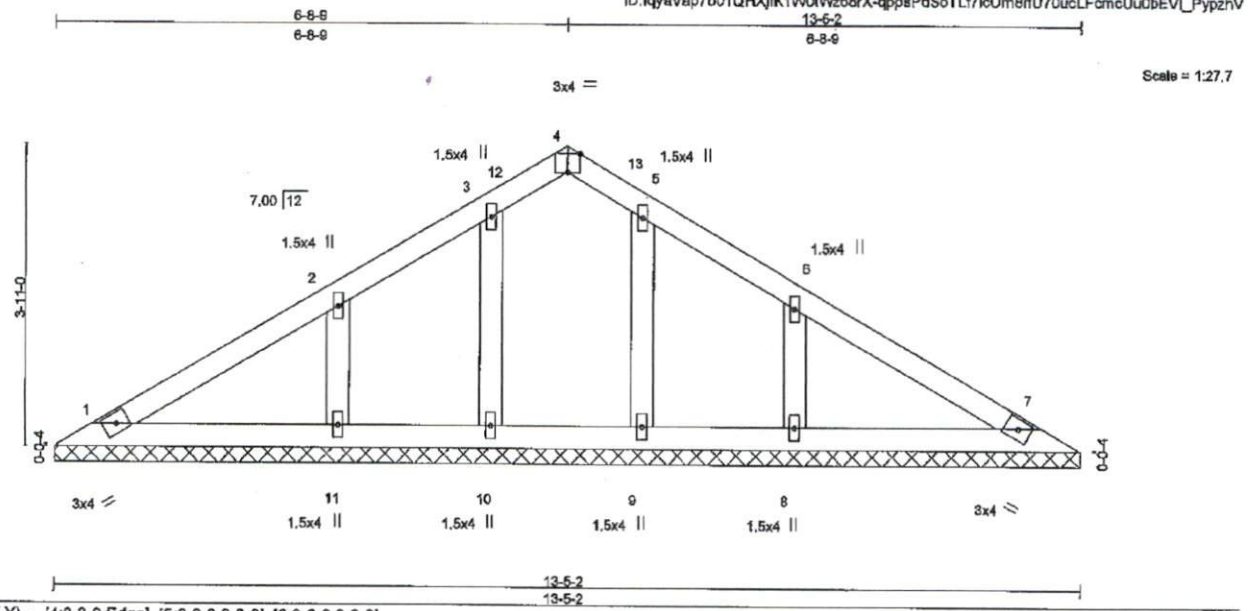


Plate Offsets (X,Y)-- [4:0-2-0,Edge], [5:0-0-0,0-0-0], [6:0-0-0,0-0-0]

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	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(TL)	0.00	7	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 54 lb	FT = 20%
BCDL	10.0											

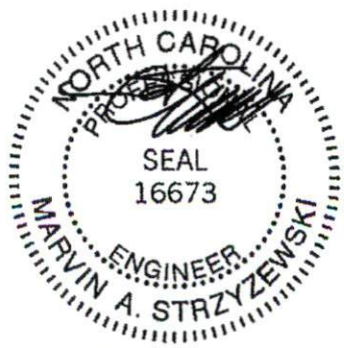
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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=120/13-5-2, 7=120/13-5-2, 10=113/13-5-2, 11=261/13-5-2, 9=113/13-5-2, 8=261/13-5-2
Max Horz 1=-103(LC 8)
Max Uplift 10=-3(LC 9), 11=-95(LC 10), 8=-96(LC 11)
Max Grav 1=120(LC 1), 7=120(LC 1), 10=113(LC 1), 11=262(LC 14), 9=113(LC 1), 8=262(LC 15)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-83/49, 2-3=-72/36, 3-12=-64/43, 4-12=-32/48, 4-13=-32/48, 5-13=-54/43, 5-6=-72/36, 6-7=-76/31
BOT CHORD 1-11=-16/81, 10-11=-16/81, 9-10=-16/81, 8-9=-16/81, 7-8=-16/81
WEBS 3-10=-85/31, 2-11=-184/119, 5-9=-85/31, 6-8=-184/120

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) 0-6-8 to 3-8-9, Interior(1) 3-8-9 to 6-8-9, Exterior(2) 6-8-9 to 9-8-9 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 H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10, 11, and 8. 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.



August 8,2017

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

Job	Truss	Truss Type	Qty	Ply	Madison 2 Roof	
LGI_HOMES	V2	Valley	1	1	Job Reference (optional)	E10819629

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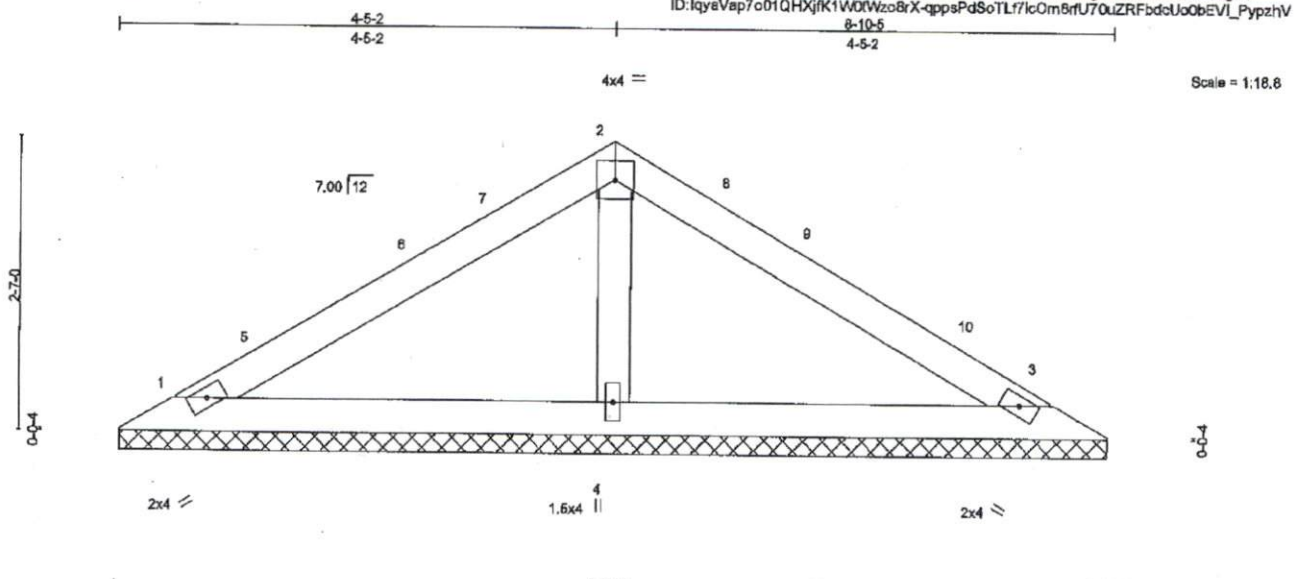


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(TL)	0.00	3	n/a	n/a		
BCLL	0.0 *	Code IRC2009/TPI2007		(Matrix)							Weight: 29 lb	FT = 20%
BCDL	10.0											

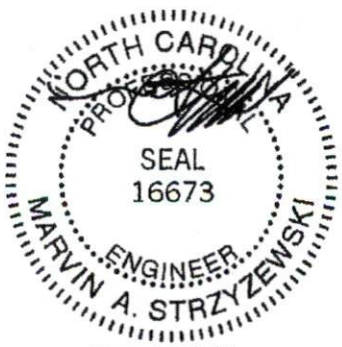
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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=163/8-9-7, 3=163/8-9-7, 4=297/8-9-7
Max Horz 1=-65(LC 8)
Max Uplift 1=-45(LC 10), 3=-48(LC 11), 4=-10(LC 10)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-5=-80/30, 5-6=-33/36, 6-7=-25/38, 2-7=-21/45, 2-8=-12/42, 8-9=-23/35, 9-10=-33/33, 3-10=-80/26
BOT CHORD 1-4=-13/30, 3-4=-13/30
WEBS 2-4=-200/70

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) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 4-5-2, Exterior(2) 4-5-2 to 7-5-2 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
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.



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Job	Truss	Truss Type	Qty	Ply	Madison 2 Roof	
LGI_HOMES	V3	Valley	1	1	Job Reference (optional)	E10819630

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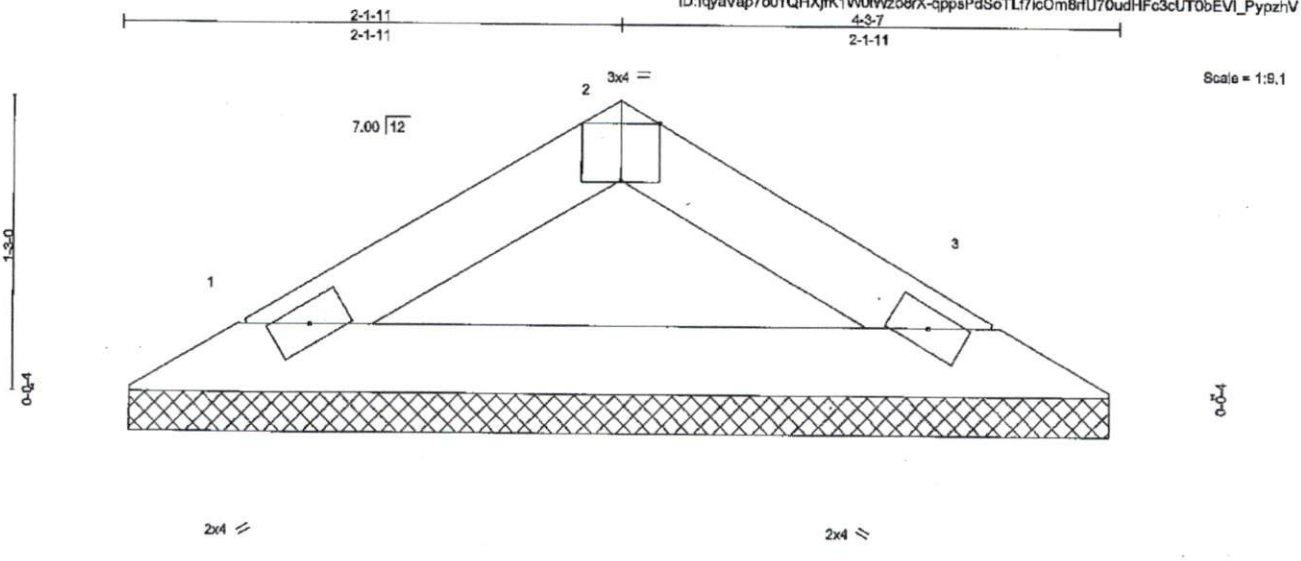

Plate Offsets (X,Y)-- [2:0-2-0,Edge]

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	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.12	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: 12 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 4-3-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=128/4-2-9, 3=128/4-2-9
Max Horz 1=-27(LC 6)
Max Uplift 1=-23(LC 8), 3=-23(LC 8)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-115/52, 2-3=-115/52
BOT CHORD 1-3=-22/82

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) 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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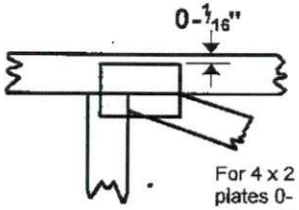
Symbols

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

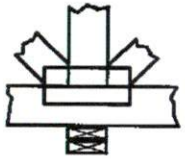
4 x 4

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

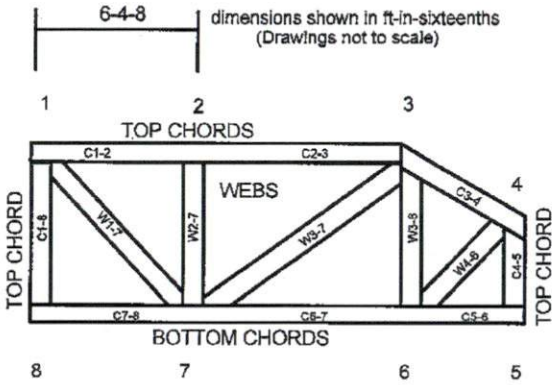


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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®

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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.