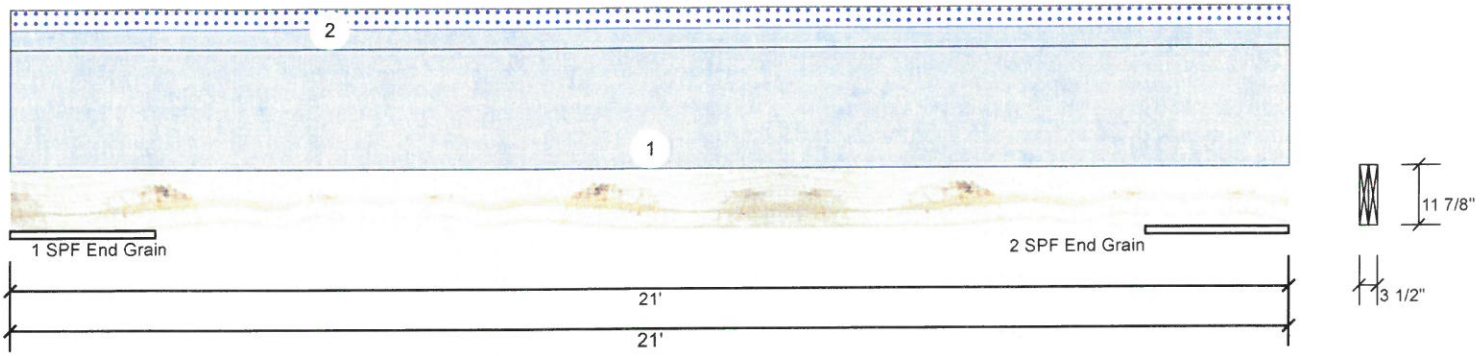
isDesign™

Client: Red Door Homes
Project:
Address:

Date: 8/24/2018
Designer: Marshall Naylor
Job Name: 06-18-158 Welch
Project #:

Front GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	1567	210	0	0
2	0	1567	210	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	28.500"	2%	1567 / 210	1777	L	D+S
2 - SPF End Grain	28.500"	2%	1567 / 210	1777	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5002 ft-lb	10'6"	17919 ft-lb	0.279 (28%)	D	Uniform
Unbraced	5672 ft-lb	10'6"	6086 ft-lb	0.932 (93%)	D+S	L
Shear	1074 lb	3'3 5/8"	7980 lb	0.135 (13%)	D	Uniform
LL Defl inch	0.035 (L/5617)	10'6 1/16"	0.409 (L/480)	0.090 (9%)	S	L
TL Defl inch	0.296 (L/664)	10'6 1/16"	0.546 (L/360)	0.540 (54%)	D+S	L

Design Notes

1 Girders are designed to be supported on the bottom edge only.
2 Multiple plies must be fastened together as per manufacturer's details.
3 Top loads must be supported equally by all plies.
4 Top unbraced.
5 Bottom unbraced.
6 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall/Gable
2	Tie-In	0-0-0 to 21-0-0	(Span)2-0-0	Top	20 PSF	0 PSF	20 PSF	0 PSF	0 PSF	2' Roof
	Self Weight				9 PLF					

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Metsä Wood
3071 Commerce Dr, Suite E
Fort Gratiot, MI 48059
(800) 622-5850
www.metsawood.com/us
ICC-ES: ESR-3633

Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

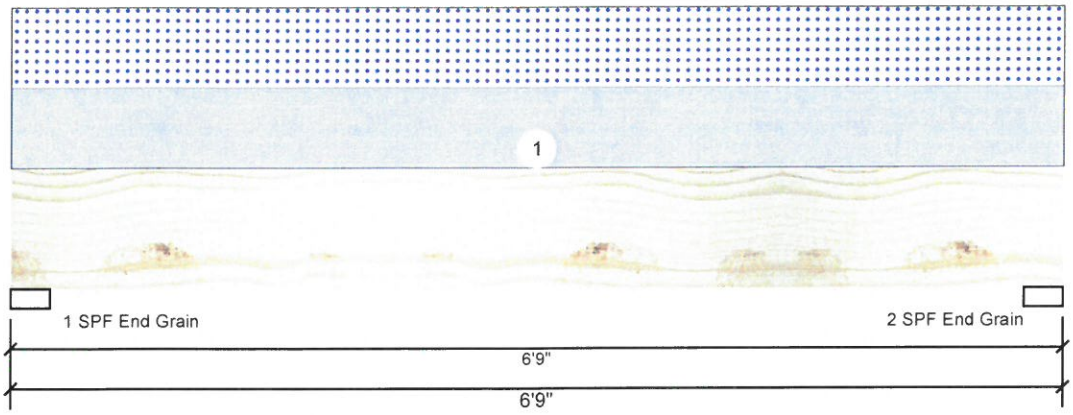
isDesign™

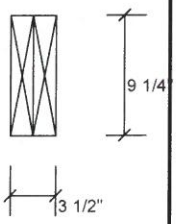
Client: Red Door Homes
Project:
Address:

Date: 8/24/2018
Designer: Marshall Naylor
Job Name: 06-18-158 Welch
Project #:

BM1 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC 2012
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	1881	1856	0	0
2	0	1881	1856	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	41%	1881 / 1856	3737	L	D+S
2 - SPF End Grain	3.000"	41%	1881 / 1856	3737	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5625 ft-lb	3'4 1/2"	14423 ft-lb	0.390 (39%)	D+S	L
Unbraced	5625 ft-lb	3'4 1/2"	10210 ft-lb	0.551 (55%)	D+S	L
Shear	2676 lb	5'9 1/2"	7943 lb	0.337 (34%)	D+S	L
LL Defl inch	0.054 (L/1411)	3'4 1/2"	0.159 (L/480)	0.340 (34%)	S	L
TL Defl inch	0.109 (L/701)	3'4 1/2"	0.212 (L/360)	0.510 (51%)	D+S	L

Design Notes

1 Girders are designed to be supported on the bottom edge only.
2 Multiple plies must be fastened together as per manufacturer's details.
3 Top loads must be supported equally by all plies.
4 Top unbraced.
5 Bottom unbraced.
6 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	550 PLF	0 PLF	550 PLF	0 PLF	0 PLF	
	Self Weight				7 PLF					

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Metsä Wood
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(800) 622-5850
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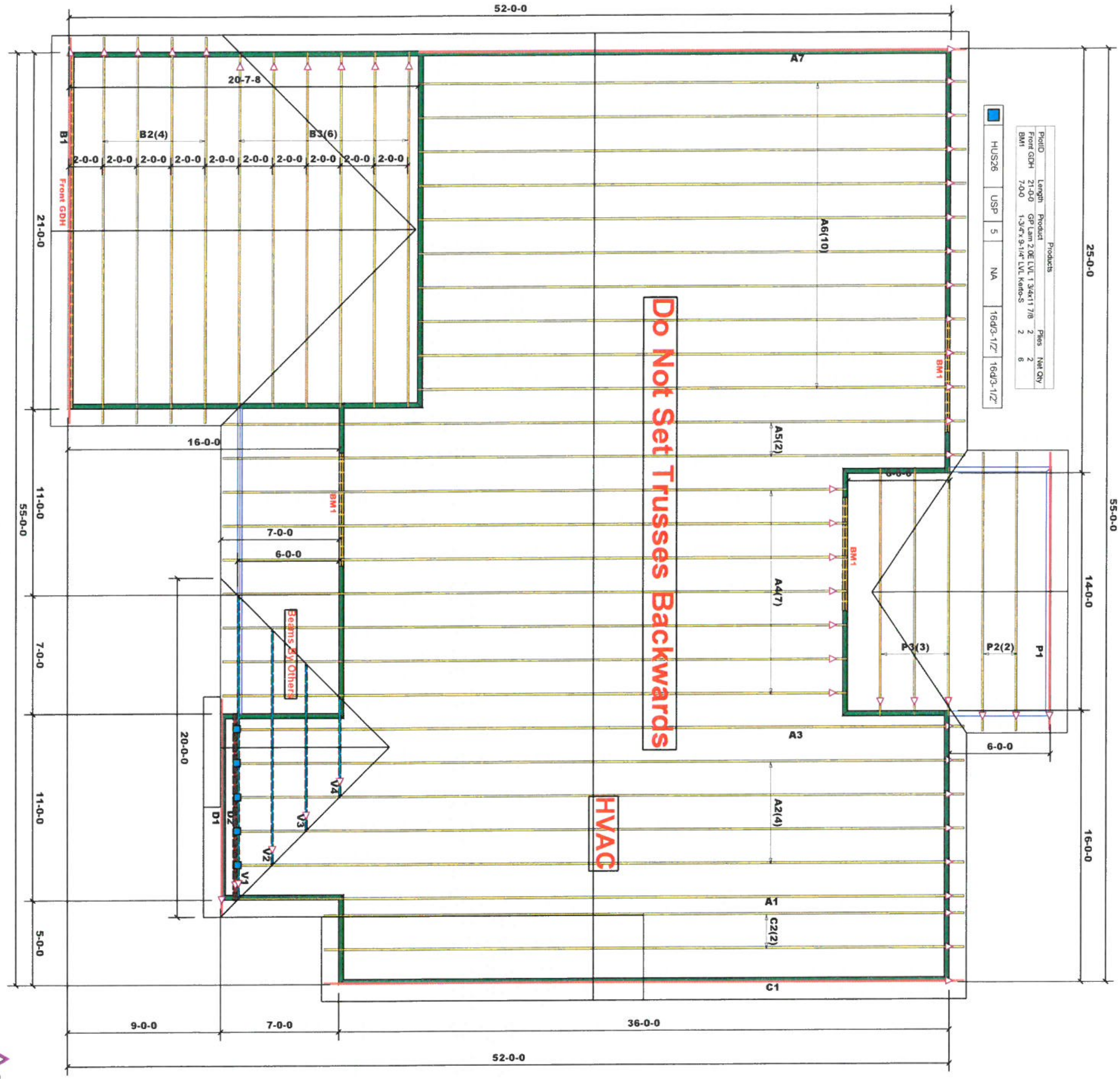

PlotID	Length	Product	Plies	Net Qty
Front GDH	21-0-0	GP Lam 2.0E LVL 1 3/4x11 7/8	2	2
BM1	7-0-0	1-3/4"x 9-1/4" LVL Kerto-S	2	6

HUS26	USP	5	NA	16d/3-1/2"	16d/3-1/2"

Truss Placement Plan
SCALE: NTS

△ = Indicates Left End of Truss
(Reference Engineered Truss Drawing)
Do NOT Erect Truss Backwards

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com

BUILDER	Red Door Homes	COUNTY	Moore
JOB NAME	06-18-158 Welch	ADDRESS	Secretariate Circle
PLAN	Richfield Classic Full FP Flat BP	MODEL	06-18-158 Welch Roof
SEAL DATE	N/A	DATE REV.	08/21/18
QUOTE #	B0418-1309	DRAWN BY	Marshall Naylor
JOB #	J0818-3904	SALESMAN	Marshall Naylor

LOAD CHART FOR JACK STUDS
(BASED ON TABLES R502.5(1) & (b))
NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (UP TO)	REQ'D STUDS FOR (2) PLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (3) PLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (4) PLY HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				

Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables (derived from the prescriptive Code requirements) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature: Marshall Naylor

comtech
ROOF & FLOOR
TRUSSES & BEAMS
Reilly Road Industrial Park
Fayetteville, N.C. 28309
Phone: (910) 864-8787
Fax: (910) 864-4444

ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J0818-3904
06-18-158 Welch

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville.

Pages or sheets covered by this seal: E12133926 thru E12133946

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

North Carolina COA: C-0844

August 24,2018

Gilbert, Eric

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

Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133926
J0818-3904	A1	FINK	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:02 2018 Page 1

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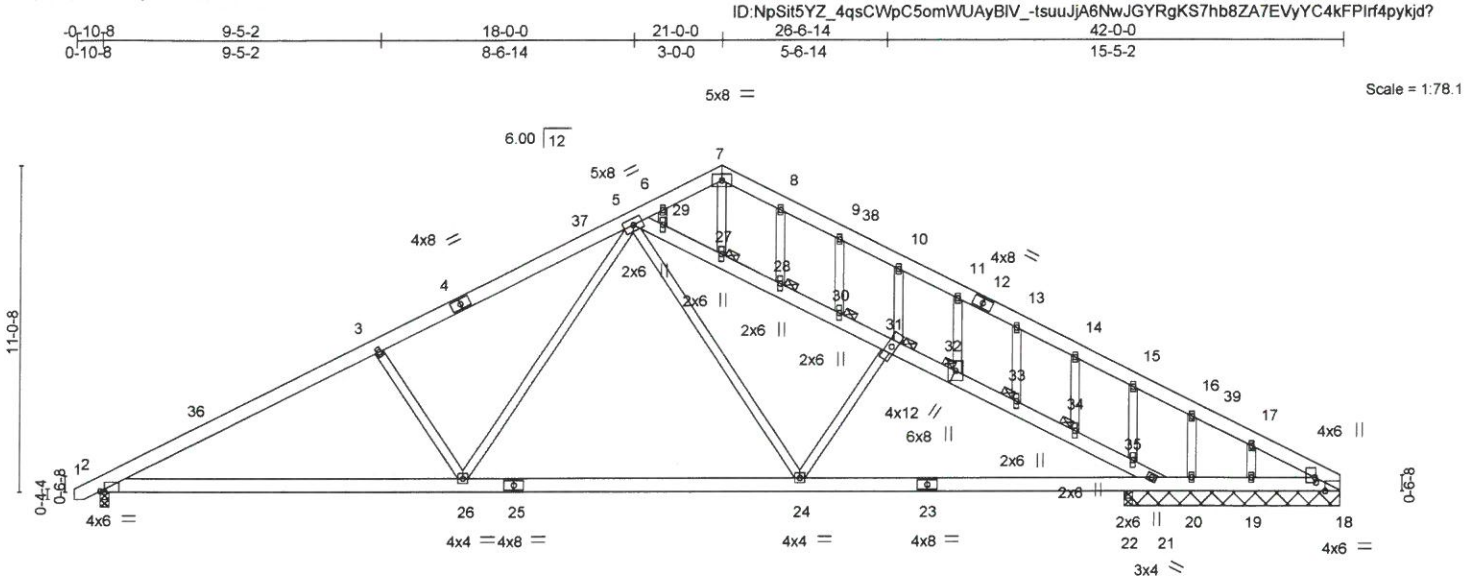

Plate Offsets (X,Y)-- [2:0-1-10,Edge], [18:0-2-2,0-0-8], [18:0-4-4,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.36	24-26	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(TL)	-0.54	24-26	>773	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.74	Horz(TL)	0.09	18	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-S		Wind(LL)	0.12	2-26	>999	240	Weight: 341 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3 *Except*
5-32,21-32: 2x6 SP No.1

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
8-9-0 oc bracing: 2-26.
JOINTS 1 Brace at Jt(s): 27, 28, 30, 31, 32, 33, 34

REACTIONS. All bearings 7-3-8 except (jt=length) 2=0-3-8, 22=0-3-8.
(lb) - Max Horz 2=203(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) except 2=-536(LC 7), 20=-294(LC 8), 21=-642(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 19 except 2=1733(LC 1), 20=523(LC 1), 18=281(LC 1), 21=1036(LC 1), 22=714(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3115/846, 3-5=-2815/845, 5-6=-399/249, 6-7=-352/241, 7-8=-336/216, 8-9=-346/168, 9-10=-384/132, 10-11=-329/35, 11-13=-357/0, 13-14=-378/0, 14-15=-454/0, 15-16=-438/0, 16-17=-340/0, 17-18=-402/0
BOT CHORD 2-26=-789/2674, 24-26=-339/1801, 22-24=-539/2521, 21-22=-539/2521, 20-21=0/362, 19-20=0/362, 18-19=0/362
WEBS 5-29=-2282/769, 27-29=-2261/735, 27-28=-2208/720, 28-30=-2247/742, 30-31=-2267/755, 31-32=-2423/857, 32-33=-2444/873, 33-34=-2476/889, 34-35=-2459/886, 21-35=-2529/945, 3-26=-508/503, 24-31=-410/440, 5-26=-339/1128, 5-24=-268/965, 10-31=-288/293, 16-20=-440/351

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 21-0-0, Exterior(2) 21-0-0 to 25-4-13 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 536 lb uplift at joint 2, 294 lb uplift at joint 20 and 642 lb uplift at joint 21.

August 24,2018

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

Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133927
J0818-3904	A2	COMMON	4	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:03 2018 Page 1
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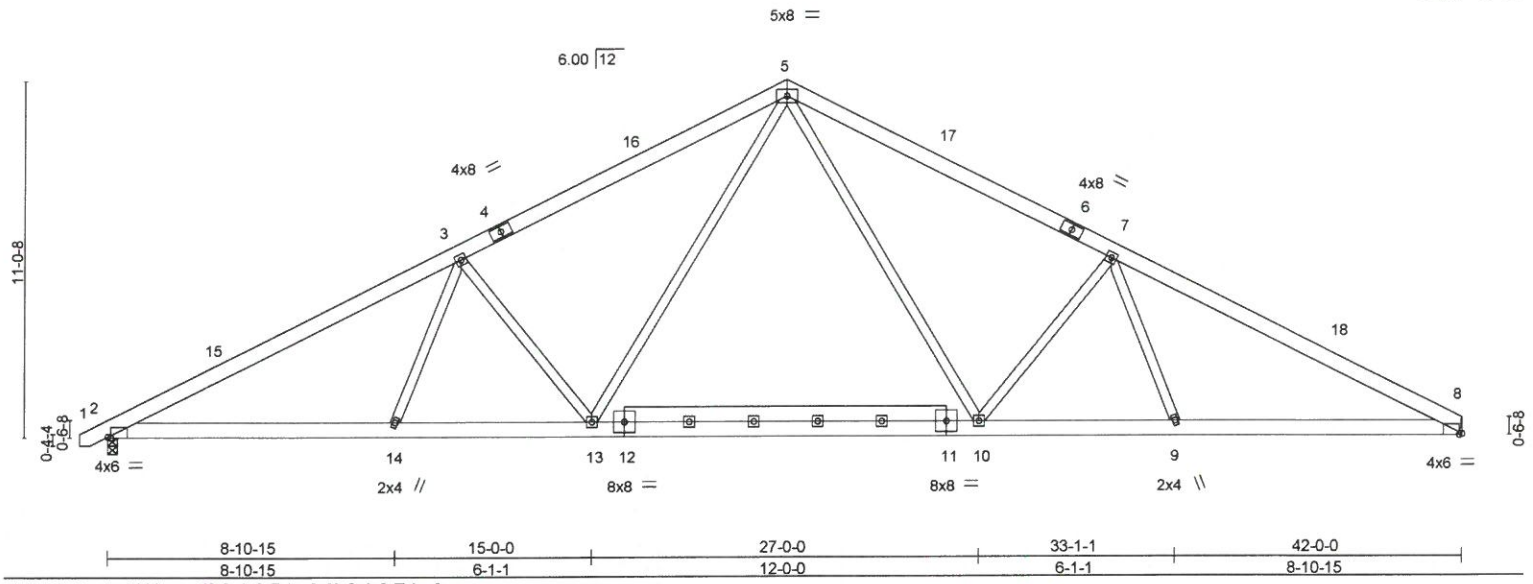
-0-10-8	10-11-2	21-0-0	31-0-14	42-0-0
0-10-8	10-11-2	10-0-14	10-0-14	10-11-2

Scale = 1:71.5



8-10-15	15-0-0	27-0-0	33-1-1	42-0-0
8-10-15	6-1-1	12-0-0	6-1-1	8-10-15

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.34	10-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(TL)	-0.60	10-13	>838	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.76	Horz(TL)	0.15	8	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-S		Wind(LL)	0.11	10-13	>999	240	Weight: 305 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3 *Except*
11-12: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-8-5 oc bracing.

REACTIONS. (lb/size) 2=2085/0-3-8, 8=2030/Mechanical
Max Horz 2=170(LC 6)
Max Uplift 2=-260(LC 7), 8=-218(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3825/876, 3-5=-3353/911, 5-7=-3364/929, 7-8=-3807/890
BOT CHORD 2-14=-623/3291, 13-14=-650/3259, 10-13=-279/2201, 9-10=-654/3279, 8-9=-627/3309
WEBS 5-10=-270/1366, 7-10=-710/425, 7-9=0/322, 5-13=-263/1348, 3-13=-693/421, 3-14=0/317

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 21-0-0, Exterior(2) 21-0-0 to 25-4-13 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 4x4 MT20 unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 260 lb uplift at joint 2 and 218 lb uplift at joint 8.

August 24,2018

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

Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133928
J0818-3904	A3	COMMON	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:04 2018 Page 1
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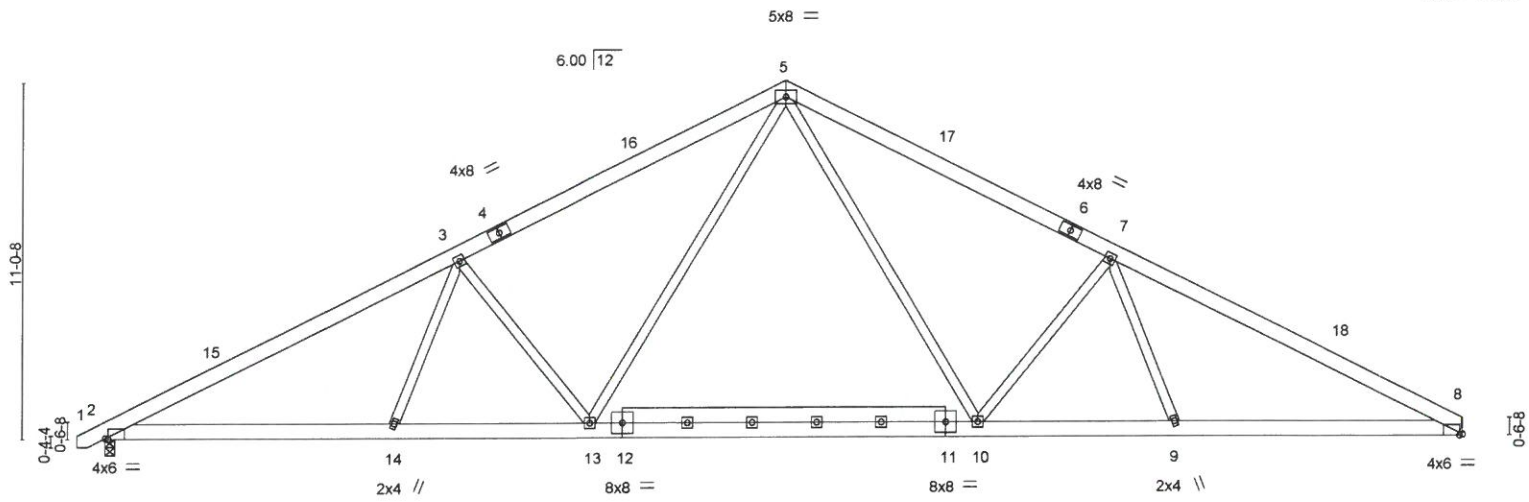
-0-10-8	10-11-2	21-0-0	31-0-14	42-0-0
0-10-8	10-11-2	10-0-14	10-0-14	10-11-2

Scale = 1:71.5



8-10-15	15-0-0	27-0-0	33-1-1	42-0-0
8-10-15	6-1-1	12-0-0	6-1-1	8-10-15

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.34	10-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(TL)	-0.60	10-13	>838	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.76	Horz(TL)	0.15	8	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-S		Wind(LL)	0.11	10-13	>999	240	Weight: 305 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3 *Except*
11-12: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-8-5 oc bracing.

REACTIONS. (lb/size) 2=2085/0-3-8, 8=2030/Mechanical
Max Horz 2=170(LC 6)
Max Uplift 2=-260(LC 7), 8=-218(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3825/876, 3-5=-3353/911, 5-7=-3364/929, 7-8=-3807/890
BOT CHORD 2-14=-623/3291, 13-14=-650/3259, 10-13=-279/2201, 9-10=-654/3279, 8-9=-627/3309
WEBS 5-10=-270/1366, 7-10=-710/425, 7-9=0/322, 5-13=-263/1348, 3-13=-693/421, 3-14=0/317

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 21-0-0, Exterior(2) 21-0-0 to 25-4-13 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 4x4 MT20 unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 260 lb uplift at joint 2 and 218 lb uplift at joint 8.

August 24,2018

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

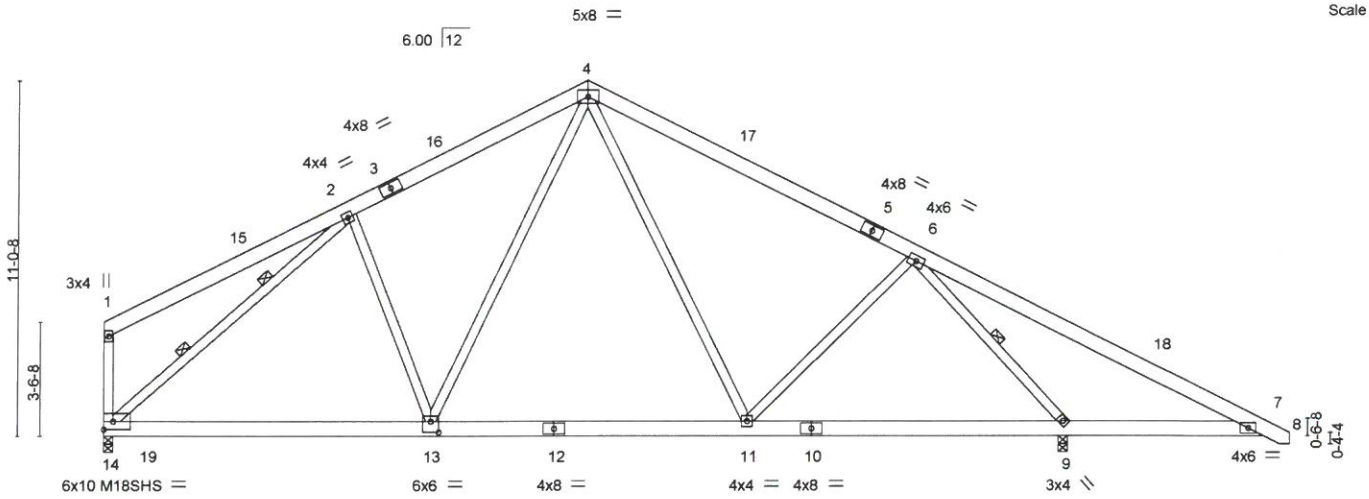
Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133929
J0818-3904	A4	COMMON	7	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:05 2018 Page 1

ID:NpSit5YZ_4qsCWpC5omWUAyBIV_-IRZ0xlC_grhrPvPv8FFImCoXwjzzPQIh5F4Jg8ykjcy

7-7-12	15-0-0	25-0-14	36-0-0	36-10-8
7-7-12	7-4-4	10-0-14	10-11-2	0-10-8

Scale = 1:71.7



10-1-12	20-0-0	30-0-0	36-0-0
10-1-12	9-10-4	10-0-0	6-0-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.19	13-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vert(TL)	-0.31	13-14	>999	240	M18SHS	244/190
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.81	Horz(TL)	0.04	9	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-S		Wind(LL)	0.04	11-13	>999	240	Weight: 264 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.3

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 5-5-14 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 7-9.
WEBS	1 Row at midpt 6-9 2 Rows at 1/3 pts 2-14

REACTIONS. (lb/size) 14=1914/0-3-8, 9=2167/0-3-8
Max Horz 14=-246(LC 8)
Max Uplift 14=-147(LC 7), 9=-478(LC 8)

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

TOP CHORD	2-4=-1900/516, 4-6=-1661/385, 6-7=-765/841
BOT CHORD	13-14=-120/1561, 11-13=0/1244, 9-11=-47/1107, 7-9=-606/822
WEBS	2-13=0/315, 4-13=-146/934, 4-11=-35/299, 6-11=0/433, 2-14=-2004/317, 6-9=-2586/1092

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 15-0-0, Exterior(2) 15-0-0 to 19-4-13 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 147 lb uplift at joint 14 and 478 lb uplift at joint 9.

August 24,2018

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

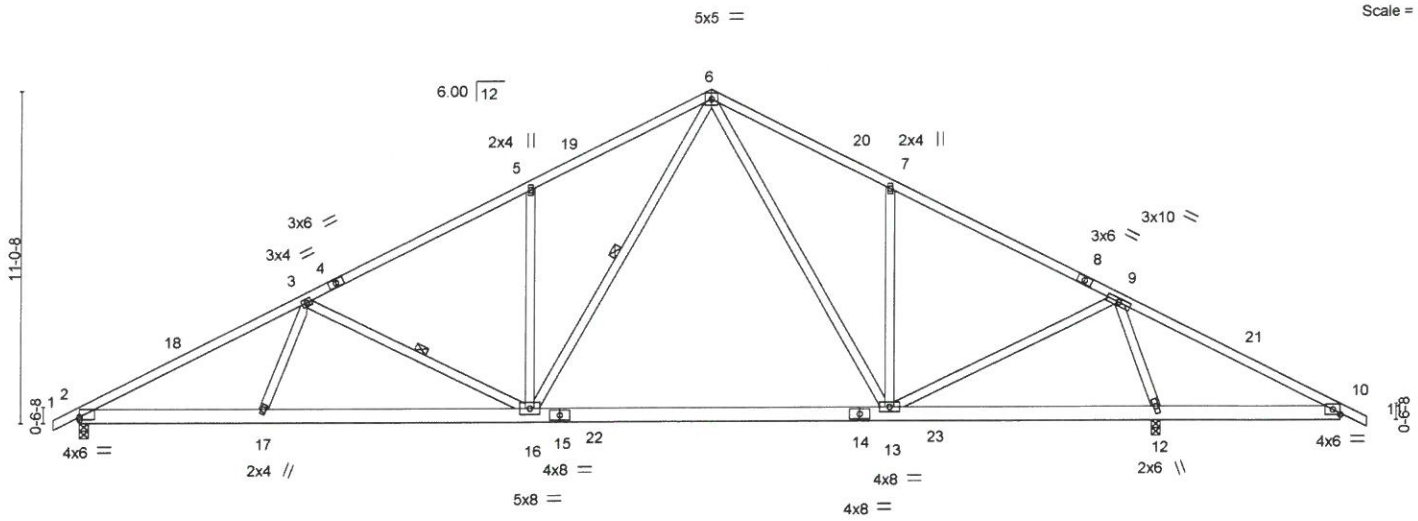
Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133930
J0818-3904	A5	COMMON	2	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:05 2018 Page 1

ID:NpSit5YZ_4qsCWpC5omWUAyBIV_-IRZ0xlC_grhrPvPv8FFImCoa1j_FPQnh5F4Jg8ykjcy

-0-10-8	7-6-13	15-0-0	21-0-0	27-0-0	34-5-3	42-0-0	42-10-8
0-10-8	7-6-13	7-5-3	6-0-0	6-0-0	7-5-3	7-6-13	0-10-8

Scale = 1:76.8



6-1-12	15-0-0	27-0-0	36-0-0	42-0-0
6-1-12	8-10-4	12-0-0	9-0-0	6-0-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.36	13-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.68	Vert(TL)	-0.61	13-16	>706	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.78	Horz(TL)	0.06	12	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-S		Wind(LL)	0.08	16	>999	240	Weight: 264 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-0-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 10-12.
WEBS 1 Row at midpt 6-16, 3-16

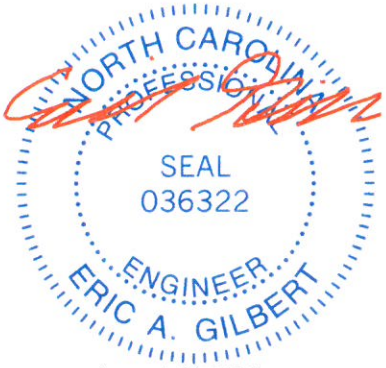
REACTIONS. (lb/size) 2=1633/0-3-8, 12=2284/0-3-8
Max Horz 2=165(LC 7)
Max Uplift 2=-249(LC 7), 12=-506(LC 8)

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

TOP CHORD 2-3=-2915/672, 3-5=-2333/581, 5-6=-2321/743, 6-7=-1749/557, 7-9=-1765/371, 9-10=-680/708
BOT CHORD 2-17=-448/2489, 16-17=-470/2452, 13-16=-35/1337, 12-13=-8/411, 10-12=-530/719
WEBS 6-13=-112/420, 7-13=-429/345, 9-13=-399/1421, 6-16=-396/1348, 5-16=-425/343, 3-16=-524/312, 3-17=0/314, 9-12=-2263/938

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 21-0-0, Exterior(2) 21-0-0 to 25-4-13 zone; cantilever right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 249 lb uplift at joint 2 and 506 lb uplift at joint 12.



August 24,2018

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133931
J0818-3904	A6	COMMON	10	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:06 2018 Page 1

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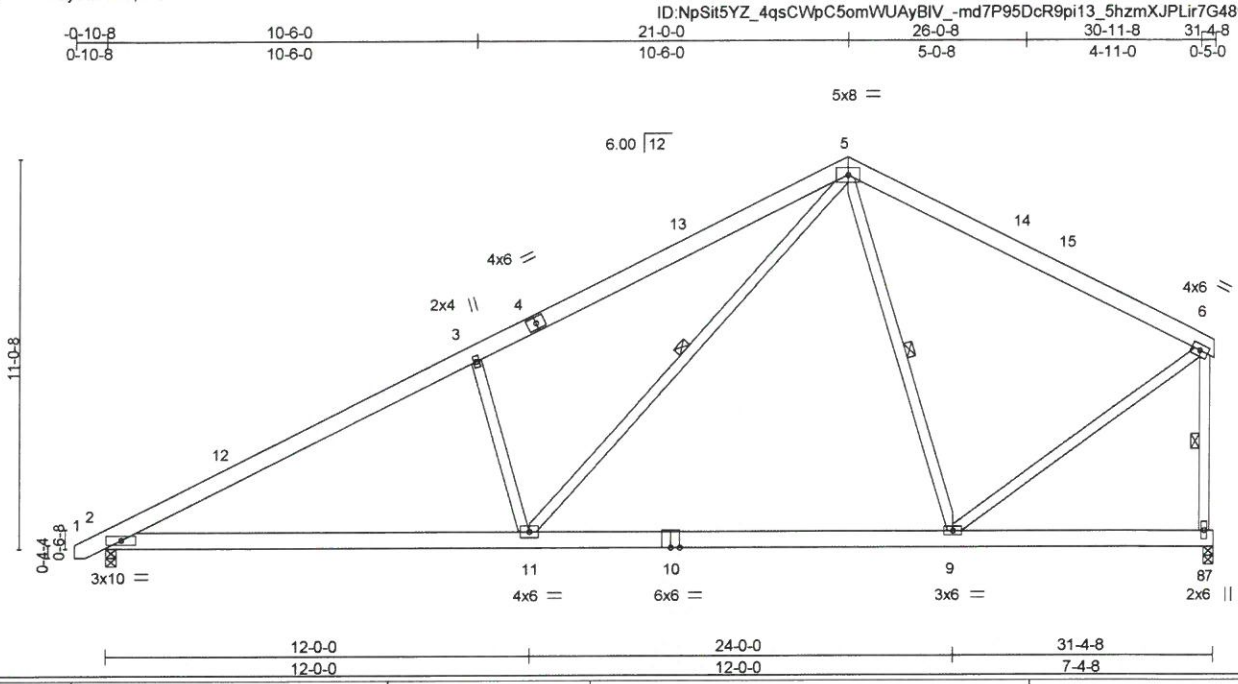


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.48	9-11	>768	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(TL)	-0.65	9-11	>568	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.69	Horz(TL)	0.05	8	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-S		Wind(LL)	0.09	2-11	>999	240	Weight: 222 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.3

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 4-1-7 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 9-9-9 oc bracing.
WEBS	1 Row at midpt 5-11, 5-9, 6-8

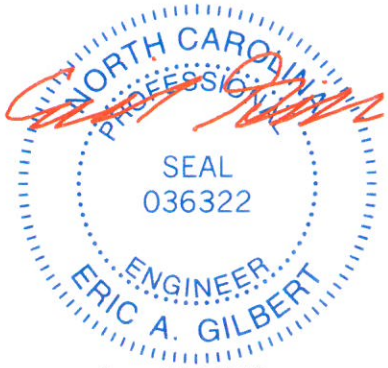
REACTIONS. (lb/size) 2=1598/0-3-8, 8=1660/0-3-8
Max Horz 2=305(LC 7)
Max Uplift 2=-212(LC 7), 8=-143(LC 7)

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

TOP CHORD	2-3=-2828/586, 3-5=-2660/728, 5-6=-1344/368, 6-8=-1685/474
BOT CHORD	2-11=-628/2408, 9-11=-243/1170
WEBS	3-11=-622/465, 5-11=-397/1671, 5-9=-200/258, 6-9=-190/1387

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 21-0-0, Exterior(2) 21-0-0 to 25-4-13 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 212 lb uplift at joint 2 and 143 lb uplift at joint 8.



August 24,2018

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Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133932
J0818-3904	A7	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:07 2018 Page 1
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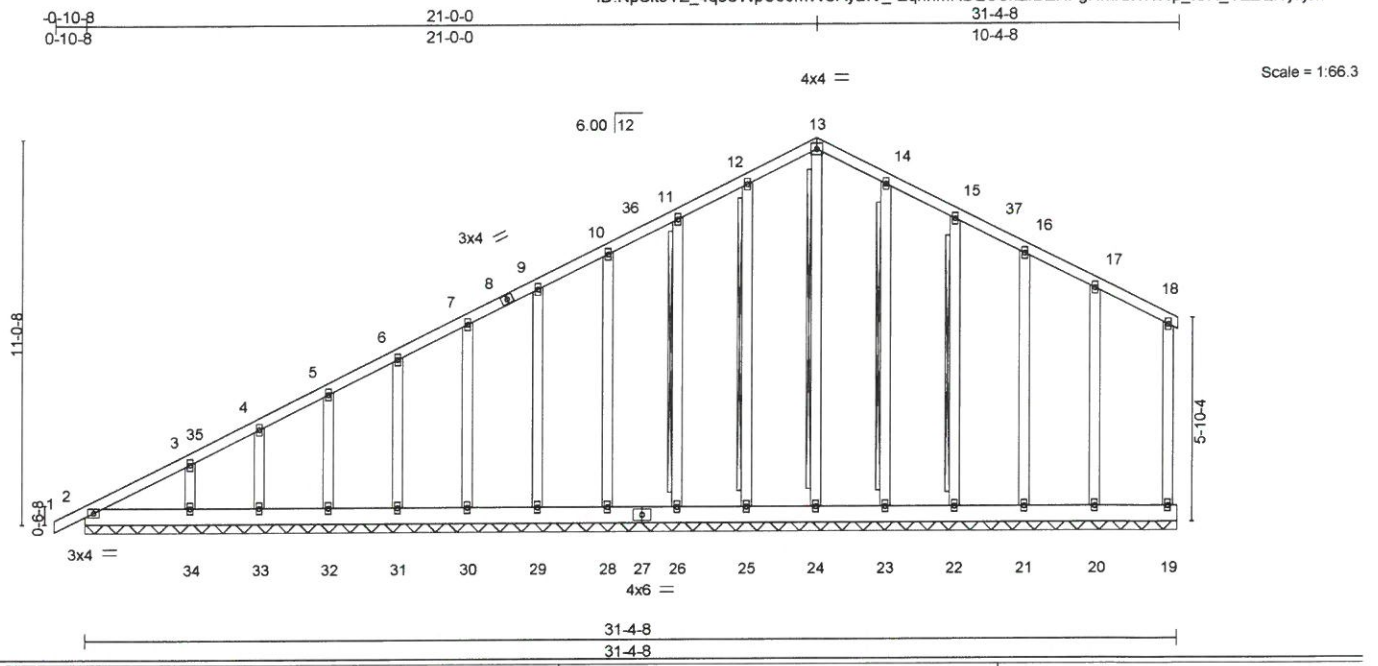

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(TL)	0.00	19	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-S							Weight: 268 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	T-Brace: 2x4 SPF Stud - 13-24, 12-25, 11-26, 14-23, 15-22

Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance. Brace must cover 90% of web length.

REACTIONS. All bearings 31-4-8.
(lb) - Max Horz 2=421(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 19, 2, 25, 26, 28, 29, 30, 31, 32, 33, 23, 22, 21 except 34=-145(LC 7), 20=-105(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 19, 2, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 23, 22, 21 except 20=274(LC 12)

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

TOP CHORD	2-3=-408/42, 3-4=-312/41, 4-5=-255/59, 10-11=-28/269, 11-12=-28/342, 12-13=-31/402, 13-14=-31/397, 14-15=-28/336, 15-16=-28/265
WEBS	3-34=-159/283, 17-20=-135/254

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Corner(3) -0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 21-0-0, Corner(3) 21-0-0 to 25-4-13 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 2, 25, 26, 28, 29, 30, 31, 32, 33, 23, 22, 21 except (jt=lb) 34=145, 20=105.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

August 24,2018

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Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133933
J0818-3904	B1	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:08 2018 Page 1

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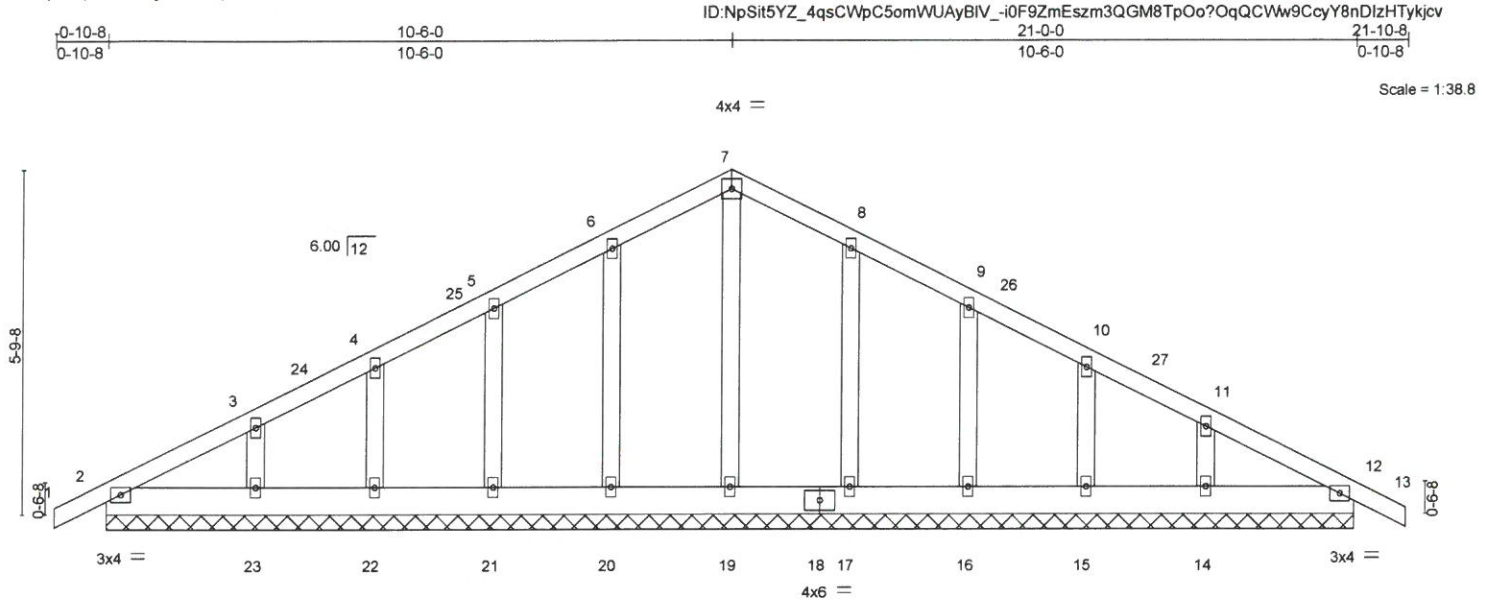

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	12	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	0.00	12	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(TL)	0.00	12	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-S							Weight: 125 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.3

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

REACTIONS. All bearings 21-0-0.
(lb) - Max Horz 2=105(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 2, 20, 21, 22, 17, 16, 15, 12 except 23=-112(LC 7), 14=-110(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 2, 19, 20, 21, 22, 23, 17, 16, 15, 14, 12

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 6-7=-46/259, 7-8=-46/261
WEBS 3-23=-138/252, 11-14=-138/252

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Corner(3) -0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 10-6-0, Corner(3) 10-6-0 to 14-10-13 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 20, 21, 22, 17, 16, 15, 12 except (jt=lb) 23=112, 14=110.

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Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133934
J0818-3904	B2	COMMON	4	1	Job Reference (optional)	

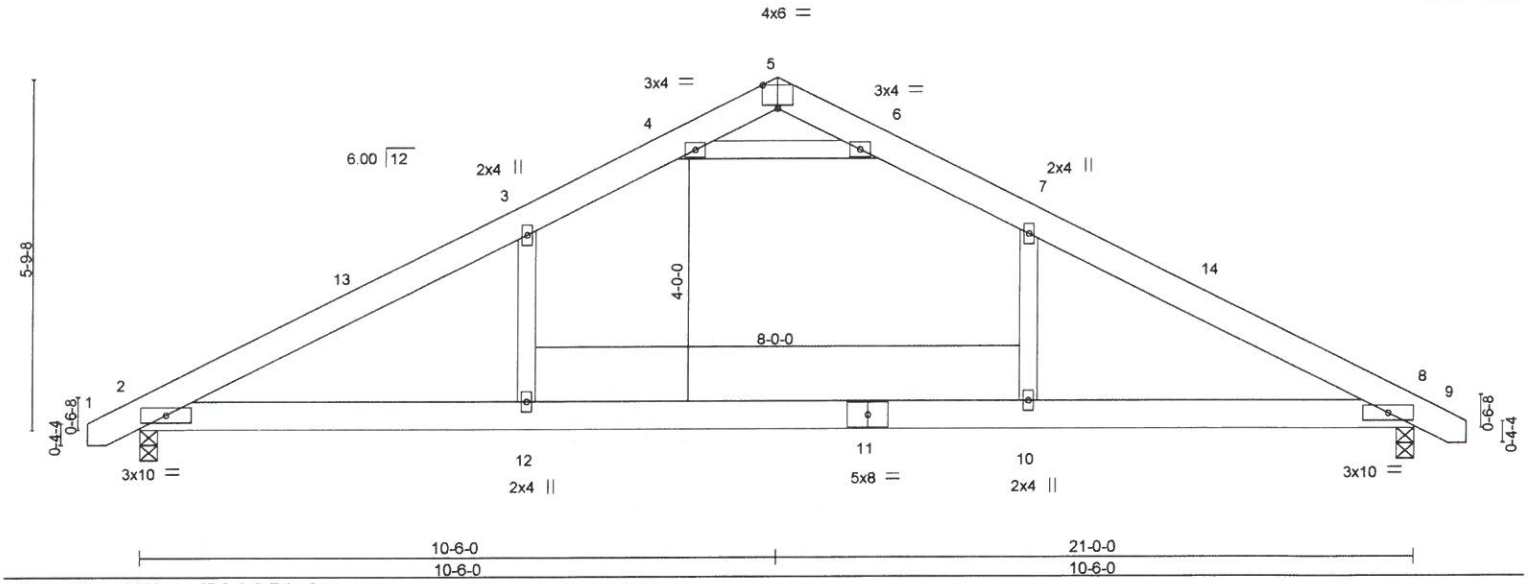
Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:09 2018 Page 1

ID:NpSit5YZ_4qsCWpC5omWUAyBIV_-ACpXn6FVk4CHuWjgN5JEw2zE7KNKLHWH0t2Xpwykjcu

0-10-8 | 10-6-0 | 21-0-0 | 21-10-8

0-10-8 | 10-6-0 | 10-6-0 | 0-10-8

Scale = 1:38.1



10-6-0 | 21-0-0

10-6-0 | 10-6-0

Plate Offsets (X,Y)-- [5:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.25	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(TL)	-0.40	10-12	>619	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.61	Horz(TL)	0.03	8	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-S		Wind(LL)	0.10	12	>999	240	Weight: 123 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3

BRACING-

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

REACTIONS. (lb/size) 2=1129/0-3-8, 8=1129/0-3-8
Max Horz 2=89(LC 7)
Max Uplift 2=-151(LC 7), 8=-151(LC 8)

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

TOP CHORD 2-3=-1835/408, 3-4=-1452/459, 4-5=-147/817, 5-6=-147/817, 6-7=-1452/459, 7-8=-1835/408
BOT CHORD 2-12=-230/1499, 10-12=-230/1499, 8-10=-230/1499
WEBS 3-12=0/530, 7-10=0/530, 4-6=-2413/651

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 10-6-0, Exterior(2) 10-6-0 to 14-7-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 4-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=151, 8=151.

August 24,2018

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133935
J0818-3904	B3	COMMON	6	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:09 2018 Page 1
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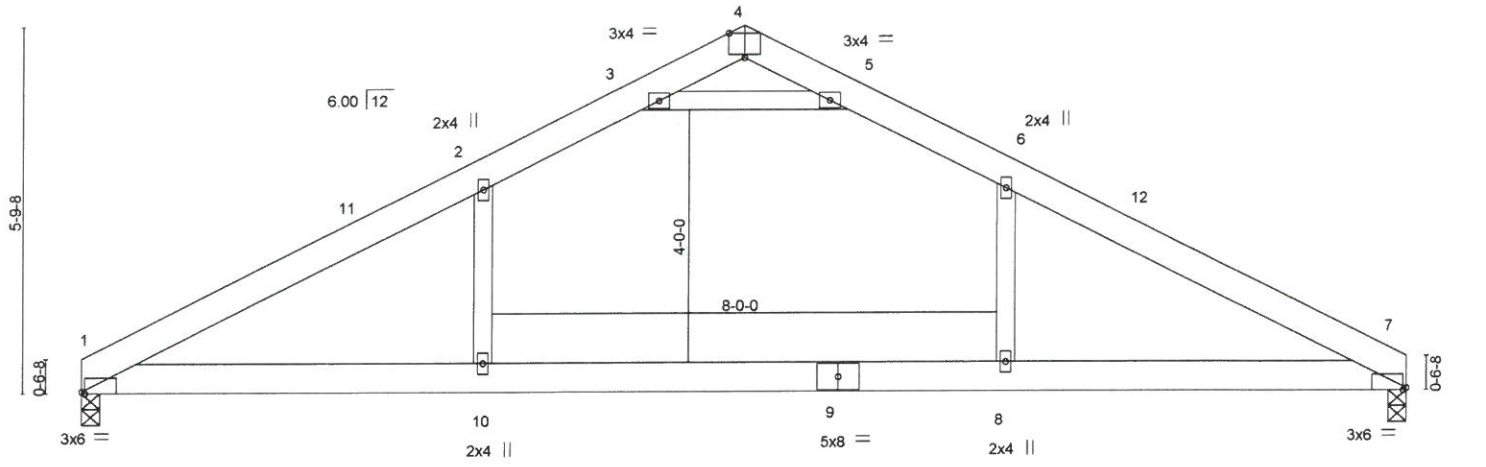
10-6-0 / 10-6-0 — 21-0-0 / 10-6-0

4x6 =

Scale = 1:36.5



10-6-0 / 10-6-0 — 21-0-0 / 10-6-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.25	8-10	>988	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(TL)	-0.41	8-10	>605	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.61	Horz(TL)	0.03	7	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-S		Wind(LL)	0.10	10	>999	240	Weight: 118 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.3

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

REACTIONS. (lb/size) 1=1077/0-3-8, 7=1077/0-3-8
Max Horz 1=-82(LC 5)
Max Uplift 1=-107(LC 7), 7=-107(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1837/419, 2-3=-1458/475, 3-4=-173/837, 4-5=-173/837, 5-6=-1458/475, 6-7=-1837/419
BOT CHORD 1-10=-259/1506, 8-10=-259/1506, 7-8=-259/1506
WEBS 2-10=0/525, 6-8=0/525, 3-5=-2441/698

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-1-12 to 4-6-9, Interior(1) 4-6-9 to 10-6-0, Exterior(2) 10-6-0 to 14-7-12 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 4-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=107, 7=107.

August 24,2018

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133936
J0818-3904	C1	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:11 2018 Page 1

ID:NpSit5YZ_4qsCWpC5omWUAyBlV_-6bwICoGIGhS_7qs2UWMi0T2jc8BupHzaTBXduoykjcs

-0-10-8 / 0-10-8 — 18-0-0 / 18-0-0 — 36-0-0 / 18-0-0 — 36-10-8 / 0-10-8

Scale = 1:63.0

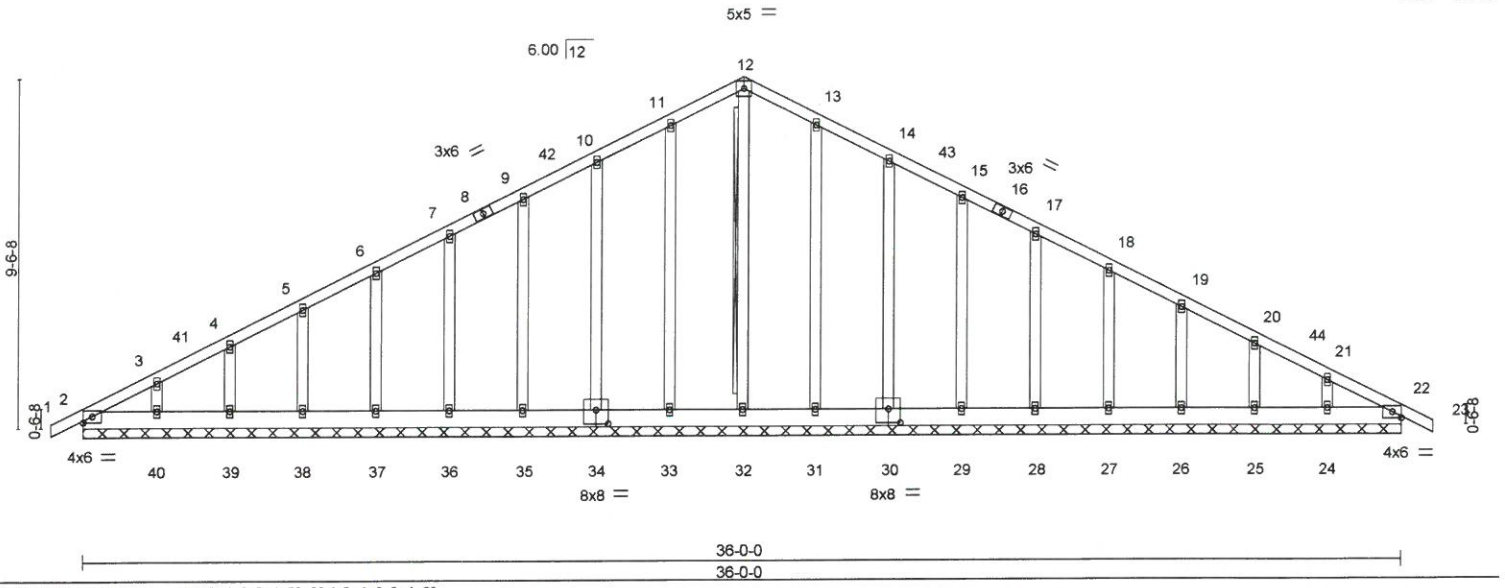

Plate Offsets (X,Y)-- [30:0-4-0,0-4-8], [34:0-4-0,0-4-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00	22	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	-0.00	22	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.16	Horz(TL)	0.01	22	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-S							Weight: 263 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS T-Brace: 2x4 SPF No.2 - 12-32
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS. All bearings 36-0-0.
(lb) - Max Horz 2=169(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 2, 33, 34, 35, 36, 37, 38, 39, 31, 30, 29, 28, 27, 26, 25, 24, 22 except 40=-102(LC 7)
Max Grav All reactions 250 lb or less at joint(s) 2, 32, 33, 34, 35, 36, 37, 38, 39, 40, 31, 30, 29, 28, 27, 26, 25, 24, 22

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-279/30, 9-10=-43/272, 10-11=-43/345, 11-12=-46/406, 12-13=-46/408, 13-14=-43/347, 14-15=-43/274, 21-22=-252/18
BOT CHORD 2-40=0/270, 39-40=0/270, 38-39=0/270, 37-38=0/270, 36-37=0/270, 35-36=0/270, 34-35=0/270, 33-34=0/270, 32-33=0/270, 31-32=0/270, 30-31=0/270, 29-30=0/270, 28-29=0/270, 27-28=0/270, 26-27=0/270, 25-26=0/270, 24-25=0/270, 22-24=0/270

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Corner(3) -0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 18-0-0, Corner(3) 18-0-0 to 22-4-13 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 33, 34, 35, 36, 37, 38, 39, 31, 30, 29, 28, 27, 26, 25, 24, 22 except (jt=lb) 40=102.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 22.
11) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

August 24,2018

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

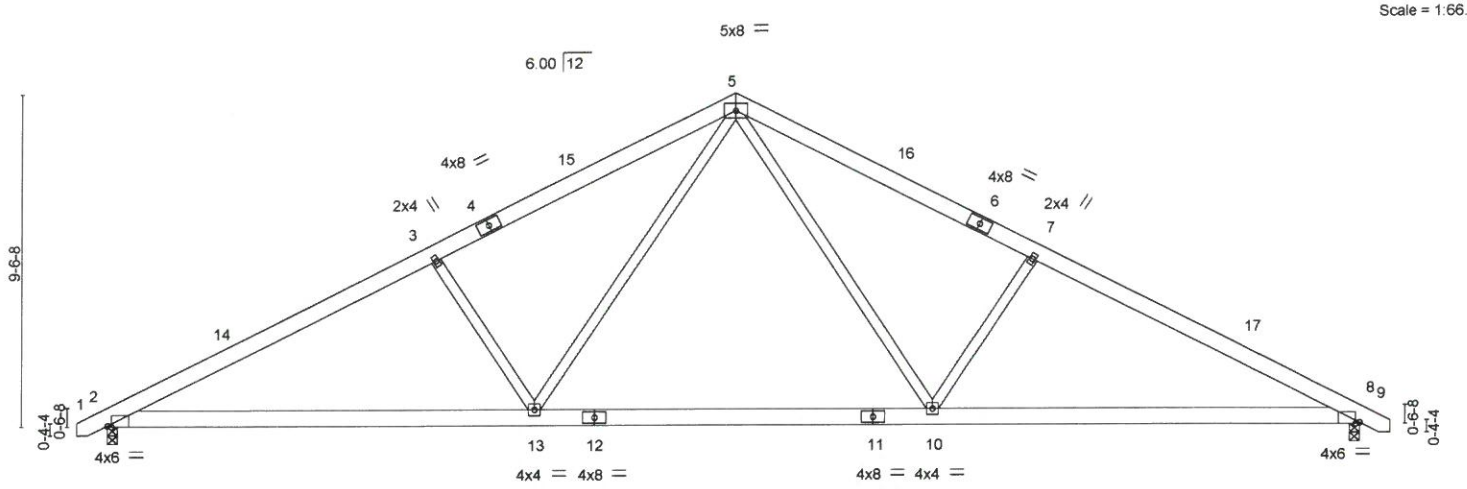
Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133937
J0818-3904	C2	COMMON	2	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:12 2018 Page 1

ID:NpSit5YZ_4qsCWpC5omWUAyBIV_-bnUgP8HN0?arl_RF2DtxYgaqdXJSYeTjirGBQEykjcr

-0-10-8	9-5-2	18-0-0	26-6-14	36-0-0	36-10-8
0-10-8	9-5-2	8-6-14	8-6-14	9-5-2	0-10-8

Scale = 1:66.3



12-3-7	23-8-9	36-0-0
12-3-7	11-5-3	12-3-7

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.50	10-13	>857	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(TL)	-0.65	10-13	>664	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.53	Horz(TL)	0.10	8	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-S		Wind(LL)	0.08	2-13	>999	240	Weight: 229 lb	FT = 20%

LUMBER-

TOP CHORD	2x6 SP No.1
BOT CHORD	2x6 SP No.1
WEBS	2x4 SP No.3

BRACING-

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

REACTIONS. (lb/size) 2=1823/0-3-8, 8=1823/0-3-8
Max Horz 2=143(LC 7)
Max Uplift 2=-229(LC 7), 8=-229(LC 8)

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

TOP CHORD	2-3=-3329/787, 3-5=-3030/797, 5-7=-3030/797, 7-8=-3329/787
BOT CHORD	2-13=-543/2863, 10-13=-214/1923, 8-10=-555/2863
WEBS	5-10=-234/1276, 7-10=-517/404, 5-13=-234/1276, 3-13=-517/404

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) -0-8-10 to 3-8-3, Interior(1) 3-8-3 to 18-0-0, Exterior(2) 18-0-0 to 22-4-13 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=229, 8=229.

August 24,2018

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133938
J0818-3904	D1	COMMON SUPPORTED GAB	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:12 2018 Page 1

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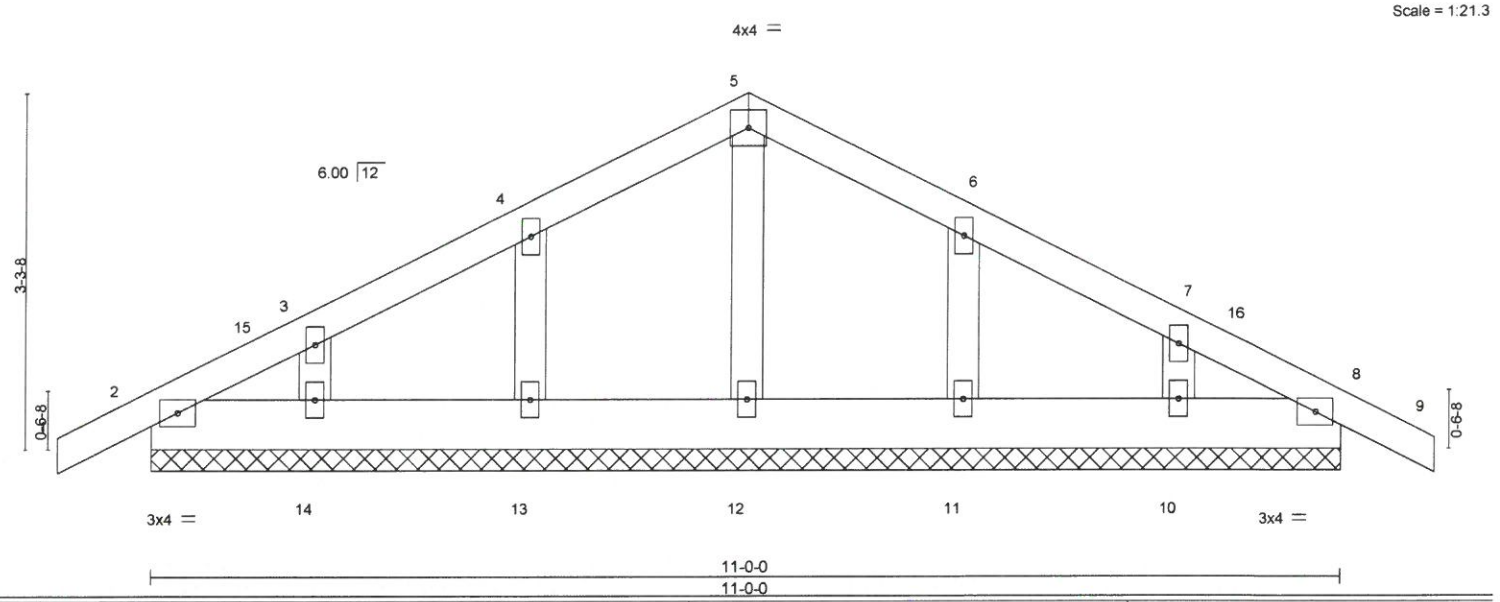
-0-10-8 | 5-6-0 | 11-0-0 | 11-10-8

0-10-8 | 5-6-0 | 5-6-0 | 0-10-8

Scale = 1:21.3



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	8	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(TL)	-0.00	9	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(TL)	0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-S							Weight: 57 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.3

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

REACTIONS. All bearings 11-0-0.
(lb) - Max Horz 2=63(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 14, 10 except 13=-104(LC 7), 11=-103(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 4-13=-133/268, 6-11=-133/268

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Corner(3) -0-10-8 to 3-6-0, Exterior(2) 3-6-0 to 5-6-0, Corner(3) 5-6-0 to 9-10-13 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 14, 10 except (jt=lb) 13=104, 11=103.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 8.

August 24,2018

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133939
J0818-3904	D2	Common Girder	1	2	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:13 2018 Page 1
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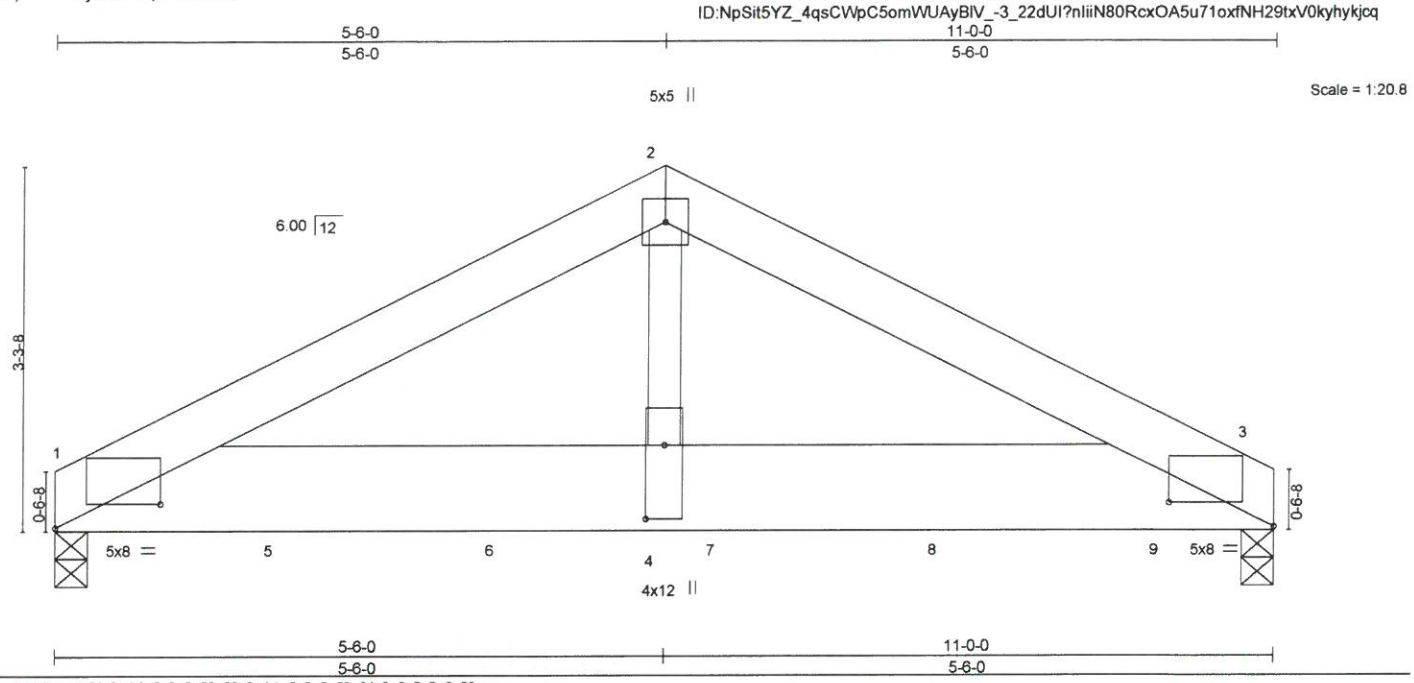

Plate Offsets (X,Y)-- [1:0-11-6,0-2-9], [3:0-11-6,0-2-9], [4:0-8-0,0-2-0]

LOADING (psf)		SPACING- 2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL 1.15	TC	0.23	Vert(LL)	-0.05	3-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL 1.15	BC	0.86	Vert(TL)	-0.10	3-4	>999	240		
BCLL	0.0 *	Rep Stress Incr NO	WB	0.76	Horz(TL)	0.02	3	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007	Matrix-S		Wind(LL)	0.03	3-4	>999	240	Weight: 152 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x10 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-11-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=4926/0-3-8, 3=5985/0-3-8
Max Horz 1=-41(LC 3)
Max Uplift 1=-569(LC 5), 3=-689(LC 6)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-7452/862, 2-3=-7449/860
BOT CHORD 1-4=-729/6644, 3-4=-729/6644
WEBS 2-4=-629/6169

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 4 rows staggered at 0-2-0 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; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise); Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=569, 3=689.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2010 lb down and 230 lb up at 2-0-12, 2010 lb down and 230 lb up at 4-0-12, 2010 lb down and 230 lb up at 6-0-12, and 2010 lb down and 230 lb up at 8-0-12, and 2013 lb down and 228 lb up at 10-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 1-3=-20
Concentrated Loads (lb)
Vert: 5=-2010(F) 6=-2010(F) 7=-2010(F) 8=-2010(F) 9=-2013(F)

August 24,2018

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133940
J0818-3904	P1	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:14 2018 Page 1

ID:NpSit5YZ_4qsCWpC5omWUAyBIV_-XAcQqqJdYcqZ_Hbd9evPd5g6KL5z0e9099IIU7ykjcp

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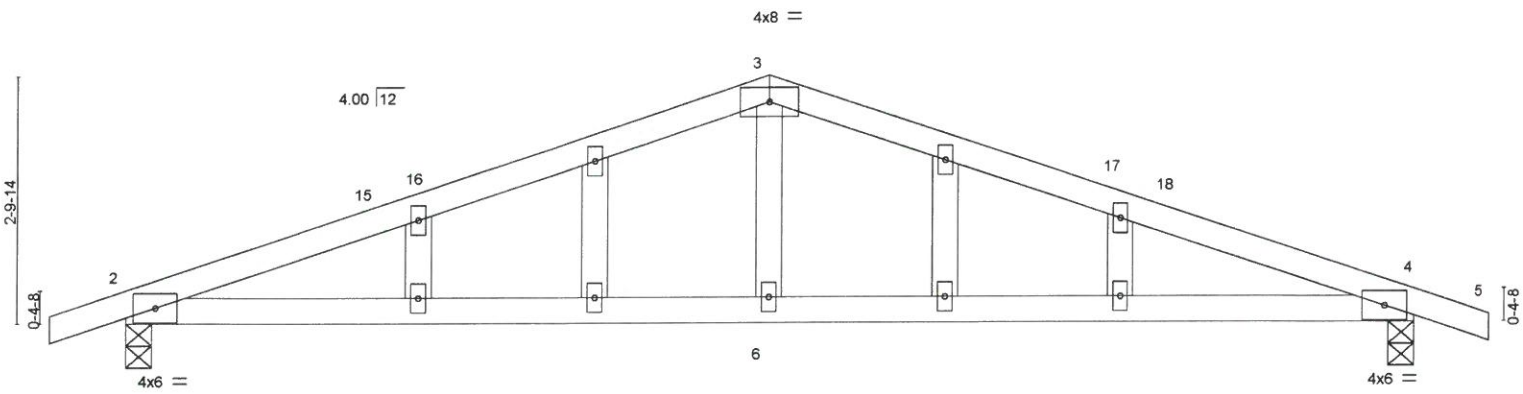
0-10-8 | 7-4-0 | 7-4-0 | 0-10-8

Scale = 1:26.3



7-4-0 | 14-8-0

7-4-0 | 7-4-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.06	2-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(TL)	-0.18	2-6	>957	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(TL)	0.02	4	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-S		Wind(LL)	0.07	2-6	>999	240	Weight: 59 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-7-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 7-11-0 oc bracing.

REACTIONS. (lb/size) 2=636/0-3-8, 4=636/0-3-8
Max Horz 2=55(LC 5)
Max Uplift 2=-264(LC 7), 4=-264(LC 8)

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

TOP CHORD 2-3=-1063/767, 3-4=-1063/767
BOT CHORD 2-6=-571/939, 4-6=-571/939
WEBS 3-6=0/348

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Corner(3) -0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 7-4-0, Corner(3) 7-4-0 to 11-8-13 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=264, 4=264.

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

August 24,2018

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

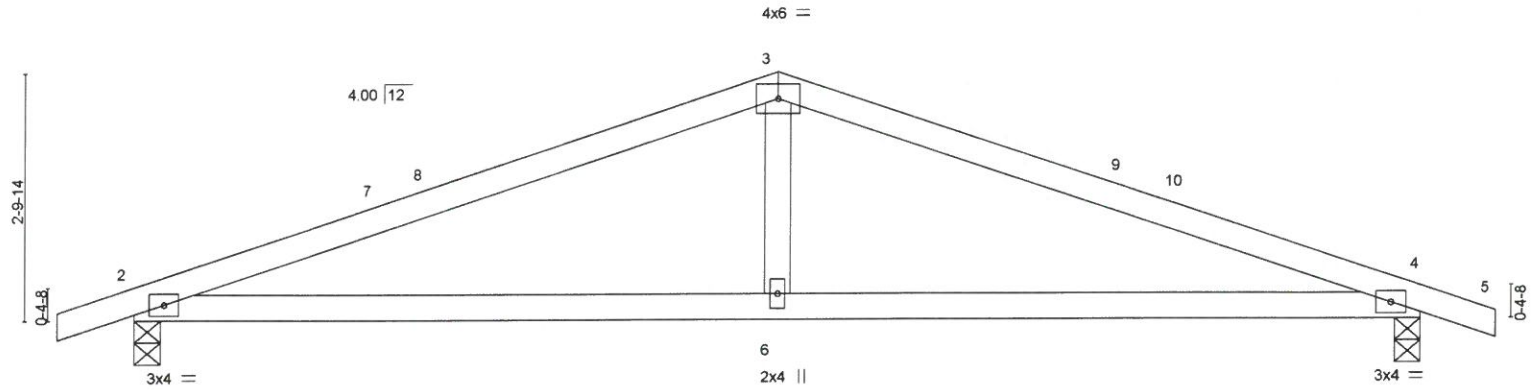
Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133941
J0818-3904	P2	Common	2	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:14 2018 Page 1

ID:NpSit5YZ_4qsCWpC5omWUAyBlV_-XAcQqqJdYcqZ_Hbd9evPd5g6KL5z0e9099IlU7ykjcp

-0-10-8	7-4-0	14-8-0	15-6-8
0-10-8	7-4-0	7-4-0	0-10-8

Scale = 1:26.3



7-4-0	14-8-0
7-4-0	7-4-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.06	2-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(TL)	-0.18	2-6	>957	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(TL)	0.02	4	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-S		Wind(LL)	0.05	4-6	>999	240	Weight: 51 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-7-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 2=636/0-3-8, 4=636/0-3-8
Max Horz 2=-46(LC 8)
Max Uplift 2=-139(LC 5), 4=-139(LC 6)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1063/399, 3-4=-1063/400
BOT CHORD 2-6=-274/939, 4-6=-274/939
WEBS 3-6=0/348

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 7-4-0, Exterior(2) 7-4-0 to 11-8-13 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=139, 4=139.

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

August 24,2018

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Edenton, NC 27932

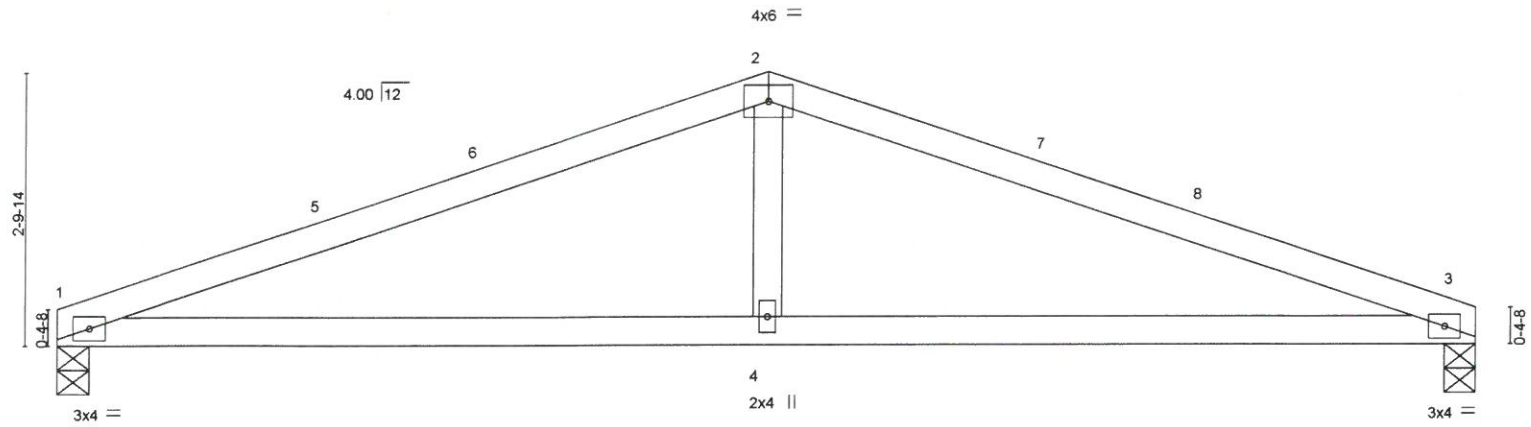
Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133942
J0818-3904	P3	Common	3	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:15 2018 Page 1

ID:NpSit5YZ_4qsCWpC5omWUAyBlV_-?MAo1AKFJwyQcRAqjMQeAJCGTlR1I5NAOpVr1Zykjco

7-4-0 (7-4-0) | 14-8-0 (7-4-0)

Scale: 1/2"=1'



7-4-0 (7-4-0) | 14-8-0 (7-4-0)

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.06	1-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(TL)	-0.18	1-4	>948	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(TL)	0.02	3	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-S		Wind(LL)	0.04	1-4	>999	240	Weight: 48 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-4-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=573/0-4-0, 3=573/0-4-0
Max Horz 1=36(LC 7)
Max Uplift 1=-87(LC 5), 3=-87(LC 6)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1071/428, 2-3=-1071/428
BOT CHORD 1-4=-315/948, 3-4=-315/948
WEBS 2-4=0/350

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-2-0 to 4-6-13, Interior(1) 4-6-13 to 7-4-0, Exterior(2) 7-4-0 to 11-8-13 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

August 24,2018

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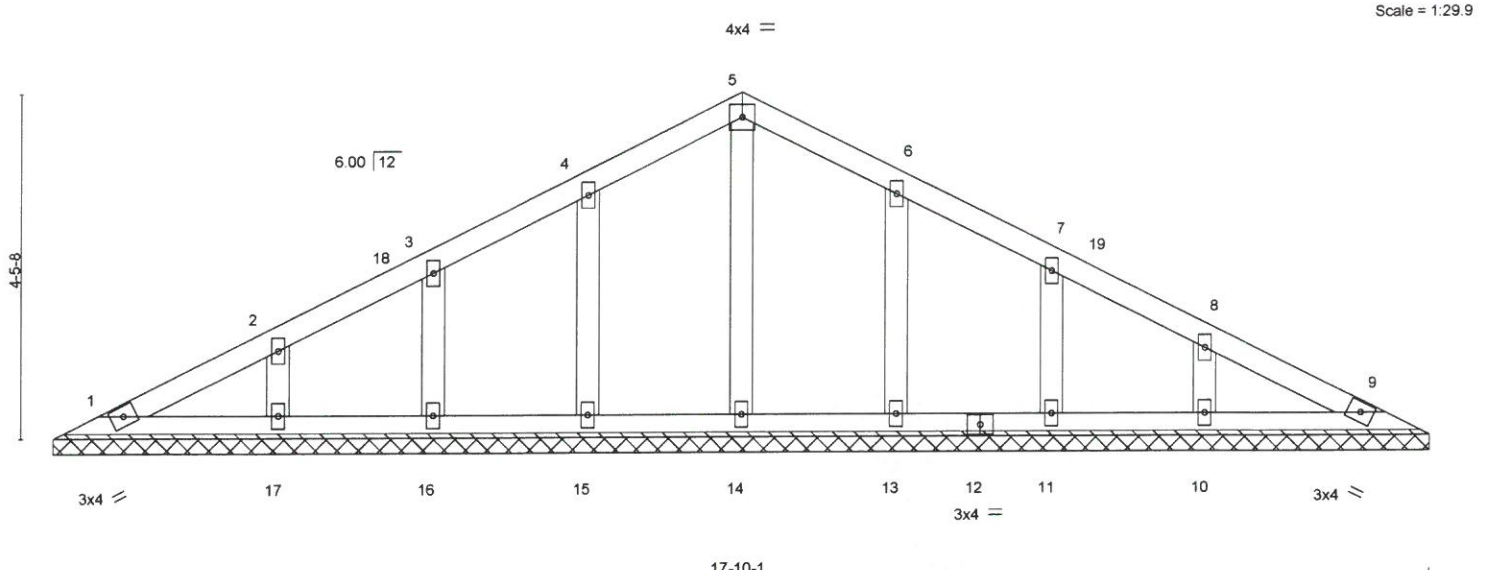
Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133943
J0818-3904	V1	GABLE	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:16 2018 Page 1

ID:NpSit5YZ_4qsCWpC5omWUAyBIV_-TYkBFWKu4D4HEbl0H3ytjWbt9uzUa_JdTEOZ0ykjcn

8-11-0 / 8-11-0 — 17-10-1 / 8-11-1

Scale = 1:29.9



17-10-1 / 17-10-1

Plate Offsets (X,Y)-- [6:0-0-0,0-0-0], [7:0-0-0,0-0-0], [8:0-0-0,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(TL)	0.00	9	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-S							Weight: 77 lb	FT = 20%

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

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

REACTIONS. All bearings 17-10-1.
(lb) - Max Horz 1=-73(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 15, 16, 13, 11 except 17=-114(LC 7), 10=-114(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 14, 15, 16, 17, 13, 11, 10

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) 0-7-7 to 4-11-0, Interior(1) 4-11-0 to 8-11-0, Exterior(2) 8-11-0 to 13-3-13 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9, 15, 16, 13, 11 except (jt=lb) 17=114, 10=114.

August 24,2018

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Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133944
J0818-3904	V2	VALLEY	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:16 2018 Page 1

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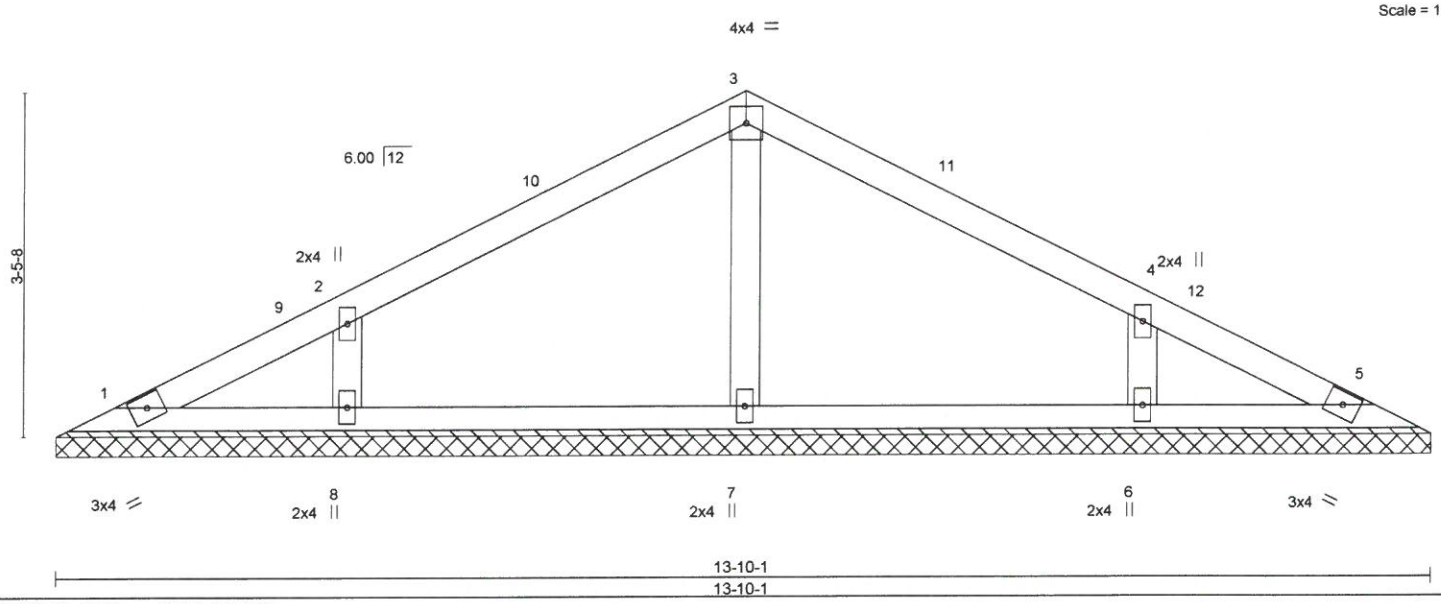
6-11-0 / 6-11-0 — 13-10-1 / 6-11-1

Scale = 1:23.2



13-10-1 / 13-10-1

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-S							Weight: 49 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.3

BRACING-

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

REACTIONS. All bearings 13-10-1.

(lb) - Max Horz 1=49(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-101(LC 7), 6=-101(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=283(LC 1), 8=306(LC 11), 6=306(LC 12)

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) 0-7-7 to 5-0-3, Interior(1) 5-0-3 to 6-11-0, Exterior(2) 6-11-0 to 11-3-13 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=101, 6=101.
6) Non Standard bearing condition. Review required.

August 24,2018

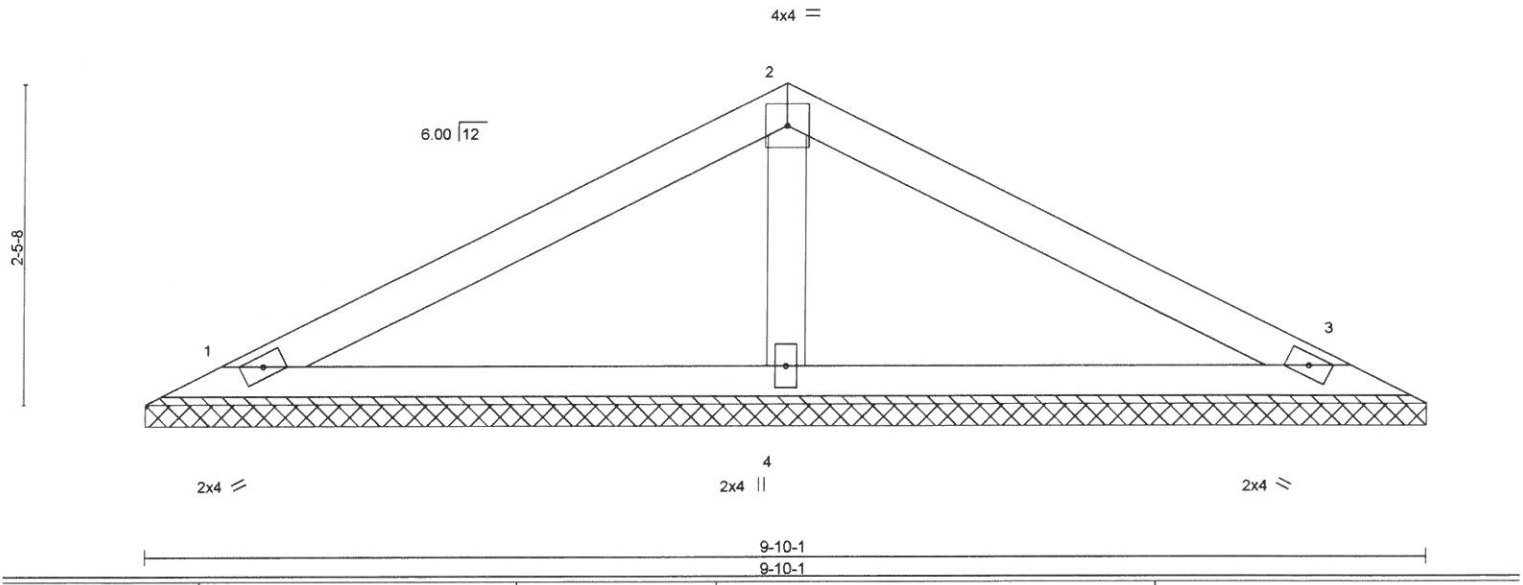
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133945
J0818-3904	V3	VALLEY	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:17 2018 Page 1
ID:NpSit5YZ_4qsCWpC5omWUAyBlV_-xIlZSrLWrXC8slKCrnT6FkIkMYCaD0ySr7_y5Sykjcm

4-11-0 / 4-11-0 — 9-10-1 / 4-11-1

Scale = 1:17.7



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-S							Weight: 32 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
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=158/9-10-1, 3=159/9-10-1, 4=371/9-10-1
Max Horz 1=-33(LC 5)
Max Uplift 1=-34(LC 7), 3=-40(LC 8), 4=-22(LC 7)
Max Grav 1=160(LC 11), 3=160(LC 12), 4=371(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
6) Non Standard bearing condition. Review required.

August 24,2018

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

Job	Truss	Truss Type	Qty	Ply	06-18-158 Welch	E12133946
J0818-3904	V4	VALLEY	1	1	Job Reference (optional)	

Comtech, Inc., Fayetteville, NC 28309 — 8.130 s Mar 11 2018 MiTek Industries, Inc. Fri Aug 24 06:13:18 2018 Page 1
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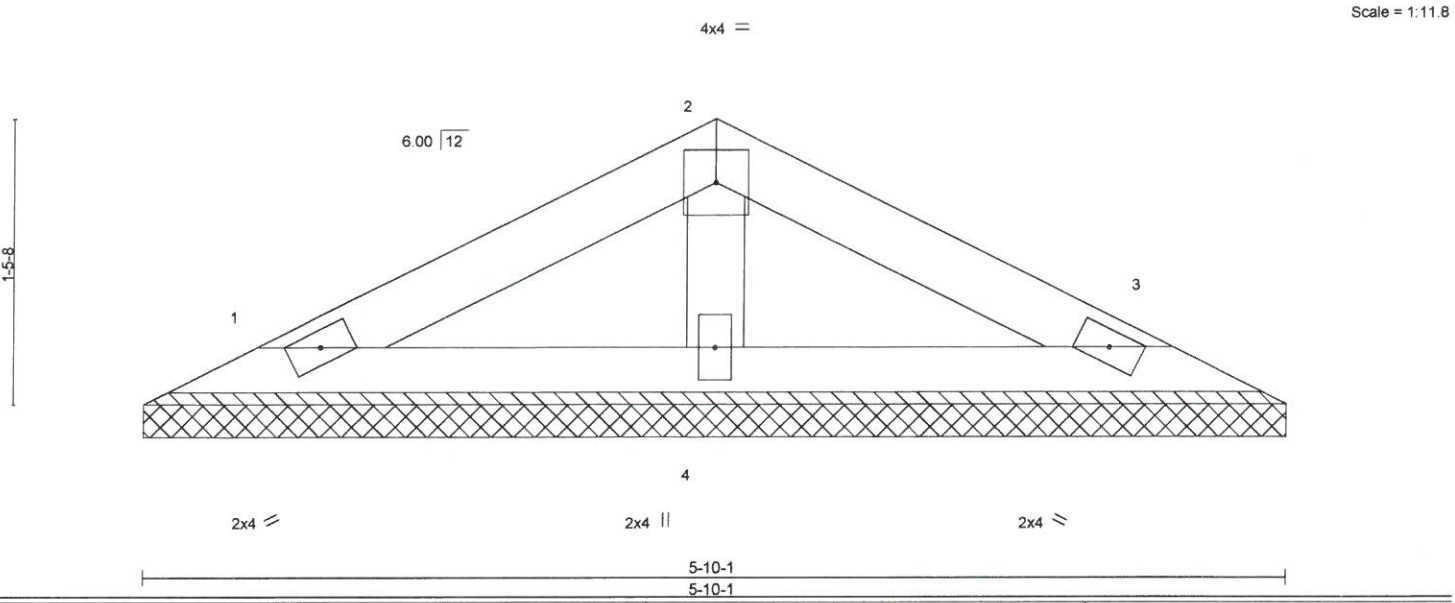

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2009/TPI2007		Matrix-P							Weight: 18 lb	FT = 20%

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

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

REACTIONS. (lb/size) 1=94/5-10-1, 3=94/5-10-1, 4=180/5-10-1
Max Horz 1=-18(LC 5)
Max Uplift 1=-23(LC 7), 3=-26(LC 8), 4=-2(LC 7)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-05; 110mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
6) Non Standard bearing condition. Review required.

August 24,2018

ENGINEERING BY
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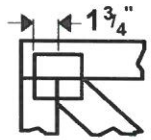
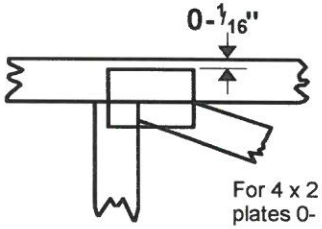
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

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

PLATE SIZE

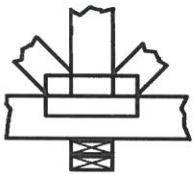
4 x 4

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

LATERAL BRACING LOCATION

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

BEARING

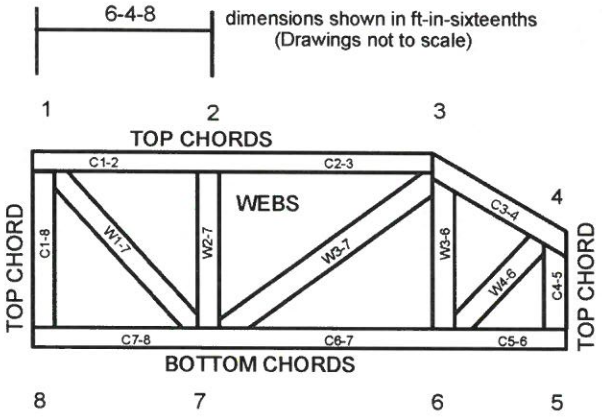


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

MiTek

ENGINEERING BY TRENCO
A MiTek Affiliate

MiTek Engineering Reference Sheet: MII-7473 rev. 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.