[redacted]

Re: [redacted]

Subject: Manufactured truss layout sheet 1, dated October 1, 2018 and structural calculations for manufactured trusses, dated October 1, 2018, all by Truss Engineering, Inc.

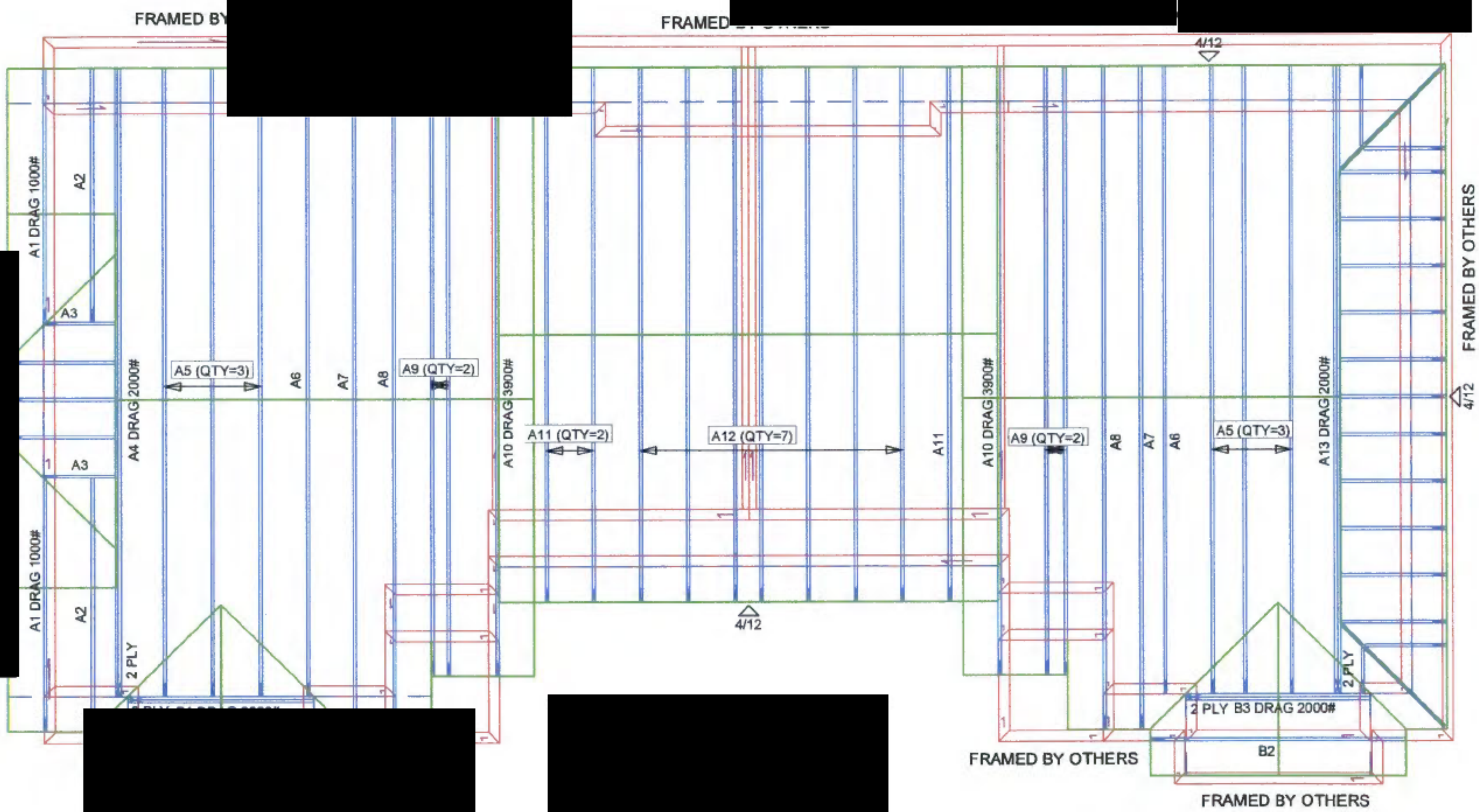
[redacted]

As requested, we have reviewed the manufactured truss submittal for the project. The vertical and lateral loads noted in the truss documents have been found to be in general conformance with the vertical and lateral loading criteria shown in the structural drawings. The truss deflections noted in the truss documents have been found to be in conformance with the deflection criteria shown in the structural drawings.

We hope this provides the information that you require at this time. Please call if we can be of further assistance in this matter.

[redacted]

PLEX18-445 RJ



[redacted]

[redacted]ote:
[redacted]uctural EOR review letter attached. Trusses are listed on the
[redacted]ver sheet as a deferred approval item. These are to be submitted
[redacted]the City for review and approval prior to fabrication.

JOB LOCATION: [redacted]

JOB DESCRIPTION: [redacted]

DESIGNED BY: [redacted]

JOB NO:
DC183

PAGE NO:
1 OF 1

[redacted]

Top chord 2x6 DF-L SS(g)
Bot chord 2x4 DF-L #1&Bet.(g)
Webs 2x4 DF-L Standard(g) :C1, C2 2x3 DF-L Standard(g):

Connectors in green lumber (g) designed using NDS/TPI reduction factors.

115 mph wind, 20.03 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP C, wind TC DL=8.4 psf, wind BC DL=4.2 psf.

Roof overhang/cantilever supports 2.00 psf soffit load.

See DWGS A11530ENC100212, GBLLETIN0212, & GABRST100212 for more requirements.

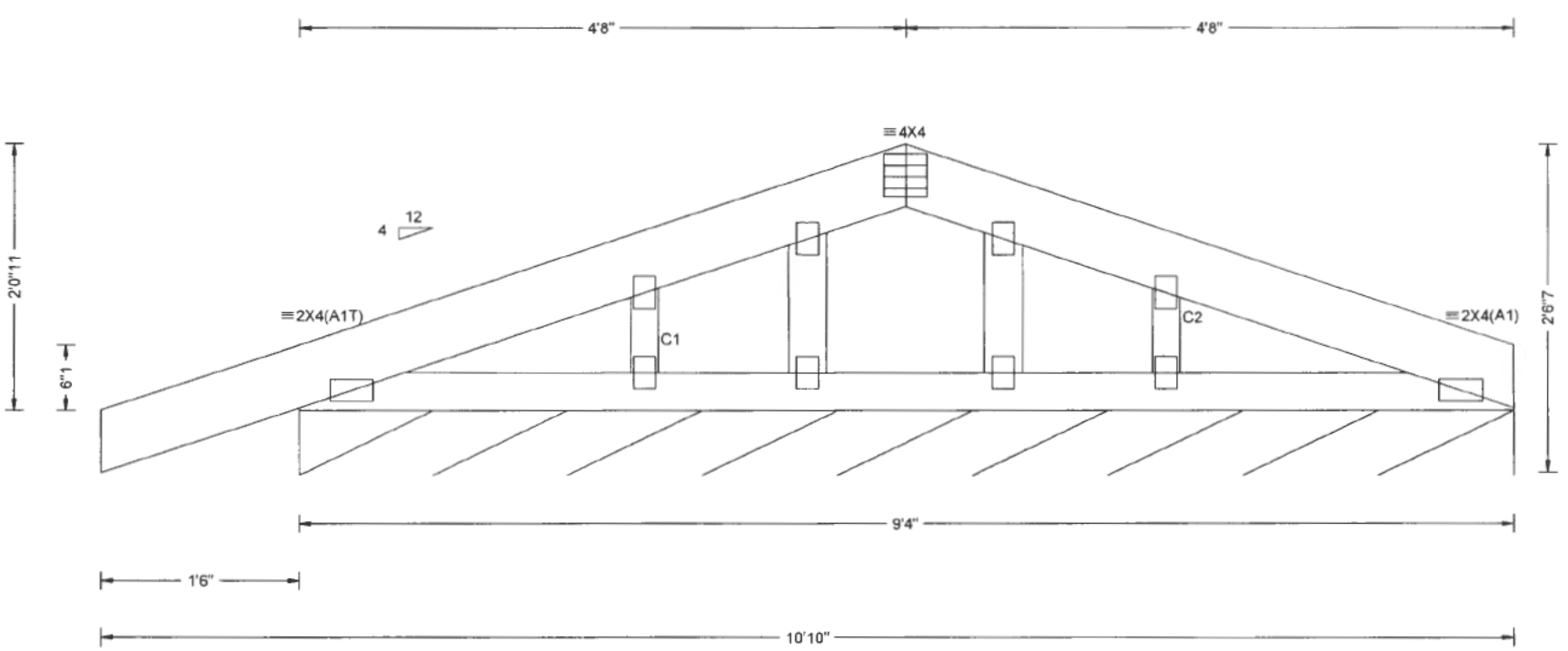
Calculated vertical live load deflection is 0.00" at X = 8- 6- 4.
Calculated vertical total load deflection is 0.00" at X = 8- 6- 4.
Calculated horizontal live load deflection is 0.00"
Calculated horizontal total load deflection is 0.00"
Allowable vertical deflection ratios are L/360 live and L/240 total load.
Calculated vertical deflection ratios are L/81777 live and L/45163 total load.

All plates are 2X3 except as noted.

Truss transfers a maximum horizontal load of
1200 # (128.57 plf) along top chord, from either
direction, to supports where indicated. Diaphragm and
connections are to be designed by Engineer of Record.
Drag Loads: Force(#) (PLF) Mbr Start End
Case 1: 1200 128.57 TC 0.00 9.33
1200 BC 0.00

Wind loads and reactions based on both MWFRS and C&C.

Bottom chord checked for 10.00 psf non-concurrent live load.



R=101plf U=100plf RL=129/-129plf W=9'4"
(Rigid Surface)

DESC. = A1 DRAG 1000#
PLT. TYP.-WAVE/R

DESIGN CRIT=CBC2016/TPI-2014 FT/RT=20%(0%)/10(0)

QTY= 2 TOTAL= 2

REV. 16.02.01A.0117.18

SEQ = 33153
SCALE =0.7825

[redacted]

WARNING! READ AND FOLLOW ALL NOTES ON THIS DRAWING!
IMPORTANT FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and WTCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7 or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise.
Refer to drawings 160A-Z for standard plate positions.
ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.
A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.

[redacted]

[redacted]

TC LL	20.0psf	REF	
TC DL	14.0psf	DATE	10-01-2018
BC DL	10.0psf	DRWG	
BC LL	0.0psf		
TOT.LD.	44.0psf	O/A LEN.	90400
DUR.FAC.	1.25	JOB #:	DC183
SPACING	24.0"	TYPE	GABL

[redacted]

[redacted]

Top chord 2x6 DF-L SS(g)
Bot chord 2x4 DF-L #1&Bet.(g)
Webs 2x4 DF-L Standard(g)

Connectors in green lumber (g) designed using NDS/TPI reduction factors.

Calculated vertical live load deflection is 0.01" at X = 4- 8- 0.
Calculated vertical total load deflection is 0.02" at X = 4- 8- 0.
Calculated horizontal live load deflection is 0.00"
Calculated horizontal total load deflection is 0.01"
Allowable vertical deflection ratios are L/360 live and L/240 total load.
Calculated vertical deflection ratios are L/16545 live and L/4781 total load.

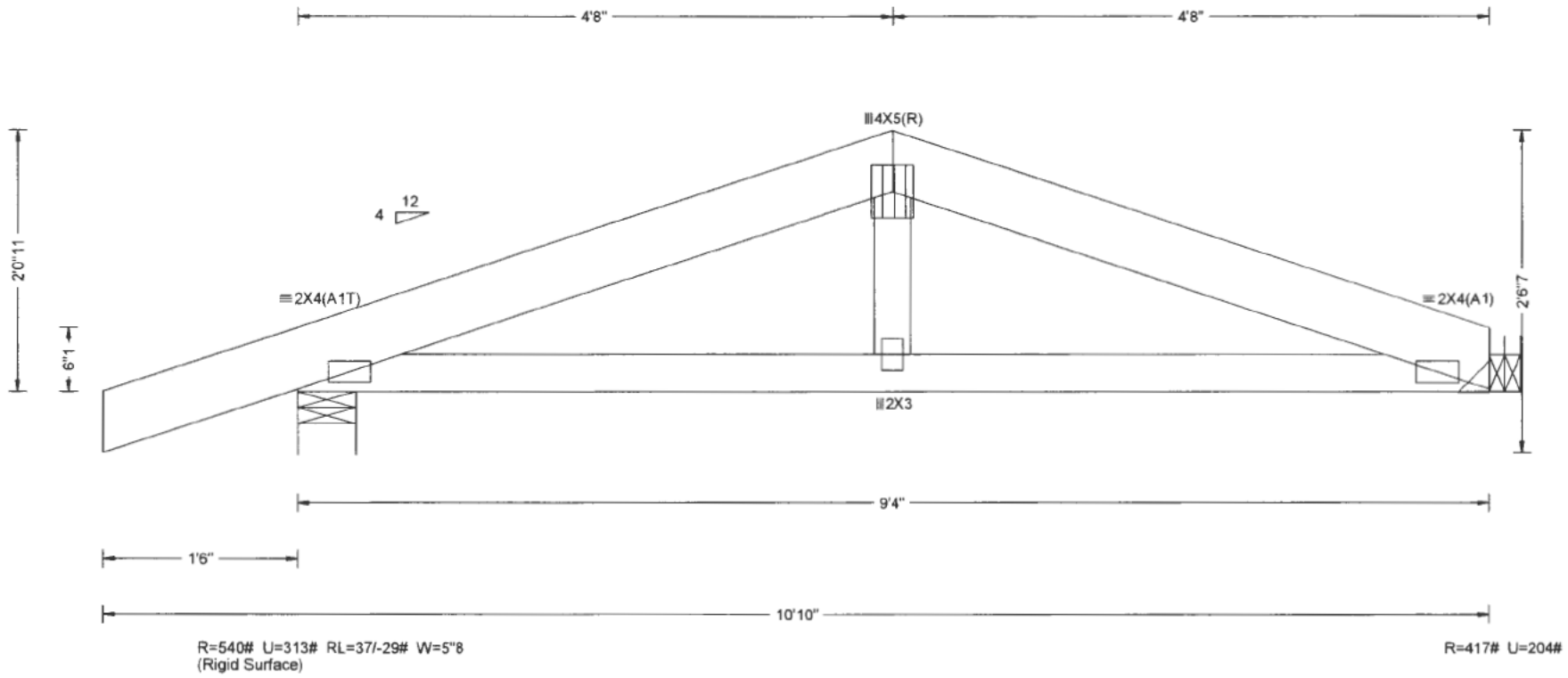
115 mph wind, 26.03 ft mean hgt, ASCE 7-16, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP C, wind TC DL=8.4 psf, wind BC DL=4.2 psf.

Wind loads and reactions based on both MWFRS and C&C.

Roof overhang/cantilever supports 2.00 psf soffit load.

Bottom chord checked for 10.00 psf non-concurrent live load.

Top Chord overhang(s) may be field trimmed.



DESC. = A2
PLT. TYP.-WAVE/R

DESIGN CRIT=CBC2016/TPI-2014 FT/RT=20%(0%)/10(0)

QTY= 2 TOTAL= 2

REV. 16.02.01A.0117.18

SEQ = 33155
SCALE =0.7825

"WARNING!" READ AND FOLLOW ALL NOTES ON THIS DRAWING!
"IMPORTANT" FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and WTCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7 or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions.

ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.

A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.

[redacted]

[redacted]

TC LL	20.0psf
TC DL	14.0psf
BC DL	10.0psf
BC LL	0.0psf
TOT.LD.	44.0psf
DUR.FAC.	1.25
SPACING	24.0"

REF	
DATE	10-01-2018
DRWG	
O/A LEN.	90400
JOB #:	DC183
TYPE	COMN

[redacted]

[redacted]

Top chord 2x6 DF-L SS(g)
Bot chord 2x4 DF-L #1&Bet.(g)
Webs 2x4 DF-L Standard(g)

Connectors in green lumber (g) designed using NDS/TPI reduction factors.

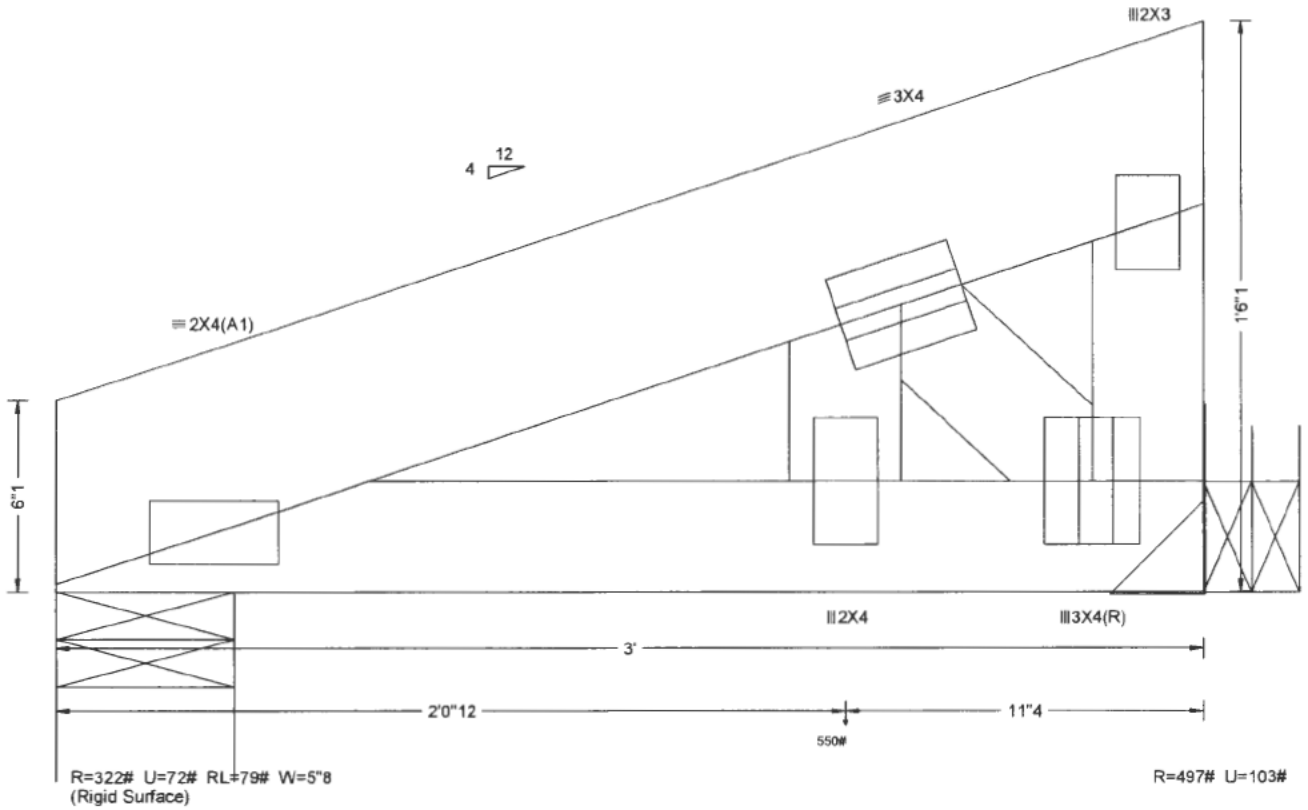
Special loads
——(Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)
TC- From 70 plf at 0.00 to 70 plf at 3.00
BC- From 20 plf at 0.00 to 20 plf at 3.00
BC- 550.00 lb Conc. Load at 2.06

Wind loads and reactions based on both MWFRS and C&C.

115 mph wind, 20.00 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP C, wind TC DL=8.4 psf, wind BC DL=4.2 psf.

Bottom chord checked for 10.00 psf non-concurrent live load.

Calculated vertical live load deflection is 0.00" at X = 2- 0-12.
Calculated vertical total load deflection is 0.01" at X = 2- 0-12.
Calculated horizontal live load deflection is 0.00"
Calculated horizontal total load deflection is 0.00"
Allowable vertical deflection ratios are L/360 live and L/240 total load.
Calculated vertical deflection ratios are L/66900 live and L/5292 total load.



DESC. = A3
PLT. TYP.-WAVE/R

DESIGN CRIT=CBC2016/TPI-2014 FT/RT=20%(0%)/10(0)

QTY= 1 TOTAL= 1

REV. 16.02.01A.0117.18

SEQ = 33157
SCALE =2.0833

[redacted]

"WARNING!" READ AND FOLLOW ALL NOTES ON THIS DRAWING!
"IMPORTANT" FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and WTCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7 or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions.

ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.

A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.

[redacted]

TC LL	20.0psf	REF	
TC DL	14.0psf	DATE	10-01-2018
BC DL	10.0psf	DRWG	
BC LL	0.0psf		
TOT.LD.	44.0psf	O/A LEN.	3
DUR.FAC.	1.25	JOB #:	DC183
SPACING	24.0"	TYPE	MONO

[redacted]

Top chord 2x6 DF-L SS(g)
Bot chord 2x6 DF-L SS(g)
Webs 2x4 DF-L Standard(g)
:W3, W4, W7, W8, W11, W12, W15, W16 2x3 DF-L Standard(g):

Connectors in green lumber (g) designed using NDS/TPI reduction factors.

Special loads
——(Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)
TC- From 70 plf at 0.00 to 70 plf at 3.50
TC- From 56 plf at 3.50 to 91 plf at 5.50
TC- From 91 plf at 5.50 to 91 plf at 19.81
TC- From 91 plf at 19.81 to 56 plf at 21.81
TC- From 70 plf at 21.81 to 70 plf at 26.81
BC- From 26 plf at 0.00 to 26 plf at 3.50
BC- From 26 plf at 3.50 to 26 plf at 14.00
BC- From 26 plf at 14.00 to 26 plf at 21.81
BC- From 26 plf at 21.81 to 26 plf at 25.31
BC- From 4 plf at 25.31 to 4 plf at 26.81
TC- 128.19 lb Conc. Load at 3.50,21.81
BC- 550.00 lb Conc. Load at 9.40,15.92

Negative reaction(s) of -247# MAX. (See below) Requires uplift connection.

Truss transfers a maximum horizontal load of 2200 # (314.29 plf) along top chord, from either direction, to supports where indicated. Diaphragm and connections are to be designed by Engineer of Record.

Drag Loads:	Force(#)	(PLF)	Mbr	Start	End
Case 1:	1100	314.29	TC	0.00	3.50
	1100	314.29	TC	21.81	25.31
	2200		BC	0.00	

In lieu of structural panels use purlins to brace all flat TC @ 24" OC.

Calculated vertical live load deflection is 0.07" at X = 15-11- 0.
Calculated vertical total load deflection is 0.37" at X = 15-11- 0.
Calculated horizontal live load deflection is 0.02"
Calculated horizontal total load deflection is 0.06"
Allowable vertical deflection ratios are L/360 live and L/240 total load.
Calculated vertical deflection ratios are L/4086 live and L/818 total load.

[redacted]

2 Complete Trusses Required

Nail Schedule:0.131"x3", min. nails
Top Chord: 1 Row @ 7.75" o.c.
Bot Chord: 1 Row @12.00" o.c.
Webs : 1 Row @ 4" o.c.
Use equal spacing between rows and stagger nails in each row to avoid splitting.

Drag Load for wind only.

115 mph wind, 21.36 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP C, wind TC DL=8.4 psf, wind BC DL=4.2 psf.

Wind loads and reactions based on both MWFRS and C&C.

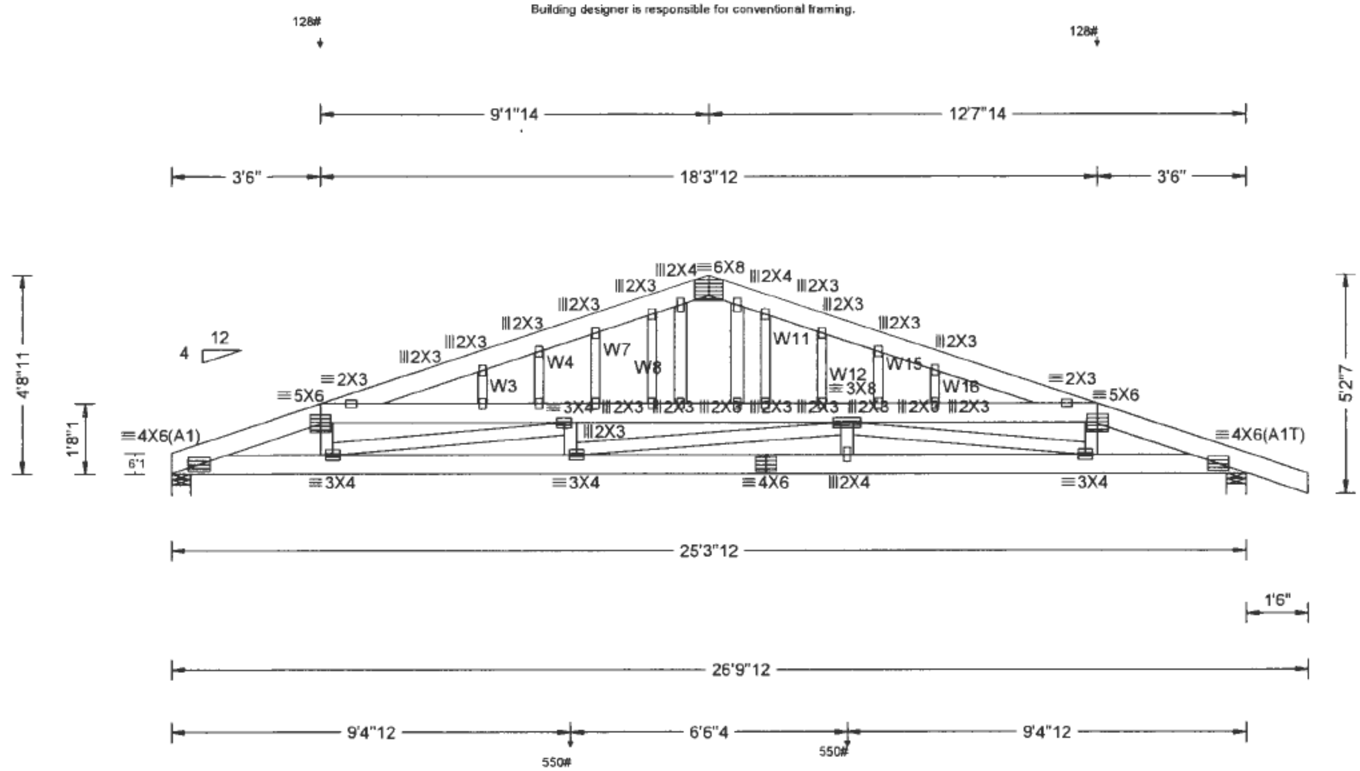
Roof overhang/cantilever supports 2.00 psf soffit load.

Bottom chord checked for 10.00 psf non-concurrent live load.

#1 hip supports 3-6-0 jacks with no webs. Corner sets are conventionally framed.

** California hip girder load case modified **

Building designer is responsible for conventional framing.



+ 036BSACFH +

R=2041# U=319# RL=2201/-2201# W=5"8
(Rigid Surface)

R=2160# U=382# W=5"8
(Rigid Surface)

DESC. = A4 DRAG 2000#
PLT. TYP.-WAVE/R

DESIGN CRIT=CBC2016/TPI-2014 FT/RT=20%(0%)/10(0)

QTY= 1 PLIES= 2 TOTAL= 2

REV. 16.02.01A.0117.18

SEQ = 33165
SCALE =0.2313

[redacted]

WARNING! READ AND FOLLOW ALL NOTES ON THIS DRAWING!
IMPORTANT FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and WTCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of webs shall have bracing installed per BCSI sections B3, B7 or B10, as applicable. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise.
Refer to drawings 160A-Z for standard plate positions.
ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses.
A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.

[redacted]

TC LL	20.0psf	REF	
TC DL	14.0psf	DATE	10-01-2018
BC DL	10.0psf	DRWG	
BC LL	0.0psf		
TOT.LD.	44.0psf	O/A LEN.	250312
DUR.FAC.	1.25	JOB #:	DC183
SPACING	24.0"	TYPE	COMN