This document has been electronically signed using a Digital Signature. Printed copies without an original signature must be verified using the original electronic version.

COA #0 278
07/13/2020

Alpine, an ITW Company
6750 Forum Drive, Suite 305
Orlando, FL 32821
Phone: (800)755-6001
www.alpineitw.com

WILLIAM H. KRICK LICENSE No. 70861 STATE OF FLORIDA PROFESSIONAL ENGINEER

COLUMBIA COUNTY BUILDING DEPARTMENT Received for FILE COPY Code Compliance PLANS EXAMINER

Site Information:	Page 1:
Customer: Seminole Trusses, Inc.	*Job Number:* B51576a
Job Description: -Grace Richards Res Erkinger Home Builders	
Address: 173 SW Wigwam Ct, Ft White, FL	

Job Engineering Criteria:	
Design Code: FBC 2017 RES	*IntelliVIEW Version:* 18.02.01A *JRef #:* 1WWU8570004
Wind Standard: ASCE 7-16 *Wind Speed (mph):* 140 *Building Type:* Closed	*Roof Load (psf):* 20.00- 7.00- 0.00-10.00 *Floor Load (psf):* None

This package contains general notes pages, 17 truss drawing(s) and 5 detail(s).

Item	Drawing Number	Truss
1	195.20.0016.02247	CJ2
3	195.20.0015.51303	CJ6
5	195.20.0015.44863	EJ4
7	195.20.0015.39007	H10A
9	195.20.0015.34100	H14A
11	195.20.0015.16233	HG4A
13	195.20.0015.10637	HJ11
15	195.20.0015.01510	HJ6
17	195.20.0014.43957	T-2
19	PB180160118	
21	BRCLBSUB0119	

Item	Drawing Number	Truss
2	195.20.0015.58007	CJ4
4	195.20.0015.47100	EJ2
6	195.20.0015.41493	EJ8
8	195.20.0015.37153	H12A
10	195.20.0015.24290	HG2A
12	195.20.0015.13407	HG8A
14	195.20.0015.07863	HJ3
16	195.20.0014.46887	T-1
18	PB160160118	
20	REPCHRD1014	
22	CNNAILSP1014	

General Notes

Truss Design Engineer Scope of Work, Design Assumptions and Design Responsibilities:
The design responsibilities assumed in the preparation of these design drawings are those specified in ANSI/TPI 1, Chapter 2; and the National Design Standard for Metal Plate Connected Wood Truss Construction, by the Truss Plate Institute. The truss component designs conform to the applicable provisions of ANSI/TPI 1 and NDS, the National Design Specification for Wood Construction by AWC. The truss component designs are based on the specified loading and dimension information furnished by others to the Truss Design Engineer. The Truss Design Engineer has no duty to independently verify the accuracy or completeness of the information provided by others and may rely on that information without liability. The responsibility for verification of that information remains with others neither employed nor controlled by the Truss Design Engineer. The Truss Design Engineer's seal and signature on the attached drawings, or cover page listing these drawings, indicates acceptance of professional engineering responsibility solely for the truss component designs and not for the technical information furnished by others which technical information and consequences thereof remain their sole responsibility.

The suitability and use of these drawings for any particular structure is the responsibility of the Building Designer in accordance with ANSI/TPI 1 Chapter 2. The Building Designer is responsible for determining that the dimensions and loads for each truss component match those required by the plans and by the actual use of the individual component, and for ascertaining that the loads shown on the drawings meet or exceed applicable building code requirements and any additional factors required in the particular application. Truss components using metal connector plates with integral teeth shall not be placed in environments that will cause the moisture content of the wood in which plates are embedded to exceed 19% and/or cause corrosion of connector plates and other metal fasteners.

The Truss Design Engineer shall not be responsible for items beyond the specific scope of the agreed contracted work set forth herein, including but not limited to: verifying the dimensions of the truss component, calculation of any of the truss component design loads, inspection of the truss components before or after installation, the design of temporary or permanent bracing and their attachment required in the roof and/or floor systems, the design of diaphragms or shear walls, the design of load transfer connections to and from diaphragms and shear walls, the design of load transfer to the foundation, the design of connections for truss components to their bearing supports, the design of the bearing supports, installation of the truss components, observation of the truss component installation process, review of truss assembly procedures, sequencing of the truss component installation, construction means and methods, site and/or worker safety in the installation of the truss components and/or its connections.

This document may be a high quality facsimile of the original engineering document which is a digitally signed electronic file with third party authentication. A wet or embossed seal copy of this engineering document is available upon request.

Temporary Lateral Restraint and Bracing:
Temporary lateral restraint and diagonal bracing shall be installed according to the provisions of BCSI chapters B1, B2, B7 and/or B10 (Building Component Safety Information, by TPI and SBCA), or as specified by the Building Designer or other Registered Design Professional. The required locations for lateral restraint and/or bracing depicted on these drawings are only for the permanent lateral support of the truss members to reduce buckling lengths, and do not apply to and may not be relied upon for the temporary stability of the truss components during their installation.

Permanent Lateral Restraint and Bracing:
The required locations for lateral restraint or bracing depicted on these drawings are for the permanent lateral support of the truss members to reduce buckling lengths. Permanent lateral support shall be installed according to the provisions of BCSI chapters B3, B7 and/or B10, or as specified by the Building Designer or other Registered Design Professional. These drawings do not depict or specify installation/erection bracing, wind bracing, portal bracing or similar building stability bracing which are parts of the overall building design to be specified, designed and detailed by the Building Designer.

Connector Plate Information:
Alpine connector plates are made of ASTM A653 or ASTM A1063 galvanized steel with the following designations, gauges and grades: W=Wave, 20ga, grade 40; H=High Strength, 20ga, grade 60; S=Super Strength, 18ga, grade 60. Information on model code compliance is contained in the ICC Evaluation Service report ESR-1118, available on-line at www.icc-es.org.

Fire Retardant Treated Lumber:
Fire retardant treated lumber must be properly re-dried and maintained below 19% or less moisture level through all stages of construction and usage. Fire retardant treated lumber may be more brittle than untreated lumber. Special handling care must be taken to prevent breakage during all handling activities.

General Notes (continued)

Key to Terms:
Information provided on drawings reflects a summary of the pertinent information required for the truss design. Detailed information on load cases, reactions, member lengths, forces and members requiring permanent lateral support may be found in calculation sheets available upon written request.

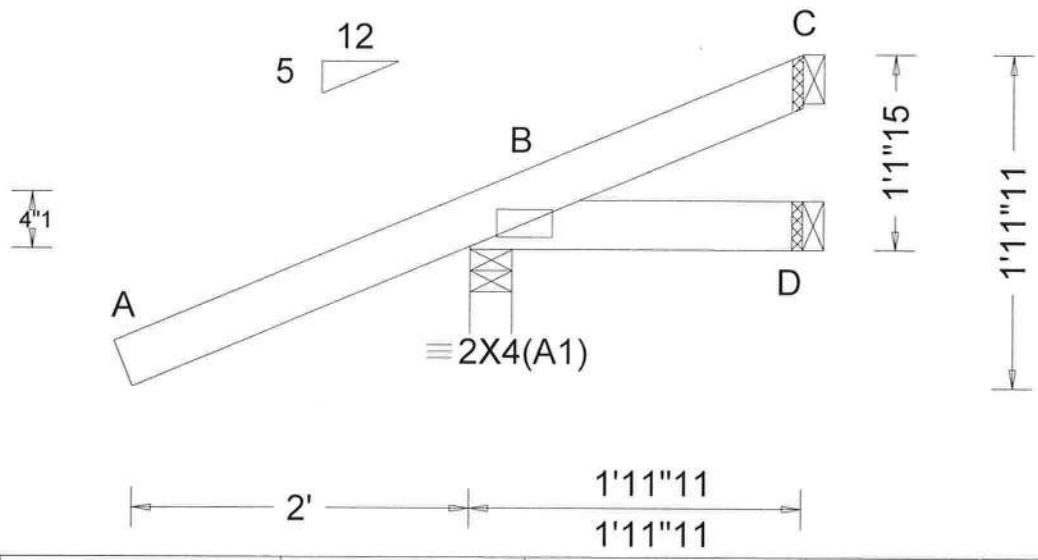
BCDL = Bottom Chord standard design Dead Load in pounds per square foot.
BCLL = Bottom Chord standard design Live Load in pounds per square foot.
CL = Certified lumber.
Des Ld = total of TCLL, TCDL, BCLL and BCDL Design Load in pounds per square foot.
FRT = Fire Retardant Treated lumber.
FRT-DB = D-Blaze Fire Retardant Treated lumber.
FRT-DC = Dricon Fire Retardant Treated lumber.
FRT-FP = FirePRO Fire Retardant Treated lumber.
FRT-FL = FlamePRO Fire Retardant Treated lumber.
FRT-FT = FlameTech Fire Retardant Treated lumber.
FRT-PG = PYRO-GUARD Fire Retardant Treated lumber.
g = green lumber.
HORZ(LL) = maximum Horizontal panel point deflection due to Live Load, in inches.
HORZ(TL) = maximum Horizontal panel point long term deflection in inches, due to Total Load, including creep adjustment.
HPL = additional Horizontal Load added to a truss Piece in pounds per linear foot or pounds.
Ic = Incised lumber.
FJ = Finger Jointed lumber.
L/# = user specified divisor for limiting span/deflection ratio for evaluation of actual L/defl value.
L/defl = ratio of Length between bearings, in inches, divided by the vertical Deflection due to creep, in inches, at the referenced panel point. Reported as 999 if greater than or equal to 999.
Loc = Location, starting location of left end of bearing or panel point (joint) location of deflection.
Max BC CSI = Maximum bending and axial Combined Stress Index for Bottom Chords for of all load cases.
Max TC CSI = Maximum bending and axial Combined Stress Index for Top Chords for of all load cases.
Max Web CSI= Maximum bending and axial Combined Stress Index for Webs for of all load cases.
NCBCLL = Non-Concurrent Bottom Chord design Live Load in pounds per square foot.
PL = additional Load applied at a user specified angle on a truss Piece in pounds per linear foot or pounds.
PLB = additional vertical load added to a Bottom chord Piece of a truss in pounds per linear foot or pounds
PLT = additional vertical load added to a Top chord Piece of a truss in pounds per linear foot or pounds.
PP = Panel Point.
R = maximum downward design Reaction, in pounds, from all specified gravity load cases, at the indicated location (Loc).
-R = maximum upward design Reaction, in pounds, from all specified gravity load cases, at the identified location (Loc).
Rh = maximum horizontal design Reaction in either direction, in pounds, from all specified gravity load cases, at the indicated location (Loc).
RL = maximum horizontal design Reaction in either direction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).
Rw = maximum downward design Reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the identified location (Loc).
TCDL = Top Chord standard design Dead Load in pounds per square foot.
TCLL = Top Chord standard design Live Load in pounds per square foot.
U = maximum Upward design reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).
VERT(CL) = maximum Vertical panel point deflection in inches due to Live Load and Creep Component of Dead Load in inches.
VERT(CTL) = maximum Vertical panel point deflection ratios due to Live Load and Creep Component of Dead Load, and maximum long term Vertical panel point deflection in inches due to Total load, including creep adjustment.
VERT(LL) = maximum Vertical panel point deflection in inches due to Live Load.
VERT(TL) = maximum Vertical panel point long term deflection in inches due to Total load, including creep adjustment.
W = Width of non-hanger bearing, in inches.

Refer to ASCE-7 for Wind and Seismic abbreviations.
Uppercase Acronyms not explained above are as defined in TPI 1.

References:

1. AWC: American Wood Council; 222 Catoctin Circle SE, Suite 201; Leesburg, VA 20175; www.awc.org.
2. ICC: International Code Council; www.iccsafe.org.
3. Alpine, a division of ITW Building Components Group Inc.: 13723 Riverport Drive, Suite 200, Maryland Heights, MO 63043; www.alpineitw.com.
4. TPI: Truss Plate Institute, 2670 Crain Highway, Suite 203, Waldorf, MD 20601; www.tpinst.org.
5. SBCA: Wood Truss Council of America, 6300 Enterprise Lane, Madison, WI 53719; www.sbcindustry.com.

SEQN: 24603 JACK FROM: RNB	Ply: 1 Qty: 12	**Job Number:** B51576a -Grace Richards Res Erkinger Home Builders **Truss Label:** CJ2	Cust: R 857 JRef: 1WWU8570004 T15 DrwNo: 195.20.0016.02247 AK / WHK 07/13/2020



Loading Criteria (psf)
TCLL: 20.00
TCDL: 7.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 37.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 140 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): NA			
VERT(CL): NA			
HORZ(LL): 0.001	D	-	-
HORZ(TL): 0.001	D	-	-

Creep Factor: 2.0
Max TC CSI: 0.494
Max BC CSI: 0.103
Max Web CSI: 0.000

VIEW Ver: 18.02.01A.0205.23

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	278	/-	/-	/217	/116	/62
D	23	/-6	/-	/30	/14	/-
C	2	/-1	/-	/35	/32	/-

Wind reactions based on MWFRS
B Brg Width = 3.0 Min Req = 1.5
D Brg Width = 1.5 Min Req = -
C Brg Width = 1.5 Min Req = -
Bearing B Fcperp = 425psi.
Members not listed have forces less than 375#

Lumber
Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;

Plating Notes
Plates sized for a minimum of 3.50 sq.in./piece.

Purlins
In lieu of structural panels or rigid ceiling use purlins to laterally brace chords as follows:

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	52	-2.06	1.97
BC	22	0.13	1.97

Apply purlins to any chords above or below fillers at 24" OC unless shown otherwise above.

Wind
Wind loads based on MWFRS with additional C&C member design.
Wind loading based on both gable and hip roof types.

COA #0278
07/13/2020

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

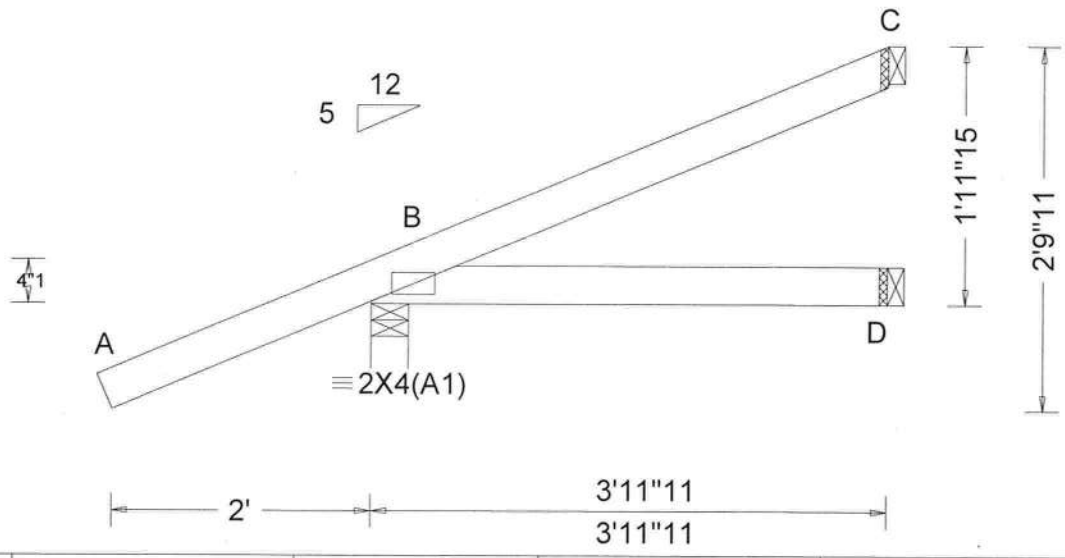
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. 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. Refer to job's General Notes page for additional information.

Alpine, a division of 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 and 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.

For more information see these web sites: Alpine: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 24609 JACK FROM: RNB	Ply: 1 Qty: 8	**Job Number:** B51576a -Grace Richards Res Erkinger Home Builders **Truss Label:** CJ4	Cust: R 857 JRef: 1WWU8570004 T14 DrwNo: 195.20.0015.58007 AK / WHK 07/13/2020	



Loading Criteria (psf)

TCLL:	20.00
TCDL:	7.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	37.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 140 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: not in 4.50 ft
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): NA			
VERT(CL): NA			
HORZ(LL): 0.002	D	-	-
HORZ(TL): 0.003	D	-	-

Creep Factor: 2.0
Max TC CSI: 0.347
Max BC CSI: 0.096
Max Web CSI: 0.000

VIEW Ver: 18.02.01A.0205.23

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	315	/-	/-	/227	/94	/96
D	65	/-	/-	/36	/-	/-
C	75	/-	/-	/34	/52	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.5
D Brg Width = 1.5 Min Req = -
C Brg Width = 1.5 Min Req = -
Bearing B Fcperp = 425psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;

Plating Notes

Plates sized for a minimum of 3.50 sq.in./piece.

Purlins

In lieu of structural panels or rigid ceiling use purlins to laterally brace chords as follows:

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	75	-2.06	3.97
BC	46	0.15	3.97

Apply purlins to any chords above or below fillers at 24" OC unless shown otherwise above.

Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

COA #0778

07/13/2020

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

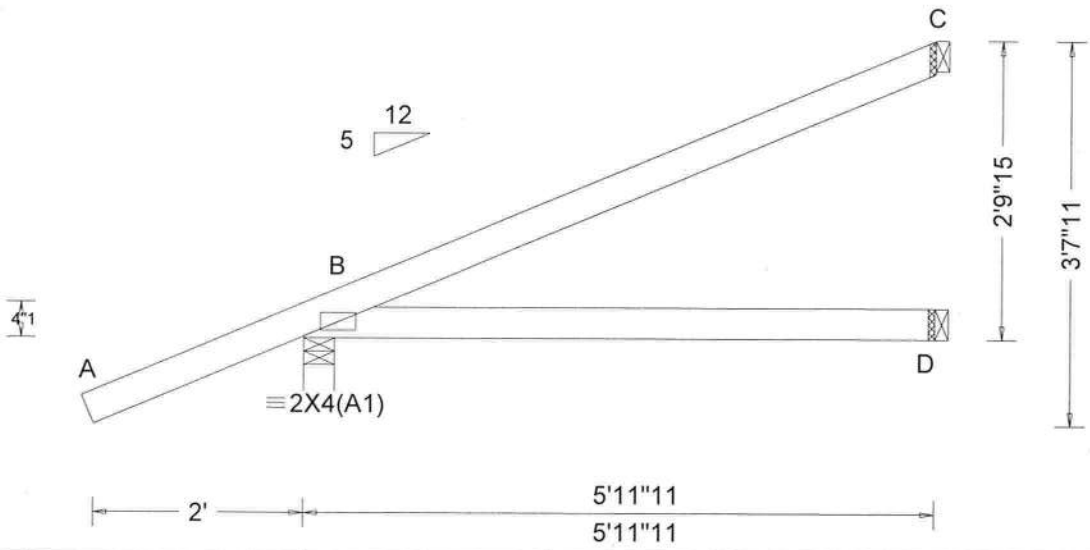
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. 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. Refer to job's General Notes page for additional information.

Alpine, a division of 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 and 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.

For more information see these web sites: Alpine: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 24615 JACK FROM: RNB	Ply: 1 Qty: 8	**Job Number:** B51576a -Grace Richards Res Erkinger Home Builders **Truss Label:** CJ6	Cust: R 857 JRef:1WWU8570004 T13 DrwNo: 195.20.0015.51303 AK / WHK 07/13/2020



Loading Criteria (psf)	**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**
TCLL: 20.00 TCDL: 7.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 37.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 140 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 6.0 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.00 ft Loc. from endwall: not in 4.50 ft GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 2017 RES TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/0(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): NA VERT(CL): NA HORZ(LL): 0.006 D - - HORZ(TL): 0.010 D - - Creep Factor: 2.0 Max TC CSI: 0.382 Max BC CSI: 0.246 Max Web CSI: 0.000 VIEW Ver: 18.02.01A.0205.23

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	377	/-	/-	/261	/100	/130
D	104	/-	/-	/56	/-	/-
C	133	/-	/-	/69	/88	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.5
D Brg Width = 1.5 Min Req = -
C Brg Width = 1.5 Min Req = -
Bearing B Fcperp = 425psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;

Plating Notes

Plates sized for a minimum of 3.50 sq.in./piece.

Purlins

In lieu of structural panels or rigid ceiling use purlins to laterally brace chords as follows:

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	75	-2.06	5.97
BC	70	0.15	5.97

Apply purlins to any chords above or below fillers at 24" OC unless shown otherwise above.

Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

COA #0278

07/13/2020

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

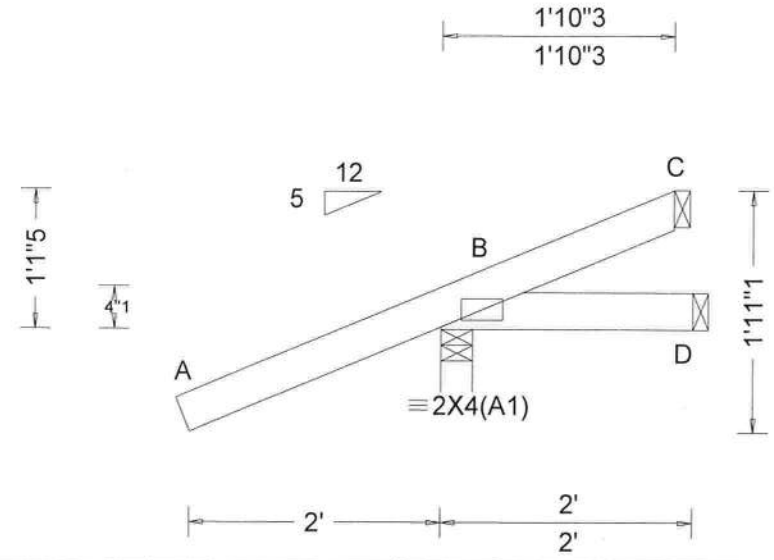
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. 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. Refer to job's General Notes page for additional information.

Alpine, a division of 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 and 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.

For more information see these web sites: Alpine: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 24597 EJAC FROM: RNB	Ply: 1 Qty: 2	**Job Number:** B51576a -Grace Richards Res Erkinger Home Builders **Truss Label:** EJ2		Cust: R 857 JRef: 1WWU8570004 T26 DrwNo: 195.20.0015.47100 AK / WHK 07/13/2020



Loading Criteria (psf)

TCLL:	20.00
TCDL:	7.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	37.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 140 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): NA			
VERT(CL): NA			
HORZ(LL): 0.001	D	-	-
HORZ(TL): 0.001	D	-	-

Creep Factor: 2.0
Max TC CSI: 0.494
Max BC CSI: 0.100
Max Web CSI: 0.000

VIEW Ver: 18.02.01A.0205.23

▲ Maximum Reactions (lbs)

Loc	Gravity R+	Gravity / R-	Gravity / Rh	Non-Gravity / Rw	Non-Gravity / U	Non-Gravity / RL
B	278	/-	/-	/219	/118	/60
C	1	/-8	/-	/38	/36	/-
D	24	/-5	/-	/29	/13	/-

Wind reactions based on MWFRS
B Brg Width = 3.0 Min Req = 1.5
C Brg Width = 1.5 Min Req = -
D Brg Width = 1.5 Min Req = -
Bearing B Fcperp = 425psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;

Plating Notes

Plates sized for a minimum of 3.50 sq.in./piece.

Purlins

In lieu of structural panels or rigid ceiling use purlins to laterally brace chords as follows:

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	51	-2.06	1.85
BC	23	0.13	2.00

Apply purlins to any chords above or below fillers at 24" OC unless shown otherwise above.

Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

COA #0278

07/13/2020

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

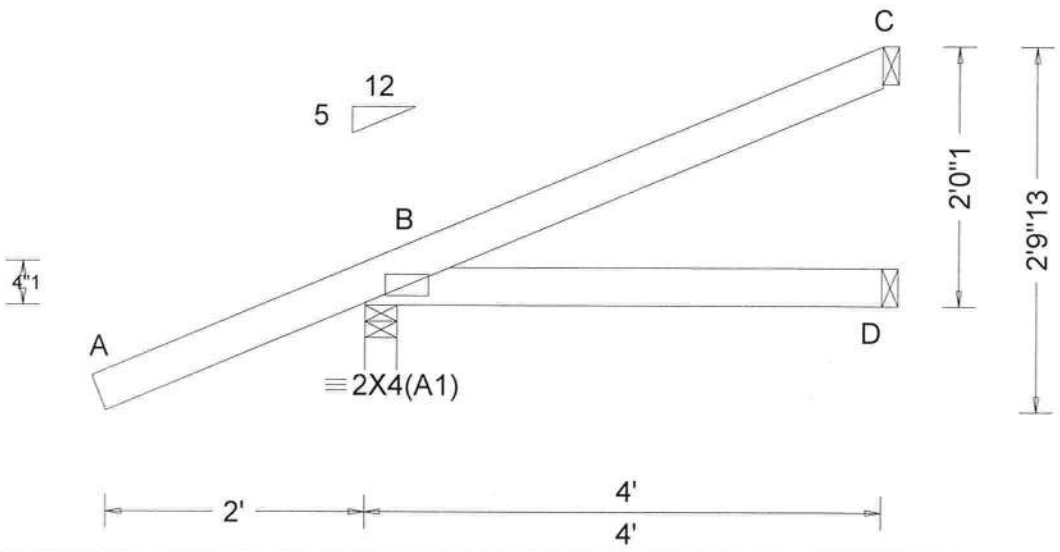
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. 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. Refer to job's General Notes page for additional information.

Alpine, a division of 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 and 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.

For more information see these web sites: Alpine: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 24601 EJAC FROM: RNB	Ply: 1 Qty: 2	**Job Number:** B51576a -Grace Richards Res Erkinger Home Builders **Truss Label:** EJ4	Cust: R 857 JRef: 1WWU8570004 T22 DrwNo: 195.20.0015.44863 AK / WHK 07/13/2020



Loading Criteria (psf)
TCLL: 20.00
TCDL: 7.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 37.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 140 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: not in 4.50 ft
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE

Defl/CSI Criteria
PP Deflection in loc L/defl L/#
VERT(LL): NA
VERT(CL): NA
HORZ(LL): 0.002 D - -
HORZ(TL): 0.003 D - -
Creep Factor: 2.0
Max TC CSI: 0.347
Max BC CSI: 0.099
Max Web CSI: 0.000

VIEW Ver: 18.02 01A 0205.23

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	314	/-	/-	/226	/93	/97
D	66	/-	/-	/36	/-	/-
C	77	/-	/-	/35	/53	/-

Wind reactions based on MWFRS
B Brg Width = 3.0 Min Req = 1.5
D Brg Width = 1.5 Min Req = -
C Brg Width = 1.5 Min Req = -
Bearing B Fcperp = 425psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;

Plating Notes

Plates sized for a minimum of 3.50 sq.in./piece.

Purlins

In lieu of structural panels or rigid ceiling use purlins to laterally brace chords as follows:

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	75	-2.06	4.00
BC	47	0.13	4.00

Apply purlins to any chords above or below fillers at 24" OC unless shown otherwise above.

Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

COA #0278

07/13/2020

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

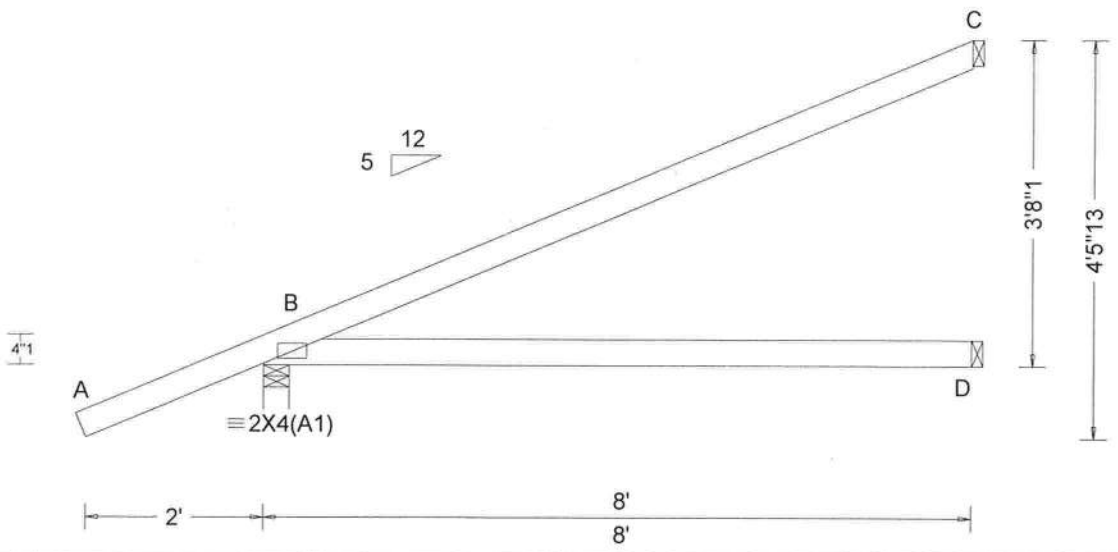
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. 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. Refer to job's General Notes page for additional information.

Alpine, a division of 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 and 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.

For more information see these web sites: Alpine: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 24607 EJAC FROM: RNB	Ply: 1 Qty: 16	**Job Number:** B51576a -Grace Richards Res Erkinger Home Builders **Truss Label:** EJ8	Cust: R 857 JRef:1WWU8570004 T16 DrwNo: 195.20.0015.41493 AK / WHK 07/13/2020



Loading Criteria (psf)	**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**
TCLL: 20.00 TCDL: 7.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 37.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 140 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 6.0 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.00 ft Loc. from endwall: not in 9.00 ft GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 2017 RES TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/0(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): NA VERT(CL): NA HORZ(LL): 0.018 D - - HORZ(TL): 0.032 D - - Creep Factor: 2.0 Max TC CSI: 0.650 Max BC CSI: 0.462 Max Web CSI: 0.000 VIEW Ver: 18.02.01A.0205.23

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	447	/-	/-	/300	/110	/165
D	143	/-	/-	/76	/-	/-
C	188	/-	/-	/100	/123	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.5
D Brg Width = 1.5 Min Req = -
C Brg Width = 1.5 Min Req = -
Bearing B Fcperp = 425psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;

Plating Notes

Plates sized for a minimum of 3.50 sq.in./piece.

Purlins

In lieu of structural panels or rigid ceiling use purlins to laterally brace chords as follows:

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	75	-2.06	8.00
BC	75	0.15	8.00

Apply purlins to any chords above or below fillers at 24" OC unless shown otherwise above.

Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

COA #0278

07/13/2020

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

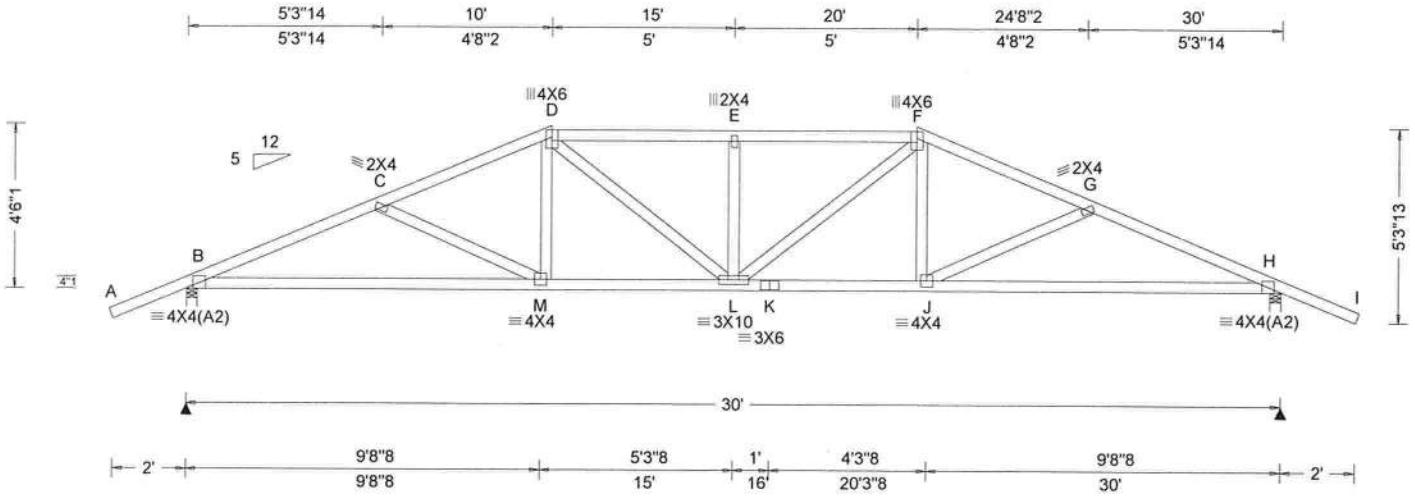
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. 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. Refer to job's General Notes page for additional information.

Alpine, a division of 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 and 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.

For more information see these web sites: Alpine: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 24633 HIPS	Ply: 1	Job Number: B51576a	Cust: R 857 JRef: 1WWU8570004 T2
FROM: RNB	Qty: 2	-Grace Richards Res Erkinger Home Builders	DrwNo: 195.20.0015.39007
		Truss Label: H10A	AK / WHK 07/13/2020



Loading Criteria (psf)

TCLL:	20.00
TCDL:	7.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	37.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 140 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: h/2 to h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.131	E	999	360
VERT(CL): 0.240	E	999	240
HORZ(LL): 0.044	J	-	-
HORZ(TL): 0.081	J	-	-

Creep Factor: 2.0
Max TC CSI: 0.953
Max BC CSI: 0.974
Max Web CSI: 0.449

VIEW Ver: 18.02.01A.0205.23

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1250	/-	/-	/701	/351	/157
H	1250	/-	/-	/701	/351	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.6
H Brg Width = 3.5 Min Req = 1.6
Bearings B & H Fcperp = 425psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	1267	- 2270	E - F	1337	- 2030
C - D	1167	- 1992	F - G	1163	- 1992
D - E	1337	- 2030	G - H	1259	- 2271

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - M	2048	- 1594	K - J	1784	- 1044
M - L	1784	- 1217	J - H	2048	- 1016
L - K	1784	- 1044			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
M - D	385	- 1	L - F	317	- 408
D - L	317	- 404	F - J	385	- 6
E - L	402	- 332			

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;

Plating Notes

Plates sized for a minimum of 3.50 sq.in./piece.

Purlins

In lieu of structural panels or rigid ceiling use purlins to laterally brace chords as follows:

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	46	-2.06	10.00
TC	24	10.00	20.00
TC	46	20.00	32.06
BC	103	0.15	29.85

Apply purlins to any chords above or below fillers at 24" OC unless shown otherwise above.

Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

COA #0278

07/13/2020

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

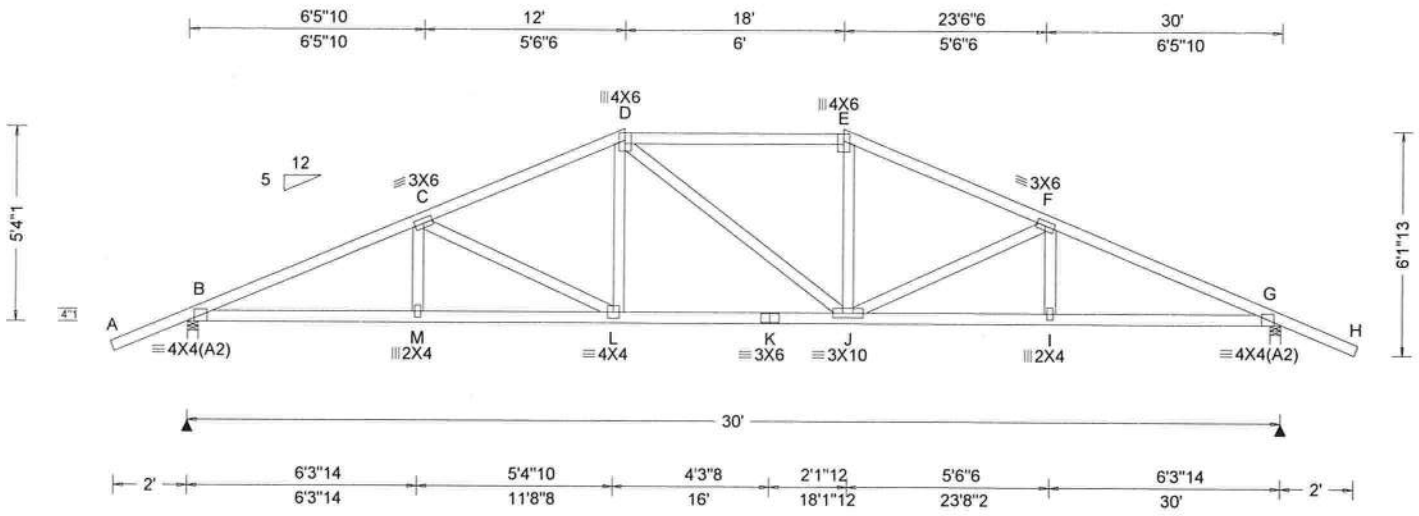
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. 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. Refer to job's General Notes page for additional information.

Alpine, a division of 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 and 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.

For more information see these web sites: Alpine: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 24636 HIPS FROM: RNB	Ply: 1 Qty: 2	**Job Number:** B51576a -Grace Richards Res Erkinger Home Builders **Truss Label:** H12A		Cust: R 857 JRef: 1WWU8570004 T3 DrwNo: 195.20.0015.37153 AK / WHK 07/13/2020



Loading Criteria (psf)

TCLL:	20.00
TCDL:	7.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	37.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 140 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: h/2 to h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.115	L	999	360
VERT(CL): 0.211	L	999	240
HORZ(LL): 0.044	I	-	-
HORZ(TL): 0.081	I	-	-

Creep Factor: 2.0
Max TC CSI: 0.949
Max BC CSI: 0.986
Max Web CSI: 0.334

VIEW Ver: 18.02.01A.0205.23

▲ Maximum Reactions (lbs)

	Gravity		Non-Gravity		
Loc	R+ / R-	/ Rh	/ Rw	/ U	/ RL
B	1250 /-	/-	/702	/350	/178
G	1250 /-	/-	/702	/350	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.6
G Brg Width = 3.5 Min Req = 1.6
Bearings B & G Fcperp = 425psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	995	- 2274	E - F	933	- 1805
C - D	949	- 1813	F - G	992	- 2274
D - E	922	- 1610			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - M	2040	- 1118	K - J	1607	- 818
M - L	2037	- 1053	J - I	2037	- 829
L - K	1607	- 818	I - G	2040	- 783

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - L	261	- 460	E - J	399	- 16
L - D	399	- 49	J - F	254	- 466

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;

Plating Notes

Plates sized for a minimum of 3.50 sq.in./piece.

Purlins

In lieu of structural panels or rigid ceiling use purlins to laterally brace chords as follows:

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	46	-2.06	12.00
TC	24	12.00	18.00
TC	46	18.00	32.06
BC	111	0.15	29.85

Apply purlins to any chords above or below fillers at 24" OC unless shown otherwise above.

Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

COA #0278

07/13/2020

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

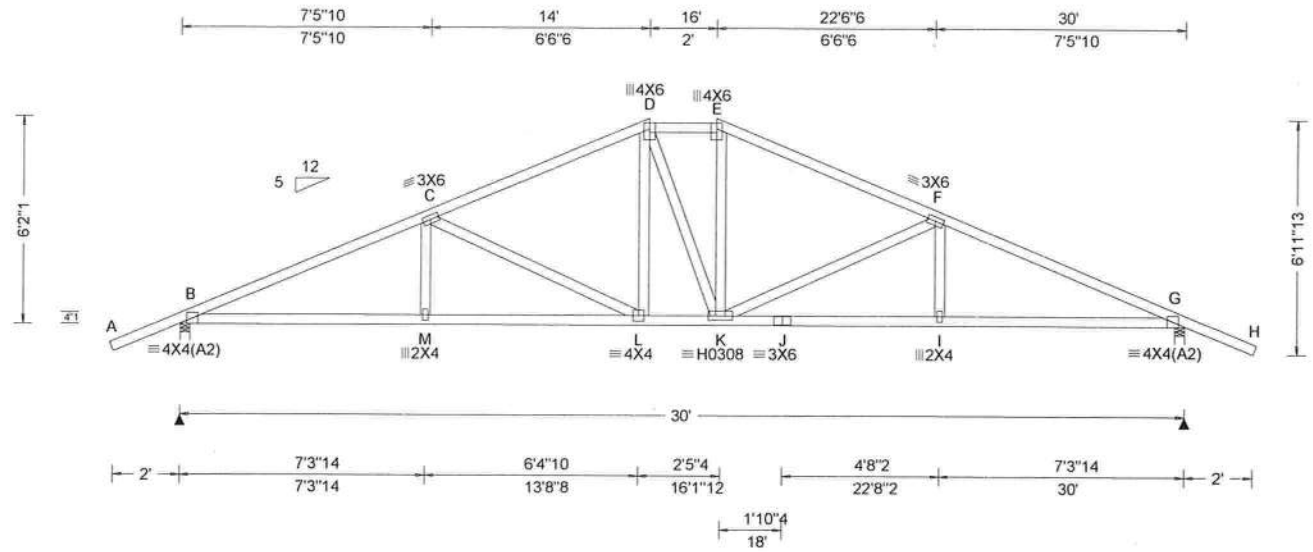
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. 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. Refer to job's General Notes page for additional information.

Alpine, a division of 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 and 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.

For more information see these web sites: Alpine: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 24639 HIPS FROM: RNB	Ply: 1 Qty: 2	**Job Number:** B51576a -Grace Richards Res Erkinger Home Builders **Truss Label:** H14A	Cust: R 857 JRef: 1WWU8570004 T4 DrwNo: 195.20.0015.34100 AK / WHK 07/13/2020



Loading Criteria (psf)

TCLL:	20.00
TCDL:	7.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	37.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 140 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: h to 2h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE, HS

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.114	L	999	360
VERT(CL): 0.208	L	999	240
HORZ(LL): 0.044	I	-	-
HORZ(TL): 0.081	I	-	-

Creep Factor: 2.0
Max TC CSI: 0.985
Max BC CSI: 0.469
Max Web CSI: 0.625

VIEW Ver: 18.02.01A.0205.23

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1250	/-	/-	/698	/133	/200
G	1250	/-	/-	/698	/133	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.6
G Brg Width = 3.5 Min Req = 1.6
Bearings B & G Fcperp = 425psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	831	- 2244	E - F	689	- 1624
C - D	702	- 1631	F - G	826	- 2243
D - E	691	- 1426			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - M	2007	- 981	K - J	2003	- 697
M - L	2003	- 905	J - I	2003	- 697
L - K	1423	- 580	I - G	2007	- 644

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - L	357	- 627	K - F	349	- 631

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;

Plating Notes

Plates sized for a minimum of 3.50 sq.in./piece.

Purlins

In lieu of structural panels or rigid ceiling use purlins to laterally brace chords as follows:

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	47	-2.06	14.00
TC	24	14.00	16.00
TC	47	16.00	32.06
BC	120	0.15	29.85

Apply purlins to any chords above or below fillers at 24" OC unless shown otherwise above.

Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

COA #0278

07/13/2020

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

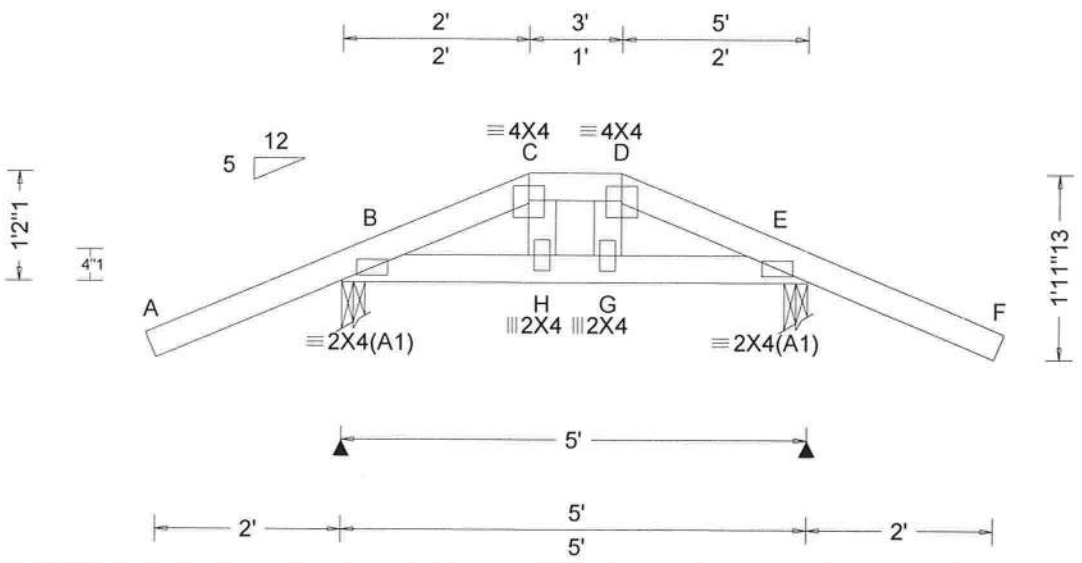
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. 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. Refer to job's General Notes page for additional information.

Alpine, a division of 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 and 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.

For more information see these web sites: Alpine: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 24580 HIPS FROM: RNB	Ply: 1 Qty: 1	**Job Number:** B51576a -Grace Richards Res Erkinger Home Builders **Truss Label:** HG2A		Cust: R 857 JRef: 1WWU8570004 T25 DrwNo: 195.20.0015.24290 AK / WHK 07/13/2020



Loading Criteria (psf)

TCLL:	20.00
TCDL:	7.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	37.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 140 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: NA
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
FBC 2017 RES
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.002	H	999	360
VERT(CL): 0.004	H	999	240
HORZ(LL): 0.001	G	-	-
HORZ(TL): 0.002	G	-	-

Creep Factor: 2.0
Max TC CSI: 0.270
Max BC CSI: 0.082
Max Web CSI: 0.015

VIEW Ver: 18.02.01A.0205.23

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	350	/-	/-	/-	/153	/-
E	350	/-	/-	/-	/153	/-

Wind reactions based on MWFRS
B Brg Width = 3.0 Min Req = 1.5
E Brg Width = 3.0 Min Req = 1.5
Bearings B & E Fcperp = 425psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;

Special Loads

------(Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)

TC: From	55 plf at	-2.11 to	55 plf at	7.11
BC: From	4 plf at	-2.11 to	4 plf at	0.00
BC: From	10 plf at	0.00 to	10 plf at	5.00
BC: From	4 plf at	5.00 to	4 plf at	7.11

TC: 9 lb Conc. Load at 2.00, 3.00
BC: 55 lb Conc. Load at 2.00, 3.00

Plating Notes

Plates sized for a minimum of 3.50 sq.in./piece.

Purlins

In lieu of structural panels or rigid ceiling use purlins to laterally brace chords as follows:

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	53	-2.06	2.00
TC	24	2.00	3.00
TC	53	3.00	7.06
BC	57	0.13	4.87

Apply purlins to any chords above or below fillers at 24" OC unless shown otherwise above.

Wind

Wind loads and reactions based on MWFRS.

Wind loading based on both gable and hip roof types.

COA #0278

07/13/2020

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

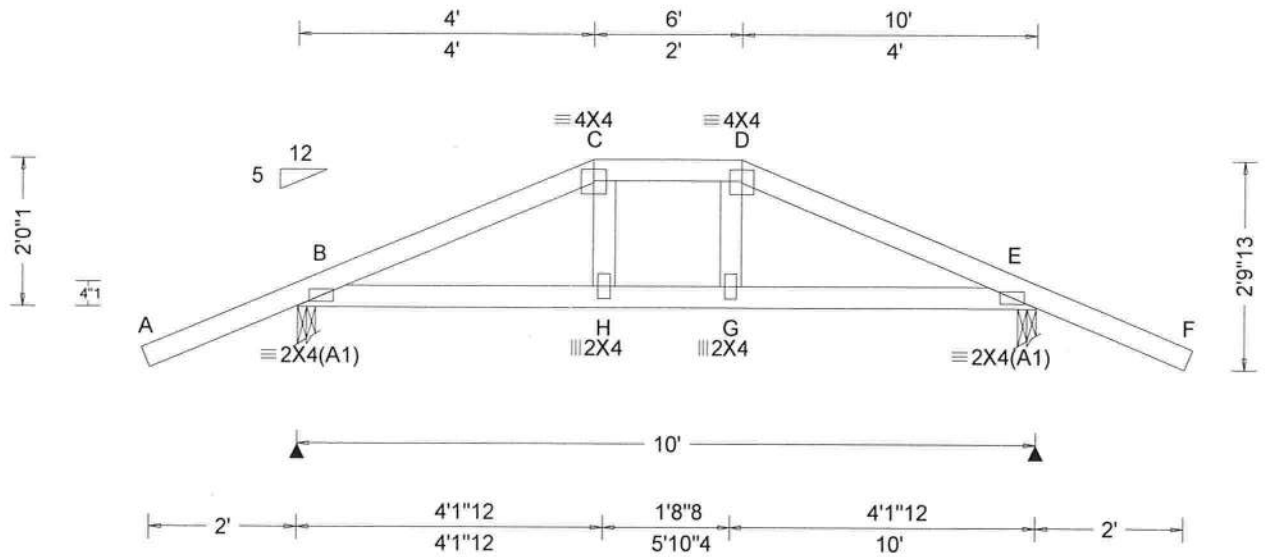
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. 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. Refer to job's General Notes page for additional information.

Alpine, a division of 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 and 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.

For more information see these web sites: Alpine: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 24619 HIPS FROM: RNB	Ply: 1 Qty: 1	**Job Number:** B51576a -Grace Richards Res Erkinger Home Builders **Truss Label:** HG4A	Cust: R 857 JRef: 1WWU8570004 T21 DrwNo: 195.20.0015.16233 AK / WHK 07/13/2020



Loading Criteria (psf)

TCLL:	20.00
TCDL:	7.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	37.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 140 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: NA
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
FBC 2017 RES
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.021	G	999	360
VERT(CL): 0.042	G	999	240
HORZ(LL): 0.008	G	-	-
HORZ(TL): 0.015	G	-	-

Creep Factor: 2.0
Max TC CSI: 0.968
Max BC CSI: 0.335
Max Web CSI: 0.080

VIEW Ver: 18 02.01A.0205 23

▲ Maximum Reactions (lbs)

	Gravity		Non-Gravity		
Loc	R+ / R-	/ Rh	/ Rw	/ U	/ RL
B	737 /-	/-	/-	/229	/-
E	737 /-	/-	/-	/229	/-

Wind reactions based on MWFRS
B Brg Width = 3.0 Min Req = 1.5
E Brg Width = 3.0 Min Req = 1.5
Bearings B & E Fcperp = 425psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	265	- 1073	D - E	265	- 1073
C - D	216	- 964			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - H	949	- 219	G - E	949	- 219
H - G	964	- 216			

Lumber
Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;

Wind
Wind loads and reactions based on MWFRS.
Wind loading based on both gable and hip roof types.

Special Loads

------(Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)

TC: From	55 plf at	-2.11 to	55 plf at	4.00
TC: From	28 plf at	4.00 to	28 plf at	6.00
TC: From	55 plf at	6.00 to	55 plf at	12.11
BC: From	4 plf at	-2.11 to	4 plf at	0.00
BC: From	20 plf at	0.00 to	20 plf at	4.03
BC: From	10 plf at	4.03 to	10 plf at	5.97
BC: From	20 plf at	5.97 to	20 plf at	10.00
BC: From	4 plf at	10.00 to	4 plf at	12.11

TC: 119 lb Conc. Load at 4.03, 5.97
BC: 157 lb Conc. Load at 4.03, 5.97

Plating Notes
Plates sized for a minimum of 3.50 sq.in./piece.

Purlins
In lieu of structural panels or rigid ceiling use purlins to laterally brace chords as follows:

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	65	-2.06	4.00
TC	24	4.00	6.00
TC	65	6.00	12.06
BC	117	0.13	9.88

Apply purlins to any chords above or below fillers at 24" OC unless shown otherwise above.

COA #0278

07/13/2020

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

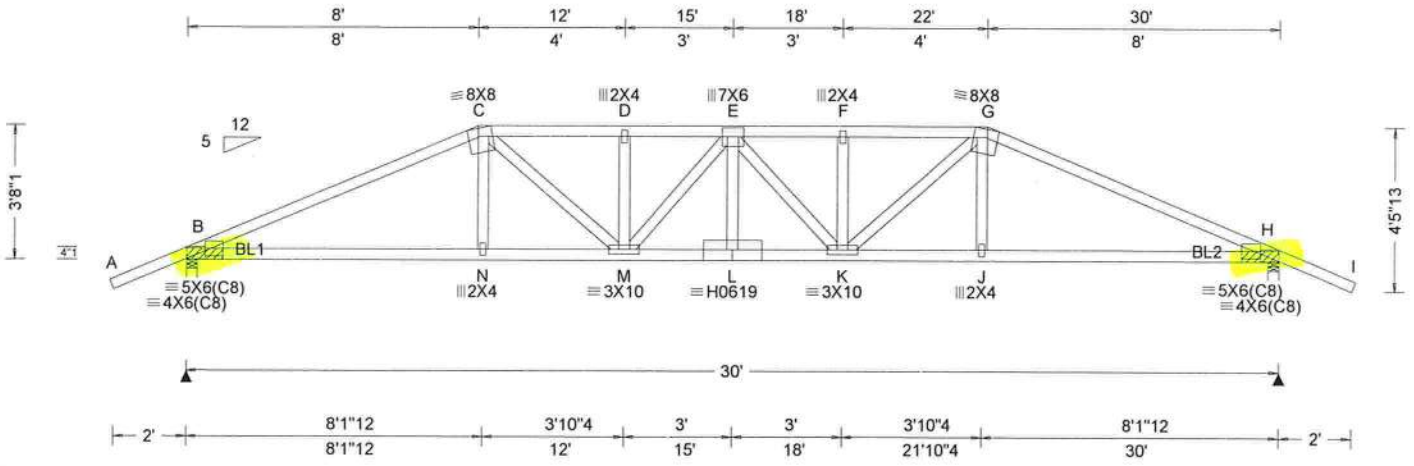
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. 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. Refer to job's General Notes page for additional information.

Alpine, a division of 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 and 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.

For more information see these web sites: Alpine: www.alpineitw.com; TPI: www.tpinst.org, SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 24630 HIPS FROM: RNB	Ply: 1 Qty: 2	**Job Number:** B51576a -Grace Richards Res Erkinger Home Builders **Truss Label:** HG8A		Cust: R 857 JRef: 1WWU8570004 T19 DrwNo: 195.20.0015.13407 AK / WHK 07/13/2020



Loading Criteria (psf)

TCLL:	20.00
TCDL:	7.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	37.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 140 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: NA
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
FBC 2017 RES
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE, HS

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.376	L	947	360
VERT(CL): 0.692	L	515	240
HORZ(LL): 0.113	J	-	-
HORZ(TL): 0.208	J	-	-

Creep Factor: 2.0
Max TC CSI: 0.969
Max BC CSI: 0.962
Max Web CSI: 0.585

VIEW Ver: 18.02.01A.0205.23

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity	
Loc	R+ / R-	/ Rh	/ Rw	/ U	/ RL
B	2829 / -	/ -	/ -	/839	/ -
H	2829 / -	/ -	/ -	/839	/ -

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = -
H Brg Width = 3.5 Min Req = -
Bearings B & H Fcperp = 425psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	1767	-6134	E - F	1943	-6783
C - D	1944	-6784	F - G	1944	-6784
D - E	1943	-6783	G - H	1767	-6134

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - N	5578	-1583	L - K	7035	-2015
N - M	5608	-1581	K - J	5608	-1581
M - L	7035	-2015	J - H	5578	-1583

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - N	688	0	E - K	109	-380
C - M	1537	-474	F - K	270	-414
D - M	270	-414	K - G	1537	-474
M - E	109	-380	J - G	688	0

Lumber

Top chord: 2x4 SP SS Dense;
Bot chord: 2x4 SP SS Dense;
Webs: 2x4 SP #3;

Special Loads

------(Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)

TC: From	55 plf at	-2.11 to	55 plf at	8.00
TC: From	28 plf at	8.00 to	28 plf at	22.00
TC: From	55 plf at	22.00 to	55 plf at	32.11
BC: From	4 plf at	-2.11 to	4 plf at	0.00
BC: From	20 plf at	0.00 to	20 plf at	8.03
BC: From	10 plf at	8.03 to	10 plf at	21.97
BC: From	20 plf at	21.97 to	20 plf at	30.00
BC: From	4 plf at	30.00 to	4 plf at	32.11

TC: 303 lb Conc. Load at 8.03,21.97
TC: 188 lb Conc. Load at 10.06,12.06,14.06,15.94 17.94,19.94
BC: 546 lb Conc. Load at 8.03,21.97
BC: 143 lb Conc. Load at 10.06,12.06,14.06,15.94 17.94,19.94

Plating Notes

Plates sized for a minimum of 3.50 sq.in./piece.

Purlins

In lieu of structural panels or rigid ceiling use purlins to laterally brace chords as follows:

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	24	8.00	22.00
BC	56	0.15	29.85

Apply purlins to any chords above or below fillers at 24" OC unless shown otherwise above.

Wind

Wind loads and reactions based on MWFRS.
Wind loading based on both gable and hip roof types.

Bearing Block(s)

Brg blocks:0.128"x3", min. nails

brg	x-loc	#blocks	length/blk	#nails/blk	wall plate
1	0.000'	1	12"	4	SPF Standard
2	29.708'	1	12"	4	SPF Standard

Brg block to be same size and species as chord.
Refer to drawing CNNAILSP1014 for more information.

COA #0278

07/13/2020

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

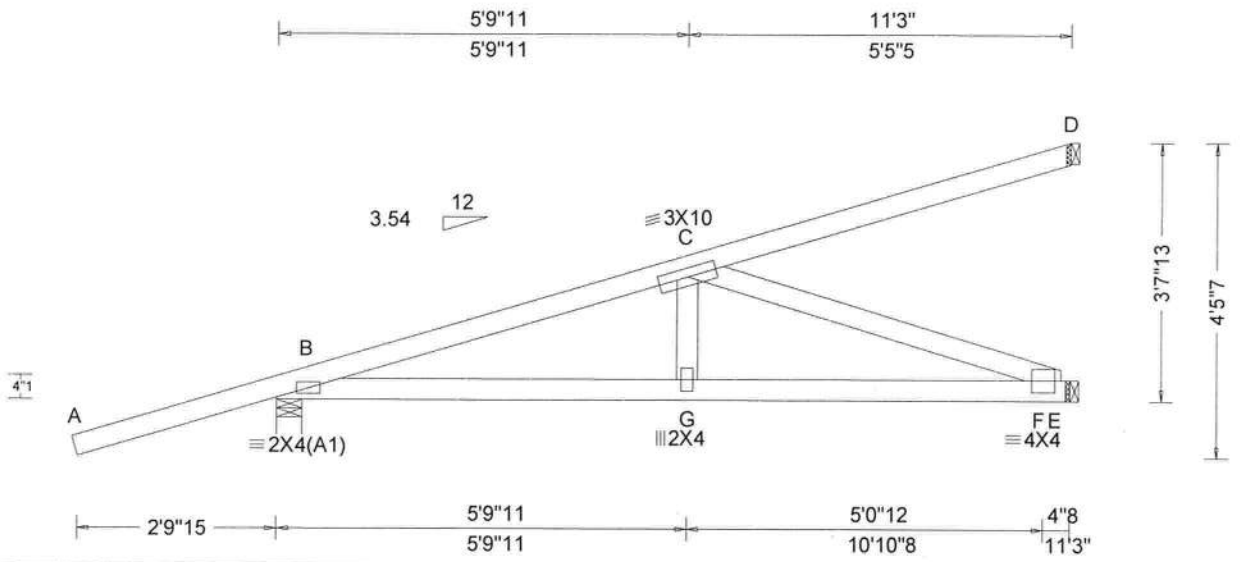
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. 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. Refer to job's General Notes page for additional information.

Alpine, a division of 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 and 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.

For more information see these web sites: Alpine: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 24617 HIP_ FROM: RNB	Ply: 1 Qty: 4	**Job Number:** B51576a -Grace Richards Res Erkinger Home Builders **Truss Label:** HJ11	Cust: R 857 JRef: 1WWU8570004 T18 DrwNo: 195.20.0015.10637 AK / WHK 07/13/2020



Loading Criteria (psf)

TCLL:	20.00
TCDL:	7.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	37.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 140 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: NA
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
FBC 2017 RES
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.036	G	999	360
VERT(CL): 0.068	G	999	240
HORZ(LL): 0.008	F	-	-
HORZ(TL): 0.016	F	-	-

Creep Factor: 2.0
Max TC CSI: 1.000
Max BC CSI: 0.723
Max Web CSI: 0.638

VIEW Ver: 18.02.01A.0205.23

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	416	/-	/-	/-	/178	/-
E	404	/-	/-	/-	/79	/-
D	115	/-	/-	/-	/61	/-

Wind reactions based on MWFRS
B Brg Width = 4.2 Min Req = 1.5
E Brg Width = 1.5 Min Req = -
D Brg Width = 1.5 Min Req = -
Bearing B Fcperp = 425psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.
B - C	329	- 1028

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - G	985	- 311	G - F	992	- 310

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.
C - F	326	- 1043

Lumber
Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;

Special Loads
------(Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)

TC: From	0 plf at	-2.91 to	55 plf at	-0.08
TC: From	2 plf at	-0.08 to	2 plf at	11.25
BC: From	0 plf at	-2.91 to	4 plf at	-0.08
BC: From	2 plf at	0.00 to	2 plf at	11.25

TC: 5 lb Conc. Load at 2.79
TC: 150 lb Conc. Load at 5.62
TC: 267 lb Conc. Load at 8.45
BC: 47 lb Conc. Load at 2.79
BC: 130 lb Conc. Load at 5.62
BC: 208 lb Conc. Load at 8.45

Plating Notes
Plates sized for a minimum of 3.50 sq.in./piece.

Purlins
In lieu of structural panels or rigid ceiling use purlins to laterally brace chords as follows:

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	69	-2.87	11.25
BC	120	0.15	11.25

Apply purlins to any chords above or below fillers at 24" OC unless shown otherwise above.

Wind
Wind loads and reactions based on MWFRS.
Wind loading based on both gable and hip roof types.

COA #0778
07/13/2020

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

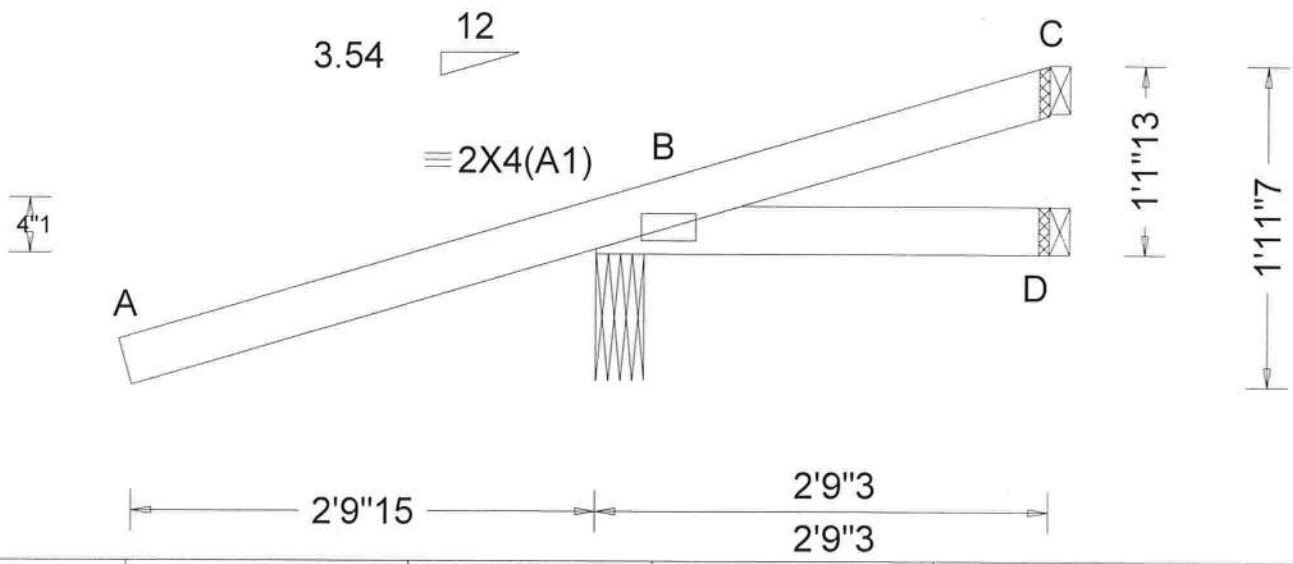
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. 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. Refer to job's General Notes page for additional information.

Alpine, a division of 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 and 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.

For more information see these web sites: Alpine: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 24599 HIP_ FROM: RNB	Ply: 1 Qty: 2	**Job Number:** B51576a -Grace Richards Res Erkinger Home Builders **Truss Label:** HJ3	Cust: R 857 JRef: 1WWU8570004 T27 DrwNo: 195.20.0015.07863 AK / WHK 07/13/2020



Loading Criteria (psf)

TCLL:	20.00
TCDL:	7.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	37.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 140 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: NA
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
FBC 2017 RES
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): NA			
VERT(CL): NA			
HORZ(LL): -0.002	D	-	-
HORZ(TL): 0.003	D	-	-

Creep Factor: 2.0
Max TC CSI: 0.508
Max BC CSI: 0.099
Max Web CSI: 0.000

VIEW Ver: 18.02.01A.0205.23

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	379	/-	/-	/-	/180	/-
D	31	/-13	/-	/31	/-	/-
C	9	/-	/-	/-	/38	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.5
D Brg Width = 1.5 Min Req = -
C Brg Width = 1.5 Min Req = -
Bearing B Fcperp = 425psi.
Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;

Special Loads

------(Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)

TC: From	55 plf at	-2.91 to	55 plf at	2.77
BC: From	4 plf at	-2.91 to	4 plf at	0.00
BC: From	20 plf at	0.00 to	20 plf at	2.77
TC:	1 lb Conc. Load at	2.77		

Plating Notes

Plates sized for a minimum of 3.50 sq.in./piece.

Purlins

In lieu of structural panels or rigid ceiling use purlins to laterally brace chords as follows:

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	71	-2.87	2.77
BC	31	0.15	2.77

Apply purlins to any chords above or below fillers at 24" OC unless shown otherwise above.

Wind

Wind loads and reactions based on MWFRS.

Wind loading based on both gable and hip roof types.

COA #6778

07/13/2020

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

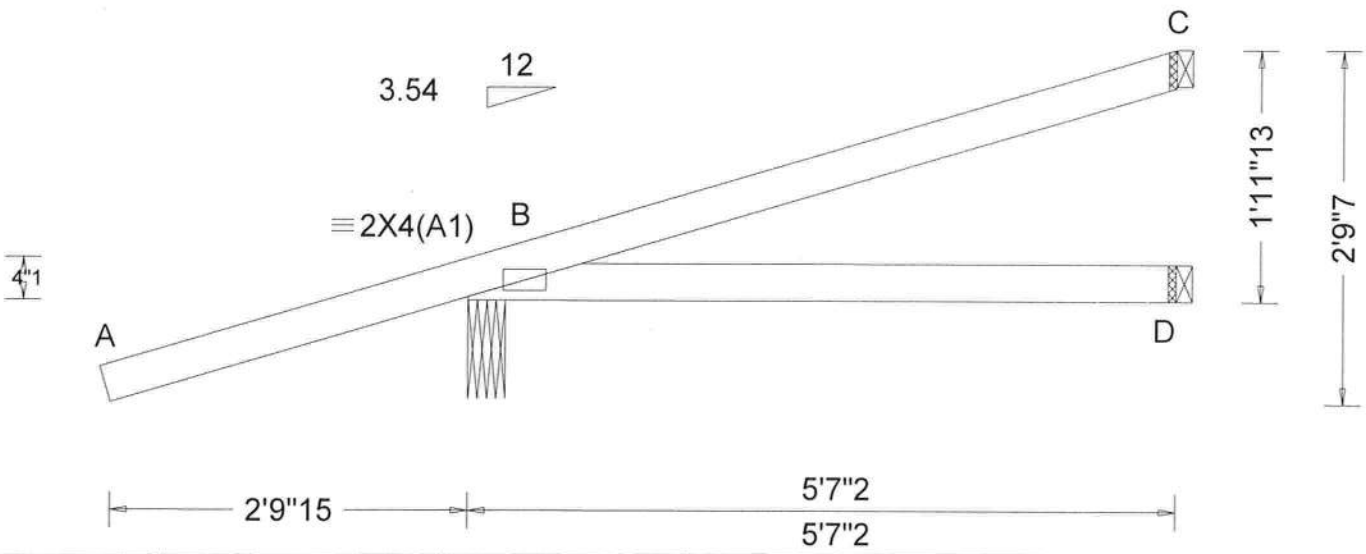
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. 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. Refer to job's General Notes page for additional information.

Alpine, a division of 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 and 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.

For more information see these web sites: Alpine: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com, ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 24605 HIP_ FROM: RNB	Ply: 1 Qty: 2	**Job Number:** B51576a -Grace Richards Res Erkinger Home Builders **Truss Label:** HJ6	Cust: R 857 JRef: 1WWU8570004 T23 DrwNo: 195.20.0015.01510 AK / WHK 07/13/2020



Loading Criteria (psf)
TCLL: 20.00
TCDL: 7.00
BCLL: 0.00
BCDL: 10.00
Des Ld: 37.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 140 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: NA
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
FBC 2017 RES
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE

Defl/CSI Criteria
PP Deflection in loc L/defl L/#
VERT(LL): NA
VERT(CL): NA
HORZ(LL): 0.002 D - -
HORZ(TL): 0.006 D - -
Creep Factor: 2.0
Max TC CSI: 0.182
Max BC CSI: 0.190
Max Web CSI: 0.000

VIEW Ver: 18.02.01A.0205.23

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	226	/-	/-	/-	/92	/-
D	91	/-	/-	/-	/8	/-
C	42	/-	/-	/-	/16	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.5
D Brg Width = 1.5 Min Req = -
C Brg Width = 1.5 Min Req = -
Bearing B Fcperp = 425psi.
Members not listed have forces less than 375#

Lumber
Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;

Special Loads
------(Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)

TC: From	0 plf at	-2.91 to	55 plf at	-0.08
TC: From	2 plf at	-0.08 to	2 plf at	5.59
BC: From	0 plf at	-2.91 to	4 plf at	-0.08
BC: From	2 plf at	0.00 to	2 plf at	5.59

TC: 5 lb Conc. Load at 2.79
BC: 47 lb Conc. Load at 2.79

Plating Notes
Plates sized for a minimum of 3.50 sq.in./piece.

Purlins
In lieu of structural panels or rigid ceiling use purlins to laterally brace chords as follows:

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	75	-2.87	5.59
BC	65	0.15	5.59

Apply purlins to any chords above or below fillers at 24" OC unless shown otherwise above.

Wind
Wind loads and reactions based on MWFRS.
Wind loading based on both gable and hip roof types.

COA #0278
07/13/2020

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

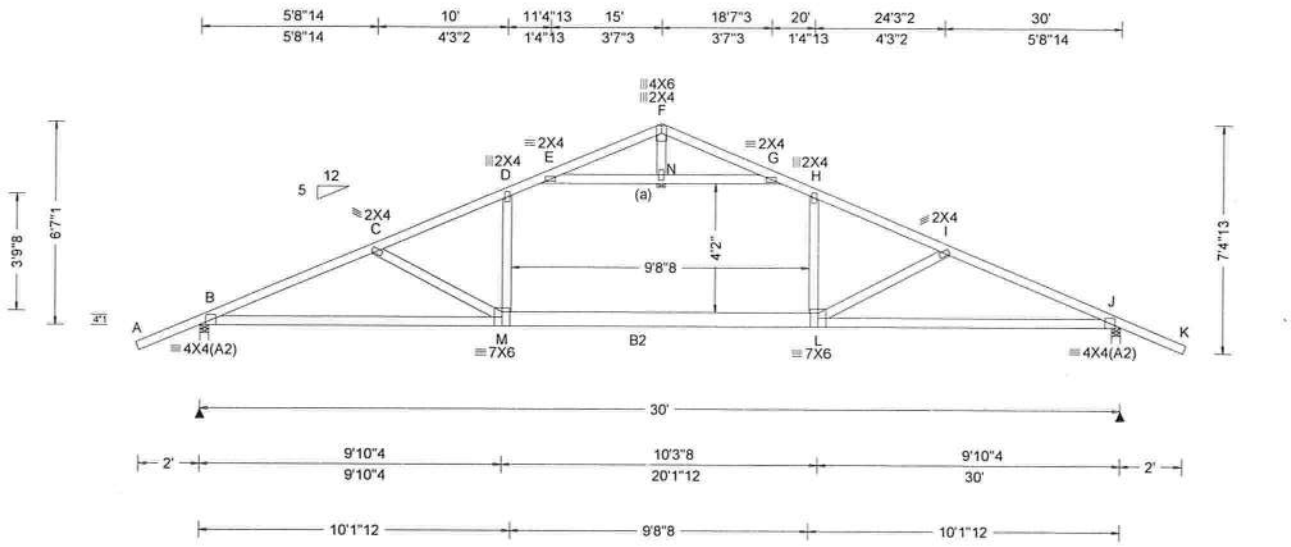
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. 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. Refer to job's General Notes page for additional information.

Alpine, a division of 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 and 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.

For more information see these web sites: Alpine: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com, ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 63745 COMN	Ply: 1	**Job Number:** B51576a	Cust: R 857 JRef: 1WWU8570004 T5
FROM: CVB	Qty: 9	-Grace Richards Res Erkinger Home Builders	DrwNo: 195.20.0014.46887
		Truss Label: T-1	AK / WHK 07/13/2020



Loading Criteria (psf)

TCLL:	20.00
TCDL:	7.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	37.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 140 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: h to 2h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.362	D	985	360
VERT(CL): 0.896	D	397	240
HORZ(LL): 0.143	D	-	-
HORZ(TL): 0.354	D	-	-

Creep Factor: 2.0
Max TC CSI: 0.997
Max BC CSI: 0.912
Max Web CSI: 0.635

VIEW Ver: 18.02.01A.0205.19

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1250	/-	/-	/695	/117	/211
J	1250	/-	/-	/695	/117	/-

Wind reactions based on MWFRS
B Brg Width = 3.5 Min Req = 1.6
J Brg Width = 3.5 Min Req = 1.6
Bearings B & J Fcperp = 425psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	858	- 2367	G - H	689	- 1746
C - D	763	- 2041	H - I	768	- 2041
D - E	667	- 1747	I - J	859	- 2368

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - M	2146	- 1137	L - J	2147	- 642
M - L	1797	- 665			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - M	412	- 547	N - G	566	- 1900
M - D	544	- 13	H - L	545	- 13
E - N	566	- 1900	L - I	414	- 504

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1; B2 2x6 SP #1;
Webs: 2x4 SP #3;

Bracing

(a) Continuous lateral restraint equally spaced on member.

Plating Notes

Plates sized for a minimum of 3.50 sq.in./piece.

Purlins

In lieu of structural panels or rigid ceiling use purlins to laterally brace chords as follows:

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	42	-2.06	15.00
TC	42	15.00	32.06
BC	120	0.15	29.85

Apply purlins to any chords above or below fillers at 24" OC unless shown otherwise above.

Loading

Truss passed check for 20 psf additional bottom chord live load in areas with 42"-high x 24"-wide clearance.

Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

COA #0278

07/13/2020

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

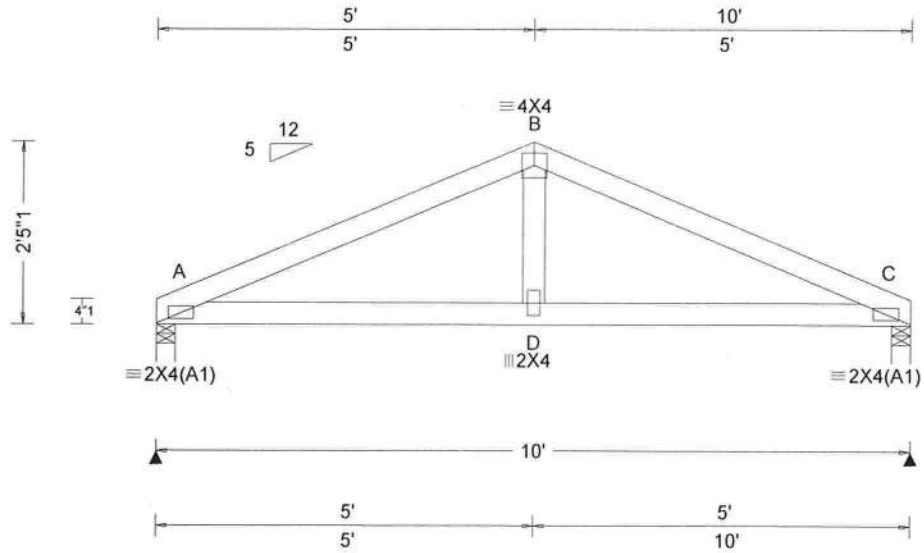
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. 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. Refer to job's General Notes page for additional information.

Alpine, a division of 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 and 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.

For more information see these web sites: Alpine: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 24621 COMN FROM: RNB	Ply: 1 Qty: 1	**Job Number:** B51576a -Grace Richards Res Erkinger Home Builders **Truss Label:** T-2	Cust: R 857 JRef:1WWU8570004 T20 DrwNo: 195.20.0014.43957 AK / WHK 07/13/2020



Loading Criteria (psf)

TCLL:	20.00
TCDL:	7.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	37.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 140 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: h/2 to h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 4.50 ft
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: NA Ct: NA CAT: NA
Pf: NA Ce: NA
Lu: NA Cs: NA
Snow Duration: NA

Building Code:
FBC 2017 RES
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.008	D	999	360
VERT(CL): 0.015	D	999	240
HORZ(LL): 0.003	D	-	-
HORZ(TL): 0.006	D	-	-

Creep Factor: 2.0
Max TC CSI: 0.278
Max BC CSI: 0.187
Max Web CSI: 0.119

VIEW Ver: 18.02.01A.0205.23

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
A	376	/-	/-	/196	/97	/54
C	376	/-	/-	/196	/97	/-

Wind reactions based on MWFRS
A Brg Width = 3.0 Min Req = 1.5
C Brg Width = 3.0 Min Req = 1.5
Bearings A & C Fcperp = 425psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
A - B	487	-579	B - C	505	-579

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
A - D	499	-442	D - C	499	-391

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;

Plating Notes

Plates sized for a minimum of 3.50 sq.in./piece.

Purlins

In lieu of structural panels or rigid ceiling use purlins to laterally brace chords as follows:

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	65	0.00	5.00
TC	65	5.00	10.00
BC	117	0.13	9.88

Apply purlins to any chords above or below fillers at 24" OC unless shown otherwise above.

Wind

Wind loads based on MWFRS with additional C&C member design.

Wind loading based on both gable and hip roof types.

COA #0778

07/13/2020

****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 SBCA) 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. Refer to job's General Notes page for additional information.

Alpine, a division of 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 and 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.

For more information see these web sites: Alpine: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

Piggyback Detail - ASCE 7-16: 160 mph, 30' Mean Height, Enclosed, Exposure C, Kzt=1.00

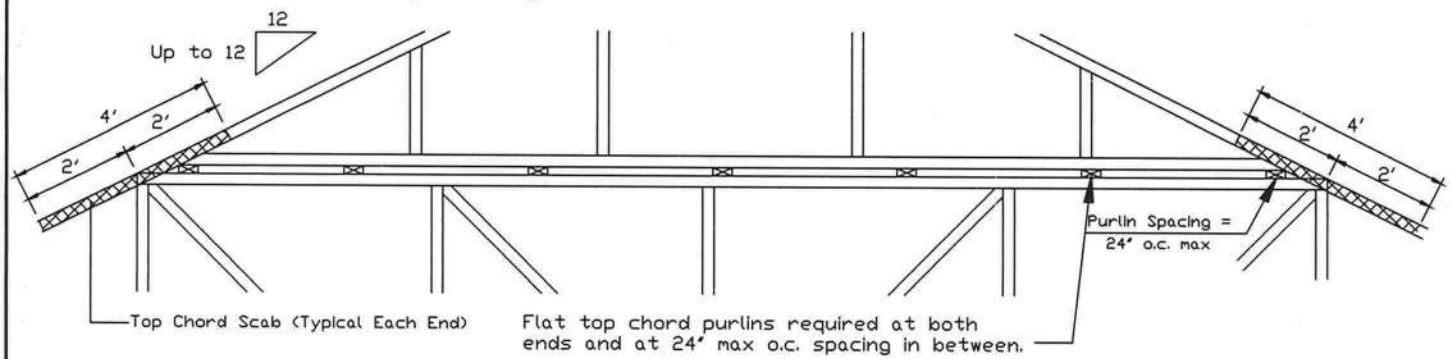
160 mph Wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg. located anywhere in roof, Exp C, Wind DL= 5.0 psf (min), Kzt=1.0.
Or 140 mph wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg. located anywhere in roof, Exp D, wind DL= 5.0 psf (min), Kzt=1.0.

Note: Top chords of trusses supporting piggyback cap trusses must be adequately braced by sheathing or purlins. The building Engineer of Record shall provide diagonal bracing or any other suitable anchorage to permanently restrain purlins, and lateral bracing for out of plane loads over gable ends.

Maximum truss spacing is 24" o.c. detail is not applicable if cap supports additional loads such as cupola, steeple, chimney or drag strut loads.

** Refer to Engineer's sealed truss design drawing for piggyback and base truss specifications.

Detail A : Purlin Spacing = 24" o.c. or less



Piggyback cap truss slant nailed to all top chord purlin bracing with (2) 16d box nails (0.135"x3.5") and secure top chord with 2x4 #3 grade scab (1 side only at each end) attached with 2 rows of 10d box nails (0.128"x3") at 4' o.c.

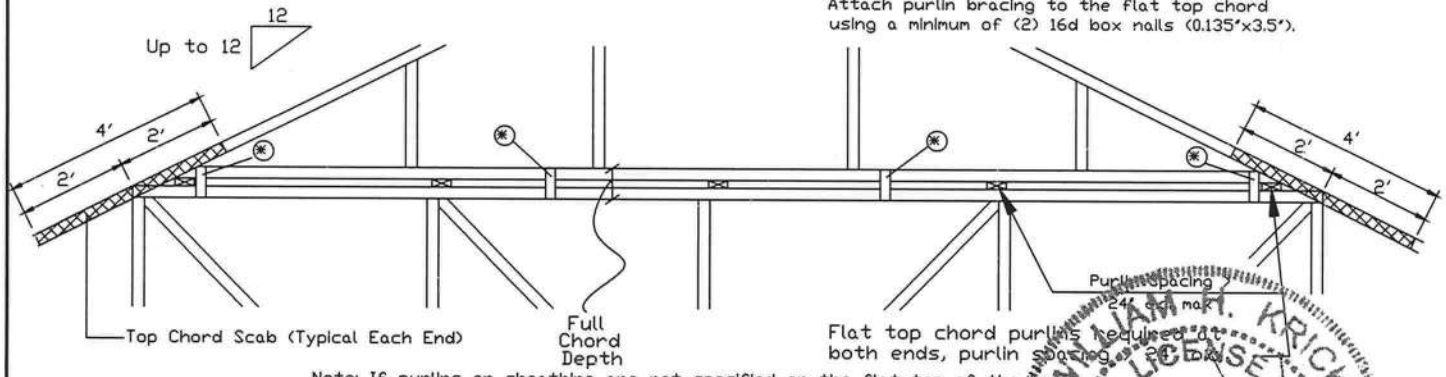
Attach purlin bracing to the flat top chord using (2) 16d box nails (0.135"x3.5").

The top chord #3 grade 2x4 scab may be replaced with either of the following: (1) 3X8 Trulox plate attached with (8) 0.120"x1.375" nails, (4) into cap TC & (4) into base truss TC or (1) 28PB wave piggyback plate plated to the piggyback truss TC and attached to the base truss TC with (4) 0.120"x1.375" nails. Note: Nailing thru holes of wave plate is acceptable.

Detail B : Purlin Spacing > 24" o.c.

Piggyback cap truss slant nailed to all top chord purlin bracing with (2) 16d box nails (0.135"x3.5") and secure top chord with 2x4 #3 grade scab (1 side only at each end) attached with 2 rows of 10d box nails (0.128"x3") at 4' o.c.

Attach purlin bracing to the flat top chord using a minimum of (2) 16d box nails (0.135"x3.5").



Note: If purlins or sheathing are not specified on the flat top of the base truss, purlins must be installed at 24" o.c. max. and use Detail A.

* In addition, provide connection with one of the following methods:

Trulox
Use 3X8 Trulox plates for 2x4 chord member, and 3X10 Trulox plates for 2x6 and larger chord members. Attach to each face @ 8' o.c. with (4) 0.120"x1.375" nails into cap bottom chord and (4) in base truss top chord. Trulox plates may be staggered 4' o.c. front to back faces.

APA Rated Gusset
8"x8"x7/16" (min) APA rated sheathing gussets (each face). Attach @ 8' o.c. with (8) 6d common (0.113"x2") nails per gusset, (4) in cap bottom chord and (4) in base truss top chord. Gussets may be staggered 4' o.c. front to back faces.

2x4 Vertical Scabs
2x4 SPF #2, full chord depth scabs (each face). Attach @ 8' o.c. with (6) 10d box nails (0.128"x3") per scab, (3) in cap bottom chord and (3) in base truss top chord. Scabs may be staggered 4' o.c. front to back faces.

28PB Wave Piggyback Plate
One 28PB wave piggyback plate to each face @ 8' o.c. Attach teeth to piggyback at time of fabrication. Attach to supporting truss with (4) 0.120"x1.375" nails per face per ply. Piggyback plates may be staggered 4' o.c. front to back faces.

ALPINE
AN ITW COMPANY
\\ 13723\ Riverport\ Drive
\\ Suite\ 200
\\ Maryland\ Heights,\ MO\ 63043

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 SBCA) 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.

Alpine, a division of 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.

For more information see this job's general notes page and these web sites:
ALPINE: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.org; ICC: www.iccsafe.org

WILLIAM T. KRICK
LICENSE
No. 70861
STATE OF FLORIDA
PROFESSIONAL ENGINEER
Cert. #0279 07/13/2020

SPACING 24.0"

REF	PIGGYBACK
DATE	01/02/2018
DRWG	PB160160118

Piggyback Detail - ASCE 7-16: 180 mph, 30' Mean Hgt, Partially Enclosed, Exp. C, Kzt=1.00

180 mph Wind, 30.00 ft Mean Hgt, ASCE 7-16, Part. Enclosed Bldg. located anywhere in roof, Exp C, Wind DL= 5.0 psf (min), Kzt=1.0.
Or 160 mph wind, 30.00 ft Mean Hgt, ASCE 7-16, Part. Enclosed Bldg. located anywhere in roof, Exp D, wind DL= 5.0 psf (min), Kzt=1.0.

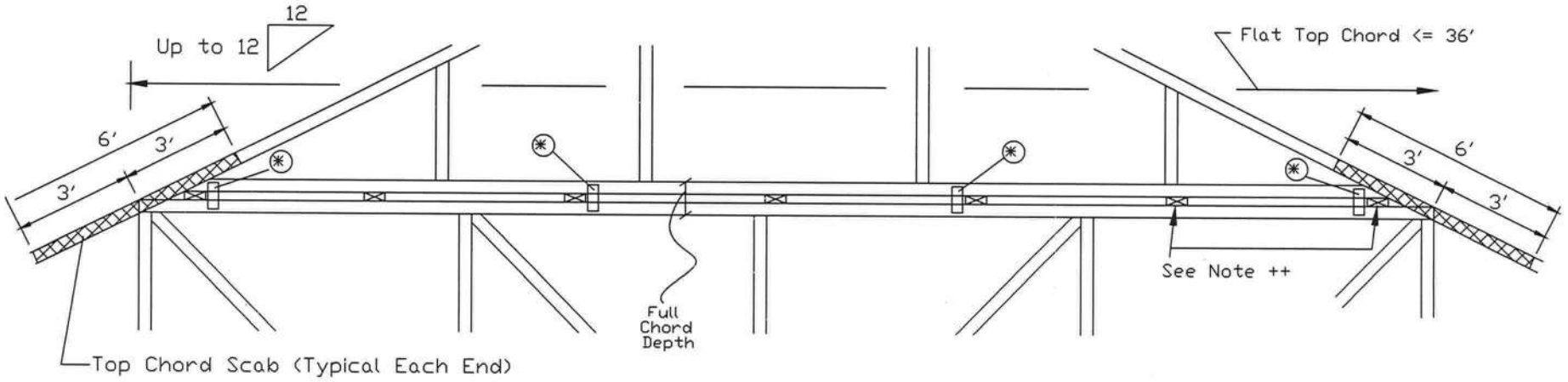
Note: Top chords of trusses supporting piggyback cap trusses must be adequately braced by sheathing or purlins. The building Engineer of Record shall provide diagonal bracing or any other suitable anchorage to permanently restrain purlins, and lateral bracing for out of plane loads over gable ends.

Maximum truss spacing is 24" o.c. detail is not applicable if cap supports additional loads such as cupola, steeple, chimney or drag strut loads.

** Refer to Engineer's sealed truss design drawing for piggyback and base truss specifications.

Piggyback cap truss slant nailed to all top chord purlin bracing with (2) 16d box nails (0.135"x3.5") and secure top chord with 2x4 #3 grade scab (1 side only at each end) attached with 2 rows of 10d box nails (0.128"x3") at 4' o.c.

++ Flat top chord purlins required at both ends and at a maximum of 24" intervals unless otherwise noted on base truss design drawing. Attach purlin bracing to the flat top chord using a minimum of (2) 16d box nails (0.135"x3.5").



* In addition, provide connection with one of the following methods:	
Trulox Use 3X8 Trulox plates for 2x4 chord member, and 3X10 Trulox plates for 2x6 and larger chord members. Attach to each face @ 8' o.c. with (4) 0.120"x1.375" nails into cap bottom chord and (4) in base truss top chord. Trulox plates may be staggered 4' o.c. front to back faces.	28PB Wave Piggyback Plate One 28PB wave piggyback plate to each face @ 8' o.c. Attach teeth to piggyback at time of fabrication. Attach to supporting truss with (4) 0.120"x1.375" nails per face per ply. Piggyback plates may be staggered 4' o.c. front to back faces.
APA Rated Gusset 8"x8"x7/16" (min) APA rated sheathing gussets (each face). Attach @ 8' o.c. with (8) 6d common (0.113"x2") nails per gusset, (4) in cap bottom chord and (4) in base truss top chord. Gussets may be staggered 4' o.c. front to back faces.	2x4 Vertical Scabs 2x4 SPF #2, full chord depth scabs (each face). Attach @ 8' o.c. with (6) 10d box nails (0.128"x3") per scab, (3) in cap bottom chord and (3) in base truss top chord. Scabs may be staggered 4' o.c. front to back faces.

WILLIAM H. KRICK LICENSE No. 70861 STATE OF FLORIDA PROFESSIONAL ENGINEER
COA #0278 07/13/2020

ALPINE AN ITW COMPANY
\ \ 13723\ Riverport\ Drive
\ \ Suite\ 200
\ \ Maryland\ Heights,\ MO\ 63043

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 SBCA) 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.

Alpine, a division of 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.

For more information see this job's general notes page and these web sites: ALPINE: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.org; ICC: www.iccsafe.org

REF	PIGGYBACK
DATE	01/02/2018
DRWG	PB180160118
SPACING	24.0"

Cracked or Broken Member Repair Detail

This drawing specifies repairs for a truss with broken chord or web member.

This design is valid only for single ply trusses with 2x4 or 2x6 broken members. No more than one break per chord panel and no more than two breaks per truss are allowed. Contact the truss manufacturer for any repairs that do not comply with this detail.

(B) = Damaged area, 12" max length of damaged section

(L) = Minimum nailing distance on each side of damaged area (B)

(S) = Two 2x4 or two 2x6 side members, same size, grade, and species as damaged member. Apply one scab per face. Minimum side member length(s) = (2)(L) + (B)

Scab member length (S) must be within the broken panel.

Nail into 2x4 members using two (2) rows at 4" o.c., rows staggered.
Nail into 2x6 members using three (3) rows at 4" o.c., rows staggered.

Nail using 10d box or gun nails (0.128"x3", min) into each side member.

The maximum permitted lumber grade for use with this detail is limited to Visual grade #1 and MSR grade 1650f.

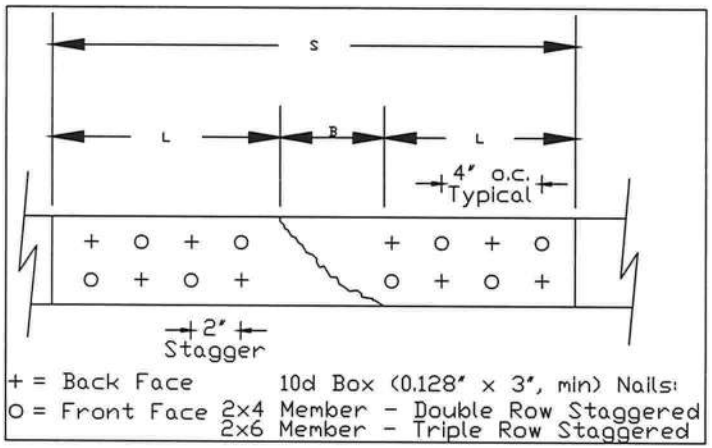
This repair detail may be used for broken connector plate at mid-panel splices.

This repair detail may not be used for damaged chord or web sections occurring within the connector plate area.

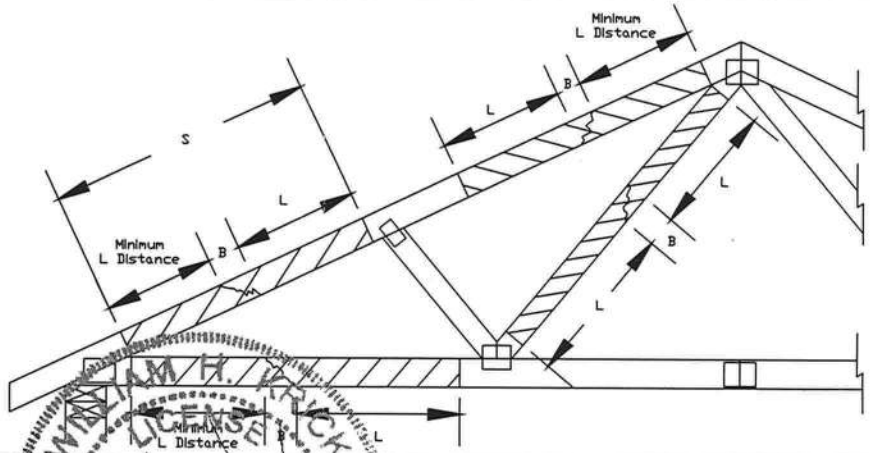
Broken chord may not support any tie-in loads.

Load Duration = 0%
Member forces may be increased for Duration of Load

Member	Size	L	Maximum Member Axial Force SPF-C	HF	DF-L	SYP
Web Only	2x4	12"	620#	635#	730#	800#
Web Only	2x4	18"	975#	1055#	1295#	1415#
Web or Chord	2x4	24"	975#	1055#	1495#	1745#
Web or Chord	2x6		1465#	1585#	2245#	2620#
Web or Chord	2x4	30"	1910#	1960#	2315#	2555#
Web or Chord	2x6		2230#	2365#	3125#	3575#
Web or Chord	2x4	36"	2470#	2530#	2930#	3210#
Web or Chord	2x6		3535#	3635#	4295#	4745#
Web or Chord	2x4	42"	2975#	3045#	3505#	3835#
Web or Chord	2x6		4395#	4500#	5225#	5725#
Web or Chord	2x4	48"	3460#	3540#	4070#	4445#
Web or Chord	2x6		5165#	5280#	6095#	6660#



Nail Spacing Detail



ALPINE™
AN ITW COMPANY
\\ 13723\ Riverport\ Drive
\\ Suite\ 200
\\ Maryland\ Heights,\ MO\ 63043

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 SBCA) 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.

Alpine, a division of 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.

For more information see this job's general notes page and these web sites:
ALPINE: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.org; ICC: www.iccsafe.org

SPACING 24.0" MAX

REF	MEMBER REPAIR
DATE	10/01/14
DRWG	REPCHRD1014