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Alpine, an ITW Company 155 Harlem Ave North Building, 4th Floor Glenview, IL 60025 Phone: (800)755-6001 www.alpineitw.com

FL REG# 278, Yoonhwak Kim, FL PE #86367 Florida Certificate of Product Approval #FL 1999

03/06/2023

Site Information:	Page 1:
Customer: W. B. Howland Company, Inc.	Job Number: 22-8711
Job Description: Murphy	
Address: Lot 8 Rolling Oaks, LAKE CITY, FL	

Job Engineering Criteria:	
Design Code: FBC 7th Ed. 2020 Res.	IntelliVIEW Version: 22.02.00
	JRef #: 1XNO2150006
Wind Standard: ASCE 7-16 Wind Speed (mph):	130 Design Loading (psf): 40.00
Building Type: Closed	

This package contains general notes pages, 39 truss drawing(s) and 2 detail(s).

ltem	Drawing Number	Truss	Item	Drawing Number	Truss
1	064.23.0821.46210	A01	2	064.23.0821.47873	A02
3	064.23.0821.49363	A03	4	064.23.0821.51080	A04
5	064.23.0821.52860	A05	6	064.23.0821.54327	A06
7	064.23.0821.55693	A07	8	064.23.0821.56870	A08
9	064.23.0821.58117	A09	10	064.23.0821.59480	A10
11	064.23.0822.00667	A11	12	064.23.0822.02127	A12
13	064.23.0822.03480	A13	14	064.23.0822.05003	A14
15	064.23.0822.06220	A15	16	064.23.0822.07470	A16
17	064.23.0822.09290	A17	18	064.23.0822.10877	A18
19	064.23.0822.12743	A19	20	064.23.0822.14187	A20
21	064.23.0822.15410	A21	22	064.23.0822.17040	B01
23	064.23.0822.18587	B02	24	064.23.0822.19853	B03
25	064.23.0822.21093	B04	26	064.23.0822.22180	B05
27	064.23.0822.25280	C01	28	064.23.0822.26830	C02
29	064.23.0822.28310	HJ01	30	064.23.0822.29473	J01
31	064.23.0822.30653	J02	32	064.23.0822.32123	J03
33	064.23.0822.33570	J04	34	064.23.0822.35050	V01
35	064.23.0822.36867	V02	36	064.23.0822.38383	V03
37	064.23.0822.39940	V04	38	064.23.0822.41300	V05
39	064.23.0822.44140	V06	40	VAL180160118	
41	VALTN160118				

# **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. The Truss Design Engineer. The Truss Design Engineer 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 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; <u>www.iccsafe.org</u>.
- 3. Alpine, a division of ITW Building Components Group Inc.: 155 Harlem Ave, North Building, 4th Floor, Glenview, IL 60025; <u>www.alpineitw.com</u>.
- 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.sbcacomponents.com.



















North Building, 4th Floor Glenview, IL 60025



Glenview, IL 60025



North Building, 4th Floor





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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 ANS/ITPL 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 ANS/ITPL1 Sec.2.















For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcacomponents.com; ICC: iccsafe.org; AWC: awc.org

EQN: 691403 ROM: CDM	HIPS	Ply: 1 Qty: 1	Murphy	nber: 22-87 abel: B01	711							5 JRef:1) 064.23.082 YK		
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	B B 4X14(B3)	2		J 5x6				Е Н Ш2.5X6			F ≡4X14(	G B B B 3)		₽ <sup>9'1"2</sup>
<mark> →</mark> 1'6"	<b>▲</b> -+-	7' 7'		- -	5'6" 12'6"	25' 	5'6" 18'			7' 25'		╼ <u>┥</u> ╸1′6" ╼┤		
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pine, a division of I uss in conformance ting this drawing, in awing for any struct	W Build	ing Component	s Group Inc	shall not	he responsil	hle for an	deviation from this			build the		ΓHL		







North Building, 4th Floor Glenview, IL 60025



EQN: 691433 ROM: CDM	HIPS Ply: 1 Qty: 1	Job Number: 22-87 Murphy Truss Label: C01	1			Cust: R 215 JR DrwNo: 064.23 SSB / YK	ef:1XNO2150006 T3 0822.25280 03/05/2023
$\frac{1}{1}$	7' 7 5 12 5 83)	=6X6 B H W2.5X6	$\begin{array}{c} 13' \\ 6' \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	<u>19'</u> 6' T2	=6X6 D F W2.5X6	26' 7 	E 4X14(B3)
<b>k</b>			26'				
<b> -</b>	7' 7'		6' - - 13'	<u> </u>		7' 26'	
EDL: 10.00 ELL: 0.00 EDL: 10.00 es Ed: 40.00 EBCLL: 10.00 ffit: 2.00 ad Duration: 1.25 acing: 24.0 "	Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 C&C Dist a: 3.00 ft Loc. from endwall: not ir GCpi: 0.18 Wind Duration: 1.60	to h/2 Snow Dura Building Cc FBC 7th Ec TPI Std: 2 Rep Fac: V	Cs: NA VER ttion: NA HOR HOR de: Cree d. 2020 Res. Max <sup>-1</sup> 2014 Max I varies by Ld Case 0)/10(0) (s): Lateration of the second	T(LL): 0.235 C 999 T(CL): 0.473 C 652 Z(LL): 0.048 E - Z(TL): 0.096 E - p Factor: 2.0 TC CSI: 0.690 BC CSI: 0.387 Web CSI: 0.582	298 I 2319 /- E 2319 /- - Wind reactior I Brg Wid E Brg Wid Bearings I & I Members not Maximum To Chords Tens 2 A - B 115	/- /- hs based on MWF = 3.5 Min Req = 3.5 Min Req E are a rigid surfa listed have force op Chord Forces	- /476 /- FRS = 1.9 (Truss) = 1.9 (Truss) ice. s less than 375# <b>Per Ply (Ibs)</b> ids Tens. Comp. 0 1335 - 6366
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**IMPORTA usses require extrem omponent Safety Info acing per BCSI. Unle tached rigid ceiling. L s applicable. Apply c awings 160A-7 for st	NT** FURNISH THIS D ne care in fabricating, han prmation, by TPI and SBC ass noted otherwise, top c ocations shown for perm plates to each face of trus andard plate positions. R	PRAWING TO ALL Co Idling, shipping, insta CA) for safety practice shord shall have prop anent lateral restrain s and position as sho efer to job's General		NG THE INSTALLERS o and follow the latest e functions. Installers s eathing and bottom cho og installed per BCSI se t Details, unless noted information.	roval #FL 1999 edition of BCSI (Build shall provide tempora ord shall have a prope- ections B3, B7, or B11 otherwise. Refer to	ling ary erly 0,	







SEQN: 691392	JACK	,	Job Number: 22-8711		Cust: R 215 JRef: 1XNO2150006 T
ROM: CDM			Murphy <b>Truss Label:</b> J01		DrwNo: 064.23.0822.29473 SSB / YK 03/05/2023
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CLL: 20.00 CDL: 10.00 CCL: 0.00 CCL: 10.00 Pes Ld: 40.00 ICBCLL: 10.00	Wind Speed Enclos Risk C EXP: 0 Mean TCDL	Std: ASCE 7-16 : 130 mph sure: Closed tategory: II C Kzt: NA Height: 15.00 ft 5.0 psf	- 1'6" - 1 Snow Criteria (Pg,Pf in PSF) Pg: NA Ct: NA CAT: NA Pf: NA Cs: NA Lu: NA Cs: NA Snow Duration: NA Building Code:	PP Deflection in loc L/defl L/# VERT(LL): NA VERT(CL): NA HORZ(LL): -0.000 B HORZ(TL): 0.000 B Creep Factor: 2.0	Gravity   Non-Gravity     Loc   R+   / R-   / Rh   / Rw   / U   / RL     B   251   /-   /-   /187   /78   /32     D   3   /-18   /-   /17   /16   /-     C   -   /-51   /-   /34   /45   /-     Wind reactions based on MWFRS   -   MWFRS   -   -   -
CLL:   20.00     'CDL:   10.00     3CLL:   0.00     3CDL:   10.00     Des Ld:   40.00     ICBCLL:   10.00     Soffit:   2.00	Wind S Speed Enclos Risk C EXP: ( Mean TCDL: BCDL	Std:   ASCE 7-16     1:   130 mph     sure:   Closed     iategory:   II     C   Kzt:     NA   Height:     5.0 psf   5.0 psf	- 1'6" - 1 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 7th Ed. 2020 Res.	PP Deflection in loc L/defl L/# VERT(LL): NA VERT(CL): NA HORZ(LL): -0.000 B HORZ(TL): 0.000 B Creep Factor: 2.0 Max TC CSI: 0.236	Gravity   Non-Gravity     Loc   R+   / R-   / Rh   / Rw   / U   / RL     B   251   /-   /-   /187   /78   /32     D   3   /-18   /-   /17   /16   /-     C   -   /-51   /-   /34   /45   /-
CLL:   20.00     CDL:   10.00     3CLL:   0.00     3CDL:   10.00     Des Ld:   40.00     NCBCLL:   10.00     Soffit:   2.00     coad Duration:   1.25	Wind S Speed Enclos Risk C EXP: 0 Mean TCDL BCDL MWFF	td: ASCE 7-16 130 mph sure: Closed ategory: II C Kzt: NA Height: 15.00 ft 5.0 psf S.0 psf RS Parallel Dist: 0 to	1 5 now Criteria (Pg,Pf in PSF) Pg: NA Ct: NA CAT: NA Pf: NA Ct: NA CAT: NA Pf: NA Cs: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014	Defl/CSI Criteria PP Deflection in loc L/defl L/# VERT(LL): NA VERT(CL): NA HORZ(LL): -0.000 B HORZ(TL): 0.000 B Creep Factor: 2.0 Max TC CSI: 0.236 Max BC CSI: 0.029	Gravity   Non-Gravity     Loc   R+   / R-   / Rh   / Rw   / U   / RL     B   251   /-   /-   / 187   / 78   / 32     D   3   /-18   /-   / 17   / 16   /-     C   -   /-51   /-   / 34   / 45   /-     Wind reactions based on MWFRS   B   Brg Wid = 3.5   Min Req = 1.5 (Truss)   (Truss)
CLL: 20.00 CDL: 10.00 CDL: 0.00 CDL: 10.00 CDL: 10.00 CDL: 10.00 CDCL: 10.00 CDCLL: 10.00 CD	Wind S Speed Enclos Risk C EXP: ( Mean TCDL: BCDL MWFF C&C I	td: ASCE 7-16 130 mph sure: Closed ategory: II C Kzt: NA Height: 15.00 ft 5.0 psf S.0 psf RS Parallel Dist: 0 to Dist a: 3.00 ft	1 5 now 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 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes	PP Deflection in loc L/defl L/# VERT(LL): NA VERT(CL): NA HORZ(LL): -0.000 B HORZ(TL): 0.000 B Creep Factor: 2.0 Max TC CSI: 0.236	Gravity   Non-Gravity     Loc   R+   / R-   / Rh   / Rw   / U   / RL     B   251   /-   /-   / 187   / 78   / 32     D   3   /-18   /-   / 17   / 16   /-     C   -   /-51   /-   / 34   / 45   /-     Wind reactions based on MWFRS   B   Brg Wid = 3.5   Min Req = 1.5 (Truss)   D   Brg Wid = 1.5   Min Req = -
FCDL: 10.00   BCLL: 0.00   BCDL: 10.00   Des Ld: 40.00   NCBCLL: 10.00	Wind S Speed Enclos Risk C EXP: ( Mean TCDL: BCDL MWFF C&C I	td: ASCE 7-16 130 mph sure: Closed ategory: II C Kzt: NA Height: 15.00 ft 5.0 psf 5.0 psf SS Parallel Dist: 0 to Dist a: 3.00 ft om endwall: Any	D h/2 1'6" 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 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0)	Defl/CSI Criteria PP Deflection in loc L/defl L/# VERT(LL): NA VERT(CL): NA HORZ(LL): -0.000 B HORZ(TL): 0.000 B Creep Factor: 2.0 Max TC CSI: 0.236 Max BC CSI: 0.029	Gravity   Non-Gravity     Loc   R+   / R-   / Rh   / Rw   / U   / RL     B   251   /-   /-   / 187   / 78   / 32     D   3   /-18   /-   / 17   / 16   /-     C   -   /-51   /-   / 34   / 45   /-     Wind reactions based on MWFRS   B   Brg Wid = 3.5   Min Req = 1.5 (Truss)   D   Brg Wid = 1.5   Min Req = -     C   Brg Wid = 1.5   Min Req = -   -   C   Brg Wid = 1.5   Min Req = -
CLL:   20.00     CDL:   10.00     3CLL:   0.00     3CDL:   10.00     Des Ld:   40.00     NCBCLL:   10.00     Soffit:   2.00     coad Duration:   1.25	Wind S Speed Enclos Risk C EXP: 0 Mean TCDL: BCDL MWFF C&C I Loc. fr	td: ASCE 7-16 130 mph sure: Closed ategory: II C Kzt: NA Height: 15.00 ft 5.0 psf S.0 psf RS Parallel Dist: 0 to Dist a: 3.00 ft	1 5 now 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 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes	Defl/CSI Criteria PP Deflection in loc L/defl L/# VERT(LL): NA VERT(CL): NA HORZ(LL): -0.000 B HORZ(TL): 0.000 B Creep Factor: 2.0 Max TC CSI: 0.236 Max BC CSI: 0.029	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$

#### Lumber

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

#### Wind

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

Wind loading based on both gable and hip roof types.

#### Additional Notes

The overall height of this truss excluding overhang is 0-9-1.

> FL REG# 278, Yoonhwak Kim, FL PE #86367 Floedo6@e02iFicate of Product Approval #FL 1999

No. 86367

\*\*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.

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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.





North Building, 4th Floor Glenview, IL 60025



FL REG# 278, Yoonhwak Kim, FL PE #86367 Floedo6(202) Ficate of Product Approval #FL 1999

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drawings 160A-2 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: alpineitw.com; TPI: tpinst.org; SBCA: sbcacomponents.com; ICC: iccsafe.org; AWC: awc.org











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

Πr

Top Chord 2x4 SP #2N, SPF #1/#2, DF-L #2 or better. Bot Chord 2x4 SP #2N or SPF #1/#2 or better. Webs 2x4 SP #3, SPF #1/#2, DF-L #2 or better.

\*\* Attach each valley to every supporting truss with: 535# connection or with (1) Simpson H2.5A or equivalent connector for ASCE 7-16 180 mph. 30' Mean Height, Part. Enc. Building, Exp. C, Wind TC DL=5 psf, Kzt = 1.00 Dr ASCE 7-16 160 mph. 30' Mean Height, Part. Enc. Building, Exp. D, Wind TC DL=5 psf, Kzt = 1.00

Bottom chord may be square or pitched cut as shown.

Valleys short enough to be cut as solid triangular members from a single 2x6, or larger as required, shall be permitted in lieu of fabricating from separate 2x4 members.

All plates shown are Alpine Wave Plates.

Unless specified otherwise on engineer's sealed design, for vertical valley webs taller than 7-9" apply 2x4 "T" reinforcement, 80% length of web, same species and grade or better, attached with 10d box (0.128" x 3.0") nails at 6" o.c. In lieu of "T" reinforcement, 2x4 Continuous Lateral Restraint applied at mid-length of web is permitted with diagonal bracing as shown in DRWG BRCLBANC1014.

Top chord of truss beneath valley set must be braced with: properly attached, rated sheathing applied prior to valley truss installation.

Purlins at 24" o.c. or as otherwise specified on engineer's sealed design Dr

By valley trusses used in lieu of purlin spacing as specified on Engineer's sealed design.

- \*\*\* Note that the purlin spacing for bracing the top chord of the truss beneath the valley is measured along the slope of the top chord.
- ++ Larger spans may be built as long as the vertical height does not exceed 14'-0''.



# Valley Detail - ASCE 7-16: 30' Mean Height, Enclosed, Exp. C, Kzt=1.00

Top Chord 2x4 SP #2N, SPF #1/#2, DF-L #2 or better. Bot Chord 2x4 SP #2N or SPF #1/#2 or better. Webs 2x4 SP #3, SPF #1/#2, DF-L #2 or better.

\*\* Attach each valley to every supporting truss with: (2) 16d box (0.135" x 3.5") nails toe-nailed for ASCE 7-16, 30' Mean Height, Enclosed Building, Exp. C, Wind TC DL=5 psf, Kzt = 1.00, Max. Wind Speed based on supporting truss material at connection location: 170 mph for SP (G = 0.55, min.),155 mph for DF-L (G = 0.50, min.), or 120 mph for HF & SPF (G = 0.42, min.).

Maximum top chord pitch is 10/12 for supporting trusses below valley trusses.

Bottom chord of valley trusses may be square or pitched cut as shown.

Valleys short enough to be cut as solid triangular members from a single 2x6, or larger as required, shall be permitted in lieu of fabricating from separate 2x4 members.

Unless specified otherwise on engineer's sealed design, for vertical valley webs taller than 7-9" apply 2x4 "T" reinforcement, 80% length of web, same species and grade or better, attached with 10d box (0.128" x 3.0") nails at 6" o.c. In lieu of "T" reinforcement, 2x4 Continuous Lateral Restraint applied at mid-length of web is permitted with diagonal bracing as shown in DRWG BRCLBANC1014.

- Top chord of truss beneath valley set must be braced with: properly attached, rated sheathing applied prior to valley truss installation. Πr
- Purlins at 24" o.c. or as otherwise specified on engineer's sealed design Πr
- By valley trusses used in lieu of purlin spacing as specified on Engineer's sealed design
- \*\*\* Note that the purlin spacing for bracing the top chord of the truss beneath the valley is measured along the slope of the top chord.
- ++ Larger spans may be built as long as the vertical height does not exceed 14'-0''.



All plates shown are Alpine Wave Plates.