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COA #0 278

Florida Certificate of Product Approval #FL 1999 03/06/2023





Site Information:	Page 1:
Customer: W. B. Howland Company, Inc.	Job Number: 23-9006
Job Description: Nickelson Shed	
Address: Nickelson Shed, FL	

Job Engineering Criteria:				
Design Code: FBC 7th Ed. 2020 Res.	IntelliVIEW Version: 22.02.00			
	JRef #: 1XNR2150007			
Wind Standard: ASCE 7-16 Wind Speed (mph): 130	Design Loading (psf): 40.00, 55.00			
Building Type: Closed				

This package contains general notes pages, 18 truss drawing(s) and 4 detail(s).

Item	Drawing Number	Truss
1	065.23.1509.21327	A1
3	065.23.1509.43430	B1
5	065.23.1509.58270	FL1
7	065.23.1511.16897	FT1
9	065.23.1512.07710	FT2
11	065.23.1512.58673	FT4
13	065.23.1458.20480	FT6
15	065.23.1513.24670	J1
17	065.23.1513.34887	J5
19	160TL	
21	BRCLBSUB0119	

Item	Drawing Number	Truss
2	065.23.1509.41137	A1E
4	065.23.1509.56177	B1E
6	065.23.1510.11873	FL2
8	065.23.1511.54933	FT1A
10	065.23.1512.43193	FT3
12	065.23.1513.14283	FT5
14	065.23.1513.22800	HGJ1
16	065.23.1513.33087	J3
18	065.23.1513.38710	J6
20	A14030ENC160118	
22	GBLLETIN0118	

## **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.: 155 Harlem Ave, North Building, 4th Floor, Glenview, IL 60025; <a href="https://www.alpineitw.com">www.alpineitw.com</a>.
- 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.

SEQN: 543761 COMN Ply: 1 Job Number: 23-9006 Cust: R 215 JRef: 1XNR2150007 T7 FROM: RFG Qty: 8 DrwNo: 065.23.1509.21327 Nickelson Shed Truss Label: A1 KD / WHK 03/06/2023 4'11"7 8'11"8 12'11"9 17'11" 4'11"7 4'0"1 4'0"1 4'11"7 **∥4X**16 F ∥2X4 =6X6(A2) =6X6(A2) ⊕<sup>16'0"12</sup>

4'0"1

12'11"9

Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs	)
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 19.59 ft TCDL: 5.0 psf BCDL: 5.0 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	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: No FT/RT:20(0)/10(0) Plate Type(s): WAVE	Defl/CSI Criteria	Gravity Loc R+ /R- /Rh  A 654 /- /- E 654 /- /- Wind reactions based on MW A Brg Wid = 3.5 Min Re E Brg Wid = 3.5 Min Re Bearings A & E Fcperp = 565 Members not listed have forc Maximum Top Chord Force	Non-Gravity / Rw / U / /343 /218 /1 /343 /218 /- VFRS q = 1.5 (Support q = 1.5 (Support ppsi. ees less than 375 es Per Ply (lbs) ords Tens. Co
Lumber	00f 2 0E:			Maximum Bot Chord Force	s Per Ply (lbs)

4'0"1

8'11"8

4'11"7

4'11"7

▲ Maximum Reactions (lbs)						
	(	3ravity		N	Ion-Grav	vity
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
Α	654	/-	/-	/343	/218	/168
Ε	654	/-	/-	/343	/218	/-
Win	d rea	ctions b	ased or	<b>MWFRS</b>		
Α	Brg \	Vid = 3.	5 Mir	Req = 1.	5 (Supp	ort)
E	Brg \	Vid = 3.	5 Mir	n Reg = 1.	.5 (Supp	ort)
Bea	rings	A&EF	cperp =	= 565psi.		•
Men	nbers	not liste	ed have	forces les	s than 3	375#
Maximum Top Chord Forces Per Ply (lbs)						
				Chords		
В-0	2	279 -	1203	C - D	279	- 1203

Chords Tens. Comp.

1319

Wind

Top chord: 2x8 SP 2400f-2.0E; Bot chord: 2x6 SP 2400f-2.0E; Webs: 2x4 SP #3:

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

Wind loading based on both gable and hip roof types.

#### **Additional Notes**

WARNING: Furnish a copy of this DWG to the installation contractor. Special care must be taken during handling, shipping and installation of trusses. See "WARNING" note below.

The overall height of this truss excluding overhang is



Chords Tens.Comp.

1319 - 115

4'11"7

17'11'



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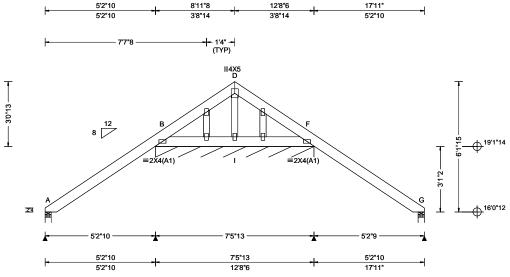
\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS DRAWING!

\*\*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.



SEQN: 543719 GABL Ply: 1 Job Number: 23-9006 Cust: R 215 JRef: 1XNR2150007 T8 DrwNo: 065.23.1509.41137 FROM: RFG Qty: 2 Nickelson Shed Truss Label: A1E KD / WHK 03/06/2023



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00	Wind Criteria Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 19.24 ft TCDL: 5.0 psf BCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: not in 6.06 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 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Varies by Ld Case FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.001 B 999 360 VERT(CL): 0.002 B 999 240 HORZ(LL): 0.002 F HORZ(TL): 0.002 F Creep Factor: 2.0 Max TC CSI: 0.106 Max BC CSI: 0.011 Max Web CSI: 0.040  VIEW Ver: 22.02.00.0914.12
Lumber			

▲ M	axim	um Rea	ctions (I	bs), or *=	:PLF	
	G	ravity		No	on-Grav	<b>∕ity</b>
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
Α	203	/-	/-	/170	/139	/234
В*	193	/-	/-	/103	/48	/-
G	203	/-	/-	/137	/139	/-
Win	d read	ctions b	ased on N	<b>IWFRS</b>		
Α	Brg V	Vid = 3.	5 Min F	Req = 1.5	(Supp	ort)
В	Brg V	Vid = 89	9.8 Min F	Req = -		•
G	Brg V	Vid = 3.	.5 Min F	Req = 1.5	(Supp	ort)
Bea	ring B	is a rig	id surface	e		
Bea	rings	A & G F	cperp = 5	565psi.		
	_		ed have fo	•	s than 3	375#

Top chord: 2x6 SP 2400f-2.0E; Bot chord: 2x6 SP 2400f-2.0E; Webs: 2x4 SP #3;

#### **Plating Notes**

All plates are 2X4 except as noted.

#### Loading

Truss designed to support 1-4-0 top chord outlookers and cladding load not to exceed 7.00 PSF one face and 24.0" span opposite face. Top chord must not be cut or notched, unless specified otherwise.

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

Wind loading based on both gable and hip roof types.

#### **Additional Notes**

See DWGS A14030ENC160118 & GBLLETIN0118 for gable wind bracing and other requirements.

The overall height of this truss excluding overhang is



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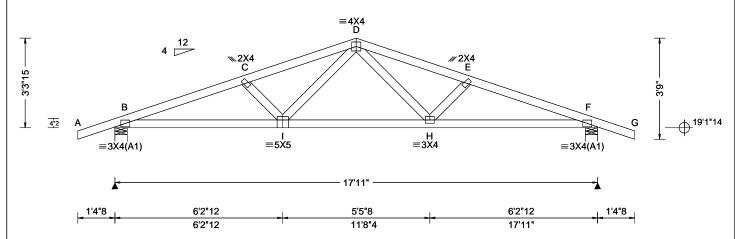
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SEQN: 543758 COMN Ply: 1 Job Number: 23-9006 Cust: R 215 JRef: 1XNR2150007 T1 FROM: RFG DrwNo: 065.23.1509.43430 Qty: 6 Nickelson Shed Truss Label: B1 KD / WHK 03/06/2023 4'10"6 13'0"10 8'11"8 17'11" 4'10"6 4'1"2 4'1"2 4'10"6



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	DefI/CSI Criteria	4
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 20.76 ft TCDL: 5.0 psf BCDL: 5.0 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	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: No FT/RT:20(0)/10(0) Plate Type(s):	PP Deflection in loc L/defl L/# VERT(LL): 0.062 D 999 360 VERT(CL): 0.122 D 999 240 HORZ(LL): 0.019 F HORZ(TL): 0.037 F Creep Factor: 2.0 Max TC CSI: 0.209 Max BC CSI: 0.433 Max Web CSI: 0.156	
Lumbor	Wind Duration: 1.60	WAVE	VIEW Ver: 22.02.00.0914.12	ن ل

	▲ Maxir	num Rea	ctions (I	bs)		
		Gravity		No	on-Grav	vity
)	Loc R	- /R-	/ Rh	/ Rw	/ U	/ RL
)	B 816	/-	/-	/425	/155	/68
	F 816	/-	/-	/425	/155	/-
	Wind re	actions b	ased on I	MWFRS		
	B Brg	Wid = 5.	5 Min I	Req = 1.5	(Truss	s)
	F Brg	Wid = 5.	5 Min I	Req = 1.5	(Truss	s)
	Bearing	sB&Fa	re a rigid	surface.		
	Member	rs not liste	ed have f	orces less	s than 3	375#
	Maximu	ım Top C	hord Fo	rces Per	Ply (lb:	s)
	Chords	Tens.Co	mp.	Chords	Tens.	Comp.
	B-C	309 -	1585	D-E	277	- 1411
	C-D	278 -		E - F	309	- 1586

#### Lumber

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

#### 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

## Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.Comp.	Chords Tens. Comp.		
B-I	1466 - 242	H-F	1467 - 242	
I-H	1027 - 132			

#### Maximum Web Forces Per Ply (lbs)

vebs	s rens.Comp.		vvebs	rens. Comp.		
- D	400	- 47	D - H	410	- 46	



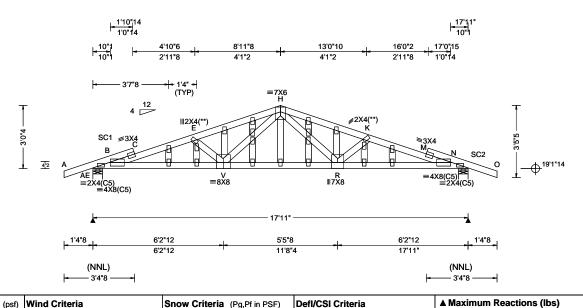
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria
TCLL: 20.00	Wind Std: ASCE 7-16	Pg: NA Ct: NA CAT: NA	PP Deflection in loc L/defl L/#
TCDL: 10.00		Pf: NA Ce: NA	VERT(LL): 0.123 I 999 360
BCLL: 0.00		Lu: NA Cs: NA	VERT(CL): 0.246 I 846 240
BCDL: 10.00	Risk Category: II	Snow Duration: NA	HORZ(LL): 0.019 D
Des Ld: 40.00	EXP: C Kzt: NA		HORZ(TL): 0.037 D
NCBCLL: 10.00	Mean Height: 20.61 ft TCDL: 5.0 psf	Building Code:	Creep Factor: 2.0
Soffit: 2.00	BCDL: 5.0 psf	FBC 7th Ed. 2020 Res.	Max TC CSI: 0.758
Load Duration: 1.25	MWFRS Parallel Dist: h/2 to h	TPI Std: 2014	Max BC CSI: 0.528
Spacing: 24.0 "	C&C Dist a: 3.00 ft	Rep Fac: Varies by Ld Case	Max Web CSI: 0.369
	Loc. from endwall: not in 12.11 ft	FT/RT:20(0)/10(0)	
	GCpi: 0.18	Plate Type(s):	
	Wind Duration: 1.60	WAVE	VIEW Ver: 22.02.00.0914.12

#### Lumber

Top chord: 2x4 SP #2; Bot chord: 2x4 SP M-31; Webs: 2x4 SP #3; Stack Chord: SC1 2x4 SP #2; Stack Chord: SC2 2x4 SP #2;

#### **Plating Notes**

All plates are 2X4 except as noted.

(\*\*) 2 plate(s) require special positioning. Refer to scaled plate plot details for special positioning requirements

#### Loading

Truss designed to support 1-4-0 top chord outlookers and cladding load not to exceed 7.00 PSF one face and 24.0" span opposite face. Top chord must not be cut or notched, unless specified otherwise.

#### **Purlins**

In lieu of structural panels use purlins to brace TC @ 24" oc.

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

Wind loading based on both gable and hip roof types.

## **Additional Notes**

See DWGS A14030ENC160118 & GBLLETIN0118 for gable wind bracing and other requirements.

Stacked top chord must NOT be notched or cut in area (NNL). Dropped top chord braced at 24" oc intervals. Attach stacked top chord (SC) to dropped top chord in notchable area using 3x4 tie-plates 24" oc. Center plate on stacked/dropped chord interface, plate length perpendicular to chord length. Splice top chord in notchable area using 3x6.

The overall height of this truss excluding overhang is

#### Non-Gravity Gravity Loc R+ /R /Rh /Rw /U /RL AE 1145 /-/524 /461 /94 /524 /461 /-1145 Wind reactions based on MWFRS AE Brg Wid = 5.5 Min Reg = 1.5 (Truss) N Brg Wid = 5.5 Min Req = 1.5 (Truss) Bearings AE & N are a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp B - C 935 - 2695 - 2240

Maximum Bot Chord Forces Per Ply (lbs)							
Chords	Tens.C	comp.	Chords	Tens. (	Comp.		
B-V	2510		R - N	2510	- 804		

K - M

M - N

960 - 2640

935 - 2695

960 - 2640

884 - 2241

C-E

E - H

Maximum Web Forces Per Ply (lbs)							
Webs	Tens.Comp.	Webs	Tens. (	Comp.			
E-V	232 - 581	H-R	681	- 278			
V - H	683 - 279	R - K	233	- 583			



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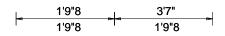
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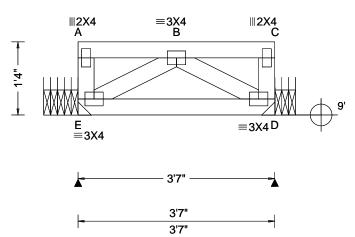
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SEQN: 543743 FLAT Ply: 1 Job Number: 23-9006 Cust: R 215 JRef: 1XNR2150007 T19 FROM: RFG DrwNo: 065.23.1509.58270 Qty: 2 Nickelson Shed Truss Label: FL1 KD / WHK 03/06/2023





Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria
TCLL: 40.00	Wind Std: NA	Pg: NA Ct: NA CAT: NA	PP Deflection in loc L/defl L/#
TCDL: 10.00	Speed: NA mph	Pf: NA Ce: NA	VERT(LL): 0.002 B 999 480
BCLL: 0.00	Enclosure: NA	Lu: NA Cs: NA	VERT(CL): 0.002 B 999 360
BCDL: 5.00	Category: NA	Snow Duration: NA	HORZ(LL): 0.001 D
Des Ld: 55.00	EXP: NA Kzt: NA Mean Height: NA ft		HORZ(TL): 0.001 D
NCBCLL: 10.00	TCDL: NA psf	Building Code:	Creep Factor: 2.0
Soffit: 0.00	BCDL: NA psf	FBC 7th Ed. 2020 Res.	Max TC CSI: 0.065
Load Duration: 1.00	MWFRS Parallel Dist: NA	TPI Std: 2014	Max BC CSI: 0.106
Spacing: 24.0 "	C&C Dist a: NA ft	Rep Fac: Yes	Max Web CSI: 0.049
	Loc. from endwall: NA	FT/RT:20(0)/10(0)	
	I: NA GCpi: NA	Plate Type(s):	
	Wind Duration: NA	WAVE	VIEW Ver: 22.02.00.0914.12

#### ▲ Maximum Reactions (lbs) Gravity Non-Gravity Loc R+ /Rh /Rw /U /RL Е 197 /-197 /-/-/-/-D Brg Wid = -Min Req = -Brg Wid = -Min Req = -D Members not listed have forces less than 375#

#### Lumber

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

#### Hangers / Ties

(J) Hanger Support Required, by others

#### Additional Notes

Truss must be installed as shown with top chord up. The overall height of this truss excluding overhang is



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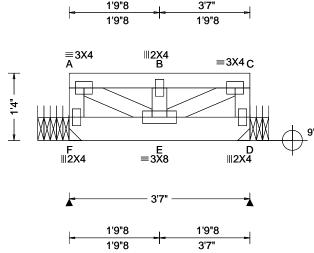
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155 Harlem Ave North Building, 4th Floor Glenview, IL 60025

SEQN: 543745 FLAT Ply: 2 Job Number: 23-9006 Cust: R 215 JRef: 1XNR2150007 T5 Qty: 1 FROM: RFG DrwNo: 065.23.1510.11873 Nickelson Shed Truss Label: FL2 KD / WHK 03/06/2023

#### 2 Complete Trusses Required



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	DefI/CSI Criteria
TCLL: 40.00 TCDL: 10.00 BCLL: 0.00 BCDL: 5.00 Des Ld: 55.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.00 Spacing: 24.0 "	Wind Std: NA Speed: NA mph Enclosure: NA Category: NA EXP: NA Kzt: NA Mean Height: NA ft TCDL: NA osf	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: Varies by Ld Case FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.004 B 999 480 VERT(CL): 0.005 B 999 360 HORZ(LL): 0.001 A HORZ(TL): 0.001 A Creep Factor: 2.0 Max TC CSI: 0.050 Max BC CSI: 0.087 Max Web CSI: 0.189  VIEW Ver: 22.02.00.0914.12
Lumbor			

▲ M	laxim	um Rea	ctions (	lbs)		
	(	avity	•	. N	on-Gra	vity
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
F	998	/-	/-	/-	/-	/-
D	762	/-	/-	/-	/-	/-
F	Brg \	Vid = -	Min	Req = -		
D				Req = -		
Mer	nbers	not list	ed have	forces les	s than :	375#
Max	cimur	n Web I	Forces F	Per Ply (lb	os)	
We	bs '	Tens.Co	omp.	Webs	Tens.	Comp.
Α-	E	397	0	E-C	398	0

#### Lumbe

Top chord: 2x4 SP #2; Bot chord: 2x6 SP 2400f-2.0E; Webs: 2x4 SP #3;

#### **Nailnote**

Nail Schedule:0.128"x3", min. nails Top Chord: 1 Row @12.00" o.c. Bot Chord: 2 Rows @ 6.00" o.c. (Each Row) Webs : 1 Row @ 4" o.c. Use equal spacing between rows and stagger nails in each row to avoid splitting.

#### **Special Loads**

--(Lumber Dur.Fac.=1.00 / Plate Dur.Fac.=1.00) 50 plf at 0.00 to TC: From 50 plf at BC: From 5 plf at 0.00 to 5 plf at BC: 781 lb Conc. Load at 0.52, 2.52

#### Hangers / Ties

(J) Hanger Support Required, by others

The TC of this truss shall be braced with attached spans at 24" oc in lieu of structural sheathing.

#### **Additional Notes**

Truss must be installed as shown with top chord up. The overall height of this truss excluding overhang is



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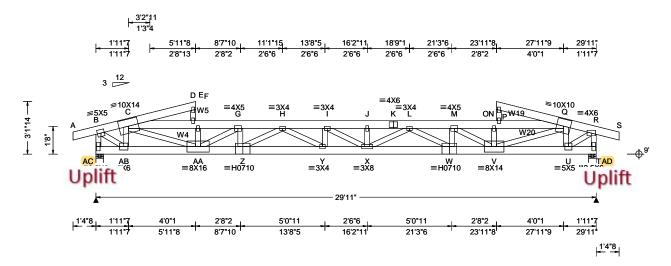
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SEQN: 543753 COMN Ply: 5 Job Number: 23-9006 Cust: R 215 JRef: 1XNR2150007 T10 FROM: RFG DrwNo: 065.23.1511.16897 Qty: 1 Nickelson Shed Page 1 of 2 Truss Label: FT1 KD / WHK 03/06/2023

#### 5 Complete Trusses Required



Loading Criteria (psf)   Wind Criteria   Snow Criteria     TCLL:	NA CAT: NA PP Deflection in loc L/defl L/# VERT(LL): 0.409 I 878 360
Des Ld: 55.00 NCBCLL: 0.00 Soffit: 2.00 Load Duration: 1.00 Spacing: 24.0 "  EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 3.0 psf BCDL: 3.0 psf WWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: not in 9.00 ft GCpi: 0.18 Wind Duration: 1.60  EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 3.0 psf FBC 7th Ed. 202 TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10( Plate Type(s): WAVE. HS	HORZ(LL): 0.105 E HORZ(TL): 0.197 E Creep Factor: 2.0  Max TC CSI: 0.284  Max BC CSI: 0.633  Max Web CSI: 0.931

## Loc R+ AC 6779 /-AD 6468

Wind reactions based on MWFRS AC Brg Wid = 5.5 Min Req = 1.5 (Truss) AD Brg Wid = 5.5 Min Req = 1.5 (Truss) Bearings AC & AD are a rigid surface.

/-

/Rh

▲ Maximum Reactions (lbs) Gravity

Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs)

Non-Gravity

/RL

/-/613

/Rw /U

/106

/106

Chords	Tens.Comp.	Chords	Tens.	Comp.
B-C	131 - 1510	J-K	604	- 7214
C-D	379 - 4644	K-L	604	- 7214
D-F	378 - 4662	L - M	505	- 5869
F-G	378 - 4662	M - N	379	- 4433
G-H	504 - 6258	N - P	379	- 4433
H - I	602 - 7403	P-Q	380	- 4415
I-J	604 - 7214	Q - R	131	- 1437

### Lumber

Top chord: 2x6 SP 2400f-2.0E; Bot chord: 2x6 SP 2400f-2.0E; Webs: 2x4 SP #3; W4,W20 2x4 SP #2; W5,

W19 2x4 SP M-31;

#### Nailnote

Nail Schedule:0.128"x3", min. nails Top Chord: 1 Row @ 3.75" o.c. Bot Chord: 1 Row @ 7.25" o.c. :1 Row @ 4" o.c.

Repeat nailing as each layer is applied. Use equal spacing between rows and stagger nails in each row

to avoid splitting.

In addition apply (1) 1/2" bolt, or 0.22"-0.25" min/max dia. X 4.5" length wood screw from each outside face, at each joint location.

#### **Plating Notes**

All plates are 2X4 except as noted.

Wind loads and reactions based on MWFRS.

End verticals exposed to wind pressure. Deflection

Wind loading based on both gable and hip roof types.

#### **Additional Notes**

The overall height of this truss excluding overhang is

Note: Laterally brace top chord below filler at 2'0" O.C.Max. including a lateral brace at chord ends.

# Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.C	comp.	Chords	Tens. (	Comp.
AB-AA	1596	- 132	X - W	6655	- 559
AA-Z	6115	- 491	W - V	5744	- 492
Z - Y	6961	- 558	V - U	1519	- 132
V - Y	7/08	- 603			

## Maximum Web Forces Per Ply (lbs)

Webs	Tens.Comp.	Webs	Tens.	Comp.
B -AC	128 - 1431	X - L	673	- 52
B -AB	1809 - 152	L - W	65	- 954
AB- C	81 - 896	W - M	680	-67
C -AA	3302 - 264	M - V	136	- 1576
AA- G	135 - 1744	V - Q	3138	- 265
G - Z	777 -66	Q - U	81	- 855
Z - H	65 - 855	U - R	1721	- 152
H - Y	543 - 52	R-T	128	- 1363



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SEQN: 543753 COMN Ply: 5 Job Number: 23-9006 Cust: R 215 JRef: 1XNR2150007 T10 FROM: RFG DrwNo: 065.23.1511.16897 Qty: 1 Nickelson Shed Page 2 of 2 Truss Label: FT1 KD / WHK 03/06/2023

#### **Special Loads**

-(Lumber Dur.Fac.=1.00 / Plate Dur.Fac.=1.00) -1.38 to 101 plf at 5.96 to 341 plf at 14.96 to 316 plf at 17.79 to 260 plf at TC: From TC: From TC: From 101 plf at 259 plf at 341 plf at 316 plf at 14.96 17.79 TC: From 23.93 TC: From 310 plf at 23.93 to 310 plf at 23.96 TC: From 101 plf at 23.96 to 101 plf at 31.29 BC: From BC: From BC: From 4 plf at 10 plf at 5 plf at -1.38 to 4 plf at 0.00 10 plf at 5 plf at 0.00 to 5 99 5.99 to 23.93 BC: From 10 plf at 23.93 to 10 plf at BC: From 4 plf at 29.92 to 4 plf at 31.29 TC: 689 lb Conc. Load at 6.10,23.81 BC: 767 lb Conc. Load at 5.99,23.93

230 lb Conc. Load at 8.02,10.02,12.02,14.02

15.90,17.90,19.90,21.90

BC: 998 lb Conc. Load at 10.83 BC: 197 lb Conc. Load at 12.56,14.56



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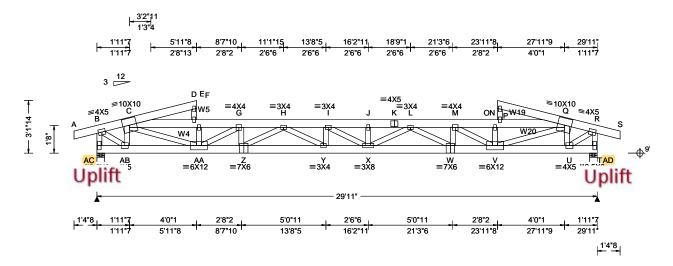
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#### 5 Complete Trusses Required



Loading Criteria (psf) Wind Criteria		Snow Criteria (Pg,Pf in PSF)	DefI/CSI Criteria	
TCLL: 40.00	Wind Std: ASCE 7-16	Pg: NA Ct: NA CAT: NA	PP Deflection in loc L/defl L/#	
TCDL: 10.00	Speed: 130 mph	Pf: NA Ce: NA	VERT(LL): 0.315 I 999 360	
BCLL: 0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): 0.594 I 604 240	
BCDL: 5.00	Risk Category: II	Snow Duration: NA	HORZ(LL): 0.081 E	
Des Ld: 55.00 NCBCLL: 0.00 Soffit: 2.00 Load Duration: 1.00 Spacing: 24.0 "	EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 3.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft	Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes	HORZ(TL): 0.152 E Creep Factor: 2.0  Max TC CSI: 0.189  Max BC CSI: 0.446  Max Web CSI: 0.701	
	Loc. from endwall: not in 9.00 ft GCpi: 0.18	FT/RT:20(0)/10(0) Plate Type(s):		
	Wind Duration: 1.60	WAVE	VIEW Ver: 22.02.00.0914.12	

#### Lumber

Top chord: 2x6 SP 2400f-2.0E; Bot chord: 2x6 SP 2400f-2.0E; Webs: 2x4 SP #3; W4,W20 2x4 SP #2; W5,

W19 2x4 SP M-31;

#### Nailnote

Nail Schedule:0.128"x3", min. nails Top Chord: 1 Row @ 4.50" o.c. Bot Chord: 1 Row @10.00" o.c. :1 Row @ 4" o.c.

Repeat nailing as each layer is applied. Use equal

to avoid splitting.

spacing between rows and stagger nails in each row โก addition apply (1) 1/2" bolt, or 0.22"-0.25" min/max dia. X 4!งู่ote: Laterally brace top chord below filler at length wood screw from each outside face, at each joint locatญี่ดี. O.C.Max. including a lateral brace at chord ends.

## **Plating Notes**

All plates are 2X4 except as noted.

#### Wind

Wind loads and reactions based on MWFRS.

End verticals exposed to wind pressure. Deflection

Wind loading based on both gable and hip roof types.

#### Additional Notes

The overall height of this truss excluding overhang is 3-1-14.

#### F-G 379 - 3523 M - N 380 - 3523 G-H 506 - 4730 380 - 3523 N-P 605 - 5731 P - Q 381 - 3510 H - I - 1151 I - J 606 - 5750 Q-R 131

▲ Maximum Reactions (lbs) Gravity

Wind reactions based on MWFRS

131 - 1151

381 - 3510

379 - 3523

/Rh

AD Brg Wid = 5.5 Min Req = 1.5 (Truss) Bearings AC & AD are a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs)

Loc R+

AD 5233

B - C

C-D

D-F

AC 5232 /-

AC Brg Wid = 5.5

Chords Tens.Comp.

Non-Gravity

/614

/RL

/-

Tens. Comp.

606

606 - 5750

506 - 4733

/Rw / U

Min Reg = 1.5 (Truss)

Chords

K-L

L-M

## Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.C	comp.	Chords	Tens. (	Comp.
AB-AA	1215	- 132	X - W	5361	- 560
AA- Z	4629	- 493	W - V	4630	- 493
Z - Y	5357	- 560	V - U	1216	- 132
Y - X	5761	- 605			

#### Maximum Web Forces Per Ply (lbs)

Webs	Tens.Comp.	Webs	Tens. Comp		
B -AC	129 - 1101	X - L	473	- 53	
B -AB	1377 - 153	L-W	65	- 766	
AB- C	82 - 686	W - M	560	-67	
C -AA	2485 - 265	M - V	136	- 1332	
AA- G	136 - 1331	V - Q	2485	- 265	
G - Z	555 - 66	Q - U	82	- 686	
Z - H	66 - 764	U - R	1377	- 153	
H - Y	463 - 52	R - T	129	- 1101	

#### Special Loads

-							
(Lumber Dur.Fac.=1.00 / Plate Dur.Fac.=1.00)							
TC: From	101 plf at	-1.38 to	101 plf at	5.96			
TC: From	126 plf at	5.96 to	127 plf at	6.00			
TC: From	260 plf at	6.00 to	341 plf at	14.96			
TC: From	341 plf at	14.96 to	316 plf at	17.79			
TC: From	316 plf at	17.79 to	260 plf at	23.92			
TC: From	127 plf at	23.92 to	127 plf at	23.93			
TC: From	177 plf at	23.93 to	177 plf at	23.96			
TC: From	101 plf at	23.96 to	101 plf at	31.29			
BC: From	4 plf at	-1.38 to	4 plf at	0.00			
BC: From	10 plf at	0.00 to	10 plf at	5.99			
BC: From	5 plf at	5.99 to	5 plf at	23.93			
BC: From	10 plf at	23.93 to	10 plf at	29.92			
BC: From	4 plf at	29.92 to	4 plf at	31.29			
BC: 767 lb Conc. Load at 5.99,23.93							
BC: 230 lb Conc Load at 8 02 10 02 12 02 14 02							

ad at 8.02,10.02,12.02,14.02 15.90,17.90,19.90,21.90

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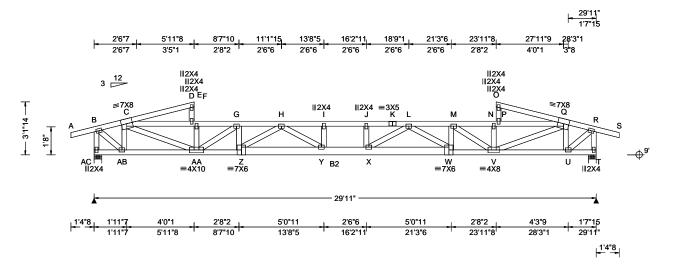
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SEQN: 543751 COMN Ply: 3 Job Number: 23-9006 Cust: R 215 JRef: 1XNR2150007 T20 FROM: RFG DrwNo: 065.23.1512.07710 Qty: 1 Nickelson Shed Truss Label: FT2 KD / WHK 03/06/2023

3 Complete Trusses Required



Coading Criteria (psf)   TCLL: 40.00   TCDL: 10.00   BCLL: 0.00   BCDL: 5.00   Des Ld: 55.00   NCBCLL: 0.00   Soffit: 2.00   Load Duration: 1.00	BCDL: 3.0 psf MWFRS Parallel Dist: 0 to h/2	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	DefI/CSI Criteria
Soffit: 2.00	Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 3.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: not in 9.00 ft GCpi: 0.18 Wind Duration: 1.60	FBC 7th Ed. 2020 Res.	Max TC CSI: 0.296

#### Lumber

Top chord: 2x4 SP #2;

Bot chord: 2x4 SP #2; B2 2x6 SP 2400f-2.0E;

Webs: 2x4 SP #3;

#### **Nailnote**

Nail Schedule:0.128"x3", min. nails Top Chord: 1 Row @12.00" o.c. Bot Chord: 1 Row @12.00" o.c. :1 Row @ 4" o.c.

Repeat nailing as each layer is applied. Use equal

spacing between rows and stagger nails in each row to avoid splitting.

#### Special Loads

(Lumber Dur.Fac.=1.00 / Plate Dur.Fac.=1.00)								
TC: From	67 plf at	-1.38 to	67 plf at	10.83				
TC: From	34 plf at	10.83 to	34 plf at	14.56				
TC: From	67 plf at	14.56 to	67 plf at	31.29				
BC: From	3 plf at	-1.38 to	3 plf at	0.00				
BC: From	7 plf at	0.00 to	7 plf at	10.83				
BC: From	3 plf at	10.83 to	3 plf at	14.56				
BC: From	7 plf at	14.56 to	7 plf at	29.92				
BC: From	3 plf at	29.92 to	3 plf at	31.29				
	Conc. Load							
BC: 197 lb	Conc. Load	l at 12.56,14	4.56					

#### **Plating Notes**

All plates are 3X4 except as noted.

#### **Additional Notes**

The overall height of this truss excluding overhang is

## Wind

Wind loads and reactions based on MWFRS.

End verticals exposed to wind pressure. Deflection meets L/360.

Wind loading based on both gable and hip roof types.

Note: Laterally brace top chord below filler at 2'0" O.C.Max. including a lateral brace at chord ends.

#### Gravity Loc R+ /Rh AC 1821 /-1595 /-Wind reactions based on MWFRS AC Brg Wid = 5.5

▲ Maximum Reactions (lbs)

Min Reg = 1.5 (Truss) Brg Wid = 5.5 Min Req = 1.5 (Truss) Bearings AC & T are a rigid surface.

Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp

Non-Gravity

/197

/201

/RL

/-

/Rw / U

0	. oo.o.	00.00		O Up.
B - C	57 - 546	J - K	238	- 2812
C - D	154 - 1743	K-L	238	- 2812
D-F	152 - 1751	L - M	205	- 2025
F-G	152 - 1751	M - N	156	- 1490
G-H	198 - 2448	N - P	156	- 1490
H-I	238 - 2827	P-Q	159	- 1483
I - J	239 - 2823	Q - R	58	- 471

#### Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.C	comp.	Chords	Tens. Comp.			
AB-AA	583	- 51	X - W	2442	- 231		
AA-Z	2377	- 193	W - V	1974	- 199		
Z - Y	2700	- 223	V - U	503	- 53		
Y - X	2823	- 237					

#### Maximum Web Forces Per Ply (lbs)

webs	Tens.c	omp.	webs	rens. Comp.		
B -AC	66	- 613	X - L	549	-6	
B -AB	682	-64	L-W	34	- 528	
AB- C	45	- 413	M - V	56	-612	
C -AA	1280	- 107	V - Q	1082	- 110	
AA- G	54	- 787	U - R	587	- 66	
G - Z	420	- 17	R - T	67	- 535	



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16'2"11

2'6"6

18'9"1

2'6"6

21'3"6

2'6"6

23'11"8

2'8"2

27'11"9

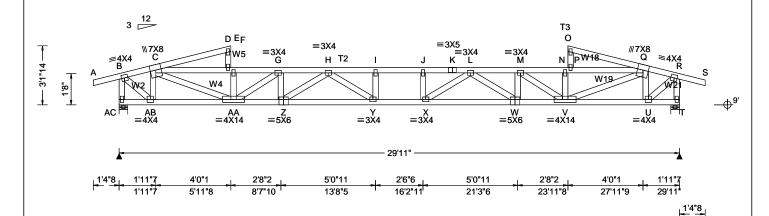
4'0"1

29'11'

1'11"7

13'8"5

2'6"6



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria
TCLL: 40.00	Wind Std: ASCE 7-16	Pg: NA Ct: NA CAT: NA	PP Deflection in loc L/defl L/#
	Speed: 130 mph	Pf: NA Ce: NA	VERT(LL): 0.331 J 999 360
DCLL. 0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): 0.545 J 659 240
	Risk Category: II	Snow Duration: NA	HORZ(LL): 0.095 E
Dec d: 55.00	EXP: C Kzt: NA		HORZ(TL): 0.157 E
NCBCLL: 0.00	Mean Height: 15.00 ft TCDL: 5.0 psf	Building Code:	Creep Factor: 2.0
Soffit: 2.00	BCDL: 3.0 psf	FBC 7th Ed. 2020 Res.	Max TC CSI: 0.255
	MWFRS Parallel Dist: h/2 to h	TPI Std: 2014	Max BC CSI: 0.470
Spacing: 16.0 "	C&C Dist a: 3.00 ft	Rep Fac: No	Max Web CSI: 0.298
	Loc. from endwall: not in 9.00 ft	FT/RT:20(0)/10(0)	
	GCpi: 0.18	Plate Type(s):	
	Wind Duration: 1.60	WAVE	VIEW Ver: 22.02.00.0914.12

8'7"10

2'6"6

2'8"2

#### Lumber

Top chord: 2x4 SP #2; T2,T3 2x4 SP M-31; Bot chord: 2x4 SP M-31; Webs: 2x4 SP #3; W2,W21 2x4 SP #2; W4,W5,W18,

2'6"7

2'6"7

3'5"1

W19 2x4 SP M-31;

#### Nailnote

Nail Schedule:0.128"x3", min. nails Top Chord: 1 Row @12.00" o.c. Bot Chord: 1 Row @12.00" o.c. :1 Row @ 4" o.c.

Use equal spacing between rows and stagger nails

in each row to avoid splitting.

#### **Special Loads**

--(Lumber Dur.Fac.=1.00 / Plate Dur.Fac.=1.00) -1.38 to TC: From 67 plf at 67 plf at BC: From 3 plf at -1.38 to 3 plf at 0.00 BC: From BC: From 7 plf at 0.00 to 7 plf at 29 92 3 plf at 29.92 to 31.29 3 plf at TC: 690 lb Conc. Load at 6.10,23.81

## **Plating Notes**

All plates are 2X4 except as noted.

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

End verticals exposed to wind pressure. Deflection meets L/360.

Wind loading based on both gable and hip roof types.

Note: Laterally brace top chord below filler at 2'0" O.C.Max. including a lateral brace at chord ends. The overall height of this truss excluding overhang is

**Additional Notes** 

#### Gravity Non-Gravity /Rw /U Loc R+ /Rh /RL AC 1889 /-/341 /208 1889 /341 /208 /-Wind reactions based on MWFRS AC Brg Wid = 5.5 Min Reg = 1.5 (Truss) Brg Wid = 5.5 Min Req = 1.5 (Truss) Bearings AC & T are a rigid surface. Members not listed have forces less than 375# Maximum Top Chord Forces Per Ply (lbs) Chords Tens.Comp. Chords Tens. Comp. B - C 98 - 847 C-D 286 - 2728 K-L 427 - 3579 L-M D-F 283 - 2745 359 - 3195 F-G 283 - 2745 M - N 284 - 2745 G-H 359 - 3195 284 - 2745 N-P 427 - 3579 P - Q 286 - 2728 H - I I - J 429 - 3586 Q-R 98 - 847

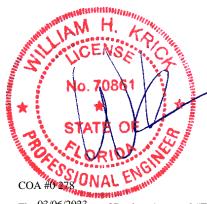
▲ Maximum Reactions (lbs)

#### Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.C	comp.	Chords	Tens. Comp.			
AB-AA	904	- 91	X - W	3447	- 384		
AA-Z	3160	- 330	W - V	3160	- 330		
Z - Y	3447	- 384	V - U	904	- 86		
Y - X	3586	- 404					

#### Maximum Web Forces Per Ply (lbs)

Webs	Tens.Comp.		Webs	Tens. Comp.		
B -AC	105	- 950	M - V	88	- 540	
B-AB	1056	- 106	N - V	34	- 525	
AB- C	75	- 647	V - Q	2016	- 189	
C -AA	2016	- 189	Q-U	75	- 647	
F-AA	34	- 524	U - R	1056	- 106	
AA- G	87	- 540	R-T	105	- 950	



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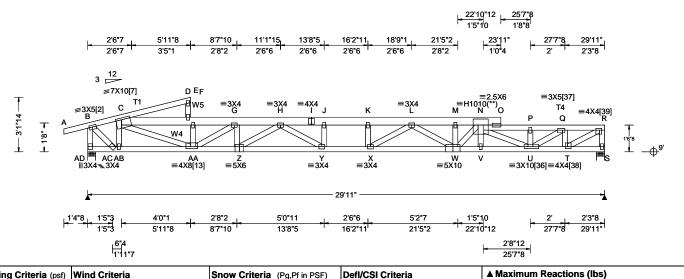
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Loading Criteria (ps	f) Wind Criteria	Snow Criteria (Pg,Pf in PSF)	DefI/CSI Criteria
TCLL: 40.00	Wind Std: ASCE 7-16	Pg: NA Ct: NA CAT: NA	PP Deflection in loc L/defl L/#
TCDL: 10.00	Speed: 130 mph	Pf: NA Ce: NA	VERT(LL): 0.324 K 999 360
BCLL: 0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): 0.535 K 670 240
BCDL: 5.00	Risk Category: II	Snow Duration: NA	HORZ(LL): 0.087 E
Des Ld: 55.00	EXP: C Kzt: NA		HORZ(TL): 0.145 E
NCBCLL: 0.00	Mean Height: 15.00 ft TCDL: 5.0 psf	Building Code:	Creep Factor: 2.0
Soffit: 2.00	BCDL: 3.0 psf	FBC 7th Ed. 2020 Res.	Max TC CSI: 0.775
Load Duration: 1.00	MWFRS Parallel Dist: h to 2h	TPI Std: 2014	Max BC CSI: 0.490
Spacing: 16.0 "	C&C Dist a: 3.00 ft	Rep Fac: No	Max Web CSI: 0.785
-	Loc. from endwall: not in 9.00 ft	FT/RT:20(0)/10(0)	
	GCpi: 0.18	Plate Type(s):	
	Wind Duration: 1.60	WAVE, HS	VIEW Ver: 22.02.00.0914.12

#### Lumber

Top chord: 2x6 SP 2400f-2.0E; T1 2x4 SP #2; T4 2x4 SP M-31; Bot chord: 2x4 SP M-31; Webs: 2x4 SP #3; W4 2x4 SP #2; W5 2x4 SP M-31;

Nail Schedule:0.128"x3", min. nails Top Chord: 1 Row @12.00" o.c. Bot Chord: 1 Row @12.00" o.c. :1 Row @ 4" o.c.

Use equal spacing between rows and stagger nails in each row to avoid splitting.

## **Special Loads**

--(Lumber Dur.Fac.=1.00 / Plate Dur.Fac.=1.00) -1.38 to 67 plf at TC: From 67 plf at BC: From 3 plf at -1.38 to 3 plf at 0.00 BC: From 7 plf at 0.00 to 7 plf at 29 92 TC: 689 lb Conc. Load at 6.10,23.81

#### **Plating Notes**

All plates are 2X4 except as noted.

(\*\*) 1 plate(s) require special positioning. Refer to scaled plate plot details for special positioning requirements

#### **Plate Shift Table**

JT	Plate	Latera	ı	Chord	JT	Plate	Latera	ıl	Chord
No	Size	Shift		Bite	No	Size	Shif	t	Bite
[2]	3X5	S		1.25	[7]	7X10	1.22	L	1.25
[13]	4X8	2.62	L	1.25	[36]	3X10	2.53	R	1.25
[37]	3X5	1.75	R	1.25	[38]	4X4	2.00	R	1.25
[39]	4X4	1.50	R	1.25					

# Wind

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

End verticals exposed to wind pressure. Deflection meets L/360.

Wind loading based on both gable and hip roof types.

## **Additional Notes**

The overall height of this truss excluding overhang is

Note: Laterally brace top chord below filler at 2'0" O.C.Max. including a lateral brace at chord ends.

# AMERICAN HOLDING COA #0 278 ONAL

Gravity			Non-Gravity				
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL	
AD	1890	/-	/-	/348	/204	/76	
s	1790	/-	/-	/310	/192	/-	
Win	d read	tions ba	sed on	MWFRS			
AD	Brg V	Vid = 5.5	Min	Req = 1.5	(Truss	s)	
S	Brg V	Vid = 5.5	Min	Req = 1.5	(Truss	s)	
Bea	rings .	AD&Sa	are a rig	id surface	).		
Mer	nbers	not listed	d have	forces less	s than 3	375#	
Max	imun	Top Ch	ord Fo	rces Per	Ply (lb	s)	
Cho	rds 1	ens.Cor	np.	Chords	Tens.	Comp.	

- 3732 79 - 857 421 262 - 2819 L-M 354 - 3350 D-F 266 - 2830 M - N 354 - 3350 F-G 266 - 2830 N - O 285 - 2879 G-H 346 - 3320 - 2829 0 - P 279 H - I 421 - 3732 P - Q 279 - 2829 1 - .1 421 - 3732 Q-R 144 - 1430 J - K 423 - 3741

#### Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.C	Comp.	Chords	Tens. (	Comp.
AC-AB	824	- 97	X - W	3565	- 408
AB-AA	863	- 101	W - V	3380	- 343
AA-Z	3288	- 349	V - U	3380	- 343
Z - Y	3566	- 404	U - T	1619	- 173
Y - X	3741	- 431			

#### Maximum Web Forces Per Ply (lbs)

Webs	Tens.Comp	o. Webs	Tens.	Comp.
B -AD	113 - 107	1 N-U	72	- 633
B-AC	1137 - 10	0 P-U	53	- 536
AB- C	67 - 65	7 U-Q	1460	- 137
C -AA	2150 - 19	0 Q-T	92	- 828
AA- G	92 - 58	4 T-R	1648	- 171
F-AA	33 - 53	4 R-S	96	- 882

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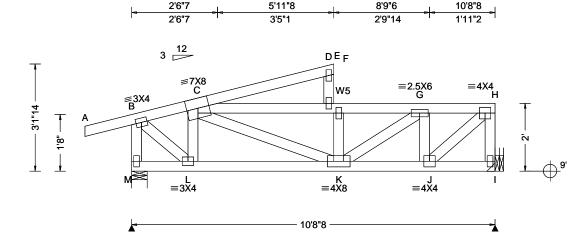
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SEQN: 543686 COMN Ply: 1 Job Number: 23-9006 Cust: R 215 JRef: 1XNR2150007 T4 DrwNo: 065.23.1513.14283 FROM: RFG Qty: 2 Nickelson Shed Page 1 of 2 Truss Label: FT5 KD / WHK 03/06/2023



4'0"1

5'11"8

2'9"14

8'9"6

1'11"2

10'8"8

Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	DefI/CSI Criteria	14
TCLL: 40.00	Wind Std: ASCE 7-16	Pg: NA Ct: NA CAT: NA	PP Deflection in loc L/defl L/#	١.
TCDL: 10.00	Speed: 130 mph	Pf: NA Ce: NA	VERT(LL): 0.039 E 999 360	L
BCLL: 0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): 0.068 E 999 240	I
BCDL: 5.00	Risk Category: II	Snow Duration: NA	HORZ(LL): 0.014 E	1
Des Ld: 55.00	EXP: C Kzt: NA		HORZ(TL): 0.024 E	۷
NCBCLL: 10.00	Mean Height: 15.00 ft TCDL: 5.0 psf	Building Code:	Creep Factor: 2.0	I.
Soffit: 2.00	BCDL: 3.0 psf	FBC 7th Ed. 2020 Res.	Max TC CSI: 0.285	ľ
Load Duration: 1.00	MWFRS Parallel Dist: h/2 to h	TPI Std: 2014	Max BC CSI: 0.346	ľ
Spacing: 16.0 "	C&C Dist a: 3.00 ft	Rep Fac: Varies by Ld Case	Max Web CSI: 0.510	ľ
	Loc. from endwall: not in 9.00 ft	FT/RT:20(0)/10(0)		1"
	GCpi: 0.18	Plate Type(s):		₫:
	Wind Duration: 1.60	WAVE	VIEW Ver: 22.02.00.0914.12	

1'11"7

1'11"7

<del>|---</del> 1'4"8 <del>---|</del>

▲ N	▲ Maximum Reactions (lbs)							
	(	3ravity		N	on-Gra	vity		
Loc	: R+	/ R-	/ Rh	/ Rw	/ U	/ RL		
М	793	/-	/-	/149	/84	/69		
1	781	/-	/-	/112	/77	/-		
Wir	nd rea	ctions b	ased or	MWFRS				
М	Brg \	Nid = 5.	5 Mir	Req = 1.	5 (Trus	s)		
1	Brg \	Nid = -	Mir	n Req = -	•	-		
Bea	aring N	∕l is a rig	gid surfa	ace.				
Me	mbers	not list	ed have	forces les	s than :	375#		
Ma	ximur	n Top C	hord F	orces Per	Ply (lb	s)		
Cho	ords	Tens.Co	mp.	Chords	Tens.	Ćomp.		
В-	С	68	- 635	F-G	127	- 1629		
I С -	D	127 -	1620	G-H	73	- 806		
_	_	407	4600					

#### Lumber

Top chord: 2x4 SP #2;

Bot chord: 2x4 SP #2; Webs: 2x4 SP #3; W5 2x4 SP #2;

#### **Special Loads**

--(Lumber Dur.Fac.=1.00 / Plate Dur.Fac.=1.00) 67 plf at 3 plf at 7 plf at TC: From BC: From -1.38 to 67 plf at 3 plf at 10.71 0.00 7 plf at BC: From 0.00 to 10.71 TC: 689 lb Conc. Load at 6.10

#### **Plating Notes**

All plates are 2X4 except as noted.

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

Left end vertical exposed to wind pressure. Deflection

Right end vertical not exposed to wind pressure. Wind loading based on both gable and hip roof types.

#### **Additional Notes**

The overall height of this truss excluding overhang is

Note: Laterally brace top chord below filler at 2'0" O.C.Max. including a lateral brace at chord ends.

	Bearing M is a rigid surface.  Members not listed have forces less than 375#							
Maximu	m Top Chord I	Forces Per	Ply (lbs)					
Chords	Tens.Comp.	Chords	Tens. Comp.	_				
B-C	68 - 635	F-G	127 - 1629					
C-D	127 - 1620	G - H	73 - 806					
D-F	127 - 1629							
	m Bot Chord F							
Chords	Tens.Comp.	Chords	Tens. Comp.	_				
L-K	668 - 102	K-J	923 - 85					

#### L-K 668 - 102 K-J 923

Maximum web Forces Per Ply (lbs)							
Webs	Tens.C	Comp.	Webs	Tens. (	Comp.		
B - M	84	- 797	K-G	868	- 51		
B - L	785	- 52	G - J	74	- 699		
L-C	49	- 464	J - H	1072	- 97		
C - K	1051	- 36	H - I	80	- 772		
F-K	58	- 926					



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SEQN: 543686 COMN Ply: 1 Job Number: 23-9006 Cust: R 215 JRef: 1XNR2150007 T4 DrwNo: 065.23.1513.14283 FROM: RFG Qty: 2 Nickelson Shed Page 2 of 2 Truss Label: FT5 KD / WHK 03/06/2023

#### Hangers / Ties

Simpson Construction Hardware is specified based on the most current information provided by Simpson Strong-Tie. Please refer to the most recent Simpson Strong-Tie catalog for additional information.

Recommended hanger connections are based on manufacturer tested capacities and calculations. Conditions may exist that require different connections than indicated. Refer to manufacturer publication for additional information.

Hanger specified assumes connection to supporting chord is located a minimum of five times the depth of the supporting chord from any unsupported end, unless unsupported chord end has 85% plating

Bearing at location x=10'5"8 uses the following support conditions: 10'5"8
Bearing I (10'5"8, 9') HUS26 Supporting Member: (2)2x6 SP 2400f-2.0E (14) 0.148"x3" nails into supporting member. (4) 0.148"x3" nails into supported member.



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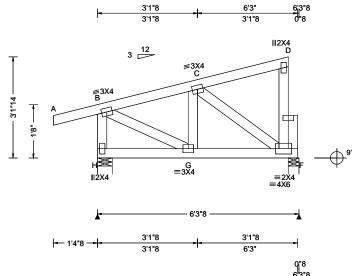
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SEQN: 543081 / MONO Ply: 1 Job Number: 23-9006 Cust: R 215 JRef: 1XNR2150007 T11 / FROM: RFG DrwNo: 065.23.1458.20480 Qty: 1 Nickelson Shed Truss Label: FT6 SSB / YK 03/06/2023



		Defl/CSI Criteria	▲ Maximum Reactions (lbs)
	, ,	1	
Inclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft CDL: 5.0 psf BCDL: 3.0 psf MWFRS Parallel Dist: h/2 to h	Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA  Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014	HORZ(LL): 0.001 F HORZ(TL): 0.001 F Creep Factor: 2.0  Max TC CSI: 0.248  Max BC CSI: 0.098	Gravity  Loc R+ /R- /Rh /Rw /U /R  H 505 /- /- /122 /104 /10  F 301 /- /- /62 /93 /-  Wind reactions based on MWFRS  H Brg Wid = 5.5 Min Req = 1.5 (Truss)  F Brg Wid = 4.0 Min Req = 1.5 (Truss)  Bearings H & F are a rigid surface.  Members not listed have forces less than 375#  Maximum Web Forces Per Pty (lbs)
oc. from endwall: not in 9.00 ft GCpi: 0.18	, , ,	VIEW Ver: 22.02.00.0914.12	Webs Tens.Comp.  B - H 104 -491
Ri: SAME CBC AND CBC	sk Category: II  XP: C Kzt: NA  ean Height: 15.00 ft  CDL: 5.0 psf  CDL: 3.0 psf  WFRS Parallel Dist: h/2 to h  &C Dist a: 3.00 ft  oc. from endwall: not in 9.00 ft  GCpi: 0.18	sk Category: II  XP: C Kzt: NA ean Height: 15.00 ft CDL: 5.0 psf CDL: 3.0 psf WFRS Parallel Dist: h/2 to h &C Dist a: 3.00 ft CD: from endwall: not in 9.00 ft GCpi: 0.18  LL: NA Cs. NA Snow Duration: NA  Snow Duration: NA  Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s):	Sk Category: II  XP: C Kzt: NA ean Height: 15.00 ft CDL: 5.0 psf CDL: 5.0 psf WFRS Parallel Dist: h/2 to h &C Dist a: 3.00 ft GCpi: 0.18  LU. NA CS. NA Snow Duration: NA HORZ(LL): 0.001 F HORZ(TL): 0.001 F Creep Factor: 2.0 Max TC CSI: 0.248 Max BC CSI: 0.098 Max Web CSI: 0.333

Top chord: 2x4 SP #2; Bot chord: 2x4 SP #2; Webs: 2x4 SP #3; Rt Bearing Leg: 2x4 SP #3;

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

Left end vertical exposed to wind pressure. Deflection meets L/360.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

## **Additional Notes**

The overall height of this truss excluding overhang is 3-1-14.



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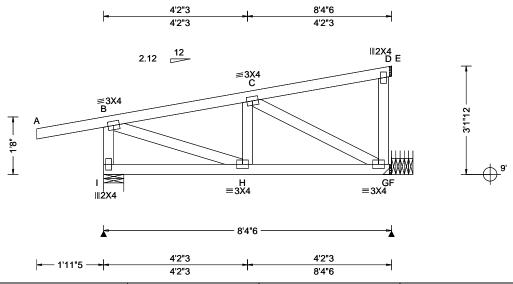
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SEQN: 543776 HIP\_ Ply: 1 Job Number: 23-9006 Cust: R 215 JRef: 1XNR2150007 T18 DrwNo: 065.23.1513.22800 FROM: RFG Qty: 4 Nickelson Shed Truss Label: HGJ1 KD / WHK 03/06/2023



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	DefI/CSI Criteria	
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 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 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any 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 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: No FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.007 H 999 360 VERT(CL): 0.014 H 999 240 HORZ(LL): -0.002 E HORZ(TL): 0.003 E Creep Factor: 2.0 Max TC CSI: 0.556 Max BC CSI: 0.510 Max Web CSI: 0.190  VIEW Ver: 22.02.00.0914.12	

▲ Ma	▲ Maximum Reactions (lbs)							
	Gravity Non-Gravity							
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL		
1 :	303	/-	/-	/-	/86	/41		
F	537	/-	/-	/-	/43	/-		
Win	d reac	tions b	pased on I	MWFRS				
1	Brg V	Vid = 7	.0 Min I	Req = 1.5	(Trus	s)		
F	Brg V	Vid = -	Min I	Req = -	-	·		
Bea	ring I i	is a rig	id surface					
Men	nbers	not list	ed have f	orces less	than	375#		
Max	Maximum Top Chord Forces Per Ply (lbs)							
Cho	rds T	ens.C	omp.		•	•		
В-0	2	53	- 450					

Maximum Bot Chord Forces Per Ply (lbs)

Webs

C-G

Maximum Web Forces Per Ply (lbs)

Chords Tens.Comp.

437

Tens.Comp.

H - G

Webs

B - H

#### Lumber

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

#### **Special Loads**

--(Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25) 0 plf at 2 plf at 0 plf at 0.00 TC: From -1.94 to 0.00 to 60 plf at TC: From 2 plf at 8.36 BC: From -1.94 to 4 plf at 0.00 2 plf at 0.00 to BC: From 2 plf at -31 lb Conc. Load at 1.32 136 lb Conc. Load at 4.15 274 lb Conc. Load at 6.98 37 lb Conc. Load at 1.32 117 lb Conc. Load at 4.15 197 lb Conc. Load at 6.98

#### Hangers / Ties

(J) Hanger Support Required, by others

Wind loads and reactions based on MWFRS.

Left end vertical exposed to wind pressure. Deflection meets L/360.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

## **Additional Notes**

The overall height of this truss excluding overhang is 3-1-12.



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\*\*IMPORTANT\*\* FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS

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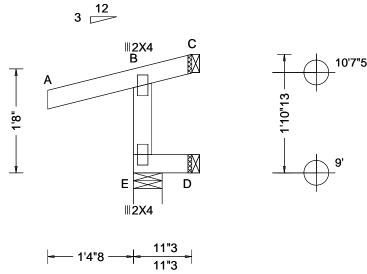


Tens. Comp.

- 480

58

SEQN: 543764 JACK Ply: 1 Job Number: 23-9006 Cust: R 215 JRef: 1XNR2150007 T16 FROM: RFG Qty: 8 DrwNo: 065.23.1513.24670 Nickelson Shed Truss Label: J1 KD / WHK 03/06/2023



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	DefI/CSI Criteria
TCLL: 20.00	Wind Std: ASCE 7-16	Pg: NA Ct: NA CAT: NA	PP Deflection in loc L/defl L/#
TCDL: 10.00	Speed: 130 mph	Pf: NA Ce: NA	VERT(LL): 0.000 B 999 360
BCLL: 0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): 0.000 B 999 240
BCDL: 10.00	Risk Category: II	Snow Duration: NA	HORZ(LL): -0.000 B
Des Ld: 40.00	EXP: C Kzt: NA		HORZ(TL): 0.000 B
NCBCLL: 10.00	Mean Height: 15.00 ft TCDL: 5.0 psf	Building Code:	Creep Factor: 2.0
Soffit: 2.00	BCDL: 5.0 psf	FBC 7th Ed. 2020 Res.	Max TC CSI: 0.123
Load Duration: 1.25	MWFRS Parallel Dist: 0 to h/2	TPI Std: 2014	Max BC CSI: 0.008
Spacing: 24.0 "	C&C Dist a: 3.00 ft	Rep Fac: No	Max Web CSI: 0.052
-	Loc. from endwall: Any	FT/RT:20(0)/10(0)	
	GCpi: 0.18	Plate Type(s):	
	Wind Duration: 1.60	WAVE	VIEW Ver: 22.02.00.0914.12
Lumber			

#### ▲ Maximum Reactions (lbs) Gravity Non-Gravity Loc R+ /Rh /Rw /U /RL Е 192 /125 /-D /-/22 19 /9 /-37 /34 /39 Wind reactions based on MWFRS Brg Wid = 5.5 Min Req = 1.5 (Truss) Brg Wid = 1.5 Min Req = -Brg Wid = 1.5 Min Req = -Bearing E is a rigid surface. Members not listed have forces less than 375#

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

#### Wind

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

Left end vertical exposed to wind pressure. Deflection meets L/360.

Wind loading based on both gable and hip roof types.

### **Additional Notes**

The overall height of this truss excluding overhang is 1-10-13.



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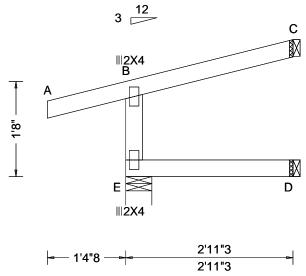
\*\*IMPORTANT\*\* FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS

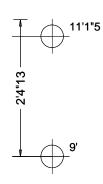
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155 Harlem Ave North Building, 4th Floor Glenview, IL 60025

SEQN: 543767 JACK Ply: 1 Job Number: 23-9006 Cust: R 215 JRef: 1XNR2150007 T14 FROM: RFG DrwNo: 065.23.1513.33087 Qty: 8 Nickelson Shed Truss Label: J3 KD / WHK 03/06/2023





Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria
Des Ld: 40.00  NCBCLL: 10.00  Des Ld: 40.00  NCBCLL: 10.00  Soffit: 2.00  Load Duration: 1.25	Wind Std: ASCE 7-16 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 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18	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: No FT/RT:20(0)/10(0) Plate Type(s):	PP Deflection in loc L/defl L/# VERT(LL): 0.000 B 999 360 VERT(CL): 0.000 B 999 240 HORZ(LL): -0.000 B HORZ(TL): 0.000 B Creep Factor: 2.0 Max TC CSI: 0.134 Max BC CSI: 0.094 Max Web CSI: 0.053
	Wind Duration: 1.60	WAVE	VIEW Ver: 22.02.00.0914.12
Lumber	•	•	•

	▲ Maximum Reactions (lbs)							
Ŀ	Gravity				Non-Gravity			
30	Loc	: R+	/ R-	/ Rh	/ Rw	/U	/ RL	
10	Е	228	/-	/-	/138	/82	/-	
-	D	59	/-	/-	/29	/-	/22	
-	С	68	/-	/-	/30	/19	/57	
	Wir	nd read	tions b	ased on N	/WFRS			
	Е	Brg V	Vid = 5.	5 Min F	Req = 1.5	(Trus	s)	
				5 Min F				
	С	Brg V	Vid = 1.	5 Min F	Req = -			
	Bea	aring E	is a rig	id surface	€.			
	Ме	mbers	not liste	ed have fo	orces less	s than	375#	

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

#### Wind

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

Left end vertical exposed to wind pressure. Deflection meets L/360.

Wind loading based on both gable and hip roof types.

### **Additional Notes**

The overall height of this truss excluding overhang is



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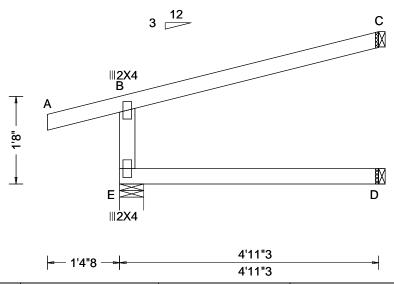
\*\*IMPORTANT\*\* FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS

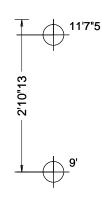
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SEQN: 543770 JACK Ply: 1 Job Number: 23-9006 Cust: R 215 JRef: 1XNR2150007 T13 FROM: RFG DrwNo: 065.23.1513.34887 Qty: 8 Nickelson Shed Truss Label: J5 KD / WHK 03/06/2023





Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 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 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	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: No FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.000 B 999 360 VERT(CL): 0.001 B 999 240 HORZ(LL): -0.000 B HORZ(TL): 0.000 B Creep Factor: 2.0 Max TC CSI: 0.370 Max BC CSI: 0.289 Max Web CSI: 0.050  VIEW Ver: 22.02.00.0914.12	

	▲ Maximum Reactions (lbs)						
Ł		G	avity		No	on-Gra	vity
30	Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
40	Е	300	/-	/-	/173	/87	/-
-	D	99	/-	/-	/49	/-	/22
_	С	137	/-	/-	/54	/45	/74
	Wir	nd read	ctions b	ased on N	/WFRS		
	Е	Brg V	Vid = 5.	5 Min F	Req = 1.5	(Trus	s)
	D	Brg V	Vid = 1.	.5 Min F	Req = -		•
	С	Brg V	Vid = 1.	.5 Min F	Req = -		
	Bea	aring E	is a rig	id surface	€.		
	Mei	mbers	not list	ed have fo	orces les	s than	375#

#### Lumber

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

#### Wind

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

Left end vertical exposed to wind pressure. Deflection meets L/360.

Wind loading based on both gable and hip roof types.

### **Additional Notes**

The overall height of this truss excluding overhang is 2-10-13.



\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS DRAWING!

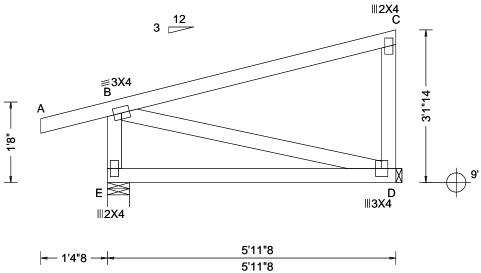
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SEQN: 543773 **EJAC** Ply: 1 Job Number: 23-9006 Cust: R 215 JRef: 1XNR2150007 T17 FROM: RFG DrwNo: 065.23.1513.38710 Qty: 20 Nickelson Shed Truss Label: J6 KD / WHK 03/06/2023



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria
TCLL: 20.00	Wind Std: ASCE 7-16	Pg: NA Ct: NA CAT: NA	PP Deflection in loc L/defl L/#
TCDL: 10.00	Speed: 130 mph	Pf: NA Ce: NA	VERT(LL): 0.000 C 999 360
BCLL: 0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): 0.001 C 999 240
BCDL: 10.00	Risk Category: II	Snow Duration: NA	HORZ(LL): -0.001 C
Des Ld: 40.00	EXP: C Kzt: NA		HORZ(TL): 0.002 C
NCBCLL: 10.00	Mean Height: 15.00 ft TCDL: 5.0 psf	Building Code:	Creep Factor: 2.0
Soffit: 2.00	BCDL: 5.0 psf	FBC 7th Ed. 2020 Res.	Max TC CSI: 0.503
Load Duration: 1.25	MWFRS Parallel Dist: 0 to h/2	TPI Std: 2014	Max BC CSI: 0.374
Spacing: 24.0 "	C&C Dist a: 3.00 ft	Rep Fac: No	Max Web CSI: 0.161
' "	Loc. from endwall: not in 4.50 ft	FT/RT:20(0)/10(0)	
	GCpi: 0.18	Plate Type(s):	
	Wind Duration: 1.60	WAVE	VIEW Ver: 22.02.00.0914.12

▲ Maximum Reactions (lbs)						
	G	avity		No	on-Gra	vity
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
Е	339	/-	/-	/178	/70	/103
D	230	/-	/-	/125	/68	/-
Win	d read	ctions b	ased on N	/WFRS		
Е	Brg V	Vid = 5.	5 Min F	Req = 1.5	(Trus	s)
D	Brg V	Vid = 1.	5 Min F	Reg = -	-	
Bearing E is a rigid surface.						
Mer	nbers	not liste	ed have fo	orces les	s than	375#

#### Lumber

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

#### Wind

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

Left end vertical exposed to wind pressure. Deflection meets L/360.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

#### **Additional Notes**

The overall height of this truss excluding overhang is 3-1-14.



\*\*WARNING\*\* READ AND FOLLOW ALL NOTES ON THIS DRAWING!

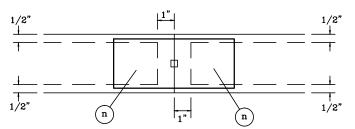
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# TRULOX INFORMATION DETAIL

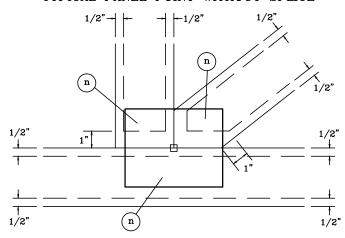
## TYPICAL OFF PANEL SPLICE



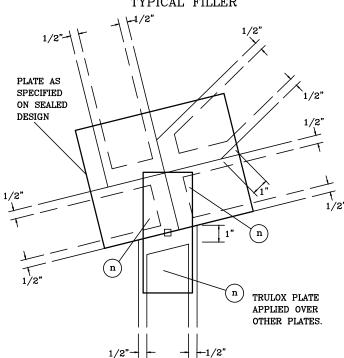
DO NOT APPLY NAILS WITHIN 1/2" OF LUMBER EDGES OR 1" OF LUMBER ENDS ON EACH FACE, AS SHOWN BY DASHED LINES.

NAILS MUST NOT SPLIT LUMBER.

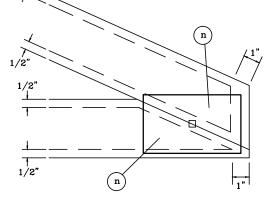
## TYPICAL PANEL POINT WITHOUT SPLICE



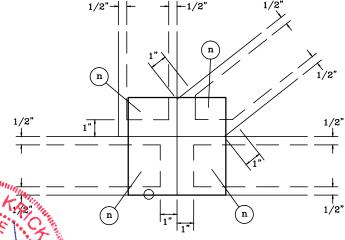




TYPICAL HEEL



TYPICAL PANEL POINT SPLICE



#### NOTES:

(n) IS THE REQUIRED NUMBER OF 0.120" X 1.375" NAILS, OR EQUAL, PER TAGE PER PLY AS SPECIFIED ON THE SEALED DESIGN REFERENCING THIS DETAIL.

- O LOCATES PLATE CORNER OR FLUSH EDGE.
- ☐ LOCATES PLATE CENTER.

Florida Certificate of Product Approval #FL 1999

TRULOX PLATING

PAGE 1 OF 1 DATE 10/01/14

## Gable Stud Reinforcement Detail

ASCE 7-16: 140 mph Wind Speed, 30' Mean Height, Enclosed, Exposure C, Kzt = 1.00

Dr: 120 mph Wind Speed, 30' Mean Height, Partially Enclosed, Exposure C, Kzt = 1.00

Dr: 120 mph Wind Speed, 30' Mean Height, Enclosed, Exposure D, Kzt = 1.00

					Dr	100 mph	wind spee	d, 30' Mear	Height, P	artially Er	nclosed, Ex	posure D,	Kzt = 1.00		
		2x4 Vertica	Brace	No	(1) 1×4 *L	" Brace *	(1) 2×4 "L	." Brace *	(2) 2×4 *L	" Brace **	(1) 2×6 <b>′</b> L	* Brace *	(2) 2x6 <b>"</b> L	Brace **	[
_ ا	1	Species	Grade	Braces	Group A	Group B	Group A	Group B	Group A	Group B	Group A	Group B	Group A	Group B	
🖈			#1 / #2	4′ 1″	6′ 11″	7′ 2″	8′ 2″	8′ 6″	9′ 9″	10′ 2″	12′ 10″	13′ 4″	14′ 0″	14′ 0″	П
	1	SPF	#3	3′ 10″	6′ 2″	6′ 7″	8′ 1″	8′ 5 <b>″</b>	9′ 8″	10′ 0″	12′ 8″	13′ 2″	14′ 0″	14′ 0″	ιΙ
Ø	ΙŲ	HF	Stud	3′ 10″	6′ 2″	6′ 6″	8′ 1 <b>″</b>	8′ 5″	9′ 8″	10′ 0″	12′ 8″	13′ 2″	14′ 0″	14′ 0″	ıl
	Ιo		Standard	3′ 10″	5′ 3 <b>″</b>	5′ 7 <b>″</b>	7′ 0″	7′ 6″	9′ 6″	10′ 0″	11′ 0″	11′ 10″	14′ 0″	14′ 0″	ιΙ
به	-		#1	4′ 2″	7′ 0″	7′ 3″	8′ 3″	8′ 7″	9′ 10″	10′ 3″	13′ 0″	13′ 6″	14′ 0″	14′ 0″	ιΙ
		SP	#2	4′ 1″	6′ 11″	7′ 2″	8′ 2″	8′ 6″	9′ 9″	10′ 2″	12′ 10″	13′ 4″	14′ 0″	14′ 0″	ιΙ
	4		#3	4′ 0″	5′ 7 <b>″</b>	5′ 11″	7′ 5 <b>″</b>	7′ 11″	9′ 8″	10′ 1″	11′ 7″	12′ 5″	14′ 0″	14′ 0″	ıl
	Ιά	IDFL	Stud	4′ 0″	5′ 7″	5′ 11″	7′ 5 <b>″</b>	7′ 11″	9′ 8″	10′ 1″	11′ 7″	12′ 5″	14′ 0″	14′ 0″	ιΙ
d	_ ``		Standard	3′ 9″	4′ 11″	5′ 13″	6′ 6″	7′ 0″	8′ 10 <b>″</b>	9′ 6″	10′ 3″	11′ 0″	13′ 11″	14′ 0″	ιΙ
<u>U.U</u>		CDE	#1 / #2	4′ 8″	7′ 11″	8′ 3″	9′ 4″	9′ 9″	11′ 2″	11′ 7″	14′ 0″	14′ 0″	14′ 0″	14′ 0″	ıl
1	-	SPF	#3	4′ 5 <b>″</b>	7′ 6″	8′ 3″	9′ 3″	9′ 7″	11′ 0″	11′ 6″	14′ 0″	14′ 0″	14′ 0″	14′ 0″	ıl
٦ ز	U	HF	Stud	4′ 5 <b>″</b>	7′ 6″	8′ 0 <b>″</b>	9′ 3″	9′ 7″	11′ 0″	11′ 6″	14′ 0″	14′ 0″	14′ 0″	14′ 0″	ıl
1	ا م	ПГ	Standard	4′ 5″	6′ 5 <b>″</b>	6′ 10 <b>″</b>	8′ 7 <b>″</b>	9′ 2″	11′ 0″	11′ 6″	13′ 6″	14′ 0″	14′ 0″	14′ 0″	ιΙ
1 🖑			#1	4′ 10″	8′ 0 <b>″</b>	8′ 4″	9′ 6″	9′ 10″	11′ 3″	11′ 9″	14′ 0″	14′ 0″	14′ 0″	14′ 0″	ıl
>		SP	#2	4′ 8″	7′ 11″	8′ 3″	9′ 4″	9′ 9″	11′ 2″	11′ 7″	14′ 0″	14′ 0″	14′ 0″	14′ 0″	ιΙ
	۱ %		#3	4′ 7″	6′ 10 <b>″</b>	7′ 3″	9′ 1″	9′ 8″	11′ 1″	11′ 6″	14′ 0″	14′ 0″	14′ 0″	14′ 0″	ıl
lω	1 (4)	DFL	Stud	4′ 7″	6′ 10 <b>″</b>	7′ 3″	9′ 1″	9′ 8″	11′ 1″	11′ 6″	14′ 0″	14′ 0″	14′ 0″	14′ 0″	ıl
<u> </u>			Standard	4′ 5″	6′ 0″	6′ 5″	8′ 0 <b>″</b>	8′ 7 <b>″</b>	10′ 10″	11′ 6″	12′ 7″	13′ 15″	14′ 0″	14′ 0″	ιľ
		CL	#1 / #2	5′ 2 <b>″</b>	8′ 9″	9′ 1″	10′ 4″	10′ 9″	11′ 2″	12′ 9″	14′ 0″	14′ 0″	14′ 0″	14′ 0″	լ և
O	_	SPF	#3	4' 10"	8′ 7″	8′ 11″	10′ 2″	10′ 7″	12′ 2″	12′ 8″	14′ 0″	14′ 0″	14′ 0″	14′ 0″	ı
0	U	HF	Stud	4' 10"	8′ 7 <b>″</b>	8′ 11″	10′ 2″	10′ 7″	12′ 2″	12′ 8″	14′ 0″	14′ 0″	14′ 0″	14′ 0″	١ ١
	Ιō		Standard	4′ 10″	7′ 5 <b>″</b>	7′ 11″	9′ 11 <b>″</b>	10′ 7″	12′ 2″	12′ 8″	14′ 0″	14′ 0″	14′ 0″	14′ 0″	F
×	1		#1	5′ 4 <b>″</b>	8′ 10 <b>″</b>	9′ 2″	10′ 5 <b>″</b>	10′ 10 <b>″</b>	12′ 5 <b>″</b>	12′ 11″	14′ 0″	14′ 0″	14′ 0″	14′ 0″	

10' 4"

10' 3"

10' 3"

9' 3"

10' 9"

10' 8"

10' 8"

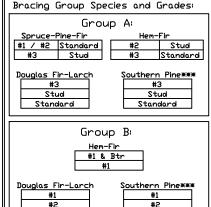
9' 10"

12' 3"

12' 2"

12' 2"

12' 2"



1x4 Braces shall be SRB (Stress-Rated Board) \*\*For 1x4 So. Pine use only Industrial 55 or Industrial 45 Stress-Rated Boards, Group B values may be used with these grades.

Gable Truss Detail Notes: Wind Load deflection criterion is L/240.

Provide uplift connections for 100 plf over continuous bearing (5 psf TC Dead Load).

Gable end supports load from 4' 0" outlookers with 2' 0' overhang, or 12' plywood overhang.

Attach "L" braces with 10d (0.128"x3.0" min) nails. ★ For (1) "L" brace: space nalls at 2" o.c. in 18" end zones and 4" o.c. between zones. ₩ \*\*For (2) "L" braces: space nails at 3" o.c. in 18" end zones and 6" o.c. between zones.

"L" bracing must be a minimum of 80% of web member length.

Gable Vertical Plate Sizes					
Vertical Length	No Splice				
Less than 4' 0"	2X4				
Greater than 4' 0", but less than 11' 6"	3X4				
Greater than 11' 6"	4X4				
+ Refer to common truss design for peak, splice, and heel plates.					

Refer to the Building Designer for conditions not addressed by this detail.

ASCE7-16-GAB14030

01/26/2018 DRWG A14030ENC160118

#### Gable Truss Diagonal brace option: vertical length may be doubled when diagonal brace is used. Connect diagonal brace for 525# at each end. Max web total length is 14'. 2x6 DF-L #2 or better diagonal brace; single Vertical length shown or double cut in table above. (as shown) at upper end. Connect diagonal at midpoint of vertical web.

#3

Stud

Standard

5' 2"

5′ 0″

5′ 0′

4' 10"

8' 9"

7' 10"

7' 10"

6' 11"

9' 1"

8' 4"

8' 4"

7' 4"

Symm About 1 "L" Brace End Zones, typ. Continuous Bearing Refer to chart shove for max gable ventical length.

12' 9"

12' 8"

12' 8"

12' 8"

14' 0"

14' 0"

14' 0"

14' 0"

14' 0"

14' 0"

14' 0"

14' 0"

14' 0"

14' 0"

14' 0"

14' 0"

14' 0"

14' 0"

14' 0"

14' 0"

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Q

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# CLR Reinforcing Member Substitution

This detail is to be used when a Continuous Lateral Restraint (CLR) is specified on a truss design but an alternative web reinforcement method is desired.

#### Notes:

This detail is only applicable for changing the specified CLR shown on single ply sealed designs to T-reinforcement or L-reinforcement or scab reinforcement.

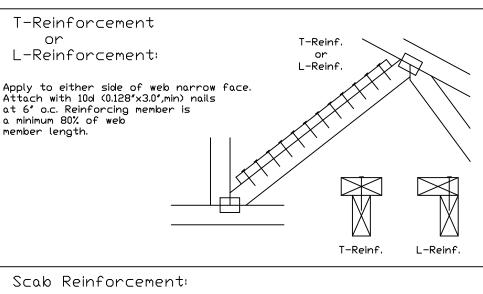
Alternative reinforcement specified in chart below may be conservative. For minimum alternative reinforcement, re-run design with appropriate reinforcement type.

Use scabs instead of L- or T- reinforcement on webs with intersecting truss joints, such as K-web joints, that may interfere with proper application along the narrow face of the web.

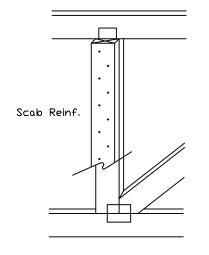
Web Member	Specified CLR	Alternative Reir	
Size	Restraint	T- or L- Reinf.	
2x3 or 2x4	1 row	2×4	1-2×4
2x3 or 2x4	2 rows	2×6	2-2×4
2×6	1 row	2×4	1-2×6
2×6	2 rows	2×6	2-2×4( <b>%</b> )
2×8	1 row	2×6	1-2×8
2×8	2 rows	2×6	2-2×6( <del>%</del> )

T-reinforcement, L-reinforcement, or scab reinforcement to be same species and grade or better than web member unless specified otherwise on Engineer's sealed design.

(\*) Center scab on wide face of web. Apply (1) scab to each face of web.



Apply scab(s) to wide face of web. No more than (1) scab per face. Attach with 10d (0.128"x3.0",min) nalls at 6" o.c. Reinforcing member is a minimum 80% of web member length.



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Refer to drawings 160A-Z for standard plate positions.

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REF CLR Subst.

DATE 01/02/19

DRWG BRCLBSUB0119

4LPINE AN ITW COMPANY

# Gable Detail For Let-in Verticals Gable Truss Plate Sizes Refer to appropriate Alpine gable detail for minimum plate sizes for vertical studs. (+) Refer to Engineered truss design for peak, splice, web, and heel plates. \*If gable vertical plates overlap, use a single plate that covers the total area of the overlapped plates to span the web. Gable Vertical Length \ typ. Example:

Provide connections for uplift specified on the engineered truss design.

Attach each "T" reinforcing member with

End Driven Nails:

10d Common (0.148"x 3.", min) Nails at 4" o.c. plus

(4) nails in the top and bottom chords.

10d Common (0.148"x3".min) Toenails at 4" o.c. plus

(4) toenails in the top and bottom chords.

This detail to be used with the appropriate Alpine gable detail for ASCE wind load.

ASCE 7-05 Gable Detail Drawings

A13015051014, A12015051014, A11015051014, A10015051014, A14015051014, A13030051014, A12030051014, A11030051014, A10030051014, A14030051014

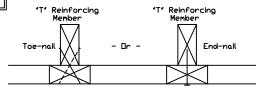
ASCE 7-10 & ASCE 7-16 Gable Detail Drawings

A11515ENC100118, A12015ENC100118, A14015ENC100118, A16015ENC100118, A18015ENC100118, A20015ENC100118, A20015END100118, A20015PED100118, A11530ENC100118, A12030ENC100118, A14030ENC100118, A16030ENC100118, A18030ENC100118, A20030ENC100118, A20030END100118, A20030PED100118, \$11515ENC100118, \$12015ENC100118, \$14015ENC100118, \$16015ENC100118,

\$18015ENC100118, \$20015ENC100118, \$20015END100118, \$20015FED100118, \$11530ENC100118, \$12030ENC100118, \$14030ENC10018, \$4030ENC100118 \$18030ENC100118, \$20030ENC100118, \$20030EN3100118, \$20030PED100118

See appropriate Alpine gable detail for maximum inventorces gable ver

#### "T" Reinforcement Attachment Detail



To convert from "L" to "T" reinforcing members, multiply "T" increase by length (based on appropriate Alpine gable detail).

Maximum allowable "T" reinforced gable vertical length is 14' from top to bottom chord.

"T" reinforcing member material must match size, specie, and grade of the "L" reinforcing member.

#### Web Length Increase w/ "T" Brace

"T" Reinf.	"T"		
Mbr. Size	Increase		
2×4	30 %		
2x6	20 %		

#### Example:

ASCE 7-10 Wind Speed = 120 mph Mean Roof Height = 30 ft, Kzt = 1.00 Gable Vertical = 24"o.c. SP #3 "T" Reinforcing Member Size = 2x4

"T" Brace Increase (From Above) = 30% = 1.30

(1) 2x4 "L" Brace Length = 8' 7"

Maximum "T" Reinforced Gable Vertical Length  $1.30 \times 8' \ 7'' = 11' \ 2''$ 

IREF

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LET-IN VERT

01/02/2018 DRWG GBLLETIN0118

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