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COA #0 278
12/14/2020

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

ALPINE AN ITW COMPANY

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

Site Information:	Page 1:
Customer: Seminole Trusses, Inc.	*Job Number:* B52399a
Job Description: Oliver Res	
Address: 1379 Sw CR 240, LAKE CITY, FL	

Job Engineering Criteria:	
Design Code: FBC 7th Ed. 2020 Res	*IntelliVIEW Version:* 20.02.00A *JRef #:* 1X178570001
Wind Standard: ASCE 7-16 *Wind Speed (mph):* 150 *Building Type:* Closed	*Design Loading (psf):* 37.00

This package contains general notes pages, 11 truss drawing(s) and 6 detail(s).

Item	Drawing Number	Truss
1	349.20.0842.41680	A
3	349.20.0842.45560	B2
5	349.20.0842.49103	B4
7	349.20.0843.10436	GE1
9	349.20.0843.10358	M2
11	349.20.0843.09983	PBGE1
13	PB180160118	
15	A16015ENC160118	
17	160TL	

Item	Drawing Number	Truss
2	349.20.0842.43870	B1
4	349.20.0842.47193	B3
6	349.20.0842.50737	B5
8	349.20.0843.10233	M1
10	349.20.0843.10015	PB2
12	PB160160118	
14	REPCHRD1014	
16	GBLLETIN0118	

COLUMBIA COUNTY BUILDING DEPARTMENT
Received for FILE COPY
Code Compliance

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.

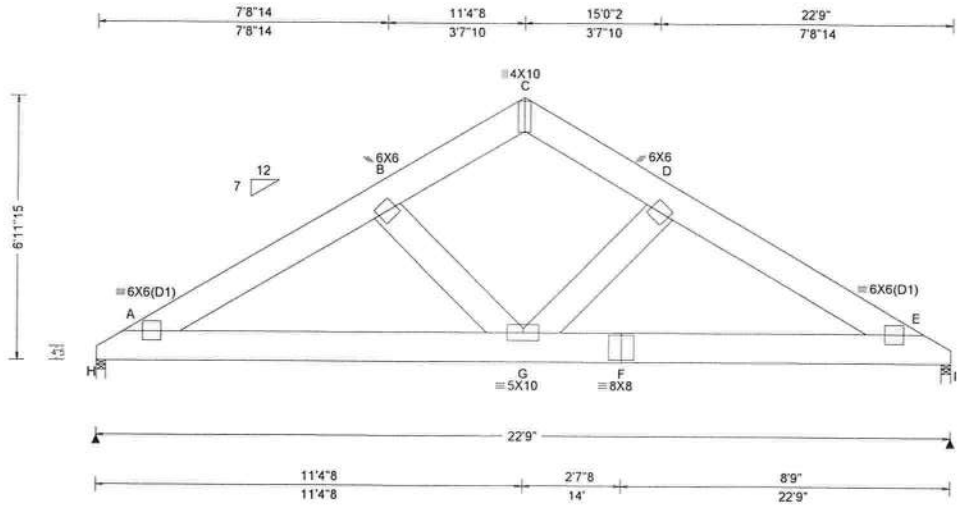
Refer to ASCE-7 for Wind and Seismic abbreviations.
Uppercase Acronyms not explained above are as defined in TPI 1.

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.: 514 Earth City Expressway, Suite 242, Earth City, MO 63045; www.alpineitw.com.
4. TPI: Truss Plate Institute, 2670 Crain Highway, Suite 203, Waldorf, MD 20601; www.tpinst.org.
5. SBCA: Wood Truss Council of America, 6300 Enterprise Lane, Madison, WI 53719; www.sbcindustry.com.

SEQN: 2279 SPEC FROM: CVB	Ply: 2 Qty: 2	**Job Number:** B52399a Oliver Res **Truss Label:** A	Cust: R 857 JRef:1X178570001 T1 DrwNo: 349.20.0842.41680 SSB / DF 12/14/2020	

2 Complete Trusses Required



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:	7.00	Speed: 150 mph	Pf: NA Ce: NA	VERT(LL): 0.102 G 999 360
BCLL:	0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): 0.194 G 999 240
BCDL:	10.00	Risk Category: II	Snow Duration: NA	HORZ(LL): 0.035 B - -
Des Ld:	37.00	EXP: C Kzt: NA		HORZ(TL): 0.067 B - -
NCBCLL:	0.00	Mean Height: 15.00 ft	Building Code:	Creep Factor: 2.0
Soffit:	2.00	TCDL: 4.2 psf	FBC 7th Ed. 2020 Res.	Max TC CSI: 0.672
Load Duration:	1.25	BCDL: 6.0 psf	TPI Std: 2014	Max BC CSI: 0.355
Spacing:	48.0 "	MWFRS Parallel Dist: 0 to h/2	Rep Fac: No	Max Web CSI: 0.029
		C&C Dist a: 3.00 ft	FT/RT:20(0)/0(0)	
		Loc. from endwall: not in 4.50 ft	Plate Type(s):	
		GCpi: 0.18	WAVE	VIEW Ver: 20.02.00A.1020.20
		Wind Duration: 1.60		

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
H	1730	/-	/-	/918	/502	/415
I	1730	/-	/-	/918	/502	/-

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

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
A - B	409	- 1048	C - D	412	- 941
B - C	412	- 941	D - E	409	- 1048

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
A - G	822	- 225	F - E	823	- 225
G - F	823	- 225			

Lumber

Top chord: 2x10 SP #2;
Bot chord: 2x10 SP #2;
Webs: 2x10 SP #2;

Nailnote

Nail Schedule:0.128"x3", min. nails
Top Chord: 1 Row @12.00" o.c.
Bot Chord: 1 Row @12.00" o.c.
Webs : 1 Row @ 4" o.c.
Use equal spacing between rows and stagger nails in each row to avoid splitting.
(1) 1/2" bolts may be used for
(2) 0.128"x3", min. nails on
Either The Top or Bottom Chords.

Plating Notes

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

Purlins

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

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	120	0.81	11.38
TC	120	11.38	21.94
BC	120	0.00	22.75

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

Wind

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

Wind loading based on both gable and hip roof types.

COA #0278

12/14/2020

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

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

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.

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

ALPINE
AN ITW COMPANY
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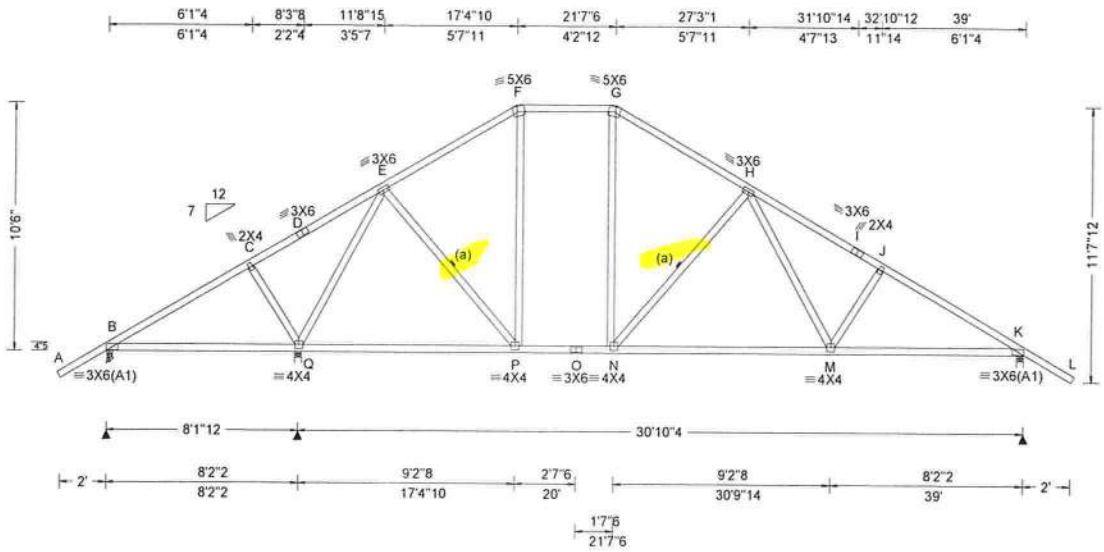
Suite 305
Orlando FL, 32821

SEQN: 45430 COMN FROM: RNB	Ply: 1 Qty: 12	**Job Number:** B52399a Oliver Res **Truss Label:** B1	Cust: R 857 JRef: 1X178570001 T7 DrwNo: 349.20.0842.43870 SSB / WHK 12/14/2020	



Loading Criteria (psf)

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

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 150 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.90 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.209	N	999	360
VERT(CL): 0.398	N	925	240
HORZ(LL): -0.048	G	-	-
HORZ(TL): 0.093	G	-	-

Creep Factor: 2.0
Max TC CSI: 0.990
Max BC CSI: 0.970
Max Web CSI: 0.785

VIEW Ver: 20.02.00A.1020.20

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	999	/-	/-	/750	/350	/452
Q	801	/-	/-	/975	/544	/-
K	1454	/-	/-	/1038	/503	/-

Wind reactions based on MWFRS
B Brg Width = 3.0 Min Req = 1.5
Q Brg Width = 3.5 Min Req = 1.5
K Brg Width = 3.5 Min Req = 1.8
Bearings B, Q, & K Fcperp = 425psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	729	- 1383	G - H	934	- 1409
C - D	740	- 1337	H - I	1141	- 2022
D - E	757	- 1319	I - J	1118	- 2046
E - F	913	- 1370	J - K	1118	- 2180
F - G	877	- 1138			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - Q	1052	- 353	O - N	1138	- 209
Q - P	1119	- 323	N - M	1498	- 521
P - O	1138	- 209	M - K	1815	- 766

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
Q - E	530	- 675	N - H	488	- 592
G - N	568	- 244	H - M	500	- 183

Lumber

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

Bracing

(a) Continuous lateral restraint equally spaced on member. Or 1x4 #3SRB SPF-S or better "T" reinforcement. 80% length of web member. Attached with 8d Box or Gun (0.113"x2.5",min.)nails @ 6" oc.

Plating Notes

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

Purlins

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

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	61	-2.07	17.39
TC	24	17.39	21.61
TC	46	21.61	41.07
BC	104	0.13	38.85

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

Loading

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

Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

Refer to DWG PB160160118 for piggyback details.

This truss has not been designed for habitation.
Truss not designed to be used as floor.
This truss must never be served by a fixed stairway.

COA #0278

12/14/2020

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

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

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.

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

ALPINE
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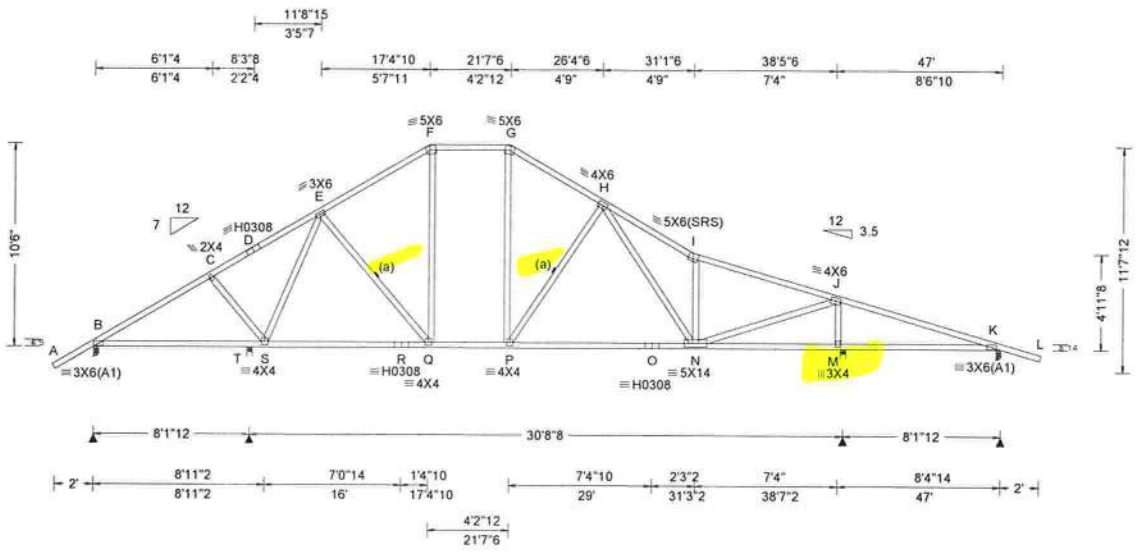
Suite 305
Orlando FL, 32821

SEQN: 45442 COMN FROM: RNB	Ply: 1 Qty: 2	**Job Number:** B52399a Oliver Res **Truss Label:** B2	Cust: R 857 JRef:1X178570001 T8 DrwNo: 349.20.0842.45560 SSB / WHK 12/14/2020	



Loading Criteria (psf)

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

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 150 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: h/2 to h
C&C Dist a: 4.70 ft
Loc. from endwall: not in 13.00 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE, HS

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.150	P	999	360
VERT(CL): 0.296	P	999	240
HORZ(LL): -0.047	G	-	-
HORZ(TL): 0.071	G	-	-

Creep Factor: 2.0
Max TC CSI: 0.974
Max BC CSI: 0.993
Max Web CSI: 0.918

VIEW Ver: 20.02.00A.1020.20

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1100	/-	/-	/545	/381	/433
T	612	/-	/0	/639	/289	/0
M	1870	/-	/0	/1336	/624	/0
K	338	/-43	/-	/100	/199	/-

Wind reactions based on MWFRS
B Brg Width = 3.0 Min Req = 1.5
T Brg Width = 3.5 Min Req = 1.5
M Brg Width = 3.5 Min Req = 2.3
K Brg Width = 3.0 Min Req = 1.5
Bearings B, T, M, & K Fcperp = 425psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	687	- 1621	G - H	779	- 1413
C - D	674	- 1458	H - I	1007	- 1878
D - E	691	- 1405	I - J	753	- 1668
E - F	765	- 1407	J - K	723	- 380
F - G	727	- 1160			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - S	2671	- 884	P - O	1371	- 429
S - R	1254	- 358	O - N	1371	- 429
R - Q	1254	- 358	N - M	395	- 673
Q - P	1160	- 247	M - K	868	- 1444

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
F - Q	404	- 113	I - N	557	- 778
G - P	541	- 173	N - J	2177	- 811
P - H	332	- 430	J - M	992	- 1693
H - N	396	- 318			

Lumber

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

Bracing

(a) Continuous lateral restraint equally spaced on member. Or 1x4 #3SRB SPF-S or better "T" reinforcement. 80% length of web member. Attached with 8d Box or Gun (0.113"x2.5",min.)nails @ 6" oc.

Plating Notes

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

Purlins

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

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	55	-2.07	17.39
TC	24	17.39	21.61
TC	53	21.61	31.12
TC	49	31.12	49.04
BC	69	0.13	46.88

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

Loading

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

Wind

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

Wind loading based on both gable and hip roof types.

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.

Refer to DWG PB160160118 for piggyback details.

This truss has not been designed for habitation.
Truss not designed to be used as floor.
This truss must never be served by a fixed stairway.

COA #0278

12/14/2020

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

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

Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.

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

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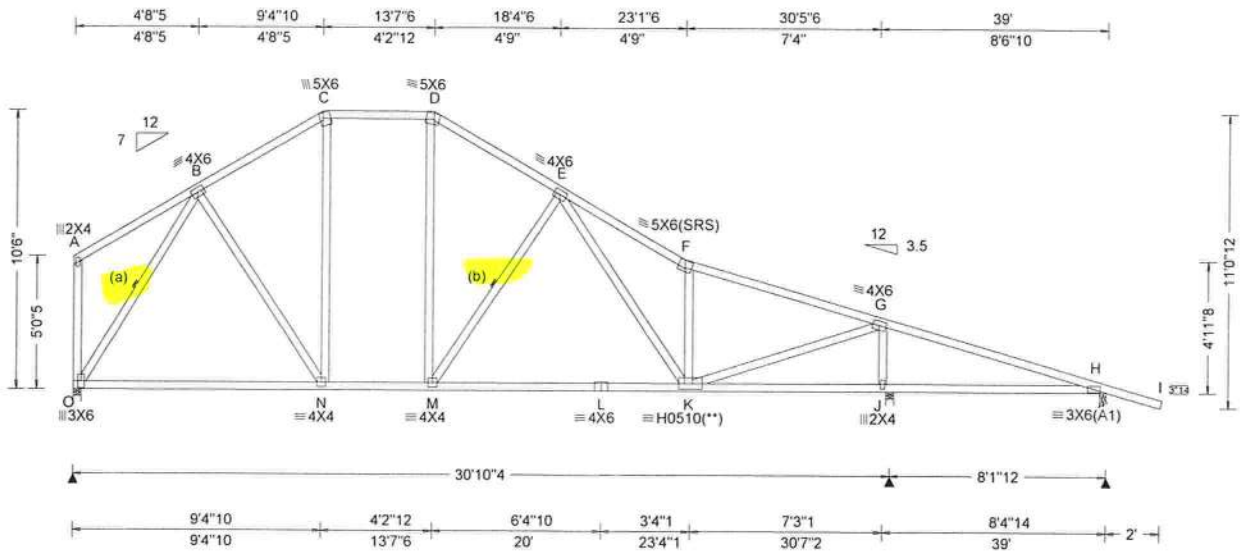
SEQN: 13845 COMN FROM: RNB Page 1 of 2	Ply: 1 Qty: 1	**Job Number:** B52399a Oliver Res **Truss Label:** B3	Cust: R 857 JRef: 1X178570001 T9 DrwNo: 349.20.0842.47193 SSB / WHK 12/14/2020	



Loading Criteria (psf)

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

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 150 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: h to 2h
C&C Dist a: 3.90 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE, HS

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	0.231 M	999	360
VERT(CL):	0.435 M	850	240
HORZ(LL):	-0.083 D	-	-
HORZ(TL):	0.146 D	-	-

Creep Factor: 2.0
Max TC CSI: 1.000
Max BC CSI: 0.998
Max Web CSI: 0.983

VIEW Ver: 20.02.00A.1020.20

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
O	1152	/-	/-	/574	/116	/488
J	1899	/-	/0	/1320	/359	/0
H	281	/-181	/-	/119	/216	/-

Wind reactions based on MWFRS
O Brg Width = 3.5 Min Req = 1.5
J Brg Width = 3.5 Min Req = 2.4
H Brg Width = 3.0 Min Req = 1.5
Bearings O, J, & H Fcperp = 425psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	590	- 946	E - F	827	- 1337
C - D	573	- 790	F - G	595	- 1189
D - E	609	- 1003	G - H	1102	- 623

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
O - N	609	- 233	L - K	986	- 263
N - M	790	- 111	K - J	664	- 1034
M - L	986	- 263	J - H	1408	- 2166

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
O - B	585	- 1119	F - K	507	- 634
D - M	422	- 141	K - G	2174	- 868
M - E	297	- 396	G - J	960	- 1716

Lumber

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

Bracing

(b) Continuous lateral restraint equally spaced on member. Or 1x4 #3SRB SPF-S or better "T" reinforcement. 80% length of web member. Attached with 8d Box or Gun (0.113"x2.5",min.)nails @ 6" oc.

(a) Continuous lateral restraint equally spaced on member. Or 2x4 #3 or better "T" reinforcement. 80% length of web member. Attached with 10d Box or Gun (0.128"x3",min.)nails @ 6" oc.

Plating Notes

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

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

Purlins

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

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	73	0.00	9.39
TC	24	9.39	13.61
TC	63	13.61	23.12
TC	58	23.12	41.04
BC	52	0.00	38.88

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

Loading

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

Wind

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

Left end vertical exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

This truss has not been designed for habitation.
Truss not designed to be used as floor.
This truss must never be served by a fixed stairway.

COA #0278

12/14/2020

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Additional Notes

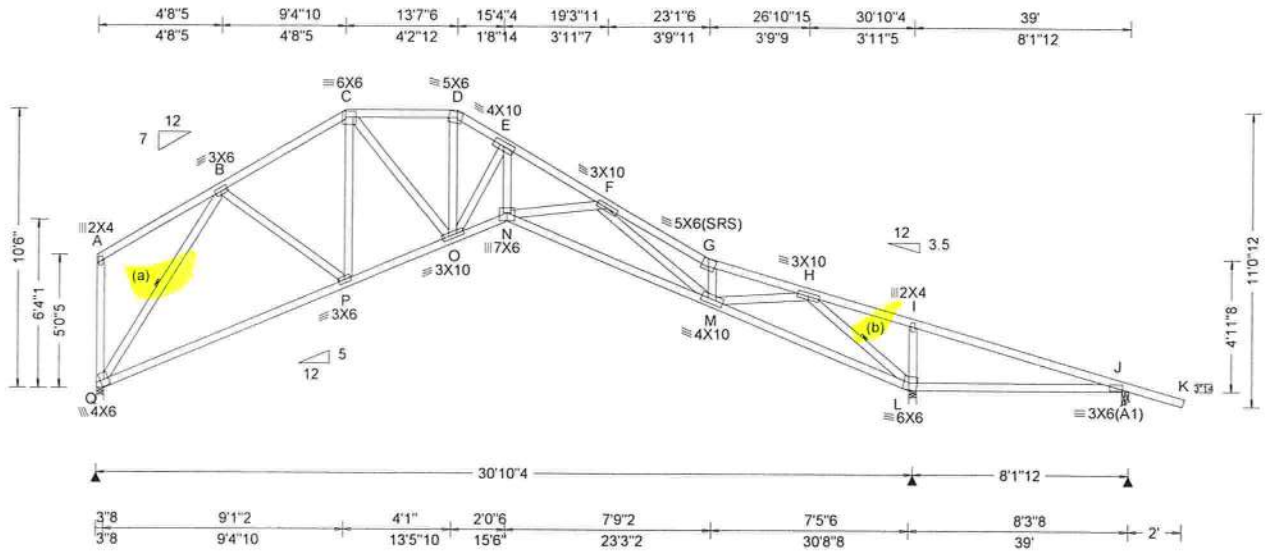
Negative reaction(s) of -181# MAX. from a non-wind load case requires uplift connection. See Maximum Reactions.

Refer to DWG PB160160118 for piggyback details.

COA #0278

12/14/2020

SEQN: 45435 COMN FROM: RNB	Ply: 1 Qty: 11	**Job Number:** B52399a Oliver Res **Truss Label:** B4	Cust: R 857 JRef: 1X178570001 T6 DrwNo: 349.20.0842.49103 SSB / DF 12/14/2020		



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:	7.00	Speed: 150 mph	Pf: NA Ce: NA	VERT(LL): 0.211 N 999 360
BCLL:	0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): 0.402 N 917 240
BCDL:	10.00	Risk Category: II	Snow Duration: NA	HORZ(LL): 0.202 L - -
Des Ld:	37.00	EXP: C Kzt: NA		HORZ(TL): 0.384 L - -
NCBCLL:	10.00	Mean Height: 15.00 ft	Building Code:	Creep Factor: 2.0
Soffit:	2.00	TCDL: 4.2 psf	FBC 7th Ed. 2020 Res.	Max TC CSI: 0.996
Load Duration:	1.25	BCDL: 6.0 psf	TPI Std: 2014	Max BC CSI: 0.980
Spacing:	24.0 "	MWFRS Parallel Dist: h to 2h	Rep Fac: Yes	Max Web CSI: 0.977
		C&C Dist a: 3.90 ft	FT/RT:20(0)/0(0)	
		Loc. from endwall: not in 9.00 ft	Plate Type(s):	
		GCpi: 0.18	WAVE	VIEW Ver: 20.02.00A.1020.20
		Wind Duration: 1.60		

Lumber

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

Bracing

(b) Continuous lateral restraint equally spaced on member. Or 1x4 #3SRB SPF-S or better "T" reinforcement. 80% length of web member. Attached with 8d Box or Gun (0.113"x2.5",min.)nails @ 6" oc.

(a) Continuous lateral restraint equally spaced on member. Or 2x4 #3 or better "T" reinforcement. 80% length of web member. Attached with 10d Box or Gun (0.128"x3",min.)nails @ 6" oc.

Plating Notes

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

Purlins

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

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	67	0.00	9.39
TC	24	9.39	13.61
TC	45	13.61	23.12
TC	58	23.12	41.04
BC	120	0.00	15.50
BC	75	15.50	30.71
BC	42	30.71	38.88

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

Wind

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

Left end vertical exposed to wind pressure. Deflection meets L/180.

Wind loading based on both gable and hip roof types.

Additional Notes

Negative reaction(s) of -541# MAX. from a non-wind load case requires uplift connection. See Maximum Reactions.

Refer to DWG PB160160118 for piggyback details.

Shim all supports to solid bearing.

COA #6778

12/14/2020

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
Q	999	/-	/-	/502	/37	/468
L	2396	/-	/-	/1366	/100	/-
J	96	/-541	/-	/75	/329	/-

Wind reactions based on MWFRS
Q Brg Width = 3.5 Min Req = 1.5
L Brg Width = 3.5 Min Req = 3.0
J Brg Width = 3.0 Min Req = 1.5
Bearings Q, L, & J Fcperp = 425psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - C	267	- 1198	F - G	614	- 1915
C - D	245	- 1374	G - H	443	- 1664
D - E	275	- 1593	H - I	2434	- 303
E - F	232	- 2670	I - J	2421	- 357

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
Q - P	835	- 275	N - M	2464	- 193
P - O	1050	- 82	M - L	151	- 773
O - N	2403	0	L - J	402	- 2299

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
Q - B	257	- 1281	F - M	29	- 885
C - O	609	0	G - M	345	- 695
O - D	612	- 164	M - H	2264	- 267
O - E	122	- 1796	H - L	506	- 2265
E - N	1979	0	L - I	357	- 426
N - F	425	- 221			

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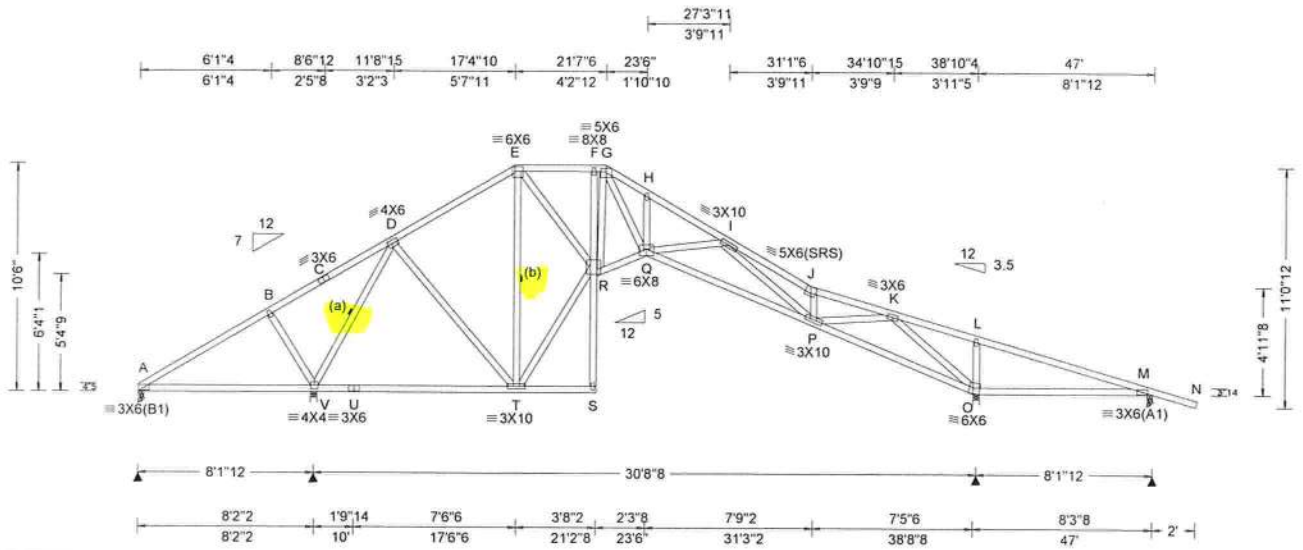
SEQN: 45433 COMN FROM: RNB	Ply: 1 Qty: 1	**Job Number:** B52399a Oliver Res **Truss Label:** B5	Cust: R 857 JRef: 1X178570001 T4 DrwNo: 349.20.0842.50737 SSB / DF 12/14/2020	



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: 7.00	Speed: 150 mph	Pf: NA Ce: NA	VERT(LL): 0.151 I 999 360
BCLL: 0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): 0.285 I 999 240
BCDL: 10.00	Risk Category: II	Snow Duration: NA	HORZ(LL): 0.128 O - -
Des Ld: 37.00	EXP: C Kzt: NA		HORZ(TL): 0.242 O - -
NCBCLL: 10.00	Mean Height: 15.00 ft	Building Code:	Creep Factor: 2.0
Soffit: 2.00	TCDL: 4.2 psf	FBC 7th Ed. 2020 Res.	Max TC CSI: 0.981
Load Duration: 1.25	BCDL: 6.0 psf	TPI Std: 2014	Max BC CSI: 1.000
Spacing: 24.0 "	MWFRS Parallel Dist: h to 2h	Rep Fac: Yes	Max Web CSI: 0.994
	C&C Dist a: 4.70 ft	FT/RT:20(0)/0(0)	
	Loc. from endwall: not in 13.00 ft	Plate Type(s):	
	GCpi: 0.18	WAVE	VIEW Ver: 20.02.00A.1020.20
	Wind Duration: 1.60		

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
A	-	/-592	/-	/-	/228	/385
V	2262	/-	/-	/1333	/159	/-
O	1969	/-	/-	/1235	/201	/-
M	183	/-367	/-	/111	/225	/-

Wind reactions based on MWFRS

A	Brg Width = 3.0	Min Req = 1.5
V	Brg Width = 3.5	Min Req = 2.8
O	Brg Width = 3.5	Min Req = 2.5
M	Brg Width = 3.0	Min Req = 1.5

Bearings A, V, O, & M Fcperp = 425psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
A - B	1354	-346	G - H	656	-1628
B - C	1378	-322	H - I	568	-1658
C - D	1466	-310	I - J	789	-1534
D - E	436	-341	J - K	606	-1327
E - F	453	-745	K - L	1840	-617
F - G	452	-746	L - M	1824	-672

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
A - V	356	-1132	Q - P	1722	-474
V - U	237	-378	P - O	246	-515
U - T	237	-378	O - M	699	-1728
R - Q	840	-52			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
V - D	766	-1973	G - Q	1317	-320
D - T	811	-140	I - P	165	-389
E - T	100	-801	J - P	390	-594
E - R	849	-54	P - K	1700	-526
T - R	517	-200	K - O	769	-1806
R - G	0	-417	O - L	365	-416

Lumber

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

Bracing

(b) Continuous lateral restraint equally spaced on member. Or 2x4 #3 or better "T" reinforcement. 80% length of web member. Attached with 10d Box or Gun (0.128"x3",min.)nails @ 6" oc.

(a) Continuous lateral restraint equally spaced on member. Or 2x6 #3 or better "T" reinforcement. 80% length of web member. Attached with 10d Box or Gun (0.128"x3",min.)nails @ 6" oc.

Plating Notes

All plates are 2X4 except as noted.

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

Purlins

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

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	75	0.00	17.39
TC	24	17.39	21.61
TC	58	21.61	31.12
TC	65	31.12	49.04
BC	64	0.13	21.06
BC	30	21.06	23.50
BC	75	23.50	38.71
BC	51	38.71	46.88

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

Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

Negative reaction(s) of -592# MAX. from a non-wind load case requires uplift connection. See Maximum Reactions.

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.

Refer to DWG PB160160118 for piggyback details.

COA #6778

12/14/2020

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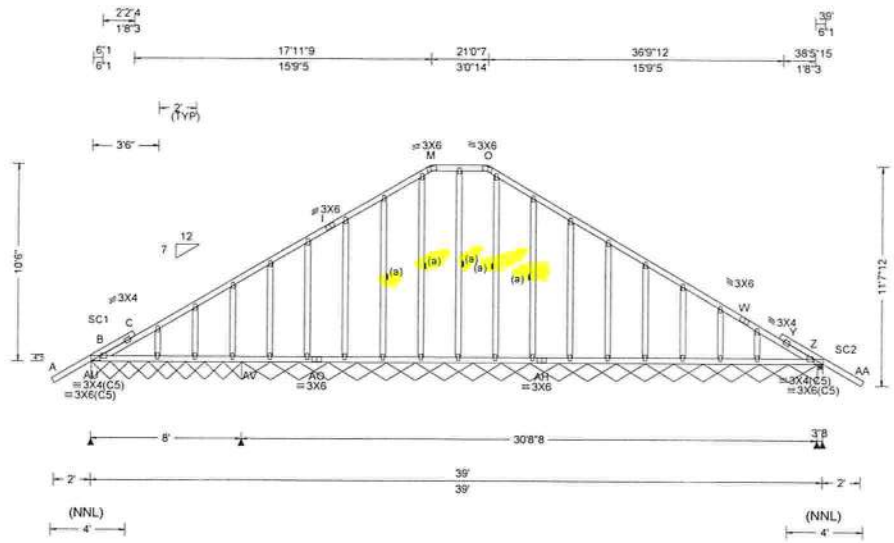
SEQN: 45425 / GABL FROM: RNB Page 1 of 2	Ply: 1 Qty: 2	**Job Number:** B52399a Oliver Res **Truss Label:** GE1	Cust: R 857 JRef: 1X178570001 T11 DrwNo: 349.20.0843.10436 AK / DF 12/14/2020	



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: 7.00	Speed: 150 mph	Pf: NA Ce: NA	VERT(LL): -0.003 Y 999 360
BCLL: 0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): 0.011 C 999 240
BCDL: 10.00	Risk Category: II	Snow Duration: NA	HORZ(LL): 0.002 AB - -
Des Ld: 37.00	EXP: C Kzt: NA		HORZ(TL): 0.003 X - -
NCBCLL: 10.00	Mean Height: 15.00 ft	Building Code:	Creep Factor: 2.0
Soffit: 2.00	TCDL: 4.2 psf	FBC 7th Ed. 2020 Res.	Max TC CSI: 0.421
Load Duration: 1.25	BCDL: 6.0 psf	TPI Std: 2014	Max BC CSI: 0.092
Spacing: 24.0 "	MWFRS Parallel Dist: 0 to h/2	Rep Fac: Varies by Ld Case	Max Web CSI: 0.143
	C&C Dist a: 3.90 ft	FT/RT:20(0)/0(0)	
	Loc. from endwall: Any	Plate Type(s):	
	GCpi: 0.18	WAVE	VIEW Ver: 20.02.00A.1020.20
	Wind Duration: 1.60		

▲ Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
AU	*136	/-	/-	/71	/-	/26
AV	*119	/-	/-	/42	/-	/-
Z	447	/-	/-	/403	/206	/-

Wind reactions based on MWFRS
AU Brg Width = 96.0 Min Req = -
AV Brg Width = 368 Min Req = -
Z Brg Width = 3.5 Min Req = 1.5
Bearings AU, AV, & Z Fcperp = 425psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.
Y - Z	125	-376

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B -AO	384	-75	AH- Z	377	-76
AO-AH	380	-76			

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;
Stack Chord: SC1 2x4 SP #1;
Stack Chord: SC2 2x4 SP #1;

Bracing

(a) Continuous lateral restraint equally spaced on member. Or 1x4 #3SRB SPF-S or better "T" reinforcement. 80% length of web member. Attached with 8d Box or Gun (0.113"x2.5",min.)nails @ 6" oc.

Plating Notes

All plates are 2X4 except as noted.

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

Purlins

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

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	55	-2.07	2.00
TC	75	0.29	17.96
TC	24	17.96	21.04
TC	75	21.04	38.71
TC	55	37.00	41.07
BC	120	0.29	38.71

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

Wind

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

Wind loading based on both gable and hip roof types.

Loading

Truss designed to support 1-4-0 top chord outlookers and cladding load not to exceed 6.00 PSF one face and 24.0" span opposite face. Top chord must not be cut or notched, unless specified otherwise.

See DWGS A16030ENC101014 & GBLLETIN0118 for more requirements.

COA #0278

12/14/2020

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SEQN: 45425 / GABL FROM: RNB Page 2 of 2	Ply: 1 Qty: 2	**Job Number:** B52399a Oliver Res **Truss Label:** GE1	Cust: R 857 JRef: 1X178570001 T11 DrwNo: 349.20.0843.10436 AK / DF 12/14/2020

Additional Notes

See DWGS A16015ENC160118 & 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.

COA #0278

12/14/2020

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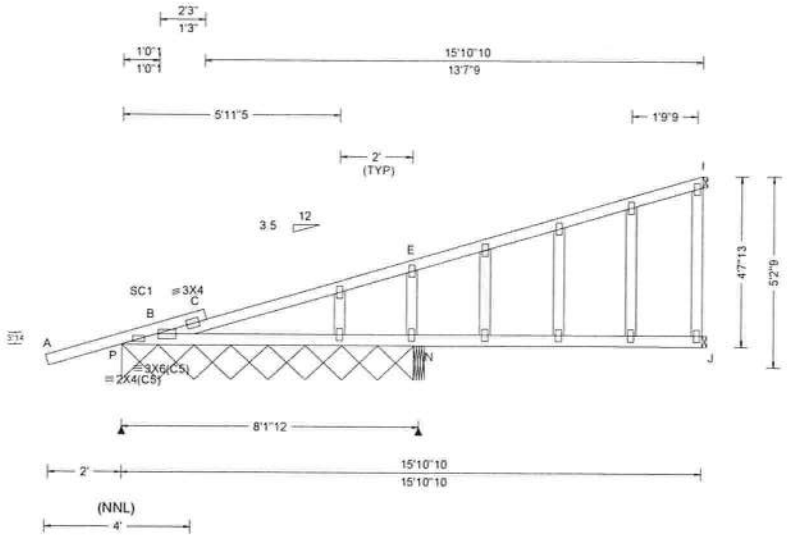
SEQN: 45449 / GABL FROM: RNB	Ply: 1 Qty: 1	**Job Number:** B52399a Oliver Res **Truss Label:** M1	Cust: R 857 JRef: 1X178570001 T12 DrwNo: 349.20.0843.10233 AK / DF 12/14/2020	



Loading Criteria (psf)

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

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 150 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	0.152 L	611	360
VERT(CL):	0.271 L	342	240
HORZ(LL):	0.040 G	-	-
HORZ(TL):	0.071 G	-	-

Creep Factor: 2.0
Max TC CSI: 0.555
Max BC CSI: 0.612
Max Web CSI: 0.224

VIEW Ver: 20.02.00A.1020.20

▲ Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
P*	51	/-36	/-	/21	/35	/10
N	1352	/-	/-	/537	/-	/-
J	152	/-	/-	/68	/-	/-
I	209	/-	/-	/62	/-	/-

Wind reactions based on MWFRS
P Brg Width = 96.0 Min Req = -
N Brg Width = 3.5 Min Req = 1.7
J Brg Width = 1.5 Min Req = -
I Brg Width = 1.5 Min Req = -
Bearings P & N Fcperp = 425psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.
B - C	421	-516

Maximum Gable Forces Per Ply (lbs)

Gables	Tens.	Comp.
E - N	0	-385

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;
Stack Chord: SC1 2x4 SP #1;

Plating Notes

All plates are 2X4 except as noted.

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

Purlins

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

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	50	-2.04	2.00
TC	75	1.49	15.88
BC	120	0.29	15.88

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

Loading

Truss designed to support 1-4-0 top chord outlookers and cladding load not to exceed 6.00 PSF one face and 24.0" span opposite face. Top chord must not be cut or notched, unless specified otherwise.

Wind

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

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

Additional Notes

Negative reaction(s) of -285# MAX. from a non-wind load case requires uplift connection. See Maximum Reactions.

See DWGS A16015ENC160118 & 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.

COA #0278

12/14/2020

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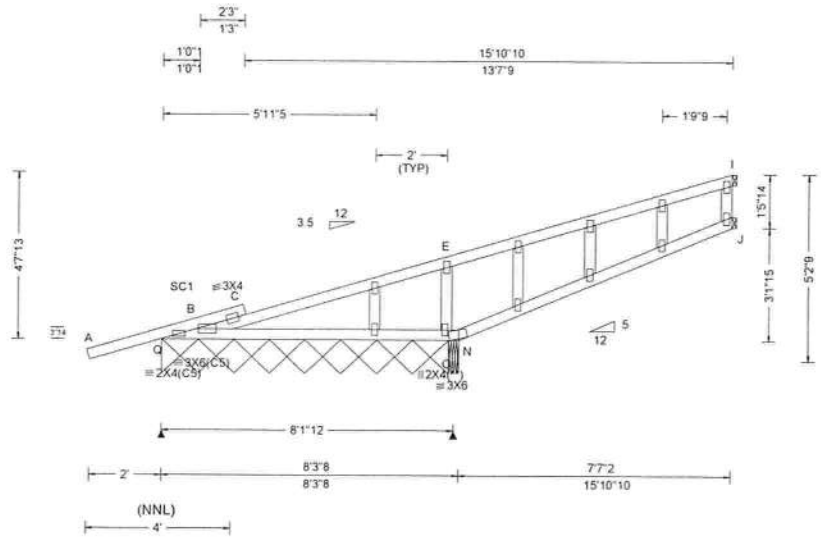
SEQN: 45447 GABL FROM: RNB Page 1 of 2	Ply: 1 Qty: 1	**Job Number:** B52399a Oliver Res **Truss Label:** M2	Cust: R 857 JRef: 1X178570001 T5 DrwNo: 349.20.0843.10358 SSB / DF 12/14/2020	



Loading Criteria (psf)

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

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-16
Speed: 150 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: not in 6.06 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.157	G	578	360
VERT(CL): 0.268	G	339	240
HORZ(LL): 0.066	L	-	-
HORZ(TL): 0.113	L	-	-

Creep Factor: 2.0
Max TC CSI: 0.581
Max BC CSI: 0.462
Max Web CSI: 0.133

VIEW Ver: 20.02.00A.1020.20

▲ Maximum Reactions (lbs), or *=PLF

	Gravity		Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
Q*	77	/-	/-	/45	/20	/10
O	742	/-	/-	/342	/-	/-
J	174	/-	/-	/87	/-	/-
I	165	/-	/-	/58	/-	/-

Wind reactions based on MWFRS
Q Brg Width = 96.0 Min Req = -
O Brg Width = 3.5 Min Req = 1.5
J Brg Width = 1.5 Min Req = -
I Brg Width = 1.5 Min Req = -
Bearings Q & O Fcperp = 425psi.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.
B - C	388	-525

Maximum Gable Forces Per Ply (lbs)

Gables	Tens.	Comp.
E - O	0	-402

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;
Stack Chord: SC1 2x4 SP #1;

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.

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

Purlins

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

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	50	-2.04	2.00
TC	75	1.49	15.88
BC	96	0.29	8.29
BC	75	8.29	15.88

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

Loading

Truss designed to support 1-4-0 top chord outlookers and cladding load not to exceed 6.00 PSF one face and 24.0" span opposite face. Top chord must not be cut or notched, unless specified otherwise.

Wind

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

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

COA #0278

12/14/2020

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SEQN: 45447 GABL FROM: RNB Page 2 of 2	Ply: 1 Qty: 1	**Job Number:** B52399a Oliver Res **Truss Label:** M2		Cust: R 857 JRef: 1X178570001 T5 DrwNo: 349.20.0843.10358 SSB / DF 12/14/2020

Additional Notes

See DWGS A16015ENC160118 & 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.

Shim all supports to solid bearing.

COA #0278

12/14/2020

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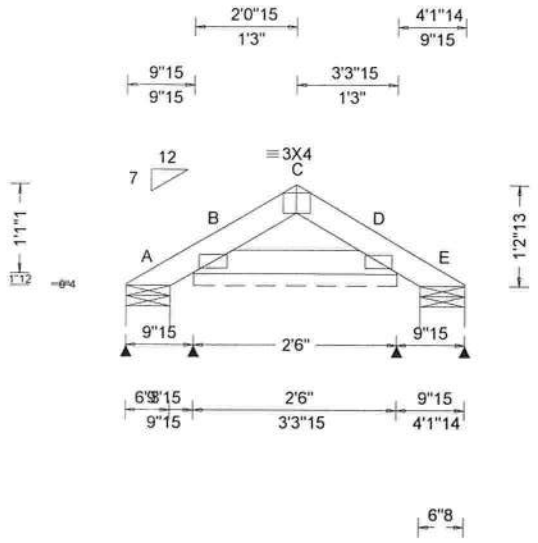
SEQN: 45445 / GABL FROM: RNB	Ply: 1 Qty: 27	**Job Number:** B52399a Oliver Res **Truss Label:** PB2	Cust: R 857 JRef: 1X178570001 T2 DrwNo: 349.20.0843.10015 SSB / DF 12/14/2020	



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

Wind Criteria
Wind Std: ASCE 7-16
Speed: 150 mph
Enclosure: Closed
Risk Category: II
EXP: C Kzt: NA
Mean Height: 15.00 ft
TCDL: 4.2 psf
BCDL: 6.0 psf
MWFRS Parallel Dist: h to 2h
C&C Dist a: 3.00 ft
Loc. from endwall: not in 12.11 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/0(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.000	C	999	360
VERT(CL): 0.001	C	999	240
HORZ(LL): 0.000		-	-
HORZ(TL): 0.000		-	-

Creep Factor: 2.0
Max TC CSI: 0.014
Max BC CSI: 0.023
Max Web CSI: 0.000

VIEW Ver: 20.02.00A.1020.20

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
A	35	/-	/-	/32	/22	/53
B*	154	/-	/-	/68	/47	/-
E	32	/-	/-	/21	/15	/-

Wind reactions based on MWFRS
A Brg Width = 6.5 Min Req = 1.5
B Brg Width = 30.0 Min Req = -
E Brg Width = 6.5 Min Req = 1.5
Bearings A, B, & E are a rigid surface.
Members not listed have forces less than 375#

Lumber

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

Plating Notes

All plates are 2X4(A1) except as noted.

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

Purlins

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

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	25	-0.58	1.25
TC	25	1.25	3.08
BC	27	0.15	2.35

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

Loading

Truss designed to support 1-4-0 top chord outlookers and cladding load not to exceed 6.00 PSF one face and 24.0" span opposite face. Top chord must not be cut or notched, unless specified otherwise.

Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

Refer to DWG PB160160118 for piggyback details.

COA #0278

12/14/2020

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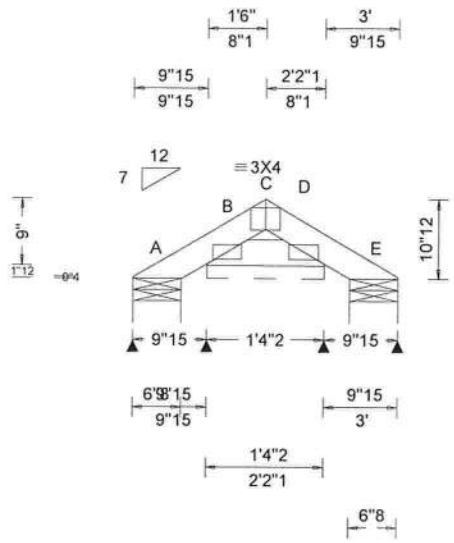
SEQN: 45427 / GABL FROM: RNB	Ply: 1 Qty: 2	**Job Number:** B52399a Oliver Res **Truss Label:** PBGE1	Cust: R 857 JRef: 1X178570001 T10 DrwNo: 349.20.0843.09983 SSB / WHK 12/14/2020	



Loading Criteria (psf)	**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**	**▲Maximum Reactions (lbs), or *=PLF**
TCLL: 20.00 TCDL: 7.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 37.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 150 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 6.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	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)/0(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.000 999 360 VERT(CL): 0.000 999 240 HORZ(LL): 0.000 - - HORZ(TL): 0.000 - - Creep Factor: 2.0 Max TC CSI: 0.010 Max BC CSI: 0.009 Max Web CSI: 0.000 VIEW Ver: 20.02.00A.1020.20	Gravity / Non-Gravity Loc R+ / R- / Rh / Rw / U / RL A 37 /- /- /23 /21 /36 B* 187 /- /- /75 /57 /- E 37 /- /- /25 /21 /- Wind reactions based on MWFRS A Brg Width = 6.5 Min Req = 1.5 B Brg Width = 16.1 Min Req = - E Brg Width = 6.5 Min Req = 1.5 Bearings A, B, & E are a rigid surface. Members not listed have forces less than 375#

Lumber

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

Plating Notes

All plates are 2X4(A1) except as noted.

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

Purlins

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

Chord	Spacing(in oc)	Start(ft)	End(ft)
TC	17	-0.58	0.67
TC	17	0.67	1.92
BC	13	0.15	1.20

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

Loading

Truss designed to support 1-4-0 top chord outlookers and cladding load not to exceed 6.00 PSF one face and 24.0" span opposite face. Top chord must not be cut or notched, unless specified otherwise.

Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

Refer to DWG PB160160118 for piggyback details.

COA #0278

12/14/2020

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

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6750 Forum Drive
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Orlando FL, 32821

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

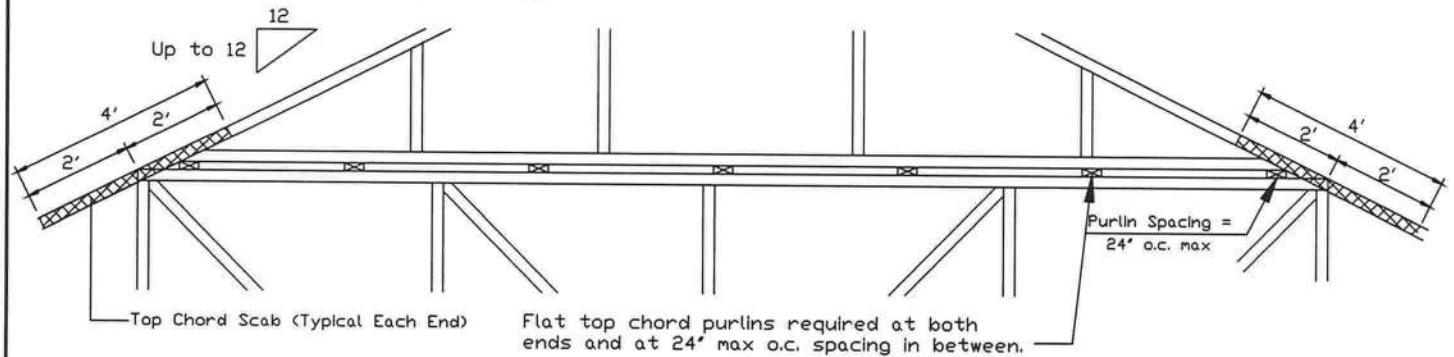
160 mph Wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg. located anywhere in roof, Exp C, Wind DL= 5.0 psf (min), Kzt=1.0.
Or 140 mph wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg. located anywhere in roof, Exp D, wind DL= 5.0 psf (min), Kzt=1.0.

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

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

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

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



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

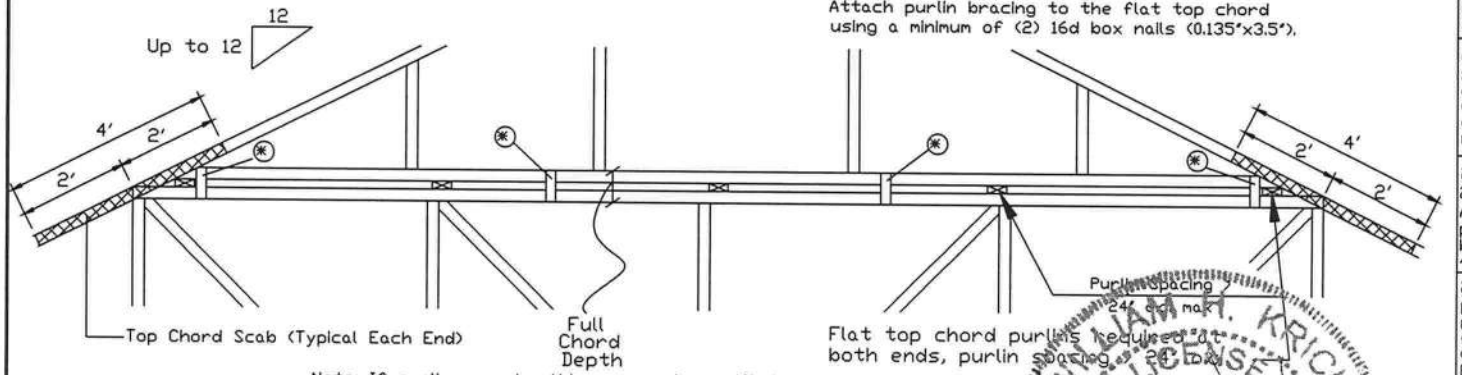
Attach purlin bracing to the flat top chord using (2) 16d box nails (0.135"x3.5").

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

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

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

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



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

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

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

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

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

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

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\\ Maryland\ Heights,\ MO\ 63043

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WILLIAM R. KRICK
LICENSE
No. 70861
STATE OF FLORIDA
PROFESSIONAL ENGINEER
COA #0278
12/14/2020

SPACING 24.0"

REF	PIGGYBACK
DATE	01/02/2018
DRWG	PB160160118

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

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

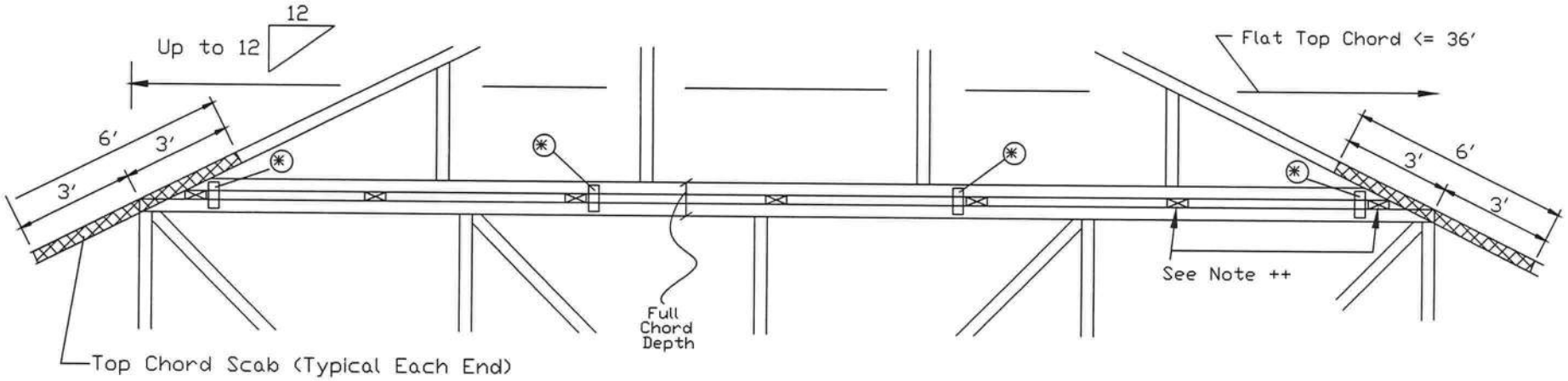
Note: Top chords of trusses supporting piggyback cap trusses must be adequately braced by sheathing or purlins. The building Engineer of Record shall provide diagonal bracing or any other suitable anchorage to permanently restrain purlins, and lateral bracing for out of plane loads over gable ends.

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

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

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

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



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

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\ \ 514\ Earth\ City\ Expressway
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\ \ Earth\ City,\ MO\ 63045

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WILLIAM H. KRICK
LICENSE
No. 70861
STATE OF FLORIDA
PROFESSIONAL ENGINEER
COA #0278 12/14/2020

SPACING 24.0"

REF	PIGGYBACK
DATE	01/02/2018
DRWG	PB180160118

Cracked or Broken Member Repair Detail

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

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

(B) = Damaged area, 12" max length of damaged section
(L) = Minimum nailing distance on each side of damaged area (B)
(S) = Two 2x4 or two 2x6 side members, same size, grade, and species as damaged member. Apply one scab per face. Minimum side member length(s) = (2)(L) + (B)

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

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

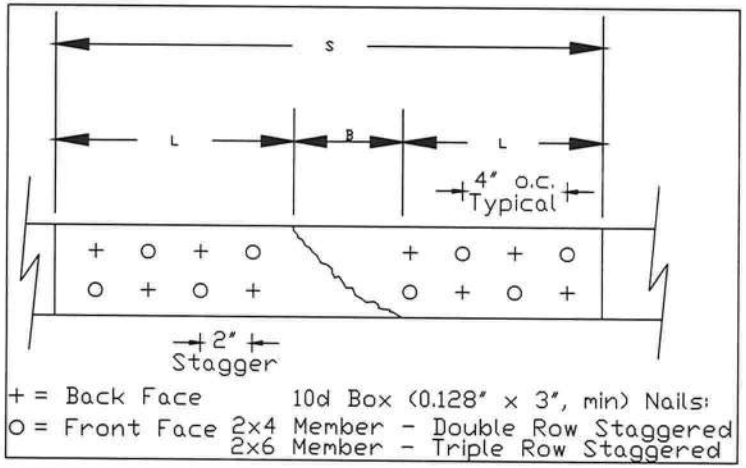
Nail using 10d box or gun nails (0.128"x3", min) into each side member.

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

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

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

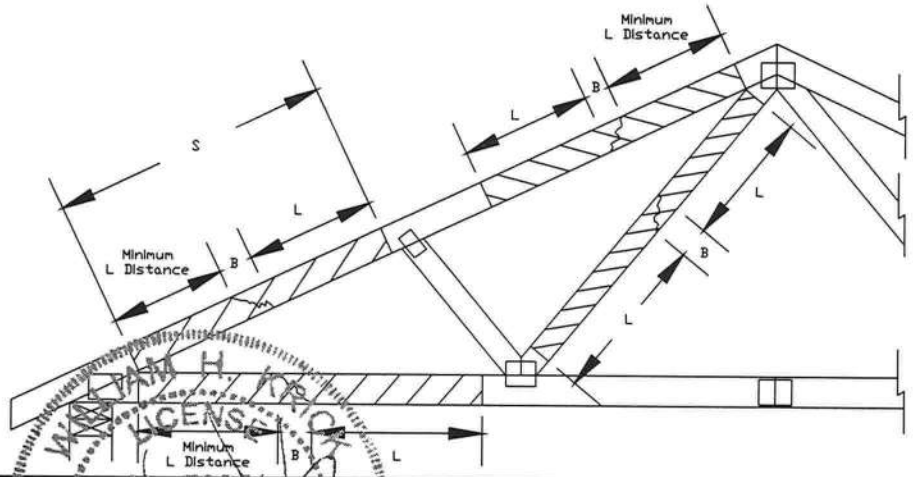
Broken chord may not support any tie-in loads.



Nail Spacing Detail

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

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



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WILLIAM H. KRICK
LICENSE
No. 70801
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
COA #0.278

12/14/2020

SPACING 24.0" MAX

REF	MEMBER REPAIR
DATE	10/01/14
DRWG	REPCHRD1014

Gable Stud Reinforcement Detail

ASCE 7-16: 160 mph Wind Speed, 15' Mean Height, Enclosed, Exposure C, Kzt = 1.00

Or: 140 mph Wind Speed, 15' Mean Height, Partially Enclosed, Exposure C, Kzt = 1.00
Or: 140 mph Wind Speed, 15' Mean Height, Enclosed, Exposure D, Kzt = 1.00
Or: 120 mph Wind Speed, 15' Mean Height, Partially Enclosed, Exposure D, Kzt = 1.00

Max Gable Vertical Length

2x4 Gable Vertical Spacing	Species	Brace Grade	No Braces	(1) 1x4 'L' Brace *		(1) 2x4 'L' Brace *		(2) 2x4 'L' Brace **		(1) 2x6 'L' Brace *		(2) 2x6 'L' Brace **	
				Group A	Group B	Group A	Group B	Group A	Group B	Group A	Group B	Group A	Group B
24" o.c.	SPF HF	#1 / #2	3' 10"	6' 7"	6' 10"	7' 9"	8' 1"	9' 3"	9' 7"	12' 2"	12' 8"	14' 0"	14' 0"
		#3	3' 8"	5' 9"	6' 2"	7' 8"	7' 11"	9' 1"	9' 6"	12' 0"	12' 6"	14' 0"	14' 0"
		Stud	3' 8"	5' 9"	6' 1"	7' 8"	7' 11"	9' 1"	9' 6"	12' 0"	12' 6"	14' 0"	14' 0"
		Standard	3' 8"	4' 11"	5' 3"	6' 7"	7' 1"	8' 11"	9' 6"	10' 4"	11' 1"	14' 0"	14' 0"
	SP DFL	#1	4' 0"	6' 8"	6' 11"	7' 10"	8' 2"	9' 4"	9' 8"	12' 4"	12' 9"	14' 0"	14' 0"
		#2	3' 10"	6' 7"	6' 10"	7' 9"	8' 1"	9' 3"	9' 7"	12' 2"	12' 8"	14' 0"	14' 0"
		#3	3' 9"	5' 3"	5' 7"	6' 11"	7' 5"	9' 2"	9' 7"	10' 11"	11' 8"	14' 0"	14' 0"
		Stud	3' 9"	5' 3"	5' 7"	6' 11"	7' 5"	9' 2"	9' 7"	10' 11"	11' 8"	14' 0"	14' 0"
		Standard	3' 6"	4' 7"	4' 11"	6' 2"	6' 7"	8' 4"	8' 11"	9' 8"	10' 4"	13' 1"	14' 0"
16" o.c.	SPF HF	#1 / #2	4' 5"	7' 6"	7' 9"	8' 10"	9' 3"	10' 7"	11' 0"	13' 11"	14' 0"	14' 0"	14' 0"
		#3	4' 2"	7' 1"	7' 9"	8' 9"	9' 1"	10' 5"	10' 10"	13' 9"	14' 0"	14' 0"	14' 0"
		Stud	4' 2"	7' 1"	7' 6"	8' 9"	9' 1"	10' 5"	10' 10"	13' 9"	14' 0"	14' 0"	14' 0"
		Standard	4' 2"	6' 1"	6' 5"	8' 1"	8' 8"	10' 5"	10' 10"	12' 8"	13' 7"	14' 0"	14' 0"
	SP DFL	#1	4' 7"	7' 7"	7' 11"	9' 0"	9' 4"	10' 8"	11' 1"	14' 0"	14' 0"	14' 0"	14' 0"
		#2	4' 5"	7' 6"	7' 9"	8' 10"	9' 3"	10' 7"	11' 0"	13' 11"	14' 0"	14' 0"	14' 0"
		#3	4' 4"	6' 5"	6' 10"	8' 6"	9' 1"	10' 6"	10' 11"	13' 4"	14' 0"	14' 0"	14' 0"
		Stud	4' 4"	6' 5"	6' 10"	8' 6"	9' 1"	10' 6"	10' 11"	13' 4"	14' 0"	14' 0"	14' 0"
		Standard	4' 2"	5' 8"	6' 0"	7' 6"	8' 0"	10' 2"	10' 10"	11' 10"	12' 7"	14' 0"	14' 0"
12" o.c.	SPF HF	#1 / #2	4' 10"	8' 3"	8' 7"	9' 9"	10' 2"	10' 7"	12' 1"	14' 0"	14' 0"	14' 0"	14' 0"
		#3	4' 7"	8' 2"	8' 5"	9' 8"	10' 0"	11' 6"	12' 0"	14' 0"	14' 0"	14' 0"	14' 0"
		Stud	4' 7"	8' 2"	8' 5"	9' 8"	10' 0"	11' 6"	12' 0"	14' 0"	14' 0"	14' 0"	14' 0"
		Standard	4' 7"	7' 0"	7' 5"	9' 4"	10' 0"	11' 6"	12' 0"	14' 0"	14' 0"	14' 0"	14' 0"
	SP DFL	#1	5' 1"	8' 5"	8' 8"	9' 11"	10' 3"	11' 9"	12' 3"	14' 0"	14' 0"	14' 0"	14' 0"
		#2	4' 10"	8' 3"	8' 7"	9' 9"	10' 2"	11' 7"	12' 1"	14' 0"	14' 0"	14' 0"	14' 0"
		#3	4' 9"	7' 4"	7' 10"	9' 8"	10' 1"	11' 7"	12' 0"	14' 0"	14' 0"	14' 0"	14' 0"
		Stud	4' 9"	7' 4"	7' 10"	9' 8"	10' 1"	11' 7"	12' 0"	14' 0"	14' 0"	14' 0"	14' 0"
		Standard	4' 7"	6' 6"	6' 11"	8' 8"	9' 3"	11' 6"	12' 0"	13' 7"	14' 0"	14' 0"	14' 0"

Bracing Group Species and Grades:

Group A:

Spruce-Pine-Fir		Hem-Fir	
#1 / #2	Standard	#2	Stud
#3	Stud	#3	Standard

Douglas Fir-Larch	Southern Pine***
#3	#3
Stud	Stud
Standard	Standard

Group B:

Hem-Fir
#1 & Btr
#1

Douglas Fir-Larch	Southern Pine***
#1	#1
#2	#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 75 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 nails 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.

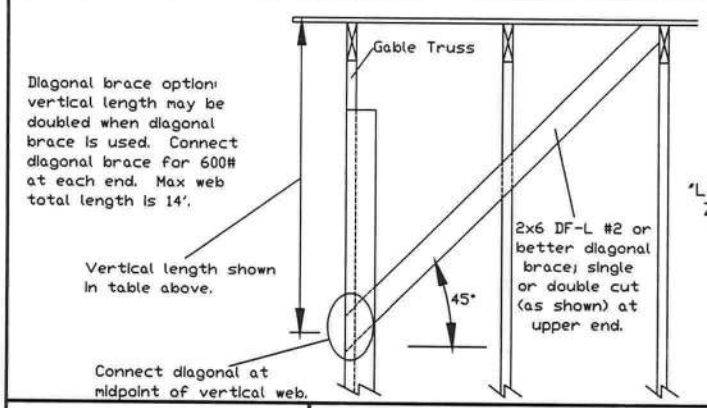
'L' bracing must be a minimum of 80% of web member length.

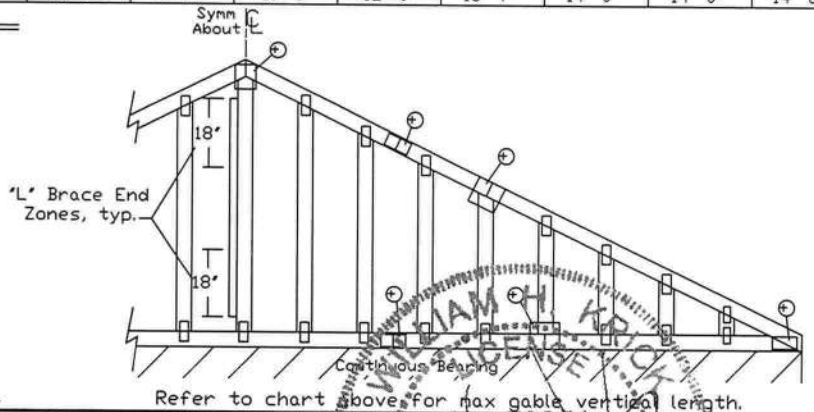
Gable Vertical Plate Sizes

Vertical Length	No Splice
Less than 4' 0"	2X3
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.





Refer to chart above for max gable vertical length.

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ALPINE: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.org; ICC: www.iccsafe.org

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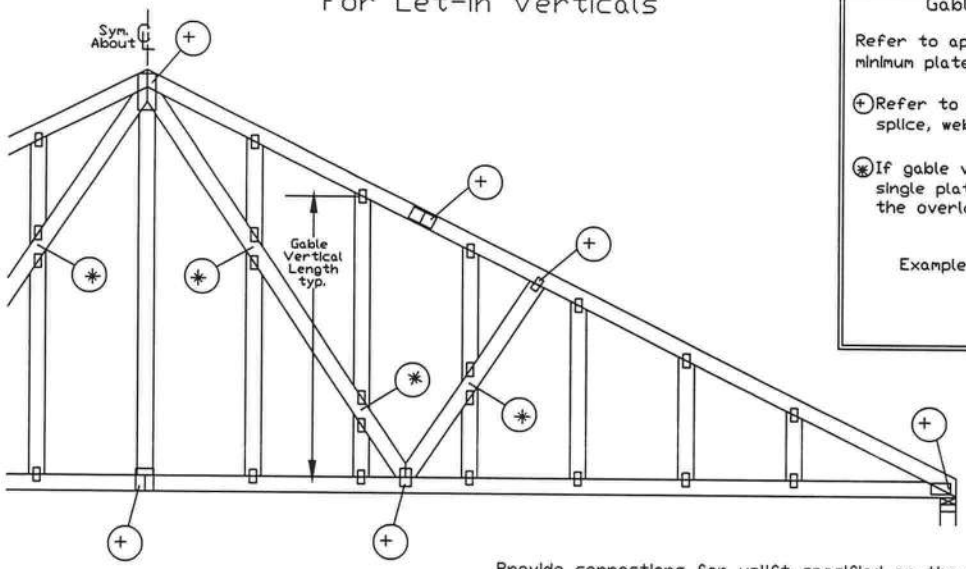
WILLIAM H. KRUK
No. 70801
STATE OF FLORIDA
PROFESSIONAL ENGINEER
COA #0278
12/14/2020

MAX. TOT. LD. 60 PSF

MAX. SPACING 24.0"

REF	ASCE7-16-GAB16015
DATE	01/26/2018
DRWG	A16015ENC160118

Gable Detail
For Let-in Verticals



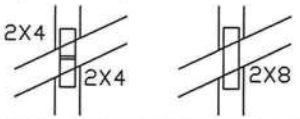
Gable Truss Plate Sizes

Refer to appropriate Alpine gable detail for minimum plate sizes for vertical studs.

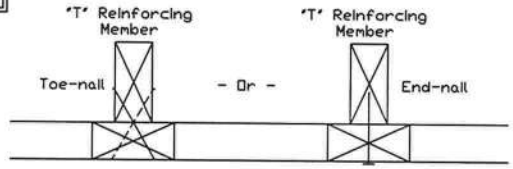
⊕ Refer to Engineered truss design for peak, splice, web, and heel plates.

⊛ If gable vertical plates overlap, use a single plate that covers the total area of the overlapped plates to span the web.

Example:



'T' Reinforcement Attachment Detail



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.

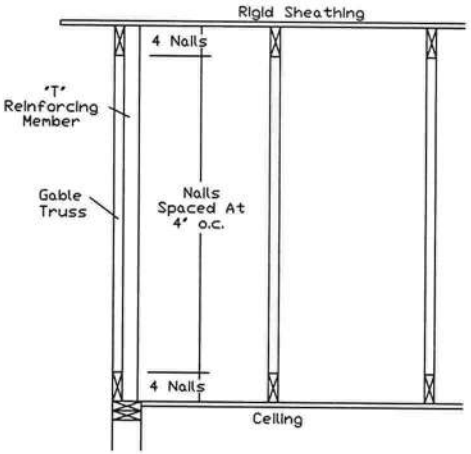
Toenailed Nails:
10d Common (0.148"x3",min) Toenails at 4" o.c. plus
(4) toenails in the top and bottom chords.

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, S11515ENC100118, S12015ENC100118, S14015ENC100118, S16015ENC100118, S18015ENC100118, S20015ENC100118, S20015END100118, S20015PED100118, S11530ENC100118, S12030ENC100118, S14030ENC100118, S16030ENC100118, S18030ENC100118, S20030ENC100118, S20030END100118, S20030PED100118

See appropriate Alpine gable detail for maximum unreinforced gable vertical length.



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. Mbr. Size	'T' Increase
2x4	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 x 8' 7" = 11' 2"

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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.

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

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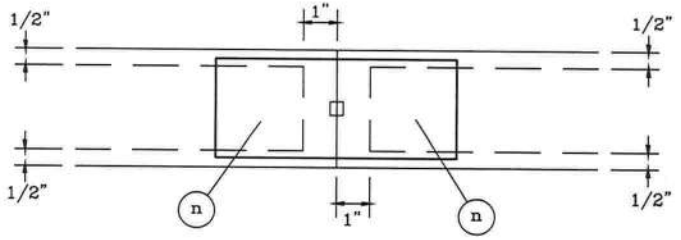
WILLIAM E. BECK
LICENSE
No. 70801
STATE OF FLORIDA
PROFESSIONAL ENGINEER
COA #0278 12/14/2020

MAX. TOT. LD. 60 PSF
DUR. FAC. ANY
MAX. SPACING 24.0"

REF	LET-IN VERT
DATE	01/02/2018
DRWG	GBLLETIN0118

TRULOX INFORMATION DETAIL

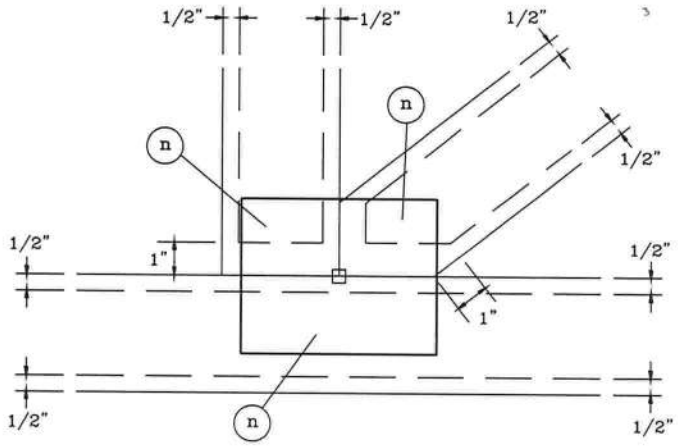
TYPICAL OFF PANEL SPLICE



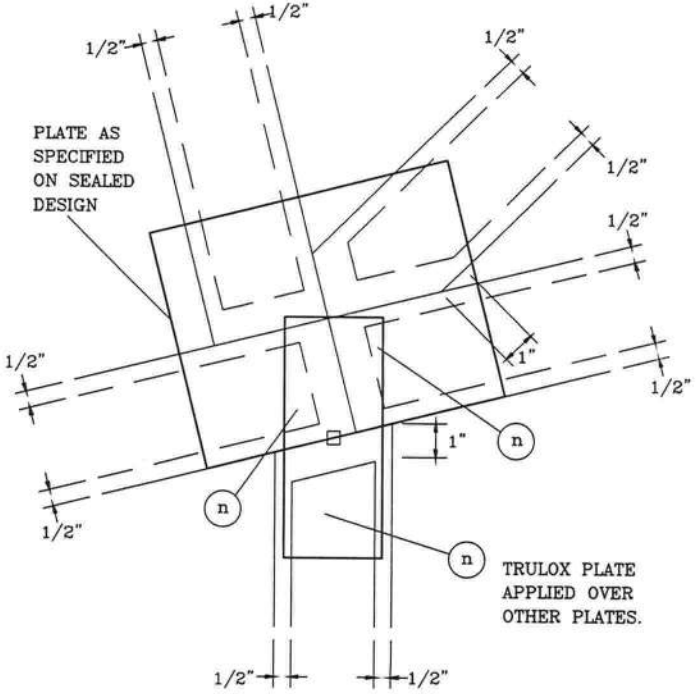
DO NOT APPLY NAILS WITHIN 1/2" OF LUMBER EDGES OR 1" OF LUMBER ENDS ON EACH FACE, AS SHOWN BY DASHED LINES.

NAILS MUST NOT SPLIT LUMBER.

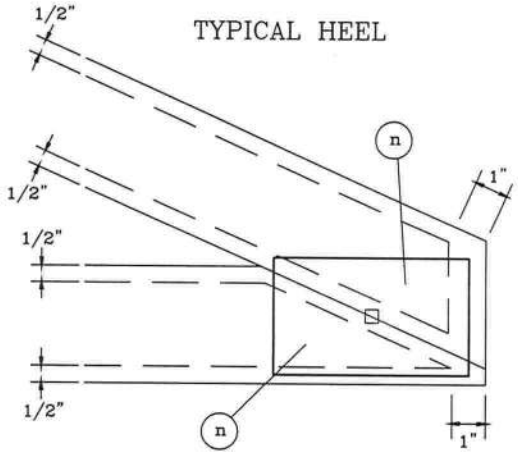
TYPICAL PANEL POINT WITHOUT SPLICE



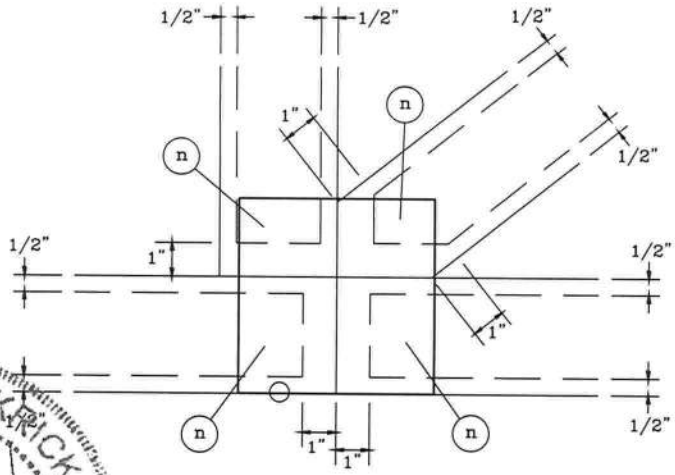
TYPICAL FILLER

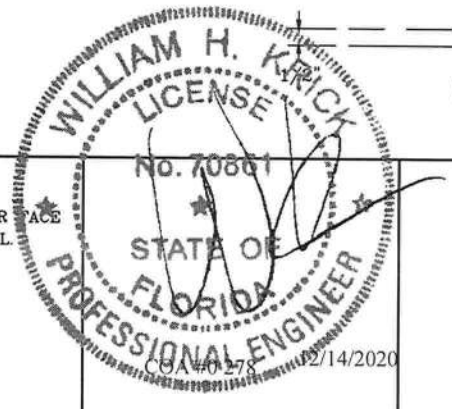


TYPICAL HEEL



TYPICAL PANEL POINT SPLICE





COA #0278 12/14/2020

NOTES:
(n) IS THE REQUIRED NUMBER OF 0.120" X 1.375" NAILS, OR EQUAL, PER FACE PER PLY AS SPECIFIED ON THE SEALED DESIGN REFERENCING THIS DETAIL.
○ LOCATES PLATE CORNER OR FLUSH EDGE.
□ LOCATES PLATE CENTER.

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TRULOX PLATING

160 TL

PAGE 1 OF 1

DATE 10/01/14