

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

12/17/2024
COA#0-278
Florida Certificate of Product Approval #FL1999

This item has been digitally signed by Fernando Vinas on the date adjacent to the seal.

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Site Information:	Page 1:
Customer: Seminole Trusses, Inc.	Job Number: B60313a
Job Description: SAULS RESIDENCE	
Address: 432 SE STARDUST PL., Lake City, FL 32024	

Job Engineering Criteria:	
Design Code: FBC 8th Ed. 2023 Res.	IntelliVIEW Version: 23.02.01A JRef #: 1Y5U8570003
Wind Standard: ASCE 7-22 Wind Speed (mph): 130 Building Type: Closed	Design Loading (psf): 37.00

This package contains general notes pages, 4 truss drawing(s) and 3 detail(s).

Item	Drawing Number	Truss
1	351.24.1151.36117	A1 35'3"8 Common
3	351.24.1151.17570	B1 29'3" Common
5	PB160160118	
7	REPCHRD1014	

Item	Drawing Number	Truss
2	351.24.1151.30907	A2-SG 35'3"8 Gable
4	351.24.1151.13650	B2-G 29'3" Gable
6	PB180160118	



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.

Bearing Information:

The bearing area factor, C_b , is considered for the allowable capacity of solid sawn wood bearings supporting trusses that are located a minimum of 3" from the end of the lumber piece.

General Notes (continued)

Coated Lumber:

Coated lumber must be properly re-dried and maintained below 19% or less moisture level through all stages of construction and usage. Coated lumber has no adjustments to lumber properties. Coated lumber may be more brittle than uncoated lumber. Special handling care must be taken to prevent breakage during all handling activities. Refer to manufacturer literature, specifications, and code evaluation reports for restrictions, details, and requirements.

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.

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.

C = Coated lumber.

C-AT = AtTEK coated lumber.

C-FX = FX Lumber Guard coated lumber.

C-TE = TechWood 4400 coated lumber.

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-BF = Boraflame 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-ON = OnWood Fire Retardant Treated lumber.

FRT-PG = PYRO-GUARD Fire Retardant Treated lumber.

FRT-PR = ProWood 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 all load cases.

Max TC CSI = Maximum bending and axial Combined Stress Index for Top Chords for all load cases.

Max Web CSI = Maximum bending and axial Combined Stress Index for Webs for 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).

General Notes (continued)

Key to Terms (continued):

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.

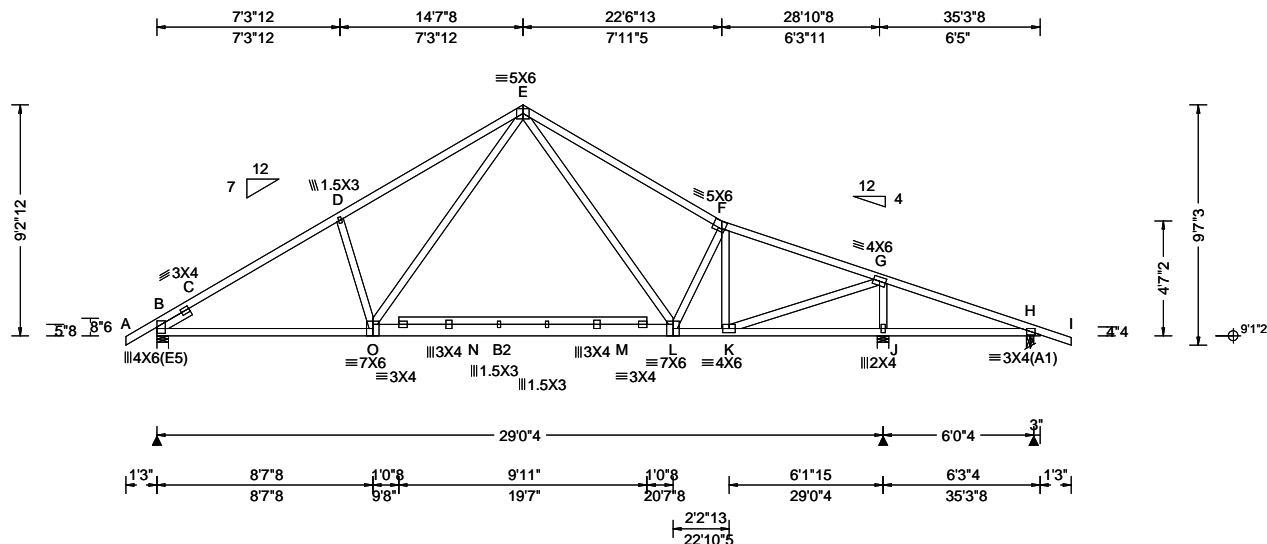
Refer to ASCE-7 for Wind and Seismic abbreviations.

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; 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.sbcacomponents.com

SEQN: 10259 FROM: RJL	COMN Ply: 1 Qty: 11	Job Number: B60313a SAULS RESIDENCE Truss Label: A1 35'3"8 Common	Cust: R 857 JRRef: 1Y5U8570003 T7 DrwNo: 351.24.1151.36117 SSB / FV 12/16/2024
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
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 7-22 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 5.2 psf MWFRS Parallel Dist: h to 2h C&C Dist a: 3.53 ft Loc. from endwall: not in 9.00 ft GCp: 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 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: No FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): 0.213 N 999 240 VERT(CL): 0.353 N 986 180 HORZ(LL): 0.037 C - - HORZ(TL): 0.061 C - - Creep Factor: 2.0 Max TC CSI: 0.624 Max BC CSI: 0.699 Max Web CSI: 0.734 VIEW Ver: 23.02.01A.1204.17	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity B 1382 - / - / - /650 /453 /262 J 1775 - / - / - /749 /569 - / - H 222 - /60 - / - /125 /50 - / - Wind reactions based on MWFRS B Brg Wid = 5.5 Min Req = 1.6 (Truss) J Brg Wid = 5.5 Min Req = 1.7 (Truss) H Brg Wid = 3.5 Min Req = 1.5 (Truss) Bearings B, J, & H 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.

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1; B2 2x6 SP #1;
Webs: 2x4 SP #3;
Lt Slider: 2x4 SP #3; block length = 1.500'

Special Loads

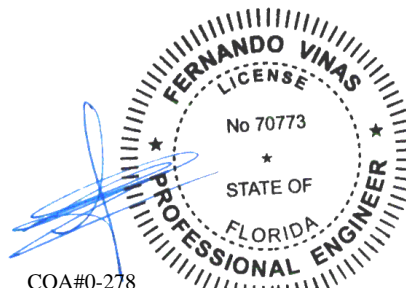
----- (Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)
TC: From 56 plf at -1.25 to 56 plf at 22.57
TC: From 55 plf at 22.57 to 55 plf at 36.54
BC: From 5 plf at -1.25 to 5 plf at 0.00
BC: From 20 plf at 0.00 to 20 plf at 8.62
BC: From 60 plf at 8.62 to 60 plf at 20.62
BC: From 20 plf at 20.62 to 20 plf at 35.29
BC: From 4 plf at 35.29 to 4 plf at 36.54

Wind

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

Right cantilever is exposed to wind

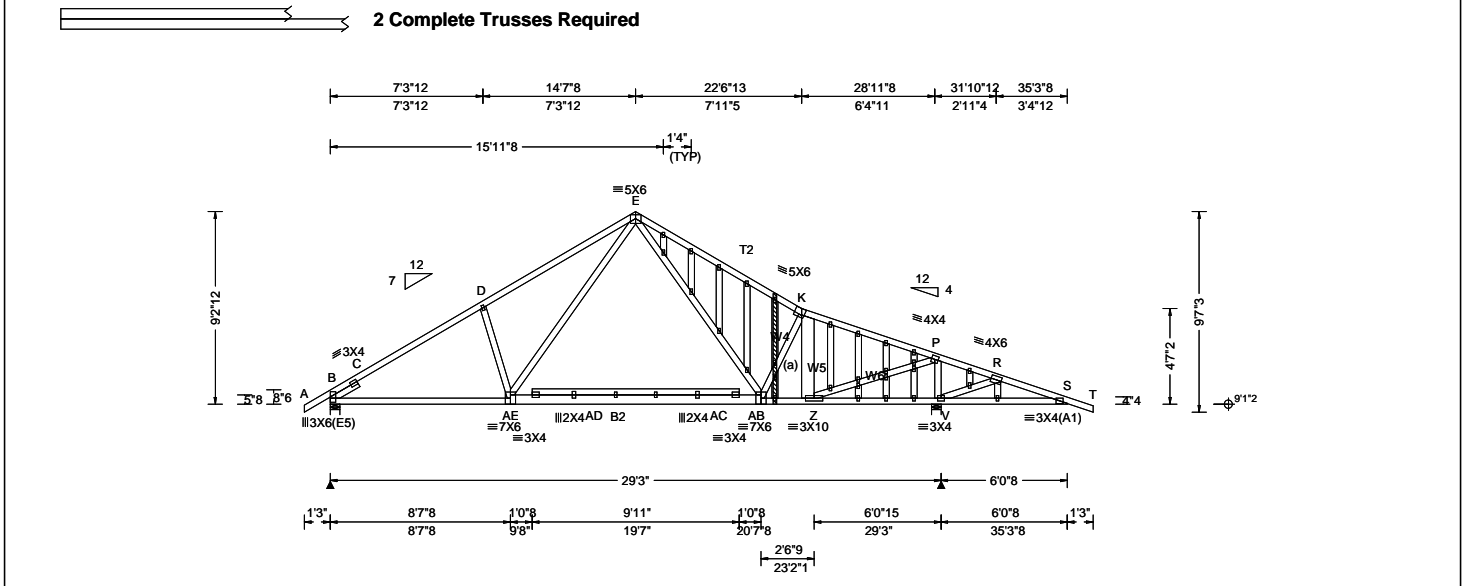
Wind loading based on both gable and hip roof types.



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Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2.
For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcacomponents.com; ICC: iccsafe.org; AWC: awc.org

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Glenview, IL 60025



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg,Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 20.00 TCDL: 7.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 37.00 NCBCLL: 0.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-22 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 5.2 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.53 ft Loc. from endwall: not in 12.11 ft GCp: 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 8th Ed. 2023 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): 0.103 AD 999 240 VERT(CL): 0.174 AD 999 180 HORZ(LL): 0.021 C - - HORZ(TL): 0.040 C - - Creep Factor: 2.0 Max TC CSI: 0.423 Max BC CSI: 0.350 Max Web CSI: 0.688 VIEW Ver: 23.02.01A.1204.17	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 1677 -/- /- /804 /453 /364 V 2404 -/- /- /1200 /592 -/- Wind reactions based on MWFRS B Brg Wid = 5.5 Min Req = 1.5 (Truss) V Brg Wid = 5.5 Min Req = 1.5 (Truss) Bearings B & V 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 423 -1299 K - P 278 -868 C - D 374 -1239 P - R 554 -271 D - E 381 -1171 R - S 389 -189 E - K 377 -1036

Lumber
Top chord: 2x4 SP #1; T2 2x4 SP SS Dense;
Bot chord: 2x4 SP #1; B2 2x6 SP #1;
Webs: 2x4 SP #3; W4 2x4 SP #1;
W5 2x8 SP SS Dense; W6 2x4 SP SS Dense;
Lt Slider: 2x4 SP #3; block length = 1.50'

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.

Special Loads
----- (Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)
TC: From 56 plf at -1.25 to 56 plf at 22.57
TC: From 55 plf at 22.57 to 55 plf at 36.54
BC: From 5 plf at -1.25 to 5 plf at 0.00
BC: From 20 plf at 0.00 to 20 plf at 8.62
BC: From 60 plf at 8.62 to 60 plf at 20.62
BC: From 20 plf at 20.62 to 20 plf at 35.29
BC: From 4 plf at 35.29 to 4 plf at 36.54

Plating Notes
All plates are 1.5X3 except as noted.

Loading
Truss designed to support 1-4-0 top chord outlookers and cladding load not to exceed 5.00 PSF one face and 24.0' span opposite face. Top chord must not be cut or notched, unless specified otherwise.

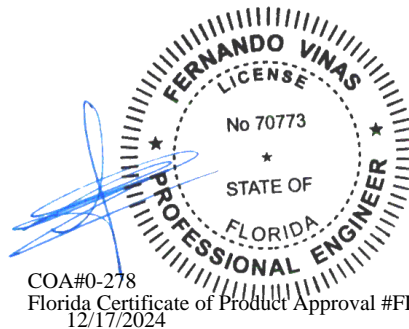
Wind
Wind loads based on MWFRS with additional C&C member design.
Right cantilever is exposed to wind
Wind loading based on both gable and hip roof types.
Gable meets L/120 deflection criteria for wind load applied to face. Calculated deflection ratio is L/326.
Gable Reinforcement
(a) 2x3 "T" reinforcement. Any species and grade. Full truss height along web member. Attach to the wide face with 10d (0.131"x3",min.) nails @ 4" oc in the web plus (2)10d (0.131"x3",min.) nails in each chord.

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.Comp.	Chords	Tens. Comp.
B - AE	1018 -305	AC-AB	675 -199
AE-AD	675 -199	AB- Z	841 -263
AD-AE	1141 -811	Z - V	271 -382

Maximum Web Forces Per Ply (lbs)

Webs	Tens.Comp.	Webs	Tens. Comp.
AE - E	473 -150	Z - P	1264 -346
E - AB	430 -150	P - V	280 -1053



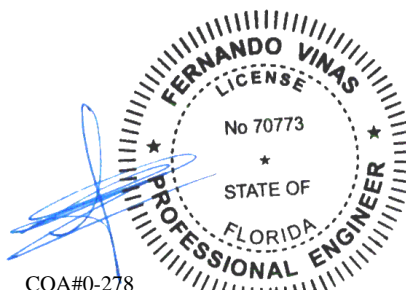
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For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcacomponents.com; ICC: iccsafe.org; AWC: awc.org



SEQN: 10349	GABL	Ply: 2	Job Number: B60313a	Cust: R 857 JRef: 1Y5U8570003 T1
FROM: RJL		Qty: 2	SAULS RESIDENCE	DrwNo: 351.24.1151.30907
Page 2 of 2			Truss Label: A2-SG 35'3"8 Gable	SSB / FV 12/16/2024

Additional Notes

Exposed portion of gable face shall be reinforced with sheathing and the wind pressures shall be transferred into lateral diaphragms. Connections and designs for diaphragms is the responsibility of the Building Designer in accordance with ANSI/TPI 1.



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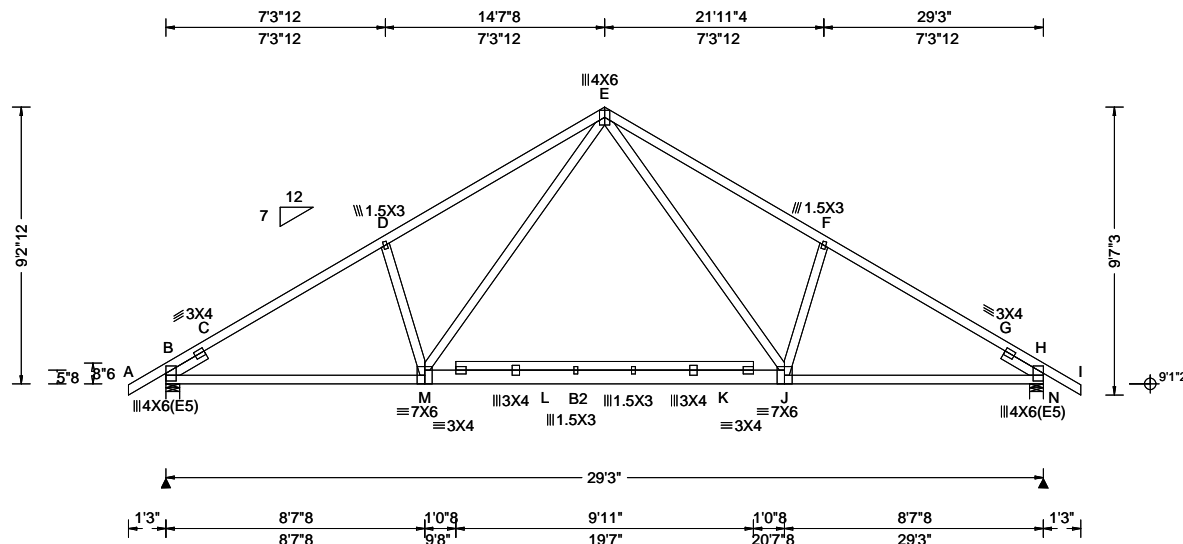
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155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025

SEQN: 10254 FROM: RJL	COMN Ply: 1 Qty: 12	Job Number: B60313a SAULS RESIDENCE Truss Label: B1 29'3" Common	Cust: R 857 JRef: 1Y5U8570003 T3 DrwNo: 351.24.1151.17570 SSB / FV 12/16/2024
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
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 7-22 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 5.2 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 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: No FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): 0.222 L 999 240 VERT(CL): 0.363 L 967 180 HORZ(LL): 0.041 H - - HORZ(TL): 0.068 H - - Creep Factor: 2.0 Max TC CSI: 0.470 Max BC CSI: 0.707 Max Web CSI: 0.652 VIEW Ver: 23.02.01A.1204.17	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity B 1431 - / - / - / 657 / 469 / 257 N 1431 - / - / - / 657 / 469 - / - Wind reactions based on MWFRS B Brg Wid = 5.5 Min Req = 1.7 (Truss) N Brg Wid = 5.5 Min Req = 1.7 (Truss) Bearings B & 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 803 - 2261 E - F 733 - 2052 C - D 778 - 2144 F - G 778 - 2144 D - E 733 - 2052 G - H 803 - 2261

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1; B2 2x6 SP #1;
Webs: 2x4 SP #3;
Lt Slider: 2x4 SP #3; block length = 1.500'
Rt Slider: 2x4 SP #3; block length = 1.500'

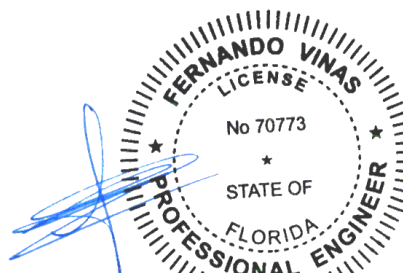
Special Loads

----- (Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)
TC: From 56 plf at -1.25 to 56 plf at 30.50
BC: From 5 plf at -1.25 to 5 plf at 0.00
BC: From 20 plf at 0.00 to 20 plf at 8.62
BC: From 60 plf at 8.62 to 60 plf at 20.62
BC: From 20 plf at 20.62 to 20 plf at 29.25
BC: From 5 plf at 29.25 to 5 plf at 30.50

Wind

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

Wind loading based on both gable and hip roof types.

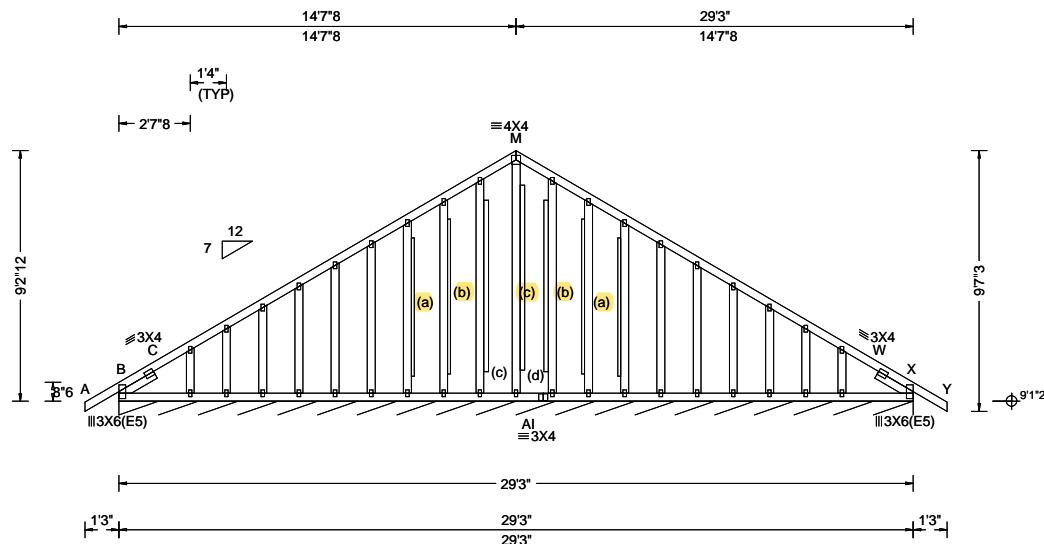


COA#0-278
Florida Certificate of Product Approval #FL1999
12/17/2024

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

SEQN: 10684 FROM: RJL	GABL Ply: 1 Qty: 2	Job Number: B60313a SAULS RESIDENCE Truss Label: B2-G 29'3" Gable	Cust: R 857 JRRef: 1Y5U8570003 T5 DrwNo: 351.24.1151.13650 SSB / FV 12/16/2024
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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 7-22 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 4.2 psf BCDL: 5.2 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 8th Ed. 2023 Res. TPI Std: 2014 Rep Fac: No FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): -0.003 W 999 240 VERT(CL): 0.003 C 999 180 HORZ(LL): -0.005 C - - HORZ(TL): 0.006 C - - Creep Factor: 2.0 Max TC CSI: 0.091 Max BC CSI: 0.037 Max Web CSI: 0.976 VIEW Ver: 23.02.01A.1204.17	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL X* 104 /- /- /41 /20 /10 Wind reactions based on MWFRS X Brg Wid = 350 Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375#

Lumber

Top chord: 2x4 SP #1;
Bot chord: 2x4 SP #1;
Webs: 2x4 SP #3;
Lt Slider: 2x4 SP #3; block length = 1.500'
Rt Slider: 2x4 SP #3; block length = 1.500'

Plating Notes

All plates are 1.5X3 except as noted.

Loading

Truss designed to support 1-0-0 top chord outlookers and cladding load not to exceed 5.00 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.

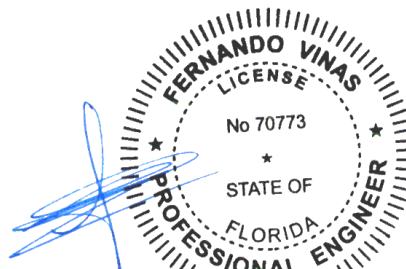
Gable meets L/120 deflection criteria for wind load applied to face. Calculated deflection ratio is L/177.

Additional Notes

Exposed portion of gable face shall be reinforced with sheathing and the wind pressures shall be transferred into lateral diaphragms. Connections and designs for diaphragms is the responsibility of the Building Designer in accordance with ANSI/TPI 1.

Gable Reinforcement

- (a) 1x4 "L" reinforcement. Any species and grade. 80% length of web member. Attach with 10d (0.131"x3", min.) nails @ 2" oc at each end for the first 18" and then 4" oc for the remainder.
- (b) 1x4 "L" reinforcement. Same species and grade as web. 80% length of web member. Attach with 10d (0.131"x3", min.) nails @ 2" oc at each end for the first 18" and then 4" oc for the remainder.
- (c) 2x4 "L" reinforcement. Any species and grade. 80% length of web member. Attach with 10d (0.131"x3", min.) nails @ 2" oc at each end for the first 18" and then 4" oc for the remainder.
- (d) 2x6 "L" reinforcement. Any species and grade. 80% length of web member. Attach with 10d (0.131"x3", min.) nails @ 2" oc at each end for the first 18" and then 4" oc for the remainder.



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

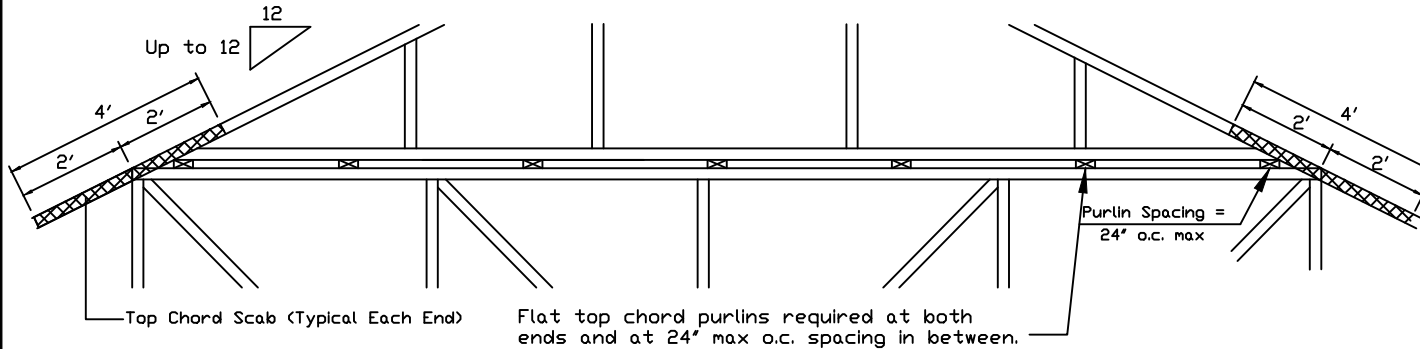
160 mph Wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg. located anywhere in roof, Exp C, Wind DL= 5.0 psf (min), Kzt=1.0.
Or 140 mph wind, 30.00 ft Mean Hgt, ASCE 7-16, Enclosed Bldg. located anywhere in roof, Exp D, wind DL= 5.0 psf (min), Kzt=1.0.

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

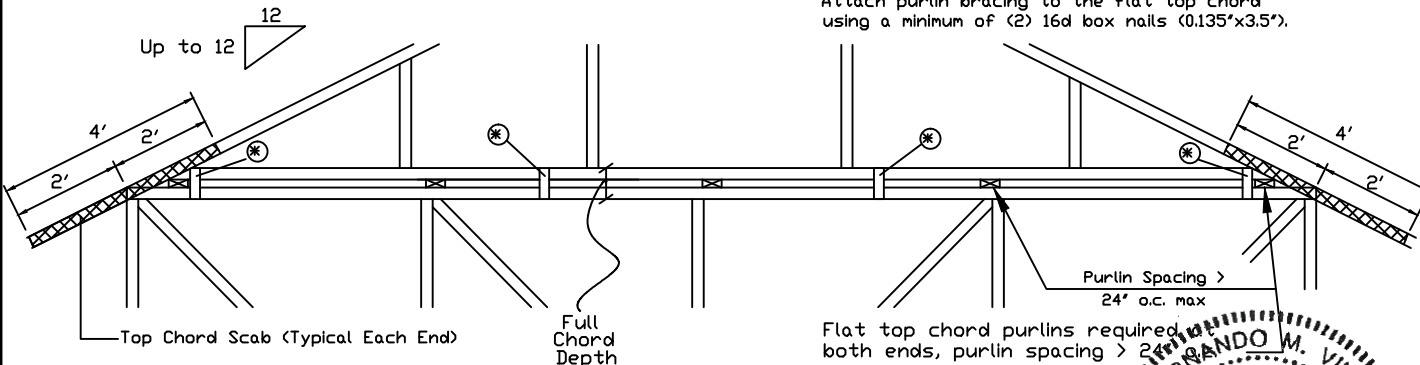


Piggyback cap truss slant nailed to all top chord purlin bracing with (2) 16d box nails (0.135"x3.5") and secure top chord with 2x4 #3 grade scab (1 side only at each end) attached with 2 rows of 10d box nails (0.128"x3") at 4' o.c.

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").

* 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.

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.

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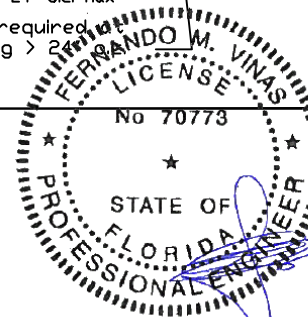
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155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025



COA#0-278

Florida Certificate of Product Approval #E1 1999

12/17/2024

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.

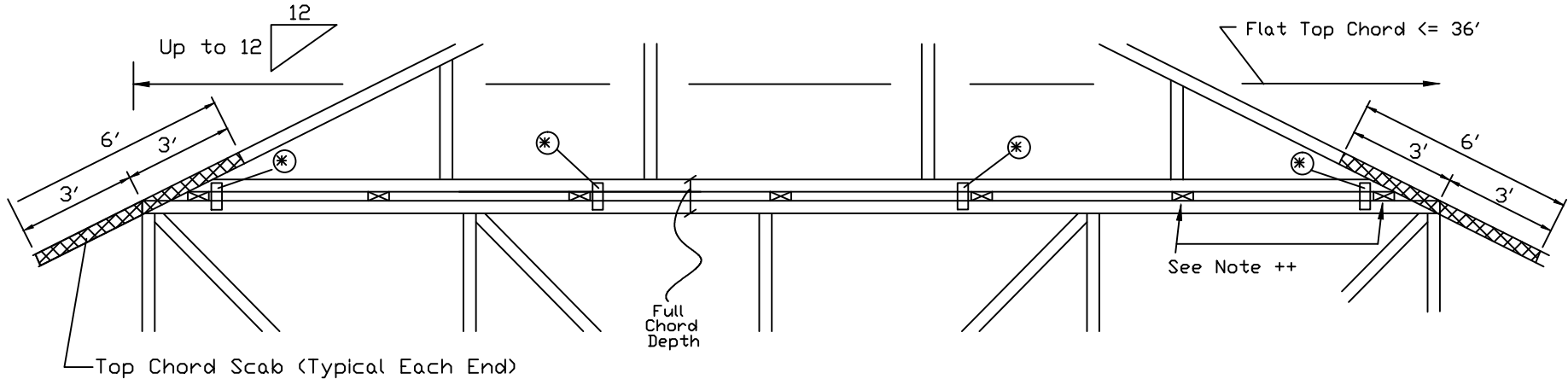
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** Refer to Engineer's sealed truss design drawing for piggyback and base truss specifications.

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.

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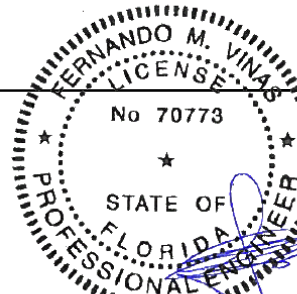
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155 Harlem Ave
North Building, 4th Floor
Glenview, IL 60025



COA#0-278

12/17/2024

SPACING

24.0"

REF PIGGYBACK

DATE 01/02/2018

DRWG PB180160118

Florida Certificate of Product Approval #FL1999

Cracked or Broken Member Repair Detail

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

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

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

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

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

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

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

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

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

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

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

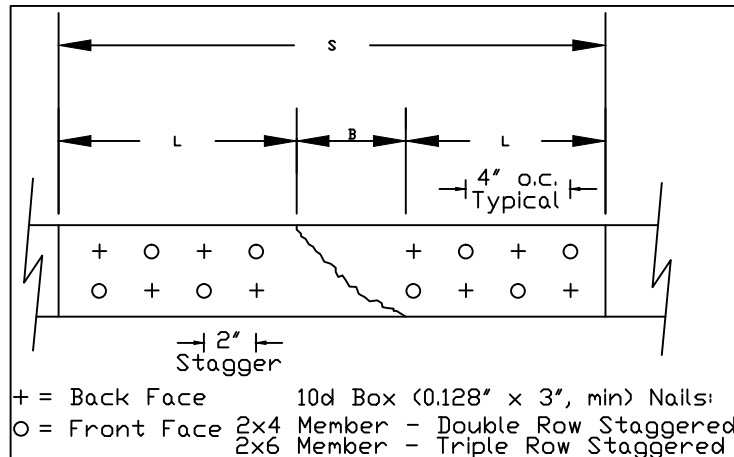
This repair detail may not be used for damaged chord or web sections occurring within the connector plate area.

Broken chord may not support any tie-in loads.

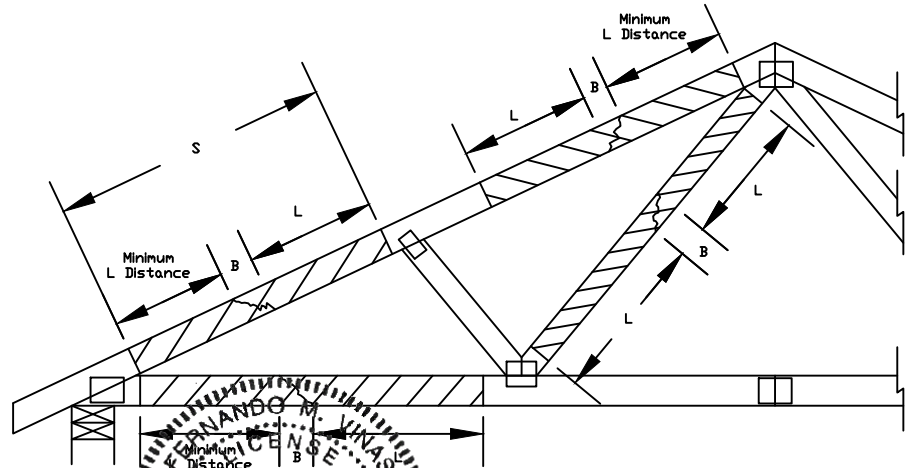
Load Duration = 0%

Member forces may be increased for Duration of Load

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



Nail Spacing Detail



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Glenview, IL 60025

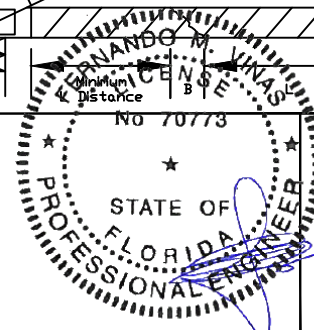
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COA#0-278

Florida Certificate of Product Approval #F1190

12/17/2024

SPACING 24" MAX

REF MEMBER REPAIR

DATE 10/01/14

DRWG REPCHRD1014

This architectural floor plan shows a rectangular room with overall dimensions of 52' by 35'4". The plan includes a central area with diagonal hatching, likely representing a staircase or a specific material. The room is divided into sections by vertical lines labeled A1, A2-SG, and B1. The walls are labeled B2-G. The plan also shows a smaller rectangular area at the bottom, possibly a closet or a small room, with dimensions 14' by 24'. The overall dimensions are 52' by 35'4".

Roof Plane Sheathing Area = 2135 sq. ft
Gable Sheathing Area = 290 sq. ft
Total Sheathing Area = 2425 sq. ft
Fascia Material = 94 linear ft
Valley Flashing Material = 0 linear ft
Ridge Cap Material = 80 linear ft
Hip Ridge Material = 0 linear ft

09'01"02 ELEVATION

PAGE NO:
1 OF 1