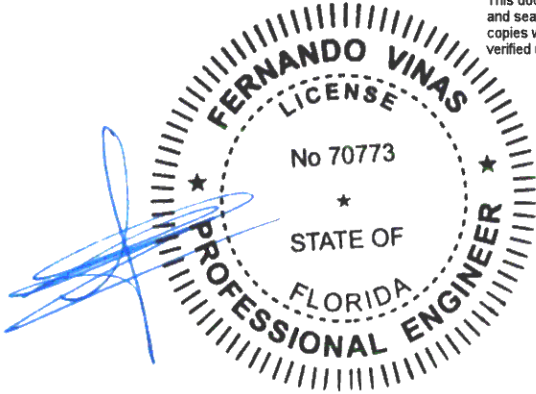


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07/08/2022

COA#0-278  
Florida Certificate of Product Approval #FL1999



Site Information:	Page 1:
Customer: W. B. Howland Company, Inc.	Job Number: 22-7416
Job Description: Larry Graham/ LG Transit	
Address:	

Job Engineering Criteria:	
Design Code: FBC 7th Ed. 2020 Res.	IntelliVIEW Version: 21.02.01 JRef #: 1XH12150021
Wind Standard: ASCE 7-16      Wind Speed (mph): 130	Design Loading (psf): 40.00
Building Type: Closed	

This package contains general notes pages, 20 truss drawing(s) and 3 detail(s).

Item	Drawing Number	Truss
1	189.22.0734.37910	A01
3	189.22.0734.33240	A03
5	189.22.0734.30760	A05
7	189.22.0734.28230	A07
9	189.22.0734.25193	B01
11	189.22.0734.22940	B03
13	189.22.0734.20267	J01HJ
15	189.22.0734.17500	J02HJ
17	189.22.0734.14723	J04
19	189.22.0734.12510	V01
21	VAL180160118	
23	BRCLBSUB0119	

Item	Drawing Number	Truss
2	189.22.0734.34530	A02
4	189.22.0734.31963	A04
6	189.22.0734.29597	A06
8	189.22.0734.26647	A08
10	189.22.0734.23953	B02
12	189.22.0734.21603	J01
14	189.22.0734.18853	J02
16	189.22.0734.16187	J03
18	189.22.0734.13433	J05
20	189.22.0734.11167	V02
22	VALTN160118	

## **General Notes**

### **Truss Design Engineer Scope of Work, Design Assumptions and Design Responsibilities:**

The design responsibilities assumed in the preparation of these design drawings are those specified in ANSI/TPI 1, Chapter 2; and the National Design Standard for Metal Plate Connected Wood Truss Construction, by the Truss Plate Institute. The truss component designs conform to the applicable provisions of ANSI/TPI 1 and NDS, the National Design Specification for Wood Construction by AWC. The truss component designs are based on the specified loading and dimension information furnished by others to the Truss Design Engineer. The Truss Design Engineer has no duty to independently verify the accuracy or completeness of the information provided by others and may rely on that information without liability. The responsibility for verification of that information remains with others neither employed nor controlled by the Truss Design Engineer. The Truss Design Engineer'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](http://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.

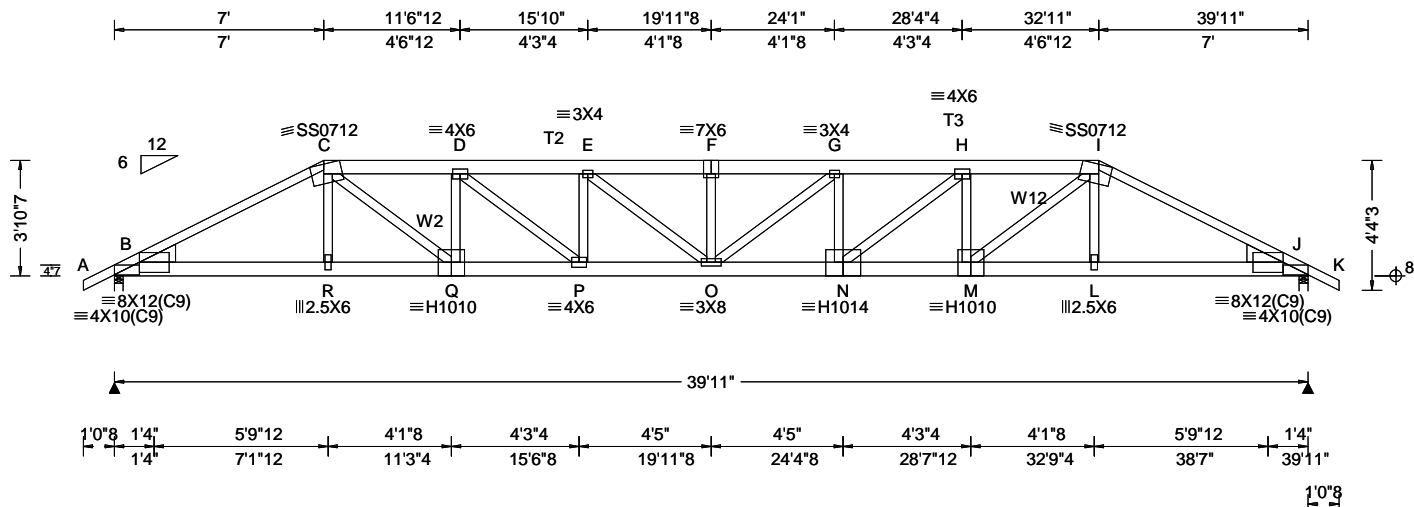
Refer to ASCE-7 for Wind and Seismic abbreviations.

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](http://www.awc.org).
2. ICC: International Code Council; [www.iccsafe.org](http://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](http://www.alpineitw.com).
4. TPI: Truss Plate Institute, 2670 Crain Highway, Suite 203, Waldorf, MD 20601; [www.tpinst.org](http://www.tpinst.org).
5. SBCA: Wood Truss Council of America, 6300 Enterprise Lane, Madison, WI 53719; [www.sbcacomponents.com](http://www.sbcacomponents.com).

SEQN: 107038 FROM:	HIPS Qty: 2	Ply: 1	Job Number: 22-7416 Larry Graham/ LG Transit Truss Label: A01	Cust: R 215 JRRef: 1XH12150021 T9 DrwNo: 189.22.0734.37910 SSB / FV 07/08/2022
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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: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.99 ft Loc. from endwall: not in 4.50 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 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Varies by Ld Case FT/RT:20(0)/10(0) Plate Type(s): WAVE, 18SS, HS	PP Deflection in loc L/def L/# VERT(LL): 0.588 F 808 240 VERT(CL): 1.181 F 402 180 HORZ(LL): 0.129 J - - HORZ(TL): 0.259 J - - Creep Factor: 2.0 Max TC CSI: 0.841 Max BC CSI: 0.706 Max Web CSI: 0.805 VIEW Ver: 21.02.01.1216.15	Gravity Loc R+ / R- / Rh / Rw / U / RL B 4056 -/- /- /- /876 -/ J 4056 -/- /- /- /876 -/ Wind reactions based on MWFRS B Brg Wid = 3.5 Min Req = 3.4 (Truss) J Brg Wid = 3.5 Min Req = 3.4 (Truss) Bearings B & J 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 1805 -8291 F - G 2754 -12432 C - D 2233-10160 G - H 2612 -11825 D - E 2612-11824 H - I 2232 -10159 E - F 2754-12432 I - J 1805 -8291

#### Lumber

Top chord: 2x4 SP M-31; T2,T3 2x6 SP 2400f-2.0E;  
Bot chord: 2x6 SP 2400f-2.0E;  
Webs: 2x4 SP #3; W2,W12 2x4 SP #2;  
Lt Wedge: 2x8 SP #2;Rt Wedge: 2x8 SP #2;

#### Special Loads

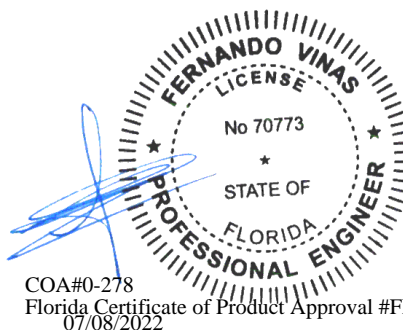
----- (Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)  
TC: From 62 plf at -1.04 to 62 plf at 7.00  
TC: From 31 plf at 7.00 to 31 plf at 32.92  
TC: From 62 plf at 32.92 to 62 plf at 40.96  
BC: From 20 plf at 0.00 to 20 plf at 7.03  
BC: From 10 plf at 7.03 to 10 plf at 32.89  
BC: From 20 plf at 32.89 to 20 plf at 39.92  
TC: 436 lb Conc. Load at 7.03,32.89  
TC: 191 lb Conc. Load at 9.06,11.06,13.06,15.06  
17.06,19.06,20.85,22.85,24.85,26.85,28.85,30.85  
BC: 516 lb Conc. Load at 7.03,32.89  
BC: 130 lb Conc. Load at 9.06,11.06,13.06,15.06  
17.06,19.06,20.85,22.85,24.85,26.85,28.85,30.85

#### Purlins

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

#### Wind

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

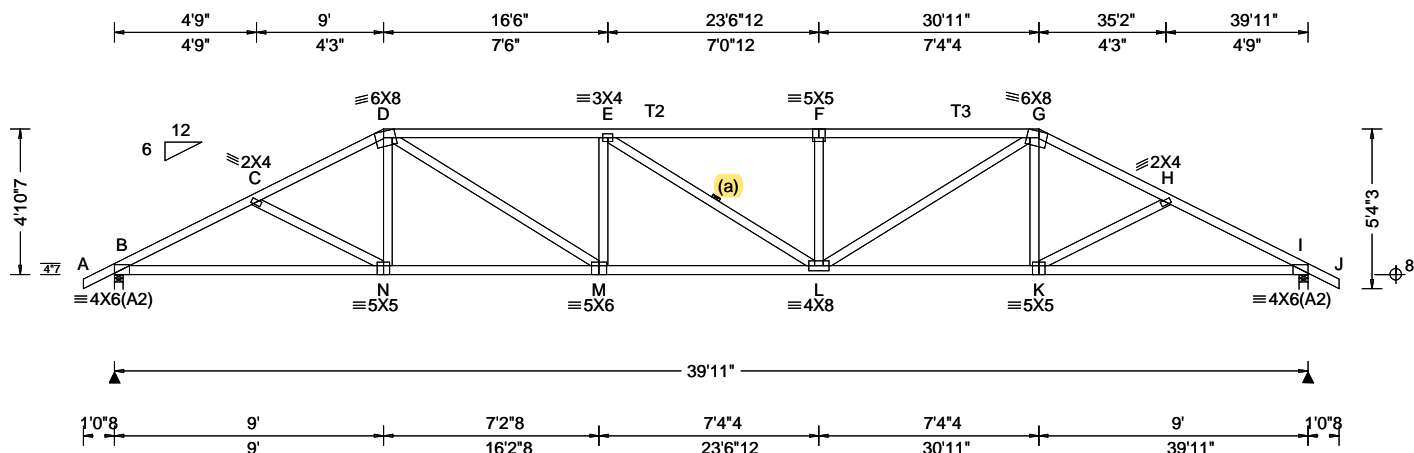


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**\*\*IMPORTANT\*\* FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS**  
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Alpine, a division of ITW Building Components Group Inc. shall not be responsible for any deviation from this 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

SEQN: 107041 FROM:	HIPS Qty: 2	Ply: 1	Job Number: 22-7416 Larry Graham/ LG Transit Truss Label: A02	Cust: R 215 JRef: 1XH12150021 T2 DrwNo: 189.22.0734.34530 SSB / FV 07/08/2022
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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: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.99 ft Loc. from endwall: not in 9.00 ft GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): 0.254 E 999 240 VERT(CL): 0.516 E 920 180 HORZ(LL): 0.087 I - - HORZ(TL): 0.177 I - - Creep Factor: 2.0 Max TC CSI: 0.421 Max BC CSI: 0.886 Max Web CSI: 0.807 VIEW Ver: 21.02.01.1216.15	Gravity Loc R+ / R- / Rh / Rw / U / RL B 1709 - / - / /987 /313 /148 I 1709 - / - / /987 /313 - Wind reactions based on MWFRS B Brg Wid = 3.5 Min Req = 2.0 (Truss) I Brg Wid = 3.5 Min Req = 2.0 (Truss) Bearings B & I 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 1270 -3082 F - G 1602 -3481 C - D 1218 -2845 G - H 1218 -2845 D - E 1590 -3458 H - I 1270 -3083 E - F 1602 -3480

#### Lumber

Top chord: 2x4 SP #2; T2,T3 2x4 SP M-31;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;

#### Bracing

(a) Continuous lateral restraint equally spaced on member.

#### Purlins

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

#### Wind

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

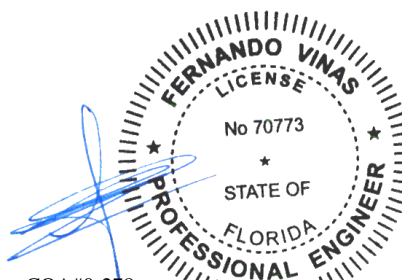
Wind loading based on both gable and hip roof types.

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

Chords	Tens.Comp.	Chords	Tens. Comp.
B - N	2689 -1062	L - K	2504 -935
N - M	2505 -949	K - I	2689 -1049
M - L	3488 -1413		

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

Webs	Tens.Comp.	Webs	Tens. Comp.
D - M	1128 -578	F - L	362 -454
M - E	378 -461	L - G	1149 -590



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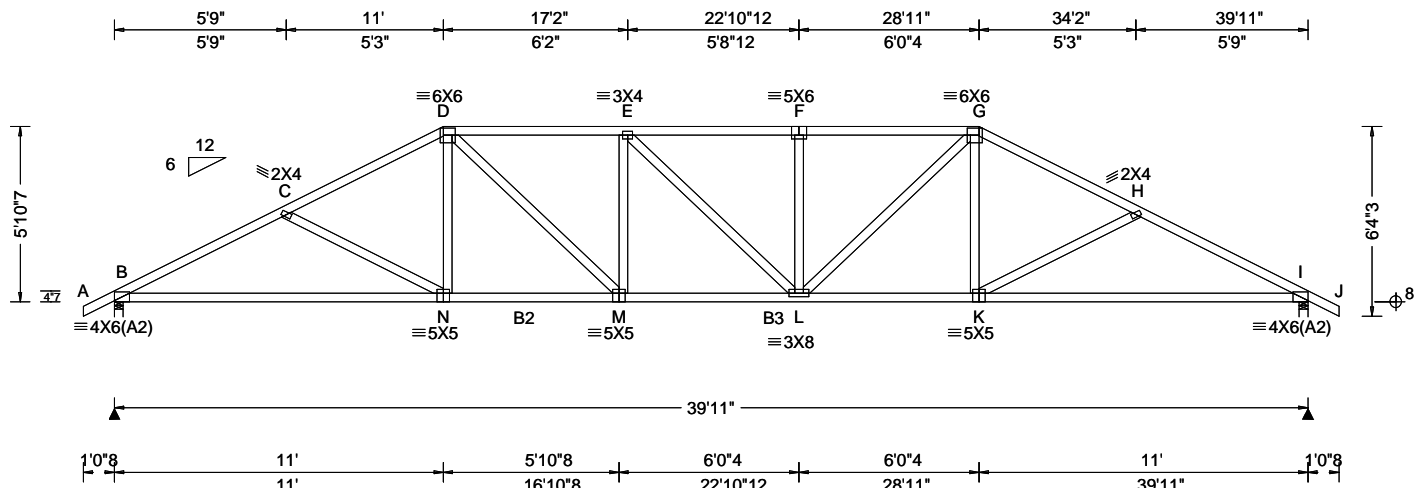
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155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

SEQN: 107044 FROM:	HIPS Qty: 2	Ply: 1	Job Number: 22-7416 Larry Graham/ LG Transit Truss Label: A03	Cust: R 215 JRRef: 1XH12150021 T3 DrwNo: 189.22.0734.33240 SSB / FV 07/08/2022
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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: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.99 ft Loc. from endwall: not in 9.00 ft GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.207 F 999 240 VERT(CL): 0.422 F 999 180 HORZ(LL): 0.069 I - - HORZ(TL): 0.141 I - - Creep Factor: 2.0 Max TC CSI: 0.551 Max BC CSI: 0.929 Max Web CSI: 0.476 VIEW Ver: 21.02.01.1216.15	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity B 1709 - / - / /1003 /310 /175 I 1709 - / - / /1003 /310 - Wind reactions based on MWFRS B Brg Wid = 3.5 Min Req = 1.5 (Truss) I Brg Wid = 3.5 Min Req = 1.5 (Truss) Bearings B & I 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 1181 -3048 F - G 1283 -2864 C - D 1095 -2701 G - H 1095 -2701 D - E 1276 -2851 H - I 1182 -3049 E - F 1283 -2864

#### Lumber

Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP M-31; B2,B3 2x4 SP #2;  
Webs: 2x4 SP #3;

#### Purlins

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

#### Wind

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

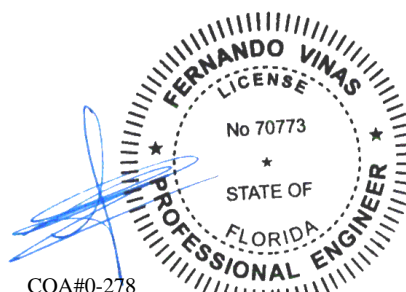
Wind loading based on both gable and hip roof types.

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

Chords	Tens.Comp.	Chords	Tens. Comp.
B - N	2660 -977	L - K	2350 -790
N - M	2350 -803	K - I	2660 -964
M - L	2870 -1054		

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

Webs	Tens.Comp.	Webs	Tens. Comp.
D - N	443 0	L - G	700 -389
D - M	690 -382	G - K	444 0



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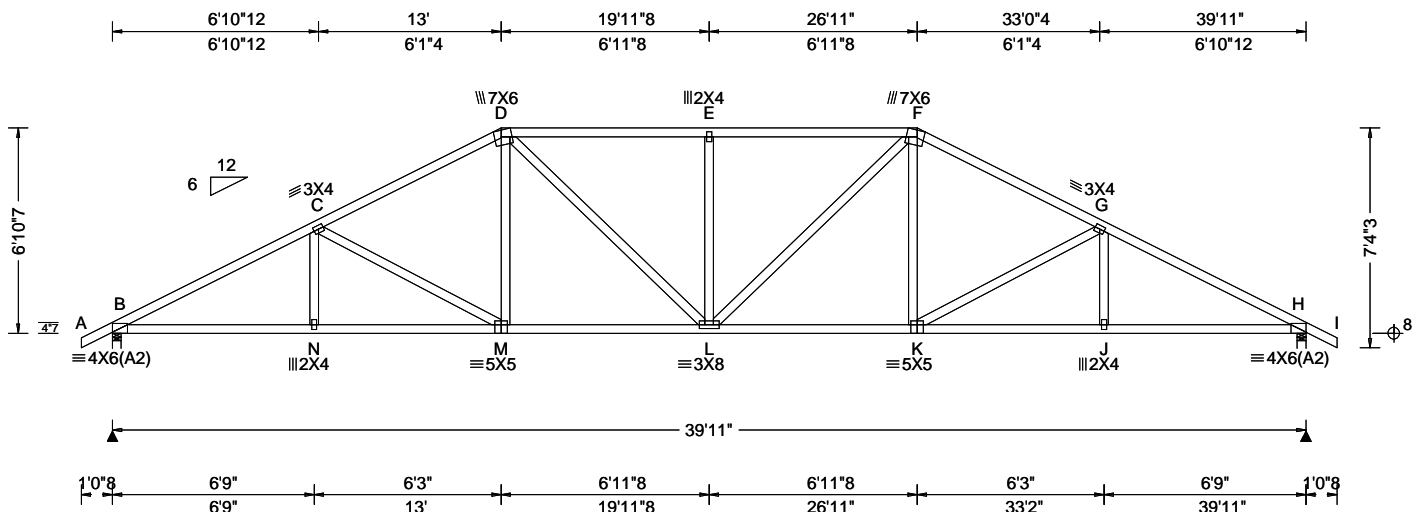
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155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

SEQN: 107047 FROM:	HIPS Qty: 2	Ply: 1	Job Number: 22-7416 Larry Graham/ LG Transit Truss Label: A04	Cust: R 215 JRef: 1XH12150021 T4 DrwNo: 189.22.0734.31963 SSB / FV 07/08/2022
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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: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.99 ft Loc. from endwall: not in 9.00 ft GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.227 E 999 240 VERT(CL): 0.436 E 999 180 HORZ(LL): 0.090 H - - HORZ(TL): 0.172 H - - Creep Factor: 2.0 Max TC CSI: 0.698 Max BC CSI: 0.822 Max Web CSI: 0.512 VIEW Ver: 21.02.01.1216.15	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity B 1816 - / - / /1014 /308 /202 H 1816 - / - / /1014 /308 - / - Wind reactions based on MWFRS B Brg Wid = 3.5 Min Req = 2.1 (Truss) H Brg Wid = 3.5 Min Req = 2.1 (Truss) Bearings B & H are a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. B - C 1024 -3286 E - F 1076 -2748 C - D 987 -2779 F - G 987 -2779 D - E 1076 -2748 G - H 1024 -3286

#### Lumber

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

#### Loading

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

#### Purlins

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

#### Wind

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

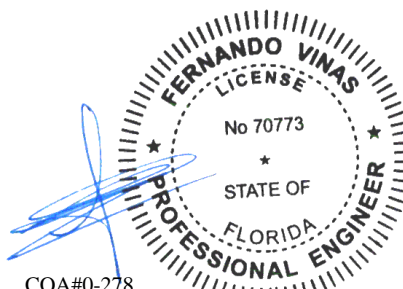
Wind loading based on both gable and hip roof types.

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

Chords	Tens.Comp.	Chords	Tens. Comp.
B - N	2856 -831	L - K	2409 -661
N - M	2854 -833	K - J	2854 -820
M - L	2409 -675	J - H	2856 -818

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

Webs	Tens.Comp.	Webs	Tens. Comp.
C - M	181 -512	L - F	466 -241
D - M	481 -29	F - K	481 -29
D - L	466 -241	K - G	181 -512
E - L	365 -447		



COA#0-278

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07/08/2022

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

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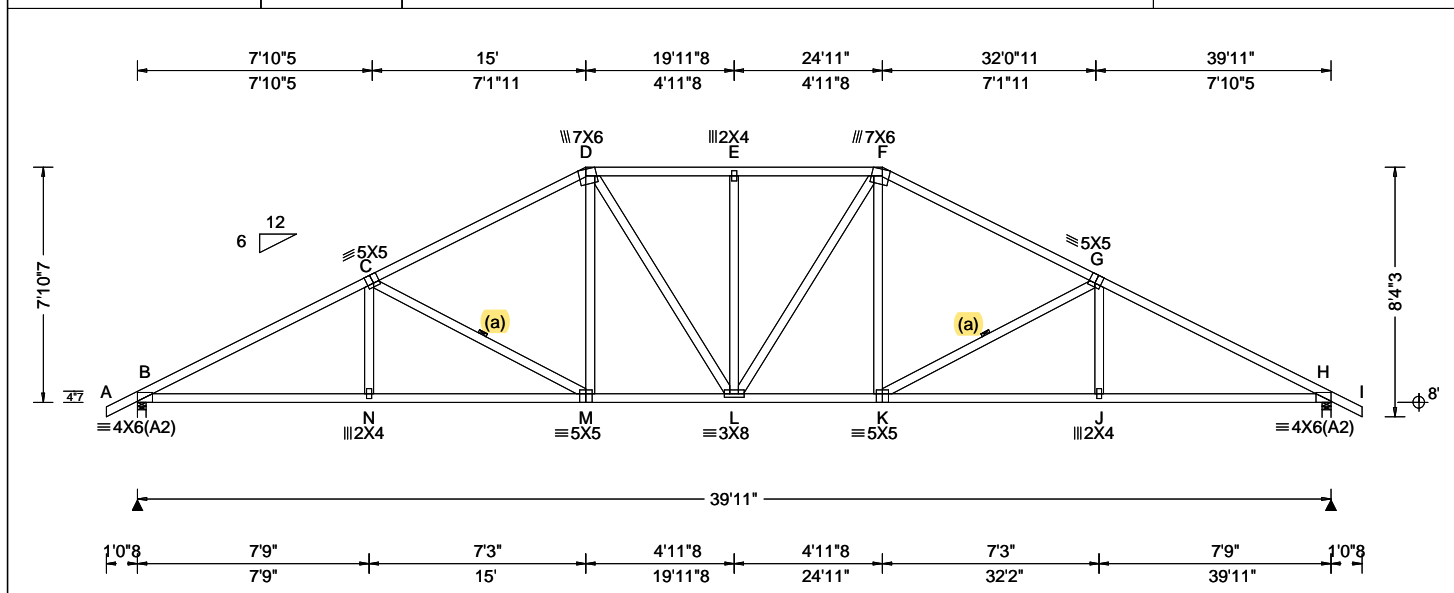
For more information see these web sites: Alpine: [alpineitw.com](http://alpineitw.com); TPI: [tpinst.org](http://tpinst.org); SBCA: [sbcacomponents.com](http://sbcacomponents.com); ICC: [iccsafe.org](http://iccsafe.org); AWC: [awc.org](http://awc.org)



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



SEQN: 107050 FROM:	HIPS Qty: 2	Ply: 1	Job Number: 22-7416 Larry Graham/ LG Transit Truss Label: A05	Cust: R 215 JRRef: 1XH12150021 T5 DrwNo: 189.22.0734.30760 SSB / FV 07/08/2022
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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: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: h to 2h C&C Dist a: 3.99 ft Loc. from endwall: not in 9.00 ft GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): 0.200 E 999 240 VERT(CL): 0.388 E 999 180 HORZ(LL): 0.086 H - - HORZ(TL): 0.167 H - - Creep Factor: 2.0 Max TC CSI: 0.830 Max BC CSI: 0.769 Max Web CSI: 0.291 VIEW Ver: 21.02.01.1216.15	Gravity Loc R+ / R- / Rh / Rw / U / RL B 1792 - / - / - / 1023 / 49 / 229 H 1792 - / - / - / 1023 / 49 / - Non-Gravity Wind reactions based on MWFRS B Brg Wid = 3.5 Min Req = 2.1 (Truss) H Brg Wid = 3.5 Min Req = 2.1 (Truss) Bearings B & 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. B - C 913 - 3208 E - F 877 - 2331 C - D 859 - 2566 F - G 859 - 2566 D - E 877 - 2331 G - H 914 - 3208

#### Lumber

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

#### Bracing

(a) Continuous lateral restraint equally spaced on member.

#### Loading

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

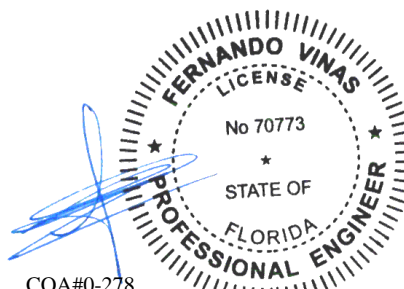
#### Purlins

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

#### Wind

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

Wind loading based on both gable and hip roof types.



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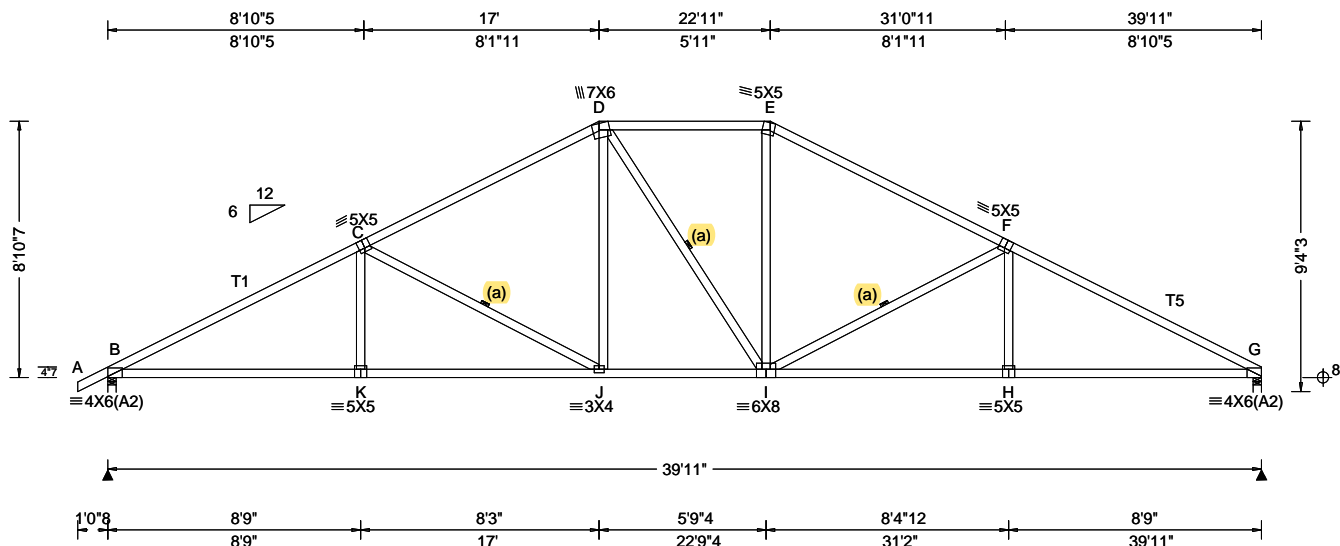
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155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

SEQN: 107080 FROM:	HIPS Qty: 2	Ply: 1	Job Number: 22-7416 Larry Graham/ LG Transit Truss Label: A06	Cust: R 215 JRef: 1XH12150021 T6 DrwNo: 189.22.0734.29597 SSB / FV 07/08/2022
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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: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: h to 2h C&C Dist a: 3.99 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 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.169 J 999 240 VERT(CL): 0.335 J 999 180 HORZ(LL): 0.083 G - - HORZ(TL): 0.163 G - - Creep Factor: 2.0 Max TC CSI: 0.825 Max BC CSI: 0.919 Max Web CSI: 0.376 VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 1768 -/- /- /1028 /42 /247 G 1693 -/- /- /968 /33 -/ Wind reactions based on MWFRS B Brg Wid = 3.5 Min Req = 2.1 (Truss) G Brg Wid = 3.5 Min Req = 2.0 (Truss) Bearings B & G are a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. B - C 801 -3114 E - F 730 -2334 C - D 733 -2358 F - G 803 -3107 D - E 730 -1987

#### Lumber

Top chord: 2x4 SP #2; T1,T5 2x4 SP M-31;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;

#### Bracing

(a) Continuous lateral restraint equally spaced on member.

#### Loading

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

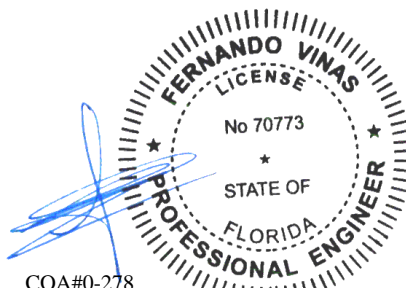
#### Purlins

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

#### Wind

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

Wind loading based on both gable and hip roof types.



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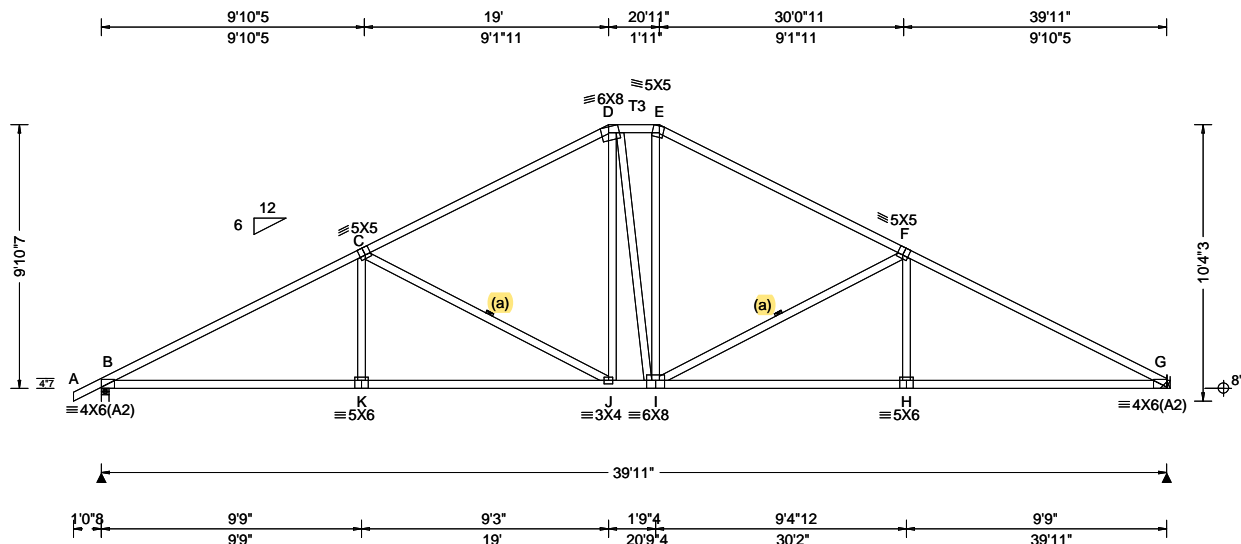
07/08/2022

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North Building, 4th Floor  
Glenview, IL 60025

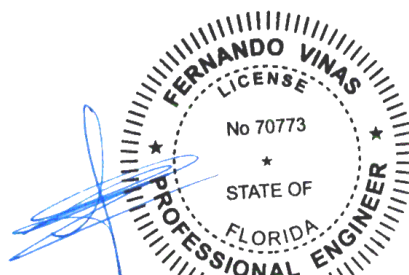
SEQN: 107058 FROM:	HIPS Qty: 2	Ply: 1 Qty: 2	Job Number: 22-7416 Larry Graham/ LG Transit Truss Label: A07	Cust: R 215 JRRef: 1XH12150021 T18 DrwNo: 189.22.0734.28230 SSB / FV 07/08/2022
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Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: h to 2h C&C Dist a: 3.99 ft Loc. from endwall: not in 9.00 ft GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.151 J 999 240 VERT(CL): 0.283 J 999 180 HORZ(LL): 0.069 G - - HORZ(TL): 0.129 G - - Creep Factor: 2.0 Max TC CSI: 0.682 Max BC CSI: 0.486 Max Web CSI: 0.636 VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 1875 - / - / - /1030 /34 /274 G 1806 - / - / - /970 /29 - / - Wind reactions based on MWFRS B Brg Wid = 3.5 Min Req = 1.6 (Truss) G Brg Wid = - Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. B - C 689 -3301 E - F 615 -2243 C - D 615 -2250 F - G 697 -3312 D - E 618 -1889

Lumber	Loading	Purlins
Top chord: 2x4 SP M-31; T3 2x4 SP #2; Bot chord: 2x4 SP M-31; Webs: 2x4 SP #3;	Truss passed check for 20 psf additional bottom chord live load in areas with 42"-high x 24"-wide clearance.	In lieu of structural panels use purlins to brace all flat TC @ 24" oc.
Bracing	Wind	
(a) Continuous lateral restraint equally spaced on member.	Wind loads based on MWFRS with additional C&C member design. Wind loading based on both gable and hip roof types.	

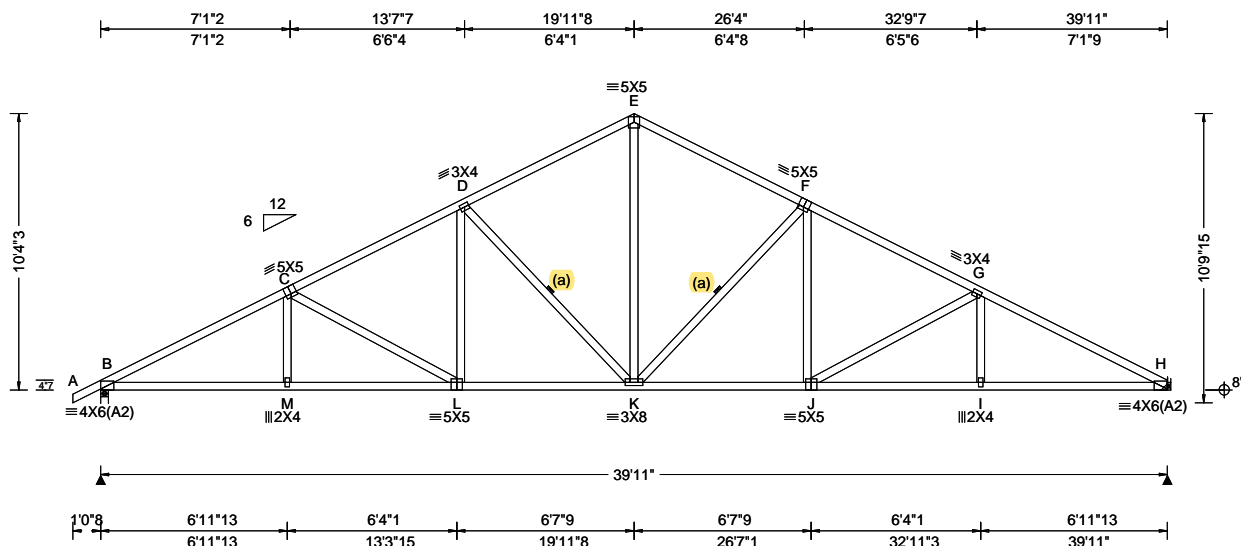
Hangers / Ties	Maximum Bot Chord Forces Per Ply (lbs)	Maximum Web Forces Per Ply (lbs)
Simpson Construction Hardware is specified based on the most current information provided by Simpson Strong-Tie. Please refer to the most recent Simpson Strong-Tie catalog for additional information. Recommended hanger connections are based on manufacturer tested capacities and calculations. Conditions may exist that require different connections than indicated. Refer to manufacturer publication for additional information. Hanger specified assumes connection to supporting chord is located a minimum of five times the depth of the supporting chord from any unsupported end, unless unsupported chord end has 85% plating coverage. Bearing at location x=39'8" uses the following support conditions: 39'8" Bearing G (39'8", 8") HUS26 Supporting Member: (2)2x6 SP 2400f-2.0E (14) 0.148"x3" nails into supporting member, (4) 0.148"x3" nails into supported member.	Chords Tens.Comp. Chords Tens. Comp. B - K 2845 -537 I - H 2851 -517 K - J 2839 -538 H - G 2857 -515 J - I 1886 -272	Webs Tens.Comp. Webs Tens. Comp. K - C 404 0 I - E 619 -142 C - J 303 -1085 I - F 308 -1101 D - J 615 -89 F - H 409 0



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SEQN: 107062 FROM:	COMN Ply: 1 Qty: 3	Job Number: 22-7416 Larry Graham/ LG Transit Truss Label: A08	Cust: R 215 JRef: 1XH12150021 T20 DrwNo: 189.22.0734.26647 SSB / FV 07/08/2022
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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: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: h to 2h C&C Dist a: 3.99 ft Loc. from endwall: not in 9.00 ft GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): 0.187 K 999 240 VERT(CL): 0.360 K 999 180 HORZ(LL): 0.066 H - - HORZ(TL): 0.126 H - - Creep Factor: 2.0 Max TC CSI: 0.624 Max BC CSI: 0.329 Max Web CSI: 0.582 VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 1818 - / - / - /1029 /33 /287 H 1749 - / - / - /969 /28 - /- Wind reactions based on MWFRS B Brg Wid = 3.5 Min Req = 1.5 (Truss) H Brg Wid = - Min Req = - Bearing B is 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 654 -3284 E - F 577 -2104 C - D 621 -2755 F - G 625 -2759 D - E 576 -2105 G - H 668 -3305

#### Lumber

Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP M-31;  
Webs: 2x4 SP #3;

#### Bracing

(a) Continuous lateral restraint equally spaced on member.

#### Hangers / Ties

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

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

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

Bearing at location x=39'8" uses the following support conditions: 39'8"

Bearing H (39'8", 8") HUS26

Supporting Member: (2)2x6 SP 2400f-2.0E

(14) 0.148"x3" nails into supporting

member,

(4) 0.148"x3" nails into supported

member.

#### 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.

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

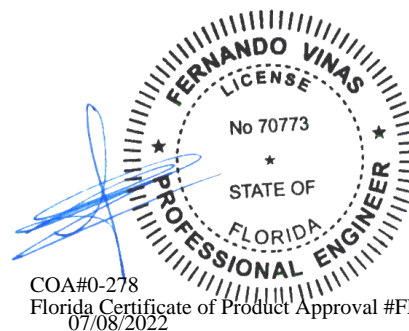
Chords Tens.Comp. Chords Tens. Comp.

B - M 2852 -522 K - J 2370 -354  
M - L 2850 -524 J - I 2872 -519  
L - K 2368 -372 I - H 2875 -517

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

Webs Tens.Comp. Webs Tens. Comp.

C - L 184 -537 K - F 257 -832  
L - D 488 -28 F - J 497 -37  
D - K 256 -829 J - G 206 -560  
E - K 1407 -287



COA#0-278

Florida Certificate of Product Approval #FL1999

07/08/2022

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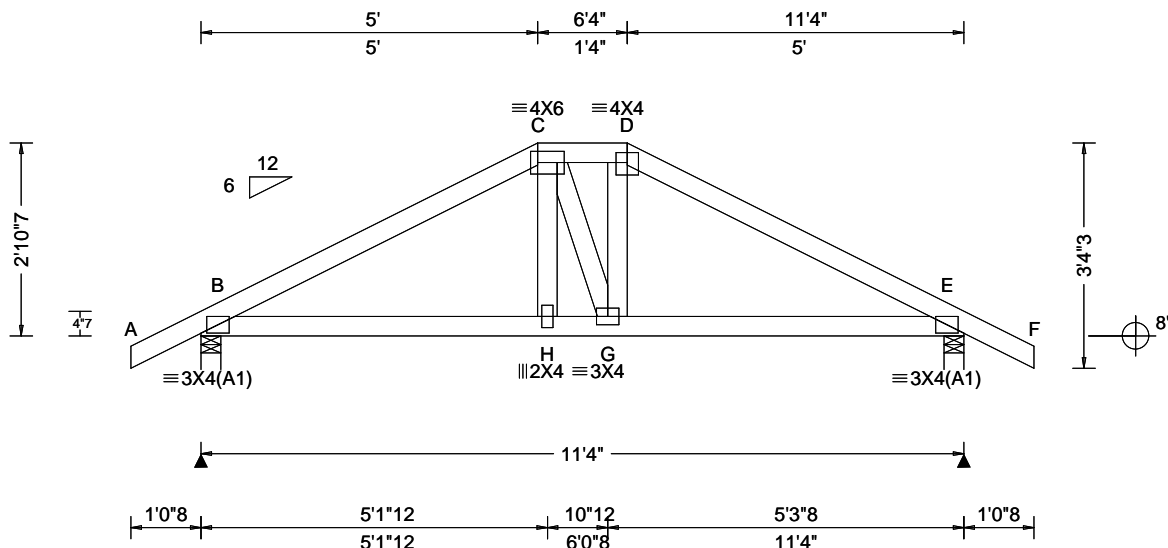
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North Building, 4th Floor  
Glenview, IL 60025

SEQN: 107073 FROM:	HIPS Ply: 1 Qty: 1	Job Number: 22-7416 Larry Graham/ LG Transit Truss Label: B01	Cust: R 215 JRef: 1XH12150021 T15 DrwNo: 189.22.0734.25193 SSB / FV 07/08/2022
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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: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: not in 4.50 ft GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA  Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Varies by Ld Case FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.030 H 999 240 VERT(CL): 0.061 H 999 180 HORZ(LL): 0.012 E - - HORZ(TL): 0.025 E - - Creep Factor: 2.0 Max TC CSI: 0.284 Max BC CSI: 0.453 Max Web CSI: 0.124  VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 1036 -/- /- /- /207 -/ E 1036 -/- /- /- /207 -/ Wind reactions based on MWFRS B Brg Wid = 3.5 Min Req = 1.5 (Truss) E Brg Wid = 3.5 Min Req = 1.5 (Truss) Bearings B & E are a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. B - C 328 -1671 D - E 329 -1667 C - D 266 -1464

#### Lumber

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

#### Special Loads

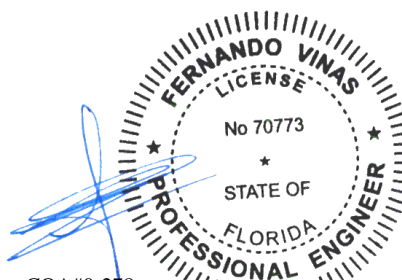
----- (Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)  
TC: From 62 plf at -1.04 to 62 plf at 5.00  
TC: From 31 plf at 5.00 to 31 plf at 6.33  
TC: From 62 plf at 6.33 to 62 plf at 12.37  
BC: From 20 plf at 0.00 to 20 plf at 5.03  
BC: From 10 plf at 5.03 to 10 plf at 6.30  
BC: From 20 plf at 6.30 to 20 plf at 11.33  
TC: 241 lb Conc. Load at 5.03, 6.30  
BC: 291 lb Conc. Load at 5.03, 6.30

#### Purlins

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

#### Wind

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

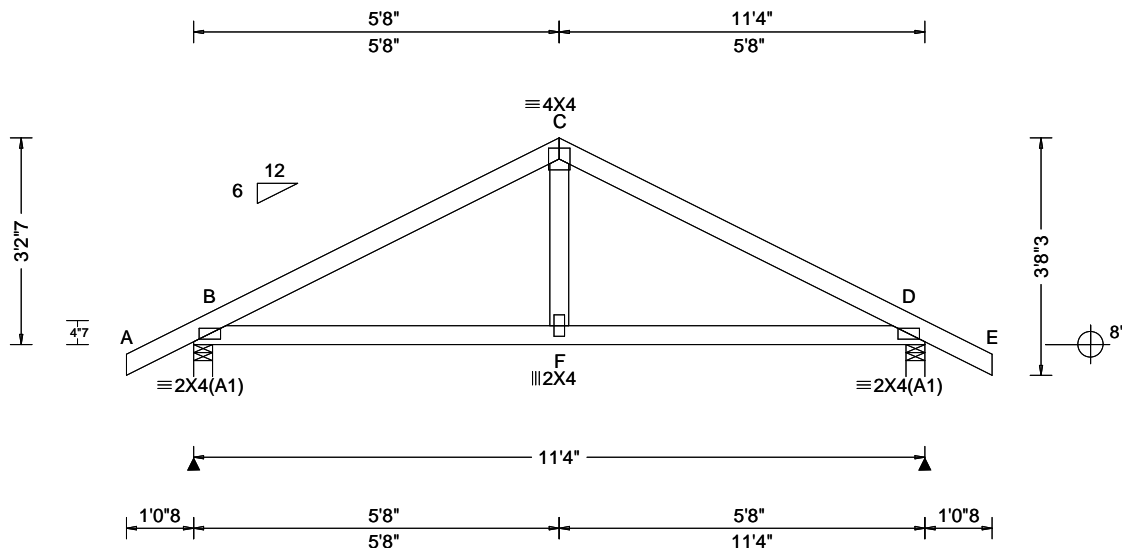


COA#0-278  
Florida Certificate of Product Approval #FL1999  
07/08/2022

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**ALPINE**  
AN ITW COMPANY  
155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

SEQN: 107070 FROM:	COMN Ply: 1 Qty: 2	Job Number: 22-7416 Larry Graham/ LG Transit Truss Label: B02	Cust: R 215 JRef: 1XH12150021 T7 DrwNo: 189.22.0734.23953 SSB / FV 07/08/2022
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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: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.00 ft Loc. from endwall: not in 4.50 ft GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.008 F 999 240 VERT(CL): 0.016 F 999 180 HORZ(LL): 0.004 D - - HORZ(TL): 0.008 D - - Creep Factor: 2.0 Max TC CSI: 0.288 Max BC CSI: 0.318 Max Web CSI: 0.094 VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 532 -/- /- /329 /96 /99 D 532 -/- /- /329 /96 /- Wind reactions based on MWFRS B Brg Wid = 3.5 Min Req = 1.5 (Truss) D Brg Wid = 3.5 Min Req = 1.5 (Truss) Bearings B & D 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 316 -620 C - D 315 -620

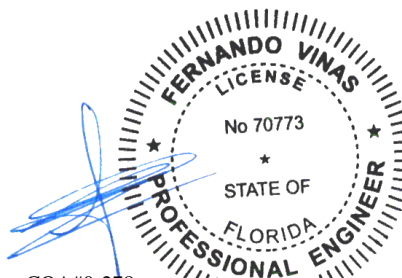
#### Lumber

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

#### Wind

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

Wind loading based on both gable and hip roof types.



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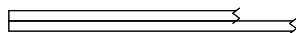
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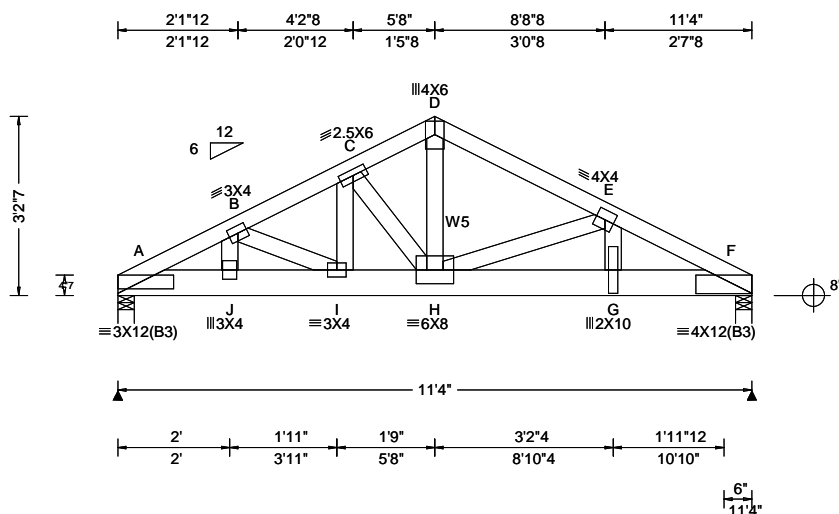
**ALPINE**  
AN ITW COMPANY  
155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025



SEQN: 107083 FROM:	COMN Ply: 2 Qty: 1	Job Number: 22-7416 Larry Graham/ LG Transit Truss Label: B03	Cust: R 215 JRef: 1XH12150021 T8 DrwNo: 189.22.0734.22940 SSB / FV 07/08/2022
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2 Complete Trusses Required



Loading Criteria (psf)	Wind Criteria	Snow Criteria (Pg, Pf in PSF)	Defl/CSI Criteria	▲ Maximum Reactions (lbs)
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 0.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: not in 9.00 ft GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: No FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/def L/# VERT(LL): 0.055 H 999 240 VERT(CL): 0.109 H 999 180 HORZ(LL): 0.016 F - - HORZ(TL): 0.032 F - - Creep Factor: 2.0 Max TC CSI: 0.198 Max BC CSI: 0.505 Max Web CSI: 0.387 VIEW Ver: 21.02.01.1216.15	Gravity Loc R+ / R- / Rh / Rw / U / RL A 4914 -/- /- /180 -/ F 4791 -/- /- /168 -/ Wind reactions based on MWFRS A Brg Wid = 3.5 Min Req = 2.0 (Truss) F Brg Wid = 3.5 Min Req = 2.0 (Truss) Bearings A & F 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. A - B 156 -4609 D - E 120 -3512 B - C 140 -4128 E - F 157 -4794 C - D 114 -3496

#### Lumber

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

#### Nailnote

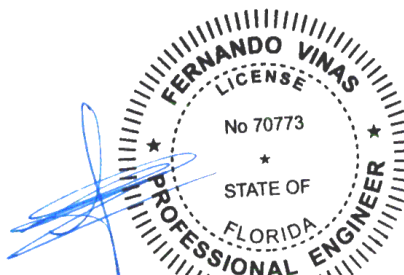
Nail Schedule: 0.131"x3", min. nails  
Top Chord: 1 Row @ 12.00" o.c.  
Bot Chord: 2 Rows @ 4.00" o.c. (Each Row)  
Webs : 1 Row @ 4" o.c.  
Use equal spacing between rows and stagger nails in each row to avoid splitting.

#### Special Loads

----- (Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)  
TC: From 62 plf at 0.00 to 62 plf at 11.33  
BC: From 10 plf at 0.00 to 10 plf at 8.85  
BC: From 20 plf at 8.85 to 20 plf at 11.33  
BC: 1806 lb Conc. Load at 2.06, 8.85  
BC: 1749 lb Conc. Load at 4.06, 6.06, 6.85

#### Wind

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

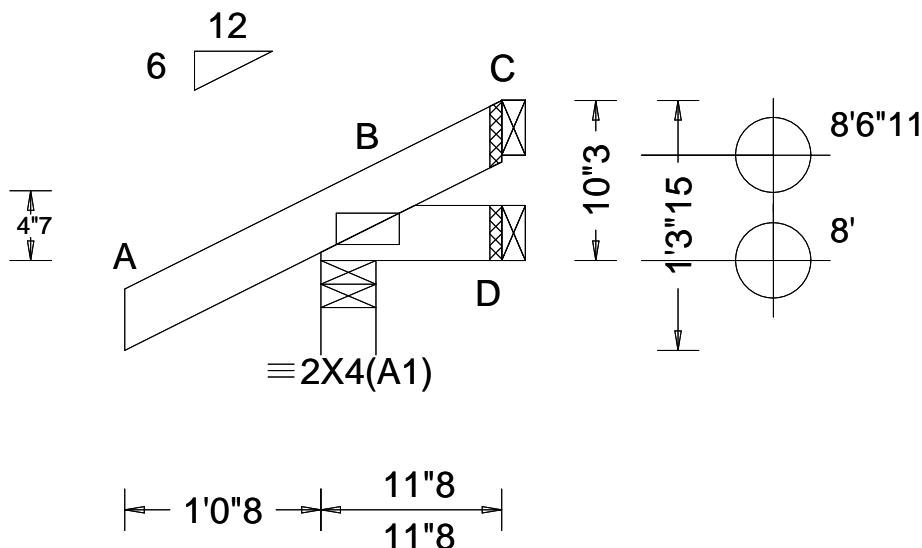


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**ALPINE**  
AN ITW COMPANY  
155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

SEQN: 107013 FROM:	JACK Ply: 1 Qty: 12	Job Number: 22-7416 Larry Graham/ LG Transit Truss Label: J01	Cust: R 215 JRef: 1XH12150021 T12 DrwNo: 189.22.0734.21603 SSB / FV 07/08/2022
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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: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): NA VERT(CL): NA HORZ(LL): -0.000 B - - HORZ(TL): 0.000 B - - Creep Factor: 2.0 Max TC CSI: 0.120 Max BC CSI: 0.014 Max Web CSI: 0.000 VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 165 /- /- /133 /38 /31 D 10 /-3 /- /9 /6 /- C - /-18 /- /19 /24 /- Wind reactions based on MWFRS B Brg Wid = 3.5 Min Req = 1.5 (Truss) D Brg Wid = 1.5 Min Req = - C Brg Wid = 1.5 Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375#

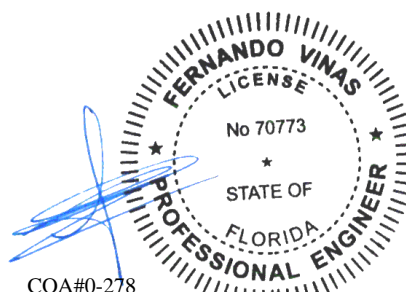
#### Lumber

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

#### Wind

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

Wind loading based on both gable and hip roof types.



COA#0-278

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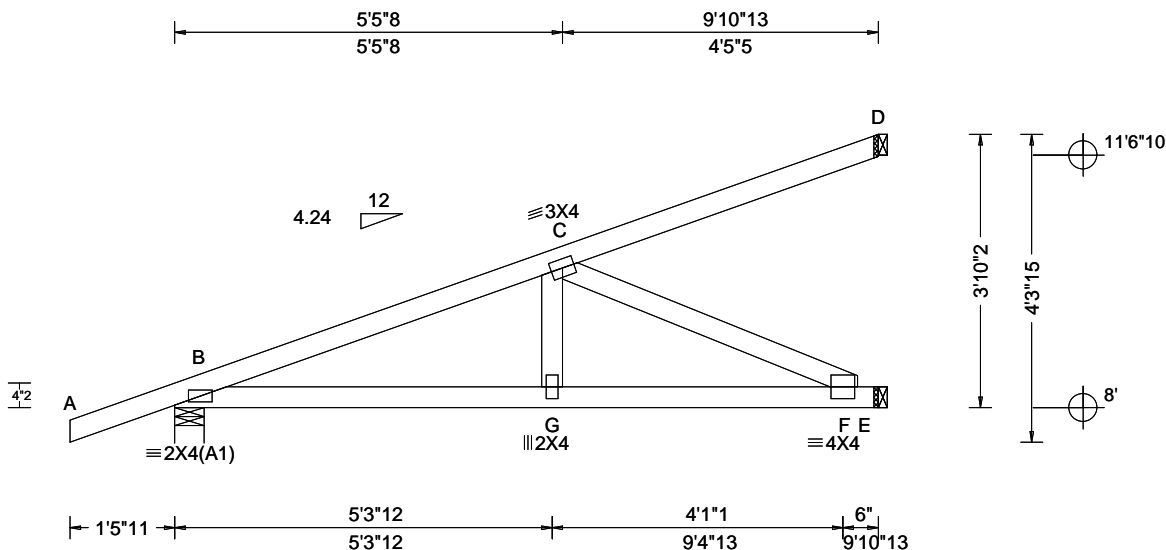
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155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025



SEQN: 107028 FROM:	HIP_	Ply: 1 Qty: 4	Job Number: 22-7416 Larry Graham/ LG Transit Truss Label: J01HJ	Cust: R 215 JRRef: 1XH12150021 T14 DrwNo: 189.22.0734.20267 SSB / FV 07/08/2022
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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: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 0.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: NA GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: No FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.019 G 999 240 VERT(CL): 0.038 G 999 180 HORZ(LL): 0.004 F - - HORZ(TL): 0.008 F - - Creep Factor: 2.0 Max TC CSI: 0.585 Max BC CSI: 0.216 Max Web CSI: 0.351 VIEW Ver: 21.02.01.1216.15	Gravity Loc R+ / R- / Rh Non-Gravity / Rw / U / RL B 405 -/- /- /79 -/ E 386 -/- /- /14 -/ D 245 -/- /- /94 -/ Wind reactions based on MWFRS B Brg Wid = 4.9 Min Req = 1.5 (Truss) E Brg Wid = 1.5 Min Req = - D Brg Wid = 1.5 Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375# <b>Maximum Top Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. B - C 131 -766 <b>Maximum Bot Chord Forces Per Ply (lbs)</b> Chords Tens.Comp. Chords Tens. Comp. B - G 705 -117 G - F 697 -121 <b>Maximum Web Forces Per Ply (lbs)</b> Webs Tens.Comp. C - F 133 -769

#### Lumber

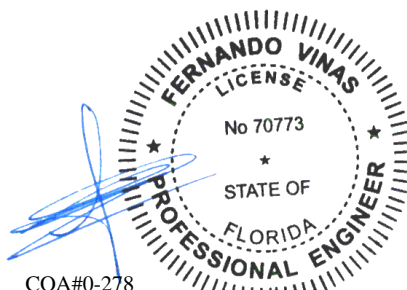
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP M-31;  
Webs: 2x4 SP #3;

#### Loading

Hipjack supports 7-0-0 setback jacks with no webs.

#### Wind

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



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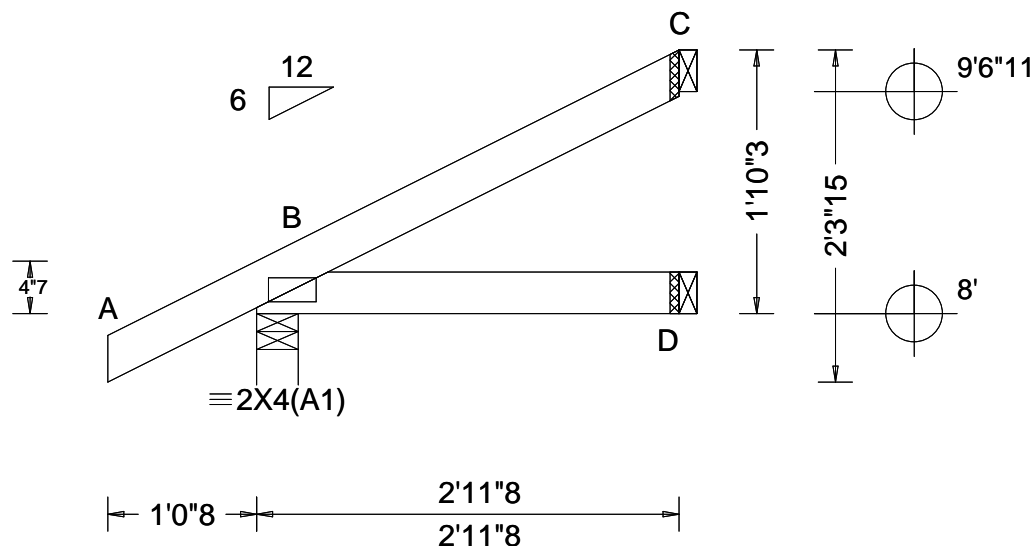
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155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

SEQN: 107016 FROM:	JACK Ply: 1 Qty: 12	Job Number: 22-7416 Larry Graham/ LG Transit Truss Label: J02	Cust: R 215 JRef: 1XH12150021 T11 DrwNo: 189.22.0734.18853 SSB / FV 07/08/2022
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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: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: Any GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): NA VERT(CL): NA HORZ(LL): 0.001 B - - HORZ(TL): 0.001 B - - Creep Factor: 2.0 Max TC CSI: 0.147 Max BC CSI: 0.070 Max Web CSI: 0.000 VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 209 /- /- /151 /29 /66 D 51 /- /- /27 /- /- C 71 /- /- /43 /37 /- Wind reactions based on MWFRS B Brg Wid = 3.5 Min Req = 1.5 (Truss) D Brg Wid = 1.5 Min Req = - C Brg Wid = 1.5 Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375#

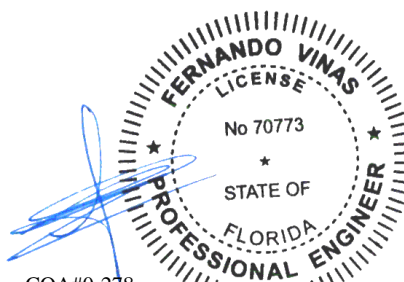
#### Lumber

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

#### Wind

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

Wind loading based on both gable and hip roof types.



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07/08/2022

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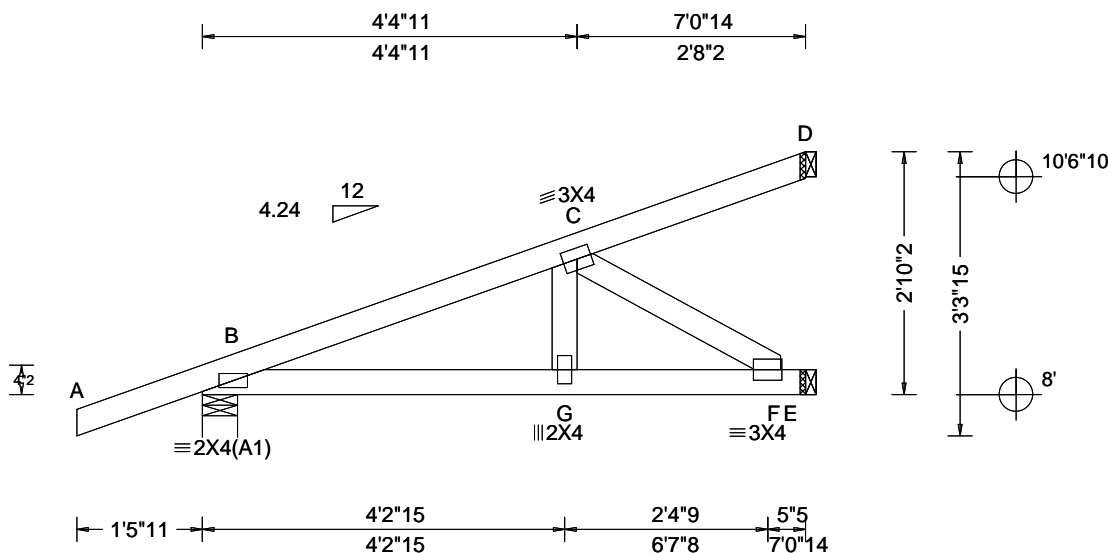
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**ALPINE**  
AN ITW COMPANY  
155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

SEQN: 107031 FROM:	HIP_	Ply: 1 Qty: 2	Job Number: 22-7416 Larry Graham/ LG Transit Truss Label: J02HJ	Cust: R 215 JRef: 1XH12150021 T17 DrwNo: 189.22.0734.17500 SSB / FV 07/08/2022
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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: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 0.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: NA GCpi: 0.18 Wind Duration: 1.60	Pg: NA Ct: NA CAT: NA Pf: NA Ce: NA Lu: NA Cs: NA Snow Duration: NA Building Code: FBC 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: No FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.006 G 999 240 VERT(CL): 0.012 G 999 180 HORZ(LL): 0.002 F - - HORZ(TL): 0.003 F - - Creep Factor: 2.0 Max TC CSI: 0.179 Max BC CSI: 0.213 Max Web CSI: 0.030 VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 246 -/- /- /53 -/ E 199 -/- /- /11 -/ D 108 -/- /- /41 -/ Wind reactions based on MWFRS B Brg Wid = 4.9 Min Req = 1.5 (Truss) E Brg Wid = 1.5 Min Req = - D Brg Wid = 1.5 Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375#

#### Lumber

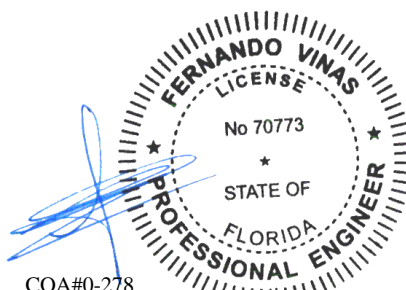
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;

#### Loading

Hipjack supports 5-0-0 setback jacks with no webs.

#### Wind

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



COA#0-278

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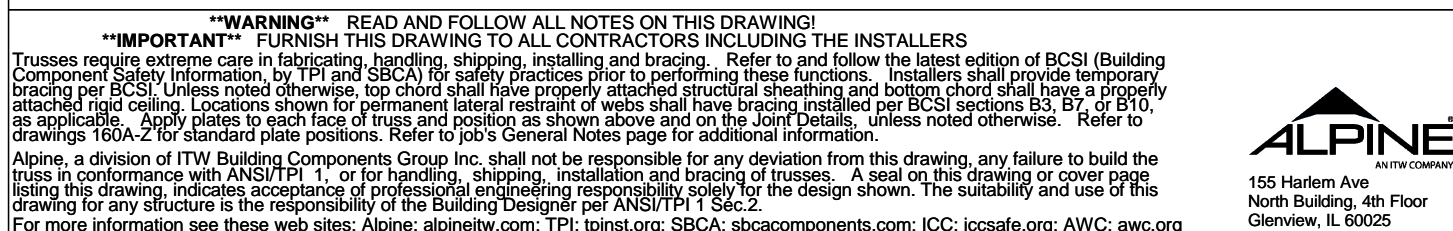
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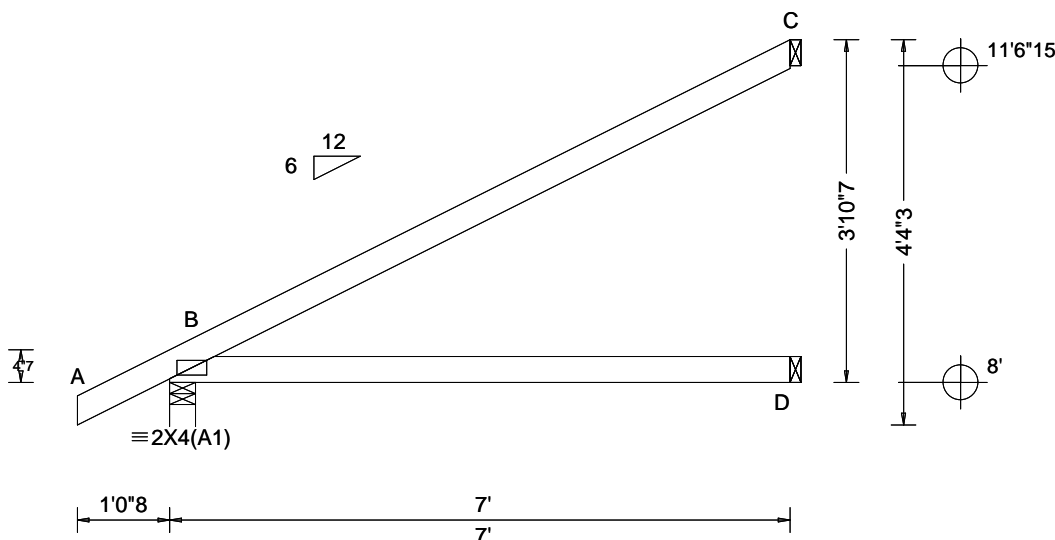
155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025

Structural diagram showing a frame with a sloped member AC and a horizontal member BD. The frame is supported by a 2x4(A1) column at B and has fixed supports at C and D. Dimensions include a horizontal span of 4'11"8", a vertical height of 2'10"3", and a sloped member AC with a 12/6 slope. A 4x7 beam is shown at the top left.

<p><b>Lumber</b></p> <p>Top chord: 2x4 SP #2;          Bot chord: 2x4 SP #2;</p> <p><b>Wind</b></p> <p>Wind loads based on MWFRS with additional C&amp;C member design.</p> <p>Wind loading based on both gable and hip roof types.</p>		
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SEQN: 107022 FROM:	EJAC Ply: 1 Qty: 28	Job Number: 22-7416 Larry Graham/ LG Transit Truss Label: J04	Cust: R 215 JRef: 1XH12150021 T13 DrwNo: 189.22.0734.14723 SSB / FV 07/08/2022
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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: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: not in 4.50 ft 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 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): NA VERT(CL): NA HORZ(LL): 0.015 B - - HORZ(TL): 0.030 B - - Creep Factor: 2.0 Max TC CSI: 0.745 Max BC CSI: 0.525 Max Web CSI: 0.000 VIEW Ver: 21.02.01.1216.15	Gravity Loc R+ / R- / Rh / Rw / U / RL Non-Gravity B 366 /- /- /248 /37 /138 D 130 /- /- /75 /- /- C 191 /- /- /121 /95 /- Wind reactions based on MWFRS B Brg Wid = 3.5 Min Req = 1.5 (Truss) D Brg Wid = 1.5 Min Req = - C Brg Wid = 1.5 Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375#

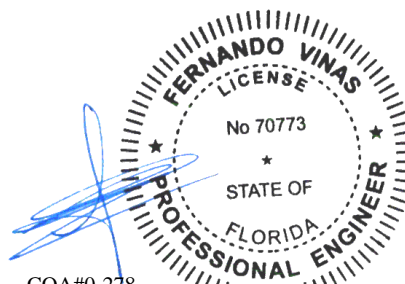
#### Lumber

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

#### Wind

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

Wind loading based on both gable and hip roof types.



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Florida Certificate of Product Approval #FL1999  
07/08/2022

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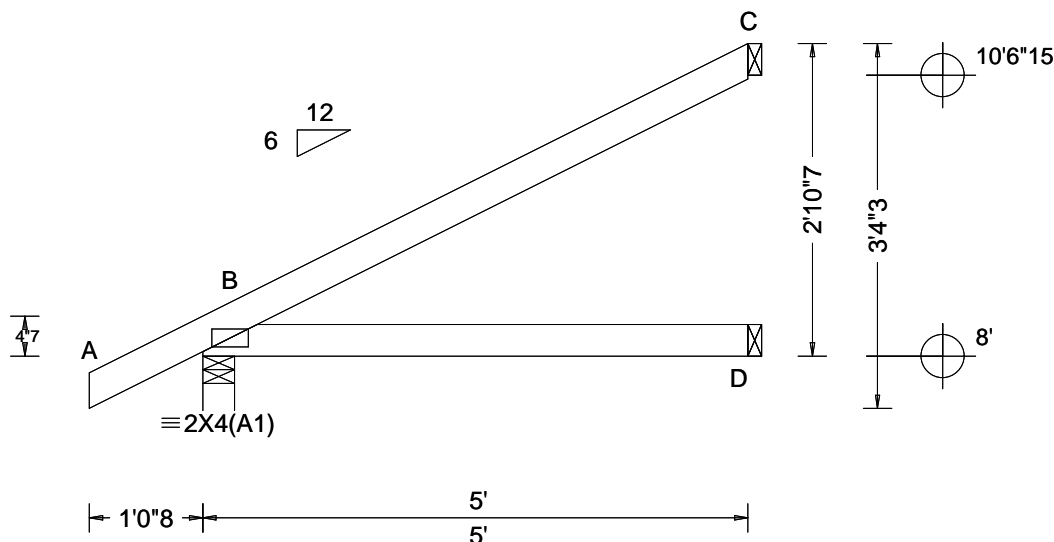
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Glenview, IL 60025

SEQN: 107025 FROM:	EJAC Ply: 1 Qty: 2	Job Number: 22-7416 Larry Graham/ LG Transit Truss Label: J05	Cust: R 215 JRef: 1XH12150021 T16 DrwNo: 189.22.0734.13433 SSB / FV 07/08/2022
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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: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: 0 to h/2 C&C Dist a: 3.00 ft Loc. from endwall: not in 4.50 ft 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 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes FT/RT:20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): NA VERT(CL): NA HORZ(LL): 0.005 B - - HORZ(TL): 0.010 B - - Creep Factor: 2.0 Max TC CSI: 0.339 Max BC CSI: 0.245 Max Web CSI: 0.000 VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL B 286 - / - / - /198 /32 /102 D 91 - / - / - /51 - / - C 133 - / - / - /84 /67 - Wind reactions based on MWFRS B Brg Wid = 3.5 Min Req = 1.5 (Truss) D Brg Wid = 1.5 Min Req = - C Brg Wid = 1.5 Min Req = - Bearing B is a rigid surface. Members not listed have forces less than 375#

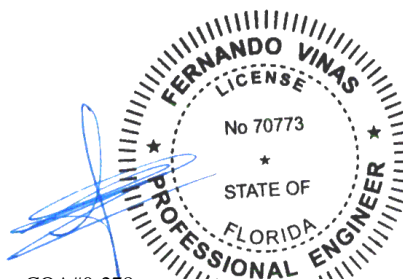
#### Lumber

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

#### Wind

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

Wind loading based on both gable and hip roof types.



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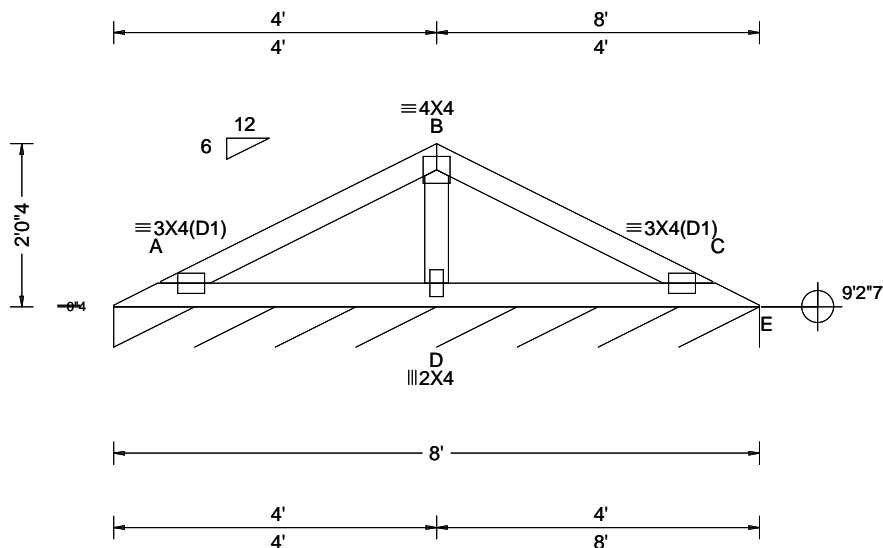
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Glenview, IL 60025

SEQN: 107086 FROM:	VAL Ply: 1 Qty: 1	Job Number: 22-7416 Larry Graham / LG Transit Truss Label: V01	Cust: R 215 JRef: 1XH12150021 T22 DrwNo: 189.22.0734.12510 SSB / FV 07/08/2022
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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: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 0.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: > 2h C&C Dist a: 3.00 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 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.007 A 999 240 VERT(CL): 0.015 A 999 180 HORZ(LL): -0.003 C - - HORZ(TL): 0.006 C - - Creep Factor: 2.0 Max TC CSI: 0.187 Max BC CSI: 0.169 Max Web CSI: 0.085 VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL E* 82 /- /- /40 /10 /5 Wind reactions based on MWFRS E Brg Wid = 96.0 Min Req = - Bearing A is a rigid surface. Members not listed have forces less than 375#

#### Lumber

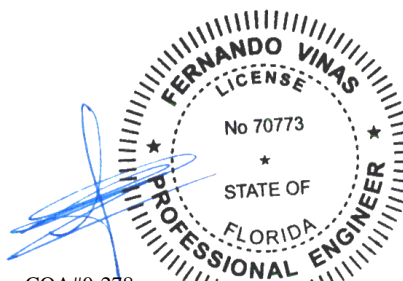
Top chord: 2x4 SP #2;  
Bot chord: 2x4 SP #2;  
Webs: 2x4 SP #3;

#### Wind

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

#### Additional Notes

See DWGS VALTN160118 and VAL180160118 for valley details.



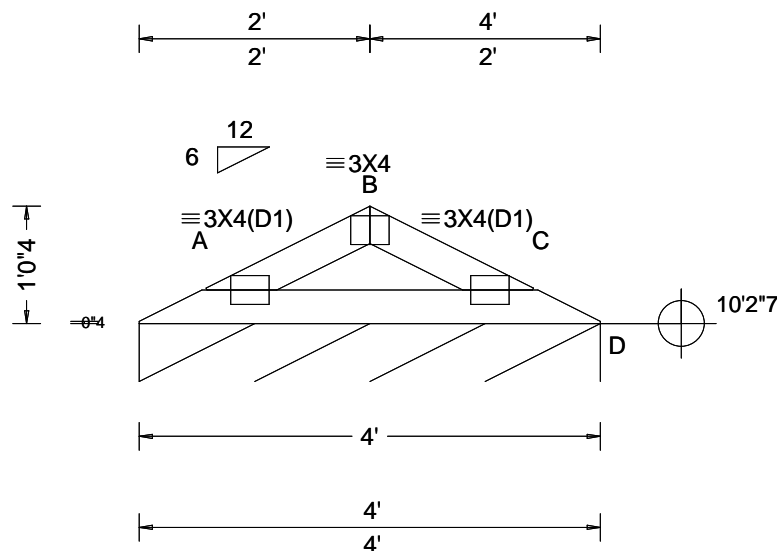
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155 Harlem Ave  
North Building, 4th Floor  
Glenview, IL 60025



SEQN: 107089 FROM:	VAL Ply: 1 Qty: 1	Job Number: 22-7416 Larry Graham/ LG Transit Truss Label: V02	Cust: R 215 JRef: 1XH12150021 T1 DrwNo: 189.22.0734.11167 SSB / FV 07/08/2022
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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: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 0.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: h/2 to h C&C Dist a: 3.00 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 7th Ed. 2020 Res. TPI Std: 2014 Rep Fac: Yes FT/RT: 20(0)/10(0) Plate Type(s): WAVE	PP Deflection in loc L/defl L/# VERT(LL): 0.004 C 999 240 VERT(CL): 0.008 C 999 180 HORZ(LL): -0.001 A - - HORZ(TL): 0.003 A - - Creep Factor: 2.0 Max TC CSI: 0.076 Max BC CSI: 0.102 Max Web CSI: 0.000  VIEW Ver: 21.02.01.1216.15	Gravity Non-Gravity Loc R+ / R- / Rh / Rw / U / RL D* 82 /- /- /37 /5 /4 Wind reactions based on MWFRS D Brg Wid = 48.0 Min Req = - Bearing A is a rigid surface. Members not listed have forces less than 375#

#### Lumber

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

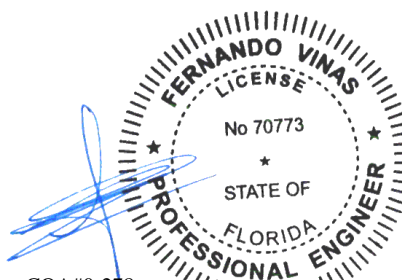
#### Wind

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

Wind loading based on both gable and hip roof types.

#### Additional Notes

See DWGS VALTN160118 and VAL180160118 for valley details.



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



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

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

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

Bottom chord may be square or pitched cut  
 as shown.

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

All plates shown are Alpine Wave Plates.

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

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

Or

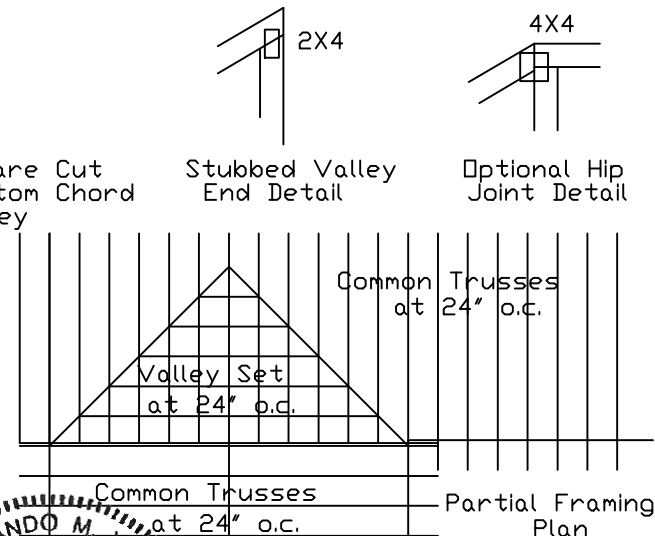
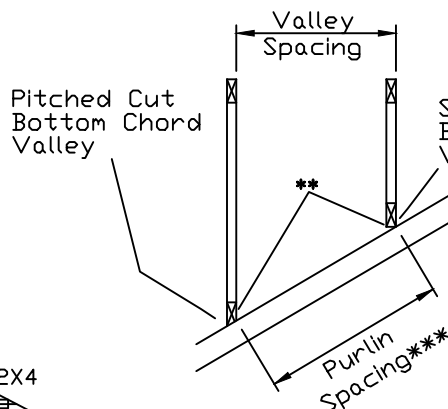
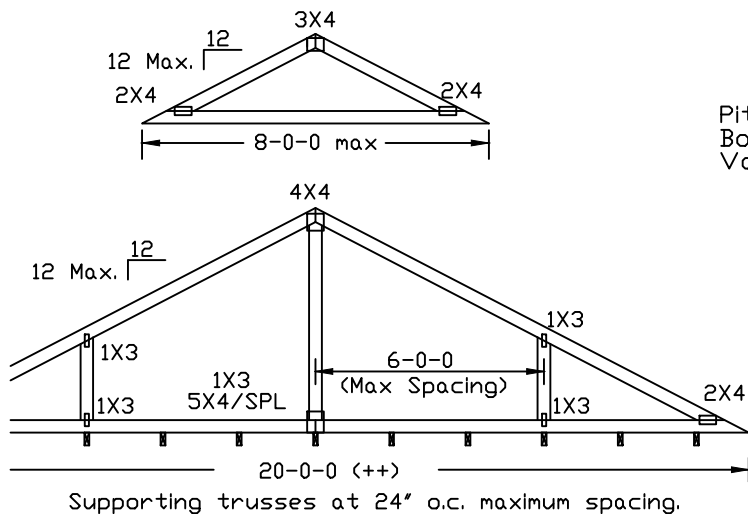
Purlins at 24" o.c. or as otherwise specified on engineer's sealed design

Or

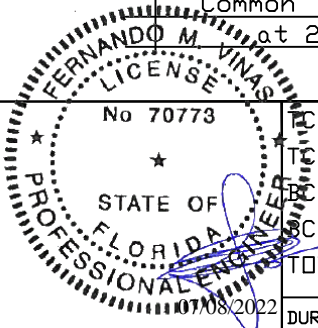
By valley trusses used in lieu of purlin spacing as specified on  
 Engineer's sealed design.

**\*\*\* Note that the purlin spacing for bracing the top chord of the truss  
 beneath the valley is measured along the slope of the top chord.**

**++ Larger spans may be built as long as the vertical height does  
 not exceed 14'-0".**



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COA#0-278  
 Florida Certificate of Product Approval #FL1099

TC	LL	30	30	40PSF	REF	VALLEY DETAIL
TC	DL	20	15	7PSF	DATE	01/26/2018
BC	DL	10	10	10 PSF	DRWG	VAL180160118
BC	LL	0	0	0PSF		
TOT.	LD.	60	55	57PSF		
DUR.FAC.	1.25/1.33	1.15	1.15			
SPACING				24.0"		

Valley Detail - ASCE 7-16: 30' Mean Height, Enclosed, Exp. C,  $K_{zt}=1.00$ 

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

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

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

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

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

All plates shown are Alpine Wave Plates.

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

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

Or

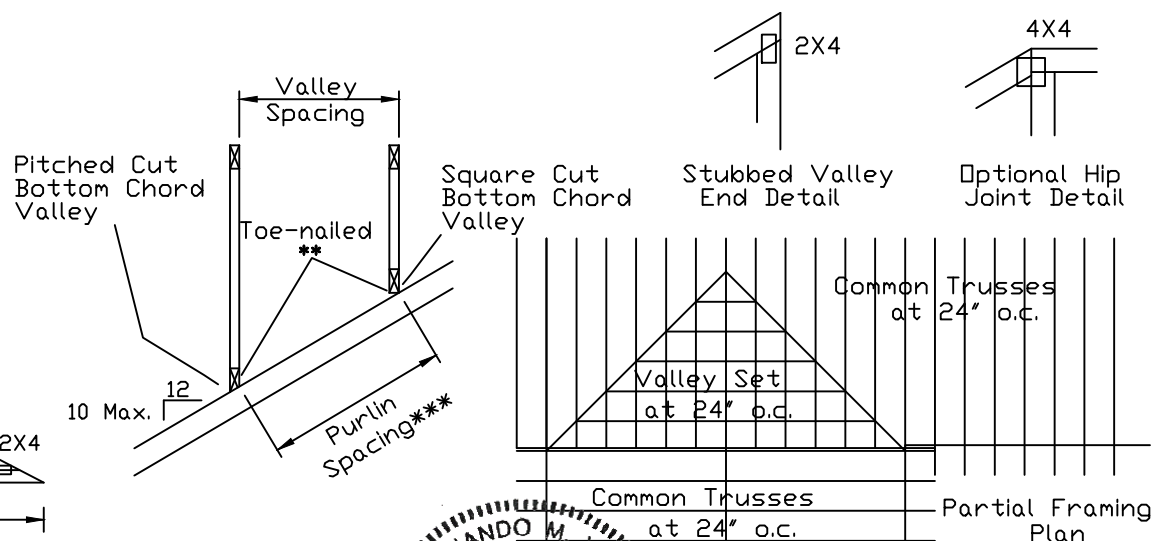
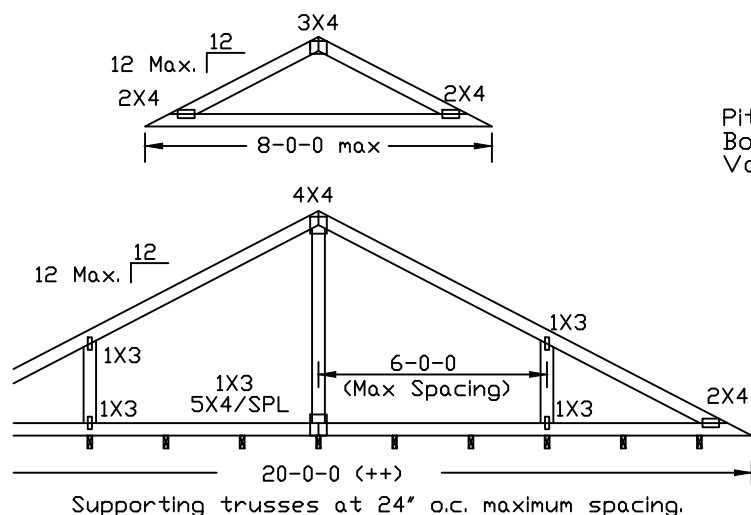
Purlins at 24" o.c. or as otherwise specified on engineer's sealed design

Or

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

\*\*\* Note that the purlin spacing for bracing the top chord of the truss beneath the valley is measured along the slope of the top chord.

++ Larger spans may be built as long as the vertical height does not exceed 14'-0".



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

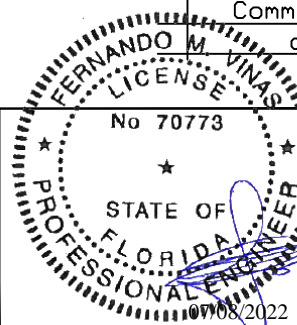
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COA#0-278

Florida Certificate of Product Approval #E-1 1990

TC LL	30	30	40PSF	REF VALLEY DETAIL
TC DL	20	15	7PSF	DATE 01/26/2018
BC DL	10	10	10 PSF	DRWG VALTN160118
BC LL	0	0	0 PSF	
TOT. L.D.	60	55	57PSF	
DUR.FAC.1.25/1.33		1.15	1.15	
SPACING			24.0"	

# CLR Reinforcing Member Substitution

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

## Notes:

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

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

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

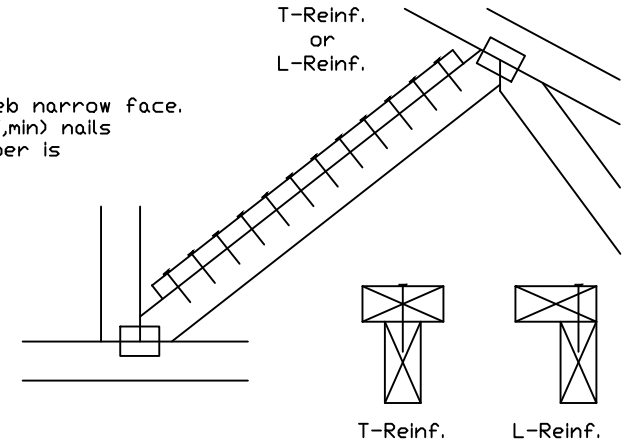
Web Member Size	Specified CLR Restraint	Alternative Reinforcement T- or L- Reinf.	Scab Reinf.
2x3 or 2x4	1 row	2x4	1-2x4
2x3 or 2x4	2 rows	2x6	2-2x4
2x6	1 row	2x4	1-2x6
2x6	2 rows	2x6	2-2x4(*)
2x8	1 row	2x6	1-2x8
2x8	2 rows	2x6	2-2x6(*)

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

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

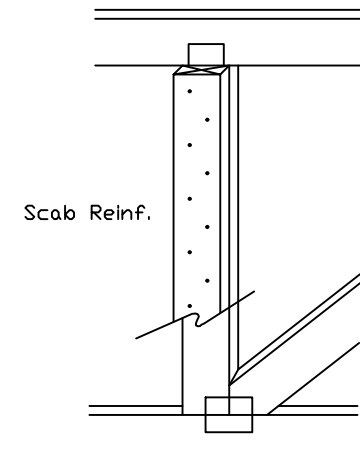
## T-Reinforcement or L-Reinforcement:

Apply to either side of web narrow face. Attach with 10d (0.128"x3.0",min) nails at 6" o.c. Reinforcing member is a minimum 80% of web member length.



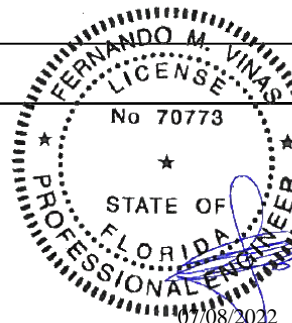
## Scab Reinforcement:

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



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COA#0-278

Florida Certificate of Product Approval #FL1999

TC LL	PSF	REF	CLR Subst.
TC DL	PSF	DATE	01/02/19
BC DL	PSF	DRWG	BRCLBSUB0119
BC LL	PSF		
TOT. LD.	PSF		
DUR. FAC.			
SPACING			