#43364

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ALPINE
AN ITW COMPANY

FL REG# 278, Yoonhwak Kim, FL PE #86367

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

UPDATE

Site Information:	Page 1:
Customer: W. B. Howland Company, Inc.	*Job Number:* 21-5954
Job Description: Arata	
Address: FL	

Job Engineering Criteria:	
Design Code: FBC 7th Ed. 2020 Res.	*IntelliVIEW Version:* 21.01.01A *JRef #:* 1X9O2150001
Wind Standard: ASCE 7-16 *Wind Speed (mph):* 130 *Building Type:* Closed	*Design Loading (psf):* 40.00

This package contains general notes pages, 42 truss drawing(s) and 5 detail(s).

Item	Drawing Number	Truss
1	288.21.0914.39627	A01
3	288.21.0914.30910	A03
5	288.21.0914.26480	A05
7	288.21.0914.21757	A07
9	288.21.0838.05118	A09
11	288.21.0838.05494	A10
13	288.21.0838.05588	A12
15	288.21.0914.18757	A14
17	288.21.0838.05555	A16
19	288.21.0838.04666	A18
21	288.21.0838.05259	A20
23	288.21.0914.16130	B01
25	288.21.0914.09207	B03
27	288.21.0838.05495	C01
29	288.21.0838.04806	C03
31	288.21.0838.05306	HJ02
33	288.21.0838.05009	J02
35	288.21.0838.05463	J04
37	288.21.0838.05120	J06
39	288.21.0838.05415	J08
41	288.21.0838.04634	PB02
43	A14015ENC160118	
45	BRCLBSUB0119	
47	PB160160118	

Item	Drawing Number	Truss
2	288.21.0914.33980	A02
4	288.21.0914.28533	A04
6	288.21.0914.23970	A06
8	288.21.0838.05119	A08
10	288.21.0838.05524	A09
12	288.21.0838.05291	A11
14	288.21.0838.05447	A13
16	288.21.0838.05244	A15
18	288.21.0838.04805	A17
20	288.21.0838.04650	A19
22	288.21.0838.05339	A21
24	288.21.0914.13257	B02
26	288.21.0914.11353	B03
28	288.21.0838.05338	C02
30	288.21.0838.05509	HJ01
32	288.21.0838.05337	J01
34	288.21.0838.05025	J03
36	288.21.0838.04978	J05
38	288.21.0838.04994	J07
40	288.21.0838.04681	PB01
42	288.21.0838.04807	PB03
44	A14030ENC160118	
46	GBLLETIN0118	

General Notes

Truss Design Engineer Scope of Work, Design Assumptions and Design Responsibilities:
The design responsibilities assumed in the preparation of these design drawings are those specified in ANSI/TPI 1, Chapter 2; and the National Design Standard for Metal Plate Connected Wood Truss Construction, by the Truss Plate Institute. The truss component designs conform to the applicable provisions of ANSI/TPI 1 and NDS, the National Design Specification for Wood Construction by AWC. The truss component designs are based on the specified loading and dimension information furnished by others to the Truss Design Engineer. The Truss Design Engineer has no duty to independently verify the accuracy or completeness of the information provided by others and may rely on that information without liability. The responsibility for verification of that information remains with others neither employed nor controlled by the Truss Design Engineer. The Truss Design Engineer's seal and signature on the attached drawings, or cover page listing these drawings, indicates acceptance of professional engineering responsibility solely for the truss component designs and not for the technical information furnished by others which technical information and consequences thereof remain their sole responsibility.

The suitability and use of these drawings for any particular structure is the responsibility of the Building Designer in accordance with ANSI/TPI 1 Chapter 2. The Building Designer is responsible for determining that the dimensions and loads for each truss component match those required by the plans and by the actual use of the individual component, and for ascertaining that the loads shown on the drawings meet or exceed applicable building code requirements and any additional factors required in the particular application. Truss components using metal connector plates with integral teeth shall not be placed in environments that will cause the moisture content of the wood in which plates are embedded to exceed 19% and/or cause corrosion of connector plates and other metal fasteners.

The Truss Design Engineer shall not be responsible for items beyond the specific scope of the agreed contracted work set forth herein, including but not limited to: verifying the dimensions of the truss component, calculation of any of the truss component design loads, inspection of the truss components before or after installation, the design of temporary or permanent bracing and their attachment required in the roof and/or floor systems, the design of diaphragms or shear walls, the design of load transfer connections to and from diaphragms and shear walls, the design of load transfer to the foundation, the design of connections for truss components to their bearing supports, the design of the bearing supports, installation of the truss components, observation of the truss component installation process, review of truss assembly procedures, sequencing of the truss component installation, construction means and methods, site and/or worker safety in the installation of the truss components and/or its connections.

This document may be a high quality facsimile of the original engineering document which is a digitally signed electronic file with third party authentication. A wet or embossed seal copy of this engineering document is available upon request.

Temporary Lateral Restraint and Bracing:
Temporary lateral restraint and diagonal bracing shall be installed according to the provisions of BCSI chapters B1, B2, B7 and/or B10 (Building Component Safety Information, by TPI and SBCA), or as specified by the Building Designer or other Registered Design Professional. The required locations for lateral restraint and/or bracing depicted on these drawings are only for the permanent lateral support of the truss members to reduce buckling lengths, and do not apply to and may not be relied upon for the temporary stability of the truss components during their installation.

Permanent Lateral Restraint and Bracing:
The required locations for lateral restraint or bracing depicted on these drawings are for the permanent lateral support of the truss members to reduce buckling lengths. Permanent lateral support shall be installed according to the provisions of BCSI chapters B3, B7 and/or B10, or as specified by the Building Designer or other Registered Design Professional. These drawings do not depict or specify installation/erection bracing, wind bracing, portal bracing or similar building stability bracing which are parts of the overall building design to be specified, designed and detailed by the Building Designer.

Connector Plate Information:
Alpine connector plates are made of ASTM A653 or ASTM A1063 galvanized steel with the following designations, gauges and grades: W=Wave, 20ga, grade 40; H=High Strength, 20ga, grade 60; S=Super Strength, 18ga, grade 60. Information on model code compliance is contained in the ICC Evaluation Service report ESR-1118, available on-line at www.icc-es.org.

Fire Retardant Treated Lumber:
Fire retardant treated lumber must be properly re-dried and maintained below 19% or less moisture level through all stages of construction and usage. Fire retardant treated lumber may be more brittle than untreated lumber. Special handling care must be taken to prevent breakage during all handling activities.

General Notes (continued)

Key to Terms:
Information provided on drawings reflects a summary of the pertinent information required for the truss design. Detailed information on load cases, reactions, member lengths, forces and members requiring permanent lateral support may be found in calculation sheets available upon written request.

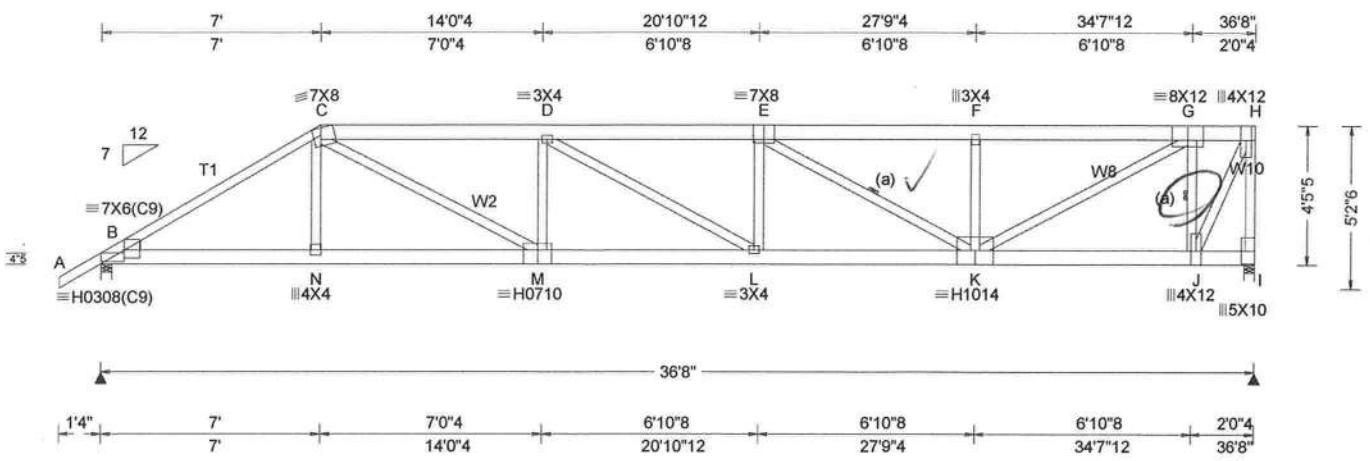
BCDL = Bottom Chord standard design Dead Load in pounds per square foot.
BCLL = Bottom Chord standard design Live Load in pounds per square foot.
CL = Certified lumber.
Des Ld = total of TCLL, TCDL, BCLL and BCDL Design Load in pounds per square foot.
FRT = Fire Retardant Treated lumber.
FRT-DB = D-Blaze Fire Retardant Treated lumber.
FRT-DC = Dricon Fire Retardant Treated lumber.
FRT-FP = FirePRO Fire Retardant Treated lumber.
FRT-FL = FlamePRO Fire Retardant Treated lumber.
FRT-FT = FlameTech Fire Retardant Treated lumber.
FRT-PG = PYRO-GUARD Fire Retardant Treated lumber.
g = green lumber.
HORZ(LL) = maximum Horizontal panel point deflection due to Live Load, in inches.
HORZ(TL) = maximum Horizontal panel point long term deflection in inches, due to Total Load, including creep adjustment.
HPL = additional Horizontal Load added to a truss Piece in pounds per linear foot or pounds.
Ic = Incised lumber.
FJ = Finger Jointed lumber.
L/# = user specified divisor for limiting span/deflection ratio for evaluation of actual L/defl value.
L/defl = ratio of Length between bearings, in inches, divided by the vertical Deflection due to creep, in inches, at the referenced panel point. Reported as 999 if greater than or equal to 999.
Loc = Location, starting location of left end of bearing or panel point (joint) location of deflection.
Max BC CSI = Maximum bending and axial Combined Stress Index for Bottom Chords for of all load cases.
Max TC CSI = Maximum bending and axial Combined Stress Index for Top Chords for of all load cases.
Max Web CSI= Maximum bending and axial Combined Stress Index for Webs for of all load cases.
NCBCLL = Non-Concurrent Bottom Chord design Live Load in pounds per square foot.
PL = additional Load applied at a user specified angle on a truss Piece in pounds per linear foot or pounds.
PLB = additional vertical load added to a Bottom chord Piece of a truss in pounds per linear foot or pounds
PLT = additional vertical load added to a Top chord Piece of a truss in pounds per linear foot or pounds.
PP = Panel Point.
R = maximum downward design Reaction, in pounds, from all specified gravity load cases, at the indicated location (Loc).
-R = maximum upward design Reaction, in pounds, from all specified gravity load cases, at the identified location (Loc).
Rh = maximum horizontal design Reaction in either direction, in pounds, from all specified gravity load cases, at the indicated location (Loc).
RL = maximum horizontal design Reaction in either direction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).
Rw = maximum downward design Reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the identified location (Loc).
TCDL = Top Chord standard design Dead Load in pounds per square foot.
TCLL = Top Chord standard design Live Load in pounds per square foot.
U = maximum Upward design reaction, in pounds, from all specified non-gravity (wind or seismic) load cases, at the indicated location (Loc).
VERT(CL) = maximum Vertical panel point deflection in inches due to Live Load and Creep Component of Dead Load in inches.
VERT(CTL) = maximum Vertical panel point deflection ratios due to Live Load and Creep Component of Dead Load, and maximum long term Vertical panel point deflection in inches due to Total load, including creep adjustment.
VERT(LL) = maximum Vertical panel point deflection in inches due to Live Load.
VERT(TL) = maximum Vertical panel point long term deflection in inches due to Total load, including creep adjustment.
W = Width of non-hanger bearing, in inches.

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

References:

1. AWC: American Wood Council; 222 Catoctin Circle SE, Suite 201; Leesburg, VA 20175; www.awc.org.
2. ICC: International Code Council; www.iccsafe.org.
3. Alpine, a division of ITW Building Components Group Inc.: 514 Earth City Expressway, Suite 242, Earth City, MO 63045; www.alpineitw.com.
4. TPI: Truss Plate Institute, 2670 Crain Highway, Suite 203, Waldorf, MD 20601; www.tpinst.org.
5. SBCA: Wood Truss Council of America, 6300 Enterprise Lane, Madison, WI 53719; www.sbcindustry.com.

SEQN: 636334 HIPM FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A01	Cust: R 215 JRef: 1X9O2150001 T48 DrwNo: 288.21.0914.39627 / YK 10/15/2021



Loading Criteria (psf)	
TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00
Load Duration:	1.25
Spacing:	24.0 "

Wind Criteria
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: 3.67 ft
Loc. from endwall: not in 4.50 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/10(0)
Plate Type(s):
HS, WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.348	L	999	240
VERT(CL): 0.700	L	626	180
HORZ(LL): 0.079	C	-	-
HORZ(TL): 0.160	C	-	-

Creep Factor: 2.0
Max TC CSI: 0.588
Max BC CSI: 0.567
Max Web CSI: 0.950

VIEW Ver: 21.01.01A.0521.20

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	3724	/-	/-	/-	/858	/-
I	3692	/-	/-	/-	/912	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 3.1
I Brg Width = 4.0 Min Req = 3.1
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	1569	-6762	E - F	1629	-6616
C - D	2059	-8534	F - G	1629	-6616
D - E	2134	-8760	G - H	431	-1773

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - N	5770	-1328	L - K	8730	-2143
N - M	5742	-1331	K - J	2021	-504
M - L	8611	-2095			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
N - C	767	0	F - K	450	-906
C - M	3230	-842	K - G	5340	-1306
M - D	513	-1075	G - J	1005	-3387
L - E	412	0	J - H	4149	-1008
E - K	597	-2457	H - I	884	-3720

Lumber

Top chord: 2x6 SP 2400f-2.0E; T1 2x4 SP M-31;
Bot chord: 2x6 SP 2400f-2.0E;
Webs: 2x4 SP #3; W2,W10 2x4 SP #2;
W8 2x4 SP M-31;
Lt Wedge: 2x4 SP #3;

Bracing

(a) Continuous lateral restraint equally spaced on member.

Special Loads

-----(Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)

TC: From	63 plf at	-1.33 to	63 plf at	7.00
TC: From	32 plf at	7.00 to	32 plf at	36.67
BC: From	5 plf at	-1.33 to	5 plf at	0.00
BC: From	20 plf at	0.00 to	20 plf at	7.03
BC: From	10 plf at	7.03 to	10 plf at	36.67

TC: 441 lb Conc. Load at 7.03
TC: 193 lb Conc. Load at 9.06,11.06,13.06,15.06 17.06,19.06,21.06,23.06,25.06,27.06,29.06,31.06 33.06,35.06
BC: 526 lb Conc. Load at 7.03
BC: 131 lb Conc. Load at 9.06,11.06,13.06,15.06 17.06,19.06,21.06,23.06,25.06,27.06,29.06,31.06 33.06,35.06

Wind

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

Additional Notes

The overall height of this truss excluding overhang is 4-5-5.

FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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

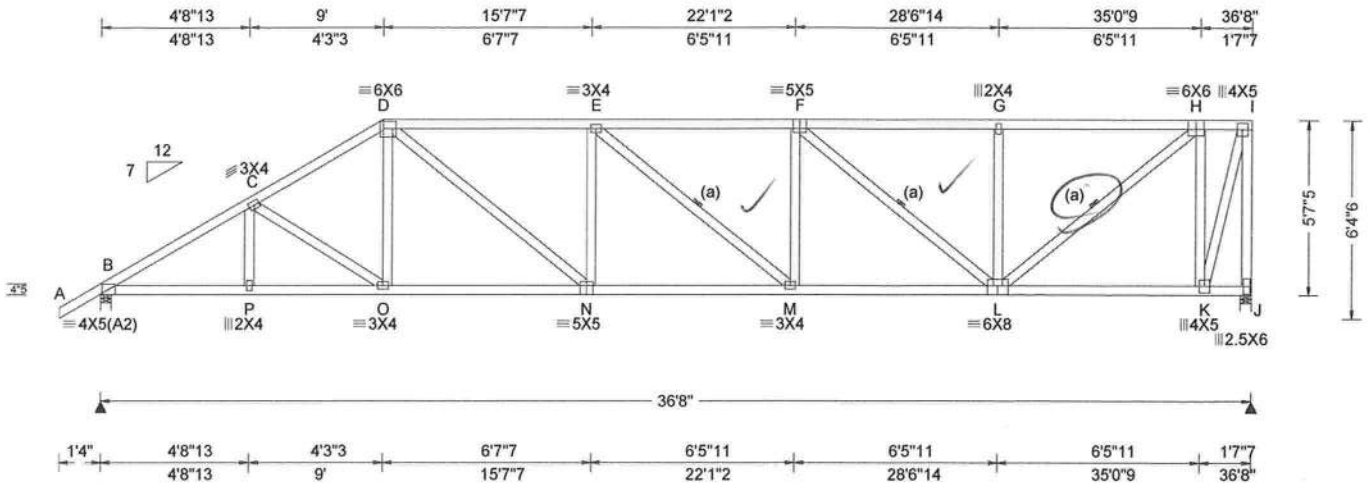
Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and SBCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI.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

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

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

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 636337 HIPM	Ply: 1	**Job Number:** 21-5954	Cust: R 215 JRef: 1X9O2150001 T18
FROM: CDM	Qty: 1	Arata	DrwNo: 288.21.0914.33980
		Truss Label: A02	/ YK 10/15/2021



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
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: 3.67 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.164	E	999	240
VERT(CL): 0.338	E	999	180
HORZ(LL): 0.054	K	-	-
HORZ(TL): 0.112	K	-	-

Creep Factor: 2.0
Max TC CSI: 0.536
Max BC CSI: 0.725
Max Web CSI: 0.853

VIEW Ver: 21.01.01A.0521.20

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1623	/-	/-	/957	/279	/207
J	1516	/-	/-	/770	/292	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.9
J Brg Width = 4.0 Min Req = 1.8
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	934	-2571	F - G	882	-1851
C - D	965	-2313	G - H	882	-1851
D - E	1201	-2578	H - I	203	-430
E - F	1195	-2540			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - P	2147	-927	N - M	2599	-1219
P - O	2146	-929	M - L	2531	-1197
O - N	1951	-884	L - K	509	-246

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
D - N	810	-444	L - H	1753	-830
N - E	350	-385	H - K	797	-1450
F - L	415	-887	K - I	1608	-758
G - L	336	-418	I - J	710	-1528

Lumber

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

Bracing

(a) Continuous lateral restraint equally spaced on member.

Wind

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

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 5-7-5.

FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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

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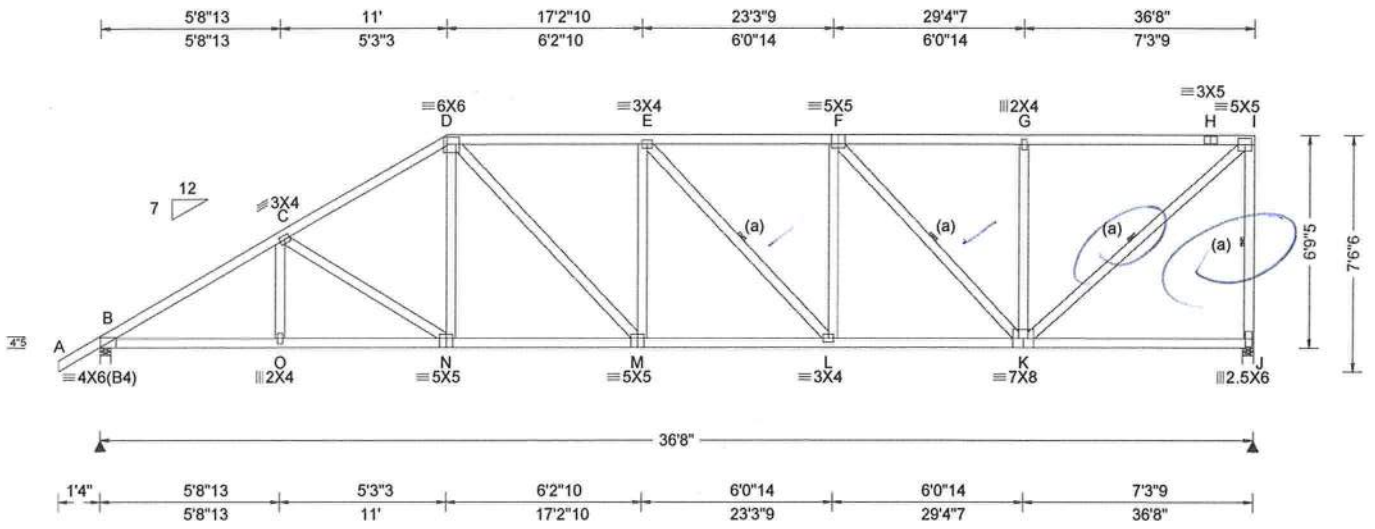
For more information see these web sites: Alpine: alpineitw.com; TPI: tpinst.org; SBCA: sbcacomponents.com; ICC: iccsafe.org; AWC: awc.org

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 636340 HIPM FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A03	Cust: R 215 JRef: 1X9O2150001 T45 DrwNo: 288.21.0914.30910 / YK 10/15/2021



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
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: 3.67 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.164	E	999	240
VERT(CL): 0.303	E	999	180
HORZ(LL): 0.059	K	-	-
HORZ(TL): 0.110	K	-	-

Creep Factor: 2.0
Max TC CSI: 0.987
Max BC CSI: 0.773
Max Web CSI: 0.824

VIEW Ver: 21.01.01A.0521.20

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1766	/-	/-	/978	/270	/248
J	1762	/-	/-	/782	/298	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.8
J Brg Width = 4.0 Min Req = 2.1
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	860	-2830	F - G	672	-1617
C - D	875	-2465	G - H	672	-1617
D - E	988	-2470	H - I	672	-1617
E - F	932	-2306			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - O	2363	-897	M - L	2479	-1000
O - N	2362	-898	L - K	2289	-931
N - M	2060	-802			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
D - N	400	-21	G - K	396	-490
D - M	598	-308	K - I	2163	-900
L - F	398	-19	I - J	749	-1624
F - K	387	-995			

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.

Wind

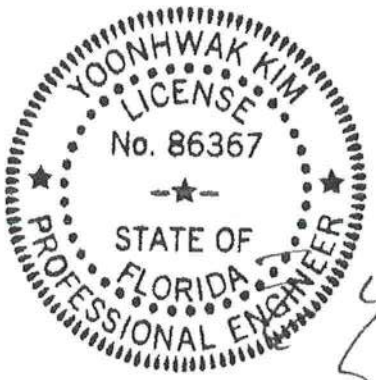
Wind loads based on MWFRS with additional C&C member design.

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 6-9-5.



FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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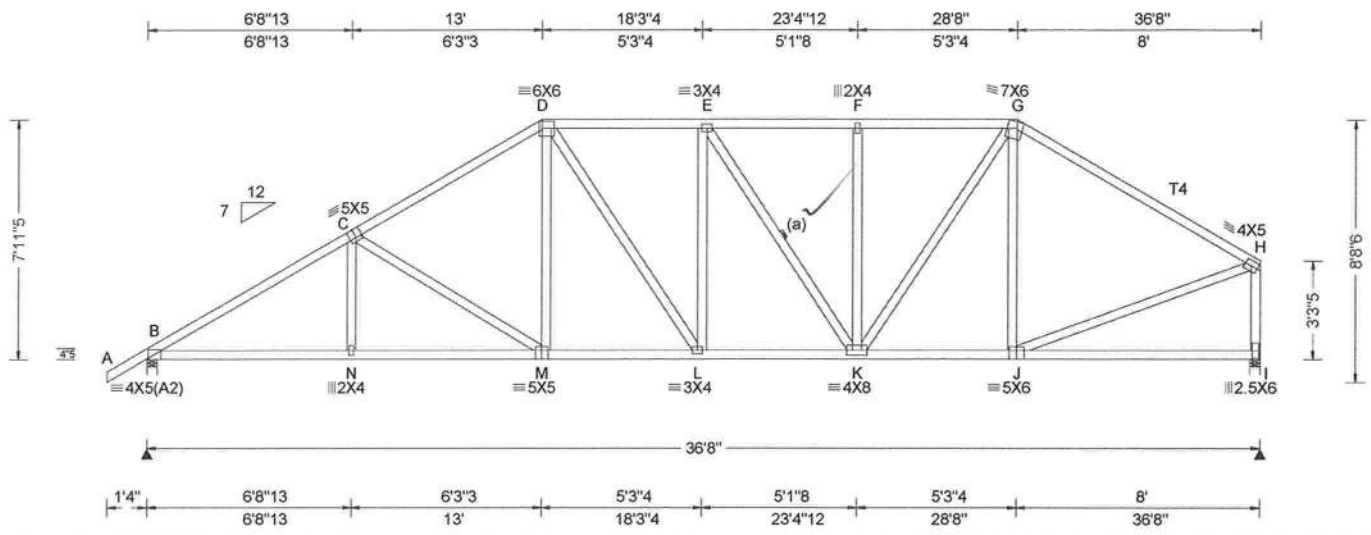
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 636342 HIPS FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A04	Cust: R 215 JRef: 1X9O2150001 T26 DrwNo: 288.21.0914.28533 / YK 10/15/2021



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
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: 3.67 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.123	E	999	240
VERT(CL): 0.234	E	999	180
HORZ(LL): 0.050	I	-	-
HORZ(TL): 0.095	I	-	-

Creep Factor: 2.0
Max TC CSI: 0.591
Max BC CSI: 0.648
Max Web CSI: 0.628

VIEW Ver: 21.01.01A.0521.20

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1749	/-	/-	/980	/282	/214
I	1674	/-	/-	/823	/268	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 2.1
I Brg Width = 4.0 Min Req = 2.0
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	794	-2779	E - F	786	-1920
C - D	791	-2295	F - G	786	-1920
D - E	827	-2083	G - H	614	-1804

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - N	2311	-702	L - K	2086	-665
N - M	2309	-703	K - J	1459	-434
M - L	1893	-562			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - M	173	-496	J - H	1521	-452
D - M	456	-38	H - I	539	-1606
K - G	811	-338			

Lumber

Top chord: 2x4 SP #2; T4 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.

Wind

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

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 7-11-5.

FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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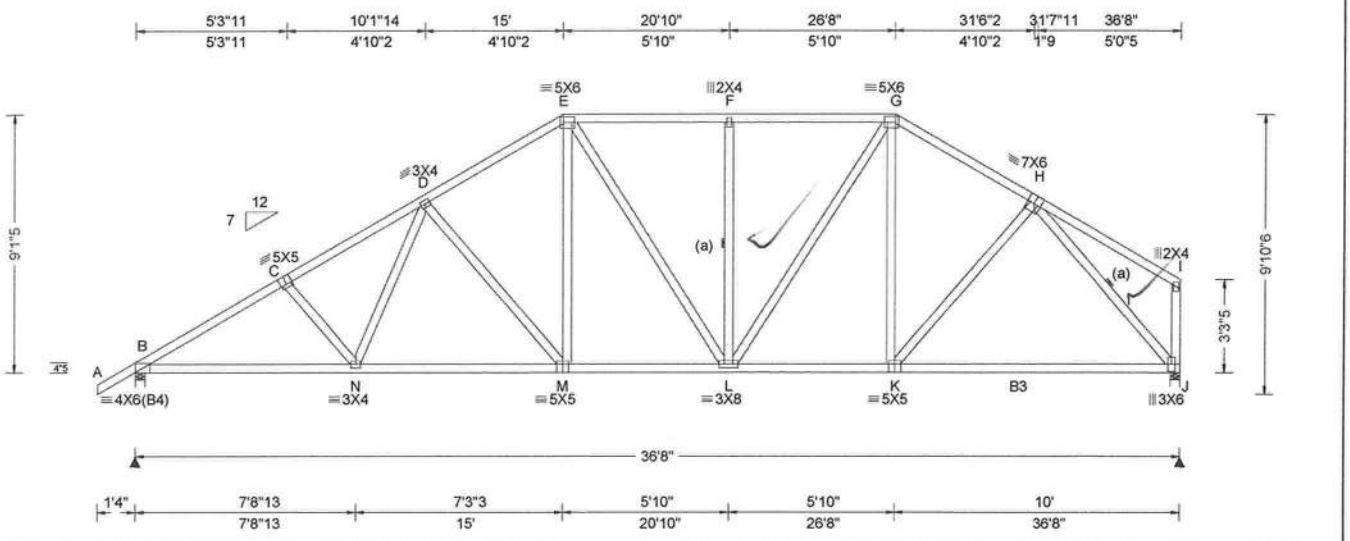
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 636344 HIPS FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A05	Cust: R 215 JRef: 1X9O2150001 T47 DrwNo: 288.21.0914.26480 / YK 10/15/2021	



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
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: 3.67 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.131	M	999	240
VERT(CL): 0.238	M	999	180
HORZ(LL): 0.057	J	-	-
HORZ(TL): 0.104	J	-	-

Creep Factor: 2.0
Max TC CSI: 0.467
Max BC CSI: 0.938
Max Web CSI: 0.655

VIEW Ver: 21.01.01A.0521.20

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1815	/-	/-	/989	/88	/245
J	1794	/-	/-	/834	/35	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.8
J Brg Width = 4.0 Min Req = 1.5
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	731	-2939	E - F	703	-1853
C - D	737	-2750	F - G	703	-1853
D - E	708	-2192	G - H	611	-1869

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - N	2460	-663	L - K	1543	-357
N - M	2166	-558	K - J	1304	-352
M - L	1824	-441			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
N - D	401	-34	F - L	322	-384
D - M	183	-535	L - G	561	-254
E - M	694	-76	H - J	547	-1968

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2; B3 2x4 SP M-31;
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.

Wind

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

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 9-1-5.

FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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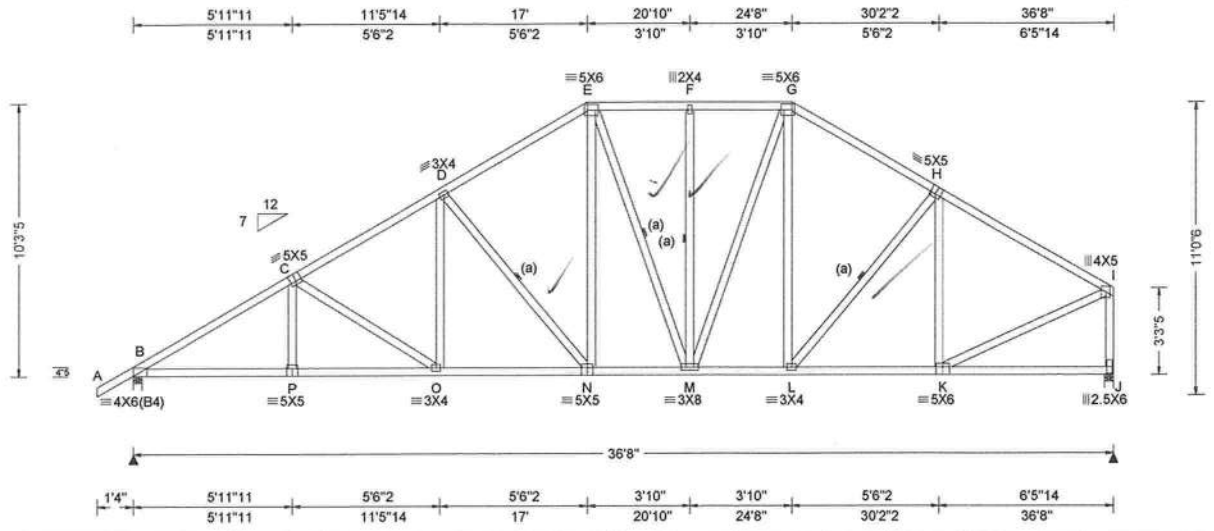
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 636346 HIPS FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A06	Cust: R 215 JRef: 1X9O2150001 T41 DrwNo: 288.21.0914.23970 / YK 10/15/2021



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00
Load Duration:	1.25
Spacing:	24.0 "

Wind Criteria
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: 3.67 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.125	O	999	240
VERT(CL): 0.234	O	999	180
HORZ(LL): 0.051	J	-	-
HORZ(TL): 0.094	J	-	-

Creep Factor: 2.0
Max TC CSI: 0.657
Max BC CSI: 0.751
Max Web CSI: 0.589

VIEW Ver: 21.01.01A.0521.20

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1772	/-	/-	/993	/71	/277
J	1712	/-	/-	/840	/28	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.8
J Brg Width = 4.0 Min Req = 2.0
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	630	-2838	F - G	585	-1587
C - D	630	-2452	G - H	575	-1766
D - E	618	-1958	H - I	440	-1735
E - F	585	-1587			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - P	2368	-570	N - M	1610	-320
P - O	2366	-571	M - L	1437	-278
O - N	2033	-450	L - K	1436	-309

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - O	144	-386	M - G	415	-158
O - D	414	-25	H - K	208	-451
D - N	209	-676	K - I	1546	-326
E - N	705	-114	I - J	416	-1661

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.

Wind

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

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 10-3-5.

YOONHWAK KIM LICENSE No. 86367 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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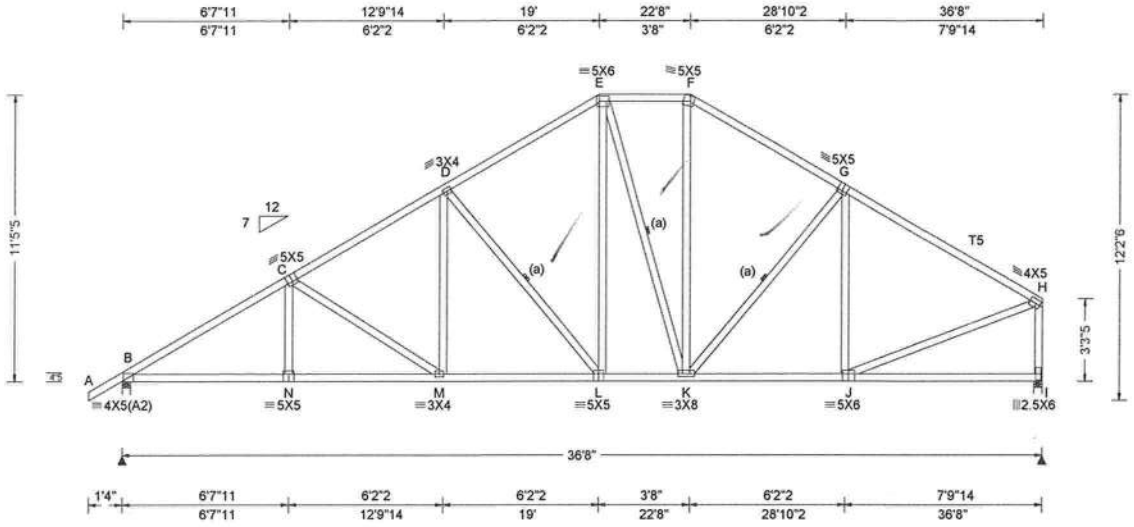
ALPINE AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 636348 HIPS FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A07	Cust: R 215 JRef: 1X9O2150001 T22 DrwNo: 288.21.0914.21757 / YK 10/15/2021



Loading Criteria (psf)	**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**
TCLL: 20.00 TCDL: 10.00 BCLL: 0.00 BCDL: 10.00 Des Ld: 40.00 NCBCLL: 10.00 Soffit: 2.00 Load Duration: 1.25 Spacing: 24.0 "	Wind Std: ASCE 7-16 Speed: 130 mph Enclosure: Closed Risk Category: II EXP: C Kzt: NA Mean Height: 15.00 ft TCDL: 5.0 psf BCDL: 5.0 psf MWFRS Parallel Dist: h to 2h C&C Dist a: 3.67 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): 0.120 M 999 240 VERT(CL): 0.231 M 999 180 HORZ(LL): 0.046 I - - HORZ(TL): 0.088 I - - Creep Factor: 2.0 Max TC CSI: 0.657 Max BC CSI: 0.707 Max Web CSI: 0.570 VIEW Ver: 21.01.01A.0521.20

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1724	/-	/-	/994	/47	/308
I	1646	/-	/-	/842	/24	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 2.0
I Brg Width = 4.0 Min Req = 1.9
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	544	-2728	E - F	480	-1311
C - D	537	-2276	F - G	508	-1629
D - E	521	-1704	G - H	399	-1759

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - N	2268	-488	L - K	1380	-198
N - M	2266	-489	K - J	1434	-256
M - L	1870	-346			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - M	171	-459	K - F	502	-101
M - D	488	-30	J - H	1498	-258
D - L	236	-780	H - I	363	-1586
E - L	726	-135			

Lumber

Top chord: 2x4 SP #2; 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.

Wind

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

Right end vertical not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 11-5-5.

FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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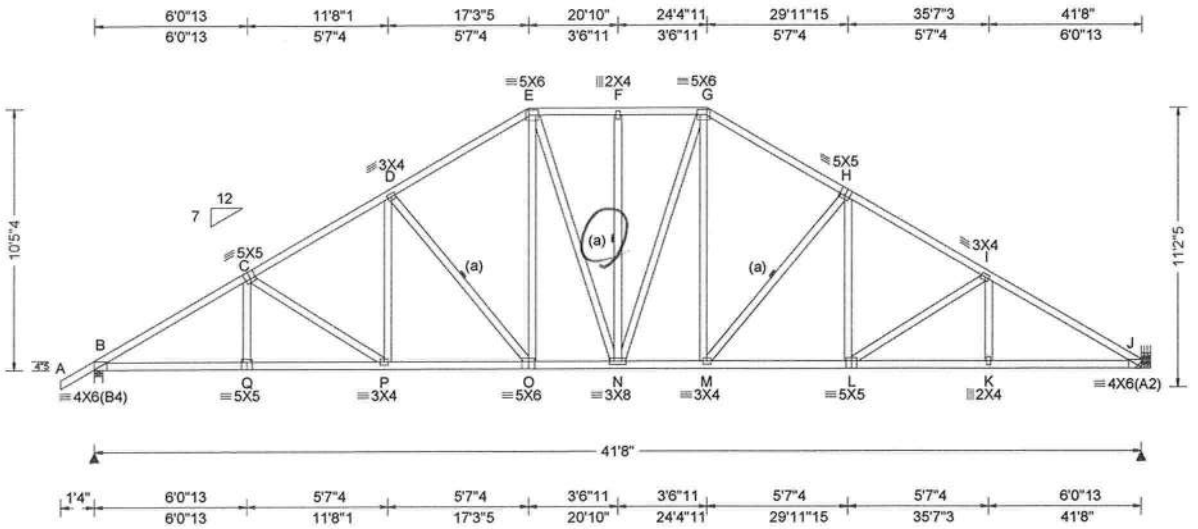
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 634040 / COMN FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A08	Cust: R 215 JRef: 1X9O2150001 T20 / DrwNo: 288.21.0838.05119 / YK 10/15/2021



Loading Criteria (psf)		**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**
TCLL:	20.00	Wind Std: ASCE 7-16	Pg: NA Ct: NA CAT: NA	PP Deflection in loc L/defl L/#
TCDL:	10.00	Speed: 130 mph	Pf: NA Ce: NA	VERT(LL): 0.171 O 999 240
BCLL:	0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): 0.335 O 999 180
BCDL:	10.00	Risk Category: II	Snow Duration: NA	HORZ(LL): 0.082 J - -
Des Ld:	40.00	EXP: C Kzt: NA		HORZ(TL): 0.160 J - -
NCBCLL:	10.00	Mean Height: 15.00 ft	Building Code:	Creep Factor: 2.0
Soffit:	2.00	TCDL: 5.0 psf	FBC 7th Ed. 2020 Res.	Max TC CSI: 0.473
Load Duration:	1.25	BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI: 0.806
Spacing:	24.0 "	MWFRS Parallel Dist: h to 2h	Rep Fac: Yes	Max Web CSI: 0.352
		C&C Dist a: 4.17 ft	FT/RT:20(0)/10(0)	
		Loc. from endwall: not in 13.00 ft	Plate Type(s):	
		GCpi: 0.18	WAVE	VIEW Ver: 21.01.01A.0521.20
		Wind Duration: 1.60		

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1898	/-	/-	/1078	/31	/295
J	1826	/-	/-	/1019	/27	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.9
J Brg Width = - 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	718	-3126	F - G	671	-1879
C - D	715	-2734	G - H	701	-2229
D - E	701	-2227	H - I	718	-2740
E - F	671	-1879	I - J	725	-3149

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - Q	2616	-538	N - M	1843	-279
Q - P	2614	-539	M - L	2277	-414
P - O	2274	-413	L - K	2638	-547
O - N	1841	-278	K - J	2640	-546

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - P	151	-393	G - M	672	-118
P - D	426	-27	M - H	216	-694
D - O	215	-693	H - L	435	-32
E - O	668	-118	L - I	159	-418

Lumber

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

Bracing

(a) Continuous lateral restraint equally spaced on member.

Hangers / Ties

(J) Hanger Support Required, by others

Loading

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

Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 10-5-4.

FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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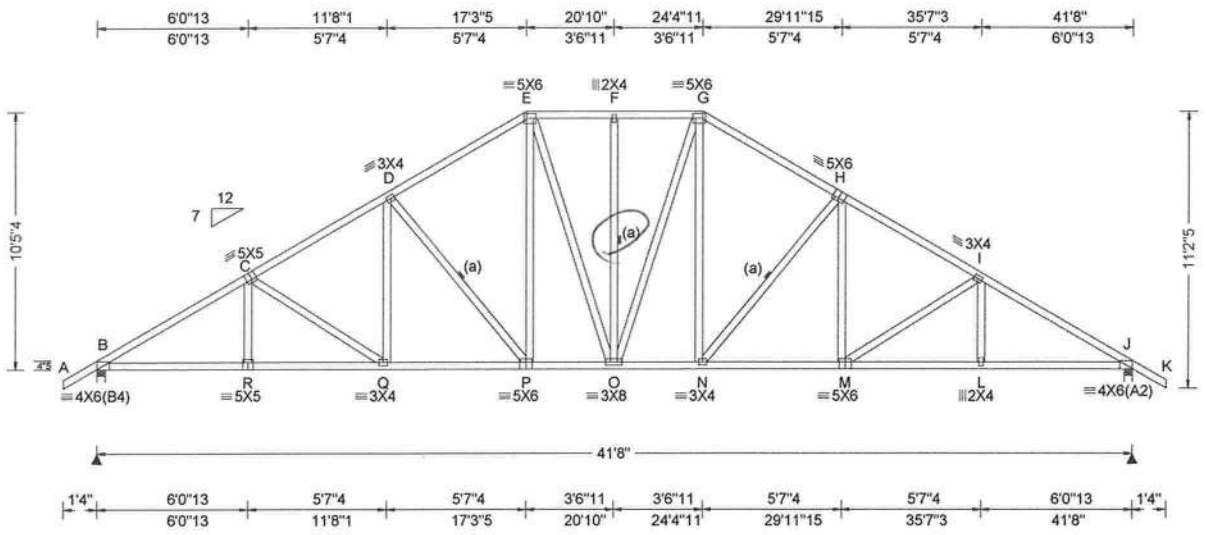
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 634044 / HIPS FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A09	Cust: R 215 JRef: 1X9O2150001 T9 / DrwNo: 288.21.0838.05118 / YK 10/15/2021



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
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: 4.17 ft
Loc. from endwall: not in 13.00 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.171	P	999	240
VERT(CL): 0.335	P	999	180
HORZ(LL): 0.082	J	-	-
HORZ(TL): 0.160	J	-	-

Creep Factor: 2.0
Max TC CSI: 0.473
Max BC CSI: 0.805
Max Web CSI: 0.344

VIEW Ver: 21.01.01A.0521.20

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1897	/-	/-	/1081	/-	/295
J	1827	/-	/-	/1023	/-	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.9
J Brg Width = 4.0 Min Req = 1.8
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	306	-3124	F - G	261	-1877
C - D	295	-2732	G - H	277	-2226
D - E	277	-2226	H - I	297	-2735
E - F	261	-1877	I - J	312	-3137

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - R	2614	-184	O - N	1841	0
R - Q	2613	-185	N - M	2274	-50
Q - P	2273	-50	M - L	2626	-191
P - O	1839	0	L - J	2628	-190

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - Q	162	-394	G - N	670	-121
Q - D	426	-32	N - H	221	-692
D - P	221	-693	H - M	431	-36
E - P	668	-121	M - I	169	-409

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.

Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

Refer to DWG PB160160118 for piggyback details.

The overall height of this truss excluding overhang is 10-5-4.

YOONHWAK KIM LICENSE No. 86367 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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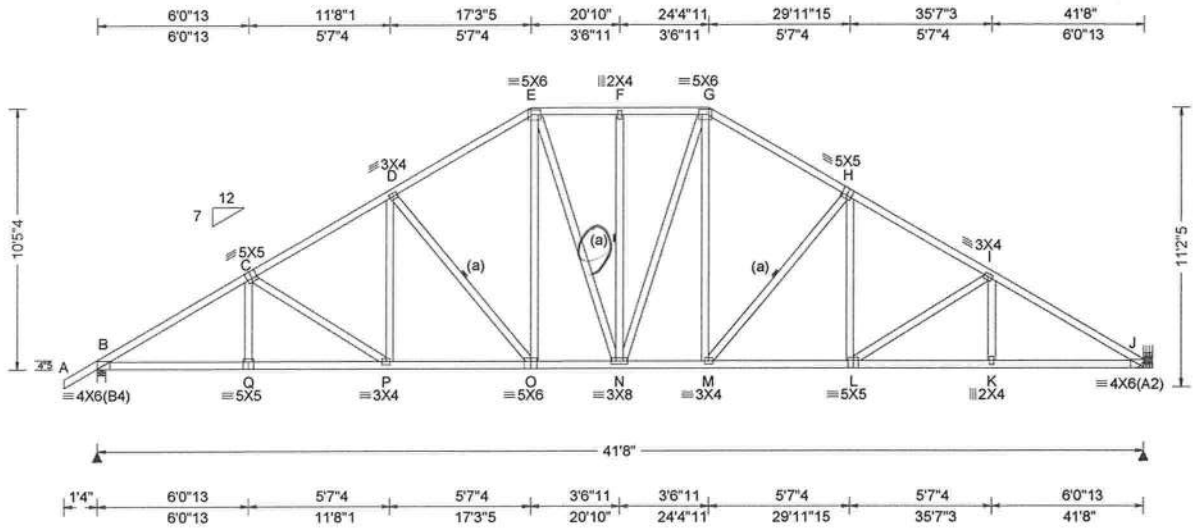
ALPINE AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 634042 / COMN FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A09	Cust: R 215 JRef: 1X9O2150001 T15 / DrwNo: 288.21.0838.05524 / YK 10/15/2021



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
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: 4.17 ft
Loc. from endwall: not in 13.00 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.171	O	999	240
VERT(CL): 0.335	O	999	180
HORZ(LL): 0.082	J	-	-
HORZ(TL): 0.160	J	-	-

Creep Factor: 2.0
Max TC CSI: 0.473
Max BC CSI: 0.806
Max Web CSI: 0.352

VIEW Ver: 21.01.01A.0521.20

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1898	/-	/-	/1078	/31	/295
J	1826	/-	/-	/1019	/27	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.9
J Brg Width = - 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	713	-3126	F - G	667	-1879
C - D	711	-2734	G - H	697	-2229
D - E	697	-2227	H - I	714	-2740
E - F	667	-1879	I - J	721	-3149

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - Q	2616	-534	N - M	1843	-277
Q - P	2614	-535	M - L	2277	-411
P - O	2274	-410	L - K	2638	-543
O - N	1841	-276	K - J	2640	-542

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - P	150	-393	G - M	672	-117
P - D	426	-27	M - H	215	-694
D - O	214	-693	H - L	435	-32
E - O	668	-117	L - I	158	-418

Lumber

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

Bracing

(a) Continuous lateral restraint equally spaced on member.

Hangers / Ties

(J) Hanger Support Required, by others

Loading

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

Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 10-5-4.

FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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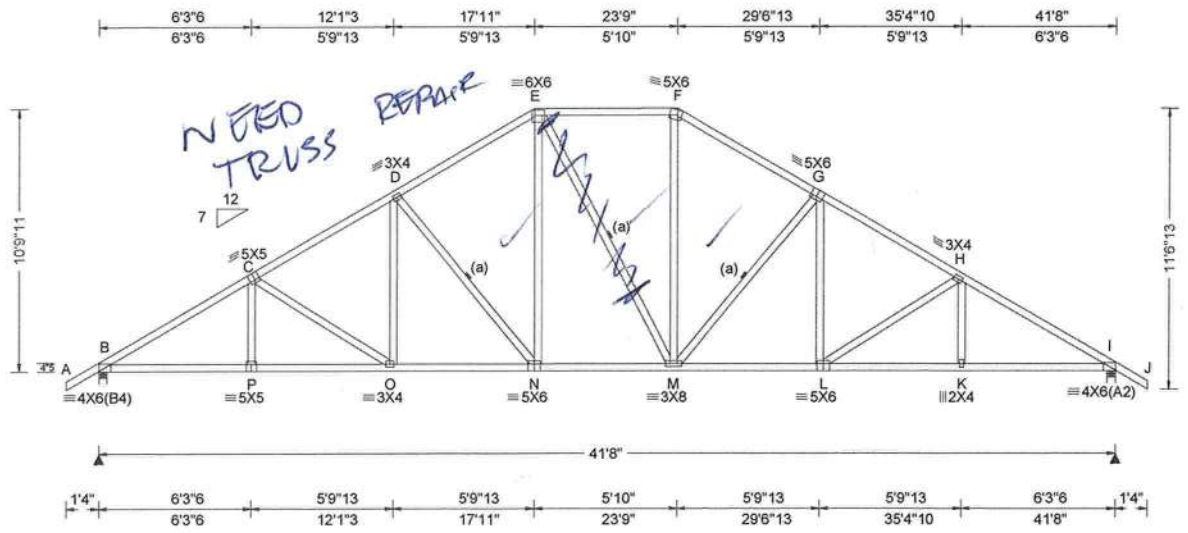
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 634046 / HIPS FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A10	Cust: R 215 JRef: 1X9O2150001 T21 / DrwNo: 288.21.0838.05494 / YK 10/15/2021



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
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: 4.17 ft
Loc. from endwall: not in 13.00 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.192	N	999	240
VERT(CL): 0.362	N	999	180
HORZ(LL): 0.089	I	-	-
HORZ(TL): 0.168	I	-	-

Creep Factor: 2.0
Max TC CSI: 0.501
Max BC CSI: 0.783
Max Web CSI: 0.381

VIEW Ver: 21.01.01A.0521.20

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1973	/-	/-	/1078	/30	/316
I	1967	/-	/-	/1078	/30	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 2.0
I Brg Width = 4.0 Min Req = 2.0
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	683	-3265	F - G	659	-2308
C - D	677	-2851	G - H	677	-2839
D - E	662	-2330	H - I	683	-3255
E - F	619	-1923			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - P	2734	-480	M - L	2360	-350
P - O	2732	-481	L - K	2724	-486
O - N	2372	-350	K - I	2725	-485
N - M	1930	-215			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - O	161	-417	M - F	754	-107
O - D	436	-31	M - G	215	-704
D - N	216	-705	G - L	439	-32
E - N	784	-111	L - H	162	-421

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.

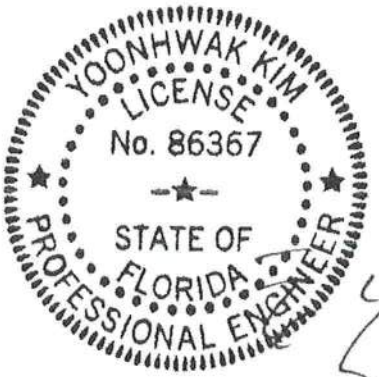
Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 10-9-11.



FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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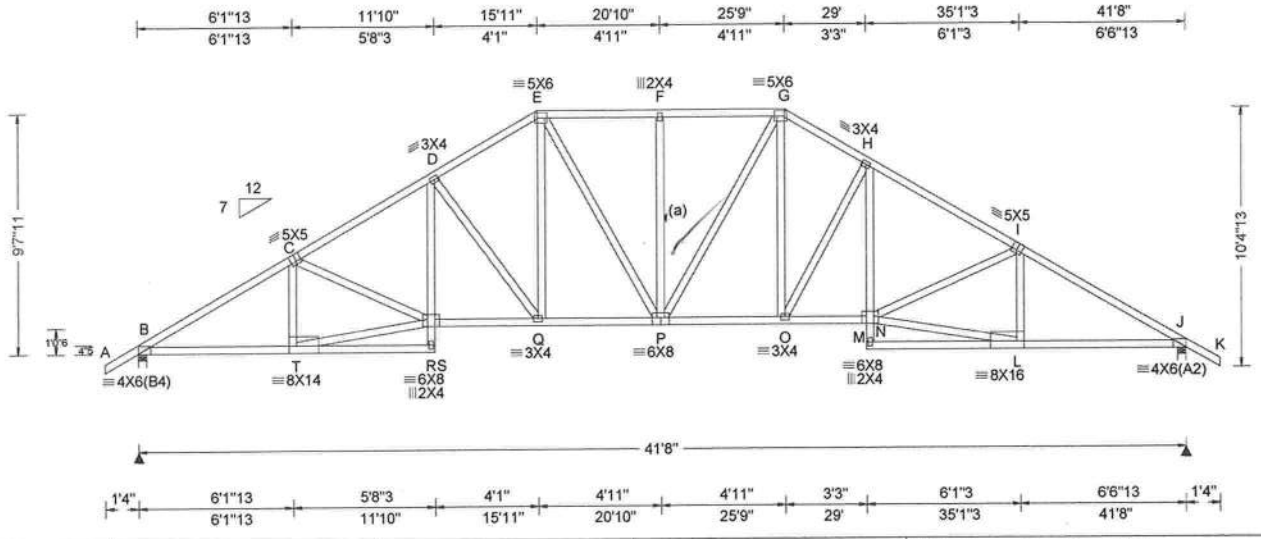
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 634048 / HIPS FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A11	Cust: R 215 JRef:1X9O2150001 T10 / DrwNo: 288.21.0838.05291 / YK 10/15/2021



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
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: 4.17 ft
Loc. from endwall: not in 13.00 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#	
VERT(LL):	0.212	F	999	240
VERT(CL):	0.414	F	999	180
HORZ(LL):	0.112	J	-	-
HORZ(TL):	0.219	J	-	-

Creep Factor: 2.0
Max TC CSI: 0.520
Max BC CSI: 0.747
Max Web CSI: 0.990

VIEW Ver: 21.01.01A.0521.20

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1895	/-	/-	/1074	/34	/284
J	1895	/-	/-	/1074	/34	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.9
J Brg Width = 4.0 Min Req = 1.9
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	760	-3125	F - G	792	-2355
C - D	865	-3229	G - H	818	-2624
D - E	811	-2636	H - I	846	-3120
E - F	792	-2355	I - J	761	-3116

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - T	2614	-552	P - O	2211	-366
R - Q	2715	-520	O - M	2612	-487
Q - P	2213	-371	L - J	2603	-547

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - T	187	-457	O - H	257	-859
T - R	2599	-549	G - O	817	-163
R - D	680	-112	H - M	687	-122
D - Q	256	-865	M - L	2579	-544
E - Q	784	-142	L - I	179	-399

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.

Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 9-7-11.

YOONHWAK KIM LICENSE No. 86367 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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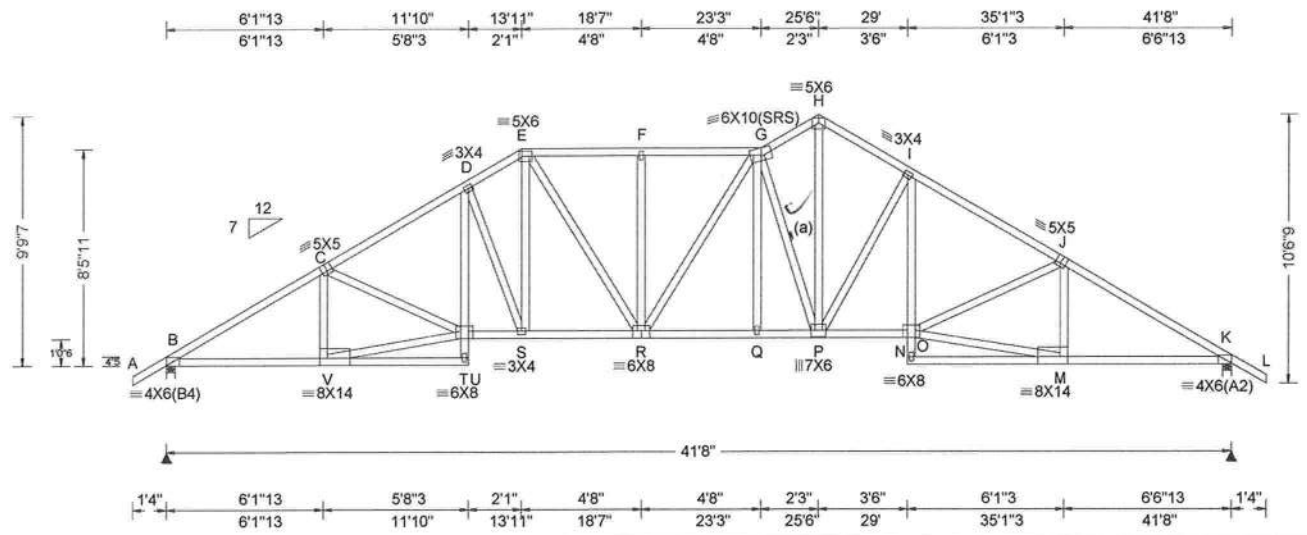
ALPINE AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 634053 / SPEC FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A12	Cust: R 215 JRef: 1X9O2150001 T28 / DrwNo: 288.21.0838.05588 / YK 10/15/2021



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
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: 4.17 ft
Loc. from endwall: not in 13.00 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.225	Q	999	240
VERT(CL): 0.464	Q	999	180
HORZ(LL): 0.105	K	-	-
HORZ(TL): 0.217	K	-	-

Creep Factor: 2.0
Max TC CSI: 0.486
Max BC CSI: 0.699
Max Web CSI: 0.974

VIEW Ver: 21.01.01A.0521.20

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1800	/-	/-	/1066	/33	/288
K	1800	/-	/-	/1070	/80	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.8
K Brg Width = 4.0 Min Req = 1.8
Bearings B & K 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	778	-2947	G - H	783	-2342
C - D	882	-3006	H - I	778	-2388
D - E	868	-2619	I - J	809	-2902
E - F	857	-2476	J - K	730	-2936
F - G	857	-2476			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - V	2462	-564	Q - P	2453	-498
T - S	2522	-534	P - N	2423	-456
S - R	2220	-443	M - K	2449	-522
R - Q	2454	-497			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - V	190	-421	G - P	562	-1481
V - T	2445	-561	H - P	2136	-713
T - D	717	-142	P - I	256	-841
D - S	256	-859	I - N	671	-112
E - S	727	-169	N - M	2428	-519
E - R	468	-203			

Lumber

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

Bracing

(a) Continuous lateral restraint equally spaced on member.

Plating Notes

All plates are 2X4 except as noted.

Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 9-9-7.

FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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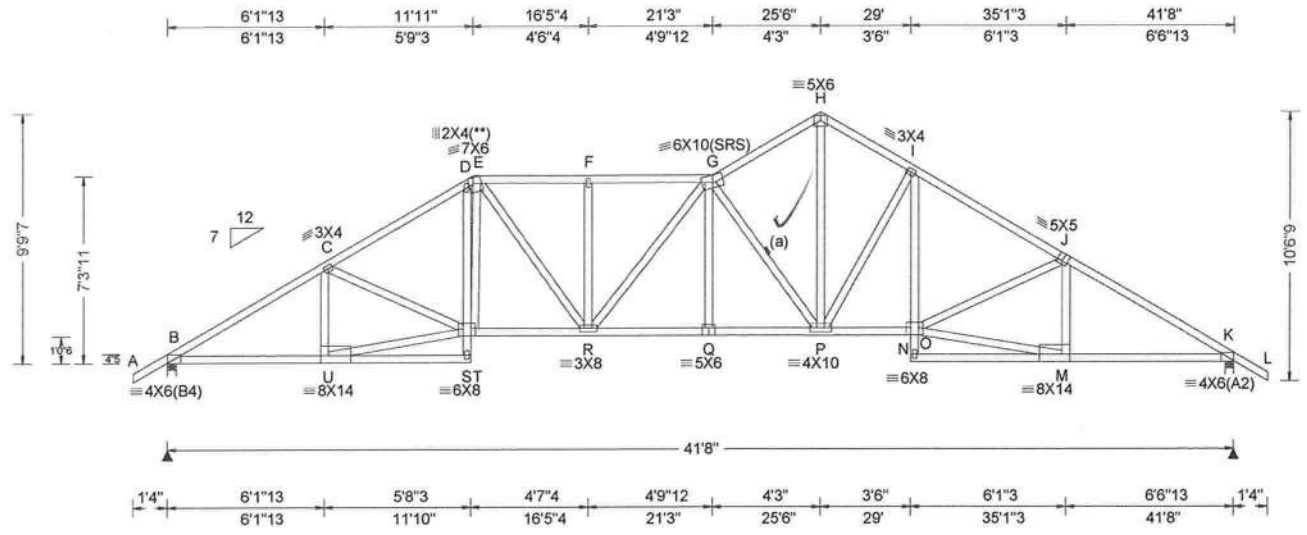
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 634056 / SPEC FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A13	Cust: R 215 JRef:1X9O2150001 T25 / DrwNo: 288.21.0838.05447 / YK 10/15/2021



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
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: 4.17 ft
Loc. from endwall: not in 13.00 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.247	Q	999	240
VERT(CL): 0.510	Q	973	180
HORZ(LL): 0.111	K	-	-
HORZ(TL): 0.229	K	-	-

Creep Factor: 2.0
Max TC CSI: 0.489
Max BC CSI: 0.702
Max Web CSI: 0.935

VIEW Ver: 21.01.01A.0521.20

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1800	/-	/-	/1058	/34	/288
K	1800	/-	/-	/1065	/69	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.8
K Brg Width = 4.0 Min Req = 1.8
Bearings B & K 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	797	-2948	G - H	744	-2389
C - D	908	-3010	H - I	754	-2388
D - E	956	-2899	I - J	786	-2901
E - F	945	-2857	J - K	711	-2936
F - G	945	-2857			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - U	2463	-581	Q - P	2981	-676
S - R	2496	-548	P - N	2422	-442
R - Q	2983	-675	M - K	2449	-505

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - U	194	-425	P - I	253	-836
U - S	2455	-578	H - P	2097	-654
S - E	778	-241	I - N	670	-112
E - R	602	-233	N - M	2428	-503
G - P	605	-1676			

Lumber

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

Bracing

(a) Continuous lateral restraint equally spaced on member.

Plating Notes

All plates are 2X4 except as noted.

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

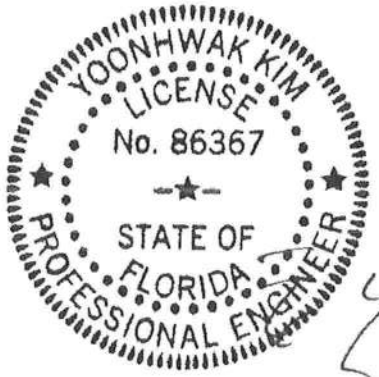
Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 9-9-7.



FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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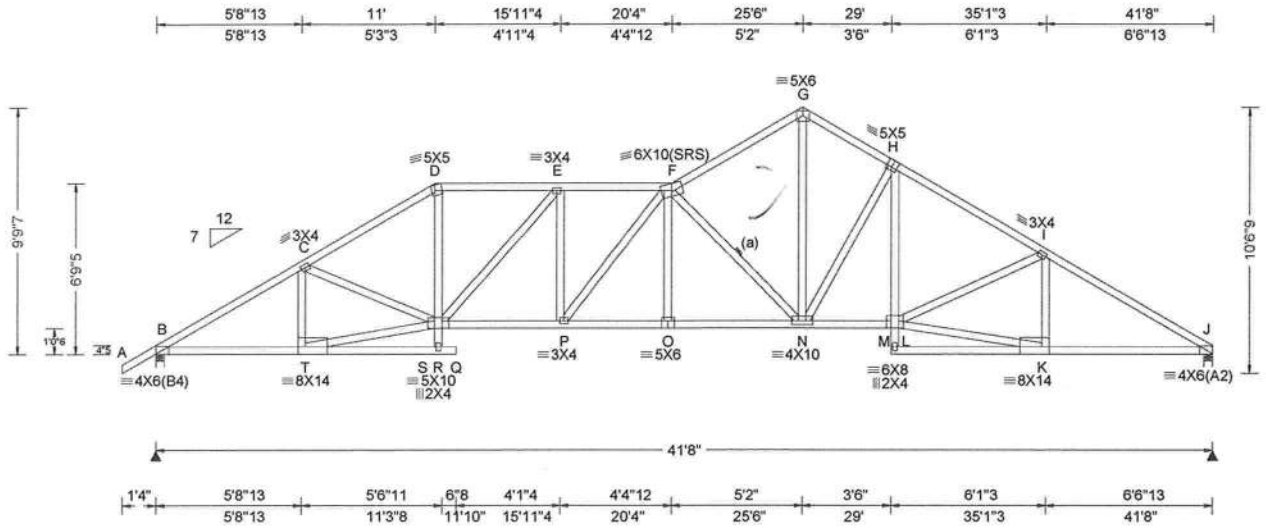
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 403093 SPEC FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A14	Cust: R 215 JRef: 1X9O2150001 T19 DrwNo: 288.21.0914.18757 / YK 10/15/2021



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
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: 4.17 ft
Loc. from endwall: not in 13.00 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.268	O	999	240
VERT(CL): 0.553	O	897	180
HORZ(LL): 0.119	J	-	-
HORZ(TL): 0.245	J	-	-

Creep Factor: 2.0
Max TC CSI: 0.484
Max BC CSI: 0.779
Max Web CSI: 0.936

VIEW Ver: 21.01.01A.0521.20

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1825	/-	/-	/1074	/40	/284
J	1731	/-	/-	/1005	/56	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.8
J Brg Width = 4.0 Min Req = 1.7
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	802	-2949	F - G	732	-2411
C - D	933	-3087	G - H	748	-2390
D - E	856	-2630	H - I	783	-2905
E - F	1006	-3102	I - J	709	-2948

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - T	2465	-613	O - N	3278	-780
R - P	3091	-775	N - L	2424	-454
P - O	3281	-779	K - J	2462	-526

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - T	204	-456	G - N	2063	-625
T - R	2457	-608	N - H	250	-825
D - R	1193	-289	H - L	674	-120
R - E	255	-695	L - K	2441	-524
F - N	653	-1832			

Lumber

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

Bracing

(a) Continuous lateral restraint equally spaced on member.

Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 9-9-7.

FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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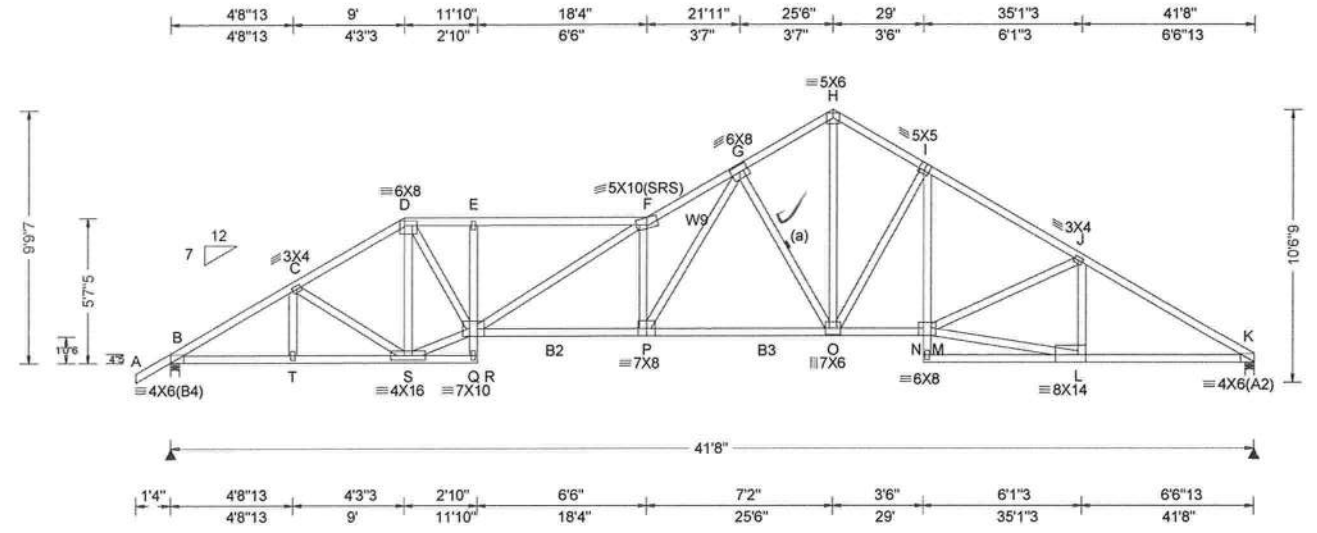
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 634060 / SPEC FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A15	Cust: R 215 JRef: 1X9O2150001 T39 / DrwNo: 288.21.0838.05244 / YK 10/15/2021



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
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: 4.17 ft
Loc. from endwall: not in 13.00 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.374	F	999	240
VERT(CL): 0.751	F	661	180
HORZ(LL): 0.129	K	-	-
HORZ(TL): 0.259	K	-	-

Creep Factor: 2.0
Max TC CSI: 0.928
Max BC CSI: 0.866
Max Web CSI: 0.962

VIEW Ver: 21.01.01A.0521.20

▲ Maximum Reactions (lbs)

Loc	Gravity R+	/ R-	/ Rh	Non-Gravity / Rw	/ U	/ RL
B	1851	/-	/-	/1046	/44	/277
K	1786	/-	/-	/1001	/45	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.9
K Brg Width = 4.0 Min Req = 1.8
Bearings B & K 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	824	-3061	G - H	719	-2521
C - D	834	-2787	H - I	726	-2527
D - E	1119	-3630	I - J	760	-3033
E - F	1123	-3644	J - K	690	-3054
F - G	1466	-5098			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - T	2571	-644	P - O	2960	-586
T - S	2571	-645	O - M	2534	-434
Q - P	4358	-1023	L - K	2553	-510

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
D - S	224	-805	G - O	556	-1655
D - Q	2388	-685	O - I	256	-821
S - Q	2505	-588	H - O	2260	-631
Q - F	108	-838	I - M	655	-118
F - P	888	-2414	M - L	2524	-508
P - G	2872	-895	L - J	169	-383

Lumber

Top chord: 2x4 SP #2;
Bot chord: 2x4 SP #2; B2,B3 2x4 SP M-31;
Webs: 2x4 SP #3; W9 2x4 SP #2;

Bracing

(a) Continuous lateral restraint equally spaced on member.

Plating Notes

All plates are 2X4 except as noted.

Loading

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

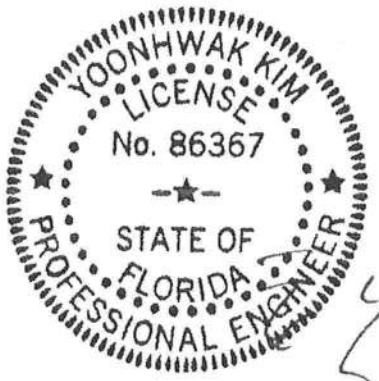
Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 9-9-7.



FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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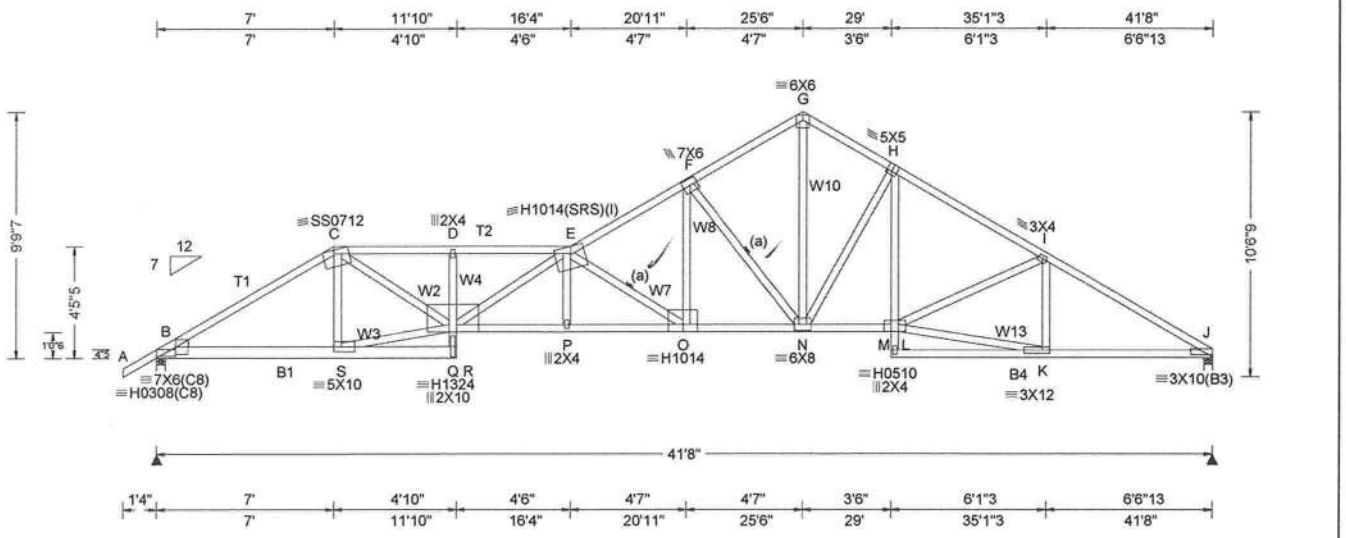
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 634089 / SPEC FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A16	Cust: R 215 JRef: 1X9O2150001 T11 / DrwNo: 288.21.0838.05555 / YK 10/15/2021



Loading Criteria (psf)	
TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00
Load Duration:	1.25
Spacing:	24.0 "

Wind Criteria
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: 4.17 ft
Loc. from endwall: not in 13.00 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/10(0)
Plate Type(s):
HS, WAVE, 18SS

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	0.597 E	832	240
VERT(CL):	1.219 E	407	180
HORZ(LL):	0.194 J	-	-
HORZ(TL):	0.396 J	-	-

Creep Factor: 2.0
Max TC CSI: 0.840
Max BC CSI: 0.958
Max Web CSI: 0.931

VIEW Ver: 21.01.01A.0521.20

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	3472	/-	/-	/-	/493	/-
J	2138	/-	/-	/-	/326	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 2.9
J Brg Width = 4.0 Min Req = 2.5
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	868	-6290	F - G	499	-3301
C - D	1181	-8836	G - H	494	-3285
D - E	1187	-8889	H - I	597	-3847
E - F	789	-5413	I - J	582	-3724

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - S	5338	-715	O - N	4511	-647
Q - P	8738	-1210	N - L	3239	-484
P - O	8741	-1213	K - J	3129	-471

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - Q	4123	-567	F - N	394	-2812
S - Q	5306	-695	N - H	158	-915
Q - R	474	-4	G - N	3004	-386
Q - E	186	-587	H - L	768	-70
E - O	675	-5027	L - K	3101	-469
O - F	2974	-342	K - I	166	-509

Lumber

Top chord: 2x4 SP #2; T1,T2 2x4 SP M-31;
Bot chord: 2x4 SP M-31; B1 2x6 SP 2400f-2.0E;
B4 2x4 SP #2;
Webs: 2x4 SP #3; W2,W4,W7,W8,W10,W13 2x4 SP #2;
W3 2x4 SP M-31;
Lt Wedge: 2x4 SP #3;

Bracing

(a) Continuous lateral restraint equally spaced on member.

Special Loads

------(Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)

TC: From	63 plf at	-1.00 to	63 plf at	7.00
TC: From	32 plf at	7.00 to	32 plf at	9.21
TC: From	63 plf at	9.21 to	63 plf at	41.67
BC: From	5 plf at	-1.00 to	5 plf at	0.00
BC: From	20 plf at	0.00 to	20 plf at	7.03
BC: From	10 plf at	7.03 to	10 plf at	9.21
BC: From	20 plf at	9.21 to	20 plf at	41.67

TC: 441 lb Conc. Load at 7.03
BC: 526 lb Conc. Load at 7.03
BC: 1201 lb Conc. Load at 9.21

Plating Notes

(I) - plates so marked were sized using 0% Fabrication Tolerance, 0 degrees Rotational Tolerance, and/or zero Positioning Tolerance.

Wind

Wind loads and reactions based on MWFRS.

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 9-9-7.

FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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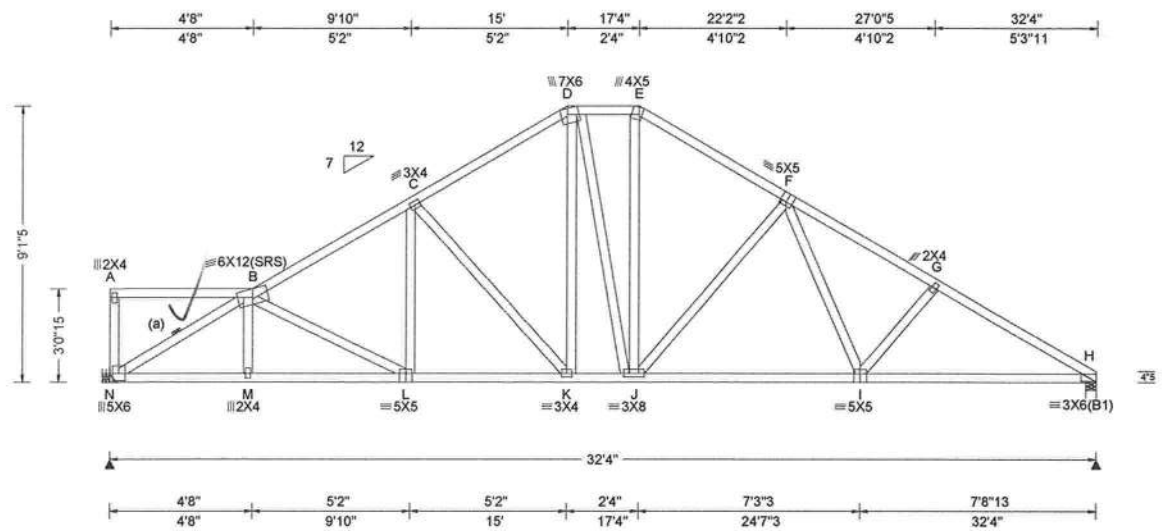
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 396062 / SPEC FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A17	Cust: R 215 JRef: 1X9O2150001 T29 / DrwNo: 288.21.0838.04805 / YK 10/15/2021



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
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: 3.23 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	0.102 K	999	240
VERT(CL):	0.204 K	999	180
HORZ(LL):	0.047 H	-	-
HORZ(TL):	0.094 H	-	-

Creep Factor: 2.0
Max TC CSI: 0.393
Max BC CSI: 0.715
Max Web CSI: 0.690

VIEW Ver: 21.01.01A.0521.20

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
N	1370	/-	/-	/708	/40	/225
H	1416	/-	/-	/787	/15	/-

Wind reactions based on MWFRS
N Brg Width = - Min Req = -
H Brg Width = 4.0 Min Req = 1.7
Bearing H 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	508	-2006	E - F	480	-1583
C - D	487	-1576	F - G	523	-2186
D - E	454	-1303	G - H	519	-2378

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
N - M	1983	-402	K - J	1280	-137
M - L	1978	-405	J - I	1661	-261
L - K	1667	-280	I - H	1985	-378

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
N - B	576	-2292	J - E	533	-110
C - K	217	-589	J - F	198	-566
D - K	451	-134	F - I	442	-47

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.

Wind
Wind loads based on MWFRS with additional C&C member design.
Left end vertical not exposed to wind pressure.
Wind loading based on both gable and hip roof types.

Additional Notes
The overall height of this truss excluding overhang is 9-1-5.

FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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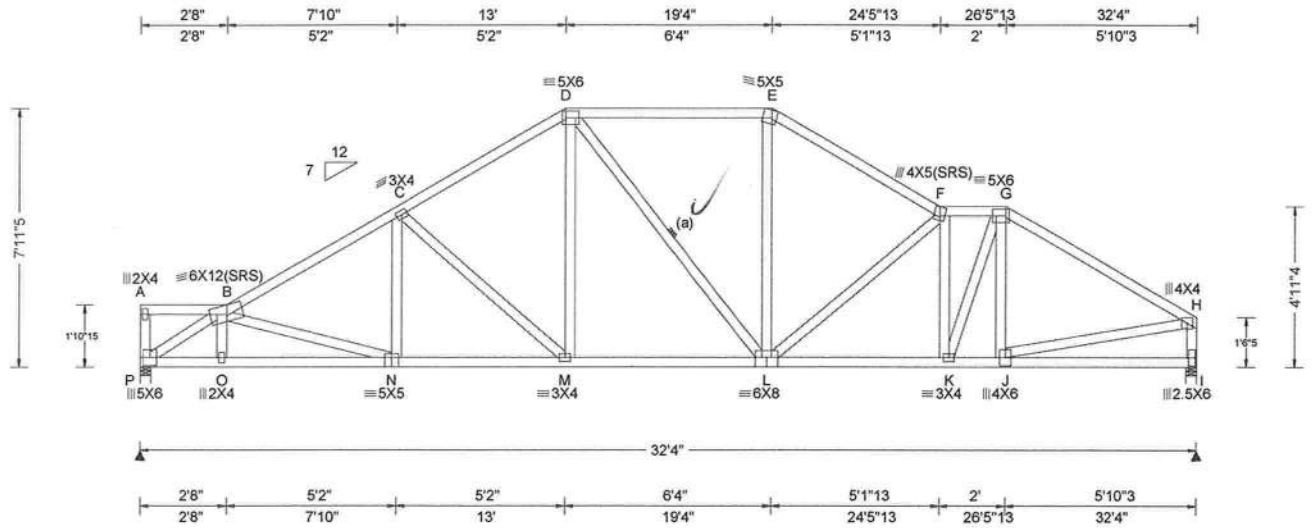
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 633497 / SPEC FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A18	Cust: R 215 JRef: 1X9O2150001 T32 / DrwNo: 288.21.0838.04666 / YK 10/15/2021



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
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: 3.23 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.099	M	999	240
VERT(CL): 0.197	M	999	180
HORZ(LL): 0.040	I	-	-
HORZ(TL): 0.080	I	-	-

Creep Factor: 2.0
Max TC CSI: 0.606
Max BC CSI: 0.588
Max Web CSI: 0.565

VIEW Ver: 21.01.01A.0521.20

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
P	1406	/-	/-	/742	/231	/164
I	1396	/-	/-	/753	/226	/-

Wind reactions based on MWFRS
P Brg Width = 4.0 Min Req = 1.7
I Brg Width = 4.0 Min Req = 1.6
Bearings P & 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	641	-2239	E - F	629	-1788
C - D	629	-1828	F - G	610	-1774
D - E	597	-1494	G - H	550	-1821

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
P - O	2140	-575	M - L	1506	-355
O - N	2135	-580	L - K	1819	-502
N - M	1869	-482	K - J	1499	-404

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
P - B	682	-2490	F - K	254	-719
C - M	173	-492	K - G	794	-239
D - M	543	-58	J - H	1483	-396
L - E	471	-50	H - I	411	-1344
L - F	185	-444			

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.

Wind

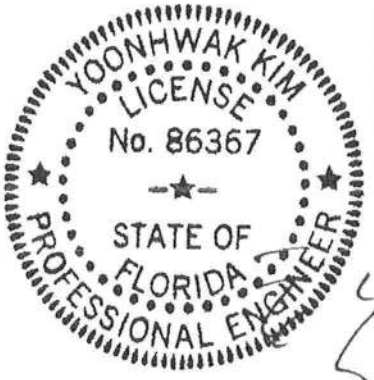
Wind loads based on MWFRS with additional C&C member design.

End verticals not exposed to wind pressure.

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 7-11-5.



FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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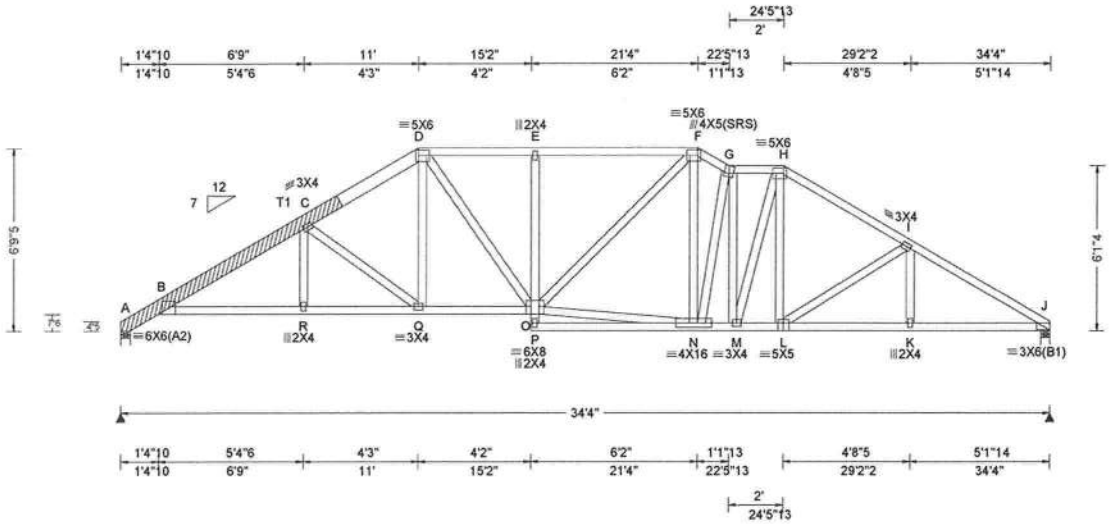
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 633494 / SPEC FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A19	Cust: R 215 JRef: 1X9O2150001 T40 / DrwNo: 288.21.0838.04650 / YK 10/15/2021



Loading Criteria (psf)		**Wind Criteria**	**Snow Criteria** (Pg,Pf in PSF)	**Defl/CSI Criteria**
TCLL:	20.00	Wind Std: ASCE 7-16	Pg: NA Ct: NA CAT: NA	PP Deflection in loc L/defl L/#
TCDL:	10.00	Speed: 130 mph	Pf: NA Ce: NA	VERT(LL): 0.149 E 999 240
BCLL:	0.00	Enclosure: Closed	Lu: NA Cs: NA	VERT(CL): 0.308 E 999 180
BCDL:	10.00	Risk Category: II	Snow Duration: NA	HORZ(LL): 0.095 J - -
Des Ld:	40.00	EXP: C Kzt: NA		HORZ(TL): 0.196 J - -
NCBCLL:	10.00	Mean Height: 15.00 ft	Building Code:	Creep Factor: 2.0
Soffit:	2.00	TCDL: 5.0 psf	FBC 7th Ed. 2020 Res.	Max TC CSI: 0.391
Load Duration:	1.25	BCDL: 5.0 psf	TPI Std: 2014	Max BC CSI: 0.621
Spacing:	24.0 "	MWFRS Parallel Dist: h/2 to h	Rep Fac: Yes	Max Web CSI: 0.643
		C&C Dist a: 3.43 ft	FT/RT:20(0)/10(0)	
		Loc. from endwall: not in 9.00 ft	Plate Type(s):	VIEW Ver: 21.01.01A.0521.20
		GCpi: 0.18	WAVE	
		Wind Duration: 1.60		

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
A	1406	/-	/-	/796	/258	/168
J	1421	/-	/-	/815	/242	/-

Wind reactions based on MWFRS
A Brg Width = 4.0 Min Req = 1.5
J Brg Width = 4.0 Min Req = 1.7
Bearings A & 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.
A - B	231	-699	F - G	822	-1971
B - C	857	-2604	G - H	770	-1828
C - D	841	-2178	H - I	779	-2047
D - E	905	-2087	I - J	775	-2395
E - F	901	-2078			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - R	2332	-694	M - L	1701	-498
R - Q	2329	-693	L - K	1998	-601
Q - O	1792	-518	K - J	2000	-600
N - M	1852	-571			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - Q	223	-683	N - F	403	-44
D - Q	457	-79	N - G	168	-444
D - O	487	-286	G - M	229	-473
O - N	1687	-515	M - H	449	-247
O - F	434	-202			

Lumber

Top chord: 2x4 SP #2; T1 2x6 SP 2400f-2.0E;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Tray Scab(s)

(1) 2x6x9-4-12 x SP 2400f-2.0E scab at left end. Attach scab to face of chord with: 0.128"x3", min. nails @ 8" oc, plus additional nail clusters at: BRG.: (6), heel: (7), 1st panel point: (2).

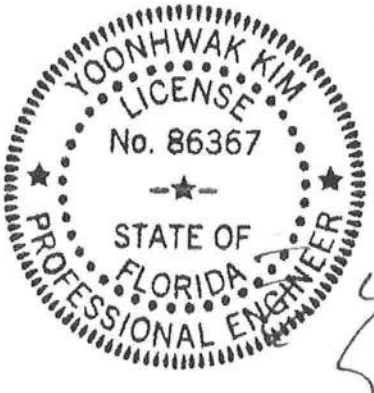
Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 6-9-5.



FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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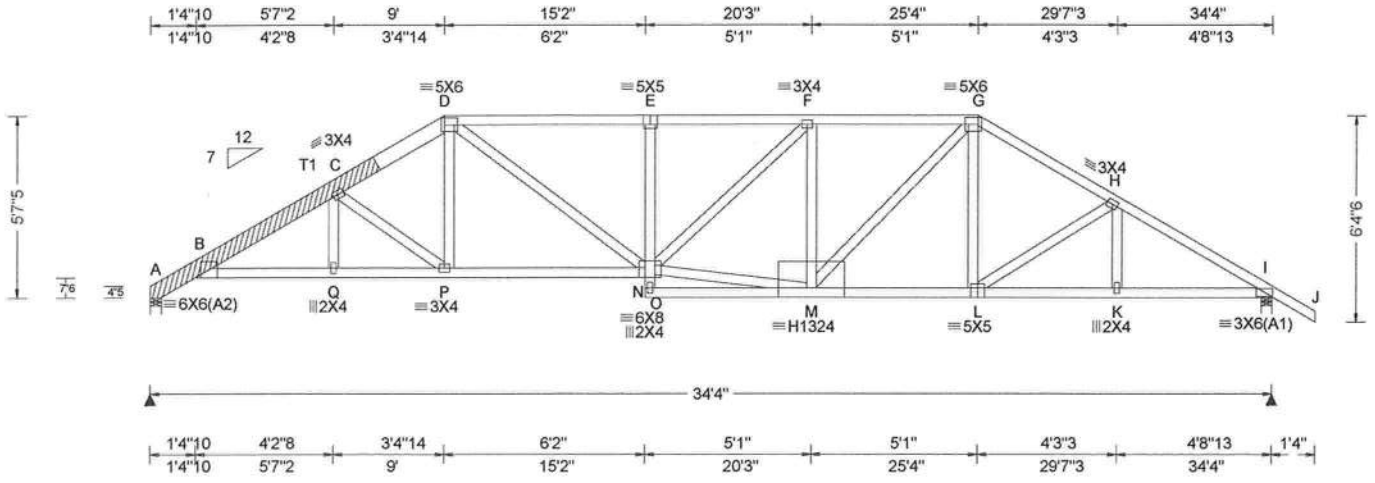
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 634062 / HIPS FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A20	Cust: R 215 JRef: 1X9O2150001 T8 / DrwNo: 288.21.0838.05259 / YK 10/15/2021



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
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: 3.43 ft
Loc. from endwall: not in 9.00 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE, HS

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.178	E	999	240
VERT(CL): 0.364	E	999	180
HORZ(LL): 0.097	I	-	-
HORZ(TL): 0.198	I	-	-

Creep Factor: 2.0
Max TC CSI: 0.473
Max BC CSI: 0.685
Max Web CSI: 0.817

VIEW Ver: 21.01.01A.0521.20

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
A	1405	/-	/-	/784	/262	/157
I	1490	/-	/-	/862	/264	/-

Wind reactions based on MWFRS
A Brg Width = 4.0 Min Req = 1.5
I Brg Width = 4.0 Min Req = 1.8
Bearings A & 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.
A - B	288	-699	E - F	1199	-2625
B - C	991	-2690	F - G	1019	-2196
C - D	986	-2390	G - H	876	-2099
D - E	1205	-2641	H - I	855	-2382

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - Q	2450	-813	M - L	1759	-586
Q - P	2445	-812	L - K	1987	-649
P - N	2016	-678	K - I	1988	-648

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - P	171	-546	N - M	2146	-780
D - P	451	-30	F - M	434	-695
D - N	765	-410	M - G	631	-349
N - F	564	-239			

Lumber

Top chord: 2x4 SP #2; T1 2x6 SP 2400f-2.0E;
Bot chord: 2x4 SP #2;
Webs: 2x4 SP #3;

Tray Scab(s)

(1) 2x6x8-0-11 x SP 2400f-2.0E scab at left end. Attach scab to face of chord with: 0.128"x3", min. nails @ 8" oc, plus additional nail clusters at: BRG.: (6), heel: (7), 1st panel point: (2).

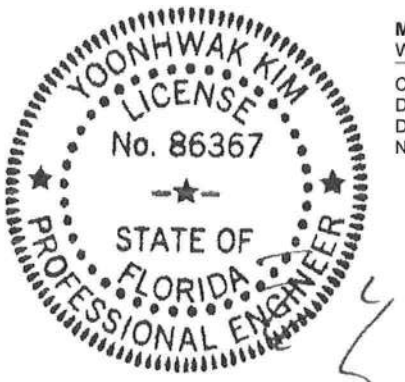
Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 5-7-5.



FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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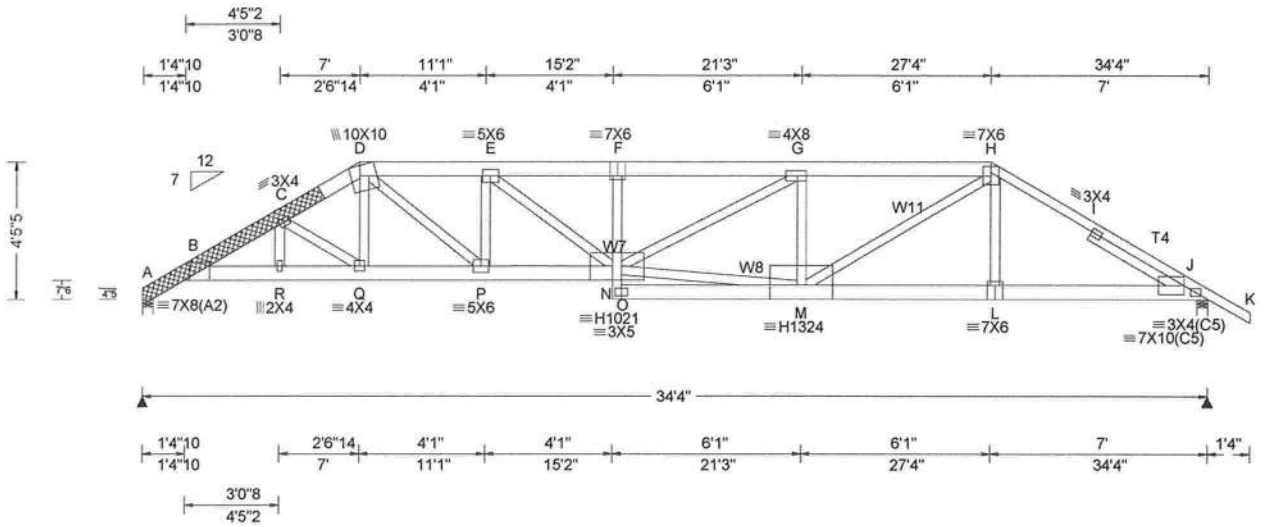
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 634087 / HIPS FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** A21	Cust: R 215 JRef: 1X9O2150001 T38 / DrwNo: 288.21.0838.05339 / YK 10/15/2021



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
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: 3.43 ft
Loc. from endwall: not in 4.50 ft
GCpi: 0.18
Wind Duration: 1.60

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE, HS

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL):	0.433 F	936	240
VERT(CL):	0.869 F	465	180
HORZ(LL):	0.178 J	-	-
HORZ(TL):	0.359 J	-	-

Creep Factor: 2.0
Max TC CSI: 0.797
Max BC CSI: 0.565
Max Web CSI: 0.976

VIEW Ver: 21.01.01A.0521.20

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
A	3457	/-	/-	/-	/819	/-
J	3611	/-	/-	/-	/831	/-

Wind reactions based on MWFRS
A Brg Width = 4.0 Min Req = 3.4
J Brg Width = 4.0 Min Req = 3.0
Bearings A & 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.
A - B	409	-1733	F - G	2523	-10217
B - C	1766	-7474	G - H	1915	-7940
C - D	1772	-7426	H - I	1476	-6369
D - E	2036	-8388	I - J	1518	-6483
E - F	2546	-10308			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - R	7099	-1673	O - M	728	-164
R - Q	7083	-1669	M - L	5443	-1268
Q - P	6434	-1532	L - J	5470	-1267
P - N	8553	-2084			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
R - C	209	-705	F - N	324	-617
C - Q	170	-803	N - G	2503	-660
D - Q	1197	-124	N - M	7362	-1797
D - P	2563	-661	G - M	790	-2172
P - E	523	-1677	M - H	2989	-774
E - N	2243	-587	H - L	758	0

Lumber

Top chord: 2x6 SP 2400f-2.0E; T4 2x4 SP #2;
Bot chord: 2x6 SP 2400f-2.0E;
Webs: 2x4 SP #3; W7,W8 2x4 SP M-31;
W11 2x4 SP #2;
Rt Slider: 2x4 SP #3; block length = 3.449'

Special Loads

-----(Lumber Dur.Fac.=1.25 / Plate Dur.Fac.=1.25)

TC: From	63 plf at	0.00 to	63 plf at	7.00
TC: From	32 plf at	7.00 to	32 plf at	27.33
TC: From	63 plf at	27.33 to	63 plf at	35.33
BC: From	20 plf at	1.38 to	20 plf at	7.03
BC: From	10 plf at	7.03 to	10 plf at	27.48
BC: From	20 plf at	27.48 to	20 plf at	34.33
BC: From	5 plf at	34.33 to	5 plf at	35.33

TC: 474 lb Conc. Load at 7.03
TC: 130 lb Conc. Load at 9.06,11.06,13.06,15.06
TC: 387 lb Conc. Load at 17.17
TC: 193 lb Conc. Load at 19.27,21.27,23.27,25.27
TC: 441 lb Conc. Load at 27.30
BC: 462 lb Conc. Load at 7.03
BC: 162 lb Conc. Load at 9.06,11.06,13.06,15.06
BC: 262 lb Conc. Load at 17.17
BC: 131 lb Conc. Load at 19.27,21.27,23.27,25.27
BC: 526 lb Conc. Load at 27.30

Tray Scab(s)

(2) 2x6x6-8-8 x SP 2400f-2.0E scabs at left end.
Attach one scab to each outer face of chord with:
0.128"x3", min. nails @ 8" oc, Plus additional nail clusters at: BRG.: (9), heel: (14), 1st panel point: (5).

Wind

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

Additional Notes

The overall height of this truss excluding overhang is 4-5-5.

FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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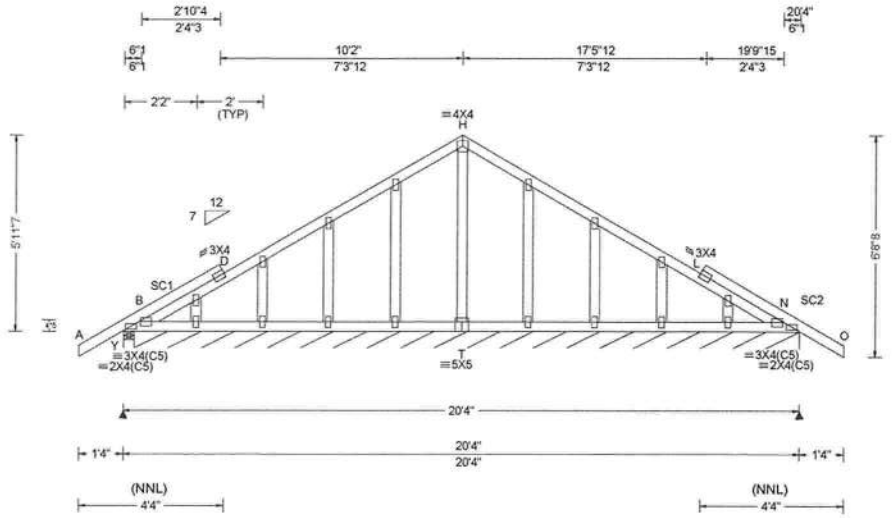
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 636325 GABL FROM: CDM	Ply: 1 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** B01		Cust: R 215 JRef: 1X9O2150001 T4 DrwNo: 288.21.0914.16130 / YK 10/15/2021



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
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

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.002	D	999	240
VERT(CL): 0.003	D	999	180
HORZ(LL): 0.001	L	-	-
HORZ(TL): 0.002	L	-	-

Creep Factor: 2.0
Max TC CSI: 0.200
Max BC CSI: 0.026
Max Web CSI: 0.065

VIEW Ver: 21.01.01A.0521.20

▲Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
Y	249	/-	/-	/172	/50	/82
N*	81	/-	/-	/45	/-	/-

Wind reactions based on MWFRS
Y Brg Width = 4.0 Min Req = 1.5
N Brg Width = 240 Min Req = -
Bearings Y & B are 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;
Stack Chord: SC1 2x4 SP #2;
Stack Chord: SC2 2x4 SP #2;

Plating Notes

All plates are 2X4 except as noted.

Wind

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

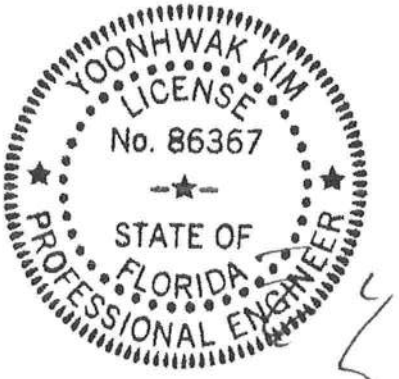
Wind loading based on both gable and hip roof types.

Additional Notes

See DWGS A14015ENC160118 & GBLLETIN0118 for gable wind bracing and other requirements.

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

The overall height of this truss excluding overhang is 5-11-7.



FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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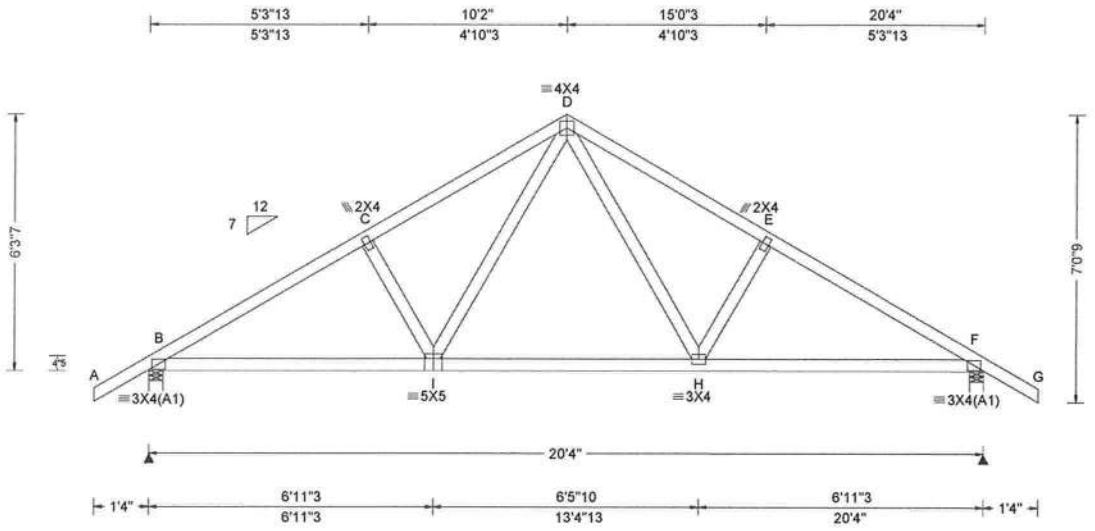
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 636328 SPEC FROM: CDM	Ply: 1 Qty: 9	**Job Number:** 21-5954 Arata **Truss Label:** B02	Cust: R 215 JRef: 1X9O2150001 T23 DrwNo: 288.21.0914.13257 / YK 10/15/2021



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
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

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: Yes
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.039	H	999	240
VERT(CL): 0.076	H	999	180
HORZ(LL): 0.016	F	-	-
HORZ(TL): 0.032	F	-	-

Creep Factor: 2.0
Max TC CSI: 0.239
Max BC CSI: 0.459
Max Web CSI: 0.181

VIEW Ver: 21.01.01A.0521.20

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	978	/-	/-	/563	/161	/192
F	978	/-	/-	/563	/161	/-

Wind reactions based on MWFRS
B Brg Width = 4.0 Min Req = 1.5
F Brg Width = 4.0 Min Req = 1.5
Bearings B & 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.
B - C	451	-1358	D - E	486	-1213
C - D	487	-1212	E - F	450	-1359

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - I	1107	-253	H - F	1107	-263
I - H	754	-67			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
I - D	472	-169	D - H	474	-168

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.

Wind

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

Wind loading based on both gable and hip roof types.

Additional Notes

The overall height of this truss excluding overhang is 6-3-7.

FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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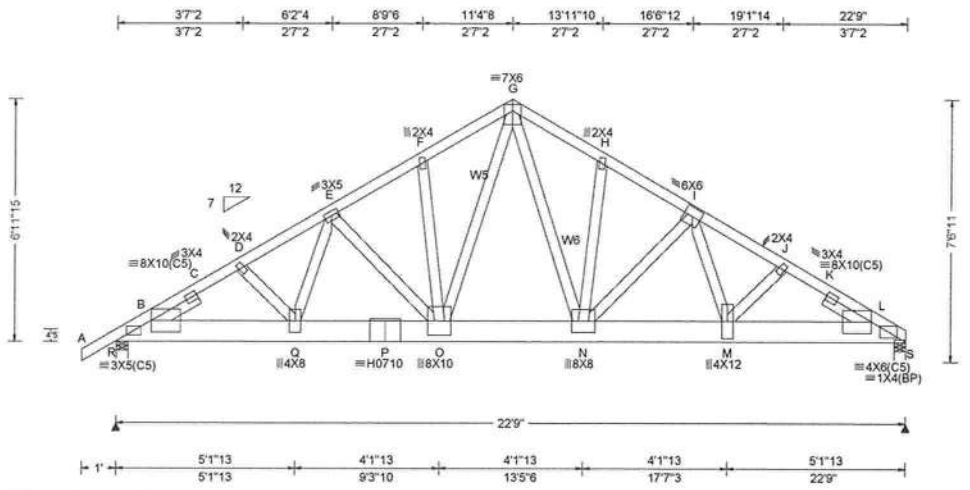
ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821

SEQN: 633667 COMN FROM: CDM	Ply: 2 Qty: 1	**Job Number:** 21-5954 Arata **Truss Label:** B03	Cust: R 215 JRef: 1X9O2150001 T35 DrwNo: 288.21.0914.09207 / YK 10/15/2021

2 Complete Trusses Required



Loading Criteria (psf)

TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	0.00
Soffit:	2.00

Load Duration: 1.25
Spacing: 24.0 "

Wind Criteria
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

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

Building Code:
FBC 7th Ed. 2020 Res.
TPI Std: 2014
Rep Fac: No
FT/RT:20(0)/10(0)
Plate Type(s):
WAVE, HS

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.166	N	999	240
VERT(CL): 0.330	N	805	180
HORZ(LL): 0.047	E	-	-
HORZ(TL): 0.093	E	-	-

Creep Factor: 2.0
Max TC CSI: 0.508
Max BC CSI: 0.714
Max Web CSI: 0.798

VIEW Ver: 21.01.01A.0521.20

▲ Maximum Reactions (lbs)

Loc	Gravity R+	Gravity / R-	Gravity / Rh	Non-Gravity / Rw	Non-Gravity / U	Non-Gravity / RL
R	8265	/-	/-	/-	/1451	/-
S	10857	/-	/-	/-	/1070	/-

Wind reactions based on MWFRS
R Brg Width = 4.0 Min Req = 3.4
S Brg Width = 4.0 Min Req = 3.8
Bearings R & S 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	1383	-7773	G - H	921	-6670
C - D	1364	-7708	H - I	930	-6721
D - E	1362	-7724	I - J	942	-8617
E - F	1113	-6784	J - K	950	-8631
F - G	1099	-6722	K - L	965	-8667

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - Q	6561	-1159	O - N	4759	-717
Q - P	6431	-1108	N - M	6892	-815
P - O	6431	-1108	M - L	7435	-812

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
Q - E	983	-255	G - N	3346	-246
E - O	232	-900	N - I	30	-1655
O - G	3537	-773	I - M	2088	0

Lumber

Top chord: 2x4 SP M-31;
Bot chord: 2x8 SP 2400f-2.0E;
Webs: 2x4 SP #3; W5,W6 2x4 SP #2;
Lt Slider: 2x4 SP #3; block length = 1.500'
Rt Slider: 2x4 SP #3; block length = 1.500'

Nailnote

Nail Schedule:0.128"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	63 plf at	-1.00 to	63 plf at	7.06
TC: From	32 plf at	7.06 to	32 plf at	11.38
TC: From	63 plf at	11.38 to	63 plf at	22.75
BC: From	5 plf at	-1.00 to	5 plf at	0.00
BC: From	20 plf at	0.00 to	20 plf at	7.06
BC: From	10 plf at	7.06 to	10 plf at	22.75

BC: 4323 lb Conc. Load at 7.06
BC: 1725 lb Conc. Load at 9.06
BC: 2013 lb Conc. Load at 11.06
BC: 1869 lb Conc. Load at 13.06
BC: 1947 lb Conc. Load at 15.06
BC: 1903 lb Conc. Load at 17.06
BC: 1848 lb Conc. Load at 19.06
BC: 1826 lb Conc. Load at 21.06

Additional Notes

The overall height of this truss excluding overhang is 6-11-15.

Wind

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

FL REG# 278, Yoonhwak Kim, FL PE #86367
10/15/2021

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

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

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

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

ALPINE
AN ITW COMPANY
6750 Forum Drive
Suite 305
Orlando FL, 32821