City of Portland, Oregon - Bureau of Development Services

1900 SW Fourth Avenue · Portland, Oregon 97201 | 503-823-7300 | www.portlandoregon.gov/bds

Deferred Submittal Requirements and Application

Applicants will provide:

- ☐ A copy of this application
- ☐ Three (3) sets of plans
- ☐ Two (2) set of calculations
- ☐ Two (2) sets of product information
- ☐ Drawings and calculations must be stamped and signed by an Engineer registered in Oregon and approved by the Architect/Engineer of record for the building.
- ☐ Permit fee (paid at time of submittal)
- ☐ If the DFS includes exterior elements, plan views and elevations identifying the location(s) as approved by the Architect and Engineer of Record must be submitted.
- ☐ One (1) copy of your main building permit approved plans (NOTE: Approved plans do not need to be submitted if your project has a development liaison assigned.)

Contractor submittal information:

Contact name Wes Ayers

Address PO Box 80514

City Portland State OR Zip Code 97280

Phone 503-784-1678 E-mail WAyers@BeaudinConstruction.com

Value of deferred submittal $25,500 Issued main building permit # 2019-~~106323~~ 106349

Job Site Address 420 NE 147th Ave

Description/Scope of work Truss Submittal - BUILDINGS ~~100, 200, 300,~~ 400, ~~500~~

Fees

Deferred submittal (DFS) fees are collected in addition to the standard building review fee paid on the main building permit. DFS fees cover the cost of the additional processing and review time associated with the design build element.

The DFS fee for processing and reviewing deferred plan submittals is 10 percent of the building permit fee calculated using the value of the particular deferred portion of the project.,

Minimum fee: Residential, one and two family dwelling ... $195 for DFS with valuation of less than or equal to $222,000

This is ONE submittal (not one for each building) → Commercial and all other projects ..... $510 for DFS with valuation of less than or equal to $680,000

The Bureau of Development Services (BDS) fee schedule is also available on the BDS web site at ***www.portlandoregon.gov/bds*** | select the Fees tab.

Helpful Information

Bureau of Development Services
1900 SW 4th Avenue, Portland, OR 97201

Submit your plans to:
Development Services Center (DSC), First Floor,
For Hours Call 503-823-7310 | Select option 1
or visit www.portlandoregon.gov/bds

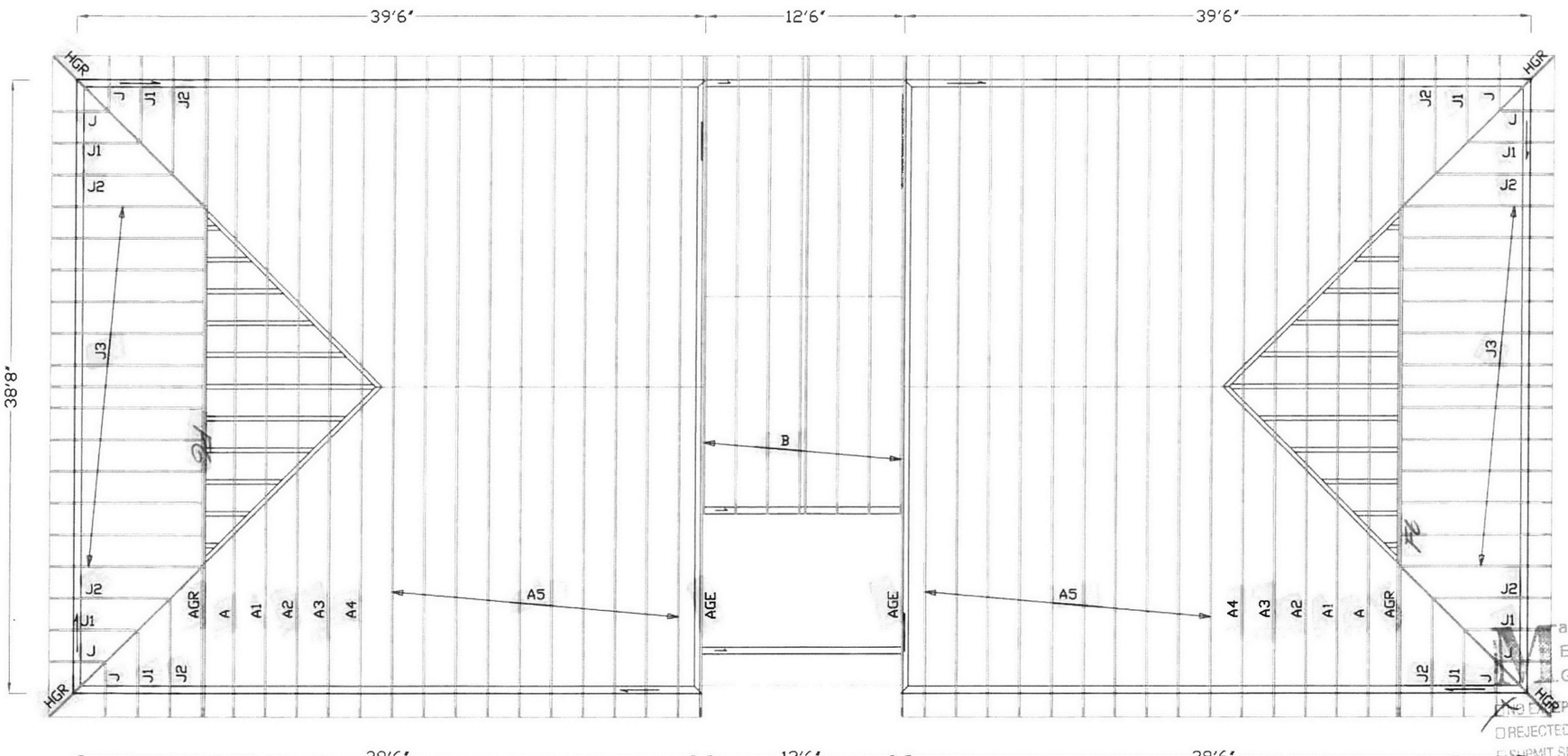
Important Telephone Numbers

BDS main number	503-823-7300
DSC automated information line	503-823-7310
Building code information	503-823-1456
BDS 24 hour inspection request line	503-823-7000
Residential information for one and two family dwellings	503-823-7388
City of Portland TTY	503-823-6868

Information is subject to change.

The Alpine truss designs listed below have been cross-checked with the truss placement plan shown below. The sole purpose of this review is to verify that the truss design loads, bearing locations, and/or truss-to-truss connections based on the location, orientation, spacing, and supported framing (if any) indicated on the truss placement plan. Conventional framing is not included in the review (member sizing and connections). All roof and/or floor truss bracing shall conform to the specifications of BCSI 1-03 by the Truss Plate Institute (TPI) and the Wood Truss Council of America (WTCA). Anchor trusses as required by code. No site inspection will be made to verify conformance.

Truss ID	Dwg No.
A	024.20.0858.16247
A1	024.20.0858.21973
A2	024.20.0858.27317
A3	024.20.0858.38173
A4	024.20.0858.44953
A5	024.20.0858.52127
AGE	024.20.0859.05560
AGR	024.20.0900.30370
B	024.20.0859.14297
FG	024.20.0746.36611
HGR	024.20.0900.01430
J	024.20.0859.20827
J1	024.20.0859.27230
J2	024.20.0859.33027
J3	024.20.0859.38293



City of Portland
REVIEWED FOR CODE COMPLIANCE
MAY 15 2020
19-106349-DFS-01-CO
Permit Number

RECEIVED
MAY 06 2020
BDS
DOCUMENT SERVICES

Tassaad Engineering Group

BY: SER
DATE: 5-5-2020

☐ EXCEPTION TAKEN
☐ REJECTED
☐ SUBMIT SPECIFIED ITEM
☐ MAKE CORRECTIONS NOTED
☐ REVISE AND RESUBMIT
☐ OTHER

THIS REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. EXCEPT WHERE SPECIFICALLY NOTED OR NOTED BY M GROUP THE REQUIREMENTS AND SPECIFICATIONS GOVERN. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS WHICH SHALL BE CORRELATED AT THE JOB SITE, FABRICATION PROCESSES AND METHODS OF CONSTRUCTION. COORDINATE WORK WITH THAT OF ALL OTHERS. M GROUP IS NOT RESPONSIBLE FOR CONTRACTORY PERFORMANCE OF WORK.

Alpine JREF
1WS671750004
Alpine Customer:
Truss Components of Oregon
Alpine Cust. Job No.:
0919181
Drawn/Checked by:
MG/RTT
TPP drawing date:
2/5/2020
Alpine PDF file name:
0919181-090032.PDF
Revisions:

JOB NAME:
GOOSEBERRY BLDG 400
PORTLAND, OR.

ALPINE
AN ITW COMPANY
8801 Folsom Blvd, Suite 107
Sacramento, Ca. 95826

REGISTERED PROFESSIONAL ENGINEER
83294PE
2/5/2020
OREGON
JULY 14, 2006
Russell Tangren
Renewal 6/30/2020

PLAN / ELEVATION
GOOSEBERRY
Bldg 400

19-106349-DFS-01-CO

02/20/2020

ALPINE
A ITW COMPANY

Alpine, an ITW Company
8801 Folsom Blvd., Suite 107
Sacramento, CA 95826
Phone: (800)877-3678 (916)387-0116
Fax: (916)387-1110
sacseals@itwbcg.com

City of Portland
REVIEWED FOR CODE COMPLIANCE
MAY 15 2020
Permit Number

RECEIVED
MAY 06 2020
BDS
DOCUMENT SERVICES

Site Information:	Page 1:
Customer: Truss Components of Oregon, Inc.	*Job Number:* 0919181
Job Description: Gooseberry Bldg 400	
Address: 14708 NE Glisan St, Portland, OR	

Job Engineering Criteria:	
Design Code: IBC 2015	*IntelliVIEW Version:* 18.02.01A through 19.02.02 *JRef #:* 1WSI71750011
Wind Standard: ASCE 7-10 *Wind Speed (mph):* 120 *Building Type:* Closed	*Roof Load (psf):* 25.00-12.00- 0.00- 8.00 *Floor Load (psf):* None

This package contains general notes pages, 15 truss drawing(s) and 7 detail(s).

Item	Drawing Number	Truss
1	036.20.1552.08122	A
3	036.20.1552.08574	A2
5	036.20.1552.08090	A4
7	036.20.1644.21933	AGE
9	036.20.1552.09089	B
11	036.20.1552.08261	J1
13	036.20.1552.08543	J3
15	036.20.1552.08199	FG
17	BRCLBSUB0119	
19	GBLLETIN0118	
21	HIPFRAME0118	

Item	Drawing Number	Truss
2	036.20.1552.08168	A1
4	036.20.1552.08948	A3
6	036.20.1552.08121	A5
8	036.20.1552.09166	AGR
10	036.20.1552.09088	J
12	036.20.1552.09041	J2
14	036.20.1552.09026	HGR
16	A12015ENC101014	
18	GABRST101014	
20	HIPFR1800118	
22	HIPFRSCAB0619	

Massaad Engineering Group

BY: SEH
DATE: 3-3-2020

☒ NO EXCEPTION TAKEN
☐ REJECTED
☐ SUBMIT SPECIFIED ITEM
☐ MAKE CORRECTIONS NOTED
☐ REVISE AND RESUBMIT
☐ OTHER

THIS REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. EXCEPT WHERE SPECIFICALLY REVISED OR NOTED BY M GROUP, THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS GOVERN. CONTRACTOR IS RESPONSIBLE FOR: DIMENSIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE; FABRICATION PROCESSES AND METHODS OF CONSTRUCTION; COORDINATION OF WORK WITH THAT OF ALL OTHER TRADES AND THE SATISFACTORY PERFORMANCE OF WORK.

NOTE: TRUSS B REVISED FOR OPEN CONDITION SEE SUPPLEMENTAL CALCULATIONS ATTACHED

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19-10634-DFS-01-00

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.

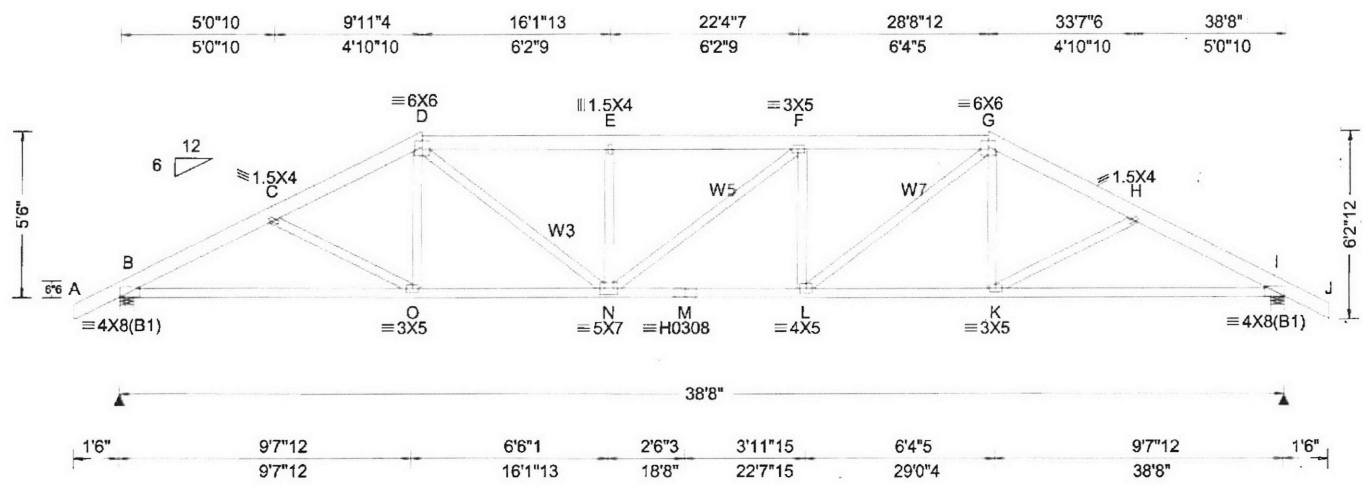
BCDL = Bottom Chord standard design Dead Load in pounds per square foot.
BCLL = Bottom Chord standard design Live Load in pounds per square foot.
CL = Certified lumber.
Des Ld = total of TCLL, TCDL, BCLL and BCDL Design Load in pounds per square foot.
FRT = Fire Retardant Treated lumber.
FRT-DB = D-Blaze Fire Retardant Treated lumber.
FRT-DC = Dricon Fire Retardant Treated lumber.
FRT-I-P = 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.: 13723 Riverport Drive, Suite 200, Maryland Heights, MO 63043; 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: 64584 / HIPS	Ply: 1	**Job Number:** 0919181		Cust: R 7175 JRef: 1WSI71750011 T2
FROM: MG	Qty: 2	Gooseberry Bldg 400		DrwNo: 036.20.1552.08122
		Truss Label: A		/ JAK 02/05/2020



Loading Criteria (psf)
TCLL: 25.00
TCDL: 12.00
BCLL: 0.00
BCDL: 8.00
Des Ld: 45.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 28.56 ft
TCDL: 6.0 psf
BCDL: 4.2 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.87 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 25.0 Ct: 1.1 CAT: II
Pf: 21.2 Ce: 1.1
Lu: - Cs: 1.00
Snow Duration: 1.15

Code / Misc Criteria
Bldg Code: IBC 2015
TPI Std: 2014
Rep Fac: Yes
FT/RT:4(0)/4(0)
Plate Type(s):
WAVE, HS

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.240	F	999	360
VERT(CL): 0.474	F	971	240
HORZ(LL): 0.103	K	-	-
HORZ(TL): 0.196	K	-	-

Creep Factor: 2.0
Max TC CSI: 0.498
Max BC CSI: 0.889
Max Web CSI: 0.359

VIEW Ver: 19.02.02.0109.12

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1917	/-	/-	/930	/160	/105
I	1917	/-	/-	/930	/160	/-

Wind reactions based on MWFRS
B Brg Width = 5.5 Min Req = 3.2
I Brg Width = 5.5 Min Req = 3.2
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	638	-3235	F - G	662	-3727
C - D	593	-3094	G - H	592	-3094
D - E	665	-3758	H - I	638	-3234
E - F	665	-3755			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - O	2782	-475	M - L	3764	-449
O - N	2765	-355	L - K	2767	-366
N - M	3764	-449	K - I	2781	-486

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - O	139	-398	F - L	130	-697
D - N	1275	-174	L - G	1244	-170
E - N	111	-694	K - H	138	-397

Lumber

Top chord 2x6 HF #2
Bot chord 2x4 HF #2
Webs 2x4 :HF Standard + HF Stud: W3,W5,
W7 2x4 HF #2;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

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.

City of Fontana
REVIEWED FOR CODE COMPLIANCE
MAY 15 2020
Permit Number

REGISTERED PROFESSIONAL ENGINEER
83294PE
OREGON
JULY 14, 2009
Russell Tangren
Renewal 6/30/2020
02/20/2020

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

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

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.**

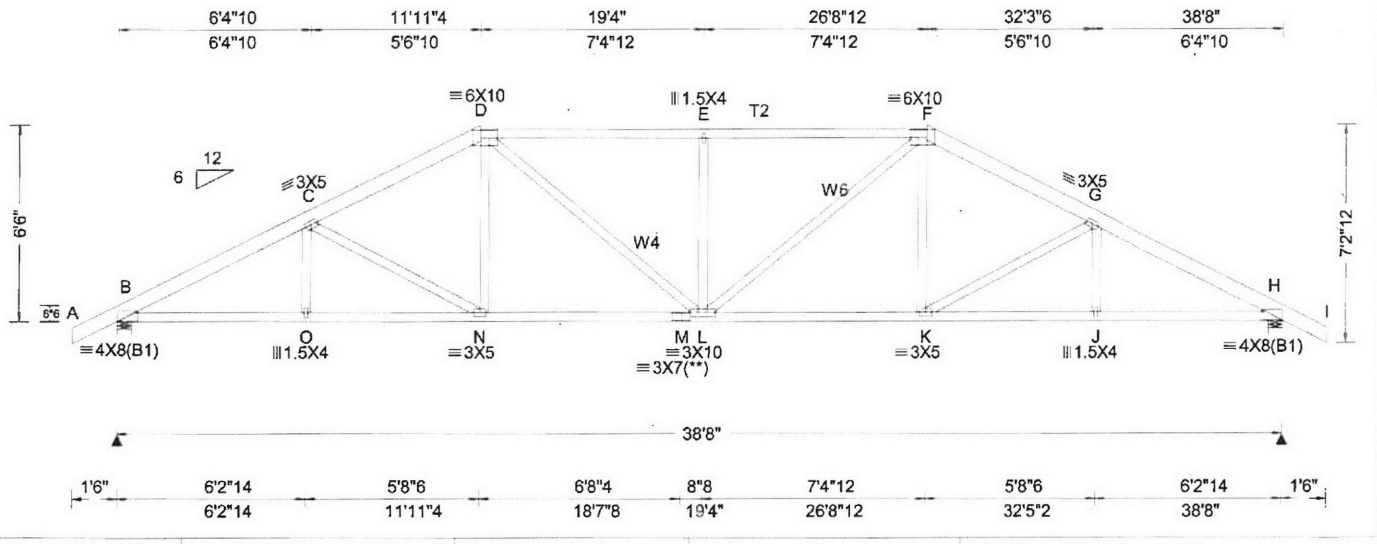
For more information see this job's general notes page and these web sites: ALPINE: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

Truss Components of Oregon, Inc.
P. O. Box 468
Cornelius OR 97113
(503) 357-2118 Ext

ALPINE
AN ITW COMPANY

8801 Folsom Blvd., Suite 107
Sacramento, CA 95826

SEQN: 64586 / HIPS FROM: MG	Ply: 1 Qty: 2	**Job Number:** 0919181 Gooseberry Bldg 400 **Truss Label:** A1		Cust: R 7175 , JRef: 1WSI71750011 T3 DrwNo: 036.20.1552.08168 / JAK 02/05/2020



Loading Criteria (psf)

TCLL:	25.00
TCDL:	12.00
BCLL:	0.00
BCDL:	8.00
Des Ld:	45.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 29.06 ft
TCDL: 6.0 psf
BCDL: 4.2 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.87 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 25.0 Ct: 1.1 CAT: II
Pf: 21.2 Ce: 1.1
Lu: - Cs: 1.00
Snow Duration: 1.15

Code / Misc Criteria
Bldg Code: IBC 2015
TPI Std: 2014
Rep Fac: Yes
FT/RT:4(0)/4(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.218	E	999	360
VERT(CL): 0.398	E	999	240
HORZ(LL): 0.097	J	-	-
HORZ(TL): 0.178	J	-	-

Creep Factor: 2.0
Max TC CSI: 0.944
Max BC CSI: 0.845
Max Web CSI: 0.639

VIEW Ver: 19.02.02.0109.12

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1920	/-	/-	/937	/165	/121
H	1920	/-	/-	/937	/165	/-

Wind reactions based on MWFRS
B Brg Width = 5.5 Min Req = 3.2
H Brg Width = 5.5 Min Req = 3.2
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	621	-3235	E - F	602	-2994
C - D	579	-2792	F - G	578	-2792
D - E	602	-2994	G - H	620	-3235

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - O	2776	-452	L - K	2431	-324
O - N	2776	-453	K - J	2776	-464
N - M	2431	-313	J - H	2776	-463
M - L	2431	-313			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - N	162	-642	E - L	128	-830
D - N	441	-60	F - K	441	-60
D - L	745	-118	K - G	162	-642
L - F	745	-118			

Lumber

Top chord 2x6 HF #2 T2 2x4 HF #1&Bet.;
Bot chord 2x4 HF #2
Webs 2x4 :HF Standard + HF Stud: W4,
W6 2x4 HF #2;

Plating Notes

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

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

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.

REGISTERED PROFESSIONAL ENGINEER
83294PE
OREGON
JULY 14, 2006
Russell Tangren
Renewal 6/30/2020
02/20/2020

City of Portland
REVIEWED FOR CODE COMPLIANCE
MAY 15 2020
Permit Number

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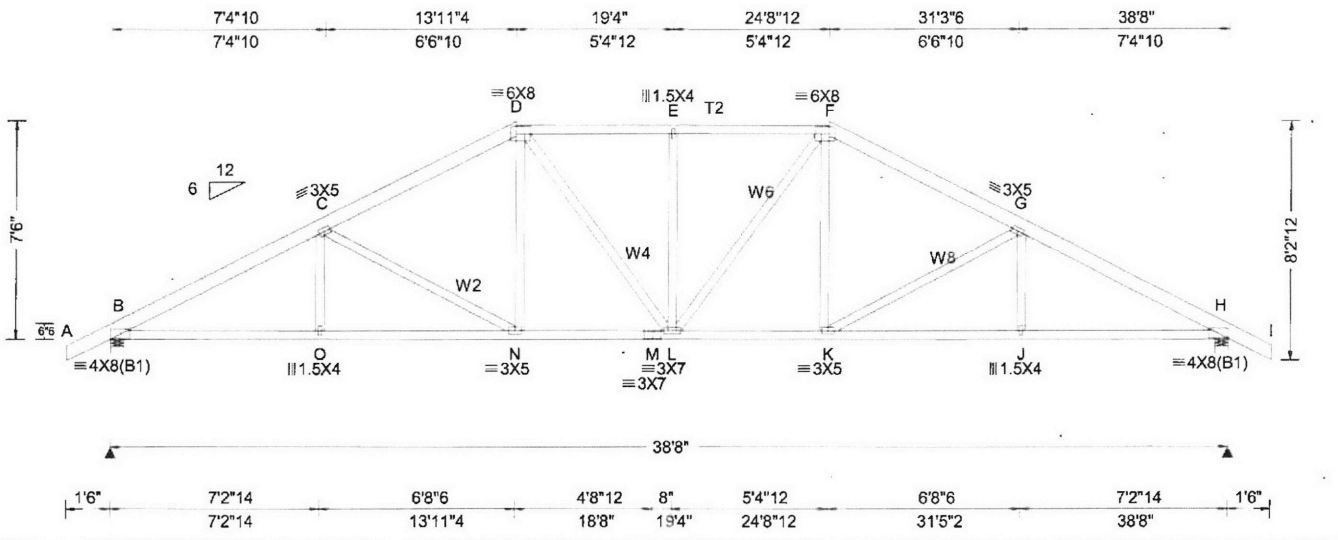
For more information see this job's general notes page and these web sites: ALPINE: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.com; ICC: www.iccsafe.org

Truss Components of Oregon, Inc.
P. O. Box 468
Cornelius OR 97113
(503) 357-2118 Ext

ALPINE
AN ITW COMPANY

8801 Folsom Blvd., Suite 107
Sacramento, CA 95826

SEQN: 64588 / HIPS	Ply: 1	**Job Number:** 0919181	Cust: R 7175 JRef:1WSI71750011 T4
FROM: MG	Qty: 2	Gooseberry Bldg 400	DrwNo: 036.20.1552.08574
		Truss Label: A2	/ JAK 02/05/2020



Loading Criteria (psf)

TCLL:	25.00
TCDL:	12.00
BCLL:	0.00
BCDL:	8.00
Des Ld:	45.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 29.56 ft
TCDL: 6.0 psf
BCDL: 4.2 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.87 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 25.0 Ct: 1.1 CAT: II
Pf: 21.2 Ce: 1.1
Lu: - Cs: 1.00
Snow Duration: 1.15

Code / Misc Criteria
Bldg Code: IBC 2015
TPI Std: 2014
Rep Fac: Yes
FT/RT:4(0)/4(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.200	E	999	360
VERT(CL): 0.360	E	999	240
HORZ(LL): 0.102	J	-	-
HORZ(TL): 0.182	J	-	-

Creep Factor: 2.0
Max TC CSI: 0.632
Max BC CSI: 0.864
Max Web CSI: 0.928

VIEW Ver: 19.02.02.0109.12

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1979	/-	/-	/943	/170	/138
H	1979	/-	/-	/943	/170	/-

Wind reactions based on MWFRS
B Brg Width = 5.5 Min Req = 3.3
H Brg Width = 5.5 Min Req = 3.3
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	616	-3392	E - F	560	-2429
C - D	559	-2617	F - G	559	-2617
D - E	560	-2429	G - H	616	-3392

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - O	2912	-441	L - K	2242	-278
O - N	2911	-441	K - J	2911	-452
N - M	2242	-267	J - H	2912	-452
M - L	2242	-267			

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
C - N	200	-823	L - F	421	-80
D - N	517	-79	F - K	517	-79
D - L	421	-80	K - G	200	-823
E - L	84	-599			

Lumber

Top chord 2x6 HF #2 T2 2x4 HF #2;
Bot chord 2x4 HF #2
Webs 2x4 :HF Standard + HF Stud: W2,W4,W6, W8 2x4 HF #2;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

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.

REGISTERED PROFESSIONAL ENGINEER
83294PE
OREGON
JULY 14, 2009
Russell Tangren
Renewal 6/30/2020
02/20/2020

City of Portland
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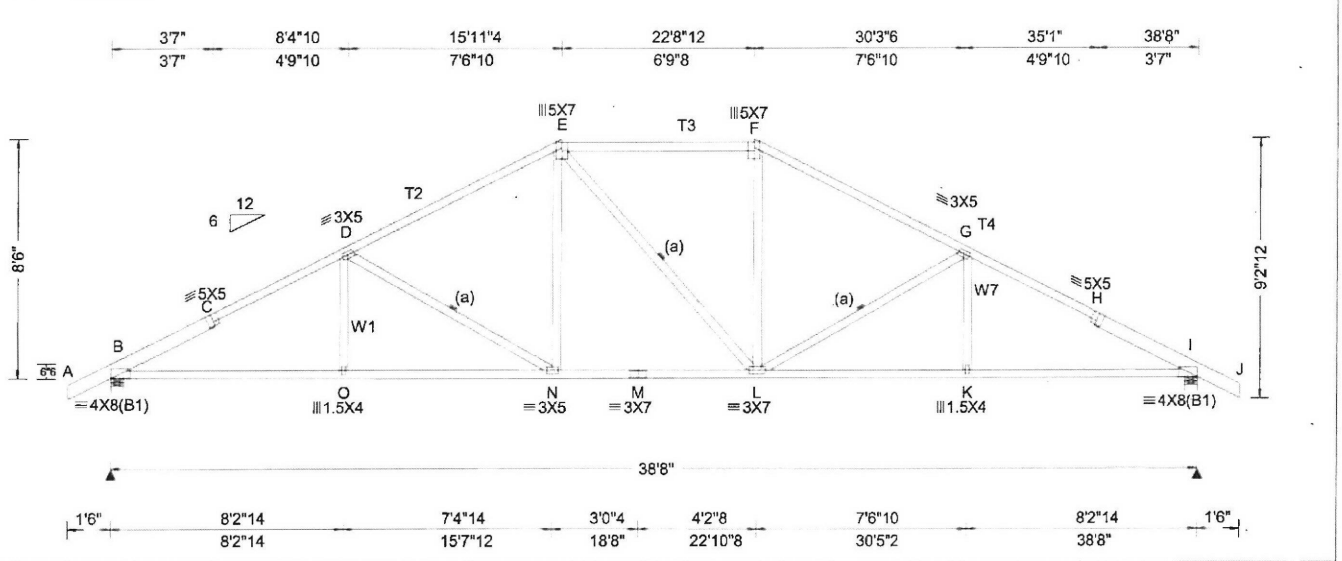
AN ITW COMPANY

8801 Folsom Blvd., Suite 107
Sacramento, CA 95826

SEQN: 64590 / HIPS	Ply: 1	**Job Number:** 0919181		Cust: R7175 JRef: 1WSI71750011 T5
FROM: MG	Qty: 2	Gooseberry Bldg 400		DrwNo: 036.20.1552.08948
		Truss Label: A3		/ JAK 02/05/2020



Loading Criteria (psf)
TCLL: 25.00
TCDL: 12.00
BCLL: 0.00
BCDL: 8.00
Des Ld: 45.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 30.06 ft
TCDL: 6.0 psf
BCDL: 4.2 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.87 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 25.0 Ct: 1.1 CAT: II
Pf: 21.2 Ce: 1.1
Lu: - Cs: 1.00
Snow Duration: 1.15

Code / Misc Criteria
Bldg Code: IBC 2015
TPI Std: 2014
Rep Fac: Yes
FT/RT:4(0)/4(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.202	N	999	360
VERT(CL): 0.354	N	999	240
HORZ(LL): 0.108	K	-	-
HORZ(TL): 0.189	K	-	-

Creep Factor: 2.0
Max TC CSI: 0.962
Max BC CSI: 0.850
Max Web CSI: 0.343

VIEW Ver: 19.02.02.0109.12

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	2038	/-	/-	/946	/175	/154
I	2038	/-	/-	/946	/175	/-

Wind reactions based on MWFRS
B Brg Width = 5.5 Min Req = 3.4
I Brg Width = 5.5 Min Req = 3.4
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	574	-3481	F - G	544	-2639
C - D	602	-3382	G - H	601	-3382
D - E	546	-2648	H - I	574	-3481
E - F	553	-2189			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - O	2980	-416	M - L	2187	-228
O - N	2978	-417	L - K	2977	-427
N - M	2187	-228	K - I	2979	-427

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
D - N	217	-897	F - L	578	-117
N - E	582	-86	L - G	218	-902

Lumber
Top chord 2x6 HF #2 T2,T4 2x4 DF-L #1&Bet.;
T3 2x4 DF-L #2;
Bot chord 2x4 HF #2
Webs 2x4 HF #2 W1,W7 2x4 HF Standard + HF Stud;

Bracing
(a) Continuous lateral restraint equally spaced on member.

Loading
Bottom chord checked for 10.00 psf non-concurrent live load.
Truss designed for unbalanced snow loads.

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.

REGISTERED PROFESSIONAL ENGINEER
83294PE
OREGON
JULY 14, 2006
Russell Tangren
Renewal 6/30/2020
02/20/2020

City of Portland
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Permit Number

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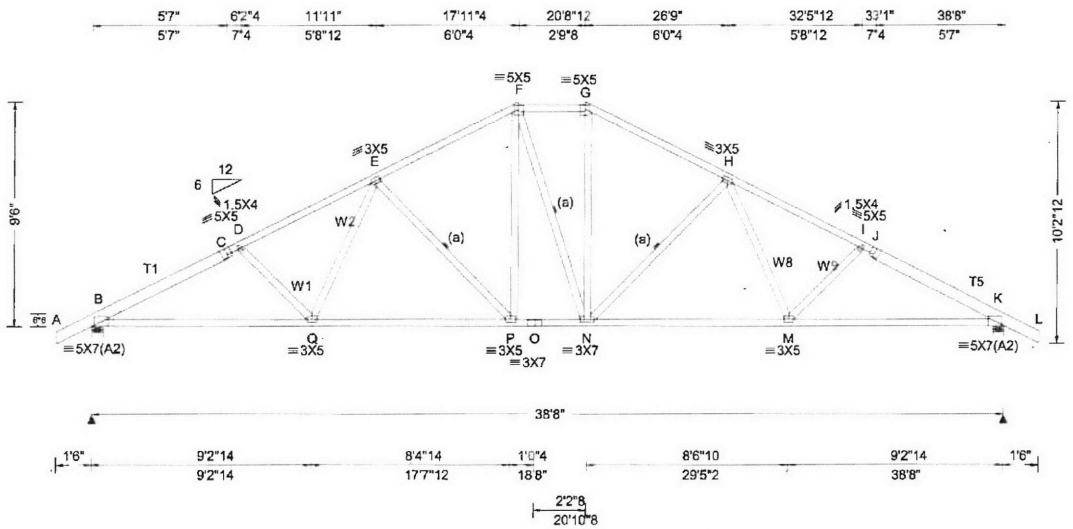
ALPINE
AN ITW COMPANY

8801 Folsom Blvd., Suite 107
Sacramento, CA 95826

SEQN: 64592 / HIPS FROM: MG	Ply: 1 Qty: 2	**Job Number:** 0919181 Gooseberry Bldg 400 **Truss Label:** A4		Cust: R 7175 JRef:1WSI71750011 T6 DrwNo: 036.20.1552.08090 / JAK 02/05/2020



Loading Criteria (psf)
TCLL: 25.00
TCDL: 12.00
BCLL: 0.00
BCDL: 8.00
Des Ld: 45.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 30.56 ft
TCDL: 6.0 psf
BCDL: 4.2 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.87 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 25.0 Ct: 1.1 CAT: II
Pf: 21.2 Ce: 1.1
Lu: - Cs: 1.00
Snow Duration: 1.15

Code / Misc Criteria
Bldg Code: IBC 2015
TPI Std: 2014
Rep Fac: Yes
FT/RT:4(0)/4(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.234	P	999	360
VERT(CL): 0.401	P	999	240
HORZ(LL): 0.100	M	-	-
HORZ(TL): 0.172	M	-	-

Creep Factor: 2.0
Max TC CSI: 0.753
Max BC CSI: 0.747
Max Web CSI: 0.322

VIEW Ver: 19.02.02.0109.12

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	2098	/-	/-	/947	/180	/170
K	2098	/-	/-	/947	/180	/-

Wind reactions based on MWFRS
B Brg Width = 5.5 Min Req = 3.5
K Brg Width = 5.5 Min Req = 3.5
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	611	-3632	G - H	551	-2572
C - D	614	-3470	H - I	614	-3367
D - E	614	-3367	I - J	615	-3470
E - F	553	-2582	J - K	611	-3632
F - G	539	-2160			

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - Q	3124	-429	O - N	2157	-180
Q - P	2778	-335	N - M	2778	-346
P - O	2157	-180	M - K	3124	-439

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
Q - E	424	-56	G - N	719	-177
E - P	220	-872	N - H	220	-873
P - F	724	-141	H - M	425	-56

Lumber
Top chord 2x4 HF #2 T1,T5 2x6 HF #2;
Bot chord 2x4 HF #1&Bet.
Webs 2x4 HF #2 W1,W2,W8,W9 2x4 HF Standard + HF Stud;

Bracing
(a) Continuous lateral restraint equally spaced on memb.r.

Loading
Bottom chord checked for 10.00 psf non-concurrent live load.
Truss designed for unbalanced snow loads.

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.

REGISTERED PROFESSIONAL ENGINEER
83294PE
OREGON
JULY 14, 2009
Russell Tangren
Renewal 6/30/2020
02/20/2020

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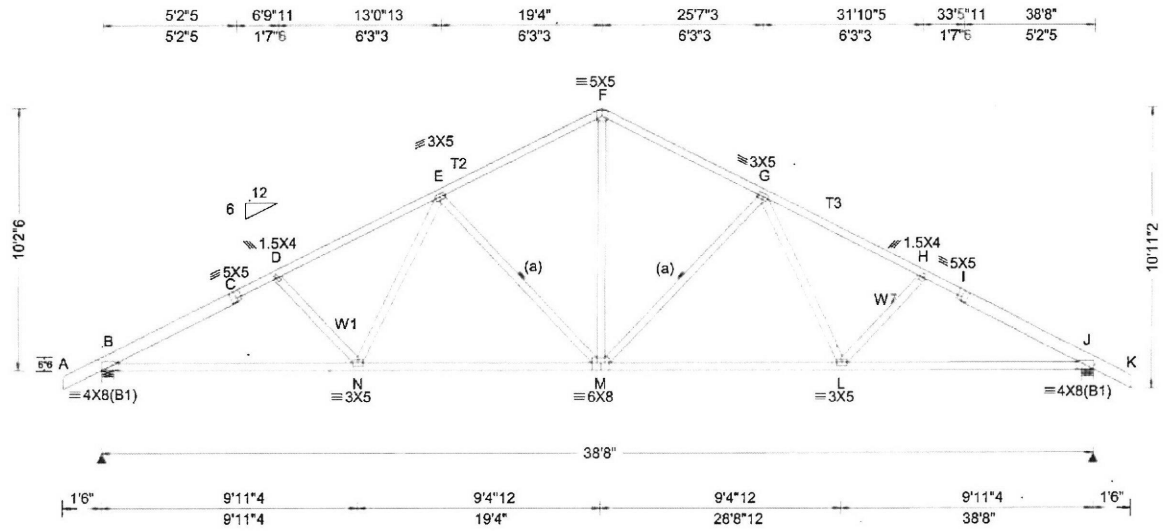
AN ITW COMPANY

8801 Folsom Blvd., Suite 107
Sacramento, CA 95826

SEQN: 64594 / COMN	Ply: 1	**Job Number:** 0919181		Cust: R 7175 JRef: 1WSI71750011 T7
FROM: MG	Qty: 20	Gooseberry Bldg 400		DrwNo: 036.20.1552.08121
		Truss Label: A5		/ JAK 02/05/2020



Loading Criteria (psf)
TCLL: 25.00
TCDL: 12.00
BCLL: 0.00
BCDL: 8.00
Des Ld: 45.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 30.91 ft
TCDL: 6.0 psf
BCDL: 4.2 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.87 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 25.0 Ct: 1.1 CAT: II
Pf: 21.2 Ce: 1.1
Lu: - Cs: 1.00
Snow Duration: 1.15

Code / Misc Criteria
Bldg Code: IBC 2015
TPI Std: 2014
Rep Fac: Yes
FT/RT:4(0)/4(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.204	M	999	360
VERT(CL): 0.375	M	999	240
HORZ(LL): 0.091	L	-	-
HORZ(TL): 0.167	L	-	-

Creep Factor: 2.0
Max TC CSI: 0.642
Max BC CSI: 0.912
Max Web CSI: 0.542

VIEW Ver: 19.02.02.0109.12

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1917	/-	/-	/945	/184	/182
J	1917	/-	/-	/945	/184	/-

Wind reactions based on MWFRS
B Brg Width = 5.5 Min Req = 3.2
J Brg Width = 5.5 Min Req = 3.2
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	625	-3175	F - G	554	-2070
C - D	634	-3009	G - H	635	-2860.
D - E	634	-2860	H - I	634	-3009
E - F	554	-2070	I - J	625	-3175

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - N	2710	-427	M - L	2280	-323
N - M	2280	-312	L - J	2710	-438

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
N - E	479	-77	M - G	239	-788
E - M	239	-788	G - L	479	-78
F - M	1280	-290			

Lumber

Top chord 2x6 HF #2 T2,T3 2x4 HF #2;
Bot chord 2x4 HF #2
Webs 2x4 HF #2 W1,W7 2x4 HF Standard + HF Stud;

Bracing

(a) Continuous lateral restraint equally spaced on member.

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

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

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Russell Tangren
Renewal 6/30/2020
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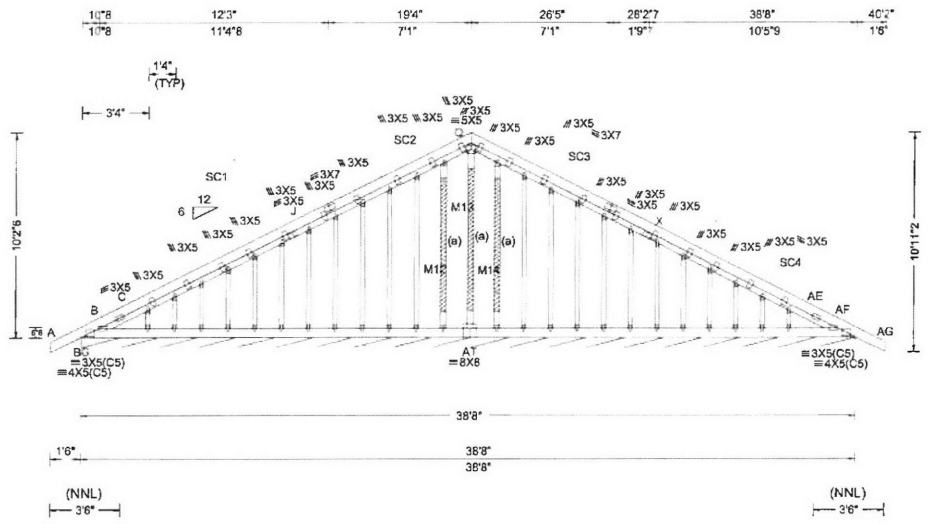
Sacramento, CA 95826

SEQN: 67773 GABL	Ply: 1	**Job Number:** 0919181	Cust: R7175 JRef: 1WSI71750011 T15
FROM: MG	Qty: 2	Gooseberry Bldg 400	DrwNo: 036.20.1644.21933
Page 1 of 2		**Truss Label:** AGE	/ RTT 02/05/2020



Loading Criteria (psf)
TCLL: 25.00
TCDL: 12.00
BCLL: 0.00
BCDL: 8.00
Des Ld: 45.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 30.91 ft
TCDL: 6.0 psf
BCDL: 4.2 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.87 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 25.0 Ct: 1.1 CAT: II
Pf: 21.2 Ce: 1.1
Lu: - Cs: 1.00
Snow Duration: 1.15

Code / Misc Criteria
Bldg Code: IBC 2015
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:4(0)/4(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.003	C	999	360
VERT(CL): 0.005	C	999	240
HORZ(LL): -0.001	D	-	-
HORZ(TL): 0.001	E	-	-

Creep Factor: 2.0
Max TC CSI: 0.193
Max BC CSI: 0.036
Max Web CSI: 0.440

VIEW Ver: 19.02.02.0109.12

▲ Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
BG*169		/-	/-	/65	/-	/2

Wind reactions based on MWFRS
BG Brg Width = 464 Min Req = -
Bearing BG is a rigid surface.
Members not listed have forces less than 375#

Lumber

Top chord 2x4 HF #2
Bot chord 2x6 HF #2
Webs 2x3 HF #2 M12,M13,M14 2x4 HF #2;
Stack Chord: SC1 2x6 HF #2;
Stack Chord: SC2 2x6 HF #2;
Stack Chord: SC3 2x6 HF #2;
Stack Chord: SC4 2x6 HF #2;

Bracing

(a) #3 or better scab reinforcement. Same size & 80% length of web member. Attach with 10d Box or Gun nails (0.128"x3",min.) @ 6" oc.

Plating Notes

All plates are 1.5X4 except as noted.

Loading

Truss designed to support 1-6-0 top chord outlookers and cladding load not to exceed 5.00 PSF one face and 24.0" span opposite face. Top chord may be notched 1.5" deep X 5.5" periodically along top edge. DO NOT OVERCUT. No knots or other lumber defects allowed within 12" of notches. Do not notch in overhang or heel panel, unless specified otherwise.

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Purlins

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

[1] 2/20/2020 RTT Change: Allow for a deeper notch in the top chord

Wind

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

Gable Studs

Provide lateral wind bracing per Alpine wind bracing details or per engineer of record. 2X3 studs require reinforcement at 70% of the length tabulated for 2X4 studs of the same grade.

REGISTERED PROFESSIONAL ENGINEER
83294PE
OREGON
JULY 14, 2009
Russell Tangren
Renewal 6/30/2020
02/20/2020

City of Portland
REVIEWED FOR CODE COMPLIANCE
MAY 15 2020
Permit Number

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Truss Components of Oregon, Inc.
P. O. Box 468
CORNELIUS OR 97113
(503) 357-2118 Ext

ALPINE AN ITW COMPANY

8801 Folsom Blvd., Suite 107
Sacramento, CA 95826

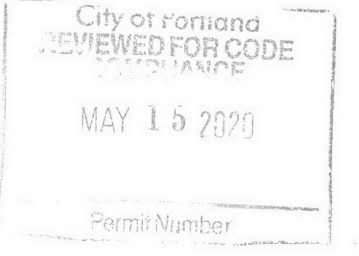
SEQN: 67773 GABL	Ply: 1	**Job Number:** 0919181	Cust: R7175 JRef: 1WSI71750011 T15
FROM: MG	Qty: 2	Gooseberry Bldg 400	DrwNo: 036.20.1644.21933
Page 2 of 2		**Truss Label:** AGE	/ RTT 02/05/2020

Additional Notes

Stacked top chord must NOT be notched or cut in area (NNL). 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.

Renewal 6/30/2020

02/20/2020



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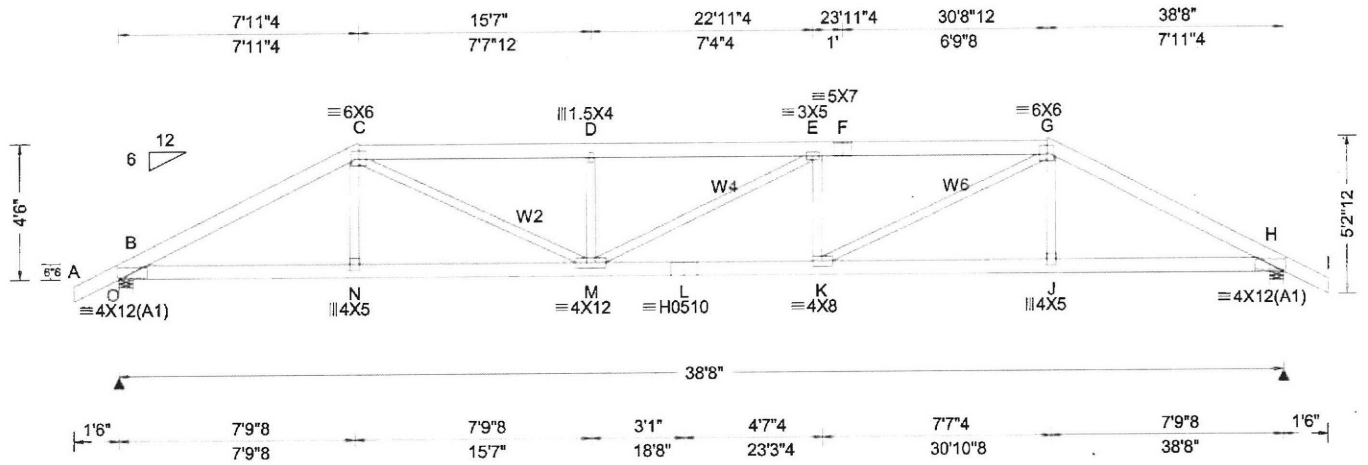
(503) 357-2118 Ext

ALPINE
AN ITW COMPANY

8801 Folsom Blvd., Suite 107
Sacramento, CA 95826

SEQN: 64599 / HIPS FROM: MG	Ply: 2 Qty: 2	**Job Number:** 0919181 Gooseberry Bldg 400 **Truss Label:** AGR		Cust: R 7175 , JRef: 1WSI71750011 T8 DrwNo: 036.20.1552.09166 / JAK 02/05/2020

2 Complete Trusses Required



Loading Criteria (psf)
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TCDL: 12.00
BCLL: 0.00
BCDL: 8.00
Des Ld: 45.00
NCBCLL: 0.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 28.06 ft
TCDL: 6.0 psf
BCDL: 4.2 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.87 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 25.0 Ct: 1.1 CAT: II
Pf: 21.2 Ce: 1.1
Lu: - Cs: 1.00
Snow Duration: 1.15

Code / Misc Criteria
Bldg Code: IBC 2015
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:4(0)/4(0)
Plate Type(s):
WAVE, HS

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.347	D	999	360
VERT(CL): 0.628	D	733	240
HORZ(LL): 0.079	C	-	-
HORZ(TL): 0.144	C	-	-

Creep Factor: 2.0
Max TC CSI: 0.560
Max BC CSI: 0.857
Max Web CSI: 0.440

VIEW Ver: 19.02.02.0109.12

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+ / R-	/ Rh		/ Rw	/ U	/ RL
O	4274 /-	/-		/-	/627	/-
H	4274 /-	/-		/-	/627	/-

Wind reactions based on MWFRS
O Brg Width = 5.5 Min Req = 3.5
H Brg Width = 5.5 Min Req = 3.5
Bearings O & 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	650	-4254	E - F	876	-5555
C - D	880	-5576	F - G	876	-5555
D - E	880	-5576	G - H	650	-4249

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - N	3748	-570	L - K	5568	-879
N - M	3721	-567	K - J	3717	-566
M - L	5568	-879	J - H	3743	-569

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
N - C	727	-88	K - G	2080	-351
C - M	2090	-353	G - J	716	-86

Lumber
Top chord 2x6 HF #2
Bot chord 2x6 HF SS
Webs 2x4 :HF Standard + HF Stud: W2,W4,
W6 2x4 HF #2;

Nailnote
Nail Schedule:0.120"x3", min. nails
Top Chord: 1 Row @12.00" o.c.
Bot Chord: 1 Row @ 6.25" o.c.
Webs : 1 Row @ 4" o.c.
Use equal spacing between rows and stagger nails in each row to avoid splitting.

Special Loads
-----(Lumber Dur.Fac.=1.15 / Plate Dur.Fac.=1.15)

TC: From	77 plf at	-1.50 to	77 plf at	7.94
TC: From	38 plf at	7.94 to	38 plf at	30.73
TC: From	77 plf at	30.73 to	77 plf at	40.17
BC: From	4 plf at	-1.50 to	4 plf at	0.00
BC: From	16 plf at	0.00 to	16 plf at	7.95
BC: From	8 plf at	7.95 to	8 plf at	30.72
BC: From	16 plf at	30.72 to	16 plf at	38.67
BC: From	4 plf at	38.67 to	4 plf at	40.17

BC: 975 lb Conc. Load at 7.95,30.72
BC: 348 lb Conc. Load at 10.00,12.00,14.00,16.00 18.00,19.33,20.67,22.67,24.67,26.67,28.67

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

Wind
Wind loads and reactions based on MWFRS.

REGISTERED PROFESSIONAL ENGINEER 83294PE OREGON JULY 14, 2009 Russell Tangren
Renewal 6/30/2020
02/20/2020

City of Portland REVIEWED FOR CODE COMPLIANCE MAY 15 2020 Permit Number

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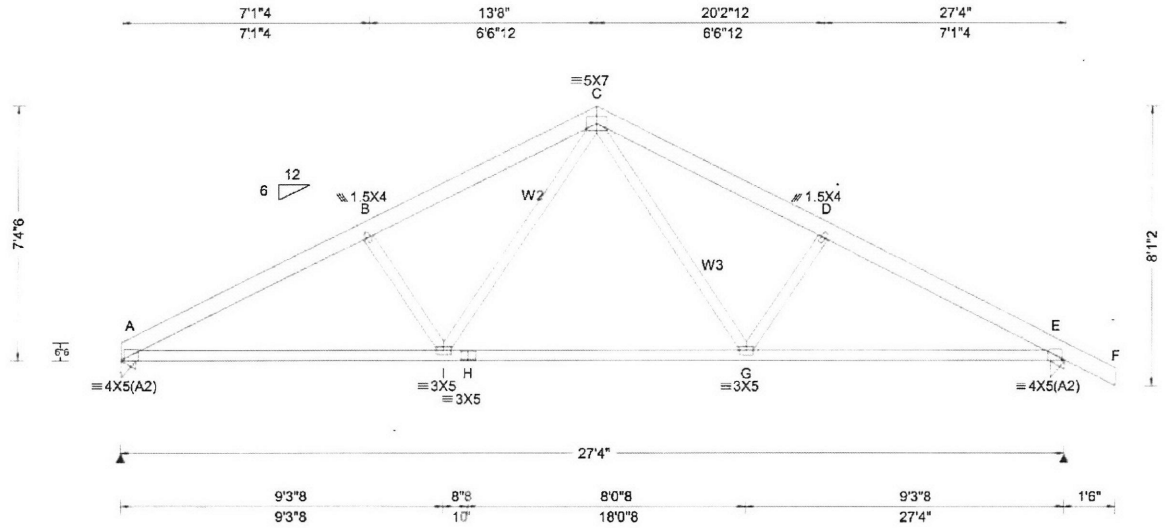
Truss Components of Oregon, Inc.
P. O. Box 468
Cornelius OR 97113
(503) 357-2118 Ext

ALPINE AN ITW COMPANY

8801 Folsom Blvd., Suite 107
Sacramento, CA 95826

SEQN: 74745 COMN	Ply: 1	**Job Number:** 0919181	Cust: R 7175 JRef: 1WT971750004 T21
FROM: MG	Qty: 8	Gooseberry Bldg 400	DrwNo: 063.20.1429.22277
		Truss Label: B	/ RTT 03/03/2020



Loading Criteria (psf)
TCLL: 25.00
TCDL: 12.00
BCLL: 0.00
BCDL: 8.00
Des Ld: 45.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 120 mph
Enclosure: Open Obst.
Risk Category: II
EXP: B Kzt: NA
Mean Height: 29.49 ft
TCDL: 6.0 psf
BCDL: 4.2 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.00
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 25.0 Ct: 1.1 CAT: II
Pf: 21.2 Ce: 1.1
Lu: - Cs: 1.00
Snow Duration: 1.15

Code / Misc Criteria
Bldg Code: IBC 2015
TPI Std: 2014
Rep Fac: Yes
FT/RT:4(0)/4(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.080	G	999	360
VERT(CL): 0.147	G	999	240
HORZ(LL): 0.041	G	-	-
HORZ(TL): 0.075	G	-	-

Creep Factor: 2.0
Max TC CSI: 0.325
Max BC CSI: 0.736
Max Web CSI: 0.196

VIEW Ver: 19.02.02B.0122.16

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
A	1265	/-	/-	/542	/90	/115
E	1395	/-	/-	/614	/114	/-

Wind reactions based on MWFRS
A Brg Width = 5.1 Min Req = 2.1
E Brg Width = 5.1 Min Req = 2.3
Bearings A & E 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	360	-2145	C - D	352	-1860
B - C	383	-1874	D - E	329	-2130

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
A - I	1822	-202	H - G	1241	-63
I - H	1241	-63	G - E	1801	-196

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.	Webs	Tens.	Comp.
B - I	174	-489	C - G	636	-80
I - C	655	-87	G - D	171	-473

Lumber

Top chord 2x6 HF #2
Bot chord 2x4 HF #2
Webs 2x4 :HF Standard + HF Stud: W2, W3 2x4 HF #2;

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Truss designed for unbalanced snow loads.

Wind

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

REGISTERED PROFESSIONAL ENGINEER
83294PE
OREGON
JULY 14, 2006
Russell Tangren
Renewal 6/30/2020
03/03/2020

City of Portland
REVIEWED FOR CODE COMPLIANCE
MAY 15 2020
Permit Number

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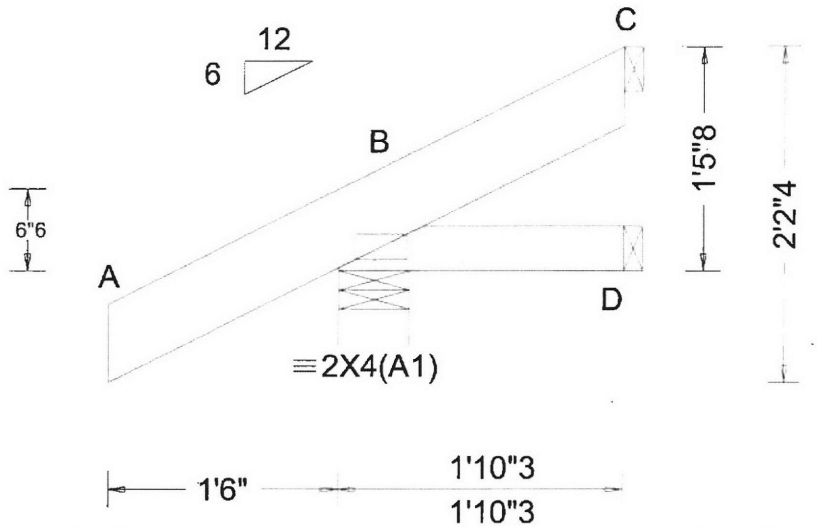
(503) 357-2118 Ext

ALPINE
AN ITW COMPANY

8801 Folsom Blvd., Suite 107
Sacramento, CA 95826

SEQN: 64574 / JACK FROM: MG	Ply: 1 Qty: 8	**Job Number:** 0919181 Gooseberry Bldg 400 **Truss Label:** J		Cust: R 7175 JRef: 1WSI71750011 T12 DrwNo: 036.20.1552.09088 / JAK 02/05/2020



Loading Criteria (psf)

TCLL:	25.00
TCDL:	12.00
BCLL:	0.00
BCDL:	8.00
Des Ld:	45.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 26.54 ft
TCDL: 6.0 psf
BCDL: 4.2 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 25.0 Ct: 1.1 CAT: II
Pf: 21.2 Ce: 1.1
Lu: - Cs: 1.00
Snow Duration: 1.15

Code / Misc Criteria
Bldg Code: IBC 2015
TPI Std: 2014
Rep Fac: Yes
FT/RT:4(0)/4(0)
Plate Type(s):
WAVE

Defl/CSI Criteria
PP Deflection in loc L/defl L/#
VERT(LL): NA
VERT(CL): NA
HORZ(LL): -0.000 D - -
HORZ(TL): 0.000 D - -
Creep Factor: 2.0
Max TC CSI: 0.091
Max BC CSI: 0.014
Max Web CSI: 0.000

VIEW Ver: 19.02.02.0109.12

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	279	/-	/-	/154	/27	/42
D	23	/-	/-	/15	/-	/-
C	8	/-	/-	/15	/9	/-

Wind reactions based on MWFRS
B Brg Width = 5.5 Min Req = 1.5
D Brg Width = 1.5 Min Req = -
C Brg Width = 1.5 Min Req = -
Bearing B is a rigid surface.
Members not listed have forces less than 375#

Lumber

Top chord 2x6 HF #2
Bot chord 2x4 HF #2

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Wind

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

REGISTERED PROFESSIONAL ENGINEER
83294PE
OREGON
JULY 14, 2009
Russell Tangren
Renewal 6/30/2020
02/20/2020

City of Portland
REVIEWED FOR CODE COMPLIANCE
MAY 15 2020
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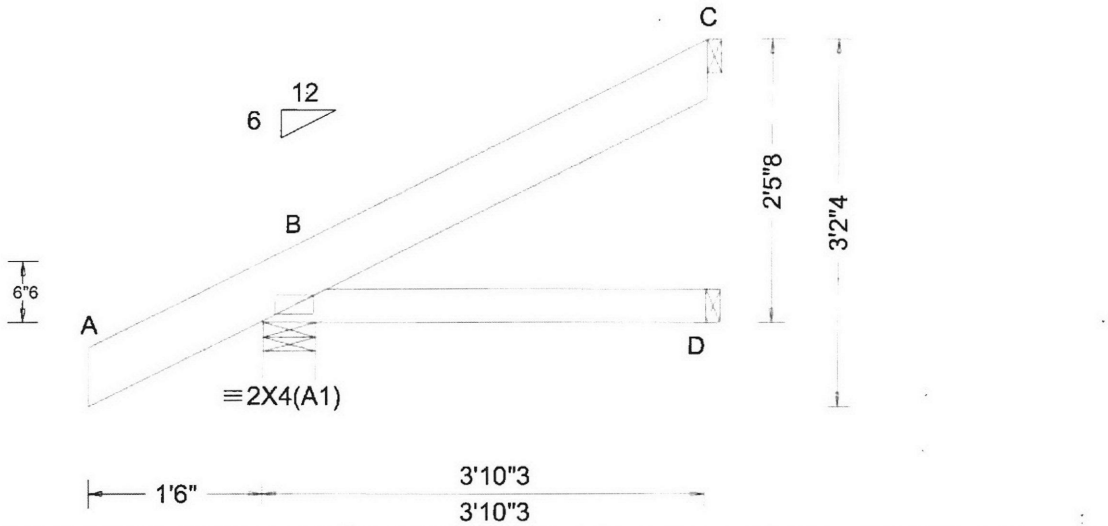
P. O. Box 468
Cornelius OR 97113
(503) 357-2118 Ext

ALPINE
AN ITW COMPANY

8801 Folsom Blvd., Suite 107
Sacramento, CA 95826

SEQN: 64576 / JACK FROM: MG	Ply: 1 Qty: 8	**Job Number:** 0919181 Gooseberry Bldg 400 **Truss Label:** J1		Cust: R 7175 JRef: 1WSI71750011 T11 DrwNo: 036.20.1552.08261 / JAK 02/05/2020



Loading Criteria (psf)
TCLL: 25.00
TCDL: 12.00
BCLL: 0.00
BCDL: 8.00
Des Ld: 45.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 27.04 ft
TCDL: 6.0 psf
BCDL: 4.2 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 25.0 Ct: 1.1 CAT: II
Pf: 21.2 Ce: 1.1
Lu: - Cs: 1.00
Snow Duration: 1.15

Code / Misc Criteria
Bldg Code: IBC 2015
TPI Std: 2014
Rep Fac: Yes
FT/RT:4(0)/4(0)
Plate Type(s):
WAVE

Defl/CSI Criteria
PP Deflection in loc L/defl L/#
VERT(LL): NA
VERT(CL): NA
HORZ(LL): 0.001 D - -
HORZ(TL): 0.002 D - -
Creep Factor: 2.0
Max TC CSI: 0.107
Max BC CSI: 0.092
Max Web CSI: 0.000

VIEW Ver: 19.02.02.0109.12

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	337	/-	/-	/183	/26	/70
D	56	/-	/-	/33	/-	/-
C	115	/-	/-	/44	/31	/-

Wind reactions based on MWFRS
B Brg Width = 5.5 Min Req = 1.5
D Brg Width = 1.5 Min Req = -
C Brg Width = 1.5 Min Req = -
Bearing B is a rigid surface.
Members not listed have forces less than 375#

Lumber

Top chord 2x6 HF #2
Bot chord 2x4 HF #2

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Wind

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

Renewal 6/30/2020
02/20/2020

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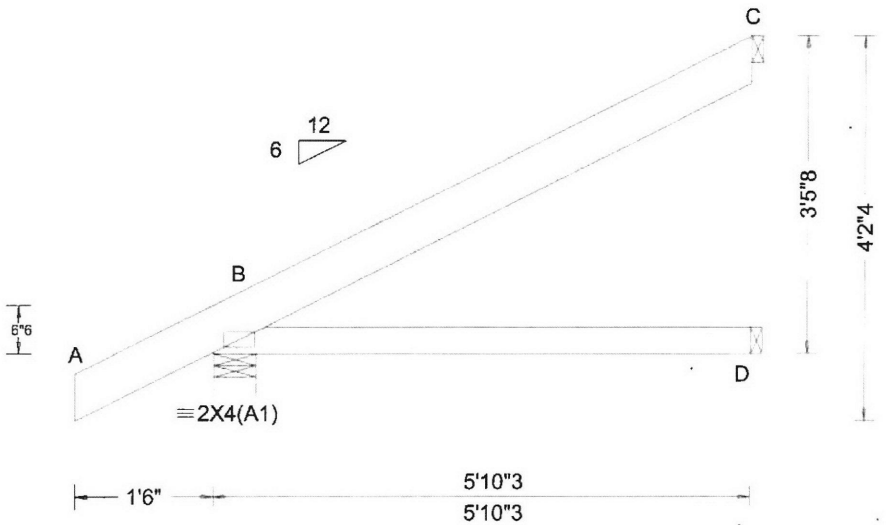
Truss Components of Oregon, Inc.
P. O. Box 468
Cornelius OR 97113
(503) 357-2118 Ext

ALPINE
AN ITW COMPANY

8801 Folsom Blvd., Suite 107
Sacramento, CA 95826

SEQN: 64578 / JACK FROM: MG	Ply: 1 Qty: 8	**Job Number:** 0919181 Gooseberry Bldg 400 **Truss Label:** J2		Cust: R7175 JRef: 1WSI71750011 T10 DrwNo: 036.20.1552.09041 / JAK 02/05/2020



Loading Criteria (psf)
TCLL: 25.00
TCDL: 12.00
BCLL: 0.00
BCDL: 8.00
Des Ld: 45.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 27.54 ft
TCDL: 6.0 psf
BCDL: 4.2 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 25.0 Ct: 1.1 CAT: II
Pf: 21.2 Ce: 1.1
Lu: - Cs: 1.00
Snow Duration: 1.15

Code / Misc Criteria
Bldg Code: IBC 2015
TPI Std: 2014
Rep Fac: Yes
FT/RT:4(0)/4(0)
Plate Type(s):
WAVE

Defl/CSI Criteria
PP Deflection in loc L/defl L/#
VERT(LL): NA
VERT(CL): NA
HORZ(LL): 0.005 D - -
HORZ(TL): 0.009 D - -
Creep Factor: 2.0
Max TC CSI: 0.260
Max BC CSI: 0.226
Max Web CSI: 0.000

VIEW Ver: 19.02.02.0109.12

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	420	/-	/-	/226	/28	/98
D	87	/-	/-	/51	/-	/-
C	200	/-	/-	/80	/52	/-

Wind reactions based on MWFRS
B Brg Width = 5.5 Min Req = 1.5
D Brg Width = 1.5 Min Req = -
C Brg Width = 1.5 Min Req = -
Bearing B is a rigid surface.
Members not listed have forces less than 375#

Lumber

Top chord 2x6 HF #2
Bot chord 2x4 HF #2

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Wind

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

REGISTERED PROFESSIONAL ENGINEER
83294PE
OREGON
JULY 14, 2009
Russell Tangren
Renewal 6/30/2020
02/20/2020

City of Portland
REVIEWED FOR CODE COMPLIANCE
MAY 15 2020
Permit Number

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Truss Components of Oregon, Inc.
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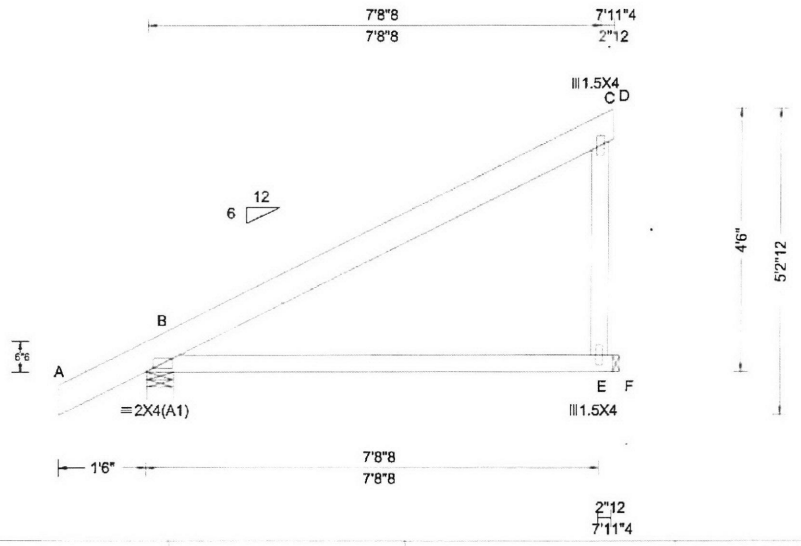
ALPINE
AN ITW COMPANY

8801 Folsom Blvd., Suite 107
Sacramento, CA 95826

SEQN: 64580 / EJAC FROM: MG	Ply: 1 Qty: 26	**Job Number:** 0919181 Gooseberry Bldg 400 **Truss Label:** J3		Cust: R7175 JRef: 1WSI71750011 T13 DrwNo: 036.20.1552.08543 / JAK 02/05/2020



Loading Criteria (psf)
TCLL: 25.00
TCDL: 12.00
BCLL: 0.00
BCDL: 8.00
Des Ld: 45.00
NCBCLL: 10.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 28.06 ft
TCDL: 6.0 psf
BCDL: 4.2 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 25.0 Ct: 1.1 CAT: II
Pf: 21.2 Ce: 1.1
Lu: - Cs: 1.00
Snow Duration: 1.15

Code / Misc Criteria
Bldg Code: IBC 2015
TPI Std: 2014
Rep Fac: Yes
FT/RT:4(0)/4(0)
Plate Type(s):
WAVE

Defl/CSI Criteria
PP Deflection in loc L/defl L/#
VERT(LL): NA
VERT(CL): NA
HORZ(LL): 0.015 F - -
HORZ(TL): 0.027 F - -
Creep Factor: 2.0
Max TC CSI: 0.542
Max BC CSI: 0.434
Max Web CSI: 0.103

VIEW Ver: 19.02.02.0109.12

▲ Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	511	/-	/-	/274	/33	/128
E	348	/-	/-	/186	/66	/-

Wind reactions based on MWFRS
B Brg Width = 5.5 Min Req = 1.5
E Brg Width = 1.5 Min Req = -
Bearing B is a rigid surface.
Members not listed have forces less than 375#

Lumber
Top chord 2x6 HF #2
Bot chord 2x4 HF #2
Webs 2x4 :HF Standard + HF Stud:

Loading
Bottom chord checked for 10.00 psf non-concurrent live load.

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

REGISTERED PROFESSIONAL ENGINEER
83294PE
OREGON
JULY 14, 2009
Russell Tangren
Renewal 6/30/2020
02/20/2020

City of Portland
REVIEWED FOR CODE COMPLIANCE
MAY 15 2020
Permit Number

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P. O. Box 468
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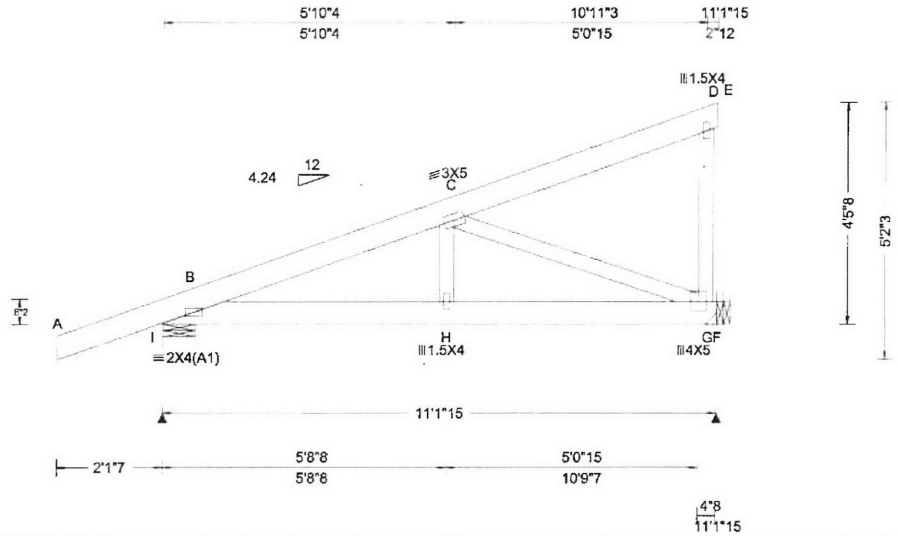
(503) 357-2118 Ext

ALPINE
AN ITW COMPANY

8801 Folsom Blvd., Suite 107
Sacramento, CA 95826

SEQN: 64582 / HIP_ FROM: MG	Ply: 1 Qty: 4	**Job Number:** 0919181 Gooseberry Bldg 400 **Truss Label:** HGR		Cust: R 7175 JRef: 1WSI71750011 T14 DrwNo: 036.20.1552.09026 / JAK 02/05/2020



Loading Criteria (psf)

TCLL:	25.00
TCDL:	12.00
BCLL:	0.00
BCDL:	8.00
Des Ld:	45.00
NCBCLL:	10.00
Soffit:	2.00

Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: ASCE 7-10
Speed: 120 mph
Enclosure: Closed
Risk Category: II
EXP: B Kzt: NA
Mean Height: 28.03 ft
TCDL: 6.0 psf
BCDL: 4.2 psf
MWFRS Parallel Dist: 0 to h/2
C&C Dist a: 3.00 ft
Loc. from endwall: Any
GCpi: 0.18
Wind Duration: 1.60

Snow Criteria (Pg,Pf in PSF)
Pg: 25.0 Ct: 1.1 CAT: II
Pf: 21.2 Ce: 1.1
Lu: - Cs: 1.00
Snow Duration: 1.15

Code / Misc Criteria
Bldg Code: IBC 2015
TPI Std: 2014
Rep Fac: Varies by Ld Case
FT/RT:4(0)/4(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

PP Deflection in	loc	L/defl	L/#
VERT(LL): 0.023	H	999	360
VERT(CL): 0.042	H	999	240
HORZ(LL): 0.006	G	-	-
HORZ(TL): 0.011	G	-	-

Creep Factor: 2.0
Max TC CSI: 0.511
Max BC CSI: 0.427
Max Web CSI: 0.633

VIEW Ver: 19.02.02.0109.12

▲Maximum Reactions (lbs)

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
I	640	/-	/-	/-	/83	/-
F	627	/-	/-	/-	/85	/-

Wind reactions based on MWFRS
I Brg Width = 7.8 Min Req = 1.5
F Brg Width = - Min Req = -
Bearing I is a rigid surface.
Members not listed have forces less than 375#

Maximum Top Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.
B - C	137	-999

Maximum Bot Chord Forces Per Ply (lbs)

Chords	Tens.	Comp.	Chords	Tens.	Comp.
B - H	941	-127	H - G	934	-128

Maximum Web Forces Per Ply (lbs)

Webs	Tens.	Comp.
C - G	137	-996

Lumber

Top chord 2x6 HF #2
Bot chord 2x6 HF #2
Webs 2x4 :HF Standard + HF Stud:

Special Loads

----(Lumber Dur.Fac.=1.15 / Plate Dur.Fac.=1.15)

TC: From	13 plf at	-2.83 to	75 plf at	0.00
TC: From	2 plf at	0.00 to	2 plf at	11.16
BC: From	0 plf at	-2.83 to	4 plf at	0.00
BC: From	2 plf at	0.00 to	2 plf at	11.16

TC: 15 lb Conc. Load at 2.72
TC: 230 lb Conc. Load at 5.55
TC: 400 lb Conc. Load at 8.38
BC: 47 lb Conc. Load at 2.72
BC: 112 lb Conc. Load at 5.55
BC: 174 lb Conc. Load at 8.38

Loading

Bottom chord checked for 10.00 psf non-concurrent live load.

Wind

Wind loads and reactions based on MWFRS.

Right end vertical not exposed to wind pressure.

REGISTERED PROFESSIONAL ENGINEER
83294PE
OREGON
JULY 14, 2009
Russell Tangren
Renewal 6/30/2020
02/20/2020

City of Portland
REVIEWED FOR CODE COMPLIANCE
MAY 15 2020
Permit Number

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P. O. Box 468
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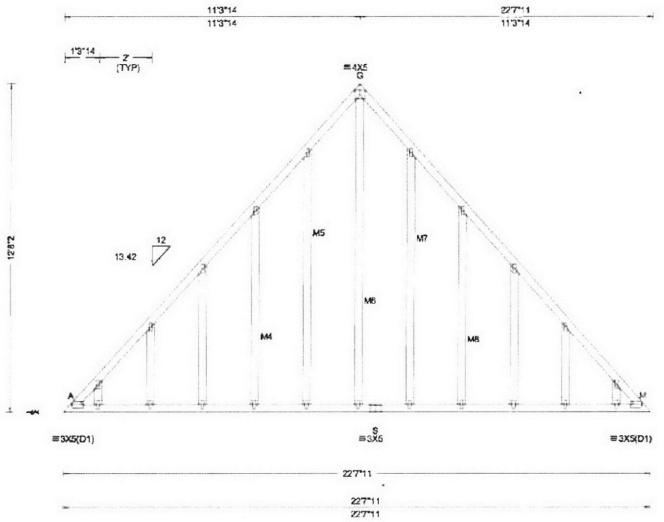
(503) 357-2118 Ext

ALPINE
AN ITW COMPANY

8801 Folsom Blvd., Suite 107
Sacramento, CA 95826

SEQN: 32427 / HIP_ FROM: MG	Ply: 1 Qty: 2	**Job Number:** 0919181 Gooseberry Bldg 400 **Truss Label:** FG	Cust: R 7175 JRef: 1WSI71750011 T9 DrwNo: 036.20.1552.08199 BFR / JAK 02/05/2020



Loading Criteria (psf)
TCLL: 25.00
TCDL: 12.00
BCLL: 0.00
BCDL 8.00
Des Ld: 45.00
NCBCLL: 0.00
Soffit: 2.00
Load Duration: 1.15
Spacing: 24.0 "

Wind Criteria
Wind Std: NA
Speed: NA mph
Enclosure: NA
Category: NA
EXP: NA Kzt: NA
Mean Height: NA ft
TCDL: NA psf
BCDL: NA psf
MWFRS Parallel Dist: NA
C&C Dist a: NA ft
Loc. from endwall: NA
I: NA GCpi: NA
Wind Duration: NA

Snow Criteria (Pg,Pf in PSF)
Pg: 25.0 Ct: - CAT: -
Pf: 21.2 Ce: -
Lu: - Cs: -
Snow Duration: -

Code / Misc Criteria
Bldg Code: IBC 2015
TPI Std: 2014
Rep Fac: No
FT/RT:4(0)/4(0)
Plate Type(s):
WAVE

Defl/CSI Criteria

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

Creep Factor: 2.0
Max TC CSI: 0.001
Max BC CSI: 0.001
Max Web CSI: 0.005

VIEW Ver: 18.02.01A.0205.19

▲ Maximum Reactions (lbs), or *=PLF

	Gravity			Non-Gravity		
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
A*	2	/-	/-	/-	/-	/-

A Brg Width = 271 Min Req = -
Bearing A is a rigid surface.
Members not listed have forces less than 375#

Lumber
Top chord 2x4 HF #2
Bot chord 2x4 HF #2
Webs 2x4 :HF Standard + HF Stud:
:M4, M5, M6, M7, M8 2x4 HF #2:

Plating Notes
All plates are 1.5X4 except as noted.

Additional Notes
This "Hip Frame" may be used in place of purlins on the hip plane to brace the flat top chord of hip trusses. See detail drawing HIPFRAME0118, HIPFR1800118, or HIPFRSCAB0619 for additional information.

REGISTERED PROFESSIONAL ENGINEER
83294PE
OREGON
JULY 14, 2009
Russell Tangren
Renewal 6/30/2020
02/20/2020

City of Portland
REVIEWED FOR CODE COMPLIANCE
MAY 15 2020
Permit Number

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CORNELIUS OR 97113
(503) 357-2118 Ext

ALPINE
AN ITW COMPANY

8801 Folsom Blvd., Suite 107
Sacramento, CA 95826

Gable Stud Reinforcement Detail

ASCE 7-10: 120 mph Wind Speed, 15' Mean Height, Enclosed, Exposure C, Kzt = 1.00

Or: 100 mph Wind Speed, 15' Mean Height, Partially Enclosed, Exposure C, Kzt = 1.00
Or: 100 mph Wind Speed, 15' Mean Height, Enclosed, Exposure D, Kzt = 1.00

Max Gable Vertical Length

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

Bracing Group Species and Grades:

Group A:

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

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

Group B:

Hem-Fir
#1 & Btr
#1

Douglas Fir-Larch	Southern Pine***
#1	#1
#2	#2

1x4 Braces shall be SRB (Stress-Rated Board).

***For 1x4 So. Pine use only Industrial 55 or Industrial 45 Stress-Rated Boards. Group B values may be used with these grades.

Gable Truss Detail Notes:

Wind Load deflection criterion is L/240.

Provide uplift connections for 35 plf over continuous bearing (5 psf TC Dead Load).

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

Attach 'L' braces with 10d (0.128"x3.0" min) nails.

* For (1) 'L' brace: space nails at 2" o.c. in 18" end zones and 4" o.c. between zones.

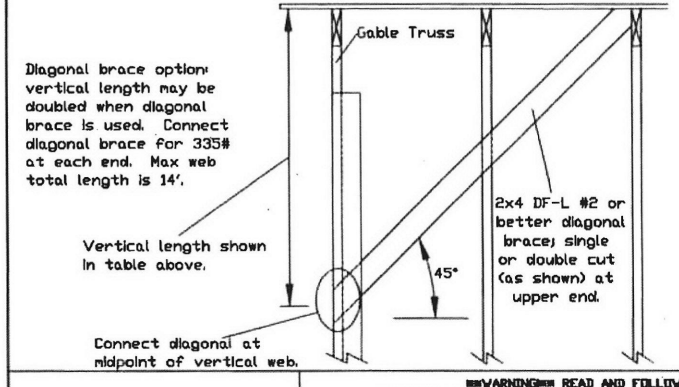
** For (2) 'L' braces: space nails at 3" o.c. in 18" end zones and 6" o.c. between zones.

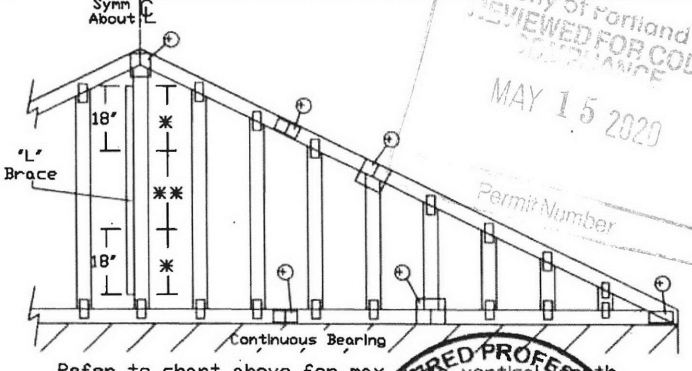
'L' bracing must be a minimum of 80% of web member length.

Gable Vertical Plate Sizes	
Vertical Length	No Splice
Less than 4' 0"	1X4 or 2X3
Greater than 4' 0", but less than 11' 6"	2X4
Greater than 11' 6"	3X4

+ Refer to common truss design for peak, splice, and heel plates.

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





Refer to chart above for max. gable vertical length.

City of Portland
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MAY 15 2020
Permit Number

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Earth City, MO 63045

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MAX. TOT. LD. 60 PSF

MAX. SPACING 24.0"

REF	ASCE7-10-GAB12015
DATE	10/01/14
DRWG	A12015ENC101014

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-reinforecement 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.

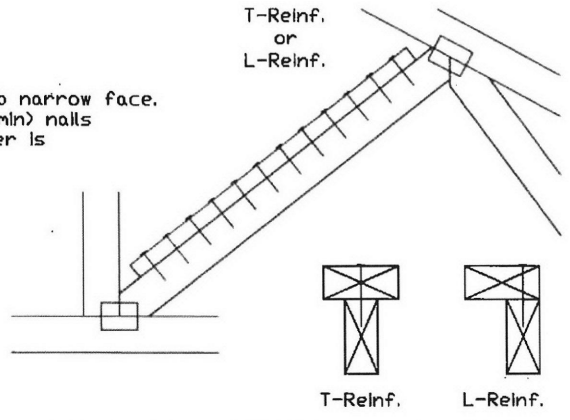
Web Member Size	Specified CLR Restraint	Alternative Reinforecement T- or L- Reinf.	Scab Reinf.
2x3 or 2x4	1 row	2x4	1-2x4
2x3 or 2x4	2 rows	2x6	2-2x4
2x6	1 row	2x4	1-2x6
2x6	2 rows	2x6	2-2x4(*)
2x8	1 row	2x6	1-2x8
2x8	2 rows	2x6	2-2x6(*)

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.

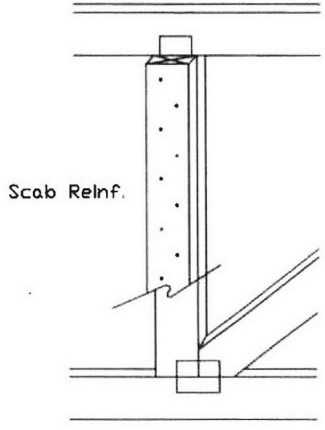
T-Reinforcement or L-Reinforcement:

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.



City of Portland
REVIEWED FOR CODE COMPLIANCE
MAY 15 2020
Permit Manager

ALPINE
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Maryland Heights, MO 63043

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REGISTERED PROFESSIONAL ENGINEER
83294PE
OREGON
JULY 14, 2009
Russell Tangren
Renewal 6/30/2020

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

02/20/2020

ASCE 7-10: 120 mph, 30' Mean Height, Closed, Exposure C
Common Residential Gable End Wind Bracing Requirements - Stiffeners

120 mph, 30ft. Mean Hgt, ASCE 7-10, Enclosed, Exp C, or
100 mph, 30ft. Mean Hgt, ASCE 7-10, Enclosed, Exp D, or
100 mph, 30ft. Mean Hgt, ASCE 7-10, Part. Enclosed, Exp C,
Kzt = 1.00, Wind TC DL=5.0 psf, Wind BC DL=5.0 psf.

Lateral chord bracing requirements
Top: Continuous roof sheathing
Bot: Continuous ceiling diaphragm

See Engineer's sealed design referencing this detail for lumber, plates, and other information not shown on this detail.

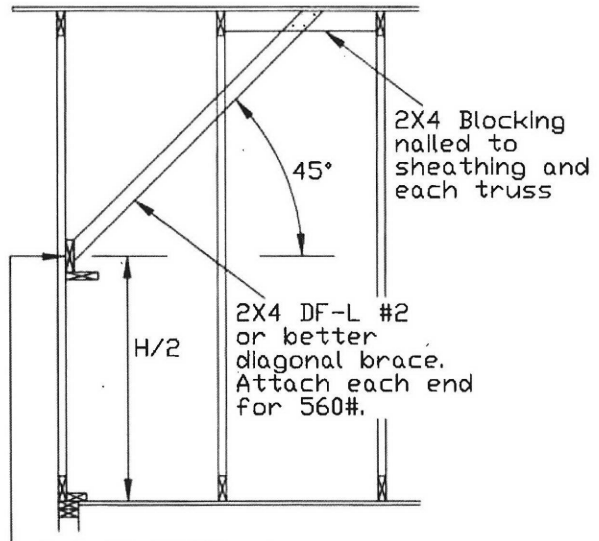
Nails: 10d box or gun (0.128"x3",min) nails.

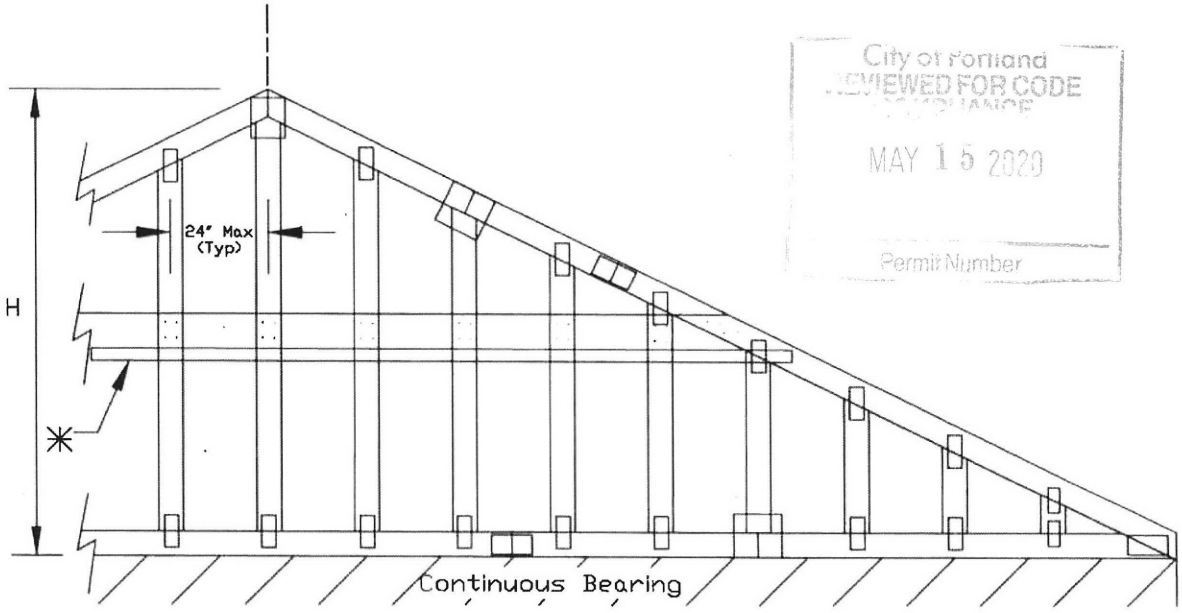
H Less than 4'6" - no stud bracing required

H Greater than 4'6" to 7'6" in length
provide a 2x6 stiffback at mid-height and brace stiffback to roof diaphragm every 6'0" (see detail below or refer to DRWG A12030ENC101014).

H Greater than 7'6" to 12'0" max:
provide a 2x6 stiffback at mid-height and brace to roof diaphragm every 4'0" (see detail below or refer to DRWG A12030ENC101014).

✳ Optional 2x L-reinforcement attached to stiffback with 10d box or gun (0.128" x 3", min.) nails @ 6" o.c.





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MAY 15 2020
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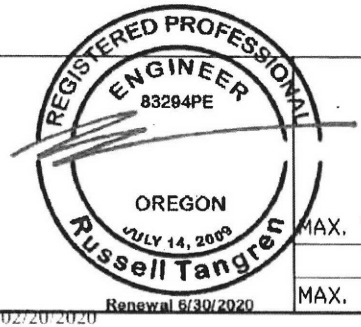


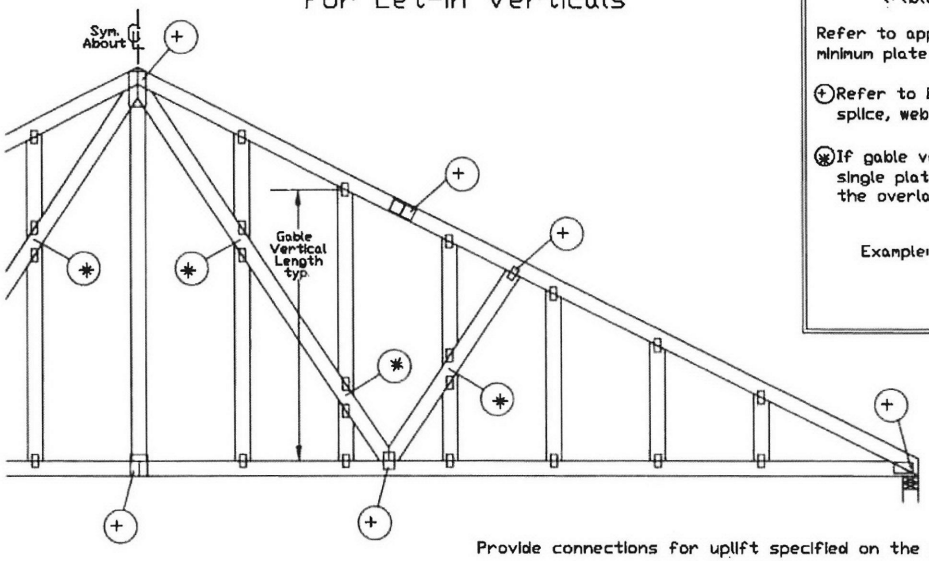
02/20/2020

MAX. TOT. LD. 60 PSF

MAX. SPACING

REF	GE WHALER
DATE	10/01/14
DRWG	GABRST101014

Gable Detail
For Let-in Verticals



Gable Truss Plate Sizes

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

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

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

Example: 2X4 / 2X4 — 2X8

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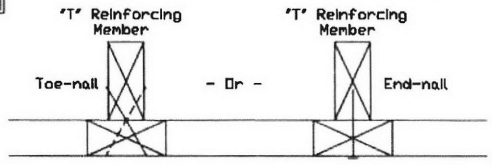
MAY 15 2020
Permit Number

'T' Reinforcement Attachment Detail

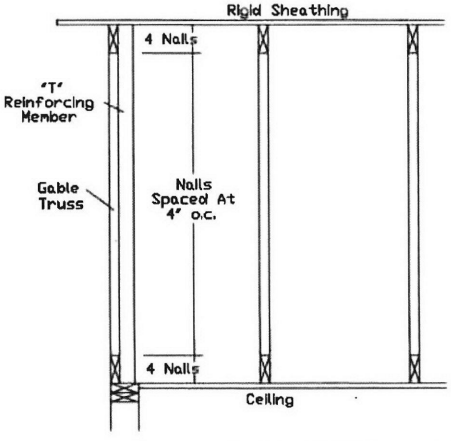


Provide connections for uplift specified on the engineered truss design.

Attach each 'T' reinforcing member with

End Driven Nails:
10d Common (0.148"x 3",min) Nails at 4" o.c. plus
(4) nails in the top and bottom chords.

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



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

ASCE 7-05 Gable Detail Drawings
A13015051014, A12015051014, A11015051014, A10015051014, A14015051014, A13030051014, A12030051014, A11030051014, A10030051014, A14030051014

ASCE 7-10 & ASCE 7-16 Gable Detail Drawings
A11515ENC100118, A12015ENC100118, A14015ENC100118, A16015ENC100118, A18015ENC100118, A20015ENC100118, A20015END100118, A20015PED100118, A11530ENC100118, A12030ENC100118, A14030ENC100118, A16030ENC100118, A18030ENC100118, A20030ENC100118, A20030END100118, A20030PED100118, S11515ENC100118, S12015ENC100118, S14015ENC100118, S16015ENC100118, S18015ENC100118, S20015ENC100118, S20015END100118, S20015PED100118, S11530ENC100118, S12030ENC100118, S14030ENC100118, S16030ENC100118, S18030ENC100118, S20030ENC100118, S20030END100118, S20030PED100118

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

To convert from 'L' to 'T' reinforcing members, multiply 'T' increase by length (based on appropriate Alpine gable detail).

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

'T' reinforcing member material must match size, specie, and grade of the 'L' reinforcing member.

Web Length Increase w/ 'T' Brace

'T' Reinf. Mbr. Size	'T' Increase
2x4	30 %
2x6	20 %

Example:
ASCE 7-10 Wind Speed = 120 mph
Mean Roof Height = 30 ft, Kzt = 1.00
Gable Vertical = 24"o.c. SP #3
'T' Reinforcing Member Size = 2x4
'T' Brace Increase (From Above) = 30% = 1.30
(1) 2x4 'L' Brace Length = 8' 7"
Maximum 'T' Reinforced Gable Vertical Length
1.30 x 8' 7" = 11' 2"

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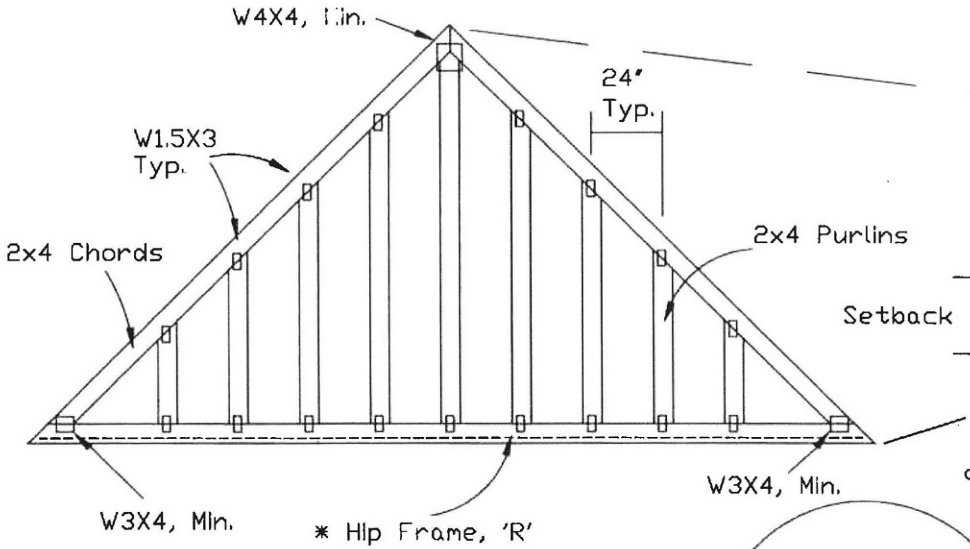
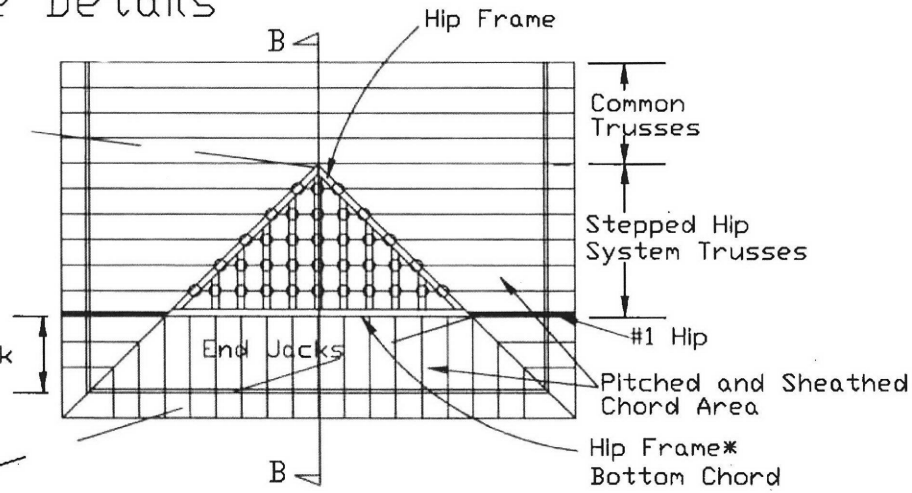
REGISTERED PROFESSIONAL ENGINEER
83294PE
OREGON
JULY 14, 2006
Russell Tangren
Renewal 6/30/2020

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

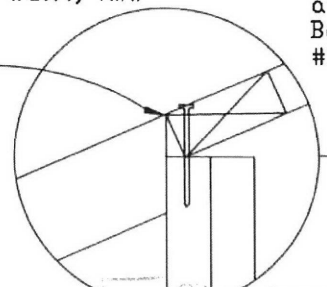
REF	LET-IN VERT
DATE	01/02/2018
DRWG	GBLLETIN0118

* Hip Frame Details





o- Attach hip frame to flat chords of stepped hips at all overlapping points with (2) 0.131"x3.5" nails Bottom chord of hip frame to be attached to #1 hip with 0.131"x3.5" nails @ 6" o.c. maximum spacing.



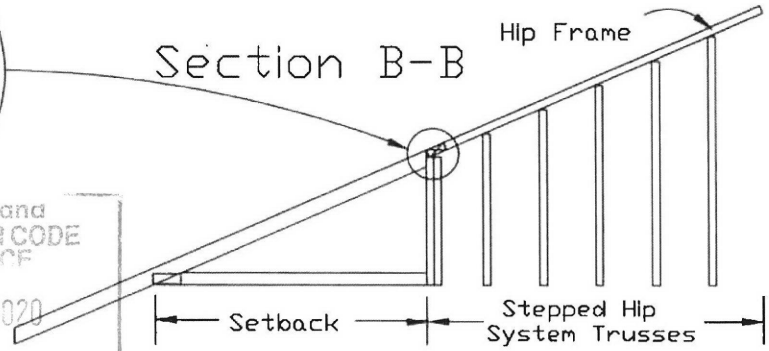
Hip frame stops at plumb cut of jacks to maintain pitch continuity.

* Hip frame lumber is SPF, So. Pine, HF, or DFL Standard, Stud grade, or better.

See Engineer's sealed design for setback, lumber, plating, loading, and duration factor required.

'R' Hip frame chords may be trimmed up to 2" to fit. purlins must be intact and properly attached.

Section B-B



City of Romana
REVIEWED FOR CODE COMPLIANCE
MAY 15 2020
Permit Number

Use this detail for:
ASCE 7-10 & ASCE 7-16, 180 mph, 30' M.H., Partially Enclosed, Exp C, or
ASCE 7-10 & ASCE 7-16, 160 mph, 30' M.H., Partially Enclosed, Exp D, or
ASCE 7-05, 140 mph, 30' M.H., Partially Enclosed, Cat II, Exp C,
Residential, Wind TC DL=4.2 psf, Kzt=1.00

Hip Frame - provided by truss manufacturer. Hip frame is designed to provide bracing for flat top chords of hip frame system where indicated. Flat top chords of stepped hip system must be So. Pine lumber. Structural panels must be properly attached directly To hip frame purlins.

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Maryland Heights, MO 63043

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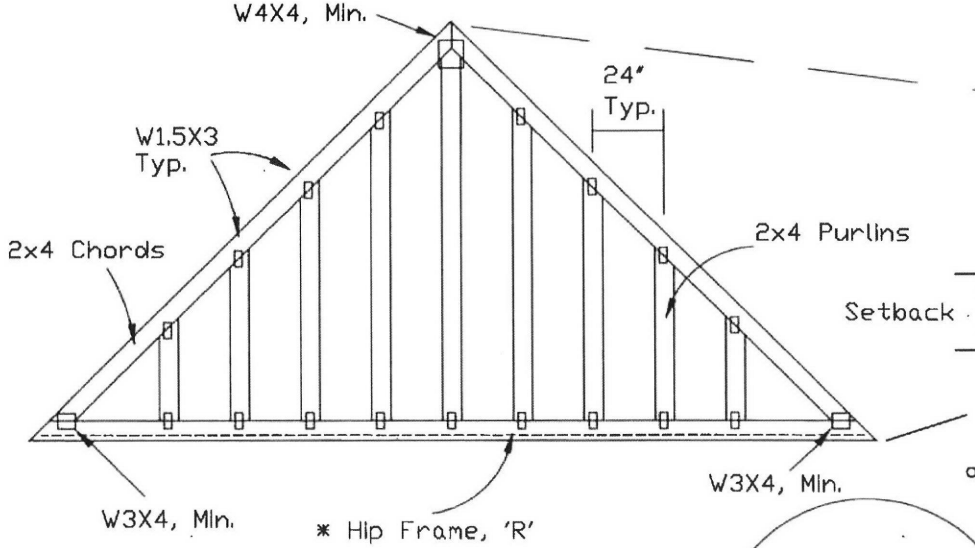
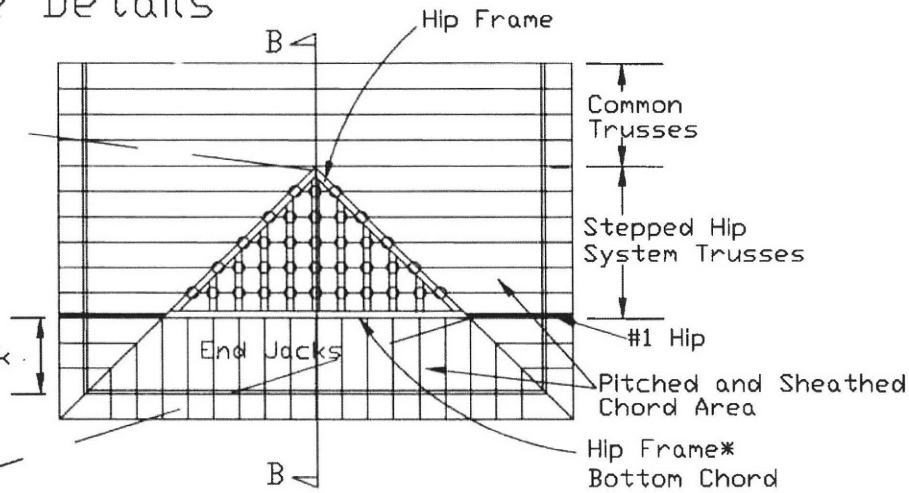
REGISTERED PROFESSIONAL ENGINEER
83294PE
OREGON
JULY 14, 2009
Russell Tangren
Renewal 6/30/2020

02/20/2020

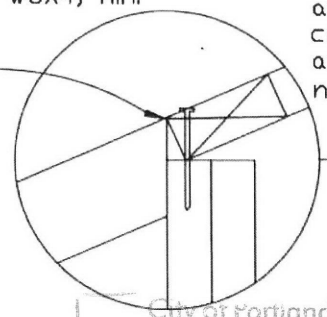
REF	HIP FRAME
DATE	01/02/2018
DRWG	HIPFR1800118

* Hip Frame Details

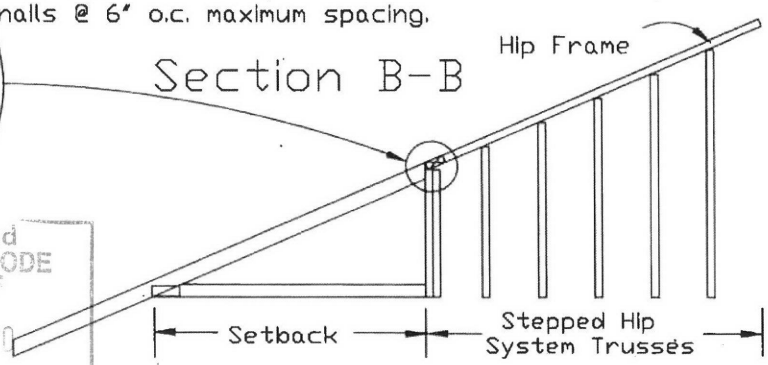




o- Attach hip frame to flat chords of stepped hips at all overlapping points with 2-10d (0.148"x3") common nails. Bottom chord of hip frame to be attached to #1 hip with 10d common (0.148"x3") nails @ 6" o.c. maximum spacing.



Hip frame stops at plumb cut of jacks to maintain pitch continuity.



* Hip frame lumber is SPF, So. Pine, HF, or DFL Standard, Stud grade, or better.

See Engineer's sealed design for setback, lumber, plating, loading, and duration factor required.

'R' Hip frame chords may be trimmed up to 2" to fit, purlins must be intact and properly attached.

Use this detail for:
ASCE 7-10 & ASCE 7-16, 140 mph, 30' M.H., Enclosed, Exp C, or
ASCE 7-10 & ASCE 7-16, 120 mph, 30' M.H., Enclosed, Exp D, or
ASCE 7-05, 110 mph, 30' M.H., Enclosed, Cat II, Exp C,
Residential, Wind TC DL=4.2 psf, Kzt=1.00

Hip Frame - provided by truss manufacturer. Hip frame is designed to provide bracing for flat top chords of hip frame system where indicated. Structural panels must be properly attached directly To hip frame purlins.

City of Portland
REVIEWED FOR CODE COMPLIANCE
MAY 15 2020
Permit Number

ALPINE
AN ITW COMPANY
13723 Riverport Drive
Suite 200
Maryland Heights, MO 63043

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

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

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

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.

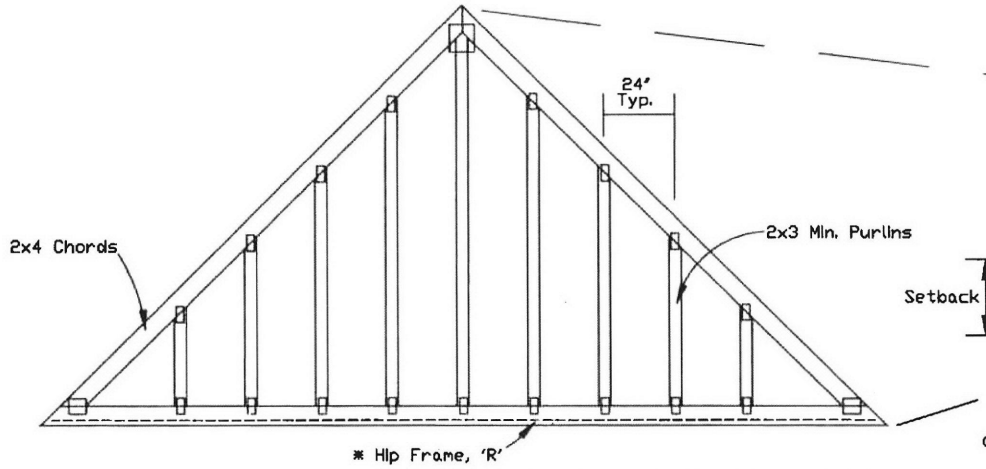
For more information see this job's general notes page and these web sites:
ALPINE: www.alpinebw.com/ TPI: www.tpinst.org/ SBCA: www.sbcindustry.org/ ICC: www.iccsafe.org

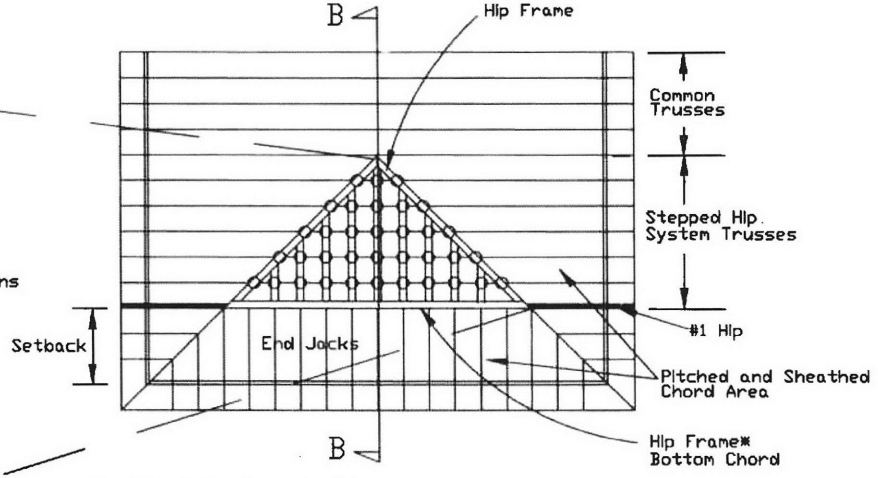
REGISTERED PROFESSIONAL ENGINEER
83204PE
OREGON
JULY 14, 2000
Russell Tangren
Renewal 6/30/2020

02/20/2020

REF	HIP FRAME
DATE	01/02/2018
DRWG	HIPFRAME0118

* Hip Frame with Ledger Scab





* Hip frame lumber is SPF #2 or better. Refer to Engineer's Drawing for lumber and plates.

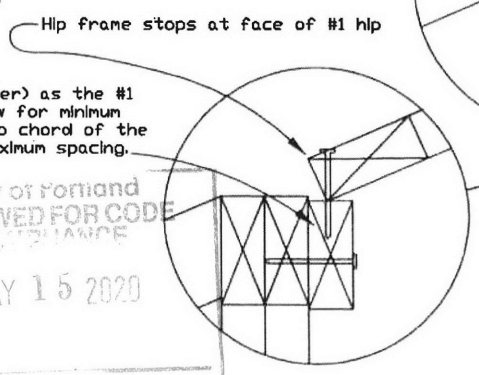
'R' Hip frame chords may be trimmed up to 1.5" to fit. Purlins must be intact and properly attached.

Maximum of 2 plies allowed for #1 hip girder. See Engineer's sealed design for setback, lumber, plating, loading, and duration factor required.

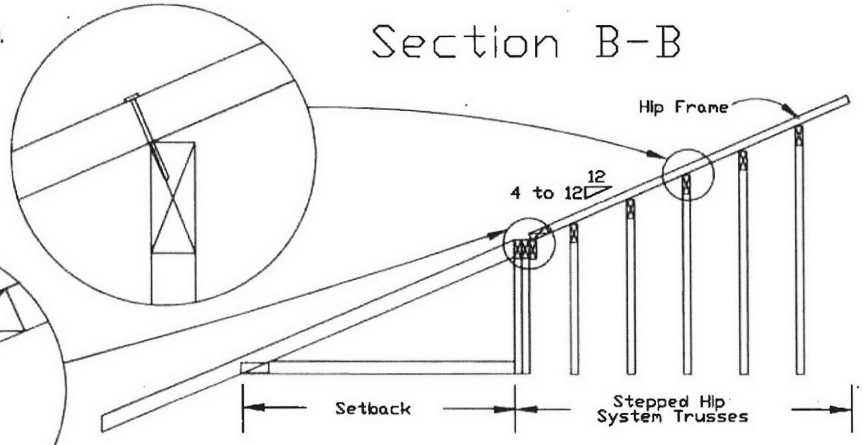
Use this detail for ASCE 7-10 & ASCE 7-16, 115 mph, 30' M.H., Enclosed, Exp C, Category II, Wind TC DL=4.2 psf, Kzt=1.00

Ledger scab shall be the same species and grade (or better) as the #1 hip truss flat top chord. See Ledger Scab Size Table below for minimum scab size. Attach ledger scab to one face of the flat top chord of the #1 hip truss with 10d common (0.148"x3.0") nails @ 6.0" o.c. maximum spacing.

Ledger Scab Size Table			
TC Size	# of Plies	Roof Pitch (p)	Scab Size
2x4	1	4/12 ≤ p ≤ 12/12	2x4
2x6	1	4/12 ≤ p ≤ 12/12	2x6
2x4	2	4/12 ≤ p ≤ 7/12	2x4
2x6	2	4/12 ≤ p ≤ 7/12	2x6
2x4	2	7/12 < p ≤ 12/12	2x6
2x6	2	7/12 < p ≤ 12/12	2x8



Section B-B



O - Attach hip frame to flat chords of stepped hips at all overlapping points with 2-10d common (0.148"x3.0") nails. Bottom chord of hip frame to be attached to ledger scab with 10d common (0.148"x3.0") nails @ 6" o.c. maximum spacing.

Hip Frame - provided by truss manufacturer. Hip frame is designed to provide bracing for flat top chords of hip frame system where indicated. Flat top chords of stepped hip system must be SPF lumber or better (Min. SG = 0.42). Structural panels must be properly attached directly to hip frame purlins.

City of Portland
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MAY 15 2020
Permit Number

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AN ITW COMPANY

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Suite 200
Maryland Heights, MO 63043

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For more information see this job's general notes page and these web sites:
ALPINE: www.alpineitw.com; TPI: www.tpinst.org; SBCA: www.sbcindustry.org; ICC: www.iccsafe.org

REGISTERED PROFESSIONAL ENGINEER
83294PE
OREGON
JULY 14, 2009
Russell Tangren
Renewal 6/30/2020

TC LL	42.00	PSF
TC DL	10.00	PSF
TC TL	52.00	PSF
DUR. FAC.	1.15	

REF	HIP FRAME
DATE	06/25/2019
DRWG	HIPFRSCAB0619

02/20/2020