



# Engineering eJob 11/16/2017

**This eJob is prepared exclusively for:**

**Automated Building Components, Inc. 9073  
PO Box 133**

**Chetek, WI 54728-0133**

**Work Order: sawyer  
Job Customer: ARROW HUDSON  
Job Name: SAWYER CTY AMB.  
Job Address:**

**Alpine ID: T584612.J613753**

I hereby verify that this document was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer. I am responsible for the design of each component detail only -- not for the proper manufacture of the components.

This document is no longer valid if any modifications are made to it .

Alpine, a division of ITW Building Components Group Inc.  
2820 N. Great Southwest Pkwy.  
Grand Prairie, TX 75050  
800-521-9790



# Engineering eJob 11/16/2017

## Table of Contents

Page No.	Truss Label	Page No.	Truss Label	Page No.	Truss Label
1	A	2	B	3	C
4	D				

Page 1

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# **Engineering eJob 11/16/2017**

## **Truss Engineer Design Responsibilities**

The engineer's signature on this design certifies that the individual component depicted, if built with the materials and to the placements and tolerances specified, will bear the loads shown on the drawing. Users of the component are responsible for determining that any as-built component conforms to the design. The loading and dimensions specified have been provided by others and have not been verified by the signing engineer. The building designer is responsible for determining that the dimensions and loads for each component match those required by the plans and by the actual use of the individual component. The building designer is responsible for ascertaining that the loads shown on the designs meet or exceed applicable building code requirements and any additional factors required in the particular application. The engineer's seal on the attached component designs indicates acceptance of professional engineering responsibility solely for the design of the individual component assuming that the loading and dimension requirements are as represented to the engineer. The suitability and use of this component for any particular building is the responsibility of the building designer in accordance with ANSI/TPI 1 Chapter 2. The engineer certifying this component is not responsible for anything beyond the specific scope of work set forth above, including but not limited to, the loading factors used in the design of the component, the dimensions of the component, the transfer of lateral loads from the roof and/or forward to the shear walls down to the foundation, connection of the components to the bearing support, the design of the bearing supports, the design and connection to the shear walls, the design of temporary or permanent building bracing required in the roof and/or floor systems, transfer of vertical loads down to the foundation, the design of the foundation or analysis in connection with the roof and/or floor diaphragms of the building. This is a high quality facsimile of the original engineering document. A wet or embossed seal copy of this engineering document is available upon request.

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**Required Details\***

**Other Available Details\***

<http://www.itwbcg.com/trussconnections.php>

**\*Sealed versions of these details are available upon request.**

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2820 N. Great Southwest Pkwy.  
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Job Name: SAWYER CTY AMB.

Truss ID: A

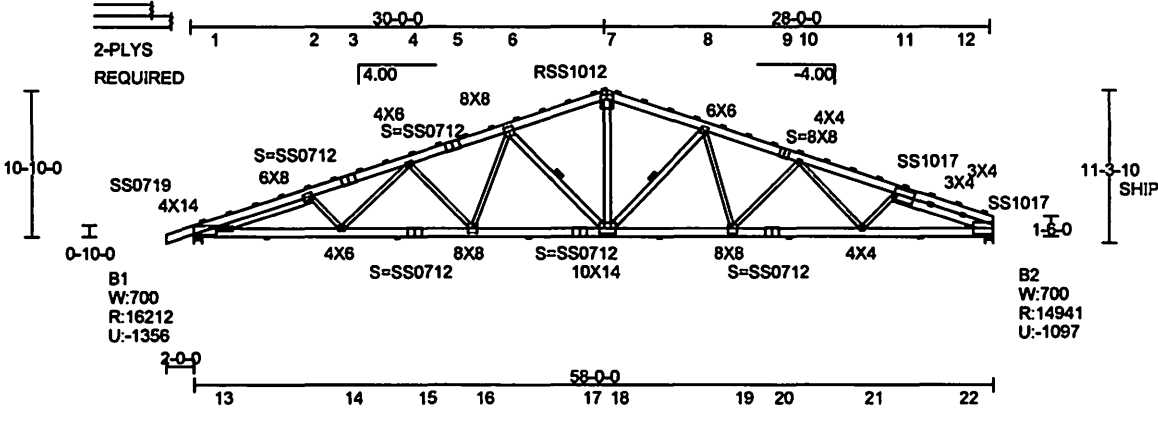
Qty: 8

BRG	X-LOC	REACT	SIZE	REQ'D	TC	SP	2400F-2.0E
0	3	8	16212	7.00"	6.71"	2x8	SP 2400F-2.0E
2	57	8	14941	7.00"	6.18"	2x8	SPF #3-CAN
MAX DEFLECTION (span):							
L/461 MEM 4-5 (LIVE) LC 1							
L = -1.49" D = -0.24" T = -1.73"							
CRITICAL MEMBER FORCES:							
TC	COMP. (DUR.)	TENS. (DUR.)	CSI				
1-2	-28355(1.15)	2575(1.60)	0.61				
2-3	-34914(1.15)	3043(1.60)	0.53				
3-4	-34463(1.15)	3087(1.60)	0.53				
4-3	-29636(1.15)	2799(1.60)	0.63				
5-6	-29157(1.15)	2841(1.60)	0.61				
6-7	-22585(1.15)	2441(1.60)	0.52				
7-8	-22584(1.15)	2460(1.60)	0.50				
8-9	-27356(1.15)	2729(1.60)	0.58				
9-10	-27729(1.15)	2668(1.60)	0.53				
10-11	-29707(1.15)	2733(1.60)	0.70				
11-12	-13134(1.15)	264(1.60)	0.26				
BC	COMP. (DUR.)	TENS. (DUR.)	CSI				
13-14	-2877(1.60)	34150(1.15)	0.85				
14-15	-2481(1.60)	30913(1.15)	0.79				
15-16	-2481(1.60)	30913(1.15)	0.77				
16-17	-1969(1.60)	26095(1.15)	0.59				
17-18	-1969(1.60)	26095(1.15)	0.60				
18-19	-1834(1.60)	23038(1.15)	0.58				
19-20	-2220(1.60)	28002(1.15)	0.57				
20-21	-2220(1.60)	28002(1.15)	0.72				
21-22	-2370(1.60)	27205(1.15)	0.68				
WB	COMP. (DUR.)	TENS. (DUR.)	CSI				
2-14	-2316(1.15)	612(1.60)	0.38				
4-14	-113(1.60)	2399(1.15)	0.37				
4-16	-5109(1.15)	728(1.60)	0.69				
6-16	-178(1.60)	4189(1.15)	0.56				
6-18	-8528(1.15)	962(1.60)	0.63				
7-18	-911(1.60)	10891(1.15)	0.56				
8-18	-7717(1.15)	830(1.60)	0.58				
8-19	-63(1.60)	2949(1.15)	0.36				
10-19	-3282(1.15)	337(1.60)	0.56				
10-21	-1066(1.15)	127(1.25)	0.30				
11-21		1484(1.15)	0.33				
SLDRL	-8283(1.15)	734(1.60)	0.79				
SLDR	-29323(1.15)	2367(1.60)	0.96				

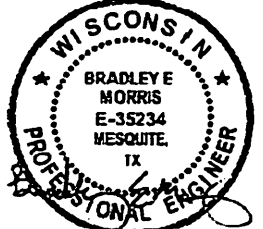
SLIDER 2x8 SP 2400F-2.0E  
 2x6 SPF C16S0F1.3E 1  
 PLT BLK 2x4 SPF #1/#2-CAN  
 This design does not account for long term time dependent loading (creep). Building Designer shall account for this.  
 Refer to Joint QC Detail Sheets for Cq Factors and Rotational Tolerances. Loaded for 1D PSF non-concurrent BCLL. Loaded for 200# non-concurrent snowing BCLL. ASCE7-05 SNOW LOAD DESIGN CRITERIA: Pg = 60 psf, C<sub>s</sub> = 1.0, I = 1.2, C<sub>t</sub> = 1.10  
 P<sub>min</sub> = 24 psf  
 Designed for an Unobstructed Slippery Roof  
 Nail pattern shown is for PLF loads and point loads converted to PLF loads only. Concentrated loads shall be distributed to each ply equally. Multi-ply with hangers are based on hanger nails using 3.0" nails min. into the carrying member.  
 If shown, use additional fasteners for point loads from the back plys, distributed system, in the chords, within the PLF zone.  
 IF 2.0 USED ANY NAIL CLUSTER AMOUNTS SHOWN shall BE INSTALLED FROM THE FRONT AND BACK FACE EQUALLY (TOTAL NAILS = DOUBLE THE AMOUNT SHOWN), 3 PLY OR LESS.  
 10d = 10d NAILS, SDS = Simpson SDS screws or equivalent substitute.  
 (\*) = Special Connection Req. (By others)  
 Nail pattern shown is based on:  
 10d BOX = 0.128" dia. x 3.0" long nail  
 10d COMMON = 0.148" dia. x 3.0" long nail  
 16d BOX = 0.135" dia. x 3.5" long nail  
 16d COMMON = 0.162" dia. x 3.5" long nail  
 Designed for a post-frame building application.

Web bracing required at each location shown. Refer to BCSI for proper required lateral restraint. For alternative web bracing, see TMBCO's standard details.  
 \*\*[PM]-PLATE MONITOR USED-See Joint Report\*\*  
 Designed per ANSI/TPI 1-2007  
 Fabrication Tolerance = 20.0%  
 Bearings designed for an F<sub>brg</sub>wp value of the lesser of the truss chord lumber value or 603 for all bearings.  
 Plating is based on quality control factors C<sub>q</sub> = 0.80 for wide face and C<sub>q</sub> = 0.94 for narrow face.  
 Any alterations to this are shown for individual joints on the Joint Report.  
 IRC/IBC truss plate values are based on testing and approval as required by IRC 1703 and ANSI/TPI and are reported in ESR-1118.  
 \*\*\*\*\*  
 Unrestrained horiz. LL deflection = 0.37"  
 \*\*\*\*\*  
 CAUTION - persons installing trusses should retain a local engineer for proper lifting, handling and bracing per TPI/BCSI.  
 2-PLY Nail w/10d COMMON, staggered(per NOS)  
 in: TC- 3 BC- 2 WEBS- 2 TYP PER FOOT\*\*  
 Cluster screws, if shown, are 3" long.  
 Web 6-18 requires 3/ET nailing.  
 Web 18-8 requires 3/ET nailing.  
 Web 0-0 requires 3/ET nailing.  
 Web 0-0 requires 9/ET nailing.  
 Full height blocking reinforcement required to prevent buckling of members over Brg 2. Blocking design and attachment are per the Building Designer.  
 20 psf bottom chord live load NOT required on this truss, per IRC/IBC code provisions.

This design based on chord bracing applied per the following schedule:  
 TC max o.c. from to  
 BC 24.00" 0-0 0 58-0-0  
 120.00" 0-0 0 58-0-0  
 UPLIFT REACTION(S):  
 Support Main Wind Non-Wind  
 1 -1356 lb  
 2 -1097 lb  
 HORIZONTAL REACTION(S):  
 support 1 375 lb  
 support 2 375 lb  
 This truss is designed using the ASCE7-05 Wind Specification:  
 Dtdg Enclosed = Yes, Importance Factor = 1.15  
 Truss Location = Not End Zone  
 Hurricane/Ocean Line = No, Exp Category = B  
 Bldg Length = 80.00 Ft, Bldg Width = 40.00 ft  
 Mean roof height = 15.42 ft, mph = 90  
 ASCE7 IV Essential Facility, Dead Load = 9.0 psf  
 Designed as Main Wind Force Resisting System - Low-rise and Components and Cladding  
 Tributary Area = 464 sqft



All connector plates are ALPINE Wave 20 ga., unless preceded by "H" for High Strength 20 ga., "S" for Super Strength 18 ga. Plates are to be positioned per Joint Detail Report. Circled details and false frame plates are positioned as shown above. Shift gable stud plates to avoid overlap with structural plates.



11/16/2017

**\*\*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 WITCA) 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 report, unless noted otherwise.  
 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.tpiinc.org, WITCA: www.abcmindustry.org, ICC: www.iccsafe.org

Cust: ARROW HUDSON	#LC = 83	WT/PLY: 6934
WO: Drive_Sawyer_L0000		
Dsgnr: RCT		
TC Live 55.40 psf	LiveDur L=1.15 P=1.15	
TC Dead 4.00 psf	SnowDur L=1.15 P=1.15	
BC Live 0.00 psf	Rep Mbr Bnd / Comp / Tens	
BC Dead 5.00 psf	1.00 / 1.00 / 1.00	
TOTAL 64.40 psf	O.C.Spacing 8- 0- 0	
Bldg Code: IBC-2009	DEFL RATIO: L/240 TC: L/180	

# Effective Teeth Report - Truss ID: A

(CSI calcs based on PPSA)

MEM	SIZE AND GRADE	AXL	BND	CSI	( Fb')
TC 1	1-3 2x8 SOU PINE 2400F-2.0E	0.56	0.37	0.93	( 2417)
TC 2	3-5 2x8 SOU PINE 2400F-2.0E	0.56	0.38	0.93	( 2417)
TC 3	5-7 2x8 SOU PINE 2400F-2.0E	0.36	0.25	0.61	( 3570)
TC 4	7-9 2x8 SOU PINE 2400F-2.0E	0.22	0.36	0.58	( 3570)
TC 5	9-12 2x8 SOU PINE 2400F-2.0E	0.39	0.30	0.70	( 2582)
BC 1	13-15 2x8 SOU PINE 2400F-2.0E	0.71	0.14	0.85	( 2760)
BC 2	15-17 2x8 SOU PINE 2400F-2.0E	0.64	0.12	0.77	( 2760)
BC 3	17-20 2x8 SOU PINE 2400F-2.0E	0.58	0.09	0.67	( 2760)
BC 4	20-22 2x8 SOU PINE 2400F-2.0E	0.58	0.13	0.72	( 2760)
SD 1	0-0 2x6 SPF C1650F1.5E	0.63	0.00	0.79	( 1740)
SD 2	0-0 2x8 SOU PINE 2400F-2.0E	0.93	0.00	0.96	( 2581)

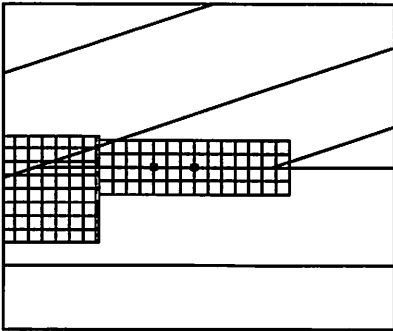
...REQUIRED MINIMUM PLATE AREAS (sqin - # teeth)...

JT	PLATE	mbr	force	Required	Actual
1	4.0x14.0 20 gage Cg=0.80 JSI=0.92 MRT=-0 MRT=+0 7.9x19.2 18 gage Cg=0.80 JSI=0.92 MRT=-0 MRT=+0	SLDRL 13-15	-5176 -5176	21.2 -136 15.3 - 98	27.4 -220 28.0 -224 53.8 -301 50.9 -284
2	6.0x 8.0 20 gage Cg=0.80 JSI=0.98 MRT=-10 MRT=+10	1- 3 2-14 SLDRL	3693 -432 -4141	8.2 - 53 1.6 - 11 11.9 - 77	24.0 -192 9.5 - 76 14.5 -117
3	7.9x12.2 18 gage Cg=0.80 JSI=0.71 MRT=-10 MRT=+10	3- 5 1- 3	1543 1521	24.7 -138 24.7 -138	44.4 -310 44.4 -310
4	4.0x 6.0 20 gage Cg=0.80 JSI=0.92 MRT=-10 MRT=+10	3- 5 4-16 14- 4	2413 -958 1299	5.3 - 35 2.7 - 18 4.1 - 27	12.0 - 96 5.5 - 44 5.3 - 43
5	7.9x12.2 18 gage Cg=0.80 JSI=0.60 MRT=-10 MRT=+10	5- 7 3- 5	1420 1399	19.0 -107 19.0 -106	44.4 -310 44.4 -310
6	8.0x 8.0 20 gage Cg=0.80 JSI=0.84 MRT=-10 MRT=+10	5- 7 6-18 16- 6	3401 -1774 2294	7.5 - 49 6.8 - 44 8.0 - 52	32.0 -256 17.7 -142 11.4 - 92
7	10.5x12.2 18 gage Cg=0.80 JSI=0.97 MRT=-0 MRT=+10	7- 9 18- 7 5- 7	-3567 5445 -3571	20.1 -113 17.2 - 96 20.1 -112	24.5 -171 44.0 -307 24.5 -171
8	6.0x 6.0 20 gage Cg=0.80 JSI=0.90 MRT=-10 MRT=+10	7- 9 8-19 18- 8	2846 1474 -1507	6.3 - 41 5.3 - 34 5.6 - 36	18.0 -144 6.9 - 56 10.5 - 84
9	8.0x 8.0 20 gage Cg=0.80 JSI=0.97 MRT=-10 MRT=+10	9-12 7- 9	1334 1364	12.7 - 81 12.6 - 81	29.0 -232 29.0 -232
10	4.0x 4.0 20 gage Cg=0.80 JSI=0.61 MRT=-10 MRT=+10	9-12 10-21 19-10	989 -448 -654	2.2 - 15 1.7 - 11 2.4 - 16	8.0 - 64 3.3 - 27 4.7 - 38
11	10.5x17.5 18 gage Cg=0.80 JSI=0.82 MRT=-10 MRT=+10	9-12 SLDRR 21-11	14683 -5539 741	31.6 -177 11.9 - 67 2.8 - 16	91.9 -641 78.0 -544 13.8 - 97

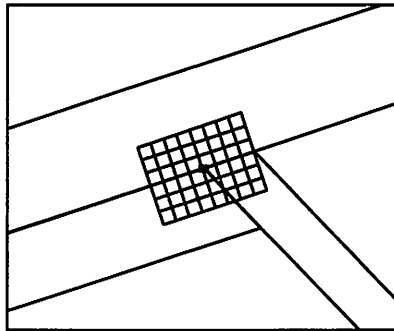
...REQUIRED MINIMUM PLATE AREAS (sqin - # teeth)...

JT	PLATE	mbr	force	Required	Actual
12	10.5x17.5 18 gage Cg=0.80 JSI=0.86 MRT=-0 MRT=+0	9-12 SLDRR 20-22	-821 -18327 17003	2.5 - 14 55.3 -309 48.8 -273	6.9 - 48 82.4 -575 91.9 -641
14	4.0x 6.0 20 gage Cg=0.80 JSI=0.89 MRT=-10 MRT=+10	13-15 2-14 14- 4	1629 -750 1299	3.7 - 24 2.7 - 18 4.4 - 29	12.0 - 96 5.8 - 47 5.9 - 48
15	7.9x12.2 18 gage Cg=0.80 JSI=0.89 MRT=-10 MRT=+10	13-15 15-17	15456 15456	33.3 -186 33.3 -186	44.4 -310 44.4 -310
16	8.0x 8.0 20 gage Cg=0.80 JSI=1.00 MRT=-10 MRT=+10	15-17 4-16 16- 6	2419 -1657 2294	5.4 - 35 4.5 - 29 8.7 - 56	32.0 -256 13.7 -110 10.4 - 84
17	7.9x12.2 18 gage Cg=0.80 JSI=0.75 MRT=-10 MRT=+10	15-17 17-20	13047 13047	28.1 -157 28.1 -157	44.4 -310 44.4 -310
18	10.0x14.0 20 gage Cg=0.80 JSI=1.00 MRT=-10 MRT=+10	17-20 6-18 18- 7 18- 8	2350 -2911 5445 -2553	5.3 - 34 10.5 - 68 22.8 -146 9.3 - 60	70.8 -567 20.4 -164 27.2 -218 20.5 -164
19	8.0x 8.0 20 gage Cg=0.80 JSI=1.00 MRT=-10 MRT=+10	17-20 8-19 19-10	1496 1474 -1096	3.4 - 22 5.7 - 37 3.9 - 26	39.8 -319 6.8 - 55 10.8 - 87
20	7.9x12.2 18 gage Cg=0.80 JSI=0.81 MRT=-10 MRT=+10	17-20 20-22	14001 14001	30.2 -169 30.2 -169	44.4 -310 44.4 -310
21	4.0x 4.0 20 gage Cg=0.80 JSI=0.76 MRT=-10 MRT=+10	20-22 10-21 21-11	839 -375 741	1.9 - 13 1.4 - 9 2.5 - 17	8.0 - 64 4.0 - 32 4.0 - 32

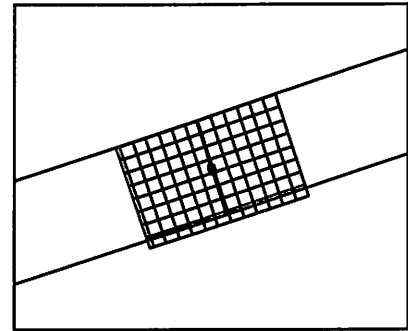
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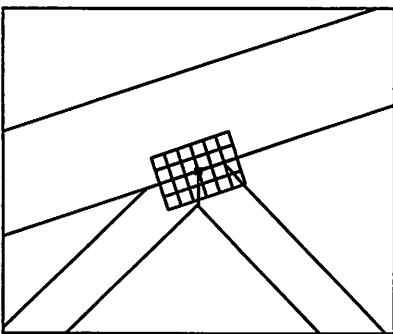
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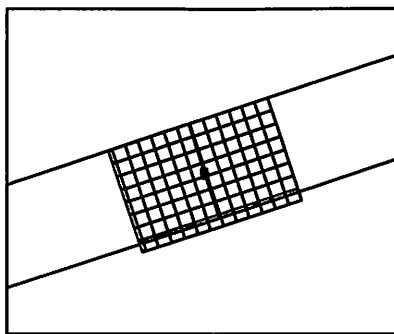
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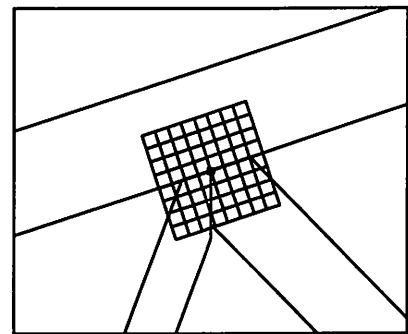
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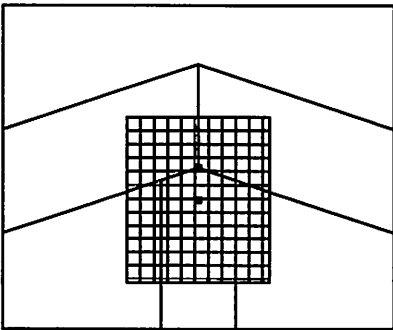
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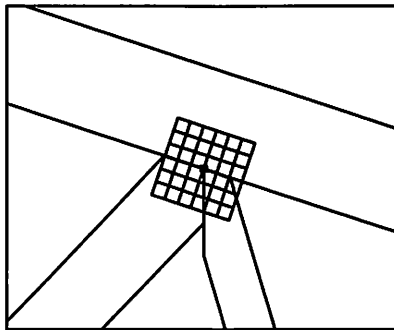
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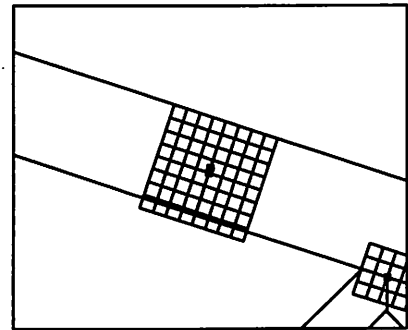
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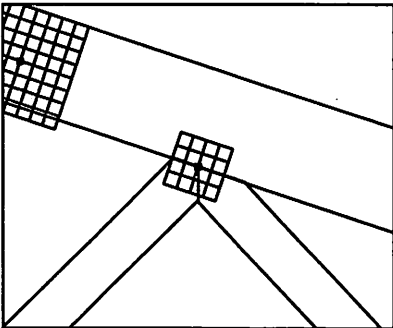
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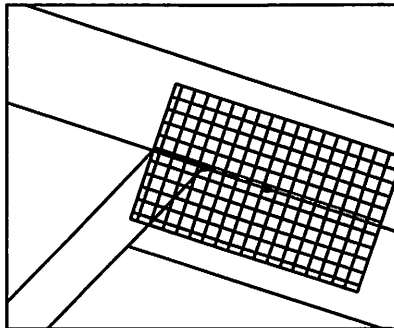
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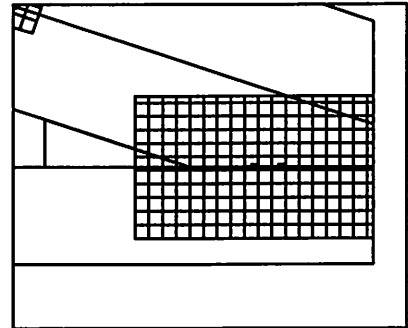
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Jnt 10 4X4  
Cq=0.80, JSI=0.81, MRT=-10/+10  
Plate Shift:X= 0.00 Y= 0.00

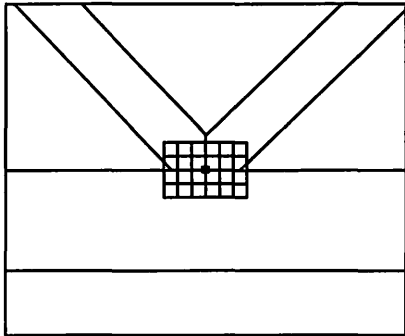


Jnt 11 SS1017  
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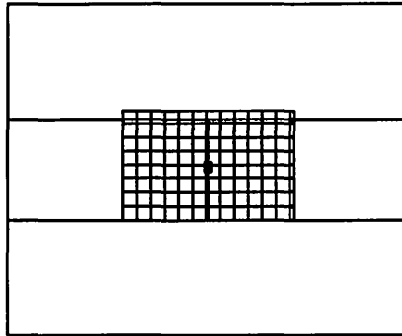


Jnt 12 SS1017; 3X4; 3X4  
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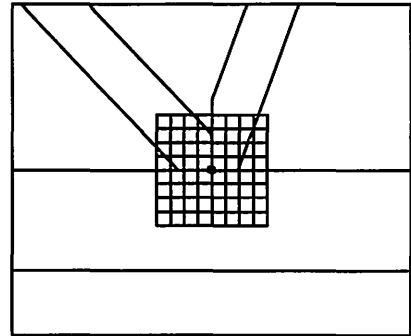
# Joint Details Report Truss ID: A



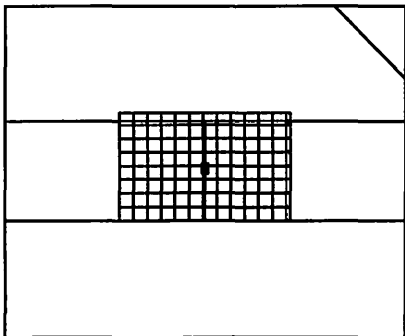
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Plate Shift:X= 0.00 Y= 0.00



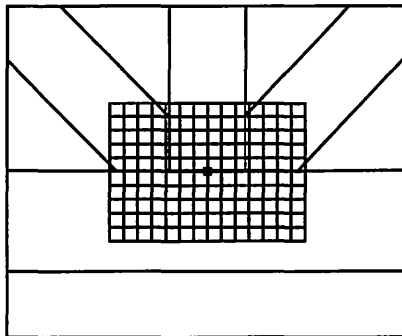
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Plate Shift:X= 0.00 Y= 0.31



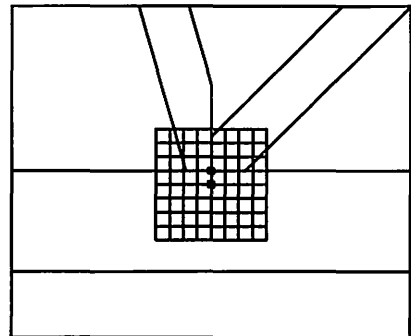
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Plate Shift:X= 0.00 Y= 0.00



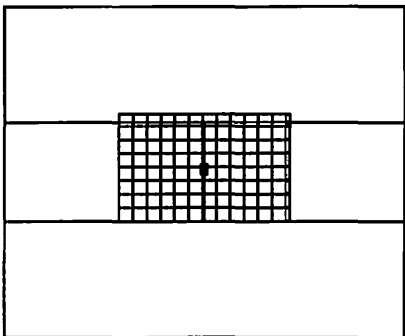
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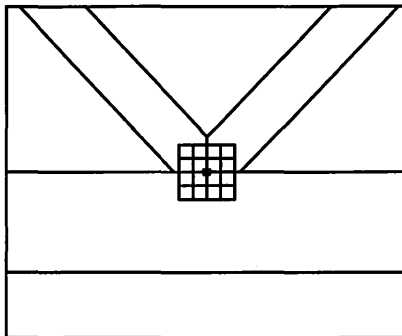
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Jnt 19 8X8  
Cq=0.80, JSI=1.00, MRT=-10/+10  
Plate Shift:X= 0.00 Y=-0.97



Jnt 20 S=SS0712  
Cq=0.80, JSI=0.81, MRT=-10/+10  
Plate Shift:X= 0.00 Y= 0.31



Jnt 21 4X4  
Cq=0.80, JSI=0.76, MRT=-10/+10  
Plate Shift:X= 0.00 Y= 0.00



Job Name: SAWYER CTY AMB.

Truss ID: B

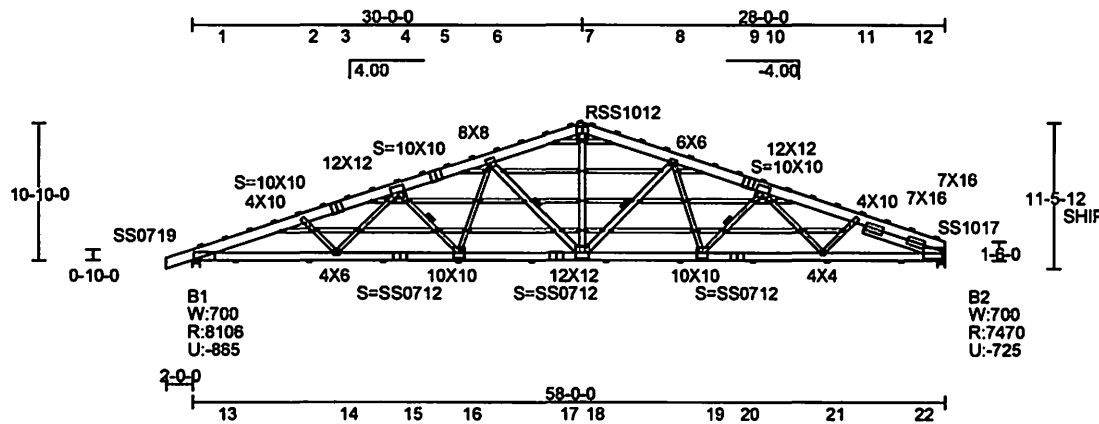
Qty: 2

BRC	X-LOC	REACT	SIZE	REQ'D	TC	2x10 SP	2400F-2.0E
1	0-3-8	8106	7.00"	6.71"	BC	2x8 SP	2400F-2.0E
2	57-8-8	7470	7.00"	6.18"	WEB	2x4 SPF	#3-CAN
MAX DEFLECTION (span) :							
L/591 MEM 15-16 (LIVE) LC 1							
L = -3.16" D = -0.20" T = -1.36"							
CRITICAL MEMBER FORCES:							
TC	COMP. (DUR.)	TENS. (DUR.)	CSI				
1-2	-18286(1.15)	1350(1.60)	0.89				
2-3	-17337(1.15)	3196(1.60)	0.90				
3-4	-17138(1.15)	3219(1.60)	0.90				
4-5	-14881(1.15)	2909(1.60)	0.49				
5-6	-14660(1.15)	2931(1.60)	0.46				
6-7	-11357(1.15)	2440(1.60)	0.38				
7-8	-11363(1.15)	2438(1.60)	0.38				
8-9	-13971(1.15)	2819(1.60)	0.44				
9-10	-14056(1.15)	2789(1.60)	0.45				
10-11	-14933(1.15)	2673(1.60)	0.68				
11-12	-14753(1.15)	2908(1.60)	0.45				
12-12	-605(1.15)	198(1.60)	0.11				
BC	COMP. (DUR.)	TENS. (DUR.)	CSI				
13-14	-3042(1.60)	1701(1.15)	0.95				
14-15	-2709(1.60)	1550(1.15)	0.90				
15-16	-2709(1.60)	1550(1.15)	0.82				
16-17	-2213(1.60)	1312(1.15)	0.59				
17-18	-2213(1.60)	1312(1.15)	0.60				
18-19	-2226(1.60)	1263(1.15)	0.58				
19-20	-2469(1.60)	1422(1.15)	0.68				
20-21	-2469(1.60)	1422(1.15)	0.72				
21-22	-2307(1.60)	1359(1.15)	0.68				
WB	COMP. (DUR.)	TENS. (DUR.)	CSI				
2-14	-1117(1.15)	446(1.60)	0.37				
4-14	-147(1.60)	1041(1.15)	0.46				
4-16	-2643(1.15)	631(1.60)	0.88				
6-16	-324(1.60)	2389(1.15)	0.59				
6-18	-4332(1.15)	905(1.60)	0.90				
7-18	-1019(1.60)	5470(1.15)	0.73				
8-18	-3875(1.15)	775(1.60)	0.60				
8-19	-195(1.60)	1372(1.15)	0.39				
10-19	-1737(1.15)	484(1.60)	0.59				
10-21	-634(1.15)	241(1.25)	0.64				
11-21	-634(1.15)	843(1.15)	0.37				
SLDR	-14716(1.15)	2732(1.60)	0.94				

SLIDER 2x8 SP 2400F-2.0E  
 GBL BLK 2x4 SPF #3-CAN  
 Plating is based on quality control factors  
 Cq = 0.80 for wide face and  
 Cq = 0.94 for narrow face.  
 Any alterations to this are shown for individual joints on the Joint Report.  
 IRC/IBC truss plate values are based on testing and approval as required by IRC 1703 and ANSI/TPI and are reported in ESR-1118.  
 ASCE7-05 SNOW LOAD DESIGN CRITERIA:  
 Ps = 60 psf, Cg = 1.0, I = 1.2, Ct = 1.10  
 Pmin = 24 psf  
 Designed for an Unobstructed Slippery Roof Valley Truss application only; not designed for wind load applied to the face. Web bracing is required if shown.  
 20 psf bottom chord load NOT required on this truss, per IRC/IBC code provisions.

Web bracing required at each location shown. Refer to BCSI for proper required lateral restraint. For alternative web bracing, see TMBCCI's standard details.  
 \*\*[PM] PLATE MONITOR USED-See Joint Report\*\*  
 Designed per ANSI/TPI 1-2007  
 Fabrication Tolerance = 20.0%  
 Bearings designed for an FcPerp value of the lesser of the truss chord lumber value or 805 for all bearings.  
 This design does not account for long term time dependent loading (creep). Building Designer shall account for this.  
 Refer to Joint OC Detail Sheets for Cq factors and Rotational Tolerances.  
 Loaded for 1D PSF non-concurrent BCLL.  
 Loaded for 200# non-concurrent moving BCLL.  
 \* \* \* \* \*  
 Unrestrained horiz. LL deflection = 0.43"  
 \* \* \* \* \*  
 CAUTION - persons installing trusses should retain a local engineer for proper lifting, handling and bracing per TPI/BCSI.  
 Cable horizontal studs are 2x4 web material spaced @ 28.0" o.c. unless noted otherwise.  
 Cable stud bracing required @ 24" intervals, if exposed to wind load applied to face.  
 See TMBCCI's Cable BRACING Details.  
 (\*) If shown, indicates recommended Cable stud brace approximate locations. Ref BCSI Design for a post-frame building application.

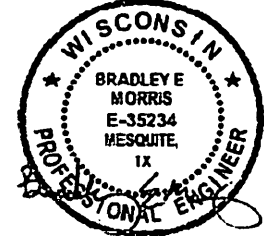
This design based on chord bracing applied per the following schedule:  
 BC max o.c. from to  
 BC 72.00" 0-0-0 58-0-0  
 TC 24.00" 0-0-0 38-0-0  
 UPLIFT REACTION(S) :  
 Support Main Wind Non-Wind  
 1 -865 lb  
 2 -725 lb  
 HORIZONTAL REACTION(S) :  
 support 1 143 lb  
 support 2 143 lb  
 This truss is designed using the ASCE7-05 Wind Specification  
 Bldg Enclosed = Yes, Importance Factor = 1.15  
 Truss Location = End Zone  
 Hurricane/Ocean Line = No Exp Category = B  
 Bldg Length = 80.00 ft, Bldg Width = 40.00 ft  
 Mean roof height = 15.42 ft, mph = 90  
 ASCE7 IV Essential Facility, Dead Load = 9.0 psf  
 Designed as Main Wind Force Resisting System  
 - Low-rise and Components and Cladding  
 Tributary Area = 232 sqft



All connector plates are ALPINE Wave 20 ga., unless preceded by "H" for High Strength 20 ga., "S" for Super Strength 18 ga. Plates are to be positioned per Joint Detail Report. Circled plates and false frame plates are positioned as shown above. Shift gable stud plates to avoid overlap with structural plates.

**\*\*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 WTCA) 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 report, unless noted otherwise.  
 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

Cust: ARROW HUDSON		#LC = 83 WT/PLY: 8714	
WO: Drive_Sawyer_L0000			
Dsgnr: RCT		TC Live	55.40 psf
		TC Dead	4.00 psf
		BC Live	0.00 psf
		BC Dead	5.00 psf
TOTAL	64.40 psf	Rep Mbr Bnd / Comp / Tens	1.00 / 1.00 / 1.00
Bldg Code: IBC-2009		O.C.Spacing	4- 0- 0
		DEFL RATIO: L/240 TC: L/180	



11/16/2017



2820 N. Great SW Pkwy, Grand Prairie, TX 75050

TRUSPLUS 6.0 VER: T6.5.20

For more information see this job's general notes page and these web sites:  
 ALPINE: www.alpinetw.com; TPI: www.tpinet.org; WTCA: www.abcdindustry.org; ICC: www.iccsafe.org

# Effective Teeth Report - Truss ID: B

(CSI calcs based on PPSA)

MEM	SIZE AND GRADE	AXL	BND	CSI	( Fb')
TC 1 1-3	2x10 SOU PINE 2400F-2.0E	0.46	0.43	0.90	( 2413)
TC 2 3-5	2x10 SOU PINE 2400F-2.0E	0.46	0.43	0.90	( 2414)
TC 3 5-7	2x10 SOU PINE 2400F-2.0E	0.34	0.12	0.46	( 3253)
TC 4 7-9	2x10 SOU PINE 2400F-2.0E	0.30	0.14	0.44	( 3049)
TC 5 9-12	2x10 SOU PINE 2400F-2.0E	0.34	0.34	0.68	( 2614)
BC 1 13-15	2x8 SOU PINE 2400F-2.0E	0.71	0.25	0.95	( 2760)
BC 2 15-17	2x8 SOU PINE 2400F-2.0E	0.65	0.17	0.82	( 2760)
BC 3 17-20	2x8 SOU PINE 2400F-2.0E	0.59	0.08	0.68	( 2760)
BC 4 20-22	2x8 SOU PINE 2400F-2.0E	0.59	0.13	0.72	( 2760)
SD 1 0-0	2x8 SOU PINE 2400F-2.0E	0.89	0.00	0.94	( 2571)

...REQUIRED MINIMUM PLATE AREAS (sqin - # teeth)...

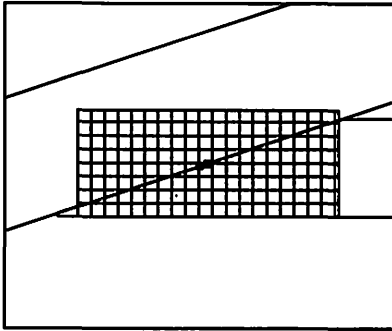
JT	PLATE	mbr	force	Required	Actual
1	7.9x19.2 18 gage Cg=0.80 JSI=0.87 MRT=-10 MRT=+10	1- 3 13-15	-18286 17010	55.5 -310 48.8 -273	75.7 -528 75.7 -528
2	4.0x10.0 20 gage Cg=0.80 JSI=0.93 MRT=-10 MRT=+10	1- 3 2-14	-436 -436	1.2 - 8 1.3 - 9	20.0 -160 17.5 -140
3	10.0x10.0 20 gage Cg=0.80 Cg=0.80 JSI=0.97 MRT=-10 MRT=+10	3- 5 1- 3	3219 3195	31.0 -199 31.0 -199	46.2 -370 46.2 -370
4	12.0x12.0 20 gage Cg=0.80 JSI=0.89 MRT=-10 MRT=+10	3- 5 4-16 14- 4	2256 -1249 1040	5.0 - 32 5.2 - 34 3.3 - 22	72.0 -576 21.1 -169 18.8 -151
5	10.0x10.0 20 gage Cg=0.80 JSI=0.83 MRT=-10 MRT=+10	5- 7 3- 5	2930 2909	18.9 -122 19.0 -122	46.2 -370 46.2 -370
6	8.0x 8.0 20 gage Cg=0.80 JSI=0.89 MRT=-10 MRT=+10	5- 7 6-18 16- 6	3410 -1761 2389	7.6 - 49 6.8 - 44 8.4 - 54	32.0 -256 17.7 -142 11.2 - 90
7	10.5x12.2 18 gage Cg=0.80 JSI=0.64 MRT=-10 MRT=+10	7- 9 18- 7 5- 7	-3593 5469 -3594	18.5 -104 17.3 - 97 18.5 -104	35.5 -248 32.4 -227 35.5 -248
8	6.0x 6.0 20 gage Cg=0.80 JSI=0.94 MRT=-10 MRT=+10	7- 9 8-19 18- 8	2951 1571 -1534	6.5 - 42 5.6 - 36 5.7 - 37	18.0 -144 7.0 - 57 10.5 - 84
9	10.0x10.0 20 gage Cg=0.80 JSI=0.78 MRT=-10 MRT=+10	9-12 7- 9	2788 2818	12.8 - 82 12.8 - 83	46.2 -370 46.2 -370
10	12.0x12.0 20 gage Cg=0.80 JSI=0.87 MRT=-10 MRT=+10	9-12 10-21 19-10	867 -539 -678	1.9 - 13 2.0 - 13 2.5 - 16	72.0 -576 19.1 -153 21.2 -170
11	4.0x10.0 20 gage Cg=0.80 JSI=0.86 MRT=-10 MRT=+10	9-12 21-11	845 845	2.3 - 15 2.4 - 16	20.0 -160 17.5 -140
12	10.5x17.5 18 gage Cg=0.80 JSI=0.97 MRT=-0 MRT=+0 7.0x16.0 20 gage Cg=0.80 JSI=0.97 MRT=-0 MRT=+0	SLDRL 20-22 9-12 SLDRL	-19151 16987 -9575 -9575	57.8 -323 48.8 -272 28.3 -182 28.3 -182	74.1 -517 91.9 -641 56.0 -448 56.0 -448

...REQUIRED MINIMUM PLATE AREAS (sqin - # teeth)...

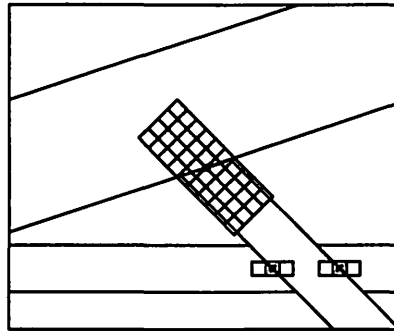
JT	PLATE	mbr	force	Required	Actual
14	4.0x 6.0 20 gage Cg=0.80 JSI=0.72 MRT=-10 MRT=+10	13-15 2-14 14- 4	1433 -739 1040	3.3 - 21 2.7 - 18 3.5 - 23	12.0 - 96 5.8 - 47 5.9 - 47
15	7.9x12.2 18 gage Cg=0.80 JSI=0.90 MRT=-10 MRT=+10	13-15 15-17	15589 15589	33.6 -188 33.6 -188	44.4 -310 44.4 -310
16	10.0x10.0 20 gage Cg=0.80 Cg=0.80 JSI=0.80 MRT=-10 MRT=+10	15-17 4-16 16- 6	2479 -1736 2389	5.6 - 36 6.4 - 42 9.1 - 59	50.0 -400 18.6 -149 13.6 -109
17	7.9x12.2 18 gage Cg=0.80 JSI=0.76 MRT=-10 MRT=+10	15-17 17-20	13126 13126	28.3 -158 28.3 -158	44.4 -310 44.4 -310
18	12.0x12.0 20 gage Cg=0.80 JSI=0.84 MRT=-10 MRT=+10	17-20 6-18 18- 7 18- 8	2326 -2903 5469 -2580	5.2 - 34 10.5 - 68 22.9 -147 9.3 - 60	72.0 -576 17.5 -140 33.0 -264 17.5 -141
19	10.0x10.0 20 gage Cg=0.80 JSI=1.00 MRT=-10 MRT=+10	17-20 8-19 19-10	1609 -1571 -1149	3.6 - 24 6.0 - 39 4.1 - 27	50.0 -400 13.1 -106 18.6 -149
20	7.9x12.2 18 gage Cg=0.80 JSI=0.82 MRT=-10 MRT=+10	17-20 20-22	14226 14226	30.6 -171 30.6 -171	44.4 -310 44.4 -310
21	4.0x 4.0 20 gage Cg=0.80 JSI=0.86 MRT=-10 MRT=+10	20-22 10-21 21-11	985 -406 845	2.3 - 15 1.5 - 10 2.9 - 19	8.0 - 64 4.0 - 32 4.0 - 32

# Joint Details Report

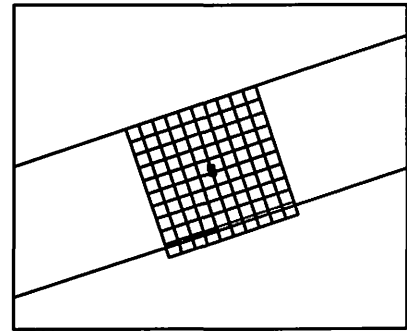
# Truss ID: B



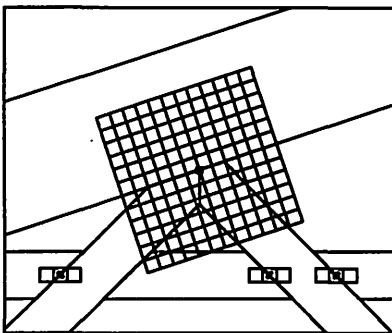
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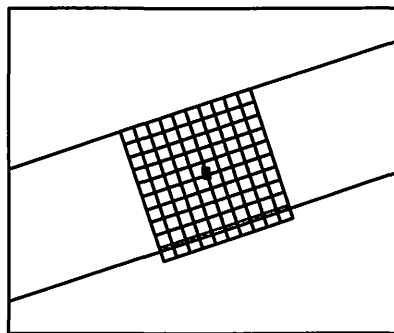
Jnt 2 4X10  
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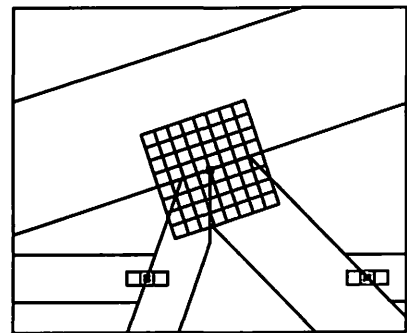
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Cq=0.80, JSI=0.97, MRT=-10/+10  
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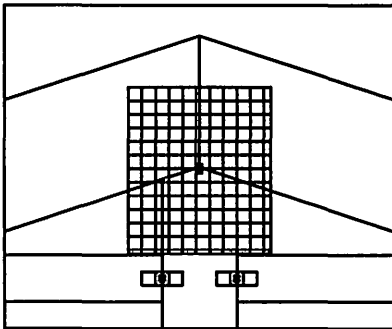
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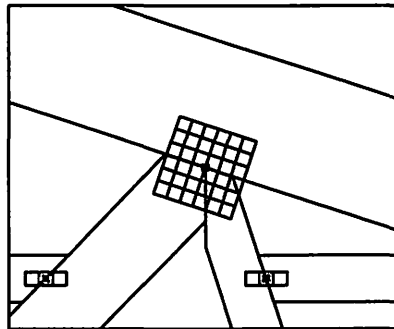
Jnt 5 S=10X10  
Cq=0.80, JSI=0.83, MRT=-10/+10  
Plate Shift:X= 0.12 Y=-0.36



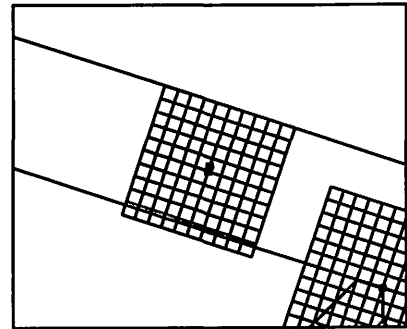
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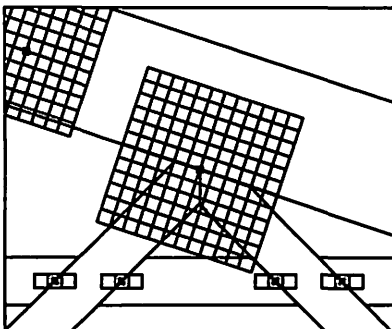
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Cq=0.80, JSI=0.64, MRT=-10/+10  
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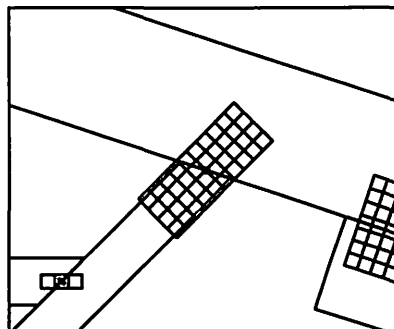
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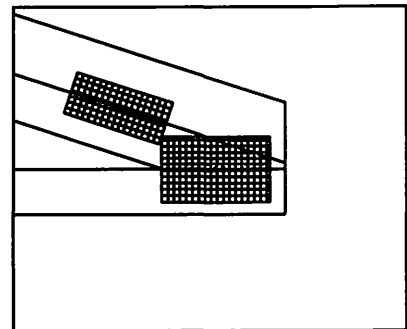
Jnt 9 S=10X10  
Cq=0.80, JSI=0.78, MRT=-10/+10  
Plate Shift:X=-0.12 Y=-0.36



Jnt 10 12X12  
Cq=0.80, JSI=0.87, MRT=-10/+10  
Plate Shift:X= 0.00 Y= 0.00



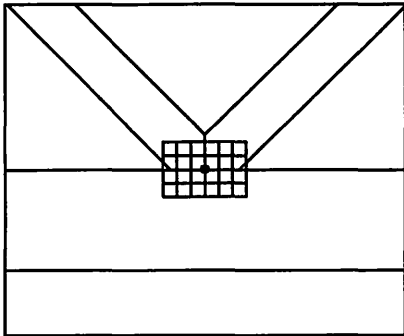
Jnt 11 4X10  
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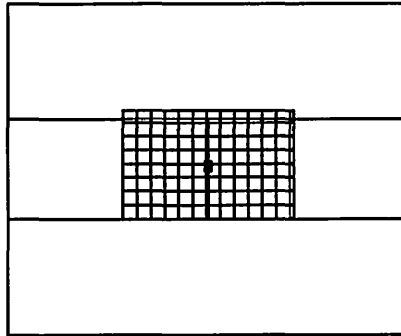
Jnt 12 SS1017; 7X16; 1X3; 7X16  
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# Joint Details Report

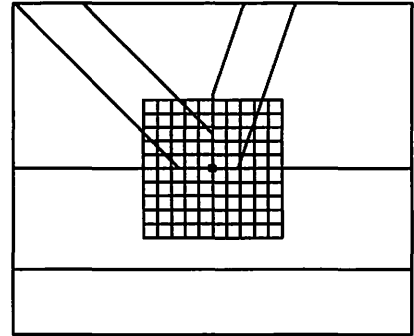
# Truss ID: B



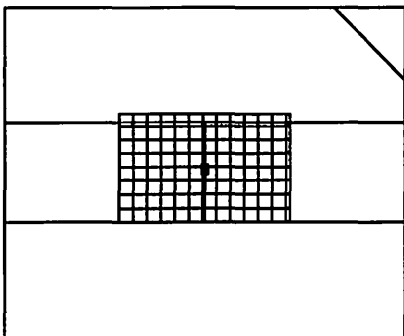
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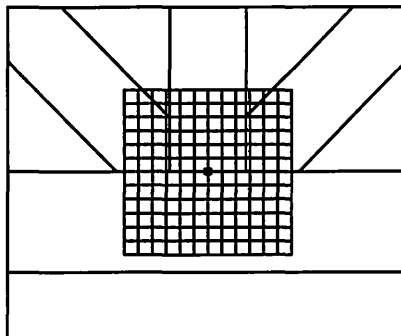
Jnt 15 S=SS0712  
Cq=0.80, JSI=0.90, MRT=-10/+10  
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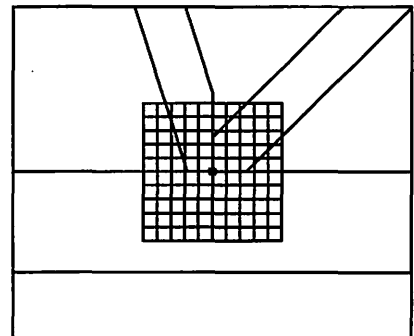
Jnt 16 10X10  
Cq=0.80, JSI=0.80, MRT=-10/+10  
Plate Shift:X= 0.00 Y= 0.00



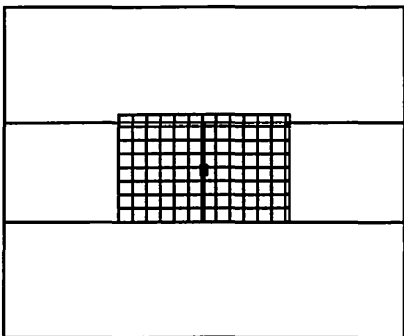
Jnt 17 S=SS0712  
Cq=0.80, JSI=0.76, MRT=-10/+10  
Plate Shift:X= 0.00 Y= 0.31



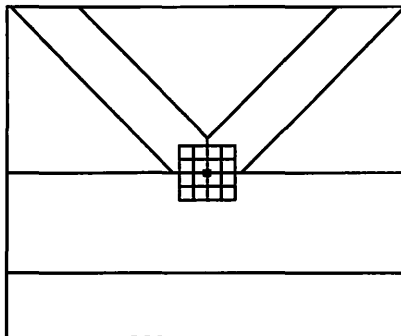
Jnt 18 12X12  
Cq=0.80, JSI=0.84, MRT=-10/+10  
Plate Shift:X= 0.00 Y= 0.00



Jnt 19 10X10  
Cq=0.80, JSI=1.00, MRT=-10/+10  
Plate Shift:X= 0.00 Y= 0.00



Jnt 20 S=SS0712  
Cq=0.80, JSI=0.82, MRT=-10/+10  
Plate Shift:X= 0.00 Y= 0.31



Jnt 21 4X4  
Cq=0.80, JSI=0.86, MRT=-10/+10  
Plate Shift:X= 0.00 Y= 0.00



# Effective Teeth Report - Truss ID: C

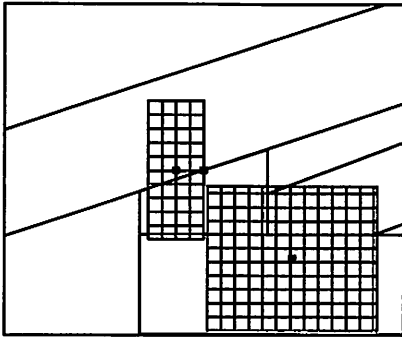
(CSI calcs based on PPSA)

MEM	SIZE AND GRADE	AXL	BND	CSI	( Fb')
TC 1 1-3	2x8 SOU PINE 2400F-2.0E	0.00	0.49	0.49	( 3023)
TC 2 3-5	2x8 SOU PINE 2400F-2.0E	0.06	0.41	0.47	( 3493)
BC 1 6-8	2x8 SOU PINE 2400F-2.0E	0.45	0.19	0.64	( 2147)
BC 2 8-9	2x8 SOU PINE 2400F-2.0E	-0.03	0.34	0.31	( 1619)

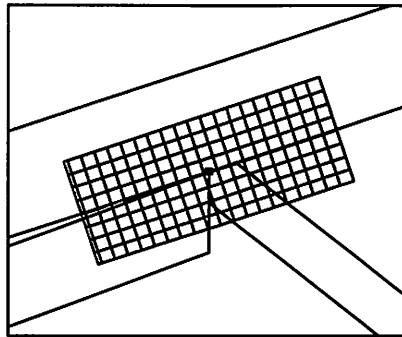
...REQUIRED MINIMUM PLATE AREAS (sqin - # teeth)...

JT	PLATE	mbr	force	Required	Actual
1	4.0x10.0	1- 3	-834	2.3 - 15	22.7 -182
	20 gage	6- 1	-834	2.2 - 15	17.3 -139
	Cg=0.80				
	JSI=0.87				
	MRT=-4				
2	7.9x19.2	1- 3	6314	13.6 - 76	75.7 -528
	18 gage	2- 7	-923	3.6 - 21	14.2 - 99
	Cg=0.80	6- 2	-7281	23.1 -130	33.3 -232
	JSI=0.92				
	MRT=-10				
3	8.0x 8.0	3- 5	-375	14.1 - 91	29.0 -232
	20 gage	1- 3	-375	14.1 - 91	29.0 -232
	Cg=0.80				
	JSI=0.55				
	MRT=-10				
4	8.0x14.0	3- 5	4836	10.7 - 69	56.0 -448
	20 gage	4- 9	-3156	9.7 - 62	14.5 -116
	Cg=0.80	7- 4	2308	5.6 - 37	19.2 -154
	JSI=0.92				
	MRT=-10				
5	1.5x 4.0	9- 5	-375	1.5 - 10	3.0 - 24
	20 gage	3- 5	-375	1.0 - 7	3.0 - 24
	Cg=0.80				
	JSI=0.66				
	MRT=-10				
6	10.5x12.2	6- 1	819	1.7 - 10	15.3 -107
	18 gage	6- 2	-6584	21.6 -121	27.1 -190
	Cg=0.80	6- 8	6537	14.1 - 79	85.7 -598
	JSI=0.95				
	MRT=-0				
7	10.0x10.0	6- 8	2767	6.3 - 41	61.6 -493
	20 gage	2- 7	-1470	5.1 - 33	15.6 -126
	Cg=0.80	7- 4	2308	6.0 - 39	13.6 -109
	JSI=1.00				
	MRT=-10				
8	8.0x 8.0	6- 8	3794	10.5 - 68	29.0 -232
	20 gage	8- 9	3794	10.5 - 68	29.0 -232
	Cg=0.80				
	JSI=0.55				
	MRT=-10				
9	10.0x10.0	8- 9	3794	8.4 - 54	57.4 -460
	20 gage	4- 9	-3823	10.4 - 67	19.7 -158
	Cg=0.80	9- 5	375	1.6 - 11	14.9 -120
	JSI=1.00				
	MRT=-10				

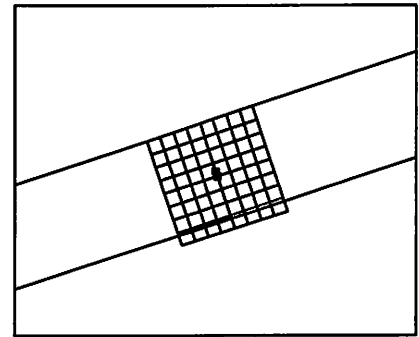
# Joint Details Report Truss ID: C



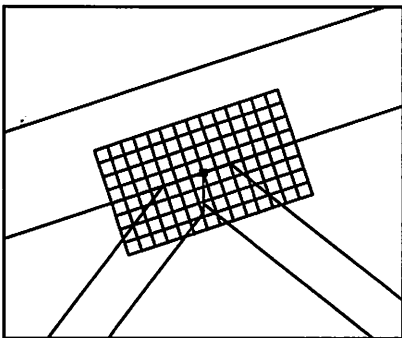
Jnt 1 4X10 [PM]  
Cq=0.80, JSI=0.87, MRT=-4/+10  
Plate Shift:X=-2.00 Y= 0.00



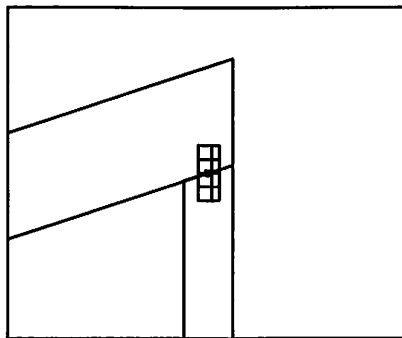
Jnt 2 SS0719  
Cq=0.80, JSI=0.92, MRT=-10/+10  
Plate Shift:X= 0.00 Y= 0.00



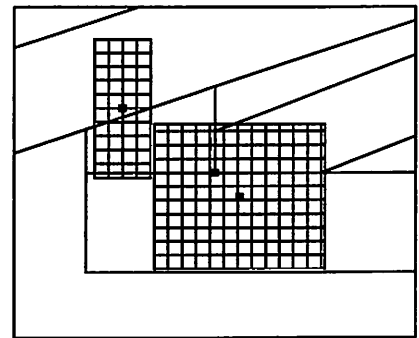
Jnt 3 S=8X8  
Cq=0.80, JSI=0.55, MRT=-10/+10  
Plate Shift:X= 0.12 Y=-0.36



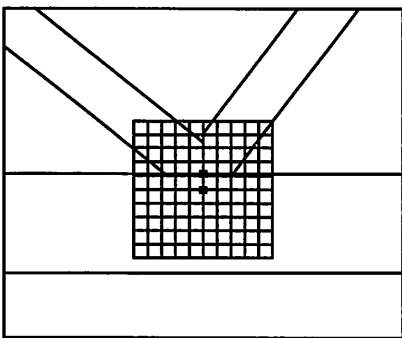
Jnt 4 8X14  
Cq=0.80, JSI=0.92, MRT=-10/+10  
Plate Shift:X= 0.00 Y= 0.00



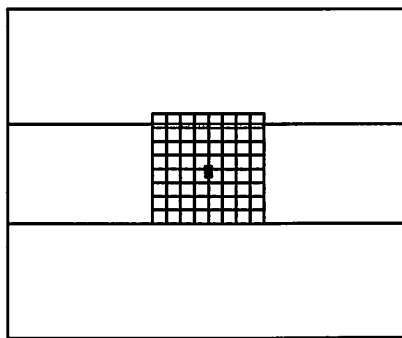
Jnt 5 1.5X4  
Cq=0.80, JSI=0.66, MRT=-10/+10  
Plate Shift:X= 0.00 Y= 0.00



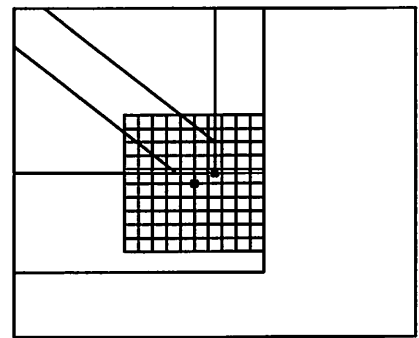
Jnt 6 SS1012 [PM]  
Cq=0.80, JSI=0.95, MRT=-0/+0  
Plate Shift:X= 1.75 Y=-1.75



Jnt 7 10X10  
Cq=0.80, JSI=1.00, MRT=-10/+10  
Plate Shift:X= 0.00 Y=-1.16



Jnt 8 S=8X8  
Cq=0.80, JSI=0.55, MRT=-10/+10  
Plate Shift:X= 0.00 Y= 0.38



Jnt 9 10X10  
Cq=0.80, JSI=1.00, MRT=-10/+10  
Plate Shift:X=-1.50 Y=-0.75

Job Name: SAWYER CTY AMB.

Truss ID: D

Qty: 2

BRG	X-LOC	REACT	SIZE	REQ'D
1	0-3-0	5913	6.00"	4.90"
2	17-9-4	4631	5.50"	3.83"

MAX DEFLECTION (span) :  
 L/999 MEM 3-4 (LIVE) LC 1  
 L = -0.20" D = -0.03" T = -0.23"

**CRITICAL MEMBER FORCES:**

TC	COMP. (DUR.)	TENS. (DUR.)	CSI
1-2	-393(1.15)	327(1.15)	0.49
2-3	-1607(1.15)	733(1.60)	0.42
3-4	-1168(1.15)	766(1.60)	0.43
4-5	-480(1.15)	307(1.15)	0.38

BC	COMP. (DUR.)	TENS. (DUR.)	CSI
6-7	-1944(1.60)	6313(1.15)	0.38
7-8	-1226(1.60)	3485(1.15)	0.51
8-9	-1226(1.60)	3485(1.15)	0.40

WB	COMP. (DUR.)	TENS. (DUR.)	CSI
1-6	-2632(1.15)	900(1.60)	0.08
2-6	-7032(1.15)	839(1.60)	0.67
2-7	-2176(1.15)	881(1.60)	0.79
4-7	-272(1.60)	2437(1.15)	0.82
4-9	-4846(1.15)	1711(1.60)	0.82
5-9	-1060(1.15)	567(1.60)	0.96

2x8 SP 2400F-2.0E  
 2x8 SP 2400F-2.0E  
 2x4 SPF #3-CAN  
 2x10 SP 2400F-2.0E 6-1  
 2x6 SPF CLASS1.1E 6-2  
 2x4 DFL STUD 7-4  
 2x4 DFL 1800F-1.6E 4-9  
 2x4 SPF #3-CAN

GRL BLK  
 Plating is based on quality control factors  
 C<sub>q</sub> = 0.80 for wide face and  
 C<sub>q</sub> = 0.96 for narrow face.  
 Any alterations to this are shown for  
 individual joints on the Joint Report.  
 IRC/IBC truss plate values are based on  
 testing and approval as required by IRC 1703  
 and ANSI/TPI and are reported in ESR-1118.  
 ASCE7-05 SNOW LOAD DESIGN CRITERIA:  
 P<sub>s</sub> = 60 psf, C<sub>e</sub> = 1.0, I = 1.2, C<sub>t</sub> = 1.10  
 P<sub>rain</sub> = 24 psf  
 Designed for an Unobstructed Slippery Roof  
 End verticals are designed for axial loads  
 only, unless noted otherwise.  
 20 psf bottom chord live load NOT required  
 on this truss, per IRC/IBC code provisions.

Web bracing required at each location shown.  
 Refer to BCSI for proper required lateral  
 restraint. For alternative web bracing,  
 see ITWBC's standard details.  
 \*P/W/PLATE MONITOR USED-See Joint Report\*\*  
 Designed per ANSI/TPI 1-2007  
 Fabrication Tolerance = 20.0%  
 Bearings designed for an F<sub>chord</sub> value of the  
 lesser of the truss chord lumber value or  
 805 for all bearings.  
 This design does not account for long term  
 time dependent loading (creep). Building  
 Designer shall account for this.  
 Refer to Joint OC Detail Sheets for  
 C<sub>q</sub> Factors and Retentional Tolerances.  
 Loaded for 10 PSF non-concurrent BCLL.  
 Loaded for 2004 non-concurrent moving BCLL.  
 Valley Truss application only; not designed  
 for wind load applied to the face. Web  
 bracing is required if shown.  
 Gable horizontal studs are 2x 4 web material  
 spaced @ 28.0" o.c. unless noted otherwise.  
 Gable stud bracing required @ 24" intervals,  
 if exposed to wind load applied to face.  
 See ITWBC's Gable BRACING Details:  
 [x] if shown, indicates recommended Gable  
 stud brace approximate locations. Ref BCSI  
 designed for a post-frame building  
 application.

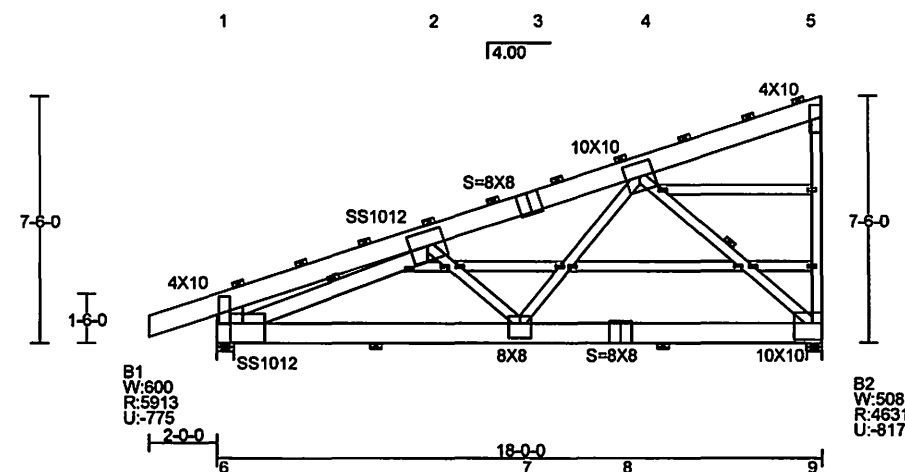
This design based on chord bracing applied  
 per the following schedule:

TC	max o.c.	from	to
TC	24.00"	0-0-0	18-0-0
BC	120.00"	0-0-0	18-0-0

UPLIFT REACTION(S) :  
 Support Main Wind Non-Wind  
 1 -775 lb  
 2 -817 lb

HORIZONTAL REACTION(S) :  
 support 1 1182 lb  
 support 2 1183 lb

This truss is designed using the  
 ASCE7-05 Wind Specification  
 Bldg Enclosed = Yes, Importance Factor = 1.15  
 Truss Location = End Zone  
 Hurricane/Ocean Line = No, Exp Category = B  
 Bldg Length = 80.00 ft, bldg width = 40.00 ft  
 Mean roof height = 13.43 ft, cph = 90  
 ASCE7 IV Essential Facility, Dead Load = 9.0 psf  
 Designed as Main Wind Force Resisting System  
 - Low-rise and Components and Cladding  
 Tributary Area = 144 sqft



All connector plates are ALPINE Wave 20 ga., unless preceded by "H" for High Strength 20 ga., "S" for Super Strength 18 ga. Plates are to be positioned per Joint Detail Report. Circled plates and false frame plates are positioned as shown above. Shift gable stud plates to avoid overlap with structural plates.

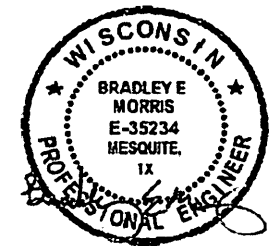
**\*\*WARNING!\*\* READ AND FOLLOW ALL NOTES ON THIS DRAWING!**  
**\*\*IMPORTANT\*\* FURNISH THIS DRAWING TO ALL CONTRACTORS INCLUDING THE INSTALLERS.**

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 WTCA) 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 report, unless noted otherwise.

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 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.alpinetw.com](http://www.alpinetw.com); TPI: [www.tpinet.org](http://www.tpinet.org); WTCA: [www.sbcindustry.org](http://www.sbcindustry.org); ICC: [www.iccsafe.org](http://www.iccsafe.org)



11/16/2017

Cust: ARROW HUDSON		#LC = 45	WT/PLY: 2436
W0: Drive_S_sawyer_L0000			
Dsgnr: RCT			
TC Live	55.40 psf	LiveDur	L=1.15 P=1.15
TC Dead	4.00 psf	SnowDur	L=1.15 P=1.15
BC Live	0.00 psf	Rep Mbr Bnd / Comp / Tens	1.00 / 1.00 / 1.00
BC Dead	5.00 psf	O.C.Spacing	8- 0- 0
TOTAL	64.40 psf	DEFL RATIO: L/240 TC: L/180	
Bldg Code: IBC-2009			



# Effective Teeth Report - Truss ID: D

(CSI calcs based on PPSA)

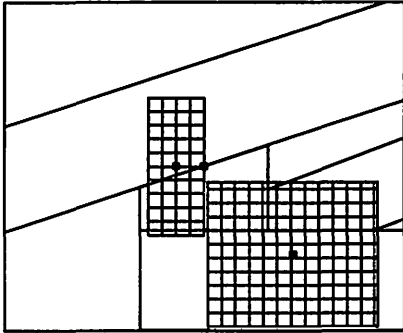
MEM	SIZE AND GRADE	AXL	BND	CSI	( Fb')
TC 1 1-3	2x8 SOU PINE 2400F-2.0E	0.00	0.49	0.49	( 3023)
TC 2 3-5	2x8 SOU PINE 2400F-2.0E	0.06	0.38	0.43	( 3493)

BC 1 6-8	2x8 SOU PINE 2400F-2.0E	0.78	0.19	0.98	( 2147)
BC 2 8-9	2x8 SOU PINE 2400F-2.0E	0.31	0.08	0.40	( 2116)

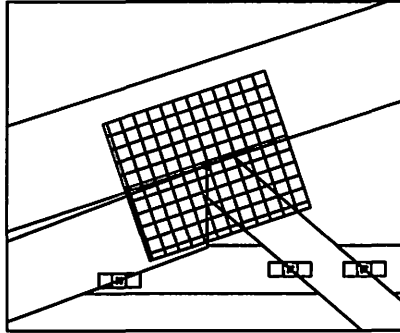
...REQUIRED MINIMUM PLATE AREAS (sqin - # teeth)...

JT	PLATE	mbr	force	Required	Actual
1	4.0x10.0	1- 3	-832	2.3 - 15	22.7 -182
	20 gage	6- 1	-832	1.8 - 12	17.3 -139
	Cg=0.80				
	JSI=0.90				
	MRT=-0				
	MRT=+10				
2	10.5x12.2	1- 3	6133	13.2 - 74	64.3 -449
	18 gage	2- 7	-879	3.2 - 18	19.1 -134
	20 gage	6- 2	-7031	22.3 -125	26.7 -187
	Cg=0.80				
	JSI=0.99				
	MRT=-10				
	MRT=+10				
3	8.0x 8.0	3- 5	766	14.4 - 93	29.0 -232
	20 gage	1- 3	733	14.4 - 93	29.0 -232
	Cg=0.80				
	JSI=0.56				
	MRT=-10				
	MRT=+10				
4	10.0x10.0	3- 5	4688	10.4 - 67	50.0 -400
	20 gage	4- 9	-2901	9.0 - 58	18.1 -145
	20 gage	7- 4	2436	5.9 - 38	16.5 -132
	Cg=0.80				
	JSI=0.90				
	MRT=-10				
	MRT=+10				
5	4.0x10.0	9- 5	566	1.2 - 8	17.5 -140
	20 gage	3- 5	584	1.2 - 8	20.3 -163
	Cg=0.80				
	JSI=0.85				
	MRT=-10				
	MRT=+10				
6	10.5x12.2	6- 1	900	1.9 - 11	15.3 -107
	18 gage	6- 2	-6349	20.8 -117	27.1 -190
	20 gage	6- 8	6313	13.6 - 76	85.7 -598
	Cg=0.80				
	JSI=0.91				
	MRT=-0				
	MRT=+0				
7	8.0x 8.0	6- 8	2850	6.5 - 42	43.1 -345
	20 gage	2- 7	-1427	5.0 - 32	9.6 - 77
	20 gage	7- 4	2436	6.3 - 41	8.5 - 69
	Cg=0.80				
	JSI=1.00				
	MRT=-10				
	MRT=+10				
8	8.0x 8.0	6- 8	3485	10.2 - 66	29.0 -232
	20 gage	8- 9	3485	10.2 - 66	29.0 -232
	Cg=0.80				
	JSI=0.51				
	MRT=-10				
	MRT=+10				
9	10.0x10.0	8- 9	3485	7.7 - 50	61.6 -493
	20 gage	4- 9	-3491	9.4 - 60	17.2 -138
	20 gage	9- 5	566	1.7 - 11	13.4 -108
	Cg=0.80				
	JSI=1.00				
	MRT=-10				
	MRT=+10				

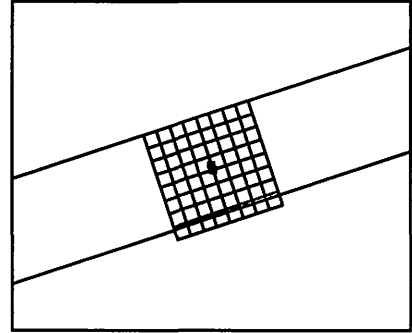
# Joint Details Report Truss ID: D



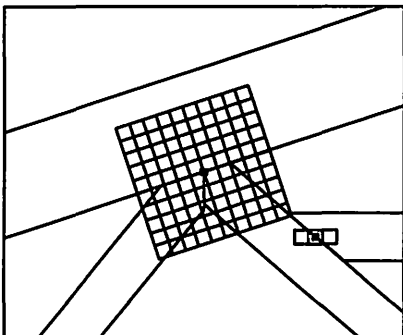
Jnt 1 4X10 [PM]  
Cq=0.80, JSI=0.90, MRT=-0/+10  
Plate Shift:X=-2.00 Y= 0.00



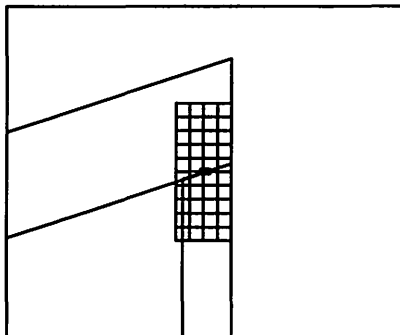
Jnt 2 SS1012  
Cq=0.80, JSI=0.99, MRT=-10/+10  
Plate Shift:X= 0.00 Y= 0.00



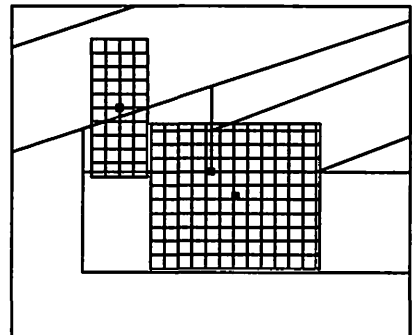
Jnt 3 S=8X8  
Cq=0.80, JSI=0.56, MRT=-10/+10  
Plate Shift:X= 0.12 Y=-0.36



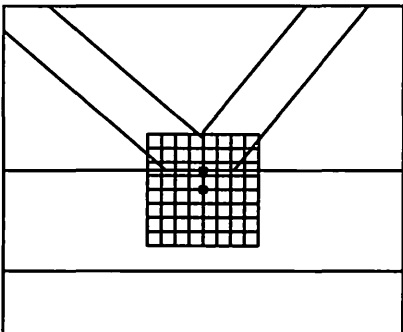
Jnt 4 10X10  
Cq=0.80, JSI=0.90, MRT=-10/+10  
Plate Shift:X= 0.00 Y= 0.00



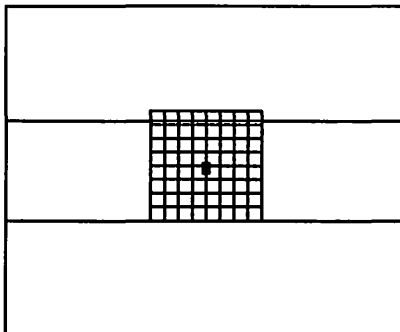
Jnt 5 4X10  
Cq=0.80, JSI=0.85, MRT=-10/+10  
Plate Shift:X=-0.25 Y= 0.00



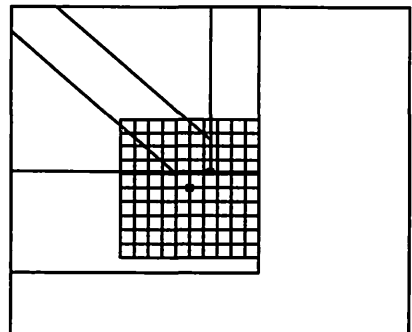
Jnt 6 SS1012 [PM]  
Cq=0.80, JSI=0.91, MRT=-0/+0  
Plate Shift:X= 1.75 Y=-1.75



Jnt 7 8X8  
Cq=0.80, JSI=1.00, MRT=-10/+10  
Plate Shift:X= 0.00 Y=-1.39



Jnt 8 S=8X8  
Cq=0.80, JSI=0.51, MRT=-10/+10  
Plate Shift:X= 0.00 Y= 0.38



Jnt 9 10X10  
Cq=0.80, JSI=1.00, MRT=-10/+10  
Plate Shift:X=-1.50 Y=-1.16