DATE 07/21/2008

Columbia County Building Permit

This Permit Must Be Prominently Posted on Premises During Construction

PERMIT
000027192

APPLICANT LINDA RODER PHONE 386.752.2281

ADDRESS 387 SW KEMP COURT LAKE CITY FL 32024

OWNER SETH HEITZMAN CONSTRUCTION,INC. PHONE 386.752.2281

ADDRESS 664 SW LEGION DRIVE LAKE CITY FL 32056

CONTRACTOR SETH HEITZMAN CONSTR.,INC. PHONE 386.867.1295

LOCATION OF PROPERTY 90-W TO SR.247-S TO UPCHURCH,TL TO TAAMARACK LOOP,TL TO LEGION,TL AND IT'S ON THE L BEFORE HILLTOP RD.

TYPE DEVELOPMENT SFD/UTILITY ESTIMATED COST OF CONSTRUCTION 94400.00

HEATED FLOOR AREA 1408.00 TOTAL AREA 1888.00 HEIGHT 17.40 STORIES 1

FOUNDATION CONC WALLS FRAMED ROOF PITCH 6'12 FLOOR CONC

LAND USE & ZONING RR MAX. HEIGHT 35

Minimum Set Back Requirments: STREET-FRONT 25.00 REAR 15.00 SIDE 10.00

NO. EX.D.U. 0 FLOOD ZONE X DEVELOPMENT PERMIT NO.

PARCEL ID 16-4S-16-03041-033 SUBDIVISION

LOT BLOCK PHASE UNIT TOTAL ACRES 1.00

000001640		CBC1251065		
Culvert Permit No.	Culvert Waiver	Contractor's License Number	Applicant/Owner/Contractor	
18"X32'MITERED	08-0131	BLK	JTH	N
Driveway Connection	Septic Tank Number	LU & Zoning checked by	Approved for Issuance	New Resident

COMMENTS: 1 FOOT ABOVE ROAD.

Check # or Cash 3563

FOR BUILDING & ZONING DEPARTMENT ONLY

(footer/Slab)

Temporary Power _____ date/app. by Foundation _____ date/app. by Monolithic _____ date/app. by

Under slab rough-in plumbing _____ date/app. by Slab _____ date/app. by Sheathing/Nailing _____ date/app. by

Framing _____ date/app. by Rough-in plumbing above slab and below wood floor _____ date/app. by

Electrical rough-in _____ date/app. by Heat & Air Duct _____ date/app. by Peri. beam (Lintel) _____ date/app. by

Permanent power _____ date/app. by C.O. Final _____ date/app. by Culvert _____ date/app. by

M/H tie downs, blocking, electricity and plumbing _____ date/app. by Pool _____ date/app. by

Reconnection _____ date/app. by Pump pole _____ date/app. by Utility Pole _____ date/app. by

M/H Pole _____ date/app. by Travel Trailer _____ date/app. by Re-roof _____ date/app. by

BUILDING PERMIT FEE $ 475.00 CERTIFICATION FEE $ 9.44 SURCHARGE FEE $ 9.44

MISC. FEES $ 0.00 ZONING CERT. FEE $ 50.00 FIRE FEE $ 0.00 WASTE FEE $

FLOOD DEVELOPMENT FEE $ FLOOD ZONE FEE $ 25.00 CULVERT FEE $ 25.00 **TOTAL FEE** 593.88

INSPECTORS OFFICE CLERKS OFFICE CN

NOTICE: IN ADDITION TO THE REQUIREMENTS OF THIS PERMIT, THERE MAY BE ADDITIONAL RESTRICTIONS APPLICABLE TO THIS PROPERTY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY. AND THERE MAY BE ADDITIONAL PERMITS REQUIRED FROM OTHER GOVERNMENTAL ENTITIES SUCH AS WATER MANAGEMENT DISTRICTS, STATE AGENCIES, OR FEDERAL AGENCIES.

"WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT."

EVERY PERMIT ISSUED SHALL BECOME INVALID UNLESS THE WORK AUTHORIZED BY SUCH PERMIT IS COMMENCED WITHIN 180 DAYS AFTER ITS ISSUANCE, OR IF THE WORK AUTHORIZED BY SUCH PERMIT IS SUSPENDED OR ABANDONED FOR A PERIOD OF 180 DAYS AFTER THE TIME THE WORK IS COMMENCED. A VALID PERMIT RECIEVES AN APPROVED INSPECTION EVERY 180 DAYS. WORK SHALL BE CONSIDERED TO BE IN ACTIVE PROGESS WHEN THE PERMIT HAS RECIEVED AN APPROVED INSPECTION WITHIN 180 DAYS.

The Issuance of this Permit Does Not Waive Compliance by Permittee with Deed Restrictions.

BOARD OF COUNTY COMMISSIONERS • COLUMBIA COUNTY

March 31, 2010

Seth Heitzman Construction, Inc.
CBC1251065
P.O. Box 3642
Lake City, FL 32056
(386) 719-3887

File Copy
POSTED
3-31-10
LH

Dear Seth Heitzman Construction, Inc.,

With regards to your fax dated 3/30/10 for a refund of permit fees paid on 27192. I am sorry, Mr. Heitzman we are unable to forward your request for a refund on permit 27192 issued on July 21, 2008, as the permit is expired. There have been no inspections approved for this permit. Permit 27192 became invalid (expired) 6 months after its issuance.

> **Florida Building Code: 105.4.1 Permit intent**. A permit issued shall be construed to be a license to proceed with the work and not as authority to violate, cancel, alter or set aside any of the provisions of the technical codes, nor shall issuance of a permit prevent the building official from thereafter requiring a correction of errors in plans, construction or violations of this code. Every permit issued shall become invalid unless the work authorized by such permit is commenced within 6 months after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 6 months after the time the work is commenced.

Please contact me if I can be of further assistance.

Sincerely,

Laurie Hodson, Office Manager
Columbia County Building & Zoning Department

XC: 27192 Permit file.

3/30/10

Seth Heitzman Construction,Inc.
CBC1251065
P.O. Box 3642
Lake City, FL. 32056
(386)-719-3887

To: The Columbia County Building Dept./ County Commissioners

This is a request for refund of my original permit for Lot on Legion Drive Per#000027192. I did not build it, because I could not get financing.

Sincerely,

Seth Heitzman
Owner/President

RECEIVED
LH 3-31-10

DATE 07/21/2008

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NO. EX.D.U. 0 FLOOD ZONE X DEVELOPMENT PERMIT NO.

PARCEL ID 16-4S-16-03041-033 SUBDIVISION

LOT BLOCK PHASE UNIT TOTAL ACRES 1.00

000001640 CBC1251065

Culvert Permit No. | Culvert Waiver | Contractor's License Number | Applicant/Owner/Contractor

18"X32'MITERED 08-0131 BLK JTH N

Driveway Connection | Septic Tank Number | LU & Zoning checked by | Approved for Issuance | New Resident

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Check # or Cash 3563

FOR BUILDING & ZONING DEPARTMENT ONLY

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Temporary Power date/app. by | Foundation date/app. by | Monolithic date/app. by

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Reconnection date/app. by | Pump pole date/app. by | Utility Pole date/app. by

M/H Pole date/app. by | Travel Trailer date/app. by | Re-roof date/app. by

NO Inspections as of 3-31-10 F. Hodges

BUILDING PERMIT FEE $ 475.00 CERTIFICATION FEE $ 9.44 SURCHARGE FEE $ 9.44

MISC. FEES $ 0.00 ZONING CERT. FEE $ 50.00 FIRE FEE $ 0.00 WASTE FEE $

JW called Melanie 1.30.08

3563

Columbia County Building Permit Application

For Office Use Only Application # 0801-116 Date Received 1/23/08 By G Permit # 1640 - 27192

Zoning Official BLK Date 30.01.08 Flood Zone X FEMA Map # N/A Zoning RR

Land Use RVLD Elevation N/A MFE 1ft above RL River N/A Plans Examiner OK JH Date 1-29-08

Comments

☐ NOC ☒ EH ☐ Deed or PA ☑ Site Plan ☐ State Road Info ☐ Parent Parcel #

☐ Dev Permit # ☐ In Floodway ☑ Letter of Authorization from Contractor

☐ Unincorporated area ☐ Incorporated area ☐ Town of Fort White ☐ Town of Fort White Compliance letter

Fax 752-2282

Name Authorized Person Signing Permit Linda or Melanie Roder Phone 752-2281

Address 387 SW Kemp Ct Lake City FL 32024

Owners Name Seth Heitzman Construction Inc. Phone 867-1295

911 Address 664 SW Legion Dr Lake City FL 32024

Contractors Name Seth Heitzman Construction Inc. Phone 867-1295

Address POB 1046 Lake City FL 32025

Fee Simple Owner Name & Address NA

Bonding Co. Name & Address NA

Architect/Engineer Name & Address William Myers

Mortgage Lenders Name & Address CCB

Circle the correct power company – FL Power & Light – (Clay Elec.) – Suwannee Valley Elec. – Progress Energy

Property ID Number 16-4S-16-03041-033 Estimated Cost of Construction 100K

Subdivision Name Lot Block Unit Phase

Driving Directions 247 S, R on SW Upchurch Ave, L on SW Tamarack Loop, L on SW Legion Dr, Lot on L before Hilltop Road

Number of Existing Dwellings on Property 0

Construction of Single family dwelling Total Acreage 1 acr Lot Size 1 acr

Do you need a (Culvert Permit) or Culvert Waiver or Have an Existing Drive Total Building Height 17'4"

Actual Distance of Structure from Property Lines - Front 80' Side 73.5 Side 73.5 Rear 185'

Number of Stories 1 Heated Floor Area 1408 Total ~~Heated~~ Floor Area ~~1408~~ 1888 Roof Pitch 6-12

Application is hereby made to obtain a permit to do work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work be performed to meet the standards of all laws regulating construction in this jurisdiction

Columbia County Building Permit Application **Application #** _____

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

FLORIDA'S CONSTRUCTION LIEN LAW: Protect Yourself and Your Investment
According to Florida Law, those who work on your property or provide materials, and are not paid-in-full, have a right to enforce their claim for payment against your property. This claim is known as a construction lien. If your contractor fails to pay subcontractors or material suppliers or neglects to make other legally required payments, the people who are owed money may look to your property for payment, even if you have paid your contractor in full. This means if a lien is filed against your property, it could be sold against your will to pay for labor, materials or other services which your contractor may have failed to pay.

NOTICE OF RESPONSIBILITY TO BUILDING PERMITEE:
YOU ARE HEREBY NOTIFIED as the recipient of a building permit from Columbia County, Florida, you will be held responsible to the County for any damage to sidewalks and/or road curbs and gutters, concrete features and structures, together with damage to drainage facilities, removal of sod, major changes to lot grades that result in ponding of water, or other damage to roadway and other public infrastructure facilities caused by you or your contractor, subcontractors, agents or representatives in the construction and/or improvement of the building and lot for which this permit is issued. No certificate of occupancy will be issued until all corrective work to these public infrastructures and facilities has been corrected.

OWNERS AFFIDAVIT: I hereby certify that all the foregoing information is accurate and all work will be done in compliance with all applicable laws and regulating construction and zoning. I further understand the above written responsibilities in Columbia County for obtaining this Building Permit.

X _____ 1-22-08
Owners Signature

Affirmed under penalty of perjury to by the Owner and subscribed before me this 22 **day of** Jan **20**08.

Personally known ✓ **or Produced Identification** _____

_____ **SEAL:**
State of Florida Notary Signature (For the Owner)

Linda R. Roder
Commission #DD303275
Expires: Mar 24, 2008
Bonded Thru
Atlantic Bonding Co., Inc.

X
CONTRACTORS AFFIDAVIT: By my signature I understand and agree that I have informed and provided this written statement to the owner of all the above written responsibilities in Columbia County for obtaining this Building Permit.

_____
Contractor's Signature (Permitee)

Contractor's License Number CBC#1251065
Columbia County
Competency Card Number _____

Affirmed under penalty of perjury to by the Contractor and subscribed before me this 22 **day of** Jan **20**08.

Personally known ✓ **or Produced Identification** _____

_____ **SEAL:**
State of Florida Notary Signature (For the Contractor)

Linda R. Roder
Commission #DD303275
Expires: Mar 24, 2008
Bonded Thru
Atlantic Bonding Co., Inc.

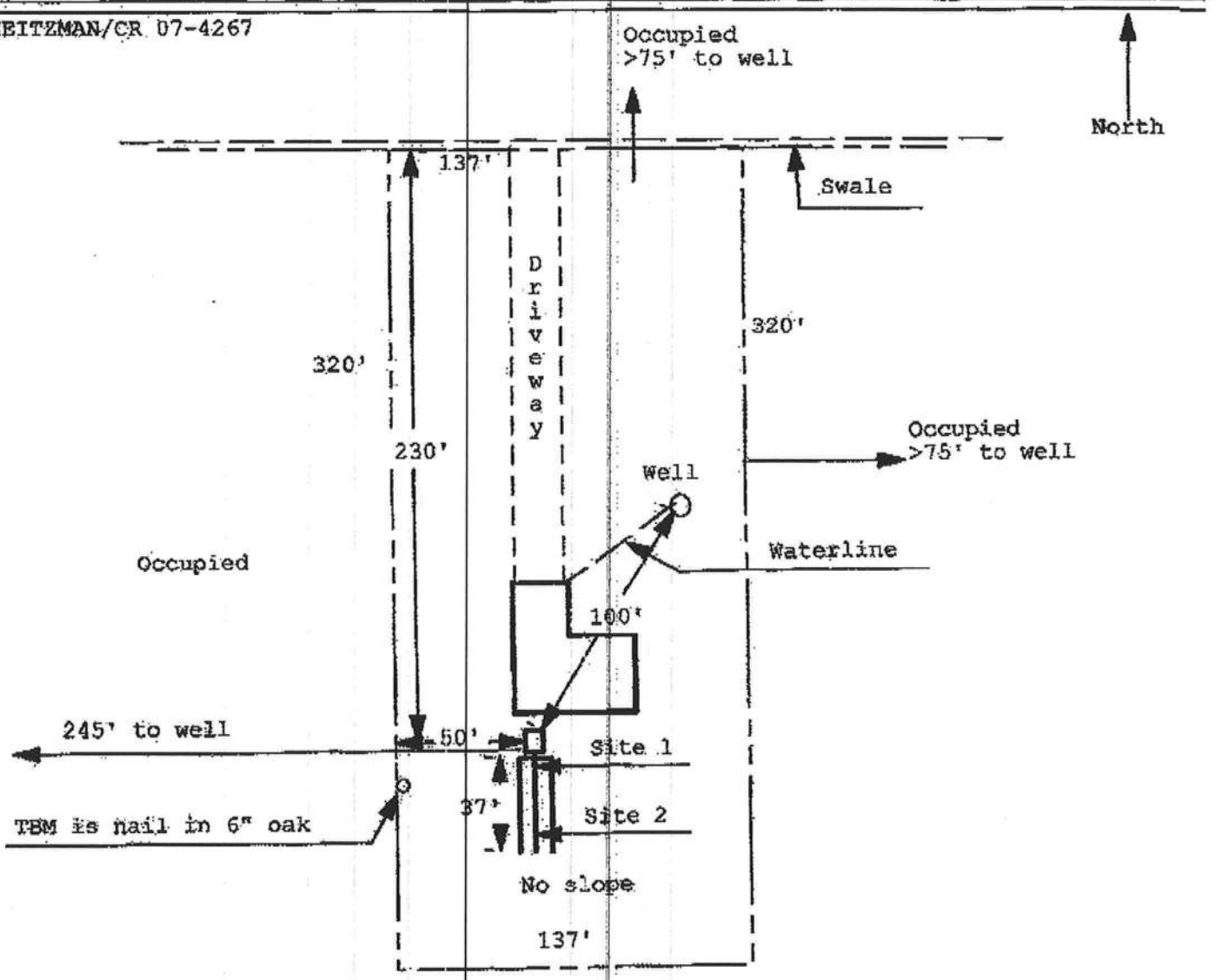
.0801-116

Application for Onsite Sewage Disposal System Construction Permit. Part II Site Plan

Permit Application Number: 08-013

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH UNIT

HEITZMAN/CR 07-4267



Site Plan Submitted By Paul Floyd Date 1/28/08

Plan Approved ✓ Not Approved ____ Date 1/30/08

By [illegible] Columbia CPHU

Notes: ____

Notice of Authorization

I, Seth Heitzman, hereby authorize Linda Roder or Melanie Roder to be my Representative and act on my behalf in all aspects for applying for a Building Permit to be located in Columbia County.

16-4S-16-03041-033

X _____
Contractor's Signature

1-22-08
Date

Sworn to and Subscribed before me this 22 day of Jan, 2008
by _____, who

✓ is Personally Known or

_____ has produced _____ as identification.

_____
Notary Public

Notary Stamp

NOTARY PUBLIC STATE OF FLORIDA
Linda R. Roder
Commission #DD303275
Expires: Mar 24, 2008
Bonded Thru
Atlantic Bonding Co., Inc.

Prepared by & Return to
Matt Rocco
Sierra Title, LLC
619 SW Baya Drive, Suite 102
Lake City, Florida 32025

File Number: 06-0295

Inst:2006021886 Date:09/13/2006 Time:12:51
Doc Stamp-Deed : 217.00
DC,P.DeWitt Cason,Columbia County B:1095 P:2573

General Warranty Deed

Made this September 13th 2006 A.D. By **James Starkloff and his wife, Becky Starkloff,** whose address is: 17735 NW 236th Way, High Springs, Florida 32643, hereinafter called the grantor, to **Seth Heitzman Construction, Inc.,** whose post office address is: PO Box 3642, Lake City, FL 32056, hereinafter called the grantee: a Florida corporation

(Whenever used herein the term "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations)

Witnesseth, that the grantor, for and in consideration of the sum of Ten Dollars, ($10.00) and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the grantee, all that certain land situate in Columbia County, Florida, viz:

A Part of the SE 1/4 of the NW 1/4 of the Sw 1/4 of Section 16, Township 4 South, Range 16 East, Columbia County, Florida, more Particularly described as follows:

Commence at the SE corner of the E 1/2 of said SE 1/4 of NW 1/4 of SW 1/4 and run thence N 01°05'42" West, along the East line thereof, 313.93 feet; thence N 89°33'33" W, 197.79 feet to the Point of Beginning; thence N 01°04'18" W, 320.46 feet to the South Right-of-way line of SW Legion Drive; thence run N 89°33'34" W, along the said right-of-way 137.66 feet; thence run S 01°02'56" E, 320.46 feet; thence run S 89°33'33" East, 137.66 feet to the Point of Beginning.

Parcel ID Number: R03041-033

Together with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances except taxes accruing subsequent to December 31, 2005.

In Witness Whereof, the said grantor has signed and sealed these presents the day and year first above written.

Signed, sealed and delivered in our presence:
AS TO JAMES STARKLOFF:

Mary B. Whitehurst
Witness Printed Name MARY B. WHITEHURST

(Seal)
James Starkloff
Address: 17735 NW 236th Way, High Springs, Florida 32643

Witness Printed Name Matthew P. Rocco

(Seal)

State of Florida
County of Columbia

The foregoing instrument was acknowledged before me this 11th day of September, 2006, by James Starkloff who is/are personally known to me or who has produced Drivers License as identification.

Matthew Rocco
My Commission DD150704
Expires September 17 2008

Notary Public
Print Name:

My Commission Expires:

SEE PAGE 2 FOR ADDITIONAL SIGNATURE/NOTARY

DEED Individual Warranty Deed - Legal on Face
Closers' Choice

Prepared by & Return to
Matt Rocco
Sierra Title, LLC
619 SW Baya Drive, Suite 102
Lake City, Florida 32025

File Number: 06-0295

WARRANTY DEED
PAGE 2

Inst:2006021886 Date:09/13/2006 Time:12:51
Doc Stamp-Deed : 217.00
DC,P.DeWitt Cason,Columbia County B:1095 P:2574

AS TO BECKY STARKLOFF:
Signed, sealed and delivered in our presence:

Mary B. Whitehurst
Witness Printed Name MARY B. WHITEHURST

Witness Printed Name MATTHEW ROCCO

Becky Starkloff (Seal)
Becky Starkloff
Address: 17735 NW 236th Way, High Springs, Florida 32643

(Seal)

State of Florida
County of Columbia

The foregoing instrument was acknowledged before me this 11th day of September, 2006, by Becky Starkloff, who is/are personally known to me or who has produced DRIVERS LICENSE as identification.

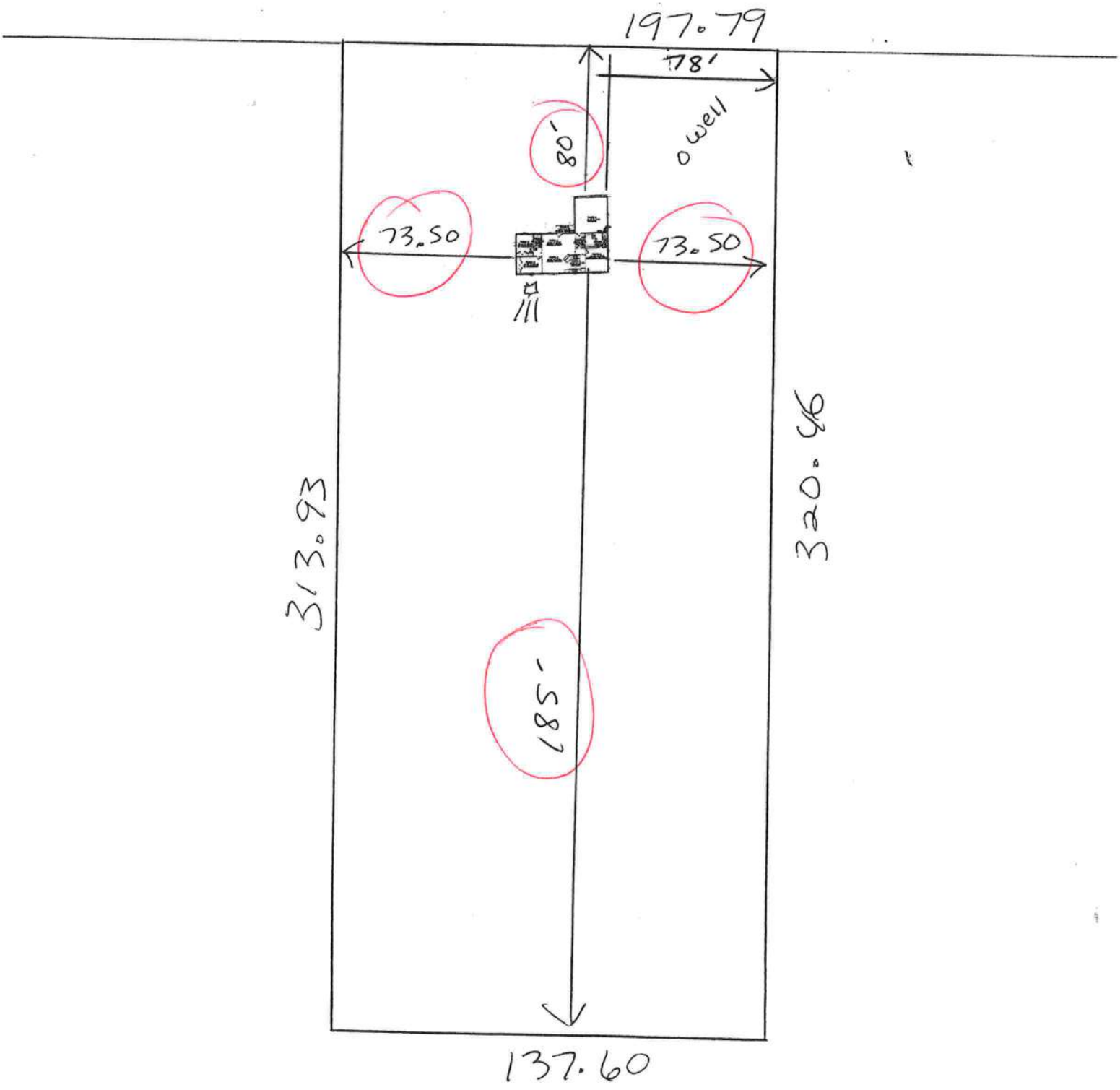
Notary Public
Print Name:

My Commission Expires:

Matthew Rocco
My Commission DD150709
Expires September 17, 2006

16-45-16-03041-033
Seth Heitman Construction Inc.

SW Legion Dr



Water Wells
Pumps & Service

Phone: (386) 752-6677
Fax: (386) 752-1477

Lynch Well Drilling, Inc.

173 SW Young Place
Lake City, FL 32025
www.lynchwelldrilling.com

January 21, 2008

To Whom It May Concern:

As required by building code regulations for Columbia County in order that a building permit can be issued, the following well information is provided with regard to the Seth Heitzman construction well on Legion, Parcel # 16-4S-16-03041-033.

Size of Pump Motor:	1 Horse Power 20 gallon GPM
Size of Pressure Tank:	81 -Gallon Bladder Tank - 25.1 Draw down
Cycle Stop Valve Used:	No
Constant Pressure System:	No

Should you require any additional information, please contact us.

Sincerely,

Linda Newcomb

Linda Newcomb
Lynch Well Drilling, Inc.

FORM 600A-2004R EnergyGauge® 4.5.2

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs

Residential Whole Building Performance Method A

Project Name:	**Seth Heitzman Construction - Legion RD**	Builder:	**Seth Heitzman**
Address:	**Legion Road**	Permitting Office:	
City, State:	**Lake City, FL 32025-**	Permit Number:	
Owner:	**Spec House**	Jurisdiction Number:	
Climate Zone:	**North**		

1. New construction or existing	New	12. Cooling systems	
2. Single family or multi-family	Single family	a. Central Unit	Cap: 30.0 kBtu/hr
3. Number of units, if multi-family	1		SEER: 13.00
4. Number of Bedrooms	3	b. N/A	
5. Is this a worst case?	No		
6. Conditioned floor area (ft²)	1408 ft²	c. N/A	
7. Glass type[1] and area: (Label reqd. by 13-104.4.5 if not default)			
a. U-factor:	Description Area	13. Heating systems	
(or Single or Double DEFAULT)	7a. (Dble Default) 202.0 ft²	a. Electric Heat Pump	Cap: 30.0 kBtu/hr
b. SHGC:			HSPF: 7.70
(or Clear or Tint DEFAULT)	7b. (Clear) 202.0 ft²	b. N/A	
8. Floor types			
a. Slab-On-Grade Edge Insulation	R=5.0, 175.0(p) ft	c. N/A	
b. N/A			
c. N/A		14. Hot water systems	
9. Wall types		a. Electric Resistance	Cap: 50.0 gallons
a. Frame, Wood, Exterior	R=13.0, 1002.0 ft²		EF: 0.90
b. Frame, Wood, Adjacent	R=13.0, 196.0 ft²	b. N/A	
c. N/A			
d. N/A		c. Conservation credits	
e. N/A		(HR-Heat recovery, Solar	
10. Ceiling types		DHP-Dedicated heat pump)	
a. Under Attic	R=30.0, 1550.0 ft²	15. HVAC credits	PT,
b. N/A		(CF-Ceiling fan, CV-Cross ventilation,	
c. N/A		HF-Whole house fan,	
11. Ducts		PT-Programmable Thermostat,	
a. Sup: Unc. Ret: Unc. AH: Garage	Sup. R=6.0, 35.0 ft	MZ-C-Multizone cooling,	
b. N/A		MZ-H-Multizone heating)	

Glass/Floor Area: 0.14

Total as-built points: 20567
Total base points: 20991

PASS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: _____

DATE: 1-17-08

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: _____

DATE: 1-21-08

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.

BUILDING OFFICIAL: _____

DATE: _____

1 Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: **Legion Road, Lake City, FL, 32025-** PERMIT #:

BASE				AS-BUILT								
GLASS TYPES .18 X Conditioned Floor Area	X BSPM	= Points		Type/SC	Overhang Ornt	Len	Hgt	Area X	SPM X	SOF	= Points	
.18	1408.0	18.59	4711.0	1.Double, Clear	W	1.5	8.0	75.0	38.52	0.96	2768.0	
				2.Double, Clear	W	1.5	8.0	30.0	38.52	0.96	1107.0	
				3.Double, Clear	W	1.5	8.0	20.0	38.52	0.96	738.0	
				4.Double, Clear	N	1.5	8.0	20.0	19.20	0.97	371.0	
				5.Double, Clear	N	1.5	8.0	6.0	19.20	0.97	111.0	
				6.Double, Clear	E	1.5	8.0	45.0	42.06	0.96	1812.0	
				7.Double, Clear	S	1.5	8.0	6.0	35.87	0.92	198.0	
				As-Built Total:				**202.0**			**7105.0**	
WALL TYPES	Area X	BSPM =	Points	Type			R-Value	Area X	SPM =		Points	
Adjacent	196.0	0.70	137.2	1. Frame, Wood, Exterior			13.0	1002.0	1.50		1503.0	
Exterior	1002.0	1.70	1703.4	2. Frame, Wood, Adjacent			13.0	196.0	0.60		117.6	
Base Total:	**1198.0**		**1840.6**	**As-Built Total:**				**1198.0**			**1620.6**	
DOOR TYPES	Area X	BSPM =	Points	Type				Area X	SPM =		Points	
Adjacent	20.0	2.40	48.0	1.Exterior Insulated				20.0	4.10		82.0	
Exterior	20.0	6.10	122.0	2.Adjacent Insulated				20.0	1.60		32.0	
Base Total:	**40.0**		**170.0**	**As-Built Total:**				**40.0**			**114.0**	
CEILING TYPES	Area X	BSPM =	Points	Type			R-Value	Area X	SPM X SCM =		Points	
Under Attic	1408.0	1.73	2435.8	1. Under Attic			30.0	1550.0	1.73 X 1.00		2681.5	
Base Total:	**1408.0**		**2435.8**	**As-Built Total:**				**1550.0**			**2681.5**	
FLOOR TYPES	Area X	BSPM =	Points	Type			R-Value	Area X	SPM =		Points	
Slab	175.0(p)	-37.0	-6475.0	1. Slab-On-Grade Edge Insulation			5.0	175.0(p	-36.20		-6335.0	
Raised	0.0	0.00	0.0									
Base Total:			**-6475.0**	**As-Built Total:**				**175.0**			**-6335.0**	
INFILTRATION	Area X	BSPM =	Points					Area X	SPM =		Points	
	1408.0	10.21	14375.7					1408.0	10.21		14375.7	

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: **Legion Road, Lake City, FL, 32025-**	PERMIT #:

BASE			AS-BUILT					
Summer Base Points: 17058.1			**Summer As-Built Points:**					**19561.8**
Total Summer Points	X System Multiplier	= Cooling Points	Total Component (System - Points)	X Cap Ratio	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	= Cooling Points
			(sys 1: Central Unit 30000btuh ,SEER/EFF(13.0) Ducts:Unc(S),Unc(R),Gar(AH),R6.0(INS)					
			19562	1.00	(1.09 x 1.147 x 1.00)	0.260	0.950	6040.8
17058.1	**0.3250**	**5543.9**	**19561.8**	**1.00**	**1.250**	**0.260**	**0.950**	**6040.8**

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: **Legion Road, Lake City, FL, 32025-** PERMIT #:

BASE				AS-BUILT								
GLASS TYPES .18 X Conditioned Floor Area	X BWPM	= Points		Type/SC	Overhang Ornt	Len	Hgt	Area X	WPM X	WOF	= Points	
.18	1408.0	20.17	5112.0	1.Double, Clear	W	1.5	8.0	75.0	20.73	1.01	1571.0	
				2.Double, Clear	W	1.5	8.0	30.0	20.73	1.01	628.0	
				3.Double, Clear	W	1.5	8.0	20.0	20.73	1.01	419.0	
				4.Double, Clear	N	1.5	8.0	20.0	24.58	1.00	491.0	
				5.Double, Clear	N	1.5	8.0	6.0	24.58	1.00	147.0	
				6.Double, Clear	E	1.5	8.0	45.0	18.79	1.02	862.0	
				7.Double, Clear	S	1.5	8.0	6.0	13.30	1.04	83.0	
				As-Built Total:				**202.0**			**4201.0**	
WALL TYPES	Area X	BWPM	= Points	Type			R-Value	Area X	WPM	=	Points	
Adjacent	196.0	3.60	705.6	1. Frame, Wood, Exterior			13.0	1002.0	3.40		3406.8	
Exterior	1002.0	3.70	3707.4	2. Frame, Wood, Adjacent			13.0	196.0	3.30		646.8	
Base Total:	**1198.0**		**4413.0**	**As-Built Total:**				**1198.0**			**4053.6**	
DOOR TYPES	Area X	BWPM	= Points	Type				Area X	WPM	=	Points	
Adjacent	20.0	11.50	230.0	1.Exterior Insulated				20.0	8.40		168.0	
Exterior	20.0	12.30	246.0	2.Adjacent Insulated				20.0	8.00		160.0	
Base Total:	**40.0**		**476.0**	**As-Built Total:**				**40.0**			**328.0**	
CEILING TYPES	Area X	BWPM	= Points	Type			R-Value	Area X	WPM X WCM	=	Points	
Under Attic	1408.0	2.05	2886.4	1. Under Attic			30.0	1550.0	2.05 X 1.00		3177.5	
Base Total:	**1408.0**		**2886.4**	**As-Built Total:**				**1550.0**			**3177.5**	
FLOOR TYPES	Area X	BWPM	= Points	Type			R-Value	Area X	WPM	=	Points	
Slab	175.0(p)	8.9	1557.5	1. Slab-On-Grade Edge Insulation			5.0	175.0(p	7.60		1330.0	
Raised	0.0	0.00	0.0									
Base Total:			**1557.5**	**As-Built Total:**				**175.0**			**1330.0**	
INFILTRATION	Area X	BWPM	= Points					Area X	WPM	=	Points	
	1408.0	-0.59	-830.7					1408.0	-0.59		-830.7	

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: **Legion Road, Lake City, FL, 32025-** PERMIT #:

BASE			AS-BUILT					
Winter Base Points:		**13614.2**	**Winter As-Built Points:**					**12259.4**
Total Winter Points	X System Multiplier	= Heating Points	Total Component (System - Points)	X Cap Ratio	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	= Heating Points
			(sys 1: Electric Heat Pump 30000 btuh ,EFF(7.7) Ducts:Unc(S),Unc(R),Gar(AH),R6.0					
13614.2	0.5540	7542.3	12259.4	1.00	1.250	0.443	0.950	6445.4

WATER HEATING & CODE COMPLIANCE STATUS

Residential Whole Building Performance Method A - Details

ADDRESS: **Legion Road, Lake City, FL, 32025-** PERMIT #:

BASE				AS-BUILT							
WATER HEATING											
Number of Bedrooms	X	Multiplier	= Total	Tank Volume	EF	Number of Bedrooms	X Tank Ratio	X Multiplier	X Credit Multiplier	= Total	
3		2635.00	7905.0	50.0	0.90	3	1.00	2693.56	1.00	8080.7	
				As-Built Total:						**8080.7**	

CODE COMPLIANCE STATUS

BASE				AS-BUILT			
Cooling Points	+ Heating Points	+ Hot Water Points	= Total Points	Cooling Points	+ Heating Points	+ Hot Water Points	= Total Points
5544	**7542**	**7905**	**20991**	**6041**	**6445**	**8081**	**20567**

PASS

Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: **Legion Road, Lake City, FL, 32025-** PERMIT #:

6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	606.1.ABC.1.1	Maximum:.3 cfm/sq.ft. window area; .5 cfm/sq.ft. door area.	
Exterior & Adjacent Walls	606.1.ABC.1.2.1	Caulk, gasket, weatherstrip or seal between: windows/doors & frames, surrounding wall; foundation & wall sole or sill plate; joints between exterior wall panels at corners; utility penetrations; between wall panels & top/bottom plates; between walls and floor. EXCEPTION: Frame walls where a continuous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate.	
Floors	606.1.ABC.1.2.2	Penetrations/openings >1/8" sealed unless backed by truss or joint members. EXCEPTION: Frame floors where a continuous infiltration barrier is installed that is sealed to the perimeter, penetrations and seams.	
Ceilings	606.1.ABC.1.2.3	Between walls & ceilings; penetrations of ceiling plane of top floor; around shafts, chases, soffits, chimneys, cabinets sealed to continuous air barrier; gaps in gyp board & top plate; attic access. EXCEPTION: Frame ceilings where a continuous infiltration barrier is installed that is sealed at the perimeter, at penetrations and seams.	
Recessed Lighting Fixtures	606.1.ABC.1.2.4	Type IC rated with no penetrations, sealed; or Type IC or non-IC rated, installed inside a sealed box with 1/2" clearance & 3" from insulation; or Type IC rated with < 2.0 cfm from conditioned space, tested.	
Multi-story Houses	606.1.ABC.1.2.5	Air barrier on perimeter of floor cavity between floors.	
Additional Infiltration reqts	606.1.ABC.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	

6A-22 OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	612.1	Comply with efficiency requirements in Table 612.1.ABC.3.2. Switch or clearly marked cir breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required.	
Swimming Pools & Spas	612.1	Spas & heated pools must have covers (except solar heated). Non-commercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%.	
Shower heads	612.1	Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG.	
Air Distribution Systems	610.1	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section 610. Ducts in unconditioned attics: R-6 min. insulation.	
HVAC Controls	607.1	Separate readily accessible manual or automatic thermostat for each system.	
Insulation	604.1, 602.1	Ceilings-Min. R-19. Common walls-Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE SCORE* = 84.6

The higher the score, the more efficient the home.

Spec House, Legion Road, Lake City, FL, 32025-

1.	New construction or existing	New		12.	Cooling systems	
2.	Single family or multi-family	Single family		a.	Central Unit	Cap: 30.0 kBtu/hr
3.	Number of units, if multi-family	1				SEER: 13.00
4.	Number of Bedrooms	3		b.	N/A	
5.	Is this a worst case?	No				
6.	Conditioned floor area (ft²)	1408 ft²		c.	N/A	
7.	Glass type[1] and area: (Label reqd. by 13-104.4.5 if not default)					
a.	U-factor:	Description Area		13.	Heating systems	
	(or Single or Double DEFAULT)	7a. (Dble Default) 202.0 ft²		a.	Electric Heat Pump	Cap: 30.0 kBtu/hr
b.	SHGC:					HSPF: 7.70
	(or Clear or Tint DEFAULT)	7b. (Clear) 202.0 ft²		b.	N/A	
8.	Floor types					
a.	Slab-On-Grade Edge Insulation	R=5.0, 175.0(p) ft		c.	N/A	
b.	N/A					
c.	N/A			14.	Hot water systems	
9.	Wall types			a.	Electric Resistance	Cap: 50.0 gallons
a.	Frame, Wood, Exterior	R=13.0, 1002.0 ft²				EF: 0.90
b.	Frame, Wood, Adjacent	R=13.0, 196.0 ft²		b.	N/A	
c.	N/A					
d.	N/A			c.	Conservation credits	
e.	N/A				(HR-Heat recovery, Solar	
10.	Ceiling types				DHP-Dedicated heat pump)	
a.	Under Attic	R=30.0, 1550.0 ft²		15.	HVAC credits	PT,
b.	N/A				(CF-Ceiling fan, CV-Cross ventilation,	
c.	N/A				HF-Whole house fan,	
11.	Ducts				PT-Programmable Thermostat,	
a.	Sup: Unc. Ret: Unc. AH: Garage	Sup. R=6.0, 35.0 ft			MZ-C-Multizone cooling,	
b.	N/A				MZ-H-Multizone heating)	

I certify that this home has complied with the Florida Energy Efficiency Code For Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: _____ Date: _____

Address of New Home: _____ City/FL Zip: _____

**NOTE: The home's estimated energy performance score is only available through the FLA/RES computer program. This is not a Building Energy Rating. If your score is 80 or greater (or 86 for a US EPA/DOE EnergyStar™ designation), your home may qualify for energy efficiency mortgage (EEM) incentives if you obtain a Florida Energy Gauge Rating. Contact the Energy Gauge Hotline at 321/638-1492 or see the Energy Gauge web site at www.fsec.ucf.edu for information and a list of certified Raters. For information about Florida's Energy Efficiency Code For Building Construction, contact the Department of Community Affairs at 850/487-1824.*

1 Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.

Columbia County Building Department
Culvert Permit

Culvert Permit No.
000001640

DATE 07/21/2008 PARCEL ID # 16-4S-16-03041-033

APPLICANT LINDA RODER PHONE 386.752.2281

ADDRESS 387 SW KEMP COURT LAKE CITY FL 32024

OWNER SETH HEITZMAN CONSTRUCTION,INC. PHONE 386.867.1295

ADDRESS 664 SW LEGION DRIVE LAKE CITY FL 32024

CONTRACTOR SETH HEITZMAN PHONE 386.867.1295

LOCATION OF PROPERTY 90-W TO SR. 247-S TO UPCHURCH,TR TO TAMARACK LOOP,TL TO LEGION,TL AND IT'S ON THE L BEFORE HILLTOP ROAD.

SUBDIVISION/LOT/BLOCK/PHASE/UNIT

SIGNATURE

INSTALLATION REQUIREMENTS

[X] Culvert size will be 18 inches in diameter with a total lenght of 32 feet, leaving 24 feet of driving surface. Both ends will be mitered 4 foot with a 4 : 1 slope and poured with a 4 inch thick reinforced concrete slab.

INSTALLATION NOTE: Turnouts will be required as follows:
a) a majority of the current and existing driveway turnouts are paved, or;
b) the driveway to be served will be paved or formed with concrete.
Turnouts shall be concrete or paved a minimum of 12 feet wide or the width of the concrete or paved driveway, whichever is greater. The width shall conform to the current and existing paved or concreted turnouts.

[ ] Culvert installation shall conform to the approved site plan standards.

[ ] Department of Transportation Permit installation approved standards.

[ ] Other

ALL PROPER SAFETY REQUIREMENTS SHOULD BE FOLLOWED DURING THE INSTALATION OF THE CULVERT.

135 NE Hernando Ave., Suite B-21
Lake City, FL 32055
Phone: 386-758-1008 Fax: 386-758-2160

Amount Paid 25.00

COLUMBIA COUNTY GATEWAY TO FLORIDA

ITW Building Components Group, Inc.

1950 Marley Drive Haines City, FL 33844
Florida Engineering Certificate of Authorization Number: 0 278
Florida Certificate of Product Approval # FL1999
 Document ID:1TE68228Z0216094609

Truss Fabricator:	Anderson Truss Company
Job Identification:	8-015--Seth Heitzman SETH HEITZMAN -- , **
Truss Count:	27
Model Code:	Florida Building Code 2004 and 2006 Supplement
Truss Criteria:	ANSI/TPI-2002(STD)/FBC
Engineering Software:	Alpine Software,Version 7.36.
Structural Engineer of Record:	The identity of the structural EOR did not exist as of
Address:	the seal date per section 61G15-31.003(5a) of the FAC
Minimum Design Loads:	Roof - 40.0 PSF @ 1.25 Duration
	Floor - N/A
	Wind - 110 MPH ASCE 7-02 -Closed

Notes:

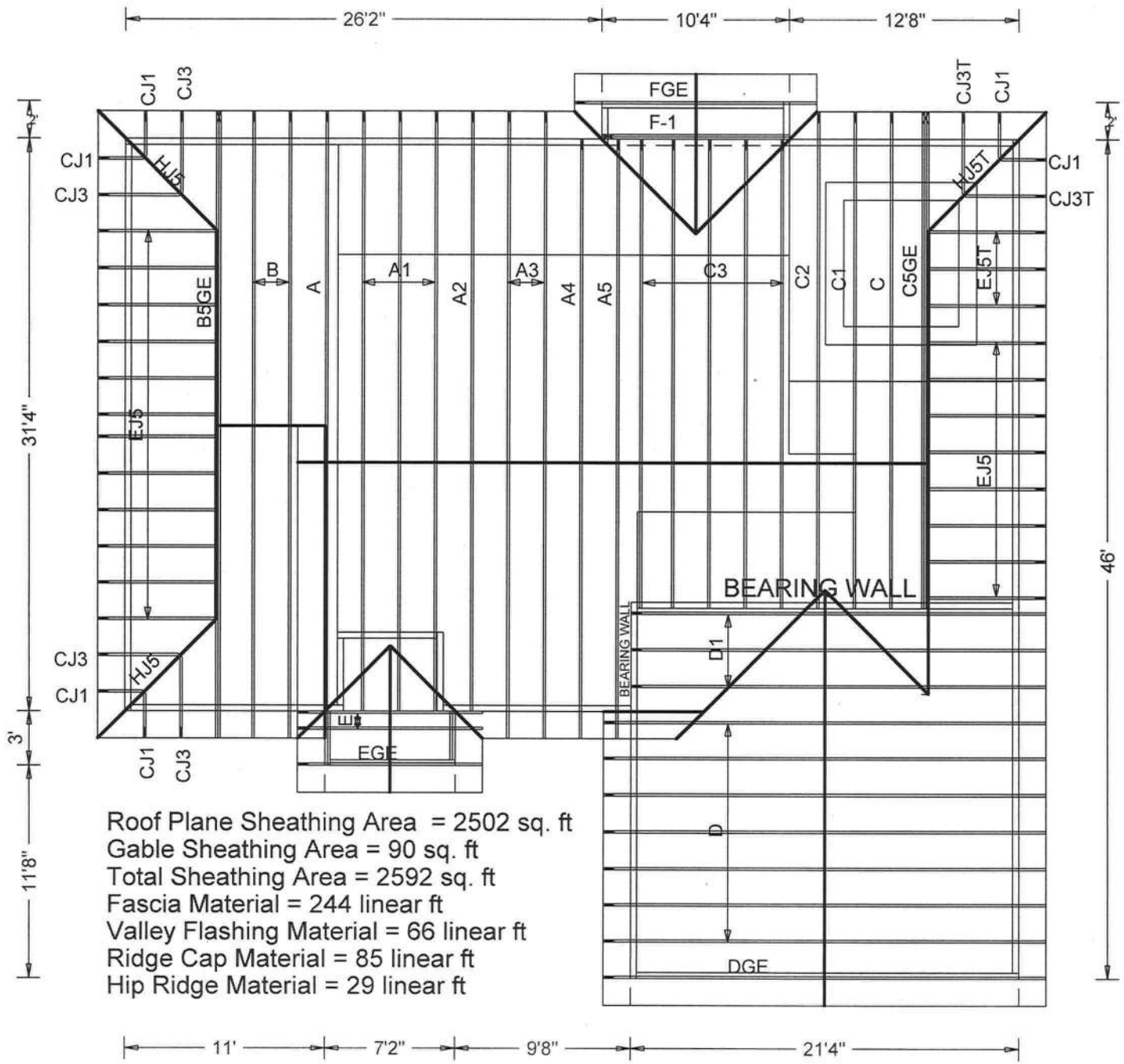
1. Determination as to the suitability of these truss components for the structure is the responsibility of the building designer/engineer of record, as defined in ANSI/TPI 1
2. The drawing date shown on this index sheet must match the date shown on the individual truss component drawing.
3. As shown on attached drawings; the drawing number is preceded by: HCUSR8228

Details: BRCLBSUB-A11015EE-GBLLETIN-

Seal Date: 01/16/2008

-Truss Design Engineer-
Doug Fleming
Florida License Number: 66648
1950 Marley Drive
Haines City, FL 33844

#	Ref Description	Drawing#	Date
1	04075--A1	08016010	01/16/08
2	04076--A2	08016011	01/16/08
3	04077--A3	08016012	01/16/08
4	04078--A4	08016013	01/16/08
5	04079--A5	08016014	01/16/08
6	04080--A	08016015	01/16/08
7	04081--B	08016001	01/16/08
8	04082--B5GE	08016016	01/16/08
9	04083--C3	08016017	01/16/08
10	04084--C2	08016002	01/16/08
11	04085--C5GE	08016018	01/16/08
12	04086--C	08016019	01/16/08
13	04087--C1	08016020	01/16/08
14	04088--DGE	08016021	01/16/08
15	04089--D	08016003	01/16/08
16	04090--D1	08016004	01/16/08
17	04091--EGE	08016022	01/16/08
18	04092--E	08016005	01/16/08
19	04093--F-1	08016023	01/16/08
20	04094--FGE	08016024	01/16/08
21	04095--EJ5	08016006	01/16/08
22	04096--CJ1	08016025	01/16/08
23	04097--HJ5	08016026	01/16/08
24	04098--HJ5T	08016027	01/16/08
25	04099--CJ3	08016007	01/16/08
26	04100--CJ3T	08016008	01/16/08
27	04101--EJ5T	08016009	01/16/08



Roof Plane Sheathing Area = 2502 sq. ft
Gable Sheathing Area = 90 sq. ft
Total Sheathing Area = 2592 sq. ft
Fascia Material = 244 linear ft
Valley Flashing Material = 66 linear ft
Ridge Cap Material = 85 linear ft
Hip Ridge Material = 29 linear ft

8-015 SETH HEITZMAN / LEGION 1-16-08

JOB DESCRIPTION:: Seth Heitzman
/: SETH HEITZMAN

JOB NO:
8-015

PAGE NO:
1 OF 1

Top chord 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3

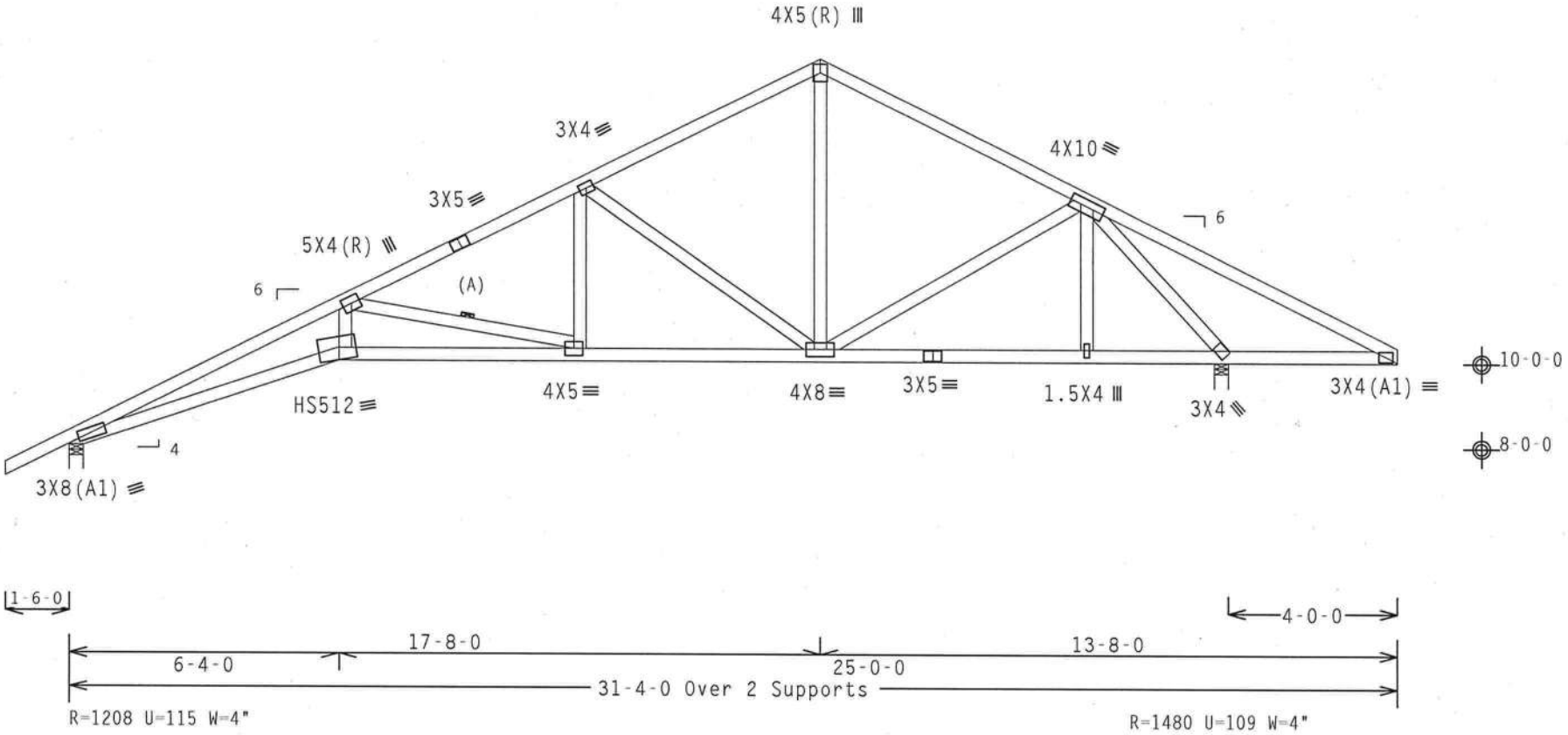
Calculated horizontal deflection is 0.14" due to live load and 0.22" due to dead load.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.

(A) Continuous lateral bracing equally spaced on member.



Design Crit: TPI-2002(STD)/FBC

PLT TYP. 20 Gauge HS,Wave Cq/RT=1.00(1.25)/10(0) 7.36.04 QTY:1 FL/-/4/-/-/R/- Scale =.25"/Ft.

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATION, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 218 NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22314) AND WTCA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LANE, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

IMPORTANT FURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. ITW BCG, INC. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN; ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH TPI; OR FABRICATING, HANDLING, SHIPPING, INSTALLING & BRACING OF TRUSSES. DESIGN CONFORMS WITH APPLICABLE PROVISIONS OF NDS (NATIONAL DESIGN SPEC. BY AF&PA) AND TPI. ITW BCG CONNECTOR PLATES ARE MADE OF 20/18/16GA (W,H/SS/K) ASTM A653 GRADE 40/60 (W, K/H,SS) GALV. STEEL. APPLY PLATES TO EACH FACE OF TRUSS AND, UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION PER DRAWINGS 160A-Z. ANY INSPECTION OF PLATES FOLLOWED BY (1) SHALL BE PER ANNEX A3 OF TPI1-2002 SEC.3. A SEAL ON THIS DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOLELY FOR THE TRUSS COMPONENT DESIGN SHOWN. THE SUITABILITY AND USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER PER ANSI/TPI 1 SEC. 2.

DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER

16 '08

TC LL	20.0 PSF	REF R8228- 4075
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016010
BC LL	0.0 PSF	HC-ENG RA/DF
TOT.LD.	40.0 PSF	SEQN- 27456
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

Top chord 2x4 SP #2 Dense
Bot chord 2x6 SP #1 Dense :B3 2x4 SP #2 Dense:
Webs 2x4 SP #3

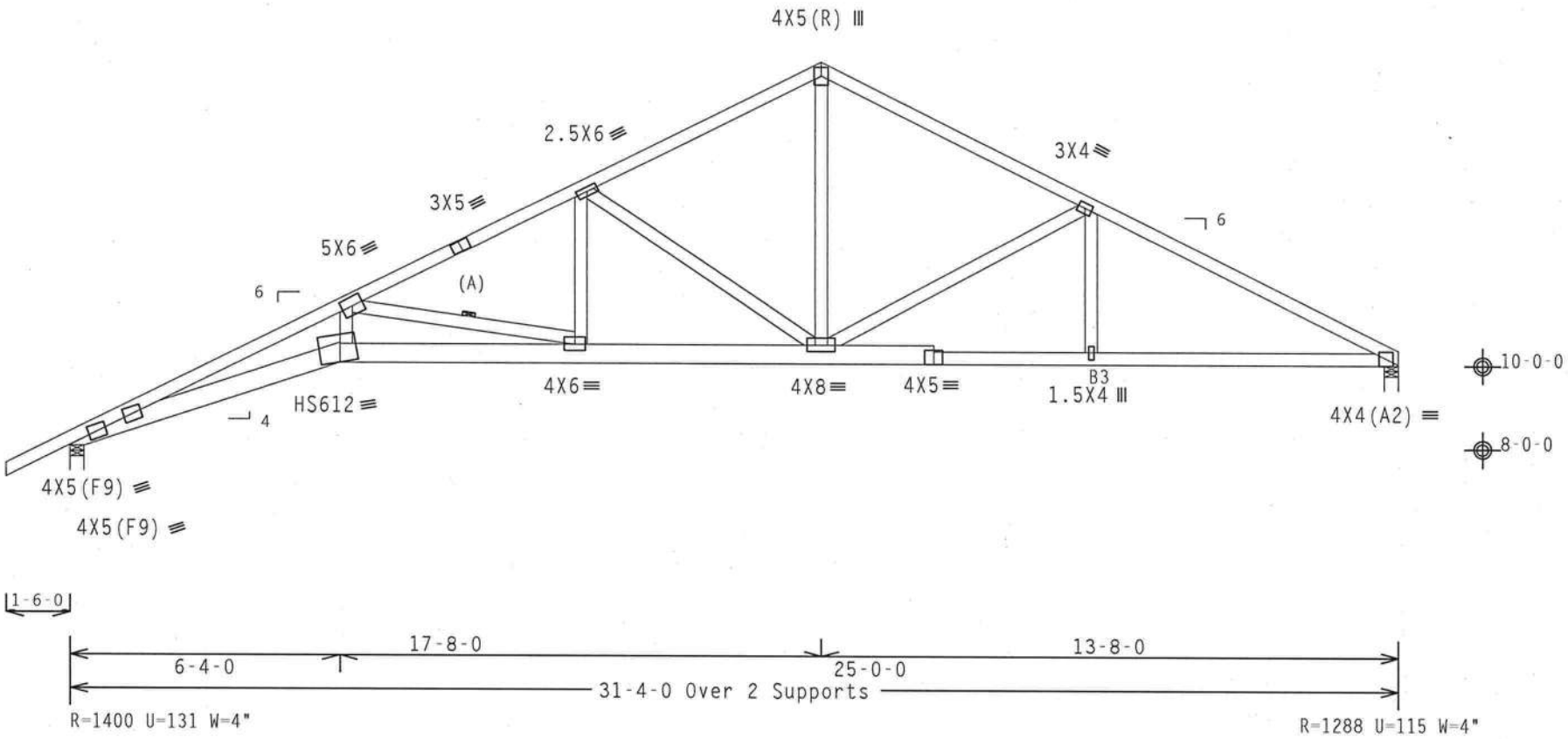
Calculated horizontal deflection is 0.15" due to live load and 0.24" due to dead load.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.

(A) Continuous lateral bracing equally spaced on member.



Design Crit: TPI-2002(STD)/FBC

PLT TYP. 20 Gauge HS,Wave Cq/RT=1.00(1.25)/10(0) 7.36.042 QTY:1 FL/-/4/-/-/R/- Scale =.25"/Ft.

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

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DESIGN CONFORMS WITH APPLICABLE PROVISIONS OF NDS (NATIONAL DESIGN SPEC, BY AF&PA) AND TPI. ITW BCG CONNECTOR PLATES ARE MADE OF 20/18/16GA (W,H/SS/K) ASTM A653 GRADE 40/60 (W, K/H,SS) GALV. STEEL. APPLY PLATES TO EACH FACE OF TRUSS AND, UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION PER DRAWINGS 160A-Z. ANY INSPECTION OF PLATES FOLLOWED BY (1) SHALL BE PER ANNEX A3 OF TPI1-2002 SEC.3. A SEAL ON THIS DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOLELY FOR THE TRUSS COMPONENT DESIGN SHOWN. THE SUITABILITY AND USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER PER ANSI/TPI 1 SEC. 2.

DOUGLAS FLEMING LICENSE No.66648 STATE OF FLORIDA PROFESSIONAL ENGINEER

16 '08

TC LL	20.0 PSF	REF R8228- 4076
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016011
BC LL	0.0 PSF	HC-ENG RA/DF
TOT.LD.	40.0 PSF	SEQN- 27491
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

Top chord 2x4 SP #2 Dense
Bot chord 2x6 SP #1 Dense :B3 2x4 SP #2 Dense:
Webs 2x4 SP #3

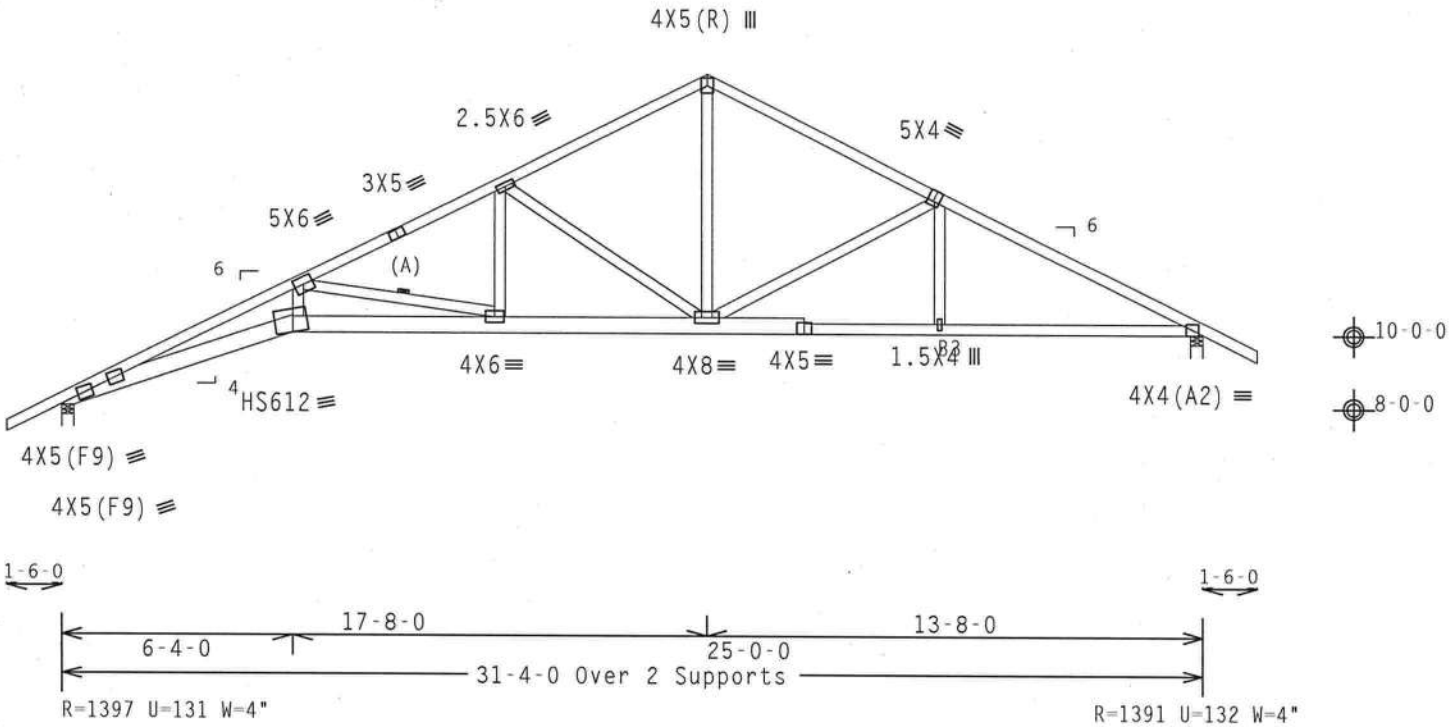
Calculated horizontal deflection is 0.15" due to live load and 0.24" due to dead load.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.

(A) Continuous lateral bracing equally spaced on member.



Design Crit: TPI-2002(STD)/FBC

PLT TYP. 20 Gauge HS,Wave Cq/RT=1.00(1.25)/10(0) 7.36.042 QTY:1 FL/-/4/-/-/R/- Scale =.1875"/Ft.

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

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DESIGN CONFORMS WITH APPLICABLE PROVISIONS OF NDS (NATIONAL DESIGN SPEC, BY AF&PA) AND TPI. ITW BCG CONNECTOR PLATES ARE MADE OF 20/18/16GA (W,H/SS/K) ASTM A653 GRADE 40/60 (W, K/H,SS) GALV. STEEL, APPLY PLATES TO EACH FACE OF TRUSS AND, UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION PER DRAWINGS 160A-Z. ANY INSPECTION OF PLATES FOLLOWED BY (1) SHALL BE PER ANNEX A3 OF TPI1-2002 SEC.3. A SEAL ON THIS DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOLELY FOR THE TRUSS COMPONENT DESIGN SHOWN. THE SUITABILITY AND USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER PER ANSI/TPI 1 SEC. 2.

DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER

16 '08

TC LL	20.0 PSF	REF R8228- 4077
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016012
BC LL	0.0 PSF	HC-ENG RA/DF
TOT.LD.	40.0 PSF	SEQN- 27477
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

(8-015--Seth Heitzman SETH HEITZMAN -- , ** - A4)

Top chord 2x4 SP #2 Dense
Bot chord 2x6 SP #1 Dense :B3 2x4 SP #2 Dense:
Webs 2x4 SP #3

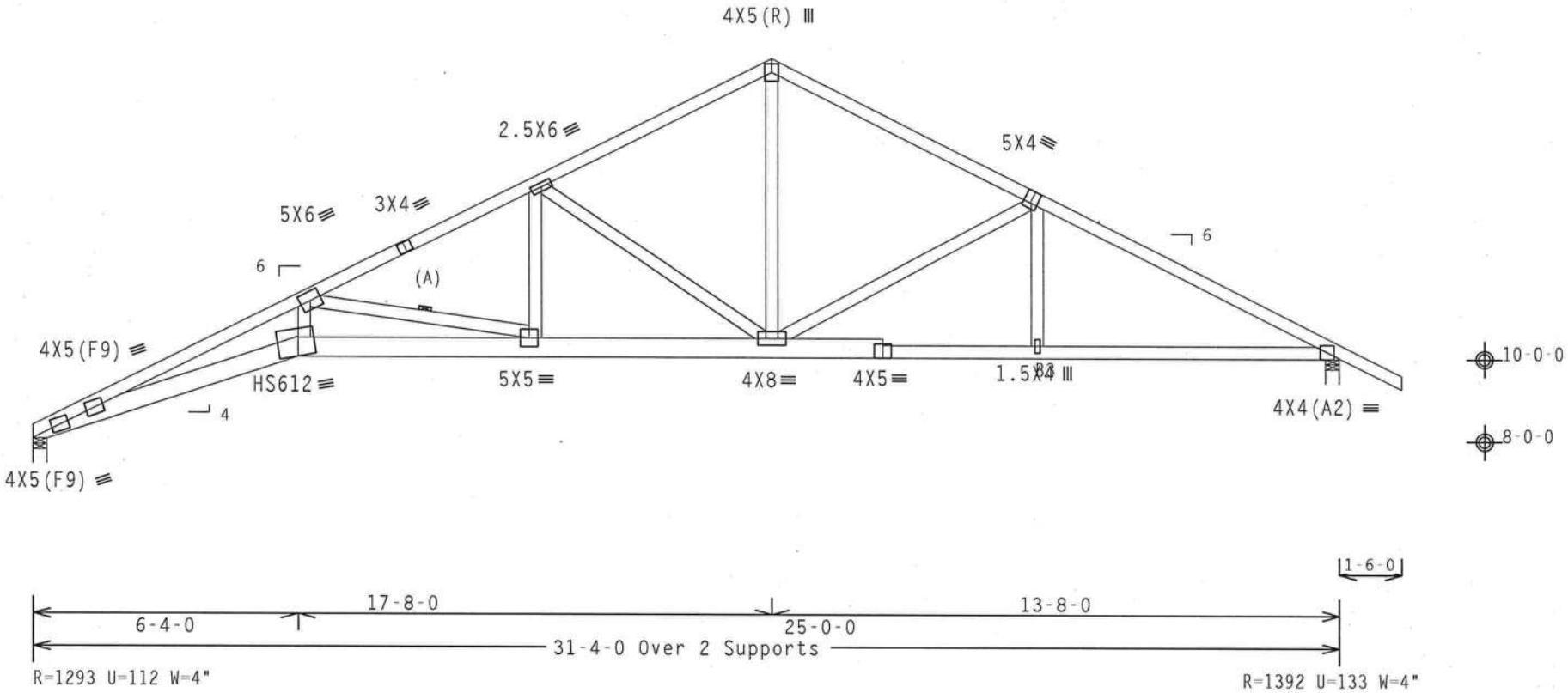
Calculated horizontal deflection is 0.15" due to live load and 0.24" due to dead load.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.

(A) Continuous lateral bracing equally spaced on member.



Design Crit: TPI-2002(STD)/FBC

PLT TYP. 20 Gauge HS,Wave Cq/RT=1.00(1.25)/10(0) 7.36.04 QTY:1 FL/-/4/-/-/R/- Scale =.25"/Ft.

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER
JAN 16 '08

TC LL	20.0 PSF	REF R8228- 4078
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016013
BC LL	0.0 PSF	HC-ENG RA/DF
TOT.LD.	40.0 PSF	SEQN- 27499
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

(8-015--Seth Heitzman SETH HEITZMAN -- , ** - A5)

Top chord 2x4 SP #2 Dense
Bot chord 2x6 SP #1 Dense :B3 2x4 SP #2 Dense:
Webs 2x4 SP #3

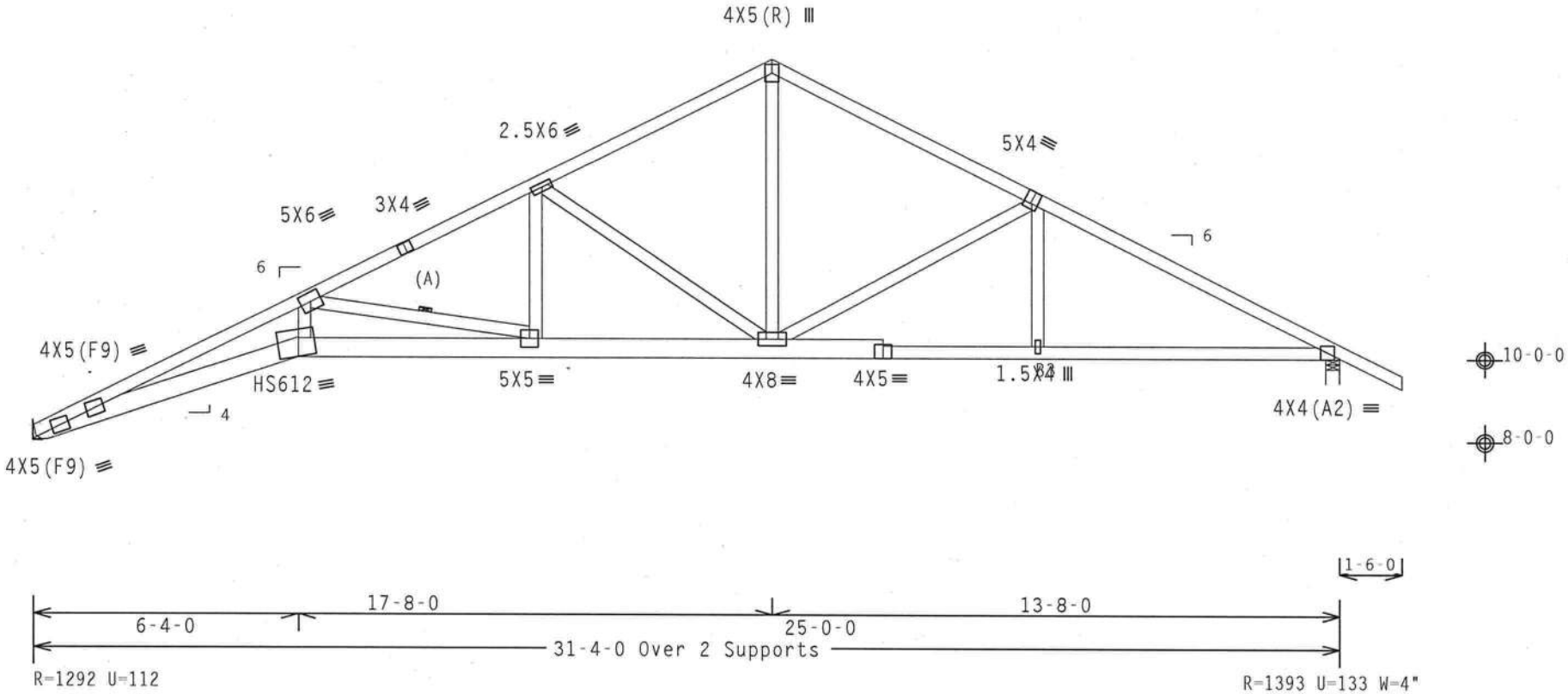
Calculated horizontal deflection is 0.16" due to live load and 0.24" due to dead load.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.

(A) Continuous lateral bracing equally spaced on member.



Design Crit: TPI-2002(STD)/FBC

PLT TYP. 20 Gauge HS,Wave Cq/RT=1.00(1.25)/10(0) 7.36.0424 QTY:1 FL/-/4/-/-/R/- Scale =.25"/Ft.

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER 1/16 '08

TC LL	20.0 PSF	REF R8228- 4079
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016014
BC LL	0.0 PSF	HC-ENG RA/DF
TOT.LD.	40.0 PSF	SEQN- 27510
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

Top chord 2x4 SP #2 Dense :T4 2x6 SP #2:
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3 :W7 2x4 SP #2 Dense:

Truss spaced at 24.0" OC designed to support 1-0-0 top chord outlookers. Cladding load shall not exceed 10.00 PSF. Top chord must not be cut or notched.

See DWGS A11015EE0207 & GBLLETIN0207 for more requirements.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

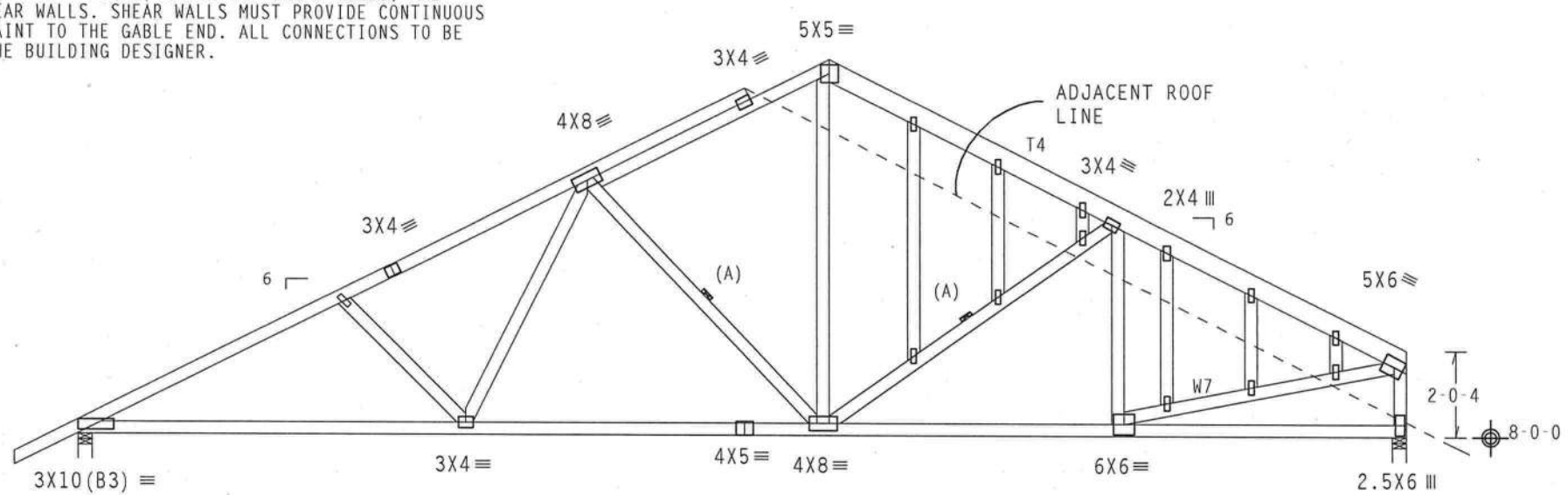
THE BUILDING DESIGNER IS RESPONSIBLE FOR THE DESIGN OF THE ROOF AND CEILING DIAPHRAGMS, GABLE END SHEAR WALLS, AND SUPPORTING SHEAR WALLS. SHEAR WALLS MUST PROVIDE CONTINUOUS LATERAL RESTRAINT TO THE GABLE END. ALL CONNECTIONS TO BE DESIGNED BY THE BUILDING DESIGNER.

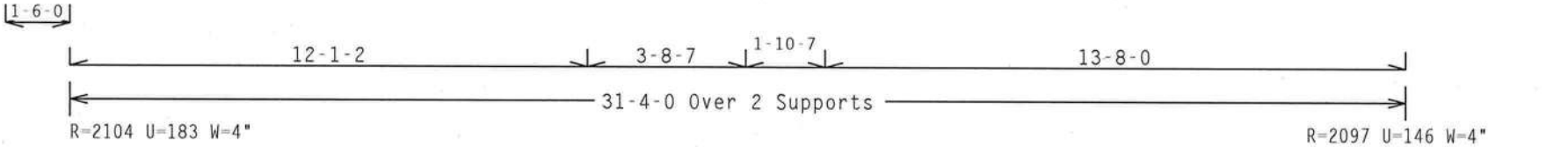
110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, Located anywhere in roof, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.

Right end vertical not exposed to wind pressure.

(A) Continuous lateral bracing equally spaced on member.





Note: All Plates Are 1.5X4 Except As Shown.

Design Crit: TPI-2002(STD)/FBC

PLT TYP. Wave Cq/RT=1.00(1.25)/10(0) 7.36.04 QTY:1 FL/-/4/-/-/R/- Scale =.25"/Ft.

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER

M 16 '08

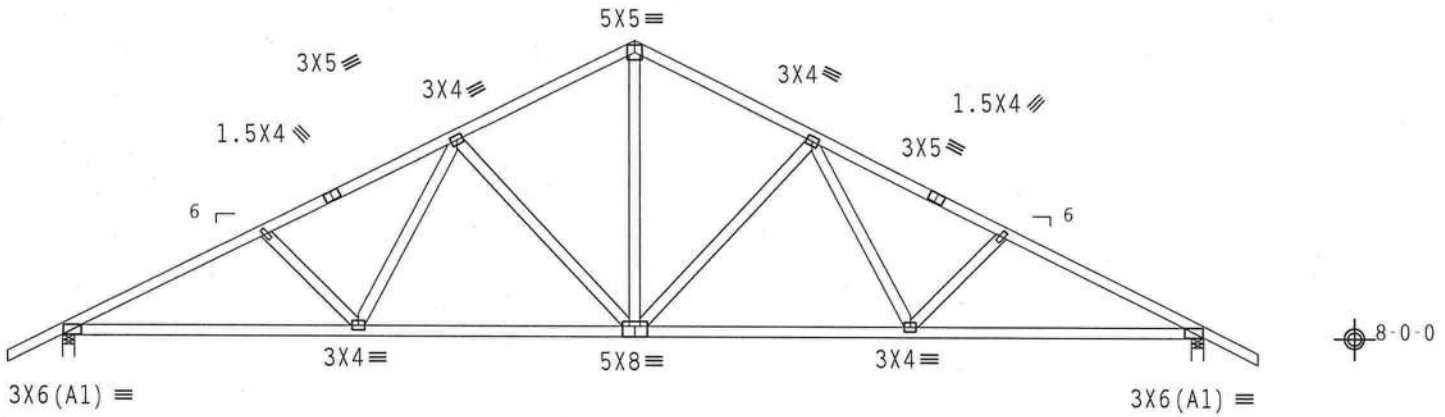
TC LL	20.0 PSF	REF	R8228- 4080
TC DL	10.0 PSF	DATE	01/16/08
BC DL	10.0 PSF	DRW	HCUSR8228 08016015
BC LL	0.0 PSF	HC-ENG	RA/DF
TOT.LD.	40.0 PSF	SEQN-	27641
DUR.FAC.	1.25		
SPACING	24.0"	JREF-	1TE68228Z02

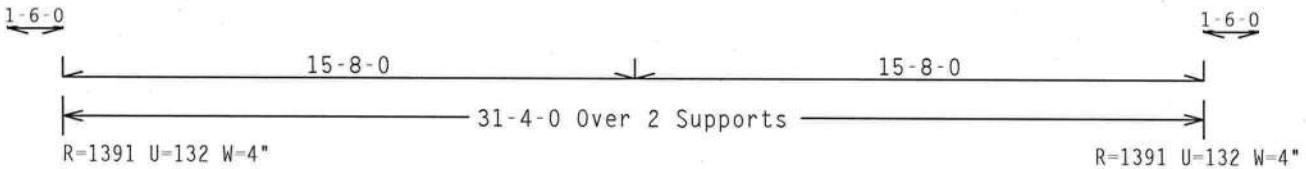
Top chord 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.





Design Crit: TPI-2002(STD)/FBC
Cq/RT=1.00(1.25)/10(0) 7.36.04

PLT TYP. Wave

QTY:1 FL/-/4/-/-/R/- Scale =.1875"/Ft.

ALPINE
ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER
JAN 16 '08

TC LL	20.0 PSF	REF R8228- 4081
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016001
BC LL	0.0 PSF	HC-ENG RA/DF *
TOT.LD.	40.0 PSF	SEQN- 27444
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

Top chord 2x4 SP #2 Dense :T2, T5 2x6 SP #2:
Bot chord 2x6 SP #2
Webs 2x4 SP #3

SPECIAL LOADS
------(LUMBER DUR.FAC.=1.25 / PLATE DUR.FAC.=1.25)
TC - From 62 PLF at -1.50 to 62 PLF at 15.67
TC - From 62 PLF at 15.67 to 62 PLF at 32.83
BC - From 4 PLF at -1.50 to 4 PLF at 0.00
BC - From 20 PLF at 0.00 to 20 PLF at 31.33
BC - From 4 PLF at 31.33 to 4 PLF at 32.83
PLT- 359 LB Conc. Load at (5.00,10.80), (26.33,10.80)
PLT- 127 LB Conc. Load at (7.06,11.51), (9.06,12.51), (11.06,13.51) (13.06,14.51), (15.06,15.51), (16.27,15.51), (18.27,14.51), (20.27,13.51) (22.27,12.51), (24.27,11.51)
PLB- 155 LB Conc. Load at (5.00,8.04), (26.33,8.04)
PLB- 54 LB Conc. Load at (7.06,8.04), (9.06,8.04), (11.06,8.04) (13.06,8.04), (15.06,8.04), (16.27,8.04), (18.27,8.04), (20.27,8.04) (22.27,8.04), (24.27,8.04)

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

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+ MEMBER TO BE BRACED BY PROPERLY ATTACHED PLYWOOD SHEATHING OR PROPERLY ATTACHED TRUSSES @ 24" O.C.

2 COMPLETE TRUSSES REQUIRED

Nailing Schedule: (10d_Box_or_Gun_(0.128"x3",_min.)_nails)
Top Chord: 1 Row @12.00" o.c.
Bot Chord: 1 Row @12.00" o.c.
Webs : 1 Row @ 4" o.c.
Use equal spacing between rows and stagger nails in each row to avoid splitting.

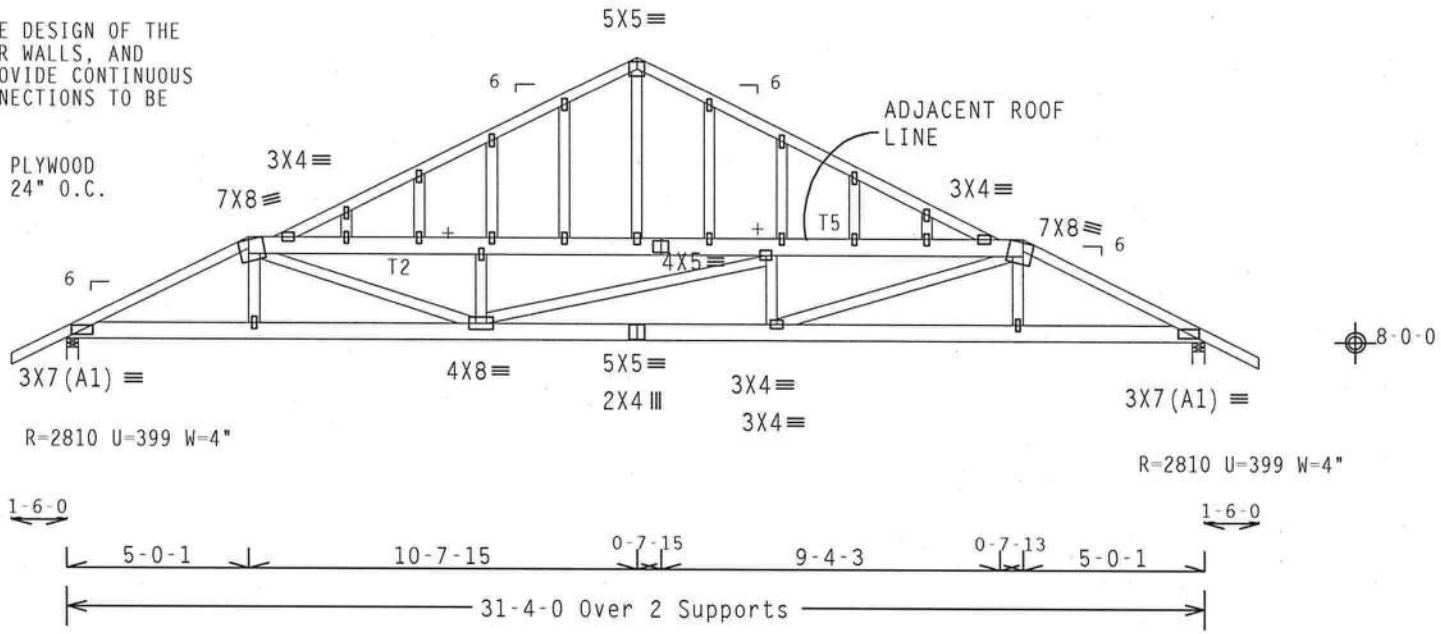
110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, Located anywhere in roof, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.

Truss spaced at 24.0" OC designed to support 1-4-0 top chord outlookers. Cladding load shall not exceed 10.00 PSF. Top chord must not be cut or notched.

See DWGS A11015EE0207 & GBLLETIN0207 for more requirements.

#1 hip supports 5-0-0 jacks with no webs.



Note: All Plates Are 1.5X4 Except As Shown.

Design Crit: TPI-2002(STD)/FBC

PLT TYP. Wave

Cq/RT=1.00(1.25)/10(0) 7.36.042 QTY:1 FL/-/4/-/-/R/- Scale =.1875"/Ft.

ALPINE

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FL Certificate of Authorization # 0 278

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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER
16 '08

TC LL	20.0 PSF	REF R8228- 4082
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016016
BC LL	0.0 PSF	HC-ENG RA/DF
TOT.LD.	40.0 PSF	SEQN- 27729
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

Top chord 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3

Calculated horizontal deflection is 0.16" due to live load and 0.26" due to dead load.

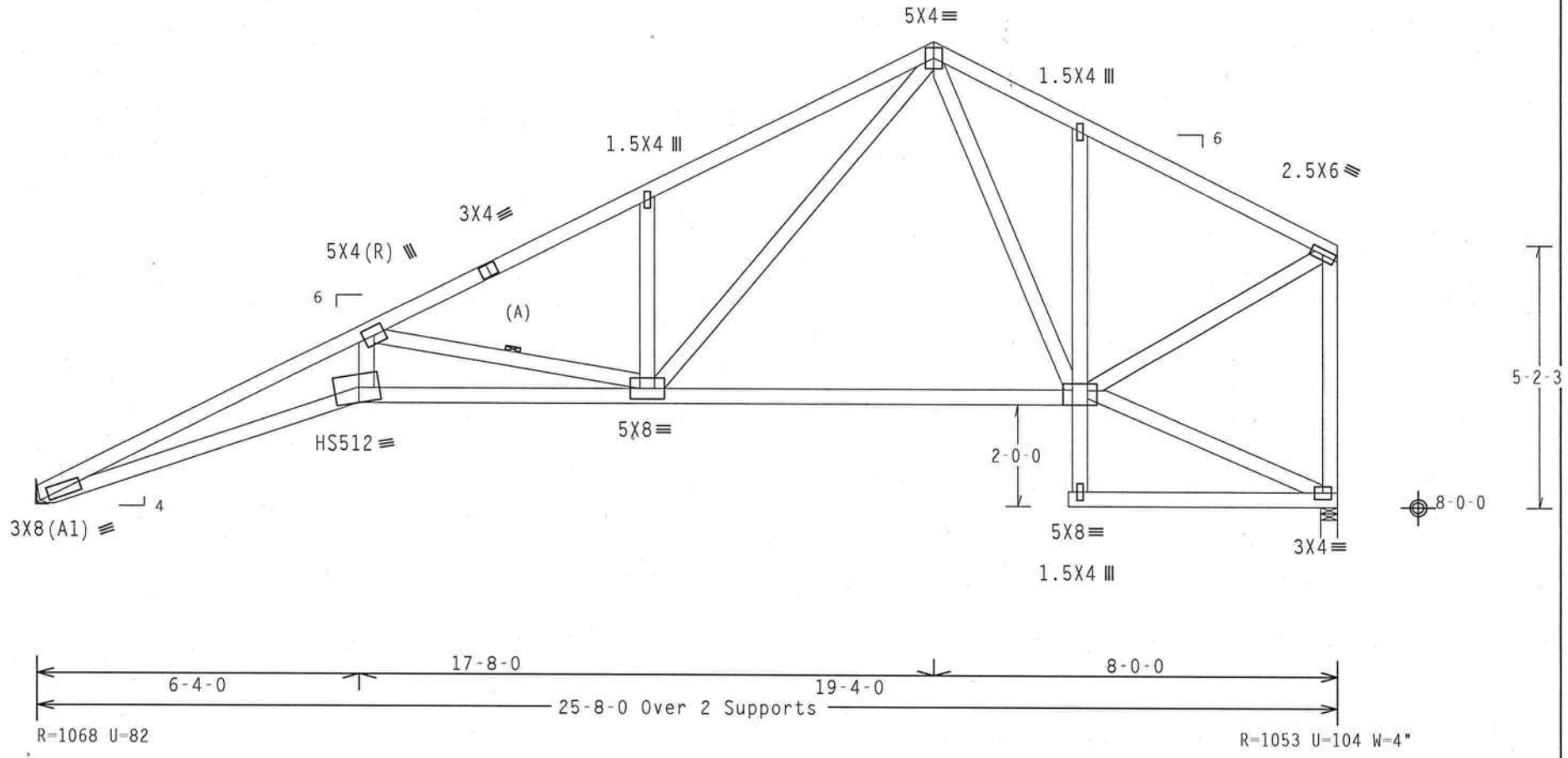
(A) Continuous lateral bracing equally spaced on member.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.

Right end vertical not exposed to wind pressure.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



Design Crit: TPI-2002(STD)/FBC

PLT TYP. 20 Gauge HS,Wave Cq/RT=1.00(1.25)/10(0) 7.36.043 QTY:1 FL/-/4/-/-/R/- Scale =.3125"/Ft.

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER
16 '08

TC LL	20.0 PSF	REF R8228- 4083
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016017
BC LL	0.0 PSF	HC-ENG RA/DF
TOT.LD.	40.0 PSF	SEQN- 27526
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

(8-015--Seth Heitzman SETH HEITZMAN -- , ** - C2)

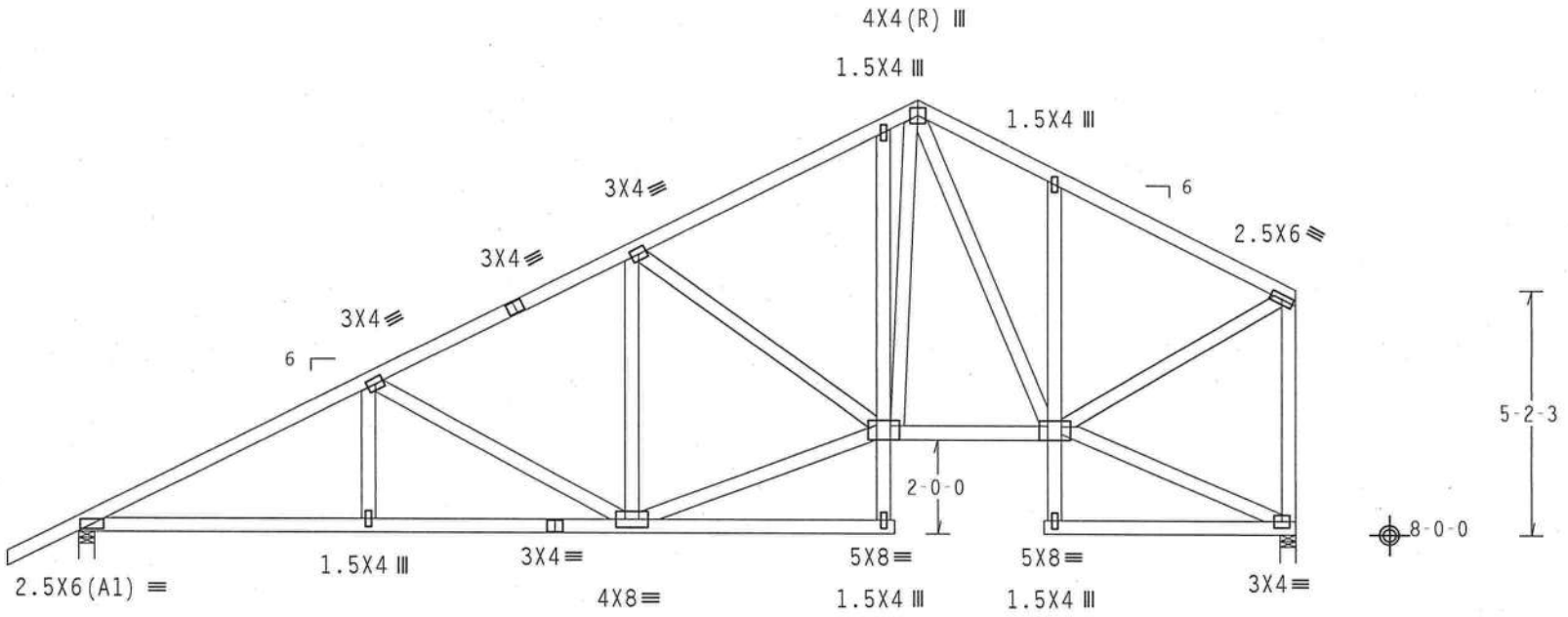
Top chord 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3

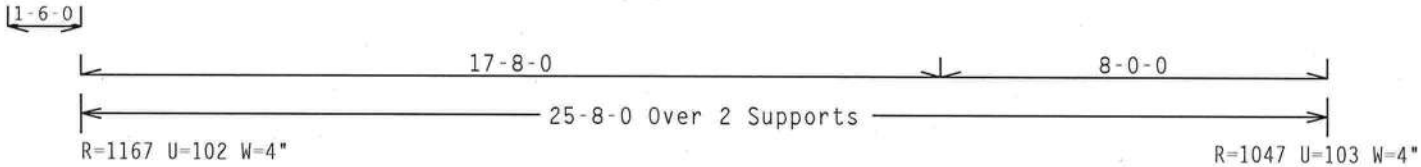
Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.

Right end vertical not exposed to wind pressure.





Design Crit: TPI-2002(STD)/FBC
PLT TYP. Wave Cq/RT=1.00(1.25)/10(0) 7.36.0424 QTY:1 FL/-/4/-/-/R/- Scale =.25"/Ft.

ALPINE
ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0278

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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER
16 '08

TC LL	20.0 PSF	REF	R8228- 4084
TC DL	10.0 PSF	DATE	01/16/08
BC DL	10.0 PSF	DRW	HCUSR8228 08016002
BC LL	0.0 PSF	HC-ENG	RA/DF *
TOT.LD.	40.0 PSF	SEQN-	27541
DUR.FAC.	1.25		
SPACING	24.0"	JREF-	1TE68228Z02

Top chord 2x6 SP #2 :T1 2x6 SP #1 Dense:
:T3, T5 2x4 SP #2 Dense:
Bot chord 2x6 SP #2
Webs 2x4 SP #3 :W16 2x4 SP #2 Dense:

SPECIAL LOADS
------(LUMBER DUR.FAC.=1.25 / PLATE DUR.FAC.=1.25)
TC - From 62 PLF at 0.00 to 62 PLF at 25.67
BC - From 20 PLF at 0.00 to 20 PLF at 25.67
PLT- 393 LB Conc. Load at (5.00,10.80)
PLT- 145 LB Conc. Load at (7.06,11.51), (9.06,12.51)
PLT- 127 LB Conc. Load at (11.06,13.51), (13.06,14.51), (15.06,15.51), (17.06,16.51), (19.06,16.11), (21.06,15.11), (23.06,14.11), (25.06,13.11)

PLB- 121 LB Conc. Load at (5.00,9.04)
PLB- 36 LB Conc. Load at (7.06,9.04), (9.06,9.04)
PLB- 54 LB Conc. Load at (11.06,9.04), (13.06,8.04), (15.06,8.04), (17.06,8.04), (19.06,8.04), (21.06,8.04), (23.06,8.04), (25.06,8.04)

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, Located anywhere in roof, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Truss spaced at 24.0" OC designed to support 1-0-0 top chord outlookers. Cladding load shall not exceed 10.00 PSF. Top chord must not be cut or notched.

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

#1 hip supports 5-0-0 jacks with no webs.

THE BUILDING DESIGNER IS RESPONSIBLE FOR THE DESIGN OF THE ROOF AND CEILING DIAPHRAGMS, GABLE END SHEAR WALLS, AND SUPPORTING SHEAR WALLS. SHEAR WALLS MUST PROVIDE CONTINUOUS LATERAL RESTRAINT TO THE GABLE END. ALL CONNECTIONS TO BE DESIGNED BY THE BUILDING DESIGNER.

+ MEMBER TO BE BRACED BY PROPERLY ATTACHED PLYWOOD SHEATHING OR PROPERLY ATTACHED TRUSSES @ 24" O.C.

LATERALLY BRACE TOP CHORD BELOW FILLER AT 24" O.C, INCLUDING A LATERAL BRACE AT CHORD ENDS.

3 COMPLETE TRUSSES REQUIRED

Nailing Schedule: (10d_Box_or_Gun_(0.128"x3",_min.)_nails)
Top Chord: 1 Row @12.00" o.c.
Bot Chord: 1 Row @12.00" o.c.
Webs : 1 Row @ 4" o.c.
Repeat nailing as each layer is applied. Use equal spacing between rows and stagger nails in each row to avoid splitting.

Wind reactions based on MWFRS pressures.

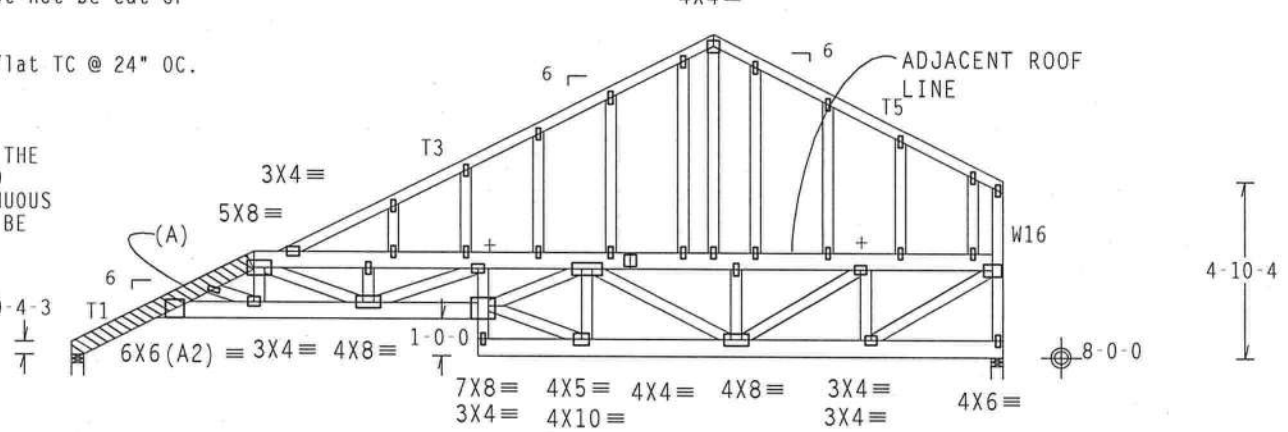
Right end vertical not exposed to wind pressure.

Calculated horizontal deflection is 0.12" due to live load and 0.18" due to dead load.

See DWGS A11015EE0207 & GBLLETIN0207 for more requirements.

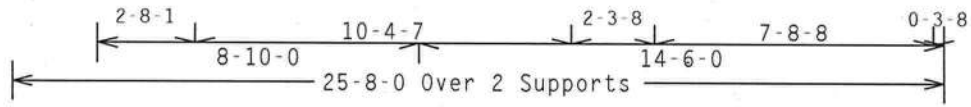
Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

(A)(1) 2x6x5-6-4 SP #1 Dense scab at left end. Attach scab to face of chord with: 10d_Box_or_Gun_(0.128"x3",_min.)_nails @ 8" OC, plus additional nail clusters at : BRG.: (3), heel: (9), 1st panel point: (6).



R=2177 U=291 W=4"

R=2263 U=304 W=4"



Note: All Plates Are 1.5X4 Except As Shown.

Design Crit: TPI-2002(STD)/FBC

PLT TYP. Wave Cq/RT=1.00(1.25)/10(0) 7.36.04 QTY:1 FL/-/4/-/-/R/- Scale =.1875"/Ft.

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jan 16 '08

TC LL	20.0 PSF	REF R8228- 4085
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016018
BC LL	0.0 PSF	HC-ENG RA/DF
TOT.LD.	40.0 PSF	SEQN- 27676
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

Top chord 2x4 SP #2 Dense :T1 2x6 SP #1 Dense:
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3

Calculated horizontal deflection is 0.11" due to live load and 0.17" due to dead load.

(A) Continuous lateral bracing equally spaced on member.

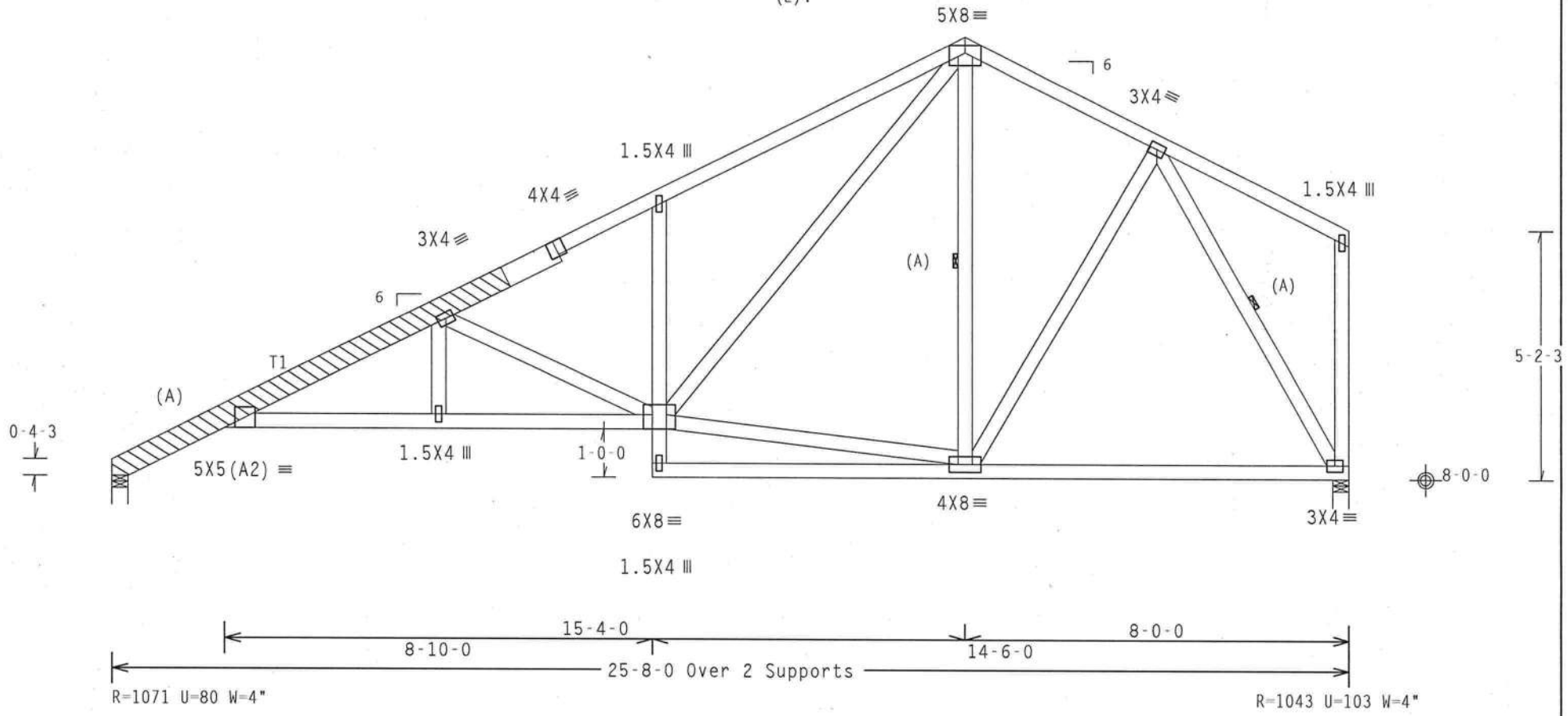
Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.

Right end vertical not exposed to wind pressure.

(A)(1) 2x6x9-1-10 SP #1 Dense scab at left end. Attach scab to face of chord with: 10d_Box_or_Gun_(0.128"x3"_min.)_nails @ 8" OC, plus additional nail clusters at : BRG.: (4), heel: (6), 1st panel point: (2).



Design Crit: TPI-2002(STD)/FBC
PLT TYP. Wave Cq/RT=1.00(1.25)/10(0) 7.36.0424 QTY:1 FL/-/4/-/-/R/- Scale =.3125"/Ft.

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ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER
16 '08

TC LL	20.0 PSF	REF R8228- 4086
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016019
BC LL	0.0 PSF	HC-ENG RA/DF
TOT.LD.	40.0 PSF	SEQN- 27699
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

Top chord 2x4 SP #2 Dense :T1 2x6 SP #1 Dense:
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3

Right end vertical not exposed to wind pressure.

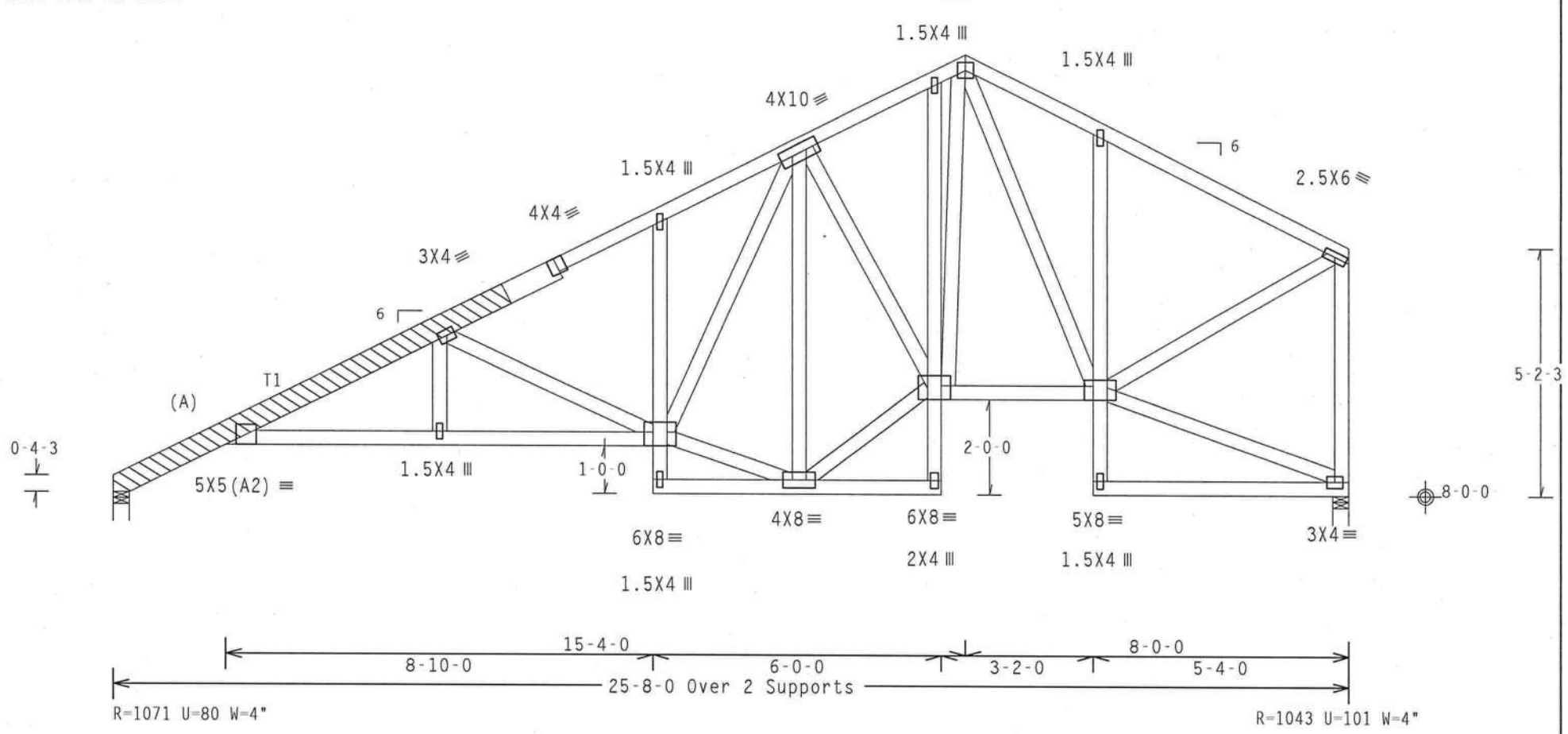
Calculated horizontal deflection is 0.12" due to live load and 0.19" due to dead load.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.

(A)(1) 2x6x9-1-10 SP #1 Dense scab at left end. Attach scab to face of chord with: 10d_Box_or_Gun_(0.128"x3",_min.)_nails @ 8" OC, plus additional nail clusters at : BRG.: (4), heel: (6), 1st panel point: (2).



Design Crit: TPI-2002(STD)/FBC
PLT TYP. Wave
Cq/RT=1.00(1.25)/10(0) 7.36.043 QTY:1 FL/-/4/-/-/R/- Scale =.3125"/Ft.

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER

16 '08

TC LL	20.0 PSF	REF R8228- 4087
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016020
BC LL	0.0 PSF	HC-ENG RA/DF
TOT.LD.	40.0 PSF	SEQN- 27720
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

Top chord 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3
:Stack Chord SC1 2x4 SP #2 Dense:
:Stack Chord SC2 2x4 SP #2 Dense:

Truss spaced at 24.0" OC designed to support 1-4-0 top chord outlookers. Cladding load shall not exceed 10.00 PSF. Top chord must not be cut or notched.

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

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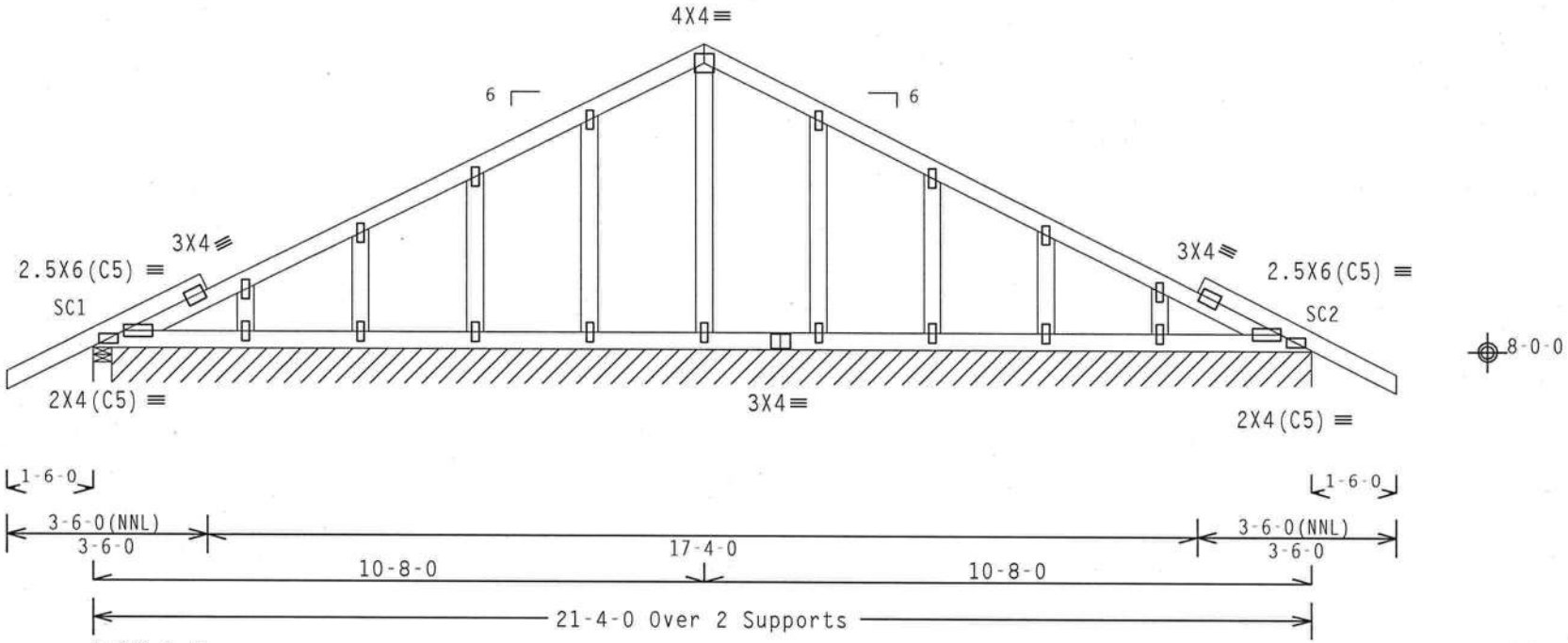
110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, Located anywhere in roof, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.

See DWGS A11015EE0207 & GBLLETIN0207 for more requirements.

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



Note: All Plates Are 1.5X4 Except As Shown.

Design Crit: TPI-2002(STD)/FBC

PLT TYP. Wave Cq/RT=1.00(1.25)/10(0) 7.36.04 QTY:1 FL/-/4/-/-/R/- Scale =.3125"/Ft.

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER
JAN 16 '08

TC LL	20.0 PSF	REF R8228- 4088
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016021
BC LL	0.0 PSF	HC-ENG RA/DF
TOT.LD.	40.0 PSF	SEQN- 27607
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

(8-015--Seth Heitzman SETH HEITZMAN -- , ** - D)

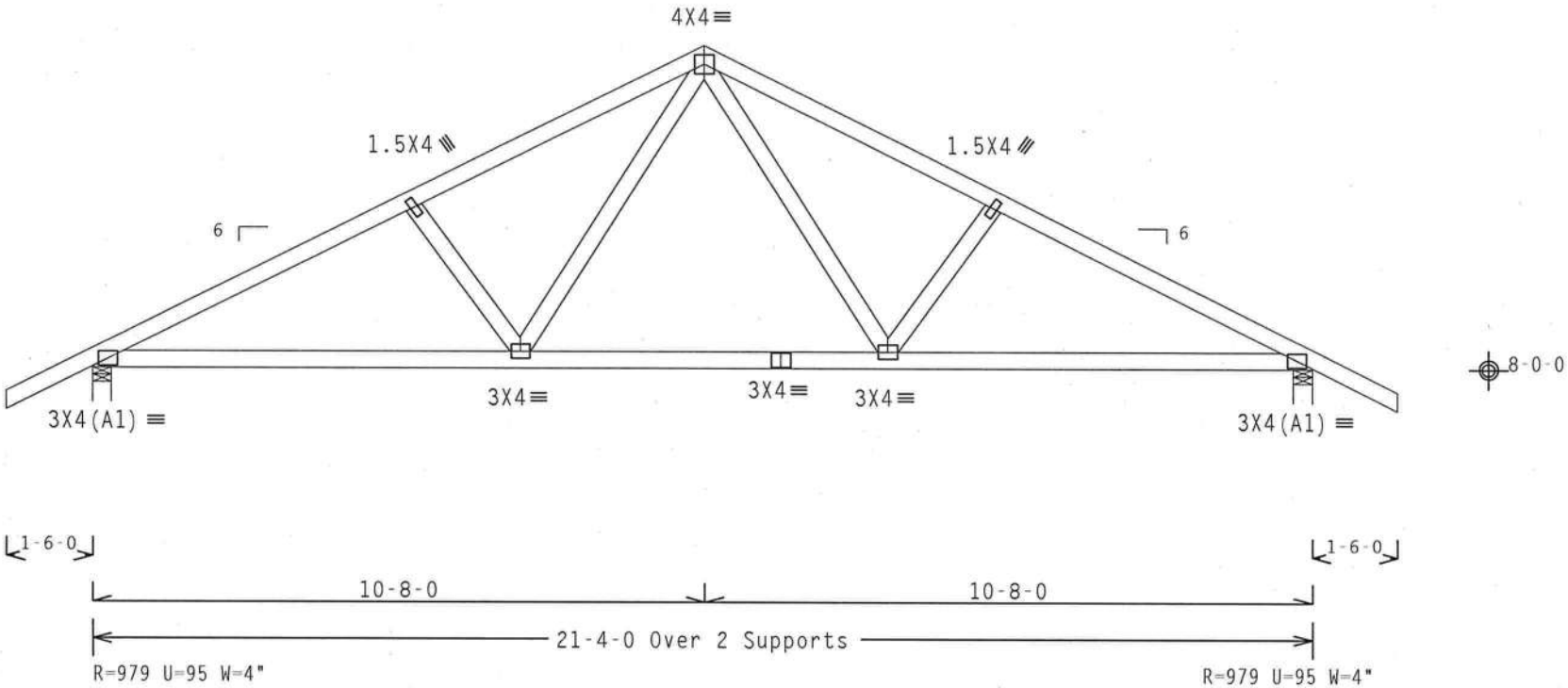
THIS DWG PREPARED FROM COMPUTER INPUT (LOADS & DIMENSIONS) SUBMITTED BY TRUSS MFR.

Top chord 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, Located anywhere in roof, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.



Design Crit: TPI-2002(STD)/FBC
Cq/RT=1.00(1.25)/10(0) 7.36.042

PLT TYP. Wave

QTY:1 FL/-/4/-/-/R/- Scale =.3125"/Ft.

ALPINE
ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER

16 '08

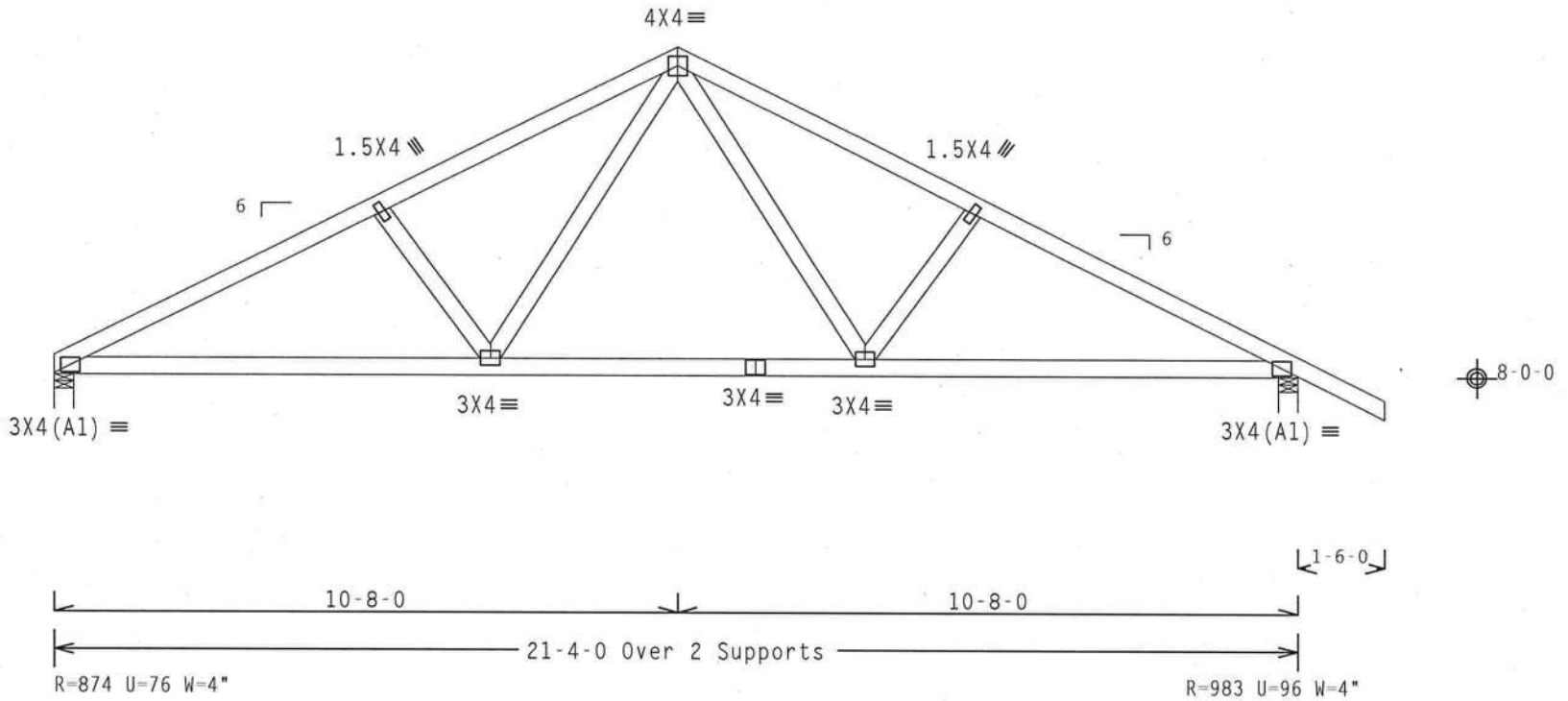
TC LL	20.0 PSF	REF R8228- 4089
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016003
BC LL	0.0 PSF	HC-ENG RA/DF *
TOT.LD.	40.0 PSF	SEQN- 27595
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

Top chord 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.



Design Crit: TPI-2002(STD)/FBC
PLT TYP. Wave Cq/RT=1.00(1.25)/10(0) 7.36.04 QTY:1 FL/-/4/-/-/R/- Scale =.3125"/Ft.

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ALPINE
ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER
16 '08

TC LL	20.0 PSF	REF R8228- 4090
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016004
BC LL	0.0 PSF	HC-ENG RA/DF *
TOT.LD.	40.0 PSF	SEQN- 27602
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

Top chord 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3
:Stack Chord SC1 2x4 SP #2 Dense:
:Stack Chord SC2 2x4 SP #2 Dense:

Truss spaced at 24.0" OC designed to support 1-4-0 top chord outlookers. Cladding load shall not exceed 10.00 PSF. Top chord must not be cut or notched.

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

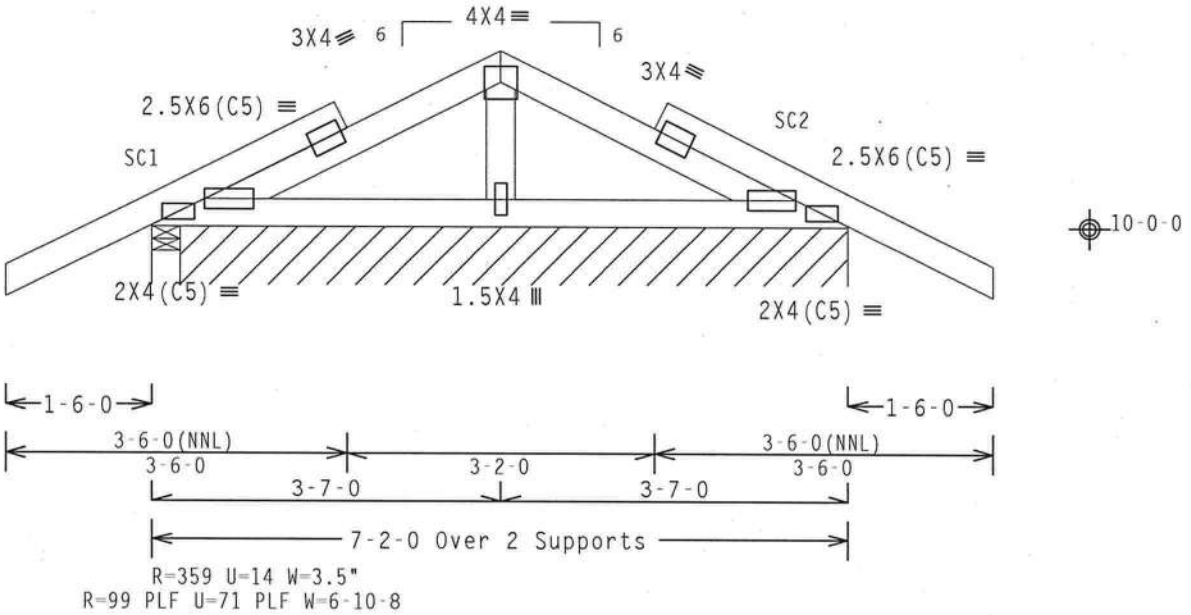
THE BUILDING DESIGNER IS RESPONSIBLE FOR THE DESIGN OF THE ROOF AND CEILING DIAPHRAGMS, GABLE END SHEAR WALLS, AND SUPPORTING SHEAR WALLS. SHEAR WALLS MUST PROVIDE CONTINUOUS LATERAL RESTRAINT TO THE GABLE END. ALL CONNECTIONS TO BE DESIGNED BY THE BUILDING DESIGNER.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, Located anywhere in roof, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.

See DWGS A11015EE0207 & GBLLETIN0207 for more requirements.

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



Design Crit: TPI-2002(STD)/FBC
Cq/RT=1.00(1.25)/10(0) 7.36.043

PLT TYP. Wave QTY:1 FL/-/4/-/-/R/- Scale =.5"/Ft.

ALPINE

ITW Building Components Group, Inc.
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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER
16 '08

TC LL	20.0 PSF	REF R8228- 4091
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016022
BC LL	0.0 PSF	HC-ENG RA/DF
TOT.LD.	40.0 PSF	SEQN- 27611
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

(8-015--Seth Heitzman SETH HEITZMAN -- , ** - E)

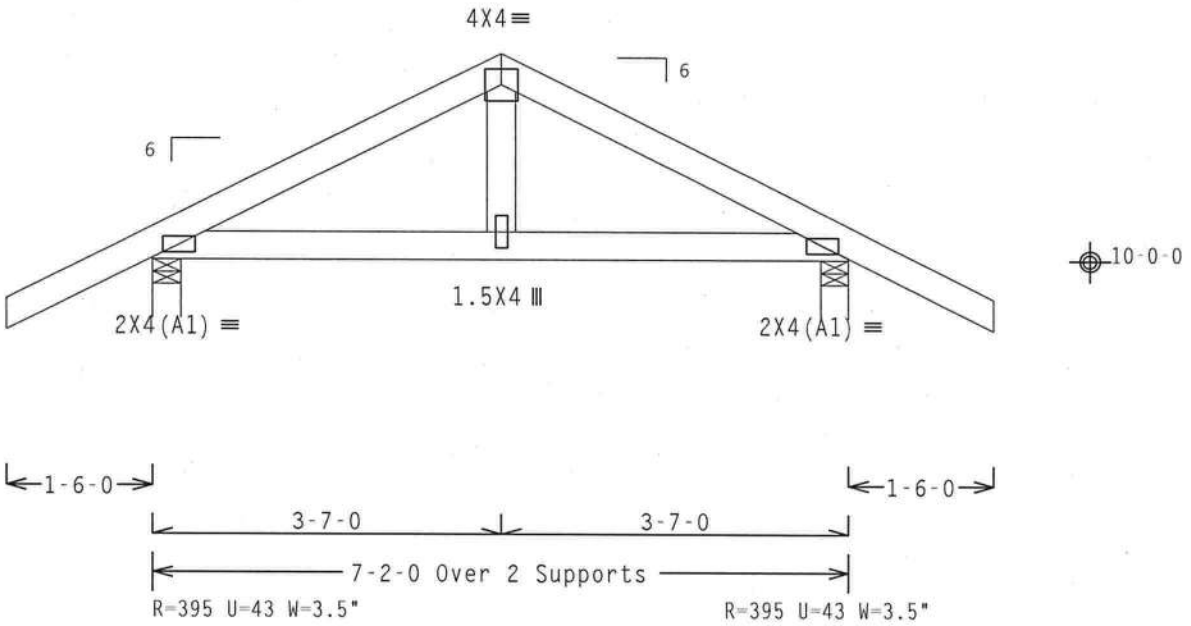
THIS DWG PREPARED FROM COMPUTER INPUT (LOADS & DIMENSIONS) SUBMITTED BY TRUSS MFR.

Top chord 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, Located anywhere in roof, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.



Design Crit: TPI-2002(STD)/FBC
Cq/RT=1.00(1.25)/10(0) 7.36.04 QTY:1 FL/-/4/-/-/R/- Scale =.5"/Ft.

PLT TYP. Wave

ALPINE
ITW Building Components Group, Inc.
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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jan 16 '08

TC LL	20.0 PSF	REF R8228- 4092
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016005
BC LL	0.0 PSF	HC-ENG RA/DF *
TOT.LD.	40.0 PSF	SEQN- 27615
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

Top chord 2x4 SP #2 Dense
Bot chord 2x6 SP #2
Webs 2x4 SP #3

SPECIAL LOADS
------(LUMBER DUR.FAC.=1.25 / PLATE DUR.FAC.=1.25)
TC - From 62 PLF at 0.00 to 62 PLF at 5.17
TC - From 62 PLF at 5.17 to 62 PLF at 10.33
BC - From 20 PLF at 0.00 to 20 PLF at 10.33
BC - 1292 LB Conc. Load at 0.90
BC - 1068 LB Conc. Load at 2.19, 3.94, 5.94, 7.94, 9.94

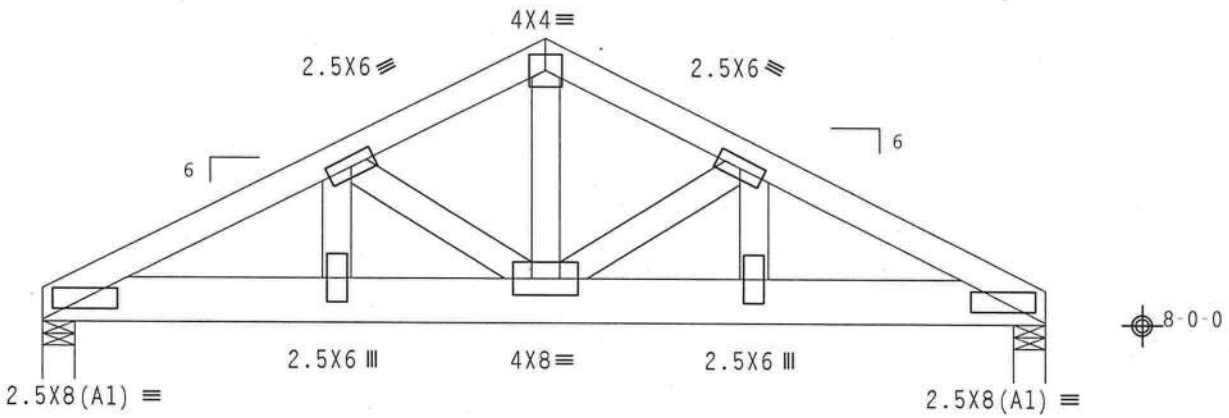
Wind reactions based on MWFRS pressures.

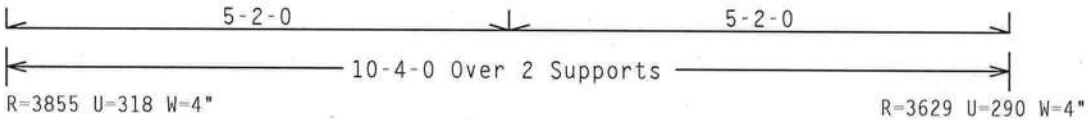
2 COMPLETE TRUSSES REQUIRED

Nailing Schedule: (10d_Box_or_Gun_(0.128"x3",_min.)_nails)
Top Chord: 1 Row @12.00" o.c.
Bot Chord: 2 Rows @ 4.50" o.c. (Each Row)
Webs : 1 Row @ 4" o.c.
Use equal spacing between rows and stagger nails in each row to avoid splitting.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, Located anywhere in roof, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.





Design Crit: TPI-2002(STD)/FBC
Cq/RT=1.00(1.25)/10(0) 7.36.043 UNS QTY:1 FL/-/4/-/-/R/-

PLT TYP. Wave

Scale =.5"/Ft.

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER

16 '08

TC LL	20.0 PSF	REF R8228- 4093
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016023
BC LL	0.0 PSF	HC-ENG RA/DF
TOT.LD.	40.0 PSF	SEQN- 27627
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

Top chord 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3
:Stack Chord SC1 2x4 SP #2 Dense:
:Stack Chord SC2 2x4 SP #2 Dense:

Truss spaced at 24.0" OC designed to support 1-4-0 top chord outlookers. Cladding load shall not exceed 10.00 PSF. Top chord must not be cut or notched.

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

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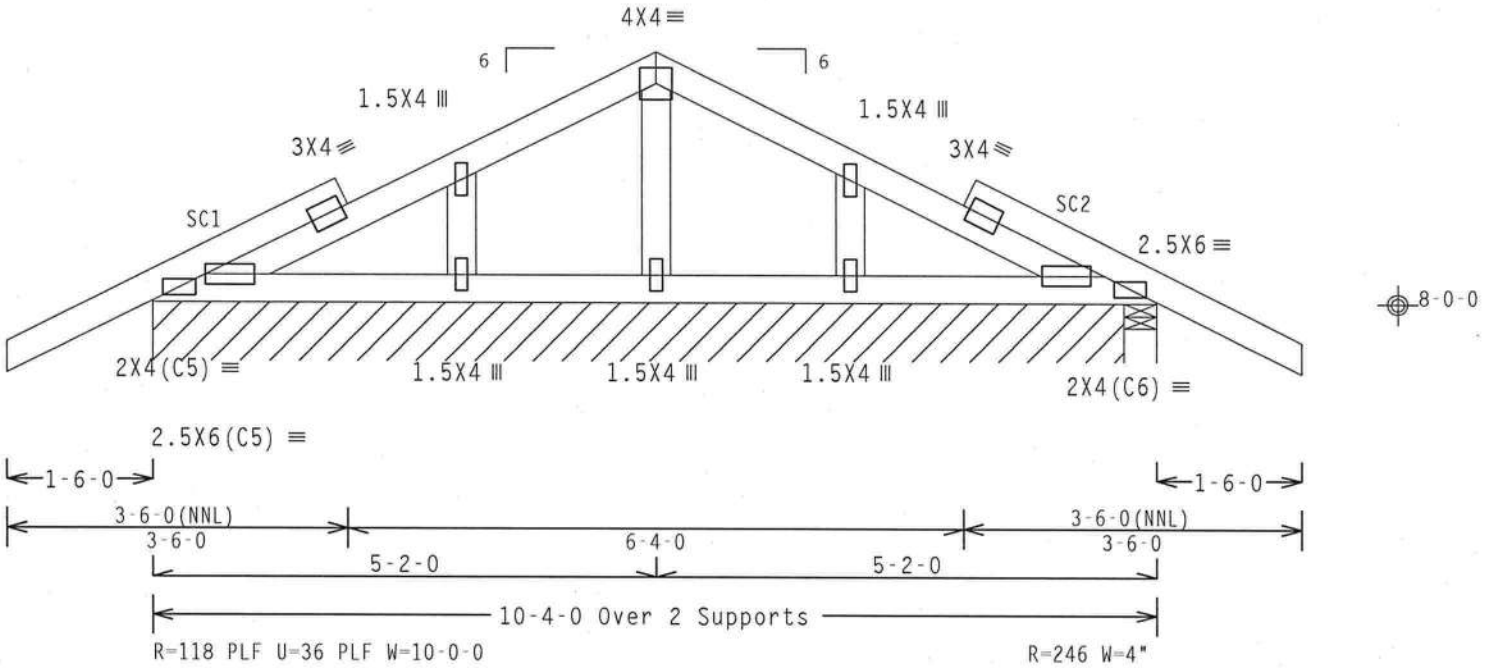
110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, Located anywhere in roof, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.

See DWGS A11015EE0207 & GBLLETIN0207 for more requirements.

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



Design Crit: TPI-2002(STD)/FBC
Cq/RT=1.00(1.25)/10(0) 7.36.04

PLT TYP. Wave

QTY:1 FL/-/4/-/-/R/- Scale =.5"/Ft.

ALPINE

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Haines City, FL 33844
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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER

16 '08

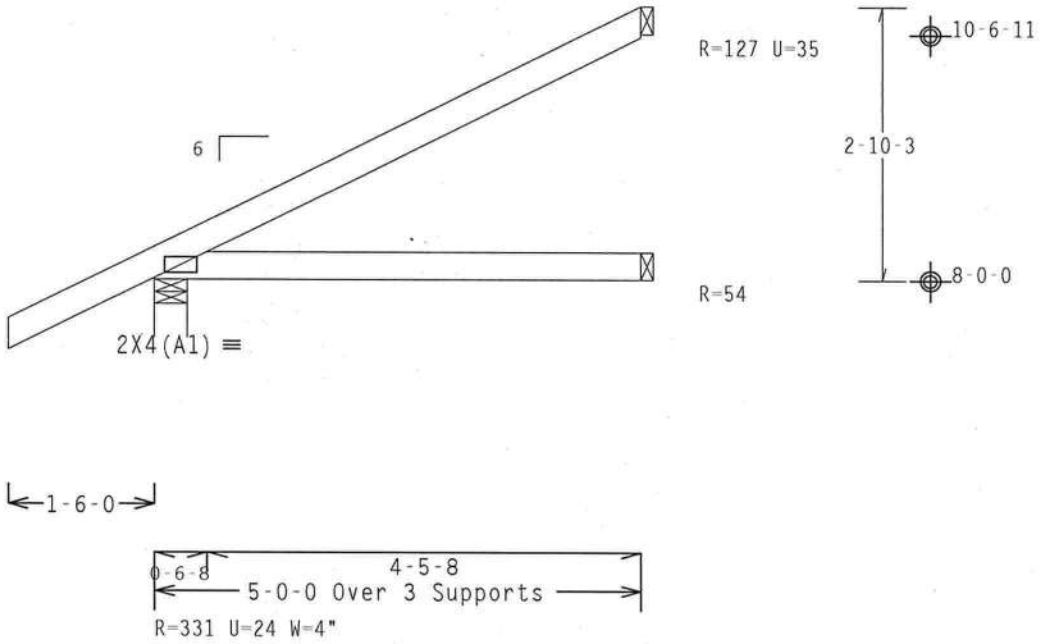
TC LL	20.0 PSF	REF R8228- 4094
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016024
BC LL	0.0 PSF	HC-ENG RA/DF
TOT.LD.	40.0 PSF	SEQN- 27619 REV
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

Top chord 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.



Design Crit: TPI-2002(STD)/FBC
Cq/RT=1.00(1.25)/10(0) 7.36.042

PLT TYP. Wave

QTY:1 FL/-/4/-/-/R/- Scale =.5"/Ft.

ALPINE

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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER

16 '08

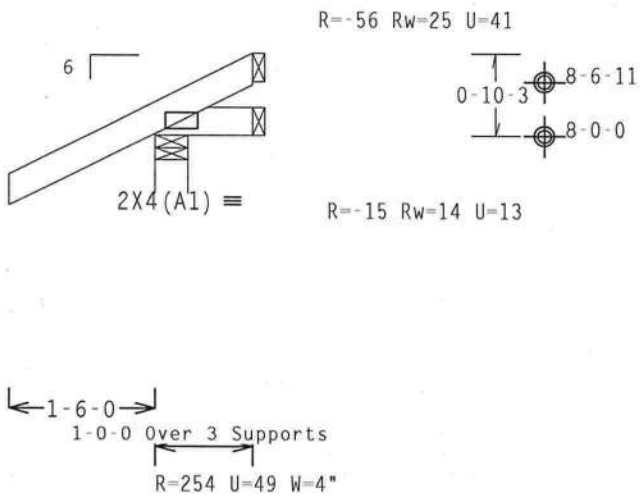
TC LL	20.0 PSF	REF R8228- 4095
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016006
BC LL	0.0 PSF	HC-ENG RA/DF *
TOT.LD.	40.0 PSF	SEQN- 27547
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

Top chord 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, Located anywhere in roof, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.



Design Crit: TPI-2002(STD)/FBC
Cg/RT=1.00(1.25)/10(0) 7.36.04

PLT TYP. Wave

QTY:1 FL/-/4/-/-/R/- Scale =.5"/Ft.

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATION, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 218 NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22314) AND WTCA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LANE, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jan 16 '08

TC LL	20.0 PSF	REF R8228- 4096
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016025
BC LL	0.0 PSF	HC-ENG RA/DF
TOT.LD.	40.0 PSF	SEQN- 27553
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

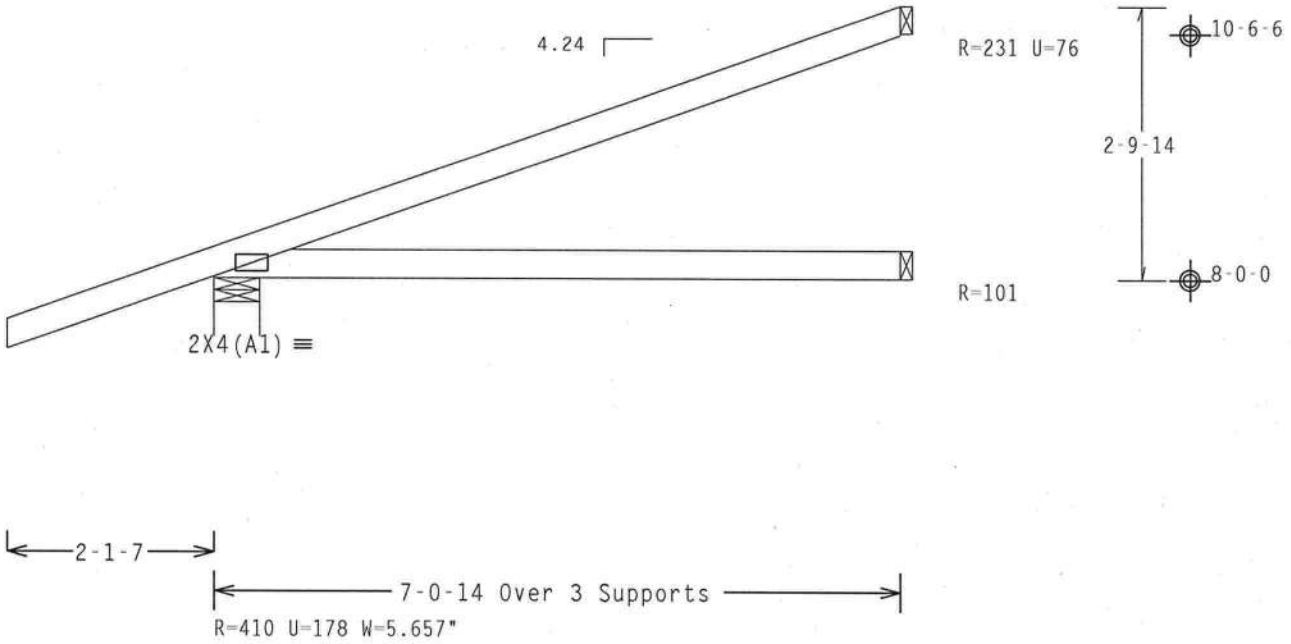
Top chord 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense

Wind reactions based on MWFRS pressures.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, Located anywhere in roof, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

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

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



Design Crit: TPI-2002(STD)/FBC
Cq/RT=1.00(1.25)/10(0) 7.36.042

PLT TYP. Wave

QTY:1 FL/-/4/-/-/R/- Scale =.5"/Ft.

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER

16 '08

TC LL	20.0 PSF	REF R8228- 4097
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016026
BC LL	0.0 PSF	HC-ENG RA/DF
TOT.LD.	40.0 PSF	SEQN: 27565
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

(8-015--Seth Heitzman SETH HEITZMAN -- , ** - HJ5T)

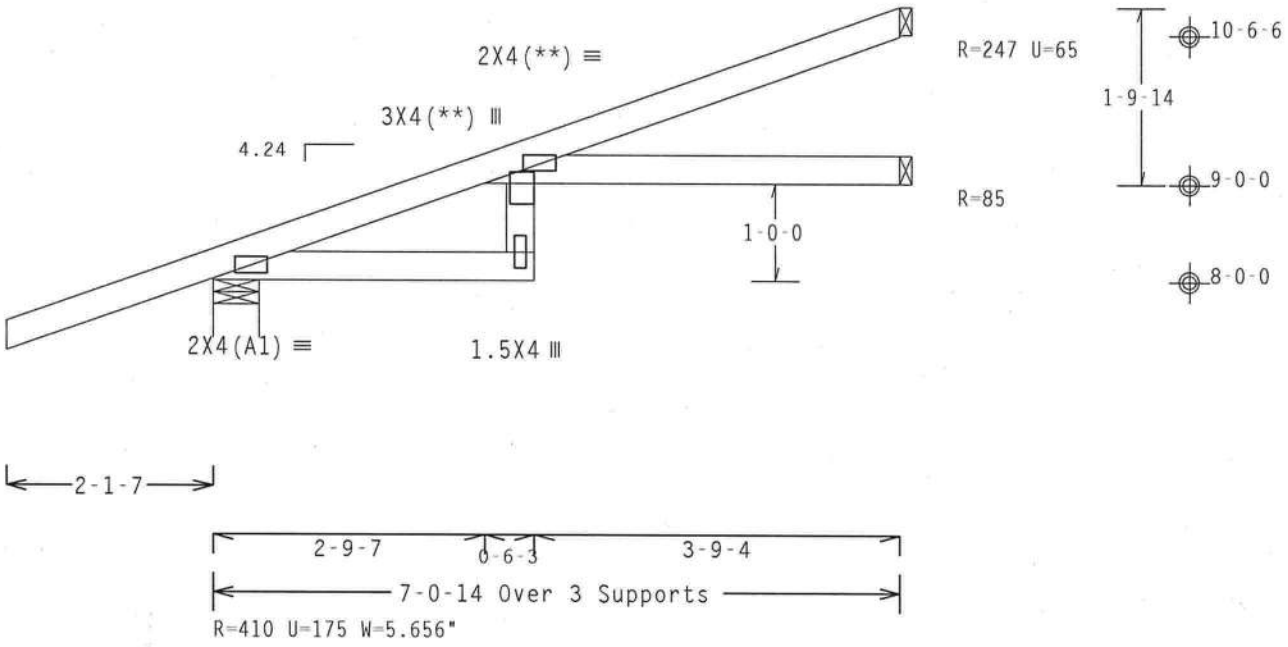
Top chord 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3

Wind reactions based on MWFRS pressures.

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

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, Located anywhere in roof, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



Design Crit: TPI-2002(STD)/FBC
Cq/RT=1.00(1.25)/10(0) 7.36.043 [illegible]

PLT TYP. Wave

QTY:1 FL/-/4/-/-/R/- Scale =.5"/Ft.

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

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DOUGLAS FLEMING LICENSE No 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER

16 '08

TC LL	20.0 PSF	REF R8228- 4098
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016027
BC LL	0.0 PSF	HC-ENG RA/DF
TOT.LD.	40.0 PSF	SEQN- 27579 REV
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

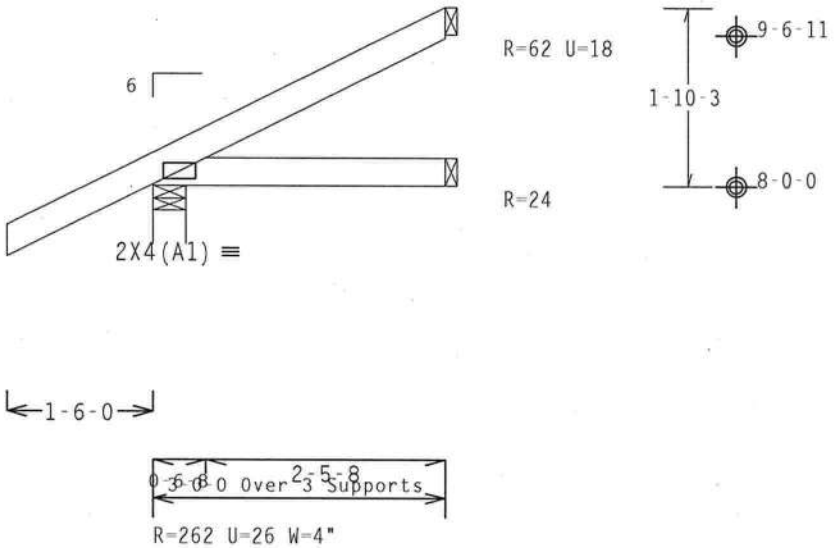
(8-015--Seth Heitzman SETH HEITZMAN -- , ** - CJ3)

Top chord 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, Located anywhere in roof, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.



Design Crit: TPI-2002(STD)/FBC
Cq/RT=1.00(1.25)/10(0) 7.36.04 QTY:1 FL/-/4/-/-/R/- Scale =.5"/Ft.

PLT TYP. Wave

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER

M 16 '08

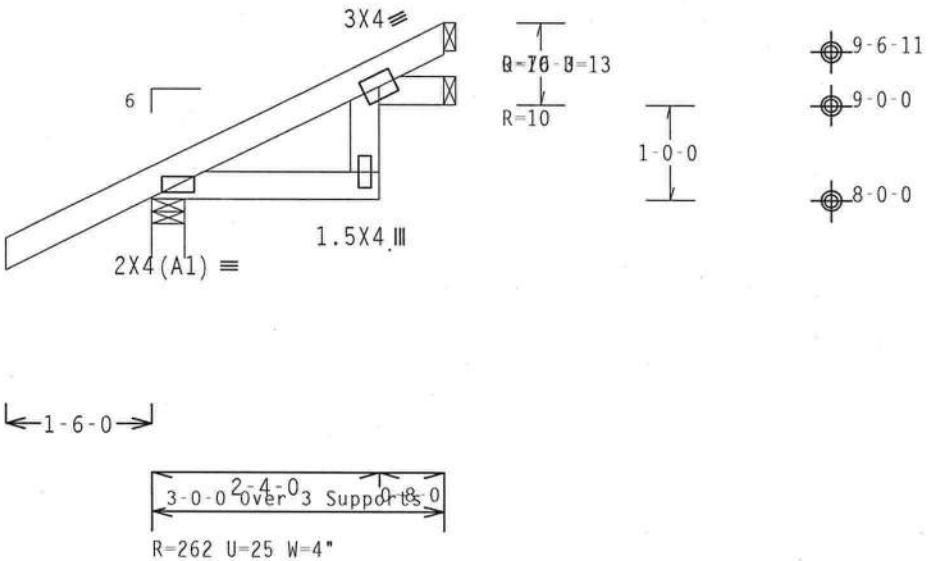
TC LL	20.0 PSF	REF	R8228- 4099
TC DL	10.0 PSF	DATE	01/16/08
BC DL	10.0 PSF	DRW	HCUSR8228 08016007
BC LL	0.0 PSF	HC-ENG	RA/DF *
TOT.LD.	40.0 PSF	SEQN-	27559
DUR.FAC.	1.25		
SPACING	24.0"	JREF-	1TE68228Z02

Top chord 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, Located anywhere in roof, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.



Design Crit: TPI-2002(STD)/FBC
Cq/RT=1.00(1.25)/10(0) 7.36.04 QTY:1 FL/-/4/-/-/R/- Scale =.5"/Ft.

PLT TYP. Wave

ALPINE
ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER
M 16 '08

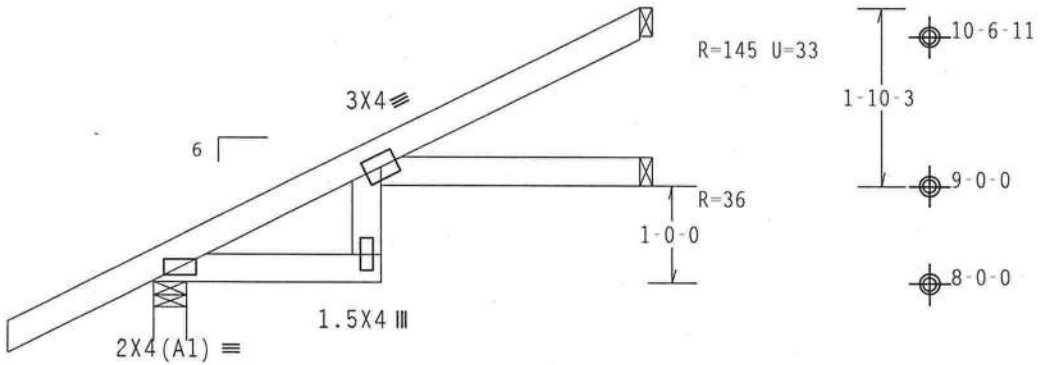
TC LL	20.0 PSF	REF R8228- 4100
TC DL	10.0 PSF	DATE 01/16/08
BC DL	10.0 PSF	DRW HCUSR8228 08016008
BC LL	0.0 PSF	HC-ENG RA/DF *
TOT.LD.	40.0 PSF	SEQN- 27569
DUR.FAC.	1.25	
SPACING	24.0"	JREF- 1TE68228Z02

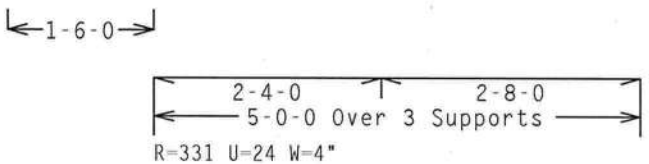
Top chord 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3

Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. Iw=1.00 GCpi(+/-)=0.18

Wind reactions based on MWFRS pressures.





Design Crit: TPI-2002(STD)/FBC
Cq/RT=1.00(1.25)/10(0) 7.36.043 QTY:1 FL/-/4/-/-/R/- Scale =.5"/Ft.

PLT TYP. Wave

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
FL Certificate of Authorization # 0 278

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DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER

16 '08

TC LL	20.0 PSF	REF	R8228- 4101
TC DL	10.0 PSF	DATE	01/16/08
BC DL	10.0 PSF	DRW	HCUSR8228 08016009
BC LL	0.0 PSF	HC-ENG	RA/DF *
TOT.LD.	40.0 PSF	SEQN-	27573
DUR.FAC.	1.25		
SPACING	24.0"	JREF-	1TE68228Z02

CLB WEB BRACE SUBSTITUTION

THIS DETAIL IS TO BE USED WHEN CONTINUOUS LATERAL BRACING (CLB) IS SPECIFIED ON AN ALPINE TRUSS DESIGN BUT AN ALTERNATIVE WEB BRACING METHOD IS DESIRED.

NOTES:

THIS DETAIL IS ONLY APPLICABLE FOR CHANGING THE SPECIFIED CLB SHOWN ON SINGLE PLY SEALED DESIGNS TO T-BRACING OR SCAB BRACING.

ALTERNATIVE BRACING SPECIFIED IN CHART BELOW MAY BE CONSERVATIVE. FOR MINIMUM ALTERNATIVE BRACING, RE-RUN DESIGN WITH APPROPRIATE BRACING.

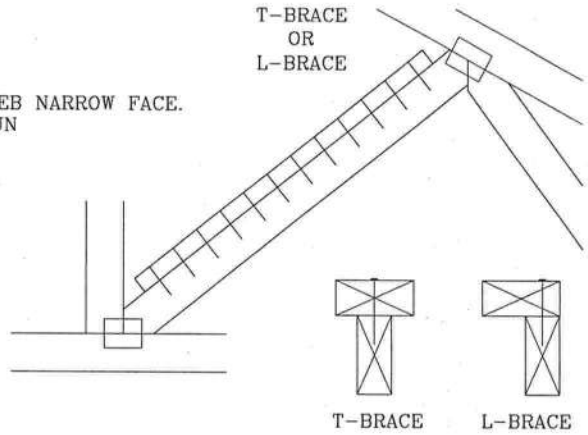
WEB MEMBER SIZE	SPECIFIED CLB BRACING	ALTERNATIVE BRACING T OR L-BRACE	ALTERNATIVE BRACING SCAB BRACE
2X3 OR 2X4	1 ROW	2X4	1-2X4
2X3 OR 2X4	2 ROWS	2X6	2-2X4
2X6	1 ROW	2X4	1-2X6
2X6	2 ROWS	2X6	2-2X4(*)
2X8	1 ROW	2X6	1-2X8
2X8	2 ROWS	2X6	2-2X6(*)

T-BRACE, L-BRACE AND SCAB BRACE 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.

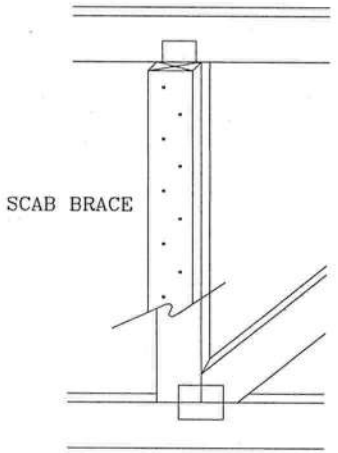
T-BRACING OR L-BRACING:

APPLY TO EITHER SIDE OF WEB NARROW FACE.
ATTACH WITH 10d BOX OR GUN (0.128"x 3.",MIN) NAILS.
AT 6" O.C. BRACE IS A MINIMUM 80% OF WEB MEMBER LENGTH



SCAB BRACING:

APPLY SCAB(S) TO WIDE FACE OF WEB.
NO MORE THAN (1) SCAB PER FACE.
ATTACH WITH 10d BOX OR GUN (0.128"x 3.",MIN) NAILS.
AT 6" O.C. BRACE IS A MINIMUM 80% OF WEB MEMBER LENGTH



THIS DRAWING REPLACES DRAWING 579,640

ALPINE
ITW BUILDING COMPONENTS GROUP, INC.
POMPANO BEACH, FLORIDA

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DOUGLAS FLEMING LICENSE No. 66648 08 STATE OF FLORIDA PROFESSIONAL ENGINEER

TC LL	PSF	REF CLB SUBST.
TC DL	PSF	DATE 2/23/07
BC DL	PSF	DRWG BRCLBSUB0207
BC LL	PSF	-ENG MLH/KAR
TOT. LD.	PSF	
DUR. FAC.		
SPACING		

ASCE 7-02: 110 MPH WIND SPEED, 15' MEAN HEIGHT, ENCLOSED, I = 1.00, EXPOSURE C

MAX GABLE VERTICAL LENGTH

2X4 GABLE VERTICAL SPACING	SPECIES	BRACE GRADE	NO BRACES	(1) 1X4 "L" BRACE *		(1) 2X4 "L" BRACE *		(2) 2X4 "L" BRACE **		(1) 2X6 "L" BRACE *		(2) 2X6 "L" BRACE **	
				GROUP A	GROUP B	GROUP A	GROUP B	GROUP A	GROUP B	GROUP A	GROUP B	GROUP A	GROUP B
24" O.C.	SPF HF	#1 / #2	3' 10"	6' 8"	6' 10"	7' 11"	8' 1"	9' 5"	9' 8"	12' 5"	12' 9"	14' 0"	14' 0"
		#3	3' 9"	6' 0"	6' 0"	7' 11"	7' 11"	9' 5"	9' 5"	12' 4"	12' 4"	14' 0"	14' 0"
		STUD	3' 9"	6' 0"	6' 0"	7' 11"	7' 11"	9' 5"	9' 5"	12' 3"	12' 3"	14' 0"	14' 0"
		STANDARD	3' 9"	5' 2"	5' 2"	6' 9"	6' 9"	9' 1"	9' 1"	10' 7"	10' 7"	14' 0"	14' 0"
	SP DFL	#1	4' 3"	6' 8"	7' 2"	7' 11"	8' 6"	9' 5"	10' 2"	12' 5"	13' 5"	14' 0"	14' 0"
		#2	4' 2"	6' 8"	7' 2"	7' 11"	8' 6"	9' 5"	10' 2"	12' 5"	13' 5"	14' 0"	14' 0"
		#3	4' 0"	6' 2"	6' 2"	7' 11"	8' 1"	9' 5"	9' 11"	12' 5"	12' 8"	14' 0"	14' 0"
		STUD	4' 0"	6' 1"	6' 1"	7' 11"	8' 0"	9' 5"	9' 11"	12' 5"	12' 6"	14' 0"	14' 0"
		STANDARD	3' 10"	5' 3"	5' 3"	6' 11"	6' 11"	9' 4"	9' 4"	10' 10"	10' 10"	14' 0"	14' 0"
16" O.C.	SPF HF	#1 / #2	4' 5"	7' 8"	7' 10"	9' 1"	9' 4"	10' 10"	11' 1"	14' 0"	14' 0"	14' 0"	14' 0"
		#3	4' 4"	7' 4"	7' 4"	9' 1"	9' 1"	10' 10"	10' 10"	14' 0"	14' 0"	14' 0"	14' 0"
		STUD	4' 4"	7' 4"	7' 4"	9' 1"	9' 1"	10' 10"	10' 10"	14' 0"	14' 0"	14' 0"	14' 0"
		STANDARD	4' 4"	6' 4"	6' 4"	8' 4"	8' 4"	10' 10"	10' 10"	12' 11"	12' 11"	14' 0"	14' 0"
	SP DFL	#1	4' 10"	7' 8"	8' 3"	9' 1"	9' 9"	10' 10"	11' 8"	14' 0"	14' 0"	14' 0"	14' 0"
		#2	4' 9"	7' 8"	8' 3"	9' 1"	9' 9"	10' 10"	11' 8"	14' 0"	14' 0"	14' 0"	14' 0"
		#3	4' 6"	7' 7"	7' 7"	9' 1"	9' 6"	10' 10"	11' 4"	14' 0"	14' 0"	14' 0"	14' 0"
		STUD	4' 6"	7' 6"	7' 6"	9' 1"	9' 6"	10' 10"	11' 4"	14' 0"	14' 0"	14' 0"	14' 0"
		STANDARD	4' 5"	6' 5"	6' 5"	8' 6"	8' 6"	10' 10"	11' 1"	13' 3"	13' 3"	14' 0"	14' 0"
12" O.C.	SPF HF	#1 / #2	4' 11"	8' 5"	8' 8"	10' 0"	10' 3"	11' 11"	12' 3"	14' 0"	14' 0"	14' 0"	14' 0"
		#3	4' 9"	8' 5"	8' 5"	10' 0"	10' 0"	11' 11"	11' 11"	14' 0"	14' 0"	14' 0"	14' 0"
		STUD	4' 9"	8' 5"	8' 5"	10' 0"	10' 0"	11' 11"	11' 11"	14' 0"	14' 0"	14' 0"	14' 0"
		STANDARD	4' 9"	7' 3"	7' 3"	9' 7"	9' 7"	11' 11"	11' 11"	14' 0"	14' 0"	14' 0"	14' 0"
	SP DFL	#1	5' 4"	8' 5"	9' 1"	10' 0"	10' 9"	11' 11"	12' 10"	14' 0"	14' 0"	14' 0"	14' 0"
		#2	5' 3"	8' 5"	9' 1"	10' 0"	10' 9"	11' 11"	12' 10"	14' 0"	14' 0"	14' 0"	14' 0"
		#3	5' 0"	8' 5"	8' 5"	10' 0"	10' 6"	11' 11"	12' 6"	14' 0"	14' 0"	14' 0"	14' 0"
		STUD	5' 0"	8' 5"	8' 7"	10' 0"	10' 6"	11' 11"	12' 6"	14' 0"	14' 0"	14' 0"	14' 0"
		STANDARD	4' 11"	7' 5"	7' 5"	9' 10"	9' 10"	11' 11"	12' 3"	14' 0"	14' 0"	14' 0"	14' 0"

BRACING GROUP SPECIES AND GRADES:

GROUP A:

SPRUCE-PINE-FIR

#1 / #2	STANDARD
#3	STUD

HEM-FIR

#2	STUD
#3	STANDARD

DOUGLAS FIR-LARCH

#3
STUD
STANDARD

SOUTHERN PINE

#3
STUD
STANDARD

GROUP B:

HEM-FIR

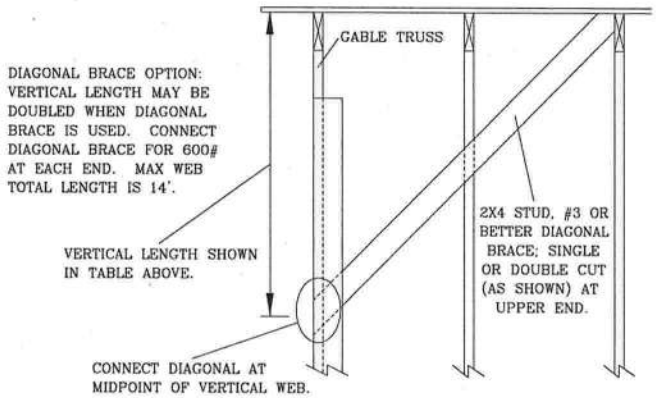
#1 & BTR
#1

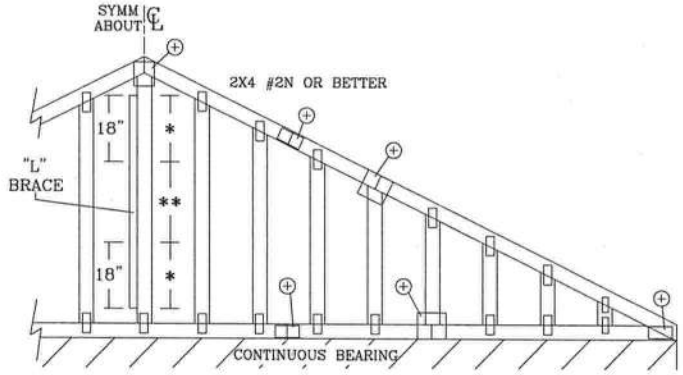
SOUTHERN PINE

#1
#2

DOUGLAS FIR-LARCH

#1
#2





REFER TO CHART ABOVE FOR MAX GABLE VERTICAL LENGTH.

GABLE TRUSS DETAIL NOTES:

LIVE LOAD DEFLECTION CRITERIA IS L/240.

PROVIDE UPLIFT CONNECTIONS FOR 80 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 EACH "L" BRACE WITH 10d 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"	2.5X4

+ REFER TO COMMON TRUSS DESIGN FOR PEAK, SPLICE, AND HEEL PLATES.

ALPINE

ITW BUILDING COMPONENTS GROUP, INC.
POMPANO BEACH, FLORIDA

WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCSI (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 218 NORTH LEE STR., SUITE 312, ALEXANDRIA, VA. 22314) AND WTCA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LN, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

IMPORTANT FURNISH COPY OF THIS DESIGN TO INSTALLATION CONTRACTOR. ITW BCG, INC., SHALL NOT BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN; ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH TPI; OR FABRICATING, HANDLING, SHIPPING, INSTALLING & BRACING OF TRUSSES. DESIGN CONFORMS WITH APPLICABLE PROVISIONS OF NDS (NATIONAL DESIGN SPEC, BY AF&PA) AND TPI. ITW, BCG CONNECTOR PLATES ARE MADE OF 20/18/16GA (W,H/SS/K) ASTM A653 GRADE 40/60 (W,K/H,SS) GALV. STEEL. APPLY PLATES TO EACH FACE OF TRUSS AND, UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION PER DRAWINGS 160A-Z. ANY INSPECTION OF PLATES FOLLOWED BY (I) SHALL BE PER ANNEX A3 OF TPI 1-2002 SEC. 3. A SEAL ON THIS DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOLELY FOR THE TRUSS COMPONENT DESIGN SHOWN. THE SUITABILITY AND USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER, PER ANSI/TPI 1 SEC. 2.

DOUGLAS FLEMING LICENSE No. 66648 STATE OF FLORIDA PROFESSIONAL ENGINEER

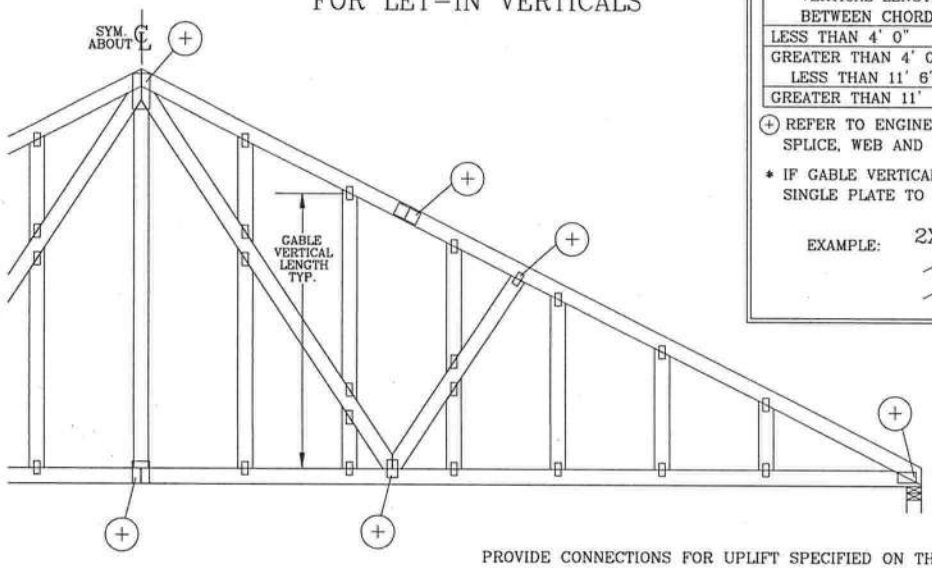
Jan 1 '08

MAX. TOT. LD. 60 PSF

MAX. SPACING 24.0"

REF	ASCE7-02-GAB11015
DATE	2/23/07
DRWG	A11015EE0207
-ENG	

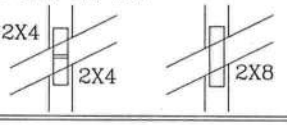
GABLE DETAIL
FOR LET-IN VERTICALS

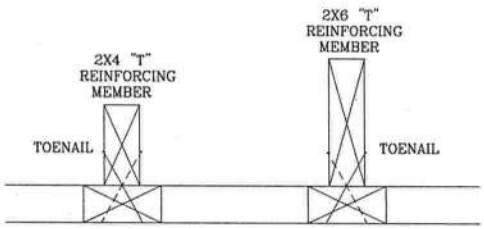


GABLE VERTICAL PLATE SIZES		
VERTICAL LENGTH BETWEEN CHORDS	PLATE SIZE	IF PLATES OVERLAP*
LESS THAN 4' 0"	1X4 OR 2X3	2X8
GREATER THAN 4' 0", BUT LESS THAN 11' 6"	2X4	2X8
GREATER THAN 11' 6"	2.5X4	2.5X8

⊕ REFER TO ENGINEERED TRUSS DESIGN FOR PEAK, SPLICE, WEB AND HEEL PLATES.

* IF GABLE VERTICAL PLATES OVERLAP, USE A SINGLE PLATE TO SPAN THE WEB.

EXAMPLE: 



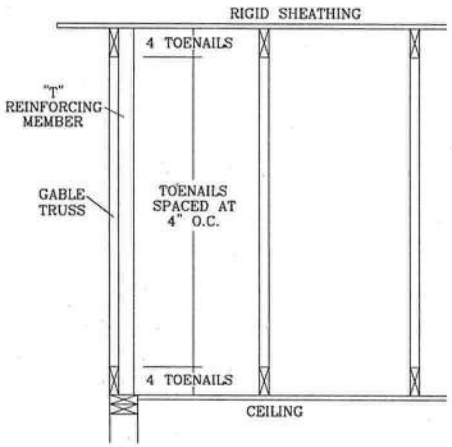
TO CONVERT FROM "L" TO "T" REINFORCING MEMBERS, MULTIPLY "T" FACTOR BY LENGTH (BASED ON GABLE VERTICAL SPECIES, GRADE AND SPACING) FOR (1) 2X4 "L" BRACE, GROUP A, OBTAINED FROM THE APPROPRIATE ALPINE GABLE DETAIL FOR ASCE OR SBCCI WIND LOAD.

MAXIMUM ALLOWABLE "T" REINFORCED GABLE VERTICAL LENGTH IS 14' FROM TOP TO BOTTOM CHORD.

WEB LENGTH INCREASE W/ "T" BRACE

WIND SPEED AND MRH	"T" REINF. MBR. SIZE	SBCCI	ASCE
110 MPH	2x4	10 %	10 %
15 FT	2x6	40 %	50 %
110 MPH	2x4	10 %	10 %
30 FT	2x6	50 %	50 %
100 MPH	2x4	10 %	10 %
15 FT	2x6	30 %	50 %
100 MPH	2x4	10 %	10 %
30 FT	2x6	40 %	40 %
90 MPH	2x4	20 %	10 %
15 FT	2x6	20 %	40 %
90 MPH	2x4	10 %	10 %
30 FT	2x6	30 %	50 %
80 MPH	2x4	10 %	20 %
15 FT	2x6	10 %	30 %
80 MPH	2x4	20 %	10 %
30 FT	2x6	20 %	40 %
70 MPH	2x4	0 %	20 %
15 FT	2x6	0 %	20 %
70 MPH	2x4	10 %	20 %
30 FT	2x6	10 %	30 %

EXAMPLE:
ASCE WIND SPEED = 100 MPH
MEAN ROOF HEIGHT = 30 FT
GABLE VERTICAL = 24" O.C. SP #3
"T" REINFORCING MEMBER SIZE = 2X4
"T" BRACE INCREASE (FROM ABOVE) = 10% = 1.10
(1) 2X4 "L" BRACE LENGTH = 6' 7"
MAXIMUM "T" REINFORCED GABLE VERTICAL LENGTH
1.10 x 6' 7" = 7' 3"



PROVIDE CONNECTIONS FOR UPLIFT SPECIFIED ON THE ENGINEERED TRUSS DESIGN.

ATTACH EACH "T" REINFORCING MEMBER WITH
HAND DRIVEN NAILS:
10d COMMON (0.148"X 3.",MIN) TOENAILS AT 4" O.C. PLUS
(4) 16d COMMON (0.162" X 3.5",MIN) TOENAILS IN TOP AND BOTTOM CHORD.

GUN DRIVEN NAILS:
8d COMMON (0.131"X 2.5",MIN) TOENAILS AT 4" O.C. PLUS
(4) TOENAILS IN TOP AND BOTTOM CHORD.

THIS DETAIL TO BE USED WITH THE APPROPRIATE ALPINE GABLE DETAIL FOR ASCE OR SBCCI WIND LOAD.
ASCE 7-93 GABLE DETAIL DRAWINGS
A11015EN0207, A10015EN0207, A09015EN0207, A08015EN0207, A07015EN0207, A11030EN0207, A10030EN0207, A09030EN0207, A08030EN0207, A07030EN0207
ASCE 7-98 GABLE DETAIL DRAWINGS
A13015EC0207, A12015EC0207, A11015EC0207, A10015EC0207, A08515EC0207, A13030EC0207, A12030EC0207, A11030EC0207, A10030EC0207, A08530EC0207
ASCE 7-02 GABLE DETAIL DRAWINGS
A13015EE0207, A12015EE0207, A11015EE0207, A10015EE0207, A08515EE0207, A13030EE0207, A12030EE0207, A11030EE0207, A10030EE0207, A08530EE0207
ASCE 7-05 GABLE DETAIL DRAWINGS
A13015E50207, A12015E50207, A11015E50207, A10015E50207, A08515E50207, A13030E50207, A12030E50207, A11030E50207, A10030E50207, A08530E50207

SEE APPROPRIATE ALPINE GABLE DETAIL (ASCE OR SBCCI WIND LOAD) FOR MAXIMUM UNREINFORCED GABLE VERTICAL LENGTH.

THIS DRAWING REPLACES DRAWINGS GAB98117 876,719 & HC26294035

ALPINE
ITW BUILDING COMPONENTS GROUP, INC.
POMPANO BEACH, FLORIDA

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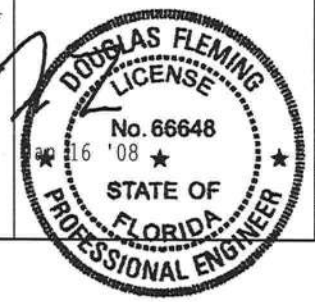


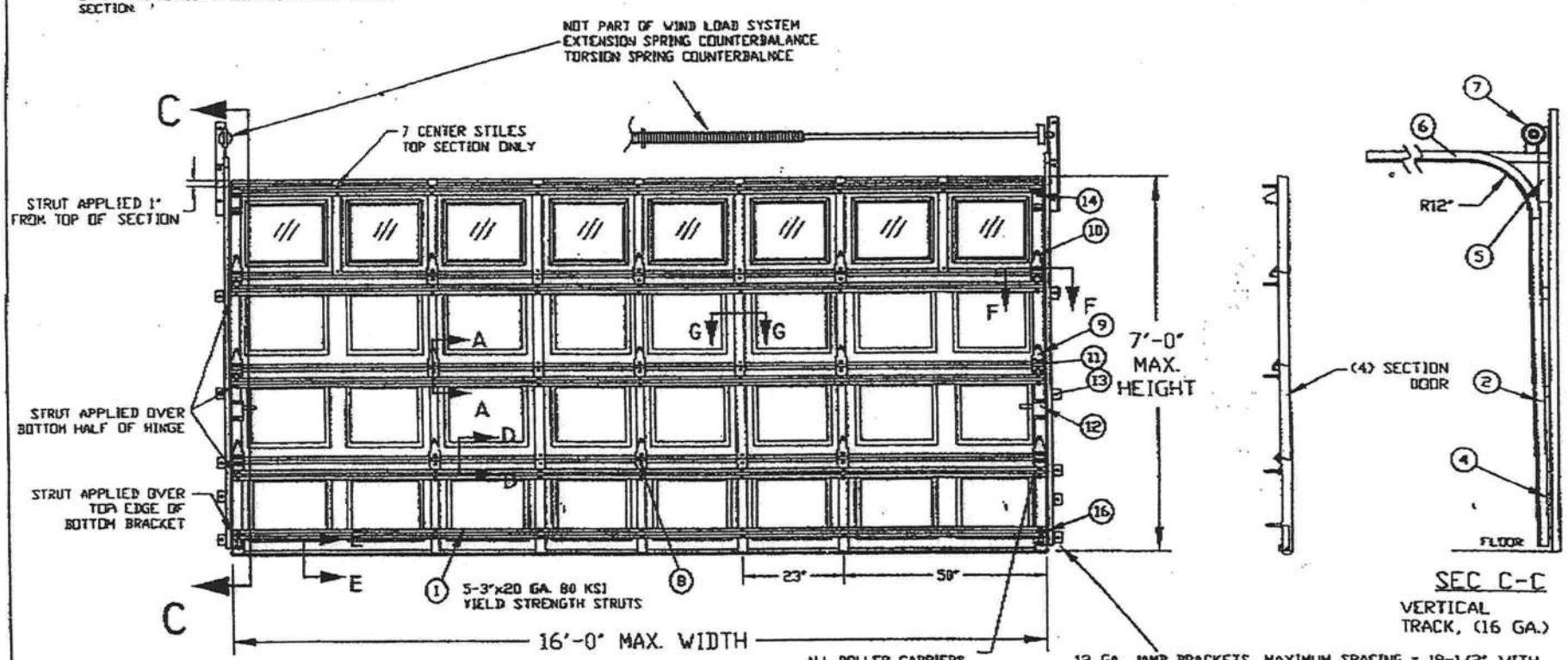
MAX TOT. LD. 60 PSF
DUR. FAC. ANY
MAX SPACING 24.0"

REF	LET-IN VERT
DATE	2/23/07
DRWG	GBLLETIN0207
-ENG	DLJ/KAR

REV.	DATE	BY	DESCRIPTION
A-A	11-10-00	DW	SEE E.C.N. 831

NOTES:

1. TESTED TO POSITIVE AND NEGATIVE 20 PSF DESIGN AND POSITIVE AND NEGATIVE 30 PSF TEST PRESSURES PER ASTM E-330
2. MAXIMUM SECTION HEIGHT= 21"
3. SECTION HEIGHTS OF 21.00" AND 19.50" ARE AVAILABLE AND MAY BE USED IN ANY COMBINATION TO ACHIEVE VARIOUS DOOR HEIGHTS.
4. WINDOWS MAY BE INSTALLED IN THE TOP SECTION (AS TESTED WITH 1/8" DSB GLASS OR EQUIVALENT) OR IN THE SECTION IMMEDIATELY BELOW THE TOP SECTION.
5. MINIMUM LENGTH OF ROLLER STEM IS 5½" (7" AS TESTED)
6. THE STRUT PLACEMENT ON DOOR MUST BE CONSISTENT WITH THE DOOR SHOWN.
7. STRUTS SECURED AT ALL LOCATIONS WITH TEK SCREWS.
8. QUANTITY OF SIDE LOCKS CAN BE 0,1, OR (2 AS TESTED.
9. ⚠4 DROP IN TYPE OF INSULATION IS OPTIONAL



INSIDE ELEVATION

SEC C-C
VERTICAL TRACK, (16 GA.)

The seal on this drawing only certifies that the product(s) illustrated and described herein represent the configuration(s) of dimensions and installation(s) of the door as tested.

STATE OF NORTH CAROLINA PROFESSIONAL ENGINEER SEAL PE No. 024280 RASER R. KEYVAN

LISTED SBCCI PST & ESI REPORT No. 2202

TEST REPORTS ON FILE: VIDEO 10/19/00 (002930)

DESIGN LOAD +20.0 PSF & -20.0 PSF
TEST LOAD +30.0 PSF & -30.0 PSF

GADCO DOORS
SERIES 7400, EXTERIOR STEEL =.017 MIN (AS TESTED)
SERIES 7825, EXTERIOR STEEL =.019" MIN ⚠4
SERIES 7524, EXTERIOR STEEL =.024" MIN ⚠4
(TESTED WITH WINDOWS

MAXIMUM DOOR WIDTH	MAXIMUM DOOR HEIGHT	TYPICAL CTR. STILE SPACING	STRUTS 80 KSI SIZE	STRUTS 80 KSI QTY.	VERTICAL TRACK
16'	7'	23"	3"	5	2 IN.

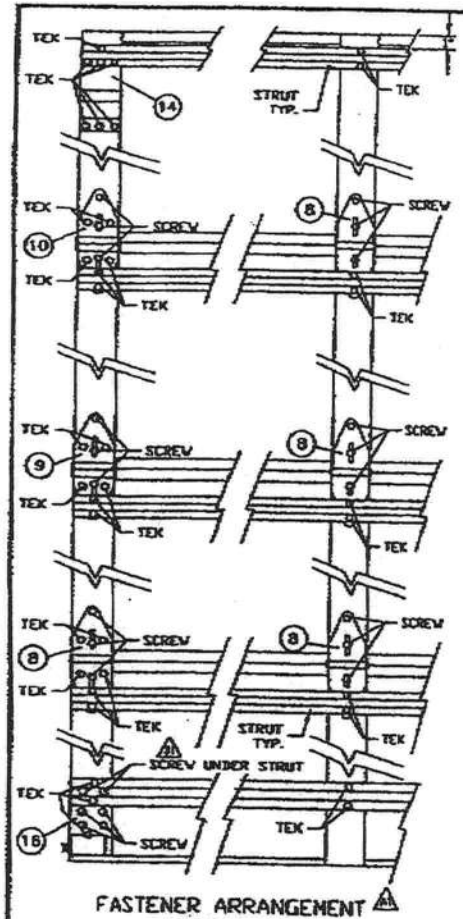
GENERAL AMERICAN DOOR COMPANY
5050 BASELINE ROAD
MONTGOMERY, IL 60538

SCALE: 1/3	APPROVED BY	DRAWN BY: D. WIEDMAN
DATE: 10-20-00		REVISED (A) 11-10-00

DESCRIPTION: 16' X 7' MAX. RAISED PANEL STEEL DOOR -WINDLOAD ±20 PSF

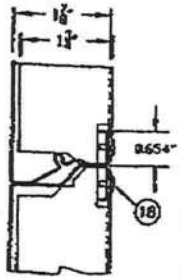
PART NUMBER: PAGE 1 OF 2

DRAWING NUMBER: W13220-1

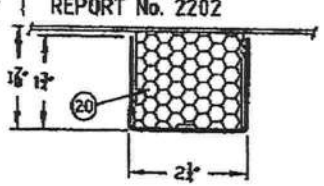


FASTENER ARRANGEMENT

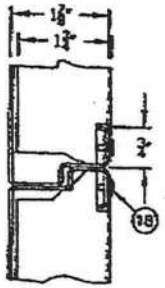
LISTED
SBCCI PST & ESI
REPORT No. 2202



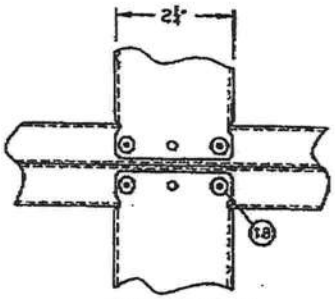
SEC D-D
PAN ATTACHMENT TO STILE (OPTIONAL)



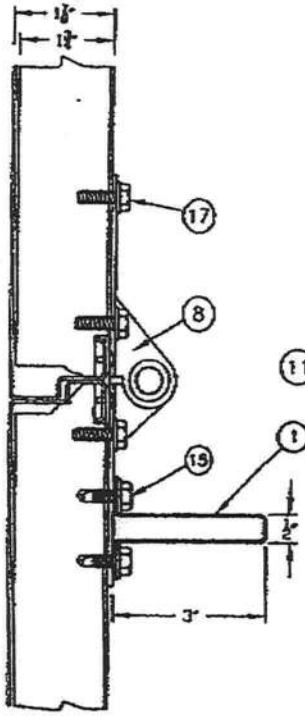
SEC G-G
CENTER STILE
20 GA. GALVANIZED



SEC D-D
PAN ATTACHMENT TO STILE (AS TESTED)

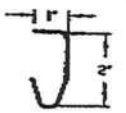


PAN ATTACHMENT TO STILE

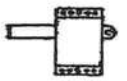


SEC A-A

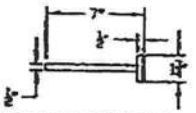
REV.	DATE	BY	DESCRIPTION
AA	11-27-00	DW	SEE ECN 834
AA	12-1-00	DW	SEE ECN 838



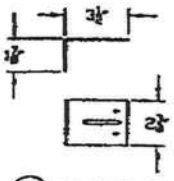
TRACK
16 GA. (055 MIN.)



(12) SIDE LOCK



(11) ROLLER 10 BALLS



(4) #6 JAMB BRACKET

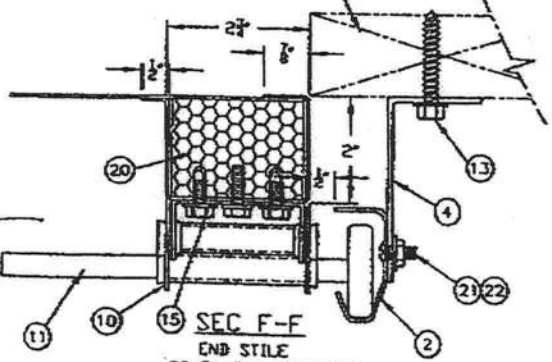
5-3"x20 GA. 80 KSI YIELD STRENGTH HEMMED STRUT APPLIED WITH 2 TEK SCREWS PER HINGE OR STILE LOCATION (14 PER STRUT, MINIMUM)

(17) 1/4-20 x 3/4 HEX WASHERHEAD SCREW

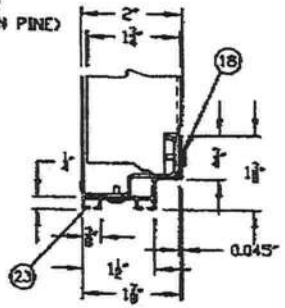
(15) 1/4-20 x 3/4 HWH TEK SCREW WITH #2 REDUCED POINT

ITEM	PART NO.	DESCRIPTION
23	3485	BOTTOM RAIL, 6063 T6 ALUM EXT.
22	1391	1/4"-20 X 5/8" RIBBED NECK SCREW
21	4044	1/4"-20 SERRATED FLANGE NUT
20		LLB DENSITY FILLER BLOCK EPS
19		
18	4385	POP RIVET, 9/32" STEEL
17	4223	HEX WASHERHEAD SCREW 1/4"-20 X 3/4"
16	1399LLR	BOTTOM ROLLER BRACKET
15	0138	HWH TEK SCREW 1/4-20 X 3/4 W/ REDUCED PT.
14	3875	TOP SUPPORT BRACKET
13	4043	5/16" X 1-5/8" LAG SCREW
12	4716	SIDE LOCK
11	4306	LONG STEM ROLLER 2"
10	4203	ROLLER CARRIER HINGE #3 (14 GA)
9	4202	ROLLER CARRIER HINGE #2 (14 GA)
8	4201	ROLLER CARRIER HINGE #1 (14 GA)
7		COUNTER BALANCE (TORSION BAR & SPRINGS)
6		HORIZONTAL TRACK & ANGLE (16 GA)
5		VERTICAL FLAG ANGLE
4	4585-6	TRACK BRACKET #6 (12 GA)
3		
2		VERTICAL TRACK (16 GA)
1		3" HEMMED STRUT (20 GA) MIN. YIELD STR. 80KSI

2x6 PRESSURE TREATED LUMBER (GRADE #2 OR BETTER SOUTHERN PINE)



SEC F-F
END STILE
20 GA. PAINTED STEEL



SEC E-E

NORTH CAROLINA PROFESSIONAL SEAL PE No. 024280 ENGINEER

The seal on this drawing only certifies that the product(s) illustrated and described herein represent the configuration(s), dimensions and installation(s) of the door as tested.

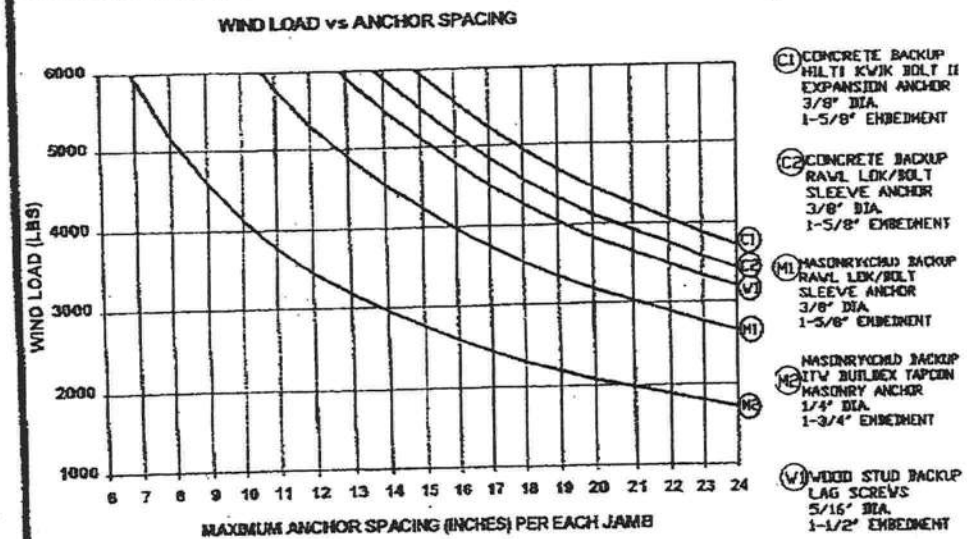
GADCO®
GENERAL AMERICAN DOOR COMPANY
5050 BASELINE ROAD
MONTGOMERY, IL 60538

SCALE: NONE	APPROVED BY:	DRAWN BY:	D. WIDMAN
DATE: 11-7-00		REVISED: (B) 12-1-00	

DESCRIPTION: 16' X 7' MAX. RAISED PANEL STEEL DOOR-WINDLOAD ±20 PSF

PAGE 2 OF 2

DRAWING NUMBER: WL3220-2



(C1) CONCRETE BACKUP HILTI KWIK BOLT II EXPANSION ANCHOR 3/8" DIA. 1-5/8" EMBEDMENT

(C2) CONCRETE BACKUP RAWL LOK/BOLT SLEEVE ANCHOR 3/8" DIA. 1-5/8" EMBEDMENT

(M1) MASONRY/CMU BACKUP RAWL LOK/BOLT SLEEVE ANCHOR 3/8" DIA. 1-5/8" EMBEDMENT

(M2) MASONRY/CMU BACKUP ITW BUILDEX TAPCON MASONRY ANCHOR 1/4" DIA. 1-3/4" EMBEDMENT

(W1) WOOD STUD BACKUP LAG SCREWS 5/16" DIA. 1-1/2" EMBEDMENT

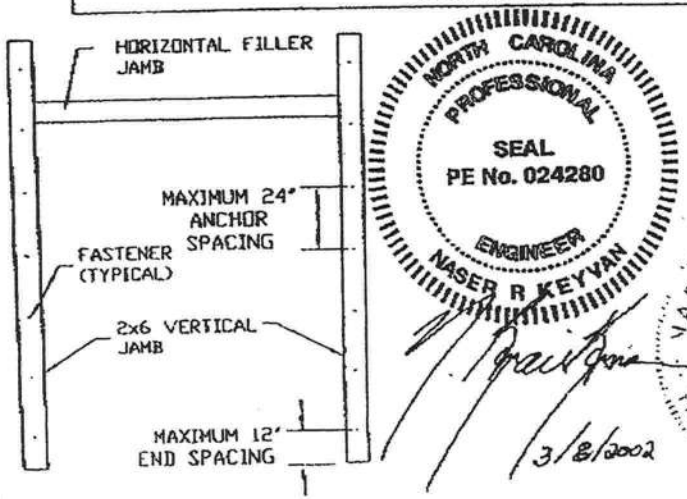
DESIGN LOAD (LBS)/FT² X GARAGE DOOR AREA(WIDTH-FT X HEIGHT-FT) = WIND LOAD(LBS)

EXAMPLE

30 LBS/FT² X (16 FT WIDE X 8 FT HIGH) = 3840 LBS

- (C1) USE 22" SPACING
- (C2) USE 21" SPACING
- (W1) USE 19" SPACING
- (M1) USE 16" SPACING
- (M2) USE 10" SPACING

SEE NOTE 11 FOR ADDITIONAL REQUIRED 2X6 WOOD JAMB ANCHORS



2x6 JAMB TO SUPPORTING STRUCTURE ATTACHMENT

2x6 PRESSURE TREATED (GRADE #2 OR BETTER SOUTHERN PINE) WOOD JAMB SHALL BE ANCHORED TO BUILDING WOOD FRAME, GROUTED AND REINFORCED CONCRETE MASONRY UNIT (CMU) WALLS OR COLUMNS, OR REINFORCED CONCRETE COLUMNS.

NOTES:

1) ALL DOOR OPENING SURROUNDING STRUCTURE TO BE DESIGNED BY REGISTERED ENGINEER OR ARCHITECT WITH DUE CONSIDERATION GIVEN TO INSTALLATIONS USING CENTER "HURRICANE" POSTS.

2) ALL DOOR OPENING STRUCTURE AND FASTENERS TO COMPLY WITH ALL APPLICABLE CODES INCLUDING SBCCI "STANDARD FOR HURRICANE RESISTANT RESIDENTIAL CONSTRUCTION: SSTD 10," CURRENT EDITION.

3) ALL FASTENERS TO BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS, INSTRUCTIONS AND RECOMMENDATIONS.

4) WOOD FRAME BUILDINGS: STUDS AT EACH SIDE OF DOOR OPENING SHALL BE PROPERLY DESIGNED, CONNECTED, ANCHORED AND SHALL CONSIST OF A MINIMUM OF THREE (3) LAMINATIONS OF 2X6 PRESSURE TREATED SOUTHERN PINE (#2 GRADE OR BETTER) WALL STUDS CONTINUOUS FROM FOOTING TO DOUBLE TOP PLATE.

5) REINFORCED CMU OR CONCRETE: 2X6 WOOD JAMB SHALL BE ANCHORED TO SOLIDLY GROUTED AND REINFORCED CONCRETE MASONRY UNIT (CMU) WALLS OR COLUMNS, OR REINFORCED CONCRETE COLUMNS. ANCHOR SPACING AND EMBEDMENT IS BASED ON CONCRETE MASONRY UNITS COMPLYING WITH ASTM C90 WITH A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 2150 PSI; GROUT WITH A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI; REINFORCED CONCRETE COLUMNS WITH A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI.

6) EMBEDMENTS LISTED ARE THE MINIMUM ALLOWABLE EMBEDMENTS.

7) ANCHORS FOR CONCRETE AND CONCRETE MASONRY UNITS (CMU) SHALL HAVE A MINIMUM 3" EDGE DISTANCE FROM ALL EDGES OF CONCRETE OR CONCRETE MASONRY UNITS. ANCHORS FOR CONCRETE AND CMU SHALL HAVE A MINIMUM SPACING OF 3-3/4"

8) LAG SCREWS SHALL BE CENTERED IN ONE OF THE 1-1/2" DIMENSION FACES OF THE TRIPLE 2X6 WALL STUDS.

9) WASHERS ARE REQUIRED ON ALL FASTENERS.

10) THE WIND LOAD VS. ANCHOR SPACING CHART IS FOR A MAXIMUM DOOR SIZE OF 18' X 8' AT A MAXIMUM 42 PSF DESIGN WIND LOAD.

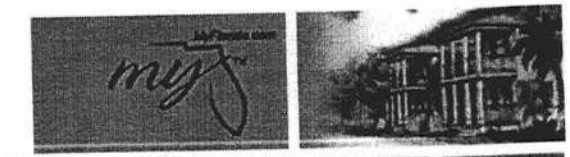
11) FOR THE UPPER THREE INDIVIDUAL STEEL JAMB BRACKETS, BRACKETS SHALL BE CENTERED BETWEEN THE TWO CLOSEST 2X6 WOOD JAMB ANCHORS. IF THE STEEL JAMB BRACKET IS NOT CENTERED BETWEEN THE TWO CLOSEST 2X6 WOOD JAMB ANCHORS, ADD AN ADDITIONAL 2X6 WOOD JAMB ANCHOR NEAR THAT STEEL BRACKET TO INSURE THAT THE LOAD FROM THE STEEL BRACKET IS EQUALLY TRANSFERRED TO TWO WOOD JAMB ANCHORS.

GADCO®

GENERAL AMERICAN DOOR COMPANY
5050 BASELINE ROAD
MONTGOMERY, IL 60538

SCALE: NONE	APPROVED BY:	DRAWN BY: DW
DATE: 8-30-99		REVISED
DESCRIPTION: JAMB TO STRUCTURE ATTACHMENT FOR WIND LOADED GARAGE DOORS		
	MASTER DRAWING NUMBER: A10560	DRAWING NUMBER

FLORIDA DEPARTMENT OF Community Affairs



Community Affairs

- COMMUNITY PLANNING
- HOUSING & COMMUNITY DEVELOPMENT
- EMERGENCY MANAGEMENT
- OFFICE OF THE SECRETARY

Product Approval
USER: Public User

FL #	FL5108
Application Type	New
Code Version	2004
Application Status	Approved
Comments	
Archived	
Product Manufacturer Address/Phone/Email	MI Windows and Doors 650 W Market St Gratz, PA 17030 (717) 365-3300 ext 2101 surich@miwd.com
Authorized Signature	Steven Urich surich@miwd.com
Technical Representative Address/Phone/Email	
Quality Assurance Representative Address/Phone/Email	

(1) window

A·L·I
(Validator / Operations Administrator)

AAMA
CERTIFICATION PROGRAM

AUTHORIZATION FOR PRODUCT CERTIFICATION

MI Windows & Doors, Inc.
P.O. Box 370
Gratz, PA 17030-0370

Attn: Bill Emley

The product described below is hereby approved for listing in the next issue of the AAMA Certified Products Directory. The approval is based on successful completion of tests, and the reporting to the Administrator of the results of tests, accompanied by related drawings, by an AAMA Accredited Laboratory.

1. The listing below will be added to the next published AAMA Certified Products Directory.

SPECIFICATION	RECORD OF PRODUCT TESTED				LABEL ORDER NO.
AAMA/NWWDA 101/I.S. 2-97 H-R55*-36x62					
COMPANY AND PLANT LOCATION	CODE NO.	SERIES MODEL & PRODUCT DESCRIPTION	MAXIMUM SIZE TESTED		
			FRAME	SASH	
MI Windows & Doors, Inc. (Oldsmar, FL) MI Windows & Doors, Inc. (Smyrna, TN)	MTL-8 MTL-9	185/318S SH (Fin) (AL)(O/X)(OG) (ASTM)	3'0" x 5'2"	2'10" x 4'7"	By Request

2. This Certification will expire May 14, 2008 and requires validation until then by continued listing in the current AAMA Certified Products Directory.

3. Product Tested and Reported by: Architectural Testing, Inc.

   Report No.: 01-50360.02

   Date of Report: June 14, 2004

NOTE: PLEASE REVIEW, AND ADVISE ALI IMMEDIATELY IF DATA, AS SHOWN, NEEDS CORRECTION.

Date: August 1, 2005

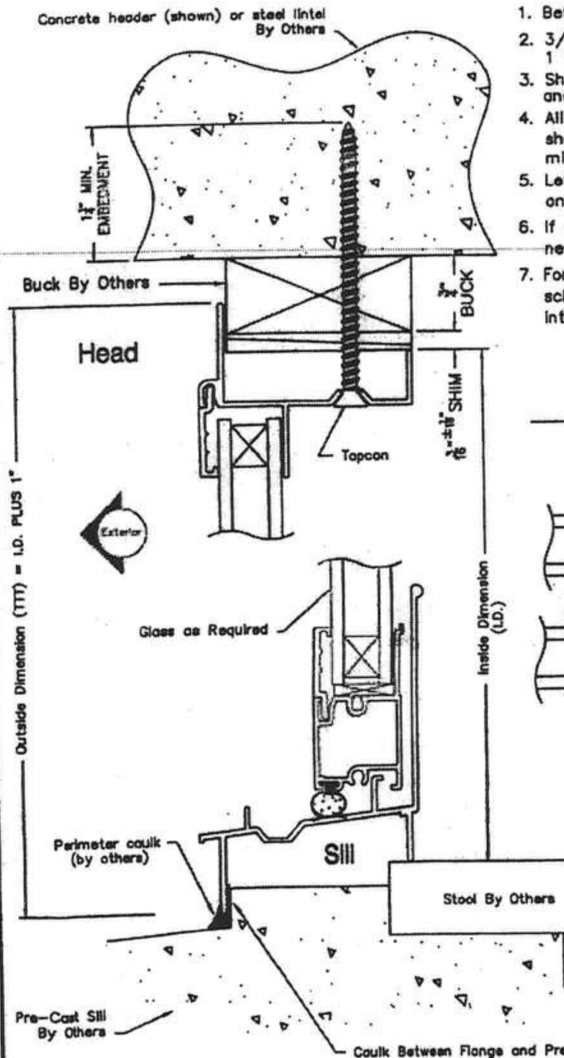
Validated for Certification:

Associated Laboratories, Inc.

Authorized for Certification:

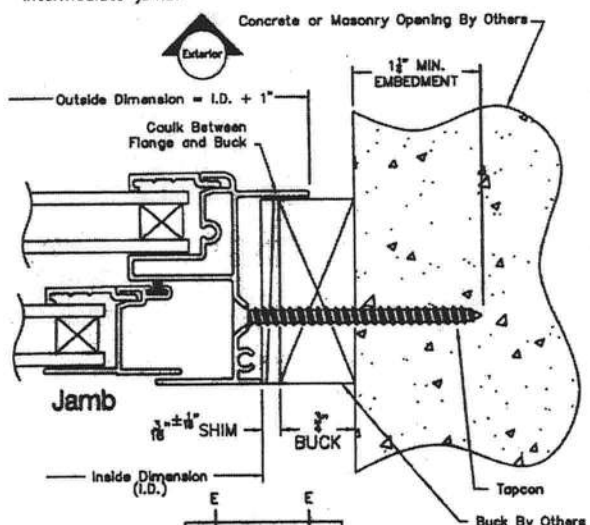
American Architectural Manufacturers Association

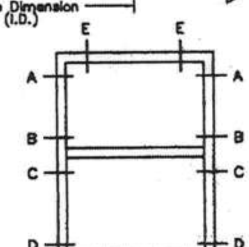
cc: AAMA
JGS/df
ACP-04 (Rev. 5/03)



"ONE BY" (3/4") BUCKS (SHOWN)

1. Before installation, caulk back of flange, or face of buck.
2. 3/16" dia. masonry Tapcon must be of a length to have 1 1/4" embedment into masonry or concrete.
3. Shim as required with load bearing shims at each installation anchor as shown.
4. All factory applied holes not designated for Tapcon anchor should be filled with #10 screws of sufficient length to provide min. 5/8" embedment into wood buck.
5. Letter designations on the Tapcon location chart indicate where anchors are to be installed using the elevation as a key.
6. If exact window size is not given, use anchor quantity for next larger window in chart.
7. For continuous head and sill twins & triples, use the same fastener schedule for each unit in the main frame except ignore the intermediate jamb.





"TWO BY" (1 1/2") BUCKS

"TWO BY" bucks are engineered and fastened to the masonry opening BY OTHERS.

Follow the same instructions and fastener requirements for "one by" bucks except use #10 screws of sufficient length for 1 1/4" minimum embedment into buck.

MI HOME PRODUCTS BetterBilt / Capitol

*** TAPCON LOCATION CHART**

CODE SIZE	WINDOW ID SIZE	FASTENER LOCATIONS UP TO DP35	DP35.1 TO DP55	DP55.1 TO DP69.3
12	18 1/8 x 25	A, D & E	A, D & E	A, D & E
13	18 1/8 x 37 3/8	A, D & E	A, D & E	A, D & E
14	18 1/8 x 49 5/8	A, D & E	A, D & E	A, D & E
15	18 1/8 x 62	A, D & E	A, D & E	A, D & E
16	18 1/8 x 71	A, D & E	A, D & E	A, D & E
17	18 1/8 x 83	A, D & E	A, D & E	A, D & E
1/2 32	25 1/2 x 25	A, D & E	A, D & E	A, D & E
1/2 33	25 1/2 x 37 3/8	A, D & E	A, D & E	A, D & E
1/2 34	25 1/2 x 49 5/8	A, D & E	A, D & E	A, D & E
1/2 35	25 1/2 x 62	A, D & E	A, D & E	A, D & E
1/2 36	25 1/2 x 71	A, D & E	A, D & E	A, D & E
1/2 37	25 1/2 x 83	A, D & E	A, D & E	A, C, D & E
22	36 x 25	A, D & E	A, D & E	A, D & E
23	36 x 37 3/8	A, D & E	A, D & E	A, D & E
24	36 x 49 5/8	A, D & E	A, D & E	A, D & E
25	36 x 62	A, D & E	A, D & E	A, D & E
26	36 x 71	A, D & E	A, D & E	A, C, D & E
27	36 x 83	A, D & E	A, C, D & E	A, C, D & E
32	52 1/8 x 25	A, D & E	A, D & E	A, D & E
33	52 1/8 x 37 3/8	A, D & E	A, D & E	A, D & E
34	52 1/8 x 49 5/8	A, D & E	A, D & E	A, D & E
35	52 1/8 x 62	A, D & E	A, C, D & E	A, C, D & E
36	52 1/8 x 71	A, D & E	A, C, D & E	A, B, C, D & E
37	52 1/8 x 83	A, D & E	A, C, D & E	A, B, C, D & E
2040	23 3/8 x 47 5/8	A, D & E	A, D & E	A, D & E
2050	23 3/8 x 59 5/8	A, D & E	A, D & E	A, D & E
2060	23 3/8 x 71 5/8	A, D & E	A, D & E	A, D & E
2070	23 3/8 x 83 5/8	A, D & E	A, D & E	A, D & E
3040	35 3/8 x 47 5/8	A, D & E	A, D & E	A, D & E
3050	35 3/8 x 59 5/8	A, D & E	A, D & E	A, D & E
3060	35 3/8 x 71 5/8	A, D & E	A, D & E	A, C, D & E
3070	35 3/8 x 83 5/8	A, D & E	A, C, D & E	A, C, D & E
4040	47 3/8 x 47 5/8	A, D & E	A, D & E	A, D & E
4050	47 3/8 x 59 5/8	A, D & E	A, D & E	A, C, D & E
4060	47 3/8 x 71 5/8	A, D & E	A, C, D & E	A, C, D & E
4070	47 3/8 x 83 5/8	A, D & E	A, C, D & E	A, B, C, D & E
4450	51 3/8 x 59 5/8	A, D & E	A, D & E	A, C, D & E
4460	51. 3/8 x 71 5/8	A, D & E	A, C, D & E	A, B, C, D & E
4470	51 3/8 x 83 5/8	A, D & E	A, C, D & E	A, B, C, D & E

*"TAPCON" TYPE HARDENED MASONRY SCREWS INCLUDE TAPCON, RAWL, & SIMPSON

SYM	REVISION	DATE	BY
A	REMOVED SILL INSTALLATION ANCHOR SCREWS	7/16/04	

Winter Park, Florida 32789

MI HOME PRODUCTS
GRATZ, PA

TITLE: 185/3185 SINGLE HUNG FLANGE FRAME INSTALLATION DETAILS & FASTENER SCHEDULE

PREPARED BY: PTC Product Technology Corporation
Phone 407.622.6334 Fax 407.622.6335

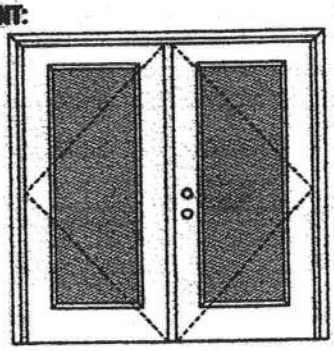
DRN: DRL	DATE: 06/15/04
SCALE: N.T.S.	DWG. NO. MIHP0059
REV. LETTER: A	SHEET: 1 OF 1

XX
Glazed Outswing Unit

COP-WL-JH4162-02

WOOD-EDGE STEEL DOORS

APPROVED ARRANGEMENT:



Note:
Units of other sizes are covered by this report as long as the panels used do not exceed 3'0" x 6'8".

Double Door
Maximum unit size = 6'0" x 6'8"

Design Pressure
+40.5/-40.5
Limited water unless special threshold design is used.

Large Missile Impact Resistance
Hurricane protective system (shutters) is REQUIRED.

Actual design pressure and impact resistant requirements for a specific building design and geographic location is determined by ASCE 7-national, state or local building codes specify the edition required.

MINIMUM ASSEMBLY DETAIL:

Compliance requires that minimum assembly details have been followed – see MAD-WL-MA0012-02 and MAD-WL-MA0041-02.

MINIMUM INSTALLATION DETAIL:

Compliance requires that minimum installation details have been followed – see MID-WL-MA0002-02.

APPROVED DOOR STYLES:

1/4 GLASS:


100 Series


133, 135 Series


136 Series


680 Series


822 Series

1/2 GLASS:


105 Series*


106, 160 Series*


129 Series*


200 Series*


12 R/L, 23 R/L, 24 R/L Series*


107 Series*


103 Series


304 Series

*This glass kit may also be used in the following door styles: 5-panel; 5-panel with scroll; Eyebrow 5-panel; Eyebrow 5-panel with scroll.

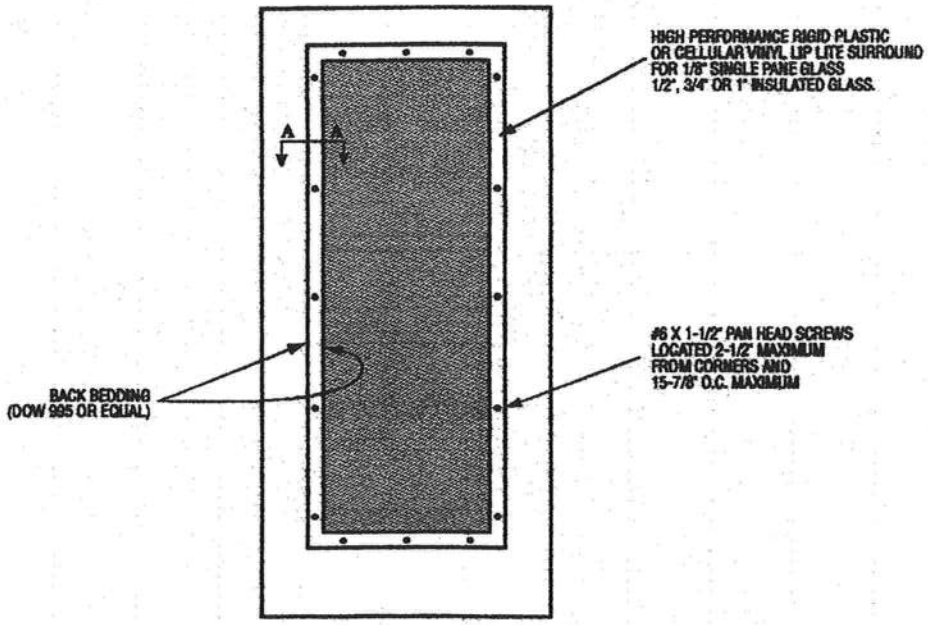
Johnson™ EntrySystems

March 29, 2002
Our continuing program of product improvement makes specifications, design and product detail subject to change without notice.

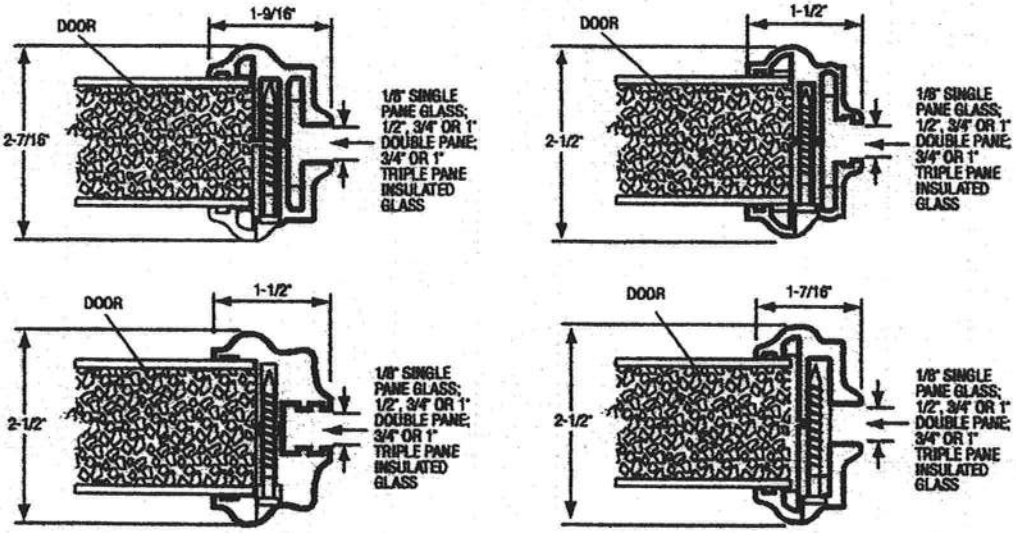
PREMDOR® Collection Premium Quality Doors

Exclusively from Masonite®
Masonite International Corporation

GLASS INSERT IN DOOR OR SIDELITE PANEL



SECTION A-A
TYPICAL RIGID PLASTIC LIP LITE SURROUND



XX
Glazed Outswing Unit

COP-WL-JH4162-02

WOOD-EDGE STEEL DOORS

APPROVED DOOR STYLES:

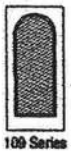
3/4 GLASS:

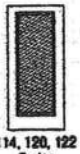

404 Series

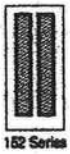

416 Series

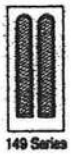

450 Series

FULL GLASS:


109 Series


114, 120, 122 Series


152 Series


149 Series


300 Series

CERTIFIED TEST REPORTS:

NCTL 210-1897-7, 8, 9, 10, 11, 12; NCTL 210-1864-5, 6, 7, 8; NCTL 210-2178-1, 2, 3

Certifying Engineer and License Number: Barry D. Portney, P.E. / 16258.

Unit Tested in Accordance with Miami-Dade BCCO PA202.

Evaluation report NCTL-210-2794-1

Door panels constructed from 26-gauge 0.017" thick steel skins. Both stiles constructed from wood. Top end rails constructed of 0.041" steel. Bottom end rails constructed of 0.021" steel. Interior cavity of slab filled with rigid polyurethane foam core. Slab glazed with insulated glass mounted in a rigid plastic lip lite surround.

Frame constructed of wood with an extruded aluminum bumper threshold.

PRODUCT COMPLIANCE LABELING:

TESTED IN
ACCORDANCE WITH
MIAMI-DADE BCCO PA202

COMPANY NAME
CITY, STATE

To the best of my knowledge and ability the above side-hinged exterior door unit conforms to the requirements of the 2001 Florida Building Code, Chapter 17 (Structural Tests and Inspections).

Kurt L Balthazor

State of Florida, Professional Engineer
Kurt Balthazor, P.E. – License Number 56533

Johnson™ EntrySystems

March 29, 2002
Our continuing program of product improvement makes specifications, design and product detail subject to change without notice.

PREMDOR Collection Premium Quality Doors

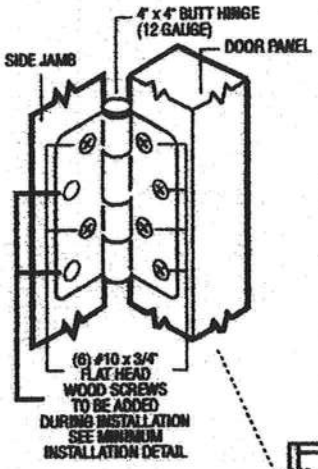
Exclusively from Masonite®
Masonite International Corporation

XX
Unit

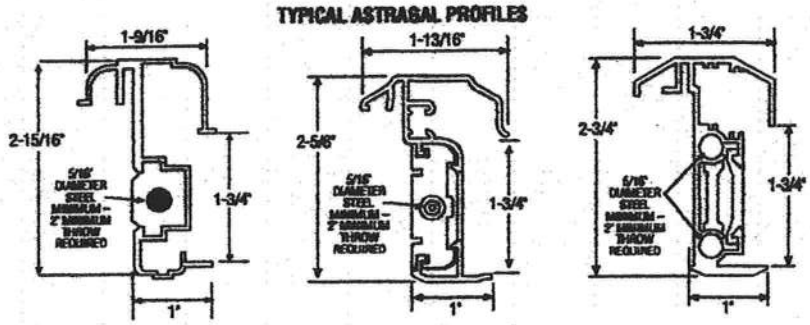
MAD-WL-MA0012-02

OUTSWING UNITS WITH DOUBLE DOOR

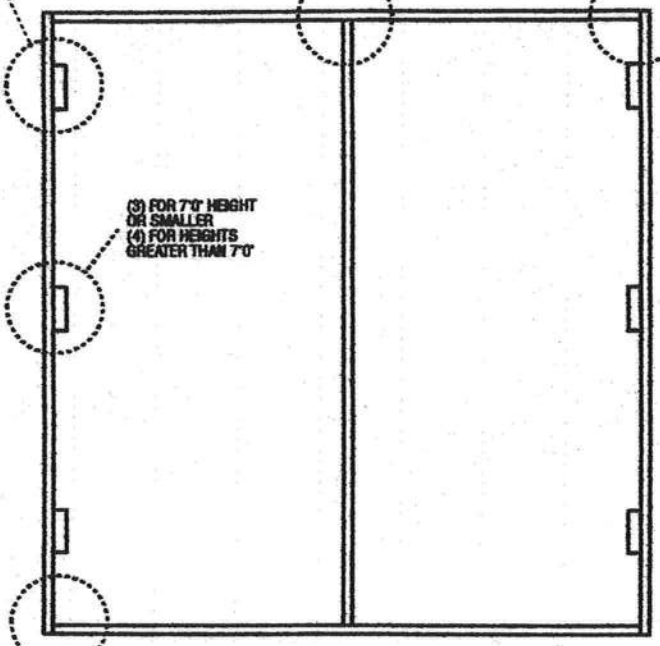
TYPICAL HINGE ATTACHMENT



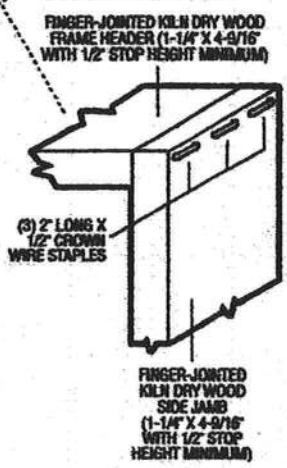
TYPICAL ASTRAGAL PROFILES



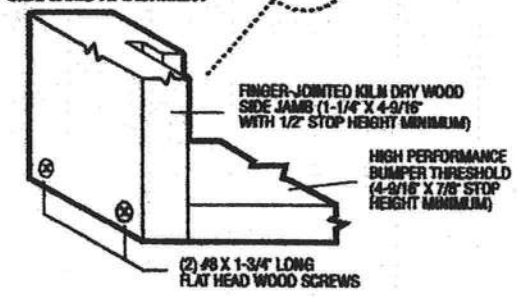
ALUMINUM EXTRUDED ASTRAGAL (0.06" MINIMUM WALL THICKNESS) WITH ADDED REINFORCEMENT INSERTS AT TOP EXTENSION BOLT, BOTTOM EXTENSION BOLT AND CYLINDERICAL/DEADBOLT LATCHING LOCATIONS. ATTACH WITH #8 X 1" PAN HEAD SCREWS – LOCATE 1" FROM EACH END MINIMUM AND 22" O.C. MAXIMUM.



TYPICAL HEADER & SIDE JAMB ATTACHMENT



TYPICAL THRESHOLD & SIDE JAMB ATTACHMENT

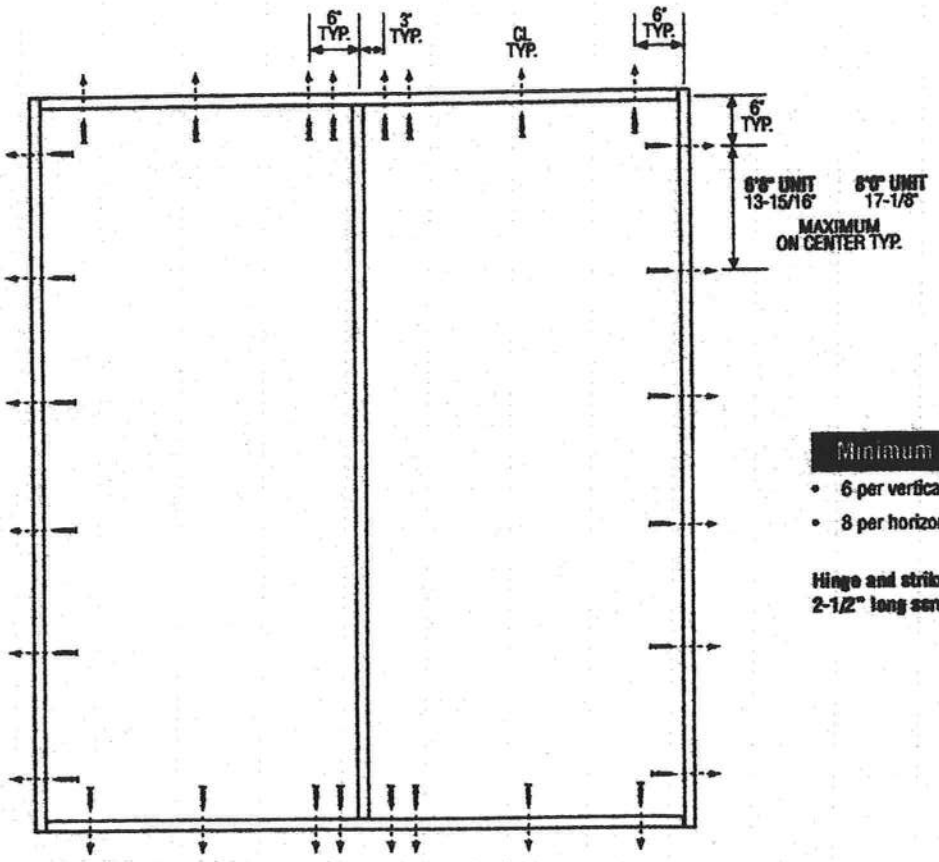


March 29, 2002
Our continuing program of product improvement makes specifications, design and product details subject to change without notice.

XX
Unit

MID-WL-MA0002-02

DOUBLE DOOR



Minimum Fastener Count

- 6 per vertical framing member
- 8 per horizontal framing member

Hinge and strike plates require two 2-1/2" long screws per location.

Latching Hardware:

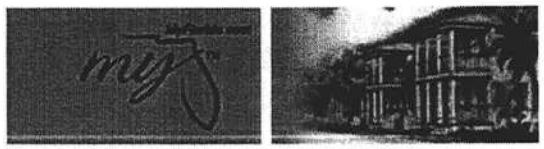
- Compliance requires that GRADE 2 or better (ANSI/BHMA A156.2) cylinderical and deadlock hardware be installed.

Notes:

1. Anchor calculations have been carried out with the lowest (least) fastener rating from the different fasteners being considered for use. Fasteners analyzed for this unit include #8 and #10 wood screws or 3/16" Tapcons.
2. The wood screw single shear design values come from Table 11.3A of ANSI/AF & PA NDS for southern pine lumber with a side member thickness of 1-1/4" and achievement of minimum embedment. The 3/16" Tapcon single shear design values come from the ITW and ELCO Dade Country approvals respectively, each with minimum 1-1/4" embedment.
3. Wood bucks by others, must be anchored properly to transfer loads to the structure.

March 29, 2002
Our continuing program of product improvement makes specifications, design and product detail subject to change without notice.

FLORIDA DEPARTMENT OF
Community Affairs



Product Approval
USER: Public User

FL #	FL1956-R1
Application Type	Revision
Code Version	2004
Application Status	Approved
Comments	
Archived	☐

Product Manufacturer	TAMKO Building Products, Inc.
Address/Phone/Email	PO Box 1404 Joplin, MO 64802 (800) 641-4691 ext 2394 fred_oconnor@tamko.com
Authorized Signature	Frederick O'Connor fred_oconnor@tamko.com
Technical Representative	Frederick J. O'Connor
Address/Phone/Email	PO Box 1404 Joplin, MO 64802 (800) 641-4691 fred_oconnor@tamko.com

Quality Assurance Representative Address/Phone/Email	
Category	Roofing
Subcategory	Asphalt Shingles
Compliance Method	Certification Mark or Listing
Certification Agency	Underwriters Laboratories Inc.

Referenced Standard and Year (of Standard)	**Standard**	**Year**
	ASTM D 3462	2001

Equivalence of Product Standards Certified By	
Product Approval Method	Method 1 Option A
Date Submitted	06/09/2005
Date Validated	06/20/2005
Date Pending FBC Approval	06/25/2005
Date Approved	06/29/2005

Summary of Products

FL #	Model, Number or Name	Description

3

slopes of 2:12 or greater. Not approved for use in HVHZ.	

Back Next

DCA Administration
Department of Community Affairs
Florida Building Code Online
Codes and Standards
2555 Shumard Oak Boulevard
Tallahassee, Florida 32399-2100
(850) 487-1824, Suncom 277-1824, Fax (850) 414-8436

Product Approval Accepts:

4

Underwriters Laboratories Inc.®

Northbrook Division
333 Pfingsten Road
Northbrook, IL 60062-2096 USA
www.ul.com
tel: 1 847 272 8800

June 17, 2005

Tamko Roofing Products
Ms. Kerri Eden
P.O. Box 1404
220 W. 4th Street
Joplin, MO 64802-1404

Our Reference: R2919

This is to confirm that "Elite Glass-Seal AR", "Heritage 30 AR", "Heritage 50 AR", "Glass-Seal AR" manufactured at Tuscaloosa, AL and "Elite Glass-Seal AR", "Heritage 30 AR", "Heritage XL AR", "Heritage 50 AR" manufactured at Frederick, MD and "Heritage 30 AR", "Heritage XL AR", and "Heritage 50 AR" manufactured in Dallas, TX are UL Listed asphalt glass mat shingles and have been evaluated in accordance with ANSI/UL 790, Class A (ASTM E108), ASTM D3462, ASTM D3161 or UL 997 modified to 110 mph when secured with four nails.

Let me know if you have any further questions.

Very truly yours,

Alpesh Patel (Ext. 42522)
Engineer Project
Fire Protection Division

Reviewed by,

Randall K. Laymon (Ext. 42687)
Engineer Sr Staff
Fire Protection Division

4

TAMKO®
BUILDING PRODUCTS

Application Instructions for

• HERITAGE® VINTAGE™ AR – Phillipsburg, KS
LAMINATED ASPHALT SHINGLES

THESE ARE THE MANUFACTURER'S APPLICATION INSTRUCTIONS FOR THE ROOFING CONDITIONS DESCRIBED. TAMKO BUILDING PRODUCTS, INC. ASSUMES NO RESPONSIBILITY FOR LEAKS OR OTHER ROOFING DEFECTS RESULTING FROM FAILURE TO FOLLOW THE MANUFACTURER'S INSTRUCTIONS.

THIS PRODUCT IS COVERED BY A LIMITED WARRANTY, THE TERMS OF WHICH ARE PRINTED ON THE WRAPPER.

IN COLD WEATHER (BELOW 40°F), CARE MUST BE TAKEN TO AVOID DAMAGE TO THE EDGES AND CORNERS OF THE SHINGLES.

IMPORTANT: It is not necessary to remove the plastic strip from the back of the shingles.

I. ROOF DECK

These shingles are for application to roof decks capable of receiving and retaining fasteners, and to inclines of not less than 2 in. per foot. For roofs having pitches 2 in. per foot to less than 4 in. per foot, refer to special instructions titled "Low Slope Application". Shingles must be applied properly. TAMKO assumes no responsibility for leaks or defects resulting from improper application, or failure to properly prepare the surface to be roofed over.

NEW ROOF DECK CONSTRUCTION: Roof deck must be smooth, dry and free from warped surfaces. It is recommended that metal drip edges be installed at eaves and rakes.

PLYWOOD: All plywood shall be exterior grade as defined by the American Plywood Association. Plywood shall be a minimum of 3/8 in. thickness and applied in accordance with the recommendations of the American Plywood Association.

SHEATHING BOARDS: Boards shall be well-seasoned tongue-and-groove boards and not over 6 in. nominal width. Boards shall be a 1 in. nominal minimum thickness. Boards shall be properly spaced and nailed.

TAMKO does not recommend re-roofing over existing roof.

2. VENTILATION

Inadequate ventilation of attic spaces can cause accumulation of moisture in winter months and a build up of heat in the summer. These conditions can lead to:

1. Vapor Condensation
2. Buckling of shingles due to deck movement.
3. Rotting of wood members.
4. Premature failure of roof.

To insure adequate ventilation and circulation of air, place louvers of sufficient size high in the gable ends and/or install continuous ridge and soffit vents. FHA minimum property standards require one square foot of net free ventilation area to each 150 square feet of space to be vented, or one square foot per 300 square feet if a vapor barrier is installed on the warm side of the ceiling or if at least one half of the ventilation is provided near the ridge. If the ventilation openings are screened, the total area should be doubled.

IT IS PARTICULARLY IMPORTANT TO PROVIDE ADEQUATE VENTILATION.

3. FASTENERS

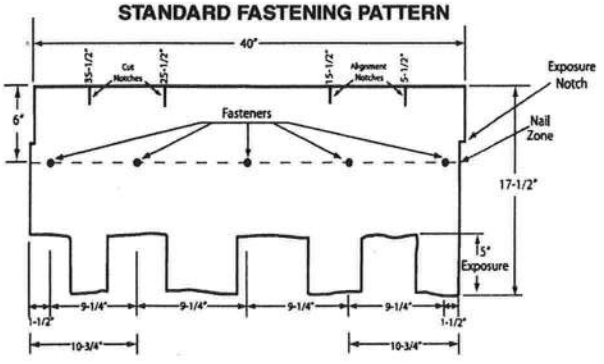
WIND CAUTION: Extreme wind velocities can damage these shingles after application when proper sealing of the shingles does not occur. This can especially be a problem if the shingles are applied in cooler months or in areas on the roof that do not receive direct sunlight. These conditions may impede the sealing of the adhesive strips on the shingles. The inability to seal down may be compounded by prolonged cold weather conditions and/or blowing dust. In these situations, hand sealing of the shingles is recommended. Shingles must also be fastened according to the fastening instructions described below.

Correct placement of the fasteners is critical to the performance of the shingle. If the fasteners are not placed as shown in the diagram and described below, this will result in the termination of TAMKO's liabilities under the limited warranty. TAMKO will not be responsible for damage to shingles caused by winds in excess of the applicable miles per hour as stated in the limited warranty. See limited warranty for details.

FASTENING PATTERNS: Fasteners must be placed 6 in. from the top edge of the shingle located horizontally as follows:

1) Standard Fastening Pattern. (For use on decks with slopes 2 in. per foot to 21 in. per foot.) One fastener 1-1/2 in. back from each end, one 10-3/4 in. back from each end and one 20 in. from one end of the shingle for a total of 5 fasteners. (See standard fastening pattern illustrated below).

STANDARD FASTENING PATTERN



2) Mansard or Steep Slope Fastening Pattern. (For use on decks with slopes greater than 21 in. per foot.) Use standard nailing instructions with four additional nails placed 6 in. from the butt edge of the shingle making certain nails are covered by the next (successive) course of shingles.

(Continued)

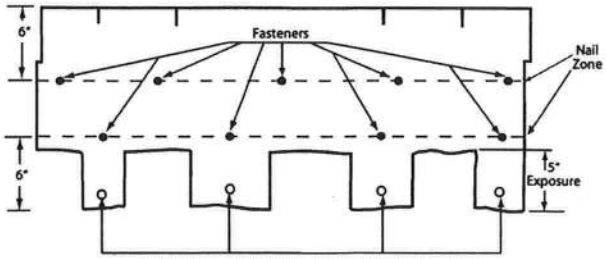
TAMKO BUILDING PRODUCTS

(CONTINUED from Pg. 1)

• HERITAGE® VINTAGE™ AR – Phillipsburg, KS
LAMINATED ASPHALT SHINGLES

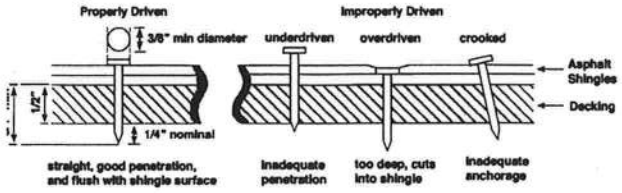
Each shingle tab must be sealed underneath with quick setting asphalt adhesive cement immediately upon installation. Spots of cement must be equivalent in size to a $.25 piece and applied to shingles with a 5 in. exposure, use 9 fasteners per shingle.

MANSARD FASTENING PATTERN



Apply under each tab 1" diameter asphalt adhesive cement.

NAILS: TAMKO recommends the use of nails as the preferred method of application. Standard type roofing nails should be used. Nail shanks should be made of minimum 12 gauge wire, and a minimum head diameter of 3/8 in. Nails should be long enough to penetrate 3/4 in. into the roof deck. Where the deck is less than 3/4 in. thick, the nails should be long enough to penetrate completely through plywood decking and extend at least 1/8 in. through the roof deck. Drive nail head flush with the shingle surface.



4. UNDERLAYMENT

UNDERLAYMENT: An underlayment consisting of asphalt saturated felt must be applied over the entire deck before the installation of TAMKO shingles. Failure to add underlayment can cause premature failure of the shingles and leaks which are not covered by TAMKO's limited warranty. Apply the felt when the deck is dry. On roof decks 4 in. per foot and greater apply the felt parallel to the eaves lapping each course of the felt over the lower course at least 2 in. Where ends join, lap the felt 4 in. If left exposed, the underlayment felt may be adversely affected by moisture and weathering. Laying of the underlayment and the shingle application must be done together.

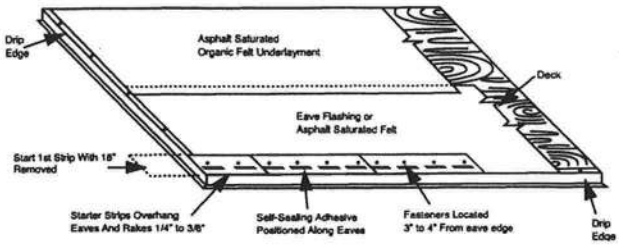
Products which are acceptable for use as underlayment are:

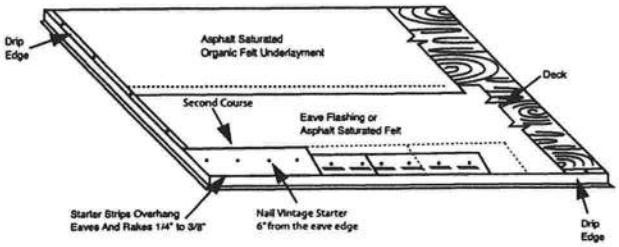
- TAMKO No. 15 Asphalt Saturated Organic Felt
- A non-perforated asphalt saturated organic felt which meets ASTM: D226, Type I or ASTM D4869, Type I
- Any TAMKO non-perforated asphalt saturated organic felt
- TAMKO TW Metal and Tile Underlayment, TW Underlayment and Moisture Guard Plus® (additional ventilation maybe required. Contact TAMKO's technical services department for more information)

In areas where ice builds up along the eaves or a back-up of water from frozen or clogged gutters is a potential problem, TAMKO's Moisture Guard Plus® waterproofing underlayment (or any specialty eaves flashing product) may be applied to eaves, rakes, ridges, valleys, around chimneys, skylights or dormers to help prevent water damage. Contact TAMKO's Technical Services Department for more information.
TAMKO does not recommend the use of any substitute products as shingle underlayment.

5. APPLICATION INSTRUCTIONS

STARTER COURSE: Two starter course layers must be applied prior to application of Heritage Vintage AR Shingles.
The first starter course may consist of TAMKO Shingle Starter, three tab self-sealing type shingles or a 9 inch wide strip of mineral surface roll roofing. If three tab self-sealing shingles are used, remove the exposed tab portion and install with the factory applied adhesive adjacent to the eaves. If using three tab self-sealing shingles or shingle starter, remove 18 in. from first shingle to offset the end joints of the Vintage Starter. Attach the first starter course with approved fasteners along a line parallel to and 3 in. to 4 in. above the eave edge. The starter course should overhang both the eave and rake edge 1/4 in. to 3/8 in. Over the first starter course, install Heritage Vintage Starter AR and begin at the left rake edge with a full size shingle and continue across the roof nailing the Heritage Vintage Starter AR along a line parallel to and 6 in. from the eave edge.





Note: Do not allow Vintage Starter AR joints to be visible between shingle tabs. Cutting of the starter may be required.

HERITAGE VINTAGE STARTER AR
12 1/2" x 36" 20 PIECES PER BUNDLE
60 LINEAL FT. PER BUNDLE

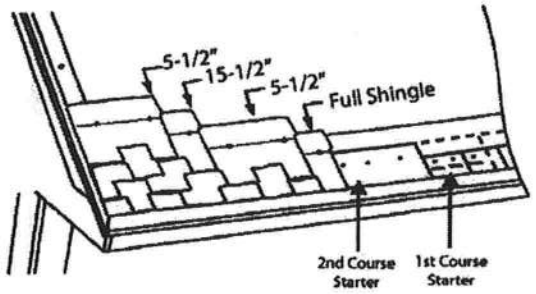
(Continued)

(CONTINUED from Pg. 2)

TAMKO BUILDING PRODUCTS

• HERITAGE® VINTAGE™ AR – Phillipsburg, KS
LAMINATED ASPHALT SHINGLES

SHINGLE APPLICATION: Start the first course at the left rake edge with a full size shingle and overhang the rake edge 1/4 in. to 3/8 in.. To begin the second course, align the right side of the shingle with the 5-1/2 in. alignment notch on the first course shingle making sure to align the exposure notch. (See shingle illustration on next page) Cut the appropriate amount from the rake edge so the overhang is 1/4" to 3/8". For the third course, align the shingle with the 15-1/2 in. alignment notch at the top of the second course shingle, again being sure to align the exposure notch. Cut the appropriate amount from the rake edge. To begin the fourth course, align the shingle with the 5-1/2 in. alignment notch from the third course shingle while aligning the exposure notch. Cut the appropriate amount from the rake edge. Continue up the rake in as many rows as necessary using the same formula as outlined above. Cut pieces may be used to complete courses at the right side. As you work across the roof, install full size shingles taking care to align the exposure notches. Shingle joints should be no closer than 4 in.



6. LOW SLOPE APPLICATION

On pitches 2 in. per foot to 4 in. per foot cover the deck with two layers of underlayment. Begin by applying the underlayment in a 19 in. wide strip along the eaves and overhanging the drip edge by 1/4 to 3/4 in. Place a full 36 in. wide sheet over the 19 in. wide starter piece, completely overlapping it. All succeeding courses will be positioned to overlap the preceding course by 19 in. If winter temperatures average 25°F or less, thoroughly cement the laps of the entire underlayment to each other with plastic cement from eaves and rakes to a point of a least 24 in. inside the interior wall line of the building. As an alternative, TAMKO's Moisture Guard Plus self-adhering waterproofing underlayment may be used in lieu of the cemented felts.

7. VALLEY APPLICATION

TAMKO recommends an open valley construction with Heritage Vintage AR shingles.

To begin, center a sheet of TAMKO Moisture Guard Plus, TW Underlayment or TW Metal & Tile Underlayment in the valley.

After the underlayment has been secured, install the recommended corrosion resistant metal (26 gauge galvanized metal or an equivalent) in the valley. Secure the valley metal to the roof deck. Overlaps should be 12" and cemented.

Following valley metal application; a 9" to 12" wide strip of TAMKO Moisture Guard Plus, TW Underlayment or TW Metal & Tile Underlayment should be applied along the edges of the metal valley flashing (max. 6" onto metal valley flashing) and on top of the valley underlayment. The valley will be completed with shingle application.

SHINGLE APPLICATION INSTRUCTIONS (OPEN VALLEY)

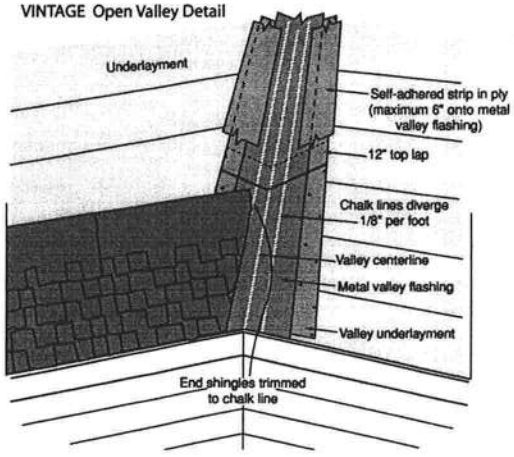
- Snap two chalk lines, one on each side of the valley centerline over the full length of the valley flashing. Locate the upper ends of the chalk lines 3" to either side of the valley centerline.
- The lower end should diverge from each other by 1/8" per foot. Thus, for an 8' long valley, the chalk lines should be 7" either side of the centerline at the eaves and for a 16' valley 8".

As shingles are applied toward the valley, trim the last shingle in each course to fit on the chalk line. Never use a shingle trimmed to less than 12" in length to finish a course running into a valley. If necessary, trim the adjacent shingle in the course to allow a longer portion to be used.

- Clip 1" from the upper corner of each shingle on a 45° angle to direct water into the valley and prevent it from penetrating between the courses.

- Form a tight seal by cementing the shingle to the valley lining with a 3" width of asphalt plastic cement (conforming to ASTM D 4586).

VINTAGE Open Valley Detail



• **CAUTION:**
Adhesive must be applied in smooth, thin, even layers.

Excessive use of adhesive will cause blistering to this product.

TAMKO assumes no responsibility for blistering.

(Continued)

(CONTINUED from Pg. 3)

TAMKO BUILDING PRODUCTS

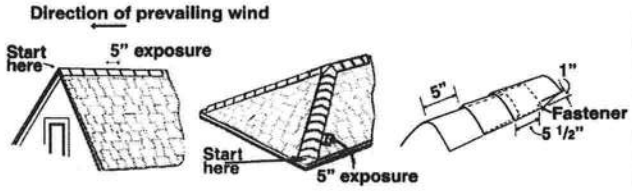
• HERITAGE® VINTAGE™ AR – Phillipsburg, KS
LAMINATED ASPHALT SHINGLES

8. HIP AND RIDGE FASTENING DETAIL

Apply the shingles with a 5 in. exposure beginning at the bottom of the hip or from the end of the ridge opposite the direction of the prevailing winds. Secure each shingle with one fastener on each side, 5-1/2 in. back from the exposed end and 1 in. up from the edge. TAMKO recommends the use of TAMKO Heritage Vintage Hip & Ridge shingle products.

Fasteners should be 1/4 in. longer than the ones used for shingles.

IMPORTANT: PRIOR TO INSTALLATION, CARE NEEDS TO BE TAKEN TO PREVENT DAMAGE WHICH CAN OCCUR WHILE BENDING SHINGLE IN COLD WEATHER.



THESE ARE THE MANUFACTURER'S APPLICATION INSTRUCTIONS FOR THE ROOFING CONDITIONS DESCRIBED. TAMKO BUILDING PRODUCTS, INC. ASSUMES NO RESPONSIBILITY FOR LEAKS OR OTHER ROOFING DEFECTS RESULTING FROM FAILURE TO FOLLOW THE MANUFACTURER'S INSTRUCTIONS.

Residential System Sizing Calculation

Summary

Spec House
Legion Road
Lake City, FL 32025-

Project Title:
Seth Heitzman Construction - Legion RD

Code Only
Professional Version
Climate: North

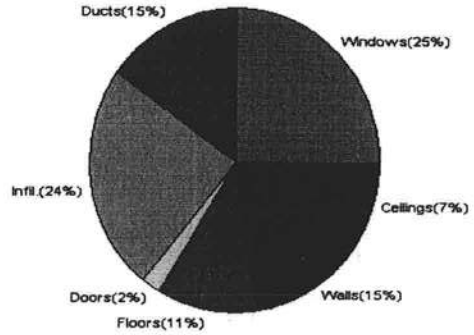
1/17/2008

Location for weather data: Gainesville - Defaults: Latitude(29) Altitude(152 ft.) Temp Range(M) Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(54gr.)					
Winter design temperature	33	F	Summer design temperature	92	F
Winter setpoint	70	F	Summer setpoint	75	F
Winter temperature difference	37	F	Summer temperature difference	17	F
Total heating load calculation	**25608**	**Btuh**	**Total cooling load calculation**	**40797**	**Btuh**
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	117.2	30000	Sensible (SHR = 0.75)	66.5	22500
Heat Pump + Auxiliary(0.0kW)	117.2	30000	Latent	107.5	7500
			Total (Electric Heat Pump)	73.5	30000

WINTER CALCULATIONS

Winter Heating Load (for 1408 sqft)

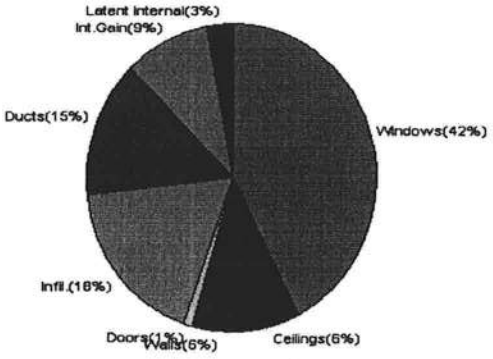
Load component			Load	
Window total	202	sqft	6502	Btuh
Wall total	1198	sqft	3934	Btuh
Door total	40	sqft	518	Btuh
Ceiling total	1550	sqft	1826	Btuh
Floor total	175	sqft	2862	Btuh
Infiltration	150	cfm	6084	Btuh
Duct loss			3881	Btuh
Subtotal			**25608**	**Btuh**
Ventilation	0	cfm	0	Btuh
TOTAL HEAT LOSS			**25608**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 1408 sqft)

Load component			Load	
Window total	202	sqft	17247	Btuh
Wall total	1198	sqft	2386	Btuh
Door total	40	sqft	392	Btuh
Ceiling total	1550	sqft	2567	Btuh
Floor total			0	Btuh
Infiltration	131	cfm	2446	Btuh
Internal gain			3780	Btuh
Duct gain			5005	Btuh
Sens. Ventilation	0	cfm	0	Btuh
Total sensible gain			**33822**	**Btuh**
Latent gain(ducts)			973	Btuh
Latent gain(infiltration)			4803	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/other)			1200	Btuh
Total latent gain			**6975**	**Btuh**
TOTAL HEAT GAIN			**40797**	**Btuh**



Version 8
For Florida residences only

EnergyGauge® System Sizing
PREPARED BY: _____
DATE: 1-17-08

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Spec House
Legion Road
Lake City, FL 32025-

Project Title:
Seth Heitzman Construction - Legion RD

Code Only
Professional Version
Climate: North

Reference City: Gainesville (Defaults) Winter Temperature Difference: 37.0 F

1/17/2008

Component Loads for Whole House

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft) X	HTM=	Load
1	2, Clear, Metal, 0.87	W	75.0	32.2	2414 Btuh
2	2, Clear, Metal, 0.87	W	30.0	32.2	966 Btuh
3	2, Clear, Metal, 0.87	W	20.0	32.2	644 Btuh
4	2, Clear, Metal, 0.87	N	20.0	32.2	644 Btuh
5	2, Clear, Metal, 0.87	N	6.0	32.2	193 Btuh
6	2, Clear, Metal, 0.87	E	45.0	32.2	1449 Btuh
7	2, Clear, Metal, 0.87	S	6.0	32.2	193 Btuh
	Window Total		202(sqft)		6502 Btuh
Walls	Type	R-Value	Area X	HTM=	Load
1	Frame - Wood - Ext(0.09)	13.0	1002	3.3	3291 Btuh
2	Frame - Wood - Adj(0.09)	13.0	196	3.3	644 Btuh
	Wall Total		1198		3934 Btuh
Doors	Type		Area X	HTM=	Load
1	Insulated - Exterior		20	12.9	259 Btuh
2	Insulated - Adjacent		20	12.9	259 Btuh
	Door Total		40		518Btuh
Ceilings	Type/Color/Surface	R-Value	Area X	HTM=	Load
1	Vented Attic/D/Shin	30.0	1550	1.2	1826 Btuh
	Ceiling Total		1550		1826Btuh
Floors	Type	R-Value	Size X	HTM=	Load
1	Slab On Grade	5	175.0 ft(p)	16.4	2862 Btuh
	Floor Total		175		2862 Btuh
			Envelope Subtotal:		15643 Btuh
Infiltration	Type	ACH X	Volume(cuft)	walls(sqft)	CFM=
	Natural	0.80	11264	1198	150.2
					6084 Btuh
Ductload				(DLM of 0.179)	3881 Btuh
All Zones			**Sensible Subtotal All Zones**		**25608 Btuh**

WHOLE HOUSE TOTALS

	Subtotal Sensible	25608 Btuh
	Ventilation Sensible	0 Btuh
	Total Btuh Loss	25608 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Spec House
Legion Road
Lake City, FL 32025-

Project Title:
Seth Heitzman Construction - Legion RD

Code Only
Professional Version
Climate: North

1/17/2008

EQUIPMENT

1. Electric Heat Pump	#	30000 Btuh

Key: Window types (SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)
(Frame types - metal, wood or insulated metal)
(U - Window U-Factor or 'DEF' for default)
(HTM - ManualJ Heat Transfer Multiplier)
Key: Floor size (perimeter(p) for slab-on-grade or area for all other floor types)

Version 8
For Florida residences only

System Sizing Calculations - Winter

Residential Load - Room by Room Component Details

Spec House
Legion Road
Lake City, FL 32025-

Project Title:
Seth Heitzman Construction - Legion RD

Code Only
Professional Version
Climate: North

Reference City: Gainesville (Defaults) Winter Temperature Difference: 37.0 F

1/17/2008

Component Loads for Zone #1: Main

Window	Panes/SHGC/Frame/U	Orientation	Area(sqft) X	HTM=	Load
1	2, Clear, Metal, 0.87	W	75.0	32.2	2414 Btuh
2	2, Clear, Metal, 0.87	W	30.0	32.2	966 Btuh
3	2, Clear, Metal, 0.87	W	20.0	32.2	644 Btuh
4	2, Clear, Metal, 0.87	N	20.0	32.2	644 Btuh
5	2, Clear, Metal, 0.87	N	6.0	32.2	193 Btuh
6	2, Clear, Metal, 0.87	E	45.0	32.2	1449 Btuh
7	2, Clear, Metal, 0.87	S	6.0	32.2	193 Btuh
	Window Total		202(sqft)		6502 Btuh
Walls	Type	R-Value	Area X	HTM=	Load
1	Frame - Wood - Ext(0.09)	13.0	1002	3.3	3291 Btuh
2	Frame - Wood - Adj(0.09)	13.0	196	3.3	644 Btuh
	Wall Total		1198		3934 Btuh
Doors	Type		Area X	HTM=	Load
1	Insulated - Exterior		20	12.9	259 Btuh
2	Insulated - Adjacent		20	12.9	259 Btuh
	Door Total		40		518Btuh
Ceilings	Type/Color/Surface	R-Value	Area X	HTM=	Load
1	Vented Attic/D/Shin	30.0	1550	1.2	1826 Btuh
	Ceiling Total		1550		1826Btuh
Floors	Type	R-Value	Size X	HTM=	Load
1	Slab On Grade	5	175.0 ft(p)	16.4	2862 Btuh
	Floor Total		175		2862 Btuh
			Zone Envelope Subtotal:		15643 Btuh

Infiltration	Type	ACH X	Volume(cuft)	walls(sqft)	CFM=	
	Natural	0.80	11264	1198	150.2	6084 Btuh
Ductload	Average sealed, Supply(R6.0-Attic), Return(R6.0-Attic) (DLM of 0.179)					3881 Btuh
Zone #1	**Sensible Zone Subtotal**					**25608 Btuh**

Manual J Winter Calculations

Residential Load - Component Details (continued)

Spec House
Legion Road
Lake City, FL 32025-

Project Title:
Seth Heitzman Construction - Legion RD

Code Only
Professional Version
Climate: North

1/17/2008

WHOLE HOUSE TOTALS

	Subtotal Sensible	25608 Btuh
	Ventilation Sensible	0 Btuh
	Total Btuh Loss	25608 Btuh

EQUIPMENT

1. Electric Heat Pump	#	30000 Btuh

Key: Window types (SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)
(Frame types - metal, wood or insulated metal)
(U - Window U-Factor or 'DEF' for default)
(HTM - ManualJ Heat Transfer Multiplier)
Key: Floor size (perimeter(p) for slab-on-grade or area for all other floor types)

Version 8
For Florida residences only

System Sizing Calculations - Summer

Residential Load - Whole House Component Details

Spec House
Legion Road
Lake City, FL 32025-

Project Title:
Seth Heitzman Construction - Legion RD

Code Only
Professional Version
Climate: North

Reference City: Gainesville (Defaults) Summer Temperature Difference: 17.0 F 1/17/2008

Component Loads for Whole House

	Type*		Overhang		Window Area(sqft)			HTM		Load
Window	Pn/SHGC/U/InSh/ExSh/IS	Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded	
1	2, Clear, 0.87, None,N,N	W	1.5ft	8ft.	75.0	0.0	75.0	29	80	5964 Btuh
2	2, Clear, 0.87, None,N,N	W	1.5ft	8ft.	30.0	0.0	30.0	29	80	2385 Btuh
3	2, Clear, 0.87, None,N,N	W	1.5ft	8ft.	20.0	0.0	20.0	29	80	1590 Btuh
4	2, Clear, 0.87, None,N,N	N	1.5ft	8ft.	20.0	0.0	20.0	29	29	579 Btuh
5	2, Clear, 0.87, None,N,N	N	1.5ft	8ft.	6.0	0.0	6.0	29	29	174 Btuh
6	2, Clear, 0.87, None,N,N	E	1.5ft	8ft.	45.0	0.0	45.0	29	80	3578 Btuh
7	2, Clear, 0.87, None,N,N	S	1.5ft	8ft.	6.0	6.0	0.0	29	34	174 Btuh
	Excursion									2802 Btuh
	Window Total				202 (sqft)					17247 Btuh

Walls	Type	R-Value/U-Value	Area(sqft)	HTM	Load
1	Frame - Wood - Ext	13.0/0.09	1002.0	2.1	2090 Btuh
2	Frame - Wood - Adj	13.0/0.09	196.0	1.5	296 Btuh
	Wall Total		1198 (sqft)		2386 Btuh

Doors	Type	Area (sqft)	HTM	Load
1	Insulated - Exterior	20.0	9.8	196 Btuh
2	Insulated - Adjacent	20.0	9.8	196 Btuh
	Door Total	40 (sqft)		392 Btuh

Ceilings	Type/Color/Surface	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/DarkShingle	30.0	1550.0	1.7	2567 Btuh
	Ceiling Total		1550 (sqft)		2567 Btuh

Floors	Type	R-Value	Size	HTM	Load
1	Slab On Grade	5.0	175 (ft(p))	0.0	0 Btuh
	Floor Total		175.0 (sqft)		0 Btuh

			Envelope Subtotal:		22591 Btuh
Infiltration	Type	ACH	Volume(cuft) wall area(sqft)	CFM=	Load
	SensibleNatural	0.70	11264 1198	150.2	2446 Btuh
Internal gain		Occupants	Btuh/occupant	Appliance	Load
		6	X 230 +	2400	3780 Btuh
			Sensible Envelope Load:		28817 Btuh
Duct load			(DGM of 0.174)		5005 Btuh
			Sensible Load All Zones		**33822 Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

Spec House
Legion Road
Lake City, FL 32025-

Project Title:
Seth Heitzman Construction - Legion RD

Code Only
Professional Version
Climate: North

1/17/2008

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	**Sensible Envelope Load All Zones**	**28817 Btuh**
	Sensible Duct Load	5005 Btuh
	Total Sensible Zone Loads	**33822 Btuh**
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	**33822 Btuh**
	Latent infiltration gain (for 54 gr. humidity difference)	4803 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	973 Btuh
	Latent occupant gain (6 people @ 200 Btuh per person)	1200 Btuh
	Latent other gain	0 Btuh
	Latent total gain	**6975 Btuh**
	TOTAL GAIN	**40797 Btuh**

EQUIPMENT

1. Central Unit	#	30000 Btuh

*Key: Window types (Pn - Number of panes of glass)
(SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)
(U - Window U-Factor or 'DEF' for default)
(InSh - Interior shading device: none(N), Blinds(B), Draperies(D) or Roller Shades(R))
(ExSh - Exterior shading device: none(N) or numerical value)
(BS - Insect screen: none(N), Full(F) or Half(H))
(Ornt - compass orientation)

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System Sizing Calculations - Summer

Residential Load - Room by Room Component Details

Spec House
Legion Road
Lake City, FL 32025-

Project Title:
Seth Heitzman Construction - Legion RD

Code Only
Professional Version
Climate: North

Reference City: Gainesville (Defaults) Summer Temperature Difference: 17.0 F 1/17/2008

Component Loads for Zone #1: Main

Window	Type* Pn/SHGC/U/InSh/ExSh/IS	Ornt	Overhang Len	Hgt	Window Area(sqft) Gross	Shaded	Unshaded	HTM Shaded	Unshaded	Load
1	2, Clear, 0.87, None,N,N	W	1.5ft	8ft.	75.0	0.0	75.0	29	80	5964 Btuh
2	2, Clear, 0.87, None,N,N	W	1.5ft	8ft.	30.0	0.0	30.0	29	80	2385 Btuh
3	2, Clear, 0.87, None,N,N	W	1.5ft	8ft.	20.0	0.0	20.0	29	80	1590 Btuh
4	2, Clear, 0.87, None,N,N	N	1.5ft	8ft.	20.0	0.0	20.0	29	29	579 Btuh
5	2, Clear, 0.87, None,N,N	N	1.5ft	8ft.	6.0	0.0	6.0	29	29	174 Btuh
6	2, Clear, 0.87, None,N,N	E	1.5ft	8ft.	45.0	0.0	45.0	29	80	3578 Btuh
7	2, Clear, 0.87, None,N,N	S	1.5ft	8ft.	6.0	6.0	0.0	29	34	174 Btuh
	Window Total				202 (sqft)					14445 Btuh

Walls	Type	R-Value/U-Value	Area(sqft)	HTM	Load
1	Frame - Wood - Ext	13.0/0.09	1002.0	2.1	2090 Btuh
2	Frame - Wood - Adj	13.0/0.09	196.0	1.5	296 Btuh
	Wall Total		1198 (sqft)		2386 Btuh

Doors	Type	Area (sqft)	HTM	Load
1	Insulated - Exterior	20.0	9.8	196 Btuh
2	Insulated - Adjacent	20.0	9.8	196 Btuh
	Door Total	40 (sqft)		392 Btuh

Ceilings	Type/Color/Surface	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/DarkShingle	30.0	1550.0	1.7	2567 Btuh
	Ceiling Total		1550 (sqft)		2567 Btuh

Floors	Type	R-Value	Size	HTM	Load
1	Slab On Grade	5.0	175 (ft(p))	0.0	0 Btuh
	Floor Total		175.0 (sqft)		0 Btuh

			Zone Envelope Subtotal:		19789 Btuh
Infiltration	Type	ACH	Volume(cuft)	wall area(sqft)	CFM=	Load
	SensibleNatural	0.70	11264	1198	131.4	2446 Btuh
Internal gain	Occupants	Btuh/occupant			Appliance	Load
	6	X 230	+		2400	3780 Btuh
			Sensible Envelope Load:			26015 Btuh
Duct load	Average sealed, Supply(R6.0-Attic), Return(R6.0-Attic)				(DGM of 0.174)	4518 Btuh
			Sensible Zone Load			**30533 Btuh**

The following window Excursion will be assigned to the system loads.

Windows	July excursion for System 1		2802 Btuh
		Excursion Subtotal:	2802 Btuh
Duct load			487 Btuh
		Sensible Excursion Load	**3289 Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

Spec House
Legion Road
Lake City, FL 32025-

Project Title:
Seth Heitzman Construction - Legion RD

Code Only
Professional Version
Climate: North

1/17/2008

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	**Sensible Envelope Load All Zones**	**28817**	**Btuh**
	Sensible Duct Load	5005	Btuh
	Total Sensible Zone Loads	**33822**	**Btuh**
	Sensible ventilation	0	Btuh
	Blower	0	Btuh
	Total sensible gain	**33822**	**Btuh**
	Latent infiltration gain (for 54 gr. humidity difference)	4803	Btuh
	Latent ventilation gain	0	Btuh
	Latent duct gain	973	Btuh
	Latent occupant gain (6 people @ 200 Btuh per person)	1200	Btuh
	Latent other gain	0	Btuh
	Latent total gain	**6975**	**Btuh**
	TOTAL GAIN	**40797**	**Btuh**

EQUIPMENT

1. Central Unit	#	30000 Btuh

*Key: Window types (Pn - Number of panes of glass)
(SHGC - Shading coefficient of glass as SHGC numerical value or as clear or tint)
(U - Window U-Factor or 'DEF' for default)
(InSh - Interior shading device: none(N), Blinds(B), Draperies(D) or Roller Shades(R))
(ExSh - Exterior shading device: none(N) or numerical value)
(BS - Insect screen: none(N), Full(F) or Half(H))
(Ornt - compass orientation)

Version 8
For Florida residences only

Residential Window Diversity

MidSummer

Spec House
Legion Road
Lake City, FL 32025-

Project Title:
Seth Heitzman Construction - Legion RD

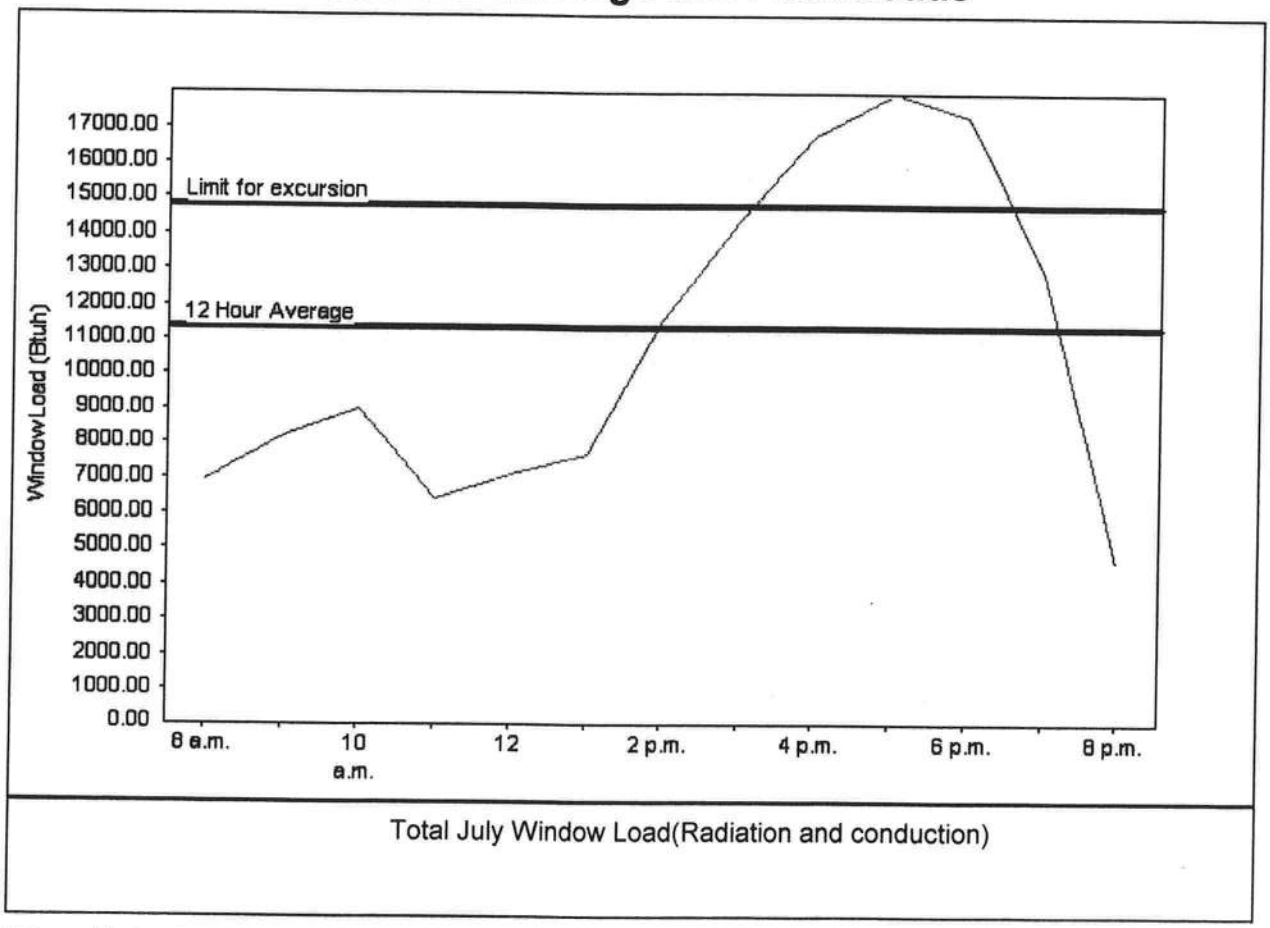
Code Only
Professional Version
Climate: North

1/17/2008

Weather data for: Gainesville - Defaults

Summer design temperature	92 F	Average window load for July	11364 Btu
Summer setpoint	75 F	Peak window load for July	18073 Btu
Summer temperature difference	17 F	Excusion limit(130% of Ave.)	14773 Btu
Latitude	29 North	Window excursion (July)	3301 Btuh

WINDOW Average and Peak Loads



Total July Window Load(Radiation and conduction)

This application has glass areas that produce large heat gains for part of the day. Variable air volume devices are required to overcome spikes in solar gain for one or more rooms. Install a zoned system or provide zone control for problem rooms. Single speed equipment may not be suitable for the application.

EnergyGauge® System Sizing for Florida residences only
PREPARED BY: _____
DATE: _____