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:1UVC487-Z0112075316

WALTER P. FINN LICENSE No. 22839 STATE OF FLORIDA PROFESSIONAL ENGINEER
04/12/2013

Truss Fabricator:	Anderson Truss Company
Job Identification:	13-136--OWNER BUILDER Bardell Add. -- 10497 SW Tuskenugge Lake Cir, FL
Truss Count:	3
Model Code:	Florida Building Code 2010
Truss Criteria:	FBC2010Res/TPI-2007(STD)
Engineering Software:	Alpine Software,Version 10.03.
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 - 37.0 PSF @ 1.25 Duration
	Floor - N/A
	Wind - 120 MPH ASCE 7-10 -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: HCUSR487

Walter P. Finn
-Truss Design Engineer-

1950 Marley Drive
Haines City, FL 33844

Details: 12015EC1-GBLLETIN-GABRST10-

#	Ref	Description	Drawing#	Date
1	86821--A	17' Common	13102003	04/12/13
2	86822--A1	17' Common	13102002	04/12/13
3	86823--ADG	17' Gable	13102001	04/12/13

COLUMBIA COUNTY BUILDING DEPARTMENT Received for FILE COPY Code Compliance PLANS EXAMINER

(13-136--OWNER BUILDER Bardell Add. -- 10497 SW Tuskenuggee Lake City, FL - A 17' Common)

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

Top chord 2x4 SP_#1_12A
Bot chord 2x4 SP_#1_12A
Webs 2x4 SP_#3__12A

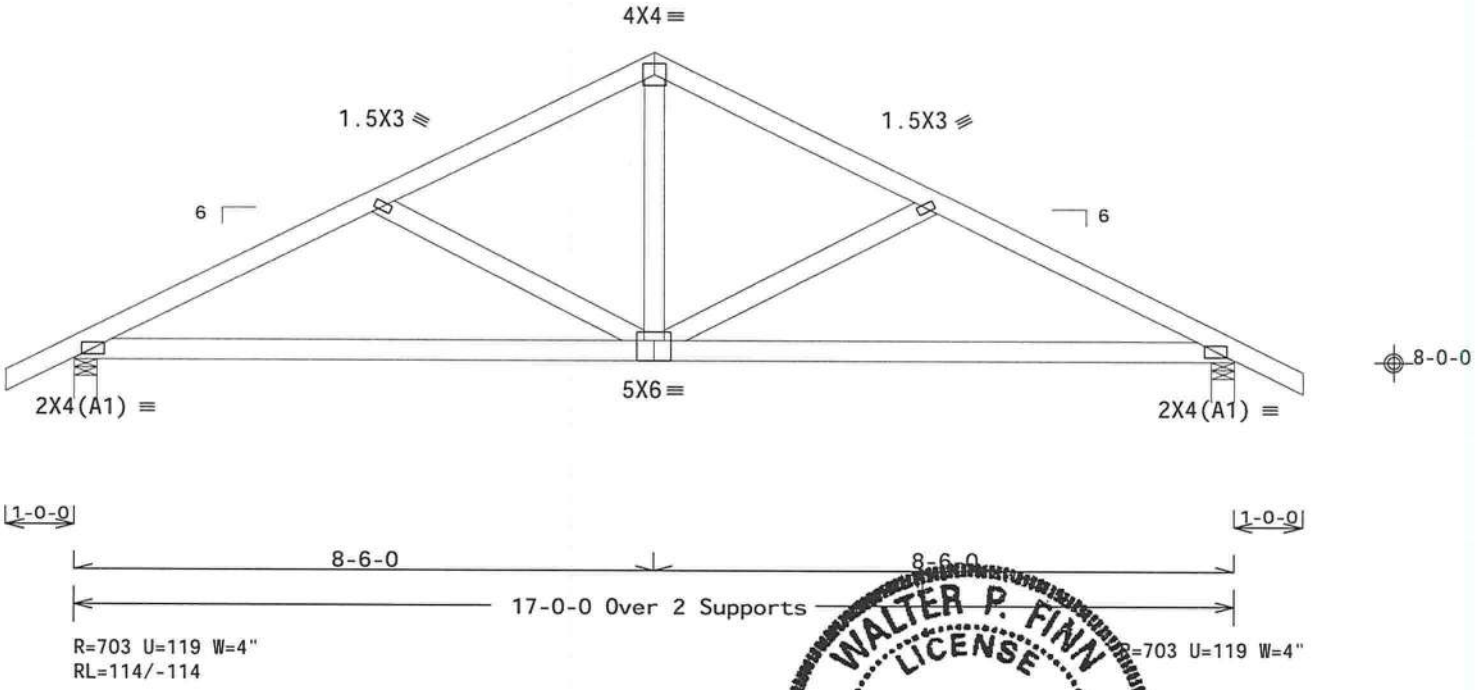
Lumber grades designated with "12A" use design values approved 1/5/2012 by ALSC.

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

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP C, wind TC DL=3.5 psf, wind BC DL=5.0 psf. GCpi(+/-)=0.18

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

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



Design Crit: FBC2010Res/TPI-2007(STD)

PLT TYP. Wave

FT/RT=20%(0%)/10(0) 10.03.11 0809.20 QTY 6 FL/-/6/-/-/R/- Scale =.375"/Ft.

WALTER P. FINN LICENSE No.22839 STATE OF FLORIDA PROFESSIONAL ENGINEER

04/12/2013

ALPINE
ITW Building Components Group Inc.
Haines City, FL 33844
FL COA #0 278

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

Trusses require extreme care in fabricating, handling, shipping, installing and bracing. Refer to and follow the latest edition of BCSI (Building Component Safety Information, by TPI and WTCA) for safety practices prior to performing these functions. Installers shall provide temporary bracing per BCSI. Unless noted otherwise, top chord shall have properly attached structural sheathing and bottom chord shall have a properly attached rigid ceiling. Locations shown for permanent lateral restraint of web shall have bracing installed per BCSI sections B3, B7 or B10, as applicable.

ITW Building Components Group Inc. (ITWBCG) shall not be responsible for any deviation from this design, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation and bracing of trusses. Apply plates to each face of truss and position as shown above and on the Joint Details, unless noted otherwise. Refer to drawings 160A-Z for standard plate positions. A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this design for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2. For more information see: This job's general notes page; ITW-BCG: www.itwbcg.com; TPI: www.tpinst.org; WTCA: www.sbcindustry.com; ICC: www.iccsafe.org

TC LL	20.0 PSF	REF	R487-- 86821
TC DL	7.0 PSF	DATE	04/12/13
BC DL	10.0 PSF	DRW	HCUSR487 13102003
BC LL	0.0 PSF	HC-ENG	JB/WPF
TOT.LD.	37.0 PSF	SEQN-	73446
DUR.FAC.	1.25		
SPACING	24.0"	JREF-	1UVC487_Z01

(13-136--OWNER BUILDER Bardell Add. -- 10497 SW Tuskenuggee Lake City, FL - A1 17' Common)

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

Top chord 2x4 SP 2850f-2.3E :T2 2x4 SP_#1_12A:
Bot chord 2x4 SP_#1_12A
Webs 2x4 SP_#3__12A

Lumber grades designated with "12A" use design values approved 1/5/2012 by ALSC.

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

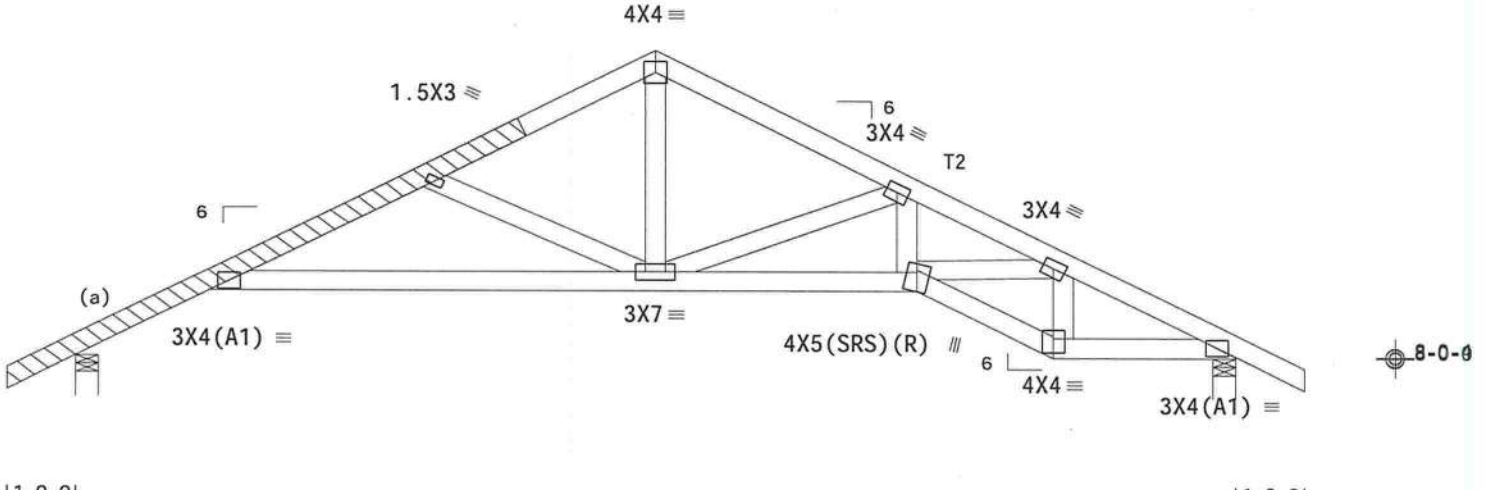
SHIM/BUILD ALL SUPPORTS TO SOLID BEARING.

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, not located within 4.50 ft from roof edge, RISK CAT II, EXP C, wind TC DL=3.5 psf, wind BC DL=5.0 psf. GCpi(+/-)=0.18

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

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

(a) (2) 2x4x8-6-0 SP 2850f-2.3E scabs at left end. Attach one scab to each outer face of chord with: 0.128"x3", min. nails @ 8" OC, Plus additional nail clusters at: BRG.: (2), heel: (3), 1st panel point: (2).



Design Crit: FBC2010Res/TPI-2007(STD FT/RT=20%(0%)/10(0) 140 03 11 0289 20 CT: FL/-/6/-/-/R/- Scale =.375"/Ft.

PLT TYP. Wave

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TC LL	20.0 PSF	REF	R487-- 86822
TC DL	7.0 PSF	DATE	04/12/13
BC DL	10.0 PSF	DRW	HCUSR487 13102002
BC LL	0.0 PSF	HC-ENG	JB/DF
TOT.LD.	37.0 PSF	SEQN-	73437
DUR.FAC.	1.25		
SPACING	24.0"	JREF-	1UVC487_Z01

(13-136--OWNER BUILDER Bardell Add. -- 10497 SW Tuskenuggee Lake City, FL - ADG 17' Gable)

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

Top chord 2x4 SP_#1_12A
Bot chord 2x4 SP_#1_12A
Webs 2x4 SP_#3__12A
:Stack Chord SC1 2x4 SP_#1_12A::Stack Chord SC2 2x4 SP_#1_12A:

Lumber grades designated with "12A" use design values approved 1/5/2012 by ALSC.

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.

Gable end supports 8" max rake overhang.

THE PROJECT ENGINEER SHALL PROVIDE FOR ENDWALL STABILITY PER SECTION 2304.3.4.1 OF THE 2010 FLORIDA BUILDING CODE. THE TOP OF THE WALL BELOW THIS TRUSS SHALL BE LATERALLY BRACED AS SPECIFIED BY THE PROJECT ENGINEER. THIS TRUSS WILL NOT PROVIDE LATERAL SUPPORT OF THE ENDWALL.

+ MEMBER TO BE LATERALLY BRACED FOR OUT OF PLANE WIND LOADS TO TRUSS.

120 mph wind, 15.00 ft mean hgt, ASCE 7-10, CLOSED bldg, Located anywhere in roof, RISK CAT II, EXP C, wind TC DL=3.5 psf, wind BC DL=5.0 psf. GCpi(+/-)=0.18

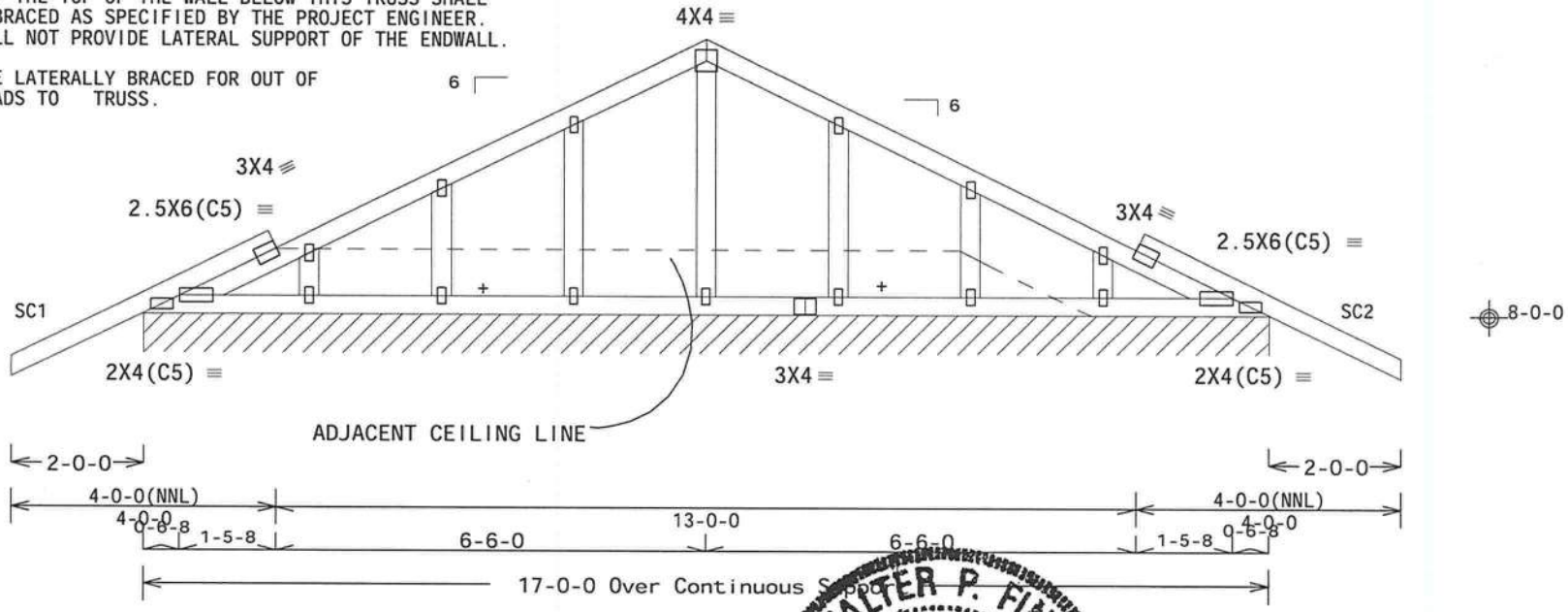
Wind loads and reactions based on MWFRS with additional C&C member design.

See DWGS A12015ENC100212, GBLLETIN0212, & GABRST100212 for more requirements.

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

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

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



R=172 PLF U=16 PLF W=17-0-0
RL=8/-8 PLF

Note: All Plates Are 1.5X3 Except As Shown.

Design Crit: FBC2010Res/TPI-2007(STD)

PLT TYP. Wave FT/RT=20%(0%)/10(0) 10.03.11 0809 20 QTY 1 FL/-/6/-/-/R/- Scale =.375"/Ft.

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04/12/2013

TC LL	20.0 PSF	REF	R487-- 86823
TC DL	7.0 PSF	DATE	04/12/13
BC DL	10.0 PSF	DRW	HCUSR487 13102001
BC LL	0.0 PSF	HC-ENG	JB/DF
TOT.LD.	37.0 PSF	SEQN-	73442
DUR.FAC.	1.25		
SPACING	24.0"	JREF-	1UVC487_Z01

Gable Stud Reinforcement Detail

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

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

Max Gable Vertical Length

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

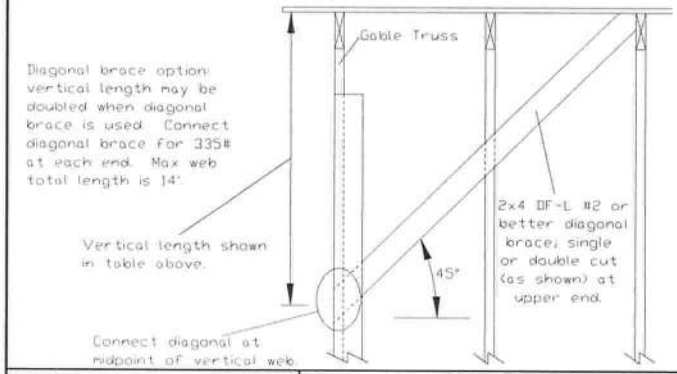
Hem-Fir
#1 & Btr
#1

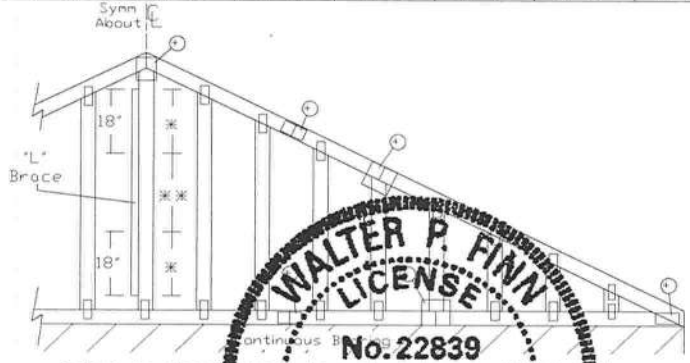
Douglas Fir-Larch
#1
#2

Southern Pine***
#1
#2

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

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





Gable Truss Detail Notes:

Wind Load deflection criterion is L/240.

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

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

So. Pine lumber design values based on the ALSC January, 2012 rulin

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

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

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

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

Gable Vertical Plate Sizes	
Vertical Length	No Splice
Less than 4' 0"	1X4 or 2X3
Greater than 4' 0", but less than 11' 6"	2X4
Greather than 11' 6"	2.5X4

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

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

WALTER P. FINN LICENSE No. 22839 STATE OF FLORIDA PROFESSIONAL ENGINEER

04/12/2013

Apr 12 '13

ITW Building Components Group Inc.

Earth City, MO 63045

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MAX. TOT. LD. 60 PSF

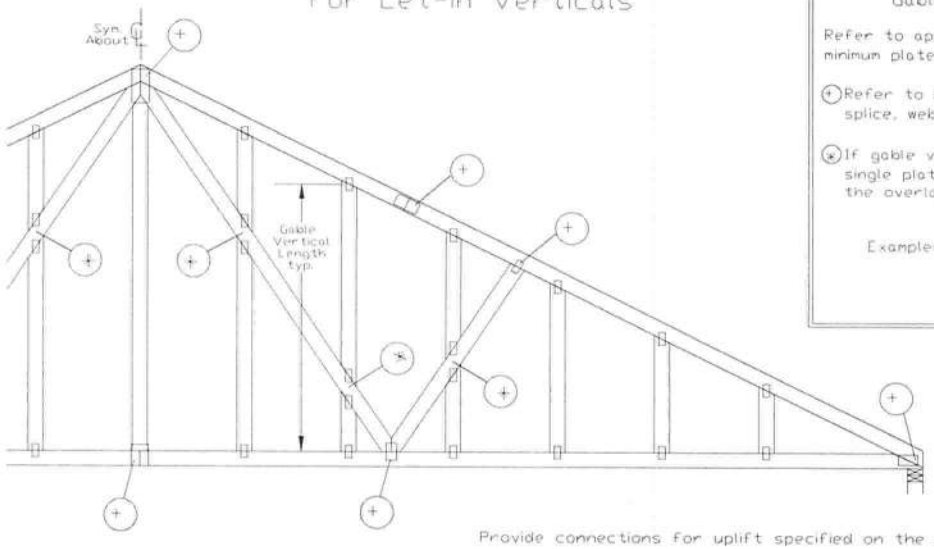
MAX. SPACING 24.0"

REF ASCE7-10-GAB12015

DATE 2/14/12

DRWG A12015ENC100212

Gable Detail
For Let-in Verticals



Gable Truss Plate Sizes

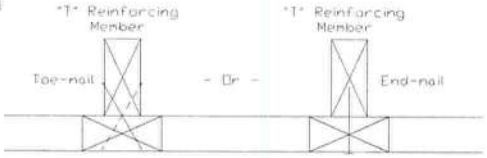
Refer to appropriate ITW gable detail for minimum plate sizes for vertical studs.

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

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

Example: 2X4 2X4 2X8

"T" Reinforcement Attachment Detail

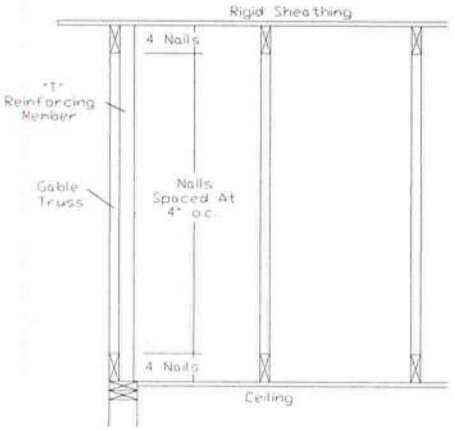


Provide connections for uplift specified on the engineered truss design.

Attach each "T" reinforcing member with

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

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



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

ASCE 7-98 Gable Detail Drawings
A13015980109, A12015980109, A11015980109, A10015980109,
A13030980109, A12030980109, A11030980109, A10030980109

ASCE 7-02 Gable Detail Drawings
A13015020109, A12015020109, A11015020109, A10015020109, A14015020109,
A13030020109, A12030020109, A11030020109, A10030020109, A14030020109

ASCE 7-05 Gable Detail Drawings
A13015050109, A12015050109, A11015050109, A10015050109, A14015050109,
A13030050109, A12030050109, A11030050109, A10030050109, A14030050109

ASCE 7-10 Gable Detail Drawings
A11515ENC100212, A12015ENC100212, A14015ENC100212, A15015ENC100212,
A18015ENC100212, A20015ENC100212, A20015PEDI00212,
A11530ENC100212, A12030ENC100212, A14030ENC100212, A16030ENC100212,
A18030ENC100212, A20030ENC100212, A20030PEDI00212

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

To convert from "L" to "T" reinforcing members, multiply "T" increase by length (based on appropriate ITW gable detail).

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

"T" reinforcing member material must match size, specie, and grade of the "L" reinforcing member.

Web Length Increase w/ "T" Brace

"T" Reinf. Mbr. Size	"T" Increase
2x4	30 %
2x6	20 %

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

WALTER P. FINN LICENSE No. 22839 STATE OF FLORIDA PROFESSIONAL ENGINEER

04/12/2013

Apr 12 '13

Building Components Group Inc.

Earth City, MO 63045

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

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

ITW Building Components Group Inc. shall not be responsible for any deviation from this drawing, any failure to build the truss in conformance with ANSI/TPI 1, or for handling, shipping, installation & bracing of trusses. A seal on this drawing or cover page listing this drawing, indicates acceptance of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TPI 1 Sec.2. For more information see this job's general notes page and these web sites:
ITWBCG: www.itwbcg.com; TPI: www.tpinst.org; WTCA: www.sbcindustry.org; ICC: www.iccsafe.or...

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

REF LET-IN VERT
DATE 2/16/12
DRWG GBLLETIN0212

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

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

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

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

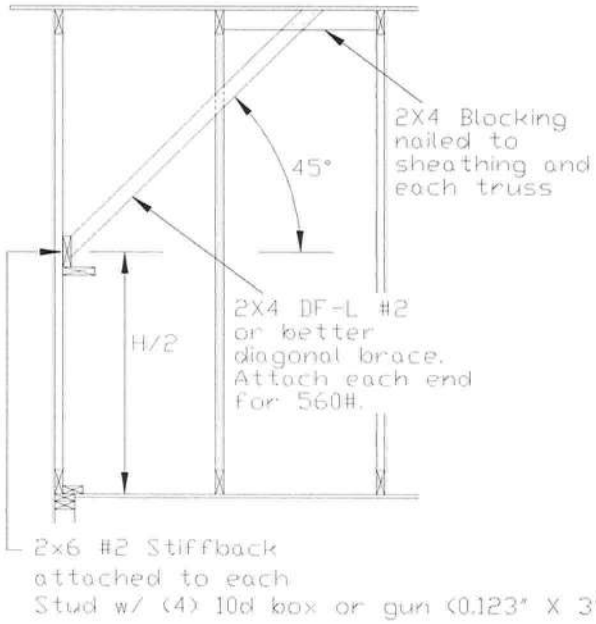
Nails: 10d box or gun (0.128"x3",min) nails.

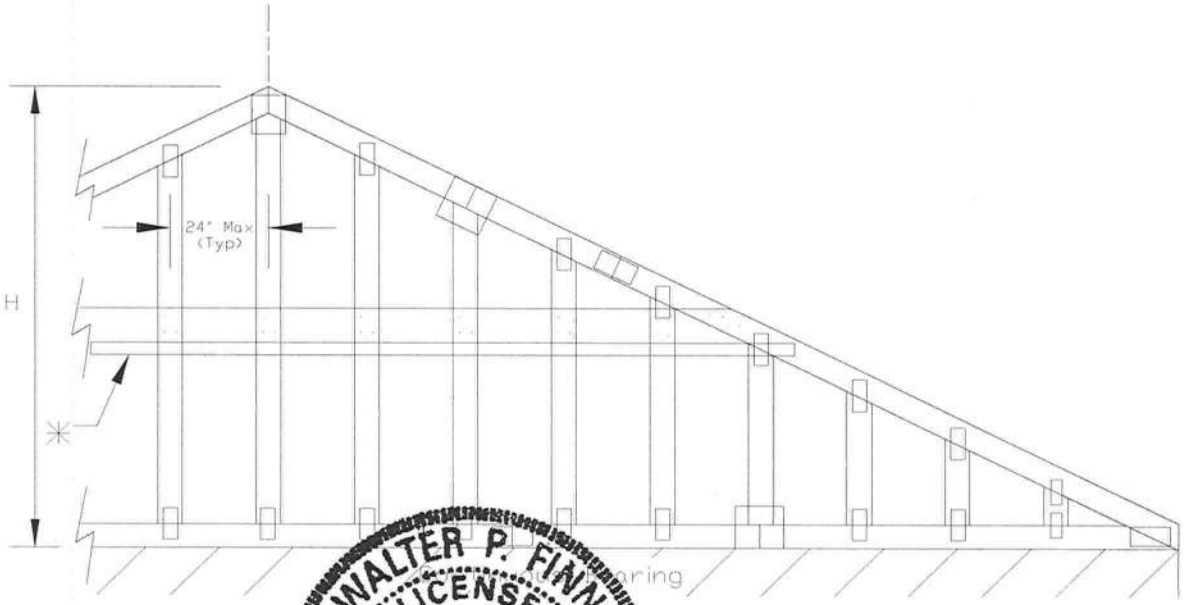
H Less than 4'6" - no stud bracing required

H Greater than 4'6" to 7'6" in length
provide a 2x6 stiffback at mid-height and brace stiffback to roof diaphragm every 6'0" (see detail below or refer to DRWG A12030ENC10).

H Greater than 7'6" to 12'0" max:
provide a 2x6 stiffback at mid-height and brace to roof diaphragm every 4'0" (see detail below or refer to DRWG A12030ENC10).

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





WALTER P. FINN
LICENSE
No. 22839
STATE OF FLORIDA
PROFESSIONAL ENGINEER
04/12/2013

Apr 12 '13

ITW Building Components Group

Earth City, MO 63045

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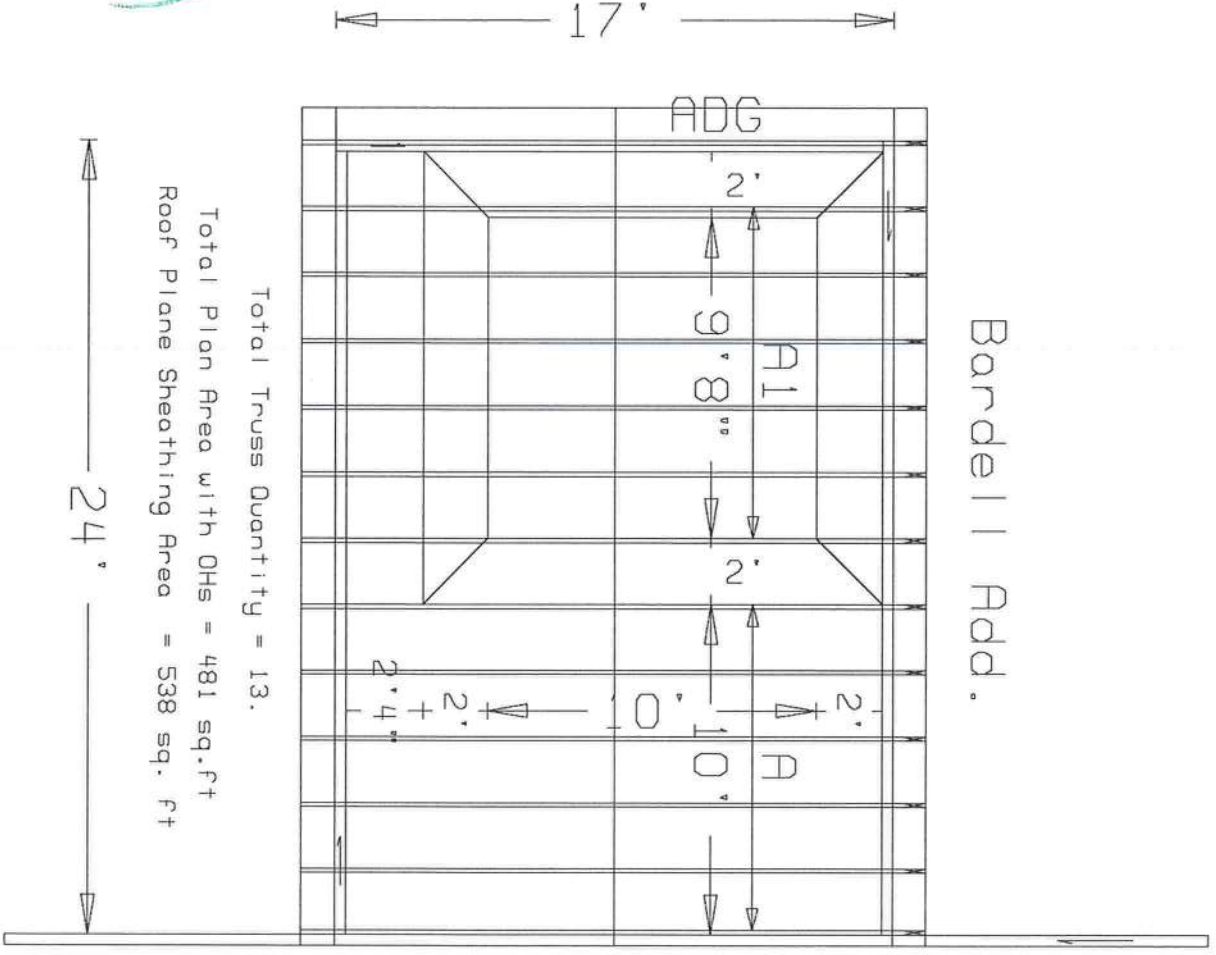
For more information see this job's general notes page and these web sites:
ITWBCG: www.itwbcg.com; TPI: www.tpinst.org; WTCA: www.sbcindustry.org; ICC: www.iccsafe.or

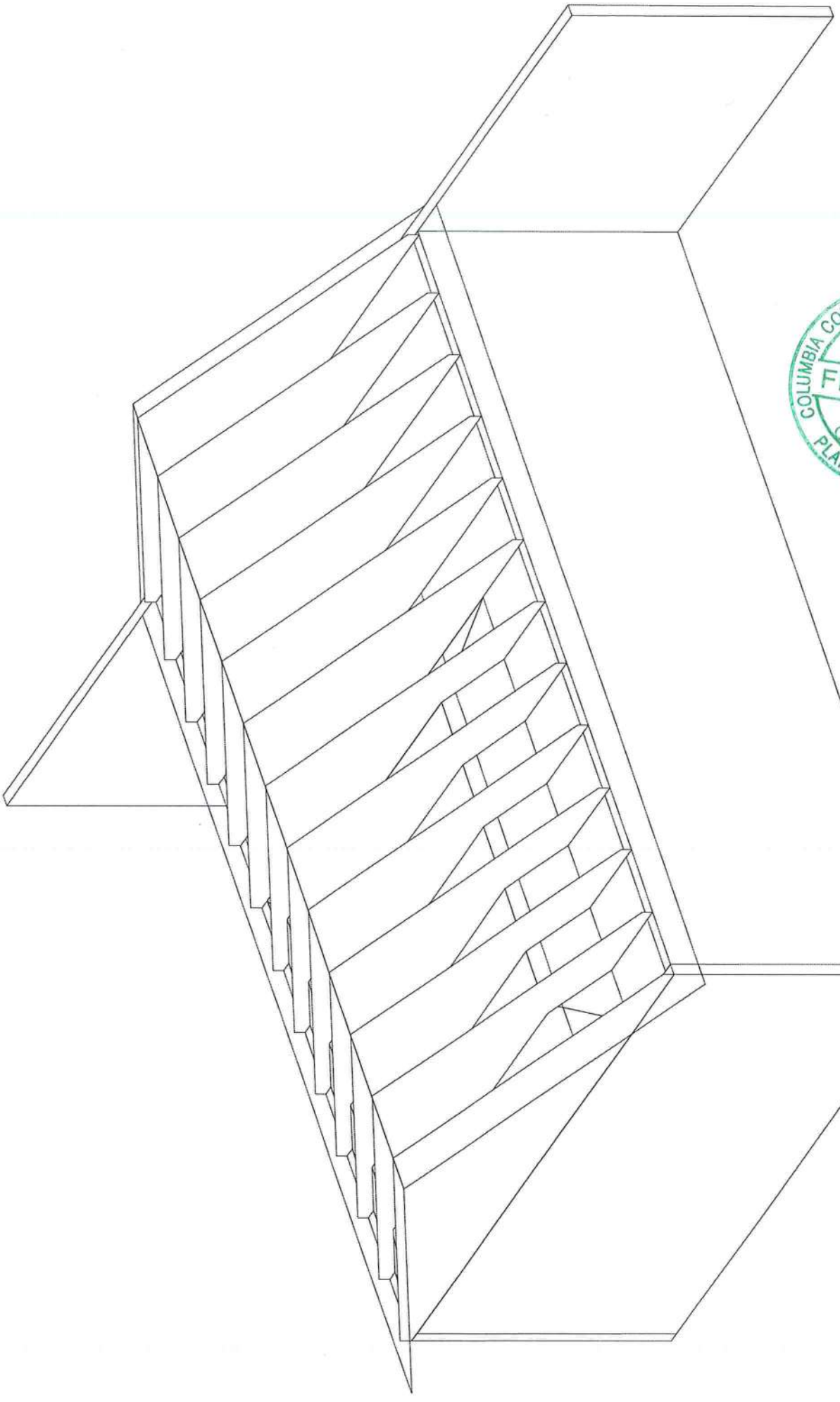
MAX. TOT. LD. 60 PSF

MAX. SPACING

REF GE WHALER
DATE 2/14/12
DRWG GABRST100212



PAGE NO: 1 OF 1	JOB NO: 13-136	JOB DESCRIPTION:: OWNER BUILDER ADDRESS:: 10497 SW Tuskenuggee /: Bardell Add. JOB #: 13-136 DESIGNER: Curt V Burlingame SALESMAN: Curt V Burlingame	ANDERSON TRUSS COMPANY



Schafer Engineering, LLC

14705 Main St. Alachua FL 32615

Prepared for:

THE BARDELL ADDITION
10497 SW TUSTENUGGEE AVE
LAKE CITY, FLORIDA

By:

Schafer Engineering, LLC

386-462-1340 / 352-375-6329

NO COPIES ARE TO BE PERMITTED

SCHAFER ENGINEERING, LLC

7104 NW 42ND LANE \ GAINESVILLE FL. 32606
PHONE: 386-462-1340 \ 352-375-6329

Trusses: Pre-engineered, pre-fabricated with the manufacturer's required bracing system installed.

Roof Sheathing: Type: OSB Size: 7/16" Fastener type nails: 8d / .113 Ring Shank
Interior zone spacing: Interior: 6" Periphery: 4"
Edge and end zone spacing: Interior: 6" Periphery: 4"

Double Top Plate: Type: Spruce Grade: #1 #2 Size: 2 x 4 Nail Spacing: 8" o.c.

Stud Type: Spruce Grade: #1 #2 Size: 2 x 4
Interior stud spacing: 16" End stud spacing: 16"

Shear Wall Siding: Type: OSB Thickness: 7/16"
11 ft Trans: Fastener 8d/131 Spacing: Int: 8 Edge: 4"
27 ft Trans: Fastener 8d/131 Spacing: Int: 8 Edge: 4"

Allowable Unit Shear on Shear Walls: 314 pounds per linear foot
Unit Shear Transferred from Diaphragm: Trans: 204 Long: 65

Wall Tension Transferred by: Siding Nails: 8d/131 @ 4" O.C. Edges

Foundation Anchor Bolts: Concrete Strength: 3000 psi Size: 1/2"
Washer: 2" Embedment: 7" Location of first anchor bolt from corner: 8"

Anchor Bolts @ 48" o.c. Model: A307 Loc. from corner: 8"
Type of Foundation: (1) - #5 rebar continuous required in bond beam.
Floor Slab: 4" Cmu size: 8" x 16" Height: 24" Rein.: #5 at 72" o.c.

Monolithic Footing: Depth: 20" Bottom Width: 12 Rein.: 2 #5 rebars

Stemwall Footing: Width: 20 Depth: 10 Rein.: 2 #5 rebar
Interior Footings 16" Wide X 10" Deep with 2-#5 rebar continuous

Porch Columns: _____ Column Fasteners: _____

Special Comments: Install 2 ply 2 x 12 syp #2 headers with 7/16" osb flitch over all window and doors.

Notes:

1. Balloon frame all gable ends unless accompanied by gable end detail
2. All walls to be nailed with same nailing pattern as the shear walls.
3. This wind load is not valid without a raised, embossed seal. (NO COPIES).
4. 1500 psf soil bearing pressure minimum.
6. Fiber mesh or WWM may be used in concrete slab. All steel must be grade 40 min.
6. Trusses must be installed and anchored in accordance to the truss engineering.
7. The foundatioin is for minimum design use, and may be increased.
8. Wind load is for one use only \ FBC-2010 \ No copies permitted

2-20-13

Bruce Schafer, P. E. #48984
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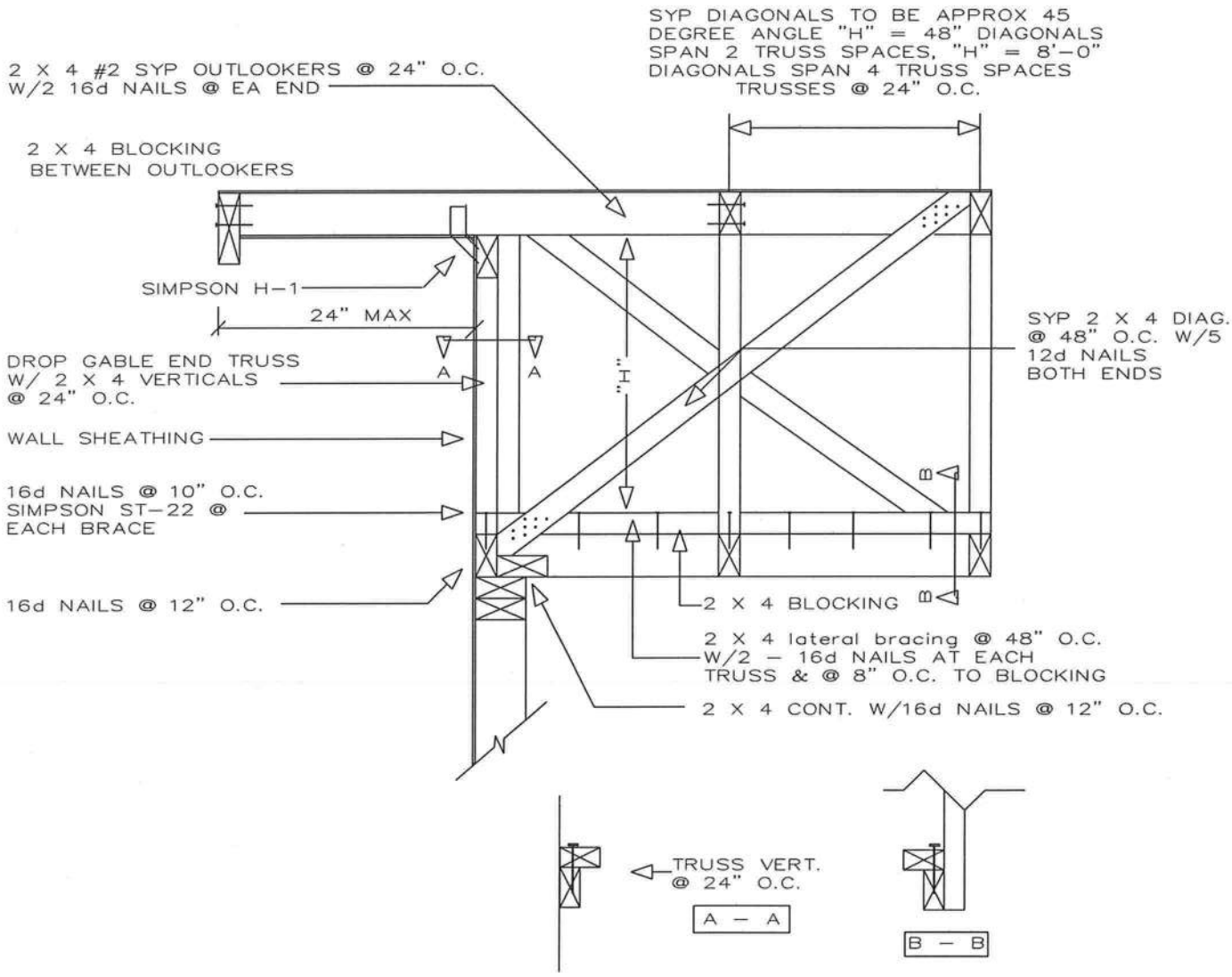

TYPICAL GABLE END BRACING

2-20-13

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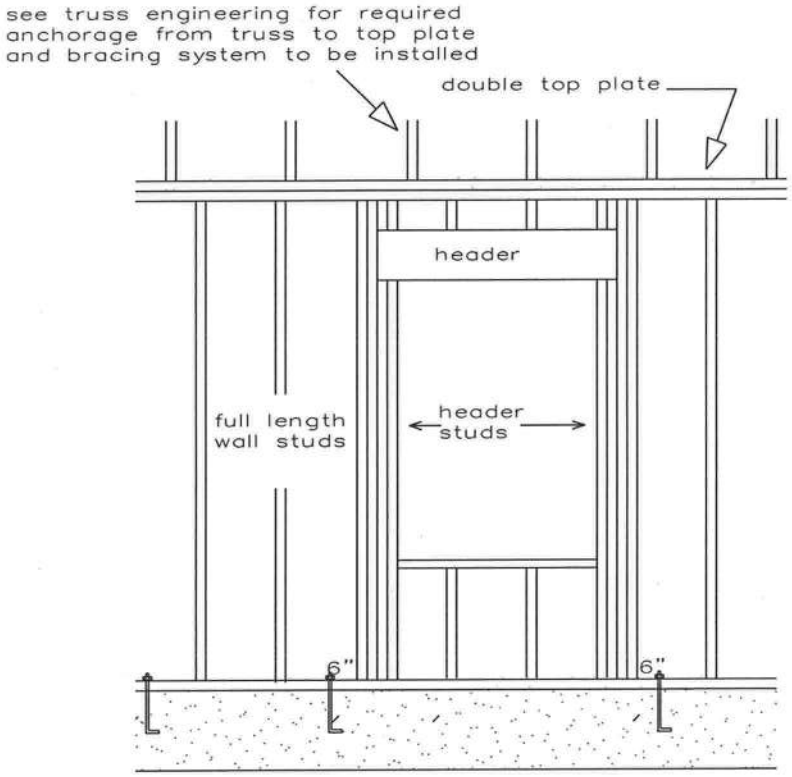

total each truss uplift on the header and divide by two for header and header stud anchorages

		Maximum Header Span (ft)					
		3'	6'	9'	12'	15'	18'
		Number of Header Studs Supporting End of Header					
		1	1	2	2	2	2
Unsupported Wall Height	Stud Spacing	Number of Full Length Studs at Each End of Header					
10'-0" or less	12"	2	2	3	3	3	3
	16"	2	2	3	3	3	3
	24"	1	2	2	2	2	2
Greater than 10'-0"	12"	2	2	3	4	5	5
	16"	2	2	3	3	4	4
	24"	1	2	2	2	3	3

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TIE-DOWN TABLES

HEADER STRAPPING				
Uplift Lbs	Top Connector	Rating Lbs	Bottom Connector	Rating Lbs
to 455	LSTA19	635	H3	320
to 910	LSTA12	795	2-H3	640
to 1265	LSTA18	1110	LTT19	1305
to 1750	2-LSTA12	1810	LTT20	1750
to 2530	2-LSTA18	2530	HD2A-2.5	2165
to 2865	3-LSTA18	3255	HD2A-3.5	2865
to 3700	3-LSTA24	3880	HD5A-3	3130

Total the uplift for each truss sitting on the header and divide by 2 to determine the uplift on the header. Use proper bolt anchors sufficient to support required uplift loads.

TRUSSES \ GIRDERS			
Uplift Lbs	Top Connector	Bottom Connector	Rating Lbs
to 535	H2.5A	NA	
to 1015	H10A	NA	
to 1215	TS22	LTT19	1305
to 1750	2-TS22	LTT20	1750
to 2570	2-TS22	HD2A	2775
to 3665	3-TS22	HD5A	4010
to 5420	2-MST37	HTT22	5250
to 9660	2-MST60	HD10A	9540

Two 12d common toenials are required per truss for each bearing point into top plate.
It is the contractors responsibility to provide a continuous load path from truss to foundation.

	TOP CONNECTOR	RATING LBS	BOTTOM CONNECTOR	RATING LBS
BEAM SEATS	LSTA18	1110	LTT19	1305
POSTS	2-LSTA18	2220	ABU44	2300

1. Simpson or equivlent hardware may be used. For nailing into spruce members, multiply table values by .86
2. See truss engineering for anchor uplift values.
3. This schedule is not meant to be a replacement to the specified values of any manufactures values.

Bruce Schafer, P. E. #48984
7104 NW 42ND LN
GAINESVILLE, FL. 32606

Wind Load Design per ASCE 7-10

User Input Data		
Structure Type	Building	
Basic Wind Speed (V)	135	mph
Structural Category	II	
Exposure	B	
Struc Nat Frequency (n1)	1	Hz
Slope of Roof (Theta)	26.6	Deg
Type of Roof	Gabled	
Eave Height (Eht)	8.00	ft
Ridge Height (RHt)	13.67	ft
Mean Roof Height (Ht)	11.33	ft
Width Perp. to Wind (B)	17.00	ft
Width Parallel to Wind (L)	24.00	ft
Damping Ratio (beta)	0.01	

Red values should be changed only through "Main Menu"

Calculated Parameters		
Importance Factor	1	
Non-Hurricane, Hurricane (v=85-100 mph) & Alaska		
Table C6-4 Values		
Alpha =	7.000	
zg =	1200.000	
At =	0.143	
Bt =	0.840	
Am =	0.250	
Bm =	0.450	
Cc =	0.300	
l =	320.00	ft
Epsilon =	0.333	
Zmin =	30.00	ft

Calculated Parameters	
Type of Structure	
Height/Least Horizontal Dim	0.67
Flexible Structure	No

Gust Factor Category I: Rigid Structures - Simplified Method			
Gust1	For rigid structures (Nat Freq > 1 Hz) use 0.85	0.85	
Gust Factor Category II: Rigid Structures - Complete Analysis			
Zm	Zmin	30.00	ft
lzm	Cc * (33/z)^0.167	0.3048	
Lzm	l*(zm/33)^Epsilon	309.99	ft
Q	(1/(1+0.63*((B+Ht)/Lzm)^0.63))^0.5	0.9368	
Gust2	0.925*((1+1.7*Izm*3.4*Q)/(1+1.7*3.4*Izm))	0.8877	
Gust Factor Category III: Flexible or Dynamically Sensitive Structures			
Vhref	V*(5280/3600)	198.00	ft/s
Vzm	bm*(zm/33)^Am*Vhref	87.00	ft/s
NF1	NatFreq*Lzm/Vzm	3.56	Hz
Rn	(7.47*NF1)/(1+10.302*NF1)^1.667	0.0627	
Nh	4.6*NatFreq*Ht/Vzm	0.60	
Nb	4.6*NatFreq*B/Vzm	0.90	
Nd	15.4*NatFreq*Depth/Vzm	4.25	
Rh	1/Nh-(1/(2*Nh^2)*(1-Exp(-2*Nh)))	0.6965	
Rb	1/Nb-(1/(2*Nb^2)*(1-Exp(-2*Nb)))	0.5962	
Rd	1/Nd-(1/(2*Nd^2)*(1-Exp(-2*Nd)))	0.2077	
RR	((1/Beta)*Rn*Rh*Rb*(0.53+0.47*Rd))^0.5	1.2786	
gg	+(2*LN(3600*n1))^0.5+0.577/(2*LN(3600*n1))^0.5	4.19	
Gust3	0.925*((1+1.7*Izm*(3.4^2*Q^2+GG^2*RR^2)^0.5)/(1+1.7*3.4*Izm))	1.42	

Gust Factor Summary			
Main Wind-force resisting system:		**Components and Cladding:**	
Gust Factor Category:	I	Gust Factor Category:	I
Gust Factor (G)	0.89	Gust Factor (G)	0.89

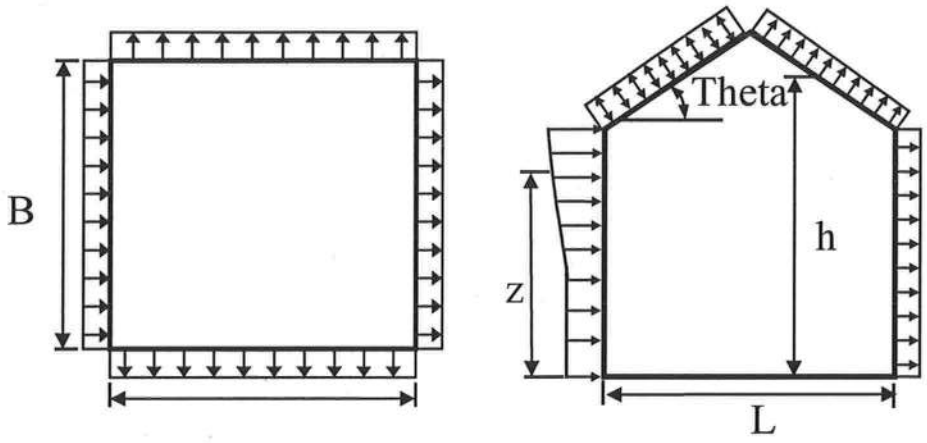
Wind Load Design per ASCE 7-10

6.5.12.2.1 Design Wind Pressure - Buildings of All Heights (Non-flexible)

Elev.	Kz	Kzt	Kd	qz	Pressure (lb/ft^2)	
					Windward Wall*	
ft			1.00	lb/ft^2	+GCpi	-GCpi
15	0.70	1.00	1.00	32.69	18.39	28.04

Figure 6-3 - External Pressure Coefficients, Cp

Loads on Main Wind-Force Resisting Systems



Variable	Formula	Value	Units
Kh	2.01*(15/zg)^(2/Alpha)	0.57	
Kht	Topographic factor (Fig 6-2)	1.00	
Qh	.00256*(V)^2*ImpFac*Kh*Kht*Kd	26.81	psf

Wall Pressure Coefficients, Cp	
Surface	Cp
Windward Wall (See Figure 6.5.12.2.1 for Pressures)	0.80

Roof Pressure Coefficients, Cp	
Roof Area (sq. ft.)	-
Reduction Factor	1.00

Description	Cp	Pressure (psf)	
		+GCpi	-GCpi
Leeward Walls (Wind Dir Parallel to 17 ft wall)	-0.42	-14.77	-5.11
Leeward Walls (Wind Dir Parallel to 24 ft wall)	-0.50	-16.73	-7.07
Side Walls	-0.70	-21.49	-11.84
Roof - Normal to Ridge (Theta>=10)			
Windward - Max Negative	-0.26	-11.02	-1.37
Windward - Max Positive	0.21	0.20	9.85
Leeward Normal to Ridge	-0.60	-19.11	-9.46
Overhang Top	-0.26	-6.20	-6.20
Overhang Bottom	0.80	0.71	0.71
Roof - Parallel to Ridge (All Theta)			
Dist from Windward Edge: 0 ft to 5.665 ft	-0.90	-26.25	-16.60
Dist from Windward Edge: 5.665 ft to 11.33 ft	-0.90	-26.25	-16.60
Dist from Windward Edge: 11.33 ft to 22.66 ft	-0.50	-16.73	-7.07
Dist from Windward Edge: > 22.66 ft	-0.30	-11.97	-2.31

Wind Load Design per ASCE 7-10

* Horizontal distance from windward edge

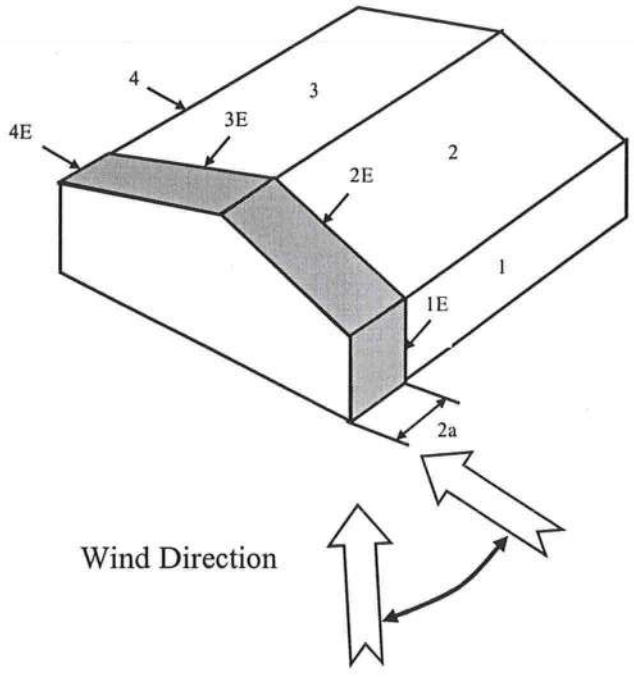
Figure 6-4 - External Pressure Coefficients, GCpf

Loads on Main Wind-Force Resisting Systems w/ Ht <= 60 ft

Kh =	2.01*(15/zg)^(2/Alpha)	=	0.57
Kht =	Topographic factor (Fig 6-2)	=	1.00
Qh =	0.00256*(V)^2*ImpFac*Kh*Kht*Kd	=	26.81

Case A						
Surface	**GCpf**	**+GCpi**	**-GCpi**	**qh (psf)**	**Min P (psf)**	**Max P (psf)**
1	0.55	0.18	-0.18	32.69	12.09	23.85
2	-0.10	0.18	-0.18	32.69	-9.02	2.75
3	-0.45	0.18	-0.18	32.69	-20.49	-8.73
4	-0.39	0.18	-0.18	32.69	-18.64	-6.88
5	0.00	0.18	-0.18	32.69	-5.88	5.88
6	0.00	0.18	-0.18	32.69	-5.88	5.88
1E	0.73	0.18	-0.18	32.69	17.89	29.66
2E	-0.19	0.18	-0.18	32.69	-11.95	-0.18
3E	-0.58	0.18	-0.18	32.69	-24.99	-13.22
4E	-0.53	0.18	-0.18	32.69	-23.35	-11.58
5E	0.00	0.18	-0.18	32.69	-5.88	5.88
6E	0.00	0.18	-0.18	32.69	-5.88	5.88

* p = qh * (GCpf - GCpi)



Wind Load Design per ASCE 7-10

Figure 6-4 - External Pressure Coefficients, GCpf

Loads on Main Wind-Force Resisting Systems w/ Ht <= 60 ft

Kh =	2.01*(15/zg)^(2/Alpha)	=	0.57
Kht =	Topographic factor (Fig 6-2)	=	1.00
Qh =	0.00256*(V)^2*ImpFac*Kh*Kht*Kd	=	26.81

Case B						
Surface	GCpf	+GCpi	-GCpi	qh (psf)	Min P (psf)	Max P (psf)
1	-0.45	0.18	-0.18	32.69	-20.59	-8.83
2	-0.69	0.18	-0.18	32.69	-28.44	-16.67
3	-0.37	0.18	-0.18	32.69	-17.98	-6.21
4	-0.45	0.18	-0.18	32.69	-20.59	-8.83
5	0.40	0.18	-0.18	32.69	7.19	18.96
6	-0.29	0.18	-0.18	32.69	-15.36	-3.60
1E	-0.48	0.18	-0.18	32.69	-21.57	-9.81
2E	-1.07	0.18	-0.18	32.69	-40.86	-29.09
3E	-0.53	0.18	-0.18	32.69	-23.21	-11.44
4E	-0.48	0.18	-0.18	32.69	-21.57	-9.81
5E	0.61	0.18	-0.18	32.69	14.06	25.82
6E	-0.43	0.18	-0.18	32.69	-19.94	-8.17

* p = qh * (GCpf - GCpi)

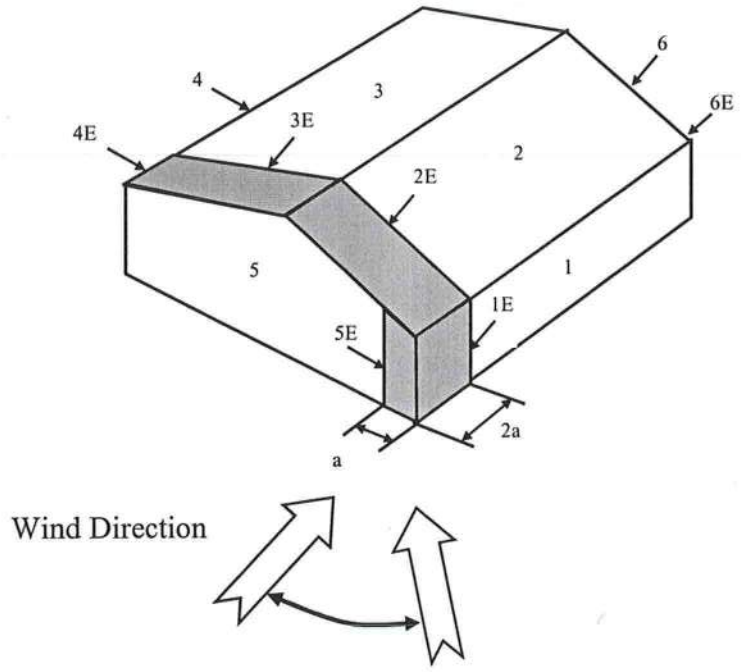
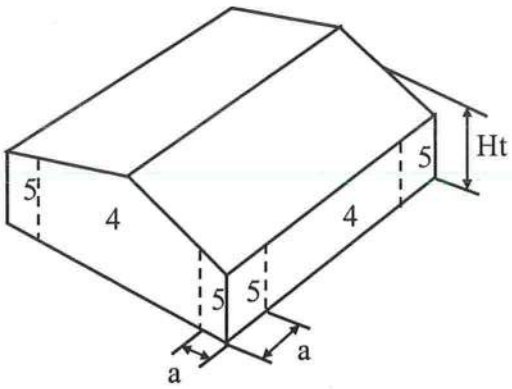
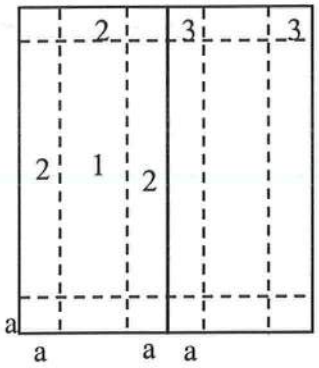


Figure 6-5 - External Pressure Coefficients, GCp

Loads on Components and Cladding for Buildings w/ Ht <= 60 ft

Wind Load Design per ASCE 7-10





Gabled Roof

10 < Theta <= 45

a = 1.7 ==> 3.00 ft

Component	Width (ft)	Length (ft)	Area (ft^2)	Zone	GCp		Wind Press (lb/ft^2)	
					Max	Min	Max	Min
	16	7	112.00	5	0.81	-1.03	26.67	-32.43
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					

Note: * Enter Zone 1 through 5, or 1H through 3H for overhangs.

Table 6-7 Internal Pressure Coefficients for Buildings, Gcpi

Condition	Gcpi	
	Max +	Max -
Open Buildings	0.00	0.00

Wind Load Design per ASCE 7-10

Partially Enclosed Buildings	0.55	-0.55
Enclosed Buildings	0.18	-0.18
Enclosed Buildings	**0.18**	**-0.18**