

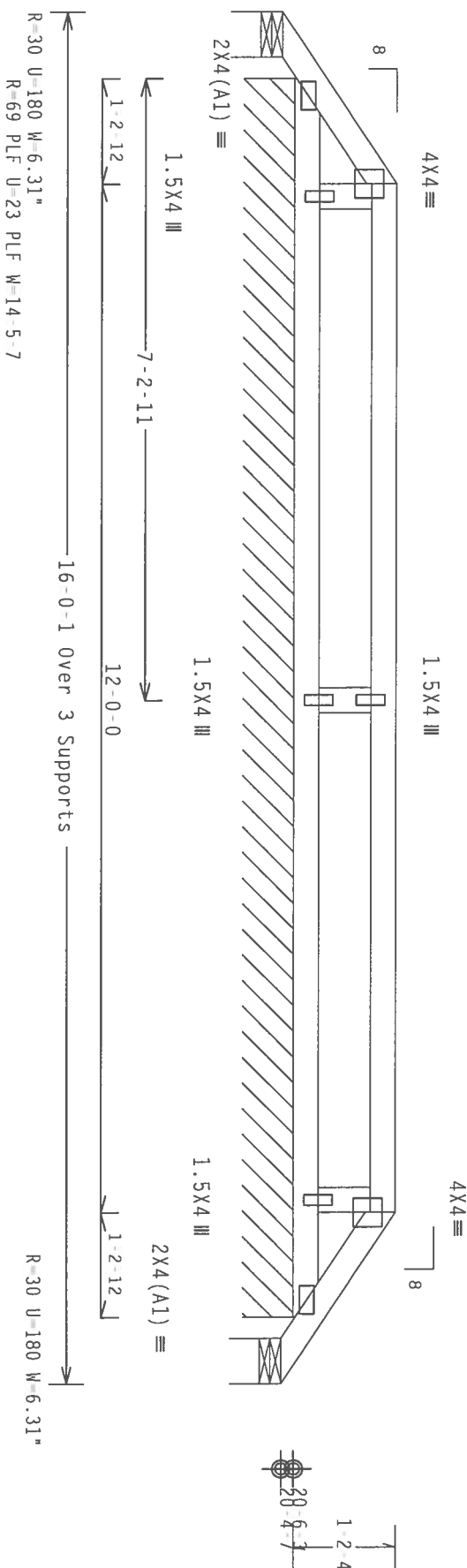
In lieu of structural panels for rigid ceiling use purlins to brace all flat TC @ 24" OC, all BC @ 24" OC.

Refer to Dwg PIGBACKA0207 or PIGBACKB0207 for piggyback details. Portion of truss under piggyback is to be braced @ 24" oc unless otherwise specified.

110 mph wind, 21.04 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=1.2 psf, $I_w=1.00$ Gcpi (+/-)=0.18

Wind reactions based on MWFRS pressures.

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



PLT TYP. Wave

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

$$Cq/RT=1.00(1.25)/10(0) \quad 7.24.12$$

QTY:1 FL/-/4/-/E/R/-

Scale = .5"/Ft.

WARNING FRAMES REQUIRING EXPLICIT CARE IN FABRICATION, HANDLING, SHIPPING, INSTALLING AND BRACING REFER TO AC308 (BUILDING COMPONENT SPECIFIC INFORMATION). PUBLISHED BY PCI (FIBER POLYMER INSTITUTE), 219 NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22314 AND AFCA (GOOD RUMORS COUNCIL OF AMERICA), 6500 WINTERPARK LANE, HADSPICE, VA, 57139 FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED THE GOOD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM GOOD SHALL HAVE BEEN PROPERLY ATTACHED FIELD CELLING.

****IMPORTANT****FURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. ITW BCG, INC. SHALL NOT

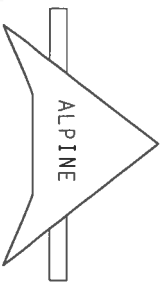
BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN, ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH THE OR FABRICATING, HANDLING, SHIPPING, INSTALLING & BRACING OF TRUSSES.

DESIGN CONFORMS WITH APPLICABLE PROVISIONS OF AISC NATIONAL DESIGN SPEC. BY AREA) AND PP. 11M BCB. CONNECTOR PLATES ARE MADE OF 20/18/16GA (H./M./S.K.) ASH A653 GRADE 40/60 (H./K./M./S.S) GALV. STEEL. APPLY PLATES TO EACH FACE OF TRUSS AND UNLESS OTHERWISE NOTED ON THIS DESIGN POSITION, USE DRAWINGS LEGA 2

ANY INSPECTION OF PLATES FOLLOWED BY (1) SHALL BE PER ANNEX A3 OF TP11 2002 SEC.3. A SEAL ON THIS SIDE DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOLELY FOR THE THICK CONDUIT DRAWING. LETTERS TO CREDIT THESE DRAWINGS, SIGNED AND DATED BY THE ENGINEER, POSITION PER DRAWING 100M

DESIGN SHOW. THE SUITABILITY AND USE OF THIS COMPONENT FOR ANY BUILDING OF THE BUILDING DESIGNER PER ANSI/TPI 1 SEC. 2.

Journal Pre-proof



ITW Building Components Group, Inc.
Haines City, FL 33844
Telephone: 813/939-1111
Fax: 813/939-1111
E-mail: Sales@itwbc.com
Website: www.itwbc.com



TC LL	20.0 PSF	REF	R487 - 2812
TC DL	10.0 PSF	DATE	11/29/07
BC DL	2.0 PSF	DRW	HCUSR487 07333040
BC LL	0.0 PSF	HC-ENG	TCE/DF
TOT.LD.	32.0 PSF	SEQN-	23109
DUR.FAC.	1.25	FROM	AH
SPACING	24.0"	JRFF -	1TCU487 Z01

110 mph wind, 21.70 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT II, EXP B, wind TC D=5.0 psf, wind BC D=1.2 psf. $I_w=1.00$ Gcpi (+/-) 0.18

Wind reactions based on MMFS pressures.
Deflection meets L/240 live and L/180 total load. Creep increases factor for dead load is 1.50.

 $Cq/RT=1.00(1.25)/10(0)$

FL/-/4/-/E/R/-

Scale = .5"/Ft.

4.123
DOUGLAS FLEMING
LICENSE
No. 66648
QTY

TC LL	20.0 PSF
TC DL	10.0 PSF

REF	R487--2813
DATE	11/29/07

****IMPORTANT**** TURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. IIR BCG, INC. SHALL NOT

BC DL

DRW HCUSR487 07333041

BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN. ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH TP1, OR FABRICATING, HANDLING, SHIPPING, INSTALLING & BRACING OF TRUSSES.

BC LL

HC-ENG TCE/DF

DESIGN CONDITIONS, THE APPLICABLE PROVISIONS OF AISC (NATIONAL DESIGN SPEC., BY AISC) AND TPI. CONNECTION PLATES ARE MADE OF 2018/1664 (M, 1155/K) ASTM A653 GRADE 40/60 (M, K/J, 55) GALV. STEEL, APPLY

TOT.LD.

SEON - 23113

PLATES TO EACH OF THOSE AID, UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION PER DRAWINGS 160A
AN INSPECTION OF PLATES FOLLOWED BY (1) SHALL BE PER ANNEX A3 OF IP11 2002 SEC.3.
A SEAL ON THIS
DRAWING INDICATES ACCEPTANCE OF PROCEEDING ENGINEERING RESPONSIBILITY FOR THE TOWER CONSTRUCTION

DIB FAC

FROM AH

UNWRITING IMPLICIT ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOLLY FOR THE 1985 COMPACT BUILDING DESIGNER PER ANSI/TPI 1 SEC. 2.

DOCKING

1 K011	ALL
1 REF	17C011407 701

[illegible]

SPALING

JKFF - 116048 / 201

Bearing reactions of -136# at (0-0-0, 20-4-7), -136# at (15-5-11, 20-4-7), require special connection to resist uplift from loads other than wind.

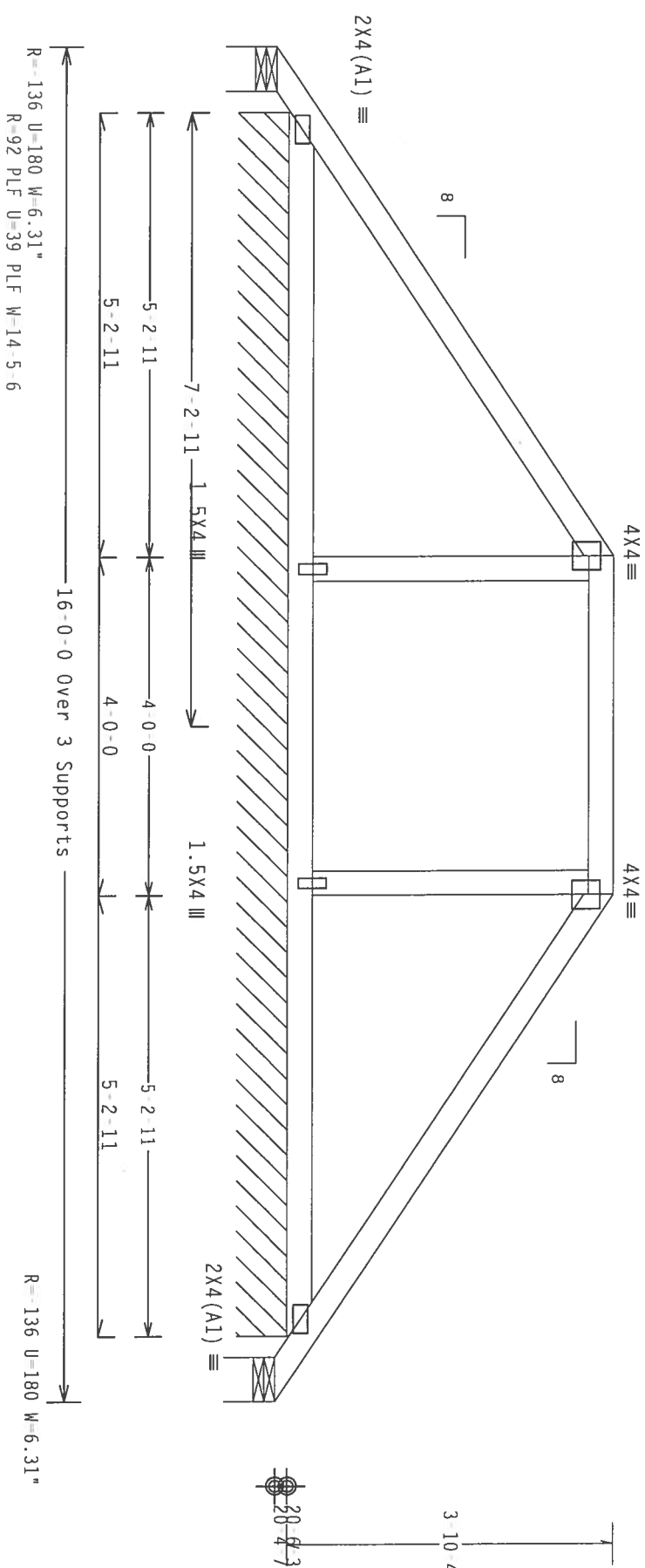
Wind reactions based on MWFRS pressures.

In lieu of structural panels or rigid ceiling use purlins to brace all flat TC @ 24" OC, all BC @ 24" OC.

110 mph wind, 22.37 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT 11, EXP B, wind TC DL=5.0 psf, wind BC DL=1.2 psf, $I_w=1.00$ Gcpi(+/-) 0.18

Refer to DWG PIGBACKA0207 or PIGBACKB0207 for piggyback details.

PORTION OF TRUSS UNDER PIGGYBACK IS TO BE BRACED @ 24" OC, UNLESS OTHERWISE SPECIFIED.



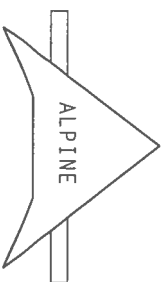
PLT TYP. Wave

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

 $Cq/RT=1.00(1.25)/10(0) \quad 7.24.12$

QTY:1 FL/-/4/-/E/R/-

Scale = .5"/Ft.



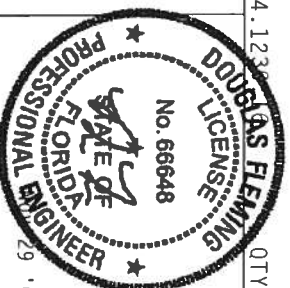
ITW Building Components Group, Inc.
Haines City, FL 33844

*****WARNING***** FIBERS RELEASED EXTERIOR CASE IN FABRICATION, HANDLING, SHIPPING, INSTALLING AND REPAIRING REFER TO DC51 (BUILDING COMPOUND SAFETY INFORMATION), PUBLISHED BY THE TRUSS PLATE INSTITUTE, 218 NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22314 AND NICK, 6000 TRUSS COMPANY, OF AUSTIN, TEXAS 78701. OTHERWISE LATE, HANDS ON, 51319 FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE PROPERLY ATTACHED RIGID CELLING.

****IMPORTANT** FURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. IIB BCG, INC. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN; ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH THE OR FABRICATING, HANDLING, SHIPPING, INSTALLING, BRACING OF TRUSSES.

CONCRETOR PLATES REMADE OF 20/18/16GA (M. 0.55/K. 0.514) A575 AC53 GRADE 40/60 (M. K/H. SS) GALV. STEEL. APPLY PLATES TO EACH FACE OF TRUSS AND, UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION PER DRAWINGS. 160A Z PLATE INSPECTION OF PLATES FOLLOWED BY (1) SHALL BE PER AMEX A3 OF THE 2002 SPEC. 3. A SEAL ON THIS

DRAWING INDICATE ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOLELY FOR THE TRUSS COMPONENT SHOWN. THE SUITABILITY AND USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER PER ANSI/TPI 1 SEC. 2.



TC LL	20.0 PSF	REF	R487 - 2814
TC DL	10.0 PSF	DATE	11/28/07
BC DL	2.0 PSF	DRW	HCUSR487 07332038
BC LL	0.0 PSF	HC-ENG	DF/DF
TOT.LD.	32.0 PSF	SEQN -	24342
DUR.FAC.	1.25	FROM	AH
SPACING	24.0"	JRFF -	1TCU487 201

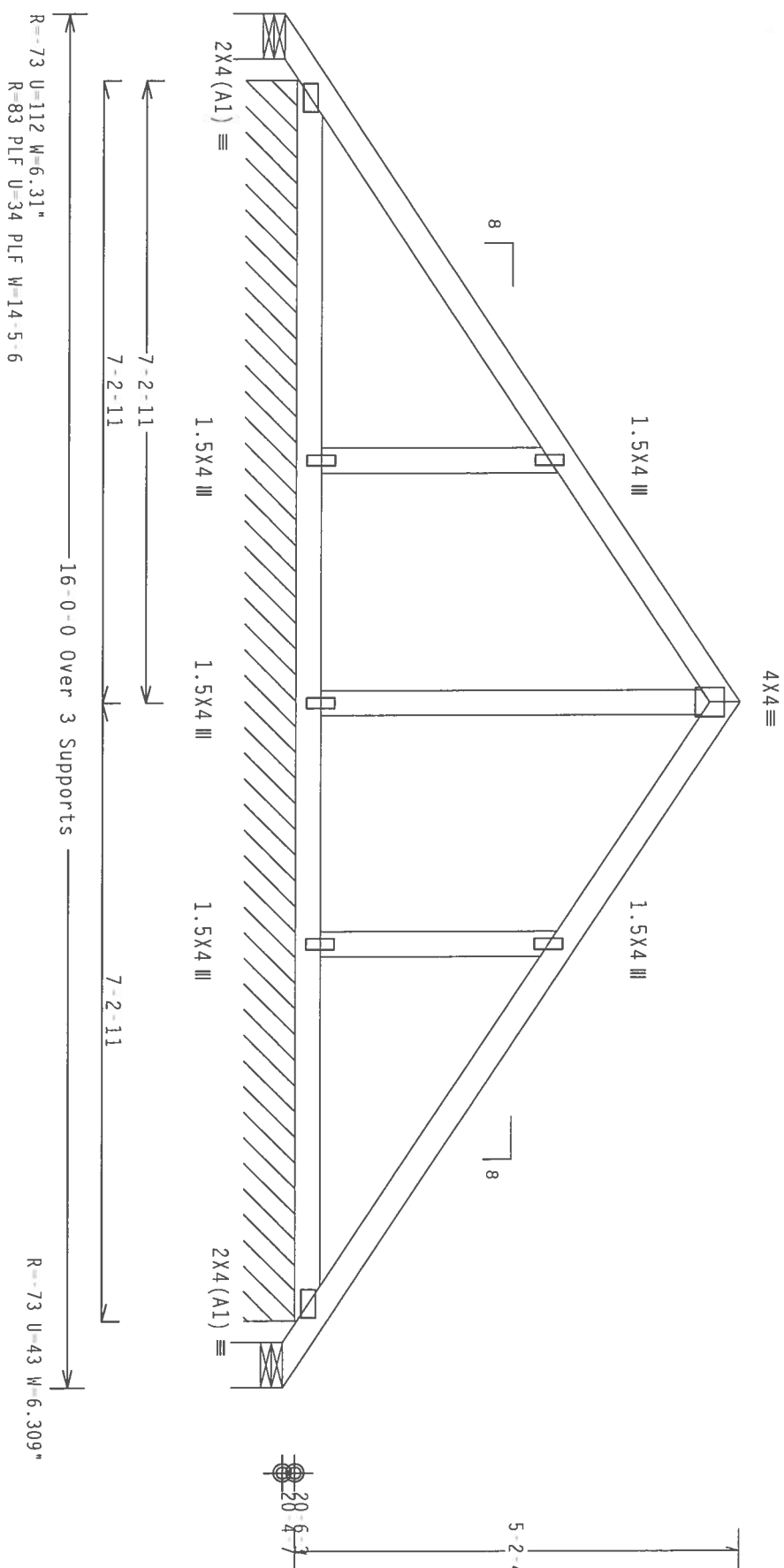
110 mph wind, 23.04 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=1.2 psf. Iw=1.00 Gcpi(+/-)0.18

In lieu of rigid ceiling use purlins to brace BC @ 24"
Refer to DWG PIGBACK0207 or PIGBACK0207 for piggyback
details. Portion of truss under piggyback is to be
braced @ 24" oc unless otherwise specified.

SPECIAL LUGS
----- (LUMBER DUR. FAC. = 1.25 / PLATE DUR. FAC. = 1.25)
TC - From 64 PLF at 0.00 to 64 PLF at 8.00
TC - From 64 PLF at 8.00 to 64 PLF at 16.00
BC - From 4 PLF at 0.00 to 4 PLF at 16.00

Wind reactions based on MWFS pressures.

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



PLT TYP. Wave

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

$$Cq/RT=1.00(1.25)/10(0)$$

7.35.0318
QTY:1

QTY:1 FL/-/4/-/E/R/-

Scale = .5"/Ft.

* * *WARNING* * * FENCES, BUILDING EXISTENCE, EXISTING CHIMNEY, EXISTING, SHIPING, INSTALLING, AND BRACING REFER TO GC-1 (BUILDING COMPONENT SAFETY INFORMATION). PUBLISHED BY TPI (TRENDS PAPER INSTITUTE), 218 NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22314 AND MICA (GOOD TRENDS CONSULT), 6300 ENTERPRISE LANE, MANASSAS, VA, 52719 FOR SAFETY PRACTICES AND TO PERFORM THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE 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 THE SPECIFICATIONS, OR FABRICATING, HANDLING, SHIPPING, INSTALLING & BRACING OF TRUSSES.

DESIGN COMBINATION APPLICABLE PROVISIONS OF MDX (NATIONAL DESIGN SPEC., BY AIA/PA) AND 191. CONNECTOR PLATES ARE MADE OF 20/18/16GA (M/M/SS/K) ASTM A653 GRADE 40/60 (M, K/H, SS) GALV. STEEL. APPL. PLATES TO EACH LIFT OF BRUSH AND WHEELS OUTRIGGER LOCATED ON THIS SECTION. POSITIONING AND MOVING: APPLY 2

ANY INSPECTION OF PLATES FOLLOWED BY (1) SHALL BE PER AMINX A3 OF TP11 2002 SEC.3.
A SEAL ON THIS
DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOLELY FOR THE ABOVE COMPONENT

DESIGN SHOW. THE SUITABILITY AND USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER PER ANSI/TPI 1 SEC. 2.

ITW Building Components Group, Inc.
Haines City, FL 33844
For more information, call 800-368-3683



TC LL	20.0 PSF	REF	R487 - 2815
TC DL	10.0 PSF	DATE	11/29/07
BC DL	2.0 PSF	DRW	HCSR487 07333036
BC LL	0.0 PSF	HC-ENG	TCE/DF
TOT.LD.	32.0 PSF	SEQN-	13870 REV
DUR.FAC.	1.25	FROM	AH
SPACING	24.0"	JRFF-	1TCU487 Z01

TOP CHORD 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3

110 mph wind, 23.10 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=1.2 psf. $W=1.00 GCP(+/)=0.18$

In lieu of rigid ceiling use purlins to brace BC @ 24" OC.

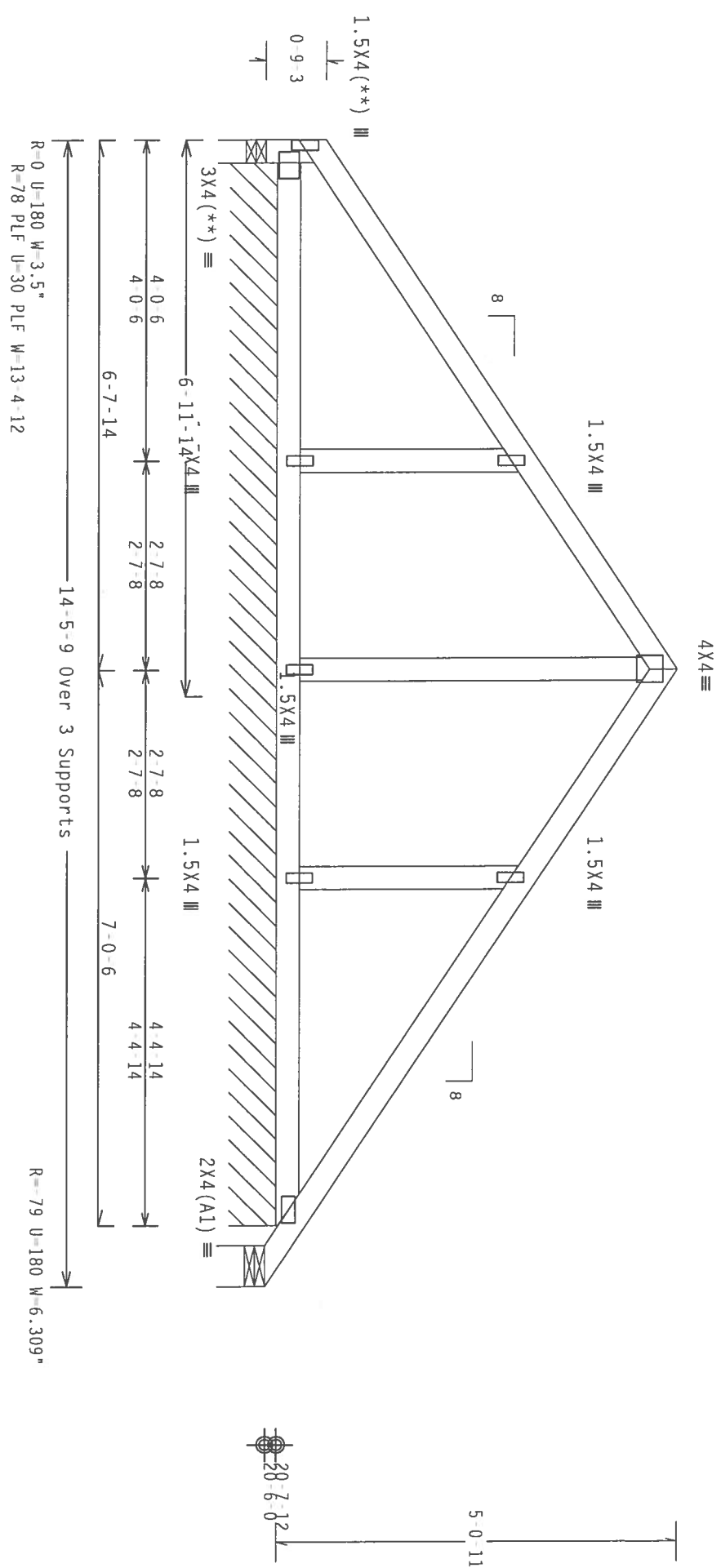
Refer to DWG PIGBACKB0207 for piggyback details.
PORTION OF TRUSS UNDER PIGGYBACK IS TO BE BRACED @ 24" OC, UNLESS OTHERWISE SPECIFIED.

Bearing reaction of 1/9# at (13-11 4, 20-6-0), requires special connection to resist uplift from loads other than wind.

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

Wind reactions based on MMFRS pressures.

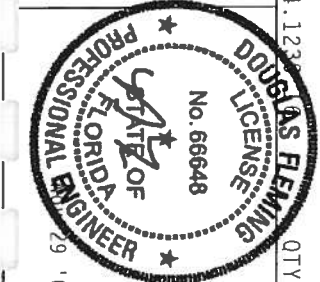
Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.



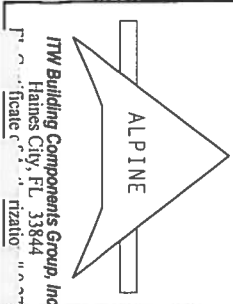
PLT TYP. Wave Design Crit: TPI-2002(STD)/FBC Cq/RT=1.00(1.25)/10(0) 7.24.123 QTY:1 FL/-/4/-/E/R/- Scale=.5"/ft.

WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATION, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCST (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 218 NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA 22314) AND WCA (WOOD TRUSS COUNCIL OF AMERICA, 6200 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. TITW 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 AND BRACING OF TRUSSES. TITW BCG DESIGN CONFORMS WITH APPLICABLE PROVISIONS OF NDS (NATIONAL DESIGN SPEC. BY AIAA) AND TPI. TITW BCG CONNECTION PLATES ARE MADE OF 20/18/16GA (W/55K) ASTM A653 GRADE 40/60 (W/ 55) GALV. STEEL. APPLY PLATES TO EACH FACE OF TRUSS AND, UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION PER DRAWING 1004 2. ANY INSPECTION OF PLATES FOLLOWED BY (1) SHALL BE PER AMERAS OF TPI 2002 SEC.3.3. A SEAL ON THIS DESIGN INDICATES THE DESIGN OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOCIETY FOR THE TRUSS COMPONENT DESIGN SHOWN. THE DESIGN OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER PER AMST/TPI 1 SEC. 2.



TC LL	20.0 PSF	REF	R487--	2816
TC DL	10.0 PSF	DATE	11/28/07	
BC DL	2.0 PSF	DRW	HCUSR487	07332036
BC LL	0.0 PSF	HC-ENG	DF/DF	
TOT.LD.	32.0 PSF	SEON-	24351	
DUR.FAC.	1.25	FROM	AH	
SPACING	24.0"	JRFF-	1TCU487	201



110 mph wind, 23.10 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=1.2 psf. Iw=1.00 Gcpi(+/-)=0.18

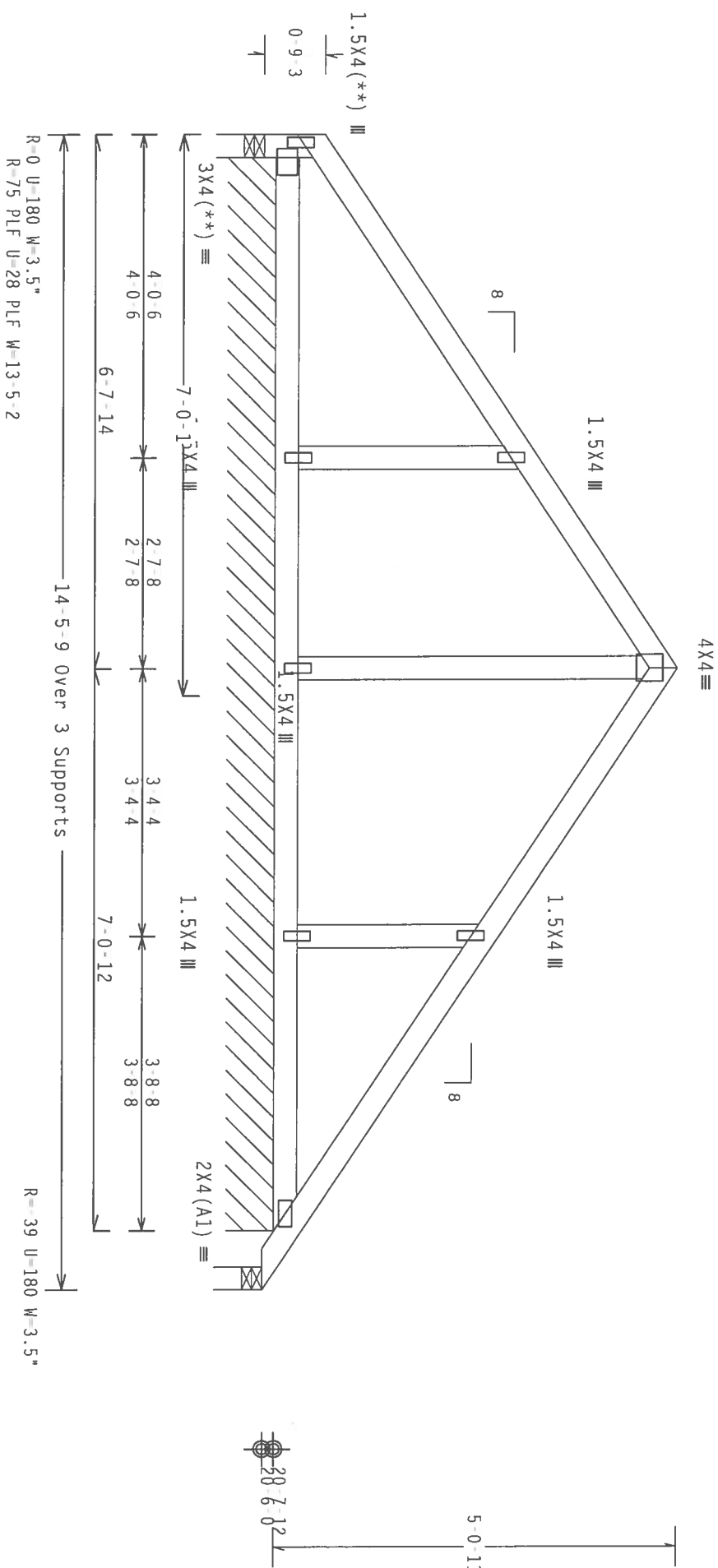
In lieu of rigid ceiling use purlins to brace BC @ 24" OC.
Refer to DWG PIGBACKB0207 for piggyback details.
PORTION OF TRUSS UNDER PIGGYBACK IS TO BE
BRACED @ 24" OC, UNLESS OTHERWISE SPECIFIED.

Bearing reaction of ~38# at (14'-2'-1, 20'-6'-0), requires special connection to resist uplift from loads other than wind.

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

Wind reactions based on MMFRS pressures.

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



PLT TYP. Wave

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

QTY:1

FL/-/4/-/E/R/-

Scale = .5"/Ft.

WARNING THESE RIDING EXERCISE CARDS IN FABRICATION, HANDLING, SHIPPING, INSTALLING AND BRACING REFER TO GC-1 (BUILT-IN COMPONENT SAFETY INFORMATION), PUBLISHED BY IPI (TIRISS PLATE INSTITUTE), 218 NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22314 AND WICA (WOOD TRUSS COMPANY OF AMERICA), 6300 ENTERPRISE LANE, MADISON, WI 53719 FOR SAFETY PRACTICES AND PROCEDURES FOR PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE PROPERLY ATTACHED RIGID CEILING.

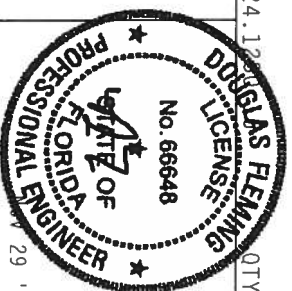
****IMPORTANT** FURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. ITW BCG, INC. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN; ANY FAILURE TO BUILD THE TRUSS IN COMPLIANCE WITH**

DESIGN CONFORMS WITH APPLICABLE PROVISIONS OF SDS (NATIONAL DESIGN SPEC. BY AISC) AND (P1) CONNECTION PLATE WELDING OF BOLTED JOINTS (SEE AISC 360) WITH THE FOLLOWING:

ANY INSPECTION OF PLATES FOLLOWED BY (4) SHALL BE PERMITTED AS OF THIS 2002 SEC 3 A SPEC. ON THESE PLATES TO EACH FACE OF TRUSS AND, UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION PER DRAWINGS 160A-2 CONNECTION PLATES ARE MADE OF 201/10100 (W./53/7K/AC308 AND GRADE 40/60 (W. K./H./35) GALV. STEEL. APPLY

THE SUITABILITY AND USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE DESIGN SHOWN

BUILDING DESIGNER PER ANSI/HP 1 SEC. 2



ITW Building Components Group, Inc.
Haines City, FL 33844
Telephone: 800/368-7222
Fax: 800/368-7222

TC LL	20.0 PSF	REF	R487 - 2817
TC DL	10.0 PSF	DATE	11/28/07
BC DL	2.0 PSF	DRW	HCUSR487 07332044
BC LL	0.0 PSF	HC-ENG	DF/DF
TOT.LD.	32.0 PSF	SEQN-	24357
DUR.FAC.	1.25	FROM	AH
SPACING	24.0"	JRFF -	1TCU487 201

In lieu of structural panels or rigid ceiling use purlins to brace all flat TC @ 24" OC, all BC @ 24" OC.

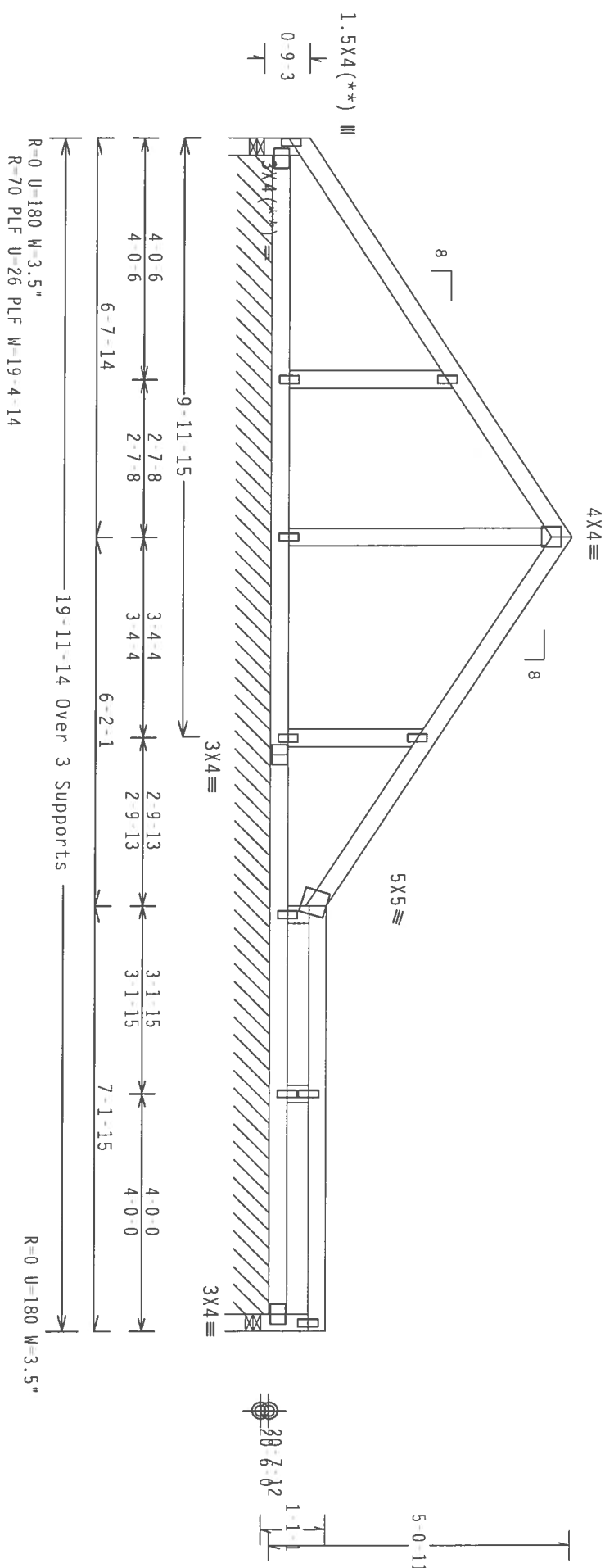
Deflection meets $L/240$ live and $L/180$ total load. Creep increase factor for dead load is 1.50.

Refer to DWG PIGBACKB0207 for piggyback details
PORTION OF TRUSS UNDER PIGGYBACK IS TO BE
BRACED @ 24" OC, UNLESS OTHERWISE SPECIFIED.

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

110 mph wind, 23.49 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=1.2 psf. $I_w=1.00$ Gcpl(+/-)=0.18

Wind reactions based on MIFRS pressures.



Note: All Plates Are 1.5X4 Except As Shown.

PLT TYP. Wave

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

 $C_q/RT=1.00(1.25)/10(0)$

7.24.123

QTY:1 FL/-/4/-/E/R/-

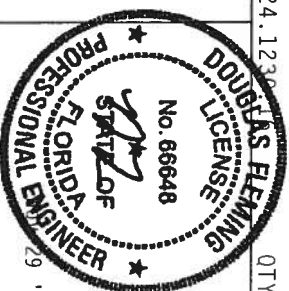
Scale = .375"/Ft.

WARNING FIRE, RIGID, EXISTING, CASE, IN FABRICATION, HANDLING, [HTTP://WWW.TPI.COM](http://www.tpi.com), INSTALLING, AND BRACING TO GC'S (BUILDING COMPONENT SAFETY INFORMATION). PUBLISHED BY TPI (TRESS PASTE, INSTITUTE), 219 NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22314 AND MICA (MORTAR INSTITUTE OF AMERICA), 6500 FENTERWINE LANE, MIDDLETON, WI, 53119 FOR SAFETY PRACTICES, PLEASE TO PERFORMING THESE FUNCTIONS. OTHERWISE, INDICATED TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE PROPERLY ATTACHED RIGID CEILING.

ALPINE

ITW Building Components Group, Inc.
 11000 E. 1st Ave., Suite 200
 Denver, CO 80231
 Tel: 303.751.3844
 Fax: 303.751.3844
 Email: info@itwbc.com
 Website: www.itwbc.com

Haines City, FL 33844
Director Education
Florida Department



FL/-/4/-/E/R/-		Scale = .375"/ft.	
TC LL	20.0 PSF	REF	R487 - 2818
TC DL	10.0 PSF	DATE	11/28/07
BC DL	2.0 PSF	DRW	HCUSR487 07332045
BC LL	0.0 PSF	HC-ENG	DF/DF
TOT.LD.	32.0 PSF	SEQN-	24365
DUR.FAC.	1.25	FROM	AH
SPACING	24.0"	JRFF -	1TCU487 201

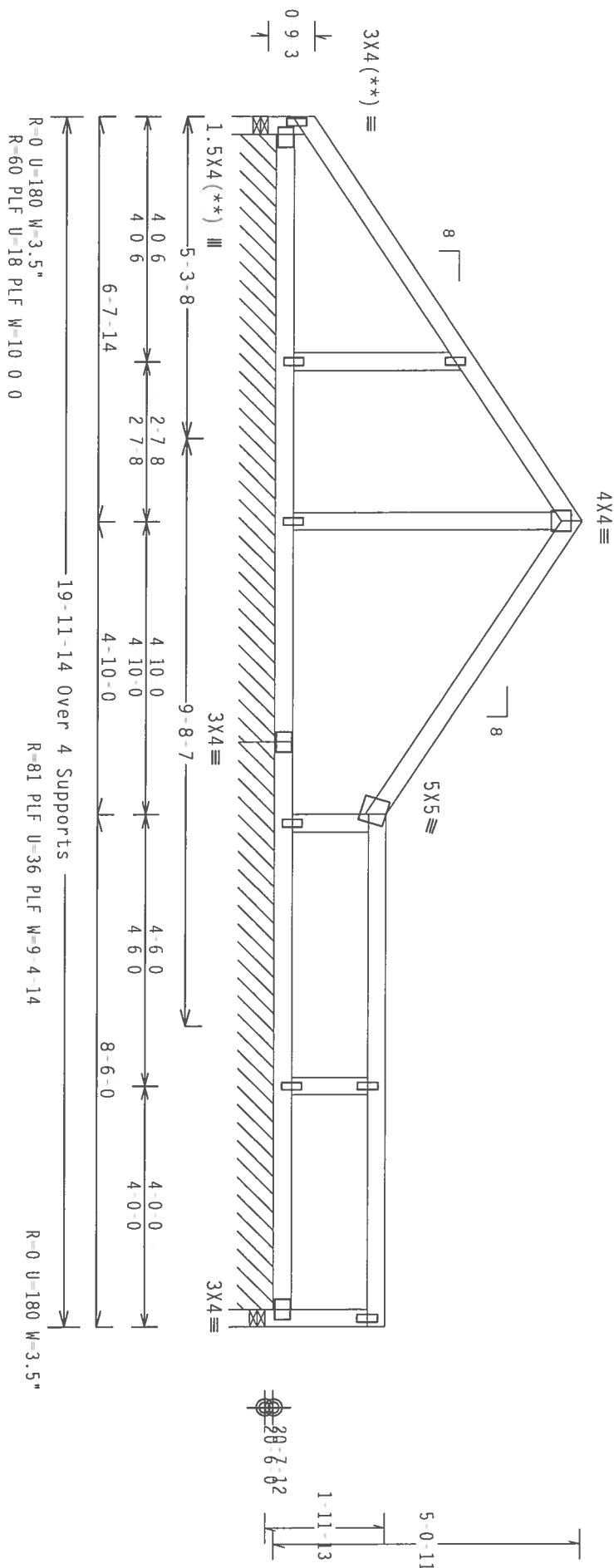
In lieu of structural panels or rigid ceiling use purlins to brace all flat TC @ 24" OC, all BC @ 24" OC.

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

Refer to DWG PIGBACKB0207 for piggyback details.
PORTION OF TRUSS UNDER PIGGYBACK IS TO BE
BRACED @ 24" OC, UNLESS OTHERWISE SPECIFIED.

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

Wind reactions based on MFRS pressures.



Note: All Plates Are 1.5X4 Except As Shown.

PLT TYP. Wave

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

 $Cq/RT=1.00(1.25)/10(0)$

7.24.12

QTY:1

FL/-/4/-/E/R/-

Scale = .375"/Ft.

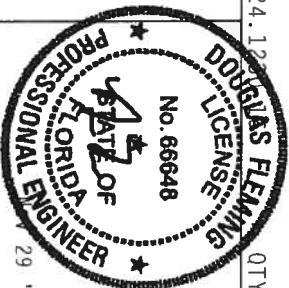
WARNING: THESE BUILDING EXISTENCE, CONDITION, SHIPPING, INSTALLING AND BRACING REFERENCE TO GC31 (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PAPER INSTITUTE), 218 NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22314 AND PICA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LANE, SUITE 512, 15231 RD FOR SAFETY PRACTICES PAPER TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE PROPERLY ATTACHED RIGID CEILING.

ALPINE

ITW Building Components Group, Inc.

Haines City, FL 33844

Finalization of the



TC LL	20.0 PSF	REF	R487- 2819
TC DL	10.0 PSF	DATE	11/28/07
BC DL	2.0 PSF	DRW	HCU8R487 07332039
BC LL	0.0 PSF	HC-ENG	DF/DF
TOT.LD.	32.0 PSF	SEQN	24374
DUR.FAC.	1.25	FROM	AH
SPACING	24.0"	JREF	1TCU487 201

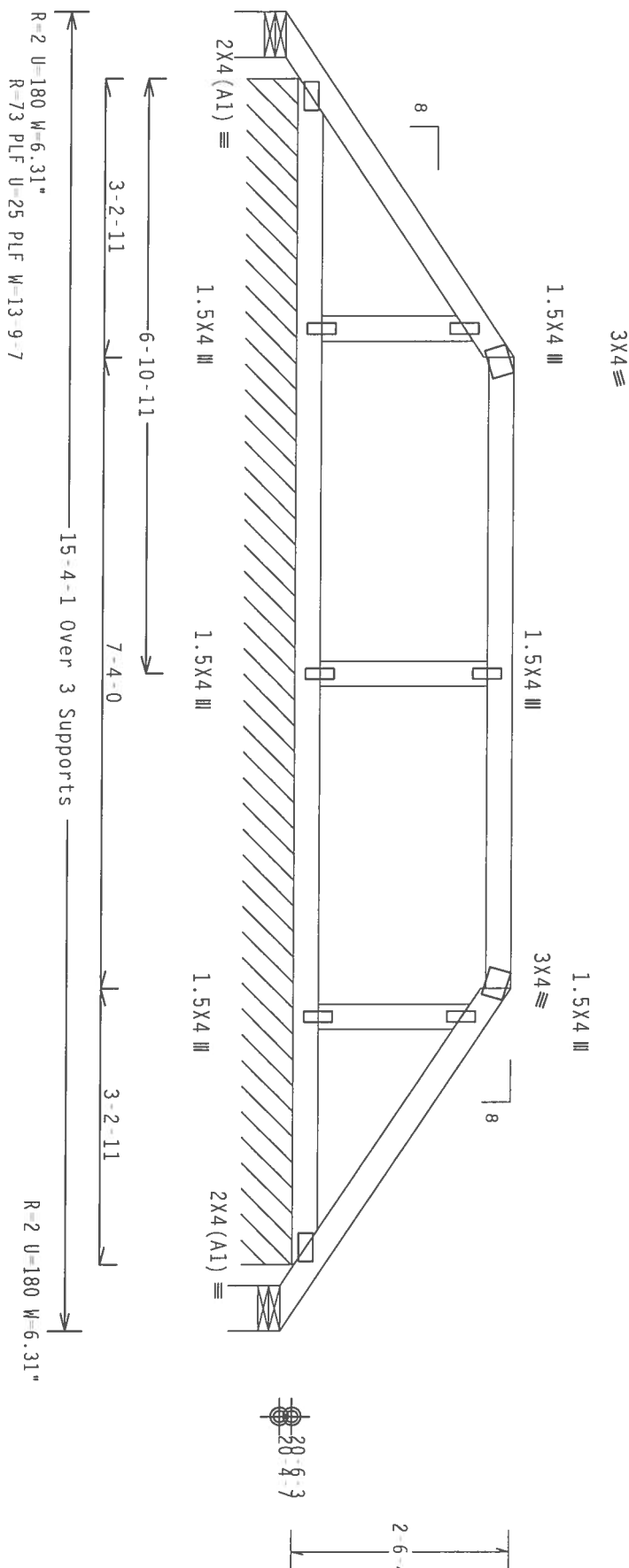
110 mph wind, 21.70 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT 1, EXP B, wind TC DL=5.0 psf, wind BC DL=2.0 psf Iw=1.00 Gcpi (+/-)=0.18

Wind reactions based on MWFRS pressures.

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

Refer to Dwg PIGBACK0207 or PIGBACK0207 for piggyback details. Portion of truss under piggyback is to be braced @ 24" oc unless otherwise specified.

SPECIAL LOADS
----- (LUMBER DUR.FAC.=1.25 / PLATE DUR.FAC.=1.25)
TC - From 64 PLF at 0.00 to 64 PLF at 4.00
TC - From 64 PLF at 4.00 to 64 PLF at 11.34
TC - From 64 PLF at 11.34 to 64 PLF at 15.34
BC - From 4 PLF at 0.00 to 4 PLF at 15.34



PLT TYP. Wave

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

 $Cq/RT=1.00(1.25)/10(0)$

7.24.123

QTY:1 FL/-/4/-/E/R/-

Scale = .5"/Ft.

WARNING—FIRMS (OBTAINING EXISTING CARE IN FABRICATION, MANUFACTURING, SHIPMENT, INSTALLING AND BRACING REFER TO DC-1 (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY THE FIRMS PLATE INSTITUTE, 218 NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22314 AND KNOX TRUSS COMPANY OF AMERICA, 63000 ENTERPRISE LANE, MONTICELLO, WI 53179) FOR SAFETY PRACTICES AND MEANS TO PREVENTING DISASTERS. UNLESS OTHERWISE INDICATED TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE PROPERLY ATTACHED RIDGED CEILING.

****IMPORTANT**** FURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. TIV BCG, INC. SHALL NOT

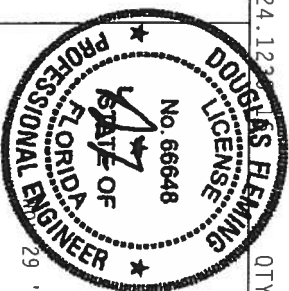
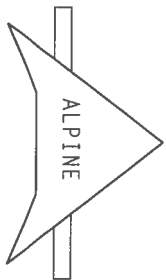
BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN; ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH TPI-1 OR FABRICATING, HANDLING, SHIPPING, INSTALLING A BRACING OF TRUSSES.

DESIGN CONDITIONS WITH APPLICABLE PROVISIONS OF AISC (NATIONAL DESIGN SPEC. BY AISC) AND 101 (17M BEC) CONNECTION PLATES ARE MADE OF 20/18/16GA (N/1155/K) ASTM A563 GRADE 40/60 (N/1155) GALV. STEEL. APPLY PLATES TO EACH FACE OF BEAMS AND WELDED ATTACHMENT REQUIRED ON EACH END OF BEAM.

UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION PER DRAWINGS 1604
DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY ENTIRE FOR THE
ANY INSPECTION OF PLATES FOLLOWED BY (1) SHALL BE PER AMERICAN OF 1911 2002 SEC.3.
A SEAL ON THIS

DESIGN SHOWN: THE LIABILITY AND USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER PER AIA/CES/PTI 1 SEC. 2.

ITW Building Components Group, Inc.
Haines City, FL 33844



TC LL	20.0 PSF	REF	R487 - - 2820
TC DL	10.0 PSF	DATE	11/29/07
BC DL	10.0 PSF	DRW	HCUSR487 07333042
BC LL	0.0 PSF	HC-ENG	TCE/DF
TOT.LD.	40.0 PSF	SEQN-	23259
DUR.FAC.	1.25	FROM	AH
SPACING	24.0"	JRFF-	1TCU487 201

10' Uprn 2x4 br #2 Unise
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3

110 mph wind, 22.37 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=2.0 psf. $1W=1.00 GCP(+/-)=0.18$

Wind reactions based on MWFRS pressures.

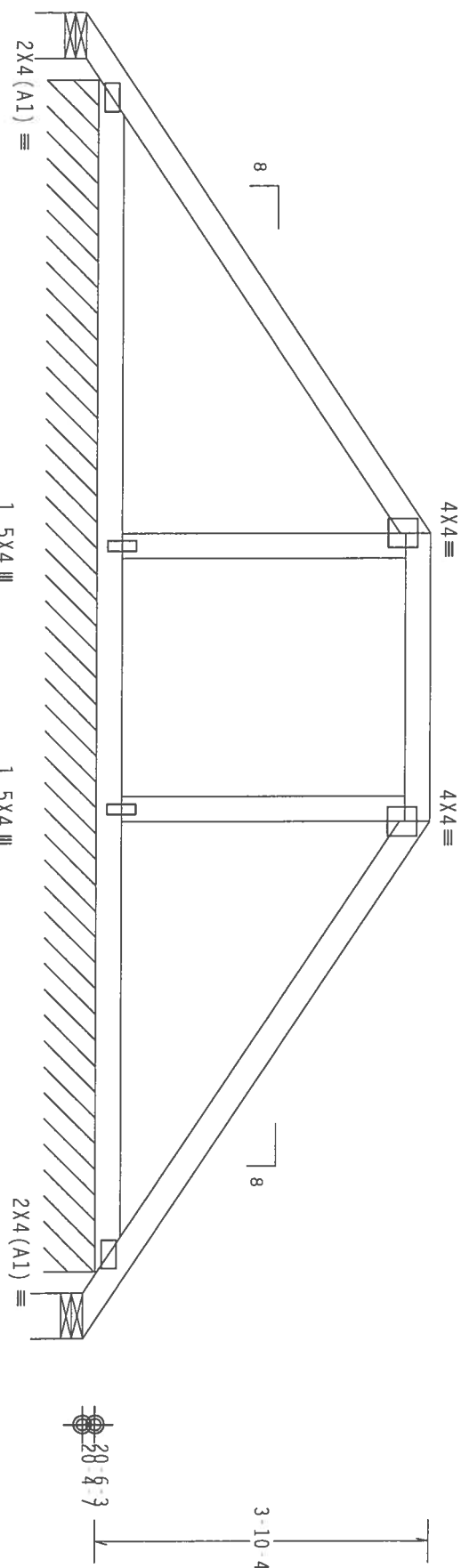
Deflection meets L/240 live and L/180 total load. Creep increase
factor for dead load is 1.50.

Refer to Dwg PIGBACKA0207 or PIGBACKB0207 for piggyback
details. Portion of truss under piggyback is to be
braced @ 24" oc unless otherwise specified.

SPECIAL LOADS

TC - From	64 PLF at 0.00 to 64 PLF at 6.00
TC - From	64 PLF at 6.00 to 64 PLF at 9.34
TC - From	64 PLF at 9.34 to 64 PLF at 15.34
BC - From	4 PLF at 0.00 to 4 PLF at 15.34

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



R=141 U=180 W=6.31"
R=94 PLF U=36 PLF W=13.9-7

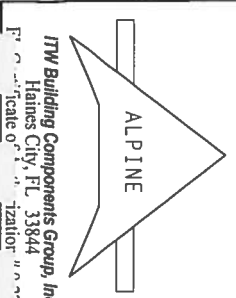
PLT TYP. Wave Design Cmt: TPI-2002 (STD) /FBC
Cq/RT=1.00(1.25)/10(0) 7.24.1228 QTY:1 FL/-/4/-/E/R/- Scale =.5"/Ft.

****WARNING**** TRUSSES REQUIRE EXTERIOR CARE IN FABRICATION, HANDLING, SHIPPING, INSTALLING AND BRACING.
REFER TO BEST BUILDING COMPONENT SAFETY INFORMATION, PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 218
NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22304) AND NCA (WOOD TRUSS COUNCIL OF AMERICA, 6500
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 CELLING.

****IMPORTANT**** FINISH 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 AISC (NATIONAL DESIGN SPEC. BY AISC) AND TPI.
CONNECTION PLATES ARE MADE OF 20/10/10GA (W/35/8) ASTM A653 GRADE 40/60 (W, K2H-55) GALV STEEL. APPLY
ANY INSPECTION OR REPAIRS TO THE TRUSS SHALL BE THE OWNER'S RESPONSIBILITY. A SEAL ON THIS
DRAWING INDICATES ACCEPTANCE OF PROJECT AND RESPONSIBILITY OF THE TRUSS COMPONENT
DESIGNER. THE SUSTAINABILITY AND USE OF THIS COMPONENT FOR AND BUILDING IS THE RESPONSIBILITY OF THE
BUILDING DESIGNER PER AISC/TPI 1 SEC. 2.



TC LL	20.0 PSF	REF	R487 - 2821
TC DL	10.0 PSF	DATE	11/29/07
BC DL	10.0 PSF	DRW	HGUSR487 0733043
BC LL	0.0 PSF	HC-ENG	TCE/DF
TOT. LD.	40.0 PSF	SEQN-	23255
DUR. FAC.	1.25	FROM	AH
SPACING	24.0"	JRFF-	1TCU487 201



ITW Building Components Group, Inc.
Haines City, FL 33844
Fabricator

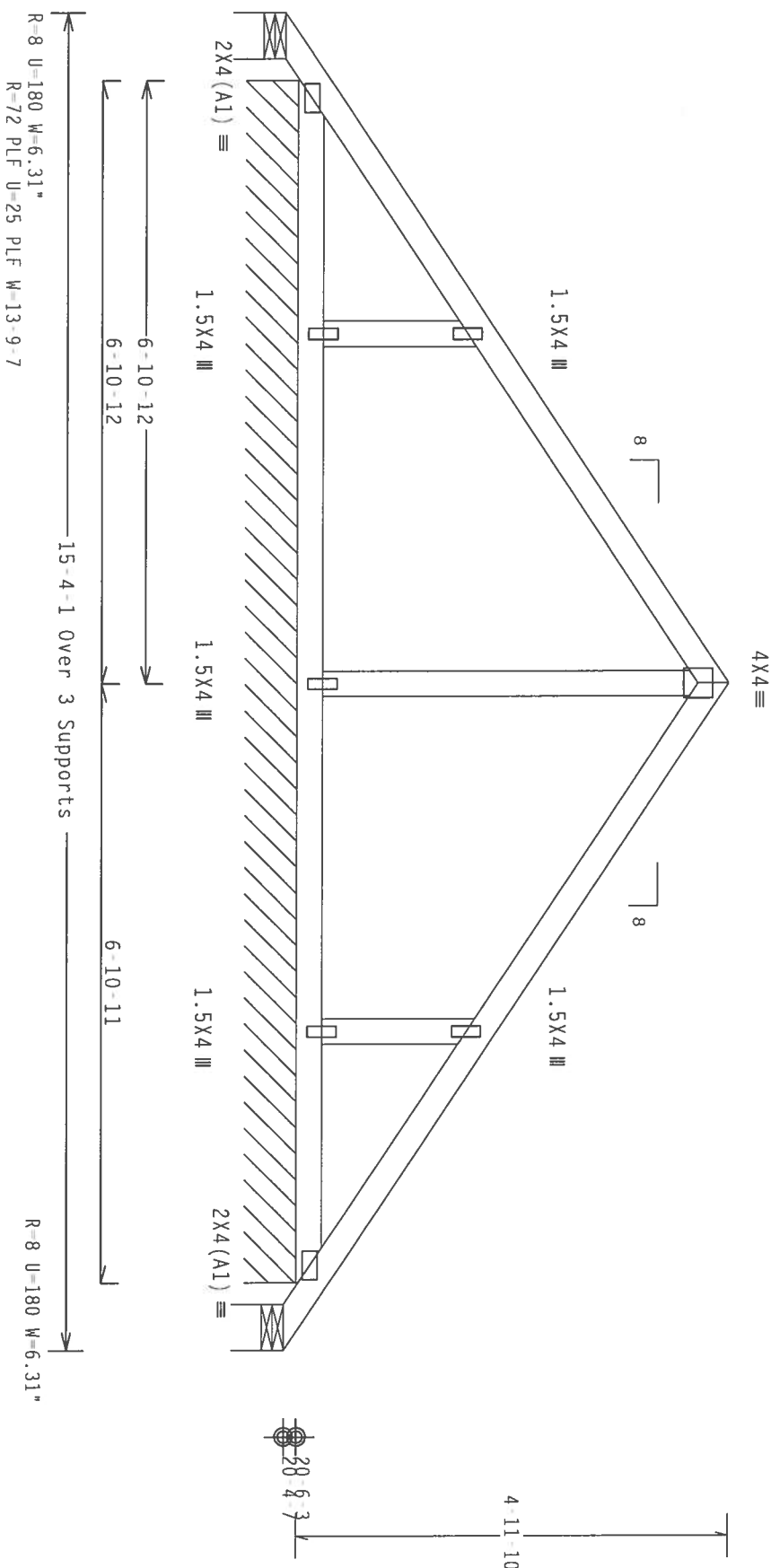
110 mph wind, 22.93 ft mean hgt, ASCE 7-02, closed bldg, not located within 4.50 ft from roof edge, CAT 11, EXP B, wind TC DL=5.0 psf, wind BC DL=2.0 psf, $I_w=1.00$ $G_{CPI} (+/-) = 0.18$

Wind reactions based on MWFRS pressures.

Refer to Dwg PIGBACKA0207 or PIGBACKB0207 for piggyback details. Portion of truss under piggyback is to be braced @ 24" oc unless otherwise specified.

SPECIAL LUANS			
-----	(LUMBER	DUR.FAC.=1.25 /	PLATE DUR.FAC.=1.25)
TC	From	64 PLF at 0.00 to	64 PLF at 7.67
TC	From	64 PLF at 7.67 to	64 PLF at 15.34
BC	From	4 PLF at 0.00 to	4 PLF at 15.34

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



PLT TYP. Wave

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

 $Cq/RT=1.00(1.25)/10(0)$

7.24.12

QTY:2 FL/-/4/-/E/R/-

Scale = .5"/ft.

WARNING PRIORS TO THE EXISTING CASE IN FABRICATION. HANDLING, SHIPPING, INSTALLING AND BRACING REFER TO BC61 (BUILDING COMPONENT INFORMATION). PUBLISHED BY IFI (IRISS PAISE INSTITUTE), 218 NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22304 AND IFCO (WOOD TRUSS COUNCIL OF AMERICA, 6500 ENTERPRISE LANE, MADISON, WI, 53719) FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE OPERATIONS. UNLESS OTHERWISE INDICATED TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE PROPERLY ATTACHED TOP CEILING

IMPORTANT FURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. ITW BCG, INC. SHALL NOT

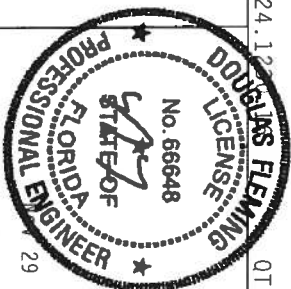
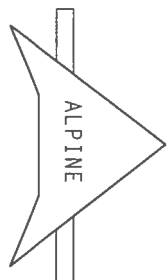
TP1; OR FABRICATING, HANDLING, SHIPPING, INSTALLING & BRACING OF TRUSSES.

CONNECTOR PLATES ARE MADE OF 20/10/16GA (W. H./S.S./K) ASTM A653 GRADE 40/60 (W. K/H./S.S) GALV. STEEL. APPLY PLATES TO EACH FACE OF TRUSS AND UNLESS OTHERWISE LOCATED ON THIS DESIGN POSITION PER DRAWINGS 160A 1

DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOLELY FOR THE TRUSS COMPONENT AND INSPECTION OF PLATES FOLLOWED BY (1) SHALL BE PERMITTED AS OF 1-1-2002 SEC.3. A SEAL ON THE

BUILDING DESIGNER PER AHS/TP1 SEC. 2.

ITW Building Components Group, Inc.
Haines City, FL 33844
Facilitate your organization's growth



TC LL	20.0 PSF	REF	R487 - - 2822
TC DL	10.0 PSF	DATE	11/29/07
BC DL	10.0 PSF	DRW	HCUSR487 07333044
BC LL	0.0 PSF	HC-ENG	TCE/DF
TOT.LD.	40.0 PSF	SEQN-	23249
DUR.FAC.	1.25	FROM	AH
SPACING	24.0"	JRFF-	1TCU487 201

100' chord 2x4 SP #2 Dense
Webs 2x4 SP #3

110 mph wind, 22.93 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=2.0 psf. $I_w=1.00$ $GCP(+/)=0.18$

Wind reactions based on MWFRS pressures.

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

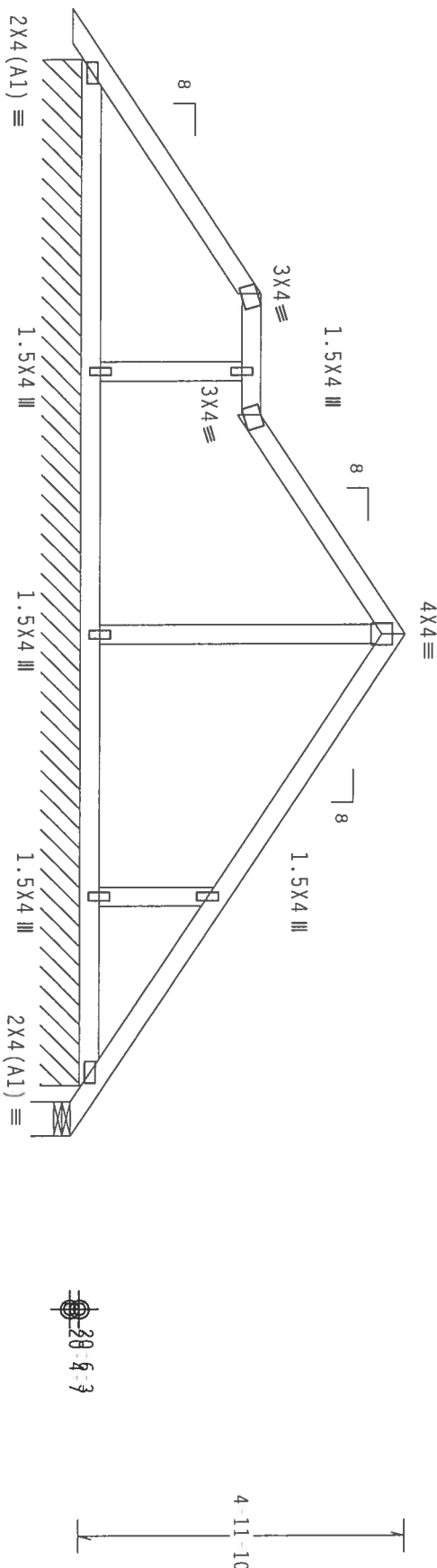
Refer to Dwg PIGBACKA0207 or PIGBACKB0207 for piggyback details. Portion of truss under piggyback is to be braced @ 24" oc unless otherwise specified.

SPECIAL LUAS

----- (LUMBER DUR.FAC.=1.25 / PLATE DUR.FAC.=1.25)

TC - From	64 PLF at -0.78 to	64 PLF at 0.10
TC - From	64 PLF at 0.10 to	64 PLF at 3.56
TC - From	64 PLF at 3.56 to	64 PLF at 5.40
TC - From	64 PLF at 5.40 to	64 PLF at 8.74
TC - From	64 PLF at 8.74 to	64 PLF at 16.41
BC - From	4 PLF at -0.78 to	4 PLF at 16.41

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



PLT TYP. Wave

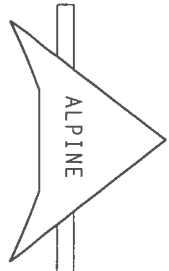
Design Cmt: TPI-2002(STD)/FBC

Cq/RT=1.00(1.25)/10(0)

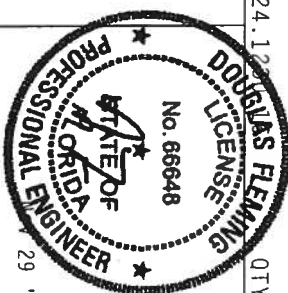
QTY:1 FL/-/4/-/E/R/-

Scale = .375"/Ft.

WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BC&I (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 210 NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22304) AND WCA (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 PARTS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.



ITW Building Components Group, Inc.
Haines City, FL 33844
For a complete catalog, visit our website at www.alpinebuilding.com



TC LL	20.0 PSF	REF R487 - 2823
TC DL	10.0 PSF	DATE 11/29/07
BC DL	10.0 PSF	DRW HCUR487 07333045
BC LL	0.0 PSF	HC-ENG TCE/DF
TOT.LD.	40.0 PSF	SEQN- 23245
DUR.FAC.	1.25	FROM AH
SPACING	24.0"	JREF- 1TCU487 201

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

In lieu of structural panels or rigid ceiling use purlins to brace
all flat TC @ 24" OC, all BC @ 24" OC.

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

Refer to DWG PIGBACKB0207 for piggyback details.

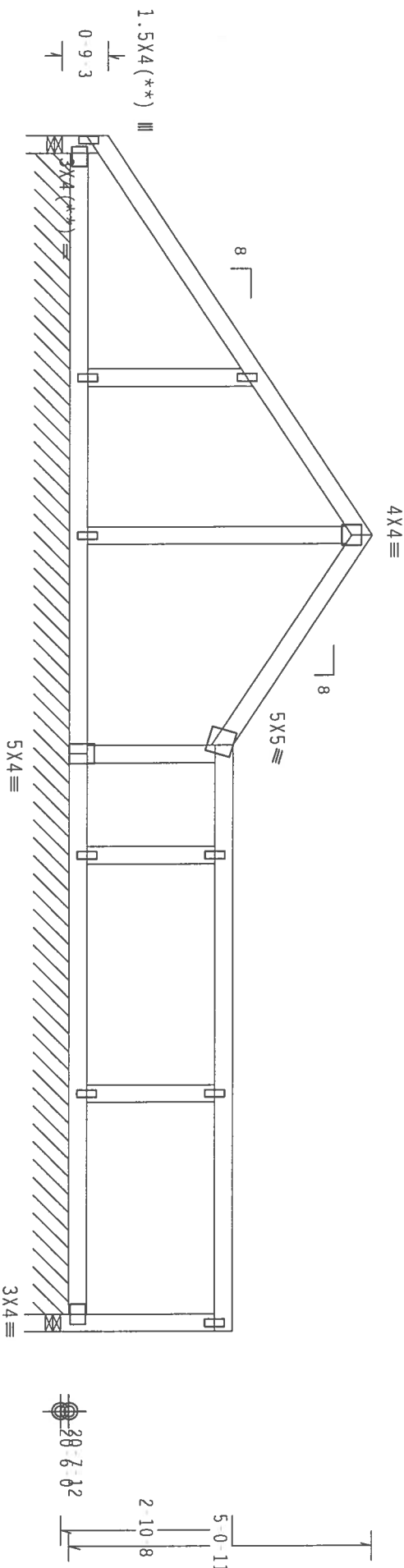
PORTION OF TRUSS UNDER PIGGYBACK IS TO BE
BRACED @ 24" OC, UNLESS OTHERWISE SPECIFIED.

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

110 mph wind, 23.49 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=1.2 psf. $I_w=1.00$ GCPI(+/-)=0.18

Wind reactions based on MWFRS pressures.

Right end vertical not exposed to wind pressure.



Note: All Plates Are 1.5X4 Except As Shown.

PLT TYP. Wave

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

QTY: 1 FL/-/4/-/E/R/-

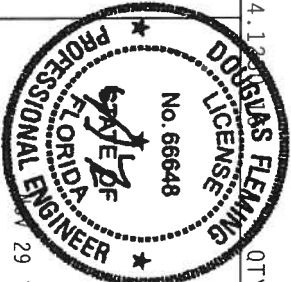
Scale = .375"/Ft.

WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATION, HANDLING, SHIPPING, INSTALLING AND BRACING.
RIGIDITY OF THE TRUSS DEPENDS ON THE STIFFNESS OF THE JOINTS. THE JOINTS MUST BE PROPERLY
CONSTRUCTED AND THE TRUSS MUST BE PROPERLY BRACED. THE TRUSS MUST BE PROPERLY
ANCHORED TO THE FOUNDATION. THE TRUSS MUST BE PROPERLY BRACED TO THE FOUNDATION.
OTHERWISE INDICATED TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE
A PROPERLY ATTACHED RIGID CEILING.

IMPORTANT TURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. THE BCG, INC. SHALL NOT
BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN. ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH
THIS DESIGN SHALL BE THE RESPONSIBILITY OF THE INSTALLATION CONTRACTOR.

DESIGN CONFORMS WITH APPLICABLE PROVISIONS OF THE NATIONAL DESIGN SPEC. BY AISC AND TPI. THE BCG
CONSTRUCTION PLATES ARE MADE OF 20/18/16GA (W-10/S5/K) ASH 4653 GRADE 40/60 (W-8/S5) 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 TPI 2002 SEC. 3. A SEAL ON THIS
DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOLELY FOR THE TRUSS COMPONENT
BUILDING SHOWN. THE SUSTAINABILITY AND USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE
BUILDING DESIGNER PER ANSI/TPI 1 SEC. 2.



ITW Building Components Group, Inc.
Haines City, FL 33844
F-11 Scale 0.375" = 1'-0"

TC LL	20.0 PSF	REF	R487 - 2824
TC DL	10.0 PSF	DATE	11/28/07
BC DL	2.0 PSF	DRW	HCUSR487 07332046
BC LL	0.0 PSF	HC-ENG	DF/DF
TOT.LD.	32.0 PSF	SEQN-	24381
DUR.FAC.	1.25	FROM	AH
SPACING	24.0"	DRFF-	1TCU487 Z01

REF	R487 - 2825
DATE	11/28/07
DRW	HCU\$R487 0733Z017
HC-ENG	DF/DF
SEQN-	24810
FROM	AH
URFF-	1TCU487 Z01

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

In lieu of structural panels or rigid ceiling use purlins to brace
all flat TC @ 24" OC, all BC @ 24" OC.

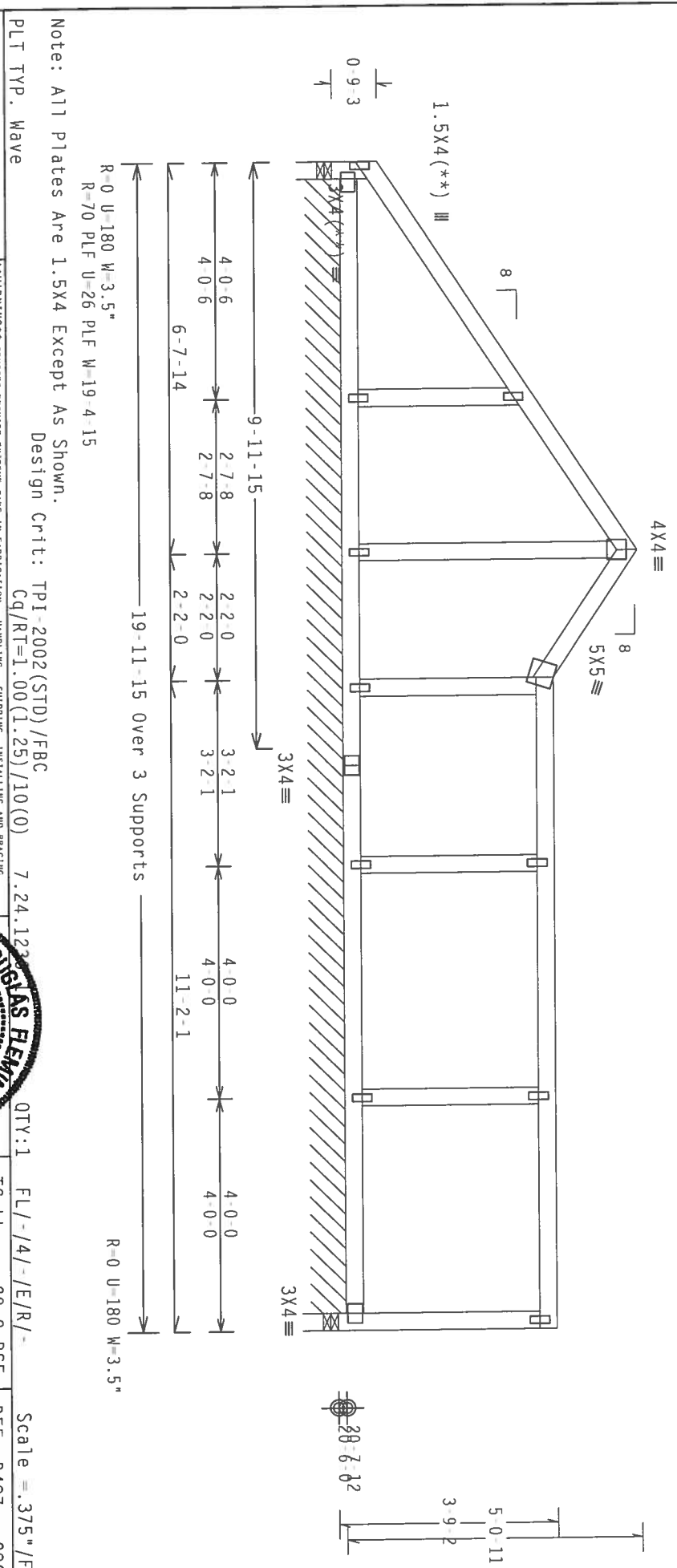
Deflection meets L/240 live and L/180 total load. Creep increase
factor for dead load is 1.50.

Refer to DWG PIGBACK0207 for piggyback details.
PORTION OF TRUSS UNDER PIGGYBACK IS TO BE
BRACED @ 24" OC, UNLESS OTHERWISE SPECIFIED.

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

110 mph wind, 23.49 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=1.2 psf. $I_w=1.00$ GCPI(+/-)-0.18

Wind reactions based on MMFRS pressures.
Right end vertical not exposed to wind pressure.



Note: All Plates Are 1.5X4 Except As Shown.
Design Crit: TPI-2002(STD)/FBC
Cq/RT=1.00(1.25)/10(0)

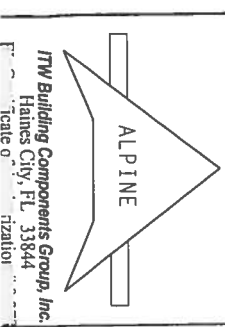
PLT TYP. Wave

QTY: 1 FL/-/4/-/E/R/-

Scale = .375"/ft.

****WARNING**** TRUSSES REQUIRE EXTREME CARE IN FABRICATION, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BC31 (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY THE CONSTRUCTION TRUSS ASSOCIATION, 6200 ENTERPRISE LANE, SUITE 312, ALEXANDRIA, VA, 22314, PRIOR TO REPERFORMING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED, TRUSSES 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. ITM BCG, INC. SHALL NOT BE RESPONSIBLE FOR DETAILING FROM THIS DESIGN. ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH THE DESIGN SHALL BE THE RESPONSIBILITY OF THE INSTALLATION CONTRACTOR. ITM BCG, INC. SHALL NOT BE RESPONSIBLE FOR DETAILING FROM THIS DESIGN. ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH THE DESIGN SHALL BE THE RESPONSIBILITY OF THE INSTALLATION CONTRACTOR.



TC LL	20.0 PSF	REF	R487--	2826
TC DL	10.0 PSF	DATE	11/28/07	
BC DL	2.0 PSF	DRW	HCUSR487	07332047
BC LL	0.0 PSF	HC-ENG	DF/DF	
TOT. LD.	32.0 PSF	SEON-	24388	
DUR. FAC.	1.25	FROM	AH	
SPACING	24.0"	DATE	1TCUAR7	201

TOP CHORD 2X4 SP #2 DENSE
Bot chord 2X4 SP #2 Dense
Webs 2X4 SP #3

In lieu of structural panels or rigid ceiling use purlins to brace
all flat TC @ 24" OC, all BC @ 24" OC.

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

Refer to DWG PIGBACKB0207 for piggyback details.
PORTION OF TRUSS UNDER PIGGYBACK IS TO BE
BRACED @ 24" OC, UNLESS OTHERWISE SPECIFIED.

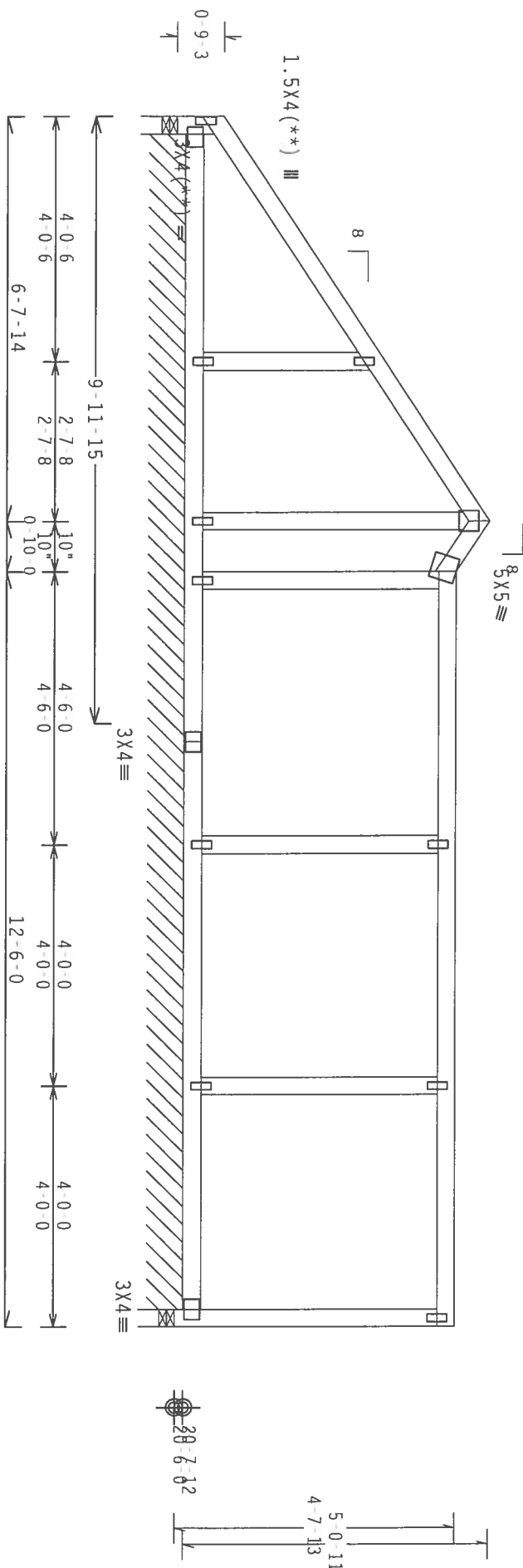
(**) 2 plate(s) require special positioning. Refer to scaled plate
plot details for special positioning requirements.

110 mph wind, 23.49 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=1.2 psf, 1w=1.00 gcpi(+/-)0.18

Wind reactions based on MWFRS pressures.

Right end vertical not exposed to wind pressure.

4X4



Note: All Plates Are 1.5X4 Except As Shown.

PLT TYP. Wave

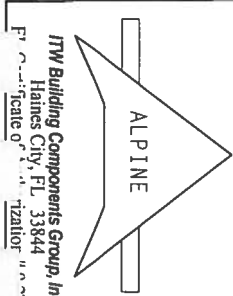
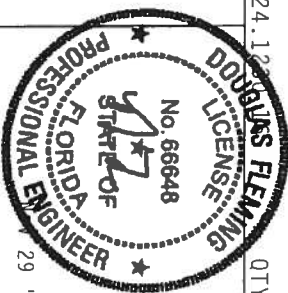
Design Crit: TPI-2002(STD)/FBC
Cq/RT=1.00(1.25)/10(0)

QTY:1 FL/-/4/-/E/R/-

Scale = .375"/ft.

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
HORN LEE STREET, SUITE 312, ALEXANDRIA, VA, 22304) AND WCA (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 BCS, INC. SHALL NOT
BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN. ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH
THIS DESIGN OR FABRICATING, HANDLING, SHIPPING, INSTALLING A BRACING OF TRUSSES.
DESIGN CONTRACTS WITH APPLICABLE PROVISIONS OF MD5 (OPTIONAL DESIGN SPEC. BY ALPINE) AND TPI.
CONNECTION PLATES ARE MADE OF 20/16/10/4 (W/H/S/S/S) ASH 603 GRADE 40/60 (W, R/H/S/S) GALV STEEL. APPLY
THE FOLLOWING TO ALL TRUSSES AND BRACINGS. ALL TRUSSES LOCATED ON THIS DESIGN. POSITION PER DRAWING 100A.2.
ANY INSPECTION OF TRUSSES AND BRACINGS SHALL BE PERFORMED BY A QUALIFIED PERSONNEL. A SEAL ON THIS
DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL DESIGN. THE SIGNATURE OF THE DESIGNER SHALL BE ON THIS
DESIGN SHEET. THE SUSTAINABILITY AND USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE
BUILDING DESIGNER PER ANSI/TPI 1 SEC. 2.



ITW Building Components Group, Inc.
Haines City, FL 33844
Furnish a copy of this design to the installation contractor.

TC LL	20.0 PSF	REF R487-- 2827
TC DL	10.0 PSF	DATE 11/28/07
BC DL	2.0 PSF	DRW HCUR487 07332002
BC LL	0.0 PSF	HC-ENG DF/DF
TOT.LD.	32.0 PSF	SEQN- 24395
DUR.FAC.	1.25	FROM AH
SPACING	24.0"	JRFF- 1TCU487 Z01

TOP CHORD 2X4 SP #2 Dense
Bot Chord 2X4 SP #2 Dense
Webs 2X4 SP #3

In lieu of structural panels or rigid ceiling use purlins to brace
all flat TC @ 24" OC, all BC @ 24" OC.

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

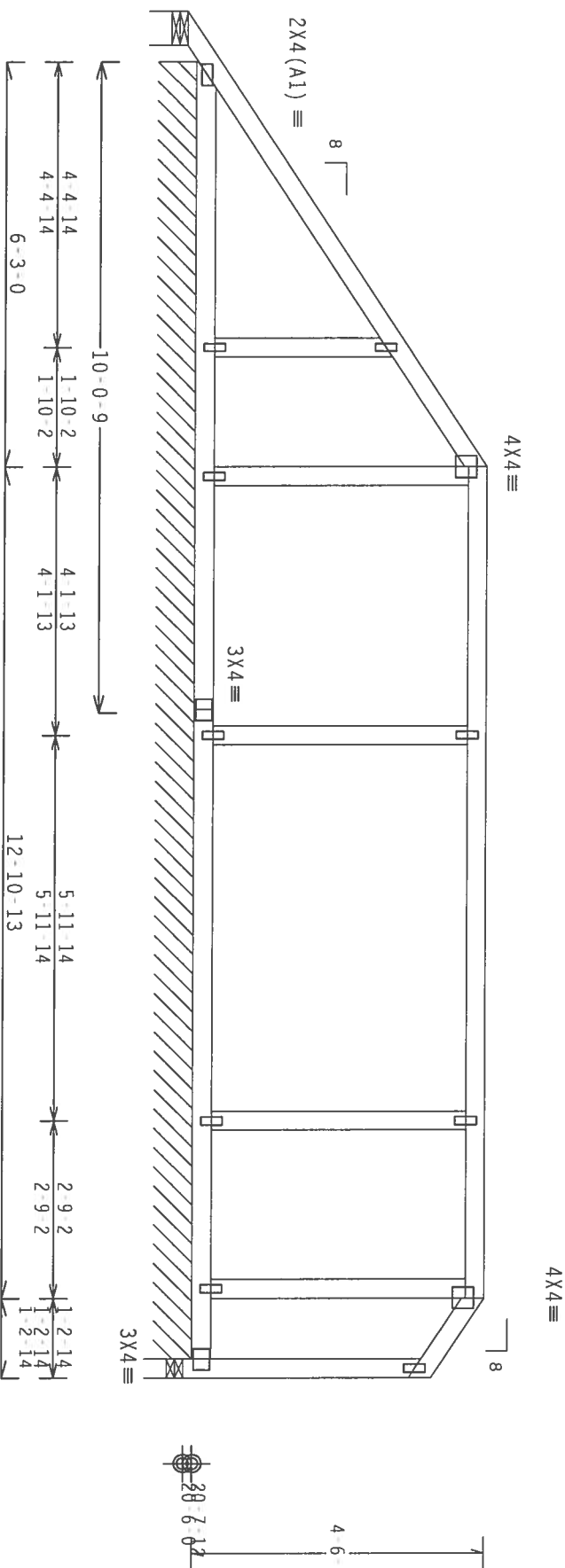
Refer to DWG PIGBACKB0207 for piggyback details.
PORTION OF TRUSS UNDER PIGGYBACK IS TO BE
BRACED @ 24" OC, UNLESS OTHERWISE SPECIFIED.

Bearing reaction of #82# at (0-0-0, 20-6-0), requires special
connection to resist uplift from loads other than wind.

110 mph wind, 22.84 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=1.2 psf. $I_w=1.00$ GCPI(+/-)=0.18

Wind reactions based on MMFRS pressures.

Right end vertical not exposed to wind pressure.



Note: All Plates Are 1.5X4 Except As Shown.

PLT TYP. Wave

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

QTY: 1 FL/-/4/-/E/R/-

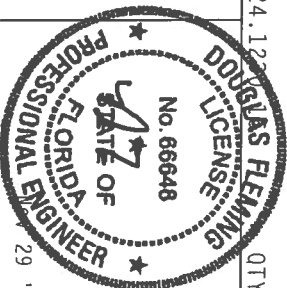
Scale = .375"/ft.

****WARNING**** TRUSSES REQUIRE EXTREME CARE IN FABRICATION, HANDLING, SHIPPING, INSTALLING AND BRACING.
REFER TO RESIDENTIAL BUILDING COMPONENT SAFETY INFORMATION, PUBLISHED BY TPI TRUSS COMPANY, 1000
HORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22304 AND WEA TRUSS COMPANY, 1000
ENTERPRISE LANE, MADISON, WI 53719 FOR SAFE 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 A BRACING OF TRUSSES.

DISCUSS CONDITIONS WITH APPLICABLE PROVISIONS OF NDS (NATIONAL DESIGN SPEC. BY ALPINE) AND TPI.
CONNECTIONS TO EACH FACE OF TRUSS AND, UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION PER DRAWINGS 1604 Z.

PLATES TO EACH FACE OF TRUSS AND, UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION PER DRAWINGS 1604 Z.
A SEAL ON THIS
DRAWING SHALL BE REQUIRED AND USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE
BUILDING DESIGNER PER ANSI/TPI 1 SEC. 2.



ITW Building Components Group, Inc.
Haines City, FL 33844
Scale 0" = 4'-0"
TPI-2002(STD)/FBC

TC LL	20.0 PSF	REF	R487--	2828
TC DL	10.0 PSF	DATE	11/28/07	
BC DL	2.0 PSF	DRW	HCSR487	07332004
BC LL	0.0 PSF	HC-ENG	DF/DF	
TOT. LD.	32.0 PSF	SECN-	24407	
DUR. FAC.	1.25	FROM	AH	
SPACING	24.0"	JRFF-	1TCU487	Z01

Top chord 4x4 3r #2 dense
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3

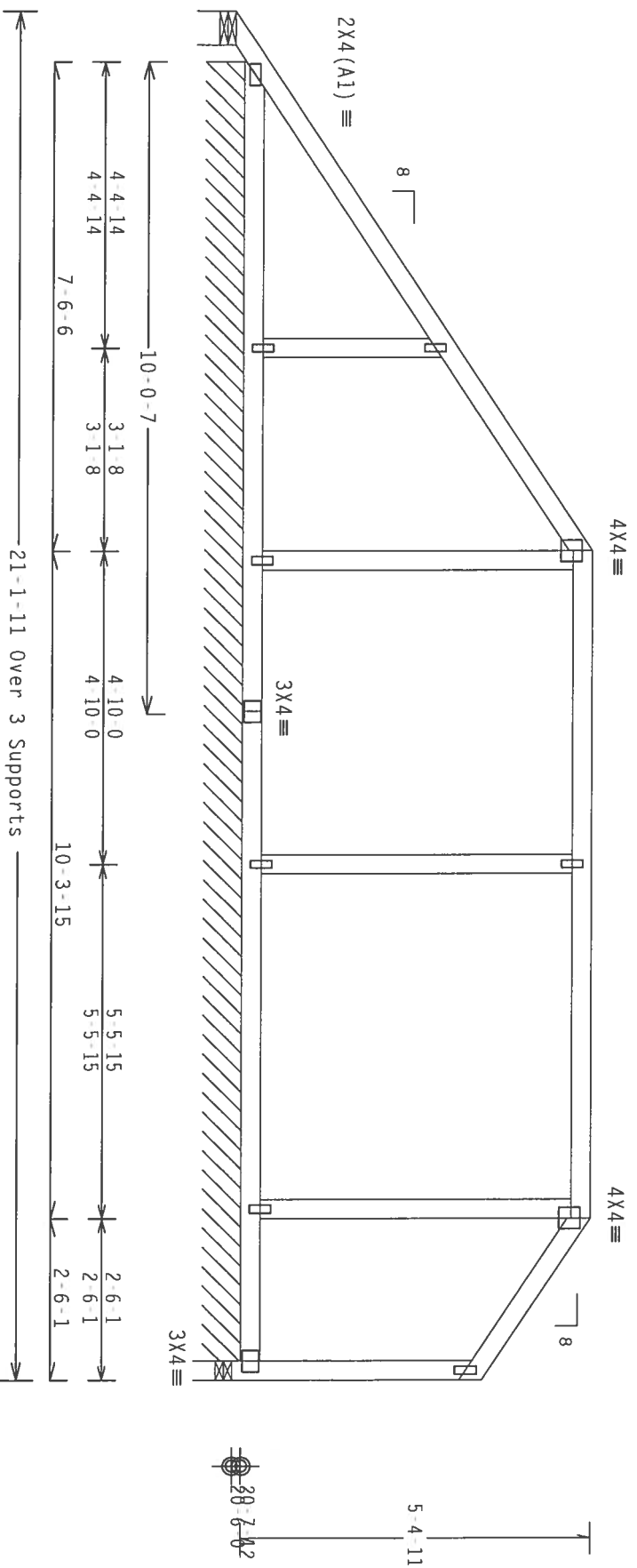
In lieu of structural panels or rigid ceiling use purlins to brace
all flat TC @ 24" OC, all BC @ 24" OC.

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

Refer to DWG PIGBACKB0207 for piggyback details.
PORTION OF TRUSS UNDER PIGGYBACK IS TO BE
BRACED @ 24" OC, UNLESS OTHERWISE SPECIFIED.

Bearing reaction of #9 at (0-0-0, 20-6-0), requires special
connection to resist uplift from loads other than wind.
110 mph wind, 23.27 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=1.2 psf. $I_w=1.00$ Gcpi(+/-)-0.18

Wind reactions based on MMFRS pressures.
Right end vertical not exposed to wind pressure.



R=79 U=180 W=6.31"
R=75 PLF U=33 PLF W=20-0-14

PLT TYP. Wave
Design Crit: TPI-2002(STD)/FBC
Cq/RT=1.00(1.25)/10(0)

WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATION, HANDLING, SHIPPING, INSTALLING AND BRACING.
REFER TO DESI (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 218
NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22314) AND WCA (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.



ITW Building Components Group, Inc.
Haines City, FL 33844
Professional Engineer



FL	/-4/-	/E/R/-	Scale = .375"/ft.
TC LL	20.0 PSF	REF R487-- 2829	
TC DL	10.0 PSF	DATE 11/28/07	
BC DL	2.0 PSF	DRW HCUR487 07332012	
BC LL	0.0 PSF	HC-ENG DF/DF	
TOT.LD.	32.0 PSF	SEON- 24655	
DUR.FAC.	1.25	FROM AH	
SPACING	24.0"	JRFF- 1TCU487 201	

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

In lieu of structural panels or rigid ceiling use purlins to brace all flat TC @ 24" OC, all BC @ 24" OC.

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

Refer to DWG PIGBACKB0207 for piggyback details.

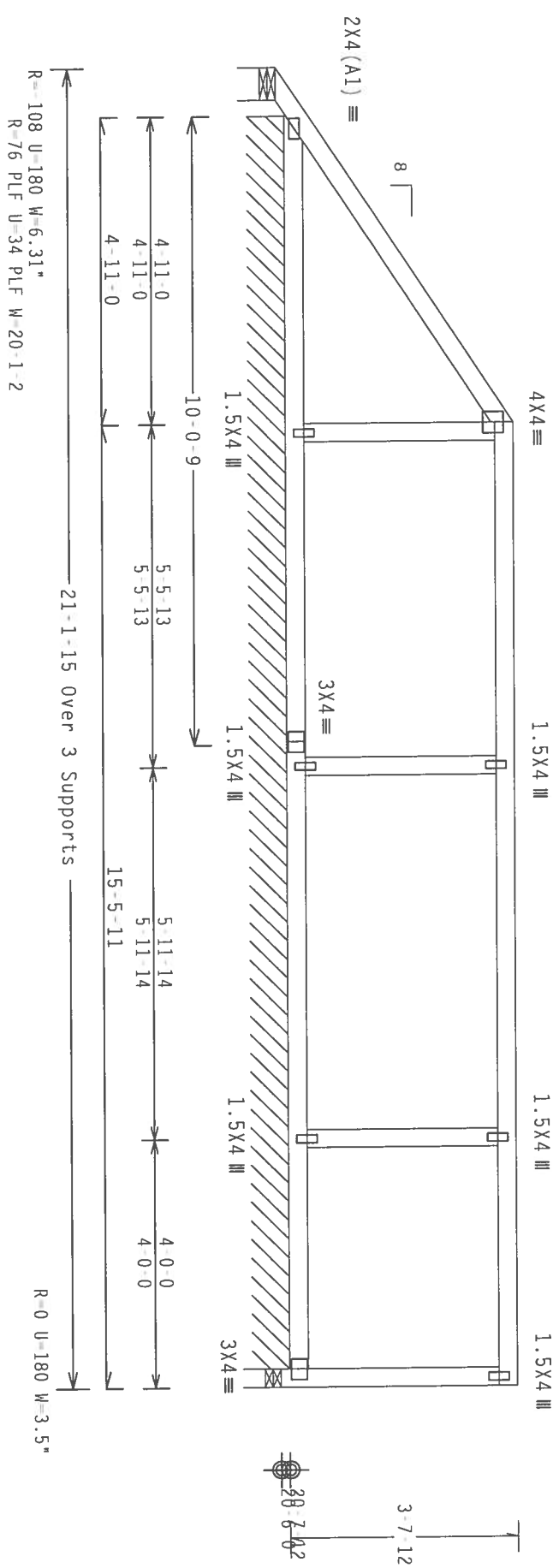
PORTION OF TRUSS UNDER PIGGYBACK IS TO BE BRACED @ 24" OC, UNLESS OTHERWISE SPECIFIED.

Bearing reaction of 10V/# at (V-U-V, 2U-B-U), requires special connection to resist uplift from loads other than wind.

110 mph wind, 22.40 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT 11, EXP B, wind TC DL=5.0 psf, wind BC DL=1.2 psf. lw=1.00 GCPI(+/-)-0.18

Wind reactions based on MMFRS pressures.

Right end vertical not exposed to wind pressure.



PLT TYP. Wave

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

QTY:1 FL/-/4/-/E/R/-

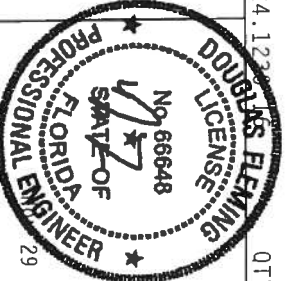
Scale = .375"/ft.

****WARNING**** TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. THE TRUSS DESIGNER SHALL BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN. ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH THE DESIGN SHALL BE THE RESPONSIBILITY OF THE TRUSSER. THE TRUSSER SHALL BE RESPONSIBLE FOR THE PROPER ATTACHMENT OF THE TRUSS TO THE BUILDING DESIGNER'S ATTACHED RIGID CEILING.

****IMPORTANT**** FURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. THE BCG, INC. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN. ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH THE DESIGN SHALL BE THE RESPONSIBILITY OF THE TRUSSER. THE TRUSSER SHALL BE RESPONSIBLE FOR THE PROPER ATTACHMENT OF THE TRUSS TO THE BUILDING DESIGNER'S ATTACHED RIGID CEILING.

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
P.O. Box 1000
Haines City, FL 33844



TC LL	20.0 PSF	REF R487-- 2830
TC DL	10.0 PSF	DATE 11/28/07
BC DL	2.0 PSF	DRW HCUR487 07332006
BC LL	0.0 PSF	HC-ENG DF/DF
TOT. LD.	32.0 PSF	SEON- 24413
DUR. FAC.	1.25	FROM AH
SPACING	24.0"	URFF- 1TCU487 201

TOP CHORD 4X4 SP #2 Dense
Bot chord 2X4 SP #2 Dense
Webs 2X4 SP #3

In lieu of structural panels or rigid ceiling use purlins to brace
all flat TC @ 24" OC, all BC @ 24" OC.

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

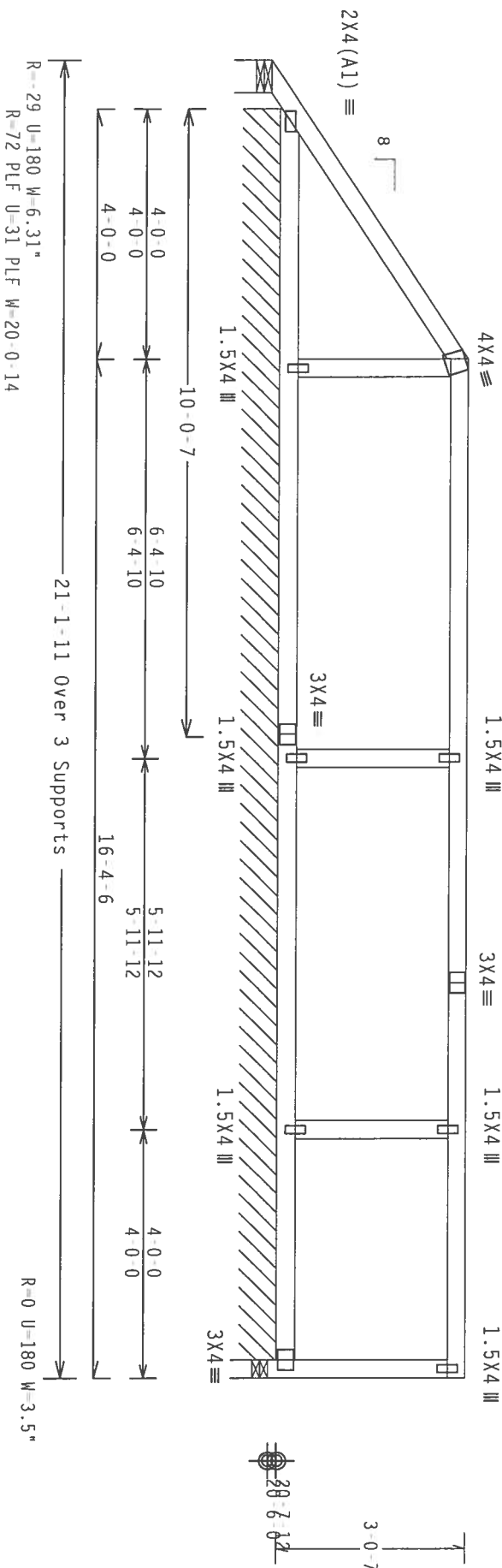
Refer to DWG PIGBACKB0207 for piggyback details.
PORTION OF TRUSS UNDER PIGGYBACK IS TO BE
BRACED @ 24" OC, UNLESS OTHERWISE SPECIFIED.

Bearing reaction of 28# at (0 0 0, 20 6 0), requires special
connection to resist uplift from loads other than wind.

110 mph wind, 22.09 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=1.2 psf. $I_w=1.00$ $G\text{CPI}(\text{r/r})=0.18$

Wind reactions based on MFRS pressures.

Right end vertical not exposed to wind pressure.



PLT TYP. Wave

Design Crit: TPI-2002(STD)/FBC

Cq/RT=1.00(1.25)/10(0)

7.24.1230

QTY:1

FL/-/4/-/E/R/-

Scale = .375"/Ft.

WARNING TRUSSES REQUIRE EXTERIOR CASE IN FABRICATION, HANDLING, SHIPPING, INSTALLING & BRACING. REFER TO BC31 (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI, TRUSS PLATE INSTITUTE, 2100 NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22304 AND NCA (NATIONAL 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.

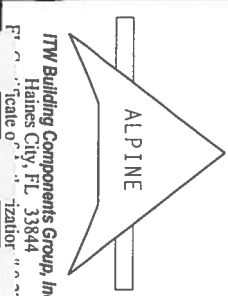
IMPORTANT FURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. THE BCG, INC. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN. ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH TPI, OR FABRICATING, HANDLING, SHIPPING, INSTALLING & BRACING OF TRUSSES.

DESIGN CONDITIONS WITH APPLICABLE PROVISIONS OF NDS (NATIONAL DESIGN SPEC. BY AREA) AND TPI. THE BCG CONNECTION PLATES ARE MADE OF 70/30 T606 (W/J/S/S) ASH 6063 GRADE 40/60 (W, K/H/S) GALV. STEEL. APPLY BRACING TO EACH FACE OF TRUSS AND, UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION PER BRANCHES T606 Z.

INSTALLATION OF PLATES FOLLOWED BY (1) SHALL BE PER ANNEX A3 OF TPI 2002 SEC.3. A SEAL ON THIS DRAWING SHALL BE USED TO INDICATE THE USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER PER ANSI/TPI 1 SEC. 2.



TC LL	20.0 PSF	REF	R487 - 2831
TC DL	10.0 PSF	DATE	11/28/07
BC DL	2.0 PSF	DRW	HCUSR487 0732007
BC LL	0.0 PSF	HC-ENG	DF/DF
TOT. LD.	32.0 PSF	SEQN-	24421
DUR. FAC.	1.25	FROM	AH
SPACING	24.0"	JRFF-	1TCU487 201



ITW Building Components Group, Inc.
Haines City, FL 33844
Scale of 1/8" = 1'-0"

110 mph wind, 21.65 ft mean hgt, ASCE / V2, clustv diag, not located within 4.50 ft from roof edge, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=1.2 psf. Iw=1.00 Gcpi(+/-) 0.18

Wind reactions based on MMFRS pressures.
Right end vertical not exposed to wind pressure.

Wind reactions based on MFRS pressures.

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

QTY:1

Scale = .375"/Ft.

4.123
QTY
DOUGLAS FLEMING
LICENSE
No. 66648

5

STATE OF



PROFESSIONAL ENGINEER

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/FP1 1 SEC. 2.

0/	DUR. FAC.	1.23	FROM	ALL
	SPACING	24.0"	JRFF -	1TCU487 Z01

110 mph wind, 21.20 ft mean hgt, ASCE 7-02, C10SEU bldg, not located within 4.50 ft from roof edge, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=1.2 psf. $I_w=1.00$ Gcpi (+/-)=0.18

Wind reactions based on MFRS pressures.

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

$$Cq/RT=1.00(1.25)/10(0)$$

7.24.1238 QTY:1

FL/-/4/-/E/R/-

Scale = .375"/Ft.

****IMPORTANT****FURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. ITW BCG, INC. SHALL NOT

ER

VEE

10 67

TC LL	20.0 PSF	REF	R487-- 2833
TC DL	10.0 PSF	DATE	11/28/07
BC DL	2.0 PSF	DRW	HCUSR487 07332031
BC LL	0.0 PSF	HC-ENG	DF/DF
TOT. LD.	32.0 PSF	SEQN-	24433
DUR. FAC.	1.25	FROM	AH
SPACING	24.0"	JRF--	1TCU487 Z01

110 mph wind, 21.04 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT 1, EXP B, wind TC DL=5.0 psf, wind BC DL=2.0 psf. 1w=1.00 GCPI (1/)=0.18

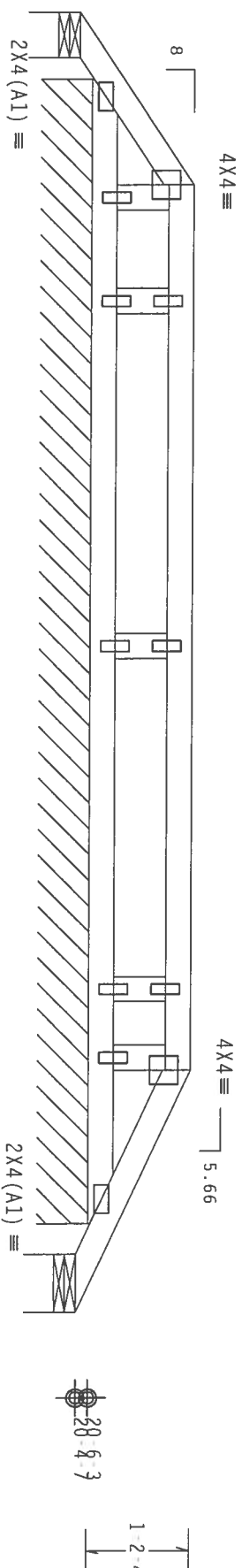
Wind reactions based on MwFRS pressures.

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

Refer to Dwg PIGBACKA0207 or PIGBACKB0207 for piggyback details. Portion of truss under piggyback is to be braced @ 24" oc unless otherwise specified.

SPECIAL LUAVS			
	DUR.FAC.	= 1.25 / PLATE	DUR.FAC. = 1.25
TC - From	64 PLF at 0.00 to	64 PLF at 2.00	
TC - From	64 PLF at 2.00 to	64 PLF at 12.29	
TC - From	62 PLF at 12.29 to	62 PLF at 15.13	
BC - From	4 PLF at 0.00 to	4 PLF at 15.13	

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



R-18 U=180 W=6.31" 15-1-8 Over 3 Supports R-18 U=180 W=8.207"

Note: All Plates Are 1.5X4 Except As Shown.

PLT TYP. Wave

Design Crit: TPI-2002(STD)/FBC
Cd/RT=1.00(1.25)

 $Cq/RT=1.00(1.25)/10(0)$

7.24.123

OTY:1

F11-141-E/R/-

Scale = 5"/Ft

*****WARNING***** PRIORS TO THE EXISTING CASE IN FABRICATION, HANDLING, SHIPPING, INSTALLING AND BRACING REFER TO GC51 (BUILDING COMPONENT SAFETY INFORMATION). PUBLISHED BY TPI (TRESS PASTAL INSTITUTE), 218 NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22314 AND WFO (WOOD TRUSS COMPANY), 6500 ENTERPRISE LANE, MADISON, WI 53719 FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE OPERATIONS. INTERESTED PARTIES INDICATED THAT CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANS AND BOTTOM CHORD SHALL HAVE PROPERLY ATTACHED FIELD CEILING.

****IMPORTANT*** FURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. THE RCG, INC. SHALL NOT

TP1: OR FABRICATING, HANDLING, SHIPPING, INSTALLING & BRACING OF TRUSSES.

CONNECTOR PLATES ARE MADE OF 20/10/16GA (W,H/SS/K) ASIM A653 GRADE 40/60 (W, K/H,SS) GALV. STEEL. APPLY

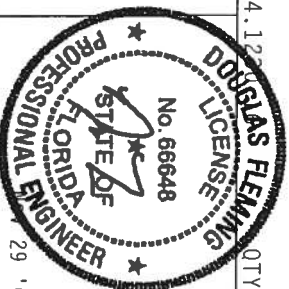
ANY INSPECTION OF PLATES FOLLOWED BY (1) SHALL BE PER ANNEX A3 OF TP11 2002 SEC.3. A SEAL ON THIS

DESIGN SHOWN. THE SUSTAINABILITY AND USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER OR ARCHITECT, ETC.

1. **Introduction**
 2. **Background**
 3. **Methodology**
 4. **Results**
 5. **Discussion**
 6. **Conclusion**
 7. **References**
 8. **Appendix**
 9. **Index**
 10. **Table of Contents**
 11. **Figure 1**
 12. **Figure 2**
 13. **Figure 3**
 14. **Figure 4**
 15. **Figure 5**
 16. **Figure 6**
 17. **Figure 7**
 18. **Figure 8**
 19. **Figure 9**
 20. **Figure 10**
 21. **Figure 11**
 22. **Figure 12**
 23. **Figure 13**
 24. **Figure 14**
 25. **Figure 15**
 26. **Figure 16**
 27. **Figure 17**
 28. **Figure 18**
 29. **Figure 19**
 30. **Figure 20**
 31. **Figure 21**
 32. **Figure 22**
 33. **Figure 23**
 34. **Figure 24**
 35. **Figure 25**
 36. **Figure 26**
 37. **Figure 27**
 38. **Figure 28**
 39. **Figure 29**
 40. **Figure 30**
 41. **Figure 31**
 42. **Figure 32**
 43. **Figure 33**
 44. **Figure 34**
 45. **Figure 35**
 46. **Figure 36**
 47. **Figure 37**
 48. **Figure 38**
 49. **Figure 39**
 50. **Figure 40**
 51. **Figure 41**
 52. **Figure 42**
 53. **Figure 43**
 54. **Figure 44**
 55. **Figure 45**
 56. **Figure 46**
 57. **Figure 47**
 58. **Figure 48**
 59. **Figure 49**
 60. **Figure 50**
 61. **Figure 51**
 62. **Figure 52**
 63. **Figure 53**
 64. **Figure 54**
 65. **Figure 55**
 66. **Figure 56**
 67. **Figure 57**
 68. **Figure 58**
 69. **Figure 59**
 70. **Figure 60**
 71. **Figure 61**
 72. **Figure 62**
 73. **Figure 63**
 74. **Figure 64**
 75. **Figure 65**
 76. **Figure 66**
 77. **Figure 67**
 78. **Figure 68**
 79. **Figure 69**
 80. **Figure 70**
 81. **Figure 71**
 82. **Figure 72**
 83. **Figure 73**
 84. **Figure 74**
 85. **Figure 75**
 86. **Figure 76**
 87. **Figure 77**
 88. **Figure 78**
 89. **Figure 79**
 90. **Figure 80**
 91. **Figure 81**
 92. **Figure 82**
 93. **Figure 83**
 94. **Figure 84**
 95. **Figure 85**
 96. **Figure 86**
 97. **Figure 87**
 98. **Figure 88**
 99. **Figure 89**
 100. **Figure 90**
 101. **Figure 91**
 102. **Figure 92**
 103. **Figure 93**
 104. **Figure 94**
 105. **Figure 95**
 106. **Figure 96**
 107. **Figure 97**
 108. **Figure 98**
 109. **Figure 99**
 110. **Figure 100**
 111. **Figure 101**
 112. **Figure 102**
 113. **Figure 103**
 114. **Figure 104**
 115. **Figure 105**
 116. **Figure 106**
 117. **Figure 107**
 118. **Figure 108**
 119. **Figure 109**
 120. **Figure 110**
 121. **Figure 111**
 122. **Figure 112**
 123. **Figure 113**
 124. **Figure 114**
 125. **Figure 115**
 126. **Figure 116**
 127. **Figure 117**
 128. **Figure 118**
 129. **Figure 119**
 130. **Figure 120**
 131. **Figure 121**
 132. **Figure 122**
 133. **Figure 123**
 134. **Figure 124**
 135. **Figure 125**
 136. **Figure 126**
 137. **Figure 127**
 138. **Figure 128**
 139. **Figure 129**
 140. **Figure 130**
 141. **Figure 131**
 142. **Figure 132**
 143. **Figure 133**
 144. **Figure 134**
 145. **Figure 135**
 146. **Figure 136**
 147. **Figure 137**
 148. **Figure 138**
 149. **Figure 139**
 150. **Figure 140**
 151. **Figure 141**
 152. **Figure 142**
 153. **Figure 143**
 154. **Figure 144**
 155. **Figure 145**
 156. **Figure 146**
 157. **Figure 147**
 158. **Figure 148**
 159. **Figure 149**
 160. **Figure 150**
 161. **Figure 151**
 162. **Figure 152**
 163. **Figure 153**
 164. **Figure 154**
 165. **Figure 155**
 166. **Figure 156**
 167. **Figure 157**
 168. **Figure 158**
 169. **Figure 159**
 170. **Figure 160**
 171. **Figure 161**
 172. **Figure 162**
 173. **Figure 163**
 174. **Figure 164**
 175. **Figure 165**
 176. **Figure 166**
 177. **Figure 167**
 178. **Figure 168**
 179. **Figure 169**
 180. **Figure 170**
 181. **Figure 171**
 182. **Figure 172**
 183. **Figure 173**
 184. **Figure 174**
 185. **Figure 175**
 186. **Figure 176**
 187. **Figure 177**
 188. **Figure 178**
 189. **Figure 179**
 190. **Figure 180**
 191. **Figure 181**
 192. **Figure 182**
 193. **Figure 183**
 194. **Figure 184**
 195. **Figure 185**
 196. **Figure 186**
 197. **Figure 187**
 198. **Figure 188**
 199. **Figure 189**
 200. **Figure 190**
 201. **Figure 191**
 202. **Figure 192**
 203. **Figure 193**
 204. **Figure 194**
 205. **Figure 195**
 206. **Figure 196**
 207. **Figure 197**
 208. **Figure 198**
 209. **Figure 199**
 210. **Figure 200**
 211. **Figure 201**
 212. **Figure 202**
 213. **Figure 203**
 214. **Figure 204**
 215. **Figure 205**
 216. **Figure 206**
 217. **Figure 207**
 218

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
Toll-free 1-800-451-4444
Fax 813/939-1111



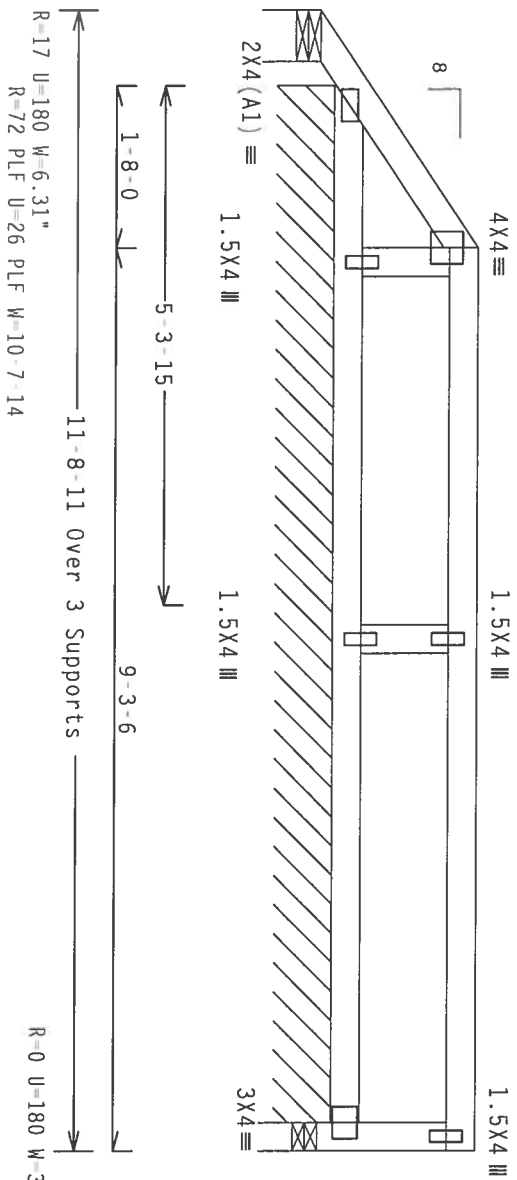
TC LL	20.0 PSF	REF	R487 - 2834
TC DL	10.0 PSF	DATE	11/29/07
BC DL	10.0 PSF	DRW	HCSR487 0733046
BC LL	0.0 PSF	HC-ENG	TCE/DF
TOT.LD.	40.0 PSF	SEQN -	23263
DUR.FAC.	1.25	FROM	AH
SPACING	24.0"	JRF -	ITCU487 201

TOP CHORD 2x4 SP #2 Dense
Bot chord 2x4 SP #2 Dense
Webs 2x4 SP #3

In lieu of structural panels or rigid ceiling use purlins to
brace all flat TC @ 24" OC, all BC @ 24" OC.
Refer to DWG PIGBACKA0207 or PIGBACKB0207 for piggyback
details. Portion of truss under piggyback is to be
braced @ 24" OC unless otherwise specified.

110 mph wind, 19.81 ft mean hgt, ASCE 7-02, CLUSTED bldg, not
located within 4.50 ft from roof edge, CAT II, EXP B, wind TC
DL=5.0 psf, wind BC DL=1.2 psf. $I_w=1.00$ GCPI(+/-)-0.18

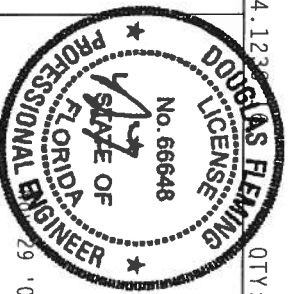
Wind reactions based on MMFRS pressures.
Deflection meets L/240 live and L/180 total load. Creep increase
factor for dead load is 1.50.



PLT TYP. Wave Design Cmt: TPI-2002 (STD) /FBC
Cq/RT=1.00(1.25)/10(0) 7.24.123

WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATION, HANDLING, SHIPPING, INSTALLING AND BRACING.
REFER TO BC31 (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE), 218
MORTIMER STREET, SUITE 312, ALEXANDRIA, VA, 22314, AND WCA (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 2002 NATIONAL DESIGN SPEC. BY AISC AND AISC 360. ITW BCG
PLATES TO EACH CHORD OF TRUSS ARE MADE OF 20/10/10/10 (A/SS/SS) ASH 6033 GRADE 40/60 (B, R/1/55) GALV. STEEL. APPLY
ANY INSPECTION OF PLATES FOLLOWED BY (1) SHALL BE REQUIRED ON THIS DESIGN. POSITION PER DRAWINGS 160A.2.
DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY. A SEAL ON THIS
DESIGN SHOWS THE SUITABILITY AND USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE
BUILDING DESIGNER PER ANSI/TPI 1 SEC. 2.



FL / - / 4 / - / E / R / -		Scale = .5" / Ft.	
TC LL	20.0 PSF	REF	R487 - - 2835
TC DL	10.0 PSF	DATE	11/29/07
BC DL	2.0 PSF	DRW	HCUSR487 07333047
BC LL	0.0 PSF	HC - ENG	TCE/DF
TOT. LD.	32.0 PSF	SEQN-	23186
DUR. FAC.	1.25	FROM	AH
SPACING	24.0"	JRFF-	1TCU487 201

Bearing reactions of 74# at (0-0-0, 20-6-0), 74# at (15-1-1, 20-6-0), require special connection to resist uplift from loads other than wind.

Wind reactions based on MMFRS pressures.
In lieu of rigid ceiling use purtins to brace BC @ 24" OC

In lieu of rigid ceiling use purlins to brace BC @ 24" OC.

Wind reactions based on MWRs pressures.



Scale = .5"/Ft.

1230
QTY

REF	R487--2836
DATE	11/28/07

REF	R487--2836
DATE	11/28/07

TC LL	20.0 PSF	REF	R487 - 2836
TC DL	10.0 PSF	DATE	11/28/07
BC DL	2.0 PSF	DRW	HCSR487 0733200
BC LL	0.0 PSF	HC-ENG	DF/DF
TOT.LD.	32.0 PSF	SEON-	24647
DUR.FAC.	1.25	FROM	AH
SPACING	24.0"	DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07
		DRW	HCSR487 0733200
		HC-ENG	DF/DF
		SEON-	24647
		FROM	AH
		DATE	11/28/07

2 COMPLETE TRUSSES REQUIRED
Nailing Schedule: (12d Common (0.148"x3.25",

Nailing Schedule: (12d Common (0.148"x3.25", min.)_nails)

Top Chord: 1 Row @12.00" 0.c.

Bot Lncrd: 2 ROWS @ 6.00" o.c. (Each Row)

WEDS : 1 ROW @ 4 O.C.

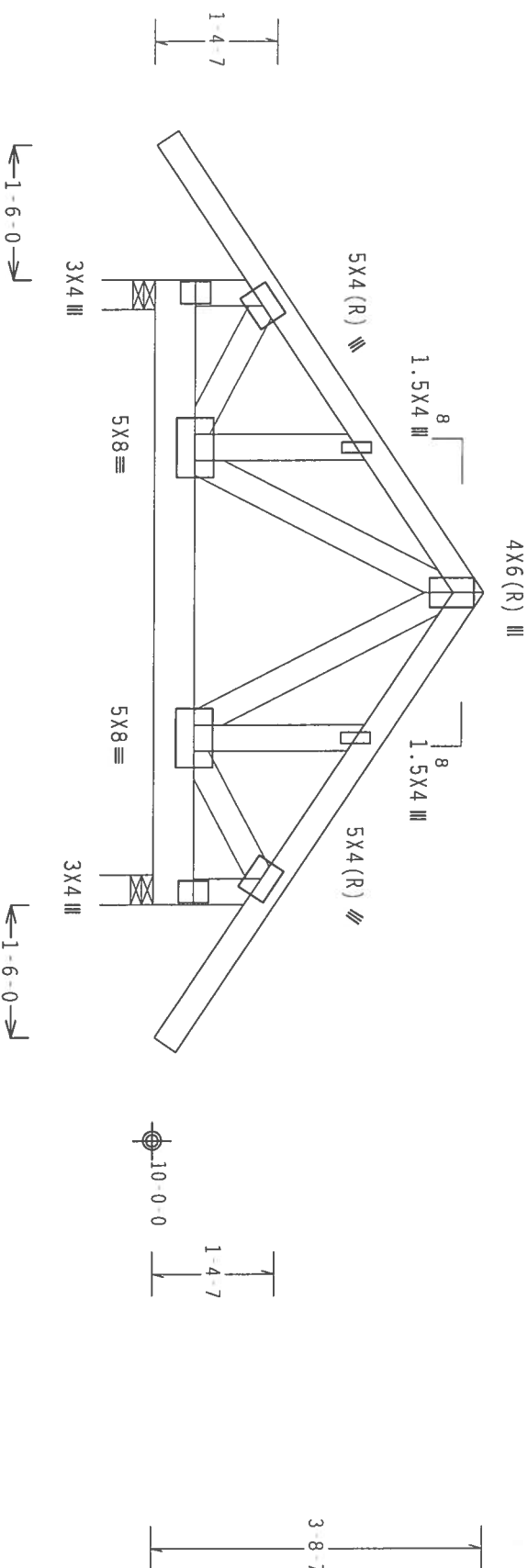
use equal spacing between rows and stagger nails in each row to avoid splitting.

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 MWRFS pressures.

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

SPECIAL LOADS		(LUMBER DUR. FAC. = 1.25 / PLATE DUR. FAC. = 1.25)	
TC	From 64 PLF at 1.66 to 64 PLF at 3.50		
TC	From 64 PLF at 3.50 to 64 PLF at 8.66		
BC	From 5 PLF at 1.66 to 5 PLF at 8.66		
BC	From 20 PLF at 0.00 to 20 PLF at 7.00		
BC	From 5 PLF at 7.00 to 5 PLF at 8.66		
BC	409 LB Conc. Load at 1.88		
BC	299 LB Conc. Load at 3.91		
BC	215 LB Conc. Load at 5.91		



PLT TYP. Wave

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

QTY:1

FL/-/4/-/E/R/-

Scale = .5"/Ft.

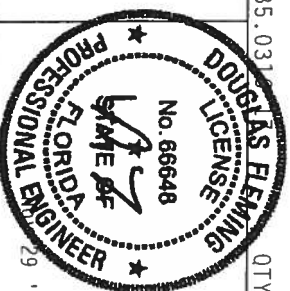
*"WARNING" - TRUCKS BEARING EXISTING CARGO IN FABRICATION, HANDLING, SHIPPING, INSTALLING, AND READING REFERENCE TO DCST (BUILDING COMPONENT SAFETY INFORMATION). PUBLISHED BY TPI (TRUSS PRACTICE INSTITUTE), 218 NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22314 AND WPCA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LANE, SUITE 501, WY319) FOR SAFETY PRACTICES PRIOR TO PERFORMING THE FUNCTIONS, UNLESS OTHERWISE INDICATED FOR CARGO SHALL HAVE PROPERLY ATTACHED STRUCTURAL PAINS AND BOTTOM CARGO SHALL HAVE PROPERLY ATTACHED RIDGED CEILING.

****IMPORTANT**** FURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. ITM BCG, INC. SHALL NOT

BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN. ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH THE DESIGN SHALL BE THE RESPONSIBILITY OF THE FABRICATOR. HANDLING, SHIPPING, INSTALLING & BRACING OF TRUSSES SHALL BE THE RESPONSIBILITY OF THE FABRICATOR. THE FABRICATOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE. THE FABRICATOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE. THE FABRICATOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE.

CONCRETE PLATES ARE MADE OF 20/18/11664 (W.H./S.K./A.S.) 40/60 (W./H./S.) GALV. STEEL. APPLY PLATES TO EACH FACE OF TRUSS AND, UNLESS OTHERWISE LOCATED ON THIS DESIGN, PER DRAWINGS 160A-2. AN INSPECTION OF PLATES FOLLOWED BY (1) SHALL BE PER ANNEX A3 OF TP11 2002 SEC.3. A SEAL ON THIS DRAWING INDICATES ACCEPTANCE OF PROTECTIVE COATING.

DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOLELY FOR THE IRON'S COMPONENT DESIGN SHOWN. THE SUITABILITY AND USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER PER ANSI/TP1 1 SEC. 2.



29.07

TC LL	20.0 PSF	REF	R487 - - 2837
TC DL	10.0 PSF	DATE	11/29/07
BC DL	10.0 PSF	DRW	HCUSR487 07333048
BC LL	0.0 PSF	HC-ENG	TCE/DF
TOT.LD.	40.0 PSF	SEON-	13895 REV
DUR.FAC.	1.25	FROM	AH
SPACING	SEE ABOVE	UREF -	1TCU487 201

Top Chord 2x4 or #2 Unse
Bot Chord 2x4 SP #2 Dense
Webs 2x4 SP #3

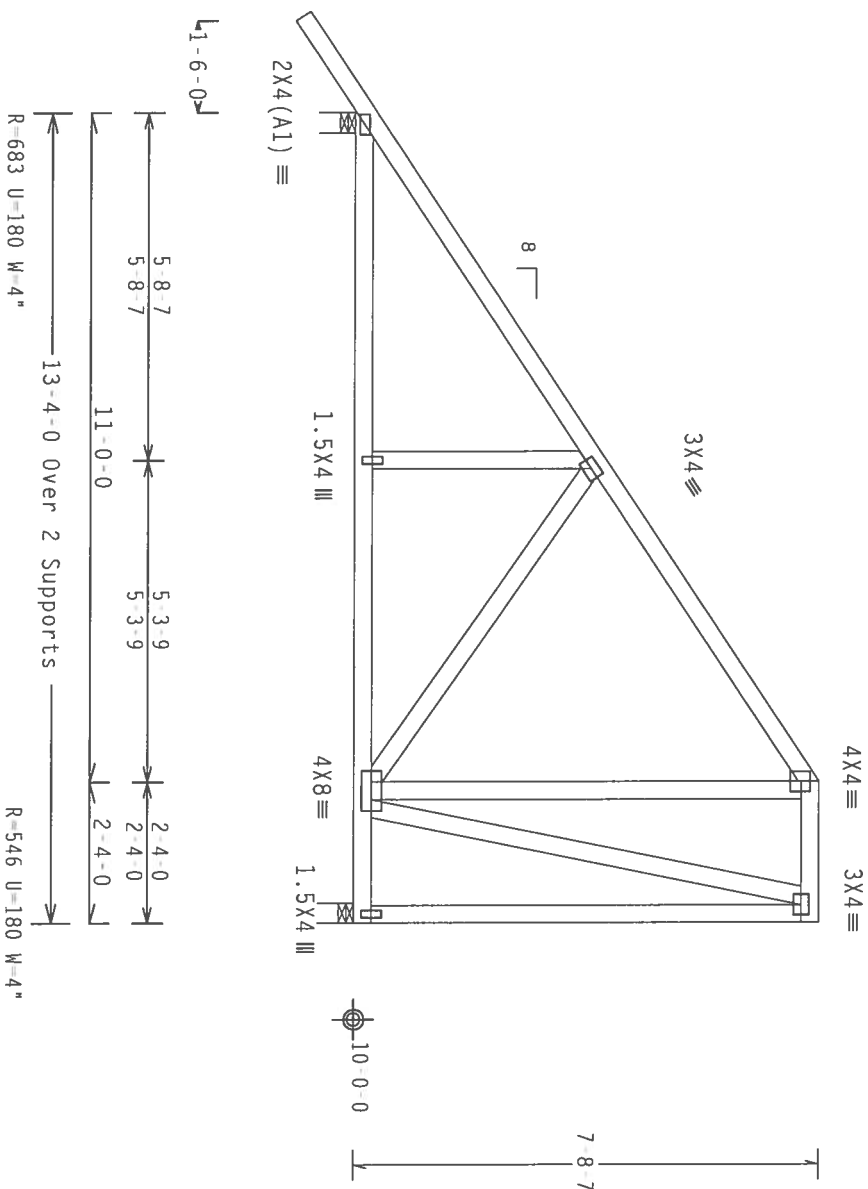
In lieu of structural panels use purlins to brace all flat TC @ 24" OC.

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

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, $I_w=1.00$ GCPI(+/-)=0.18

Wind reactions based on MMFRS pressures.

Right end vertical not exposed to wind pressure.



PLT TYP. Wave

Design Crit: TPI-2002 (STD) / FBC

Cq/RT=1.00(1.25)/10(0)

QTY: 1 FL / - / 4 / - / E / R / -

Scale = .3125" / Ft.

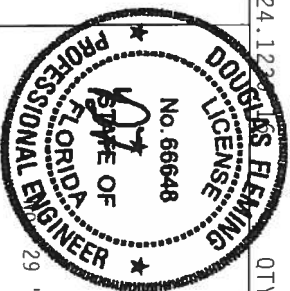
WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATION, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BC&I (BUILDING COMPONENT SAFETY INFORMATION) - PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 2100 NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22314) AND WCA (WOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE 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. TPI 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 CONDITIONS WITH APPLICABLE PROVISIONS OF MD5 (NATIONAL DESIGN SPEC. BY AREA) AND TPI. CONNECTION PLATES ARE MADE OF 20/10/10GA (40/55/75) ASH 6053 GRADE 40/60 (4, 8/11/55) GALV. STEEL. APPLY ANY INTERSECTION OF PLATES FOLLOWED BY THE DESIGNER'S INITIALS AND DATE. A SEAL ON THIS DRAWING INDICATES ACCEPTANCE OF PRODUCTION AND USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER PER ANSI/TPI 1 SEC. 7.

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844
Fabricate & Install



TC LL	20.0 PSF	REF	R487 - -	2840
TC DL	10.0 PSF	DATE	11/28/07	
BC DL	10.0 PSF	DRW	HCSR487 07332035	
BC LL	0.0 PSF	HC - ENG	DF / DF	*
TOT. LD.	40.0 PSF	SEQN -	24318	
DUR. FAC.	1.25	FROM	AH	
SPACING	24.0"	JRFF -	1TCU487 201	

(A) 1x4 #3 or better "T" brace. 80% length of web member. Attach with 8d Box or Gun (0.113"x2.5", min.) nails @ 6" OC.

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

11.0 mpm wind, 13.00 ft mean height, ASLE / VZ, cluster diag, 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. $1w=1.00 \text{ Gpsi} (1/)=0.18$

Wind reactions based on MWFRS pressures.

Right end vertical not exposed to wind pressure.

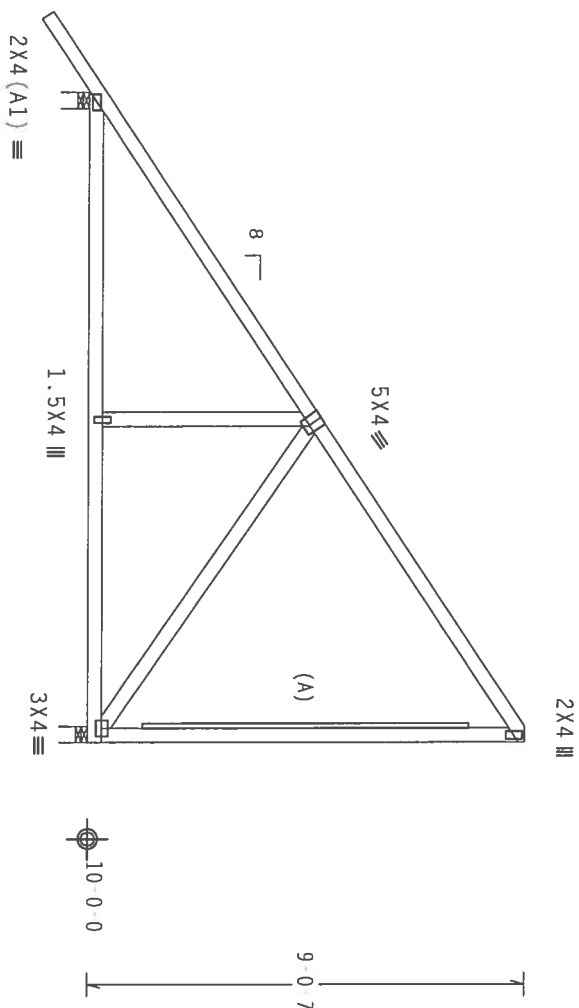
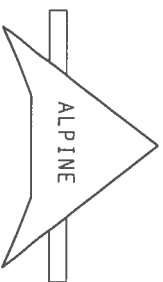


Diagram of a beam with a central point load and two supports. The beam is represented by a horizontal line with vertical arrows at each end indicating supports. A downward arrow in the center represents the point load. Above the beam, the dimensions are given: a double-headed arrow indicates a distance of 13'-6" from the left support to the center load, and another double-headed arrow indicates a distance of 13'-4" from the center load to the right support. The total length of the beam is 27'-10". Below the beam, the reaction forces are specified: R=683 U=180 W=4" on the left and R=545 U=180 W=4" on the right.

PLT TYP. Wave



Design Crit: TPI-2002(STD)/FBC

$$Cq/RT=1.00(1.25)/10(0)$$

7.24.12

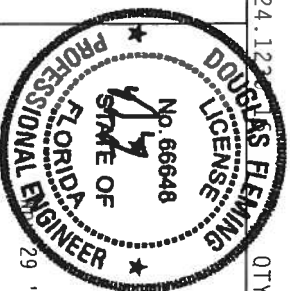
QTY:1 FL/-/4/-/E/R/-

Scale = .25"/Ft.

WARNING ALL FRAMES, BUILDING COMPONENTS, EXISTING, ETC. INFORMATION, HANDLING, SHIPPING, INSTALLING, AND BRACING REFER TO GC#1 (BUILDING COMPONENT SPECIFIC INFORMATION). PUBLISHED BY IFI (FRASS PAPER INSTITUTE), 218 NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22314 (800) 788-5555. FOR MORE INFORMATION, CONTACT: IFI, 6500 ENTERPRISE LANE, SUITE 312, ALEXANDRIA, VA, 22319 (703) 790-1100. IFI IS NOT RESPONSIBLE FOR THE ACTIONS OF ANYONE WHOSE NAME IS INDICATED. TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE PROPERLY ATTACHED TOP 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 IT11 OR FABRICATING, HANDLING, SHIPPING, INSTALLING BRACING OF TRUSSES.

DESIGN CONDITIONS FOR APPLICABLE PROVISIONS OF 305 MATERIALS SPECIFICATION (PER AIRAC) AND TPI. THE BCG CONDUCTOR PLATES ARE MADE OF 2017/19616 (H-1/55/2) ASTM A553 GRADE 40/60 (H-1/55/2) GALV. STEEL. APPLY PLATES TO EACH FACE OF BRIMS AND, UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION PER DRAWINGS ITEM 2. AIR INSPECTION OF PLATES FOLLOWED BY (1) SHALL BE PER AMEX A3 OF TPI1 2007 SPEC. 3. DRAWING INDICATES ACCEPTANCE OF PREDESIGNED ENGINEERING RESPONSIBILITY SOCIETY FOR THE TRUS COMPONENTS OF THIS DESIGN. THE SUSTAINABILITY USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER PER AMT1/TPI1 SEC. 2.



TC LL	20.0 PSF	REF	R487 - 2841
TC DL	10.0 PSF	DATE	11/29/07
BC DL	10.0 PSF	DRW	HCUSR487 0733025
BC LL	0.0 PSF	HC-ENG	DAL/DF
TOT.LD.	40.0 PSF	SEQN -	23104
DUR.FAC.	1.25	FROM	AH
SPACING	24.0"	JRFF -	1TCU487 201

10P chord 2x4 SP #2
Bot chord 2x6 SP #2
Webs 2x4 SP #3

SPECIAL LOADS

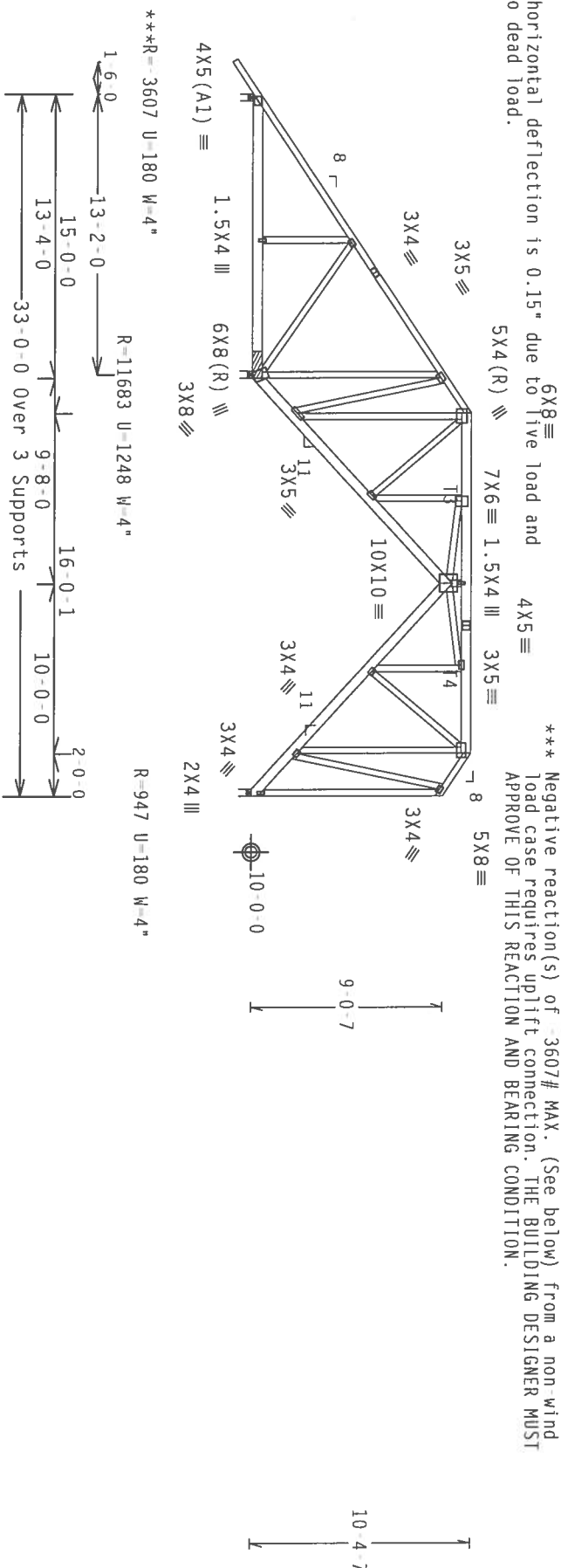
(LUMBER DUR.FAC. = 1.25 / PLATE DUR.FAC. = 1.25)
TC - From 64 PLF at 1.66 to 64 PLF at 15.00
TC - From 64 PLF at 15.00 to 64 PLF at 31.00
TC - From 64 PLF at 31.00 to 64 PLF at 33.00
BC - From 5 PLF at 1.66 to 5 PLF at 0.00
BC - From 20 PLF at 0.00 to 20 PLF at 13.33
BC - From 27 PLF at 13.33 to 27 PLF at 23.00
BC - From 27 PLF at 23.00 to 27 PLF at 33.00
TC - 3000 LB Conc. Load at 22.85
BC - 3000 LB Conc. Load at 23.00

THE ARCHITECT OR ENGINEER OF RECORD SHALL EVALUATE AND APPROVE LOAD MAGNITUDES AND LOCATIONS AS SHOWN ("SPECIAL LOADS".)

Right end vertical not exposed to wind pressure.

110 mph wind, 15.00 ft mean hgt, ASCE 7 02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT 11, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. $I_w=1.00$ $G_{CPI}(\pm) = -0.18$

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



PLT TYP. Wave

Design Crit: TPI-2002(STD)/FBC

Cq/RT=1.00(1.25)/10(0)

QTY: 1 FL/-/4/-/E/R/-

Scale = .125"/ft.

WARNING TRUSSES REQUIRE EXISTING CASE IN FABRICATION, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCST (BUILDING COMPONENT SAFETY INFORMATION) PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 210 NORTH LEE STREET, SUITE 212, ALEXANDRIA, VA, 22304) AND WICA (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 TURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. THE BGC, 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 CONDITIONS WITH APPLICABLE PROVISIONS OF NDS (NATIONAL DESIGN SPEC. BY AREA) AND TPI. CONNECTIONS ARE MADE OF 20/10/16GA (W/H/S/S/S) ASH 6050 GRADE 40/60 (4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100) GALV. STEEL. APPLY PLATE INSPECTION OF PLATES FOLLOWED BY (1) SHALL BE PER AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC. (AISC) DESIGN GUIDE 9. THE SITUATION OF PROFESSIONAL ENGINEERING RESPONSIBILITY SOLELY FOR THE TRUSS COMPONENT BUILDING DESIGNER PER ANSI/TPI 1 SEC. 2.

3 COMPLETE TRUSSES REQUIRED

Nailing Schedule: (12d Common (0.148"x3.25", 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.

Bearing blocks: Nail type: 12d Common (0.148"x3.25", min.) nails

BRG X LOC #BLOCKS LENGTH/BLK #NAILS/BLK WALL PLATE Rigid Surface

2 13.000' 1 15" 12

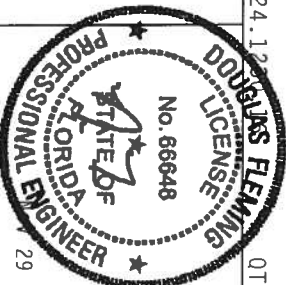
Bearing block to be same size and species as bottom chord. Refer to drawing CNBRGK0207 for additional information.

Wind reactions based on MWFRS pressures. In lieu of structural panels use purlins to brace all flat TC @ 24" OC.

Shim all supports to solid bearing.

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

Negative reaction(s) of 3607# MAX. (See below) from a non-wind load case requires uplift connection. THE BUILDING DESIGNER MUST APPROVE OF THIS REACTION AND BEARING CONDITION.



ITW Building Components Group, Inc.
Haines City, FL 33844

TC LL	20.0 PSF	REF R487-- 2842
TC DL	10.0 PSF	DATE 11/29/07
BC DL	10.0 PSF	DRW HCUR487 0733026
BC LL	0.0 PSF	HC-ENG DAL/DF
TOT.LD.	40.0 PSF	SEON- 23127
DUR.FAC.	1.25	FROM AH
SPACING	24.0"	JRFF- 1TCU487 201

TOP CHORD 2x4 SP #2 Dense : L2, L3 2x8 SP SS :
Bot chord 2x6 SP #1 Dense : B2 2x8 SP SS :
: B3 2x4 SP #2 Dense :
Webs 2x4 SP #3

110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLUSTED 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. 1w=1.00 GCPI(+/-)=0.18

End verticals exposed to wind pressure. Deflection meets L/240 criteria for brittle and flexible wall coverings.

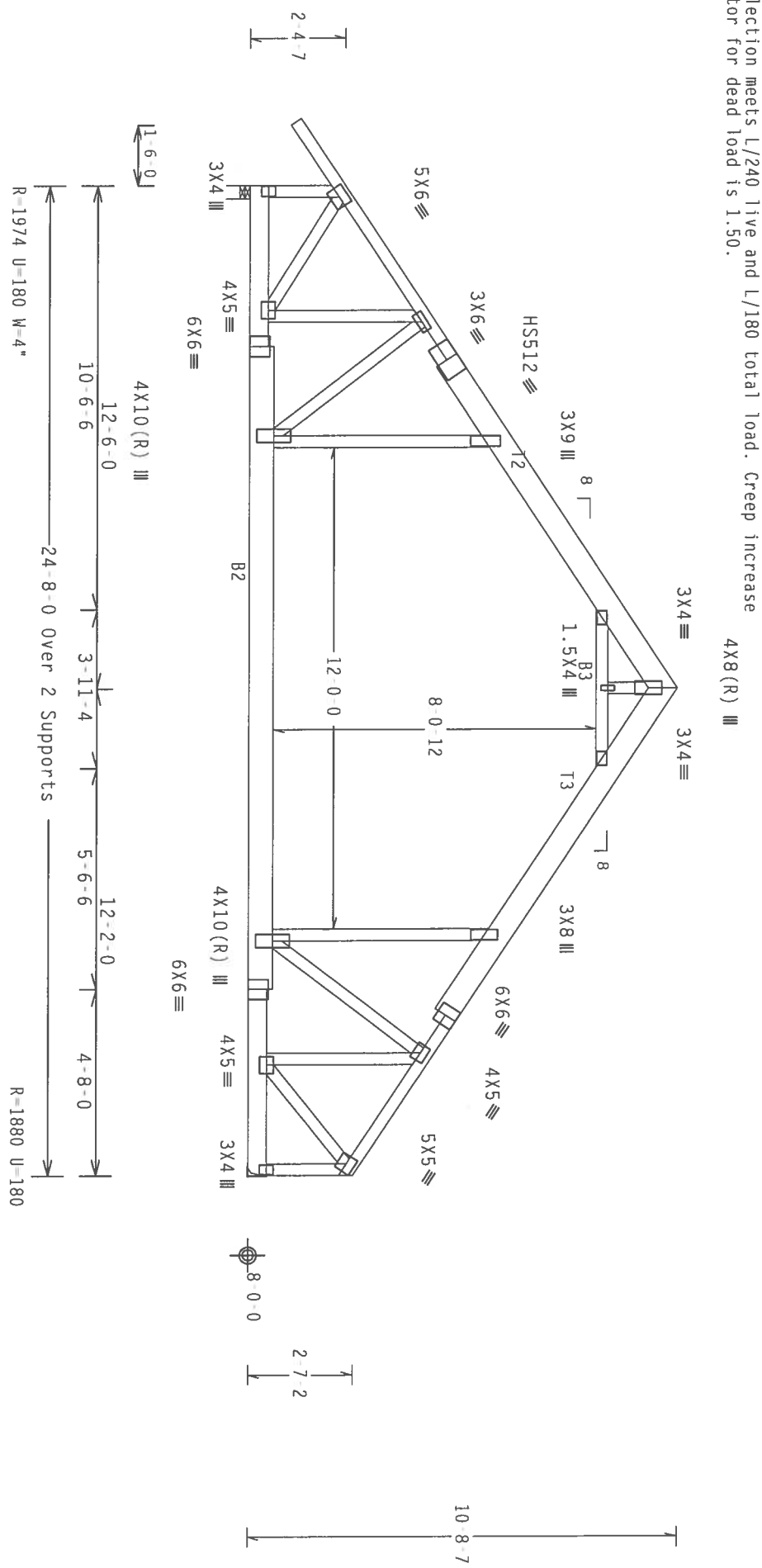
Collar tie braced with continuous lateral bracing at 24" OC. or rigid ceiling.

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

Wind reactions based on MWFRS pressures.

Calculated horizontal deflection is 0.12" due to live load and 0.22" due to dead load.

BC attic room floor loading: LL = 40.00 psf; DL = 10.00 psf; from 6-6-0 to 18-6-0.



PLT TYP. 20 Gauge HS, Wave

Design Crit: TPI-2002(STD)/FBC

Cq/RT=1.00(1.25)/10(0) 7.24.1228

QTY: 3 FL/-/4/-/E/R/-

Scale = .25"/Ft.

ITW Building Components Group, Inc.
Haines City, FL 33844

ALPINE

DOUBLE FLEMING LICENSE
No. 66648
STATE OF FLORIDA
PROFESSIONAL ENGINEER

TC LL	20.0 PSF	REF	R487 - 2843
TC DL	10.0 PSF	DATE	11/29/07
BC DL	10.0 PSF	DRW	HCSR487 07333029
BC LL	0.0 PSF	HC-ENG	DAL/DF
TOT. LD.	40.0 PSF	SEQN-	23137
DUR. FAC.	1.25	FROM	AH
SPACING	24.0"	JRFF -	1TCU487 201

TOP CHORD 2X8 SP S3 :11 2X4 SP #2 Dense:
Bot chord 2x8 SP S3 :B2 2x4 SP #2 Dense:
Webs 2x4 SP #3

End verticals not exposed to wind pressure.

Calculated horizontal deflection is 0.22" due to live load and 0.30" due to dead load.

Collar tie braced with continuous lateral bracing at 24" OC. or rigid ceiling.

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

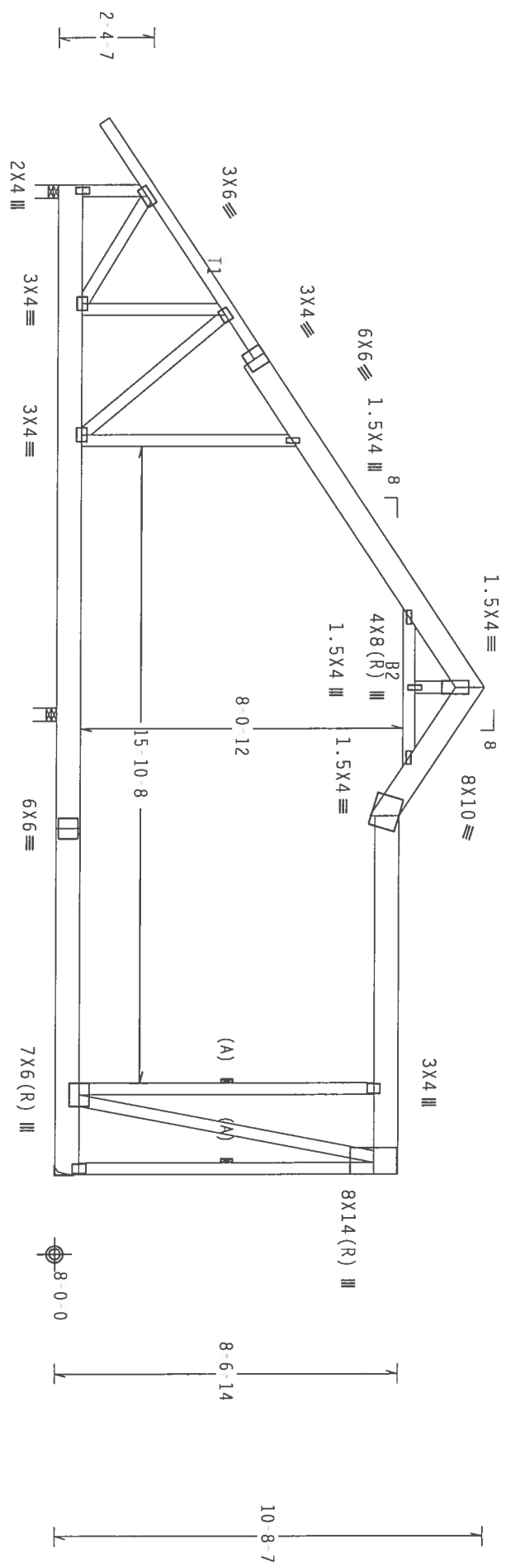
110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT II, Exp B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. 1w=1.00 GCPI (+/-)=0.18

Wind reactions based on MWFRS pressures.

(A) Continuous lateral bracing equally spaced on member.

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

BC attic room floor loading: LL = 40.00 psf; DL = 10.00 psf; from 6-6-0 to 22-4-8.



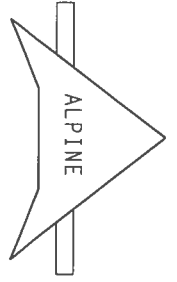
R-1348 U-180 W-4"
R-1523 U-180 W-4"
R-1535 U-180

PLT TYP. Wave
Design Crit: TPI-2002(STD)/FBC
Cq/RT=1.00(1.25)/10(0)

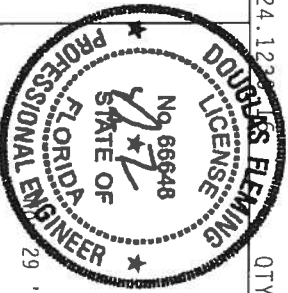
QTY:1 FL/-/4/-/E/R/- Scale = .25"/ft.

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

IMPORTANT TURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. THE BCG, INC. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN. ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH THE DESIGN SHALL BE THE RESPONSIBILITY OF THE INSTALLATION CONTRACTOR. THE BCG, INC. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN. ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH THE DESIGN SHALL BE THE RESPONSIBILITY OF THE INSTALLATION CONTRACTOR.



ITW Building Components Group, Inc.
Haines City, FL 33844
Scale 0"



TC LL	20.0 PSF	REF	R487 - 2844
TC DL	10.0 PSF	DATE	11/29/07
BC DL	10.0 PSF	DRW	HCUSR487 07333030
BC LL	0.0 PSF	HC-ENG	DAL/DF
TOT. LD.	40.0 PSF	SEQN-	23148
DUR. FAC.	1.25	FROM	AH
SPACING	24.0"	URFF-	1TCU487 201

TOP CHORD 2x8 SP SS
Bot chord 2x8 SP SS
Webs 2x4 SP #3

End verticals not exposed to wind pressure.

Calculated horizontal deflection is 0.30" due to live load and 0.46" due to dead load.

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

BC attic room floor loading: LL = 40.00 psf; DL = 10.00 psf; from 6-6-0 to 22-4-8.

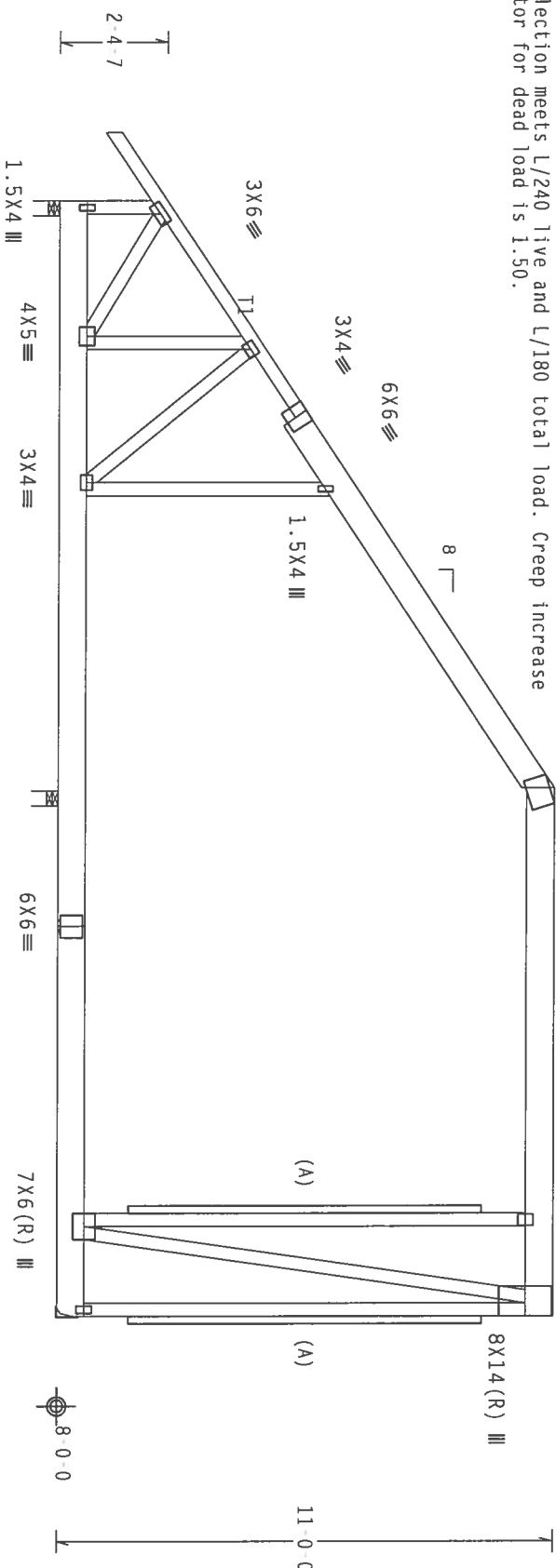
Deflection meets L/240 live and L/180 total load. Creep increase factor for dead load is 1.50.

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, 1w=1.00 GCPI(+/-)=0.18

Wind reactions based on MWFRS pressures.

(A) 2x6 #3 or better "T" brace. 80% length of web member. Attach with 16d Box or Gun (0.135"x3.5".min.) nails @ 6" OC.

Collar-tie braced with continuous lateral bracing at 24" OC. or rigid ceiling.



1-6-0
13-2-0
12-11-5
24-8-0 Over 3 Supports
R-1248 U=180 W=3.999"
R-1735 U=180 W=4"
R-1466 U=180

PLT TYP. Wave

Design Crit: TP1-2002 (STD) / FBC

Cq/RT=1.00(1.25)/10(0)

QTY: 1 FL/-/4/-/E/R/-

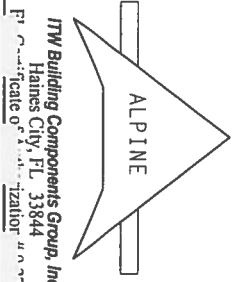
Scale = .25"/ft.

WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATION, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCST (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 210 NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22314) AND WCA (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.

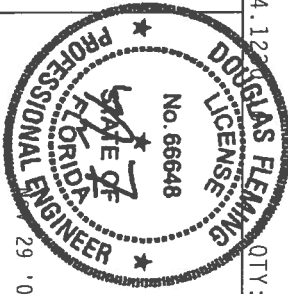
IMPORTANT FURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. ITW BCG, INC. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN. ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH TPI: OR FABRICATING, HANDLING, SHIPPING, INSTALLING & BRACING OF TRUSSES.

DESIGN CONFORMS WITH APPLICABLE PROVISIONS OF BMS (NATIONAL DESIGN SPEC. BY AIA/AIA) AND TPI. ITW BCG CORP. PLATES TO EACH FACE OF TRUSS AND, UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION PER DRAWINGS 160A-Z.

INSPECTION OF PLATES FOLLOWED BY (1) SHALL BE PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) 11-2. A SEAL ON THIS DRAWING SHALL BE AFFIXED TO THE BOTTOM CHORD OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER PER ANSI/TPI 1 SEC. 2.



ITW Building Components Group, Inc.
Haines City, FL 33844
For a full range of information visit us at www.itwbcg.com



TC LL	20.0 PSF	REF	R487-- 2845
TC DL	10.0 PSF	DATE	11/29/07
BC DL	10.0 PSF	DRW	HCUSR487 07333033
BC LL	0.0 PSF	HC-ENG	DAL/DF
TOT. LD.	40.0 PSF	SEON-	23175
DUR. FAC.	1.25	FROM	AH
SPACING	24.0"	JRFF-	1TCU487 201

TOP CHORD 2X8 SP SS
Bot chord 2x8 SP SS
Webs 2x4 SP #3

End verticals not exposed to wind pressure.

Calculated horizontal deflection is 0.33" due to live load and 0.44" due to dead load.

Collar tie braced with continuous lateral bracing at 24" OC. or rigid ceiling.

BC attic room floor loading: LL = 40.00 psf; DL = 10.00 psf; from 6-6-0 to 24-8-0.

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

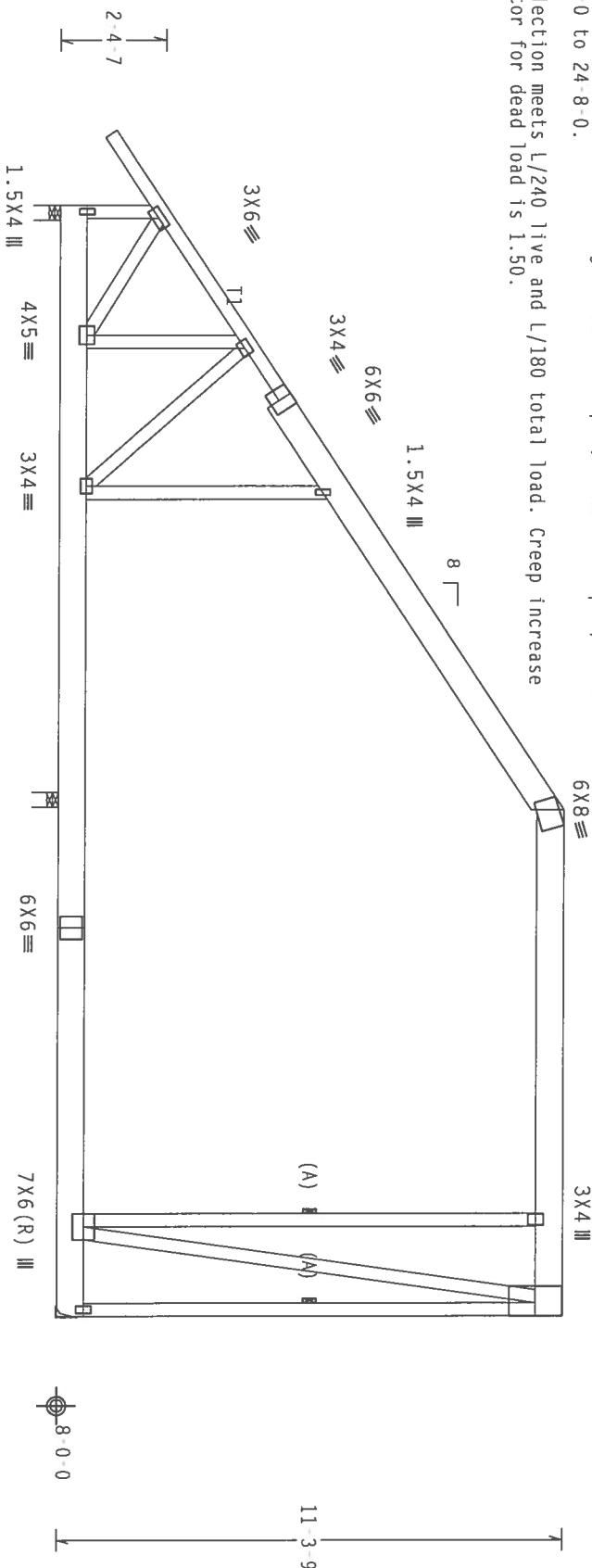
110 mph wind, 15.00 ft mean hgt, ASCE 7-02, CLOSED bldg, not located within 4.50 ft from roof edge, CAT II, EXP B, wind TC DL=5.0 psf, wind BC DL=5.0 psf. $I_w=1.00$ $G C F_i(+/-)=0.18$

Wind reactions based on MWFRS pressures.

(A) Continuous lateral bracing equally spaced on member.

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

8X14(R) III



PLT TYP. Wave

Design Crit: TPI-2002(STD)/FBC

Cq/RT=1.00(1.25)/10(0)

7.24.122

QTY:1

FL/-/4/-/E/R/-

Scale = .25"/ft.

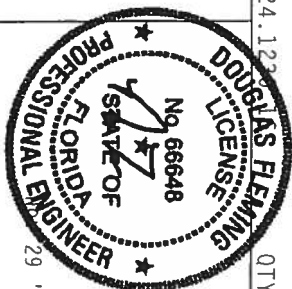
****WARNING**** TRUSSES REQUIRE EXTERIOR CARL IN FABRICATION, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BCST (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI (TRUSS PLATE INSTITUTE, 216 NORTH LEE STREET, SUITE 312, ALEXANDRIA, VA, 22304) AND WICA (WOOD TRUSS COUNCIL OF AMERICA, 6200 ENTERPRISE LANE, MADISON, WI 53719) FOR SAFETY PRACTICES PRIOR TO REPAIRING THESE FUNCTIONS. UNLESS OTHERWISE INDICATED TOP CHORD SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.

****IMPORTANT**** TURNISH A COPY OF THIS DESIGN TO THE INSTALLATION CONTRACTOR. TPI 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 2015 NATIONAL DESIGN SPEC. BY AIA/PA AND TPI. DESIGNATION PLATES ARE MADE OF 2015/1604 (40/40/40) ASH 6053 GRADE 40/40 (4. K/11.55 GALV. STEEL. TPI BCG PLATES ARE LOCATED ON THE TRUSS DESIGN. POSITION PER DRAWINGS 1604.2. A SEAL ON THIS DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY. A SEAL ON THIS DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEERING RESPONSIBILITY. A SEAL ON THIS BUILDING DESIGNER PER ANSI/TPI 1 SEC. 2.

ALPINE

ITW Building Components Group, Inc.
Haines City, FL 33844



TC LL	20.0 PSF	REF	R487 - 2846
TC DL	10.0 PSF	DATE	11/29/07
BC DL	10.0 PSF	DRW	HCUSR487 07333032
BC LL	0.0 PSF	HC-ENG	DAL/DF
TOT. LD.	40.0 PSF	SEON-	23181
DUR. FAC.	1.25	FROM	AH
SPACING	24.0"	UREF-	1TCU487 201

MAXIMUM NUMBER OF NAIL LINES PARALLEL TO GRAIN

A - EDGE DISTANCE AND SPACING BETWEEN STAGGERED ROWS OF NAILS (6 NAIL DIAMETERS)
B - SPACING OF NAILS IN A ROW (12 NAIL DIAMETERS)
C - END DISTANCE (15 NAIL DIAMETERS)

- SPACING MAY BE REDUCED BY 50%
- SPACING MAY BE REDUCED BY 33%

BEARING BLOCK TO BE SAME SIZE AND SPECIES AS BOTTOM CHORD. BLOCKS MAY BE ANY GRADE WITHIN THE SPECIES, PROVIDED THE COMPRESSION PERPENDICULAR TO GRAIN VALUE (Fc-perp) IS AT LEAST THAT OF THE CHORD.



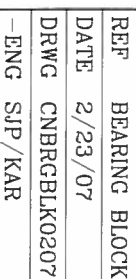
MINIMUM NAIL SPACING DISTANCES

THIS DRAWING REPLACES DRAWING B139 AND CNBRGBLK0699

ITW BUILDING COMPONENTS GROUP, INC.
POMPANO BEACH, FLORIDA

1. **WARNING:--** THESE REQUIRE EXTREME CARE FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BEST BUILDING COMPONENT SAFETY INFORMATION, PUBLISHED BY THE TRUSS PLATE INSTITUTE, 218 NORTH LEE STR., SUITE 218 ALAMOGORDA, VA 22314 AND VITA (VOID) 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.

2. **REMARK:--** FURNISH COPY OF THIS DESIGN TO INSTALLATION CONTRACTOR. ITV BCG, INC. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN, ANY FAILURE TO BUILD THE TRUSS OR CONFORMANCE WITH THE APPLICABLE, HANDLING, SHIPPING, INSTALLING, DESIGN & BRACING BY ARPA AND TRUSSES DESIGN CONTRACTS WITH THE APPLICABLE PROVISIONS OF THE NATIONAL DESIGN SPEC. BY ARPA AND TRUSSES LTD. BCG CONNECTOR PLATES ARE MADE OF 2018/1864 (CAH/SS/20) ASTM A653 GRADE 40/60 (CAH/SS) GALV. STEEL. APPLY PLATES TO EACH FACE OF TRUSS AND, UNLESS OTHERWISE LOCATED BY CD SHALL BE PER DESIGN, POSITION PER DRAWINGS 1604-2. ANY INSPECTION OF PLATES FOLLOWED BY CD SHALL BE PER DESIGN, POSITION PER DRAWINGS 1604-2. A SEAL ON THIS DRAWING INDICATES ACCEPTANCE OF PROFESSIONAL ENGINEER OF RECORD, SIGNED FOR THE TRUSS COMPONENT DESIGN SHOWN. THE SUITABILITY AND USE OF THIS COMPONENT FOR BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER. PER INSPECT 1, SEC. 2



+ 2X4 CONTINUOUS LATERAL BRACING AT 24" O.C.
MAXIMUM SPACING. ATTACH TO EACH TOP CHORD WITH
(2) 16d COMMON (0.162"x 3.5", MIN) NAILS.
BRACING MATERIAL TO BE SUPPLIED AND ATTACHED
AT BOTH ENDS TO A SUITABLE SUPPORT BY ERECTION CONTRACTOR.

++ 2X4 SO. PINE #2 N OR SPF #1/#2 FILLER TOP CHORD.
+++ 2X4 SO. PINE #3 OR SPF #1/#2 VERTICAL WEBS SPACED
48" OC MAXIMUM.

* 8/12 MAXIMUM PITCH.

** 2X8.25 PIGGYBACK SPECIAL PLATE. SEE DRAWING PIGBACKB0699
FOR PIGGYBACK SPECIAL PLATE INFORMATION.

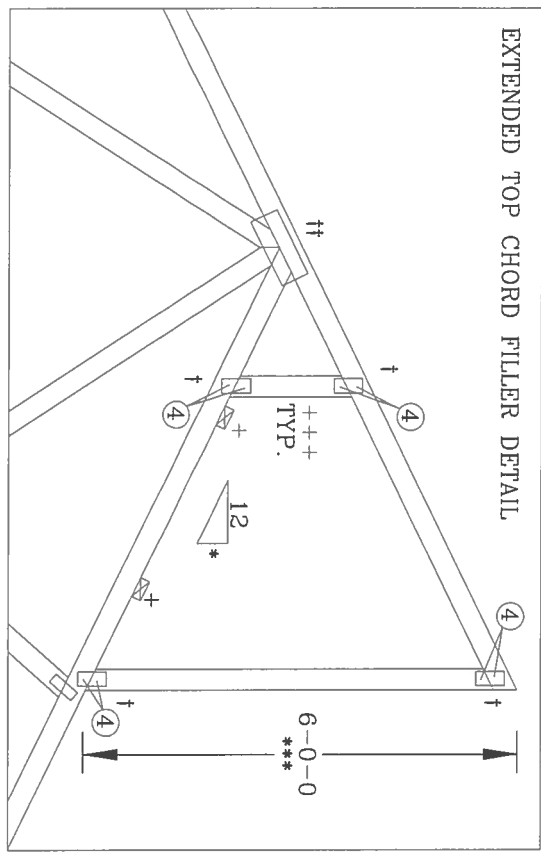
*** 6'0" MAXIMUM HEIGHT.

† W2X4 OR 3X6 TRULOX.

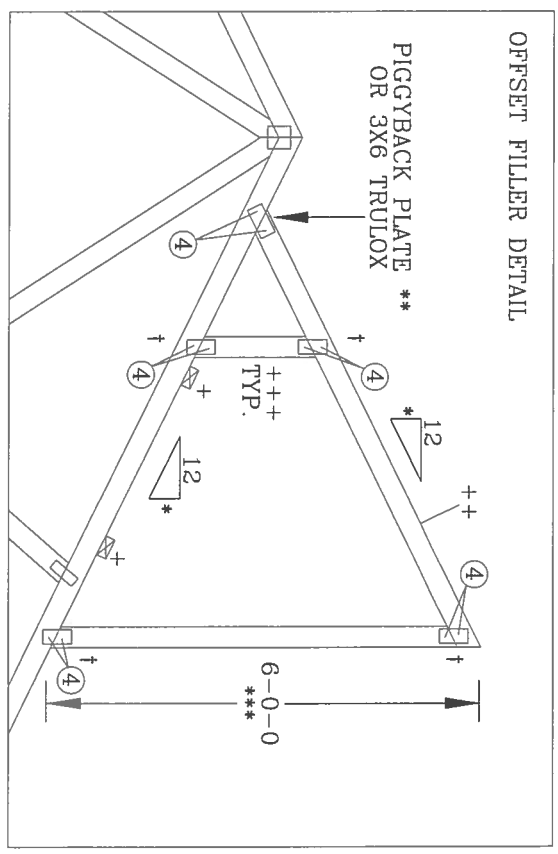
†† REFER TO ENGINEER'S SEALED DESIGN REFERENCING THIS
DETAIL FOR LUMBER, PLATES, AND OTHER INFORMATION NOT
SHOWN.

0.120"x 1.375" NAILS REQUIRED
FOR TRULOX PLATE ATTACHMENT. NAILS SPECIFIED
IN CIRCLES MUST BE APPLIED TO EACH FACE OF EACH TRUSS PLY.
SEE DWG. 160TL FOR NAILING AND TRULOX PLATE REQUIREMENTS

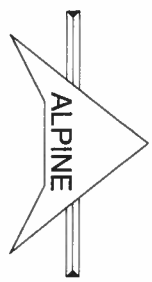
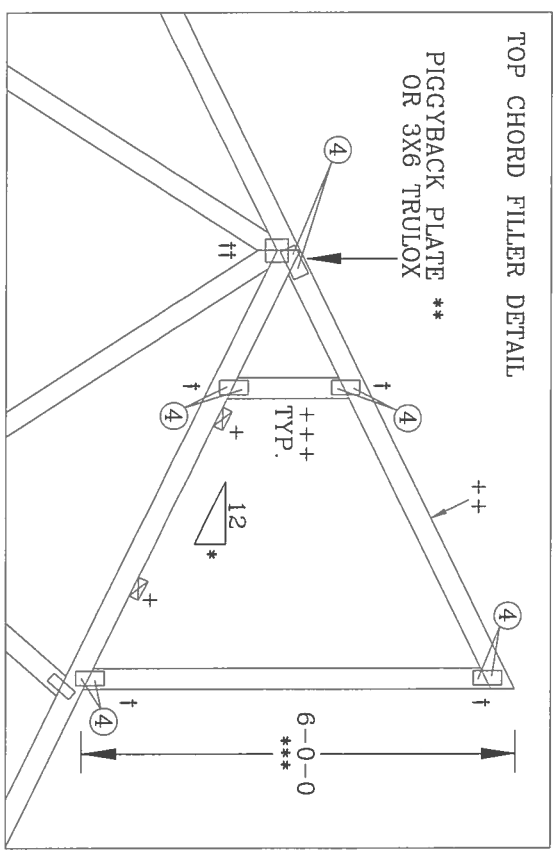
EXTENDED TOP CHORD FILLER DETAIL



OFFSET FILLER DETAIL



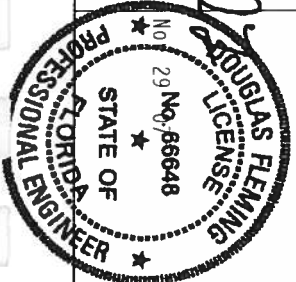
TOP CHORD FILLER DETAIL



TRUSS BUILDING COMPONENTS GROUP, INC.
POMPAHO BEACH, FLORIDA

WARNING TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND
BRACING. REFER TO BEST BUILDING COMPONENT SAFETY INFORMATION. PUBLISHED BY TPI (TRUSS PLATE
INSTITUTE, 210 NORTH LEE STR., SUITE 312, ALEXANDRIA, VA 22304) AND WICA (WOOD TRUSS COUNCIL OF
AMERICA, 6500 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. TTV 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 AREA) AND TPI.
TTV BCG CONNECTOR PLATES ARE MADE OF 2018/16GA (W/H/SS)XO ASTM A653 GRADE 40/60 (W/H/SS)
UNLESS OTHERWISE INDICATED. UNLESS OTHERWISE LOCATED ON THIS PER
MANUFACTURING INSTRUCTIONS. UNLESS OTHERWISE INDICATED, ALL DIMENSIONS ARE IN INCHES.
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.



THIS DRAWING REPLACES DRAWING 884,080			
TC LL	MAX 30 PSF	REF	TC - FILLER
TC DL	MAX 15 PSF	DATE	2/23/07
BC DL	MAX 10 PSF	DRWG	TCFILLER0207
BC LL	0 PSF	-ENG	SJP/KAR
TOT. LD.	MAX 55 PSF		
DUR. FAC.	1.15 OR 1.33		
SPACING	24.0"		

BOTTOM CHORD FILLER DETAIL

- ```

+ 3X4 WAVE OR 4X8 TRULOX
++ 2X4 WAVE OR 3X6 TRULOX

```

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100  
101  
102  
103  
104  
105  
106  
107  
108  
109  
110  
111  
112  
113  
114  
115  
116  
117  
118  
119  
120  
121  
122  
123  
124  
125  
126  
127  
128  
129  
130  
131  
132  
133  
134  
135  
136  
137  
138  
139  
140  
141  
142  
143  
144  
145  
146  
147  
148  
149  
150  
151  
152  
153  
154  
155  
156  
157  
158  
159  
160  
161  
162  
163  
164  
165  
166  
167  
168  
169  
170  
171  
172  
173  
174  
175  
176  
177  
178  
179  
180  
181  
182  
183  
184  
185  
186  
187  
188  
189  
190  
191  
192  
193  
194  
195  
196  
197  
198  
199  
200  
201  
202  
203  
204  
205  
206  
207  
208  
209  
210  
211  
212  
213  
214  
215  
216  
217  
218  
219  
220  
221  
222  
223  
224  
225  
226  
227  
228  
229  
230  
231  
232  
233  
234  
235  
236  
237  
238  
239  
240  
241  
242  
243  
244  
245  
246  
247  
248  
249  
250  
251  
252  
253  
254  
255  
256  
257  
258  
259  
260  
261  
262  
263  
264  
265  
266  
267  
268  
269  
270  
271  
272  
273  
274  
275  
276  
277  
278  
279  
280  
281  
282  
283  
284  
285  
286  
287  
288  
289  
290  
291  
292  
293  
294  
295  
296  
297  
298  
299  
300  
301  
302  
303  
304  
305  
306  
307  
308  
309  
310  
311  
312  
313  
314  
315  
316  
317  
318  
319  
320  
321  
322  
323  
324  
325  
326  
327  
328  
329  
330  
331  
332  
333  
334  
335  
336  
337  
338  
339  
340  
341  
342  
343  
344  
345  
346  
347  
348  
349  
350  
351  
352  
353  
354  
355  
356  
357  
358  
359  
360  
361  
362  
363  
364  
365  
366  
367  
368  
369  
370  
371  
372  
373  
374  
375  
376  
377  
378  
379  
380  
381  
382  
383  
384  
385  
386  
387  
388  
389  
390  
391  
392  
393  
394  
395  
396  
397  
398  
399  
400  
401  
402  
403  
404  
405  
406  
407  
408  
409  
410  
411  
412  
413  
414  
415  
416  
417  
418  
419  
420  
421  
422  
423  
424  
425  
426  
427  
428  
429  
430  
431  
432  
433  
434  
435  
436  
437  
438  
439  
440  
441  
442  
443  
444  
445  
446  
447  
448  
449  
450  
451  
452  
453  
454  
455  
456  
457  
458  
459  
460  
461  
462  
463  
464  
465  
466  
467  
468  
469  
470  
471  
472  
473  
474  
475  
476  
477  
478  
479  
480  
481  
482  
483  
484  
485  
486  
487  
488  
489  
490  
491  
492  
493  
494  
495  
496  
497  
498  
499  
500  
501  
502  
503  
504  
505  
506  
507  
508  
509  
510  
511  
512  
513  
514  
515  
516  
517  
518  
519  
520  
521  
522  
523  
524  
525  
526  
527  
528  
529  
530  
531  
532  
533  
534  
535  
536  
537  
538  
539  
540  
541  
542  
543  
544  
545  
546  
547  
548  
549  
550  
551  
552  
553  
554  
555  
556  
557  
558  
559  
560  
561  
562  
563  
564  
565  
566  
567  
568  
569  
570  
571  
572  
573  
574  
575  
576  
577  
578  
579  
580  
581  
582  
583  
584  
585  
586  
587  
588  
589  
590  
591  
592  
593  
594  
595  
596  
597  
598  
599  
600  
601  
602  
603  
604  
605  
606  
607  
608  
609  
610  
611  
612  
613  
614  
615  
616  
617  
618  
619  
620  
621  
622  
623  
624  
625  
626  
627  
628  
629  
630  
631  
632  
633  
634  
635  
636  
637  
638  
639  
640  
641  
642  
643  
644  
645  
646  
647  
648  
649  
650  
651  
652  
653  
654  
655  
656  
657  
658  
659  
660  
661  
662  
663  
664  
665  
666  
667  
668  
669  
670  
671  
672  
673  
674  
675  
676  
677  
678  
679  
680  
681  
682  
683  
684  
685  
686  
687  
688  
689  
690  
691  
692  
693  
694  
695  
696  
697  
698  
699  
700  
701  
702  
703  
704  
705  
706  
707  
708  
709  
710  
711  
712  
713  
714  
715  
716  
717  
718  
719  
720  
721  
722  
723  
724  
725  
726  
727  
728  
729  
730  
731  
732  
733  
734  
735  
736  
737  
738  
739  
740  
741  
742  
743  
744  
745  
746  
747  
748  
749  
750  
751  
752  
753  
754  
755  
756  
757  
758  
759  
760  
761  
762  
763  
764  
765  
766  
767  
768  
769  
770  
771  
772  
773  
774  
775  
776  
777  
778  
779  
780  
781  
782  
783  
784  
785  
786  
787  
788  
789  
790  
791  
792  
793  
794  
795  
796  
797  
798  
799  
800  
801  
802  
803  
804  
805  
806  
807  
808  
809  
810  
811  
812  
813  
814  
815  
816  
817  
818  
819  
820  
821  
822  
823  
824  
825  
826  
827  
828  
829  
830  
831  
832  
833  
834  
835  
836  
837  
838  
839  
840  
84

REFER TO ENGINEER'S SEALED

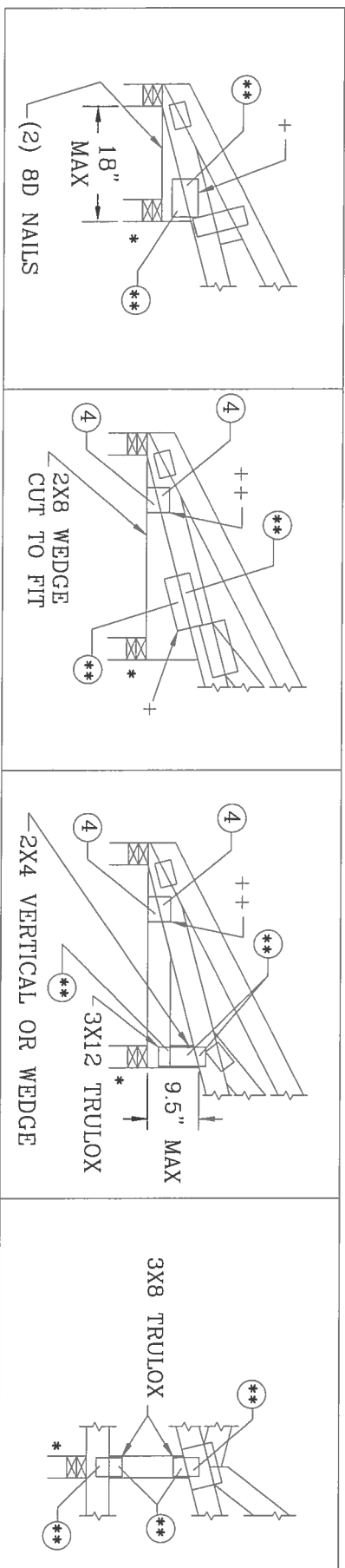
REFER TO ENGINEER'S SEALED

DETAIL FOR LUMBER, PLATES, AND OTHER INFORMATION NOT

SHOWN.

| FILLER BOTTOM CHORD<br>OR WEDGE SPECIES | MAXIMUM REACTION |        | MINIMUM<br>BEARING AREA | ** REQUIRED NAILS PER FACE WITH TRULOX PLATES |             |             |             |             |
|-----------------------------------------|------------------|--------|-------------------------|-----------------------------------------------|-------------|-------------|-------------|-------------|
|                                         | DOWNWARD         | UPLIFT |                         | 1.00 D.O.L.                                   | 1.15 D.O.L. | 1.25 D.O.L. | 1.33 D.O.L. | 1.60 D.O.L. |
| DOUGLAS FIR-LARCH                       | 3281 #           | 1656 # | 1.5" X 3.5"             | 12                                            | 11          | 10          | 9           | 8           |
| HEM-FIR                                 | 2126 #           | 1095 # | 1.5" X 3.5"             | 9                                             | 8           | 7           | 7           | 6           |
| SPRUCE-PINE-FIR                         | 2231 #           | 1192 # | 1.5" X 3.5"             | 10                                            | 9           | 8           | 8           | 6           |
| SOUTHERN PINE DENSE                     | 3465 #           | 1791 # | 1.5" X 3.5"             | 12                                            | 11          | 10          | 9           | 8           |
| SOUTHERN PINE                           | 2966 #           | 1492 # | 1.5" X 3.5"             | 10                                            | 9           | 8           | 8           | 7           |
| SOUTHERN PINE NON-DENSE                 | 2520 #           | 1343 # | 1.5" X 3.5"             | 9                                             | 8           | 7           | 7           | 6           |

ALL TRULOX PLATES SHOWN ARE MINIMUMS. LARGER PLATES MAY BE REQUIRED TO ACCOMMODATE REQUIRED NAILS (\*\*)



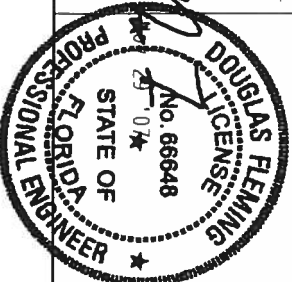
THIS DRAWING REPLACES DRAWINGS A115 A115/R & 884.132

ALPINE

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

■WARNING■ TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND  
 ■WARNING■ REFERR TO BCST (BUILDING COMPONENT SAFETY INFORMATION), PUBLISHED BY TPI TRUSS PLATE  
 INSTITUTE, 218 NORTH LEE STR., SUITE 314, ALEXANDRIA, VA 22304 AND WITH GOOD TRUSS COUNCIL OF  
 AMERICA, 6500 ENTERPRISE LN, MADISON, WI 53719 FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE  
 ■WARNING■ TRUSSES MUST BE INDICATED. THIRD 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. ITC, 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 IN  
 DESIGN CONFORMANCE WITH TPI OR APPLICABLE PROVISIONS OF NDS (NATIONAL DESIGN SPEC BY AIAA) AND TPI.  
 TPI, BEG, CONNECTOR PLATES ARE MADE OF 20/18/6/6GA C.V.H/55/50 ASTM A653 GRADE 40/60 C.V.H/55/50  
 STEEL. TRUSSES AND EACH OF THE TRUSSES AND UNLESS OTHERWISE INDICATED ON THIS PER  
 DESIGN POSITION PER DRAWING. PER ANNEK A3 OF TPI 1-8002 SEC. 3, A STA ON THIS DRAWING INDICATES ACCEPTED  
 ENGINEERING RESPONSIBILITY. TPI SILENT FOR THE TRUSS CONSTRUCTION DESIGN SHOWN. THE STABILITY AND  
 USE OF THIS COMPONENT FOR ANY BUILDING IS THE RESPONSIBILITY OF THE BUILDING DESIGNER, PER  
 ANSI/TPI 1 SEC. 2.



|                              |      |     |      |              |
|------------------------------|------|-----|------|--------------|
| TC LL                        | —    | PSF | REF  | BC FILLER    |
| TC DL                        | —    | PSF | DATE | 2/23/07      |
| BC DL                        | 10.0 | PSF | DRWG | BCFILLER0207 |
| BC LL                        | —    | PSF | —ENG | DLJ/KAR      |
| TOT. LD.                     | —    | PSF |      |              |
| DUR. FAC. 1.0/1.15/1.25/1.33 |      |     |      |              |
| SPACING 24.0"                |      |     |      |              |

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.

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.

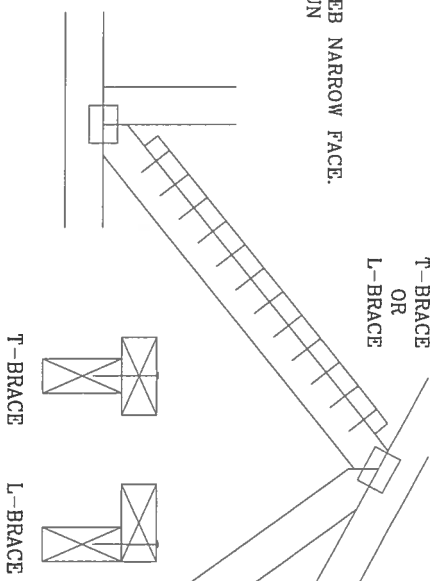
| WEB MEMBER<br>SIZE | SPECIFIED CLB<br>BRACING | ALTERNATIVE BRACING<br>T OR L-BRACE | SCAB BRACE |
|--------------------|--------------------------|-------------------------------------|------------|
| 2X3 OR 2X4         | 1 ROW                    | 2X4                                 | 1-2X4      |
| 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.

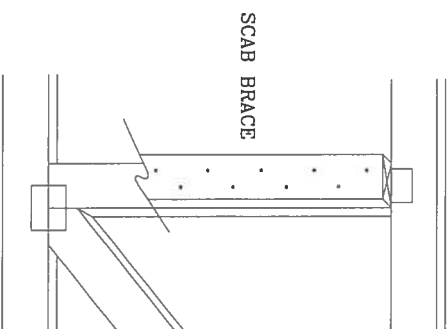
(\*) CENTER SCAB ON WIDE FACE OF WEB. APPLY (1) SCAB TO EACH FACE OF WEB.

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

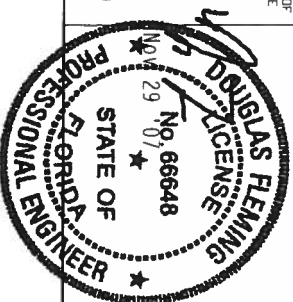


APPLY SCAB(S) TO WIDE FACE OF WEB  
NO MORE THAN (1) SCAB PER FACE.  
ATTACH WITH 10d BOX OR GUN  
(0.128" x 3".MIN) NAILS.  
AT 6" O.C. BRACE IS A MINIMUM  
80% OF WEB MEMBER LENGTH



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

1. **WARRANTY.** THE SELLER WARRANTS THAT THE TRUSS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DESIGN AND SPECIFICATIONS SET FORTH IN THE TRUSS DRAWING. THE SELLER SHALL BE RESPONSIBLE FOR THE TRUSS DESIGN AND SHALL BE RESPONSIBLE FOR THE TRUSS CONSTRUCTION. THE SELLER SHALL BE RESPONSIBLE FOR THE TRUSS DESIGN AND SHALL BE RESPONSIBLE FOR THE TRUSS CONSTRUCTION. THE SELLER SHALL BE RESPONSIBLE FOR THE TRUSS DESIGN AND SHALL BE RESPONSIBLE FOR THE TRUSS CONSTRUCTION.



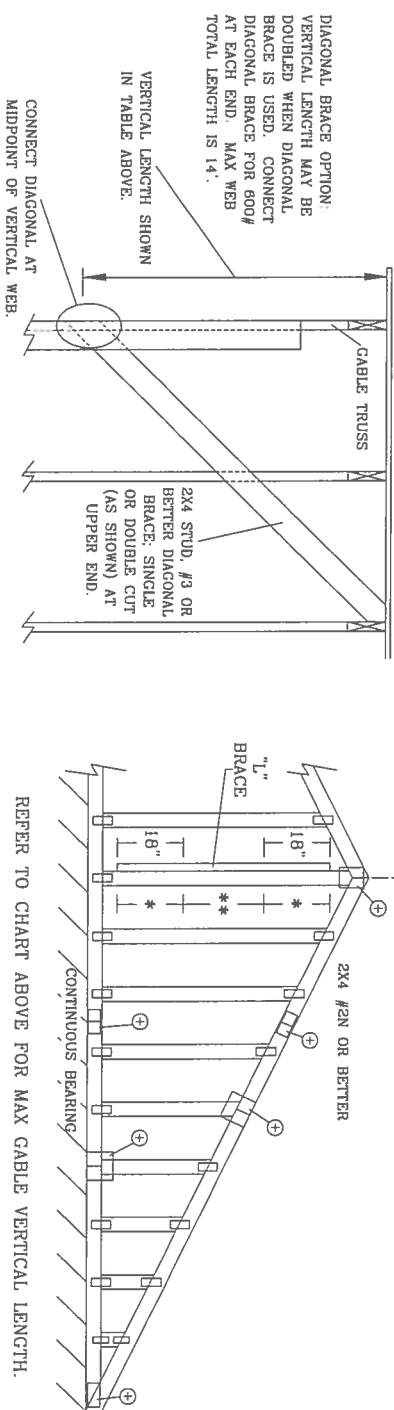
| TC LL     | PSF | REF  | CLB SUBST.   |
|-----------|-----|------|--------------|
| TC DL     | PSF | DATE | 2/23/07      |
| BC DL     | PSF | DRWG | BRCLBSUB0207 |
| BC LL     | PSF | -ENG | MLH/KAR      |
| TOT. LD.  | PSF |      |              |
| DUR. FAC. |     |      |              |
| SPACING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



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

### GABLE TRUSS DETAIL NOTES:

- LIVE LOAD DEFLECTION CRITERIA IS L/240.  
 PROVIDE UPLIFT CONNECTIONS FOR 80 PSF 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' 0" O.C. IN 16" END ZONES AND 4' 0" O.C. BETWEEN ZONES.  
 \*\* FOR (2) "L" BRACES: SPACE NAILS AT 3' 0" O.C. IN 16" END ZONES AND 6' 0" O.C. BETWEEN ZONES.  
 "L" BRACING MUST BE A MINIMUM OF 80% OF WEB MEMBER LENGTH.



REFER TO CHART ABOVE FOR MAX GABLE VERTICAL LENGTH.

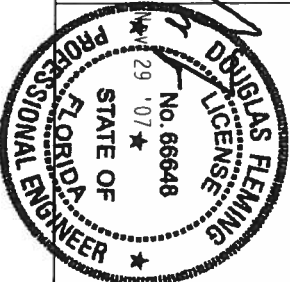
| GABLE VERTICAL PLATE SIZES               |            |
|------------------------------------------|------------|
| VERTICAL LENGTH                          | NO SPICE   |
| LESS THAN 4' 0"                          | 1X4 OR 2X3 |
| GREATER THAN 4' 0", BUT LESS THAN 11' 6" | 2X4        |
| GREATER THAN 11' 6"                      | 2.5X4      |

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



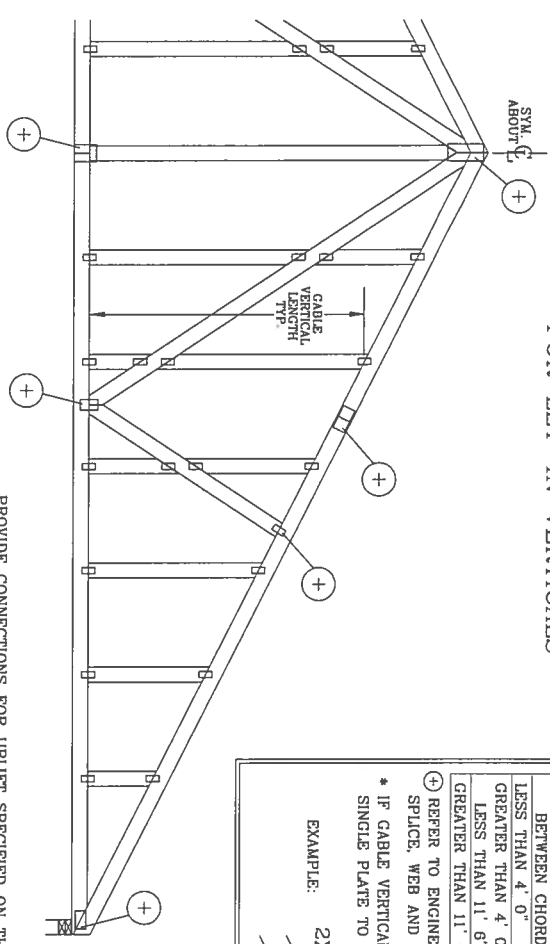
ITW BUILDING COMPONENTS GROUP, INC.  
 POMPANO BEACH, FLORIDA

\*\*\*WARNING\*\*\* TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BEST BUILDING COMPONENT SAFETY INFORMATION, PUBLISHED BY TPI TRUSS PLATE INSTITUTE, 210 NORTH LEE STR., SUITE 312, ALEXANDRIA, VA 22304 AND VITA CWOOD TRUSS COUNCIL OF AMERICA, 6300 ENTERPRISE LN, MADISON, WI 53719 FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE ACTIVITIES. THE USER SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID CEILING.  
 \*\*\*IMPORTANT\*\*\* FLORIAN COPY OF THIS DESIGN TO INSTALLATION CONTRACTOR. ITW BCG, INC. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATING FROM THIS DESIGN, ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH TPI OR FABRICATING, HANDLING, SHIPPING, INSTALLING & BRACING OF TRUSSES. DESIGN CONDUCTOR WITH APPLICABLE PROVISIONS OF ADOPTED DESIGN SPEC. BY ACP/A AND TPI. TYP. BIG CONNECTOR PLATES ARE MADE OF 20/18/16GA (V/A/SS) ASH 6053 GRADE 40/60 (V/A/SS) COLD ROLLED SHEET PILING. ALL TRUSSES ARE DESIGNED TO BE USED IN THIS PERMANENT POSITION PER DRAWINGS 1604-2. ANY INSPECTION OF TRUSSES SHOULD BE DONE BY AN ENGINEER. DESIGN POSITION PER DRAWINGS 1604-2. 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



|               |                   |
|---------------|-------------------|
| REF           | ASCE7-02 CAB11015 |
| DATE          | 2/23/07           |
| DRWG          | A11015EEO207      |
| ENG           |                   |
| MAX. TOT. LD. | 60 PSF            |
| MAX. SPACING  | 24' 0"            |

CABLE DETAIL  
FOR LET-IN VERTICALS

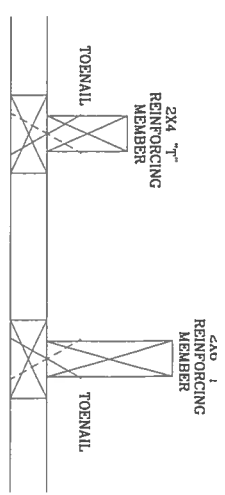


| CABLE VERTICAL PLATE SIZES               |            |                    |  |
|------------------------------------------|------------|--------------------|--|
| VERTICAL LENGTH BETWEEN CHORDS           | PLATE SIZE | IF PLATES OVERLAP* |  |
| LESS THAN 4' 0"                          | 1X4 OR 2X3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

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

\* IF CABLE 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 CABLE VERTICAL SPECIES, GRADE AND SPACING) FOR (1) 2X4 "L" BRACE, GROUP A, OBTAINED FROM THE APPROPRIATE ALPINE CABLE DETAIL FOR ASCE OR SBCCI WIND LOAD.

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

WEB LENGTH INCREASE W/ "T" BRACE

| WIND SPEED AND MBR | "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                  | 10 %  | 50 % |
| 80 MPH             | 2x4                  | 10 %  | 20 % |
| 15 FT              | 2x6                  | 10 %  | 30 % |
| 80 MPH             | 2x4                  | 20 %  | 10 % |
| 30 FT              | 2x6                  | 0 %   | 20 % |
| 70 MPH             | 2x4                  | 0 %   | 20 % |
| 15 FT              | 2x6                  | 0 %   | 20 % |
| 70 MPH             | 2x4                  | 10 %  | 30 % |

EXAMPLE:  
ASCE WIND SPEED = 100 MPH  
MEAN ROOF HEIGHT = 30 FT  
CABLE 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 CABLE VERTICAL LENGTH 1.10 x 6' 7" = 7' 3"

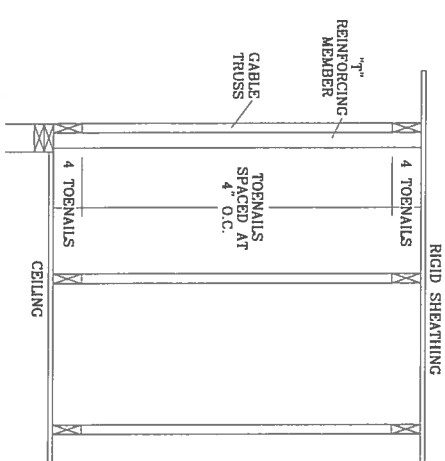
PROVIDE CONNECTIONS FOR UPLIFT SPECIFIED ON THE ENGINEERED TRUSS DESIGN.  
ATTACH EACH "T" REINFORCING MEMBER WITH  
HAND DRIVEN NAILS:  
(4) 16d COMMON (0.148" X 3.3" MIN) TOENAILS AT 4" O.C. PLUS  
(4) 16d COMMON (0.162" X 3.5" MIN) TOENAILS IN TOP AND BOTTOM CHORD.  
GUN DRIVEN NAILS:  
8d COMMON (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 CABLE 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 CABLE DETAIL (ASCE OR SBCCI WIND LOAD) FOR MAXIMUM UNREINFORCED CABLE VERTICAL LENGTH.

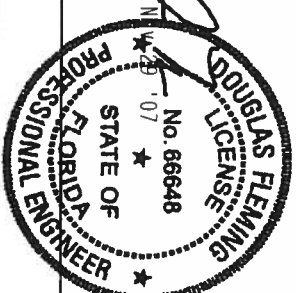
THIS DRAWING REPLACES DRAWINGS GAB98117 876.719 & HC26294035



ITW BUILDING COMPONENTS GROUP, INC.  
POMPANO BEACH, FLORIDA

\*\*\*WARNING\*\*\* TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BEST BUILDING COMPONENT SAFETY INFORMATION, PUBLISHED BY TPI TRUSS PLATE INSTITUTE, 218 NORTH LEE STR., SUITE 312, ALEXANDRIA, VA 22304 AND VITA C/DO TRUSS COUNCIL OF AMERICA, 6800 W. 13TH AVE., SUITE 100, DENVER, CO 80202 FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE FUNCTIONS. UNLESS OTHERWISE SPECIFIED, ALL TRUSSES SHALL BE 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 DEVIATING FROM THIS DESIGN ANY FAILURE TO BUILD THE TRUSS IN CONFORMANCE WITH TPI OR FABRICATING, HANDLING, SHIPPING, INSTALLING & BRACING OF TRUSSES. DESIGN CONDITIONS WITH APPLICABLE PROVISIONS OF THE NATIONAL DESIGN SPEC. BY AREA AND TPI. THE TRUSS SHALL BE DESIGNED TO RESIST ALL LOADS AND STRESSES OF THE AREA (AREA/ASS) GALV. STEEL. APPLY PLATES TO EACH FACE OF TRUSSES AND CHORDS OTHER THAN TOP AND BOTTOM CHORDS. DESIGN, POSITION PER DRAWINGS 1606-2. 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.



| REF          | LET-IN VERT  |
|--------------|--------------|
| DATE         | 2/23/07      |
| DRWG         | GBLETTIN0207 |
| -ENG         | DLJ/KAR      |
| MAX TOT. LD. | 60 PSF       |
| DUR. FAC.    | ANY          |
| MAX SPACING  | 24.0"        |

PIGGYBACK DETAIL

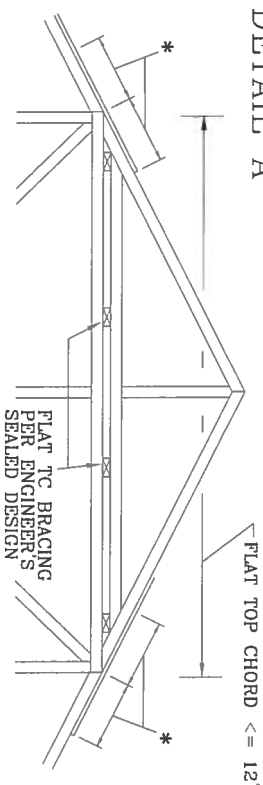
100 MPH WIND, 30.00 FT MEAN HGT, ASCE 7-02 OR ASCE 7-05, CLOSED BLDG, LOCATED ANYWHERE IN ROOF, CAT II, EXP. C, WIND TC DL=5.0 PSF, WIND BC DL=5.0 PSF.

80 MPH WIND, 30.00 FT MEAN HGT, SBC, ENCLOSED BLDG, LOCATED ANYWHERE IN ROOF, WIND TC DL=5.0 PSF, WIND BC DL=5.0 PSF.

100 MPH WIND, 30.00 FT MEAN HGT, ASCE 7-98, CLOSED BLDG, LOCATED ANYWHERE IN ROOF, CAT II, EXP. C, WIND TC DL=5.0 PSF, WIND BC DL=5.0 PSF.

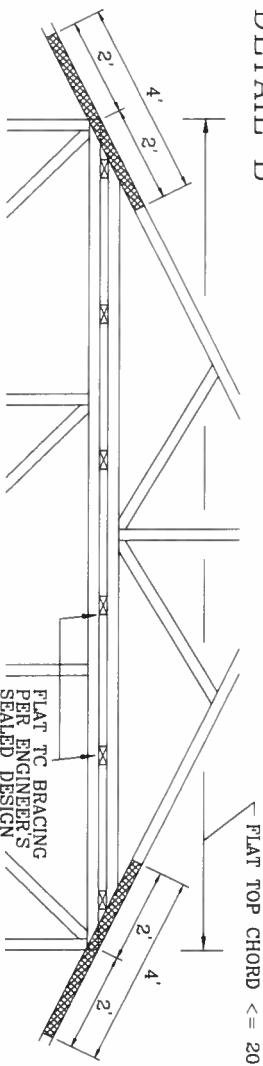
NOTE: TOP CHORDS OF TRUSSES SUPPORTING PIGGYBACK CAP TRUSSES MUST BE ADEQUATELY BRACED BY SHEATHING OR PURLINS. PROVIDE DIAGONAL BRACING OR OTHER SUITABLE ANCHORAGE TO PERMANENTLY RESTRAIN PURLINS.

DETAIL A



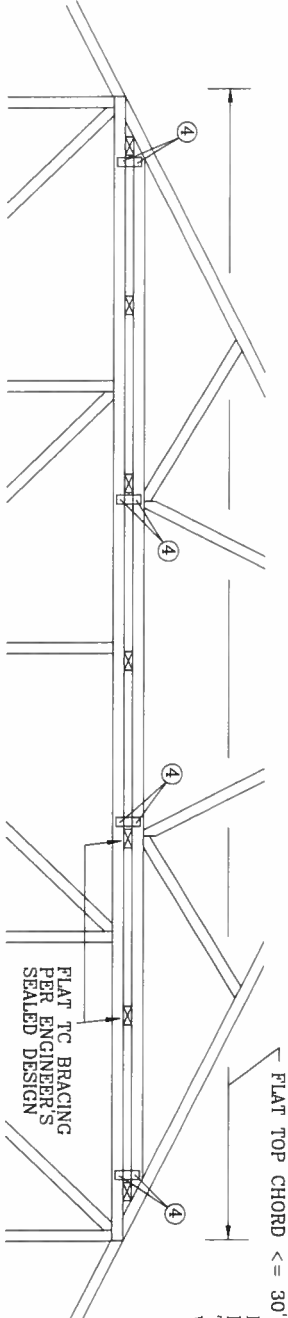
PIGGYBACK CAP TRUSS TOENAILLED TO ALL TOP CHORD BRACING WITH (2) 10d COMMON (0.148"x3") NAILS.  
\* 12" MIN RIGID SHEATHING OVERLAP WITH 8d COMMON (0.131"x2.5") OR GUN NAILS IN OVERLAP ZONE SPACED AT 4" O.C.

DETAIL B



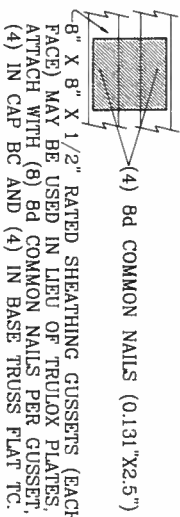
PIGGYBACK CAP TRUSS TOENAILLED TO ALL TOP CHORD BRACING WITH (2) 10d COMMON (0.148"x3") NAILS AND SECURED WITH 2X4 #3 GRADE SCAB (1 SIDE ONLY) ATTACHED WITH 10d COMMON NAILS AT 4" O.C.

DETAIL C



CAP TRUSS TOENAILLED TO TOP CHORD BRACING AND SECURED WITH 3X8 TRUFOX PLATES (EACH FACE) AT EACH END AND AT 1/3 POINTS. CIRCLED NUMBER INDICATES REQUIRED NUMBER OF 0.120" X 1.375" NAILS PER FACE. SEE DRAWING 160TL FOR TRUFOX INFORMATION.

IN LIEU OF TRUFOX CONNECTORS, ALPINE 62PB SPECIAL PIGGYBACK CONNECTORS MAY BE USED. SHOP APPLY TOOTHED PORTION, FIELD ATTACH TO MATING TRUSS WITH (4) 0.120" X 0.375" NAILS MINIMUM EACH FACE.

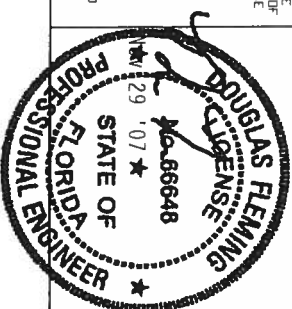


THIS DRAWING REPLACES DRAWINGS 581.670 & 961.860

ALPINE

ITW BUILDING COMPONENTS GROUP, INC.  
POWERS BEACH, FLORIDA

\*\*\*WARNING\*\*\* TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BEST BUILDING COMPONENT SAFETY INFORMATION, PUBLISHED BY TPI TRUSS PLATE INSTITUTE, 218 NORTH LEE STR., SUITE 312, ALEXANDRIA, VA 22314 AND VITCA (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. TPI 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 AIA/BSA) AND TPI. TPI, BCG CONNECTOR PLATES ARE MADE OF 20/18/16GA (W/H/SS/K) ASTM A653 GRADE 40/60 (W/H/SS) GALV. STEEL. APPLY PLATES TO EACH FACE OF TRUSS AND UNLESS OTHERWISE LOCATED ON THIS DESIGN, POSITION PER DRAWINGS 160-22. ANY INSPECTION OF UNLATES FOLLOWED BY (U) SHALL BE PER DESIGNER. TPI, 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. 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.



|           |            |      |              |
|-----------|------------|------|--------------|
| TC LL     | PSF        | REF  | PIGGYBACK    |
| TC DL     | PSF        | DATE | 2/23/07      |
| BC DL     | PSF        | DRWG | PIGBACKA0207 |
| BC LL     | PSF        | -ENG | DLJ/KAR      |
| TOT. LD.  | MAX 60 PSF |      |              |
| DUR. FAC. | 1.15       |      |              |
| SPACING   | 24.0"      |      |              |

|     |       |     |    |    |        |
|-----|-------|-----|----|----|--------|
| TOP | CHORD | 2X4 | #2 | OR | BETTER |
| BOT | CHORD | 2X4 | #2 | OR | BETTER |
|     | WEBS  | 2X4 | #3 | OR | BETTER |

SPACE PIGGYBACK VERTICALS AT 4' OC MAX.

TOP AND BOTTOM CHORD SPLICES MUST BE STAGGERED SO THAT ONE SPLICE IS NOT DIRECTLY OVER ANOTHER.

PIGgyBACK BOTTOM CHORD MAY BE OMITTED. ATTACH VERTICAL WEBS TO TRUSS TOP CHORD WITH 1.5X3 PLATE.

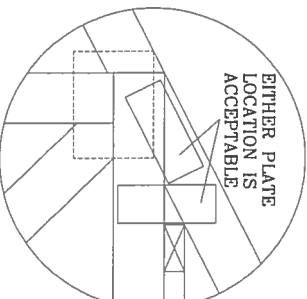
ATTACH PURLINS TO TOP OF FLAT TOP CHORD. IF PIGGYBACK IS SOLID LUMBER OR THE BOTTOM CHORD IS OMITTED, PURLINS MAY BE APPLIED BENEATH THE TOP CHORD OF SUPPORTING TRUSS

REFER TO ENGINEER'S SEALED DESIGN FOR REQUIRED PURLIN SPACING

THIS DETAIL IS APPLICABLE FOR THE FOLLOWING WIND CONDITIONS

130 MPH WIND, 30' MEAN HGT ASCE 7-98 ASCE 7-02, OR-  
 ASCE 7-05, CLOSED BLDG, LOCATED ANYWHERE IN ROOF, CAT II  
 EXP C, WIND TC DL=5 PSF, WIND BC DL=5 PSF  
 110 MPH WIND, 30' MEAN HGT, SBC  
 ENCLOSED BLDG, LOCATED ANYWHERE IN ROOF  
 WIND TC DL=5 PSF, WIND BC DL=5 PSF

FRONT FACE (E,\*) PLATES MAY BE OFFSET FROM BACK FACE PLATES AS LONG AS BOTH FACES ARE SPACED 4' OC MAX.



THIS DRAWING REPLACES DRAWINGS 634,016 634,017 & 847,045

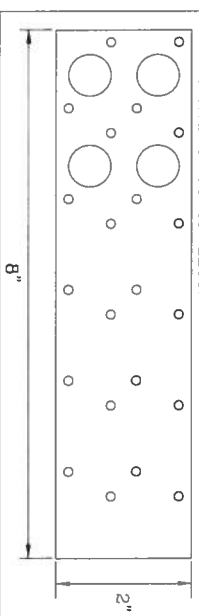
| JOINT<br>TYPE | SPANS UP TO                                       |       |       |       |
|---------------|---------------------------------------------------|-------|-------|-------|
|               | 30'                                               | 34'   | 38'   | 52'   |
| A             | 2X4                                               | 2.5X4 | 2.5X4 | 3X5   |
| B             | 4X6                                               | 5X6   | 5X6   | 5X6   |
| C             | 1.5X3                                             | 1.5X4 | 1.5X4 | 1.5X4 |
| D             | 5X4                                               | 5X5   | 5X5   | 5X6   |
| E             | 4X6 OR 3X6 TRULOX AT 4' OC,<br>ROTATED VERTICALLY |       |       |       |

(4) 6d BOX (0.099" X 2", MIN) NAILS.

| WEB BRACING CHART |                                                                                                                                                    |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| WEB LENGTH        | REQUIRED BRACING                                                                                                                                   |
| 0' TO 7'9"        | NO BRACING                                                                                                                                         |
| 7'9" TO 10'       | 1x4 "T" BRACE. SAME GRADE, SPECIES AS WEB MEMBER, OR BETTER, AND 80% LENGTH OF WEB MEMBER. ATTACH WITH 8d OC. (0.113" X 2.5" MIN) NAILS AT 4' OC.  |
| 10' TO 14'        | 2x4 "T" BRACE. SAME GRADE, SPECIES AS WEB MEMBER, OR BETTER, AND 80% LENGTH OF WEB MEMBER. ATTACH WITH 16d BOX (0.135" X 3.5" MIN) NAILS AT 4' OC. |

ATTACH TRULOX PLATES WITH (8) 0.120" X 1.375" NAILS OR EQUAL, PER FACE PER PLY. (4) NAILS IN EACH MEMBER TO BE CONNECTED. REFER TO DRAWING 160 TL FOR TRULOX INFORMATION.

ATTACH TEETH TO THE PIGGYBACK AT THE TIME OF FABRICATION. ATTACH TO SUPPORTING TRUSS WITH (4) 0.120" X 1.375" NAILS PER FACE PER PLY. APPLY PIGGYBACK SPECIAL PLATE TO EACH TRUSS FACE AND SPACE 4' OC OR LESS



\* PIGGYBACK SPECIAL. PLATE

ALPINE

**ITW BUILDING COMPONENTS GROUP, INC.**  
**POMPAÑO BEACH, FLORIDA**

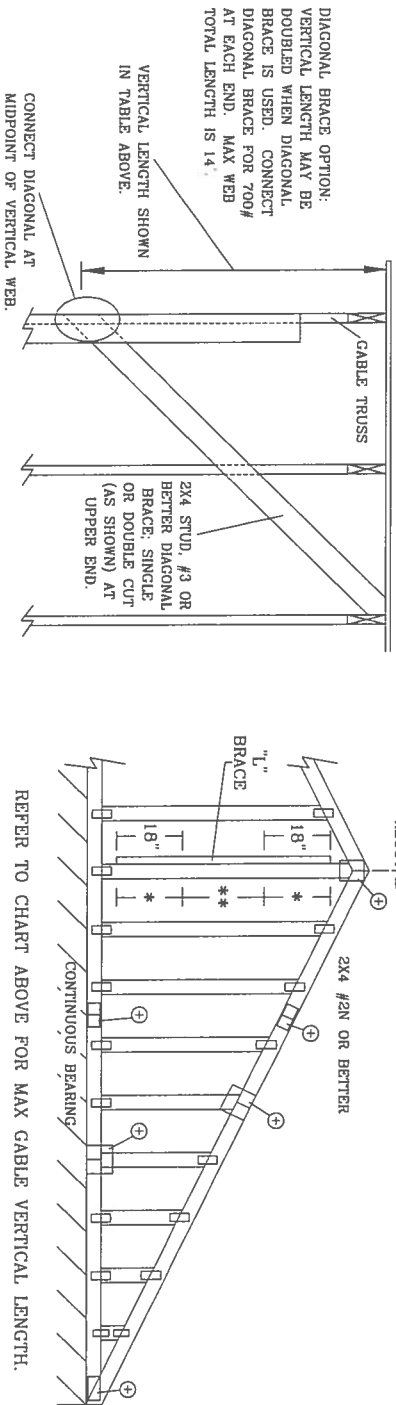
**\*WARNING:** THESE REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO DECI BUILD COMPONENT SAFETY INFORMATION, PUBLISHED BY THE TRUSS PLATE INSTITUTE, 218 NORTH LEE ST., SUITE 312, ALEXANDRIA, VA 22304 AND VITA GOOD TRUSS COUNCIL E-MAIL, 6300 ENTERPRISE LN, HANSON, UT 55797 FOR SAFETY PRACTICES PRIOR TO PERFORMING THESE ACTIVITIES. UNLESS OTHERWISE INDICATED, ALL CHORDS SHALL HAVE PROPERLY ATTACHED STRUCTURAL PANELS AND BOTTOM CHORD SHALL HAVE A PROPERLY ATTACHED RIGID GUTTING.

**\*IMPORTANT:** FURNISH COPY OF THIS DESIGN TO INSTALLATION CONTRACTOR. ILL BCG, INC. SHALL NOT BE RESPONSIBLE FOR ANY DEVIATION FROM THIS DESIGN; ANY FAILURE AT BUILD THE TRUSS IN CONFORMANCE WITH TPI OR FABRICATING, HANDLING, SHIPPING, INSTALLING & BRACING OF TRUSSES. DESIGN CONFORMANCE WITH APPLICABLE PROVISIONS OF NDS NATIONAL DESIGN SPEC. BY AREA AND TPI CODES. ALL TRUSS CONNECTOR PLATES ARE MADE OF 2010/16GA UH/SXSS ASTM A653 GRADE 40/60 UH/SXSS DESIGN POSITION PER DRAWINGS 1606-27 AND INTERSECTION OF PLATES FOLLOWED BY T SHALL BE PER ANNEK 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 MS1/TPI 1 SEC. 2.

DOUGLAS FLEMING  
LICENSE  
No. 86648

|                |       |               |
|----------------|-------|---------------|
| MAX LOADING    | REF   | PIGCBACK      |
| 55 PSF AT      | DATE  | 2/23/07       |
| 1.33 DUR. FAC. | DRWG  | PIGCBACKB0207 |
| 50 PSF AT      | -ENG  | DLJ/KAR       |
| 1.25 DUR. FAC. |       |               |
| 47 PSF AT      |       |               |
| 1.15 DUR. FAC. |       |               |
| SPACING        | 24.0" |               |

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

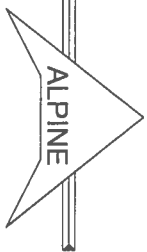


DIAGONAL BRACE OPTION:  
VERTICAL LENGTH MAY BE  
DOUBLED WHEN DIAGONAL  
BRACE IS USED. CONNECT  
DIAGONAL BRACE FOR 700#  
AT EACH END. MAX WEB  
TOTAL LENGTH IS 14'.

VERTICAL LENGTH SHOWN  
IN TABLE ABOVE.

CONNECT DIAGONAL AT  
MIDPOINT OF VERTICAL WEB.

REFER TO CHART ABOVE FOR MAX GABLE VERTICAL LENGTH.



ITW BUILDING COMPONENTS GROUP, INC.  
POMPANO BEACH, FLORIDA

\*\*\*WARNING\*\*\* TRUSSES REQUIRE EXTREME CARE IN FABRICATING, HANDLING, SHIPPING, INSTALLING AND BRACING. REFER TO BEST BUILDING COMPONENT SAFETY INFORMATION, PUBLISHED BY TPI TRUSS PLATE INSTITUTE, 218 NORTH LEE STR., SUITE 312, ALEXANDRIA, VA 22314 AND VITA C/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 TRUSSES IN CONFORMANCE WITH TPI OR FABRICATING, HANDLING, SHIPPING, INSTALLING & BRACING OF TRUSSES. DESIGN CONFORMS WITH APPLICABLE PROVISIONS OF NDS (NATIONAL DESIGN SPEC. BY AIA/ASA AND TPI. ITW, BCG CONNECTOR PLATES ARE MADE OF 20/18/16GA (V/H/S/S) 40/60 (V/H/S/S) 60/80 (V/H/S/S) 80/100 (V/H/S/S) 100/120 (V/H/S/S) 120/140 (V/H/S/S) 140/160 (V/H/S/S) 160/180 (V/H/S/S) 180/200 (V/H/S/S) 200/220 (V/H/S/S) 220/240 (V/H/S/S) 240/260 (V/H/S/S) 260/280 (V/H/S/S) 280/300 (V/H/S/S) 300/320 (V/H/S/S) 320/340 (V/H/S/S) 340/360 (V/H/S/S) 360/380 (V/H/S/S) 380/400 (V/H/S/S) 400/420 (V/H/S/S) 420/440 (V/H/S/S) 440/460 (V/H/S/S) 460/480 (V/H/S/S) 480/500 (V/H/S/S) 500/520 (V/H/S/S) 520/540 (V/H/S/S) 540/560 (V/H/S/S) 560/580 (V/H/S/S) 580/600 (V/H/S/S) 600/620 (V/H/S/S) 620/640 (V/H/S/S) 640/660 (V/H/S/S) 660/680 (V/H/S/S) 680/700 (V/H/S/S) 700/720 (V/H/S/S) 720/740 (V/H/S/S) 740/760 (V/H/S/S) 760/780 (V/H/S/S) 780/800 (V/H/S/S) 800/820 (V/H/S/S) 820/840 (V/H/S/S) 840/860 (V/H/S/S) 860/880 (V/H/S/S) 880/900 (V/H/S/S) 900/920 (V/H/S/S) 920/940 (V/H/S/S) 940/960 (V/H/S/S) 960/980 (V/H/S/S) 980/1000 (V/H/S/S) 1000/1020 (V/H/S/S) 1020/1040 (V/H/S/S) 1040/1060 (V/H/S/S) 1060/1080 (V/H/S/S) 1080/1100 (V/H/S/S) 1100/1120 (V/H/S/S) 1120/1140 (V/H/S/S) 1140/1160 (V/H/S/S) 1160/1180 (V/H/S/S) 1180/1200 (V/H/S/S) 1200/1220 (V/H/S/S) 1220/1240 (V/H/S/S) 1240/1260 (V/H/S/S) 1260/1280 (V/H/S/S) 1280/1300 (V/H/S/S) 1300/1320 (V/H/S/S) 1320/1340 (V/H/S/S) 1340/1360 (V/H/S/S) 1360/1380 (V/H/S/S) 1380/1400 (V/H/S/S) 1400/1420 (V/H/S/S) 1420/1440 (V/H/S/S) 1440/1460 (V/H/S/S) 1460/1480 (V/H/S/S) 1480/1500 (V/H/S/S) 1500/1520 (V/H/S/S) 1520/1540 (V/H/S/S) 1540/1560 (V/H/S/S) 1560/1580 (V/H/S/S) 1580/1600 (V/H/S/S) 1600/1620 (V/H/S/S) 1620/1640 (V/H/S/S) 1640/1660 (V/H/S/S) 1660/1680 (V/H/S/S) 1680/1700 (V/H/S/S) 1700/1720 (V/H/S/S) 1720/1740 (V/H/S/S) 1740/1760 (V/H/S/S) 1760/1780 (V/H/S/S) 1780/1800 (V/H/S/S) 1800/1820 (V/H/S/S) 1820/1840 (V/H/S/S) 1840/1860 (V/H/S/S) 1860/1880 (V/H/S/S) 1880/1900 (V/H/S/S) 1900/1920 (V/H/S/S) 1920/1940 (V/H/S/S) 1940/1960 (V/H/S/S) 1960/1980 (V/H/S/S) 1980/2000 (V/H/S/S) 2000/2020 (V/H/S/S) 2020/2040 (V/H/S/S) 2040/2060 (V/H/S/S) 2060/2080 (V/H/S/S) 2080/2100 (V/H/S/S) 2100/2120 (V/H/S/S) 2120/2140 (V/H/S/S) 2140/2160 (V/H/S/S) 2160/2180 (V/H/S/S) 2180/2200 (V/H/S/S) 2200/2220 (V/H/S/S) 2220/2240 (V/H/S/S) 2240/2260 (V/H/S/S) 2260/2280 (V/H/S/S) 2280/2300 (V/H/S/S) 2300/2320 (V/H/S/S) 2320/2340 (V/H/S/S) 2340/2360 (V/H/S/S) 2360/2380 (V/H/S/S) 2380/2400 (V/H/S/S) 2400/2420 (V/H/S/S) 2420/2440 (V/H/S/S) 2440/2460 (V/H/S/S) 2460/2480 (V/H/S/S) 2480/2500 (V/H/S/S) 2500/2520 (V/H/S/S) 2520/2540 (V/H/S/S) 2540/2560 (V/H/S/S) 2560/2580 (V/H/S/S) 2580/2600 (V/H/S/S) 2600/2620 (V/H/S/S) 2620/2640 (V/H/S/S) 2640/2660 (V/H/S/S) 2660/2680 (V/H/S/S) 2680/2700 (V/H/S/S) 2700/2720 (V/H/S/S) 2720/2740 (V/H/S/S) 2740/2760 (V/H/S/S) 2760/2780 (V/H/S/S) 2780/2800 (V/H/S/S) 2800/2820 (V/H/S/S) 2820/2840 (V/H/S/S) 2840/2860 (V/H/S/S) 2860/2880 (V/H/S/S) 2880/2900 (V/H/S/S) 2900/2920 (V/H/S/S) 2920/2940 (V/H/S/S) 2940/2960 (V/H/S/S) 2960/2980 (V/H/S/S) 2980/3000 (V/H/S/S) 3000/3020 (V/H/S/S) 3020/3040 (V/H/S/S) 3040/3060 (V/H/S/S) 3060/3080 (V/H/S/S) 3080/3100 (V/H/S/S) 3100/3120 (V/H/S/S) 3120/3140 (V/H/S/S) 3140/3160 (V/H/S/S) 3160/3180 (V/H/S/S) 3180/3200 (V/H/S/S) 3200/3220 (V/H/S/S) 3220/3240 (V/H/S/S) 3240/3260 (V/H/S/S) 3260/3280 (V/H/S/S) 3280/3300 (V/H/S/S) 3300/3320 (V/H/S/S) 3320/3340 (V/H/S/S) 3340/3360 (V/H/S/S) 3360/3380 (V/H/S/S) 3380/3400 (V/H/S/S) 3400/3420 (V/H/S/S) 3420/3440 (V/H/S/S) 3440/3460 (V/H/S/S) 3460/3480 (V/H/S/S) 3480/3500 (V/H/S/S) 3500/3520 (V/H/S/S) 3520/3540 (V/H/S/S) 3540/3560 (V/H/S/S) 3560/3580 (V/H/S/S) 3580/3600 (V/H/S/S) 3600/3620 (V/H/S/S) 3620/3640 (V/H/S/S) 3640/3660 (V/H/S/S) 3660/3680 (V/H/S/S) 3680/3700 (V/H/S/S) 3700/3720 (V/H/S/S) 3720/3740 (V/H/S/S) 3740/3760 (V/H/S/S) 3760/3780 (V/H/S/S) 3780/3800 (V/H/S/S) 3800/3820 (V/H/S/S) 3820/3840 (V/H/S/S) 3840/3860 (V/H/S/S) 3860/3880 (V/H/S/S) 3880/3900 (V/H/S/S) 3900/3920 (V/H/S/S) 3920/3940 (V/H/S/S) 3940/3960 (V/H/S/S) 3960/3980 (V/H/S/S) 3980/4000 (V/H/S/S) 4000/4020 (V/H/S/S) 4020/4040 (V/H/S/S) 4040/4060 (V/H/S/S) 4060/4080 (V/H/S/S) 4080/4100 (V/H/S/S) 4100/4120 (V/H/S/S) 4120/4140 (V/H/S/S) 4140/4160 (V/H/S/S) 4160/4180 (V/H/S/S) 4180/4200 (V/H/S/S) 4200/4220 (V/H/S/S) 4220/4240 (V/H/S/S) 4240/4260 (V/H/S/S) 4260/4280 (V/H/S/S) 4280/4300 (V/H/S/S) 4300/4320 (V/H/S/S) 4320/4340 (V/H/S/S) 4340/4360 (V/H/S/S) 4360/4380 (V/H/S/S) 4380/4400 (V/H/S/S) 4400/4420 (V/H/S/S) 4420/4440 (V/H/S/S) 4440/4460 (V/H/S/S) 4460/4480 (V/H/S/S) 4480/4500 (V/H/S/S) 4500/4520 (V/H/S/S) 4520/4540 (V/H/S/S) 4540/4560 (V/H/S/S) 4560/4580 (V/H/S/S) 4580/4600 (V/H/S/S) 4600/4620 (V/H/S/S) 4620/4640 (V/H/S/S) 4640/4660 (V/H/S/S) 4660/4680 (V/H/S/S) 4680/4700 (V/H/S/S) 4700/4720 (V/H/S/S) 4720/4740 (V/H/S/S) 4740/4760 (V/H/S/S) 4760/4780 (V/H/S/S) 4780/4800 (V/H/S/S) 4800/4820 (V/H/S/S) 4820/4840 (V/H/S/S) 4840/4860 (V/H/S/S) 4860/4880 (V/H/S/S) 4880/4900 (V/H/S/S) 4900/4920 (V/H/S/S) 4920/4940 (V/H/S/S) 4940/4960 (V/H/S/S) 4960/4980 (V/H/S/S) 4980/5000 (V/H/S/S) 5000/5020 (V/H/S/S) 5020/5040 (V/H/S/S) 5040/5060 (V/H/S/S) 5060/5080 (V/H/S/S) 5080/5100 (V/H/S/S) 5100/5120 (V/H/S/S) 5120/5140 (V/H/S/S) 5140/5160 (V/H/S/S) 5160/5180 (V/H/S/S) 5180/5200 (V/H/S/S) 5200/5220 (V/H/S/S) 5220/5240 (V/H/S/S) 5240/5260 (V/H/S/S) 5260/5280 (V/H/S/S) 5280/5300 (V/H/S/S) 5300/5320 (V/H/S/S) 5320/5340 (V/H/S/S) 5340/5360 (V/H/S/S) 5360/5380 (V/H/S/S) 5380/5400 (V/H/S/S) 5400/5420 (V/H/S/S) 5420/5440 (V/H/S/S) 5440/5460 (V/H/S/S) 5460/5480 (V/H/S/S) 5480/5500 (V/H/S/S) 5500/5520 (V/H/S/S) 5520/5540 (V/H/S/S) 5540/5560 (V/H/S/S) 5560/5580 (V/H/S/S) 5580/5600 (V/H/S/S) 5600/5620 (V/H/S/S) 5620/5640 (V/H/S/S) 5640/5660 (V/H/S/S) 5660/5680 (V/H/S/S) 5680/5700 (V/H/S/S) 5700/5720 (V/H/S/S) 5720/5740 (V/H/S/S) 5740/5760 (V/H/S/S) 5760/5780 (V/H/S/S) 5780/5800 (V/H/S/S) 5800/5820 (V/H/S/S) 5820/5840 (V/H/S/S) 5840/5860 (V/H/S/S) 5860/5880 (V/H/S/S) 5880/5900 (V/H/S/S) 5900/5920 (V/H/S/S) 5920/5940 (V/H/S/S) 5940/5960 (V/H/S/S) 5960/5980 (V/H/S/S) 5980/6000 (V/H/S/S) 6000/6020 (V/H/S/S) 6020/6040 (V/H/S/S) 6040/6060 (V/H/S/S) 6060/6080 (V/H/S/S) 6080/6100 (V/H/S/S) 6100/6120 (V/H/S/S) 6120/6140 (V/H/S/S) 6140/6160 (V/H/S/S) 6160/6180 (V/H/S/S) 6180/6200 (V/H/S/S) 6200/6220 (V/H/S/S) 6220/6240 (V/H/S/S) 6240/6260 (V/H/S/S) 6260/6280 (V/H/S/S) 6280/6300 (V/H/S/S) 6300/6320 (V/H/S/S) 6320/6340 (V/H/S/S) 6340/6360 (V/H/S/S) 6360/6380 (V/H/S/S) 6380/6400 (V/H/S/S) 6400/6420 (V/H/S/S) 6420/6440 (V/H/S/S) 6440/6460 (V/H/S/S) 6460/6480 (V/H/S/S) 6480/6500 (V/H/S/S) 6500/6520 (V/H/S/S) 6520/6540 (V/H/S/S) 6540/6560 (V/H/S/S) 6560/6580 (V/H/S/S) 6580/6600 (V/H/S/S) 6600/6620 (V/H/S/S) 6620/6640 (V/H/S/S) 6640/6660 (V/H/S/S) 6660/6680 (V/H/S/S) 6680/6700 (V/H/S/S) 6700/6720 (V/H/S/S) 6720/6740 (V/H/S/S) 6740/6760 (V/H/S/S) 6760/6780 (V/H/S/S) 6780/6800 (V/H/S/S) 6800/6820 (V/H/S/S) 6820/6840 (V/H/S/S) 6840/6860 (V/H/S/S) 6860/6880 (V/H/S/S) 6880/6900 (V/H/S/S) 6900/6920 (V/H/S/S) 6920/6940 (V/H/S/S) 6940/6960 (V/H/S/S) 6960/6980 (V/H/S/S) 6980/7000 (V/H/S/S) 7000/7020 (V/H/S/S) 7020/7040 (V/H/S/S) 7040/7060 (V/H/S/S) 7060/7080 (V/H/S/S) 7080/7100 (V/H/S/S) 7100/7120 (V/H/S/S) 7120/7140 (V/H/S/S) 7140/7160 (V/H/S/S) 7160/7180 (V/H/S/S) 7180/7200 (V/H/S/S) 7200/7220 (V/H/S/S) 7220/7240 (V/H/S/S) 7240/7260 (V/H/S/S) 7260/7280 (V/H/S/S) 7280/7300 (V/H/S/S) 7300/7320 (V/H/S/S) 7320/7340 (V/H/S/S) 7340/7360 (V/H/S/S) 7360/7380 (V/H/S/S) 7380/7400 (V/H/S/S) 7400/7420 (V/H/S/S) 7420/7440 (V/H/S/S) 7440/7460 (V/H/S/S) 7460/7480 (V/H/S/S) 7480/7500 (V/H/S/S) 7500/7520 (V/H/S/S) 7520/7540 (V/H/S/S) 7540/7560 (V/H/S/S) 7560/7580 (V/H/S/S) 7580/7600 (V/H/S/S) 7600/7620 (V/H/S/S) 7620/7640 (V/H/S/S) 7640/7660 (V/H/S/S) 7660/7680 (V/H/S/S) 7680/7700 (V/H/S/S) 7700/7720 (V/H/S/S) 7720/7740 (V/H/S/S) 7740/7760 (V/H/S/S) 7760/7780 (V/H/S/S) 7780/7800 (V/H/S/S) 7800/7820 (V/H/S/S) 7820/7840 (V/H/S/S) 7840/7860 (V/H/S/S) 7860/7880 (V/H/S/S) 7880/7900 (V/H/S/S) 7900/7920 (V/H/S/S) 7920/7940 (V/H/S/S) 7940/7960 (V/H/S/S) 7960/7980 (V/H/S/S) 7980/8000 (V/H/S/S) 8000/8020 (V/H/S/S) 8020/8040 (V/H/S/S) 8040/8060 (V/H/S/S) 8060/8080 (V/H/S/S) 8080/8100 (V/H/S/S) 8100/8120 (V/H/S/S) 8120/8140 (V/H/S/S) 8140/8160 (V/H/S/S) 8160/8180 (V/H/S/S) 8180/8200 (V/H/S/S) 8200/8220 (V/H/S/S) 8220/8240 (V/H/S/S) 8240/8260 (V/H/S/S) 8260/8280 (V/H/S/S) 8280/8300 (V/H/S/S) 8300/8320 (V/H/S/S) 8320/8340 (V/H/S/S) 8340/8360 (V/H/S/S) 8360/8380 (V/H/S/S) 8380/8400 (V/H/S/S) 8400/8420 (V/H/S