

# SUBMITTAL TRANSMITAL

July 20, 2012 WGC Submittal No: 06100-002

- PROJECT: Harold Thompson Regional WRF Birdsall Rd. Fountain, CO 80817 Job No. 2908
- ENGINEER: **GMS, Inc.** 611 No. Weber St., #300 Colorado Springs, CO 80903 719-475-2935 Roger Sams
- OWNER: Lower Fountain Metropolitan Sewage Disposal District 901 S. Santa Fe Ave. Fountain, CO 80817 719-382-5303 James Heckman
- CONTRACTOR: Lam-Wood Systems, Inc. 1580 W 47<sup>th</sup> Ave. Denver, CO 80211 303-458-1736 Michael Levy

SUBJECT: Roof Trusses for the Blower Building

SPEC SECTION: 06100- Carpentry (3.3 D)

PREVIOUS SUBMISSION DATES: None

DEVIATIONS FROM SPEC: \_\_\_\_YES X\_\_NO

CONTRACTOR'S STAMP: This submittal has been reviewed by Weaver Construction Management and, unless indicated otherwise, has been found to be in conformance with the intent of the contract documents.

Contractor's Stamp:	Engineer's Stamp:
Date: 7/20/12	
Reviewed by: John Jacob	
<ul><li>(X) Reviewed Without Comments</li><li>( ) Reviewed With Comments</li></ul>	

ENGINEER'S COMMENTS:\_\_

					LE	ETTER OF	TRANSMITTAL
	193				DATE: 7/	20/12	JOB NO.: 10609-02ML
		ТАЛЛ	TAIC		ATTENTI	on: John Jacob	S
		LAIVI	<u>-777</u>		RE: <b>H</b> a	arold D Thomp	oson Reg WRF
					Blow	er Building	ž
	QU				Fount	ain, CO 80817	,
				CO 00211	john@	weavergc.con	n & leslie@weavergc.com
	_	(303) 458-173	NE. DENVER	, CO 80211 1) 458-1739			
то:	Wea	ver General	Construct	ion, Co.	We ar	e sending you	: <b>X</b> Attached
	367	9 S Huron Si	treet #40	4		]	Under separate cover
	Engl	ewood, CO	80110		Via:	e	mail, see above
	303.	-789-4111					
The	follow	vina items:					
x	Shop	Drawings		Prints	Plans	Specifications	5
	Сору	of Letter		Change order	Samples	]	
COF	PIES	DATE	NO.			DESCRIPTION	
j.	1			Roof Truss shop dra	awings		
					FOR A	APPROVAL O	NLY
THES	SE AR	E TRANSMIT	TED as che	cked below:			
X	For a	pproval		Approved as submitt	ed	Resubmit	copies for approval
	For y	our use		Approved as noted		submit	copies for distribution
	As re	quested		Returned for correcti	ons X	Return 1	corrected prints
	For R	eview and Con	nment				
	Fo	r Bids due:		20		Prints returne	ed after loan to Lam-Wood
REMA	RKS:						
COP	r 10:	File					
D 07					SIGNED:		Michael Lova
R. 28 №	iay 04						MICHAEL LEVY



THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult "Bracing of wood trusses" available from the Truss Plate Institute, 583 D'Onifrio Drive; Madison, WI 53179.

CLIENT:

## Lam-Wood System

JOB:

Harold Thompson - Blower Building

Fountain, Co.

Roof Loading

30-10-10

DATE:

7/19/2012

JOB #:

B1207010

Chris Larimore





Job	Truss	Truss Type	Qty	Ply	Lam-Wood System, Inc.
B1207010	CJ01	DIAGONAL HIP GIRDER	2	2	
				<b>_</b>	Job Reference (optional)
Forworth Galbraith Truss Co. Co	plorado Springs CO 80007 Chris	larimore			7 250 s Aug 25 2011 MiTek Industries Inc. Thu Jul 19 13:50:35 2012 Page 2

ID:YyZh5RYd5kZk6NQeEMKKQcymyn4-mbryFcZbzG\_oN?3FCz\_5znRYV0AcVIUJeKsmExywTPo

#### NOTES

- 13) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 14) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- 15) Use Simpson Strong-Tie SUL26 (6-10d Girder, 6-10dx1 1/2 Truss) or equivalent spaced at 2-9-15 oc max. starting at 11-1-13 from the left end to 16-9-11 to connect truss(es) J04 (1 ply 2 X 4 SPF) to front face of bottom chord.
- 16) Use Simpson Strong-Tie SUL26 (6-16d Girder, 6-10dx1 1/2 Truss) or equivalent at 19-7-10 from the left end to connect truss(es) J07 (1 ply 2 X 4 SPF) to front face of bottom chord, skewed 45.0 deg.to the left, sloping 0.0 deg. down.
- 17) Use Simpson Strong-Tie SUR26 (6-10d Girder, 6-10dx1 1/2 Truss) or equivalent spaced at 2-9-15 oc max. starting at 11-1-13 from the left end to 16-9-11 to connect truss(es) J04 (1 ply 2 X 4 SPF) to back face of bottom chord.
- 18) Use Simpson Strong-Tie SUR26 (6-16d Girder, 6-10dx1 1/2 Truss) or equivalent at 19-7-10 from the left end to connect truss(es) J07 (1 ply 2 X 4 SPF) to back face of bottom chord, skewed 45.0 deg.to the right, sloping 0.0 deg. down.
- 19) Fill all nail holes where hanger is in contact with lumber.
- 20) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 7 lb up at 2-8-0, 7 lb up at 2-8-0, 105 lb down and 39 lb up at 5-5-15, 105 lb down and 39 lb up at 5-5-15, and 229 lb down and 100 lb up at 8-3-14, and 229 lb down and 100 lb up at 8-3-14 on top chord, and 33 lb down at 2-8-0, 33 lb down at 2-8-0, 68 lb down at 5-5-15, 68 lb down at 5-5-15, 108 lb down at 8-3-14, 108 lb down at 8-3-14, 955 lb down and 262 lb up at 22-5-9, 955 lb down and 262 lb up at 22-5-9, and 1090 lb down and 298 lb up at 25-3-8, and 1090 lb down and 298 lb up at 25-3-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

- 1) Snow: Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
  - Vert: 1-9=-20, 2-10=-5

Concentrated Loads (lb)

Vert: 13=-1102(F=-551, B=-551) 11=-1910(F=-955, B=-955) 16=15(F=7, B=7) 17=-204(F=-102, B=-102) 18=-452(F=-226, B=-226) 19=-33(F=-16, B=-16) 20=-68(F=-34, B=-34) 21=-108(F=-54, B=-54) 22=-832(F=-416, B=-416) 23=-1372(F=-686, B=-686) 24=-1641(F=-820, B=-820) 25=-2180(F=-1090, B=-1090)



Scale = 1:60.2

9-1-2



J I Z
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⊢ Plate Offsets (X,Y):	7-7-3 7-7-3 [5:0-6-0,Edge], [8:0-2-8,0-2-0]	14-9-9 7-2-7  , [10:0-3-0,0-3-0], [13:0-4-0,0-1-12],	22-0-0 7-2-7 [14:0-5-0,0-3-0]	27-10-4 5-10-4	<u>34-0-0</u> 6-1-12
LOADING (psf)           TCLL         30.0           (Roof Snow=30.0)         TCDL           TCDL         10.0           BCLL         0.0           BCDL         10.0	* SPACING Plates Increase Lumber Increase Rep Stress Incr Code IRC2009/TF	2-0-0 <b>CSI</b> 1.15 TC 0.89 1.15 BC 0.78 YES WB 0.93 1/2007 (Matrix)	DEFL         in         (lot           Vert(LL)         -0.51         14-1           Vert(TL)         -0.91         14-1           Horz(TL)         0.22         1	c) l/defl L/d 15 >791 240 15 >444 180 10 n/a n/a	PLATES         GRIP           MT20         169/123           MT18H         169/123           Weight: 138 lb         FT = 0%
LUMBER TOP CHORD 2 X 4 T3: 2 BOT CHORD 2 X 4 B3: 2	4 SPF 2100F 1.8E *Except* 2 X 4 SPF No.2, T1: 2 X 4 SPF 4 SPF 2100F 1.8E *Except* 2 X 4 SPF No.2, B2: 2 X 4 SPF	1650F 1.5E 1650F 1.5E	BRACING TOP CHORD Stru BOT CHORD Rigi WEBS 1 RC 2 RC	ctural wood sheathing dired d ceiling directly applied or ow at midpt 4-14. ows at 1/3 pts 6-13	ctly applied, except end verticals. 6-3-8 oc bracing. , 8-10
WEBS 2 X 4 W2: SLIDER Left	4 WW Stud/Std *Except* 2 X 4 SPF No.2 2 X 4 SPF No.2 3-7-10		Mi ins Ins	Tek recommends that Stab talled during truss erection tallation guide.	ilizers and required cross bracing be , in accordance with Stabilizer

#### REACTIONS (lb/size) 10=1675/0-5-8 (min. 0-2-15), 2=1865/0-5-8 (min. 0-3-15) Max Horz 2=308(LC 6) Max Uplift10=-568(LC 5), 2=-696(LC 5) Max Grav10=1782(LC 12), 2=2380(LC 13)

 FORCES
 (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

 TOP CHORD
 2-3=-6278/1517, 3-16=-6144/1530, 4-16=-6057/1532, 4-5=-4761/1260, 5-17=-4671/1263, 6-17=-4571/1272, 6-7=-2808/863, 7-18=-2609/871, 8-18=-2611/870, 9-10=-298/116

- BOT CHORD 2-15=-1540/5915, 14-15=-1540/5915, 13-14=-1212/4531, 12-13=-465/1557, 11-12=-465/1557, 10-11=-465/1557
- WEBS 4-15=0/288, 4-14=-1441/342, 6-14=-35/559, 6-13=-2190/566, 8-13=-365/1494, 8-11=0/255, 8-10=-2098/711

#### NOTES

1) Wind: ASCE 7-05; 100mph; TCDL=4.5psf; BCDL=4.5psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; cantilever left and

right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33

2) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp C; Fully Exp.; Ct= 1, Lu=50-0-0

3) Unbalanced snow loads have been considered for this design.

4) This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.

5) Provide adequate drainage to prevent water ponding.

6) All plates are MT20 plates unless otherwise indicated.

7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit

between the bottom chord and any other members.

9) Provide mechanical connection (by others) of trues to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=568, 2=696.
10) This trues is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1

11) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.





Scale = 1:60.2



g	<del>)</del> -1-2					9-1-2
	8-11-3	17-5-9		26-0-0	34-0-0	
Plate Offsets (X	8-11-3 Y): [4:0-6-0.Edge], [5:0-1-12,0-2-0], [6:0-2-12,	<u>8-6-7</u> 0-2-4], [8:0-1-8,0-1-8], [10:0-3-	0,0-3-0], [11:0-2-0,0	<u>8-6-7</u> 0-1-8], [13:0-3-0,0-2-0]	8-0-0	
LOADING (psf)           TCLL         30           (Roof Snow=30.           TCDL         10           BCLL         0           BCDL         10	SPACING         2-0-0           0)         Plates Increase         1.15           0.0         Lumber Increase         1.15           0.0         Rep Stress Incr         YES           0.0         Code IRC2009/TPI2007	CSI TC 0.85 BC 0.91 WB 0.94 (Matrix)	DEFL         in           Vert(LL)         -0.54           Vert(TL)         -0.94           Horz(TL)         0.22	(loc) l/defl L/d 13-15 >743 240 13-15 >427 180 10 n/a n/a	PLATES MT20 MT18H Weight: 138 lb	<b>GRIP</b> 169/123 197/144 FT = 0%
LUMBER TOP CHORD 2 BOT CHORD 2 WEBS 2 WEBS 2 WEDGE Left: 2 X 4 WW 5	2 X 4 SPF 2100F 1.8E *Except* 3: 2 X 4 SPF No.2 X 4 SPF 1650F 1.5E *Except* 31: 2 X 4 SPF 2100F 1.8E 2 X 4 WW Stud/Std *Except* V2: 2 X 4 SPF No.2 2 X 4 WW Stud/Std Stud/Std		BRACING TOP CHORD BOT CHORD WEBS	Structural wood sheathing d verticals. Rigid ceiling directly applied 1 Row at midpt 5- 2 Rows at 1/3 pts 6- MiTek recommends that S installed during truss erect Installation guide.	lirectly applied or 2-2-0 c or 6-1-5 oc bracing. -13, 8-10 -11 itabilizers and required c ion, in accordance with §	ic purlins, except end ross bracing be Stabilizer
REACTIONS (lb/size) 10=1784/0-5-8 (min. 0-3-2), 2=1880/0-5-8 (min. 0-3-13) Max Horz 2=363(LC 6) Max Uplift10=-573(LC 5), 2=-691(LC 5) Max Grav10=1886(LC 13), 2=2332(LC 13)						
FORCES (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown.         TOP CHORD       2-16=-6614/1573, 3-16=-6521/1588, 3-4=-6101/1435, 4-5=-5988/1442, 5-6=-4279/1080,         6-7=-2134/611, 7-17=-1973/623, 8-17=-1975/622         BOT CHORD       2-15=-1627/6285, 14-15=-1311/5157, 13-14=-1311/5157, 12-13=-897/3623, 11-12=-897/3623,						

WEBS 3-15=-58/274, 5-15=-133/869, 5-13=-14=-1511/5157, 12-13=-69//3623, 11-12=-69//3 8-15=-588/274, 5-15=-133/869, 5-13=-1415/428, 6-13=-216/1138, 6-11=-2124/588, 8-11=-409/1796. 8-10=-1976/610

#### NOTES

1) Wind: ASCE 7-05; 100mph; TCDL=4.5psf; BCDL=4.5psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33

2) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp C; Fully Exp.; Ct= 1, Lu=50-0-0

3) Unbalanced snow loads have been considered for this design.

4) This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.

5) Provide adequate drainage to prevent water ponding.

6) All plates are MT20 plates unless otherwise indicated.

7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit

between the bottom chord and any other members, with BCDL = 10.0psf.

9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=573, 2=691.
 10) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

11) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



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2) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp C; Fully Exp.; Ct= 1, Lu=50-0-0

Unbalanced snow loads have been considered for this design.

4) This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.

5) Provide adequate drainage to prevent water ponding.

6) All plates are MT20 plates unless otherwise indicated.

7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit

between the bottom chord and any other members, with BCDL = 10.0psf.

9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=581, 2=684.
10) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard

ANSI/TPI 1.

11) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



Scale = 1:60.2

9-1-2



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	1.5	- 2

	5-9-9	10-6-6	15-3-3	20-0-0	2	4-6-4	29-2-4		34-0-0
Plate Offsets (2	X,Y): [2:0-0-0,0-0-4], [4:0-3-0,Ed	ge], [7:0-2-8,0-2-12], [{	3:0-4-0,0-2-0], [9:0	-4-0,0-1-8], [11:0-2	-12,0-4-8], [1	2:0-4-0,0-4-4	l], [14:0-5-12,0	0-0-0]	4-3-12
LOADING (psf TCLL 3 (Roof Snow=30 TCDL 1 BCLL BCDL 1	SPACING           00.0         Plates increase           0.0         Lumber increase           0.0         Rep Stress incr           0.0         Code IRC2009	2-0-0 1.15 e 1.15 NO TPI2007	<b>CSI</b> TC 0.43 BC 0.76 WB 0.99 (Matrix)	<b>DEFL</b> Vert(LL) - Vert(TL) - Horz(TL)	in (loc) 0.49 16-18 0.83 16-18 0.21 11	l/defl L/ >827 24 >486 18 n/a n/	d 0 0 a	PLATES MT20 MT18H Weight: 567 lb	<b>GRIP</b> 169/123 197/144 FT = 0%
LUMBER TOP CHORD BOT CHORD WEBS	2 X 6 SPF 2100F 1.8E 2 X 6 SPF 2100F 1.8E 2 X 4 WW Stud/Std *Except* W1,W2,W4: 2 X 4 SPF No.2			BRACING TOP CHORE BOT CHORE	) Structur verticals ) Rigid ce	ral wood shea s. eiling directly	athing directly applied or 10-	applied or 6-0-0 -0-0 oc bracing.	oc purlins, except end
REACTIONS	REACTIONS (lb/size) 11=12296/0-5-8 (req. 0-6-14), 2=6762/0-5-8 (min. 0-4-0) Max Horz 2=277(LC 6) Max Uplift11=-3507(LC 5), 2=-2037(LC 5) Max Grav11=12504(LC 12), 2=7290(LC 13)								
FORCES (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown.         TOP CHORD       2-3=-24401/6531, 3-21=-25036/6827, 4-21=-25020/6827, 4-22=-24973/6830, 5-22=-24931/6834, 5-6=-23989/6638, 6-7=-23170/6501, 7-8=-22350/6310, 8-23=-10945/3145, 9-23=-10945/3145         BOT CHORD       2-19=-6372/23450, 18-19=-6372/23450, 17-18=-6651/24280, 16-17=-6651/24280, 15-16=-6386/23216, 15-24=-5068/18169, 13-14=-5068/18169, 13-25=-5068/18169, 25-26=-5068/18169, 12-26=-5068/18169, 12-27=-3043/10945, 27-28=-3043/10945, 11-28=-3043/10945         WEBS       3-19=-330/175, 3-18=-405/1404, 5-16=-1221/304, 6-16=-62/535, 6-15=-935/224, 7-15=-1361/5131, 8-15=-1605/6244, 8-13=-777/2967, 8-12=-10680/2983, 9-12=-2988/10888, 9-11=-15808/4447									
NOTES 1) Special conr 2) 3-ply truss to Top chords Bottom chor Webs conne 3) All loads are connections 4) Wind: ASCE right expose 5) TCLL: ASCE 6) Unbalanced	hection required to distribute web b be connected together with 10d connected as follows: 2 X 6 - 2 ro ds connected as follows: 2 X 6 - 3 forced as follows: 2 X 4 - 1 row at 0 considered equally applied to all have been provided to distribute 7-05; 100mph; TCDL=4.5psf; B0 d; end vertical left and right expo 5 7-05; Pf=30.0 psf (flat roof snow pandy have been provider	ioads equally between (0.131"x3") nails as fol ws at 0-7-0 oc, 2 X 4 - rows at 0-4-0 oc. +9-0 oc, Except memb plies, except if noted a only loads noted as (F) CDL=4.5psf; h=25ft; Ca sed; Lumber DOL=1.3 (); Category II; Exp C; d for this design	all plies. lows: 1 row at 0-9-0 oc. er 15-7 2 X 4 - 2 ro s front (F) or back or (B), unless oth t. II; Exp C; enclos 3 plate grip DOL=' Fully Exp.; Ct= 1, L	ows at 0-4-0 oc. (B) face in the LOA erwise indicated. sed; MWFRS (low-r 1.33 .u=50-0-0	.D CASE(S) : ise) gable en	section. Ply to	o ply lever left and		

- a) Oblight of the second share been considered for this design.
  7) This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
  8) Provide adequate drainage to prevent water ponding.
  9) All plates are MT20 plates unless otherwise indicated.
  (1) This trues has been designed for a 0.0 psf bedd live load personalized to the load personalized to a second been designed.

- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit
- between the bottom chord and any other members.
- 12) WARNING: Required bearing size at joint(s) 11 greater than input bearing size.

Continued on page 2

Job	Truss	Truss Type	Qty	Ply	Lam-Wood System, Inc.
B1207010	HG01	Half Hip Truss	2	3	leb Reference (entional)
Foxworth Galbraith Truss Co, Co	l blorado Springs, CO 80907, Chris	Larimore		•	7.250 s Aug 25 2011 MiTek Industries, Inc. Thu Jul 19 13:50:49 2012 Page 2
		IC	):YyZh5RY	d5kZk6NC	eEMKKQcymyn4-MlhEBOkNgZlp297x1vENXk0?Rg?sn5uNsWFWj8ywTPa

#### NOTES

- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=3507, 2=2037.
   14) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

- 14) This truss is designed in accordance with the 2009 international evolutions to 2009 sections K302. 11.1 and K302. 10.2 and referenced standard ANSI/TFTT.
  15) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
  16) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 22-0-12 from the left end to 32-0-12 to connect truss(es) J10 (1 ply 2 X 4 SPF) to back face of bottom chord.
  17) Fill all nail holes where hanger is in contact with lumber.
- 18) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 8211 lb down and 2208 lb up at 20-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

1) Snow: Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf) Vert: 1-7=-80, 7-10=-80, 2-11=-20

Concentrated Loads (b) Vert: 15=-8211(B) 14=-1218(B) 24=-1218(B) 25=-1218(B) 26=-1218(B) 27=-1218(B) 28=-1218(B)



REACTIONS (lb/size) 2=347/0-5-8 (min. 0-1-8), 4=18/Mechanical, 3=-24/Mechanical Max Horz 2=55(LC 5) Max Uplift2=-229(LC 5), 3=-77(LC 11) Max Grav2=353(LC 2), 4=35(LC 4), 3=33(LC 5)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

#### NOTES

- 1) Wind: ASCE 7-05; 100mph; TCDL=4.5psf; BCDL=4.5psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp C; Fully Exp.; Ct= 1
- a) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit
- between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 2=229.
- 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard
- ÁNSI/TPI 1.
- 10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



REACTIONS (lb/size) 3=85/Mechanical, 2=411/0-5-8 (min. 0-1-8), 4=35/Mechanical Max Horz 2=80(LC 5) Max Uplift3=-40(LC 8), 2=-235(LC 5)

Max Grav3=107(LC 2), 2=433(LC 2), 4=71(LC 4)

FORCES (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown.

#### NOTES

- 1) Wind: ASCE 7-05; 100mph; TCDL=4.5psf; BCDL=4.5psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp C; Fully Exp.; Ct= 1
- a) Unbalanced snow loads have been considered for this design.

4) This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.

5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit
- between the bottom chord and any other members.

7) Refer to girder(s) for truss to truss connections.

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 2=235.
- 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard
- ANSI/TPI 1.

10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



REACTIONS (lb/size) 3=185/Mechanical, 2=491/0-5-8 (min. 0-1-8), 4=55/Mechanical Max Horz 2=106(LC 5) Max Uplift3=-101(LC 5), 2=-249(LC 5)

Max Grav3=231(LC 2), 2=522(LC 2), 4=111(LC 4)

#### NOTES

- 1) Wind: ASCE 7-05; 100mph; TCDL=4.5psf; BCDL=4.5psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp C; Fully Exp.; Ct= 1
- Unbalanced snow loads have been considered for this design.

4) This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.

5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit

between the bottom chord and any other members.

7) Refer to girder(s) for truss to truss connections.

- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 3=101, 2=249.
- This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

FORCES (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown.



REACTIONS (Ib/size) 4=346/Mechanical, 2=577/0-5-8 (min. 0-1-8) Max Horz 2=122(LC 6)

Max Uplift4=-110(LC 5), 2=-279(LC 5) Max Grav4=417(LC 2), 2=619(LC 2)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 3-4=-343/144

#### NOTES

- 1) Wind: ASCE 7-05; 100mph; TCDL=4.5psf; BCDL=4.5psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp C; Fully Exp.; Ct= 1

3) Unbalanced snow loads have been considered for this design.

- 4) This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent
- with other live loads.

5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

7) Refer to girder(s) for truss to truss connections.

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=110, 2=279.

9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard

10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

LOAD CASE(S) Standard

ANSI/TPI 1.



7) Refer to girder(s) for truss to truss connections.

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=150, 2=306.
 9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



7) Refer to girder(s) for truss to truss connections.

Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=225, 2=365.

9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard

ANS/TP1 1.

10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



between the bottom chord and any other members. 7) Refer to girder(s) for truss to truss connections.

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=261, 2=396.

9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard

ANSI/TPI 1

10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



7) Refer to girder(s) for truss to truss connections.

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=297, 2=426.

9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1

10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.





9-1-2

			<u>20-0-0</u> 20-0-0		
LOADING (psf) TCLL 30.0 (Roof Snow=30.0) TCDL 10.0 BCLL 0.0 * BCDL 10.0	SPACING 2-0-0 Plates Increase 1.15 Lumber Increase 1.15 Rep Stress Incr YES Code IRC2009/TPI2007	CSI TC 0.39 BC 0.10 WB 0.10 (Matrix)	<b>DEFL</b> ir Vert(LL) -0.0 Vert(TL) -0.0 Horz(TL) 0.00	n (loc) l/defl L/d 7 1 n/r 120 8 1 n/r 90 0 17 n/a n/a	PLATES         GRIP           MT20         169/123           Weight:         86 lb         FT = 0%
LUMBER TOP CHORD 2 X 4 SPF BOT CHORD 2 X 4 SPF WEBS 2 X 4 WW OTHERS 2 X 4 WW	No.2 No.2 Stud/Std Stud/Std		BRACING TOP CHORD BOT CHORD	Structural wood sheathing dir verticals. Rigid ceiling directly applied o MiTek recommends that Sta installed during truss erectio Installation guide.	ectly applied or 6-0-0 oc purlins, except end or 10-0-0 oc bracing. abilizers and required cross bracing be on, in accordance with Stabilizer

### **REACTIONS** All bearings 20-0-0.

(lb) - Max Horz 2=287(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29, 30 except 2=-189(LC 7) Max Grav All reactions 250 lb or less at joint(s) 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29 except 2=377(LC 2), 30=323(LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

WEBS 3-30=-251/130

#### NOTES

- 1) Wind: ASCE 7-05; 100mph; TCDL=4.5psf; BCDL=4.5psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-05; Pf=30.0 psf (flat roof snow); Category II; Exp C; Fully Exp.; Ct= 1
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 20.0 psf or 1.00 times flat roof load of 30.0 psf on overhangs non-concurrent with other live loads.
- All plates are 1.5x4 MT20 unless otherwise indicated.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 1-4-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit
- between the bottom chord and any other members.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29, 30 except (jt=lb) 2=189.
- 12) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.



9) This truss is designed in accordance with the 2009 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.