

Project Information for:		L106588	
Builder:	Aaron Simque	Date:	3/8/2005
Lot:	Lot 5	Start Number:	252
Subdivision:	Hunters Ridge		
County or City:	Columbia County		
Truss Page Count:	40		

Truss Design Load Information (UNO)		Design Program: MiTek 5.2	
Gravity	Wind	Building Code: FBC2001	
Roof (psf): 42	Wind Standard: ASCE 7-98		
Floor (psf): 55	Wind Speed (mph): 110		

Note: See individual truss drawings for special loading conditions

Building Designer, responsible for Structural Engineering: (See attached)	
SIMQUE, AARON D. RB29003130	
Address:	320 SW AINSLEY GLN. LAKE CITY, FL. 32024
Designer:	62

Truss Design Engineer:	Thomas, E. Miller, P.E., 56877 - Byron K. Anderson, PE FL 60987
Company:	Structural Engineering and Inspections, Inc. EB 9196
Address:	16105 N. Florida Ave, Ste B, Lutz, FL 33549

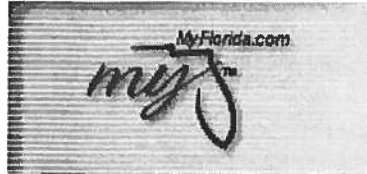
Notes:

1. Truss Design Engineer is responsible for the individual trusses as components only.
2. Determination as to the suitability and use of these truss components for the structure is the responsibility of the Building Designer of Record, as defined in ANSI/TPI 1-1995 Section 2.2
3. The seal date shown on the individual truss component drawings must match the seal date on this index sheet.

#	Truss ID	Dwg. #	Seal Date	#	Truss ID	Dwg. #	Seal Date
1	CJ1	030805252	3/8/2005				
2	CJ3	030805253	3/8/2005				
3	CJ5	030805254	3/8/2005				
4	EJ7	030805255	3/8/2005				
5	HJ7	030805256	3/8/2005				
6	PB01	030805257	3/8/2005				
7	PB02	030805258	3/8/2005				
8	PB04	030805259	3/8/2005				
9	PB05	030805260	3/8/2005				
10	PB06	030805261	3/8/2005				
11	PB07	030805262	3/8/2005				
12	T01G	030805263	3/8/2005				
13	T02	030805264	3/8/2005				
14	T02G	030805265	3/8/2005				
15	T03	030805266	3/8/2005				
16	T04	030805267	3/8/2005				
17	T04G	030805268	3/8/2005				
18	T05	030805269	3/8/2005				
19	T07	030805270	3/8/2005				
20	T08	030805271	3/8/2005				
21	T09	030805272	3/8/2005				
22	T10	030805273	3/8/2005				
23	T11	030805274	3/8/2005				
24	T12	030805275	3/8/2005				
25	T13	030805276	3/8/2005				
26	T13A	030805277	3/8/2005				
27	T13B	030805278	3/8/2005				
28	T14	030805279	3/8/2005				
29	T16	030805280	3/8/2005				
30	T17	030805281	3/8/2005				
31	T18	030805282	3/8/2005				
32	T19	030805283	3/8/2005				
33	T20	030805284	3/8/2005				
34	T21	030805285	3/8/2005				
35	T22	030805286	3/8/2005				
36	T23	030805287	3/8/2005				
37	T25	030805288	3/8/2005				
38	T26	030805289	3/8/2005				
39	T27	030805290	3/8/2005				
40	T28	030805291	3/8/2005				

MAR 08 2005

Thomas E. Miller, FL PE 56877, EB #9196

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Name: **SIMQUE, AARON DAVID (Primary Name)**
AARON SIMQUE HOMES INC (DBA Name)
Main Address: **320 SW AINSLEY GLN.**
LAKE CITY, Florida 32024

License Information

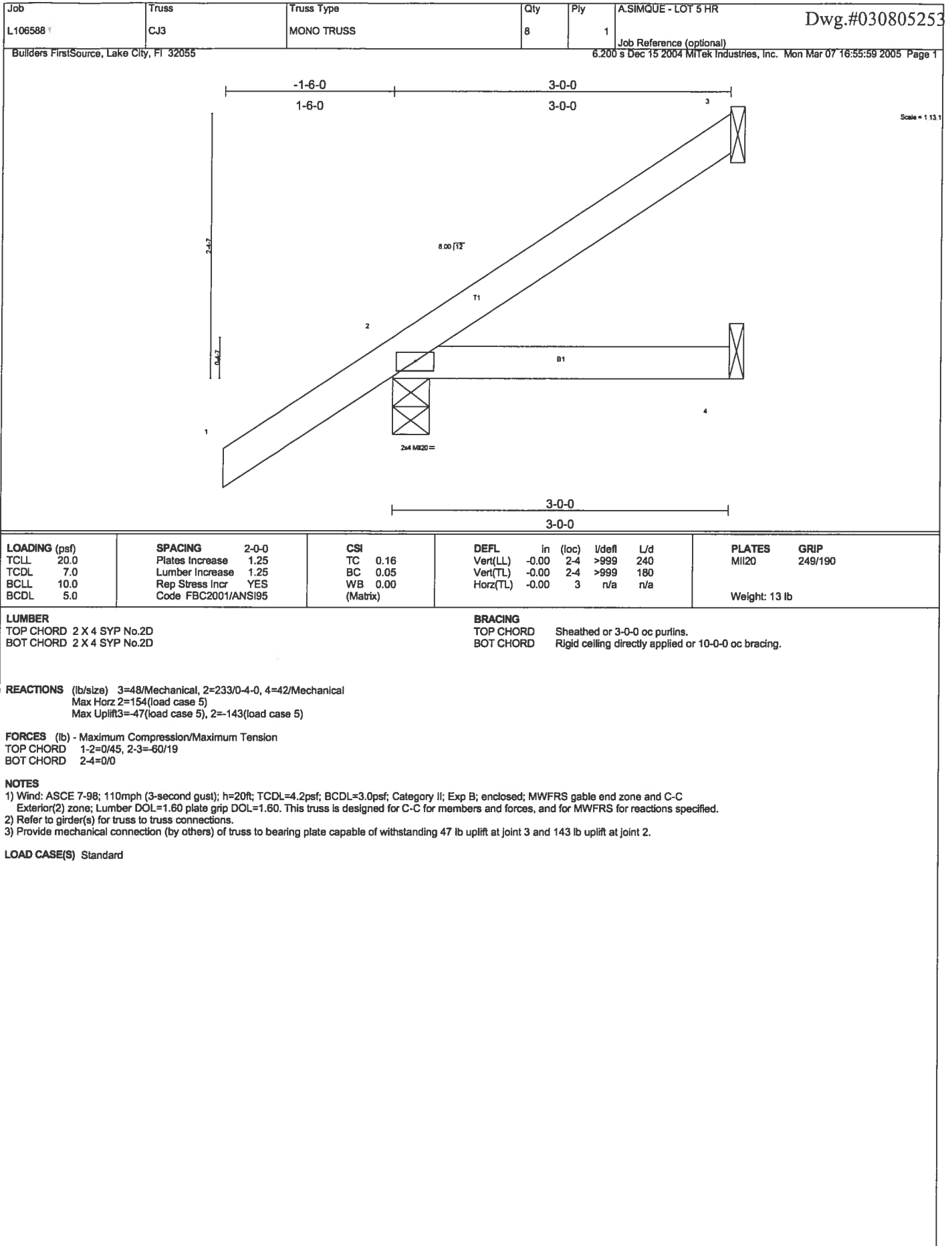
License Type: **Registered Building Contractor**
Rank: **Reg Building**
License Number: **RB29003130**
Status: **Current, Active**
Licensure Date: **10/23/2002**
Expires: **08/31/2005**

Special Qualifications	Effective Date
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Bldg Code Core Course Credit	
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Qualified Business License Required	02/20/2004
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Weight: 19 lb

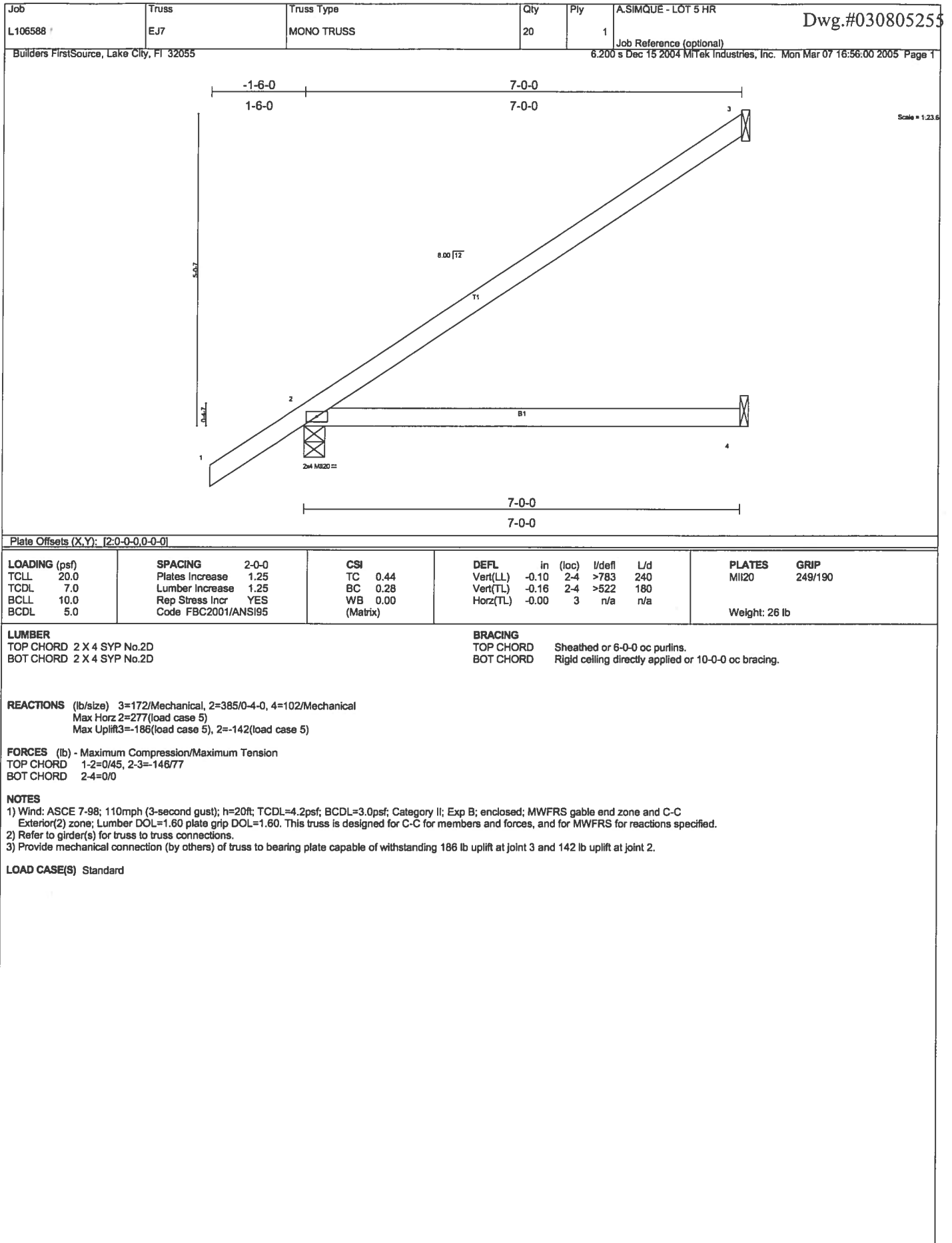
BRACING	
TOP CHORD	Sheathed or 5-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

Max Uplift3=-121(load case 5), 2=-138(load case 5)

TOP CHORD 1-2=0/45, 2-3=-100/50
BOT CHORD 2-4=0/0

1) Wind: ASCE 7-98; 110mph (3-second gust); h=20ft; TCDF=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.

MARCH 8, 2005 TRUSS DESIGN ENGINEER:
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987
STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196
16105 N. FLORIDA AVE. STE B, LUTZ, FL 33549



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1) Regular: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-2=54
Trapezoidal Loads (plf)
Vert: 2=3(F=25, B=25)-to-4=134(F=40, B=40), 2=0(F=15, B=15)-to-5=74(F=22, B=22)

**MARCH 8, 2005 TRUSS DESIGN ENGINEER:
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987
STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196
16105 N. FLORIDA AVE. STE B, LUTZ, FL 33549**



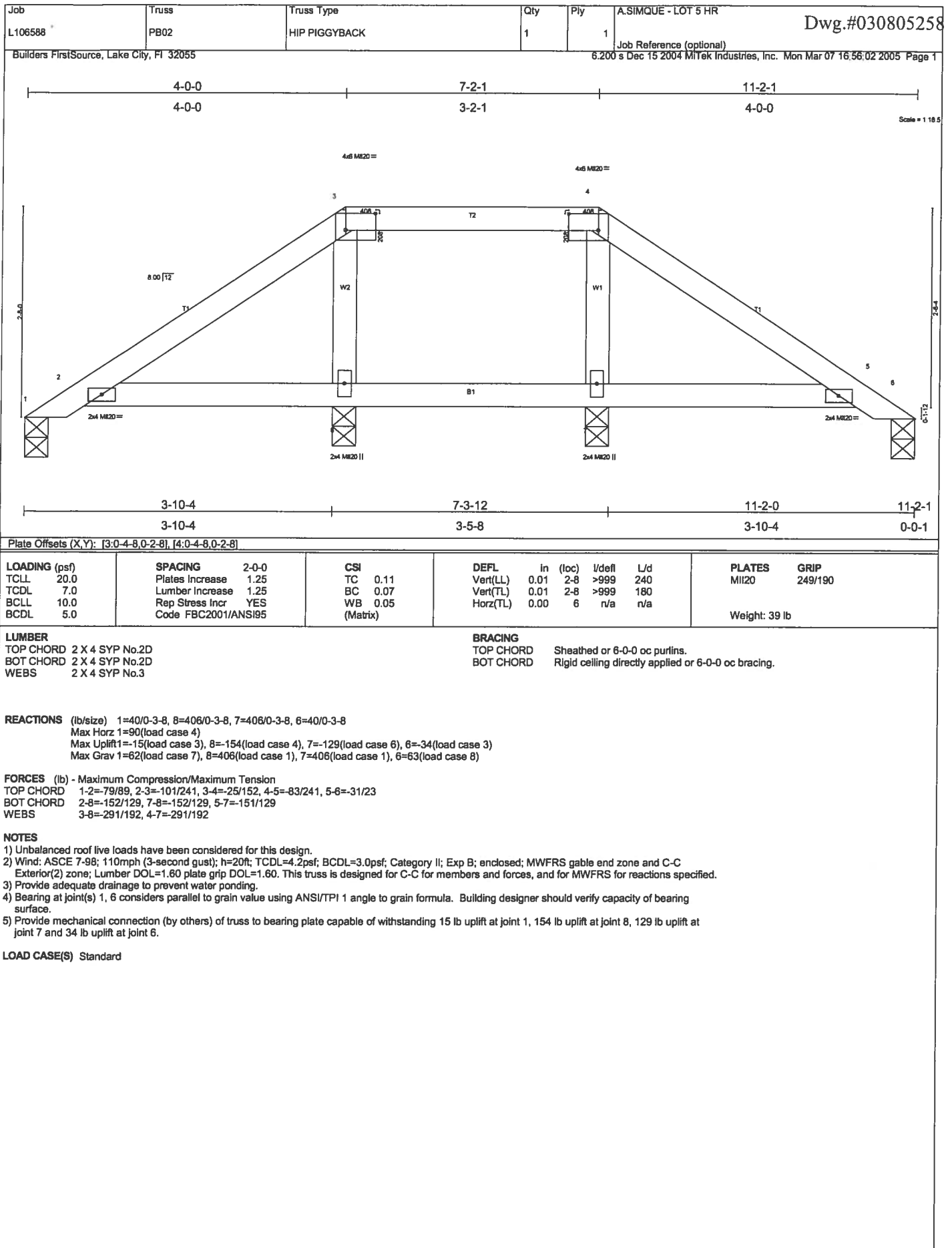
LUMBER	BRACING
TOP CHORD 2 X 4 SYP No.2D	TOP CHORD Sheathed or 6-0-0 oc purlins.
BOT CHORD 2 X 4 SYP No.2D	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2 X 4 SYP No.3	

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=82/47, 2-3=161/106, 3-4=131/108, 4-5=131/108, 5-6=131/108, 6-7=161/107, 7-8=84/48
 BOT CHORD 2-10=57/131, 9-10=57/131, 7-9=57/131
 WEBS 4-10=172/150, 5-9=181/157

NOTES

- 1) Unbraced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-98; 110mph (3-second gust); $h=20ft$; $TCDL=4.2psf$; $BCDL=3.0psf$; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber $DOL=1.60$ plate grip $DOL=1.60$. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 3) Provide adequate drainage to prevent water ponding.
- 4) Bearing at joint(s) 1, 8 considers parallel to grain value using ANSI/TP1 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 51 lb uplift at joint 1, 142 lb uplift at joint 10, 142 lb uplift at joint 9 and 55 lb uplift at joint 8.

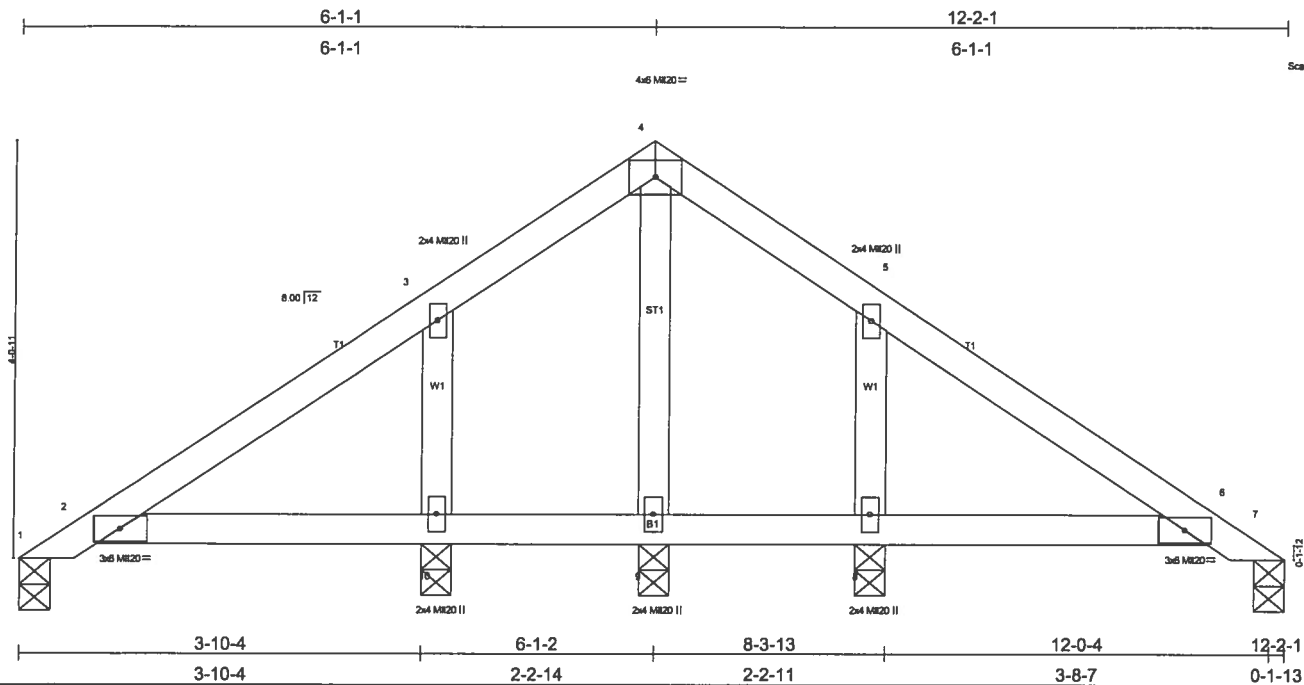
LOAD CASE(S) Standard



Job L106588	Truss PB04	Truss Type PIGGYBACK	Qty 8	Ply 1	A.SIMQUE - LOT 5 HR	Dwg.#030805259
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LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.11	in (loc) l/def L/d	MI20	249/190
TCDL 7.0	Plates Increase 1.25	BC 0.08	Vert(LL) 0.01 2-10 >999 240		
BCLL 10.0	Lumber Increase 1.25	WB 0.06	Vert(TL) -0.01 2-10 >999 180		
BCDL 5.0	Rep Stress Incr YES	(Matrix)	Horz(TL) 0.00 7 n/a n/a		
	Code FBC2001/ANSI95			Weight: 48 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2D
BOT CHORD 2 X 4 SYP No.2D
WEBS 2 X 4 SYP No.3
OTHERS 2 X 4 SYP No.3

BRACING
TOP CHORD Sheathed or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

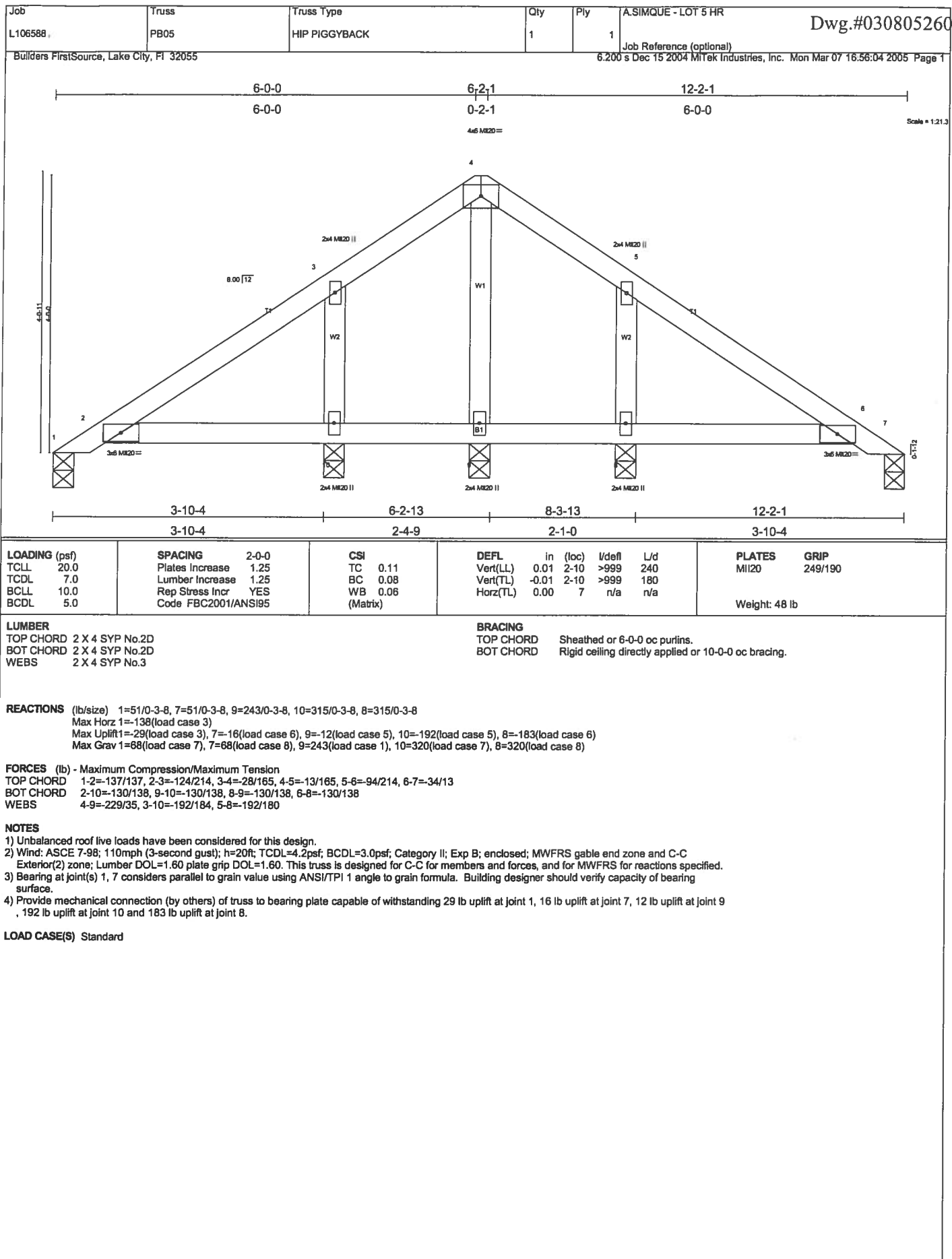
REACTIONS (lb/size) 1=51/0-3-8, 9=243/0-3-8, 10=315/0-3-8, 8=315/0-3-8, 7=51/0-3-8
Max Horz 1=138(load case 4)
Max Uplift 1=29(load case 3), 9=-12(load case 5), 10=-192(load case 5), 8=-183(load case 6), 7=-16(load case 6)
Max Grav 1=68(load case 7), 9=243(load case 1), 10=320(load case 7), 8=320(load case 8), 7=68(load case 8)

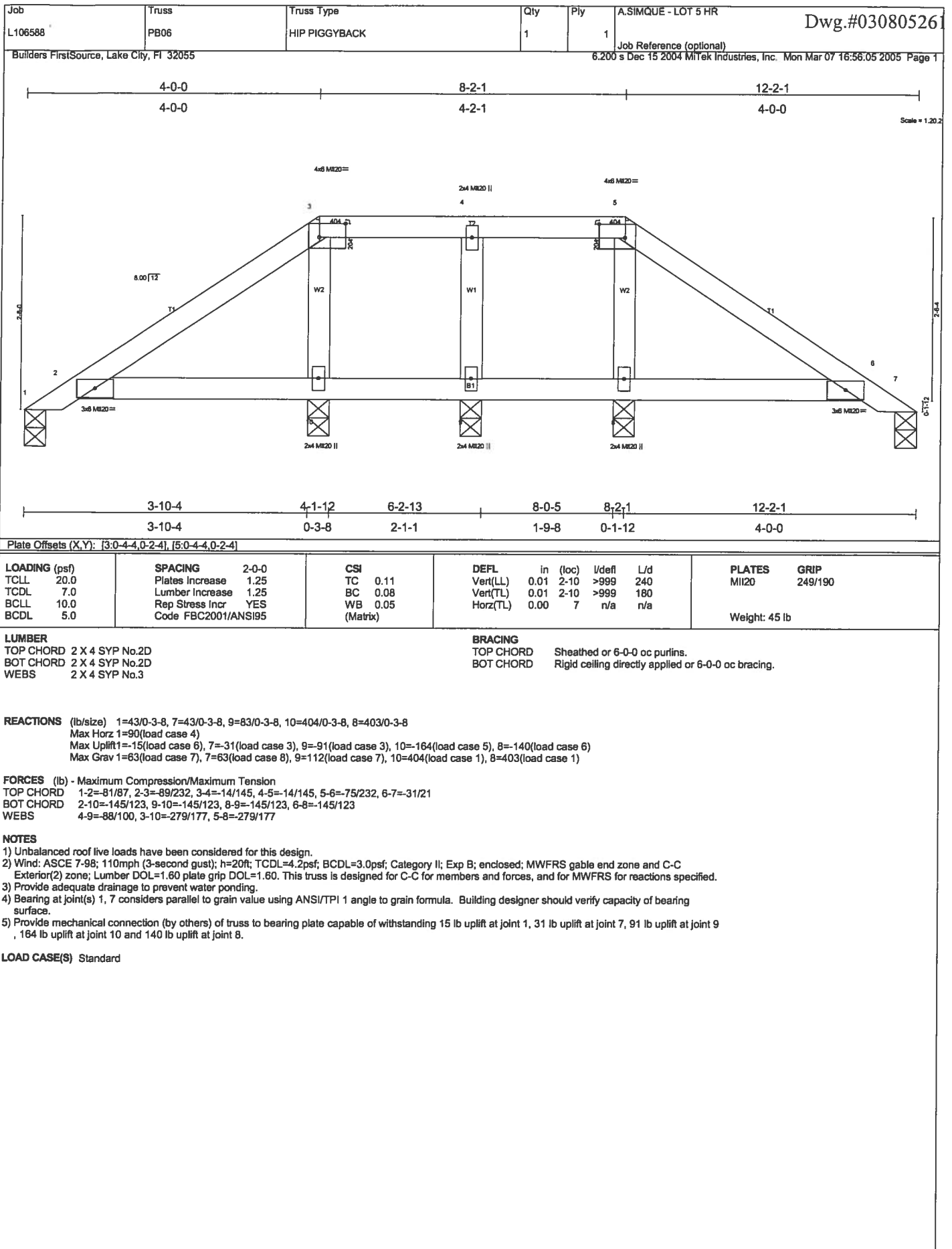
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-137/137, 2-3=-124/214, 3-4=-28/165, 4-5=-13/165, 5-6=-94/214, 6-7=-34/13
BOT CHORD 2-10=-130/138, 9-10=-130/138, 8-9=-130/138, 6-8=-130/138
WEBS 4-9=-229/35, 3-10=-192/184, 5-8=-192/180

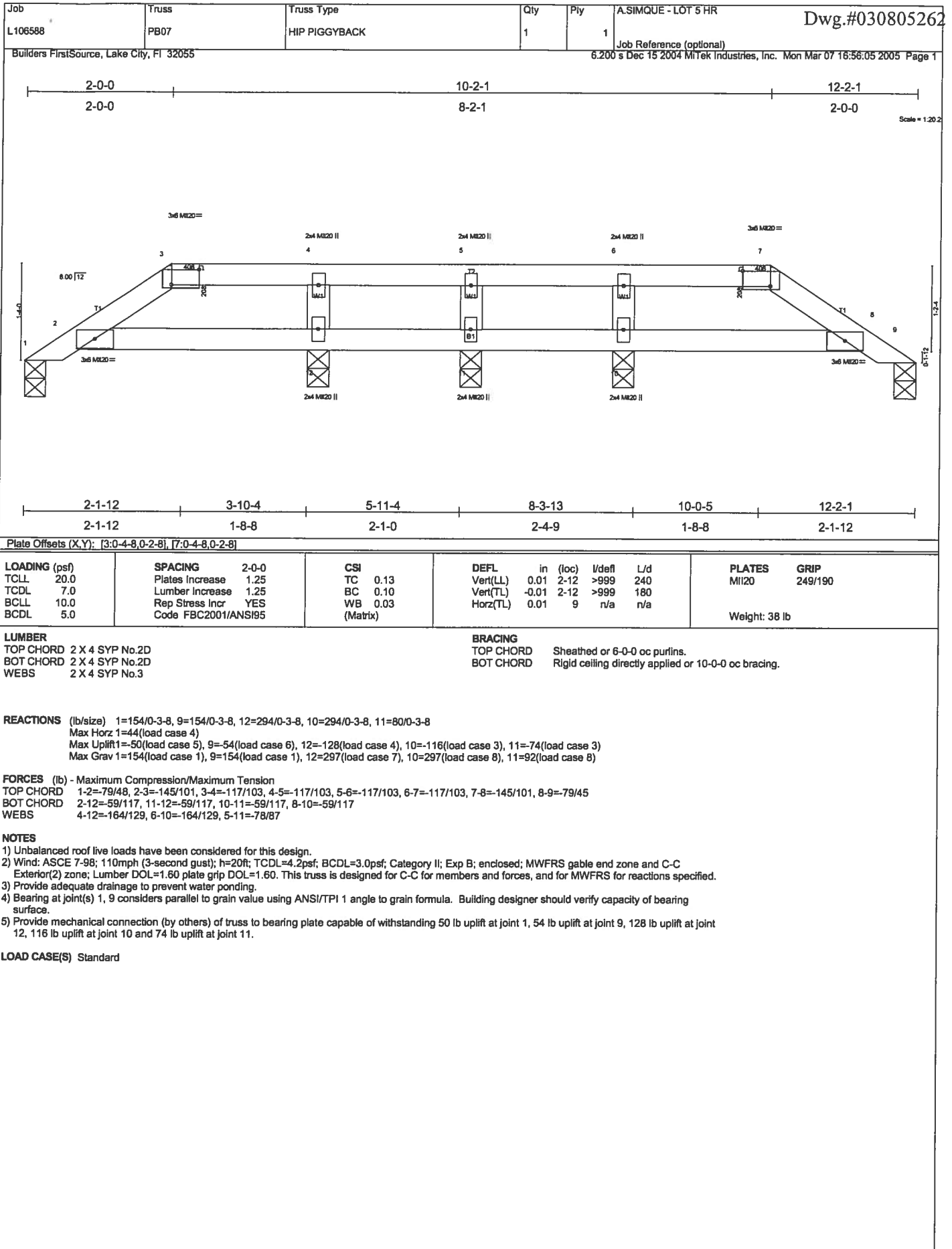
NOTES

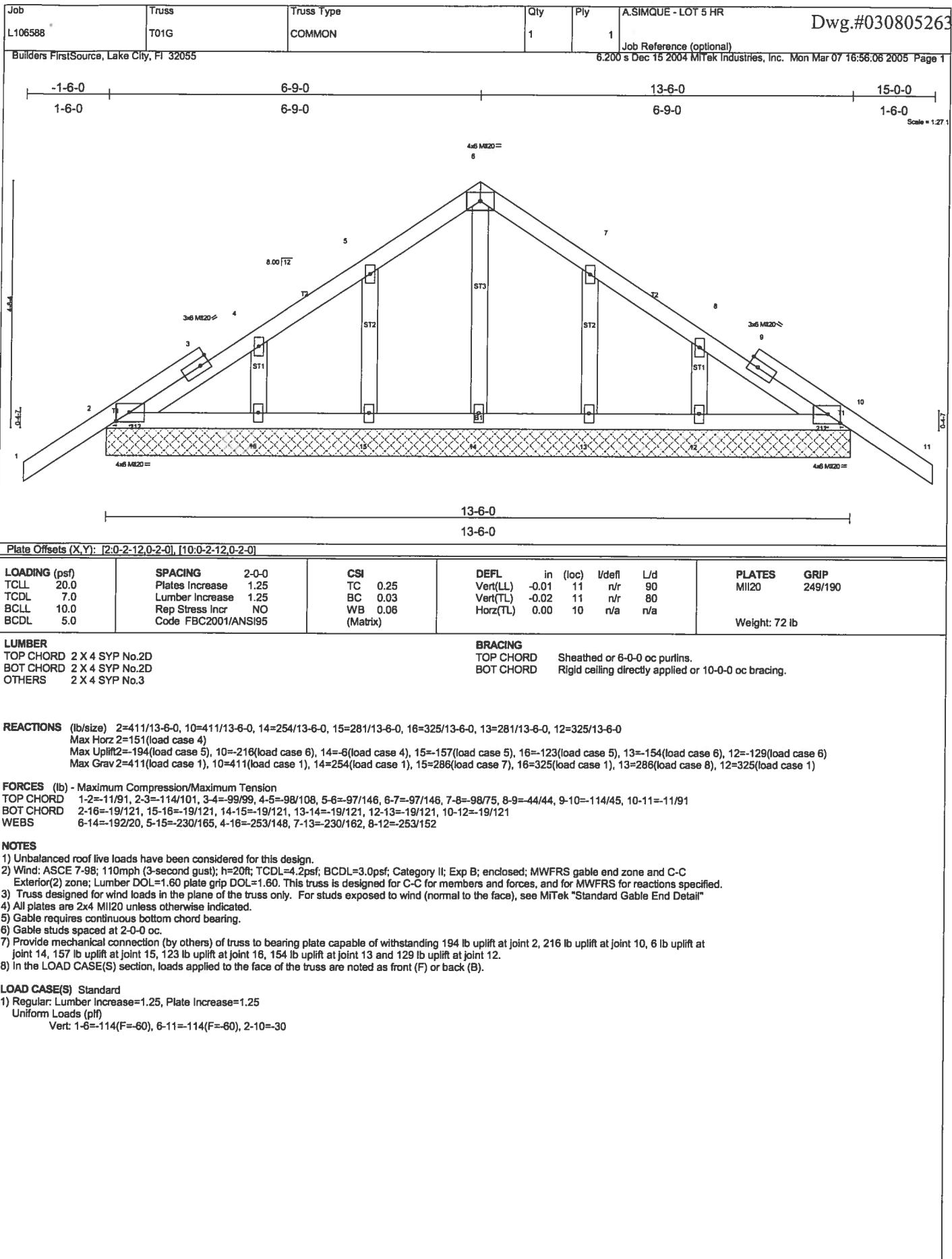
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-98; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- Bearing at joint(s) 1, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 1, 12 lb uplift at joint 9, 192 lb uplift at joint 10, 183 lb uplift at joint 8 and 16 lb uplift at joint 7.

LOAD CASE(S) Standard



MARCH 8, 2005 TRUSS DESIGN ENGINEER:
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987
STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196
16105 N. FLORIDA AVE. STE B, LUTZ, FL 33549





LOAD CASE(S) Standard

MARCH 8, 2005 TRUSS DESIGN ENGINEER:
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987
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16105 N. FLORIDA AVE. STE B, LUTZ, FL 33549

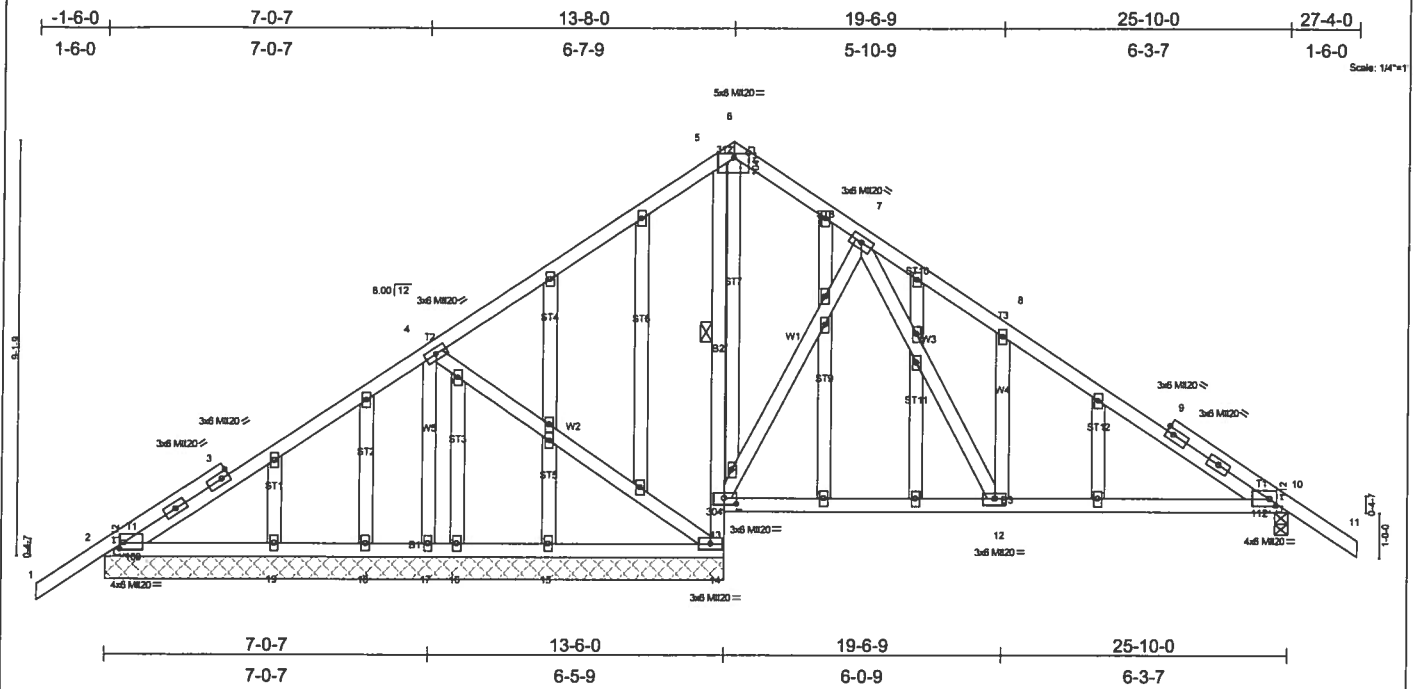


Plate Offsets (X,Y): [2-0-1-0-0-1-12], [6-0-3-12-0-1-4], [10-0-1-12-0-1-12], [13-0-3-4-0-1-8]

LOADING (psf)	SPACING	CSI	DEFL	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plates Increase 1.25	TC 0.68	Vert(LL) -0.08	10-12	>999	240	MI120	249/190
TCDL 7.0	Lumber Increase 1.25	BC 0.65	Vert(TL) -0.11	10-12	>999	180		
BCLL 10.0	Rep Stress Incr NO	WB 0.53	Horz(TL) 0.03	10	n/a	n/a		
BCDL 5.0	Code FBC2001/ANSI95	(Matrix)						
							Weight: 213 lb	

LUMBER	BRACING
TOP CHORD 2 X 4 SYP No.2D	TOP CHORD Sheathed or 6-0-0 oc purlins.
BOT CHORD 2 X 4 SYP No.2D *Except*	BOT CHORD Rigid ceiling directly applied or 3-11-2 oc bracing. Except:
B2 2 X 4 SYP No.3	1 Row at midpt 5-13
WEBS 2 X 4 SYP No.3	
OTHERS 2 X 4 SYP No.3	

REACTIONS (lb/size) 2=355/13-6-0, 10=914/0-3-8, 17=949/13-6-0, 14=1529/13-6-0, 15=154/13-6-0, 16=44/13-6-0, 18=54/13-6-0, 19=255/13-6-0
 Max Horz 2=307(load case 4)
 Max Uplift 2=142(load case 6), 10=471(load case 6), 17=573(load case 5), 14=413(load case 5), 15=43(load case 6), 16=44(load case 1), 18=54(load case 1), 19=71(load case 5)
 Max Grav 2=364(load case 7), 10=941(load case 8), 17=967(load case 7), 14=1529(load case 1), 15=154(load case 1), 16=63(load case 6), 18=59(load case 5), 19=255(load case 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-11/91, 2-3=-267/272, 3-4=-290/539, 4-5=-109/453, 5-6=-15/173, 6-7=-44/381, 7-8=-814/550, 8-9=-671/335, 9-10=-833/356, 10-11=-12/94
 BOT CHORD 2-19=-263/232, 18-19=-263/232, 17-18=-263/232, 16-17=-263/232, 15-16=-263/232, 14-15=-263/232, 13-14=-1537/442, 5-13=-862/285, 12-13=0/114, 10-12=-132/558
 WEBS 4-17=-862/536, 4-14=-22/69, 7-13=-673/338, 8-12=-640/430, 7-12=-447/965

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-98; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see MiTek "Standard Gable End Detail"
 - All plates are 2x4 MI120 unless otherwise indicated.
 - Gable studs spaced at 2-0-0 oc.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 142 lb uplift at joint 2, 471 lb uplift at joint 10, 573 lb uplift at joint 17, 413 lb uplift at joint 14, 43 lb uplift at joint 15, 44 lb uplift at joint 16, 54 lb uplift at joint 18 and 71 lb uplift at joint 19.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
 1) Regular: Lumber Increase=1.25, Plate Increase=1.25
 Uniform Loads (plf)
 Vert: 1-6=-114(F=-60), 6-11=-114(F=-60), 2-14=-30, 10-13=-30

Job L106588	Truss T03	Truss Type SPECIAL	Qty 1	Ply 3	A.SIMQUE - LOT 5 HR	Dwg.#030805266
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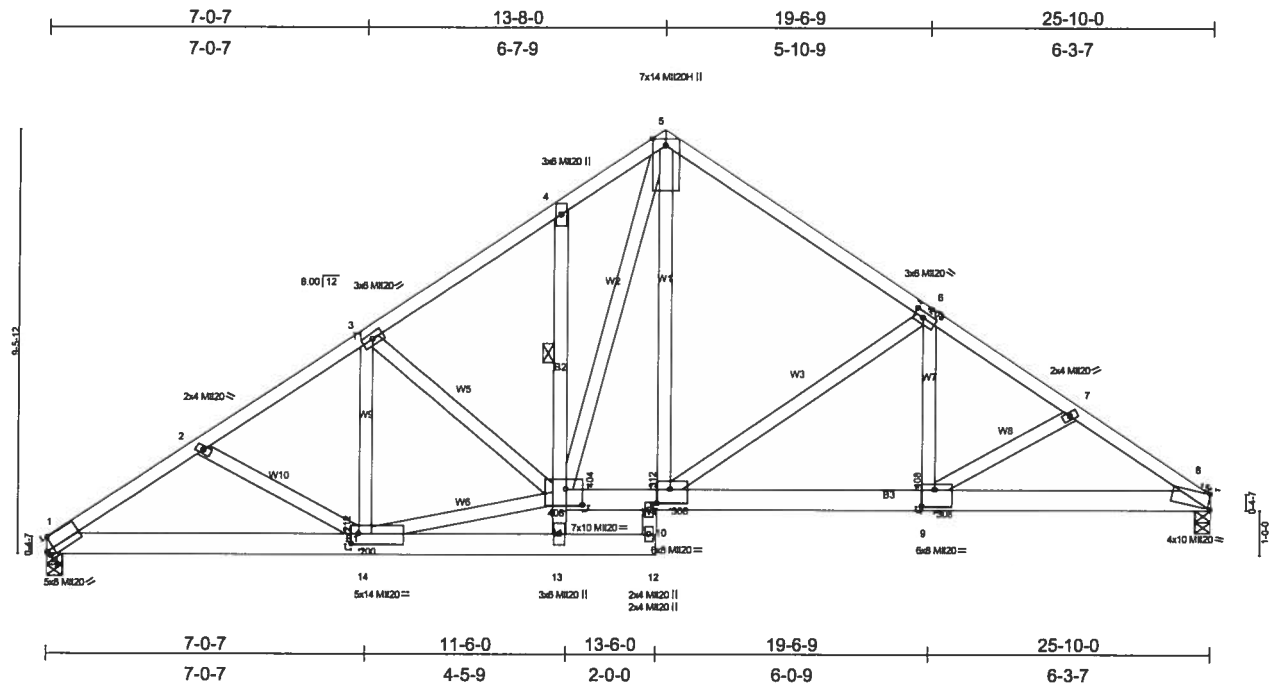


Plate Offsets (X,Y): [1:Edge,0-3-4], [6:0-2-8,0-1-8], [8:0-0-15,Edge], [9:0-3-8,0-4-8], [10:0-3-8,0-3-12], [11:0-4-8,0-4-4], [14:0-2-0,0-2-12]

LOADING (psf)	SPACING	2-0-0	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plates Increase	1.25	TC 0.54	Vert(LL)	-0.18	9-10	>999	240	MI20	249/190
TCDL 7.0	Lumber Increase	1.25	BC 0.82	Vert(TL)	-0.26	9-10	>999	180	MI20H	187/143
BCLL 10.0	Rep Stress Incr	NO	WB 0.73	Horz(TL)	0.08	8	n/a	n/a		
BCDL 5.0	Code FBC2001/ANSI95		(Matrix)							Weight: 581 lb

LUMBER

TOP CHORD 2 X 4 SYP No.2D
BOT CHORD 2 X 6 SYP No.1D *Except*
B2 2 X 4 SYP No.2D
WEBS 2 X 4 SYP No.3

BRACING

TOP CHORD Sheathed or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
1 Row at midpt 4-11
JOINTS 1 Brace at Jt(s): 11

REACTIONS

(lb/size) 1=6390/0-4-0, 8=9522/0-4-0
Max Horz 1=1499(load case 3)
Max Uplift 1=2203(load case 4), 8=3768(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension

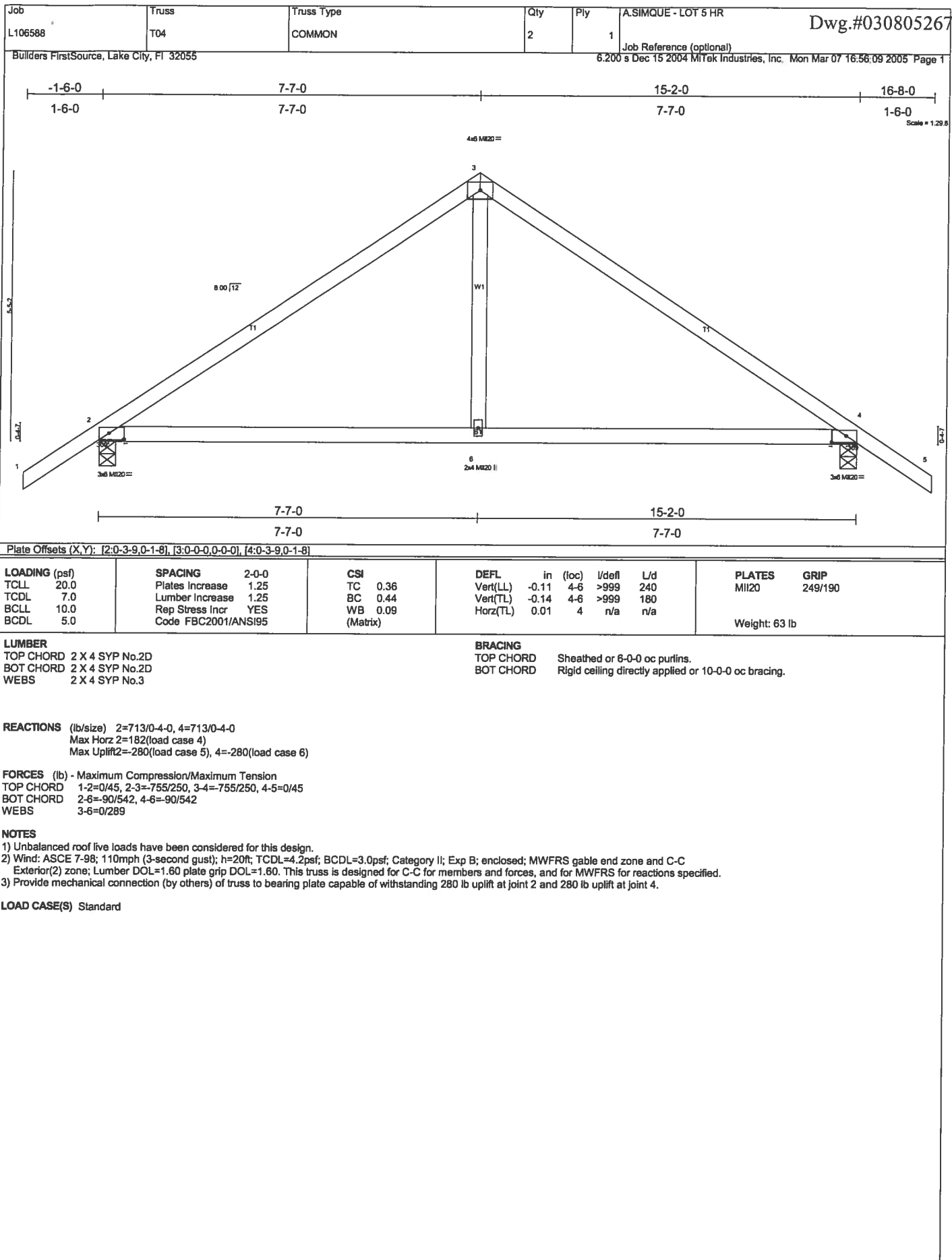
TOP CHORD 1-2=-9538/3240, 2-3=-9392/3197, 3-4=-9016/3269, 4-5=-8882/3974, 5-6=-8092/3441, 6-7=-12997/5199, 7-8=-13134/5231
BOT CHORD 1-14=-4022/7869, 13-14=-484/1134, 12-13=0/0, 11-13=-487/1393, 4-11=-65/527, 10-11=-2695/6693, 9-10=-4231/10767, 8-9=-4288/10873
WEBS 3-14=0/304, 11-14=-3529/6811, 3-11=-462/135, 6-10=-5001/2052, 6-9=-2018/5411, 5-10=-2726/6438, 5-11=-1445/2715, 7-9=-128/116, 2-14=-122/139

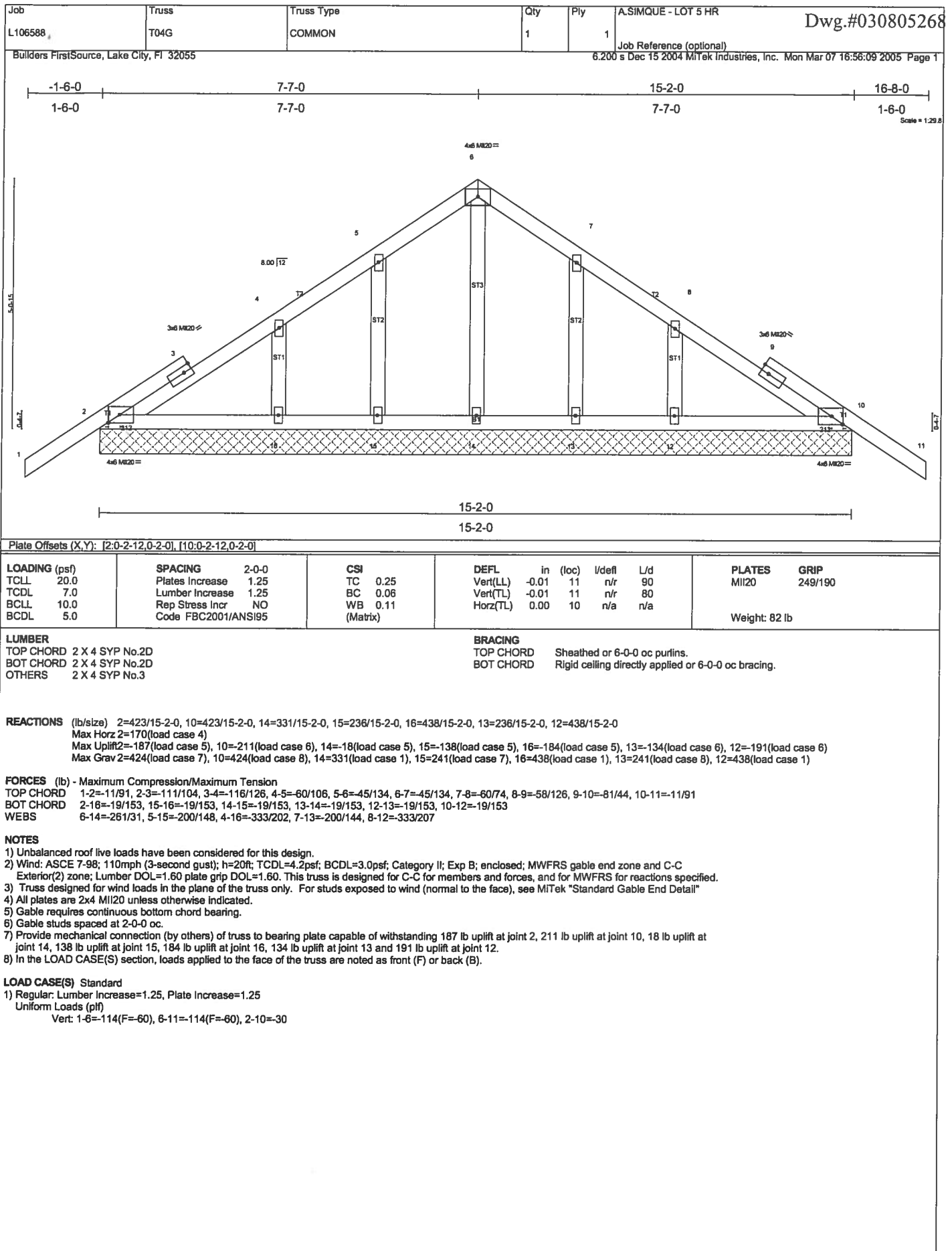
NOTES

- 3-ply truss to be connected together with 0.131"x3" Nails as follows:
Top chords connected as follows: 2 X 4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2 X 6 - 2 rows at 0-7-0 oc, 2 X 4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2 X 4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-98; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone; Lumber DOL=1.60 plate grip DOL=1.60.
- All plates are MT20 plates unless otherwise indicated.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2203 lb uplift at joint 1 and 3768 lb uplift at joint 8.
- Girder carries tie-in span(s): 25-4-0 from 0-0-0 to 13-6-0; 39-4-0 from 13-6-0 to 25-10-0; 15-8-0 from 0-0-0 to 13-6-0

LOAD CASE(S) Standard

- Regular: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-5=-54, 5-8=-54, 1-13=-310(F=-280), 12-13=-310(F=-280), 10-11=-310(F=-280), 8-10=-807(F=-777)





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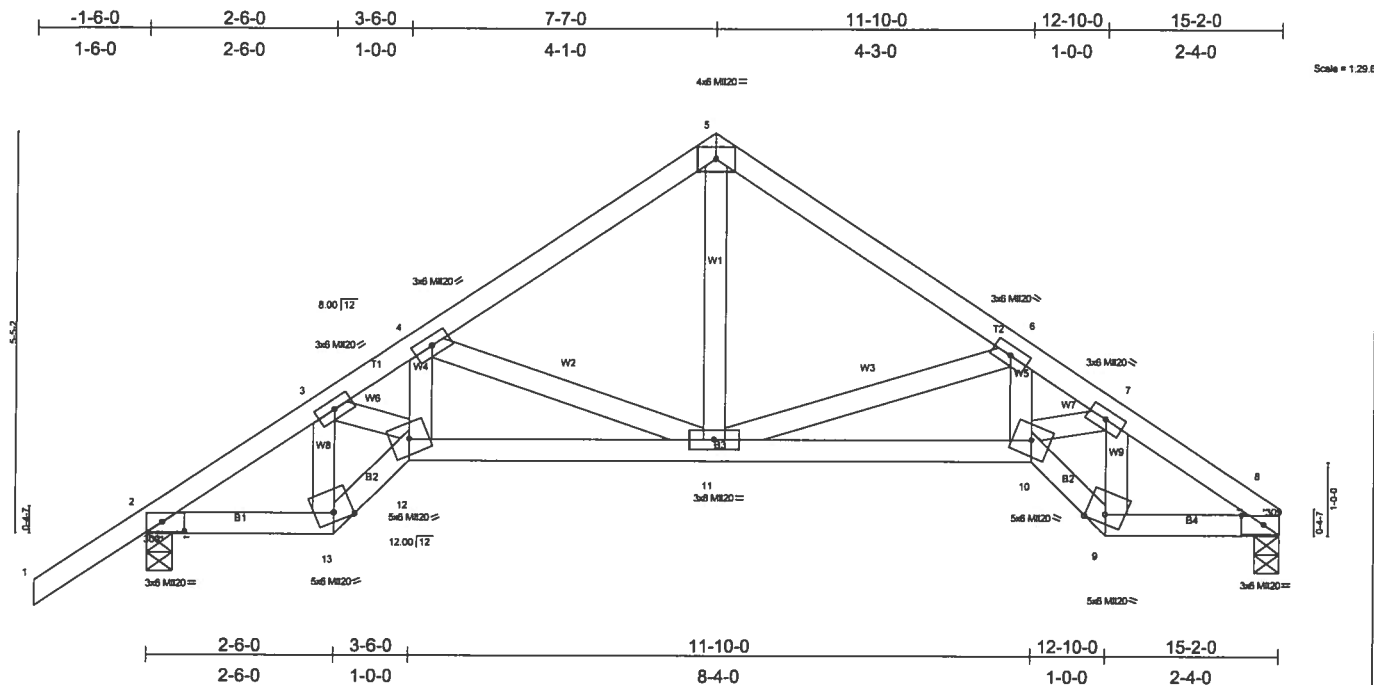


Plate Offsets (X,Y): [2-0-3-9,0-1-8], [8-0-3-9,0-1-8]					
LOADING (psf)	SPACING	CSI	DEFL	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.14	in (loc) l/defl L/d	M1120	249/190
TCDL 7.0	Plates Increase 1.25	BC 0.32	Vert(LL) -0.05 10-11 >999 240		
BCLL 10.0	Lumber Increase 1.25	WB 0.21	Vert(TL) -0.07 10-11 >999 180		
BCDL 5.0	Rep Stress Incr YES	(Matrix)	Horz(TL) 0.05 8 n/a n/a		
	Code FBC2001/ANSI95				
				Weight: 83 lb	

LUMBER
 TOP CHORD 2 X 4 SYP No.2D
 BOT CHORD 2 X 4 SYP No.2D
 WEBS 2 X 4 SYP No.3

BRACING
 TOP CHORD Sheathed or 5-4-8 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 8=618/0-4-0, 2=718/0-4-0
 Max Horz 2=199(load case 4)
 Max Uplift 8=-179(load case 6), 2=-282(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/45, 2-3=-895/260, 3-4=-1373/424, 4-5=-763/286, 5-6=-767/284, 6-7=-1481/501, 7-8=-940/326
 BOT CHORD 2-13=-197/677, 12-13=-250/881, 11-12=-346/1102, 10-11=-335/1182, 9-10=-270/929, 8-9=-220/721
 WEBS 3-13=-561/199, 3-12=-195/582, 4-12=-66/405, 4-11=-541/266, 6-11=-619/282, 6-10=-98/466, 7-10=-154/616, 7-9=-569/172, 5-11=-145/538

NOTES
 1) Unbalanced roof live loads have been considered for this design.
 2) Wind: ASCE 7-98; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
 3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 179 lb uplift at joint 8 and 282 lb uplift at joint 2.

LOAD CASE(S) Standard

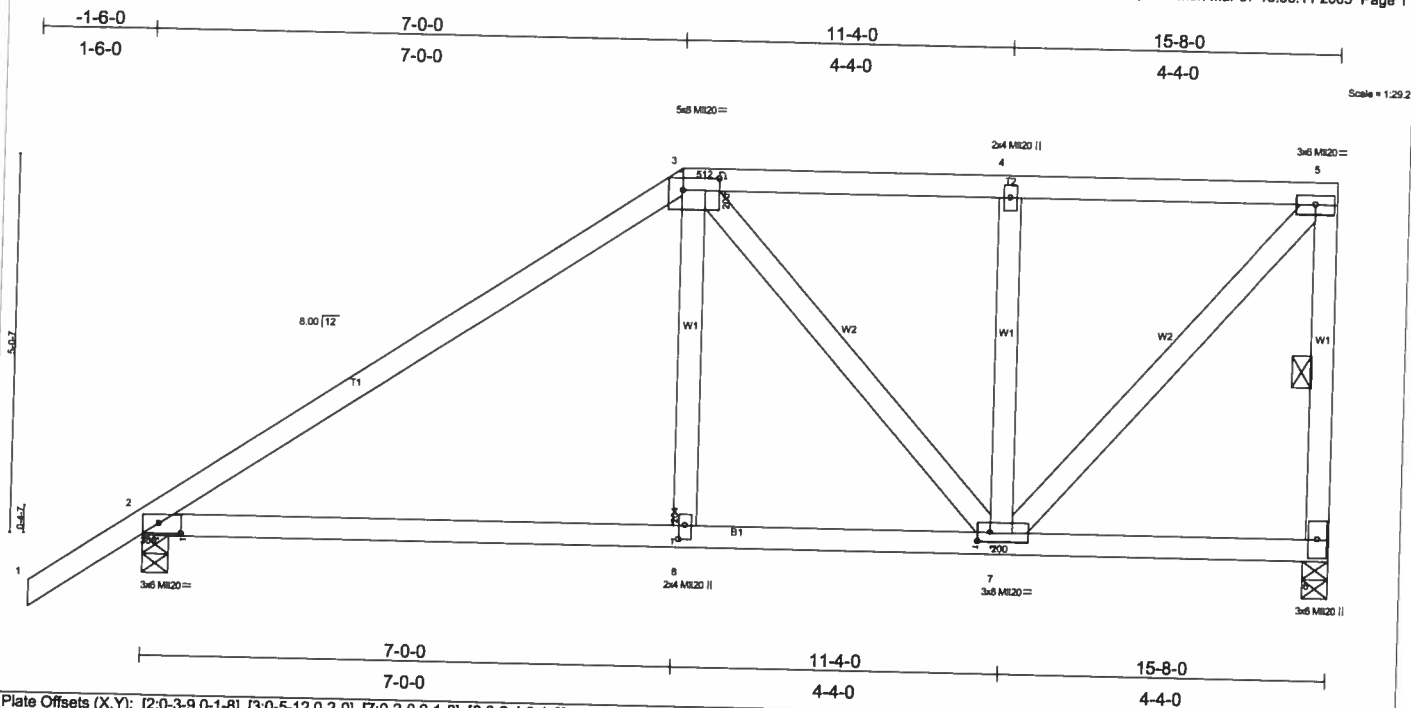


Plate Offsets (X, Y): [2:0-3-9,0-1-8], [3:0-5-12,0-2-0], [7:0-2-0,0-1-8], [8:0-2-4,0-1-0]

LOADING (psf)		SPACING		CSI		DEFL				PLATES		GRIP	
TCLL	20.0	Plates Increase	1.25	TC	0.46	in	(loc)	l/defl	L/d	MI20		249/190	
TCDL	7.0	Lumber Increase	1.25	BC	0.49	Vert(LL)	-0.09	2-8	>999				
BCDL	10.0	Rep Stress Incr	NO	WB	0.61	Vert(TL)	-0.13	2-8	>999				
BCDL	5.0	Code FBC2001/ANSI95		(Matrix)		Horz(TL)	0.02	6	n/a				
												Weight: 89 lb	

LUMBER
 TOP CHORD 2 X 4 SYP No.2D
 BOT CHORD 2 X 4 SYP No.2D
 WEBS 2 X 4 SYP No.3

BRACING
 TOP CHORD Sheathed or 4-7-11 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 7-1-12 oc bracing.
 WEBS 1 Row at midpt 5-6

REACTIONS (lb/size) 6=1486/0-4-0, 2=1263/0-4-0
 Max Horz 2=281(load case 4)
 Max Uplift 6=878(load case 3), 2=664(load case 4)

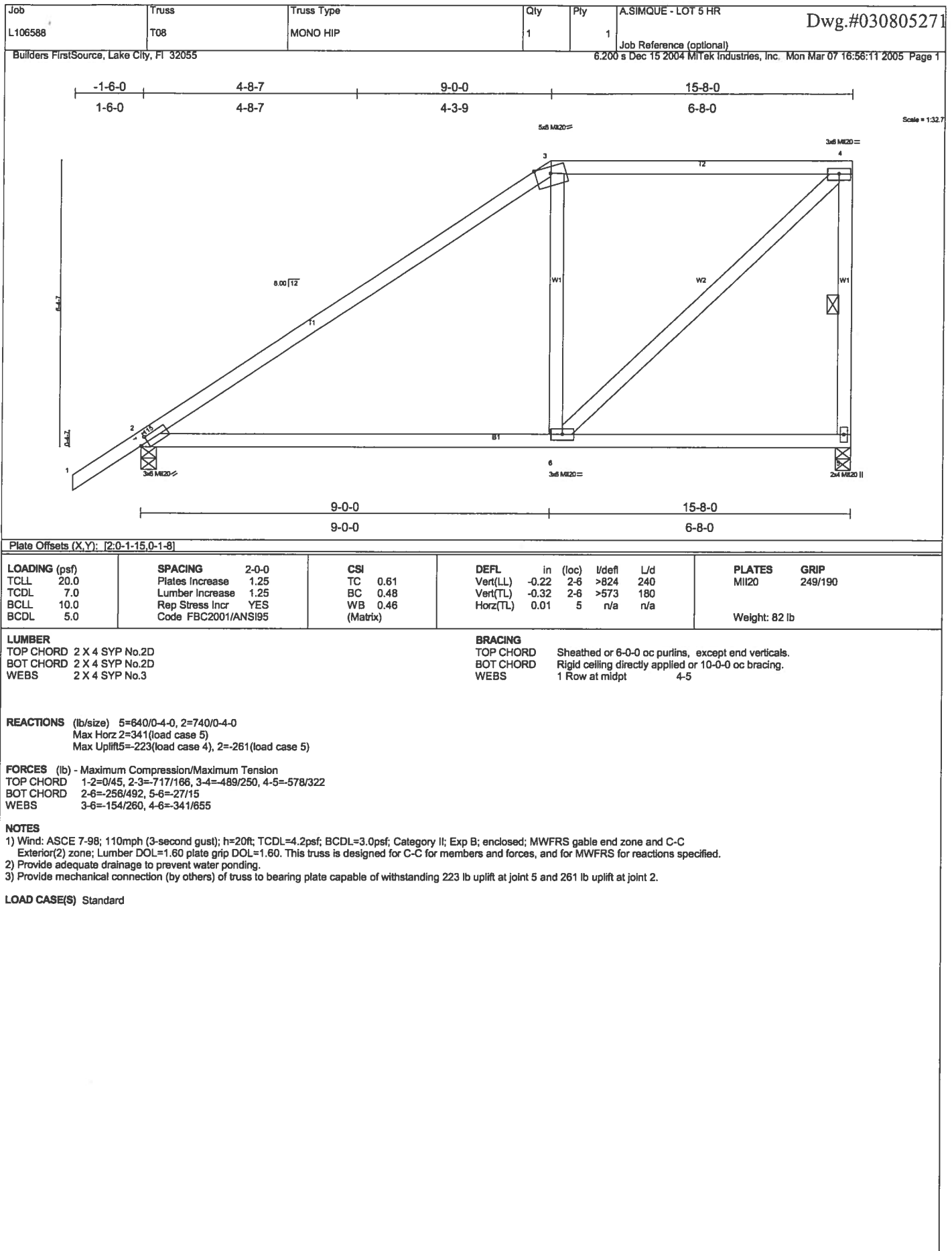
FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/45, 2-3=-1721/881, 3-4=-1026/612, 4-5=-1025/613, 5-6=-1347/889
 BOT CHORD 2-8=-799/1338, 7-8=-811/1363, 6-7=-23/41
 WEBS 3-8=-381/818, 3-7=-501/366, 4-7=-493/640, 5-7=-892/1488

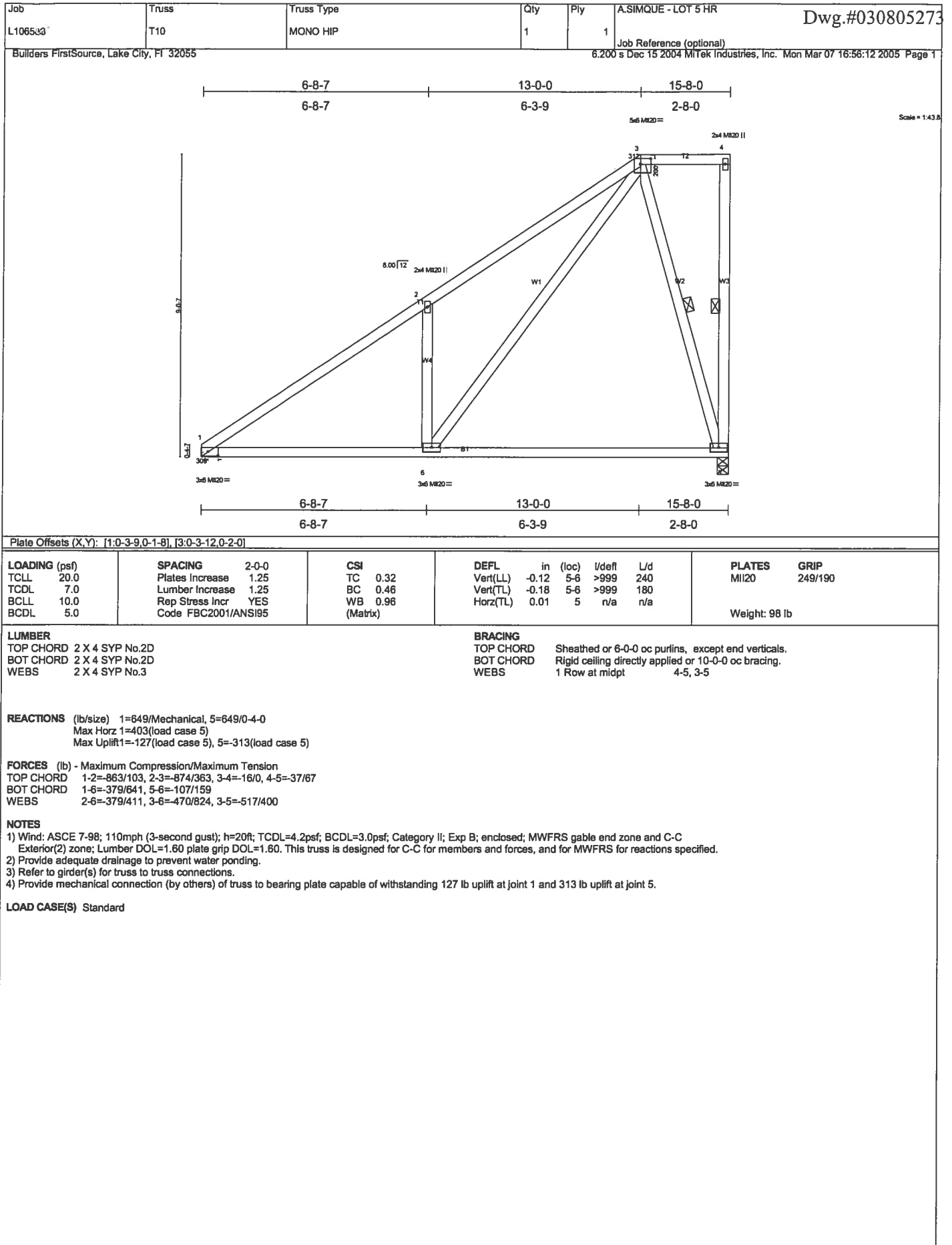
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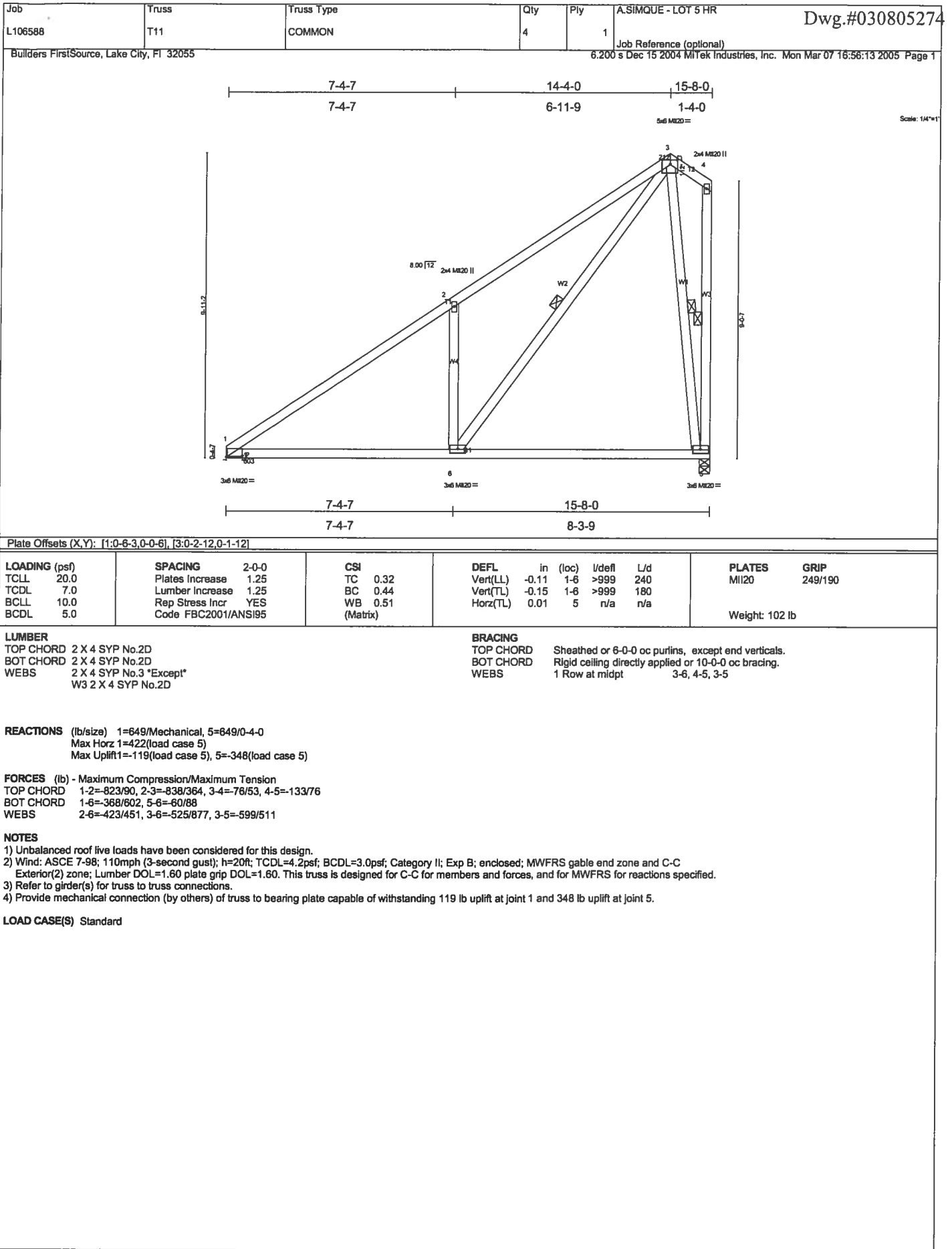
- 1) Wind: ASCE 7-98; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone; Lumber DOL=1.60 plate grip DOL=1.60.
- 2) Provide adequate drainage to prevent water ponding.
- 3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 878 lb uplift at joint 6 and 664 lb uplift at joint 2.
- 4) Girder carries hip end with 0-0-0 right side setback, 7-0-0 left side setback, and 7-0-0 end setback.
- 5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 539 lb down and 410 lb up at 7-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

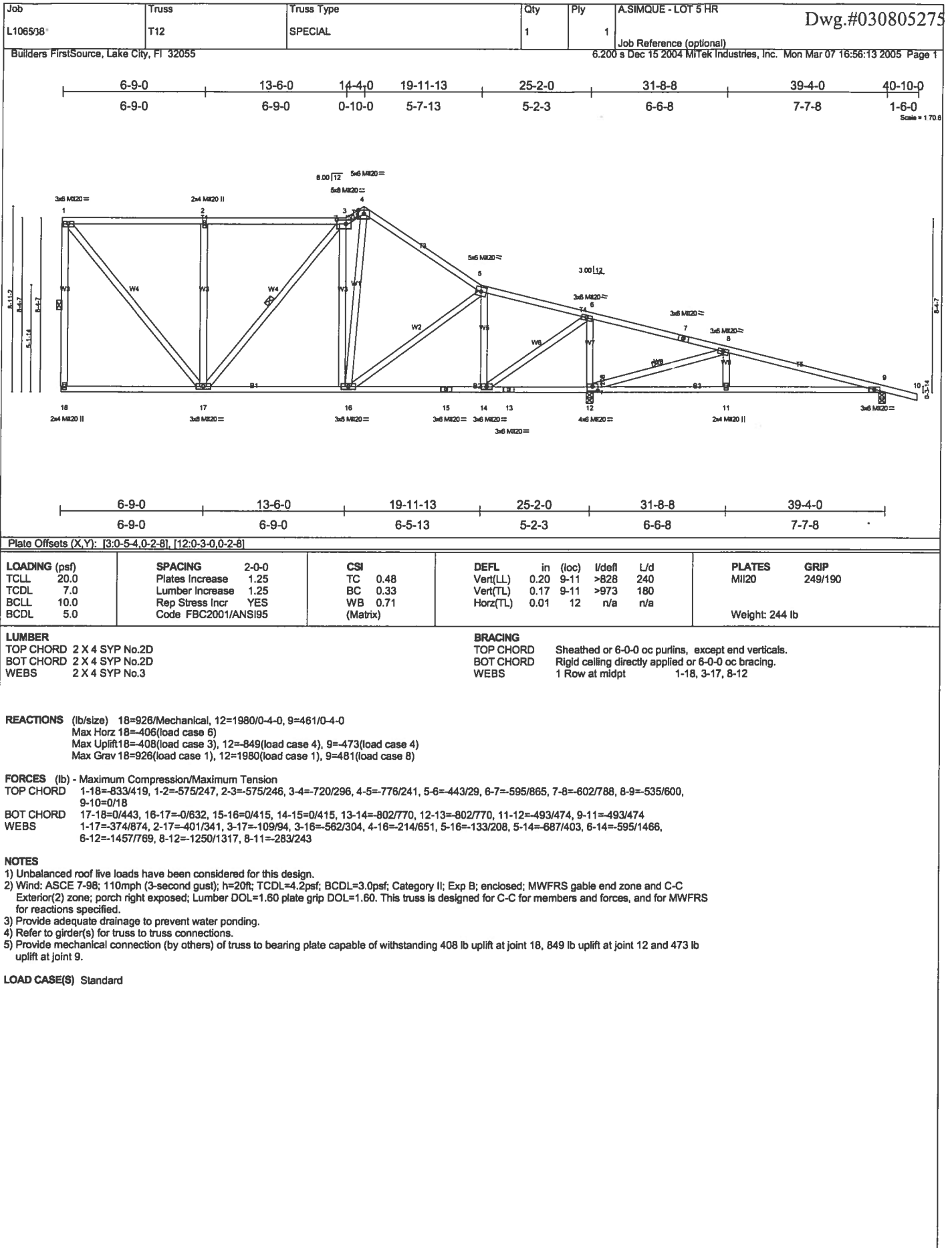
LOAD CASE(S) Standard

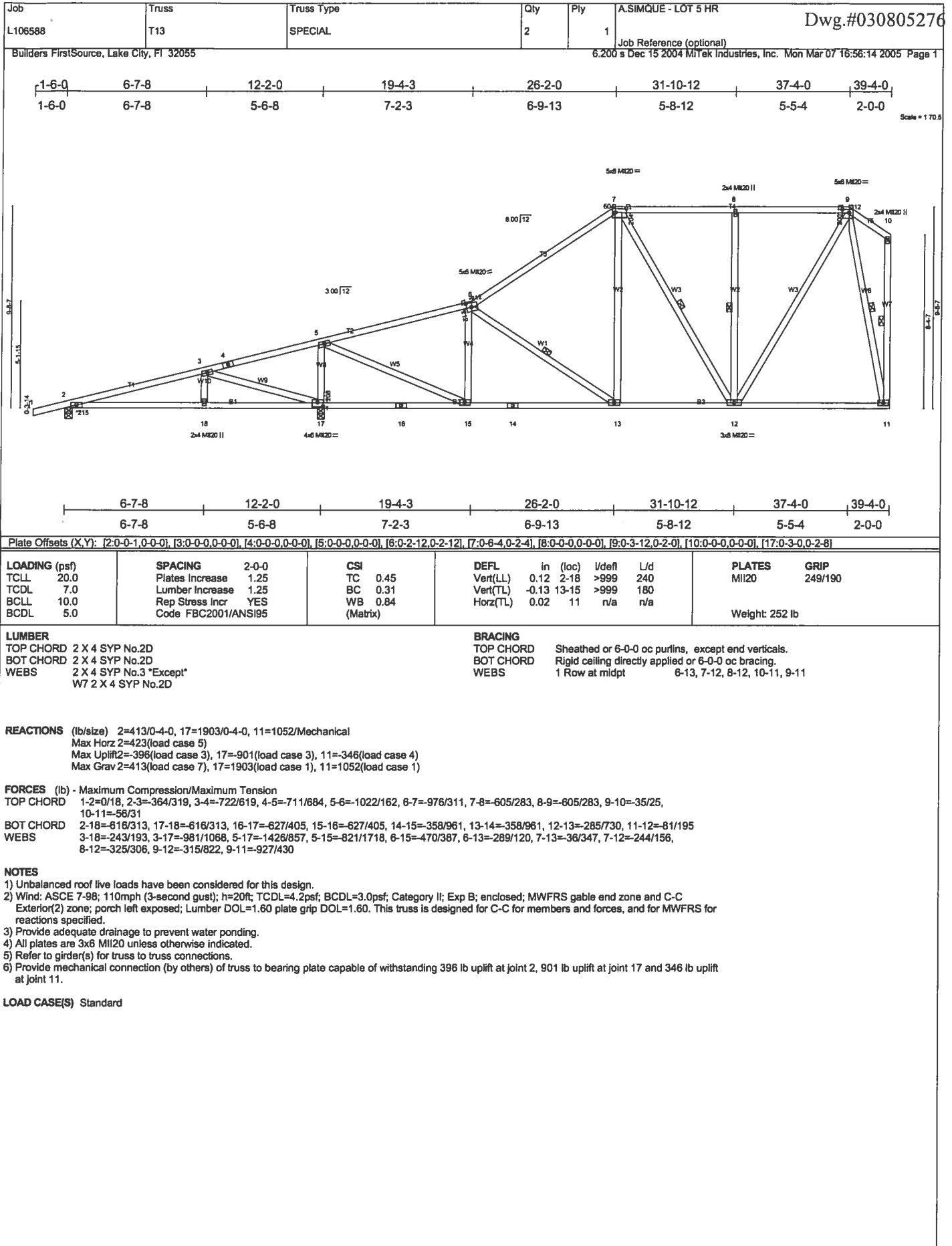
- 1) Regular: Lumber Increase=1.25, Plate Increase=1.25
 Uniform Loads (plf)
 Vert: 1-3=-54, 3-5=-117(F=-63), 2-8=-30, 6-8=-65(F=-35)
 Concentrated Loads (lb)
 Vert: 8=-539(F)

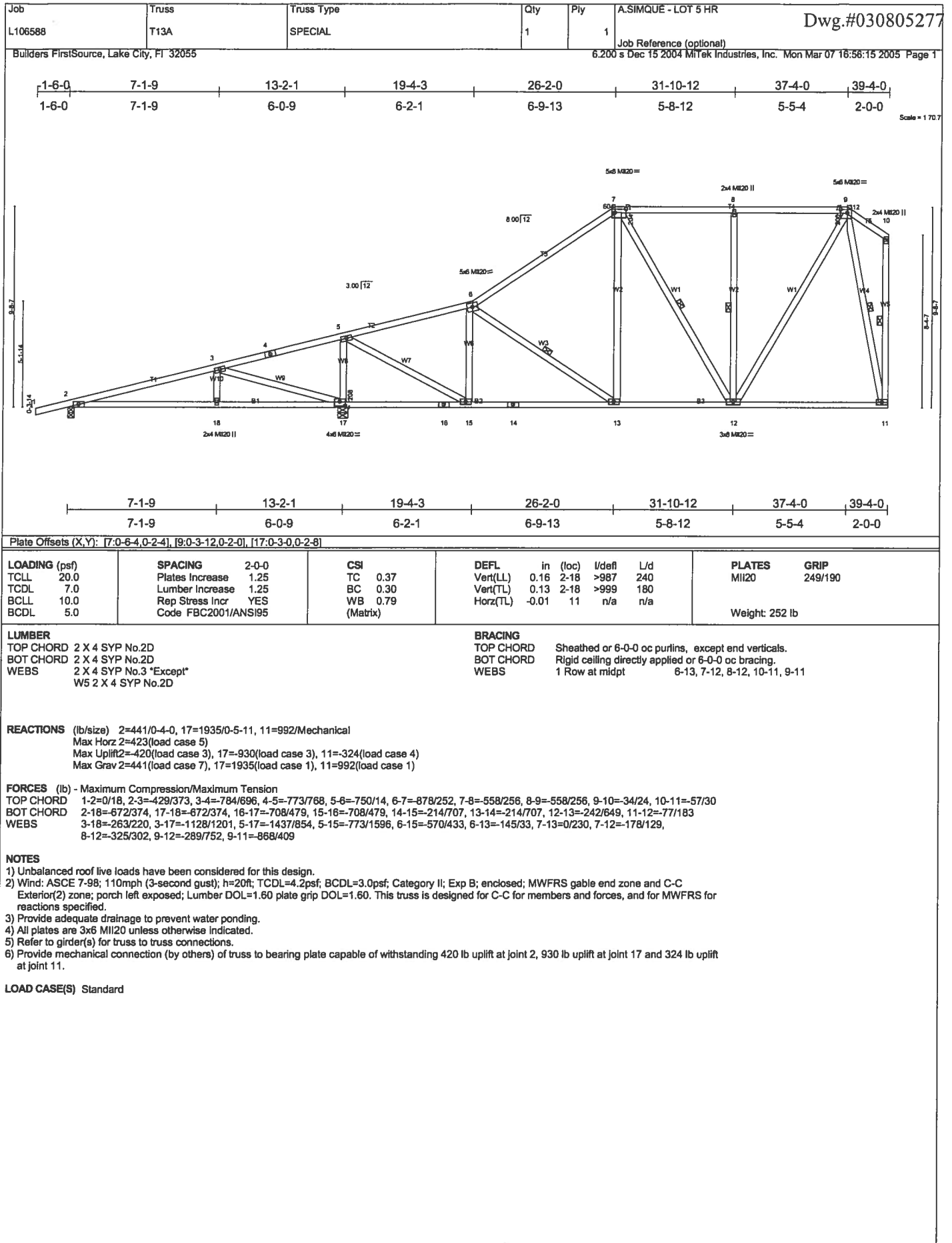


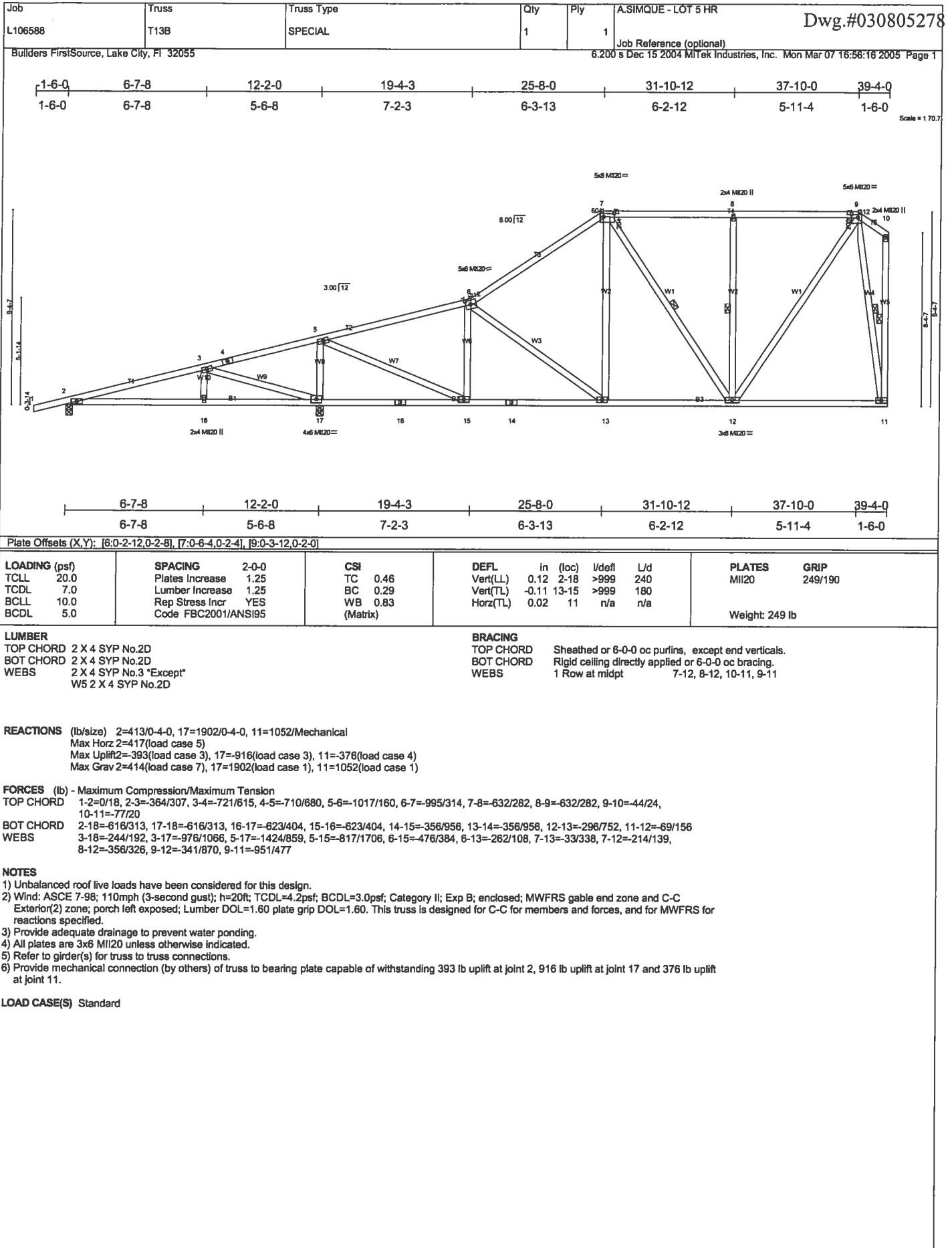


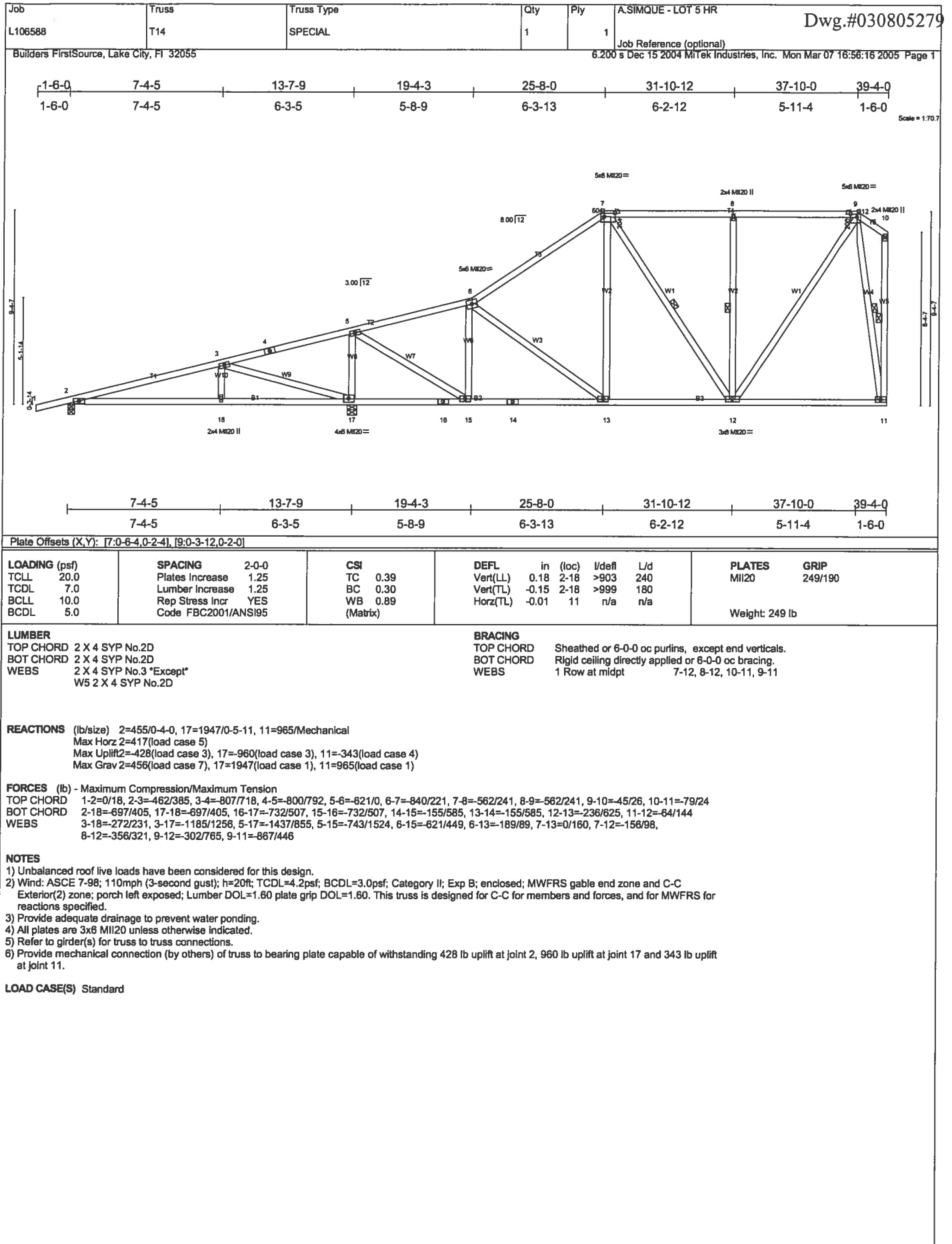


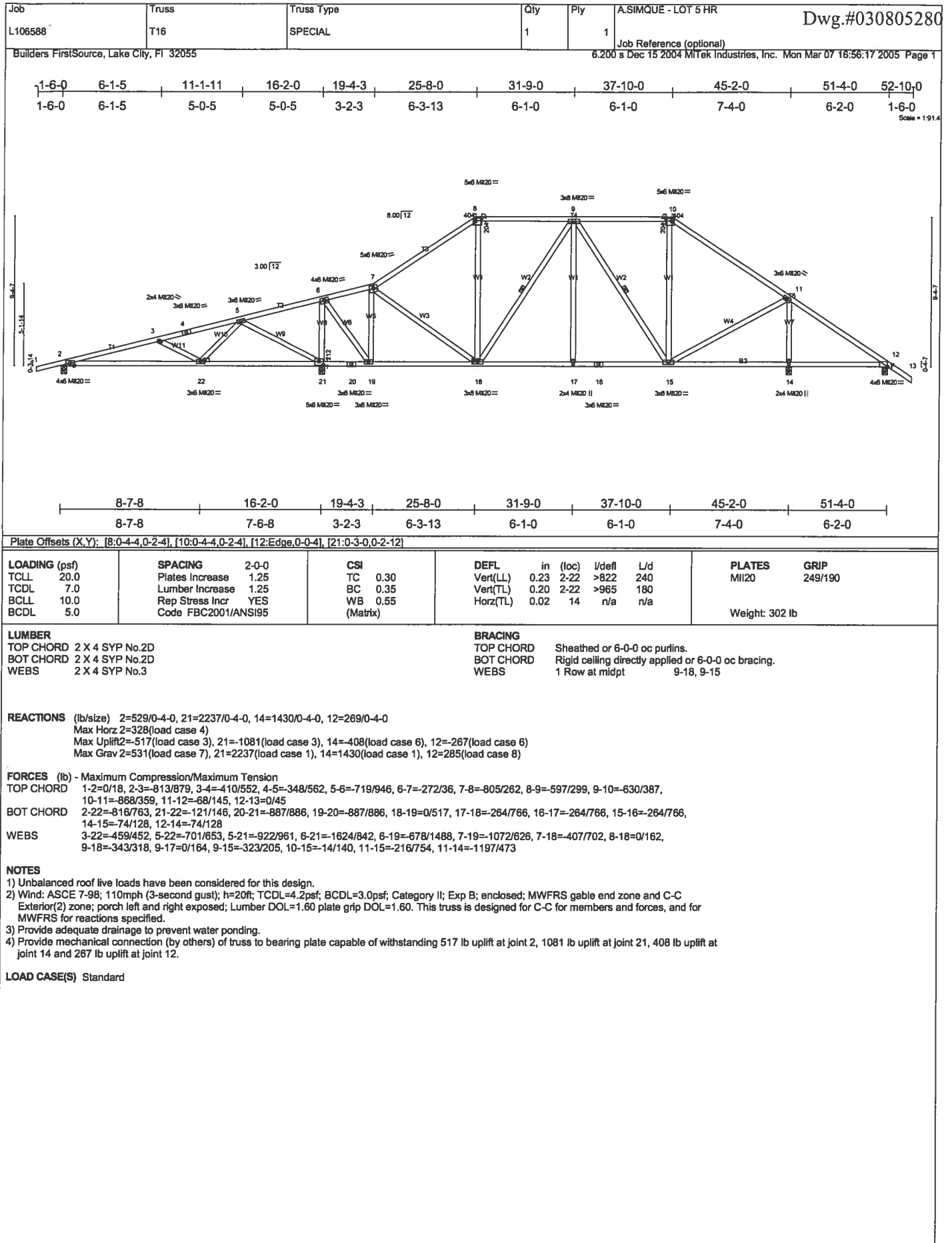


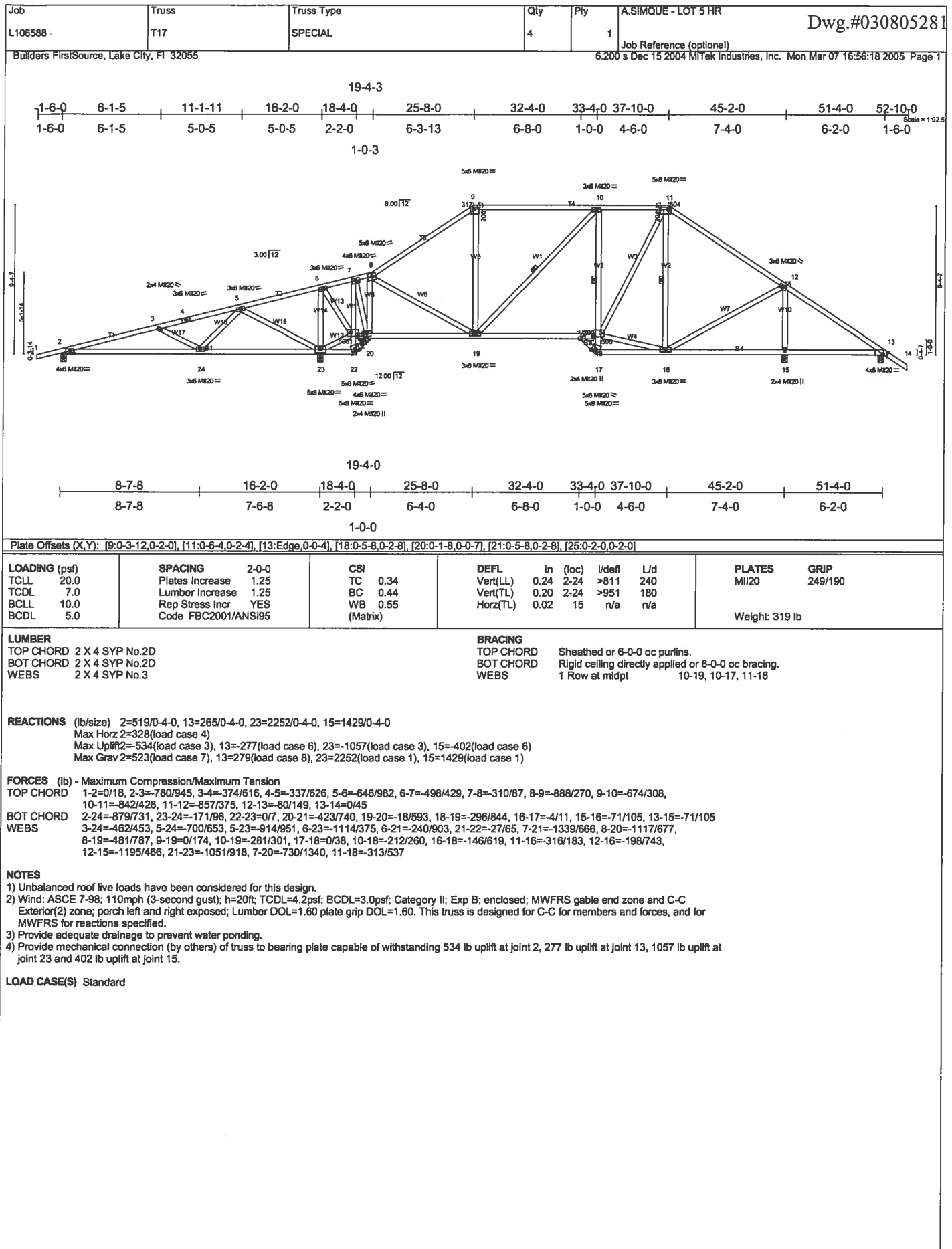
MARCH 8, 2005 TRUSS DESIGN ENGINEER:
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987
STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196
16105 N. FLORIDA AVE. STE B, LUTZ, FL 33549

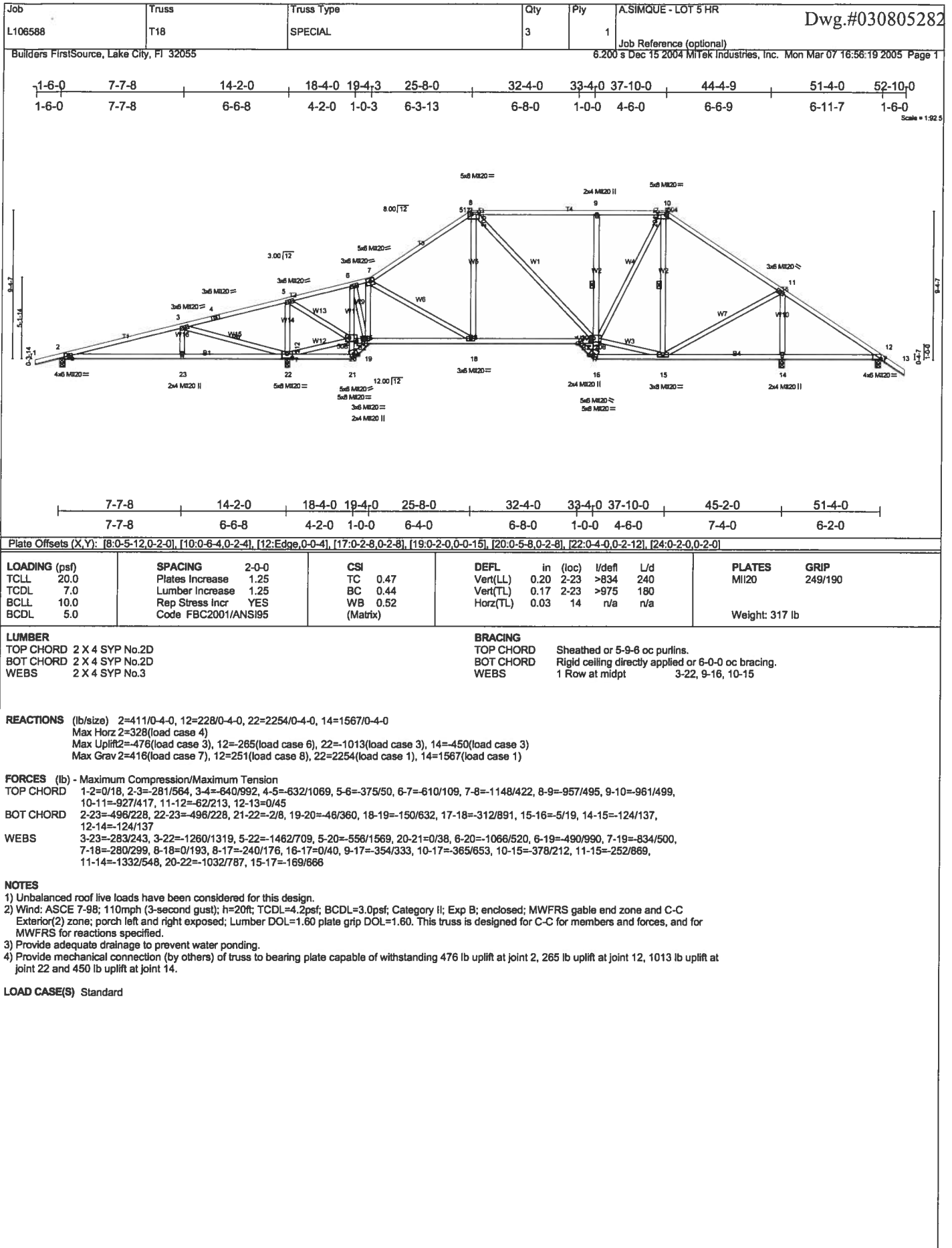


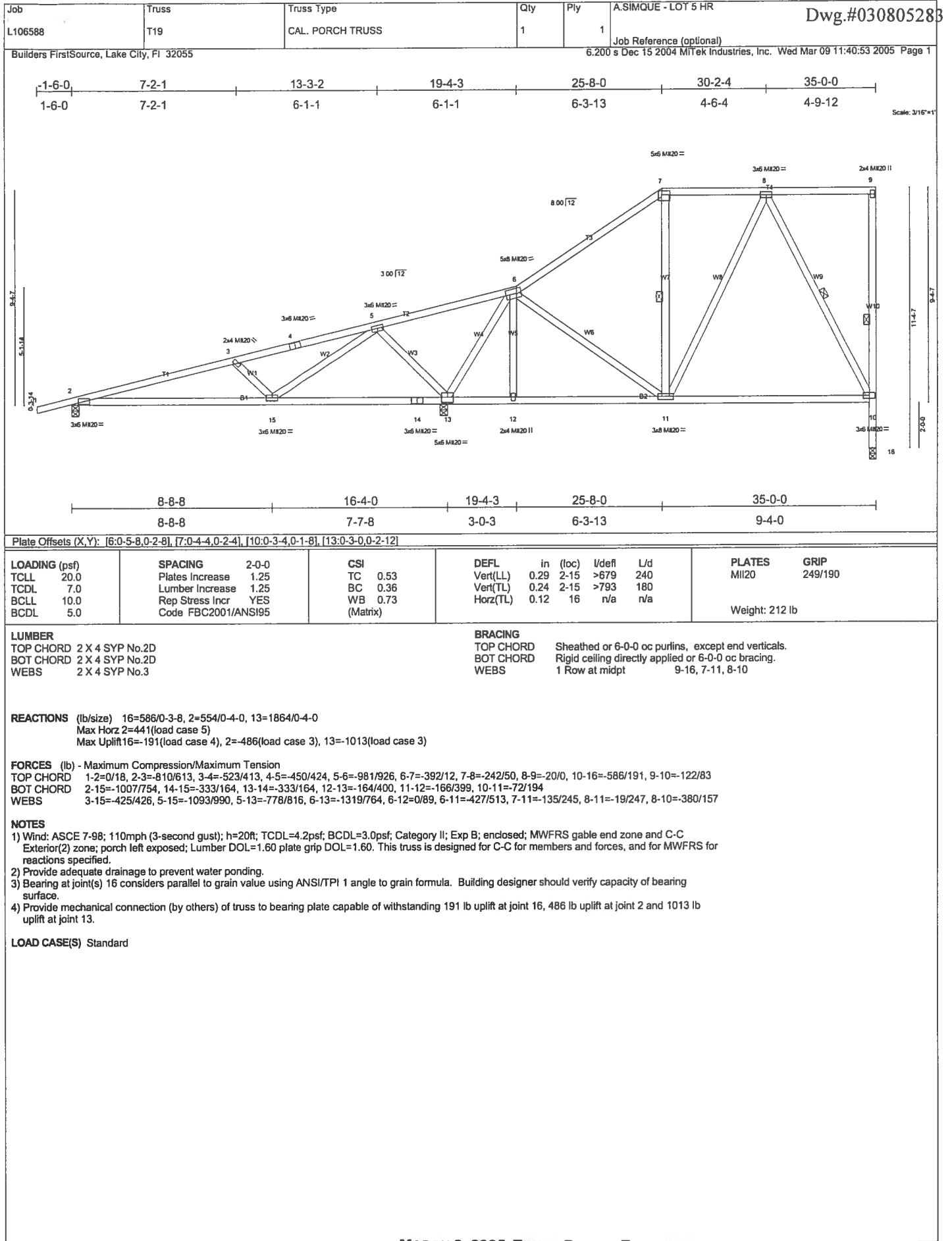








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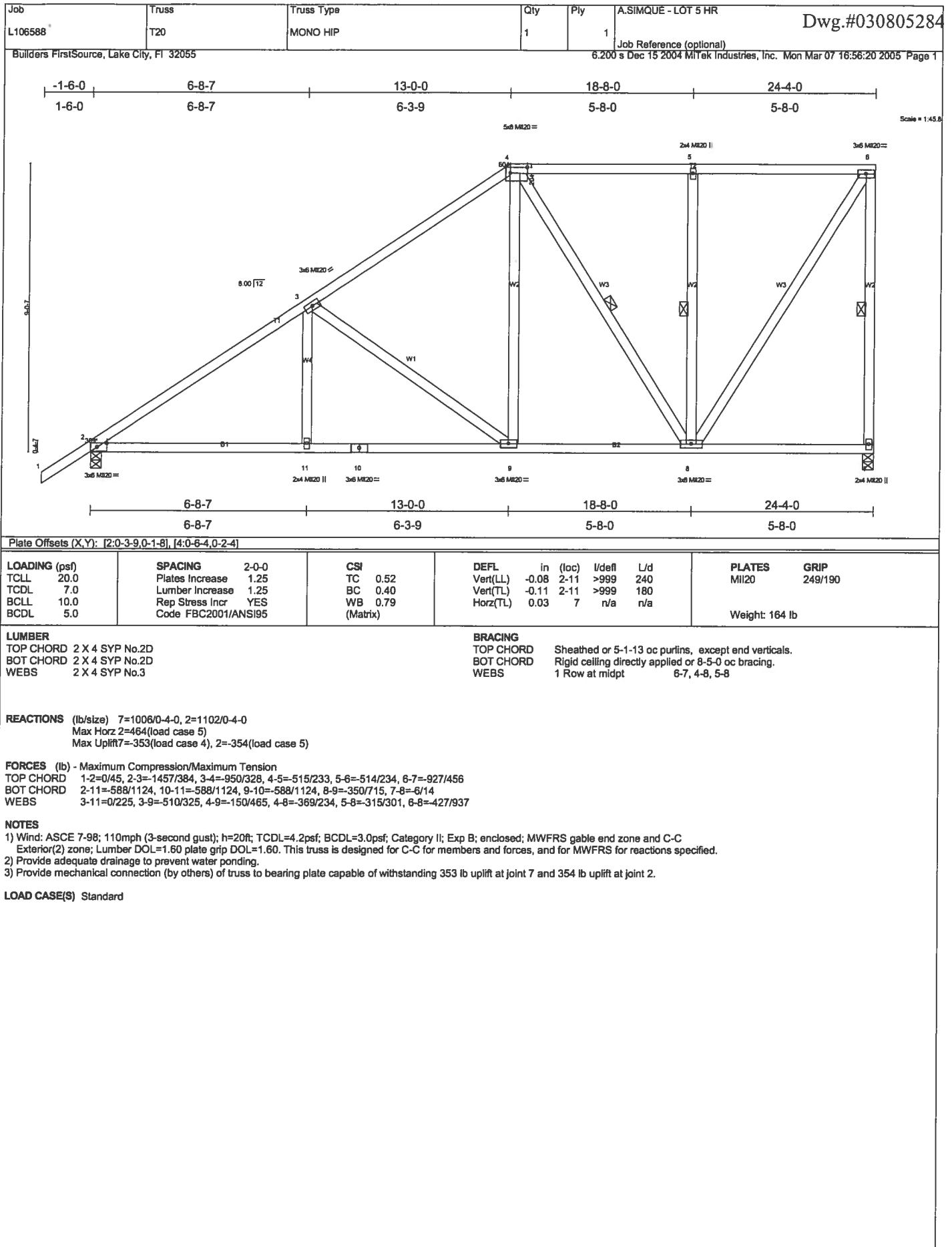


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16105 N. FLORIDA AVE. STE B, LUTZ, FL 33549



Job	Truss	Truss Type	Qty	Ply	A.SIMQUE - LOT 5 HR	Dwg.#030805285
L106588	T21	MONO HIP	1	1	Job Reference (optional)	

Builders FirstSource, Lake City, FL 32055

6.200 s Dec 15 2004 Mitek Industries, Inc. Mon Mar 07 16:56:21 2005 Page 1

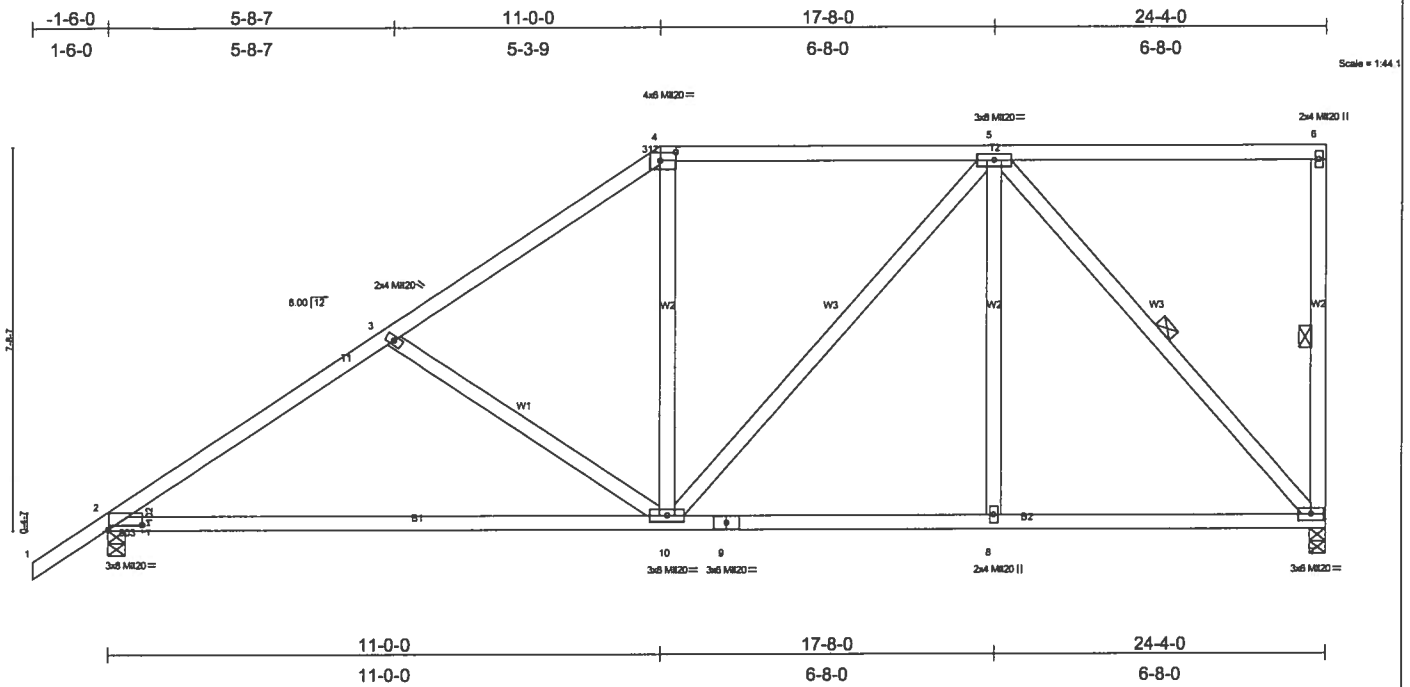


Plate Offsets (X,Y): [2:0-8-3,0-1-2], [4:0-3-12,0-2-0]

LOADING (psf)	SPACING	CSI	DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.35	Vert(LL)	-0.31	2-10	>926	240	M120	249/190
TCDL 7.0	Plates Increase 1.25	BC 0.55	Vert(TL)	-0.46	2-10	>624	180		
BCLL 10.0	Lumber Increase 1.25	WB 0.69	Horz(TL)	0.03	7	n/a	n/a		
BCDL 5.0	Rep Stress Incr YES	(Matrix)							
	Code FBC2001/ANSI95								
								Weight: 148 lb	

LUMBER
 TOP CHORD 2 X 4 SYP No.2D
 BOT CHORD 2 X 4 SYP No.2D
 WEBS 2 X 4 SYP No.3

BRACING
 TOP CHORD Sheathed or 5-0-9 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 8-4-12 oc bracing.
 WEBS 1 Row at midpt 6-7, 5-7

REACTIONS (lb/size) 7=1006/0-4-0, 2=1102/0-4-0
 Max Horz 2=403(load case 5)
 Max Uplift 7=361(load case 4), 2=354(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/45, 2-3=-1369/452, 3-4=-1113/386, 4-5=-860/390, 5-6=-25/10, 6-7=-157/126
 BOT CHORD 2-10=-598/1094, 9-10=-303/683, 8-9=-303/683, 7-8=-303/683
 WEBS 3-10=-288/283, 4-10=0/261, 5-10=-165/268, 5-8=0/162, 5-7=-996/445

NOTES

- 1) Wind: ASCE 7-98; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 2) Provide adequate drainage to prevent water ponding.
- 3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 361 lb uplift at joint 7 and 354 lb uplift at joint 2.

LOAD CASE(S) Standard

Job L106588	Truss T22	Truss Type MONO HIP	Qty 1	Ply 1	A.SIMQUE - LOT 5 HR	Dwg.#030805286
Builders FirstSource, Lake City, FL 32055			Job Reference (optional) 6.200 s Dec 15 2004 Mitek Industries, Inc. Mon Mar 07 16:56:21 2005 Page 1			

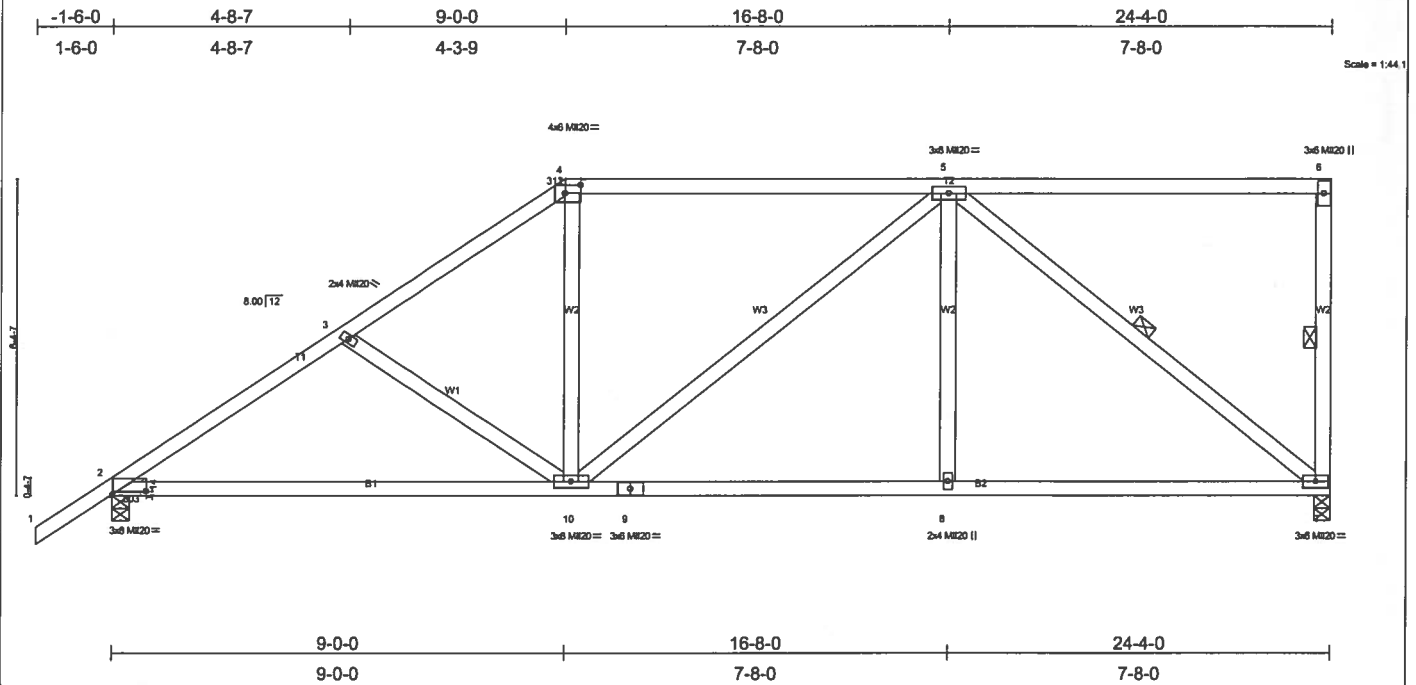


Plate Offsets (X,Y): [2:0-8-3,0-0-14], [4:0-3-12,0-2-0]

LOADING (psf)	SPACING	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plates Increase	1.25	TC 0.49	Vert(LL)	-0.15	2-10	>999	240	M1120	249/190
TCDL 7.0	Lumber Increase	1.25	BC 0.42	Vert(TL)	-0.21	2-10	>999	180		
BCLL 10.0	Rep Stress Incr	YES	WB 0.75	Horz(TL)	0.03	7	n/a	n/a		
BCDL 5.0	Code FBC2001/ANSI95		(Matrix)							Weight: 139 lb

LUMBER

TOP CHORD 2 X 4 SYP No.2D
BOT CHORD 2 X 4 SYP No.2D
WEBS 2 X 4 SYP No.3

BRACING

TOP CHORD Sheathed or 5-2-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 8-6-10 oc bracing.
WEBS 1 Row at midpt 6-7, 5-7

REACTIONS (lb/size) 7=1006/0-4-0, 2=1102/0-4-0
Max Horz 2=341(load case 5)
Max Uplift 7=381(load case 3), 2=348(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-1421/489, 3-4=-1230/446, 4-5=-985/436, 5-6=-44/19, 6-7=-183/149
BOT CHORD 2-10=-580/1131, 9-10=-393/924, 8-9=-393/924, 7-8=-393/924
WEBS 3-10=-187/214, 4-10=-11/320, 5-10=-111/146, 5-8=0/219, 5-7=-1132/484

NOTES

- Wind: ASCE 7-98; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- Provide adequate drainage to prevent water ponding.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 381 lb uplift at joint 7 and 348 lb uplift at joint 2.

LOAD CASE(S) Standard

Dwg.#030805287

6.200 s Dec 15 2004 MiTek Industries, Inc. Mon Mar 07 16:56:22 2005 Page 1



LOADING (psf)	SPACING 2-0-0	CSI	DEFL in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plates Increase 1.25	TC 0.60	Vert(LL) -0.25 8-10 >999 240	MI120	249/190
TCDL 7.0	Lumber Increase 1.25	BC 0.92	Vert(TL) -0.37 8-10 >785 180	MI120H	187/143
BCLL 10.0	Rep Stress Incr NO	WB 0.63	Horz(TL) 0.08 7 n/a n/a		
BCDL 5.0	Code FBC2001/ANSI95	(Matrix)			Weight: 128 lb

BRACING	
TOP CHORD	Sheathed or 3-3-14 oc purfins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 4-10-1 oc bracing.
WEBS	2 Rows at 1/3 pts 5-7

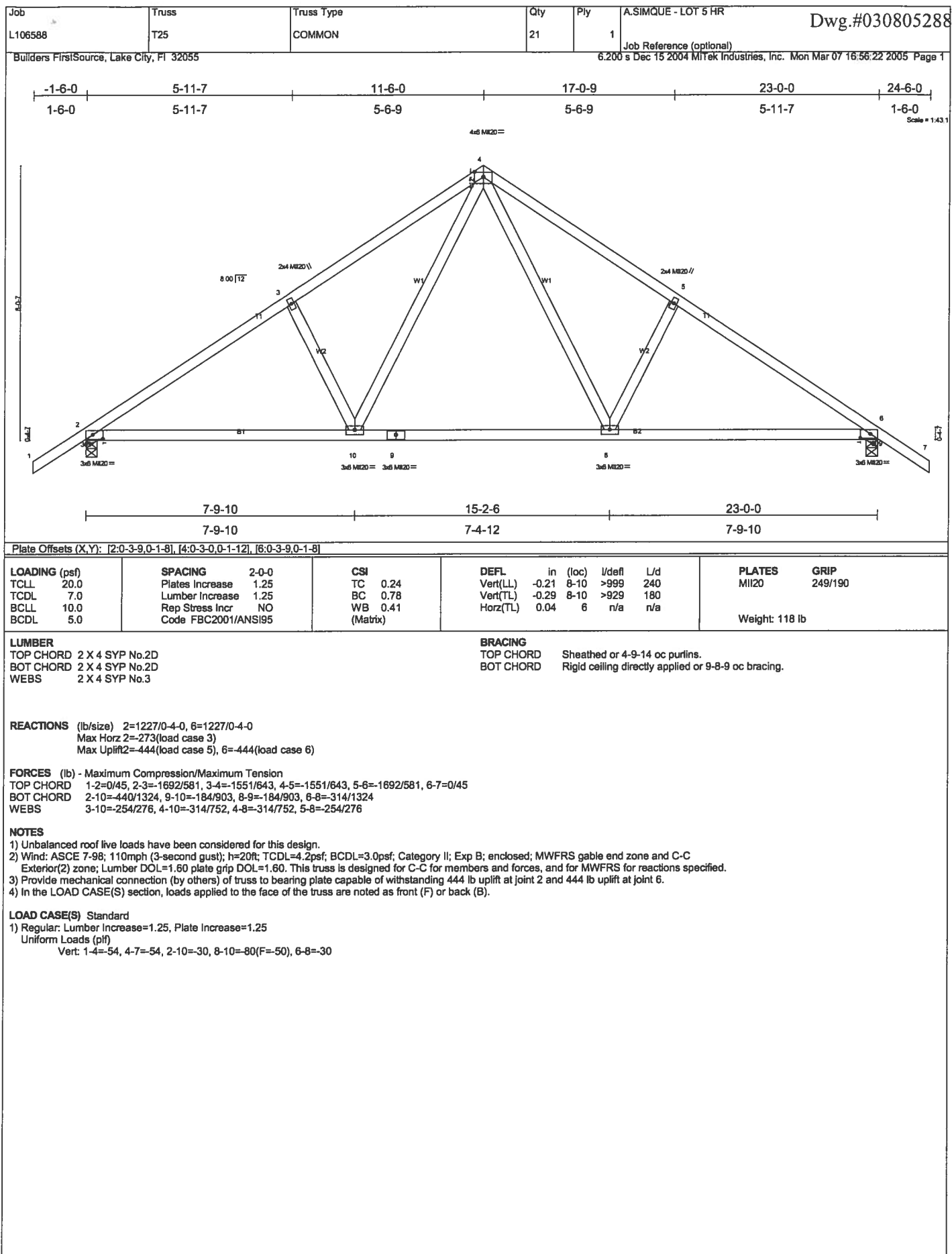
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=3200/1730, 3-4=2595/1501, 4-5=2712/1531, 5-6=-120/43, 6-7=-330/343
BOT CHORD 2-10=-1484/2556, 9-10=-1790/2933, 8-9=-1790/2933, 7-8=-1349/2140
WEBS 3-10=-658/1227, 4-10=-446/526, 4-8=-429/527, 5-8=-374/1115, 5-7=-2605/1685

NOTES

- 1) Wind: ASCE 7-98; 110mph (3-second gust); h=20ft; TCFL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone; Lumber DOL=1.60 plate grip DOL=1.60.
- 2) Provide adequate drainage to prevent water ponding.
- 3) All plates are MT20 plates unless otherwise indicated.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1363 lb uplift at joint 7 and 1085 lb uplift at joint 2.
- 5) Girders carry hip end with 0-0-0 right side setback, 7-0-0 left side setback, and 7-0-0 end setback.
- 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 539 lb down and 410 lb up at 7-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Regular: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-3=54, 3-6=117(F=63), 2-10=30, 7-10=65(F=35)
Concentrated Loads (lb)
Vert: 10=539(F)

**MARCH 8, 2005 TRUSS DESIGN ENGINEER:
THOMAS E. MILLER PE 56877, BYRON K. ANDERSON PE 60987
STRUCTURAL ENGINEERING AND INSPECTIONS, INC. EB 9196
16105 N. FLORIDA AVE. STE B. LUTZ, FL 33549**





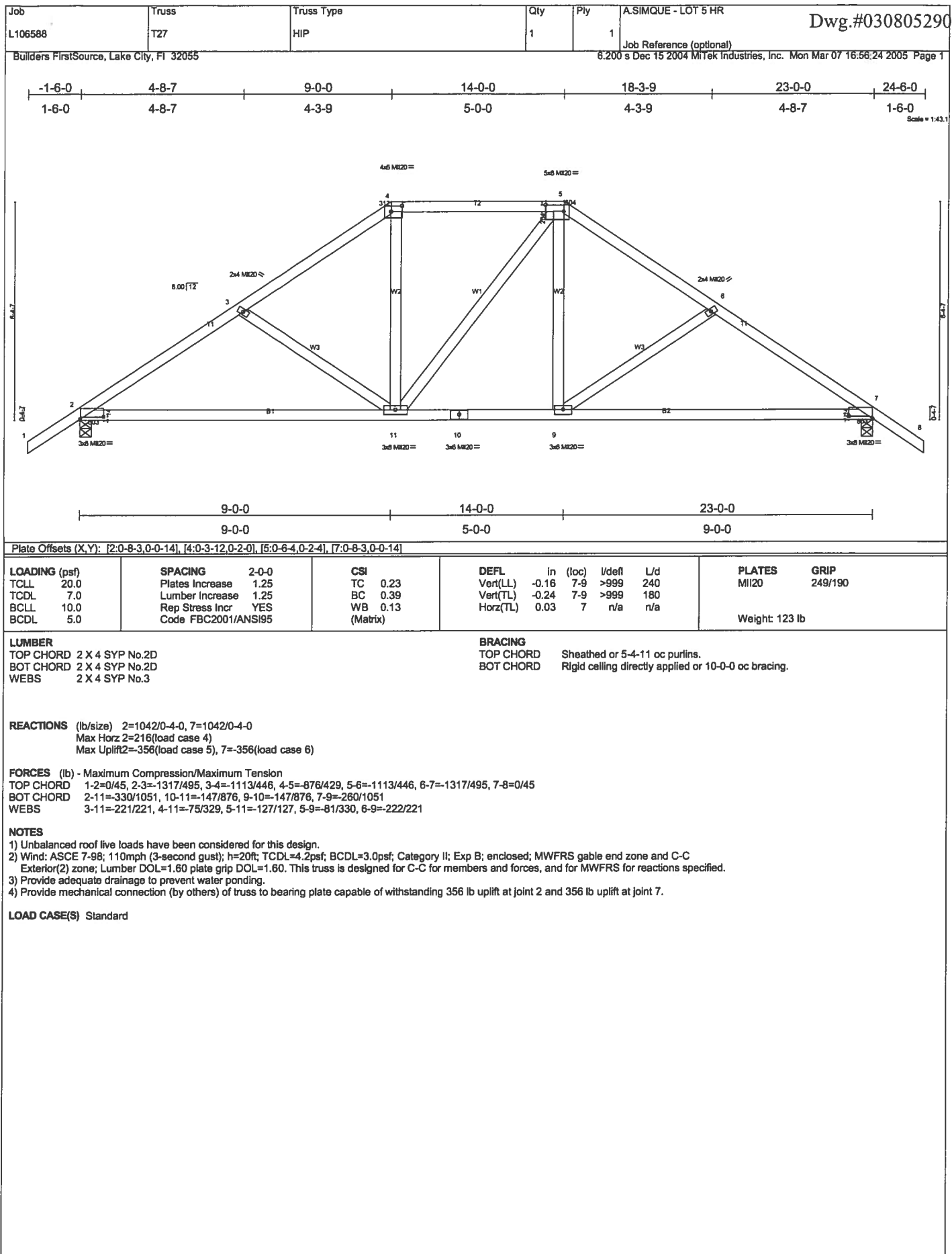
LOADING (psf)	SPACING 2-0-0	CSI	DEFL In (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plates Increase 1.25	TC 0.33	Vert(LL) -0.28 2-10 >959 240	MI20	249/190
TCOL 7.0	Lumber Increase 1.25	BC 0.74	Vert(TL) -0.42 2-10 >648 180	MI18H	195/188
BCLL 10.0	Rep Stress Incr YES	WB 0.25	Horz(TL) 0.03 7 n/a n/a		
BCOL 5.0	Code FBC2001/ANSI95	(Matrix)			
				Weight: 132 lb	

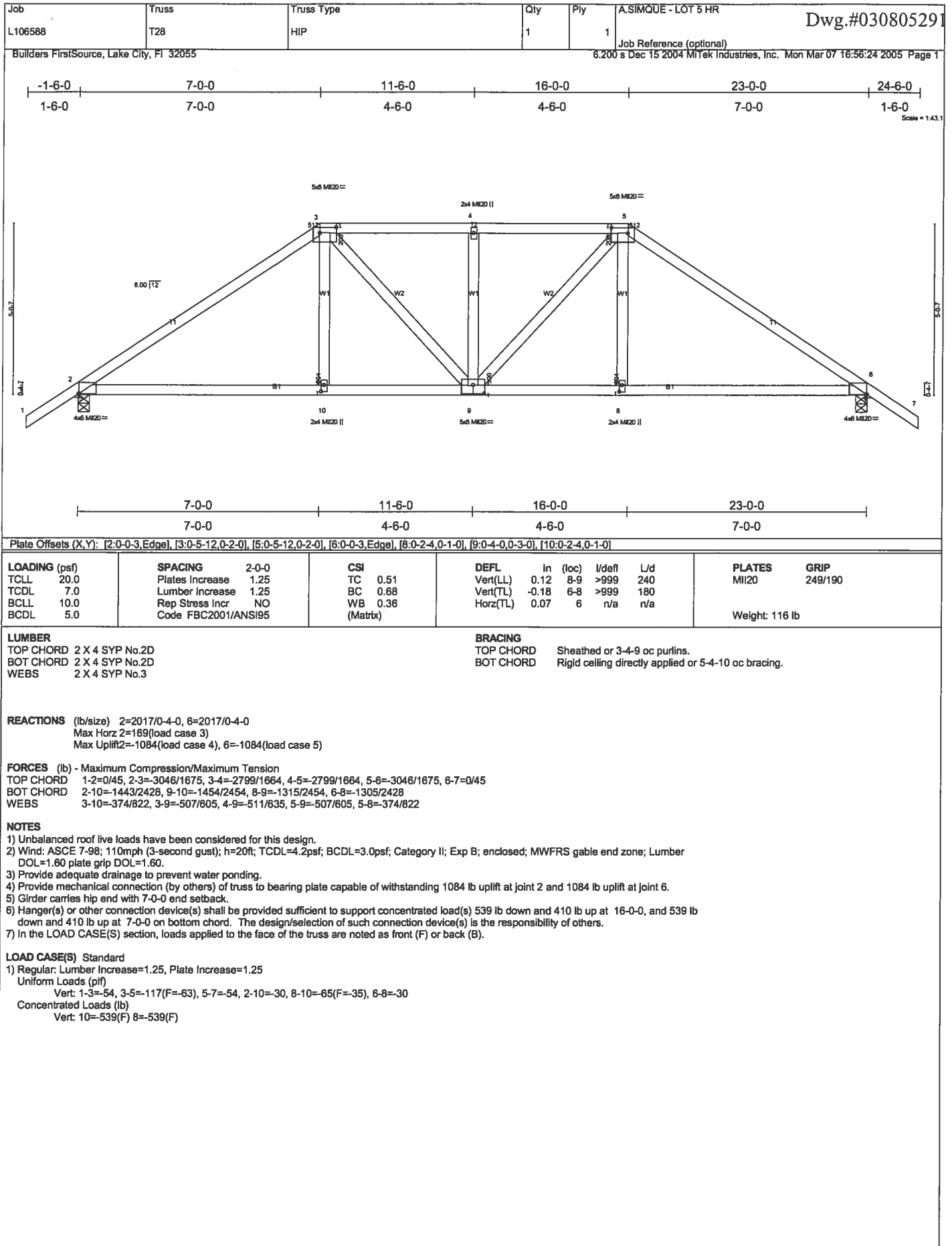
BRACING	
TOP CHORD	Sheathed or 5-3-6 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-127/478, 3-4=-1003/401, 4-5=-781/407, 5-6=-1016/406, 6-7=-1278/476, 7-8=0/45
BOT CHORD 2-10=-336/1015, 9-10=-89/771, 7-9=233/1018
WEBS 3-10=-311/283, 4-10=-160/399, 5-10=-187/259, 5-9=97/252, 6-9=308/283

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-98; 110mph (3-second gust); h=20ft; TCFL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 371 lb uplift at joint 2 and 371 lb uplift at joint 7.

LOAD CASE(S) Standard



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16105 N. FLORIDA AVE. STE B, LUTZ, FL 33549

COLUMBIA COUNTY BUILDING DEPARTMENT

RESIDENTIAL MINIMUM PLAN REQUIREMENTS AND CHECKLIST FOR FLORIDA BUILDING CODE 2001

ONE (1) AND TWO (2) FAMILY DWELLINGS

ALL REQUIREMENTS ARE SUBJECT TO CHANGE

EFFECTIVE MARCH 1, 2002

ALL BUILDING PLANS MUST INDICATE THE FOLLOWING ITEMS AND INDICATE COMPLIANCE WITH CHAPTER 1606 OF THE FLORIDA BUILDING CODE 2001 BY PROVIDING CALCULATIONS AND DETAILS THAT HAVE THE SEAL AND SIGNATURE OF A CERTIFIED ARCHITECT OR ENGINEER REGISTERED IN THE STATE OF FLORIDA, OR ALTERNATE METHODOLOGIES, APPROVED BY THE STATE OF FLORIDA BUILDING COMMISSION FOR ONE-AND-TWO FAMILY DWELLINGS. FOR DESIGN PURPOSES THE FOLLOWING BASIC WIND SPEED AS PER FIGURE 1606 SHALL BE USED.

WIND SPEED LINE SHALL BE DEFINED AS FOLLOWS: THE CENTERLINE OF INTERSTATE 75.

1. ALL BUILDINGS CONSTRUCTED EAST OF SAID LINE SHALL BE ——— 100 MPH
2. ALL BUILDINGS CONSTRUCTED WEST OF SAID LINE SHALL BE ——— 110 MPH
3. NO AREA IN COLUMBIA COUNTY IS IN A WIND BORNE DEBRIS REGION

APPLICANT - PLEASE CHECK ALL APPLICABLE BOXES BEFORE SUBMITTAL

GENERAL REQUIREMENTS: Two (2) complete sets of plans containing the following:

Applicant

Plans Examiner

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All drawings must be clear, concise and drawn to scale ("Optional" details that are not used shall be marked void or crossed off). Square footage of different areas shall be shown on plans.

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Designers name and signature on document (FBC 104.2.1). If licensed architect or engineer, official seal shall be affixed. *WILLIAM MYERS*
MARK DISOSWAY

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Site Plan including:

- a) Dimensions of lot
- b) Dimensions of building set backs
- c) Location of all other buildings on lot, well and septic tank if applicable, and all utility easements.

d) Provide a full legal description of property. *PROPERTY APPRAISER*

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Wind-load Engineering Summary, calculations and any details required

- a) Plans or specifications must state compliance with FBC Section 1606
- b) The following information must be shown as per section 1606.1.7 FBC

a. Basic wind speed (MPH) *110*

b. Wind importance factor (I) and building category *I II*

c. Wind exposure - if more than one wind exposure is used, the wind exposure and applicable wind direction shall be indicated *B*

d. The applicable internal pressure coefficient

e. Components and Cladding. The design wind pressure in terms of psf (kN/m²), to be used for the design of exterior component and cladding materials not speciffally designed by the registered design professional

See Sheet S-1

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Elevations including:

a) All sides

b) Roof pitch *12/8*

c) Overhang dimensions and detail with attic ventilation *24" MAX CONTINUOUS*

d) Location, size and height above roof of chimneys *NONE SHOWN ON ELEVATION PL*

e) Location and size of skylights *NONE SHOWN ON ELEVATION PLAN*

f) Building height *28' 6" PLUS FOUNDATION*

g) Number of stories *1*

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Floor Plan including:

- ☒ a) Rooms labeled and dimensioned
- ☒ b) Shear walls *SHEET S-3 TRAN. 138.5 LONG. 61.5 GLASS BLOCKS*
- ☒ c) Windows and doors (including garage doors) showing size, mfg., approval listing and attachment specs. (FBC 1707) and safety glazing where needed (egress windows in bedrooms to be shown) *SEE ATTACHED PACKAGE ALL FOUR BEDROOM SHOW EGRESS*
- ☒ d) Fireplaces (gas appliance) (vented or non-vented) or wood burning with hearth
- ☒ e) Stairs with dimensions (width, tread and riser) and details of guardrails and handrails
- ☒ f) Must show and identify accessibility requirements (accessible bathroom) *BOTH BATHROOM*

Foundation Plan including:

- ☒ a) Location of all load-bearing wall with required footings indicated as standard Or monolithic and dimensions and reinforcing *SEE SHEET S-2*
- ☒ b) All posts and/or column footing including size and reinforcing *SEE SHEET S-2*
- ☒ c) Any special support required by soil analysis such as piling *F-5*
- ☒ d) Location of any vertical steel

Roof System:

- ☒ a) Truss package including: *FIRST SOURCE BUILDERS*
 - 1. Truss layout and truss details signed and sealed by Fl. Pro. Eng. *THOMAS E. MILLER*
 - 2. Roof assembly (FBC 104.2.1 Roofing system, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating) *SEE SHEET S-1 ANCHOR TABLE*
- ☒ b) Conventional Framing Layout including:
 - 1. Rafter size, species and spacing
 - 2. Attachment to wall and uplift
 - 3. Ridge beam sized and valley framing and support details
 - 4. Roof assembly (FBC 104.2.1 Roofing systems, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)

Wall Sections including:

- ☒ a) Masonry wall
 - 1. All materials making up wall
 - 2. Block size and mortar type with size and spacing of reinforcement
 - 3. Lintel, tie-beam sizes and reinforcement
 - 4. Gable ends with rake beams showing reinforcement or gable truss and wall bracing details
 - 5. All required connectors with uplift rating and required number and size of fasteners for continuous tie from roof to foundation
 - 6. Roof assembly shown here or on roof system detail (FBC 104.2.1 Roofing system, materials, manufacturer, fastening requirements and product evaluation with resistance rating)
 - 7. Fire resistant construction (if required)
 - 8. Fireproofing requirements
 - 9. Shoe type of termite treatment (termitecide or alternative method)
 - 10. Slab on grade
 - a. Vapor retarder (6mil. Polyethylene with joints lapped 6 inches and sealed)
 - b. Must show control joints, synthetic fiber reinforcement or Welded fire fabric reinforcement and supports
 - 11. Indicate where pressure treated wood will be placed
 - 12. Provide insulation R value for the following:
 - a. Attic space
 - b. Exterior wall cavity
 - c. Crawl space (if applicable)

☐ ☒ b) Wood frame wall

- 10x7 OHD For Garage Headers
1. All materials making up wall
 2. Size and species of studs 2x4/6 ON 16" O.C.
 3. Sheathing size, type and nailing schedule 7/16 OSB
 4. Headers sized See Sheet S-3 Header Legend
 5. Gable end showing balloon framing detail or gable truss and wall hinge bracing detail Sheet S-1 TYPICAL GABLE END X BRACING
 6. All required fasteners for continuous tie from roof to foundation (truss anchors, straps, anchor bolts and washers)
 7. Roof assembly shown here or on roof system detail (FBC104.2.1 Roofing system, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating) Sheet S-1 Anchor Table
 8. Fire resistant construction (if applicable)
 9. Fireproofing requirements See ONE STORY WALL SECTION Sheet S-1
 10. Show type of termite treatment (termiticide or alternative method) Sheet S-2
 11. Slab on grade Sheet S-2
 - a. Vapor retarder (6Mil. Polyethylene with joints lapped 6 inches and sealed)
 - b. Must show control joints, synthetic fiber reinforcement or welded wire fabric reinforcement and supports
 12. Indicate where pressure treated wood will be placed
 13. Provide insulation R value for the following:
 - a. Attic space R-30 Sheet A1
 - b. Exterior wall cavity R-13
 - c. Crawl space (if applicable)

☐ ☒ c) Metal frame wall and roof (designed, signed and sealed by Florida Prof. Engineer or Architect)

Floor Framing System:

- ☐ ☒ a) Floor truss package including layout and details, signed and sealed by Florida Registered Professional Engineer
- ☐ ☐ b) Floor joist size and spacing
- ☐ ☐ c) Girder size and spacing
- ☐ ☐ d) Attachment of joist to girder
- ☐ ☒ e) Wind load requirements where applicable

Plumbing Fixture layout

Electrical layout including:

- ☐ ☒ a) Switches, outlets/receptacles, lighting and all required GFCI outlets identified
- ☐ ☒ b) Ceiling fans 3
- ☐ ☒ c) Smoke detectors 5
- ☐ ☒ d) Service panel and sub-panel size and location(s) IN GARAGE
- ☐ ☒ e) Meter location with type of service entrance (overhead or underground) UNKNOWN
- ☐ ☒ f) Appliances and HVAC equipment
- ☐ ☒ g) Arc Fault Circuits (AFCI) in bedrooms See ELECTRICAL NOTES Sheet A.4

HVAC information

- ☐ ☒ a) Manual J sizing equipment or equivalent computation
- ☐ ☒ b) Exhaust fans in bathroom

Energy Calculations (dimensions shall match plans) DOMATCH

Gas System Type (LP or Natural) Location and BTU demand of equipment

Disclosure Statement for Owner Builders

Notice Of Commencement NOT AS OF 3-22-05

Private Potable Water

- ☐ ☒ a) Size of pump motor LYNCH WELL DRILLING
- ☐ ☒ b) Size of pressure tank
- ☐ ☒ c) Cycle stop valve if used

MI HOME PRODUCTS - PRIME ALUMINUM WINDOWS - **INSTALLATION INSTRUCTIONS FOR** **"NAIL FIN" PRODUCTS**

MI Home Products appreciates your recent purchase of a maintenance free prime window, which will not rust, rot, mildew, or warp. This is a quality product that left our factory in good condition – proper handling and installation are just as important as good design and workmanship. Please follow these recommendations to allow this product to complete its function.

1. Handle units one at a time in the closed and locked position and take care not to scratch frame or glass or to bend the nailing fin.
2. Set unit plumb and square into opening and make sure that there is $3/16" \pm 1/16"$ clearance around the frame. Fasten unit into opening in the closed and locked position, making sure that fasteners are screwed in straight in order to avoid twisting or bowing of the frame. Make sure that sill is straight and level. Check operation of unit before any and all fasteners are set.
3. Use # 8 sheet metal or wood screws with a minimum of 1" penetration into the framing (stud). Place first screws (two at each corner) 3" from end of fin. For positive and negative DPs (design pressures) up to 35, do not exceed 24" spacing of additional screws. For DPs from 35.1 to 50, do not exceed 18". Install load bearing shim adjacent to each anchor. Use shim where space exceeds 1/16".
4. Flash over head and caulk outside perimeter in accordance with code requirements and good installation practices.
5. Fill voids between frame and construction with loose batten type insulation or non-expanding aerosol foam specifically formulated for windows and doors to eliminate drafts. The use of expanding aerosol type insulating foam, which can bow the frame, waives all stated warranties.
6. Remove plaster, mortar, paint and any other debris that may have collected on the unit and make sure that sash/vent tracks and interlocks are also clear. Do not use abrasives, solvents, ammonia, vinegar, alkaline, or acid solutions for clean-up, especially with insulated glass units as their use could cause chemical breakdown of the glass seal. Take care not to scratch glass; scratches severely weaken glass and it could eventually break from thermal expansion and contraction. Clean units with water and mild detergent as you would your automobile.

CAUTION -

MI Home Products or its representatives are unable to control and cannot assume responsibility for the selection and placement of their products in a building or structure in a manner required by laws, statutes, and/or building codes. The purchaser is solely responsible for knowledge of and adherence to the same. MI Home Products window products are not provided with safety glazing unless specifically ordered with such. Many laws and codes require safety glazing near doors, bathtubs, and shower enclosures. Also be aware of emergency egress code requirements.

Corporate Headquarters:
650 West Market St.
Gratz, PA 17030-0370
(717) 365-3300





AAMA/NWWDA 101/L.S.2-97
TEST REPORT SUMMARY

Rendered to:

MI HOME PRODUCTS, INC.

SERIES/MODEL: 650 Fin
TYPE: Aluminum Single Hung Window

Title of Test	Results
Rating	H-R40 52 x 72
Overall Design Pressure	+45.0 psf -47.2 psf
Operating Force	11 lb max.
Air Infiltration	0.13 cfm/ft ²
Water Resistance	6.00 psf
Structural Test Pressure	+67.5 psf -70.8 psf
Deglazing	Passed
Forced Entry Resistance	Grade 10

Reference should be made to Report No. 01-41134.01 dated 03/26/02 for complete test specimen description and data.

For ARCHITECTURAL TESTING, INC.

Mark A. Hess, Technician

MAH:nlb

Allen N. Reimer
1 APRIL 2002



Architectural Testing

AAMA/NWWDA 101/LS.2-97 TEST REPORT

Rendered to:

MI HOME PRODUCTS, INC.
650 West Market Street
P.O. Box 370
Gratz, Pennsylvania 17030-0370

Report No: 01-41134.01

Test Date: 03/07/02

Report Date: 03/26/02

Expiration Date: 03/07/06

Project Summary: Architectural Testing, Inc. (ATI) was contracted by MI Home Products, Inc. to perform tests on Series/Model 650 Fin, aluminum single hung window at their facility located in Elizabethville, Pennsylvania. The samples tested successfully met the performance requirements for a H-R40 52 x 72 rating.

Test Specification: The test specimen was evaluated in accordance with AAMA/NWWDA 101/LS.2-97, *Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors*.

Test Specimen Description:

Series/Model: 650 Fin

Type: Aluminum Single Hung Window

Overall Size: 4' 4-1/4" wide by 6' 0-3/8" high

Active Sash Size: 4' 1-3/4" wide by 3' 0-5/8" high

Daylight Opening Size: 3' 11-3/8" wide by 2' 9-1/2" high

Screen Size: 4' 0-1/4" wide by 2' 11-1/8" high

Finish: All aluminum was white.

Glazing Details: The active and fixed lites utilized 5/8" thick, sealed insulating glass constructed from two sheets of 1/8" thick, clear annealed glass and a metal reinforced butyl spacer system. The active sash was channel glazed utilizing a flexible vinyl wrap-around gasket. The fixed lite was interior glazed against double-sided adhesive foam tape and secured with PVC snap-in glazing beads.

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www.archtest.com

Allen M. Reuser
1 APRIL 2002

Test Specimen Description: (Continued)

Weatherstripping:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
0.230" high by 0.270" backed polypile with center fin	1 Row	Fixed meeting rail
0.250" high by 0.187" backed polypile with center fin	2 Rows	Active sash stiles
1/2" x 1/2" dust plug	4 Pieces	Active sash, top and bottom of stiles
1/4" foam-filled vinyl bulb seal	1 Row	Active sash, bottom rail

Frame Construction: The frame was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1" screws through the head and sill into each jamb screw boss. End caps were utilized on the ends of the fixed meeting rail and secured with two 1-1/4" screws per cap. Meeting rail was secured to the frame utilizing two 1-1/4" screws.

Sash Construction: The sash was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1-1/2" screws through the rails into each jamb screw boss.

Screen Construction: The screen was constructed from roll-formed aluminum with keyed corners. The fiberglass mesh was secured with a flexible spline.

Hardware:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Metal cam lock with keeper	1	Midspan, active meeting rail with keeper adjacent on fixed meeting rail
Plastic tilt latch	2	Active sash, meeting rail ends
Metal tilt pin	2	Active sash, bottom rail ends
Balance assembly	2	One in each jamb
Screen plunger	2	4" from rail ends on top rail

Allen N. Reimer
1 APRIL 2002

Test Specimen Description: (Continued)

Drainage: Sloped sill

Reinforcement: No reinforcement was utilized.

Installation: The test specimen was installed into a 2 x 8 #2 Spruce-Pine-Fir wood test buck with #8 x 1-5/8" drywall screws every 8" on center around the nail fin. Polyurethane was used as a sealant under the nail fin and around the exterior perimeter.

Test Results:

The results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.2.1.6.1	Operating Force	11 lbs	30 lbs max.
2.1.2	Air Infiltration (ASTM E 283-91) @ 1.57 psf (25 mph)	0.13 cfm/ft ²	0.3 cfm/ft ² max.
2.1.3	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 2.86 psf	No leakage	No leakage
2.1.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 33 seconds) @ 25.9 psf (positive) @ 34.7 psf (negative)	0.42"* 0.43"*	0.26" max. 0.26" max.

Note #1: The tested specimen meets the performance levels specified in AAMA/NWDA 101/L.S. 2-97 for air infiltration.

**Exceeds L/175 for deflection, but passes all other test requirements.*

2.1.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds) @ 38.9 psf (positive) @ 52.1 psf (negative)	0.02" 0.02"	0.18" max. 0.18" max.
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Allen M. Rivera
1 APRIL 2002

Test Specimen Description: (Continued)

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.2.1.6.2	Deglazing Test (ASTM E 987) In operating direction at 70 lbs		
	Meeting rail	0.12"/25%	0.50"/100%
	Bottom rail	0.12"/25%	0.50"/100%
	In remaining direction at 50 lbs		
	Left stile	0.06"/12%	0.50"/100%
	Right stile	0.06"/12%	0.50"/100%
2.1.8	Forced Entry Resistance (ASTM F 588-97)		
	Type: A		
	Grade: 10		
	Lock Manipulation Test	No entry	No entry
	Tests A1 through A5	No entry	No entry
	Test A7	No entry	No entry
	Lock Manipulation Test	No entry	No entry

Optional Performance

4.3	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 6.00 psf	No leakage	No leakage
4.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 33 seconds)		
	@ 45.0 psf (positive)	0.47"*	0.26" max.
	@ 47.2 psf (negative)	0.46"*	0.26" max.

*Exceeds L/175 for deflection, but passes all other test requirements.

4.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds)		
	@ 67.5 psf (positive)	0.05"	0.18" max.
	@ 70.8 psf (negative)	0.05"	0.18" max.

Allen M. Rasmussen
1 APRIL 2002



Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specification. This report does not constitute certification of this product, which may only be granted by the certification program administrator.

For ARCHITECTURAL TESTING, INC:

Mark A. Hess
Technician

MAH:nfb
01-41134.01

Allen N. Reeves, P.E.
Director - Engineering Services
1 APRIL 2002

**AAMA/NWWDA 101/I.S.2-97
TEST REPORT**

Rendered to:

MI HOME PRODUCTS, INC.

**SERIES/MODEL: 450/650/850 Drop In Glazing
TYPE: Aluminum Single Hung Window**

Title	Summary of Results
AAMA Rating	H-LC30 53 x 90
Operating Force	24 lb max.
Air Infiltration	0.11 cfm/ft²
Water Resistance Test Pressure	6.75 psf
Uniform Load Deflection Test Pressure	+32.8 psf -47.2 psf
Uniform Load Structural Test Pressure	+49.2 psf -70.8 psf
Deglazing	Passed
Forced Entry Resistance	Grade 10

Reference should be made to ATI Report No. 01-42487.01 for complete test specimen description and data.



Architectural Testing

AAMA/NWWDA 101/I.S.2-97 TEST REPORT

Rendered to:

MI HOME PRODUCTS, INC.
P.O. Box 370
650 West Market Street
Gratz, Pennsylvania 17030-0370

Report No: 01-42487.01

Test Date: 08/14/02

And: 08/15/02

Report Date: 10/02/02

Expiration Date: 08/15/06

Project Summary: Architectural Testing, Inc. (ATI) was contracted by MI Home Products, Inc. to perform tests on a Series/Model 450/650/850 Drop In Glazing, aluminum single hung window at their facility in Elizabethville, Pennsylvania. The sample tested successfully met the performance requirements for a H-LC30 53 x 90 rating.

Test Specification: The test specimen was evaluated in accordance with AAMA/NWWDA 101/I.S.2-97, *Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors*.

Test Specimen Description:

Series/Model: 450/650/850 Drop In Glazing

Type: Aluminum Single Hung Window

Overall Size: 4' 5-1/8" wide by 7' 5-5/8" high

Interior Sash Size: 4' 2-3/4" wide by 3' 8-7/8" high

Fixed Daylight Opening Size: 4' 0" wide by 3' 5-3/8" high

Screen Size: 4' 0-3/4" wide by 3' 8-3/4" high

Finish: The unit was white.

Glazing Details: The specimen utilized 5/8" thick, sealed insulating glass constructed from two sheets of 3/32" thick, clear annealed glass and a metal reinforced butyl spacer system. The lites were interior glazed against double-sided adhesive foam tape and secured with PVC-snap-in glazing beads.

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fax: 717.764.4129
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Test Specimen Description: (Continued)**Weatherstripping:**

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
0.190" high by 0.187" polypile with center fin	1 Row	Fixed meeting rail interlock
0.190" high by 0.187" polypile with center fin	2 Rows	Interior sash stiles
1/4" vinyl foam-filled bulb seal	1 Row	Interior sash bottom rail
5/8" wide by 7/8" long polypile plug	4 Pieces	Interior sash, all corners

Frame Construction: The frame was constructed of extruded aluminum. Each corner was coped, butted, sealed, and fastened with two #8 x 1" screws per corner through the head and sill into jamb screw boss. End caps were utilized on the ends of the meeting rail and secured with two 1-1/4" screws per cap. Meeting rail was then secured to the frame utilizing two 1-1/4" screws.

Sash Construction: The sash was constructed of extruded aluminum. Each corner was coped, butted, and fastened with one #8 x 1-1/4" screw per corner.

Screen Construction: The screen was constructed of roll-formed aluminum with keyed corners. The fiberglass mesh was secured with a flexible spline.

Hardware:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Metal cam lock	2	Interior sash, 6-1/2" from top rail ends
Spring-loaded coil balance	2	One per jamb
Plastic tilt latch	2	Interior sash top rail ends
Metal tilt latch pin	2	Interior sash bottom rail ends
Screen spring-loaded retainer pin	2	6-3/4" from rails on stiles

Test Specimen Description: (Continued)

Drainage: Sloped sill

Reinforcement: No reinforcement was utilized.

Installation: The specimen was installed into a #2 2 x 8 Spruce-Pine-Fir wood buck. #8 x 1-5/8" drywall screws were placed 3" from corners and 15" on center around nailing fin. Polyurethane was used as a sealant around the exterior perimeter.

Test Results:

The results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.2.1.6.1	Operating Force	24 lbs	35 lbs max.
2.1.2	Air Infiltration (ASTM E 283-91) @ 1.57 psf (25 mph)	0.11 cfm/ft ²	0.3 cfm/ft ² max.
<i>Note #1: The tested specimen meets the performance levels specified in AAMA/NWWDA 101/LS-2-97 for air infiltration.</i>			
2.1.3	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 3.75 psf	No leakage	No leakage
2.1.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 52 seconds) @ 25.0 psf (positive) @ 25.0 psf (negative)	0.64"* 0.54"*	0.29" max. 0.29" max.

**Exceeds L/175 for deflection, but meets all other test requirements.*

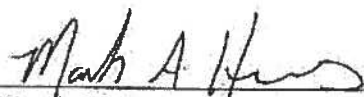
2.1.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds) @ 37.5 psf (positive) @ 37.5 psf (negative)	0.04" 0.03"	0.20" max. 0.20" max.
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Test Results:

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.2.1.6.2	Deglazing Test (ASTM E 987-88) In operating direction at 70 lbs		
	Interior sash meeting rail	0.12"/25%	0.50"/100%
	Interior sash bottom rail	0.12"/25%	0.50"/100%
	In remaining direction at 50 lbs		
	Interior sash right stile	0.06"/12%	0.50"/100%
	Interior sash left stile	0.06"/12%	0.50"/100%
2.1.8	Forced Entry Resistance (ASTM F 588-97)		
	Type: A		
	Grade: 10		
	Lock Manipulation Test	No entry	No entry
	Test A1 through A5	No entry	No entry
	Test A7	No entry	No entry
	Lock Manipulation Test	No entry	No entry
<u>Optional Performance</u>			
4.3	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 6.75 psf	No leakage	No leakage
4.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 33 seconds)		
	@ 32.8 psf (positive)	0.85"*	0.29" max.
	@ 47.2 psf (negative)	0.87"*	0.29" max.
<i>*Exceeds L/175 for deflection, but meets all other test requirements.</i>			
4.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds)		
	@ 49.2 psf (positive)	0.09"	0.20" max.
	@ 70.8 psf (negative)	0.12"	0.20" max.

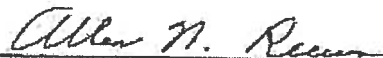
Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specification. This report does not constitute certification of this product, which may only be granted by the certification program administrator. This report may not be reproduced except in full without the approval of Architectural Testing.

For ARCHITECTURAL TESTING, INC:



Mark A. Hess
Technician

MAH:nlb
01-42487.01



Allen N. Reeves, P.E.
Director - Engineering Services

11 OCTOBER 2002



**AAMA/NWWDA 101/1.S.2-97
TEST REPORT**

Rendered to:

MI HOME PRODUCTS, INC.

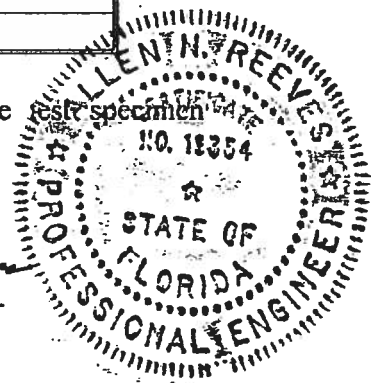
SERIES/MODEL: 650

TYPE: Aluminum Triple Single Hung Window

Title of Test	Summary of Results
AAMA Rating	H-R35 112 x 72
Uniform Load Deflection Test Pressure	+35.3 psf -47.2 psf
Operating Force	25 lb max.
Air Infiltration	0.16 cfm/ft ²
Water Resistance Test Pressure	5.25 psf
Uniform Load Structural Test Pressure	+53.0 psf -52.5 psf
Deglazing	Passed
Forced Entry Resistance	Grade 10

Reference should be made to ATI Report No. 01-41641.01 for complete test specimen description and data.

Allen H. Reeves
7 JUNE 2002





Architectural Testing

AAMA/NWWDA 101/I.S.2-97 TEST REPORT

Rendered to

MI HOME PRODUCTS, INC.
P.O. Box 370
650 West Market Street
Gratz, Pennsylvania 17030-0370

Report No: 01-41641.01

Test Date: 05/13/02

And: 05/16/02

Report Date: 06/05/02

Expiration Date: 05/16/06

Project Summary: Architectural Testing, Inc. (ATI) was contracted by MI Home Products, Inc. to witness testing on a Series/Model 650, aluminum triple single hung window at their facility located in Elizabethville, Pennsylvania. The sample tested successfully met the performance requirements for a H-R35 112 x 72 rating.

Test Specification: The test specimen was evaluated in accordance with AAMA/NWWDA 101/I.S.2-97, *Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors*.

Test Specimen Description:

Series/Model: 650

Type: Aluminum Triple Single Hung Window

Overall Size: 9' 3-1/2" wide by 5' 11-11/16" high

Active Sash Size (3): 3' 0-1/4" wide by 2' 10-3/4" high

Fixed Daylight Opening Size (3): 2' 8-1/4" wide by 2' 9-1/8" high

Screen Size (3): 2' 9-1/8" wide by 2' 11" high

Finish: All aluminum was painted white.

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www.archtest.com



Allen M. Reeves
7 JUNE 2002



Test Specimen Description: (Continued)

Glazing Details: The active and fixed lites utilized 5/8" thick, sealed insulating glass constructed from two sheets of 1/8" thick, clear annealed glass and a metal reinforced butyl spacer system. The active sash was channel glazed utilizing a flexible vinyl wrap-around gasket. The fixed lite was interior glazed against double-sided adhesive foam tape and secured with PVC snap-in glazing beads.

Weatherstripping:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
0.230" high by 0.270" backed polypile with center fin	Row	Fixed meeting rail
0.250" high by 0.187" backed polypile with center fin	2 Rows	Active sash stiles
1/2" by 1/2" dust plug	4 Pieces	Active sash, top and bottom of stiles
1/4" foam filled vinyl bulb seal	1 Row	Active sash, bottom rail

Frame Construction: The frame was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1" screws through the head and sill into each jamb screw boss. End caps were utilized on the ends of the fixed meeting rail and secured with two 1-1/4" screws per cap. The meeting rail was secured to the frame utilizing two 1-1/4" screws. The mullions were secured utilizing four #8 x 1-1/4" screws through the head and sill into the mullion screw boss.

Sash Construction: The sash was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1-1/2" screws through the rails into each stiles' screw boss.

Screen Construction: The screen was constructed from roll-formed aluminum with keyed corners. The fiberglass mesh was secured with a flexible spline.



Allen N. Reeves
7 JUNE 2002



Test Specimen Description: (Continued)

Hardware:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Metal cam lock with keeper	1	Midspan of each active meeting rail with adjacent keepers
Plastic tilt latch	2	Each active sash meeting rail ends
Metal tilt pin	2	Each active sash bottom rail ends
Balance assembly	2	Each active sash contained one in each jamb
Screen plunger	2	Each screen contained two 4" from rail ends on top rail

Drainage: Sloped sill

Reinforcement: No reinforcement was utilized.

Installation: The test specimen was installed into a 2 x 8 #2 Spruce-Pine-Fir wood buck with #8 x 1-5/8" drywall screws every 8" on center around the nail fin. Polyurethane was used as a sealant under the nail fin and around the exterior perimeter.

Test Results:

The results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.2.1.6.1	Operating Force	25 lbs	30 lbs max.
	Air Infiltration (ASTM E 283-91) @ 1.57 psf (25 mph)	0.16 cfm/ft ²	0.3 cfm/ft ² max.

Note #1: The tested specimen meets the performance levels specified in AAMA/NWWDA 101/I.S. 2-97 for air infiltration.

Water Resistance (ASTM E 547-00)
(with and without screen)
WTP = 2.86 psf

No leakage

No leakage

Allen N. Reeves
7 JUNE 2002

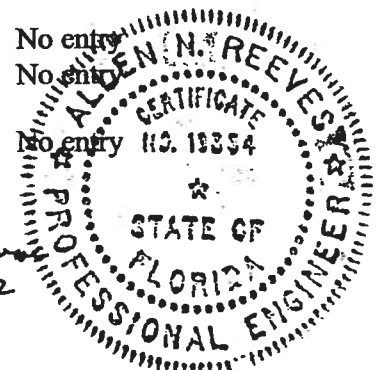




Test Results: (Continued)

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.1.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the mullion) (Loads were held for 52 seconds) @ 15.0 psf (positive) @ 15.0 psf (negative)	0.15" 0.29"	0.41" max. 0.41" max.
2.1.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the mullion) (Loads were held for 10 seconds) @ 22.5 psf (positive) @ 22.5 psf (negative)	0.01" 0.01"	0.29" max. 0.29" max.
2.2. .6.2	Deglazing Test (ASTM E 987-88) In operating direction at 70 lbs Right sash, meeting rail Right sash, bottom rail Middle sash, meeting rail Middle sash, bottom rail Left sash, meeting rail Left sash, bottom rail In remaining direction at 50 lbs Right sash, right stile Right sash, left stile Middle sash, right stile Middle sash, left stile Left sash, right stile Left sash, left stile	0.12"/25% 0.12"/25% 0.12"/25% 0.12"/25% 0.12"/25% 0.12"/25% 0.06"/12% 0.06"/12% 0.06"/12% 0.06"/12% 0.06"/12% 0.06"/12%	0.50"/100% 0.50"/100% 0.50"/100% 0.50"/100% 0.50"/100% 0.50"/100% 0.50"/100% 0.50"/100% 0.50"/100% 0.50"/100% 0.50"/100% 0.50"/100%
2 .8	Forced Entry Resistance (ASTM F 588-97) Type: A Grade: 10 Lock Manipulation Test Test A1 through A5 Test A7 Lock Manipulation Test	No entry No entry No entry No entry	No entry No entry No entry No entry

Allen N. Reeves
7 JUNE 2002



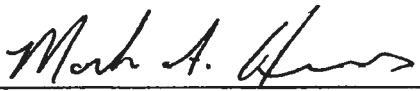


Test Results: (Continued)


<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
<u>Optional Performance</u>			
4.3	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 5.25 psf	No leakage	No leakage
	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the mullion) (Loads were held for 52 seconds)		
	@ 35.3 psf (positive)	0.46"*	0.41" max
	@ 47.2 psf (negative)	0.67"*	0.41" max
<i>*Exceeds L/175 for deflection, but meets all other test requirements.</i>			
	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the mullion) (Loads were held for 10 seconds)		
	@ 53.0 psf (positive)	0.03"	0.29" max
	@ 52.5 psf (negative)	0.02"	0.29" max

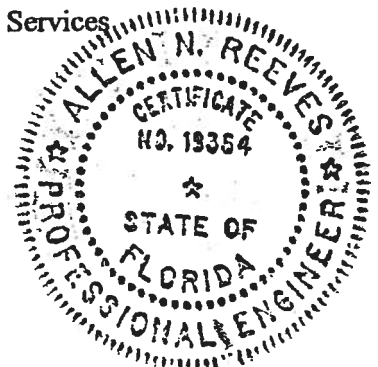
Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specification. This report does not constitute certification of this product, which may only be granted by the certification program administrator.

For ARCHITECTURAL TESTING, INC.


Mark A. Hess
Technician

MAH:nlb
01-41641.01


Allen N. Reeves, P.E.
Director - Engineering Services
7 JUNE 2002





**AAMA/NWWDA 101/LS.2-97
TEST REPORT SUMMARY**

Rendered to;

MI HOME PRODUCTS, INC.

SERIES/MODEL: 650

TYPE: Aluminum Picture Window

Title of Test	Results
Rating	F-R45 60 x 80
Overall Design Pressure	+45.0 psf -47.2 psf
Air Infiltration	0.04 cfm/ft ²
Water Resistance	8.25 psf
Structural Test Pressure	+67.5 psf -70.8 psf
Forced Entry Resistance	Grade 10


Reference should be made to Report No. 01-41135.01 dated 03/26/02 for complete test specimen description and data.

For ARCHITECTURAL TESTING, INC.



Mark A. Hess, Technician

MAH:nlb


1 APRIL 2002





Architectural Testing

AAMA/NWWDA 101/I.S.2-97 TEST REPORT

Rendered to

MI HOME PRODUCTS, INC.
650 West Market Street
P.O. Box 370
Gratz, Pennsylvania 17030-0370

Report No: 01-41135.01

Test Date: 03/07/02

Report Date: 03/26/02

Expiration Date: 03/07/06

Project Summary: Architectural Testing, Inc. (ATI) was contracted by MI Home Products, Inc. to perform tests on Series/Model 650, aluminum picture window at their facility located in Elizabethville, Pennsylvania. The samples tested successfully met the performance requirements for a F-R45 60 x 80 rating.

Test Specification: The test specimen was evaluated in accordance with AAMA/NWWDA 101/I.S.2-97, *Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors*.

Test Specimen Description:

Series/Model: 650

Type: Aluminum Picture Window

Overall Size: 5' 0" wide by 6' 8" high

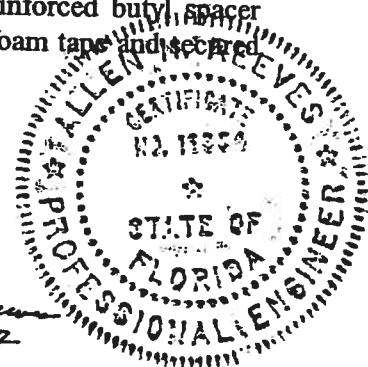
Daylight Opening Size: 4' 9-1/4" wide by 6' 5-1/4" high

Finish All aluminum was white.

Glazing Details: The test specimen utilized 7/8" thick, sealed insulating glass constructed from two sheets of 3/16" thick, clear annealed glass and a metal reinforced butyl spacer system. The glass was interior glazed against double-sided adhesive foam tape and secured with aluminum snap-in glazing beads.

130 Derry Court
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www.archtest.com

Allen N. Reeves
1 APR 12 2002





Test Specimen Description: (Continued)

Frame Construction: The frame was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1" screws through the head and sill into each jamb screw boss.

Reinforcement: No reinforcement was utilized.

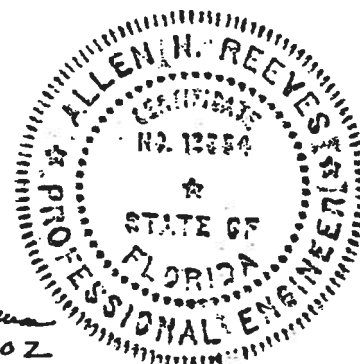
Installation: The test specimen was installed into a 2 x 8 #2 Spruce-Pine-Fir wood test buck. #8 x 2-1/2" installation screws were utilized 18" on center around the interior perimeter. Polyurethane was utilized to seal the exterior.

Test Results:

The results are tabulated as follows:

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
	Air Infiltration (ASTM E 283-91) @ 1.57 psf (25 mph)	0.04 cfm/ft ²	0.3 cfm/ft ² max.
	<i>Note #1: The tested specimen meets the performance levels specified in AAMA/NWWDA 101/I.S. 2-97 for air infiltration.</i>		
	Water Resistance (ASTM E 547-00) WTP = 2.86 psf	No leakage	No leakage
2.1.4.1	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the jamb) (Loads were held for 33 seconds) @ 25.9 psf (positive) @ 34.7 psf (negative)	0.01" 0.01"	0.41" max. 0.41" max.
2.1.4.2	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the jamb) (Loads were held for 10 seconds) @ 38.9 psf (positive) @ 52.1 psf (negative)	0.0" 0.01"	0.29" max. 0.29" max.

Allen M. Reeves
1 APRIL 2002





Test Results: (Continued)

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
	Forced Entry Resistance (ASTM F 588-97)		
	Type: D		
	Grade: 10		
	Hand and Tool Manipulation Test	No entry	No entry

Optional Performance

4.3	Water Resistance (ASTM E 547-00) WTP = 8.25 psf	No leakage	No leakage
	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the jamb) (Loads were held for 33 seconds)		
	@ 45.0 psf (positive)	0.02"	0.41" max.
	@ 47.2 psf (negative)	0.02"	0.41" max.
	Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the jamb) (Loads were held for 10 seconds)		
	@ 67.5 psf (positive)	0.01"	0.29" max.
	@ 70.8 psf (negative)	0.02"	0.29" max.

Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specification. This report does not constitute certification of this product, which may only be granted by the certification program administrator.

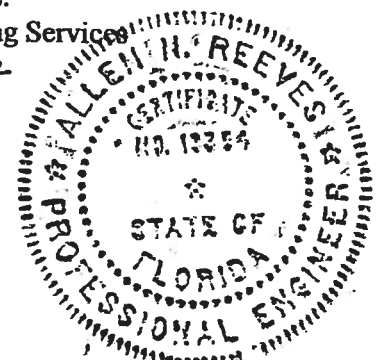
For ARCHITECTURAL TESTING, INC.

Mark A. Hess
Technician

MAH:nlb
01-41135.01


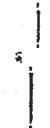




Allen N. Reeves, P.E.
Director - Engineering Services

1 APRIL 2002



650 SH & PW SERIES - MILE PER HOUR (MPH) MAXIMUM SIZE CHART

PAGE 2 OF 2

SERIES/TYPE	MPH ZONE(S)	REQUIRED MULLION	MAXIMUM SIZES ALLOWED		
			SINGLE UNIT	TWIN UNIT	TRIPLE UNIT
650 SH OR PW FLANGE FRAME SNG GLZ OR INS	UP TO 120 MPH	HORIZONTAL MULL #5765	 N/A	53-1/8" x 72" w/T RANSOM*	32" x 72" w/T RANSOM*
650 SH OR PW FLANGE FRAME SNG GLZ OR INS	UP TO 140 MPH	HORIZONTAL MULL #5765	 N/A	45" x 72" w/T RANSOM*	30" x 72" w/T RANSOM*
650 SH OR PW FIN FRAME SNG GLZ OR INS	UP TO 110 MPH	SELF- STACKING SILL #CM-45026	 53-1/8" x 72" w/T RANSOM*	N/A	N/A
650 SH OR PW FIN FRAME SNG GLZ OR INS	UP TO 120 MPH	SELF- STACKING SILL #CM-45026	 48" x 72" w/T RANSOM*	N/A	N/A
650 SH OR PW FIN FRAME SNG GLZ OR INS	UP TO 140 MPH	SELF- STACKING SILL #CM-45026	 37" x 72" w/T RANSOM*	N/A	N/A
650 SH OR PW CONTINUOUS HDR & SILL SNG GLZ OR INS	UP TO 140 MPH	(NO MULLION)	 N/A	36" x 72"	36" x 72"

*1 All Transoms (1, 2, & 3-Lites) must be continuous frame.

*2 Transom units must be a minimum of 1/0 tall. The maximum transom height is one half the width of the transom. Both Single Hung & Picture Windows can be used in combination up to the maximum sizes listed above.

650 SH & PW SERIES - MILE PER HOUR (MPH) MAXIMUM SIZE CHART

PAGE 1 OF 2

SERIES/TYPE	MPH ZONE(S)	REQUIRED MULLION	MAXIMUM SIZES ALLOWED		
			SINGLE UNIT	TWIN UNIT	TRIPLE UNIT
650 SH OR PW FIN OR FLANGE FRAME SNG GLZ OR INS	UP TO 140 MPH	N/A	N/A	53-1/8" x 72"	N/A
650 SH OR PW FIN FRAME SNG GLZ OR INS	UP TO 130 MPH	VERTICAL MULL #CM-65130	N/A	53-1/8" x 72"	53-1/8" x 72"
650 SH OR PW FIN FRAME SNG GLZ OR INS	UP TO 140 MPH	VERTICAL MULL #CM-65130	N/A	53-1/8" x 63" OR 42" x 72"	53-1/8" x 63" OR 42" x 72"
650 SH OR PW FLANGE FRAME SNG GLZ OR INS	UP TO 130 MPH	VERTICAL MULL #CM-65129	N/A	53-1/8" x 72"	53-1/8" x 72"
650 SH OR PW FLANGE FRAME SNG GLZ OR INS	UP TO 140 MPH	VERTICAL MULL #CM-65129	N/A	53-1/8" x 63" OR 42" x 72"	53-1/8" x 63" OR 42" x 72"
650 SH OR PW FIN FRAME SNG GLZ OR INS	UP TO 120 MPH	HORIZONTAL MULL #CM-65131	N/A	53-1/8" x 72" w/T RANSOM*	32" x 72" w/T RANSOM*
650 SH OR PW FIN FRAME SNG GLZ OR INS	UP TO 140 MPH	HORIZONTAL MULL #CM-65131	N/A	45" x 72" w/T RANSOM*	30" x 72" w/T RANSOM*
650 SH OR PW FLANGE FRAME SNG GLZ OR INS	UP TO 120 MPH	HORIZONTAL MULL #CM-65129	N/A	37" x 72" w/T RANSOM*	N/A
650 SH OR PW FLANGE FRAME SNG GLZ OR INS	UP TO 140 MPH	HORIZONTAL MULL #CM-65129	N/A	30" x 72" w/T RANSOM*	N/A
650 SH OR PW FIN FRAME SNG GLZ OR INS	UP TO 120 MPH	HORIZONTAL MULL #5767	N/A	53-1/8" x 72" w/T RANSOM*	32" x 72" w/T RANSOM*
650 SH OR PW FIN FRAME SNG GLZ OR INS	UP TO 140 MPH	HORIZONTAL MULL #5767	N/A	45" x 72" w/T RANSOM*	30" x 72" w/T RANSOM*

*1 All Transoms (1, 2, & 3-Lites) must be continuous frame.

*2 Transom units must be a minimum of 1/0 tall. The maximum transom height is one half the width of the transom. Both Single Hung & Picture Windows can be used in combination up to the maximum sizes listed above.



**AAMA/NWDA 101/I.S.2-97
TEST REPORT SUMMARY**

Rendered to:

MI HOME PRODUCTS, INC.

**SERIES/MODEL: 650 Fin
TYPE: Aluminum Single Hung Window**


Title of Test	Results
Rating	H-R40 52 x 72
Overall Design Pressure	+45.0 psf -47.2 psf
Operating Force	11 lb max.
Air Infiltration	0.13 cfm/ft ²
Water Resistance	6.00 psf
Structural Test Pressure	+67.5 psf -70.8 psf
Deglazing	Passed
Forced Entry Resistance	Grade 10

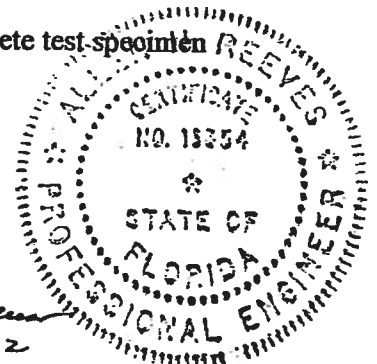
Reference should be made to Report No. 01-41134.01 dated 03/26/02 for complete test specimen description and data.

For ARCHITECTURAL TESTING, INC.


Mark A. Hess, Technician

MAH:nlb


1 APRIL 2002





Architectural Testing

AAMA/NWWDA 101/I.S.2-97 TEST REPORT

Rendered to

MI HOME PRODUCTS, INC.
650 West Market Street
P.O. Box 370
Gratz, Pennsylvania 17030-0370

Report No: 01-41134.01
Test Date: 03/07/02
Report Date: 03/26/02
Expiration Date: 03/07/06

Project Summary: Architectural Testing, Inc. (ATI) was contracted by MI Home Products, Inc. to perform tests on Series/Model 650 Fin, aluminum single hung window at their facility located in Elizabethville, Pennsylvania. The samples tested successfully met the performance requirements for a H-R40 52 x 72 rating.

Test Specification: The test specimen was evaluated in accordance with AAMA/NWWDA 101/I.S.2-97, *Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors*.

Test Specimen Description:

Series/Model: 650 Fin

Type: Aluminum Single Hung Window

Overall Size: 4' 4-1/4" wide by 6' 0-3/8" high

Active Sash Size: 4' 1-3/4" wide by 3' 0-5/8" high

Daylight Opening Size: 3' 11-3/8" wide by 2' 9-1/2" high

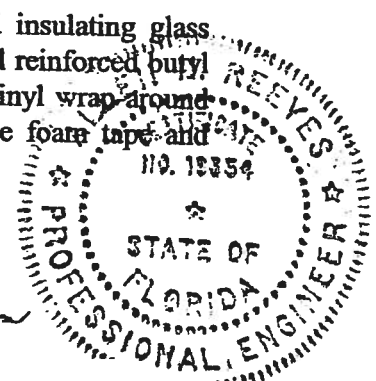
Screen Size: 4' 0-1/4" wide by 2' 11-1/8" high

Finish: All aluminum was white.

Glazing Details: The active and fixed lites utilized 5/8" thick, sealed insulating glass constructed from two sheets of 1/8" thick, clear annealed glass and a metal reinforced butyl spacer system. The active sash was channel glazed utilizing a flexible vinyl wrap-around gasket. The fixed lite was interior glazed against double-sided adhesive foam tape and secured with PVC snap-in glazing beads.

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Allen M. Reeves
1 APRIL 2002





Test Specimen Description: (Continued)

Weatherstripping:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
0.230" high by 0.270" backed polypile with center fin	1 Row	Fixed meeting rail
0.250" high by 0.187" backed polypile with center fin	2 Rows	Active sash stiles
1/2" x 1/2" dust plug	4 Pieces	Active sash, top and bottom of stiles
1/4" foam-filled vinyl bulb seal	1 Row	Active sash, bottom rail

Frame Construction: The frame was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1" screws through the head and sill into each jamb screw boss. End caps were utilized on the ends of the fixed meeting rail and secured with two 1-1/4" screws per cap. Meeting rail was secured to the frame utilizing two 1-1/4" screws.

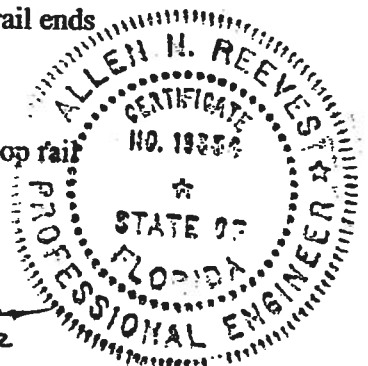
Sash Construction: The sash was constructed of extruded aluminum with coped, butted, and sealed corners fastened with two #8 x 1-1/2" screws through the rails into each jamb screw boss.

Screen Construction: The screen was constructed from roll-formed aluminum with keyed corners. The fiberglass mesh was secured with a flexible spline.

Hardware:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
Metal cam lock with keeper		Midspan, active meeting rail with keeper adjacent on fixed meeting rail
Plastic tilt latch	2	Active sash, meeting rail ends
Metal tilt pin	2	Active sash, bottom rail ends
Balance assembly	2	One in each jamb
Screen plunger	2	4" from rail ends on top rail

Allen H. Reeves
1 APRIL 2002





Test Specimen Description: (Continued)

<u>Paragraph</u>	<u>Title of Test - Test Method</u>	<u>Results</u>	<u>Allowed</u>
2.2.1.6.2	Deglazing Test (ASTM E 987) In operating direction at 70 lbs		
	Meeting rail	0.12"/25%	0.50"/100%
	Bottom rail	0.12"/25%	0.50"/100%
	In remaining direction at 50 lbs		
	Left stile	0.06"/12%	0.50"/100%
	Right stile	0.06"/12%	0.50"/100%
	Forced Entry Resistance (ASTM F 588-97)		
	Type: A		
	Grade: 10		
	Lock Manipulation Test	No entry	No entry
	Tests A1 through A5	No entry	No entry
	Test A7	No entry	No entry
	Lock Manipulation Test	No entry	No entry

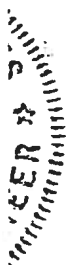
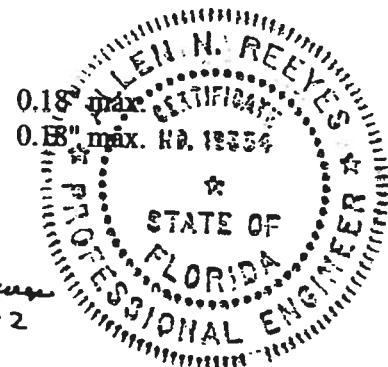
Optional Performance

4.3	Water Resistance (ASTM E 547-00) (with and without screen) WTP = 6.00 psf	No leakage	No leakage
	Uniform Load Deflection (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 33 seconds)		
	@ 45.0 psf (positive)	0.47"*	0.26" max.
	@ 47.2 psf (negative)	0.46"*	0.26" max.

**Exceeds L/175 for deflection, but passes all other test requirements.*

Uniform Load Structural (ASTM E 330-97) (Measurements reported were taken on the meeting rail) (Loads were held for 10 seconds)	
@ 67.5 psf (positive)	0.05"
@ 70.8 psf (negative)	0.05"

Allen N. Reeves
1 APRIL 2002





Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specification. This report does not constitute certification of this product, which may only be granted by the certification program administrator.

For ARCHITECTURAL TESTING, INC:

Mark A. Hess
Technician

MAH:nlb
01-41134.01

Allen N. Reeves, P.E.
Director - Engineering Services
1 APRIL 2002





**AAMA/NWWDA 101/I.S.2-97
TEST REPORT SUMMARY**

Rendered to:

MI HOME PRODUCTS, INC.

**SERIES/MODEL: 4250, 4550, 8500, 8540
TYPE: PVC Fixed Window**

Title of Test	Results	
	Test Specimen #1	Test Specimen #2
Ratings	F-C35 72 x 96	F-C50 65 x 84*
Overall Design Pressure	35 psf	50 psf
Air Infiltration	0.04 cfm/ft ²	N/A
Water Resistance	12.0 psf	N/A
Structural Test Pressure	+58.5, -63.0 psf	+75.0 psf
Deglazing	Passed	Passed
Forced Entry Resistance	Grade 40	N/A

Reference should be made to Report No. 01-39039.03 for complete test specimen description and data.

For ARCHITECTURAL TESTING, INC.


Adam Fodor, Technician

AF:tjp/nlb



Architectural Testing

AAMA/NWWDA 101/I.S.2-97 TEST REPORT

Rendered to:

MI HOME PRODUCTS, INC.
650 West Market Street
Gratz, Pennsylvania 17030-0370

Report No: 01-39039.03
Test Date: 03/09/01
Report Date: 10/19/01
Expiration Date: 03/09/05

Project Summary: Architectural Testing, Inc. (ATI) was contracted to witness tests on two Series/Model 4250, 4550, 8500, 8540, PVC fixed windows at the MI Home Products, Inc. in-plant test facility in Elizabethville, Pennsylvania. The samples tested successfully met the performance requirements for the following ratings: Test Specimen #1 F-C35 72 x 96; Test Specimen #2F-C50 65 x 84*. Test specimen descriptions and results are reported herein.

General Note: An asterisk (*) next to the performance grade indicates that the size tested for optional performance was smaller than the gateway size for the product type and class.

Test Specification: The test specimen was evaluated in accordance with AAMA/NWWDA 101/I.S.2-97, *Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors*.

Test Specimen Description:

Series/Model: 4250, 4550, 8500, 8540

Type: PVC Fixed Window

Test Specimen #1: F-C35 72 x 96

Overall Size: 5' 11-1/2" wide by 7' 11-1/2" high

Fixed Daylight Opening Size: 5' 7-3/4" wide by 7' 7-3/4" high

Glazing Type: 7/8" thick sealed insulating glass fabricated from two sheets of 3/16" thick tempered transparent glass.

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