



TOWN OF MILTON
PLANNING AND DEVELOPMENT
BUILDING PERMIT: 17-4978
BUILDING: REVIEWED
SCOTT SHERRIFFS
PLANS EXAMINER
DATE
APR 19, 2017
Neither the issuance of a permit nor carrying out of inspections by the Town of Milton relieves the owner from full responsibility for compliance with the provisions of the Ontario Building Code Act and the Ontario Building Code, both as amended, as well as other applicable statutes and regulations of the Province on Ontario, By-laws of the Region of Halton and Town of Milton

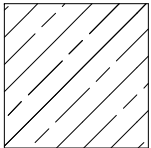
RECEIVED
TOWN OF MILTON
MAR 29, 2017
17-4978
BUILDING DIVISION



TOP OF ALL PORCH BEAMS
AT 8' 7 1/4 A.F.F.
UNDERSIDE OF SOFFIT
FOR PORCHES AT
8' 6" A.F.F.
GARAGE WALL PLATES
AT 9' 1 2/16" A.F.F.
PARTY WALLS TO BE
FRAMED ON SITE A.P.P.

HANGER LEGEND:

▼ LUS24 ■ LJS26DS
● HGUS26 × HGUS26-2

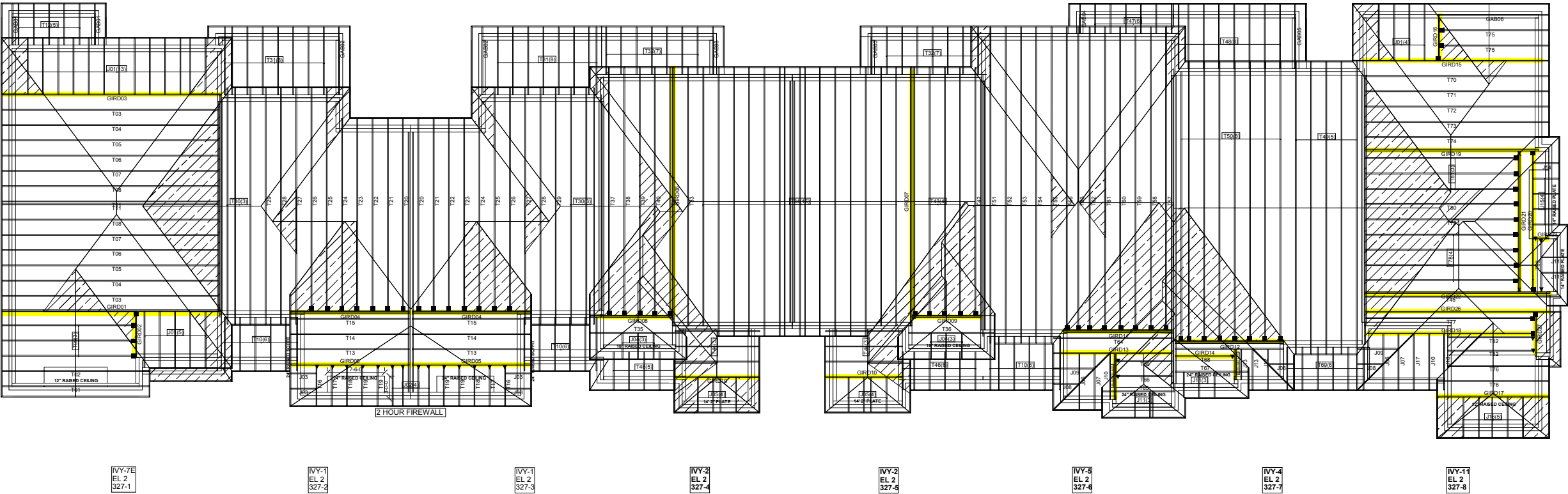


CONVENTIONAL
FRAMING BY OTHERS

SIZE AND LOCATION OF CONVENTIONAL FRAMING IS APPROXIMATE. ALL AREAS MAY NOT BE SHOWN. REFER TO ARCHITECTURAL PLANS FOR DETAILS.

ALL CONVENTIONAL FRAMING TO CONFORM WITH PART 9 OF THE O.B.C
ROOF RAFTERS THAT CROSS MEET OVER TRUSSES TO BE 2x4 S.P.F. @ 24"O/C WITH A 2x4 VERTICAL POST TO THE TRUSS UNDERNEATH EACH CROSS POINT. VERTICAL POST LONGER THAN 6' TO HAVE LATERAL BRACING SO THAT THE DISTANCE BETWEEN END POINT AND BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'.

Model: **BLOCK 327**
Customer: GREENPARK
Project: LECCO RIDGE
Location: MILTON
Date: 3/9/2017 Drawn by: BB



ENGINEERING NOTE PAGE (ENP-1)
PLEASE READ PRIOR TO INSTALLATION

RESPONSIBILITIES

THIS DESIGN IS FOR AN INDIVIDUAL BUILDING COMPONENT AND HAS BEEN BASED ON INFORMATION PROVIDED BY THE DESIGN OFFICE OF KOTT LUMBER. THE UNDERSIGNED ENGINEER DISCLAIMS ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF FAULTY OR INCORRECT INFORMATION, SPECIFICATION AND/OR DESIGNS FURNISHED TO THE ENGINEER. THE UNDERSIGNED ENGINEER IS ONLY RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THIS BUILDING COMPONENT FOR THE CONDITIONS AND LOADS SHOWN ON THIS DRAWING. THE STRUCTURAL INTEGRITY OF THE BUILDING AND THE VERIFICATION OF THE DIMENSIONS AND THE DESIGN LOADS USED ARE THE RESPONSIBILITY OF THE BUILDING DESIGNER.

TRUSSES ARE DESIGNED IN CONFORMANCE WITH THE RELEVANT SECTIONS OF THE NATIONAL BUILDING CODE OF CANADA OR THE CANADIAN CODE FOR FARM BUILDINGS, WHICHEVER APPLIES TO THE BUILDING TYPE INDICATED ON THE DRAWING

IT IS THE RESPONSIBILITY OF KOTT LUMBER TO ENSURE THAT TRUSSES ARE MANUFACTURED IN CONFORMANCE WITH THESE DESIGNS AND WITH THE SPECIFICATIONS OUTLINED BELOW. THE UNDERSIGNED ENGINEER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

USE AND OCCUPANCY

- The building is of the type indicated on the drawing

LOADING

- The truss loading intensity and distribution as well as load transfer mechanism is that indicated on the drawing
- No buildings, trees, parapets or other projections higher than the roof for which the trusses are used are located within a distance less than ten (10) times the difference in height, or five metres (16 ft) whichever is greater, unless the drawing indicates that the snow drifting has been taken into account

HANDLING, INSTALLATION AND BRACING

- The trusses must be handled and installed by a qualified professional as per the supplied document titled *Information for Truss Installers* and the BCSI-B1 and BCSI-B3 Summary Sheets
- The compression chords are laterally braced by continuous rigid diaphragm sheathing or as specified on the drawing
- Temporary and permanent bracing must be installed as indicated on the truss drawing and according to the BCSI-B1 and BCSI-B3 Summary Sheets. Bracing for the lateral stability of the truss is to be provided by the building designer
- **It is recommended that a Professional Engineer's advice be obtained for the bracing of trusses spanning more than 12.37m (40'-7")**

SUPPORTS

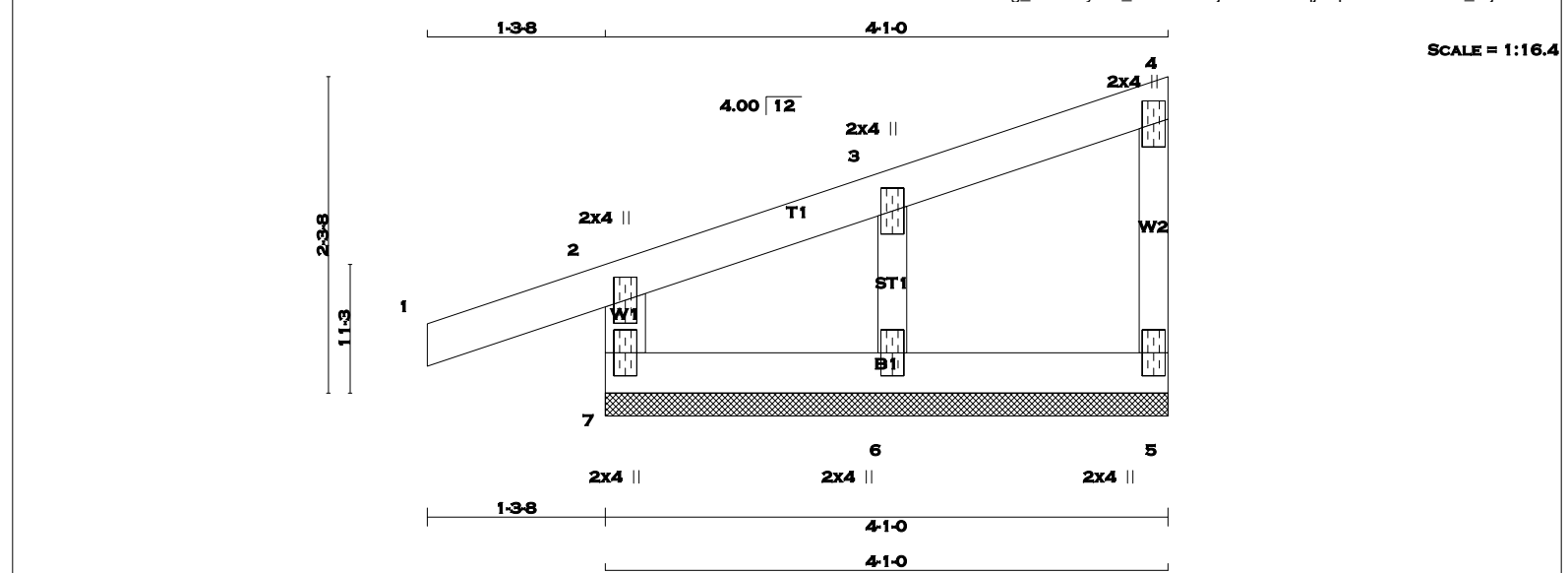
- The trusses are to be supported at the bearing points indicated and anchored to the supports where considered necessary by the designer of the overall structure
- Bearing sizes shown are the minimum required to prevent crushing of the truss members and do not necessarily take into account stability of the overall building structure
- Elevation of bearings must be carefully checked and shimmed to alignment for solid bearings
- Adequate wood truss bearing is the responsibility of the building designer.

DIMENSIONS

- Geometry of the truss and dimensions indicated on the drawing are identical to those of the installed truss.



01/29/2013



TOTAL WEIGHT = 2 X 14 = 28 lb

[M]

LUMBER					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.	BEARINGS				
7 - 2	2x4	DRY	No.2	SPF	THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.				
1 - 4	2x4	DRY	No.2	SPF	THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.				
5 - 4	2x3	DRY	No.2	SPF	PROVIDE ANCHORAGE AT ALL BEARING JOINTS FOR 150 LBS FACTORED UPLIFT.				
7 - 5	2x4	DRY	No.2	SPF	PROVIDE FOR 155 LBS FACTORED HORIZONTAL REACTION AT JOINT 7				
ALL WEBS 2x3 DRY No.2 SPF					HORIZONTAL REACTIONS				
ALL GABLE WEBS 2x3 DRY No.2 SPF					1ST LCASE MAX./MIN. COMPONENT REACTIONS				
GABLE STUDS SPACED AT 2-0-0 OC.					7 --- 0/0 0/0 0/0 111/0 0/0 0/0				

PLATES (table is in inches)						DESIGN CRITERIA					
JT	TYPE	PLATES	W	LEN	Y X	SPECIFIED LOADS:					
2	TMV+p	MT20	2.0	4.0		TOP CH.	LL	=	23.3	PSF	
3	TMV+w	MT20	2.0	4.0		DL	=	3.0	PSF		
4	TMV+p	MT20	2.0	4.0		BOT CH.	LL	=	0.0	PSF	
5	BMV1+p	MT20	2.0	4.0		DL	=	7.0	PSF		
6	BMV1+w	MT20	2.0	4.0		TOTAL LOAD	=	33.3	PSF		
7	BMV1+p	MT20	2.0	4.0		SPACING = 24.0 IN./C					
A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.						THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010					
						THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014 - CSA 086-09 - TPIC 2011					
						DESIGN ASSUMPTIONS - OVERHANG NOT TO BE ALTERED OR CUT OFF.					
						(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD					
						CSI: TC=0.10 (1-2:1) , BC=0.02 (6-7:6) , WB=0.03 (3-6:7) , SSI=0.08 (2-7:6)					
						DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10					
						COMPANION LIVE LOAD FACTOR = 0.50					
						TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .					
						NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 822 2284 1656					
						PLATE PLACEMENT TOL. = 0.250 inches					
						PLATE ROTATION TOL. = 5.0 Deg.					
						JSI GRIP= 0.14 (3) (INPUT = 0.90) JSI METAL= 0.08 (7) (INPUT = 1.00)					

March 10, 2017

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

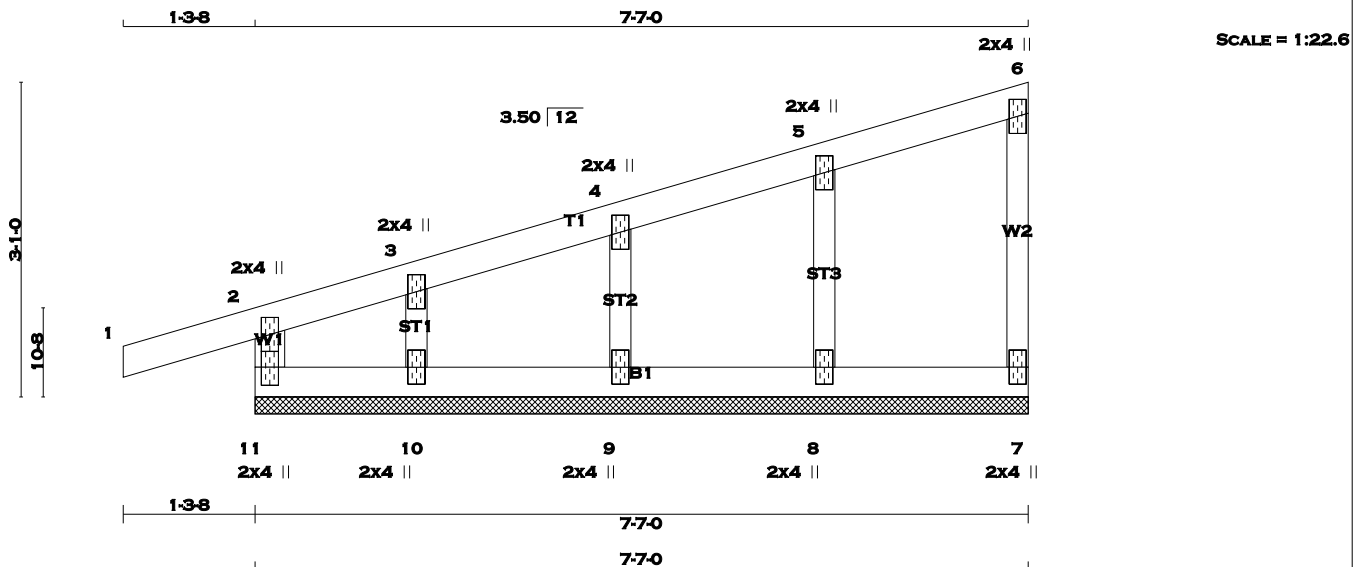
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MAR 29, 2017

17-4978

BUILDING DIVISION



TOTAL WEIGHT = 2 X 25 = 50 lb [M]

LUMBER				
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
11 - 2	2x4	DRY	No.2	SPF
1 - 6	2x4	DRY	No.2	SPF
7 - 6	2x3	DRY	No.2	SPF
11 - 7	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
ALL GABLE WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				
GABLE STUDS SPACED AT 2-0-0 OC.				

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMV+p	MT20	2.0	4.0		
3, 4, 5						
3	TMW+w	MT20	2.0	4.0		
6	TMV+p	MT20	2.0	4.0		
7	BMV1+p	MT20	2.0	4.0		
8, 9, 10						
8	BMW1+w	MT20	2.0	4.0		
11	BMV1+p	MT20	2.0	4.0	2.25	1.00

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

PROVIDE ANCHORAGE AT ALL BEARING JOINTS FOR 150 LBS FACTORED UPLIFT.

PROVIDE FOR 203 LBS FACTORED HORIZONTAL REACTION AT JOINT 11

HORIZONTAL REACTIONS							
1ST LCASE	MAX/MIN. COMPONENT REACTIONS						
COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL	
11	---	0 / 0	0 / 0	0 / 0	145 / 0	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. FACTORED LC1 MAX. (PLF)	MAX. FACTORED UNBRACED LENGTH (FT)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LC1 MAX. (PLF)	MAX. FACTORED UNBRACED LENGTH (FT)	
FR-TO					FR-TO				
11-2	-194 / 88	0.0	0.0 0.06 (7)	7.81	8-5	-168 / 132	0.03 (1)	0.03 (1)	
1-2	0 / 14	-77.3	-77.3 0.10 (1)	10.00	9-4	-160 / 140	0.03 (5)	0.03 (5)	
2-3	-124 / 0	-77.3	-77.3 0.07 (1)	6.25	10-3	-101 / 129	0.03 (7)	0.03 (7)	
3-4	-95 / 0	-77.3	-77.3 0.04 (1)	6.25					
4-5	-70 / 22	-77.3	-77.3 0.04 (1)	6.25					
5-6	-38 / 45	-77.3	-77.3 0.04 (5)	6.25					
7-6	-66 / 57	0.0	0.0 0.08 (5)	7.81					
11-10	-42 / 48	-17.5	-17.5 0.05 (6)	6.25					
10-9	-37 / 53	-17.5	-17.5 0.02 (5)	6.25					
9-8	-35 / 56	-17.5	-17.5 0.02 (11)	6.25					
8-7	-33 / 59	-17.5	-17.5 0.03 (5)	6.25					

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT { 40-0-0 } FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE { MAIN WIND FORCE RESISTING SYSTEM }. INTERNAL WIND PRESSURE IS BASED ON DESIGN { CATEGORY 2 }. BUILDING MAY BE LOCATED ON { OPEN TERRAIN }, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST { 0-0 } FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 23.3 PSF

DL = 3.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.0 PSF

TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

{ 55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD } EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.10 (1-2:1), BC=0.05 (10-11:6), WB=0.03 (4-9:5), SSI=0.11 (2-11:6)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MAX	MIN	MAX	MIN
MT20	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.16 (11) (INPUT = 0.90)

JSI METAL= 0.10 (11) (INPUT = 1.00)

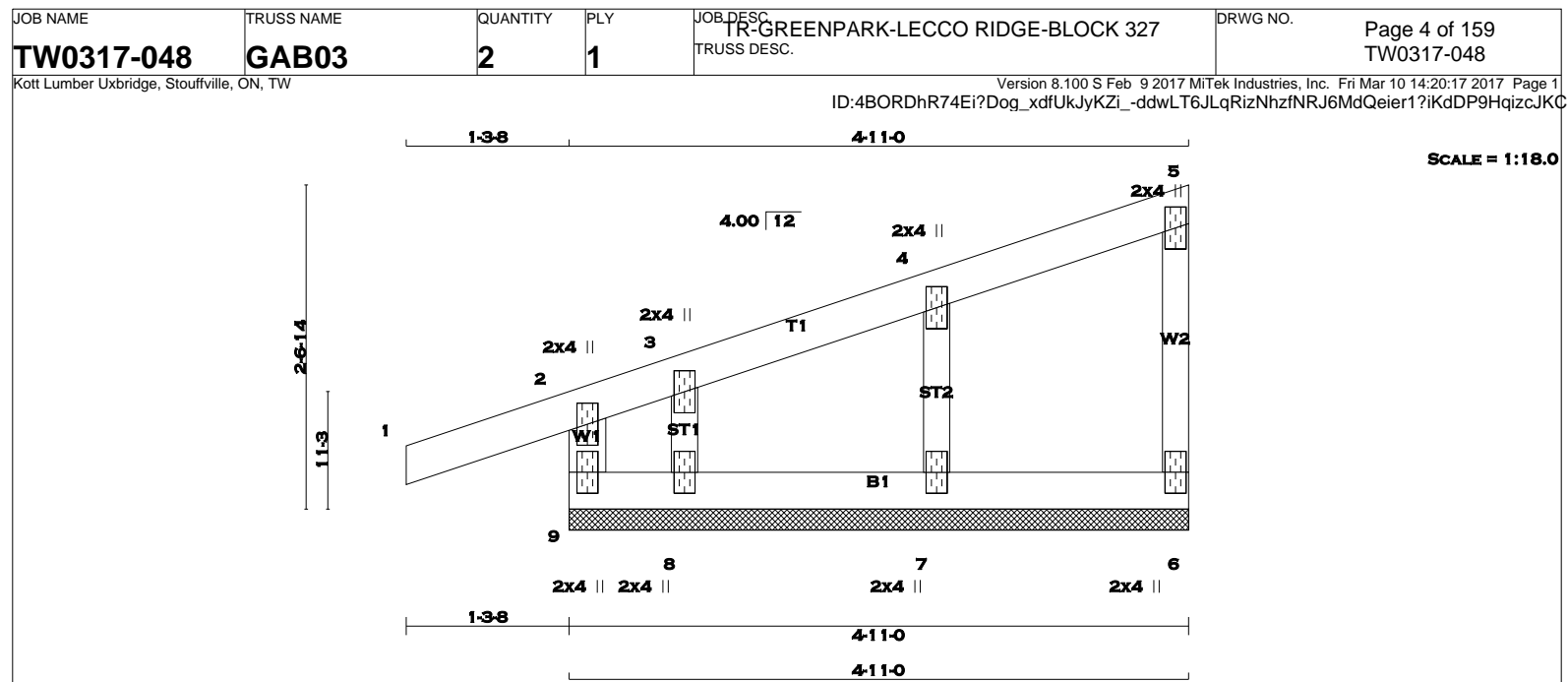


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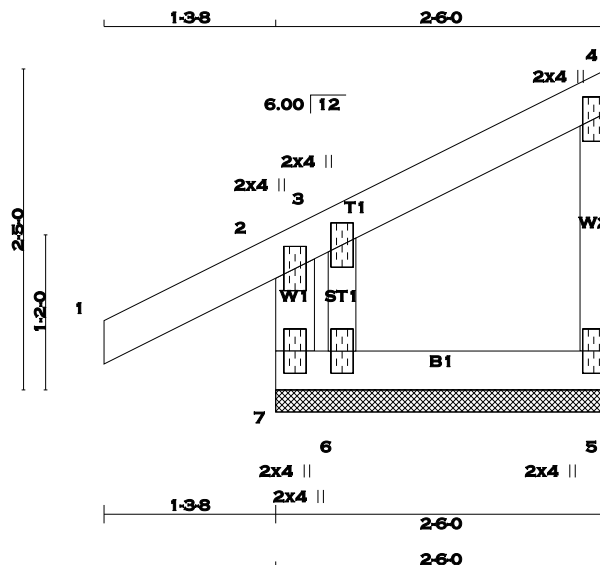


LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. SPF 9 - 2 2x4 DRY No.2 SPF 1 - 5 2x4 DRY No.2 SPF 6 - 5 2x3 DRY No.2 SPF 9 - 6 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF ALL GABLE WEBS 2x3 DRY No.2 SPF DRY: SEASONED LUMBER. GABLE STUDS SPACED AT 2-0-0 OC.						DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS. THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE. <u>PROVIDE ANCHORAGE AT ALL BEARING JOINTS FOR 150 LBS FACTORED UPLIFT.</u> <u>PROVIDE FOR 175 LBS FACTORED HORIZONTAL REACTION AT JOINT 9</u> HORIZONTAL REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS 9 --- 0/0 0/0 0/0 125/0 0/0 0/0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. LOADING TOTAL LOAD CASES: (11) <table><tr><th colspan="3">CHORDS</th><th colspan="3">WEBS</th></tr><tr><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>FACTORED VERT. LOAD LC1 (PLF)</th><th>MAX. UNBRACED LENGTH (FT)</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th></tr><tr><td>FR-TO</td><td></td><td>FROM TO</td><td></td><td>FR-TO</td><td></td></tr><tr><td>9-2</td><td>-193 / 78</td><td>0.0 0.0 0.06 (7)</td><td>7.81</td><td>7-4</td><td>-181 / 147</td></tr><tr><td>1-2</td><td>0 / 16</td><td>-77.3 -77.3 0.10 (1)</td><td>10.00</td><td>8-3</td><td>-46 / 104</td></tr><tr><td>2-3</td><td>-101 / 0</td><td>-77.3 -77.3 0.08 (1)</td><td>6.25</td><td></td><td>0.03 (7)</td></tr><tr><td>3-4</td><td>-72 / 7</td><td>-77.3 -77.3 0.05 (1)</td><td>6.25</td><td></td><td>0.02 (7)</td></tr><tr><td>4-5</td><td>-36 / 35</td><td>-77.3 -77.3 0.05 (1)</td><td>6.25</td><td></td><td></td></tr><tr><td>6-5</td><td>-64 / 54</td><td>0.0 0.0 0.06 (5)</td><td>7.81</td><td></td><td></td></tr><tr><td>9-8</td><td>-38 / 39</td><td>-17.5 -17.5 0.04 (6)</td><td>6.25</td><td></td><td></td></tr><tr><td>8-7</td><td>-34 / 44</td><td>-17.5 -17.5 0.02 (11)</td><td>6.25</td><td></td><td></td></tr><tr><td>7-6</td><td>-30 / 48</td><td>-17.5 -17.5 0.02 (5)</td><td>6.25</td><td></td><td></td></tr></table> WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT { 40-0-0 } FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE { MAIN WIND FORCE RESISTING SYSTEM }. INTERNAL WIND PRESSURE IS BASED ON DESIGN { CATEGORY 2 }. BUILDING MAY BE LOCATED ON { OPEN TERRAIN }, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST { 0-0 } FT-IN-SX AWAY FROM EAVE.										CHORDS			WEBS			MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX. UNBRACED LENGTH (FT)	MEMB.	MAX. FACTORED FORCE (LBS)	FR-TO		FROM TO		FR-TO		9-2	-193 / 78	0.0 0.0 0.06 (7)	7.81	7-4	-181 / 147	1-2	0 / 16	-77.3 -77.3 0.10 (1)	10.00	8-3	-46 / 104	2-3	-101 / 0	-77.3 -77.3 0.08 (1)	6.25		0.03 (7)	3-4	-72 / 7	-77.3 -77.3 0.05 (1)	6.25		0.02 (7)	4-5	-36 / 35	-77.3 -77.3 0.05 (1)	6.25			6-5	-64 / 54	0.0 0.0 0.06 (5)	7.81			9-8	-38 / 39	-17.5 -17.5 0.04 (6)	6.25			8-7	-34 / 44	-17.5 -17.5 0.02 (11)	6.25			7-6	-30 / 48	-17.5 -17.5 0.02 (5)	6.25			DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 23.3 PSF DL = 3.0 PSF BOT CH. LL = 0.0 PSF DL = 7.0 PSF TOTAL LOAD = 33.3 PSF SPACING = 24.0 IN. C/C THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014 - CSA 086-09 - TPIC 2011 DESIGN ASSUMPTIONS - OVERHANG NOT TO BE ALTERED OR CUT OFF. (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD CSI: TC=0.10 (1-2:1) , BC=0.04 (8-9:6) , WB=0.03 (4-7:7) , SSI=0.09 (2-9:6) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10 COMPANION LIVE LOAD FACTOR = 0.50 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 822 2284 1656 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.14 (4) (INPUT = 0.90) JSI METAL= 0.09 (9) (INPUT = 1.00)					
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SCALE = 1:17.3

TOTAL WEIGHT = 11 lb [M]

LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
7 - 2	2x4	DRY	No.2	SPF	
1 - 4	2x4	DRY	No.2	SPF	
5 - 4	2x3	DRY	No.2	SPF	
7 - 5	2x4	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
ALL GABLE WEBS	2x3	DRY	No.2	SPF	
DRY: SEASONED LUMBER.					
GABLE STUDS SPACED AT 2-0-0 OC.					

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMV+p	MT20	2.0	4.0		
3	TMV+w	MT20	2.0	4.0		
4	TMV+p	MT20	2.0	4.0		
5	BMV1+p	MT20	2.0	4.0		
6	BMV1+w	MT20	2.0	4.0		
7	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS
THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.
THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

PROVIDE ANCHORAGE AT ALL BEARING JOINTS FOR 150 LBS FACTORED UPLIFT EXCEPT 6:196 LBS.

PROVIDE FOR 154 LBS FACTORED HORIZONTAL REACTION AT JOINT 7

HORIZONTAL REACTIONS							
1ST LCASE	MAX./MIN.	COMPONENT REACTIONS					
COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
7	---	0 / 0	0 / 0	0 / 0	110 / -49	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (12)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
7-2	-220 / 45	0.0	0.0 0.05 (7)	7.81	6-3	-49 / 146	0.03 (6)
1-2	0 / 23	-77.3	-77.3 0.10 (1)	10.00			
2-3	-99 / 26	-77.3	-77.3 0.08 (1)	6.25			
3-4	-39 / 33	-77.3	-77.3 0.04 (1)	6.25			
5-4	-72 / 58	0.0	0.0 0.06 (7)	7.81			
7-6	-36 / 43	-17.5	-17.5 0.05 (6)	6.25			
6-5	-27 / 44	-17.5	-17.5 0.02 (5)	6.25			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT { 40-0-0 } FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpG, BASED ON THE { MAIN WIND FORCE RESISTING SYSTEM }. INTERNAL WIND PRESSURE IS BASED ON DESIGN { CATEGORY 2 }. BUILDING MAY BE LOCATED ON { OPEN TERRAIN }, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST { 0-0 } FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

DESIGN ASSUMPTIONS
- OVERHANG NOT TO BE ALTERED OR CUT OFF.

{ 55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD } EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.10 { 1-2:1 }, BC=0.05 { 6-7:6 }, WB=0.03 { 3-6:6 }, SSI=0.08 { 2-3:12 }

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.14 { 3 } (INPUT = 0.90)
JSI METAL= 0.08 { 7 } (INPUT = 1.00)

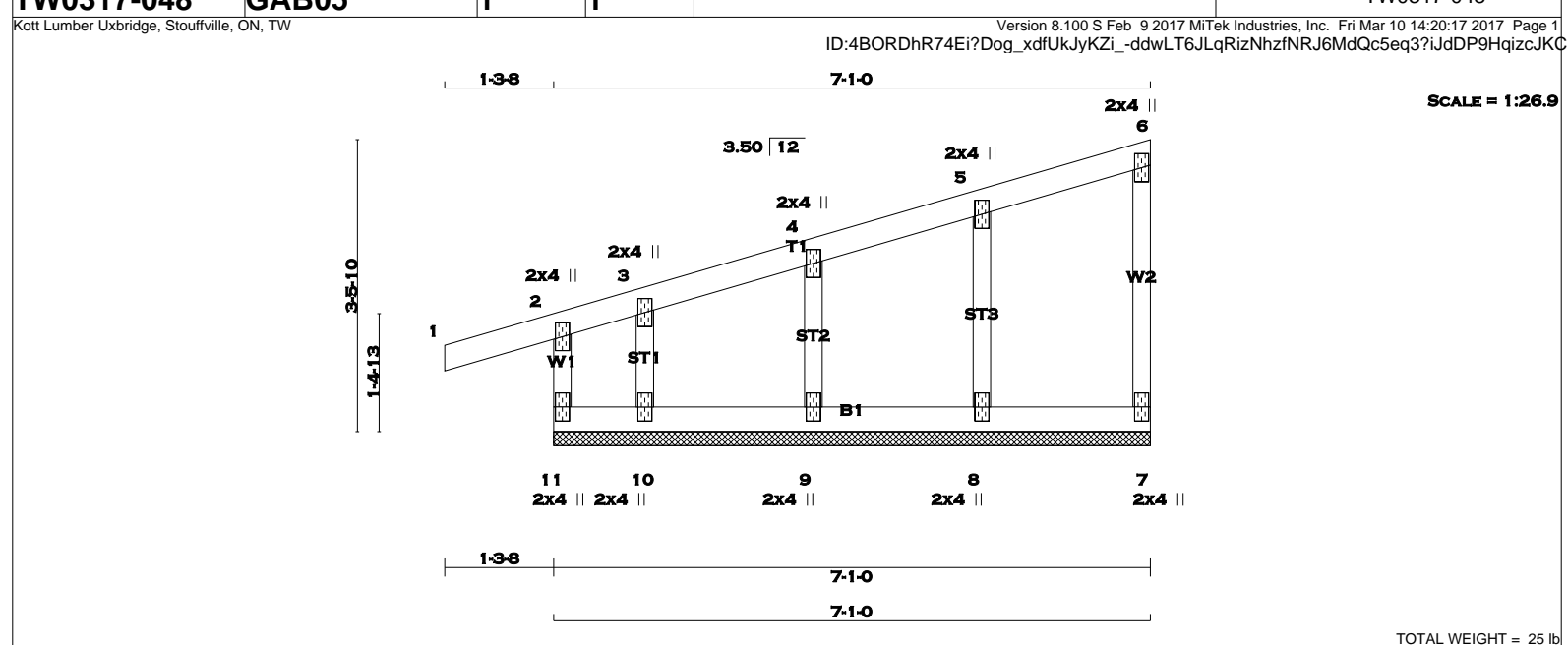


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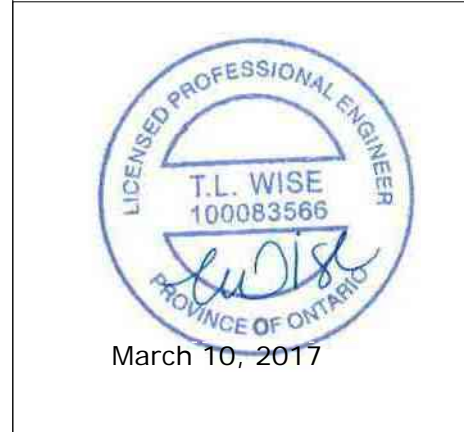


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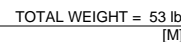


LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. 11 - 2 2x3 DRY No.2 SPF 1 - 6 2x4 DRY No.2 SPF 7 - 6 2x3 DRY No.2 SPF 11 - 7 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF ALL GABLE WEBS 2x3 DRY No.2 SPF DRY: SEASONED LUMBER. GABLE STUDS SPACED AT 2-0-0 OC.							DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS. THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE. <u>PROVIDE ANCHORAGE AT ALL BEARING JOINTS FOR 150 LBS FACTORED UPLIFT EXCEPT 10:231 LBS.</u> <u>PROVIDE FOR 228 LBS FACTORED HORIZONTAL REACTION AT JOINT 11</u> HORIZONTAL REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL 11 --- 0/0 0/0 0/0 163/-3 0/0 0/0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. LOADING TOTAL LOAD CASES: (11) <table><tr><th colspan="3">CHORDS</th><th colspan="3">WEBS</th></tr><tr><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>FACTORED VERT. LOAD LC1 (PLF)</th><th>MAX. UNBRACED LENGTH FR-TO</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th></tr><tr><td>FR-TO</td><td></td><td>FROM TO</td><td></td><td>FR-TO</td><td></td></tr><tr><td>11-2</td><td>-209 / 68</td><td>0.0 0.0 0.20 (6)</td><td>7.81</td><td>8-5</td><td>-169 / 124</td></tr><tr><td>1-2</td><td>0 / 14</td><td>-77.3 -77.3 0.10 (1)</td><td>10.00</td><td>9-4</td><td>-162 / 143</td></tr><tr><td>2-3</td><td>-135 / 0</td><td>-77.3 -77.3 0.09 (4)</td><td>6.25</td><td>10-3</td><td>-54 / 150</td></tr><tr><td>3-4</td><td>-94 / 6</td><td>-77.3 -77.3 0.04 (1)</td><td>6.25</td><td></td><td></td></tr><tr><td>4-5</td><td>-70 / 31</td><td>-77.3 -77.3 0.04 (1)</td><td>6.25</td><td></td><td></td></tr><tr><td>5-6</td><td>-38 / 54</td><td>-77.3 -77.3 0.06 (5)</td><td>6.25</td><td></td><td></td></tr><tr><td>7-6</td><td>-66 / 61</td><td>0.0 0.0 0.11 (5)</td><td>7.81</td><td></td><td></td></tr><tr><td>11-10</td><td>-50 / 58</td><td>-17.5 -17.5 0.10 (6)</td><td>6.25</td><td></td><td></td></tr><tr><td>10-9</td><td>-46 / 61</td><td>-17.5 -17.5 0.02 (5)</td><td>6.25</td><td></td><td></td></tr><tr><td>9-8</td><td>-44 / 64</td><td>-17.5 -17.5 0.02 (5)</td><td>6.25</td><td></td><td></td></tr><tr><td>8-7</td><td>-42 / 66</td><td>-17.5 -17.5 0.04 (5)</td><td>6.25</td><td></td><td></td></tr></table> WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}.INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.							CHORDS			WEBS			MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX. UNBRACED LENGTH FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	FR-TO		FROM TO		FR-TO		11-2	-209 / 68	0.0 0.0 0.20 (6)	7.81	8-5	-169 / 124	1-2	0 / 14	-77.3 -77.3 0.10 (1)	10.00	9-4	-162 / 143	2-3	-135 / 0	-77.3 -77.3 0.09 (4)	6.25	10-3	-54 / 150	3-4	-94 / 6	-77.3 -77.3 0.04 (1)	6.25			4-5	-70 / 31	-77.3 -77.3 0.04 (1)	6.25			5-6	-38 / 54	-77.3 -77.3 0.06 (5)	6.25			7-6	-66 / 61	0.0 0.0 0.11 (5)	7.81			11-10	-50 / 58	-17.5 -17.5 0.10 (6)	6.25			10-9	-46 / 61	-17.5 -17.5 0.02 (5)	6.25			9-8	-44 / 64	-17.5 -17.5 0.02 (5)	6.25			8-7	-42 / 66	-17.5 -17.5 0.04 (5)	6.25			DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 23.3 PSF DL = 3.0 PSF BOT CH. LL = 0.0 PSF DL = 7.0 PSF TOTAL LOAD = 33.3 PSF SPACING = 24.0 IN. C/C THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014 - CSA 086-09 - TPIC 2011 DESIGN ASSUMPTIONS - OVERHANG NOT TO BE ALTERED OR CUT OFF. (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD CSI: TC=0.20 (2-11:6) , BC=0.10 (10-11:6) , WB=0.03 (3-10:6) , SSI=0.17 (2-11:6) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10 COMPANION LIVE LOAD FACTOR = 0.50 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 822 2284 1656 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.19 (11) (INPUT = 0.90) JSI METAL= 0.12 (11) (INPUT = 1.00)						
CHORDS			WEBS																																																																																																					
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX. UNBRACED LENGTH FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)																																																																																																			
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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
3	TTWW-m	MT20	6.0	8.0	2.00	3.00
4	TMWW+t	MT20	4.0	4.0	1.50	1.50
5	TMWW-t	MT20	4.0	4.0		
6	TMW+w	MT20	2.0	4.0		
7	TS-t	MT20	3.0	8.0		
8	TMWW-t	MT20	4.0	5.0	1.50	2.50
9	TTWW+m	MT20	8.0	8.0	Edge	3.00
10	TMVW-p	MT20	5.0	8.0	1.50	Edge
11	BMV1+p	MT20	3.0	4.0	2.25	1.50
12	BMWW-t	MT20	4.0	6.0	1.75	1.50
13	BMWW-t	MT20	5.0	5.0	1.75	1.75
14	BMWWW-t	MT20	6.0	8.0	3.75	2.50
15	BS-t	MT20	5.0	6.0		
16	BMWW-t	MT20	4.0	5.0	1.75	2.25
17	BMWW-t	MT20	5.0	5.0	2.25	1.75
18	BMWW-t	MT20	4.0	6.0	1.75	2.25
19	BMV1+p	MT20	3.0	4.0		

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

HANGERS NOTES

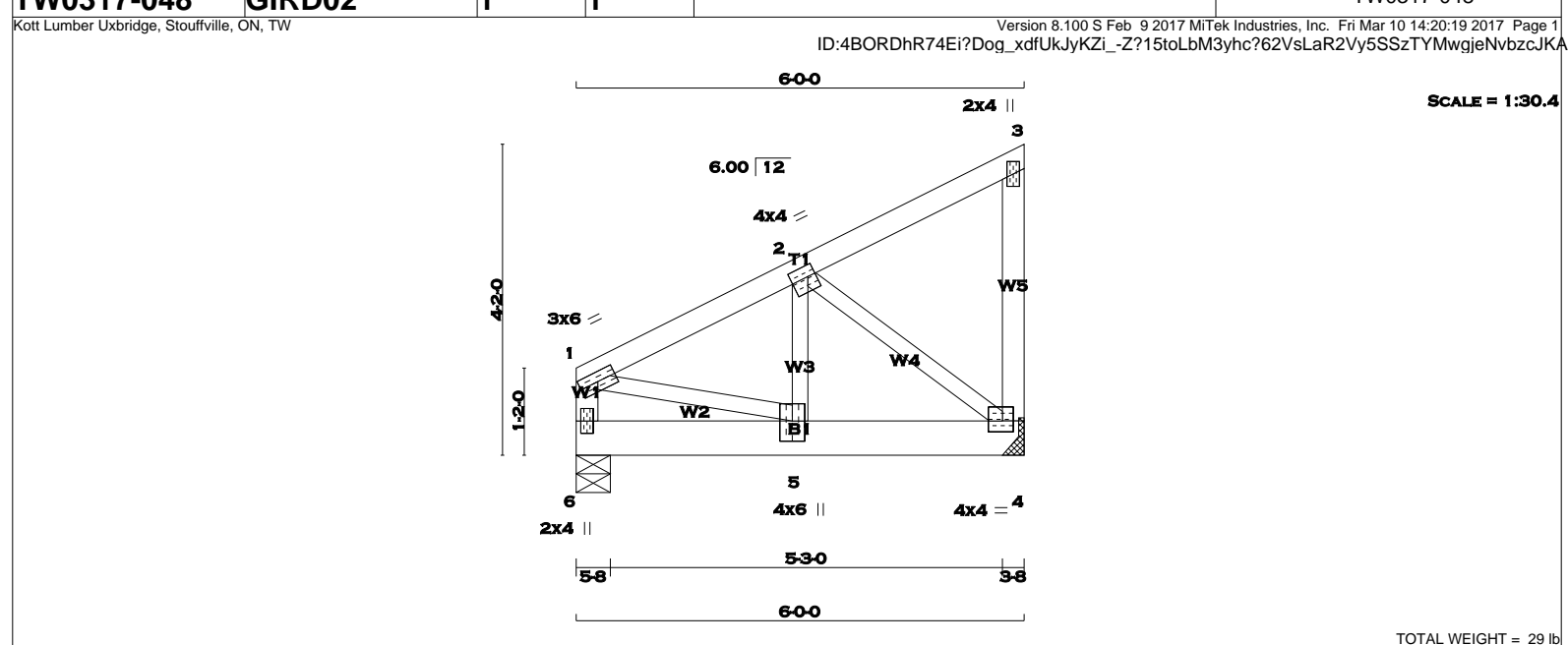
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 290.7 lbs FACTORED DOWN AND 201.8 lbs FACTORED UP AT 23-3-4 ON TOP CHORD, AND 1441.5 lbs FACTORED DOWN AND 665.9 lbs FACTORED UP AT 16-3-4 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

JSI GRIP= 0.56 (12) (INPUT = 0.90)
JSI METAL= 0.42 (15) (INPUT = 1.00)



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LUMBER

N. L. G. A. RULES

CHORDS SIZE

1 - 32x4

4 - 32x4

6 - 12x4

6 - 42x6

ALL WEBS 2x3

EXCEPT

DRY: SEASONED LUMBER.

LUMBER

No.2

No.2

No.2

No.2

No.2

DESCR.

SPF

SPF

SPF

SPF

SPF

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
1	TMVW-t	MT20	3.0	6.0		
2	TMVW-t	MT20	4.0	4.0	1.75	1.25
3	TMV+p	MT20	2.0	4.0		
4	BMVW1-t	MT20	4.0	4.0	1.75	1.75
5	BMVWV-t	MT20	4.0	6.0	3.25	2.00
6	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
4	1263	0	1456	0	-537	IN-SX
6	1263	0	1455	242	-471	5-8

PROVIDE ANCHORAGE AT BEARING JOINT 4 FOR 537 LBS FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT 6 FOR 471 LBS FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES. SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 242 LBS FACTORED HORIZONTAL REACTION AT JOINT 6

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	SNOW	LIVE	PERM. LIVE				
4	886	620 / 0	0 / 0	0 / 0	483 / -555	266 / 0	0 / 0
6	886	620 / 0	0 / 0	0 / 0	481 / -508	266 / 0	0 / 0

HORIZONTAL REACTIONS

6	---	0 / 0	0 / 0	0 / 0	173 / -70	0 / 0	0 / 0
---	-----	-------	-------	-------	-----------	-------	-------

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.66 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

CHORDS				WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD		MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD		
		LC1	MAX			LC1	MAX	
FR-TO		FROM	TO	FR-TO		FROM	TO	
1-2	-1253 / 408	-77.3	-77.3	0.17 (7)	5.66	5-2	-312 / 1117	0.24 (3)
2-3	-72 / 71	-77.3	-77.3	0.11 (7)	6.25	2-4	-1406 / 571	0.31 (3)
4-3	-102 / 78	0.0	0.0	0.10 (7)	7.81	1-5	-323 / 1167	0.25 (4)
6-1	-950 / 335	0.0	0.0	0.09 (1)	7.81			
6-5	-226 / 91	-343.5	-343.5	0.21 (3)	6.25			
5-4	-432 / 1122	-343.5	-343.5	0.33 (3)	6.25			

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 23.3 PSF

DL = 3.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.0 PSF

TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

GIRDER TYPE: CStdGirder

START DISTANCE = 0-0

START SPAN CARRIED = 16-2-8

END DISTANCE = 6-0-0

END SPAN CARRIED = 16-2-8

END WALL WIDTH = 5-8

APPLIED TO FRONT SIDE OF BOTTOM CHORD.

- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014

- CSA 086-09

- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")

ALLOWABLE DEFL.(TL)= L/360 (0.20")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.17 (1-2-7) , BC=0.33 (4-5-3) , WB=0.31 (2-4-3) , SSI=0.40 (5-6-4)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00

COMP=1.00 SHEAR=1.00 TENS= 1.00

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (5) (INPUT = 0.90)

JSI METAL= 0.42 (2) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER

T.L. WISE

100083566

PROVINCE OF ONTARIO

March 10, 2017

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March 10, 2017



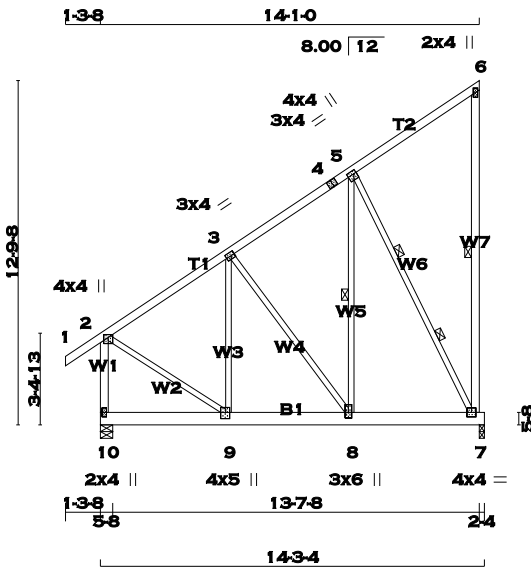
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TOTAL WEIGHT = 6 X 94 = 563 lb [M]

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
1 - 4	2x4	No.2	SPF
4 - 6	2x4	DRY	No.2
7 - 6	2x4	DRY	No.2
10 - 2	2x4	DRY	No.2
10 - 7	2x6	DRY	No.2

ALL WEBS 2x3 DRY No.2 SPF EXCEPT

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 3 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
1- 4	12	TOP
4- 6	12	TOP
6- 7	12	TOP
10- 2	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
10- 7	6	SIDE(471.5)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	6	

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY.

SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF TRANSFERING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW+p	MT20	4.0	4.0	1.25	2.00
3	TMVW-t	MT20	3.0	4.0	1.50	1.50
4	TS-t	MT20	3.0	4.0		
5	TMVW+t	MT20	4.0	4.0	1.50	1.00
6	TMV+p	MT20	2.0	4.0		
7	BMVW1-t	MT20	4.0	4.0		
8	BMVW+t	MT20	3.0	6.0	2.50	1.50
9	BMVW+t	MT20	4.0	5.0	2.75	1.75
10	BMV1+p	MT20	2.0	4.0		

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
7	4320	0	5087	0	-1832	2-4	2-4	
10	4725	0	5490	761	-1689	5-8	5-8	

PROVIDE ANCHORAGE AT BEARING JOINT 7 FOR 1832 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 10 FOR 1689 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES, SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 761 LBS. FACTORED HORIZONTAL REACTION AT JOINT 10

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX./MIN. SNOW		LIVE		PERM.LIVE		WIND		DEAD		SOIL	
	7	10	3032	2121 / 0	0 / 0	0 / 0	0 / 0	1917 / -1894	911 / 0	0 / 0	911 / 0	982 / 0	0 / 0	0 / 0
10	3314	2332 / 0			0 / 0	0 / 0	0 / 0	1911 / -1838	982 / 0					

HORIZONTAL REACTIONS

10	---	0 / 0	0 / 0	0 / 0	544 / -377	0 / 0	0 / 0
----	-----	-------	-------	-------	------------	-------	-------

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 7, 10

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.85 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

- 1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-7. DBS = 20-0-0 . CBF = 19 LBS.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-8. DBS = 6-0-0 . CBF = 73 LBS.
2 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/3 LENGTH OF 5-7. DBS = 4-0-0 . CBF = 90 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) TO EACH PLY USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (11)

MEMB.	CHORDS		WEBS	
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)
FR-TO	FROM TO		LENGTH FR-TO	
	FR-TO	FROM TO	FR-TO	FROM TO
1-2	0 / 29	-77.3 -77.3	0.03 (1)	10.00
2-3	-3502 / 1127	-77.3 -77.3	0.13 (7)	5.85
3-4	-2325 / 819	-77.3 -77.3	0.12 (7)	6.25
4-5	-2325 / 819	-77.3 -77.3	0.12 (7)	6.25
5-6	-202 / 287	-77.3 -77.3	0.09 (7)	6.25
7-6	-176 / 181	0.0 0.0	0.30 (5)	6.25
10-2	-4049 / 1278	0.0 0.0	0.23 (4)	7.03
10-9	-703 / 501	-620.2 -620.2	0.28 (3)	6.25
9-8	-1237 / 2959	-525.3 -525.3	0.36 (3)	6.25
8-7	-784 / 1904	-525.3 -525.3	0.30 (3)	6.25

WIND AND PRESSURE DESIGN WIND REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT (40-0) FT. (S) PERFORM THE GRADE AND USING EXTERNAL PEAK COEFFIC. F.S. BASED ON THE (M) 1 WIND FORCE RESISTING SYSTEM INTERNAL WIND PRESSURE (S) AS D. DESIGN CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0.0) FT. FROM EAVE.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD	=	33.3	PSF	

SPACING = 24.0 IN./C

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 27-10-8
END DISTANCE = 4-7-8
END SPAN CARRIED = 27-10-8
END WALL WIDTH = 5-8
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CStdGirder
START DISTANCE = 4-7-8
START SPAN CARRIED = 23-10-8
END DISTANCE = 14-3-4
END SPAN CARRIED = 23-10-8
END WALL WIDTH = 5-8
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.47")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.47")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.08")

CSI: TC=0.30 (6-7.5) , BC=0.36 (8-9.3) , WB=0.94 (5-7.3) , SSI=0.35 (9-10.4)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

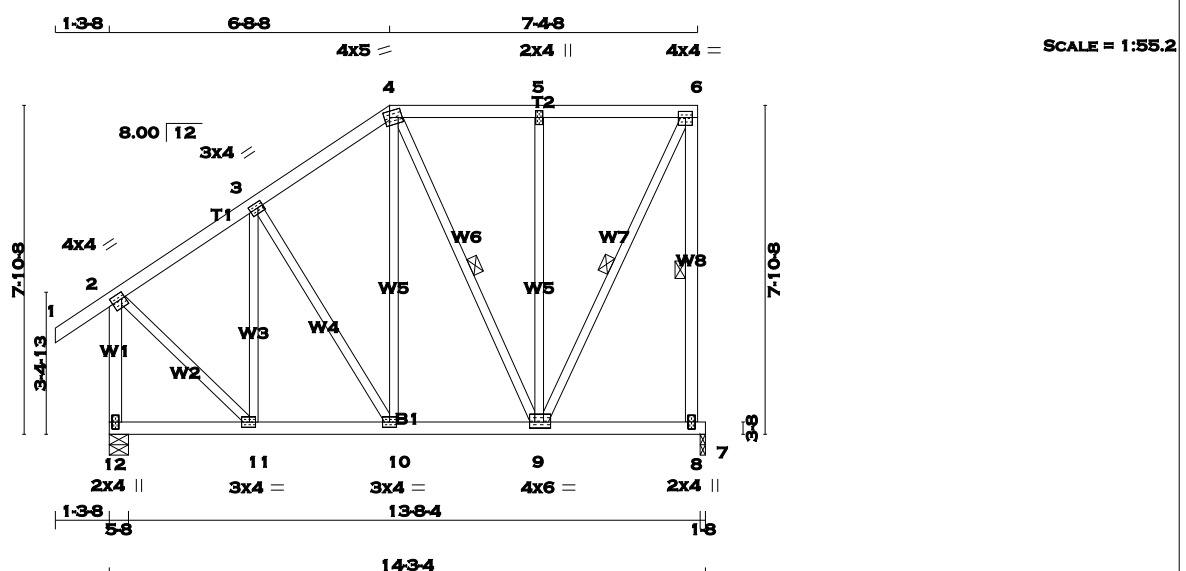
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (7) (INPUT = 0.90)
JSI METAL= 0.33 (8) (INPUT = 1.00)



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TOTAL WEIGHT = 2 X 85 = 170 lb [M]

LUMBER				DESCR.	
N. L. G. A. RULES					
CHORDS	SIZE	LUMBER			
1 - 4	2x4	DRY	No.2	SPF	
4 - 6	2x4	DRY	No.2	SPF	
8 - 6	2x4	DRY	No.2	SPF	
12 - 2	2x4	DRY	No.2	SPF	
12 - 7	2x4	DRY	No.2	SPF	
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-t	MT20	4.0	4.0	1.75	1.00
3	TMVW-t	MT20	3.0	4.0	1.50	1.50
4	TTWW-m	MT20	4.0	5.0	1.75	1.50
5	TMVW-w	MT20	2.0	4.0		
6	TMVW-t	MT20	4.0	4.0	1.75	2.00
8	BMV+p	MT20	2.0	4.0		
9	BMVW-t	MT20	4.0	6.0	1.75	1.50
10	BMVW-t	MT20	3.0	4.0		
11	BMVW-t	MT20	3.0	4.0	1.50	1.75
12	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
12	1044	0	1134	442	-457	5-8	5-8
7	923	0	1029	0	-498	1-8	1-8

PROVIDE ANCHORAGE AT BEARING JOINT 12 FOR 457 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 7 FOR 498 LBS. FACTORED UPLIFT

PROVIDE FOR 442 LBS. FACTORED HORIZONTAL REACTION AT JOINT 12

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
12	730	524 / 0	0 / 0	0 / 0	225 / -459	206 / 0	0 / 0
7	648	452 / 0	0 / 0	0 / 0	264 / -482	197 / 0	0 / 0

HORIZONTAL REACTIONS							
12	---	0 / 0	0 / 0	0 / 0	316 / -239	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 12, 7

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-8. DBS = 16-0-0 . CBF = 89 LBS.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-9, 6-9. DBS = 20-0-0 . CBF = 54 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (11)

CHORDS				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
1-2	0 / 29	-77.3 -77.3	0.11 (1)	10-00	11-3	-234 / 108	0.12 (4)
2-3	-643 / 354	-77.3 -77.3	0.22 (7)	6.25	3-10	-141 / 233	0.10 (3)
3-4	-623 / 432	-77.3 -77.3	0.23 (7)	6.25	10-4	-190 / 284	0.22 (7)
4-5	-441 / 365	-77.3 -77.3	0.18 (7)	6.25	4-9	-185 / 159	0.09 (3)
5-6	-441 / 366	-77.3 -77.3	0.18 (7)	6.25	9-5	-365 / 283	0.42 (3)
8-6	-988 / 527	0.0 0.0	0.45 (7)	6.25	9-6	-486 / 969	0.23 (7)
12-2	-1050 / 455	0.0 0.0	0.20 (1)	7.65	2-11	-167 / 711	0.16 (1)
12-11	-382 / 306	-54.1 -54.1	0.10 (3)	6.25			
11-10	-395 / 580	-54.1 -54.1	0.18 (1)	6.25			
10-9	-300 / 510	-54.1 -54.1	0.25 (1)	6.25			
9-8	-58 / 149	-54.1 -54.1	0.27 (1)	6.25			
8-7	0 / 0	-54.1 -54.1	0.26 (1)	10.00			

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT (40-0-0) FT. IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, { 0.8 } FOR EXTERIOR WALLS AND { 0.7 } FOR EXTERIOR ROOFS. WIND FORCE RESISTING SYSTEM, INTERNAL WIND PRESSURE COEFFICIENTS, { 0.7 } FOR EXTERIOR WALLS AND { 0.7 } FOR EXTERIOR ROOFS. BUILDING MAY BE LOCATED ON (OPEN) TERRAIN OR (CLOSED) TERRAIN. BUILDING TO BE LOCATED AT LEAST (0-0) FT. IN-SX AWAY FROM NEARBY OBSTACLES.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD	=	33.3	PSF	

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 4-0-0
END DISTANCE = 14-3-4
END SPAN CARRIED = 4-0-0
END WALL WIDTH = 5-8
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.48")
CALCULATED VERT. DEFL.(LL) = L/999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.48")
CALCULATED VERT. DEFL.(TL) = L/999 (0.07")

CSI=TC=0.45 (6-8:7) , BC=0.27 (8-9:1) , WB=0.42 (5-9:3) , SSI=0.79 (7-8:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00
COMP=1.00 SHEAR=1.00 TENS=1.00

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES			
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 822	2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

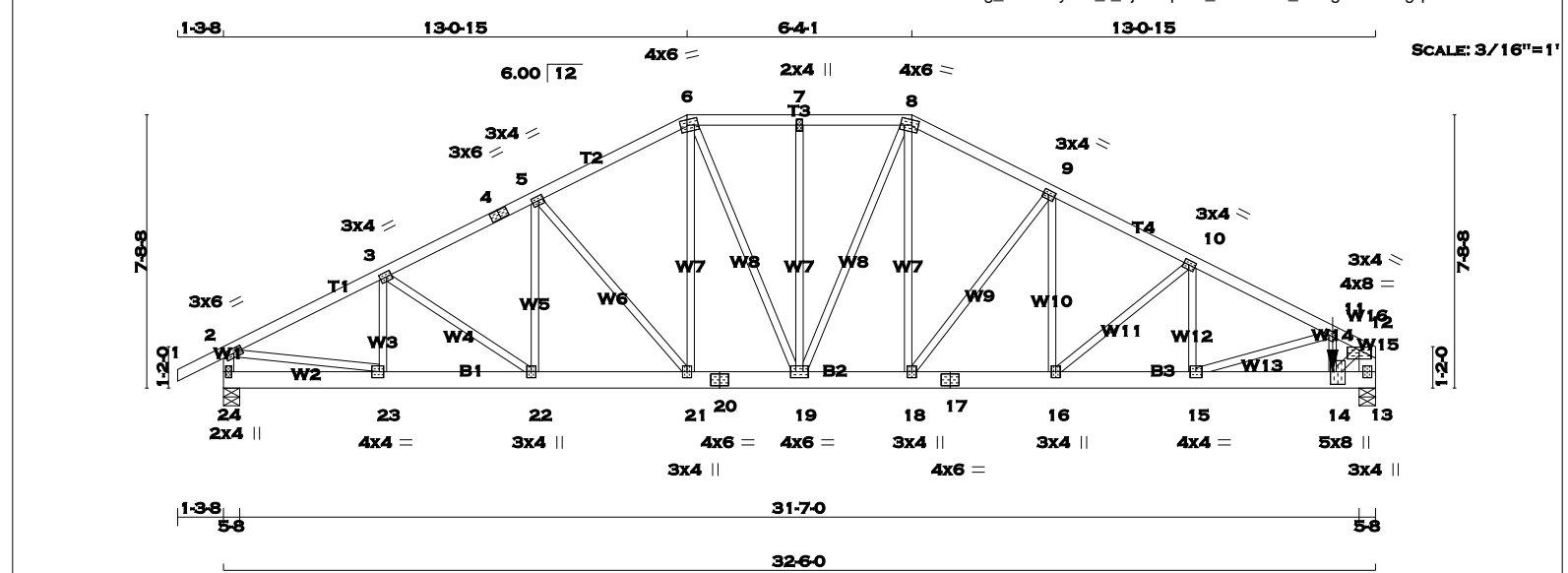
JSI GRIP= 0.89 (11) (INPUT = 0.90)
JSI METAL= 0.29 (2) (INPUT = 1.00)



March 10, 2017

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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LUMBER
N. L. G. A. RULES
CHORDS SIZE LUMBER DESCR. SPF
1 - 4 2x4 DRY No.2 SPF
4 - 6 2x4 DRY No.2 SPF
6 - 8 2x4 DRY No.2 SPF
8 - 12 2x4 DRY No.2 SPF
24 - 2 2x4 DRY No.2 SPF
13 - 12 2x6 DRY No.2 SPF
24 - 20 2x6 DRY No.2 SPF
20 - 17 2x6 DRY No.2 SPF
17 - 13 2x6 DRY No.2 SPF

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS SURFACE SPACING (IN) LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS
1-4 1 12 TOP
4-6 1 12 TOP
6-8 1 12 TOP
8-12 1 12 TOP
24-2 1 12 TOP
13-12 2 12 TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS
24-20 2 12 TOP
20-17 2 12 TOP
17-13 2 12 TOP
WEBS : (0.122"x3") SPIRAL NAILS
2x3 1 6 SIDE(0.0)

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.

TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY.

SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF TRANSFERING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER
BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
24	1783	0	1850	207
13	5073	0	5716	0

PROVIDE ANCHORAGE AT BEARING JOINT 24 FOR 857 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 13 FOR 2586 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES. SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 207 LBS FACTORED HORIZONTAL REACTION AT JOINT 24

UNFACTORED REACTIONS

JT	1ST CASE COMBINED	MAX./MIN. SNOW	MAX./MIN. LIVE	MAX./MIN. PERM. LIVE	MAX./MIN. WIND	MAX./MIN. DEAD	MAX./MIN. SOIL
24	1249	887 / 0	0 / 0	0 / 0	168 / -845	362 / 0	0 / 0
13	3560	2490 / 0	0 / 0	0 / 0	1609 / -2535	1070 / 0	0 / 0

HORIZONTAL REACTIONS
24 --- 0 / 0 0 / 0 0 / 0 148 / -121 0 / 0 0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 24, 13

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.29 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

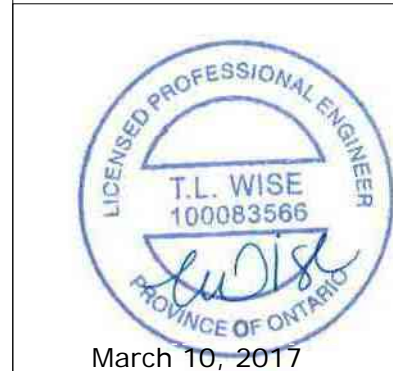
LOADING
TOTAL LOAD CASES: (11)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH	MAX. FACTORED FORCE (LBS)
FR-TO				FR-TO			
1-2	0 / 23	-77.3	-77.3 0.06 (1)	10.00	23-3	-347 / 243	0.03 (1)
2-3	-2553 / 1182	-77.3	-77.3 0.19 (7)	5.60	3-22	-45 / 143	0.02 (7)
3-4	-2535 / 1234	-77.3	-77.3 0.19 (7)	5.62	22-5	-34 / 115	0.02 (11)
4-5	-2535 / 1234	-77.3	-77.3 0.19 (7)	5.62	5-21	-466 / 376	0.19 (3)
5-6	-2224 / 1139	-77.3	-77.3 0.18 (7)	5.90	21-6	-239 / 421	0.12 (7)
6-7	-2124 / 1118	-77.3	-77.3 0.13 (7)	6.05	6-19	-284 / 360	0.18 (8)
7-8	-2124 / 1118	-77.3	-77.3 0.13 (7)	6.05	19-7	-300 / 235	0.15 (3)
8-9	-2360 / 1211	-77.3	-77.3 0.17 (8)	5.80	19-8	-128 / 91	0.08 (7)
9-10	-2953 / 1437	-77.3	-77.3 0.19 (8)	5.32	18-8	-423 / 784	0.22 (8)
10-11	-3766 / 1756	-77.3	-77.3 0.20 (8)	4.82	18-9	-892 / 582	0.36 (3)
11-12	-5114 / 2332	-77.3	-77.3 0.20 (8)	4.29	16-9	-287 / 650	0.07 (1)
24-2	-1795 / 870	0.0	0.0 0.10 (1)	7.81	16-10	-967 / 558	0.21 (3)
13-12	-5278 / 2380	0.0	0.0 0.17 (1)	6.43	15-10	-244 / 662	0.07 (3)
					15-11	-1251 / 643	0.18 (3)
24-23	-192 / 169	-17.5	-17.5 0.03 (1)	6.25	14-11	-399 / 865	0.09 (3)
23-22	-1135 / 2328	-17.5	-17.5 0.17 (1)	6.25	2-23	-957 / 2320	0.28 (1)
22-21	-1018 / 2292	-17.5	-17.5 0.15 (1)	6.25	14-12	-2448 / 5423	0.60 (1)
21-20	-777 / 1996	-17.5	-17.5 0.13 (1)	6.25			
20-19	-777 / 1996	-17.5	-17.5 0.13 (1)	6.25			
19-18	-762 / 2118	-17.5	-17.5 0.14 (1)	6.25			
18-17	-1013 / 2647	-17.5	-17.5 0.18 (1)	6.25			
17-16	-1013 / 2647	-17.5	-17.5 0.18 (1)	6.25			
16-15	-1439 / 3385	-17.5	-17.5 0.23 (1)	6.25			
15-14	-2046 / 4566	-17.5	-17.5 0.43 (1)	6.25			
14-13	-8 / 16	-17.5	-17.5 0.17 (3)	10.00			

FACTORED CONCENTRATED LOADS (LBS)
JT LOC. LC1 MAX- MAX+ FACE DIR.
14 31-3-8 -3668 -4324 1934 FRONT VERT

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE (NEAR 20) 2517 (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM) INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST 10 FEET FROM EAVE.

RECEIVED TOWN OF MILTON



PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-t	MT20	3.0	6.0		
3, 5, 9, 10, 11						
3	TMWW-t	MT20	3.0	4.0	1.50	1.75
4	TS-t	MT20	3.0	6.0		
6	TTWW-m	MT20	4.0	6.0	1.75	2.25
7	TMW+w	MT20	2.0	4.0		
8	TTWW-m	MT20	4.0	6.0	1.75	2.25
12	TMVW-p	MT20	4.0	8.0	1.00	4.00
13	BMV1+p	MT20	3.0	4.0		
14	BMWW+t	MT20	5.0	8.0	4.25	2.00
15	BMWW-t	MT20	4.0	4.0		
16, 18, 21, 22						
16	BMWW+t	MT20	3.0	4.0		
17	BS-t	MT20	4.0	6.0		
19	BMWWWW-t	MT20	4.0	6.0		
20	BS-t	MT20	4.0	6.0		
23	BMWW-t	MT20	4.0	4.0	2.00	1.50
24	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

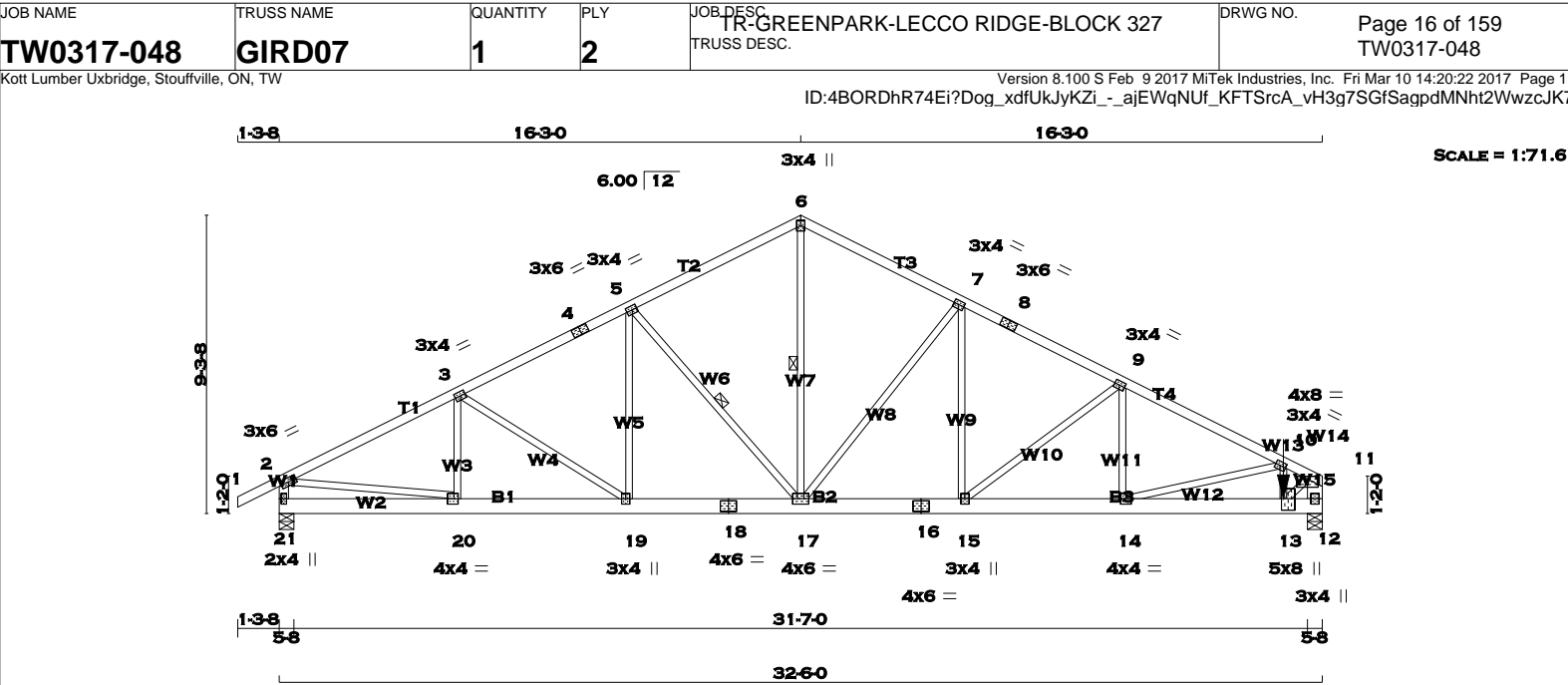
HANGERS NOTES

- 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 4323.5 lbs. FACTORED DOWN AND 1934.4 lbs FACTORED UP AT 31-3-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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LUMBER
N. L. G. A. RULES
CHORDS SIZE LUMBER DESCR.

1 - 4	2x4	DRY	No.2	SPF
4 - 6	2x4	DRY	No.2	SPF
6 - 8	2x4	DRY	No.2	SPF
8 - 11	2x4	DRY	No.2	SPF
21 - 2	2x4	DRY	No.2	SPF
12 - 11	2x6	DRY	No.2	SPF
21 - 18	2x6	DRY	No.2	SPF
18 - 16	2x6	DRY	No.2	SPF
16 - 12	2x6	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS SURFACE SPACING (IN) LOAD(PLF)

TOP CHORDS : (0.122"x3") SPIRAL NAILS

1-4	1	12	TOP
4-6	1	12	TOP
6-8	1	12	TOP
8-11	1	12	TOP
21-2	1	12	TOP
12-11	2	12	TOP

BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS

21-18	2	12	TOP
18-16	2	12	TOP
16-12	2	12	TOP

WEBS : (0.122"x3") SPIRAL NAILS

2x3	1	6	SIDE(0.0)
-----	---	---	-----------

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.

TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY.

SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF TRANSFERING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UP
21	1773	0	1829	-805
12	4831	0	5424	-2411

PROVIDE ANCHORAGE AT BEARING JOINT 21 FOR 805 LBS. FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT 12 FOR 2411 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES. SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 248 LBS FACTORED HORIZONTAL REACTION AT JOINT 21

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS
	COMBINED	SNOW	LIVE
21	1242	882 / 0	0 / 0
12	3391	2372 / 0	0 / 0

HORIZONTAL REACTIONS

21	---	0 / 0	0 / 0	177 / -143	0 / 0	0 / 0
----	-----	-------	-------	------------	-------	-------

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 21, 12

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.37 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-17, 6-17. DBS = 20-0-0 . CBF = 83 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) TO EACH PLY USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING
TOTAL LOAD CASES: (11)

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC1)	MAX. FACTORED VERT. LOAD (LC)	MAX. FACTORED VERT. LOAD (UNBRACED LENGTH)	MEMB.	WEBS	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC)
FR-TO							FR-TO			
1-2		0 / 23	-77.3	-77.3	0.06 (1)	10.00	20-3	-243 / 211	0.03 (1)	
2-3		-2584 / 1117	-77.3	-77.3	0.24 (7)	5.50	3-19	-256 / 275	0.09 (3)	
3-4		-2377 / 1088	-77.3	-77.3	0.23 (7)	5.68	19-5	-87 / 233	0.03 (7)	
4-5		-2377 / 1088	-77.3	-77.3	0.23 (7)	5.68	5-17	-659 / 509	0.15 (3)	
5-6		-1927 / 969	-77.3	-77.3	0.22 (7)	6.15	17-6	-652 / 1381	0.17 (8)	
6-7		-1933 / 973	-77.3	-77.3	0.20 (8)	6.18	17-7	-982 / 667	0.67 (4)	
7-8		-2586 / 1192	-77.3	-77.3	0.22 (8)	5.54	15-7	-285 / 640	0.10 (8)	
8-9		-2586 / 1192	-77.3	-77.3	0.22 (8)	5.54	15-9	-980 / 603	0.34 (3)	
9-10		-3445 / 1530	-77.3	-77.3	0.23 (8)	4.96	14-9	-199 / 585	0.06 (3)	
10-11		-4901 / 2193	-77.3	-77.3	0.23 (8)	4.37	14-10	-1347 / 750	0.30 (3)	
21-2		-1773 / 825	0.0	0.0	0.09 (1)	7.81	13-10	-357 / 774	0.08 (3)	
12-11		-5034 / 2212	0.0	0.0	0.16 (1)	6.54	2-20	-879 / 2340	0.28 (1)	
							13-11	-2323 / 5220	0.58 (1)	
21-20		-233 / 210	-17.5	-17.5	0.03 (8)	6.25				
20-19		-1104 / 2368	-17.5	-17.5	0.17 (1)	6.25				
19-18		-875 / 2155	-17.5	-17.5	0.16 (1)	6.25				
18-17		-875 / 2155	-17.5	-17.5	0.16 (1)	6.25				
17-16		-790 / 2321	-17.5	-17.5	0.17 (1)	6.25				
16-15		-790 / 2321	-17.5	-17.5	0.17 (1)	6.25				
15-14		-1218 / 3096	-17.5	-17.5	0.22 (1)	6.25				
14-13		-1941 / 4395	-17.5	-17.5	0.40 (1)	6.25				
13-12		-8 / 16	-17.5	-17.5	0.15 (3)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.
13	31-3-8	-3417	-4028	1802	FRONT	VERT

DESIGN CRITERIA

*** SPECIAL LOADS ANALYSIS ***

GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.

LOADS WERE DERIVED FROM USER INPUT NO FURTHER MODIFICATIONS WERE MADE

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
DL	=	3.0	PSF	
BOT CH.	LL	=	0.0	PSF
DL	=	7.0	PSF	
TOTAL LOAD	=	33.3	PSF	

SPACING = 24.0 IN./C

*** NON STANDARD GIRDER ***

ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.08")
CALCULATED VERT. DEFL.(LL)= L/999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (1.08")
CALCULATED VERT. DEFL.(TL)= L/999 (0.11")

CSI: TC=0.24 (2-3:7), BC=0.40 (13-14:1), WB=0.67 (7-17:4), SSI=0.11 (12-13:3)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00
COMP=1.00 SHEAR=1.00 TENS=1.00

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (2) (INPUT = 0.90)
JSI METAL= 0.57 (13) (INPUT = 1.00)



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PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-t	MT20	3.0	6.0		
3, 5, 7, 9, 10						
3	TMWW-t	MT20	3.0	4.0	1.50	1.75
4	TS-t	MT20	3.0	6.0		
6	TTW+p	MT20	3.0	4.0		
8	TS-t	MT20	3.0	6.0		
11	TMVW-p	MT20	4.0	8.0	1.00	4.00
12	BMV1+p	MT20	3.0	4.0		
13	BMWW+t	MT20	5.0	8.0	4.25	2.00
14	BMWW-t	MT20	4.0	4.0		
15	BMWW+t	MT20	3.0	4.0		
16	BS-t	MT20	4.0	6.0		
17	BMWWW-t	MT20	4.0	6.0		
18	BS-t	MT20	4.0	6.0		
19	BMWW+t	MT20	3.0	4.0		
20	BMWW-t	MT20	4.0	4.0	2.00	1.50
21	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

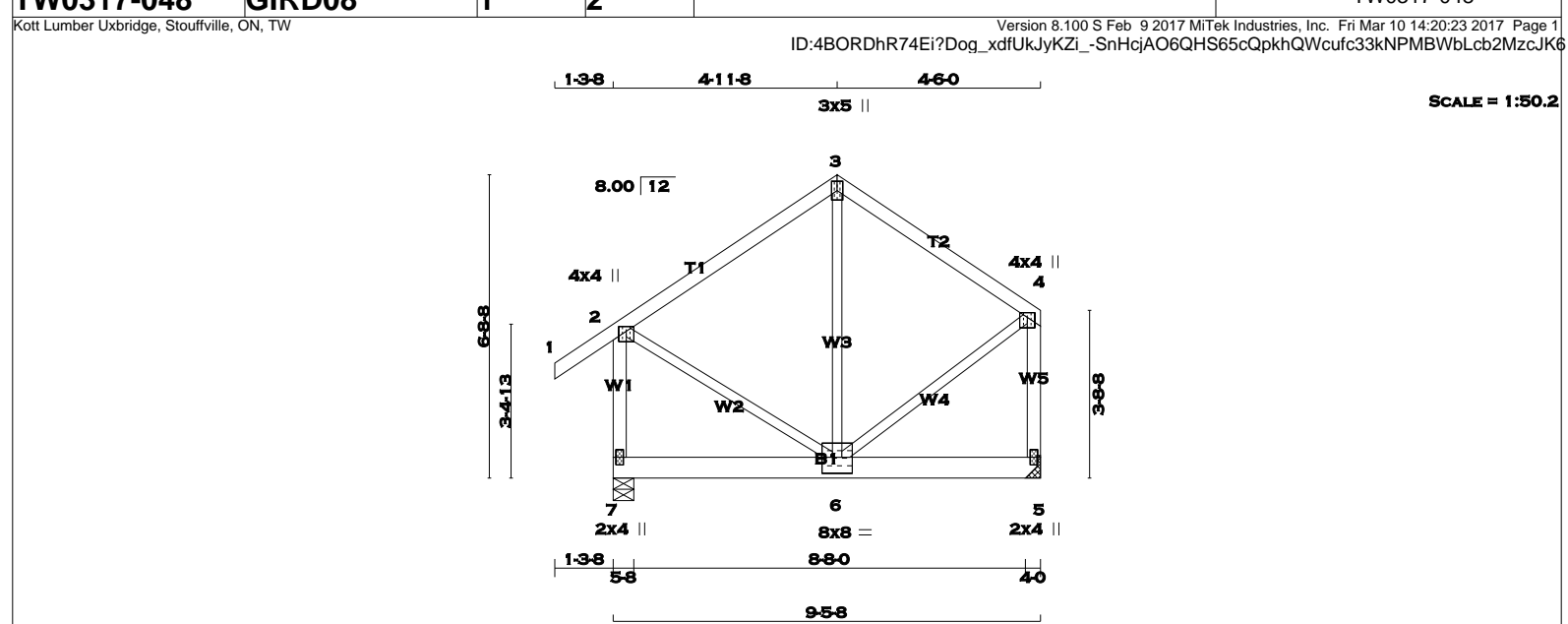
HANGERS NOTES
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 4027.9 lbs. FACTORED DOWN AND 1802.2 lbs. FACTORED UP AT 31-3-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}.INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.

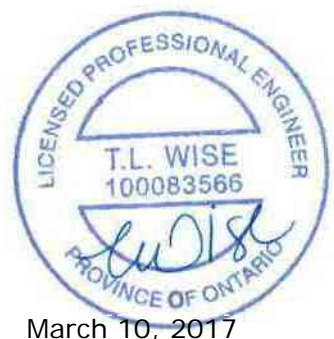


READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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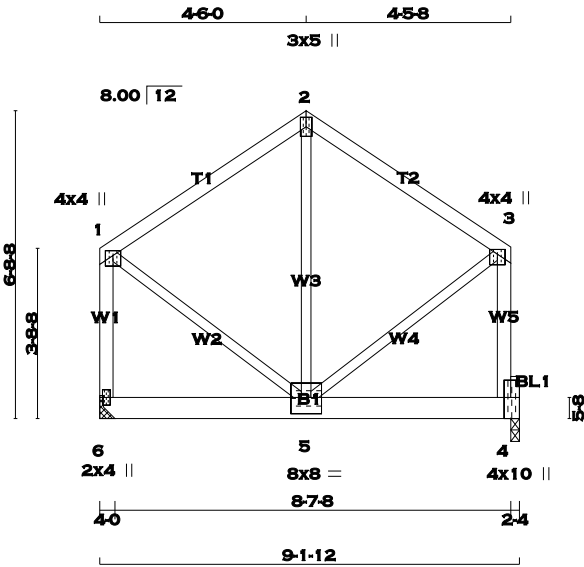


LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. 1 - 3 2x4 DRY No.2 SPF 3 - 4 2x4 DRY No.2 SPF 7 - 2 2x4 DRY No.2 SPF 5 - 4 2x4 DRY No.2 SPF 7 - 5 2x6 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT DRY: SEASONED LUMBER. DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS: CHORDS #ROWS SURFACE SPACING (IN) LOAD(PLF) TOP CHORDS : (0.122"x3") SPIRAL NAILS 1-3 1 12 TOP 3-4 1 12 TOP 7-2 1 12 TOP 5-4 1 12 TOP BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS 7-5 2 8 SIDE(399.4) WEBS : (0.122"x3") SPIRAL NAILS 2x3 1 6 NAILS TO BE DRIVEN FROM ONE SIDE ONLY. TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY. SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF TRANSFERING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP. PLATES (table is in inches) JT TYPE PLATES W LEN Y X 2 TMVW+p MT20 4.0 4.0 1.25 2.00 3 TTW+p MT20 3.0 5.0 4 TMVW+p MT20 4.0 4.0 1.25 2.00 5 BMV1+p MT20 2.0 4.0 6 BMVWWV-1 MT20 8.0 8.0 4.25 4.00 7 BMV1+p MT20 2.0 4.0 A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED MAXIMUM FACTORED INPUT REQRD GROSS REACTION GROSS REACTION BRG BRG JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX 7 3774 0 4359 333 -1380 5-8 5-8 5 3668 0 4264 0 -1370 HANGER BY OTHERS MIN. SEAT SIZE: 4-0 PROVIDE ANCHORAGE AT BEARING JOINT 7 FOR 1380 LBS. FACTORED UPLIFT PROVIDE ANCHORAGE AT BEARING JOINT 5 FOR 1370 LBS. FACTORED UPLIFT NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES. SHALL BE PROVIDED BY BUILDG. DESIGNER PROVIDE FOR 333 LBS. FACTORED HORIZONTAL REACTION AT JOINT 7 UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL 7 2646 1865 / 0 0 / 0 0 / 0 1463 / -1488 782 / 0 0 / 0 5 2574 1801 / 0 0 / 0 0 / 0 1491 / -1476 773 / 0 0 / 0 HORIZONTAL REACTIONS 7 --- 0 / 0 0 / 0 0 / 0 238 / -224 0 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 7 BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.68 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED. LOADING TOTAL LOAD CASES: (11) C H O R D S W E B S MAX. FACTORED MAX. FACTORED MAX. FACTORED MEMB. FORCE VERT. LOAD LC1 MAX. MEMB. FORCE MAX. (LBS) (PLF) CSI (LC) UNBRAC (LBS) CSI (LC) FR-TO FROM TO LENGTH FR-TO 1-2 0 / 29 -77.3 -77.3 0.06 (1) 10.00 6-3 -681 / 2196 0.24 (4) 2-3 -2339 / 834 -77.3 -77.3 0.25 (7) 5.68 2-6 -738 / 2283 0.25 (4) 3-4 -2340 / 849 -77.3 -77.3 0.21 (8) 5.73 6-4 -777 / 2416 0.26 (3) 7-2 -2764 / 922 0.0 0.0 0.24 (4) 6.92 5-4 -2899 / 978 0.0 0.0 0.30 (3) 6.81 7-6 -274 / 286 -698.2 -698.2 0.68 (3) 6.25 6-5 -30 / 65 -698.2 -698.2 0.68 (4) 6.25 WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpG, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.				DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 23.3 PSF DL = 3.0 PSF BOT CH. LL = 0.0 PSF DL = 7.0 PSF TOTAL LOAD = 33.3 PSF SPACING = 24.0 IN. C/C GIRDER TYPE: CSIdGirder START DISTANCE = 0-0 START SPAN CARRIED = 31-2-0 END DISTANCE = 9-5-8 END SPAN CARRIED = 31-2-0 END WALL WIDTH = 5-8 APPLIED TO FRONT SIDE OF BOTTOM CHORD. - ADDTL LOADS BASED ON 55 % OF GSL. THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014 - CSA 086-09 - TPIC 2011 (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL)= L/360 (0.32") CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06") ALLOWABLE DEFL.(TL)= L/360 (0.32") CALCULATED VERT. DEFL.(TL) = L/ 999 (0.10") CSI: TC=0.30 (4-5:3) , BC=0.68 (6-7:3) , WB=0.26 (4-6:3) , SSI=0.71 (6-7:4) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS= 1.00 COMPANION LIVE LOAD FACTOR = 0.50 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 822 2284 1656 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.88 (4) (INPUT = 0.90) JSI METAL= 0.30 (6) (INPUT = 1.00)			
---	--	--	--	--	--	--	--	--	--	--	--



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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SCALE = 1:50.2

TOTAL WEIGHT = 2 X 50 = 99 lb [M]

LUMBER				DESCR.	
N. L. G. A. RULES		LUMBER	SIZE	DRY	SPF
CHORDS	SIZE				
1 - 2	2x4	No.2			SPF
2 - 3	2x4	No.2			SPF
6 - 1	2x4	No.2			SPF
4 - 3	2x4	No.2			SPF
6 - 4	2x6	No.2			SPF

BEARING BLOCKS				
BL1	2x6	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
1-2	12	TOP
2-3	12	TOP
6-1	12	TOP
4-3	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
6-4	8	SIDE(399.4)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY.

SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF TRANSFERING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
1	TMVW+p	MT20	4.0	4.0	1.25	2.00
2	TTW+p	MT20	3.0	5.0		
3	TMVW+p	MT20	4.0	4.0	1.25	2.00
4	BMVK1+t	MT20	4.0	10.0	Edge	1.75
5	BMVWW-t	MT20	8.0	8.0	4.25	4.00
6	BMV1+p	MT20	2.0	4.0		

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
6	3417	0	3974	308	-1261	HANGER BY OTHERS	MIN. SEAT SIZE: 4-0
4	3429	0	3987	0	-1263	2-4	2-4

PROVIDE ANCHORAGE AT BEARING JOINT 6 FOR 1261 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 4 FOR 1263 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES.
SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 308 LBS. FACTORED HORIZONTAL REACTION AT JOINT 6

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN.		COMPONENT REACTIONS		DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND			
6	2398	1678 / 0	0 / 0	0 / 0	1393 / -1364	721 / 0	0 / 0	0 / 0
4	2406	1685 / 0	0 / 0	0 / 0	1395 / -1366	721 / 0	0 / 0	0 / 0

HORIZONTAL REACTIONS

6	---	0 / 0	0 / 0	0 / 0	220 / -220	0 / 0	0 / 0
---	-----	-------	-------	-------	------------	-------	-------

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 4
BEARING SIZE FACTOR = 1.08 AT JNT(S) 4 (BASED ON SUPPORT DEPTH = 1-8)

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.04 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRAC. LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO					FR-TO		
1-2	-2032 / 739	-77.3	-77.3	0.21 (7)	6.04	-586 / 1875	0.20 (4)
2-3	-2031 / 739	-77.3	-77.3	0.20 (8)	6.04	-684 / 2098	0.23 (4)
6-1	-2541 / 849	0.0	0.0	0.26 (4)	7.16	-729 / 2255	0.24 (3)
4-3	-2649 / 882	0.0	0.0	0.28 (3)	7.05		
6-5	-244 / 277	-698.2	-698.2	0.58 (3)	6.25		
5-4	-142 / 104	-698.2	-698.2	0.58 (4)	6.25		

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpG, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD = 33.3 PSF				

SPACING = 24.0 IN./C

GIRDER TYPE: CSIdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 31-2-0
END DISTANCE = 9-1-2
END SPAN CARRIED = 31-2-0
END WALL WIDTH = 5-8
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.29")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.29")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07")

CSI: TC=0.28 (3-4:3) , BC=0.58 (5-6:3) , WB=0.24 (3-5:3) , SSI=0.65 (5-6:4)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00
COMP=1.00 SHEAR=1.00 TENS= 1.00

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.80 (3) (INPUT = 0.90)
JSI METAL= 0.28 (5) (INPUT = 1.00)

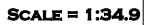


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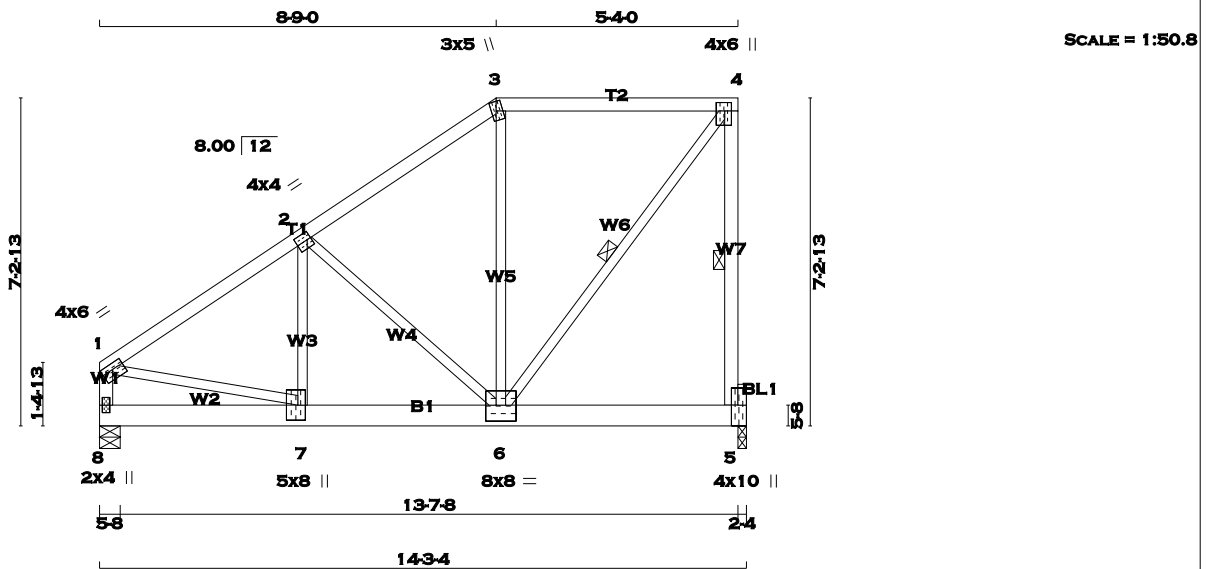
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TOTAL WEIGHT = 2 X 47 = 94 lb

JSI GRIP= 0.90 (7) (INPUT = 0.90)
JSI METAL= 0.17 (2) (INPUT = 1.00)





LUMBER		N. L. G. A. RULES		LUMBER	DESCR.
CHORDS	SIZE	DRY	No.2		
1 - 3	2x4	DRY	No.2	2100F 1.8E	SPF
3 - 4	2x4	DRY	No.2		SPF
5 - 4	2x4	DRY	No.2		SPF
8 - 1	2x4	DRY	No.2		SPF
8 - 5	2x6	DRY	No.2		SPF

BEARING BLOCKS		N. L. G. A. RULES		LUMBER	DESCR.
BL1	2x6	DRY	No.2		

ALL WEBS		N. L. G. A. RULES		LUMBER	DESCR.
2x3	DRY	No.2	SPF		

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 3 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
1-3	12	TOP
3-4	12	TOP
4-5	12	TOP
8-1	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
8-5	4	SIDE(671.2)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	6	

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY.

SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF TRANSFERING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
1	TMVW-t	MT20	4.0	6.0	1.50 3.00
2	TMVW-t	MT20	4.0	4.0	2.00 1.00
3	TTW+m	MT20	3.0	5.0	2.50 1.25
4	TMVW+p	MT20	4.0	6.0	2.25 1.75
5	BMVK1+t	MT20	4.0	10.0	Edge 1.75
6	BMVWV-t	MT20	8.0	8.0	4.25 4.00

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
5	6652	0	7752	0	-2564	2-4	2-4
8	6641	0	7728	383	-2465	5-8	5-8

PROVIDE ANCHORAGE AT BEARING JOINT 5 FOR 2564 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 8 FOR 2465 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES.
SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 383 LBS. FACTORED HORIZONTAL REACTION AT JOINT 8

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN.	COMPONENT REACTIONS				
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
5	4668	3267 / 0	0 / 0	0 / 0	2749 / -2732	1401 / 0
8	4660	3260 / 0	0 / 0	0 / 0	2717 / -2661	1400 / 0

HORIZONTAL REACTIONS					
8	---	0 / 0	0 / 0	0 / 0	274 / -181

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5, 8
BEARING SIZE FACTOR = 1.08 AT JNT(S) 5 (BASED ON SUPPORT DEPTH = 1-8)

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.32 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 - 2x4 SPF No.2 LATERAL BRACE(S) AT 1 / 2 LENGTH OF 4-5. DBS = 6'-0"-0. CBF = 182 LBS.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1 / 2 LENGTH OF 4-6. DBS = 4'-0"-0. CBF = 74 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) TO EACH PLY USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (11)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO	FROM TO	FR-TO	FROM TO
1-2	-7540 / 2432	7-2	-966 / 3264
2-3	-4764 / 1639	2-6	-3215 / 1221
3-4	-3991 / 1447	5-1	-723 / 2293
5-4	-5595 / 1937	6-4	-2234 / 6775
8-1	-5750 / 1887	1-7	-1970 / 6423
8-7	-364 / 245		
7-6	-2107 / 6329		
6-5	-169 / 176		

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT (40'-0.0) FT. IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS (SEE TABLE 6-2) AND WIND FORCE RESISTING SYSTEM (INTERNAL WIND PRESSURE CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN) BUT MUST BE LOCATED AT LEAST (0'-0) FT. IN-SX AWAY FROM NEARBY OBSTACLES.

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

GIRDER TYPE: CStdGirder
START DISTANCE = 0'-0
START SPAN CARRIED = 38'-4-8
END DISTANCE = 14'-3-4
END SPAN CARRIED = 38'-4-8
END WALL WIDTH = 2'-4
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDT'L LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.46")
CALCULATED VERT. DEFL.(LL) = L/999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (0.46")
CALCULATED VERT. DEFL.(TL) = L/999 (0.11")

CSI: TC=0.36 (4-5:1), BC=0.33 (6-7:3), WB=0.61 (2-6:3), SSI=0.53 (5-6:4)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES		SHEAR		SECTION	
PLATE	GRIP(DRY)	(PSI)	(PLI)	MAX MIN	MAX MIN
MT20	618	354	1667	822	2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (7) (INPUT = 0.90)
JSI METAL= 0.64 (1) (INPUT = 1.00)



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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
7	BMWV+t	MT20	5.0	8.0	4.00	2.00
8	BMV1+p	MT20	2.0	4.0		

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
7	BMWV+t	MT20	5.0	8.0	4.00	2.00
8	BMV1+p	MT20	2.0	4.0		

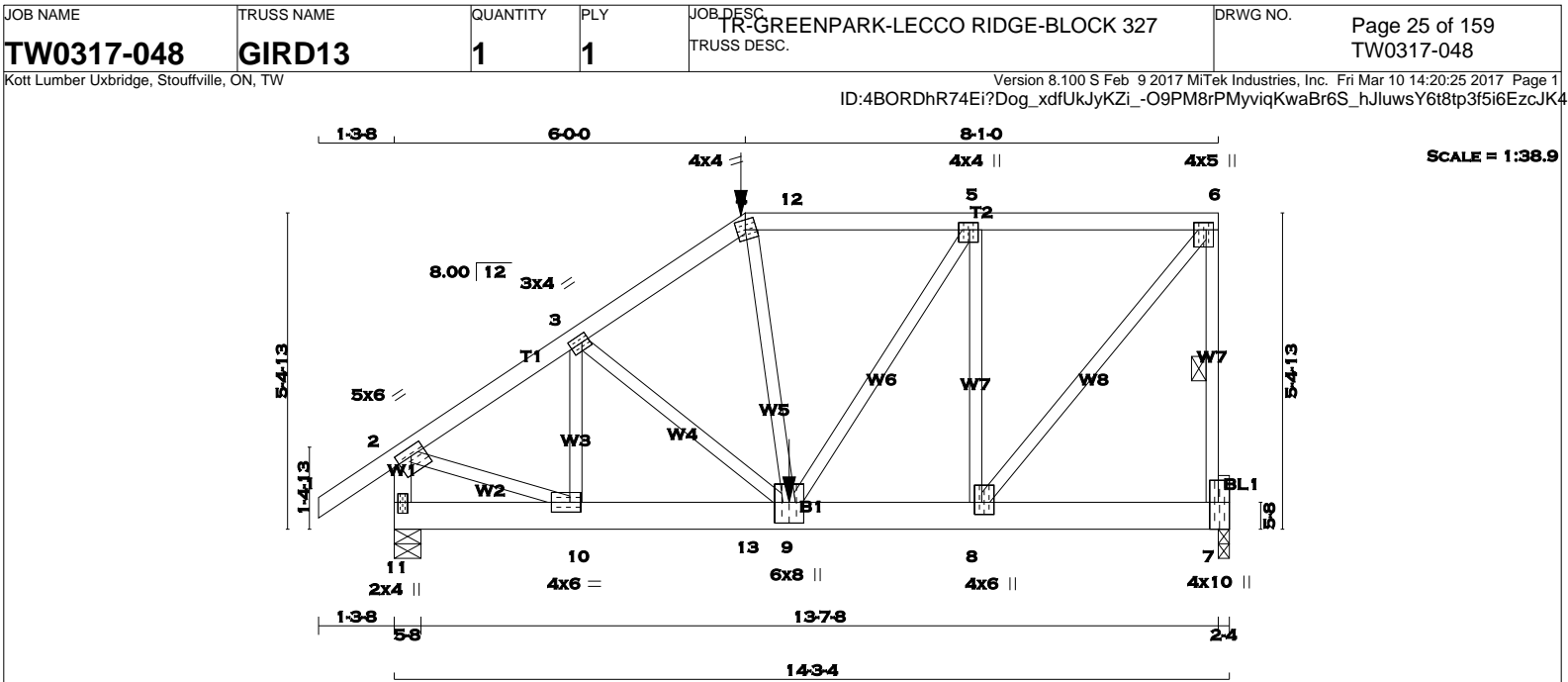
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

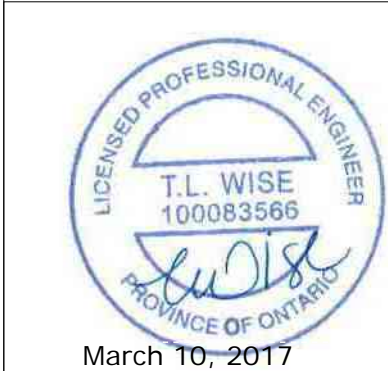


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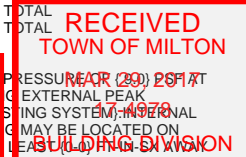
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LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. SPF 1 - 4 2x4 DRY No.2 No.2 4 - 6 2x4 DRY No.2 No.2 7 - 6 2x3 DRY No.2 No.2 11 - 2 2x4 DRY No.2 No.2 11 - 7 2x6 DRY 2100F 1.8E No.2 No.2 BEARING BLOCKS BL1 2x6 DRY No.2 No.2 ALL WEBS 2x3 DRY No.2 No.2 EXCEPT DRY: SEASONED LUMBER.				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED MAXIMUM FACTORED INPUT REQRD GROSS REACTION GROSS REACTION BRG BRG JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX 7 1721 0 1968 0 -968 2-4 2-4 11 1979 0 2260 304 -1011 5-8 5-8 PROVIDE ANCHORAGE AT BEARING JOINT 7 FOR 968 LBS. FACTORED UPLIFT PROVIDE ANCHORAGE AT BEARING JOINT 11 FOR 1011 LBS. FACTORED UPLIFT NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES. SHALL BE PROVIDED BY BUILDG. DESIGNER PROVIDE FOR 304 LBS. FACTORED HORIZONTAL REACTION AT JOINT 11 UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL 7 1206 852 / 0 0 / 0 0 / 0 617 / -919 354 / 0 0 / 0 11 1389 970 / 0 0 / 0 0 / 0 702 / -992 420 / 0 0 / 0 HORIZONTAL REACTIONS 11 --- 0 / 0 0 / 0 0 / 0 217 / -145 0 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 7, 11 BEARING SIZE FACTOR = 1.08 AT JNT(S) 7 (BASED ON SUPPORT DEPTH = 1-8) BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.17 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. 1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-7. DBS = 8-0-0 . CBF = 84 LBS. DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12. END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW LOADING TOTAL LOAD CASES: (11) CHORDS MAX. FACTORED FACTORED WEBS MAX. FACTORED MEMB. FORCE VERT. LOAD LC1 MAX. MEMB. FORCE MAX. (LBS) (PLF) CSI (LC) UNBRAC (LBS) CSI (LC) FR-TO FROM TO LENGTH FR-TO 1-2 0 / 29 -77.3 -77.3 0.11 (1) 10.00 10-3 -492 / 343 0.09 (3) 2-3 -2404 / 1131 -77.3 -77.3 0.29 (7) 4.32 3-9 -142 / 140 0.05 (5) 3-4 -2585 / 1330 -77.3 -77.3 0.33 (7) 4.17 4-9 -220 / 695 0.16 (1) 4-12 -2251 / 1189 -145.8 -145.8 0.34 (7) 4.32 9-5 -708 / 1507 0.41 (7) 12-5 -2251 / 1189 -77.3 -77.3 0.34 (7) 4.32 8-5 -1677 / 912 0.67 (3) 5-6 -1450 / 814 -77.3 -77.3 0.28 (7) 5.19 8-6 -1156 / 2338 0.82 (7) 7-6 -1937 / 991 0.0 0.0 0.53 (7) 4.20 2-10 -858 / 2089 0.45 (1) 11-2 -2202 / 1030 0.0 0.0 0.21 (1) 5.75 11-10 -285 / 194 -33.0 -33.0 0.02 (11) 6.25 10-13 -961 / 2039 -33.0 -33.0 0.15 (3) 6.25 13-9 -961 / 2039 -33.0 -33.0 0.15 (3) 6.25 9-8 -616 / 1446 -17.5 -17.5 0.13 (3) 6.25 8-7 -74 / 119 -17.5 -17.5 0.02 (11) 6.25 FACTORED ON RAISED (LBS) X+ FACE DIR. TYPE JT L L A A 316 FRONT VERT TOTAL 9 316 1753 2260 926 FRONT VERT TOTAL WIND (40- COE WIN FROM PRESSURE REAR 20) 251.7 (40- COE WIN FROM EXTERNAL PEAK 1078 (40- COE WIN FROM SING SYSTEM) 1078 (40- COE WIN FROM MAY BE LOCATED ON 1078 (40- COE WIN FROM BUILDING DIVISION				DESIGN CRITERIA *** SPECIAL LOADS ANALYSIS *** GEOMETRY AND/OR BASIC LOADS CHANGED BY USER. LOADS WERE DERIVED FROM USER INPUT NO FURTHER MODIFICATIONS WERE MADE SPECIFIED LOADS: TOP CH. LL = 23.3 PSF DL = 3.0 PSF BOT CH. LL = 0.0 PSF DL = 7.0 PSF TOTAL LOAD = 33.3 PSF SPACING = 24.0 IN. C/C LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12 GIRDER TYPE: CPrimeHip LEFT SETBACK = 6-0-0 RIGHT SETBACK = 0-0 END SETBACK = 6-0-0 END WALL WIDTH = 5-8 CORNER FRAMING TYPE: CONVENTIONAL END JACK TYPE: CONVENTIONAL APPLIED TO FRONT SIDE - ADDTL LOADS BASED ON 55 % OF GSL. LOADS APPLIED TO FIRST 6-9-0 OF SPAN MEASURED FROM THE LEFT. *** NON STANDARD GIRDER *** ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES. THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014 - CSA 086-09 - TPIC 2011 (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL)= L/360 (0.47") CALCULATED VERT. DEFL.(LL) = L/999 (0.06") ALLOWABLE DEFL.(TL)= L/360 (0.47") CALCULATED VERT. DEFL.(TL) = L/999 (0.09") CSI: TC=0.53 (6-7:7) , BC=0.15 (9-10:3) , WB=0.82 (6-8:7) , SSI=0.17 (5-6:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS=1.00 COMPANION LIVE LOAD FACTOR = 0.50 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 822 2284 1656 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg.			
---	--	--	--	---	--	--	--	--	--	--	--



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.





1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 168.5 lbs FACTORED DOWN AND 117.0 lbs FACTORED UP AT 4-0-0 ON TOP CHORD, AND 570.1 lbs FACTORED DOWN AND 256.3 lbs FACTORED UP AT 6-4-0 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

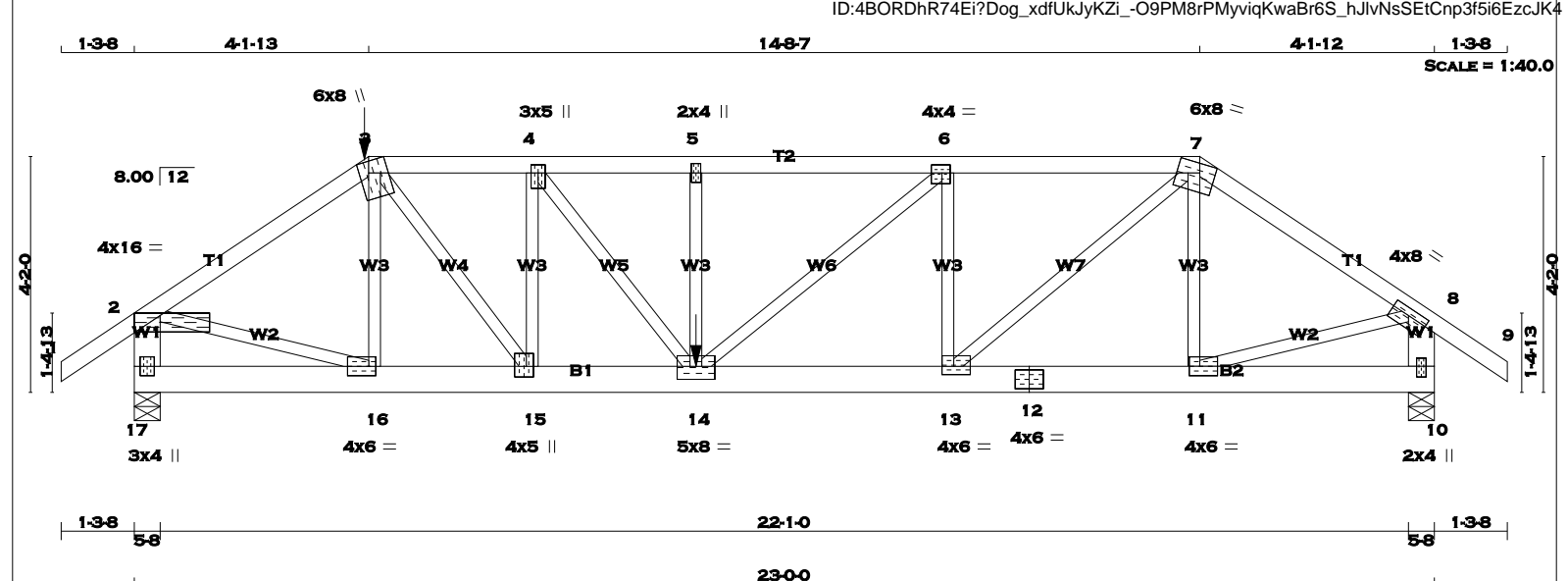
C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO			FR-TO		
1-2	-1368 / 683	-77.3	-77.3 0.35 (7)	5.24	10-2	-137 / 156	0.03 (7)
2-3	-1419 / 784	-107.2	-107.2 0.18 (7)	5.40	2-9	-274 / 510	0.12 (1)
3-4	-1420 / 785	-77.3	-77.3 0.25 (7)	5.28	9-3	-292 / 226	0.07 (1)
4-5	-1012 / 581	-77.3	-77.3 0.22 (7)	6.01	9-4	-285 / 570	0.13 (7)
7-5	-1068 / 572	0.0	0.0 0.24 (1)	7.63	8-4	-764 / 481	0.18 (3)
11-1	-1208 / 616	0.0	0.0 0.12 (1)	7.29	8-5	-694 / 1379	0.31 (1)
					1-10	-470 / 1146	0.26 (1)
11-10	-186 / 137	-24.2	-24.2 0.05 (11)	6.25			
10-9	-510 / 1144	-24.2	-24.2 0.19 (1)	6.25			
9-8	-436 / 1010	-17.5	-17.5 0.18 (1)	6.25			
8-7	-28 / 72	-17.5	-17.5 0.13 (1)	6.25			
7-6	0 / 0	-17.5	-17.5 0.13 (1)	10.00			

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT {40-0.0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}. INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EDGE OF TERRAIN.



PLATE ROTATION TOL. = 5.0 Deg.





TOTAL WEIGHT = 112 lb [M]

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
1 - 3	2x4	DRY	No.2	SPF
3 - 7	2x4	DRY	No.2	SPF
7 - 9	2x4	DRY	No.2	SPF
17 - 2	2x6	DRY	No.2	SPF
10 - 8	2x6	DRY	No.2	SPF
17 - 12	2x6	DRY	No.2	SPF
12 - 10	2x6	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				

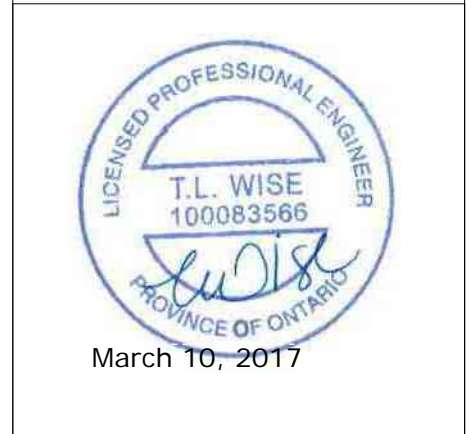
PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-p	MT20	4.0	16.0	Edge	5.50
3	TTWW+m	MT20	6.0	8.0	Edge	2.00
4	TMVW+t	MT20	3.0	5.0	1.75	1.50
5	TMVW+w	MT20	2.0	4.0		
6	TMVW-t	MT20	4.0	4.0	1.75	1.75
7	TTWW-m	MT20	6.0	8.0	2.00	3.25
8	TMVW-t	MT20	4.0	8.0	1.50	3.75
10	BMV1+p	MT20	2.0	4.0	2.25	1.00
11	BMVW-t	MT20	4.0	6.0	2.00	2.25
12	BS-t	MT20	4.0	6.0		
13	BMVW-t	MT20	4.0	6.0	1.75	2.50
14	BMVWVW-t	MT20	5.0	8.0	2.75	4.00
15	BMVW+t	MT20	4.0	5.0	2.25	1.50
16	BMVW-t	MT20	4.0	6.0	2.00	1.50
17	BMV1+p	MT20	3.0	4.0		

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

HANGERS NOTES

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 314.8 lbs FACTORED DOWN AND 218.5 lbs FACTORED UP AT 4-1-13 ON TOP CHORD, AND 1213.8 lbs FACTORED DOWN AND 545.6 lbs FACTORED UP AT 9-11-4 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.



DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
17	2378	0	2694	203	-1273	5-8	5-8
10	1842	0	1995	0	-983	5-8	5-8

PROVIDE ANCHORAGE AT BEARING JOINT 17 FOR 1273 LBS. FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT 10 FOR 983 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES, SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 203 LBS. FACTORED HORIZONTAL REACTION AT JOINT 17

UNFACTORED REACTIONS							
1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
17	1668	1172 / 0	0 / 0	0 / 0	792 / -1228	495 / 0	0 / 0
10	1290	918 / 0	0 / 0	0 / 0	382 / -941	372 / 0	0 / 0

HORIZONTAL REACTIONS							
17	---	0 / 0	0 / 0	0 / 0	145 / -145	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 17, 10

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.06 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 5.95 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 MAX. (CSI) (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRACED LENGTH (LC)	MAX. FACTORED (LC)
FR-TO		FROM TO		FR-TO			
1-2	0 / 29	-77.3 -77.3	0.11 (1)	10.00	16-3	-472 / 372	0.11 (3)
2-3	-3115 / 1537	-77.3 -77.3	0.50 (7)	3.62	3-15	-950 / 1874	0.41 (1)
3-4	-3729 / 1912	-145.8 -145.8	0.42 (7)	3.41	15-4	-1347 / 780	0.32 (3)
4-5	-4345 / 2177	-145.8 -145.8	0.46 (7)	3.12	4-14	-481 / 1016	0.23 (1)
5-6	-4345 / 2177	-77.3 -77.3	0.50 (7)	3.06	14-5	-390 / 294	0.09 (3)
6-7	-3419 / 1759	-77.3 -77.3	0.44 (8)	3.52	14-6	-585 / 1217	0.33 (7)
7-8	-2270 / 1128	-77.3 -77.3	0.43 (8)	4.28	13-6	-1195 / 696	0.29 (3)
8-9	0 / 29	-77.3 -77.3	0.11 (1)	10.00	13-7	-1018 / 2023	0.55 (7)
17-2	-2628 / 1311	0.0 0.0	0.17 (1)	6.44	11-7	-360 / 246	0.09 (3)
10-8	-1963 / 1004	0.0 0.0	0.13 (1)	7.20	2-16	-1172 / 2631	0.57 (1)
					11-8	-822 / 1945	0.43 (1)
17-16	-184 / 192	-33.0 -33.0	0.07 (11)	6.25			
16-15	-1183 / 2598	-33.0 -33.0	0.31 (3)	6.25			
15-14	-1732 / 3738	-33.0 -33.0	0.53 (3)	5.95			
14-13	-1551 / 3428	-17.5 -17.5	0.50 (1)	6.20			
13-12	-774 / 1884	-17.5 -17.5	0.24 (1)	6.25			
12-11	-774 / 1884	-17.5 -17.5	0.24 (1)	6.25			
11-10	-9 / 20	-17.5 -17.5	0.04 (11)	10.00			

FACTORED CONCENTRATED LOADS (LBS)							
JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
3	4-1-13	-241	-315	219	FRONT	VERT	TOTAL
14	9-11-4	-1034	-1214	546	FRONT	VERT	TOTAL

WIND OF PRESSURE FROM REFERENCE VELOCITY PRESSURE OF (9.0) PSF AT (40-0-0) F. S. GRADE AND USING EXTERNAL PEAK COEFFICIENTS. WIND BE ON THE (M) WIND FORCE RESISTING SYSTEM INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE EXPOSED TO WIND (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST 20 FT. FROM

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

RECEIVED TOWN OF MILTON MAR 29, 2017 17-4978 BUILDING DIVISION

DESIGN CRITERIA

*** SPECIAL LOADS ANALYSIS ***

GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.

LOADS WERE DERIVED FROM USER INPUT NO FURTHER MODIFICATIONS WERE MADE

SPECIFIED LOADS:			
TOP CH.	LL	=	23.3 PSF
	DL	=	3.0 PSF
BOT CH.	LL	=	0.0 PSF
	DL	=	7.0 PSF
TOTAL LOAD = 33.3 PSF			

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

GIRDER TYPE: CPrimeHip

LEFT SETBACK = 4-1-13

RIGHT SETBACK = 4-1-12

END SETBACK = 6-0-0

END WALL WIDTH = 5-8

CORNER FRAMING TYPE: CONVENTIONAL

END JACK TYPE: CONVENTIONAL

APPLIED TO FRONT SIDE

- ADDTL LOADS BASED ON 55 % OF GSL.

LOADS APPLIED TO FIRST 9-11-4 OF SPAN MEASURED FROM THE LEFT.

*** NON STANDARD GIRDER ***

ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.77")

CALCULATED VERT. DEFL.(LL) = L/999 (0.15")

ALLOWABLE DEFL.(TL)= L/360 (0.77")

CALCULATED VERT. DEFL.(TL) = L/999 (0.24")

CSI: TC=0.50 (5-6-7), BC=0.53 (14-15:3), WB=0.57 (2-16:1), SSI=0.22 (3-4:3)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS=1.00

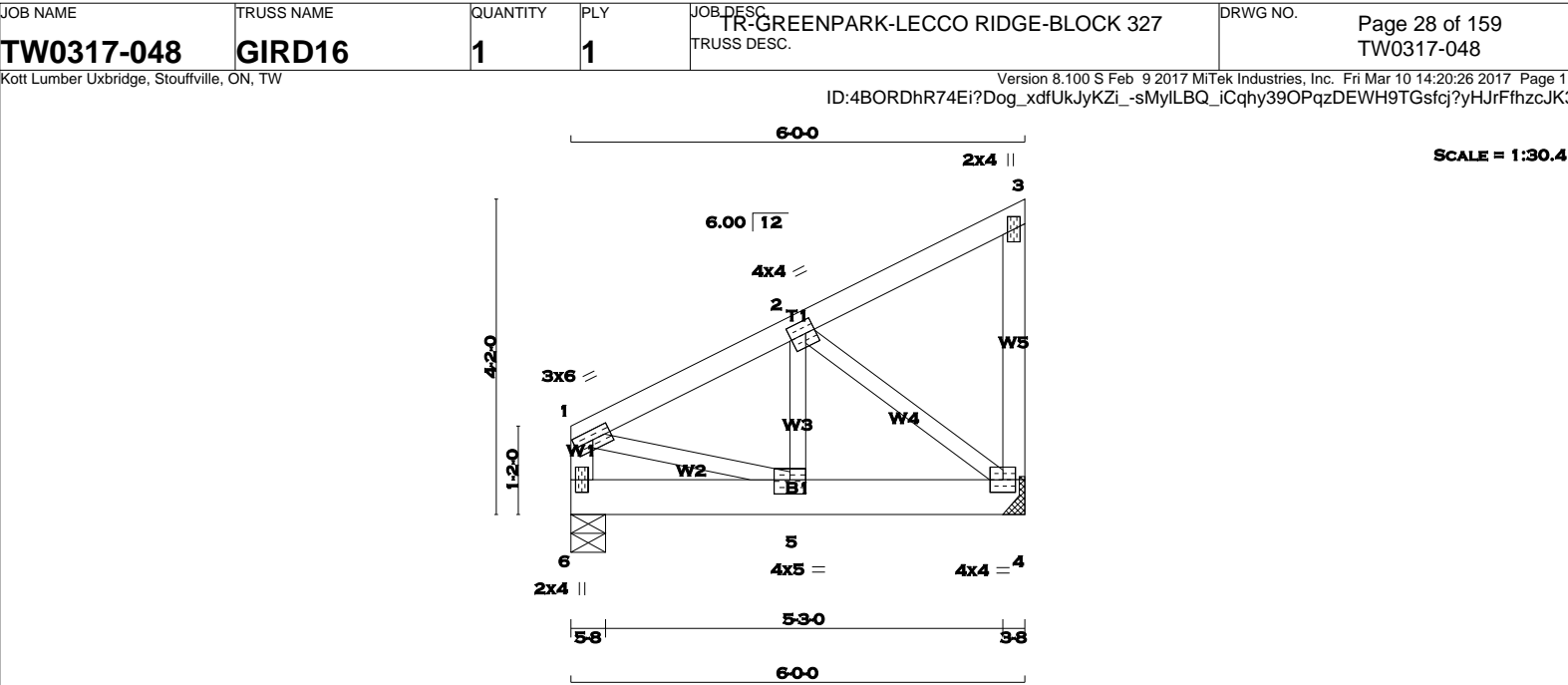
COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES			
PLATE GRIP(DRY)	SHEAR	SECTION	
(PSI)	(PLI)	(PLI)	
MAX MIN	MAX MIN	MAX MIN	
MT20	618 354	1667 822	2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.



Kott Lumber Uxbridge, Stouffville, ON, TW

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Fri Mar 10 14:20:26 2017 Page 1

ID:4BORDhR74Ei?Dog_xdfUkJyKZl_-sMyILBQ_iCqhy39OPqzDEWH9TGsfcj?yHJrFfhzcJK3

6-0-0

2x4 ||

3

6.00 | 12

4x4 =

2

1

3x6 =

W1

W2

W3

W4

W5

6

2x4 ||

5-8

5-3-0

3-8

6-0-0

4-2-0

1-2-0

5

4x5 =

4x4 = 4

SCALE = 1:30.4

TOTAL WEIGHT = 29 lb

[M]

LUMBER

N. L. G. A. RULES

CHORDS

SIZE

DRY

No.2

DESCR.

SPF

1 - 3

2x4

DRY

No.2

SPF

4 - 3

2x4

DRY

No.2

SPF

6 - 1

2x4

DRY

No.2

SPF

6 - 4

2x6

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT

TYPE

PLATES

W

LEN

Y

X

1

TMVW-t

MT20

3.0

6.0

2

TMVWV-t

MT20

4.0

4.0

2.00

1.50

3

TMV+p

MT20

2.0

4.0

4

BMVW1-t

MT20

4.0

4.0

5

BMVWV-t

MT20

4.0

5.0

2.25

2.50

6

BMV1+p

MT20

2.0

4.0

A SIZE FOR SIZE SUBSTITUTION OF MI TEK MII20 WITH

TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

FACTORED

MAXIMUM FACTORED

INPUT

REQRD

GROSS REACTION

GROSS REACTION

BRG

BRG

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

JT

VERT

HORZ

UPLIFT

4

1034

0

1187

0

-454

HANGER BY OTHERS

MIN. SEAT SIZE: 3-8

6

1034

0

1186

242

-389

5-8

5-8

PROVIDE ANCHORAGE AT BEARING JOINT 4 FOR 454 LBS. FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT 6 FOR 389 LBS. FACTORED UPLIFT

PROVIDE FOR 242 LBS. FACTORED HORIZONTAL REACTION AT JOINT 6

UNFACTORED REACTIONS

1ST LCASE

MAX./MIN. COMPONENT REACTIONS

JT

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

4

726

508 / 0

0 / 0

0 / 0

381 / -465

218 / 0

0 / 0

6

726

508 / 0

0 / 0

0 / 0

379 / -418

218 / 0

0 / 0

HORIZONTAL REACTIONS

6

0 / 0

0 / 0

0 / 0

173 / -70

0 / 0

0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.10 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

CHORDS

MEMB.

MAX. FACTORED FORCE (LBS)

FACTORED VERT. LOAD (PLF)

LC1

MAX

CS1 (LC)

UNBRAC LENGTH

FR-TO

1-2

-1022 / 337

-77.3

-77.3

0.16

(7)

6.10

5-2

-231 / 855

0.18

(3)

2-3

-72 / 71

-77.3

-77.3

0.11

(7)

6.25

2-4

-1147 / 491

0.26

(3)

4-3

-100 / 78

0.0

0.0

0.10

(7)

7.81

1-5

-258 / 955

0.21

(4)

6-1

-792 / 287

0.0

0.0

0.08

(1)

7.81

WEBS

MEMB.

MAX. FACTORED FORCE (LBS)

MAX

CS1 (LC)

6-5

-226 / 91

-267.5

-267.5

0.16

(3)

6.25

5-4

-369 / 915

-267.5

-267.5

0.26

(3)

6.25

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}. INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP

CH.

LL

=

23.3

PSF

DL

=

3.0

PSF

BOT

CH.

LL

=

0.0

PSF

DL

=

7.0

PSF

TOTAL LOAD

=

33.3

PSF

SPACING = 24.0 IN. C/C

GIRDER TYPE: CSIdGirder

START DISTANCE = 0-0

START SPAN CARRIED = 13-0-0

END DISTANCE = 6-0-0

END SPAN CARRIED = 13-0-0

END WALL WIDTH = 5-8

APPLIED TO FRONT SIDE OF BOTTOM CHORD.

- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014

- CSA 086-09

- TPIC 2011

{55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD} EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")

ALLOWABLE DEFL.(TL)= L/360 (0.20")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.16 (1-2:7) , BC=0.26 (4-5:3) , WB=0.26 (2-4:3) , SSI=0.31 (5-6:4)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00

COMP=1.00 SHEAR=1.00 TENS= 1.00

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION

(PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (4) (INPUT = 0.90)

JSI METAL= 0.34 (4) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER

T.L. WISE

100083566

PROVINCE OF ONTARIO

March 10, 2017

KOTT

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

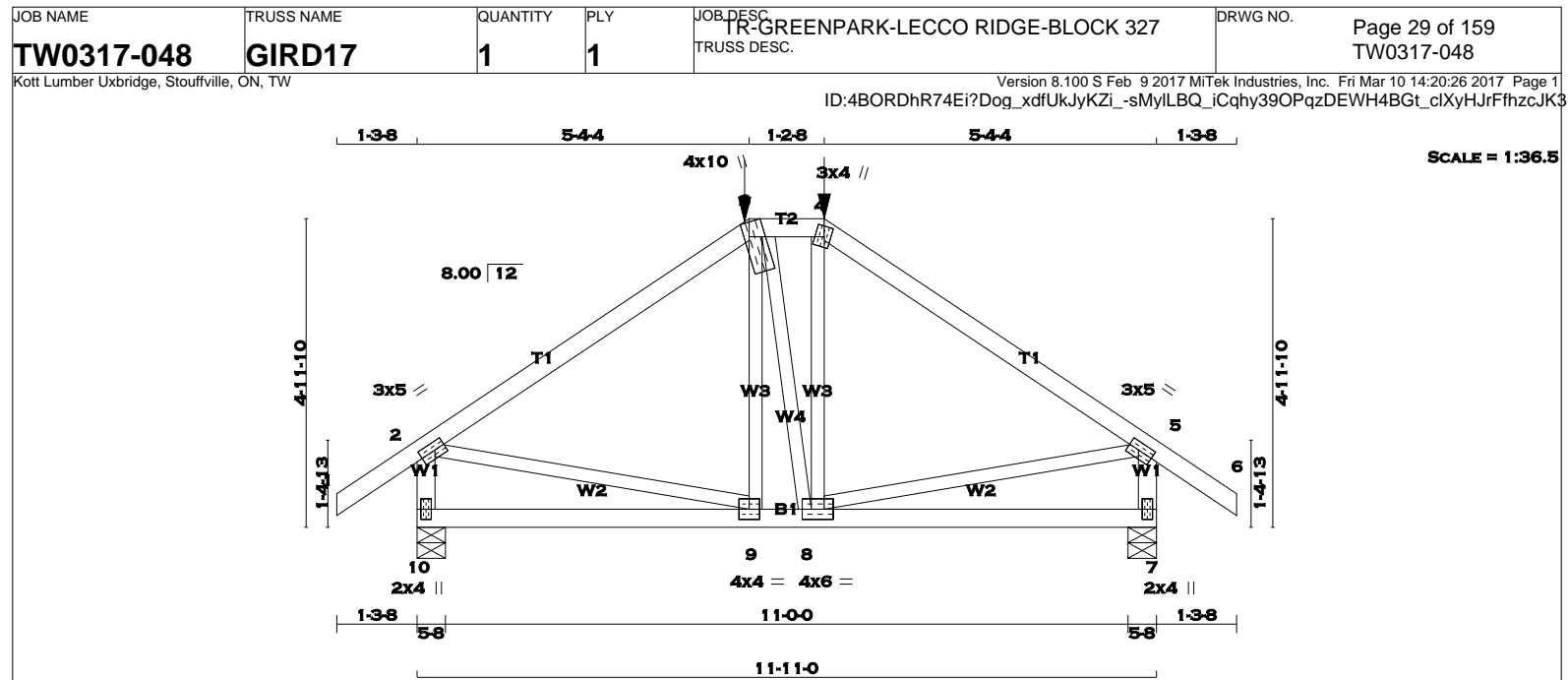
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TOWN OF MILTON

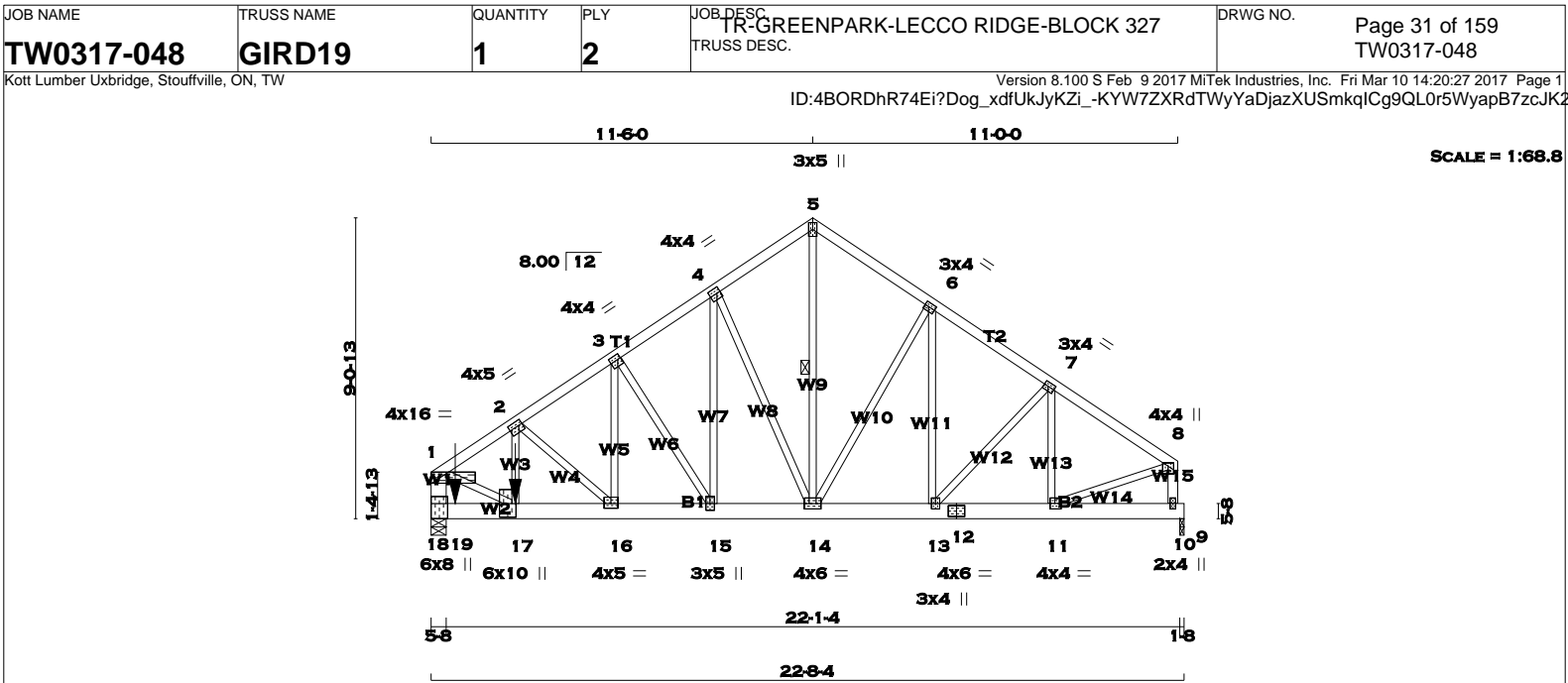
MAR 29, 2017

17-4978

BUILDING DIVISION



TOTAL WEIGHT = 55 lb									
[M]									
LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. SPF 1 - 3 2x4 DRY No.2 SPF 3 - 4 2x4 DRY No.2 SPF 4 - 6 2x4 DRY No.2 SPF 10 - 2 2x4 DRY No.2 SPF 7 - 5 2x4 DRY No.2 SPF 10 - 7 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT DRY: SEASONED LUMBER.									
PLATES (table is in inches) JT TYPE PLATES W LEN Y X 2 TMVW-t MT20 3.0 5.0 1.50 2.00 3 TTWW+m MT20 4.0 10.0 Edge 1.00 4 TTW+m MT20 3.0 4.0 2.00 1.25 5 TMVW-t MT20 3.0 5.0 1.50 2.00 7 BMV1+p MT20 2.0 4.0 8 BMWW-t MT20 4.0 6.0 9 BMWW-t MT20 4.0 4.0 10 BMV1+p MT20 2.0 4.0 Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD. A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.									
HANGERS NOTES 1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 225.5 lbs FACTORED DOWN AND 156.6 lbs FACTORED UP AT 6-6-12, AND 225.5 lbs FACTORED DOWN AND 156.6 lbs FACTORED UP AT 5-4-4 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.									
 March 10, 2017									
DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT REQRD JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX 10 902 0 999 -239 -450 5-8 5-8 7 902 0 996 0 -450 5-8 5-8 PROVIDE ANCHORAGE AT BEARING JOINT 10 FOR 450 LBS FACTORED UPLIFT PROVIDE ANCHORAGE AT BEARING JOINT 7 FOR 450 LBS FACTORED UPLIFT PROVIDE FOR 239 LBS FACTORED HORIZONTAL REACTION AT JOINT 10 UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL 10 630 456 / 0 0 / 0 0 / 0 243 / -434 174 / 0 0 / 0 7 630 456 / 0 0 / 0 0 / 0 235 / -434 174 / 0 0 / 0 HORIZONTAL REACTIONS 10 --- 0 / 0 0 / 0 0 / 0 171 / -171 0 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 10, 7 BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.94 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.									
LOADING TOTAL LOAD CASES: (11) CHORDS FACTORED FACTORED WEBS MEMB. MAX. FORCE VERT. LOAD LC1 MAX. MAX. MEMB. MAX. FORCE MAX. (LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO (LBS) CSI (LC) FR-TO FROM TO 1-2 0 / 29 -77.3 -77.3 0.11 (1) 10.00 9-3 -52 / 104 0.02 (11) 2-3 -851 / 447 -77.3 -77.3 0.50 (7) 5.94 3-8 -76 / 93 0.03 (5) 3-4 -711 / 454 -107.2 -107.2 0.09 (8) 6.25 8-4 -65 / 165 0.04 (5) 4-5 -858 / 448 -77.3 -77.3 0.50 (8) 5.96 2-9 -257 / 730 0.16 (4) 5-6 0 / 29 -77.3 -77.3 0.11 (1) 10.00 8-5 -262 / 735 0.16 (3) 10-2 -945 / 488 0.0 0.0 0.10 (1) 7.81 7-5 -940 / 488 0.0 0.0 0.10 (1) 7.81 10-9 -218 / 229 -24.2 -24.2 0.18 (11) 6.25 9-8 -285 / 724 -24.2 -24.2 0.24 (11) 6.25 8-7 -10 / 21 -24.2 -24.2 0.19 (11) 10.00 FACTORED CONCENTRATED LOADS (LBS) JT LOC. LC1 MAX- MAX+ FACE DIR. TYPE 3 5-4-4 -173 -226 157 FRONT VERT TOTAL 4 6-6-12 -173 -226 157 FRONT VERT TOTAL WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}. INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.									
DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 23.3 PSF DL = 3.0 PSF BOT CH. LL = 0.0 PSF DL = 7.0 PSF TOTAL LOAD = 33.3 PSF SPACING = 24.0 IN. C/C LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12 GIRDER TYPE: CPrimeHip SIDE SETBACK = 5-4-4 END SETBACK = 4-0-0 END WALL WIDTH = 5-8 CORNER FRAMING TYPE: CONVENTIONAL END JACK TYPE: CONVENTIONAL APPLIED TO FRONT SIDE - ADDTL LOADS BASED ON 55 % OF GSL. THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC2010 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012, BCBC 2012, ABC 2014 - CSA 086-09 - TPIC 2011 (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL)= L/360 (0.40") CALCULATED VERT. DEFL.(LL) = L/999 (0.01") ALLOWABLE DEFL.(TL)= L/360 (0.40") CALCULATED VERT. DEFL.(TL) = L/999 (0.04") CSI: TC=0.50 (4-5:8), BC=0.24 (8-9:11), WB=0.16 (5-8:3), SSI=0.15 (2-3:7) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS= 1.00 COMPANION LIVE LOAD FACTOR = 0.50 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 822 2284 1656 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.88 (8) (INPUT = 0.90) JSI METAL= 0.31 (5) (INPUT = 1.00)									
 READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.									
RECEIVED TOWN OF MILTON MAR 29, 2017 17-4978 BUILDING DIVISION									



LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
1 - 5	2x4	DRY	No.2
5 - 8	2x4	DRY	No.2
18 - 1	2x6	DRY	No.2
10 - 8	2x4	DRY	No.2
18 - 12	2x6	DRY	No.2
12 - 9	2x6	DRY	No.2
ALL WEBS EXCEPT	2x3	DRY	No.2

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
1-5	12	TOP
5-8	12	TOP
10-8	12	TOP
18-1	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
18-12	12	SIDE(0.0)
12-9	12	TOP
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.

TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY.

SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF TRANSFERING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
1	TMVW-p	MT20	4.0	16.0	0.50 Edge
2	TMVWV-t	MT20	4.0	5.0	1.75 1.25
3	TMVWV-t	MT20	4.0	4.0	1.75 1.00
4	TMVWV-t	MT20	4.0	4.0	2.00 1.25
5	TTW+p	MT20	3.0	5.0	

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	UP	IN-SX	IN-SX	
18	6489	0	7496	365	-3307	5-8	5-8
9	1655	0	1800	-750	1-8	1-8	

PROVIDE ANCHORAGE AT BEARING JOINT 18 FOR 3307 LBS. FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT 9 FOR 750 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES. SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 365 LBS. FACTORED HORIZONTAL REACTION AT JOINT 18

UNFACTORED REACTIONS							
JT	1ST LCASE COMBINED	MAX./MIN. SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
18	4554	3186 / 0	0 / 0	0 / 0	2519 / -3242	1368 / 0	0 / 0
9	1161	811 / 0	0 / 0	0 / 0	365 / -761	351 / 0	0 / 0

HORIZONTAL REACTIONS							
18	---	0 / 0	0 / 0	0 / 0	261 / -255	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 18, 9

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.60 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-14. DBS = 16'-0-0. CBF = 90 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) TO EACH PLY USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

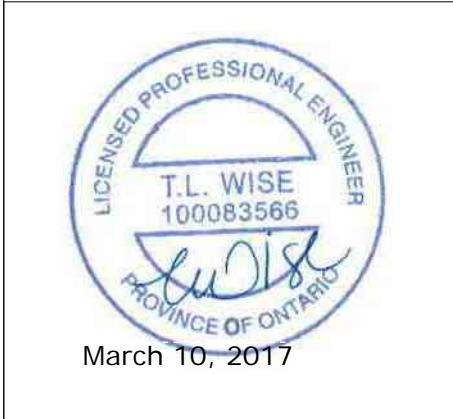
TOTAL LOAD CASES: (11)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 (LC)	
FR-TO				LENGTH FR-TO			
1-2	-7210 / 3199	-77.3	-77.3 0.29 (7)	3-60	17-2 -1603 / 3590	0.39 (3)	
2-3	-4296 / 1936	-77.3	-77.3 0.19 (7)	4-58	2-16 -3257 / 1579	0.43 (3)	
3-4	-2868 / 1354	-77.3	-77.3 0.15 (7)	5-41	16-3 -1109 / 2427	0.26 (3)	
4-5	-2013 / 1061	-77.3	-77.3 0.13 (7)	6-18	3-15 -2283 / 1164	0.57 (3)	
5-6	-2026 / 1056	-77.3	-77.3 0.15 (8)	6-16	15-4 -884 / 1855	0.36 (7)	
6-7	-2127 / 999	-77.3	-77.3 0.16 (8)	6-04	4-14 -1813 / 1003	0.92 (3)	
7-8	-2053 / 887	-77.3	-77.3 0.15 (8)	6-12	14-5 -1031 / 2000	0.26 (7)	
18-1	-6464 / 2863	0.0	0.0 0.20 (1)	5-92	14-6 -274 / 310	0.13 (4)	
10-8	-1869 / 813	0.0	0.0 0.10 (1)	7-81	13-6 -76 / 138	0.03 (3)	
				13-7	-107 / 137	0.02 (6)	
18-19	-346 / 348	-17.5	-17.5 0.24 (3)	6-25	11-7 -398 / 225	0.05 (3)	
19-17	-346 / 348	-17.5	-17.5 0.24 (3)	6-25	1-17 -2780 / 6417	0.69 (3)	
17-16	-2770 / 6068	-17.5	-17.5 0.48 (3)	6-25	11-8 -681 / 1823	0.21 (1)	
16-15	-1597 / 3649	-17.5	-17.5 0.24 (3)	6-25			
15-14	-971 / 2422	-17.5	-17.5 0.18 (1)	6-25			
14-13	-61 / 111	-17.5	-17.5 0.11 (1)	6-25			
13-12	-1 / 11	-17.5	-17.5 0.11 (1)	6-25			
12-11	-1 / 11	-17.5	-17.5 0.11 (1)	6-25			
11-10	-1 / 11	-17.5	-17.5 0.11 (1)	6-25			
10-9	0 / 0	-17.5	-17.5 0.11 (1)	10.00			

FACT. JT 17 19

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

RECEIVED TOWN OF MILTON MAR 29, 2017 17-4978 BUILDING DIVISION



TOTAL WEIGHT = 2 X 127 = 254 lb [M]

DESIGN CRITERIA

*** SPECIAL LOADS ANALYSIS ***

GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.

LOADS WERE DERIVED FROM USER INPUT NO FURTHER MODIFICATIONS WERE MADE

SPECIFIED LOADS:

TOP CH. LL = 23.3 PSF

DL = 3.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.0 PSF

TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

*** NON STANDARD GIRDER ***

ADDT'L USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.76")

CALCULATED VERT. DEFL.(LL) = L/999 (0.06")

ALLOWABLE DEFL.(TL)= L/360 (0.76")

CALCULATED VERT. DEFL.(TL) = L/999 (0.10")

CSI: TC=0.29 (1-2-7), BC=0.48 (16-17-3), WB=0.92 (4-14-3), SSI=0.55 (9-10-1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS=1.00

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (7) (INPUT = 0.90)

JSI METAL= 0.65 (17) (INPUT = 1.00)

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
6	TMWW-t	MT20	3.0	4.0	1.50	1.50
7	TMWW-t	MT20	3.0	4.0	1.50	1.50
8	TMVW+p	MT20	4.0	4.0	1.25	2.00
10	BMV+p	MT20	2.0	4.0		
11	BMWW-t	MT20	4.0	4.0	2.00	1.75
12	BS-t	MT20	4.0	6.0		
13	BMWW-t	MT20	3.0	4.0		
14	BMWWW-t	MT20	4.0	6.0		
15	BMWW-t	MT20	3.0	5.0		
16	BMWW-t	MT20	4.0	5.0	1.75	2.50
17	BMWW-t	MT20	6.0	10.0	5.00	1.50
18	BMV1-t	MT20	6.0	8.0	5.50	

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

HANGERS NOTES

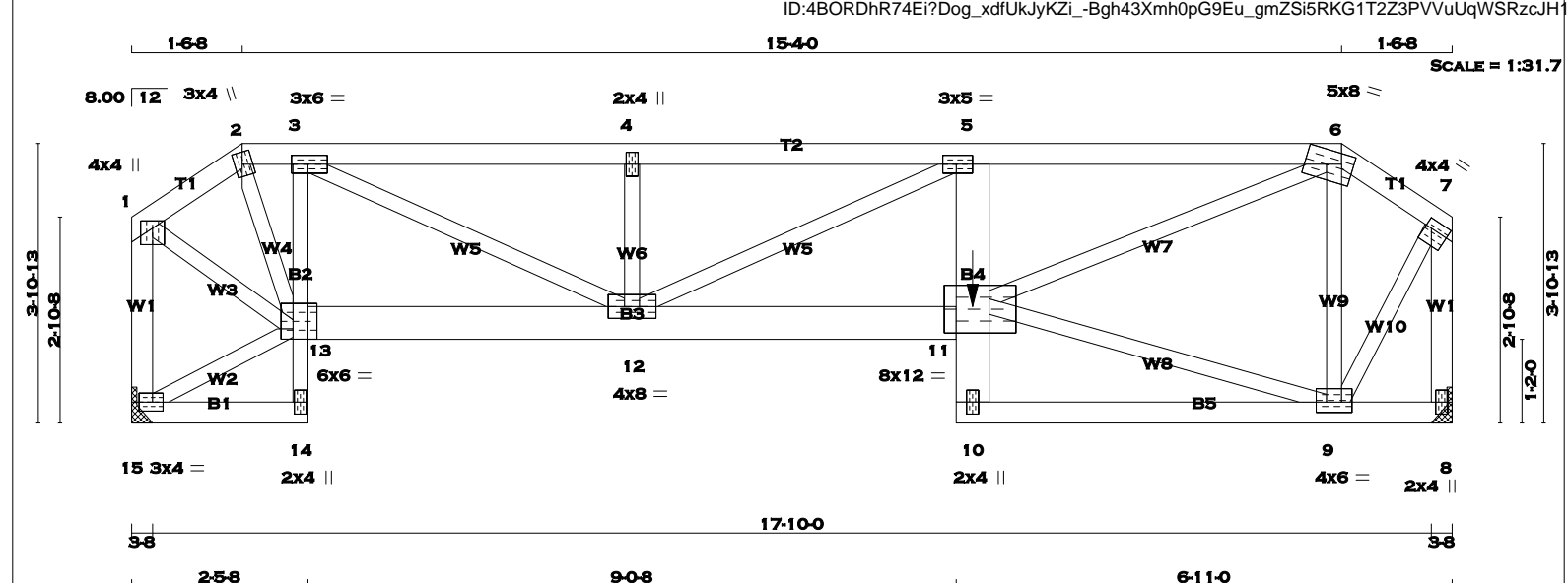
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 1172.0 lbs FACTORED DOWN AND 526.8 lbs FACTORED UP AT 8-12, AND 5875.2 lbs FACTORED DOWN AND 2640.9 lbs FACTORED UP AT 2-6-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}.INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

RECEIVED
TOWN OF MILTON
MAR 29, 2017
17-4978
BUILDING DIVISION



TOTAL WEIGHT = 91 lb

LUMBER					DESCR.	
N. L. G. A. RULES		SIZE	LUMBER	No.2		
CHORDS						
1 - 2	2x4	DRY	No.2	SPF		
2 - 6	2x4	DRY	No.2	SPF		
6 - 7	2x4	DRY	No.2	SPF		
15 - 1	2x4	DRY	No.2	SPF		
8 - 7	2x4	DRY	No.2	SPF		
15 - 14	2x4	DRY	No.2	SPF		
14 - 3	2x3	DRY	No.2	SPF		
13 - 11	2x6	DRY	No.2	SPF		
10 - 5	2x6	DRY	No.2	SPF		
10 - 8	2x4	DRY	No.2	SPF		
ALL WEBS	2x3	DRY	No.2	SPF		
EXCEPT						

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
1	TMVW+p	MT20	4.0	4.0	1.25	2.00
2	TTW+m	MT20	3.0	4.0	2.00	1.25
3	TMVW-t	MT20	3.0	6.0	1.50	2.75
4	TMW+w	MT20	2.0	4.0		
5	TMVW-t	MT20	3.0	5.0	1.50	2.25
6	TTWV-m	MT20	5.0	8.0	1.75	2.00
7	TMVW-t	MT20	4.0	4.0	1.50	1.00
8	BMV1+p	MT20	2.0	4.0		
9	BMVWW-t	MT20	4.0	6.0	1.75	3.00
10	BMV+p	MT20	2.0	4.0		
11	BVMWW-I	MT20	8.0	12.0	5.75	7.50
12	BMVWW-t	MT20	4.0	8.0		
13	BVMWW-I	MT20	6.0	6.0	Edge	4.00
14	BMV+p	MT20	2.0	4.0		
15	BMVW1-t	MT20	3.0	4.0	1.50	1.75

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

HANGERS NOTES

- SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 260.8 lbs FACTORED DOWN AND 117.2 lbs FACTORED UP AT 12-2-4 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

March 10, 2017

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	VERT	HORZ	GROSS REACTION	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	BRG
8	1015	0	0	1075	0	-529	HANGER BY OTHERS		
15	954	0	0	1010	-188	-497	HANGER BY OTHERS		

PROVIDE ANCHORAGE AT BEARING JOINT 8 FOR 529 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 15 FOR 497 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES.
SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 188 LBS. FACTORED HORIZONTAL REACTION AT JOINT 15

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS		PERM.LIVE		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	0/0	0/0	150/-515	214/0	0/0	0/0	0/0	0/0
8	712	498 / 0	0 / 0	0 / 0	0 / 0	139 / -484	201 / 0	0 / 0	0 / 0	0 / 0	0 / 0
15	670	468 / 0	0 / 0	0 / 0	0 / 0	134 / -134	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0

HORIZONTAL REACTIONS

15	---	0 / 0	0 / 0	0 / 0	134 / -134	0 / 0	0 / 0
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BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.17 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

CHORDS			WEBS		
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 MAX (PLF) CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS) MAX CSI (LC)
FR-TO		FROM TO		FR-TO	
1-2	-933 / 488	-77.3 -77.3 0.11 (7)	6.25	3-12	-572 / 1166 0.27 (1)
2-3	-966 / 544	-77.3 -77.3 0.20 (7)	6.12	12-4	-372 / 285 0.06 (1)
3-4	-2011 / 1033	-77.3 -77.3 0.29 (7)	4.58	12-5	-564 / 309 0.25 (3)
4-5	-2011 / 1033	-77.3 -77.3 0.35 (7)	4.49	11-9	-63 / 226 0.05 (1)
5-6	-2347 / 1208	-77.3 -77.3 0.38 (1)	4.17	11-6	-1008 / 2050 0.48 (7)
6-7	-558 / 329	-77.3 -77.3 0.09 (8)	6.25	9-6	-687 / 362 0.16 (1)
15-1	-1003 / 498	0.0 0.0 0.15 (1)	7.79	9-7	-346 / 854 0.20 (1)
8-7	-1090 / 522	0.0 0.0 0.17 (1)	7.58	1-13	-364 / 853 0.20 (1)
15-14	-3 / 7	-17.5 -17.5 0.03 (11)	10.00	15-13	-152 / 185 0.04 (5)
14-13	0 / 23	0.0 0.0 0.03 (1)	10.00	2-13	-321 / 583 0.13 (1)
13-3	-879 / 534	0.0 0.0 0.12 (8)	7.21		
13-12	-421 / 973	-17.5 -17.5 0.17 (1)	6.25		
12-11	-1147 / 2523	-17.5 -17.5 0.36 (1)	6.25		
10-11	0 / 40	0.0 0.0 0.24 (1)	10.00		
11-5	-190 / 218	0.0 0.0 0.24 (1)	7.81		
10-9	-107 / 227	-17.5 -17.5 0.13 (11)	6.25		
9-8	-23 / 50	-17.5 -17.5 0.11 (11)	6.25		

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
11	12-2-4	-222	-261	117	FRONT	VERT	TOTAL

WIND AND PRESSURE DESIGN WIND SPEED CATEGORY 2 (BASED ON THE MINIMUM WIND FORCE RESISTING SYSTEM INTERNAL WIND PRESSURE CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (4'-0") FROM EAVE.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

DESIGN CRITERIA

*** SPECIAL LOADS ANALYSIS ***
GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.
LOADS WERE DERIVED FROM USER INPUT
NO FURTHER MODIFICATIONS WERE MADE

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD	=	33.3	PSF	

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

*** NON STANDARD GIRDER ***

ADDT'L USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.61")
CALCULATED VERT. DEFL.(LL) = L/999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (0.61")
CALCULATED VERT. DEFL.(TL) = L/999 (0.16")

CSI: TC=0.38 (5-6:1), BC=0.36 (11-12:1), WB=0.48 (6-11:7), SSI=0.20 (5-6:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00
COMP=1.00 SHEAR=1.00 TENS=1.00

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 822	2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

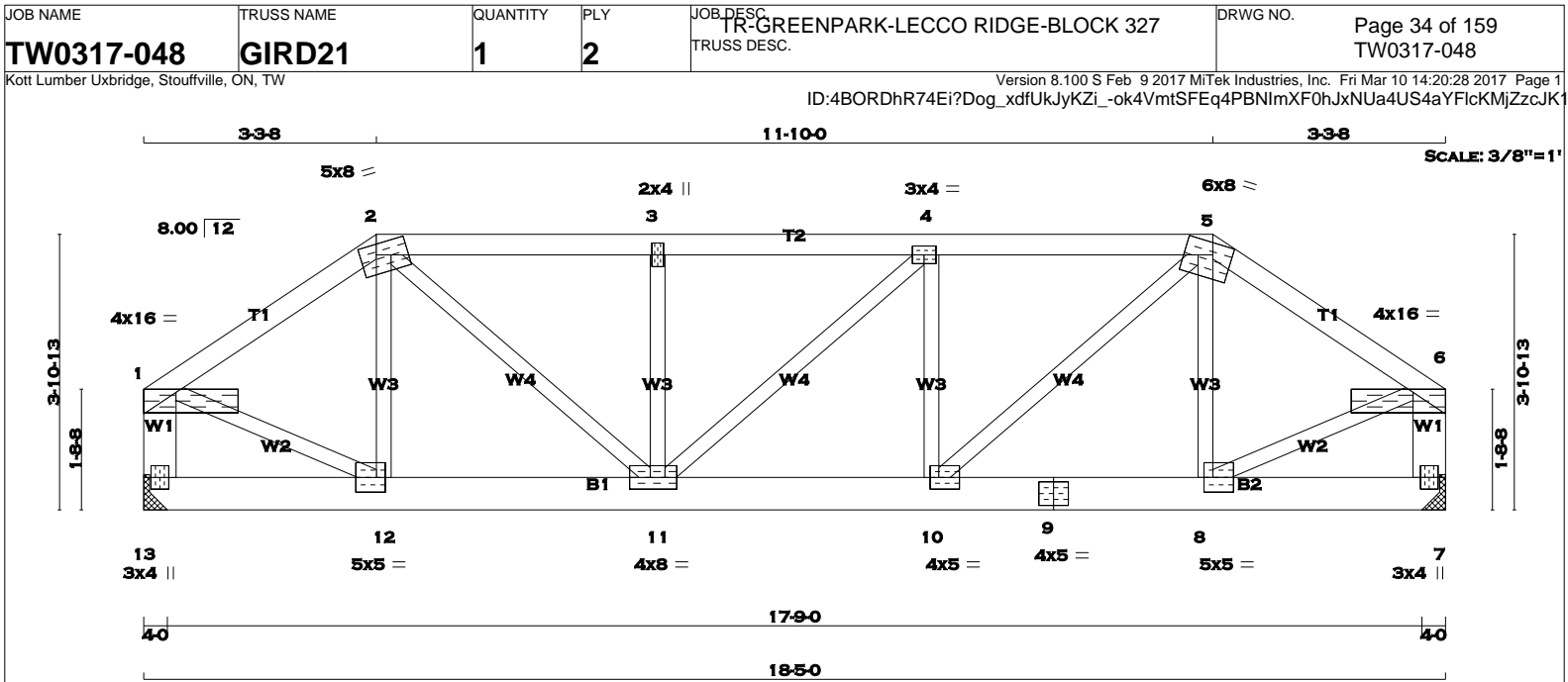
JSI GRIP= 0.89 (6) (INPUT = 0.90)
JSI METAL= 0.40 (6) (INPUT = 1.00)

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LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. SPF 1 - 2 2x4 DRY No.2 2 - 5 2x4 DRY No.2 5 - 6 2x4 DRY No.2 13- 1 2x6 DRY No.2 7 - 6 2x6 DRY No.2 13- 9 2x6 DRY No.2 9 - 7 2x6 DRY No.2 ALL WEBS 2x3 DRY No.2 EXCEPT DRY: SEASONED LUMBER. DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS: CHORDS #ROWS SURFACE SPACING (IN) LOAD(PLF) TOP CHORDS : (0.122"x3") SPIRAL NAILS 1-2 1 12 TOP 2-5 1 12 TOP 5-6 1 12 TOP 13-1 2 12 TOP 7-6 2 12 TOP BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS 13-9 2 12 SIDE(248.2) 9-7 2 12 SIDE(248.2) WEBS : (0.122"x3") SPIRAL NAILS 2x3 1 6 NAILS TO BE DRIVEN FROM ONE SIDE ONLY. TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY. SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF TRANSFERING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP. PLATES (table is in inches) JT TYPE PLATES W LEN Y X 1 TMVW-p MT20 4.0 16.0 0.50 Edge 2 TTWW-m MT20 5.0 8.0 1.75 2.75 3 TMW-w MT20 2.0 4.0 4 TMWW-t MT20 3.0 4.0 5 TTWW-m MT20 6.0 8.0 2.00 3.25 6 TMVW-p MT20 4.0 16.0 Edge 5.50			DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT REQRD BRG JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX 13 4770 0 5496 -162 -1855 HANGER BY OTHERS 7 4770 0 5474 0 -1855 HANGER BY OTHERS MIN. SEAT SIZE: 4-0 MIN. SEAT SIZE: 4-0 PROVIDE ANCHORAGE AT BEARING JOINT 13 FOR 1855 LBS. FACTORED UPLIFT PROVIDE ANCHORAGE AT BEARING JOINT 7 FOR 1855 LBS. FACTORED UPLIFT NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES. SHALL BE PROVIDED BY BUILDG. DESIGNER PROVIDE FOR 162 LBS. FACTORED HORIZONTAL REACTION AT JOINT 13 UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL 13 3347 2342 / 0 0 / 0 0 / 0 1816 / -1972 1006 / 0 0 / 0 7 3347 2342 / 0 0 / 0 0 / 0 1761 / -1972 1006 / 0 0 / 0 HORIZONTAL REACTIONS 13 --- 0 / 0 0 / 0 115 / -115 0 / 0 0 / 0 BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.63 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. LOADING TOTAL LOAD CASES: (11) C H O R D S W E B S MAX. FACTORED MAX. FACTORED MAX. FACTORED MEMB. FORCE VERT. LOAD L1 MAX. MAX. MEMB. FORCE MAX. (LBS) (PLF) CSI (LC) UNBRAC (LBS) CSI (LC) FR-TO FROM TO LENGTH FR-TO 1-2 -5339 / 1832 -77.3 -77.3 0.22 (7) 4.14 12-2 -124 / 428 0.05 (4) 2-3 -6995 / 2463 -77.3 -77.3 0.25 (7) 3.63 2-11 -1199 / 3384 0.37 (1) 3-4 -6995 / 2464 -77.3 -77.3 0.24 (7) 3.67 11-3 -308 / 254 0.03 (1) 4-5 -7004 / 2472 -77.3 -77.3 0.25 (8) 3.63 11-4 -34 / 45 0.01 (4) 5-6 -5321 / 1830 -77.3 -77.3 0.22 (8) 4.16 10-4 -308 / 266 0.03 (1) 13-1 -4811 / 1669 0.0 0.0 0.15 (1) 6.66 10-5 -1213 / 3435 0.37 (3) 7-6 -4785 / 1667 0.0 0.0 0.16 (3) 6.68 8-5 -132 / 414 0.04 (4) 1-12 -1529 / 4724 0.51 (1) 8-6 -1527 / 4732 0.51 (3) 13-12 -136 / 150 -440.6 -440.6 0.21 (3) 6.25 12-11 -1454 / 4459 -440.6 -440.6 0.46 (3) 6.25 11-10 -2311 / 7006 -440.6 -440.6 0.56 (3) 6.25 10-9 -1402 / 4430 -440.6 -440.6 0.45 (3) 6.25 9-8 -1402 / 4430 -440.6 -440.6 0.45 (3) 6.25 8-7 -12 / 26 -440.6 -440.6 0.20 (3) 6.25 WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT { 40-0-0 } FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE { MAIN WIND FORCE RESISTING SYSTEM }. INTERNAL WIND PRESSURE IS BASED ON DESIGN { CATEGORY 2 }. BUILDING MAY BE LOCATED ON { OPEN TERRAIN }, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST { 0-0 } FT-IN-SX AWAY FROM EAVE.			DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 23.3 PSF DL = 3.0 PSF BOT CH. LL = 0.0 PSF DL = 7.0 PSF TOTAL LOAD = 33.3 PSF SPACING = 24.0 IN. C/C LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12 GIRDER TYPE: CStdGirder START DISTANCE = 5-8 START SPAN CARRIED = 19-11-10 END DISTANCE = 18-10-8 END SPAN CARRIED = 19-11-10 END WALL WIDTH = 1-8 APPLIED TO FRONT SIDE OF BOTTOM CHORD. - ADDTL LOADS BASED ON 55 % OF GSL. THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012 , CBC 2012 , ABC 2014 - CSA 086-09 - TPIC 2011 (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL)= L/360 (0.61") CALCULATED VERT. DEFL.(LL) = L/ 999 (0.10") ALLOWABLE DEFL.(TL)= L/360 (0.61") CALCULATED VERT. DEFL.(TL) = L/ 999 (0.16") CSI: TC=0.25 (2-3:7) , BC=0.56 (10-11:3) , WB=0.51 (1-12:1) , SSI=0.31 (12-13:4) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS= 1.00 COMPANION LIVE LOAD FACTOR = 0.50 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 822 2284 1656 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.90 (2) (INPUT = 0.90) JSI METAL= 0.68 (9) (INPUT = 1.00)		
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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
7	BMV1+p	MT20	3.0	4.0		
8	BMWW-t	MT20	5.0	5.0	2.50	1.50
9	BS-t	MT20	4.0	5.0		
10	BMWW-t	MT20	4.0	5.0	2.00	1.50
11	BMWWW-t	MT20	4.0	8.0	2.00	3.50
12	BMWW-t	MT20	5.0	5.0	2.50	1.50
13	BMV1+p	MT20	3.0	4.0		

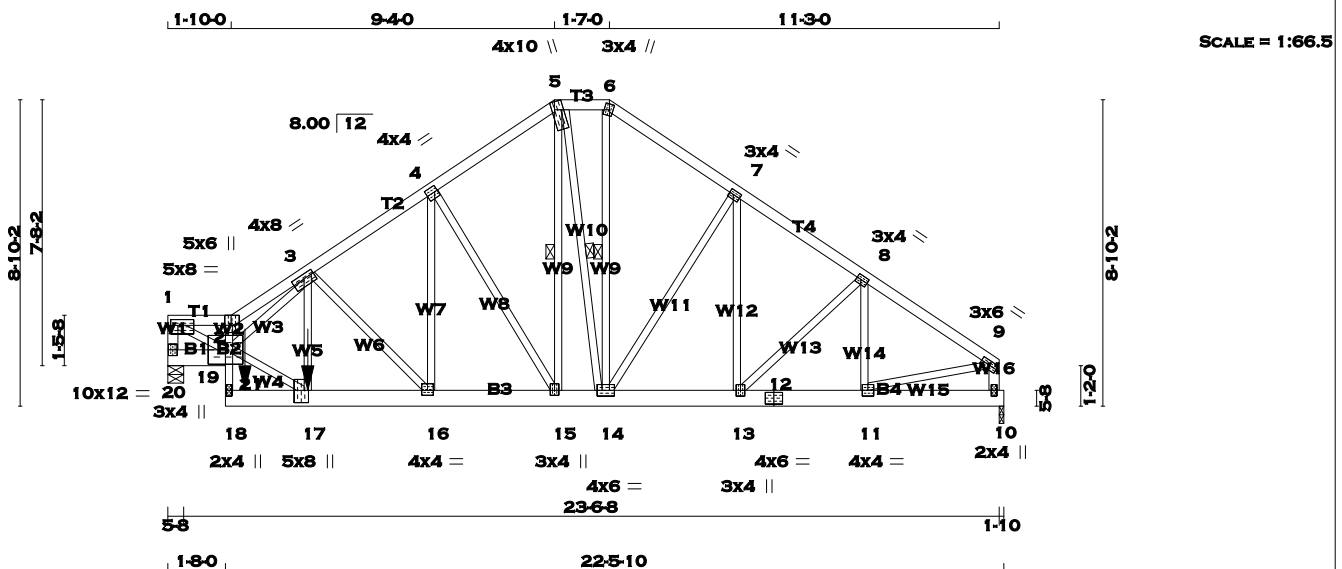
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.



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TOTAL WEIGHT = 3 X 140 = 421 LB [M]

LUMBER				DESCR.	
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	SPF	
20 - 1	2x4	DRY	No.2	SPF	
1 - 2	2x4	DRY	No.2	SPF	
2 - 5	2x4	DRY	No.2	SPF	
5 - 6	2x4	DRY	No.2	SPF	
6 - 9	2x4	DRY	No.2	SPF	
10 - 9	2x4	DRY	No.2	SPF	
20 - 19	2x6	DRY	No.2	SPF	
18 - 2	2x3	DRY	No.2	SPF	
18 - 12	2x6	DRY	No.2	SPF	
12 - 10	2x6	DRY	No.2	SPF	
ALL WEBS	2x3	DRY	No.2	SPF	
EXCEPT					

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 3 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
20- 1	12	TOP
1- 2	12	TOP
2- 5	12	TOP
5- 6	12	TOP
6- 9	12	TOP
10- 9	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
20- 19	2	SIDE(90.3)
18- 12	3	SIDE(1746.3)
12- 10	2	TOP
2- 18	1	SIDE(42.9)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	6	

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

GIRDER NAILING ASSUMES NAILED HANGERS ARE FASTENED WITH MIN. 3-0 INCH NAILS.

TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY.

SIDE - PLF SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF TRANSFERRING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.

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DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
20	6209	0	7097	441	-3140	5-8	5-8
10	2037	0	2218	0	-976	1-10	1-10

PROVIDE ANCHORAGE AT BEARING JOINT 20 FOR 3140 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 10 FOR 976 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES.
SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 441 LBS. FACTORED HORIZONTAL REACTION AT JOINT 20

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
20	4358	3048 / 0	0 / 0	0 / 0	2219 / -3084	1309 / 0	0 / 0
10	1429	1000 / 0	0 / 0	0 / 0	453 / -973	429 / 0	0 / 0

HORIZONTAL REACTIONS

20	---	0 / 0	0 / 0	0 / 0	315 / -323	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 20, 10

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.26 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 4.05 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-15. DBS = 16'-0-0 . CBF = 88 LBS.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-14, 6-14. DBS = 20'-0-0 . CBF = 74 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) TO EACH PLY USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (11)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		UNBRAC LENGTH	FR-TO		
20-1	-6961 / 3113	0.0	0.0 0.21 (1)	5.67	1-19 -5941 / 13388	0.88 (1)	
1- 2	-11434 / 5091	-77.3	-77.3 0.25 (7)	3.61	19-17 -3271 / 7264	0.47 (3)	
2- 3	-13786 / 6209	-77.3	-77.3 0.32 (7)	3.26	19- 3 -3272 / 7174	0.47 (3)	
3- 4	-4628 / 2148	-77.3	-77.3 0.15 (7)	5.29	17- 3 -1175 / 2390	0.16 (3)	
4- 5	-2877 / 1461	-77.3	-77.3 0.11 (7)	6.25	3-16 -4184 / 1990	0.56 (3)	
5- 6	-2305 / 1234	-77.3	-77.3 0.07 (8)	6.25	16- 4 -1402 / 3112	0.29 (7)	
6- 7	-2769 / 1392	-77.3	-77.3 0.11 (8)	6.25	4-15 -2908 / 1487	0.89 (3)	
7- 8	-2824 / 1347	-77.3	-77.3 0.11 (8)	6.25	15- 5 -986 / 2022	0.15 (7)	
8- 9	-2697 / 1206	-77.3	-77.3 0.11 (8)	6.25	5-14 -629 / 342	0.10 (3)	
10- 9	-2174 / 989	0.0	0.0 0.07 (1)	7.81	14- 6 -661 / 1353	0.10 (7)	
				14- 7	-207 / 271	0.06 (4)	
20-19	-421 / 200	-134.1	-134.1 0.02 (3)	6.25	13- 7 -181 / 163	0.04 (3)	
18-19	-451 / 1041	0.0	0.0 0.39 (3)	7.81	13- 8 -108 / 131	0.01 (6)	
19- 2	-82 / 342	0.0	0.0 0.03 (3)	4.05	11- 8 -470 / 272	0.03 (3)	
18-21	-34 / 17	-17.5	-17.5 0.1 (3)	6.25	11- 9 -939 / 2322	0.16 (1)	
21-17	-34 / 17	-17.5	-17.5 0.1 (3)	6.25			
17-16	-34 / 17	-17.5	-17.5 0.2 (3)	6.25			
16-15	-34 / 17	-17.5	-17.5 0.1 (3)	6.25			
15-14	-900 / 2419	-17.5	-17.5 0.16 (1)	6.25			
14-13							
13-12							
12-11							
11-10							

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DESIGN CRITERIA

*** SPECIAL LOADS ANALYSIS ***
GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.
LOADS WERE DERIVED FROM USER INPUT
NO FURTHER MODIFICATIONS WERE MADE

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD	=	33.3	PSF	

SPACING = 24.0 IN. C/C

LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 6.00/12

GIRDER TYPE: CStdGirder

START DISTANCE = 0-0
START SPAN CARRIED = 6-11-0
END DISTANCE = 2-2-12
END SPAN CARRIED = 6-11-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDT'L LOADS BASED ON 55 % OF GSL.

*** NON STANDARD GIRDER ***
ADDT'L USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.80")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (0.80")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.16")

CSI: TC=0.32 (2-3:7), BC=0.44 (2-19:3), WB=0.89 (4-15:3), SSI=0.18 (17-18:3)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	618	354	1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (16) (INPUT = 0.90)
JSI METAL= 0.71 (1) (INPUT = 1.00)

CONTINUED ON PAGE 2

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
1	TMVW-t	MT20	5.0	8.0	2.00	2.50
2	TTV+p	MT20	5.0	6.0	Edge	2.25
3	TMWWW-t	MT20	4.0	8.0	1.50	3.75
4	TMWW-t	MT20	4.0	4.0	2.00	1.00
5	TTWW+m	MT20	4.0	10.0	Edge	1.00
6	TTW+m	MT20	3.0	4.0	2.00	1.25
7	TMWW-t	MT20	3.0	4.0	1.50	1.50
8	TMWW-t	MT20	3.0	4.0	1.50	1.50
9	TMVW-t	MT20	3.0	6.0		
10	BMV1+p	MT20	2.0	4.0		
11	BMWW-t	MT20	4.0	4.0		
12	BS-t	MT20	4.0	6.0		
13	BMWW+t	MT20	3.0	4.0		
14	BMWWW-t	MT20	4.0	6.0		
15	BMWW+t	MT20	3.0	4.0	1.75	1.50
16	BMWW-t	MT20	4.0	4.0	1.75	2.00
17	BMWW+t	MT20	5.0	8.0	4.25	1.50
18	BMV+p	MT20	2.0	4.0		
19	BVMWWW-l	MT20	10.0	12.0		
20	BMV1+p	MT20	3.0	4.0		

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

HANGERS NOTES
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 1155.3 lbs FACTORED DOWN AND 524.6 lbs FACTORED UP AT 2-2-12, AND 5476.7 lbs FACTORED DOWN AND 2486.8 lbs FACTORED UP AT 4-0-8 ON BOTTOM CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

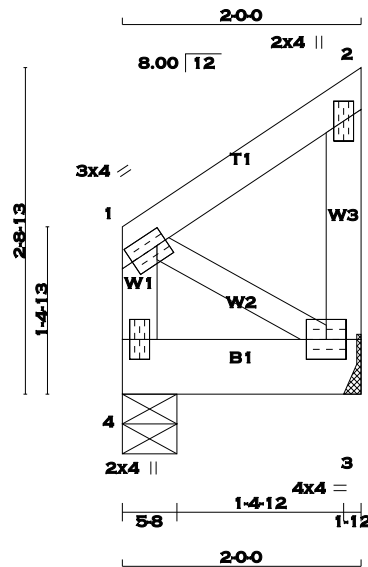
FACTORED CONCENTRATED LOADS (LBS)							
JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
17	4-0-8	-4715	-5477	2487	FRONT	VERT	TOTAL
21	2-2-12	-995	-1155	525	FRONT	VERT	TOTAL

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}.INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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SCALE = 1:19.3

TOTAL WEIGHT = 11 lb [M]

LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	SPF	
4 - 1	2x4	DRY	No.2	SPF	
1 - 2	2x4	DRY	No.2	SPF	
3 - 2	2x4	DRY	No.2	SPF	
4 - 3	2x6	DRY	No.2	SPF	
ALL WEBS 2x3 DRY: SEASONED LUMBER.					SPF

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
1	TMVW-t	MT20	3.0	4.0	1.50	1.00
2	TMV+p	MT20	2.0	4.0		
3	BMVW1-t	MT20	4.0	4.0		
4	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT		VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	IN-SX	IN-SX
4	222	0	267	138	-86	5-8	5-8		
3	222	0	271	0	-151	HANGER BY OTHERS MIN. SEAT SIZE: 1-12			

PROVIDE ANCHORAGE AT BEARING JOINT 4 FOR 150 LBS. FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT 3 FOR 151 LBS. FACTORED UPLIFT

PROVIDE FOR 138 LBS. FACTORED HORIZONTAL REACTION AT JOINT 4

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
4	156	109 / 0	0 / 0	0 / 0	111 / -91	47 / 0	0 / 0	
3	156	109 / 0	0 / 0	0 / 0	121 / -138	47 / 0	0 / 0	

HORIZONTAL REACTIONS						
4	---	0 / 0	0 / 0	0 / 0	98 / -76	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 4

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

CHORDS		FACTORED		W E B S		FACTORED	
MEMB.	MAX. FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FORCE (LBS)	MAX (LC)
FR-TO		FROM	TO		FR-TO		
4-1	-100 / 52	0.0	0.0	0.01 (8)	7.81	1-3	-57 / 108
1-2	-59 / 53	-77.3	-77.3	0.06 (3)	6.25		
3-2	-92 / 69	0.0	0.0	0.04 (7)	7.81		
4-3	-118 / 97	-145.0	-145.0	0.06 (3)	6.25		

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT { 40-0-0 } FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE { MAIN WIND FORCE RESISTING SYSTEM }. INTERNAL WIND PRESSURE IS BASED ON DESIGN { CATEGORY 2 }. BUILDING MAY BE LOCATED ON { OPEN TERRAIN }, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST { 0-0 } FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

GIRDER TYPE: CSIdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 7-4-8
END DISTANCE = 2-0-0
END SPAN CARRIED = 7-4-8
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

{ 55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD } EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.00")

CSI: TC=0.06 (1-2:3), BC=0.06 (3-4:3), WB=0.02 (1-3:6), SSI=0.10 (3-4:3)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00
COMP=1.00 SHEAR=1.00 TENS= 1.00

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.31 (1) (INPUT = 0.90)
JSI METAL= 0.04 (3) (INPUT = 1.00)

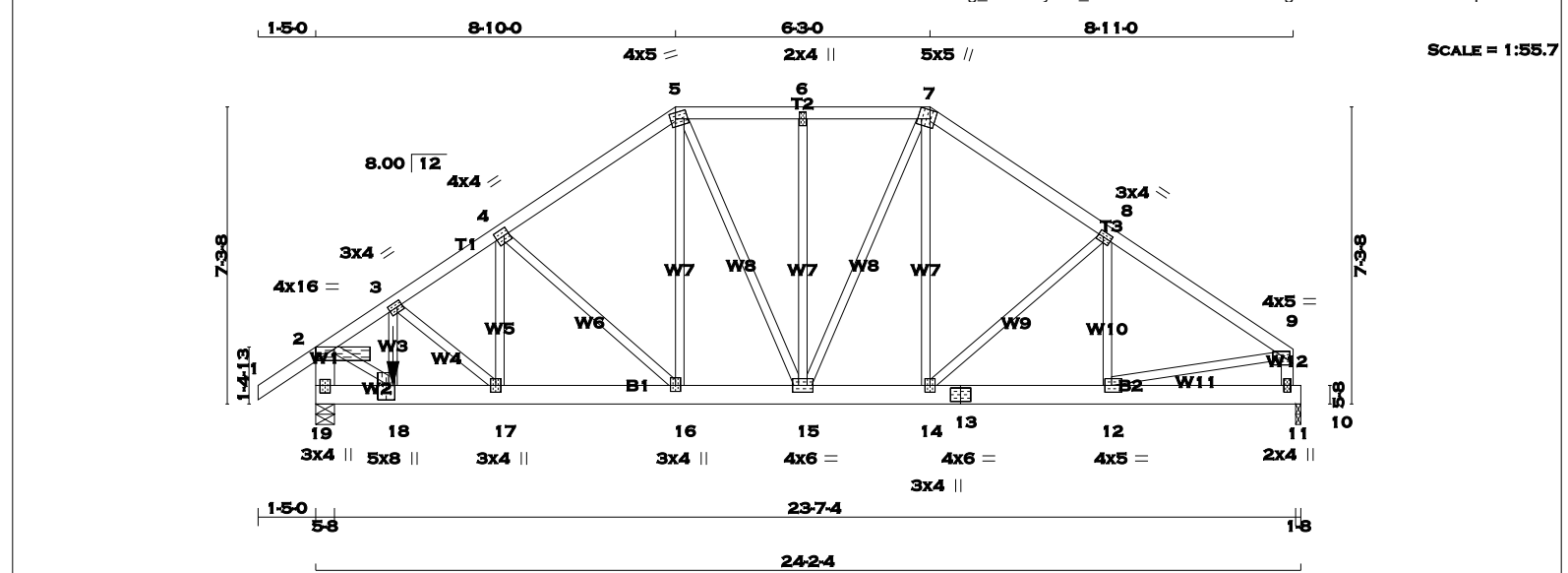


March 10, 2017



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TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .



NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

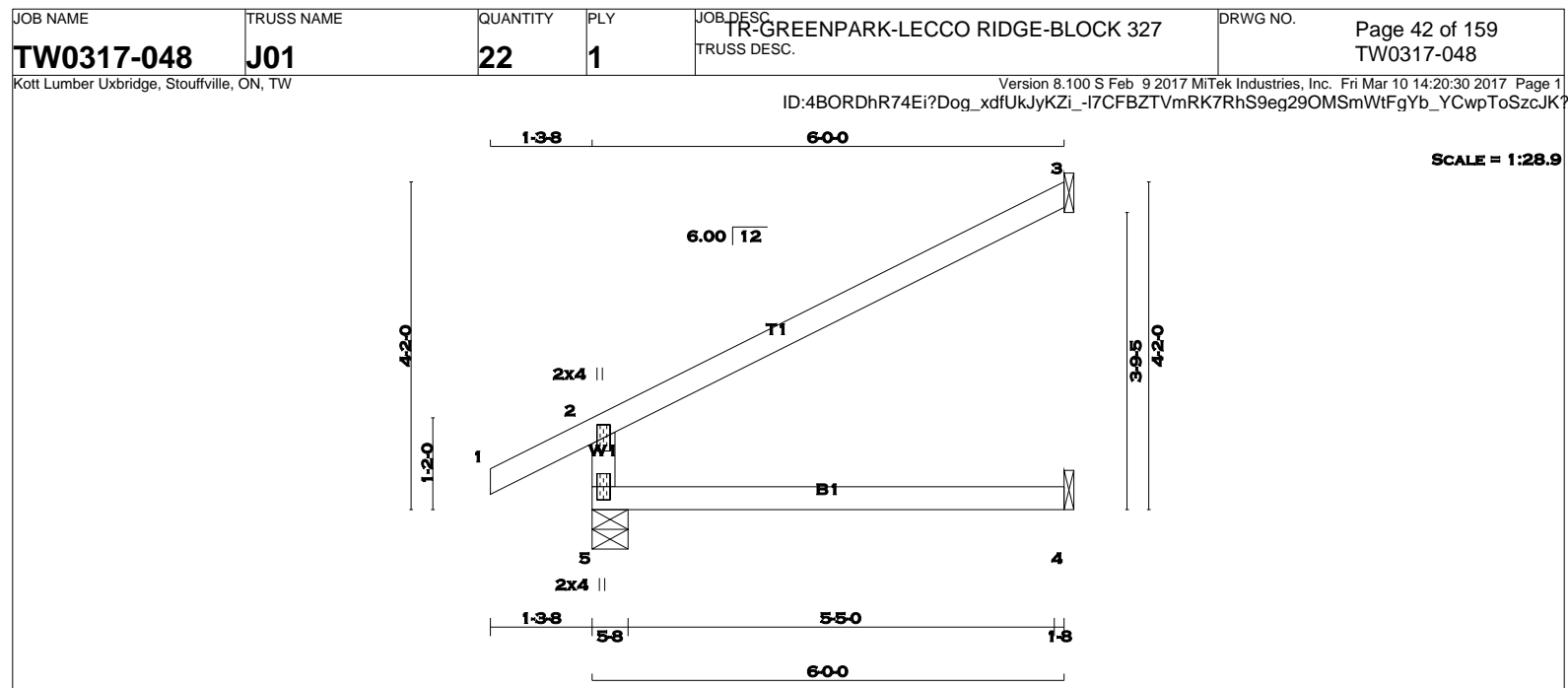
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (1) (INPUT = 0.90)
JSI METAL= 0.41 (3) (INPUT = 1.00)

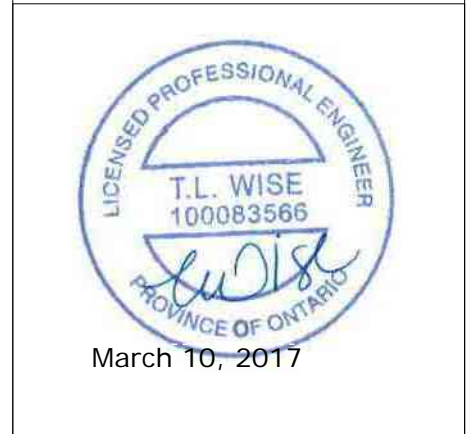


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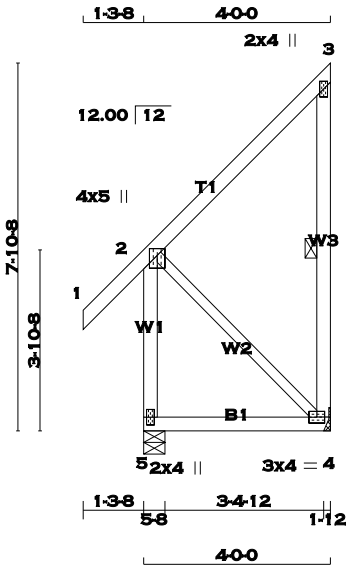


LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. SPF 5 - 2 2x4 DRY No.2 1 - 3 2x4 DRY No.2 5 - 4 2x4 DRY No.2 DRY: SEASONED LUMBER.			DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION DOWN 465 273 -210 5-8 5-8 3 174 0 185 0 -179 1-8 1-8 4 43 0 49 0 0 1-8 1-8 SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4 PROVIDE ANCHORAGE AT BEARING JOINT 5 FOR 210 LBS. FACTORED UPLIFT PROVIDE ANCHORAGE AT BEARING JOINT 3 FOR 179 LBS. FACTORED UPLIFT PROVIDE FOR 273 LBS. FACTORED HORIZONTAL REACTION AT JOINT 5 UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL 5 318 238 / 0 0 / 0 0 / 0 22 / -202 80 / 0 0 / 0 3 118 105 / 0 0 / 0 0 / 0 28 / -137 14 / 0 0 / 0 4 35 0 / 0 0 / 0 0 / 0 1 / -4 35 / 0 0 / 0 HORIZONTAL REACTIONS 5 --- 0 / 0 0 / 0 0 / 0 195 / -62 0 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5 BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. LOADING TOTAL LOAD CASES: (11) C H O R D S W E B S MAX. FACTORED MAX. FACTORED MAX. FACTORED MEMB. FORCE VERT. LOAD LC1 MAX. MEMB. FORCE MAX. (LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO (LBS) CSI (LC) FR-TO FROM TO 5- 2 -404 / 260 0.0 0.0 0.21 (7) 7.81 1- 2 0 / 23 -77.3 -77.3 0.10 (1) 10.00 2- 3 -87 / 3 -77.3 -77.3 0.47 (1) 6.25 5- 4 0 / 0 -17.5 -17.5 0.13 (11) 10.00 WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS. CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.			DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 23.3 PSF DL = 3.0 PSF BOT CH. LL = 0.0 PSF DL = 7.0 PSF TOTAL LOAD = 33.3 PSF SPACING = 24.0 IN. C/C THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014 - CSA 086-09 - TPIC 2011 DESIGN ASSUMPTIONS - OVERHANG NOT TO BE ALTERED OR CUT OFF. (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL)= L/360 (0.20") CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01") ALLOWABLE DEFL.(TL)= L/360 (0.20") CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03") CSI: TC=0.47 (2-3:1) , BC=0.13 (4-5:11) , WB=0.00 (n/a:0) , SSI=0.20 (2-3:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10 COMPANION LIVE LOAD FACTOR = 0.50 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 822 2284 1656 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.33 (2) (INPUT= 0.90) JSI METAL= 0.18 (5) (INPUT= 1.00)		
--	--	--	---	--	--	--	--	--



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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TOTAL WEIGHT = 4 X 30 = 118 lb [M]

LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
1 - 3	2x4	DRY	No.2	SPF	
4 - 3	2x4	DRY	No.2	SPF	
5 - 2	2x4	DRY	No.2	SPF	
5 - 4	2x4	DRY	No.2	SPF	
ALL WEBS 2x3 DRY: SEASONED LUMBER.					SPF

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW+p	MT20	4.0	5.0	1.75	2.00
3	TMV+p	MT20	2.0	4.0		
4	BMVW1-t	MT20	3.0	4.0		
5	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
4		190	0	338	0	-501	HANGER BY OTHERS	MIN. SEAT SIZE: 1-12	
5		298	0	415	480	-251	5-8	5-8	

PROVIDE ANCHORAGE AT BEARING JOINT 4 FOR 501 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 5 FOR 251 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES.
SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 480 LBS. FACTORED HORIZONTAL REACTION AT JOINT 5

UNFACTORED REACTIONS		MAX./MIN. COMPONENT REACTIONS					
JT	1ST LCASE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
4	133	93 / 0	0 / 0	0 / 0	0 / 0	272 / -384	40 / 0
5	206	158 / 0	0 / 0	0 / 0	0 / 0	294 / -210	48 / 0
HORIZONTAL REACTIONS							
5	---	0 / 0	0 / 0	0 / 0	343 / -262	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 3-4. DBS = 20-0-0 . CBF = 21 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING
TOTAL LOAD CASES: (11)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD	LC1 MAX. (PLF)	MEMB.	FORCE (LBS)	MAX. (LC)	UNBRAC LENGTH
FR-TO		FROM	TO	FR-TO			
1-2	0 / 38	-77.3	-77.3	0.11 (7)	10.00	2-4	-250 / 456
2-3	-216 / 201	-77.3	-77.3	0.31 (7)	6.25		
4-3	-197 / 226	0.0	0.0	0.34 (7)	6.25		
5-2	-380 / 276	0.0	0.0	0.09 (4)	7.81		
5-4	-411 / 335	-17.5	-17.5	0.08 (11)	6.25		

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT { 40-0-0 } FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE { MAIN WIND FORCE RESISTING SYSTEM }. INTERNAL WIND PRESSURE IS BASED ON DESIGN { CATEGORY 2 }. BUILDING MAY BE LOCATED ON { OPEN TERRAIN }, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST { 0-0 } FT-IN-SX AWAY FROM EAVE.



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DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

{ 55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD } EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.34 (3-4:7) , BC=0.08 (4-5:11) , WB=0.11 (2-4:5) , SSI=0.13 (2-3:7)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

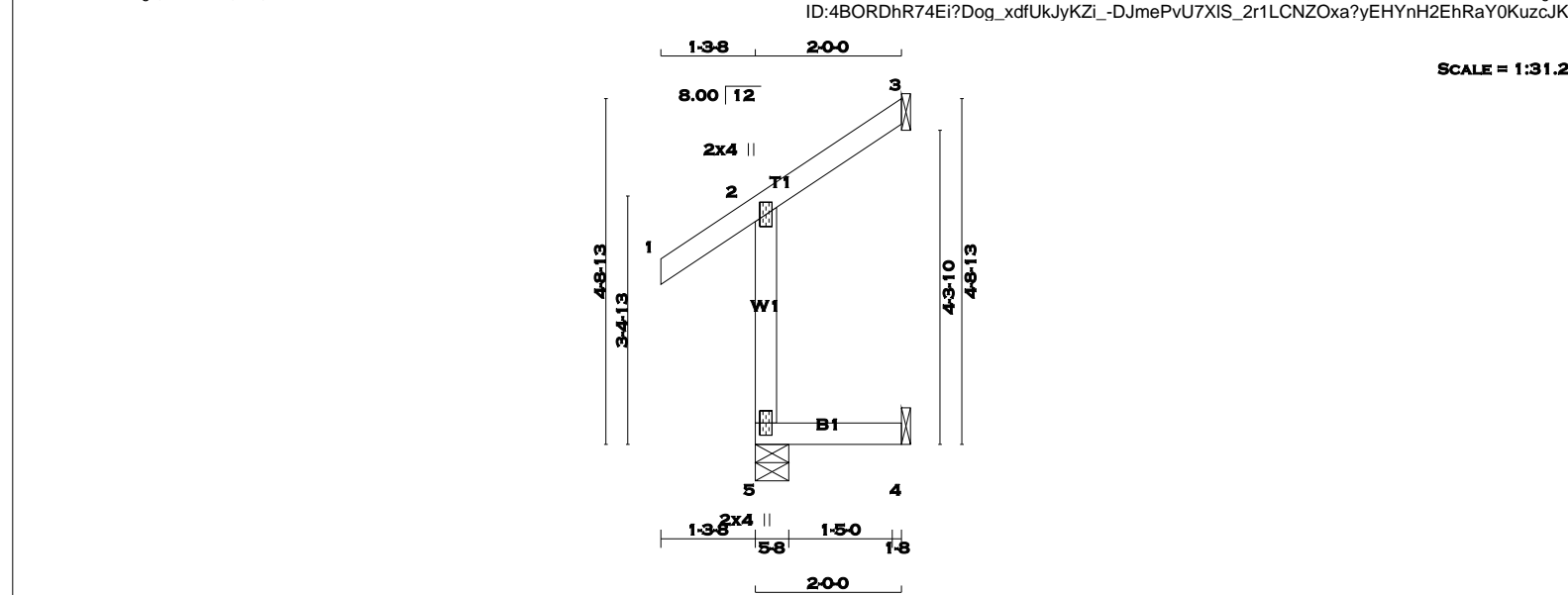
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.63 (4) (INPUT = 0.90)
JSI METAL= 0.15 (4) (INPUT = 1.00)



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LUMBER

N. L. G. A. RULES

CHORDS

SIZE

DRY

No.2

DESCR.

SPF

SPF

5 - 2

2x4

DRY

No.2

5 - 3

2x4

DRY

No.2

5 - 4

2x4

DRY

No.2

DRY: SEASONED LUMBER.

TOTAL WEIGHT = 4 X 10 = 42 lb

[M]

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
5		220	0	220	259	0	5-8	5-8	
3		59	0	71	0	-70	1-8	1-8	
4		17	0	49	0	-127	1-8	1-8	

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

PROVIDE ANCHORAGE AT BEARING JOINT 3 FOR 150 LBS. FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT 4 FOR 150 LBS. FACTORED UPLIFT

PROVIDE FOR 259 LBS. FACTORED HORIZONTAL REACTION AT JOINT 5

UNFACTORED REACTIONS

		MAX./MIN. COMPONENT REACTIONS						
JT	1ST LCASE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
5		152	121 / 0	0 / 0	0 / 0	20 / -44	30 / 0	0 / 0
3		40	36 / 0	0 / 0	0 / 0	29 / -53	5 / 0	0 / 0
4		13	0 / 0	0 / 0	0 / 0	81 / -99	13 / 0	0 / 0

HORIZONTAL REACTIONS

5	---	0 / 0	0 / 0	0 / 0	185 / -170	0 / 0	0 / 0
---	-----	-------	-------	-------	------------	-------	-------

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (12)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRAC LENGTH FR-TO	MAX. LC1 CSI (LC)
FR-TO		FROM TO		FR-TO			
5-2	-216 / 119	0.0	0.0 0.41 (7)	7.81			
1-2	0 / 29	-77.3	-77.3 0.10 (1)	10.00			
2-3	-42 / 5	-77.3	-77.3 0.05 (7)	6.25			
5-4	0 / 0	-17.5	-17.5 0.33 (7)	10.00			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF (9.0) PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 23.3 PSF

DL = 3.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.0 PSF

TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014

- CSA 086-09

- TPIC 2011

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")

ALLOWABLE DEFL.(TL)= L/360 (0.19")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.41 (2-5:7) , BC=0.33 (4-5:7) , WB=0.00 (n/a:0) , SSI=0.18 (2-5:7)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.26 (5) (INPUT = 0.90)

JSI METAL= 0.17 (5) (INPUT = 1.00)

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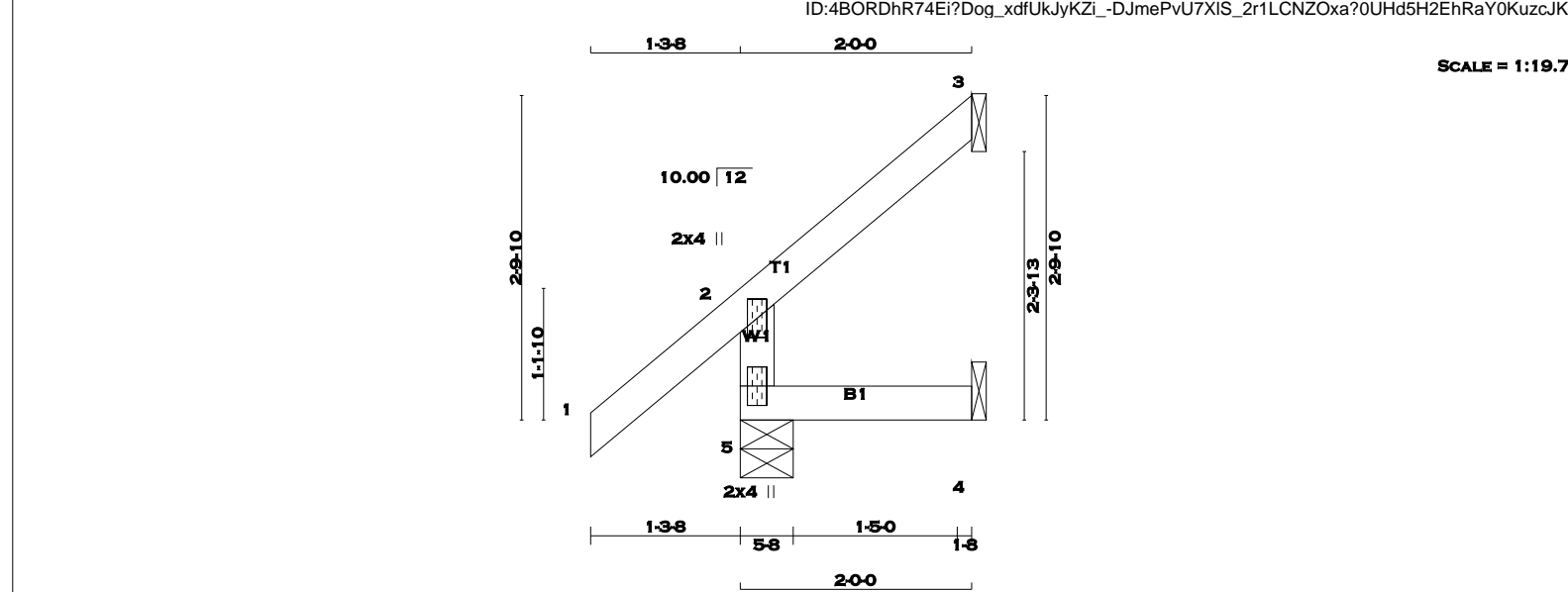
LICENSED PROFESSIONAL ENGINEER

T.L. WISE

100083566

PROVINCE OF ONTARIO

March 10, 2017



LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

SPF

SPF

SPF

5 - 2

2x4

DRY

No.2

1 - 3

2x4

DRY

No.2

5 - 4

2x4

DRY

No.2

DRY: SEASONED LUMBER.

TOTAL WEIGHT = 6 X 8 = 50 lb

[M]

FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
GROSS REACTION		GROSS REACTION		BRG		BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
5	223	0	232	205	-73	5-8	5-8
3	58	0	72	0	-82	1-8	1-8
4	16	0	19	0	-10	1-8	1-8

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

PROVIDE ANCHORAGE AT BEARING JOINT 5 FOR 150 LBS. FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT 3 FOR 150 LBS. FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT 4 FOR 150 LBS. FACTORED UPLIFT

PROVIDE FOR 205 LBS. FACTORED HORIZONTAL REACTION AT JOINT 5

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
5	154	122 / 0	0 / 0	0 / 0	24 / -72	31 / 0	0 / 0
3	40	35 / 0	0 / 0	0 / 0	33 / -62	5 / 0	0 / 0
4	12	0 / 0	0 / 0	0 / 0	8 / -15	12 / 0	0 / 0

HORIZONTAL REACTIONS

5 --- 0 / 0 0 / 0 0 / 0 147 / -87 0 / 0 0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (12)

C H O R D S		W E B S	
MAX. FACTORED		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD LC1 MAX (PLF)	MAX. UNBRAC LENGTH FR-TO
FR-TO		FROM TO	
5- 2	-216 / 108	0.0 0.0 0.14 (7)	7.81
1- 2	0 / 34	-77.3 -77.3 0.11 (1)	10.00
2- 3	-56 / 7	-77.3 -77.3 0.07 (7)	6.25
5- 4	0 / 0	-17.5 -17.5 0.05 (7)	10.00

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpG, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 23.3 PSF

DL = 3.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.0 PSF

TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014

- CSA 086-09

- TPIC 2011

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")

ALLOWABLE DEFL.(TL)= L/360 (0.19")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.00")

CSI: TC=0.14 (2-5:7) , BC=0.05 (4-5:7) , WB=0.00 (n/a:0) , SSI=0.14 (2-5:7)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

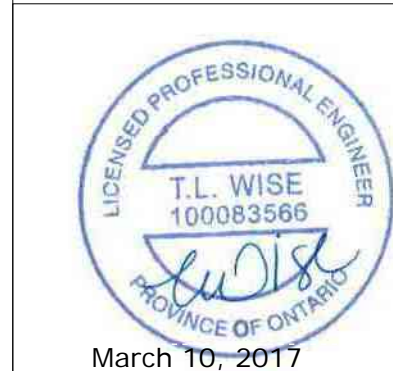
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

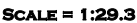
JSI GRIP= 0.22 (2) (INPUT = 0.90)

JSI METAL= 0.13 (5) (INPUT = 1.00)

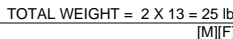


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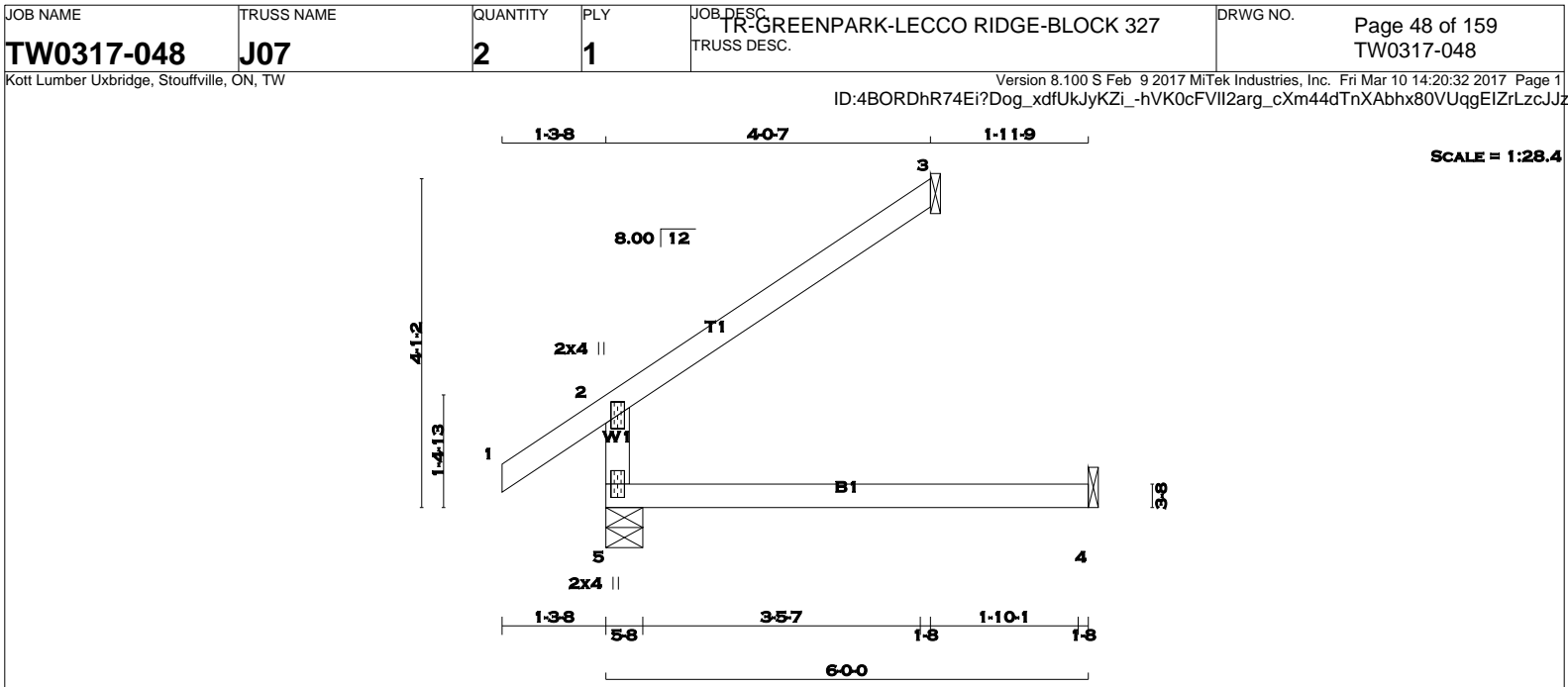


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JSI GRIP= 0.20 (5) (INPUT = 0.90)
JSI METAL= 0.12 (5) (INPUT = 1.00)





LUMBER
N. L. G. A. RULES
CHORDS SIZE LUMBER DESCR. SPF

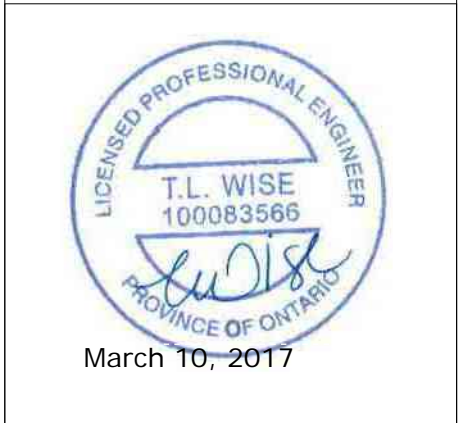
5 - 2	2x4	DRY	No.2	SPF
1 - 3	2x4	DRY	No.2	SPF
5 - 4	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
2	TMV+p	MT20	2.0	4.0		
5	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.



DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	UP
5	362	0	385	273
3	117	0	140	0
4	44	0	49	0

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3, 4

PROVIDE ANCHORAGE AT BEARING JOINT 5 FOR 150 LBS. FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT 3 FOR 150 LBS. FACTORED UPLIFT

PROVIDE FOR 273 LBS. FACTORED HORIZONTAL REACTION AT JOINT 5

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS
	COMBINED	SNOW	LIVE
5	254	181 / 0	0 / 0
3	80	71 / 0	0 / 0
4	35	0 / 0	0 / 0

HORIZONTAL REACTIONS

5	---	0 / 0	0 / 0	0 / 0	195 / -123	0 / 0	0 / 0
---	-----	-------	-------	-------	------------	-------	-------

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5, 3

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING
TOTAL LOAD CASES: (11)

MEMB.	CHORDS	WEBS
	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)
FR-TO	FROM TO	LENGTH FR-TO
5-2	-326 / 177	0.0 0.0 0.25 (7) 7.81
1-2	0 / 29	-77.3 -77.3 0.10 (1) 10.00
2-3	-84 / 11	-77.3 -77.3 0.22 (7) 6.25
5-4	0 / 0	-17.5 -17.5 0.13 (11) 10.00

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF (9.0) PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS. CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM), INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD		=	33.3	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

DESIGN ASSUMPTIONS
- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.25 (2-5:7), BC=0.13 (4-5:11), WB=0.00 (n/a:0), SSI=0.19 (2-5:7)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 822	2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

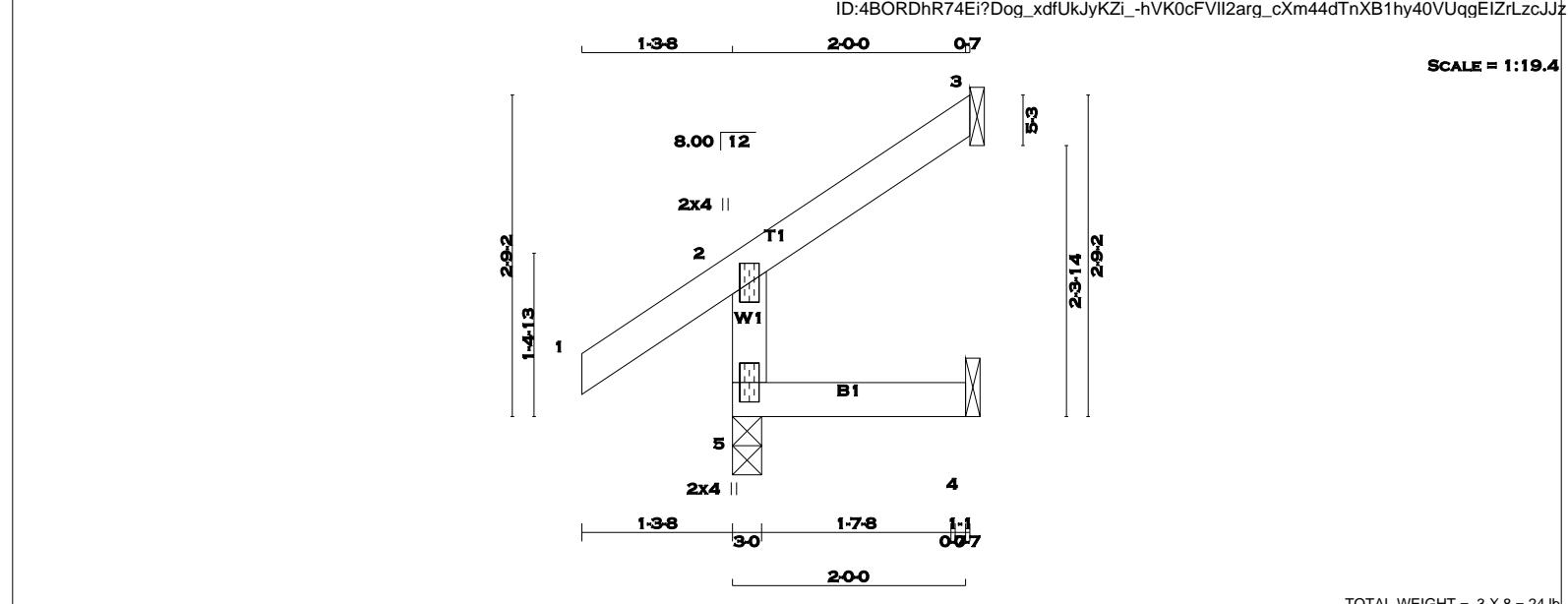
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.29 (2) (INPUT = 0.90)
JSI METAL= 0.18 (5) (INPUT = 1.00)



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LUMBER

N. L. G. A. RULES

CHORDS

SIZE

2x4

DRY

No.2

DESCR.

SPF

SPF

DRY: SEASONED LUMBER.

TOTAL WEIGHT = 3 X 8 = 24 lb

[M]

FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
GROSS REACTION		DOWN		BRG		BRG	
JT	VERT	HORZ	UPLIFT	IN-SX	IN-SX		
5	223	0	233	183	-79	3-0	3-0
3	60	0	71	0	-71	1-8	1-8
4	16	0	21	0	-17	1-8	1-8

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

PROVIDE ANCHORAGE AT BEARING JOINT 5 FOR 150 LBS. FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT 3 FOR 150 LBS. FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT 4 FOR 150 LBS. FACTORED UPLIFT

PROVIDE FOR 183 LBS. FACTORED HORIZONTAL REACTION AT JOINT 5

UNFACTORED REACTIONS		MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
5	154	123 / 0	0 / 0	0 / 0	25 / -76	31 / 0	0 / 0	
3	40	36 / 0	0 / 0	0 / 0	29 / -54	5 / 0	0 / 0	
4	13	0 / 0	0 / 0	0 / 0	12 / -20	13 / 0	0 / 0	

HORIZONTAL REACTIONS

5 --- 0 / 0 0 / 0 0 / 0 130 / -88 0 / 0 0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (12)

CHORDS				WEBS			
MEMB.	MAX. FORCE (LBS)	FACTORED VERT. LOAD (LBS)	MAX. FACTORED (PLF)	MEMB.	MAX. FORCE (LBS)	MAX. FACTORED (PLF)	
FR-TO		FROM TO		FR-TO			
5-2	-219 / 121	0.0 0.0	0.15 (7)	7.81			
1-2	0 / 29	-77.3 -77.3	0.10 (1)	10.00			
2-3	-42 / 5	-77.3 -77.3	0.06 (7)	6.25			
5-4	0 / 0	-17.5 -17.5	0.07 (7)	10.00			

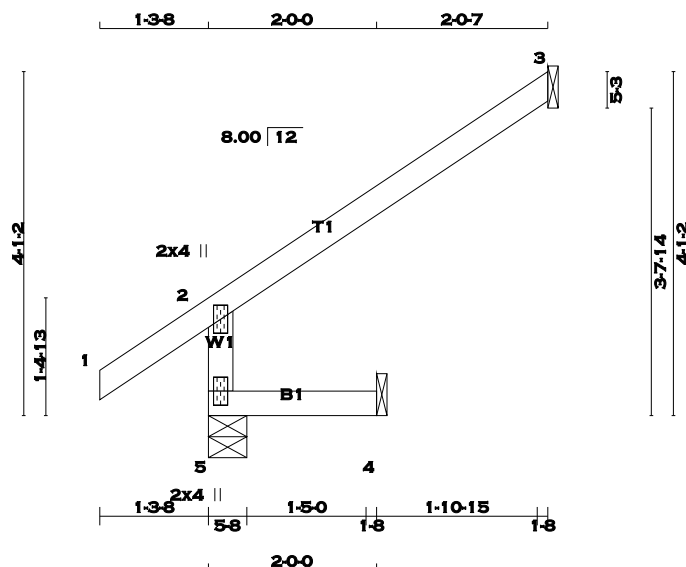
CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpG, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.

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SCALE = 1:27.4

TOTAL WEIGHT = 2 X 11 = 22 lb [M]

LUMBER				DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	
5 - 2	2x4	DRY	No.2	SPF
1 - 3	2x4	DRY	No.2	SPF
5 - 4	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
2	TMV+p	MT20	2.0	4.0		
5	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
5	320	0	338	273	-120	5-8	5-8	
3	117	0	140	0	-141	1-8	1-8	
4	16	0	23	0	-32	1-8	1-8	

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

PROVIDE ANCHORAGE AT BEARING JOINT 5 FOR 150 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 3 FOR 150 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 4 FOR 150 LBS. FACTORED UPLIFT

PROVIDE FOR 273 LBS. FACTORED HORIZONTAL REACTION AT JOINT 5

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
5	220	181 / 0	0 / 0	0 / 0	43 / -110	39 / 0	0 / 0
3	80	71 / 0	0 / 0	0 / 0	57 / -106	9 / 0	0 / 0
4	13	0 / 0	0 / 0	0 / 0	18 / -31	13 / 0	0 / 0

HORIZONTAL REACTIONS						
5	---	0 / 0	0 / 0	0 / 0	195 / -123	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 MAX. (CSI (LC))	MAX. UNBRAC LENGTH FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. (CSI (LC))
FR-TO		FROM TO			FR-TO		
5-2	-326 / 177	0.0	0.0 0.24 (7)	7.81			
1-2	0 / 29	-77.3	-77.3 0.10 (1)	10.00			
2-3	-84 / 11	-77.3	-77.3 0.22 (7)	6.25			
5-4	0 / 0	-17.5	-17.5 0.11 (7)	10.00			

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	23.3	PSF
	DL =	3.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	33.3	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

DESIGN ASSUMPTIONS
- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.00")

CSI: TC=0.24 (2-5:7) , BC=0.11 (4-5:7) , WB=0.00 (n/a:0) , SSI=0.19 (2-5:7)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 822	2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.29 (2) (INPUT = 0.90)
JSI METAL= 0.18 (5) (INPUT = 1.00)

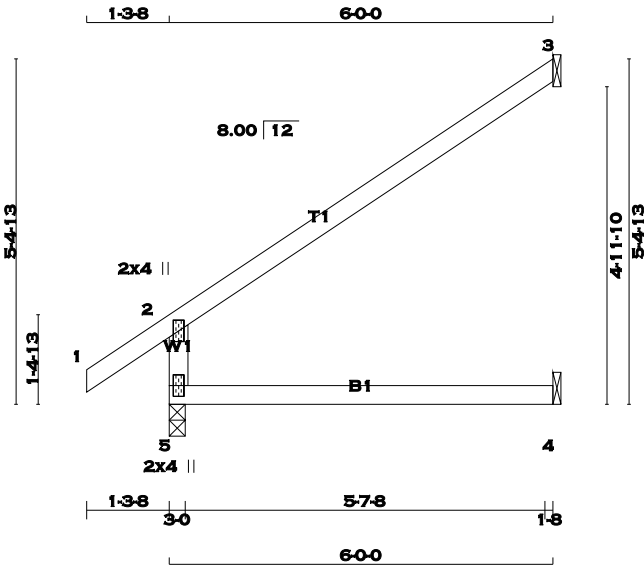


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TOTAL WEIGHT = 3 X 18 = 54 lb

LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	SPF	
5 - 2	2x4	DRY	No.2	SPF	
1 - 3	2x4	DRY	No.2	SPF	
5 - 4	2x4	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
2	TMV+p	MT20	2.0	4.0	
5	BMV1+p	MT20	2.0	4.0	

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG		
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX	
5	457	0	489	362	-176	3-0	3-0		
3	174	0	208	0	-209	1-8	1-8		
4	44	0	49	0	0	1-8	1-8		

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

PROVIDE ANCHORAGE AT BEARING JOINT 5 FOR 176 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 3 FOR 209 LBS. FACTORED UPLIFT

PROVIDE FOR 362 LBS. FACTORED HORIZONTAL REACTION AT JOINT 5

UNFACTORED REACTIONS							
JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
5	318	239 / 0	0 / 0	0 / 0	80 / -177	80 / 0	0 / 0
3	118	105 / 0	0 / 0	0 / 0	85 / -158	14 / 0	0 / 0
4	35	0 / 0	0 / 0	0 / 0	5 / -8	35 / 0	0 / 0

HORIZONTAL REACTIONS							
5	---	0 / 0	0 / 0	0 / 0	259 / -158	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING
TOTAL LOAD CASES: (11)

CHORDS				WEBS			
MEMB.	MAX. FACTORED		FACTORED	VERT. LOAD LC1	MAX	MAX.	MEMB.
	FORCE	(LBS)					
FR-TO		FROM	TO	CSI (LC)	UNBRAC	LENGTH	FR-TO
5-2	-430 / 231	0.0	0.0	0.35 (7)	7.81		
1-2	0 / 29	-77.3	-77.3	0.10 (1)	10.00		
2-3	-125 / 16	-77.3	-77.3	0.38 (7)	6.25		
5-4	0 / 0	-17.5	-17.5	0.13 (11)	10.00		

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS. CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:			
TOP CH.	LL	=	23.3 PSF
	DL	=	3.0 PSF
BOT CH.	LL	=	0.0 PSF
	DL	=	7.0 PSF
TOTAL LOAD	=	33.3	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

DESIGN ASSUMPTIONS
-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.02")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.02")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.38 (2-3:7) , BC=0.13 (4-5:11) , WB=0.00 (n/a:0) , SSI=0.25 (2-5:7)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES					
PLATE	GRIP(DRY)	SHEAR	SECTION	(PSI)	(PLI)
	MAX	MIN	MAX	MIN	MAX
MT20	618	354	1667	822	2284

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.40 (2) (INPUT = 0.90)
JSI METAL= 0.24 (5) (INPUT = 1.00)

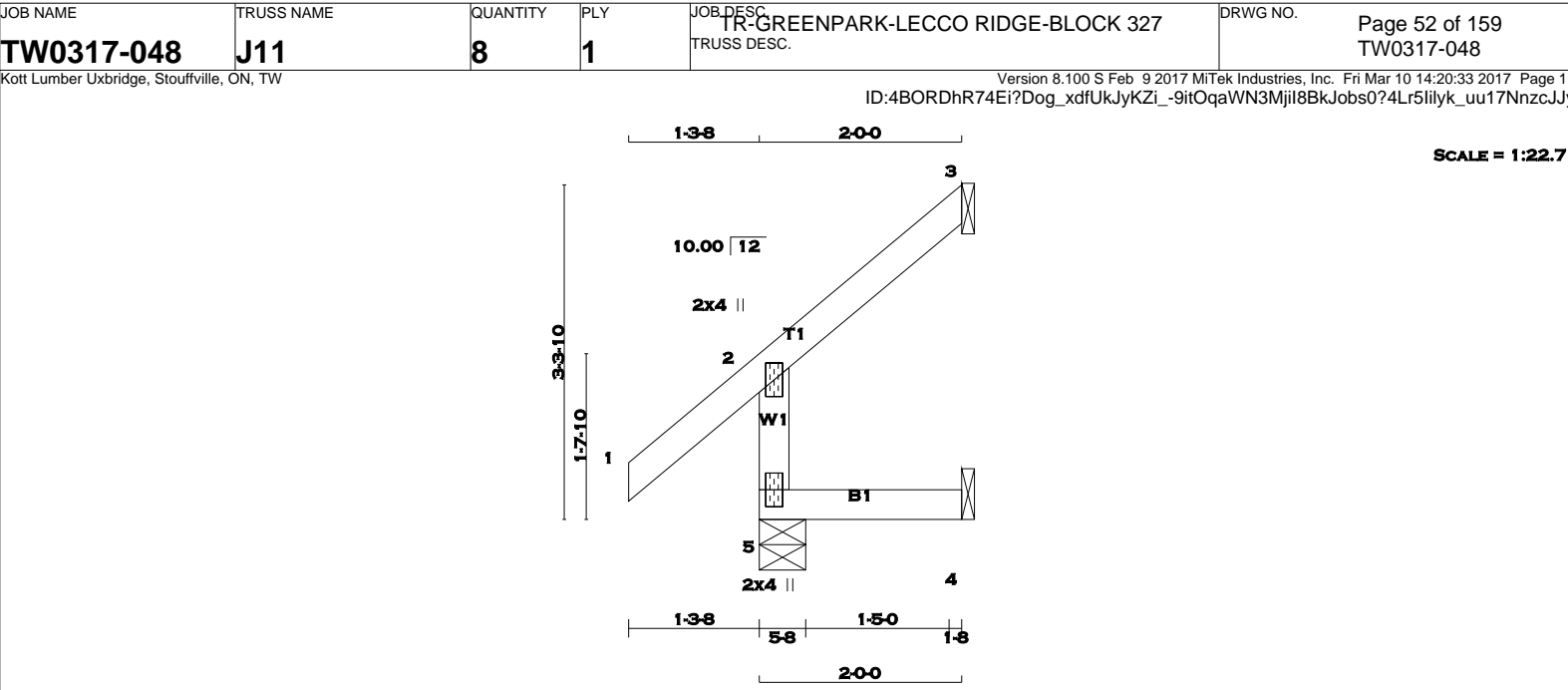


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LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
5 - 2	2x4	DRY	No.2
1 - 3	2x4	DRY	No.2
5 - 4	2x4	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
2	TMV+p	MT20	2.0	4.0		
5	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX
5	222	0	227	225	-49	5-8
3	59	0	72	0	-82	1-8
4	16	0	24	0	-33	1-8

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

PROVIDE ANCHORAGE AT BEARING JOINT 5 FOR 150 LBS. FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT 3 FOR 150 LBS. FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT 4 FOR 150 LBS. FACTORED UPLIFT

PROVIDE FOR 225 LBS. FACTORED HORIZONTAL REACTION AT JOINT 5

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
5	153	122 / 0	0 / 0	0 / 0	13 / -55	31 / 0	0 / 0
3	40	35 / 0	0 / 0	0 / 0	33 / -62	5 / 0	0 / 0
4	13	0 / 0	0 / 0	0 / 0	19 / -32	13 / 0	0 / 0

HORIZONTAL REACTIONS

5	---	0 / 0	0 / 0	0 / 0	161 / -108	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5, 3

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (12)

C H O R D S				W E B S			
MEMB.	MAX. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MAX. UNBRAC LENGTH FR-TO	MEMB.	MAX. FORCE (LBS)	MAX. FACTORED (PLI)
FR-TO		FROM TO			FR-TO		
5-2	-216 / 108	0.0	0.0	0.21 (7)	7.81		
1-2	0 / 34	-77.3	-77.3	0.11 (1)	10.00		
2-3	-56 / 7	-77.3	-77.3	0.06 (7)	6.25		
5-4	0 / 0	-17.5	-17.5	0.11 (7)	10.00		

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpG, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	23.3	PSF
	DL =	3.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	33.3	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014

- CSA 086-09

- TPIC 2011

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")

ALLOWABLE DEFL.(TL)= L/360 (0.19")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.00")

CSI: TC=0.21 (2-5:7) , BC=0.11 (4-5:7) , WB=0.00 (n/a:0) , SSI=0.15 (2-5:7)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 822	2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.23 (5) (INPUT = 0.90)

JSI METAL= 0.15 (5) (INPUT = 1.00)



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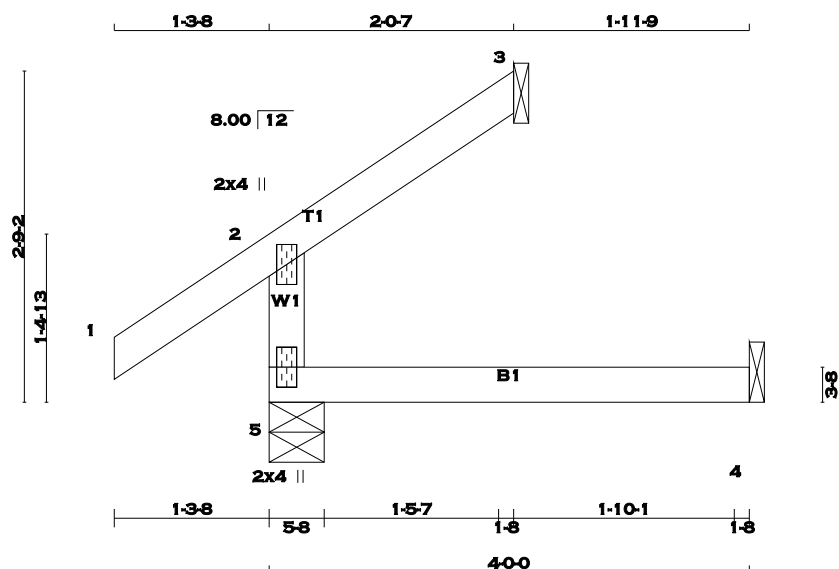
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LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
5 - 2	2x4	DRY	No.2		SPF
1 - 3	2x4	DRY	No.2		SPF
5 - 4	2x4	DRY	No.2		SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
2	TMV+p	MT20	2.0	4.0	
5	BMV1+p	MT20	2.0	4.0	

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
5		244	0	257	183	-82	5-8	5-8	
3		60	0	71	0	-71	1-8	1-8	
4		30	0	34	0	0	1-8	1-8	

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3, 4

PROVIDE ANCHORAGE AT BEARING JOINT 5 FOR 150 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 3 FOR 150 LBS. FACTORED UPLIFT

PROVIDE FOR 183 LBS. FACTORED HORIZONTAL REACTION AT JOINT 5

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
5	171	123 / 0	0 / 0	0 / 0	33 / -89	48 / 0	0 / 0
3	40	36 / 0	0 / 0	0 / 0	29 / -54	5 / 0	0 / 0
4	24	0 / 0	0 / 0	0 / 0	4 / -7	24 / 0	0 / 0

HORIZONTAL REACTIONS

5	---	0 / 0	0 / 0	0 / 0	130 / -88	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5, 3

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

CHORDS		MAX. FACTORED		FACTORED		WEBS		MAX. FACTORED	
MEMB.		FORCE (LBS)		VERT. LOAD LC1	MAX. (PLF)	MEMB.		FORCE (LBS)	MAX. (PL)
FR-TO				FROM TO	CSI (LC)	UNBRAC LENGTH	FR-TO		
5-2		-219 / 121		0.0	0.0	0.16 (7)	7.81		
1-2		0 / 29		-77.3	-77.3	0.10 (1)	10.00		
2-3		-42 / 5		-77.3	-77.3	0.06 (7)	6.25		
5-4		0 / 0		-17.5	-17.5	0.06 (7)	10.00		

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS. CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	23.3	PSF
	DL =	3.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	33.3	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.16 (2-5:7), BC=0.06 (4-5:7), WB=0.00 (n/a:0), SSI=0.12 (2-5:7)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX MIN
MT20	618	354	1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.20 (5) (INPUT = 0.90)

JSI METAL= 0.12 (5) (INPUT = 1.00)

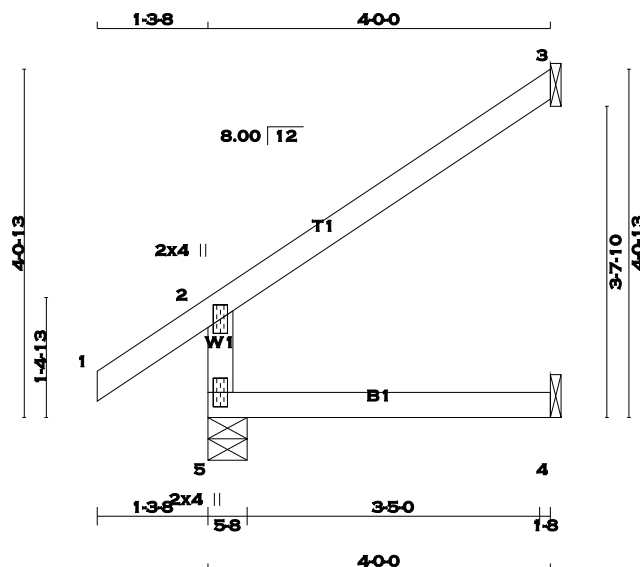


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SCALE = 1:26.9

TOTAL WEIGHT = 2 X 13 = 26 lb [M]

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
5 - 2	2x4	DRY	No.2	SPF
1 - 3	2x4	DRY	No.2	SPF
5 - 4	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
2	TMV+p	MT20	2.0	4.0		
5	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED GROSS REACTION			MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
5	339	0	361	272	-131	5-8	5-8
3	116	0	139	0	-139	1-8	1-8
4	30	0	34	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

PROVIDE ANCHORAGE AT BEARING JOINT 5 FOR 150 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 3 FOR 150 LBS. FACTORED UPLIFT

PROVIDE FOR 272 LBS. FACTORED HORIZONTAL REACTION AT JOINT 5

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
5	235	180 / 0	0 / 0	0 / 0	54 / -129	55 / 0	0 / 0
3	79	70 / 0	0 / 0	0 / 0	57 / -105	9 / 0	0 / 0
4	24	0 / 0	0 / 0	0 / 0	7 / -11	24 / 0	0 / 0

HORIZONTAL REACTIONS
5 --- 0 / 0 0 / 0 0 / 0 194 / -123 0 / 0 0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. VERT. LOAD LC1 (LC)	MAX. UNBRACED LENGTH FR-TO	MEMB.	WEBS	MAX. FACTORED FORCE (LBS)	MAX. VERT. LOAD LC1 (LC)
FR-TO									
5-2		-324 / 176	0.0	0.0	0.25 (7)			7.81	
1-2		0 / 29	-77.3	-77.3	0.10 (1)			10.00	
2-3		-83 / 11	-77.3	-77.3	0.22 (7)			6.25	
5-4		0 / 0	-17.5	-17.5	0.09 (7)			10.00	

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT (40'-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS. CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	23.3	PSF
	DL =	3.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	33.3	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

DESIGN ASSUMPTIONS
- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.25 (2-5:7) , BC=0.09 (4-5:7) , WB=0.00 (n/a:0) , SSI=0.18 (2-5:7)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES						
PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.29 (2) (INPUT = 0.90)
JSI METAL= 0.18 (5) (INPUT = 1.00)

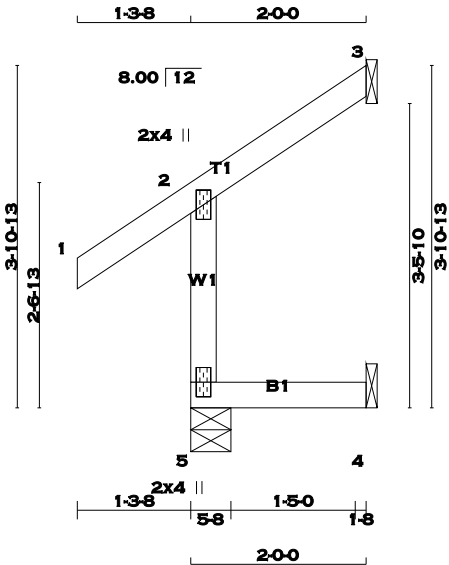


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SCALE = 1:26.3

TOTAL WEIGHT = 9 lb [M]

LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	SPF	
5 - 2	2x4	DRY	No.2	SPF	
1 - 3	2x4	DRY	No.2	SPF	
5 - 4	2x4	DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
2	TMV+p	MT20	2.0	4.0	
5	BMV1+p	MT20	2.0	4.0	

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
5	220	0	220	227	-21	5-8	5-8	
3	59	0	70	0	-70	1-8	1-8	
4	16	0	35	0	-74	1-8	1-8	

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

PROVIDE ANCHORAGE AT BEARING JOINT 5 FOR 150 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 3 FOR 150 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 4 FOR 150 LBS. FACTORED UPLIFT

PROVIDE FOR 227 LBS. FACTORED HORIZONTAL REACTION AT JOINT 5

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
5	152	121 / 0	0 / 0	0 / 0	0 / -34	30 / 0	0 / 0
3	40	36 / 0	0 / 0	0 / 0	28 / -53	5 / 0	0 / 0
4	13	0 / 0	0 / 0	0 / 0	45 / -61	13 / 0	0 / 0

HORIZONTAL REACTIONS						
5	---	0 / 0	0 / 0	0 / 0	162 / -136	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING
TOTAL LOAD CASES: (12)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (LBS)	MAX. FACTORED HORIZ. LOAD (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED HORIZ. LOAD (LBS)	
FR-TO		FROM TO		FR-TO			
5-2	-216 / 120	0.0	0.0 0.30 (7)	7.81			
1-2	0 / 29	-77.3	-77.3 0.10 (1)	10.00			
2-3	-42 / 5	-77.3	-77.3 0.05 (7)	6.25			
5-4	0 / 0	-17.5	-17.5 0.20 (7)	10.00			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpG, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST { 0-0 } FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

DESIGN ASSUMPTIONS
-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.00")

CSI: TC=0.30 (2-5:7) , BC=0.20 (4-5:7) , WB=0.00 (n/a:0) , SSI=0.15 (2-5:7)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES					
PLATE	GRIP(DRY)	SHEAR	SECTION		
	(PSI)	(PLI)	(PLI)		
	MAX	MIN	MAX	MIN	MAX
MT20	618	354	1667	822	2284

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.23 (5) (INPUT = 0.90)
JSI METAL= 0.15 (5) (INPUT = 1.00)

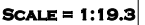


March 10, 2017



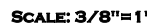
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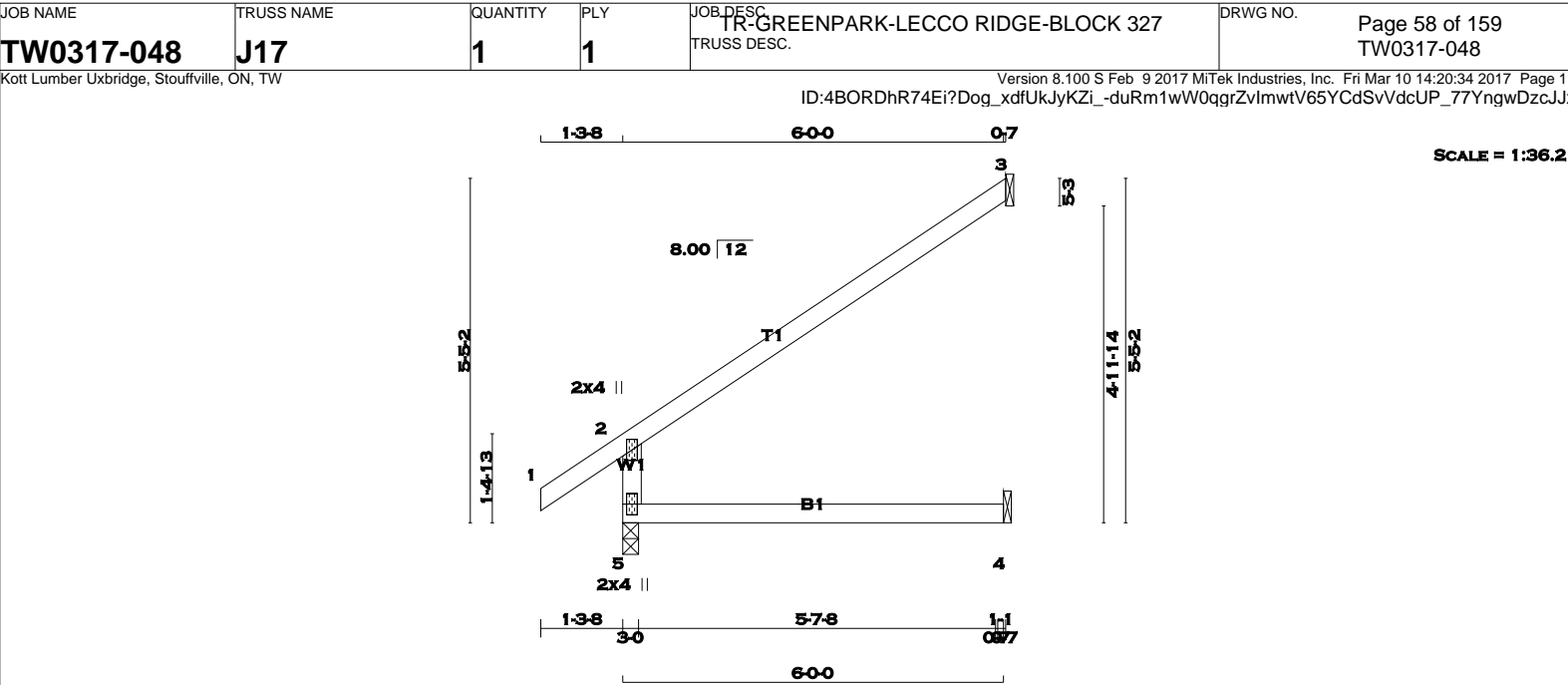
JSI GRIP= 0.19 (5) (INPUT = 0.90)
JSI METAL= 0.12 (5) (INPUT = 1.00)





JSI GRIP= 0.35 (2) (INPUT = 0.90)
JSI METAL= 0.22 (5) (INPUT = 1.00)





LUMBER
N. L. G. A. RULES
CHORDS SIZE LUMBER DESCR.

5	-	2	2x4	DRY	No.2	SPF
1	-	3	2x4	DRY	No.2	SPF
5	-	4	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
2	TMV+p	MT20	2.0	4.0		
5	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	HORZ	UPLIFT	IN-SX
5	459	0	491	364
3	175	0	209	0
4	44	0	49	0

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3, 4

PROVIDE ANCHORAGE AT BEARING JOINT 5 FOR 177 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 3 FOR 210 LBS. FACTORED UPLIFT

PROVIDE FOR 364 LBS. FACTORED HORIZONTAL REACTION AT JOINT 5

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS
	COMBINED	SNOW	LIVE
5	319	240 / 0	0 / 0
3	119	105 / 0	0 / 0
4	35	0 / 0	0 / 0

HORIZONTAL REACTIONS

5	---	0 / 0	0 / 0	0 / 0	260 / -158	0 / 0	0 / 0
---	-----	-------	-------	-------	------------	-------	-------

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING
TOTAL LOAD CASES: (11)

MEMB.	CHORDS			WEBS		
	MAX. FACTORED	FACTORED	MAX.	MEMB.	MAX. FACTORED	MAX.
	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX		FORCE (LBS)	MAX
			CSI (LC)			CSI (LC)
FR-TO		FROM TO		FR-TO		
5-2	-432 / 232	0.0	0.0	0.35 (7)	7.81	
1-2	0 / 29	-77.3	-77.3	0.10 (1)	10.00	
2-3	-126 / 16	-77.3	-77.3	0.39 (7)	6.25	
5-4	0 / 0	-17.5	-17.5	0.13 (11)	10.00	

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS. CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

DESIGN ASSUMPTIONS
- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.39 (2-3:7), BC=0.13 (4-5:11), WB=0.00 (n/a:0), SSI=0.25 (2-5:7)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.40 (2) (INPUT = 0.90)
JSI METAL= 0.24 (5) (INPUT = 1.00)



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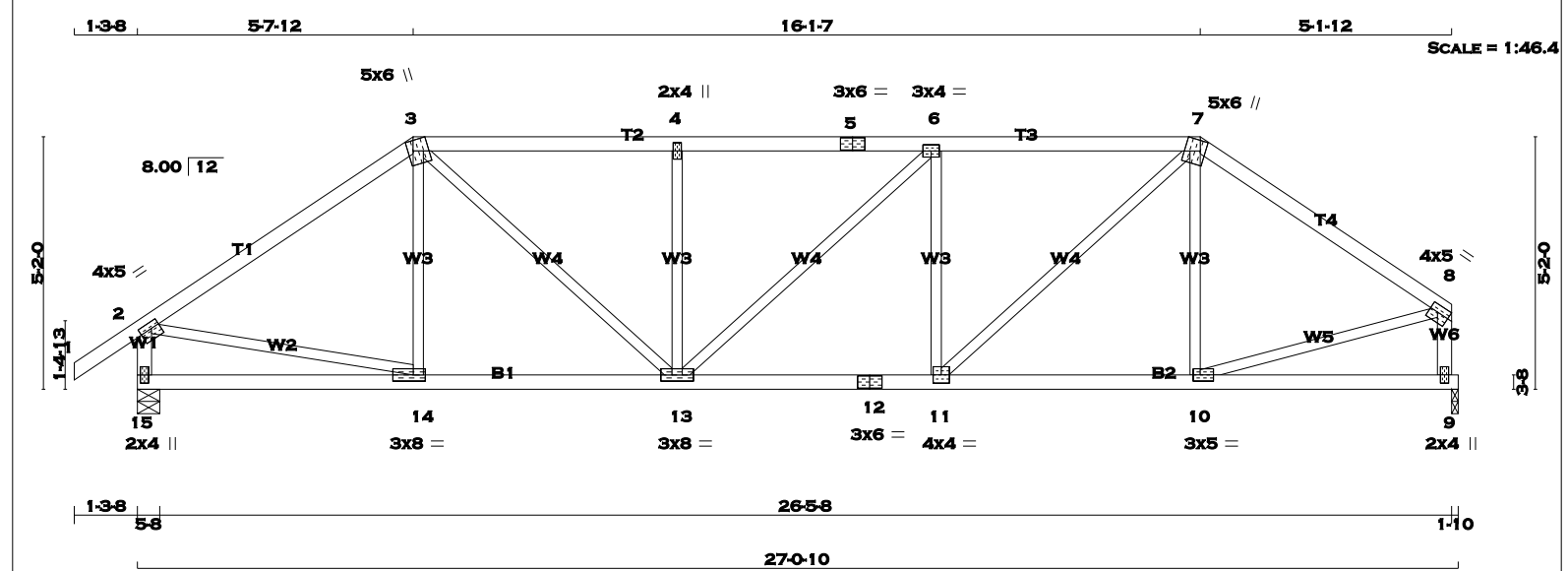




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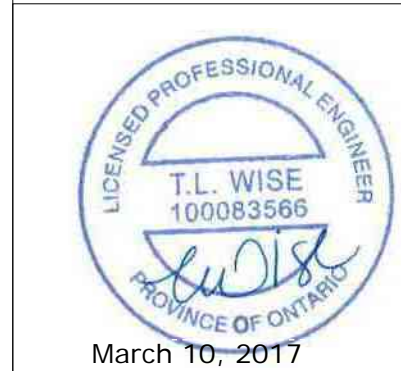
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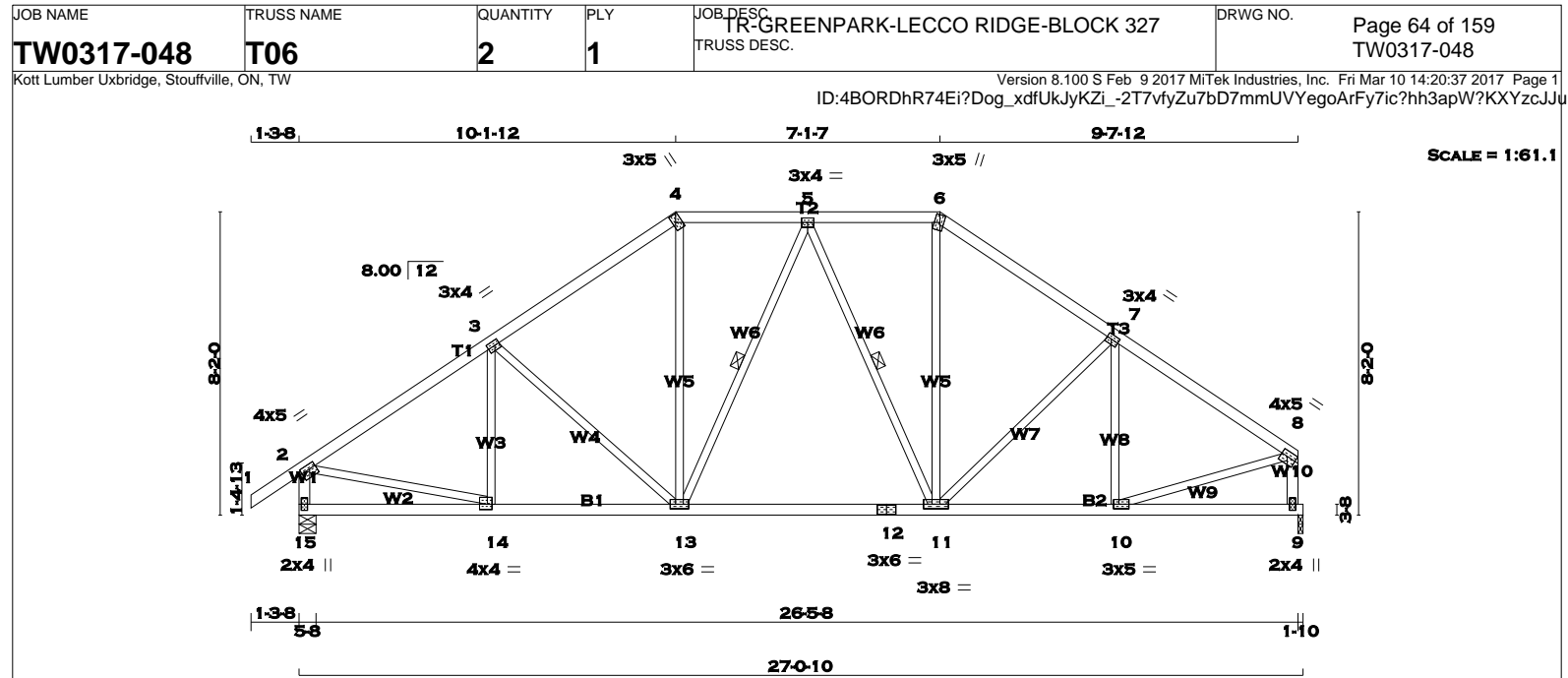


TOTAL WEIGHT = 2 X 109 = 218 lb										[M]
LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR.										
1 - 3	2x4	DRY	No.2	SPF						
3 - 5	2x4	DRY	No.2	SPF						
5 - 7	2x4	DRY	No.2	SPF						
7 - 8	2x4	DRY	No.2	SPF						
15 - 2	2x4	DRY	No.2	SPF						
9 - 8	2x4	DRY	No.2	SPF						
15 - 12	2x4	DRY	No.2	SPF						
12 - 9	2x4	DRY	No.2	SPF						
ALL WEBS 2x3 DRY No.2 EXCEPT				SPF						
DRY: SEASONED LUMBER.										
PLATES (table is in inches)										
JT	TYPE	PLATES	W	LEN	Y	X				
2	TMVW-t	MT20	4.0	5.0	1.50	2.00				
3	TTWW+m	MT20	5.0	6.0	Edge	3.75				
4	TMW+w	MT20	2.0	4.0						
5	TS-t	MT20	3.0	6.0						
6	TMVWW-t	MT20	3.0	4.0						
7	TTWW+m	MT20	5.0	6.0	Edge	3.75				
8	TMVW-t	MT20	4.0	5.0	1.75	Edge				
9	BMV1+p	MT20	2.0	4.0						
10	BMVWW-t	MT20	3.0	5.0	1.50	1.75				
11	BMVWW-t	MT20	4.0	4.0						
12	BS-t	MT20	3.0	6.0						
13	BMVWW-t	MT20	3.0	8.0						
14	BMVWW-t	MT20	3.0	8.0	1.50	3.00				
15	BMV1+p	MT20	2.0	4.0						
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.										
A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.										
										
March 10, 2017										
DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										
BEARINGS										
	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG						
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX			
15	1383	0	1467	241	-712	5-8	5-8			
9	1276	0	1318	0	-648	1-10	1-10			
PROVIDE ANCHORAGE AT BEARING JOINT 15 FOR 712 LBS. FACTORED UPLIFT										
PROVIDE ANCHORAGE AT BEARING JOINT 9 FOR 648 LBS. FACTORED UPLIFT										
NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES. SHALL BE PROVIDED BY BUILDG. DESIGNER										
PROVIDE FOR 241 LBS. FACTORED HORIZONTAL REACTION AT JOINT 15										
UNFACTORED REACTIONS										
	1ST LCASE COMBINED	MAX./MIN. SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL			
JT	15	968	691 / 0	0 / 0	0 / 0	211 / -687	277 / 0	0 / 0		
	9	896	627 / 0	0 / 0	0 / 0	103 / -636	269 / 0	0 / 0		
HORIZONTAL REACTIONS										
15	---	0 / 0	0 / 0	0 / 0	172 / -158	0 / 0	0 / 0			
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 15, 9										
BRACING										
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.63 FT.										
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.										
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.										
LOADING										
TOTAL LOAD CASES: (11)										
	CHORDS				WEBS					
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC1)	MAX. FACTORED VERT. LOAD (LC)	MEMB. UNBRAC LENGTH	MEMB. UNBRAC LENGTH	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC1)		
FR-TO		FROM	TO		FR-TO					
1-2	0 / 29	-77.3	-77.3	0.10 (1)	10.00	14-3	-118 / 165	0.04 (3)		
2-3	-1506 / 753	-77.3	-77.3	0.54 (7)	4.74	3-13	-466 / 783	0.45 (8)		
3-4	-1851 / 1042	-77.3	-77.3	0.36 (1)	4.64	13-4	-471 / 364	0.18 (3)		
4-5	-1851 / 1043	-77.3	-77.3	0.37 (1)	4.63	13-6	-65 / 56	0.06 (6)		
5-6	-1851 / 1043	-77.3	-77.3	0.37 (1)	4.63	11-6	-508 / 403	0.19 (3)		
6-7	-1814 / 1021	-77.3	-77.3	0.37 (1)	4.67	11-7	-505 / 895	0.49 (7)		
7-8	-1389 / 708	-77.3	-77.3	0.46 (8)	5.10	10-7	-206 / 197	0.08 (3)		
15-2	-1426 / 741	0.0	0.0	0.14 (1)	6.88	2-14	-467 / 1241	0.27 (1)		
9-8	-1281 / 674	0.0	0.0	0.13 (1)	7.17	10-8	-474 / 1196	0.26 (1)		
15-14	-220 / 212	-17.5	-17.5	0.13 (11)	6.25					
14-13	-552 / 1272	-17.5	-17.5	0.26 (1)	6.25					
13-12	-801 / 1816	-17.5	-17.5	0.32 (1)	6.25					
12-11	-801 / 1816	-17.5	-17.5	0.32 (1)	6.25					
11-10	-426 / 1151	-17.5	-17.5	0.24 (1)	6.25					
10-9	-13 / 28	-17.5	-17.5	0.12 (11)	6.25					
WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT { 40-0-0 } FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE { MAIN WIND FORCE RESISTING SYSTEM }. INTERNAL WIND PRESSURE IS BASED ON DESIGN { CATEGORY 2 }. BUILDING MAY BE LOCATED ON { OPEN TERRAIN }, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST { 0-0 } FT-IN-SX AWAY FROM EAVE.										
										
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.										
RECEIVED TOWN OF MILTON MAR 29, 2017 17-4978 BUILDING DIVISION										
DESIGN CRITERIA										
SPECIFIED LOADS:										
TOP	CH.	LL	=	23.3	PSF					
		DL	=	3.0	PSF					
BOT	CH.	LL	=	0.0	PSF					
		DL	=	7.0	PSF					
TOTAL	LOAD	=	33.3	PSF						
SPACING = 24.0 IN. C/C										
LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12										
THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010										
THIS DESIGN COMPLIES WITH:										
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014										
- CSA 086-09										
- TPIC 2011										
(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD										
ALLOWABLE DEFL.(LL)= L/360 (0.90")										
CALCULATED VERT. DEFL.(LL)= L/999 (0.08")										
ALLOWABLE DEFL.(TL)= L/360 (0.90")										
CALCULATED VERT. DEFL.(TL)= L/999 (0.14")										
CSI: TC=0.54 (2-3:7), BC=0.32 (11-13:1), WB=0.49 (7-11:7), SSI=0.19 (6-7:1)										
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10										
COMP=1.10 SHEAR=1.10 TENS=1.10										
COMPANION LIVE LOAD FACTOR = 0.50										
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .										
NAIL VALUES										
PLATE	GRIP(DRY)	SHEAR	SECTION							
	(PSI)	(PLI)	(PLI)							
	MAX	MIN	MAX	MIN	MAX	MIN				
MT20	618	354	1667	822	2284	1656				
PLATE PLACEMENT TOL. = 0.250 inches										
PLATE ROTATION TOL. = 5.0 Deg.										
JSI GRIP= 0.90 (10) (INPUT = 0.90)										
JSI METAL= 0.51 (2) (INPUT = 1.00)										



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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TOTAL WEIGHT = 2 X 122 = 244 lb
[M][F]

LUMBER				DESCR.
N. L. G. A. RULES		LUMBER		
CHORDS	SIZE			
1 - 4	2x4	DRY	No.2	SPF
4 - 6	2x4	DRY	No.2	SPF
6 - 8	2x4	DRY	No.2	SPF
15 - 2	2x4	DRY	No.2	SPF
9 - 8	2x4	DRY	No.2	SPF
15 - 12	2x4	DRY	No.2	SPF
12 - 9	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-t	MT20	4.0	5.0	1.50	2.00
3	TMVW-t	MT20	3.0	4.0	1.50	1.50
4	TTW+h	MT20	3.0	5.0	2.50	1.00
5	TMVW-t	MT20	3.0	4.0		
6	TTW+m	MT20	3.0	5.0	2.50	1.25
7	TMVW-t	MT20	3.0	4.0	1.50	1.50
8	TMVW-t	MT20	4.0	5.0	1.75	Edge
9	BMV1+p	MT20	2.0	4.0		
10	BMVW-t	MT20	3.0	5.0	1.50	1.75
11	BMVW-t	MT20	3.0	8.0		
12	BS-t	MT20	3.0	6.0		
13	BMVW-t	MT20	3.0	6.0		
14	BMVW-t	MT20	4.0	4.0	1.75	1.50
15	BMV1+p	MT20	2.0	4.0		

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER
BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
15	1383	0	1474	359	-661	5-8	5-8	
9	1276	0	1339	0	-595	1-10	1-10	

PROVIDE ANCHORAGE AT BEARING JOINT 15 FOR 661 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 9 FOR 595 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES.
SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 359 LBS. FACTORED HORIZONTAL REACTION AT JOINT 15

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
15	968	691 / 0	0 / 0	0 / 0	228 / -650	277 / 0	0 / 0
9	896	627 / 0	0 / 0	0 / 0	156 / -598	269 / 0	0 / 0

HORIZONTAL REACTIONS						
15	---	0 / 0	0 / 0	0 / 0	257 / -242	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 15, 9

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.02 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-13, 5-11. DBS = 20-0-0 . CBF = 27 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (11)

CHORDS			WEBS		
MEMB.	FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRAC LENGTH	MEMB.	FACTORED FORCE (LBS)
FR-TO		FROM TO		FR-TO	
1-2	0 / 29	-77.3 -77.3 0.10 (1)	10.00	14-3	-180 / 164 0.06 (3)
2-3	-1557 / 731	-77.3 -77.3 0.45 (7)	5.02	3-13	-348 / 365 0.29 (3)
3-4	-1352 / 746	-77.3 -77.3 0.45 (7)	5.31	13-4	-232 / 456 0.30 (8)
4-5	-1121 / 709	-77.3 -77.3 0.21 (7)	5.91	13-5	-185 / 218 0.09 (4)
5-6	-1072 / 693	-77.3 -77.3 0.20 (8)	6.01	5-11	-252 / 244 0.12 (3)
6-7	-1306 / 732	-77.3 -77.3 0.41 (8)	5.43	11-6	-234 / 459 0.30 (7)
7-8	-1415 / 675	-77.3 -77.3 0.41 (8)	5.25	11-7	-259 / 311 0.21 (4)
15-2	-1434 / 686	0.0 0.0 0.14 (1)	6.86	10-7	-257 / 194 0.09 (3)
9-8	-1301 / 619	0.0 0.0 0.13 (1)	7.12	2-14	-457 / 1319 0.28 (1)
				10-8	-465 / 1239 0.27 (1)
15-14	-338 / 329	-17.5 -17.5 0.10 (11)	6.25		
14-13	-653 / 1379	-17.5 -17.5 0.28 (1)	6.25		
13-12	-403 / 1175	-17.5 -17.5 0.25 (1)	6.25		
12-11	-403 / 1175	-17.5 -17.5 0.25 (1)	6.25		
11-10	-411 / 1175	-17.5 -17.5 0.25 (1)	6.25		
10-9	-411 / 1175	-17.5 -17.5 0.25 (1)	6.25		

WIND LOAD APPLIED AS DERIVED FROM REFERENCE VELOCITY PRESSURE PER CODE (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PRESSURE COEFFICIENTS (SEE ENP-1 FOR WIND MAPS) INTERNAL PRESSURE COEFFICIENT MAY BE USED AT LEAST (0-0) FT-IN-SX AWAY FROM CORNERS

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD	=	33.3	PSF	

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.90")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.90")
CALCULATED VERT. DEFL.(TL) = L/999 (0.12")

CSI: TC=0.45 (3-4:7) , BC=0.28 (13-14:1) , WB=0.30 (6-11:7) , SSI=0.17 (2-3:7)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

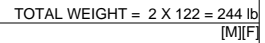
PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 822	2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (6) (INPUT = 0.90)
JSI METAL= 0.52 (2) (INPUT = 1.00)

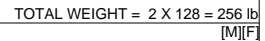
March 10, 2017

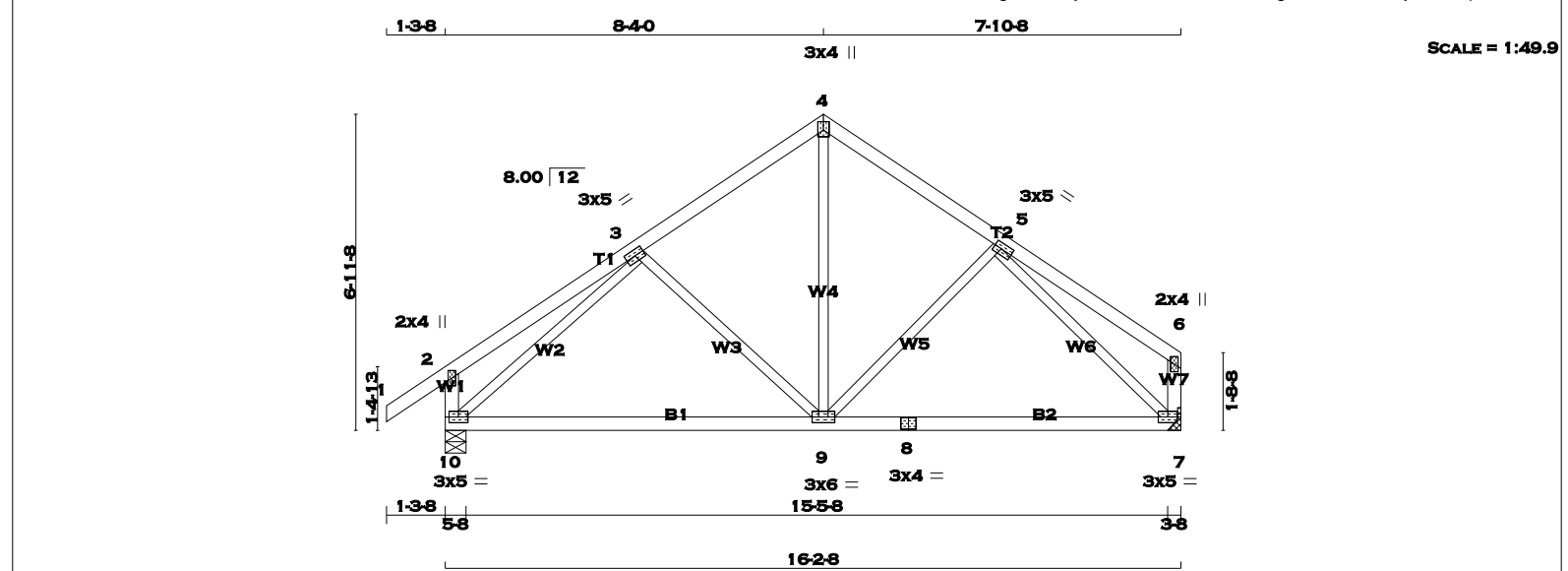


JSI GRIP= 0.90 (10) (INPUT = 0.90)
JSI METAL= 0.52 (2) (INPUT = 1.00)

RECEIVED
TOWN OF WINTHROP
MAY 26, 2017
17-4978
BUILDING DIVISION



BUILDING DIVISION



LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

SPF

1 - 4

2x4

DRY

No.2

SPF

4 - 6

2x4

DRY

No.2

SPF

10 - 2

2x4

DRY

No.2

SPF

7 - 6

2x4

DRY

No.2

SPF

10 - 8

2x4

DRY

No.2

SPF

8 - 7

2x4

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

DRY: SEASONED LUMBER.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

FACTORED

MAXIMUM FACTORED

INPUT

REQRD

GROSS REACTION

GROSS REACTION

BRG

BRG

VERT

HORZ

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

10

875

0

928

311

-382

5-8

5-8

7

769

0

813

0

-317

HANGER BY OTHERS

MIN. SEAT SIZE: 3-8

PROVIDE ANCHORAGE AT BEARING JOINT 10 FOR 382 LBS. FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT 7 FOR 317 LBS. FACTORED UPLIFT

PROVIDE FOR 311 LBS. FACTORED HORIZONTAL REACTION AT JOINT 10

UNFACTORED REACTIONS

1ST LCASE

MAX./MIN. COMPONENT REACTIONS

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

10

612

441 / 0

0 / 0

0 / 0

132 / -382

170 / 0

0 / 0

7

539

377 / 0

0 / 0

0 / 0

112 / -331

162 / 0

0 / 0

HORIZONTAL REACTIONS

10

0 / 0

0 / 0

222 / -208

0 / 0

0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 10

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.

LL

=

23.3

PSF

DL

=

3.0

PSF

BOT CH.

LL

=

0.0

PSF

DL

=

7.0

PSF

TOTAL LOAD

=

33.3

PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014

- CSA 086-09

- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.54")

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")

ALLOWABLE DEFL.(TL)= L/360 (0.54")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.11")

CSI: TC=0.28 (3-4:7) , BC=0.37 (9-10:11) , WB=0.47 (3-10:4) , SSI=0.14 (3-4:7)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE GRIP(DRY)

SHEAR

SECTION

(PSI)

(PLI)

(PLI)

MAX MIN MAX MIN MAX MIN

MT20

618

354

1667

822

2284

1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (3) (INPUT = 0.90)

JSI METAL= 0.26 (3) (INPUT = 1.00)

JT	TYPE	PLATES	W	LEN	Y	X
1	TMV+p	MT20	2.0	4.0		
2	TMV+p	MT20	2.0	4.0		
3	TMV+p	MT20	3.0	5.0		
4	TTW+p	MT20	3.0	4.0	2.25	1.50
5	TMV+p	MT20	3.0	5.0	1.50	2.00
6	TMV+p	MT20	2.0	4.0		
7	BMVW1-t	MT20	3.0	5.0		
8	BS-t	MT20	3.0	4.0		
9	BMVW1-t	MT20	3.0	6.0		
10	BMVW1-t	MT20	3.0	5.0		

JT	TYPE	PLATES	W	LEN	Y	X
1	TMV+p	MT20	2.0	4.0		
2	TMV+p	MT20	2.0	4.0		
3	TMV+p	MT20	3.0	5.0		
4	TTW+p	MT20	3.0	4.0	2.25	1.50
5	TMV+p	MT20	3.0	5.0	1.50	2.00
6	TMV+p	MT20	2.0	4.0		
7	BMVW1-t	MT20	3.0	5.0		
8	BS-t	MT20	3.0	4.0		
9	BMVW1-t	MT20	3.0	6.0		
10	BMVW1-t	MT20	3.0	5.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

JT	TYPE	PLATES	W	LEN	Y	X
1	TMV+p	MT20	2.0	4.0		
2	TMV+p	MT20	2.0	4.0		
3	TMV+p	MT20	3.0	5.0		
4	TTW+p	MT20	3.0	4.0	2.25	1.50
5	TMV+p	MT20	3.0	5.0	1.50	2.00
6	TMV+p	MT20	2.0	4.0		
7	BMVW1-t	MT20	3.0	5.0		
8	BS-t	MT20	3.0	4.0		
9	BMVW1-t	MT20	3.0	6.0		
10	BMVW1-t	MT20	3.0	5.0		

JT	TYPE	PLATES	W	LEN	Y	X
1	TMV+p	MT20	2.0	4.0		
2	TMV+p	MT20	2.0	4.0		
3	TMV+p	MT20	3.0	5.0		
4	TTW+p	MT20	3.0	4.0	2.25	1.50
5	TMV+p	MT20	3.0	5.0	1.50	2.00
6	TMV+p	MT20	2.0	4.0		
7	BMVW1-t	MT20	3.0	5.0		
8	BS-t	MT20	3.0	4.0		
9	BMVW1-t	MT20	3.0	6.0		
10	BMVW1-t	MT20	3.0	5.0		

JT	TYPE	PLATES	W	LEN	Y	X
1	TMV+p	MT20	2.0	4.0		
2	TMV+p	MT20	2.0	4.0		
3	TMV+p	MT20	3.0	5.0		
4	TTW+p	MT20	3.0	4.0	2.25	1.50
5	TMV+p	MT20	3.0	5.0	1.50	2.00
6	TMV+p	MT20	2.0	4.0		
7	BMVW1-t	MT20	3.0	5.0		
8	BS-t	MT20	3.0	4.0		
9	BMVW1-t	MT20	3.0	6.0		
10	BMVW1-t	MT20	3.0	5.0		

JT	TYPE	PLATES	W	LEN	Y	X
1	TMV+p	MT20	2.0	4.0		
2	TMV+p	MT20	2.0	4.0		
3	TMV+p	MT20	3.0	5.0		
4	TTW+p	MT20	3.0	4.0	2.25	1.50
5	TMV+p	MT20	3.0	5.0	1.50	2.00
6	TMV+p	MT20	2.0	4.0		
7	BMVW1-t	MT20	3.0	5.0		
8	BS-t	MT20	3.0	4.0		
9	BMVW1-t	MT20	3.0	6.0		
10	BMVW1-t	MT20	3.0	5.0		

JT	TYPE	PLATES	W	LEN	Y	X
1	TMV+p	MT20	2.0	4.0		
2	TMV+p	MT20	2.0	4.0		
3	TMV+p	MT20	3.0	5.0		
4	TTW+p	MT20	3.0	4.0	2.25	1.50
5	TMV+p	MT20	3.0	5.0	1.50	2.00
6	TMV+p	MT20	2.0	4.0		
7	BMVW1-t	MT20	3.0	5.0		
8	BS-t	MT20	3.0	4.0		
9	BMVW1-t	MT20	3.0	6.0		
10	BMVW1-t	MT20	3.0	5.0		

JT	TYPE	PLATES	W	LEN	Y	X
1	TMV+p	MT20	2.0	4.0		
2	TMV+p	MT20	2.0	4.0		
3	TMV+p	MT20	3.0	5.0		
4	TTW+p	MT20	3.0	4.0	2.25	1.50
5	TMV+p	MT20	3.0	5.0	1.50	2.00
6	TMV+p	MT20	2.0	4.0		
7	BMVW1-t	MT20	3.0	5.0		
8	BS-t	MT20	3.0	4.0		
9	BMVW1-t	MT20	3.0	6.0		
10	BMVW1-t	MT20	3.0	5.0		

JT	TYPE	PLATES	W	LEN	Y	X
1	TMV+p	MT20	2.0	4.0		
2	TMV+p	MT20	2.0	4.0		
3	TMV+p	MT20	3.0	5.0		
4	TTW+p	MT20	3.0	4.0	2.25	1.50
5	TMV+p	MT20	3.0	5.0	1.50	2.00
6	TMV+p	MT20	2.0	4.0		
7	BMVW1-t	MT20	3.0	5.0		
8	BS-t	MT20	3.0	4.0		
9	BMVW1-t	MT20	3.0	6.0		
10	BMVW1-t	MT20	3.0	5.0		

JT	TYPE	PLATES	W	LEN	Y	X
1	TMV+p	MT20	2.0	4.0		
2	TMV+p	MT20	2.0	4.0		
3	TMV+p	MT20	3.0	5.0		
4	TTW+p	MT20	3.0	4.0	2.25	1.50
5	TMV+p	MT20	3.0	5.0	1.50	2.00
6	TMV+p	MT20	2.0	4.0		
7	BMVW1-t	MT20	3.0	5.0		
8	BS-t	MT20	3.0	4.0		
9	BMVW1-t	MT20	3.0	6.0		
10	BMVW1-t	MT20	3.0	5.0		

JT	TYPE	PLATES	W	LEN	Y	X
1	TMV+p	MT20	2.0	4.0		
2	TMV+p	MT20	2.0	4.0		
3	TMV+p	MT20	3.0	5.0		
4	TTW+p	MT20	3.0	4.0	2.25	1.50
5	TMV+p	MT20	3.0	5.0	1.50	2.00
6	TMV+p	MT20	2.0	4.0		
7	BMVW1-t	MT20	3.0	5.0		
8	BS-t	MT20	3.0	4.0		
9	BMVW1-t	MT20	3.0	6.0		
10	BMVW1-t	MT20	3.0	5.0		

JT	TYPE	PLATES	W	LEN	Y	X
1	TMV+p	MT20	2.0	4.0		
2	TMV+p	MT20	2.0	4.0		
3	TMV+p	MT20	3.0	5.0		
4	TTW+p	MT20	3.0	4.0	2.25	1.50
5	TMV+p	MT20	3.0	5.0	1.50	2.00
6	TMV+p	MT20	2.0	4.0		
7	BMVW1-t	MT20	3.0	5.0		
8	BS-t	MT20	3.0	4.0		
9	BMVW1-t	MT20	3.0	6.0		
10	BMVW1-t	MT20	3.0	5.0		

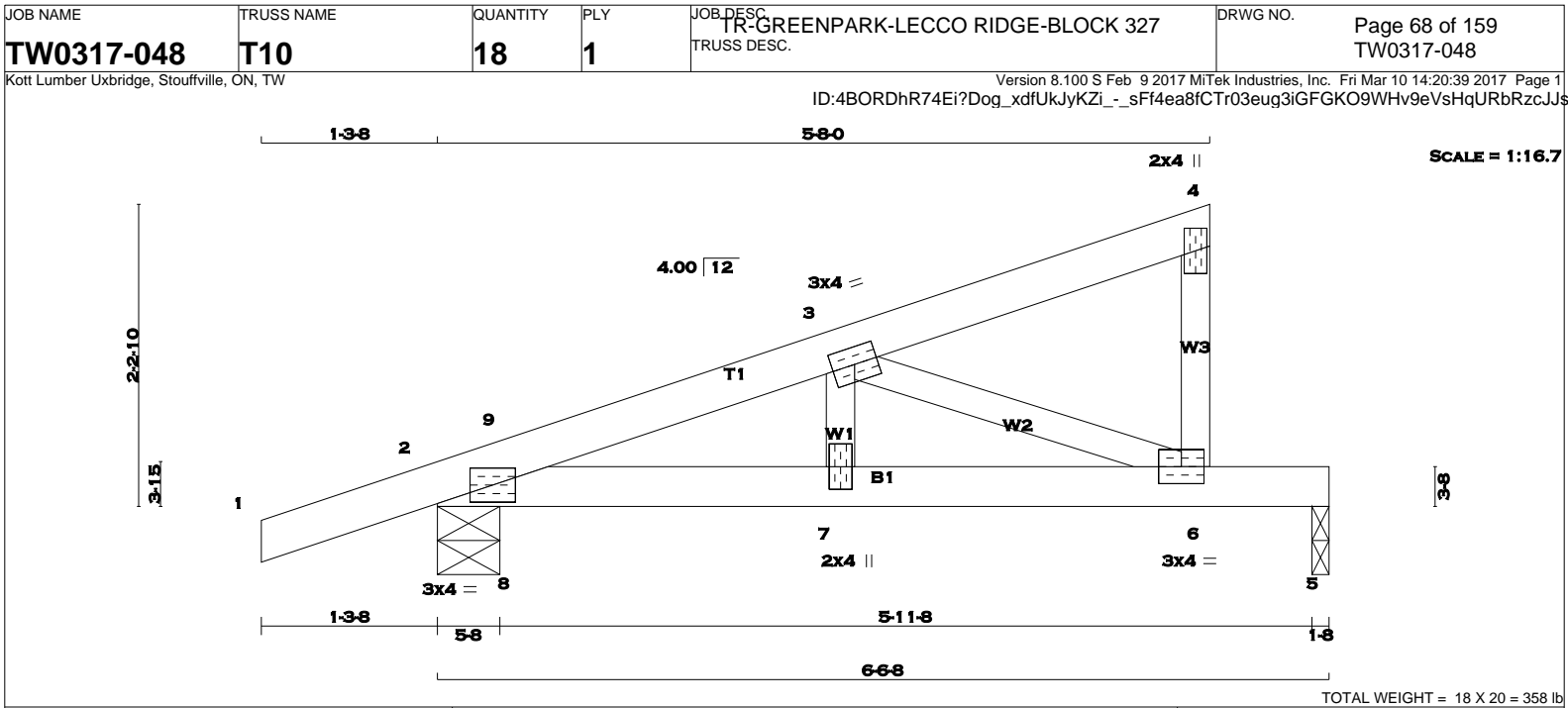
JT	TYPE	PLATES	W	LEN	Y	X
1	TMV+p	MT20	2.0	4.0		
2	TMV+p	MT20	2.0	4.0		
3	TMV+p	MT20	3.0	5.0		
4	TTW+p	MT20	3.0	4.0	2.25	1.50
5	TMV+p	MT20	3.0	5.0	1.50	2.00
6	TMV+p	MT20	2.0	4.0		
7	BMVW1-t	MT20	3.0	5.0		
8	BS-t	MT20	3.0	4.0		
9	BMVW1-t	MT20	3.0	6.0		
10	BMVW1-t	MT20	3.0	5.0		

JT	TYPE	PLATES	W	LEN	Y	X
1	TMV+p	MT20	2.0	4.0		
2	TMV+p	MT20	2.0	4.0		
3	TMV+p	MT20	3.0	5.0		
4	TTW+p	MT20	3.0	4.0	2.25	1.50
5	TMV+p	MT20	3.0	5.0	1.50	2.00
6	TMV+p	MT20	2.0	4.0		
7	BMVW1-t	MT20	3.0	5.0		
8	BS-t	MT20	3.0	4.0		
9	BMVW1-t	MT20	3.0	6.0		
10	BMVW1-t	MT20	3.0	5.0		

JT	TYPE	PLATES	W	LEN	Y	X
1	TMV+p	MT20	2.0	4.0		
2	TMV+p	MT20	2.0	4.0		
3	TMV+p	MT20	3.0	5.0		
4	TTW+p	MT20	3.0	4.0	2.25	1.50
5	TMV+p	MT20	3.0	5.0	1.50	2.00
6	TMV+p	MT20	2.0	4.0		
7	BMVW1-t	MT20	3.0	5.0		
8	BS-t	MT20	3.0	4.0		
9	BMVW1-t	MT20	3.0	6.0		
10	BMVW1-t	MT20	3.0	5.0		

JT	TYPE	PLATES	W	LEN	Y	X
1	TMV+p	MT20	2.0	4.0		
2	TMV+p	MT20	2.0	4.0		
3	TMV+p	MT20	3.0	5.0		
4	TTW+p	MT20	3.0	4.0	2.25	1.50
5	TMV+p	MT20	3.0	5.0	1.50	2.00
6	TMV+p	MT20	2.0	4.0		
7	BMVW1-t	MT20	3.0	5.0		
8	BS-t	MT20	3.0	4.0		
9	BMVW1-t	MT20	3.0	6.0		
10	BMVW1-t	MT20	3.0	5.0		

JT	TYPE	PLATES	W	LEN	Y	X
1	TMV+p	MT20	2.0			



LUMBER
N. L. G. A. RULES
CHORDS SIZE LUMBER DESCR. SPF

1 - 4	2x4	DRY	No.2	SPF
6 - 4	2x3	DRY	No.2	SPF
2 - 5	2x4	DRY	No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF
DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
2	TMB1-I	MT20	3.0	4.0		
3	TMVW-t	MT20	3.0	4.0		
4	TMV+p	MT20	2.0	4.0		
6	BMVW-t	MT20	3.0	4.0		
7	BMV+w	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	HORZ	UPLIFT	IN-SX
2	409	0	409	151
5	247	0	247	0

PROVIDE ANCHORAGE AT BEARING JOINT 2 FOR 217 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 5 FOR 150 LBS. FACTORED UPLIFT

PROVIDE FOR 151 LBS. FACTORED HORIZONTAL REACTION AT JOINT 2

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	LIVE	PERM. LIVE	WIND	DEAD	SOIL
2	285	212 / 0	0 / 0	0 / 0	0 / -202	73 / 0	0 / 0
5	175	114 / 0	0 / 0	0 / 0	0 / -125	61 / 0	0 / 0

HORIZONTAL REACTIONS

2	---	0 / 0	0 / 0	0 / 0	108 / 0	0 / 0	0 / 0
---	-----	-------	-------	-------	---------	-------	-------

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 2, 5

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING
TOTAL LOAD CASES: (11)

CHORDS				WEBS			
MEMB.	FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MEMB.	FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (FR-TO)	FACTORED FORCE (LBS)
FR-TO		FROM TO		FR-TO			
1-2	0 / 15	-77.3 -77.3	0.10 (1)	10.00	7-3	-30 / 178	0.04 (1)
2-9	-607 / 273	-77.3 -77.3	0.04 (5)	6.25	3-6	-606 / 361	0.11 (1)
9-3	-593 / 303	-77.3 -77.3	0.09 (5)	6.25	8-9	-74 / 84	0.00 (1)
3-4	-43 / 23	-77.3 -77.3	0.06 (1)	6.25			
6-4	-91 / 67	0.0 0.0	0.06 (5)	7.81			
2-8	-300 / 568	-17.5 -17.5	0.14 (1)	6.25			
8-7	-300 / 568	-17.5 -17.5	0.16 (1)	6.25			
7-6	-300 / 568	-17.5 -17.5	0.38 (1)	6.25			
6-5	0 / 0	-17.5 -17.5	0.29 (1)	10.00			

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF (9.0) PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.22")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.22")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.06")

CSI: TC=0.10 (1-2:1) , BC=0.38 (6-7:1) , WB=0.11 (3-6:1) , SSI=0.19 (5-6:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (6) (INPUT = 0.90)
JSI METAL= 0.21 (6) (INPUT = 1.00)

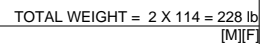


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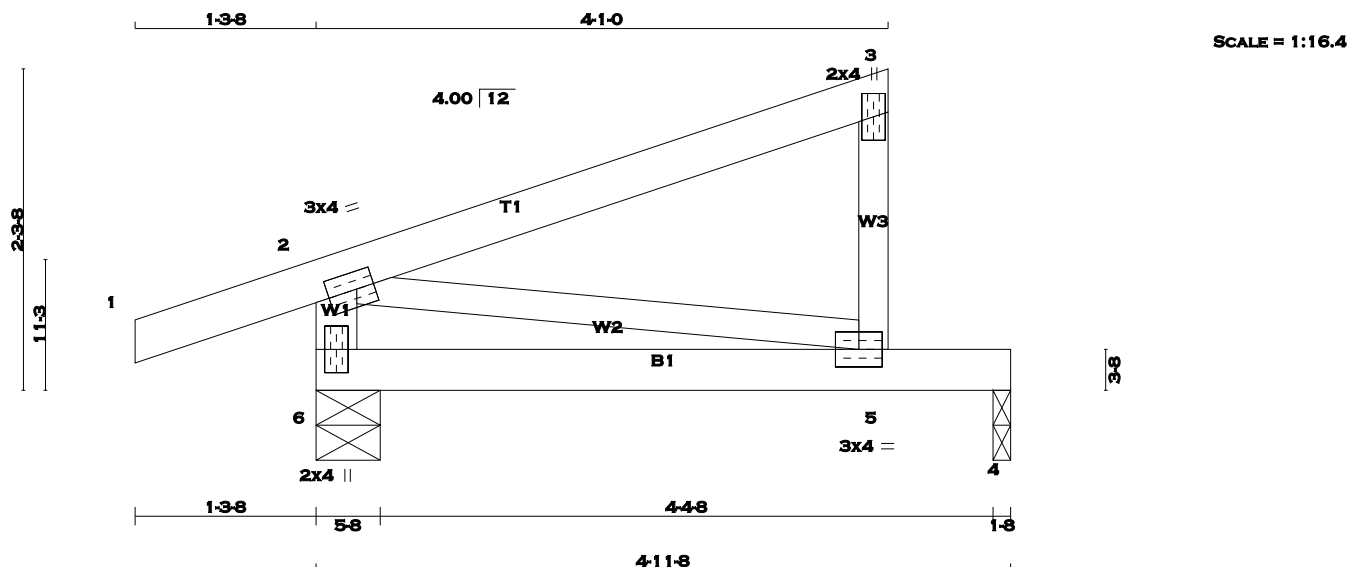
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WIND LOADS APPLIED TO THE ROOF FROM REFERENCE VELOCITY PRESSURE OF 17.90 PSF AT
(40-00) FT. MIN. REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK
COEFFICIENTS, CpG, BASED ON THE (MAIN WIND FORCE RESISTING) EXTERIOR WALLS.
WIND LOADS APPLIED TO THE ROOF FROM REFERENCE VELOCITY PRESSURE OF 17.90 PSF AT
(40-00) FT. MIN. REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK
COEFFICIENTS, CpG, BASED ON THE (MAIN WIND FORCE RESISTING) EXTERIOR WALLS.
WIND LOADS APPLIED TO THE ROOF FROM REFERENCE VELOCITY PRESSURE OF 17.90 PSF AT
(40-00) FT. MIN. REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK
COEFFICIENTS, CpG, BASED ON THE (MAIN WIND FORCE RESISTING) EXTERIOR WALLS.

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MAY BE LOCATED ON
LEAST 100' FROM
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TOTAL WEIGHT = $5 \times 17 = 85 \text{ lb}$

LUMBER

N. L. G. A. RULES				
CHORDS	SIZE		LUMBER	DESCR.
1 - 3	2x4	DRY	No.2	SPF
5 - 3	2x3	DRY	No.2	SPF
6 - 2	2x4	DRY	No.2	SPF
6 - 4	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-t	MT20	3.0	4.0	1.50	1.50
3	TMV+p	MT20	2.0	4.0		
5	BMVW-t	MT20	3.0	4.0		
6	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
6	333	0	333	155	-174	5-8
4	173	0	173	0	-87	1-8

PROVIDE ANCHORAGE AT BEARING JOINT 6 FOR 174 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 4 FOR 150 LBS FACTORED UPLIFT

PROVIDE FOR 155 LBS FACTORED HORIZONTAL REACTION AT JOINT 6

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
6	231	174 / 0	0 / 0	0 / 0	0 / -161	57 / 0	0 / 0
4	123	78 / 0	0 / 0	0 / 0	0 / -91	45 / 0	0 / 0

HORIZONTAL REACTIONS

6 --- 0/0 0/0 0/0 111/0 0/0 0/0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6, 4

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY
APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO		LENGTH	FR-TO		
1-2	0 / 16	-77.3	-77.3	0.10 (1)	10.00	0 / 120	0.02 (6)
2-3	-59 / 11	-77.3	-77.3	0.22 (1)	6.25		
5-3	-158 / 130	0.0	0.0	0.08 (5)	7.81		
6-2	-261 / 181	0.0	0.0	0.03 (7)	7.81		
6-5	-141 / 0	-17.5	-17.5	0.20 (1)	6.25		
5-4	0 / 0	-17.5	-17.5	0.20 (1)	10.00		

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0.0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}. INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL =	23.3	PSF
		DL =	3.0	PSF
BOT	CH.	LL =	0.0	PSF
		DL =	7.0	PSF
TOTAL LOAD		=	33.3	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL
OR SMALL BUILDING REQUIREMENTS OF
PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 872 (0.07")

CSI: TC=0.22 (2-3:1) , BC=0.20 (5-6:1) , WB=0.02 (2-5:6) , SSI=0.14 (4-5:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.26 (2) (INPUT = 0.90)
JSI METAL= 0.07 (6) (INPUT = 1.00)

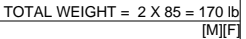


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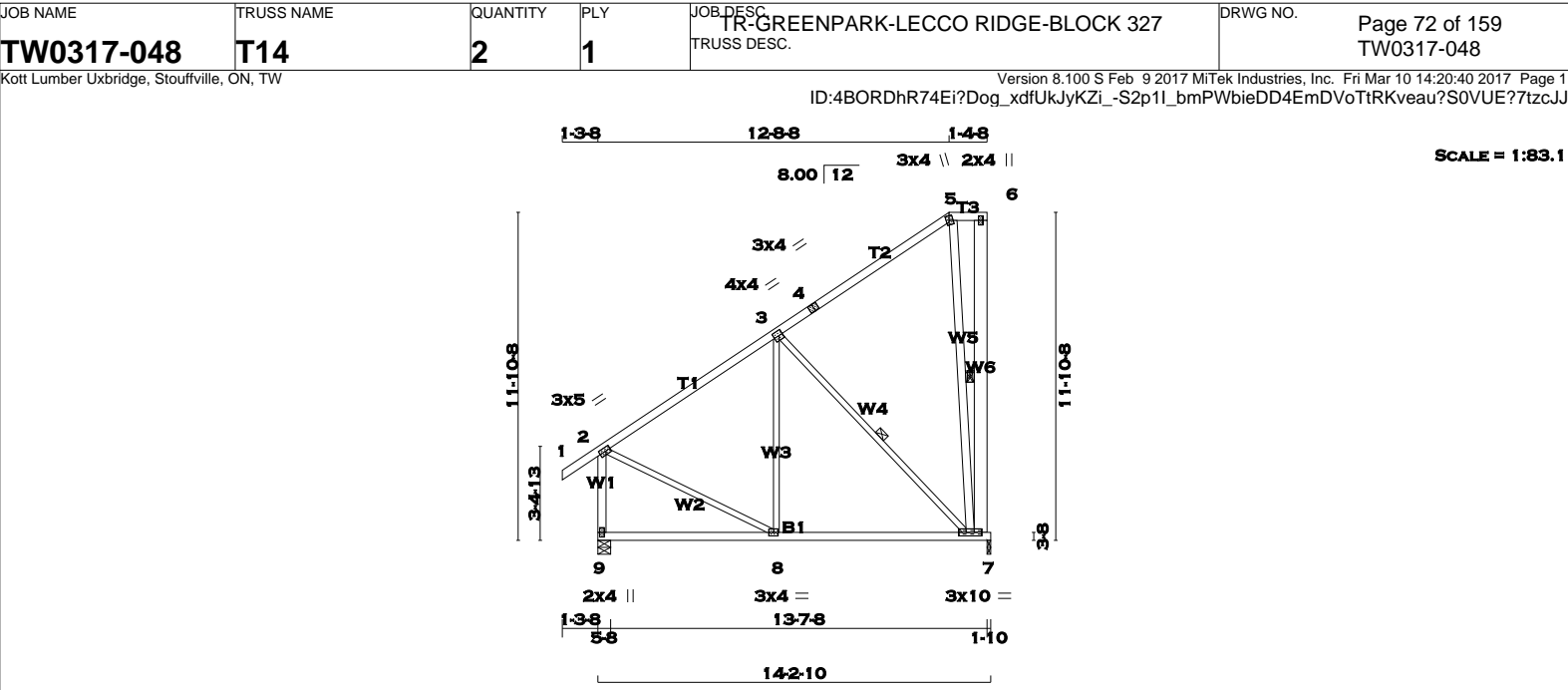
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JSI GRIP= 0.87 (4) (INPUT = 0.90)
JSI METAL= 0.19 (2) (INPUT = 1.00)

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LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
1 - 4	2x4	DRY	No.2	SPF
4 - 5	2x4	DRY	No.2	SPF
5 - 6	2x4	DRY	No.2	SPF
7 - 6	2x6	DRY	No.2	SPF
9 - 2	2x4	DRY	No.2	SPF
9 - 7	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT 5 - 7	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-t	MT20	3.0	5.0	1.50	2.00
3	TMVW-t	MT20	4.0	4.0	2.00	1.50
4	TS-t	MT20	3.0	4.0		
5	TTW+m	MT20	3.0	4.0	2.00	1.25
6	TMV+p	MT20	2.0	4.0		
7	BMVWW1-t	MT20	3.0	10.0		
8	BMVWW-t	MT20	3.0	4.0		
9	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UPLIFT
7	668	0	782	0
9	774	0	836	667

PROVIDE ANCHORAGE AT BEARING JOINT 7 FOR 490 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 9 FOR 279 LBS. FACTORED UPLIFT

PROVIDE FOR 667 LBS. FACTORED HORIZONTAL REACTION AT JOINT 9

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
7	469	328 / 0	0 / 0	0 / 0	286 / -441	141 / 0	0 / 0
9	541	392 / 0	0 / 0	0 / 0	156 / -295	149 / 0	0 / 0

HORIZONTAL REACTIONS

9	---	0 / 0	0 / 0	0 / 0	477 / -336	0 / 0	0 / 0
---	-----	-------	-------	-------	------------	-------	-------

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 7, 9

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-7, 3-7, 5-7. DBS = 20-0-0. CBF = 66 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS: 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (11)

CHORDS				WEBS			
MEMB.	FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX (LC)	MAX. UNBRAC LENGTH	MEMB.	FACTORED FORCE (LBS)	MAX. FACTORED LC1 MAX (LC)
FR-TO		FROM TO			FR-TO		
1-2	0 / 29	-77.3	-77.3	0.10 (1)	10.00	8-3	-62 / 163
2-3	-501 / 206	-77.3	-77.3	0.58 (7)	6.25	3-7	-611 / 553
3-4	-165 / 230	-77.3	-77.3	0.57 (7)	6.25	2-8	-120 / 501
4-5	-165 / 230	-77.3	-77.3	0.57 (7)	6.25	5-7	-250 / 196
5-6	-89 / 227	-77.3	-77.3	0.05 (7)	6.25		
7-6	-56 / 41	0.0	0.0	0.39 (7)	6.25		
9-2	-796 / 307	0.0	0.0	0.14 (4)	7.81		
9-8	-607 / 442	-17.5	-17.5	0.26 (11)	6.25		
8-7	-373 / 464	-17.5	-17.5	0.28 (11)	6.25		

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpG, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN). AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM LIVE

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.47")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.47")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.08")

CSI: TC=0.58 (2-3:7), BC=0.28 (7-8:11), WB=0.45 (3-7:3), SSI=0.21 (2-3:7)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.67 (2) (INPUT = 0.90)
JSI METAL= 0.21 (2) (INPUT = 1.00)

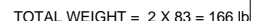


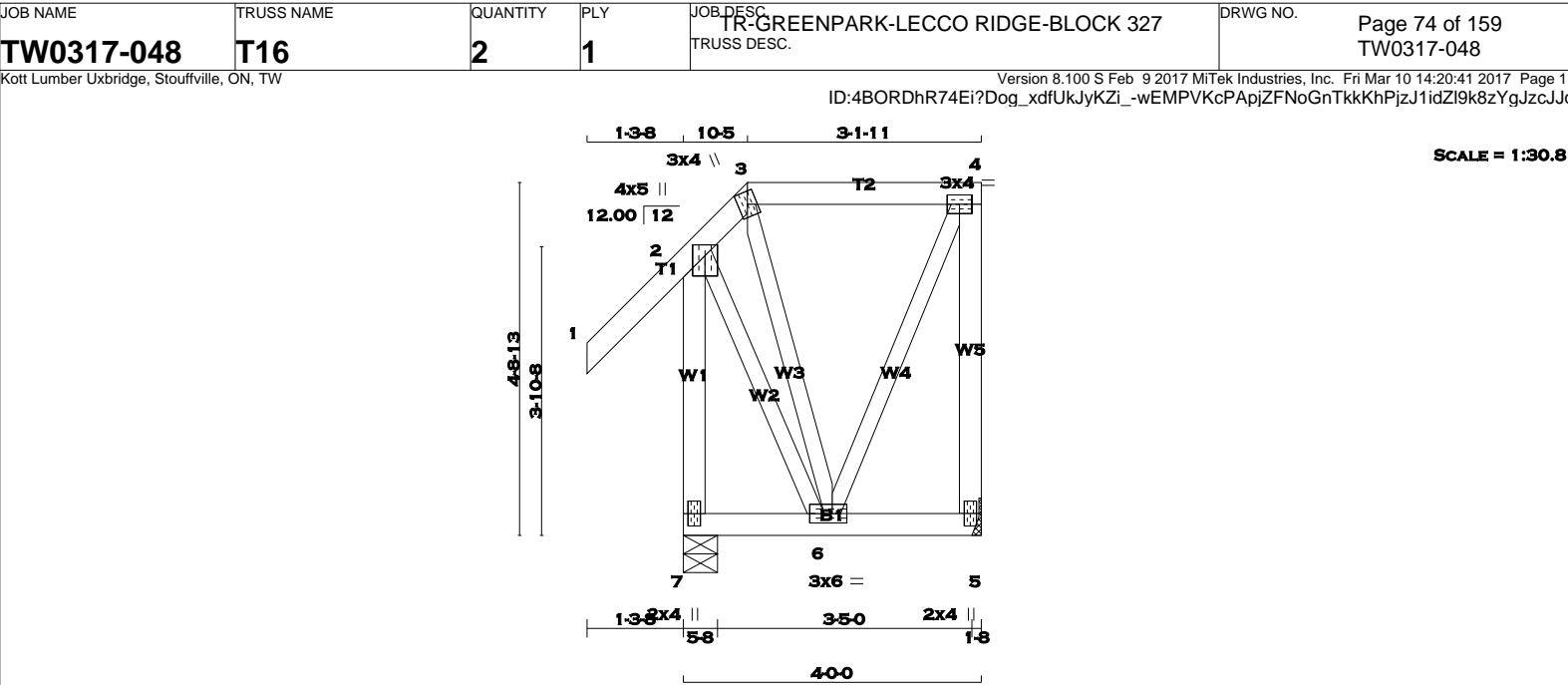
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2

1

3

4

5

6

7

1-3-8

10-5

3-1-11

3x4

3

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4x5

12

12.00

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T1

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W1

W2

W3

W4

W5

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3x6

5

1-3-8

5-8

3-5-0

2x4

1-8

4-0-0

48-13

3-10-8

SCALE = 1:30.8

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10-5

3-1-11

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3

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4x5

12

12.00

2

T1

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W1

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W4

W5

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5

1-3-8

5-8

3-5-0

2x4

1-8

4-0-0

48-13

3-10-8

SCALE = 1:30.8

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5-8

3-5-0

2x4

1-8

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48-13

3-10-8

SCALE = 1:30.8

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5-8

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48-13

3-10-8

SCALE = 1:30.8

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48-13

3-10-8

SCALE = 1:30.8

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5-8

3-5-0

2x4

1-8

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48-13

3-10-8

SCALE = 1:30.8

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6

3x6

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5-8

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2x4

1-8

4-0-0

48-13

3-10-8

SCALE = 1:30.8

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10-5

3-1-11

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3x6

5

1-3-8

5-8

3-5-0

2x4

1-8

4-0-0

48-13

3-10-8

SCALE = 1:30.8

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1-3-8

10-5

3-1-11

3x4

3

4

4x5

12

12.00

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1

W1

W2

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W4

W5

6

3x6

5

1-3-8

5-8

3-5-0

2x4

1-8

4-0-0

48-13

3-10-8

SCALE = 1:30.8

2

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1-3-8

10-5

3-1-11

3x4

3

4

4x5

12

12.00

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T1

1

W1

W2

W3

W4

W5

6

3x6

5

1-3-8

5-8

3-5-0

2x4

1-8

4-0-0

48-13

3-10-8

SCALE = 1:30.8

2

1

3

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7

1-3-8

10-5

3-1-11

3x4

3

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12

12.00

2

T1

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W1

W2

W3

W4

W5

6

3x6

5

1-3-8

5-8

3-5-0

2x4

1-8

4-0-0

48-13

3-10-8

SCALE = 1:30.8

2

1

3

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1-3-8

10-5

3-1-11

3x4

3

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12

12.00

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T1

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W1

W2

W3

W4

W5

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3x6

5

1-3-8

5-8

3-5-0

2x4

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SCALE = 1:30.8

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SCALE = 1:30.8

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SCALE = 1:30.8

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SCALE = 1:30.8

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SCALE = 1:30.8

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SCALE = 1:30.8

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SCALE = 1:30.8

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SCALE = 1:30.8

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SCALE = 1:30.8

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SCALE = 1:30.8

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SCALE = 1:30.8

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SCALE = 1:30.8

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SCALE = 1:30.8

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SCALE = 1:30.8

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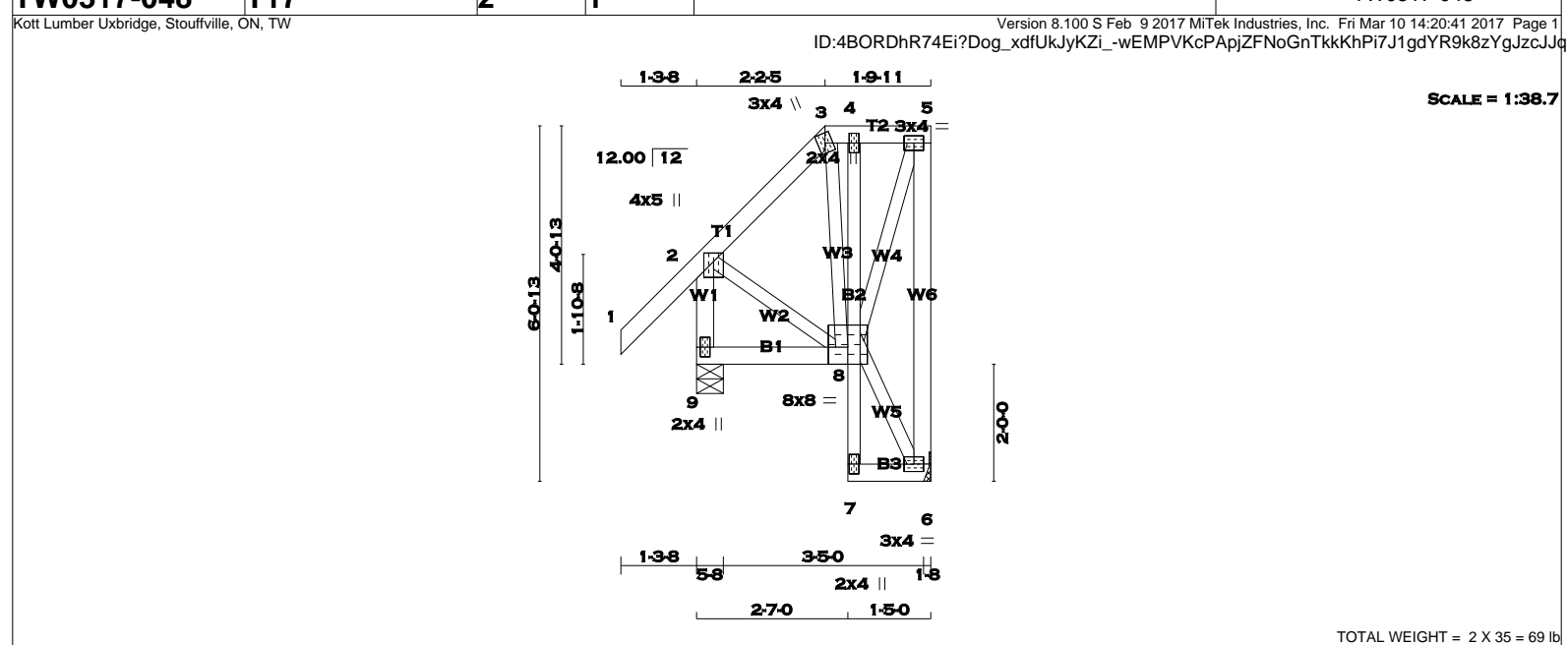
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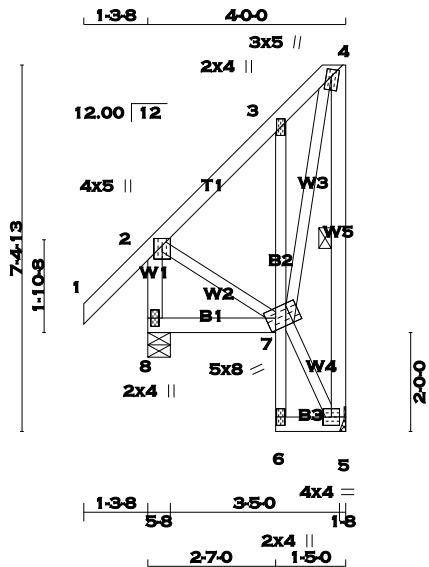
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SCALE = 1:46.5

TOTAL WEIGHT = 2 X 36 = 72 lb [M]

LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
1 - 4	2x4	DRY	No.2		SPF
5 - 4	2x4	DRY	No.2		SPF
8 - 2	2x4	DRY	No.2		SPF
8 - 7	2x4	DRY	No.2		SPF
6 - 3	2x3	DRY	No.2		SPF
6 - 5	2x4	DRY	No.2		SPF

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT
DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW+p	MT20	4.0	5.0	1.75	2.00
3	TMV+p	MT20	2.0	4.0		
4	TMVW+w	MT20	3.0	5.0	1.75	1.25
5	BMVW1-t	MT20	4.0	4.0		
6	BMV+p	MT20	2.0	4.0		
7	BVMWW-w	MT20	5.0	8.0	2.75	2.25
8	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
5	190	0	329	401	-482	HANGER BY OTHERS	
8	298	0	415	0	-242	MIN. SEAT SIZE: 1-8	5-8

PROVIDE ANCHORAGE AT BEARING JOINT 5 FOR 482 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 8 FOR 242 LBS. FACTORED UPLIFT

PROVIDE FOR 401 LBS. FACTORED HORIZONTAL REACTION AT JOINT 5

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
5	133	93 / 0	0 / 0	0 / 0	251 / -370	40 / 0	0 / 0
8	206	158 / 0	0 / 0	0 / 0	294 / -204	48 / 0	0 / 0

HORIZONTAL REACTIONS

5	---	0 / 0	0 / 0	0 / 0	343 / -236	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 8

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-5. DBS = 20-0-0 . CBF = 22 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (11)

CHORDS				WEBS			
MAX. FACTORED		FACTORED		MAX. FACTORED		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MEMB.	FORCE (LBS)	LC1 MAX (LC)	
FR-TO		FROM TO		FR-TO			
1-2	0 / 38	-77.3 -77.3	0.11 (7)	10.00	7-5	-332 / 603	0.12 (6)
2-3	-311 / 245	-77.3 -77.3	0.09 (7)	6.25	7-4	-134 / 257	0.06 (5)
3-4	-189 / 247	-77.3 -77.3	0.11 (7)	6.25	2-7	-231 / 379	0.07 (6)
5-4	-175 / 0	0.0 0.0	0.33 (8)	6.25			
8-2	-392 / 259	0.0 0.0	0.04 (5)	7.81			
8-7	-14 / 30	-17.5 -17.5	0.04 (11)	6.25			
6-7	0 / 13	0.0 0.0	0.01 (4)	10.00			
7-3	-245 / 333	0.0 0.0	0.07 (7)	7.81			
6-5	-1 / 2	-17.5 -17.5	0.01 (11)	10.00			

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpG, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN). AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM LIVE

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	23.3	PSF
	DL =	3.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	33.3	PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.33 (4-5:8) , BC=0.07 (3-7:7) , WB=0.12 (5-7:6) , SSI=0.10 (4-5:5)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

AUTOSOLVE RIGHT HEEL ONLY

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.64 (5) (INPUT = 0.90)
JSI METAL= 0.16 (5) (INPUT = 1.00)



March 10, 2017



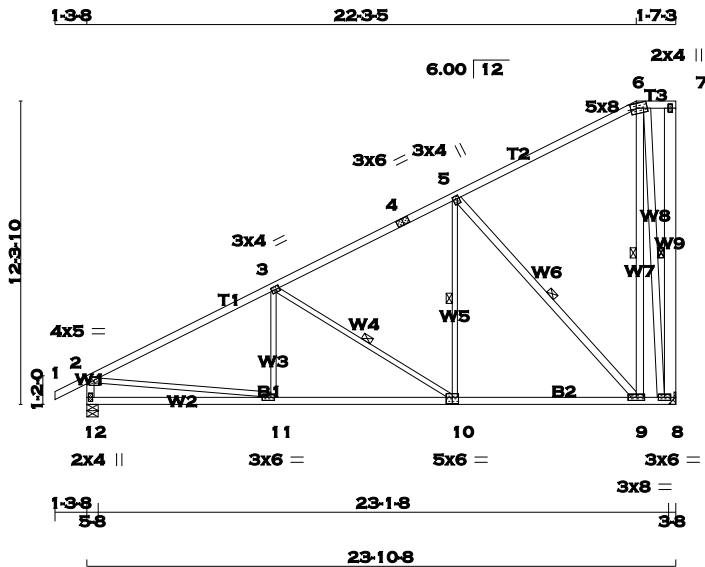
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

RECEIVED
TOWN OF MILTON
MAR 29, 2017
17-4978
BUILDING DIVISION



[M]

RECEIVED
TOWN OF MILTON
MAR 29, 2017
17-4978
BUILDING DIVISION



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE		LUMBER	DESCR.
1 - 4	2x4	DRY	No.2	SPF
4 - 6	2x4	DRY	No.2	SPF
6 - 7	2x4	DRY	No.2	SPF
8 - 7	2x6	DRY	No.2	SPF
12 - 2	2x4	DRY	No.2	SPF
12 - 10	2x4	DRY	No.2	SPF
10 - 8	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
5 - 9	2x4	DRY	No.2	SPF
9 - 6	2x4	DRY	No.2	SPF
6 - 8	2x4	DRY	No.2	SPF

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-p	MT20	4.0	5.0	1.50	2.25
3	TMVW-t	MT20	3.0	4.0	1.50	1.75
4	TS-t	MT20	3.0	6.0		
5	TMVW+t	MT20	3.0	4.0	1.50	0.75
6	TTVW-m	MT20	5.0	8.0	2.25	2.75
7	TMV+p	MT20	2.0	4.0		
8	BMVW1-t	MT20	3.0	6.0		
9	BMVW-t	MT20	3.0	8.0		
10	BSVW-l	MT20	5.0	6.0	3.25	3.00
11	BMVW-t	MT20	3.0	6.0	1.50	1.75
12	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MIITEK MII20 WITH TEE-LOCK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
8	1132	0	1191	0	-685	HANGER BY OTHERS	MIN. SEAT SIZE: 3-8
12	1237	0	1272	725	-573	5-8	5-8

PROVIDE ANCHORAGE AT BEARING JOINT 8 FOR 685 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 12 FOR 573 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES.
SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 725 LBS. FACTORED HORIZONTAL REACTION AT JOINT 12

UNFACTORED REACTIONS

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS		PERM.LIVE	WIND	DEAD	SOIL
		SNOW	LIVE				
8	795	556 / 0	0 / 0	0 / 0	146 / -643	239 / 0	0 / 0
12	866	619 / 0	0 / 0	0 / 0	86 / -568	247 / 0	0 / 0

HORIZONTAL REACTIONS

12	---	0 / 0	0 / 0	0 / 0	518 / -122	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 12

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.61 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

- 1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-8, 3-10, 5-10, 6-9. DBS = 20-0-0 . CBF = 81 LBS.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-9. DBS = 14-0-0 . CBF = 90 LBS.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-8. DBS = 12-0-0 . CBF = 82 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (11)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FR-TO	
1-2	0 / 23	11-3	-21 / 160
2-3	-1574 / 682	3-10	-688 / 517
3-4	-1002 / 504	10-5	-189 / 505
4-5	-1002 / 504	5-9	-1085 / 771
5-6	-270 / 231	9-6	-464 / 898
6-7	-92 / 235	6-8	-1144 / 601
8-7	-65 / 49	2-11	-455 / 1448
12-2	-1217 / 610		
12-11	-707 / 162		
11-10	-792 / 1445		
10-9	-44 / 81		
9-8	-17 / 2		

WIND LOAD APPLIED TO EXPOSED SURFACE FROM REFERENCE VELOCITY PRESSURE PER ASCE 7-10 (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PRESSURE COEFFICIENTS (SEE ENP-1 FOR WINDING SYSTEM); INTERNAL PRESSURE COEFFICIENTS MAY BE USED AT LEAST (0-0) FT-IN-SX AWAY FROM CORNERS.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD	=	33.3	PSF	

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.80")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (0.80")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.14")

CSI: TC=0.62 (2-3:7) , BC=0.34 (10-11:1) , WB=0.96 (6-8:3) , SSI=0.24 (2-3:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES		PLATE GRIP(DRY)		SHEAR (PLI)		SECTION (PLI)	
		MAX	MIN	MAX	MIN	MAX	MIN
MT20		618	354	1667	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

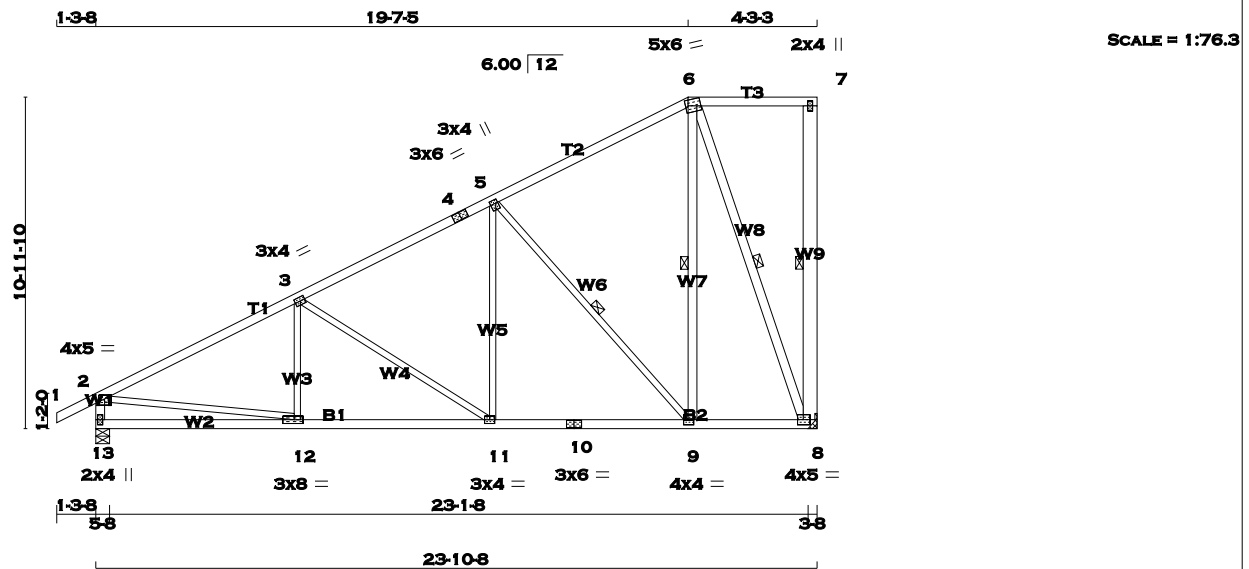
JSI GRIP= 0.90 (11) (INPUT = 0.90)
JSI METAL= 0.41 (2) (INPUT = 1.00)



March 10, 2017

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MARCH 23 2017
17-4978

BUILDING DIVISION



TOTAL WEIGHT = 2 X 131 = 261 lb
[M][F]

LUMBER		N. L. G. A. RULES		LUMBER	DESCR.
CHORDS	SIZE				
1 - 4	2x4	DRY	No.2	SPF	SPF
4 - 6	2x4	DRY	No.2		
6 - 7	2x4	DRY	No.2		
8 - 7	2x6	DRY	No.2		
13 - 2	2x4	DRY	No.2		
13 - 10	2x4	DRY	No.2		
10 - 8	2x4	DRY	No.2		
ALL WEBS EXCEPT		2x3	DRY	No.2	SPF
9 - 6	2x4	DRY	No.2	SPF	SPF
6 - 8	2x4	DRY	No.2		

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-p	MT20	4.0	5.0	1.50	2.25
3	TMVW-t	MT20	3.0	4.0	1.50	1.75
4	TS-t	MT20	3.0	6.0		
5	TMVW+t	MT20	3.0	4.0	1.50	0.75
6	TTWW-m	MT20	5.0	6.0	2.25	1.00
7	TMV+p	MT20	2.0	4.0		
8	BMVW1-t	MT20	4.0	5.0	2.00	2.25
9	BMVW-t	MT20	4.0	4.0	2.00	1.75
10	BS-t	MT20	3.0	6.0		
11	BMVW-t	MT20	3.0	4.0		
12	BMVW-t	MT20	3.0	8.0	1.50	3.50
13	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	JT	HORZ	JT	DOWN	JT	UP
8	1132	0	1188	0	-667	HANGER BY OTHERS	
13	1237	0	1274	647	-591	MIN. SEAT SIZE: 3-8	

PROVIDE ANCHORAGE AT BEARING JOINT 8 FOR 667 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 13 FOR 591 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES.
SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 647 LBS. FACTORED HORIZONTAL REACTION AT JOINT 13

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. SNOW	MAX./MIN. LIVE	MAX./MIN. PERM. LIVE	MAX./MIN. WIND	MAX./MIN. DEAD	MAX./MIN. SOIL
8	795	556 / 0	0 / 0	0 / 0	140 / -630	239 / 0	0 / 0
13	866	619 / 0	0 / 0	0 / 0	91 / -581	247 / 0	0 / 0

HORIZONTAL REACTIONS

13	---	0 / 0	0 / 0	0 / 0	462 / -111	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 13

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.80 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-8, 6-9. DBS = 20-0-0 . CBF = 48 LBS.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-9. DBS = 16-0-0 . CBF = 88 LBS.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-8. DBS = 14-0-0 . CBF = 89 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (11)

CHORDS		FACTORED		WEBS		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. UNBRACED (CSI (LC))	MEMB.	FORCE (LBS)	MAX. UNBRACED (CSI (LC))	
FR-TO		FROM TO		FR-TO			
1-2	0 / 23	-77.3 -77.3	0.10 (1)	10.00	12-3	-59 / 161	0.03 (11)
2-3	-1587 / 730	-77.3 -77.3	0.51 (7)	4.80	3-11	-556 / 431	0.66 (3)
3-4	-1122 / 599	-77.3 -77.3	0.49 (7)	5.65	11-5	-155 / 418	0.17 (7)
4-5	-1122 / 599	-77.3 -77.3	0.49 (7)	5.65	5-9	-929 / 666	0.64 (3)
5-6	-502 / 372	-77.3 -77.3	0.44 (7)	6.25	9-6	-420 / 798	0.25 (7)
6-7	-82 / 209	-77.3 -77.3	0.24 (1)	6.25	6-8	-1067 / 591	0.74 (3)
8-7	-174 / 133	0.0 0.0	0.34 (7)	6.25	2-12	-512 / 1451	0.40 (7)
13-2	-1225 / 624	0.0 0.0	0.12 (1)	7.29			
13-12	-629 / 147	-17.5 -17.5	0.18 (11)	6.25			
12-11	-809 / 1465	-17.5 -17.5	0.31 (1)	6.25			
11-10	-490 / 999	-17.5 -17.5	0.23 (1)	6.25			
10-9	-49 / 9	-17.5 -17.5	0.1 (11)	6.25			
9-8	-49 / 9	-17.5 -17.5	0.1 (11)	6.25			

WIND LOAD APPLIED TO EXPOSED SURFACE FROM REFERENCE VELOCITY PRESSURE (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PRESSURE COEFFICIENTS (SEE TABLE 6.5.1) AND INTERNAL PRESSURE COEFFICIENTS (SEE TABLE 6.5.2) MAY BE USED FOR DESIGN OF THIS COMPONENT.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL =	23.3	PSF
	DL =	3.0	PSF
BOT CH.	LL =	0.0	PSF
	DL =	7.0	PSF
TOTAL LOAD	=	33.3	PSF

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.80")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (0.80")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.11")

CSI: TC=0.51 (2-3:7), BC=0.31 (11-12:1), WB=0.74 (6-8:3), SSI=0.21 (2-3:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

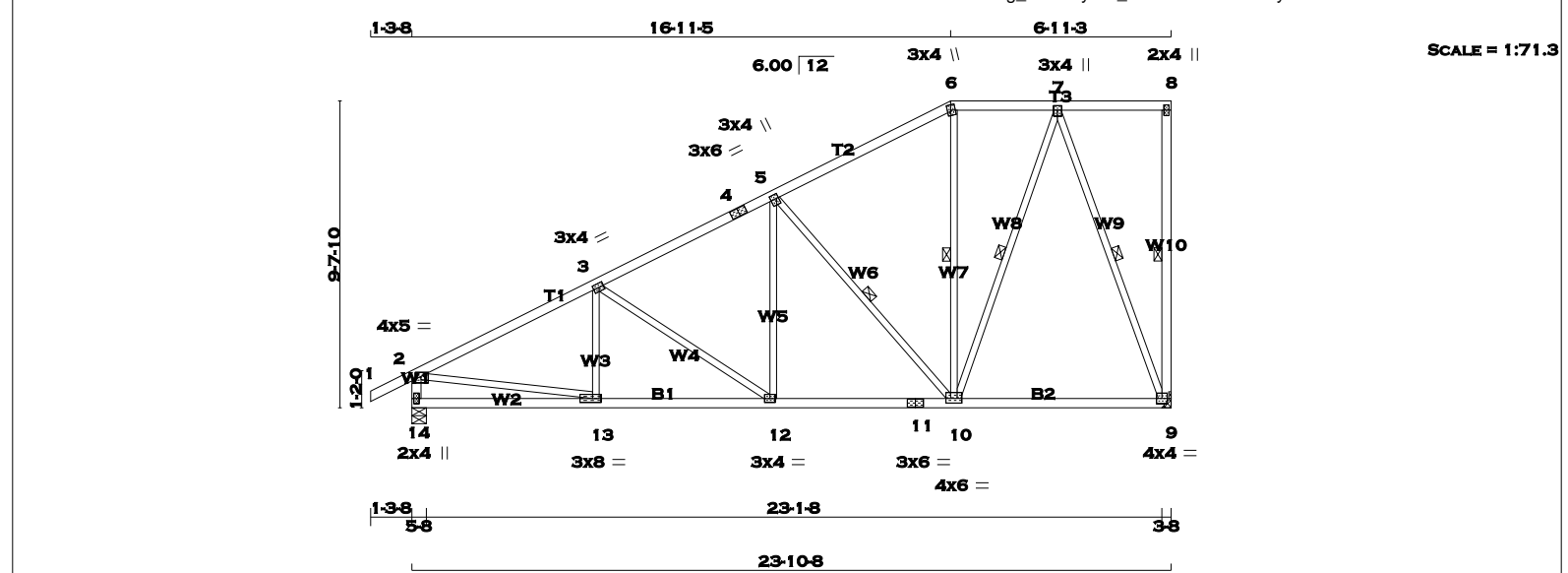
JSI GRIP= 0.88 (12) (INPUT = 0.90)
JSI METAL= 0.41 (2) (INPUT = 1.00)



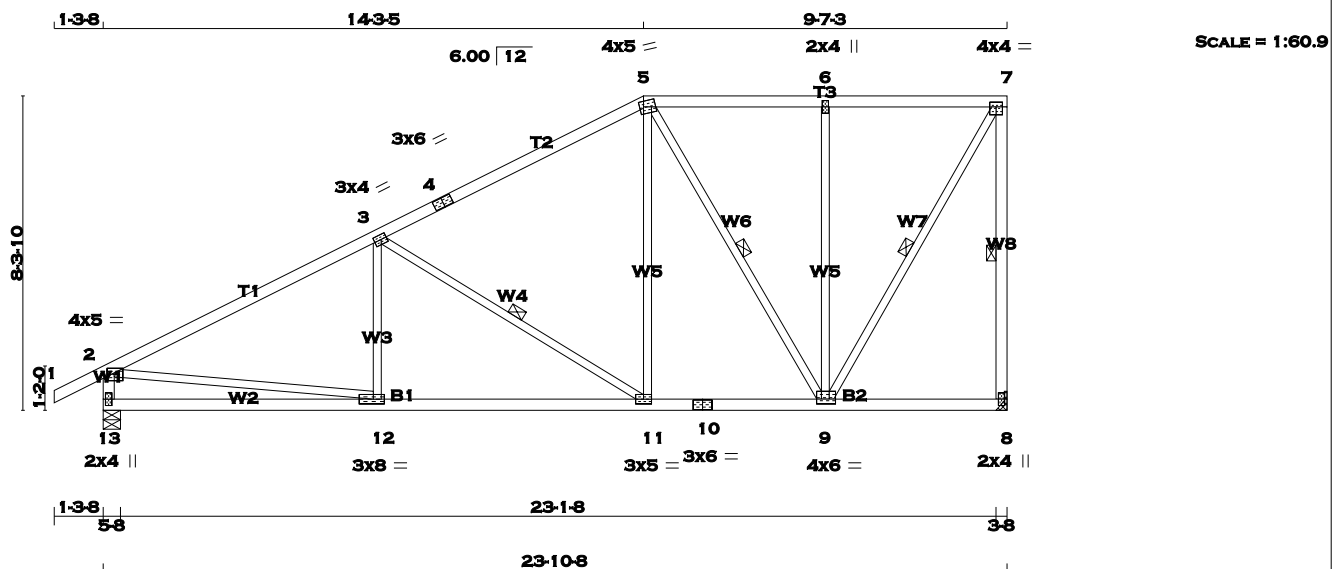
March 10, 2017

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MARCH 23 2017
17-4978

BUILDING DIVISION



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. SPF		DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS										DESIGN CRITERIA			
1 - 4 2x4 DRY No.2 4 - 6 2x4 DRY No.2 6 - 8 2x4 DRY No.2 9 - 8 2x4 DRY No.2 14 - 2 2x4 DRY No.2 14 - 11 2x4 DRY No.2 11 - 9 2x4 DRY No.2		FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT REQRD JT VERT HORZ DOWN HORZ UPLIFT BRG BRG 9 1132 0 1187 0 -651 HANGER BY OTHERS 14 1237 0 1276 568 -607 5-8 5-8 MIN. SEAT SIZE: 3-8										SPECIFIED LOADS: TOP CH. LL = 23.3 PSF DL = 3.0 PSF BOT CH. LL = 0.0 PSF DL = 7.0 PSF TOTAL LOAD = 33.3 PSF			
ALL WEBS 2x3 DRY No.2 EXCEPT		PROVIDE ANCHORAGE AT BEARING JOINT 9 FOR 651 LBS FACTORED UPLIFT PROVIDE ANCHORAGE AT BEARING JOINT 14 FOR 607 LBS FACTORED UPLIFT										SPACING = 24.0 IN. C/C			
DRY: SEASONED LUMBER.		NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES. SHALL BE PROVIDED BY BUILDG. DESIGNER										LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12			
PLATES (table is in inches)		UNFACTORED REACTIONS										THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010			
JT TYPE PLATES W LEN Y X		1ST LCASE MAX./MIN. COMPONENT REACTIONS										THIS DESIGN COMPLIES WITH:			
2 TMVW-p MT20 4.0 5.0 1.50 2.25		JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL										- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014			
3 TMVW-t MT20 3.0 4.0 1.50 1.75		9 795 556 / 0 0 / 0 0 / 0 136 / -618 239 / 0 0 / 0										- CSA 086-09			
4 TS-t MT20 3.0 6.0		14 866 619 / 0 0 / 0 0 / 0 96 / -593 247 / 0 0 / 0										- TPIC 2011			
5 TMVW+t MT20 3.0 4.0 1.75 0.75		HORIZONTAL REACTIONS										(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD			
6 TTW+m MT20 3.0 4.0 2.00 1.25		14 --- 0 / 0 0 / 0 0 / 0 406 / -100 0 / 0 0 / 0										ALLOWABLE DEFL.(LL)= L/360 (0.80")			
7 TMVW+t MT20 3.0 4.0 1.75 1.50		BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 14										CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06")			
8 TMV+p MT20 2.0 4.0		BRACING										ALLOWABLE DEFL.(TL)= L/360 (0.80")			
9 BMVW1-t MT20 4.0 4.0		TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.94 FT.										CALCULATED VERT. DEFL.(TL) = L/ 999 (0.11")			
10 BMVWW-t MT20 4.0 6.0 1.75 3.00		MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.										CSI: TC=0.52 (8-9:7) , BC=0.29 (12-13:1) , WB=0.77 (7-9:3) , SSI=0.18 (2-3:1)			
11 BS-t MT20 3.0 6.0		ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.										DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10			
12 BMVW-t MT20 3.0 4.0		1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 8-9, 5-10, 6-10, 7-10. DBS = 20-0-0 . CBF = 90 LBS.										COMPANION LIVE LOAD FACTOR = 0.50			
13 BMVW-t MT20 3.0 8.0 1.50 3.25		1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-9. DBS = 14-0-0 . CBF = 92 LBS.										TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .			
14 BMV1+p MT20 2.0 4.0		DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.										NAIL VALUES			
A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.		END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW										PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)			
		LOADING										MAX MIN MAX MIN MAX MIN			
		TOTAL LOAD CASES: (11)										MT20 618 354 1667 822 2284 1656			
		CHORDS WEBS										PLATE PLACEMENT TOL. = 0.250 inches			
		MAX. FACTORED FORCE VERT. LOAD LC1 MAX. MAX. MAX. FACTORED FORCE MAX. FACTORED										PLATE ROTATION TOL. = 5.0 Deg.			
		MEMB. (LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO MEMB. (LBS) CSI (LC)										JSI GRIP= 0.89 (13) (INPUT = 0.90)			
		FR-TO FROM TO										JSI METAL= 0.41 (2) (INPUT = 1.00)			
		1-2 0 / 23 -77.3 -77.3 0.10 (1) 10.00 13-3 -104 / 167 0.03 (7)													
		2-3 -1604 / 767 -77.3 -77.3 0.41 (7) 4.94 3-12 -420 / 340 0.34 (3)													
		3-4 -1247 / 688 -77.3 -77.3 0.40 (7) 5.51 12-5 -129 / 322 0.10 (7)													
		4-5 -1247 / 688 -77.3 -77.3 0.40 (7) 5.51 5-10 -764 / 569 0.38 (3)													
		5-6 -734 / 502 -77.3 -77.3 0.36 (7) 6.25 10-6 -13 / 81 0.02 (11)													
		6-7 -638 / 527 -77.3 -77.3 0.18 (7) 6.25 10-7 -350 / 717 0.24 (7)													
		7-8 -72 / 183 -77.3 -77.3 0.15 (1) 6.25 7-9 -1098 / 641 0.77 (3)													
		9-8 -112 / 86 0.0 0.0 0.52 (7) 6.25 2-13 -559 / 1457 0.32 (1)													
		14-2 -1233 / 635 0.0 0.0 0.12 (1) 7.27													
		14-13 -550 / 131 -17.5 -17.5 0.14 (11) 6.25													
		13-12 -816 / 1474 -17.5 -17.5 0.29 (1) 6.25													
		12-11 -53 / 115 0.0 0.0 0.00 (1) 6.25													
		11-10 -17 / 17 -5 0.2 (1) 6.25													
		10-9 -17 / 17 -5 0.2 (11) 6.25													
		WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF 60 PSF (40-45 MPH) EXTERNAL PEAK SING SYSTEM MAY BE LOCATED ON LEAST (0-0) FT. IN S.W. WAY													
		READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.										RECEIVED WORK OF MITEK 17-MAR-2017 7:45:36 AM BUILDING DIVISION			



TOTAL WEIGHT = 2 X 111 = 221 lb

LUMBER		N. L. G. A. RULES		LUMBER	
CHORDS	SIZE				DESCR.
1 - 4	2x4	DRY	No.2		SPF
4 - 5	2x4	DRY	No.2		SPF
5 - 7	2x4	DRY	No.2		SPF
8 - 7	2x4	DRY	No.2		SPF
13 - 2	2x4	DRY	No.2		SPF
13 - 10	2x4	DRY	No.2		SPF
10 - 8	2x4	DRY	No.2		SPF

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMWV-p	MT20	4.0	5.0	1.50	2.25
3	TMWV-t	MT20	3.0	4.0	1.50	1.75
4	TS-t	MT20	3.0	6.0		
5	TTWV-m	MT20	4.0	5.0	1.75	1.25
6	TMWV-w	MT20	2.0	4.0		
7	TMWV-t	MT20	4.0	4.0	1.50	2.00
8	BMV1+p	MT20	2.0	4.0		
9	BMWVWV-t	MT20	4.0	6.0	1.50	1.50
10	BS-t	MT20	3.0	6.0		
11	BMWVW-t	MT20	3.0	5.0		
12	BMWVW-t	MT20	3.0	8.0	1.50	3.50
13	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED GROSS REACTION			MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
8	1132	0	1185	0	-637	HANGER BY OTHERS MIN. SEAT SIZE: 3-8	
13	1237	0	1277	490	-621	5-8	

PROVIDE ANCHORAGE AT BEARING JOINT 8 FOR 637 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 13 FOR 621 LBS FACTORED UPLIFT

**NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES
SHALL BE PROVIDED BY BLDG. DESIGNER**

PROVIDE FOR 490 LBS FACTORED HORIZONTAL REACTION AT JOINT 13

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
8	795	556 / 0	0 / 0	0 / 0	132 / -608	239 / 0	0 / 0
13	866	619 / 0	0 / 0	0 / 0	100 / -603	247 / 0	0 / 0

HORIZONTAL REACTIONS

13	---	0 / 0	0 / 0	0 / 0	350 / -89	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 13

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.58 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY
APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-8. DBS = 12-0-0 . CBF = 82 LBS.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 3-11, 5-9, 7-9. DBS = 20-0-0 . CBF = 87 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (11)

CHORDS					WEBS				
MAX. FACTORED		FACTORED			MAX. FACTORED		FACTORED		
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MAX.	MEMB.	MAX.	FORCE	MAX
	(LBS)	(PLF)	CSI (LC)		UNBRAC			(LBS)	CSI (LC)
FR-TO		FROM TO			LENGTH	FR-TO			
1-2	0 / 23	-77.3	-77.3	0.10 (1)	10.00	12-3	-29 / 175		0.04 (11)
2-3	-1598 / 792	-77.3	-77.3	0.70 (7)	4.58	3-11	-736 / 560		0.34 (3)
3-4	-981 / 596	-77.3	-77.3	0.67 (7)	5.61	11-5	-229 / 494		0.31 (7)
4-5	-981 / 596	-77.3	-77.3	0.67 (7)	5.61	5-9	-504 / 280		0.29 (3)
5-6	-611 / 484	-77.3	-77.3	0.27 (7)	6.25	9-6	-483 / 372		0.65 (3)
6-7	-611 / 484	-77.3	-77.3	0.27 (7)	6.25	9-7	-636 / 1166		0.37 (7)
8-7	-1149 / 660	0.0	0.0	0.46 (7)	5.97	2-12	-564 / 1455		0.56 (7)
13-2	-1225 / 656	0.0	0.0	0.12 (1)	7.29				
13-12	-472 / 116	-17.5	-17.5	0.23 (11)	6.25				
12-11	-785 / 1473	-17.5	-17.5	0.34 (1)	6.25				
11-10	-376 / 856	-17.5	-17.5	0.20 (1)	6.25				
10-9	-37 / 85	0.0	0.0	0.00 (11)	6.25				
9-8	-17 / 11	0.0	0.0	0.00 (11)	6.25				

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF (90) PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK

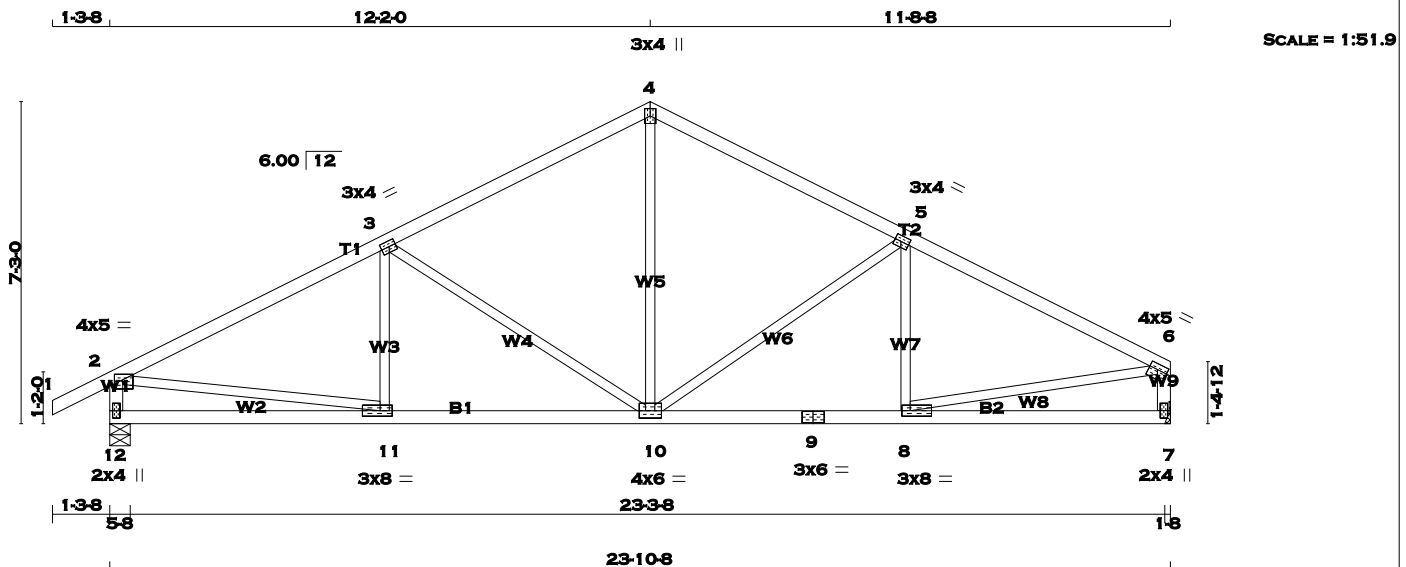
**READ ALL NOTES ON THIS PAGE AND ON THE
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE
IS AN INTEGRAL PART OF THIS DRAWING AS IT
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LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. SPF 1 - 4 2x4 DRY No.2 SPF 4 - 6 2x4 DRY No.2 SPF 12 - 2 2x4 DRY No.2 SPF 7 - 6 2x4 DRY No.2 SPF 12 - 9 2x4 DRY No.2 SPF 9 - 7 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT DRY: SEASONED LUMBER. PLATES (table is in inches) JT TYPE PLATES W LEN Y X 2 TMVW-p MT20 4.0 5.0 1.50 2.25 3 TMVW-t MT20 3.0 4.0 1.50 1.75 4 TTW+p MT20 3.0 4.0 5 TMVW-t MT20 3.0 4.0 1.50 1.75 6 TMVW-t MT20 4.0 5.0 1.50 2.25 7 BMV1+p MT20 2.0 4.0 8 BMVW-t MT20 3.0 8.0 1.50 2.25 9 BS-t MT20 3.0 6.0 10 BMVW-t MT20 4.0 6.0 11 BMVW-t MT20 3.0 8.0 1.50 3.25 12 BMV1+p MT20 2.0 4.0 A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.	DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED MAXIMUM FACTORED INPUT REQRD GROSS REACTION GROSS REACTION BRG BRG JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX 12 1237 0 1260 201 -558 5-8 5-8 7 1132 0 1157 0 -491 HANGER BY OTHERS MIN. SEAT SIZE: 1-8 PROVIDE ANCHORAGE AT BEARING JOINT 12 FOR 558 LBS. FACTORED UPLIFT PROVIDE ANCHORAGE AT BEARING JOINT 7 FOR 491 LBS. FACTORED UPLIFT <div>NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES. SHALL BE PROVIDED BY BUILDG. DESIGNER</div> PROVIDE FOR 201 LBS. FACTORED HORIZONTAL REACTION AT JOINT 12 UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL 12 866 619 / 0 0 / 0 0 / 0 57 / -558 247 / 0 0 / 0 7 795 556 / 0 0 / 0 0 / 0 62 / -504 239 / 0 0 / 0 HORIZONTAL REACTIONS 12 --- 0 / 0 0 / 0 0 / 0 144 / -118 0 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 12 BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.83 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. LOADING TOTAL LOAD CASES: (11) C H O R D S W E B S MAX. FACTORED MAX. FACTORED MAX. FACTORED MEMB. FORCE VERT. LOAD LC1 MAX. MAX. MEMB. FORCE MAX. (LBS) (PLF) CSI (LC) UNBRAC (LBS) CSI (LC) FR-TO FROM TO LENGTH FR-TO 1-2 0 / 23 -77.3 -77.3 0.10 (1) 10.00 11-3 -83 / 159 0.03 (7) 2-3 -1587 / 693 -77.3 -77.3 0.52 (7) 4.83 3-10 -556 / 458 0.54 (3) 3-4 -1142 / 576 -77.3 -77.3 0.50 (7) 5.51 10-4 -290 / 649 0.26 (7) 4-5 -1142 / 584 -77.3 -77.3 0.47 (8) 5.56 10-5 -469 / 411 0.43 (4) 5-6 -1498 / 649 -77.3 -77.3 0.49 (8) 4.99 8-5 -135 / 175 0.04 (1) 12-2 -1214 / 588 0.0 0.0 0.12 (1) 7.31 2-11 -490 / 1445 0.32 (1) 7-6 -1113 / 519 0.0 0.0 0.11 (1) 7.55 8-6 -488 / 1370 0.31 (1) 12-11 -183 / 156 -17.5 -17.5 0.15 (11) 6.25 11-10 -664 / 1471 -17.5 -17.5 0.30 (1) 6.25 10-9 -459 / 1349 -17.5 -17.5 0.28 (1) 6.25 9-8 -459 / 1349 -17.5 -17.5 0.28 (1) 6.25 8-7 -11 / 23 -17.5 -17.5 0.14 (11) 6.25 WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT { 40-0-0 } FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE { MAIN WIND FORCE RESISTING SYSTEM }, INTERNAL WIND PRESSURE IS BASED ON DESIGN { CATEGORY 2 }. BUILDING MAY BE LOCATED ON { OPEN TERRAIN }, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST { 0-0 } FT-IN-SX AWAY FROM EAVE.	DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 23.3 PSF DL = 3.0 PSF BOT CH. LL = 0.0 PSF DL = 7.0 PSF TOTAL LOAD = 33.3 PSF SPACING = 24.0 IN./C THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012, BCBC 2012, ABC 2014 - CSA 086-09 - TPIC 2011 (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL)= L/360 (0.80") CALCULATED VERT. DEFL.(LL) = L/ 999 (0.06") ALLOWABLE DEFL.(TL)= L/360 (0.80") CALCULATED VERT. DEFL.(TL) = L/ 999 (0.11") CSI: TC=0.52 (2-3:7) , BC=0.30 (10-11:1) , WB=0.54 (3-10:3) , SSI=0.21 (2-3:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10 COMPANION LIVE LOAD FACTOR = 0.50 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 822 2284 1656 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.89 (8) (INPUT = 0.90) JSI METAL= 0.48 (6) (INPUT = 1.00)
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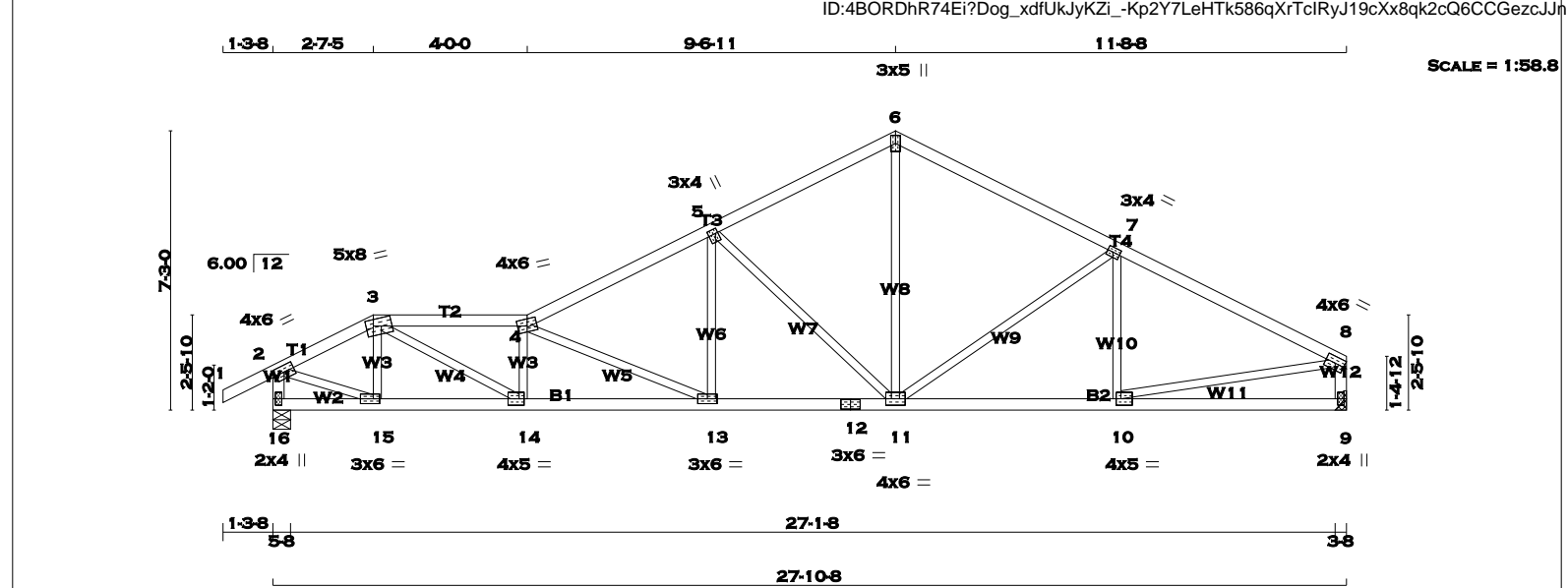


March 10, 2017



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
CHORDS	SIZE	LUMBER	DESCR.	BEARINGS				SPECIFIED LOADS:			
1 - 3	2x4	DRY	No.2	FACTORED	MAXIMUM FACTORED	INPUT	REQRD	TOP CH.	LL =	23.3	PSF
3 - 4	2x4	DRY	No.2	GROSS REACTION	GROSS REACTION	BRG	BRG	DL =	3.0	PSF	
4 - 6	2x4	DRY	No.2	JT	VERT	HORZ	DOWN	BOT CH.	LL =	0.0	PSF
6 - 8	2x4	DRY	No.2	16	1427	0	1461	DL =	7.0	PSF	
16 - 2	2x4	DRY	No.2	9	1322	0	1347	TOTAL LOAD =	33.3	PSF	
9 - 8	2x4	DRY	No.2								
16 - 12	2x4	DRY	No.2								
12 - 9	2x4	DRY	No.2								

ALL WEBS 2x3 DRY No.2 SPF				PROVIDE ANCHORAGE AT BEARING JOINT 16 FOR 673 LBS. FACTORED UPLIFT				SPACING = 24.0 IN./C			
EXCEPT				PROVIDE ANCHORAGE AT BEARING JOINT 9 FOR 553 LBS. FACTORED UPLIFT				LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 6.00/12			
DRY: SEASONED LUMBER.				NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES. SHALL BE PROVIDED BY BUILDG. DESIGNER				THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010			
				PROVIDE FOR 201 LBS. FACTORED HORIZONTAL REACTION AT JOINT 16				THIS DESIGN COMPLIES WITH:			
				UNFACTORED REACTIONS				- PART 9 OF OBC 2012, BCBC 2012, ABC 2014			
				TOTAL LOAD CASES: (11)				- CSA 086-09			
								- TPIC 2011			
								(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD			
								ALLOWABLE DEFL.(LL)= L/360 (0.93")			
								CALCULATED VERT. DEFL.(LL) = L/ 999 (0.15")			
								ALLOWABLE DEFL.(TL)= L/360 (0.93")			
								CALCULATED VERT. DEFL.(TL) = L/ 999 (0.27")			
								CSI: TC=0.50 (7-8:8), BC=0.56 (13-14:1), WB=0.79 (5-11:3), SSI=0.20 (7-8:1)			
								DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10			
								COMPANION LIVE LOAD FACTOR = 0.50			
								TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .			
								NAIL VALUES			
								PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)			
								MAX MIN MAX MIN MAX MIN			
								MT20 618 354 1667 822 2284 1656			
								PLATE PLACEMENT TOL. = 0.250 inches			
								PLATE ROTATION TOL. = 5.0 Deg.			
								JSI GRIP= 0.90 (13) (INPUT = 0.90)			
								JSI METAL= 0.51 (12) (INPUT = 1.00)			

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.				WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN) OR (URBAN) BUT MUST BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM NEARBY OBSTACLES.			
A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.							

PLATES (table is in inches)							CHORDS							
JT	TYPE	PLATES	W	LEN	Y	X	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
2	TMVW-t	MT20	4.0	6.0	2.00	2.75	FR-TO	0 / 23	-77.3	-77.3 0.10 (1)	10.00	15-3	-396 / 224	0.06 (1)
3	TTWW-m	MT20	5.0	8.0	2.00	2.25	2-3	-1697 / 782	-77.3	-77.3 0.19 (7)	5.08	3-14	-757 / 1828	0.40 (1)
4	TTWW-m	MT20	4.0	6.0	2.25	3.00	3-4	-3096 / 1394	-77.3	-77.3 0.34 (7)	3.81	14-4	-841 / 438	0.13 (1)
5	TMVW-t	MT20	3.0	4.0	1.50	0.75	4-5	-2274 / 1022	-77.3	-77.3 0.40 (7)	4.33	4-13	-1195 / 619	0.55 (1)
6	TTW+p	MT20	3.0	5.0			5-6	-1497 / 727	-77.3	-77.3 0.36 (7)	5.15	13-5	-199 / 589	0.13 (1)
7	TMVW-t	MT20	3.0	4.0	1.50	1.75	6-7	-1508 / 745	-77.3	-77.3 0.49 (8)	4.99	5-11	-1025 / 640	0.79 (3)
8	TMVW-t	MT20	4.0	6.0		Edge	7-8	-1808 / 750	-77.3	-77.3 0.50 (8)	4.61	11-6	-468 / 1011	0.42 (7)
9	BMV1+p	MT20	2.0	4.0			16-2	-1447 / 687	0.0	0.0 0.14 (1)	6.84	11-7	-418 / 393	0.39 (4)
10	BMVW-t	MT20	4.0	5.0	2.00	1.50	9-8	-1303 / 581	0.0	0.0 0.13 (1)	7.12	10-7	-186 / 193	0.05 (1)
11	BMVW-t	MT20	4.0	6.0			16-15	-183 / 156	-17.5	-17.5 0.04 (11)	6.25	2-15	-631 / 1581	0.35 (1)
12	BS-t	MT20	3.0	6.0			15-14	-770 / 1528	-17.5	-17.5 0.28 (1)	6.25	10-8	-580 / 1659	0.37 (1)
13	BMVW-t	MT20	3.0	6.0			14-13	-1452 / 3166	-17.5	-17.5 0.56 (1)	5.42			
14	BMVW-t	MT20	4.0	5.0	2.00	1.50	13-12	-889 / 2078	-17.5	-17.5 0.38 (1)	6.25			
15	BMVW-t	MT20	3.0	6.0	1.50	2.00	12-11	-889 / 2078	-17.5	-17.5 0.38 (1)	6.25			
16	BMV1+p	MT20	2.0	4.0			11-10	-549 / 1633	-17.5	-17.5 0.32 (1)	6.25			
							10-9	-11 / 23	-17.5	-17.5 0.14 (11)	6.25			

JT COMBINED				SNOW		LIVE		PERM.LIVE		WIND		DEAD		SOIL	
16	999	712 / 0		0 / 0		0 / 0	85 / -665	287 / 0		0 / 0					
9	928	649 / 0		0 / 0		0 / 0	62 / -574	279 / 0		0 / 0					
HORIZONTAL REACTIONS															
16	---		0 / 0			0 / 0	144 / -118	0 / 0		0 / 0					
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 16															
BRACING															
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.81 FT.															
MAX. UNBRACED BOTTOM CHORD LENGTH = 5.42 FT. OR RIGID CEILING DIRECTLY APPLIED.															
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.															
LOADING															

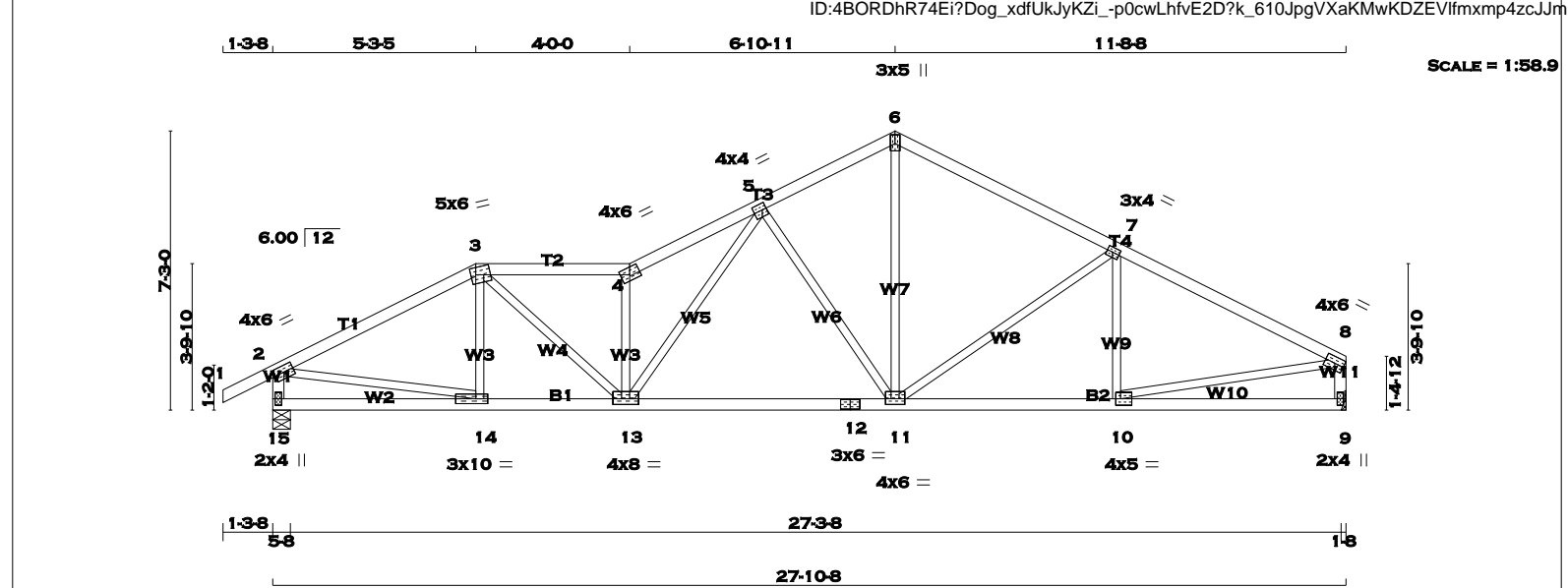
THIS DESIGN COMPLIES WITH:															
- PART 9 OF OBC 2012, CBC 2012, ABC 2014															
- CSA 086-09															
- TPIC 2011															
(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD															
ALLOWABLE DEFL.(LL)= L/360 (0.93")															
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.15")															
ALLOWABLE DEFL.(TL)= L/360 (0.93")															
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.27")															
CSI: TC=0.50 (7-8:8), BC=0.56 (13-14:1),															
WB=0.79 (5-11:3), SSI=0.20 (7-8:1)															

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.				WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN) OR (URBAN) BUT MUST BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM NEARBY OBSTACLES.			
A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.							

March 10, 2017

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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LUMBER
N. L. G. A. RULES
CHORDS SIZE LUMBER DESCR.
1 - 3 2x4 DRY No.2 SPF
3 - 4 2x4 DRY No.2 SPF
4 - 6 2x4 DRY No.2 SPF
6 - 8 2x4 DRY No.2 SPF
15 - 2 2x4 DRY No.2 SPF
9 - 8 2x4 DRY No.2 SPF
15 - 12 2x4 DRY No.2 SPF
12 - 9 2x4 DRY No.2 SPF
ALL WEBS 2x3 DRY No.2 SPF
EXCEPT
DRY: SEASONED LUMBER.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER
BEARINGS
FACTORED MAXIMUM FACTORED INPUT REQD
GROSS REACTION GROSS REACTION BRG BRG
JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX
15 1427 0 1461 201 -673 5-8 5-8
9 1322 0 1347 0 -553 HANGER BY OTHERS
MIN. SEAT SIZE: 1-8
PROVIDE ANCHORAGE AT BEARING JOINT 15 FOR 673 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 9 FOR 553 LBS. FACTORED UPLIFT
NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES. SHALL BE PROVIDED BY BUILDG. DESIGNER
PROVIDE FOR 201 LBS. FACTORED HORIZONTAL REACTION AT JOINT 15
UNFACTORED REACTIONS
1ST LCASE MAX./MIN. COMPONENT REACTIONS
JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL
15 999 712 / 0 0 / 0 0 / 0 85 / -665 287 / 0 0 / 0
9 928 649 / 0 0 / 0 0 / 0 62 / -574 279 / 0 0 / 0
HORIZONTAL REACTIONS
15 --- 0 / 0 0 / 0 0 / 0 144 / -118 0 / 0 0 / 0
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 15
BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.13 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.
LOADING
TOTAL LOAD CASES: (11)
C H O R D S W E B S
MAX. FACTORED MAX. FACTORED MAX. FACTORED
MEMB. FORCE VERT. LOAD LC1 MAX. MAX. MEMB. FORCE MAX.
(LBS) (PLF) CSI (LC) UNBRAC (LBS) CSI (LC)
FR-TO FROM TO LENGTH FR-TO
1-2 0 / 23 -77.3 -77.3 0.10 (1) 10.00 14-3 -176 / 154 0.04 (1)
2-3 -1871 / 838 -77.3 -77.3 0.45 (7) 4.64 3-13 -358 / 954 0.21 (1)
3-4 -2381 / 1101 -77.3 -77.3 0.30 (7) 4.32 13-4 -1478 / 788 0.33 (1)
4-5 -2697 / 1306 -77.3 -77.3 0.32 (7) 4.13 13-5 -571 / 1117 0.40 (7)
5-6 -1498 / 744 -77.3 -77.3 0.24 (7) 5.27 5-11 -872 / 591 0.59 (3)
6-7 -1513 / 742 -77.3 -77.3 0.49 (8) 4.98 11-6 -506 / 1058 0.45 (7)
7-8 -1806 / 751 -77.3 -77.3 0.50 (8) 4.61 11-7 -409 / 397 0.38 (4)
15-2 -1420 / 701 0.0 0.0 0.14 (1) 6.89 10-7 -194 / 188 0.05 (1)
9-8 -1301 / 582 0.0 0.0 0.13 (1) 7.12 2-14 -614 / 1683 0.37 (1)
15-14 -183 / 156 -17.5 -17.5 0.11 (11) 6.25
14-13 -781 / 1696 -17.5 -17.5 0.30 (1) 6.25
13-12 -749 / 1820 -17.5 -17.5 0.38 (1) 6.25
12-11 -749 / 1820 -17.5 -17.5 0.38 (1) 6.25
11-10 -550 / 1631 -17.5 -17.5 0.36 (1) 6.25
10-9 -11 / 23 -17.5 -17.5 0.13 (11) 6.25
WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT { 40-0-0 } FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE { MAIN WIND FORCE RESISTING SYSTEM }. INTERNAL WIND PRESSURE IS BASED ON DESIGN { CATEGORY 2 }. BUILDING MAY BE LOCATED ON { OPEN TERRAIN }, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST { 0-0 } FT-IN-SX AWAY FROM LIVE

DESIGN CRITERIA
SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF
SPACING = 24.0 IN./C

LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.93")
CALCULATED VERT. DEFL.(LL) = L/999 (0.13")
ALLOWABLE DEFL.(TL)= L/360 (0.93")
CALCULATED VERT. DEFL.(TL) = L/999 (0.25")

CSI: TC=0.50 (7-8:8), BC=0.38 (11-13:1), WB=0.59 (5-11:3), SSI=0.20 (7-8:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

PLATES (table is in inches)
JT TYPE PLATES W LEN Y X
2 TMVW-t MT20 4.0 6.0 2.00 3.00
3 TTWW-m MT20 5.0 6.0 2.25 1.50
4 TTW-h MT20 4.0 6.0 2.25 3.25
5 TMWW-t MT20 4.0 4.0 2.00 1.25
6 TTW+p MT20 3.0 5.0 2.75 1.50
7 TMWW-t MT20 3.0 4.0 1.50 1.75
8 TMVW-t MT20 4.0 6.0 Edge
9 BMV1+p MT20 2.0 4.0
10 BMWW-t MT20 4.0 5.0 2.00 1.50
11 BMWWW-t MT20 4.0 6.0 1.75 3.00
12 BS-t MT20 3.0 6.0
13 BMWWW-t MT20 4.0 8.0 1.75 4.00
14 BMWW-t MT20 3.0 10.0 1.50 3.75
15 BMV1+p MT20 2.0 4.0

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

CHORDS	WEBS
MAX. FACTORED	MAX. FACTORED
MEMB. FORCE (LBS)	MEMB. FORCE (LBS)
FR-TO	FR-TO
1-2 0 / 23 -77.3 -77.3 0.10 (1) 10.00 14-3 -176 / 154 0.04 (1)	
2-3 -1871 / 838 -77.3 -77.3 0.45 (7) 4.64 3-13 -358 / 954 0.21 (1)	
3-4 -2381 / 1101 -77.3 -77.3 0.30 (7) 4.32 13-4 -1478 / 788 0.33 (1)	
4-5 -2697 / 1306 -77.3 -77.3 0.32 (7) 4.13 13-5 -571 / 1117 0.40 (7)	
5-6 -1498 / 744 -77.3 -77.3 0.24 (7) 5.27 5-11 -872 / 591 0.59 (3)	
6-7 -1513 / 742 -77.3 -77.3 0.49 (8) 4.98 11-6 -506 / 1058 0.45 (7)	
7-8 -1806 / 751 -77.3 -77.3 0.50 (8) 4.61 11-7 -409 / 397 0.38 (4)	
15-2 -1420 / 701 0.0 0.0 0.14 (1) 6.89 10-7 -194 / 188 0.05 (1)	
9-8 -1301 / 582 0.0 0.0 0.13 (1) 7.12 2-14 -614 / 1683 0.37 (1)	
15-14 -183 / 156 -17.5 -17.5 0.11 (11) 6.25	
14-13 -781 / 1696 -17.5 -17.5 0.30 (1) 6.25	
13-12 -749 / 1820 -17.5 -17.5 0.38 (1) 6.25	
12-11 -749 / 1820 -17.5 -17.5 0.38 (1) 6.25	
11-10 -550 / 1631 -17.5 -17.5 0.36 (1) 6.25	
10-9 -11 / 23 -17.5 -17.5 0.13 (11) 6.25	

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT { 40-0-0 } FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE { MAIN WIND FORCE RESISTING SYSTEM }. INTERNAL WIND PRESSURE IS BASED ON DESIGN { CATEGORY 2 }. BUILDING MAY BE LOCATED ON { OPEN TERRAIN }, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST { 0-0 } FT-IN-SX AWAY FROM LIVE

March 10, 2017

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

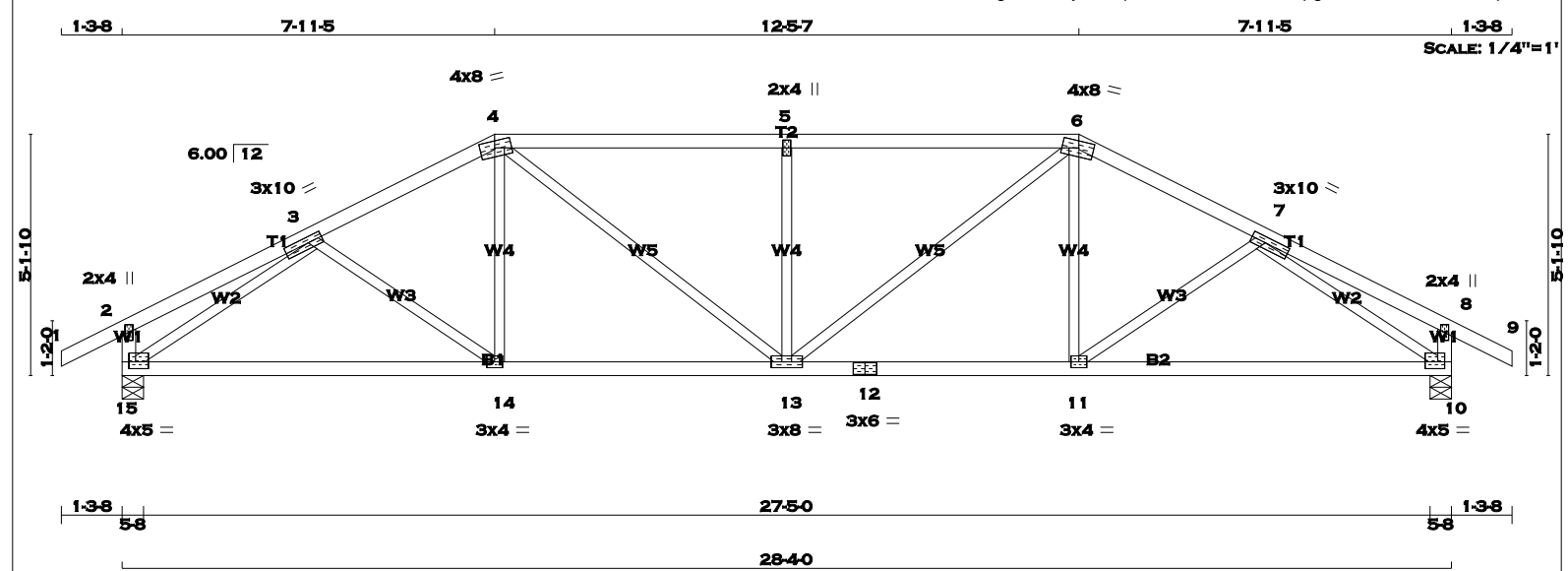
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MAR 29, 2017

17-4978

BUILDING DIVISION



LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

SPF

SPF

SPF

SPF

SPF

SPF

SPF

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

DRY: SEASONED LUMBER.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

FACTORED

MAXIMUM FACTORED

INPUT

REQRD

GROSS REACTION

GROSS REACTION

BRG

BRG

DOWN

HORZ

UPLIFT

IN-SX

IN-SX

15

1449

0

1493

-144

-732

5-8

5-8

10

1449

0

1459

0

-732

5-8

5-8

PROVIDE ANCHORAGE AT BEARING JOINT 15 FOR 732 LBS. FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT 10 FOR 732 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES. SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 144 LBS. FACTORED HORIZONTAL REACTION AT JOINT 15

UNFACTORED REACTIONS

1ST LCASE

MAX./MIN. COMPONENT REACTIONS

JT

COMBINED

SNOW

LIVE

PERM.LIVE

WIND

DEAD

SOIL

15

1014

723 / 0

0 / 0

0 / 0

112 / -710

291 / 0

0 / 0

10

1014

723 / 0

0 / 0

0 / 0

27 / -710

291 / 0

0 / 0

HORIZONTAL REACTIONS

15

0 / 0

0 / 0

0 / 0

103 / -103

0 / 0

0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 15, 10

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.28 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

CHORDS

MAX. FACTORED

FACTORED

VERT. LOAD

LC1

MAX

MAX.

MEMB.

FORCE

(LBS)

(PLF)

CSI (LC)

UNBRAC

LENGTH

FR-TO

MEMB.

FORCE

(LBS)

MAX

CSI (LC)

1-2

0 / 23

-77.3

-77.3

0.10 (1)

10.00

3-14

-37 / 225

0.04 (7)

2-3

-9 / 118

-77.3

-77.3

0.18 (7)

10.00

14-4

-20 / 171

0.05 (11)

3-4

-1879 / 972

-77.3

-77.3

0.30 (7)

4.82

4-13

-409 / 558

0.50 (8)

4-5

-2114 / 1142

-77.3

-77.3

0.51 (7)

4.28

13-5

-622 / 481

0.23 (3)

5-6

-2114 / 1142

-77.3

-77.3

0.51 (7)

4.28

13-6

-409 / 586

0.50 (7)

6-7

-1859 / 972

-77.3

-77.3

0.30 (8)

4.83

11-6

-21 / 177

0.05 (11)

7-8

-9 / 118

-77.3

-77.3

0.19 (8)

10.00

11-7

-48 / 225

0.04 (8)

8-9

0 / 23

-77.3

-77.3

0.10 (1)

10.00

15-3

-2064 / 962

0.78 (1)

15-2

-235 / 213

0.0

0.0

0.03 (7)

7.81

7-10

-2046 / 962

0.78 (1)

10-8

-234 / 213

0.0

0.0

0.03 (8)

7.81

15-14

-887 / 1712

-17.5

-17.5

0.40 (1)

6.25

14-13

-704 / 1686

-17.5

-17.5

0.40 (1)

6.25

13-12

-601 / 1663

-17.5

-17.5

0.40 (1)

6.25

12-11

-601 / 1663

-17.5

-17.5

0.40 (1)

6.25

11-10

-766 / 1665

-17.5

-17.5

0.40 (1)

6.25

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT { 40-0-0 } FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE { MAIN WIND FORCE RESISTING SYSTEM }. INTERNAL WIND PRESSURE IS BASED ON DESIGN { CATEGORY 2 }. BUILDING MAY BE LOCATED ON { OPEN TERRAIN }, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST { 0-0 } FT-IN-SX AWAY FROM EAVE.

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT { 40-0-0 } FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE { MAIN WIND FORCE RESISTING SYSTEM }. INTERNAL WIND PRESSURE IS BASED ON DESIGN { CATEGORY 2 }. BUILDING MAY BE LOCATED ON { OPEN TERRAIN }, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST { 0-0 } FT-IN-SX AWAY FROM EAVE.

CS

TC=0.51 (4-5:7) , BC=0.40 (10-11:1) , WB=0.78 (3-15:1) , SSI=0.23 (4-5:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (6) (INPUT = 0.90) JSI METAL= 0.50 (15) (INPUT = 1.00)

TOTAL WEIGHT = 2 X 110 = 221 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

SPF

SPF

SPF

SPF

SPF

SPF

SPF

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT

TYPE

PLATES

W

LEN

Y

X

2

TMV+p

MT20

2.0

4.0

3

TMVW-t

MT20

3.0

10.0

1.50

3.75

4

TTWW-m

MT20

4.0

8.0

1.75

3.75

5

TMW+w

MT20

2.0

4.0

6

TTWW-m

MT20

4.0

8.0

1.75

3.75

7

TMVW-t

MT20

3.0

10.0

1.50

3.75

8

TMV+p

MT20

2.0

4.0

10

BMVW1-t

MT20

4.0

5.0

1.75

1.75

11

BMVW-t

MT20

3.0

4.0

12

BS-t

MT20

3.0

6.0

13

BMVW-t

MT20

3.0

8.0

14

BMVW-t

MT20

3.0

4.0

15

BMVW1-t

MT20

4.0

5.0

1.75

1.75

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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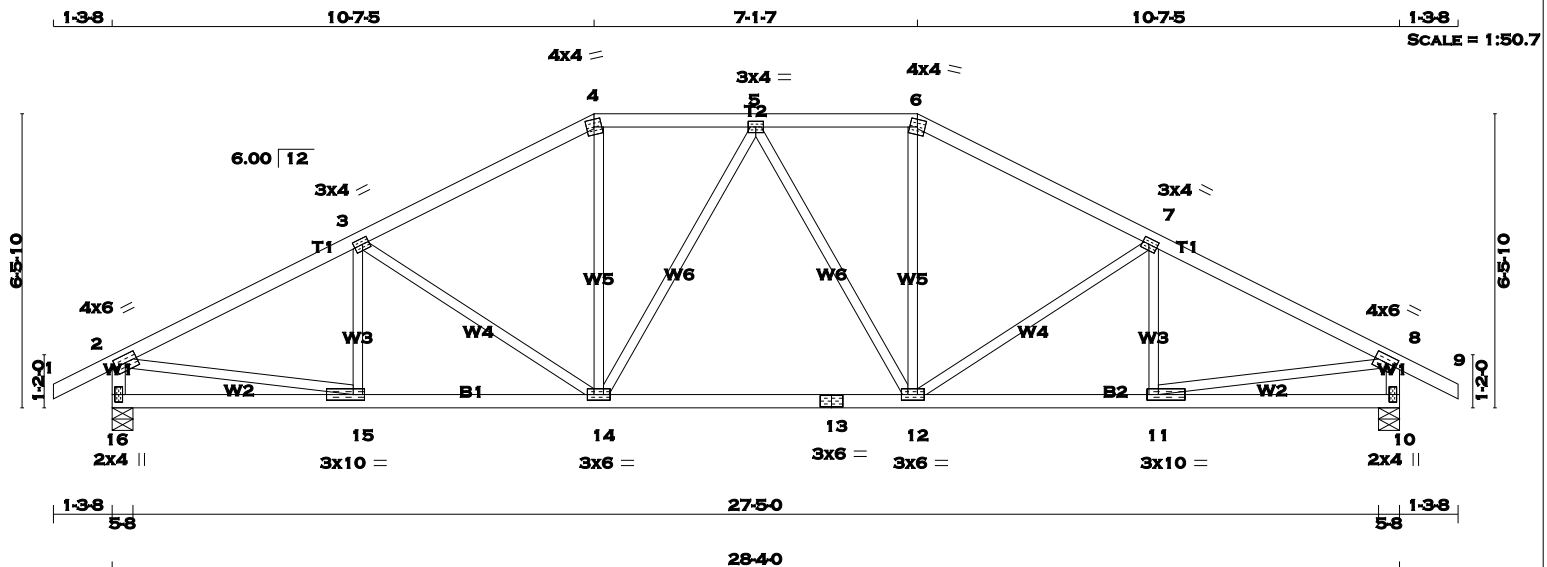
LICENSED PROFESSIONAL ENGINEER

T.L. WISE

100083566

PROVINCE OF ONTARIO

March 10, 2017



TOTAL WEIGHT = 2 X 117 = 234 lb
[M][F]

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE		LUMBER	DESCR.
1 - 4	2x4	DRY	No.2	SPF
4 - 6	2x4	DRY	No.2	SPF
6 - 9	2x4	DRY	No.2	SPF
16- 2	2x4	DRY	No.2	SPF
10- 8	2x4	DRY	No.2	SPF
16- 13	2x4	DRY	No.2	SPF
13- 10	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-t	MT20	4.0	6.0	2.00	2.75
3	TMVW-t	MT20	3.0	4.0	1.50	1.75
4	TTW-m	MT20	4.0	4.0		
5	TMVW-t	MT20	3.0	4.0		
6	TTW-m	MT20	4.0	4.0		
7	TMVW-t	MT20	3.0	4.0	1.50	1.75
8	TMVW-t	MT20	4.0	6.0	2.00	2.75
10	BMV1+p	MT20	2.0	4.0		
11	BMVW-t	MT20	3.0	10.0	1.50	3.00
12	BMVW-t	MT20	3.0	6.0		
13	BS-t	MT20	3.0	6.0		
14	BMVW-t	MT20	3.0	6.0		
15	BMVW-t	MT20	3.0	10.0	1.50	3.00
16	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MI TEK MII20 WITH TEE-LOG TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
16	1449	0	1487	-170	-703	5-8	5-8
10	1449	0	1467	0	-703	5-8	5-8

PROVIDE ANCHORAGE AT BEARING JOINT 16 FOR 703 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 10 FOR 703 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES.
SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 170 LBS. FACTORED HORIZONTAL REACTION AT JOINT 16

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
16	1014	723 / 0	0 / 0	0 / 0	96 / -689	291 / 0
10	1014	723 / 0	0 / 0	0 / 0	47 / -689	291 / 0

HORIZONTAL REACTIONS						
16	---	0 / 0	0 / 0	0 / 0	121 / -121	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 16, 10

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.56 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX UNBRACED LENGTH	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO		FR-TO			
1-2	0 / 23	-77.3 -77.3	0.10 (1)	10.00	15-3	-189 / 190	0.04 (1)
2-3	-1972 / 942	-77.3 -77.3	0.45 (7)	4.56	3-14	-362 / 345	0.26 (3)
3-4	-1694 / 870	-77.3 -77.3	0.44 (7)	4.86	14-4	-206 / 473	0.14 (8)
4-5	-1507 / 849	-77.3 -77.3	0.23 (7)	5.28	14-5	-201 / 235	0.19 (4)
5-6	-1490 / 849	-77.3 -77.3	0.23 (8)	5.30	5-12	-215 / 235	0.20 (3)
6-7	-1681 / 870	-77.3 -77.3	0.44 (8)	4.86	12-6	-205 / 478	0.14 (7)
7-8	-1938 / 942	-77.3 -77.3	0.45 (8)	4.56	12-7	-367 / 345	0.26 (4)
8-9	0 / 23	-77.3 -77.3	0.10 (1)	10.00	11-7	-186 / 190	0.04 (1)
16-2	-1445 / 728	0.0 0.0	0.14 (1)	6.85	2-15	-727 / 1795	0.39 (1)
10-8	-1425 / 728	0.0 0.0	0.14 (1)	6.87	11-8	-727 / 1781	0.39 (1)
16-15	-152 / 174	-17.5 -17.5	0.10 (11)	6.25			
15-14	-858 / 1814	-17.5 -17.5	0.36 (1)	6.25			
14-13	-612 / 1609	-17.5 -17.5	0.33 (1)	6.25			
13-12	-612 / 1609	-17.5 -17.5	0.33 (1)	6.25			
12-11	-702 / 1760	-17.5 -17.5	0.36 (1)	6.25			
11-10	-9 / 18	-17.5 -17.5	0.10 (11)	10.00			

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpG, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM LIVE

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.94")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (0.94")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.17")

CSI: TC=0.45 (7-8:8), BC=0.36 (14-15:1), WB=0.39 (2-15:1), SSI=0.18 (2-3:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (11) (INPUT = 0.90)
JSI METAL= 0.53 (8) (INPUT = 1.00)

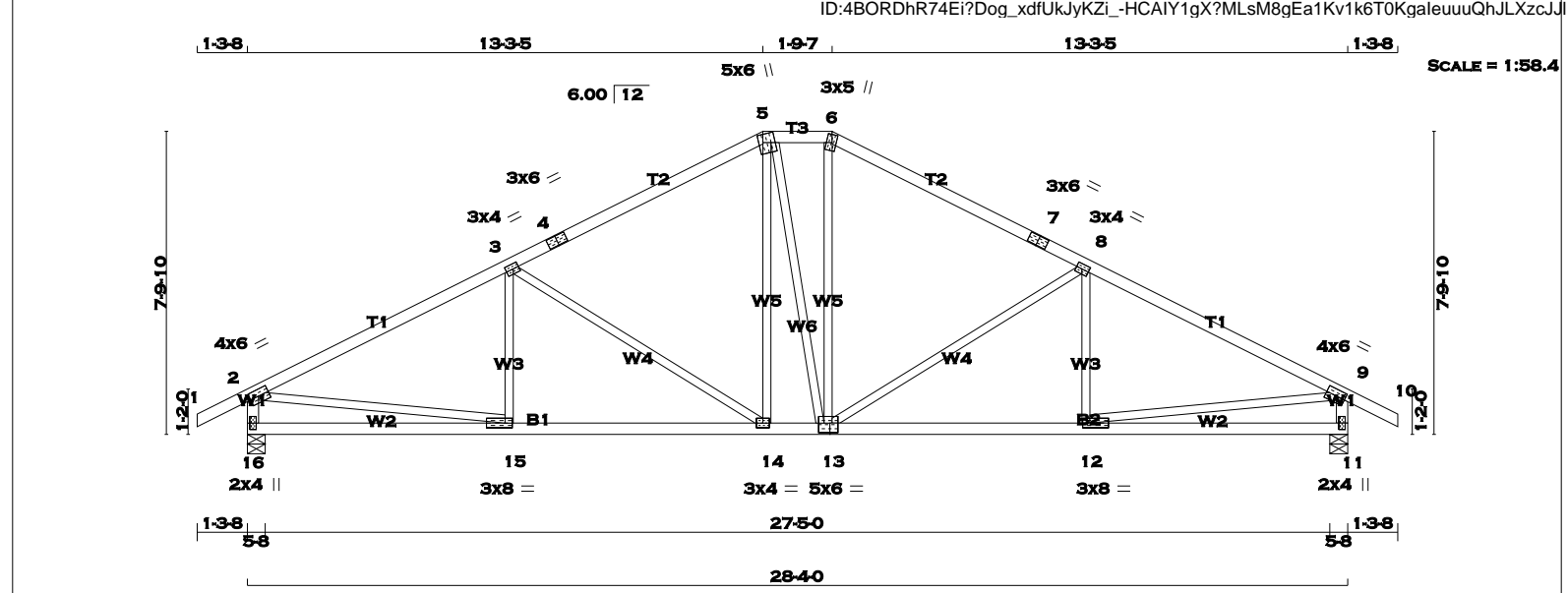


March 10, 2017



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TOTAL WEIGHT = 2 X 120 = 241 lb

LUMBER				N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.	CHORDS	SIZE	LUMBER	DESCR.
1 - 4	2x4	DRY	No.2	1 - 4	2x4	DRY	No.2
4 - 5	2x4	DRY	No.2	4 - 5	2x4	DRY	No.2
5 - 6	2x4	DRY	No.2	5 - 6	2x4	DRY	No.2
6 - 7	2x4	DRY	No.2	6 - 7	2x4	DRY	No.2
7 - 10	2x4	DRY	No.2	7 - 10	2x4	DRY	No.2
16 - 2	2x4	DRY	No.2	16 - 2	2x4	DRY	No.2
11 - 9	2x4	DRY	No.2	11 - 9	2x4	DRY	No.2
16 - 13	2x4	DRY	No.2	16 - 13	2x4	DRY	No.2
13 - 11	2x4	DRY	No.2	13 - 11	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2	ALL WEBS	2x3	DRY	No.2
EXCEPT				EXCEPT			

DRY: SEASONED LUMBER.

PLATES (table is in inches)							
JT	TYPE	PLATES	W	LEN	Y	X	
2	TMVW-t	MT20	4.0	6.0	2.00	2.75	
3	TMVW-t	MT20	3.0	4.0	1.50	1.75	
4	TS-t	MT20	3.0	6.0			
5	TTWW+m	MT20	5.0	6.0	2.50	1.25	
6	TTW+m	MT20	3.0	5.0	2.50	1.25	
7	TS-t	MT20	3.0	6.0			
8	TMVW-t	MT20	3.0	4.0	1.50	1.75	
9	TMVW-t	MT20	4.0	6.0	2.00	2.75	
11	BMV1+p	MT20	2.0	4.0			
12	BMVW-t	MT20	3.0	8.0	1.50	2.25	
13	BSVW-t	MT20	5.0	6.0	3.00	2.50	
14	BMVW-t	MT20	3.0	4.0			
15	BMVW-t	MT20	3.0	8.0	1.50	2.25	
16	BMV1+p	MT20	2.0	4.0			

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED				MAXIMUM FACTORED				INPUT				REQRD			
GROSS REACTION				GROSS REACTION				BRG				BRG			
JT	VERT	HORZ		JT	DOWN	HORZ	UPLIFT	IN-SX		IN-SX		JT	DOWN	HORZ	UPLIFT
16	1449	0		1479	-196	-665	5-8	5-8		5-8		16	1449	0	
11	1449	0		1474	0	-665	5-8	5-8		5-8		11	1449	0	

PROVIDE ANCHORAGE AT BEARING JOINT 16 FOR 665 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 11 FOR 665 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES.
SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 196 LBS. FACTORED HORIZONTAL REACTION AT JOINT 16

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
16	1014	723 / 0	0 / 0	0 / 0	76 / -662	291 / 0	0 / 0
11	1014	723 / 0	0 / 0	0 / 0	64 / -662	291 / 0	0 / 0

HORIZONTAL REACTIONS							
16	---	0 / 0	0 / 0	0 / 0	140 / -140	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 16, 11

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.29 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (LBS)	MAX. FACTORED HORIZ. LOAD (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED HORIZ. LOAD (LBS)	
FR-TO		FROM	TO	FR-TO		FROM	TO
1-2	0 / 23	-77.3	-77.3 0.10 (1)	10.00	15-3	-94 / 182	0.04 (7)
2-3	-1969 / 875	-77.3	-77.3 0.63 (7)	4.29	3-14	-611 / 497	0.77 (3)
3-4	-1467 / 728	-77.3	-77.3 0.61 (7)	4.87	14-5	-215 / 385	0.24 (7)
4-5	-1467 / 728	-77.3	-77.3 0.61 (7)	4.87	5-13	-110 / 103	0.13 (8)
5-6	-1294 / 729	-77.3	-77.3 0.13 (8)	5.68	13-6	-182 / 388	0.20 (7)
6-7	-1471 / 728	-77.3	-77.3 0.61 (8)	4.87	13-8	-609 / 496	0.77 (4)
7-8	-1471 / 728	-77.3	-77.3 0.61 (8)	4.87	12-8	-96 / 184	0.04 (8)
8-9	-1959 / 875	-77.3	-77.3 0.63 (8)	4.29	2-15	-646 / 1789	0.52 (7)
9-10	0 / 23	-77.3	-77.3 0.10 (1)	10.00	12-9	-646 / 1782	0.52 (8)
16-2	-1430 / 697	0.0	0.0 0.14 (1)	6.87			
11-9	-1425 / 696	0.0	0.0 0.14 (1)	6.88			
16-15	-178 / 208	-17.5	-17.5 0.19 (11)	6.25			
15-14	-816 / 1823	-17.5	-17.5 0.37 (1)	6.25			
14-13	-400 / 1313	-17.5	-17.5 0.27 (1)	6.25			
13-12	-624 / 1768	-17.5	-17.5 0.37 (1)	6.25			
12-11	-9 / 18	-17.5	-17.5 0.19 (11)	10.00			

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM LIVE



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD	=	33.3	PSF	

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.94")
CALCULATED VERT. DEFL.(LL)= L/ 999 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (0.94")
CALCULATED VERT. DEFL.(TL)= L/ 999 (0.17")

CSI: TC=0.63 (8-9-8), BC=0.37 (14-15-1), WB=0.77 (3-14-3), SSI=0.22 (2-3-1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES					
PLATE	GRIP(DRY)	SHEAR	SECTION	(PSI)	(PLI)
MT20	618	354	1667	822	2284

PLATE PLACEMENT TOL. = 0.250 inches

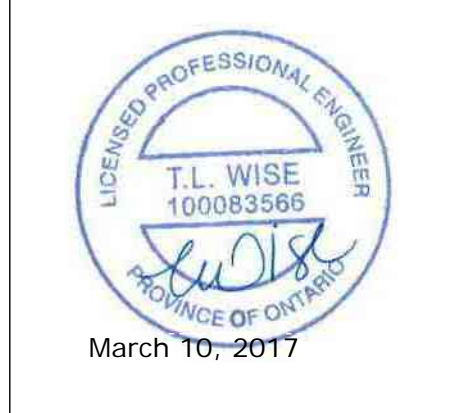
PLATE ROTATION TOL. = 5.0 Deg.

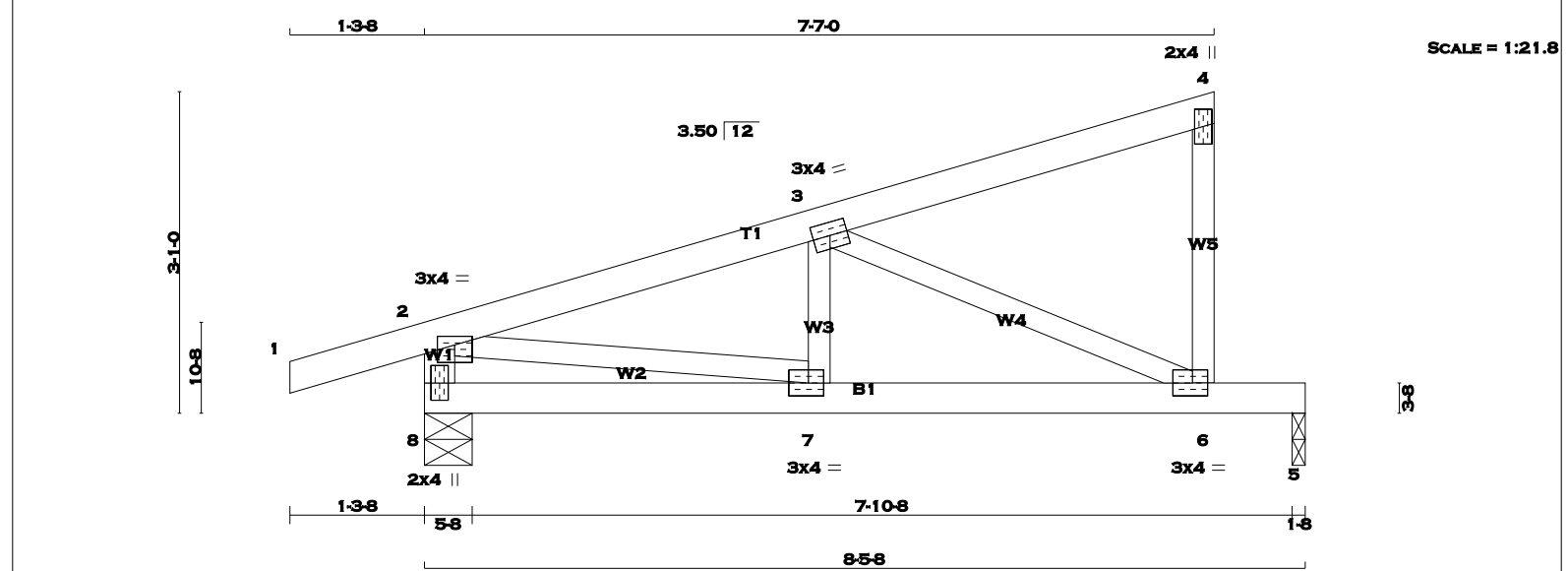
JSI GRIP= 0.89 (15) (INPUT = 0.90)
JSI METAL= 0.53 (2) (INPUT = 1.00)



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LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.	BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQRD	SPECIFIED LOADS:	
1 - 4	2x4	DRY	No.2	SPF	GROSS REACTION	DOWN	DOWN	BRG	BRG	TOP CH. LL =	23.3 PSF
6 - 4	2x3	DRY	No.2	SPF	VERT	0	501	203	-261	DL =	3.0 PSF
8 - 2	2x4	DRY	No.2	SPF	HORZ	0	337	0	-174	BOT CH. LL =	0.0 PSF
8 - 5	2x4	DRY	No.2	SPF						DL =	7.0 PSF
ALL WEBS 2x3 DRY No.2				SPF	TOTAL LOAD =				33.3 PSF		
EXCEPT					TOTAL WEIGHT =				16 X 30 = 475 lb		

LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.	BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQRD	SPECIFIED LOADS:	
1 - 4	2x4	DRY	No.2	SPF	GROSS REACTION	DOWN	DOWN	BRG	BRG	TOP CH. LL =	23.3 PSF
6 - 4	2x3	DRY	No.2	SPF	VERT	0	501	203	-261	DL =	3.0 PSF
8 - 2	2x4	DRY	No.2	SPF	HORZ	0	337	0	-174	BOT CH. LL =	0.0 PSF
8 - 5	2x4	DRY	No.2	SPF						DL =	7.0 PSF
ALL WEBS 2x3 DRY No.2				SPF	TOTAL LOAD =				33.3 PSF		
EXCEPT					TOTAL WEIGHT =				16 X 30 = 475 lb		

DRY: SEASONED LUMBER.

LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.	BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQRD	SPECIFIED LOADS:	
1 - 4	2x4	DRY	No.2	SPF	GROSS REACTION	DOWN	DOWN	BRG	BRG	TOP CH. LL =	23.3 PSF
6 - 4	2x3	DRY	No.2	SPF	VERT	0	501	203	-261	DL =	3.0 PSF
8 - 2	2x4	DRY	No.2	SPF	HORZ	0	337	0	-174	BOT CH. LL =	0.0 PSF
8 - 5	2x4	DRY	No.2	SPF						DL =	7.0 PSF
ALL WEBS 2x3 DRY No.2				SPF	TOTAL LOAD =				33.3 PSF		
EXCEPT					TOTAL WEIGHT =				16 X 30 = 475 lb		

ALL WEBS 2x3 DRY No.2

EXCEPT

DRY: SEASONED LUMBER.

DRY: SEASONED LUMBER.

DRY: SEASONED LUMBER.

DRY: SEASONED LUMBER.

DRY: SEASONED LUMBER.

DRY: SEASONED LUMBER.

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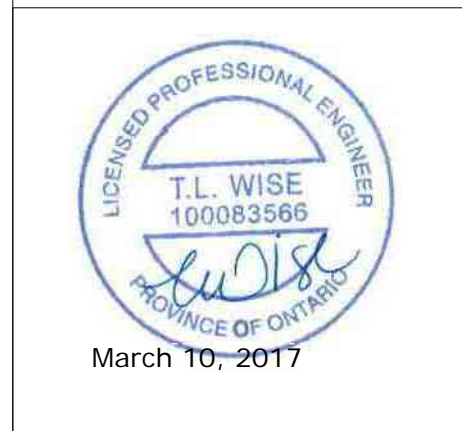
DRY: SEASONED LUMBER.

DRY: SEASONED LUMBER.

DRY: SEASONED LUMBER.

DRY: SEASONED LUMBER.

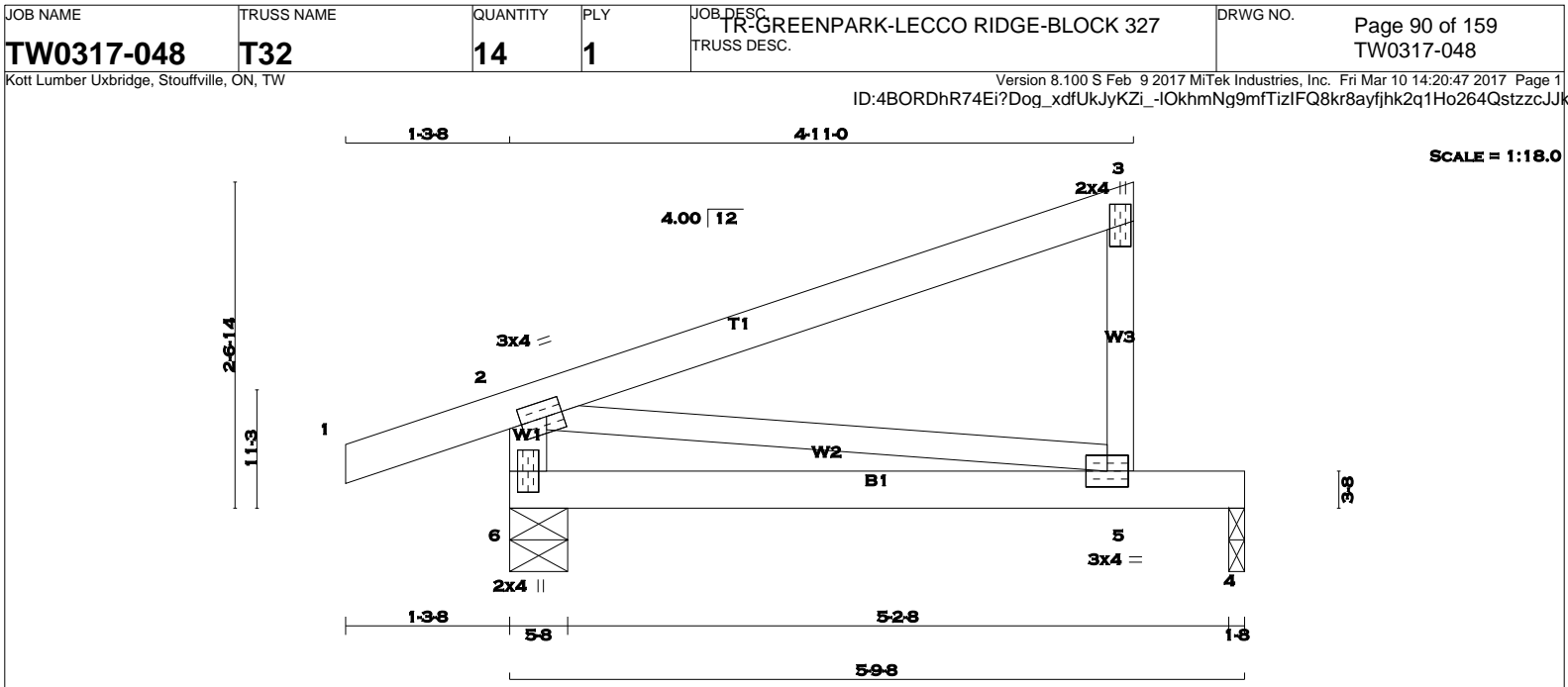
DRY: SEASONED LUMBER.



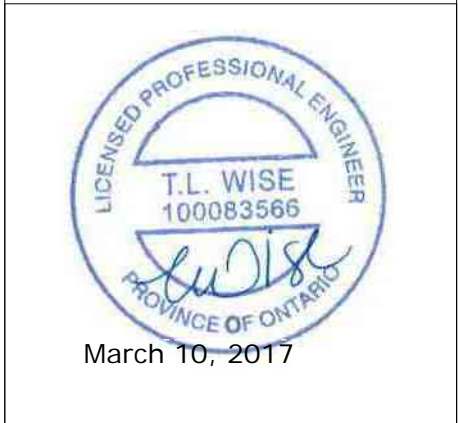
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WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF (9.0) PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS. CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. SPF 1 - 3 2x4 DRY No.2 SPF 5 - 3 2x3 DRY No.2 SPF 6 - 2 2x4 DRY No.2 SPF 6 - 4 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF DRY: SEASONED LUMBER.			DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED MAXIMUM FACTORED INPUT REQD GROSS REACTION GROSS REACTION BRG BRG JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX 6 373 0 373 175 -194 5-8 5-8 4 212 0 212 0 -109 1-8 1-8 PROVIDE ANCHORAGE AT BEARING JOINT 6 FOR 194 LBS. FACTORED UPLIFT PROVIDE ANCHORAGE AT BEARING JOINT 4 FOR 150 LBS. FACTORED UPLIFT PROVIDE FOR 175 LBS. FACTORED HORIZONTAL REACTION AT JOINT 6 UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL 6 260 194 / 0 0 / 0 0 / 0 66 / 0 0 / 0 4 150 97 / 0 0 / 0 0 / 0 53 / 0 0 / 0 HORIZONTAL REACTIONS 6 --- 0 / 0 0 / 0 0 / 0 125 / 0 0 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6, 4 BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED. LOADING TOTAL LOAD CASES: (11) CHORDS FACTORED FACTORED WEBS MEMB. FORCE VERT. LOAD LC1 MAX. MAX. MEMB. FORCE MAX. (LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO (LBS) CSI (LC) FR-TO FROM TO 1-2 0 / 16 -77.3 -77.3 0.10 (1) 10.00 2-5 0 / 136 0.03 (6) 2-3 -69 / 11 -77.3 -77.3 0.32 (1) 6.25 5-3 -190 / 158 0.0 0.0 0.10 (5) 7.81 6-2 -294 / 206 0.0 0.0 0.03 (7) 7.81 6-5 -161 / 0 -17.5 -17.5 0.25 (1) 6.25 5-4 0 / 0 -17.5 -17.5 0.24 (1) 10.00 WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT { 40-0-0 } FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE { MAIN WIND FORCE RESISTING SYSTEM }. INTERNAL WIND PRESSURE IS BASED ON DESIGN { CATEGORY 2 }. BUILDING MAY BE LOCATED ON { OPEN TERRAIN }, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST { 0-0 } FT-IN-SX AWAY FROM EAVE.			DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 23.3 PSF DL = 3.0 PSF BOT CH. LL = 0.0 PSF DL = 7.0 PSF TOTAL LOAD = 33.3 PSF SPACING = 24.0 IN./C THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014 - CSA 086-09 - TPIC 2011 (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL)= L/360 (0.19") CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05") ALLOWABLE DEFL.(TL)= L/360 (0.19") CALCULATED VERT. DEFL.(TL) = L/ 586 (0.12") CSI: TC=0.32 (2-3:1) , BC=0.25 (5-6:1) , WB=0.03 (2-5:6) , SSI=0.17 (4-5:1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10 COMPANION LIVE LOAD FACTOR = 0.50 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 822 2284 1656 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.29 (2) (INPUT = 0.90) JSI METAL= 0.08 (6) (INPUT = 1.00)		
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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

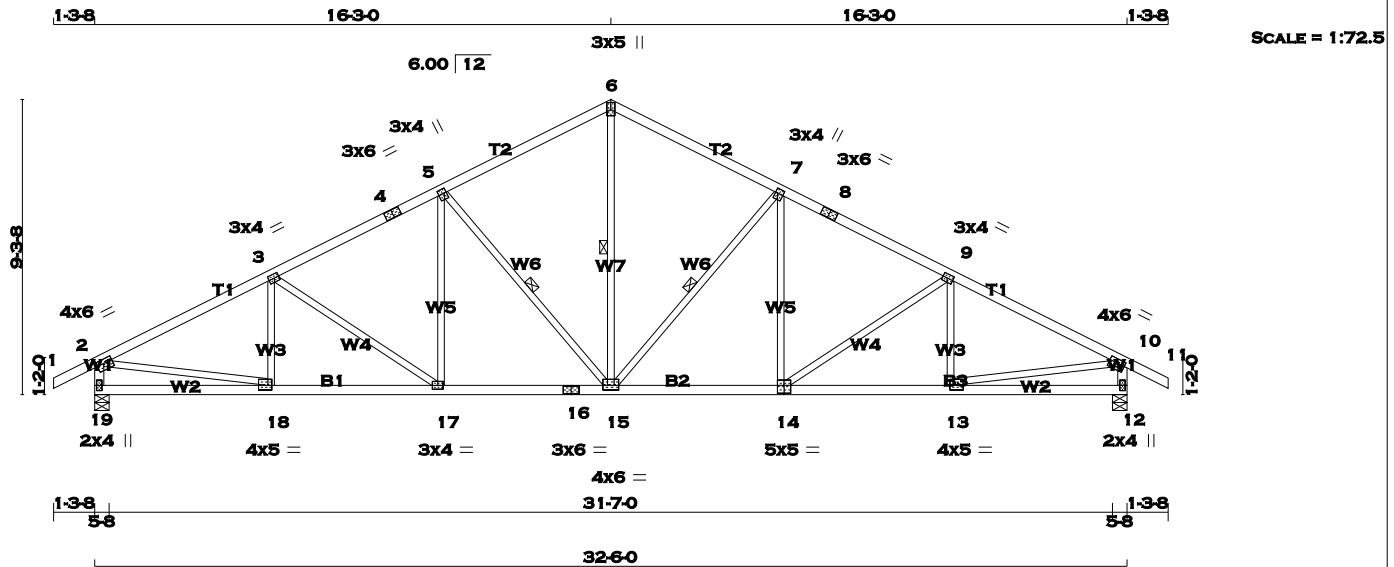
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March 10, 2017

Kott Lumber Uxbridge, Stouffville, ON, TW

Version 8.100 S Feb 9 2017 MiTek Industries, Inc. Fri Mar 10 14:20:48 2017 Page 1

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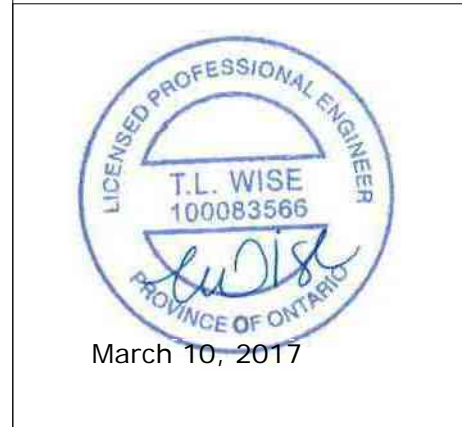


TOTAL WEIGHT = 15 X 138 = 2063 lb
[M][F]

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
1 - 4	2x4	DRY	No.2
4 - 6	2x4	DRY	No.2
6 - 8	2x4	DRY	No.2
8 - 11	2x4	DRY	No.2
19 - 2	2x4	DRY	No.2
12 - 10	2x4	DRY	No.2
19 - 16	2x4	DRY	No.2
16 - 14	2x4	DRY	No.2
14 - 12	2x4	DRY	No.2
ALL WEBS EXCEPT	2x3	DRY	No.2
SPF			
DRY: SEASONED LUMBER.			

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-t	MT20	4.0	6.0	1.50	2.75
3	TMWW-t	MT20	3.0	4.0	1.50	1.75
4	TS-t	MT20	3.0	6.0		
5	TMWW+t	MT20	3.0	4.0	1.75	0.75
6	TTW+p	MT20	3.0	5.0	2.75	1.50
7	TMWW+t	MT20	3.0	4.0	1.75	0.75
8	TS-t	MT20	3.0	6.0		
9	TMWW-t	MT20	3.0	4.0	1.50	1.75
10	TMVW-t	MT20	4.0	6.0	1.50	2.75
12	BMV1+p	MT20	2.0	4.0		
13	BMWW-t	MT20	4.0	5.0	1.75	1.50
14	BSWW-l	MT20	5.0	5.0	3.00	2.50
15	BMWWW-t	MT20	4.0	6.0	1.75	3.00
16	BS-t	MT20	3.0	6.0		
17	BMWW-t	MT20	3.0	4.0		
18	BMWW-t	MT20	4.0	5.0	1.75	1.50
19	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.



DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				
BEARINGS				
	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	UPLIFT
19	1646	0	1678	230
12	1646	0	1678	0
			-738	-738
			5-8	5-8
			5-8	5-8
PROVIDE ANCHORAGE AT BEARING JOINT 19 FOR 738 LBS. FACTORED UPLIFT				
PROVIDE ANCHORAGE AT BEARING JOINT 12 FOR 738 LBS. FACTORED UPLIFT				
NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES. SHALL BE PROVIDED BY BUILDG. DESIGNER				

PROVIDE FOR 230 LBS. FACTORED HORIZONTAL REACTION AT JOINT 19

UNFACTORED REACTIONS						
JT	1ST LCASE COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
19	1153	820 / 0	0 / 0	0 / 0	81 / -741	333 / 0
12	1153	820 / 0	0 / 0	0 / 0	81 / -741	333 / 0

HORIZONTAL REACTIONS						
19	---	0 / 0	0 / 0	0 / 0	165 / -165	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 19, 12

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-15, 7-15, 5-15. DBS = 20-0-0 . CBF = 79 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING				
TOTAL LOAD CASES: (11)				
CHORDS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO		
1-2	0 / 23	-77.3	-77.3 0.10 (1)	10.00
2-3	-2290 / 990	-77.3	-77.3 0.41 (7)	4.25
3-4	-2060 / 952	-77.3	-77.3 0.41 (7)	4.50
4-5	-2060 / 952	-77.3	-77.3 0.41 (7)	4.50
5-6	-1611 / 830	-77.3	-77.3 0.37 (7)	4.96
6-7	-1611 / 830	-77.3	-77.3 0.37 (8)	4.96
7-8	-2060 / 952	-77.3	-77.3 0.41 (8)	4.50
8-9	-2060 / 952	-77.3	-77.3 0.41 (8)	4.50
9-10	-2290 / 990	-77.3	-77.3 0.41 (8)	4.25
10-11	0 / 23	-77.3	-77.3 0.10 (1)	10.00
19-2	-1636 / 764	0.0	0.0 0.16 (1)	6.52
12-10	-1636 / 764	0.0	0.0 0.16 (1)	6.52
19-18	-213 / 247	-17.5	-17.5 0.12 (11)	6.25
18-17	-969 / 2110	-17.5	-17.5 0.37 (1)	6.25
17-16	-732 / 1877	-17.5	-17.5 0.35 (1)	6.25
16-15	-732 / 1877	-17.5	-17.5 0.35 (1)	6.25
15-14	-556 / 1839	-17.5	-17.5 0.35 (1)	6.25
14-13	-739 / 2046	-17.5	-17.5 0.37 (1)	6.25
13-12	-9 / 18	-17.5	-17.5 0.12 (11)	10.00

DESIGN CRITERIA			
SPECIFIED LOADS:			
TOP CH.	LL	=	23.3 PSF
	DL	=	3.0 PSF
BOT CH.	LL	=	0.0 PSF
	DL	=	7.0 PSF
TOTAL LOAD	=	33.3	PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.08")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.11")
ALLOWABLE DEFL.(TL)= L/360 (1.08")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.21")

CSI: TC=0.41 (9-10:8) , BC=0.37 (13-14:1) , WB=0.46 (10-13:1) , SSI=0.18 (9-10:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES					
PLATE	GRIP(DRY)	SHEAR	SECTION		
	(PSI)	(PLI)	(PLI)		
	MAX	MIN	MAX	MIN	MAX
MT20	618	354	1667	822	2284

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (13) (INPUT = 0.90)
JSI METAL= 0.62 (18) (INPUT = 1.00)

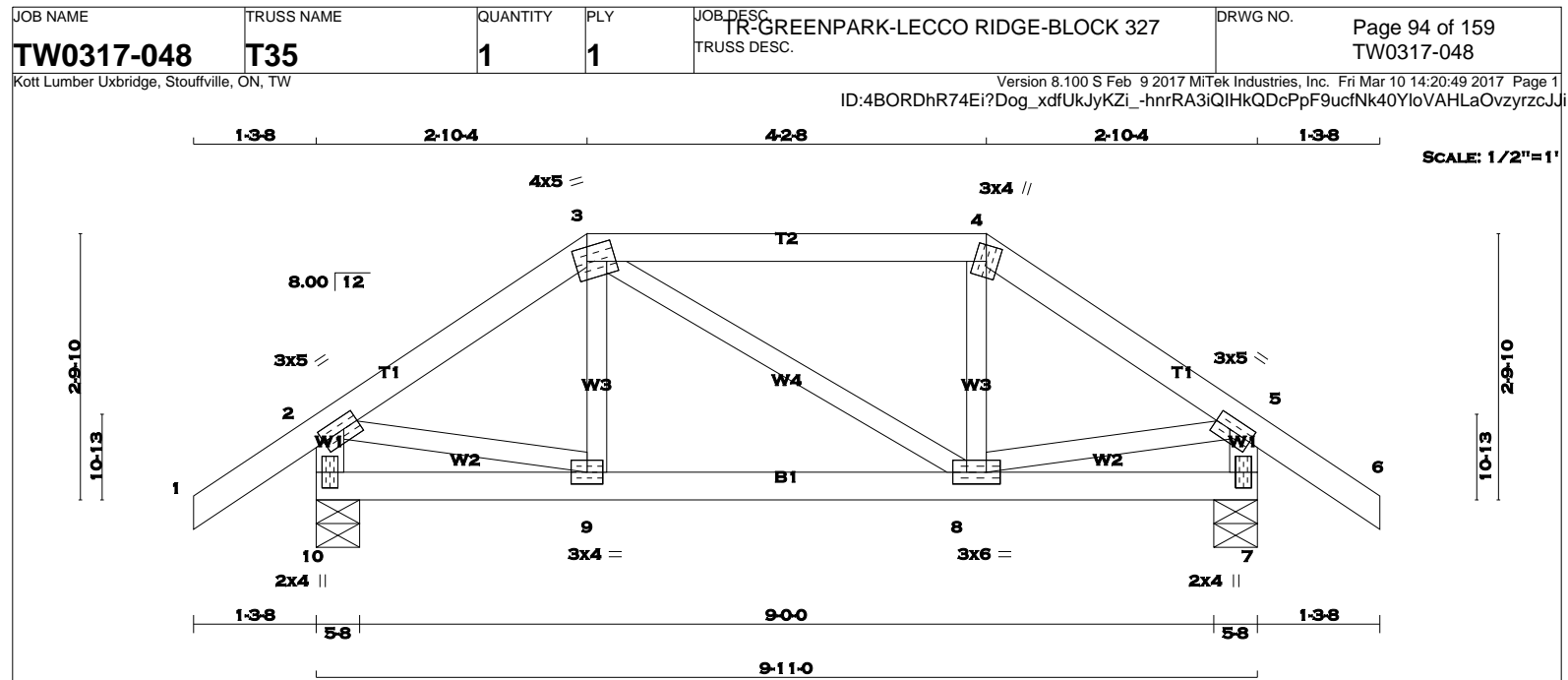


WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}.INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.

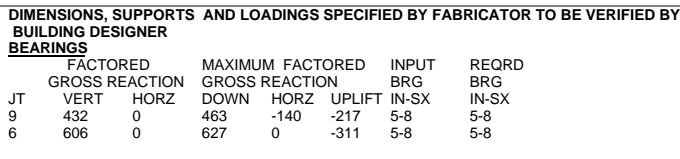


READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

RECEIVED
TOWN OF MILTON
MAR 29, 2017
17-4978
BUILDING DIVISION



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. SPF				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS								DESIGN CRITERIA			
1 - 3	2x4	DRY	No.2	SPF	FACTORED	MAXIMUM FACTORED	INPUT	REQRD	SPECIFIED LOADS:						
3 - 4	2x4	DRY	No.2	SPF	GROSS REACTION	GROSS REACTION	BRG	BRG	TOP CH.	LL	=	23.3	PSF		
4 - 6	2x4	DRY	No.2	SPF	JT VERT	DOWN	HORZ	UPLIFT	DL	=	3.0	PSF			
10 - 2	2x4	DRY	No.2	SPF	10 576	0	611	-145 -293	5-8	5-8	BOT CH.	LL	=	0.0	PSF
7 - 5	2x4	DRY	No.2	SPF	7 576	0	599	0 -293	5-8	5-8	DL	=	7.0	PSF	
10 - 7	2x4	DRY	No.2	SPF	TOTAL LOAD = 33.3 PSF										
ALL WEBS 2x3 DRY No.2 SPF				TOTAL LOAD = 33.3 PSF											
EXCEPT				TOTAL LOAD = 33.3 PSF											
DRY: SEASONED LUMBER.				TOTAL LOAD = 33.3 PSF											
PLATES (table is in inches)				TOTAL LOAD = 33.3 PSF											
JT TYPE	PLATES	W	LEN	Y	X	TOTAL LOAD = 33.3 PSF									
2 TMVW-t	MT20	3.0	5.0	1.50	2.00	TOTAL LOAD = 33.3 PSF									
3 TTWW-m	MT20	4.0	5.0	1.75	1.50	TOTAL LOAD = 33.3 PSF									
4 TTW+m	MT20	3.0	4.0			TOTAL LOAD = 33.3 PSF									
5 TMVW-t	MT20	3.0	5.0	1.50	2.00	TOTAL LOAD = 33.3 PSF									
7 BMV1+p	MT20	2.0	4.0			TOTAL LOAD = 33.3 PSF									
8 BMWWV-t	MT20	3.0	6.0			TOTAL LOAD = 33.3 PSF									
9 BMWW-t	MT20	3.0	4.0			TOTAL LOAD = 33.3 PSF									
10 BMV1+p	MT20	2.0	4.0			TOTAL LOAD = 33.3 PSF									
A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.				TOTAL LOAD = 33.3 PSF											
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				TOTAL LOAD = 33.3 PSF											



PROVIDE FOR 140 LBS FACTORED HORIZONTAL REACTION AT JOINT 9

UNFACTORED REACTIONS

HORIZONTAL REACTIONS							
9	---	0/0	0/0	0/0	94/-100	0/0	0/0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 9, 6

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY
APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

C H O R D S					W E B S				
MEMB.	MAX. FACTORED	FACTORED			MAX. UNBRAC	MEMB.	MAX. FACTORED	MAX	
	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	FORCE (LBS)			CSI (LC)		
FR-TO		FROM	TO		LENGTH	FR-TO			
1-2	-444 / 215	-77.3	-77.3	0.14 (7)	6.25	8-2	-3 / 72	0.02 (11)	
2-3	-303 / 202	-77.3	-77.3	0.19 (8)	6.25	2-7	-88 / 59	0.03 (3)	
3-4	-394 / 211	-77.3	-77.3	0.18 (8)	6.25	7-3	-7 / 52	0.02 (11)	
4-5	0 / 40	-77.3	-77.3	0.19 (1)	10.00	1-8	-116 / 361	0.08 (1)	
9-1	-442 / 229	0.0	0.0	0.04 (1)	7.81	7-4	-97 / 335	0.07 (1)	
6-4	-612 / 320	0.0	0.0	0.06 (1)	7.81				
9-8	-121 / 135	-17.5	-17.5	0.05 (11)	6.25				
8-7	-143 / 389	-17.5	-17.5	0.08 (1)	6.25				
7-6	-8 / 18	-17.5	-17.5	0.04 (11)	10.00				

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF (9.0) PSF AT (40-0.0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL =	23.3	PSF
		DL =	3.0	PSF
BOT	CH.	LL =	0.0	PSF
		DL =	7.0	PSF
TOTAL LOAD		=	33.3	PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE
OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL
OR SMALL BUILDING REQUIREMENTS OF
PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.31")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.31")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.19 (2-3:8) , BC=0.08 (7-8:1) , WB=0.08 (1-8:1) , SSI=0.13 (2-3:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	822	2284	1656

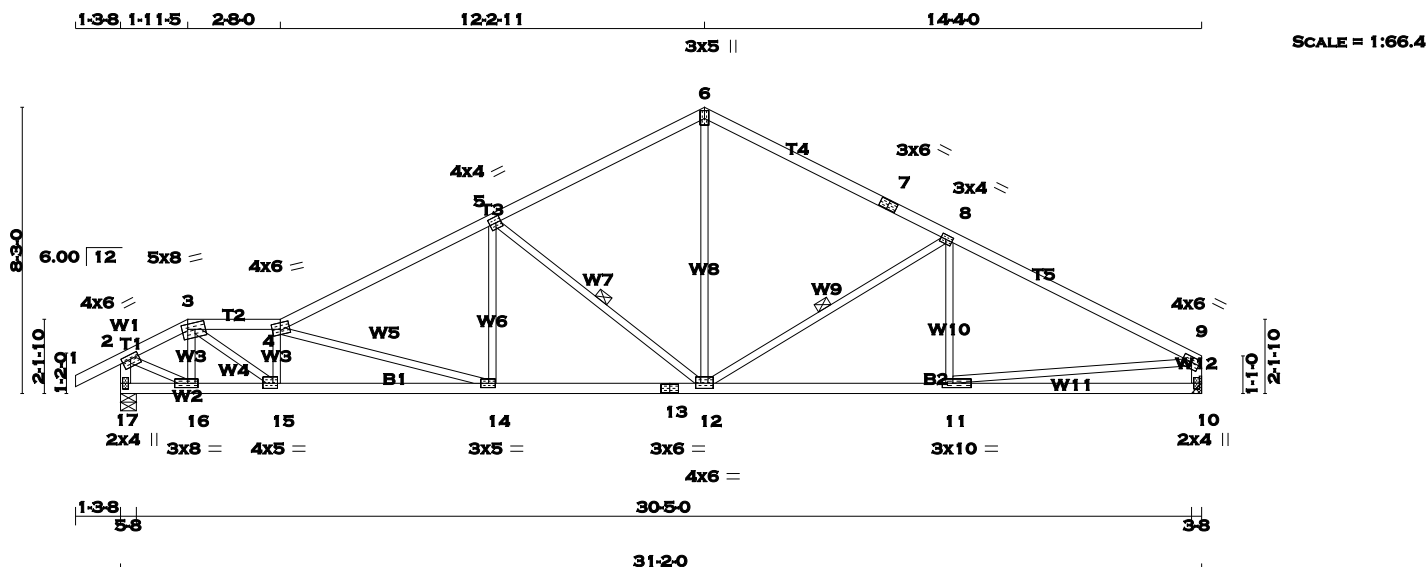
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.64 (3) (INPUT = 0.90)
JSI METAL= 0.16 (4) (INPUT = 1.00)

1000

1. *Journal of the American Medical Association*, 2000; 283: 2689-2695.



TOTAL WEIGHT = 121 lb

LUMBER		N. L. G. A. RULES	
CHORDS	SIZE	LUMBER	DESCR.
1 - 3	2x4	No.2	SPF
3 - 4	2x4	No.2	SPF
4 - 6	2x4	No.2	SPF
6 - 7	2x4	No.2	SPF
7 - 9	2x4	No.2	SPF
17 - 2	2x4	No.2	SPF
10 - 9	2x4	No.2	SPF
17 - 13	2x4	No.2	SPF
13 - 10	2x4	No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-t	MT20	4.0	6.0	1.50	3.00
3	TTWW-m	MT20	5.0	8.0	1.75	2.00
4	TTWW-m	MT20	4.0	6.0	2.25	2.75
5	TMVW-t	MT20	4.0	4.0	2.00	1.75
6	TTW+p	MT20	3.0	5.0	2.75	1.50
7	TS-t	MT20	3.0	6.0		
8	TMVW-t	MT20	3.0	4.0	1.50	1.75
9	TMVW-t	MT20	4.0	6.0	1.75	2.75
10	BMV1+p	MT20	2.0	4.0		
11	BMVW-t	MT20	3.0	10.0	1.50	3.75
12	BMVWW-t	MT20	4.0	6.0	1.75	3.00
13	BS-t	MT20	3.0	6.0		
14	BMVW-t	MT20	3.0	5.0	1.50	2.25
15	BMVW-t	MT20	4.0	5.0	1.75	1.50
16	BMVW-t	MT20	3.0	8.0	1.50	3.50
17	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
JT	VERT	DOWN	HORZ	UPLIFT	IN-SX
17	1583	0	1618	221	-730
10	1478	0	1510	0	-635

HANGER BY OTHERS
MIN. SEAT SIZE: 3-8

PROVIDE ANCHORAGE AT BEARING JOINT 17 FOR 730 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 10 FOR 635 LBS FACTORED UPLIFT

**NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES
SHALL BE PROVIDED BY BLDG. DESIGNER**

PROVIDE FOR 221 LBS FACTORED HORIZONTAL REACTION AT JOINT 17

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
17	1109	789 / 0	0 / 0	0 / 0	88 / -727	320 / 0	0 / 0
10	1037	726 / 0	0 / 0	0 / 0	79 / -654	312 / 0	0 / 0

HORIZONTAL REACTIONS

17	---	0 / 0	0 / 0	0 / 0	158 / -132	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 17

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.87 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 5.33 FT. OR RIGID CEILING DIRECTLY
APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-12. DBS = 14-0-0 . CBF = 85 LBS.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 8-12. DBS = 20-0-0 . CBF = 80 LBS.



DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (11)

C H O R D S					W E B S				
MAX. FACTORED		FACTORED			MAX. FACTORED		FACTORED		
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	MAX. UNBRAC	MEMB.	FORCE (LBS)	MAX	CSI (LC)	
FR-TO		FROM TO	CSI (LC)	LENGTH	FR-TO				
1-2	0 / 23	-77.3	-77.3 0.10 (1)	10.00	16-3	-585 / 261		0.09 (1)	
2-3	-1734 / 796	-77.3	-77.3 0.16 (7)	5.07	3-15	-815 / 2021		0.45 (1)	
3-4	-3159 / 1392	-77.3	-77.3 0.26 (7)	3.87	15-4	-1132 / 561		0.17 (1)	
4-5	-2496 / 1098	-77.3	-77.3 0.58 (7)	3.96	4-14	-1014 / 544		0.76 (3)	
5-6	-1671 / 797	-77.3	-77.3 0.54 (7)	4.72	14-5	-82 / 413		0.09 (1)	
6-7	-1682 / 816	-77.3	-77.3 0.70 (8)	4.47	5-12	-1026 / 679		0.40 (3)	
7-8	-1682 / 816	-77.3	-77.3 0.70 (8)	4.47	12-6	-479 / 1083		0.62 (7)	
8-9	-2240 / 938	-77.3	-77.3 0.73 (8)	3.89	12-8	-687 / 552		0.31 (4)	
17-2	-1607 / 745	0.0	0.0 0.16 (1)	6.57	11-8	-77 / 185		0.04 (8)	
10-9	-1457 / 670	0.0	0.0 0.14 (1)	6.82	2-16	-678 / 1671		0.37 (1)	
					11-9	-732 / 2029		0.73 (8)	
17-16	-204 / 187	-17.5	-17.5 0.04 (8)	6.25					
16-15	-814 / 1553	-17.5	-17.5 0.27 (1)	6.25					
15-14	-50 / 312	0.0	0.0 0.04 (1)	5.33					
14-13	-22 / 22	17.5	17.5 0.4 (1)	6.25					
13-12	-22 / 22	17.5	17.5 0.4 (1)	6.25					
12-11	-77 / 202	17.5	17.5 0.4 (1)	6.25					
11-10	-8 / 16	17.5	17.5 0.2 (11)	10.00					



READ ALL NOTES ON THIS PAGE AND ON THE
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE
IS AN INTEGRAL PART OF THIS DRAWING AS IT
CONTAINS SPECIFICATIONS AND CRITERIA USED
IN THE DESIGN OF THIS COMPONENT.

PRESSURE (PSI) OF SF AT
 G EXTERNAL PEAK
 STING SYSTEM, INTERNAL
 G MAY BE LOCATED ON
 LEAST (LO) FROM SA XWAY

DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL =	23.3	PSF
		DL =	3.0	PSF
BOT	CH.	LL =	0.0	PSF
		DL =	7.0	PSF
TOTAL LOAD		=	33.3	PSF

SPACING = 24.0 IN. C/C

LOADING IN ALL FLAT SECTIONS BASED ON A
SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL
OR SMALL BUILDING REQUIREMENTS OF
PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.04")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.16")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.30")

CSI: TC=0.73 (8-9:8) , BC=0.60 (14-15:1) ,
WB=0.76 (4-14:3) , SSI=0.24 (8-9:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP (DRY) (PSI)		SHEAR (PLI)		SECTION (PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	822	2284	1656

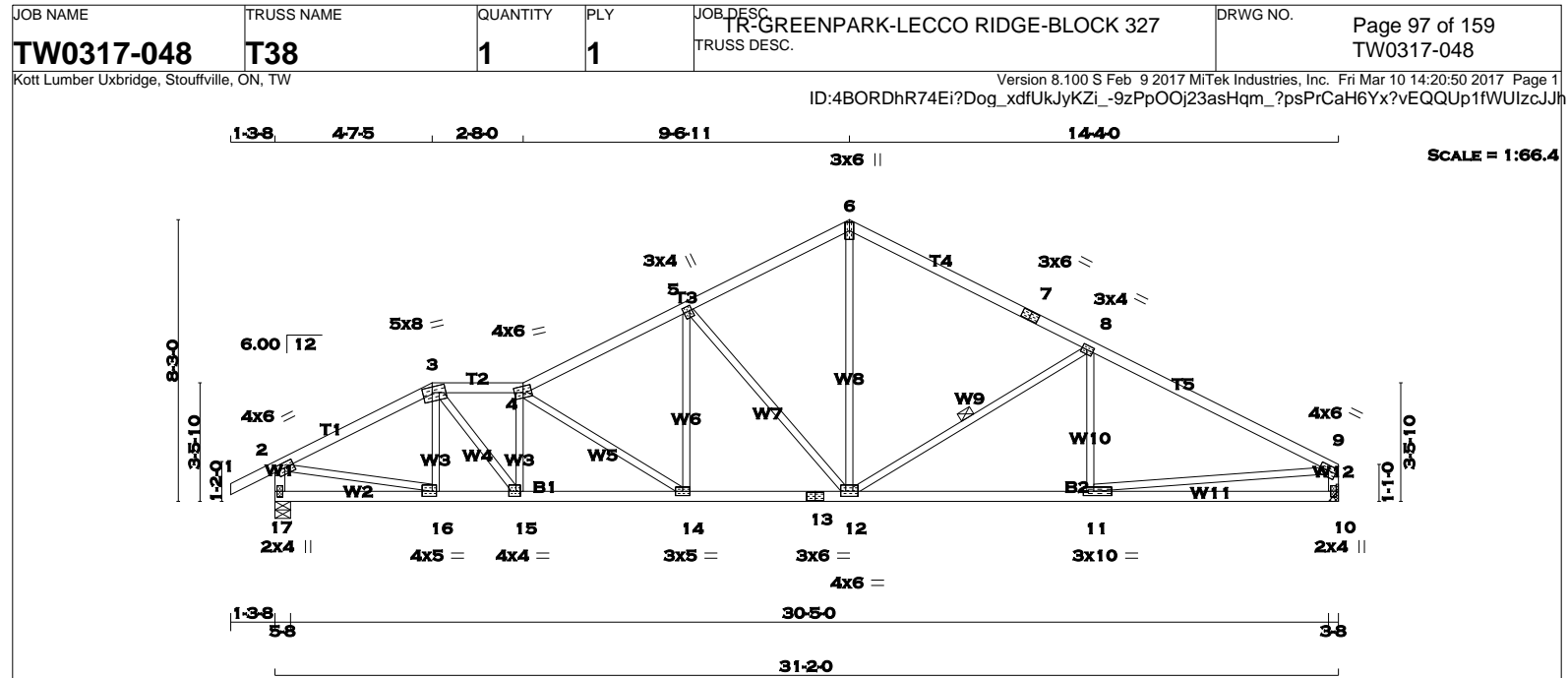
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

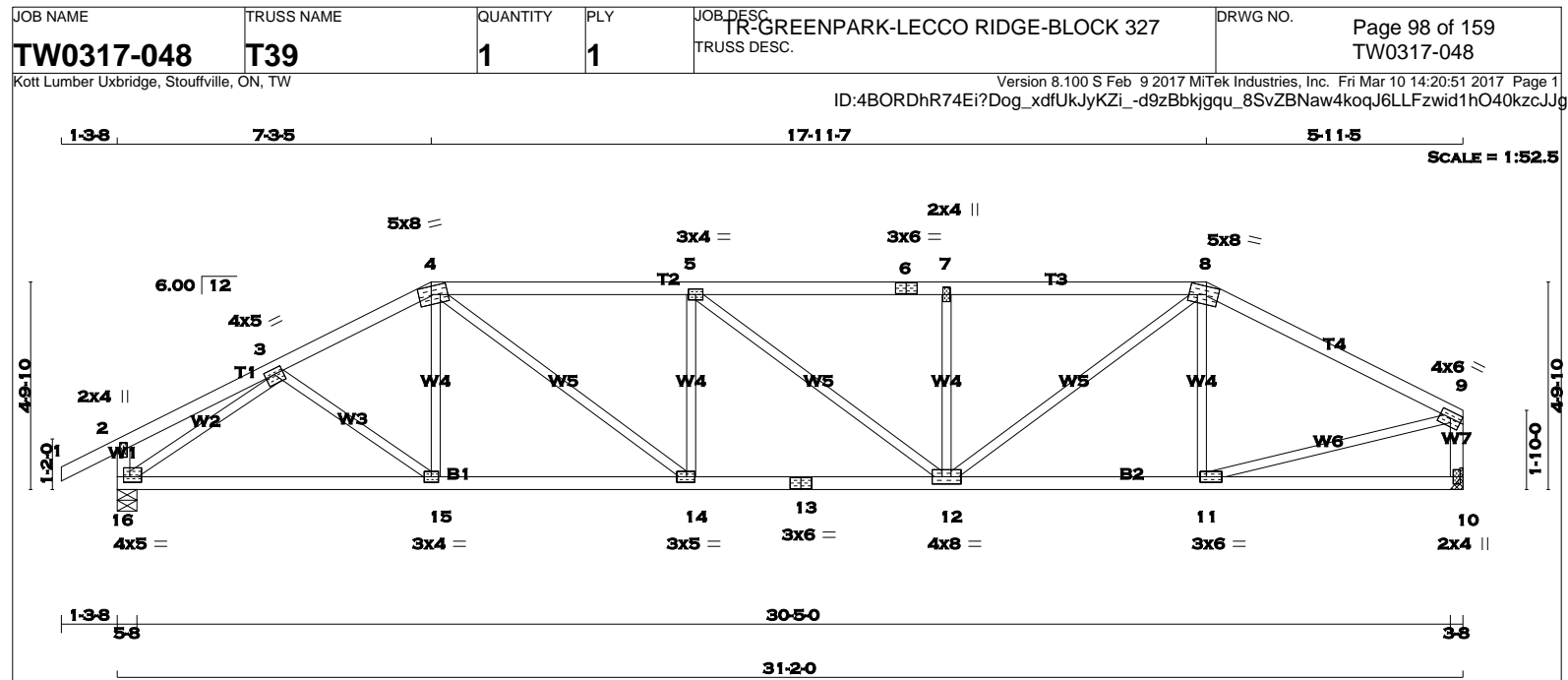
JSI GRIP= 0.90 (15) (INPUT = 0.90)
JSI METAL= 0.60 (13) (INPUT = 1.00)



March 10, 2017



LUMBER										DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA									
N. L. G. A. RULES										BEARINGS										SPECIFIED LOADS:									
CHORDS SIZE																				TOP CH. LL = 23.3 PSF									
1 - 3 2x4 DRY No.2										FACTORED GROSS REACTION										DL = 3.0 PSF									
3 - 4 2x4 DRY No.2										MAXIMUM FACTORED GROSS REACTION										BOT CH. LL = 0.0 PSF									
4 - 6 2x4 DRY No.2										INPUT BRG BRG										DL = 7.0 PSF									
6 - 7 2x4 DRY No.2										DOWN HORZ UPLIFT IN-SX IN-SX										TOTAL LOAD = 33.3 PSF									
7 - 9 2x4 DRY No.2										17 1583 0 1618 221 -730 5-8 5-8																			
17 - 2 2x4 DRY No.2										10 1478 0 1510 0 -635 HANGER BY OTHERS																			
10 - 9 2x4 DRY No.2										MIN. SEAT SIZE: 3-8																			
17 - 13 2x4 DRY No.2										PROVIDE ANCHORAGE AT BEARING JOINT 17 FOR 730 LBS. FACTORED UPLIFT										SPACING = 24.0 IN. C/C									
13 - 10 2x4 DRY No.2										PROVIDE ANCHORAGE AT BEARING JOINT 10 FOR 635 LBS. FACTORED UPLIFT																			
ALL WEBS 2x3 DRY No.2										NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES.										LOADING IN ALL FLAT SECTIONS BASED ON A									
EXCEPT										SHALL BE PROVIDED BY BUILDG. DESIGNER										SLOPE OF 6.00/12									
DRY: SEASONED LUMBER.										PROVIDE FOR 221 LBS. FACTORED HORIZONTAL REACTION AT JOINT 17										THIS TRUSS IS DESIGNED FOR RESIDENTIAL									
										UNFACTORED REACTIONS										OR SMALL BUILDING REQUIREMENTS OF									
										1ST LCASE MAX./MIN. COMPONENT REACTIONS										PART 9, NBCC 2010									
										JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL										THIS DESIGN COMPLIES WITH:									
										17 1109 789 / 0 0 / 0 0 / 0 88 / -727 320 / 0 0 / 0										- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014									
										10 1037 726 / 0 0 / 0 0 / 0 79 / -654 312 / 0 0 / 0										- CSA 086-09									
										HORIZONTAL REACTIONS										- TPIC 2011									
										17 --- 0 / 0 0 / 0 0 / 0 158 / -132 0 / 0 0 / 0										(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F.									
										BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 17										RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED									
										BRACING										ROOF LIVE LOAD									
										TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.89 FT.										ALLOWABLE DEFL.(LL)= L/360 (1.04")									
										MAX. UNBRACED BOTTOM CHORD LENGTH = 5.82 FT. OR RIGID CEILING DIRECTLY										CALCULATED VERT. DEFL.(LL) = L/ 999 (0.14")									
										APPLIED.										ALLOWABLE DEFL.(TL)= L/360 (1.04")									
										ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.										CALCULATED VERT. DEFL.(TL) = L/ 999 (0.25")									
										1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 8-12. DBS = 20-0-0 . CBF = 80 LBS.										CSI: TC=0.73 (8-9:8) , BC=0.48 (14-15:1) ,									
										DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN										WB=0.93 (5-12:3) , SSI=0.24 (8-9:1)									
										LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS: 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4,										DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10									
										2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.										COMP=1.10 SHEAR=1.10 TENS= 1.10									
										END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN										COMPANION LIVE LOAD FACTOR = 0.50									
										THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW										TRUSS PLATE MANUFACTURER IS NOT									
										LOADING										RESPONSIBLE FOR QUALITY CONTROL IN THE									
										TOTAL LOAD CASES: (11)										TRUSS MANUFACTURING PLANT .									
										CHORDS										NAIL VALUES									
										MAX. FACTORED FACTORED WEBS										PLATE GRIP(DRY) SHEAR SECTION									
										MEMB. FORCE VERT. LOAD LC1 MAX. MEMB. FORCE MAX. FACTORED										(PSI) (PLI) (PLI)									
										(LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO (LBS) CSI (LC)										MAX MIN MAX MIN MAX MIN									
										FR-TO FROM TO										MT20 618 354 1667 822 2284 1656									
										1-2 0 / 23 -77.3 -77.3 0.10 (1) 10.00 16-3 -265 / 178 0.05 (1)										PLATE PLACEMENT TOL. = 0.250 inches									
										2-3 -2118 / 932 -77.3 -77.3 0.38 (7) 4.48 3-15 -473 / 1181 0.26 (1)										PLATE ROTATION TOL. = 5.0 Deg.									
										3-4 -2631 / 1203 -77.3 -77.3 0.23 (7) 4.22 15-4 -871 / 416 0.17 (1)										JSI GRIP= 0.89 (9) (INPUT = 0.90)									
										4-5 -2270 / 1027 -77.3 -77.3 0.40 (7) 4.33 4-14 -737 / 432 0.41 (3)										JSI METAL= 0.59 (9) (INPUT = 1.00)									
										5-6 -1664 / 811 -77.3 -77.3 0.37 (7) 4.93 14-5 -179 / 491 0.11 (1)																			
										6-7 -1681 / 817 -77.3 -77.3 0.70 (8) 4.47 5-12 -904 / 602 0.93 (3)																			
										7-8 -1681 / 817 -77.3 -77.3 0.70 (8) 4.47 12-6 -520 / 1123 0.68 (7)																			
										8-9 -2240 / 938 -77.3 -77.3 0.73 (8) 3.89 12-8 -688 / 550 0.31 (4)																			
										17-2 -1581 / 754 0.0 0.0 0.16 (1) 6.61 11-8 -76 / 186 0.04 (8)																			
										10-9 -1457 / 669 0.0 0.0 0.14 (1) 6.82 2-16 -713 / 1914 0.42 (1)																			
										11-9 -732 / 2029 0.73 (8)																			
										17-16 -204 / 187 -17.5 -17.5 0.08 (11) 6.25																			
										16-15 -900 / 1919 -17.5 -17.5 0.32 (1) 6.25																			
										15-14 -1211 / 2691 -17.5 -17.5 0.48 (1) 5.82																			
										14-13 -85 / 253 0.0 0.0 0.00 (1) 6.25																			
										13-12 -2 / 253 17 -5 0.4 (1) 6.25																			
										12-11 -2 / 253 17 -5 0.4 (1) 6.25																			
										11-10 -1 / 253 17 -5 0.2 (11) 10.00																			
										WIND (40-0)										PRESSURE OF (9.0) PSF AT									
										COE										G EXTERIOR WALL PEAK 2017									
										WIND										SING SYSTEM) INTERNAL									
										(OPS										G MAY BE LOCATED ON									
										FROM										LEAST (0-0) FT-IN-SX AWAY									
																				BUILDING DIVISION									



TOTAL WEIGHT = 120 lb [M]

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
1 - 4	2x4	DRY	No.2	SPF
4 - 6	2x4	DRY	No.2	SPF
6 - 8	2x4	DRY	No.2	SPF
8 - 9	2x4	DRY	No.2	SPF
16 - 2	2x4	DRY	No.2	SPF
10 - 9	2x4	DRY	No.2	SPF
16 - 13	2x4	DRY	No.2	SPF
13 - 10	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
DRY: SEASONED LUMBER.				

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMV+p	MT20	2.0	4.0		
3	TMVW-t	MT20	4.0	5.0	1.50	2.50
4	TTWW-m	MT20	5.0	8.0	2.25	3.50
5	TMVW-t	MT20	3.0	4.0		
6	TS-t	MT20	3.0	6.0		
7	TMV+w	MT20	2.0	4.0		
8	TTWW-m	MT20	5.0	8.0	2.25	3.25
9	TMVW-t	MT20	4.0	6.0	1.75	Edge
10	BMV1+p	MT20	2.0	4.0		
11	BMVW-t	MT20	3.0	6.0	1.50	1.75
12	BMVWW-t	MT20	4.0	8.0		
13	BS-t	MT20	3.0	6.0		
14	BMVW-t	MT20	3.0	5.0	1.50	2.25
15	BMVW-t	MT20	3.0	4.0		
16	BMVW1-t	MT20	4.0	5.0	1.50	1.75

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.



DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER							
BEARINGS							
		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	
JT		VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
16	1583	0		1637	174	-819	5-8
10	1478	0		1513	0	-750	5-8

PROVIDE ANCHORAGE AT BEARING JOINT 16 FOR 819 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 10 FOR 750 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES.
SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 174 LBS. FACTORED HORIZONTAL REACTION AT JOINT 16

UNFACTORED REACTIONS							
		1ST LCASE		MAX./MIN. COMPONENT REACTIONS			
JT		COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
16	1109	789 / 0	0 / 0	0 / 0	0 / 0	136 / -791	320 / 0
10	1037	726 / 0	0 / 0	0 / 0	0 / 0	87 / -736	312 / 0

HORIZONTAL REACTIONS							
16	---	0 / 0	0 / 0	0 / 0	124 / -83	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 16

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.81 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 5.71 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING	
TOTAL LOAD CASES: (11)	

C H O R D S				W E B S			
MEMB.		MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. LC1 (LC)
FR-TO			FROM TO	UNBRAC LENGTH	FR-TO		
1-2	0 / 23	-77.3	-77.3	0.10 (1)	10.00	3-15	0 / 148
2-3	-9 / 114	-77.3	-77.3	0.15 (7)	10.00	15-4	0 / 105
3-4	-2165 / 1140	-77.3	-77.3	0.29 (7)	4.53	4-14	-558 / 921
4-5	-2666 / 1444	-77.3	-77.3	0.55 (1)	3.81	14-5	-457 / 402
5-6	-2574 / 1380	-77.3	-77.3	0.54 (1)	3.87	5-12	-117 / 98
6-7	-2574 / 1380	-77.3	-77.3	0.54 (1)	3.87	12-7	-527 / 407
7-8	-2574 / 1379	-77.3	-77.3	0.54 (1)	3.88	12-8	-652 / 1164
8-9	-1847 / 931	-77.3	-77.3	0.61 (1)	4.30	11-8	-298 / 261
16-2	-226 / 204	0.0	0.0	0.03 (7)	7.81	16-3	-2292 / 1101
10-9	-1470 / 780	0.0	0.0	0.16 (1)	6.80	11-9	-723 / 1706
16-15	-1003 / 1873	-17.5	-17.5	0.40 (1)	6.16		
15-14	-883 / 1935	-17.5	-17.5	0.41 (1)	6.25		
14-13	-1259 / 2672	-17.5	-17.5	0.47 (1)	5.71		
13-12	-1259 / 2672	-17.5	-17.5	0.47 (1)	5.71		
12-11	-665 / 1647	-17.5	-17.5	0.34 (1)	6.25		
11-10	-15 / 32	-17.5	-17.5	0.15 (11)	6.25		

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN) OR (URBAN) BUT MUST BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.04")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.15")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.27")

CSI: TC=0.61 (8-9:1), BC=0.47 (12-14:1), WB=0.74 (3-16:1), SSI=0.22 (4-5:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

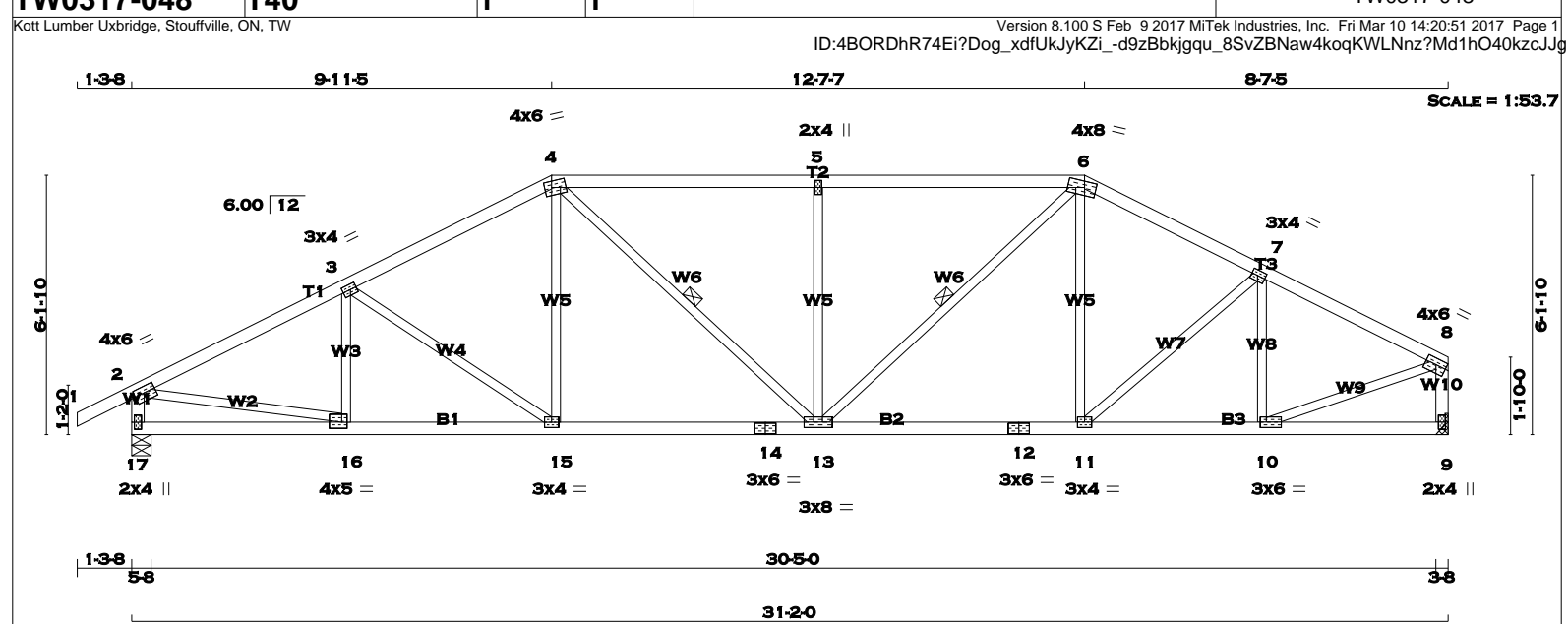
PLATE ROTATION TOL. = 5.0 Deg.

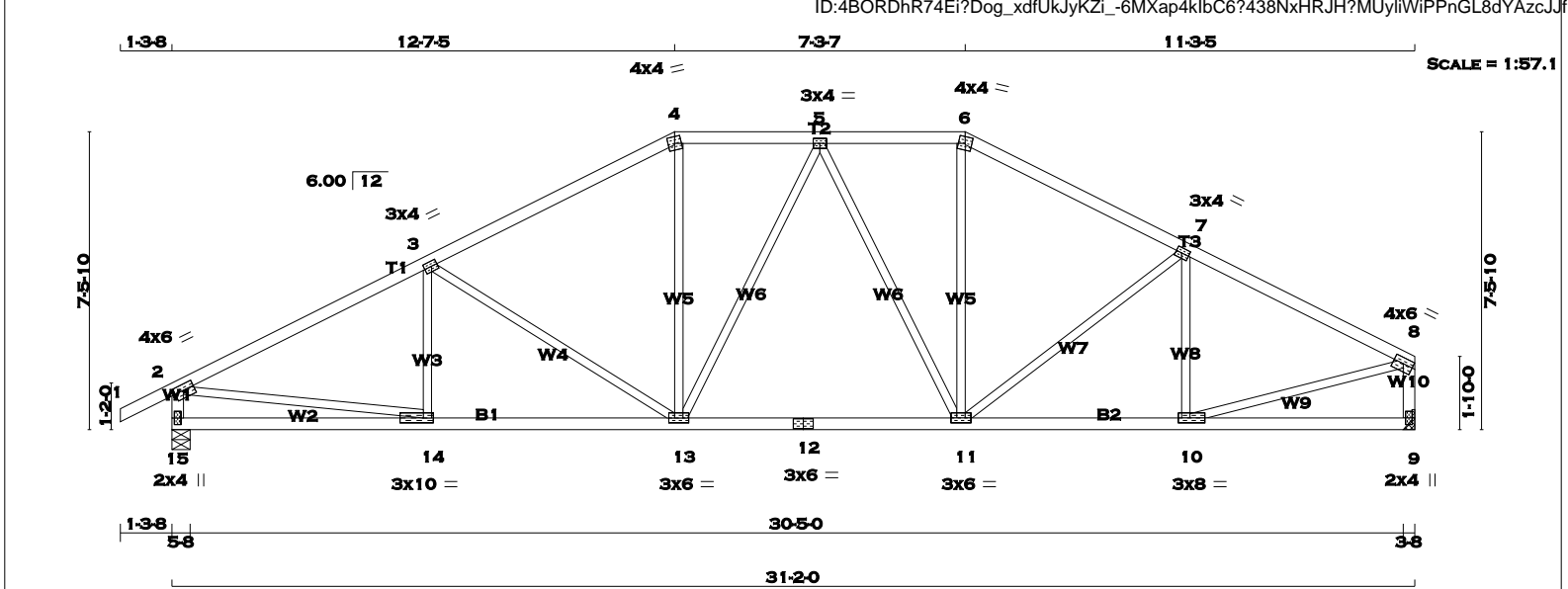
JSI GRIP= 0.90 (14) (INPUT = 0.90)
JSI METAL= 0.76 (13) (INPUT = 1.00)

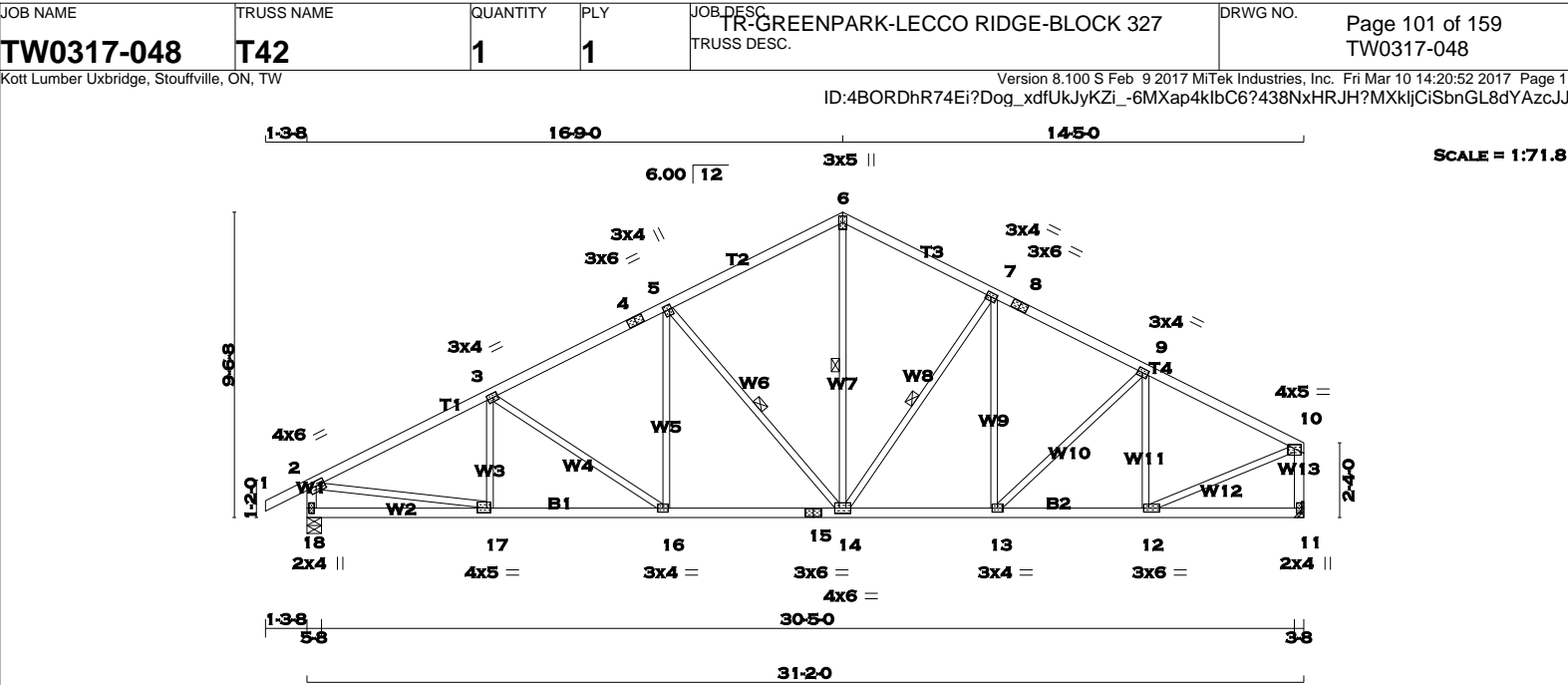


READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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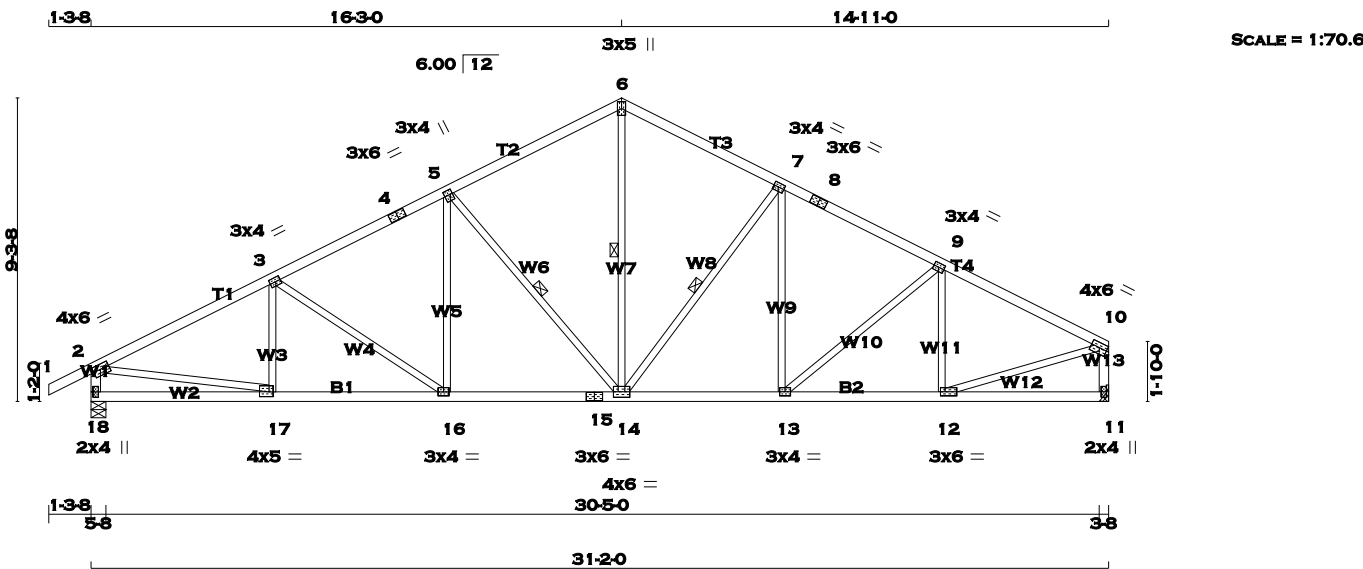


WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}.INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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TOTAL WEIGHT = 4 X 134 = 534 lb
[M][F]

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
1 - 4	2x4	DRY	No.2 SPF
4 - 6	2x4	DRY	No.2 SPF
6 - 8	2x4	DRY	No.2 SPF
8 - 10	2x4	DRY	No.2 SPF
18 - 2	2x4	DRY	No.2 SPF
11 - 10	2x4	DRY	No.2 SPF
18 - 15	2x4	DRY	No.2 SPF
15 - 11	2x4	DRY	No.2 SPF
ALL WEBS EXCEPT	2x3	DRY	No.2 SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-t	MT20	4.0	6.0	1.75	2.75
3, 7, 9						
3	TMVW-t	MT20	3.0	4.0	1.50	1.75
4	TS-t	MT20	3.0	6.0		
5	TMVW+t	MT20	3.0	4.0	1.75	0.75
6	TTW+p	MT20	3.0	5.0		
8	TS-t	MT20	3.0	6.0		
10	TMVW-t	MT20	4.0	6.0	1.75	Edge
11	BMV1+p	MT20	2.0	4.0		
12	BMVW-t	MT20	3.0	6.0	1.50	1.75
13	BMVW-t	MT20	3.0	4.0		
14	BMVW+t	MT20	4.0	6.0		
15	BS-t	MT20	3.0	6.0		
16	BMVW-t	MT20	3.0	4.0		
17	BMVW-t	MT20	4.0	5.0	1.75	1.50
18	BMV1+p	MT20	2.0	4.0		

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

A SIZE FOR SIZE SUBSTITUTION OF MITEK M120 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER
BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
18	1583	0	1615	261	-715	5-8
11	1478	0	1510	0	-636	HANGER BY OTHERS
MIN. SEAT SIZE: 3-8						

PROVIDE ANCHORAGE AT BEARING JOINT 18 FOR 715 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 11 FOR 636 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES.
SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 261 LBS. FACTORED HORIZONTAL REACTION AT JOINT 18

UNFACTORED REACTIONS

JT	1ST LCASE		MAX./MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
18	1109	789 / 0	0 / 0	0 / 0	80 / -716	320 / 0	0 / 0
11	1037	726 / 0	0 / 0	0 / 0	79 / -655	312 / 0	0 / 0

HORIZONTAL REACTIONS

18	---	0 / 0	0 / 0	0 / 0	186 / -145	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 18

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.34 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-14, 6-14, 7-14. DBS = 20-0-0 . CBF = 80 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (11)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH FR-TO	
1-2	0 / 23	-77.3	-77.3 0.10 (1)	10.00	17-3	-201 / 192	0.05 (1)
2-3	-2182 / 952	-77.3	-77.3 0.41 (7)	4.34	3-16	-298 / 293	0.22 (3)
3-4	-1938 / 908	-77.3	-77.3 0.40 (7)	4.63	16-5	-100 / 259	0.07 (7)
4-5	-1938 / 908	-77.3	-77.3 0.40 (7)	4.63	5-14	-682 / 520	0.30 (3)
5-6	-1480 / 771	-77.3	-77.3 0.37 (7)	5.13	14-6	-483 / 980	0.26 (7)
6-7	-1480 / 789	-77.3	-77.3 0.32 (8)	5.19	14-7	-510 / 439	0.22 (4)
7-8	-1788 / 839	-77.3	-77.3 0.35 (8)	4.82	13-7	-58 / 121	0.05 (8)
8-9	-1788 / 839	-77.3	-77.3 0.35 (8)	4.82	13-9	-65 / 182	0.05 (4)
9-10	-1814 / 787	-77.3	-77.3 0.34 (8)	4.76	12-9	-387 / 253	0.11 (1)
18-2	-1573 / 741	0.0	0.0 0.16 (1)	6.63	2-17	-730 / 1980	0.44 (1)
11-10	-1471 / 661	0.0	0.0 0.16 (1)	6.79	12-10	-629 / 1690	0.38 (1)
18-17	-243 / 194	-17.5	-17.5 0.12 (11)	6.25			
17-16	-954 / 2008	-17.5	-17.5 0.36 (1)	6.25			
16-15	-712 / 1762	-17.5	-17.5 0.33 (1)	6.25			
15-14	-712 / 1762	-17.5	-17.5 0.33 (1)	6.25			
14-13	-489 / 1594	-17.5	-17.5 0.31 (1)	6.25			
13-12	-573 / 1616	-17.5	-17.5 0.30 (1)	6.25			
12-11	-15 / 32	-17.5	-17.5 0.10 (11)	6.25			

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DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD	=	33.3	PSF	

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.04")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (1.04")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.18")

CSI: TC=0.41 (2-3:7) , BC=0.36 (16-17:1) , WB=0.44 (2-17:1) , SSI=0.18 (2-3:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
	MAX	MIN	MAX
MT20	618	354	1667

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (12) (INPUT = 0.90)
JSI METAL= 0.59 (17) (INPUT = 1.00)

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CONTINUED ON PAGE 2



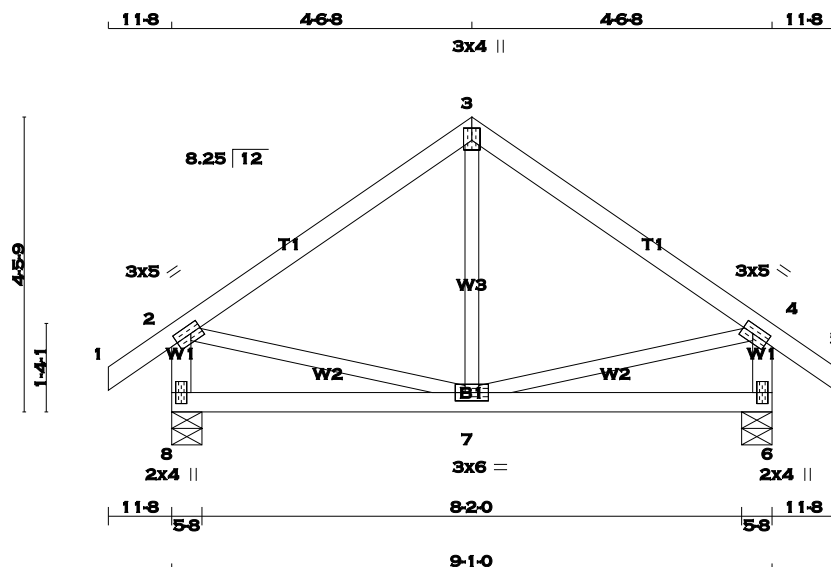
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WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}.INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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SCALE = 1:34.9

TOTAL WEIGHT = 6 X 38 = 229 lb

[M][F]

LUMBER

N. L. G. A. RULES			LUMBER	DESCR
CHORDS	SIZE			
1 - 3	2x4	DRY	No.2	SPF
3 - 5	2x4	DRY	No.2	SPF
8 - 2	2x4	DRY	No.2	SPF
6 - 4	2x4	DRY	No.2	SPF
8 - 6	2x4	DRY	No.2	SPF

ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
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DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-t	MT20	3.0	5.0	1.50	2.00
3	TTW+p	MT20	3.0	4.0	2.25	1.50
4	TMVW-t	MT20	3.0	5.0	1.50	2.00
6	BMV1+p	MT20	2.0	4.0		
7	BMWWW-t	MT20	3.0	6.0		
8	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
8	511	0	538	-209	-221	5-8	5-8
6	511	0	538	0	-221	5-8	5-8

PROVIDE ANCHORAGE AT BEARING JOINT 8 FOR 221 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 6 FOR 221 LBS FACTORED UPLIFT

PROVIDE FOR 209 LBS FACTORED HORIZONTAL REACTION AT JOINT 8

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
8	357	260 / 0	0 / 0	0 / 0	67 / -220	97 / 0	0 / 0
6	357	260 / 0	0 / 0	0 / 0	67 / -220	97 / 0	0 / 0

HORIZONTAL REACTIONS

8	---	0 / 0	0 / 0	0 / 0	149 / -149	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 8. 6

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY
APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

CHORDS					WEBS				
MEMB.	MAX. FACTORED	FACTORED			MAX. UNBRAC	MEMB.	MAX. FACTORED	MAX CSI (LC)	
	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX. CSI (LC)	FORCE (LBS)					
FR-TO		FROM	TO		LENGTH	FR-TO			
1-2	0 / 23	-77.3	-77.3	0.06 (1)	10.00	7- 3	-15 / 74	0.03 (11)	
2-3	-327 / 167	-77.3	-77.3	0.31 (7)	6.25	2- 7	-60 / 283	0.06 (1)	
3-4	-327 / 167	-77.3	-77.3	0.31 (8)	6.25	7- 4	-60 / 283	0.06 (1)	
4-5	0 / 23	-77.3	-77.3	0.06 (1)	10.00				
8- 2	-507 / 242	0.0	0.0	0.05 (1)	7.81				
6-4	-507 / 242	0.0	0.0	0.05 (1)	7.81				
8- 7	-189 / 200	-17.5	-17.5	0.10 (11)	6.25				
7- 6	-9 / 20	-17.5	-17.5	0.10 (11)	10.00				

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0.0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}. INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE

DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL =	23.3	PSF
		DL =	3.0	PSF
BOT	CH.	LL =	0.0	PSF
		DL =	7.0	PSF
TOTAL LOAD		=	33.3	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL
OR SMALL BUILDING REQUIREMENTS OF
PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , CBC 2012 , ABC 2014
- CSA 086-09
- TPIQ 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.30")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.30")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.31 (2-3:7) , BC=0.10 (6-7:11) , WB=0.06 (2-7:1) , SSI=0.12 (2-3:7)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES						
PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.47 (7) (INPUT = 0.90)
JSI METAL= 0.14 (2) (INPUT = 1.00)

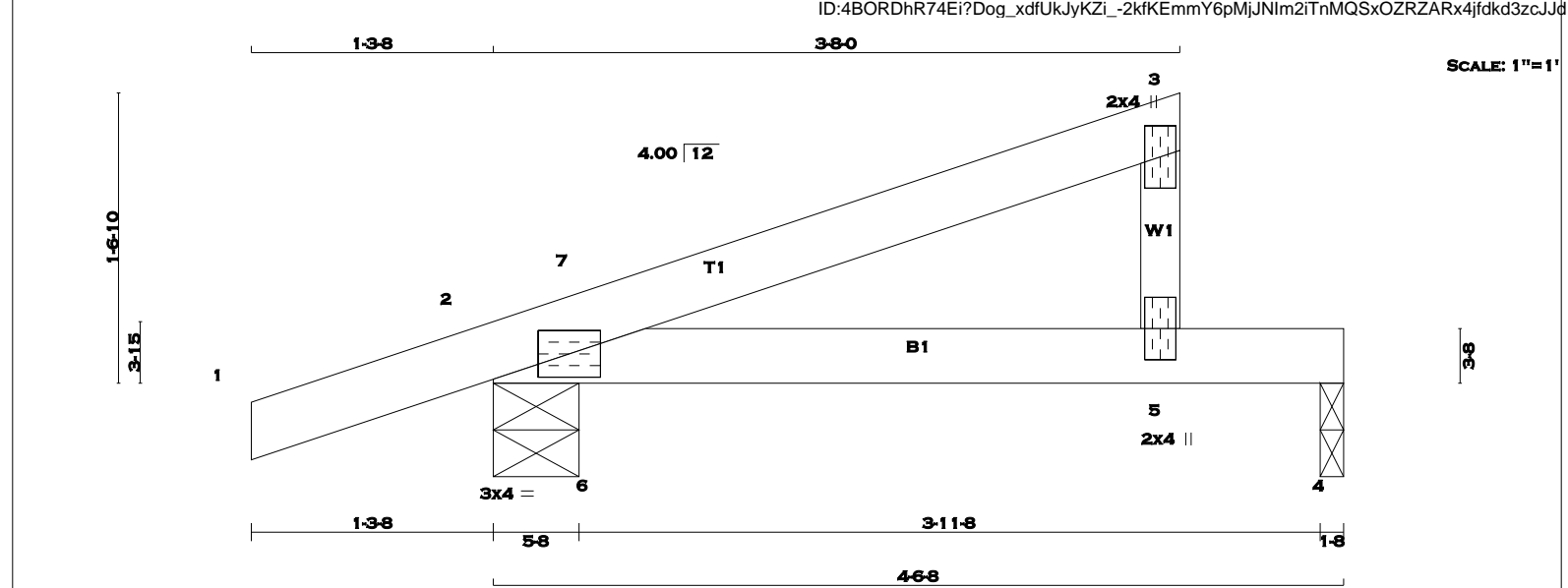


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TOTAL WEIGHT = 11 X 12 = 132 lb [M]

LUMBER				
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
1 - 3	2x4	DRY	No.2	SPF
5 - 3	2x3	DRY	No.2	SPF
2 - 4	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT	TYPE	PLATES	W	LEN Y X
2	TMB1-I	MT20	3.0	4.0
3	TMV+p	MT20	2.0	4.0
5	BMV+p	MT20	2.0	4.0

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
2	312	0	312	103	-167
4	154	0	154	0	-69

PROVIDE ANCHORAGE AT BEARING JOINT 2 FOR 167 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 4 FOR 150 LBS. FACTORED UPLIFT

PROVIDE FOR 103 LBS. FACTORED HORIZONTAL REACTION AT JOINT 2

UNFACTORED REACTIONS		1ST LCASE	MAX./MIN. COMPONENT REACTIONS	LIVE	PERM. LIVE	WIND	DEAD	SOIL
JT	COMBINED	SNOW	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
2	217	164 / 0	0 / 0	0 / 0	0 / 0	0 / -154	53 / 0	0 / 0
4	110	69 / 0	0 / 0	0 / 0	0 / 0	0 / -75	41 / 0	0 / 0

HORIZONTAL REACTIONS		2	4
2	---	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 2, 4

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

CHORDS		MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LIVE LC1	MAX. PERM. LIVE LC1	MAX. WIND UNBRACED LENGTH	MEMB. FORCE (LBS)	MAX. FACTORED FORCE (LBS)
FR-TO			FROM TO	CSI (LC)	UNBRACED LENGTH	FR-TO		CSI (LC)
1-2	0 / 15	-77.3	-77.3	0.10 (1)	10.00	6-7	-46 / 124	0.00 (1)
2-7	-74 / 0	-77.3	-77.3	0.07 (1)	6.25			
7-3	-41 / 5	-77.3	-77.3	0.16 (1)	6.25			
5-3	-134 / 100	0.0	0.0	0.04 (5)	7.81			
2-6	-14 / 29	-17.5	-17.5	0.08 (1)	6.25			
6-5	-14 / 29	-17.5	-17.5	0.18 (1)	6.25			
5-4	0 / 0	-17.5	-17.5	0.17 (1)	10.00			

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 978 (0.06")

CSI: TC=0.16 (3-7:1) , BC=0.18 (5-6:1) , WB=0.00 (6-7:1) , SSI=0.12 (4-5:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

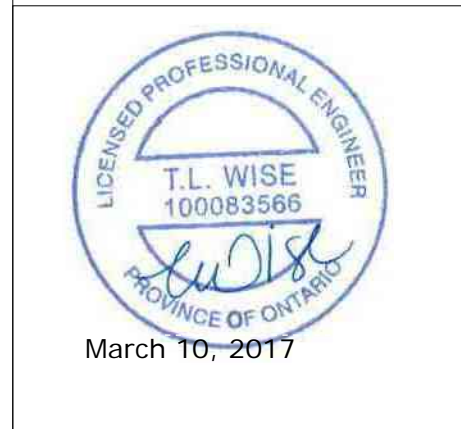
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.15 (2) (INPUT = 0.90)
JSI METAL= 0.05 (2) (INPUT = 1.00)

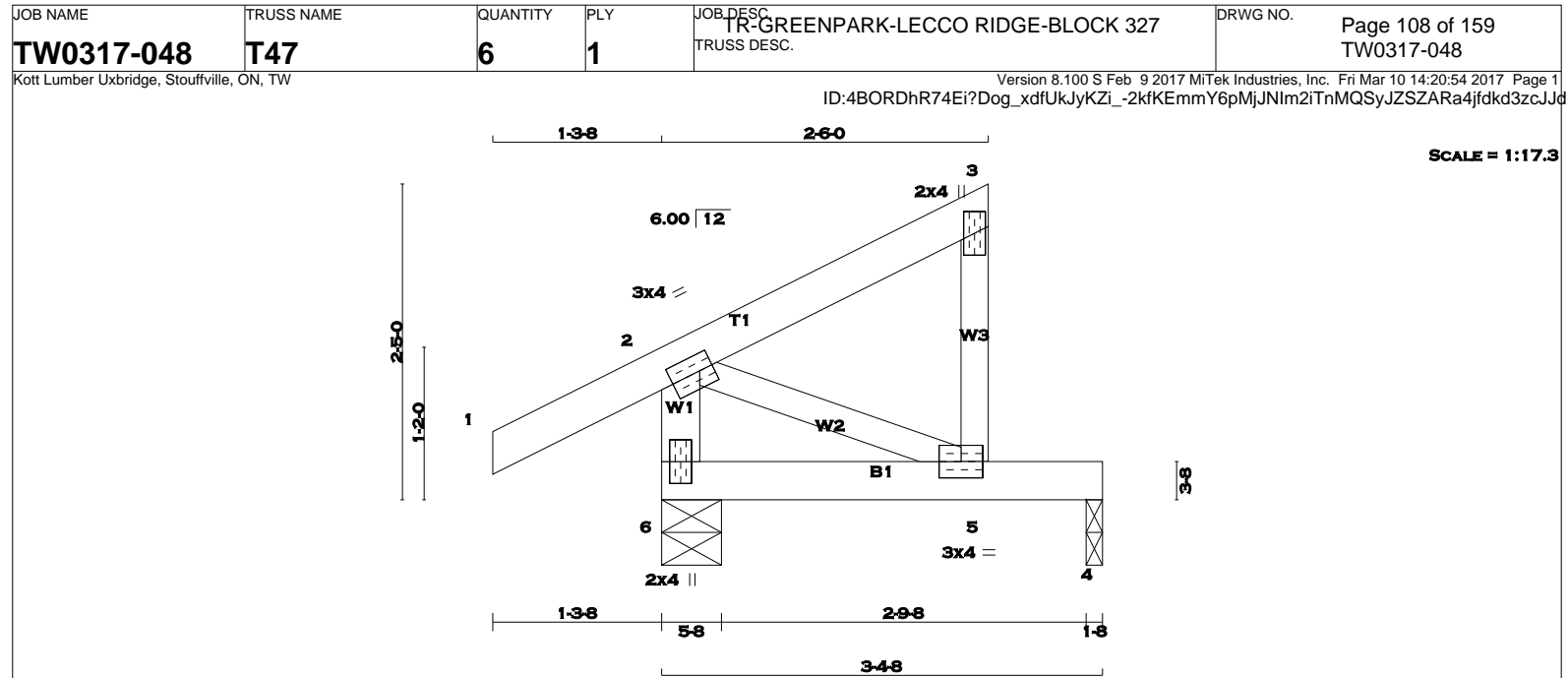


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LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. SPF 1 - 3 2x4 DRY No.2 SPF 5 - 3 2x3 DRY No.2 SPF 6 - 2 2x4 DRY No.2 SPF 6 - 4 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF DRY: SEASONED LUMBER.						DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS 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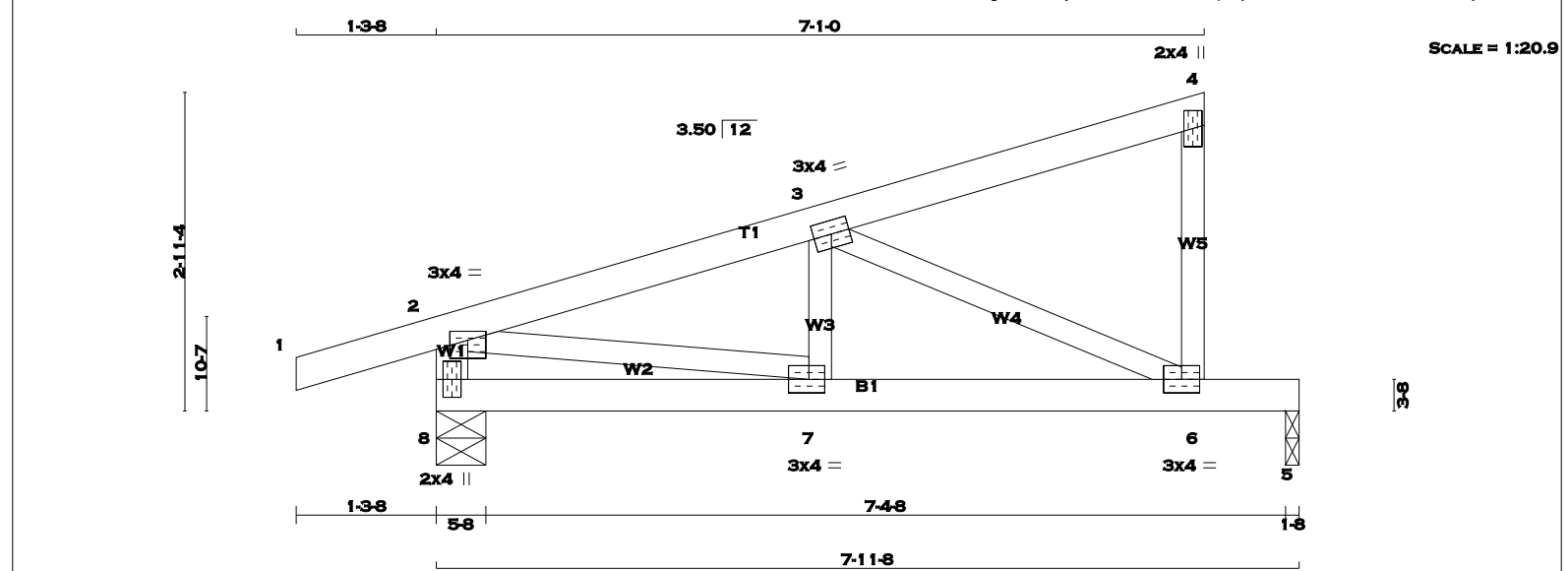


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LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.	BEARINGS	FACTORED	MAXIMUM FACTORED
1 - 4	2x4	DRY	No.2	SPF	GROSS REACTION	DOWN	INPUT
6 - 4	2x3	DRY	No.2	SPF	VERT	HORZ	BRG
8 - 2	2x4	DRY	No.2	SPF	8	477 0	477 193
8 - 5	2x4	DRY	No.2	SPF	5	313 0	313 0
ALL WEBS 2x3 DRY No.2				SPF	PROVIDE ANCHORAGE AT BEARING JOINT 8 FOR 249 LBS. FACTORED UPLIFT		
EXCEPT					PROVIDE ANCHORAGE AT BEARING JOINT 5 FOR 161 LBS. FACTORED UPLIFT		
DRY: SEASONED LUMBER.					PROVIDE FOR 193 LBS. FACTORED HORIZONTAL REACTION AT JOINT 8		

UNFACTORED REACTIONS							
JT	TYPE	PLATES	W	LEN	Y	X	1ST LCASE
2	TMVW-p	MT20	3.0	4.0	1.00	2.00	332
3	TMVW-t	MT20	3.0	4.0			245 / 0
4	TMV-p	MT20	2.0	4.0			147 / 0
6	BMVW-t	MT20	3.0	4.0			0 / 0
7	BMVW-t	MT20	3.0	4.0	1.50	1.75	0 / 0
8	BMV1-p	MT20	2.0	4.0			0 / 0
A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.							

LOADING							
TOTAL LOAD CASES: (11)							
CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED (LC)	
FR-TO		FROM TO		FR-TO			
1-2	0 / 14	-77.3 -77.3	0.10 (1)	10.00	7-3	0 / 91	0.03 (11)
2-3	-581 / 301	-77.3 -77.3	0.16 (5)	6.25	3-6	-619 / 384	0.16 (1)
3-4	-50 / 36	-77.3 -77.3	0.12 (5)	6.25	2-7	-251 / 578	0.13 (1)
6-4	-108 / 79	0.0	0.0	7.81			
8-2	-467 / 272	0.0	0.0	0.05 (1)	7.81		
8-7	-180 / 0	-17.5 -17.5	0.10 (1)	6.25			
7-6	-298 / 564	-17.5 -17.5	0.45 (1)	6.25			
6-5	0 / 0	-17.5 -17.5	0.36 (1)	10.00			

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF (9.0) PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS. CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.

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CONTINUED ON PAGE 2

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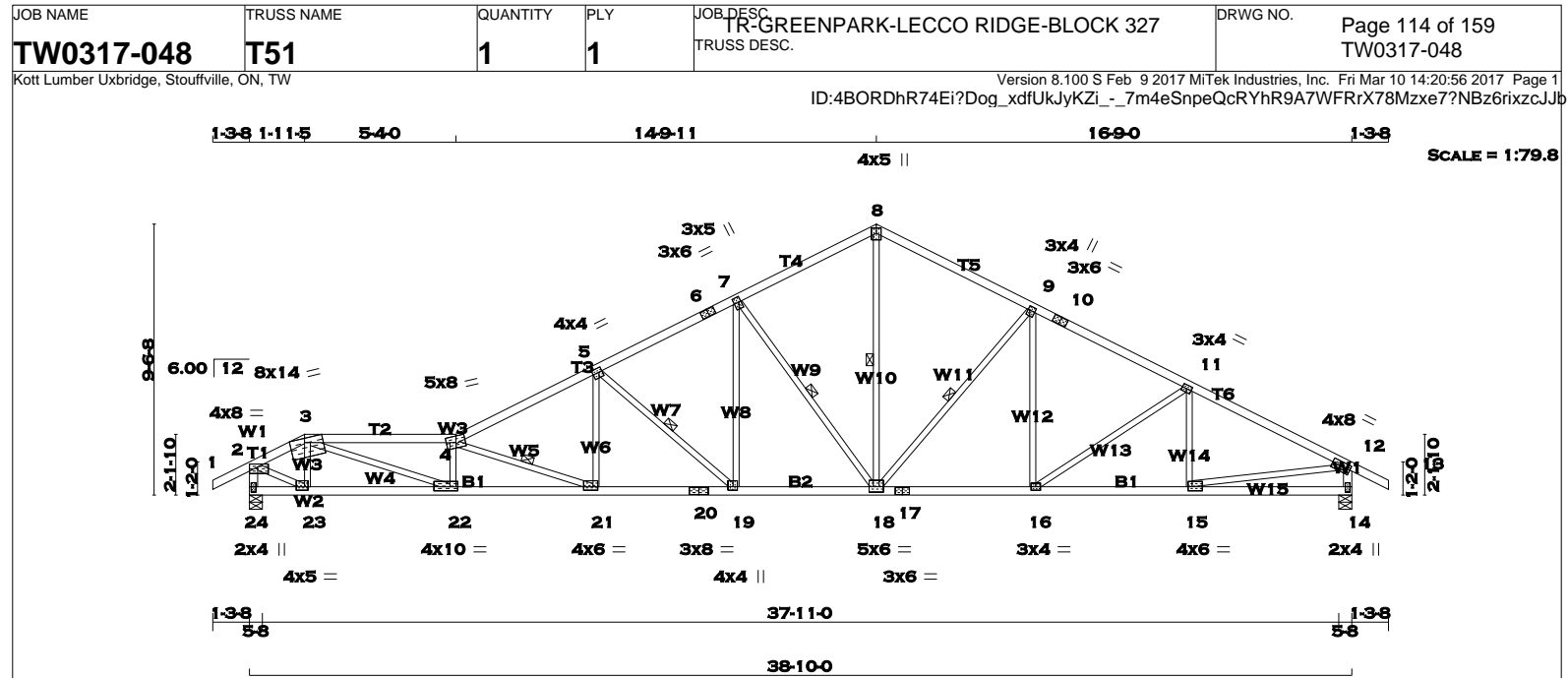
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<div>LUMBER</div> <div>N. L. G. A. RULES</div> <div>CHORDS SIZE</div> <div>LUMBER</div> <div>DESCR.</div> <div>SPF</div> <div>1 - 3 2x4 DRY No.2</div> <div>3 - 4 2x4 DRY No.2</div> <div>4 - 6 2x4 DRY No.2</div> <div>6 - 8 2x4 DRY No.2</div> <div>8 - 10 2x4 DRY No.2</div> <div>10 - 13 2x4 DRY No.2</div> <div>24 - 2 2x4 DRY No.2</div> <div>14 - 12 2x4 DRY No.2</div> <div>24 - 20 2x4 DRY 1650F 1.5E</div> <div>20 - 17 2x4 DRY 1650F 1.5E</div> <div>17 - 14 2x4 DRY 1650F 1.5E</div> <div>ALL WEBS 2x3 DRY No.2</div> <div>EXCEPT</div> <div>SPF</div> <div>DRY: SEASONED LUMBER.</div>										<div>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</div> <div>BEARINGS</div> <div>FACTORED</div> <div>MAXIMUM FACTORED</div> <div>INPUT</div> <div>REQRD</div> <div>GROSS REACTION</div> <div>GROSS REACTION</div> <div>BRG</div> <div>BRG</div> <div>JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX</div> <div>24 1947 0 1995 237 -912 5-8 5-8</div> <div>14 1947 0 1980 0 -842 5-8 5-8</div> <div>PROVIDE ANCHORAGE AT BEARING JOINT 24 FOR 912 LBS. FACTORED UPLIFT</div> <div>PROVIDE ANCHORAGE AT BEARING JOINT 14 FOR 842 LBS. FACTORED UPLIFT</div> <div>NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES.</div> <div>SHALL BE PROVIDED BY BUILDG. DESIGNER</div> <div>PROVIDE FOR 237 LBS FACTORED HORIZONTAL REACTION AT JOINT 24</div> <div>UNFACTORED REACTIONS</div> <div>1ST LCASE</div> <div>MAX./MIN. COMPONENT REACTIONS</div> <div>JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL</div> <div>24 1364 967 / 0 0 / 0 0 / 0 121 / -906 396 / 0 0 / 0</div> <div>14 1364 967 / 0 0 / 0 0 / 0 84 / -856 396 / 0 0 / 0</div> <div>HORIZONTAL REACTIONS</div> <div>24 --- 0 / 0 0 / 0 0 / 0 169 / -169 0 / 0 0 / 0</div> <div>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 24, 14</div> <div>BRACING</div> <div>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.34 FT.</div> <div>MAX. UNBRACED BOTTOM CHORD LENGTH = 4.69 FT. OR RIGID CEILING DIRECTLY APPLIED.</div> <div>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.</div> <div>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-21. DBS = 6-0-0. CBF = 89 LBS.</div> <div>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-19. DBS = 10-0-0. CBF = 83 LBS.</div> <div>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-18. DBS = 12-0-0. CBF = 93 LBS.</div> <div>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 8-18. DBS = 18-0-0. CBF = 89 LBS.</div> <div>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 9-18. DBS = 20-0-0. CBF = 78 LBS.</div> <div>DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.</div> <div>END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW</div> <div>LOADING</div> <div>TOTAL LOAD CASES: (11)</div> <div>CHORDS</div> <div>WEBS</div> <div>MAX. FACTORED</div> <div>MAX. FACTORED</div> <div>MEMB. FORCE (LBS)</div> <div>FACTORED VERT. LOAD LC1 MAX. UNBRAC LENGTH FR-TO</div> <div>MEMB. FORCE (LBS)</div> <div>MAX. CSI (LC)</div> <div>FR-TO</div> <div>FROM TO</div> <div>1-2 0 / 23 -77.3 -77.3 0.10 (1) 10.00 23-3 -677 / 363 0.10 (1)</div> <div>2-3 -2248 / 1021 -77.3 -77.3 0.19 (7) 4.56 3-22 -1795 / 4201 0.92 (1)</div> <div>3-4 -5934 / 2619 -77.3 -77.3 0.78 (1) 2.34 22-4 -1387 / 699 0.20 (1)</div> <div>4-5 -4146 / 1825 -77.3 -77.3 0.48 (7) 3.20 4-21 -2445 / 1167 0.53 (1)</div> <div>5-6 -3007 / 1379 -77.3 -77.3 0.42 (7) 3.83 21-5 -364 / 984 0.22 (1)</div> <div>6-7 -3007 / 1379 -77.3 -77.3 0.42 (7) 3.83 5-19 -1387 / 772 0.39 (1)</div> <div>7-8 -2183 / 1064 -77.3 -77.3 0.37 (7) 4.41 19-7 -438 / 980 0.37 (7)</div> <div>8-9 -2191 / 1087 -77.3 -77.3 0.42 (8) 4.34 7-18 -1293 / 789 0.59 (3)</div> <div>9-10 -2623 / 1145 -77.3 -77.3 0.45 (8) 4.02 18-8 -757 / 1608 0.44 (7)</div> <div>10-11 -2623 / 1145 -77.3 -77.3 0.45 (8) 4.02 18-9 -666 / 523 0.32 (4)</div> <div>11-12 -2811 / 1170 -77.3 -77.3 0.45 (8) 3.83 16-9 -89 / 226 0.07 (8)</div> <div>12-13 0 / 23 -77.3 -77.3 0.10 (1) 10.00 16-11 -238 / 279 0.19 (4)</div> <div>24-2 -2031 / 931 0.0 0.0 0.20 (1) 5.99 15-11 -274 / 221 0.07 (1)</div> <div>14-12 -1935 / 868 0.0 0.0 0.19 (1) 6.09 2-23 -896 / 2168 0.48 (1)</div> <div>24-23 -220 / 254 -17.5 -17.5 0.12 (1) 6.25 15-12 -9 / 2548 0.57 (1)</div> <div>23-22 -1026 / 2019 -17.5 -17.5 0.36 (1) 6.25</div> <div>22-21 -2759 / 6061 -17.5 -17.5 0.82 (1) 4.69</div> <div>21-20 -1666 / 3770 -17.5 -17.5 0.49 (1) 5.74</div> <div>20-19 -1666 / 3770 -17.5 -17.5 0.49 (1) 5.74</div> <div>19-18 -1084 / 2723 -17.5 -17.5 0.37 (1) 6.25</div> <div>18-17 -773 / 2353 -17.5 -17.5 0.33 (1) 6.25</div> <div>17-16 -773 / 2353 -17.5 -17.5 0.33 (1) 6.25</div> <div>16-15 -897 / 2515 -17.5 -17.5 0.33 (1) 6.25</div>										<div>DESIGN CRITERIA</div> <div>SPECIFIED LOADS:</div> <div>TOP CH. LL = 23.3 PSF</div> <div>DL = 3.0 PSF</div> <div>BOT CH. LL = 0.0 PSF</div> <div>DL = 7.0 PSF</div> <div>TOTAL LOAD = 33.3 PSF</div> <div>SPACING = 24.0 IN. C/C</div> <div>LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 6.00/12</div> <div>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010</div> <div>THIS DESIGN COMPLIES WITH:</div> <div>- PART 9 OF OBC 2012, BCBC 2012, ABC 2014</div> <div>- CSA 086-09</div> <div>- TPIC 2011</div> <div>(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD</div> <div>ALLOWABLE DEFL.(LL)= L/360 (1.29")</div> <div>CALCULATED VERT. DEFL.(LL) = L/999 (0.42")</div> <div>ALLOWABLE DEFL.(TL)= L/360 (1.29")</div> <div>CALCULATED VERT. DEFL.(TL) = L/638 (0.73")</div> <div>CSI: TC=0.78 (3-4:1), BC=0.82 (21-22:1), WB=0.92 (3-22:1), SSI=0.18 (11-12:1)</div> <div>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10</div> <div>COMP=1.10 SHEAR=1.10 TENS=1.10</div> <div>COMPANION LIVE LOAD FACTOR = 0.50</div> <div>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .</div> <div>NAIL VALUES</div> <div>PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)</div> <div>MAX MIN MAX MIN MAX MIN</div> <div>MT20 618 354 1667 822 2284 1656</div> <div>PLATE PLACEMENT TOL. = 0.250 inches</div> <div>PLATE ROTATION TOL. = 5.0 Deg.</div> <div>JSI GRIP= 0.90 (3) (INPUT = 0.90)</div> <div>JSI METAL= 0.97 (20) (INPUT = 1.00)</div>									
<div>LICENSED PROFESSIONAL ENGINEER</div> <div>T.L. WISE</div> <div>100083566</div> <div>PROVINCE OF ONTARIO</div> <div>March 10, 2017</div>										<div>RECEIVED</div> <div>TOWN OF MILTON</div> <div>MAR 29, 2017</div> <div>17-4978</div> <div>BUILDING DIVISION</div>																			
										CONTINUED ON PAGE 2																			

LOADING
TOTAL LOAD CASES: (11)

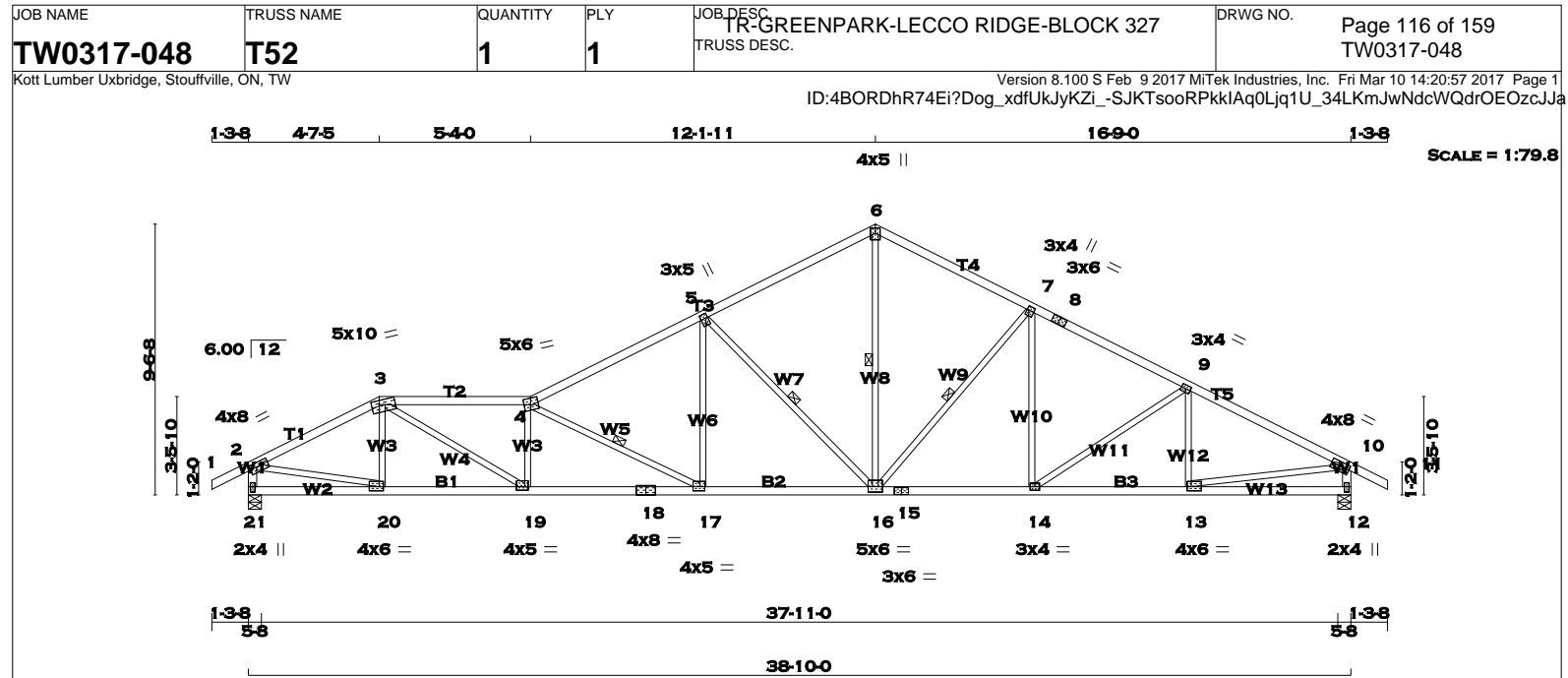
C H O R D S					W E B S				
MAX. FACTORED		FACTORED			MAX. FACTORED				
MEMB.	FORCE	VERT. LOAD	LC1 MAX	MAX.	MEMB.	FORCE	MAX		
	(LBS)	(PLF)	CSI (LC)	UNBRAC		(LBS)	CSI (LC)		
FR-TO		FROM TO	LENGTH	FR-TO					
15-14	-9 / 18	-17.5 -17.5	0.10 (11)	10.00					

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF (9.0) PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.



READ ALL NOTES ON THIS PAGE AND ON THE
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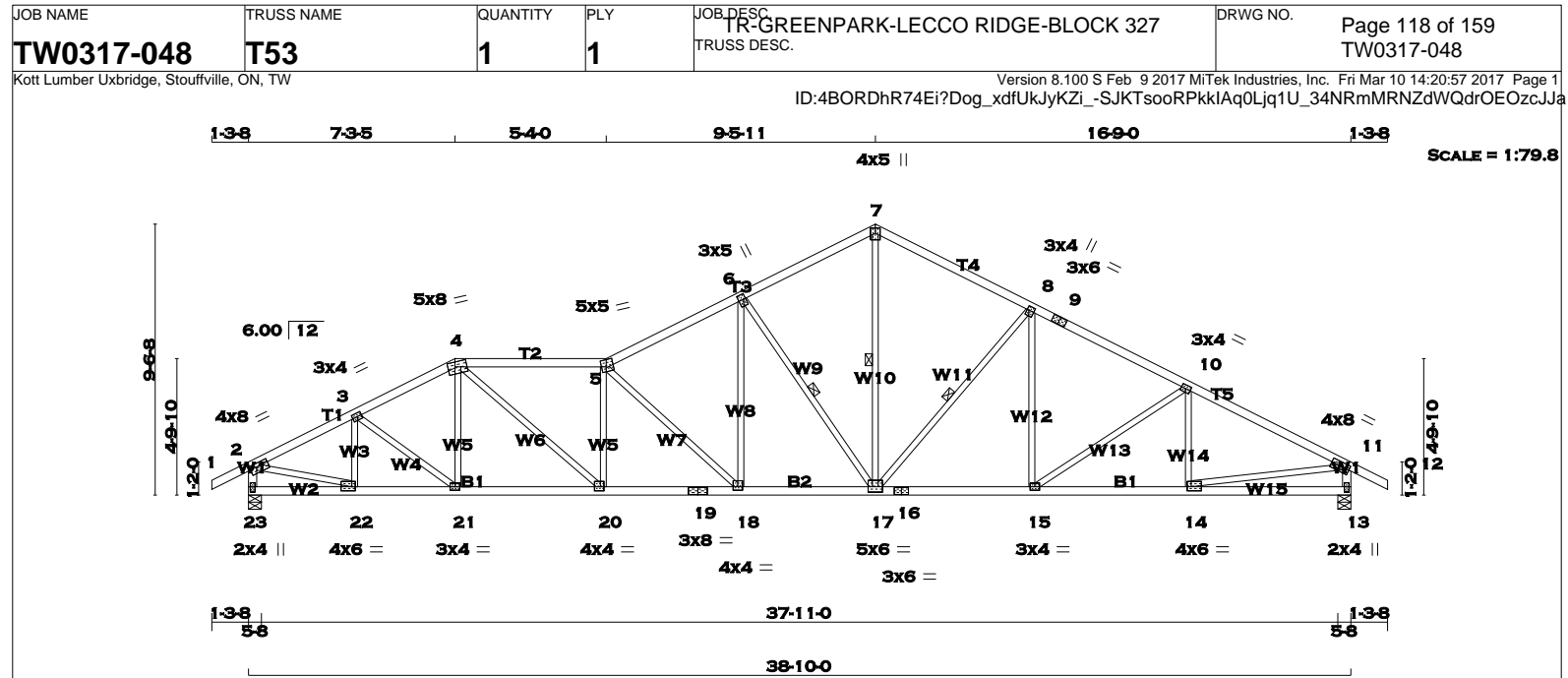


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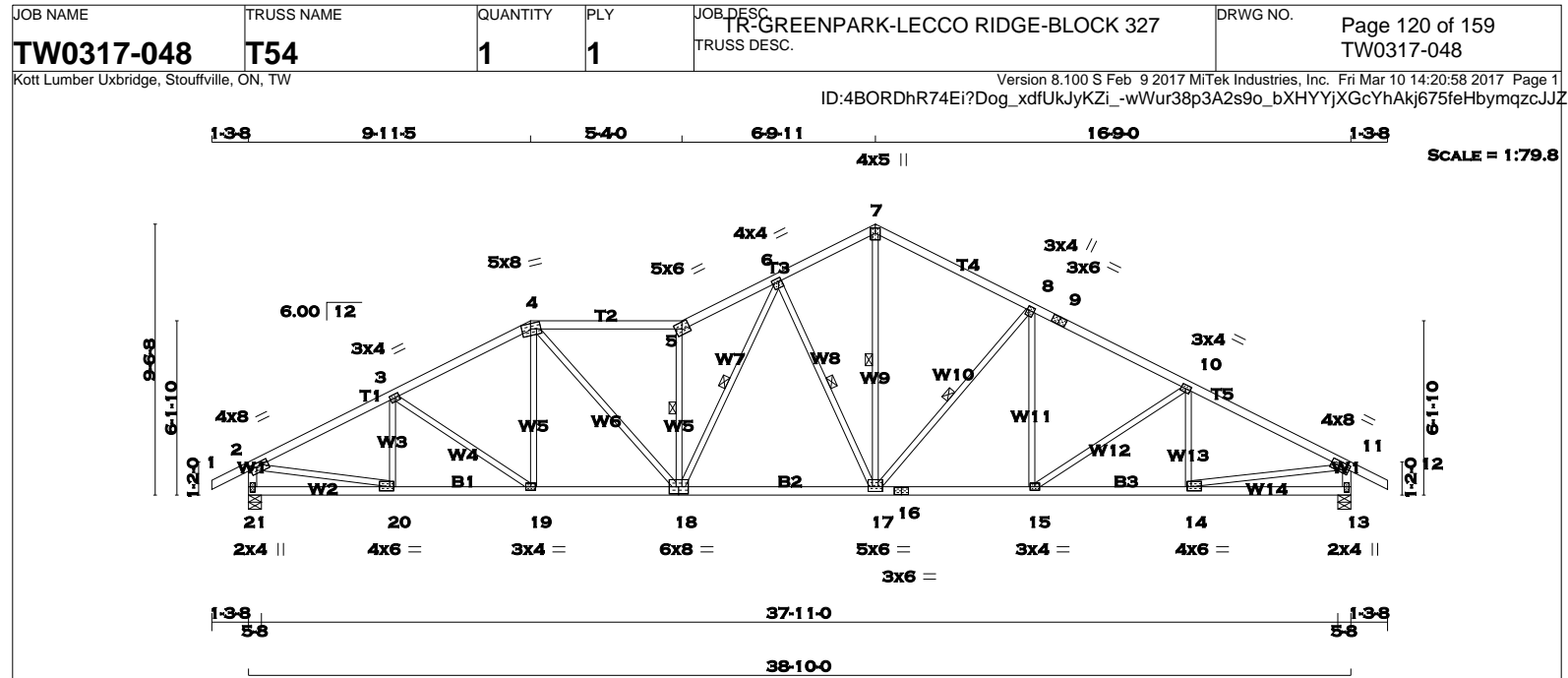


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<u>DESIGN CRITERIA</u>		
SPECIFIED LOADS:		
TOP CH.	LL = 23.3	PSF
	DL = 3.0	PSF
BOT CH.	LL = 0.0	PSF
	DL = 7.0	PSF
TOTAL LOAD	= 33.3	PSF
<u>SPACING = 24.0 IN. C/C</u>		
LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12		

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= $L/360$ (1.29")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.18")
ALLOWABLE DEFL.(TL)= $L/360$ (1.29")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.33")

CSI: TC=0.65 (7-8:8), BC=0.49 (11-12:1),
WB=0.80 (8-11:8), SS=0.26 (5-6:1)

DOL NUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)	(PLI)	(PSI)	(PLI)	(PSI)	(PLI)
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	822	2284	1656

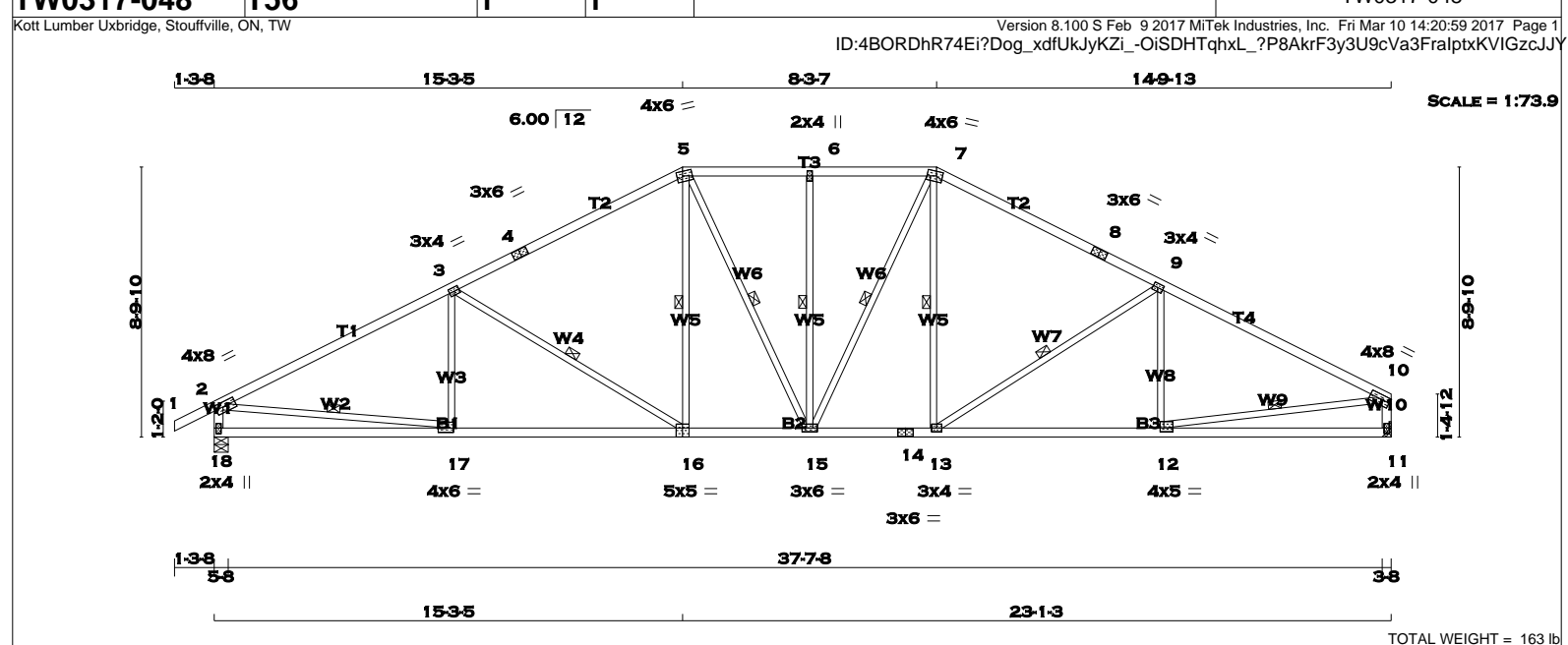
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (4) (INPUT = 0.90)
JSI METAL= 0.65 (13) (INPUT = 1.00)



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LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER								DESIGN CRITERIA				[M][F]																											
N. L. G. A. RULES		SIZE		LUMBER		DESCR.		BEARINGS								SPECIFIED LOADS:																											
CHORDS		SIZE		LUMBER		DESCR.		FACTORED				MAXIMUM FACTORED				INPUT				REQRD																							
1 - 4		2x4		DRY		No.2		SPF				GROSS REACTION				GROSS REACTION				BRG				BRG																			
4 - 5		2x4		DRY		No.2		SPF				JT				VERT				HORZ				DOWN				HORZ				UPLIFT				IN-SX				IN-SX			
5 - 7		2x4		DRY		No.2		SPF				18				1925				0				1977				236				-923				5-8							
7 - 8		2x4		DRY		No.2		SPF				11				1820				0				1852				0				-856				HANGER BY OTHERS							
8 - 10		2x4		DRY		No.2		SPF																								MIN. SEAT SIZE: 3-8											
18 - 2		2x4		DRY		No.2		SPF																																			
11 - 10		2x4		DRY		No.2		SPF																																			
18 - 16		2x4		DRY		No.2		SPF																																			
16 - 14		2x4		DRY		No.2		SPF																																			
14 - 11		2x4		DRY		No.2		SPF																																			
ALL WEBS		2x3		DRY		No.2		SPF																																			
												PROVIDE ANCHORAGE AT BEARING JOINT 18 FOR 923 LBS. FACTORED UPLIFT												SPACING = 24.0 IN. C/C				LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12															
												PROVIDE ANCHORAGE AT BEARING JOINT 11 FOR 856 LBS. FACTORED UPLIFT																															
												NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES, SHALL BE PROVIDED BY BUILDG. DESIGNER																															

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}.INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.



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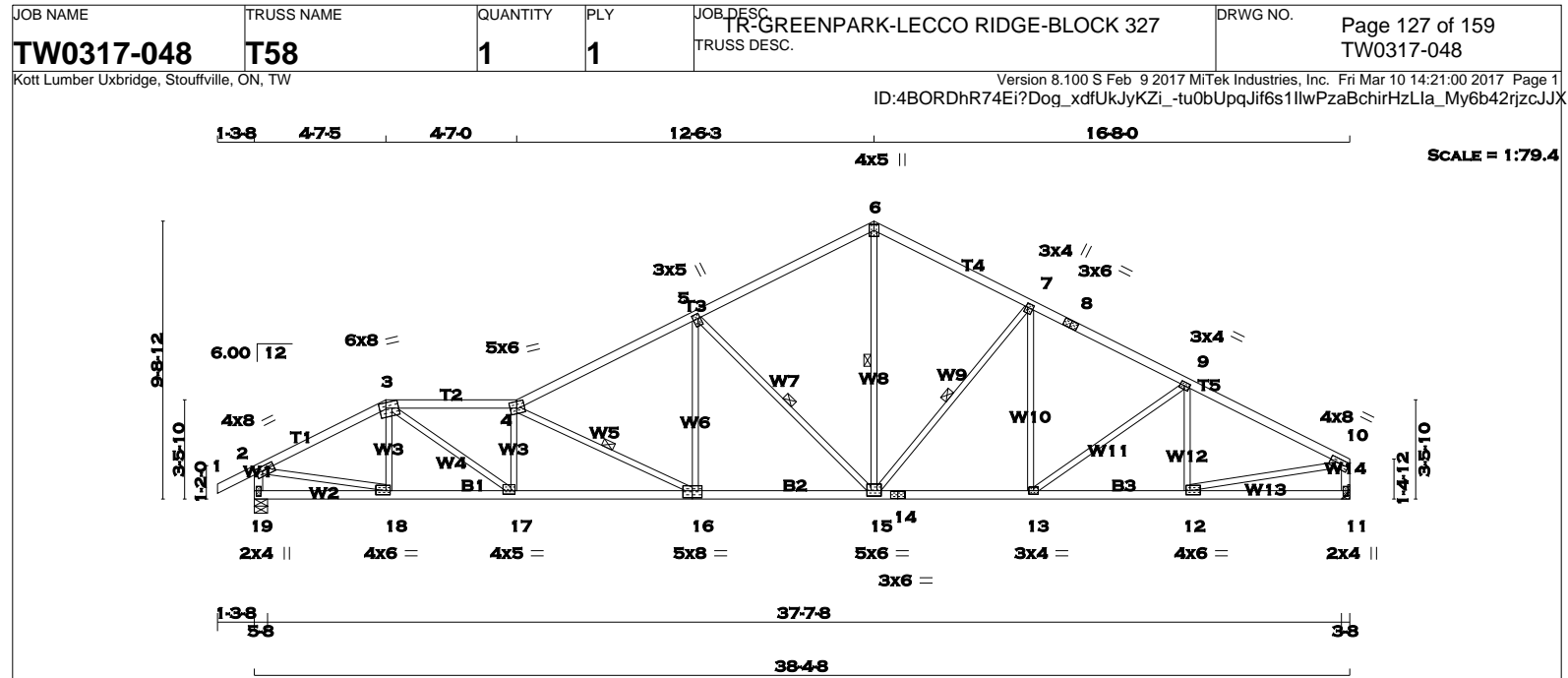
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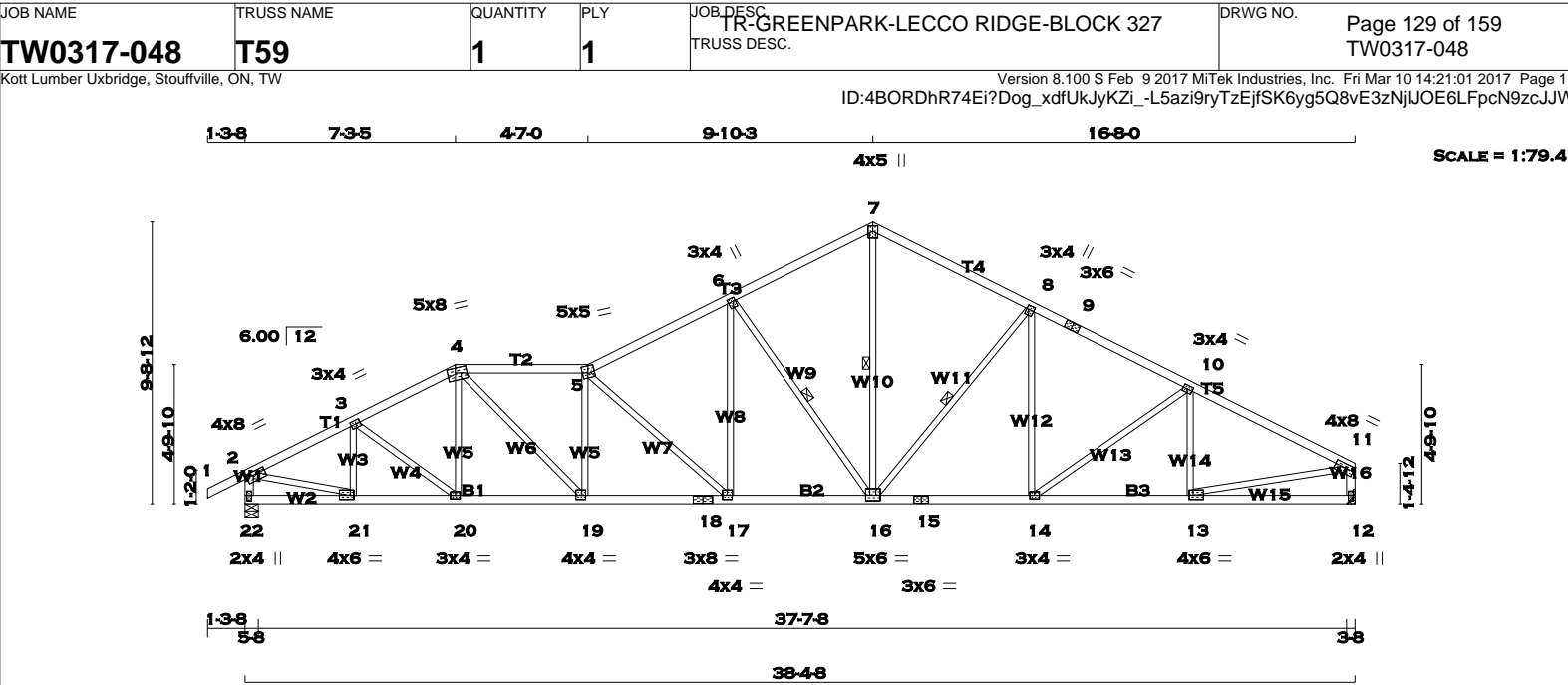


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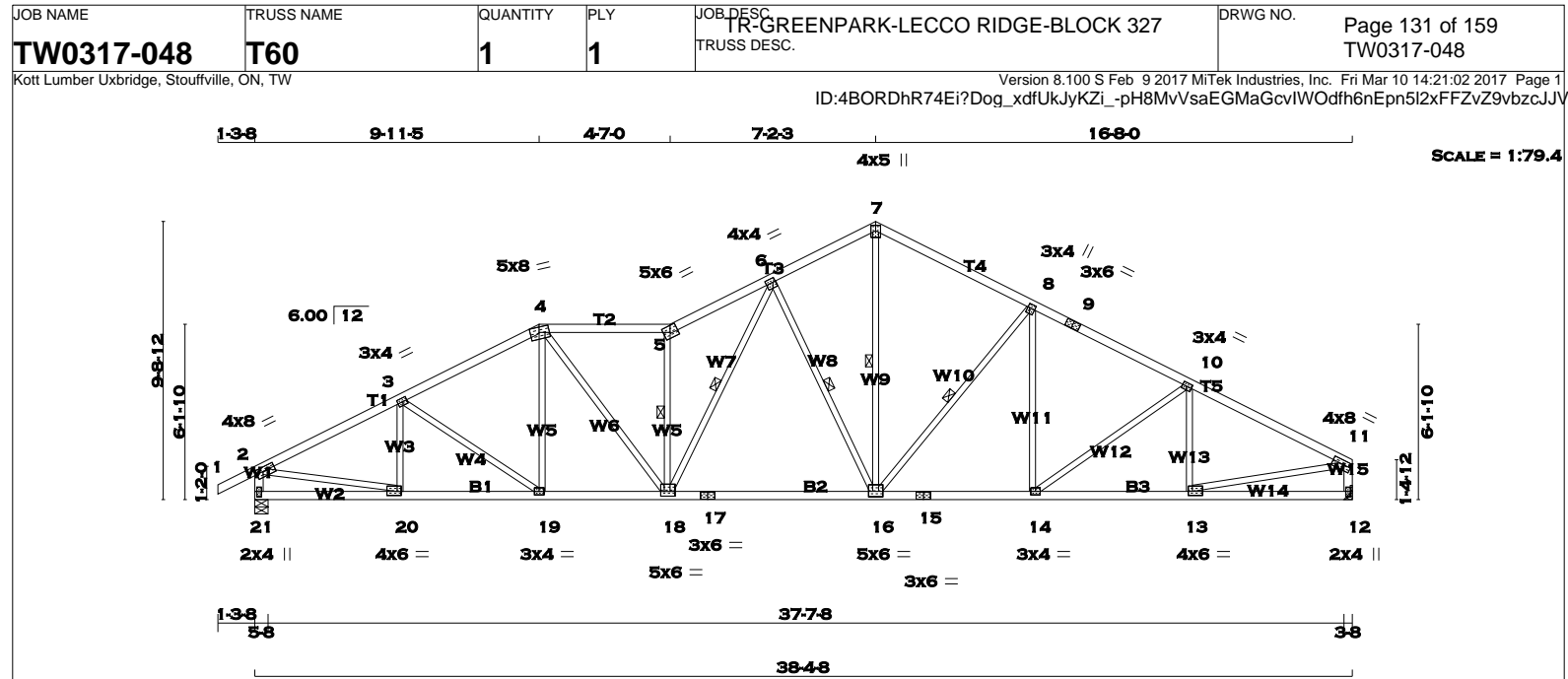


WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}.INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.



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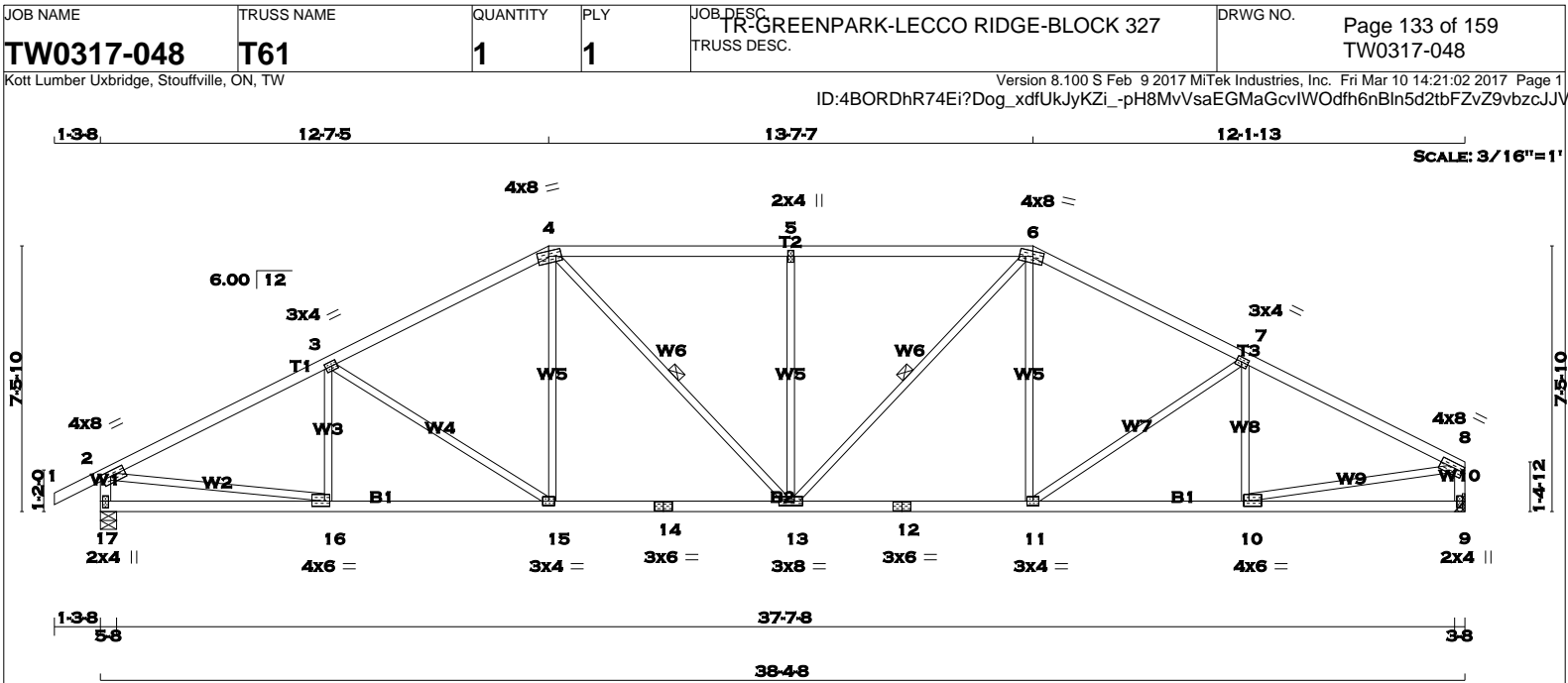


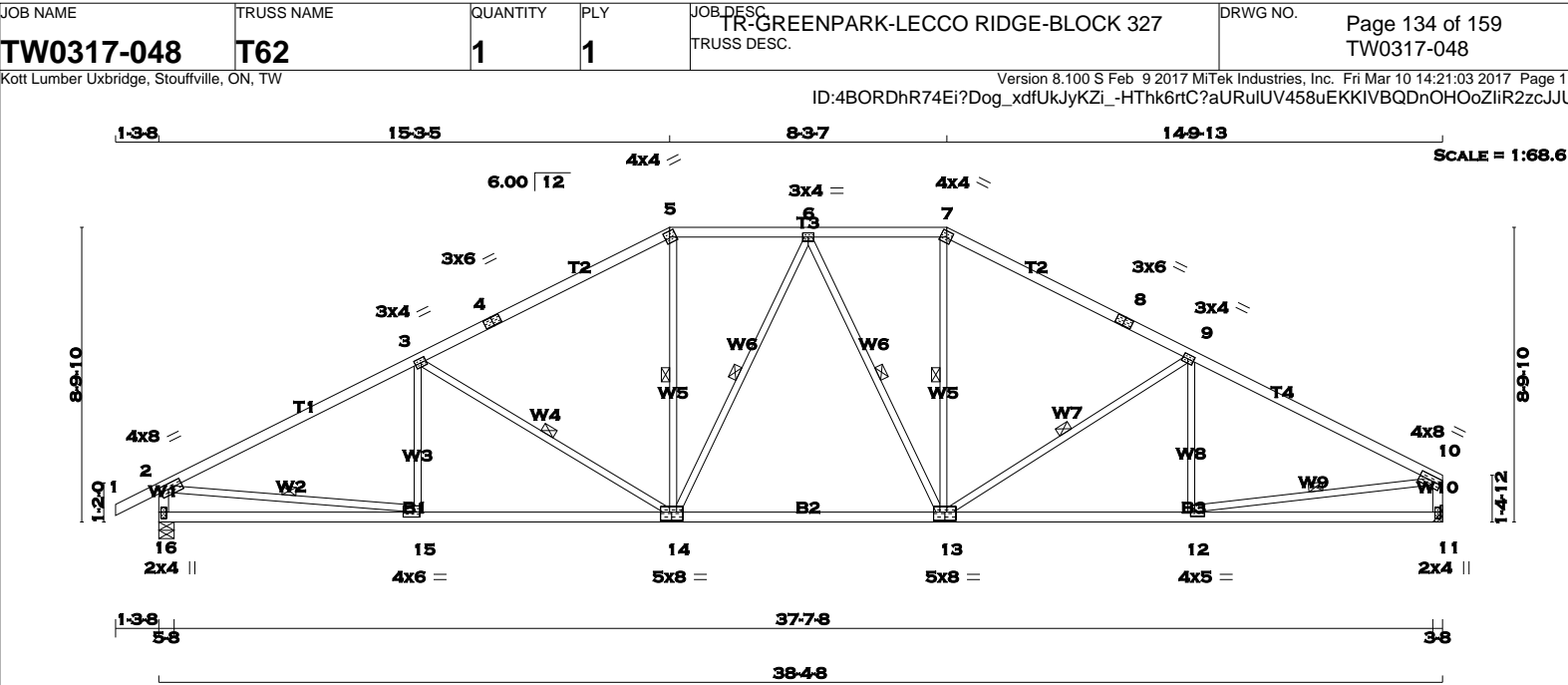
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LUMBER				N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.	CHORDS	SIZE	LUMBER	DESCR.
1 - 4	2x4	DRY	No.2	1 - 4	2x4	DRY	No.2
4 - 5	2x4	DRY	No.2	4 - 5	2x4	DRY	No.2
5 - 7	2x4	DRY	No.2	5 - 7	2x4	DRY	No.2
7 - 8	2x4	DRY	No.2	7 - 8	2x4	DRY	No.2
8 - 10	2x4	DRY	No.2	8 - 10	2x4	DRY	No.2
16 - 2	2x4	DRY	No.2	16 - 2	2x4	DRY	No.2
11 - 10	2x4	DRY	No.2	11 - 10	2x4	DRY	No.2
16 - 14	2x4	DRY	No.2	16 - 14	2x4	DRY	No.2
14 - 13	2x4	DRY	No.2	14 - 13	2x4	DRY	No.2
13 - 11	2x4	DRY	No.2	13 - 11	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2	ALL WEBS	2x3	DRY	No.2
EXCEPT				EXCEPT			

DRY: SEASONED LUMBER.

PLATES (table is in inches)							
JT	TYPE	PLATES	W	LEN	Y	X	
2	TMVW-t	MT20	4.0	8.0	1.75	3.00	
3	TMVW-t	MT20	3.0	4.0	1.50	1.75	
4	TS-t	MT20	3.0	6.0			
5	TTW-h	MT20	4.0	4.0	2.00	1.75	
6	TMVW-t	MT20	3.0	4.0			
7	TTW-h	MT20	4.0	4.0	2.00	1.75	
8	TS-t	MT20	3.0	6.0			
9	TMVW-t	MT20	3.0	4.0	1.50	1.75	
10	TMVW-t	MT20	4.0	8.0	1.75	Edge	
11	BMV1+p	MT20	2.0	4.0	2.25	1.00	
12	BMVW-t	MT20	4.0	5.0	1.50	1.50	
13	BSWWW-I	MT20	5.0	8.0	3.00	4.00	
14	BSWWW-I	MT20	5.0	8.0	3.00	4.00	
15	BMVW-t	MT20	4.0	6.0	1.75	2.00	
16	BMV1+p	MT20	2.0	4.0	2.25	1.00	

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED GROSS REACTION			MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
16	1925	0	1977	236	-924	5-8	5-8
11	1820	0	1852	0	-856	HANGER BY OTHERS	
						MIN. SEAT SIZE: 3-8	

PROVIDE ANCHORAGE AT BEARING JOINT 16 FOR 924 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 11 FOR 856 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES.
SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 236 LBS. FACTORED HORIZONTAL REACTION AT JOINT 16

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS	JT	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS
16	1349	957 / 0	0 / 0	16	1349	957 / 0	0 / 0
11	1277	893 / 0	0 / 0	11	1277	893 / 0	0 / 0

HORIZONTAL REACTIONS

16	---	0 / 0	0 / 0	0 / 0	169 / -139	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 16

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.28 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 5.68 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 3-14, 5-14, 6-14, 6-13, 7-13, 9-13. DBS = 20-0-0. CBF = 79 LBS.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 2-15. DBS = 10-0-0. CBF = 79 LBS.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 10-12. DBS = 12-0-0. CBF = 91 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (11)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED HORIZ. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED HORIZ. LOAD (LC)	
FR-TO		FROM	TO	FR-TO		FROM	TO
1-2	0 / 23	-77.3	-77.3 0.10 (1)	10.00	15-3	-141 / 227	0.05 (3)
2-3	-2859 / 1338	-77.3	-77.3 0.90 (1)	3.28	3-14	-674 / 558	0.37 (3)
3-4	-2306 / 1166	-77.3	-77.3 0.84 (7)	3.72	14-5	-285 / 653	0.14 (1)
4-5	-2306 / 1166	-77.3	-77.3 0.84 (7)	3.72	14-6	-208 / 277	0.13 (4)
5-6	-2043 / 1143	-77.3	-77.3 0.31 (7)	4.63	6-13	-273 / 298	0.17 (3)
6-7	-2001 / 1127	-77.3	-77.3 0.31 (8)	4.65	13-7	-288 / 658	0.14 (1)
7-8	-2266 / 1152	-77.3	-77.3 0.80 (8)	3.82	13-9	-569 / 498	0.30 (4)
8-9	-2266 / 1152	-77.3	-77.3 0.80 (8)	3.82	12-9	-212 / 254	0.08 (1)
9-10	-2683 / 1270	-77.3	-77.3 0.81 (8)	3.47	2-15	-1048 / 2590	0.57 (1)
16-2	-1920 / 961	0.0	0.0 0.19 (1)	6.13	12-10	-1026 / 2451	0.54 (1)
11-10	-1796 / 893	0.0	0.0 0.18 (1)	6.28			
16-15	-219 / 193	-17.5	-17.5 0.23 (11)	6.25			
15-14	-1261 / 2622	-17.5	-17.5 0.52 (1)	5.68			
14-13	-811 / 2131	-17.5	-17.5 0.45 (1)	6.25			
13-12	-994 / 2426	-17.5	-17.5 0.50 (1)	6.21			
12-11	-11 / 23	-17.5	-17.5 0.22 (11)	6.25			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.28")
CALCULATED VERT. DEFL.(LL) = L/999 (0.16")
ALLOWABLE DEFL.(TL)= L/360 (1.28")
CALCULATED VERT. DEFL.(TL) = L/999 (0.33")

CSI: TC=0.90 (2-3:1), BC=0.52 (14-15:1), WB=0.57 (2-15:1), SSI=0.26 (2-3:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (5) (INPUT = 0.90)
JSI METAL= 0.73 (12) (INPUT = 1.00)



March 10, 2017

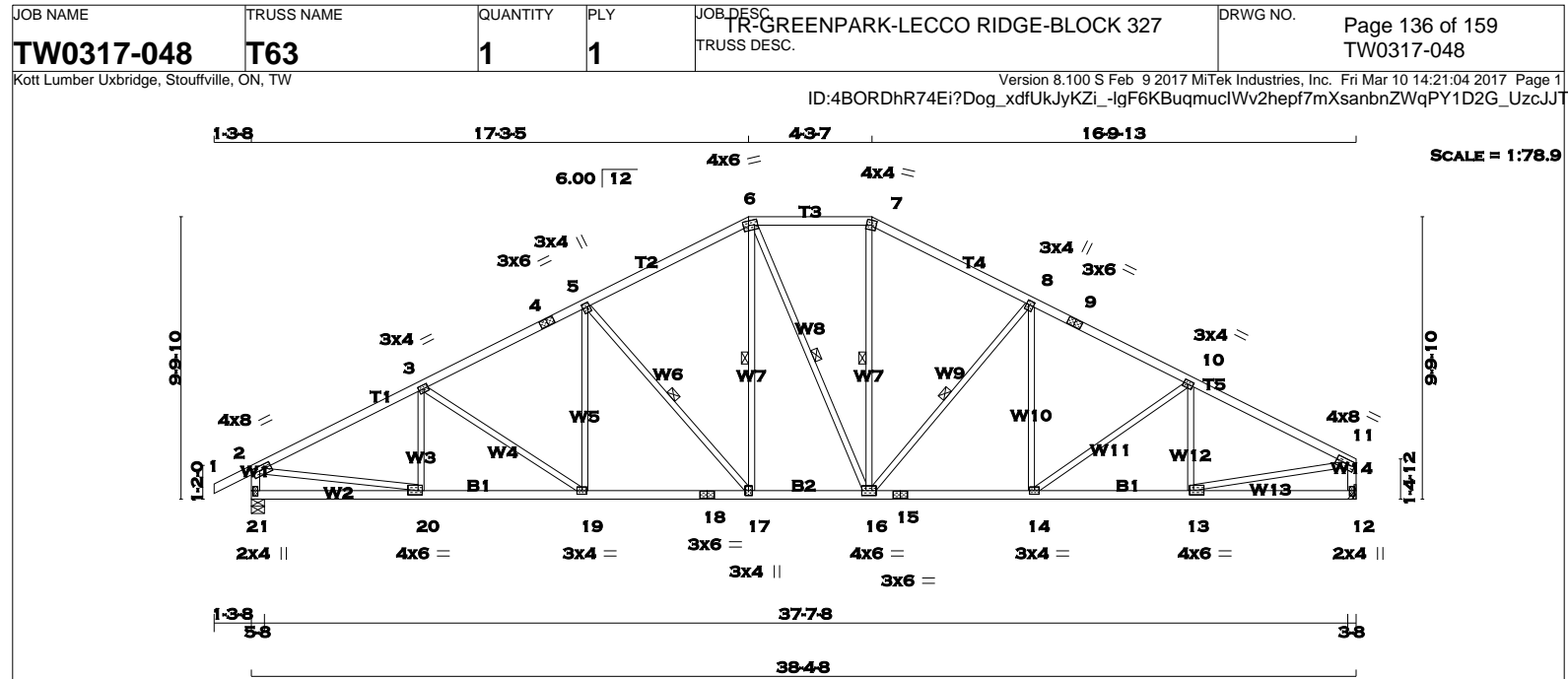
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WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}.INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

SPF

1 - 4

2x4

DRY

No.2

SPF

4 - 6

2x4

DRY

No.2

SPF

6 - 7

2x4

DRY

No.2

SPF

7 - 9

2x4

DRY

No.2

SPF

9 - 11

2x4

DRY

No.2

SPF

21 - 2

2x4

DRY

No.2

SPF

12 - 11

2x4

DRY

No.2

SPF

21 - 18

2x4

DRY

No.2

SPF

18 - 15

2x4

DRY

No.2

SPF

15 - 12

2x4

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-t	MT20	4.0	8.0	1.75	3.00
3	TMVW-t	MT20	3.0	4.0	1.50	1.75
4	TS-t	MT20	3.0	6.0		
5	TMVW+t	MT20	3.0	4.0	1.75	0.75
6	TTWW-m	MT20	4.0	6.0	1.75	2.25
7	TTW-m	MT20	4.0	4.0	2.00	1.75
8	TMVW+t	MT20	3.0	4.0	1.75	0.75
9	TS-t	MT20	3.0	6.0		
10	TMVW-t	MT20	3.0	4.0	1.50	1.75
11	TMVW-t	MT20	4.0	8.0	1.75	Edge
12	BMV1+p	MT20	2.0	4.0	2.25	1.00
13	BMVW-t	MT20	4.0	6.0	1.75	1.75
14	BMVW-t	MT20	3.0	4.0		
15	BS-t	MT20	3.0	6.0		
16	BMVW+t	MT20	4.0	6.0		
17	BMVW+t	MT20	3.0	4.0		
18	BS-t	MT20	3.0	6.0		
19	BMVW-t	MT20	3.0	4.0		
20	BMVW-t	MT20	4.0	6.0	1.75	1.75
21	BMV1+p	MT20	2.0	4.0	2.25	1.00

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK T20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
21	1925	0	1972	262
12	1820	0	1857	0

MIN. SEAT SIZE: 3-8

PROVIDE ANCHORAGE AT BEARING JOINT 21 FOR 896 LBS. FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT 12 FOR 828 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES.

SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 262 LBS. FACTORED HORIZONTAL REACTION AT JOINT 21

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. SNOW	MAX./MIN. LIVE	PERM. LIVE	WIND	DEAD	SOIL
21	1349	957 / 0	0 / 0	0 / 0	117 / -892	392 / 0	0 / 0
12	1277	893 / 0	0 / 0	0 / 0	92 / -838	384 / 0	0 / 0

HORIZONTAL REACTIONS

21	---	0 / 0	0 / 0	0 / 0	187 / -153	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 21

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.82 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 5.74 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 - 2x3 SPF No.2. LATERAL BRACE(S) AT 1/2 LENGTH OF 5-17, 6-17, 6-16, 7-16, 8-16. DBS = 20-0-0. CBF = 84 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS: 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (11)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
1-2	0 / 23	-77.3 -77.3	0.10 (1)	10-00	20-3 -260 / 231	0.06 (1)	
2-3	-2803 / 1264	-77.3 -77.3	0.48 (7)	3-82	3-19 -268 / 284	0.23 (3)	
3-4	-2586 / 1241	-77.3 -77.3	0.48 (7)	4-05	19-5 -88 / 253	0.07 (7)	
4-5	-2586 / 1241	-77.3 -77.3	0.48 (7)	4-05	5-17 -711 / 541	0.37 (3)	
5-6	-2098 / 1080	-77.3 -77.3	0.45 (7)	4-40	17-6 -344 / 618	0.22 (7)	
6-7	-1849 / 1038	-77.3 -77.3	0.32 (8)	4-77	6-16 -132 / 150	0.10 (8)	
7-8	-2082 / 1073	-77.3 -77.3	0.43 (8)	4-43	16-7 -255 / 581	0.16 (7)	
8-9	-2492 / 1206	-77.3 -77.3	0.46 (8)	4-11	16-8 -643 / 505	0.33 (4)	
9-10	-2492 / 1206	-77.3 -77.3	0.46 (8)	4-11	14-8 -66 / 197	0.06 (8)	
10-11	-2616 / 1183	-77.3 -77.3	0.46 (8)	3-96	14-10 -171 / 233	0.14 (4)	
21-2	-1926 / 923	0.0 0.0	0.19 (1)	6-12	13-10 -338 / 264	0.09 (1)	
12-11	-1813 / 855	0.0 0.0	0.18 (1)	6-26	2-20 -1006 / 2540	0.58 (7)	
				13-11	-973 / 2384	0.53 (8)	
21-20	-245 / 219	-17.5 -17.5	0.13 (11)	6-25			
20-19	-1241 / 2567	-17.5 -17.5	0.45 (1)	5-74			
19-18	-1005 / 2344	-17.5 -17.5	0.42 (1)	6-23			
18-17	-1005 / 2344	-17.5 -17.5	0.42 (1)	6-23			
17-16	-654 / 1884	-17.5 -17.5	0.35 (1)	6-25			
16-15	-745 / 2230	-17.5 -17.5	0.41 (1)	6-25			
15-14	-745 / 2230	-17.5 -17.5	0.41 (1)	6-25			
14-13	-935 / 2335	-17.5 -17.5	0.42 (1)	6-25			
13-12	-11 / 23	-17.5 -17.5	0.12 (11)	6-25			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD	=	33.3	PSF	

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014

- CSA 086-09

- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.28")

CALCULATED VERT. DEFL.(LL) = L/999 (0.15")

ALLOWABLE DEFL.(TL)= L/360 (1.28")

CALCULATED VERT. DEFL.(TL) = L/999 (0.28")

CSI: TC=0.48 (2-3:7), BC=0.45 (19-20:1), WB=0.58 (2-20:7), SSI=0.19 (2-3:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 822	2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (7) (INPUT = 0.90)

JSI METAL= 0.63 (18) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER

T.L. WISE

100083566

PROVINCE OF ONTARIO

March 10, 2017

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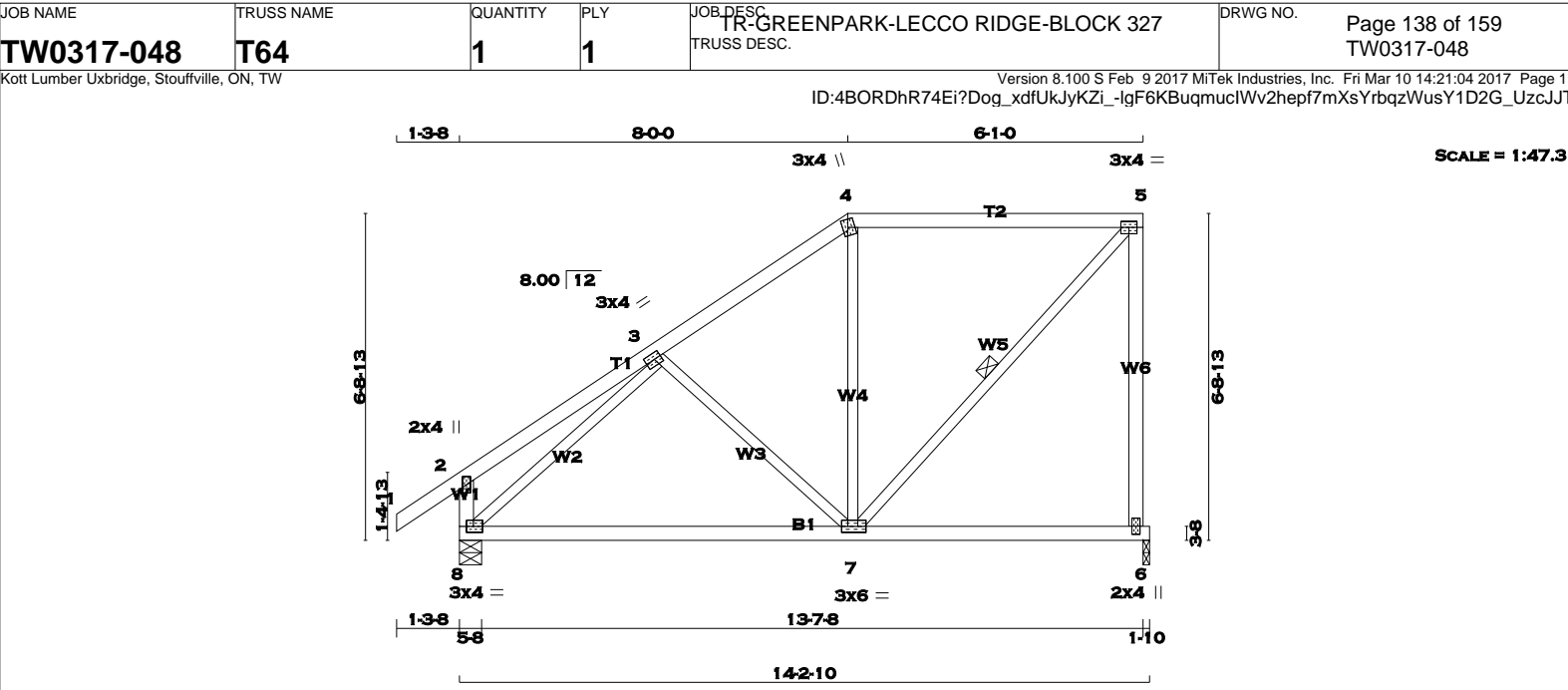
CONTINUED ON PAGE 2

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}.INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.



READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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LUMBER
N. L. G. A. RULES
CHORDS SIZE LUMBER DESCR.

1 - 4	2x4	DRY	No.2	SPF
4 - 5	2x4	DRY	No.2	SPF
6 - 5	2x4	DRY	No.2	SPF
8 - 2	2x4	DRY	No.2	SPF
8 - 6	2x4	DRY	No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
2	TMV+p	MT20	2.0	4.0		
3	TMVW-t	MT20	3.0	4.0	1.50	1.75
4	TTW+m	MT20	3.0	4.0	2.00	1.25
5	TMVW-t	MT20	3.0	4.0		
6	BMV1+p	MT20	2.0	4.0		
7	BMVWW-t	MT20	3.0	6.0	1.50	1.50
8	BMVW1-t	MT20	3.0	4.0	1.50	1.75

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER
BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
6	668	0	726	0	-397	1-10	1-10	
8	774	0	830	384	-372	5-8	5-8	

PROVIDE ANCHORAGE AT BEARING JOINT 6 FOR 397 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 8 FOR 372 LBS. FACTORED UPLIFT

PROVIDE FOR 384 LBS. FACTORED HORIZONTAL REACTION AT JOINT 8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS						
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
6	469	328 / 0	0 / 0	0 / 0	145 / -374	141 / 0	0 / 0	
8	541	392 / 0	0 / 0	0 / 0	139 / -361	149 / 0	0 / 0	

HORIZONTAL REACTIONS

8	---	0 / 0	0 / 0	0 / 0	274 / -181	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6, 8

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-7. DBS = 20-0-0. CBF = 34 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE, FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS: 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING
TOTAL LOAD CASES: (11)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRAC LENGTH
FR-TO		FROM TO			FR-TO		
1-2	0 / 29	-77.3 -77.3	0.10 (1)	10.00	3-7	-267 / 357	0.14 (3)
2-3	-26 / 167	-77.3 -77.3	0.24 (7)	6.25	7-4	-111 / 128	0.08 (3)
3-4	-510 / 326	-77.3 -77.3	0.26 (7)	6.25	7-5	-315 / 607	0.15 (7)
4-5	-415 / 340	-77.3 -77.3	0.39 (7)	6.25	8-3	-756 / 236	0.36 (4)
6-5	-692 / 420	0.0 0.0	0.61 (1)	7.81			
8-2	-260 / 250	0.0 0.0	0.04 (7)	7.81			
8-7	-378 / 610	-17.5 -17.5	0.30 (11)	6.25			
7-6	-49 / 126	-17.5 -17.5	0.27 (11)	6.25			

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT { 40-0-0 } FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.47")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.47")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.11")

CSI: TC=0.61 (5-6:1), BC=0.30 (7-8:11), WB=0.36 (3-8:4), SSI=0.18 (4-5:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (7) (INPUT = 0.90)
JSI METAL= 0.26 (3) (INPUT = 1.00)

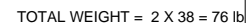


READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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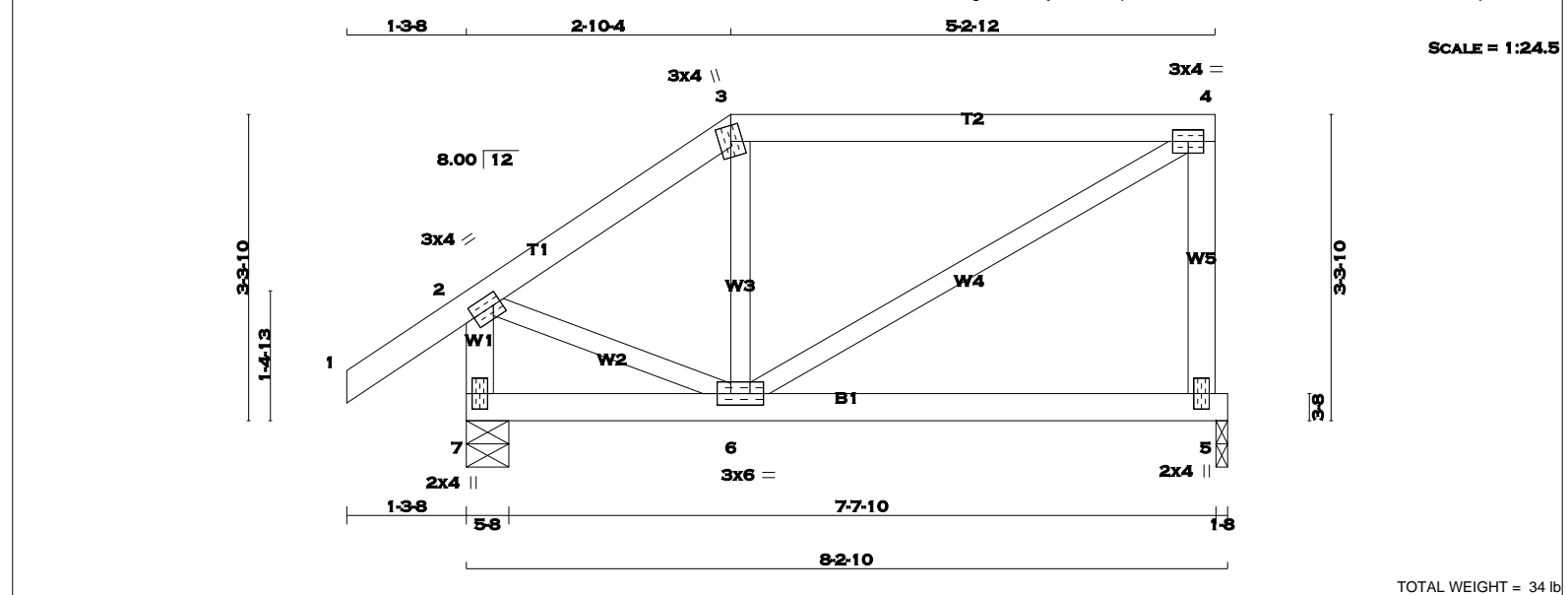


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JSI GRIP= 0.51 (3) (INPUT = 0.90)
JSI METAL= 0.09 (1) (INPUT = 1.00)

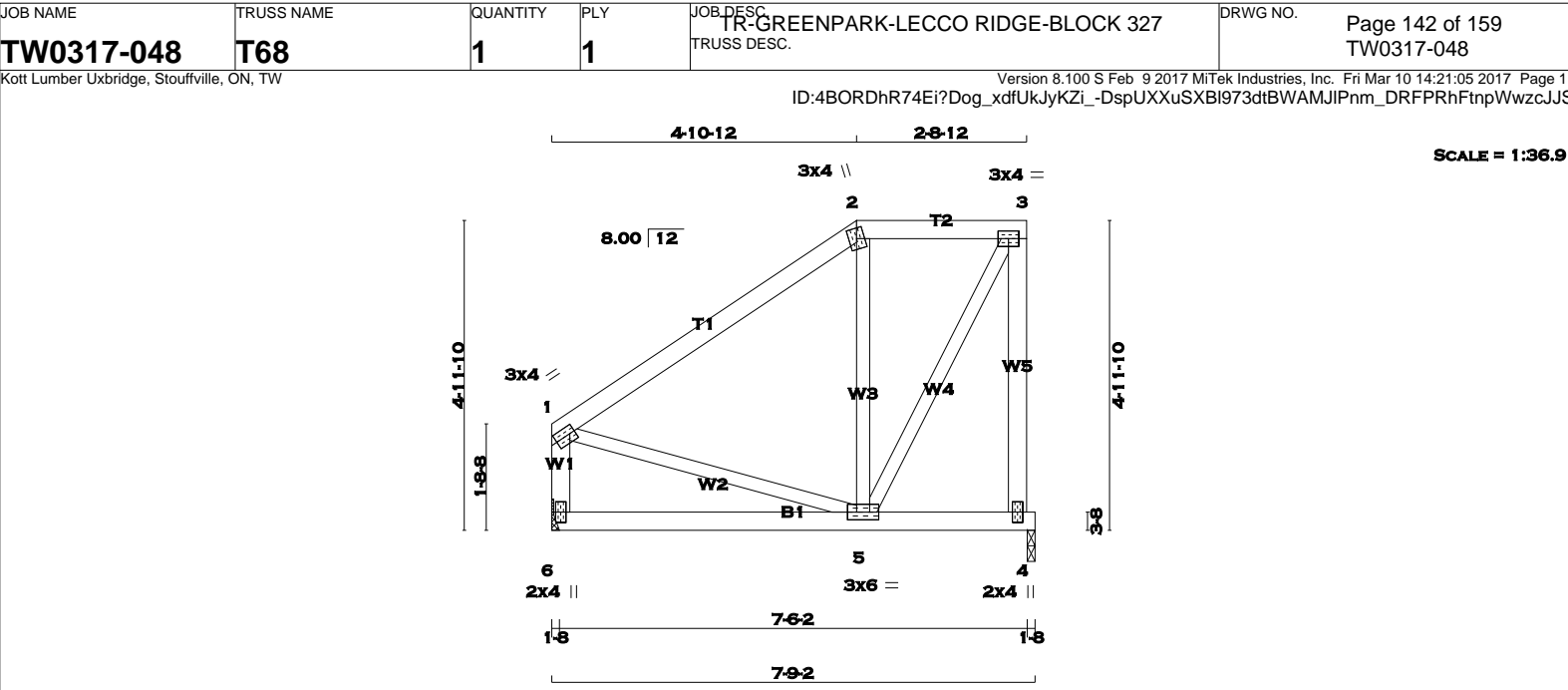


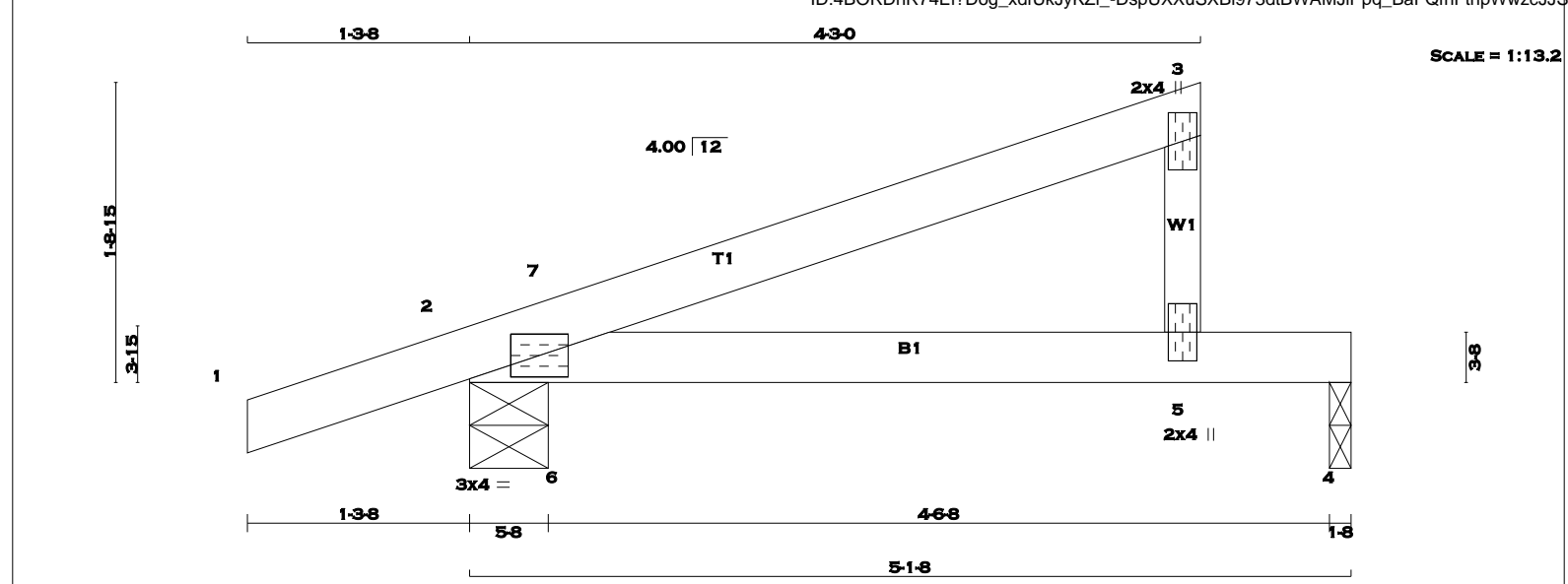


LUMBER					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA				[M]	
N. L. G. A. RULES										BEARINGS										
CHORDS		SIZE		LUMBER	DESCR.											SPECIFIED LOADS:				
1 - 3	2x4	DRY	No.2	SPF											TOP CH. LL = 23.3 PSF					
3 - 4	2x4	DRY	No.2	SPF											DL = 3.0 PSF					
5 - 4	2x4	DRY	No.2	SPF											BOT CH. LL = 0.0 PSF					
7 - 2	2x4	DRY	No.2	SPF											DL = 7.0 PSF					
7 - 5	2x4	DRY	No.2	SPF											TOTAL LOAD = 33.3 PSF					
ALL WEBS EXCEPT		2x3	DRY	No.2	SPF											SPACING = 24.0 IN. C/C				
DRY: SEASONED LUMBER.																				

PLATES (table is in inches)				TOTAL WEIGHT = 34 lb			
JT	TYPE	PLATES	W	LEN	Y	X	[M]
2	TMW-t	MT20	3.0	4.0	1.50	1.00	
3	TTW+m	MT20	3.0	4.0			
4	TMW-t	MT20	3.0	4.0			
5	BMV1+p	MT20	2.0	4.0			
6	BMWW-t	MT20	3.0	6.0			
7	BMV1+p	MT20	2.0	4.0			
A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.							

APPLIED.										ALLOWABLE DEFL.(LL)= L/360 (0.27")															
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.										CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")															
LOADING										ALLOWABLE DEFL.(TL)= L/360 (0.27")															
TOTAL LOAD CASES: (11)										CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")															
CHORDS					WEBS					CSI: TC=0.37 (3-4:1) , BC=0.10 (6-7:11) , WB=0.09 (4-6:7) , SSI=0.16 (3-4:1)															
MEMB.		MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD (PLF)		LC1 MAX (LC)		MAX. UNBRAC		MEMB.		MAX. FACTORED FORCE (LBS)		MAX CSI (LC)		DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10									
FR-TO				FROM TO				LENGTH		FR-TO						COMPANION LIVE LOAD FACTOR = 0.50									
1- 2		0 / 29		-77.3 -77.3		0.10 (1)		10.00		6- 3		-159 / 158		0.03 (7)		TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .									
2- 3		-323 / 172		-77.3 -77.3		0.14 (7)		6.25		6- 4		-168 / 315		0.09 (7)		NAIL VALUES									
3- 4		-272 / 203		-77.3 -77.3		0.37 (1)		6.25		2- 6		-35 / 279		0.06 (1)		PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)									
5- 4		-372 / 248		0.0 0.0		0.09 (7)		7.81								MAX MIN MAX MIN MAX MIN									
7- 2		-506 / 253		0.0 0.0		0.05 (1)		7.81								MT20 618 354 1667 822 2284 1656									
7- 6		-169 / 127		-17.5 -17.5		0.10 (11)		6.25								PLATE PLACEMENT TOL. = 0.250 inches									
6- 5		-23 / 59		-17.5 -17.5		0.10 (11)		6.25								PLATE ROTATION TOL. = 5.0 Deg.									
WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}.INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.																									





LUMBER

N. L. G. A. RULES

CHORDS

SIZE

1 - 3

2x4

DRY

No.2

5 - 3

2x3

DRY

No.2

2 - 4

2x4

DRY

No.2

DESCR.

SPF

SPF

SPF

DRY: SEASONED LUMBER.

TOTAL WEIGHT = 6 X 14 = 81 lb

[M]

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
2	341	0	341	117	-182	5-8	5-8		
4	181	0	181	0	-84	1-8	1-8		

PROVIDE ANCHORAGE AT BEARING JOINT 2 FOR 182 LBS. FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT 4 FOR 150 LBS. FACTORED UPLIFT

PROVIDE FOR 117 LBS. FACTORED HORIZONTAL REACTION AT JOINT 2

UNFACTORED REACTIONS									
		1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT		COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
2	237	178 / 0	0 / 0	0 / 0	0 / 0	0 / -168	59 / 0	0 / 0	
4	129	82 / 0	0 / 0	0 / 0	0 / 0	0 / -90	46 / 0	0 / 0	

HORIZONTAL REACTIONS							
2	---	0 / 0	0 / 0	0 / 0	84 / 0	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 2, 4

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

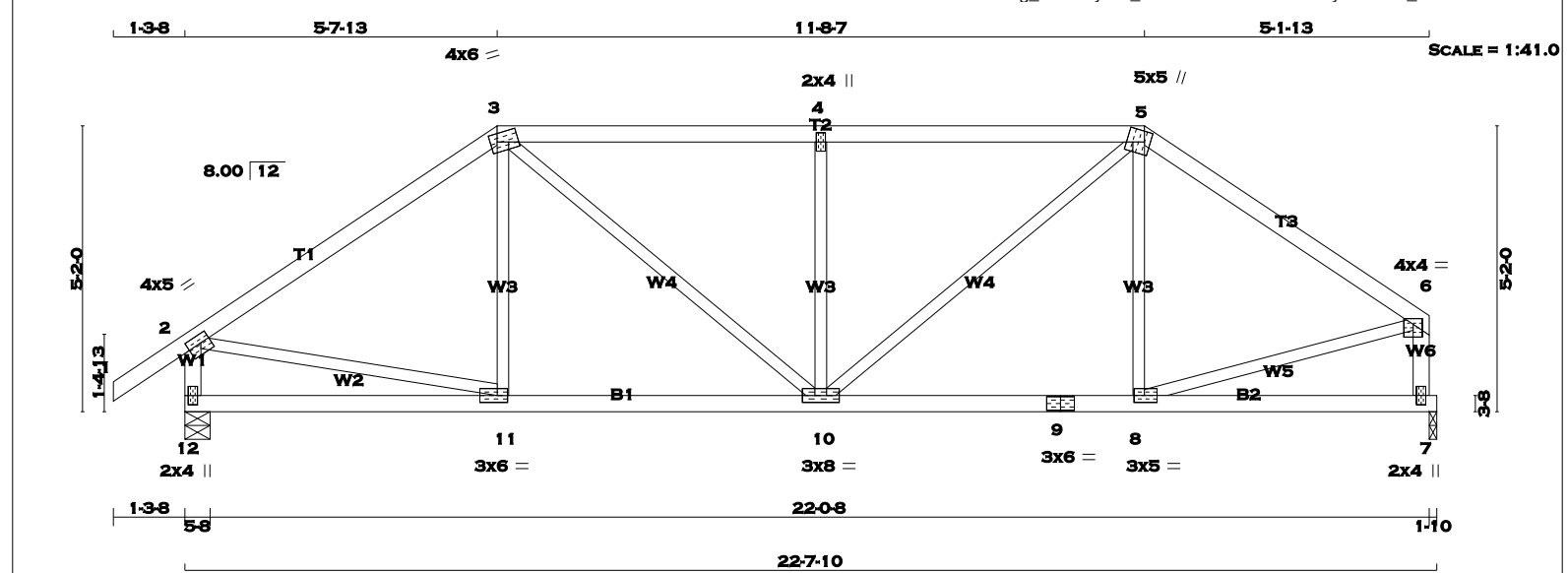
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

CHORDS										WEBS										COMPANION LIVE LOAD FACTOR = 0.50									
MEMB.		MAX. FACTORED FORCE (LBS)		VERT. LOAD (PLF)		LC1 MAX (LC)		MAX. UNBRAC LENGTH		MEMB.		MAX. FACTORED FORCE (LBS)		MAX (LC)															
FR-TO				FROM TO						FR-TO																			
1-2		0 / 15		-77.3		-77.3		0.10 (1)		10.00		6-7		-71 / 165		0.00 (1)													
2-7		-92 / 0		-77.3		-77.3		0.08 (11)		6.25																			
7-3		-48 / 4		-77.3		-77.3		0.21 (1)		6.25																			
5-3		-154 / 117		0.0		0.0		0.05 (5)		7.81																			
2-6		-16 / 33		-17.5		-17.5		0.11 (1)		6.25																			
6-5		-16 / 33		-17.5		-17.5		0.21 (1)		6.25																			
5-4		0 / 0		-17.5		-17.5		0.21 (1)		10.00																			
										TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .																			
										NAIL VALUES																			
PLATE		GRIP(DRY)		SHEAR		SECTION																							
		(PSI)		(PLI)		(PLI)																							
		MAX MIN		MAX MIN		MAX MIN																							
MT20		618 354		1667 822		2284 1656																							



LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

SPF

1 - 3

2x4

DRY

No.2

SPF

3 - 5

2x4

DRY

No.2

SPF

5 - 6

2x4

DRY

No.2

SPF

12 - 2

2x4

DRY

No.2

SPF

7 - 6

2x4

DRY

No.2

SPF

12 - 9

2x4

DRY

No.2

SPF

9 - 7

2x4

DRY

No.2

SPF

ALL WEBS

2x3

DRY

No.2

SPF

EXCEPT

DRY: SEASONED LUMBER.

TOTAL WEIGHT = 90 lb

[M]

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
		FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
12		1173	0	1247	241	-596	5-8	5-8	
7		1067	0	1101	0	-533	1-10	1-10	
PROVIDE ANCHORAGE AT BEARING JOINT 12 FOR 596 LBS. FACTORED UPLIFT									
PROVIDE ANCHORAGE AT BEARING JOINT 7 FOR 533 LBS. FACTORED UPLIFT									
NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES. SHALL BE PROVIDED BY BUILDG. DESIGNER									
PROVIDE FOR 241 LBS. FACTORED HORIZONTAL REACTION AT JOINT 12									
UNFACTORED REACTIONS									
		1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT		COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
12		821	588 / 0	0 / 0	0 / 0	183 / -576	233 / 0	0 / 0	
7		749	524 / 0	0 / 0	0 / 0	86 / -525	225 / 0	0 / 0	
HORIZONTAL REACTIONS									
12		---	0 / 0	0 / 0	0 / 0	172 / -158	0 / 0	0 / 0	
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 12, 7									
BRACING									
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.99 FT.									
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.									
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.									
LOADING									
TOTAL LOAD CASES: (11)									
		CHORDS				WEBS			
MEMB.		MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (LBS)	LC1 MAX (PLF)	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO							FR-TO		
1-2		0 / 29	-77.3	-77.3	0.10 (1)	10.00	11-3	-66 / 144	0.03 (8)
2-3		-1198 / 591	-77.3	-77.3	0.52 (7)	5.20	3-10	-325 / 481	0.36 (8)
3-4		-1374 / 794	-77.3	-77.3	0.50 (1)	4.99	10-4	-584 / 451	0.22 (3)
4-5		-1374 / 794	-77.3	-77.3	0.50 (1)	4.99	10-5	-364 / 590	0.40 (7)
5-6		-1113 / 559	-77.3	-77.3	0.44 (8)	5.55	8-5	-139 / 170	0.05 (3)
12-2		-1206 / 625	0.0	0.0	0.12 (1)	7.33	2-11	-341 / 980	0.22 (1)
7-6		-1066 / 558	0.0	0.0	0.11 (1)	7.67	8-6	-357 / 959	0.21 (1)
12-11		-220 / 212	-17.5	-17.5	0.14 (11)	6.25			
11-10		-417 / 1016	-17.5	-17.5	0.23 (1)	6.25			
10-9		-314 / 923	-17.5	-17.5	0.21 (1)	6.25			
9-8		-314 / 923	-17.5	-17.5	0.21 (1)	6.25			
8-7		-13 / 28	-17.5	-17.5	0.13 (11)	6.25			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 23.3 PSF

DL = 3.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.0 PSF

TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014

- CSA 086-09

- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.75")

CALCULATED VERT. DEFL.(LL) = L/999 (0.05")

ALLOWABLE DEFL.(TL)= L/360 (0.75")

CALCULATED VERT. DEFL.(TL) = L/999 (0.08")

CSI: TC=0.52 (2-3:7), BC=0.23 (10-11:1), WB=0.40 (5-10:7), SSI=0.22 (3-4:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (6) (INPUT = 0.90)

JSI METAL= 0.41 (2) (INPUT = 1.00)

PLATES (table is in inches)									
JT	TYPE	PLATES	W	LEN	Y	X			
2	TMW-t	MT20	4.0	5.0	1.75	2.00			
3	TTWW-m	MT20	4.0	6.0	1.75	1.50			
4	TMW+w	MT20	2.0	4.0					
5	TTWW+m	MT20	5.0	5.0	2.25	1.25			
6	TMW-p	MT20	4.0	4.0	1.25	2.00			
7	BMV1+p	MT20	2.0	4.0					
8	BMWW-t	MT20	3.0	5.0	1.50	2.25			
9	BS-t	MT20	3.0	6.0					
10	BMWWW-t	MT20	3.0	8.0					
11	BMWW-t	MT20	3.0	6.0	1.50	2.25			
12	BMV1+p	MT20	2.0	4.0					

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

LOADING									
TOTAL LOAD CASES: (11)									
		CHORDS				WEBS			
MEMB.		MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (LBS)	LC1 MAX (PLF)	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO							FR-TO		
1-2		0 / 29	-77.3	-77.3	0.10 (1)	10.00	11-3	-66 / 144	0.03 (8)
2-3		-1198 / 591	-77.3	-77.3	0.52 (7)	5.20	3-10	-325 / 481	0.36 (8)
3-4		-1374 / 794	-77.3	-77.3	0.50 (1)	4.99	10-4	-584 / 451	0.22 (3)
4-5		-1374 / 794	-77.3	-77.3	0.50 (1)	4.99	10-5	-364 / 590	0.40 (7)
5-6		-1113 / 559	-77.3	-77.3	0.44 (8)	5.55	8-5	-139 / 170	0.05 (3)
12-2		-1206 / 625	0.0	0.0	0.12 (1)	7.33	2-11	-341 / 980	0.22 (1)
7-6		-1066 / 558	0.0	0.0	0.11 (1)	7.67	8-6	-357 / 959	0.21 (1)
12-11		-220 / 212	-17.5	-17.5	0.14 (11)	6.25			
11-10		-417 / 1016	-17.5	-17.5	0.23 (1)	6.25			
10-9		-314 / 923	-17.5	-17.5	0.21 (1)	6.25			
9-8		-314 / 923	-17.5	-17.5	0.21 (1)	6.25			
8-7		-13 / 28	-17.5	-17.5	0.13 (11)	6.25			

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}.INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.

LICENSED PROFESSIONAL ENGINEER

T.L. WISE

100083566

PROVINCE OF ONTARIO

March 10, 2017

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READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

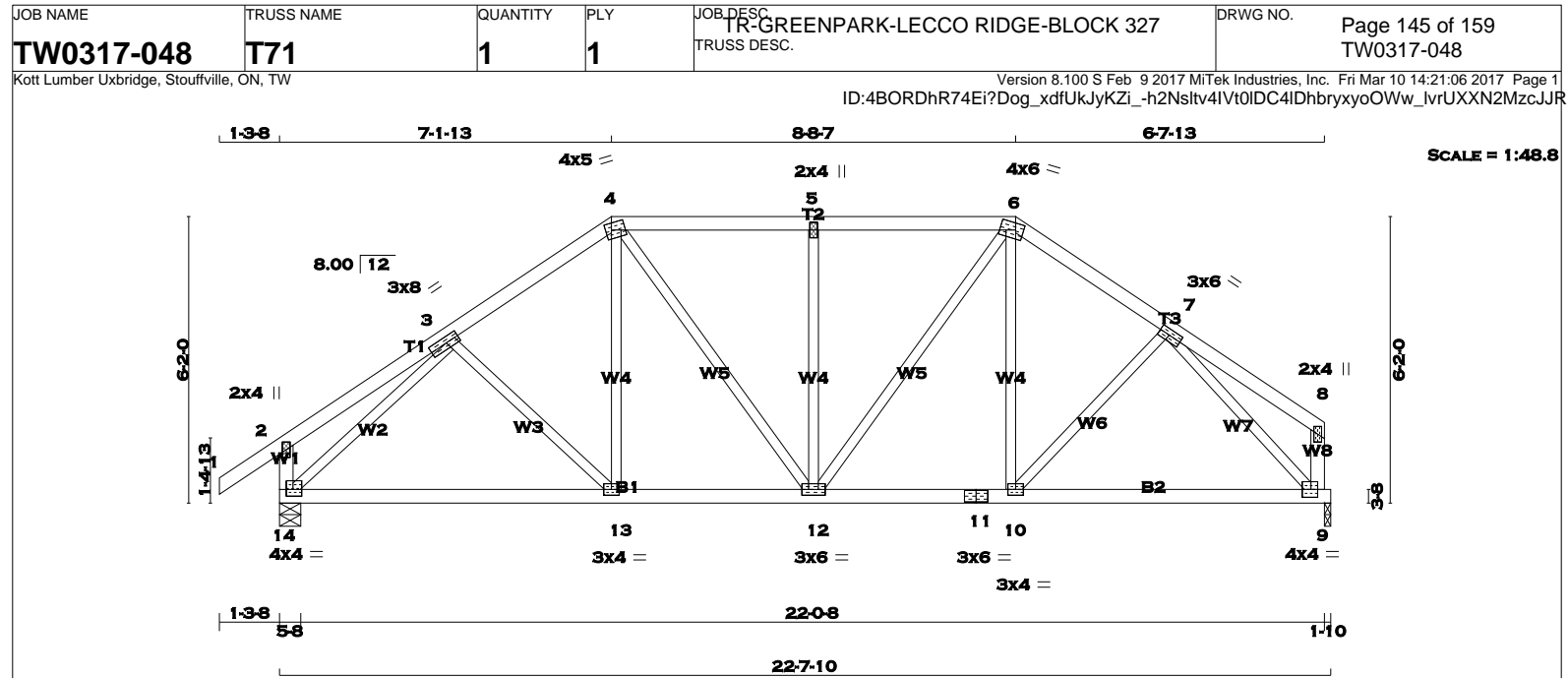
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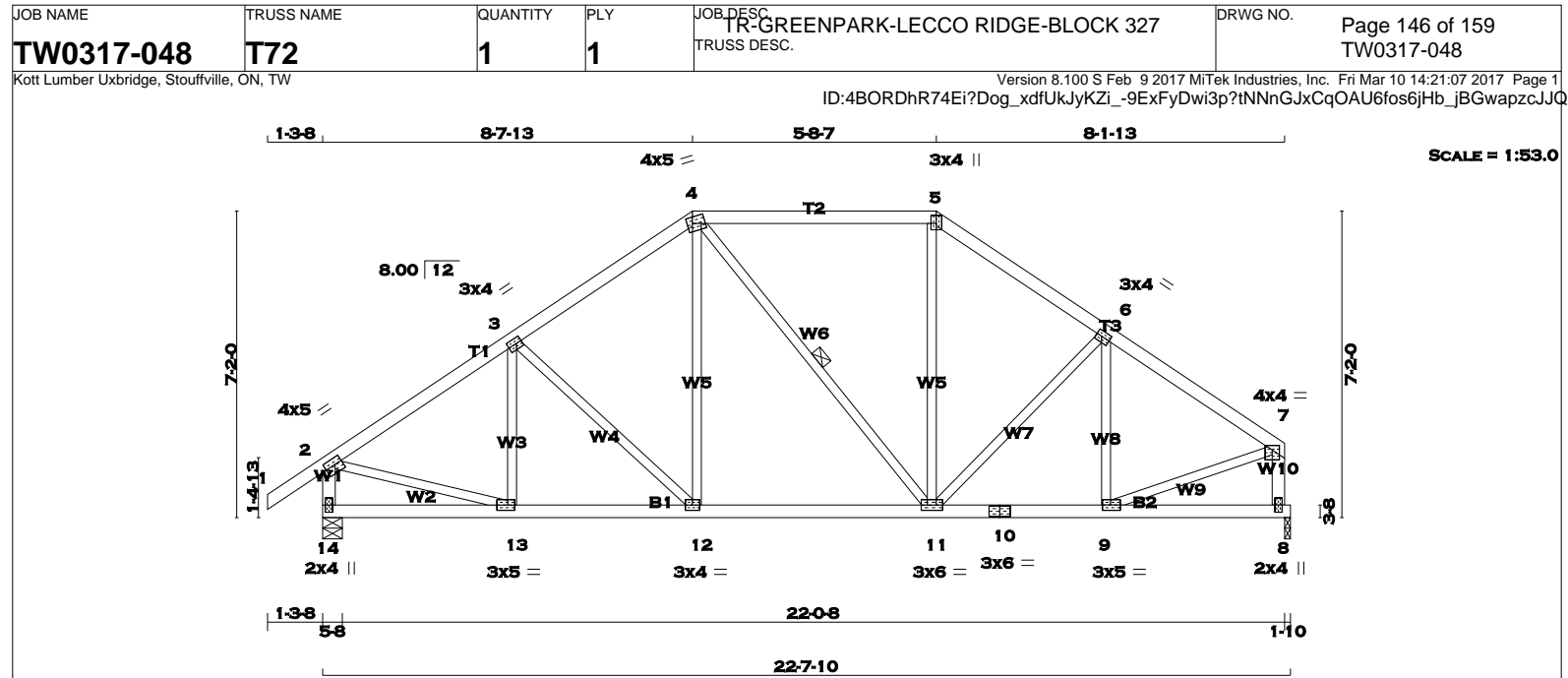
MAR 29, 2017

17-4978

BUILDING DIVISION



<div>LUMBER</div> <div>N. L. G. A. RULES</div> <table><tr><th>CHORDS</th><th>SIZE</th><th>LUMBER</th><th>DESCR.</th><th>SPF</th></tr><tr><td>1 - 4</td><td>2x4</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>4 - 6</td><td>2x4</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>6 - 8</td><td>2x4</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>14 - 2</td><td>2x4</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>9 - 8</td><td>2x4</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>14 - 11</td><td>2x4</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>11 - 9</td><td>2x4</td><td>DRY</td><td>No.2</td><td>SPF</td></tr></table> <div>ALL WEBS 2x3 DRY No.2</div> <div>EXCEPT</div> <div>SPF</div> <div>DRY: SEASONED LUMBER.</div>							CHORDS	SIZE	LUMBER	DESCR.	SPF	1 - 4	2x4	DRY	No.2	SPF	4 - 6	2x4	DRY	No.2	SPF	6 - 8	2x4	DRY	No.2	SPF	14 - 2	2x4	DRY	No.2	SPF	9 - 8	2x4	DRY	No.2	SPF	14 - 11	2x4	DRY	No.2	SPF	11 - 9	2x4	DRY	No.2	SPF	<div>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</div> <div>BEARINGS</div> <table><tr><th></th><th>FACTORED</th><th>MAXIMUM FACTORED</th><th>INPUT</th><th>REQRD</th></tr><tr><th></th><th>GROSS REACTION</th><th>GROSS REACTION</th><th>BRG</th><th>BRG</th></tr><tr><th>JT</th><th>VERT</th><th>HORZ</th><th>DOWN</th><th>HORZ</th></tr><tr><td>14</td><td>1173</td><td>0</td><td>1249</td><td>281</td></tr><tr><td>9</td><td>1067</td><td>0</td><td>1110</td><td>0</td></tr></table> <div>PROVIDE ANCHORAGE AT BEARING JOINT 14 FOR 580 LBS. FACTORED UPLIFT</div> <div>PROVIDE ANCHORAGE AT BEARING JOINT 9 FOR 515 LBS. FACTORED UPLIFT</div> <div>NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES. SHALL BE PROVIDED BY BUILDG. DESIGNER</div> <div>PROVIDE FOR 281 LBS. FACTORED HORIZONTAL REACTION AT JOINT 14</div> <div>UNFACTORED REACTIONS</div> <table><tr><th>JT</th><th>1ST LCASE</th><th>MAX./MIN.</th><th>COMPONENT REACTIONS</th></tr><tr><th></th><th>COMBINED</th><th>SNOW</th><th>LIVE</th></tr><tr><td>14</td><td>821</td><td>588 / 0</td><td>0 / 0</td></tr><tr><td>9</td><td>749</td><td>524 / 0</td><td>0 / 0</td></tr></table> <div>HORIZONTAL REACTIONS</div> <table><tr><td>14</td><td>---</td><td>0 / 0</td><td>0 / 0</td><td>200 / -186</td><td>0 / 0</td><td>0 / 0</td></tr></table> <div>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 14, 9</div> <div>BRACING</div> <div>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.79 FT.</div> <div>MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.</div> <div>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.</div> <div>LOADING</div> <div>TOTAL LOAD CASES: (11)</div> <table><tr><th colspan="4">CHORDS</th><th colspan="4">WEBS</th></tr><tr><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>FACTORED VERT. LOAD (PLF)</th><th>MAX LC1 (LC)</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX LC1 (LC)</th></tr><tr><td>FR-TO</td><td></td><td>FROM</td><td>TO</td><td>FR-TO</td><td></td><td></td></tr><tr><td>1-2</td><td>0 / 29</td><td>-77.3</td><td>-77.3 0.10 (1)</td><td>10.00</td><td>3-13</td><td>-94 / 251</td></tr><tr><td>2-3</td><td>-25 / 159</td><td>-77.3</td><td>-77.3 0.19 (7)</td><td>6.25</td><td>13-4</td><td>-75 / 196</td></tr><tr><td>3-4</td><td>-1175 / 649</td><td>-77.3</td><td>-77.3 0.26 (7)</td><td>5.79</td><td>4-12</td><td>-235 / 266</td></tr><tr><td>4-5</td><td>-1113 / 674</td><td>-77.3</td><td>-77.3 0.26 (7)</td><td>5.85</td><td>12-5</td><td>-430 / 332</td></tr><tr><td>5-6</td><td>-1113 / 674</td><td>-77.3</td><td>-77.3 0.26 (7)</td><td>5.85</td><td>12-6</td><td>-264 / 348</td></tr><tr><td>6-7</td><td>-1105 / 626</td><td>-77.3</td><td>-77.3 0.23 (8)</td><td>5.96</td><td>10-6</td><td>-46 / 134</td></tr><tr><td>7-8</td><td>-23 / 104</td><td>-77.3</td><td>-77.3 0.16 (8)</td><td>6.25</td><td>10-7</td><td>-50 / 188</td></tr><tr><td>14-2</td><td>-248 / 237</td><td>0.0</td><td>0.0 0.04 (7)</td><td>7.81</td><td>14-3</td><td>-1362 / 545</td></tr><tr><td>9-8</td><td>-128 / 137</td><td>0.0</td><td>0.0 0.03 (8)</td><td>7.81</td><td>7-9</td><td>-1292 / 560</td></tr><tr><td>14-13</td><td>-544 / 1044</td><td>-17.5</td><td>-17.5 0.26 (11)</td><td>6.25</td><td></td><td></td></tr><tr><td>13-12</td><td>-362 / 978</td><td>-17.5</td><td>-17.5 0.27 (11)</td><td>6.25</td><td></td><td></td></tr><tr><td>12-11</td><td>-275 / 909</td><td>-17.5</td><td>-17.5 0.24 (11)</td><td>6.25</td><td></td><td></td></tr><tr><td>11-10</td><td>-275 / 909</td><td>-17.5</td><td>-17.5 0.24 (11)</td><td>6.25</td><td></td><td></td></tr><tr><td>10-9</td><td>-350 / 873</td><td>-17.5</td><td>-17.5 0.23 (1)</td><td>6.25</td><td></td><td></td></tr></table> <div>WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.</div>								FACTORED	MAXIMUM FACTORED	INPUT	REQRD		GROSS REACTION	GROSS REACTION	BRG	BRG	JT	VERT	HORZ	DOWN	HORZ	14	1173	0	1249	281	9	1067	0	1110	0	JT	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS		COMBINED	SNOW	LIVE	14	821	588 / 0	0 / 0	9	749	524 / 0	0 / 0	14	---	0 / 0	0 / 0	200 / -186	0 / 0	0 / 0	CHORDS				WEBS				MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1 (LC)	FR-TO		FROM	TO	FR-TO			1-2	0 / 29	-77.3	-77.3 0.10 (1)	10.00	3-13	-94 / 251	2-3	-25 / 159	-77.3	-77.3 0.19 (7)	6.25	13-4	-75 / 196	3-4	-1175 / 649	-77.3	-77.3 0.26 (7)	5.79	4-12	-235 / 266	4-5	-1113 / 674	-77.3	-77.3 0.26 (7)	5.85	12-5	-430 / 332	5-6	-1113 / 674	-77.3	-77.3 0.26 (7)	5.85	12-6	-264 / 348	6-7	-1105 / 626	-77.3	-77.3 0.23 (8)	5.96	10-6	-46 / 134	7-8	-23 / 104	-77.3	-77.3 0.16 (8)	6.25	10-7	-50 / 188	14-2	-248 / 237	0.0	0.0 0.04 (7)	7.81	14-3	-1362 / 545	9-8	-128 / 137	0.0	0.0 0.03 (8)	7.81	7-9	-1292 / 560	14-13	-544 / 1044	-17.5	-17.5 0.26 (11)	6.25			13-12	-362 / 978	-17.5	-17.5 0.27 (11)	6.25			12-11	-275 / 909	-17.5	-17.5 0.24 (11)	6.25			11-10	-275 / 909	-17.5	-17.5 0.24 (11)	6.25			10-9	-350 / 873	-17.5	-17.5 0.23 (1)	6.25			<div>DESIGN CRITERIA</div> <div>SPECIFIED LOADS:</div> <table><tr><td>TOP CH.</td><td>LL</td><td>=</td><td>23.3</td><td>PSF</td></tr><tr><td></td><td>DL</td><td>=</td><td>3.0</td><td>PSF</td></tr><tr><td>BOT CH.</td><td>LL</td><td>=</td><td>0.0</td><td>PSF</td></tr><tr><td></td><td>DL</td><td>=</td><td>7.0</td><td>PSF</td></tr><tr><td>TOTAL LOAD</td><td>=</td><td>33.3</td><td>PSF</td></tr></table> <div>SPACING = 24.0 IN. C/C</div> <div>LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12</div> <div>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010</div> <div>THIS DESIGN COMPLIES WITH:</div> <div>- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014</div> <div>- CSA 086-09</div> <div>- TPIC 2011</div> <div>(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD</div> <div>ALLOWABLE DEFL.(LL)= L/360 (0.75")</div> <div>CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")</div> <div>ALLOWABLE DEFL.(TL)= L/360 (0.75")</div> <div>CALCULATED VERT. DEFL.(TL) = L/ 999 (0.10")</div> <div>CSI: TC=0.26 (4-5:7) , BC=0.27 (12-13:11) , WB=0.51 (3-14:1) , SSI=0.16 (4-5:1)</div> <div>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10</div> <div>COMP=1.10 SHEAR=1.10 TENS= 1.10</div> <div>COMPANION LIVE LOAD FACTOR = 0.50</div> <div>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .</div> <div>NAIL VALUES</div> <table><tr><td>PLATE</td><td>GRIP(DRY)</td><td>SHEAR</td><td>SECTION</td></tr><tr><td></td><td>(PSI)</td><td>(PLI)</td><td>(PLI)</td></tr><tr><td></td><td>MAX</td><td>MIN</td><td>MAX</td></tr><tr><td>MT20</td><td>618</td><td>354</td><td>1667</td></tr><tr><td></td><td>822</td><td>2284</td><td>1656</td></tr></table> <div>PLATE PLACEMENT TOL. = 0.250 inches</div> <div>PLATE ROTATION TOL. = 5.0 Deg.</div> <div>JSI GRIP= 0.90 (4) (INPUT = 0.90)</div> <div>JSI METAL= 0.36 (14) (INPUT = 1.00)</div>							TOP CH.	LL	=	23.3	PSF		DL	=	3.0	PSF	BOT CH.	LL	=	0.0	PSF		DL	=	7.0	PSF	TOTAL LOAD	=	33.3	PSF	PLATE	GRIP(DRY)	SHEAR	SECTION		(PSI)	(PLI)	(PLI)		MAX	MIN	MAX	MT20	618	354	1667		822	2284	1656
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<div><div><div>LICENSED PROFESSIONAL ENGINEER</div><div>T.L. WISE</div><div>100083566</div><div>PROVINCE OF ONTARIO</div></div><div>March 10, 2017</div></div> <div><div><div>READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.</div></div><div><div>RECEIVED</div><div>TOWN OF MILTON</div><div>MAR 29, 2017</div><div>17-4978</div><div>BUILDING DIVISION</div></div></div>																																																																																																																																																																																																																																																																																



TOTAL WEIGHT = 100 LB [M][F]

LUMBER				N. L. G. A. RULES	
CHORDS		SIZE	LUMBER	DESCR.	
1 - 4	2x4	DRY	No.2	SPF	
4 - 5	2x4	DRY	No.2	SPF	
5 - 7	2x4	DRY	No.2	SPF	
14 - 2	2x4	DRY	No.2	SPF	
8 - 7	2x4	DRY	No.2	SPF	
14 - 10	2x4	DRY	No.2	SPF	
10 - 8	2x4	DRY	No.2	SPF	
ALL WEBS EXCEPT		2x3 DRY	No.2	SPF	

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-t	MT20	4.0	5.0	1.75	2.00
3	TMVW-t	MT20	3.0	4.0	1.50	1.50
4	TTWW-m	MT20	4.0	5.0	1.75	1.50
5	TTW+p	MT20	3.0	4.0	2.25	1.50
6	TMVW-t	MT20	3.0	4.0	1.50	1.50
7	TMVW-p	MT20	4.0	4.0	1.25	2.00
8	BMV1+p	MT20	2.0	4.0		
9	BMVW-t	MT20	3.0	5.0	1.50	2.25
10	BS-t	MT20	3.0	6.0		
11	BMVWW-t	MT20	3.0	6.0		
12	BMVW-t	MT20	3.0	4.0		
13	BMVW-t	MT20	3.0	5.0	1.50	2.00
14	BMV1+p	MT20	2.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
GROSS REACTION		GROSS REACTION		BRG		BRG		BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
14	1173	0	1250	320	-560	5-8	5-8		
8	1067	0	1119	0	-494	1-10	1-10		

PROVIDE ANCHORAGE AT BEARING JOINT 14 FOR 560 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 8 FOR 494 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES.
SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 320 LBS. FACTORED HORIZONTAL REACTION AT JOINT 14

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
14	821	588 / 0	0 / 0	0 / 0	191 / -550	233 / 0	0 / 0
8	749	524 / 0	0 / 0	0 / 0	130 / -498	225 / 0	0 / 0

HORIZONTAL REACTIONS							
14	---	0 / 0	0 / 0	0 / 0	229 / -214	0 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 14, 8

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.58 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1 / 2 LENGTH OF 4-11. DBS = 20-0-0. CBF = 14 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (11)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED VERT. LOAD LC1 MAX (LC) (1)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD LC1 MAX (LC) (1)
FR-TO		FROM TO			FR-TO		
1-2	0 / 29	-77.3 -77.3	0.10 (1)	10.00	13-3	-173 / 146	0.05 (1)
2-3	-1245 / 589	-77.3 -77.3	0.33 (7)	5.58	3-12	-277 / 304	0.16 (3)
3-4	-1092 / 614	-77.3 -77.3	0.34 (7)	5.86	12-4	-145 / 278	0.13 (7)
4-5	-862 / 569	-77.3 -77.3	0.38 (8)	6.24	4-11	-132 / 138	0.07 (5)
5-6	-1052 / 601	-77.3 -77.3	0.31 (8)	5.99	11-5	-87 / 228	0.08 (7)
6-7	-1118 / 537	-77.3 -77.3	0.30 (8)	5.83	11-6	-193 / 252	0.11 (4)
14-2	-1215 / 581	0.0 0.0	0.12 (1)	7.30	9-6	-247 / 174	0.07 (1)
8-7	-1086 / 515	0.0 0.0	0.11 (1)	7.61	2-13	-353 / 1059	0.23 (1)
					9-7	-364 / 995	0.21 (1)
14-13	-299 / 290	-17.5 -17.5	0.07 (11)	6.25			
13-12	-522 / 1106	-17.5 -17.5	0.21 (1)	6.25			
12-11	-302 / 908	-17.5 -17.5	0.18 (1)	6.25			
11-10	-318 / 942	-17.5 -17.5	0.20 (1)	6.25			
10-9	-318 / 942	-17.5 -17.5	0.20 (1)	6.25			
9-8	-13 / 28	-17.5 -17.5	0.06 (11)	6.25			

WIND LOAD: PP IS R D OM REFERENCE VELOCITY PRESSURE OF (9.0) PSF AT (40-0) FT. ST. S E F R IC HEI HT AB VE GRADE AND USING EXTERNAL PEAK COEFFICIENTS: 0.00, BASED ON THE (MAX) WIND FORCE RESISTING SYSTEM WITH WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MATERIALS: (OP) (0-0) FT-IN-SX AWAY FROM

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	23.3	PSF
	DL	=	3.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD	=	33.3	PSF	

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.75")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.75")
CALCULATED VERT. DEFL.(TL) = L/999 (0.07")

CSI: TC=0.38 (4-5:8), BC=0.21 (12-13:1), WB=0.23 (2-13:1), SSI=0.17 (4-5:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES

PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 822	2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (5) (INPUT = 0.90)
JSI METAL= 0.42 (2) (INPUT = 1.00)

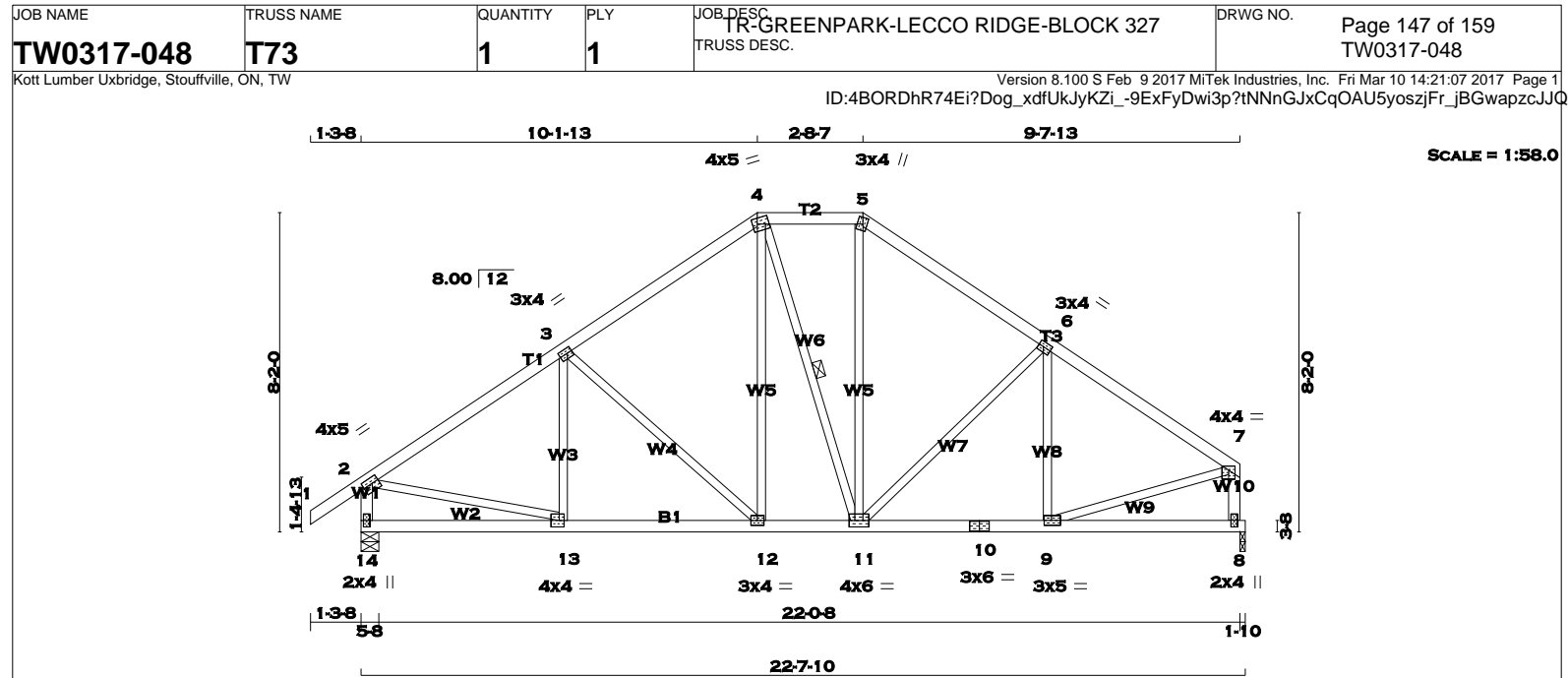
March 10, 2017

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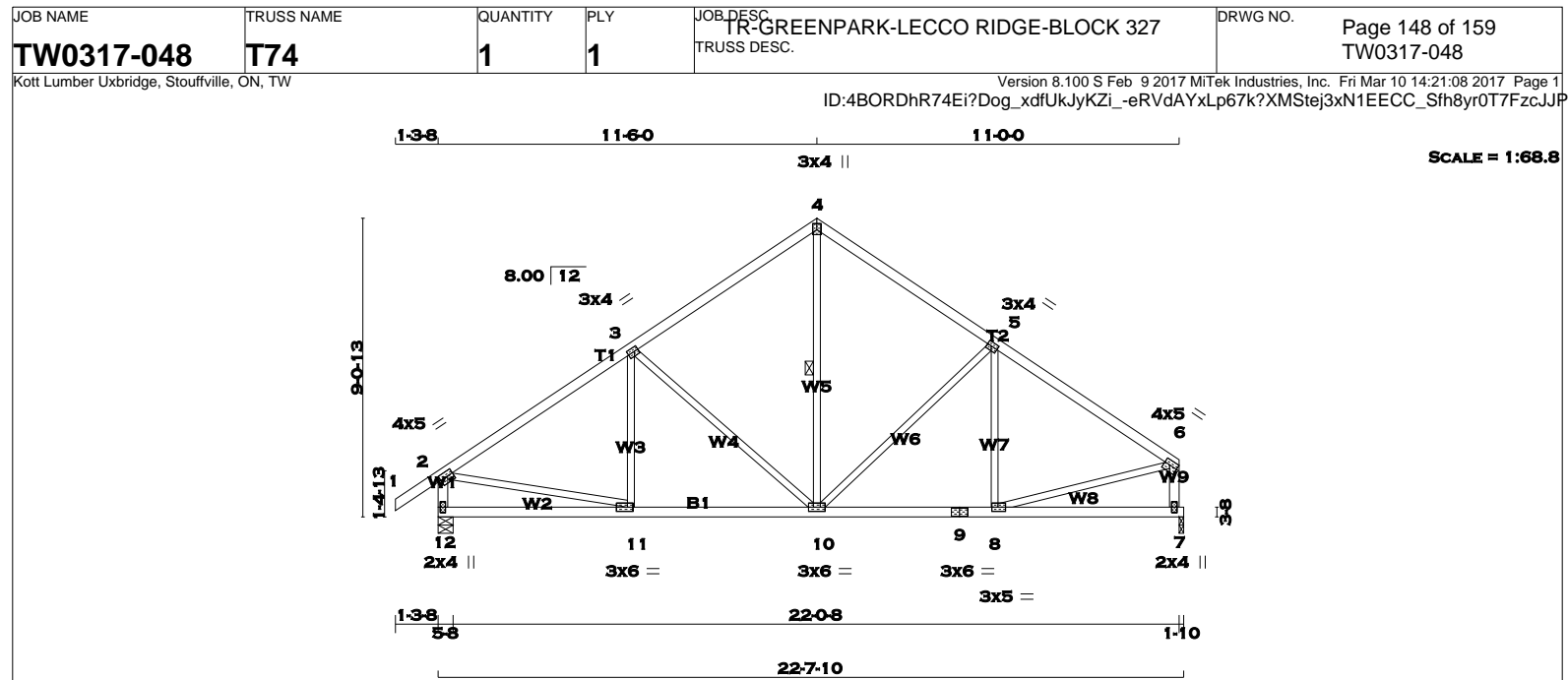
RECEIVED
AT TOWN OF MINTON
MAR 29, 2017

17-4978

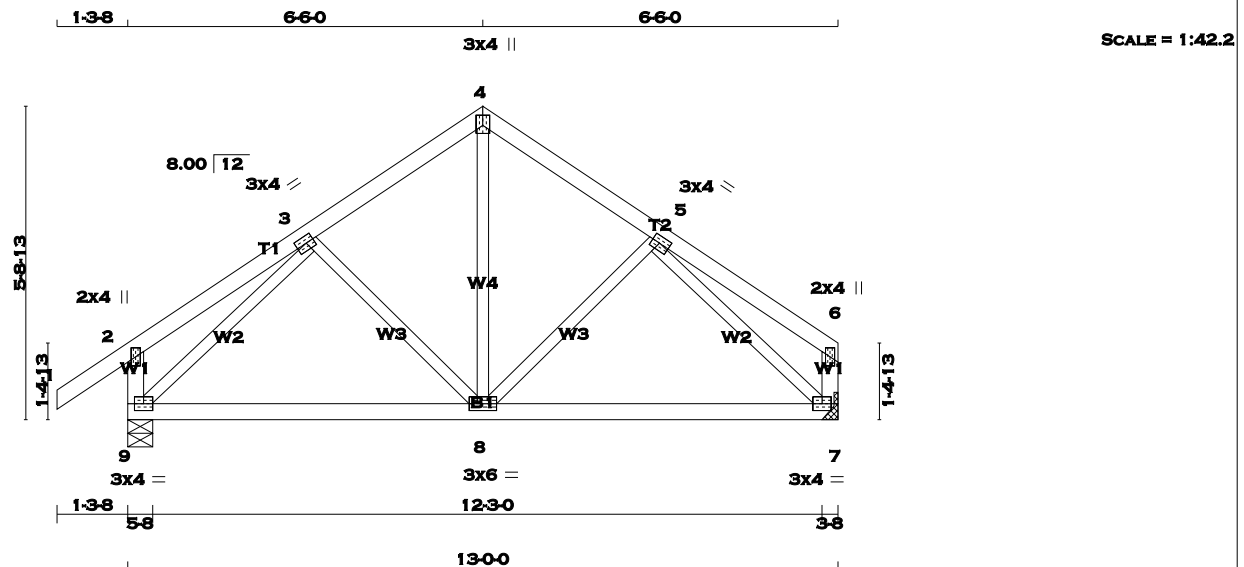
BUILDING DIVISION



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. SPF 1 - 4 2x4 DRY No.2 SPF 4 - 5 2x4 DRY No.2 SPF 5 - 7 2x4 DRY No.2 SPF 14 - 2 2x4 DRY No.2 SPF 8 - 7 2x4 DRY No.2 SPF 14 - 10 2x4 DRY No.2 SPF 10 - 8 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT DRY: SEASONED LUMBER.				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT REQRD JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX 14 1173 0 1249 359 -535 5-8 5-8 8 1067 0 1127 0 -469 1-10 1-10 PROVIDE ANCHORAGE AT BEARING JOINT 14 FOR 535 LBS. FACTORED UPLIFT PROVIDE ANCHORAGE AT BEARING JOINT 8 FOR 469 LBS. FACTORED UPLIFT NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES. SHALL BE PROVIDED BY BUILDG. DESIGNER PROVIDE FOR 359 LBS. FACTORED HORIZONTAL REACTION AT JOINT 14 UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL 14 821 588 / 0 0 / 0 0 / 0 189 / -532 233 / 0 0 / 0 8 749 524 / 0 0 / 0 0 / 0 149 / -480 225 / 0 0 / 0 HORIZONTAL REACTIONS 14 --- 0 / 0 0 / 0 0 / 0 257 / -242 0 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 14, 8 BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.46 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. 1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1 / 2 LENGTH OF 4-11. DBS = 20-0-0. CBF = 16 LBS. DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12. END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW LOADING TOTAL LOAD CASES: (11) CHORDS WEBS MEMB. MAX. FACTORED FORCE (LBS) FACTORED VERT. LOAD LC1 MAX. FACTORED VERT. LOAD LC1 MAX. FACTORED VERT. LOAD LC1 MAX. FACTORED VERT. LOAD LC1 FR-TO FROM TO LENGTH FR-TO FROM TO LENGTH 1-2 0 / 29 -77.3 -77.3 0.10 (1) 10.00 13-3 -115 / 144 0.04 (4) 2-3 -1252 / 557 -77.3 -77.3 0.43 (7) 5.46 3-12 -404 / 385 0.34 (3) 3-4 -996 / 555 -77.3 -77.3 0.42 (7) 5.96 12-4 -209 / 328 0.27 (7) 4-5 -804 / 541 -77.3 -77.3 0.14 (8) 6.25 4-11 -145 / 147 0.06 (5) 5-6 -988 / 558 -77.3 -77.3 0.39 (8) 6.04 11-5 -163 / 290 0.21 (7) 6-7 -1149 / 515 -77.3 -77.3 0.39 (8) 5.68 11-6 -321 / 336 0.26 (4) 14-2 -1211 / 560 0.0 0.0 0.12 (1) 7.32 9-6 -184 / 166 0.07 (3) 8-7 -1091 / 492 0.0 0.0 0.11 (1) 7.60 2-13 -322 / 1064 0.23 (1) 14-13 -338 / 329 -17.5 -17.5 0.12 (11) 6.25 9-7 -330 / 1010 0.22 (1) 13-12 -508 / 1125 -17.5 -17.5 0.22 (1) 6.25 12-11 -224 / 828 -17.5 -17.5 0.15 (1) 6.25 11-10 -290 / 971 -17.5 -17.5 0.20 (1) 6.25 10-9 -290 / 971 -17.5 -17.5 0.20 (1) 6.25 9-8 -13 / 28 -17.5 -17.5 0.10 (11) 6.25 WIND LOADS ARE BASED ON REFERENCE VELOCITY PRESSURE OF 19.0 PSF AT (40-0) FT. ST. SEA LEVEL HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS SPECIFIED ON THE (MAIN) WIND FORCE RESISTING SYSTEM. WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2) BUILDING MATERIALS (OTHER THAN) AT LEAST (0-0) FT. IN-SX AWAY FROM READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.				DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 23.3 PSF DL = 3.0 PSF BOT CH. LL = 0.0 PSF DL = 7.0 PSF TOTAL LOAD = 33.3 PSF SPACING = 24.0 IN. C/C LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12 THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012, BCBC 2012, ABC 2014 - CSA 086-09 - TPIC 2011 (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL)= L/360 (0.75") CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04") ALLOWABLE DEFL.(TL)= L/360 (0.75") CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07") CSI: TC=0.43 (2-3:7), BC=0.22 (12-13:1), WB=0.34 (3-12:3), SSI=0.17 (2-3:7) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10 COMPANION LIVE LOAD FACTOR = 0.50 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 822 2284 1656 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.90 (7) (INPUT = 0.90) JSI METAL= 0.43 (2) (INPUT = 1.00)			
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LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. SPF 1 - 4 2x4 DRY No.2 4 - 6 2x4 DRY No.2 12 - 2 2x4 DRY No.2 7 - 6 2x4 DRY No.2 12 - 9 2x4 DRY No.2 9 - 7 2x4 DRY No.2 ALL WEBS 2x3 DRY No.2 EXCEPT DRY: SEASONED LUMBER.				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT REQRD JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX 12 1173 0 1247 394 -511 5-8 5-8 7 1067 0 1132 0 -444 1-10 1-10 PROVIDE ANCHORAGE AT BEARING JOINT 12 FOR 511 LBS. FACTORED UPLIFT PROVIDE ANCHORAGE AT BEARING JOINT 7 FOR 444 LBS. FACTORED UPLIFT NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES. SHALL BE PROVIDED BY BUILDG. DESIGNER PROVIDE FOR 394 LBS. FACTORED HORIZONTAL REACTION AT JOINT 12 UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL 12 821 588 / 0 0 / 0 0 / 0 183 / -515 233 / 0 0 / 0 7 749 524 / 0 0 / 0 0 / 0 163 / -462 225 / 0 0 / 0 HORIZONTAL REACTIONS 12 --- 0 / 0 0 / 0 0 / 0 281 / -267 0 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 12, 7 BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.36 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. 1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1 / 2 LENGTH OF 4-10. DBS = 20-0-0 . CBF = 40 LBS. DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12. END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW LOADING TOTAL LOAD CASES: (11) CHORDS WEBS MAX. FACTORED MAX. FACTORED MAX. FACTORED MEMB. FORCE VERT. LOAD LC1 MAX. MEMB. FORCE (LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO (LBS) MAX CSI (LC) FR-TO FROM TO 1-2 0 / 29 -77.3 -77.3 0.10 (1) 10.00 11-3 -83 / 140 0.03 (4) 2-3 -1243 / 519 -77.3 -77.3 0.52 (7) 5.36 3-10 -501 / 458 0.56 (3) 3-4 -929 / 532 -77.3 -77.3 0.52 (7) 6.03 10-4 -370 / 647 0.19 (7) 4-5 -929 / 540 -77.3 -77.3 0.48 (8) 6.09 10-5 -422 / 414 0.46 (4) 5-6 -1161 / 484 -77.3 -77.3 0.48 (8) 5.55 8-5 -143 / 158 0.06 (3) 12-2 -1204 / 539 0.0 0.0 0.12 (1) 7.33 2-11 -306 / 1074 0.23 (1) 7-6 -1091 / 471 0.0 0.0 0.11 (1) 7.60 8-6 -317 / 1017 0.22 (1) 12-11 -373 / 364 -17.5 -17.5 0.14 (11) 6.25 11-10 -488 / 1129 -17.5 -17.5 0.23 (1) 6.25 10-9 -280 / 986 -17.5 -17.5 0.21 (1) 6.25 9-8 -280 / 986 -17.5 -17.5 0.21 (1) 6.25 8-7 -13 / 28 -17.5 -17.5 0.13 (11) 6.25 WIND AND PRESSURE COEFFICIENTS ARE BASED ON A REFERENCE VELOCITY PRESSURE OF (9.0) PSF AT (40-0) FT. EXPOSED ROOF SURFACE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS. BASED ON THE (MAX) WIND FORCE RESISTING SYSTEM INTERNAL WIND PRESSURE COEFFICIENTS AS DETERMINED IN CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (10'-0") FROM EAVE.				DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 23.3 PSF DL = 3.0 PSF BOT CH. LL = 0.0 PSF DL = 7.0 PSF TOTAL LOAD = 33.3 PSF SPACING = 24.0 IN./C THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014 - CSA 086-09 - TPIC 2011 (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL)= L/360 (0.75") CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04") ALLOWABLE DEFL.(TL)= L/360 (0.75") CALCULATED VERT. DEFL.(TL) = L/ 999 (0.07") CSI: TC=0.52 (2-3:7) , BC=0.23 (10-11:1) , WB=0.56 (3-10:3) , SSI=0.19 (2-3:7) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10 COMPANION LIVE LOAD FACTOR = 0.50 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 822 2284 1656 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.90 (8) (INPUT = 0.90) JSI METAL= 0.43 (2) (INPUT = 1.00)			
 March 10, 2017				READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.				RECEIVED TOWN OF MILTON MAR 29, 2017 17-4978 BUILDING DIVISION			



TOTAL WEIGHT = 2 X 55 = 110 lb
[M][F]

LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
1 - 4	2x4	DRY	No.2		SPF
4 - 6	2x4	DRY	No.2		SPF
9 - 2	2x4	DRY	No.2		SPF
7 - 6	2x4	DRY	No.2		SPF
9 - 7	2x4	DRY	No.2		SPF
ALL WEBS EXCEPT	2x3	DRY	No.2		SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMV+p	MT20	2.0	4.0		
3	TMVW-t	MT20	3.0	4.0	1.50	1.75
4	TTW+p	MT20	3.0	4.0	2.25	1.50
5	TMVW-t	MT20	3.0	4.0	1.50	1.75
6	TMV+p	MT20	2.0	4.0		
7	BMVW1-t	MT20	3.0	4.0		
8	BMVWV-t	MT20	3.0	6.0		
9	BMVW1-t	MT20	3.0	4.0		

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
9	723	0	764	256	-315	5-8	5-8
7	617	0	653	0	-256	HANGER BY OTHERS MIN. SEAT SIZE: 3-8	

PROVIDE ANCHORAGE AT BEARING JOINT 9 FOR 315 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 7 FOR 256 LBS. FACTORED UPLIFT

PROVIDE FOR 256 LBS. FACTORED HORIZONTAL REACTION AT JOINT 9

UNFACTORED REACTIONS		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
9	505	367 / 0	0 / 0	0 / 0	104 / -314	138 / 0	0 / 0
7	433	303 / 0	0 / 0	0 / 0	91 / -267	130 / 0	0 / 0

HORIZONTAL REACTIONS					
9	---	0 / 0	0 / 0	183 / -174	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 9

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (11)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC1)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC1)	MAX. FACTORED VERT. LOAD (LC1)
FR-TO				FR-TO			
1-2	0 / 29	-77.3	-77.3 0.10 (1)	10.00	8-4	-193 / 344	0.09 (7)
2-3	-24 / 151	-77.3	-77.3 0.16 (7)	6.25	8-5	-175 / 272	0.06 (4)
3-4	-518 / 294	-77.3	-77.3 0.18 (7)	6.25	3-8	-175 / 283	0.06 (3)
4-5	-519 / 297	-77.3	-77.3 0.18 (8)	6.25	9-3	-718 / 221	0.23 (4)
5-6	-20 / 94	-77.3	-77.3 0.15 (8)	6.25	5-7	-711 / 251	0.22 (3)
9-2	-235 / 225	0.0	0.0 0.04 (7)	7.81			
7-6	-122 / 129	0.0	0.0 0.02 (8)	7.81			
9-8	-260 / 546	-17.5	-17.5 0.24 (11)	6.25			
8-7	-156 / 503	-17.5	-17.5 0.24 (11)	6.25			

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF (9.0) PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF

SPACING = 24.0 IN./C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.43")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.43")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.18 (3-4:7) , BC=0.24 (8-9:11) , WB=0.23 (3-9:4) , SSI=0.11 (4-5:8)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .

NAIL VALUES					
PLATE	GRIP(DRY)	SHEAR	SECTION		
(PSI)	(PLI)	(PLI)			
MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	822	2284

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (7) (INPUT = 0.90)
JSI METAL= 0.26 (5) (INPUT = 1.00)



March 10, 2017

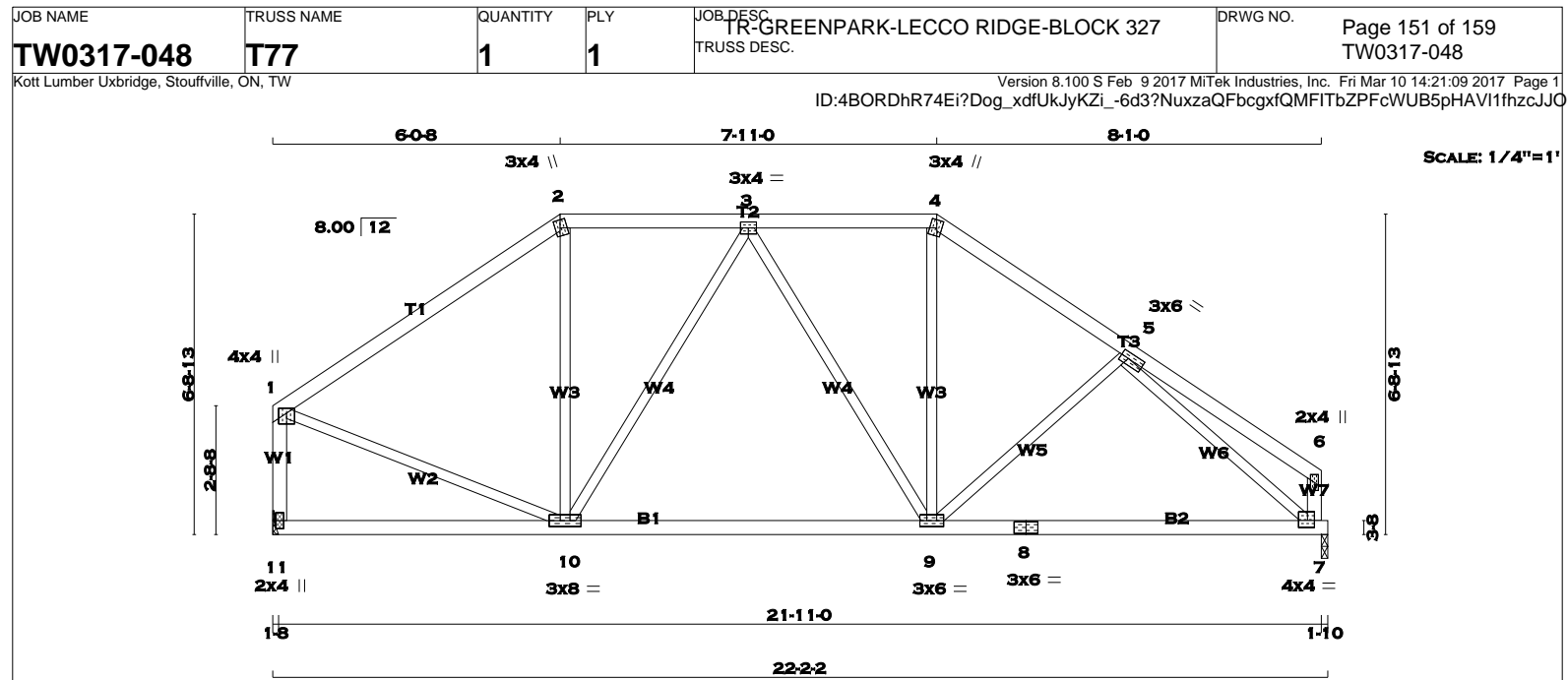


READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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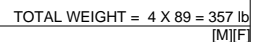


LUMBER N. L. G. A. RULES CHORDS SIZE 1 - 2 2x4 DRY No.2 2 - 4 2x4 DRY No.2 4 - 6 2x4 DRY No.2 11 - 1 2x4 DRY No.2 7 - 6 2x4 DRY No.2 11 - 8 2x4 DRY No.2 8 - 7 2x4 DRY No.2 ALL WEBS 2x3 DRY No.2 EXCEPT DRY: SEASONED LUMBER.				DESCR. SPF SPF SPF SPF SPF SPF SPF SPF																																																																																																																			
PLATES (table is in inches) JT TYPE PLATES W LEN Y X 1 TMVW+p MT20 4.0 4.0 1.25 2.00 2 TTW+m MT20 3.0 4.0 2.00 1.25 3 TMVW-t MT20 3.0 4.0 4 TTW+m MT20 3.0 4.0 2.00 1.25 5 TMVW-t MT20 3.0 6.0 1.50 2.00 6 TMV+p MT20 2.0 4.0 7 BMVW1-t MT20 4.0 4.0 1.75 1.75 8 BS-t MT20 3.0 6.0 9 BMVWW-t MT20 3.0 6.0 10 BMVWW-t MT20 3.0 8.0 11 BMV1+p MT20 2.0 4.0 A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.				DESCR. SPF SPF SPF SPF SPF SPF SPF SPF																																																																																																																			
LOADING TOTAL LOAD CASES: (11) <table><tr><th colspan="2">CHORDS</th><th colspan="2">FACTORED</th><th colspan="2">WEBS</th><th colspan="2">FACTORED</th></tr><tr><th>MEMB.</th><th>FORCE (LBS)</th><th>VERT. LOAD (PLF)</th><th>LC1 MAX</th><th>MEMB.</th><th>FORCE (LBS)</th><th>LC1 MAX</th><th>UNBRAC</th></tr><tr><td>FR-TO</td><td></td><td>FROM TO</td><td></td><td>FR-TO</td><td></td><td></td><td></td></tr><tr><td>1-2</td><td>-926 / 466</td><td>-77.3 -77.3</td><td>0.57 (7)</td><td>5.93 10-2</td><td>-53 / 149</td><td>0.04 (8)</td><td></td></tr><tr><td>2-3</td><td>-792 / 519</td><td>-77.3 -77.3</td><td>0.21 (7)</td><td>6.25 10-3</td><td>-362 / 285</td><td>0.40 (4)</td><td></td></tr><tr><td>3-4</td><td>-899 / 584</td><td>-77.3 -77.3</td><td>0.22 (8)</td><td>6.25 3-9</td><td>-131 / 198</td><td>0.15 (3)</td><td></td></tr><tr><td>4-5</td><td>-1087 / 614</td><td>-77.3 -77.3</td><td>0.30 (8)</td><td>5.91 9-4</td><td>-154 / 347</td><td>0.11 (7)</td><td></td></tr><tr><td>5-6</td><td>-21 / 109</td><td>-77.3 -77.3</td><td>0.23 (8)</td><td>6.25 9-5</td><td>-186 / 309</td><td>0.09 (4)</td><td></td></tr><tr><td>11-1</td><td>-1063 / 521</td><td>0.0 0.0</td><td>0.14 (1)</td><td>7.67 1-10</td><td>-275 / 800</td><td>0.20 (8)</td><td></td></tr><tr><td>7-6</td><td>-149 / 156</td><td>0.0 0.0</td><td>0.03 (8)</td><td>7.81 5-7</td><td>-1325 / 576</td><td>0.63 (1)</td><td></td></tr><tr><td>11-10</td><td>-221 / 278</td><td>-17.5 -17.5</td><td>0.17 (11)</td><td>6.25</td><td></td><td></td><td></td></tr><tr><td>10-9</td><td>-335 / 963</td><td>-17.5 -17.5</td><td>0.34 (11)</td><td>6.25</td><td></td><td></td><td></td></tr><tr><td>9-8</td><td>-404 / 975</td><td>-17.5 -17.5</td><td>0.34 (11)</td><td>6.25</td><td></td><td></td><td></td></tr><tr><td>8-7</td><td>-404 / 975</td><td>-17.5 -17.5</td><td>0.34 (11)</td><td>6.25</td><td></td><td></td><td></td></tr></table> WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT {40-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}, INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.				CHORDS		FACTORED		WEBS		FACTORED		MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	MEMB.	FORCE (LBS)	LC1 MAX	UNBRAC	FR-TO		FROM TO		FR-TO				1-2	-926 / 466	-77.3 -77.3	0.57 (7)	5.93 10-2	-53 / 149	0.04 (8)		2-3	-792 / 519	-77.3 -77.3	0.21 (7)	6.25 10-3	-362 / 285	0.40 (4)		3-4	-899 / 584	-77.3 -77.3	0.22 (8)	6.25 3-9	-131 / 198	0.15 (3)		4-5	-1087 / 614	-77.3 -77.3	0.30 (8)	5.91 9-4	-154 / 347	0.11 (7)		5-6	-21 / 109	-77.3 -77.3	0.23 (8)	6.25 9-5	-186 / 309	0.09 (4)		11-1	-1063 / 521	0.0 0.0	0.14 (1)	7.67 1-10	-275 / 800	0.20 (8)		7-6	-149 / 156	0.0 0.0	0.03 (8)	7.81 5-7	-1325 / 576	0.63 (1)		11-10	-221 / 278	-17.5 -17.5	0.17 (11)	6.25				10-9	-335 / 963	-17.5 -17.5	0.34 (11)	6.25				9-8	-404 / 975	-17.5 -17.5	0.34 (11)	6.25				8-7	-404 / 975	-17.5 -17.5	0.34 (11)	6.25				DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 23.3 PSF DL = 3.0 PSF BOT CH. LL = 0.0 PSF DL = 7.0 PSF TOTAL LOAD = 33.3 PSF SPACING = 24.0 IN./C LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12 THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012, BCBC 2012, ABC 2014 - CSA 086-09 - TPIC 2011 (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL)= L/360 (0.73") CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03") ALLOWABLE DEFL.(TL)= L/360 (0.73") CALCULATED VERT. DEFL.(TL) = L/ 999 (0.13") CSI: TC=0.57 (1-2:7), BC=0.34 (9-10:11), WB=0.63 (5-7:1), SSI=0.16 (1-2:7) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10 COMPANION LIVE LOAD FACTOR = 0.50 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 822 2284 1656 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.88 (9) (INPUT = 0.90) JSI METAL= 0.37 (7) (INPUT = 1.00)			
CHORDS		FACTORED		WEBS		FACTORED																																																																																																																	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	MEMB.	FORCE (LBS)	LC1 MAX	UNBRAC																																																																																																																
FR-TO		FROM TO		FR-TO																																																																																																																			
1-2	-926 / 466	-77.3 -77.3	0.57 (7)	5.93 10-2	-53 / 149	0.04 (8)																																																																																																																	
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9-8	-404 / 975	-17.5 -17.5	0.34 (11)	6.25																																																																																																																			
8-7	-404 / 975	-17.5 -17.5	0.34 (11)	6.25																																																																																																																			



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DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER							
<u>BEARINGS</u>							
JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
9	941	0	997	-433	-387	HANGER BY OTHERS MIN. SEAT SIZE: 1-8	
6	941	0	1004	0	-402	1-10	1-10
<u>PROVIDE ANCHORAGE AT BEARING JOINT 9 FOR 387 LBS FACTORED UPLIFT</u>							
<u>PROVIDE ANCHORAGE AT BEARING JOINT 6 FOR 402 LBS FACTORED UPLIFT</u>							
<u>PROVIDE FOR 433 LBS FACTORED HORIZONTAL REACTION AT JOINT 9</u>							

SPECIFIED LOADS:				
TOP	CH.	LL =	23.3	PSF
		DL =	3.0	PSF
BOT	CH.	LL =	0.0	PSF
		DL =	7.0	PSF
TOTAL LOAD		=	33.3	PSF

THIS TRUSS IS DESIGNED FOR RESIDENTIAL
OR SMALL BUILDING REQUIREMENTS OF
PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.66")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.66")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.11")

CSI: TC=0.55 (4-5:8) , BC=0.29 (7-8:11) , WB=0.69 (4-8:4) , SSI=0.20 (4-5:8)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES						
PLATE	GRIP(DRY)		SHEAR		SECTION	
	(PSI)		(PLI)		(PLI)	
	MAX	MIN	MAX	MIN	MAX	MIN
MT20	618	354	1667	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (2) (INPUT = 0.90)
JSI METAL= 0.30 (5) (INPUT = 1.00)

UNFACTORED REACTIONS							
1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
9	660	462 / 0	0 / 0	0 / 0	142 / -404	198 / 0	0 / 0
6	660	462 / 0	0 / 0	0 / 0	159 / -414	198 / 0	0 / 0

HORIZONTAL REACTIONS							
9	---	0/0	0/0	0/0	262/-310	0/0	0/0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.63 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY
APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 3-8. DBS = 20-0-0 . CBF = 32 LBS.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 2-9. DBS = 16-0-0 . CBF = 90 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (11)

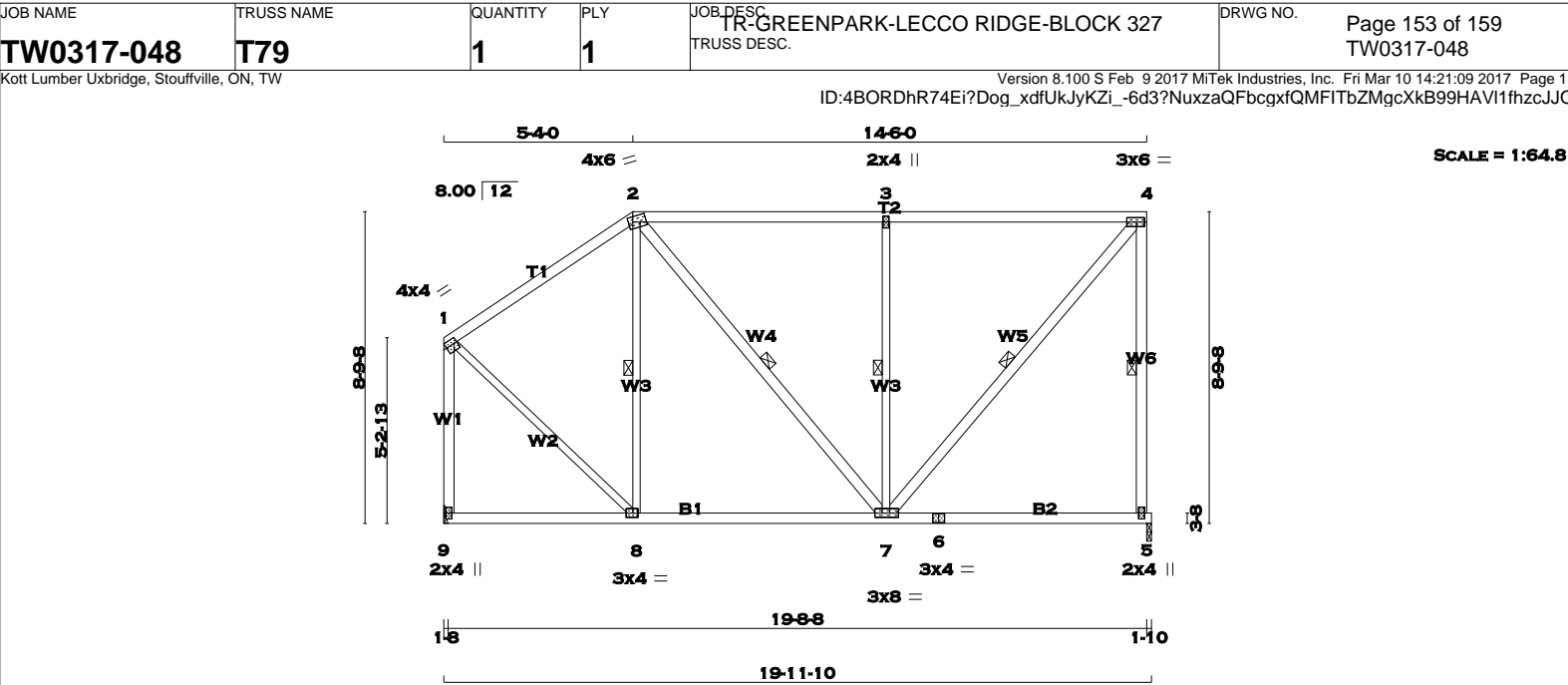
CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX FACTORED CSI (LC)
FR-TO		FROM TO			FR-TO		
1-2	-49 / 174	-77.3	-77.3 0.23 (7)	6.25	2-8	-79 / 271	0.09 (5)
2-3	-682 / 469	-77.3	-77.3 0.26 (7)	6.25	8-3	-298 / 430	0.16 (7)
3-4	-696 / 424	-77.3	-77.3 0.55 (8)	6.25	8-4	-561 / 499	0.69 (4)
4-5	-1060 / 446	-77.3	-77.3 0.55 (8)	5.63	7-4	-46 / 120	0.03 (11)
9-1	-161 / 189	0.0	0.0 0.11 (7)	7.81	9-2	-965 / 343	0.34 (4)
6-5	-958 / 433	0.0	0.0 0.09 (1)	7.81	7-5	-255 / 913	0.20 (1)
9-8	-243 / 553	-17.5	-17.5 0.26 (11)	6.25			
8-7	-231 / 901	-17.5	-17.5 0.29 (11)	6.25			
7-6	-9 / 20	-17.5	-17.5 0.14 (11)	10.00			

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF (9.0) PSF AT (40-0.0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM), INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN, URBAN, SUBURBAN, RURAL) LAND. BUILDING TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM A



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LUMBER
N. L. G. A. RULES
CHORDS SIZE LUMBER DESCR.

1 - 2	2x4	DRY	No.2	SPF
2 - 4	2x4	DRY	No.2	SPF
5 - 4	2x4	DRY	No.2	SPF
9 - 1	2x4	DRY	No.2	SPF
9 - 6	2x4	DRY	No.2	SPF
6 - 5	2x4	DRY	No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT
2 - 7 2x4 DRY No.2 SPF
7 - 4 2x4 DRY No.2 SPF

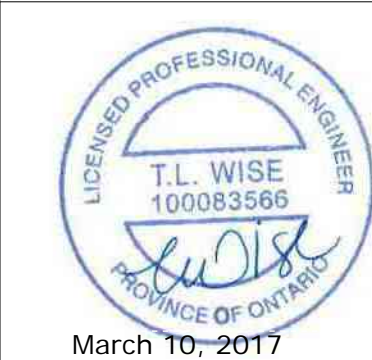
DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
1	TMVW-t	MT20	4.0	4.0	1.75	Edge
2	TTWW-m	MT20	4.0	6.0	1.75	1.50
3	TMVW-w	MT20	2.0	4.0		
4	TMVW-t	MT20	3.0	6.0	1.50	2.75
5	BMV1+p	MT20	2.0	4.0		
6	BS-t	MT20	3.0	4.0		
7	BMVWW-t	MT20	3.0	8.0	1.50	2.50
8	BMVW-t	MT20	3.0	4.0	1.50	1.75
9	BMV1+p	MT20	2.0	4.0		

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.



DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER

BEARINGS

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
5	941	1007	1-10	1-10
9	941	989	1-10	1-10

HANGER BY OTHERS
MIN. SEAT SIZE: 1-8

PROVIDE ANCHORAGE AT BEARING JOINT 5 FOR 531 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 9 FOR 461 LBS. FACTORED UPLIFT

NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES, SHALL BE PROVIDED BY BUILDG. DESIGNER

PROVIDE FOR 465 LBS. FACTORED HORIZONTAL REACTION AT JOINT 9

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS
5	660	462 / 0
9	660	462 / 0

HORIZONTAL REACTIONS
9 --- 0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.03 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-5. DBS = 16-0-0. CBF = 89 LBS.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 2-8, 2-7, 3-7, 4-7. DBS = 20-0-0. CBF = 87 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS: 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (11)

CHORDS					WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 CSI (LC)	MAX. UNBRACED LENGTH FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM	TO					
1-2	-590 / 396	-77.3	-77.3	0.45 (7)	6.25	8-2	-296 / 189	0.14 (4)
2-3	-632 / 505	-77.3	-77.3	0.73 (1)	6.03	2-7	-154 / 253	0.10 (8)
3-4	-632 / 506	-77.3	-77.3	0.73 (1)	6.03	7-3	-734 / 565	0.35 (3)
5-4	-955 / 567	0.0	0.0	0.50 (7)	6.25	7-4	-518 / 961	0.34 (7)
9-1	-953 / 487	0.0	0.0	0.46 (1)	7.81	1-8	-160 / 615	0.16 (8)
9-8	-369 / 347	-17.5	-17.5	0.14 (11)	6.25			
8-7	-345 / 500	-17.5	-17.5	0.26 (11)	6.25			
7-6	-65 / 167	-17.5	-17.5	0.23 (11)	6.25			
6-5	-65 / 167	-17.5	-17.5	0.23 (11)	6.25			

WIND AND PRESSURE COEFFICIENTS ARE BASED ON A REFERENCE VELOCITY PRESSURE OF (9.0) PSF AT (40-0) FT. EXPOSED HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS. BASED ON THE (M) (WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURES ARE BASED ON DESIGN CATEGORY 2. BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 23.3 PSF
DL = 3.0 PSF	
BOT CH.	LL = 0.0 PSF
DL = 7.0 PSF	
TOTAL LOAD = 33.3 PSF	

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.66")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.66")
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

CSI: TC=0.73 (3-4:1), BC=0.26 (7-8:11), WB=0.35 (3-7:3), SSI=0.28 (3-4:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 0.50

TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

NAIL VALUES

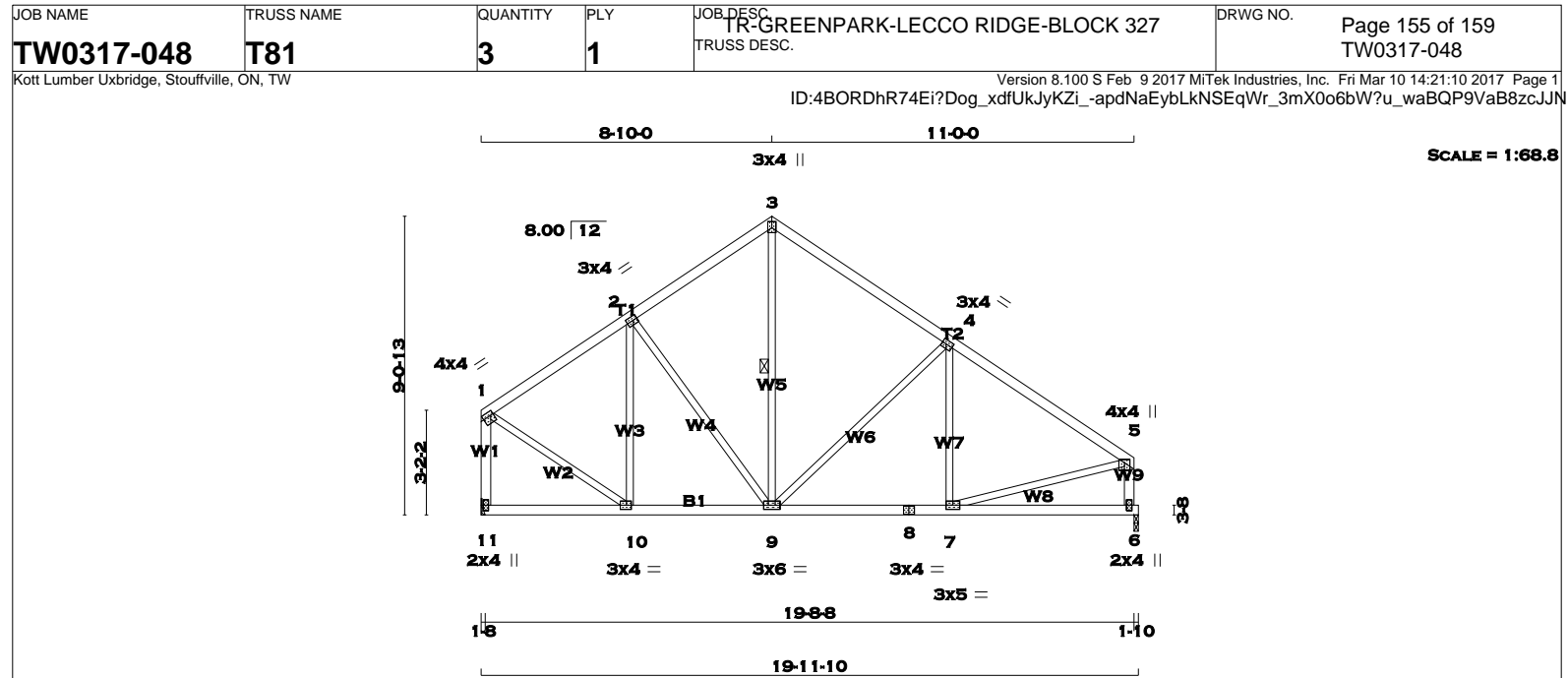
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

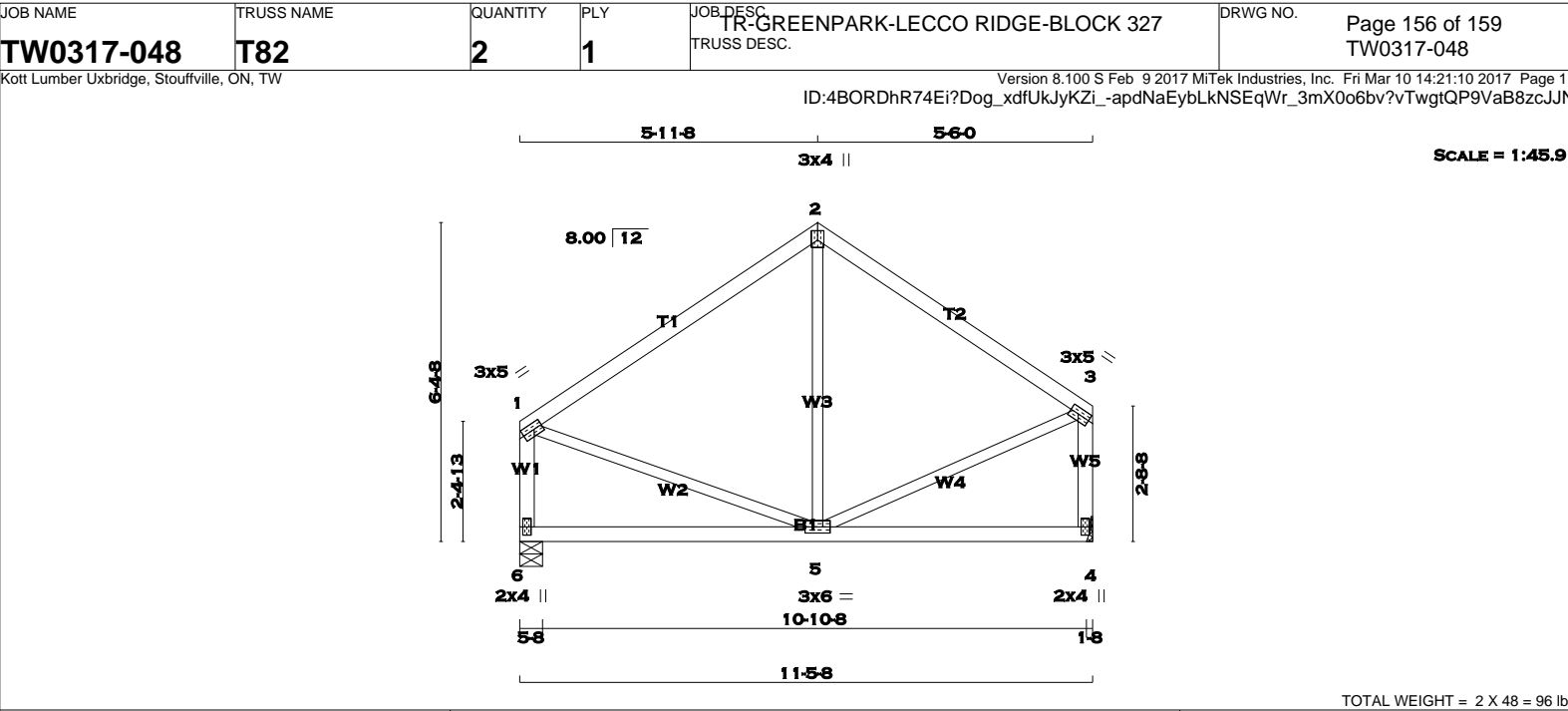
PLATE ROTATION TOL. = 5.0 Deg.

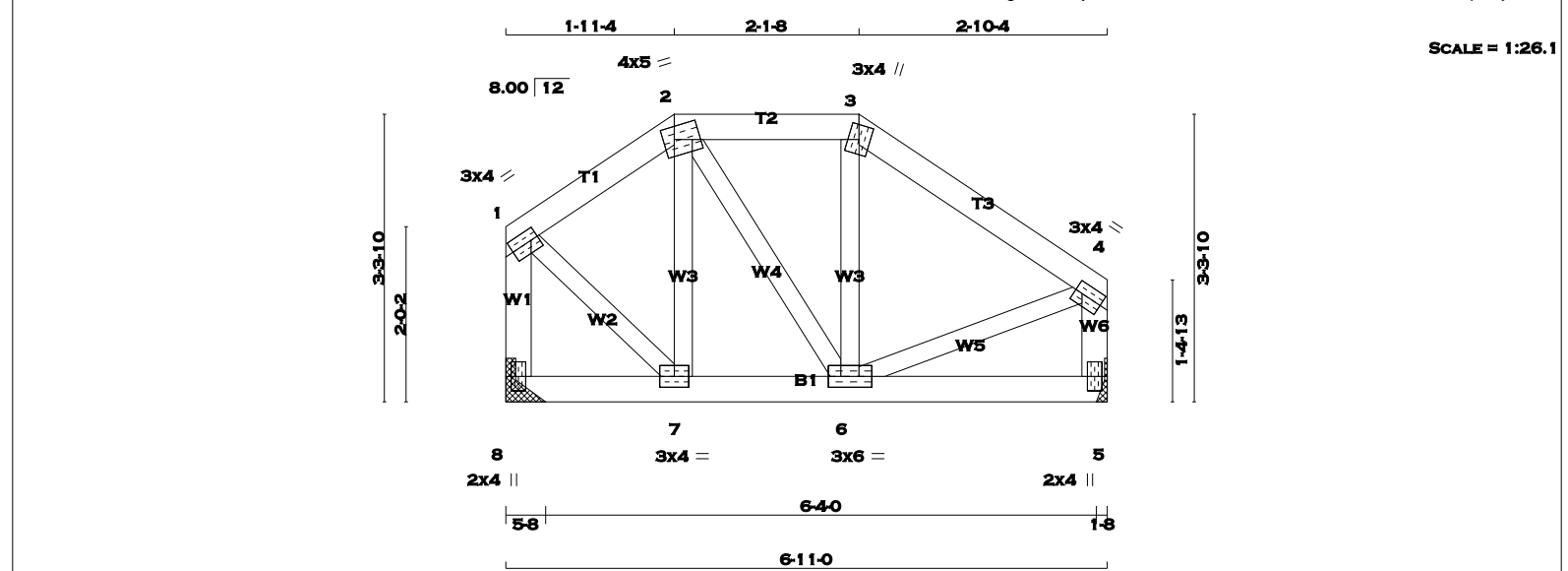
JSI GRIP= 0.90 (8) (INPUT = 0.90)
JSI METAL= 0.26 (1) (INPUT = 1.00)

RECEIVED
TOWN OF MILTON
MAR 29, 2017
17-4978
BUILDING DIVISION



<div>LUMBER</div> <div>N. L. G. A. RULES</div> <table><tr><th>CHORDS</th><th>SIZE</th><th>LUMBER</th><th>DESCR.</th><th>SPF</th></tr><tr><td>1 - 3</td><td>2x4</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>3 - 5</td><td>2x4</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>11 - 1</td><td>2x4</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>6 - 5</td><td>2x4</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>11 - 8</td><td>2x4</td><td>DRY</td><td>No.2</td><td>SPF</td></tr><tr><td>8 - 6</td><td>2x4</td><td>DRY</td><td>No.2</td><td>SPF</td></tr></table> <div>ALL WEBS 2x3 DRY No.2 SPF EXCEPT</div> <div>DRY: SEASONED LUMBER.</div>							CHORDS	SIZE	LUMBER	DESCR.	SPF	1 - 3	2x4	DRY	No.2	SPF	3 - 5	2x4	DRY	No.2	SPF	11 - 1	2x4	DRY	No.2	SPF	6 - 5	2x4	DRY	No.2	SPF	11 - 8	2x4	DRY	No.2	SPF	8 - 6	2x4	DRY	No.2	SPF	<div>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</div> <div>BEARINGS</div> <table><tr><th></th><th>FACTORED GROSS REACTION</th><th>MAXIMUM FACTORED GROSS REACTION</th><th>INPUT BRG</th><th>REQRD BRG</th></tr><tr><th>JT</th><th>VERT</th><th>HORZ</th><th>DOWN</th><th>HORZ</th></tr><tr><td>11</td><td>941</td><td>0</td><td>989</td><td>-399</td></tr><tr><td>6</td><td>941</td><td>0</td><td>1001</td><td>0</td></tr></table> <div>PROVIDE ANCHORAGE AT BEARING JOINT 11 FOR 372 LBS. FACTORED UPLIFT</div> <div>PROVIDE ANCHORAGE AT BEARING JOINT 6 FOR 395 LBS. FACTORED UPLIFT</div> <div>PROVIDE FOR 399 LBS. FACTORED HORIZONTAL REACTION AT JOINT 11</div> <div>UNFACTORED REACTIONS</div> <table><tr><th>JT</th><th>COMBINED</th><th>SNOW</th><th>LIVE</th><th>PERM.LIVE</th><th>WIND</th><th>DEAD</th><th>SOIL</th></tr><tr><td>11</td><td>660</td><td>462 / 0</td><td>0 / 0</td><td>0 / 0</td><td>121 / -393</td><td>198 / 0</td><td>0 / 0</td></tr><tr><td>6</td><td>660</td><td>462 / 0</td><td>0 / 0</td><td>0 / 0</td><td>150 / -410</td><td>198 / 0</td><td>0 / 0</td></tr></table> <div>HORIZONTAL REACTIONS</div> <table><tr><td>11</td><td>---</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>261 / -285</td><td>0 / 0</td><td>0 / 0</td></tr></table> <div>BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6</div> <div>BRACING</div> <div>TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.89 FT.</div> <div>MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.</div> <div>ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.</div> <div>1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1 / 2 LENGTH OF 3-9. DBS = 20-0-0 . CBF = 35 LBS.</div> <div>DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.</div> <div>END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW</div> <div>LOADING</div> <div>TOTAL LOAD CASES: (11)</div> <table><tr><th colspan="4">CHORDS</th><th colspan="4">WEBS</th></tr><tr><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>FACTORED VERT. LOAD (PLF)</th><th>LC1 MAX CSI (LC)</th><th>MAX. UNBRACED LENGTH</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX. CSI (LC)</th></tr><tr><td>FR-TO</td><td></td><td>FROM TO</td><td></td><td></td><td>FR-TO</td><td></td><td></td></tr><tr><td>1-2</td><td>-740 / 364</td><td>-77.3 -77.3</td><td>0.31 (7)</td><td>6.25</td><td>10-2</td><td>-316 / 187</td><td>0.19 (4)</td></tr><tr><td>2-3</td><td>-721 / 476</td><td>-77.3 -77.3</td><td>0.32 (7)</td><td>6.25</td><td>2-9</td><td>-177 / 293</td><td>0.18 (3)</td></tr><tr><td>3-4</td><td>-727 / 452</td><td>-77.3 -77.3</td><td>0.47 (8)</td><td>6.25</td><td>9-3</td><td>-319 / 469</td><td>0.16 (7)</td></tr><tr><td>4-5</td><td>-990 / 420</td><td>-77.3 -77.3</td><td>0.47 (8)</td><td>5.89</td><td>9-4</td><td>-456 / 425</td><td>0.49 (4)</td></tr><tr><td>11-1</td><td>-956 / 394</td><td>0.0 0.0</td><td>0.16 (1)</td><td>7.81</td><td>7-4</td><td>-104 / 143</td><td>0.04 (3)</td></tr><tr><td>6-5</td><td>-960 / 422</td><td>0.0 0.0</td><td>0.10 (1)</td><td>7.81</td><td>1-10</td><td>-233 / 750</td><td>0.16 (1)</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>7-5</td><td>-251 / 869</td><td>0.19 (1)</td></tr><tr><td>11-10</td><td>-309 / 373</td><td>-17.5 -17.5</td><td>0.08 (5)</td><td>6.25</td><td></td><td></td><td></td></tr><tr><td>10-9</td><td>-256 / 689</td><td>-17.5 -17.5</td><td>0.14 (1)</td><td>6.25</td><td></td><td></td><td></td></tr><tr><td>9-8</td><td>-216 / 842</td><td>-17.5 -17.5</td><td>0.20 (1)</td><td>6.25</td><td></td><td></td><td></td></tr><tr><td>8-7</td><td>-216 / 842</td><td>-17.5 -17.5</td><td>0.20 (1)</td><td>6.25</td><td></td><td></td><td></td></tr><tr><td>7-6</td><td>-13 / 28</td><td>-17.5 -17.5</td><td>0.13 (11)</td><td>6.25</td><td></td><td></td><td></td></tr></table> <div>WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCo, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE, CpCi, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN) OR (CLOSED) TERRAIN. SIGN TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EDGE OF TERRAIN.</div>								FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	JT	VERT	HORZ	DOWN	HORZ	11	941	0	989	-399	6	941	0	1001	0	JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	11	660	462 / 0	0 / 0	0 / 0	121 / -393	198 / 0	0 / 0	6	660	462 / 0	0 / 0	0 / 0	150 / -410	198 / 0	0 / 0	11	---	0 / 0	0 / 0	0 / 0	261 / -285	0 / 0	0 / 0	CHORDS				WEBS				MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	FR-TO		FROM TO			FR-TO			1-2	-740 / 364	-77.3 -77.3	0.31 (7)	6.25	10-2	-316 / 187	0.19 (4)	2-3	-721 / 476	-77.3 -77.3	0.32 (7)	6.25	2-9	-177 / 293	0.18 (3)	3-4	-727 / 452	-77.3 -77.3	0.47 (8)	6.25	9-3	-319 / 469	0.16 (7)	4-5	-990 / 420	-77.3 -77.3	0.47 (8)	5.89	9-4	-456 / 425	0.49 (4)	11-1	-956 / 394	0.0 0.0	0.16 (1)	7.81	7-4	-104 / 143	0.04 (3)	6-5	-960 / 422	0.0 0.0	0.10 (1)	7.81	1-10	-233 / 750	0.16 (1)						7-5	-251 / 869	0.19 (1)	11-10	-309 / 373	-17.5 -17.5	0.08 (5)	6.25				10-9	-256 / 689	-17.5 -17.5	0.14 (1)	6.25				9-8	-216 / 842	-17.5 -17.5	0.20 (1)	6.25				8-7	-216 / 842	-17.5 -17.5	0.20 (1)	6.25				7-6	-13 / 28	-17.5 -17.5	0.13 (11)	6.25				<div>DESIGN CRITERIA</div> <div>SPECIFIED LOADS:</div> <table><tr><td>TOP CH.</td><td>LL</td><td>=</td><td>23.3</td><td>PSF</td></tr><tr><td></td><td>DL</td><td>=</td><td>3.0</td><td>PSF</td></tr><tr><td>BOT CH.</td><td>LL</td><td>=</td><td>0.0</td><td>PSF</td></tr><tr><td></td><td>DL</td><td>=</td><td>7.0</td><td>PSF</td></tr><tr><td>TOTAL LOAD</td><td>=</td><td>33.3</td><td>PSF</td><td></td></tr></table> <div>SPACING = 24.0 IN./C</div> <div>THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010</div> <div>THIS DESIGN COMPLIES WITH:</div> <div>- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014</div> <div>- CSA 086-09</div> <div>- TPIC 2011</div> <div>(55 % OF 27.2 P.S.F. 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DEFL.(TL) = L/ 999 (0.05")</div> <div>CSI: TC=0.47 (3-4:8) , BC=0.20 (7-9:1) , WB=0.49 (4-9:4) , SSI=0.18 (4-5:8)</div> <div>DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10</div> <div>COMP=1.10 SHEAR=1.10 TENS= 1.10</div> <div>COMPANION LIVE LOAD FACTOR = 0.50</div> <div>TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .</div> <div>NAIL VALUES</div> <table><tr><th>PLATE</th><th>GRIP(DRY) (PSI)</th><th>SHEAR (PLI)</th><th>SECTION (PLI)</th></tr><tr><td></td><td>MAX</td><td>MIN</td><td>MAX</td></tr><tr><td>MT20</td><td>618</td><td>354</td><td>1667</td></tr><tr><td></td><td>822</td><td>2284</td><td>1656</td></tr></table> <div>PLATE PLACEMENT TOL. = 0.250 inches</div> <div>PLATE ROTATION TOL. = 5.0 Deg.</div> <div>JSI GRIP= 0.90 (10) (INPUT = 0.90)</div> <div>JSI METAL= 0.31 (1) (INPUT = 1.00)</div>							TOP CH.	LL	=	23.3	PSF		DL	=	3.0	PSF	BOT CH.	LL	=	0.0	PSF		DL	=	7.0	PSF	TOTAL LOAD	=	33.3	PSF		PLATE	GRIP(DRY) (PSI)	SHEAR (PLI)	SECTION (PLI)		MAX	MIN	MAX	MT20	618	354	1667		822	2284	1656
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[M][F]	
LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. SPF 1 - 2 2x4 DRY No.2 SPF 2 - 3 2x4 DRY No.2 SPF 3 - 4 2x4 DRY No.2 SPF 8 - 1 2x4 DRY No.2 SPF 5 - 4 2x4 DRY No.2 SPF 8 - 5 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT DRY: SEASONED LUMBER.	
DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT REQRD JT VERT HORZ DOWN HORZ UPLIFT BRG BRG IN-SX IN-SX 8 328 0 341 -150 -146 HANGER BY OTHERS 5 328 0 342 0 -151 HANGER BY OTHERS MIN. SEAT SIZE: 5-8 MIN. SEAT SIZE: 1-8 PROVIDE ANCHORAGE AT BEARING JOINT 8 FOR 150 LBS FACTORED UPLIFT PROVIDE ANCHORAGE AT BEARING JOINT 5 FOR 151 LBS FACTORED UPLIFT PROVIDE FOR 150 LBS FACTORED HORIZONTAL REACTION AT JOINT 8 UNFACTORED REACTIONS 1ST LCASE MAX./MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL 8 230 161 / 0 0 / 0 0 / 0 33 / -149 69 / 0 0 / 0 5 230 161 / 0 0 / 0 0 / 0 36 / -152 69 / 0 0 / 0 HORIZONTAL REACTIONS 8 --- 0 / 0 0 / 0 0 / 0 97 / -107 0 / 0 0 / 0 BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.	
DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 23.3 PSF DL = 3.0 PSF BOT CH. LL = 0.0 PSF DL = 7.0 PSF TOTAL LOAD = 33.3 PSF SPACING = 24.0 IN. C/C LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12 THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012, BCBC 2012, ABC 2014 - CSA 086-09 - TPIC 2011 (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD ALLOWABLE DEFL.(LL)= L/360 (0.23") CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00") ALLOWABLE DEFL.(TL)= L/360 (0.23") CALCULATED VERT. DEFL.(TL) = L/ 999 (0.00") CSI: TC=0.13 (3-4:8) , BC=0.04 (6-7:11) , WB=0.05 (1-7:1) , SSI=0.08 (3-4:8) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10 COMPANION LIVE LOAD FACTOR = 0.50 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 822 2284 1656 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.65 (4) (INPUT = 0.90) JSI METAL= 0.11 (4) (INPUT = 1.00)	
PLATES (table is in inches) JT TYPE PLATES W LEN Y X 1 TMVW-t MT20 3.0 4.0 1.50 1.00 2 TTWW-m MT20 4.0 5.0 1.75 1.50 3 TTW+m MT20 3.0 4.0 4 TMVW-t MT20 3.0 4.0 1.50 1.00 5 BMV1+p MT20 2.0 4.0 6 BMWWV-t MT20 3.0 6.0 7 BMWW-t MT20 3.0 4.0 8 BMV1+p MT20 2.0 4.0 A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.	
LOADING TOTAL LOAD CASES: (11) CHORDS FACTORED FACTORED WEBS MEMB. FORCE VERT. LOAD LC1 MAX. MAX. MEMB. MAX. FACTORED (LBS) (PLF) CSI (LC) UNBRAC LENGTH FR-TO (LBS) MAX (LC) FR-TO FROM TO 1-2 -207 / 137 -77.3 -77.3 0.07 (7) 6.25 7-2 -102 / 65 0.02 (1) 2-3 -201 / 166 -77.3 -77.3 0.06 (8) 6.25 2-6 -53 / 71 0.01 (4) 3-4 -243 / 128 -77.3 -77.3 0.13 (8) 6.25 6-3 -76 / 86 0.02 (8) 8-1 -325 / 157 0.0 0.0 0.04 (7) 7.81 1-7 -69 / 215 0.05 (1) 5-4 -319 / 165 0.0 0.0 0.03 (1) 7.81 6-4 -48 / 215 0.04 (1) 8-7 -103 / 135 -17.5 -17.5 0.03 (5) 6.25 7-6 -83 / 177 -17.5 -17.5 0.04 (11) 6.25 6-5 -10 / 21 -17.5 -17.5 0.03 (11) 10.00 WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0} PSF AT (40-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS. CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM).INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (OPEN TERRAIN), AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE.	
 March 10, 2017	
 READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT. RECEIVED TOWN OF MILTON MAR 29, 2017 17-4978 BUILDING DIVISION	

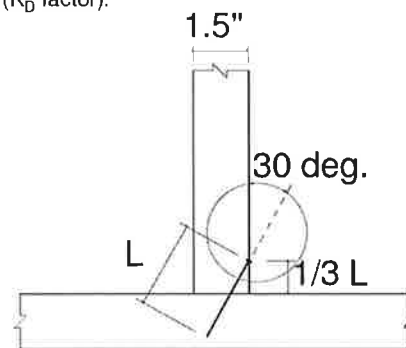
BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY

B37579H1

NAIL TYPE	LENGTH (IN)	DIAMETER (IN)	NAIL LATERAL CAPACITY (LB)	
			S-P-F	D. FIR
COMMON WIRE	3.00	0.144	132	147
	3.25	0.144	132	147
	3.50	0.160	159	177
COMMON SPIRAL	3.00	0.122	97	108
	3.25	0.122	97	108
	3.50	0.152	145	162

NOTES:

1. Rafter and ceiling members may be anchored to top and bottom chords of girder truss by toe-nailing rafter and ceiling members to girder chords provided the reaction does not exceed the lateral capacities in the table. Hangers (specified by others) are required for reactions higher than the maximum toe-nail capacity. Reactions are based on factored loads.
2. Toe nail capacities shown in the table are for **one** toe-nail. For additional toe-nails multiply values in table by the number of toe-nails used. Toe-nail capacities take into account toe-nailing factor J_A in CSA O86-09, section 10.9.4.1.
3. For 9- 3/4 gauge 3.25" common wire gun nails (diameter = 0.120") use 3" common spiral nail values.
4. Maximum number of toe-nails allowed depends on the lumber size & species to be toe-nailed to supporting member and nail diameter, as shown in tables below.
5. Nail values in table are based on the following relative lumber densities: G = 0.42 (SPF), G = 0.49 (D. Fir).
6. Toe-nails shall be driven at approximately 1/3 the nail length from the edge of the joist/truss chord and driven at an angle of 30° to the grain of the member (See next page for nailing on bearing plate).
7. For loads due to **wind** the nail lateral capacity in this table may be multiplied by 1.15 (K_D factor).
8. Lumber must be dry (< 19% moisture content) at the time of nail installation.
9. Nail values in this table comply with CSA O86-09, section 10.9.4
10. This design is not valid after April 30, 2017.



Nail type	Common wire	Common spiral	Common wire	Common spiral
Nail dia. (in)	0.160	0.152	0.144	0.122
	(3.5" nail)		(3" and 3.25" nail)	
LUMBER SIZE	MAXIMUM NUMBER OF TOE-NAILS			
2X4 SPF	2	2	3	3
2X4 D. Fir	2	2	2	2
2X6 SPF	4	4	4	5
2X6 D. Fir	3	3	3	4



MiTek Canada Inc
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BEARING ANCHORAGE BY TOE-NAILS FOR WIND LOADING

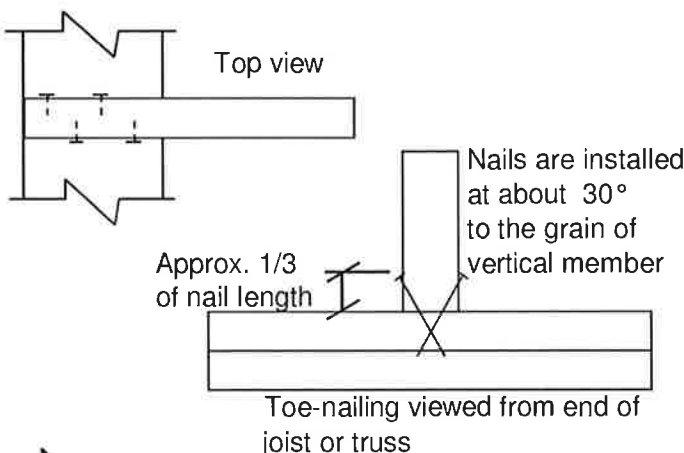
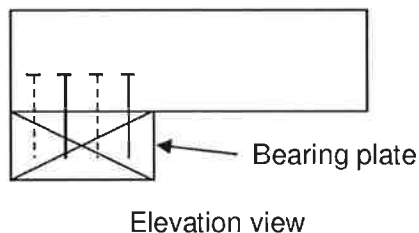
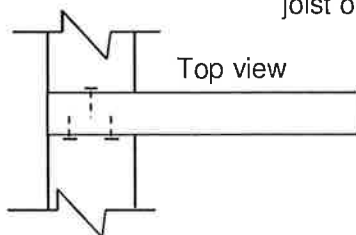
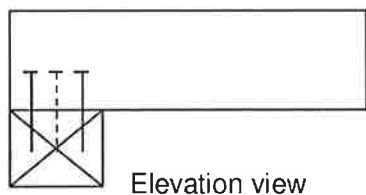
B37579H2

NAIL TYPE	LENGTH (IN)	DIAMETER (IN)	NAIL WITHDRAWAL CAPACITY (LB)	
			S-P-F	D. FIR
COMMON WIRE	3.00	0.144	30	42
	3.25	0.144	32	45
	3.50	0.160	38	52
COMMON SPIRAL	3.00	0.122	26	36
	3.25	0.122	28	40
	3.50	0.152	36	50

Note: If using truss with D. Fir lumber and S-P-F bearing plate, use values in table for S-P-F.

NOTES:

1. Truss chord, rafter, or ceiling members may be anchored to bearing plate by toe-nails, provided that the actual factored uplift force due to **wind** or **earthquake** load does not exceed the withdrawal capacities in the table. Hangers (specified by others) are required for uplift forces that are higher than the maximum toe-nail withdrawal capacity.
2. Toe nail capacities shown in the table are for **one** toe-nail. For additional toe-nails multiply values in table by the number of toe-nails used. Toe-nail capacities take into account toe-nailing factor J_A in CSA O86-09, section 10.9.5.2.
3. For 9-3/4 gauge 3.25" common wire gun nails (diameter = 0.120") use 3" common spiral nail values.
4. Maximum number of toe-nails allowed depends on the lumber size & species to be toe-nailed to supporting member and nail diameter, as shown in table above.
5. Nail values in table are based on the following relative lumber densities: $G = 0.42$ (SPF), $G = 0.49$ (D. Fir).
6. Toe-nails shall be driven at approximately 1/3 the nail length from the edge of the joist/truss chord and driven at an angle of 30° to the grain of the member (See drawing on detail B37579H1).
7. Lumber must be dry (< 19% moisture content) at the time of nail installation.
8. Nail values in this table comply with CSA O86-09, section 10.9.5
9. This design is not valid after April 30, 2017

Toe-nailing on 2x6 Bearing Plate**Toe-nailing on 2x4 Bearing Plate**

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