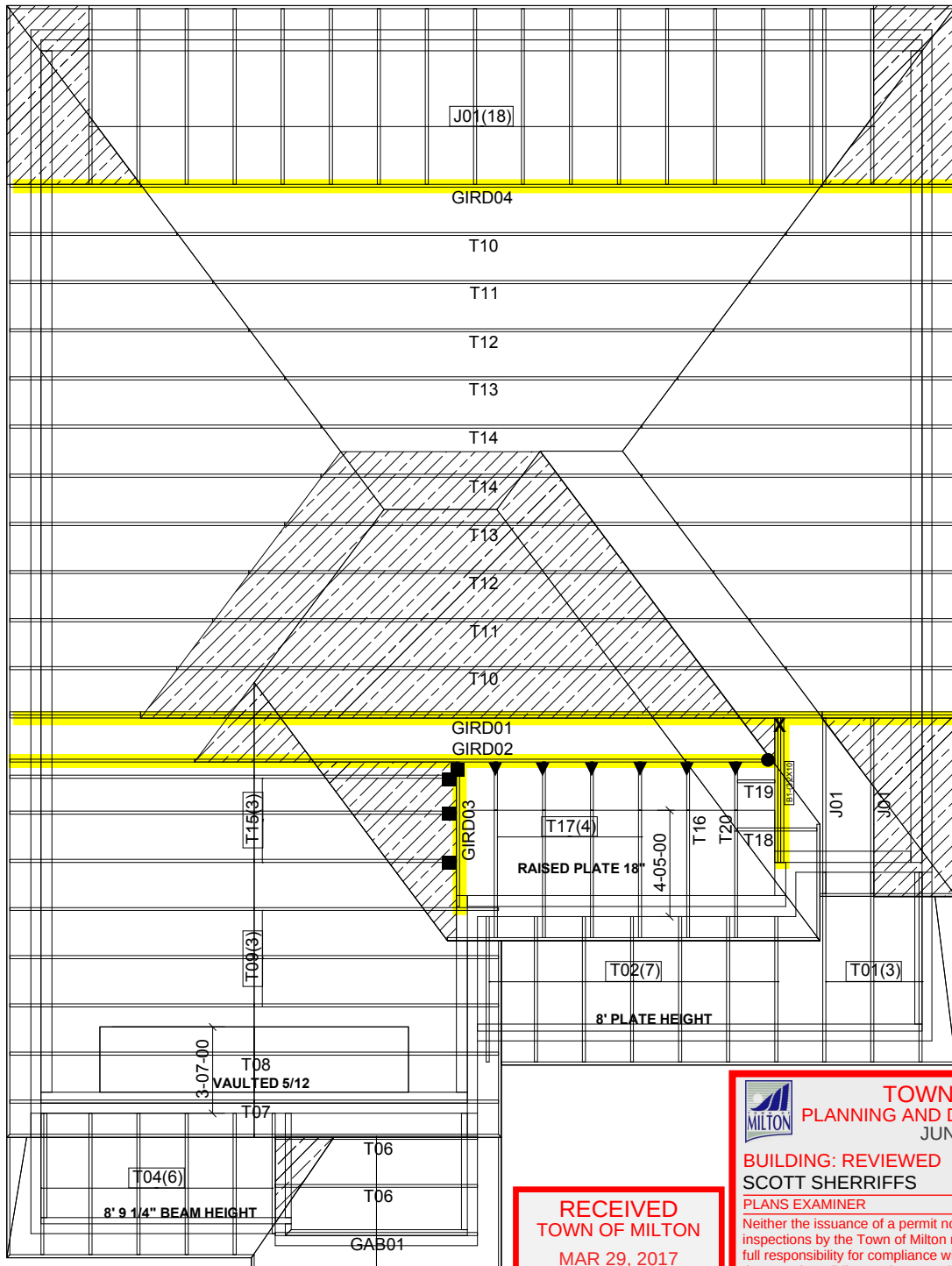




TOWN OF MILTON
PLANNING AND DEVELOPMENT
JUNIPER 3 MODEL

BUILDING: REVIEWED

SCOTT SHERRIFFS

MAR 30, 2017

PLANS EXAMINER

DATE

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 of Ontario, By-laws of the Region of Halton and Town of Milton

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CONVENTIONAL FRAMING BY OTHERS

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'.

HANGER LEGEND:

▼ LUS24
● HGUS26

■ LJS26DS
X HGUS26-3

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

Model: **JUNIPER 3 EL 1**

Customer: **GREENPARK**

Project: **LECCO RIDGE**

Location: **MILTON**

Date: 10/24/2016 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

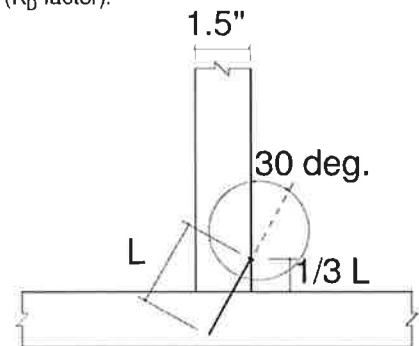
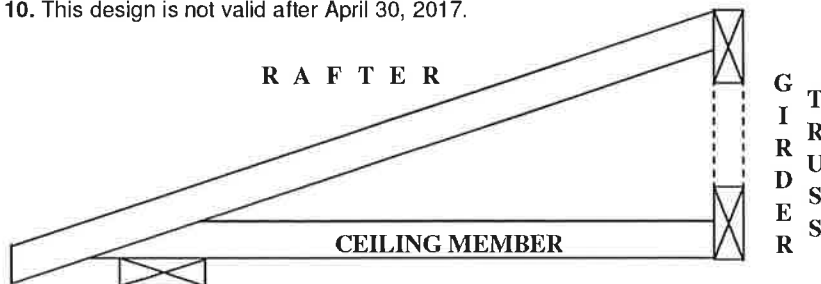
BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY

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.



TOE-NAIL INSTALLATION

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
100 Industrial Rd.
Bradford, Ontario L3Z 3G7

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PEO
Certificate No. 10889485



April 24, 2015

BEARING ANCHORAGE BY TOE-NAILS FOR WIND LOADING

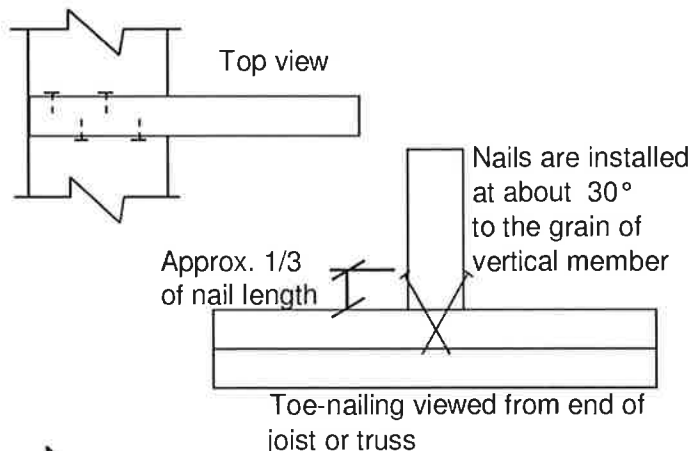
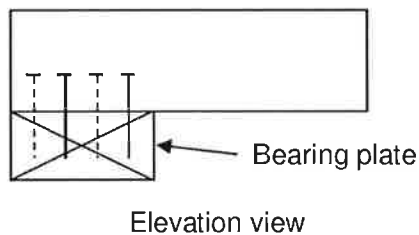
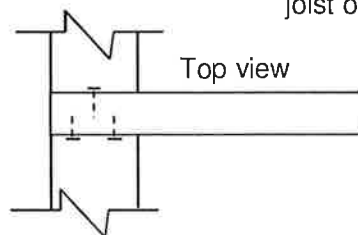
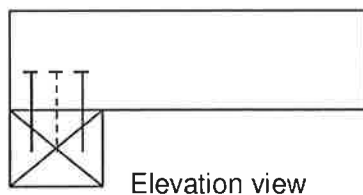
B37579H2

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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Bradford, Ontario L3Z 3G7

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April 24, 2015

JOB NAME

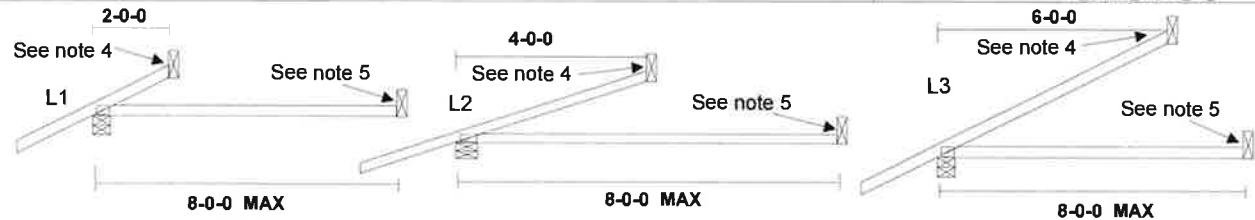
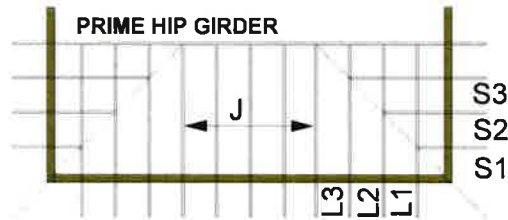
DETAILS

JOB DESC.

HIP END FRAMING

DRAWING NO.

B37579J



DETAIL "A"

PLATE "A"

MT20 4 X 4 = all "J" trusses
MT20 3 X 4 = all other trusses

DETAIL "B"

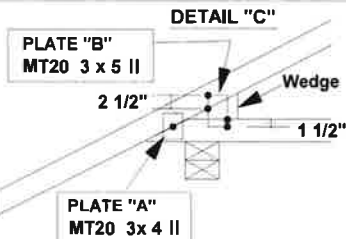
RAISED HEEL

3 1/2"

PLATE "A"

Wedge required

MT20 4 X 8 II all 11/12 & 12/12 pitch trusses
MT20 4 X 7 II all other trusses

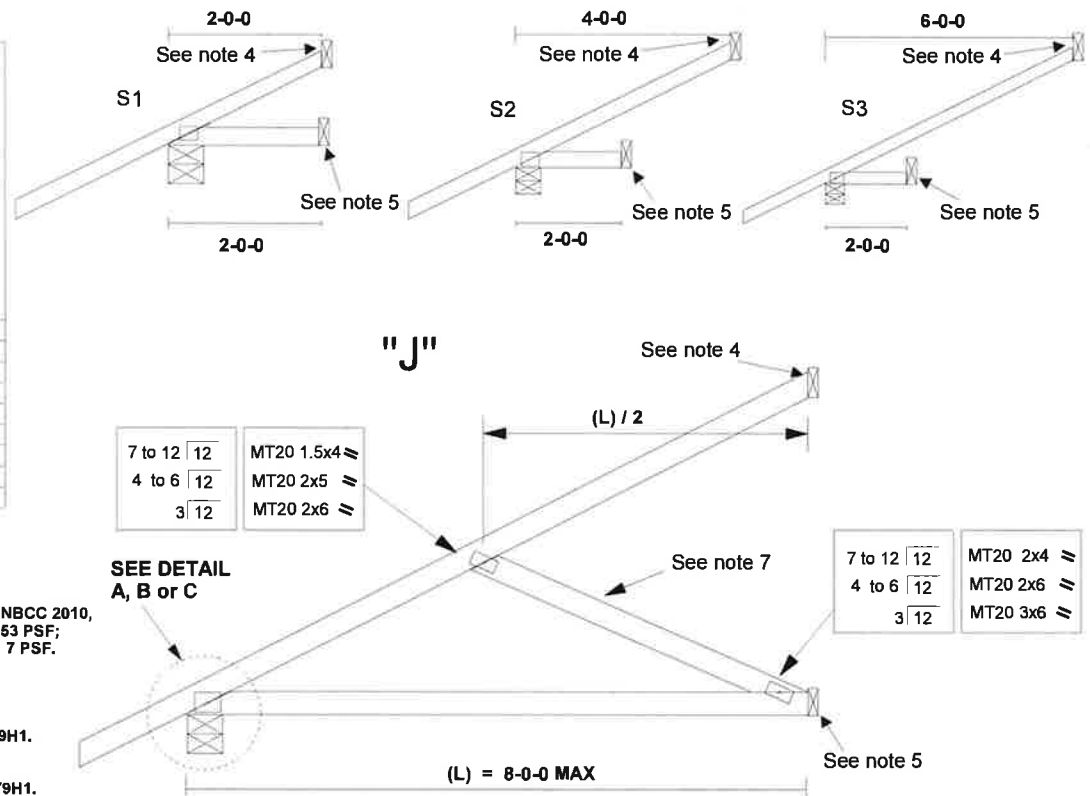


CANTILEVER DETAIL "C"

SLOPE	MAX CANTILEVER	PLATE "B"	WEDGE SIZE
3/12	17"	3 X 5	2 X 3
4/12	14"	3 X 5	2 X 3
5/12	12"	3 X 5	2 X 4
6/12	10"	3 X 5	2 X 4
7/12	9"	3 X 5	2 X 6
8/12	8.5"	3 X 5	2 X 6
9/12	8"	3 X 5	2 X 6
10/12	7.5"	3 X 5	2 X 6

NOTES:

- ALL LUMBER SHALL BE 2x4 SPF OR D. Fir No. 2 DRY OR BETTER.
- THIS TRUSS IS DESIGNED FOR HOUSING AND SMALL BUILDING REQUIREMENTS OF PART 9 NBCC 2010, WHERE GROUND SNOW LOAD IS 60.0 PSF OR LESS AND RAIN LOAD DOES NOT EXCEED 12.53 PSF; TOP CHORD DEAD LOAD IS 6 PSF OR LESS; BC LIVE LOAD IS 0 PSF AND BC DEAD LOAD IS 7 PSF.
- HIP RAFTER DESIGN SHALL CONFORM TO SECTION 9.23.14.6 OF NBCC 2010.
- FASTEN HIGH END OF RAFTERS USING MITEK CANADA INC. "BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY" STANDARD DETAIL B37579H1.
- FASTEN RIGHT END OF CEILING USING MITEK CANADA INC. "BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY" STANDARD DETAIL B37579H1.
- OVERHANG LENGTH SHALL NOT EXCEED 2 FT.
- WHEN SETBACK IS 6 FT OR LESS, DIAGONAL WEB MAY BE OMITTED AND HIGH END OF TOP CHORD SHALL BE CONNECTED AS PER NOTE 4.
- ALL PLATES SPECIFIED ARE PRESSED INTO BOTH FACES OF THE TRUSS.
- MITEK REFERENCE PAGE MII-7473C FORMS AN INTEGRAL PART OF THIS DETAIL.
- THIS DETAIL IS NOT VALID AFTER APRIL 30, 2017

SEE DETAIL
A, B or C

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MiTek Canada, Inc.

100 Industrial Rd.
Bradford, Ontario, L3Z 3G7PEO
Certificate No. 10889485

April 24, 2015

CS Beam 4.11.26.1
kmBeamEngine 4.11.26.1
Materials Database 1516**Member Data B1****Description:**

Member Type: Beam

Application: Roof

Top Lateral Bracing: Continuous

Slope: 0.00 / 12

Bottom Lateral Bracing: Continuous

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Deflection Criteria: L/360 live, L/240 total

0.720" max. LL

Snow Load: 30 PLF

Deck Connection: Nailed

Member Weight: 5.9 PLF

Dead Load: 15 PLF

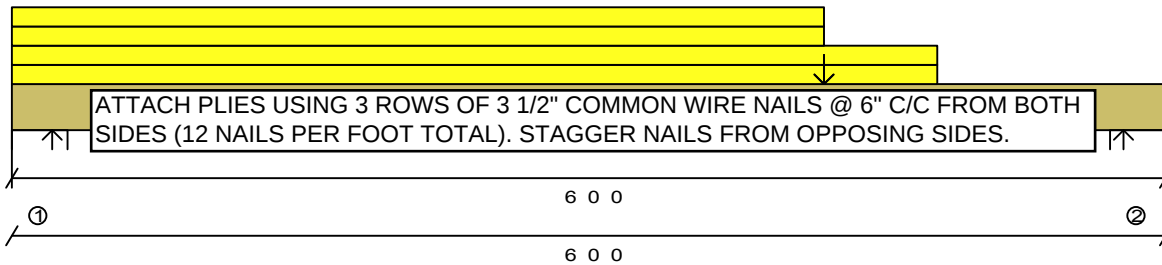
Filename: Beam1

Building Type: Residential

Importance Category: Normal (Part 9)

Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Point (LBS)	Top	4' 2.75"			0		809		Live
Point (LBS)	Top	4' 2.75"			1885		0		Snow
Additional Uniform (PLF)	Top	0' 0.00"	4' 2.75"		0		14		Live
Additional Uniform (PLF)	Top	0' 0.00"	4' 2.75"		55		0		Snow
Additional Uniform (PLF)	Top	0' 0.00"	4' 9.75"		0		10		Live
Additional Uniform (PLF)	Top	0' 0.00"	4' 9.75"		23		0		Snow

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	Steel	3.500"	1.500"	1653#	--
2	6' 0.000"	Wall	Steel	3.500"	1.500"	3200#	--

Maximum Unfactored Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Snow	Dead
1	813#	347#
2	1566#	681#

Design spans

5' 6.750"

**Product: S-P-F No1/No2 2x8 3 ply****PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.
Design assumes continuous lateral bracing along the bottom chord.

Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	4873.#	6679.#	72%	4.23'	Total Load 1.25D+1.00*1.5S
Shear	3157.#	3406.#	92%	5.22'	Total Load 1.25D+1.00*1.5S
Max. Reaction	3200.#	9686.#	33%	6'	Total Load 1.25D+1.00*1.5S
TL Deflection	0.0782"	0.2781"	L/854	3.28'	Total Load D+S
LL Deflection	0.0547"	0.1854"	L/999+	3.28'	Total Load S

(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loads beams assumed to be 3.50"

Control: Shear

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

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.

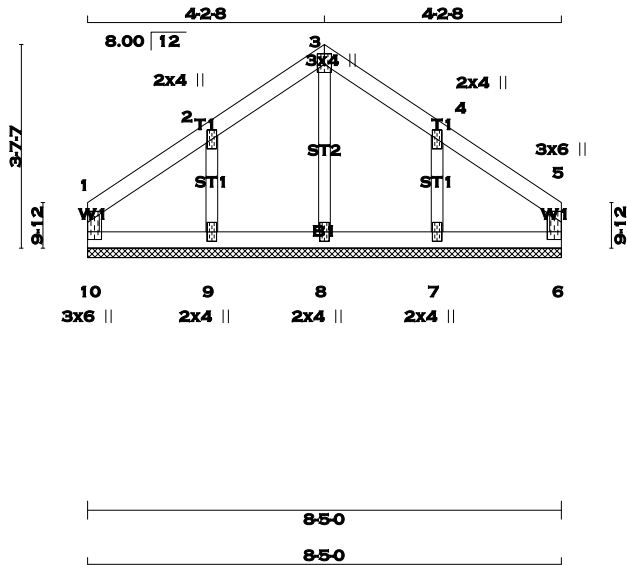
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**Passing is defined as when the member, floor joist, beam or girder, shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet. The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.



TOTAL WEIGHT = 27 lb [M]

LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
10 - 1	2x3	DRY	No.2	SPF	
1 - 3	2x4	DRY	No.2	SPF	
3 - 5	2x4	DRY	No.2	SPF	
6 - 5	2x3	DRY	No.2	SPF	
10 - 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.					

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
1	5, 6, 10				
2	TMW+w	MT20	2.0	4.0	
3	TTW+p	MT20	3.0	4.0	2.25 1.50
4	TMW+w	MT20	2.0	4.0	
5	TMBMV1+p	MT20	3.0	6.0	1.75 Edge
7, 8, 9					
7	BMW1+w	MT20	2.0	4.0	
10	TMBMV1+p	MT20	3.0	6.0	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

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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 = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING				TOTAL LOAD CASES: (4)			
CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
10-1	-107 / 0	0.0	0.0 0.05 (1)	7.81	8-3	-104 / 0	0.02 (1)
1-2	-52 / 0	-77.3	-77.3 0.04 (1)	6.25	9-2	-167 / 0	0.03 (1)
2-3	-49 / 0	-77.3	-77.3 0.04 (1)	6.25	7-4	-167 / 0	0.03 (1)
3-4	-49 / 0	-77.3	-77.3 0.04 (1)	6.25			
4-5	-52 / 0	-77.3	-77.3 0.04 (1)	6.25			
6-5	-107 / 0	0.0	0.0 0.05 (1)	7.81			
10-9	0 / 46	-17.5	-17.5 0.02 (4)	10.00			
9-8	0 / 39	-17.5	-17.5 0.02 (4)	10.00			
8-7	0 / 39	-17.5	-17.5 0.02 (4)	10.00			
7-6	0 / 46	-17.5	-17.5 0.02 (4)	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

CSI: TC=0.05 (5-6:1), BC=0.02 (6-7:4), WB=0.03 (4-7:1), SSI=0.06 (1-2:1)

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

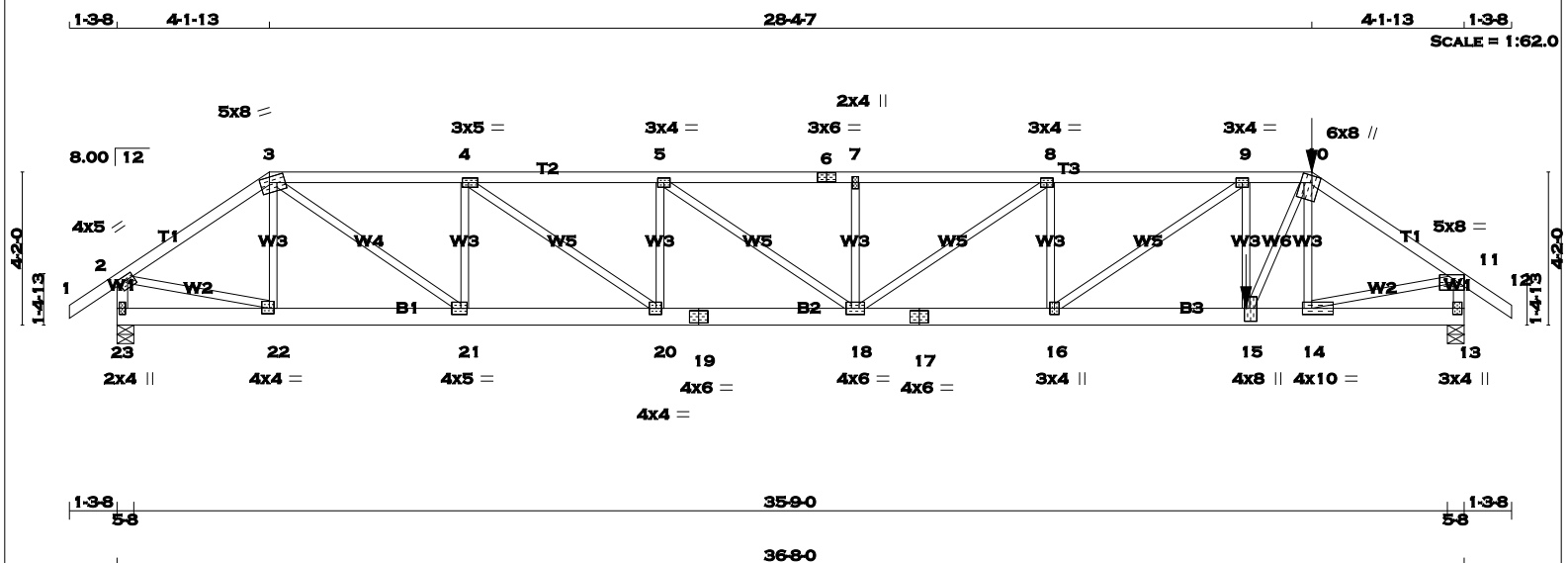
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.13 (10) (INPUT = 0.90)
JSI METAL= 0.04 (4) (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 169 = 338 lb

LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE		LUMBER	DESCR.
1 - 3	2x4	DRY	No.2	SPF
3 - 6	2x4	DRY	No.2	SPF
6 - 10	2x4	DRY	No.2	SPF
10- 12	2x4	DRY	No.2	SPF
23- 2	2x4	DRY	No.2	SPF
13- 11	2x4	DRY	No.2	SPF
23- 19	2x6	DRY	No.2	SPF
19- 17	2x6	DRY	No.2	SPF
17- 13	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		
1-3	1	12
3-6	1	12
6-10	1	12
10-12	1	12
23-2	1	12
13-11	1	12
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
23-19	2	12
19-17	2	12
17-13	2	12
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	1	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 TRANSFERRING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.

**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.**



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

JTB	FACTORED		MAXIMUM FACTORED		INPUT	REQRD
	GROSS	REACTION	GROSS	REACTION	BRG	BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX
23	2415	0	2415	0	0	5-8
13	4932	0	4932	0	0	5-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
23	1692	1199 / 0	0 / 0	0 / 0	0 / 0	494 / 0	0 / 0
13	3460	2427 / 0	0 / 0	0 / 0	0 / 0	1033 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 23, 13

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.35 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: (4)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX	UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO	CSI (LC)	LENGTH	FR-TO		
1-2	0 / 29	-77.3	-77.3 0.06 (1)	10.00	22-3	-439 / 0	0.06 (1)
2-3	-2825 / 0	-77.3	-77.3 0.17 (1)	10.00	3-21	0 / 2886	0.36 (1)
3-4	-4687 / 0	-77.3	-77.3 0.29 (1)	4.22	21-4	-1597 / 0	0.21 (1)
4-5	-6298 / 0	-77.3	-77.3 0.39 (1)	3.65	4-20	0 / 1978	0.24 (1)
5-6	-7195 / 0	-77.3	-77.3 0.40 (1)	3.44	20-5	-1041 / 0	0.13 (1)
6-7	-7195 / 0	-77.3	-77.3 0.40 (1)	3.44	5-18	0 / 1102	0.14 (1)
7-8	-7195 / 0	-77.3	-77.3 0.43 (1)	3.42	18-7	-404 / 0	0.05 (1)
8-9	-7442 / 0	-77.3	-77.3 0.45 (1)	3.35	18-8	-304 / 0	0.12 (1)
9-10	-6856 / 0	-145.8	-145.8 0.24 (1)	3.60	16-8	-259 / 0	0.03 (1)
10-11	-6139 / 0	-77.3	-77.3 0.30 (1)	3.74	16-9	0 / 720	0.09 (1)
11-12	0 / 29	-77.3	-77.3 0.06 (1)	10.00	15-9	-725 / 0	0.09 (1)
23-2	-2389 / 0	0.0	0.0 0.13 (1)	7.28	15-10	0 / 4160	0.51 (1)
13-11	-4880 / 0	0.0	0.0 0.27 (1)	5.42	14-10	-885 / 0	0.11 (1)
					2-22	0 / 2410	0.30 (1)
23-22	0 / 0	-17.5	-17.5 0.03 (4)	10.00	14-11	0 / 5238	0.65 (1)
22-21	0 / 2335	-17.5	-17.5 0.17 (1)	10.00			
21-20	0 / 4687	-17.5	-17.5 0.34 (1)	10.00			
20-19	0 / 6298	-17.5	-17.5 0.46 (1)	10.00			
19-18	0 / 6298	-17.5	-17.5 0.46 (1)	10.00			
18-17	0 / 7442	-17.5	-17.5 0.53 (1)	10.00			
17-16	0 / 7442	-17.5	-17.5 0.53 (1)	10.00			
16-15	0 / 6856	-17.5	-17.5 0.54 (1)	10.00			
15-14	0 / 5075	-33.0	-33.0 0.42 (1)	10.00			
14-13	0 / 0	-33.0	-33.0 0.03 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
10	32-6-3	-241	-241	---	FRONT	VERT	TOTAL
15	30-8-12	-3202	-3202	---	FRONT	VERT	TOTAL

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
SIDE SETBACK = 4-1-13
END SETBACK = 6-0-0
END WALL WIDTH = 5-8
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADD'T'L LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 5-11-4 OF SPAN
MEASURED FROM THE RIGHT.

*** 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 , 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 (1.22")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.25")
ALLOWABLE DEFL.(TL)= L/360 (1.22")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.43")

CSI: TC=0.45 (8-9:1) , BC=0.54 (15-16:1) ,
WB=0.65 (11-14:1) , SSI=0.11 (3-4:1)

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
1	100	100	100
2	100	100	100
3	100	100	100
4	100	100	100
5	100	100	100
6	100	100	100
7	100	100	100
8	100	100	100
9	100	100	100
10	100	100	100
11	100	100	100
12	100	100	100
13	100	100	100
14	100	100	100
15	100	100	100
16	100	100	100
17	100	100	100
18	100	100	100
19	100	100	100
20	100	100	100
21	100	100	100
22	100	100	100
23	100	100	100
24	100	100	100
25	100	100	100
26	100	100	100
27	100	100	100
28	100	100	100
29	100	100	100
30	100	100	100
31	100	100	100
32	100	100	100
33	100	100	100
34	100	100	100
35	100	100	100
36	100	100	100
37	100	100	100
38	100	100	100
39	100	100	100
40	100	100	100
41	100	100	100
42	100	100	100
43	100	100	100
44	100	100	100
45	100	100	100
46	100	100	100
47	100	100	100
48	100	100	100
49	100	100	100
50	100	100	100
51	100	100	100
52	100	100	100
53	100	100	100
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60	100	100	100
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63	100	100	100
64	100	100	100
65	100	100	100
66	100	100	100
67	100	100	100
68	100	100	100
69	100	100	100
70	100	100	100
71	100	100	100
72	100	100	100
73	100	100	100
74	100	100	100
75	100	100	100
76	100	100	100
77	100	100	100
78	100	100	100
79	100	100	100
80	100	100	100
81	100	100	100
82	100	100	100
83	100	100	100
84	100	100	100
85	100	100	100
86	100	100	100
87	100	100	100
88	100	100	100
89	100	100	100
90	100	100	100
91	100	100	100
92	100	100	100
93	100	100	100
94	100	100	100
95	100	100	100
96	100	100	100

	(F3I)	
	MAX	MIN
MT20	618	354

PLATE PLACEMENT

PLATE ROTATION

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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	8.0	1.75	3.00
4	TMWW-t	MT20	3.0	5.0	1.50	2.00
5, 8, 9						
5	TMWW-t	MT20	3.0	4.0		
6	TS-t	MT20	3.0	6.0		
7	TMW+w	MT20	2.0	4.0		
10	TTWW+m	MT20	6.0	8.0	Edge	2.50
11	TMVW-p	MT20	5.0	8.0	1.50	3.50
13	BMV1+p	MT20	3.0	4.0	2.00	0.25
14	BMWW-t	MT20	4.0	10.0	2.00	3.00
15	BMWW+t	MT20	4.0	8.0	4.25	1.75
16	BMWW+t	MT20	3.0	4.0		
17	BS-t	MT20	4.0	6.0		
18	BMWWWW-t	MT20	4.0	6.0		
19	BS-t	MT20	4.0	6.0		
20	BMWW-t	MT20	4.0	4.0	2.00	1.75
21	BMWW-t	MT20	4.0	5.0	2.00	2.00
22	BMWW-t	MT20	4.0	4.0	1.75	1.50
23	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) 240.8 lbs FACTORED DOWN AT 32'-6-3
ON TOP CHORD, AND 3201.7 lbs FACTORED
DOWN AT 30'-8-12 ON BOTTOM CHORD. DESIGN
FOR UNSPECIFIED CONNECTION(S) IS
DELEGATED TO THE BUILDING DESIGNER.

JSI GRIP= 0.90 (14) (INPUT = 0.90)
JSI METAL= 0.77 (17) (INPUT = 1.00)

READ ALL NOTES ON THIS PAGE AND ON THE
ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE
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CONTAINS SPECIFICATIONS AND CRITERIA USED
IN THE DESIGN OF THIS COMPONENT.

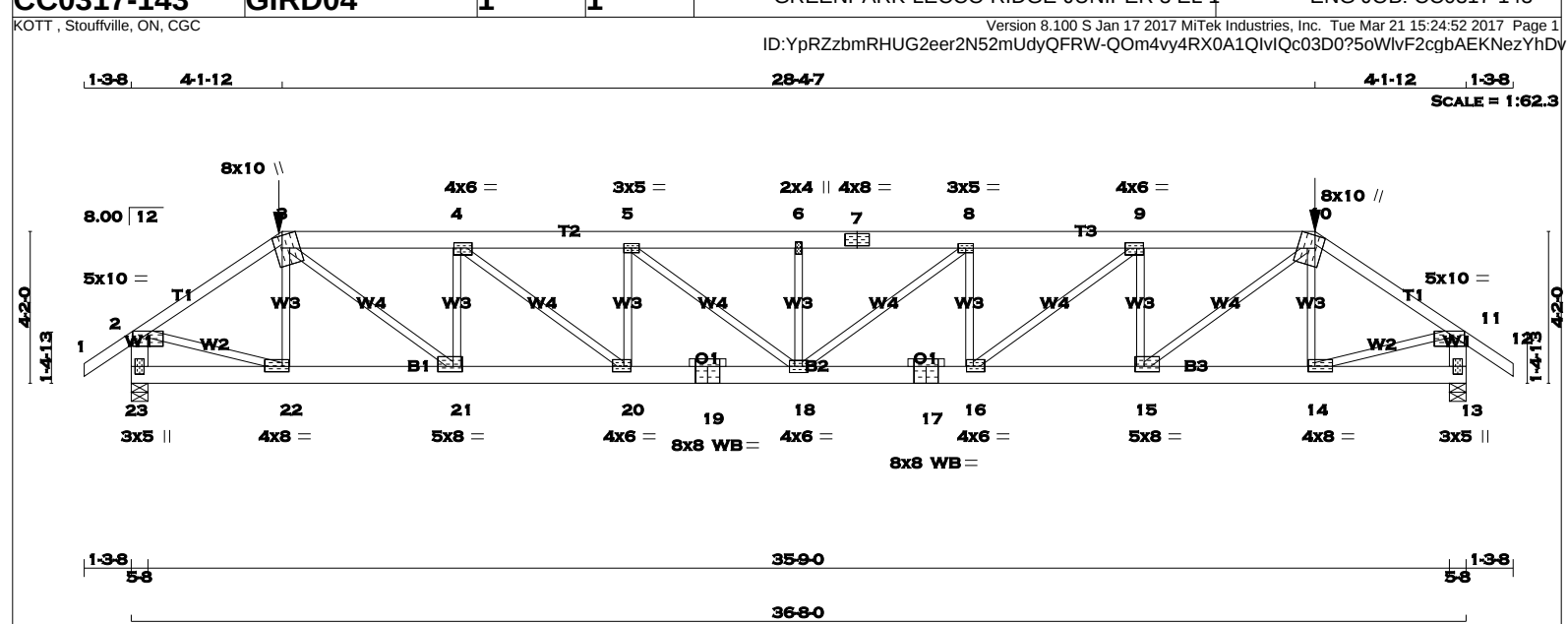


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TOTAL WEIGHT = 35 lb

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BUILDING DIVISION



TOTAL WEIGHT = 189 lb
[M]

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
1 - 3	2x4	No.2	SPF
3 - 7	2x6	No.2	SPF
7 - 10	2x6	No.2	SPF
10 - 12	2x4	No.2	SPF
23 - 2	2x6	No.2	SPF
13 - 11	2x6	No.2	SPF
23 - 19	2x6	2100F 1.8E	SPF
19 - 17	2x6	2100F 1.8E	SPF
17 - 13	2x6	2100F 1.8E	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	5.0	10.0	Edge
3	TTWW+m	MT20	8.0	10.0	Edge 3.25
4	TMWW-t	MT20	4.0	6.0	1.75 2.25
5	TMWW-t	MT20	3.0	5.0	
6	TMW+w	MT20	2.0	4.0	
7	TS-t	MT20	4.0	8.0	
8	TMWW-t	MT20	3.0	5.0	
9	TMWW-t	MT20	4.0	6.0	1.75 2.25
10	TTWW+m	MT20	8.0	10.0	Edge 3.25
11	TMVW-p	MT20	5.0	10.0	Edge
13	BMV1+p	MT20	3.0	5.0	
14	BMVWW-t	MT20	4.0	8.0	1.75 2.25
15	BMVWW-t	MT20	5.0	8.0	1.75 3.00
16	BMVWW-t	MT20	4.0	6.0	1.75 2.25
17	BS-t	MT20	8.0	8.0	
18	BMVWW-t	MT20	4.0	6.0	
19	BS-t	MT20	8.0	8.0	
20	BMVWW-t	MT20	4.0	6.0	1.75 2.25
21	BMVWW-t	MT20	5.0	8.0	1.75 3.00
22	BMVWW-t	MT20	4.0	8.0	1.75 2.25
23	BMV1+p	MT20	3.0	5.0	

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.

WB - INDICATES BLOCKING REQUIRED

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.



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	UPLIFT IN-SX
23	3341	0	5-8
13	3341	0	5-8

UNFACTORED REACTIONS						
JT	1ST LCASE COMBINED	MAX. SNOW	MIN. LIVE	PERM. LIVE	WIND	DEAD
23	2343	1647 / 0	0 / 0	0 / 0	0 / 0	696 / 0
13	2343	1647 / 0	0 / 0	0 / 0	0 / 0	696 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 23, 13

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.58 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: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (FR-TO)	FACTORED MAX. CSI (LC)
FR-TO		FROM TO		FR-TO			
1-2	0 / 29	-77.3 -77.3	0.11 (1)	10.00	22-3	-606 / 0	0.15 (1)
2-3	-4043 / 0	-77.3 -77.3	0.57 (1)	3.02	3-21	0 / 3530	0.87 (1)
3-4	-6143 / 0	-145.8 -145.8	0.51 (1)	3.14	21-4	-2035 / 0	0.50 (1)
4-5	-7714 / 0	-145.8 -145.8	0.61 (1)	2.72	4-20	0 / 2003	0.50 (1)
5-6	-8228 / 0	-145.8 -145.8	0.67 (1)	2.58	20-5	-1077 / 0	0.26 (1)
6-7	-8228 / 0	-145.8 -145.8	0.67 (1)	2.58	5-18	0 / 655	0.16 (1)
7-8	-8228 / 0	-145.8 -145.8	0.67 (1)	2.58	18-6	-679 / 0	0.17 (1)
8-9	-7714 / 0	-145.8 -145.8	0.61 (1)	2.72	18-8	0 / 655	0.16 (1)
9-10	-6143 / 0	-145.8 -145.8	0.51 (1)	3.14	16-8	-1077 / 0	0.26 (1)
10-11	-4043 / 0	-77.3 -77.3	0.57 (1)	3.02	16-9	0 / 2003	0.50 (1)
11-12	0 / 29	-77.3 -77.3	0.11 (1)	10.00	15-9	-2035 / 0	0.50 (1)
23-2	-3285 / 0	0.0	0.0 0.24 (1)	5.81	15-10	0 / 3530	0.87 (1)
13-11	-3285 / 0	0.0	0.0 0.24 (1)	5.81	14-10	-606 / 0	0.15 (1)
					2-22	0 / 3466	0.86 (1)
23-22	0 / 0	-33.0 -33.0	0.04 (4)	10.00	14-11	0 / 3466	0.86 (1)
22-21	0 / 3357	-33.0 -33.0	0.21 (1)	10.00			
21-20	0 / 6142	-33.0 -33.0	0.38 (1)	10.00			
20-19	0 / 7714	-33.0 -33.0	0.47 (1)	10.00			
19-18	0 / 7714	-33.0 -33.0	0.47 (1)	10.00			
18-17	0 / 7714	-33.0 -33.0	0.47 (1)	10.00			
17-16	0 / 7714	-33.0 -33.0	0.47 (1)	10.00			
16-15	0 / 6142	-33.0 -33.0	0.38 (1)	10.00			
15-14	0 / 3357	-33.0 -33.0	0.21 (1)	10.00			
14-13	0 / 0	-33.0 -33.0	0.04 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)					
JT	LOC.	LC1	MAX-	MAX+	FACE DIR.
3	4-1-12	-241	-241	---	FRONT VERT
10	32-6-4	-241	-241	---	FRONT VERT

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 = 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.

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

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 (1.22")
CALCULATED VERT. DEFL.(LL) = L/999 (0.42")
ALLOWABLE DEFL.(TL)= L/360 (1.22")
CALCULATED VERT. DEFL.(TL) = L/595 (0.74")

CSI: TC=0.67 (5-6:1) , BC=0.47 (16-18:1) , WB=0.87 (3-21:1) , SSI=0.27 (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 (PSI)	SECTION (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 (11) (INPUT = 0.90)
JSI METAL= 0.95 (19) (INPUT = 1.00)



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
CC0317-143	GIRD04	1	1	GREENPARK-LECCO RIDGE-JUNIPER 3 EL 1	Page 12 of 31 ENG JOB: CC0317-143

KOTT , Stouffville, ON, CGC

Version 8.100 S Jan 17 2017 MiTek Industries, Inc. Tue Mar 21 15:24:52 2017 Page 2

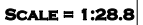
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HANGERS NOTES
1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 240.5 lbs FACTORED DOWN AT 32-6-4, AND 240.5 lbs FACTORED DOWN AT 4-1-12 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

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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A

DRY: SEASONED LUMBER.

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

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

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

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.

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
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		
5-2	-395 / 0	0.0	0.0	0.13 (4)	7.81		
1-2	0 / 23	-77.3	-77.3	0.10 (1)	10.00		
2-3	-26 / 0	-77.3	-77.3	0.47 (1)	6.25		
5-4	0 / 0	-17.5	-17.5	0.13 (4)	10.00		

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 (0.00")
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 (4-5:4), 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

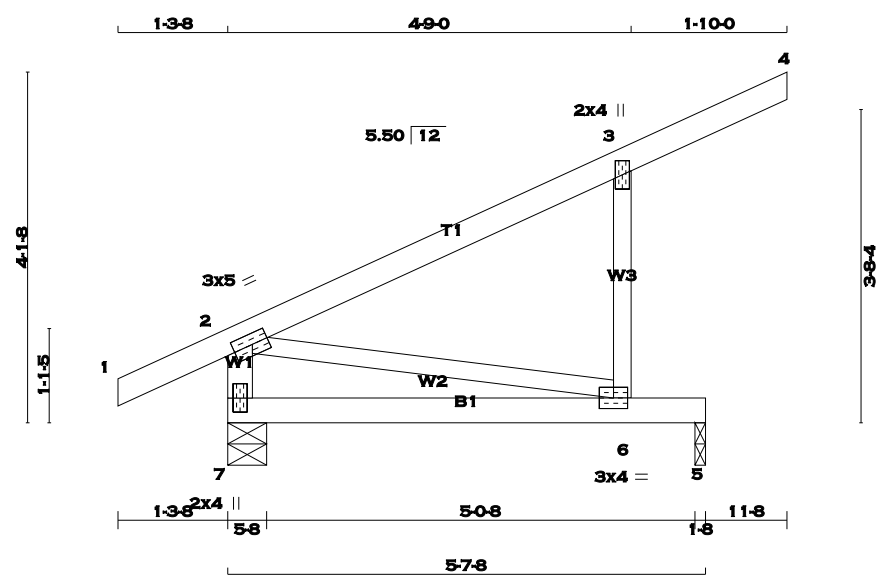
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.23 (2) (INPUT = 0.90)
JSI METAL= 0.09 (2) (INPUT = 1.00)

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TOTAL WEIGHT = 3 X 23 = 69 lb [M]

LUMBER					DESCR.	
N. L. G. A. RULES						
CHORDS	SIZE		LUMBER			
1 - 4	2x4	DRY	No.2		SPF	
6 - 3	2x3	DRY	No.2		SPF	
7 - 2	2x4	DRY	No.2		SPF	
7 - 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	TMVW-t	MT20	3.0	5.0	1.50	2.25	
3	TMV+p	MT20	2.0	4.0			
6	BMVW-t	MT20	3.0	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

		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
		GROSS REACTION		GROSS REACTION		BRG		BRG	
JT		VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
7		389	0	389	0	0	5-8	5-8	
5		328	0	328	0	0	1-8	1-8	

UNFACTORED REACTIONS							
		1ST LCASE	MAX./MIN. COMPONENT REACTIONS				
JT		COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
7		270	204 / 0	0 / 0	0 / 0	0 / 0	66 / 0
5		229	168 / 0	0 / 0	0 / 0	0 / 0	61 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 7, 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: (4)

CHORDS				WEBS			
MEMB.		MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO			FROM TO			FR-TO	
1-2		0 / 22	-77.3 -77.3	0.10 (1)	10.00	2-6	0 / 0
2-3		0 / 0	-77.3 -77.3	0.30 (1)	10.00		
3-4		-31 / 0	-77.3 -77.3	0.19 (1)	6.25		
6-3		-330 / 0	0.0 0.0	0.08 (1)	7.81		
7-2		-288 / 0	0.0 0.0	0.03 (1)	7.81		
7-6		0 / 0	-17.5 -17.5	0.38 (1)	10.00		
6-5		0 / 0	-17.5 -17.5	0.38 (1)	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/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/ 848 (0.08")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 426 (0.16")

CSI: TC=0.30 (2-3:1) , BC=0.38 (6-7:1) , WB=0.00 (2-6:1) , SSI=0.26 (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	MIN	MAX
MT20	618	354	1667	822	2284

PLATE PLACEMENT TOL. = 0.250 inches

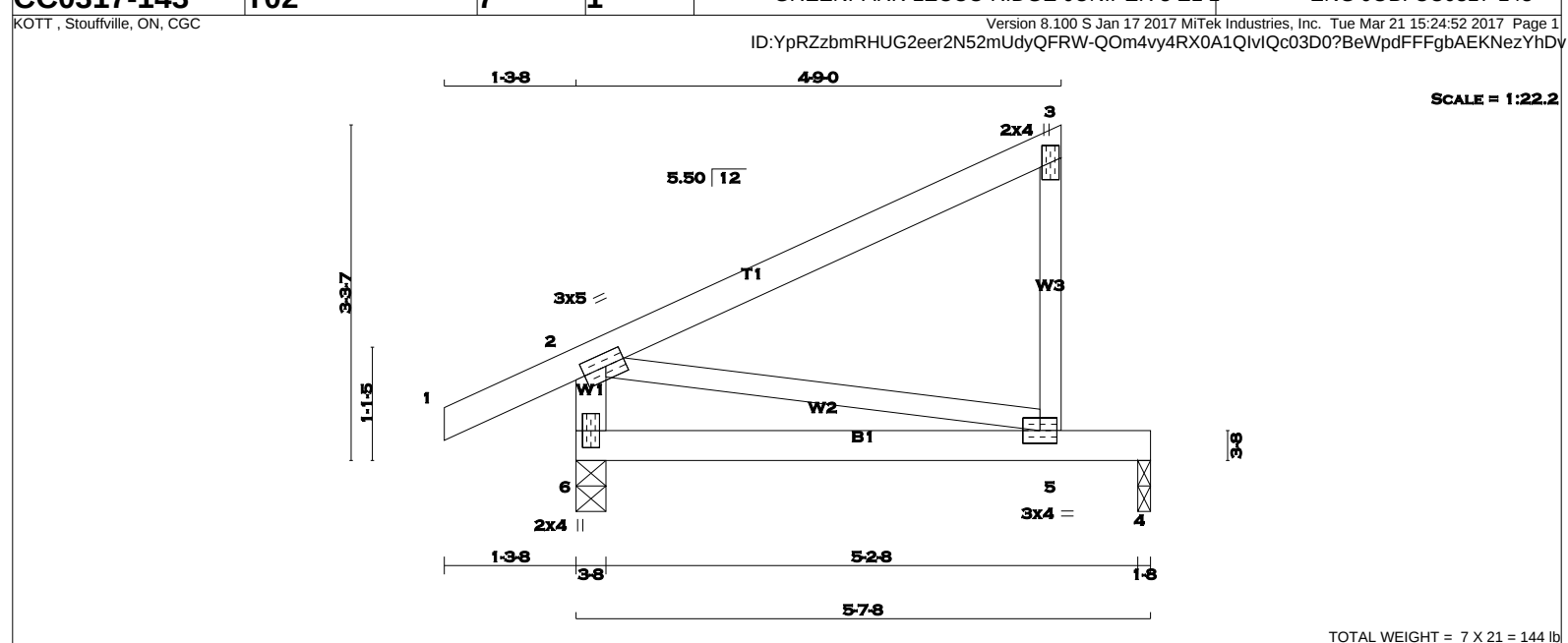
PLATE ROTATION TOL. = 5.0 Deg.

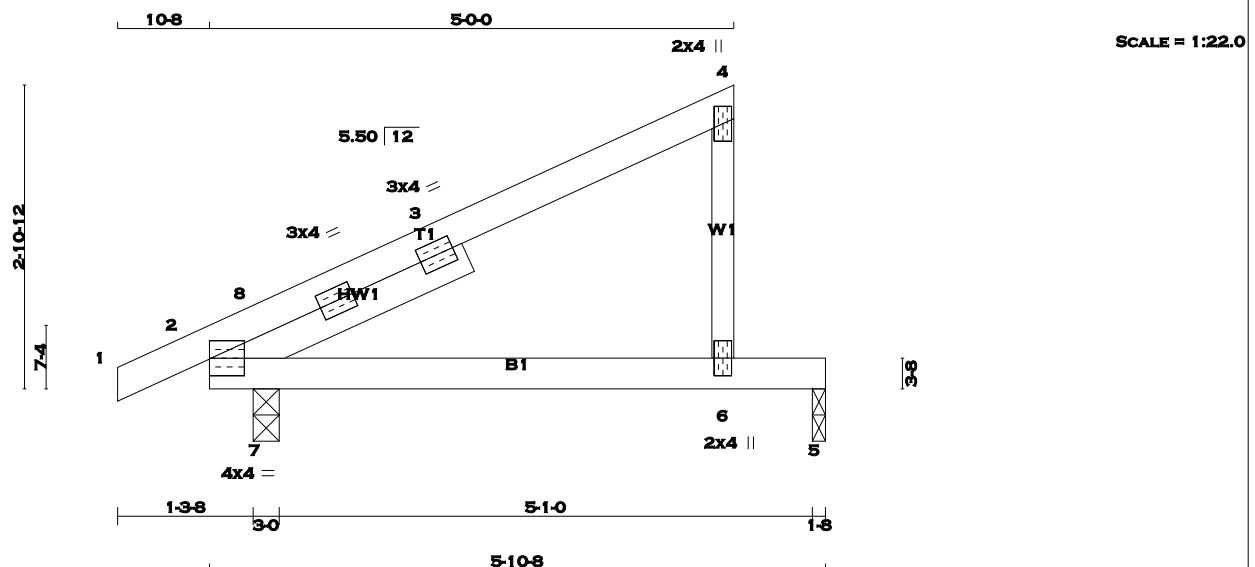
JSI GRIP= 0.33 (6) (INPUT = 0.90)
JSI METAL= 0.07 (3) (INPUT = 1.00)

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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LUMBER

N. L. G. A. RULES

CHORDS

SIZE

LUMBER

DESCR.

SPF

SPF

SPF

REINFORCING MEMBERS

HW1

2x4

DRY

No.2

SPF

DRY: SEASONED LUMBER.

FACTORED

GROSS REACTION

DOWN

HORIZ

UPLIFT

IN-SX

FACTORED

GROSS REACTION

DOWN

HORIZ

UPLIFT

IN-SX

INPUT

BRG

IN-SX

REQRD

BRG

IN-SX

1ST LCASE

MAX/MIN. COMPONENT REACTIONS

FACTORED

GROSS REACTION

DOWN

HORIZ

UPLIFT

IN-SX

FACTORED

GROSS REACTION

DOWN

HORIZ

UPLIFT

IN-SX

INPUT

BRG

IN-SX

REQRD

BRG

IN-SX

PLATES (table is in inches)

JT

TYPE

PLATES

W

LEN

Y

X

1

TMBR1-I

MT20

4.0

4.0

Edge

2

RT-t

MT20

3.0

4.0

2

RT-t

MT20

3.0

4.0

4

TMV+p

MT20

2.0

4.0

6

BMV+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.

FACTORED

GROSS REACTION

DOWN

HORIZ

UPLIFT

IN-SX

FACTORED

GROSS REACTION

DOWN

HORIZ

UPLIFT

IN-SX

INPUT

BRG

IN-SX

REQRD

BRG

IN-SX

1ST LCASE

MAX/MIN. COMPONENT REACTIONS

FACTORED

GROSS REACTION

DOWN

HORIZ

UPLIFT

IN-SX

FACTORED

GROSS REACTION

DOWN

HORIZ

UPLIFT

IN-SX

INPUT

BRG

IN-SX

REQRD

BRG

IN-SX

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 = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS

MAX. FACTORED

FORCE

VERT. LOAD

LC1

MAX

CS1 (LC)

UNBRAC

LENGTH

FR-TO

MEMB.

FORCE

(LBS)

VERT. LOAD

LC1

MAX

CS1 (LC)

UNBRAC

LENGTH

FR-TO

MEMB.

FORCE

(LBS)

VERT. LOAD

LC1

MAX

CS1 (LC)

UNBRAC

LENGTH

FR-TO

MEMB.

FORCE

(LBS)

VERT. LOAD

LC1

MAX

CS1 (LC)

UNBRAC

LENGTH

FR-TO

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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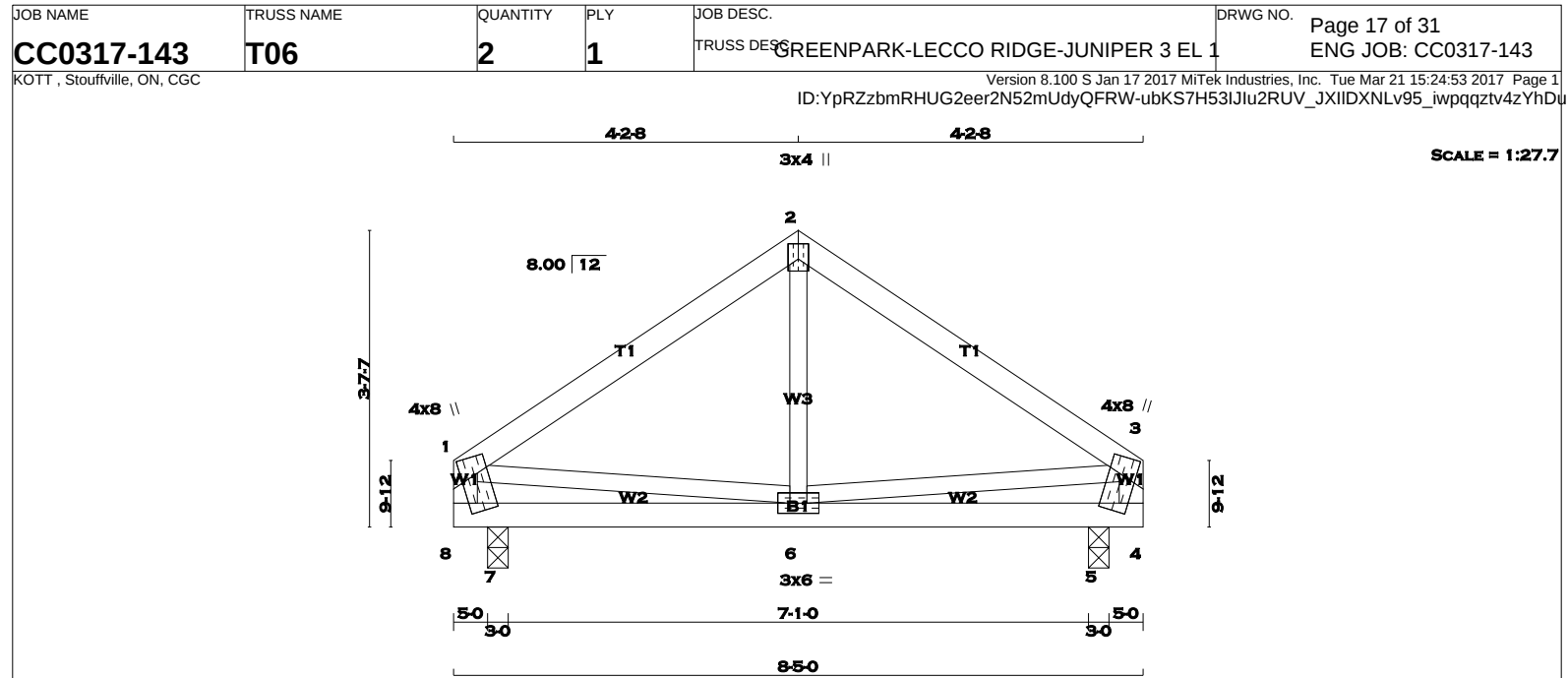
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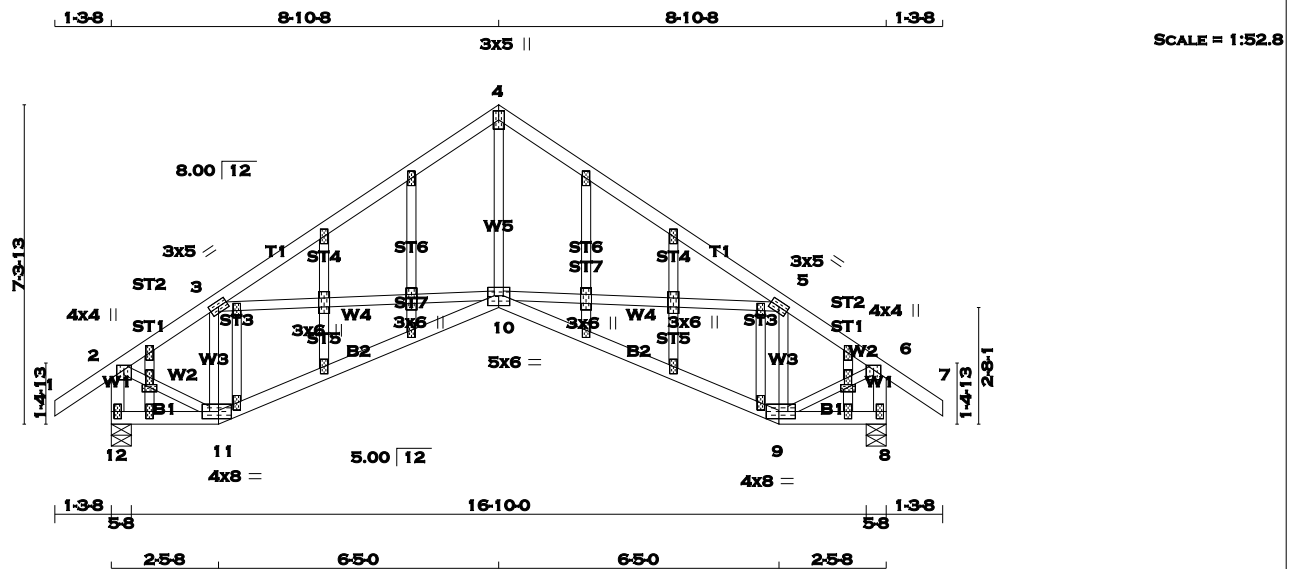
TOTAL WEIGHT = 2 X 31 = 62 lb										[M]																																																																																																																																													
LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. 1 - 2 2x4 DRY No.2 SPF 2 - 3 2x4 DRY No.2 SPF 8 - 1 2x4 DRY No.2 SPF 4 - 3 2x4 DRY No.2 SPF 8 - 4 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 <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><th>UPLIFT</th><th>IN-SX</th><th>IN-SX</th></tr><tr><td>7</td><td>399</td><td>0</td><td>399</td><td>0</td><td>0</td><td>3-0</td><td>3-0</td></tr><tr><td>5</td><td>399</td><td>0</td><td>399</td><td>0</td><td>0</td><td>3-0</td><td>3-0</td></tr></table> UNFACTORED REACTIONS <table><tr><th>JT</th><th>1ST LCASE COMBINED</th><th>MAX/MIN. SNOW</th><th>LIVE</th><th>PERM.LIVE</th><th>WIND</th><th>DEAD</th><th>SOIL</th></tr><tr><td>7</td><td>280</td><td>196 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>84 / 0</td><td>0 / 0</td></tr><tr><td>5</td><td>280</td><td>196 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>84 / 0</td><td>0 / 0</td></tr></table> BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 7, 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: (4) <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 (LC)</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX. UNBRACED LENGTH</th><th>FACTORED MAX (LC)</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>-202 / 0</td><td>-77.3 -77.3</td><td>0.24 (1)</td><td>6-2</td><td>-102 / 43</td><td>0.02 (1)</td><td></td></tr><tr><td>2-3</td><td>-202 / 0</td><td>-77.3 -77.3</td><td>0.24 (1)</td><td>6-3</td><td>0 / 169</td><td>0.04 (1)</td><td></td></tr><tr><td>8-1</td><td>-294 / 0</td><td>0.0 0.0</td><td>0.03 (1)</td><td>1-6</td><td>0 / 169</td><td>0.04 (1)</td><td></td></tr><tr><td>4-3</td><td>-294 / 0</td><td>0.0 0.0</td><td>0.03 (1)</td><td></td><td></td><td></td><td></td></tr><tr><td>8-7</td><td>0 / 0</td><td>-17.5 -17.5</td><td>0.22 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>7-6</td><td>0 / 0</td><td>-17.5 -17.5</td><td>0.22 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>6-5</td><td>0 / 0</td><td>-17.5 -17.5</td><td>0.22 (1)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>5-4</td><td>0 / 0</td><td>-17.5 -17.5</td><td>0.22 (1)</td><td>10.00</td><td></td><td></td><td></td></tr></table>												FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	7	399	0	399	0	0	3-0	3-0	5	399	0	399	0	0	3-0	3-0	JT	1ST LCASE COMBINED	MAX/MIN. SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	7	280	196 / 0	0 / 0	0 / 0	0 / 0	84 / 0	0 / 0	5	280	196 / 0	0 / 0	0 / 0	0 / 0	84 / 0	0 / 0	CHORDS				WEBS				MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH	FACTORED MAX (LC)	FR-TO		FROM TO		FR-TO				1-2	-202 / 0	-77.3 -77.3	0.24 (1)	6-2	-102 / 43	0.02 (1)		2-3	-202 / 0	-77.3 -77.3	0.24 (1)	6-3	0 / 169	0.04 (1)		8-1	-294 / 0	0.0 0.0	0.03 (1)	1-6	0 / 169	0.04 (1)		4-3	-294 / 0	0.0 0.0	0.03 (1)					8-7	0 / 0	-17.5 -17.5	0.22 (1)	10.00				7-6	0 / 0	-17.5 -17.5	0.22 (1)	10.00				6-5	0 / 0	-17.5 -17.5	0.22 (1)	10.00				5-4	0 / 0	-17.5 -17.5	0.22 (1)	10.00			
	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG																																																																																																																																																			
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5-4	0 / 0	-17.5 -17.5	0.22 (1)	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/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 - TPC 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 (0.24") CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01") ALLOWABLE DEFL.(TL)= L/360 (0.24") CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02") CANTILEVER DEFLECTION: ALLOWABLE DEFL.(LL)= L/120 (0.19") CALCULATED VERT. DEFL.(LL) = L/ 688 (0.01") ALLOWABLE DEFL.(TL)= L/120 (0.19") CALCULATED VERT. DEFL.(TL) = L/ 468 (0.01") CSI: TC=0.24 (2-3:1), BC=0.22 (7-8:1), WB=0.04 (1-6:1), SSI=0.24 (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 AUTOSOLVE HEELS OFF 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 (6) (INPUT = 0.90) JSI METAL= 0.11 (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.

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 = 89 lb
[M][F]

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
1 - 4	2x4	DRY	No.2
4 - 7	2x4	DRY	No.2
12 - 2	2x4	DRY	No.2
8 - 6	2x4	DRY	No.2
12 - 11	2x4	DRY	No.2
11 - 10	2x4	DRY	No.2
10 - 9	2x4	DRY	No.2
9 - 8	2x4	DRY	No.2

ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				

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	TMVW+p	MT20	4.0	4.0	1.25 2.00
3	TMWW-t	MT20	3.0	5.0	
4	TTW+p	MT20	3.0	5.0	
5	TMWW-t	MT20	3.0	5.0	
6	TMVW+p	MT20	4.0	4.0	1.25 2.00
8	BMV1+p	MT20	2.0	4.0	
9	BBWW-p	MT20	4.0	8.0	2.00 4.50
10	BBWWW-p	MT20	5.0	6.0	2.75 3.00
11	BBWW-p	MT20	4.0	8.0	2.00 4.50
12	BMV1+p	MT20	2.0	4.0	
13, 13, 16, 16, 26, 26, 29, 29					
13					
13, 16, 26, 29					
13	WMWW+w	MT20	3.0	6.0	
14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 27, 28, 30, 31, 32, 33, 34					
14	NP+w	MT20	2.0	4.0	
21	NP-p	MT20	2.0	4.0	0.75 2.00
34	NP-p	MT20	2.0	4.0	0.75 2.00

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		FACTORED	MAXIMUM FACTORED	INPUT	REQRD
		GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
12	948	0	948	0	0
8	948	0	948	0	0

UNFACTORED REACTIONS		1ST LCASE	MAX/MIN. COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
12	663	477 / 0	0 / 0
8	663	477 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 12, 8

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.57 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: (4)

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)	MAX. FACTORED VERT. LOAD (LBS)
FR-TO		FROM TO		FR-TO			
1-2	0 / 29	-77.3 -77.3	0.10 (1)	10-4	0 / 744	0.17 (1)	
2-3	-863 / 0	-77.3 -77.3	0.33 (1)	10-5	0 / 111	0.03 (1)	
3-4	-1067 / 0	-77.3 -77.3	0.42 (1)	5-7	-578 / 0	0.10 (1)	
4-5	-1067 / 0	-77.3 -77.3	0.42 (1)	3-10	0 / 111	0.03 (1)	
5-6	-863 / 0	-77.3 -77.3	0.33 (1)	6-15	-578 / 0	0.10 (1)	
6-7	0 / 29	-77.3 -77.3	0.10 (1)	10-11	0 / 849	0.19 (1)	
12-2	-926 / 0	0.0 0.0	0.10 (1)	7-8	0 / 849	0.19 (1)	
8-6	-926 / 0	0.0 0.0	0.10 (1)				
12-11	0 / 0	-17.5 -17.5	0.03 (4)	10-10			
11-10	0 / 818	-17.5 -17.5	0.27 (4)	10-10			
10-9	0 / 818	-17.5 -17.5	0.27 (4)	10-10			
9-8	0 / 0	-17.5 -17.5	0.03 (4)	10-10			

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 (0.59")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.59")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.12")

CSI: TC=0.42 (4-5:1) , BC=0.27 (9-10:4) , WB=0.19 (2-11:1) , SSI=0.19 (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 (9) (INPUT = 0.90)
JSI METAL= 0.23 (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.



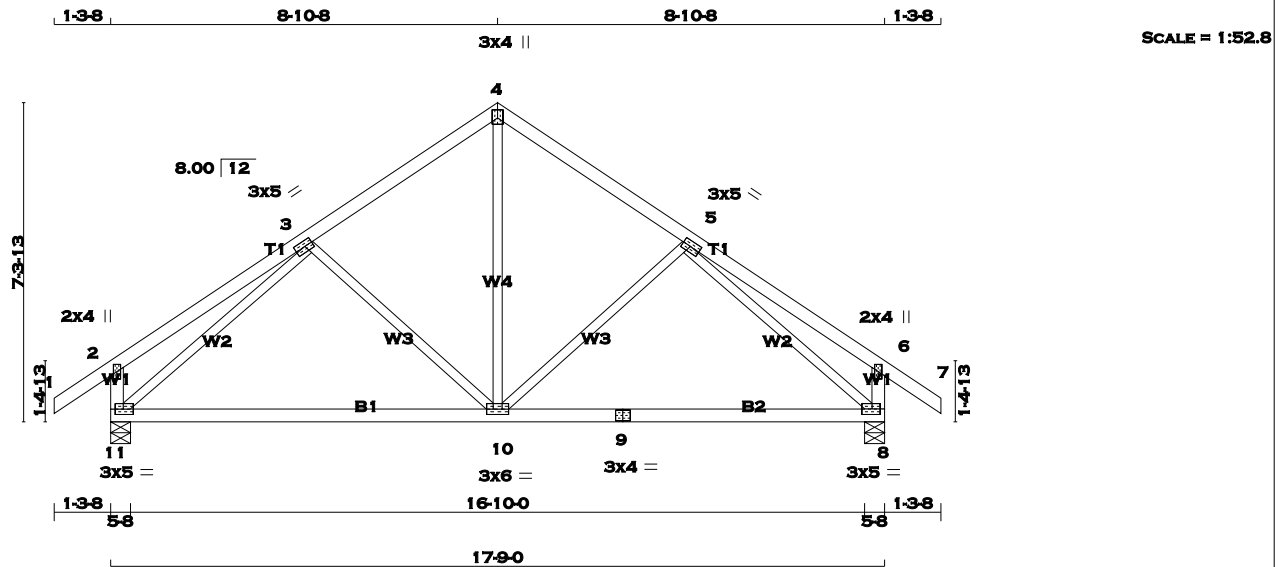
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TOTAL WEIGHT = 3 X 75 = 224 lb
[M][F]

LUMBER					N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.		CHORDS	SIZE	LUMBER	DESCR.	
1 - 4	2x4	DRY	No.2	SPF	1 - 4	2x4	DRY	No.2	SPF
4 - 7	2x4	DRY	No.2	SPF	4 - 7	2x4	DRY	No.2	SPF
11 - 2	2x4	DRY	No.2	SPF	11 - 2	2x4	DRY	No.2	SPF
8 - 6	2x4	DRY	No.2	SPF	8 - 6	2x4	DRY	No.2	SPF
11 - 9	2x4	DRY	No.2	SPF	11 - 9	2x4	DRY	No.2	SPF
9 - 8	2x4	DRY	No.2	SPF	9 - 8	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF	ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT					EXCEPT				
DRY: SEASONED LUMBER.					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	5.0	1.50	2.25			
4	TTW+p	MT20	3.0	4.0	2.25	1.50			
5	TMVW-t	MT20	3.0	5.0	1.50	2.25			
6	TMV+p	MT20	2.0	4.0					
8	BMVW1-t	MT20	3.0	5.0	1.50	2.25			
9	BS-t	MT20	3.0	4.0					
10	BMVW1-t	MT20	3.0	6.0					
11	BMVW1-t	MT20	3.0	5.0	1.50	2.25			

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	
JT	VERT	GROSS REACTION	HORZ	GROSS REACTION	DOWN	HORZ	UPLIFT	BRG	IN-SX
11	948	0	948	0	0	5-8	5-8	5-8	5-8
8	948	0	948	0	0	5-8	5-8	5-8	5-8

UNFACTORED REACTIONS							
JT	1ST LCASE	MAX/MIN.	COMPONENT	REACTIONS			
11	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
8	663	477 / 0	0 / 0	0 / 0	0 / 0	186 / 0	0 / 0
8	663	477 / 0	0 / 0	0 / 0	0 / 0	186 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 11, 8

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: (4)									
CHORDS					WEBS				
MEMB.	MAX. FACTORED	FACTORED	VERT. LOAD	LC1 MAX	MEMB.	MAX. FACTORED	FACTORED	VERT. LOAD	LC1 MAX
FR-TO	FORCE (LBS)	(PLF)	CSF (LC)	UNBRAC LENGTH	FR-TO	FORCE (LBS)	(PLF)	CSF (LC)	UNBRAC LENGTH
1-2	0 / 29	-77.3	-77.3	0.10 (1)	10-4	0 / 479	0.11 (1)		
2-3	0 / 22	-77.3	-77.3	0.25 (1)	10-5	-213 / 0	0.13 (1)		
3-4	-692 / 0	-77.3	-77.3	0.19 (1)	6-25	-213 / 0	0.13 (1)		
4-5	-692 / 0	-77.3	-77.3	0.19 (1)	6-25	11-3	-968 / 0	0.59 (1)	
5-6	0 / 22	-77.3	-77.3	0.25 (1)	10-10	5-8	-968 / 0	0.59 (1)	
6-7	0 / 29	-77.3	-77.3	0.10 (1)	10-10				
11-2	-237 / 0	0.0	0.0	0.02 (1)	7.81				
8-6	-237 / 0	0.0	0.0	0.02 (1)	7.81				
11-10	0 / 716	-17.5	-17.5	0.44 (4)	10.00				
10-9	0 / 716	-17.5	-17.5	0.44 (4)	10.00				
9-8	0 / 716	-17.5	-17.5	0.44 (4)	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
- TPC 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 (0.59")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.59")
CALCULATED VERT. DEFL.(TL) = L/999 (0.14")

CSI: TC=0.25 (2-3:1), BC=0.44 (8-10:4), WB=0.59 (3-11:1), SSI=0.14 (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

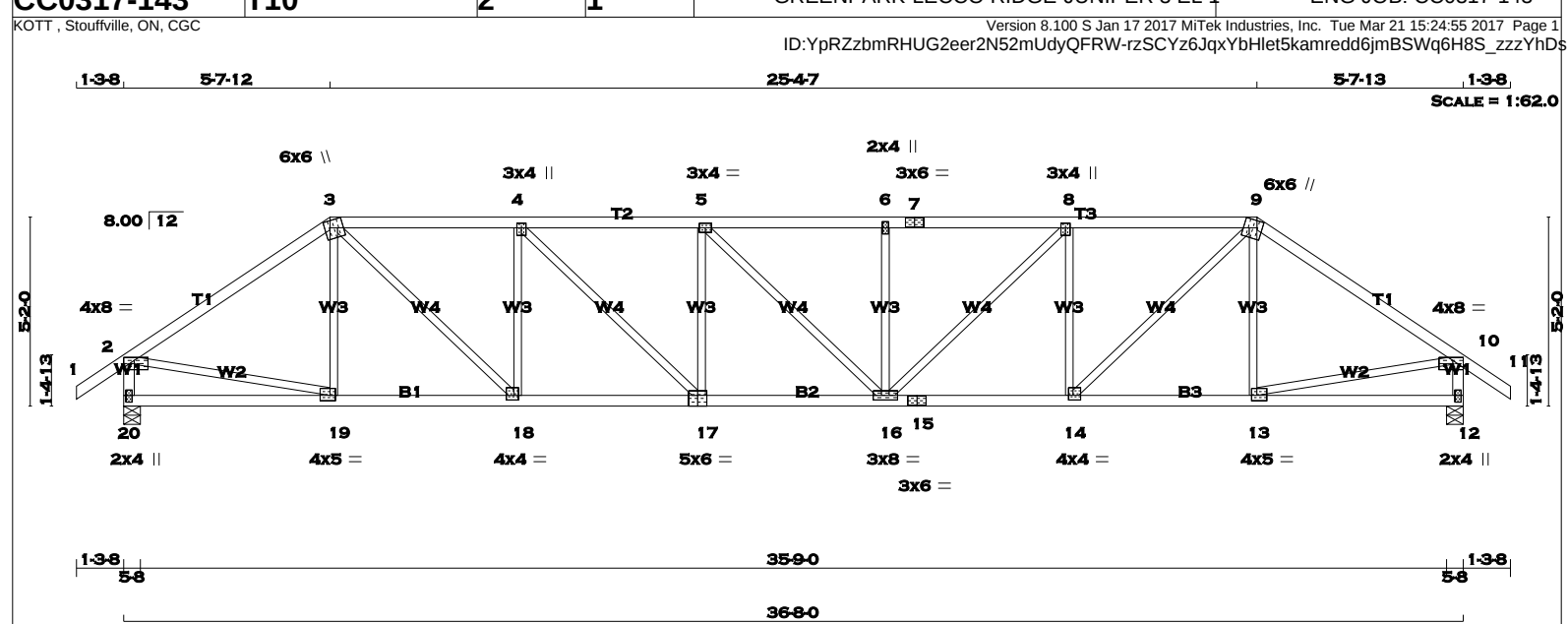
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (5) (INPUT = 0.90)
JSI METAL= 0.27 (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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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
9 - 11 2x4 DRY No.2 SPF
20 - 2 2x4 DRY No.2 SPF
12 - 10 2x4 DRY No.2 SPF
20 - 17 2x4 DRY No.2 SPF
17 - 15 2x4 DRY No.2 SPF
15 - 12 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
JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX
20 1845 0 1845 0 0 5-8 5-8
12 1845 0 1845 0 0 5-8 5-8
UNFACTORED REACTIONS
1ST LCASE MAX/MIN. COMPONENT REACTIONS
JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL
20 1293 918 / 0 0 / 0 0 / 0 375 / 0 0 / 0
12 1293 918 / 0 0 / 0 0 / 0 375 / 0 0 / 0
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 20, 12
BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.50 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: (4)
CHORDS WEBS
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 / 29 -77.3 -77.3 0.10 (1) 10.00 19-3 -215 / 25 0.08 (1)
2-3 -2077 / 0 -77.3 -77.3 0.60 (1) 4.10 3-18 0 / 1430 0.32 (1)
3-4 -2760 / 0 -77.3 -77.3 0.43 (1) 3.81 18-4 -902 / 0 0.36 (1)
4-5 -3242 / 0 -77.3 -77.3 0.49 (1) 3.50 4-17 0 / 671 0.15 (1)
5-6 -3241 / 0 -77.3 -77.3 0.40 (1) 3.61 17-5 -378 / 0 0.15 (1)
6-7 -3241 / 0 -77.3 -77.3 0.49 (1) 3.50 5-16 -2 / 0 0.00 (1)
7-8 -3241 / 0 -77.3 -77.3 0.49 (1) 3.50 16-6 -377 / 0 0.15 (1)
8-9 -2760 / 0 -77.3 -77.3 0.44 (1) 3.81 16-8 0 / 669 0.15 (1)
9-10 -2077 / 0 -77.3 -77.3 0.60 (1) 4.10 14-8 -901 / 0 0.36 (1)
10-11 0 / 29 -77.3 -77.3 0.10 (1) 10.00 14-9 0 / 1431 0.32 (1)
20-2 -1804 / 0 0.0 0.0 0.19 (1) 6.23 13-9 -215 / 25 0.08 (1)
12-10 -1804 / 0 0.0 0.0 0.19 (1) 6.23 2-19 0 / 1756 0.40 (1)
20-19 0 / 0 -17.5 -17.5 0.13 (4) 10.00 13-10 0 / 1756 0.40 (1)
19-18 0 / 1721 -17.5 -17.5 0.35 (1) 10.00
18-17 0 / 2760 -17.5 -17.5 0.49 (1) 10.00
17-16 0 / 3242 -17.5 -17.5 0.56 (1) 10.00
16-15 0 / 2760 -17.5 -17.5 0.49 (1) 10.00
15-14 0 / 2760 -17.5 -17.5 0.49 (1) 10.00
14-13 0 / 1721 -17.5 -17.5 0.35 (1) 10.00
13-12 0 / 0 -17.5 -17.5 0.13 (4) 10.00

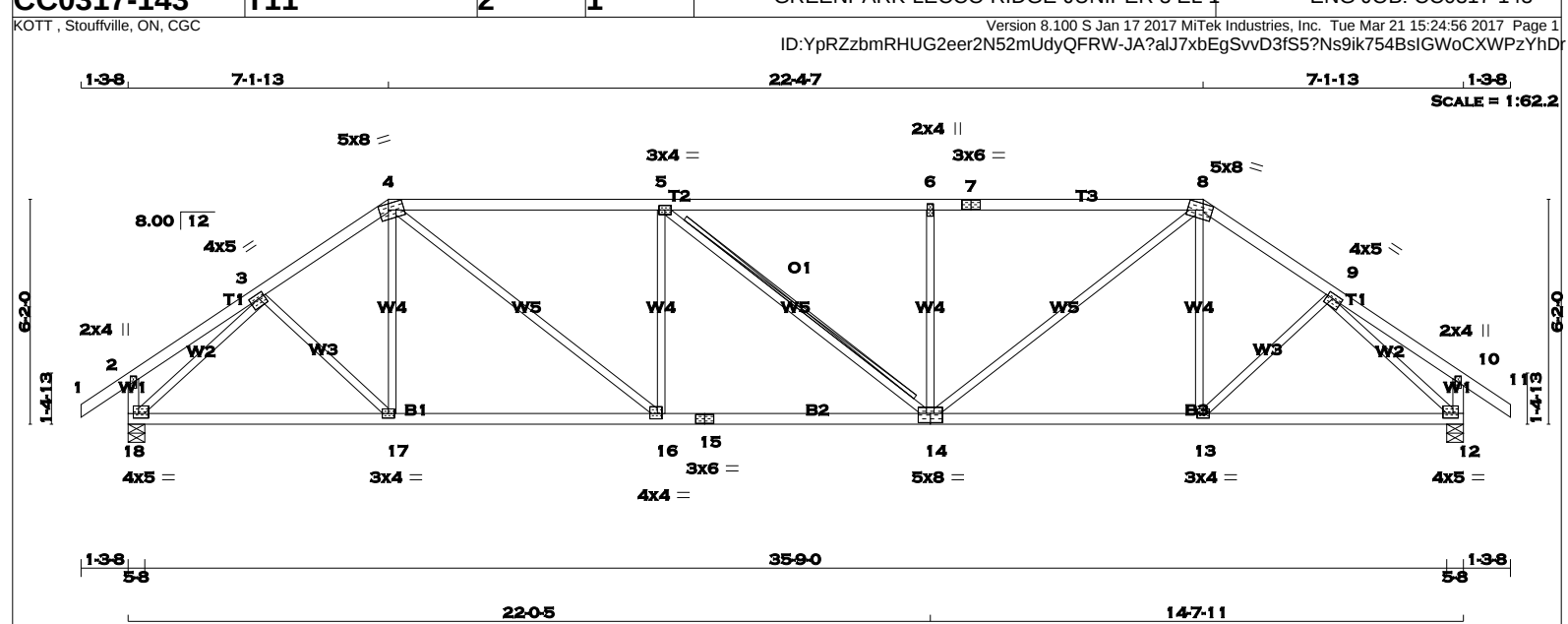
DESIGN CRITERIA
SPECIFIED LOADS:
TOP CH. LL = 23.3 PSF
DL = 3.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.0 PSF
TOTAL LOAD = 33.3 PSF
SPACING = 24.0 IN. C/C
LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12
THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010
THIS DESIGN 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 (1.22")
CALCULATED VERT. DEFL.(LL) = L/999 (0.21")
ALLOWABLE DEFL.(TL)= L/360 (1.22")
CALCULATED VERT. DEFL.(TL) = L/999 (0.38")
CSI: TC=0.60 (2-3:1), BC=0.56 (16-17:1), WB=0.40 (2-19:1), SSI=0.19 (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) 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 (19) (INPUT = 0.90)
JSI METAL= 0.70 (15) (INPUT = 1.00)

TOTAL WEIGHT = 2 X 151 = 301 lb [M]

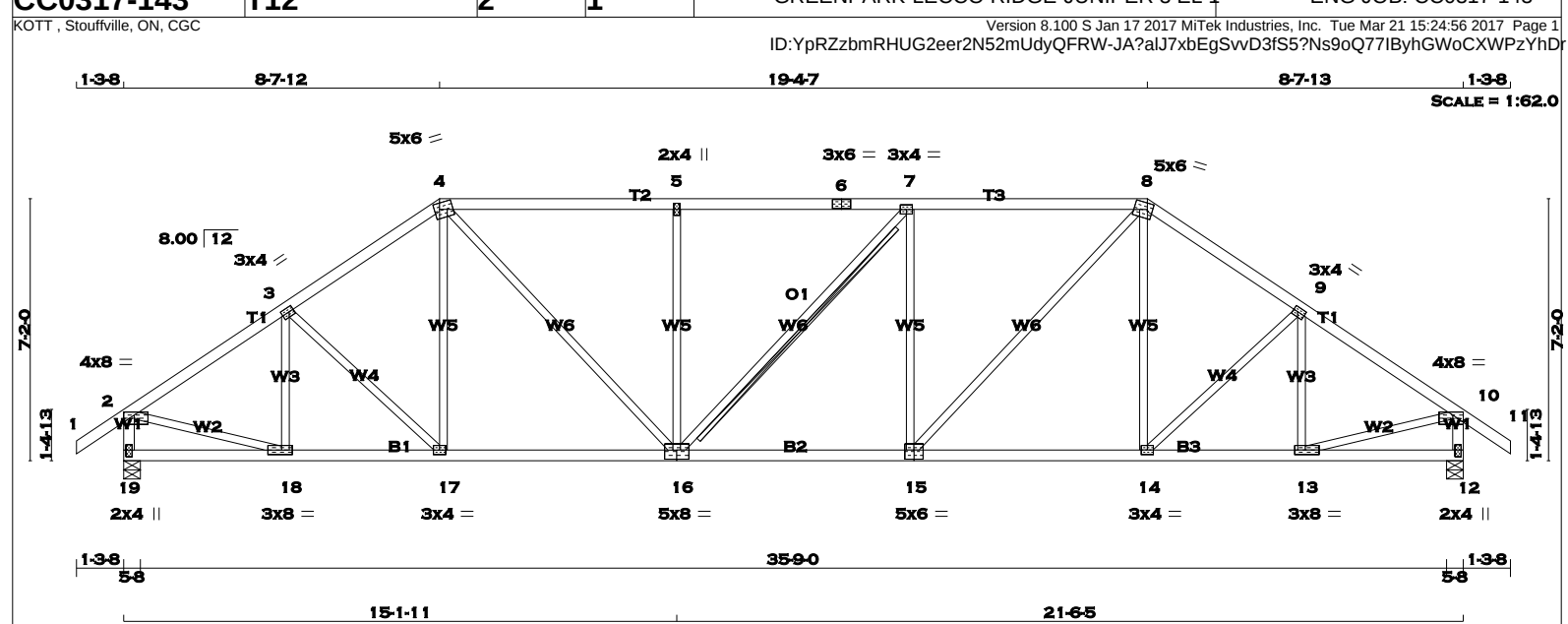
JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-p	MT20	4.0	8.0	1.00	3.50
3	TTWW+m	MT20	6.0	6.0	2.25	1.75
4	TMVW+t	MT20	3.0	4.0	1.50	1.50
5	TMVW-t	MT20	3.0	4.0		
6	TMVW-w	MT20	2.0	4.0		
7	TS-t	MT20	3.0	6.0		
8	TMVW+t	MT20	3.0	4.0	1.50	1.50
9	TTWW+m	MT20	6.0	6.0	2.25	1.75
10	TMVW-p	MT20	4.0	8.0	1.00	3.50
12	BMV1+p	MT20	2.0	4.0	2.25	1.00
13	BMVW-t	MT20	4.0	5.0	1.75	1.75
14	BMVW-t	MT20	4.0	4.0	1.50	1.50
15	BS-t	MT20	3.0	6.0		
16	BMVW-t	MT20	3.0	8.0		
17	BSVW-l	MT20	5.0	6.0	Edge	3.00
18	BMVW-t	MT20	4.0	4.0	1.50	1.50
19	BMVW-t	MT20	4.0	5.0	1.75	1.75
20	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.

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.



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. 1 - 4 2x4 DRY No.2 SPF 4 - 7 2x4 DRY No.2 SPF 7 - 8 2x4 DRY No.2 SPF 8 - 11 2x4 DRY No.2 SPF 18 - 2 2x4 DRY No.2 SPF 12 - 10 2x4 DRY No.2 SPF 18 - 15 2x4 DRY No.2 SPF 15 - 14 2x4 DRY No.2 SPF 14 - 12 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 18 1845 0 1845 0 0 5-8 5-8 12 1845 0 1845 0 0 5-8 5-8 UNFACTORED REACTIONS 1ST LCASE MAX/MIN. COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL 18 1293 918 / 0 0 / 0 0 / 0 375 / 0 0 / 0 12 1293 918 / 0 0 / 0 0 / 0 375 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 18, 12 BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.29 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. 2x4 SPF No.2 T-BRACE AT 5-14 FASTEN T AND I-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3" COMMON WIRE NAILS @ 6" O.C. WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90% OF WEB LENGTH. 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: (4) 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 LENGTH FR-TO (LBS) CSI (LC) FR-TO FROM TO 1-2 0 / 29 -77.3 -77.3 0.10 (1) 10.00 3-17 0 / 133 0.03 (4) 2-3 0 / 15 -77.3 -77.3 0.13 (1) 10.00 17-4 0 / 101 0.04 (4) 3-4 -2091 / 0 -77.3 -77.3 0.20 (1) 4.53 4-16 0 / 1220 0.27 (1) 4-5 -2685 / 0 -77.3 -77.3 0.99 (1) 3.29 16-5 -626 / 0 0.38 (1) 5-6 -2684 / 0 -77.3 -77.3 0.98 (1) 3.29 5-14 -2 / 0 0.00 (1) 6-7 -2684 / 0 -77.3 -77.3 0.98 (1) 3.31 14-6 -624 / 0 0.37 (1) 7-8 -2684 / 0 -77.3 -77.3 0.98 (1) 3.31 14-8 0 / 1218 0.27 (1) 8-9 -2091 / 0 -77.3 -77.3 0.20 (1) 4.53 13-8 0 / 102 0.04 (4) 9-10 0 / 15 -77.3 -77.3 0.13 (1) 10.00 13-9 0 / 133 0.03 (4) 10-11 0 / 29 -77.3 -77.3 0.10 (1) 10.00 18-3 -2266 / 0 0.89 (1) 18-2 -217 / 0 0.0 0.0 0.02 (1) 7.81 9-12 -2266 / 0 0.89 (1) 12-10 -217 / 0 0.0 0.0 0.02 (1) 7.81 18-17 0 / 1627 -17.5 -17.5 0.39 (1) 10.00 17-16 0 / 1725 -17.5 -17.5 0.40 (1) 10.00 16-15 0 / 2686 -17.5 -17.5 0.52 (1) 10.00 15-14 0 / 2686 -17.5 -17.5 0.52 (1) 10.00 14-13 0 / 1725 -17.5 -17.5 0.40 (1) 10.00 13-12 0 / 1627 -17.5 -17.5 0.39 (1) 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/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 (1.22") CALCULATED VERT. DEFL.(LL) = L/999 (0.16") ALLOWABLE DEFL.(TL)= L/360 (1.22") CALCULATED VERT. DEFL.(TL) = L/999 (0.32") CSI: TC=0.99 (4-5:1), BC=0.52 (14-16:1), WB=0.89 (9-12:1), SSI=0.27 (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 (9) (INPUT = 0.90) JSI METAL= 0.68 (9) (INPUT = 1.00)	
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TOTAL WEIGHT = 2 X 159 = 319 lb [M]

LUMBER				N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.	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			
19 - 2	2x4	DRY	No.2	SPF			
12 - 10	2x4	DRY	No.2	SPF			
19 - 16	2x4	DRY	No.2	SPF			
16 - 15	2x4	DRY	No.2	SPF			
15 - 12	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-p	MT20	4.0	8.0	1.00	3.50	
3	TMWW-t	MT20	3.0	4.0	1.50	1.50	
4	TTWW-m	MT20	5.0	6.0	2.00	1.75	
5	TMW-w	MT20	2.0	4.0			
6	TS-t	MT20	3.0	6.0			
7	TMWW-t	MT20	3.0	4.0			
8	TTWW-m	MT20	5.0	6.0	2.00	1.75	
9	TMWW-t	MT20	3.0	4.0	1.50	1.50	
10	TMVW-p	MT20	4.0	8.0	1.00	3.50	
12	BMV1+p	MT20	2.0	4.0	2.25	1.00	
13	BMWW-t	MT20	3.0	8.0	1.50	3.50	
14	BMWW-t	MT20	3.0	4.0			
15	BSWW-l	MT20	5.0	6.0	3.00	3.00	
16	BSWWW-l	MT20	5.0	8.0	3.00	4.00	
17	BMWW-t	MT20	3.0	4.0			
18	BMWW-t	MT20	3.0	8.0	1.50	3.50	
19	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.

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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	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
19	1845	0	1845	0	0	5-8	5-8
12	1845	0	1845	0	0	5-8	5-8

UNFACTORED REACTIONS							
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
19	1293	918 / 0	0 / 0	0 / 0	0 / 0	375 / 0	0 / 0
12	1293	918 / 0	0 / 0	0 / 0	0 / 0	375 / 0	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 = 3.89 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.

2x4 SPF No.2 T-BRACE AT 7-16

FASTEN T AND I-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3" COMMON WIRE NAILS @ 6" O.C. WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90% OF WEB LENGTH.

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: (4)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
1-2	0 / 29	-77.3 -77.3	0.10 (1)	10.00	18-3	-350 / 0	0.10 (1)
2-3	-2049 / 0	-77.3 -77.3	0.31 (1)	4.44	3-17	-57 / 0	0.03 (1)
3-4	-2045 / 0	-77.3 -77.3	0.31 (1)	4.45	17-4	0 / 141	0.04 (1)
4-5	-2300 / 0	-77.3 -77.3	0.62 (1)	3.90	4-16	0 / 898	0.20 (1)
5-6	-2301 / 0	-77.3 -77.3	0.62 (1)	3.89	16-5	-540 / 0	0.48 (1)
6-7	-2301 / 0	-77.3 -77.3	0.62 (1)	3.89	16-7	-2 / 0	0.00 (1)
7-8	-2302 / 0	-77.3 -77.3	0.63 (1)	3.89	15-7	-540 / 0	0.48 (1)
8-9	-2045 / 0	-77.3 -77.3	0.31 (1)	4.45	15-8	0 / 900	0.20 (1)
9-10	-2050 / 0	-77.3 -77.3	0.31 (1)	4.44	14-8	0 / 140	0.04 (1)
10-11	0 / 29	-77.3 -77.3	0.10 (1)	10.00	14-9	-57 / 0	0.03 (1)
19-2	-1809 / 0	0.0 0.0	0.19 (1)	6.22	13-9	-350 / 0	0.10 (1)
12-10	-1809 / 0	0.0 0.0	0.19 (1)	6.22	2-18	0 / 1773	0.40 (1)
					13-10	0 / 1773	0.40 (1)
19-18	0 / 0	-17.5 -17.5	0.07 (4)	10.00			
18-17	0 / 1722	-17.5 -17.5	0.34 (1)	10.00			
17-16	0 / 1683	-17.5 -17.5	0.34 (1)	10.00			
16-15	0 / 2302	-17.5 -17.5	0.44 (1)	10.00			
15-14	0 / 1683	-17.5 -17.5	0.35 (1)	10.00			
14-13	0 / 1722	-17.5 -17.5	0.34 (1)	10.00			
13-12	0 / 0	-17.5 -17.5	0.07 (4)	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

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 (1.22")
CALCULATED VERT. DEFL.(LL) = L/999 (0.13")
ALLOWABLE DEFL.(TL)= L/360 (1.22")
CALCULATED VERT. DEFL.(TL) = L/999 (0.23")

CSI: TC=0.63 (7-8:1), BC=0.44 (15-16:1), WB=0.48 (7-15:1), SSI=0.23 (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.

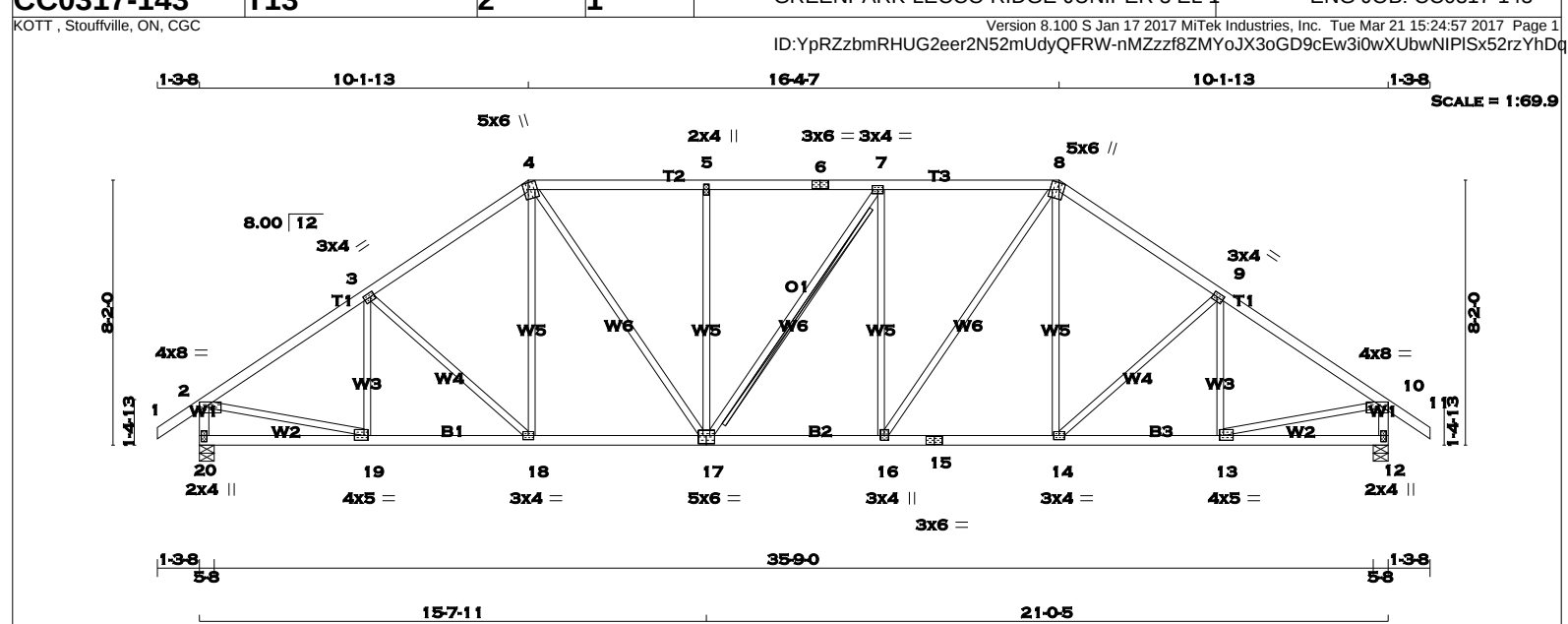
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 618 354 1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

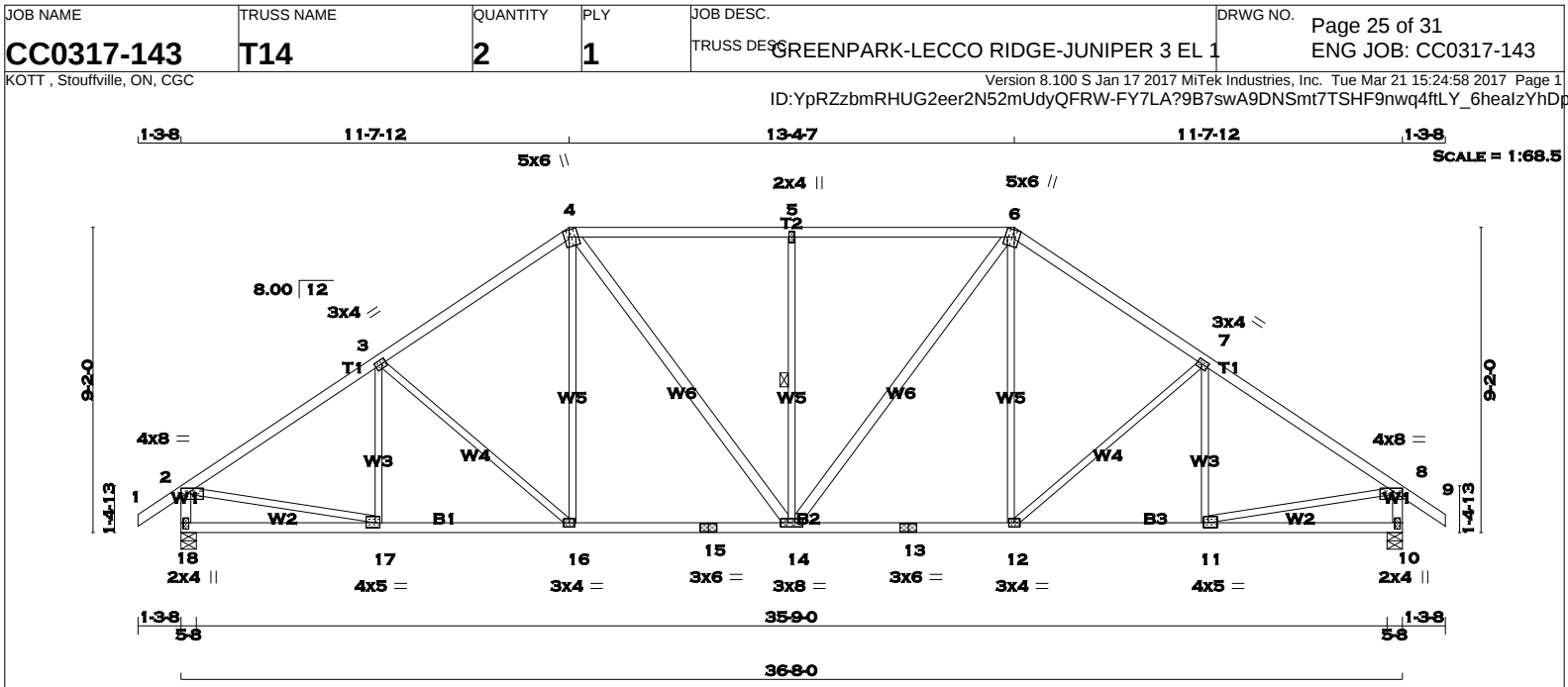
JSI GRIP= 0.89 (4) (INPUT = 0.90)
JSI METAL= 0.49 (15) (INPUT = 1.00)





TOTAL WEIGHT = 2 X 167 = 334 LB										[M][F]																																																																																																																																																																																																																																																																																																																																									
LUMBER N. L. G. A. RULES <table><tr><th>CHORDS</th><th>SIZE</th><th>LUMBER</th><th>DESCR.</th></tr><tr><td>1 - 4</td><td>2x4</td><td>DRY</td><td>No.2 SPF</td></tr><tr><td>4 - 6</td><td>2x4</td><td>DRY</td><td>No.2 SPF</td></tr><tr><td>6 - 8</td><td>2x4</td><td>DRY</td><td>No.2 SPF</td></tr><tr><td>8 - 11</td><td>2x4</td><td>DRY</td><td>No.2 SPF</td></tr><tr><td>20 - 2</td><td>2x4</td><td>DRY</td><td>No.2 SPF</td></tr><tr><td>12 - 10</td><td>2x4</td><td>DRY</td><td>No.2 SPF</td></tr><tr><td>20 - 17</td><td>2x4</td><td>DRY</td><td>No.2 SPF</td></tr><tr><td>17 - 15</td><td>2x4</td><td>DRY</td><td>No.2 SPF</td></tr><tr><td>15 - 12</td><td>2x4</td><td>DRY</td><td>No.2 SPF</td></tr><tr><td>ALL WEBS EXCEPT</td><td>2x3</td><td>DRY</td><td>No.2 SPF</td></tr></table> DRY: SEASONED LUMBER.										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	20 - 2	2x4	DRY	No.2 SPF	12 - 10	2x4	DRY	No.2 SPF	20 - 17	2x4	DRY	No.2 SPF	17 - 15	2x4	DRY	No.2 SPF	15 - 12	2x4	DRY	No.2 SPF	ALL WEBS EXCEPT	2x3	DRY	No.2 SPF	DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table><tr><th></th><th colspan="2">FACTORED GROSS REACTION</th><th colspan="2">MAXIMUM FACTORED GROSS REACTION</th><th>INPUT</th><th>REQRD</th></tr><tr><th>JT</th><th>VERT</th><th>HORZ</th><th>DOWN</th><th>HORZ</th><th>UPLIFT</th><th>BRG IN-SX</th></tr><tr><td>20</td><td>1845</td><td>0</td><td>1845</td><td>0</td><td>0</td><td>5-8</td></tr><tr><td>12</td><td>1845</td><td>0</td><td>1845</td><td>0</td><td>0</td><td>5-8</td></tr></table> UNFACTORED REACTIONS <table><tr><th>JT</th><th>1ST LCASE COMBINED</th><th>MAX./MIN. SNOW</th><th>MIN. LIVE</th><th>PERM.LIVE</th><th>WIND</th><th>DEAD</th><th>SOIL</th></tr><tr><td>20</td><td>1293</td><td>918 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>375 / 0</td><td>0 / 0</td></tr><tr><td>12</td><td>1293</td><td>918 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>375 / 0</td><td>0 / 0</td></tr></table> BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 20, 12 BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.41 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. 2x4 SPF No.2 T-BRACE AT 7-17 FASTEN T AND I-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3" COMMON WIRE NAILS @ 6" O.C. WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90% OF WEB LENGTH. 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: (4) <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. FACTORED VERT. LOAD (LC)</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX. FACTORED VERT. LOAD (LC)</th></tr><tr><td>FR-TO</td><td></td><td>FROM TO</td><td></td><td>FR-TO</td><td></td><td></td></tr><tr><td>1-2</td><td>0 / 29</td><td>-77.3 -77.3</td><td>0.10 (1)</td><td>10.00</td><td>19-3</td><td>-275 / 3</td></tr><tr><td>2-3</td><td>-2095 / 0</td><td>-77.3 -77.3</td><td>0.33 (1)</td><td>4.41</td><td>3-18</td><td>-184 / 0</td></tr><tr><td>3-4</td><td>-1984 / 0</td><td>-77.3 -77.3</td><td>0.31 (1)</td><td>4.52</td><td>18-4</td><td>0 / 218</td></tr><tr><td>4-5</td><td>-2012 / 0</td><td>-77.3 -77.3</td><td>0.32 (1)</td><td>4.47</td><td>4-17</td><td>0 / 668</td></tr><tr><td>5-6</td><td>-2012 / 0</td><td>-77.3 -77.3</td><td>0.30 (1)</td><td>4.50</td><td>17-5</td><td>-454 / 0</td></tr><tr><td>6-7</td><td>-2012 / 0</td><td>-77.3 -77.3</td><td>0.30 (1)</td><td>4.50</td><td>17-7</td><td>-2 / 0</td></tr><tr><td>7-8</td><td>-2013 / 0</td><td>-77.3 -77.3</td><td>0.32 (1)</td><td>4.47</td><td>16-7</td><td>-455 / 0</td></tr><tr><td>8-9</td><td>-1984 / 0</td><td>-77.3 -77.3</td><td>0.31 (1)</td><td>4.52</td><td>16-8</td><td>0 / 671</td></tr><tr><td>9-10</td><td>-2095 / 0</td><td>-77.3 -77.3</td><td>0.33 (1)</td><td>4.41</td><td>14-8</td><td>0 / 217</td></tr><tr><td>10-11</td><td>0 / 29</td><td>-77.3 -77.3</td><td>0.10 (1)</td><td>10.00</td><td>14-9</td><td>-184 / 0</td></tr><tr><td>20-2</td><td>-1805 / 0</td><td>0.0 0.0</td><td>0.19 (1)</td><td>6.23</td><td>13-9</td><td>-274 / 3</td></tr><tr><td>12-10</td><td>-1805 / 0</td><td>0.0 0.0</td><td>0.19 (1)</td><td>6.23</td><td>2-19</td><td>0 / 1802</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td>13-10</td><td>0 / 1802</td></tr><tr><td>20-19</td><td>0 / 0</td><td>-17.5 -17.5</td><td>0.10 (4)</td><td>10.00</td><td></td><td></td></tr><tr><td>19-18</td><td>0 / 1764</td><td>-17.5 -17.5</td><td>0.34 (1)</td><td>10.00</td><td></td><td></td></tr><tr><td>18-17</td><td>0 / 1630</td><td>-17.5 -17.5</td><td>0.32 (1)</td><td>10.00</td><td></td><td></td></tr><tr><td>17-16</td><td>0 / 2014</td><td>-17.5 -17.5</td><td>0.38 (1)</td><td>10.00</td><td></td><td></td></tr><tr><td>16-15</td><td>0 / 1629</td><td>-17.5 -17.5</td><td>0.32 (1)</td><td>10.00</td><td></td><td></td></tr><tr><td>15-14</td><td>0 / 1629</td><td>-17.5 -17.5</td><td>0.32 (1)</td><td>10.00</td><td></td><td></td></tr><tr><td>14-13</td><td>0 / 1764</td><td>-17.5 -17.5</td><td>0.34 (1)</td><td>10.00</td><td></td><td></td></tr><tr><td>13-12</td><td>0 / 0</td><td>-17.5 -17.5</td><td>0.10 (4)</td><td>10.00</td><td></td><td></td></tr></table>											FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT	REQRD	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	BRG IN-SX	20	1845	0	1845	0	0	5-8	12	1845	0	1845	0	0	5-8	JT	1ST LCASE COMBINED	MAX./MIN. SNOW	MIN. LIVE	PERM.LIVE	WIND	DEAD	SOIL	20	1293	918 / 0	0 / 0	0 / 0	0 / 0	375 / 0	0 / 0	12	1293	918 / 0	0 / 0	0 / 0	0 / 0	375 / 0	0 / 0	CHORDS				WEBS				MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC)	FR-TO		FROM TO		FR-TO			1-2	0 / 29	-77.3 -77.3	0.10 (1)	10.00	19-3	-275 / 3	2-3	-2095 / 0	-77.3 -77.3	0.33 (1)	4.41	3-18	-184 / 0	3-4	-1984 / 0	-77.3 -77.3	0.31 (1)	4.52	18-4	0 / 218	4-5	-2012 / 0	-77.3 -77.3	0.32 (1)	4.47	4-17	0 / 668	5-6	-2012 / 0	-77.3 -77.3	0.30 (1)	4.50	17-5	-454 / 0	6-7	-2012 / 0	-77.3 -77.3	0.30 (1)	4.50	17-7	-2 / 0	7-8	-2013 / 0	-77.3 -77.3	0.32 (1)	4.47	16-7	-455 / 0	8-9	-1984 / 0	-77.3 -77.3	0.31 (1)	4.52	16-8	0 / 671	9-10	-2095 / 0	-77.3 -77.3	0.33 (1)	4.41	14-8	0 / 217	10-11	0 / 29	-77.3 -77.3	0.10 (1)	10.00	14-9	-184 / 0	20-2	-1805 / 0	0.0 0.0	0.19 (1)	6.23	13-9	-274 / 3	12-10	-1805 / 0	0.0 0.0	0.19 (1)	6.23	2-19	0 / 1802						13-10	0 / 1802	20-19	0 / 0	-17.5 -17.5	0.10 (4)	10.00			19-18	0 / 1764	-17.5 -17.5	0.34 (1)	10.00			18-17	0 / 1630	-17.5 -17.5	0.32 (1)	10.00			17-16	0 / 2014	-17.5 -17.5	0.38 (1)	10.00			16-15	0 / 1629	-17.5 -17.5	0.32 (1)	10.00			15-14	0 / 1629	-17.5 -17.5	0.32 (1)	10.00			14-13	0 / 1764	-17.5 -17.5	0.34 (1)	10.00			13-12	0 / 0	-17.5 -17.5	0.10 (4)	10.00			DESIGN CRITERIA SPECIFIED LOADS: <table><tr><th>TOP</th><th>CH.</th><th>LL</th><th>=</th><th>23.3</th><th>PSF</th></tr><tr><td></td><td></td><th>DL</th><th>=</th><th>3.0</th><th>PSF</th></tr><tr><th>BOT</th><th>CH.</th><th>LL</th><th>=</th><th>0.0</th><th>PSF</th></tr><tr><td></td><td></td><th>DL</th><th>=</th><th>7.0</th><th>PSF</th></tr><tr><td colspan="2">TOTAL LOAD</td><td>=</td><td>33.3</td><td>PSF</td></tr></table> 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 (1.22") CALCULATED VERT. DEFL.(LL) = L/ 999 (0.11") ALLOWABLE DEFL.(TL)= L/360 (1.22") CALCULATED VERT. DEFL.(TL) = L/ 999 (0.20") CSI: TC=0.33 (9-10:1) , BC=0.38 (16-17:1) , WB=0.59 (7-16:1) , 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 <table><tr><th>PLATE</th><th>GRIP(DRY) (PSI)</th><th>SHEAR (PLI)</th><th>SECTION (PLI)</th></tr><tr><td></td><th>MAX</th><th>MIN</th><th>MAX</th></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> PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.86 (10) (INPUT = 0.90) JSI METAL= 0.53 (13) (INPUT = 1.00)										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
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																																																																																																																																																																																																																																																																																																																																																
20 - 2	2x4	DRY	No.2 SPF																																																																																																																																																																																																																																																																																																																																																
12 - 10	2x4	DRY	No.2 SPF																																																																																																																																																																																																																																																																																																																																																
20 - 17	2x4	DRY	No.2 SPF																																																																																																																																																																																																																																																																																																																																																
17 - 15	2x4	DRY	No.2 SPF																																																																																																																																																																																																																																																																																																																																																
15 - 12	2x4	DRY	No.2 SPF																																																																																																																																																																																																																																																																																																																																																
ALL WEBS EXCEPT	2x3	DRY	No.2 SPF																																																																																																																																																																																																																																																																																																																																																
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JT	VERT	HORZ	DOWN	HORZ	UPLIFT	BRG IN-SX																																																																																																																																																																																																																																																																																																																																													
20	1845	0	1845	0	0	5-8																																																																																																																																																																																																																																																																																																																																													
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MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (LC)																																																																																																																																																																																																																																																																																																																																													
FR-TO		FROM TO		FR-TO																																																																																																																																																																																																																																																																																																																																															
1-2	0 / 29	-77.3 -77.3	0.10 (1)	10.00	19-3	-275 / 3																																																																																																																																																																																																																																																																																																																																													
2-3	-2095 / 0	-77.3 -77.3	0.33 (1)	4.41	3-18	-184 / 0																																																																																																																																																																																																																																																																																																																																													
3-4	-1984 / 0	-77.3 -77.3	0.31 (1)	4.52	18-4	0 / 218																																																																																																																																																																																																																																																																																																																																													
4-5	-2012 / 0	-77.3 -77.3	0.32 (1)	4.47	4-17	0 / 668																																																																																																																																																																																																																																																																																																																																													
5-6	-2012 / 0	-77.3 -77.3	0.30 (1)	4.50	17-5	-454 / 0																																																																																																																																																																																																																																																																																																																																													
6-7	-2012 / 0	-77.3 -77.3	0.30 (1)	4.50	17-7	-2 / 0																																																																																																																																																																																																																																																																																																																																													
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20-2	-1805 / 0	0.0 0.0	0.19 (1)	6.23	13-9	-274 / 3																																																																																																																																																																																																																																																																																																																																													
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19-18	0 / 1764	-17.5 -17.5	0.34 (1)	10.00																																																																																																																																																																																																																																																																																																																																															
18-17	0 / 1630	-17.5 -17.5	0.32 (1)	10.00																																																																																																																																																																																																																																																																																																																																															
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		DL	=	7.0	PSF																																																																																																																																																																																																																																																																																																																																														
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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.



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
18 - 2	2x4	DRY	No.2	SPF
10 - 8	2x4	DRY	No.2	SPF
18 - 15	2x4	DRY	No.2	SPF
15 - 13	2x4	DRY	No.2	SPF
13 - 10	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
4 - 14	2x4	DRY	No.2	SPF
14 - 6	2x4	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	8.0	1.00 3.50
3	TMVW-t	MT20	3.0	4.0	1.50 1.50
4	TTWW+m	MT20	5.0	6.0	Edge 1.75
5	TMVW+w	MT20	2.0	4.0	
6	TTWW+m	MT20	5.0	6.0	Edge 1.75
7	TMVW-t	MT20	3.0	4.0	1.50 1.50
8	TMVW-p	MT20	4.0	8.0	1.00 3.50
10	BMV1+p	MT20	2.0	4.0	2.25 1.00
11	BMVW-t	MT20	4.0	5.0	1.75 1.75
12	BMVW-t	MT20	3.0	4.0	
13	BS-t	MT20	3.0	6.0	
14	BMVW-t	MT20	3.0	8.0	
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 1.75
18	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.

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.



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
18		1845	0	1845	0	5-8	5-8
10		1845	0	1845	0	5-8	5-8

UNFACTORED REACTIONS							
		1ST LCASE		MAX./MIN. COMPONENT REACTIONS			
JT		COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
18		1293	918 / 0	0 / 0	0 / 0	0 / 0	375 / 0
10		1293	918 / 0	0 / 0	0 / 0	0 / 0	375 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 18, 10

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.27 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.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 5-14. 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

CHORDS				WEBS			
MEMB.		MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.		MAX. FACTORED FORCE (LBS)
FR-TO			FROM TO	CSI (LC)	FR-TO		MAX. CSI (LC)
1-2	0 / 29	-77.3	-77.3	0.10 (1)	10.00	17-3	-217 / 31
2-3	-2120 / 0	-77.3	-77.3	0.44 (1)	4.27	3-16	-298 / 0
3-4	-1911 / 0	-77.3	-77.3	0.41 (1)	4.47	16-4	0 / 304
4-5	-1850 / 0	-77.3	-77.3	0.51 (1)	4.36	4-14	0 / 471
5-6	-1850 / 0	-77.3	-77.3	0.51 (1)	4.36	14-5	-635 / 0
6-7	-1911 / 0	-77.3	-77.3	0.41 (1)	4.47	14-6	0 / 471
7-8	-2120 / 0	-77.3	-77.3	0.44 (1)	4.27	12-6	0 / 304
8-9	0 / 29	-77.3	-77.3	0.10 (1)	10.00	12-7	-298 / 0
18-2	-1801 / 0	0.0	0.0	0.19 (1)	6.23	11-7	-217 / 31
10-8	-1801 / 0	0.0	0.0	0.19 (1)	6.23	2-17	0 / 1818
						11-8	0 / 1818
18-17	0 / 0	-17.5	-17.5	0.14 (4)	10.00		
17-16	0 / 1788	-17.5	-17.5	0.36 (1)	10.00		
16-15	0 / 1567	-17.5	-17.5	0.34 (1)	10.00		
15-14	0 / 1567	-17.5	-17.5	0.34 (1)	10.00		
14-13	0 / 1567	-17.5	-17.5	0.34 (1)	10.00		
13-12	0 / 1567	-17.5	-17.5	0.34 (1)	10.00		
12-11	0 / 1788	-17.5	-17.5	0.36 (1)	10.00		
11-10	0 / 0	-17.5	-17.5	0.14 (4)	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/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 (1.22")
CALCULATED VERT. DEFL.(LL)= L/999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (1.22")
CALCULATED VERT. DEFL.(TL)= L/999 (0.19")

CSI: TC=0.51 (4-5:1), BC=0.36 (16-17:1), WB=0.41 (2-17:1), SSI=0.25 (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)	(PLI)	MAX MIN	MAX MIN
MT20	618	354	1667	822	2284 1656

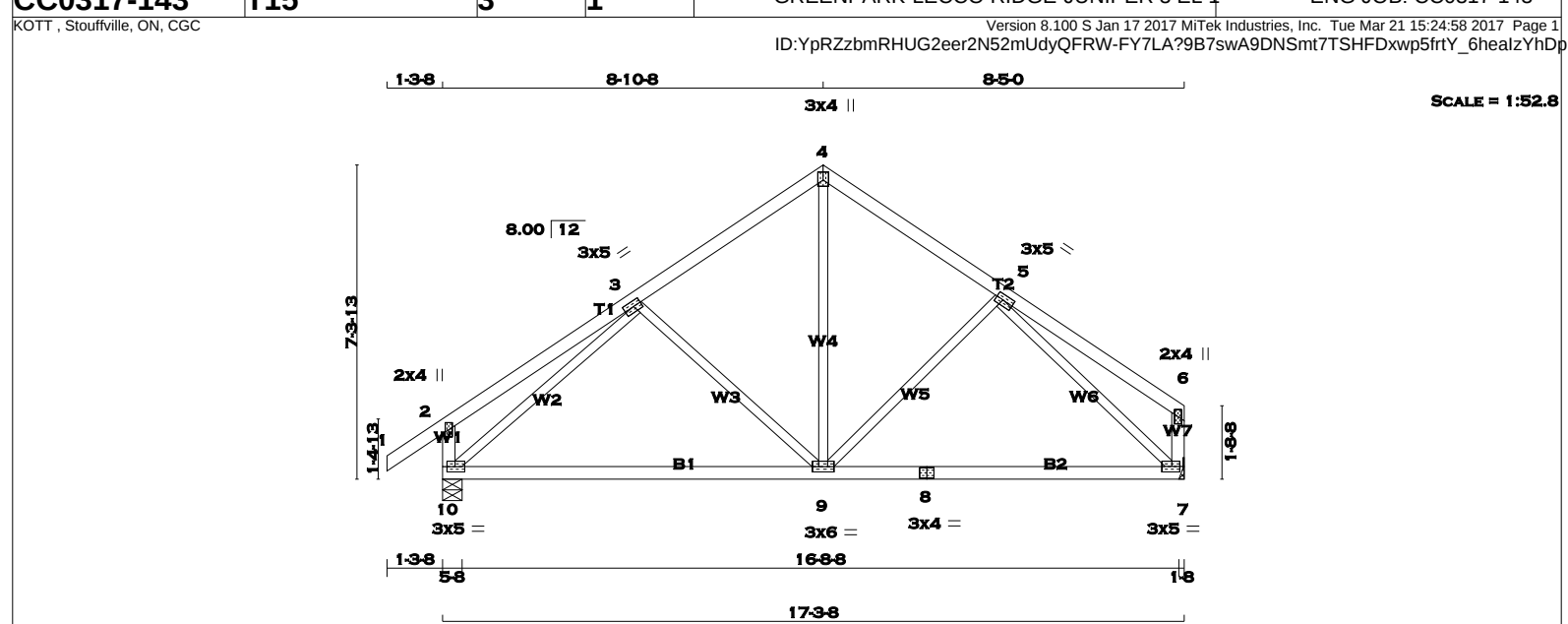
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (17) (INPUT = 0.90)
JSI METAL= 0.54 (11) (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 - 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.

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	5.0	1.50	2.25
4	TTW+p	MT20	3.0	4.0	2.25	1.50
5	TMVW-t	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	1.50	2.25
8	BS-t	MT20	3.0	4.0		
9	BMVW1-t	MT20	3.0	6.0		
10	BMVW1-t	MT20	3.0	5.0	1.50	2.25

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	REQRD
JT	VERT	HORZ	DOWN	UPLIFT
10	926	0	926	0
7	820	0	820	0

BRG

BRG

IN-SX

IN-SX

5-8

5-8

HANGER BY OTHERS

MIN. SEAT SIZE: 1-8

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN.	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
10	648	467 / 0	0 / 0	0 / 0	0 / 0	0 / 0	181 / 0	0 / 0
7	576	403 / 0	0 / 0	0 / 0	0 / 0	0 / 0	173 / 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 = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. (LC)	
FR-TO		FROM	TO	FR-TO			
1-2	0 / 29	-77.3	-77.3 0.10 (1)	10.00	3-9	-219 / 0	0.14 (1)
2-3	0 / 22	-77.3	-77.3 0.25 (1)	10.00	9-4	0 / 448	0.10 (1)
3-4	-658 / 0	-77.3	-77.3 0.19 (1)	6.25	9-5	-161 / 11	0.10 (1)
4-5	-656 / 0	-77.3	-77.3 0.17 (1)	6.25	10-3	-934 / 0	0.57 (1)
5-6	0 / 21	-77.3	-77.3 0.22 (1)	10.00	5-7	-907 / 0	0.53 (1)
10-2	-237 / 0	0.0	0.0 0.02 (1)	7.81			
7-6	-124 / 0	0.0	0.0 0.01 (1)	7.81			
10-9	0 / 691	-17.5	-17.5 0.42 (4)	10.00			
9-8	0 / 643	-17.5	-17.5 0.42 (4)	10.00			
8-7	0 / 643	-17.5	-17.5 0.42 (4)	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/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 (0.58")

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

ALLOWABLE DEFL.(TL)= L/360 (0.58")

CALCULATED VERT. DEFL.(TL) = L/ 999 (0.14")

CSI: TC=0.25 (2-3:1) , BC=0.42 (9-10:4) , WB=0.57 (3-10:1) , SSI=0.14 (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
MT20	618	354	1667 822 2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (5) (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.

LICENSED PROFESSIONAL ENGINEER

C.G. CARSON

100076892

PROVINCE OF ONTARIO

21 MAR 2017

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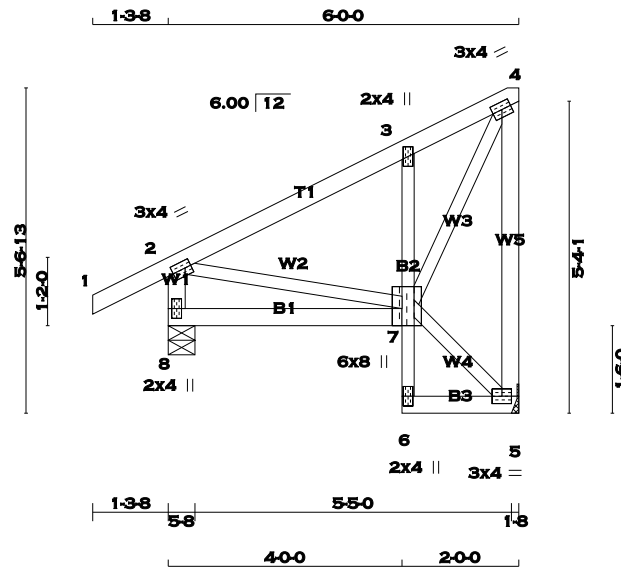
JUNIPER 3

BUILDING DIVISION

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 = 1:39.4

TOTAL WEIGHT = 34 lb [M]

LUMBER		N. L. G. A. RULES		LUMBER		DESCR.	
CHORDS	SIZE						
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-t	MT20	3.0	4.0	1.50	1.25
3	TMV+p	MT20	2.0	4.0		
4	TMVW-t	MT20	3.0	4.0		
5	BMVW1-t	MT20	3.0	4.0		
6	BMV+p	MT20	2.0	4.0		
7	BVMWWH-t	MT20	6.0	8.0	Edge	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.

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQRD	
JT	VERT	GROSS REACTION	GROSS REACTION	DOWN	HORZ	BRG	BRG	IN-SX	IN-SX
5	285	0	285	0	0			HANGER BY OTHERS	
8	389	0	389	0	0	5-8	5-8	MIN. SEAT SIZE: 1-8	

UNFACTORED REACTIONS

JT	1ST CASE	MAX/MIN.	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
5	200	140 / 0	0 / 0	0 / 0	0 / 0	0 / 0	60 / 0	0 / 0
8	271	203 / 0	0 / 0	0 / 0	0 / 0	0 / 0	68 / 0	0 / 0

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 = 7.81 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS		FACTORED		WEB S		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MEMB.	FORCE (LBS)	MAX (LC)	MAX (LC)
FR-TO		FROM	TO	FR-TO			
1-2	0 / 23	-77.3	-77.3 0.10 (1)	10.00	7-5	-4 / 0	0.00 (1)
2-3	-176 / 0	-77.3	-77.3 0.15 (1)	6.25	7-4	0 / 361	0.08 (1)
3-4	-202 / 0	-77.3	-77.3 0.15 (1)	6.25	2-7	0 / 172	0.04 (1)
5-4	-265 / 0	0.0	0.0 0.15 (1)	7.81			
8-2	-354 / 0	0.0	0.0 0.04 (1)	7.81			
8-7	0 / 0	-17.5	-17.5 0.09 (4)	10.00			
6-7	0 / 19	0.0	0.0 0.02 (1)	10.00			
7-3	-309 / 0	0.0	0.0 0.02 (1)	7.81			
6-5	0 / 3	-17.5	-17.5 0.02 (4)	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 (0.20")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/999 (0.02")

CSI: TC=0.15 (4-5:1), BC=0.09 (7-8:4), WB=0.08 (4-7:1), 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

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	MAX MIN	MAX MIN
MT20	618 354	1667 822	2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

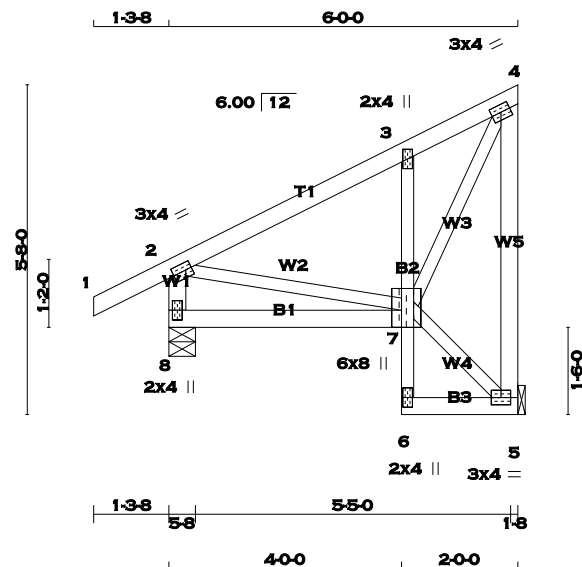
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.70 (4) (INPUT = 0.90)
JSI METAL= 0.11 (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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SCALE = 1:39.6

TOTAL WEIGHT = 4 X 34 = 136 lb [M]

LUMBER				
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
8 - 2	2x4	DRY	No.2	SPF
1 - 4	2x4	DRY	No.2	SPF
5 - 4	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: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-t	MT20	3.0	4.0	1.50	1.25
3	TMV+p	MT20	2.0	4.0		
4	TMVW-t	MT20	3.0	4.0		
5	BMVW1-t	MT20	3.0	4.0		
6	BMV+p	MT20	2.0	4.0		
7	BVMWW+i	MT20	6.0	8.0	Edge	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.

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	
8	389	0	389	0	0	5-8	5-8	
5	285	0	285	0	0	1-8	1-8	

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 5

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		MAX./MIN. SNOW		LIVE		PERM.LIVE		WIND		DEAD		SOIL	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX							
8	271	203 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	68 / 0	0 / 0					
5	200	140 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	60 / 0	0 / 0					

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 = 7.81 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
8-2	-354 / 0	0.0	0.0 0.04 (1)	2-7	0 / 172	0.04 (1)	
1-2	0 / 23	-77.3	-77.3 0.10 (1)	7-5	-4 / 0	0.00 (1)	
2-3	-176 / 0	-77.3	-77.3 0.15 (1)	7-4	0 / 361	0.08 (1)	
3-4	-202 / 0	-77.3	-77.3 0.15 (1)				
5-4	-265 / 0	0.0	0.0 0.15 (1)				
8-7	0 / 0	-17.5	-17.5 0.09 (4)	10.00			
6-7	0 / 19	0.0	0.0 0.02 (1)	10.00			
7-3	-309 / 0	0.0	0.0 0.02 (1)	7.81			
6-5	0 / 3	-17.5	-17.5 0.02 (4)	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/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 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CSI: TC=0.15 (4-5:1) , BC=0.09 (7-8:4) , WB=0.08 (4-7:1) , 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)	SHEAR (PSI)	SECTION (PLI)
MT20	618	354	1667
	822	2284	1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.70 (4) (INPUT = 0.90)
JSI METAL= 0.11 (2) (INPUT = 1.00)

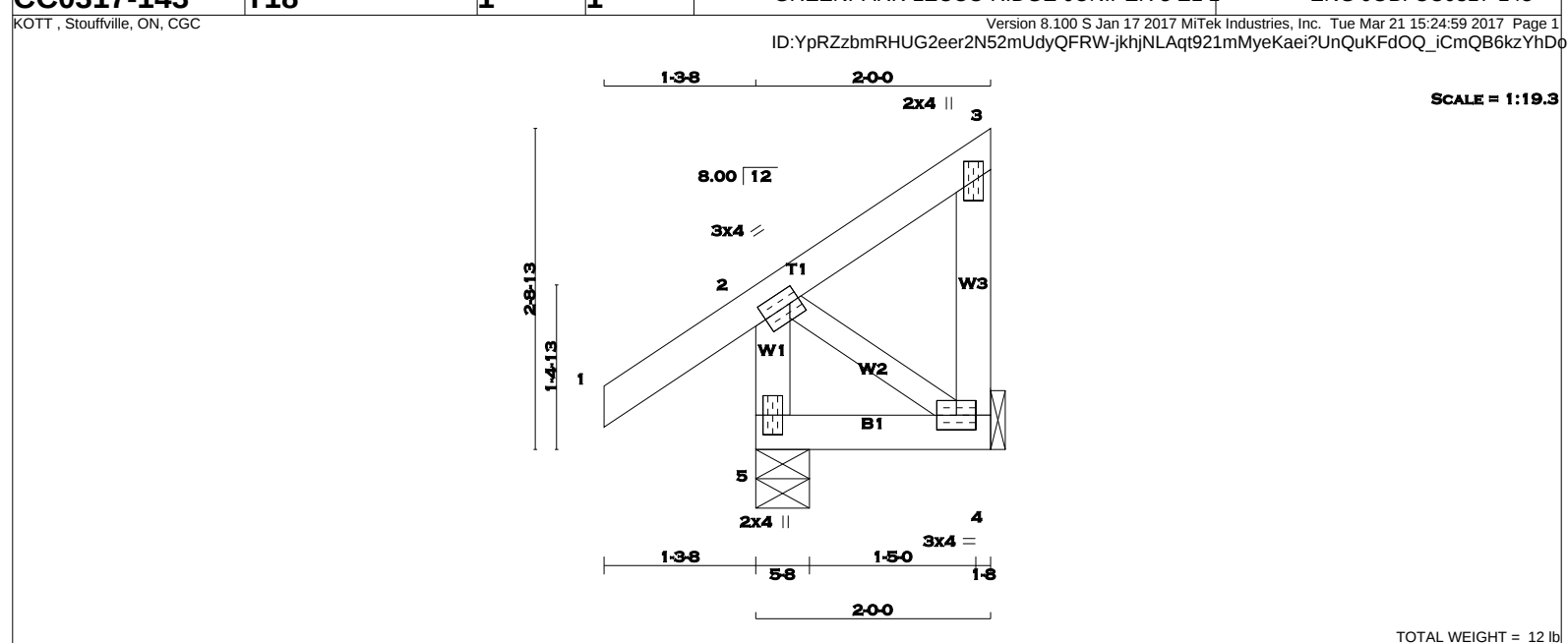
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JUNIPER 3
BUILDING DIVISION



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. 5 - 2 2x4 DRY No.2 SPF 1 - 3 2x4 DRY No.2 SPF 4 - 3 2x4 DRY No.2 SPF 5 - 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 <table><tr><th>JT</th><th colspan="2">FACTORED GROSS REACTION</th><th colspan="2">MAXIMUM FACTORED GROSS REACTION</th><th colspan="2">INPUT BRG</th><th colspan="2">REQRD BRG</th></tr><tr><th></th><th>VERT</th><th>HORZ</th><th>DOWN</th><th>HORZ</th><th>UPLIFT</th><th>IN-SX</th><th>IN-SX</th><th></th></tr><tr><td>5</td><td>201</td><td>0</td><td>201</td><td>0</td><td>0</td><td>5-8</td><td>5-8</td><td></td></tr><tr><td>4</td><td>95</td><td>0</td><td>95</td><td>0</td><td>0</td><td>1-8</td><td>1-8</td><td></td></tr></table> SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 4 UNFACTORED REACTIONS <table><tr><th>JT</th><th>1ST LCASE</th><th colspan="6">MAX./MIN. COMPONENT REACTIONS</th></tr><tr><th></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>5</td><td>139</td><td>110 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>28 / 0</td><td>0 / 0</td></tr><tr><td>4</td><td>67</td><td>47 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>20 / 0</td><td>0 / 0</td></tr></table> BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5 BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 10.00 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: (5) <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><th></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>5-2</td><td>-184 / 0</td><td>0.0</td><td>0.0 0.02 (1)</td><td>2-4</td><td>0 / 0</td><td>0.00 (1)</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></td><td></td><td></td><td></td></tr><tr><td>2-3</td><td>0 / 0</td><td>-77.3</td><td>-77.3 0.05 (1)</td><td></td><td></td><td></td><td></td></tr><tr><td>4-3</td><td>-77 / 0</td><td>0.0</td><td>0.0 0.01 (1)</td><td></td><td></td><td></td><td></td></tr><tr><td>5-4</td><td>0 / 0</td><td>-17.5</td><td>-17.5 0.02 (4)</td><td></td><td></td><td></td><td></td></tr></table> CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN							JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG			VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		5	201	0	201	0	0	5-8	5-8		4	95	0	95	0	0	1-8	1-8		JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS							COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	5	139	110 / 0	0 / 0	0 / 0	0 / 0	28 / 0	0 / 0	4	67	47 / 0	0 / 0	0 / 0	0 / 0	20 / 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				5-2	-184 / 0	0.0	0.0 0.02 (1)	2-4	0 / 0	0.00 (1)		1-2	0 / 29	-77.3	-77.3 0.10 (1)					2-3	0 / 0	-77.3	-77.3 0.05 (1)					4-3	-77 / 0	0.0	0.0 0.01 (1)					5-4	0 / 0	-17.5	-17.5 0.02 (4)					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 (0.00") CSI: TC=0.10 (1-2:1) , BC=0.02 (4-5:4) , WB=0.00 (2-4:1) , SSI=0.07 (1-2:1) 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= 0.17 (2) (INPUT = 0.90) JSI METAL= 0.04 (2) (INPUT = 1.00)						
JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG																																																																																																																																																	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX																																																																																																																																																	
5	201	0	201	0	0	5-8	5-8																																																																																																																																																	
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5-2	-184 / 0	0.0	0.0 0.02 (1)	2-4	0 / 0	0.00 (1)																																																																																																																																																		
1-2	0 / 29	-77.3	-77.3 0.10 (1)																																																																																																																																																					
2-3	0 / 0	-77.3	-77.3 0.05 (1)																																																																																																																																																					
4-3	-77 / 0	0.0	0.0 0.01 (1)																																																																																																																																																					
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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.



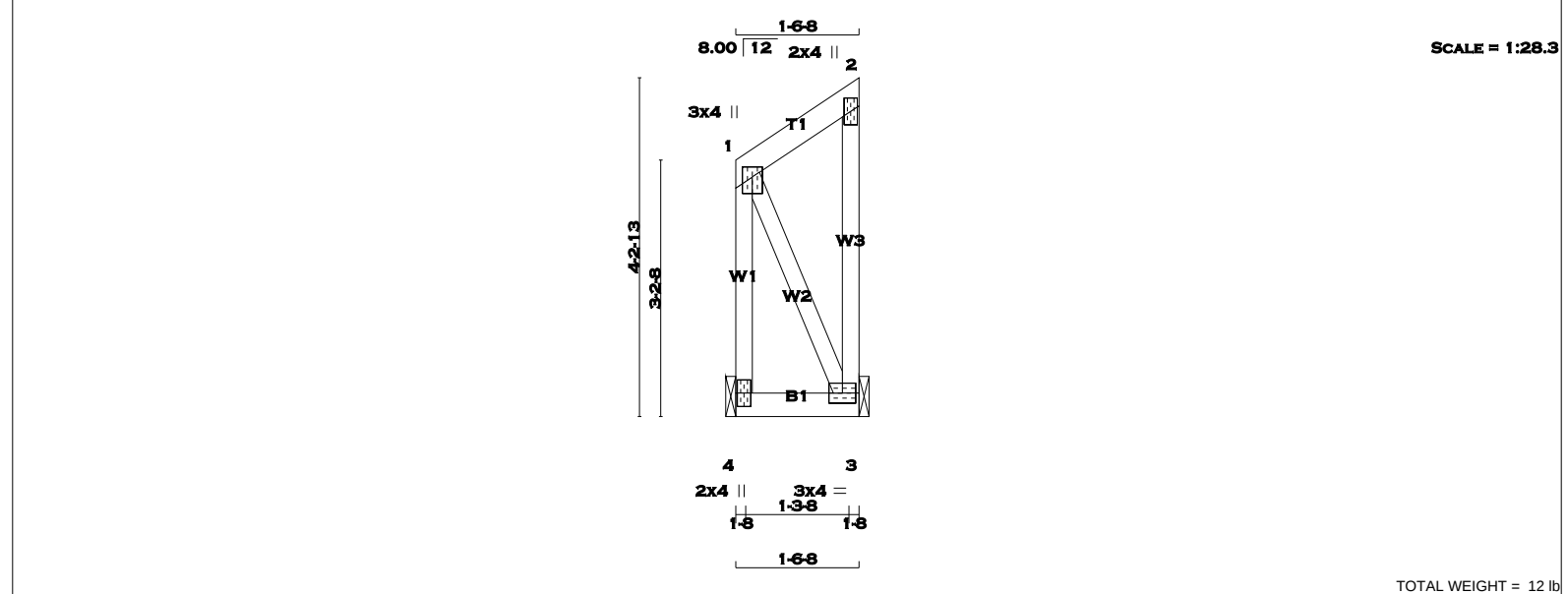
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JUNIPER 3
BUILDING DIVISION

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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 GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	SPECIFIED LOADS:	
4 - 1	2x3	DRY	No.2	SPF		VERT	DOWN	HORZ	UPLIFT	TOP CH.	LL = 23.3 PSF
1 - 2	2x4	DRY	No.2	SPF		HORZ	HORZ			DL = 3.0 PSF	
3 - 2	2x3	DRY	No.2	SPF						BOT CH.	LL = 0.0 PSF
4 - 3	2x4	DRY	No.2	SPF						DL = 7.0 PSF	
ALL WEBS 2x3 DRY No.2				SPF						TOTAL LOAD =	33.3 PSF
DRY: SEASONED LUMBER.											

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS
JT	COMBINED	SNOW LIVE PERM.LIVE WIND DEAD SOIL
4	51	36 / 0 0 / 0 0 / 0 0 / 0 15 / 0 0 / 0
3	51	36 / 0 0 / 0 0 / 0 0 / 0 15 / 0 0 / 0

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
1	TMVW+p	MT20	3.0	4.0	1.50	1.50
2	TMV+p	MT20	2.0	4.0		
3	BMVW1-t	MT20	3.0	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.

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 10.00 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: (4)			
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			
4-1	-60 / 0	0.0	0.0 0.01 (1)	1-3	0 / 0	0.00 (1)	
1-2	0 / 0	-77.3	-77.3 0.03 (1)				
3-2	-60 / 0	0.0	0.0 0.02 (1)				
4-3	0 / 0	-17.5	-17.5 0.01 (4)				

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

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

CSI: TC=0.03 (1-2:1) , BC=0.01 (3-4:4) , WB=0.00 (1-3:1) , SSI=0.04 (1-2:1)

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

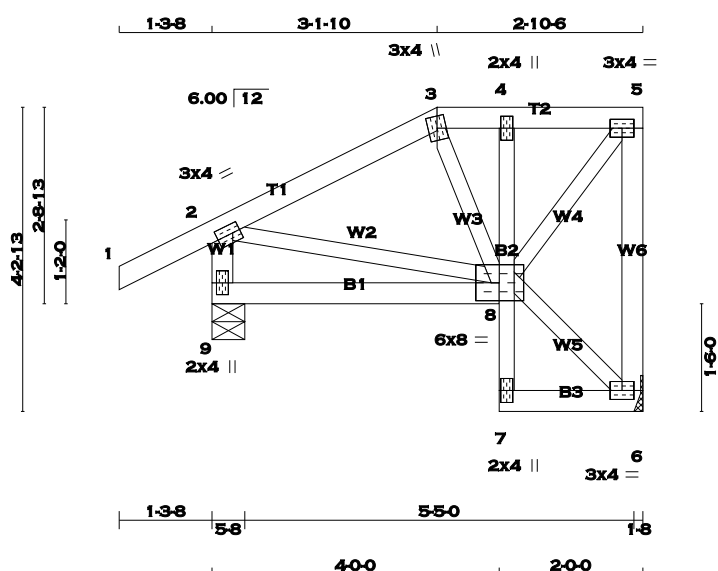
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	618 354	1667 822	2284 1656

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.07 (1) (INPUT = 0.90)

JSI METAL= 0.01 (2) (INPUT = 1.00)



LUMBER				
N. L. G. A. RULES				
CHORDS	SIZE	LUMBER	DESCR.	
1 - 3	2x4	No.2	SPF	
3 - 5	2x4	DRY	No.2	SPF
6 - 5	2x4	DRY	No.2	SPF
9 - 2	2x4	DRY	No.2	SPF
9 - 8	2x4	DRY	No.2	SPF
7 - 4	2x3	DRY	No.2	SPF
7 - 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	TMVW-t	MT20	3.0	4.0	1.50 1.25
3	TTW+m	MT20	3.0	4.0	
4	TMV+p	MT20	2.0	4.0	
5	TMVW-t	MT20	3.0	4.0	
6	BMVW1-t	MT20	3.0	4.0	
7	BMV+p	MT20	2.0	4.0	
8	BVMWWWW	MT20	6.0	8.0	3.00 2.50
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	HORZ	UPLIFT	IN-SX	IN-SX	
6	285	0		285	0	0			
9	389	0		389	0	0			

UNFACTORED REACTIONS							
JT	1ST LCASE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
6	200	140 / 0		0 / 0	0 / 0	0 / 0	60 / 0
9	271	203 / 0		0 / 0	0 / 0	0 / 0	68 / 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 = 7.81 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FROM	TO		FR-TO			FR-TO	
1-2	0 / 23	-77.3	-77.3	0.10 (1)	10.00	3-8	-58 / 5	0.01 (1)	
2-3	-200 / 0	-77.3	-77.3	0.13 (1)	6.25	8-6	-2 / 0	0.00 (1)	
3-4	-157 / 0	-77.3	-77.3	0.02 (1)	6.25	8-5	0 / 255	0.06 (1)	
4-5	-156 / 0	-77.3	-77.3	0.04 (1)	6.25	2-8	0 / 183	0.04 (1)	
6-5	-266 / 0	0.0	0.0	0.07 (1)	7.81				
9-2	-354 / 0	0.0	0.0	0.04 (1)	7.81				
9-8	0 / 0	-17.5	-17.5	0.09 (4)	10.00				
7-8	0 / 19	0.0	0.0	0.01 (1)	10.00				
8-4	-134 / 0	0.0	0.0	0.01 (1)	7.81				
7-6	0 / 2	-17.5	-17.5	0.02 (4)	10.00				

TOTAL WEIGHT = 33 lb [M]

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 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.13 (2-3:1), BC=0.09 (8-9:4), WB=0.06 (5-8:1), SSI=0.08 (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	MAX
MT20	618	354	1667	822	2284

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.51 (8) (INPUT = 0.90)
JSI METAL= 0.11 (2) (INPUT = 1.00)

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