

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 8
BUILDING DIVISION

TOWN OF MILTON
PLANNING AND DEVELOPMENT
JUNIPER 8 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

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:

- ▼ (2)H2.5A
- HGUS26
- LJS26DS
- ✕ HGUS26-2

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

Model: **JUNIPER 8 EL 1**
Customer: **GREENPARK**
Project: **LECCO RIDGE**
Location: **MILTON**
Date: **3/23/2017** Drawn by: **BB**

ENGINEERING NOTE PAGE (ENP-1)

PLEASE READ PRIOR TO INSTALLATION

RESPONSIBILITIES

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

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

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

USE AND OCCUPANCY

- The building is of the type indicated on the drawing

LOADING

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

HANDLING, INSTALLATION AND BRACING

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

SUPPORTS

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

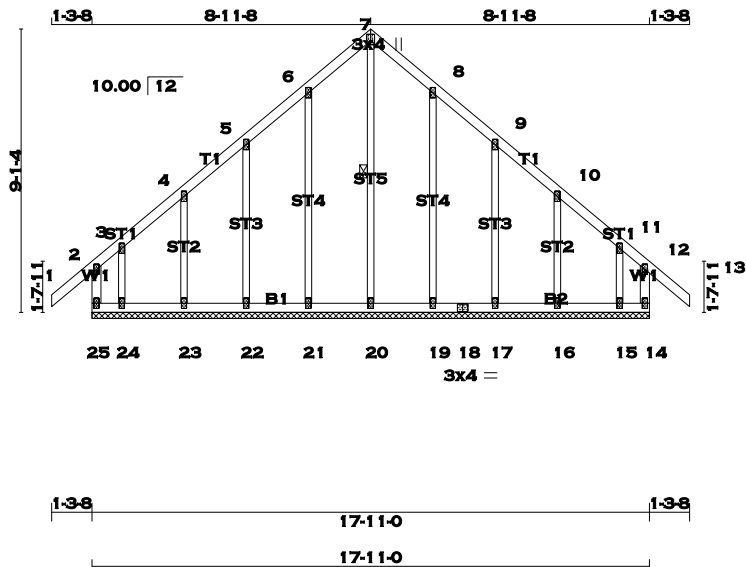
DIMENSIONS

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

WHERE CONTINUOUS LATERAL BRACING IS REQUIRED FOR WEBS BUT CAN NOT BE PROVIDED SUBSTITUTE EACH WITH ONE SPF #2 2" X 4" T-BRACE COVERING 90% OF WEB LENGTH AND FASTENED TO EDGE OF WEB USING 3 1/4" SPIRAL NAILS @ 6" C/C

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01/29/2013



SCALE = 1:74.0

TOTAL WEIGHT = 89 lb
[M]

LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
25 - 2	2x4	DRY	No.2		SPF
1 - 7	2x4	DRY	No.2		SPF
7 - 13	2x4	DRY	No.2		SPF
14 - 12	2x4	DRY	No.2		SPF
25 - 18	2x4	DRY	No.2		SPF
18 - 14	2x4	DRY	No.2		SPF
ALL WEBS 2x3 DRY No.2					SPF
ALL GABLE WEBS 2x3 DRY No.2					SPF
DRY: SEASONED LUMBER.					
GABLE STUDS SPACED AT 2-0-0 OC.					

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
2	TMV+p	MT20	2.0	4.0	
3, 4, 5, 6, 8, 9, 10, 11					
3	TMW+w	MT20	2.0	4.0	
7	TTW+p	MT20	3.0	4.0	2.50 1.50
12	TMV+p	MT20	2.0	4.0	
14	BMV1+p	MT20	2.0	4.0	
15, 16, 17, 19, 20, 21, 22, 23, 24					
15	BMW1+w	MT20	2.0	4.0	
18	BS-t	MT20	3.0	4.0	
25	BMV1+p	MT20	2.0	4.0	

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

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

BEARINGS
THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.
THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

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

ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 7-20. DBS = 20-0-0 . CBF = 23 LBS.

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

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

LOADING

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
25-2	-186 / 0	0.0	0.0 0.02 (1)	7.81	20-7	-188 / 0	0.10 (1)
1-2	0 / 34	-77.3	-77.3 0.11 (1)	10.00	21-6	-160 / 0	0.16 (1)
2-3	-24 / 0	-77.3	-77.3 0.08 (1)	6.25	22-5	-149 / 0	0.08 (1)
3-4	0 / 16	-77.3	-77.3 0.04 (1)	10.00	23-4	-161 / 0	0.04 (1)
4-5	0 / 15	-77.3	-77.3 0.04 (1)	10.00	24-3	-51 / 0	0.01 (1)
5-6	0 / 21	-77.3	-77.3 0.04 (1)	10.00	19-8	-160 / 0	0.16 (1)
6-7	0 / 21	-77.3	-77.3 0.04 (1)	10.00	17-9	-149 / 0	0.08 (1)
7-8	0 / 21	-77.3	-77.3 0.04 (1)	10.00	16-10	-161 / 0	0.04 (1)
8-9	0 / 21	-77.3	-77.3 0.04 (1)	10.00	15-11	-51 / 0	0.01 (1)
9-10	0 / 15	-77.3	-77.3 0.04 (1)	10.00			
10-11	0 / 16	-77.3	-77.3 0.04 (1)	10.00			
11-12	-24 / 0	-77.3	-77.3 0.08 (1)	6.25			
12-13	0 / 34	-77.3	-77.3 0.11 (1)	10.00			
14-12	-186 / 0	0.0	0.0 0.02 (1)	7.81			
25-24	-6 / 0	-17.5	-17.5 0.01 (1)	10.00			
24-23	-8 / 0	-17.5	-17.5 0.01 (4)	10.00			
23-22	-12 / 0	-17.5	-17.5 0.01 (4)	6.25			
22-21	-15 / 0	-17.5	-17.5 0.01 (4)	6.25			
21-20	-17 / 0	-17.5	-17.5 0.01 (4)	6.25			
20-19	-17 / 0	-17.5	-17.5 0.01 (4)	6.25			
19-18	-15 / 0	-17.5	-17.5 0.01 (4)	6.25			
18-17	-15 / 0	-17.5	-17.5 0.01 (4)	6.25			
17-16	-12 / 0	-17.5	-17.5 0.01 (4)	6.25			
16-15	-8 / 0	-17.5	-17.5 0.01 (4)	10.00			
15-14	-6 / 0	-17.5	-17.5 0.01 (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

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

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

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

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

CSI: TC=0.11 (12-13:1) , BC=0.01 (22-23:4) , WB=0.16 (8-19:1) , SSI=0.06 (12-13:1)

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.

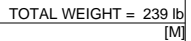
JSI GRIP= 0.70 (7) (INPUT = 0.90)
JSI METAL= 0.06 (7) (INPUT = 1.00)



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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DESIGNATIONS, 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 = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 16-39, 15-40, 14-41, 13-42, 12-43, 11-44, 17-38, 18-36. DBS = 20-0-0 . CBF = 23 LBS.

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

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

LOADING

<u>DESIGN CRITERIA</u>				
SPECIFIED LOADS:				
TOP	CH.	LL	= 23.3	PSF
		DL	= 3.0	PSF
BOT	CH.	LL	= 0.0	PSF
		DL	= 7.0	PSF
TOTAL	LOAD	=	33.3	PSF
<u>SPACING = 24.0 IN./C</u>				
LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 5.0 P.S.F.				
THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010				
THIS TRUSS COMPLIES WITH:				
- PART 9 OF OBC 2012, NBCB 2012 , ABC 2014				
- CSA 086-09				
- TPIC 2011				

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO					
52-2	-203 / 0	0.0	0.0	0.03 (1)	7.81	39-16	-178 / 0
1-2	0 / 23	-77.3	-77.3	0.10 (1)	10.00	40-15	-179 / 0
2-3	-25 / 0	-77.3	-77.3	0.08 (1)	6.25	41-14	-185 / 0
3-4	-4 / 0	-77.3	-77.3	0.04 (1)	10.00	42-13	-178 / 0
4-5	-4 / 0	-77.3	-77.3	0.04 (1)	10.00	43-12	-149 / 0
5-6	-2 / 0	-77.3	-77.3	0.04 (1)	10.00	44-11	-155 / 0
6-7	-2 / 2	-77.3	-77.3	0.04 (1)	10.00	45-10	-154 / 0
7-8	-1 / 4	-77.3	-77.3	0.04 (1)	10.00	46-8	-154 / 0
8-9	-1 / 6	-77.3	-77.3	0.04 (1)	10.00	47-7	-154 / 0
9-10	-1 / 6	-77.3	-77.3	0.04 (1)	10.00	48-6	-154 / 0
10-11	-1 / 7	-77.3	-77.3	0.04 (1)	10.00	49-5	-151 / 0
11-12	0 / 10	-77.3	-77.3	0.04 (1)	10.00	50-4	-163 / 0
12-13	0 / 13	-77.3	-77.3	0.04 (1)	10.00	51-3	-105 / 0
13-14	0 / 11	-89.8	-89.8	0.04 (1)	10.00	38-17	-154 / 0
14-53	0 / 11	-89.8	-89.8	0.04 (1)	10.00	36-18	-155 / 0
53-15	0 / 11	-89.8	-89.8	0.04 (1)	10.00	35-20	-154 / 0
15-16	0 / 11	-89.8	-89.8	0.04 (1)	10.00	34-21	-154 / 0
16-17	0 / 14	-77.3	-77.3	0.04 (1)	10.00	33-22	-154 / 0
17-18	0 / 11	-77.3	-77.3	0.04 (1)	10.00	32-23	-154 / 0

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

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

CSI: TC=0.10 (1-2:1) , BC=0.03 (51-52:1) , WB=0.19 (10-45:1) , SSI=0.07 (13-14:1)

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	

19-20	0 / 10	-77.3	-77.3	0.04 (1)	6.25	30-25	-158 / 0	0.03 (1)
20-21	0 / 9	-77.3	-77.3	0.04 (1)	6.25	29-26	-126 / 0	0.02 (1)
21-22	0 / 7	-77.3	-77.3	0.04 (1)	10.00			
22-23	-1 / 5	-77.3	-77.3	0.04 (1)	10.00			
23-24	-1 / 3	-77.3	-77.3	0.04 (1)	10.00			
24-25	-2 / 0	-77.3	-77.3	0.04 (1)	10.00			
25-26	-3 / 0	-77.3	-77.3	0.04 (1)	10.00			
26-27	-5 / 0	-77.3	-77.3	0.03 (1)	10.00			
28-27	-38 / 0	0.0	0.0	0.01 (1)	7.81			
52-51	0 / 11	-17.5	-17.5	0.03 (1)	10.00			
51-50	0 / 7	-17.5	-17.5	0.01 (4)	10.00			
50-49	0 / 3	-17.5	-17.5	0.01 (4)	10.00			
49-48	0 / 2	-17.5	-17.5	0.01 (4)	10.00			
48-47	-2 / 1	-17.5	-17.5	0.01 (4)	10.00			
47-46	-4 / 1	-17.5	-17.5	0.01 (4)	10.00			
46-45	-5 / 1	-17.5	-17.5	0.01 (4)	10.00			
45-44	-6 / 0	-17.5	-17.5	0.01 (4)	10.00			
44-43	-9 / 0	-17.5	-17.5	0.01 (4)	10.00			
43-42	-10 / 0	-17.5	-17.5					
42-41	-11 / 0	-17.5	-17.5					
41-40	-11 / 0	-17.5	-17.5					
40-39	-11 / 0	-17.5	-17.5					
39-38	-11 / 0	-17.5	-17.5					
38-37	-10 / 0	-17.5	-17.5					


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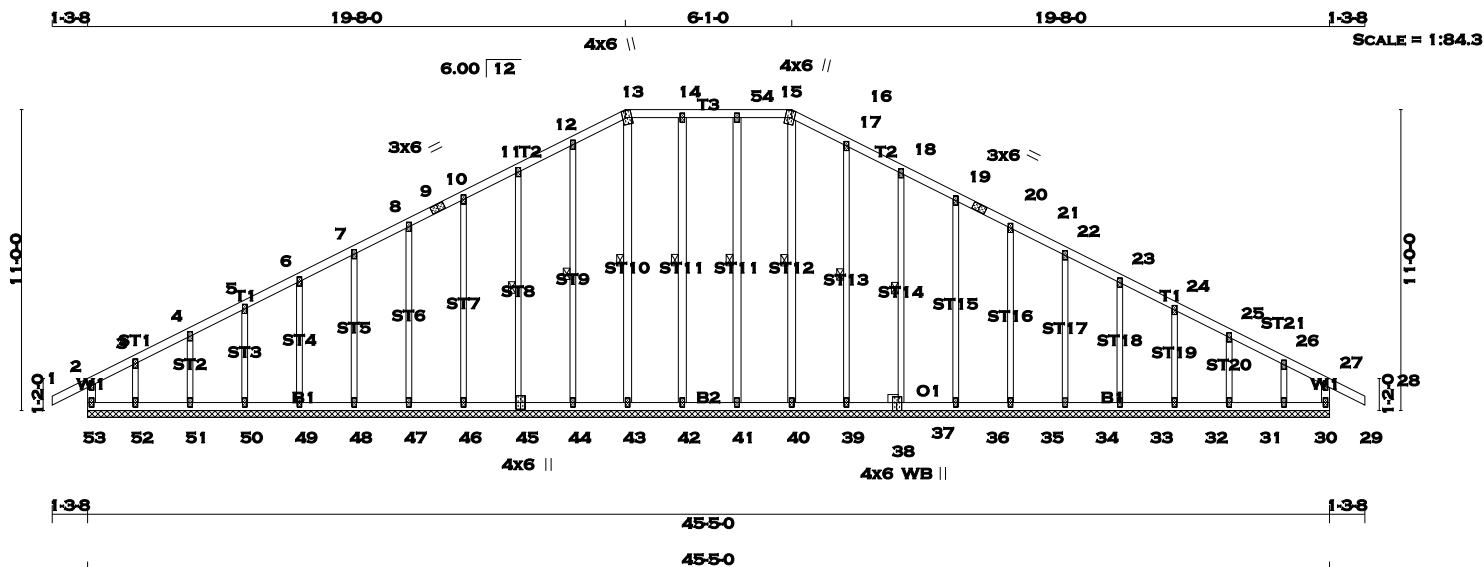
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.46 (16) (INPUT = 0.90)
JSI METAL= 0.06 (44) (INPUT = 1.00)

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 **KOTT**
COMMUNITY DEVELOPMENT



TOTAL WEIGHT = 242 lb
[M]

LUMBER		N. L. G. A. RULES		CHORDS		SIZE		LUMBER		DESCR.	
53 -	2	2x4	DRY	No.2	SPF						
1 -	9	2x4	DRY	No.2	SPF						
9 -	13	2x4	DRY	No.2	SPF						
13 -	16	2x4	DRY	No.2	SPF						
16 -	20	2x4	DRY	No.2	SPF						
20 -	28	2x4	DRY	No.2	SPF						
29 -	27	2x4	DRY	No.2	SPF						
53 -	45	2x4	DRY	No.2	SPF						
45 -	38	2x4	DRY	No.2	SPF						
38 -	29	2x4	DRY	No.2	SPF						

ALL WEBS EXCEPT	2x3	DRY	No.2	SPF							
40 - 16	2x4	DRY	No.2	SPF							
41 - 15	2x4	DRY	No.2	SPF							
42 - 14	2x4	DRY	No.2	SPF							
43 - 13	2x4	DRY	No.2	SPF							

ALL GABLE WEBS EXCEPT	2x3	DRY	No.2	SPF							
ST2	2x4	DRY	No.2	SPF							
ST3	2x4	DRY	No.2	SPF							
ST4	2x4	DRY	No.2	SPF							
ST5	2x4	DRY	No.2	SPF							

DRY: SEASONED LUMBER.

GABLE STUDS SPACED AT 2-0-0 OC.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
2	TMV+p	MT20	2.0	4.0		
3, 4, 5, 6, 7, 8, 10, 11, 12, 14, 15, 17, 18, 19, 21, 22, 23, 24, 25, 26						
3	TMW+w	MT20	2.0	4.0		
9	TS-t	MT20	3.0	6.0		
13	TTW+m	MT20	4.0	6.0	Edge 1.25	
16	TTW+m	MT20	4.0	6.0	Edge 1.25	
20	TS-t	MT20	3.0	6.0		
27	TMV+p	MT20	2.0	4.0		
29	BMV1+p	MT20	2.0	4.0		
30, 31, 32, 33, 34, 35, 36, 39, 40, 41, 42, 43, 44, 46, 47, 48, 49, 50, 51, 52						
30	BMW1+w	MT20	2.0	4.0		
37						
37	BBW1+i	MT20	4.0	6.0	1.75	
38						
45	BSW1+i	MT20	4.0	6.0		

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 = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 16-40, 15-41, 14-42, 13-43, 12-44, 11-45, 17-39, 18-37. DBS = 20-0-0 . CBF = 23 LBS.

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	FACTORED UNBRACED LENGTH FR-TO
FR-TO		FROM TO		FR-TO			
53-2	-195 / 0	0.0	0.0 0.02 (1)	7.81	40-16	-182 / 0	0.11 (1)
1-2	0 / 23	-77.3	-77.3 0.10 (1)	10.00	41-15	-179 / 0	0.11 (1)
2-3	-12 / 0	-77.3	-77.3 0.07 (1)	6.25	42-14	-185 / 0	0.12 (1)
3-4	-2 / 7	-77.3	-77.3 0.04 (1)	10.00	43-13	-182 / 0	0.11 (1)
4-5	-2 / 7	-77.3	-77.3 0.04 (1)	10.00	44-12	-149 / 0	0.10 (1)
5-6	-1 / 11	-77.3	-77.3 0.04 (1)	10.00	45-11	-155 / 0	0.08 (1)
6-7	0 / 13	-77.3	-77.3 0.04 (1)	10.00	46-10	-154 / 0	0.19 (1)
7-8	0 / 15	-77.3	-77.3 0.04 (1)	10.00	47-8	-154 / 0	0.13 (1)
8-9	0 / 17	-77.3	-77.3 0.04 (1)	10.00	48-7	-154 / 0	0.09 (1)
9-10	0 / 17	-77.3	-77.3 0.04 (1)	10.00	49-6	-154 / 0	0.06 (1)
10-11	0 / 19	-77.3	-77.3 0.04 (1)	10.00	50-5	-151 / 0	0.04 (1)
11-12	0 / 21	-77.3	-77.3 0.04 (1)	10.00	51-4	-162 / 0	0.03 (1)
12-13	0 / 24	-77.3	-77.3 0.04 (1)	10.00	52-3	-109 / 0	0.02 (1)
13-14	0 / 22	-89.8	-89.8 0.05 (1)	10.00	39-17	-154 / 0	0.11 (1)
14-54	0 / 22	-89.8	-89.8 0.05 (1)	10.00	37-18	-154 / 0	0.08 (1)
54-15	0 / 22	-89.8	-89.8 0.05 (1)	10.00	36-19	-154 / 0	0.19 (1)
15-16	0 / 22	-89.8	-89.8 0.04 (1)	10.00	35-21	-154 / 0	0.13 (1)
16-17	0 / 25	-77.3	-77.3 0.04 (1)	10.00	34-22	-154 / 0	0.09 (1)
17-18	0 / 23	-77.3	-77.3 0.04 (1)	10.00	33-23	-154 / 0	0.06 (1)
18-19	0 / 22	-77.3	-77.3 0.04 (1)	10.00	32-24	-151 / 0	0.04 (1)
19-20	0 / 20	-77.3	-77.3 0.04 (1)	10.00	31-25	-162 / 0	0.03 (1)
20-21	0 / 20	-77.3	-77.3 0.04 (1)	10.00	30-26	-104 / 0	0.02 (1)
21-22	0 / 19	-77.3	-77.3 0.04 (1)	10.00			
22-23	0 / 17	-77.3	-77.3 0.04 (1)	10.00			
23-24	0 / 14	-77.3	-77.3 0.04 (1)	10.00			
24-25	-1 / 10	-77.3	-77.3 0.04 (1)	10.00			
25-26	-1 / 10	-77.3	-77.3 0.04 (1)	10.00			
26-27	-9 / 0	-77.3	-77.3 0.07 (1)	10.00			
27-28	0 / 23	-77.3	-77.3 0.10 (1)	10.00			
29-27	-191 / 0	0.0	0.0 0.02 (1)	7.81			

53-52	0 / 2	-17.5	-17.5 0.02 (1)	10.00		
52-51	-3 / 2	-17.5	-17.5 0.01 (4)	10.00		
51-50	-7 / 1	-17.5	-17.5 0.01 (4)	10.00		
50-49	-10 / 1	-17.5	-17.5 0.01 (4)	10.00		
49-48	-12 / 0	-17.5	-17.5 0.01 (4)	6.25		
48-47	-14 / 0	-17.5	-17.5 0.01 (4)	6.25		
47-46	-15 / 0	-17.5	-17.5 0.01 (4)	6.25		
46-45	-17 / 0	-17.5	-17.5 0.01 (4)	6.25		
45-44	-19 / 0	-17.5	-17.5 0.01 (4)	6.25		
44-43	-20 / 0	-17.5	-17.5 0.01 (4)	6.25		
43-42	-22 / 0	-17.5	-17.5 0.01 (4)	6.25		
42-41	-22 / 0	-17.5	-17.5 0.01 (4)	6.25		
41-40	-22 / 0	-17.5	-17.5 0.01 (4)	6.25		
40-39	-22 / 0	-17.5	-17.5 0.01 (4)	6.25		

DESIGN CRITERIA

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

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 5.0 P.S.F.

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

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

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

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

CSI: TC=0.10 (27-28:1) , BC=0.02 (52-53:1) , WB=0.19 (10-46:1) , SSI=0.07 (13-14:1)

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= 0.46 (16) (INPUT = 0.90)
JSI METAL= 0.06 (45) (INPUT = 1.00)

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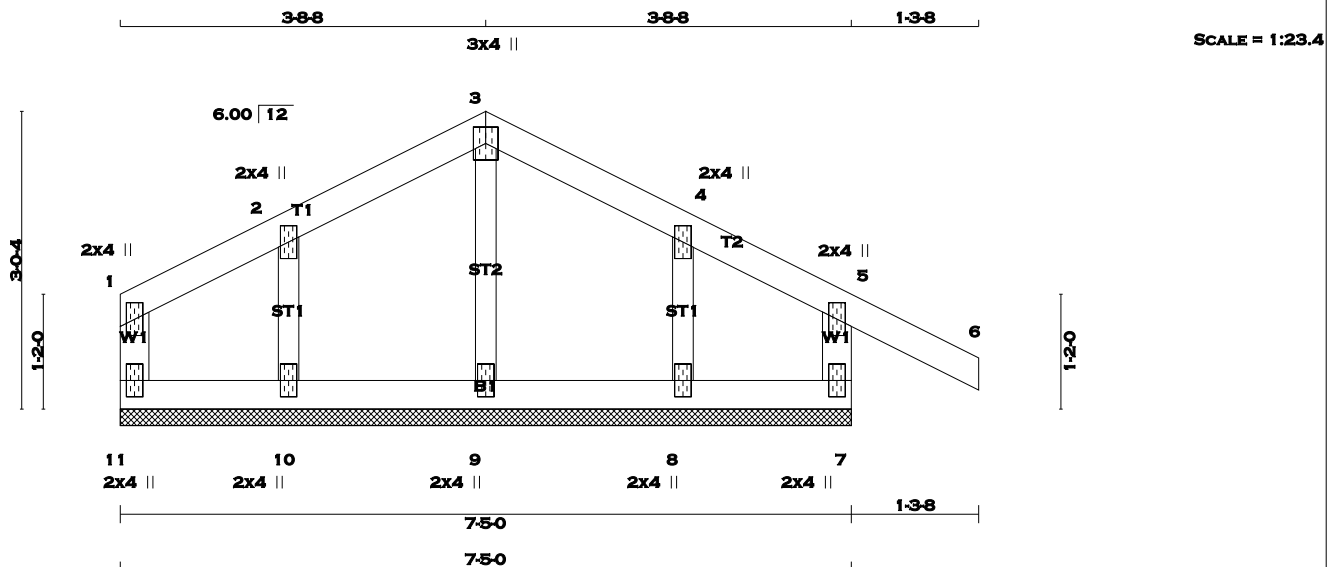
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CITY OF MILTON

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 = 26 lb [M]

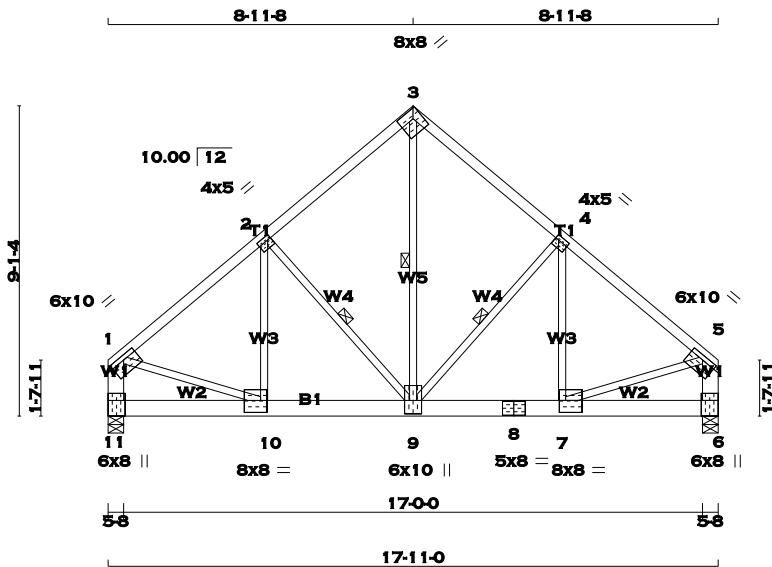
LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. 11 - 1 2x4 DRY No.2 SPF 1 - 3 2x4 DRY No.2 SPF 3 - 6 2x4 DRY No.2 SPF 7 - 5 2x4 DRY No.2 SPF 11 - 7 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF ALL GABLE WEBS 2x3 DRY No.2 SPF DRY: SEASONED LUMBER. GABLE STUDS SPACED AT 2-0-0 OC.						DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS. THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE. BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 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)						DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 23.3 PSF DL = 3.0 PSF BOT CH. LL = 0.0 PSF DL = 7.0 PSF TOTAL LOAD = 33.3 PSF SPACING = 24.0 IN. C/C THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010 THIS DESIGN COMPLIES WITH: - PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014 - CSA 086-09 - TPIC 2011 DESIGN ASSUMPTIONS -OVERHANG NOT TO BE ALTERED OR CUT OFF. (55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD CSI: TC=0.10 (5-6:1) , BC=0.02 (7-8:1) , WB=0.03 (3-9:1) , SSI=0.07 (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 MIN MT20 618 354 1667 822 2284 1656 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.11 (5) (INPUT = 0.90) JSI METAL= 0.07 (3) (INPUT = 1.00)					
PLATES (table is in inches)																	
JT	TYPE	PLATES	W	LEN	Y	X											
1	TMV+p	MT20	2.0	4.0													
2	TMW+w	MT20	2.0	4.0													
3	TTW+p	MT20	3.0	4.0													
4	TMW+w	MT20	2.0	4.0													
5	TMV+p	MT20	2.0	4.0													
7	BMV1+p	MT20	2.0	4.0													
8, 9, 10																	
8	BMW1+w	MT20	2.0	4.0													
11	BMV1+p	MT20	2.0	4.0													
A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.																	



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

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WHERE CONTINUOUS LATERAL BRACING IS REQUIRED FOR WEBS BUT CAN NOT BE PROVIDED SUBSTITUTE EACH WITH ONE SPF #2 2" X 4" T-BRACE COVERING 90% OF WEB LENGTH AND FASTENED TO EDGE OF WEB USING 3 1/4" SPIRAL NAILS @ 6" C/C

TOTAL WEIGHT = 3 X 95 = 285 lb

LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
1 - 3	2x4	DRY	No.2
3 - 5	2x4	DRY	No.2
11 - 1	2x6	DRY	No.2
6 - 5	2x6	DRY	No.2
11 - 8	2x6	DRY	2100F 1.8E
8 - 6	2x6	DRY	2100F 1.8E

ALL WEBS 2x3 DRY No.2 SPF EXCEPT

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
1-3	12	TOP
3-5	12	TOP
11-1	12	TOP
6-5	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
11-8	3	SIDE(1098.2)
8-6	4	SIDE(1098.2)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	6	

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

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

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

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
1	TMVW-t	MT20	6.0	10.0	1.50 5.00
2	TMVW-t	MT20	4.0	5.0	1.50 1.25
3	TTW-h	MT20	8.0	8.0	3.00 5.00
4	TMVW-t	MT20	4.0	5.0	1.50 1.25
5	TMVW-t	MT20	6.0	10.0	1.50 5.00

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
11	15439	0	15874	-331	-2795	5-8	
6	15439	0	15874	0	-2795	5-8	

PROVIDE ANCHORAGE AT BEARING JOINT 11 FOR 2795 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 6 FOR 2795 LBS FACTORED UPLIFT

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

PROVIDE FOR 331 LBS FACTORED HORIZONTAL REACTION AT JOINT 11

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
11	12136	7456 / 0	2128 / 0	0 / 0	3748 / -3638	2553 / 0	0 / 0
6	12136	7456 / 0	2128 / 0	0 / 0	3748 / -3638	2553 / 0	0 / 0

HORIZONTAL REACTIONS

11	---	0 / 0	0 / 0	0 / 0	236 / -236	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 11, 6

BRACING

MAX. UNBRACED TOP CHORD LENGTH = 2.98 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 - 2x4 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 3-9. DBS = 4-0-0. CBF = 166 LBS.
1 - 2x4 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 4-9, 2-9. DBS = 6-0-0. CBF = 162 LBS.

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

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

LOADING

TOTAL LOAD CASES: (18)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LC1 MAX. CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO		LENGTH	FR-TO		
1-2	-14710 / 2640	-102.7 -102.7	0.55 (2)	2.98	9-3	-2573 / 13698	1.00 (1)
2-3	-11049 / 2137	-102.7 -102.7	0.32 (2)	3.55	9-4	-4411 / 1027	0.43 (3)
3-4	-11049 / 2137	-102.7 -102.7	0.32 (3)	3.55	7-4	-864 / 5239	0.38 (2)
4-5	-14710 / 2640	-102.7 -102.7	0.55 (3)	2.98	2-9	-4411 / 1027	0.43 (2)
11-1	-12656 / 2268	0.0	0.0 0.28 (1)	5.32	10-2	-864 / 5239	0.38 (3)
6-5	-12656 / 2268	0.0	0.0 0.28 (1)	5.32	1-10	-2014 / 11707	0.85 (1)
11-10	-309 / 321	-1620.7 -1620.7	0.37 (1)	6.25	7-5	-2013 / 11707	0.85 (1)
10-9	-2044 / 11365	-1620.7 -1620.7	0.50 (1)	6.25			
9-8	-1924 / 11312	-1620.7 -1620.7	0.50 (1)	6.25			
8-7	-1924 / 11312	-1620.7 -1620.7	0.50 (1)	6.25			
7-6	-10 / 22	-1620.7 -1620.7	0.37 (1)	6.25			

TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING
AS PER NBCC 4.1.6.2.(8)

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT (25-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE WIND PRESSURE IS BASED ON DESIG (OPEN TERRAIN), AND TRUSS IS DESIG FROM EAVE.

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

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	30.1	PSF
	DL	=	5.0	PSF
BOT CH.	LL	=	10.0	PSF
	DL	=	7.0	PSF
TOTAL LOAD	=	52.1	PSF	

SPACING = 24.0 IN.C/C

GIRDER TYPE: CStdGirder

START DISTANCE = 0-0
START SPAN CARRIED = 45-11-8
END DISTANCE = 17-11-0
END SPAN CARRIED = 45-11-8
END WALL WIDTH = 5-8
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 100 % OF GSL.

THIS TRUSS IS DESIGNED FOR COMMERCIAL OR INDUSTRIAL BUILDING REQUIREMENTS OF PART 4, NBCC 2010

THIS DESIGN COMPLIES WITH:

- PART 4 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

DESIGN ASSUMPTIONS

- SLOPE REDUCTION FACTOR NOT USED

(80 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) TIMES IMPORTANCE FACTOR EQUALS 30.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.60")
CALCULATED VERT. DEFL.(LL) = L/999 (0.12")
ALLOWABLE DEFL.(TL)= L/180 (1.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.16")

CSI: TC=0.55 (1-2:2) , BC=0.50 (9-10:1) , WB=1.00 (3-9:1) , SSI=0.86 (6-7:2)

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

SNOW LOAD IMPORTANCE FACTOR = 1.00
WIND LOAD IMPORTANCE FACTOR = 1.00
LIVE LOAD IMPORTANCE FACTOR = 1.00
COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

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

MAX MIN MAX MIN MAX MIN

MT20 618 354

PLATE PLACEMENT

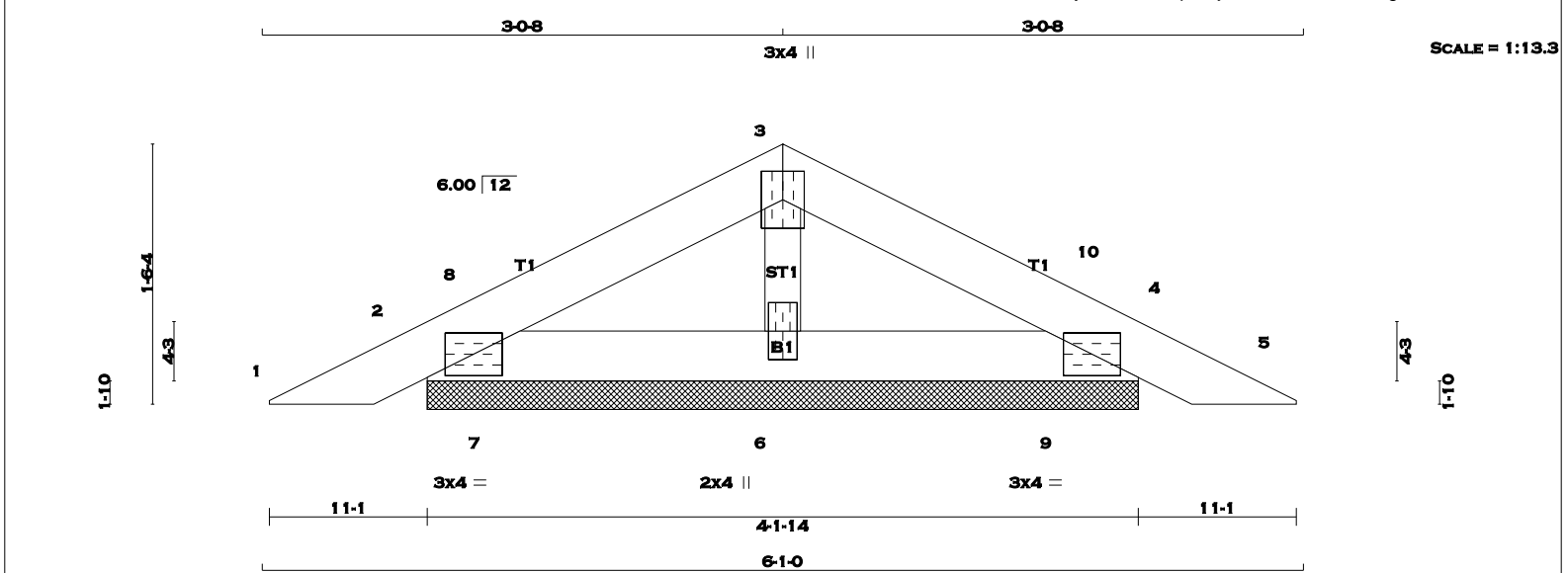
PLATE ROTATION

JSI GRIP= 0.90 (5)

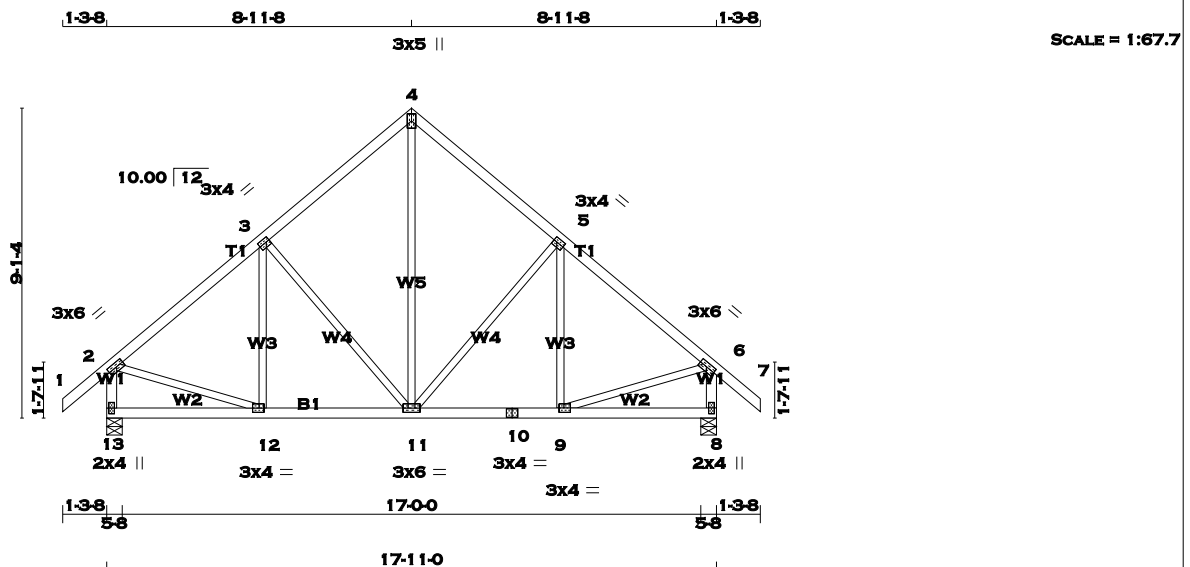
JSI METAL= 0.83 (5)

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LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. 1 - 3 2x4 DRY No.2 SPF 3 - 5 2x4 DRY No.2 SPF 2 - 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></th><th>FACTORED GROSS REACTION</th><th>MAXIMUM FACTORED GROSS REACTION</th><th>INPUT BRG</th><th>REQRD BRG</th></tr><tr><th>JT</th><th>VERT</th><th>HORZ</th><th>DOWN</th><th>HORZ</th></tr><tr><td>2</td><td>227</td><td>0</td><td>255</td><td>35</td></tr><tr><td>4</td><td>227</td><td>0</td><td>255</td><td>0</td></tr><tr><td>6</td><td>265</td><td>0</td><td>265</td><td>0</td></tr></table> <u>PROVIDE ANCHORAGE AT BEARING JOINT 2 FOR 150 LBS FACTORED UPLIFT</u> <u>PROVIDE ANCHORAGE AT BEARING JOINT 4 FOR 150 LBS FACTORED UPLIFT</u> <u>PROVIDE ANCHORAGE AT BEARING JOINT 6 FOR 150 LBS FACTORED UPLIFT</u> <u>PROVIDE FOR 35 LBS FACTORED HORIZONTAL REACTION AT JOINT 2</u> UNFACTORED REACTIONS <table><tr><th>JT</th><th>1ST LCASE</th><th>SNOW</th><th>MAX./MIN. LIVE</th><th>PERM.LIVE</th><th>WIND</th><th>DEAD</th><th>SOIL</th></tr><tr><td>2</td><td>168</td><td>138 / 0</td><td>18 / 0</td><td>0 / 0</td><td>0 / -78</td><td>32 / 0</td><td>0 / 0</td></tr><tr><td>4</td><td>168</td><td>138 / 0</td><td>18 / 0</td><td>0 / 0</td><td>4 / -82</td><td>32 / 0</td><td>0 / 0</td></tr><tr><td>6</td><td>217</td><td>117 / 0</td><td>48 / 0</td><td>0 / 0</td><td>10 / -65</td><td>53 / 0</td><td>0 / 0</td></tr></table> HORIZONTAL REACTIONS 2 --- 0 / 0 0 / 0 25 / -25 0 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 2, 4, 6 BRACING MAX. UNBRACED TOP CHORD LENGTH = 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: (18) <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. UNBRACED LENGTH</th><th>MEMB.</th><th>MAX. FACTORED FORCE (LBS)</th><th>MAX. UNBRACED LENGTH</th><th></th></tr><tr><td>FR-TO</td><td></td><td></td><td></td><td>FR-TO</td><td></td><td></td><td></td></tr><tr><td>1-2</td><td>0 / 21</td><td>-102.7</td><td>0.06 (2)</td><td>10.00</td><td>6-3</td><td>-133 / 35</td><td>0.02 (1)</td></tr><tr><td>2-8</td><td>-43 / 22</td><td>-102.7</td><td>0.01 (17)</td><td>6.25</td><td>7-8</td><td>-121 / 86</td><td>0.00 (1)</td></tr><tr><td>8-3</td><td>-45 / 52</td><td>-102.7</td><td>0.06 (2)</td><td>6.25</td><td>9-10</td><td>-121 / 86</td><td>0.00 (1)</td></tr><tr><td>3-10</td><td>-44 / 41</td><td>-102.7</td><td>0.06 (3)</td><td>6.25</td><td></td><td></td><td></td></tr><tr><td>10-4</td><td>-42 / 8</td><td>-102.7</td><td>0.01 (17)</td><td>6.25</td><td></td><td></td><td></td></tr><tr><td>4-5</td><td>0 / 21</td><td>-102.7</td><td>0.06 (3)</td><td>10.00</td><td></td><td></td><td></td></tr><tr><td>2-7</td><td>0 / 41</td><td>-27.5</td><td>-27.5</td><td>0.06 (2)</td><td>10.00</td><td></td><td></td></tr><tr><td>7-6</td><td>0 / 41</td><td>-27.5</td><td>-27.5</td><td>0.06 (2)</td><td>10.00</td><td></td><td></td></tr><tr><td>6-9</td><td>0 / 41</td><td>-27.5</td><td>-27.5</td><td>0.06 (3)</td><td>10.00</td><td></td><td></td></tr><tr><td>9-4</td><td>0 / 41</td><td>-27.5</td><td>-27.5</td><td>0.06 (3)</td><td>10.00</td><td></td><td></td></tr></table> <u>TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING AS PER NBCC 4.1.6.2.(8)</u> WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 9.0 } PSF AT {25-0-0} FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE {MAIN WIND FORCE RESISTING SYSTEM}.INTERNAL WIND PRESSURE IS BASED ON DESIGN {CATEGORY 2}. BUILDING MAY BE LOCATED ON {OPEN TERRAIN}, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST {0-0} FT-IN-SX AWAY FROM EAVE.								FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG	JT	VERT	HORZ	DOWN	HORZ	2	227	0	255	35	4	227	0	255	0	6	265	0	265	0	JT	1ST LCASE	SNOW	MAX./MIN. LIVE	PERM.LIVE	WIND	DEAD	SOIL	2	168	138 / 0	18 / 0	0 / 0	0 / -78	32 / 0	0 / 0	4	168	138 / 0	18 / 0	0 / 0	4 / -82	32 / 0	0 / 0	6	217	117 / 0	48 / 0	0 / 0	10 / -65	53 / 0	0 / 0	CHORDS				WEBS				MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH		FR-TO				FR-TO				1-2	0 / 21	-102.7	0.06 (2)	10.00	6-3	-133 / 35	0.02 (1)	2-8	-43 / 22	-102.7	0.01 (17)	6.25	7-8	-121 / 86	0.00 (1)	8-3	-45 / 52	-102.7	0.06 (2)	6.25	9-10	-121 / 86	0.00 (1)	3-10	-44 / 41	-102.7	0.06 (3)	6.25				10-4	-42 / 8	-102.7	0.01 (17)	6.25				4-5	0 / 21	-102.7	0.06 (3)	10.00				2-7	0 / 41	-27.5	-27.5	0.06 (2)	10.00			7-6	0 / 41	-27.5	-27.5	0.06 (2)	10.00			6-9	0 / 41	-27.5	-27.5	0.06 (3)	10.00			9-4	0 / 41	-27.5	-27.5	0.06 (3)	10.00			DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 30.1 PSF DL = 5.0 PSF BOT CH. LL = 10.0 PSF DL = 7.0 PSF TOTAL LOAD = 52.1 PSF SPACING = 24.0 IN. C/C THIS TRUSS IS DESIGNED FOR COMMERCIAL OR INDUSTRIAL BUILDING REQUIREMENTS OF PART 4, NBCC 2010 THIS DESIGN COMPLIES WITH: - PART 4 OF OBC 2012, BCBC 2012, ABC 2014 - CSA 086-09 - TPIC 2011 DESIGN ASSUMPTIONS - SLOPE REDUCTION FACTOR NOT USED (80 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) TIMES IMPORTANCE FACTOR EQUALS 30.1 P.S.F. SPECIFIED ROOF LIVE LOAD CSI: TC=0.06 (1-2:2), BC=0.06 (2-7:2), WB=0.02 (3-6:1), SSI=0.09 (2-7:2) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10 SNOW LOAD IMPORTANCE FACTOR = 1.00 WIND LOAD IMPORTANCE FACTOR = 1.00 LIVE LOAD IMPORTANCE FACTOR = 1.00 COMPANION LIVE LOAD FACTOR = 0.50 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT . NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 618 354 1667 822 2284 1656 PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.18 (2) (INPUT = 0.90) JSI METAL= 0.04 (3) (INPUT = 1.00)						
	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG																																																																																																																																																																																	
JT	VERT	HORZ	DOWN	HORZ																																																																																																																																																																																	
2	227	0	255	35																																																																																																																																																																																	
4	227	0	255	0																																																																																																																																																																																	
6	265	0	265	0																																																																																																																																																																																	
JT	1ST LCASE	SNOW	MAX./MIN. LIVE	PERM.LIVE	WIND	DEAD	SOIL																																																																																																																																																																														
2	168	138 / 0	18 / 0	0 / 0	0 / -78	32 / 0	0 / 0																																																																																																																																																																														
4	168	138 / 0	18 / 0	0 / 0	4 / -82	32 / 0	0 / 0																																																																																																																																																																														
6	217	117 / 0	48 / 0	0 / 0	10 / -65	53 / 0	0 / 0																																																																																																																																																																														
CHORDS				WEBS																																																																																																																																																																																	
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH																																																																																																																																																																															
FR-TO				FR-TO																																																																																																																																																																																	
1-2	0 / 21	-102.7	0.06 (2)	10.00	6-3	-133 / 35	0.02 (1)																																																																																																																																																																														
2-8	-43 / 22	-102.7	0.01 (17)	6.25	7-8	-121 / 86	0.00 (1)																																																																																																																																																																														
8-3	-45 / 52	-102.7	0.06 (2)	6.25	9-10	-121 / 86	0.00 (1)																																																																																																																																																																														
3-10	-44 / 41	-102.7	0.06 (3)	6.25																																																																																																																																																																																	
10-4	-42 / 8	-102.7	0.01 (17)	6.25																																																																																																																																																																																	
4-5	0 / 21	-102.7	0.06 (3)	10.00																																																																																																																																																																																	
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7-6	0 / 41	-27.5	-27.5	0.06 (2)	10.00																																																																																																																																																																																
6-9	0 / 41	-27.5	-27.5	0.06 (3)	10.00																																																																																																																																																																																
9-4	0 / 41	-27.5	-27.5	0.06 (3)	10.00																																																																																																																																																																																
<div><div><div>LICENSED PROFESSIONAL ENGINEER</div><div>REMY TREVISAN</div><div>100136551</div><div>March 23rd, 2017</div><div>PROVINCE OF ONTARIO</div></div></div>							<div><div>RECEIVED</div><div>TOWN OF MILTON</div><div>MAR 29, 2017</div><div>JUNIPER 8</div><div>BUILDING DIVISION</div></div> <div>READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.</div> <div></div>																																																																																																																																																																														



TOTAL WEIGHT = 2 X 87 = 173 lb
[M][F]

LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
1 - 4	2x4	DRY	No.2		SPF
4 - 7	2x4	DRY	No.2		SPF
13 - 2	2x4	DRY	No.2		SPF
8 - 6	2x4	DRY	No.2		SPF
13 - 10	2x4	DRY	No.2		SPF
10 - 8	2x4	DRY	No.2		SPF
ALL WEBS 2x3 DRY No.2 EXCEPT					SPF
DRY: SEASONED LUMBER.					

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
2	TMVW-t	MT20	3.0	6.0	1.50	2.75
3	TMVW-t	MT20	3.0	4.0	1.50	1.25
4	TTW+p	MT20	3.0	5.0		
5	TMVW-t	MT20	3.0	4.0	1.50	1.25
6	TMVW-t	MT20	3.0	6.0	1.50	2.75
8	BMV1+p	MT20	2.0	4.0		
9	BMVW-t	MT20	3.0	4.0	1.50	1.75
10	BS-t	MT20	3.0	4.0		
11	BMVW-t	MT20	3.0	6.0		
12	BMVW-t	MT20	3.0	4.0	1.50	1.75
13	BMV1+p	MT20	2.0	4.0		

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

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

BEARINGS		FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
13	957	0	957	0	0
8	957	0	957	0	0

UNFACTORED REACTIONS							
JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS					
13	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
13	669	482 / 0	0 / 0	0 / 0	0 / 0	187 / 0	0 / 0
8	669	482 / 0	0 / 0	0 / 0	0 / 0	187 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 13, 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					W E B S				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (LBS)	LC1 MAX (PLF)	LC1 MAX (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (LBS)	LC1 MAX (PLF)	LC1 MAX (LC)
FR-TO		FROM	TO		FR-TO		FROM	TO	
1-2	0 / 34	-77.3	-77.3	0.11 (1)	10.00	11-4	0 / 474	0.11 (1)	
2-3	-765 / 0	-77.3	-77.3	0.20 (1)	6.25	11-5	-264 / 0	0.22 (1)	
3-4	-596 / 0	-77.3	-77.3	0.20 (1)	6.25	9-5	-86 / 49	0.04 (1)	
4-5	-596 / 0	-77.3	-77.3	0.20 (1)	6.25	3-11	-264 / 0	0.22 (1)	
5-6	-765 / 0	-77.3	-77.3	0.20 (1)	6.25	12-3	-86 / 49	0.04 (1)	
6-7	0 / 34	-77.3	-77.3	0.11 (1)	10.00	2-12	0 / 632	0.14 (1)	
13-2	-923 / 0	0.0	0.0	0.10 (1)	7.81	9-6	0 / 632	0.14 (1)	
8-6	-923 / 0	0.0	0.0	0.10 (1)	7.81				
13-12	0 / 0	-17.5	-17.5	0.08 (4)	10.00				
12-11	0 / 608	-17.5	-17.5	0.14 (1)	10.00				
11-10	0 / 608	-17.5	-17.5	0.14 (1)	10.00				
10-9	0 / 608	-17.5	-17.5	0.14 (1)	10.00				
9-8	0 / 0	-17.5	-17.5	0.08 (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 (0.60")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.60")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.20 (2-3:1) , BC=0.14 (11-12:1) , WB=0.22 (3-11:1) , 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 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.

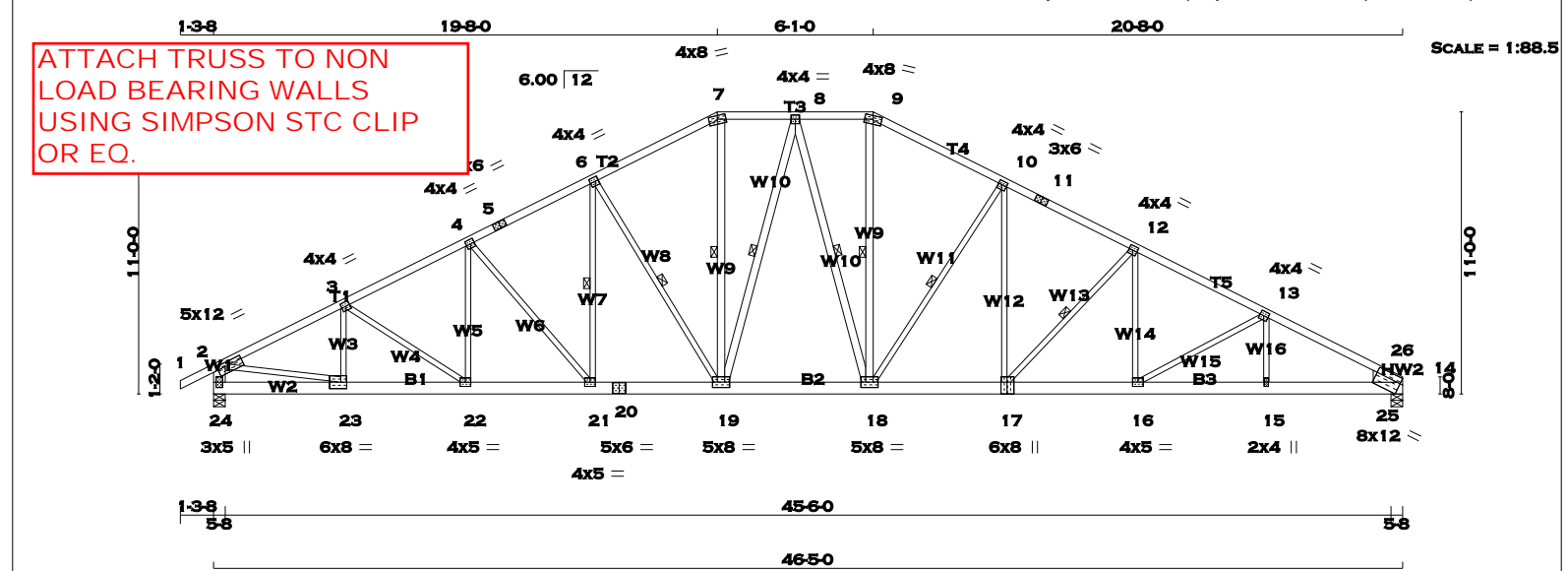
JSI GRIP= 0.90 (9) (INPUT = 0.90)
JSI METAL= 0.24 (2) (INPUT = 1.00)



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.

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 8
BUILDING DIVISION





TOTAL WEIGHT = 3 X 259 = 777 lb [M]

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
1 - 5	2x4	DRY	No.2
5 - 7	2x4	DRY	No.2
7 - 9	2x4	DRY	No.2
9 - 11	2x4	DRY	No.2
11 - 14	2x4	DRY	No.2
24 - 2	2x6	DRY	No.2
24 - 20	2x6	DRY	No.2
20 - 17	2x6	DRY	No.2
17 - 14	2x6	DRY	No.2
ALL WEBS EXCEPT	2x3	DRY	No.2
19 - 7	2x4	DRY	No.2
19 - 8	2x4	DRY	No.2
8 - 18	2x4	DRY	No.2
18 - 9	2x4	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
2	TMVW-t	MT20	5.0	12.0	1.75 3.75
3, 4, 12, 13					
3	TMWW-t	MT20	4.0	4.0	2.00 1.75
5	TS-t	MT20	3.0	6.0	
6	TMWW-t	MT20	4.0	4.0	2.00 1.50
7	TTW-m	MT20	4.0	8.0	1.75 4.00
8	TMWW-t	MT20	4.0	4.0	
9	TTW-m	MT20	4.0	8.0	1.75 4.00
10	TMWW-t	MT20	4.0	4.0	1.75 1.50
11	TS-t	MT20	3.0	6.0	
14	TMBH1-h	MT20	8.0	12.0	2.75 Edge
15	BMW-w	MT20	2.0	4.0	
16, 21, 22					
16	BMWW-t	MT20	4.0	5.0	
17	BSWW-h	MT20	6.0	8.0	Edge 2.75
18	BMWWW-t	MT20	5.0	8.0	
19	BMWWW-t	MT20	5.0	8.0	
20	BS-t	MT20	5.0	6.0	
23	BMWW-t	MT20	6.0	8.0	3.00 2.75
24	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.

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

FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG		HEEL WEDGE	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX		
24	3200	0	3200	265	-787	5-8	5-8		
14	3059	0	3059	0	-748	5-8	5-8	2x6 R	

PROVIDE ANCHORAGE AT BEARING JOINT 24 FOR 787 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT 14 FOR 748 LBS. FACTORED UPLIFT

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

PROVIDE FOR 265 LBS. FACTORED HORIZONTAL REACTION AT JOINT 24

UNFACTORED REACTIONS

1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
24	2543	1477 / 0	464 / 0	0 / 0	113 / -949	602 / 0	0 / 0
14	2447	1396 / 0	464 / 0	0 / 0	127 / -912	587 / 0	0 / 0

HORIZONTAL REACTIONS						
24	---	0 / 0	0 / 0	0 / 0	189 / -171	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 24, 14

BRACING

MAX. UNBRACED TOP CHORD LENGTH = 2.03 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

- 1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1 / 2 LENGTH OF 6-21, 7-19, 8-19, 8-18, 9-18. DBS = 20-0-0. CBF = 93 LBS.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1 / 2 LENGTH OF 6-19. DBS = 12-0-0. CBF = 91 LBS.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1 / 2 LENGTH OF 10-18. DBS = 10-0-0. CBF = 86 LBS.
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1 / 2 LENGTH OF 12-17. DBS = 14-0-0. CBF = 87 LBS.

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

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

LOADING

TOTAL LOAD CASES: (18)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED LC1 CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED LC1 CSI (LC)	
FR-TO		FROM TO		FR-TO			
1-2	0 / 36	-102.7 -102.7	0.15 (2)	10.00	23-3	-567 / 225	0.12 (1)
2-3	-4701 / 1132	-102.7 -102.7	0.83 (1)	2.69	3-22	-190 / 173	0.11 (2)
3-4	-4713 / 1172	-102.7 -102.7	0.80 (1)	2.69	22-4	-45 / 284	0.06 (5)
4-5	-4270 / 1095	-102.7 -102.7	0.75 (1)	2.86	4-21	-747 / 324	0.82 (2)
5-6	-4270 / 1095	-102.7 -102.7	0.75 (1)	2.86	21-6	-179 / 682	0.15 (2)
6-7	-3706 / 992	-102.7 -102.7	0.65 (1)	3.14	6-19	-1208 / 503	0.77 (2)
7-8	-3310 / 952	-115.2 -115.2	0.25 (1)	3.66	19-7	-341 / 1299	0.21 (1)
8-9	-3347 / 969	-115.2 -115.2	0.25 (1)	3.64	19-8	-744 / 369	0.48 (3)
9-10	-3748 / 1007	-102.7 -102.7	0.72 (1)	3.08	8-18	-644 / 471	0.42 (2)
10-11	-4450 / 1144	-102.7 -102.7	0.85 (1)	2.73	18-9	-335 / 1305	0.21 (1)
11-12	-4450 / 1144	-102.7 -102.7	0.85 (1)	2.73	18-10	-1372 / 547	0.88 (3)
12-13	-5108 / 1265	-102.7 -102.7	0.90 (1)	2.55	17-10	-212 / 837	0.28 (14)
13-26	-5427 / 1330	-102.7 -102.7	0.93 (1)	2.32	17-12	-998 / 389	0.37 (3)
26-14	-6066 / 1350	-102.7 -102.7	0.78 (1)	2.03	16-12	-72 / 458	0.10 (3)
24-2	-3110 / 804	0.0	0.0 0.20 (1)	5.99	16-13	-456 / 239	0.27 (3)
					15-13	-186 / 107	0.03 (7)
24-23	-251 / 253	-27.5	-27.5 0.10 (4)	6.25	2-23	-912 / 4272	0.96 (1)
23-22	-1153 / 4223	-27.5	-27.5 50 (4)	6.25	26-26	-74 / 1936	0.99 (4)
22-21	-1016 / 4210	-27.5	-27.5				
21-20	-807 / 3826	-27.5	-27.5				
20-19	-807 / 3826	-27.5	-27.5				
19-18	-525 / 3382	-27.5	-27.5				
18-17	-607 / 3984	-27.5	-27.5				
17-16	-872 / 4577	-27.5	-27.5				

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

DESIGN CRITERIA

SPECIFIED LOADS:

TOP	CH.	LL =	30.1	PSF
		DL =	5.0	PSF
BOT	CH.	LL =	10.0	PSF
		DL =	7.0	PSF
TOTAL LOAD =				52.1 PSF

SPACING = 24.0 IN./C

LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE WALL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 5.0 P.S.F.

THIS TRUSS IS DESIGNED FOR COMMERCIAL OR INDUSTRIAL BUILDING REQUIREMENTS OF PART 4, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 4 OF OBC 2012, BCBC 2012, ABC 2014
- CSA 086-09
- TPIC 2011

DESIGN ASSUMPTIONS

- SLOPE REDUCTION FACTOR NOT USED

(80 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) TIMES IMPORTANCE FACTOR EQUALS 30.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.55")
CALCULATED VERT. DEFL.(LL) = L/999 (0.31")
ALLOWABLE DEFL.(TL)= L/180 (3.09")
CALCULATED VERT. DEFL.(TL) = L/999 (0.43")

CSI: TC=0.93 (13-26:1), BC=0.95 (15-25:1),
WB=0.96 (2-23:1), SSI=0.40 (14-25:1)

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

SNOW LOAD IMPORTANCE FACTOR = 1.00
WIND LOAD IMPORTANCE FACTOR = 1.00
LIVE LOAD IMPORTANCE FACTOR = 1.00
COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

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

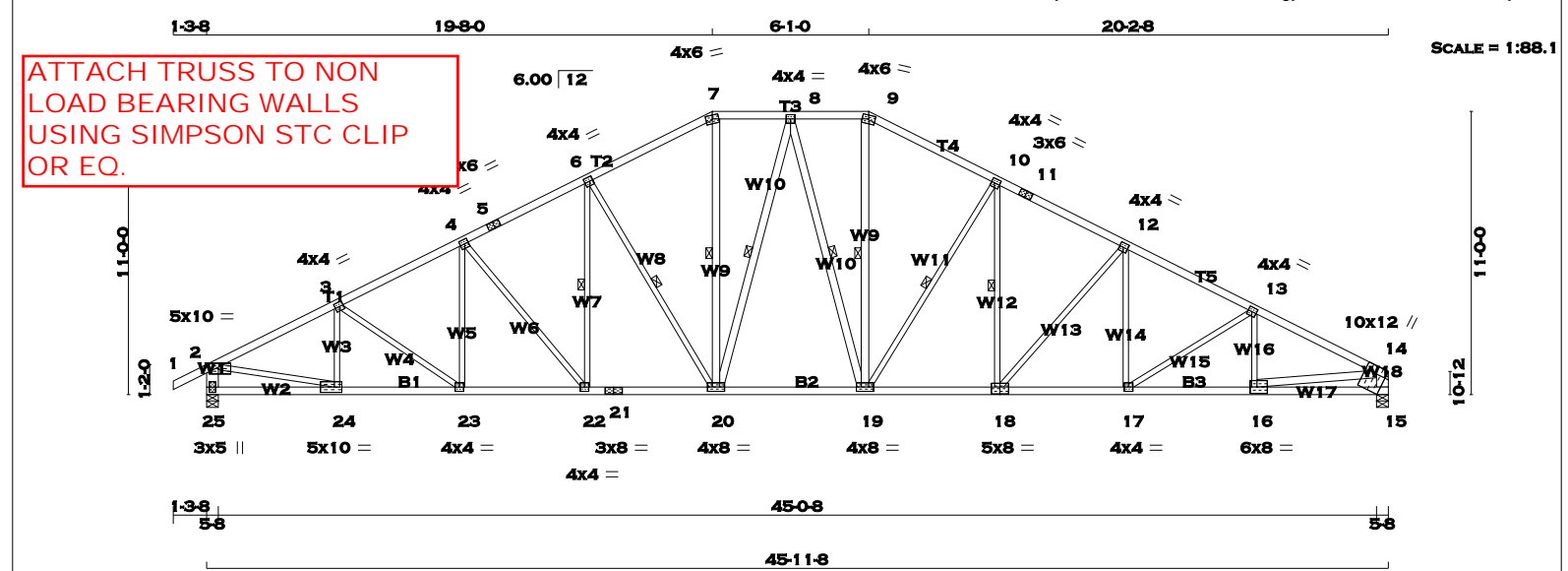
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION

JSI GRIP= 0.90 (2)
JSI METAL= 0.79 (2)

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LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. SPF					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS										DESIGN CRITERIA				
1 - 5	2x4	DRY	No.2	SPF	FACTORED	MAXIMUM FACTORED	INPUT	REQRD	SPECIFIED LOADS: TOP CH. LL = 30.1 PSF DL = 5.0 PSF BOT CH. LL = 10.0 PSF DL = 7.0 PSF TOTAL LOAD = 52.1 PSF										
5 - 7	2x4	DRY	No.2	SPF	GROSS REACTION	GROSS REACTION	BRG	BRG											
7 - 9	2x4	DRY	No.2	SPF	JT VERT	HORZ	DOWN	HORZ							UPLIFT	IN-SX	IN-SX		
9 - 11	2x4	DRY	No.2	SPF	25	3170	0	3170							266	-781	5-8	5-8	
11 - 14	2x4	DRY	No.2	SPF	15	3030	0	3030	0	-737	5-8	5-8	SPACING = 24.0 IN./C						
25 - 2	2x6	DRY	No.2	SPF	PROVIDE ANCHORAGE AT BEARING JOINT 25 FOR 781 LBS. FACTORED UPLIFT														
15 - 14	2x6	DRY	No.2	SPF	PROVIDE ANCHORAGE AT BEARING JOINT 15 FOR 737 LBS. FACTORED UPLIFT														
25 - 21	2x4	DRY	No.2	SPF	NOTE: ANCHORAGE REQUIRED FOR LARGE UPLIFT FORCES, SHALL BE PROVIDED BY BUILDG. DESIGNER														
21 - 18	2x4	DRY	No.2	SPF	PROVIDE FOR 266 LBS. FACTORED HORIZONTAL REACTION AT JOINT 25														
18 - 15	2x4	DRY	No.2	SPF															
UNFACTORED REACTIONS																			
1ST LCASE MAX./MIN. COMPONENT REACTIONS																			
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	THIS TRUSS IS DESIGNED FOR COMMERCIAL OR INDUSTRIAL BUILDING REQUIREMENTS OF PART 4, NBCC 2010											
25	2519	1464 / 0	460 / 0	0 / 0	113 / -941	596 / 0	0 / 0												
15	2423	1382 / 0	460 / 0	0 / 0	124 / -900	582 / 0	0 / 0												
HORIZONTAL REACTIONS																			
25	---	0 / 0	0 / 0	0 / 0	190 / -161	0 / 0	0 / 0	THIS DESIGN COMPLIES WITH: - PART 4 OF OBC 2012 , BCBC 2012 , ABC 2014 - CSA 086-09 - TPIC 2011											
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 25, 15																			
BRACING																			
MAX. UNBRACED TOP CHORD LENGTH = 2.54 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 5.94 FT. OR RIGID CEILING DIRECTLY APPLIED.																			
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.																			
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-22, 7-20, 8-20, 8-19, 9-19, 10-18. DBS = 20-0-0 . CBF = 89 LBS.																			
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 6-20. DBS = 12-0-0 . CBF = 90 LBS.																			
1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/2 LENGTH OF 10-19. DBS = 10-0-0 . CBF = 81 LBS.																			
DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"x3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.																			
END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW																			
LOADING																			
TOTAL LOAD CASES: (18)																			
CHORDS					WEBS														
MEMB.	FORCE (LBS)	FACTORED VERT. LOAD	LC1 MAX (PLF)	MAX (LC)	MAX. UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX. FACTORED MAX (LC)	TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .										
FR-TO	FROM	TO	FR-TO	FROM	TO	FR-TO	FROM	TO											
1-2	0 / 36	-102.7	-102.7	0.15 (2)	10.00	24-3	-569 / 224	0.12 (1)											
2-3	-4577 / 1109	-102.7	-102.7	0.80 (1)	2.75	3-23	-184 / 171	0.11 (2)											
3-4	-4591 / 1151	-102.7	-102.7	0.78 (1)	2.75	23-4	-38 / 264	0.06 (5)											
4-5	-4172 / 1080	-102.7	-102.7	0.73 (1)	2.91	4-22	-720 / 318	0.83 (2)											
5-6	-4172 / 1080	-102.7	-102.7	0.73 (1)	2.91	22-6	-181 / 680	0.15 (2)											
6-7	-3615 / 977	-102.7	-102.7	0.64 (1)	3.19	6-20	-1206 / 505	0.80 (2)											
7-8	-3228 / 939	-115.2	-115.2	0.24 (1)	3.70	20-7	-333 / 1257	0.20 (14)											
8-9	-3247 / 948	-115.2	-115.2	0.25 (1)	3.69	20-8	-714 / 387	0.48 (3)											
9-10	-3637 / 985	-102.7	-102.7	0.68 (1)	3.15	8-19	-660 / 441	0.45 (2)											
10-11	-4267 / 1104	-102.7	-102.7	0.79 (1)	2.83	19-9	-330 / 1261	0.20 (1)											
11-12	-4267 / 1104	-102.7	-102.7	0.79 (1)	2.83	19-10	-1296 / 528	0.86 (3)											
12-13	-4792 / 1198	-102.7	-102.7	0.86 (1)	2.62	18-10	-196 / 759	0.17 (3)											
13-14	-4984 / 1203	-102.7	-102.7	0.94 (1)	2.54	18-12	-835 / 347	0.96 (3)											
25-2	-3105 / 804	0.0	0.0	0.20 (1)	6.00	17-12	-58 / 348	0.08 (3)											
15-14	-2963 / 760	0.0	0.0	0.19 (1)	6.11	17-13	-384 / 216	0.23 (3)											
						16-13	-388 / 190	0.07 (1)											
25-24	-251 / 241	-27.5	-27.5	0.15 (17)	6.25	2-24	-892 / 4170	0.94 (1)											
24-23	-1130 / 4112	-27.5	-27.5	0.73 (1)	5.94	16-14	-1005 / 4505	0.72 (1)											
23-22	-995 / 4101	-27.5	-27.5	0.72 (1)	6.25														
22-21	-791 / 3739	-27.5	-27.5	0.72 (1)	6.25														
21-20	-791 / 3739	-27.5	-27.5	0.72 (1)	6.25														
20-19	-509 / 3291	-27.5	-27.5	0.72 (1)	6.25														
19-18	-579 / 3823	-27.5	-27.5	0.72 (1)	6.25														
18-17	-807 / 4281	-27.5	-27.5	0.72 (1)	6.25														
17-16	-988 / 4476	-27.5	-27.5	0.72 (1)	6.25														
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LICENSED PROFESSIONAL ENGINEER

PAUL TREVISAN

100136551

March 23rd, 2017

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KOTT

CONTRACTORS



[M]

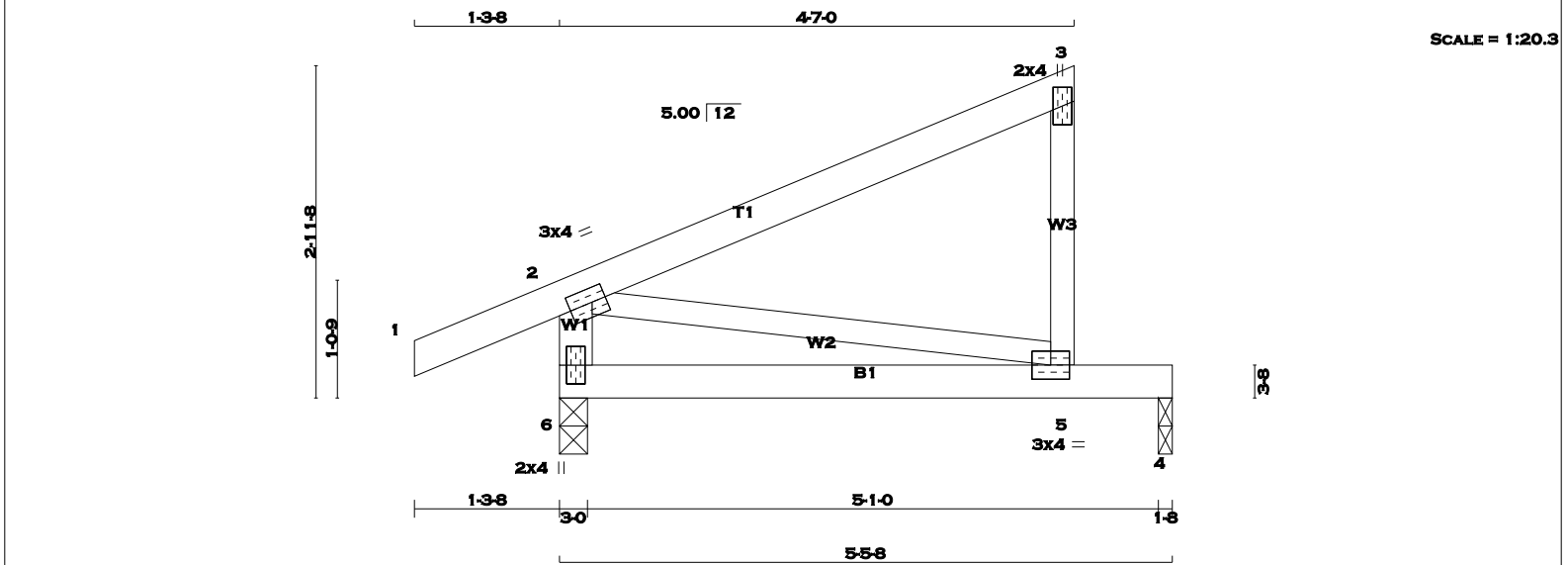
DRY: SEASONED LUMBER.

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

A circular professional engineer seal for the Province of Ontario. The outer ring contains the text "LICENSED PROFESSIONAL ENGINEER" at the top and "PROVINCE OF ONTARIO" at the bottom. In the center, the name "P.M. TREVISAN" and license number "100136551" are printed. A blue ink signature is written over the name and number. Below the signature, a red rectangular stamp contains the date "March 23rd, 2017".

**READ ALL NOTES ON THIS PAGE AND ON THE
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LUMBER					DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										TOTAL WEIGHT = 6 X 20 = 117 lb	
N. L. G. A. RULES					BEARINGS										[M]	
CHORDS SIZE LUMBER DESCR.					FACTORED GROSS REACTION					MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQRD BRG		SPECIFIED LOADS:
1 - 3 2x4 DRY No.2 SPF					JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX					6 358 0 358 0 0 3-0 3-0		4 197 0 197 0 0 1-8 1-8		TOP CH. LL = 23.3 PSF		DL = 3.0 PSF
6 - 2 2x4 DRY No.2 SPF														BOT CH. LL = 0.0 PSF		DL = 7.0 PSF
6 - 4 2x4 DRY No.2 SPF														TOTAL LOAD = 33.3 PSF		
ALL WEBS 2x3 DRY No.2 SPF					UNFACTORED REACTIONS										DESIGN CRITERIA	
DRY: SEASONED LUMBER.					1ST LCASE MAX./MIN. COMPONENT REACTIONS										SPECIFIED LOADS:	
					JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL										TOP CH. LL = 23.3 PSF	
					6 249 187 / 0 0 / 0 0 / 0 0 / 0 62 / 0 0 / 0										DL = 3.0 PSF	
					4 139 90 / 0 0 / 0 0 / 0 0 / 0 50 / 0 0 / 0										BOT CH. LL = 0.0 PSF	
															DL = 7.0 PSF	
															TOTAL LOAD = 33.3 PSF	
															SPACING = 24.0 IN./C	
															THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010	
															THIS DESIGN COMPLIES WITH:	
															- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014	
															- CSA 086-09	
															- TPIC 2011	
															(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD	
															ALLOWABLE DEFL.(LL)= L/360 (0.19")	
															CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")	
															ALLOWABLE DEFL.(TL)= L/360 (0.19")	
															CALCULATED VERT. DEFL.(TL) = L/ 682 (0.10")	
															CSI: TC=0.28 (2-3:1) , BC=0.23 (5-6:1) , WB=0.00 (2-5:1) , SSI=0.15 (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= 0.28 (2) (INPUT = 0.90)	
															JSI METAL= 0.05 (6) (INPUT = 1.00)	

PLATES (table is in inches)									
JT	TYPE	PLATES	W	LEN	Y	X			
2	TMVW-t	MT20	3.0	4.0	1.50	1.50			
3	TMV+p	MT20	2.0	4.0					
5	BMVW-t	MT20	3.0	4.0					
6	BMV1+p	MT20	2.0	4.0					

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

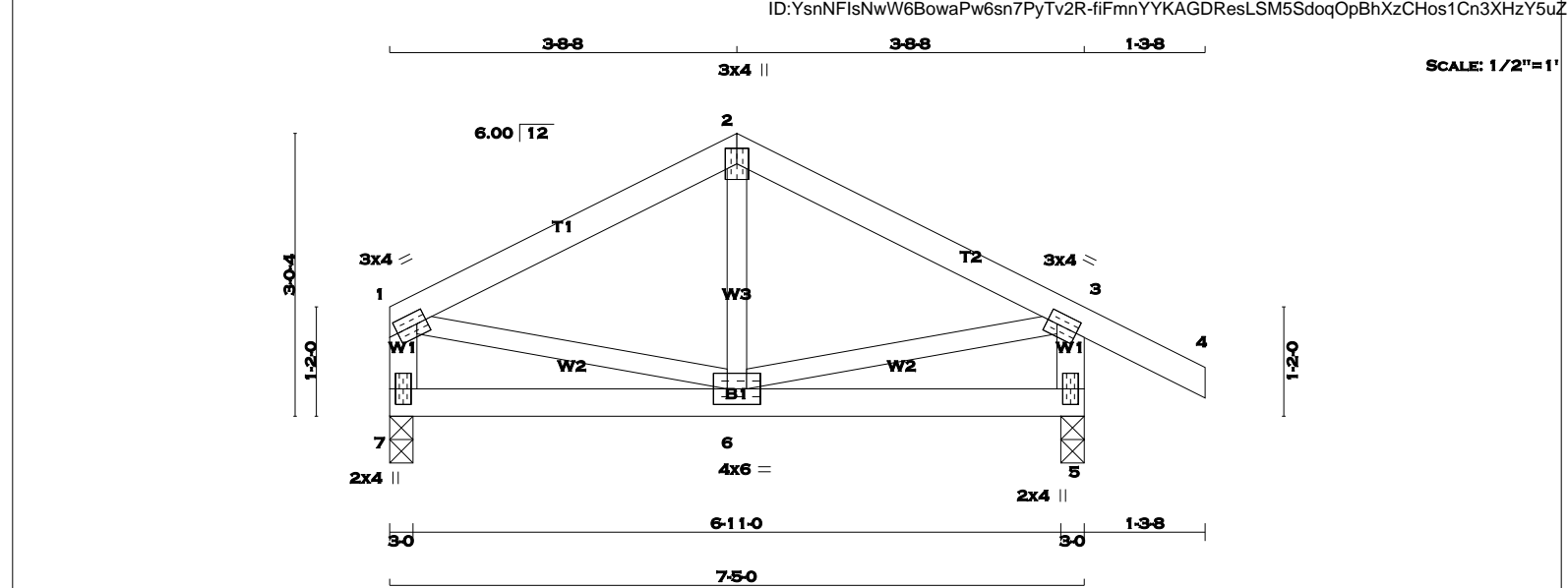
CHORDS										W E B S									
MAX. FACTORED					FACTORED					MAX. FACTORED					MAX. FACTORED				
MEMB. FORCE					VERT. LOAD LC1 MAX					MEMB. FORCE					MAX. FORCE				
(LBS)					(PLF)					UNBRAC					(LBS)				
					CSI (LC)										CSI (LC)				
FR-TO					FROM TO					LENGTH FR-TO					FR-TO				
1- 2					0 / 20					-77.3 -77.3 0.10 (1)					10.00 2- 5 0 / 0 0.00 (1)				
2- 3					0 / 0					-77.3 -77.3 0.28 (1)					10.00				
5- 3					-177 / 0					0.0 0.0 0.04 (1)					7.81				
6- 2					-282 / 0					0.0 0.0 0.03 (1)					7.81				
6- 5					0 / 0					-17.5 -17.5 0.23 (1)					10.00				
5- 4					0 / 0					-17.5 -17.5 0.22 (1)					10.00				



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TOTAL WEIGHT = 3 X 29 = 87 lb

[M][F]

N. L. G. A. RULES					BUILDING DESIGNER					DESIGN CRITERIA				
CHORDS		SIZE	LUMBER	DESCR.	BEARINGS					SPECIFIED LOADS:				
1 - 2	2x4	DRY	No.2	SPF	FACTORED		MAXIMUM FACTORED		INPUT	REQRD		TOP CH. LL = 23.3 PSF		
2 - 4	2x4	DRY	No.2	SPF	GROSS REACTION		GROSS REACTION		BRG	BRG		DL = 3.0 PSF		
7 - 1	2x4	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	BOT CH. LL = 0.0 PSF	
5 - 3	2x4	DRY	No.2	SPF	7	352	0	352	0	0	3-0	3-0	DL = 7.0 PSF	
7 - 5	2x4	DRY	No.2	SPF	5	457	0	457	0	0	3-0	3-0	TOTAL LOAD = 33.3 PSF	
ALL WEBS 2x3 DRY No.2					UNFACTORED REACTIONS					SPACING = 24.0 IN. C/C				
EXCEPT					1ST LCASE MAX./MIN. COMPONENT REACTIONS					THIS TRUSS IS DESIGNED FOR RESIDENTIAL				
DRY: SEASONED LUMBER.					JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	OR SMALL BUILDING REQUIREMENTS OF	
					7	247	173 / 0	0 / 0	0 / 0	0 / 0	74 / 0	0 / 0	PART 9, NBCC 2010	
					5	318	236 / 0	0 / 0	0 / 0	0 / 0	82 / 0	0 / 0		

UNFACTORED REACTIONS									
JT	1ST LCASE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
7	247	173 / 0	0 / 0	0 / 0	0 / 0	0 / 0	74 / 0	0 / 0	
5	318	236 / 0	0 / 0	0 / 0	0 / 0	0 / 0	82 / 0	0 / 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)

TEE-LOK TL20 PLATES IS ALLOWED.

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					
1- 2	-279 / 0	-77.3	-77.3	0.14 (1)	6.25	6- 2	-37 / 51	0.02 (4)			
2- 3	-279 / 0	-77.3	-77.3	0.14 (1)	6.25	1- 6	0 / 256	0.06 (1)			
3- 4	0 / 23	-77.3	-77.3	0.10 (1)	10.00	6- 3	0 / 256	0.06 (1)			
7- 1	-326 / 0	0.0	0.0	0.03 (1)	7.81						
5- 3	-431 / 0	0.0	0.0	0.04 (1)	7.81						
7- 6	0 / 0	-17.5	-17.5	0.07 (4)	10.00						
6- 5	0 / 0	-17.5	-17.5	0.07 (4)	10.00						

ALLOWABLE DEFL.(LL)= L/360 (0.25")					
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")					
ALLOWABLE DEFL.(TL)= L/360 (0.25")					
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")					
CSI: TC=0.14 (1-2:1) , BC=0.07 (6-7:4) , WB=0.06 (3-6:1) , SSI=0.10 (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= 0.63 (1) (INPUT = 0.90)					
JSI METAL= 0.15 (3) (INPUT = 1.00)					

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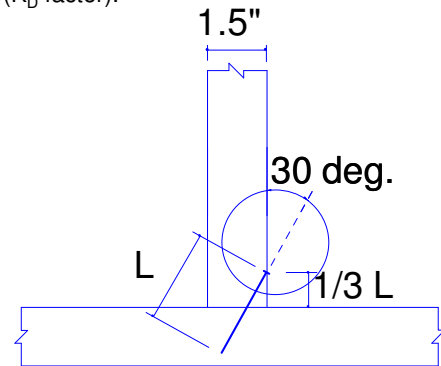
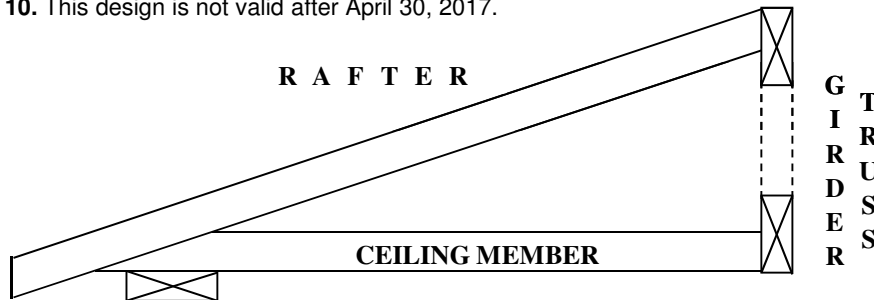
BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY

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



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BEARING ANCHORAGE BY TOE-NAILS FOR WIND LOADING

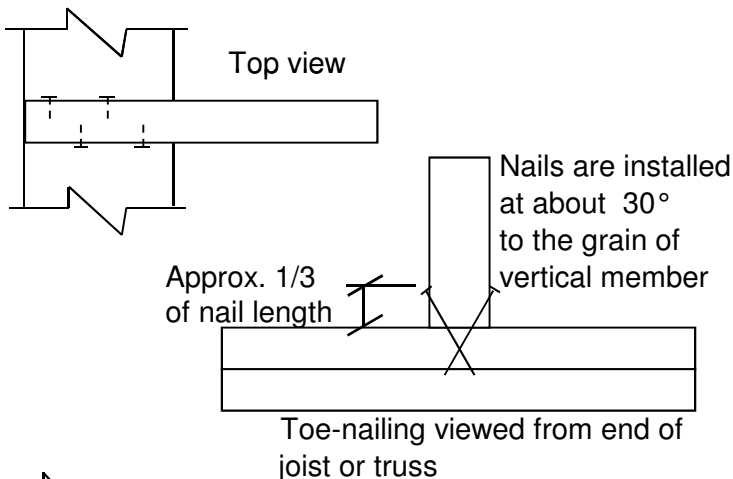
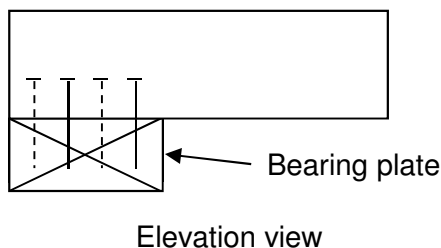
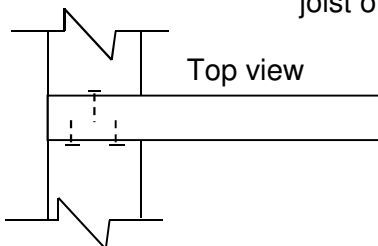
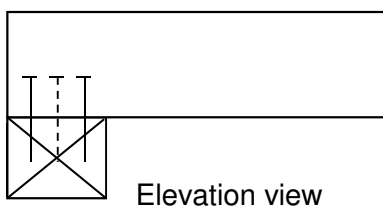
B37579H2

NAIL TYPE	LENGTH (IN)	DIAMETER (IN)	NAIL WITHDRAWAL CAPACITY (LB)	
			S-P-F	D. FIR
COMMON WIRE	3.00	0.144	30	42
	3.25	0.144	32	45
	3.50	0.160	38	52
COMMON SPIRAL	3.00	0.122	26	36
	3.25	0.122	28	40
	3.50	0.152	36	50

Note: If using truss with D. Fir lumber and S-P-F bearing plate, use values in table for S-P-F.

NOTES:

1. Truss chord, rafter, or ceiling members may be anchored to bearing plate by toe-nails, provided that the actual factored uplift force due to **wind** or **earthquake** load does not exceed the withdrawal capacities in the table. Hangers (specified by others) are required for uplift forces that are higher than the maximum toe-nail withdrawal capacity.
2. Toe nail capacities shown in the table are for **one** toe-nail. For additional toe-nails multiply values in table by the number of toe-nails used. Toe-nail capacities take into account toe-nailing factor J_A in CSA O86-09, section 10.9.5.2.
3. For 9- 3/4 gauge 3.25" common wire gun nails (diameter = 0.120") use 3" common spiral nail values.
4. Maximum number of toe-nails allowed depends on the lumber size & species to be toe-nailed to supporting member and nail diameter, as shown in table above.
5. Nail values in table are based on the following relative lumber densities: $G = 0.42$ (SPF), $G = 0.49$ (D. Fir).
6. Toe-nails shall be driven at approximately 1/3 the nail length from the edge of the joist/truss chord and driven at an angle of 30° to the grain of the member (See drawing on detail B37579H1).
7. Lumber must be dry (< 19% moisture content) at the time of nail installation.
8. Nail values in this table comply with CSA O86-09, section 10.9.5
9. This design is not valid after April 30, 2017

Toe-nailing on 2x6 Bearing Plate**Toe-nailing on 2x4 Bearing Plate**

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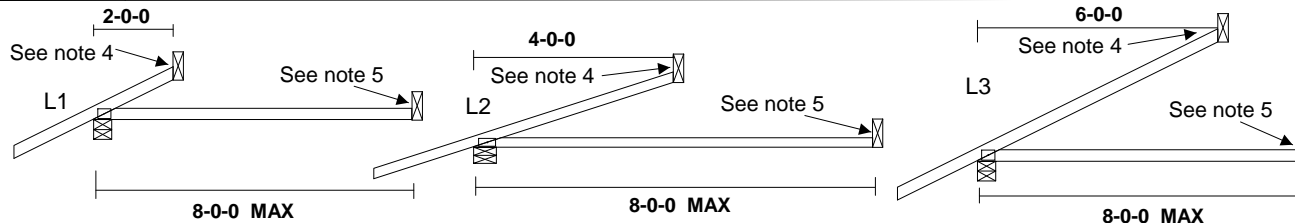
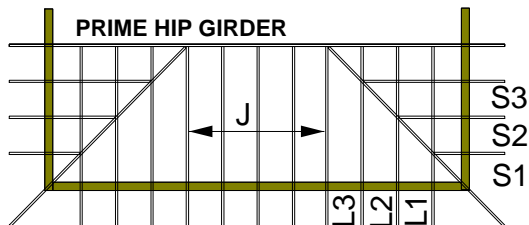


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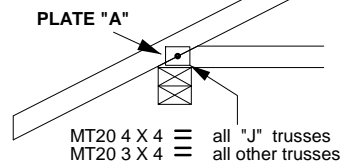
JOB NAME **DETAILS**

JOB DESC. **HIP END FRAMING**

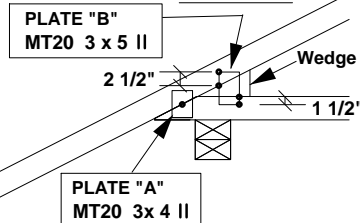
DRAWING NO. **B37579J**



DETAIL "A"



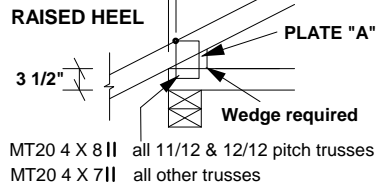
DETAIL "C"



CANTILEVER DETAIL "C"

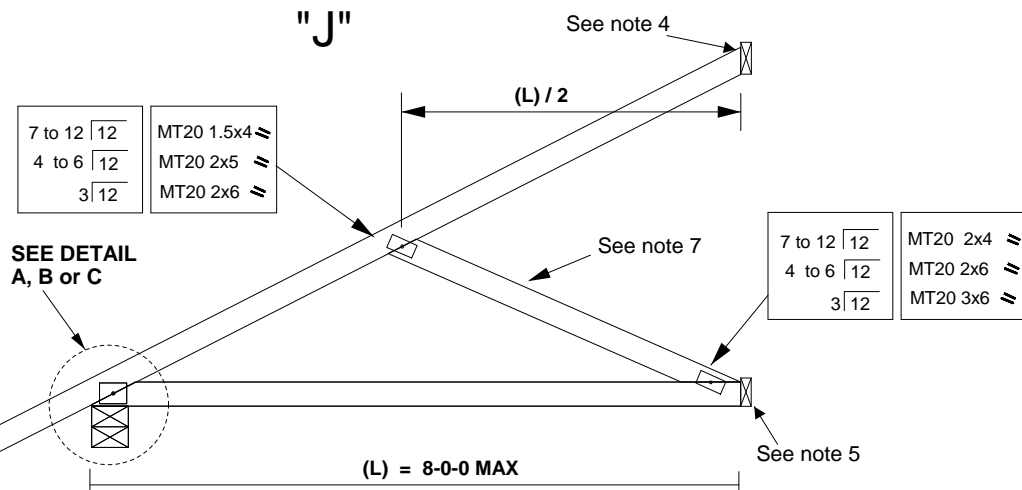
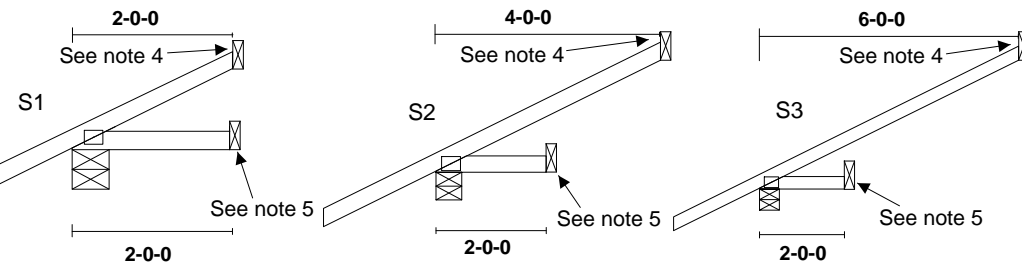
SLOPE	MAX CANTILEVER	PLATE "B"	WEDGE SIZE
3/12	17"	3 X 5	2 X 3
4/12	14"	3 X 5	2 X 3
5/12	12"	3 X 5	2 X 4
6/12	10"	3 X 5	2 X 4
7/12	9"	3 X 5	2 X 6
8/12	8.5"	3 X 5	2 X 6
9/12	8"	3 X 5	2 X 6
10/12	7.5"	3 X 5	2 X 6

DETAIL "B"



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 NBC 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 NBC 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



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STANDARD GABLE END DETAIL

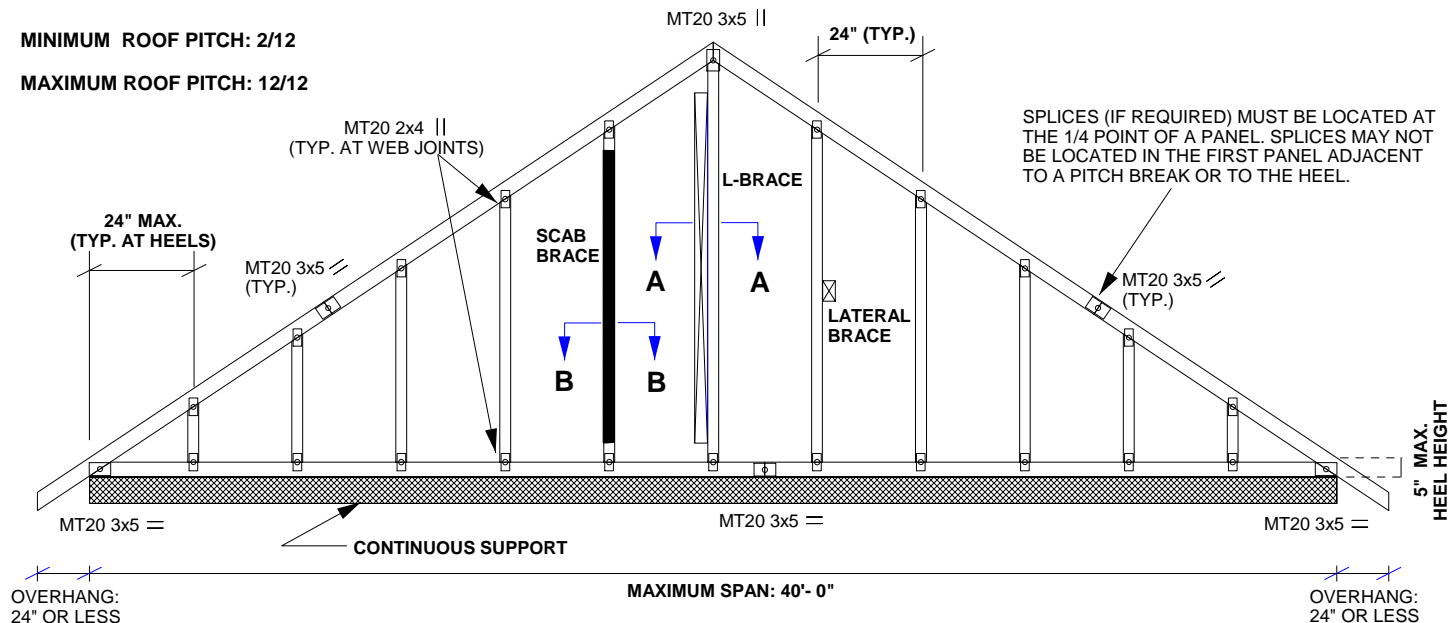
LECCO RIDGE-JUNIPER 8 EL 1

DRAWING NO.: B37579K

ENR 108-PT0017-173

MINIMUM ROOF PITCH: 2/12

MAXIMUM ROOF PITCH: 12/12



LUMBER

TOP CHORD: 2 X 4 No. 2 DRY SPF or D- Fir
 BOTTOM CHORD: 2 X 3 or 2 X 4 No. 2 DRY SPF or D- Fir
 GABLE WEB: 2 X 3 or 2 X 4 No. 2 DRY SPF or D- Fir

PLATES

JOINT	PLATES
HEELS	MT20 3 X 5
PEAK	MT20 3 X 5
TC SPLICES	MT20 3 X 5
BC SPLICES	MT20 3 X 5
WEB JOINTS	MT20 2 X 4

DESIGN CRITERIA

TOP CHORD LL = 60.0 PSF OR LESS
 TOP CHORD DL = 6.0 PSF OR LESS
 BOTTOM CHORD LL = 0 PSF
 BOTTOM CHORD DL = 7.0 PSF

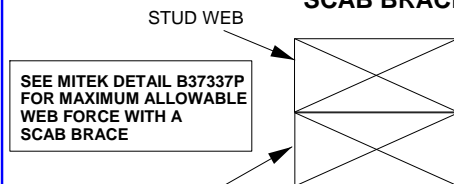
TOTAL LOAD = 73.0 PSF OR LESS

BRACING

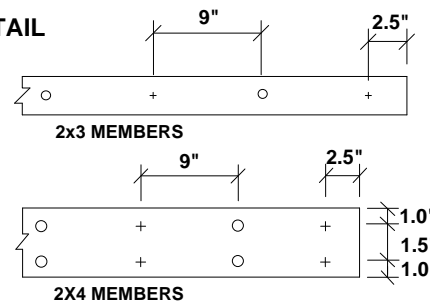
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10 FT. OR RIGID CEILING DIRECTLY APPLIED.
 WEBS MUST BE LATERALLY BRACED, SCAB BRACED OR L-BRACED AS INDICATED IN TABLE BELOW:

WEB LENGTH (L)	SCAB BRACE	L-BRACE	LATERAL BRACE
L < 6 FT.	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED
6 FT. < L < 12 FT.	REQUIRED	2x4 L-BRACE	1 LATERAL AT 1/2 LENGTH OF WEB

SCAB BRACE DETAIL



No. 2 DRY SPF OR D. Fir SCAB BRACE, SAME SIZE AS WEB

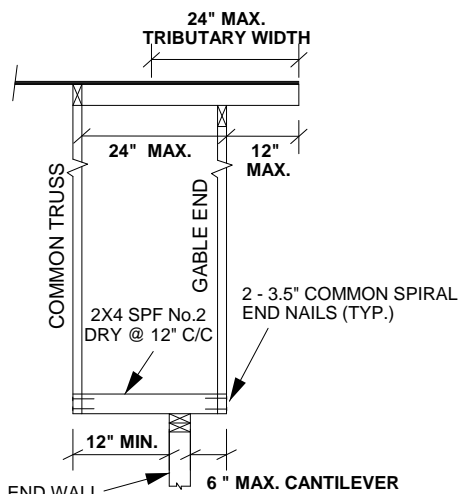


FASTEN SCAB BRACE TO ONE FACE OF WEB WITH 9-3/4 GAUGE 0.122" X 3" COMMON SPIRAL NAILS SPACED @ 9" C/C (MAX) WITH 2.5" MINIMUM END DISTANCE. SCAB BRACE MUST COVER 90% OF WEB LENGTH. DRIVE NAILS ALTERNATELY FROM FRONT AND BACK FACES.

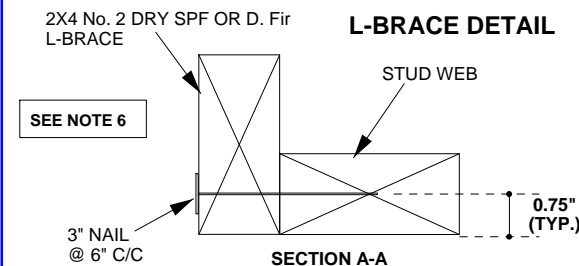
+ NAIL FROM FRONT FACE
 o NAIL FROM BACK FACE

CANTILEVER DETAIL

Note: Gable end may be cantilevered up to 6 inches past end wall as shown. Gable end to be continuously supported by 2x4 SPF No.2 (DRY) members at 12" o.c. along the bottom chord. Roof design loads shall not exceed the loading shown above.



L-BRACE DETAIL



FASTEN L-BRACE TO NARROW EDGE OF WEB WITH ONE ROW OF 9-3/4 GAUGE 0.122" X 3" COMMON SPIRAL NAILS SPACED AT 6" C/C WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90% OF WEB LENGTH.

NOTES:

- Gable studs are spaced at 24" C/C (max.) with a max. length of 12 ft.
- All plates specified are MiTek MT20, centered at each joint, and pressed into both faces of truss.
- Truss spacing is 24" C/C, maximum.
- Gable truss is designed for continuous support. Bearing material must be of the same species as chord member and of grade No. 2 or better.
- This truss requires rigid sheathing attached to exposed face.
- 2x3 or 2x4 T-braces shown for gable webs in the MiTek engineering drawings may be replaced by a 2x4 L-brace as shown above.
- This truss is designed for residential or small building requirements, conforming to Part 9, NBCC 2010.
- This detail is not valid after April 30, 2017.

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MiTek Canada, Inc.
 100 Industrial Rd.
 Bradford, Ontario, L3Z 3G7

Piggyback truss

2x4 purlins

Main truss

For drag trusses:

Piggyback trusses attached directly on top of the flat or sloped roof trusses using LTP4 plates on alternating sides with spacing as per truss drawing.

2x4 blocking between top chords of main roof trusses must be placed @ 24" C/C and attached to the intersecting top chord member using (2) 3-1/4" common wire nails at each end

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Piggyback truss

2x4 blocking

Main truss

For standard trusses:

Piggyback trusses framed on top of 2x4 purlins placed @ 24" C/C. Each 2x4 purlin must be fixed to the top edge of the top chord of each main truss using (2) 3-1/4" common wire nails and (1) H4 tie at each end. Each piggyback toe-nailed to each purlin using (2) 3-1/4" common wire nails and attached to every second purlin with one H4 tie.

PIGGYBACK TRUSS FRAMING DETAIL