

NE1220-120
GREENPARK - TRINAR HALL
- GLENWAY 7A ELE 3

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 KOTT DESIGN. 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 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 supports and do not necessarily take into account stability of the overall building structure
- Elevation of bearings must be carefully checked and shimmed as required
- Adequate wood truss bearing is the responsibility of the building designer

DIMENSIONS

- Geometry of the truss and dimensions indicated on the drawing must be followed for the installation of the installed truss.



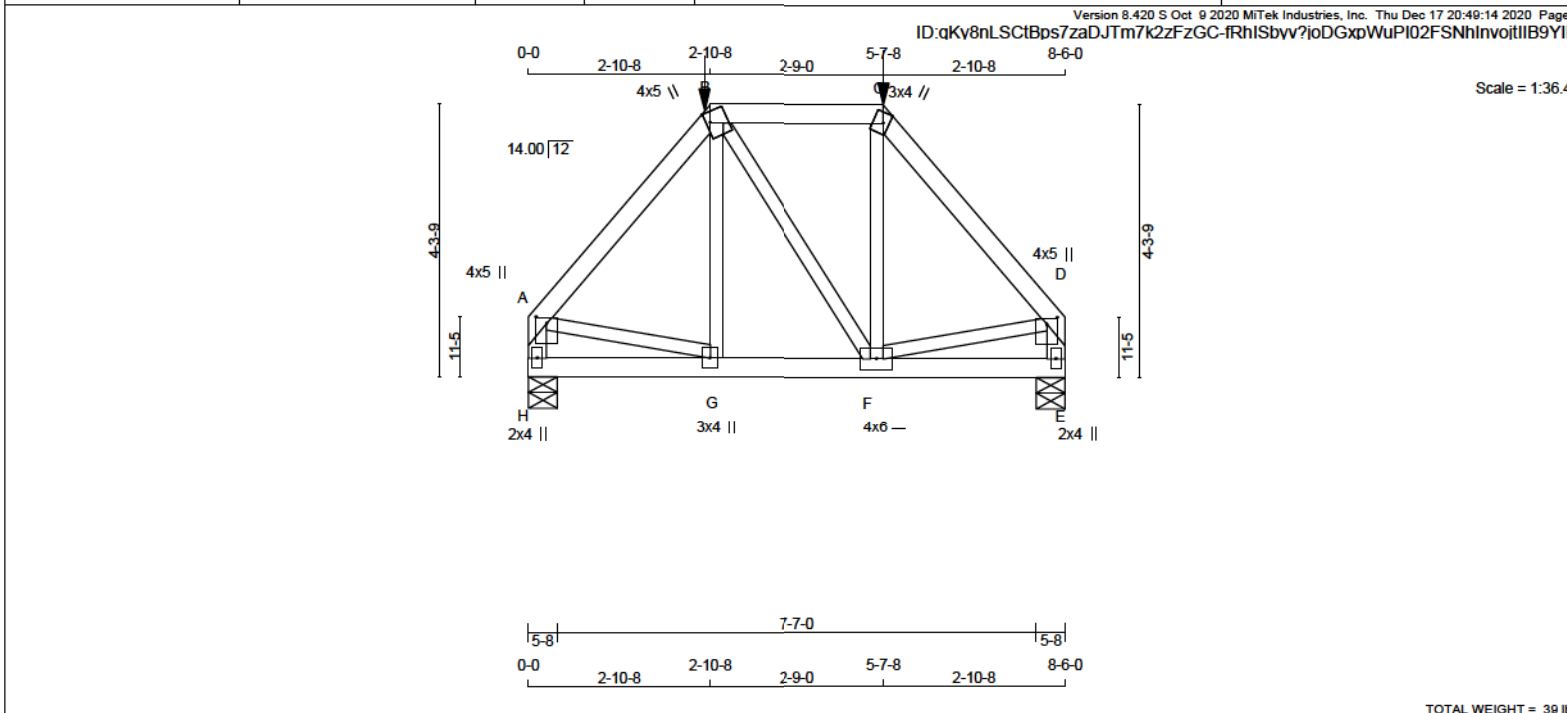
Town of
East Gwillimbury
Building Standards Branch BCIN #16487

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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-05
Sewage System			
Zoning			



2020/04/22

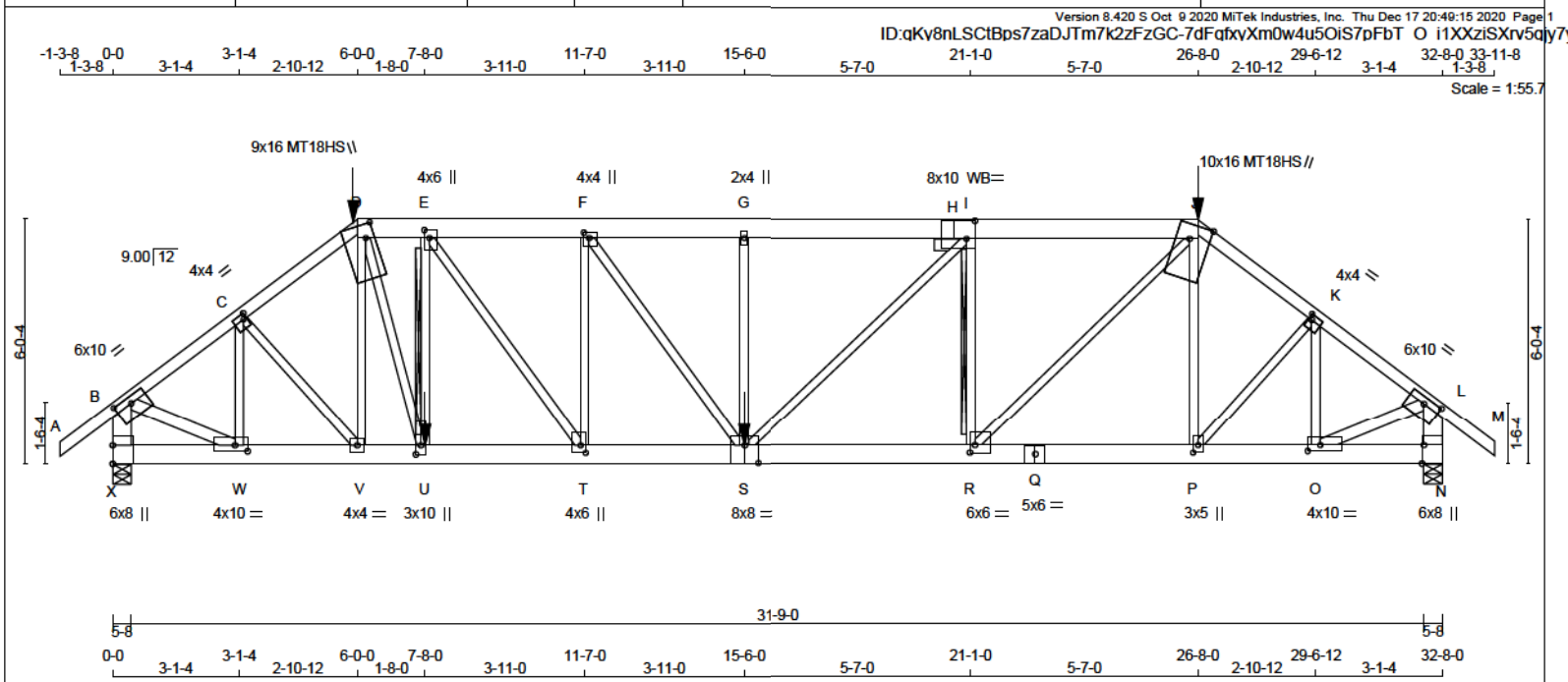


LUMBER										DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA									
N. L. G. A. RULES																													
CHORDS SIZE LUMBER										DESCR.																			
A - B 2x4 DRY No.2										SPF										SPECIFIED LOADS:									
B - C 2x4 DRY No.2										SPF										TOP CH. LL = 34.8 PSF									
C - D 2x4 DRY No.2										SPF										DL = 8.0 PSF									
H - A 2x4 DRY No.2										SPF										BOT CH. LL = 10.5 PSF									
E - D 2x4 DRY No.2										SPF										DL = 7.3 PSF									
H - E 2x4 DRY No.2										SPF										TOTAL LOAD = 60.6 PSF									
ALL WEBS 2x3 DRY No.2										SPF										SPACING = 24.0 IN. C/C									
EXCEPT																													
DRY: SEASONED LUMBER.																				LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM									
																				GIRDER TYPE: CPrimeHip									
																				SIDE SETBACK = 2-10-8									
																				END SETBACK = 2-10-8									
																				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, NBCC 2015									
																				THIS DESIGN COMPLIES WITH:									
																				- PART 9 OF BCBC 2018 , ABC 2019									
																				- PART 9 OF OBC 2012 (2019 AMENDMENT)									
																				- CSA 086-14									
																				- TPIC 2014									
																				(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)									
																				EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD									
																				ALLOWABLE DEFL.(LL)= L/360 (0.28")									
																				CALCULATED VERT. DEFL.(LL) = L/999 (0.01")									
																				ALLOWABLE DEFL.(TL)= L/360 (0.28")									
																				CALCULATED VERT. DEFL.(TL) = L/999 (0.01")									
																				CSI: TC=0.20/1.00 (C-D-1) , BC=0.12/1.00 (F-G-2) ,									
																				WB=0.11/1.00 (D-F-1) , SSI=0.16/1.00 (B-C-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 = 1.00									

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LUMBER				
N. L. G. A. RULES				
CHORDS		SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - H	2x6	DRY	No.2	SPF
H - J	2x6	DRY	2100F 1.8E	SPF
J - M	2x4	DRY	No.2	SPF
X - B	2x6	DRY	No.2	SPF
N - L	2x6	DRY	No.2	SPF
X - S	2x6	DRY	2100F 1.8E	SPF
S - Q	2x6	DRY	2100F 1.8E	SPF
Q - N	2x6	DRY	2100F 1.8E	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
B - W	2x4	DRY	No.2	SPF
O - L	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
PLATES	JT TYPE	PLATES	W	LEN	Y	X
B	TMVW-I	MT20	6.0	10.0	2.00	5.00
C	TMVW-I	MT20	4.0	4.0	1.50	1.00
D	TTWW+m	MT18HS	6.0	16.0	4.00	2.50
E	TMVW+t	MT20	4.0	6.0	2.25	1.50
F	TMVW+t	MT20	4.0	4.0	1.50	1.50
G	TMVW+w	MT20	2.0	4.0		
H						
I	TSWW-I	MT20	8.0	10.0	5.25	2.50
J						
K	TTWW+m	MT18HS	10.0	16.0	Edge 6.00	
L	TMVW-I	MT20	4.0	4.0	1.50	1.00
M	TMVW-I	MT20	6.0	10.0	2.00	5.00
N	TMVW-I	MT20	8.0	8.0	Edge 0.50	
O	BMVW-I	MT20	4.0	10.0	1.75	3.75
P	BMVW+t	MT20	3.0	5.0	2.25	1.50
Q	BS-I	MT20	5.0	6.0		
R	BMVW-I	MT20	6.0	6.0	2.25	1.50
S	BSVWVW-I	MT20	8.0	8.0	5.25	4.00
T	BMVW+t	MT20	4.0	6.0	2.25	1.50
U	BMVW+w	MT20	3.0	10.0	2.75	1.50
V	BMVW-I	MT20	4.0	4.0		
W	BMVW-I	MT20	4.0	10.0	1.75	3.75
X	BMV1+t	MT20	6.0	8.0	5.50	



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

BEARINGS

FACTORED GROSS REACTION			MAXIMUM FACTORED GROSS REACTION			INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
X	5305	0	5305	0	0	5-8	5-8
N	5218	0	5218	0	0	5-8	5-8

UNFACTORED REACTIONS

UNFACTORED REACTIONS							
1ST LCASE		MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
X	3925	2266 / 0	672 / 0	0 / 0	0 / 0	988 / 0	0 / 0
N	3881	2229 / 0	680 / 0	0 / 0	0 / 0	971 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) X, N
BEARING SIZE FACTOR = 1.15 AT JNT(S) X, N (BASED ON SUPPORT DEPTH = 1-8

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.18 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 DRY SPF No.2 T-BRACE AT E-U, I-R

FASTEN T AND I-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3" COMMON WIRE NAILS @ 8" 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)	LOAD CASE	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
FR-TO		FROM TO			LENGTH	FR-TO			
A-B	0 / 51	-124.4	-124.4	0.19 (1)	10.00	W-C	-1521 / 0		
B-C	-5413 / 0	-124.4	-124.4	0.60 (1)	2.51	C-V	0 / 897		
C-D	-6168 / 0	-124.4	-124.4	0.70 (1)	2.18	V-D	-79 / 139		
D-E	-5785 / 0	-234.6	-234.6	0.32 (1)	3.41	D-U	0 / 2974		
E-F	-7136 / 0	-124.4	-124.4	0.53 (1)	2.87	U-E	-2307 / 0		
F-G	-8003 / 0	-124.4	-124.4	0.60 (1)	2.84	E-T	0 / 2346		
G-H	-8001 / 0	-234.6	-234.6	0.81 (1)	2.39	T-F	-1738 / 0		
H-I	-8001 / 0	-234.6	-234.6	0.81 (1)	2.39	F-S	0 / 1504		
I-J	-7395 / 0	-234.6	-234.6	0.43 (1)	3.85	S-G	-849 / 0		
J-K	-6028 / 0	-124.4	-124.4	0.68 (1)	2.24	S-I	0 / 858		
K-L	-5324 / 0	-124.4	-124.4	0.58 (1)	2.55	R-I	-2161 / 0		
L-M	0 / 51	-124.4	-124.4	0.19 (1)	10.00	R-J	0 / 3042		
X-B	-5144 / 0	0.0	0.0	0.37 (1)	4.70	P-J	-196 / 217		
N-L	-5065 / 0	0.0	0.0	0.37 (1)	4.74	P-K	0 / 834		
						O-K	-1444 / 0		
X-W	0 / 0	-74.0	-74.0	0.07 (1)	10.00	B-W	0 / 4616		
W-V	0 / 4347	-74.0	-74.0	0.35 (1)	10.00	O-L	0 / 4540		
V-U	0 / 4635	-74.0	-74.0	0.38 (1)	10.00				
U-T	0 / 5785	-39.2	-39.2	0.37 (1)	10.00				
T-S	0 / 7136	-39.2	-39.2	0.41 (1)	10.00				
S-R	0 / 7394	-74.0	-74.0	0.48 (1)	10.00				
R-Q	0 / 4820	-74.0	-74.0	0.33 (1)	10.00				
Q-P	0 / 4820	-74.0	-74.0	0.33 (1)	10.00				
P-O	0 / 4275	-74.0	-74.0	0.30 (1)	10.00				
O-N	0 / 0	-74.0	-74.0	0.06 (1)	10.00				

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE
D	0-0-0	-500	-500	---	FRONT	VERT	TOTAL
D	0-0-0	1	-90	---	FRONT	VERT	DEAD
J	20-0-0	-500	-500	---	FRONT	VERT	TOTAL
S	15-0-0	-718	-718	---	FRONT	VERT	TOTAL
U	7-0-0	-718	-718	---	FRONT	VERT	TOTAL

CONNECTION REQUIREMENTS

1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED

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:

SPECIFIED LOADS:

TOP	CH.	LL = 34.8	PSF
		DL = 8.0	PSF
BOT	CH.	LL = 10.5	PSF
		DL = 7.3	PSF
TOTAL LOAD		= 60.6	PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 6-0-0
END SETBACK = 6-0-0
END WALL WIDTH = 5-8
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE

- ADDTL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 7-8-0 OF SPAN MEASURED
FROM THE LEFT

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 6-0-0
END SETBACK = 6-0-0
END WALL WIDTH = 5-8
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE

APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 17-2-0 OF SPAN MEASURED
FROM THE RIGHT.

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= $L/360$ (1.09")
 CALCULATED VERT. DEFL.(LL) = $L/999$ (0.28")
 ALLOWABLE DEFL.(TL)= $L/360$ (1.09")
 CALCULATED VERT. DEFL.(TL) = $L/841$ (0.47")

CSI: TC=0.81/1.00 (G-I:1), BC=0.48/1.00 (R-S:1),
WB=0.90/1.00 (J-R:1), SS=0.52/1.00 (L-I: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 = 1.00

CONTINUED ON PAGE 2



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

WB - INDICATES BLOCKING REQUIRED

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
MT18HS586	403	2455	1382 3163 3004
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (W) (INPUT = 0.90)
JSI METAL= 0.99 (S) (INPUT = 1.00)

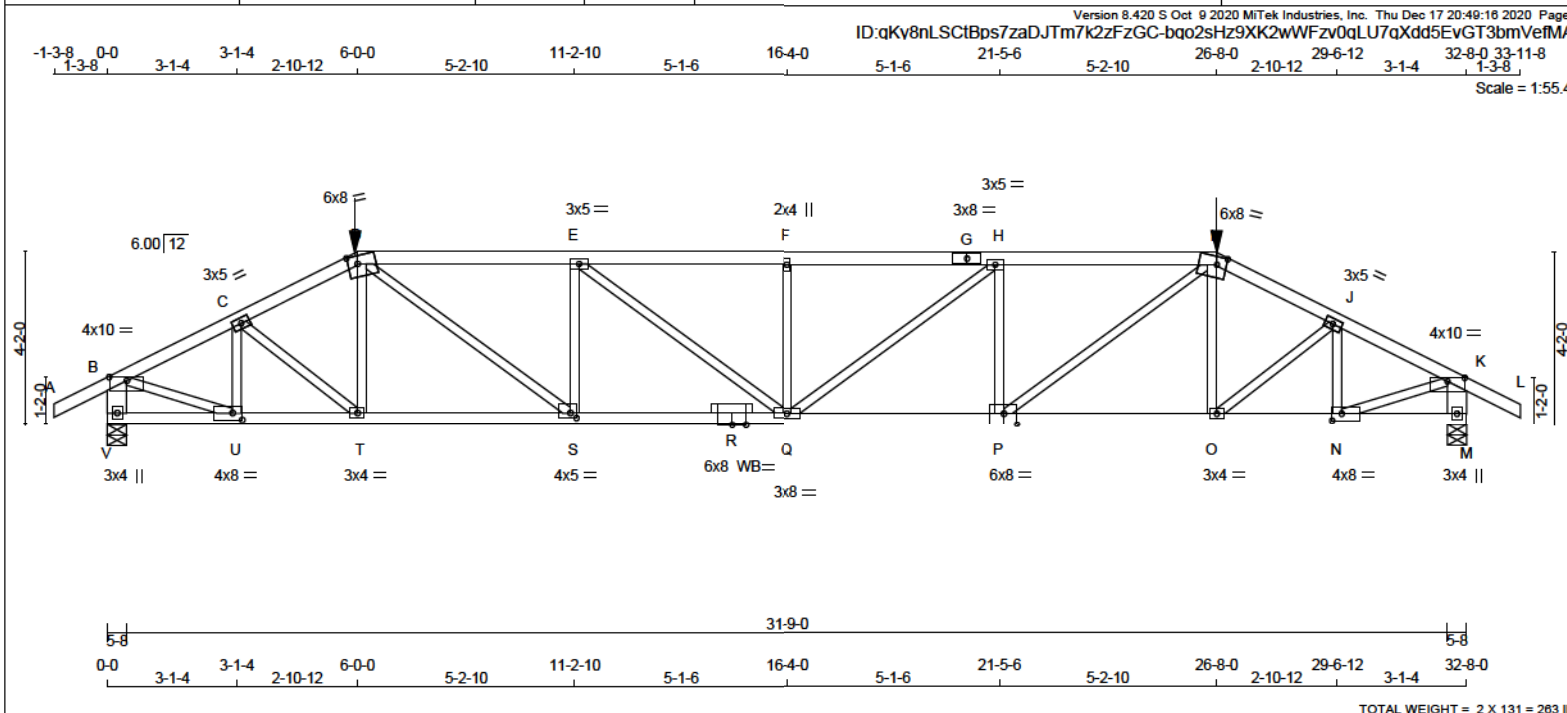
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Zoning			





LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	DESCR.
A - D	2x4	DRY	No.2
D - G	2x4	DRY	2100F 1.8E
G - I	2x4	DRY	2100F 1.8E
I - L	2x4	DRY	No.2
V - B	2x6	DRY	No.2
M - K	2x6	DRY	No.2
V - R	2x4	DRY	No.2
R - P	2x4	DRY	2100F 1.8E
P - M	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
EXCEPT			

DRY: SEASONED LUMBER.

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

CHORDS#ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A - D	12	SIDE(0.0)
D - G	12	SIDE(55.1)
G - I	12	SIDE(55.1)
I - L	12	SIDE(0.0)
V - B	12	TOP
M - K	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
V - R	12	SIDE(22.0)
R - P	12	SIDE(22.0)
P - M	12	SIDE(22.0)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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	5108	0	5108	0	0	5-8	2-13		
M VERT	5108	0	5108	0	0	5-8	2-13		
UNFACTORED REACTIONS									
1ST LCASE	MAX/MIN COMPONENT REACTIONS								
JT COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL			
V	3780	2182 / 0	647 / 0	0 / 0	0 / 0	951 / 0	0 / 0		
M	3780	2182 / 0	647 / 0	0 / 0	0 / 0	951 / 0	0 / 0		
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) V, M									
BRACING									
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.28 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	MAX. UNBRACED	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
FR-TO	FROM	TO	LENGTH	FR-TO	FROM	TO	LENGTH		
A-B	0 / 38	-124.4	-124.4	0.09 (1)	10.00	U-C	-1494 / 0	0.13 (1)	
B-C	-8671 / 0	-124.4	-124.4	0.25 (1)	3.61	C-T	0 / 1047	0.13 (1)	
C-D	-7606 / 0	-124.4	-124.4	0.28 (1)	3.38	T-D	-294 / 181	0.04 (1)	
D-E	-10121 / 0	-234.6	-234.6	0.52 (1)	3.47	D-S	0 / 4156	0.51 (1)	
E-F	-11106 / 0	-234.6	-234.6	0.55 (1)	3.29	S-E	-2104 / 0	0.28 (1)	
F-G	-11106 / 0	-234.6	-234.6	0.56 (1)	3.28	E-Q	0 / 1240	0.15 (1)	
G-H	-11106 / 0	-234.6	-234.6	0.56 (1)	3.28	Q-F	-1110 / 0	0.15 (1)	
H-I	-10094 / 0	-234.6	-234.6	0.52 (1)	3.47	Q-H	0 / 1274	0.18 (1)	
I-J	-7619 / 0	-124.4	-124.4	0.28 (1)	3.37	P-H	-2127 / 0	0.29 (1)	
J-K	-8666 / 0	-124.4	-124.4	0.25 (1)	3.62	P-I	0 / 4109	0.51 (1)	
K-L	0 / 38	-124.4	-124.4	0.09 (1)	10.00	O-I	-260 / 236	0.04 (1)	
V-B	-4982 / 0	0.0	0.0	0.18 (1)	6.52	O-J	0 / 1064	0.13 (1)	
M-K	-4979 / 0	0.0	0.0	0.18 (1)	6.52	N-J	-1510 / 0	0.14 (1)	
V-U	0 / 0	-74.0	-74.0	0.09 (2)	10.00	B-U	0 / 6197	0.77 (1)	
U-T	0 / 5973	-74.0	-74.0	0.63 (1)	10.00	N-K	0 / 6193	0.77 (1)	
T-S	0 / 6782	-74.0	-74.0	0.70 (1)	10.00				
S-R	0 / 10121	-74.0	-74.0	0.98 (1)	10.00				
R-Q	0 / 10121	-74.0	-74.0	0.98 (1)	10.00				
Q-P	0 / 10094	-74.0	-74.0	0.51 (1)	10.00				
P-O	0 / 6792	-74.0	-74.0	0.73 (1)	10.00				
O-N	0 / 5970	-74.0	-74.0	0.66 (1)	10.00				
N-M	0 / 0	-74.0	-74.0	0.09 (2)	10.00				
FACTORED CONCENTRATED LOADS (LBS)									
JT LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.	
D	6-0-0	-560	-560	---	FRONT	VERT	TOTAL	---	C1
I	26-8-0	-560	-560	---	FRONT	VERT	TOTAL	---	C1

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 34.8 PSF
DL = 8.0 PSF

BOT CH. LL = 10.5 PSF
DL = 7.3 PSF

TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 6-0-0
END SETBACK = 6-0-0
END WALL WIDTH = 5-8
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDTL LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEF. (LL) = L/360 (1.09")
CALCULATED VERT. DEF. (LL) = L/969 (0.29")
ALLOWABLE DEF. (TL) = L/360 (1.09")
CALCULATED VERT. DEF. (TL) = L/798 (0.49")

CSI: TC=0.56/1.00 (F-H:1), BC=0.98/1.00 (Q-S:1), WB=0.77/1.00 (B-U:1), SS=0.31/1.00 (H-I: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 = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	650	371	1747
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (P) (INPUT = 0.90)
JSI METAL = 0.97 (P) (INPUT = 1.00)

Dec 16, 2020

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

Building Standards Branch BCN #16487

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Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			

CONTINUED ON PAGE 2

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ID:qKy8nLSCtBps7zaDJTm7k2zFzGC-bqo2sHz9XK2wWFzv0qLU7gXdd5EvGT3bmVefMAY7y

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW-p	MT20	4.0	10.0	1.00 5.00
C, E, H, J					
C	TMWW-t	MT20	3.0	5.0	
D	TTWW-m	MT20	6.0	8.0	2.25 2.75
F	TMW+w	MT20	2.0	4.0	
G	TS-t	MT20	3.0	8.0	
I	TTWW-m	MT20	6.0	8.0	2.25 2.75
K	TMVW-p	MT20	4.0	10.0	1.00 5.00
M	BMV1+p	MT20	3.0	4.0	
N	BMWW-t	MT20	4.0	8.0	2.00 2.75
O	BMWW-t	MT20	3.0	4.0	
P	BSWW-t	MT20	6.0	8.0	3.25 3.75
Q	BMWWW-t	MT20	3.0	8.0	
R	BS-t	MT20	6.0	8.0	
S	BMWW-t	MT20	4.0	5.0	1.50 1.75
T	BMWW-t	MT20	3.0	4.0	
U	BMWW-t	MT20	4.0	8.0	2.00 2.75
V	BMV1+p	MT20	3.0	4.0	

WB - INDICATES BLOCKING REQUIRED

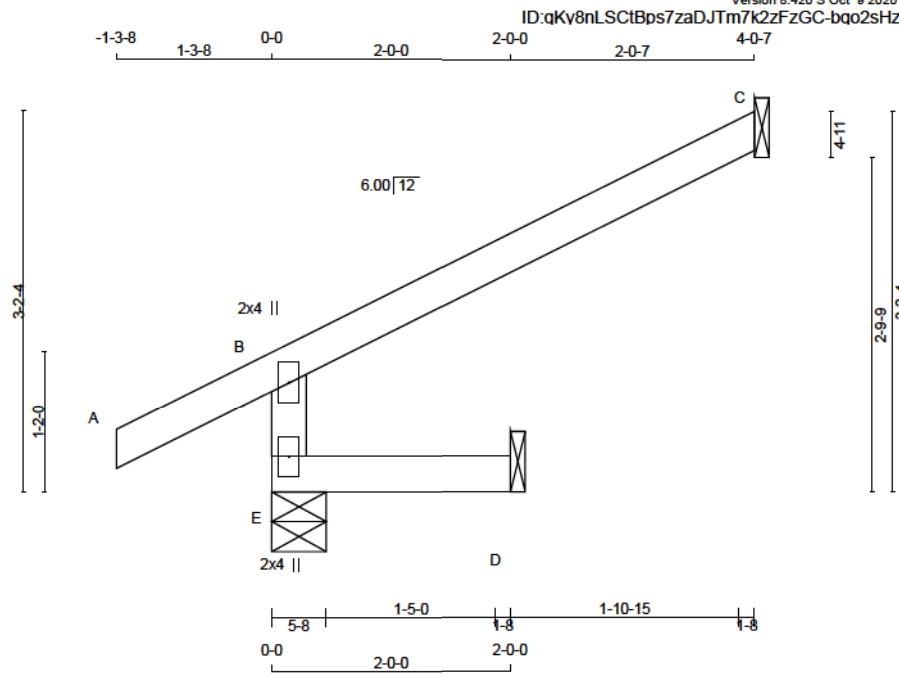
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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-05
Sewage System			
Zoning			





LUMBER
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
E - B	2x4	DRY	No.2
A - C	2x4	DRY	No.2
E - D	2x4	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
E	BMV1+p	MT20	2.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
E	528	528	5-8	1-8
C	188	188	1-8	1-8
D	35	44	1-8	1-8

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST LCASE	MAX MIN COMPONENT REACTIONS	WIND	DEAD	SOIL
E	372	270 / 0	23 / 0	0 / 0	0 / 0
C	130	105 / 0	0 / 0	0 / 0	0 / 0
D	32	0 / 0	19 / 0	0 / 0	13 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 8.25 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)	FACTORED HORZ. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED HORZ. LOAD (LC)	MAX. FACTORED LENGTH
FR-TO		FROM TO		FR-TO			
E-B	-483 / 0	0.0	0.0 0.02 (3)	E-B	7.81		
A-B	0 / 38	-124.4	-124.4 0.16 (1)	A-B	10.00		
B-C	-28 / 0	-124.4	-124.4 0.34 (1)	B-C	6.25		
E-D	0 / 0	-39.2	-39.2 0.03 (3)	E-D	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 34.8 PSF
DL = 8.0 PSF
BOT CH. LL = 10.5 PSF
DL = 7.3 PSF
TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

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

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.34/1.00 (B-C:1) , BC=0.03/1.00 (D-E:3) ,
WB=0.00/1.00 (n/a:0) , SSI=0.22/1.00 (B-C: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 = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg.

JSI GRIP= 0.27 (B) (INPUT = 0.90)
JSI METAL= 0.20 (B) (INPUT = 1.00)



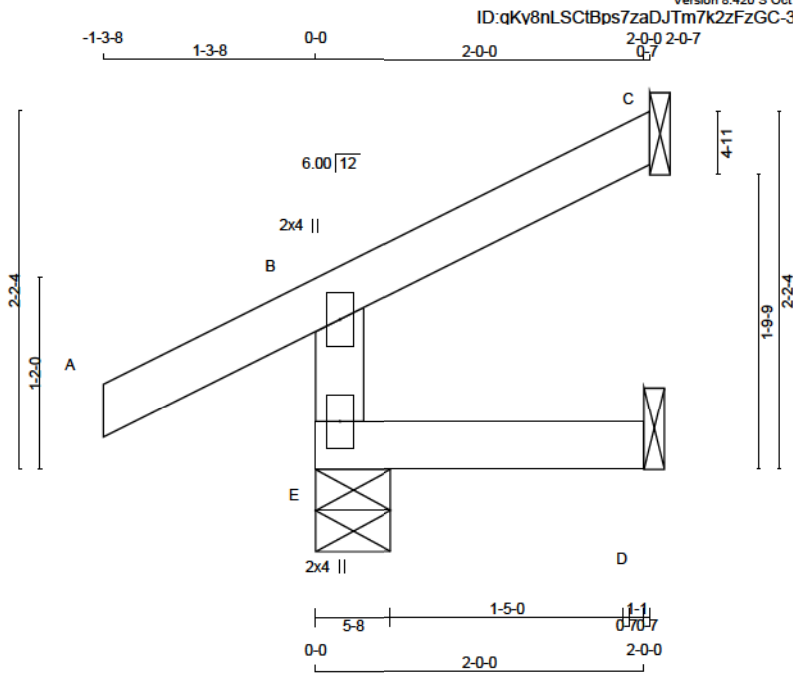
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Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			





Scale = 1:14.0

TOTAL WEIGHT = 2 X 7 = 15 lb

LUMBER
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
E - B	2x4	DRY	No.2
A - C	2x4	DRY	No.2
E - D	2x4	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
E	BMV1+p	MT20	2.0	4.0		

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
E	370	0	370	0	0	5-8	1-8
C	96	0	96	0	0	1-8	1-8
D	35	0	44	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	COMBINED	1ST LCASE		MAX / MIN COMPONENT REACTIONS		WIND	DEAD	SOIL
		SNOW	LIVE	PERM. LIVE	WIND			
E	264	183 / 0	23 / 0	0 / 0	0 / 0	58 / 0	0 / 0	0 / 0
C	66	54 / 0	0 / 0	0 / 0	0 / 0	12 / 0	0 / 0	0 / 0
D	32	0 / 0	19 / 0	0 / 0	0 / 0	13 / 0	0 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 8.25 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: (5)

MEMB.	CHORDS		WEBS		MEMB.	MAX. FACTORED	
	MAX. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FORCE (LBS)	MAX. FORCE (LBS)		MAX. FORCE (LBS)	MAX. FORCE (LBS)
FR-TO					FR-TO		
E-B	-327 / 0	0.0	0.0	0.02 (3)	7.81		
A-B	0 / 38	-124.4	-124.4	0.16 (1)	10.00		
B-C	-14 / 0	-124.4	-124.4	0.09 (1)	6.25		
E-D	0 / 0	-39.2	-39.2	0.03 (3)	10.00		

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 34.8 PSF
DL = 8.0 PSF
BOT CH. LL = 10.5 PSF
DL = 7.3 PSF
TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

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

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.16/1.00 (A-B:1) , BC=0.03/1.00 (D-E:3) ,
WB=0.00/1.00 (n/a:0) , SSI=0.12/1.00 (A-B: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 = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg.

JSI GRIP= 0.18 (B) (INPUT = 0.90)
JSI METAL= 0.14 (B) (INPUT = 1.00)



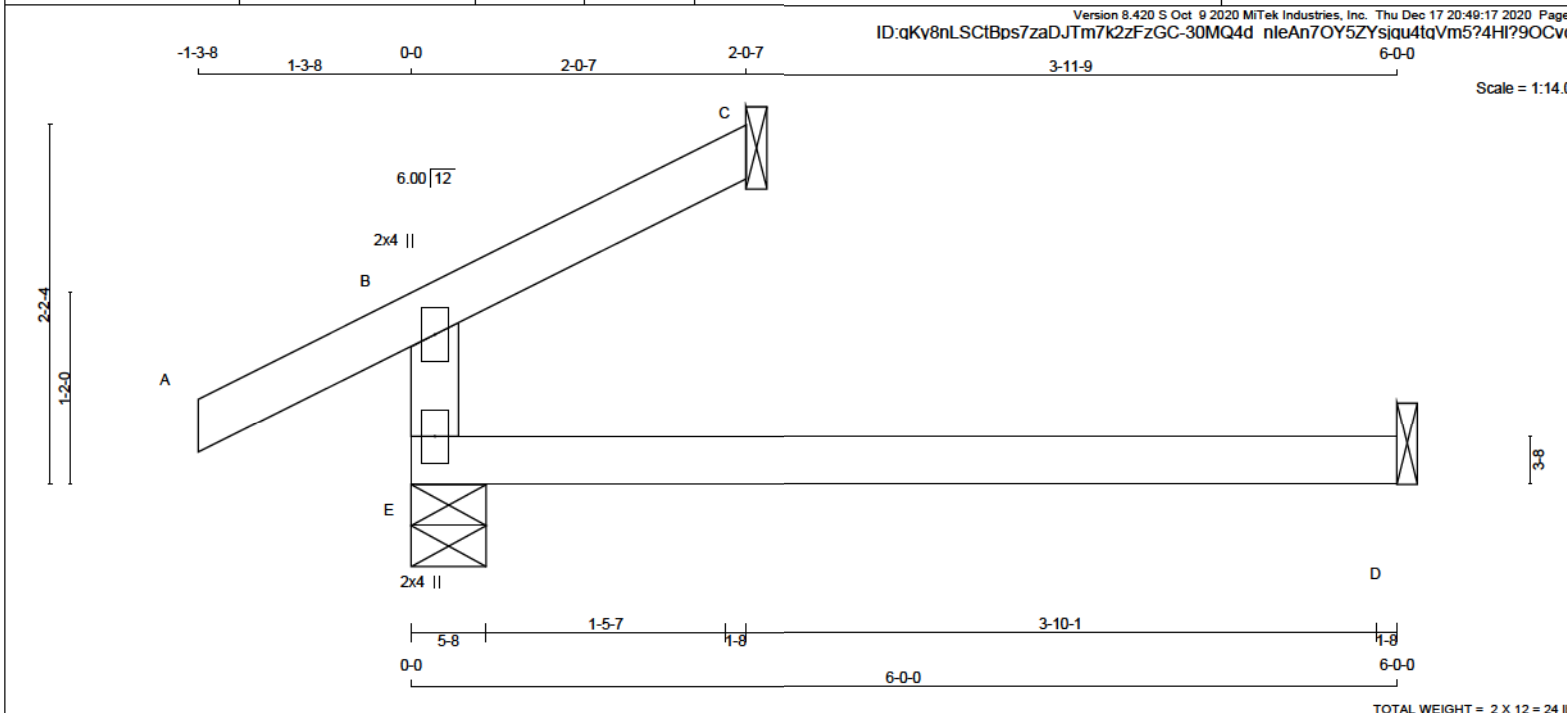
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Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			



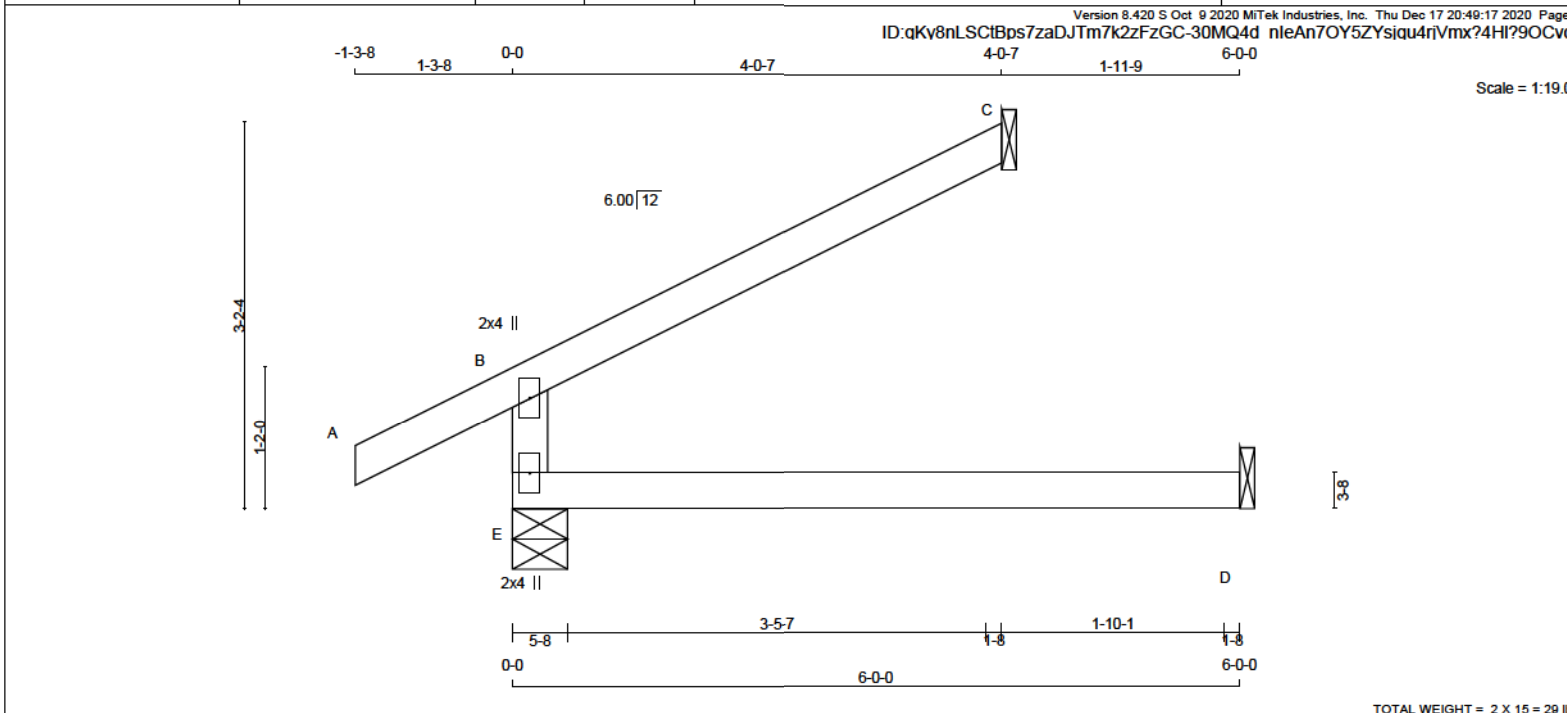


LUMBER										DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA									
N. L. G. A. RULES										BEARINGS										DESIGN CRITERIA									
CHORDS SIZE LUMBER										FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT BRG REQRD BRG										SPECIFIED LOADS:									
E - B 2x4 DRY No.2										JT VERT 485 0 485 0 0 5-8 1-8										TOP CH. LL = 34.8 PSF									
A - C 2x4 DRY No.2										E 485 0 485 0 0 5-8 1-8										DL = 8.0 PSF									
E - D 2x4 DRY No.2										C 96 0 96 0 0 1-8 1-8										BOT CH. LL = 10.5 PSF									
										D 97 0 123 0 0 1-8 1-8										DL = 7.3 PSF									
DRY: SEASONED LUMBER.																				TOTAL LOAD = 60.6 PSF									
										SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C, D										SPACING = 24.0 IN. C/C									
PLATES (table is in inches)										UNFACTORED REACTIONS										THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015									
JT TYPE PLATES W LEN Y X										1ST LCASE MAX MIN COMPONENT REACTIONS										THIS DESIGN COMPLIES WITH:									
B TMV+p MT20 2.0 4.0										JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL										- PART 9 OF BCBC 2018, ABC 2019									
E BMV1+p MT20 2.0 4.0										E 350 183 / 0 74 / 0 0 / 0 0 / 0 93 / 0 0 / 0										- PART 9 OF OBC 2012 (2019 AMENDMENT)									
										C 96 54 / 0 0 / 0 0 / 0 0 / 0 12 / 0 0 / 0										- CSA 086-14									
										D 88 0 / 0 52 / 0 0 / 0 0 / 0 36 / 0 0 / 0										- TPIC 2014									
										BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) E, C										DESIGN ASSUMPTIONS									
										BRACING										-OVERHANG NOT TO BE ALTERED OR CUT OFF.									
										TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.										(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)									
										MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.										EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD									
										ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.										ALLOWABLE DEFL.(LL)= L/360 (0.20")									
										LOADING										CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")									
										TOTAL LOAD CASES: (4)										ALLOWABLE DEFL.(TL)= L/360 (0.20")									
																				CALCULATED VERT. DEFL.(TL) = L/ 874 (0.08")									
																				CSI: TC=0.22/1.00 (B-E:3) , BC=0.22/1.00 (D-E:3) ,									
																				WB=0.00/1.00 (n/a:0) , SSI=0.14/1.00 (D-E:3)									
																				DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10									
																				SHEAR=1.10 TENS=1.10									
																				COMPANION LIVE LOAD FACTOR = 1.00									
																				TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .									
																				NAIL VALUES									
																				PLATE GRIP(DRY) SHEAR SECTION									
																				(PSI) (PLI) (PLI)									
																				MAX MIN MAX MIN MAX MIN									

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Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			

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LUMBER

N. L. G. A. RULES

CHORDS SIZE LUMBER

E - B 2x4 DRY No.2

A - C 2x4 DRY No.2

E - D 2x4 DRY No.2

DRY: SEASONED LUMBER.

DESCR.

SPF

SPF

SPF

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0	
E	BMV1+p	MT20	2.0	4.0	

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
E	621	0	621	0	0
C	188	0	188	0	0
D	97	0	123	0	0

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C , D

UNFACTORED REACTIONS

JT	1ST LCASE	MAX / MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE PERM.LIVE WIND DEAD SOIL
E	458	270 / 0	74 / 0 0 / 0 0 / 0 114 / 0 0 / 0
C	130	105 / 0	0 / 0 0 / 0 0 / 0 24 / 0 0 / 0
D	88	0 / 0	52 / 0 0 / 0 0 / 0 36 / 0 0 / 0

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

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)

C H O R D S			W E B S		
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)	MEMB.	MAX. FACTORED VERT. LOAD (PLF)
FR-TO				FR-TO	
E-B	-483 / 0	0.0	0.0 0.23 (3)	7.81	
A-B	0 / 38	-124.4	-124.4 0.16 (1)	10.00	
B-C	-28 / 0	-124.4	-124.4 0.34 (1)	6.25	
E-D	0 / 0	-39.2	-39.2 0.23 (3)	10.00	

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 34.8 PSF

DL = 8.0 PSF

BOT CH. LL = 10.5 PSF

DL = 7.3 PSF

TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019

- PART 9 OF OBC 2012 (2019 AMENDMENT)

- CSA 086-14

- TPIC 2014

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)

EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")

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

CALCULATED VERT. DEFL.(TL) = L/ 874 (0.08")

CSI: TC=0.34/1.00 (B-C:1) , BC=0.23/1.00 (D-E:3) ,

WB=0.00/1.00 (n/a:0) , SSI=0.22/1.00 (B-C: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 = 1.00

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

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION

(PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg.

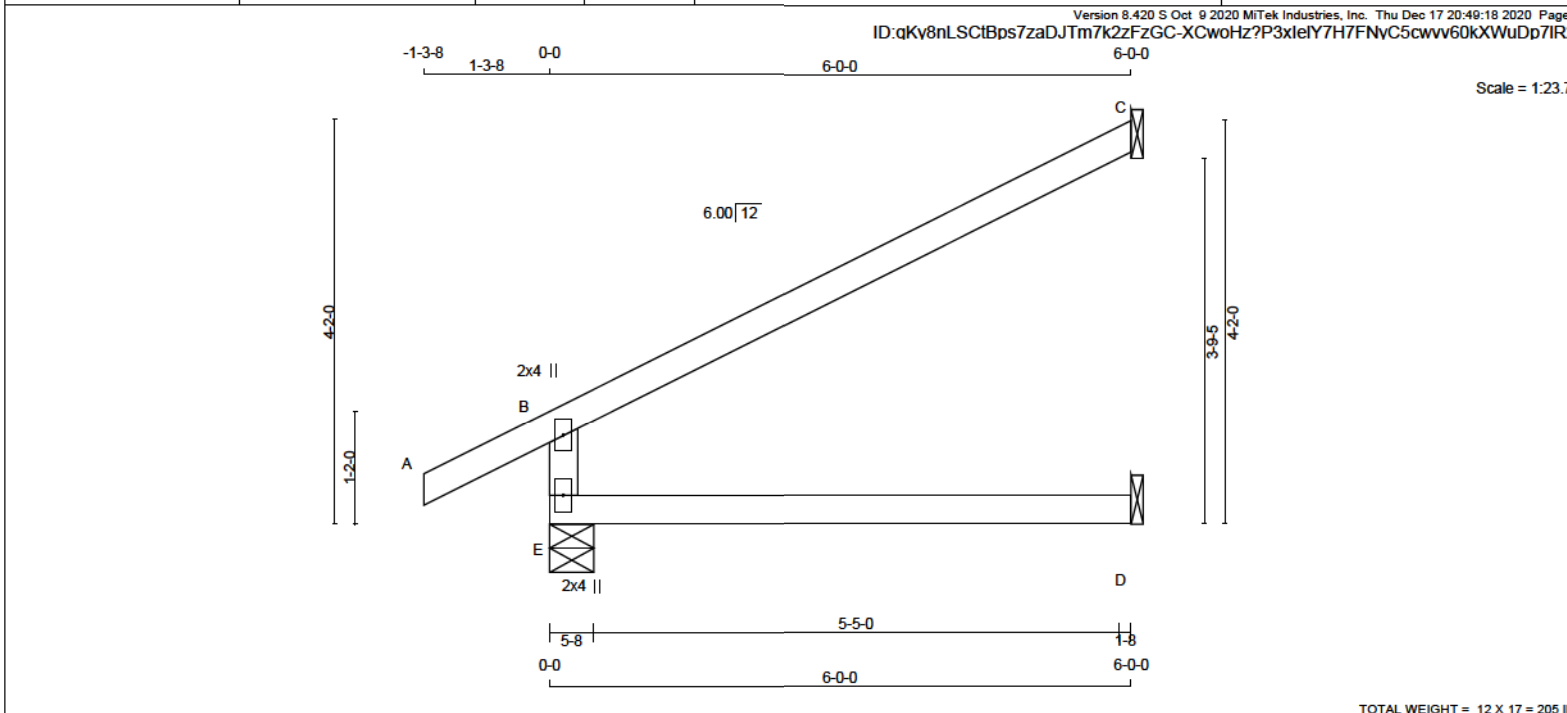
JSI GRIP= 0.27 (B) (INPUT = 0.90)

JSI METAL= 0.20 (B) (INPUT = 1.00)

These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amended. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times.

Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			

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



LUMBER					<u>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</u>										<u>DESIGN CRITERIA</u>								
N. L. G. A. RULES					<u>BEARINGS</u>																		
CHORDS SIZE LUMBER					FACTORED					MAXIMUM FACTORED					INPUT				REQRD				
E - B 2x4 DRY No.2					GROSS REACTION					GROSS REACTION					BRG					BRG			
A - C 2x4 DRY No.2					JT VERT HORZ					DOWN HORZ UPLIFT					IN-SX					IN-SX			
E - D 2x4 DRY No.2					SPF					SPF					SPF					SPF			
DRY: SEASONED LUMBER.																							

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C , D							TOTAL LOAD = 60.6 PSF																																	
UNFACTORED REACTIONS <table><tr><th>JT</th><th>COMBINED</th><th>SNOW</th><th>LIVE</th><th>PERM.LIVE</th><th>WIND</th><th>DEAD</th><th>SOIL</th></tr><tr><td>E</td><td>563</td><td>355 / 0</td><td>74 / 0</td><td>0 / 0</td><td>0 / 0</td><td>133 / 0</td><td>0 / 0</td></tr><tr><td>C</td><td>193</td><td>157 / 0</td><td>0 / 0</td><td>0 / 0</td><td>0 / 0</td><td>36 / 0</td><td>0 / 0</td></tr><tr><td>D</td><td>88</td><td>0 / 0</td><td>52 / 0</td><td>0 / 0</td><td>0 / 0</td><td>36 / 0</td><td>0 / 0</td></tr></table>							JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	E	563	355 / 0	74 / 0	0 / 0	0 / 0	133 / 0	0 / 0	C	193	157 / 0	0 / 0	0 / 0	0 / 0	36 / 0	0 / 0	D	88	0 / 0	52 / 0	0 / 0	0 / 0	36 / 0	0 / 0	SPACING = 24.0 IN. C/C THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF BCBC 2018 , ABC 2019 - PART 9 OF OBC 2012 (2019 AMENDMENT) - CSA 086-14 - TPIC 2014 DESIGN ASSUMPTIONS -OVERHANG NOT TO BE ALTERED OR CUT OFF. (55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL																																	
E	563	355 / 0	74 / 0	0 / 0	0 / 0	133 / 0	0 / 0																																	
C	193	157 / 0	0 / 0	0 / 0	0 / 0	36 / 0	0 / 0																																	
D	88	0 / 0	52 / 0	0 / 0	0 / 0	36 / 0	0 / 0																																	
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) E 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.																																								

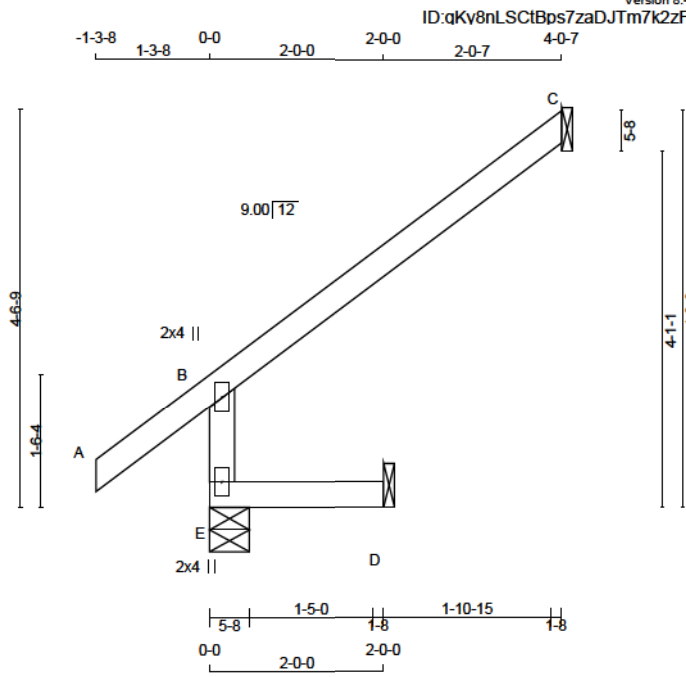
LOADING										ALLOWABLE DEFL(LL)= L/360 (0.20")									
TOTAL LOAD CASES: (4)										CALCULATED VERT. DEFL(LL) = L/ 999 (0.05")									
										ALLOWABLE DEFL(TL)= L/360 (0.20")									
										CALCULATED VERT. DEFL(TL) = L/ 874 (0.08")									
										CSI: TC=0.76/1.00 (B-C:1) , BC=0.24/1.00 (D-E:3) ,									
										WB=0.00/1.00 (n/a:0) , SSI=0.33/1.00 (B-C: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 = 1.00									
										TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE									
										FOR QUALITY CONTROL IN THE TRUSS									
										MANUFACTURING PLANT .									
										NAIL VALUES									
										PLATE GRIP(DRY) SHEAR SECTION									
										(PSI) (PLI) (PLI)									
										MAX MIN MAX MIN MAX MIN									

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Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			





LUMBER
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
E - B	2x4	DRY	No.2
A - C	2x4	DRY	No.2
E - D	2x4	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
E	BMV1+p	MT20	2.0	4.0		

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
E	528	0	528	0
C	189	0	189	0
D	36	0	45	0

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST LCASE	MAX	MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE	PERM. LIVE
E	373	272 / 0	23 / 0	0 / 0
C	130	105 / 0	0 / 0	0 / 0
D	32	0 / 0	19 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 8.25 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)	FACTORED HORZ. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED HORZ. LOAD (LC)	MAX. FACTORED LENGTH
FR-TO		FROM TO		FR-TO			
E-B	-485 / 0	0.0	0.0 0.02 (3)	E-B	78 / 0		7.81
A-B	0 / 51	-124.4	-124.4 0.17 (1)	A-B	0 / 0		10.00
B-C	-38 / 0	-124.4	-124.4 0.34 (1)	B-C	24 / 0		6.25
E-D	0 / 0	-39.2	-39.2 0.04 (3)	E-D	13 / 0		10.00

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 34.8 PSF
DL = 8.0 PSF
BOT CH. LL = 10.5 PSF
DL = 7.3 PSF
TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

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

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.34/1.00 (B-C:1) , BC=0.04/1.00 (D-E:3) ,
WB=0.00/1.00 (n/a:0) , SSI=0.20/1.00 (B-C: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 = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.32 (B) (INPUT = 0.90)
JSI METAL= 0.26 (B) (INPUT = 1.00)



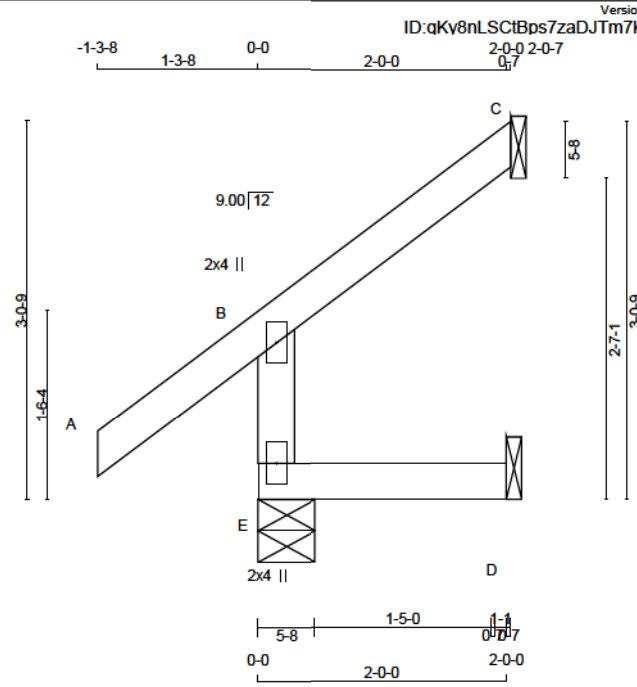
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Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			





Scale = 1:18.5

LUMBER
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
E - B	2x4	DRY	No.2
A - C	2x4	DRY	No.2
E - D	2x4	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
E	BMV1+p	MT20	2.0	4.0		

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

BEARINGS

JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	REQD
E	372	0	372	0	0	5-8	1-8
C	96	0	96	0	0	1-8	1-8
D	36	0	45	0	0	1-8	1-8

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST CASE	MAX	MIN	COMPONENT	REACTIONS
E	COMBINED	265	184 / 0	23 / 0	0 / 0
C	COMBINED	86	54 / 0	0 / 0	0 / 0
D	COMBINED	32	0 / 0	19 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 8.25 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: (5)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED HORZ. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED HORZ. LOAD (LC)
FR-TO				FR-TO			
E-B	-329 / 0	0.0	0.0 (3)	E-B	58 / 0	0 / 0	0 / 0
A-B	0 / 51	-124.4	-124.4 (1)	A-B	12 / 0	0 / 0	0 / 0
B-C	-18 / 0	-124.4	-124.4 (1)	B-C	13 / 0	0 / 0	0 / 0
E-D	0 / 0	-39.2	-39.2 (3)	E-D			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 34.8 PSF
DL = 8.0 PSF
BOT CH. LL = 10.5 PSF
DL = 7.3 PSF
TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

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

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CSI: TC=0.17/1.00 (A-B:1) . BC=0.03/1.00 (D-E:3) .
WB=0.00/1.00 (n/a:0) . SSI=0.11/1.00 (A-B: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 = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg.

JSI GRIP= 0.21 (B) (INPUT = 0.90)
JSI METAL= 0.17 (B) (INPUT = 1.00)



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

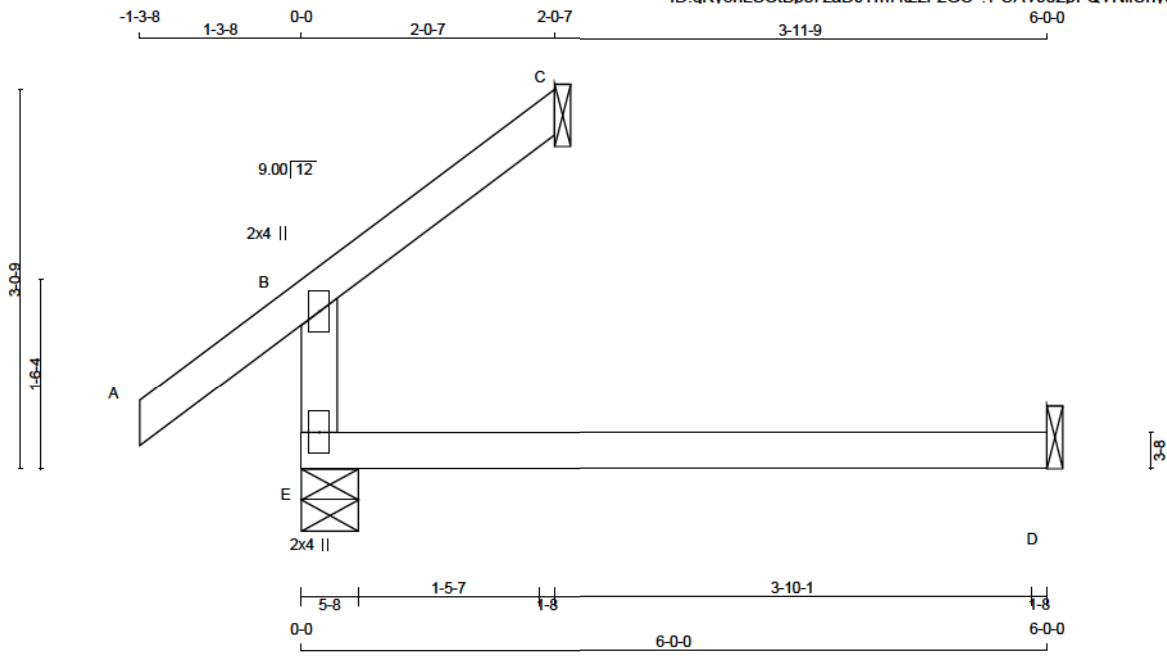


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Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			



Version 8.420 S Oct 9 2020 Mitek Industries, Inc. Thu Dec 17 20:49:19 2020 Page 1
 ID: qKv8nLScfBps7zaDJTm7k2zFzGC-7PUAVJ02pFQVNiUhyuBIJ9DXJSVT m1STtJzUy7y



TOTAL WEIGHT = 2 X 13 = 26 lb

LUMBER
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
E - B	2x4	DRY	No.2
A - C	2x4	DRY	No.2
E - D	2x4	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
E	BMV1+p	MT20	2.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
E	465	0	465	0	5-8	1-8
C	96	0	96	0	1-8	1-8
D	99	0	126	0	1-8	1-8

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	COMBINED	1ST LCASE		MAX / MIN COMPONENT REACTIONS		WIND	DEAD	SOIL
		SNOW	LIVE	PERM. LIVE	UNBRAC			
E	350	184 / 0	73 / 0	0 / 0	0 / 0	0 / 0	93 / 0	0 / 0
C	86	54 / 0	0 / 0	0 / 0	0 / 0	0 / 0	12 / 0	0 / 0
D	90	0 / 0	53 / 0	0 / 0	0 / 0	0 / 0	37 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 8.25 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)	FACTORED HORZ. LOAD (LC1)	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO	LENGTH	FR-TO		LENGTH	
E-B	-329 / 0	0.0	0.0 0.20 (3)	7.81			
A-B	0 / 51	-124.4	-124.4 0.17 (1)	10.00			
B-C	-18 / 0	-124.4	-124.4 0.09 (1)	6.25			
E-D	0 / 0	-39.2	-39.2 0.22 (3)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 34.8 PSF
DL = 8.0 PSF
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TOTAL LOAD = 60.6 PSF

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(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/814 (0.09")

CSI: TC=0.20/1.00 (B-E:3) , BC=0.22/1.00 (D-E:3) ,
WB=0.00/1.00 (n/a:0) , SSI=0.14/1.00 (D-E:3)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.21 (B) (INPUT = 0.90)
JSI METAL = 0.17 (B) (INPUT = 1.00)

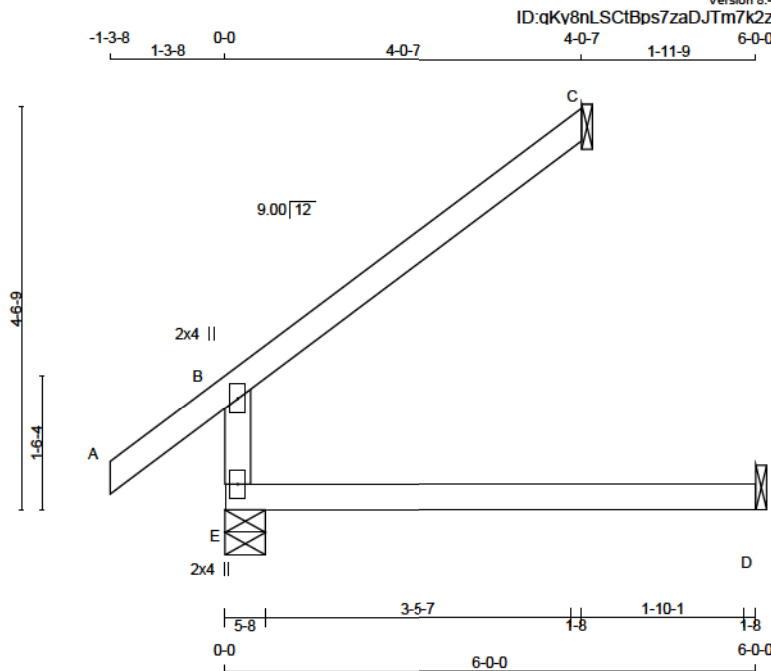


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Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			



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Scale = 1:26.0

TOTAL WEIGHT = 2 X 16 = 32 lb

LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
E - B	2x4	DRY	No.2		SPF
A - C	2x4	DRY	No.2		SPF
E - D	2x4	DRY	No.2		SPF

DRY: SEASONED LUMBER.

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

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
E	622	0	0	5-8
C	189	0	0	1-8
D	99	0	0	1-8

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST LCASE	MAX MIN	COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
E	457	272 / 0	73 / 0	0 / 0	0 / 0	113 / 0	0 / 0	
C	130	105 / 0	0 / 0	0 / 0	0 / 0	24 / 0	0 / 0	
D	90	0 / 0	53 / 0	0 / 0	0 / 0	37 / 0	0 / 0	

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 8.25 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)	FACTORED LC1 MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED UNBRACED LENGTH	FR-TO
E-B	-485 / 0	0.0	0.0 0.21 (3)	E-B	0 / 51	7.81	10.00
A-B	0 / 51	-124.4	-124.4 0.17 (1)	B-C	-38 / 0	6.25	10.00
B-C	-38 / 0	-124.4	-124.4 0.34 (1)	E-D	0 / 0	39.2	10.00
E-D	0 / 0	-39.2	-39.2 0.23 (3)				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 34.8	PSF
	DL = 8.0	PSF
BOT CH.	LL = 10.5	PSF
	DL = 7.3	PSF
TOTAL LOAD	= 60.6	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

-OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/814 (0.09")

CSI: TC=0.34/1.00 (B-C:1) , BC=0.23/1.00 (D-E:3) ,
WB=0.00/1.00 (n/a:0) , SSI=0.20/1.00 (B-C: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 = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MAX MIN	MAX MIN	MAX MIN	MAX MIN
MT20	650	371	1747

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.32 (B) (INPUT = 0.90)
JSI METAL= 0.26 (B) (INPUT = 1.00)

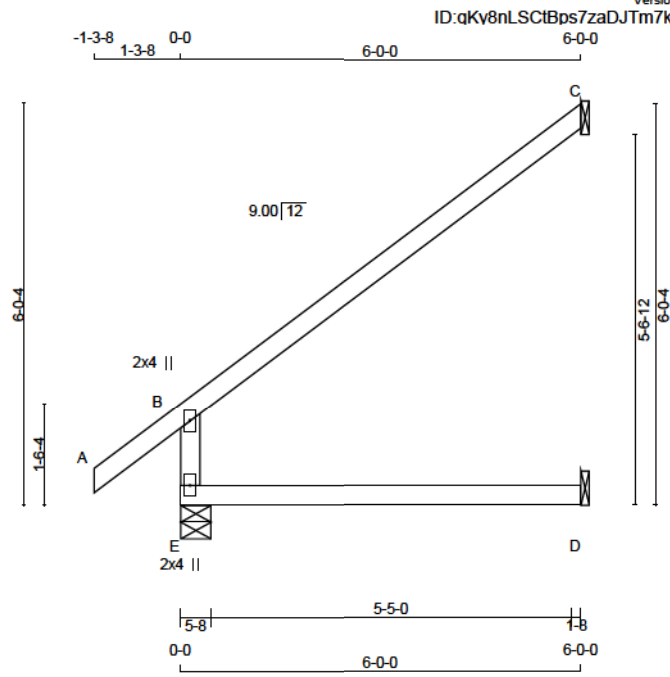


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Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			



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



Scale = 1:34.5

TOTAL WEIGHT = 4 X 19 = 75 lb

LUMBER
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
E - B	2x4	DRY	No.2
A - C	2x4	DRY	No.2
E - D	2x4	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	2.0	4.0		
E	BMV1+p	MT20	2.0	4.0		

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	DOWN	UPLIFT	IN-SX
E	774	0	0	5-8
C	280	0	0	1-8
D	99	0	0	1-8

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST LCASE	MAX	MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE	PERM. LIVE WIND DEAD SOIL
E	563	357 / 0	73 / 0	0 / 0 0 / 0 133 / 0 0 / 0
C	193	157 / 0	0 / 0	0 / 0 0 / 0 38 / 0 0 / 0
D	90	0 / 0	53 / 0	0 / 0 0 / 0 37 / 0 0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 8.25 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)	FACTORED HORZ. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED HORZ. LOAD (LC)	MEMB.
FR-TO		FROM TO	LENGTH	FR-TO		LENGTH	FR-TO
E-B	-638 / 0	0.0	0.0 0.21 (3)	7.81			
A-B	0 / 51	-124.4	-124.4 0.17 (1)	10.00			
B-C	-56 / 0	-124.4	-124.4 0.77 (1)	6.25			
E-D	0 / 0	-39.2	-39.2 0.24 (3)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 34.8 PSF
DL = 8.0 PSF
BOT CH. LL = 10.5 PSF
DL = 7.3 PSF
TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS
- OVERHANG NOT TO BE ALTERED OR CUT OFF.
(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/814 (0.09")

CSI: TC=0.77/1.00 (B-C:1) , BC=0.24/1.00 (D-E:3) , WB=0.00/1.00 (n/a:0) , SSI=0.29/1.00 (B-C: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 = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.42 (B) (INPUT = 0.90)

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



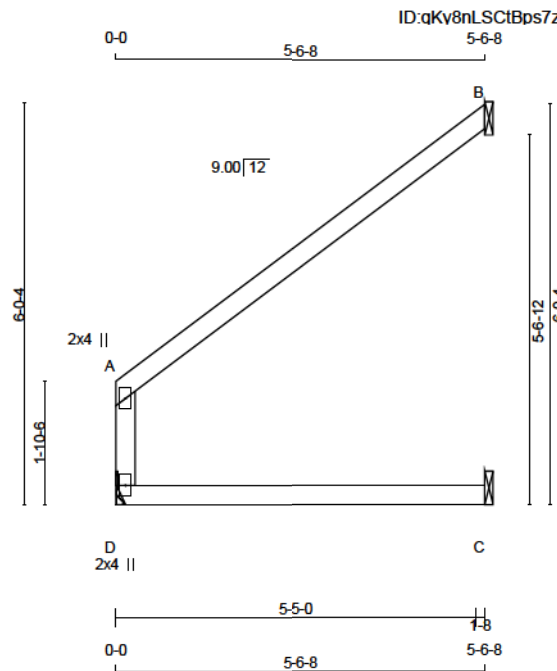
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Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			





Scale = 1:34.6

TOTAL WEIGHT = 3 X 16 = 48 lb

LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
D - A	2x4	DRY	No.2		SPF
A - B	2x4	DRY	No.2		SPF
D - C	2x4	DRY	No.2		SPF

DRY: SEASONED LUMBER.

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

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		
D	454	0	454	0	0	MECHANICAL			
B	319	0	319	0	0	1-8	1-8		
C	135	0	152	0	0	1-8	1-8		

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT D. MINIMUM BEARING LENGTH AT JOINT D = 1-8.

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) B , C

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN. COMPONENT REACTIONS					
		COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
D	336	193 / 0	58 / 0	0 / 0	0 / 0	85 / 0	0 / 0
B	221	173 / 0	5 / 0	0 / 0	0 / 0	43 / 0	0 / 0
C	115	20 / 0	53 / 0	0 / 0	0 / 0	42 / 0	0 / 0

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)

C H O R D S		W E B S	
MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED FORCE (LBS)
FR-TO			
D - A	-371 / 0	0.0 0.0 0.18 (1)	7.81
A - B	-16 / 3	-124.4 -124.4 0.56 (1)	6.25
D - C	0 / 0	-39.2 -39.2 0.32 (1)	10.00

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL = 34.8	PSF
	DL = 8.0	PSF
BOT CH.	LL = 10.5	PSF
	DL = 7.3	PSF
TOTAL LOAD	= 60.6	PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/904 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/493 (0.13")

CSI: TC=0.56/1.00 (A-B:1) , BC=0.32/1.00 (C-D:1) ,
WB=0.00/1.00 (n/a:0) , SSI=0.23/1.00 (A-B: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 = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	650 371	1747 788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.24 (A) (INPUT = 0.90)
JSI METAL = 0.20 (A) (INPUT = 1.00)

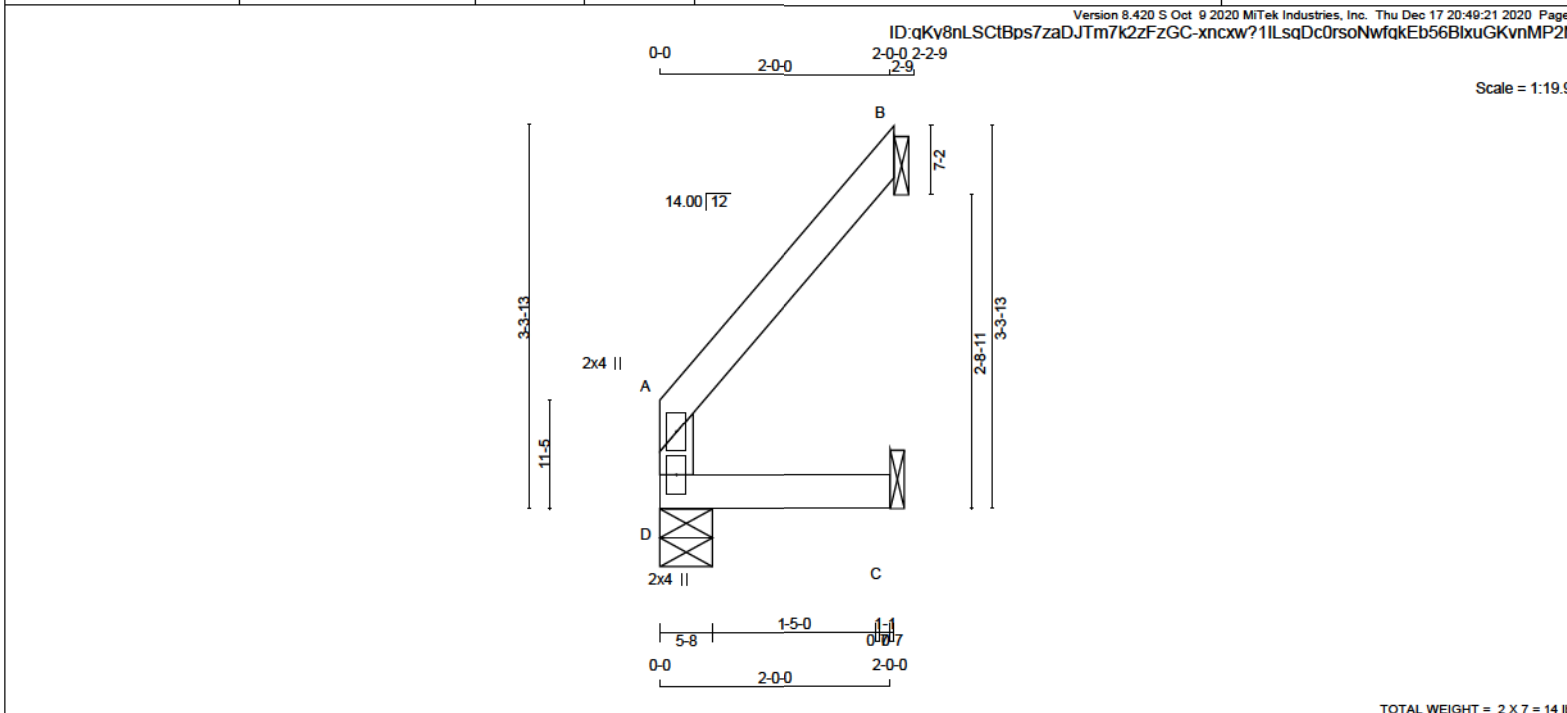


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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-05
Sewage System			
Zoning			



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LUMBER

N. L. G. A. RULES

CHORDS SIZE

D - A 2x4 DRY No.2

A - B 2x4 DRY No.2

D - C 2x4 DRY No.2

DESCR.

SPF

SPF

SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
D	BMV1+p	MT20	2.0	4.0		

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
D 166 0	166 0	0 5-8	1-8
B 115 0	115 0	0 1-8	1-8
C 51 0	57 0	0 1-8	1-8

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) B , C

UNFACTORED REACTIONS

1ST LCASE	MAX MIN COMPONENT REACTIONS					
JT COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
D 123	71 / 0	21 / 0	0 / 0	0 / 0	31 / 0	0 / 0
B 80	63 / 0	2 / 0	0 / 0	0 / 0	15 / 0	0 / 0
C 43	8 / 0	19 / 0	0 / 0	0 / 0	15 / 0	0 / 0

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

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)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED L1 MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED L1 MAX. CSI (LC)
FR-TO		FROM TO		FR-TO		FROM TO	
D-A	-138 / 0	0.0	0.0 0.03 (1)	7.81			
A-B	-9 / 0	-124.4	-124.4 0.06 (1)	10.00			
D-C	0 / 0	-39.2	-39.2 0.05 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 34.8 PSF

DL = 8.0 PSF

BOT CH. LL = 10.5 PSF

DL = 7.3 PSF

TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

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- PART 9 OF OBC 2012 (2019 AMENDMENT)

- CSA 086-14

- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)

EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

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

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

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

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

CSI: TC=0.06/1.00 (A-B:1) , BC=0.05/1.00 (C-D:1) ,

WB=0.00/1.00 (n/a:0) , SSI=0.07/1.00 (A-B: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 = 1.00

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)

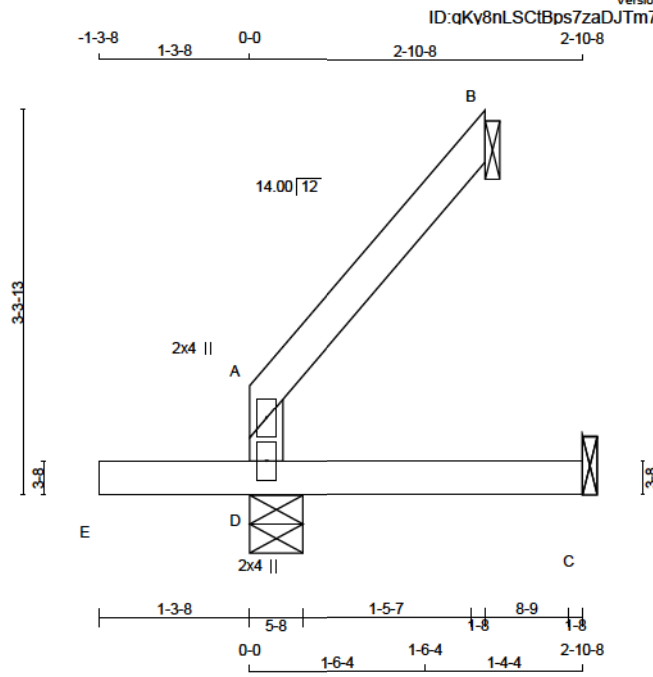
MAX MIN MAX MIN MAX MIN

MT20 650 371 1747 788 1987 1873

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Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			

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Scale = 1:19.8

TOTAL WEIGHT = 2 X 9 = 19 LB

LUMBER
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
D - A	2x4	DRY	No.2
A - B	2x4	DRY	No.2
E - C	2x4	DRY	No.2

SPF
SPF
SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
D	BMV1+p	MT20	2.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
D	429	0	429	0	5-8	1-8
B	106	0	106	0	1-8	1-8
C	42	0	54	0	1-8	1-8

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) B, C

UNFACTORED REACTIONS							
JT	1ST LCASE	MAX/MIN COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
D	322	172 / 0	65 / 0	0 / 0	0 / 0	85 / 0	0 / 0
B	73	60 / 0	0 / 0	0 / 0	0 / 0	14 / 0	0 / 0
C	38	0 / 0	23 / 0	0 / 0	0 / 0	16 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 8.25 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: (5)

MEMB.	CHORDS			WEBS		
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED L1 MAX. CSI (LC)	MEMB. MAX. UNBRACED LENGTH	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO						
D-A	-147 / 0	0.0	0.0 0.06 (1)	7.51		
A-B	-15 / 0	-124.4	-124.4 0.06 (1)	6.25		
E-D	0 / 0	-163.7	-163.7 0.19 (1)	10.00		
D-C	0 / 0	-39.2	-39.2 0.07 (3)	10.00		

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 34.8 PSF
DL = 8.0 PSF
BOT CH. LL = 10.5 PSF
DL = 7.3 PSF
TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS
- OVERHANG NOT TO BE ALTERED OR CUT OFF.
(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.06/1.00 (A-B:1), BC=0.19/1.00 (D-E:1),
WB=0.00/1.00 (n/a:0), SSI=0.16/1.00 (D-E: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 = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.12 (A) (INPUT = 0.90)
JSI METAL = 0.07 (A) (INPUT = 1.00)

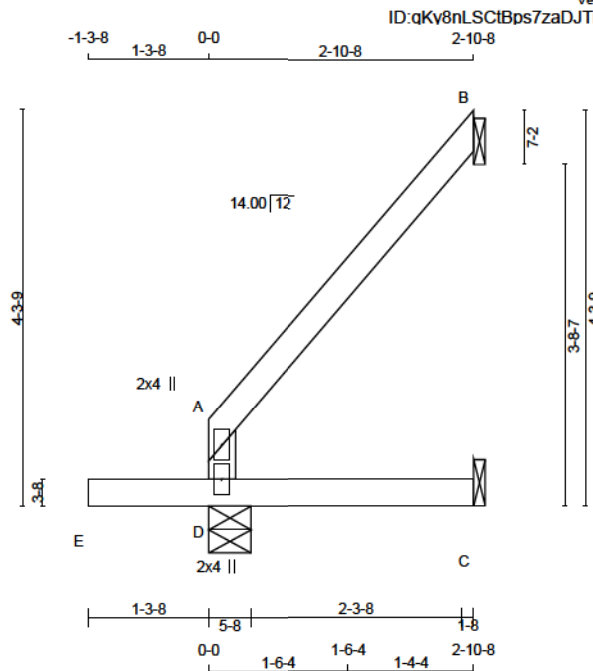


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Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			



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TOTAL WEIGHT = 3 X 11 = 32 LB

LUMBER					DESCR.
N. L. G. A. RULES	CHORDS	SIZE	LUMBER		
D - A	2x4	DRY	No.2		SPF
A - B	2x4	DRY	No.2		SPF
E - C	2x4	DRY	No.2		SPF

DRY: SEASONED LUMBER.

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

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	IN-SX	IN-SX
D	493	0	493	0	0	0	5-8	1-8	1-8
B	147	0	147	0	0	0	1-8	1-8	1-8
C	42	0	54	0	0	0	1-8	1-8	1-8

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) B, C

UNFACTORED REACTIONS		1ST LCASE		MAX/MIN		COMPONENT REACTIONS	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
D	366	208 / 0	65 / 0	0 / 0	0 / 0	93 / 0	0 / 0
B	101	82 / 0	0 / 0	0 / 0	0 / 0	19 / 0	0 / 0
C	38	0 / 0	23 / 0	0 / 0	0 / 0	16 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 8.25 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: (5)

CHORDS		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED HORZ. LOAD (LBS)
FR-TO			
D-A	-211 / 0	0.0	0.0
A-B	-24 / 0	-124.4	0.13 (1)
E-D	0 / 0	-163.7	0.19 (1)
D-C	0 / 0	-39.2	0.07 (3)

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 34.8 PSF
DL = 8.0 PSF
BOT CH. LL = 10.5 PSF
DL = 7.3 PSF
TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

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

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

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

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.13/1.00 (A-D-1), BC=0.19/1.00 (D-E-1), WB=0.00/1.00 (n/a:0), SSI=0.18/1.00 (D-E-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 = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.17 (A) (INPUT = 0.90)
JSI METAL = 0.11 (A) (INPUT = 1.00)

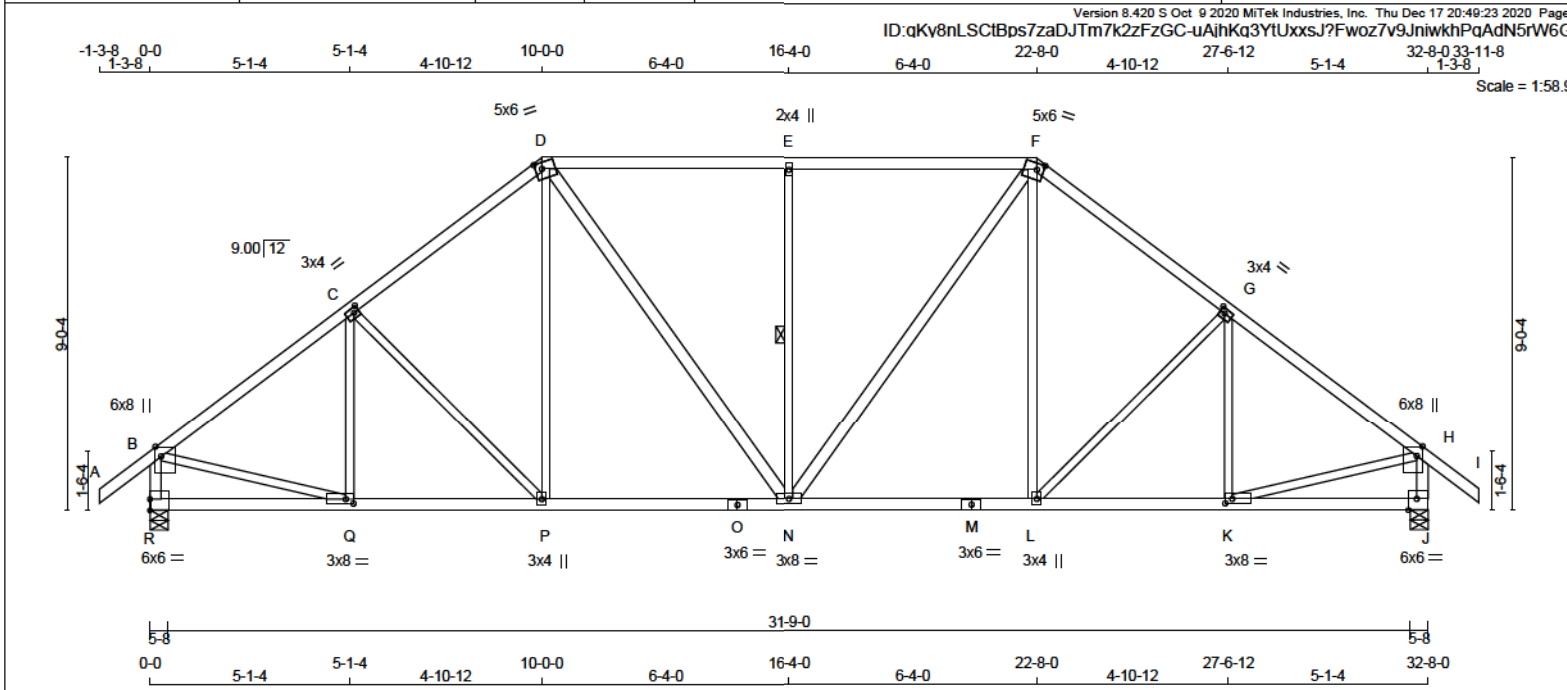


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Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			



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LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
B - F	2x4	DRY	No.2	SPF
F - I	2x4	DRY	No.2	SPF
R - B	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
R - O	2x4	DRY	No.2	SPF
O - M	2x4	DRY	No.2	SPF
M - J	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
D - N	2x4	DRY	No.2	SPF
N - F	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	6.0	8.0	3.00	1.75
C	TMVW-l	MT20	3.0	4.0	1.50	1.50
D	TTWW-m	MT20	5.0	6.0	2.00	2.00
E	TMVW-w	MT20	2.0	4.0		
F	TTWW-m	MT20	5.0	6.0	2.00	2.00
G	TMVW-l	MT20	3.0	4.0	1.50	1.50
H	TMVW+p	MT20	6.0	8.0	3.00	1.75
J	BMV1-t	MT20	6.0	6.0	Edge 2.50	
K	BMVW-l	MT20	3.0	8.0	1.50	2.25
L	BMVW+t	MT20	3.0	4.0		
M	BS-t	MT20	3.0	6.0		
N	BMVWW-t	MT20	3.0	6.0		
O	BS-t	MT20	3.0	6.0		
P	BMVW+t	MT20	3.0	4.0		
Q	BMVW-l	MT20	3.0	8.0	1.50	2.25
R	BMV1-t	MT20	6.0	6.0	3.50	

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

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT DOWN	REQD BRG UPLIFT	REQD IN-SX
JT	VERT	HORZ			
R	2845	0	2845	0	5-8
J	2845	0	2845	0	5-8

UNFACTORED REACTIONS

1ST CASE	MAX	MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
R	2098	1233	0
J	2098	1233	0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.33 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 - 1x4 LATERAL BRACE(S) AT 1/2 LENGTH OF E-N. DBS = 20-0-0. CBF = 121 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE (PER BRACE). 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)	FACTORED LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED UNBRAC LENGTH (FT)	MAX. FACTORED FORCE (LBS)
FR-TO				FR-TO			
A-B	0 / 51	-124.4	-124.4 0.17 (1)	10.00	Q-C	-348 / 36	0.15 (1)
B-C	-2934 / 0	-124.4	-124.4 0.55 (1)	3.57	C-P	-347 / 0	0.33 (1)
C-D	-2721 / 0	-124.4	-124.4 0.52 (1)	3.72	P-D	0 / 479	0.11 (2)
D-E	-2585 / 0	-124.4	-124.4 0.76 (1)	3.33	D-N	0 / 754	0.12 (1)
E-F	-2585 / 0	-124.4	-124.4 0.76 (1)	3.33	N-E	-965 / 0	0.51 (1)
F-G	-2721 / 0	-124.4	-124.4 0.52 (1)	3.72	N-F	0 / 754	0.12 (1)
G-H	-2934 / 0	-124.4	-124.4 0.55 (1)	3.57	L-F	0 / 479	0.11 (2)
H-I	0 / 51	-124.4	-124.4 0.17 (1)	10.00	L-G	-347 / 0	0.33 (1)
R-B	-2760 / 0	0.0	0.0 0.29 (1)	5.19	K-G	-348 / 36	0.15 (1)
J-H	-2760 / 0	0.0	0.0 0.29 (1)	5.19	B-Q	0 / 2446	0.55 (1)
					K-H	0 / 2446	0.55 (1)
R-Q	0 / 0	-39.2	-39.2 0.17 (3)	10.00			
Q-P	0 / 2382	-39.2	-39.2 0.52 (1)	10.00			
P-O	0 / 2142	-39.2	-39.2 0.53 (2)	10.00			
O-N	0 / 2142	-39.2	-39.2 0.53 (2)	10.00			
N-M	0 / 2142	-39.2	-39.2 0.53 (2)	10.00			
M-L	0 / 2142	-39.2	-39.2 0.53 (2)	10.00			
L-K	0 / 2382	-39.2	-39.2 0.52 (1)	10.00			
K-J	0 / 0	-39.2	-39.2 0.17 (3)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 34.8 PSF
DL = 8.0 PSF
BOT CH. LL = 10.5 PSF
DL = 7.3 PSF
TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF CBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.09")
CALCULATED VERT. DEFL.(LL) = L/999 (0.12")
ALLOWABLE DEFL.(TL) = L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/999 (0.21")

CSI: TC=0.76/1.00 (D-E-1), BC=0.53/1.00 (N-P-2), WB=0.55/1.00 (B-Q-1), SSI=0.38/1.00 (D-E-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 = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (F) (INPUT = 0.90)
JSI METAL = 0.69 (M) (INPUT = 1.00)



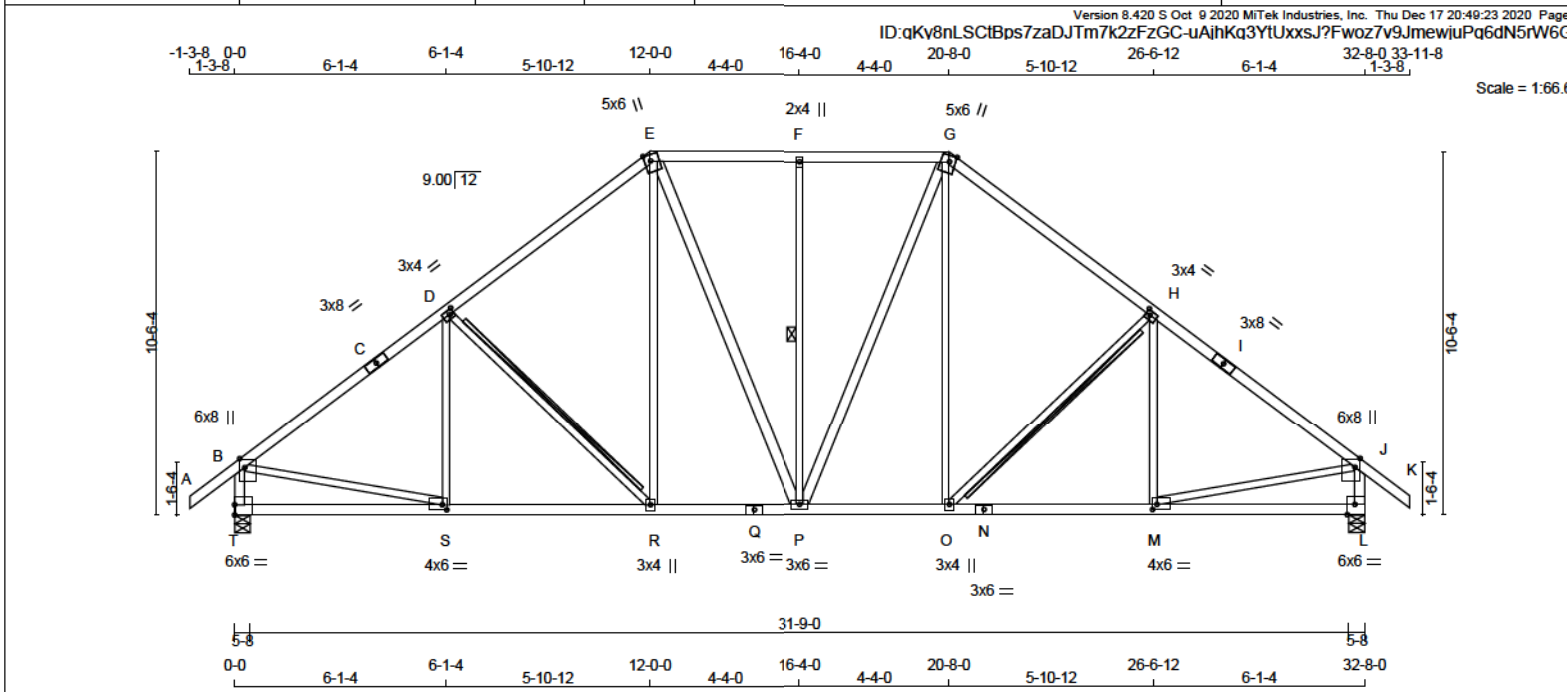
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Sewage System			
Zoning			





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	REQD BRG	SPECIFIED LOADS:	
A - C	2x4	DRY	No.2	SPF	JT VERT	2845	2845	0	5-8	TOP CH. LL	34.8 PSF
C - E	2x4	DRY	No.2	SPF	T HORZ	0	0	0	5-8	DL	8.0 PSF
E - G	2x4	DRY	No.2	SPF	L	2845	2845	0	5-8	BOT CH. LL	10.5 PSF
G - I	2x4	DRY	No.2	SPF						DL	7.3 PSF
I - K	2x4	DRY	No.2	SPF						TOTAL LOAD	60.6 PSF
T - B	2x4	DRY	No.2	SPF						SPACING = 24.0 IN. C/C	
L - J	2x4	DRY	No.2	SPF						LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM	
T - Q	2x4	DRY	No.2	SPF						THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015	
Q - N	2x4	DRY	No.2	SPF						THIS DESIGN COMPLIES WITH:	
N - L	2x4	DRY	No.2	SPF						- PART 9 OF CBC 2018, ABC 2019	
										- PART 9 OF OBC 2012 (2019 AMENDMENT)	
										- CSA 088-14	
										- TPIC 2014	
ALL WEBS	2x3	DRY	No.2	SPF						(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD	
EXCEPT										ALLOWABLE DEFL.(LL)= L/360 (0.10")	
E - P	2x4	DRY	No.2	SPF						CALCULATED VERT. DEFL.(LL)= L/999 (0.11")	
P - G	2x4	DRY	No.2	SPF						ALLOWABLE DEFL.(TL)= L/360 (0.10")	
										CALCULATED VERT. DEFL.(TL)= L/999 (0.10")	
										CSI: TC=0.83/1.00 (H-J-1) . BC=0.58/1.00 (R-S-2) .	
										WB=0.55/1.00 (B-S-1) . SSI=0.29/1.00 (H-J-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 = 1.00	
										TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .	
										NAIL VALUES	
										PLATE GRIP(DRY) SHEAR SECTION	
										(PSI) (PLI) (PLI)	
										MAX MIN MAX MIN MAX MIN	
										MT20 650 371 1747 788 1987 1873	
										PLATE PLACEMENT TOL. = 0.250 inches	
										PLATE ROTATION TOL. = 5.0 Deg.	
										JSI GRIP= 0.88 (P) (INPUT = 0.80)	
										JSI METAL = 0.71 (N) (INPUT = 1.00)	

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT TYPE	PLATES	W	LEN	Y X
B TMVW+p	MT20	6.0	8.0	3.00 1.75
C TS-t	MT20	3.0	8.0	
D TMWW-t	MT20	3.0	4.0	1.50 1.50
E TTWW+m	MT20	5.0	6.0	Edge 2.00
F TMVW-w	MT20	2.0	4.0	
G TTWW+m	MT20	5.0	6.0	Edge 2.00
H TMWW-t	MT20	3.0	4.0	1.50 1.50
I TS-t	MT20	3.0	8.0	
J TMVW+p	MT20	6.0	8.0	3.00 1.75
L BMV1-t	MT20	6.0	6.0	Edge 2.50
M BMWW-t	MT20	4.0	6.0	1.75 1.50
N BS-t	MT20	3.0	6.0	
O BMWW-t	MT20	3.0	4.0	
P BMWW-t	MT20	3.0	6.0	
Q BS-t	MT20	3.0	6.0	
R BMWW-t	MT20	3.0	4.0	
S BMWW-t	MT20	4.0	6.0	1.75 1.50
T BMV1-t	MT20	6.0	6.0	3.50

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



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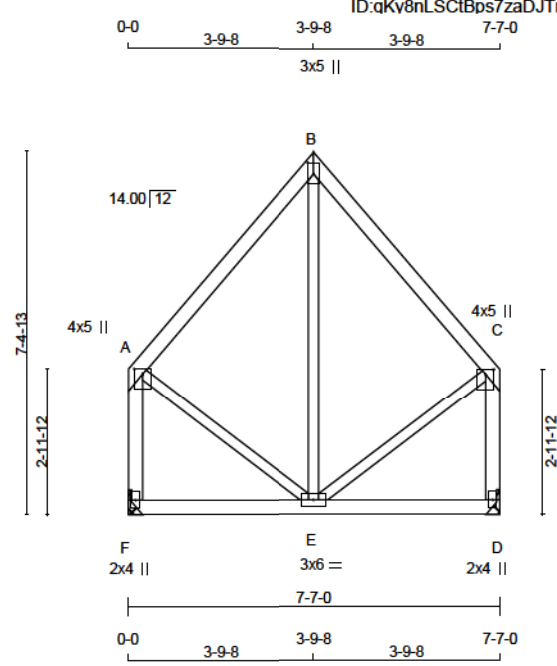
LOADING									
TOTAL LOAD CASES: (4)									
CHORDS					WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LOAD LC1 MAX (LC)	UNBRAC LENGTH (FT)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	MAX. FACTORED CSI (LC)	
FR-TO					FR-TO				
A-B	0 / 51	-124.4	-124.4	0.17 (1)	10.00	S-D	-203 / 146	0.12 (1)	
B-C	-2968 / 0	-124.4	-124.4	0.83 (1)	3.19	D-R	-562 / 0	0.31 (1)	
C-D	-2968 / 0	-124.4	-124.4	0.83 (1)	3.19	R-E	0 / 610	0.14 (1)	
D-E	-2547 / 0	-124.4	-124.4	0.73 (1)	3.52	E-P	0 / 432	0.07 (1)	
E-F	-2165 / 0	-124.4	-124.4	0.34 (1)	4.30	P-F	-846 / 0	0.50 (1)	
F-G	-2165 / 0	-124.4	-124.4	0.34 (1)	4.30	P-G	0 / 432	0.07 (1)	
G-H	-2547 / 0	-124.4	-124.4	0.73 (1)	3.52	O-G	0 / 610	0.14 (1)	
H-I	-2968 / 0	-124.4	-124.4	0.83 (1)	3.19	O-H	-562 / 0	0.31 (1)	
I-J	-2968 / 0	-124.4	-124.4	0.83 (1)	3.19	M-H	-203 / 146	0.12 (1)	
J-K	0 / 51	-124.4	-124.4	0.17 (1)	10.00	B-S	0 / 2462	0.55 (1)	
T-B	-2748 / 0	0.0	0.0	0.29 (1)	5.20	M-J	0 / 2462	0.55 (1)	
L-J	-2748 / 0	0.0	0.0	0.29 (1)	5.20				
T-S	0 / 0	-39.2	-39.2	0.29 (3)	10.00				
S-R	0 / 2417	-39.2	-39.2	0.58 (2)	10.00				
R-Q	0 / 1967	-39.2	-39.2	0.43 (1)	10.00				
Q-P	0 / 1967	-39.2	-39.2	0.43 (1)	10.00				
P-O	0 / 1967	-39.2	-39.2	0.43 (1)	10.00				
O-N	0 / 2417	-39.2	-39.2	0.58 (2)	10.00				
N-M	0 / 2417	-39.2	-39.2	0.58 (2)	10.00				
M-L	0 / 0	-39.2	-39.2	0.29 (3)	10.00				



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Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			





Scale = 1:46.9

TOTAL WEIGHT = 41 lb

LUMBER				
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF
B - C	2x4	DRY	No.2	SPF
F - A	2x4	DRY	No.2	SPF
D - C	2x4	DRY	No.2	SPF
F - D	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	X
A	TMVW+p	MT20	4.0	5.0	1.25 2.00
B	TTW+p	MT20	3.0	5.0	2.75 1.50
C	TMVW+p	MT20	4.0	5.0	1.25 2.00
D	BMV1+p	MT20	2.0	4.0	
E	BMVW+1	MT20	3.0	6.0	
F	BMV1+p	MT20	2.0	4.0	

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

BEARINGS					
FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT DOWN	REQRD BRG	IN-SX	MECHANICAL
JT VERT	621	0	621	0	0
F	621	0	621	0	0
D	621	0	621	0	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT F, D. MINIMUM BEARING LENGTH AT JOINT F = 1-8, JOINT D = 1-8.

UNFACTORED REACTIONS						
1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT COMBINED	460	264 / 0	80 / 0	0 / 0	0 / 0	0 / 0
F	460	264 / 0	80 / 0	0 / 0	116 / 0	0 / 0
D	460	264 / 0	80 / 0	0 / 0	116 / 0	0 / 0

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 8.25 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)	FACTORED LC1 MAX (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED MAX (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	-271 / 0	-124.4	-124.4 0.23 (1)	6.25	E-B	-60 / 119	0.05 (1)
B-C	-271 / 0	-124.4	-124.4 0.23 (1)	6.25	A-E	0 / 214	0.05 (1)
F-A	-564 / 0	0.0	0.0 0.09 (1)	7.81	E-C	0 / 214	0.05 (1)
D-C	-564 / 0	0.0	0.0 0.09 (1)	7.81			
F-E	0 / 0	-39.2	-39.2 0.13 (3)	10.00			
E-D	0 / 0	-39.2	-39.2 0.13 (3)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 34.8 PSF
DL = 8.0 PSF
BOT CH. LL = 10.5 PSF
DL = 7.3 PSF
TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.25")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.25")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.23/1.00 (B-C:1) , BC=0.13/1.00 (E-F:3) ,
WB=0.05/1.00 (B-E:1) , SSI=0.12/1.00 (B-C: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 = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.38 (E) (INPUT = 0.90)
JSI METAL = 0.17 (A) (INPUT = 1.00)

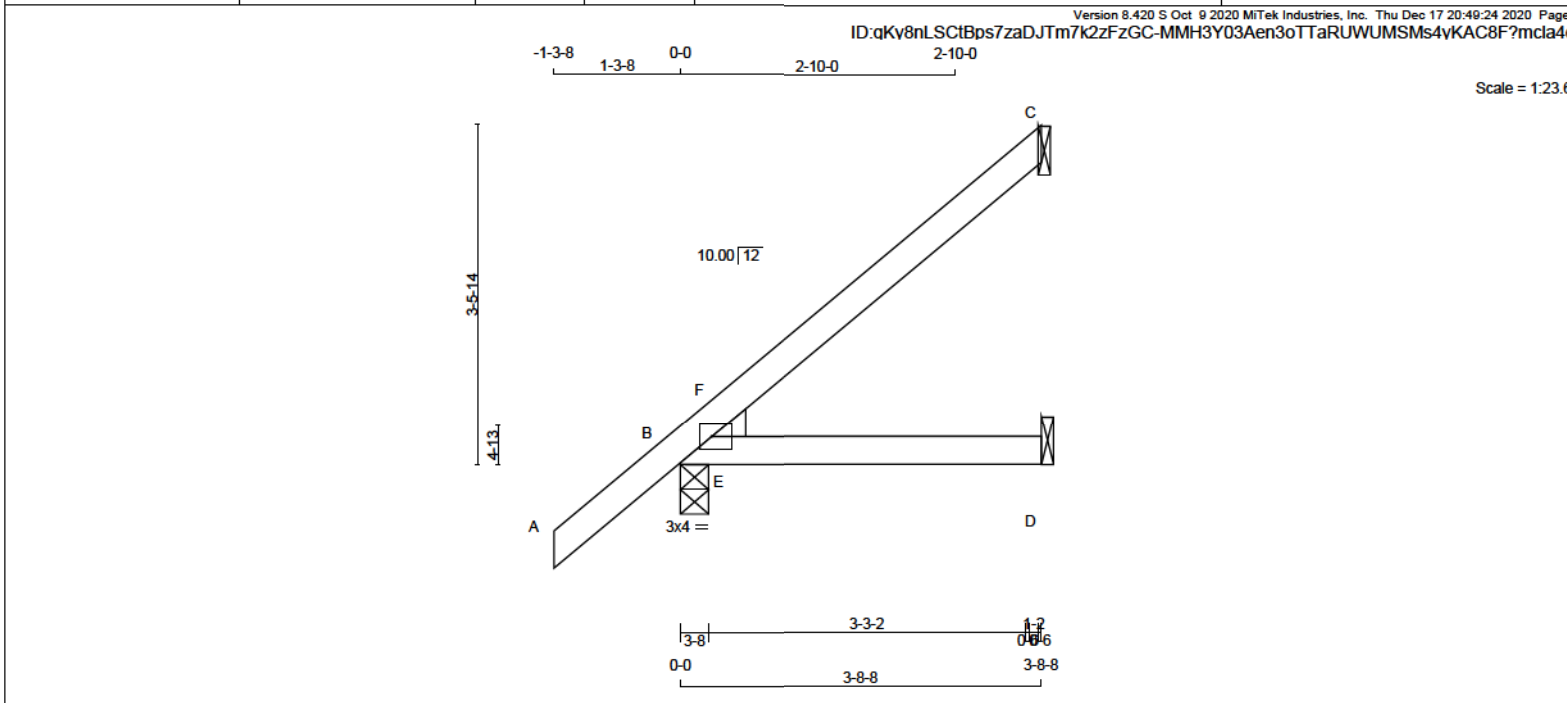


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Discipline	Reviewer	BCN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			

READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-1. THIS 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

A - C 2x4 DRY

B - D 2x4 DRY

DRY: SEASONED LUMBER.

LUMBER

No.2

No.2

DESCR.

SPF

SPF

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B	TMBH1-I	MT20	3.0	4.0	1.50 1.50

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	HEEL WEDGE
C	199 0	199 0	0 0	1-8	1-8
B	476 0	476 0	0 0	3-8	1-8
D	105 0	110 0	0 0	1-8	1-8

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST CASE	MAX MIN	COMPONENT REACTIONS
C	139	106 / 0	5 / 0
B	343	226 / 0	39 / 0
D	86	23 / 0	34 / 0

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

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: (5)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED L1 MAX (LC)	MAX. UNBRACED LENGTH (FT)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (FT)
FR-TO					FR-TO		
A- B	0 / 53	-124.4	-124.4 0.18 (5)	10.00	E- F	-233 / 44	0.00 (1)
B- F	-49 / 1	-124.4	-124.4 0.08 (3)	6.25			
F- C	0 / 7	-124.4	-124.4 0.22 (1)	10.00			
B- E	0 / 0	-39.2	-39.2 0.18 (1)	10.00			
E- D	0 / 0	-39.2	-39.2 0.19 (1)	10.00			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 34.8 PSF

DL = 8.0 PSF

BOT CH. LL = 10.5 PSF

DL = 7.3 PSF

TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019

- PART 9 OF OBC 2012 (2019 AMENDMENT)

- CSA 088-14

- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)

EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

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

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

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

CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CSI: TC=0.22/1.00 (C-F:1), BC=0.19/1.00 (D-E:1), WB=0.00/1.00 (E-F:1), SSI=0.21/1.00 (B-E: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 = 1.00

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

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION

(PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

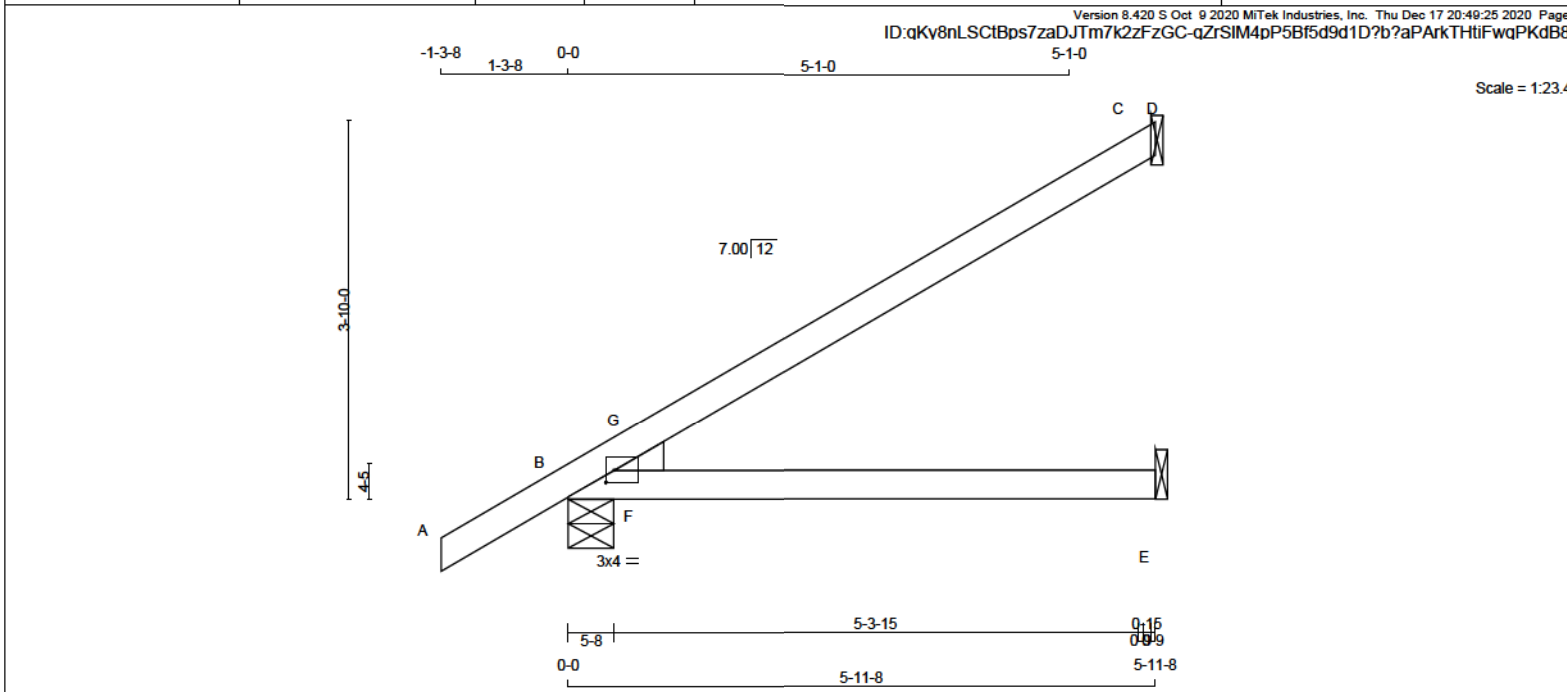
MT20 850 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

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Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			

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LUMBER
N. L. G. A. RULES
CHORDS SIZE LUMBER DESCR.
A - D 2x4 DRY No.2 SPF
B - E 2x4 DRY 2100F 1.8E SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)
JT TYPE PLATES W LEN Y X
B TMBH1-I MT20 3.0 4.0 1.50 1.00

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	HEEL	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX
B	652	0	652	0	0	5-8
E	169	0	178	0	0	1-8
C	314	0	314	0	0	1-8

SEE MITEK STANDARD DETAIL B97791H FOR CONNECTION TO JOINT(S) E, C

UNFACTORED REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD
B	474	299 / 0	62 / 0	0 / 0	0 / 0	112 / 0
E	139	38 / 0	55 / 0	0 / 0	0 / 0	47 / 0
C	220	165 / 0	8 / 0	0 / 0	0 / 0	47 / 0

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

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)	FACTORED HORZ. LOAD (LC)	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED HORZ. LOAD (LC)	
FR-TO		FROM TO	LENGTH	FR-TO		FROM TO	LENGTH
A-B	0 / 41	-124.4	-124.4 0.16 (1)	10.00	F-G	-432 / 66	0.00 (1)
B-G	-59 / 32	-124.4	-124.4 0.12 (3)	6.25			
G-C	-4 / 8	-124.4	-124.4 0.53 (1)	10.00			
C-D	-1 / 0	-20.0	-20.0 0.00 (4)	10.00			
B-F	0 / 0	-39.2	-39.2 0.31 (1)	10.00			
F-E	0 / 0	-39.2	-39.2 0.33 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 34.8 PSF
DL = 8.0 PSF
BOT CH. LL = 10.5 PSF
DL = 7.3 PSF
TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
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- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 088-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 648 (0.11")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 377 (0.19")

CSI: TC=0.53/1.00 (C-G:1), BC=0.33/1.00 (E-F:1),
WB=0.00/1.00 (F-G:1), SSI=0.39/1.00 (B-F: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 = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (B) (INPUT = 0.90)
JSI METAL = 0.09 (B) (INPUT = 1.00)



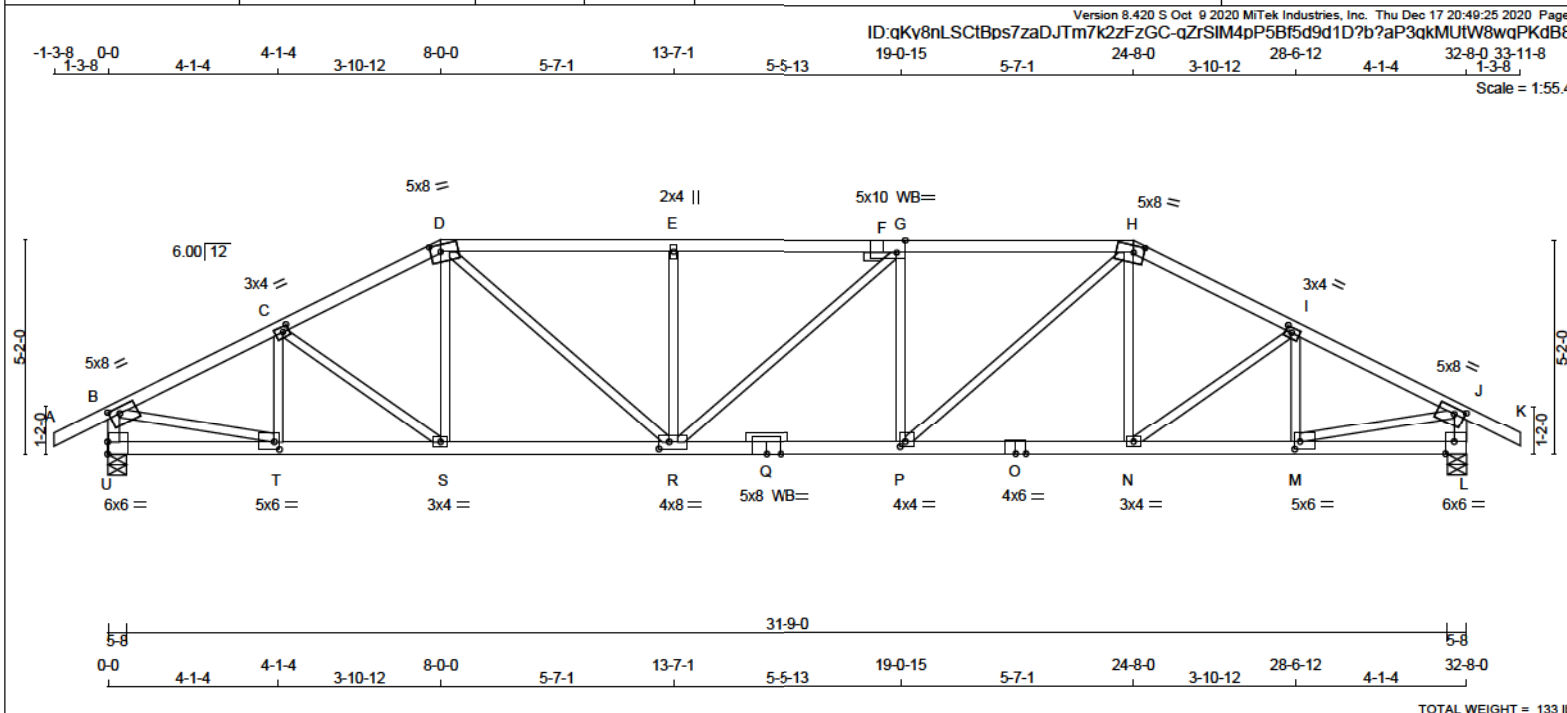
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Discipline	Reviewer	BCN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			





LUMBER										DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA									
N. L. G. A. RULES										BEARINGS										SPECIFIED LOADS:									
CHORDS SIZE LUMBER DESCR.										FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT BRG REQRD BRG										TOP CH. LL = 34.8 PSF									
A - D 2x4 DRY No.2 SPF										JT VERT 2842 0 2842 0 0 5-8 5-8										DL = 8.0 PSF									
D - F 2x4 DRY No.2 SPF										U 2842 0 2842 0 0 5-8 5-8										BOT CH. LL = 10.5 PSF									
F - H 2x4 DRY No.2 SPF										L 2842 0 2842 0 0 5-8 5-8										DL = 7.3 PSF									
H - K 2x4 DRY No.2 SPF																				TOTAL LOAD = 60.6 PSF									
U - B 2x4 DRY No.2 SPF																													
L - J 2x4 DRY No.2 SPF																													
U - Q 2x4 DRY No.2 SPF																													
Q - O 2x4 DRY No.2 SPF																													
O - L 2x4 DRY No.2 SPF																													
ALL WEBS 2x3 DRY No.2 SPF																													
EXCEPT																													
DRY: SEASONED LUMBER.										BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) U, L										LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM									
										BRACING										THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015									
										TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.46 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.										THIS DESIGN COMPLIES WITH:									
																				- PART 9 OF BCBC 2018, ABC 2019									
																				- PART 9 OF OBC 2012 (2019 AMENDMENT)									
																				- CSA 088-14									
																				- TPIC 2014									
																				(55% OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)									
																				EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD									
PLATES (table is in inches)																				ALLOWABLE DEFL.(LL)= L/360 (1.09")									
JT TYPE PLATES W LEN Y X																				CALCULATED VERT. DEFL.(LL) = L/999 (0.28")									
B TMWW-t MT20 5.0 8.0 1.75 3.00																				ALLOWABLE DEFL.(TL)= L/360 (1.09")									
C TMWW-t MT20 3.0 4.0 1.50 1.75																				CALCULATED VERT. DEFL.(TL) = L/905 (0.43")									
D TTWW-m MT20 5.0 8.0 2.00 3.00																													
E TMW+w MT20 2.0 4.0																													
F																													
G TSWW-I MT20 5.0 10.0 Edge 2.50																				CSI: TC=0.96/1.00 (G-H:1), BC=0.83/1.00 (P-R:1),									
H																				WB=0.78/1.00 (J-M:1), SSI=0.32/1.00 (G-H:1)									
I TTWW-m MT20 5.0 8.0 2.00 3.00																													
J TMWW-t MT20 5.0 8.0 1.75 3.00																													
L BMV1-t MT20 6.0 6.0 Edge 2.50																													
M BMWW-t MT20 5.0 6.0 2.25 1.50																													
N BMWW-t MT20 3.0 4.0																				DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10									
O BS-I MT20 4.0 6.0																				SHEAR=1.10 TENS=1.10									
P BMWW-t MT20 4.0 4.0 1.50 1.50																													
Q BS-I MT20 5.0 8.0																													
R BMWW-t MT20 4.0 8.0 2.00 3.00																				COMPANION LIVE LOAD FACTOR = 1.00									
S BMWW-t MT20 3.0 4.0																													
T BMWW-t MT20 5.0 6.0 2.25 1.50																													
U BMV1-t MT20 6.0 6.0 3.50																													
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.																				TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .									
WB - INDICATES BLOCKING REQUIRED																				NAIL VALUES									
																				PLATE GRIP(DRY) SHEAR SECTION									
																				(PSI) (PLI) (PLI)									
																				MAX MIN MAX MIN MAX MIN									
																				MT20 650 371 1747 788 1987 1873									
																				PLATE PLACEMENT TOL = 0.250 inches									
																				PLATE ROTATION TOL = 5.0 Deg.									
																				JSI GRIP= 0.90 (R) (INPUT = 0.90)									
																				JSI METAL = 0.97 (Q) (INPUT = 1.00)									

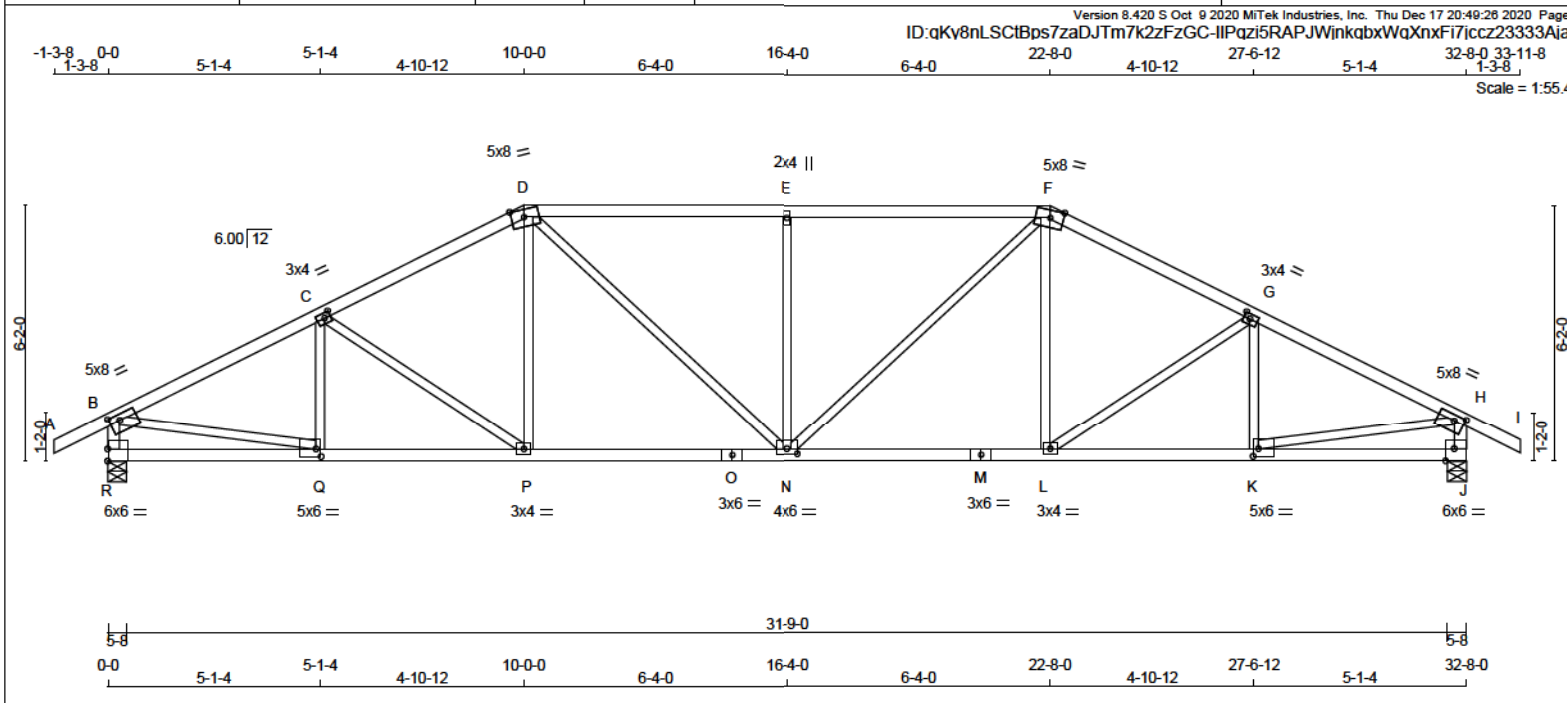
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.
 WB - INDICATES BLOCKING REQUIRED

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Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			



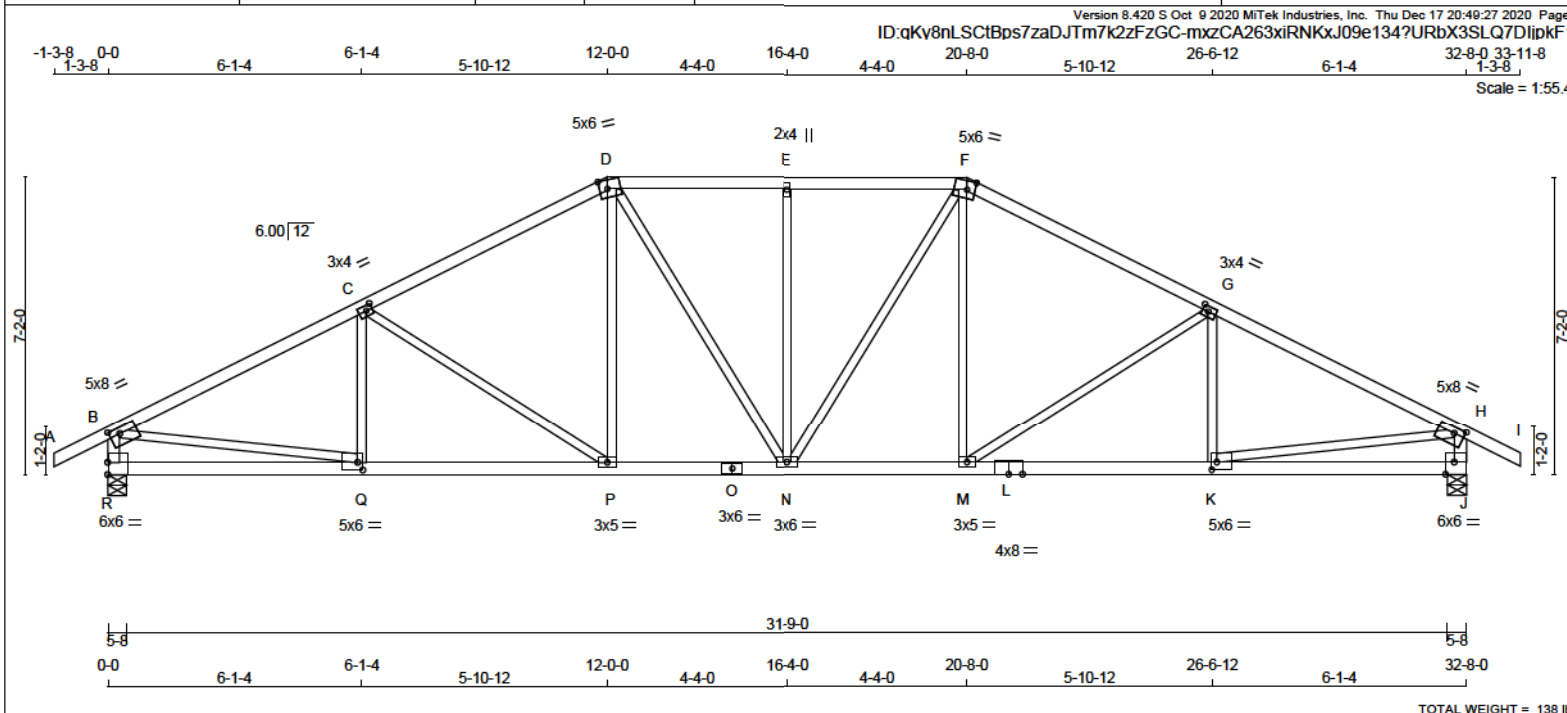


TOTAL WEIGHT = 132 LBS										[M]F		
LUMBER N. L. G. A. RULES			DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER							DESIGN CRITERIA		
CHORDS	SIZE	LUMBER	DESCR.	BEARINGS						SPECIFIED LOADS:		
A - D	2x4	DRY	No.2	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG	TOP CH. LL = 34.8 PSF		
D - F	2x4	DRY	No.2	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	DL = 8.0 PSF	
F - I	2x4	DRY	No.2	R	2842	0	2842	0	0	5-8	IN-SX	LL = 10.5 PSF
R - B	2x4	DRY	No.2	J	2842	0	2842	0	0	5-8	5-8	DL = 7.3 PSF
J - H	2x4	DRY	No.2								TOTAL LOAD = 60.6 PSF	
R - O	2x4	DRY	No.2									
O - M	2x4	DRY	No.2									
M - J	2x4	DRY	No.2									
ALL WEBS 2x3 DRY			No.2								SPACING = 24.0 IN. C/C	
EXCEPT			SPF									
DRY: SEASONED LUMBER.											LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM	
											THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015	
											THIS DESIGN COMPLIES WITH:	
											- PART 9 OF BCBC 2018, ABC 2019	
											- PART 9 OF OBC 2012 (2019 AMENDMENT)	
											- CSA 088-14	
											- TPIC 2014	
											(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD	
											ALLOWABLE DEFL.(LL)= L/360 (1.09")	
											CALCULATED VERT. DEFL.(LL) = L/999 (0.21")	
											ALLOWABLE DEFL.(TL)= L/360 (1.09")	
											CALCULATED VERT. DEFL.(TL) = L/999 (0.38")	
											CSI: TC=0.90/1.00 (D-E-1), BC=0.71/1.00 (P-Q-1), WB=0.80/1.00 (B-Q-1), SSI=0.38/1.00 (D-E-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 = 1.00	
											TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .	
											NAIL VALUES	
											PLATE GRIP(DRY) SHEAR SECTION	
											(PSI) (PLI) (PLI)	

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Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			

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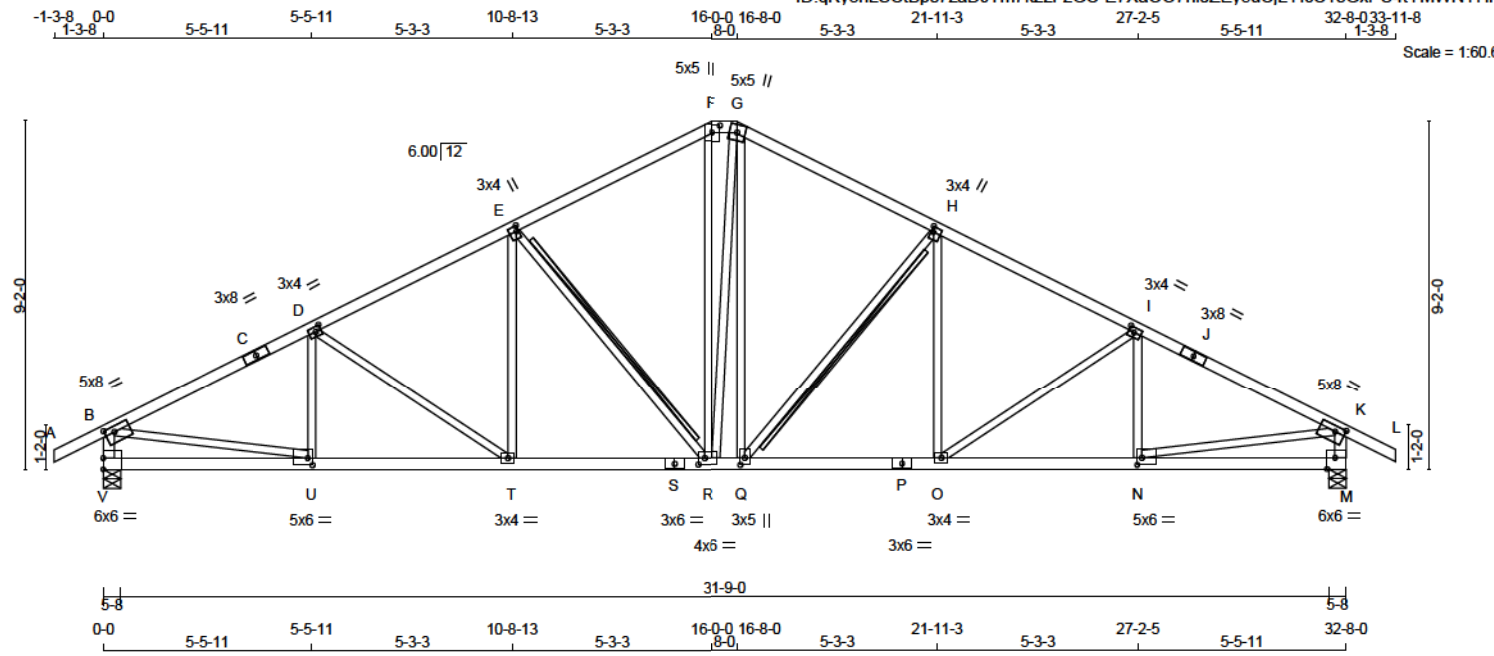


LUMBER										DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA									
N. L. G. A. RULES										BEARINGS										SPECIFIED LOADS:									
CHORDS SIZE LUMBER DESCR.										FACTORED GROSS REACTION MAXIMUM FACTORED GROSS REACTION INPUT BRG REQRD BRG										TOP CH. LL = 34.8 PSF									
A - D 2x4 DRY No.2 SPF										JT VERT 2842 0 2842 0 0 5-8 5-8										DL = 8.0 PSF									
D - F 2x4 DRY No.2 SPF										R 2842 0 2842 0 0 5-8 5-8										BOT CH. LL = 10.5 PSF									
F - I 2x4 DRY No.2 SPF										J 2842 0 2842 0 0 5-8 5-8										DL = 7.3 PSF									
R - B 2x4 DRY No.2 SPF																				TOTAL LOAD = 60.6 PSF									
J - H 2x4 DRY No.2 SPF																													
R - O 2x4 DRY No.2 SPF																													
O - L 2x4 DRY No.2 SPF																													
L - J 2x4 DRY No.2 SPF																													
ALL WEBS 2x3 DRY No.2 SPF																				SPACING = 24.0 IN. C/C									
EXCEPT																													
DRY: SEASONED LUMBER.																				LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM									
										BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) R, J										THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015									
										BRACING										THIS DESIGN COMPLIES WITH:									
										TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.06 FT.										- PART 9 OF BCBC 2018, ABC 2019									
										MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.										- PART 9 OF OBC 2012 (2019 AMENDMENT)									
										ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.										- CSA 088-14									
																				- TPIC 2014									
PLATES (table is in inches)										LOADING										(5% OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD									
JT TYPE PLATES W LEN Y X										TOTAL LOAD CASES: (4)																			
B TMVW-t MT20 5.0 8.0 1.75 3.00																				ALLOWABLE DEFL.(LL)= L/360 (1.09")									
C TMVW-t MT20 3.0 4.0 1.50 1.75																				CALCULATED VERT. DEFL.(LL) = L/999 (0.19")									
D TTWW-m MT20 5.0 6.0 2.50 2.25																				ALLOWABLE DEFL.(TL)= L/360 (1.09")									
E TMW+w MT20 2.0 4.0																				CALCULATED VERT. DEFL.(TL) = L/999 (0.32")									
F TTWW-m MT20 5.0 6.0 2.50 2.25																				CSI: TC=0.90/1.00 (G-H:1) , BC=0.73/1.00 (K-M:1) ,									
G TMVW-t MT20 3.0 4.0 1.50 1.75																				WB=0.81/1.00 (H-K:1) , SSI=0.32/1.00 (G-H:1)									
H TMVW-t MT20 5.0 8.0 1.75 3.00																				DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10									
J BMV1-t MT20 6.0 6.0 Edge 2.50																				SHEAR=1.10 TENS=1.10									
K BMVW-t MT20 5.0 6.0 2.25 1.50																				COMPANION LIVE LOAD FACTOR = 1.00									
L BS-t MT20 4.0 8.0																				TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE									
M BMVW-t MT20 3.0 5.0																				FOR QUALITY CONTROL IN THE TRUSS									
N BMVWW-t MT20 3.0 6.0																				MANUFACTURING PLANT .									
O BS-t MT20 3.0 6.0																				NAIL VALUES									
P BMVW-t MT20 3.0 5.0																				PLATE GRIP(DRY) SHEAR SECTION									
Q BMVW-t MT20 5.0 6.0 2.25 1.50																				(PSI) (PLI) (PLI)									
R BMV1-t MT20 6.0 6.0 3.50																				MAX MIN MAX MIN MAX MIN									
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES																													
EDGE OF CHORD.																													

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Sewage System			
Zoning			

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LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
C - F	2x4	DRY No.2	SPF
F - G	2x4	DRY No.2	SPF
G - J	2x4	DRY No.2	SPF
J - L	2x4	DRY No.2	SPF
V - B	2x4	DRY No.2	SPF
M - K	2x4	DRY No.2	SPF
V - S	2x4	DRY No.2	SPF
S - P	2x4	DRY No.2	SPF
P - M	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
B	TMVW-t	MT20	5.0	8.0	1.75	3.00
C	TS-t	MT20	3.0	8.0		
D	TMVW-t	MT20	3.0	4.0	1.50	1.75
E	TMVW-t	MT20	3.0	4.0	1.75	0.75
F	TTW+p	MT20	5.0	5.0	2.25	2.50
G	TTW+m	MT20	5.0	5.0		
H	TMVW-t	MT20	3.0	4.0	1.75	0.75
I	TMVW-t	MT20	3.0	4.0	1.50	1.75
J	TS-t	MT20	3.0	8.0		
K	TMVW-t	MT20	5.0	8.0	1.75	3.00
M	BMV1-t	MT20	6.0	6.0	Edge 2.50	
N	BMVW-t	MT20	5.0	6.0	2.25	1.50
O	BMVW-t	MT20	3.0	4.0		
P	BS-t	MT20	3.0	8.0		
Q	BMVW-t	MT20	3.0	5.0	2.25	1.50
R	BMVW-t	MT20	4.0	6.0	2.00	2.00
S	BS-t	MT20	3.0	8.0		
T	BMVW-t	MT20	3.0	4.0		
U	BMVW-t	MT20	5.0	6.0	2.25	1.50
V	BMV1-t	MT20	6.0	6.0	3.50	

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

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

BEARINGS

FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT VERT	DOWN	UP	IN-SX
V 2842 0	2842 0	0 0	5-8 5-8
M 2842 0	2842 0	0 0	5-8 5-8

UNFACTORED REACTIONS

1ST LCASE	MAX	MIN	COMPONENT REACTIONS
JT COMBINED	SNOW	LIVE	PERM. LIVE WIND DEAD SOIL
V 2098 1232 / 0	343 / 0	0 / 0	0 / 0 522 / 0 0 / 0
M 2098 1232 / 0	343 / 0	0 / 0	0 / 0 522 / 0 0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.97 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 DRY SPF No.2 T-BRACE AT E-R, H-Q

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)

CHORDS			WEBS		
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CS (LC)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO				FR-TO	
A-B	0 / 38	-124.4 -124.4 0.16 (1)	10.00	U-D	-319 / 85
B-C	-3890 / 0	-124.4 -124.4 0.71 (1)	2.97	D-T	-418 / 0
C-D	-3890 / 0	-124.4 -124.4 0.71 (1)	2.97	T-E	0 / 446
D-E	-3531 / 0	-124.4 -124.4 0.57 (1)	3.28	E-R	-1054 / 0
E-F	-2809 / 0	-124.4 -124.4 0.52 (1)	3.66	R-F	0 / 941
F-G	-2475 / 0	-124.4 -124.4 0.07 (1)	4.35	G-R	0 / 102
G-H	-2798 / 0	-124.4 -124.4 0.52 (1)	3.67	Q-G	0 / 834
H-I	-3535 / 0	-124.4 -124.4 0.57 (1)	3.28	Q-H	-1075 / 0
I-J	-3888 / 0	-124.4 -124.4 0.71 (1)	2.97	O-H	0 / 467
J-K	-3888 / 0	-124.4 -124.4 0.71 (1)	2.97	O-I	-412 / 0
K-L	0 / 38	-124.4 -124.4 0.16 (1)	10.00	N-I	-325 / 82
V-B	-2750 / 0	0.0 0.0 0.28 (1)	5.19	B-U	0 / 3548
M-K	-2749 / 0	0.0 0.0 0.28 (1)	5.20	N-K	0 / 3548
V-U	0 / 0	-39.2 -39.2 0.20 (3)	10.00		
U-T	0 / 3503	-39.2 -39.2 0.68 (1)	10.00		
T-S	0 / 3158	-39.2 -39.2 0.67 (1)	10.00		
S-R	0 / 3158	-39.2 -39.2 0.67 (1)	10.00		
R-Q	0 / 2466	-39.2 -39.2 0.56 (1)	10.00		
Q-P	0 / 3162	-39.2 -39.2 0.62 (1)	10.00		
P-O	0 / 3162	-39.2 -39.2 0.62 (1)	10.00		
O-N	0 / 3502	-39.2 -39.2 0.68 (1)	10.00		
N-M	0 / 0	-39.2 -39.2 0.20 (3)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 34.8 PSF
DL = 8.0 PSF

BOT CH. LL = 10.5 PSF
DL = 7.3 PSF

TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 088-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.09")
CALCULATED VERT. DEFL.(LL) = L/999 (0.20")
ALLOWABLE DEFL.(TL)= L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/999 (0.34")

CSI: TC=0.71/1.00 (B-D-1), BC=0.68/1.00 (N-O-1), WB=0.80/1.00 (B-U-1), SSI=0.28/1.00 (B-D-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 = 1.00

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

NAIL VALUES

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

MAX MIN MAX MIN MAX MIN

MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (Q) (INPUT = 0.90)
JSI METAL = 0.98 (S) (INPUT = 1.00)

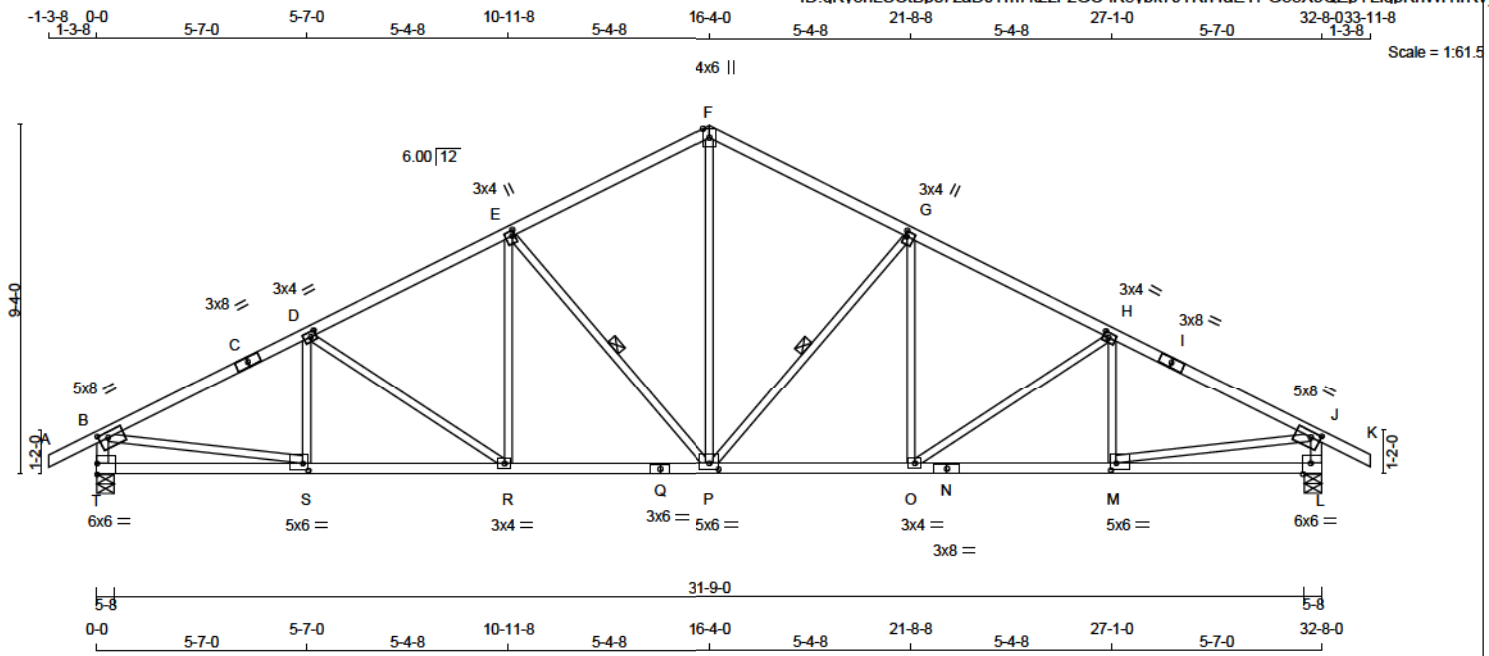


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TOTAL WEIGHT = 7 X 138 = 966 lb

LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - C	2x4	DRY	No.2
C - F	2x4	DRY	No.2
F - I	2x4	DRY	No.2
I - K	2x4	DRY	No.2
T - B	2x4	DRY	No.2
L - J	2x4	DRY	No.2
T - Q	2x4	DRY	No.2
Q - N	2x4	DRY	No.2
N - L	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
EXCEPT			

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	5.0	8.0	1.75	3.00
C	TS-t	MT20	3.0	8.0		
D	TMVW-t	MT20	3.0	4.0	1.50	1.75
E	TMVW-t	MT20	3.0	4.0	1.75	0.75
F	TTW+p	MT20	4.0	6.0	Edge	
G	TMVW-t	MT20	3.0	4.0	1.75	0.75
H	TMVW-t	MT20	3.0	4.0	1.50	1.75
I	TS-t	MT20	3.0	8.0		
J	TMVW-t	MT20	5.0	8.0	1.75	3.00
L	BMV1-t	MT20	6.0	6.0	Edge	2.50
M	BMVW-t	MT20	5.0	6.0	2.25	1.75
N	BS-t	MT20	3.0	8.0		
O	BMVW-t	MT20	3.0	4.0		
P	BMVW-t	MT20	5.0	6.0	2.00	3.00
Q	BS-t	MT20	3.0	8.0		
R	BMVW-t	MT20	3.0	4.0		
S	BMVW-t	MT20	5.0	6.0	2.25	1.75
T	BMV1-t	MT20	6.0	6.0	3.50	

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

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
T	2842	0	2842	0
L	2842	0	2842	0

UNFACTORED REACTIONS

1ST LCASE	MAX	MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
T	2098	1232 / 0	343 / 0
L	2098	1232 / 0	343 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.94 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 - 1x4 LATERAL BRACE(S) AT 1/2 LENGTH OF G-P, E-P. DBS = 20-0-0. CBF = 137 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE (PER BRACE). 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)	FACTORED L1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED MAX. FORCE (LC)	MAX. FORCE (LC)
FR-TO				FR-TO			
A-B	0 / 38	-124.4	-124.4 0.16 (1)	10.00	P-F	0 / 1889	0.43 (1)
B-C	-3896 / 0	-124.4	-124.4 0.74 (1)	2.94	P-G	-1093 / 0	0.51 (1)
C-D	-3896 / 0	-124.4	-124.4 0.74 (1)	2.94	O-G	0 / 473	0.11 (2)
D-E	-3508 / 0	-124.4	-124.4 0.59 (1)	3.27	O-H	-449 / 0	0.34 (1)
E-F	-2746 / 0	-124.4	-124.4 0.54 (1)	3.67	M-H	-306 / 76	0.07 (1)
F-G	-2746 / 0	-124.4	-124.4 0.54 (1)	3.67	E-P	-1093 / 0	0.51 (1)
G-H	-3508 / 0	-124.4	-124.4 0.59 (1)	3.27	R-E	0 / 473	0.11 (2)
H-I	-3896 / 0	-124.4	-124.4 0.74 (1)	2.94	D-R	-449 / 0	0.34 (1)
I-J	-3896 / 0	-124.4	-124.4 0.74 (1)	2.94	S-D	-306 / 76	0.07 (1)
J-K	0 / 38	-124.4	-124.4 0.16 (1)	10.00	B-S	0 / 3551	0.80 (1)
T-B	-2746 / 0	0.0	0.0 0.28 (1)	5.20	M-J	0 / 3551	0.80 (1)
L-J	-2746 / 0	0.0	0.0 0.28 (1)	5.20			
T-S	0 / 0	-39.2	-39.2 0.21 (3)	10.00			
S-R	0 / 3509	-39.2	-39.2 0.68 (1)	10.00			
R-Q	0 / 3138	-39.2	-39.2 0.64 (1)	10.00			
Q-P	0 / 3138	-39.2	-39.2 0.64 (1)	10.00			
P-O	0 / 3138	-39.2	-39.2 0.64 (1)	10.00			
O-N	0 / 3509	-39.2	-39.2 0.68 (1)	10.00			
N-M	0 / 3509	-39.2	-39.2 0.68 (1)	10.00			
M-L	0 / 0	-39.2	-39.2 0.21 (3)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	= 34.8	PSF
	DL	= 8.0	PSF
BOT CH.	LL	= 10.5	PSF
	DL	= 7.3	PSF
TOTAL LOAD	= 60.6	PSF	

SPACING = 24.0 IN. C/C

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 088-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (1.09")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.20")
ALLOWABLE DEFL.(TL) = $L/360$ (1.09")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.34")

CSI: TC=0.74/1.00 (B-D-1), BC=0.68/1.00 (M-O-1),
WB=0.80/1.00 (J-M-1), SSI=0.29/1.00 (B-D-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 = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	850	371	1747
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (M) (INPUT = 0.90)
JSI METAL = 1.00 (N) (INPUT = 1.00)

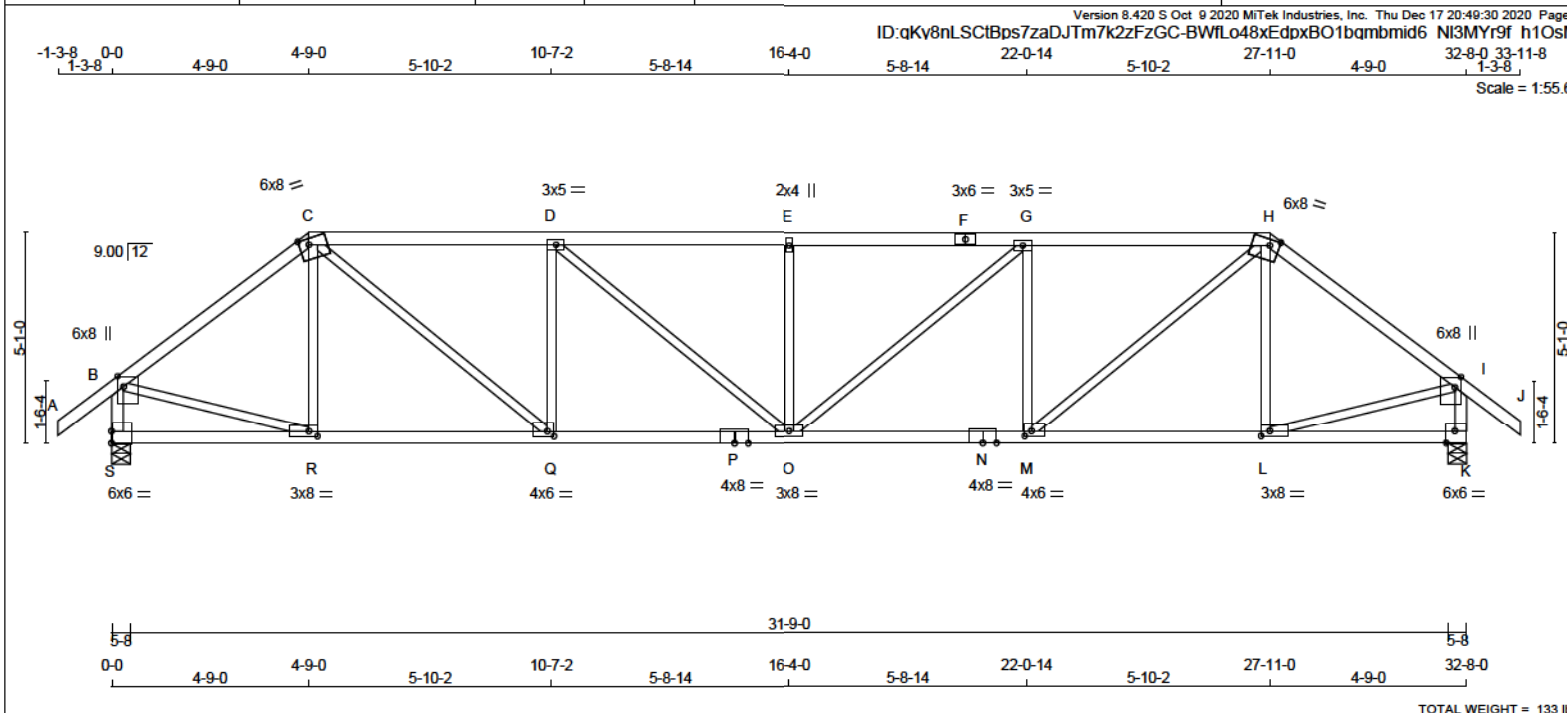


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LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - C	2x4	DRY	No.2
C - F	2x4	DRY	2100F 1.8E
F - H	2x4	DRY	2100F 1.8E
H - J	2x4	DRY	No.2
S - B	2x4	DRY	No.2
K - I	2x4	DRY	No.2
S - P	2x4	DRY	No.2
P - N	2x4	DRY	No.2
N - K	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
EXCEPT			

DESCR. SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	6.0	8.0	3.00 1.75
C	TTWW-m	MT20	6.0	8.0	1.75 2.75
D	TMVW-t	MT20	3.0	5.0	
E	TMVW+w	MT20	2.0	4.0	
F	TS-t	MT20	3.0	6.0	
G	TMVW-t	MT20	3.0	5.0	
H	TTWW-m	MT20	6.0	8.0	1.75 2.75
I	TMVW+p	MT20	6.0	8.0	3.00 1.75
K	BMV1-t	MT20	6.0	6.0	Edge 2.50
L	BMVW-t	MT20	3.0	8.0	1.50 2.50
M	BMVW-t	MT20	4.0	6.0	1.50 2.00
N	BS-t	MT20	4.0	8.0	
O	BMVWW-t	MT20	3.0	8.0	
P	BS-t	MT20	4.0	8.0	
Q	BMVW-t	MT20	4.0	6.0	1.50 2.00
R	BMVW-t	MT20	3.0	8.0	1.50 2.50
S	BMV1-t	MT20	6.0	6.0	3.50

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

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
S	2845	0	2845	0	0
K	2845	0	2845	0	0

UNFACTORED REACTIONS							
1ST LCASE	MAX/MIN COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
S	2098	1233 / 0	343 / 0	0 / 0	0 / 0	522 / 0	0 / 0
K	2098	1233 / 0	343 / 0	0 / 0	0 / 0	522 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.36 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 CSI (LC) UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 51	-124.4	-124.4 0.17 (1)	10.00	R-C	-333 / 48	0.13 (1)
B-C	-2888 / 0	-124.4	-124.4 0.73 (1)	3.36	C-Q	0 / 2326	0.52 (1)
C-D	-4100 / 0	-124.4	-124.4 0.56 (1)	3.79	Q-D	-1250 / 0	0.48 (1)
D-E	-4631 / 0	-124.4	-124.4 0.60 (1)	3.56	D-O	0 / 691	0.16 (1)
E-F	-4631 / 0	-124.4	-124.4 0.60 (1)	3.56	O-E	-860 / 0	0.25 (1)
F-G	-4631 / 0	-124.4	-124.4 0.60 (1)	3.56	O-G	0 / 691	0.16 (1)
G-H	-4100 / 0	-124.4	-124.4 0.56 (1)	3.79	M-G	-1250 / 0	0.48 (1)
H-I	-2888 / 0	-124.4	-124.4 0.73 (1)	3.36	M-H	0 / 2326	0.52 (1)
I-J	0 / 51	-124.4	-124.4 0.17 (1)	10.00	L-H	-333 / 48	0.13 (1)
S-B	-2772 / 0	0.0	0.0 0.29 (1)	5.17	B-R	0 / 2375	0.53 (1)
K-I	-2772 / 0	0.0	0.0 0.29 (1)	5.17	L-I	0 / 2375	0.53 (1)
S-R	0 / 0	-39.2	-39.2 0.21 (3)	10.00			
R-Q	0 / 2299	-39.2	-39.2 0.52 (1)	10.00			
Q-P	0 / 4100	-39.2	-39.2 0.78 (1)	10.00			
P-O	0 / 4100	-39.2	-39.2 0.78 (1)	10.00			
O-N	0 / 4100	-39.2	-39.2 0.78 (1)	10.00			
N-M	0 / 4100	-39.2	-39.2 0.78 (1)	10.00			
M-L	0 / 2299	-39.2	-39.2 0.52 (1)	10.00			
L-K	0 / 0	-39.2	-39.2 0.21 (3)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 34.8 PSF
DL = 8.0 PSF
BOT CH. LL = 10.5 PSF
DL = 7.3 PSF
TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 088-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.09")
CALCULATED VERT. DEFL.(LL) = L/999 (0.23")
ALLOWABLE DEFL.(TL)= L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/999 (0.38")

CSI: TC=0.73/1.00 (H-I-1), BC=0.78/1.00 (M-O-1), WB=0.53/1.00 (I-L-1), SSI=0.34/1.00 (C-D-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 = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (D) (INPUT = 0.80)
JSI METAL= 0.91 (P) (INPUT = 1.00)



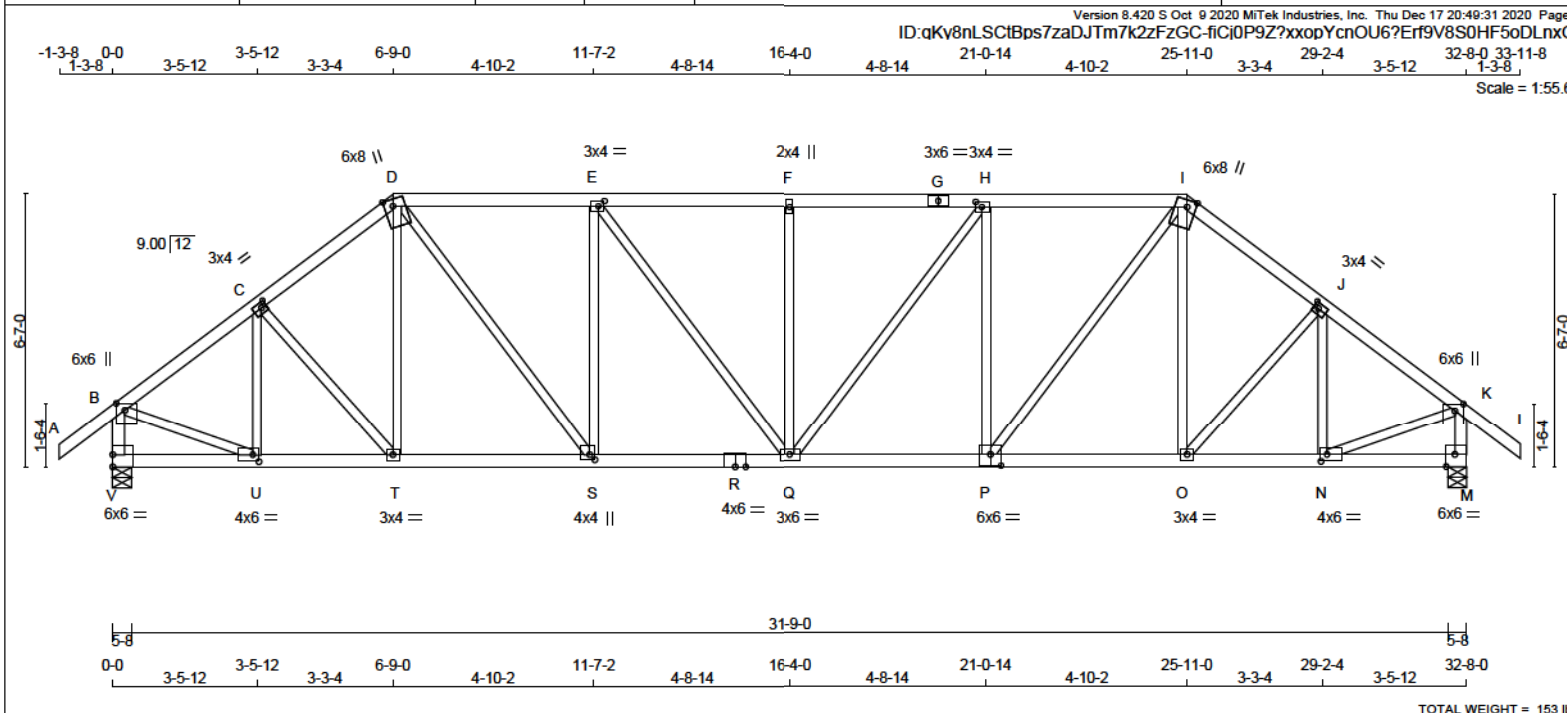
READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-1. THIS NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



These plans have been reviewed for use with the corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with Zoning By-Law 2018-043, as amended, and the Ontario Building Code, as amended. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times.

Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			





LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER			
N. L. G. A. RULES				BEARINGS			
CHORDS	SIZE	LUMBER	DESCR.	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
A - D	2x4	DRY	No.2	JT VERT	DOWN	5-8	5-8
B - G	2x4	DRY	No.2	M VERT	DOWN	5-8	5-8
G - I	2x4	DRY	No.2				
I - L	2x4	DRY	No.2				
V - B	2x4	DRY	No.2				
M - K	2x4	DRY	No.2				
V - R	2x4	DRY	No.2				
R - P	2x4	DRY	No.2				
P - M	2x4	DRY	No.2				
ALL WEBS EXCEPT	2x3	DRY	No.2				
DRY: SEASONED LUMBER.				UNFACTORED REACTIONS			
				1ST LCASE	MAX/MIN COMPONENT REACTIONS		
				JT COMBINED	SNOW LIVE PERM.LIVE WIND DEAD SOIL		
				V	2098 1233 / 0 343 / 0 0 / 0 0 / 0 522 / 0 0 / 0		
				M	2098 1233 / 0 343 / 0 0 / 0 0 / 0 522 / 0 0 / 0		
				BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) V, M			
				BRACING			
				TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.14 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	FACTORED	
				MEMB. MAX. FORCE (LBS)	FACTORED VERT. LOAD (PLF) CSI (LC) UNBRAC	MEMB. MAX. FORCE (LBS) CSI (LC)	
				FR-TO	FROM TO LENGTH	FR-TO	
				A-B	0 / 51 -124.4 -124.4 0.17 (1) 10.00	U-C	-839 / 0 0.17 (1)
				B-C	-2762 / 0 -124.4 -124.4 0.33 (1) 3.89	C-T	0 / 93 0.02 (1)
				C-D	-2901 / 0 -124.4 -124.4 0.33 (1) 3.80	T-D	0 / 167 0.04 (3)
				D-E	-3234 / 0 -124.4 -124.4 0.62 (1) 3.30	D-S	0 / 1540 0.35 (1)
				E-F	-3510 / 0 -124.4 -124.4 0.64 (1) 3.14	S-E	-1033 / 0 0.74 (1)
				F-G	-3510 / 0 -124.4 -124.4 0.64 (1) 3.14	E-Q	0 / 457 0.10 (1)
				G-H	-3510 / 0 -124.4 -124.4 0.64 (1) 3.14	Q-F	-542 / 0 0.39 (1)
				H-I	-3224 / 0 -124.4 -124.4 0.62 (1) 3.30	Q-H	0 / 474 0.11 (1)
				I-J	-2905 / 0 -124.4 -124.4 0.33 (1) 3.80	P-H	-1047 / 0 0.75 (1)
				J-K	-2760 / 0 -124.4 -124.4 0.33 (1) 3.89	P-I	0 / 1518 0.34 (1)
				K-L	0 / 51 -124.4 -124.4 0.17 (1) 10.00	O-I	0 / 195 0.05 (3)
				V-B	-2781 / 0 0.0 0.0 0.29 (1) 5.17	O-J	0 / 99 0.02 (1)
				M-K	-2780 / 0 0.0 0.0 0.29 (1) 5.17	N-J	-847 / 0 0.17 (1)
						B-U	0 / 2358 0.53 (1)
						N-K	0 / 2357 0.53 (1)
				V-U	0 / 0 -39.2 -39.2 0.08 (3) 10.00		
				U-T	0 / 2230 -39.2 -39.2 0.44 (1) 10.00		
				T-S	0 / 2264 -39.2 -39.2 0.46 (1) 10.00		
				S-R	0 / 3235 -39.2 -39.2 0.61 (1) 10.00		
				R-Q	0 / 3235 -39.2 -39.2 0.61 (1) 10.00		
				Q-P	0 / 3224 -39.2 -39.2 0.63 (1) 10.00		
				P-O	0 / 2297 -39.2 -39.2 0.48 (1) 10.00		
				O-N	0 / 2229 -39.2 -39.2 0.47 (1) 10.00		
				N-M	0 / 0 -39.2 -39.2 0.09 (3) 10.00		

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	6.0	6.0	2.00	2.50
C	TMVW-t	MT20	3.0	4.0	1.50	1.50
D	TTVW+m	MT20	6.0	8.0	2.00	2.50
E	TMVW-t	MT20	3.0	4.0	1.50	1.75
F	TMVW-w	MT20	2.0	4.0		
G	TS-t	MT20	3.0	6.0		
H	TMVW-t	MT20	3.0	4.0	1.50	1.75
I	TTVW+m	MT20	6.0	8.0	2.00	2.50
J	TMVW-t	MT20	3.0	4.0	1.50	1.50
K	TMVW+p	MT20	6.0	6.0	2.00	2.50
M	BMV1-t	MT20	6.0	6.0	Edge 2.50	
N	BMVW-t	MT20	4.0	6.0	2.00	1.75
O	BMVW-t	MT20	3.0	4.0		
P	BSWW-t	MT20	6.0	6.0	3.25	3.00
Q	BMVWVW-t	MT20	3.0	6.0		
R	BS-t	MT20	4.0	6.0		
S	BMVW+t	MT20	4.0	4.0	1.50	1.50
T	BMVW-t	MT20	3.0	4.0		
U	BMVW-t	MT20	4.0	6.0	2.00	1.75
V	BMV1-t	MT20	6.0	6.0	3.50	

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

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 34.8 PSF
DL = 8.0 PSF

BOT CH. LL = 10.5 PSF
DL = 7.3 PSF

TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018 , ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 088-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.09")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.17")
ALLOWABLE DEFL.(TL)= L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.28")

CSI: TC=0.64/1.00 (F-H:1) , BC=0.63/1.00 (P-Q:1) ,
WB=0.75/1.00 (H-P:1) , SSI=0.28/1.00 (H-I: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 = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

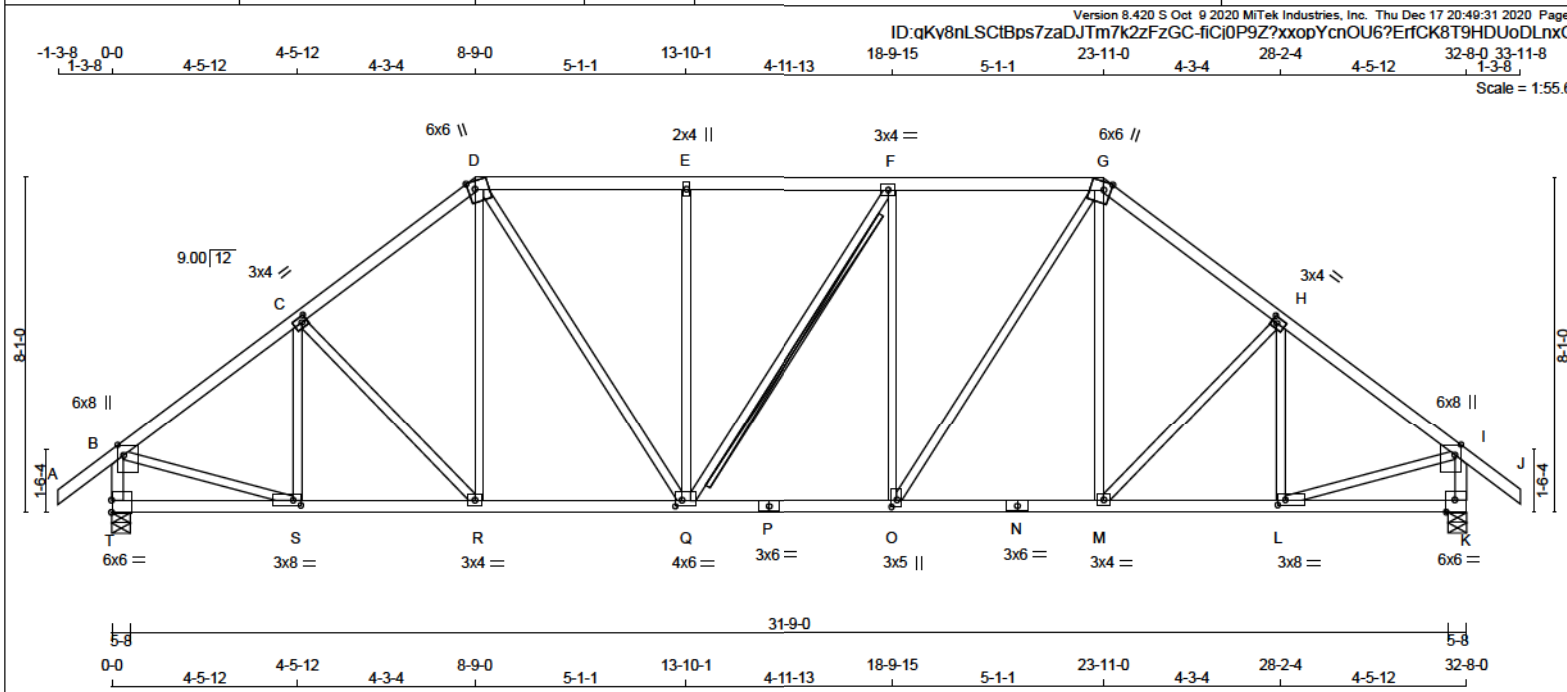
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (C) (INPUT = 0.90)
JSI METAL = 0.75 (R) (INPUT = 1.00)

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Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			

READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-1. THIS 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.
A - D	2x4	DRY No.2	SPF
D - G	2x4	DRY No.2	SPF
G - J	2x4	DRY No.2	SPF
T - B	2x4	DRY No.2	SPF
K - I	2x4	DRY No.2	SPF
T - P	2x4	DRY No.2	SPF
P - N	2x4	DRY No.2	SPF
N - K	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
B TMVW+p	MT20	6.0	8.0	3.00	1.75
C TMVW-t	MT20	3.0	4.0	1.50	1.50
D TTWW+m	MT20	6.0	8.0	Edge 2.00	
E TMVW+w	MT20	2.0	4.0		
F TMVW-t	MT20	3.0	4.0		
G TTWW+m	MT20	6.0	8.0	Edge 2.00	
H TMVW-t	MT20	3.0	4.0	1.50	1.50
I TMVW+p	MT20	6.0	8.0	3.00	1.75
K BMV1-t	MT20	6.0	8.0	Edge 2.50	
L BMVW-t	MT20	3.0	8.0	1.50	2.25
M BMVW-t	MT20	3.0	4.0		
N BS-t	MT20	3.0	6.0		
O BMVW+t	MT20	3.0	5.0	2.00	1.50
P BS-t	MT20	3.0	6.0		
Q BMVW-t	MT20	4.0	6.0	1.75	2.00
R BMVW-t	MT20	3.0	4.0		
S BMVW-t	MT20	3.0	8.0	1.50	2.25
T BMV1-t	MT20	6.0	8.0	3.50	

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



READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-1. THIS 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	REQRD BRG
JT VERT	2845	0	5-8
T 2845	0	0	5-8
K 2845	0	0	5-8

UNFACTORED REACTIONS

1ST LCASE	MAX	MIN	COMPONENT REACTIONS
JT COMBINED	1233	0	343
T 2098	1233	0	343
K 2098	1233	0	343

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.72 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 DRY SPF No.2 T-BRACE AT F-Q
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)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED UNBRACED LENGTH (FT)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED UNBRACED LENGTH (FT)
FR-TO				FR-TO			
A-B	0 / 51	-124.4	-124.4 0.17 (1)	10.00	S-C	-443 / 0	0.18 (1)
B-C	-2891 / 0	-124.4	-124.4 0.42 (1)	3.74	C-R	-191 / 0	0.14 (1)
C-D	-2807 / 0	-124.4	-124.4 0.41 (1)	3.80	R-D	0 / 348	0.08 (2)
D-E	-2784 / 0	-124.4	-124.4 0.46 (1)	3.73	D-Q	0 / 1040	0.23 (1)
E-F	-2784 / 0	-124.4	-124.4 0.43 (1)	3.77	Q-E	-674 / 0	0.85 (1)
F-G	-2786 / 0	-124.4	-124.4 0.46 (1)	3.72	Q-F	-4 / 0	0.00 (1)
G-H	-2806 / 0	-124.4	-124.4 0.41 (1)	3.80	O-F	-675 / 0	0.85 (1)
H-I	-2891 / 0	-124.4	-124.4 0.42 (1)	3.74	O-G	0 / 1045	0.24 (1)
I-J	0 / 51	-124.4	-124.4 0.17 (1)	10.00	M-G	0 / 348	0.08 (2)
T-B	-2768 / 0	0.0	0.0 0.29 (1)	5.17	M-H	-162 / 0	0.14 (1)
K-I	-2768 / 0	0.0	0.0 0.29 (1)	5.17	L-H	-442 / 0	0.15 (1)
					B-S	0 / 2424	0.55 (1)
					L-I	0 / 2424	0.55 (1)
T-S	0 / 0	-39.2	-39.2 0.13 (3)	10.00			
S-R	0 / 2342	-39.2	-39.2 0.48 (1)	10.00			
R-Q	0 / 2214	-39.2	-39.2 0.46 (1)	10.00			
Q-P	0 / 2786	-39.2	-39.2 0.55 (1)	10.00			
P-O	0 / 2786	-39.2	-39.2 0.55 (1)	10.00			
O-N	0 / 2214	-39.2	-39.2 0.46 (1)	10.00			
N-M	0 / 2214	-39.2	-39.2 0.46 (1)	10.00			
M-L	0 / 2342	-39.2	-39.2 0.47 (1)	10.00			
L-K	0 / 0	-39.2	-39.2 0.13 (3)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 34.8 PSF
DL = 8.0 PSF
BOT CH. LL = 10.5 PSF
DL = 7.3 PSF
TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 088-14
- TPIC 2014

(55% OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.09")
CALCULATED VERT. DEFL.(LL) = L/999 (0.13")
ALLOWABLE DEFL.(TL) = L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/999 (0.22")

CSI: TC=0.46/1.00 (D-E-1), BC=0.55/1.00 (O-Q-1), WB=0.85/1.00 (F-O-1), SSI=0.29/1.00 (F-G-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 = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

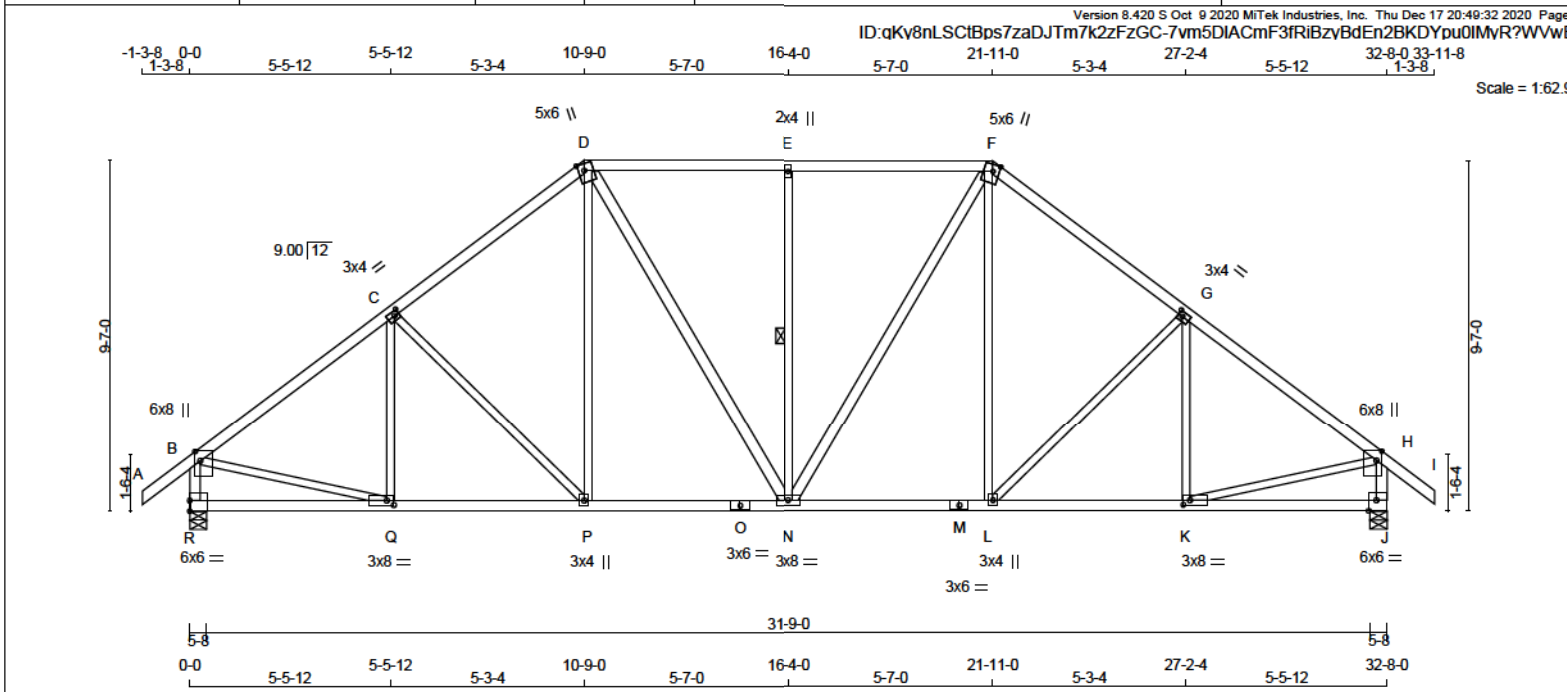
JSI GRIP= 0.90 (Q) (INPUT = 0.90)
JSI METAL= 0.90 (P) (INPUT = 1.00)



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Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			





LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY No.2	SPF
D - F	2x4	DRY No.2	SPF
F - I	2x4	DRY No.2	SPF
R - B	2x4	DRY No.2	SPF
J - H	2x4	DRY No.2	SPF
R - O	2x4	DRY No.2	SPF
O - M	2x4	DRY No.2	SPF
M - J	2x4	DRY No.2	SPF
ALL WEBS	2x3	DRY No.2	SPF
EXCEPT			
D - N	2x4	DRY No.2	SPF
N - F	2x4	DRY No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	6.0	8.0	3.00	1.75
C	TMVW-l	MT20	3.0	4.0	1.50	1.50
D	TTWW+m	MT20	5.0	6.0	Edge 2.00	
E	TMVW+w	MT20	2.0	4.0		
F	TTWW+m	MT20	5.0	6.0	Edge 2.00	
G	TMVW-l	MT20	3.0	4.0	1.50	1.50
H	TMVW+p	MT20	6.0	8.0	3.00	1.75
J	BMV1-t	MT20	6.0	6.0	Edge 2.50	
K	BMVW-l	MT20	3.0	8.0	1.50	2.25
L	BMVW+t	MT20	3.0	4.0		
M	BS-t	MT20	3.0	6.0		
N	BMVW+l	MT20	3.0	6.0		
O	BS-t	MT20	3.0	6.0		
P	BMVW+t	MT20	3.0	4.0		
Q	BMVW-l	MT20	3.0	8.0	1.50	2.25
R	BMV1-t	MT20	6.0	6.0	3.50	

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

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



READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-1. THIS 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	REQRD BRG
JT VERT	2845	0	5-8
R	2845	0	5-8

UNFACTORED REACTIONS

1ST LCASE	MAX	MIN	COMPONENT REACTIONS
JT COMBINED	1233	0	343
R	1233	0	343

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.45 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 - 1x4 LATERAL BRACE(S) AT 1/2 LENGTH OF E-N. DBS = 20-0-0. CBF = 108 LBS.
DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE (PER BRACE). 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.	FORCE (LBS)	VERT. LOAD (PLF)	FACTORED (LC1) MAX	MEMB.	FORCE (LBS)	FACTORED (LC1) MAX	MEMB.
FR-TO				FR-TO			
A-B	0 / 51	-124.4	-124.4 0.17 (1)	10.00	Q-C	-289 / 81	0.14 (1)
B-C	-2952 / 0	-124.4	-124.4 0.85 (1)	3.45	C-P	-442 / 0	0.50 (1)
C-D	-2658 / 0	-124.4	-124.4 0.59 (1)	3.86	P-D	0 / 522	0.12 (2)
D-E	-2410 / 0	-124.4	-124.4 0.58 (1)	3.78	D-N	0 / 621	0.10 (1)
E-F	-2410 / 0	-124.4	-124.4 0.58 (1)	3.78	N-E	-840 / 0	0.52 (1)
F-G	-2658 / 0	-124.4	-124.4 0.59 (1)	3.86	N-F	0 / 621	0.10 (1)
G-H	-2952 / 0	-124.4	-124.4 0.85 (1)	3.45	L-F	0 / 522	0.12 (2)
H-I	0 / 51	-124.4	-124.4 0.17 (1)	10.00	L-G	-442 / 0	0.50 (1)
R-B	-2758 / 0	0.0	0.0 0.29 (1)	5.19	K-G	-289 / 81	0.14 (1)
J-H	-2758 / 0	0.0	0.0 0.29 (1)	5.19	B-Q	0 / 2455	0.55 (1)
					K-H	0 / 2455	0.55 (1)
R-Q	0 / 0	-39.2	-39.2 0.22 (3)	10.00			
Q-P	0 / 2399	-39.2	-39.2 0.52 (1)	10.00			
P-O	0 / 2090	-39.2	-39.2 0.47 (1)	10.00			
O-N	0 / 2090	-39.2	-39.2 0.47 (1)	10.00			
N-M	0 / 2090	-39.2	-39.2 0.47 (1)	10.00			
M-L	0 / 2090	-39.2	-39.2 0.47 (1)	10.00			
L-K	0 / 2399	-39.2	-39.2 0.52 (1)	10.00			
K-J	0 / 0	-39.2	-39.2 0.22 (3)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 34.8 PSF
DL = 8.0 PSF
BOT CH. LL = 10.5 PSF
DL = 7.3 PSF
TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF CBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 088-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (1.09")
CALCULATED VERT. DEFL.(LL) = L/999 (0.11")
ALLOWABLE DEFL.(TL) = L/360 (1.09")
CALCULATED VERT. DEFL.(TL) = L/999 (0.19")

CSI: TC=0.85/1.00 (G-H-1), BC=0.52/1.00 (P-Q-1), WB=0.55/1.00 (B-Q-1), SSI=0.34/1.00 (D-E-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 = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

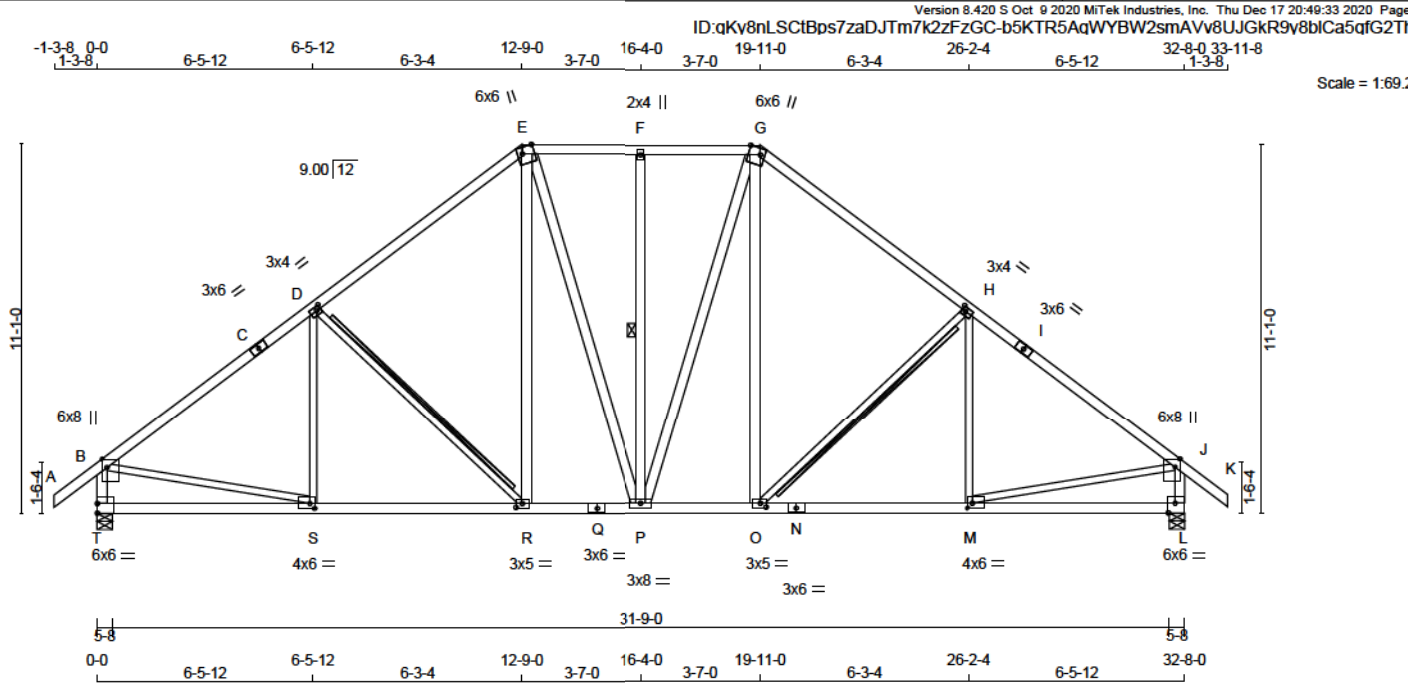
JSI GRIP= 0.87 (Q) (INPUT = 0.90)
JSI METAL = 0.63 (M) (INPUT = 1.00)



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Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			





LUMBER			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
E - G	2x4	DRY	No.2
G - I	2x4	DRY	No.2
I - K	2x4	DRY	No.2
T - B	2x4	DRY	No.2
L - J	2x4	DRY	No.2
T - Q	2x4	DRY	No.2
Q - N	2x4	DRY	No.2
N - L	2x4	DRY	No.2
ALL WEBS 2x4 DRY No.2 SPF			
EXCEPT			
S - D	2x3	DRY	No.2
D - R	2x3	DRY	No.2
O - H	2x3	DRY	No.2
M - H	2x3	DRY	No.2
B - S	2x3	DRY	No.2
M - J	2x3	DRY	No.2

SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMVW+p	MT20	6.0	8.0	3.00 1.75
C	TS-t	MT20	3.0	6.0	
D	TMWW-t	MT20	3.0	4.0	1.50 1.50
E	TTWW+m	MT20	6.0	6.0	Edge 4.25
F	TMW+w	MT20	2.0	4.0	
G	TTWW+m	MT20	6.0	6.0	Edge 4.25
H	TMWW-t	MT20	3.0	4.0	1.50 1.50
I	TS-t	MT20	3.0	6.0	
J	TMVW+p	MT20	6.0	8.0	3.00 1.75
L	BMV1-t	MT20	6.0	6.0	Edge 2.50
M	BMWW-t	MT20	4.0	6.0	1.75 1.75
N	BS-t	MT20	3.0	6.0	
O	BMWW-t	MT20	3.0	5.0	1.50 2.25
P	BMWW-t	MT20	3.0	8.0	
Q	BS-t	MT20	3.0	6.0	
R	BMWW-t	MT20	3.0	5.0	1.50 2.25
S	BMWW-t	MT20	4.0	6.0	1.75 1.75
T	BMV1-t	MT20	6.0	6.0	3.50

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
T	2845	0	2845	0	5-8
L	2845	0	2845	0	5-8

UNFACTORED REACTIONS						
1ST LCASE MAX/MIN COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
T	2098	1233 / 0	343 / 0	0 / 0	0 / 0	522 / 0
L	2098	1233 / 0	343 / 0	0 / 0	0 / 0	522 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.97 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 - 1x4 LATERAL BRACE(S) AT 1/2 LENGTH OF F-P. DBS = 20-00. CBF = 88 LBS.
2x4 DRY SPF No.2 T-BRACE AT D-R, H-O

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE (PER BRACE). 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.

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)

CHORDS				WEBS				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED L1 MAX CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED MAX CSI (LC)	
FR-TO		FROM TO		LENGTH	FR-TO			
A-B	0 / 51	-124.4 -124.4	0.17 (1)	10.00	S-D	-157 / 182	0.10 (1)	
B-C	-2971 / 0	-124.4 -124.4	0.95 (1)	2.97	D-R	-677 / 0	0.41 (1)	
C-D	-2971 / 0	-124.4 -124.4	0.95 (1)	2.97	R-E	0 / 669	0.11 (1)	
D-E	-2474 / 0	-124.4 -124.4	0.83 (1)	3.37	E-P	0 / 325	0.05 (1)	
E-F	-2041 / 0	-124.4 -124.4	0.24 (1)	4.53	P-F	-526 / 0	0.33 (1)	
F-G	-2041 / 0	-124.4 -124.4	0.24 (1)	4.53	P-G	0 / 325	0.05 (1)	
G-H	-2474 / 0	-124.4 -124.4	0.83 (1)	3.37	O-G	0 / 669	0.11 (1)	
H-I	-2971 / 0	-124.4 -124.4	0.95 (1)	2.97	O-H	-677 / 0	0.41 (1)	
I-J	-2971 / 0	-124.4 -124.4	0.95 (1)	2.97	M-H	-157 / 182	0.10 (1)	
J-K	0 / 51	-124.4 -124.4	0.17 (1)	10.00	B-S	0 / 2463	0.55 (1)	
T-B	-2742 / 0	0.0	0.0	0.29 (1)	5.20	M-J	0 / 2463	0.55 (1)
L-J	-2742 / 0	0.0	0.0	0.29 (1)	5.20			
T-S	0 / 0	-39.2	-39.2	0.33 (3)	10.00			
S-R	0 / 2422	-39.2	-39.2	0.62 (2)	10.00			
R-Q	0 / 1939	-39.2	-39.2	0.43 (1)	10.00			
Q-P	0 / 1939	-39.2	-39.2	0.43 (1)	10.00			
P-O	0 / 1939	-39.2	-39.2	0.43 (1)	10.00			
O-N	0 / 2422	-39.2	-39.2	0.62 (2)	10.00			
N-M	0 / 2422	-39.2	-39.2	0.62 (2)	10.00			
M-L	0 / 0	-39.2	-39.2	0.33 (3)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 34.8 PSF
DL = 8.0 PSF
BOT CH. LL = 10.5 PSF
DL = 7.3 PSF
TOTAL LOAD = 60.6 PSF

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 088-14
- TPIC 2014

(55 % OF 48.1 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD)
EQUALS 34.8 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.09")
CALCULATED VERT. DEFL.(LL)= L/999 (0.11")
ALLOWABLE DEFL.(TL)= L/360 (1.09")
CALCULATED VERT. DEFL.(TL)= L/999 (0.20")

CSI: TC=0.95/1.00 (H-J-1) . BC=0.62/1.00 (R-S-2) .
WB=0.55/1.00 (B-S-1) . SSI=0.31/1.00 (H-J-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 = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL = 0.250 inches

PLATE ROTATION TOL = 5.0 Deg.

JSI GRIP= 0.88 (S) (INPUT = 0.80)
JSI METAL = 0.74 (N) (INPUT = 1.00)



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Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			

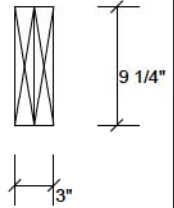
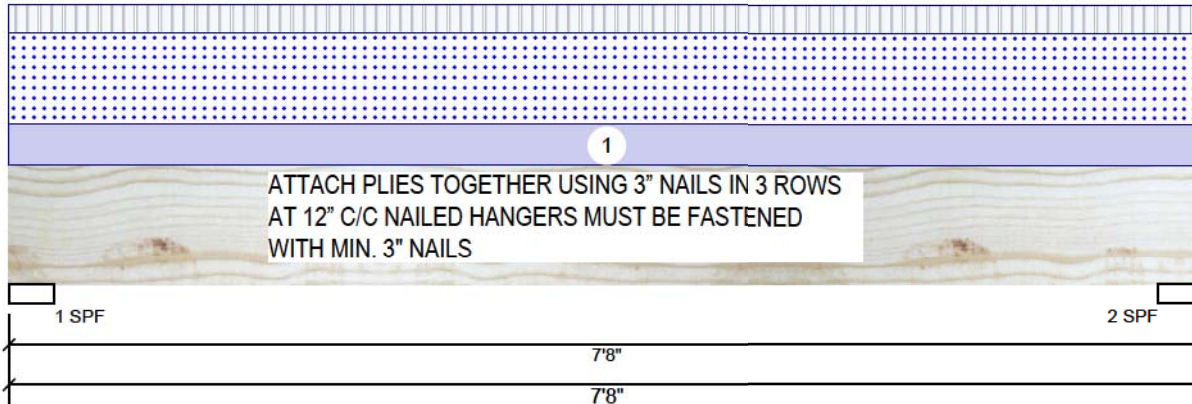
CONTINUED ON PAGE 2



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

B2 S-P-F #2 2.000" X 10.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Roof (Residential)
Plies:	2	Slope:	0/12
Moisture Condition:	Dry	Design Method:	LSD
Deflection LL:	360	Building Code:	NBCC 2015 / OBC 2012
Deflection TL:	360	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
		Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	121	176	400	0
2	121	176	400	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	15%	220 / 721	941	L	1.25D+1.5S +L
2 - SPF	3.500"	15%	220 / 721	941	L	1.25D+1.5S +L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1594 ft-lb	3'10"	6039 ft-lb	0.264 (26%)	1.25D+1.5S +L	L
Unbraced	1594 ft-lb	3'10"	4500 ft-lb	0.354 (35%)	1.25D+1.5S +L	L
Shear	885 lb	1'	3984 lb	0.222 (22%)	1.25D+1.5S +L	L
LL Defl inch	0.027 (L/3230)	3'10 1/16"	0.240 (L/360)	0.110 (11%)	S+0.5L	L
TL Defl inch	0.037 (L/2337)	3'10 1/16"	0.240 (L/360)	0.150 (15%)	D+S+0.5L	L

Design Notes

- Girders are designed to be supported on the bottom edge only.
- Multiple plies must be fastened together as per manufacturer's details.
- Top braced at bearings.
- Bottom braced at bearings.
- Lateral slenderness ratio based on single ply width.



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Uniform		3-0-0	Far Face	15.3 PSF	10.5 PSF	34.8 PSF	0 PSF	

READ ALL NOTES ON THIS PAGE AND ON ENGINEERING NOTE PAGE ENP-1. THIS 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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Kott Group
14 Anderson Blvd., On
L4A7X4
905-642-4400



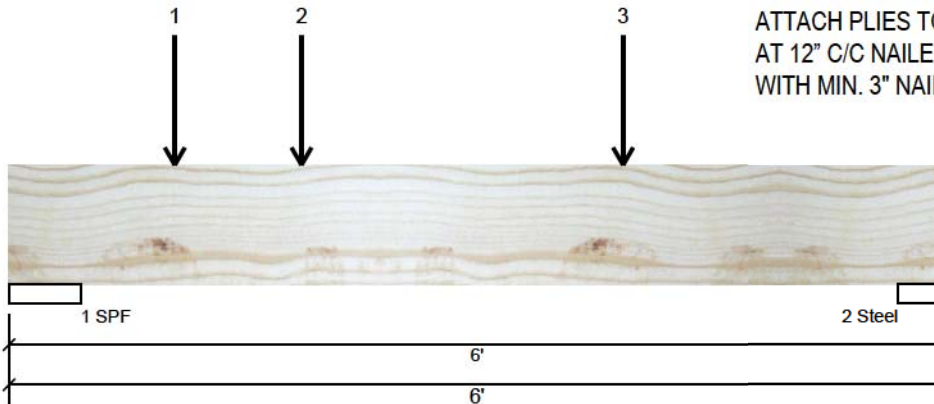
CSD | DRAW DESIGN BUILD

This design is valid until 10/10/2023

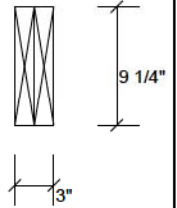
Discipline	Reviewer	BCIN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			

B1 S-P-F #2 2.000" X 10.000" 2-Ply - PASSED

Level: Level



ATTACH PLIES TOGETHER USING 3" NAILS IN 3 ROWS
AT 12" C/C NAILED HANGERS MUST BE FASTENED
WITH MIN. 3" NAILS



Member Information

Type:	Girder	Application:	Roof (Residential)
Plies:	2	Slope:	0/12
Moisture Condition:	Dry	Design Method:	LSD
Deflection LL:	360	Building Code:	NBCC 2015 / OBC 2012
Deflection TL:	360	Load Sharing:	No
Importance:	Normal - II	Deck:	Not Checked
		Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	117	175	407	0
2	83	121	280	0

Bearings and Factored Reactions

Bearing	Length	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
1 - SPF	5.500"	9%	218 / 728	947 L 1.25D+1.5S +L
2 - Steel	3.500"	10%	152 / 502	654 L 1.25D+1.5S +L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1266 ft-lb	1'10 1/2"	6039 ft-lb	0.210 (21%)	1.25D+1.5S +L	L
Unbraced	1266 ft-lb	1'10 1/2"	5183 ft-lb	0.244 (24%)	1.25D+1.5S +L	L
Shear	924 lb	1'2"	3984 lb	0.232 (23%)	1.25D+1.5S +L	L
LL Defl inch	0.012 (L/5322)	3' 1/4"	0.179 (L/360)	0.070 (7%)	S+0.5L	L
TL Defl inch	0.017 (L/3867)	3' 1/4"	0.179 (L/360)	0.090 (9%)	D+S+0.5L	L

Design Notes

- Girders are designed to be supported on the bottom edge only.
- Multiple plies must be fastened together as per manufacturer's details.
- Top loads must be supported equally by all plies.
- Top braced at bearings.
- Bottom braced at bearings.
- Lateral slenderness ratio based on single ply width.



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	1-0-12		Top	31 lb	21 lb	71 lb	0 lb	
2	Point	1-10-8		Top	149 lb	99 lb	352 lb	0 lb	
3	Point	3-11-4		Near Face	116 lb	80 lb	264 lb	0 lb	

**READ ALL NOTES ON THIS PAGE AND ON
ENGINEERING NOTE PAGE ENP-1. THIS
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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Kott Group
14 Anderson Blvd., On
L4A7X4
905-642-4400



CSD | DRAW DESIGN BUILD

This design is valid until 10/10/2023

Discipline	Reviewer	BCN	Date
Building Code	H. Author	43236	2021-02-05
Sewage System			
Zoning			

1) ENSURE TRUSS HAS BEEN DESIGNED WITH ADDITIONAL TOP CHORD DEAD LOAD EQUAL TO OR GREATER THAN WEIGHT OF SOLAR PANELS BEING INSTALLED

2) ATTACH SOLAR PANELS TO EACH TRUSS LOCATED UNDER THE SOLAR PANELS (I.E. @ 24" C/C PERPENDICULAR TO THE TRUSS DIRECTION)

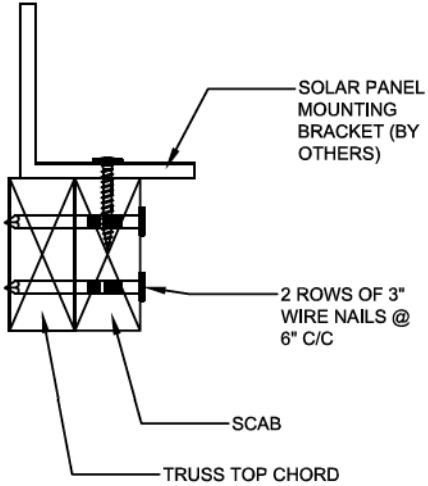
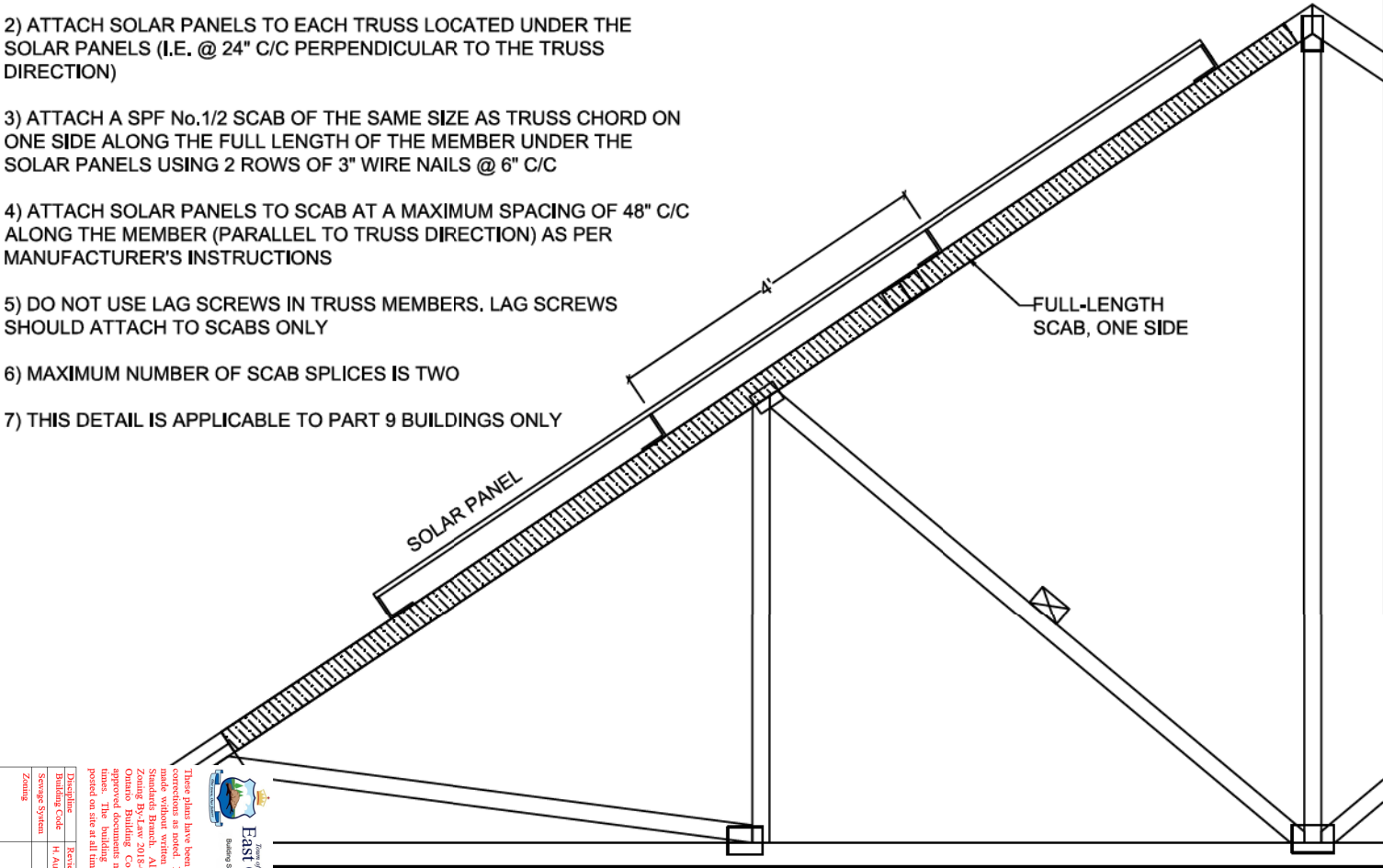
3) ATTACH A SPF No.1/2 SCAB OF THE SAME SIZE AS TRUSS CHORD ON ONE SIDE ALONG THE FULL LENGTH OF THE MEMBER UNDER THE SOLAR PANELS USING 2 ROWS OF 3" WIRE NAILS @ 6" C/C

4) ATTACH SOLAR PANELS TO SCAB AT A MAXIMUM SPACING OF 48" C/C ALONG THE MEMBER (PARALLEL TO TRUSS DIRECTION) AS PER MANUFACTURER'S INSTRUCTIONS

5) DO NOT USE LAG SCREWS IN TRUSS MEMBERS. LAG SCREWS SHOULD ATTACH TO SCABS ONLY

6) MAXIMUM NUMBER OF SCAB SPLICES IS TWO

7) THIS DETAIL IS APPLICABLE TO PART 9 BUILDINGS ONLY



These plans have been reviewed for use with the code corrections as noted. No other changes may be made without written approval of the Building Standards Branch. All work must comply with the Ontario Building Code, as amended. These approved documents must be kept on site at all times. The building permit must be clearly posted on site at all times.

East Gwillimbury
Building Standards Branch (BCSB #16487)

Discipline	Reviewed	BCSN	Date
Building Code	H. Ashner	44236	2021-02-05
Seismic System			
Zoning			

NE1220-120
GREENPARK - TRINAR HALL
- GLENWAY 7A ELE 3

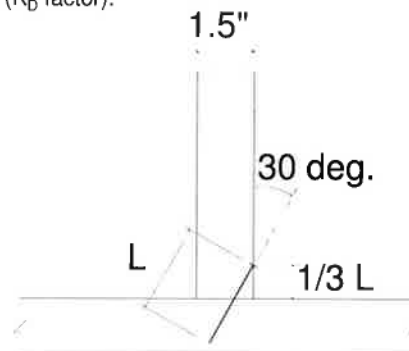
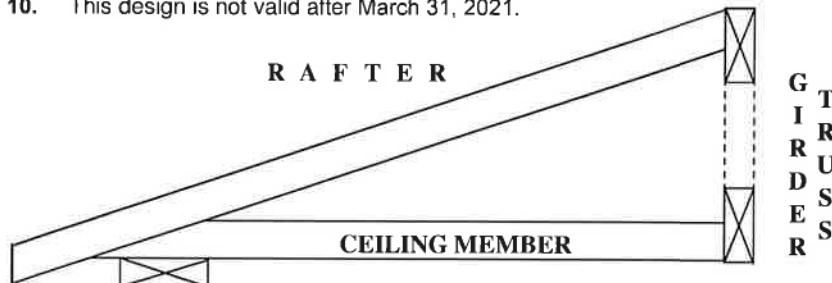
Detail for Installation of Solar Panels - Scab Method



B97791H1

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

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 O86-14, section 12.9.4.1.
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 O86-14, section 12.9.4
10. This design is not valid after March 31, 2021.



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

PEO
Certificate No. 10889485

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



Town of
East Gwillimbury
Building Standards Branch BCIN #16487

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December 2

Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-04
Sewage System			
Zoning			

NE1220-120
GREENPARK - TRINAR HALL
- GLENWAY 7A ELE 3

BEARING ANCHORAGE BY TOE-NAILS FOR WIND LOADING

B97791H2

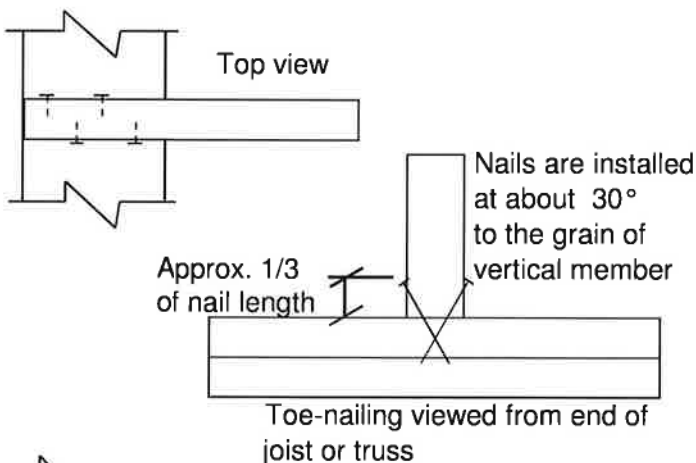
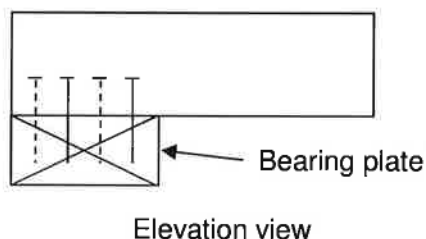
NAIL TYPE	LENGTH (IN)	DIAMETER (IN)	NAIL WITHDRAWAL CAPACITY (LB)	
			S-P-F	D. FIR
COMMON WIRE	3.00	0.144	30	42
	3.25	0.144	32	45
	3.50	0.160	38	52
COMMON SPIRAL	3.00	0.122	26	36
	3.25	0.122	28	40
	3.50	0.152	36	50

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

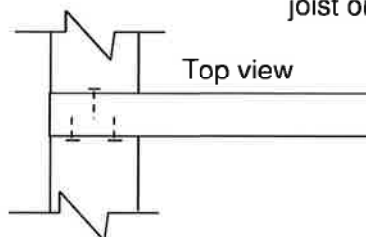
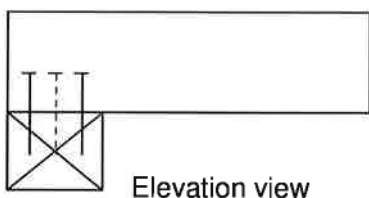
NOTES:

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 O86-14, section 12.9.5.2.
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 O86-14, section 12.9.5
9. This design is not valid after March 31, 2021.

Toe-nailing on 2x6 Bearing Plate



Toe-nailing on 2x4 Bearing Plate



MiTek

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

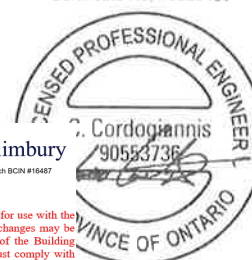


Town of
East Gwillimbury
Building Standards Branch BCIN #16487

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Discipline	Reviewer	BCIN	Date
Building Code	H. Authier	43236	2021-02-05
Sewage System			
Zoning			

PEO
Certificate No. 10889485



Dec