JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-081	T03	1	1	TRUSS DESC.	

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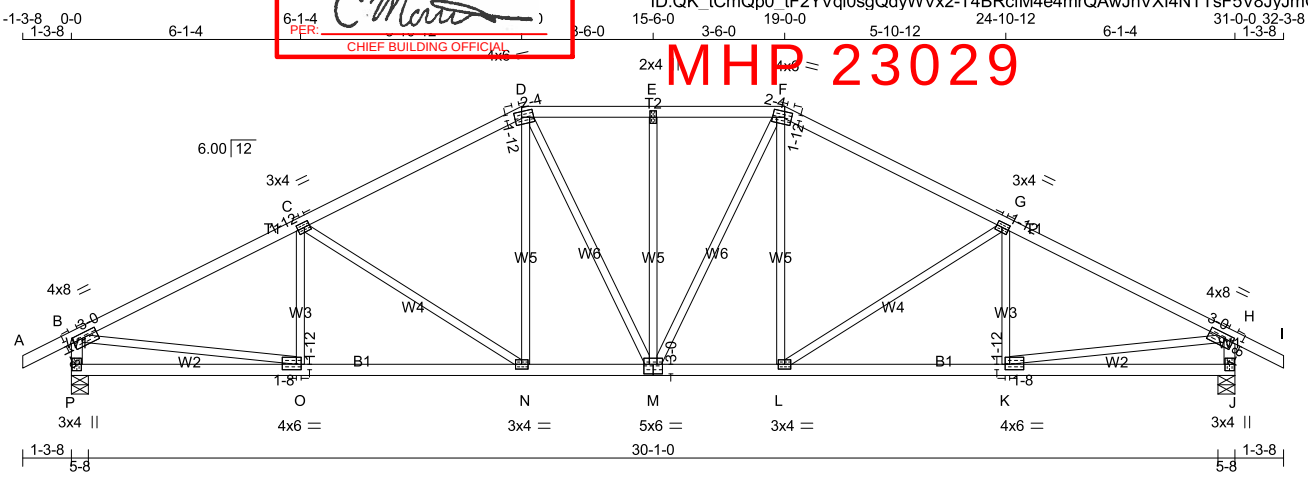

TOTAL WEIGHT = 134 lb [M][F]

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
P - B	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
P - M	2x4	DRY	No.2	SPF
M - J	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	8.0	1.50	3.00
C	TMWW-t	MT20	3.0	4.0	1.50	1.75
D	TTWW-m	MT20	4.0	6.0	1.75	2.25
E	TMW+w	MT20	2.0	4.0		
F	TTWW-m	MT20	4.0	6.0	1.75	2.25
G	TMWW-t	MT20	3.0	4.0	1.50	1.75
H	TMVW-t	MT20	4.0	8.0	1.50	3.00
J	BMV1+p	MT20	3.0	4.0		
K	BMWW-t	MT20	4.0	6.0	1.75	1.50
L	BMWW-t	MT20	3.0	4.0		
M	BSWWW-l	MT20	5.0	6.0	3.00	3.00
N	BMWW-t	MT20	3.0	4.0		
O	BMWW-t	MT20	4.0	6.0	1.75	1.50
P	BMV1+p	MT20	3.0	4.0		

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

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT	REQRD
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	BRG IN-SX	BRG IN-SX
P	2296	0	2296	0	0	5-8	3-15
J	2296	0	2296	0	0	5-8	3-15

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
P	1602	1174 / 0	0 / 0	0 / 0	0 / 0	429 / 0	0 / 0
J	1602	1174 / 0	0 / 0	0 / 0	0 / 0	429 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.13 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 MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD FROM (PLF)	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	0 / 36	-119.4	-119.4	0.16 (1)	10.00	O- C	-279 / 34	0.07 (1)
B- C	-3111 / 0	-119.4	-119.4	0.75 (1)	3.13	C- N	-633 / 0	0.63 (1)
C- D	-2596 / 0	-119.4	-119.4	0.67 (1)	3.49	N- D	0 / 443	0.10 (1)
D- E	-2429 / 0	-119.4	-119.4	0.23 (1)	4.18	D- M	0 / 301	0.07 (1)
E- F	-2429 / 0	-119.4	-119.4	0.23 (1)	4.18	M- E	-498 / 0	0.45 (1)
F- G	-2596 / 0	-119.4	-119.4	0.67 (1)	3.49	M- F	0 / 301	0.07 (1)
G- H	-3111 / 0	-119.4	-119.4	0.75 (1)	3.13	L- F	0 / 443	0.10 (1)
H- I	0 / 36	-119.4	-119.4	0.16 (1)	10.00	L- G	-633 / 0	0.63 (1)
P- B	-2247 / 0	0.0	0.0	0.23 (1)	5.61	K- G	-279 / 34	0.07 (1)
J- H	-2247 / 0	0.0	0.0	0.23 (1)	5.61	B- O	0 / 2844	0.64 (1)
						K- H	0 / 2844	0.64 (1)
P- O	0 / 0	-18.2	-18.2	0.15 (4)	10.00			
O- N	0 / 2816	-18.2	-18.2	0.51 (1)	10.00			
N- M	0 / 2292	-18.2	-18.2	0.42 (1)	10.00			
M- L	0 / 2292	-18.2	-18.2	0.42 (1)	10.00			
L- K	0 / 2816	-18.2	-18.2	0.51 (1)	10.00			
K- J	0 / 0	-18.2	-18.2	0.15 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	34.8	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD		=	48.1	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 , NBC-2019AE
- 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 (1.03")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.15")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.25")

CSI: TC=0.75/0.97 (B-C:1) , BC=0.51/0.97 (K-L:1) , WB=0.64/0.97 (H-K:1) , SSI=0.31/1.00 (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) (PSI)		SHEAR (PLI)		SECTION (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 (J) (INPUT = 0.90)
JSI METAL= 0.67 (O) (INPUT = 1.00)

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
JULY 13, 2023

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

KOTT

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-081	T04	1		TRUSS DESC.	

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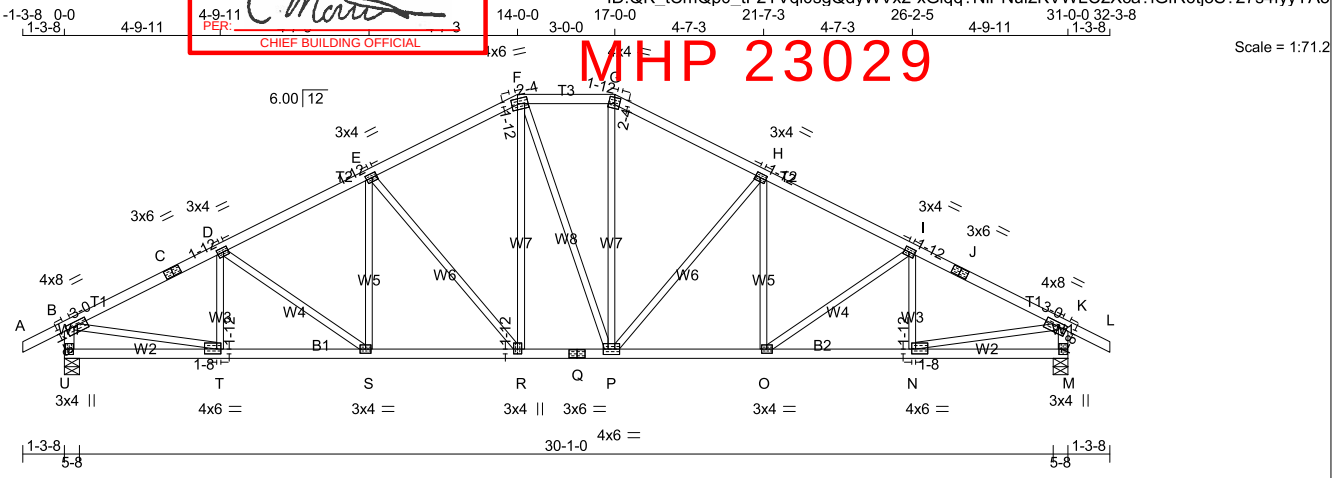

TOTAL WEIGHT = 139 lb

[M][F]

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
U - B	2x4	DRY	No.2	SPF
M - K	2x4	DRY	No.2	SPF
U - Q	2x4	DRY	No.2	SPF
Q - M	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	8.0	1.50	3.00
C	TS-t	MT20	3.0	6.0		
D, E, H, I						
D	TMWW-t	MT20	3.0	4.0	1.50	1.75
F	TTWW-m	MT20	4.0	6.0	1.75	2.25
G	TTW-m	MT20	4.0	4.0	2.25	1.75
J	TS-t	MT20	3.0	6.0		
K	TMVW-t	MT20	4.0	8.0	1.50	3.00
M	BMV1+p	MT20	3.0	4.0		
N	BMWW-t	MT20	4.0	6.0	1.75	1.50
O	BMWW-t	MT20	3.0	4.0		
P	BMWWW-t	MT20	4.0	6.0		
Q	BS-t	MT20	3.0	6.0		
R	BMWW+t	MT20	3.0	4.0	1.75	1.50
S	BMWW-t	MT20	3.0	4.0		
T	BMWW-t	MT20	4.0	6.0	1.75	1.50
U	BMV1+p	MT20	3.0	4.0		

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

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT	REQRD
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	BRG	BRG
U	2296	0	2296	0	0	IN-SX	IN-SX
M	2296	0	2296	0	0	5-8	3-15
						3-15	

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
U	1602	1174 / 0	0 / 0	0 / 0	0 / 0	429 / 0	0 / 0
M	1602	1174 / 0	0 / 0	0 / 0	0 / 0	429 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.58 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD FROM	TO	LC1 (PLF)	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	0 / 36	-119.4	-119.4	0.16 (1)	10.00		T- D	-404 / 0	0.09 (1)
B- C	-3034 / 0	-119.4	-119.4	0.45 (1)	3.58		D- S	-210 / 0	0.11 (1)
C- D	-3034 / 0	-119.4	-119.4	0.45 (1)	3.58		S- E	0 / 213	0.05 (1)
D- E	-2865 / 0	-119.4	-119.4	0.37 (1)	3.77		E- R	-753 / 0	0.77 (1)
E- F	-2347 / 0	-119.4	-119.4	0.36 (1)	4.11		R- F	0 / 634	0.14 (1)
F- G	-2087 / 0	-119.4	-119.4	0.18 (1)	4.51		F- P	0 / 7	0.00 (1)
G- H	-2349 / 0	-119.4	-119.4	0.36 (1)	4.11		P- G	0 / 642	0.14 (1)
H- I	-2864 / 0	-119.4	-119.4	0.37 (1)	3.77		P- H	-747 / 0	0.77 (1)
I- J	-3034 / 0	-119.4	-119.4	0.45 (1)	3.58		O- H	0 / 207	0.05 (1)
J- K	-3034 / 0	-119.4	-119.4	0.45 (1)	3.58		O- I	-211 / 0	0.11 (1)
K- L	0 / 36	-119.4	-119.4	0.16 (1)	10.00		N- I	-403 / 0	0.09 (1)
U- B	-2254 / 0	0.0	0.0	0.23 (1)	5.60		B- T	0 / 2777	0.62 (1)
M- K	-2254 / 0	0.0	0.0	0.23 (1)	5.60		N- K	0 / 2777	0.62 (1)
U- T	0 / 0	-18.2	-18.2	0.09 (4)	10.00				
T- S	0 / 2734	-18.2	-18.2	0.48 (1)	10.00				
S- R	0 / 2562	-18.2	-18.2	0.45 (1)	10.00				
R- Q	0 / 2085	-18.2	-18.2	0.38 (1)	10.00				
Q- P	0 / 2085	-18.2	-18.2	0.38 (1)	10.00				
P- O	0 / 2561	-18.2	-18.2	0.46 (1)	10.00				
O- N	0 / 2734	-18.2	-18.2	0.48 (1)	10.00				
N- M	0 / 0	-18.2	-18.2	0.09 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	34.8	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD		=	48.1	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 , NBC-2019AE
- 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 (1.03")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.14")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.25")

CSI: TC=0.45/0.97 (I-K:1) , BC=0.48/0.97 (N-O:1) , WB=0.77/0.97 (E-R:1) , SSI=0.23/1.00 (I-K: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) (PSI)		SHEAR (PLI)		SECTION (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 (M) (INPUT = 0.90)
JSI METAL= 0.65 (N) (INPUT = 1.00)

JULY 13, 2023

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

KOTT

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-081	T05	9		TRUSS DESC.	

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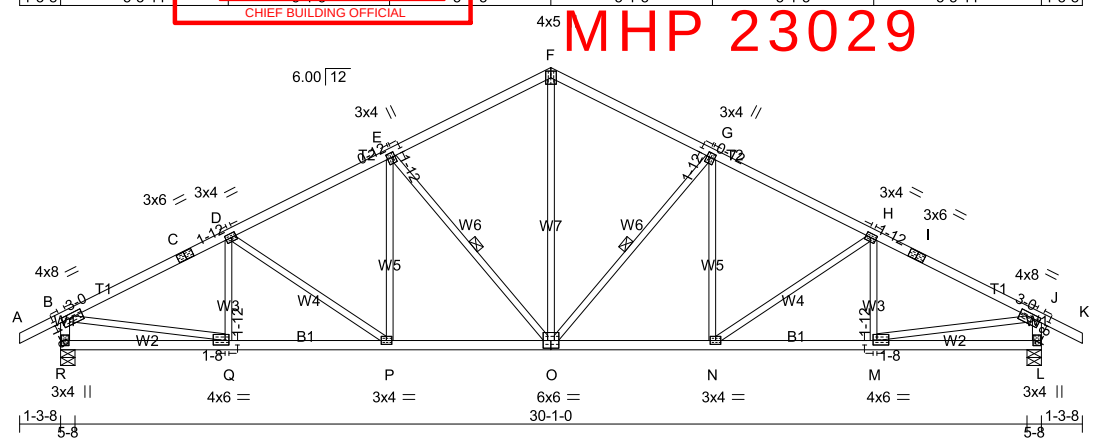

TOTAL WEIGHT = 9 X 132 = 1184 lb

[M][F]

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 - I	2x4	DRY	No.2	SPF
I - K	2x4	DRY	No.2	SPF
R - B	2x4	DRY	No.2	SPF
L - J	2x4	DRY	No.2	SPF
R - O	2x4	DRY	No.2	SPF
O - L	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	4.0	8.0	1.50	3.00
C	TS-t	MT20	3.0	6.0		
D	TMWW-t	MT20	3.0	4.0	1.50	1.75
E	TMWW+t	MT20	3.0	4.0	1.75	0.75
F	TTW+p	MT20	4.0	5.0		
G	TMWW+t	MT20	3.0	4.0	1.75	0.75
H	TMWW-t	MT20	3.0	4.0	1.50	1.75
I	TS-t	MT20	3.0	6.0		
J	TMVW-t	MT20	4.0	8.0	1.50	3.00
L	BMV1+p	MT20	3.0	4.0		
M	BMWW-t	MT20	4.0	6.0	1.75	1.50
N	BMWW-t	MT20	3.0	4.0		
O	BSWWW-t	MT20	6.0	6.0		
P	BMWW-t	MT20	3.0	4.0		
Q	BMWW-t	MT20	4.0	6.0	1.75	1.50
R	BMV1+p	MT20	3.0	4.0		

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

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT	REQRD
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	BRG	BRG
R	2296	0	2296	0	0	IN-SX	IN-SX
L	2296	0	2296	0	0	5-8	3-15
						3-15	

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
R	1602	1174 / 0	0 / 0	0 / 0	0 / 0	429 / 0	0 / 0
L	1602	1174 / 0	0 / 0	0 / 0	0 / 0	429 / 0	0 / 0

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

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 G-O, E-O. DBS = 20-0-0 . CBF = 110 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 MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	0 / 36	-119.4	-119.4	0.16 (1)	10.00	O- F	0 / 1428	0.32 (1)
B- C	-3065 / 0	-119.4	-119.4	0.55 (1)	3.45	O- G	-882 / 0	0.37 (1)
C- D	-3065 / 0	-119.4	-119.4	0.55 (1)	3.45	N- G	0 / 294	0.07 (1)
D- E	-2784 / 0	-119.4	-119.4	0.45 (1)	3.74	N- H	-334 / 0	0.23 (1)
E- F	-2174 / 0	-119.4	-119.4	0.42 (1)	4.16	M- H	-352 / 0	0.08 (1)
F- G	-2174 / 0	-119.4	-119.4	0.42 (1)	4.16	E- O	-882 / 0	0.37 (1)
G- H	-2784 / 0	-119.4	-119.4	0.45 (1)	3.74	P- E	0 / 294	0.07 (1)
H- I	-3065 / 0	-119.4	-119.4	0.55 (1)	3.45	D- P	-334 / 0	0.23 (1)
I- J	-3065 / 0	-119.4	-119.4	0.55 (1)	3.45	Q- D	-352 / 0	0.08 (1)
J- K	0 / 36	-119.4	-119.4	0.16 (1)	10.00	B- Q	0 / 2800	0.63 (1)
R- B	-2251 / 0	0.0	0.0	0.23 (1)	5.60	M- J	0 / 2800	0.63 (1)
L- J	-2251 / 0	0.0	0.0	0.23 (1)	5.60			
R- Q	0 / 0	-18.2	-18.2	0.10 (4)	10.00			
Q- P	0 / 2764	-18.2	-18.2	0.50 (1)	10.00			
P- O	0 / 2489	-18.2	-18.2	0.46 (1)	10.00			
O- N	0 / 2489	-18.2	-18.2	0.46 (1)	10.00			
N- M	0 / 2764	-18.2	-18.2	0.50 (1)	10.00			
M- L	0 / 0	-18.2	-18.2	0.10 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	34.8	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD		=	48.1	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 , NBC-2019AE
- 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 (1.03")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.15")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.27")

CSI: TC=0.55/0.97 (H-J:1) , BC=0.50/0.97 (M-N:1) , WB=0.63/0.97 (J-M:1) , SSI=0.26/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) 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 (L) (INPUT = 0.90)
JSI METAL= 0.66 (Q) (INPUT = 1.00)

JULY 13, 2023

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

KOTT

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-081	T05A	1	1	TRUSS DESC.	

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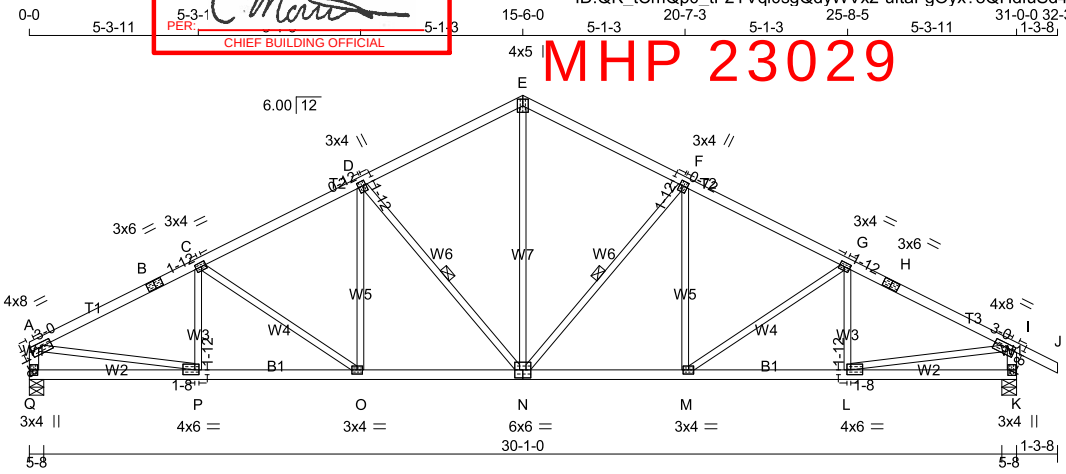

TOTAL WEIGHT = 130 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS		SIZE		LUMBER	DESCR.
A	B	2x4	DRY	No.2	SPF
B	E	2x4	DRY	No.2	SPF
E	H	2x4	DRY	No.2	SPF
H	J	2x4	DRY	No.2	SPF
Q	A	2x4	DRY	No.2	SPF
K	I	2x4	DRY	No.2	SPF
Q	N	2x4	DRY	No.2	SPF
N	K	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT		2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	8.0	1.50	3.00
B	TS-t	MT20	3.0	6.0		
C	TMWW-t	MT20	3.0	4.0	1.50	1.75
D	TMWW+t	MT20	3.0	4.0	1.75	0.75
E	TTW+p	MT20	4.0	5.0		
F	TMWW+t	MT20	3.0	4.0	1.75	0.75
G	TMWW-t	MT20	3.0	4.0	1.50	1.75
H	TS-t	MT20	3.0	6.0		
I	TMVW-t	MT20	4.0	8.0	1.50	3.00
K	BMV1+p	MT20	3.0	4.0		
L	BMWW-t	MT20	4.0	6.0	1.75	1.50
M	BMWW-t	MT20	3.0	4.0		
N	BSWWW-I	MT20	6.0	6.0		
O	BMWW-t	MT20	3.0	4.0		
P	BMWW-t	MT20	4.0	6.0	1.75	1.50
Q	BMV1+p	MT20	3.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG	REQRD BRG
Q	2134	0	2134	0	0	5-8	3-7
K	2296	0	2296	0	0	5-8	3-15

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Q	1491	1079 / 0	0 / 0	0 / 0	0 / 0	412 / 0	0 / 0
K	1602	1174 / 0	0 / 0	0 / 0	0 / 0	429 / 0	0 / 0

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

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 F-N, D-N. DBS = 20-0-0 . CBF = 110 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 MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	-3065 / 0	-119.4	-119.4	0.55 (1)	3.45	N- E	0 / 1428	0.32 (1)
B- C	-3065 / 0	-119.4	-119.4	0.55 (1)	3.45	N- F	-882 / 0	0.37 (1)
C- D	-2784 / 0	-119.4	-119.4	0.45 (1)	3.74	M- F	0 / 294	0.07 (1)
D- E	-2174 / 0	-119.4	-119.4	0.42 (1)	4.16	M- G	-334 / 0	0.23 (1)
E- F	-2174 / 0	-119.4	-119.4	0.42 (1)	4.16	L- G	-352 / 0	0.08 (1)
F- G	-2784 / 0	-119.4	-119.4	0.45 (1)	3.74	D- N	-882 / 0	0.37 (1)
G- H	-3065 / 0	-119.4	-119.4	0.55 (1)	3.45	O- D	0 / 294	0.07 (1)
H- I	-3065 / 0	-119.4	-119.4	0.55 (1)	3.45	C- O	-334 / 0	0.23 (1)
I- J	0 / 36	-119.4	-119.4	0.16 (1)	10.00	P- C	-352 / 0	0.08 (1)
Q- A	-2089 / 0	0.0	0.0	0.21 (1)	5.78	A- P	0 / 2800	0.63 (1)
K- I	-2251 / 0	0.0	0.0	0.23 (1)	5.60	L- I	0 / 2800	0.63 (1)
Q- P	0 / 0	-18.2	-18.2	0.10 (4)	10.00			
P- O	0 / 2764	-18.2	-18.2	0.50 (1)	10.00			
O- N	0 / 2489	-18.2	-18.2	0.46 (1)	10.00			
N- M	0 / 2489	-18.2	-18.2	0.46 (1)	10.00			
M- L	0 / 2764	-18.2	-18.2	0.50 (1)	10.00			
L- K	0 / 0	-18.2	-18.2	0.10 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	34.8	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD		=	48.1	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 , NBC-2019AE
- 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 (1.03")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.15")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.27")

CSI: TC=0.55/0.97 (A-C:1) , BC=0.50/0.97 (L-M:1) , WB=0.63/0.97 (A-P:1) , SSI=0.26/1.00 (G-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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) 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 (K) (INPUT = 0.90)
JSI METAL= 0.66 (P) (INPUT = 1.00)

JULY 13, 2023

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KOTT

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-081	T05B	3	1	TRUSS DESC.	

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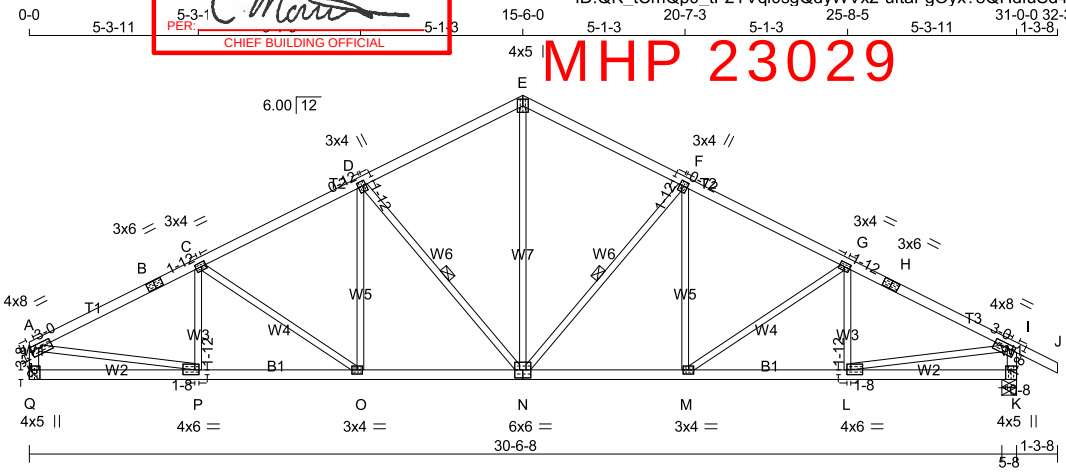

TOTAL WEIGHT = 3 X 130 = 390 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF
B - E	2x4	DRY	No.2	SPF
E - H	2x4	DRY	No.2	SPF
H - J	2x4	DRY	No.2	SPF
Q - A	2x4	DRY	No.2	SPF
K - I	2x4	DRY	No.2	SPF
Q - N	2x4	DRY	No.2	SPF
N - K	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	8.0	1.50	3.00
B	TS-t	MT20	3.0	6.0		
C	TMWW-t	MT20	3.0	4.0	1.50	1.75
D	TMWW+t	MT20	3.0	4.0	1.75	0.75
E	TTW+p	MT20	4.0	5.0		
F	TMWW+t	MT20	3.0	4.0	1.75	0.75
G	TMWW-t	MT20	3.0	4.0	1.50	1.75
H	TS-t	MT20	3.0	6.0		
I	TMVW-t	MT20	4.0	8.0	1.50	3.00
K	BMV1+t	MT20	4.0	5.0	Edge	0.50
L	BMWW-t	MT20	4.0	6.0	1.75	1.50
M	BMWW-t	MT20	3.0	4.0		
N	BSWWW-I	MT20	6.0	6.0		
O	BMWW-t	MT20	3.0	4.0		
P	BMWW-t	MT20	4.0	6.0	1.75	1.50
Q	BMV1+t	MT20	4.0	5.0	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

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
Q	2134	0	2134	0	0	MECHANICAL	
K	2296	0	2296	0	0	5-8	3-15

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT Q. MINIMUM BEARING LENGTH AT JOINT Q = 3-8.

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Q	1491	1079 / 0	0 / 0	0 / 0	0 / 0	412 / 0	0 / 0
K	1602	1174 / 0	0 / 0	0 / 0	0 / 0	429 / 0	0 / 0

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

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 F-N, D-N. DBS = 20-0-0 . CBF = 110 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 MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	-3065 / 0	-119.4	-119.4	0.55 (1)	3.45	N- E	0 / 1428	0.32 (1)
B- C	-3065 / 0	-119.4	-119.4	0.55 (1)	3.45	N- F	-882 / 0	0.37 (1)
C- D	-2784 / 0	-119.4	-119.4	0.45 (1)	3.74	M- F	0 / 294	0.07 (1)
D- E	-2174 / 0	-119.4	-119.4	0.42 (1)	4.16	M- G	-334 / 0	0.23 (1)
E- F	-2174 / 0	-119.4	-119.4	0.42 (1)	4.16	L- G	-352 / 0	0.08 (1)
F- G	-2784 / 0	-119.4	-119.4	0.45 (1)	3.74	D- N	-882 / 0	0.37 (1)
G- H	-3065 / 0	-119.4	-119.4	0.55 (1)	3.45	O- D	0 / 294	0.07 (1)
H- I	-3065 / 0	-119.4	-119.4	0.55 (1)	3.45	C- O	-334 / 0	0.23 (1)
I- J	0 / 36	-119.4	-119.4	0.16 (1)	10.00	P- C	-352 / 0	0.08 (1)
Q- A	-2089 / 0	0.0	0.0	0.21 (1)	5.78	A- P	0 / 2800	0.63 (1)
K- I	-2251 / 0	0.0	0.0	0.23 (1)	5.60	L- I	0 / 2800	0.63 (1)
Q- P	0 / 0	-18.2	-18.2	0.10 (4)	10.00			
P- O	0 / 2764	-18.2	-18.2	0.50 (1)	10.00			
O- N	0 / 2489	-18.2	-18.2	0.46 (1)	10.00			
N- M	0 / 2489	-18.2	-18.2	0.46 (1)	10.00			
M- L	0 / 2764	-18.2	-18.2	0.50 (1)	10.00			
L- K	0 / 0	-18.2	-18.2	0.10 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	34.8	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD		=	48.1	PSF

SPACING = 24.0 IN. C/C

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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

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CALCULATED VERT. DEFL.(LL) = L/ 999 (0.15")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.27")

CSI: TC=0.55/0.97 (A-C:1) , BC=0.50/0.97 (L-M:1) , WB=0.63/0.97 (A-P:1) , SSI=0.26/1.00 (G-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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) 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 (P) (INPUT = 0.90)
JSI METAL= 0.66 (P) (INPUT = 1.00)

JULY 13, 2023

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KOTT

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-081	T06	1	1	TRUSS DESC.	

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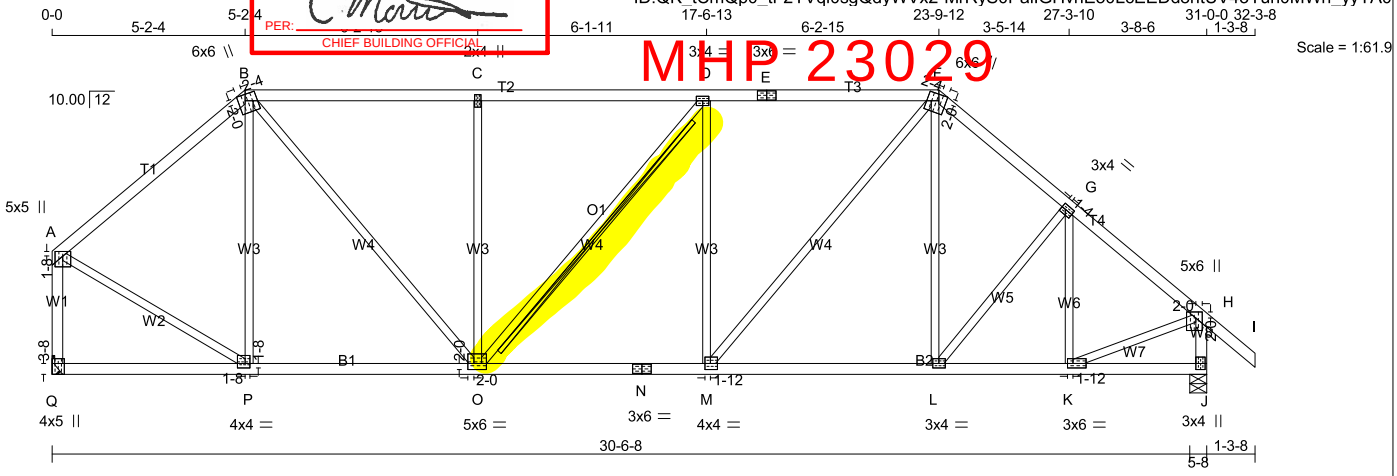

TOTAL WEIGHT = 143 lb [M]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - B	2x4	DRY	No.2	SPF
B - E	2x4	DRY	No.2	SPF
E - F	2x4	DRY	No.2	SPF
F - I	2x4	DRY	No.2	SPF
Q - A	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
Q - N	2x4	DRY	No.2	SPF
N - J	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	5.0	5.0	1.50	2.50
B	TTWW+m	MT20	6.0	6.0	2.00	2.25
C	TMW+w	MT20	2.0	4.0		
D	TMWW-t	MT20	3.0	4.0		
E	TS-t	MT20	3.0	6.0		
F	TTWW+m	MT20	6.0	6.0	2.00	2.25
G	TMWW-t	MT20	3.0	4.0	1.50	1.25
H	TMVW+p	MT20	5.0	6.0	2.00	2.00
J	BMV1+p	MT20	3.0	4.0	2.00	
K	BMWW-t	MT20	3.0	6.0	1.50	1.75
L	BMWW-t	MT20	3.0	4.0		
M	BMWW-t	MT20	4.0	4.0	2.00	1.75
N	BS-t	MT20	3.0	6.0		
O	BMWWW-t	MT20	5.0	6.0	2.00	2.00
P	BMWW-t	MT20	4.0	4.0	1.50	1.50
Q	BMV1+t	MT20	4.0	5.0	3.50	

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

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT	REQRD
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	BRG	BRG
Q	2134	0	2134	0	0	MECHANICAL	
J	2299	0	2299	0	0	5-8	4-0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT Q. MINIMUM BEARING LENGTH AT JOINT Q = 3-8.

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
Q	1491	1079 / 0	0 / 0	0 / 0	0 / 0	412 / 0	0 / 0
J	1604	1176 / 0	0 / 0	0 / 0	0 / 0	429 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.43 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 D-O

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 MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH
A- B	-1667 / 0	-119.4	-119.4	0.70 (1)	4.18
B- C	-2164 / 0	-119.4	-119.4	0.81 (1)	3.52
C- D	-2165 / 0	-119.4	-119.4	0.80 (1)	3.52
D- E	-2282 / 0	-119.4	-119.4	0.83 (1)	3.43
E- F	-2282 / 0	-119.4	-119.4	0.83 (1)	3.43
F- G	-2142 / 0	-119.4	-119.4	0.32 (1)	4.29
G- H	-2085 / 0	-119.4	-119.4	0.32 (1)	4.35
H- I	0 / 53	-119.4	-119.4	0.16 (1)	10.00
Q- A	-2098 / 0	0.0	0.0	0.39 (1)	5.78
J- H	-2266 / 0	0.0	0.0	0.24 (1)	5.58
Q- P	0 / 0	-18.2	-18.2	0.14 (4)	10.00
P- O	0 / 1269	-18.2	-18.2	0.29 (1)	10.00
O- N	0 / 2281	-18.2	-18.2	0.44 (1)	10.00
N- M	0 / 2281	-18.2	-18.2	0.44 (1)	10.00
M- L	0 / 1617	-18.2	-18.2	0.33 (1)	10.00
L- K	0 / 1625	-18.2	-18.2	0.32 (1)	10.00
K- J	0 / 0	-18.2	-18.2	0.06 (4)	10.00

WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
P- B	-598 / 0	0.64 (1)
B- O	0 / 1379	0.31 (1)
O- C	-803 / 0	0.86 (1)
O- D	-182 / 0	0.13 (1)
M- D	-663 / 0	0.71 (1)
M- F	0 / 1023	0.23 (1)
L- F	0 / 111	0.03 (4)
L- G	-15 / 6	0.01 (1)
K- G	-518 / 0	0.17 (1)
A- P	0 / 1466	0.33 (1)
K- H	0 / 1723	0.39 (1)

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	34.8	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD		=	48.1	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 , NBC-2019AE
- 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 (1.03")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.10")
ALLOWABLE DEFL.(TL)= L/360 (1.03")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.18")

CSI: TC=0.83/0.97 (D-F:1) , BC=0.44/0.97 (M-O:1) , WB=0.86/0.97 (C-O:1) , SSI=0.35/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) 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 (H) (INPUT = 0.90)
JSI METAL= 0.69 (N) (INPUT = 1.00)

JULY 13, 2023

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

KOTT

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-081	T07	1	1	TRUSS DESC.	

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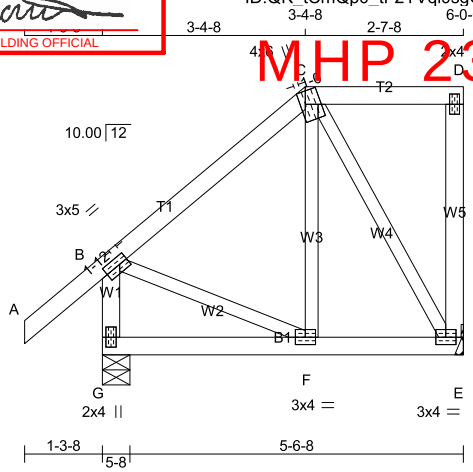

TOTAL WEIGHT = 32 lb [M]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - D	2x4	DRY	No.2	SPF
E - D	2x4	DRY	No.2	SPF
G - B	2x4	DRY	No.2	SPF
G - E	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	5.0	1.50	1.75
C	TTWW+m	MT20	4.0	6.0	Edge	1.00
D	TMV+p	MT20	2.0	4.0		
E	BMVW1-t	MT20	3.0	4.0		
F	BMWW-t	MT20	3.0	4.0		
G	BMV1+p	MT20	2.0	4.0		

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

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
E	413	0	413	0	0	MECHANICAL	
G	578	0	578	0	0	5-8	1-8

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	289	209 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0
G	402	305 / 0	0 / 0	0 / 0	0 / 0	96 / 0	0 / 0

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

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 MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	0 / 53	-119.4	-119.4	0.16 (1)	10.00	F- C	0 / 60	0.02 (4)
B- C	-198 / 0	-119.4	-119.4	0.23 (1)	6.25	C- E	-284 / 0	0.10 (1)
C- D	0 / 0	-119.4	-119.4	0.14 (1)	10.00	B- F	0 / 162	0.04 (1)
E- D	-157 / 0	0.0	0.0	0.05 (1)	7.81			
G- B	-551 / 0	0.0	0.0	0.06 (1)	7.81			
G- F	0 / 0	-18.2	-18.2	0.05 (4)	10.00			
F- E	0 / 152	-18.2	-18.2	0.06 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	34.8	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD		=	48.1	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 , NBC-2019AE
- 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 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.23/0.97 (B-C:1) , BC=0.06/0.97 (E-F:4) , WB=0.10/0.97 (C-E:1) , SSI=0.12/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.47 (B) (INPUT = 0.90)
JSI METAL= 0.12 (B) (INPUT = 1.00)

JULY 13, 2023

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

KOTT

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-081	T08	1	1	TRUSS DESC.	

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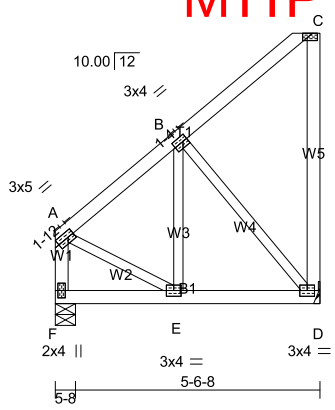

TOTAL WEIGHT = 32 lb
[M][F]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
D - C	2x4	DRY	No.2	SPF
F - A	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	3.0	5.0	1.50	1.75
B	TMWW-t	MT20	3.0	4.0	1.50	1.25
C	TMV-p	MT20	2.0	4.0	Edge	
D	BMVW1-t	MT20	3.0	4.0		
E	BMWW-t	MT20	3.0	4.0		
F	BMV1+p	MT20	2.0	4.0		

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

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

BEARINGS

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
D	413	0	413	0	0	MECHANICAL	
F	413	0	413	0	0	5-8	1-8

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

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
D	289	209 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0
F	289	209 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0

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

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 MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	-243 / 0	-119.4	-119.4	1	0.14 (1)	6.25	E- B	-34 / 49	0.02 (4)
B- C	-27 / 0	-119.4	-119.4	1	0.14 (1)	6.25	B- D	-318 / 0	0.12 (1)
D- C	-150 / 0	0.0	0.0	1	0.12 (1)	7.81	A- E	0 / 232	0.05 (1)
F- A	-393 / 0	0.0	0.0	1	0.04 (1)	7.81			
F- E	0 / 0	-18.2	-18.2	4	0.04 (4)	10.00			
E- D	0 / 210	-18.2	-18.2	4	0.06 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	34.8	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD		=	48.1	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 , NBC-2019AE
- 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 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.14/0.97 (A-B:1) , BC=0.06/0.97 (D-E:4) , WB=0.12/0.97 (B-D:1) , SSI=0.14/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.39 (B) (INPUT = 0.90)
JSI METAL= 0.10 (A) (INPUT = 1.00)

JULY 13, 2023

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

KOTT

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-081	T09	1	1	TRUSS DESC.	

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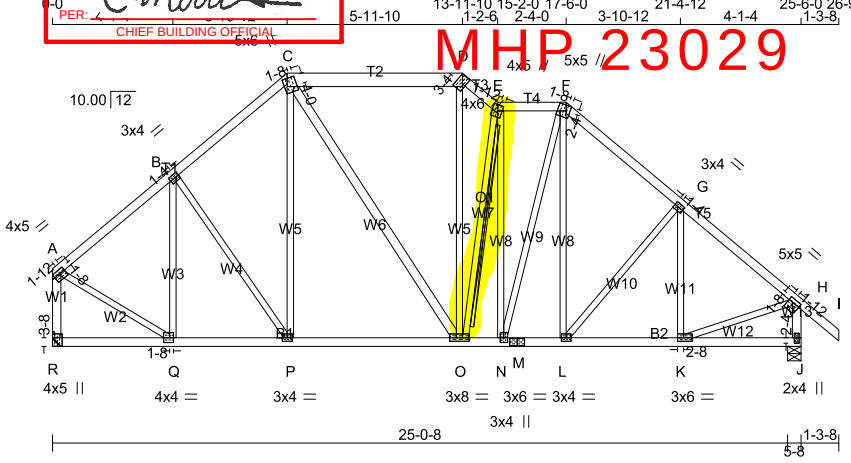

TOTAL WEIGHT = 151 lb [M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - D	2x6	DRY	No.2	SPF
D - E	2x4	DRY	No.2	SPF
E - F	2x4	DRY	No.2	SPF
F - I	2x4	DRY	No.2	SPF
R - A	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
R - M	2x4	DRY	No.2	SPF
M - J	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF
C - O	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVW-t	MT20	4.0	5.0	1.50	1.75
B	TMWW-t	MT20	3.0	4.0	1.50	1.25
C	TTWW+m	MT20	5.0	6.0	4.00	1.50
D	TTW+h	MT20	4.0	6.0	3.25	Edge
E	TTWW+m	MT20	4.0	5.0	2.50	1.75
F	TTWW+m	MT20	5.0	5.0	2.25	1.50
G	TMWW-t	MT20	3.0	4.0	1.50	1.25
H	TMVW-t	MT20	5.0	5.0	1.50	1.75
J	BMV1+p	MT20	2.0	4.0	2.25	1.00
K	BMWW-t	MT20	3.0	6.0	1.50	2.50
L	BMWW-t	MT20	3.0	4.0		
M	BS-t	MT20	3.0	6.0		
N	BMWW+t	MT20	3.0	4.0		
O	BMWWW-t	MT20	3.0	8.0		
P	BMWW-t	MT20	3.0	4.0		
Q	BMWW-t	MT20	4.0	4.0	2.00	1.50
R	BMV1+t	MT20	4.0	5.0	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

JT	FACTORED GROSS REACTION VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
R	1755	0	1755	0	0	MECHANICAL	
J	1921	0	1921	0	0	5-8	2-12

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT R. MINIMUM BEARING LENGTH AT JOINT R = 3-8.

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
R	1227	888 / 0	0 / 0	0 / 0	0 / 0	339 / 0	0 / 0
J	1340	984 / 0	0 / 0	0 / 0	0 / 0	356 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.80 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-O

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 MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	-1395 / 0	-119.4	-119.4	1	0.27 (1)	5.19	Q- B	-543 / 0	0.31 (1)
B- C	-1440 / 0	-119.4	-119.4	1	0.27 (1)	5.12	B- P	-34 / 0	0.03 (1)
C- D	-1242 / 0	-119.4	-119.4	1	0.27 (1)	6.25	P- C	0 / 119	0.04 (4)
D- E	-1581 / 0	-119.4	-119.4	1	0.05 (1)	5.19	C- O	0 / 293	0.05 (1)
E- F	-1340 / 0	-119.4	-119.4	1	0.10 (1)	5.47	O- D	0 / 559	0.13 (1)
F- G	-1612 / 0	-119.4	-119.4	1	0.27 (1)	4.90	O- E	-690 / 0	0.35 (1)
G- H	-1697 / 0	-119.4	-119.4	1	0.28 (1)	4.80	N- E	-516 / 0	0.70 (1)
H- I	0 / 53	-119.4	-119.4	1	0.16 (1)	10.00	N- F	0 / 485	0.11 (1)
R- A	-1723 / 0	0.0	0.0	1	0.24 (1)	6.26	L- F	0 / 231	0.05 (1)
J- H	-1887 / 0	0.0	0.0	1	0.20 (1)	6.03	L- G	-192 / 0	0.13 (1)
							K- G	-347 / 0	0.13 (1)
R- Q	0 / 0	-18.2	-18.2	1	0.06 (4)	10.00	A- Q	0 / 1261	0.28 (1)
Q- P	0 / 1099	-18.2	-18.2	1	0.23 (1)	10.00	K- H	0 / 1396	0.31 (1)
P- O	0 / 1081	-18.2	-18.2	1	0.24 (1)	10.00			
O- N	0 / 1346	-18.2	-18.2	1	0.28 (1)	10.00			
N- M	0 / 1209	-18.2	-18.2	1	0.24 (1)	10.00			
M- L	0 / 1209	-18.2	-18.2	1	0.24 (1)	10.00			
L- K	0 / 1331	-18.2	-18.2	1	0.25 (1)	10.00			
K- J	0 / 0	-18.2	-18.2	1	0.07 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	34.8	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD		=	48.1	PSF

SPACING = 24.0 IN. C/C

LOADING IN ALL FLAT SECTIONS 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 , NBC-2019AE
- 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 (0.85")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.85")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.09")

CSI: TC=0.28/0.97 (G-H:1) , BC=0.28/0.97 (N-O:1) , WB=0.70/0.97 (E-N:1) , SSI=0.21/1.00 (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) (PSI)		SHEAR (PLI)		SECTION (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 (K) (INPUT = 0.90)
JSI METAL= 0.56 (H) (INPUT = 1.00)

JULY 13, 2023

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

KOTT

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-081	T10	3	1	TRUSS DESC.	

Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Thu Jul 13 08:48:00 2023 Page 1
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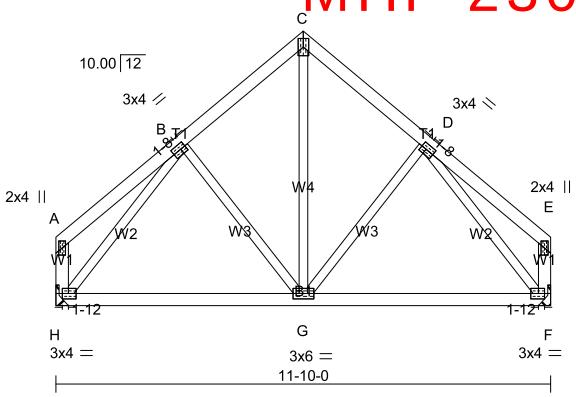

TOTAL WEIGHT = 3 X 54 = 161 lb [M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
C - E	2x4	DRY	No.2	SPF
H - A	2x4	DRY	No.2	SPF
F - E	2x4	DRY	No.2	SPF
H - F	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMV+p	MT20	2.0	4.0		
B	TMWW-t	MT20	3.0	4.0	1.50	1.50
C	TTW+p	MT20	3.0	5.0		
D	TMWW-t	MT20	3.0	4.0	1.50	1.50
E	TMV+p	MT20	2.0	4.0		
F	BMVW1-t	MT20	3.0	4.0	1.50	1.75
G	BMWWW-t	MT20	3.0	6.0		
H	BMVW1-t	MT20	3.0	4.0	1.50	1.75

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

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION			INPUT	REQRD
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	BRG	BRG
H	815	0	815	0	0	MECHANICAL	
F	815	0	815	0	0	MECHANICAL	

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

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	569	412 / 0	0 / 0	0 / 0	0 / 0	157 / 0	0 / 0
F	569	412 / 0	0 / 0	0 / 0	0 / 0	157 / 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)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF) FROM	TO	MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	0 / 25	-119.4	-119.4	0.16 (1)	10.00	G- C	0 / 391	0.09 (1)
B- C	-543 / 0	-119.4	-119.4	0.13 (1)	6.25	G- D	-164 / 0	0.06 (1)
C- D	-543 / 0	-119.4	-119.4	0.13 (1)	6.25	B- G	-164 / 0	0.06 (1)
D- E	0 / 25	-119.4	-119.4	0.16 (1)	10.00	H- B	-807 / 0	0.29 (1)
H- A	-138 / 0	0.0	0.0	0.01 (1)	7.81	D- F	-807 / 0	0.29 (1)
F- E	-138 / 0	0.0	0.0	0.01 (1)	7.81			
H- G	0 / 499	-18.2	-18.2	0.21 (4)	10.00			
G- F	0 / 499	-18.2	-18.2	0.21 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	34.8	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD		=	48.1	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 , NBC-2019AE
- 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 (0.39")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.39")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CSI: TC=0.16/0.97 (D-E:1) , BC=0.21/0.97 (F-G:4) , WB=0.29/0.97 (B-H:1) , SSI=0.13/1.00 (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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) 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= 0.27 (D) (INPUT = 1.00)

JULY 13, 2023

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

KOTT

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-081	T11	1	1	TRUSS DESC.	

Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Thu Jul 13 08:48:01 2023 Page 1
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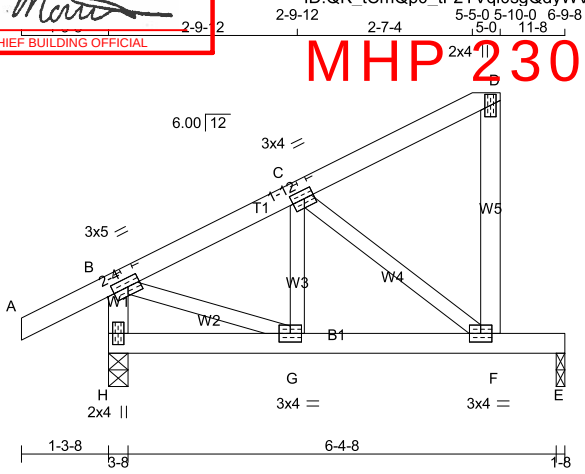

TOTAL WEIGHT = 28 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
H - B	2x4	DRY	No.2	SPF
H - E	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	5.0	1.50	2.25
C	TMWW-t	MT20	3.0	4.0	1.50	1.75
D	TMV+p	MT20	2.0	4.0		
F	BMVW-t	MT20	3.0	4.0		
G	BMWW-t	MT20	3.0	4.0		
H	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
H	622	0	622	0	0	3-8	1-8
E	361	0	361	0	0	1-8	1-8

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	432	326 / 0	0 / 0	0 / 0	0 / 0	106 / 0	0 / 0
E	254	174 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0

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

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	0 / 36	-119.4	-119.4	0.16 (1)	10.00	G- C	0 / 99	0.03 (4)
B- C	-454 / 0	-119.4	-119.4	0.12 (1)	6.25	C- F	-528 / 0	0.12 (1)
C- D	-17 / 0	-119.4	-119.4	0.12 (1)	6.25	B- G	0 / 442	0.10 (1)
F- D	-142 / 0	0.0	0.0	0.04 (1)	7.81			
H- B	-629 / 0	0.0	0.0	0.06 (1)	7.81			
H- G	0 / 0	-18.2	-18.2	0.13 (1)	10.00			
G- F	0 / 423	-18.2	-18.2	0.53 (1)	10.00			
F- E	0 / 0	-18.2	-18.2	0.46 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	34.8	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD		=	48.1	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 , NBC-2019AE
- 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 (0.23")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.23")
CALCULATED VERT. DEFL.(TL) = L/ 845 (0.10")

CSI: TC=0.16/0.97 (A-B:1) , BC=0.53/0.97 (F-G:1) , WB=0.12/0.97 (C-F:1) , SSI=0.28/1.00 (E-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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.66 (F) (INPUT = 0.90)
JSI METAL= 0.17 (B) (INPUT = 1.00)

JULY 13, 2023

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

KOTT

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-081	T12	2	1	TRUSS DESC.	

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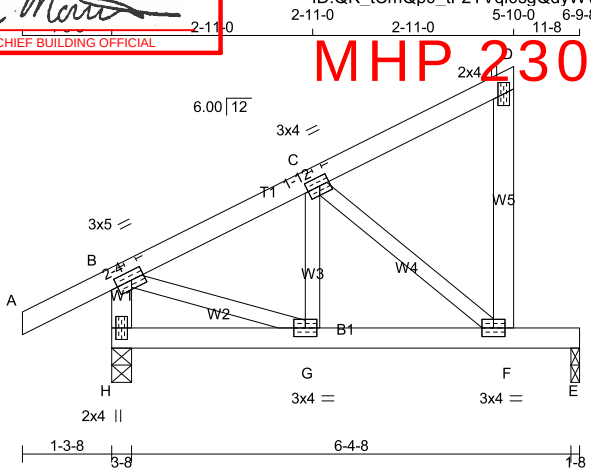

TOTAL WEIGHT = 2 X 28 = 56 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
H - B	2x4	DRY	No.2	SPF
H - E	2x4	DRY	No.2	SPF
ALL WEBS EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	5.0	1.50	2.25
C	TMWW-t	MT20	3.0	4.0	1.50	1.75
D	TMV+p	MT20	2.0	4.0		
F	BMVW-t	MT20	3.0	4.0		
G	BMWW-t	MT20	3.0	4.0		
H	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 VERT	HORZ	MAXIMUM FACTORED GROSS REACTION DOWN	HORZ	UPLIFT	INPUT BRG IN-SX	REQRD BRG IN-SX
H	622	0	622	0	0	3-8	1-8
E	361	0	361	0	0	1-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	432	326 / 0	0 / 0	0 / 0	0 / 0	106 / 0	0 / 0
E	254	174 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0

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

TOTAL LOAD CASES: (4)

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	WEBS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	0 / 36	-119.4	-119.4	0.16 (1)	10.00	G- C	0 / 108	0.03 (4)
B- C	-446 / 0	-119.4	-119.4	0.12 (1)	6.25	C- F	-530 / 0	0.12 (1)
C- D	-18 / 0	-119.4	-119.4	0.12 (1)	6.25	B- G	0 / 432	0.10 (1)
F- D	-134 / 0	0.0	0.0	0.03 (1)	7.81			
H- B	-626 / 0	0.0	0.0	0.06 (1)	7.81			
H- G	0 / 0	-18.2	-18.2	0.12 (1)	10.00			
G- F	0 / 415	-18.2	-18.2	0.53 (1)	10.00			
F- E	0 / 0	-18.2	-18.2	0.46 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	34.8	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD		=	48.1	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 , NBC-2019AE
- 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 (0.23")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.23")
CALCULATED VERT. DEFL.(TL) = L/ 874 (0.09")

CSI: TC=0.16/0.97 (A-B:1) , BC=0.53/0.97 (F-G:1) , WB=0.12/0.97 (C-F:1) , SSI=0.28/1.00 (E-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) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) MAX	MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.66 (F) (INPUT = 0.90)
JSI METAL= 0.17 (B) (INPUT = 1.00)

JULY 13, 2023

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

KOTT

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-081	T13	6	1	TRUSS DESC.	

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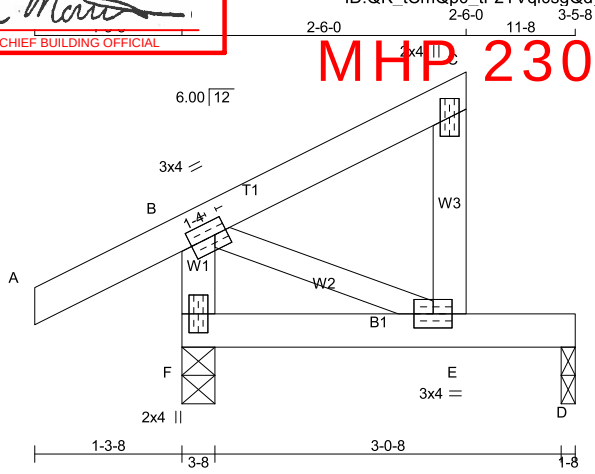

TOTAL WEIGHT = 6 X 13 = 81 lb [M]

LUMBER
N. L. G. A. RULES

CHORDS	SIZE		LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF
E - C	2x4	DRY	No.2	SPF
F - B	2x4	DRY	No.2	SPF
F - D	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW-t	MT20	3.0	4.0	1.50	1.25
C	TMV+p	MT20	2.0	4.0		
E	BMVW-t	MT20	3.0	4.0		
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 BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
F	384	0	384	0	0	3-8	1-8
D	139	0	139	0	0	1-8	1-8

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	266	206 / 0	0 / 0	0 / 0	0 / 0	61 / 0	0 / 0
D	99	63 / 0	0 / 0	0 / 0	0 / 0	36 / 0	0 / 0

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

CHORDS MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF) FROM	TO	LC1 MAX CSI (LC)	WEBS MAX. UNBRAC LENGTH	MEMB. FR-TO	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
A- B	0 / 36	-119.4	-119.4	0.16 (5)	10.00	B- E	0 / 0	0.00 (1)
B- C	0 / 0	-119.4	-119.4	0.13 (1)	10.00			
E- C	-149 / 0	0.0	0.0	0.02 (1)	7.81			
F- B	-311 / 0	0.0	0.0	0.03 (1)	7.81			
F- E	0 / 0	-18.2	-18.2	0.17 (6)	10.00			
E- D	0 / 0	-18.2	-18.2	0.17 (1)	10.00			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	34.8	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.3	PSF
TOTAL LOAD		=	48.1	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 , NBC-2019AE
- 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 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.16/0.97 (A-B:5) , BC=0.17/0.97 (E-F:6) , WB=0.00/0.97 (B-E:1) , SSI=0.11/1.00 (A-B:5)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE	GRIP(DRY) (PSI) MAX	MIN	SHEAR (PLI) MAX	MIN	SECTION (PLI) 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= 0.07 (F) (INPUT = 1.00)

JULY 13, 2023

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

KOTT

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STANDARD DETAIL MSD2015-H

Issued: MARCH 1, 2022
Expiry: APRIL 30, 2024

MHP 23029

TOE-NAIL CAPACITY DETAILS

LATERAL AND WITHDRAWAL RESISTANCE OF BEARING ANCHORAGE BY TOE-NAILS

NAIL TYPE	Length (in)	Diameter (in)	LATERAL Resistance per nail (Lbs.)		WITHDRAWAL Resistance per nail (Lbs.)	
			SPF	D. FIR	SPF	D. FIR
COMMON WIRE	3.00	0.144	122	139	30	42
	3.25	0.144	127	144	32	45
	3.50	0.160	152	173	38	52
COMMON SPIRAL	3.00	0.122	96	108	26	36
	3.25	0.122	97	108	28	40
	3.50	0.152	142	161	36	50
3.25" Gun nail	3.25	0.120	94	105	28	39

Note: If using truss with D. Fir lumber and SPF bearing plate, use tabulated SPF values in table.

Nail type:	Common wire	Common spiral	Common wire	Common spiral	Gun Nail
Diameter (in.)	0.160	0.152	0.144	0.122	0.120
Length (in.)	3.50	3.50	3.00	3.00	3.25
LUMBER	**MAXIMUM NUMBER OF TOE-NAILS**				
2x4 SPF	2	2	3	3	3
2x6 SPF	4	4	4	5	5
2x4 D. FIR	2	2	2	2	2
2x6 D. FIR	3	3	3	4	4

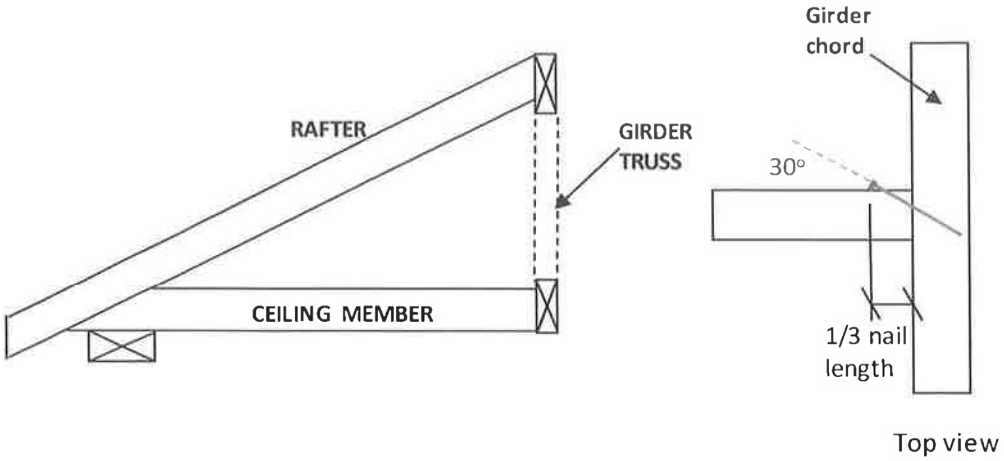

Figure 1: Toe-Nailing Rafter / Ceiling Member to Girder Truss

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90553736
PROVINCE OF ONTARIO

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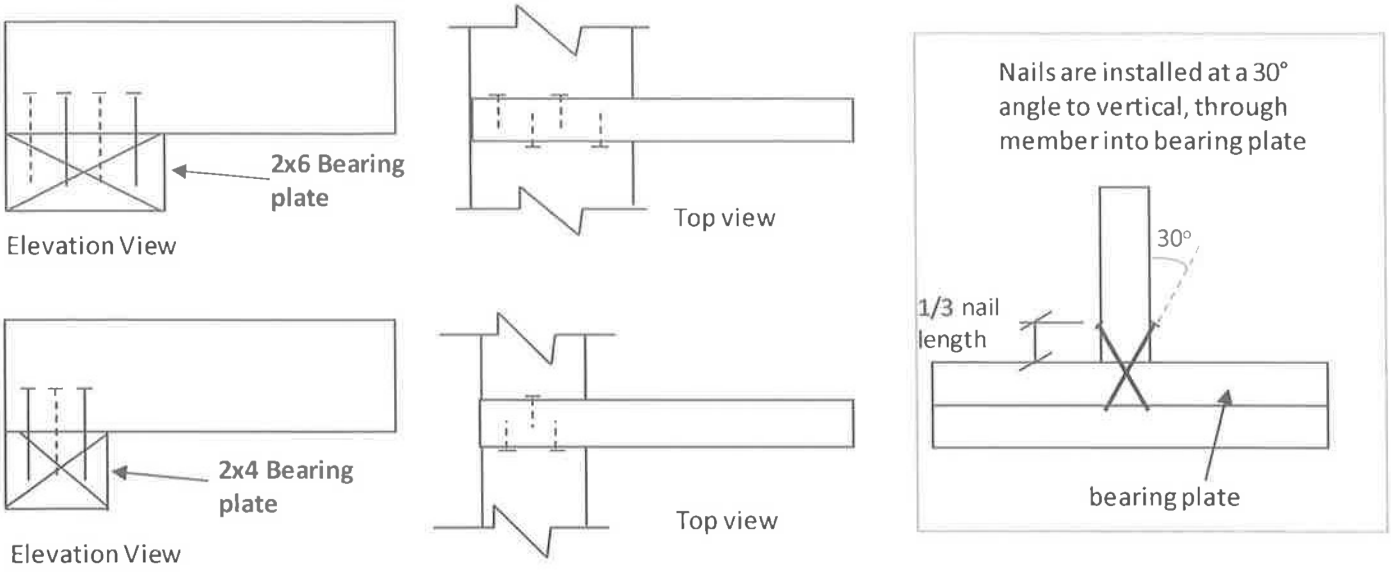
TOE-NAIL CAPACITY DETAILS

Figure 2: Toe-Nail Anchorage to Bearing Plate for Uplift



NOTES:

1. Rafter and ceiling members may be connected to top and bottom chords of girder truss by toe-nailing the members into the girder chords (see fig. 1), provided the factored vertical reactions of the supported members do not exceed the lateral resistance of the toe-nails. Mechanical connectors (hangers) are required if factored vertical reactions exceed the toe-nail capacity, or if the connection must resist horizontal loads (loads perpendicular to the face of girder or rafter).

2. Trusses, rafters or ceiling members may be anchored to the bearing plate with toe-nails (see fig. 2), provided that the factored uplift reactions due to **wind or earthquake loads** do not exceed the **withdrawal resistance of the toe-nails.** Mechanical anchors (tie-downs) are required for reactions that exceed the toe-nail withdrawal capacity. Toe-nail anchorage to bearing plates is **NOT** permitted if uplift reactions are generated from gravity loads (snow, floor live, dead).

3. Tabulated toe-nail resistances on page 1 are for **one** toe-nail. Multiply unit values by the number of nails used in the connection. Maximum number of nails in a connection shall not exceed the tabulated limits shown on page 1 for a given lumber size /species.

4. Nail values are based on specific gravity of G = 0.42 (SPF) and G = 0.49 (D. Fir).

5. 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.

6. For wind / earthquake loads, tabulated lateral resistances may be multiplied by 1.15 (K_D factor). No increases are permitted for tabulated withdrawal resistances.

7. Lumber must be dry (< 19% moisture content) at the time of nail installation.

8. Nail values in this table comply with CSA O86-19, Clause 12.9.

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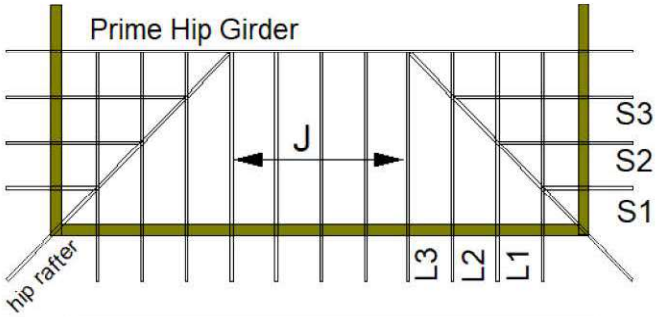
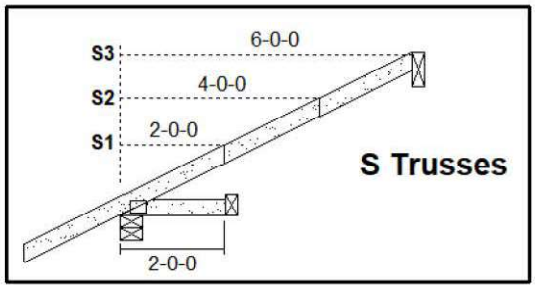
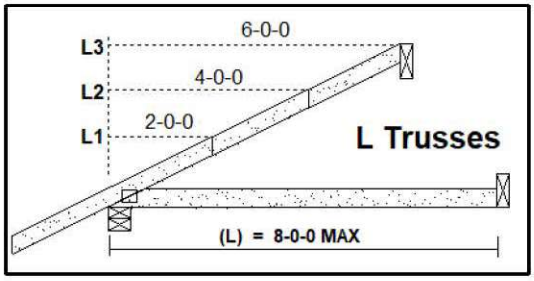
STANDARD HIP END FRAMING

PLAN VIEW

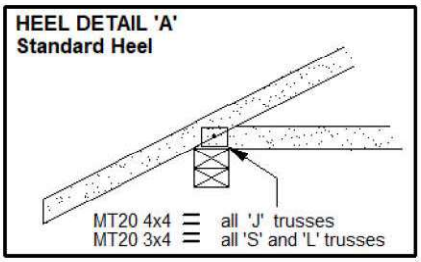


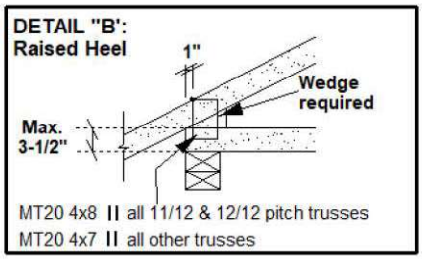


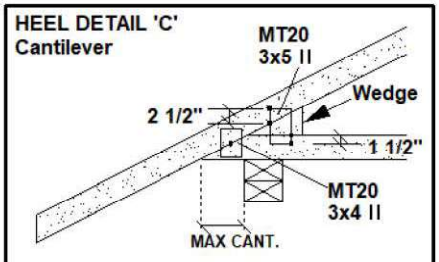


Specified Load Rating:

Top chord Live:	51.0 PSF or less
Top chord Dead:	6.0 PSF or less
Bottom chord Live:	0.0 PSF
Bottom chord Dead:	7.3 PSF or less

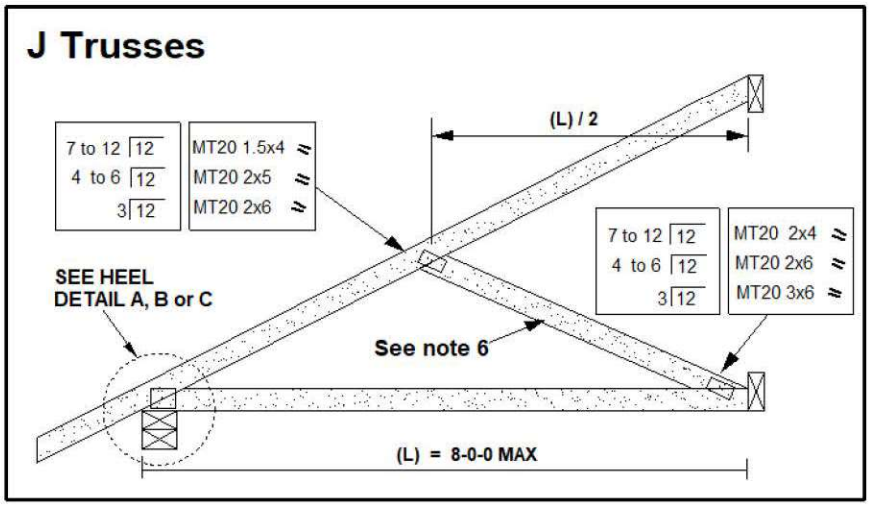






CANTILEVER DETAIL "C"

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



NOTES:

1. This detail is valid only for projects conforming to **PART 9 NBCC 2015** that do not require a wind analysis to be incorporated into the design of the trusses.
2. Overhang length shall not exceed 24 inches.
3. All lumber shall be 2x4 SPF (or D-Fir) DRY No. 2 grade or better.
4. All plates specified are MITEK MT20, pressed into both faces of each truss. Heel plates of all trusses shall conform to heel details 'A', 'B' or 'C'.
5. Diagonal hip rafter design shall conform to section 9.23.14.6 of NBCC 2015.
6. For 6.0 ft. or less span, diagonal web on truss 'J" is optional. Girder design must reflect choice of partial jack ('J' with diagonal web) or open jack ('J' without diagonal web)
7. All truss-to-rafter and truss-to-truss connections shall be specified as per MITEK standard detail *'MSD2015-H: Toe-Nail Capacity Details'*

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STANDARD DETAIL MSD2015-K

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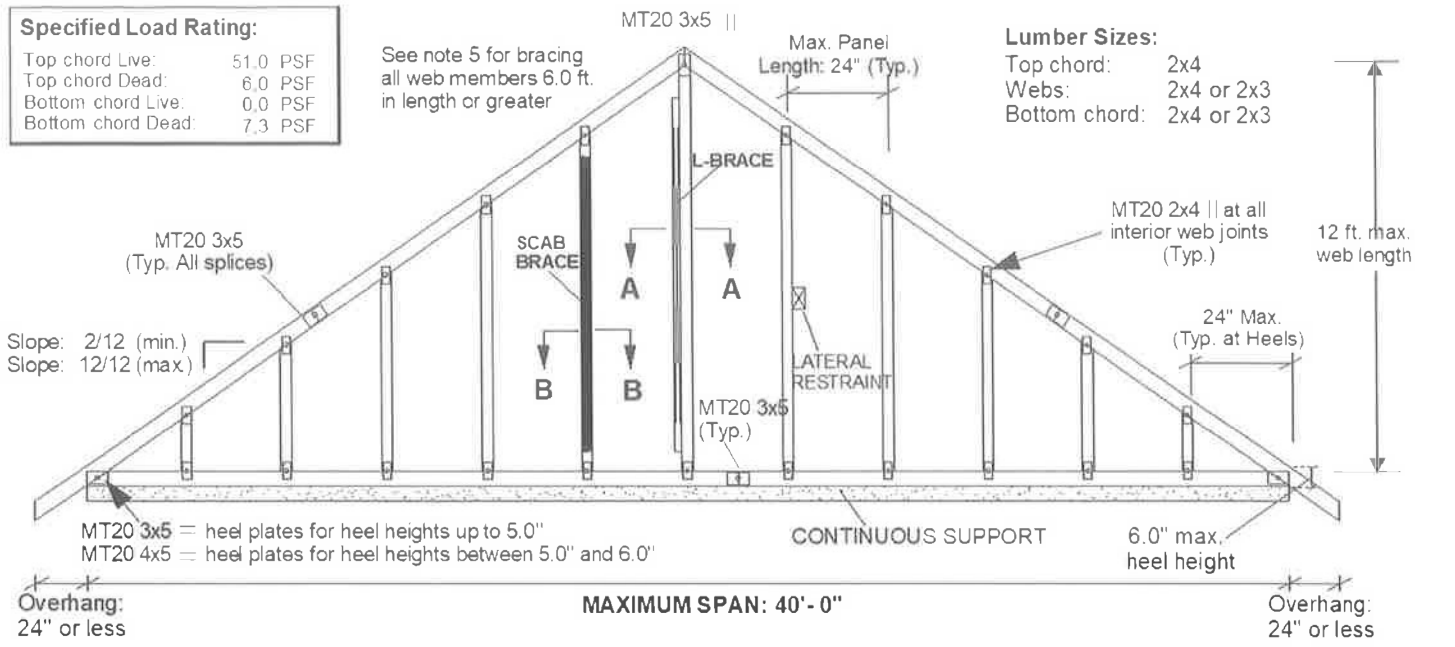
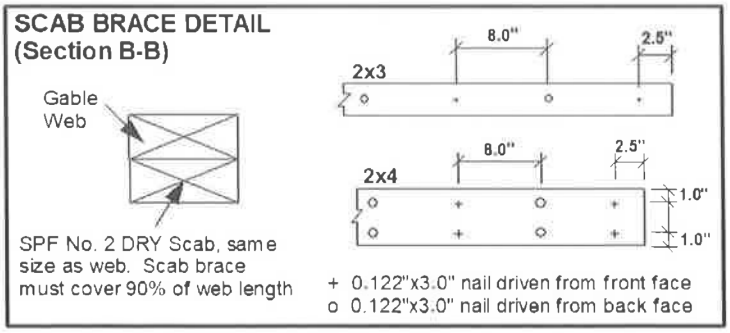
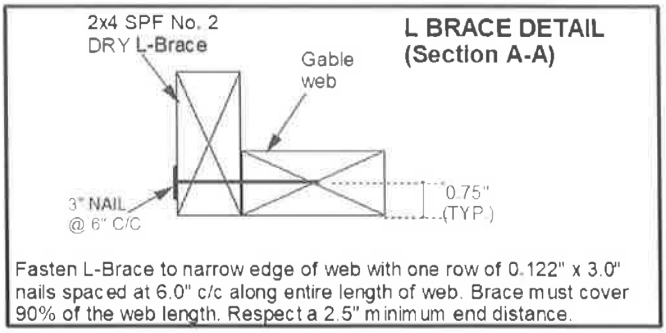
STANDARD GABLE END DETAIL







Notes:

1. This detail is only valid for projects conforming to **Part 9, NBCC 2015** that do not require a wind analysis to be incorporated into the design of the truss.
2. This detail is for vertical (gravity) load rating of the truss only. Truss must be continuously supported over the entire length of bottom chord.
3. Maximum web length not to exceed 12.0 ft. Spacing of gable stud webs in the truss not to exceed 24 inches cc.
4. Splice joints shall not be located in the first panel adjacent to the heel joint or peak joint.
5. Lateral restraint required at half-length of all webs over 6.0 ft. long. Alternatively install an L-Brace or scab brace as shown above. Scab braces shall be limited to 10 ft. long webs or less.
6. All plates are MITEK MT20 pressed into both faces of truss.
7. All lumber to be SPF (or D-Fir) DRY and of No.2 grade or better.
8. Additional building bracing is typically installed to brace the face of the end wall assembly. See BCSI Canada '*Building Designer Responsibilities for Gable End Frame Bracing*' for additional information on building bracing for gable-end assemblies.

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