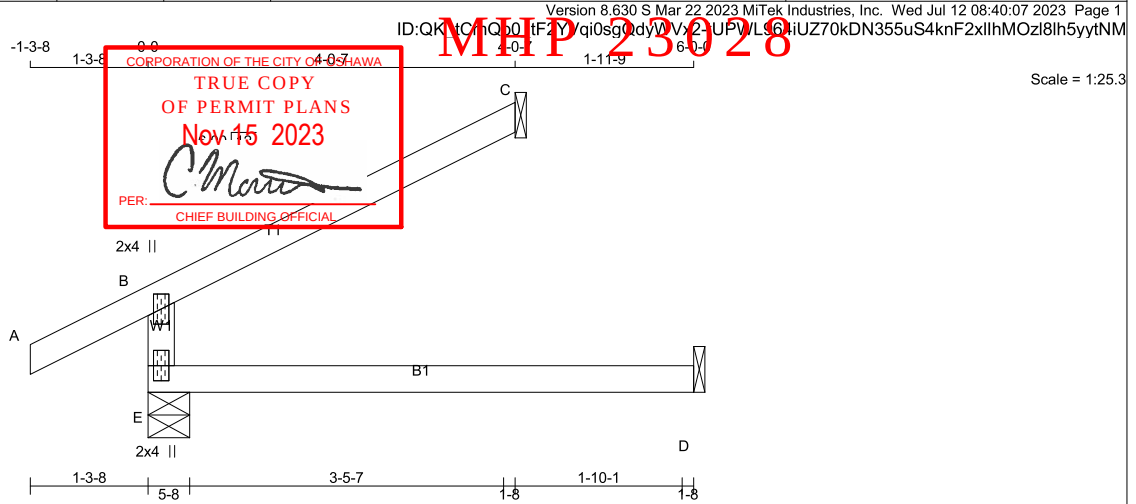


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-066	J04	3	1	TRUSS DESC.	



LUMBER				DESCR.
N. L. G. A. RULES	SIZE	LUMBER	No.2	
CHORDS				SPF
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**

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX
E	528	0	528	0	5-8	1-8
C	181	0	181	0	1-8	1-8
D	45	0	51	0	1-8	1-8

SEE MITEK STANDARD DETAIL MSD2015-H FOR CONNECTION TO JOINT(S) C, D

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	368	270 / 0	0 / 0	0 / 0	0 / 0	98 / 0	0 / 0
C	124	105 / 0	0 / 0	0 / 0	0 / 0	18 / 0	0 / 0
D	36	0 / 0	0 / 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)

MEMB.	C H O R D S		W E B S	
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)
FR-TO		FROM TO		LENGTH FR-TO
E-B	-463 / 0	0.0 0.0 0.13 (4)	7.81	
A-B	0 / 36	-119.4 -119.4 0.16 (1)	10.00	
B-C	-27 / 0	-119.4 -119.4 0.33 (1)	6.25	
E-D	0 / 0	-18.2 -18.2 0.13 (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

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 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.33/0.97 (B-C:1), BC=0.13/0.97 (D-E:4),
WB=0.00/0.97 (n/a:0), SSI=0.21/1.00 (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
MT20	650	371	1747

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.26 (B) (INPUT = 0.90)
JSI METAL= 0.19 (B) (INPUT = 1.00)

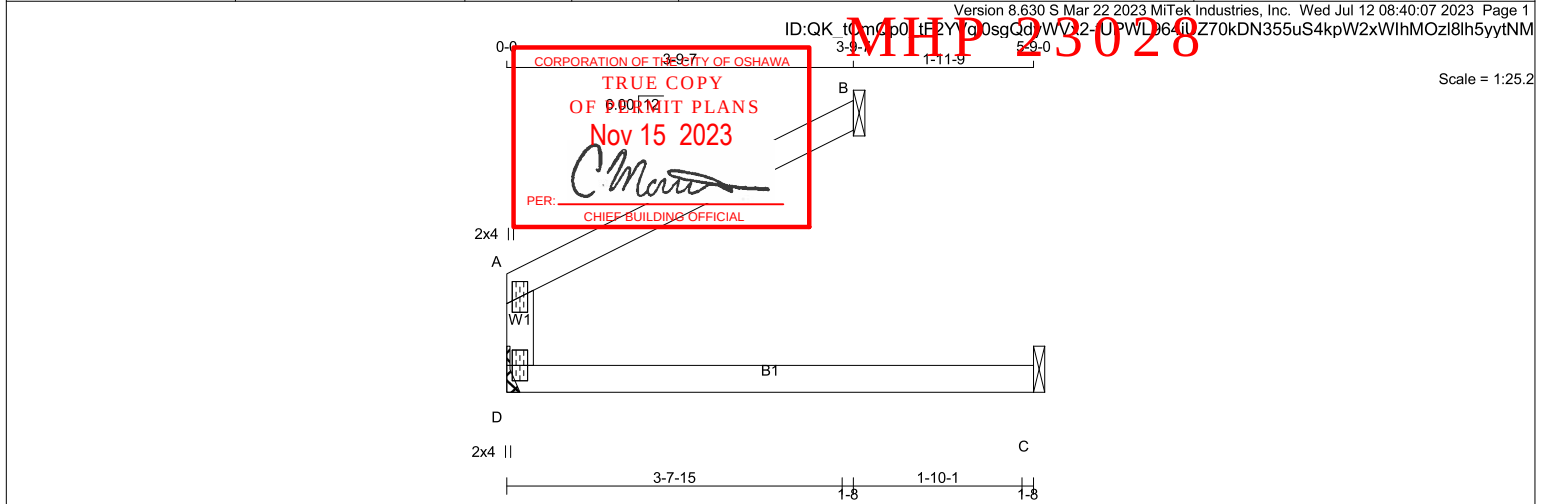


JULY 12, 2023

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-066	J04A	2	1	TRUSS DESC.	



TOTAL WEIGHT = 2 X 12 = 25 lb [M][F]

N. L. G. A. RULES				BUILDING DESIGNER								DESIGN CRITERIA			
CHORDS		SIZE	LUMBER	DESCR.	<u>BEARINGS</u>				SPECIFIED LOADS:						
D - A	2x4	DRY	No.2	SPF	FACTORED		MAXIMUM FACTORED	INPUT	REQRD	TOP CH. LL = 34.8 PSF					
A - B	2x4	DRY	No.2	SPF	GROSS REACTION		GROSS REACTION	BRG	BRG	DL = 6.0 PSF					
D - C	2x4	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	BOT CH. LL = 0.0 PSF		
DRY: SEASONED LUMBER.					D	282	0	282	0	0	MECHANICAL				
					B	216	0	216	0	0	1-8	1-8	DL = 7.3 PSF		

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

PLATES (table is in inches)						SEE MITEK STANDARD DETAIL MSD2015-H FOR CONNECTION TO JOINT(S) B , C					
JT	TYPE	PLATES	W	LEN	Y	X	UNFACTORED REACTIONS				
A	TMV+p	MT20	2.0	4.0			1ST LCASE	MAX./MIN.	COMPONENT REACTIONS	THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015	
D	BMV1+p	MT20	2.0	4.0			JT COMBINED	SNOW	LIVE	THIS DESIGN COMPLIES WITH:	
							D 198	135 / 0	0 / 0	- PART 9 OF CBC 2018 , NBC-2019AE	
							B 149	121 / 0	0 / 0	- PART 9 OF OBC 2012 (2019 AMENDMENT)	
							C 46	7 / 0	0 / 0	- CSA 086-14	
											- TPIC 2014

UNFACTORED REACTIONS							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.	
1ST LCASE	MAX./MIN. COMPONENT REACTIONS							
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD		SOIL
D	198	135 / 0	0 / 0	0 / 0	0 / 0	63 / 0		0 / 0
B	149	121 / 0	0 / 0	0 / 0	0 / 0	28 / 0		0 / 0
C	46	7 / 0	0 / 0	0 / 0	0 / 0	39 / 0	0 / 0	

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

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

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX FACTORED UNBRACED LENGTH (LC)	FR-TO
D-A	-236 / 0	0.0	0.0 0.05 (4)	7.81			
A-B	-4 / 3	-119.4	-119.4 0.25 (1)	10.00			
D-C	0 / 0	-18.2	-18.2 0.15 (4)	10.00			

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE HEELS OFF

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.13 (A) (INPUT = 0.90)
JSI METAL= 0.10 (A) (INPUT = 1.00)

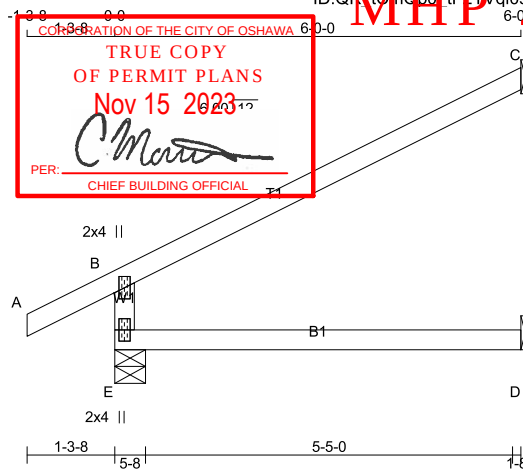


JULY 12, 2023

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-066	J05	15	1	TRUSS DESC.	



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ID: Q1 to mCp0 tF2 vqi0sg ddy V 2 LhZ 2 V 7 Toh_eunZdoc8?IHsiSH_18cYBPtJEYytNL

Scale = 1:34.0

TOTAL WEIGHT = 15 X 17 = 256 lb

LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.	BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQD	SPECIFIED LOADS:	
E - B	2x4	DRY	No.2	SPF	GROSS REACTION	DOWN	GROSS REACTION	BRG	BRG	TOP CH. LL =	34.8 PSF
A - C	2x4	DRY	No.2	SPF	VERT	HORZ	DOWN	UPLIFT	IN-SX	DL =	6.0 PSF
E - D	2x4	DRY	No.2	SPF	674	0	674	0	5-8	BOT CH. LL =	0.0 PSF
					269	0	269	0	1-8	DL =	7.3 PSF
					45	0	51	0	1-8	TOTAL LOAD =	48.1 PSF

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		

SEE MITEK STANDARD DETAIL MSD2015-H 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	468	355 / 0	0 / 0	0 / 0	0 / 0	113 / 0	0 / 0
C	184	157 / 0	0 / 0	0 / 0	0 / 0	27 / 0	0 / 0
D	36	0 / 0	0 / 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

TOTAL LOAD CASES: (4)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED	VERT. LOAD	FACTORED	MEMB.	MAX. FACTORED	VERT. LOAD	FACTORED
	FORCE (LBS)		(PLF) CSI (LC)		FORCE (LBS)		(PLF) CSI (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
E-B	-610 / 0	0.0	0.0 0.13 (4)	7.81			
A-B	0 / 36	-119.4	-119.4 0.16 (1)	10.00			
B-C	-40 / 0	-119.4	-119.4 0.73 (1)	6.25			
E-D	0 / 0	-18.2	-18.2 0.13 (4)	10.00			

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

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 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.73/0.97 (B-C:1) , BC=0.13/0.97 (D-E:4) ,
WB=0.00/0.97 (n/a:0) , 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) 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= 0.34 (B) (INPUT = 0.90)
JSI METAL= 0.25 (B) (INPUT = 1.00)



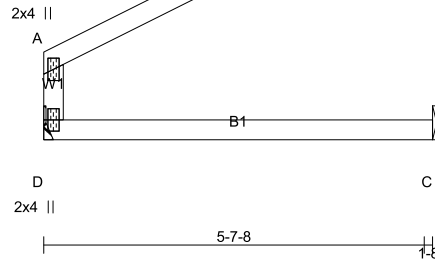
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-066	J05A	6	1	TRUSS DESC.	

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Scale = 1:34.1

TOTAL WEIGHT = 6 X 15 = 90 lb

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

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ
D	396	0	396	0
B	312	0	312	0
C	84	0	84	0

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

SEE MITEK STANDARD DETAIL MSD2015-H 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	277	200 / 0	0 / 0	0 / 0	0 / 0	76 / 0	0 / 0
B	214	179 / 0	0 / 0	0 / 0	0 / 0	35 / 0	0 / 0
C	63	21 / 0	0 / 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)	FACTORED VERT. LOAD (PLF)	MAX LC1 (LC)	MAX. UNBRACED LENGTH (FR-TO)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX LC1 (LC)
D-A	-375 / 0	0.0	0.0	0.21 (1)	7.81		
A-B	-14 / 0	-119.4	-119.4	0.56 (1)	6.25		
D-C	0 / 0	-18.2	-18.2	0.26 (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 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.06")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/540 (0.13")

CSI: TC=0.56/0.97 (A-B:1) , BC=0.26/0.97 (C-D:1) ,
WB=0.00/0.97 (n/a:0) , SSI=0.26/1.00 (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 HEELS OFF

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

NAIL VALUES

PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
	MAX MIN	MAX MIN	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 (A) (INPUT = 0.90)
JSI METAL= 0.16 (A) (INPUT = 1.00)

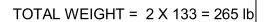


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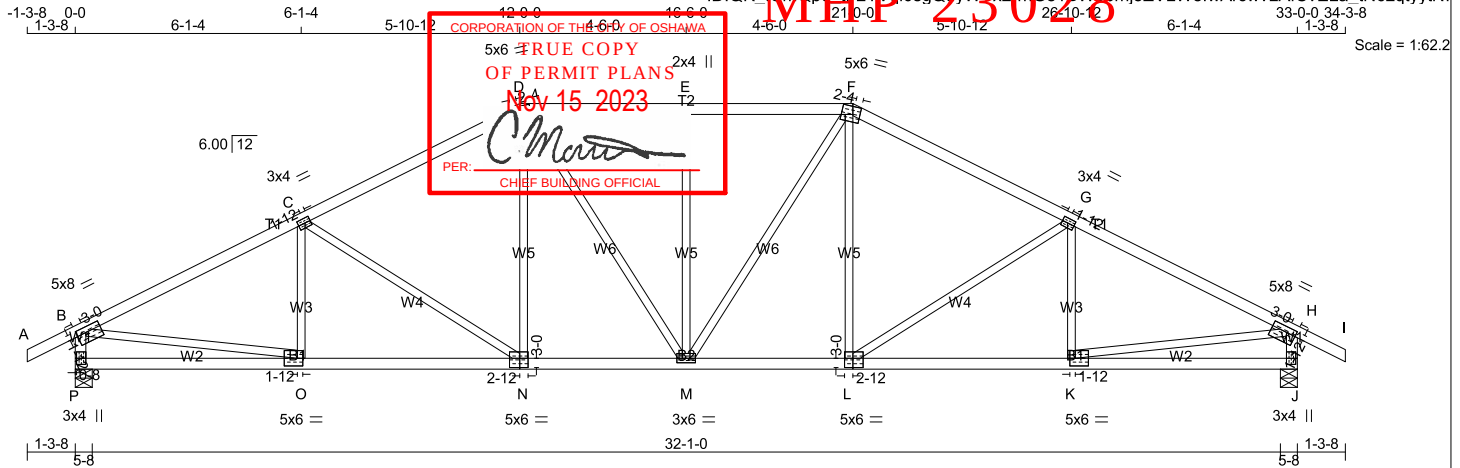
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CONTAINS SPECIFICATIONS AND CRITERIA USED
IN THE DESIGN OF THIS COMPONENT.**



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-066	T03	2	1	TRUSS DESC.	

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**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 - N	2x4	DRY	No.2 SPF
N - L	2x4	DRY	No.2 SPF
L - J	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	TMVW-t	MT20	3.0	4.0	1.50	1.75
D	TTWW-m	MT20	5.0	6.0	2.50	2.25
E	TMVW-w	MT20	2.0	4.0		
F	TTWW-m	MT20	5.0	6.0	2.50	2.25
G	TMVW-t	MT20	3.0	4.0	1.50	1.75
H	TMVW-t	MT20	5.0	8.0	1.75	3.00
J	BMV1+p	MT20	3.0	4.0	2.00	
K	BMVW-t	MT20	5.0	6.0	2.50	1.75
L	BSWW-t	MT20	5.0	6.0	3.00	2.75
M	BMVW-t	MT20	3.0	6.0		
N	BSWW-t	MT20	5.0	6.0	3.00	2.75
O	BMVW-t	MT20	5.0	6.0	2.50	1.75
P	BMV1+p	MT20	3.0	4.0	2.00	0.50

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
P	2434	0	2434	0
J	2434	0	2434	0

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED	MAX./MIN. SNOW	MAX./MIN. LIVE	MAX./MIN. PERM. LIVE	WIND	DEAD	SOIL
P	1698	1243 / 0	0 / 0	0 / 0	0 / 0	455 / 0	0 / 0
J	1698	1243 / 0	0 / 0	0 / 0	0 / 0	455 / 0	0 / 0

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

BRACINGTOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.98 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. VERT. LOAD (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. VERT. LOAD (LC)	
FR-TO		FROM	TO	FR-TO			
A-B	0 / 36	-119.4	-119.4	0.16 (1)	10.00	O-C	-300 / 36
B-C	-3353 / 0	-119.4	-119.4	0.78 (1)	2.98	C-N	-611 / 0
C-D	-2858 / 0	-119.4	-119.4	0.70 (1)	3.31	N-D	0 / 413
D-E	-2772 / 0	-119.4	-119.4	0.39 (1)	3.77	D-M	0 / 446
E-F	-2772 / 0	-119.4	-119.4	0.39 (1)	3.77	M-E	-652 / 0
F-G	-2858 / 0	-119.4	-119.4	0.70 (1)	3.31	M-F	0 / 446
G-H	-3353 / 0	-119.4	-119.4	0.78 (1)	2.98	L-F	0 / 413
H-I	0 / 36	-119.4	-119.4	0.16 (1)	10.00	L-G	-611 / 0
P-B	-2386 / 0	0.0	0.0	0.24 (1)	5.46	K-G	-300 / 36
J-H	-2386 / 0	0.0	0.0	0.24 (1)	5.46	B-O	0 / 3062
P-O	0 / 0	-18.2	-18.2	0.18 (4)	10.00	K-H	0 / 3062
O-N	0 / 3032	-18.2	-18.2	0.57 (1)	10.00		
N-M	0 / 2527	-18.2	-18.2	0.45 (1)	10.00		
M-L	0 / 2527	-18.2	-18.2	0.45 (1)	10.00		
L-K	0 / 3032	-18.2	-18.2	0.57 (1)	10.00		
K-J	0 / 0	-18.2	-18.2	0.18 (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 CBC 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 (1.10")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.17")
ALLOWABLE DEFL.(TL)= L/360 (1.10")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.30")CSI: TC=0.78/0.97 (G-H:1), BC=0.57/0.97 (K-L:1),
WB=0.69/0.97 (H-K:1), SSI=0.31/1.00 (G-H: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
MT20	650	371	1747

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

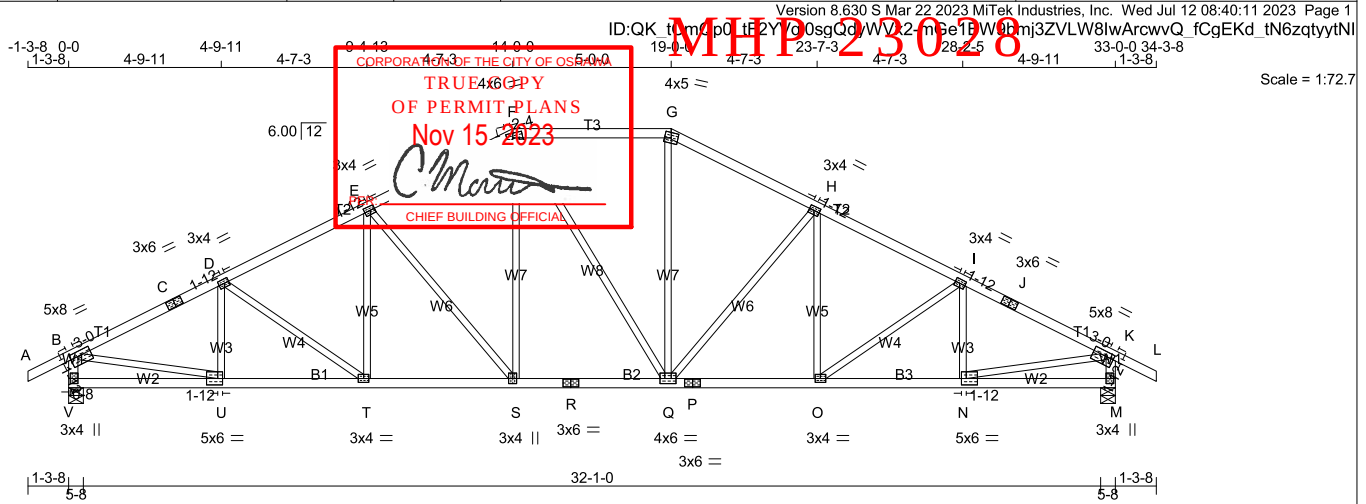
JSI GRIP= 0.87 (N) (INPUT = 0.90)
JSI METAL= 0.69 (O) (INPUT = 1.00)

JULY 12, 2023

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-066	T04	2	1	TRUSS DESC.	



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										TOP CH. LL = 34.8 PSF			
A - C	2x4	DRY	No.2	MAXIMUM FACTORED GROSS REACTION										DL = 6.0 PSF			
C - F	2x4	DRY	No.2	INPUT BRG										BOT CH. LL = 0.0 PSF			
F - G	2x4	DRY	No.2	REQRD BRG										DL = 7.3 PSF			
G - J	2x4	DRY	No.2											TOTAL LOAD = 48.1 PSF			
J - L	2x4	DRY	No.2											SPACING = 24.0 IN. C/C			
V - B	2x4	DRY	No.2											LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM			
M - K	2x4	DRY	No.2											THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015			
V - R	2x4	DRY	No.2											THIS DESIGN COMPLIES WITH:			
R - P	2x4	DRY	No.2											- PART 9 OF CBC 2018, NBC-2019AE			
P - M	2x4	DRY	No.2											- PART 9 OF OBC 2012 (2019 AMENDMENT)			
ALL WEBS	2x3	DRY	No.2											- CSA 086-14			
EXCEPT														- TPIC 2014			
DRY: SEASONED LUMBER.				UNFACTORED REACTIONS										(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			
				BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) V, M										ALLOWABLE DEFL.(LL) = L/360 (1.10")			
				BRACING										CALCULATED VERT. DEFL.(LL) = L/ 999 (0.16")			
				TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.44 FT.										ALLOWABLE DEFL.(TL) = L/360 (1.10")			
				MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.										CALCULATED VERT. DEFL.(TL) = L/ 999 (0.27")			
				ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.										CSI: TC=0.48/0.97 (I-K:1), BC=0.52/0.97 (N-O:1), WB=0.75/0.97 (E-S:1), SSI=0.23/1.00 (I-K:1)			
				LOADING										DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS= 1.10			
				TOTAL LOAD CASES: (4)										COMPANION LIVE LOAD FACTOR = 1.00			
				CHORDS										TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT .			
				WEBS										NAIL VALUES			
				MEMB. MAX. FACTORED FORCE (LBS)										PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)			
				FR-TO FROM TO LENGTH FR-TO										MAX MIN MAX MIN MAX MIN			
				A-B 0 / 36 -119.4 -119.4 0.16 (1) 10.00 U-D -440 / 0 0.09 (1)										MT20 650 371 1747 788 1987 1873			
				B-C -3260 / 0 -119.4 -119.4 0.48 (1) 3.44 D-T -173 / 0 0.09 (1)										PLATE PLACEMENT TOL. = 0.250 inches			
				C-D -3260 / 0 -119.4 -119.4 0.48 (1) 3.44 T-E 0 / 186 0.04 (1)										PLATE ROTATION TOL. = 5.0 Deg.			
				D-E -3124 / 0 -119.4 -119.4 0.39 (1) 3.61 E-S -729 / 0 0.75 (1)										JSI GRIP= 0.89 (S) (INPUT = 0.90)			
				E-F -2623 / 0 -119.4 -119.4 0.38 (1) 3.90 S-F 0 / 643 0.14 (1)										JSI METAL= 0.80 (P) (INPUT = 1.00)			
				F-G -2333 / 0 -119.4 -119.4 0.46 (1) 3.97 F-Q 0 / 2 0.00 (1)													
				G-H -2624 / 0 -119.4 -119.4 0.38 (1) 3.90 Q-G 0 / 646 0.15 (1)													
				H-I -3123 / 0 -119.4 -119.4 0.39 (1) 3.61 Q-H -727 / 0 0.75 (1)													
				I-J -3260 / 0 -119.4 -119.4 0.48 (1) 3.44 Q-H 0 / 184 0.04 (1)													
				J-K -3260 / 0 -119.4 -119.4 0.48 (1) 3.44 O-I -174 / 0 0.09 (1)													
				K-L 0 / 36 -119.4 -119.4 0.16 (1) 10.00 N-I -439 / 0 0.09 (1)													
				V-B -2391 / 0 0.0 0.0 0.24 (1) 5.46 B-U 0 / 2982 0.67 (1)													
				M-K -2392 / 0 0.0 0.0 0.24 (1) 5.46 N-K 0 / 2982 0.67 (1)													
				V-U 0 / 0 -18.2 -18.2 0.09 (4) 10.00													
				U-T 0 / 2935 -18.2 -18.2 0.52 (1) 10.00													
				T-S 0 / 2794 -18.2 -18.2 0.49 (1) 10.00													
				S-R 0 / 2332 -18.2 -18.2 0.43 (1) 10.00													
				R-Q 0 / 2332 -18.2 -18.2 0.43 (1) 10.00													
				Q-P 0 / 2794 -18.2 -18.2 0.50 (1) 10.00													
				P-O 0 / 2794 -18.2 -18.2 0.50 (1) 10.00													
				O-N 0 / 2936 -18.2 -18.2 0.52 (1) 10.00													
				N-M 0 / 0 -18.2 -18.2 0.09 (4) 10.00													

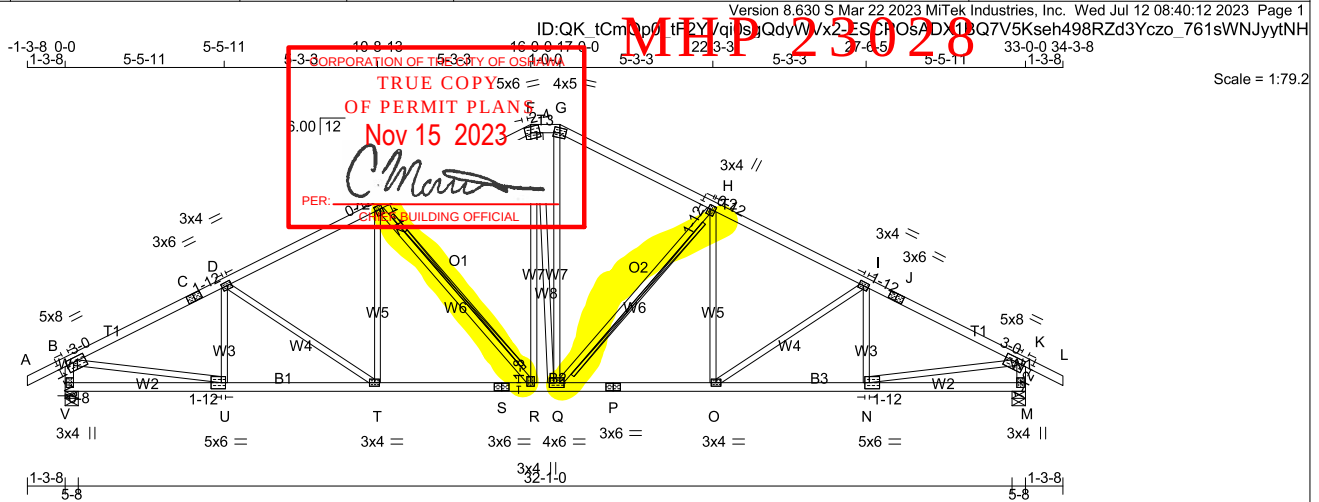


JULY 12, 2023

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-066	T05	2	1	TRUSS DESC.	



TOTAL WEIGHT = 2 X 152 = 304 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - F	2x4	DRY	No.2
F - G	2x4	DRY	No.2
G - J	2x4	DRY	No.2
J - L	2x4	DRY	No.2
V - B	2x4	DRY	No.2
M - K	2x4	DRY	No.2
V - S	2x4	DRY	No.2
S - P	2x4	DRY	No.2
P - M	2x4	DRY	No.2

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	6.0		
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	TTWW-m	MT20	5.0	6.0	2.50	2.25
G	TTWW-m	MT20	4.0	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	6.0		
K	TMVW-t	MT20	5.0	8.0	1.75	3.00
M	BMV1+p	MT20	3.0	4.0	2.00	
N	BMVW-t	MT20	5.0	6.0	2.50	1.75
O	BMVW-t	MT20	3.0	4.0		
P	BS-t	MT20	3.0	6.0		
Q	BMVWW-t	MT20	4.0	6.0		
R	BMVW-t	MT20	3.0	4.0	1.50	1.50
S	BS-t	MT20	3.0	6.0		
T	BMVW-t	MT20	3.0	4.0		
U	BMVW-t	MT20	5.0	6.0	2.50	1.75
V	BMV1+p	MT20	3.0	4.0	2.00	0.50

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	DOWN	UP	IN-SX
V	2434	0	2434	0
M	2434	0	2434	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
V	1698	1243 / 0	0 / 0	455 / 0	0 / 0
M	1698	1243 / 0	0 / 0	455 / 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 = 3.27 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

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. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 36	-119.4 -119.4	0.16 (1)	U-D	-370 / 0	0.09 (1)	
B-C	-3305 / 0	-119.4 -119.4	0.61 (1)	D-T	-338 / 0	0.25 (1)	
C-D	-3305 / 0	-119.4 -119.4	0.61 (1)	T-E	0 / 299	0.07 (1)	
D-E	-3020 / 0	-119.4 -119.4	0.50 (1)	E-R	-914 / 0	0.47 (1)	
E-F	-2381 / 0	-119.4 -119.4	0.47 (1)	R-F	0 / 650	0.15 (1)	
F-G	-2121 / 0	-119.4 -119.4	0.06 (1)	F-Q	0 / 93	0.02 (1)	
G-H	-2390 / 0	-119.4 -119.4	0.47 (1)	Q-G	0 / 746	0.17 (1)	
H-I	-3016 / 0	-119.4 -119.4	0.50 (1)	Q-H	-897 / 0	0.46 (1)	
I-J	-3307 / 0	-119.4 -119.4	0.61 (1)	O-H	0 / 280	0.06 (1)	
J-K	-3307 / 0	-119.4 -119.4	0.61 (1)	O-I	-343 / 0	0.25 (1)	
K-L	0 / 36	-119.4 -119.4	0.16 (1)	N-I	-364 / 0	0.09 (1)	
V-B	-2387 / 0	0.0	0.0 0.24 (1)	B-U	0 / 3016	0.68 (1)	
M-K	-2388 / 0	0.0	0.0 0.24 (1)	N-K	0 / 3018	0.68 (1)	
V-U	0 / 0	-18.2 -18.2	0.11 (4)				
U-T	0 / 2980	-18.2 -18.2	0.54 (1)				
T-S	0 / 2701	-18.2 -18.2	0.49 (1)				
S-R	0 / 2701	-18.2 -18.2	0.49 (1)				
R-Q	0 / 2111	-18.2 -18.2	0.44 (1)				
Q-P	0 / 2698	-18.2 -18.2	0.54 (1)				
P-O	0 / 2698	-18.2 -18.2	0.54 (1)				
O-N	0 / 2981	-18.2 -18.2	0.53 (1)				
N-M	0 / 0	-18.2 -18.2	0.11 (4)				

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, NBC 2015

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 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 (1.10")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.17")
ALLOWABLE DEFL.(TL) = L/360 (1.10")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.30")

CSI: TC=0.61/0.97 (I-K:1), BC=0.54/0.97 (O-Q:1),
WB=0.68/0.97 (K-N:1), SSI=0.27/1.00 (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) 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 (M) (INPUT = 0.90)
JSI METAL= 0.84 (S) (INPUT = 1.00)

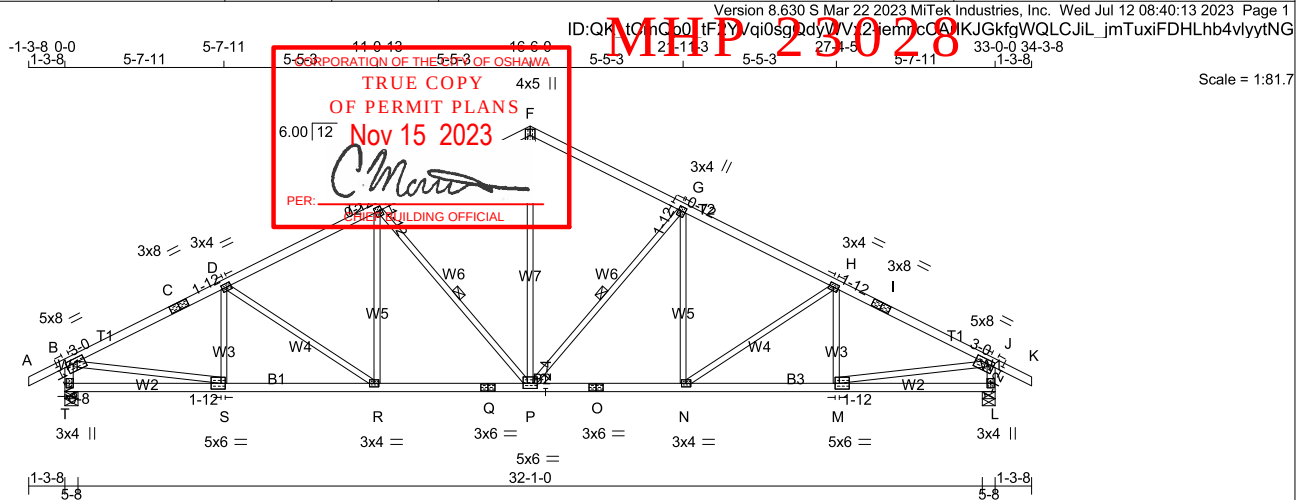


JULY 12, 2023

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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-066	T06	7	1	TRUSS DESC.	



TOTAL WEIGHT = 7 X 140 = 977 lb

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
T - B	2x4	DRY	No.2 SPF
L - J	2x4	DRY	No.2 SPF
T - 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.

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	5.0		
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+p	MT20	3.0	4.0	2.00	
M BMVW-t	MT20	5.0	6.0	2.50	1.75
N BMVW-t	MT20	3.0	4.0		
O BS-t	MT20	3.0	6.0		
P BMVWW-t	MT20	5.0	6.0	2.25	3.00
Q BS-t	MT20	3.0	6.0		
R BMVW-t	MT20	3.0	4.0		
S BMVW-t	MT20	5.0	6.0	2.50	1.75
T BMV1+p	MT20	3.0	4.0	2.00	0.50

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

	FACTORED	MAXIMUM FACTORED	INPUT	REQD
GROSS REACTION	GROSS REACTION	BRG	BRG	
JT VERT HORZ	DOWN HORZ	UPLIFT	IN-SX	IN-SX
T 2434 0	2434 0	0	5-8	4-7
L 2434 0	2434 0	0	5-8	4-7

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
T	1698	1243 / 0	0 / 0	0 / 0	0 / 0	455 / 0	0 / 0
L	1698	1243 / 0	0 / 0	0 / 0	0 / 0	455 / 0	0 / 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 = 3.22 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 = 117 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)	MAX. CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO			FR-TO		
A-B	0 / 36	-119.4 -119.4	0.16 (1)	10.00	P-F	0 / 1538	0.35 (1)
B-C	-3314 / 0	-119.4 -119.4	0.65 (1)	3.22	P-G	-940 / 0	0.45 (1)
C-D	-3314 / 0	-119.4 -119.4	0.65 (1)	3.22	N-G	0 / 311	0.07 (1)
D-E	-2988 / 0	-119.4 -119.4	0.53 (1)	3.53	N-H	-383 / 0	0.30 (1)
E-F	-2334 / 0	-119.4 -119.4	0.50 (1)	3.95	M-H	-350 / 3	0.09 (1)
F-G	-2334 / 0	-119.4 -119.4	0.50 (1)	3.95	E-P	-940 / 0	0.45 (1)
G-H	-2988 / 0	-119.4 -119.4	0.53 (1)	3.53	R-E	0 / 311	0.07 (1)
H-I	-3314 / 0	-119.4 -119.4	0.65 (1)	3.22	D-R	-383 / 0	0.30 (1)
I-J	-3314 / 0	-119.4 -119.4	0.65 (1)	3.22	S-D	-350 / 3	0.09 (1)
J-K	0 / 36	-119.4 -119.4	0.16 (1)	10.00	B-S	0 / 3023	0.68 (1)
T-B	-2387 / 0	0.0 0.0	0.24 (1)	5.46	M-J	0 / 3023	0.68 (1)
L-J	-2387 / 0	0.0 0.0	0.24 (1)	5.46			
T-S	0 / 0	-18.2 -18.2	0.12 (4)	10.00			
S-R	0 / 2989	-18.2 -18.2	0.53 (1)	10.00			
R-Q	0 / 2672	-18.2 -18.2	0.50 (1)	10.00			
Q-P	0 / 2672	-18.2 -18.2	0.50 (1)	10.00			
P-O	0 / 2672	-18.2 -18.2	0.50 (1)	10.00			
O-N	0 / 2672	-18.2 -18.2	0.50 (1)	10.00			
N-M	0 / 2989	-18.2 -18.2	0.53 (1)	10.00			
M-L	0 / 0	-18.2 -18.2	0.12 (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 CBC 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 (1.10")
CALCULATED VERT. DEFL.(LL) = L/999 (0.17")
ALLOWABLE DEFL.(TL) = L/360 (1.10")
CALCULATED VERT. DEFL.(TL) = L/999 (0.30")

CSI: TC=0.65/0.97 (H-J:1), BC=0.53/0.97 (R-S:1), WB=0.68/0.97 (B-S:1), SSI=0.28/1.00 (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 (F) (INPUT = 0.90)
JSI METAL= 0.81 (O) (INPUT = 1.00)

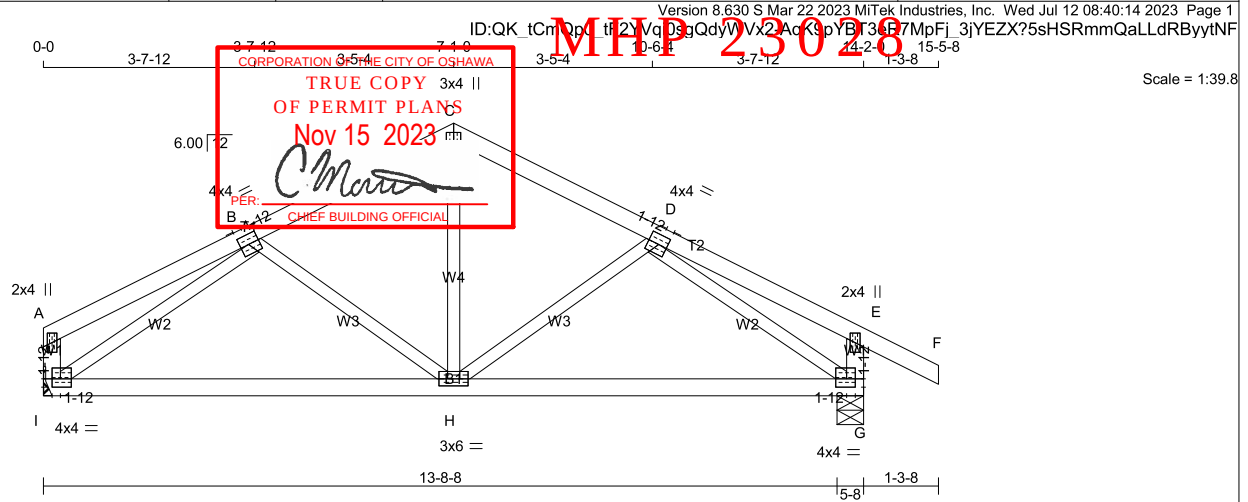


JULY 12, 2023

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.



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
IM0723-066	T07	1	1	TRUSS DESC.	



TOTAL WEIGHT = 54 lb

LUMBER				N. L. G. A. RULES	
CHORDS	SIZE	LUMBER	DESCR.	SPF	
A - C	2x4	DRY	No.2	SPF	
C - F	2x4	DRY	No.2	SPF	
I - A	2x4	DRY	No.2	SPF	
G - E	2x4	DRY	No.2	SPF	
I - G	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
A	TMV+p	MT20	2.0	4.0		
B	TMWW-t	MT20	4.0	4.0	2.00	1.75
C	TTW+p	MT20	3.0	4.0		
D	TMWW-t	MT20	4.0	4.0	2.00	1.75
E	TMV+p	MT20	2.0	4.0		
G	BMVW1-t	MT20	4.0	4.0	1.75	1.75
H	BMVWW-t	MT20	3.0	6.0		
I	BMVW1-t	MT20	4.0	4.0	1.75	1.75

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

BEARINGS

	FACTORED	MAXIMUM FACTORED	INPUT	REQD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	UPLIFT
I	975	0	975	0
G	1137	0	1137	0

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

UNFACTORED REACTIONS

JT	1ST LCASE	MAX./MIN.	COMPONENT REACTIONS				
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
I	682	493 / 0	0 / 0	0 / 0	0 / 0	188 / 0	0 / 0
G	792	588 / 0	0 / 0	0 / 0	0 / 0	205 / 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 = 6.18 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.

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. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH	
FR-TO				FR-TO			
A-B	0 / 21	-119.4 -119.4	0.23 (1)	10.00	H-C	0 / 480	0.11 (1)
B-C	-924 / 0	-119.4 -119.4	0.18 (1)	6.18	H-D	-269 / 0	0.09 (1)
C-D	-924 / 0	-119.4 -119.4	0.18 (1)	6.18	B-H	-269 / 0	0.09 (1)
D-E	0 / 21	-119.4 -119.4	0.23 (1)	10.00	I-B	-1274 / 0	0.41 (1)
E-F	0 / 36	-119.4 -119.4	0.16 (1)	10.00	D-G	-1274 / 0	0.41 (1)
I-A	-166 / 0	0.0 0.0	0.02 (1)	7.81			
G-E	-328 / 0	0.0 0.0	0.03 (1)	7.81			
I-H	0 / 1024	-18.2 -18.2	0.32 (4)	10.00			
H-G	0 / 1024	-18.2 -18.2	0.32 (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 (0.47")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.47")
CALCULATED VERT. DEFL.(TL) = L/999 (0.08")CSI: TC=0.23/0.97 (D-E:1), BC=0.32/0.97 (G-H:4)
WB=0.41/0.97 (D-G:1), 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 (PSI)	SECTION (PLI)
MT20	650	371	1747
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (B) (INPUT = 0.90)
JSI METAL= 0.39 (D) (INPUT = 1.00)

JULY 12, 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.





CITY 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

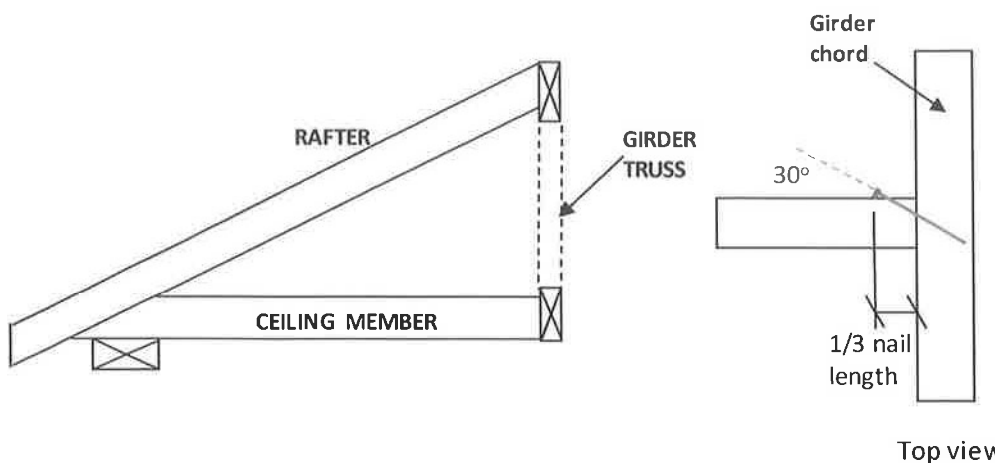


Figure 1: Toe-Nailing Rafter / Ceiling Member to Girder Truss

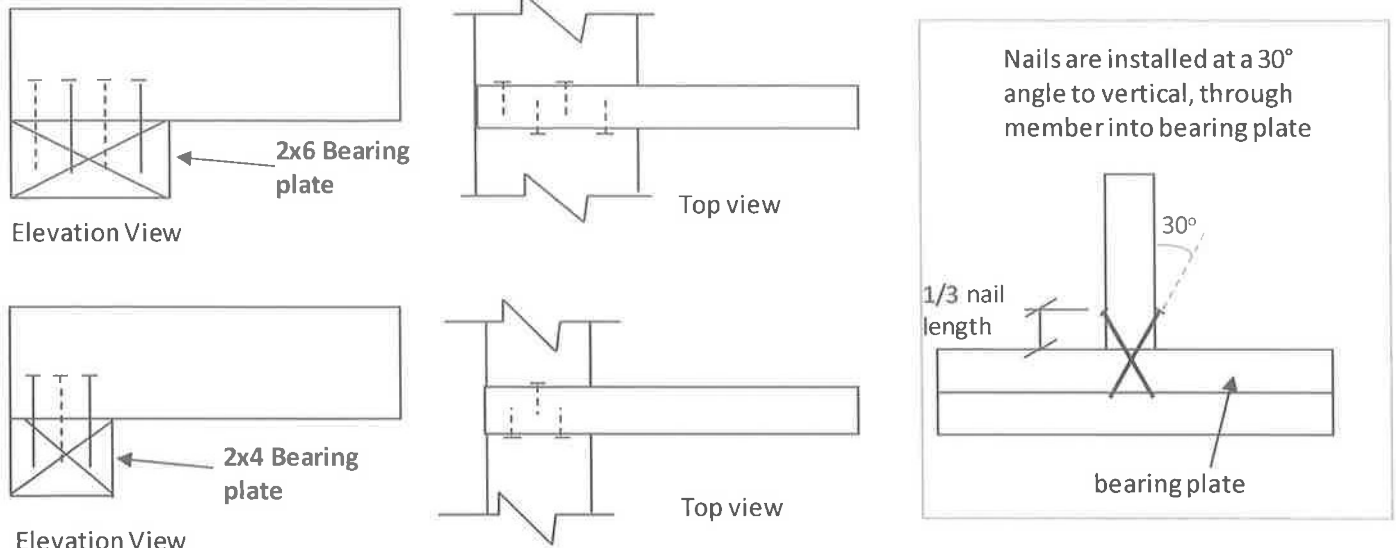




Issued: MARCH 1, 2022
Expiry: APRIL 30, 2024

CITY 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.

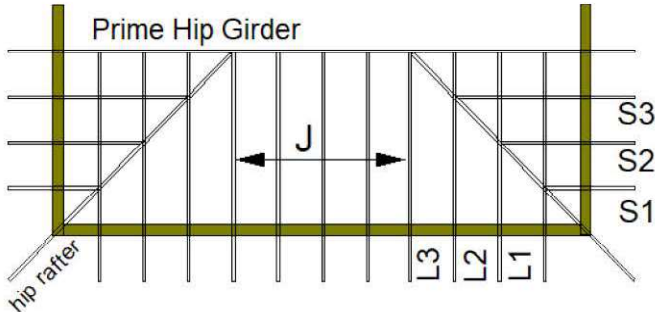
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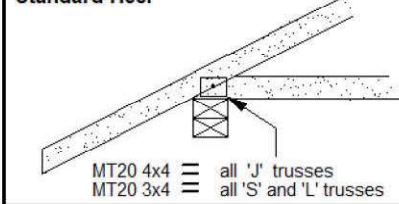
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PER: *C. M...*
CHIEF BUILDING OFFICIAL

STANDARD END FRAMING

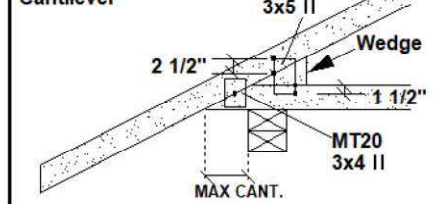
PLAN VIEW



HEEL DETAIL 'A' Standard Heel



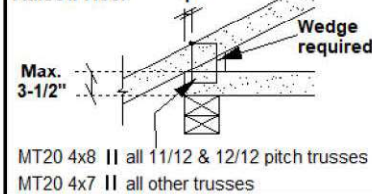
HEEL DETAIL 'C' Cantilever



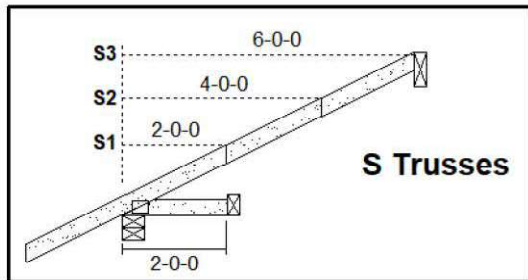
CANTILEVER DETAIL "C"

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

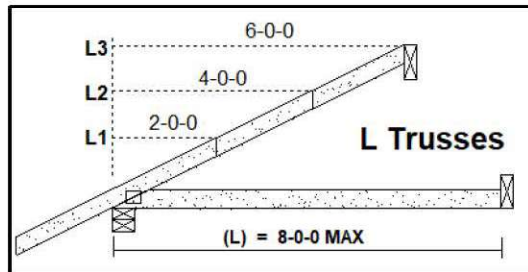
DETAIL "B": Raised Heel



S Trusses



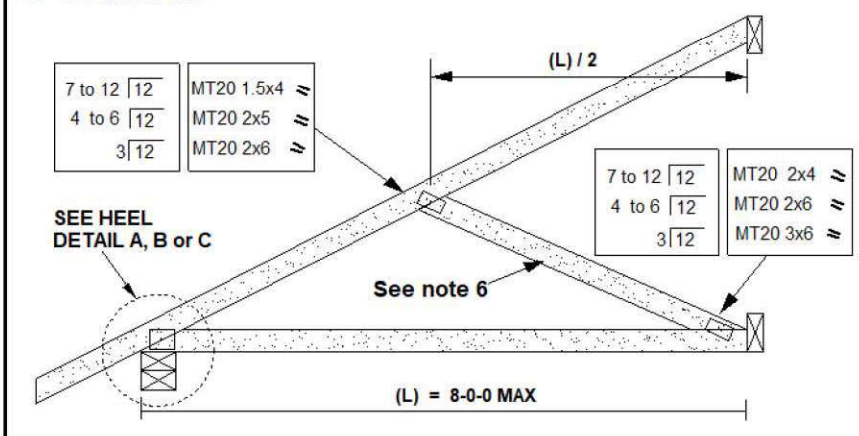
L Trusses



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

J Trusses



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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