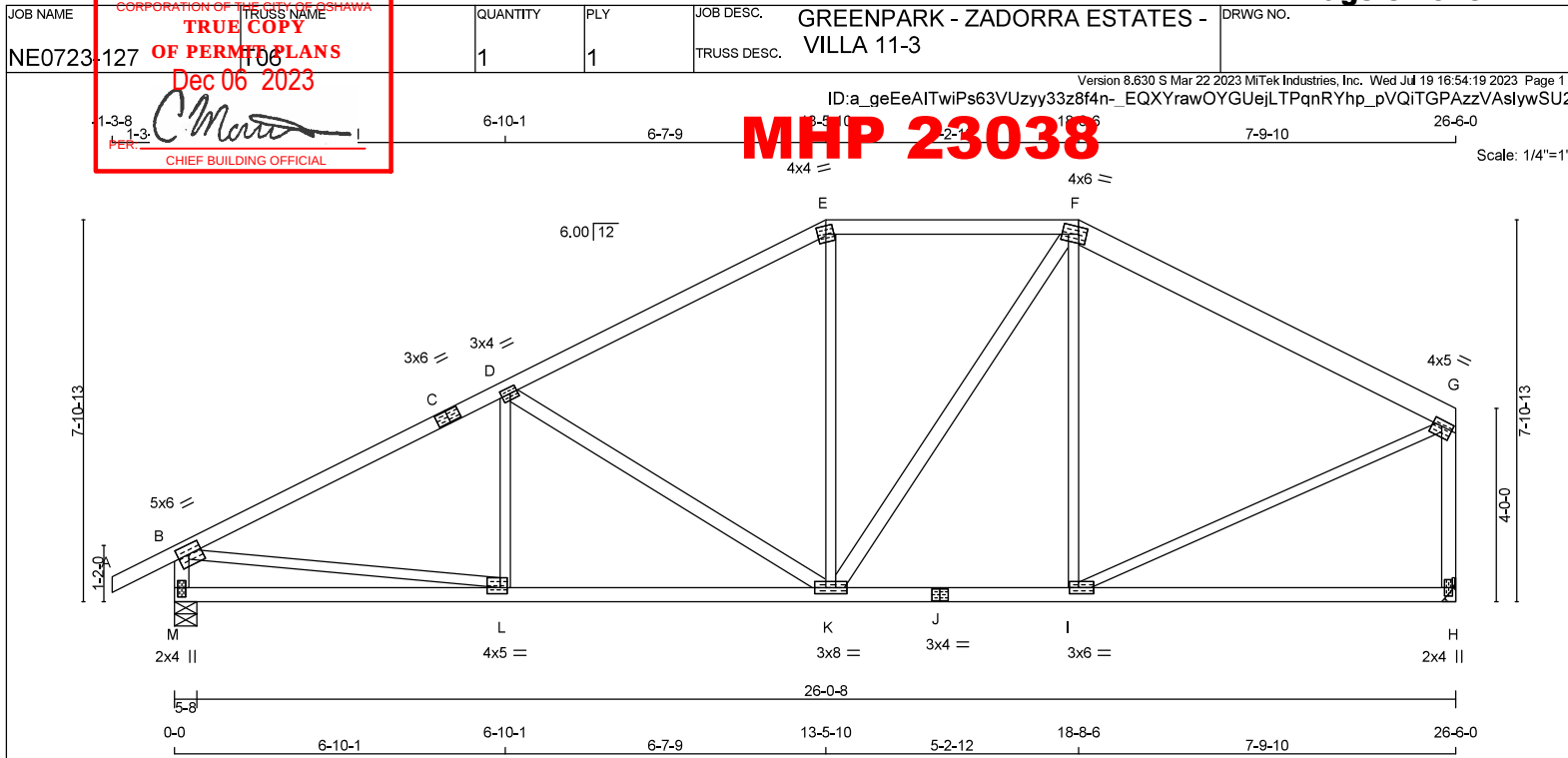


**LUMBER**

N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
E - F	2x4	DRY	No.2
F - G	2x6	DRY	No.2
M - B	2x4	DRY	No.2
H - G	2x4	DRY	No.2
M - J	2x4	DRY	No.2
J - H	2x4	DRY	No.2

ALL WEBS	2x3	DRY	No.2
EXCEPT			
D - K	2x4	DRY	No.2
K - F	2x4	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMWW-4	MT20	5.0	6.0	2.25	2.75
C	TS-4	MT20	3.0	6.0		
D	TMWW-4	MT20	3.0	4.0	1.50	1.75
E	TTWW-m	MT20	4.0	4.0		
F	TTWW-m	MT20	4.0	6.0	1.75	2.00
G	TMWW-4	MT20	4.0	5.0	1.50	2.25
H	BMV1+p	MT20	2.0	4.0		
I	BMWW-4	MT20	3.0	6.0	1.50	2.25
J	BS-4	MT20	3.0	4.0		
K	BMWW-4	MT20	3.0	8.0		
L	BMWW-4	MT20	4.0	5.0	1.50	1.75
M	BMV1+p	MT20	2.0	4.0	2.25	1.00

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

	FACTORED	MAXIMUM FACTORED	INPUT	REQRD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ
M	1986	0	1986	0
H	1824	0	1824	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT H. MINIMUM BEARING LENGTH AT JOINT H = 2-7.

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
M	1386	1017 / 0	0 / 0	0 / 0	0 / 0	369 / 0	0 / 0
H	1275	922 / 0	0 / 0	0 / 0	0 / 0	352 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.04 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 36	-119.4 -119.4	0.16 (1)	10.00	L-D	-153 / 84 0.05 (1)	
B-C	-2566 / 0	-119.4 -119.4	0.89 (1)	3.04	D-K	-885 / 0 0.84 (1)	
C-D	-2566 / 0	-119.4 -119.4	0.89 (1)	3.04	K-E	0 / 200 0.05 (4)	
D-E	-1819 / 0	-119.4 -119.4	0.77 (1)	3.76	E-F	0 / 439 0.07 (1)	
E-F	-1590 / 0	-119.4 -119.4	0.45 (1)	4.65	F-G	-472 / 0 0.56 (1)	
F-G	-1513 / 0	-119.4 -119.4	0.47 (1)	5.60	G-H	0 / 2352 0.53 (1)	
H-I	-1934 / 0	0.0 0.0	0.20 (1)	5.97	I-G	0 / 1483 0.33 (1)	
I-G	-1764 / 0	0.0 0.0	0.42 (1)	6.20			
M-L	0 / 0	-18.2 -18.2	0.21 (4)	10.00			
L-K	0 / 2334	-18.2 -18.2	0.47 (1)	10.00			
K-J	0 / 1343	-18.2 -18.2	0.35 (1)	10.00			
J-I	0 / 1343	-18.2 -18.2	0.35 (1)	10.00			
I-H	0 / 0	-18.2 -18.2	0.24 (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

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 (0.88")
CALCULATED VERT. DEFL.(LL)= L/999 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (0.88")
CALCULATED VERT. DEFL.(TL)= L/999 (0.18")

CSI: TC=0.89/0.97 (B-D:1), BC=0.47/0.97 (K-L:1),
WB=0.84/0.97 (D-K:1), SS=0.35/1.00 (B-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

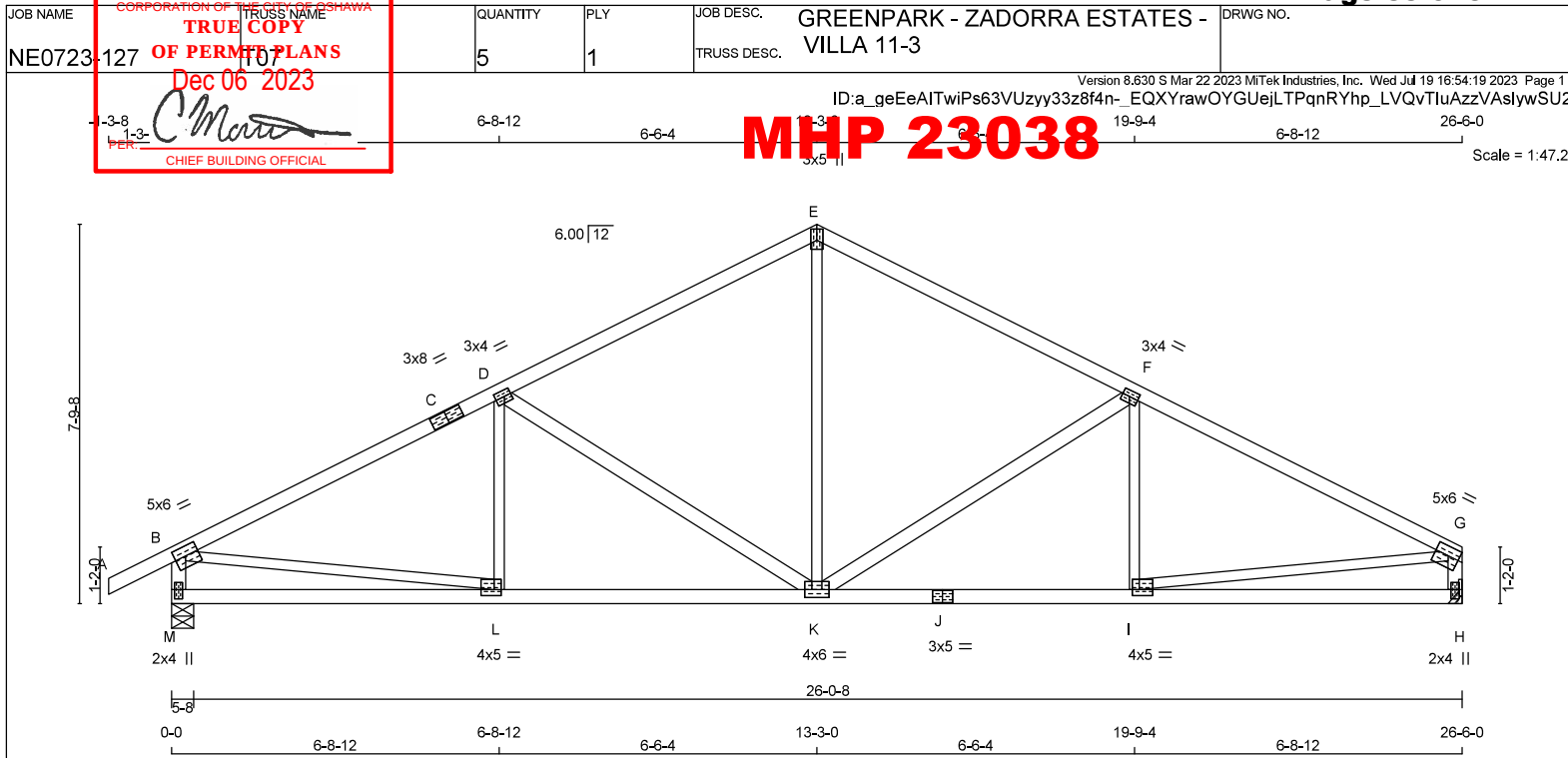
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (E) (INPUT = 0.90)
JSI METAL= 0.87 (L) (INPUT = 1.00)



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.





TOTAL WEIGHT = 5 X 107 = 536 lb

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
E - G	2x4	DRY	No.2
M - B	2x4	DRY	No.2
H - G	2x4	DRY	No.2
M - J	2x4	DRY	No.2
J - H	2x4	DRY	No.2

ALL WEBS	2x3	DRY	No.2
EXCEPT			
K - F	2x4	DRY	No.2
D - K	2x4	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW4	MT20	5.0	6.0	2.25	2.75
C	TS4	MT20	3.0	8.0		
D	TMVW4	MT20	3.0	4.0	1.50	1.75
E	TTW+p	MT20	3.0	5.0	2.75	1.50
F	TMVW4	MT20	3.0	4.0	1.50	1.75
G	TMVW4	MT20	5.0	6.0	2.25	Edge
H	BMV1+p	MT20	2.0	4.0	2.25	1.00
I	BMVW4	MT20	4.0	5.0	1.50	1.75
J	BS4	MT20	3.0	5.0		
K	BMVW4	MT20	4.0	6.0		
L	BMVW4	MT20	4.0	5.0	1.50	1.75
M	BMV1+p	MT20	2.0	4.0	2.25	1.00

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES
EDGE OF CHORD.**DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING****DESIGNER****BEARINGS**

	FACTORED	MAXIMUM FACTORED	INPUT	REQD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ
M	1986	0	1986	0
H	1824	0	1824	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT H. MINIMUM BEARING LENGTH AT JOINT H = 2-7.

UNFACTORED REACTIONS

	1ST LOASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
M	1386	1017 / 0	0 / 0	0 / 0	0 / 0	369 / 0	0 / 0
H	1275	922 / 0	0 / 0	0 / 0	0 / 0	352 / 0	0 / 0

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

BRACINGTOP 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)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. UNBRACED LENGTH FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH FR-TO	
FR-TO							
A-B	0 / 36	-119.4	-119.4 0.16 (1)	10.00	K-E	0 / 1038	0.23 (1)
B-C	-2566 / 0	-119.4	-119.4 0.86 (1)	3.13	K-F	-845 / 0	0.75 (1)
C-D	-2566 / 0	-119.4	-119.4 0.86 (1)	3.13	L-F	-168 / 73	0.05 (1)
D-E	-1858 / 0	-119.4	-119.4 0.75 (1)	3.80	D-K	-845 / 0	0.75 (1)
E-F	-1858 / 0	-119.4	-119.4 0.75 (1)	3.80	L-D	-168 / 73	0.05 (1)
F-G	-2566 / 0	-119.4	-119.4 0.86 (1)	3.13	B-L	0 / 2351	0.53 (1)
M-B	-1934 / 0	0.0	0.0 0.20 (1)	5.97	I-G	0 / 2351	0.53 (1)
H-G	-1772 / 0	0.0	0.0 0.18 (1)	6.20			
M-L	0 / 0	-18.2	-18.2 0.19 (4)	10.00			
L-K	0 / 2333	-18.2	-18.2 0.46 (1)	10.00			
K-J	0 / 2333	-18.2	-18.2 0.46 (1)	10.00			
J-I	0 / 2333	-18.2	-18.2 0.46 (1)	10.00			
I-H	0 / 0	-18.2	-18.2 0.19 (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

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 LOADALLOWABLE DEFL.(LL) = L/360 (0.88")
CALCULATED VERT. DEFL.(LL) = L/999 (0.11")
ALLOWABLE DEFL.(TL) = L/360 (0.88")
CALCULATED VERT. DEFL.(TL) = L/999 (0.20")CSI: TC=0.86/0.97 (F-G:1), BC=0.46/0.97 (H-K:1),
WB=0.75/0.97 (F-K:1), SSI=0.35/1.00 (F-G:1)DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10
SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

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

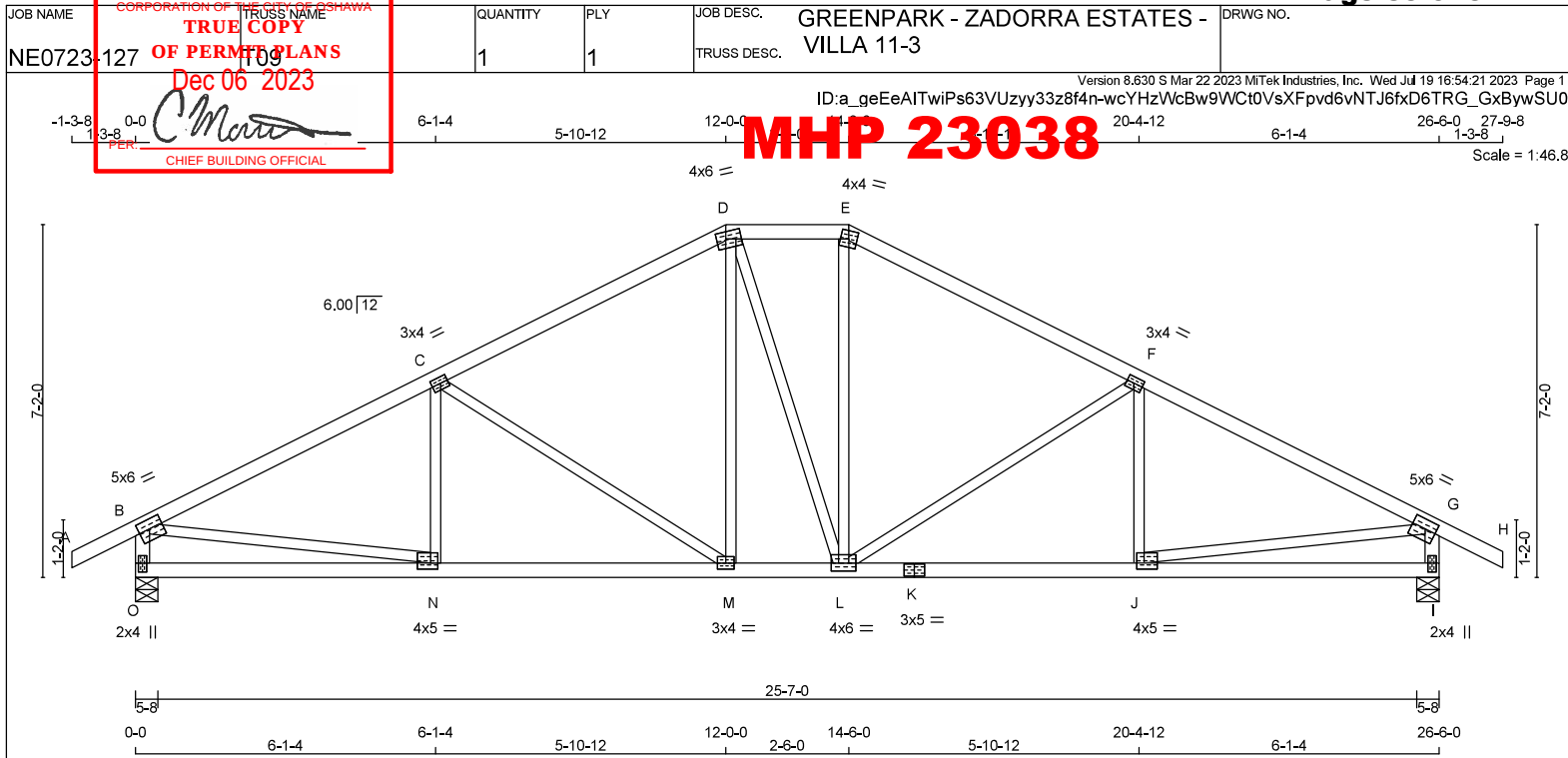
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (E) (INPUT = 0.90)
JSI METAL = 0.74 (J) (INPUT = 1.00)

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.





LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - D	2x4	DRY	No.2
D - E	2x4	DRY	No.2
E - H	2x4	DRY	No.2
O - B	2x4	DRY	No.2
I - G	2x4	DRY	No.2
O - K	2x4	DRY	No.2
K - I	2x4	DRY	No.2

ALL WEBS 2x3 DRY No.2
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW4	MT20	5.0	6.0	2.25	2.75
C	TMVW4	MT20	3.0	4.0	1.50	1.75
D	TTVW-m	MT20	4.0	6.0	1.75	2.25
E	TTVW-m	MT20	4.0	4.0		
F	TMVW4	MT20	3.0	4.0	1.50	1.75
G	TMVW4	MT20	5.0	6.0	2.25	2.75
I	BMV1+p	MT20	2.0	4.0	2.25	1.00
J	BMVW4	MT20	4.0	5.0	1.50	1.75
K	BS4	MT20	3.0	5.0		
L	BMVW4	MT20	4.0	6.0		
M	BMVW4	MT20	3.0	4.0		
N	BMVW4	MT20	4.0	5.0	1.50	1.75
O	BMV1+p	MT20	2.0	4.0	2.25	1.00

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
O	1986	0	1986	0
I	1986	0	1986	0

UNFACTORED REACTIONS

JT	1ST CASE	MAX/MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
O	1386	1017 / 0	0 / 0
I	1386	1017 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.48 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.	CHORDS	MAX. FACTORED	VERT. LOAD	LC1	MAX	UNBRAC	MEMB.	MAX. FACTORED
		FORCE			CS1 (LC)	LENGTH		FORCE
		(LBS)						(LBS)
FR-TO								
A-B	0 / 36		-119.4	-119.4	0.16 (1)	10.00	N-C	-207 / 55
B-C	-2573 / 0		-119.4	-119.4	0.69 (1)	3.48	C-M	-708 / 0
C-D	-1986 / 0		-119.4	-119.4	0.62 (1)	3.99	M-D	0 / 454
D-E	-1751 / 0		-119.4	-119.4	0.13 (1)	4.91	D-L	0 / 6
E-F	-1990 / 0		-119.4	-119.4	0.62 (1)	3.99	L-E	0 / 460
F-G	-2572 / 0		-119.4	-119.4	0.69 (1)	3.48	L-F	-705 / 0
G-H	0 / 36		-119.4	-119.4	0.16 (1)	10.00	J-F	-210 / 54
O-B	-1938 / 0		0.0	0.0	0.20 (1)	5.97	B-N	0 / 2358
I-G	-1938 / 0		0.0	0.0	0.20 (1)	5.97	J-G	0 / 2357
O-N	0 / 0		-18.2	-18.2	0.16 (4)	10.00		
N-M	0 / 2335		-18.2	-18.2	0.44 (1)	10.00		
M-L	0 / 1749		-18.2	-18.2	0.34 (1)	10.00		
L-K	0 / 2334		-18.2	-18.2	0.44 (1)	10.00		
K-J	0 / 2334		-18.2	-18.2	0.44 (1)	10.00		
J-I	0 / 0		-18.2	-18.2	0.16 (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 (0.88")
CALCULATED VERT. DEFL.(LL) = L/999 (0.11")
ALLOWABLE DEFL.(TL) = L/360 (0.88")
CALCULATED VERT. DEFL.(TL) = L/999 (0.20")

CSI: TC=0.69/0.97 (B-C:1) , BC=0.44/0.97 (M-N:1) ,
WB=0.70/0.97 (C-M:1) , SS=0.31/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

PLATE PLACEMENT TOL. = 0.250 inches

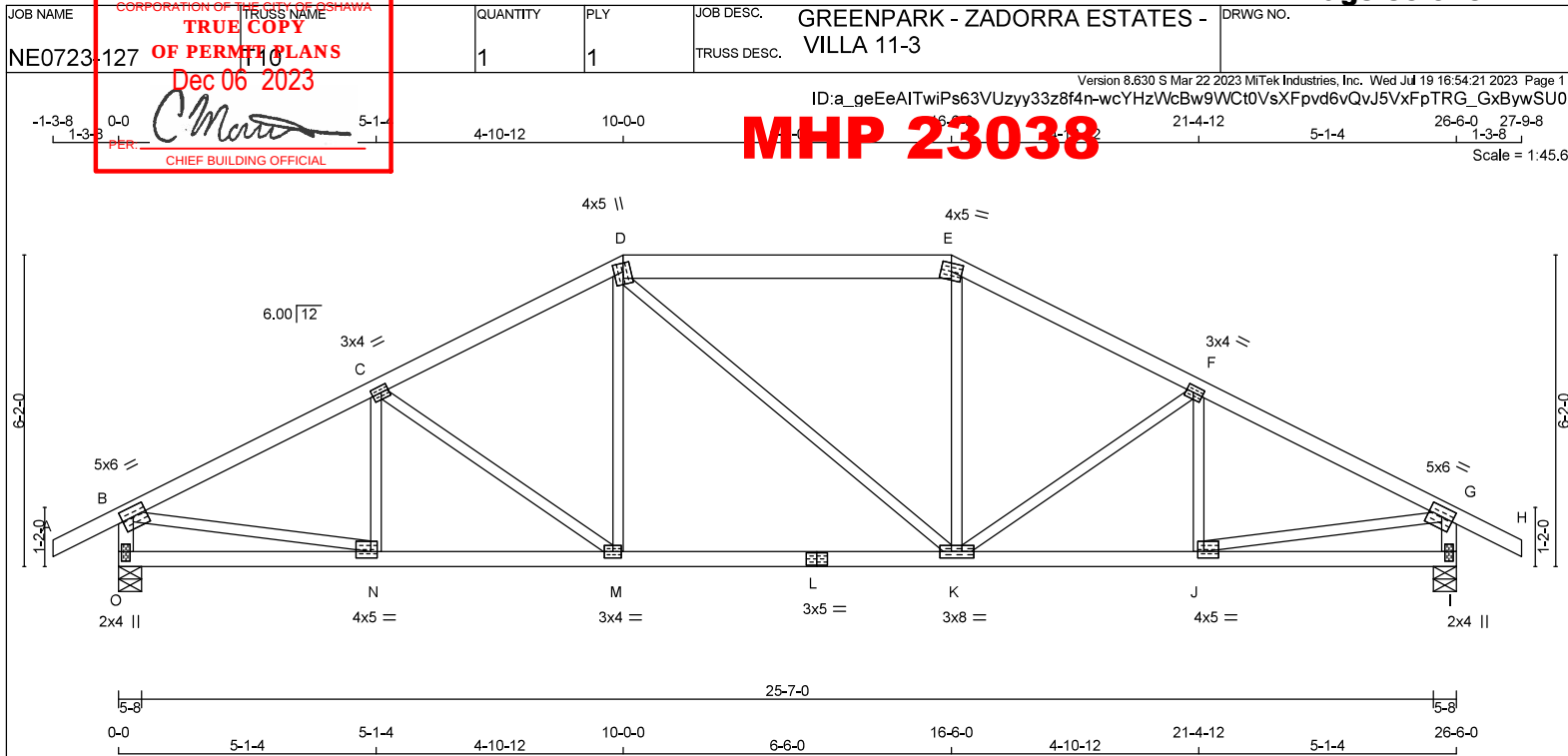
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (N) (INPUT = 0.90)
JSI METAL= 0.70 (K) (INPUT = 1.00)



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.





LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER
A - D	2x4	DRY	No.2
D - E	2x6	DRY	No.2
E - H	2x4	DRY	No.2
O - B	2x4	DRY	No.2
I - G	2x4	DRY	No.2
O - L	2x4	DRY	No.2
L - I	2x4	DRY	No.2

ALL WEBS 2x3 DRY No.2
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW4	MT20	5.0	6.0	2.25	2.75
C	TMVW4	MT20	3.0	4.0	1.50	1.75
D	TTVW+m	MT20	4.0	5.0	2.00	1.75
E	TTVW-m	MT20	4.0	5.0		
F	TMVW4	MT20	3.0	4.0	1.50	1.75
G	TMVW4	MT20	5.0	6.0	2.25	2.75
I	BMV1+p	MT20	2.0	4.0	2.25	1.00
J	BMVW4	MT20	4.0	5.0	1.50	1.50
K	BMVW4	MT20	3.0	4.0		
L	BS4	MT20	3.0	5.0		
M	BMVW4	MT20	3.0	4.0		
N	BMVW4	MT20	4.0	5.0	1.50	1.50
O	BMV1+p	MT20	2.0	4.0	2.25	1.00

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

DESIGNER

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
O	1986	0	1986	0
I	1986	0	1986	0

UNFACTORED REACTIONS

JT	1ST LCASE	MAX. MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
O	1386	1017 / 0	0 / 0	369 / 0	0 / 0
I	1386	1017 / 0	0 / 0	369 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.83 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.	CHORDS	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX. UNBRACED LENGTH	MEMB.	WEBS	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO						FR-TO			
A-B	0 / 36	-119.4	-119.4	0.16 (1)	10.00	N-C	-304 / 0	0.07 (1)	
B-C	-2552 / 0	-119.4	-119.4	0.47 (1)	3.83	C-M	-424 / 0	0.25 (1)	
C-D	-2222 / 0	-119.4	-119.4	0.44 (1)	4.10	M-D	0 / 358	0.08 (1)	
D-E	-1959 / 0	-119.4	-119.4	0.34 (1)	5.30	D-K	0 / 1	0.00 (1)	
E-F	-2223 / 0	-119.4	-119.4	0.44 (1)	4.09	K-E	0 / 360	0.08 (1)	
F-G	-2552 / 0	-119.4	-119.4	0.47 (1)	3.83	K-F	-422 / 0	0.25 (1)	
G-H	0 / 36	-119.4	-119.4	0.16 (1)	10.00	J-F	-305 / 0	0.07 (1)	
O-B	-1942 / 0	0.0	0.0	0.20 (1)	5.97	B-N	0 / 2342	0.53 (1)	
I-G	-1942 / 0	0.0	0.0	0.20 (1)	5.97	J-G	0 / 2342	0.53 (1)	
O-N	0 / 0	-18.2	-18.2	0.10 (4)	10.00				
N-M	0 / 2310	-18.2	-18.2	0.44 (1)	10.00				
M-L	0 / 1958	-18.2	-18.2	0.39 (1)	10.00				
L-K	0 / 1958	-18.2	-18.2	0.39 (1)	10.00				
K-J	0 / 2309	-18.2	-18.2	0.45 (1)	10.00				
J-I	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

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 (0.88")
CALCULATED VERT. DEFL.(LL)= L/999 (0.09")
ALLOWABLE DEFL.(TL)= L/360 (0.88")
CALCULATED VERT. DEFL.(TL)= L/999 (0.19")

CSI: TC=0.47/0.97 (B-C:1) , BC=0.45/0.97 (J-K:1) ,
WB=0.53/0.97 (B-N:1) , SS=0.26/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PL)
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.

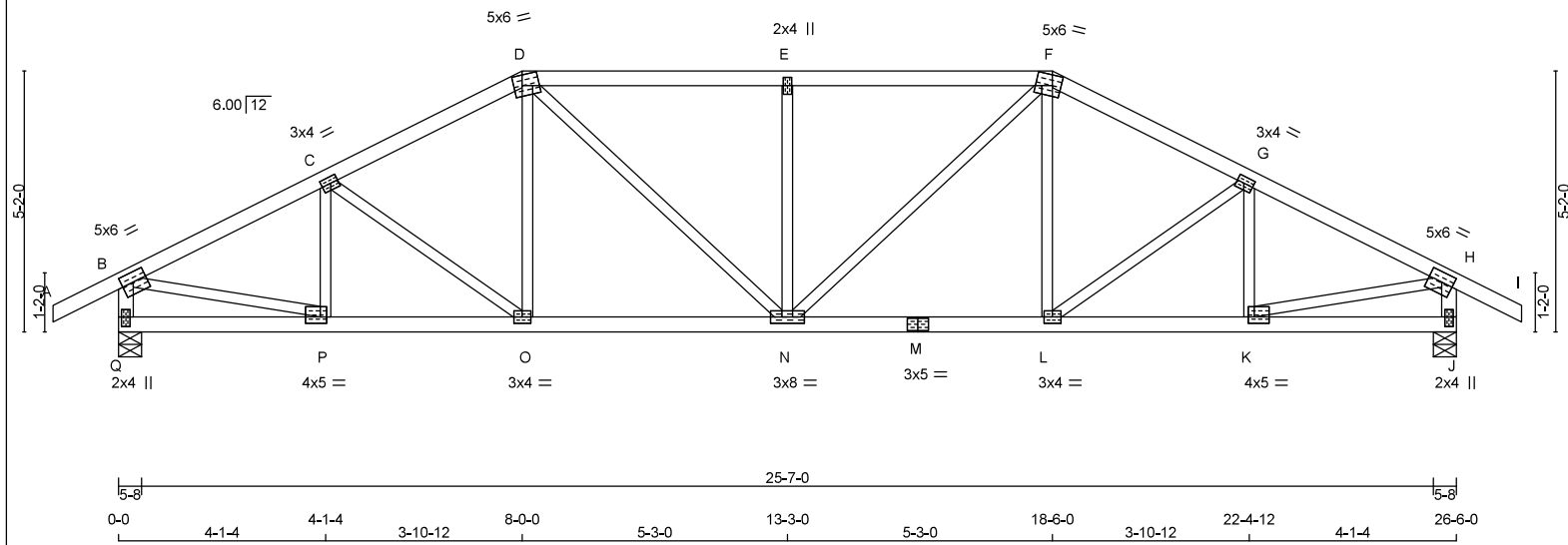
JSI GRIP= 0.87 (D) (INPUT = 0.90)
JSI METAL= 0.66 (L) (INPUT = 1.00)



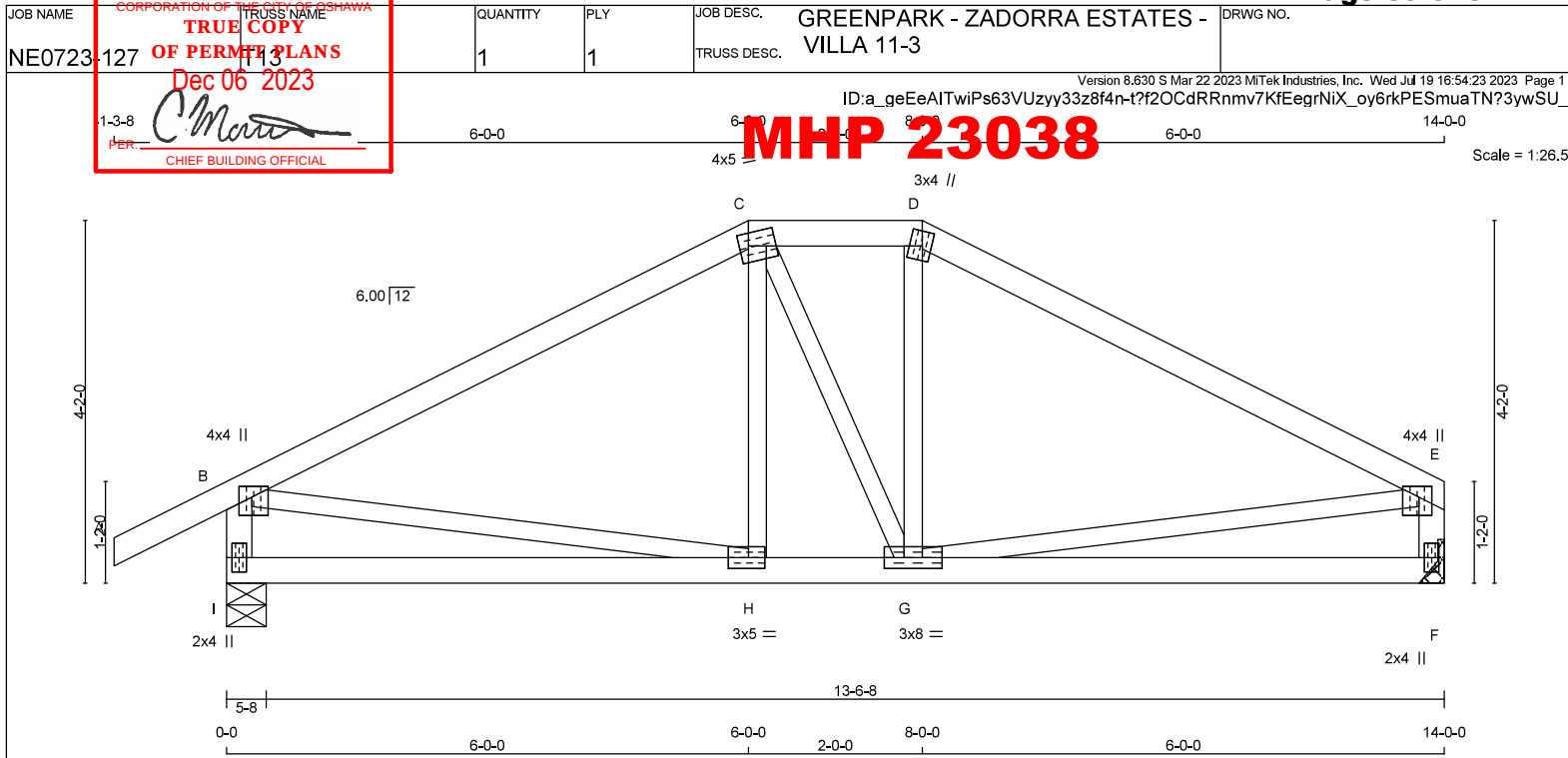
READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTES: TRUSSES. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.



JOB NAME NE0723-127	CORPORATION OF THE CITY OF SHAWA TRUSS NAME TRUE COPY OF PERMIT PLANS Dec 06 2023 PER. <i>C. Morris</i> CHIEF BUILDING OFFICIAL	QUANTITY 1	PLY 1	JOB DESC. GREENPARK - ZADORRA ESTATES - VILLA 11-3	DRWG NO.
Version 8.630 S Mar 22 2023 MiTek Industries, Inc. Wed Jul 19 16:54:22 2023 Page 1				ID: a_geEeAITwIPs63VUzyy33z8f4n-Op6fBscpgTe2VA425yK8AJRb4iSNGiDdgwjqTdywSU?	
Scale = 1:45.6					



LUMBER										DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER										DESIGN CRITERIA									
N. L. G. A. RULES										DESIGNER										SPECIFIED LOADS:									
CHORDS SIZE LUMBER										BEARINGS										TOP CH. LL = 34.8 PSF									
A - D 2x4 DRY No.2										FACTORED MAXIMUM FACTORED INPUT REQRD										DL = 6.0 PSF									
D - F 2x4 DRY No.2										GROSS REACTION GROSS REACTION BRG BRG										BOT CH. LL = 0.0 PSF									
F - I 2x4 DRY No.2										JT VERT HORZ DOWN HORZ UPLIFT IN-SX IN-SX										DL = 7.3 PSF									
Q - B 2x4 DRY No.2										Q 1986 0 1986 0 0 5-8 2-15										TOTAL LOAD = 48.1 PSF									
J - H 2x4 DRY No.2										J 1986 0 1986 0 0 5-8 2-15																			
Q - M 2x4 DRY No.2																													
M - J 2x4 DRY No.2																													
ALL WEBS 2x3 DRY No.2										SPF																			
EXCEPT																													
DRY: SEASONED LUMBER.																													
</																													



TOTAL WEIGHT = 56 lb

[M][F]

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER
A - C	2x4	DRY 2100F 1.8E
C - D	2x4	DRY No.2
D - E	2x4	DRY 2100F 1.8E
I - B	2x4	DRY No.2
F - E	2x4	DRY No.2
I - F	2x4	DRY No.2

ALL WEBS 2x3 DRY No.2
EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	4.0	1.50	1.75
C	TTVW+m	MT20	4.0	5.0	1.75	1.25
D	TTVW+m	MT20	3.0	4.0	2.00	1.25
E	TMVW+p	MT20	4.0	4.0	1.50	1.75
F	BMV1+p	MT20	2.0	4.0		
G	BMVWWH	MT20	3.0	8.0		
H	BMVWWH	MT20	3.0	5.0	1.50	2.25
I	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
I	VERT 1126	HORZ 0	UP/LIFT 0	IN-SX 5-8
F	VERT 964	HORZ 0	UP/LIFT 0	IN-SX 1-8

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

UNFACTORED REACTIONS

JT	1ST LOASE	MAX./MIN. COMPONENT REACTIONS
I	COMBINED 784	SNOW 582 / 0
F	COMBINED 674	LIVE 487 / 0

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

BRACINGTOP 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.	CHORDS MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX. UNBRACED LENGTH FR-TO (LC)	MEMB.	WEBS MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH FR-TO (LC)
A-B	0 / 36	-119.4	-119.4 0.10 (1)	H-C	-41 / 56	0.02 (4)
B-C	-973 / 0	-119.4	-119.4 0.37 (1)	C-G	0 / 0	0.00 (1)
C-D	-868 / 0	-119.4	-119.4 0.07 (1)	G-D	-42 / 57	0.02 (4)
D-E	-972 / 0	-119.4	-119.4 0.37 (1)	B-H	0 / 878	0.20 (1)
I-B	-1079 / 0	0.0	0.0 0.11 (1)	G-E	0 / 878	0.20 (1)
F-E	-916 / 0	0.0	0.0 0.09 (1)			
I-H	0 / 0	-18.2	-18.2 0.14 (4)			
H-G	0 / 868	-18.2	-18.2 0.21 (1)			
G-F	0 / 0	-18.2	-18.2 0.14 (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, 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 LOADALLOWABLE DEFL.(LL)= L/360 (0.47")
CALCULATED VERT. DEFL.(LL)= L/999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.47")
CALCULATED VERT. DEFL.(TL)= L/999 (0.06")CSI: TC=0.37/0.97 (B-C:1), BC=0.21/0.97 (G-H:1),
WB=0.20/0.97 (B-H:1), SSI=0.25/1.00 (D-E:1)DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10
SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

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

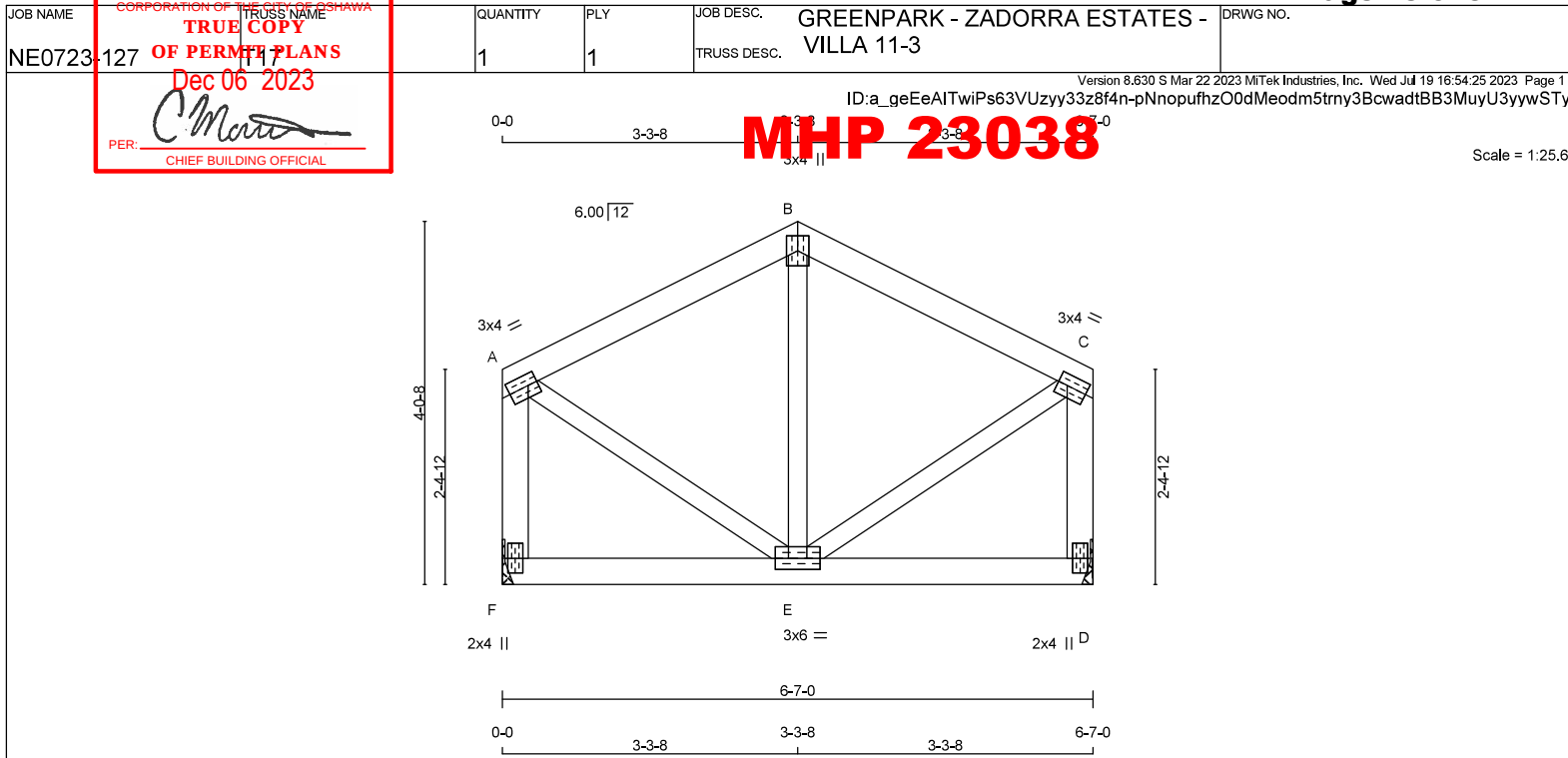
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.83 (B) (INPUT = 0.90)
JSI METAL = 0.31 (B) (INPUT = 1.00)

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.





TOTAL WEIGHT = 29 lb

LUMBER

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

ALL WEBS 2x3 DRY No.2 EXCEPT

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
A	TMVWH	MT20	3.0	4.0	1.50	1.25
B	TTW+p	MT20	3.0	4.0		
C	TMVWH	MT20	3.0	4.0	1.50	1.25
D	BMV1+p	MT20	2.0	4.0		
E	BMVWH	MT20	3.0	6.0		
F	BMV1+p	MT20	2.0	4.0		

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

JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
F	453	0	453	0	0	MECHANICAL	
D	453	0	453	0	0	MECHANICAL	

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

UNFACTORED REACTIONS

JT	1ST LOASE	MAX./MIN. COMPONENT REACTIONS
F	317	229 / 0
D	317	229 / 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)

MEMB.	CHORDS	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	WEBS	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO								
A-B	-229 / 0	-119.4	-119.4	0.17 (1)	6.25	E-B	-188 / 6	0.05 (1)
B-C	-229 / 0	-119.4	-119.4	0.17 (1)	6.25	A-E	0 / 243	0.05 (1)
F-A	-429 / 0	0.0	0.0	0.05 (1)	7.81	E-C	0 / 243	0.05 (1)
D-C	-429 / 0	0.0	0.0	0.05 (1)	7.81			
F-E	0 / 0	-18.2	-18.2	0.05 (4)	10.00			
E-D	0 / 0	-18.2	-18.2	0.05 (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

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) = $L/360$ (0.22")

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

ALLOWABLE DEFL.(TL) = $L/360$ (0.22")

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

CSI: TC=0.17/0.97 (B-C:1), BC=0.05/0.97 (D-E:4), WB=0.05/0.97 (A-E: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)	SHEAR (PSI)	SECTION (PLI)
MT20	650	371	1747

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

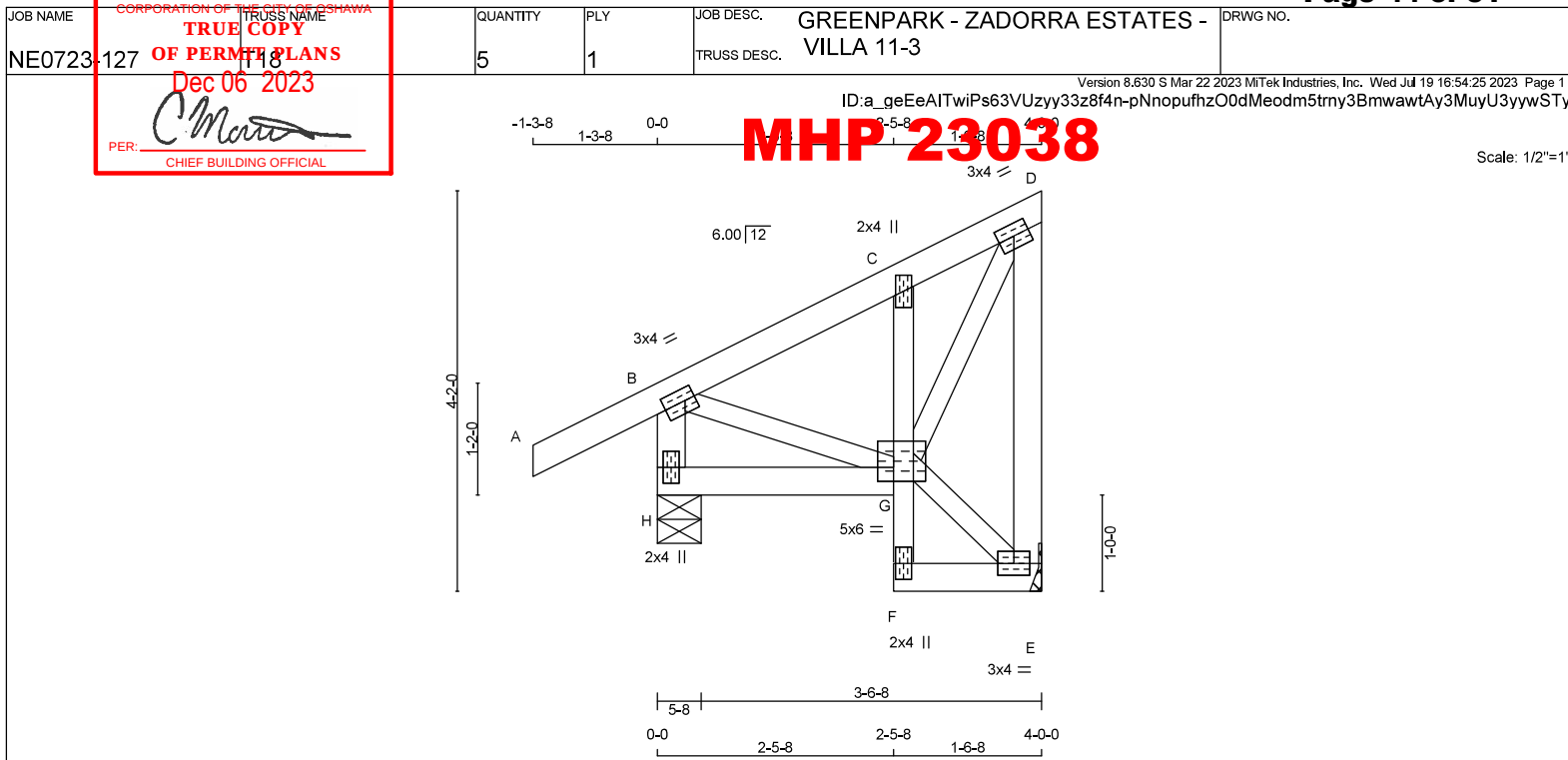
JSI GRIP= 0.61 (C) (INPUT = 0.90)

JSI METAL = 0.11 (A) (INPUT = 1.00)



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.





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

DRY: SEASONED LUMBER.

PLATES (table is in inches)		W	LEN	Y	X
JT	TYPE	PLATES			
B	TMVW-I	MT20	3.0	4.0	1.50
C	TMV+p	MT20	2.0	4.0	
D	TMVW-I	MT20	3.0	4.0	
E	BMVW/I-t	MT20	3.0	4.0	
F	BMV+p	MT20	2.0	4.0	
G	BVMWVWV-I	MT20	5.0	6.0	1.75
H	BMV/I+p	MT20	2.0	4.0	

<u>DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER</u>							
<u>BEARINGS</u>							
	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG	
JT	VERT	HORIZ	DOWN	HORIZ	UPLIFT	IN-SX	IN-SX
E	275	0	275	0	0	MECHANICAL	
H	437	0	437	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							
	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	192	139 / 0	0 / 0	0 / 0	0 / 0	53 / 0	0 / 0
H	303	234 / 0	0 / 0	0 / 0	0 / 0	69 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 7.81 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

C H O R D S				W E B S				
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED FORCE (LBS)	MAX. UNBRAC. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)	
FR-TO		FROM TO		LENGTH	FR-TO			
A-B	0 / 36	-119.4	-119.4	0.16 (1)	10.00	G-E	-7 / 0	0.00 (1)
B-C	-158 / 0	-119.4	-119.4	0.09 (1)	6.25	G-D	0 / 308	0.07 (1)
C-D	-172 / 0	-119.4	-119.4	0.08 (1)	6.25	B-G	0 / 159	0.04 (1)
E-D	-258 / 0	0.0	0.0	0.07 (1)	7.81			
H-B	-414 / 0	0.0	0.0	0.04 (1)	7.81			
H-G	0 / 0	-18.2	-18.2	0.04 (4)	10.00			
F-G	0 / 15	0.0	0.0	0.02 (1)	10.00			
G-C	-293 / 0	0.0	0.0	0.02 (1)	7.81			
F-E	0 / 6	-18.2	-18.2	0.01 (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 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.00")
ALLOWABLE DEFL.(TL)= L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.01")

CSI: TC=0.16/0.97 (A-B:1) , BC=0.04/0.97 (G-H:4) ,
WB=0.07/0.97 (D-G:1) , SSI=0.12/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.57 (D) (INPUT = 0.90)
JSI METAL= 0.12 (C) (INPUT = 1.00)



**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.**



Dec 06 2023

KOTT TRUSS BEARING CAPACITY TABLE

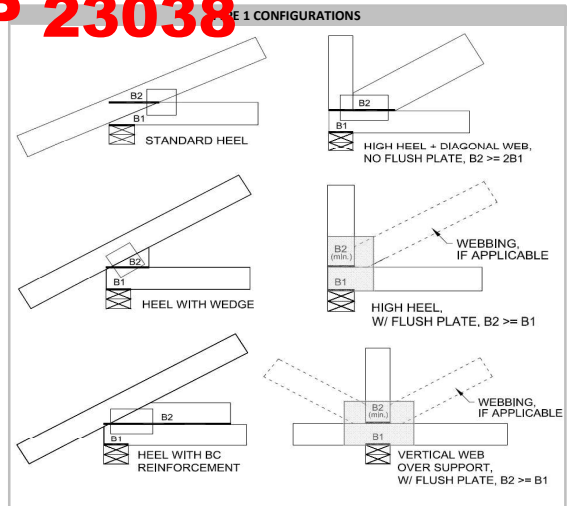
(INTERNAL USE ONLY)

TRUSS LUMBER TYPE (SUPPORTED ON SPF #2 TOP PLATE)

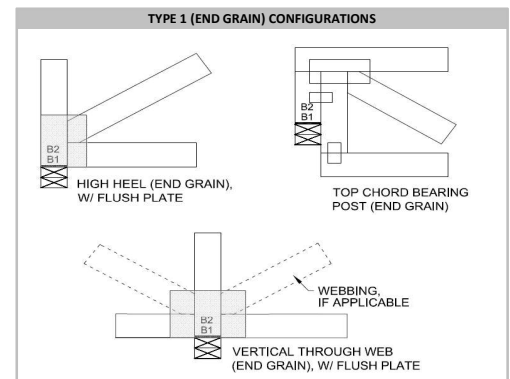
PER: *C. Morris*

MHP 23038

CHIEF BUILDING BEARING	BEARING PLATE (B1)	TYPE 1, NO FLUSH PLATE, B2 >= 2B1							
		1-PLY		2-PLY		3-PLY		4-PLY	
		MSR2100	SPF No.2 MSR1950	MSR2100	SPF No.2 MSR1950	MSR2100	SPF No.2 MSR1950	MSR2100	SPF No.2 MSR1950
NO BEARING ENHANCER	1 1/2"	1383		2767		4151		5534	
	2x4	3712	3228	7425	6457	11138	9685	14851	12914
	2x6	5834	5073	11668	10146	17503	15220	23337	20293
	2x8	7690	6687	15381	13375	23072	20063	30763	26750
FLUSH PLATE	BEARING PLATE (B1)	TYPE 1, FLUSH PLATE							
		MSR2100	SPF No.2 MSR1950	MSR2100	SPF No.2 MSR1950	MSR2100	SPF No.2 MSR1950	MSR2100	SPF No.2 MSR1950
	1 1/2"	1383		2767		4151		5534	
	2x4	3712		7425		11138		14851	
	2x6	5834		11668		17503		23337	
BEARING ENHANCER	BEARING PLATE (B1)	TYPE 1, FLUSH PLATE + BEARING ENHANCER							
		MSR2100	SPF No.2 MSR1950	MSR2100	SPF No.2 MSR1950	MSR2100	SPF No.2 MSR1950	MSR2100	SPF No.2 MSR1950
	CPn-4 (Simpson)	2x4	4515		9030		13545		18065
	CPn-6 (Simpson)	2x6	7095		14190		21285		28390
	CP4-9 (KOTT)	2x4	6007	4898	12014	9796	18021	14694	19592
	CP6-9 (KOTT)	2x6	8677	7075	17354	14150	26031	21225	31117
	SBP4 (MiTek)	2x4	7288		11001		14714		18427
	SBP6 (MiTek)	2x6	11030		16865		22699		28534
	SBP6 (MiTek)	2x8	12886		20578		28269		35960



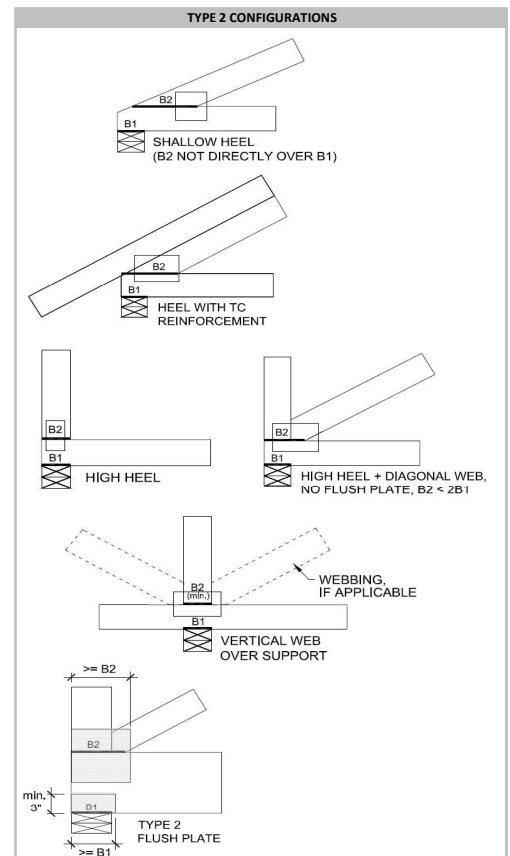
END GRAIN	BEARING PLATE (B1)	POST (B2) ABOVE BEARING	TYPE 1 (END GRAIN)							
			1-PLY		2-PLY		3-PLY		4-PLY	
			MSR2100 (EG)	SPF No.2 (EG)	MSR2100 (EG)	SPF No.2 (EG)	MSR2100 (EG)	SPF No.2 (EG)	MSR2100 (EG)	SPF No.2 (EG)
	2x4	2x4	3712		7425		11138		14851	
	2x6	2x6	5834		11668		17503		23337	
END GRAIN, BEARING ENHANCER	BEARING PLATE (B1)	POST (B2) ABOVE BEARING	TYPE 1 (END GRAIN), FLUSH PLATE + BEARING ENHANCER							
			MSR2100 (EG)	SPF No.2 (EG)	MSR2100 (EG)	SPF No.2 (EG)	MSR2100 (EG)	SPF No.2 (EG)	MSR2100 (EG)	SPF No.2 (EG)
	CPn-4 (Simpson)	2x4	4515		9030		13545		18065	
	CPn-6 (Simpson)	2x6	7095		14190		21285		28390	
	CP4-9 (KOTT)	2x4	15585	9006	19801	18013	19801		19801	
			MSR1950 (EG)	SPF No.2 (EG)	MSR1950 (EG)	SPF No.2 (EG)	MSR1950 (EG)	SPF No.2 (EG)	MSR1950 (EG)	SPF No.2 (EG)
	CP6-9 (KOTT)	2x6	21834	13009	31117	26019	31117		31117	



NO BEARING ENHANCER	BEARING PLATE (B1)	POST (B2) ABOVE BEARING	TYPE 2, NO FLUSH PLATE, B2 < 2B1							
			1-PLY		2-PLY		3-PLY		4-PLY	
			MSR2100	SPF No.2 MSR1950	MSR2100	SPF No.2 MSR1950	MSR2100	SPF No.2 MSR1950	MSR2100	SPF No.2 MSR1950
	2x4	2x4	2639	2152	5279	4304	7919	6457	10588	8609
		2x6	3393	2767	6787	5534	10181	8302	13575	11069
	2x6	2x4	3393	2767	6787	5534	10181	8302	13575	11069
		2x6	4147	3382	8296	6764	12444	10146	16592	13529
	2x8	2x6	4808	3920	9616	7840	14424	11761	19232	15681
		2x10	5562	4535	11124	9070	16686	13606	22248	18141
	2x8	2x4	3959	3228	7919	6457	11878	9685	15838	12914
		2x6	4808	3920	9616	7840	14424	11761	19232	15681
		2x8	5467	4458	10935	8916	16403	13375	21871	17833
FLUSH PLATE	BEARING PLATE (B1)	POST (B2) ABOVE BEARING	TYPE 2, FLUSH PLATE							
			MSR2100	SPF No.2 MSR1950	MSR2100	SPF No.2 MSR1950	MSR2100	SPF No.2 MSR1950	MSR2100	SPF No.2 MSR1950
	2x4	2x4								
		2x6	TYPE 1 APPLIES							
	2x6	2x4	4672	3809	9344	7619	14016	11429	18689	15238
		2x6								
		2x8	TYPE 1 APPLIES							
		2x10								
	2x8	2x4	4672	3809	9344	7619	14016	11429	18689	15238
		2x6	7342	5986	14684	11973	22026	17959	29368	23946
		2x8	TYPE 1 APPLIES							

NOTES:

- Factored truss reaction shall not exceed bearing capacity corresponding to: configuration type, size of bearing surfaces, truss lumber, # of plies, and applicable enhancers.
- Values in table are in conformance with CSA O86-14 Cl. 6.5.7 and TPIC 2014-Update 2, and may be used for residential or commercial designs.
- Values in table are in conformance with MiTek Canada Detail B37821Q "SPF Bearing Capacities".
- Values in table are in conformance with Simpson Catalogue C-C-CAN2020.
- Conditions for use of table values include: standard duration ($K_D=1$), dry lumber ($K_{SF}=1$), untreated lumber ($K=1$), length of bearing factor not applied ($K_L=1$).
- Size factor (K_{ZF}) applied to support material calculation when acceptable. Flush plate factor (K_P) applied to truss material calculation when acceptable (ie. excludes end grain).
- Flat roof factor (K_r) must applied for trusses making up a flat roof system; to do so, multiply bearing capacity values by 0.75 for this application.
- Bearing plate is to be specified by the project engineer; values in table assume a bearing material of SPF #2 (or better).
- When required, flush plate must not be located further than 1/4" away from bearing surface, and must cover the entire bearing plate length (B1).
- When required, bearing enhancer must be installed as per manufacturer's guidelines.
- Type 2 bearing configurations can be converted to use Type 1 table values as outlined in TPIC 2014-Update 1 Cl. 7.5.9.
- This table is not valid after April 30, 2022.



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

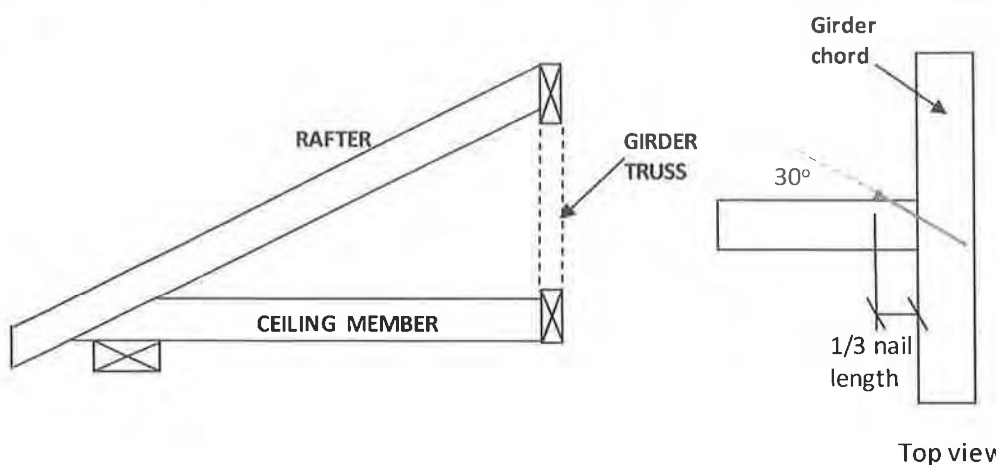


Figure 1: Toe-Nailing Rafter / Ceiling Member to Girder Truss

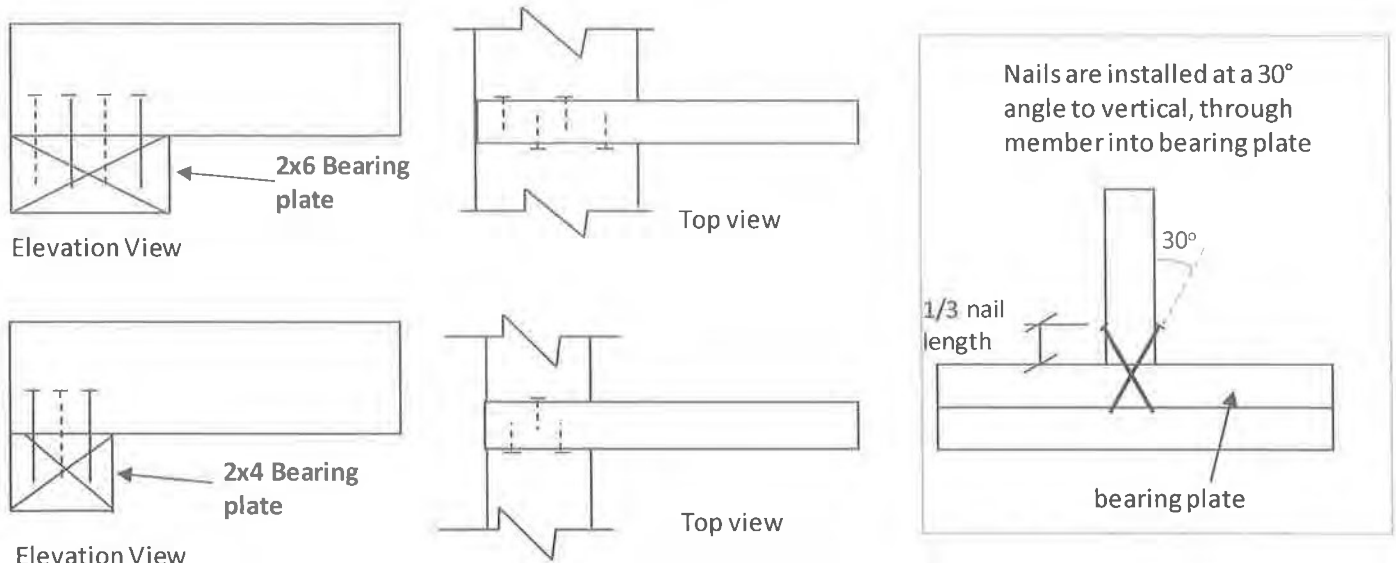




STANDARD DETAIL MSD2015-H

MHP 23038

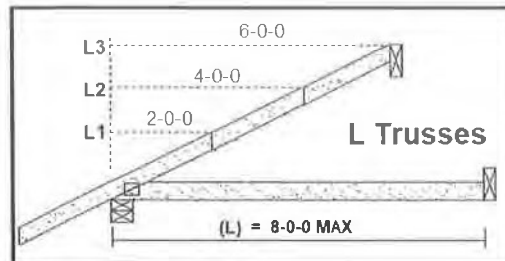
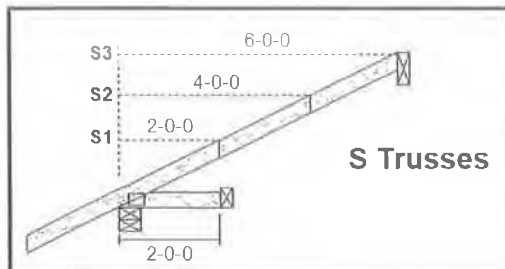
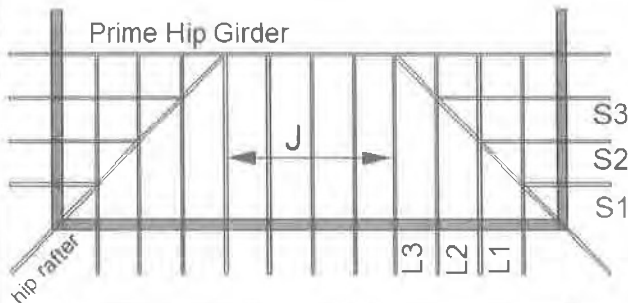
Issued: MARCH 1, 2022
Expiry: APRIL 30, 2024

TOE-NAIL CAPACITY DETAILS**Figure 2: Toe-Nail Anchorage to Bearing Plate for Uplift****NOTES:**

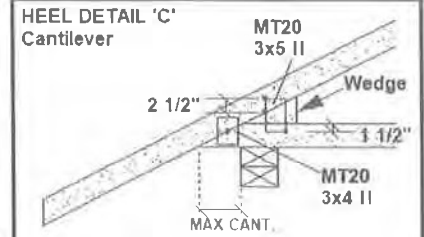
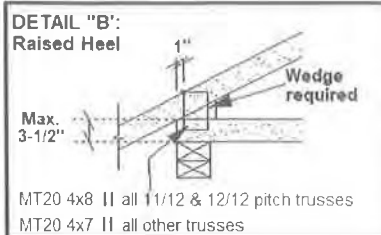
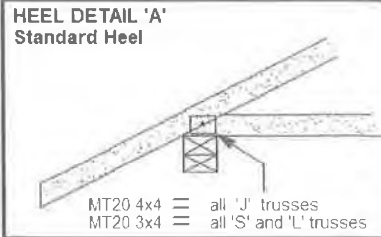
1. Rafter and ceiling members may be connected to top and bottom chords of girder truss by toe-nailing the members into the girder chords (see fig. 1), provided the factored vertical reactions of the supported members do not exceed the lateral resistance of the toe-nails. Mechanical connectors (hangers) 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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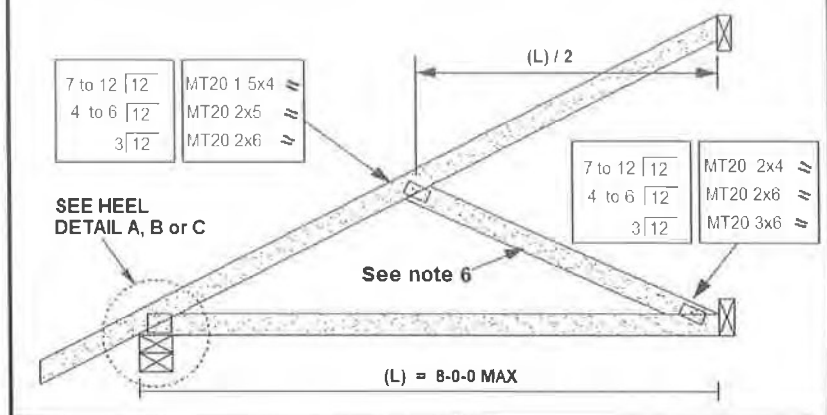


STANDARD HIP END FRAMING**PLAN VIEW****Specified Load Rating:**

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 5/8"	3 X 5	2 X 6
9/12	8"	3 X 5	2 X 6
10/12	7 5/8"	3 X 5	2 X 6

J Trusses

PEO

Certificate No. 10889485

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'



STANDARD GABLE END DETAIL

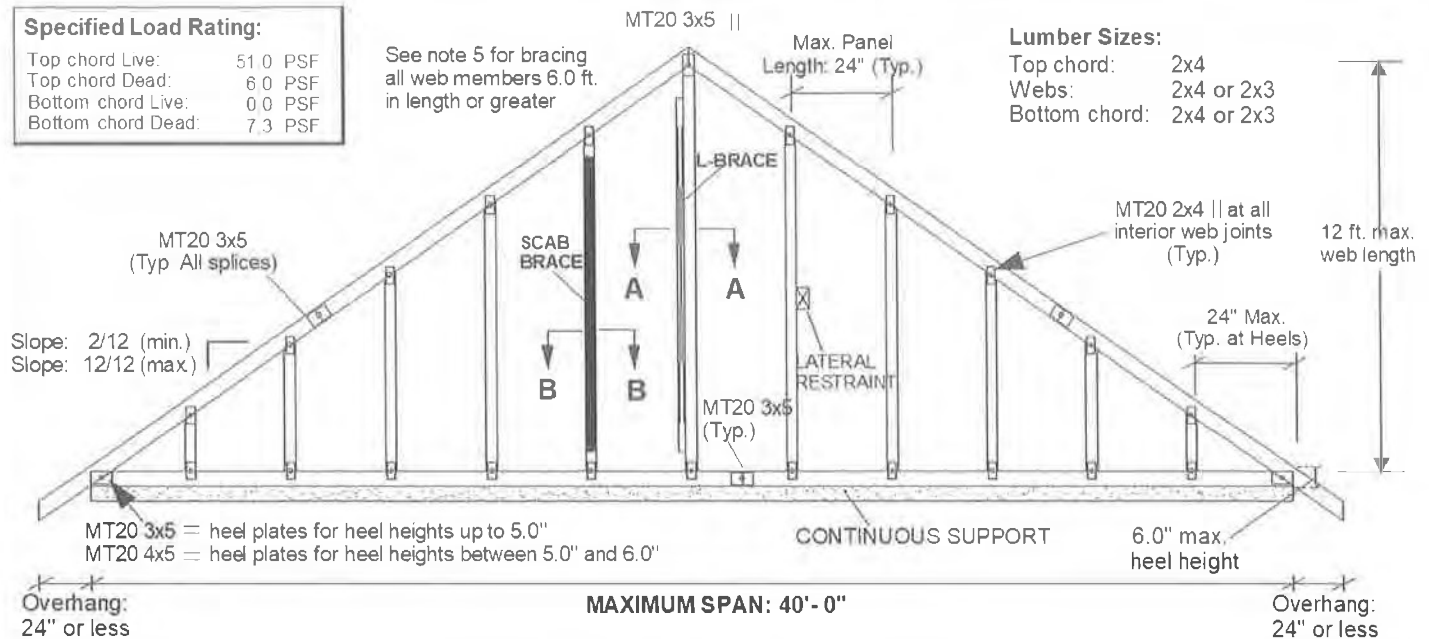
Specified Load Rating:

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

See note 5 for bracing
all web members 6.0 ft.
in length or greater

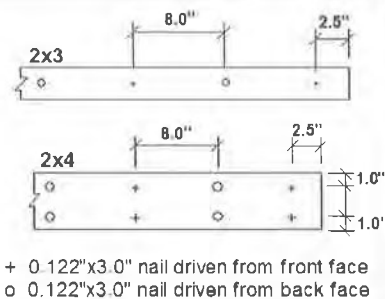
Lumber Sizes:

Top chord:	2x4
Webs:	2x4 or 2x3
Bottom chord:	2x4 or 2x3

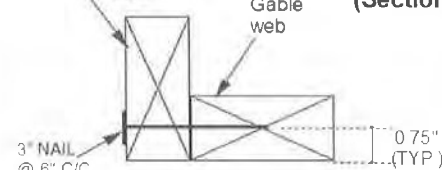
SCAB BRACE DETAIL
(Section B-B)

Gable Web

SPF No. 2 DRY Scab, same size as web. Scab brace must cover 90% of web length

L BRACE DETAIL
(Section A-A)

2x4 SPF No. 2
DRY L-Brace



Fasten L-Brace to narrow edge of web with one row of 0.122" x 3.0" nails spaced at 6.0" c/c along entire length of web. Brace must cover 90% of the web length. Respect a 2.5" minimum end distance.

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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