

TH-55
WILLOW 3E
EL-3

428155

TH-56
WILLOW 1
EL-3

428154

TH-57
WILLOW 2
EL-3(MOD)

428290

TH-58
WILLOW 2
EL-3(MOD)

428291

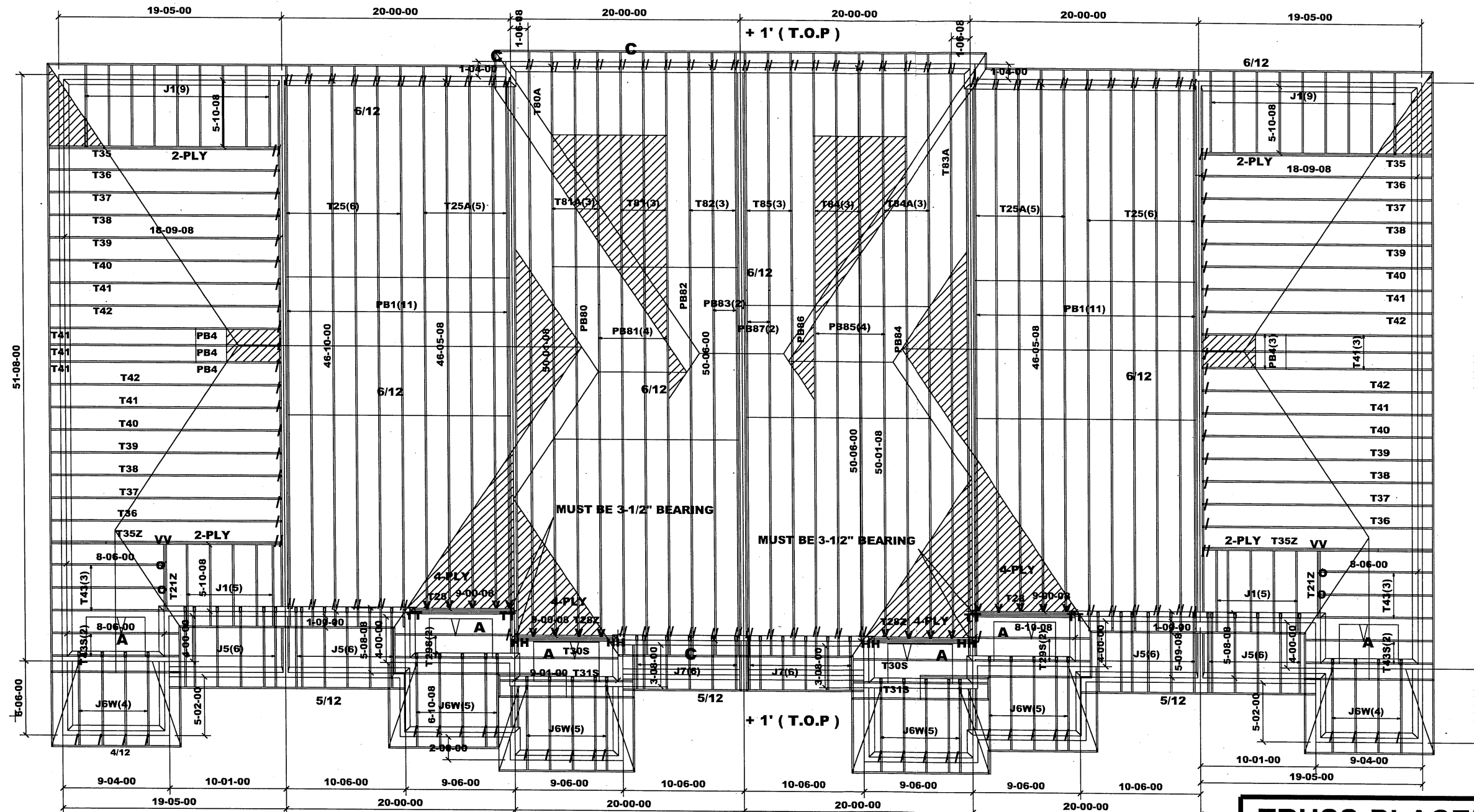
TH-59
WILLOW 1
EL-3

428154

TH-60
WILLOW 3E
EL-3

428155

NOT THE GRANTING OF A PERMIT NOR REVIEWING OF SPECS
& DRAWINGS NOR INSPECTIONS MADE DURING INSTALLATION
BY THE OFFICIAL HAVING JURISDICTION SHALL RELIEVE THE
OWNER FROM REQUIREMENTS OF THE ONTARIO BUILDING
CODE AND ANY OTHER REFERENCED REQUIREMENTS.



9/12 ROOF PITCH UNLESS NOTED OTHERWISE

C -1' RAISED FASCIA

A- 12" RAISED CEILING

ASPHALT SHINGLES
FINISHED OVERHANG: 12"
2x6 EXTERIOR WALLS
2x6 FASCIA BOARD
HEEL: R.T.M.C.

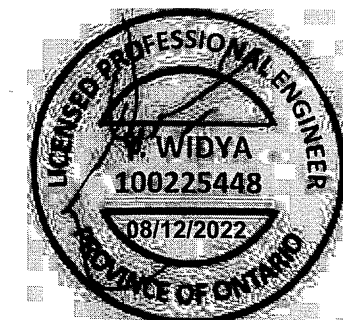
All conventional framing to conform with
Part 9 of O.B.C. 2012 (2019 amendment).
Roof rafters that cross over or meet trusses
to be min. 2x4 SPF #2 @ 24" o/c with a
vertical post to the truss at each cross
point. Vertical posts longer than 6' to have
lateral bracing so that the distance between
the post end points and lateral bracing does
not exceed 6'.

DESIGN CONFORMS WITH OBC 2012
(2019 amendment) OCCUPANCY:
RESIDENTIAL | PART: 9
Ss = 33.4 psf | Sr = 8.4 psf

DESIGN LOADS:
TCSL = 26.7 psf
TCDL = 6.0 psf
BCLL = 0.0 psf
BCDL = 7.4 psf

HARDWARE:
LUS24 - (O)
LJS26DS - (V)
HGUS26-2 - (XX)
H2.5A- (V)
HTS16 - (T)
H8-(H)

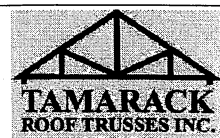
DENOTES:
CONVENTIONAL
FRAMING



TRUSS PLACEMENT PLAN.

This is a truss placement plan only, NOT a final roof framing plan. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual truss drawings for each component identified on this placement plan.

Please verify that all dimensions match the dimensions found on the job. The Building designer is responsible for the temporary/permanent bracing of the roof and floor system and its integration into the bracing of the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer unless otherwise noted in this plan. Building designer to review and approve this plan to ascertain conformity to his overall structural plan.

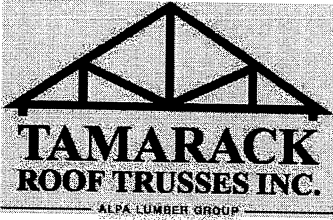


Job Track: 52956
Layout ID: 428242
Plan Log: 206472

Builder / Location: GREEN PARK HOMES / CAMBRIDGE
Project: BARLASSINA
Date: 2022-07-28 Designer: YPG

Model / Elevation: BLOCK 122-WILLOW / TH-55 ~ TH-60 (EL.3)
Mitek ver 8.5.3.233
THESE DRAWINGS CONSTITUTE THE PROPERTY OF TAMARACK ROOF TRUSSES INC. SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY TAMARACK ROOF TRUSSES INC AND WILL BE RETRACTED BY TAMARACK ROOF TRUSSES INC IF UTILIZED FOR ANY OTHER PURPOSE.

DELIVERY SHIPLIST



Lumber Yard: TAMARACK LUMBER
 Builder: GREEN PARK HOMES
 Project: BARLASSINA
 Location: CAMBRIDGE
 Model: BLOCK 122
 Lot #:
 Elevation: TH-57 (WILLOW 2,EL.3 MOD)

Job Track: 52956
 PlanLog: 206472
 Layout ID: 428290
 Ref #
 Page: 1 of 2
 Date: 08-16-2022
 Designer:
 Sales Rep: Rick DiCiano

Roof Trusses

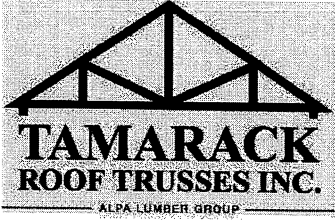
PROFILE	QTY PLY	MARK TYPE	PITCH	SPAN	HEIGHT	LUMBER	OVERHANG LEFT RIGHT	HEEL HEIGHT LEFT RIGHT	LBS. BFT.	BUNDLE # STACK #	LOAD BY REMARKS
	1 4-ply	T28Z Monopitch Girder	9 /12	9-00-08	8-03-10	2 x 6 2 x 8		1-06-04 8-03-10	268.31 167.33		
	1	T30S Monopitch	9 /12	9-01-00	8-04-00	2 x 4	1-03-08	1-06-04 8-04-00	59.88 39.50		
	1	T31S Roof Special	9 /12	9-01-00	4-11-02	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	47.56 33.67		
	1	T80A Roof Special	6 /12	50-01-08	9-05-14	2 x 6	1-03-08	2-02-00 2-04-04	334.69 203.00		
	3	T81 Piggyback Base	6 /12	50-06-00	10-11-14	2 x 6	1-03-08 1-03-08	2-02-00 2-02-00	1041.03 638.00		
	3	T81A Roof Special	6 /12	50-01-08	10-11-14	2 x 6	1-03-08	2-02-00 2-04-04	1028.96 629.00		
	3	T82 Piggyback Base	6 /12	50-06-00	10-11-14	2 x 6	1-03-08 1-03-08	2-02-00 2-02-00	1013.75 607.00		
	1	PB80 Piggyback	6 /12	11-10-08	1-06-00	2 x 4			31.43 20.00		
	4	PB81 Piggyback	6 /12	11-10-08	2-11-10	2 x 4			113.02 70.00		
	1	PB82 Piggyback	6 /12	15-02-08	3-02-04	2 x 4			40.82 27.00		
	2	PB83 Piggyback	6 /12	15-02-08	3-09-10	2 x 4			73.97 46.67		
	5	J6W Jack-Open	4 /12	6-10-08	3-00-06	2 x 4	1-03-08	3-15 2-07-07	98.83 60.83		
	6	J7 Jack-Open	5 /12	3-04-08	2-03-02	2 x 4	1-03-08	4-01 1-08-15	58.51 40.00		

TOTAL # TRUSS= 35

TOTAL BFT OF ALL TRUSSES= 2582

BFT. TOTAL WEIGHT OF ALL TRSSES 4210.76 LBS

DELIVERY SHIPLIST



Lumber Yard: TAMARACK LUMBER
 Builder: GREEN PARK HOMES
 Project: BARLASSINA
 Location: CAMBRIDGE
 Model: BLOCK 122
 Lot #:
 Elevation: TH-57 (WILLOW 2,EL.3 MOD)

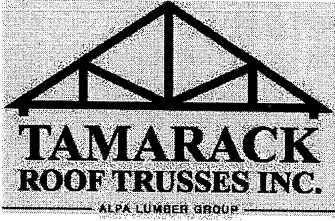
Job Track: 52956
 PlanLog: 206472
 Layout ID: 428290
 Ref #
 Page: 2 of 2
 Date: 08-16-2022
 Designer:
 Sales Rep: Rick DiCiano

HARDWARE

QTY	TYPE	MODEL	LENGTH
37	Hardware	H2.5A	
4	Hardware	H8	
4	Hardware	LJS26DS	

TOTAL NUMBER OF ITEMS= 45

DELIVERY SHIPLIST



Lumber Yard: TAMARACK LUMBER
 Builder: GREEN PARK HOMES
 Project: BARLASSINA
 Location: CAMBRIDGE
 Model: BLOCK 122
 Lot #:
 Elevation: TH-58 (WILLOW 2,EL.3 MOD)

Job Track: 52956
 PlanLog: 206472
 Layout ID: 428291
 Ref #
 Page: 1 of 2
 Date: 08-16-2022
 Designer:
 Sales Rep: Rick DiCiano

Roof Trusses

PROFILE	QTY PLY	MARK TYPE	PITCH	SPAN	HEIGHT	LUMBER	OVERHANG LEFT RIGHT	HEEL HEIGHT LEFT RIGHT	LBS. BFT.	BUNDLE # STACK #	LOAD BY REMARKS
	1 4-ply	T28Z Monopitch Girder	9 /12	9-00-08	8-03-10	2 x 6 2 x 8		1-06-04 8-03-10	268.31 167.33		
	1	T30S Monopitch	9 /12	9-01-00	8-04-00	2 x 4	1-03-08	1-06-04 8-04-00	59.88 39.50		
	1	T31S Roof Special	9 /12	9-01-00	4-11-02	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	47.56 33.67		
	1	T83A Roof Special	6 /12	50-01-08	9-05-14	2 x 6	1-03-08	1-02-00 1-04-04	313.48 188.67		
	3	T84 Piggyback Base	6 /12	50-06-00	10-11-14	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	1056.48 640.00		
	3	T84A Roof Special	6 /12	50-01-08	10-11-14	2 x 6	1-03-08	1-02-00 1-04-04	1041.89 634.00		
	3	T85 Piggyback Base	6 /12	50-06-00	10-11-14	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	1030.73 611.00		
	1	PB84 Piggyback	6 /12	9-10-08	1-06-00	2 x 4			25.27 16.33		
	4	PB85 Piggyback	6 /12	9-10-08	2-05-10	2 x 4			92.07 57.33		
	1	PB86 Piggyback	6 /12	11-02-08	2-02-04	2 x 4			28.97 18.83		
	2	PB87 Piggyback	6 /12	11-02-08	2-09-10	2 x 4			53.02 35.00		
	5	J6W Jack-Open	4 /12	6-10-08	3-00-06	2 x 4	1-03-08	3-15 2-07-07	98.83 60.83		
	6	J7 Jack-Open	5 /12	3-04-08	2-03-02	2 x 4	1-03-08	4-01 1-08-15	58.51 40.00		

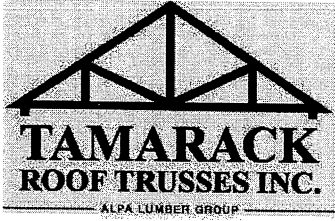
TOTAL # TRUSS= 35

TOTAL BFT OF ALL TRUSSES= 2542.49

BFT.

TOTAL WEIGHT OF ALL TRSSES 4174.99 LBS

DELIVERY SHIPLIST



Lumber Yard: TAMARACK LUMBER
 Builder: GREEN PARK HOMES
 Project: BARLASSINA
 Location: CAMBRIDGE
 Model: BLOCK 122
 Lot #:
 Elevation: TH-58 (WILLOW 2,EL.3 MOD)

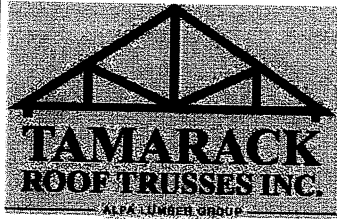
Job Track: 52956
 PlanLog: 206472
 Layout ID: 428291
 Ref #
 Page: 2 of 2
 Date: 08-16-2022
 Designer:
 Sales Rep: Rick DiCiano

HARDWARE

QTY	TYPE	MODEL	LENGTH
37	Hardware	H2.5A	
4	Hardware	H8	
4	Hardware	LJS26DS	

TOTAL NUMBER OF ITEMS= 45

DELIVERY SHIPLIST



Lumber Yard: TAMARACK LUMBER
 Builder: GREEN PARK HOMES
 Project: BARLASSINA
 Location: CAMBRIDGE
 Model: BLOCK 122
 Lot #:
 Elevation: TH-41,56,59 (WILLOW 1,E3)

Job Track: 52956
 PlanLog: 206472
 Layout ID: 428154
 Ref #
 Page: 1 of 1
 Date: 08-16-2022
 Designer:
 Sales Rep: Rick DiCiano

Roof Trusses

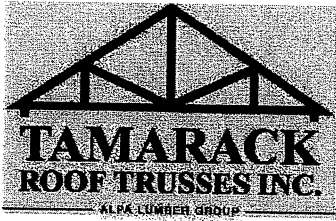
PROFILE	QTY PLY	MARK TYPE	PITCH	SPAN	HEIGHT	LUMBER	OVERHANG LEFT RIGHT	HEEL HEIGHT LEFT RIGHT	LBS. BFT.	BUNDLE # STACK #	LOAD BY REMARKS
	6	T25 Piggyback Base	6 /12	46-10-00	9-10-00	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	1926.24 1160.00		
	5	T25A Piggyback Base	6 /12	46-05-08	9-10-00	2 x 6	1-03-08	1-02-00 1-04-04	1543.07 935.00		
	1 4-ply	T28 Monopitch Girder	9 /12	9-00-08	8-03-10	2 x 4 2 x 10		1-06-04 8-03-10	282.45 176.67		
	2	T29S Monopitch	9 /12	8-10-08	8-02-02	2 x 4	1-03-08	1-06-04 8-02-02	117.32 77.67		
	11	PB1 Piggyback	6 /12	12-02-00	3-00-08	2 x 4			319.22 199.83		
	6	J5 Jack-Open	5 /12	5-08-08	3-02-13	2 x 4	1-03-08	4-01 2-08-09	91.77 56.00		
	5	J6W Jack-Open	4 /12	6-10-08	3-00-06	2 x 4	1-03-08	3-15 2-07-07	99.14 60.83		
TOTAL # TRUSS= 39											
TOTAL BFT OF ALL TRUSSES= 2666											
BFT. TOTAL WEIGHT OF ALL TRSSES 4379.21 LBS											

HARDWARE

QTY	TYPE	MODEL	LENGTH
40	Hardware	H2.5A	
2	Hardware	H8	
2		HTS16	
5	Hardware	LJS26DS	

TOTAL NUMBER OF ITEMS= 49

DELIVERY SHIPLIST

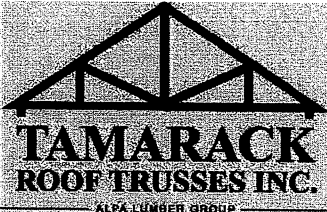


Lumber Yard: TAMARACK LUMBER
 Builder: GREEN PARK HOMES
 Project: BARLASSINA
 Location: CAMBRIDGE
 Model: BLOCK 122
 Lot #:
 Elevation: TH-42,55,60 (WILLOW 3E , E3)

Job Track: 52956
 PlanLog: 206472
 Layout ID: 428155
 Ref #
 Page: 1 of 2
 Date: 08-16-2022
 Designer:
 Sales Rep: Rick DiCiano

Roof Trusses

PROFILE	QTY PLY	MARK TYPE	PITCH	SPAN	HEIGHT	LUMBER	OVERHANG LEFT RIGHT	HEEL HEIGHT LEFT RIGHT	LBS. BFT.	BUNDLE # STACK #	LOAD BY REMARKS
	1 2-ply	T21Z Jack-Closed Girder	6 /12	5-10-08	4-01-04	2 x 4 2 x 6		1-02-00 4-01-04	57.64 37.00		
	1 2-ply	T35 Half Hip Girder	9 /12	18-09-08	4-01-04	2 x 4 2 x 6	1-03-08	1-06-04 4-01-04	177.93 112.00		
	1 2-ply	T35Z Half Hip Girder	9 /12	18-09-08	4-01-04	2 x 4 2 x 6	1-03-08	1-06-04 4-01-04	176.49 109.33		
	2	T36 Half Hip	9 /12	18-09-08	5-01-04	2 x 4	1-03-08	1-06-04 5-01-04	153.85 98.33		
	2	T37 Half Hip	9 /12	18-09-08	6-01-04	2 x 4	1-03-08	1-06-04 6-01-04	166.98 106.67		
	2	T38 Half Hip	9 /12	18-09-08	7-01-04	2 x 4	1-03-08	1-06-04 7-01-04	176.84 113.33		
	2	T39 Half Hip	9 /12	18-09-08	8-01-04	2 x 4	1-03-08	1-06-04 8-01-04	191.55 121.67		
	2	T40 Half Hip	9 /12	18-09-08	9-01-04	2 x 4	1-03-08	1-06-04 9-01-04	202.89 127.00		
	5	T41 Half Hip	9 /12	18-09-08	10-01-04	2 x 4	1-03-08	1-06-04 10-01-04	531.01 335.00		
	2	T42 Half Hip	9 /12	18-09-08	11-01-04	2 x 4	1-03-08	1-06-04 11-01-04	208.02 128.67		
	3	T43 Common	9 /12	8-06-00	4-08-08	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	114.84 77.50		
	2	T43S Roof Special	9 /12	8-06-00	4-08-08	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	90.89 67.33		
	3	PB4 Piggyback	9 /12	7-04-03	2-00-00	2 x 4		2-00-00	68.41 46.50		
	14	J1 Jack-Open	6 /12	5-10-08	4-01-04	2 x 4	1-03-08	1-02-00 4-01-04	235.12 149.33		

 TAMARACK ROOF TRUSSES INC. ALFA LUMBER GROUP	DELIVERY SHIPLIST	
	Lumber Yard: TAMARACK LUMBER Builder: GREEN PARK HOMES Project: BARLASSINA Location: CAMBRIDGE Model: BLOCK 122 Lot #: Elevation: TH-42,55,60 (WILLOW 3E , E3)	Job Track: 52956 PlanLog: 206472 Layout ID: 428155 Ref # Page: 2 of 2 Date: 08-16-2022 Designer: Sales Rep: Rick DiCiano

Roof Trusses

PROFILE	QTY PLY	MARK TYPE	PITCH	SPAN	HEIGHT	LUMBER	OVERHANG LEFT RIGHT	HEEL HEIGHT LEFT RIGHT	LBS. BFT.	BUNDLE # STACK #	LOAD BY REMARKS
	6	J5 Jack-Open	5 /12	5-08-08	3-02-13	2 x 4	1-03-08	4-01 2-08-09	91.77 56.00		
	4	J6W Jack-Open	4 /12	6-10-08	3-00-06	2 x 4	1-03-08	3-15 2-07-07	79.31 48.67		

TOTAL # TRUSS=
55

TOTAL BFT OF ALL TRUSSES=
1734.33
BFT.

TOTAL WEIGHT OF ALL TRSSES
2723.53
LBS

HARDWARE

QTY	TYPE	MODEL	LENGTH
25	Hardware	H2.5A	
2	Hardware	LUS24	
1	Hardware	LUS26-2	

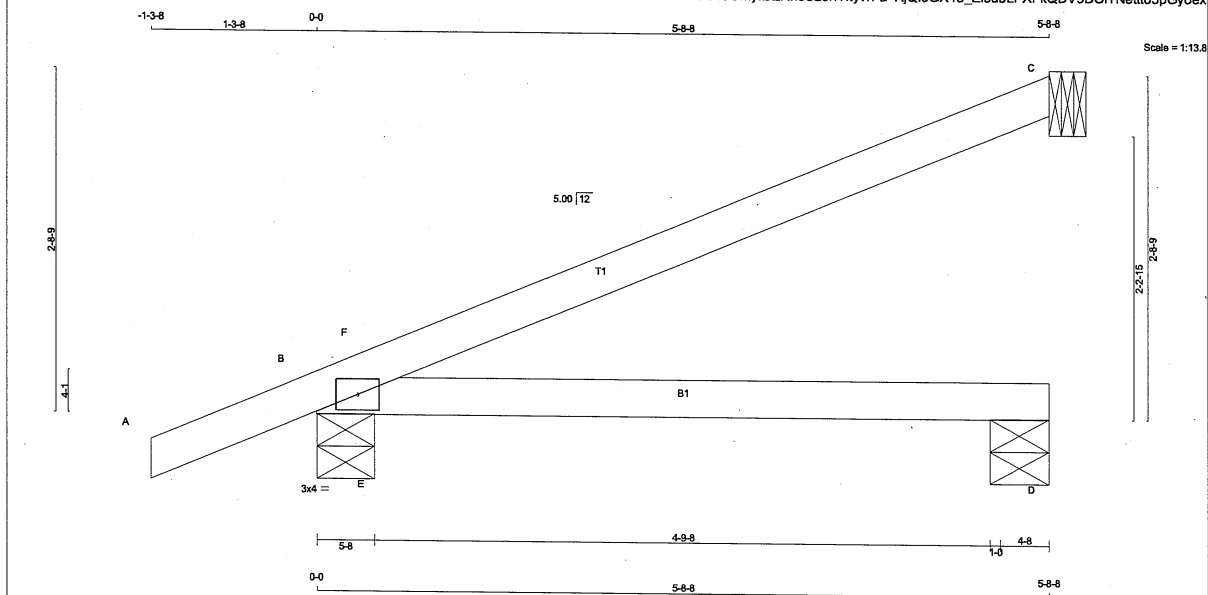
TOTAL NUMBER OF ITEMS=
28

JOB NAME 428114	TRUSS NAME J1	QUANTITY 1	PLY 1	JOB DESC. GREEN PARK HOMES JT 53080	DRWG NO. E22085351
Version 8.530 S Feb 23 2022 Mitek Industries, Inc. Fri Aug 12 09:15:40 2022 Page 1 ID:119f019GMjKJZRh3S23hYkyvrfA-ly6eBj8GR_j_SJ7gmMvKJomEB7fCsA0aKNaUryoeY1					

Scale = 1:19.4

LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER E - B 2x4 DRY No.2 A - C 2x4 DRY No.2 E - D 2x4 DRY No.2 DRY: SEASONED LUMBER. PLATES (table is in inches) <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>JT</th> <th>TYPE</th> <th>PLATES</th> <th>W</th> <th>LEN</th> <th>Y</th> <th>X</th> </tr> <tr> <td>B</td> <td>TMV+p</td> <td>MT20</td> <td>3.0</td> <td>4.0</td> <td></td> <td></td> </tr> <tr> <td>E</td> <td>BMV1+p</td> <td>MT20</td> <td>3.0</td> <td>4.0</td> <td></td> <td></td> </tr> </table>	JT	TYPE	PLATES	W	LEN	Y	X	B	TMV+p	MT20	3.0	4.0			E	BMV1+p	MT20	3.0	4.0			DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th rowspan="2">JT</th> <th colspan="2">FACTORED GROSS REACTION</th> <th colspan="2">MAXIMUM FACTORED GROSS REACTION</th> <th rowspan="2">INPUT BRG</th> <th rowspan="2">REQD BRG</th> </tr> <tr> <th>VERT</th> <th>HORZ</th> <th>DOWN</th> <th>HORZ</th> </tr> <tr> <td>E</td> <td>542</td> <td>0</td> <td>542</td> <td>0</td> <td>5-8</td> <td>1-8</td> </tr> <tr> <td>C</td> <td>210</td> <td>0</td> <td>210</td> <td>0</td> <td>1-8</td> <td>1-8</td> </tr> <tr> <td>D</td> <td>45</td> <td>0</td> <td>50</td> <td>0</td> <td>1-8</td> <td>1-8</td> </tr> </table> SEE MITEK STANDARD DETAIL MSD2015-H FOR CONNECTION TO JOINT(S) C, D UNFACTORED REACTIONS <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th rowspan="2">JT</th> <th colspan="2">1ST LCASE</th> <th colspan="6">MAX/MIN. COMPONENT REACTIONS</th> </tr> <tr> <th>COMBINED</th> <th>SNOW</th> <th>LIVE</th> <th>PERM. LIVE</th> <th>WIND</th> <th>DEAD</th> <th>SOIL</th> </tr> <tr> <td>E</td> <td>380</td> <td>269 / 0</td> <td>0 / 0</td> <td>0 / 0</td> <td>0 / 0</td> <td>111 / 0</td> <td>0 / 0</td> </tr> <tr> <td>C</td> <td>144</td> <td>118 / 0</td> <td>0 / 0</td> <td>0 / 0</td> <td>0 / 0</td> <td>26 / 0</td> <td>0 / 0</td> </tr> <tr> <td>D</td> <td>36</td> <td>0 / 0</td> <td>0 / 0</td> <td>0 / 0</td> <td>0 / 0</td> <td>36 / 0</td> <td>0 / 0</td> </tr> </table> BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) E BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 8.25 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. LOADING TOTAL LOAD CASES: (4) <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th rowspan="2">FR-TO</th> <th colspan="2">CHORDS</th> <th colspan="2">FACTORED</th> <th colspan="2">WEBS</th> </tr> <tr> <th>MEMB.</th> <th>MAX. FACTORED FORCE (LBS)</th> <th>VERT. LOAD</th> <th>LC1 MAX</th> <th>MEMB.</th> <th>MAX. FACTORED FORCE (LBS)</th> </tr> <tr> <td>E-B</td> <td></td> <td>-478 / 0</td> <td>0.0</td> <td>0.0</td> <td>0.13 (4)</td> <td>7.81</td> </tr> <tr> <td>A-B</td> <td></td> <td>0 / 29</td> <td>-95.2</td> <td>-95.2</td> <td>0.12 (1)</td> <td>10.00</td> </tr> <tr> <td>B-C</td> <td></td> <td>-31 / 0</td> <td>-95.2</td> <td>-95.2</td> <td>0.56 (1)</td> <td>6.25</td> </tr> <tr> <td>E-D</td> <td></td> <td>0 / 0</td> <td>-18.5</td> <td>-18.5</td> <td>0.13 (4)</td> <td>10.00</td> </tr> </table>	JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG	VERT	HORZ	DOWN	HORZ	E	542	0	542	0	5-8	1-8	C	210	0	210	0	1-8	1-8	D	45	0	50	0	1-8	1-8	JT	1ST LCASE		MAX/MIN. COMPONENT REACTIONS						COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL	E	380	269 / 0	0 / 0	0 / 0	0 / 0	111 / 0	0 / 0	C	144	118 / 0	0 / 0	0 / 0	0 / 0	26 / 0	0 / 0	D	36	0 / 0	0 / 0	0 / 0	0 / 0	36 / 0	0 / 0	FR-TO	CHORDS		FACTORED		WEBS		MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD	LC1 MAX	MEMB.	MAX. FACTORED FORCE (LBS)	E-B		-478 / 0	0.0	0.0	0.13 (4)	7.81	A-B		0 / 29	-95.2	-95.2	0.12 (1)	10.00	B-C		-31 / 0	-95.2	-95.2	0.56 (1)	6.25	E-D		0 / 0	-18.5	-18.5	0.13 (4)	10.00	DESIGN CRITERIA SPECIFIED LOADS: TOP CH. LL = 26.7 PSF DL = 6.0 PSF BOT CH. LL = 0.0 PSF DL = 7.4 PSF TOTAL LOAD = 40.1 PSF SPACING = 24.0 IN. C/C THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF CBC 2018, ABC 2019 - PART 9 OF CBC 2012 (2019 AMENDMENT) - CSA 086-14 - TPC 2014 DESIGN ASSUMPTIONS - OVERHANG NOT TO BE ALTERED OR CUT OFF. (55 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 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=0.56/1.00 (B-C-1), BC=0.13/1.00 (D-E-4), WB=0.00/1.00 (N/A-0), SSI=0.24/1.00 (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 <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>PLATE</th> <th>GRIP(DRY)</th> <th>SHEAR</th> <th>SECTION</th> </tr> <tr> <td>(PSI)</td> <td>(PLI)</td> <td>(PLI)</td> <td></td> </tr> <tr> <td>MAX</td> <td>MIN</td> <td>MAX</td> <td>MIN</td> </tr> <tr> <td>MT20</td> <td>650</td> <td>371</td> <td>1747</td> </tr> <tr> <td></td> <td></td> <td>788</td> <td>1987</td> </tr> <tr> <td></td> <td></td> <td>1873</td> <td></td> </tr> </table> PLATE PLACEMENT TOL. = 0.250 inches PLATE ROTATION TOL. = 5.0 Deg. JSI GRIP= 0.19 (E) (INPUT = 0.80) JSI METAL= 0.13 (B) (INPUT = 1.00)	PLATE	GRIP(DRY)	SHEAR	SECTION	(PSI)	(PLI)	(PLI)		MAX	MIN	MAX	MIN	MT20	650	371	1747			788	1987			1873	
JT	TYPE	PLATES	W	LEN	Y	X																																																																																																																																																										
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LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



Scale = 1:13.8 TOTAL WEIGHT = 18 X 15 = 275 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.	SPF	SPF	SPF	SPECIFIED LOADS:			
A - C	2x4	DRY	No.2					TOP CH. LL = 26.7 PSF			
B - D	2x4	DRY	No.2					DL = 6.0 PSF			
DRY: SEASONED LUMBER.								BOT CH. LL = 0.0 PSF			
								DL = 7.4 PSF			
								TOTAL LOAD = 40.1 PSF			

PLATES (table is in inches) JT TYPE PLATES W LEN Y X B TMB14 MT20 3.0 4.0

UNFACTORED REACTIONS									
1ST LCASE	MAX	MIN	COMB	REACT	SNOW	LIVE	PERM	LIVE	WIND
JT	164	129 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	35 / 0
C	317	225 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	93 / 0
B	65	23 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	42 / 0

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

BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX. (LC) UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX. (LC) UNBRAC LENGTH
FR-TO	0 / 23	-95.2	-95.2 0.12 (1)	10.00	E-F	-399 / 12	0.00 (1)
A-B	-24 / 51	-95.2	-95.2 0.08 (1)	6.25			
B-F	-4 / 2	-95.2	-95.2 0.40 (1)	10.00			
F-C							
B-E	0 / 0	-18.5	-18.5 0.27 (1)	10.00			
E-D	0 / 0	-18.5	-18.5 0.28 (1)	10.00			

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

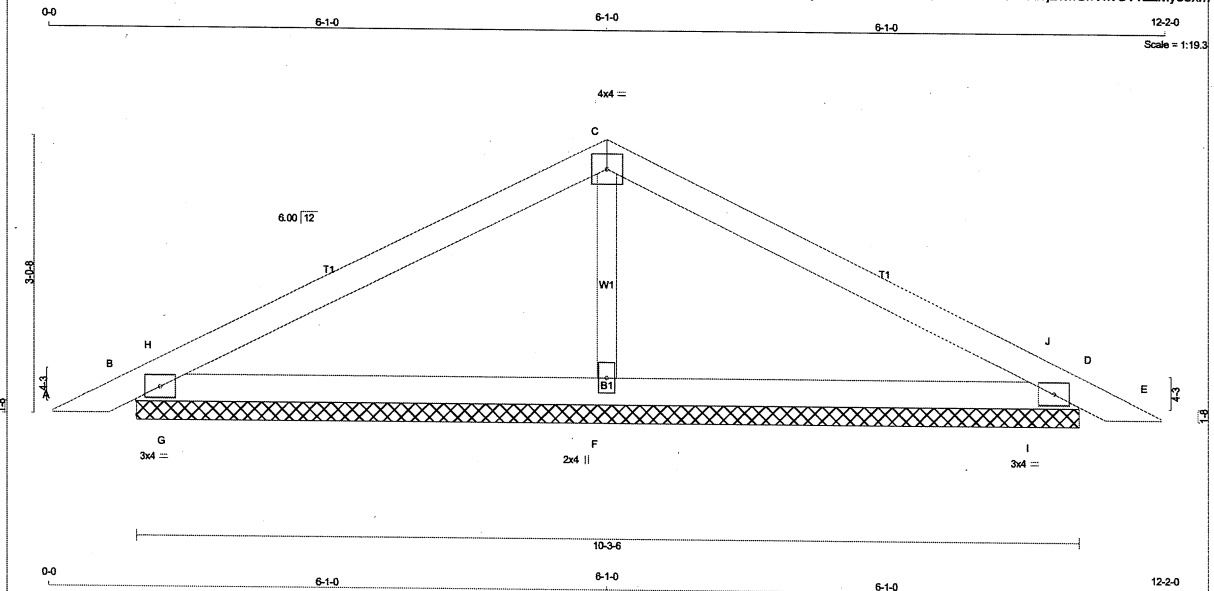
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.33 (B) (INPUT = 0.90)

JSI METAL= 0.08 (B) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2





LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
B - D	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
DRY: SEASONED LUMBER.			

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB1-I	MT20	3.0	4.0	
C	TTW-p	MT20	4.0	4.0	
D	TMB1-I	MT20	3.0	4.0	
F	BMW1+w	MT20	2.0	4.0	

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

FACTORED		MAXIMUM FACTORED		INPUT		REQ'D	
JT	GROSS REACTION	JT	GROSS REACTION	BRG	BRG	BRG	BRG
B	418	0	418	0	0	10-3-6	1-8
D	418	0	418	0	0	10-3-6	1-8
F	493	0	493	0	0	10-3-6	1-8

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	293	210 / 0	0 / 0	0 / 0	0 / 0	82 / 0	0 / 0
D	293	210 / 0	0 / 0	0 / 0	0 / 0	82 / 0	0 / 0
F	351	219 / 0	0 / 0	0 / 0	0 / 0	131 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, D, 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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 17	-95.2 -95.2	0.05 (1)	10.00	F-C	-257 / 0	0.04 (1)
B-H	-53 / 0	-95.2 -95.2	0.13 (1)	6.25	G-H	-494 / 0	0.00 (1)
H-C	-179 / 0	-95.2 -95.2	0.30 (1)	6.25	I-J	-494 / 0	0.00 (1)
C-J	-179 / 0	-95.2 -95.2	0.30 (1)	6.25			
J-D	-53 / 0	-95.2 -95.2	0.13 (1)	6.25			
D-E	0 / 17	-95.2 -95.2	0.05 (1)	10.00			
B-G	0 / 152	-18.5 -18.5	0.28 (1)	10.00			
G-F	0 / 152	-18.5 -18.5	0.28 (1)	10.00			
F-I	0 / 152	-18.5 -18.5	0.28 (1)	10.00			
I-D	0 / 152	-18.5 -18.5	0.28 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 26.7 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 40.1 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, ABC 2019
- PART 9 OF CBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.30/1.00 (C-H), BC=0.28/1.00 (B-G), WB=0.04/1.00 (C-F), SSI=0.37/1.00 (D-I)

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

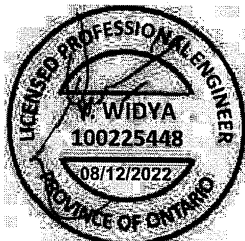
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MAX	MIN	MAX	MIN
MT20	650	371	1747 768 1987 1873

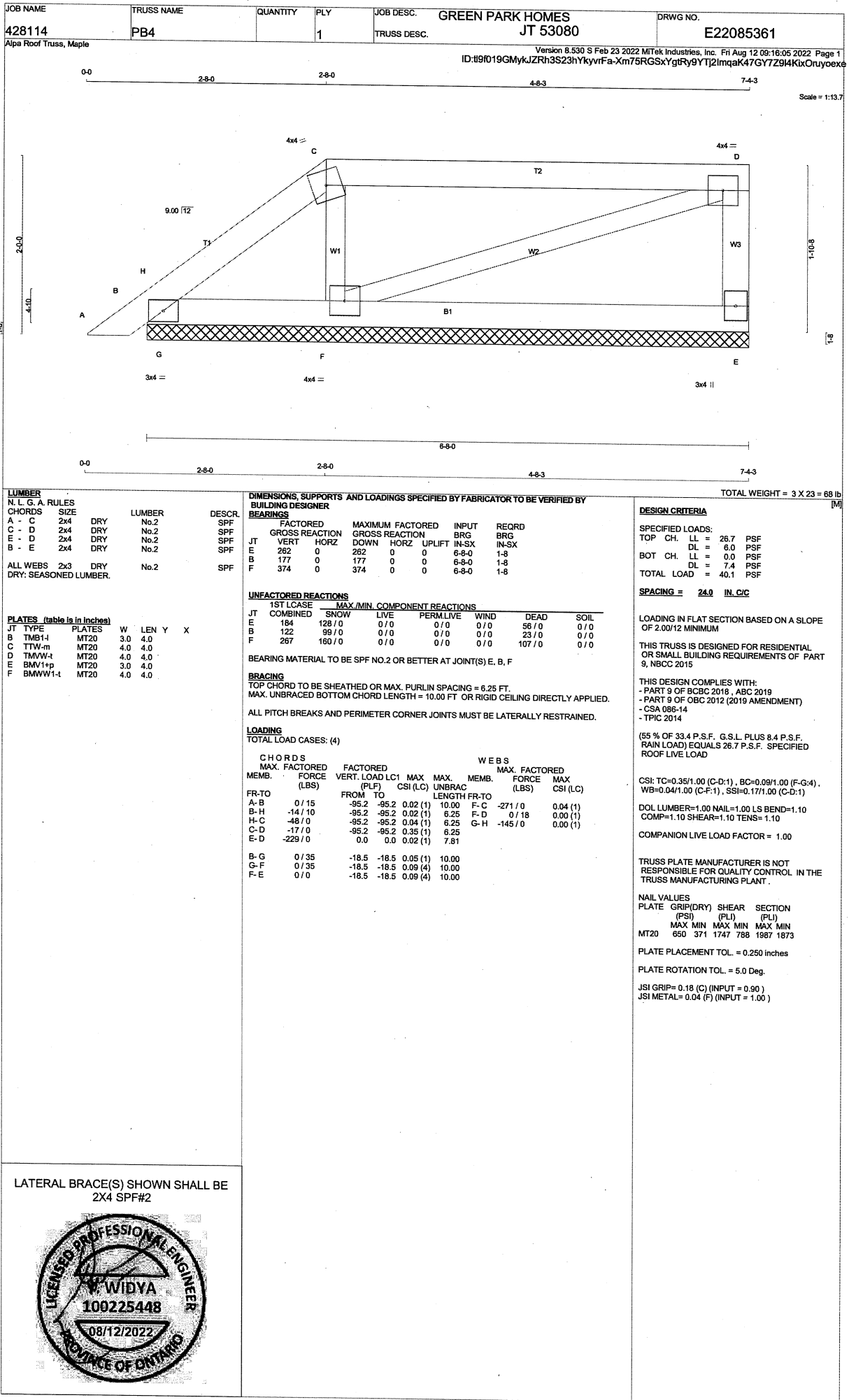
PLATE PLACEMENT TOL. = 0.250 inches

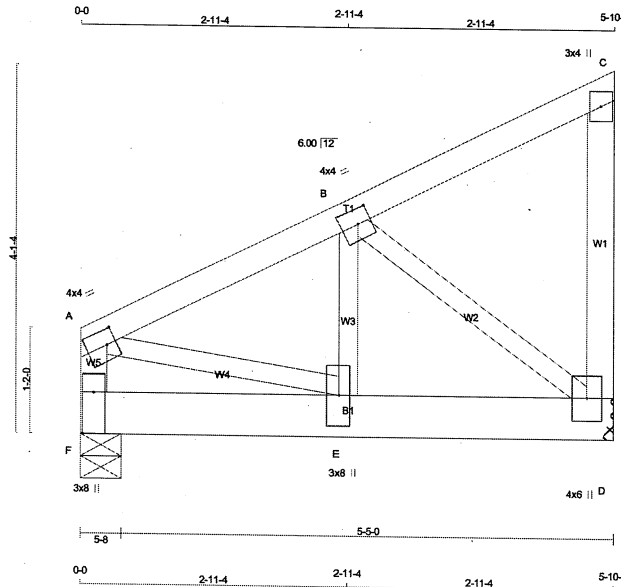
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.36 (D) (INPUT = 0.90)
JSI METAL= 0.09 (D) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2







Scale = 1:19.5

CHORDS	SIZE	LUMBER	DESCR.
F - A	2x4	No.2	SPF
A - C	2x4	No.2	SPF
D - C	2x4	No.2	SPF
F - D	2x6	No.2	SPF
ALL WEBS	2x3	No.2	SPF
DRY: SEASONED LUMBER.			

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

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
F - A 1	12	TOP
A - C 1	12	TOP
C - D 1	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
F - D 2	12	SIDE(92.4)
WEBS : (0.122"x3") SPIRAL NAILS		
2x3 1	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
A	TMWW-t	MT20	4.0	4.0	2.00 1.25
B	TMWW-t	MT20	4.0	4.0	2.00 1.75
C	TMV+P	MT20	3.0	4.0	
D	BMWW+P	MT20	4.0	6.0	
E	BMWW+P	MT20	3.0	6.0	
F	BMV1+P	MT20	3.0	8.0	Edge 1.50

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

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

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQRD
JT	GROSS REACTION	GROSS REACTION	BRG	BRG
F	VERT	DOWN	UPLIFT	IN-SX
D	877 0	877 0	0 0	5-8 1-8
			MECHANICAL	

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

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM	LIVE	WIND	DEAD	SOIL
F	619	412 / 0	0 / 0	0 / 0	0 / 0	207 / 0	0 / 0	
D	619	412 / 0	0 / 0	0 / 0	0 / 0	207 / 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	MAX. FACTORED	FACTORED	VERT. LOAD	MAX. MAX.	MEMB.	MAX. FACTORED	WEBS	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1	CSI (LC)	UNBRAC	FORCE (LBS)	MAX. FACTORED	FORCE (LBS)
FR-TO		FROM TO				FR-TO		
F-A	-621 / 0	0.0	0.0	0.03 (1)	7.81	A-E	0 / 692	0.09 (1)
A-B	-735 / 0	-95.2	-95.2	0.07 (1)	6.25	E-B	0 / 507	0.06 (1)
B-C	-13 / 0	-95.2	-95.2	0.07 (1)	6.25	B-D	-842 / 0	0.10 (1)
D-C	-110 / 0	0.0	0.0	0.01 (1)	7.81			
F-E	0 / 0	-203.3	-203.3	0.06 (1)	10.00			
E-D	0 / 669	-203.3	-203.3	0.10 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 26.7 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 40.1 PSF

SPACING = 24.0 IN. C/C

GIRDER TYPE: CShdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 8-6-0
END DISTANCE = 5-10-8
END SPAN CARRIED = 8-6-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
-ADDTL. LOADS BASED ON 55 % OF GSL.
(DEFINED BY USER)

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

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

(55 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 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=0.07/1.00 (A-B:1), BC=0.10/1.00 (D-E:1), WB=0.10/1.00 (B-D:1), SSI=0.11/1.00 (E-F:1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00
COMP=1.00 SHEAR=1.00 TENS=1.00
COMPANION LIVE LOAD FACTOR = 1.00

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

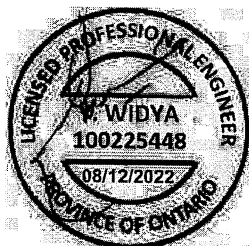
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

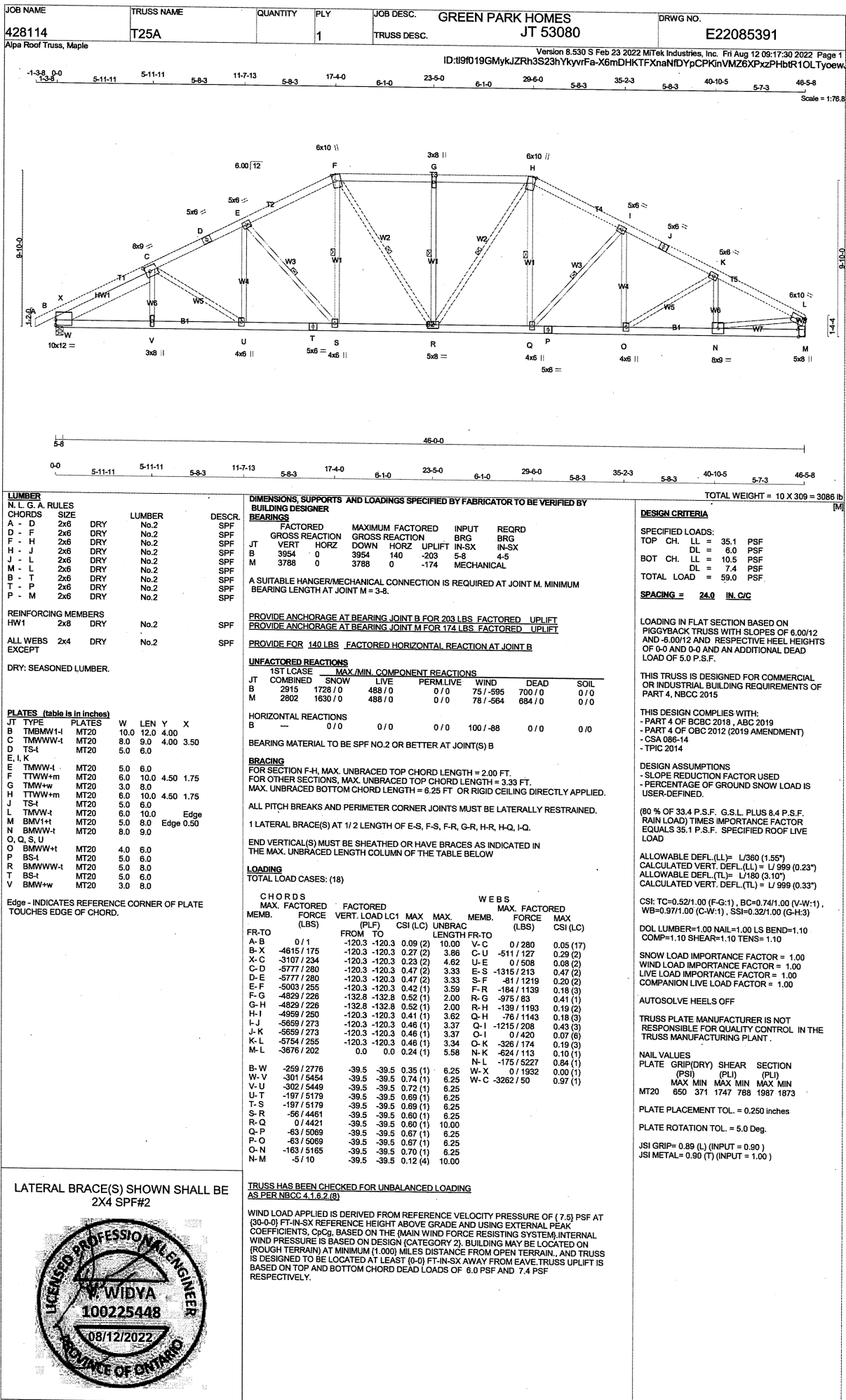
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.58 (A) (INPUT = 0.90)
JSI METAL= 0.20 (E) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



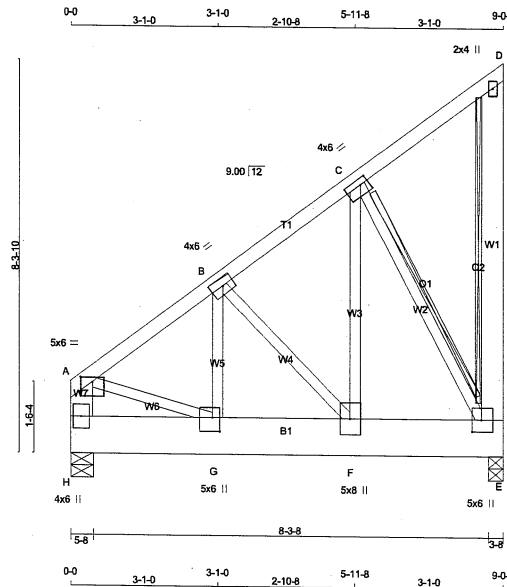
[illegible]



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	GREEN PARK HOMES	DRWG NO.	E22085392
428114	T28		4	TRUSS DESC.	JT 53080		

Alpa Roof Truss, Maple

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ID:1191019GMykJZRh3S23hYkyrFa-Qu?k6IXma04p8naRFPexLWK38sFvKZAo3?cUEyowf



Scale = 1:37.0

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF	
E - D	2x6	DRY	No.2	SPF	
H - A	2x6	DRY	No.2	SPF	
H - E	2x10	DRY	No.2	SPF	

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT

DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 4 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS	#ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS			
A-D	1	12	TOP
D-E	2	12	TOP
H-A	2	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS			
H-E	4	4	SIDE(1368.3)
WEBS : (0.122"x3") SPIRAL NAILS			
2x3	1	6	

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

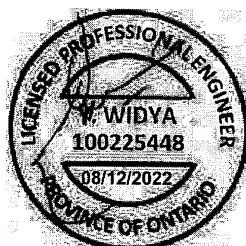
IN ADDITION, PRE-DRILL ONE 0.56" DIAM. HOLE IN EACH CHORD PANEL AND INSTALL 0.50" DIAM. ASTM A307 BOLTS WITH WASHERS, BOTH SIDES. FOR OTHER BOLT TYPES SEE CSA086 3.3.2.

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

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

PLATES (table is in inches)	JT TYPE	PLATES	W	LEN	Y	X
A	TMVW-p	MT20	5.0	6.0	1.25	3.00
B	TMVW-H	MT20	4.0	6.0		
C	TMVW-t	MT20	4.0	6.0	1.50	2.00
D	TMV-p	MT20	2.0	4.0		
E	BMVW1+p	MT20	5.0	6.0	3.00	2.25
F	BMVW-H	MT20	5.0	8.0		
G	BMVW-H	MT20	5.0	6.0	3.50	1.75
H	BMV1+p	MT20	4.0	6.0		

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQD
JT	GROSS REACTION	GROSS REACTION	BRG	BRG
VERT	DOWN	DOWN	IN-SX	IN-SX
E	8970	0	-388	3-8
H	8970	0	-283	5-8

PROVIDE ANCHORAGE AT BEARING JOINT E FOR 388 LBS. FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT H FOR 283 LBS. FACTORED UPLIFT

PROVIDE FOR 261 LBS. FACTORED HORIZONTAL REACTION AT JOINT H

UNFACTORED REACTIONS	1ST LCASE	MAX./MIN. COMPONENT REACTIONS	PERM. LIVE	WIND	DEAD	SOIL
JT	COMBINED					
E	6613	3983 / 0	1159 / 0	0 / 0	1289 / -1228	1479 / 0
H	6613	3983 / 0	1159 / 0	0 / 0	1249 / -1153	1479 / 0

HORIZONTAL REACTIONS	JT	COMBINED	MAX./MIN. COMPONENT REACTIONS	PERM. LIVE	WIND	DEAD	SOIL
H	0 / 0	0 / 0	186 / -122	0 / 0	0 / 0	0 / 0	0 / 0

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

BRACING
MAX. UNBRACED TOP CHORD LENGTH = 4.65 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT OR RIGID CEILING DIRECTLY APPLIED.
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

2X8 DRY SPF No.2 T-BRACE AT D-E, C-E

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: (18)									
CHORDS					WEBS				
MAX. FACTORED		FACTORED			MAX. FACTORED		MAX. FACTORED		
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MAX. UNBRACED	MEMB.	FORCE (LBS)	FORCE CSI (LC)	
FR-TO		FROM TO			LENGTH FR-TO				
A-B	-6808 / 214	-120.3	-120.3	0.14 (2)	4.65	G-B	-129 / 3762	0.21 (1)	
B-C	-4078 / 172	-120.3	-120.3	0.08 (2)	5.73	B-F	-3280 / 205	0.24 (2)	
C-D	-79 / 103	-120.3	-120.3	0.06 (2)	6.25	F-C	-268 / 7785	0.44 (2)	
D-E	-156 / 62	0.0	0.0	0.03 (1)	7.81	C-E	-6652 / 347	0.40 (2)	
H-A	-5962 / 201	0.0	0.0	0.11 (2)	7.66	A-G	-174 / 5696	0.32 (2)	
H-G	-250 / 166	-1863.9	-1863.9	0.21 (2)	6.25				
G-F	-287 / 5442	-1863.9	-1863.9	0.33 (2)	6.25				
F-E	-174 / 3288	-1863.9	-1863.9	0.29 (2)	6.25				

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

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF (7.5) PSF AT (30-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, C_pC_g BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM) INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (ROUGH TERRAIN) AT MINIMUM (1,000) MILES DISTANCE FROM OPEN TERRAIN, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE. TRUSS UPLIFT IS BASED ON TOP AND BOTTOM CHORD DEAD LOADS OF 6.0 PSF AND 7.4 PSF RESPECTIVELY.

TOTAL WEIGHT = 8 X 71 = 568 lb

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 35.1 PSF
DL = 6.0 PSF
BOT CH. LL = 10.5 PSF
DL = 7.4 PSF
TOTAL LOAD = 59.0 PSF

SPACING = 24.0 IN. C/C

GIRDER TYPE: CSNIGirder
START DISTANCE = 0-0
START SPAN CARRIED = 46-10-0
END DISTANCE = 9-0-8
END SPAN CARRIED = 46-10-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL. LOADS BASED ON 83 % OF GSL.
(DEFINED BY USER)

THIS TRUSS IS DESIGNED FOR COMMERCIAL OR INDUSTRIAL BUILDING REQUIREMENTS OF PART 4, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 4 OF CBC 2018, ABC 2019
- PART 4 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS
- SLOPE REDUCTION FACTOR USED
- PERCENTAGE OF GROUND SNOW LOAD IS USER-DEFINED.

(80 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) TIMES IMPORTANCE FACTOR EQUALS 35.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.30")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/80 (0.60")
CALCULATED VERT. DEFL.(TL) = L/999 (0.04")

CSI: TC=0.14/1.00 (A-B-2), BC=0.33/1.00 (F-G-2), WB=0.44/1.00 (C-F-2), SS=0.37/1.00 (E-F-2)

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

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

AUTOSOLVE RIGHT HEEL ONLY

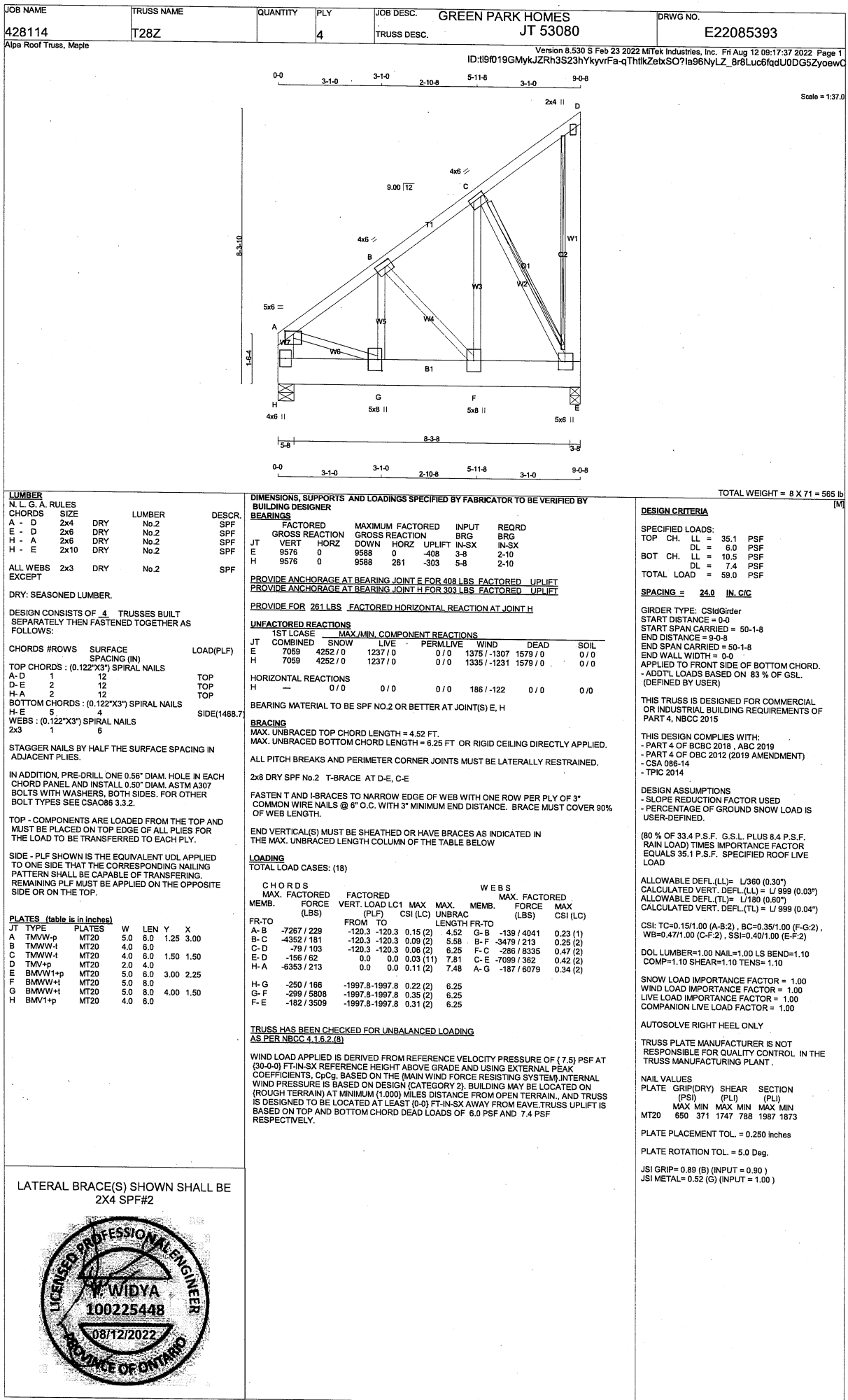
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

PLATE 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.

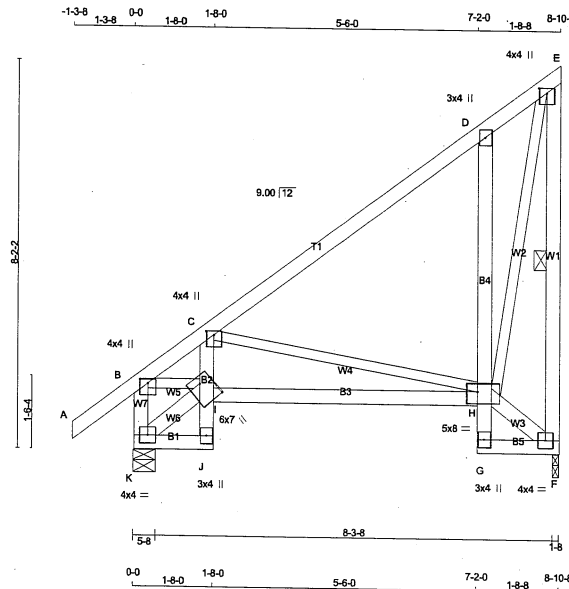
JSI GRIP= 0.89 (G) (INPUT = 0.90)
JSI METAL= 0.49 (G) (INPUT = 1.00)



JOB NAME 428114	TRUSS NAME T29S	QUANTITY 1	PLY 1	JOB DESC. GREEN PARK HOMES JT 53080	DRWG NO. E22085394
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Alpa Roof Truss, Maple

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Scale = 1:36.9

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT TYPE	PLATES	W	LEN	Y X
B TMW+p	MT20	4.0	4.0	1.00 2.00
C TMW+p	MT20	4.0	4.0	1.00 2.00
D TMV+p	MT20	3.0	4.0	
E TMW+p	MT20	4.0	4.0	1.25 2.00
F BMW1-i	MT20	4.0	4.0	
G BMV+p	MT20	3.0	4.0	
H BVMWW-i	MT20	5.0	8.0	3.00 2.50
I BVMWW-w	MT20	6.0	7.0	3.00 5.25
J BMV+p	MT20	3.0	4.0	
K BMW1-i	MT20	4.0	4.0	

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

BEARINGS		FACTORED	MAXIMUM FACTORED	INPUT	REQD
SPF	GROSS REACTION	GROSS REACTION	DOWN	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
F	494	0	494	0	1-8
K	646	0	646	0	5-8

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN COMPONENT REACTIONS				
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
F	349	232 / 0	0 / 0	0 / 0	0 / 0	118 / 0
K	453	317 / 0	0 / 0	0 / 0	0 / 0	137 / 0

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

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.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-F.

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	MEMB.	MAX. FACTORED
FR-TO	FORCE (LBS)	FR-TO	FORCE (LBS)
A-B	0 / 39	C-H	-506 / 0
B-C	-738 / 0	H-F	-29 / 0
C-D	-190 / 0	E-E	0 / 640
D-E	-257 / 0	K-I	-30 / 0
E-F	-484 / 0	B-I	0 / 624
K-B	-614 / 0		
K-J	0 / 24		
J-I	0 / 16		
I-C	0 / 72		
I-H	0 / 648		
G-H	0 / 16		
H-D	-476 / 0		
G-F	0 / 25		

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 26.7 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 40.1 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, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

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

(55 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.30")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL) = L/360 (0.30")
CALCULATED VERT. DEFL.(TL) = L/999 (0.07")

CSI: TC=0.26/1.00 (C-D-1), BC=0.23/1.00 (H-I-4), WB=0.31/1.00 (C-H-1), SSI=0.17/1.00 (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

AUTOSOLVE RIGHT HEEL ONLY

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

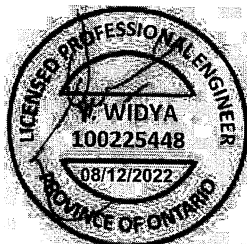
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

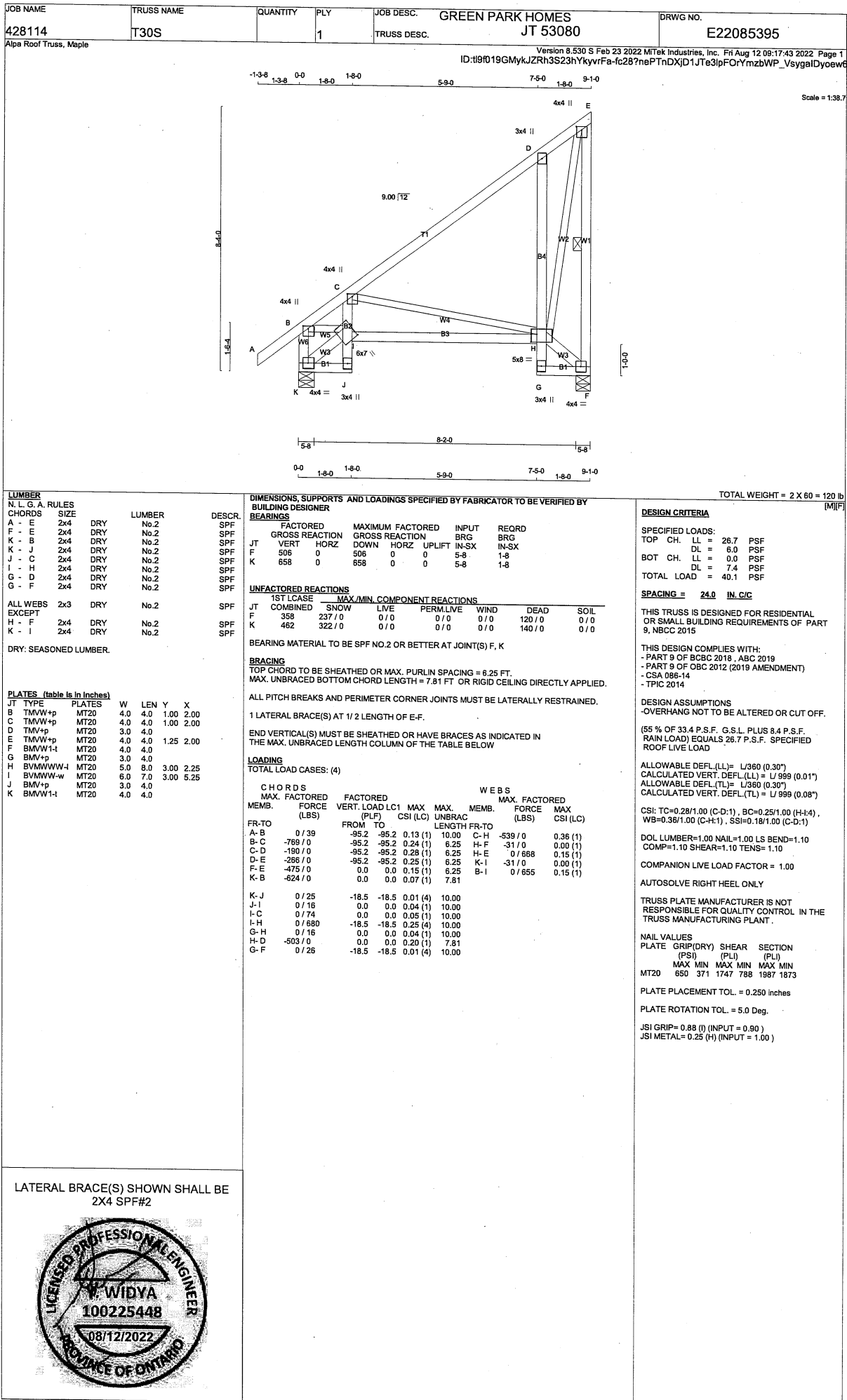
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (H) (INPUT = 0.90)
JSI METAL= 0.23 (H) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2







DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH.	LL	=	26.7	PSF
	DL	=	6.0	PSF
BOT CH.	LL	=	0.0	PSF
	DL	=	7.4	PSF
TOTAL LOAD	=	40.1	PSF	

SACING = 24.0 IN C/C

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF CBC 2018 , ABC 2019

- PART 07.00 CBC 2012 (2019 AMENDMENT)
- CSA 086.1-1
- T919 2014

DESIGN ASSUMPTIONS
- OVER-HANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F.
RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED
ROOF LIVE LOAD

ALLOWABLE DEF'L (LL) = $L/360$ (0.30")
CALCULATED VERT. DEF'L (LL) = $L/999$ (0.01")
ALLOWABLE DEF'L (TL) = $L/360$ (0.30")
CALCULATED VERT. DEF'L (TL) = $L/999$ (0.01")

CSI: TC=0.131/0.0 (A-B1), SC=0.111/0.0 (J-K,1),
WB=0.111/0.0 (F-J,1), BB=0.101/0.0 (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

AUTOSOLVE HEELS OFF

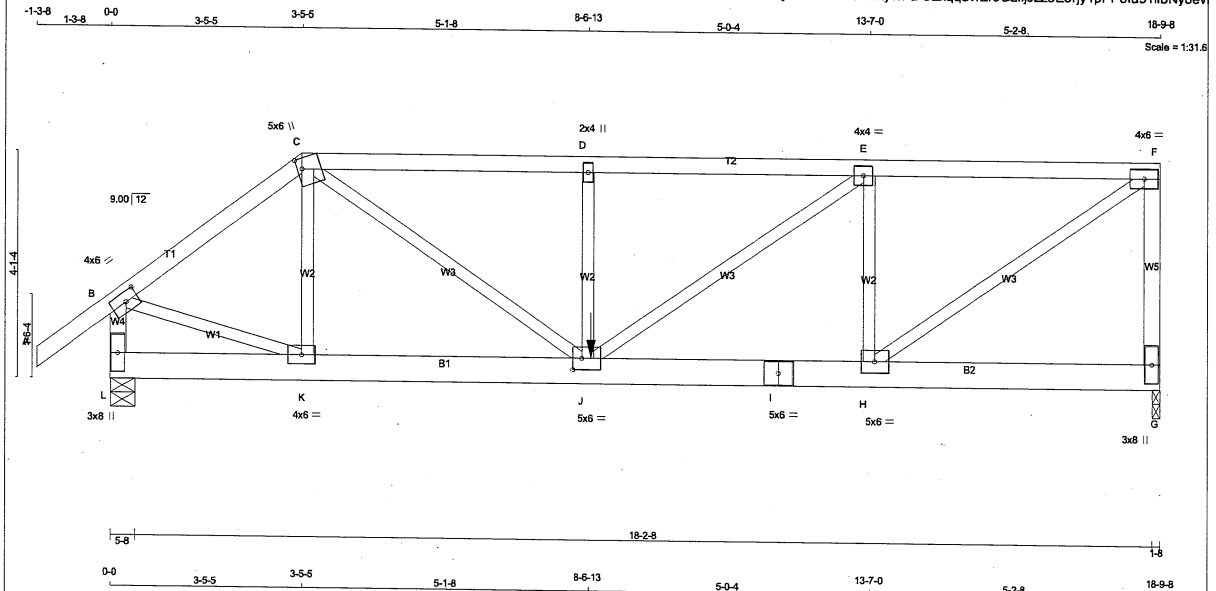
TRUSS PLATE MANUFACTURER IS NOT
RESPONSIBLE FOR QUALITY CONTROL IN THE
TRUSS MANUFACTURING PLANT.

NAIL VAL LIES

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	GREEN PARK HOMES	DRWG NO.	E22085401
428114	T35Z		2	TRUSS DESC.	JT 53080		

Alpa Roof Truss, Maple

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ID:119f019GMykJZRh3S23hYkyvFa-U2xqqevr2r6GzljJzz8E5rjy1pPPolu91libNyoev



LUMBER	SIZE	LUMBER	DESCR.
N L G A. RULES			
A - C	2x4	DRY	No.2
C - F	2x4	DRY	No.2
G - F	2x4	DRY	No.2
L - B	2x4	DRY	No.2
L - I	2x6	DRY	No.2
I - G	2x6	DRY	No.2

ALL WEBS 2x3 DRY No.2 SPF

EXCEPT

DRY: SEASONED LUMBER.

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

CHORDS #ROWS	SURFACE	LOAD(PLF)
	SPACING (IN)	
A-C	1 12	TOP
C-F	1 12	SIDE(46.1)
F-G	1 12	TOP
L-B	1 12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
L-I	2 12	SIDE(174.2)
I-G	2 12	SIDE(10.0)
WEBS : (0.122"x3") SPIRAL NAILS		
J-D	1 6	SIDE(54.6)
2x3	1 6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

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

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

PLATES (table is in inches)	JT TYPE	PLATES	W	LEN	Y	X
B TMWV-I	MT20	4.0	6.0	2.00	2.75	
C TTMW+M	MT20	5.0	6.0	2.25	1.00	
D TMW+W	MT20	2.0	4.0			
E TMWV-I	MT20	4.0	4.0			
F TMWV-I	MT20	4.0	6.0			
G BMV1+p	MT20	3.0	8.0			
H BMWV-I	MT20	5.0	6.0			
I BS-I	MT20	5.0	6.0			
J BMWV-I	MT20	5.0	6.0	2.50	2.00	
K BMWV-I	MT20	4.0	6.0			
L BMV1+p	MT20	3.0	8.0			

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



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	2288	0	1-8	1-8
G VERT	1983	0	5-8	5-8
L VERT	1983	0	5-8	5-8

UNFACTORED REACTIONS

1ST CASE	MAX/MIN	COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM	LIVE	WIND	DEAD
G	1615	1076 / 0	0 / 0	0 / 0	0 / 0	539 / 0	0 / 0
L	1398	945 / 0	0 / 0	0 / 0	0 / 0	453 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.84 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	MAX. FACTORED	FACTORED	MAX	MAX	WEBS	MAX. FACTORED	MAX
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 (LC)	MAX. UNBRAC	MEMB.	FORCE (LBS)	MAX. CSI (LC)
FR-TO					FR-TO		
A-B	0 / 39	-95.2	-95.2 0.07 (1)	10.00	K-C	-357 / 0	0.05 (1)
B-C	-1966 / 0	-95.2	-95.2 0.12 (1)	8.13	B-K	0 / 1643	0.20 (1)
C-D	-3185 / 0	-95.2	-95.2 0.27 (1)	4.92	H-F	0 / 3112	0.39 (1)
D-E	-3185 / 0	-187.4	-187.4 0.46 (1)	4.64	C-J	0 / 2008	0.25 (1)
E-F	-2530 / 0	-187.4	-187.4 0.44 (1)	5.11	H-E	-1590 / 0	0.20 (1)
G-F	-2201 / 0	0.0	0.0 0.27 (1)	7.51	J-D	-712 / 0	0.09 (1)
L-B	-1970 / 0	0.0	0.0 0.11 (1)	7.81	J-E	0 / 815	0.10 (1)
L-K	0 / 0	-18.5	-18.5 0.03 (1)	10.00			
K-J	0 / 1559	-18.5	-18.5 0.14 (1)	10.00			
J-I	0 / 2530	-36.4	-36.4 0.22 (1)	10.00			
I-H	0 / 2530	-36.4	-36.4 0.22 (1)	10.00			
H-G	0 / 0	-36.4	-36.4 0.05 (4)	10.00			

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX-	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
JT	8-7-8	-877	-877	-	FRONT	VERT	TOTAL	-	C1

CONNECTION REQUIREMENTS

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

DESIGN CRITERIA

*** SPECIAL LOADS ANALYSIS ***
GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.
LOADS WERE DERIVED FROM USER INPUT
NO FURTHER MODIFICATIONS WERE MADE

SPECIFIED LOADS:

TOP CH. LL = 26.7 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 40.1 PSF

SPACING = 24.0 IN. C/C

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

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 3-5-5
RIGHT SETBACK = 0-0
END SETBACK = 5-10-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
-ADDTL LOADS BASED ON 55 % OF GSL.
LOADS APPLIED TO FIRST 10-2-0 OF SPAN MEASURED FROM THE RIGHT.

*** NON STANDARD GIRDER ***
ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES.

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

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

(55 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.63")
CALCULATED VERT. DEFL.(LL) = L/999 (0.05")
ALLOWABLE DEFL.(TL) = L/360 (0.63")
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

CSI: TC=0.46/1.00 (D-E:1), BC=0.22/1.00 (H-J:1), WB=0.39/1.00 (F-H:1), SS=0.25/1.00 (E-F:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

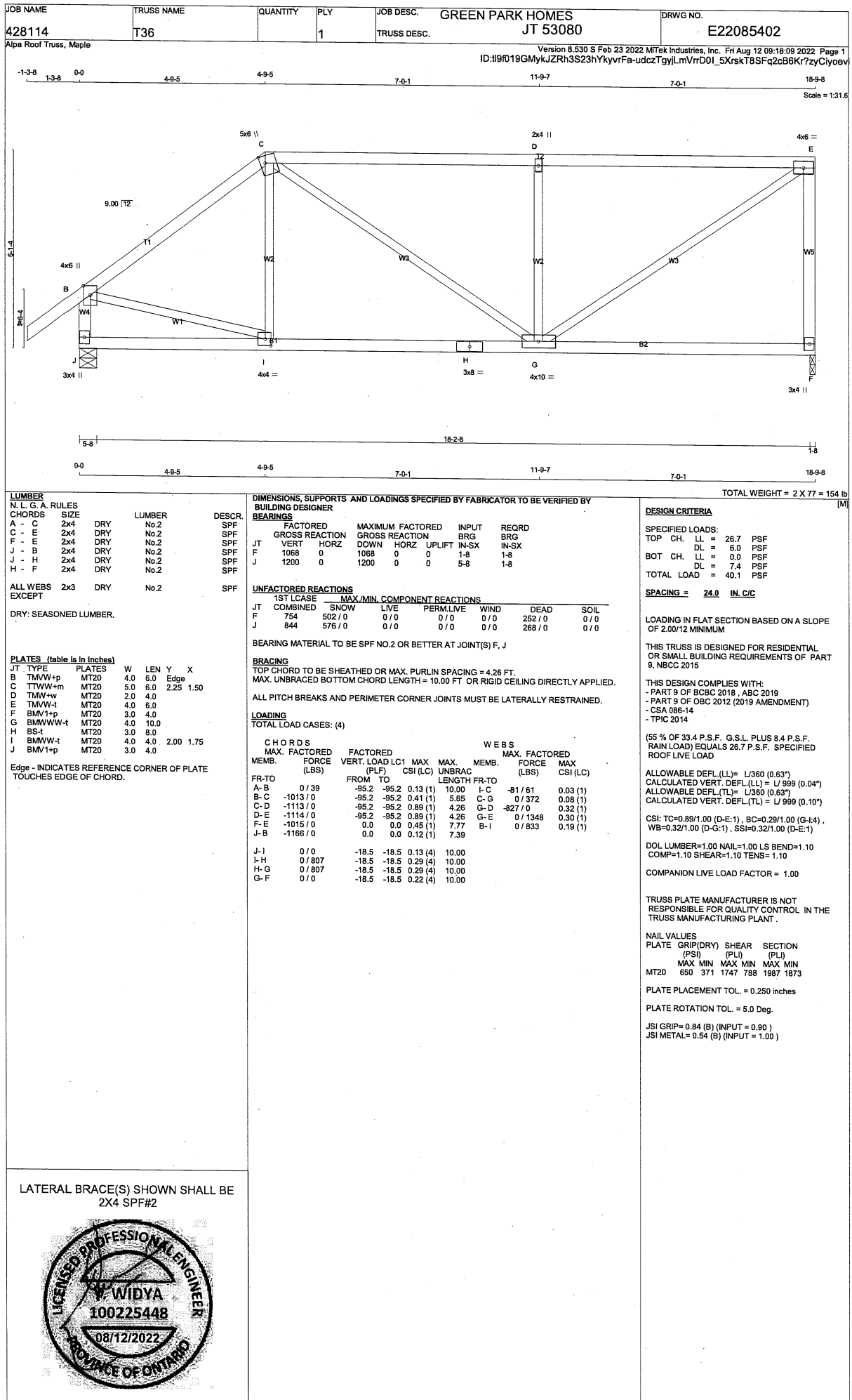
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

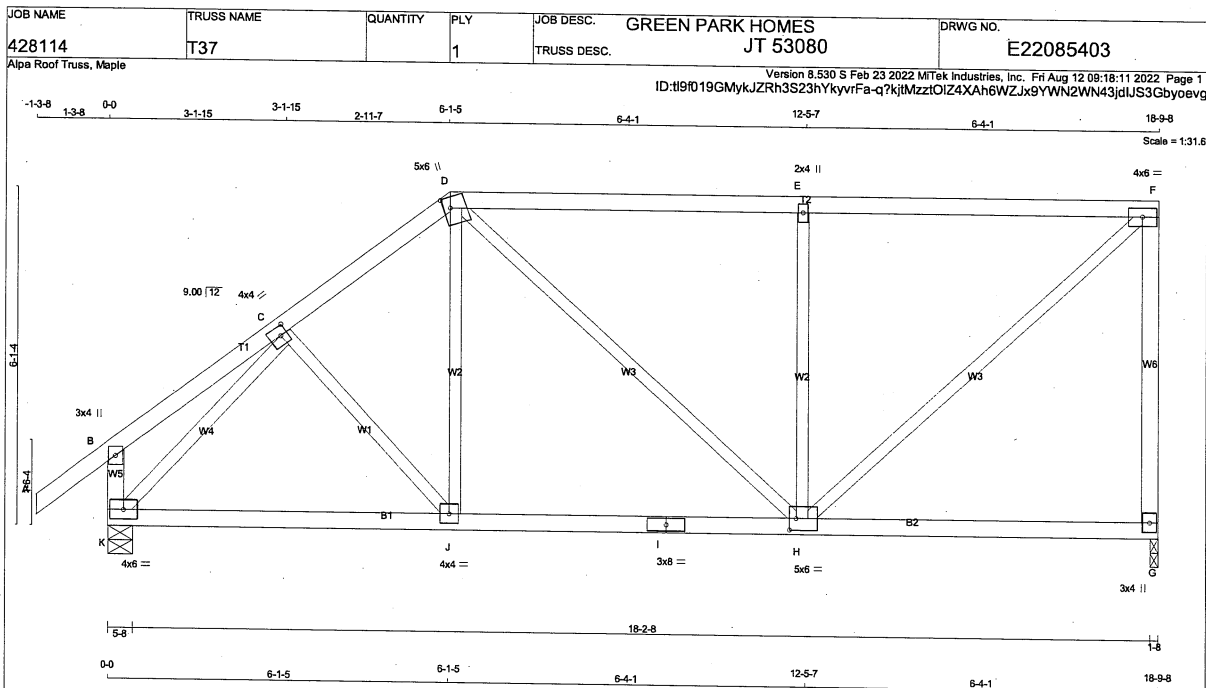
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.88 (F) (INPUT = 0.90)
JSI METAL = 0.34 (F) (INPUT = 1.00)





LUMBER
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2
D - F	2x4	DRY	No.2
G - F	2x4	DRY	No.2
K - B	2x4	DRY	No.2
K - I	2x4	DRY	No.2
I - G	2x4	DRY	No.2
ALL WEBS EXCEPT	2x3	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	3.0	4.0	
C	TMW+t	MT20	4.0	4.0	2.00 1.50
D	TTW+m	MT20	5.0	6.0	2.25 1.50
E	TMW+w	MT20	2.0	4.0	
F	TMW+t	MT20	4.0	6.0	
G	BMV1+p	MT20	3.0	4.0	
H	BMW+t	MT20	5.0	6.0	2.50 1.50
I	BS-t	MT20	3.0	8.0	
J	BMW+t	MT20	4.0	4.0	
K	BMW1-t	MT20	4.0	6.0	

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

BEARINGS

	FACTORED	MAXIMUM FACTORED	INPUT	REQRD
JT	GROSS REACTION	GROSS REACTION	BRG	BRG
G	VERT	HORZ	DOWN	HORZ
K	1068	0	0	1-8
K	1200	0	0	5-8

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	754	502 / 0	0 / 0	0 / 0	0 / 0	252 / 0	0 / 0
K	844	576 / 0	0 / 0	0 / 0	0 / 0	268 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.32 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.	MAX. FACTORED FORCE (LBS)	FACTORED		MAX. UNBRACED LENGTH (FT)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
		VERT. LOAD (PLF)	CSI (LC)				
FR-TO		FROM	TO		FR-TO		
A-B	0 / 39	-95.2	-95.2	0.13 (1)	C-J	-36 / 27	0.01 (1)
B-C	0 / 19	-95.2	-95.2	0.13 (1)	J-D	0 / 152	0.04 (4)
C-D	-984 / 0	-95.2	-95.2	0.14 (1)	D-H	0 / 127	0.03 (1)
D-E	-866 / 0	-95.2	-95.2	0.89 (1)	H-E	-748 / 0	0.44 (1)
E-F	-856 / 0	-95.2	-95.2	0.59 (1)	F-H	0 / 1171	0.26 (1)
G-F	-1019 / 0	0.0	0.0	0.74 (1)	K-C	-1207 / 0	0.41 (1)
K-B	-245 / 0	0.0	0.0	0.03 (1)			
K-J	0 / 795	-18.5	-18.5	0.22 (4)			
J-I	0 / 773	-18.5	-18.5	0.23 (4)			
I-H	0 / 773	-18.5	-18.5	0.23 (4)			
H-G	0 / 0	-18.5	-18.5	0.17 (4)			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 26.7 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 40.1 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, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55% OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.63")
CALCULATED VERT. DEFL.(LL)= L/999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.63")
CALCULATED VERT. DEFL.(TL)= L/999 (0.07")

CSI: TC=0.74/1.00 (F-G-1), BC=0.23/1.00 (H-J-4), WB=0.44/1.00 (E-H-1), SSI=0.29/1.00 (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.

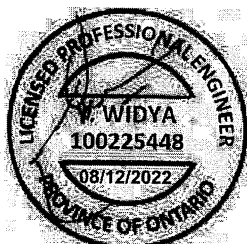
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

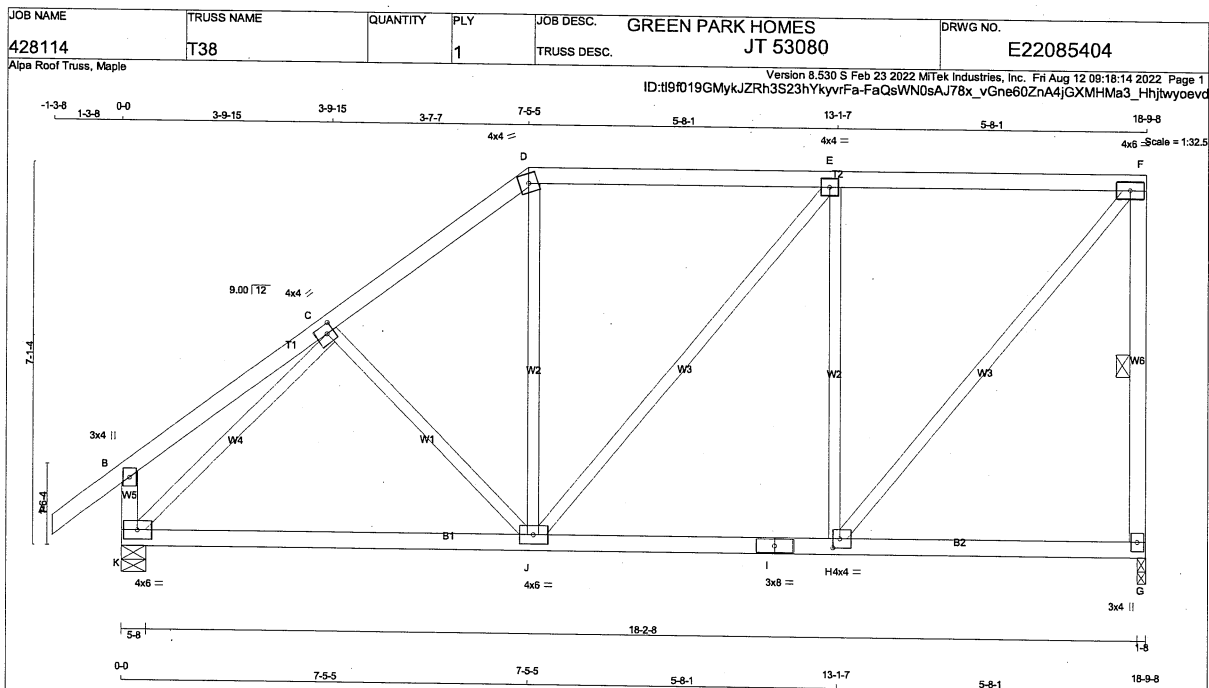
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (C) (INPUT = 0.90)
JSI METAL= 0.40 (C) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2





LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2
D - F	2x4	DRY	No.2
G - F	2x4	DRY	No.2
K - B	2x4	DRY	No.2
K - I	2x4	DRY	No.2
I - G	2x4	DRY	No.2
ALL WEBS EXCEPT	2x3	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	3.0	4.0		
C	TMVW-t	MT20	4.0	4.0	2.00	1.50
D	TTW-m	MT20	4.0	4.0		
E	TMVW-t	MT20	4.0	4.0		
F	TMVW-t	MT20	4.0	6.0		
G	BMV1+p	MT20	3.0	4.0		
H	BMVW-t	MT20	4.0	4.0	2.00	1.50
I	BS-t	MT20	3.0	8.0		
J	BMVWW-t	MT20	4.0	6.0		
K	BMVW1-t	MT20	4.0	6.0		

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

BEARINGS

SPF	FACTORED	MAXIMUM FACTORED	INPUT	REORD
JT	GROSS REACTION	GROSS REACTION	BRG	BRG
G	VERT	DOWN	HORZ	UPLIFT
K	1200	0	1200	0

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW
G	754	502 / 0
K	844	576 / 0

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.10 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 LATERAL BRACE(S) AT 1/2 LENGTH OF F-G.

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				WEB S			
MEMB.	MAX. FACTORED	FACTORED	MAX	MAX	MEMB.	MAX. FACTORED	MAX
	FORCE	VERT. LOAD LC1	MAX	UNBRAC		FORCE	MAX
	(LBS)	(PLF)	CSI (LC)			(LBS)	CSI (LC)
FR-TO		FROM TO		LENGTH FR-TO			
A-B	0 / 39	-95.2	-95.2 0.13 (1)	10.00	C-J	-142 / 2	0.07 (1)
B-C	0 / 24	-95.2	-95.2 0.21 (1)	10.00	J-D	0 / 199	0.04 (1)
C-D	-923 / 0	-95.2	-95.2 0.22 (1)	6.15	E-E	0 / 55	0.01 (4)
D-E	-720 / 0	-95.2	-95.2 0.54 (1)	6.10	H-E	-713 / 0	0.62 (1)
E-F	-685 / 0	-95.2	-95.2 0.54 (1)	6.21	H-F	0 / 1066	0.24 (1)
F-G	-1023 / 0	0.0	0.0 0.23 (1)	6.20	K-C	-1196 / 0	0.57 (1)
K-B	-267 / 0	0.0	0.0 0.03 (1)	7.81			
K-J	0 / 816	-18.5	-18.5 0.28 (4)	10.00			
J-I	0 / 685	-18.5	-18.5 0.27 (4)	10.00			
I-H	0 / 685	-18.5	-18.5 0.27 (4)	10.00			
H-G	0 / 0	-18.5	-18.5 0.13 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 26.7 PSF

DL = 6.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.4 PSF

TOTAL LOAD = 40.1 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, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55% OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = $L/360$ (0.63")

CALCULATED VERT. DEFL.(LL) = $L/999$ (0.03")

ALLOWABLE DEFL.(TL) = $L/360$ (0.63")

CALCULATED VERT. DEFL.(TL) = $L/999$ (0.11")

CSI: TC=0.54/1.00 (D-E:1), BC=0.28/1.00 (J-K:4), WB=0.62/1.00 (E-H:1), SSI=0.26/1.00 (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)	SHEAR	SECTION	
(PSI)	(PLI)	(PLI)		
MAX	MIN	MAX	MIN	
MT20	650	371	1747	788
			1987	1873

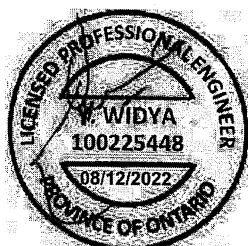
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.86 (H) (INPUT = 0.90)

JSI METAL= 0.40 (C) (INPUT = 1.00)

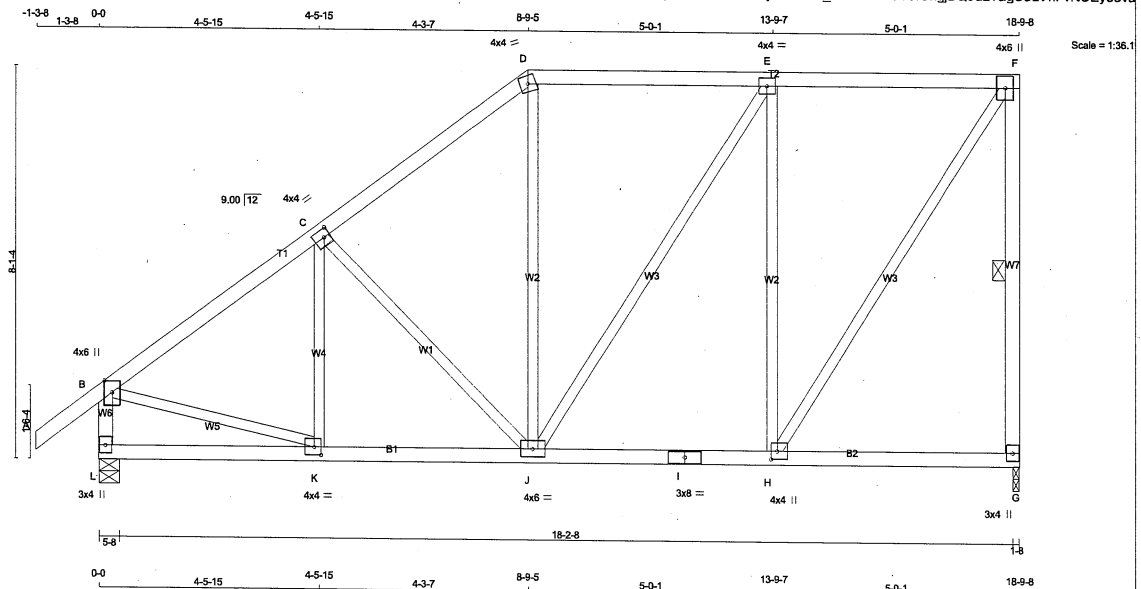
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME 428114	TRUSS NAME T39	QUANTITY 1	PLY 1	JOB DESC. GREEN PARK HOMES JT 53080	DRWG NO. E22085405
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Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 MTek Industries, Inc. Fri Aug 12 09:18:17 2022 Page 1
ID:119R19GMykJRh3S23hYkyvFa-f95_8P2kSEvIoSerSngBQodZTagUeLVhFvNUEyoeva



LUMBER	N. L. G. A. RULES	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - F	2x4	DRY	No.2	SPF
G - F	2x4	DRY	No.2	SPF
L - B	2x4	DRY	No.2	SPF
L - I	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
B	TMWW+p	MT20	4.0	6.0	Edge		
C	TMWW-t	MT20	4.0	4.0	2.00	1.50	
D	TTW-m	MT20	4.0	4.0			
E	TMWW-t	MT20	4.0	4.0			
F	TMWW+p	MT20	4.0	6.0			
G	BMV1+p	MT20	3.0	4.0			
H	BMWW-t	MT20	4.0	4.0	2.00	1.50	
I	BS-t	MT20	3.0	8.0			
J	BMWW-t	MT20	4.0	6.0			
K	BMWW-t	MT20	4.0	4.0	2.00	1.75	
L	BMV1+p	MT20	3.0	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		MAXIMUM FACTORED			INPUT	REQRD
	GROSS REACTION		GROSS REACTION			BRG	BRG
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
G	1068	0	1068	0	0	1-8	1-8
L	1200	0	1200	0	0	5-8	1-8

UNFACTORED REACTIONS

1ST LCASE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	754	502 / 0	0 / 0	0 / 0	0 / 0	252 / 0	0 / 0
G	844	576 / 0	0 / 0	0 / 0	0 / 0	288 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.72 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF F-G.

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)

MEMB.	MAX. FACTORED FORCE (LBS)	CHORDS		MAX. UNBRACED LENGTH FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
		VERT. LOAD (PLF)	LC1 MAX. (LC)				
FR-TO							
A-B	0 / 39	-95.2	-95.2 0.13 (1)	10.00	K-C	-137 / 28	0.05 (1)
B-C	-1039 / 0	-95.2	-95.2 0.34 (1)	5.72	C-J	-309 / 0	0.22 (1)
C-D	-833 / 0	-95.2	-95.2 0.32 (1)	6.21	J-D	0 / 150	0.04 (4)
D-E	-643 / 0	-95.2	-95.2 0.41 (1)	6.25	J-E	0 / 181	0.04 (1)
E-F	-547 / 0	-95.2	-95.2 0.41 (1)	6.25	H-E	-742 / 0	0.94 (1)
G-F	-1030 / 0	0.0	0.0 0.31 (1)	6.18	H-F	0 / 1008	0.23 (1)
L-B	-1164 / 0	0.0	0.0 0.12 (1)	7.39	B-K	0 / 885	0.20 (1)
L-K	0 / 0	-18.5	-18.5 0.08 (4)	10.00			
K-J	0 / 855	-18.5	-18.5 0.18 (1)	10.00			
J-I	0 / 547	-18.5	-18.5 0.16 (4)	10.00			
I-H	0 / 547	-18.5	-18.5 0.16 (4)	10.00			
H-G	0 / 0	-18.5	-18.5 0.11 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 26.7 PSF

DL = 6.0 PSF

BOT CH. LL = 0.0 PSF

DL = 7.4 PSF

TOTAL LOAD = 40.1 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 2015, ABC 2019

- PART 9 OF CBC 2012 (2019 AMENDMENT)

- CSA 086-14

- TPIC 2014

(55% OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.63")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.63")
CALCULATED VERT. DEFL.(TL) = L/999 (0.05")

CSI: TC=0.41/1.00 (D-E-1), BC=0.18/1.00 (J-K-1), WB=0.94/1.00 (E-H-1), SS=0.23/1.00 (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)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
	MAX	MIN	MAX
MT20	650	371	1747
	788	1987	1873

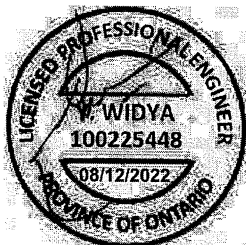
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (H) (INPUT = 0.90)

JSI METAL= 0.55 (B) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



[illegible]

JOB NAME 428114	TRUSS NAME T41	QUANTITY 1	PLY 	JOB DESC. GREEN PARK HOMES JT 53080	DRWG NO. E22085407
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Alpa Roof Truss, Maple Version 8.530 S Feb 23 2022 MiTek Industries, Inc. Fri Aug 12 09:18:22 2022 Page 1 ID:TIGR19GMkYJZRh3S23hYkyvFa-07vtB6tHm77uDwofKGuuTWTUGH9zzEqXd89SyoeVf Scale = 1:44.9

Total Weight = 5 X 106 = 531 lb

LUMBER

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

DRY: SEASONED LUMBER.

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

BEARINGS

	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQD BRG IN-SX
	VERT	HORZ	DOWN	HORZ UPLIFT		
JT	1068	0	1068	0	1-8	1-8
H	1068	0	1068	0	1-8	1-8
L	1200	0	1200	0	5-8	1-8

UNFACTORED REACTIONS

1ST CASE	MAX./MIN. COMPONENT REACTIONS					
JT COMBINED	SNOW LIVE PERM.LIVE	WIND DEAD SOIL				
H	754	502 / 0	0 / 0	0 / 0	252 / 0	0 / 0
L	844	576 / 0	0 / 0	0 / 0	268 / 0	0 / 0

Bearing material to be SPF No.2 or better at joint(s) H, L.

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.63 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 LATERAL BRACE(S) AT 1/2 LENGTH OF G-H, F-H.

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)	LC1 MAX. CSI (LC)	UNBRACED LENGTH FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
FR-TO									
A-B	0 / 39	-95.2	-95.2	0.13 (1)	10.00	K-C	-66 / 66	0.04 (1)	
B-C	-1022 / 0	-95.2	-95.2	0.43 (1)	5.63	C-I	-497 / 0	0.66 (1)	
C-D	-658 / 0	-95.2	-95.2	0.41 (1)	6.25	I-E	0 / 68	0.02 (4)	
D-E	-658 / 0	-95.2	-95.2	0.41 (1)	6.25	E-F	0 / 474	0.08 (1)	
E-F	-493 / 0	-95.2	-95.2	0.17 (1)	6.25	F-H	-939 / 0	0.54 (1)	
F-G	0 / 0	-95.2	-95.2	0.21 (1)	10.00	B-K	0 / 867	0.20 (1)	
G-H	-135 / 0	0.0	0.0	0.07 (1)	6.25				
L-B	-1154 / 0	0.0	0.0	0.12 (1)	7.41				
L-K									
L-K	0 / 0	-18.5	-18.5	0.13 (4)	10.00				
K-J	0 / 849	-18.5	-18.5	0.28 (4)	10.00				
J-I	0 / 849	-18.5	-18.5	0.28 (4)	10.00				
I-H	0 / 333	-18.5	-18.5	0.23 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 26.7 PSF DL = 6.0 PSF
 BOT CH. LL = 0.0 PSF DL = 7.4 PSF
TOTAL LOAD = 40.1 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, NBC2015

THIS DESIGN COMPLIES WITH:
 - PART 9 OF CBC2018 , ABC 2019
 - PART 9 OF OBC 2012 (2019 AMENDMENT)
 - CSA 086-14
 - TPIC 2014

(55 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

**ALLOWABLE DEFL.(LL)= L/360 (0.63")
 CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
 ALLOWABLE DEFL.(TL)= L/360 (0.63")
 CALCULATED VERT. DEFL.(TL) = L/999 (0.09")**

CSI: TC=0.43/1.00 (B-C:1), BC=0.28/1.00 (I-K:4), WB=0.66/1.00 (C-I:1), SS=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 MIN MAX MIN
 MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

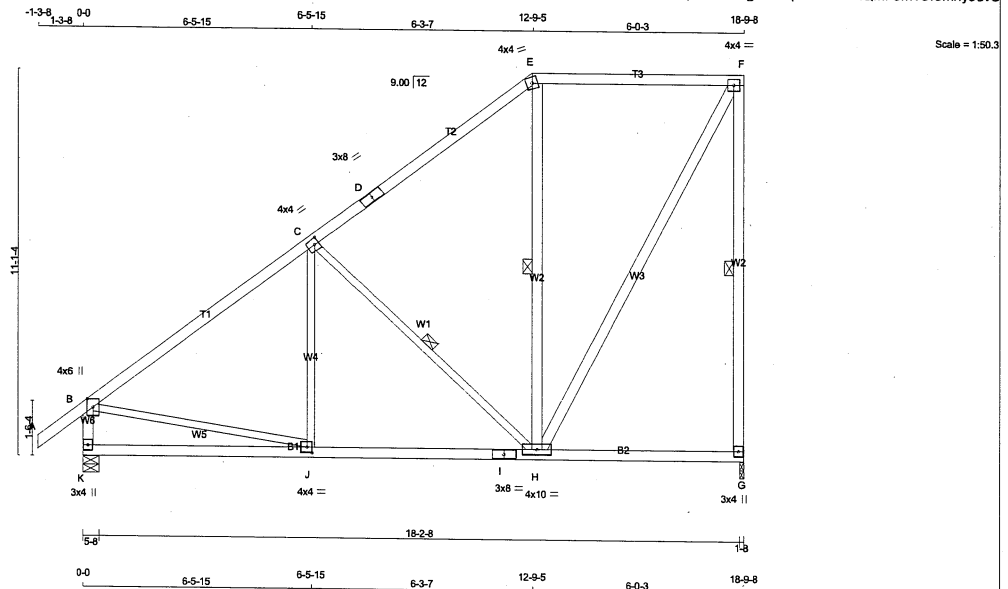
JSI GRIP= 0.89 (H) (INPUT = 0.90)
 JSI METAL= 0.29 (B) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	GREEN PARK HOMES	DRWG NO.	E22085408
428114	T42		1	TRUSS DESC.	JT 53080		

Alpa Roof Truss, Maple

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ID:H9F019GMMykJRh3S23hYkyrFa-Qia0q68lahWalgFNwSpW6w7hIQMP0hWUromnyoevs



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B TMVW+p	MT20	4.0	6.0	Edge	
C TMVW-i	MT20	4.0	4.0	2.00	1.50
D TS-i	MT20	3.0	8.0		
E TTW-m	MT20	4.0	4.0		
F TMVW-i	MT20	4.0	4.0		
G BMV1+p	MT20	3.0	4.0		
H BMVWV-i	MT20	4.0	10.0		
I BS-i	MT20	3.0	8.0		
J BMVW-i	MT20	4.0	4.0	2.00	1.75
K BMV1+p	MT20	3.0	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	FACTORED	MAXIMUM FACTORED	INPUT	RECORD
GROSS REACTION	GROSS REACTION	BRG	BRG	
JT VERT	1068	0	0	1-8
G	1068	0	0	1-8
K	1200	0	0	5-8

UNFACTORED REACTIONS

1ST CASE	MAX/MIN	COMPONENT REACTIONS	WIND	DEAD	SOIL
JT COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
G	754	502 / 0	0 / 0	0 / 0	252 / 0
K	844	576 / 0	0 / 0	0 / 0	268 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.44 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 LATERAL BRACE(S) AT 1/2 LENGTH OF F-G, C-H, E-H.

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	MAX. FACTORED	FACTORED	MAX	MAX	WEBS	MAX. FACTORED	MAX
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MEMB.	FORCE	MAX
(LBS)	(LBS)	(PLF)	CSI (LC)	UNBRAC	(LBS)	(LBS)	CSI (LC)
FR-TO		FROM	TO	LENGTH	FR-TO		
A-B	0 / 39	-95.2	-95.2	0.13 (1)	10.00	J-C	-22 / 39
B-C	-1005 / 0	-95.2	-95.2	0.55 (1)	5.44	C-H	-599 / 0
C-D	-552 / 0	-95.2	-95.2	0.52 (1)	6.25	H-E	-206 / 13
D-E	-552 / 0	-95.2	-95.2	0.52 (1)	6.25	H-F	0 / 842
E-F	-401 / 0	-95.2	-95.2	0.44 (1)	6.25	B-J	0 / 854
G-F	-1025 / 0	0.0	0.0	0.65 (1)	6.20		
K-B	-1151 / 0	0.0	0.0	0.12 (1)	7.42		
K-J	0 / 0	-18.5	-18.5	0.18 (4)	10.00		
J-I	0 / 840	-18.5	-18.5	0.25 (4)	10.00		
I-H	0 / 840	-18.5	-18.5	0.25 (4)	10.00		
H-G	0 / 0	-18.5	-18.5	0.16 (4)	10.00		

TOTAL WEIGHT = 2 X 104 = 208 lb

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 26.7 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 40.1 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 BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.63")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.63")
CALCULATED VERT. DEFL.(TL) = L/999 (0.07")

CSI: TC=0.65/1.00 (F-G-1), BC=0.25/1.00 (H-J-4), WB=0.32/1.00 (C-H-1), SSI=0.24/1.00 (B-C-1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

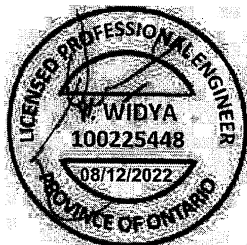
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MT20	650	371	1747
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

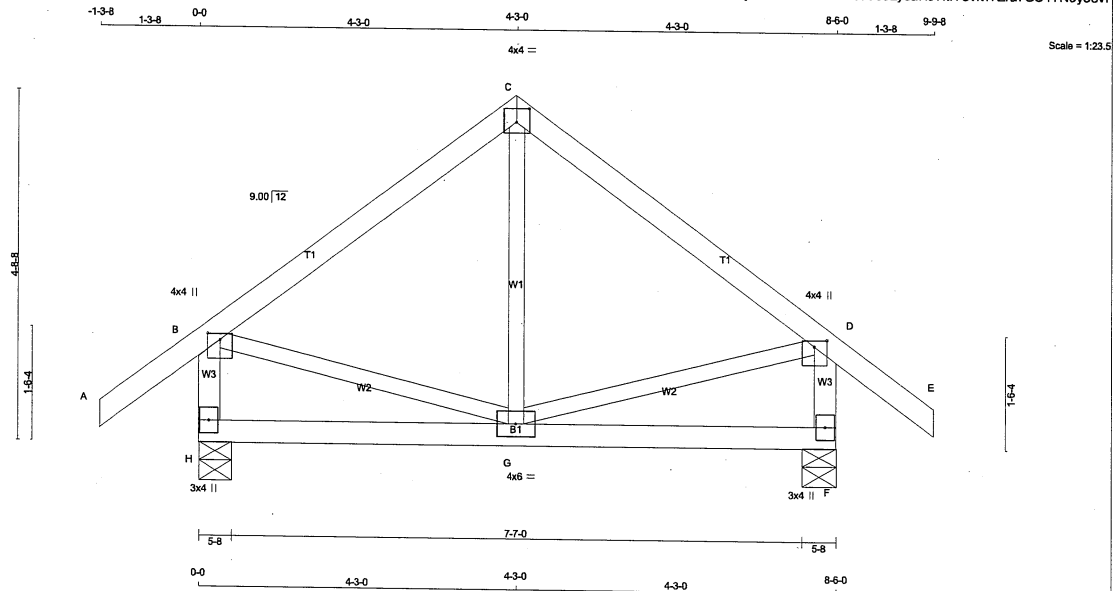
JSI GRIP= 0.90 (B) (INPUT = 0.90)
JSI METAL= 0.55 (B) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME 428114	TRUSS NAME T43	QUANTITY 1	PLY 1	JOB DESC. GREEN PARK HOMES JT 53080	DRWG NO. E22085409
Alpa Roof Truss, Maple					

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B TMVW+p	MT20	4.0	4.0	1.00	2.00
C TTW+p	MT20	4.0	4.0	2.25	2.00
D TMVW+p	MT20	4.0	4.0	1.00	2.00
F BMV1+p	MT20	3.0	4.0		
G BMVWW-t	MT20	4.0	6.0		
H BMV1+p	MT20	3.0	4.0		

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

BEARINGS		FACTORED	MAXIMUM FACTORED	INPUT	RECORD
JT	GROSS REACTION	GROSS REACTION	BRG	BRG	
H	VERT	HORZ	DOWN	HORZ	UPLIFT
H	615	0	615	0	5-8
F	615	0	615	0	5-8

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	431	301/0	0/0	0/0	0/0	130/0	0/0
F	431	301/0	0/0	0/0	0/0	130/0	0/0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) H, 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		WEBS	
MEMB.	MAX. FACTORED FORCE (LBS)	MEMB.	MAX. FACTORED FORCE (LBS)
FR-TO		FR-TO	
A-B	0/39	G-C	-40/80
B-C	-304/0	B-G	0/252
C-D	-304/0	G-D	0/252
D-E	0/39		
H-B	-584/0		
F-D	-584/0		
H-G	0/0		
G-F	0/0		

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 26.7 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 40.1 PSF

SPACING = 24.0 IN. C/C

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

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

(55 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.28")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.28")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.22/1.00 (B-C-1), BC=0.09/1.00 (G-H-4),
WB=0.06/1.00 (D-G-1), SSI=0.13/1.00 (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.

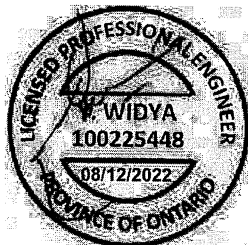
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.50 (D) (INPUT = 0.90)
JSI METAL= 0.13 (D) (INPUT = 1.00)

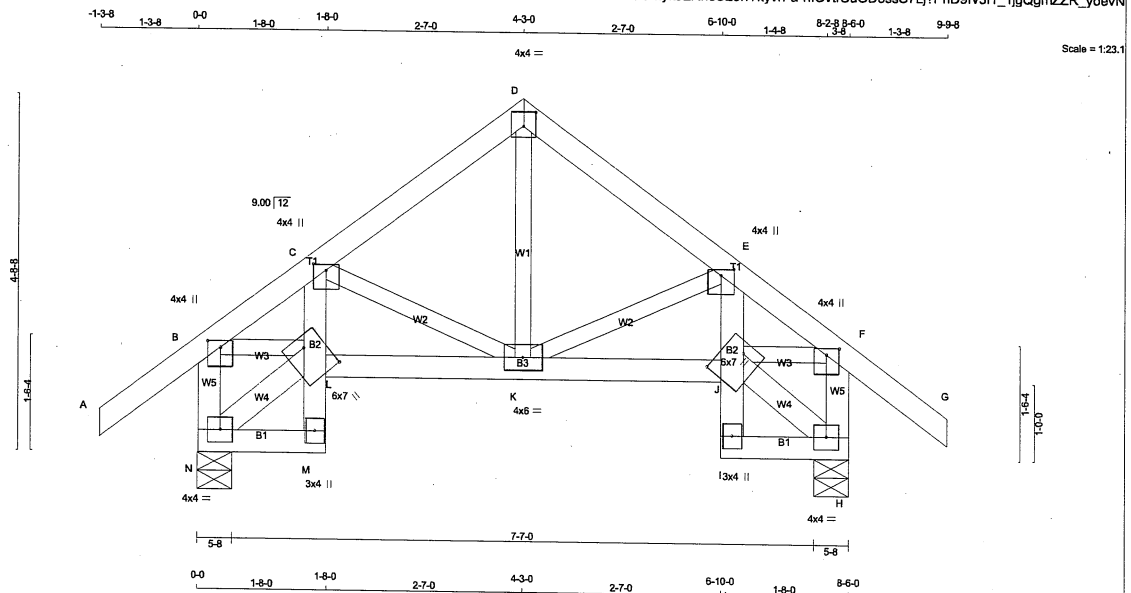
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME 428114	TRUSS NAME T43S	QUANTITY 1	PLY 1	JOB DESC. GREEN PARK HOMES JT 53080	TRUSS DESC.	DRWG NO. E22085410
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Alpa Roof Truss, Maple

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Scale = 1/23.1

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

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B, C, E, F					
B - TMWW+p	MT20	4.0	4.0	1.00	2.00
D - TTW-p	MT20	4.0	4.0	2.25	2.00
H - BMWW-1-t	MT20	4.0	4.0		
I - BMV+p	MT20	3.0	4.0		
J - BVMMWW-w	MT20	6.0	7.0	3.00	5.25
K - BMWW-1	MT20	4.0	6.0		
L - BVMMWW-w	MT20	6.0	7.0	3.00	5.25
M - BMV+p	MT20	3.0	4.0		
N - BMWW-1-t	MT20	4.0	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	REQD BRG
JT	VERT	DOWN	UPLIFT	IN-SX
N	615	0	615	0
H	615	0	615	0

UNFACTORED REACTIONS
1ST LCASE MAX/MIN COMPONENT REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
N	431	301/0	0/0	0/0	0/0	130/0	0/0
H	431	301/0	0/0	0/0	0/0	130/0	0/0

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

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.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	LC2 MAX (LC)	UNBRACED LENGTH (FT)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
A-B	0/39	-95.2	-95.2	0.13 (1)	10.00	K-D	0/187	0.04 (1)	
B-C	-584/0	-95.2	-95.2	0.10 (1)	6.25	K-E	-208/0	0.04 (1)	
C-D	-359/0	-95.2	-95.2	0.09 (1)	6.25	C-K	-208/0	0.04 (1)	
D-E	-359/0	-95.2	-95.2	0.09 (1)	6.25	N-L	-24/0	0.00 (1)	
E-F	-584/0	-95.2	-95.2	0.10 (1)	6.25	B-L	0/449	0.10 (1)	
F-G	0/39	-95.2	-95.2	0.13 (1)	10.00	J-H	-24/0	0.00 (1)	
N-B	-586/0	0.0	0.0	0.06 (1)	7.81	J-F	0/449	0.10 (1)	
H-F	-586/0	0.0	0.0	0.06 (1)	7.81				
N-M	0/19	-18.5	-18.5	0.01 (4)	10.00				
M-L	0/16	0.0	0.0	0.03 (1)	10.00				
L-C	0/39	0.0	0.0	0.04 (1)	10.00				
L-K	0/468	-18.5	-18.5	0.10 (1)	10.00				
K-J	0/468	-18.5	-18.5	0.10 (1)	10.00				
I-J	0/16	0.0	0.0	0.03 (1)	10.00				
J-E	0/39	0.0	0.0	0.04 (1)	10.00				
I-H	0/19	-18.5	-18.5	0.01 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 26.7 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 40.1 PSF

SPACING = 24.0 IN. C/C

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

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

DESIGN ASSUMPTIONS

- OVERHANG NOT TO BE ALTERED OR CUT OFF.

(55 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.28")
CALCULATED VERT. DEFL.(LL) = L/999 (0.01")
ALLOWABLE DEFL.(TL) = L/360 (0.28")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.13/1.0 (A-B:1), BC=0.10/1.0 (J-K:1), WB=0.10/1.0 (F-J:1), SS=0.09/1.0 (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

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)	(PLI)
MAX	MIN	MAX	MIN
MT20	650	371	1747
	788	1987	1873

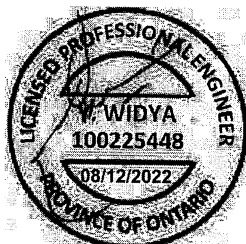
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.67 (B) (INPUT = 0.90)

JSI METAL= 0.18 (B) (INPUT = 1.00)

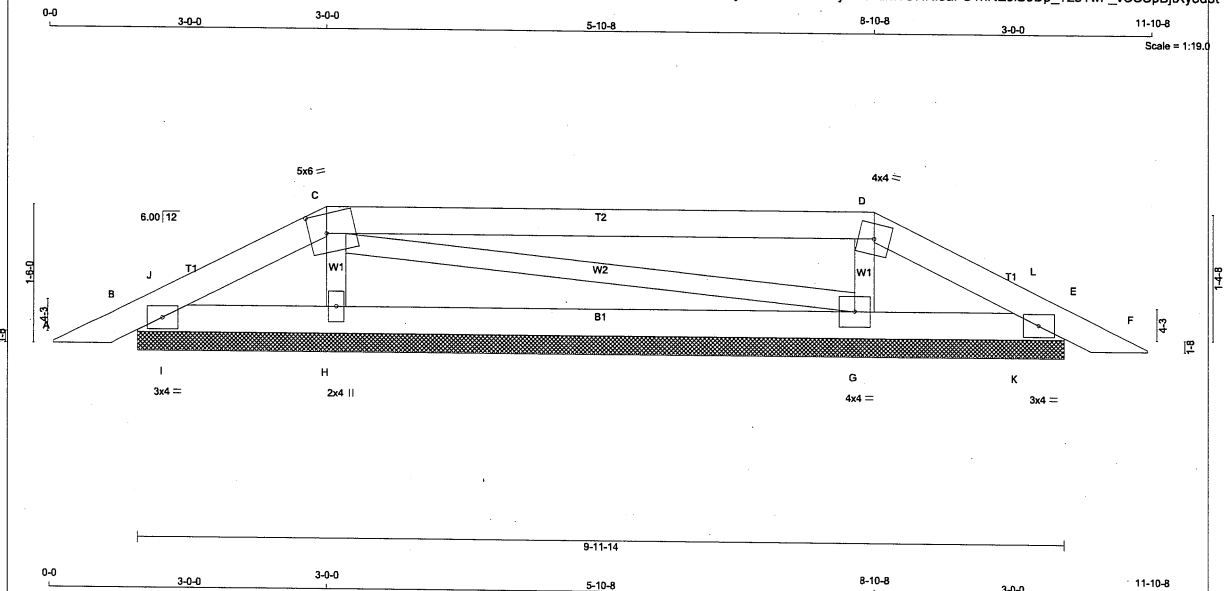
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
428242	PB80		1	GREEN PARK HOMES JT 53080	E22085494

Alpa Roof Truss, Maple

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ID:119f019GMykJZRh3S23hYkyvFa-Lm1OHRfaPS1hRE0IS0Dp_?2sTwF_vUSSpBjXyod5t



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

PLATES (table is in inches)	W	LEN	Y	X
JT TYPE	MT20	3.0	4.0	
B TMB1-I	MT20	5.0	8.0	2.50 2.25
C TTWW-m	MT20	4.0	4.0	
D TTW-m	MT20	4.0	4.0	
E TMB1-I	MT20	3.0	4.0	
G BMWW1-I	MT20	4.0	4.0	
H BMW1-w	MT20	2.0	4.0	

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

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	RECORD
GROSS REACTION	DOWN	HORZ	UPLIFT	IN-SX
JT	204	0	0	9-11-14 1-8
B	204	0	0	9-11-14 1-8
E	201	0	0	9-11-14 1-8
H	443	0	0	9-11-14 1-8
G	448	0	0	9-11-14 1-8

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
JT COMBINED	SNOW	LIVE	PERM. LIVE	
B	140	115 / 0	0 / 0	25 / 0
E	138	113 / 0	0 / 0	25 / 0
H	315	197 / 0	0 / 0	118 / 0
G	319	200 / 0	0 / 0	119 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, E, H, 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.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (LC)	MAX. FACTORED VERT. LOAD (LC)	MAX. FACTORED VERT. LOAD (LC)	MAX. FACTORED VERT. LOAD (LC)	MAX. FACTORED VERT. LOAD (LC)	MAX. FACTORED VERT. LOAD (LC)
FR-TO									
A-B	0 / 17	-95.2	-95.2	0.05 (1)	10.00	H-C	-329 / 0	0.05 (1)	
B-J	-49 / 0	-95.2	-95.2	0.01 (4)	6.25	C-G	-7 / 0	0.00 (1)	
J-C	-57 / 0	-95.2	-95.2	0.04 (1)	6.25	G-D	-334 / 0	0.05 (1)	
C-D	-11 / 0	-95.2	-95.2	0.56 (1)	6.25	I-J	-114 / 0	0.00 (1)	
D-L	-50 / 0	-95.2	-95.2	0.04 (1)	6.25	K-L	-115 / 0	0.00 (1)	
L-E	-42 / 2	-95.2	-95.2	0.01 (4)	6.25				
E-F	0 / 17	-95.2	-95.2	0.05 (1)	10.00				
B-I	0 / 50	-18.5	-18.5	0.06 (1)	10.00				
I-H	0 / 50	-18.5	-18.5	0.10 (4)	10.00				
H-G	0 / 18	-18.5	-18.5	0.10 (4)	10.00				
G-K	0 / 43	-18.5	-18.5	0.10 (4)	10.00				
K-E	0 / 43	-18.5	-18.5	0.06 (1)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL	= 26.7 PSF
DL	= 6.0 PSF
BOT CH. LL	= 0.0 PSF
DL	= 7.4 PSF
TOTAL LOAD	= 40.1 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, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.56/1.00 (C-D-1), BC=0.10/1.00 (H-I-4), WB=0.05/1.00 (D-G-1), SSI=0.22/1.00 (C-D-1)
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS= 1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

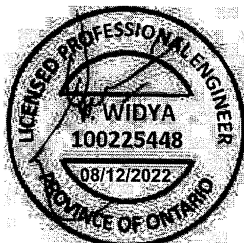
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.22 (D) (INPUT = 0.99)
JSI METAL= 0.07 (H) (INPUT = 1.00)

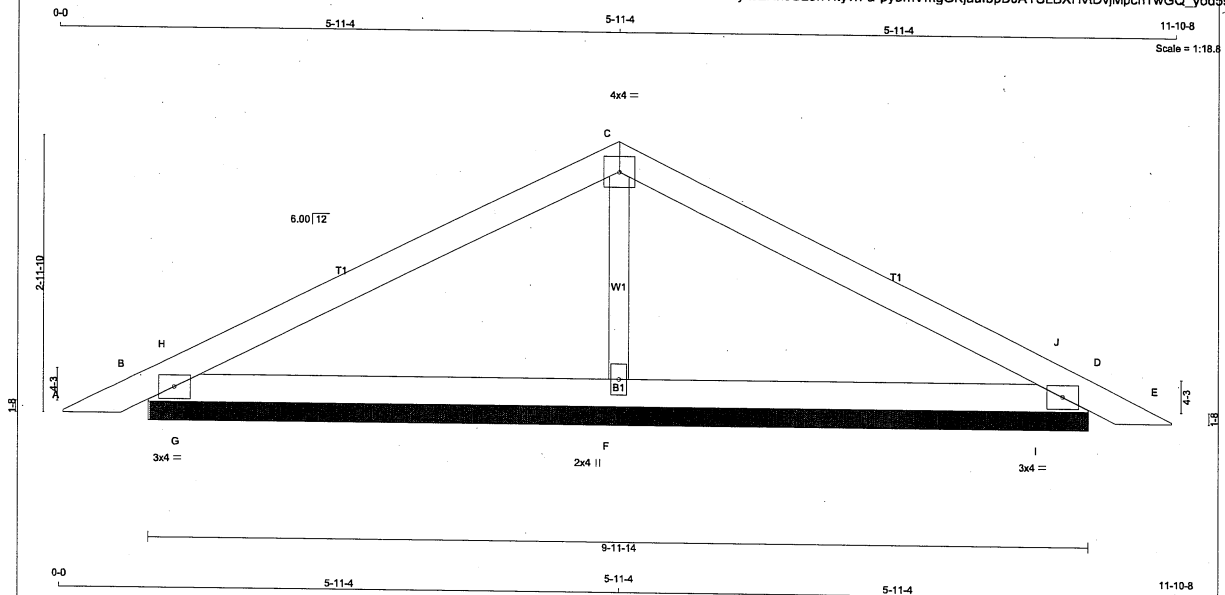
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	GREEN PARK HOMES	DRWG NO.	E22085495
428242	PB81		1	TRUSS DESC.	JT 53080		

Alpa Roof Truss, Maple

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ID:tt9f019GMykJZRh3S23hYkyvrFa-pybmVmgGKJaulbpDJAYSXBHvtdVjMpchTwGQ_yod5s



LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2	SPF	
C - E	2x4	DRY	No.2	SPF	
B - 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	TMB1-I	MT20	3.0	4.0		
C	TTW-p	MT20	4.0	4.0		
D	TMB1-I	MT20	3.0	4.0		
F	BMW1-w	MT20	2.0	4.0		

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	
B 407 0	407 0	0 9-11-14	1-8	
D 407 0	407 0	0 9-11-14	1-8	
F 482 0	482 0	0 9-11-14	1-8	

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN	COMPONENT REACTIONS				
JT COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B 285 205 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0	
D 285 205 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0	
F 343 215 / 0	0 / 0	0 / 0	0 / 0	128 / 0	0 / 0	

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, D, 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.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX CSI (LC)	UNBRAC LENGTH	FR-TO	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
A-B	0 / 17	-95.2	-95.2	0.05 (1)	10.00	F-C	-253 / 0	0.04 (1)	
B-H	-53 / 0	-95.2	-95.2	0.12 (1)	6.25	G-H	-468 / 0	0.00 (1)	
H-C	-170 / 0	-95.2	-95.2	0.28 (1)	6.25	I-J	-468 / 0	0.00 (1)	
C-J	-170 / 0	-95.2	-95.2	0.28 (1)	6.25				
J-D	-53 / 0	-95.2	-95.2	0.12 (1)	6.25				
D-E	0 / 17	-95.2	-95.2	0.05 (1)	10.00				
B-G	0 / 144	-18.5	-18.5	0.27 (1)	10.00				
G-F	0 / 144	-18.5	-18.5	0.27 (1)	10.00				
F-I	0 / 144	-18.5	-18.5	0.27 (1)	10.00				
I-D	0 / 144	-18.5	-18.5	0.27 (1)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 26.7 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 40.1 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 NBC 2015, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.28/1.00 (C-H-1), BC=0.27/1.00 (D-I-1), WB=0.04/1.00 (C-F-1), SSI=0.35/1.00 (B-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

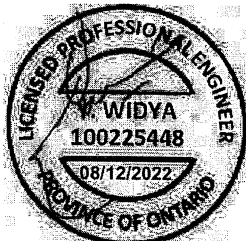
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	(PLI)
MT20	550	371	1747
	550	371	1747

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.35 (B) (INPUT = 0.90)
JSI METAL= 0.08 (B) (INPUT = 1.00)

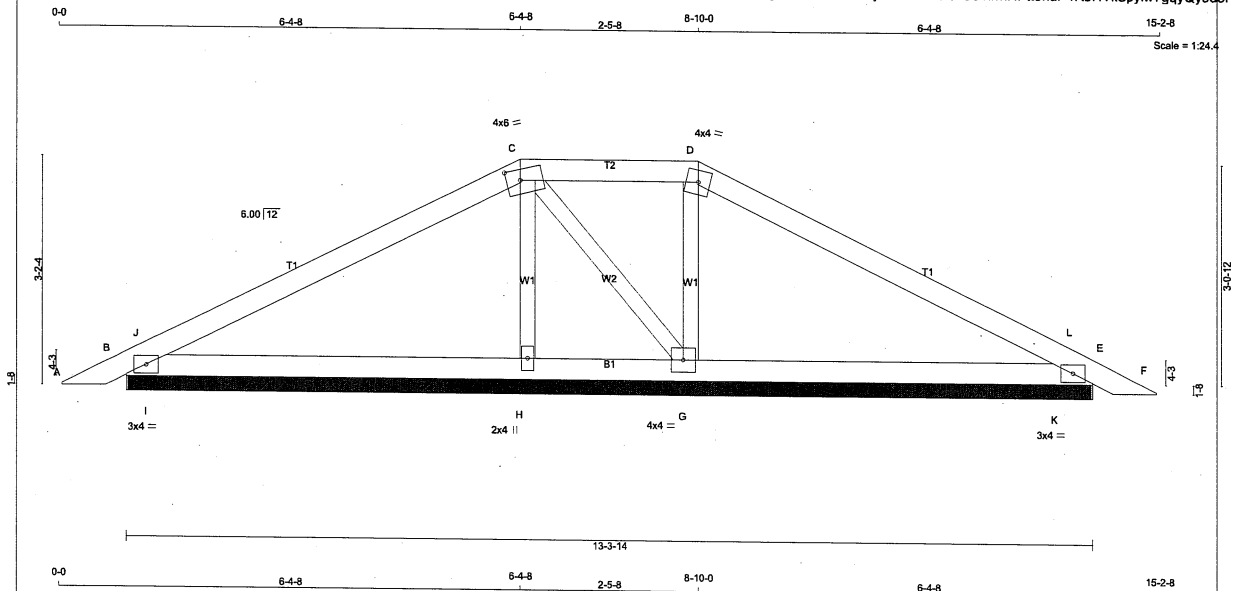
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	GREEN PARK HOMES	DRWG NO.	E22085496
428242	PB82		1	TRUSS DESC.	JT 53080		

Alpa Roof Truss, Maple

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ID:119f019GMkYJRh3S23hYkyvFfa-H698I6hu51liwINPt3huP4RbHYkSpylw7gqyQyods



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

PLATES (table is in inches)	PLATES	W	LEN	Y	X
JT TYPE	MT20	3.0	4.0		
B	TMB14	MT20	3.0	4.0	
C	TTWW-m	MT20	4.0	6.0	1.75 2.25
D	TTW-m	MT20	4.0	4.0	
E	TMB14	MT20	3.0	4.0	
G	BMW14	MT20	4.0	4.0	
H	BMW14	MT20	2.0	4.0	

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

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQD
JT	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	DOWN	UP	IN-SX
B	458	0	0	13-3-14
E	437	0	0	13-3-14
H	328	0	0	13-3-14
G	453	0	0	13-3-14

UNFACTORED REACTIONS

1ST LCASE	MAX./MIN. COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	321	228 / 0	0 / 0	0 / 0	0 / 0	93 / 0	0 / 0
E	306	216 / 0	0 / 0	0 / 0	0 / 0	90 / 0	0 / 0
H	234	144 / 0	0 / 0	0 / 0	0 / 0	90 / 0	0 / 0
G	320	215 / 0	0 / 0	0 / 0	0 / 0	104 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, E, H, 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.	MAX. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX. CSI (LC)	UNBRACED LENGTH	FR-TO	MEMB.	MAX. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX. CSI (LC)	UNBRACED LENGTH	FR-TO
A-B	0 / 17	-95.2	-95.2	0.05 (1)	10.00	H-C	-201 / 0	0.04 (1)				
B-J	-81 / 0	-95.2	-95.2	0.13 (1)	6.25	C-G	-68 / 0	0.02 (1)				
J-C	-198 / 0	-95.2	-95.2	0.35 (1)	6.25	G-D	-274 / 0	0.05 (1)				
C-D	-118 / 0	-95.2	-95.2	0.10 (1)	6.25	I-J	-490 / 0	0.00 (1)				
D-L	-152 / 0	-95.2	-95.2	0.35 (1)	6.25	K-L	-493 / 0	0.00 (1)				
L-E	-54 / 0	-95.2	-95.2	0.13 (1)	6.25							
E-F	0 / 17	-95.2	-95.2	0.05 (1)	10.00							
B-I	0 / 170	-18.5	-18.5	0.29 (1)	10.00							
I-H	0 / 170	-18.5	-18.5	0.29 (1)	10.00							
H-G	0 / 162	-18.5	-18.5	0.17 (1)	10.00							
G-K	0 / 129	-18.5	-18.5	0.29 (1)	10.00							
K-E	0 / 129	-18.5	-18.5	0.29 (1)	10.00							

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 26.7 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 40.1 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, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.35/1.00 (C-J-1), BC=0.29/1.00 (B-I-1), WB=0.05/1.00 (D-G-1), SSI=0.38/1.00 (E-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

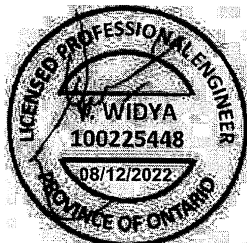
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.37 (B) (INPUT = 0.90)
JSI METAL= 0.09 (B) (INPUT = 1.00)

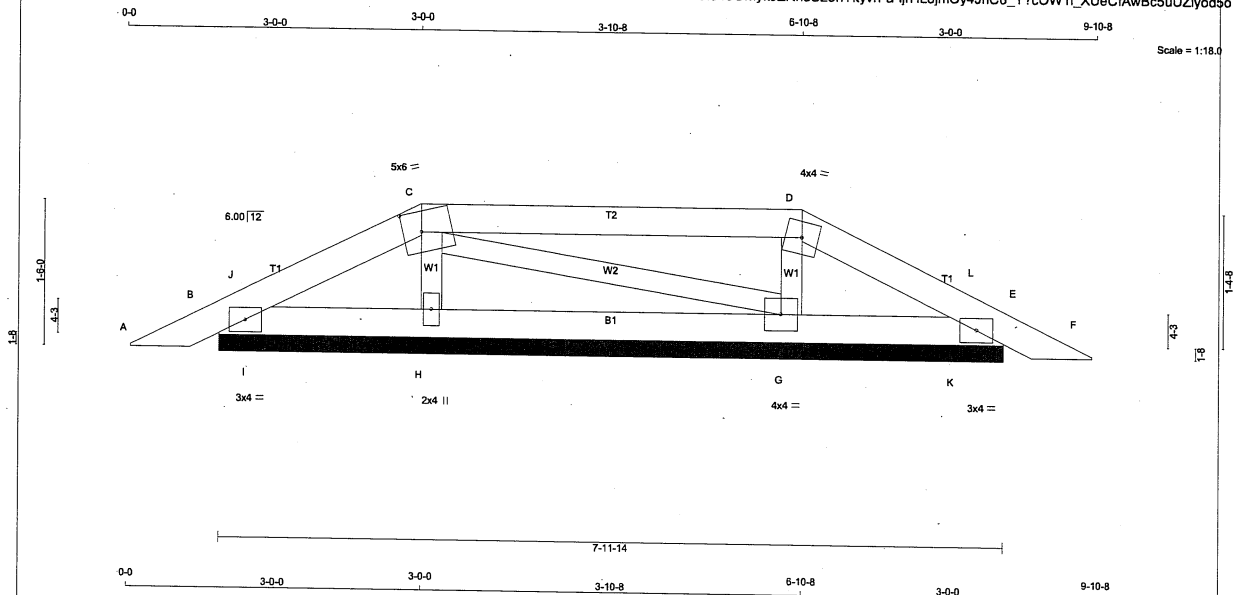
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME 428242	TRUSS NAME PB84	QUANTITY 1	PLY 1	JOB DESC. GREEN PARK HOMES	TRUSS DESC. JT 53080	DRWG NO. E22085498
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Alpa Roof Truss, Maple

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ID:1f9f019GMykJZRh3S23hYkyvFa-ijrHL8jmOy4JnCb_Y7cOW1l_XUeCfAwBc5uUZlyod50



Scale = 1/18.0

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.	SPF	FACTORED	MAXIMUM FACTORED	INPUT	REQRD	SPECIFIED LOADS:	
A - C	2x4	DRY	No.2	SPF	FACTORED	GROSS REACTION	DOWN	BRG	BRG	TOP CH. LL	= 26.7 PSF
C - D	2x4	DRY	No.2	SPF	VERT	212	0	0	0	DL	= 6.0 PSF
D - F	2x4	DRY	No.2	SPF	HORZ	0	207	0	0	BOT CH. LL	= 0.0 PSF
B - E	2x4	DRY	No.2	SPF	UPLIFT	0	319	0	0	TOTAL DL	= 7.4 PSF
ALL WEBS	2x3	DRY	No.2	SPF		330	0	330	0		
DRY: SEASONED LUMBER.											

PLATES (table is in inches)						
JT TYPE	PLATES	W	LEN	Y	X	
B TMB1-I	MT20	3.0	4.0			
C TTWW-m	MT20	5.0	6.0	2.50	2.25	
D TTWW-m	MT20	4.0	4.0			
E TMB1-I	MT20	3.0	4.0			
G BMWW1-I	MT20	4.0	4.0			
H BMW1+W	MT20	2.0	4.0			

UNFACTORED REACTIONS							
JT	1ST LCASE	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD
B	147	112/0	0/0	0/0	0/0	0/0	35/0
E	144	110/0	0/0	0/0	0/0	0/0	34/0
H	227	145/0	0/0	0/0	0/0	0/0	82/0
G	234	151/0	0/0	0/0	0/0	0/0	83/0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, E, H, 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.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX. (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX. (LC)
FR-TO				FR-TO			
A-B	0/17	-95.2	-95.2 0.05 (1)	10.00	H-C	-238/0	0.03 (1)
B-J	-53/0	-95.2	-95.2 0.00 (1)	6.25	C-G	-10/0	0.00 (1)
J-C	-51/0	-95.2	-95.2 0.04 (1)	6.25	G-D	-246/0	0.03 (1)
C-D	-12/0	-95.2	-95.2 0.24 (1)	6.25	I-J	-93/0	0.00 (1)
D-L	-40/0	-95.2	-95.2 0.04 (1)	6.25	K-L	-94/0	0.00 (1)
L-E	-42/0	-95.2	-95.2 0.00 (1)	6.25			
E-F	0/17	-95.2	-95.2 0.05 (1)	10.00			
B-I	0/45	-18.5	-18.5 0.05 (1)	10.00			
I-H	0/45	-18.5	-18.5 0.05 (1)	10.00			
H-G	0/22	-18.5	-18.5 0.04 (4)	10.00			
G-K	0/36	-18.5	-18.5 0.05 (1)	10.00			
K-E	0/36	-18.5	-18.5 0.05 (1)	10.00			

CS1: TC=0.24/1.00 (C-D-1), BC=0.05/1.00 (B-I-1),
WB=0.03/1.00 (D-G-1), SSI=0.14/1.00 (C-D-1)
DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10
COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

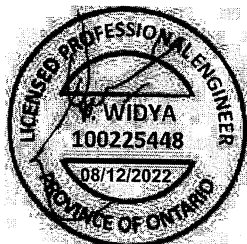
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

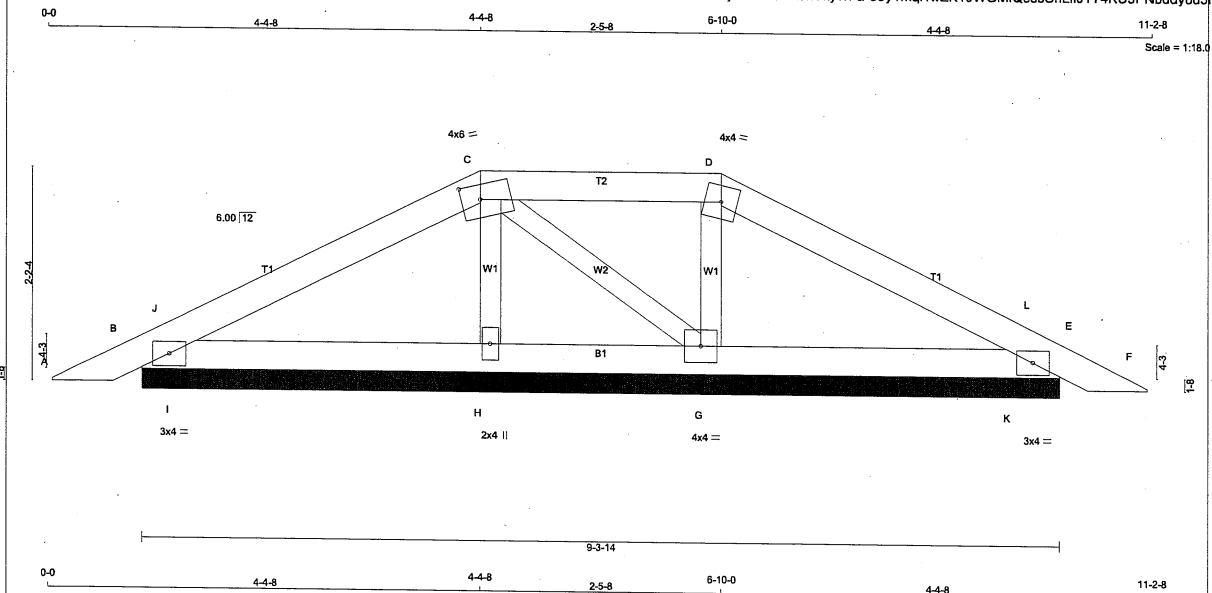
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.16 (B) (INPUT = 0.90)
JSI METAL= 0.05 (H) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2







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

PLATES (table is in inches)	W	LEN	Y	X
JT TYPE	MT20	3.0	4.0	
B TMB1-I	MT20	4.0	6.0	1.75 2.25
C TTWW-m	MT20	4.0	4.0	
D TTW-m	MT20	4.0	4.0	
E TMB1-I	MT20	3.0	4.0	
G BMW1-I	MT20	4.0	4.0	
H BMW1-w	MT20	2.0	4.0	

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

FACTORED		MAXIMUM FACTORED		INPUT		REQD	
GROSS REACTION	DOWN	GROSS REACTION	DOWN	BRG	BRG	IN-SX	IN-SX
JT	309	309	0	0	0	9-3-14	1-8
B	295	295	0	0	0	9-3-14	1-8
E	279	279	0	0	0	9-3-14	1-8
H	338	338	0	0	0	9-3-14	1-8

UNFACTORED REACTIONS		MAX/MIN. COMPONENT REACTIONS					
	1ST LCASE						
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
B	216	156 / 0	0 / 0	0 / 0	0 / 0	60 / 0	0 / 0
E	206	148 / 0	0 / 0	0 / 0	0 / 0	58 / 0	0 / 0
H	198	126 / 0	0 / 0	0 / 0	0 / 0	72 / 0	0 / 0
G	239	159 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, E, H, 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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED MAX (LC)	LENGTH FR-TO
FR-TO		FROM	TO				
A-B	0 / 17	-95.2	-95.2 0.05 (1)	10.00	H-C	-191 / 0	0.03 (1)
B-J	-74 / 0	-95.2	-95.2 0.03 (1)	6.25	C-G	-37 / 0	0.01 (1)
J-C	-96 / 0	-95.2	-95.2 0.14 (1)	6.25	G-D	-227 / 0	0.03 (1)
C-D	-43 / 0	-95.2	-95.2 0.10 (1)	6.25	I-J	-207 / 0	0.00 (1)
D-L	-65 / 0	-95.2	-95.2 0.14 (1)	6.25	K-L	-209 / 0	0.00 (1)
L-E	-42 / 0	-95.2	-95.2 0.02 (1)	6.25			
E-F	0 / 17	-95.2	-95.2 0.05 (1)	10.00			
B-I	0 / 84	-18.5	-18.5 0.12 (1)	10.00			
I-H	0 / 84	-18.5	-18.5 0.12 (1)	10.00			
H-G	0 / 72	-18.5	-18.5 0.07 (1)	10.00			
G-K	0 / 56	-18.5	-18.5 0.12 (1)	10.00			
K-E	0 / 56	-18.5	-18.5 0.12 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
 TOP CH. LL = 26.7 PSF
 DL = 6.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.4 PSF
 TOTAL LOAD = 40.1 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, ABC 2019
 - PART 9 OF OBC 2012 (2019 AMENDMENT)
 - CSA 086-14
 - TPIC 2014

(55 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.14/1.00 (D-L-1), BC=0.12/1.00 (B-I-1), WB=0.03/1.00 (D-G-1), SSI=0.16/1.00 (E-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

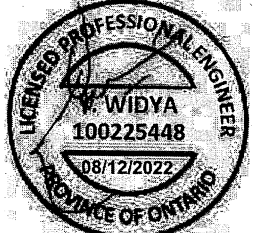
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.24 (B) (INPUT = 0.99)

JSI METAL= 0.05 (B) (INPUT = 1.00)

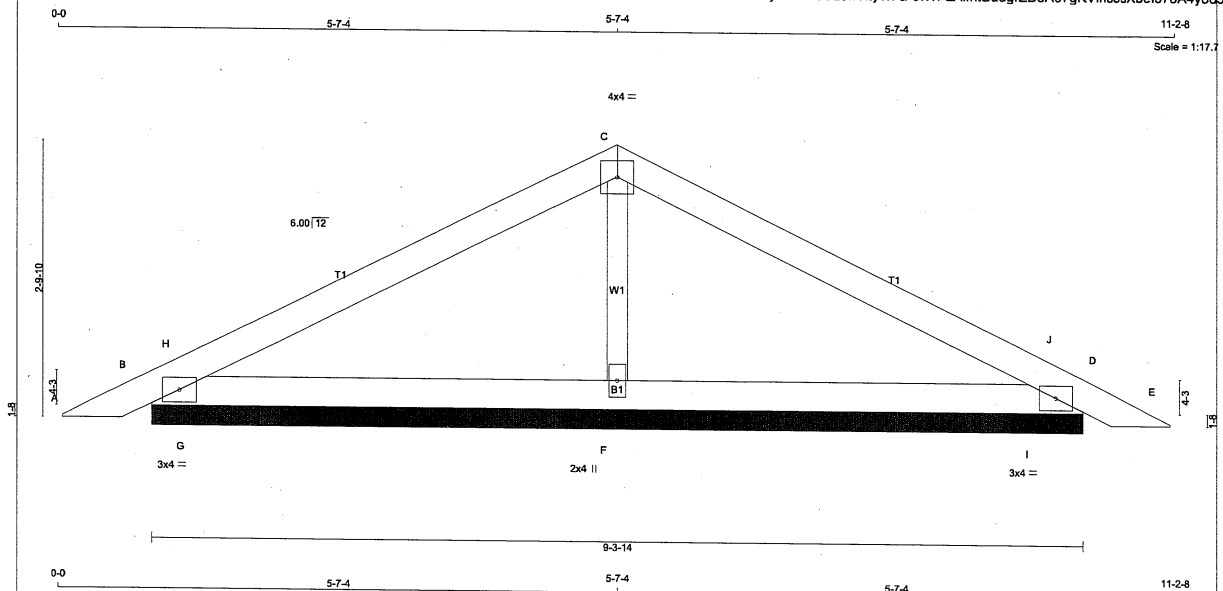
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



JOB NAME 428242	TRUSS NAME PB87	QUANTITY 1	PLY 1	JOB DESC. GREEN PARK HOMES	DRWG NO. E22085501
TRUSS DESC. JT 53080					

Alpa Roof Truss, Maple

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LUMBER			
N. L. G. A. RULES	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
B - D	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
DRY: SEASONED LUMBER.			

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
B	TMB14	MT20	3.0	4.0	
C	TTW+p	MT20	4.0	4.0	
D	TMB14	MT20	3.0	4.0	
F	BMW1+w	MT20	2.0	4.0	

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

BEARINGS		FACTORED		MAXIMUM FACTORED		INPUT		REQD	
JT	VERT	GROSS REACTION	DOWN	GROSS REACTION	DOWN	BRG	IN-SX	BRG	IN-SX
B	382	0	382	0	0	9-3-14	1-8		
D	382	0	382	0	0	9-3-14	1-8		
F	457	0	457	0	0	9-3-14	1-8		

UNFACTORED REACTIONS

1ST LCASE		MAX/MIN		COMPONENT REACTIONS	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND
B	267	192/0	0/0	0/0	0/0
D	267	192/0	0/0	0/0	0/0
F	325	204/0	0/0	0/0	121/0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, D, 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		FACTORED		WEBS	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. LC1 (LC)	MEMB.	FORCE (LBS)
FR-TO		FROM TO		FR-TO	
A-B	0/17	-95.2	-95.2 0.05 (1)	F-C	-241/0
B-H	-55/0	-95.2	-95.2 0.10 (1)	G-H	-413/0
H-C	-152/0	-95.2	-95.2 0.25 (1)	I-J	-413/0
C-J	-152/0	-95.2	-95.2 0.25 (1)		
J-D	-55/0	-95.2	-95.2 0.10 (1)		
D-E	0/17	-95.2	-95.2 0.05 (1)		
B-G	0/129	-18.5	-18.5 0.23 (1)		
G-F	0/129	-18.5	-18.5 0.23 (1)		
F-I	0/129	-18.5	-18.5 0.23 (1)		
I-D	0/129	-18.5	-18.5 0.23 (1)		

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 26.7 PSF
DL = 6.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 40.1 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, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55% OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.25/1.00 (C-H:1), BC=0.23/1.00 (B-G:1), WB=0.04/1.00 (C-F:1), SI=0.31/1.00 (B-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)	(PLI)
MT20	650	371	1747
	788	1987	1873

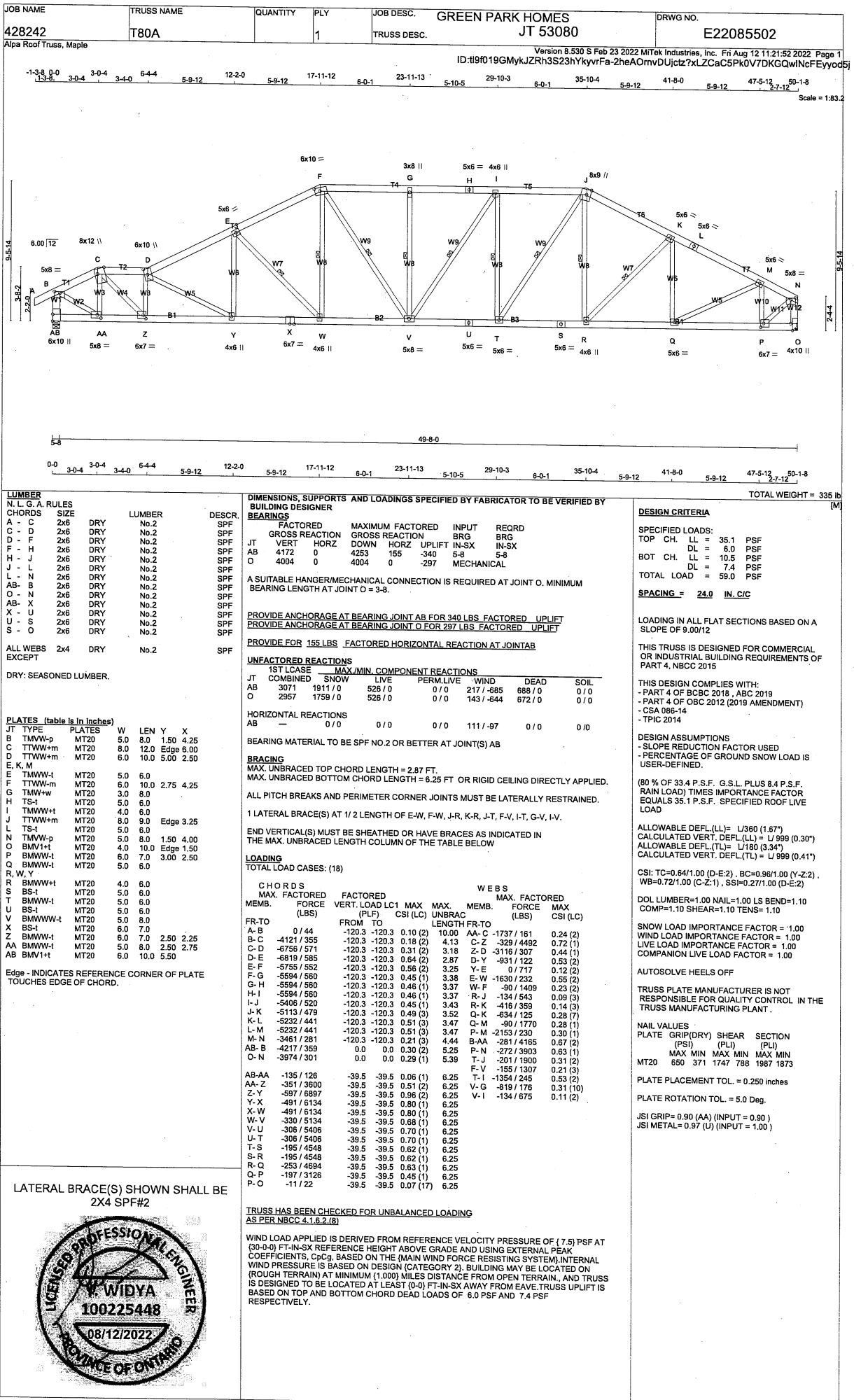
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.32 (D) (INPUT = 0.90)
JSI METAL= 0.08 (B) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2





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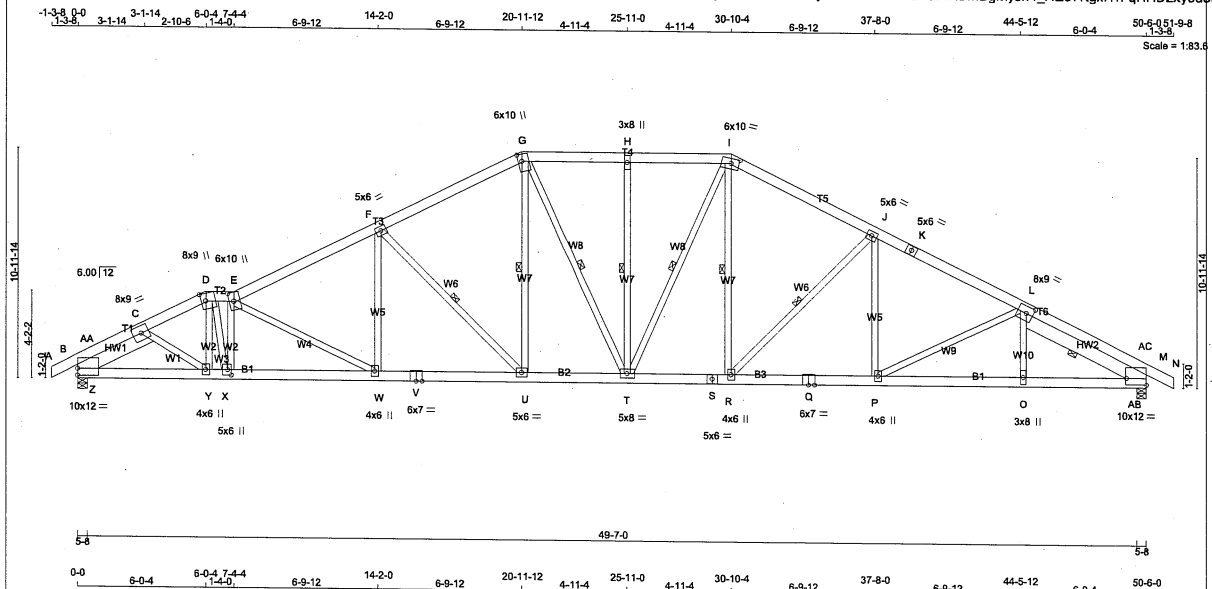
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JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	GREEN PARK HOMES	DRWG NO.	E22085507
428242	T84		1	TRUSS DESC.	JT 53080		

Alpa Roof Truss, Maple

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ID:1191019GMykJZRh3S23hYkyrFa-HPHhWuYsfKSMBgMysh4_HE67KgxH1FqHHD2xyod8a



LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x6	DRY	No.2	SPF	
D - E	2x6	DRY	No.2	SPF	
E - G	2x6	DRY	No.2	SPF	
G - I	2x6	DRY	No.2	SPF	
I - K	2x6	DRY	No.2	SPF	
K - N	2x6	DRY	No.2	SPF	
B - V	2x6	DRY	2100F 1.8E	SPF	
V - S	2x6	DRY	2100F 1.8E	SPF	
S - Q	2x6	DRY	2100F 1.8E	SPF	
Q - M	2x6	DRY	2100F 1.8E	SPF	

REINFORCING MEMBERS				
HW1	2x8	DRY	No.2	SPF
HW2	2x8	DRY	No.2	SPF
ALL WEBS EXCEPT	2x4	DRY	No.2	SPF
E - W	2x4	DRY	2100F 1.8E	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT TYPE	PLATES	W	LEN	Y	X
B	TMBWW-1	MT20	10.0	12.0	4.00	
C	TMBWW-1	MT20	8.0	9.0		
D	TTWW+m	MT20	8.0	9.0	4.25	2.50
E	TTWW+m	MT20	6.0	10.0	5.00	2.50
F	TTWW-1	MT20	5.0	6.0		
G	TTWW+m	MT20	6.0	10.0	4.00	2.00
H	TTWW-w	MT20	3.0	8.0		
I	TTWW-m	MT20	6.0	10.0	2.75	4.50
J	TTWW-1	MT20	5.0	6.0		
K	TS-1	MT20	5.0	6.0		
L	TMBWW-1	MT20	8.0	9.0	4.00	3.75
M	TMBWW-1	MT20	10.0	12.0	3.75	Edge
O	BMWW-w	MT20	3.0	8.0		
P, R, W, Y						
P	BMWW-1	MT20	4.0	6.0		
Q	BS-1	MT20	6.0	7.0		
S	BS-1	MT20	5.0	6.0		
T	BMWW-1	MT20	6.0	8.0		
U	BMWW-1	MT20	5.0	6.0		
V	BS-1	MT20	6.0	7.0		
X	BMWW-1	MT20	5.0	6.0	3.00	2.00

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
JT	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT HORZ	DOWN HORZ	UPLIFT IN-SX	IN-SX
B	4262 0	4262 155	-237 5-8	4-10
M	4265 0	4265 0	-225 5-8	4-10

PROVIDE ANCHORAGE AT BEARING JOINT B FOR 237 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT M FOR 225 LBS FACTORED UPLIFT

PROVIDE FOR 155 LBS FACTORED HORIZONTAL REACTION AT JOINTS

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM/LIVE	WIND	DEAD	SOIL
B	3142	1870 / 0	530 / 0	0 / 0	83 / -646	742 / 0	0 / 0
M	3144	1870 / 0	530 / 0	0 / 0	78 / -639	744 / 0	0 / 0

HORIZONTAL REACTIONS

B	0 / 0	0 / 0	111 / -111	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, M

BRACING

FOR SECTION G-I, MAX. UNBRACED TOP CHORD LENGTH = 2.00 FT.
FOR OTHER SECTIONS, MAX. UNBRACED TOP CHORD LENGTH = 2.75 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF F-U, G-U, G-T, H-T, I-T, I-R, J-R, L-A.B.

LOADING

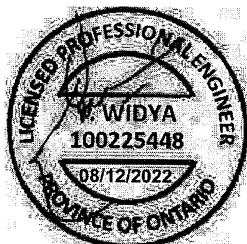
TOTAL LOAD CASES: (18)

CHORDS	MAX. FACTORED	FACTORED	MAX. FACTORED	WEBS	MAX. FACTORED	MAX. FACTORED
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	MAX. (LC1)	MEMB.	FORCE (LBS)	MAX. (LC)
FR-TO				FR-TO		
A-B	0 / 1	-120.3 -120.3	0.09 (2)	10.00	C-Y	0 / 837
B-AA	-4621 / 182	-120.3 -120.3	0.14 (1)	3.97	Y-D	-33 / 224
AA-C	-3019 / 172	-120.3 -120.3	0.10 (1)	4.79	X-E	-2928 / 168
C-D	-6664 / 350	-120.3 -120.3	0.29 (1)	3.22	E-W	-1165 / 146
D-E	-6598 / 357	-120.3 -120.3	0.19 (1)	3.32	W-F	0 / 881
E-F	-6687 / 334	-120.3 -120.3	0.81 (2)	2.75	F-U	-1951 / 270
F-G	-5428 / 297	-120.3 -120.3	0.70 (2)	3.17	U-G	-112 / 1619
G-H	-5003 / 279	-132.8 -132.8	0.35 (1)	2.00	G-T	-416 / 990
H-I	-5003 / 279	-132.8 -132.8	0.35 (1)	2.00	T-H	-772 / 66
I-J	-5316 / 281	-120.3 -120.3	0.64 (1)	3.28	T-I	-272 / 1165
J-K	-6300 / 310	-120.3 -120.3	0.74 (1)	2.94	R-I	-95 / 1366
K-L	-6300 / 310	-120.3 -120.3	0.74 (1)	2.94	R-J	-1585 / 247
L-A	-3260 / 237	-120.3 -120.3	0.30 (3)	4.49	P-J	0 / 584
AC-M	-4908 / 201	-120.3 -120.3	0.26 (1)	3.77	P-L	-695 / 145
M-N	0 / 1	-120.3 -120.3	0.09 (3)	10.00	O-L	0 / 315
B-Z	-247 / 2679	-39.5 -39.5	0.20 (1)	6.25	D-X	-74 / 2612
Z-Y	-389 / 5286	-39.5 -39.5	0.35 (1)	6.25	Z-C	-3555 / 194
Y-X	-352 / 5964	-39.5 -39.5	0.38 (1)	6.25	L-B	-3736 / 91
X-W	-388 / 6817	-39.5 -39.5	0.42 (1)	6.25	AB-AC	0 / 2143
W-V	-260 / 6023	-39.5 -39.5	0.34 (1)	6.25		
V-U	-260 / 6023	-39.5 -39.5	0.34 (1)	6.25		
U-T	-72 / 4834	-39.5 -39.5	0.27 (1)	6.25		
T-S	0 / 4734	-39.5 -39.5	0.27 (1)	10.00		
S-R	0 / 4734	-39.5 -39.5	0.27 (1)	10.00		
R-Q	-75 / 5853	-39.5 -39.5	0.31 (1)	6.25		
Q-P	-75 / 5853	-39.5 -39.5	0.31 (1)	6.25		
P-O	-203 / 5979	-39.5 -39.5	0.34 (1)	6.25		
O-AB	-201 / 5984	-39.5 -39.5	0.34 (1)	6.25		
AB-M	-126 / 2921	-39.5 -39.5	0.16 (1)	6.25		

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

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF { 7.5 } PSF AT (30-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, C_pC_s BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (ROUGH TERRAIN) AT MINIMUM (1,000) MILES DISTANCE FROM OPEN TERRAIN, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT-IN-SX AWAY FROM EAVE. TRUSS UPLIFT IS BASED ON TOP AND BOTTOM CHORD DEAD LOADS OF 6.0 PSF AND 7.4 PSF RESPECTIVELY.

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2



DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL	= 35.1 PSF
DL	= 6.0 PSF
BOT CH. LL	= 10.5 PSF
DL	= 7.4 PSF
TOTAL LOAD	= 59.0 PSF

SPACING = 24.0 IN./C/C

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

LOADING IN OTHER FLAT SECTIONS BASED ON A SLOPE OF 6.00/12

THIS TRUSS IS DESIGNED FOR COMMERCIAL OR INDUSTRIAL BUILDING REQUIREMENTS OF PART 4, NBCC 2015

THIS DESIGN COMPLIES WITH:

- PART 4 OF CBC 2015, ABC 2019
- PART 4 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS

- SLOPE REDUCTION FACTOR USED
- PERCENTAGE OF GROUND SNOW LOAD IS USER-DEFINED.

(89 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) TIMES IMPORTANCE FACTOR EQUALS 35.1 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL (LL) = L/360 (1.68")

CALCULATED VERT. DEFL (LL) = L/999 (0.27")

ALLOWABLE DEFL (TL) = L/180 (3.37")

CALCULATED VERT. DEFL (TL) = L/999 (0.38")

CSI: TC=0.81/1.00 (E-F-2), BC=0.42/1.00 (W-X-1),

WB=0.95/1.00 (F-U-2), SS=0.32/1.00 (E-F-2)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS=1.10

SNOW LOAD IMPORTANCE FACTOR = 1.00

WIND LOAD IMPORTANCE FACTOR = 1.00

LIVE LOAD IMPORTANCE FACTOR = 1.00

COMPANION LIVE LOAD FACTOR = 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)
MT20	650	371	1747
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

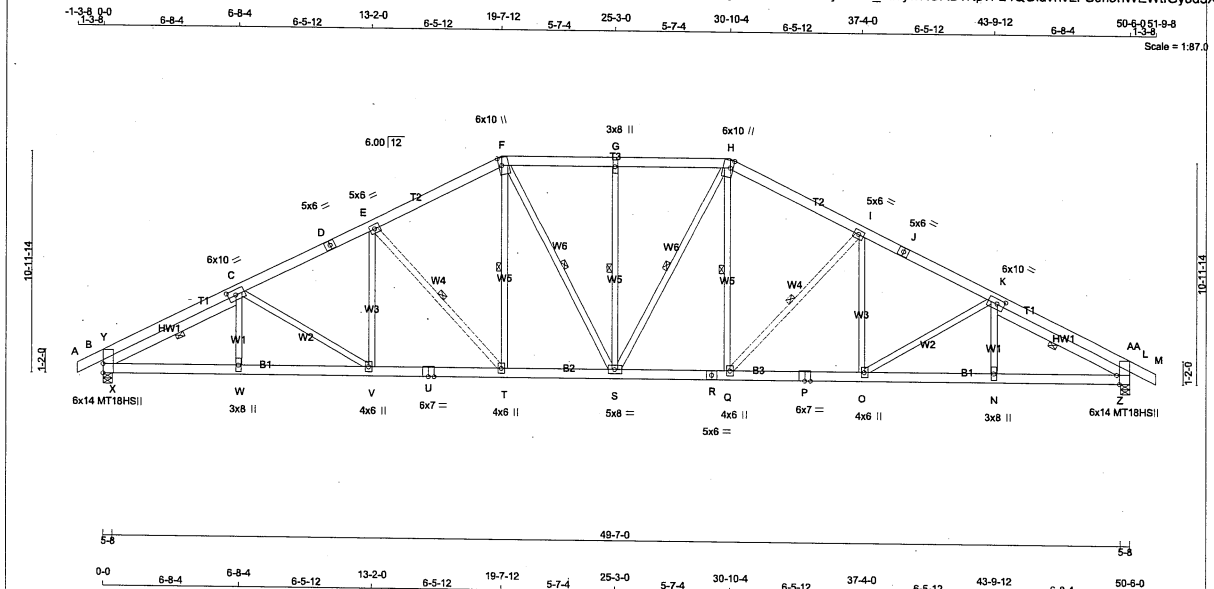
JSI GRIP = 0.90 (I) (INPUT = 0.90)

JSI METAL = 0.88 (I) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	GREEN PARK HOMES	DRWG NO.	E22085509
428242	T85		1	TRUSS DESC.	JT 53080		

Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 MiTek Industries, Inc. Fri Aug 12 11:22:04 2022 Page 1
ID:119f019GMykJZRh3S23hYkyvFa-i_MivvYROADvKpF24QOidvnlFS8h9hWEWfGyod5X



LUMBER	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x6	DRY	No.2	SPF
D - F	2x6	DRY	No.2	SPF
F - H	2x6	DRY	No.2	SPF
H - J	2x6	DRY	No.2	SPF
J - M	2x6	DRY	No.2	SPF
B - U	2x6	DRY	No.2	SPF
U - R	2x6	DRY	No.2	SPF
R - P	2x6	DRY	No.2	SPF
P - L	2x6	DRY	No.2	SPF

REINFORCING MEMBERS	SIZE	LUMBER	DESCR.
HW1	2x6	DRY	No.2
HW2	2x6	DRY	No.2

ALL WEBS	SIZE	LUMBER	DESCR.
W	2x4	DRY	No.2
V	2x4	DRY	No.2
U	2x4	DRY	No.2
T	2x4	DRY	No.2
S	2x4	DRY	No.2
R	2x4	DRY	No.2
Q	2x4	DRY	No.2
P	2x4	DRY	No.2
O	2x4	DRY	No.2
N	2x4	DRY	No.2
B	2x4	DRY	No.2
L	2x4	DRY	No.2
K	2x4	DRY	No.2
J	2x4	DRY	No.2
I	2x4	DRY	No.2
H	2x4	DRY	No.2
G	2x4	DRY	No.2
F	2x4	DRY	No.2
E	2x4	DRY	No.2
D	2x4	DRY	No.2
C	2x4	DRY	No.2
B	2x4	DRY	No.2
A	2x4	DRY	No.2

PLATES (table is in inches)	TYPE	PLATES	W	LEN	Y	X
JT	TYPE	PLATES	W	LEN	Y	X
B	TMBMW1+t	MT18HS	6.0	14.0	Edge	
C	TMBMW1+t	MT20	6.0	10.0	3.00	4.50
D	TS-1	MT20	5.0	6.0		
E	TMBMW1+t	MT20	5.0	6.0		
F	TMBMW1+t	MT20	6.0	10.0	4.50	1.75
G	TMBMW1+t	MT20	3.0	8.0		
H	TMBMW1+t	MT20	6.0	10.0	4.50	1.75
I	TMBMW1+t	MT20	5.0	6.0		
J	TS-1	MT20	5.0	6.0		
K	TMBMW1+t	MT20	6.0	10.0	3.00	4.50
L	TMBMW1+t	MT18HS	6.0	14.0	Edge	1.50
N	BMW1+t	MT20	3.0	8.0		
O, Q, T, V	BMW1+t	MT20	4.0	6.0		
P	BS-1	MT20	6.0	7.0		
R	BS-1	MT20	5.0	6.0		
S	BMW1+t	MT20	5.0	8.0		
U	BS-1	MT20	6.0	7.0		
W	BMW1+t	MT20	3.0	8.0		

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

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

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	RECORD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	UPLIFT
B	4272	0	4272	155
L	4272	0	4272	155

PROVIDE ANCHORAGE AT BEARING JOINT B FOR 225 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT L FOR 225 LBS. FACTORED UPLIFT

PROVIDE FOR 155 LBS. FACTORED HORIZONTAL REACTION AT JOINTS

UNFACTORED REACTIONS	1ST LCASE	MAX	MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE	PERM.LIVE
B	3149	1870 / 0	530 / 0	0 / 0
L	3149	1870 / 0	530 / 0	0 / 0

HORIZONTAL REACTIONS	B	0 / 0	0 / 0	0 / 0	111 / -111	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, L

BRACING
FOR SECTION F-H, MAX. UNBRACED TOP CHORD LENGTH = 2.00 FT.
FOR OTHER SECTIONS, MAX. UNBRACED TOP CHORD LENGTH = 3.04 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-T, F-T, F-S, G-S, H-S, H-Q, I-Q, C-X, K-Z.

LOADING

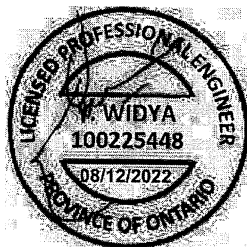
TOTAL LOAD CASES: (18)

CHORDS	MEMB.	MAX. FACTORED	FORCE	VERT. LOAD	LC1	MAX	MAX	UNBRAC	WEBS	MEMB.	MAX. FACTORED	FORCE	MAX	CS1	LC2
FR-TO									FR-TO						
A-B	0 / 1	-120.3	-120.3	0.09	(2)	10.00	W-C	0 / 307	0.05	(17)					
B-Y	-5068 / 145	-120.3	-120.3	0.45	(2)	3.48	C-V	-662 / 148	0.53	(2)					
Y-C	-3066 / 253	-120.3	-120.3	0.41	(2)	4.44	V-E	0 / 627	0.10	(2)					
C-D	-6261 / 314	-120.3	-120.3	0.85	(1)	3.04	E-T	-1553 / 242	0.74	(2)					
D-E	-6261 / 314	-120.3	-120.3	0.85	(1)	3.04	T-F	-97 / 1389	0.22	(3)					
E-F	-5328 / 284	-120.3	-120.3	0.57	(1)	3.35	F-S	-278 / 1147	0.21	(9)					
F-G	-5035 / 263	-132.8	-132.8	0.45	(1)	2.00	S-G	-890 / 76	0.50	(1)					
G-H	-5035 / 263	-132.8	-132.8	0.45	(1)	2.00	H-S	-278 / 1147	0.21	(10)					
H-I	-5328 / 284	-120.3	-120.3	0.57	(1)	3.35	Q-H	-97 / 1389	0.22	(3)					
I-J	-6261 / 314	-120.3	-120.3	0.85	(1)	3.04	Q-I	-1553 / 242	0.74	(3)					
J-K	-6261 / 314	-120.3	-120.3	0.85	(1)	3.04	O-I	0 / 627	0.10	(3)					
K-AA	-3066 / 253	-120.3	-120.3	0.41	(3)	4.44	O-K	-662 / 148	0.53	(3)					
AA-L	-5068 / 145	-120.3	-120.3	0.45	(3)	3.48	N-K	0 / 307	0.05	(17)					
L-M	0 / 1	-120.3	-120.3	0.09	(3)	10.00	X-Y	0 / 2488	0.00	(1)					
B-X	-287 / 2728	-39.5	-39.5	0.39	(1)	6.25	X-C	-3896 / 68	0.73	(1)					
X-W	-344 / 6001	-39.5	-39.5	0.79	(1)	6.25	K-Z	-3896 / 68	0.73	(1)					
W-V	-346 / 5996	-39.5	-39.5	0.80	(1)	6.25	Z-AA	0 / 2488	0.00	(1)					
V-U	-221 / 5616	-39.5	-39.5	0.74	(1)	6.25									
U-T	-221 / 5616	-39.5	-39.5	0.74	(1)	6.25									
T-S	-60 / 4747	-39.5	-39.5	0.84	(1)	6.25									
S-R	0 / 4747	-39.5	-39.5	0.84	(1)	10.00									
R-Q	0 / 4747	-39.5	-39.5	0.84	(1)	10.00									
Q-P	-66 / 5616	-39.5	-39.5	0.74	(1)	6.25									
P-O	-66 / 5616	-39.5	-39.5	0.74	(1)	6.25									
O-N	-191 / 5996	-39.5	-39.5	0.80	(1)	6.25									
N-Z	-190 / 6001	-39.5	-39.5	0.79	(1)	6.25									
Z-L	-132 / 2728	-39.5	-39.5	0.39	(1)	6.25									

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

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF (7.5) PSF AT (30-0-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCg, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON (ROUGH TERRAIN) AT MINIMUM (1.000) MILES DISTANCE FROM OPEN TERRAIN, AND TRUSS IS DESIGNED TO BE LOCATED AT LEAST (6-0) FT-IN-SX AWAY FROM EAVE. TRUSS UPLIFT IS BASED ON TOP AND BOTTOM CHORD DEAD LOADS OF 0.6 PSF AND 7.4 PSF RESPECTIVELY.

LATERAL BRACE(S) SHOWN SHALL BE
2X4 SPF#2



DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 35.1 PSF
DL = 8.0 PSF
BOT CH. LL = 10.5 PSF
DL = 7.4 PSF
TOTAL LOAD = 59.0 PSF
SPACING = 24.0 IN. C/C

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

THIS TRUSS IS DESIGNED FOR COMMERCIAL
OR INDUSTRIAL BUILDING REQUIREMENTS OF
PART 4, NBCC 2015

THIS DESIGN COMPLIES WITH:
- PART 4 OF BCBC 2018, ABC 2019
- PART 4 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

DESIGN ASSUMPTIONS
- SLOPE REDUCTION FACTOR USED
- PERCENTAGE OF GROUND SNOW LOAD IS
USER-DEFINED.

(80 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F.
RAIN LOAD) TIMES IMPORTANCE FACTOR
EQUALS 35.1 P.S.F. SPECIFIED ROOF LIVE
LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.68")
CALCULATED VERT. DEFL.(LL)= U/999 (0.26")
ALLOWABLE DEFL.(TL)= L/360 (3.37")
CALCULATED VERT. DEFL.(TL)= U/999 (0.37")

CS1: TC=0.65/1.00 (C-E-1), BC=0.80/1.00 (V-W-1),
WB=0.74/1.00 (E-T-2), SS=0.30/1.00 (B-Y-2)

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

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

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PL) (PL)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873
MT18HS 586 403 2455 1382 3163 3004

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (F) (INPUT = 0.90)
JSI METAL= 0.95 (L) (INPUT = 1.00)

EWP DESIGN INC.

(905) 832-2250

FAX (905) 832-0286

RESPONSIBILITIES AND SPECIFICATIONS

RESPONSIBILITIES

1. EWP DESIGN INC. is responsible for the design of trusses as individual components.
2. It is the responsibility of others to ascertain that the design loads utilized on each drawing meet or exceed the actual dead load imposed by the structure, the live load imposed by the intended use and the snow load imposed by local building code or authorities with jurisdictions.
3. All dimensions are to be verified by the owner, contractor, architect or other authorities with jurisdictions before truss fabrication.
4. EWP DESIGN INC. bears no responsibility for the erection of trusses. Persons erecting trusses are cautioned to seek professional advice regarding the temporary and permanent bracing for the system. Bracing shown on EWP DESIGN INC. drawing is specified for the truss as a component only and forms an integral part of the truss design.
5. It is the truss manufacturer's responsibility to ensure that trusses are manufactured in conformance with specifications of EWP DESIGN INC. as outlined below.

SPECIFICATIONS

1. Trusses designed by EWP DESIGN INC. conform to the relevant section of the Ontario Building Code of Canada (Part 9 or Part 4) or to the Canadian code for farm buildings, whichever applies to the building type, as indicated on the EWP DESIGN INC. drawings, and conform to the design procedures established by the Truss Plate Institute of Canada. Unit stresses used for truss designs are as per the edition of CSA-O86 shown on EWP DESIGN INC. drawings.
2. Lumber is to be the size, species and grade as specified on EWP DESIGN INC. drawings.
3. Moisture content of lumber shall not exceed 19% in service unless specified otherwise.
4. Metal connector plates shall be applied to both faces of truss at each joint and shall be positioned as specified.
5. Top chords of trusses are assumed to be continuously braced laterally by roof sheathing or by purlins at intervals not exceeding 12.5 times the thickness of top chord member.
6. Bottom chords shall be laterally braced at intervals not exceeding 3M (10') o.c., where rigid ceiling is not applied directly to the underside of chords.

THESE DRAWINGS CONSTITUTE THE PROPERTY OF EWP DESIGN INC., SHALL NOT BE REPRODUCED, PUBLISHED, OR REDISTRIBUTED IN ANY MANNER OR UTILIZED FOR ANY PURPOSE OTHER THAN THE MANUFACTURE OF TRUSSES BY THE ALPA LUMBER GROUP, AND WILL BE RETRACTED BY EWP DESIGN INC. IF UTILIZED FOR ANY OTHER PURPOSE.

TOE-NAIL CAPACITY DETAILS

LATERAL AND WITHDRAWAL RESISTANCE OF BEARING ANCHORAGE BY TOE-NAILS

			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
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

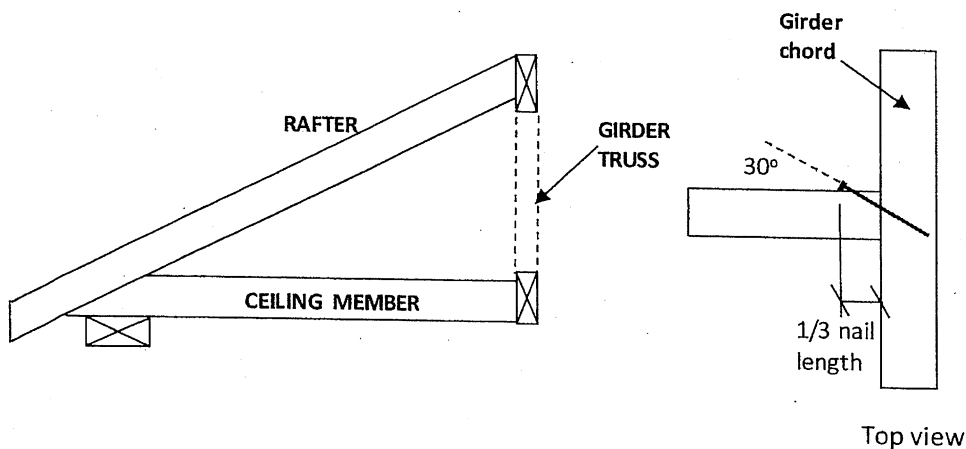
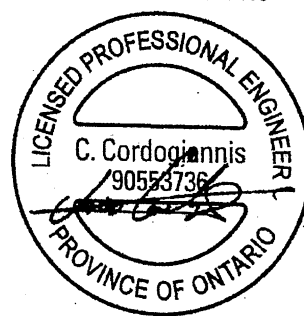


Figure 1: Toe-Nailing Rafter / Ceiling Member to Girder Truss

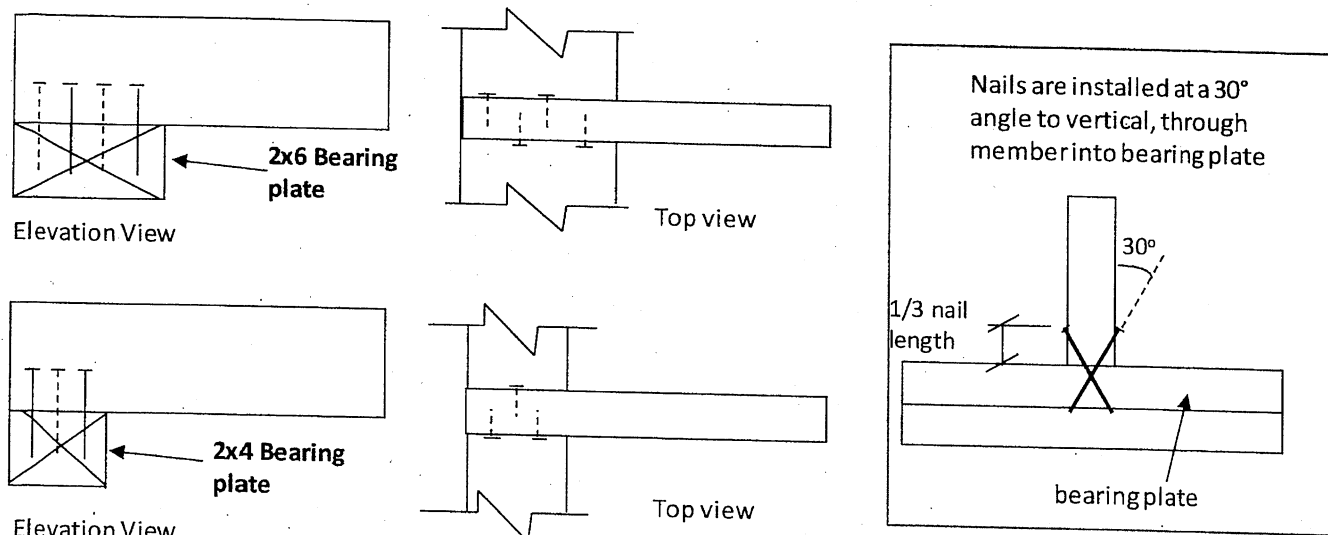
PEO
Certificate No. 10889485



December 21, 2020

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_0 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.

PEO
Certificate No. 10889485



LUL/LUS/LJS/HUS/HHUS/HGUS

SIMPSON
Strong-Tie

Standard and Double-Shear Joist Hangers



This product is preferable to similar connectors because of a) easier installation, b) higher capacities, c) lower installed cost, or a combination of these features.

Most hangers in this series have double-shear nailing — an innovation that distributes the load through two points on each joist nail for greater strength. This allows for fewer nails, faster installation, and the use of all common nails for the same connection. (Do not bend or remove tabs)

Double-shear hangers range from the light capacity LUS hangers to the highest capacity HGUS hangers. For medium load truss applications, the HUS offers a lower cost alternative and easier installation than the HGUS hangers, while providing greater load capacity and bearing than the LUS.

Material: See table on pp. 217–218.

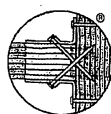
Finish: Galvanized. Some products available in stainless steel or ZMAX® coating; see Corrosion Information, pp. 18–20.

Installation:

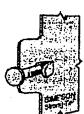
- Use all specified fasteners; see General Notes.
- Nails must be driven at an angle through the joist or truss into the header to achieve the tabulated resistances (except LUL).
- Where 16d commons are specified, 10d commons may be used at 0.83 of the tabulated factored resistance.
- Not designed for welded or nailer applications.
- With single ply 2x carrying members, use 10d x 1 1/2" nails into the header and 10d commons into the joist, and reduce the resistance to 0.64 of the table value where 16d nails are specified and 0.77 where 10d nails are specified.

Options:

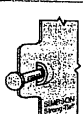
- LUS, LJS, LUL and HUS hangers cannot be modified.
- Other sizes available; consult your Simpson Strong-Tie representative.
- See Hanger Options information on pp. 105–107.



Double-Shear Nailing Top View

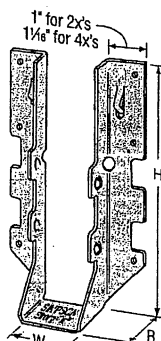
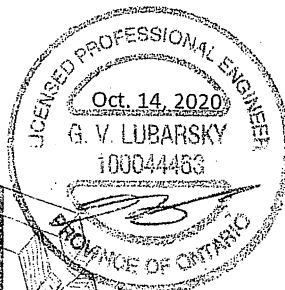
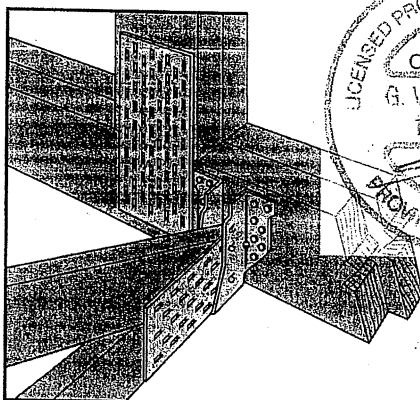


Double-Shear Nailing Side View; Do not bend tab

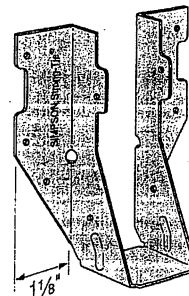


Dome Double-Shear Nailing Side View (available on some models)

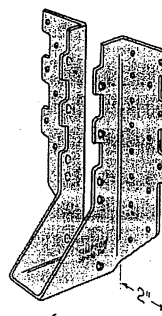
Typical HUS26 Installation with Reduced Heel Height
(Truss Designer to provide fastener quantity for connecting multiple members together)



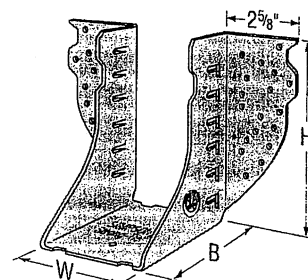
LUS28



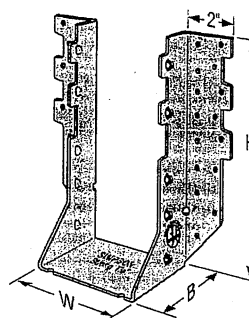
LU26L



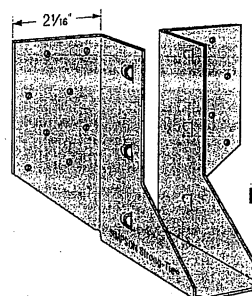
HUS210
(HUS26, HUS28, and HHUS similar)



HGUS28-2



HHUS210-2



LJS26DS

TECHNICAL BULLETIN

LUS - Double Shear Joist Hangers

SIMPSON
Strong-Tie

All LUS hangers have double shear nailing. This patented innovation distributes the load through two points on each joist nail for greater strength. It also allows the use of fewer nails, faster installation and the use of common nails for all connections.

Material: 18 gauge

Finish: G90 galvanized

Design:

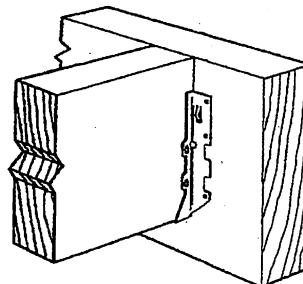
- Factored resistances are in accordance with CSA 086-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

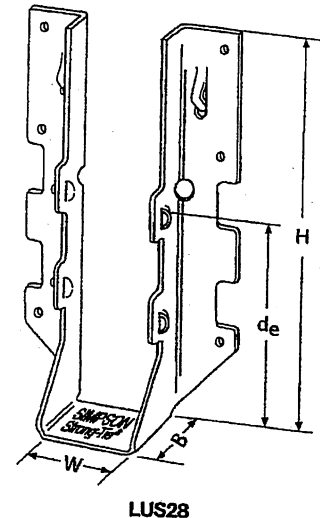
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified

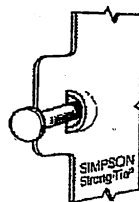


Typical LUS
Installation



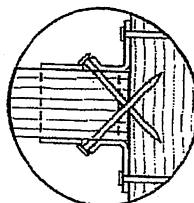
Model No.	Ga.	Dimensions (in.)					Fasteners		Factored Resistance (lb.)			
		W	H	B	d _o ¹	Face	Joist		D.Fir-L		S-P-F	
									Uplift (K _o =1.15)	Normal (K _o =1.00)	Uplift (K _o =1.15)	Normal (K _o =1.00)
LUS24	18	1 1/8	3 1/8	1 1/4	1 1/8	(4) 10d	(2) 10d		710	1630	645	1155
LUS24-2	18	3 1/8	3 1/8	2	1 1/8	(4) 16d	(2) 16d		835	2020	590	1435
LUS26	18	1 1/8	4 3/8	1 1/4	3/8	(4) 10d	(4) 10d		1420	2170	1290	1630
LUS26-2	18	3 1/8	4 3/8	2	4	(4) 16d	(4) 16d		1720	2595	1545	1920
LUS26-3	18	4 3/8	4 3/8	2	3 1/4	(4) 16d	(4) 16d		1720	2595	1545	2340
LUS28	18	1 1/8	6 3/8	1 1/4	3 3/4	(6) 10d	(6) 10d		1420	2520	1290	1790
LUS28-2	18	3 1/8	7	2	4	(6) 16d	(4) 16d		1720	3325	1545	2575
LUS28-3	18	4 3/8	6 1/4	2	3 1/4	(6) 16d	(4) 16d		1720	3325	1545	2375
LUS210	18	1 1/8	7 1/8	1 1/4	3 3/8	(8) 10d	(4) 10d		1420	2785	1290	2210
LUS210-2	18	3 1/8	9	2	6	(8) 16d	(6) 16d		2580	4500	2320	3195
LUS210-3	18	4 3/8	8 3/8	2	5 1/4	(8) 16d	(6) 16d		2580	3345	2320	2375

1. d_o is the distance from the seat of the hanger to the highest joist nail.

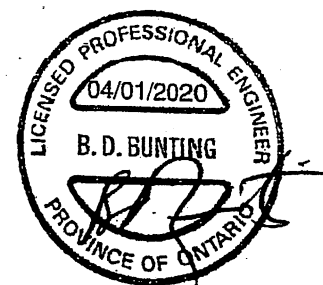


Dome Double
Shear Nailing
prevents tabs
breaking off
(available on
some models).

U.S. Patent
5,603,580



Double
Shear
Nailing
Top View.



LIMIT
STATES
DESIGN

This technical bulletin is effective until June 30, 2022, and reflects information available as of April 1, 2020. This information is updated periodically and should not be relied upon after June 30, 2022. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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T-SPEC LUS20 3/20 exp. 6/22

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HUS/LJS - Double Shear Joist Hangers

SIMPSON
Strong-Tie

All hangers have double shear nailing. This patented innovation distributes the load through two points on each joist nail for greater strength. It also allows the use of fewer nails, faster installation and the use of common nails for all connections. Do not bend or remove tabs.

Material: See table

Finish: G90 galvanized

Design:

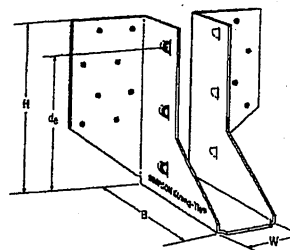
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

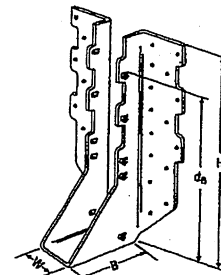
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

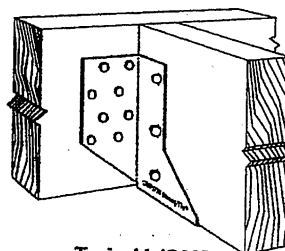
- See current catalogue for options



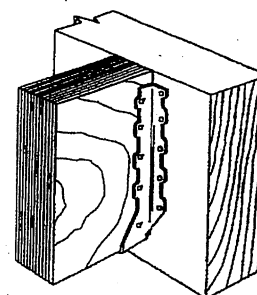
LJS26DS



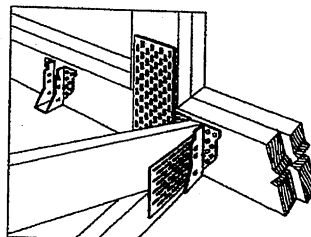
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



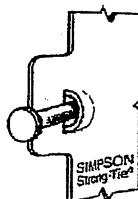
Typical HUS
Installation



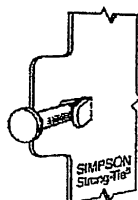
Typical HUS Installation
(Truss Designer to provide fastener
quantity for connecting multiple
members together)

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _g ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _g =1.15)	Normal (K _g =1.00)	Uplift (K _g =1.15)	Normal (K _g =1.00)
LJS26DS	18	1 1/16	5	3 1/2	4 3/8	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1 1/8	5 1/8	3	3 1/16	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1 1/8	7 1/2	3	6 1/32	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	1 1/8	9 1/2	3	7 1/32	(30) 16d	(10) 16d	4505	5795	4010	4740
HUS1.81/10	16	1 1/16	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

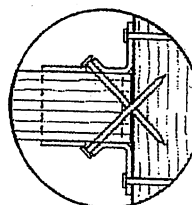
1. d_g is the distance from the seat of the hanger to the highest joist nail.



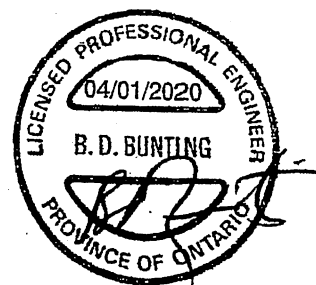
Double Shear Nailing prevents tabs breaking off (available on some models).
U.S. Patent 5,603,580



Double Shear Nailing Side View. Do not bend tab back.



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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T-SPECHUS20 3/20 exp. 6/22

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TECHNICAL BULLETIN

HGUS – Double Shear Joist Hangers

SIMPSON
Strong-Tie

All HGUS hangers have double shear nailing. This patented innovation distributes the load through two points on each joist nail for greater strength. It also allows the use of fewer nails, faster installation and the use of common nails for all connections. Do not bend or remove tabs.

Material: 12 gauge

Finish: G90 galvanized

Design:

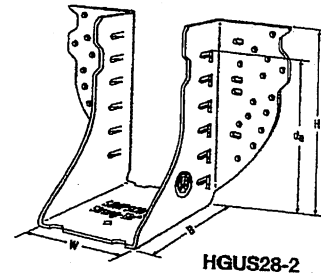
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

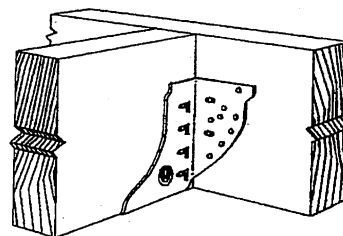
- Use all specified fasteners
- Nails: 16d = 0.162" dia x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

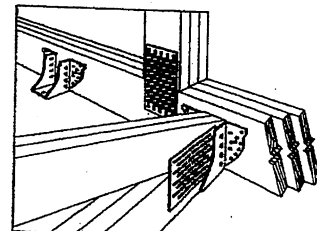
- See current catalogue for options



HGUS28-2



Typical HGUS Installation



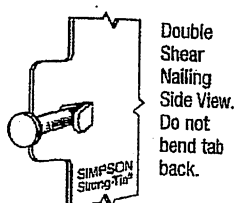
Typical HGUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)

Model No.	Ga.	Dimensions (in.)					Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₁	Face	Joist		D.Fir-L		S-P-F	
									Uplift (K _o =1.15)	Normal (K _o =1.00)	Uplift (K _o =1.15)	Normal (K _o =1.00)
HGUS26	12	1½	5½	5	4½	(20) 16d	(8) 16d		2685	6625	2685	5700
HGUS26-2	12	3½	5½	4	4½	(20) 16d	(8) 16d		4385	8950	3100	6355
HGUS26-3	12	4½	5½	4	4½	(20) 16d	(8) 16d		4385	8950	3100	6355
HGUS26-4	12	6½	5½	4	4½	(20) 16d	(8) 16d		4385	8950	3100	6355
HGUS28	12	1½	7½	5	6½	(36) 16d	(12) 16d		3310	7675	3100	6900
HGUS28-2	12	3½	7½	4	6½	(36) 16d	(12) 16d		6070	12980	4310	9215
HGUS28-3	12	4½	7½	4	6½	(36) 16d	(12) 16d		6070	12980	4310	9215
HGUS28-4	12	6½	7½	4	6½	(36) 16d	(12) 16d		6070	12980	4310	9215
HGUS210	12	1½	9½	5	7½	(46) 16d	(16) 16d		3535	11070	2510	8090
HGUS210-2	12	3½	9½	4	8½	(46) 16d	(16) 16d		6840	14015	4855	10270
HGUS210-3	12	4½	9½	4	8½	(46) 16d	(16) 16d		6840	14645	4855	10400
HGUS210-4	12	6½	9½	4	8½	(46) 16d	(16) 16d		6840	14645	4855	10400
HGUS212-4	12	6½	10½	4	10½	(56) 16d	(20) 16d		7640	14995	5425	10645
HGUS214-4	12	6½	12½	4	11½	(66) 16d	(22) 16d		10130	16400	7195	11645

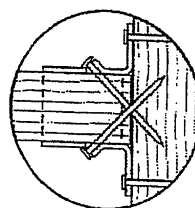
1. d₁ is the distance from the seat of the hanger to the highest joist nail.



Dome Double Shear Nailing prevents tabs breaking off (available on some models).
U.S. Patent 5,603,580



Double Shear Nailing Side View. Do not bend tab back.



Double Shear Nailing Top View.



LIMIT
STATES
DESIGN

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T-SPECHGUS20 3/20 exp. 6/22

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TECHNICAL BULLETIN

HHUS – Double Shear Joist Hangers

SIMPSON
Strong-Tie

All HHUS hangers have double shear nailing. This patented innovation distributes the load through two points on each joist nail for greater strength. It also allows the use of fewer nails, faster installation and the use of common nails for all connections. Do not bend or remove tabs.

Material: 14 gauge

Finish: G90 galvanized

Design:

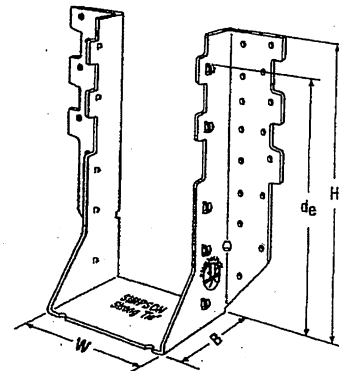
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these loads.

Installation:

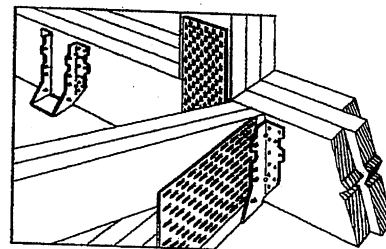
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

- See current catalogue for options



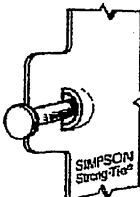
HHUS410



Typical HHUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)

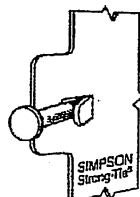
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift	Normal	Uplift	Normal
								(K _p =1.15)	(K _p =1.00)	(K _p =1.15)	(K _p =1.00)
HHUS26-2	14	3 1/8	5 1/8	3	3 1/16	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 1/8	7 1/8	3	6 1/16	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3 1/8	9 1/8	3	8	(30) 16d	(10) 16d	4670	9660	4235	7000
HHUS210-3	14	4 1/8	9	3	7 1/16	(30) 16d	(10) 16d	4670	9670	4235	6865
HHUS210-4	14	6 1/8	8 3/8	3	7 27/32	(30) 16d	(10) 16d	4670	10155	4235	7210
HHUS46	14	3 3/8	5 1/8	3	3 1/16	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3 3/8	7 1/8	3	6 1/16	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS410	14	3 3/8	9	3	8	(30) 16d	(10) 16d	4670	9855	4235	7000
HHUS5.50/10	14	5 1/2	9	3	8	(30) 16d	(10) 16d	4670	10155	4235	7210
HHUS7.25/10	14	7 1/4	9	3 3/8	7 29/32	(30) 16d	(10) 16d	4670	10155	3370	7210

1. d_e is the distance from the seat of the hanger to the highest joist nail.

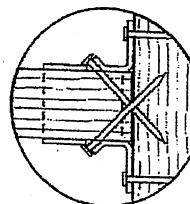


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

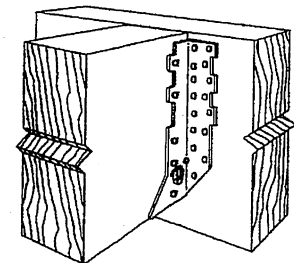
U.S. Patent
5,603,580



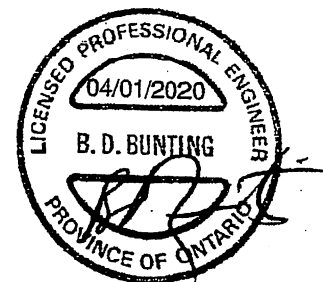
Double Shear Nailing Side View. Do not bend tab back.



Double Shear Nailing Top View.



Typical HHUS Installation



**LIMIT
STATES
DESIGN**

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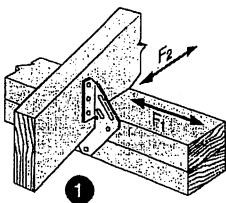
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T-SPECHHUS20 3/20 exp. 6/22

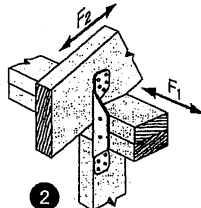
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H/TSP

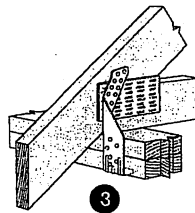
Seismic and Hurricane Ties (cont.)



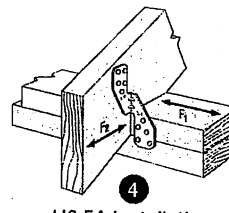
1 H1 Installation



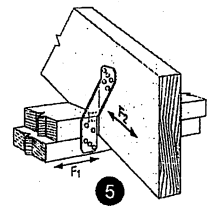
2 H2A Installation



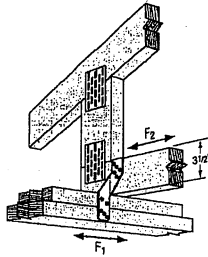
3 TSP Installation



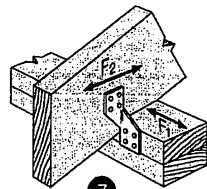
4 H2.5A Installation
(Nails into both top plates)



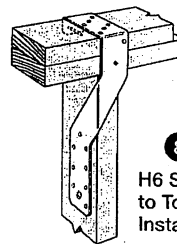
5 H2.5T Installation
(Nails into both top plates)



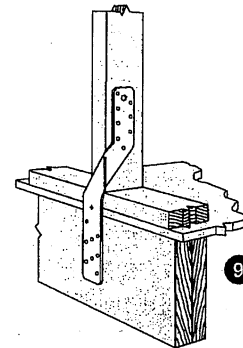
6 H2.5T Installation



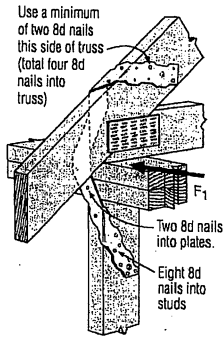
7 H3 Installation
(Nails into upper top plate)



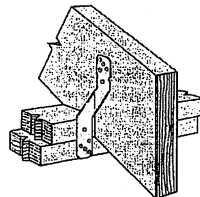
8 H6 Stud
to Top Plate
Installation



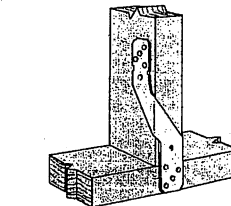
9 H6 Stud to
Band Joist
Installation



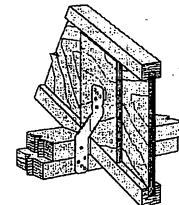
10 H7Z Installation



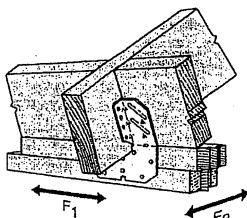
11 H8 Attaching
Rafter to Double
Top Plates



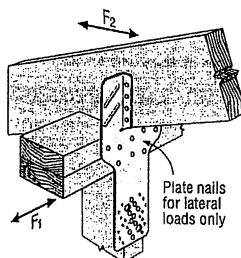
12 H8 attaching Stud to Sill
(4) 8d into plate, (5) 8d into stud)



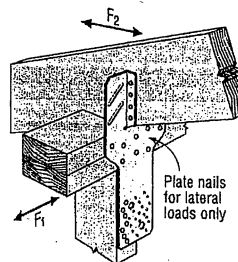
13 H8 attaching
I-Joist to Double
Top Plates



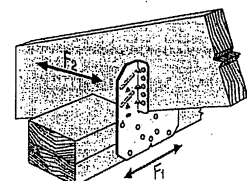
14 H10A Field-Bent
Installation



15 H10S Installation

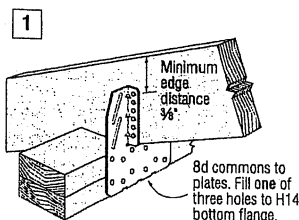


16 H10S Installation
with Stud Offset

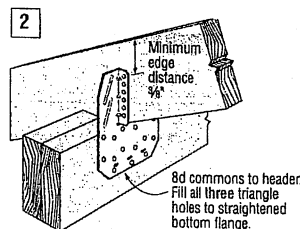


17 H10A
Installation

H10A optional positive angle nailing connects shear blocking to rafter. Use 8d common nails. Slot allows maximum field-bending up to a pitch of 6/12, use 75% of the table uplift value; bend one time only.

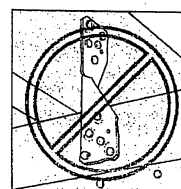


18 H14 Installation to
Double Top Plates



19 H14 Installation
to Double 2x Header

Avoid a Misinstallation



Do not make
new holes or
overdrive nails.

H/TSP

Seismic and Hurricane Ties

Simpson Strong-Tie® hurricane ties provide a positive connection between truss/rafter and the wall of the structure to resist wind and seismic forces. New additions to the line provide even more options.

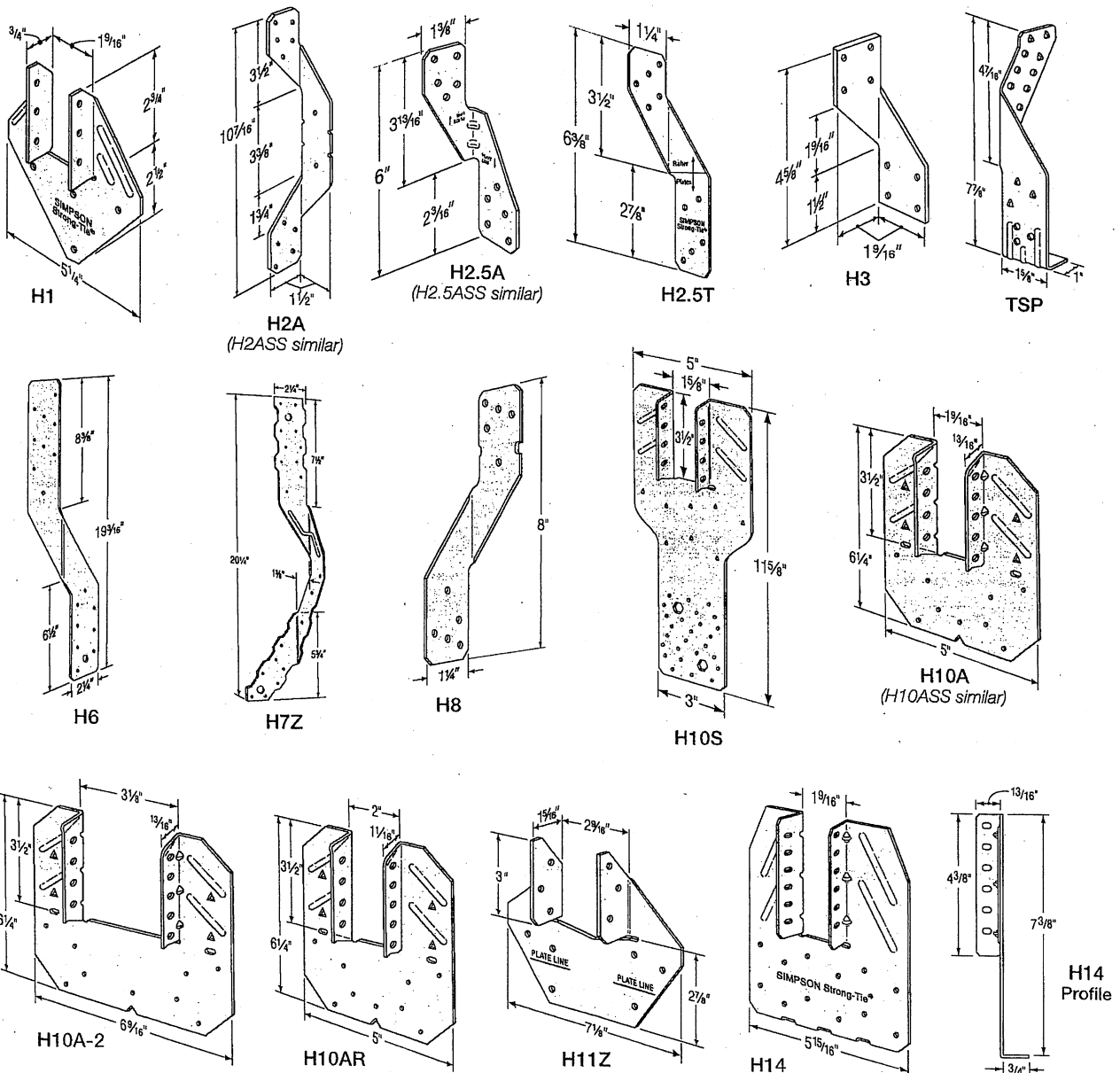
- H10AR — The heavy-duty design of the H10A available with a 2" wide throat to accommodate rough lumber
- H10A-2 — The H10A design with a 3" throat for double 2x members
- H2ASS, H2.5ASS and H10ASS — Popular ties now available in stainless steel

Material: See table

Finish: Galvanized. H7Z and H11Z — ZMAX® coating. Some models available in stainless steel or ZMAX; see Corrosion Information, pp. 20–24 or visit strongtie.com.

Installation:

- Use all specified fasteners; see General Notes.
- H1 can be installed with flanges facing inward (reverse of H1 installation drawing; number 1).
- H2.5T, H3 and H6 ties are shipped in equal quantities of right and left versions (right versions shown).
- Hurricane ties do not replace solid blocking.
- When installing ties on plated trusses (on the side opposite the truss plate) do not fasten through the truss plate from behind. This can force the truss plate off of the truss and compromise truss performance.
- H10A optional nailing to connect shear blocking, use 8d nails. Slots allow maximum field bending up to a pitch of 6:12, use H10A sloped loads for field bent installation.



H – Seismic and Hurricane Ties

SIMPSON
Strong-Tie

The H connector series provides wind and seismic ties for trusses and rafters.

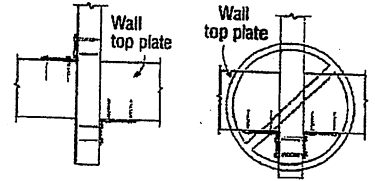
Material: 18 gauge **Finish:** G90 galvanized

Design: • Factored resistances are in accordance with CSA O86-14
• Factored resistances have been increased 15%. No further increase is permitted.

Installation: • Use all specified fasteners
• Nails: 8d = 0.131" dia. x 2½" long common wire, 8d x 1½" = 0.131" x 1½" long, 10d x 1½" = 0.146" x 1½" long
• H1 can be installed with flanges facing outwards
• Hurricane ties do not replace solid blocking

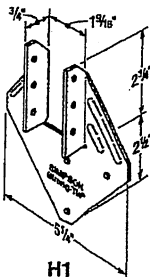
Factored resistances for more than one direction for a single connection cannot be added together. A factored load which can be divided into components in the directions given must be evaluated as follows: Factored Shear/Resisting Shear + Factored Tension/Resisting Tension ≤ 1.0.

Hurricane Tie Installations to Achieve Twice the Load (Top View)

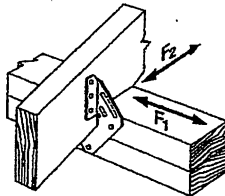


Install diagonally across from each other for minimum 2x truss.

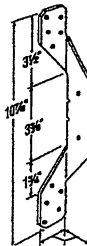
Nailing into both sides of a single ply 2x truss may cause the wood to split.



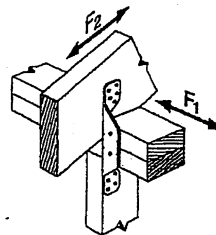
H1



H1 Installation



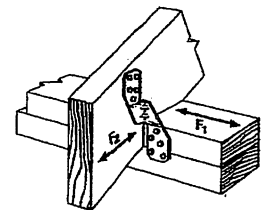
H2A



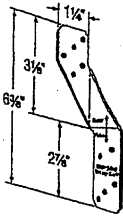
H2A Installation



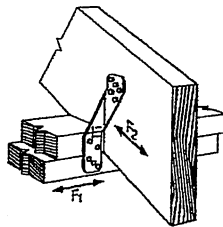
H2.5A



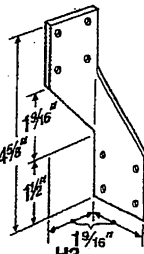
H2.5A Installation



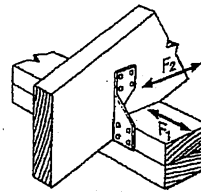
H2.5T



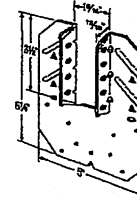
H2.5T Installation
(Nails into both top plates)



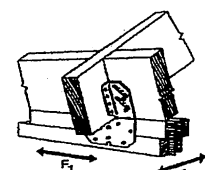
H3



H3 Installation



H10A



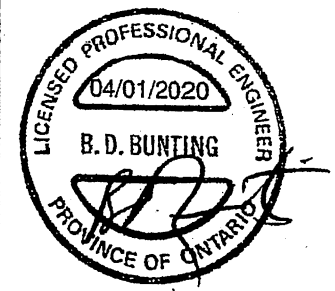
H10A Installation

Model No.	Ga.	Fasteners			Factored Resistance (lb.)					
					D.Fir-L			S-P-F		
		To Rafter	To Plates	To Studs	Uplift	Normal		Uplift	Normal	
						F ₁	F ₂		F ₁	F ₂
								(K _o =1.15)		
H1	18	(6) 8d x 1½"	(4) 8d	—	740	685	300	680	485	215
H2A	18	(5) 8d x 1½"	(2) 8d x 1½"	(5) 8d x 1½"	830	220	75	590	155	55
H2.5A	18	(5) 8d	(5) 8d	—	805	160	160	755	160	160
H2.5T	18	(5) 8d	(5) 8d	—	835	175	240	740	160	210
H3	18	(4) 8d	(4) 8d	—	740	180	285	615	125	190
H10A	18	(9) 10d x 1½"	(9) 10d x 1½"	—	1735	795	410	1505	565	290

1. Factored resistance values are based on a design wind speed of 110 mph (177 km/h) and a return period of 50 years.

- Factored resistances have been increased 15% for earthquake or wind loading with no further increase allowed.
- Factored resistances are for one anchor. A minimum rafter thickness of 2½" must be used when framing anchors are installed on each side of the joist and on the same side of the plate.

- When cross-grain bending or cross-grain tension cannot be avoided, mechanical reinforcement to resist such forces should be considered.
- Hurricane ties are shown installed on the outside of the wall for clarity. Installation on the inside of the wall is acceptable. For a Continuous Load Path, connections must be on same side of the wall.



**LIMIT
STATES
DESIGN**

This technical bulletin is effective until June 30, 2022, and reflects information available as of April 1, 2020. This information is updated periodically and should not be relied upon after June 30, 2022. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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T-SPECH20 3/20 exp. 6/22

(800) 999-5099
strongtie.com

TC - Truss Connectors

SIMPSON
Strong-Tie

The TC truss connector is an ideal connector for scissor trusses and can allow horizontal movement up to 1¼". The TC also attaches plated trusses to top plates or sill plates to resist uplift forces. Typically used on one or both ends of truss as determined by the building designer.

Material: 16 gauge

Finish: G90 galvanized

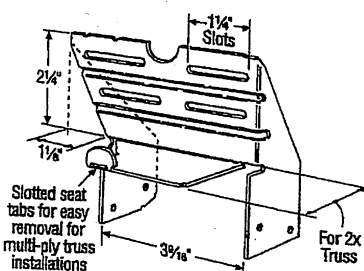
Design: Factored resistances are in accordance with CSA 086-14

Installation:

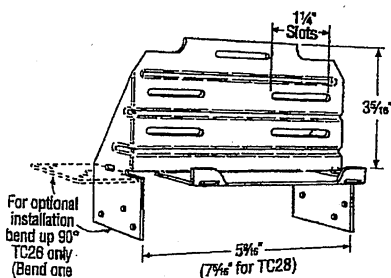
- Use all specified fasteners.
- Nails: 10d = 0.148" dia. x 3" long common wire, 10d x 1½" = 0.148" dia. x 1½" long.
- Drive 10d nails into the truss at the inside end of the slotted holes (inside end is towards the centre of the truss) and clinch on the back side. Do not seat these nails into the truss—allow room under the nail head for movement of the truss with respect to the wall.

Optional TC Installation:

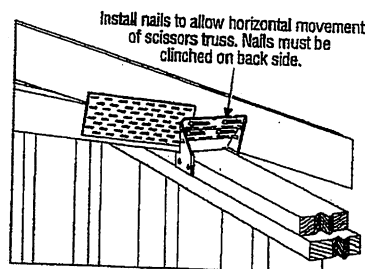
- Bend one flange up 90°. Drive specified nails into the top and face of the top plates or install Titen® screws into the top and face of masonry wall. See optional load tables and installation details.



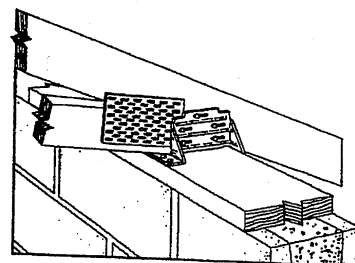
TC24
U.S. Patent 4,932,173



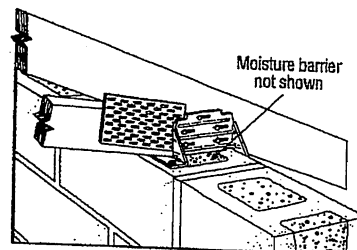
TC26
(TC28 Similar)



Typical TC24 Installation



Optional TC26 Installation for Grouted Concrete Block using a Wood Nailer (8", 10", 12" Wall Installation Similar)



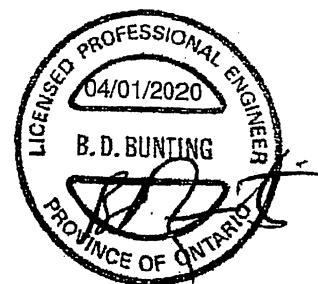
Optional TC26 Installation for Grouted Concrete Block using Titen Screws

Model No.	Fasteners		Factored Resistance	
	Truss	Wall Plates	D.Fir-L	S-P-F
			Uplift (K _o =1.15)	Uplift (K _o =1.15)
TC24	(4) 10d	(4) 10d	605	430
TC26	(5) 10d	(6) 10d	1015	720
TC28	(5) 10d	(6) 10d	1015	720

Optional TC Installation Table

Model No.	Fasteners		Factored Resistance	
	Truss	Wall Plates	D.Fir-L	S-P-F
			Uplift (K _o =1.15)	Uplift (K _o =1.15)
TC26	(5) 10d	(6) 10d x 1½"	810	660
	(5) 10d	(6) 10d	930	660

1. Factored resistances have been increased 15% for earthquake or wind loading; no further increase allowed; reduce where other loads govern.
2. Grout strength is 15 MPa minimum.
3. Optional TC26 installation with 10d nails requires minimum 3" top plate thickness.
4. TC26 fastened to grouted concrete block with (6) - ¾" x 2¼" Titen screws has a factored uplift resistance of 275 lb.



**LIMIT
STATES
DESIGN**

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T-SPECTC20 3/20 exp. 6/22

(800) 999-5099
strongtie.com

HTU

SIMPSON
Strong-Tie

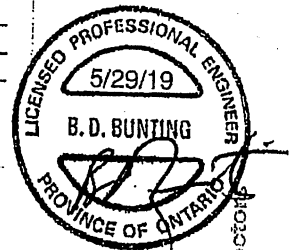
Face-Mount Truss Hanger (cont.)

These products are approved for installation with the Strong-Drive® SD Connector screw. See pp. 32-34 for more information.

Alternate Installation for (2) 2x4 and (2) 2x6 Headers

Model No.	Min. Heel Height (In.)	Minimum Header Size	Fasteners		Factored Resistance			
					D.Fir-L		S-P-F	
			Header	Joist	Uplift (K _D = 1.15)	Normal (K _D = 1.00)	Uplift (K _D = 1.15)	Normal (K _D = 1.00)
					lb.	lb.	lb.	lb.
HTU26 (Min.)	3%	(2) 2x4	(10) 16d	(14) 10d x 1½"	1740	3340	1235	2370
HTU26 (Max.)	5½"	(2) 2x4	(10) 16d	(20) 10d x 1½"	2470	4015	1755	2850
HTU28 (Max.)	3%	(2) 2x6	(20) 16d	(26) 10d x 1½"	4150	6395	2945	4540
HTU210 (Max.)	7½"	(2) 2x6	(20) 16d	(32) 10d x 1½"	4150	6395	2945	4540
					18.46	28.45	13.10	20.19

See table footnotes on p. 260.

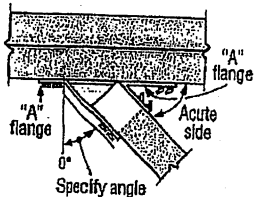


Hanger Options

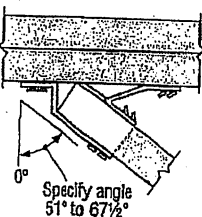
See Hanger Options Information on pp. 125-127.

Skewed Seat

- Skawable up to 67½°
- Available in single and 2-ply size
- No bevel cut required



Top View HTU Hanger Skewed Right < 51°



Top View HTU Hanger Skewed Right ≥ 51°

Factored Resistances for Skewed HTU Hangers

Model No.	Skew Angle (Degrees)	Fasteners		Factored Resistance			
				D.Fir-L		S-P-F	
		Header	Joist	Uplift (K _D = 1.15)	Normal (K _D = 1.00)	Uplift (K _D = 1.15)	Normal (K _D = 1.00)
				lb.	lb.	lb.	lb.
HTU26	< 51	(20) 16d	(14) 10d x 1½"	1835	4110	1300	2905
	51-67½	(20) 16d	(12) 10d x 1½"	8.16	18.28	5.78	12.92
HTU28	< 51	(26) 16d	(20) 10d x 1½"	1350	3820	955	2560
	51-67½	(26) 16d	(17) 10d x 1½"	6.01	18.10	4.25	11.38
HTU210	< 51	(32) 16d	(26) 10d x 1½"	2810	4270	1985	3030
	51-67½	(32) 16d	(22) 10d x 1½"	12.50	18.99	8.83	13.48
HTU26-2	< 51	(20) 16d	(14) 10d	2075	3930	1465	2780
	51-67½	(20) 16d	(12) 10d	9.23	17.48	6.52	12.37
HTU28-2	< 51	(26) 16d	(20) 10d	3785	4430	2675	3135
	51-67½	(26) 16d	(17) 10d	16.84	19.71	11.90	13.95
HTU210-2	< 51	(32) 16d	(26) 10d	2795	4240	1980	3000
	51-67½	(32) 16d	(22) 10d	12.43	18.86	8.81	13.35
HTU26-2	< 51	(20) 16d	(14) 10d	2140	3715	1515	2625
	51-67½	(20) 16d	(12) 10d	9.52	16.53	6.74	11.68
HTU28-2	< 51	(26) 16d	(20) 10d	1610	3920	1140	2785
	51-67½	(26) 16d	(17) 10d	7.16	17.44	5.07	12.39
HTU210-2	< 51	(32) 16d	(26) 10d	3960	5425	2815	3855
	51-67½	(32) 16d	(22) 10d	17.62	24.13	12.52	17.15
HTU210-2	< 51	(32) 16d	(26) 10d	2385	5425	1695	3855
	51-67½	(32) 16d	(22) 10d	10.61	24.13	7.54	17.15
HTU210-2	< 51	(32) 16d	(26) 10d	5025	6890	3570	4890
	51-67½	(32) 16d	(22) 10d	22.35	30.65	15.88	21.75
HTU210-2	< 51	(32) 16d	(26) 10d	3145	6680	2225	4745
	51-67½	(32) 16d	(22) 10d	13.99	29.72	9.90	21.10

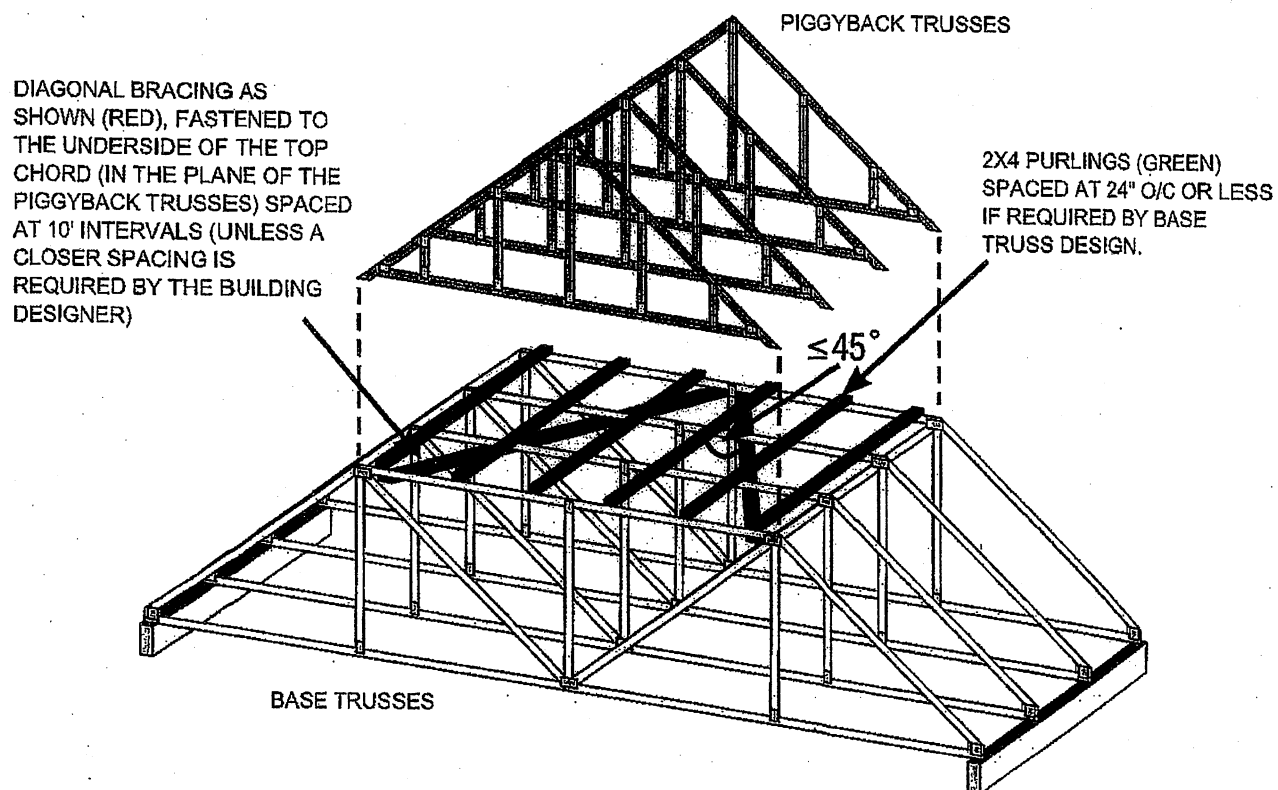
1. Factored uplift resistances have been increased 15% for wind or earthquake loading; no further increase is allowed.
2. Reduced heel heights are not permitted for skewed HTU's.
3. Nails: 16d = 0.162" dia. x 3½" long, 10d x 1½" = 0.148" dia. x 1½" long, 10d = 0.148" dia. x 3" long. See pp. 27-28 for other nail sizes and information.

Overview:

Where piggybacks are connected ovetop of base trusses, 2x4 purlins must be first added to the flat portion of the base truss at a spacing no more than 24" o/c. These purlins not only provide support for the piggyback trusses above, but are required to laterally support the top chord of the base truss which will not have the sheathing directly connected to the flat portion of the base truss. This ensures the top chord, most often in compression, will not buckle laterally.

Further, the purlins in the plane of the flat portion require diagonal bracing to prevent lateral displacement of the purlins themselves where under certain conditions, the trusses may in fact all buckle in the same direction if this additional bracing is not added in the plane of the purlins.

Detail:



NOTE: THE SLOPED PORTION OF THE TOP CHORD OF THE BASE TRUSS AND PIGGYBACK TRUSS IN THIS SKETCH IS ASSUMED TO BE SHEATHED IN ACCORDANCE WITH THE OBC.

SKETCH FROM BCSI-CANADA 2013

Disclaimer:

OWTFA Tech Notes are intended to provide guidance to the design community both within the membership as well as to third party designers who might benefit from the information. The details have been developed by the OWTFA technical committee and although there may be professional engineers involved in development, the information contained in the tech-note are not intended to be used without having a professional engineer review the information for a specific application. The OWTFA takes no responsibility with respect to the information provided but has developed this tech-note to offer guidance where it is not currently readily available.

HRS/HST/ST/PS/LSTA/LSTI/MST/MSTA/MSTC/MSTI

Strap Ties

Straps are designed to transfer tension loads in a wide variety of applications.

HRS — Heavy strap designed for installation on the edge of 2x members. The HRS416Z installs with Strong-Drive® SDS Heavy-Duty Connector screws.

LSTA and MSTA — Designed for use on the edge of 2x members, with a nailing pattern that reduces the potential for splitting.

LSTI and MSTI — Light and medium straps that are suitable where pneumatic-nailing is necessary through diaphragm decking and wood chord open-web trusses.

MST — High-capacity strap that can be installed with either nails or bolts. Suitable for double 2x member connections or greater.

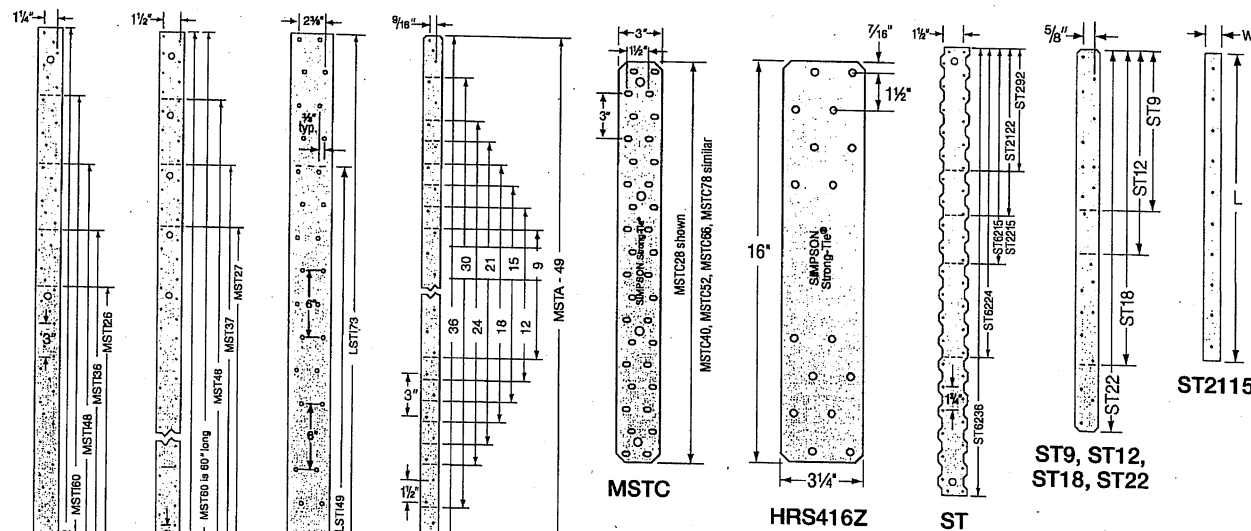
MSTC — High-capacity strap that utilizes a staggered nail pattern to help minimize wood splitting. Nail slots have been countersunk to provide a lower nail head profile.

Finish: Galvanized. Some products are available in stainless steel, ZMAX® coating or black powder coat (add PC to sku); contact Simpson Strong-Tie. See Corrosion Information, pp. 18–20.

Installation: Use all specified fasteners; see General Notes

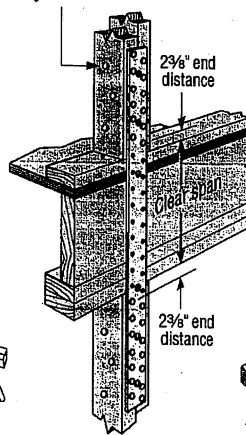
Options: Special sizes can be made to order; contact Simpson Strong-Tie for longer lengths

Straps and Ties

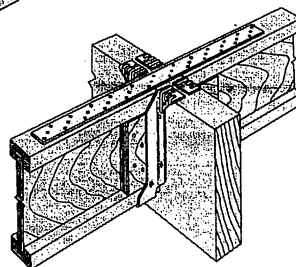


LSTA and MSTA
(Pilot holes not shown)

Stitch nailing
of double studs
by others



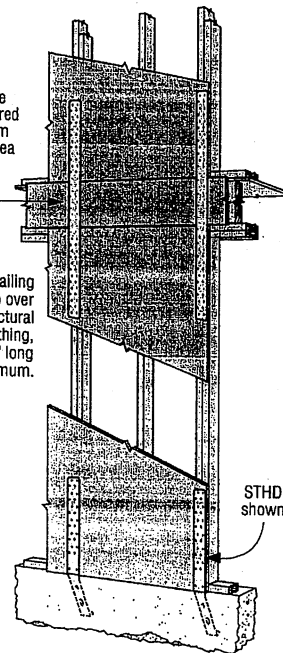
Floor-to-Floor Tie
Installation
Showing a
Clear Span



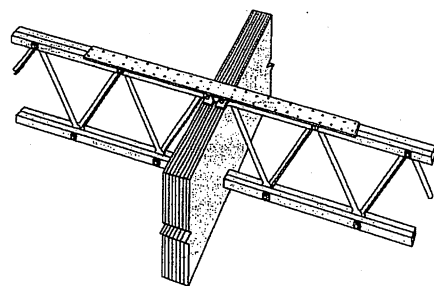
Typical MSTI Installation
(MIT hanger shown)
LSTI similar

Nails are
not required
in the rim
board area

When nailing
the strap over
wood structural
panel sheathing,
use 2 1/2" long
nail, minimum.



Typical Detail with
Strap Installed over
Wood Structural Panel
Sheathing



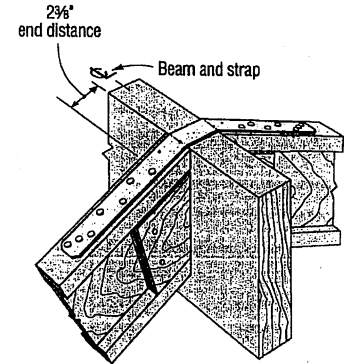
Typical LSTI Installation

HRS/HST/ST/PS/LSTA/LSTI/MST/MSTA/MSTC/MSTI
Strap Ties (cont.)

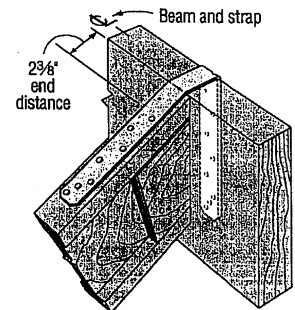
These products are available with additional corrosion protection. For more information, see p. 20.

SD Many of these products are approved for installation with Strong-Drive® SD Connector screws. See pp. 366–370 for more information.

Model No.	Ga.	Dimensions (in.)		Fasteners (Total)	Factored Tensile Resistance				
		W	L		D.Fir-L		S-P-F		
					(K _D = 1.00)	(K _D = 1.15)	(K _D = 1.00)	(K _D = 1.15)	
					lb.	lb.	lb.	lb.	
					kN	kN	kN	kN	
LSTA9	20	1¼	9	(6) 10d	600	690	555	635	
LSTA12		1¼	12	(8) 10d	800	920	735	845	
LSTA15		1¼	15	(10) 10d	1000	1150	920	1060	
LSTA18		1¼	18	(12) 10d	1200	1380	1105	1270	
LSTA21		1¼	21	(14) 10d	1400	1610	1290	1485	
LSTA24		1¼	24	(16) 10d	1600	1840	1475	1695	
ST292		2⅞	9⅞	(8) 8d	585	675	535	615	
ST2122		2⅞	12⅞	(12) 8d	940	1085	865	995	
ST2115		¾	16⅞	(8) 8d	670	770	615	710	
ST2215		2⅞	16⅞	(16) 8d	1335	1540	1235	1420	
LSTA30		18	1¼	30	(20) 10d	2235	2465	2075	2385
LSTA36			1¼	36	(24) 10d	2465	2465	2465	2465
LSTI49	3¾		49	(32) 10d x 1 ½"	3115	3580	2852	3280	
LSTI73	3¾		73	(48) 10d x 1 ½"	4670	5370	4280	4920	
MSTA9	1¼		9	(6) 10d	670	770	625	715	
MSTA12	1¼		12	(8) 10d	895	1030	830	955	
MSTA15	1¼		15	(10) 10d	1120	1285	1040	1195	
MSTA18	1¼		18	(12) 10d	1340	1545	1245	1430	
MSTA21	1¼		21	(14) 10d	1565	1800	1455	1670	
MSTA24	1¼		24	(16) 10d	1790	2060	1660	1910	
MSTA30	16		1¼	30	(20) 10d	2470	2840	2260	2595
MSTA36			1¼	36	(24) 10d	2965	3070	2710	3070
MSTA49		1¼	49	(28) 8d	2725	2725	2545	2725	
ST6215		2⅞	16⅞	(16) 8d	1405	1615	1300	1500	
ST6224		2⅞	23⅞	(24) 8d	2305	2650	2155	2475	
ST9		1¼	9	(6) 8d	525	605	490	560	
ST12		1¼	11⅞	(8) 8d	700	805	650	750	
ST18		1¼	17¾	(12) 8d	1050	1210	975	1125	
ST22		1¼	21⅞	(18) 8d	1580	1790	1465	1685	
						7.03	7.96	6.52	7.50



Typical LSTA Installation
(hanger not shown)
Bend strap one time only



Typical LSTA Installation
(hanger not shown)
Bend strap one time only

- Factored resistances have been increased 15% for earthquake or wind loading with no further increase allowed.
- Use half of the nails in each member being connected to achieve the listed resistances.
- Nails: 10d = 0.148" dia. x 3" long, 10d x 1 1/2" = 0.148" dia. x 1 1/2" long, 8d = 0.131" dia. x 2 1/2" long. See pp. 22–23 for other nail sizes and information.

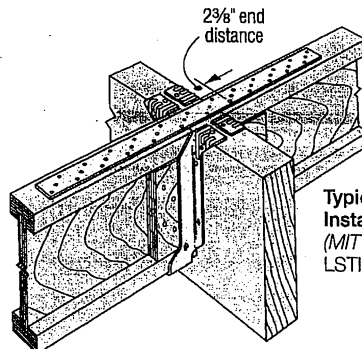
HRS/HST/ST/PS/LSTA/LSTI/MST/MSTA/MSTC/MSTI
Strap Ties (cont.)

These products are available with additional corrosion protection. For more information, see p. 20.

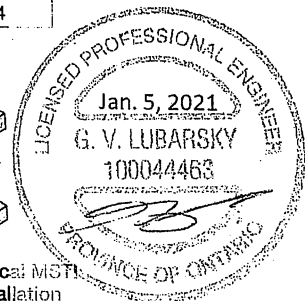
SD Many of these products are approved for installation with Strong-Drive® SD Connector screws. See pp. 366–370 for more information.

Model No.	Ga.	Dimensions (in.)		Fasteners (Total)	Factored Tensile Resistance			
		W	L		D.Fir-L		S-P-F	
					(K _D = 1.00)	(K _D = 1.15)	(K _D = 1.00)	(K _D = 1.15)
					lb.	lb.	lb.	lb.
					kN	kN	kN	kN
MSTC28	16	3	28¼	(32) 10d	3955	4545	3615	4155
					17.59	20.22	16.08	18.48
MSTC40		3	40¼	(48) 10d	5930	6820	5420	6235
					26.38	30.34	24.11	27.74
MSTC52		3	52¼	(54) 10d	6670	6940	6100	6940
					29.67	30.87	27.14	30.87
MSTC66	14	3	65¾	(66) 10d	8515	8565	7455	8565
					37.88	38.10	33.16	38.10
MSTC78		3	77¾	(66) 10d	8515	8565	7455	8565
					37.88	38.10	33.16	38.10
ST6236		2⅞	33⅞	(36) 8d	3735	4295	3270	3760
					16.61	19.11	14.55	16.73
MSTI26	12	2⅞	26	(22) 10d x 1 ½"	2825	3250	2475	2850
					12.57	14.46	11.01	12.68
MSTI36		2⅞	36	(32) 10d x 1 ½"	4110	4725	3600	4140
					18.28	21.02	16.01	18.42
MSTI48		2⅞	48	(44) 10d x 1 ½"	5650	6500	4955	5695
					25.13	28.91	22.04	25.33
MSTI60		2⅞	60	(56) 10d x 1 ½"	7195	7360	6305	7250
					32.01	32.74	28.05	32.25
MSTI72		2⅞	72	(68) 10d x 1 ½"	7360	7360	7240	7360
					32.74	32.74	32.21	32.74
MST27		2⅞	27	(26) 8d	2685	3090	2355	2710
					11.94	13.75	10.48	12.06
MST37		2⅞	37 ½	(38) 8d	3930	4515	3440	3960
					17.48	20.08	15.30	17.62
MST48		2⅞	48	(50) 8d	5170	5945	4530	5210
					23.00	26.45	20.15	23.18
HRS416Z	3¼	16	(16) ¼" x 1 ½" SDS	2400	2760	2120	2440	
				10.68	12.28	9.43	10.85	
MST60	10	2⅞	60	(64) 8d	6620	7610	5800	6670
					29.45	33.85	25.80	29.67
MST72		2⅞	72	(78) 8d	8065	9135	7065	8125
				35.88	40.64	31.43	36.14	

- Factored resistances have been increased 15% for earthquake or wind loading with no further increase allowed.
- Use half of the nails in each member being connected to achieve the listed resistances.
- Nails: 10d = 0.148" dia. x 3" long, 10d x 1 1/2" = 0.148" dia. x 1 1/2" long, 8d = 0.131" dia. x 2 1/2" long. See pp. 22–23 for other nail sizes and information.

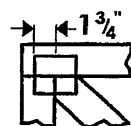


Typical MSTI Installation
(MIT hanger shown)
LSTI similar

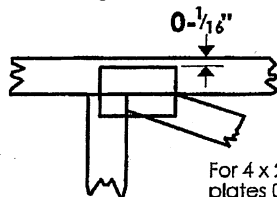


Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths or mm. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0-1/16" from outside edge of truss.



This symbol indicates the required direction of slots in connector plates.

*Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

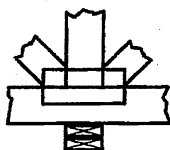
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T, I or Eliminator bracing if indicated.

BEARING

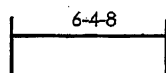


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur.

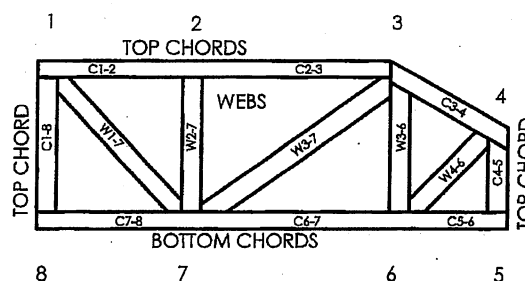
Industry Standards:

- TPIC: Truss Design Procedures and Specifications for Light Metal Plate Connected Wood Trusses
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



dimensions shown in ft-in-sixteenths or mm (Drawings not to scale)



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

CCMC Reports:

11996-L, 10319-L, 13270-L, 12691-R

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MiTek Engineering Reference Sheet: MII-7473C rev. 10-08



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative T, I, or Eliminator bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by TPIC.
7. Design assumes trusses will be suitably protected from the environment in accord with TPIC.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with TPIC Quality Criteria.