

TH-19
CHERRY 3E
EL-1

428364

TH-20
CHERRY 2
EL-1

428365

TH-21
CHERRY 2
EL-1

428410

TH-22
CHERRY 1
EL-1

428411

TH-23
CHERRY 1
EL-1

428368

TH-24
CHERRY 12
EL-1

428370

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.

All conventional framing to be in accordance with Part 9 of O.B.C. 2012 (2019 amendment) OCCUPANCY: RESIDENTIAL (PART: 9) Roof rafters that cross over other 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'.

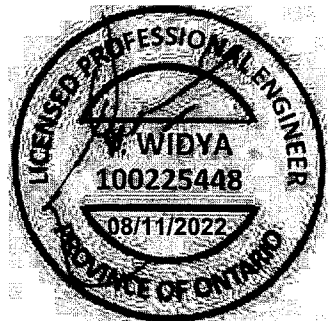
ASPHALT SHINGLES
FINISHED OVERHANG: 12"
2x6 EXTERIOR WALLS
2x6 FASCIA BOARD
HEEL: R.T.M.C.

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)
LUS26DS - (V)
HGUS26-2 - (XX)
HGUS26-3 (XXX)
HGUS26-3 (SSS)
HGUS26-2 (VV)
H2.5A - (I)
HTS16 - (T)
H6 - (H)

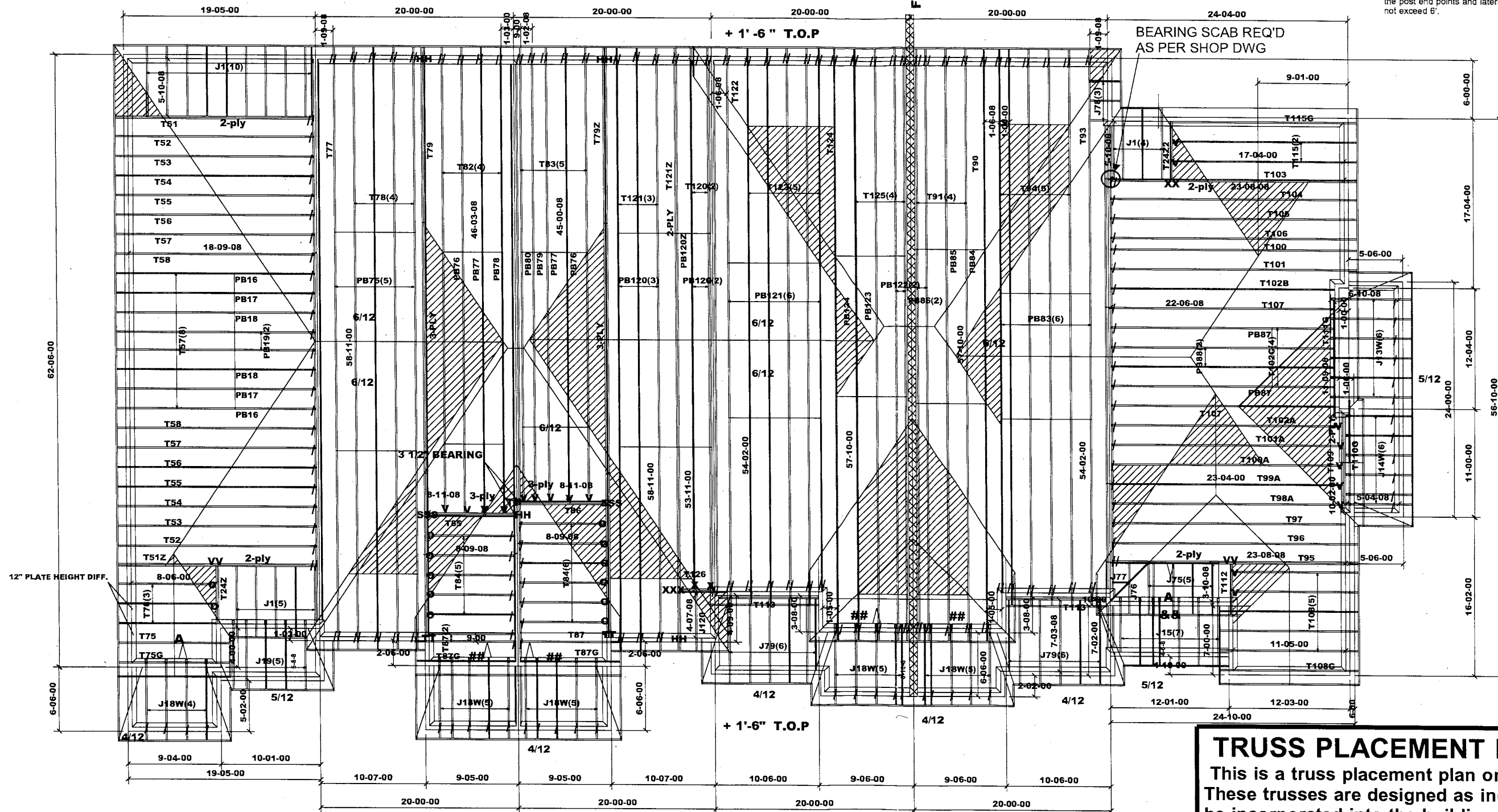
DENOTES:
CONVENTIONAL
FRAMING

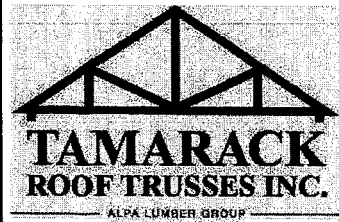


TRUSS PLACEMENT PLAN.

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.





DELIVERY SHIPLIST

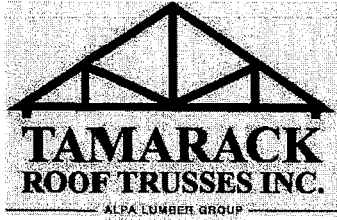
Lumber Yard: TAMARACK LUMBER
 Builder: GREEN PARK HOMES
 Project: BARLASSINA
 Location: CAMBRIDGE
 Model: BLOCK 120 (CHERRY)-TH-19~
 Lot #: TH-19-1A
 Elevation: TH-21 (CHERRY 2, EL-1)

Job Track: 52956
 Plan Log: 206521
 Layout ID: 428410
 Ref #
 Page: 1 of 2
 Date: 08-15-2022
 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 3-ply	T79Z Hip Girder	6 /12	58-11-00	9-07-12	2 x 8	1-03-08 1-03-08	1-02-00 1-02-00	1394.43 830.00		
	5	T83 Hip	6 /12	45-00-08	10-11-14	2 x 6	1-03-08	1-02-00 8-01-04	1627.02 975.00		
	6	T84 Jack-Closed	9 /12	8-09-08	9-09-06	2 x 4		3-02-04 9-09-06	305.55 193.00		
	1 3-ply	T86 Flat Girder	0 /12	8-11-08	7-11-00	2 x 6 2 x 8		7-11-00 7-11-00	272.41 169.00		
	1	T87 Monopitch	9 /12	8-09-08	8-01-06	2 x 4	1-03-08	1-06-04 8-01-06	45.96 29.33		
	1	T87G GABLE	9 /12	8-09-08	8-01-06	2 x 4	1-03-08	1-06-04 8-01-06	47.61 30.83		
	2	T120 Piggyback Base	6 /12	53-11-00	10-00-00	2 x 6	1-03-08	1-02-00 2-09-08	724.69 435.33		
	3	T121 Piggyback Base	6 /12	58-11-00	10-00-00	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	1310.67 798.50		
	1 2-ply	T121Z Piggyback Base Girder	6 /12	58-11-00	10-00-00	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	873.1 531.33		
	1 3-ply	T126 Half Hip Girder	9 /12	3-06-08	3-05-12	2 x 4 2 x 10		1-06-04 3-05-12	82.15 56.50		
	1	PB76 Piggyback	6 /12	19-07-08	1-06-00	2 x 4			55.92 35.17		
	1	PB77 Piggyback	6 /12	19-07-08	3-00-00	2 x 4			56.54 36.17		
	1	PB79 Piggyback	6 /12	19-07-08	4-00-12	2 x 4			62.57 40.50		
	1	PB80 Piggyback	6 /12	19-07-08	4-10-14	2 x 4			57.44 35.67		





DELIVERY SHIPLIST



Lumber Yard: TAMARACK LUMBER
 Builder: GREEN PARK HOMES
 Project: BARLASSINA
 Location: CAMBRIDGE
 Model: BLOCK 120 (CHERRY)-TH-19~
 Lot #: TH-21 (1)
 Elevation: TH-21 (CHERRY 2, EL-1)

Job Track: 52956
 PlanLog: 206521
 Layout ID: 428410
 Ref #
 Page: 2 of 2
 Date: 08-15-2022
 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
	5	PB120 Piggyback	6 /12	21-10-00	5-05-08	2 x 4			321.99 198.33		
	1 2-ply	PB120Z Piggyback	6 /12	21-10-00	5-05-08	2 x 4			128.8 79.33		
	5	J18W Jack-Open	4 /12	6-10-08	3-00-06	2 x 4	1-03-08	3-15 2-07-07	98.45 60.83		
	1	J120 Jack-Open	6 /12	4-07-08	3-05-12	2 x 4	1-03-08	1-02-00 3-05-12	13.78 8.67		

TOTAL # TRUSS= 46

TOTAL BFT OF ALL TRUSSES= 4543.49

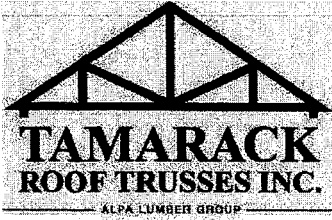
BFT.

TOTAL WEIGHT OF ALL TRSSES 7479.08 LBS





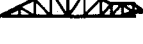




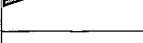
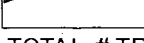
HARDWARE

QTY	TYPE	MODEL	LENGTH
42	Hardware	H2.5A	
4	Hardware	H8	
2	Hardware	HGUS26	
1	Hardware	HGUS26-3	
1	Hardware	HGUS28-3	
4		HTS16	
5	Hardware	LJS26DS	
6	Hardware	LUS24	

TOTAL NUMBER OF ITEMS= 65

 <p>TAMARACK ROOF TRUSSES INC. <small>ALPA LUMBER GROUP</small></p>	DELIVERY SHIPLIST	
	<p>Lumber Yard: TAMARACK LUMBER</p> <p>Builder: GREEN PARK HOMES</p> <p>Project: BARLASSINA</p> <p>Location: CAMBRIDGE</p> <p>Model: BLOCK 120 (CHERRY)-TH-19~</p> <p>Lot #: TH-19-1A</p> <p>Elevation: TH-22 (CHERRY 1,EL-1)</p>	<p>Job Track: 52956</p> <p>PlanLog: 206521</p> <p>Layout ID: 428411</p> <p>Ref #</p> <p>Page: 1 of 1</p> <p>Date: 08-15-2022</p> <p>Designer:</p> <p>Sales Rep: Rick DiCiano</p>

Roof Trusses

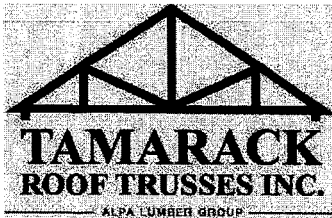
PROFILE	QTY PLY	MARK TYPE	PITCH	SPAN	HEIGHT	LUMBER	OVERHANG LEFT RIGHT	HEEL HEIGHT LEFT RIGHT	LBS. BFT.	BUNDLE # STACK #	LOAD BY REMARKS
	1	T113 Half Hip Girder	12 /12	10-00-00	2-09-02	2 x 4 2 x 6		1-08-12 2-09-02	50.76 33.00		
	1	T122 Piggyback Base	6 /12	54-02-00	10-00-00	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	356.28 214.33		
	5	T123 Piggyback Base	6 /12	54-02-00	10-00-00	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	1797.34 1088.33		
	1	T124 Roof Special	6 /12	57-10-00	11-01-06	2 x 6	1-03-08 1-03-08	1-02-00 1-06-04	407.81 249.00		
	4	T125 Piggyback Base	6 /12	57-10-00	11-01-06	2 x 6	1-03-08 1-03-08	1-02-00 1-06-04	1614.16 981.33		
	6	PB121 Piggyback	6 /12	15-10-00	3-11-08	2 x 4			231.73 140.00		
	2	PB122 Piggyback	6 /12	14-04-08	3-07-02	2 x 4			69.61 41.67		
	1	PB123 Piggyback	6 /12	14-04-08	3-00-00	2 x 4			38.35 25.00		
	1	PB124 Piggyback	6 /12	14-04-08	1-06-00	2 x 4			39.72 25.50		
	5	J18W Jack-Open	4 /12	6-10-08	3-00-06	2 x 4	1-03-08	3-15 2-07-07	98.45 60.83		
	6	J79 Jack-Open	4 /12	7-03-08	3-02-00	2 x 4	1-03-08	3-15 2-09-02	129.22 84.00		

TOTAL # TRUSS= 33 TOTAL BFT OF ALL TRUSSES= 2942.99 BFT. TOTAL WEIGHT OF ALL TRSSES 4833.44 LBS

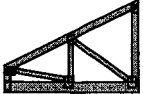





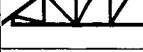
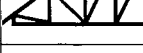



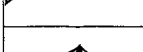
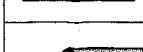

HARDWARE

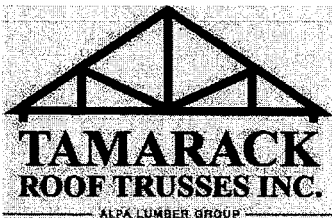
QTY	TYPE	MODEL	LENGTH
50	Hardware	H2.5A	

TOTAL NUMBER OF ITEMS= 50

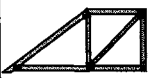





 <p>TAMARACK ROOF TRUSSES INC. <small>ALFA LUMBER GROUP</small></p>	DELIVERY SHIPLIST							
	Lumber Yard: TAMARACK LUMBER						Job Track: 52956	
	Builder: GREEN PARK HOMES						PlanLog: 206513	
	Project: BARLASSINA						Layout ID: 428364	
	Location: CAMBRIDGE						Ref #	
Model: BLOCK 121 (CHERRY)						Page: 1 of 2		
Lot #: <i>block 120 (TH-14)</i>						Date: 08-15-2022		
Elevation: TH-7 ,31 (CHERRY 3E,EL-1)						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	T24Z 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	T51 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	T51Z 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		
	2	T52 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	T53 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	T54 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	T55 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	T56 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		
	10	T57 Half Hip	9 /12	18-09-08	10-01-04	2 x 4	1-03-08	1-06-04 10-01-04	1062.03 670.00		
	2	T58 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		
	1	T75 Common	9 /12	8-06-00	4-06-04	2 x 4	1-03-08 1-03-08	6-04 6-04	29.36 20.00		
	1	T75G GABLE	9 /12	8-06-00	4-06-04	2 x 4	1-03-08 1-03-08	6-04 6-04	31.13 20.67		
	3	T76 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	PB16 Piggyback	9 /12	8-02-13	2-08-00	2 x 4		2-08-00	53.17 33.67		

 <p>TAMARACK ROOF TRUSSES INC. <small>ALFA LUMBER GROUP</small></p>	DELIVERY SHIPLIST	
	<p>Lumber Yard: TAMARACK LUMBER Builder: GREEN PARK HOMES Project: BARLASSINA Location: CAMBRIDGE Model: BLOCK 121 (CHERRY) Lot #: <i>Block 120 (TH-19)</i> Elevation: TH-7 ,31 (CHERRY 3E,EL-1)</p>	<p>Job Track: 52956 PlanLog: 206513 Layout ID: 428364 Ref # Page: 2 of 2 Date: 08-15-2022 Designer: Sales Rep: Rick DiCiano</p>

Roof Trusses

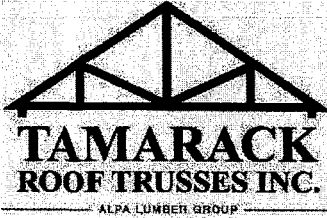
PROFILE	QTY PLY	MARK TYPE	PITCH	SPAN	HEIGHT	LUMBER	OVERHANG LEFT RIGHT	HEEL HEIGHT LEFT RIGHT	LBS. BFT.	BUNDLE # STACK #	LOAD BY REMARKS
	2	PB17 Piggyback	9 /12	8-02-13	3-08-00	2 x 4		3-08-00	57.01 37.33		
	2	PB18 Piggyback	9 /12	8-02-13	4-08-00	2 x 4		4-08-00	61.89 39.67		
	2	PB19 Piggyback	9 /12	8-02-13	5-08-00	2 x 6 2 x 4		5-08-00	74.76 46.67		
	15	J1 Jack-Open	6 /12	5-10-08	4-01-04	2 x 4	1-03-08	1-02-00 4-01-04	251.92 160.00		
	4	J18W Jack-Open	4 /12	6-10-08	3-00-06	2 x 4	1-03-08	3-15 2-07-07	78.76 48.67		
	5	J19 Jack-Open	5 /12	5-08-08	3-02-13	2 x 4	1-03-08	4-01 2-08-09	76.47 46.67		

TOTAL # TRUSS= 65 TOTAL BFT OF ALL TRUSSES= 2157.52 BFT. TOTAL WEIGHT OF ALL TRSSES 3404.98 LBS







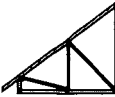






HARDWARE

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

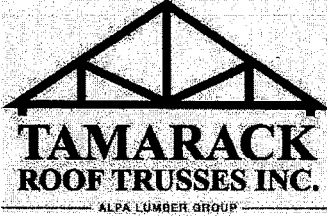
TOTAL NUMBER OF ITEMS= 35

 <p>TAMARACK ROOF TRUSSES INC. <small>ALPHA LUMBER GROUP</small></p>	DELIVERY SHIPLIST	
	Lumber Yard: TAMARACK LUMBER Builder: GREEN PARK HOMES Project: BARLASSINA Location: CAMBRIDGE Model: BLOCK 121 (CHERRY) Lot #: Block 120 (TH-20) Elevation: TH-8 ,32 (CHERRY 2,EL-1)	Job Track: 52956 PlanLog: 206513 Layout ID: 428365 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	T77 Piggyback Base	6 /12	58-11-00	10-00-00	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	388.95 236.33		
	4	T78 Piggyback Base	6 /12	58-11-00	10-00-00	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	1598.57 970.67		
	1 3-ply	T79 Hip Girder	6 /12	58-11-00	9-05-14	2 x 6 2 x 8	1-03-08 1-03-08	1-02-00 1-02-00	1371.41 812.00		
	4	T82 Hip	6 /12	46-03-08	10-11-14	2 x 6	1-03-08	1-02-00 7-05-12	1311.23 782.67		
	5	T84 Jack-Closed	9 /12	8-09-08	9-09-06	2 x 4		3-02-04 9-09-06	254.62 160.83		
	1 3-ply	T85 Flat Girder	0 /12	8-11-08	7-03-08	2 x 6		7-03-08 7-03-08	246.32 154.50		
	2	T87 Monopitch	9 /12	8-09-08	8-01-06	2 x 4	1-03-08	1-06-04 8-01-06	91.92 58.67		
	1	T87G GABLE	9 /12	8-09-08	8-01-06	2 x 4	1-03-08	1-06-04 8-01-06	47.61 30.83		
	5	PB75 Piggyback	6 /12	22-04-00	5-07-00	2 x 4			329.86 201.67		
	1	PB76 Piggyback	6 /12	19-07-08	1-06-00	2 x 4			55.92 35.17		
	1	PB77 Piggyback	6 /12	19-07-08	3-00-00	2 x 4			56.54 36.17		
	1	PB78 Piggyback	6 /12	19-07-08	4-06-00	2 x 4			64.27 41.00		
	5	J18W Jack-Open	4 /12	6-10-08	3-00-06	2 x 4	1-03-08	3-15 2-07-07	98.45 60.83		

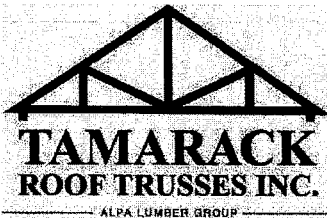
TOTAL # TRUSS= 36 TOTAL BFT OF ALL TRUSSES= 3581.34 BFT. TOTAL WEIGHT OF ALL TRSSES 5915.69 LBS

DELIVERY SHIPLIST		
 <p>TAMARACK ROOF TRUSSES INC. <small>ALFA LUMBER GROUP</small></p>	Lumber Yard: TAMARACK LUMBER	Job Track: 52956
	Builder: GREEN PARK HOMES	PlanLog: 206513
	Project: BARLASSINA	Layout ID: 428365
	Location: CAMBRIDGE	Ref #
	Model: BLOCK 121 (CHERRY)	Page: 2 of 2
	Lot #: <i>Block 120 (TH-20)</i>	Date: 08-16-2022
	Elevation: TH-8 ,32 (CHERRY 2,EL-1)	Designer:
		Sales Rep: Rick DiCiano


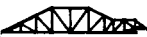










HARDWARE

QTY	TYPE	MODEL	LENGTH
5	Hardware	LUS24	
40	Hardware	H2.5A	
4	Hardware	H8	
1	Hardware	HGUS28-3	
2		HTS16	
4	Hardware	LJS26DS	

TOTAL NUMBER OF ITEMS= 56

 <p>TAMARACK ROOF TRUSSES INC. <small>ALPHA LUMBER GROUP</small></p>	DELIVERY SHIPLIST				Lumber Yard: TAMARACK LUMBER Builder: GREEN PARK HOMES Project: BARLASSINA Location: CAMBRIDGE Model: BLOCK 121 (CHERRY) Lot #: Block 120 (TH-23) Elevation: TH-11 ,35 (CHERRY 1,EL-1)		Job Track: 52956 PlanLog: 206513 Layout ID: 428368 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
	1	T90 Roof Special	6 /12	57-10-00	10-09-04	2 x 6	1-03-08 1-03-08	1-02-00 1-06-04	404.53 244.33		
	4	T91 Piggyback Base	6 /12	57-10-00	10-11-02	2 x 6	1-03-08 1-03-08	1-02-00 1-06-04	1613.12 961.33		
	1	T93 Piggyback Base Girder	6 /12	54-02-00	10-00-00	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	367.04 222.67		
	5	T94 Piggyback Base	6 /12	54-02-00	10-00-00	2 x 6	1-03-08 1-03-08	1-02-00 1-02-00	1805.23 1096.67		
	1	T113 Flat Girder	0 /12	10-00-00	2-09-02	2 x 6		2-09-02 2-09-02	54.75 32.00		
	6	PB83 Piggyback	6 /12	12-10-00	3-02-08	2 x 4			184.59 117.00		
	1	PB84 Piggyback	6 /12	15-09-00	1-06-00	2 x 4			43.96 27.83		
	1	PB85 Piggyback	6 /12	15-09-00	3-00-00	2 x 4			42.33 26.83		
	2	PB86 Piggyback	6 /12	15-09-00	3-11-04	2 x 4			76.81 46.67		
	5	J18W Jack-Open	4 /12	6-10-08	3-00-06	2 x 4	1-03-08	3-15 2-07-07	98.45 60.83		
	3	J78 Jack-Open	9 /12	1-09-08	2-10-06	2 x 4	1-03-08	1-06-04 2-10-06	27.43 21.00		
	6	J79 Jack-Open	4 /12	7-03-08	3-02-00	2 x 4	1-03-08	3-15 2-09-02	129.22 84.00		

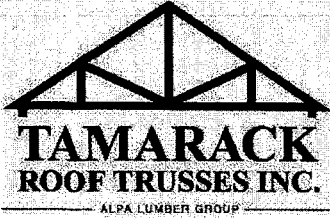
TOTAL # TRUSS= 36 TOTAL BFT OF ALL TRUSSES= 2941.16 BFT. TOTAL WEIGHT OF ALL TRSSES 4847.46 LBS

HARDWARE

QTY	TYPE	MODEL	LENGTH
50	Hardware	H2.5A	

TOTAL NUMBER OF ITEMS= 50

DELIVERY SHIPLIST

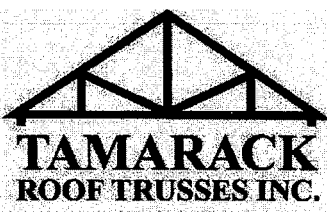


Lumber Yard: TAMARACK LUMBER
 Builder: GREEN PARK HOMES
 Project: BARLASSINA
 Location: CAMBRIDGE
 Model: BLOCK 121 (CHERRY)
 Lot #: Block 120 (TH-24)
 Elevation: TH-12, 36 (CHERRY 12, EL-1)









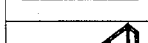


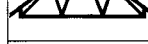
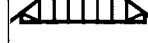

Job Track: 52956
 PlanLog: 206513
 Layout ID: 428370
 Ref #
 Page: 1 of 3
 Date: 08-16-2022
 Designer:
 Sales Rep: Rick DiCiano

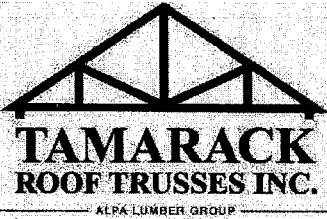
Roof Trusses

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	T2422 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	T95 Hip Girder	9 /12	23-08-08	6-01-02	2 x 4 2 x 6	1-03-08	1-06-04 2-04-02	248.85 157.33		
	1	T96 Hip	9 /12	23-08-08	7-07-02	2 x 4	1-03-08	1-06-04 3-04-02	111.74 71.33		
	1	T97 Hip	9 /12	23-08-08	9-01-02	2 x 4		1-06-04 3-04-02	115.57 71.50		
	1	T98A Hip	9 /12	23-04-00	10-07-02	2 x 4		1-09-10 3-04-02	129.77 81.83		
	1	T99A Common	9 /12	23-04-00	11-03-14	2 x 4		1-09-10 3-04-02	110.24 69.33		
	1	T100 Half Hip	9 /12	23-08-08	7-08-04	2 x 4	1-03-08	1-06-04 7-08-04	117.41 75.00		
	1	T100A Half Hip	9 /12	23-04-00	7-08-04	2 x 4		1-09-10 7-08-04	114.72 73.67		
	1	T101 Half Hip	9 /12	23-08-08	8-08-04	2 x 4	1-03-08	1-06-04 8-08-04	119.37 74.83		
	1	T101A Half Hip	9 /12	23-04-00	8-08-04	2 x 4		1-09-10 8-08-04	116.66 73.50		
	1	T102A Half Hip	9 /12	23-04-00	9-08-04	2 x 4		1-09-10 9-08-04	122.56 76.67		
	1	T102B Half Hip	9 /12	22-08-08	9-08-04	2 x 4		2-03-04 9-08-04	121.14 74.83		
	4	T102C Piggyback Base	9 /12	22-06-08	9-08-04	2 x 4		2-04-12 9-08-04	483.08 299.33		
	1 2-ply	T103 Half Hip Girder	9 /12	23-08-08	4-01-04	2 x 4 2 x 6	1-03-08	1-06-04 4-01-04	225.23 139.67		








 <p>TAMARACK ROOF TRUSSES INC. <small>ALFA LUMBER GROUP</small></p>	DELIVERY SHIPLIST				Lumber Yard: TAMARACK LUMBER Builder: GREEN PARK HOMES Project: BARLASSINA Location: CAMBRIDGE Model: BLOCK 121 (CHERRY) Lot #: <i>Block 120 (TH-24)</i> Elevation: TH-12 , 36 (CHERRY 12,EL-1)		Job Track: 52956 PlanLog: 206513 Layout ID: 428370 Ref # Page: 2 of 3 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	T104 Half Hip	9 /12	23-08-08	5-01-04	2 x 4	1-03-08	1-06-04 5-01-04	97.08 60.67		
	1	T105 Half Hip	9 /12	23-08-08	6-01-04	2 x 4	1-03-08	1-06-04 6-01-04	105.08 66.00		
	1	T106 Half Hip	9 /12	23-08-08	7-01-04	2 x 4	1-03-08	1-06-04 7-01-04	111.49 71.33		
	2	T107 Half Hip	9 /12	22-06-08	10-08-04	2 x 4		2-04-12 10-08-04	267.33 167.33		
	5	T108 Common	9 /12	11-05-00	5-09-10	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	244.83 158.33		
	1	T108G GABLE	9 /12	11-05-00	5-09-10	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	52.6 34.67		
	1 2-ply	T109 Monopitch Girder	9 /12	10-02-00	9-01-12	2 x 4 2 x 6		1-06-04 9-01-12	114.35 74.33		
	1	T110G GABLE	9 /12	10-02-00	5-04-00	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	46.81 32.50		
	1	T111G GABLE	9 /12	11-09-08	9-07-00	2 x 4		1-06-04 8-09-10	68.03 44.00		
	1 2-ply	T112 Jack-Closed Girder	9 /12	3-10-08	6-01-02	2 x 4 2 x 6	1-03-08	3-02-04 6-01-02	53.84 34.33		
	2	T115 Common	9 /12	17-04-00	8-00-04	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	161.32 102.00		
	1	T115G GABLE	9 /12	17-04-00	8-00-04	2 x 4	1-03-08 1-03-08	1-06-04 1-06-04	82.93 53.00		
	2	PB87 Piggyback	9 /12	12-09-13	2-00-00	2 x 4		2-00-00	81.48 54.00		
	2	PB88 Piggyback	9 /12	12-09-13	3-00-00	2 x 4		3-00-00	87.02 56.00		

 <p>TAMARACK ROOF TRUSSES INC. <small>ALFA LUMBER GROUP</small></p>	DELIVERY SHIPLIST	
	Lumber Yard: TAMARACK LUMBER Builder: GREEN PARK HOMES Project: BARLASSINA Location: CAMBRIDGE Model: BLOCK 121 (CHERRY) Lot #: <i>Block 120 (TH-24)</i> Elevation: TH-12 , 36 (CHERRY 12,EL-1)	Job Track: 52956 PlanLog: 206513 Layout ID: 428370 Ref # Page: 3 of 3 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
	4	J1 Jack-Open	6 /12	5-10-08	4-01-04	2 x 4	1-03-08	1-02-00 4-01-04	67.18 42.67		
	6	J13W Jack-Open	5 /12	6-10-08	3-08-10	2 x 4	1-03-08	5-06 3-03-12	126.93 77.00		
	6	J14W Jack-Open	5 /12	5-04-08	3-01-02	2 x 4	1-03-08	5-06 2-08-04	91.81 60.00		
	7	J15 Jack-Open	5 /12	5-06-08	3-01-15	2 x 4	1-03-08	5-06 2-09-01	109.88 70.00		
	5	J75 Jack-Open	9 /12	3-10-08	5-01-02	2 x 4	1-03-08	2-02-04 5-01-02	80.09 50.83		
	1	J76 Jack-Open	9 /12	1-09-07	3-06-05	2 x 4	1-03-08 2-01-01	2-02-04 3-06-05	12.77 8.83		
	1	J77 Jack-Open	9 /12	1-08-00	3-06-05	2 x 4		2-04-02 3-07-02	8.35 6.17		

TOTAL # TRUSS= 74 TOTAL BFT OF ALL TRUSSES= 2699.81 BFT. TOTAL WEIGHT OF ALL TRSSES 4265.17 LBS

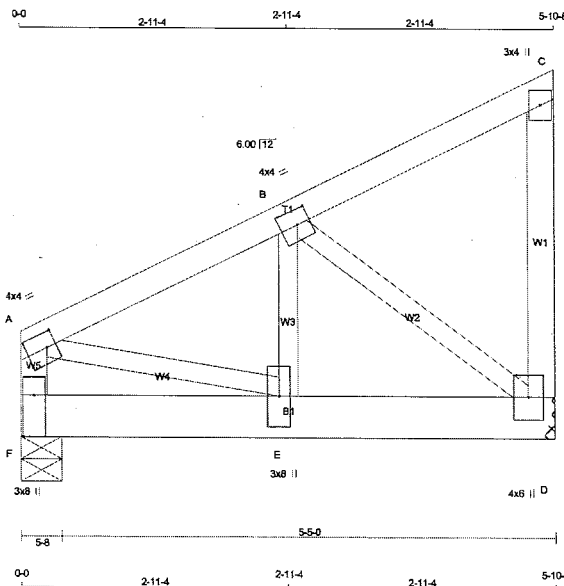
HARDWARE

QTY	TYPE	MODEL	LENGTH
35	Hardware	H2.5A	
1	Hardware	HGUS26-2	
9	Hardware	LJS26DS	
1	Hardware	LUS26-2	

TOTAL NUMBER OF ITEMS= 46

Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 MiTek Industries, Inc. Thu Aug 11 08:45:48 2022 Page 1
ID: To6XqL09rYKBxLLs9y_Z1eyrbTx_-GCQdprWm?SP_52IMP7ZyO9UOSDHgMmJsOwr5ayp_U1



Scale = 1:19.5

CHORDS	SIZE	LUMBER	DESCR.
F - A	2x4	DRY	No.2
A - C	2x4	DRY	No.2
D - C	2x4	DRY	No.2
F - D	2x8	DRY	No.2
ALL WEBS	2x3	DRY	No.2
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 TMVW-1	MT20	4.0	4.0	2.00	1.25
B TMVW-1	MT20	4.0	4.0	2.00	1.75
C TMV+p	MT20	3.0	4.0		
D BMVW+1+p	MT20	4.0	6.0		
E BMVW+1	MT20	3.0	6.0		
F BMV+1+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	REQD
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	HORZ
F	877	0	877	0
D	877	0	877	0
			MECHANICAL	

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

UNFACTORED REACTIONS

1ST LCASE	MAX	MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
F	619	412 / 0	0 / 0
D	619	412 / 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	W E B S	MAX. FACTORED
MEMB.	FORCE	VERT. LOAD LC1	MEMB.	FORCE
	(LBS)	(PLF)		(LBS)
FR-TO		FROM TO	LENGTH	FR-TO
F-A	-521 / 0	0.0	0.03 (1)	7.81
A-B	-735 / 0	-95.2	-95.2 0.07 (1)	6.25
B-C	-13 / 0	-95.2	-95.2 0.07 (1)	6.25
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. CC

GIRDER TYPE: CStnGirder
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.
- ADTLL LOADS BASED ON 55 % OF GSL.

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

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

(55 % OF 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), SS=0.11/1.00 (D-E: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.

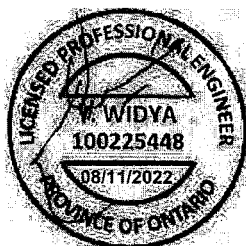
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

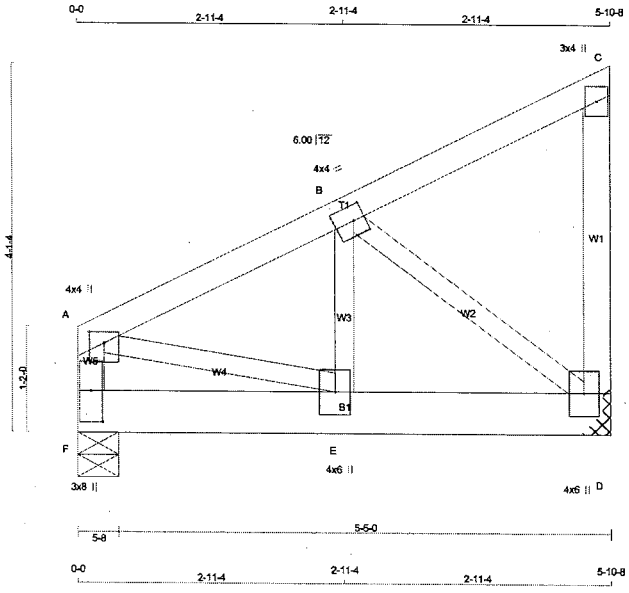
PLATE PLACEMENT TOL. = 0.250 Inches

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





LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER TOTAL WEIGHT = 2 X 29 = 58 lb

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

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(217.9)
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 TRANSFERING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.

PLATES (table is in inches)	PLATES	W	LEN	Y	X
JT TYPE					
A TMWV+p	MT20	4.0	4.0	1.50	2.00
B TMWV+t	MT20	4.0	4.0	2.00	1.50
C TMV+p	MT20	3.0	4.0		
D BMWV1+p	MT20	4.0	6.0		
E BMWVH	MT20	4.0	6.0		
F BMV1+p	MT20	3.0	8.0	4.25	1.50

FACTORED	MAXIMUM FACTORED	INPUT	REQRD
GROSS REACTION	GROSS REACTION	BRG	BRG
DOWN	DOWN	HORZ	UPLIFT
IN-SX	IN-SX	IN-SX	IN-SX
F 1614 0	1614 0	0	5-8
D 1614 0	1614 0	0	1-8
		MECHANICAL	

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

UNFACTORED REACTIONS	1ST LCASE	MAX /MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
F	1140	759 / 0	0 / 0
D	1140	759 / 0	0 / 0

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

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.25 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING	TOTAL LOAD CASES: (4)
CHORDS	
MEMB.	
FR-TO	
A-B	
B-C	
D-C	
F-E	
E-D	

MAX. FACTORED	FACTORED	WEBS	MAX. FACTORED
FORCE	VERT. LOAD LC1	MEMB.	FORCE
(LBS)	(PLF)	MAX. FACTORED	(LBS)
FROM TO	FROM TO	LENGTH FR-TO	CSI (LC)
F-A -1053 / 0	0.0 0.0 0.06 (1)	7.81 A-E	0 / 1271
A-B -1363 / 0	-95.2 -95.2 0.06 (1)	6.25 E-B	0 / 1223
B-C -11 / 0	-95.2 -95.2 0.06 (1)	6.25 B-D	-1546 / 0
D-C -115 / 0	0.0 0.0 0.01 (1)	7.81	
F-E 0 / 0	-454.4 -454.4 0.13 (1)	10.00	
E-D 0 / 1229	-454.4 -454.4 0.21 (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. CIC

GIRDER TYPE: CSK Girder
START DISTANCE = 0-0
START SPAN CARRIED = 17-4-0
END DISTANCE = 5-10-8
END SPAN CARRIED = 17-4-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 55 % OF GSL.

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 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

ALLOWABLE DEFL. (LL) = L/360 (0.20")
CALCULATED VERT. DEFL. (LL) = L/999 (0.01")
ALLOWABLE DEFL. (TL) = L/360 (0.20")
CALCULATED VERT. DEFL. (TL) = L/999 (0.01")

CSI: TC=0.06/1.00 (A-B:1), BC=0.21/1.00 (D-E:1), WB=0.18/1.00 (B-D:1), SSI=0.26/1.00 (D-E: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.

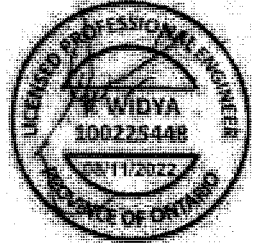
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

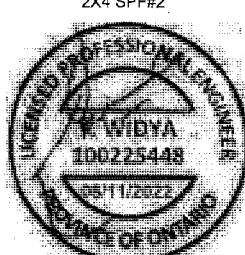
PLATE PLACEMENT TOL. = 0.250 inches

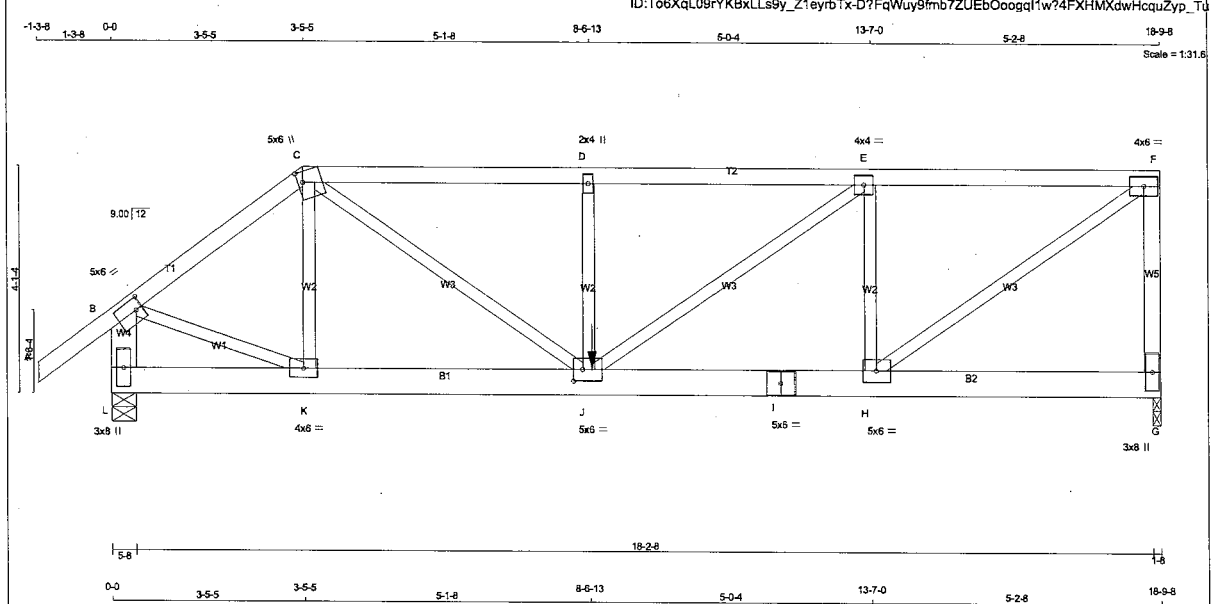
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.73 (A) (INPUT = 0.90)
JSI METAL= 0.28 (D) (INPUT = 1.00)

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







Scale = 1:31.6 TOTAL WEIGHT = 2 X 89 = 178 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - F	2x4	DRY	No.2
G - F	2x4	DRY	No.2
L - B	2x6	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 SPACING (IN)	LOAD (PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A-C 1	12	TOP SIDE(46.1)
C-F 1	12	TOP
L-B 2	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(54.8)
2x3 1	6	

NAILS TO BE DRIVEN FROM ONE SIDE ONLY.

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

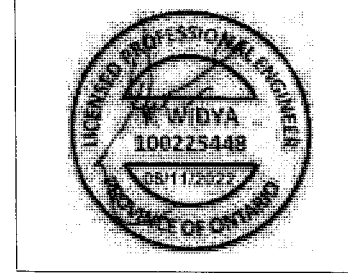
TOP - COMPONENTS ARE LOADED FROM THE TOP AND MUST BE PLACED ON TOP EDGE OF ALL PLIES FOR THE LOAD TO BE TRANSFERRED TO EACH PLY.

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-1	MT20	5.0	6.0	2.50	1.50
C TTMW+m	MT20	5.0	6.0	2.25	1.00
D TMW+w	MT20	2.0	4.0		
E TMWV-1	MT20	4.0	4.0		
F TMWV-1	MT20	4.0	8.0		
G BMV1+p	MT20	3.0	8.0		
H BMWV-1	MT20	5.0	6.0		
I BS-1	MT20	5.0	6.0		
J BMWVW-1	MT20	5.0	6.0	2.50	2.00
K BMWV-1	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							
JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
G	2288	0	2288	0	0	1-8	1-8
L	1983	0	1983	0	0	5-8	1-8

UNFACTORED REACTIONS

JT	1ST LCASE COMBINED		SNOW		LIVE		PERM. LIVE		WIND		DEAD		SOIL	
	VERT	HORZ	DOWN	HORZ	DOWN	HORZ	DOWN	HORZ	DOWN	HORZ	DOWN	HORZ	DOWN	HORZ
G	1815	1076 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	539 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
L	1398	945 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	453 / 0	0 / 0	0 / 0	0 / 0	0 / 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						WEBS									
MAX. FACTORED			FACTORED			FACTORED			MEMB.			MAX. FACTORED			
MEMB.	FORCE		VERT. LOAD	CS1	CS2	MAX.	MEMB.	FORCE		MAX.	FORCE		MAX.		
	(LBS)		(PLF)	(LC)	(LC)			(LBS)			(LBS)		(LC)		
FR-TO			FROM TO				FR-TO								
A-B	0 / 39		-95.2	-95.2	0.07 (1)	10.00	K-C	-356 / 0			0.05 (1)				
B-C	-1966 / 0		-95.2	-95.2	0.12 (1)	6.12	B-K	0 / 1644			0.20 (1)				
C-D	-3184 / 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	0.48 (1)	4.54	C-J	0 / 2207			0.25 (1)				
E-F	-2530 / 0		-187.4	-187.4	0.44 (1)	5.11	H-E	-1560 / 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	-1971 / 0		0.0	0.0	0.07 (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.
J	8-7-8	-877	-877						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	PSF
DL	26.7	PSF
BOT CH.	LL	PSF
DL	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, 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

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=0.38/1.00 (F-H:1), SS=0.26/1.00 (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

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

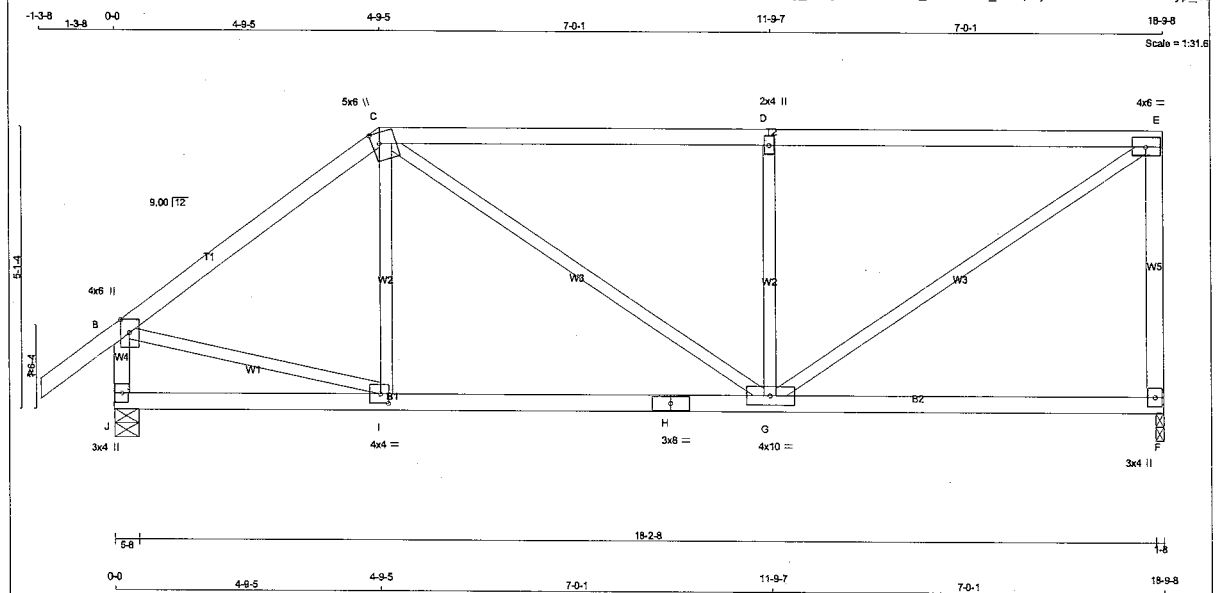
PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)	MAX MIN	MAX MIN	MAX MIN
MT20	650	371	1747	788	1987

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. ALL WEBS 2x3 DRY No.2 SPF EXCEPT DRY: SEASONED LUMBER. TOTAL WEIGHT = 2 X 77 = 154 lb

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY No.2	SPF
C - E	2x4	DRY No.2	SPF
F - E	2x4	DRY No.2	SPF
J - B	2x4	DRY No.2	SPF
J - H	2x4	DRY No.2	SPF
H - F	2x4	DRY No.2	SPF

ALL WEBS 2x3 DRY No.2 SPF EXCEPT DRY: SEASONED LUMBER.

JT TYPE	PLATES	W	LEN	Y	X
B	TMW+p	MT20	4.0	6.0	Edge
C	TTWW+m	MT20	5.0	6.0	2.25 1.50
D	TMW+w	MT20	2.0	4.0	
E	TMW-i	MT20	4.0	6.0	
F	BMV1+p	MT20	3.0	4.0	
G	BMWVW-i	MT20	4.0	10.0	
H	BS-i	MT20	3.0	8.0	
I	BMWVW-i	MT20	4.0	4.0	2.00 1.75
J	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

FACTORED		MAXIMUM FACTORED		INPUT		REQD	
GROSS REACTION	GROSS REACTION	DOWN	HORIZ	UPLIFT	IN-SX	IN-SX	BRG
JT VERT	HORIZ	DOWN	HORIZ	UPLIFT	IN-SX	IN-SX	BRG
F 1068	0	1068	0	0	1-8	1-8	
J 1200	0	1200	0	0	5-8	1-8	

<u>UNFACTORED REACTIONS</u>							
1ST LCASE		<u>MAX/MIN COMPONENT REACTIONS</u>					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	754	502 / 0	0 / 0	0 / 0	0 / 0	252 / 0	0 / 0
F	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) F, J

BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.28 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING TOTAL LOAD CASES: (4)

CHORDS		WEBS	
MEMB.	FORCE (LBS)	MEMB.	FORCE (LBS)
FR-TO	FROM TO	FR-TO	FROM TO
A-B	0 / 39	I-C	-81 / 61
B-C	-1013 / 0	C-G	0 / 372
C-D	-1113 / 0	G-D	-827 / 0
D-E	-1113 / 0	G-E	0 / 1348
E-F	-1015 / 0	B-I	0 / 833
J-B	-1166 / 0		
J-I	0 / 0		
I-H	0 / 807		
H-G	0 / 807		
G-F	0 / 0		

DESIGN CRITERIA

SPECIFIED LOADS: TOP CH. LL = 26.7 PSF TOP CH. DL = 6.0 PSF BOT CH. LL = 0.0 PSF BOT CH. 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) = U/999 (0.04") ALLOWABLE DEFL.(TL) = L/360 (0.63") CALCULATED VERT. DEFL.(TL) = U/999 (0.10")

CSL: TC=0.88/1.00 (D-E:1), BC=0.29/1.00 (G-I:4), WB=0.32/1.00 (D-G:1), SS=0.32/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES	PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PL)
	MAX MIN	MAX MIN	MAX MIN
MT20	650 371	1747 798	1987 1873

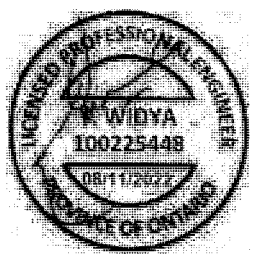
PLATE PLACEMENT TOL. = 0.250 inches

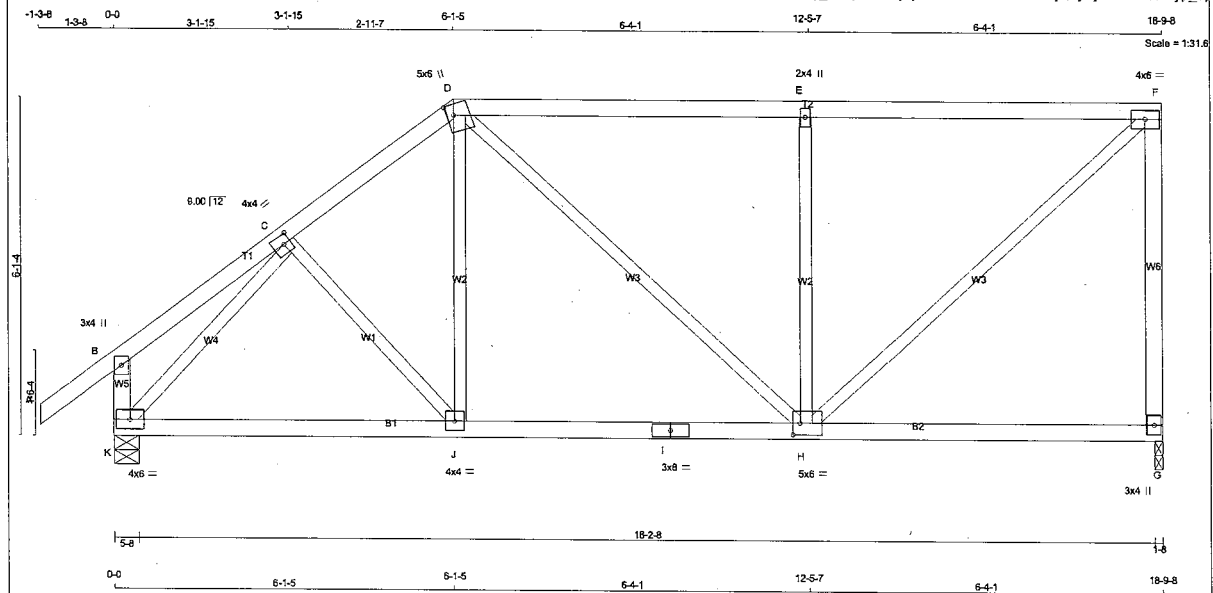
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (B) (INPUT = 0.90)

JSI METAL= 0.54 (B) (INPUT = 1.00)

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





LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. ALL WEBS 2x3 DRY No.2 SPF EXCEPT DRY: SEASONED LUMBER.

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	No.2	SPF
D - F	2x4	No.2	SPF
G - F	2x4	No.2	SPF
K - B	2x4	No.2	SPF
K - I	2x4	No.2	SPF
I - G	2x4	No.2	SPF

PLATES (table is in inches) JT TYPE PLATES W LEN Y X

JT TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	3.0	4.0	
C	TMWW-1	MT20	4.0	4.0	2.00 1.50
D	TTWW+m	MT20	5.0	6.0	2.25 1.50
E	TMW+w	MT20	2.0	4.0	
F	TMW-1	MT20	4.0	6.0	
G	BMV1+p	MT20	3.0	4.0	
H	BMWW-1	MT20	5.0	6.0	2.50 1.50
I	BS-1	MT20	3.0	8.0	
J	BMW-1	MT20	4.0	4.0	
K	BMVW-1	MT20	4.0	6.0	

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	HORZ	DOWN	HORZ
G	1068	0	1068	0
K	1200	0	1200	0

UNFACTORED REACTIONS	1ST LCASE	MAX/MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
G	754	502 / 0	0 / 0
K	844	576 / 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 = 10.03 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING TOTAL LOAD CASES: (4)

CHORDS	MEMB.	FORCE (LBS)	MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX	MAX. FACTORED	WEBS	MEMB.	FORCE (LBS)	MAX. FACTORED
FR-TO					FROM TO				LENGTH	FR-TO		
A-B	0 / 39	-95.2	-95.2	0.13 (1)	10.00	C-J	-36 / 27	0.01 (1)				
B-C	0 / 19	-95.2	-95.2	0.13 (1)	10.00	J-D	0 / 152	0.04 (4)				
C-D	-884 / 0	-95.2	-95.2	0.14 (1)	6.12	D-H	0 / 127	0.03 (1)				
D-E	-866 / 0	-95.2	-95.2	0.89 (1)	5.32	H-E	-748 / 0	0.44 (1)				
E-F	-866 / 0	-95.2	-95.2	0.69 (1)	5.32	H-F	0 / 1171	0.28 (1)				
G-F	-1019 / 0	0.0	0.0	0.74 (1)	7.76	K-C	-1207 / 0	0.41 (1)				
K-B	-245 / 0	0.0	0.0	0.03 (1)	7.81							
K-J	0 / 795	-18.5	-18.5	0.22 (4)	10.00							
J-I	0 / 773	-18.5	-18.5	0.23 (4)	10.00							
I-H	0 / 773	-18.5	-18.5	0.23 (4)	10.00							
H-G	0 / 0	-18.5	-18.5	0.17 (4)	10.00							

DESIGN CRITERIA

SPECIFIED LOADS: TOP CH. LL = 26.7 PSF DL = 5.0 PSF BOT CH. LL = 0.0 PSF DL = 7.4 PSF TOTAL LOAD = 40.1 PSF

SPACING = 24.0 IN. G/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), SI=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.

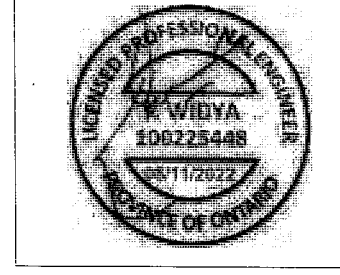
NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) MAX MIN MAX MIN MAX MIN MT20 650 371 1747 788 1957 1873

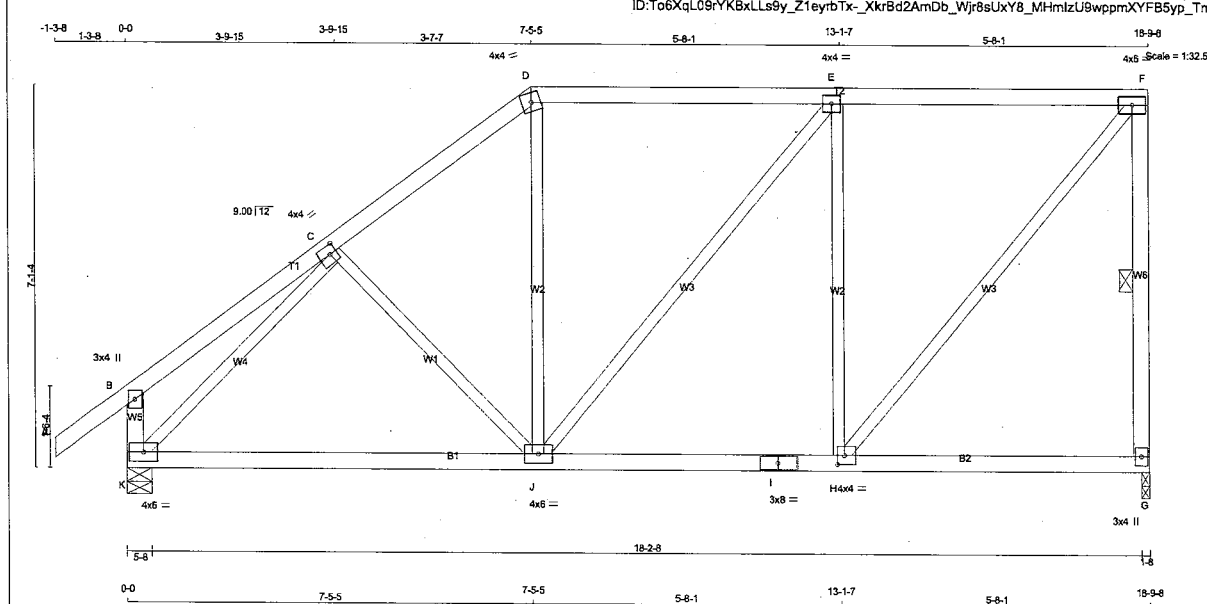
PLATE PLACEMENT TOL. = 0.250 inches

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 TOTAL WEIGHT = 2 X 88 = 177 lb

N.L.G.A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	SPF
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 in inches)

JT TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	3.0	4.0	
C	TMWV-I	MT20	4.0	4.0	2.00 1.50
D	TTW-m	MT20	4.0	4.0	
E	TMWV-I	MT20	4.0	4.0	
F	TMWV-I	MT20	4.0	6.0	
G	BMV+P	MT20	3.0	4.0	
H	BMWV-I	MT20	4.0	4.0	2.00 1.50
I	BS-I	MT20	3.0	8.0	
J	BMWVW-I	MT20	4.0	6.0	
K	BMWV-I	MT20	4.0	6.0	

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQ'D BRG
JT	VERT	DOWN	0	1-8
G	HORZ	UPLIFT	0	1-8
K	VERT	DOWN	0	5-8

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS
JT	COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL
G	754 502 / 0 0 / 0 0 / 0 252 / 0 0 / 0
K	844 576 / 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 = 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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	UNBRACED LENGTH FR-TO
FR-TO				FR-TO			
A-B	0 / 39	-95.2	-95.2 0.13 (1)	C-J	-142 / 2	0.07 (1)	
B-C	0 / 24	-85.2	-85.2 0.21 (1)	J-D	0 / 189	0.04 (1)	
C-D	-923 / 0	-85.2	-85.2 0.22 (1)	J-E	0 / 56	0.01 (4)	
D-E	-720 / 0	-85.2	-85.2 0.54 (1)	H-E	-713 / 0	0.52 (1)	
E-F	-685 / 0	-85.2	-85.2 0.54 (1)	H-F	0 / 1066	0.24 (1)	
G-F	-1023 / 0	0.0	0.0 0.23 (1)	K-C	-1198 / 0	0.57 (1)	
K-B	-267 / 0	0.0	0.0 0.03 (1)				
K-J	0 / 816	-18.5	-18.5 0.28 (4)				
J-I	0 / 685	-18.5	-18.5 0.27 (4)				
I-H	0 / 685	-18.5	-18.5 0.27 (4)				
H-G	0 / 0	-18.5	-18.5 0.13 (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, NBC 2015

THIS DESIGN COMPLIES WITH:
- PART 9 OF BCBC 2018, ABC 2018
- 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 (0.83")
CALCULATED VERT. DEFL.(LL) = U/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.83")
CALCULATED VERT. DEFL.(TL) = U/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), SI=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

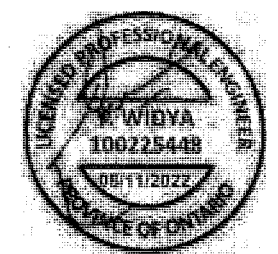
PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PL)
MAX MIN	MAX MIN	MAX MIN
MT20	650 371	1747 788 1987 1873

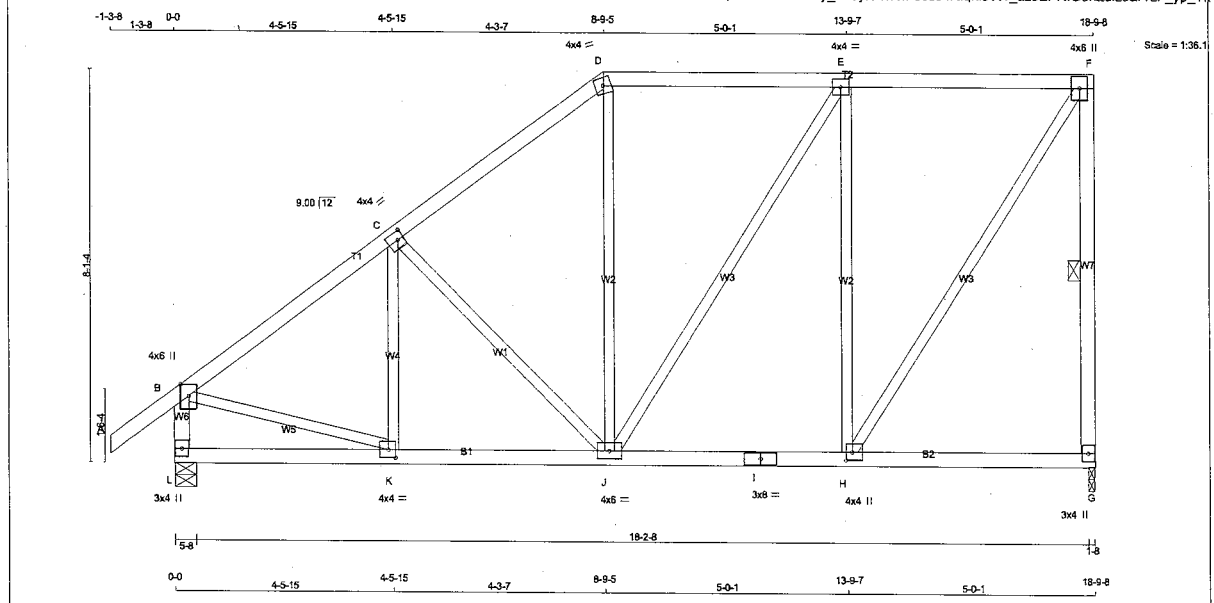
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.88 (H) (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
L - B	2x4	DRY	No.2
L - I	2x4	DRY	No.2
I - G	2x4	DRY	No.2
ALL WEBS EXCEPT	2x3	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table 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	TTW-m	MT20	4.0	4.0	
E	TMVW-i	MT20	4.0	4.0	
F	TMVW+p	MT20	4.0	6.0	
G	BMV1+p	MT20	3.0	4.0	
H	BMVW+i	MT20	4.0	4.0	2.00 1.50
I	BS-i	MT20	3.0	8.0	
J	BMVWW-i	MT20	4.0	6.0	
K	BMVW-i	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

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

UNFACTORED REACTIONS

1ST CASE	MAX/MIN	COMPONENT REACTIONS
JT COMBINED	SNOW	LIVE
G	754	502 / 0
L	844	576 / 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)

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

TOTAL WEIGHT = 2 X 96 = 192 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, 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 (0.05")

CSF: TC=0.41/1.00 (D-E-I), BC=0.18/1.00 (J-K-I), WB=0.94/1.00 (E-H-I), SS=0.23/1.00 (E-F-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 = 1.30

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

NAIL VALUES

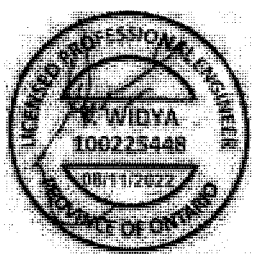
PLATE GRIP (DRY)	SHEAR (PL)	SECTION (PL)
MT20	650	371
	1747	788
	1987	1873

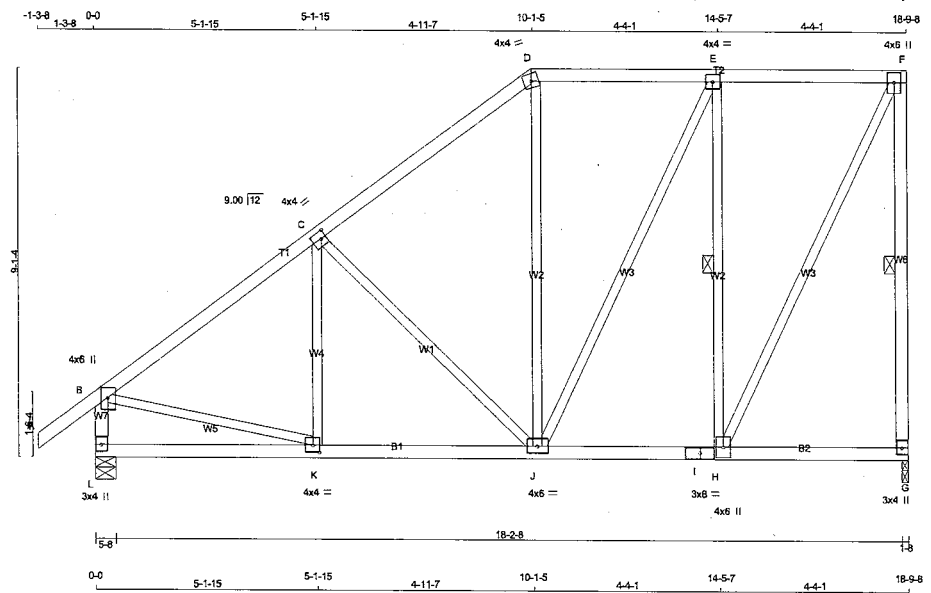
PLATE PLACEMENT TOL. = 0.250 inches

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





LUMBER

N. L. G. A. RULES	CHORDS	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 EXCEPT	2x3	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table 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	TMVW-m	MT20	4.0	4.0	
E	TMVW-i	MT20	4.0	4.0	
F	TMVW+p	MT20	4.0	6.0	
G	BMV1+p	MT20	3.0	4.0	
H	BMVW+i	MT20	4.0	6.0	
I	BS-i	MT20	3.0	8.0	
J	BMVW-i	MT20	4.0	6.0	
K	BMVW-i	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	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	VERT	HORZ	DOWN	HORZ
G	1068	0	1068	0
L	1200	0	1200	0

UNFACTORED REACTIONS

1ST CASE	MAX/MIN COMPONENT REACTIONS
JT	COMBINED
G	754
L	844

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.76 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, 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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CS (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CS (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0 / 39	-95.2 -95.2	0.13 (1)	K-C	-91 / 57	0.04 (1)	
B-C	-1037 / 0	-95.2 -95.2	0.33 (1)	C-J	-412 / 0	0.41 (1)	
C-D	-745 / 0	-95.2 -95.2	0.32 (1)	J-D	0 / 93	0.03 (4)	
D-E	-567 / 0	-95.2 -95.2	0.23 (1)	J-E	0 / 308	0.07 (1)	
E-F	-435 / 0	-95.2 -95.2	0.22 (1)	H-E	-786 / 0	0.42 (1)	
G-F	-1035 / 0	0.0 0.0	0.40 (1)	H-F	0 / 977	0.22 (1)	
L-B	-1160 / 0	0.0 0.0	0.12 (1)	B-K	0 / 880	0.20 (1)	
L-K	0 / 0	-18.5 -18.5	0.12 (4)				
K-J	0 / 857	-18.5 -18.5	0.20 (1)				
J-I	0 / 435	-18.5 -18.5	0.11 (4)				
I-H	0 / 435	-18.5 -18.5	0.11 (4)				
H-G	0 / 0	-18.5 -18.5	0.08 (4)				

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 25.7 PSF

DL = 8.0 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, NBCC 2015

THIS DESIGN COMPLIES WITH:

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

(55% OF 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) = $\frac{1}{360}$ (0.63")

CALCULATED VERT. DEFL.(LL) = $\frac{1}{999}$ (0.03")

ALLOWABLE DEFL.(TL) = $\frac{1}{360}$ (0.63")

CALCULATED VERT. DEFL.(TL) = $\frac{1}{999}$ (0.06")

CSI: TC=0.40/1.00 (F-G:1), BC=0.20/1.00 (J-K:1), WB=0.42/1.00 (E-H:1), SI=0.20/1.00 (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 (PSI)	SECTION (PL)
MAX MIN	MAX MIN	MAX MIN
MT20	650 371	1747 788 1987 1873

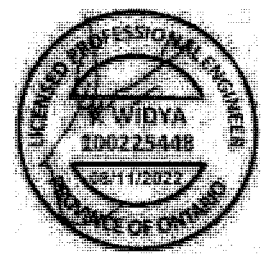
PLATE PLACEMENT TOL. = 0.250 inches

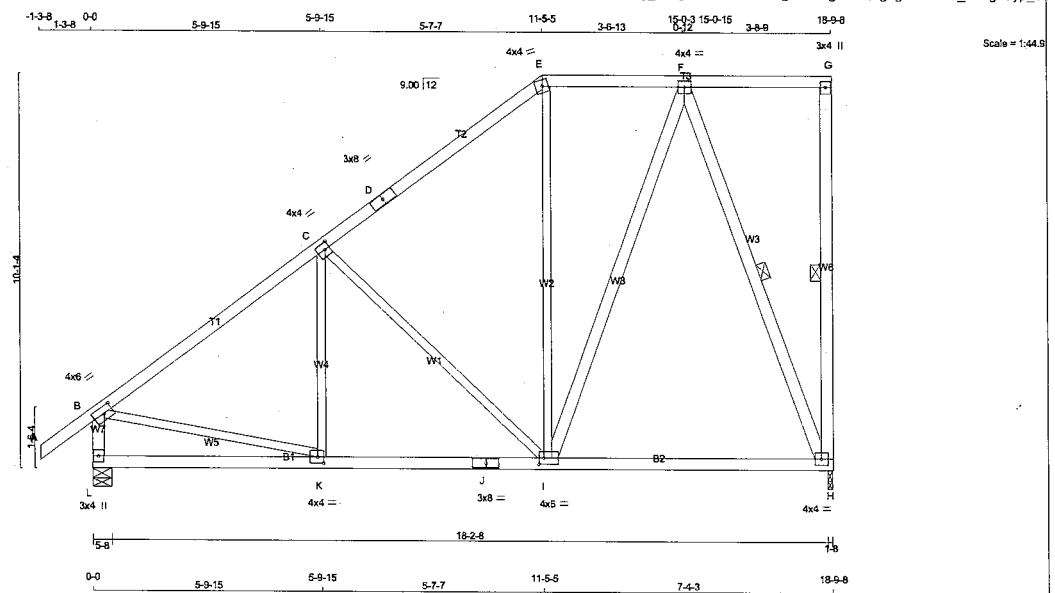
PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.56 (B) (INPUT = 1.00)

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





LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES	SIZE	LUMBER	DESCR.	BEARINGS				SPECIFIED LOADS:			
A - D	2x4	DRY	No.2	FACTORED	MAXIMUM FACTORED	INPUT	RECRD	TOP CH. LL	=	26.7	PSF
D - E	2x4	DRY	No.2	GROSS REACTION	DOWN	HORIZ	BRG	TOP CH. DL	=	6.0	PSF
E - G	2x4	DRY	No.2	JT VERT	1113	0	0	BOT CH. LL	=	0.0	PSF
H - B	2x4	DRY	No.2	SPF H	1210	0	0	BOT CH. DL	=	7.4	PSF
L - J	2x4	DRY	No.2	SPF L	1210	0	0	TOTAL LOAD	=	40.1	PSF
J - H	2x4	DRY	No.2	SPF				SPACING = 24.0 IN. C/C			
ALL WEBS	2x3	DRY	No.2	UNFACTORED REACTIONS				LOADING IN FLAT SECTION BASED ON			
EXCEPT				1ST LCASE	MAX./MIN. COMPONENT REACTIONS			PIGGYBACK TRUSS WITH SLOPES OF 6.00/12			
F - H	2x4	DRY	No.2	JT COMBINED	SNOW	LIVE	PERM.LIVE	AND 6.00/12 AND RESPECTIVE HEEL HEIGHTS			
				H	790	502/0	0/0	OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD			
				L	853	576/0	0/0	LOAD OF 3.0 P.S.F.			
DRY: SEASONED LUMBER.				BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) H, L				THIS TRUSS IS DESIGNED FOR RESIDENTIAL			

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B TMW-t	MT20	4.0	6.0	2.00	2.75
C TMW-t	MT20	4.0	4.0	2.00	1.50
D TS-t	MT20	3.0	8.0		
E TTW-m	MT20	4.0	4.0		
F TMW-t	MT20	4.0	4.0		
G TMV-p	MT20	3.0	4.0		
H BMW-t	MT20	4.0	4.0		
I BMW-t	MT20	4.0	6.0	2.00	1.50
J BS-t	MT20	3.0	8.0		
K BMW-t	MT20	4.0	4.0	2.00	1.75
L BMV-t	MT20	3.0	4.0		

BRACING

FOR SECTION E-G. MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.60 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.	FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED CS1 (LC)	MEMB.	FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED CS1 (LC)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0/39	-95.2	-95.2 0.13 (1)	10.00	K-C	-69/63	0.04 (1)
B-C	-1036/0	-95.2	-95.2 0.43 (1)	5.60	C-I	-495/0	0.88 (1)
C-D	-673/0	-95.2	-95.2 0.41 (1)	6.25	I-E	0/67	0.02 (4)
D-E	-673/0	-95.2	-95.2 0.41 (1)	6.25	E-F	0/474	0.08 (1)
E-F	-505/0	-102.7	-102.7 0.18 (1)	2.00	F-H	-976/0	0.56 (1)
F-G	0/0	-102.7	-102.7 0.23 (1)	10.00	B-K	0/878	0.20 (1)
H-G	-145/0	0.0	0.0 0.07 (1)	6.25			
L-B	-1164/0	0.0	0.0 0.12 (1)	7.39			
L-K	0/0	-18.5	-18.5 0.13 (4)	10.00			
K-J	0/860	-18.5	-18.5 0.28 (4)	10.00			
J-I	0/860	-18.5	-18.5 0.28 (4)	10.00			
I-H	0/345	-18.5	-18.5 0.24 (4)	10.00			

ALLOWABLE DEFL.(LL) = L/360 (0.83")
CALCULATED VERT. DEFL.(LL) = L/999 (0.02")
ALLOWABLE DEFL.(TL) = L/360 (0.83")
CALCULATED VERT. DEFL.(TL) = L/999 (0.09")

CSI: TC=0.43/1.00 (B-C:1), BC=0.28/1.00 (H-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

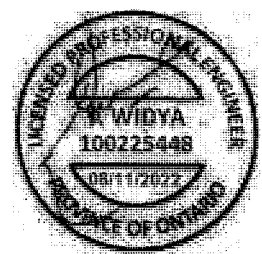
PLATE	GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PLI)	(PLI)
MAX	MIN	MAX	MIN
MT20	650	371	1747
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.80 (K) (INPUT = 0.80)
JSI METAL= 0.29 (K) (INPUT = 1.00)

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





LUMBER

PLATES (table is in inches)

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

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

BEARINGS
FA

UNFACTORED REACTIONS

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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. LOAD CSI (LC)	MAX. UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)
FR-TO		FROM TO		LENGTH	FR-TO		
A-B	0 / 39	-95.2	-95.2	0.15 (1)	10.00	-22 / 99	0.03 (4)
B-C	-1005 / 0	-95.2	-95.2	0.53 (1)	5.44	C-H	-599 / 0
C-D	-552 / 0	-95.2	-95.2	0.52 (1)	6.25	H-E	-208 / 13
D-E	-552 / 0	-95.2	-95.2	0.52 (1)	6.25	H-F	0 / 842
E-F	0 / 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)	7.42		0.19 (1)
K-B	-1151 / 0	0.0	0.0	0.12 (1)	10.00		
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		

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=0.65/1.00 (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.

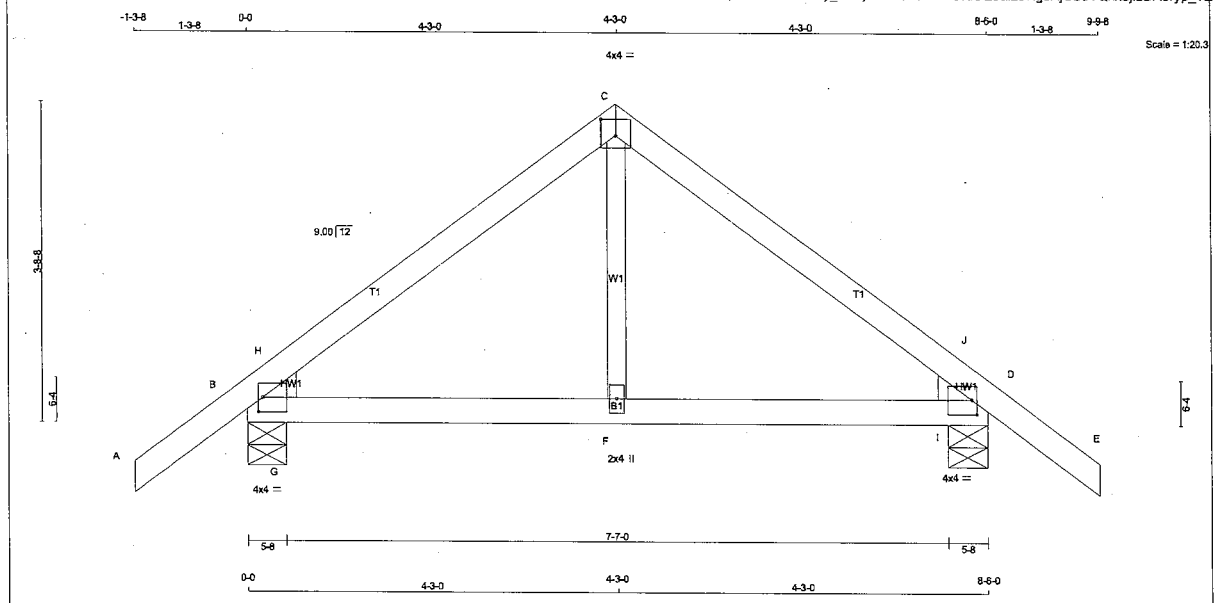
NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (B) (INPUT = 0.90)
JSI METAL= 0.56 (B) (INPUT = 1.00)



LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. TOTAL WEIGHT = 29.1b [M/F]

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)	W	LEN	Y	X
JT TYPE				
B TMBH1-I	MT20	4.0	4.0	2.00 0.75
C TTW-p	MT20	4.0	4.0	2.25 2.00
D TMBH1-I	MT20	4.0	4.0	2.00 0.75
F BMW+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	HORZ	DOWN	HORZ
B	615	0	615	0
D	615	0	615	0

UNFACTORED REACTIONS	1ST LCASE	MAX/MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
B	431	301/0	0/0
D	431	301/0	0/0

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

BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLINE SPACING = 5.25 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.03 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING TOTAL LOAD CASES: (4)

CHORDS	MEMB.	FORCE (LBS)	FACTORED	VERT. LOAD	LC1	MAX	MAX	UNBRAC	MEMB.	FORCE (LBS)	MAX	MAX
FR-TO				FROM	TO	LENGTH	FR-TO					
A-B	0/34	-95.2	-95.2	0.13	(1)	10.00	F-C	0/174	0.04	(1)		
B-H	-377/0	-95.2	-95.2	0.08	(1)	6.25	G-H	-258/0	0.00	(1)		
H-C	-427/0	-95.2	-95.2	0.18	(1)	6.25	I-J	-258/0	0.00	(1)		
C-J	-427/0	-95.2	-95.2	0.18	(1)	6.25						
J-D	-377/0	-95.2	-95.2	0.08	(1)	6.25						
D-E	0/34	-95.2	-95.2	0.13	(1)	10.00						
B-G	0/332	-18.5	-18.5	0.20	(1)	10.00						
G-F	0/332	-18.5	-18.5	0.20	(1)	10.00						
F-I	0/332	-18.5	-18.5	0.20	(1)	10.00						
I-D	0/332	-18.5	-18.5	0.20	(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, NBC2015

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

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 (0.02")

CSI: TC=0.18/1.00 (C-H-1), BC=0.20/1.00 (B-G-1), WB=0.04/1.00 (C-F-1), SSI=0.19/1.00 (D-I-1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

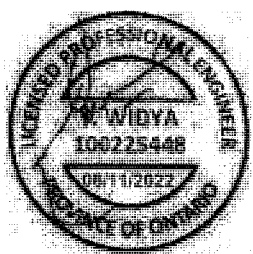
NAIL VALUES	PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)		
MAX	MIN	MAX	MIN	MAX
MT20	650	371	1747	788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

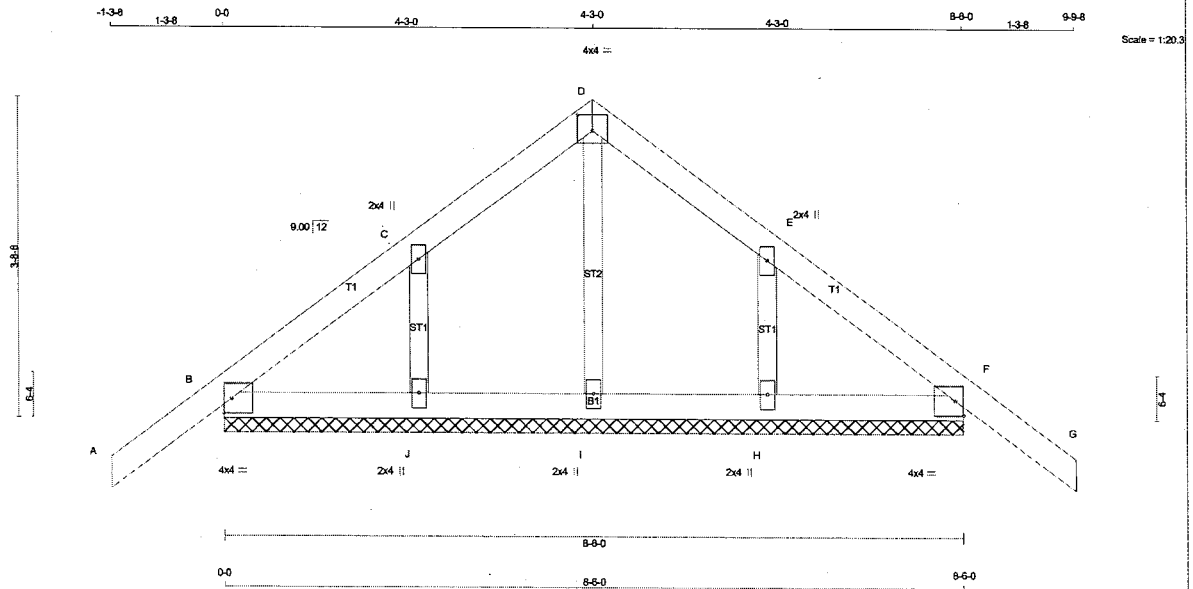
JSI GRIP= 0.83 (D) (INPUT = 0.90) JSI METAL= 0.16 (B) (INPUT = 1.00)

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



Alpa Roof Truss, Maple

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ID:To6XqL09YKBxLLs9y_Z1eyrbTx-WcivY5FD?77cjRA3CorDloM066IVeulx9S0Q5IAyp_TW



LUMBER

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

GABLE STUDS SPACED AT 2'-0" O.C.

PLATES (table in inches)

PLATE	TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	4.0	4.0		Edge
C	TTW+u	MT20	2.0	4.0		
D	TTW+u	MT20	4.0	4.0	2.25	2.00
E	TTW+u	MT20	2.0	4.0		
F	TMB1-I	MT20	4.0	4.0		Edge
H, I, J	BMW1+u	MT20	2.0	4.0		

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

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

BEARINGS
THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.
THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)

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.	FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX. (LC)	MEMB.	FORCE (LBS)	FACTORED MAX. (LC)	UNBRACED LENGTH (FT)
FR-TO	0 / 34	-95.2	-95.2 0.13 (1)	10.00	FR-TO	-107 / 0	0.02 (1)
A-B	-35 / 0	-95.2	-95.2 0.07 (1)	6.25	J-C	-240 / 0	0.04 (1)
B-C	-49 / 0	-95.2	-95.2 0.07 (1)	6.25	H-E	-240 / 0	0.04 (1)
C-D	-49 / 0	-95.2	-95.2 0.07 (1)	6.25			
D-E	-49 / 0	-95.2	-95.2 0.07 (1)	6.25			
E-F	-35 / 0	-95.2	-95.2 0.07 (1)	6.25			
F-G	0 / 34	-95.2	-95.2 0.13 (1)	10.00			
B-J	0 / 39	-18.5	-18.5 0.02 (4)	10.00			
J-I	0 / 27	-18.5	-18.5 0.02 (4)	10.00			
I-H	0 / 27	-18.5	-18.5 0.02 (4)	10.00			
H-F	0 / 39	-18.5	-18.5 0.02 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 28.7 PSF
DL = 8.0 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 28.7 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.13/1.00 (F-G:1), BC=0.02/1.00 (B-J:4), WB=0.04/1.00 (E-H:1), SSI=0.09/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

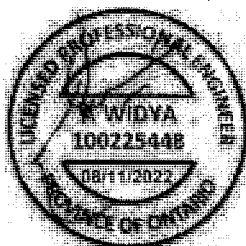
PLATE	GRIP (DRY)	SHEAR (PSI)	SECTION (PLI)	MAX MIN	MAX MIN	MAX MIN
MT20	650	371	1747	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

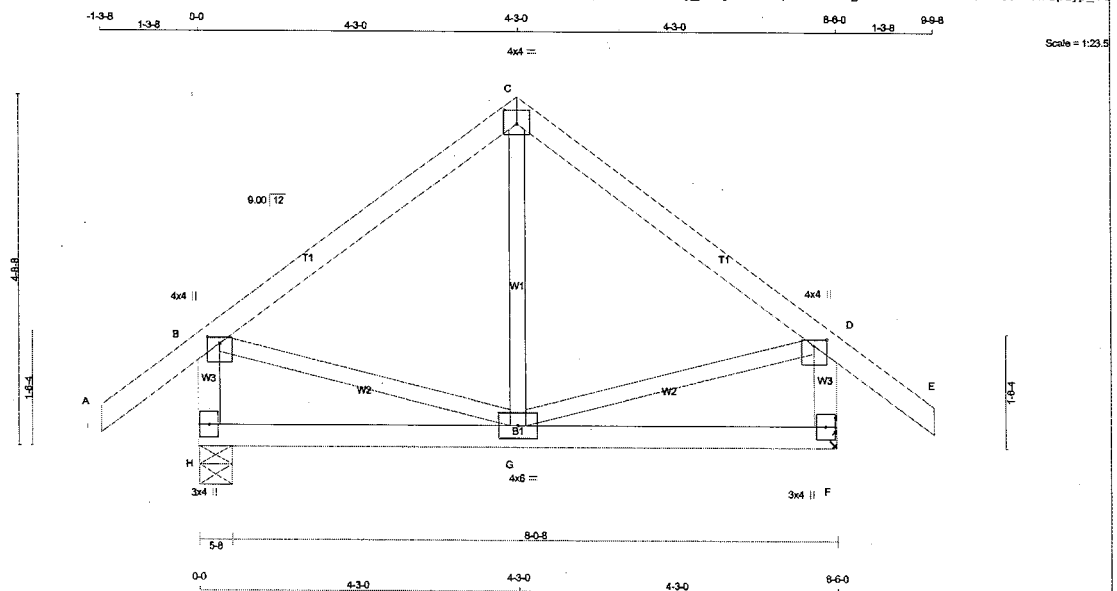
JSI GRIP= 0.18 (F) (INPUT = 0.90)
JSI METAL= 0.13 (C) (INPUT = 1.00)

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



Alpa Roof Truss, Maple

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LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER
A - C	2x4	DRY
C - E	2x4	DRY
H - B	2x4	DRY
F - D	2x4	DRY
H - F	2x4	DRY

ALL WEBS 2x3 DRY No.2
EXCEPT

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	TTW+p	MT20	4.0	4.0	2.25	2.00
D	TMW+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	REQD
JT	GROSS REACTION	GROSS REACTION	BRG	BRG
H	VERT	DOWN	5-8	1-8
F	HORZ	UPLIFT	MECHANICAL	

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

UNFACTORED REACTIONS

1ST LCASE	MAX	MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
H	431	301/0	0/0
F	431	301/0	0/0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 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	W E B S	MAX. FACTORED
MEMB.	FORCE	VERT. LOAD	MEMB.	FORCE
FR-TO	(LBS)	LC1 MAX	LENGTH FR-TO	(LBS)
A-B	0/39	-95.2	10.00	-40/60
B-C	-304/0	-95.2	6.25	0/252
C-D	-304/0	-95.2	6.25	0/252
D-E	0/39	-95.2	10.00	
H-B	-584/0	0.0	7.81	
F-D	-584/0	0.0	7.81	
H-G	0/0	-18.5	10.00	
G-F	0/0	-18.5	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 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

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=0.08/1.00 (D-G:1), SS=0.13/1.00 (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)	(PL)	(PL)	(PL)
MAX	MIN	MAX	MIN
MT20	650	371	1747

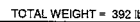
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 6.0 Deg.

JSI GRIP= 0.49 (D) (INPUT = 0.90)
JSI METAL= 0.13 (D) (INPUT = 1.00)

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





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

JSI METAL= 0.99 (AB) (INPUT = 1.00)

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
428375	T77		1	GREEN PARK HOMES JT 53080	E22085290(2)

Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 MITek Industries, Inc. Thu Aug 11 08:46:30 2022 Page 2
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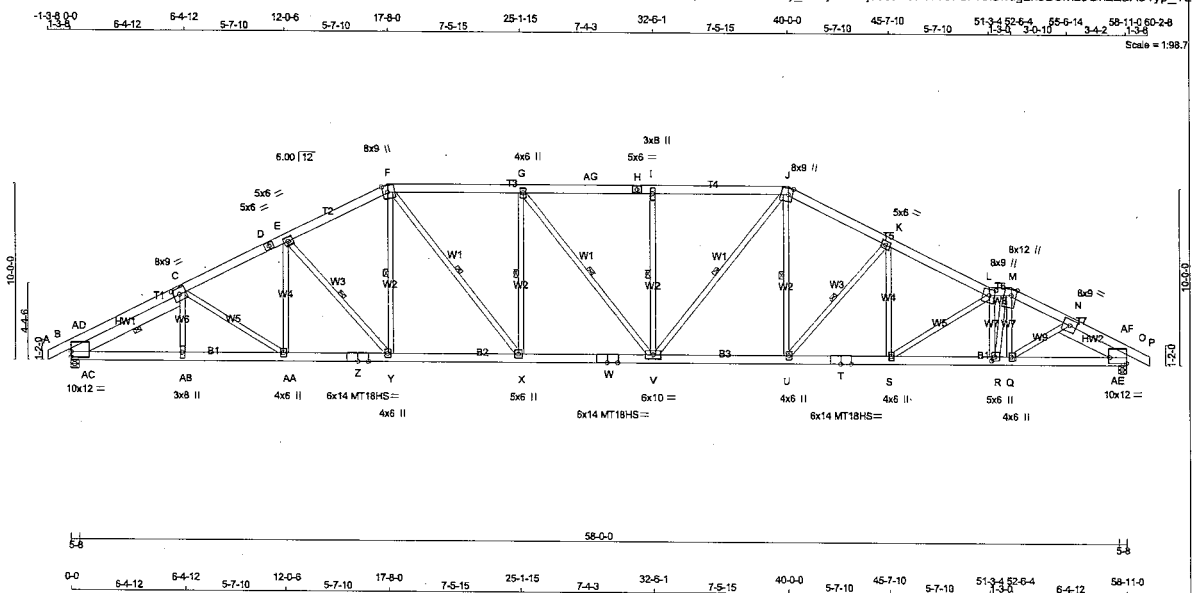
CONNECTION REQUIREMENTS

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

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_{pe} , 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





LUMBER

N.L.G.A. RULES	CHORDS	SIZE	TYPE	DESCR.
A - D	2x6	DRY	No.2	SPF
E - F	2x6	DRY	No.2	SPF
F - H	2x6	DRY	No.2	SPF
H - J	2x6	DRY	No.2	SPF
J - L	2x6	DRY	No.2	SPF
L - M	2x6	DRY	No.2	SPF
M - P	2x6	DRY	No.2	SPF
P - Z	2x6	DRY	2100F 1.8E	SPF
Z - W	2x6	DRY	2100F 1.8E	SPF
W - T	2x6	DRY	2100F 1.8E	SPF
T - O	2x6	DRY	2100F 1.8E	SPF

REINFORCING MEMBERS

MEMBER	SIZE	TYPE	DESCR.
HW1	2x8	DRY	No.2
HW2	2x8	DRY	No.2

ALL WEBS 2x4 DRY SEASONED LUMBER.

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

BEARINGS

FACTORED	MAXIMUM FACTORED	INPUT	REQ'D
GROSS REACTION	GROSS REACTION	BRG	BRG
JT VERT	HORZ	DOWN	HORZ
B 5017	0	5017	141
O 5011	0	5011	0

PROVIDE ANCHORAGE AT BEARING JOINT B FOR 217 LBS FACTORED UPLIFT

PROVIDE ANCHORAGE AT BEARING JOINT O FOR 231 LBS FACTORED UPLIFT

PROVIDE FOR 141 LBS FACTORED HORIZONTAL REACTION AT JOINT B

UNFACTORED REACTIONS

1ST CASE	MAX	MIN	COMPONENT REACTIONS
JT COMBINED	SNOW	LIVE	PERM.LIVE
B 3704	2165 / 0	619 / 0	0 / 0
O 3699	2165 / 0	619 / 0	0 / 0

HORIZONTAL REACTIONS

MEMBER	REACTION
B	0 / 0

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

TOTAL WEIGHT = 4 X 400 = 1599 lb

(1599 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	= 58.0	PSF

SPACING = 24.0 IN. C/C

LOADING IN HIGHEST FLAT SECTION BASED ON
 PIGGYBACK TRUSS WITH SLOPES OF 6.00/12
 AND 4.00/12 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

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B	TMBMW-1	MT20	10.0	12.0	3.50
C	TMBWW-1	MT20	8.0	9.0	4.00
D	TS-1	MT20	5.0	6.0	
E	TMBWW-1	MT20	5.0	6.0	
F	TTWW+m	MT20	8.0	9.0	4.25
G	TMBWW-1	MT20	4.0	6.0	
H	TS-1	MT20	5.0	6.0	
I	TMBWW-1	MT20	3.0	8.0	
J	TTWW+m	MT20	8.0	9.0	4.25
K	TMBWW-1	MT20	5.0	6.0	
L	TTWW+m	MT20	8.0	9.0	4.50
M	TTWW+m	MT20	8.0	12.0	Edge 3.25
N	TMBWW-1	MT20	8.0	9.0	
O	TMBWW-1	MT20	10.0	12.0	Edge
Q, S, U, Y, AA					
R	BMWW+1	MT20	4.0	6.0	
Q	BMWW+1	MT20	5.0	6.0	2.75
T, W, Z					
V	BMWW-1	MT18HS	6.0	14.0	
X	BMWW-1	MT20	6.0	10.0	
AB	BMWW-1	MT20	5.0	6.0	
AB	BMWW-1	MT20	3.0	8.0	

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

BRACING

FOR SECTION F-J, MAX. UNBRACED TOP CHORD LENGTH = 2.00 FT.

FOR OTHER SECTIONS, MAX. UNBRACED TOP CHORD LENGTH = 2.53 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-Y, F-Y, F-X, G-X, G-V, I-V, J-V, J-U, K-U, C-A.

LOADING

TOTAL LOAD CASES: (18)

CHORDS

MEMB. MAX. FACTORED FORCE (LBS)

FACTORED VERT. LOAD LC1 (PLF)

MAX. CSI (LC)

UNBRACED LENGTH

WELLS

MEMB. MAX. FACTORED FORCE (LBS)

CSI (LC)

FR-TO

A-B

0 / 1

-120.3 -120.3 0.09 (2)

10.00

AB-C

0 / 300

0.05 (17)

B-A

-5867 / 193

-120.3 -120.3 0.36 (1)

3.37

CA-A

-410 / 152

0.25 (2)

AD-C

-3934 / 248

-120.3 -120.3 0.30 (2)

4.13

AA-E

0 / 438

0.07 (5)

C-D

-7861 / 306

-120.3 -120.3 0.65 (1)

2.72

E-Y

-1243 / 217

0.46 (2)

D-E

-7861 / 306

-120.3 -120.3 0.65 (1)

2.72

Y-F

-76 / 1223

0.03 (3)

E-F

-7165 / 281

-120.3 -120.3 0.58 (1)

2.91

F-X

-68 / 1915

0.31 (3)

F-G

-7837 / 246

-132.8 -132.8 0.96 (1)

2.00

X-G

-1207 / 152

0.54 (3)

G-A

-7610 / 259

-132.8 -132.8 0.96 (1)

2.00

G-V

-1034 / 1212

0.83 (2)

AG-H

-7610 / 259

-132.8 -132.8 0.96 (1)

2.00

V-I

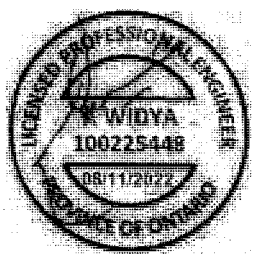
-1192 / 146

0.53 (3)

TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING AS PER NBC 4.1.6.2 (9)

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_{pe}, 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



TRUSS MANUFACTURING PLANT

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

NAIL VALUES

PLATE GRIP(DRY) SHEAR	SECTION
(PSI)	(PLI)
MAX MIN	MAX MIN
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 (R) (INPUT = 0.90)

JSI METAL= 0.82 (B) (INPUT = 1.00)

TRUSS MANUFACTURING PLANT

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

NAIL VALUES

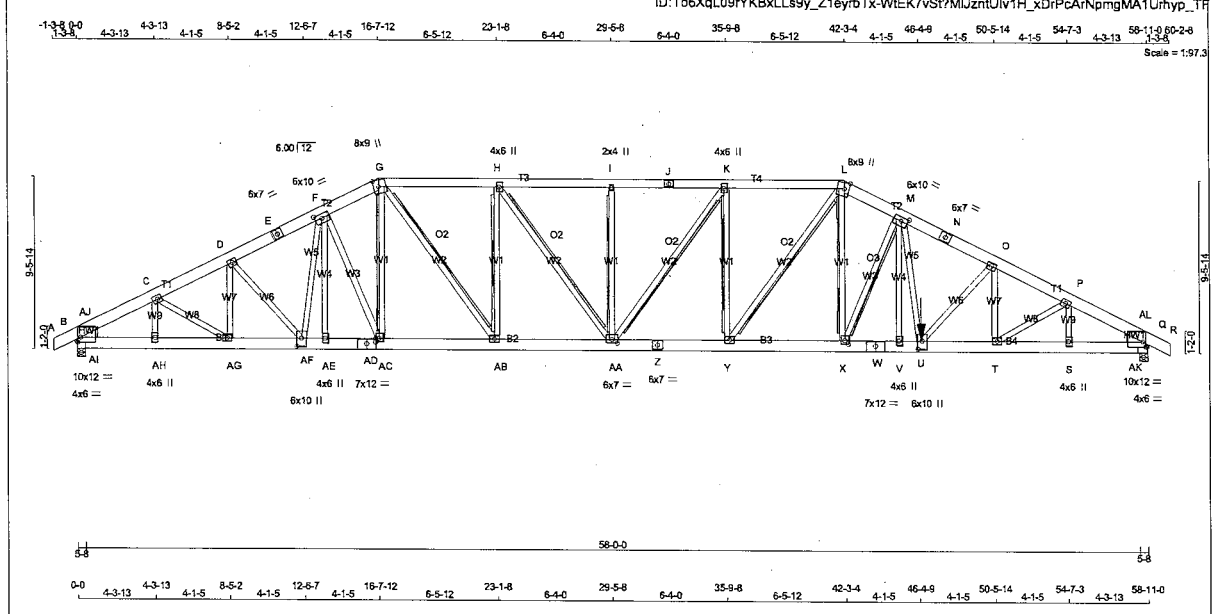
PLATE GRIP(DRY) SHEAR	SECTION
(PSI)	(PLI)
MAX MIN	MAX MIN
MT20	650 371 1747 788 1987 1873
MT18HS	586 403 2455 1382 3163 3004

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (R) (INPUT = 0.90)

JSI METAL= 0.82 (B) (INPUT = 1.00)



58-0-0 11 58 TOTAL WEIGHT = 3 X 465 = 1394 lb

LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY			
N. L. G. A. RULES				BUILDING DESIGNER			
CHORDS	SIZE	DRY	LUMBER	DESCR.	FACTORED	MAXIMUM FACTORED	INPUT
A - E	2x8	DRY	No.2	SPF	GROSS REACTION	BRG	RECORD
E - G	2x8	DRY	No.2	SPF	VERT	DOWN	IN-SX
G - J	2x6	DRY	No.2	SPF	HORIZ	UP/LIFT	IN-SX
J - L	2x6	DRY	No.2	SPF	B	7280 0	135 -318 5-8
L - N	2x8	DRY	No.2	SPF	Q	14886 0	-312 5-8 5-8
N - R	2x8	DRY	No.2	SPF	PROVIDE ANCHORAGE AT BEARING JOINT B FOR 318 LBS FACTORED UPLIFT		
B - AD	2x8	DRY	1950F 1.7E	SPF	PROVIDE ANCHORAGE AT BEARING JOINT Q FOR 312 LBS FACTORED UPLIFT		
AD - Z	2x8	DRY	1950F 1.7E	SPF	PROVIDE FOR 135 LBS FACTORED HORIZONTAL REACTION AT JOINT B		
Z - W	2x8	DRY	1950F 1.7E	SPF	UNFACTORED REACTIONS		
W - Q	2x8	DRY	1950F 1.7E	SPF	1ST LCASE MAX/MIN COMPONENT REACTIONS		

CHORDS #ROWS SURFACE SPACING (IN)				LOAD (PLF)			
TOP CHORDS : (0.122'X3') SPIRAL NAILS				BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, Q			
A-E	2	12	TOP	BEARING SIZE FACTOR = 1.15 AT JNT(S) Q (BASED ON SUPPORT DEPTH = 1-8)			
E-G	2	12	TOP	BRACING			
L-N	2	12	TOP	FOR SECTION G-L, MAX. UNBRACED TOP CHORD LENGTH = 2.00 FT.			
N-R	2	12	TOP	FOR OTHER SECTIONS, MAX. UNBRACED TOP CHORD LENGTH = 2.22 FT.			
G-J	2	12	TOP	MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.			
J-L	2	12	TOP	ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.			
BOTTOM CHORDS : (0.122'X3') SPIRAL NAILS				2X6 DRY SPF No.2 T-BRACE AT G-AC, L-X, M-X, L-Y, G-AB, K-Y, H-AB, K-AA, H-AA, I-AA			
B-AD	2	12	TOP	FASTEN T AND L-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3"			
AD-Z	2	12	TOP	COMMON WIRE NAILS @ 6" O.C. WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90%			
Z-W	2	12	TOP	OF WEB LENGTH.			
W-Q	3	4	TOP	LOADING			
WEBS : (0.122'X3') SPIRAL NAILS				TOTAL LOAD CASES: (18)			
M-U	2	4	TOP	CHORDS			
2x4	1	6	TOP	MEMB. MAX. FACTORED FORCE (LBS)			

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

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)				WEBS			
JT TYPE	PLATES	W	LEN Y X	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CS (LC)	MEMB.
B TMBH1-I	MT20	10.0	12.0	3.25	2.00		AH-C
B TP-I	MT20	4.0	6.0	2.75	2.75		C-AG
C D, Q, P							AE-F
C TMMW-I	MT20	5.0	6.0				F-AC
E TS-I	MT20	6.0	7.0				AC-G
F TMMW-I	MT20	6.0	10.0	3.00	4.50		X-L
G TMMW-I	MT20	6.0	10.0	3.00	4.50		V-M
H TMMW-I	MT20	4.0	6.0	Edge 3.25			T-O
I TMMW-I	MT20	2.0	4.0				T-P
J TS-I	MT20	5.0	6.0				S-P
K TMMW-I	MT20	4.0	6.0				X-M
L TMMW-I	MT20	6.0	9.0	Edge 3.25			M-U
M TMMW-I	MT20	6.0	10.0	3.00	4.50		U-O
N TS-I	MT20	6.0	7.0				AF-F
Q TMBH1-I	MT20	10.0	12.0	3.25	2.00		DA-F
Q TP-I	MT20	4.0	6.0	2.75	2.75		Y-L

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

FACTORED CONCENTRATED LOADS (LBS)

JT	LOC.	LC1	MAX.	MAX+	FACE	DIR.	TYPE	HEEL	CONN.
U	46-5-12	-9050	-10186	804	FRONT	VERT	TOTAL	-	C1

CONNECTION REQUIREMENTS

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

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

JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
428375	T79		3	GREEN PARK HOMES JT 53080	E22085292(2)

Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 MiTek Industries, Inc. Thu Aug 11 06:46:41 2022 Page 2
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PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
S, V, AE, AH					
S BMW+u	MT20	4.0	6.0		
T, Y, AB, AG					
T BMWW-t	MT20	5.0	6.0		
U BMWW+t	MT20	6.0	10.0	5.50	3.00
W BS-t	MT20	7.0	12.0		
X BMWW+t	MT20	6.0	6.0	2.50	2.25
Z BS-t	MT20	6.0	7.0		
AA BMWWW-t	MT20	6.0	7.0	2.50	3.50
AC BMWW+t	MT20	5.0	6.0	2.50	2.25
AD BS-t	MT20	7.0	12.0	3.50	5.75
AF BMWW+t	MT20	6.0	10.0	5.50	3.00

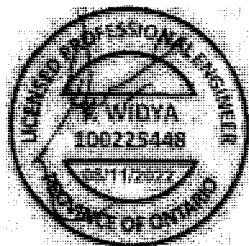
Edge - INDICATES REFERENCE CORNER OF PLATE
TOUCHES EDGE OF CHORD.

CONNECTION REQUIREMENTS

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

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_{pe} , 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



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
428375	T79Z		3	GREEN PARK HOMES JT 53080	E22085293(2)
Alpa Roof Truss, Maple				Version 8.530 S Feb 23 2022 Mitek Industries, Inc. Thu Aug 11 08:46:48 2022 Page 2	
				ID:To6XqL09rYKBxLLs9y Z1eyrbTx-Eog6DKa8eQ0uAKePl?CdO2eYgea7jL58fS0C6yp TS	

PLATES (table is in inches)					
JT	TYPE	PLATES	W	LEN	Y X
Q	TP-I	MT20	4.0	6.0	3.25 2.75
S	BMW+w	MT20	4.0	6.0	
T, Y, AB, AG					
T	BMW-w	MT20	5.0	6.0	
U	BMW-w	MT20	6.0	10.0	5.50 3.00
V	BMW+w	MT20	7.0	12.0	
W	BS-I	MT18HS	7.0	10.0	
X	BMW-w	MT20	5.0	6.0	2.50 2.00
Z	BS-I	MT20	6.0	7.0	
AA	BMW-w	MT20	6.0	7.0	2.75 3.50
AC	BMW-w	MT20	5.0	6.0	2.50 2.00
AD	BS-I	MT20	7.0	12.0	
AE	BMW+w	MT20	7.0	12.0	
AF	BMW-w	MT20	6.0	10.0	5.50 3.00
AH	BMW+w	MT20	4.0	6.0	

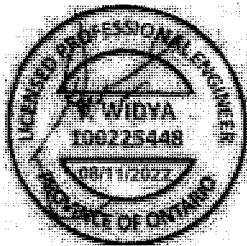
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

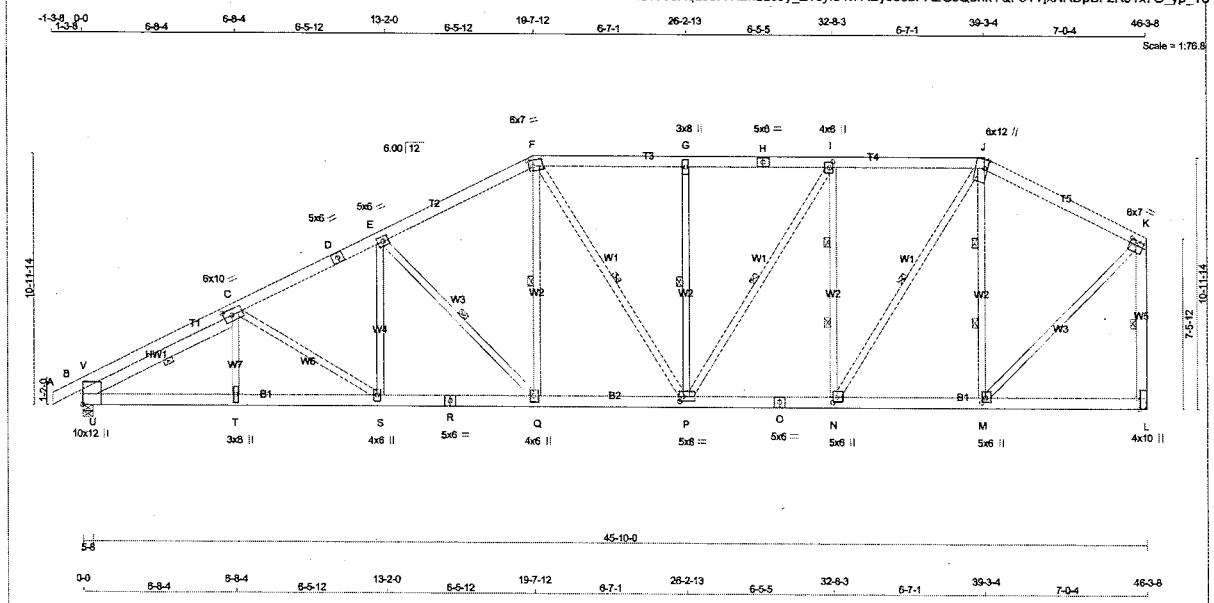
CONNECTION REQUIREMENTS

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

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, $C_p C_g$, 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.

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





				TOTAL WEIGHT = 4 X 328 = 1311 lb													
LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY													
N. L. G. A. RULES				BUILDING DESIGNER													
CHORDS				BEARINGS													
A - D 2x6 DRY				No.2	DESCR.	SPF	FACTORED	MAXIMUM FACTORED	INPUT	REQD	DESIGN CRITERIA						
D - F 2x6 DRY				No.2	SPF	GROSS REACTION	GROSS REACTION	BRG	BRG	SPECIFIED LOADS:							
F - H 2x6 DRY				No.2	SPF	JT VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	TOP CH. LL = 35.1 PSF				
H - J 2x6 DRY				No.2	SPF	B 3955	0	4071	294	-228	5-8	5-8	DL = 6.0 PSF				
J - K 2x6 DRY				No.2	SPF	L 3854	0	3854	0	-67	MECHANICAL	BOT CH. LL = 10.5 PSF					
L - K 2x6 DRY				No.2	SPF	A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT L. MINIMUM BEARING LENGTH AT JOINT L = 3-8.							DL = 7.4 PSF				
B - R 2x6 DRY				No.2	SPF								TOTAL LOAD = 59.0 PSF				
R - O 2x6 DRY				No.2	SPF								SPACING = 24.0 IN. C/C				
O - L 2x6 DRY				No.2	SPF	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.											
REINFORCING MEMBERS																	
HW1 2x6 DRY				No.2	SPF								PROVIDE ANCHORAGE AT BEARING JOINT B FOR 228 LBS. FACTORED UPLIFT				
ALL WEBS 2x4 DRY EXCEPT				No.2	SPF	PROVIDE ANCHORAGE AT BEARING JOINT L FOR 150 LBS. FACTORED UPLIFT											
DRY: SEASONED LUMBER.											PROVIDE FOR 294 LBS. FACTORED HORIZONTAL REACTION AT JOINT B						
											UNFACTORED REACTIONS						
											1ST LCASE MAX./MIN. COMPONENT REACTIONS						
											THIS TRUSS IS DESIGNED FOR COMMERCIAL						

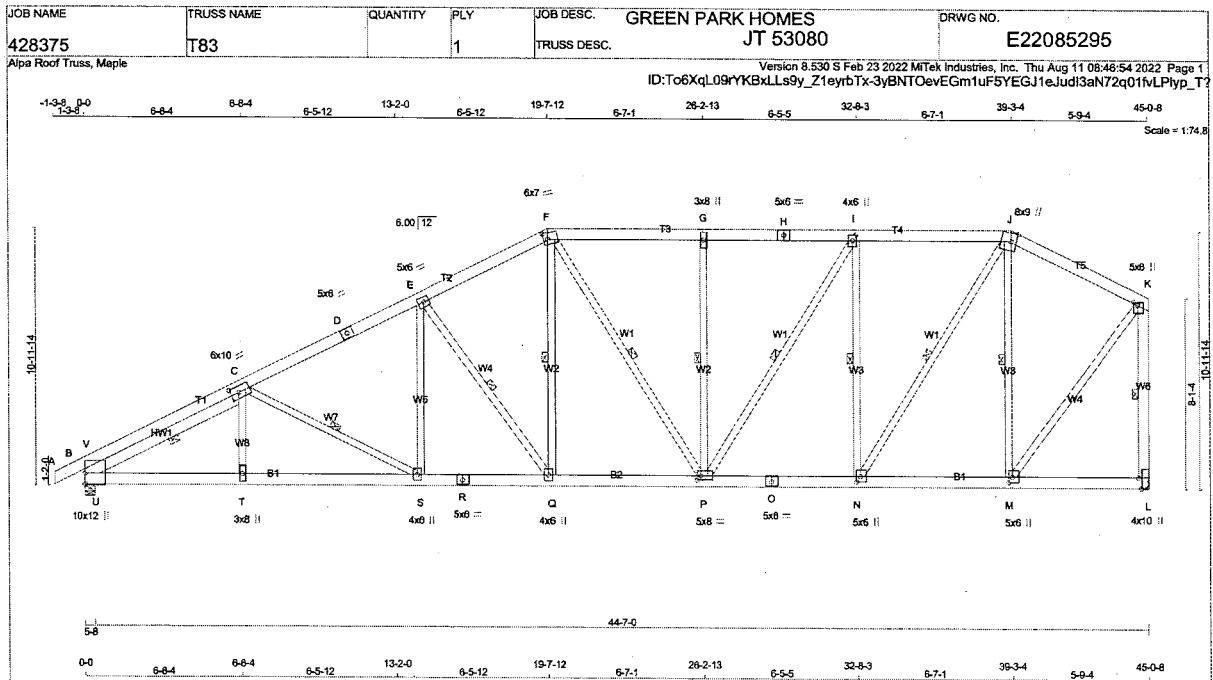
DESIGN CRITERIA				UNFACTORED REACTIONS			
SPECIFIED LOADS:				1ST LCASE			
TOP CH.	LL	=	35.1 PSF	SNOW			
BOT CH.	LL	=	6.0 PSF	LIVE			
	DL	=	10.5 PSF	PERM LIVE			
	DL	=	7.4 PSF	WIND			
TOTAL LOAD	=	59.0 PSF		DEAD			
SPACING = 24.0 IN. C/C				SOIL			
LOADING IN FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 8.00/12 AND 8.00/12 AND RESPECTIVE HEEL HEIGHTS OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD LOAD OF 5.0 P.S.F.				HORIZONTAL REACTIONS			
THIS TRUSS IS DESIGNED FOR COMMERCIAL OR INDUSTRIAL BUILDING REQUIREMENTS OF PART 4, NBC 2015				B			
THIS DESIGN COMPLIES WITH:				L			
- 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 (1.54")							
CALCULATED VERT. DEFL.(LL) = L/999 (0.21")							
ALLOWABLE DEFL.(TL) = L/160 (3.09")							
CALCULATED VERT. DEFL.(TL) = L/999 (0.30")							
CS: TC=0.68/1.00 (C-E2), BC=0.74/1.00 (T-U-2), WB=0.75/1.00 (E-Q-2), SSI=0.36/1.00 (J-J3)							
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 LEFT 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= 0.90 (P) (INPUT = 0.90)							
JSI METAL= 0.97 (B) (INPUT = 1.00)							

CHORDS				WEBS			
MEMB.	FORCE (LBS)	FACTORED VERT. LOAD (LBS)	MAX. FACTORED (LBS)	MEMB.	FORCE (LBS)	MAX. FACTORED (LBS)	MAX. FACTORED (LBS)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0/1	-120.3	-120.3	0.09 (2)	10.00	T-C	0/301
B-V	-4779/146	-120.3	-120.3	0.46 (2)	3.55	C-S	-810/140
V-C	-2959/258	-120.3	-120.3	0.42 (2)	4.46	S-E	0/606
C-D	-5647/323	-120.3	-120.3	0.66 (2)	3.16	E-Q	-1548/244
D-E	-5647/323	-120.3	-120.3	0.66 (2)	3.16	Q-F	-88/1391
E-F	-4687/287	-120.3	-120.3	0.59 (2)	3.59	F-J	-1874/83
F-G	-4246/261	-132.8	-132.8	0.52 (2)	2.00	M-K	0/3140
G-H	-4246/261	-132.8	-132.8	0.51 (2)	2.00	N-J	-90/2614
H-I	-4246/261	-132.8	-132.8	0.51 (2)	2.00	P-P	-258/518
I-J	-3609/185	-132.8	-132.8	0.46 (1)	2.00	N-I	-1982/156
J-K	-2514/114	-120.3	-120.3	0.64 (3)	4.50	P-G	-1059/129
L-K	-3743/106	0.0	0.0	0.57 (1)	4.43	P-I	-146/1787
B-U	-301/2833	-39.5	-39.5	0.37 (2)	6.25	U-V	0/2244
U-T	-358/5520	-39.5	-39.5	0.74 (2)	6.25	U-C	-3481/68
T-S	-360/5516	-39.5	-39.5	0.74 (2)	6.25		
S-R	-243/5069	-39.5	-39.5	0.69 (1)	6.25		
R-Q	-243/5069	-39.5	-39.5	0.69 (1)	6.25		
Q-P	-75/4158	-39.5	-39.5	0.59 (1)	6.25		
P-O	0/3609	-39.5	-39.5	0.50 (1)	10.00		
O-N	0/3609	-39.5	-39.5	0.50 (1)	10.00		
N-M	0/2221	-39.5	-39.5	0.41 (1)	10.00		
M-L	-40/83	-39.5	-39.5	0.19 (17)	6.25		

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

TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING AS PER NBC 4.1.6.2 (B)

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.



TOTAL WEIGHT = 5 X 325 = 1625 (lb)

LUMBER	N.L.G.A. RULES	CHORDS	SIZE	DRY	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 - K	2x6	DRY	No.2	SPF		
L - K	2x6	DRY	No.2	SPF		
B - R	2x6	DRY	No.2	SPF		
R - O	2x6	DRY	No.2	SPF		
O - L	2x6	DRY	No.2	SPF		

REINFORCING MEMBERS	HW1	2x6	DRY	No.2	SPF
ALL WEBS	2x4	DRY	No.2	SPF	
EXCEPT					
M - J	2x4	DRY	2100F 1.8E	SPF	
N - I	2x4	DRY	2100F 1.8E	SPF	

DRY: SEASONED LUMBER.

PLATES (Table Is in inches)	JT TYPE	PLATES	W	LEN	Y	X
B TMBMW+H	MT20	10.0	12.0	5.50		
C TMBWW+H	MT20	6.0	10.0	3.00	4.00	
D TS-1	MT20	5.0	6.0			
E TMBWW+H	MT20	5.0	6.0			
F TTBWW-m	MT20	6.0	7.0	3.25	2.00	
G TMBWW-m	MT20	3.0	8.0			
H TS-1	MT20	5.0	6.0			
I TMBWW+H	MT20	4.0	6.0	3.00	1.75	
J TTBWW+m	MT20	8.0	9.0	4.25	2.75	
K TMBWW+p	MT20	5.0	6.0	1.75	2.25	
L BMBV+H	MT20	4.0	10.0	Edge	1.50	
M BMBWW+H	MT20	5.0	6.0	2.75	1.75	
N BMBWW+H	MT20	5.0	6.0	2.75	2.00	
O BS-1	MT20	5.0	8.0	2.25	2.00	
P BMBWW+H	MT20	4.0	6.0			
R BS-1	MT20	5.0	6.0			
S BMBWW+H	MT20	4.0	6.0			
T BMBWW+H	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	GROSS REACTION	MAXIMUM FACTORED	INPUT	REQD
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
B	3851	0	3998	310	-227
L	3758	0	3758	0	-53

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

PROVIDE ANCHORAGE AT BEARING JOINT B FOR 227 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT L FOR 150 LBS. FACTORED UPLIFT

PROVIDE FOR 310 LBS. FACTORED HORIZONTAL REACTION AT JOINT B

UNFACTORED REACTIONS

1ST CASE	MAX. MIN.	COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERMLIVE	WIND	DEAD	SOIL	
B	2839	1778 / 0	473 / 0	0 / 0	33 / -604	688 / 0	0 / 0	
L	2785	1580 / 0	473 / 0	0 / 0	37 / -508	732 / 0	0 / 0	

HORIZONTAL REACTIONS

B	0 / 0	0 / 0	0 / 0	221 / -74	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B

BRACING

FOR SECTION F-J, MAX. UNBRACED TOP CHORD LENGTH = 2.00 FT.
FOR OTHER SECTIONS, MAX. UNBRACED TOP CHORD LENGTH = 3.30 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 C-S, E-Q, F-Q, J-M, K-L, J-N, F-P, I-N, G-P, I-P, C-U.

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			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX. MAX. FACTORED CSI (LC) UNBRAC	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO	LENGTH	FR-TO			
A-B	0 / 1	-120.3 -120.3	0.09 (2)	10.00	T-C	0 / 353	0.08 (17)
B-V	-4660 / 159	-120.3 -120.3	0.41 (2)	3.66	C-S	-851 / 175	0.29 (2)
V-C	-2818 / 243	-120.3 -120.3	0.39 (2)	4.50	S-E	0 / 680	0.11 (2)
C-D	-5284 / 306	-120.3 -120.3	0.67 (2)	3.30	E-Q	-1553 / 239	0.69 (2)
D-E	-5284 / 306	-120.3 -120.3	0.67 (2)	3.30	Q-F	-119 / 1490	0.24 (2)
E-F	-4451 / 301	-120.3 -120.3	0.53 (2)	3.67	M-J	-2107 / 70	0.76 (1)
F-G	-3987 / 258	-132.8 -132.8	0.51 (2)	2.00	M-K	0 / 3027	0.49 (1)
G-H	-3987 / 258	-132.8 -132.8	0.50 (2)	2.00	N-J	-88 / 2749	0.44 (1)
H-I	-3987 / 258	-132.8 -132.8	0.50 (2)	2.00	F-P	-331 / 428	0.28 (2)
I-J	-3287 / 181	-132.8 -132.8	0.45 (1)	2.00	N-I	-2086 / 158	0.75 (1)
J-K	-2078 / 115	-120.3 -120.3	0.42 (3)	5.18	P-G	-1059 / 129	0.61 (2)
L-K	-3670 / 83	0.0 0.0	0.66 (1)	4.47	P-I	-147 / 1671	0.30 (2)
					U-V	0 / 2222	0.00 (1)
B-U	-293 / 2522	-39.5 -39.5	0.36 (2)	6.25	U-C	-3492 / 85	0.65 (2)
U-T	-364 / 5456	-39.5 -39.5	0.72 (2)	6.25			
T-S	-366 / 5450	-39.5 -39.5	0.76 (2)	6.25			
S-R	-213 / 4732	-39.5 -39.5	0.84 (1)	6.25			
R-Q	-213 / 4732	-39.5 -39.5	0.84 (1)	6.25			
Q-P	-75 / 3959	-39.5 -39.5	0.54 (1)	6.25			
P-O	0 / 3287	-39.5 -39.5	0.48 (1)	10.00			
O-N	0 / 3287	-39.5 -39.5	0.46 (1)	10.00			
N-M	0 / 1827	-39.5 -39.5	0.33 (1)	10.00			
M-L	-43 / 90	-39.5 -39.5	0.15 (17)	6.25			

TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING AS PER NBC 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_p, 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.

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 FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 8.00/12 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, NBC 2015

THIS DESIGN COMPLIES WITH:
-PART 4 OF CBC 2018, ABC 2019
-PART 4 OF CBC 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 (1.50")
CALCULATED VERT. DEFL.(LL) = U/999 (0.20")
ALLOWABLE DEFL.(TL) = L/180 (3.00")
CALCULATED VERT. DEFL.(TL) = U/999 (0.28")

CSI: TC=0.67/1.00 (C-E-2), BC=0.76/1.00 (S-T-2), WB=0.76/1.00 (J-M-1), SS=0.36/1.00 (J-3)

DOL LUMBER=1.00 NAIL=1.00 L.S 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 LEFT 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	MAX MIN
MT20	850 371	1747 788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

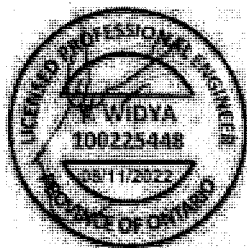
PLATE ROTATION TOL. = 5.0 Deg.

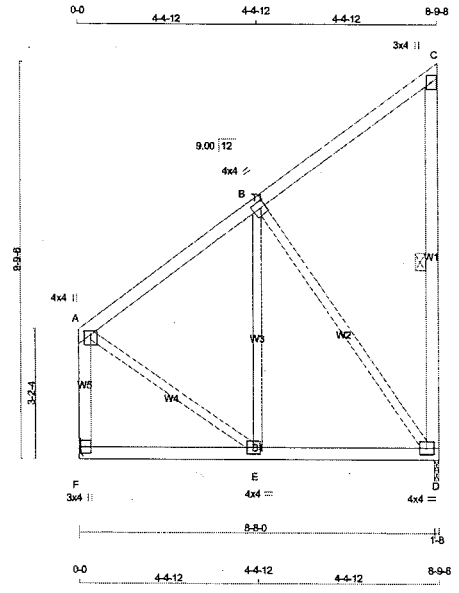
JSI GRIP= 0.90 (P) (INPUT = 0.90)

JSI METAL= 0.96 (B) (INPUT = 1.00)

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

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





Scale = 1/4" = 1'-0"

TOTAL WEIGHT = 11 X 51 = 560 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
F - A	2x4	DRY	No.2
A - C	2x4	DRY	No.2
D - C	2x4	DRY	No.2
F - 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
A	TMVW+p	MT20	4.0	4.0	1.00	2.00
B	TMVW-i	MT20	4.0	4.0	2.00	1.50
C	TMV+p	MT20	3.0	4.0		
D	BMVW-i	MT20	4.0	4.0		
E	BMVW-i	MT20	4.0	4.0		
F	BMV+p	MT20	3.0	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	DOWN	UP
F	500	0	0
D	500	0	0

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

UNFACTORED REACTIONS

1ST CASE	MAX	MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
F	353	235 / 0	0 / 0
D	353	235 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 8.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF C-D.

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.	CHORDS			WEBS		
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. FACTORED CSI (LC)	MEMB. MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	MEMB. MAX. FACTORED CSI (LC)
F-A	-468 / 0	0.0	0.08 (1)	0 / 265	0.06 (1)	0.06 (1)
A-B	-246 / 0	-95.2	-95.2 0.24 (1)	6.25	0.03 (1)	0.03 (1)
B-C	-31 / 0	-95.2	-95.2 0.24 (1)	6.25	0.03 (1)	0.03 (1)
D-C	-158 / 0	0.0	0.0 0.07 (1)	6.25	0.03 (1)	0.03 (1)
F-E	0 / 0	-18.5	-18.5 0.10 (4)	10.00		
E-D	0 / 222	-18.5	-18.5 0.12 (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, 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

ALLOWABLE DEFL.(LL) = $L/360$ (0.29")
CALCULATED VERT. DEFL.(LL) = $L/999$ (0.00")
ALLOWABLE DEFL.(TL) = $L/360$ (0.29")
CALCULATED VERT. DEFL.(TL) = $L/999$ (0.01")

CSI: TC=0.24/1.00 (A-B:1), BC=0.12/1.00 (D-E:4), WB=0.42/1.00 (B-D:1), SSI=0.16/1.00 (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)	(PL)	(PL)	(PL)
MT20	850	371	1747

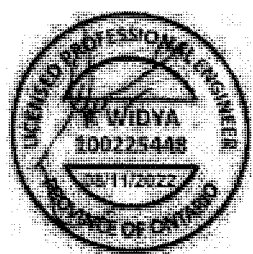
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.35 (A) (INPUT = 0.90)

JSI METAL= 0.09 (A) (INPUT = 1.00)

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

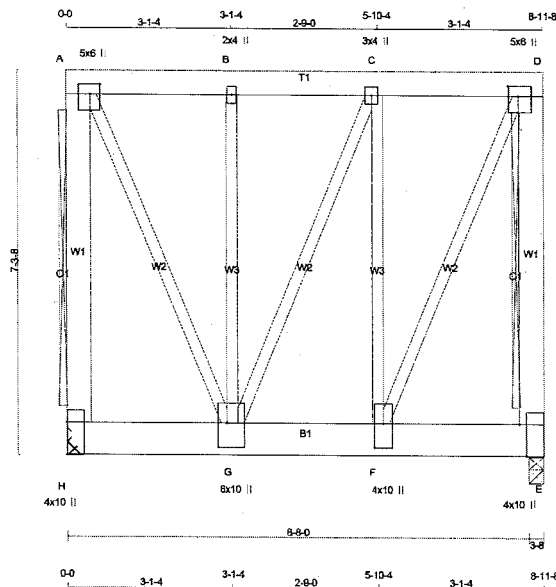


JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	DRWG NO.
428375	T85	3	3	GREEN PARK HOMES JT 53080	E22085297

Alpe Roof Truss, Maple

ID: To6XqL09rYKbXLLs9y_Z1eybTx-Pw?GX5I22pPK70zW1pvCLNbZA4PtoN?IBxd64zyp_Sw

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Scale = 1:33.8

TOTAL WEIGHT = 3 X 86 = 258 lb

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
H - A	2x6 DRY	No.2	SPF		
A - D	2x6 DRY	No.2	SPF		
E - D	2x6 DRY	No.2	SPF		
H - E	2x8 DRY	No.2	SPF		
ALL WEBS	2x3 DRY	No.2	SPF		
	DRY: SEASONED LUMBER.				

DESIGN CONSISTS OF 3 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS	ROWS	SURFACE SPACING (IN)	LOAD (PLF)
TOP CHORDS	(0.122"x3")	SPRIL NAILS	
H-A	2	12	TOP
A-D	2	12	SIDE (35.0)
D-E	2	12	TOP
BOTTOM CHORDS	(0.122"x3")	SPRIL NAILS	
H-E	4	4	SIDE (1270.8)
WEBS	(0.122"x3")	SPRIL NAILS	
2x3	1	6	

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

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	TMW+P	MT20	5.0	6.0	2.25	2.25
B	TMW+W	MT20	2.0	4.0		
C	TMW+W	MT20	3.0	4.0		
D	TMW+P	MT20	5.0	6.0	2.25	2.25
E	BMV+H	MT20	4.0	10.0	Edge	1.50
F	BMW+H	MT20	4.0	10.0	5.50	2.00
G	BMW+H	MT20	6.0	10.0	5.50	2.00
H	BMV+H	MT20	4.0	10.0	7.25	

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
	GROSS REACTION	GROSS REACTION	BRG	BRG
JT	VERT	HORZ	DOWN	UPLIFT
H	9019	0	9109	-194
E	9019	0	9109	0

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT H. MINIMUM BEARING LENGTH AT JOINT H = 4.0.

PROVIDE FOR 194 LBS FACTORED HORIZONTAL REACTION AT JOINT H

UNFACTORED REACTIONS	1ST LCASE	MAX MIN. COMPONENT REACTIONS	WIND	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM. LIVE	
H	6683	3855 / 0	1133 / 0	0 / 0	43 / -123
E	6683	3855 / 0	1133 / 0	0 / 0	78 / -133

HORIZONTAL REACTIONS	H	0 / 0	0 / 0	0 / 0	139 / -139	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) E

BRACING
MAX. UNBRACED TOP CHORD LENGTH = 6.25 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.

2x6 DRY SPF No.2 T-BRACE AT A-H, D-E

FASTEN T AND L-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				
MEMB.	FORCE	FACTORED	VERT. LOAD	LC1	MAX	MEMB.	MAX. FACTORED		
	(LBS)	(PLF)	CSI (LC)	MAX	UNBRAC		FORCE	MAX	
FR-TO		FROM TO			LENGTH	FR-TO			
H-A	-5335 / 0	0.0	0.0	0.28 (2)	7.81	F-D	0 / 6759	0.51 (2)	
A-B	-2811 / 0	-57.8	-57.8	0.06 (2)	6.25	A-G	0 / 8739	0.51 (2)	
B-C	-2811 / 0	-57.8	-57.8	0.07 (2)	6.25	F-C	-170 / 125	0.04 (2)	
C-D	-2820 / 0	-57.8	-57.8	0.06 (2)	6.25	G-B	-181 / 97	0.05 (9)	
E-D	-5349 / 0	0.0	0.0	0.28 (2)	7.81	G-C	-69 / 79	0.02 (12)	
H-G	-125 / 167	-1945.8	-1945.8	0.30 (2)	8.25				
G-F	0 / 2820	-1945.8	-1945.8	0.25 (2)	10.00				
F-E	-29 / 75	-1945.8	-1945.8	0.29 (2)	6.25				

TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING AS PER NBCC 4.1.5.2 (6)

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_p, C_q, 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.

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

SPACING = 24.0 IN. C/C

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

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

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 (0.30")
CALCULATED VERT. DEFL. (LL) = L/999 (0.03")
ALLOWABLE DEFL. (TL) = L/180 (0.50")
CALCULATED VERT. DEFL. (TL) = L/999 (0.04")

CSI: TC=0.28/1.00 (D-E-2), BC=0.30/1.00 (G-H-2), WB=0.51/1.00 (D-F-2), SS=0.58/1.00 (E-F-1)

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

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.

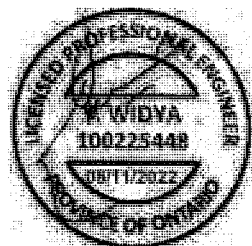
NAIL VALUES	PLATE GRIP (D)	SHEAR (PL)	SECTION (PL)
	(PSI)	(PLI)	(PLI)
	MAX MIN	MAX MIN	MAX MIN
MT20	850 371	1747 788	1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 6.0 Deg.

JSI GRIP= 0.87 (D) (INPUT = 0.90)
JSI METAL= 0.42 (F) (INPUT = 1.00)

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





TOTAL WEIGHT = 3 X 91 = 272 lb

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	=	35.1	PSF
	OL	=	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 FLAT SECTION BASED ON A SLOPE
OF 6.00/12

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

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)= $L/360$ (0.30")
 CALCULATED VERT. DEFL.(LL) = $L/999$ (0.03")
 ALLOWABLE DEFL.(TL)= $L/180$ (0.60")
 CALCULATED VERT. DEFL.(TL) = $L/999$ (0.04")

CSI: TC=0.32/1.00 (D-E:2), 8C=0.29/1.00 (G-H:2)
WB=0.49/1.00 (D-F:2), SSI=0.57/1.00 (E-F:1)

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

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.

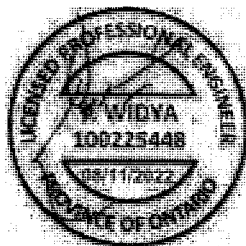
NAIL VALUES					
PLATE	GRIP(DRY)		SHEAR		SECTION
	(PSI)		(PLI)		(PLI)
	MAX	MIN	MAX	MIN	MAX MIN
MT20	650	371	1747	788	1987 1873

PLATE PLACEMENT TOL. ≈ 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

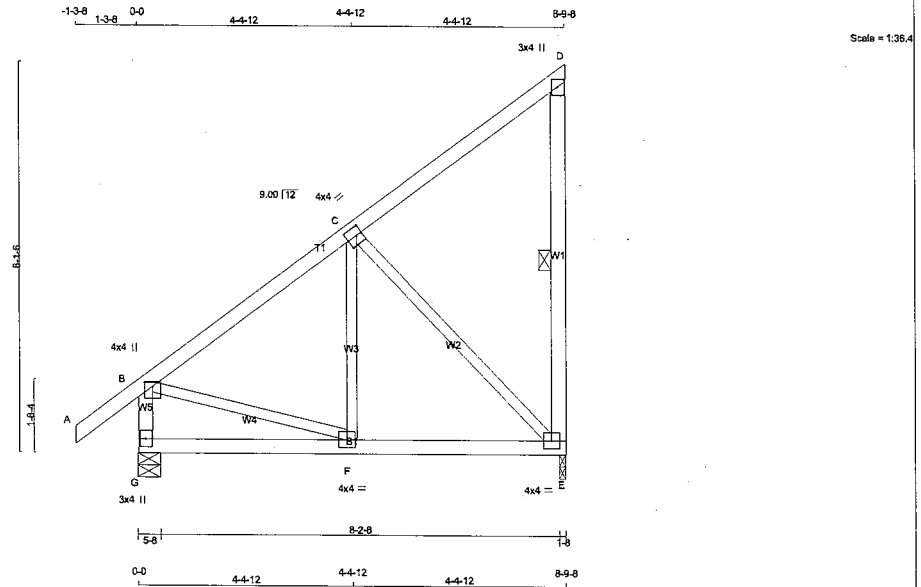
JSI GRIP= 0.78 (D) (INPUT = 0.90)
JSI METAL= 0.41 (F) (INPUT = 1.00)

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



Alpa Roof Truss, Maple

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ID:To6XqL09rYKbXLLs9y_Z1eyrbTx-E4MXn8npet9UjxRgN40caerchUUVzC8ueZs4QHdyyp_Sc



TOTAL WEIGHT = 3 X 46 = 138 lb

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

DRY, SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMVW+p	MT20	4.0	4.0	1.00	2.00
C	TMVW-1	MT20	4.0	4.0	2.00	1.50
D	TMV+p	MT20	3.0	4.0		
E	BMVW-1	MT20	4.0	4.0		
F	BMVW-1	MT20	4.0	4.0		
G	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	VERT	GROSS REACTION	DOWN	HORZ	UPLIFT	IN-SX	BRG	IN-SX	BRG
E	500	0	500	0	0	1-8	1-8		
G	631	0	631	0	0	5-8	1-8		

UNFACTORED REACTIONS

JT	1ST LCASE	MAX/MIN COMPONENT REACTIONS	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	353	235 / 0	0 / 0	0 / 0	0 / 0	0 / 0	118 / 0	0 / 0	0 / 0
G	443	309 / 0	0 / 0	0 / 0	0 / 0	0 / 0	134 / 0	0 / 0	0 / 0

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

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

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		FACTORED		MAX. FACTORED		WEBS		FACTORED		MAX. FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX	CS1 (LC)	UNBRAC LENGTH	MEMB.	FORCE (LBS)	MAX. FACTORED	CS1 (LC)	MEMB.	FORCE (LBS)
FR-TO		FROM	TO			FR-TO				FR-TO	
A-B	0 / 39	-95.2	-95.2	0.13 (1)	10.00	F-C	0 / 86	0.03 (4)			
B-C	-349 / 0	-95.2	-95.2	0.24 (1)	6.25	C-E	-434 / 0	0.29 (1)			
C-D	-317 / 0	-95.2	-95.2	0.24 (1)	6.25	B-F	0 / 315	0.07 (1)			
E-D	-159 / 0	0.0	0.0	0.05 (1)	6.25						
G-B	-599 / 0	0.0	0.0	0.05 (1)	7.81						
G-F	0 / 0	-18.5	-18.5	0.10 (4)	10.00						
F-E	0 / 304	-18.5	-18.5	0.12 (4)	10.00						

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 26.7 PSF
DL = 8.0 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 (0.29")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.29")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.24/1.00 (B-C:1), BC=0.12/1.00 (E-F:4), WB=0.29/1.00 (C-E:1), SS=0.16/1.00 (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.

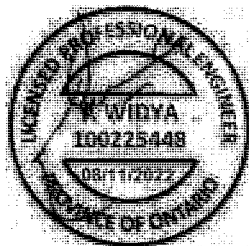
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PL) (PL)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

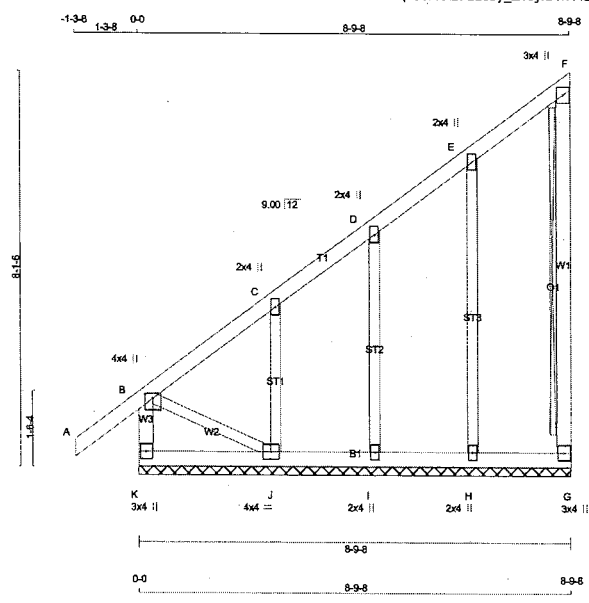
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.53 (B) (INPUT = 0.90)
JSI METAL= 0.14 (B) (INPUT = 1.00)

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





Scale = 1:36.0

LUMBER

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

GABLE STUDS SPACED AT 24-0 OC.

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, D, E					
C	TMW+w	MT20	2.0	4.0	
F	TMW+p	MT20	3.0	4.0	
G	BMV1+p	MT20	3.0	4.0	
H	BMV1+w	MT20	2.0	4.0	
I	BMV1+w	MT20	2.0	4.0	
J	BMV1+w	MT20	4.0	4.0	
K	BMV1+p	MT20	3.0	4.0	

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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

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.

2x3 DRY SPF No.2 T-BRACE AT F-G

FASTEN T AND I-BRACES TO NARROW EDGE OF WEB WITH ONE ROW PER PLY OF 3" COMMON WIRE NAILS @ 6" O.C. WITH 3" MINIMUM END DISTANCE. BRACE MUST COVER 90% OF WEB LENGTH.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)	MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX (LC)
FR-TO				FR-TO			
K-B	-252 / 0	0.0	0.03 (1)	H-E	-219 / 0	0.16 (1)	
A-B	0 / 39	-95.2	-95.2 0.13 (1)	I-D	-160 / 0	0.06 (1)	
B-C	-2 / 0	-95.2	-95.2 0.09 (1)	J-C	-262 / 0	0.06 (1)	
C-D	-20 / 0	-95.2	-95.2 0.09 (1)	B-J	0 / 14	0.00 (1)	
D-E	0 / 0	-95.2	-95.2 0.05 (1)				
E-F	-11 / 0	-95.2	-95.2 0.05 (1)				
G-F	-80 / 0	0.0	0.0 0.05 (1)				
K-J	0 / 0	-18.5	-18.5 0.03 (4)				
J-I	0 / 6	-18.5	-18.5 0.03 (4)				
I-H	0 / 3	-18.5	-18.5 0.02 (4)				
H-G	0 / 0	-18.5	-18.5 0.02 (4)				

TOTAL WEIGHT = 2 X 48 = 96 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

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=0.13/1.00 (A-B:1), BC=0.03/1.00 (I-J:4), WB=0.16/1.00 (E-H:1), SSI=0.10/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

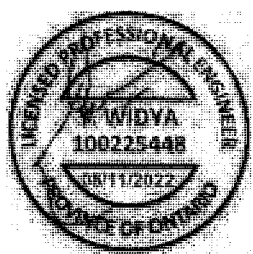
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.19 (B) (INPUT = 0.90)

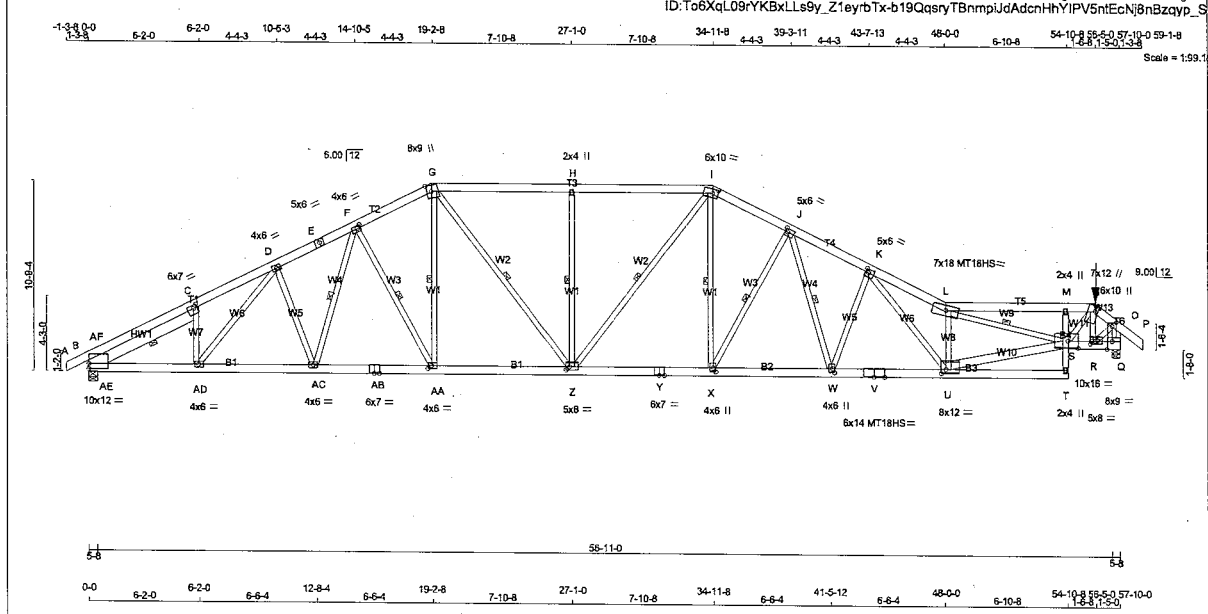
JSI METAL= 0.14 (C) (INPUT = 1.00)

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



JOB NAME	TRUSS NAME	QUANTITY	PLY	JOB DESC.	GREEN PARK HOMES	DRWG NO.
428375	T90		1	TRUSS DESC.	JT 53080	E22085301

Alpa Roof Truss, Maple Version 9.530 S Feb 23 2022 M/Tek Industries, Inc. Thu Aug 11 08:47:10 2022 Page 1
ID:To6XqL09rYKBxLLs9y_Z1eybTx-b19QqsrYTBnmpAdcnHhYIPV5nEcnBnBzqyp_S



LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER				DESIGN CRITERIA			
N. L. G. A. RULES				BEARINGS				SPECIFIED LOADS:			
CHORDS	SIZE	DRY	DESCR.	FACTORED	MAXIMUM FACTORED	INPUT	RECORD	TOP CH. LL	DL	LL	PSF
A - E	2x6	DRY	No.2	GT	GROSS REACTION	BRG	BRG	DL	DL	LL	PSF
F - I	2x6	DRY	No.2	B	VERT	DOWN	UP	LL	LL	LL	PSF
J - L	2x6	DRY	No.2	O	HORIZ	DOWN	UP	LL	LL	LL	PSF
M - P	2x6	DRY	No.2					LL	LL	LL	PSF
Q - O	2x6	DRY	No.2					LL	LL	LL	PSF
R - AB	2x6	DRY	No.2					LL	LL	LL	PSF
AB - Y	2x6	DRY	No.2					LL	LL	LL	PSF
V - V	2x6	DRY	No.2					LL	LL	LL	PSF
W - T	2x6	DRY	No.2					LL	LL	LL	PSF
T - M	2x4	DRY	No.2					LL	LL	LL	PSF
S - O	2x6	DRY	No.2					LL	LL	LL	PSF
REINFORCING MEMBERS				UNFACTORED REACTIONS				LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 9.00/12			
HW1	2x8	DRY	No.2	JT	COMBINED	SNOW	LIVE	PERM	LIVE	WIND	DEAD
				B	3525	2126 / 0	607 / 0	0 / 0	193 / -763	792 / 0	0 / 0
				Q	3540	2139 / 0	607 / 0	0 / 0	173 / -782	794 / 0	0 / 0
ALL WEBS 2x4 DRY				HORIZONTAL REACTIONS				CORNER FRAMING TYPE: CONVENTIONAL			
U - S	2x6	DRY	No.2	B	—	0 / 0	0 / 0	0 / 0	131 / -85	0 / 0	0 / 0
DRY: SEASONED LUMBER.				BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, C				END JACK TYPE: CONVENTIONAL			

MAX. UNBRACED TOP CHORD LENGTH = 1.77 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.

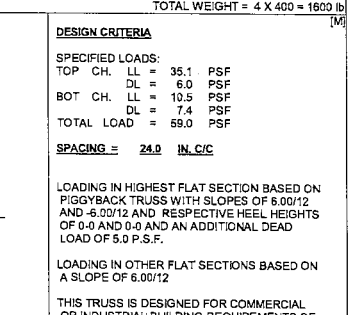
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.
1 LATERAL BRACE(S) AT 1/2 LENGTH OF F-A, F-A, G-A, G-Z, H-Z, I-Z, J-X, J-W, L-S, C-AE.

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

- TPIC 2014			
DESIGN ASSUMPTIONS			
- SLOPE REDUCTION FACTOR USED			
- PERCENTAGE OF GROUND SNOW LOAD IS			
USER-DEFINED.			
-OVERHANGS NOT TO BE ALTERED OR CUT OFF.			
(80 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F.			
RAIN LOAD) PLUS IMPORTANCE FACTOR			
EQUALS 35.1 P.S.F. SPECIFIED ROOF LIVE			
LOAD.			
ALLOWABLE DEFL.(LL)= L/960 (1.93")			
CALCULATED DEFL.(LL)= L/995 (0.45")			
ALLOWABLE DEFL.(TL)= L/180 (3.85")			
CALCULATED VERT. DEFL.(TL)= L/995 (0.62")			
CS: TC=0.32/1.00 (K-L-1), BC=0.53/1.00 (U-W-1),			
WB=0.96/1.00 (N-S-1), SS=0.40/1.00 (G-H-2)			
DCL LUMBER=1.00 NAIL=1.00 LS BEN=1.00			
COMP=1.00 SHEAR=1.00 TENS=1.00			
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)			
MAX MIN MAX MIN MAX MIN			
MT20 650 371 1747 788 1987 873			
MT18HS 586 403 2455 1382 3163 3040			
PLATE PLACEMENT TOL. = 0.250 inches			

- TPIC 2014			
DESIGN ASSUMPTIONS			
- SLOPE REDUCTION FACTOR USED			
- PERCENTAGE OF GROUND SNOW LOAD IS			
USER-DEFINED.			
-OVERHANGS NOT TO BE ALTERED OR CUT OFF.			
(80 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F.			
RAIN LOAD) PLUS IMPORTANCE FACTOR			
EQUALS 35.1 P.S.F. SPECIFIED ROOF LIVE			
LOAD.			
ALLOWABLE DEFL.(LL)= L/960 (1.93")			
CALCULATED DEFL.(LL)= L/995 (0.45")			
ALLOWABLE DEFL.(TL)= L/180 (3.85")			
CALCULATED VERT. DEFL.(TL)= L/995 (0.62")			
CS: TC=0.32/1.00 (K-L-1), BC=0.53/1.00 (U-W-1),			
WB=0.96/1.00 (N-S-1), SS=0.40/1.00 (G-H-2)			
DCL LUMBER=1.00 NAIL=1.00 LS BEN=1.00			
COMP=1.00 SHEAR=1.00 TENS=1.00			
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)			
MAX MIN MAX MIN MAX MIN			
MT20 650 371 1747 788 1987 873			
MT18HS 586 403 2455 1382 3163 3040			
PLATE PLACEMENT TOL. = 0.250 inches			

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2			
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- PART 4 OF CBCB 2018 , ABC 2018
 - PART 4 OF OBC 2012 (2018 AMENDMENT)
 - CSA 088-14
 - TPC 2014

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

 (60 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F.
 LIVE LOAD) TIMES IMPORTANCE FACTOR
 EQUALS 35.1 P.S.F. SPECIFIED ROOF LIVE
 LOAD

 ALLOWABLE DEF'L (LL) = L/360 (1.93")
 CALCULATED VERT. DEF'L (LL) = U/999 (0.40")
 ALLOWABLE DEF'L (TL) = L/180 (3.86")
 CALCULATED VERT. DEF'L (TL) = U/999 (0.57")

 CSI: TC=0.73/1.00 (C-1), BC=0.50/1.00 (T-V-1),
 WB=0.92/1.00 (K-P-1), SS=0.41/1.00 (F-G-2)

 DOL LUMBER=1.00 NAIL=1.00 L S END=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

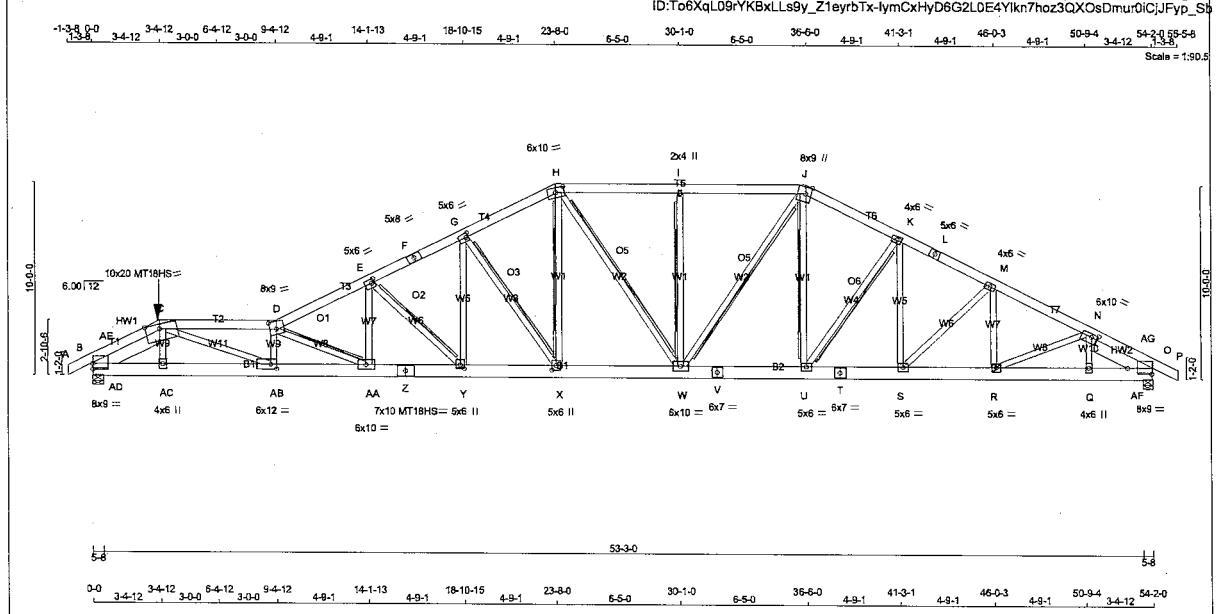
 TRUSS PLATE MANUFACTURER IS NOT
 RESPONSIBLE FOR QUALITY CONTROL. IN THE
 TRUSS MANUFACTURING PLANT .


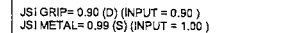
 NAIL VALUES
 PLATE GRIP(DRY) SHEAR SECTION
 (PSI) (PLI) (PLI)
 MAX MIN MAX MIN MAX MIN
 MT20 650 371 1747 788 1987 1873
 MT18HS 586 403 2455 1382 3163 3004

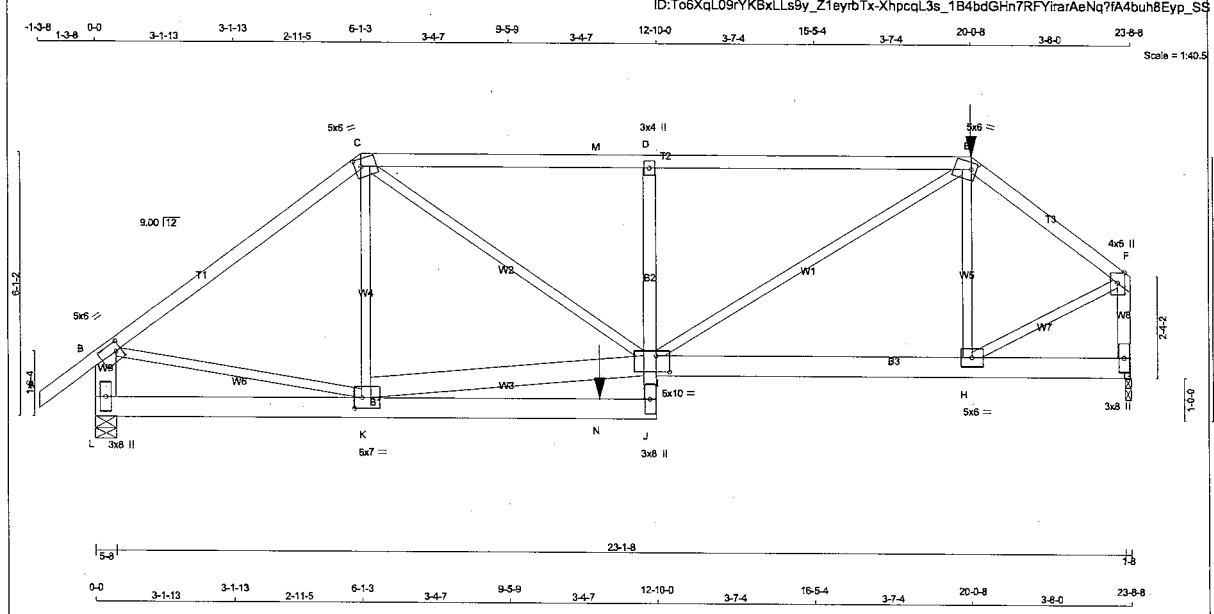
 PLATE PLACEMENT TOL. = 0.250 inches

 PLATE ROTATION TOL. = 5.0 Deg.

 JSI GRIP= 0.89 (W) (INPUT = 0.90)
 JSI METAL= 0.97 (K) (INPUT = 1.00)







TOTAL WEIGHT = 2 X 124 = 248 lb

N. L. G. A. RULES				BUILDING DESIGNER										DESIGN CRITERIA										
CHORDS SIZE				LUMBER				DESCR.				BEARINGS				*** SPECIAL LOADS ANALYSIS ***								
A - C	2x4	DRY	No.2	SPF	FACTORED				MAXIMUM FACTORED				INPUT		REQRD		GEOMETRY AND/OR BASIC LOADS CHANGED BY USER.							
C - E	2x4	DRY	No.2	SPF	GROSS REACTION				GROSS REACTION				BRG		BRG		LOADS WERE DERIVED FROM USER INPUT							
E - F	2x4	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	NO FURTHER MODIFICATIONS WERE MADE											
F - G	2x4	DRY	No.2	SPF	L	2034	0	2034	0	0	5-8	1-8												
G - F	2x4	DRY	No.2	SPF	G	2156	0	2156	0	0	1-8	1-8												
L - J	2x6	DRY	No.2	SPF																				
J - D	2x4	DRY	No.2	SPF																				
I - G	2x6	DRY	No.2	SPF																				
ALL WEBS EXCEPT				2x3				DRY	No.2	SPF											SPECIFIED LOADS:			
K - I				2x6				DRY	No.2	SPF											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			
DRY: SEASONED LUMBER.																				SPACING = 24.0 IN. C/C				
				</																				

FACTORED CONCENTRATED LOADS (LBS)				CONNECTION REQUIREMENTS			
JT	LOC.	LC1	MAX- MAX+	1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.			
E	20-0-8	-138	-138				
N	11-8-8	-739	-739				

FACTORED CONCENTRATED LOADS (LBS)				CONNECTION REQUIREMENTS			
JT	LOC.	LC1	MAX- MAX+	1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.			
E	20-0-8	-138	-138				
N	11-8-8	-739	-739				

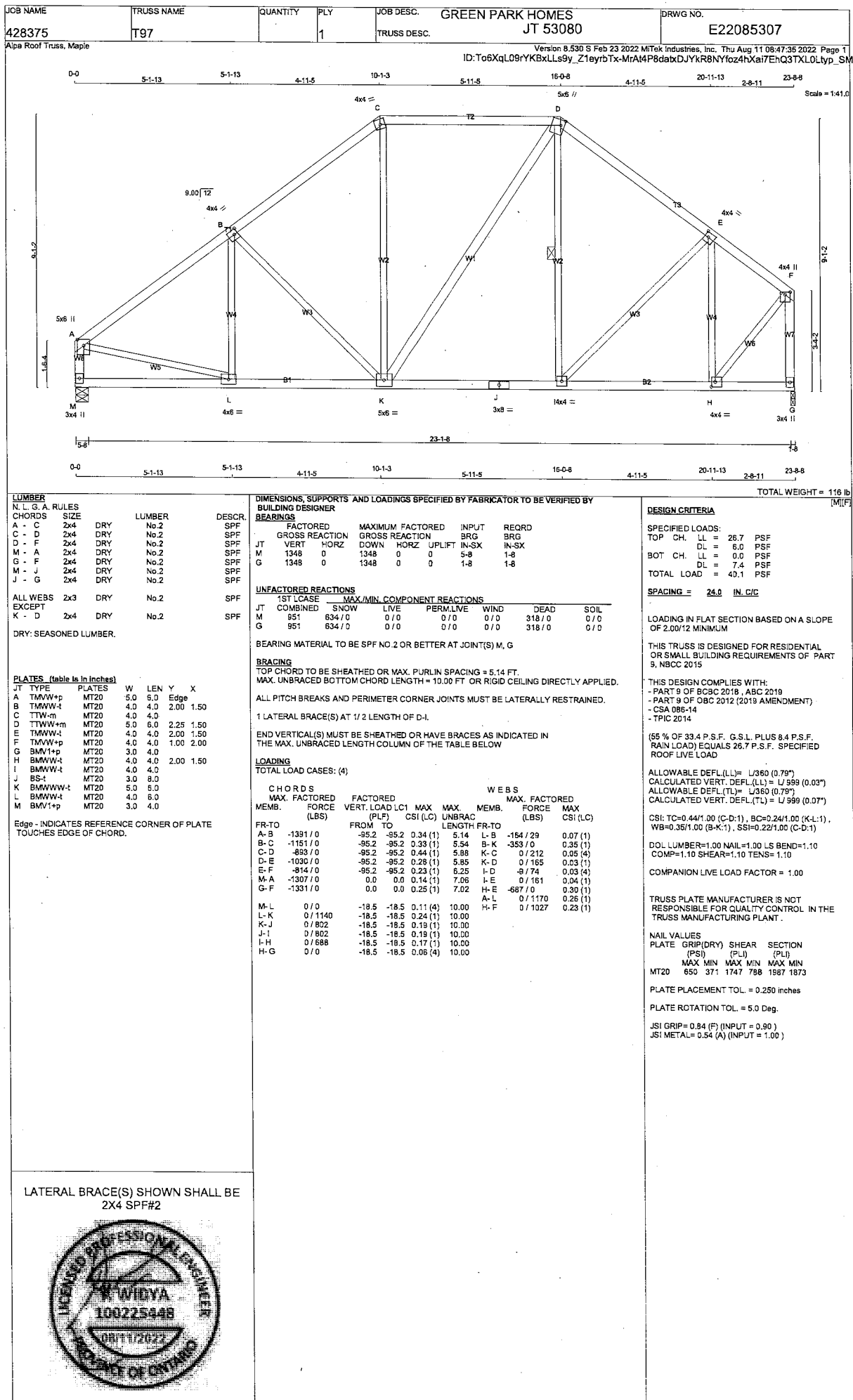
FACTORED CONCENTRATED LOADS (LBS)				CONNECTION REQUIREMENTS			
JT	LOC.	LC1	MAX- MAX+	1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.			
E	20-0-8	-138	-138				
N	11-8-8	-739	-739				

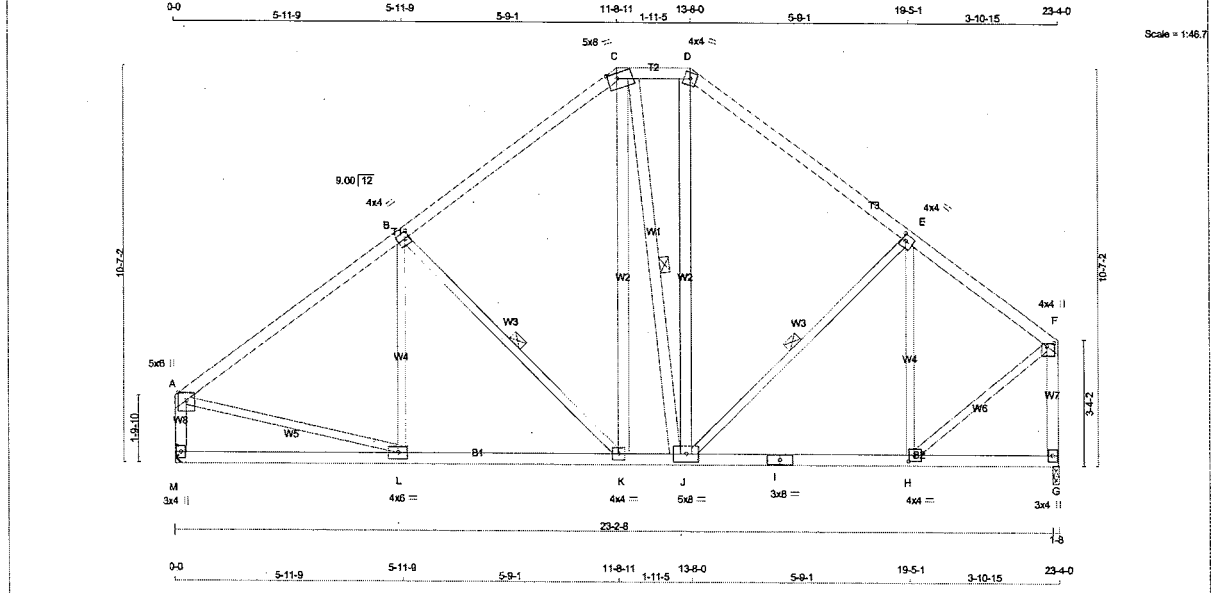
FACTORED CONCENTRATED LOADS (LBS)				CONNECTION REQUIREMENTS			
JT	LOC.	LC1	MAX- MAX+	1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.			
E	20-0-8	-138	-138				
N	11-8-8	-739	-739				

FACTORED CONCENTRATED LOADS (LBS)				CONNECTION REQUIREMENTS			
JT	LOC.	LC1	MAX- MAX+	1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.			
E	20-0-8	-138	-138				
N	11-8-8	-739	-739				

FACTORED CONCENTRATED LOADS (LBS)				CONNECTION REQUIREMENTS			
JT	LOC.	LC1	MAX- MAX+	1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.			
E	20-0-8	-138	-138				
N	11-8-8	-739	-739				

[illegible]





LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS

CHORDS	SIZE	LUMBER	DESCR.	FACTORED	MAXIMUM FACTORED	INPUT	REQD
A - C	2x4	DRY	SPF	VERT	DOWN	BRG	BRG
C - D	2x4	DRY	SPF	GROSS REACTION	GROSS REACTION	IN-SX	IN-SX
D - F	2x4	DRY	SPF	JT	1327	0	0
M - A	2x4	DRY	SPF	M	1327	0	0
G - F	2x4	DRY	SPF	G	1327	0	0
M - I	2x4	DRY	SPF				
I - G	2x4	DRY	SPF				
ALL WEBS EXCEPT	2x3	DRY	SPF				
K - C	2x4	DRY	SPF				
C - J	2x4	DRY	SPF				
J - D	2x4	DRY	SPF				

DRY: SEASONED LUMBER. A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT M. MINIMUM BEARING LENGTH AT JOINT M = 1-8.

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 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 (0.78") CALCULATED VERT. DEFL.(LL) = L/999 (0.03") ALLOWABLE DEFL.(TL) = L/360 (0.78") CALCULATED VERT. DEFL.(TL) = L/999 (0.07")

CSI: TC=0.47/1.00 (A-B:1), BC=0.26/1.00 (K-L:1), WB=0.32/1.00 (E-H:1), SI=0.22/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

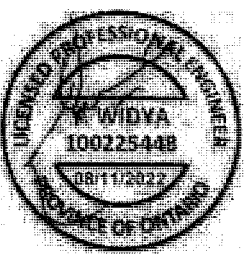
MAX MIN MAX MIN MAX MIN MT20 650 371 1747 788 1887 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.81 (F) (INPUT = 0.90) JSI METAL= 0.52 (A) (INPUT = 1.00)

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

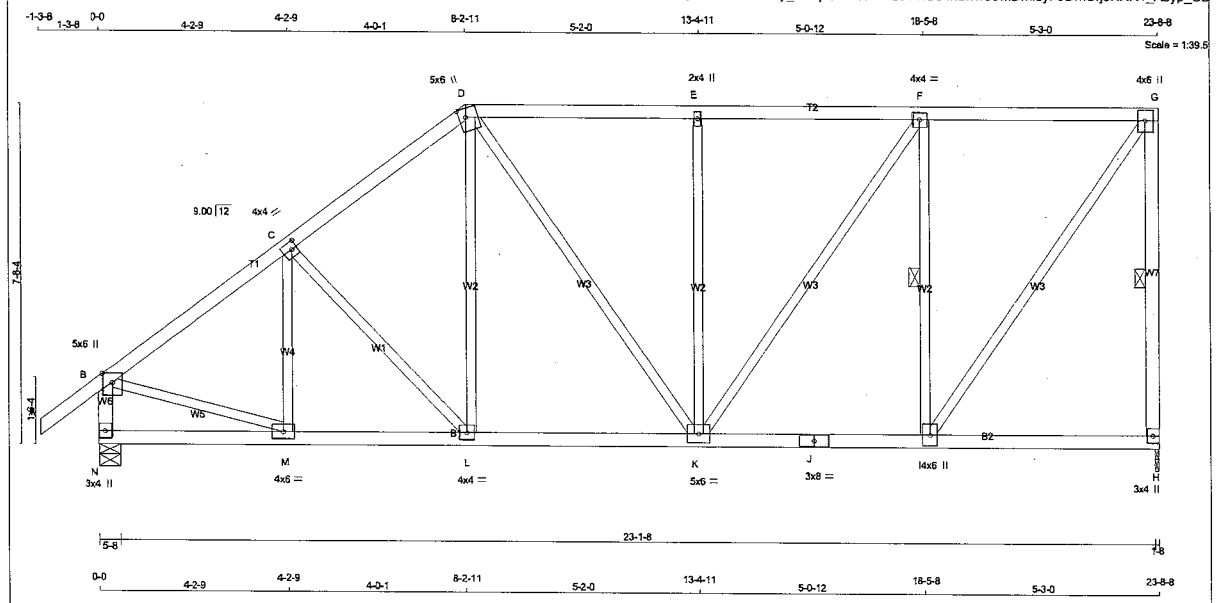




Edge - INDICATES REFERENCE CORNER OF PLATE
TOUCHES EDGE OF CHORD.

LOADING
TOTAL LOAD CASES: (4)

CHORDS				WESS			
MAX. FACTORED		FACTORED		MAX. FACTORED		MAX. FACTORED	
MEMB.	FORCE	VERT. LOAD	CS	MEMB.	FORCE	CS	MEMB.
	(LBS)	(PLF)	MAX (LC)		(LBS)	MAX (LC)	
FR-TO		FROM TO		FR-TO			
				LENGTH			
A-B	-1289 / 0	-95.2	-95.2 0.56 (1)	4.95	K-B	-114 / 68	0.08 (1)
B-C	-925 / 0	-95.2	-95.2 0.52 (1)	5.67	B-J	-516 / 0	0.28 (1)
C-D	-925 / 0	-95.2	-95.2 0.52 (1)	5.67	J-D	0 / 594	0.10 (1)
D-E	-952 / 0	-95.2	-95.2 0.41 (1)	5.82	J-E	-157 / 0	0.08 (1)
E-F	-969 / 0	-95.2	-95.2 0.39 (1)	6.00	H-E	-451 / 0	0.33 (1)
L-A	-1277 / 0	0.0	0.0 0.14 (1)	7.13	A-K	0 / 1094	0.25 (1)
G-F	-1297 / 0	0.0	0.0 0.25 (1)	7.09	H-F	0 / 987	0.22 (1)
L-K	0 / 0	-18.5	-18.5 0.18 (4)	10.00			
K-J	0 / 1066	-18.5	-18.5 0.26 (1)	10.00			
I-H	0 / 814	-18.5	-18.5 0.21 (1)	10.00			
I-H	0 / 814	-18.5	-18.5 0.21 (1)	10.00			
H-G	0 / 0	-18.5	-18.5 0.12 (4)	10.00			



LUMBER N.L.G.A. RULES BUILDING DESIGNER DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY TOTAL WEIGHT = 117 lb

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	SPF
D - G	2x4	DRY	SPF
H - G	2x4	DRY	SPF
N - B	2x4	DRY	SPF
N - J	2x4	DRY	SPF
J - H	2x4	DRY	SPF
ALL WEBS EXCEPT	2x3	DRY	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)	W	LEN	Y	X
JT TYPE	MT20	5.0	6.0	Edge
B TMW+p	MT20	4.0	4.0	2.00 1.50
C TMW-w	MT20	5.0	6.0	2.25 1.75
D TMW+m	MT20	5.0	6.0	2.25 1.75
E TMW+w	MT20	2.0	4.0	
F TMW-w	MT20	4.0	4.0	
G TMW+p	MT20	4.0	6.0	
H BMV1+p	MT20	3.0	4.0	
I BMW1+p	MT20	4.0	6.0	
J BS+	MT20	3.0	8.0	
K BMW1-w	MT20	5.0	6.0	
L BMW-w	MT20	4.0	4.0	
M BMW-w	MT20	4.0	6.0	
N BMV1+p	MT20	3.0	4.0	

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

BEARINGS	FACTORED	MAXIMUM FACTORED	INPUT	REQRD
JT	GROSS REACTION	DOWN	BRG	
H	VERT	1348	0	1-8
N	HORZ	1479	0	5-8

UNFACTORED REACTIONS	1ST LCASE	MAX/MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
H	951	634 / 0	0 / 0
N	1042	708 / 0	0 / 0

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

BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.19 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-I.

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			
MAX. FACTORED		FACTORED				MAX. FACTORED			
MEMB.	FORCE	VERT. LOAD	LC1	MAX	MAX.	MEMB.	FORCE	MAX	
FR-TO	(LBS)	(PLF)	CSI (LC)	UNBRAC	LENGTH	FR-TO	(LBS)	CSI (LC)	
A-B	0 / 39	-95.2	-95.2	0.13 (1)	10.00	M-C	-239 / 0	0.08 (1)	
B-C	-1374 / 0	-95.2	-95.2	0.30 (1)	5.19	C-L	-200 / 0	0.12 (1)	
C-D	-1280 / 0	-95.2	-95.2	0.30 (1)	5.37	L-D	0 / 235	0.05 (1)	
D-E	-1098 / 0	-95.2	-95.2	0.36 (1)	5.55	B-M	0 / 1164	0.26 (1)	
E-F	-1098 / 0	-95.2	-95.2	0.38 (1)	5.52	I-G	0 / 1358	0.31 (1)	
F-G	-785 / 0	-95.2	-95.2	0.38 (1)	6.25	D-K	0 / 194	0.04 (1)	
H-G	-1308 / 0	0.0	0.0	0.35 (1)	5.65	I-F	-997 / 0	0.37 (1)	
N-B	-1444 / 0	0.0	0.0	0.15 (1)	6.80	K-E	-527 / 0	0.57 (1)	
N-M	0 / 0	-18.5	-18.5	0.07 (4)	10.00	K-F	0 / 553	0.12 (1)	
M-L	0 / 1120	-18.5	-18.5	0.23 (1)	10.00				
L-K	0 / 986	-18.5	-18.5	0.20 (1)	10.00				
K-J	0 / 785	-18.5	-18.5	0.19 (1)	10.00				
J-I	0 / 785	-18.5	-18.5	0.19 (1)	10.00				
I-H	0 / 0	-18.5	-18.5	0.12 (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 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

ALLOWABLE DEFL. (LL) = L/360 (0.79") CALCULATED VERT. DEFL. (LL) = L/999 (0.05") ALLOWABLE DEFL. (TL) = L/360 (0.79") CALCULATED VERT. DEFL. (TL) = L/999 (0.09")

CSI: TC=0.38/1.00 (E-F:1), BC=0.23/1.00 (L-M:1), WB=0.57/1.00 (E-K:1), SS=0.23/1.00 (F-G:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

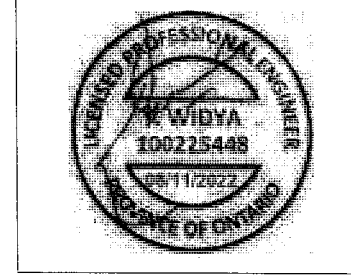
PLATE PLACEMENT TOL. = 0.250 inches

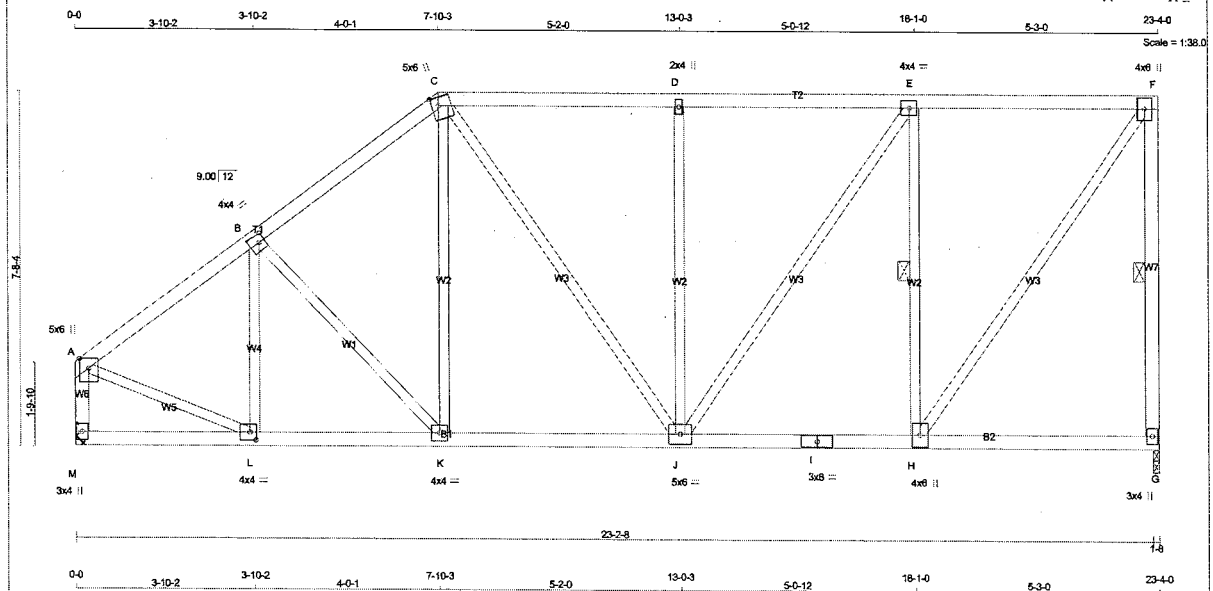
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.84 (M) (INPUT = 0.90)

JSI METAL= 0.56 (B) (INPUT = 1.00)

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





Scale = 1:38.0 TOTAL WEIGHT = 115 lb

LUMBER

N. L. G. A. RULES	SIZE	LUMBER	DESCR.
CHORDS			
A - C	2x4	DRY	No.2
C - F	2x4	DRY	No.2
G - F	2x4	DRY	No.2
M - A	2x4	DRY	No.2
M - I	2x4	DRY	No.2
I - G	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
EXCEPT			

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
A	TMWV+p	MT20	5.0	6.0	Edge
B	TMWV-t	MT20	4.0	4.0	2.00 1.50
C	TTWV+m	MT20	5.0	6.0	2.25 1.75
D	TMWV+w	MT20	2.0	4.0	
E	TMWV-t	MT20	4.0	4.0	
F	TMWV+p	MT20	4.0	6.0	
G	BMV1+p	MT20	3.0	4.0	
H	BMWV+t	MT20	4.0	6.0	
I	BS-t	MT20	3.0	8.0	
J	BMWVW-t	MT20	5.0	6.0	
K	BMWV-t	MT20	4.0	4.0	
L	BMWV-t	MT20	4.0	4.0	2.00 1.50
M	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	REQD
JT	VERT	DOWN	0	0
G	1327	0	1327	0
M	1327	0	1327	0

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

UNFACTORED REACTIONS

	1ST LCASE	MAX./MIN. COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
G	936	624 / 0	0 / 0	0 / 0	0 / 0	313 / 0	0 / 0
M	936	624 / 0	0 / 0	0 / 0	0 / 0	313 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.43 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

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

END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW

LOADING

LOADING

TOTAL LOAD CASES: (4)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX. (LC)	MAX. UNBRACED LENGTH (FT)	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. (LC)
FR-TO						FR-TO			
A-B	-1249 / 0	-95.2	-95.2	0.27 (1)	5.43	K-C	0 / 177	0.04 (4)	
B-C	-1203 / 0	-95.2	-95.2	0.27 (1)	5.51	L-B	-318 / 0	0.10 (1)	
C-D	-1068 / 0	-95.2	-95.2	0.36 (1)	5.62	B-K	-119 / 0	0.07 (1)	
D-E	-1068 / 0	-95.2	-95.2	0.37 (1)	5.58	A-L	0 / 1093	0.25 (1)	
E-F	-770 / 0	-95.2	-95.2	0.36 (1)	6.25	H-F	0 / 1330	0.30 (1)	
G-F	-1267 / 0	0.0	0.0	0.34 (1)	5.69	C-J	0 / 220	0.05 (1)	
M-A	-1295 / 0	0.0	0.0	0.14 (1)	7.10	H-E	-976 / 0	0.36 (1)	
						J-D	-527 / 0	0.57 (1)	
						J-E	0 / 527	0.12 (1)	
M-L	0 / 0	-18.5	-18.5	0.06 (4)	10.00				
L-K	0 / 1021	-18.5	-18.5	0.21 (1)	10.00				
K-J	0 / 942	-18.5	-18.5	0.20 (1)	10.00				
J-I	0 / 770	-18.5	-18.5	0.19 (1)	10.00				
I-H	0 / 770	-18.5	-18.5	0.19 (1)	10.00				
H-G	0 / 0	-18.5	-18.5	0.12 (4)	10.00				

DESIGN CRITERIA

SPECIFIED LOADS:

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

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 (0.78")
CALCULATED VERT. DEFL. (LL) = L/999 (0.04")
ALLOWABLE DEFL. (TL) = L/360 (0.78")
CALCULATED VERT. DEFL. (TL) = L/999 (0.06")

CSI: TC=0.37/1.00 (D-E-1), BC=0.21/1.00 (K-L-1), WB=0.57/1.00 (D-J-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

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

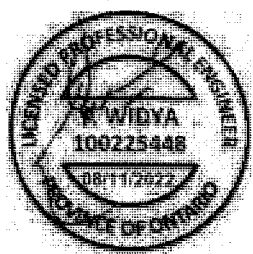
PLATE	GRIP (DRY)	SHEAR	SECTION
(PSI)	(PL)	(PL)	(PL)
MAX	MIN	MAX	MIN
MT20	650	371	1747
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

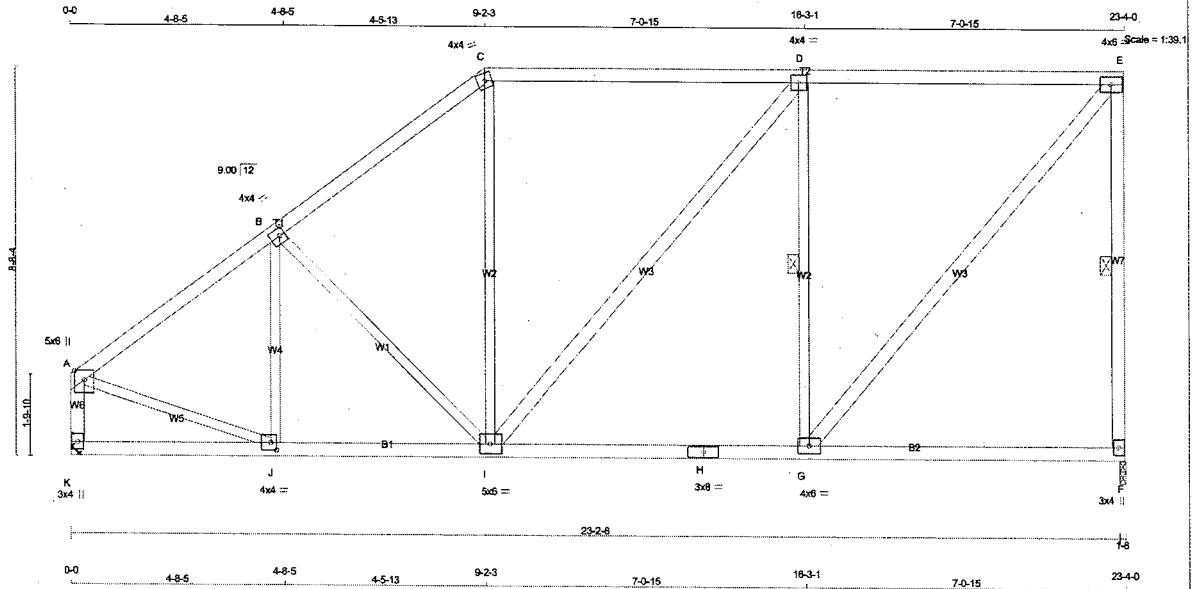
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.83 (L) (INPUT = 0.90)
JSI METAL= 0.48 (A) (INPUT = 1.00)

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



[illegible]



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

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
A	TMW+p	MT20	5.0	6.0	Edge
B	TMW-w	MT20	4.0	4.0	2.00 1.50
C	TTW-m	MT20	4.0	4.0	
D	TMW-w	MT20	4.0	4.0	
E	TMW-w	MT20	4.0	6.0	
F	BMW+p	MT20	3.0	4.0	
G	BMW-w	MT20	4.0	6.0	
H	BS-l	MT20	3.0	8.0	
I	BMW-w	MT20	5.0	6.0	
J	BMW-w	MT20	4.0	4.0	2.00 1.50
K	BMW+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 GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	HORZ		
F	1327	0	1327	0	1-8	1-8
K	1327	0	1327	0	MECHANICAL	

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

UNFACTORED REACTIONS

JT	1ST CASE		MAX/MIN COMPONENT REACTIONS		DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE		
F	936	624 / 0	0 / 0	0 / 0	313 / 0	0 / 0
K	936	624 / 0	0 / 0	0 / 0	313 / 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 = 4.59 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 E-F, D-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							WEBS					
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD-LC1 (PLF)	MAX. CSI (LC)	MAX. UNBRACED LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)		
FR-TO		FROM TO			J-B							
A-B	-1279 / 0	-95.2	-95.2	0.38 (1)	5.22	J-B	-255 / 0		0.10 (1)			
B-C	-1139 / 0	-95.2	-95.2	0.37 (1)	5.47	B-I	-234 / 0		0.20 (1)			
C-D	-887 / 0	-95.2	-95.2	0.89 (1)	4.59	I-C	0 / 242		0.05 (1)			
D-E	-863 / 0	-95.2	-95.2	0.89 (1)	4.64	I-D	0 / 39		0.01 (1)			
E-F	-1274 / 0	0.0	0.0	0.44 (1)	5.71	G-E	-867 / 0		0.42 (1)			
K-A	-1291 / 0	0.0	0.0	0.14 (1)	7.10	G-E	0 / 1334		0.21 (1)			
						A-J	0 / 1103		0.25 (1)			
K-J	0 / 0	-18.5	-18.5	0.08 (4)	10.00							
J-I	0 / 1049	-18.5	-18.5	0.23 (1)	10.00							
I-H	0 / 863	-18.5	-18.5	0.30 (4)	10.00							
H-G	0 / 863	-18.5	-18.5	0.30 (4)	10.00							
G-F	0 / 0	-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, 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

ALLOWABLE DEFL.(LL) = L/360 (0.78")
 CALCULATED VERT. DEFL.(LL) = 1/999 (0.04")
 ALLOWABLE DEFL.(TL) = L/360 (0.78")
 CALCULATED VERT. DEFL.(TL) = 1/999 (0.09")

CSI TC=0.89/1.00 (C-D-1), BC=0.30/1.00 (G-I-4), WB=0.42/1.00 (D-G-1), SH=0.33/1.00 (D-E-1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

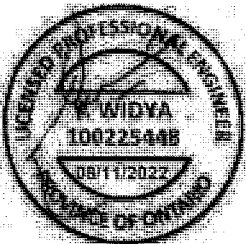
PLATE PLACEMENT TOL. = 0.250 inches

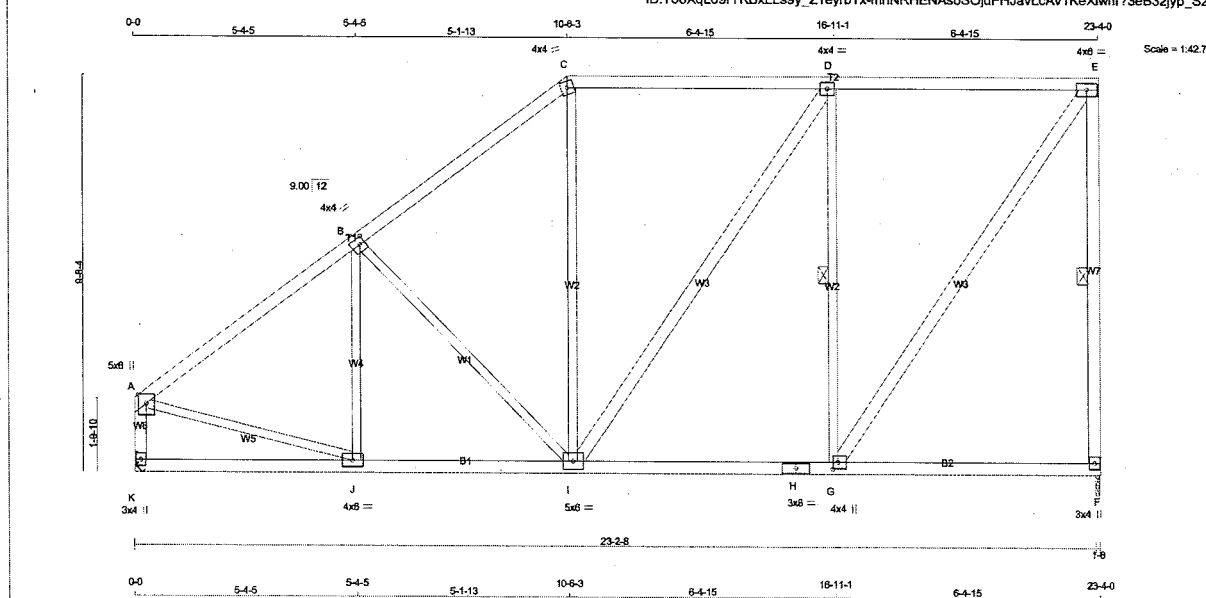
PLATE ROTATION TOL. = 5.0 Deg.

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

JSI METAL= 0.50 (A) (INPUT = 1.00)

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





										TOTAL WEIGHT = 123 LB			
LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER								DESIGN CRITERIA	
N. L. G. A. RULES				BEARINGS								SPECIFIED LOADS:	
CHORDS	SIZE	LUMBER	DESCR.	FACTORED GROSS REACTION				MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG	TOP CH. LL = 26.7 PSF	
A - C	2x4	DRY	No.2	SPF	JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	DL = 6.0 PSF
C - E	2x4	DRY	No.2	SPF	F	1327	0	1327	0	0	1-8	1-8	BOT CH. LL = 0.0 PSF
F - E	2x4	DRY	No.2	SPF	K	1327	0	1327	0	0	MECHANICAL		DL = 7.4 PSF
K - A	2x4	DRY	No.2	SPF	A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT K. MINIMUM BEARING LENGTH AT JOINT K = 1-8.								TOTAL LOAD = 40.1 PSF
K - H	2x4	DRY	No.2	SPF									
H - F	2x4	DRY	No.2	SPF									
ALL WEBS EXCEPT				2x3	DRY	No.2	SPF						
I - D	2x4	DRY	No.2	SPF									
G - E	2x4	DRY	No.2	SPF									
				UNFACTORED REACTIONS								LOADING IN FLAT SECTION BASED ON A SLOPE	
DRY: SEASONED LUMBER.				1ST LCASE								MAX	
				MIN								COMPONENT REACTIONS	
				JT COMBINED								SNOW	
				LIVE								PERM.LIVE	
				WIND								DEAD	
				SOIL									
				F								936	
												624 / 0	
												0 / 0	
												0 / 0	
												0 / 0	
												0 / 0	
												313 / 0	
												0 / 0	

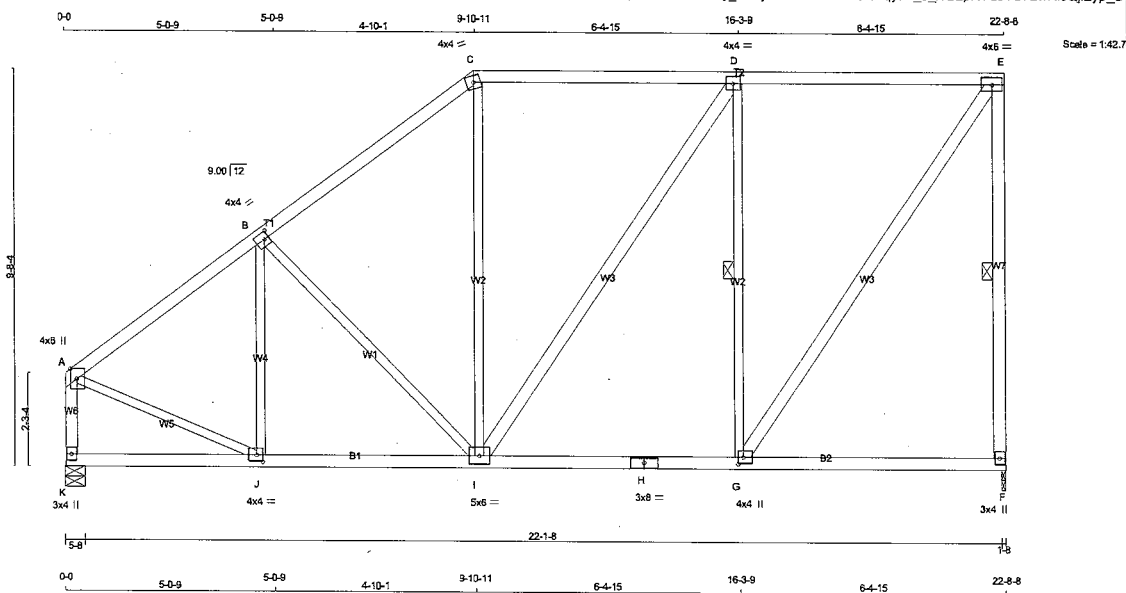
PLATES (table is in inches)				BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) F				THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015			
JT TYPE	PLATES	W	LEN	Y	X	BRACING				THIS DESIGN COMPLIES WITH:	
A	TMW+p	MT20	5.0	6.0	Edge	TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.00 FT.				- PART 9 OF BCBC 2018, ABC 2019	
B	TMWW-1	MT20	4.0	4.0	2.00 1.50	MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.				- PART 9 OF OBC 2012 (2019 AMENDMENT)	
C	TMW-m	MT20	4.0	4.0		ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.				- CSA 086-14	
D	TMWW-1	MT20	4.0	4.0		1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-F, D-G.				- TPIC 2014	
E	TMW-1	MT20	4.0	4.0		END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW				(55 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 28.7 P.S.F. SPECIFIED ROOF LIVE LOAD	
F	BMV+1+p	MT20	3.0	4.0		LOADING				ALLOWABLE DEFL.(LL) = L/360 (0.78")	
G	BMWW+1	MT20	4.0	4.0	2.00 1.50	TOTAL LOAD CASES: (4)				CALCULATED VERT. DEFL.(LL) = U/999 (0.04")	
H	BS-1	MT20	3.0	8.0		CHORDS				ALLOWABLE DEFL.(TL) = L/360 (0.78")	
I	BMWW-1	MT20	5.0	6.0		MEMB. MAX. FACTORED FORCE (LBS)				CALCULATED VERT. DEFL.(TL) = U/999 (0.08")	
J	BMWW-1	MT20	4.0	6.0		FACTORED VERT. LOAD LC1 MAX				CSI: TC=0.71/1.00 (C-D-1), BC=0.25/1.00 (G-I-1), WB=0.57/1.00 (D-G-1), SS=0.30/1.00 (D-E-1)	
K	BMV+1+p	MT20	3.0	4.0		FROM TO				DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10	

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.										ALLOWABLE DEFLT. (D) = $\sqrt{360(U/A)}$ CALCULATED VERT. DEFLT. (U) = $L^3/999(0.08")$									
LOADING TOTAL LOAD CASES: (4)																			
CHORDS					WEBS														
MAX. FACTORED		FACTORED		MAX.		MAX. FACTORED				MAX. FACTORED									
MEMB.	FORCE (LBS)	VERT. LOAD (PLF)	LC1 (CX)	LC2 (CX)	MAX. UNBRAC.	MEMB.	FORCE (LBS)	MAX. CSI (LC)		MEMB.	FORCE (LBS)	MAX. CSI (LC)							
FR-TO		FROM TO			LENGTH	FR-TO				FR-TO									
A-B	-1293 / 0	-95.2	-95.2	0.52 (1)	5.00	J-B	-185 / 26	0.10 (1)											
B-C	-1062 / 0	-95.2	-95.2	0.50 (1)	5.41	B-I	-354 / 0	0.41 (1)											
C-D	-820 / 0	-95.2	-95.2	0.71 (1)	5.38	I-C	0 / 203	0.05 (4)											
D-E	-718 / 0	-95.2	-95.2	0.70 (1)	5.66	I-D	0 / 184	0.03 (1)											
E-F	-1279 / 0	0.0	0.0	0.57 (1)	5.70	G-D	-910 / 0	0.57 (1)											
K-A	-1285 / 0	0.0	0.0	0.14 (1)	7.11	G-E	0 / 1269	0.20 (1)											
						A-J	0 / 1103	0.25 (1)											
K-J	0 / 0	-18.5	-18.5	0.12 (4)	10.00														
J-I	0 / 1063	-18.5	-18.5	0.23 (1)	10.00														
I-H	0 / 718	-18.5	-18.5	0.25 (4)	10.00														
H-G	0 / 718	-18.5	-18.5	0.25 (4)	10.00														

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

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	SPF
C - E	2x4	DRY	No.2	SPF
F - E	2x4	DRY	No.2	SPF
K - A	2x4	DRY	No.2	SPF
K - H	2x4	DRY	No.2	SPF
H - F	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
EXCEPT				
I - D	2x4	DRY	No.2	SPF
G - E	2x4	DRY	No.2	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	5.0	Edge
B	TMVW-t	MT20	4.0	4.0	2.00 1.50
C	TTW-n	MT20	4.0	4.0	
D	TMVW-t	MT20	4.0	4.0	
E	TMVW-t	MT20	4.0	4.0	
F	BMV1+p	MT20	3.0	4.0	
G	BMVW+1	MT20	4.0	4.0	2.00 1.50
H	BS-t	MT20	3.0	8.0	
I	BMVW-t	MT20	5.0	6.0	
J	BMVW-t	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	REQD
SPF	FACTORED	BRG	BRG
JT	GROSS REACTION	GROSS REACTION	IN-SX
F	1291 0	1291 0	1-8
K	1291 0	1291 0	1-8

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN COMPONENT REACTIONS
JT	COMBINED SNOW LIVE PERMLIVE WIND DEAD SOIL
F	911 607/0 0/0 0/0 0/0 304/0 0/0
K	911 607/0 0/0 0/0 0/0 304/0 0/0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.36 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-F, D-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	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CS1 (LC)	MAX. UNBRACED LENGTH (FT)	FR-TO	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CS1 (LC)
A-B	-1138/0	-95.2	-95.2	0.44 (1)	5.36	J-B	-285/0	0.15 (1)		
B-C	-998/0	-95.2	-95.2	0.44 (1)	5.65	B-I	-244/0	0.28 (1)		
C-D	-772/0	-95.2	-95.2	0.70 (1)	5.51	I-C	0/161	0.04 (4)		
D-E	-694/0	-95.2	-95.2	0.70 (1)	5.74	I-D	0/141	0.02 (1)		
E-F	-1243/0	0.0	0.0	0.58 (1)	5.76	G-D	-875/0	0.55 (1)		
K-A	-1255/0	0.0	0.0	0.15 (1)	7.17	G-E	0/1226	0.20 (1)		
K-J	0/0	-18.5	-18.5	0.10 (4)	10.00	A-J	0/1015	0.23 (1)		
J-I	0/939	-18.5	-18.5	0.21 (1)	10.00					
I-H	0/694	-18.5	-18.5	0.25 (4)	10.00					
H-G	0/694	-18.5	-18.5	0.25 (4)	10.00					
G-F	0/0	-18.5	-18.5	0.19 (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 BCRC 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 (0.76")
CALCULATED VERT. DEFL.(LL) = L/999 (0.03")
ALLOWABLE DEFL.(TL) = L/360 (0.76")
CALCULATED VERT. DEFL.(TL) = L/999 (0.07")

CSI: TC=0.70/1.00 (C-D:1), BC=0.26/1.00 (G-I:4), WB=0.55/1.00 (D-G:1), SS=0.30/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	650	371
MT20	788	1987
MT20	1987	1973

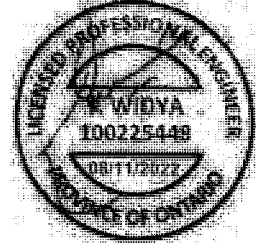
PLATE PLACEMENT TOL. = 0.250 inches

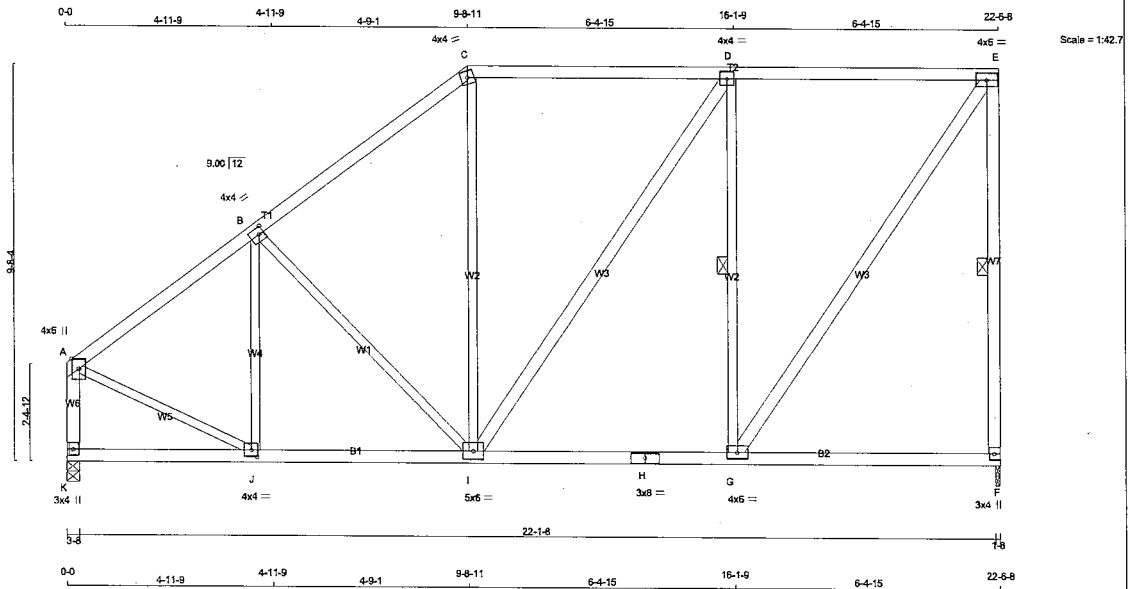
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (A) (INPUT = 0.90)

JSI METAL= 0.56 (A) (INPUT = 1.00)

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





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

DRY: SEASONED LUMBER.

PLATES (table is in inches)					
JT TYPE	PLATES	W	LEN	Y	X
A - TMW+p	MT20	4.0	6.0	Edge	
B - TMW-i	MT20	4.0	4.0	2.00	1.50
C - TW-w	MT20	4.0	4.0		
D - TMW-i	MT20	4.0	4.0		
E - TMW-i	MT20	4.0	6.0		
F - BMV-i+p	MT20	3.0	4.0		
G - BMW-i	MT20	4.0	6.0		
H - SS-i	MT20	3.0	8.0		
I - BMW-i	MT20	5.0	6.0		
J - BMW-i	MT20	4.0	4.0	2.00	1.75
K - BMV-i+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	REQD
JT	VERT	GROSS REACTION	DOWN	HORIZ	UPLIFT
F	1350	0	1350	0	1-8
K	1309	0	1309	0	3-8

UNFACTORED REACTIONS		1ST CASE	MAX/MIN COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE
F	980	803/0	0/0
K	927	603/0	0/0

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

BRACING
FOR SECTION C-E, MAX. PURLIN SPACING = 2.00 FT.
FOR OTHER SECTIONS, TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.41 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 E-F, D-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		WEBS	
MEMB.	FORCE (LBS)	MEMB.	FORCE (LBS)
FR-TO	FROM TO	FR-TO	FROM TO
A-B	-1125/0	A-B	-322/0
B-C	-1017/0	B-C	-207/0
C-D	-798/0	C-D	0/153
D-E	-722/0	D-E	0/119
E-F	-1303/0	E-F	-916/0
K-A	-1275/0	K-A	0/1276
		A-J	0/1020
K-J	0/0		
J-I	0/929		
I-H	0/722		
H-G	0/722		
G-F	0/0		

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 28.7 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
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 3.0 P.S.F.

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF NBC 2018, ABC 2019
- PART 9 OF NBC 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 DEF. (LL) = L/360 (0.75")
CALCULATED VERT. DEF. (LL) = L/999 (0.03")
ALLOWABLE DEF. (TL) = L/360 (0.75")
CALCULATED VERT. DEF. (TL) = L/999 (0.07")

CSI: TC=0.76/1.00 (C-D:1), BC=0.25/1.00 (G-I:4),
WB=0.58/1.00 (D-G:1), SS=0.32/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

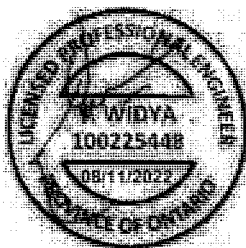
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PS) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

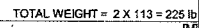
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.87 (J) (INPUT = 0.90)
JSI METAL = 0.55 (A) (INPUT = 1.00)

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





JOB NAME ALPE ROOF TRUSS, MAPLE	TRUSS NAME T104	QUANTITY 1	PLY 1	JOB DESC. GREEN PARK HOMES JT 53080	DRWG NO. E22085318
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ID:To6XqL09rYKBxLLs9y_Z1eyrbTx-XEsSy_UB_TTFgrpnG2DxsFQRtFToLbAvu7UJfyp_Rv

LUMBER

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B TMWW+p	MT20	5.0	6.0	Edge	
C TTWW+m	MT20	5.0	6.0	2.00	2.00
D TMW-w	MT20	2.0	4.0		
E TS-1	MT20	3.0	8.0		
F TMWW-i	MT20	4.0	4.0		
G TMWW-i	MT20	5.0	6.0		
H BMV1+p	MT20	3.0	4.0		
I BMWW-i	MT20	5.0	6.0		
J BS-1	MT20	3.0	8.0		
K BMWW-i	MT20	5.0	6.0		
L BMWW-i	MT20	4.0	6.0		
M 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 GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG IN-SX	RECORD BRG IN-SX
JT	VERT 1348	HORIZ 0	0	1-8
M	VERT 1479	HORIZ 0	0	5-8

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
H	951	634 / 0	0 / 0	0 / 0	0 / 0	318 / 0	0 / 0
M	1042	708 / 0	0 / 0	0 / 0	0 / 0	334 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

C H O R D S				W E B S			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)	
FR-TO		FROM TO		LENGTH FR-TO			
A-B	0 / 39	-95.2	-95.2 0.13 (1)	10.00	L-C	-149 / 39	0.06 (1)
B-C	-1364 / 0	-95.2	-95.2 0.44 (1)	5.02	B-L	0 / 1121	0.25 (1)
C-D	-1736 / 0	-95.2	-95.2 0.62 (1)	4.30	I-G	0 / 1752	0.39 (1)
D-E	-1736 / 0	-95.2	-95.2 0.64 (1)	4.26	C-K	0 / 817	0.18 (1)
E-F	-1736 / 0	-95.2	-95.2 0.64 (1)	4.26	I-F	-821 / 0	0.35 (1)
F-G	-1400 / 0	-95.2	-95.2 0.61 (1)	4.69	K-D	-646 / 0	0.25 (1)
H-G	-1299 / 0	0.0	0.0 0.57 (1)	7.08	K-F	0 / 425	0.10 (1)
M-B	-1446 / 0	0.0	0.0 0.15 (1)	6.80			
M-L	0 / 0	-18.5	-18.5 0.14 (4)	10.00			
L-K	0 / 1086	-18.5	-18.5 0.25 (1)	10.00			
K-J	0 / 1400	-18.5	-18.5 0.32 (1)	10.00			
J-I	0 / 1400	-18.5	-18.5 0.32 (1)	10.00			
I-H	0 / 0	-18.5	-18.5 0.16 (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 CBC 2018, ABC 2019
- PART 9 OF CBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

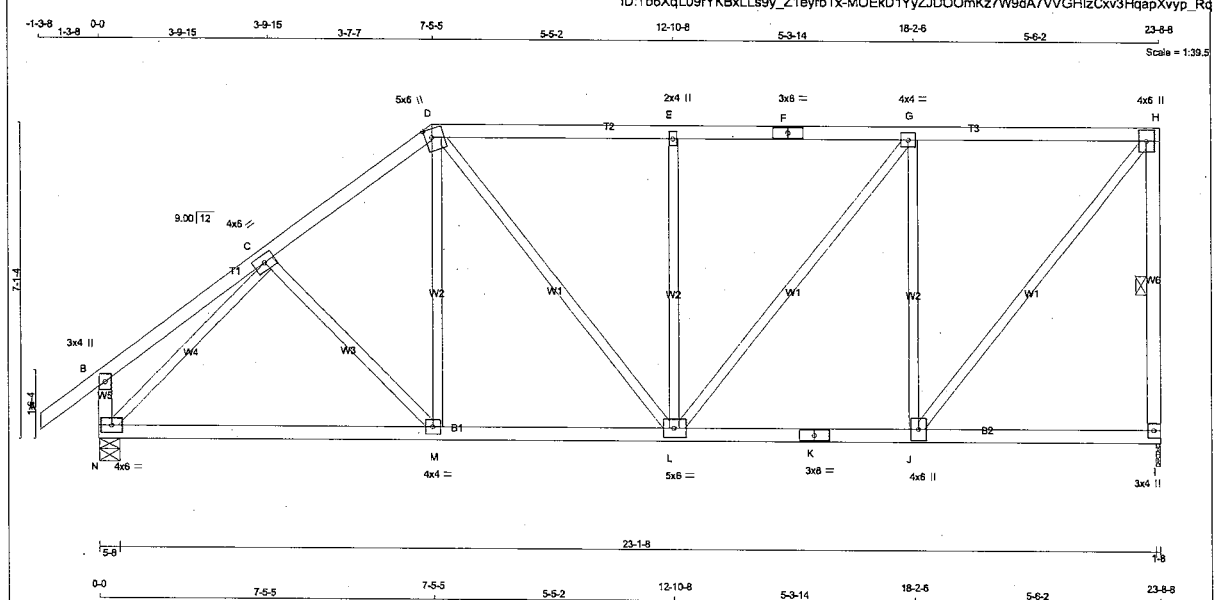
(55 % OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.79")
CALCULATED VERT. DEFL.(LL)= L/999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (0.79")
CALCULATED VERT. DEFL.(TL)= L/999 (0.13")

CSI: TC=0.64/1.00 (D-F-1), BC=0.32/1.00 (I-K-1), WB=0.39/1.00 (G-I-1), SS=0.28/1.00 (F-G-1)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.1

[illegible]



LUMBER N.L.G.A. RULES CHORDS SIZE LUMBER DESCR. DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS

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

FACTORED	MAXIMUM FACTORED	INPUT	REQRD
GROSS REACTION	GROSS REACTION	BRG	BRG
VERT	HORZ	DOWN	HORZ
UPLIFT	IN-SX	IN-SX	IN-SX
JT	1348	0	1348
I	634 / 0	0 / 0	0 / 0
N	1479	0	1479
	708 / 0	0 / 0	0 / 0

UNFACTORED REACTIONS	MAX / MIN COMPONENT REACTIONS
1ST LCASE	COMBINED
SNOW	LIVE
PERM.LIVE	WIND
DEAD	SOIL
JT	951
I	634 / 0
N	1042
	708 / 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 LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM

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

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

(55 % OF 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.(LL) = L/360 (0.79") CALCULATED VERT. DEF.(LL) = L/999 (0.05") ALLOWABLE DEF.(TL) = L/360 (0.79") CALCULATED VERT. DEF.(TL) = L/999 (0.12")

CS: TC=0.42/1.00 (E-G-1), BC=0.31/1.00 (L-M-4), WB=0.85/1.00 (G-J-1), SS=0.24/1.00 (G-H-1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

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

MAX MIN MAX MIN MAX MIN MT20 650 371 1747 786 1987 1873

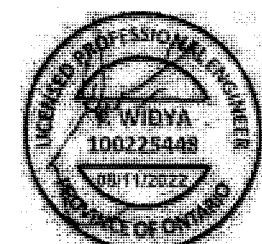
PLATE PLACEMENT TOL. = 0.250 inches

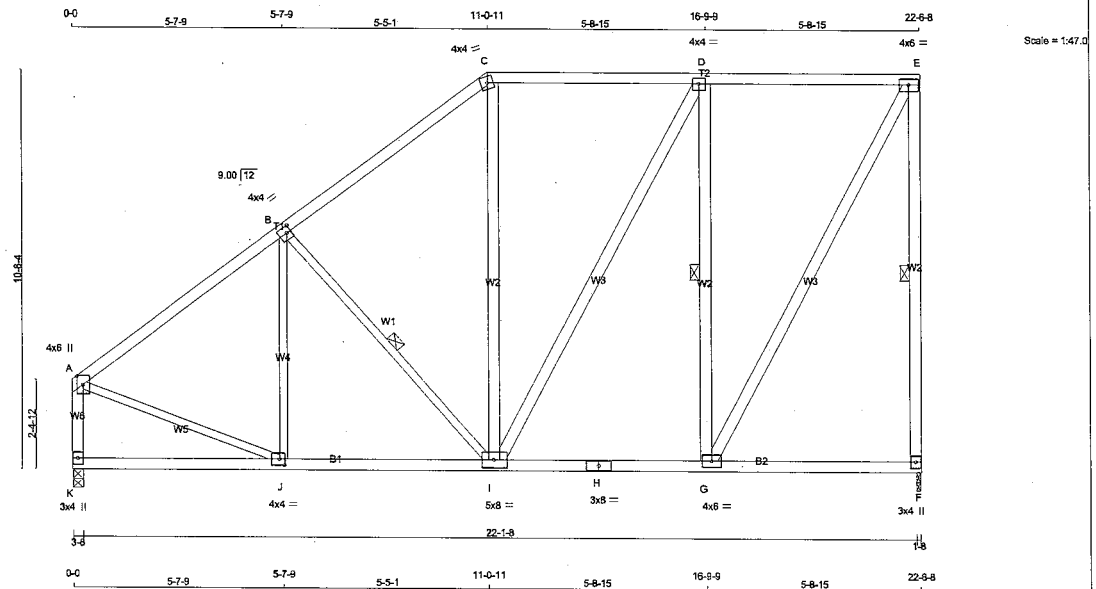
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (C) (INPUT = 0.90)

JSI METAL= 0.40 (H) (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	SPF
C - E	2x4	DRY	SPF
F - E	2x4	DRY	SPF
K - A	2x4	DRY	SPF
K - H	2x4	DRY	SPF
H - F	2x4	DRY	SPF
ALL WEBS EXCEPT	2x4	DRY	SPF
J - B	2x3	DRY	SPF
B - I	2x3	DRY	SPF
A - J	2x3	DRY	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	6.0	Edge
B	TMVW-i	MT20	4.0	4.0	2.00 1.50
C	TTW-m	MT20	4.0	4.0	
D	TMVW-i	MT20	4.0	4.0	
E	TMVW-i	MT20	4.0	6.0	
F	BMV1+p	MT20	3.0	4.0	
G	BMVW-i	MT20	4.0	6.0	
H	BS-i	MT20	3.0	8.0	
I	BMVW-i	MT20	5.0	8.0	
J	BMVW-i	MT20	4.0	4.0	2.00 1.50
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	REQD
GROSS REACTION	GROSS REACTION	BRG	BRG
VERT	DOWN	UPLIFT	IN-SX
JT	1281	0	1-8
F	1281	0	1-8
K	1281	0	1-8

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN. COMPONENT REACTIONS
JT COMBINED	SNOW LIVE PERMLIVE WIND DEAD SOIL
F	905 603 / 0 0 / 0 0 / 0 302 / 0 0 / 0
K	905 603 / 0 0 / 0 0 / 0 302 / 0 0 / 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 = 5.19 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 E-F, B-I, D-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				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	UNBRACED LENGTH FR-TO
FR-TO				FR-TO			
A-B	-1119 / 0	-95.2	-95.2 0.57 (1)	5.19	J-B	-224 / 20	0.16 (1)
B-C	-910 / 0	-95.2	-95.2 0.54 (1)	5.63	B-I	-348 / 0	0.17 (1)
C-D	-699 / 0	-95.2	-95.2 0.55 (1)	6.14	I-C	0 / 122	0.03 (4)
D-E	-570 / 0	-95.2	-95.2 0.55 (1)	6.25	I-D	0 / 267	0.04 (1)
E-F	-1239 / 0	0.0	0.0 0.71 (1)	5.77	G-D	-913 / 0	0.53 (1)
K-A	-1239 / 0	0.0	0.0 0.16 (1)	7.22	G-E	0 / 1179	0.19 (1)
K-J	0 / 0	-18.5	-18.5 0.14 (4)	10.00	A-J	0 / 986	0.22 (1)
J-I	0 / 926	-18.5	-18.5 0.22 (1)	10.00			
I-H	0 / 570	-18.5	-18.5 0.19 (4)	10.00			
H-G	0 / 570	-18.5	-18.5 0.19 (4)	10.00			
G-F	0 / 0	-18.5	-18.5 0.15 (4)	10.00			

$$\text{TOTAL WEIGHT} = 2 \times 134 = 267 \text{ lb}$$

[M]

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) = $L/360$ (0.75")

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

ALLOWABLE DEFL. (TL) = $L/360$ (0.75")

CALCULATED VERT. DEFL. (TL) = $L/999$ (0.06")

CSI: TC=0.71/1.00 (E-F:1), BC=0.22/1.00 (I-J:1), WB=0.53/1.00 (D-G:1), SS=0.27/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

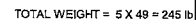
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (A) (INPUT = 0.90)

JSI METAL= 0.57 (A) (INPUT = 1.00)

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

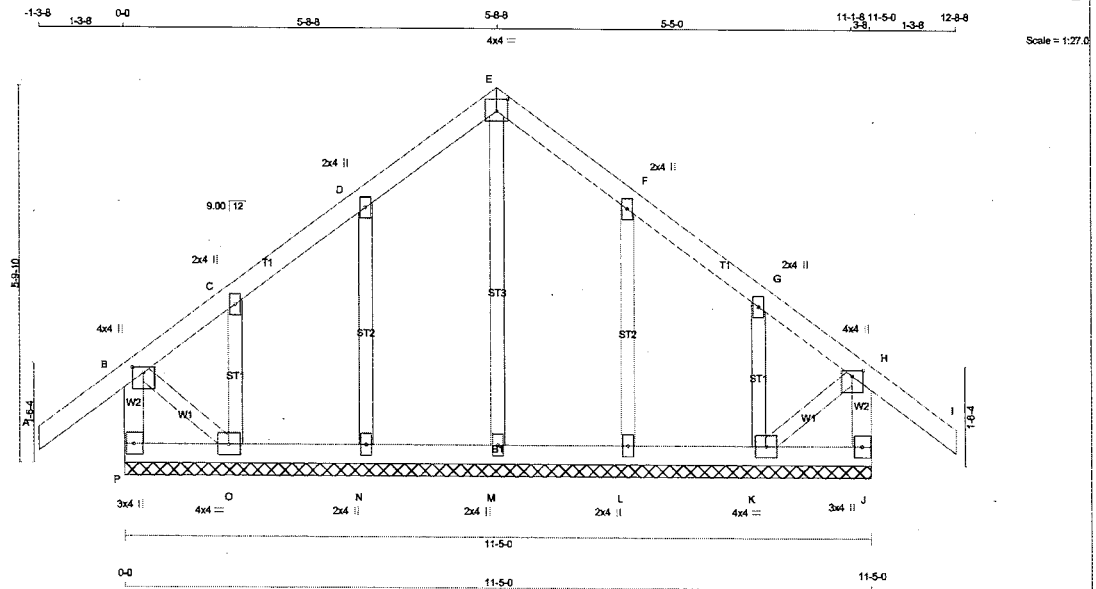




JSI GRIP= 0.66 (D) (INPUT = 0.90)
JSI METAL= 0.17 (D) (INPUT = 1.00)

Alpa Roof Truss, Maple

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LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
P - B	2x4	DRY	No.2
A - E	2x4	DRY	No.2
E - I	2x4	DRY	No.2
J - H	2x4	DRY	No.2
P - J	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
ALL GABLE WEBS	2x3	DRY	No.2
DRY: SEASONED LUMBER.			

GABLE STUDS SPACED AT 2'-0" OC.

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, D, F, G					
C TMW+w	MT20	2.0	4.0		
E TTW+p	MT20	4.0	4.0	2.25	2.00
H TMW+p	MT20	4.0	4.0	1.00	2.00
J BMV+p	MT20	3.0	4.0		
K BMVW1-t	MT20	4.0	4.0		
L, M, N					
L BMV1+w	MT20	2.0	4.0		
O BMVW1-t	MT20	4.0	4.0		
P BMV1+p	MT20	3.0	4.0		

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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

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. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED LENGTH UNBRAC (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED LENGTH UNBRAC (LC)
FR-TO		FROM TO		FR-TO					
P-B	-283 / 0	0.0 0.0 0.03 (1)	7.81	M-E	-144 / 0	0.07 (1)			
A-B	0 / 39	-95.2 -95.2 0.13 (1)	10.00	N-D	-230 / 0	0.06 (1)			
B-C	-51 / 0	-95.2 -95.2 0.12 (1)	6.25	O-C	-102 / 0	0.02 (1)			
C-D	-6 / 0	-95.2 -95.2 0.06 (1)	10.00	L-F	-230 / 0	0.06 (1)			
D-E	-23 / 0	-95.2 -95.2 0.06 (1)	6.25	K-G	-102 / 0	0.02 (1)			
E-F	-23 / 0	-95.2 -95.2 0.06 (1)	6.25	B-O	0 / 21	0.00 (1)			
F-G	-6 / 0	-95.2 -95.2 0.06 (1)	10.00	K-H	0 / 21	0.00 (1)			
G-H	-51 / 0	-95.2 -95.2 0.12 (1)	6.25						
H-I	0 / 39	-95.2 -95.2 0.13 (1)	10.00						
J-H	-283 / 0	0.0 0.0 0.03 (1)	7.81						
P-O	0 / 0	-18.5 -18.5 0.02 (4)	10.00						
O-N	0 / 13	-18.5 -18.5 0.02 (4)	10.00						
N-M	0 / 8	-18.5 -18.5 0.01 (4)	10.00						
M-L	0 / 8	-18.5 -18.5 0.01 (4)	10.00						
L-K	0 / 13	-18.5 -18.5 0.02 (4)	10.00						
K-J	0 / 0	-18.5 -18.5 0.02 (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. GC

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

CSI: TC=0.13/1.00 (A-B:1), BC=0.02/1.00 (N-O:1), WB=0.07/1.00 (E-M:1), SSI=0.08/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

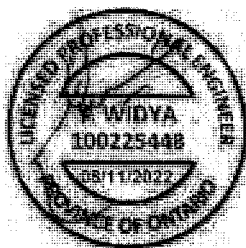
MT20 650 371 1747 788 1987 1873

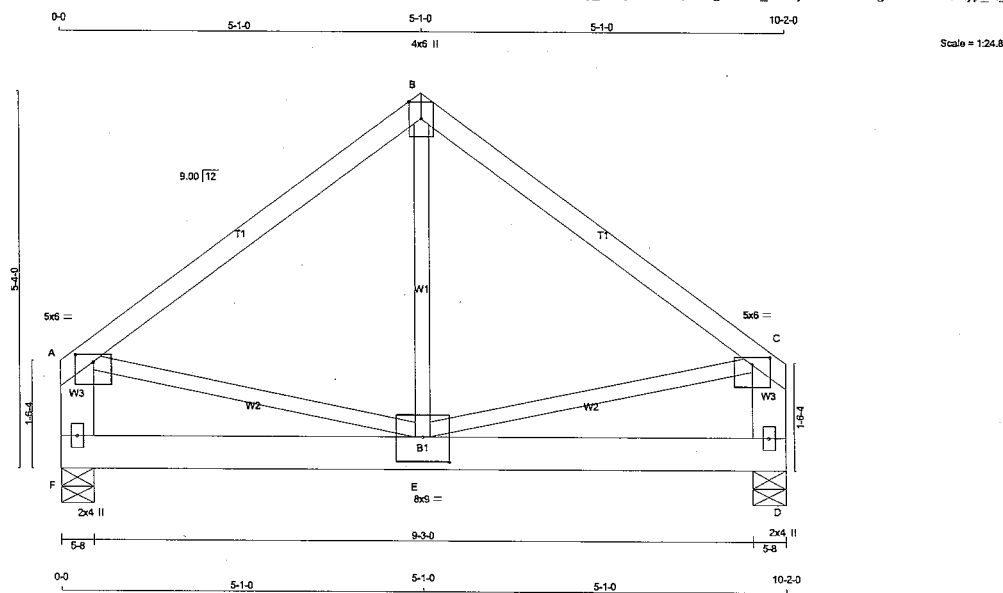
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.21 (H) (INPUT = 0.90)
JSI METAL= 0.12 (F) (INPUT = 1.00)

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





LUMBER

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

EXCEPT
 DRY: SEASONED LUMBER.
 DESIGN CONSISTS OF 2 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD(PLF)
TOP CHORDS : (0.122"x3") SPIRAL NAILS		
A-B 1	12	TOP
B-C 1	12	TOP
F-A 2	12	TOP
D-C 2	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
F-D 2	8	SIDE(303.2)
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	TMW-p	MT20	5.0	6.0	1.25	3.00
B	TTW+p	MT20	4.0	6.0	Edge	
C	TMW-p	MT20	5.0	6.0	1.25	3.00
D	BMV+ip	MT20	2.0	4.0		
E	BMVWW-t	MT20	8.0	9.0	4.25	4.50
F	BMV+ip	MT20	2.0	4.0		

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

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

BEARINGS

FACTORED	MAXIMUM FACTORED	INPUT	REQD
GROSS REACTION	GROSS REACTION	BRG	BRG
JT VERT	HORZ	DOWN	HORZ
F	3661	0	5-8
D	3661	0	5-8

UNFACTORED REACTIONS							
1ST LCASE		MAX/MIN COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	2584	1721/0	0/0	0/0	0/0	863/0	0/0
D	2584	1721/0	0/0	0/0	0/0	863/0	0/0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) F, D
 TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.14 FT.
 MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING
 TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO		FROM TO		FR-TO			
A-B	-2828 / 0	-95.2	-95.2	0.30 (1)	5.14	E-B	0 / 2910 0.36 (1)
B-C	-2828 / 0	-95.2	-95.2	0.30 (1)	5.14	A-E	0 / 2316 0.28 (1)
F-A	-2433 / 0	0.0	0.0	0.09 (1)	7.81	E-C	0 / 2316 0.29 (1)
D-C	-2433 / 0	0.0	0.0	0.09 (1)	7.81		
F-E	0 / 0	-624.9	-624.9	0.67 (1)	10.00		
E-D	0 / 0	-624.9	-624.9	0.67 (1)	10.00		

DESIGN CRITERIA

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

SPACING = 24.0 IN. C/C

GIRDER TYPE: CStd Girder
 START DISTANCE = 0-0
 START SPAN CARRIED = 23-4-0
 END DISTANCE = 10-2-0
 END SPAN CARRIED = 23-4-0
 END WALL WIDTH = 0-0
 APPLIED TO FRONT SIDE OF BOTTOM CHORD.
 - ADDTL LOADS BASED ON 55 % OF GSL.

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

THIS DESIGN COMPLIES WITH:
 - PART 9 OF 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

ALLOWABLE DEFL.(LL)= L/360 (0.34")
 CALCULATED VERT. DEFL.(LL)= L/999 (0.05")
 ALLOWABLE DEFL.(TL)= L/360 (0.34")
 CALCULATED VERT. DEFL.(TL)= L/999 (0.09")

CSI: TC=0.30/1.00 (B-C:1), BC=0.67/1.00 (E-F:1), WB=0.38/1.00 (B-E:1), SS=0.85/1.00 (E-F:1)

DCL 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

AUTOSOLVE HEELS OFF

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

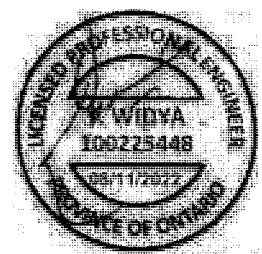
NAIL VALUES
 PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
 MAX MIN MAX MIN MAX MIN
 MT20 650 371 1747 788 1987 1873

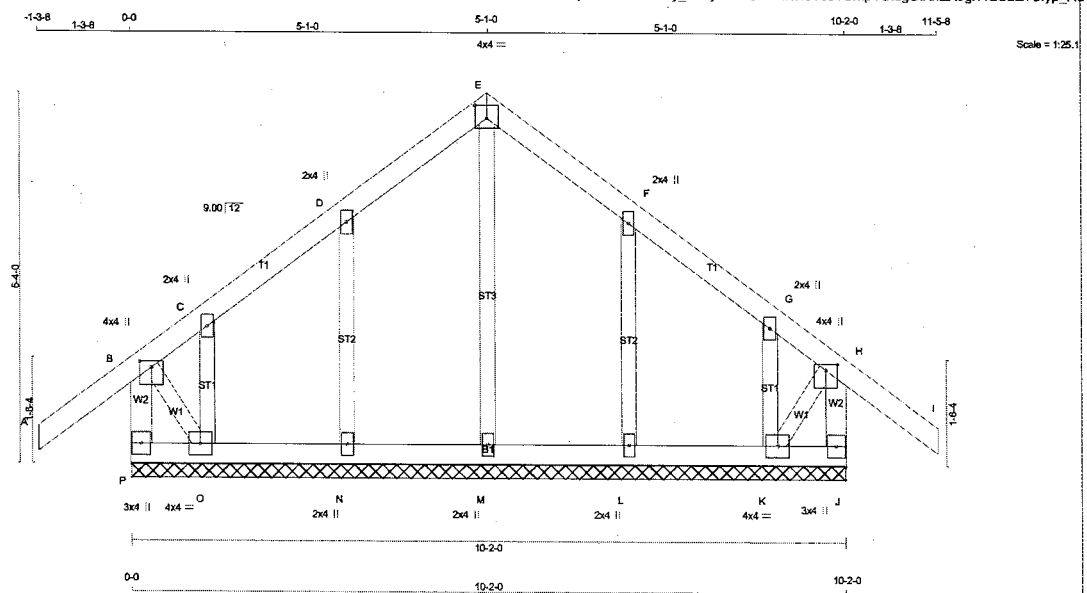
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.62 (B) (INPUT = 0.90)
 JSI METAL= 0.35 (B) (INPUT = 1.00)

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





LUMBER N. L. G. A. RULES CHORDS SIZE DRY LUMBER DESCR. ALL GABLE WEBS 2x3 DRY No.2 DRY: SEASONED LUMBER. GABLE STUDS SPACED AT 2-0-0 OC. TOTAL WEIGHT = 47 lb

CHORDS	SIZE	DRY	LUMBER	DESCR.
P - B	2x4	DRY	No.2	SPF
A - E	2x4	DRY	No.2	SPF
E - I	2x4	DRY	No.2	SPF
J - H	2x4	DRY	No.2	SPF
P - J	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
ALL GABLE WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				
GABLE STUDS SPACED AT	2-0-0	OC.		

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER
BEARINGS
 THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.
 THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.
 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S)
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.

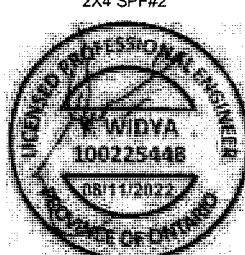
DESIGN CRITERIA
 SPECIFIED LOADS:
 TOP CH. LL = 26.7 PSF
 DL = 6.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.4 PSF
 TOTAL LOAD = 40.1 PSF
SPACING = 24.0 IN CC
 THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015

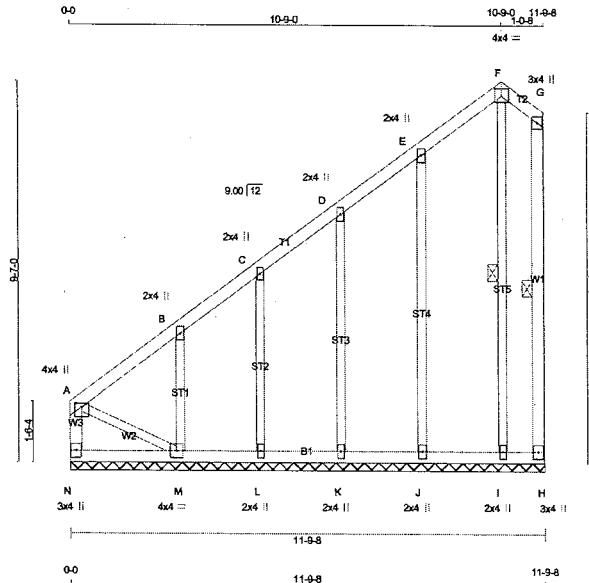
PLATES (table is in inches)	W	LEN	Y	X
JT TYPE				
B TMW+P	MT20	4.0	4.0	1.00 2.00
C, D, F, G				
C TMW+P	MT20	2.0	4.0	
E TTW+P	MT20	4.0	4.0	2.25 2.00
H TMW+P	MT20	4.0	4.0	1.00 2.00
J BMV+P	MT20	3.0	4.0	
K BMWV+P	MT20	4.0	4.0	
L, M, N				
L BMW+P	MT20	2.0	4.0	
O BMWV+P	MT20	4.0	4.0	
P BMV+P	MT20	3.0	4.0	

CHORDS	MAX. FACTORED	VERT. LOAD	LC1	MAX. FACTORED	W E B S	MAX. FACTORED	VERT. LOAD	LC1	MAX. FACTORED
MEMB.	FORCE (LBS)	PLF	CS (LC)	UNBRAC	MEMB.	FORCE (LBS)	PLF	CS (LC)	UNBRAC
FR-TO		FROM	TO	LENGTH	FR-TO		FROM	TO	LENGTH
P-B	-277 / 0	0.0	0.0	0.03 (1)	7.81	M-E	-153 / 0	0.06 (1)	
A-B	0 / 39	-95.2	-95.2	0.13 (1)	10.00	N-D	-230 / 0	0.05 (1)	
B-C	-60 / 0	-95.2	-95.2	0.12 (1)	6.25	O-C	-42 / 0	0.01 (1)	
C-D	0 / 2	-95.2	-95.2	0.06 (1)	10.00	L-F	-230 / 0	0.05 (1)	
D-E	-15 / 0	-95.2	-95.2	0.06 (1)	6.25	K-G	-42 / 0	0.01 (1)	
E-F	-15 / 0	-95.2	-95.2	0.06 (1)	6.25	B-O	0 / 13	0.00 (1)	
F-G	0 / 2	-95.2	-95.2	0.06 (1)	10.00	K-H	0 / 13	0.00 (1)	
G-H	-60 / 0	-95.2	-95.2	0.12 (1)	6.25				
H-I	0 / 39	-95.2	-95.2	0.13 (1)	10.00				
J-H	-277 / 0	0.0	0.0	0.03 (1)	7.81				
P-O	0 / 0	-18.5	-18.5	0.01 (4)	10.00				
O-N	0 / 7	-18.5	-18.5	0.02 (4)	10.00				
N-M	0 / 1	-18.5	-18.5	0.02 (4)	10.00				
M-L	0 / 1	-18.5	-18.5	0.02 (4)	10.00				
L-K	0 / 7	-18.5	-18.5	0.02 (4)	10.00				
K-J	0 / 0	-18.5	-18.5	0.01 (4)	10.00				

THIS DESIGN COMPLIES WITH:
 - PART 9 OF BCBC 2018, ABC 2019
 - PART 9 OF OBC 2012 (2019 AMENDMENT)
 - CSA 086-14
 - TPIC 2014
DESIGN ASSUMPTIONS
 - OVERHANG NOT TO BE ALTERED OR CUT OFF.
 (55 % OF 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=0.13/1.00 (H=1), BC=0.02/1.00 (K-L=4), WB=0.08/1.00 (E-M=1), SSI=0.08/1.00 (H=1)
 DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10
 COMPANION LIVE LOAD FACTOR = 1.00
 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

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





LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
N - A	2x4	DRY	No.2	SPF
A - F	2x4	DRY	No.2	SPF
F - G	2x4	DRY	No.2	SPF
H - G	2x4	DRY	No.2	SPF
N - H	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	No.2	SPF
ALL GABLE WEBS	2x3	DRY	No.2	SPF
DRY: SEASONED LUMBER.				
GABLE STUDS SPACED AT 2'-0" OC.				

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
A	TMVW+p	MT20	4.0	4.0	1.00 2.00
B, C, D, E					
B	TMW+w	MT20	2.0	4.0	
F	TTW+p	MT20	4.0	4.0	2.25 2.00
G	TMV+p	MT20	3.0	4.0	
H	BMV1+p	MT20	3.0	4.0	
I, J, K, L					
I	BMW1+w	MT20	2.0	4.0	
M	BMWW1+t	MT20	4.0	4.0	
N	BMV1+p	MT20	3.0	4.0	

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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

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.

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

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.	FACTORED FORCE (LBS)	VERT. LOAD (PLF)	CS1 (LC)	MEMB.	FACTORED FORCE (LBS)	CS1 (LC)	UNBRACED LENGTH (FT)
FR-TO		FROM TO		FR-TO			
N-A	-122 / 0	0.0	0.0 0.01 (1)	7.81	I-F	-130 / 0	0.08 (1)
A-B	-5 / 0	-95.2	-95.2 0.08 (1)	10.00	J-E	-215 / 0	0.27 (1)
B-C	-21 / 0	-95.2	-95.2 0.08 (1)	6.25	K-D	-188 / 0	0.13 (1)
C-D	-5 / 0	-95.2	-95.2 0.04 (1)	10.00	L-C	-167 / 0	0.06 (1)
D-E	0 / 0	-95.2	-95.2 0.05 (1)	10.00	M-B	-258 / 0	0.05 (1)
E-F	-11 / 0	-95.2	-95.2 0.05 (1)	6.25	A-M	0 / 17	0.00 (1)
F-G	0 / 0	-95.2	-95.2 0.02 (1)	10.00			
G-H	-50 / 0	0.0	0.0 0.02 (1)	6.25			
N-M	0 / 0	-18.5	-18.5 0.03 (4)	10.00			
M-L	0 / 8	-18.5	-18.5 0.03 (4)	10.00			
L-K	0 / 5	-18.5	-18.5 0.02 (4)	10.00			
K-J	0 / 2	-18.5	-18.5 0.02 (4)	10.00			
J-I	0 / 0	-18.5	-18.5 0.02 (4)	10.00			
I-H	0 / 0	-18.5	-18.5 0.01 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 26.7 PSF

DL = 8.0 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 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

CS1: TC=0.09/1.00 (B-C:1), BC=0.03/1.00 (L-M:4), WB=0.27/1.00 (E-J:1), SS1=0.09/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

PLATE PLACEMENT TOL. = 0.250 inches

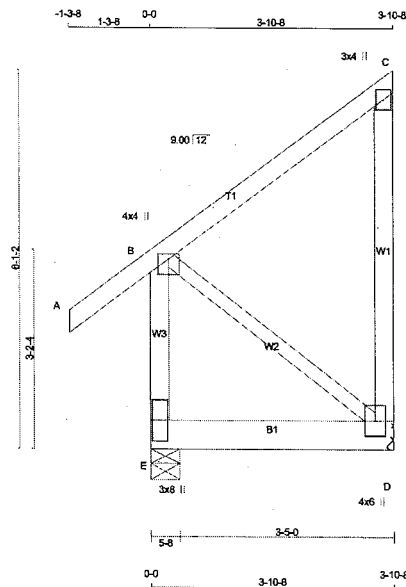
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.18 (B) (INPUT = 0.90)

JSI METAL= 0.14 (B) (INPUT = 1.00)

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





Scale = 1:28.1

TOTAL WEIGHT = 2 X 27 = 54 lb

LUMBER	SIZE	LUMBER	DESCR.
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
E - B	2x4	DRY	No.2
A - C	2x4	DRY	No.2
D - C	2x4	DRY	No.2
E - D	2x6	DRY	No.2
ALL WEBS	2x3	DRY	No.2
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		
E-B 1	12	TOP
A-C 1	12	TOP
C-D 1	12	TOP
BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS		
E-D 2	12	SIDE(133.8)
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 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
B	TMVW+p	MT20	4.0	4.0	1.00 2.00
C	TMV+p	MT20	3.0	4.0	
D	BMVW1+p	MT20	4.0	6.0	
E	BMV1+p	MT20	3.0	8.0	

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

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
JT	VERT	DOWN	IN-SX	IN-SX
E	870	0	5-8	1-8
D	739	0	MECHANICAL	

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

UNFACTORED REACTIONS

1ST LCASE	MAX	MIN	COMPONENT REACTIONS	DEAD	SOIL
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND
E	612	421/0	0/0	0/0	0/0
D	522	347/0	0/0	0/0	0/0

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (7)

CHORDS	MAX. FACTORED	FACTORED	WEBS	MAX. FACTORED
MEMB.	FORCE	VERT. LOAD LC1	MEMB.	FORCE
(LBS)	(PLF)	CSI (LC)	(LBS)	CSI (LC)
FR-TO	FROM	LENGTH	FR-TO	FROM
E-B	-316/0	0.0	0.0	0.03 (1)
A-B	0/39	-95.2	-95.2	0.11 (7)
B-C	0/0	-95.2	-95.2	0.13 (1)
D-C	-184/0	0.0	0.0	0.06 (1)
E-D	0/0	-296.2	-296.2	0.20 (1)

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

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: CStdGirder

START DISTANCE = 0-0

START SPAN CARRIED = 11-5-0

END DISTANCE = 3-10-8

END SPAN CARRIED = 11-5-0

END WALL WIDTH = 0-0

APPLIED TO FRONT SIDE OF BOTTOM CHORD.

-ADDTL LOADS BASED ON 55 % OF GSL.

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

THIS DESIGN COMPLIES WITH:

- PART 9 OF BCC 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

ALLOWABLE DEFL. (LL) = $L/360$ (0.19")
CALCULATED VERT. DEFL. (LL) = $L/999$ (0.01")
ALLOWABLE DEFL. (TL) = $L/360$ (0.19")
CALCULATED VERT. DEFL. (TL) = $L/999$ (0.02")

CSI: TC=0.13/1.00 (B-C:1), BC=0.20/1.00 (D-E:1), WB=0.00/1.00 (B-D:1), SSI=0.18/1.00 (D-E: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
550	371	1747
788	1987	1873

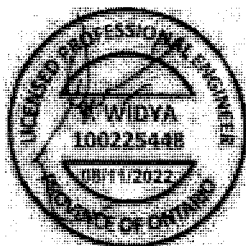
PLATE PLACEMENT TOL. = 0.250 inches

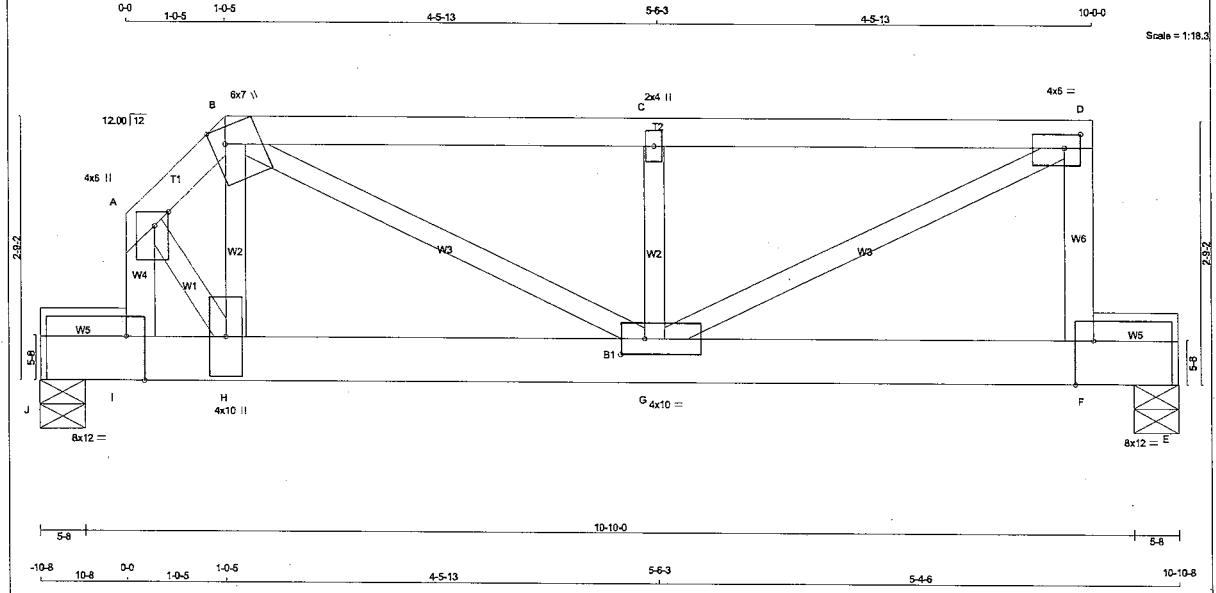
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.12 (B) (INPUT = 0.90)

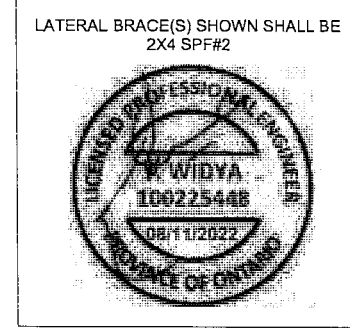
JSI METAL= 0.03 (C) (INPUT = 1.00)

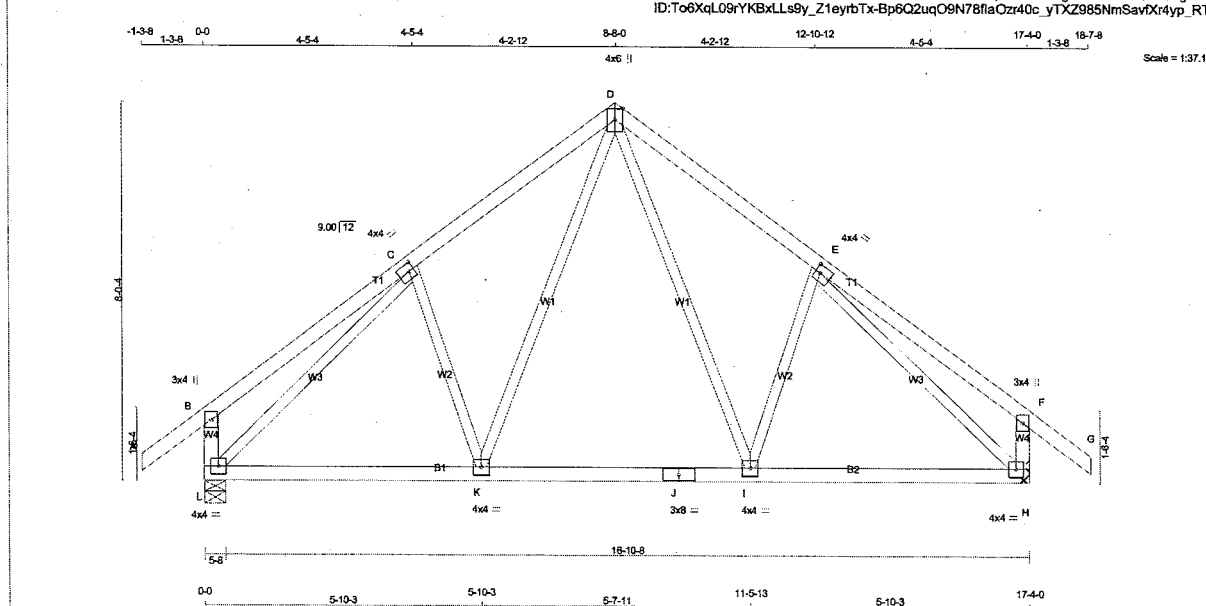
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2





LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. A - B 2x4 DRY No.2 SPF B - D 2x4 DRY No.2 SPF F - D 2x4 DRY No.2 SPF I - A 2x4 DRY No.2 SPF J - E 2x6 DRY 1650F 1.5E SPF J - I 2x4 DRY No.2 SPF F - E 2x4 DRY No.2 SPF ALL WEBS 2x3 DRY No.2 SPF EXCEPT DRY: SEASONED LUMBER.				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER BEARINGS FACTORED MAXIMUM FACTORED INPUT REORD GROSS REACTION GROSS REACTION BRG BRG VERT. HORZ. DOWN HORZ. UPLIFT IN-SX IN-SX J 1358 0 1358 0 0 5-8 1-8 E 1358 0 1358 0 0 5-8 1-8 UNFACTORED REACTIONS 1ST LCASE MAX MIN. COMPONENT REACTIONS J COMBINED SNOW LIVE PERM. LIVE WIND DEAD SOIL J 953 621 / 0 0 / 0 0 / 0 0 / 0 341 / 0 0 / 0 E 952 621 / 0 0 / 0 0 / 0 0 / 0 341 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) J, E BRACING TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.97 FT. MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED. ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED. LOADING TOTAL LOAD CASES: (4) CHORDS WEBS MAX. FACTORED FORCE MAX. FACTORED FORCE MEMB. (LBS) (PLF) CSI (LC) UNBRAC. MEMB. (LBS) MAX. FACTORED FORCE MAX. FACTORED FORCE FR-TO FROM-TO LENGTH FR-TO FROM-TO LENGTH FR-TO FROM-TO LENGTH FR-TO FROM-TO LENGTH A-B -1551 / 0 -134.4 -134.4 0.06 (1) 5.22 H-B 0 / 238 0.06 (1) B-C -2141 / 0 -134.4 -134.4 0.54 (1) 3.97 B-G 0 / 1199 0.29 (1) C-D -2141 / 0 -134.4 -134.4 0.54 (1) 3.97 G-C -716 / 0 0.13 (1) D-E -1368 / 0 0.0 0.0 0.18 (1) 6.90 G-D 0 / 2420 0.60 (1) F-A -2418 / 0 0.0 0.0 0.28 (1) 5.45 A-H 0 / 1642 0.41 (1) J-I 0 / 0 -43.0 -43.0 0.44 (1) 10.00 I-H 0 / 0 -129.7 -129.7 0.60 (1) 10.00 H-G 0 / 1091 -129.7 -129.7 0.28 (1) 10.00 G-F 0 / 0 -129.7 -129.7 0.60 (1) 10.00 F-E 0 / 0 -43.0 -43.0 0.44 (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 GIRDER TYPE: CP/primeHip SIDE SETBACK = 0-0 END SETBACK = 7-3-8 END WALL WIDTH = 0-0 CORNER FRAMING TYPE: CONVENTIONAL END JACK TYPE: PARTIAL APPLIED TO FRONT SIDE - ADDTL LOADS BASED ON 55 % OF GSL. THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015 THIS DESIGN COMPLIES WITH: - PART 9 OF 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 ALLOWABLE DEFL.(LL) = L/360 (0.39") CALCULATED VERT. DEFL.(LL) = L/999 (0.11") ALLOWABLE DEFL.(TL) = L/360 (0.39") CALCULATED VERT. DEFL.(TL) = L/675 (0.21") CSI: TC=0.54/1.00 (C-D-1), BC=0.60/1.00 (F-G-1), WB=0.60/1.00 (D-G-1), SS=0.83/1.00 (H-I-1) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS=1.00 COMPANION LIVE LOAD FACTOR = 1.00 TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT. NAIL VALUES PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI) 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 (G) (INPUT = 0.90) JSI METAL= 0.59 (A) (INPUT = 1.00)			
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Scale = 1:37.5 TOTAL WEIGHT = 2 X 81 = 161 lb

LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER			
N.L.G.A. RULES	CHORDS	SIZE	LUMBER	DESCR.	BEARINGS	FACTORED	MAXIMUM FACTORED
A - D	2x4	DRY	No.2	SPF	FACTORED	GROSS REACTION	MAXIMUM FACTORED
D - G	2x4	DRY	No.2	SPF	FACTORED	GROSS REACTION	MAXIMUM FACTORED
L - B	2x4	DRY	No.2	SPF	FACTORED	GROSS REACTION	MAXIMUM FACTORED
H - F	2x4	DRY	No.2	SPF	FACTORED	GROSS REACTION	MAXIMUM FACTORED
L - J	2x4	DRY	No.2	SPF	FACTORED	GROSS REACTION	MAXIMUM FACTORED
J - H	2x4	DRY	No.2	SPF	FACTORED	GROSS REACTION	MAXIMUM FACTORED
ALL WEBS	2x3	DRY	No.2	SPF	FACTORED	GROSS REACTION	MAXIMUM FACTORED
EXCEPT							

DRY: SEASONED LUMBER.

DESIGN CRITERIA

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 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 (0.58")

CALCULATED VERT. DEFL. (LL) = L/989 (0.02")

ALLOWABLE DEFL. (TL) = L/360 (0.58")

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

CS: TC=0.29/1.00 (B-C-1), BC=0.20/1.00 (K-L-4), WB=0.71/1.00 (C-L-1), SS=0.18/1.00 (C-D-1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION

(PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

MT20 650 371 1747 788 1987 1873

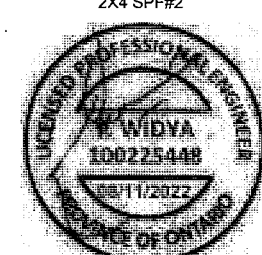
PLATE PLACEMENT TOL. = 0.250 inches

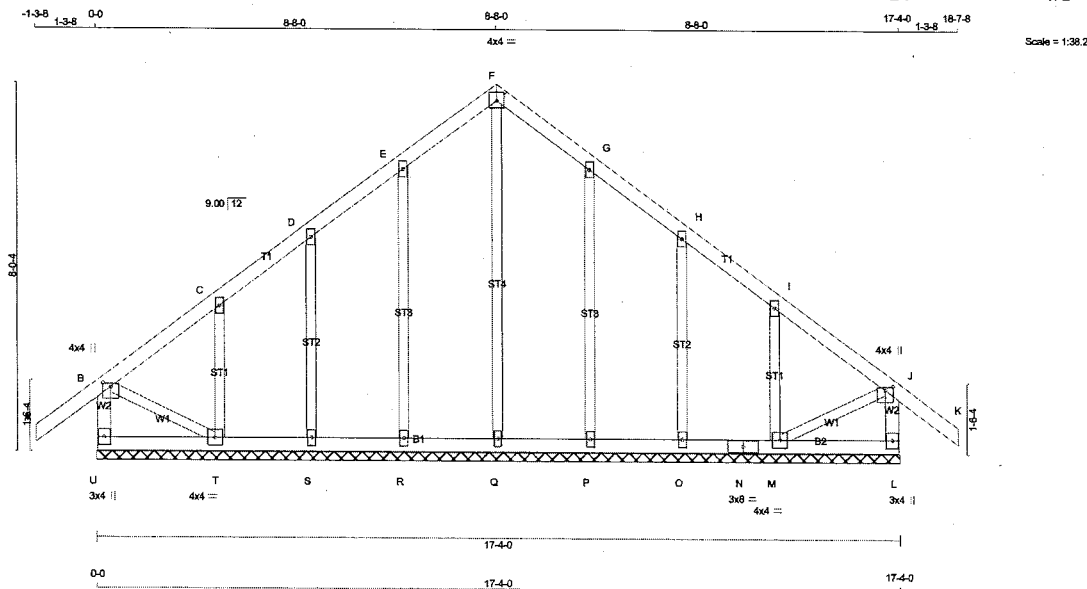
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (E) (INPUT = 0.90)

JSI METAL = 0.39 (E) (INPUT = 1.00)

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





LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
U - B	2x4	DRY	No.2
A - F	2x4	DRY	No.2
F - K	2x4	DRY	No.2
L - J	2x4	DRY	No.2
U - N	2x4	DRY	No.2
N - L	2x4	DRY	No.2
ALL WEBS	2x3	DRY	No.2
ALL GABLE WEBS	2x3	DRY	No.2
DRY: SEASONED LUMBER.			

GABLE STUDS SPACED AT 2-0-0 OC.

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 D, E, G, H, I					
C TMW+w	MT20	2.0	4.0		
F TMW+p	MT20	4.0	4.0	2.25	2.00
L BMV1+p	MT20	3.0	4.0		
M BMW1-t	MT20	4.0	4.0		
N SS-4	MT20	3.0	8.0		
O, P, Q, R, S					
O BMW1+w	MT20	2.0	4.0		
T BMW1-t	MT20	4.0	4.0		
U BMV1+p	MT20	3.0	4.0		

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

BEARINGS

THIS TRUSS DESIGNED FOR CONTINUOUS BEARINGS.

THIS TRUSS REQUIRES RIGID SHEATHING ON EXPOSED FACE.

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

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				
MAX. FACTORED FORCE (LBS)		FACTORED VERT. LOAD LC1 (PLF)		MAX. MAX. CSI (LC)		MAX. FACTORED FORCE (LBS)		
FR-TO		FROM	TO	MAX. UNBRACED LENGTH	FR-TO		MAX. FACTORED CSI (LC)	
U-B	-269/0	0.0	0.0	0.03 (1)	Q-F	-132/0	0.16 (1)	
A-B	0/39	-95.2	-95.2	0.13 (1)	10.00	R-E	-220/0	0.15 (1)
B-C	-25/0	-95.2	-95.2	0.08 (1)	6.25	S-D	-163/0	0.08 (1)
C-D	-40/0	-95.2	-95.2	0.08 (1)	6.25	T-C	-253/0	0.05 (1)
D-E	-21/0	-95.2	-95.2	0.06 (1)	6.25	P-G	-220/0	0.15 (1)
E-F	-34/0	-95.2	-95.2	0.06 (1)	6.25	Q-H	-163/0	0.08 (1)
F-G	-34/0	-95.2	-95.2	0.08 (1)	6.25	M-I	-253/0	0.05 (1)
G-H	-21/0	-95.2	-95.2	0.06 (1)	6.25	B-T	0/34	0.01 (1)
H-I	-40/0	-95.2	-95.2	0.08 (1)	6.25	M-J	0/34	0.01 (1)
I-J	-25/0	-95.2	-95.2	0.08 (1)	6.25			
J-K	0/39	-95.2	-95.2	0.13 (1)	10.00			
L-J	-269/0	0.0	0.0	0.03 (1)	7.81			
U-T	0/0	-18.5	-18.5	0.03 (4)	10.00			
T-S	0/24	-18.5	-18.5	0.03 (4)	10.00			
S-R	0/21	-18.5	-18.5	0.02 (4)	10.00			
R-Q	0/18	-18.5	-18.5	0.02 (4)	10.00			
Q-P	0/16	-18.5	-18.5	0.02 (4)	10.00			
P-O	0/21	-18.5	-18.5	0.02 (4)	10.00			
O-N	0/24	-18.5	-18.5	0.03 (4)	10.00			
N-M	0/24	-18.5	-18.5	0.03 (4)	10.00			
M-L	0/0	-18.5	-18.5	0.03 (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. OC

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=0.13/1.00 (J-K:1), BC=0.03/1.00 (S-T:4), WB=0.16/1.00 (F-G:1), SSI=0.09/1.00 (B-C:1)

DOI: LUMBER=1.00 NAIL=1.00 LS BEND=1.10 COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

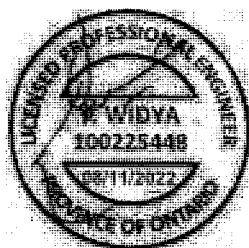
PLATE PLACEMENT TOL. = 0.250 inches

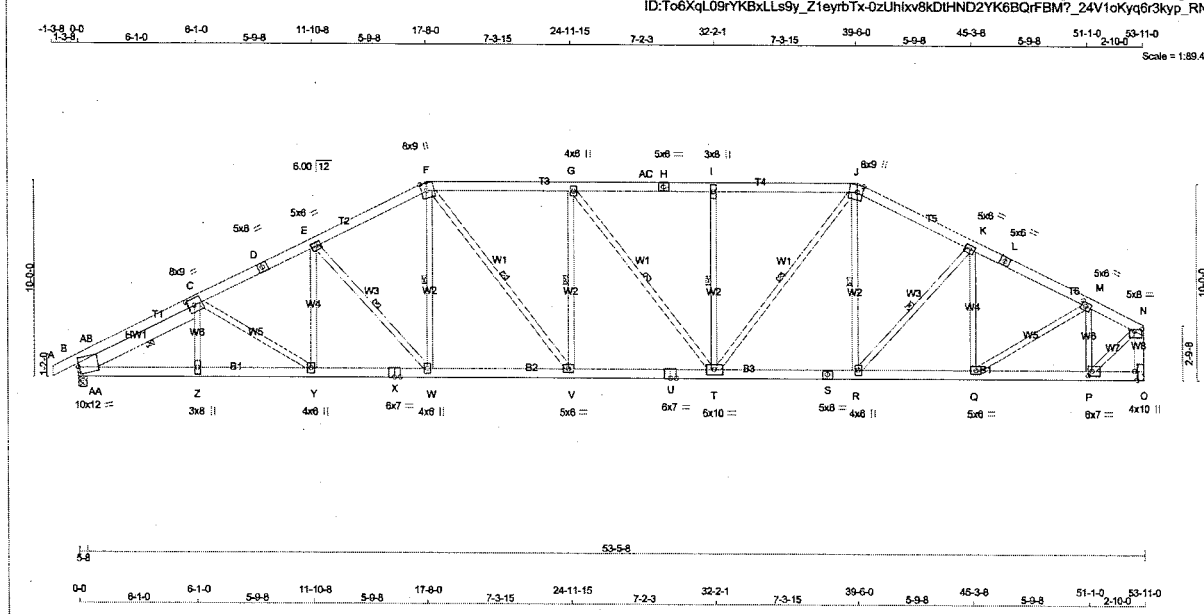
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.57 (T) (INPUT = 0.90)

JSI METAL= 0.13 (T) (INPUT = 1.00)

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





Scale = 1:89.4 TOTAL WEIGHT = 2 X 362 = 724 lb

LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY			
N. L. G. A. RULES				BUILDING DESIGNER			
CHORDS	SIZE	LUMBER	DESCR.	BEARINGS			
A - D	2x6	DRY	No.2	FACTORED	MAXIMUM FACTORED	INPUT	REQRD
D - F	2x6	DRY	No.2	GROSS REACTION	GROSS REACTION	BRG	BRG
F - H	2x6	DRY	No.2	VERT	HORZ	UPLIFT	IN-SX
H - J	2x6	DRY	No.2	JT	4603	0	4603
J - L	2x6	DRY	No.2	O	4452	0	4452
L - N	2x6	DRY	No.2				
N - P	2x6	DRY	No.2				
P - R	2x6	DRY	No.2				
R - S	2x6	DRY	No.2				
S - U	2x6	DRY	No.2				
U - W	2x6	DRY	No.2				
W - Y	2x6	DRY	No.2				
Y - Z	2x6	DRY	No.2				
Z - O	2x6	DRY	No.2				

REINFORCING MEMBERS HW1 2x8 DRY No.2 SPF

ALL WEBS 2x4 DRY No.2 SPF

EXCEPT DRY, SEASONED LUMBER.

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 NBCC 2015, ABC 2019

- PART 4 OF OBC 2012 (2019 AMENDMENT)

- CSA 089-14

- 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 (1.80")

CALCULATED VERT. DEFL.(LL) = U/999 (0.31")

ALLOWABLE DEFL.(TL) = L/180 (3.50")

CALCULATED VERT. DEFL.(TL) = U/999 (0.45")

CS1: TC=0.80/1.00 (F-G-1), BC=0.87/1.00 (Z-AA-1),

WB=1.00/1.00 (G-T-2), SS=0.40/1.00 (F-G-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)

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 (N) (INPUT = 0.90)

JSI METAL= 0.96 (U) (INPUT = 1.00)

LATERAL BRACE(S) SHOWN SHALL BE

2X4 SPF#2

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, CpCo, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM) INTERNAL

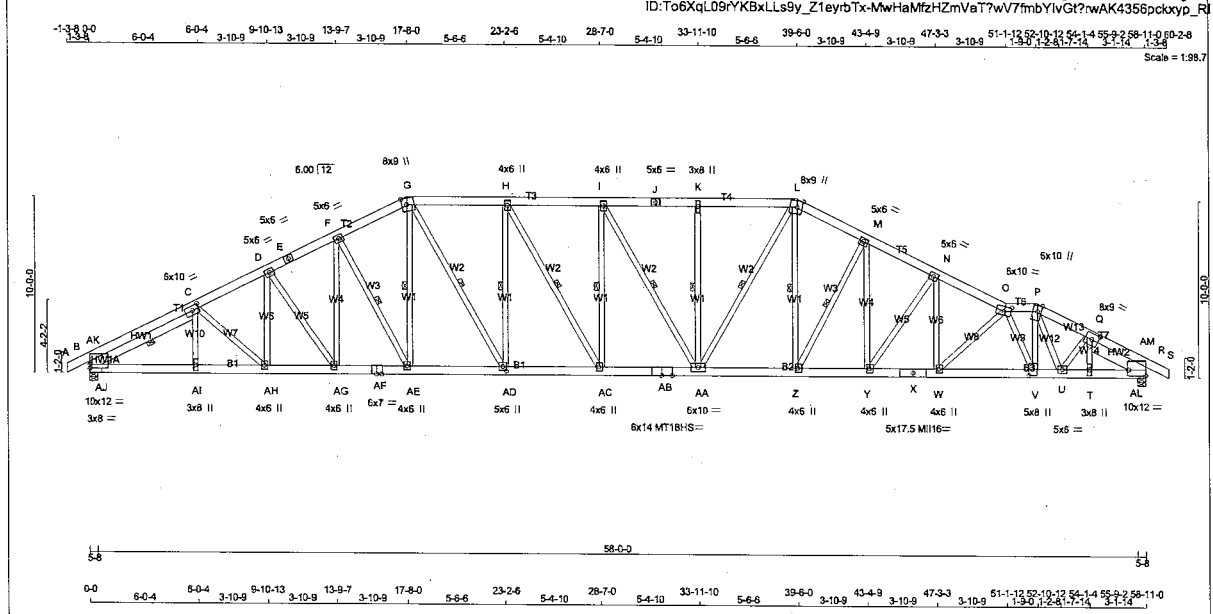
WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON

(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 = 3 X 437 = 1311 lb

LUMBER

CHORDS	SIZE	LUMBER	DESCR.
A - E	2x6	DRY	No.2
E - G	2x6	DRY	No.2
G - J	2x6	DRY	No.2
J - L	2x6	DRY	No.2
L - O	2x6	DRY	No.2
O - P	2x6	DRY	No.2
P - S	2x6	DRY	No.2
B - AF	2x6	DRY	2100F 1.8E
AF - AB	2x6	DRY	2100F 1.8E
AB - X	2x6	DRY	2100F 1.8E
X - R	2x6	DRY	2100F 1.8E

REINFORCING MEMBERS

HW1	2x6	DRY	No.2	SPF
HW2	2x8	DRY	No.2	SPF

ALL WEBS 2x4 DRY SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B TMBMW-1	MT20	10.0	12.0	2.50	
B TP-1	MT20	3.0	8.0	2.50	
C TMBMW-1	MT20	6.0	10.0	3.00	4.75
D, F, M, N					
D TMBMW-1	MT20	5.0	6.0		
E TS-1	MT20	5.0	6.0		
G TMBMW+m	MT20	8.0	9.0	4.25	3.00
H TMBMW+1	MT20	4.0	6.0		
I TMBMW+1	MT20	4.0	6.0		
J TS-1	MT20	5.0	6.0		
K TMBW+m	MT20	3.0	8.0		
L TMBW+m	MT20	6.0	10.0	3.50	4.75
P TMBW+m	MT20	6.0	10.0	4.25	2.75
Q TMBMW-1	MT20	8.0	9.0	4.00	4.25
R TMBMW-1	MT20	10.0	12.0	3.75	Edge
T BMBW+m	MT20	3.0	8.0		
U BMBW-1	MT20	5.0	6.0		
V BMBW-1	MT20	5.0	6.0	4.00	2.25
W, Y, Z, AC, AE, AG, AH					
W BMBW+1	MT20	4.0	6.0		
X BS-1	MT16	5.0	17.5		
AA BMBW-1	MT20	6.0	10.0		
AB BS-1	MT18HS	6.0	14.0		
AD BMBW+1	MT20	5.0	6.0	3.00	2.25
AF BS-1	MT20	6.0	7.0		
AI BMBW+m	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	GROSS REACTION	MAXIMUM FACTORED	INPUT	REQD
JT	VERT	DOWN	HORIZ	UPLIFT
B	5015	0	5015	141
R	5006	0	5006	0

PROVIDE ANCHORAGE AT BEARING JOINT B FOR 217 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT R FOR 235 LBS. FACTORED UPLIFT
PROVIDE FOR 141 LBS. FACTORED HORIZONTAL REACTION AT JOINT B

UNFACTORED REACTIONS

1ST CASE	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
JT	COMBINED					
B	3702	2165 / 0	619 / 0	0 / 0	351 / 745	919 / 0
R	3696	2165 / 0	619 / 0	0 / 0	1021 / 754	912 / 0

HORIZONTAL REACTIONS

B	0 / 0	0 / 0	0 / 0	1011 / 101	0 / 0	0 / 0
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BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, R

BRACING
FOR SECTION G-L, MAX. UNBRACED TOP CHORD LENGTH = 2.00 FT.
FOR OTHER SECTIONS, MAX. UNBRACED TOP CHORD LENGTH = 2.58 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-AE, G-AE, G-AC, H-AD, H-AC, I-AC, I-AA, K-AA, L-AA, L-Z, M-Z, C-AJ.

LOADING
TOTAL LOAD CASES: (18)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PL)	MAX. FACTORED CS (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PL)	MAX. FACTORED CS (LC)
FR-TO				FR-TO			
A-B	0 / 1	-120.3	-120.3	0.09 (1)	10.00	AI-C	0 / 216
B-AK	-5877 / 141	-120.3	-120.3	0.48 (1)	3.21	CAH	-146 / 247
AK-C	-3480 / 225	-120.3	-120.3	0.39 (1)	4.21	AH-D	-64 / 284
C-D	-7988 / 322	-120.3	-120.3	0.46 (1)	2.86	D-AG	-739 / 137
D-E	-7630 / 312	-120.3	-120.3	0.40 (1)	2.98	AG-F	-81 / 717
E-F	-7630 / 312	-120.3	-120.3	0.40 (1)	2.98	FAE	-1153 / 202
F-G	-7143 / 289	-120.3	-120.3	0.39 (1)	3.08	AE-G	-116 / 1279
G-H	-7305 / 263	-132.8	-132.8	0.58 (1)	2.00	GAD	-54 / 1835
H-I	-7630 / 219	-132.8	-132.8	0.50 (1)	2.00	AD-H	-1370 / 120
I-J	-7462 / 284	-132.8	-132.8	0.58 (1)	2.00	HAC	-470 / 1411
J-K	-7462 / 284	-132.8	-132.8	0.58 (1)	2.00	AC-I	-1038 / 555
K-L	-7462 / 283	-132.8	-132.8	0.58 (1)	2.00	IAA	-1186 / 682
L-M	-7505 / 326	-120.3	-120.3	0.39 (1)	2.97	AA-K	-952 / 117
M-N	-8257 / 352	-120.3	-120.3	0.41 (1)	2.82	AN-L	-46 / 1558
N-O	-8043 / 370	-120.3	-120.3	0.51 (1)	2.58	Z-L	-135 / 1705
O-P	-7189 / 337	-120.3	-120.3	0.24 (1)	3.15	Z-M	-1657 / 222
P-Q	-7735 / 361	-120.3	-120.3	0.36 (1)	2.92	Y-M	-89 / 1244
Q-AM	-3589 / 195	-120.3	-120.3	0.13 (1)	4.43	Y-N	-1386 / 167
AM-R	-5487 / 221	-120.3	-120.3	0.19 (1)	3.83	W-N	-29 / 964
R-S	0 / 1	-120.3	-120.3	0.09 (3)	10.00	Q-V	-3567 / 147
						V-P	-67 / 3512
B-AJ	-254 / 3085	-39.5	-39.5	0.18 (1)	6.25	T-Q	-120 / 29
AJ-AI	-324 / 7139	-39.5	-39.5	0.40 (1)	6.25	U-Q	0 / 1046
AI-AH	-325 / 7137	-39.5	-39.5	0.39 (1)	6.25	P-U	-402 / 0
AH-AG	-246 / 7148	-39.5	-39.5	0.38 (1)	6.25	W-U	-1074 / 137
AG-AF	-168 / 6827	-39.5	-39.5	0.37 (1)	6.25	AJ-AK	0 / 3051
AF-AE	-168 / 6827	-39.5	-39.5	0.37 (1)	6.25	AJ-C	-4839 / 84
AE-AD	-75 / 6384	-39.5	-39.5	0.35 (1)	6.25	QAL	-4275 / 149
AD-AC	-38 / 7305	-39.5	-39.5	0.38 (1)	6.25	AL-AM	-49 / 2616
AC-AB	0 / 7630	-39.5	-39.5	0.40 (1)	10.00		
AB-AA	0 / 7630	-39.5	-39.5	0.40 (1)	10.00		
AA-Z	0 / 6715	-39.5	-39.5	0.37 (1)	10.00		
Z-Y	-42 / 7387	-39.5	-39.5	0.40 (1)	6.25		
Y-X	-156 / 8038	-39.5	-39.5	0.43 (1)	6.25		
X-W	-156 / 8038	-39.5	-39.5	0.43 (1)	6.25		
W-V	-254 / 8804	-39.5	-39.5	0.51 (1)	6.25		
V-U	-192 / 7050	-39.5	-39.5	0.40 (1)	6.25		
U-T	-223 / 6344	-39.5	-39.5	0.37 (1)	6.25		
T-AL	-222 / 6342	-39.5	-39.5	0.38 (1)	6.25		
AL-R	-112 / 3189	-39.5	-39.5	0.23 (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_{pe}, C_{pi}, 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.

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 2018, ABC 2019
- PART 4 OF CBC 2012 (2019 AMENDMENT)
- CSA S80-14
- 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 DEFLECTION (LL) = L/360 (1.96")
CALCULATED VERT. DEFLECTION (LL) = U/999 (0.43")
ALLOWABLE DEFLECTION (TL) = L/180 (3.93")
CALCULATED VERT. DEFLECTION (TL) = U/999 (0.82")

CS: TC=0.60/1.00 (H-1), BC=0.51/1.00 (W-1), WB=0.80/1.00 (N-Y-3), SS=0.30/1.00 (G-H-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 LEFT HEEL ONLY

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
MT16 438 302 2547 1256 4283 1816
MT18HS 586 403 2455 1382 3163 3004

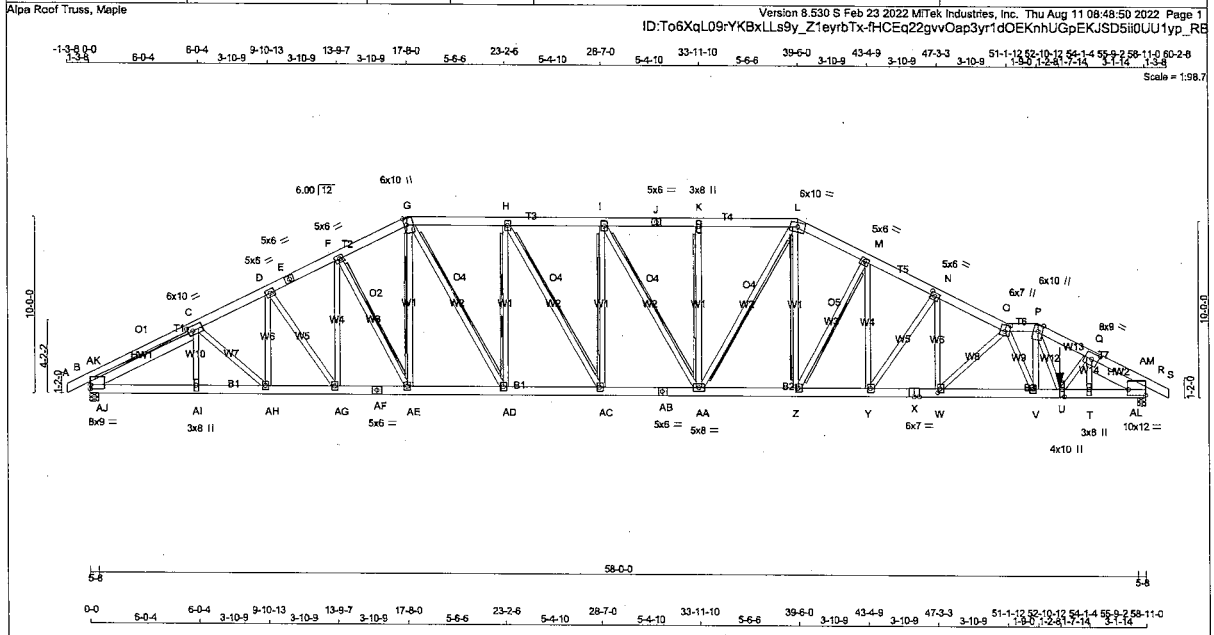
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

.JSI GRIP= 0.88 (P) (INPUT = 0.90)
.JSI METAL= 0.99 (AP) (INPUT = 1.00)

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

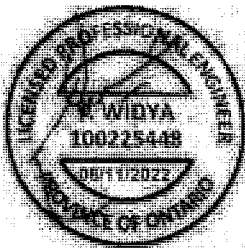


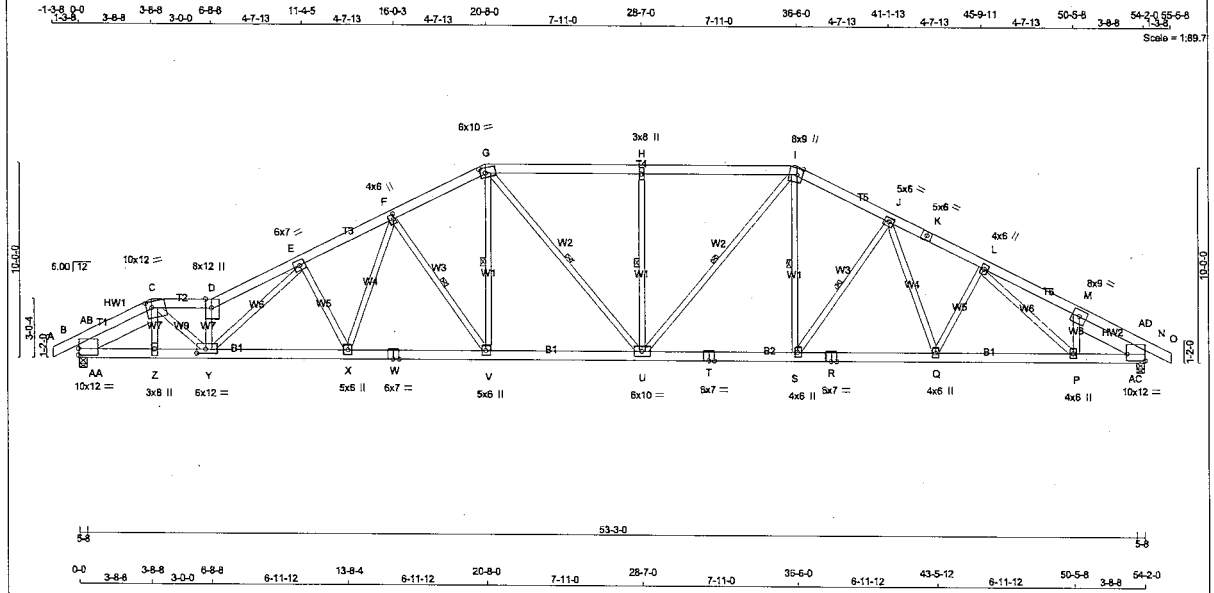


Version 8.530 S Feb 23 2022 Mitek Industries, Inc. Thu Aug 11 08:48:50 2022 Page 1
ID:To6XqL09rYKbXLLs9y_Z1eyrbTx-fHCEq22gvvOap3yr1dOEKnhUGpEKJSD5i0Uu1yp_RS
Scale = 1:98.7
TOTAL WEIGHT = 2 X 437 = 873 lb

LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. SPF A - E 2x8 DRY No.2 SPF E - G 2x8 DRY No.2 SPF G - J 2x8 DRY No.2 SPF J - L 2x8 DRY No.2 SPF L - O 2x8 DRY No.2 SPF O - P 2x8 DRY No.2 SPF P - S 2x8 DRY No.2 SPF S - T 2x8 DRY No.2 SPF T - U 2x8 DRY No.2 SPF U - V 2x8 DRY No.2 SPF V - W 2x8 DRY No.2 SPF W - X 2x8 DRY No.2 SPF X - Y 2x8 DRY No.2 SPF Y - Z 2x8 DRY No.2 SPF REINFORCING MEMBERS HW1 2x8 DRY No.2 SPF HW2 2x8 DRY No.2 SPF ALL WEBS 2x4 DRY 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 A-E 2 12 TOP E-G 2 12 TOP G-J 2 12 TOP J-L 2 12 TOP L-O 2 12 TOP O-P 2 12 TOP P-S 2 12 TOP BOTTOM CHORDS : (0.122"x3") SPIRAL NAILS B-AF 2 12 TOP AF-AB 2 12 TOP AB-X 2 12 TOP X-R 2 12 SIDE(0.0) WEBS : (0.122"x3") SPIRAL NAILS 2x4 1 6 2x6 2 6 2x8 2 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 - PLY SHOWN IS THE EQUIVALENT UDL APPLIED TO ONE SIDE THAT THE CORRESPONDING NAILING PATTERN SHALL BE CAPABLE OF TRANSFERRING. REMAINING PLY MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP. PLATES (table is in inches) JT TYPE PLATES W LEN Y X B TMBMW1-I MT20 8.0 9.0 2.75 C TMBWWW1-I MT20 6.0 10.0 3.00 3.50 D, F, M E TMBWW-I MT20 5.0 6.0 E TS-I MT20 5.0 6.0 G TTBWW-I MT20 6.0 10.0 4.50 1.50 H TMBWW-I MT20 4.0 6.0 I TMBWW-I MT20 4.0 6.0 J TS-I MT20 5.0 6.0 K TMBWW-I 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 GROSS REACTION MAXIMUM FACTORED INPUT REQD JT VERT HORZ DOWN HORZ UPLIFT IN-SX BRG B 5246 0 5317 141 -419 5-8 2-14 R 9136 0 9748 0 -773 5-8 5-5 PROVIDE ANCHORAGE AT BEARING JOINT B FOR 419 LBS FACTORED UPLIFT PROVIDE ANCHORAGE AT BEARING JOINT R FOR 773 LBS FACTORED UPLIFT PROVIDE FOR 141 LBS FACTORED HORIZONTAL REACTION AT JOINT B UNFACTORED REACTIONS 1ST CASE MAX/MIN COMPONENT REACTIONS JT COMBINED SNOW LIVE PERM.LIVE WIND DEAD SOIL B 3864 2376 / 0 867 / 0 0 / 0 267 / -857 869 / 0 0 / 0 R 6737 4445 / 0 1179 / 0 0 / 0 521 / -1530 1521 / 0 0 / 0 HORIZONTAL REACTIONS B 0 / 0 0 / 0 0 / 0 100 / -100 0 / 0 0 / 0 BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, R BRACING 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. 2x4 DRY SPF No.2 T-BRACE AT F-AE, G-AE, H-AD, I-AC, K-AA, L-Z, M-Z, C-AJ 2x6 DRY SPF No.2 T-BRACE AT G-AD, H-AC, I-AA, L-AA 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. LOADING TOTAL LOAD CASES: (18) CHORDS WEBS MEMB. MAX. FACTORED FORCE (LBS) VERT. LOAD (PLF) MAX. FACTORED (PLF) MAX. UNBRACED LENGTH (FT) MEMB. MAX. FACTORED FORCE (LBS) MAX. FACTORED (PLF) FR-TO FROM TO LENGTH FR-TO FROM TO LENGTH A-B 0 / 1 -120.3 -120.3 0.05 (2) 10.00 AI-C 0 / 228 0.02 (17) B-AK -6038 / 383 -120.3 -120.3 0.25 (2) 4.58 AI-D -17 / 435 0.04 (3) AK-C -3649 / 362 -120.3 -120.3 0.23 (2) 5.63 AI-E -186 / 209 0.03 (10) C-D -8439 / 718 -120.3 -120.3 0.16 (1) 4.08 AI-F -670 / 116 0.20 (2) D-E -8100 / 722 -120.3 -120.3 0.16 (2) 4.18 AG-F -41 / 653 0.06 (2) E-F -8100 / 722 -120.3 -120.3 0.16 (2) 4.18 F-AE -1135 / 184 0.34 (2) F-G -7623 / 719 -120.3 -120.3 0.16 (2) 4.28 AE-G -103 / 1236 0.11 (2) G-H -7883 / 742 -120.3 -120.3 0.23 (1) 4.15 G-AD -258 / 2609 0.23 (3) H-I -8397 / 768 -120.3 -120.3 0.25 (1) 4.03 AD-H -2042 / 297 0.84 (3) I-J -8457 / 803 -120.3 -120.3 0.24 (1) 4.02 HAC -148 / 1497 0.13 (3) J-K -8457 / 803 -120.3 -120.3 0.24 (1) 4.02 AD-I -1114 / 199 0.45 (3) K-L -8456 / 803 -120.3 -120.3 0.25 (1) 4.02 I-AA -283 / 558 0.05 (2) L-M -8907 / 839 -120.3 -120.3 0.19 (3) 3.97 AA-K -759 / 167 0.31 (10) M-N -10427 / 926 -120.3 -120.3 0.21 (3) 3.67 AA-L -159 / 1363 0.12 (2) N-O -12505 / 1043 -120.3 -120.3 0.30 (3) 3.29 Z-L -241 / 2875 0.26 (3) O-P -12938 / 1071 -120.3 -120.3 0.22 (3) 3.29 Z-M -3093 / 338 0.94 (3) P-Q -15445 / 1265 -120.3 -120.3 0.46 (3) 2.75 Y-M -218 / 2842 0.25 (3) Q-R -1168 / 602 -120.3 -120.3 0.22 (3) 4.29 Y-N -3285 / 322 0.97 (3) AM-R -10685 / 823 -120.3 -120.3 0.26 (3) 3.55 W-N -202 / 3082 0.27 (3) R-S 0 / 1 -120.3 -120.3 0.05 (3) 10.00 O-V -3324 / 276 0.33 (1) V-P -220 / 3492 0.31 (1) B-AJ -375 / 3231 -39.5 -39.5 0.09 (1) 6.25 T-Q -114 / 1979 0.17 (3) AJ-AI -648 / 7481 -39.5 -39.5 0.23 (2) 6.25 P-U -282 / 3174 0.28 (3) AI-AH -649 / 7479 -39.5 -39.5 0.22 (1) 6.25 W-O -4235 / 394 0.70 (3) AH-AG -601 / 7554 -39.5 -39.5 0.22 (1) 6.25 AI-AK -54 / 3078 0.00 (1) AG-AF -535 / 7247 -39.5 -39.5 0.21 (1) 6.25 AI-C -5168 / 328 0.76 (1) AF-AE -535 / 7247 -39.5 -39.5 0.21 (1) 6.25 QAL -8801 / 669 0.39 (3) AE-AD -450 / 6813 -39.5 -39.5 0.20 (1) 6.25 AL-AM -336 / 4968 0.00 (1) AD-AC -517 / 7883 -39.5 -39.5 0.23 (1) 6.25 AC-AB -528 / 8397 -39.5 -39.5 0.24 (1) 6.25 AB-AA -528 / 8397 -39.5 -39.5 0.24 (1) 6.25 AA-Z -421 / 7385 -39.5 -39.5 0.23 (1) 6.25 Z-Y -575 / 9330 -39.5 -39.5 0.27 (3) 6.25 Y-X -758 / 11195 -39.5 -39.5 0.33 (3) 6.25 X-W -758 / 11195 -39.5 -39.5 0.33 (3) 6.25 W-V -1041 / 14233 -39.5 -39.5 0.42 (3) 6.25 V-U -920 / 12802 -39.5 -39.5 0.44 (3) 6.25 U-T -960 / 12764 -39.5 -39.5 0.44 (3) 6.25 T-AL -960 / 12764 -39.5 -39.5 0.46 (3) 6.25 AL-R -467 / 6289 -39.5 -39.5 0.29 (3) 6.25 FACTORED CONCENTRATED LOADS (LBS) JT LOC. LC1 MAX. MAX. FACE DIR. TYPE HEEL CONN. U 54-1-4 -4634 -5216 412 FRONT VERT TOTAL - C1 CONNECTION REQUIREMENTS 1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED. TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING AS PER NBCC 4.1.6.2 (8)			
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 = 35.1 PSF DL = 5.0 PSF BOT CH. LL = 10.5 PSF DL = 7.4 PSF TOTAL LOAD = 59.0 PSF SPACING = 24.0 IN. C/C LOADING IN ALL FLAT SECTIONS BASED ON A SLOPE OF 9.00/12 *** NON STANDARD GIRDER *** ADDTL USER-DEFINED LOADS APPLIED TO ALL LOAD CASES. 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 (1.98") CALCULATED VERT. DEFL (LL) = U/99 (0.27") ALLOWABLE DEFL (TL) = L/180 (3.33") CALCULATED VERT. DEFL (TL) = U/99 (0.37") CSI: TC=0.46/1.00 (P-Q3), BC=0.46/1.00 (TAL.3), WB=0.97/1.00 (N-Y.3), SSI=0.29/1.00 (R-AL.3) DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.00 COMP=1.00 SHEAR=1.00 TENS=1.00 SNOW LOAD IMPORTANCE FACTOR = 1.00 WIND LOAD IMPORTANCE FACTOR = 1.00 COMPANION LIVE LOAD FACTOR = 1.00 AUTOSOLVE LEFT 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= 0.90 (B) (INPUT = 0.90) JSI METAL= 0.85 (X) (INPUT = 1.00)			



PLATES (table is in inches) <table> <tr> <th>JT TYPE</th><th>PLATES</th><th>W</th><th>LEN</th><th>Y</th><th>X</th></tr> <tr> <td>L TTWW-m</td><td>MT20</td><td>6.0</td><td>10.0</td><td></td><td></td></tr> <tr> <td>N TMWW-t</td><td>MT20</td><td>6.0</td><td>6.0</td><td>2.50</td><td>2.75</td></tr> <tr> <td>O TTWW+m</td><td>MT20</td><td>6.0</td><td>7.0</td><td>4.50</td><td>3.00</td></tr> <tr> <td>P TTWW+m</td><td>MT20</td><td>6.0</td><td>10.0</td><td>Edge</td><td></td></tr> <tr> <td>Q TMWW-t</td><td>MT20</td><td>6.0</td><td>9.0</td><td>4.00</td><td>4.25</td></tr> <tr> <td>R TMBMW-t</td><td>MT20</td><td>10.0</td><td>12.0</td><td>3.75</td><td>Edge</td></tr> <tr> <td>T BMW+w</td><td>MT20</td><td>3.0</td><td>8.0</td><td></td><td></td></tr> <tr> <td>U BMW-t</td><td>MT20</td><td>4.0</td><td>10.0</td><td>5.00</td><td>1.50</td></tr> <tr> <td>V, Y, Z, AC, AD, AE, AG, AH</td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>V BMW-t</td><td>MT20</td><td>4.0</td><td>6.0</td><td></td><td></td></tr> <tr> <td>W BMW-t</td><td>MT20</td><td>4.0</td><td>6.0</td><td>2.75</td><td>1.75</td></tr> <tr> <td>X BS-t</td><td>MT20</td><td>6.0</td><td>7.0</td><td></td><td></td></tr> <tr> <td>AA BMWW-t</td><td>MT20</td><td>5.0</td><td>8.0</td><td></td><td></td></tr> <tr> <td>AB BS-t</td><td>MT20</td><td>5.0</td><td>6.0</td><td></td><td></td></tr> <tr> <td>AF BS-t</td><td>MT20</td><td>5.0</td><td>6.0</td><td></td><td></td></tr> <tr> <td>AI BMW+w</td><td>MT20</td><td>3.0</td><td>8.0</td><td></td><td></td></tr> </table> <p>Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.</p>		JT TYPE	PLATES	W	LEN	Y	X	L TTWW-m	MT20	6.0	10.0			N TMWW-t	MT20	6.0	6.0	2.50	2.75	O TTWW+m	MT20	6.0	7.0	4.50	3.00	P TTWW+m	MT20	6.0	10.0	Edge		Q TMWW-t	MT20	6.0	9.0	4.00	4.25	R TMBMW-t	MT20	10.0	12.0	3.75	Edge	T BMW+w	MT20	3.0	8.0			U BMW-t	MT20	4.0	10.0	5.00	1.50	V, Y, Z, AC, AD, AE, AG, AH						V BMW-t	MT20	4.0	6.0			W BMW-t	MT20	4.0	6.0	2.75	1.75	X BS-t	MT20	6.0	7.0			AA BMWW-t	MT20	5.0	8.0			AB BS-t	MT20	5.0	6.0			AF BS-t	MT20	5.0	6.0			AI BMW+w	MT20	3.0	8.0			CONNECTION REQUIREMENTS <p>1) C1: A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED.</p> <p>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_{pe}, 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.</p>			
JT TYPE	PLATES	W	LEN	Y	X																																																																																																						
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<p>LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2</p> 																																																																																																											



Scale = 1/8" = 1'-0" TOTAL WEIGHT = 356 lb

LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY			
N. L. G. A. RULES				BUILDING DESIGNER			
CHORDS	SIZE	LUMBER	DESCR.	BEARINGS			
A - C	2x6	DRY	No.2	FACTORED			
C - D	2x6	DRY	No.2	GROSS REACTION			
D - G	2x6	DRY	No.2	MAXIMUM FACTORED			
G - I	2x6	DRY	2100F 1.8E	INPUT			
I - K	2x6	DRY	No.2	REQD			
K - O	2x6	DRY	No.2	BRG			
B - W	2x6	DRY	2100F 1.8E	BRG			
W - T	2x6	DRY	2100F 1.8E	DOWN			
T - R	2x6	DRY	2100F 1.8E	HORZ			
R - N	2x6	DRY	2100F 1.8E	UPLIFT			
REINFORCING MEMBERS				IN-SX			
HW1	2x8	DRY	No.2	IN-SX			
HW2	2x8	DRY	No.2	IN-SX			
ALL WEBS 2x4 DRY SEASONED LUMBER.				IN-SX			

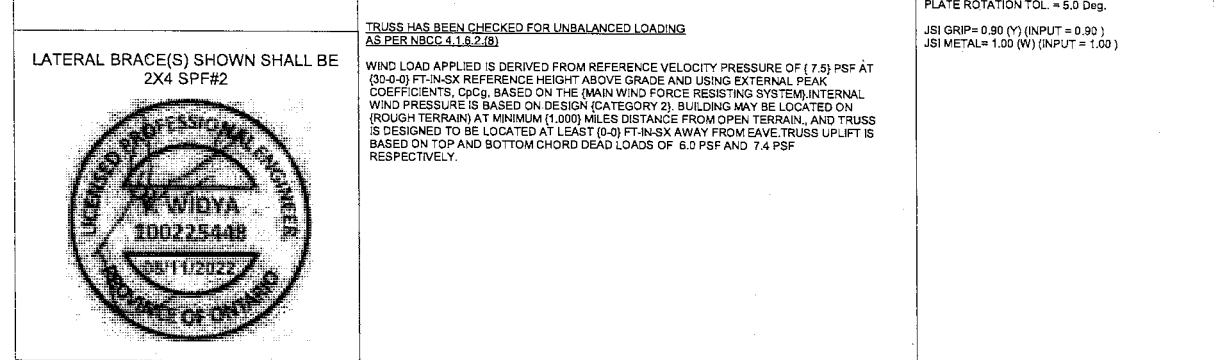
UNFACTORED REACTIONS				DESIGN CRITERIA			
1ST CASE				SPECIFIED LOADS:			
MAX./MIN. COMPONENT REACTIONS				TOP CH. LL = 35.1 PSF			
JT COMBINED				DL = 6.0 PSF			
SNOW				LL = 10.5 PSF			
LIVE				DL = 7.4 PSF			
PERM. LIVE				TOTAL LOAD = 59.0 PSF			
WIND				SPACING = 24.0 IN. C/C			
DEAD				LOADING IN HIGHEST FLAT SECTION BASED ON			
SOIL				PIGGYBACK TRUSS WITH SLOPES OF 6.00/12			
B				AND 8.00/12 AND RESPECTIVE HEEL HEIGHTS			
N				OF 0.0 AND 0.0 AND AN ADDITIONAL DEAD			
HORIZONTAL REACTIONS				LOAD OF 5.0 P.S.F.			
B				LOADING IN OTHER FLAT SECTIONS BASED ON			
N				A SLOPE OF 6.00/12			

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, N.
BRACING
MAX. UNBRACED TOP CHORD LENGTH = 1.95 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-V, G-V, G-U, H-U, I-S, J-S.

LOADING				DESIGN ASSUMPTIONS			
TOTAL LOAD CASES: (18)				SLOPE REDUCTION FACTOR USED			
CHORDS				PERCENTAGE OF GROUND SNOW LOAD IS			
MAX. FACTORED				USER-DEFINED.			
MEMB. FORCE (LBS)				(80% OF 33.4 P.S.F. G.S.L. PLUS 8.4 P.S.F.			
FACTORED				RAIN LOAD) TIMES IMPORTANCE FACTOR			
VERT. LOAD LC1				EQUALS 35.1 P.S.F. SPECIFIED ROOF LIVE			
MAX. (PLF)				LOAD			
CSI (LC)				ALLOWABLE DEFL.(LL) = L/360 (1.81")			
UNBRAC				CALCULATED VERT. DEFL.(LL) = U/999 (0.39")			
FR-TO				ALLOWABLE DEFL.(TL) = L/180 (3.61")			
A-B				CALCULATED VERT. DEFL.(TL) = U/999 (0.56")			
AB-C				CSI: TC=0.84/1.00 (D-E-1), BC=0.57/1.00 (X-Y-1),			
C-D				WB=0.81/1.00 (C-Y-1), SS=0.41/1.00 (H-3)			
D-E				DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10			
E-F				COMP=1.10 SHEAR=1.10 TENS=1.10			
F-G				SNOW LOAD IMPORTANCE FACTOR = 1.00			
G-H				WIND LOAD IMPORTANCE FACTOR = 1.00			
H-I				LIVE LOAD IMPORTANCE FACTOR = 1.00			
I-J				COMPANION LIVE LOAD FACTOR = 1.00			
J-K				AUTOSOLVE HEELS DFF			
K-L				TRUSS PLATE MANUFACTURER IS NOT			
L-M				RESPONSIBLE FOR QUALITY CONTROL IN THE			
M-A				TRUSS MANUFACTURING PLANT.			
A-D				NAIL VALUES			
D-N				PLATE GRIP(DRY) SHEAR SECTION			
N-O				(PSI) (PLI) (PLI)			
B-AA				MAX MIN MAX MIN MAX MIN			
AA-Z				MT20 650 371 1747 788 1987 1873			
Z-Y				PLATE PLACEMENT TOL. = 0.250 inches			
Y-X				PLATE ROTATION TOL. = 5.0 Deg.			
X-W				JSI GRIP= 0.90 (Y) (INPUT = 0.90)			
W-V				JSI METAL= 1.00 (W) (INPUT = 1.00)			
V-U							
U-T							
T-S							
S-R							
R-Q							
Q-P							
P-A							
A-N							

Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2

TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING				WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF (7.5) PSF AT			
AS PER NBCC 4.16.2 (8)				(30-0) FT IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK			
CHORDS				COEFFICIENTS, C _{pe} , BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM), INTERNAL			
MAX. FACTORED				WIND PRESSURE IS BASED ON DESIGN (CATEGORY 2). BUILDING MAY BE LOCATED ON			
MEMB. FORCE (LBS)				(ROUGH TERRAIN) AT MINIMUM (1,000) MILES DISTANCE FROM OPEN TERRAIN, AND TRUSS			
FACTORED				IS DESIGNED TO BE LOCATED AT LEAST (0-0) FT IN-SX AWAY FROM EAVE. TRUSS UPLIFT IS			
VERT. LOAD LC1				BASED ON TOP AND BOTTOM CHORD DEAD LOADS OF 6.0 PSF AND 7.4 PSF			
MAX. (PLF)				RESPECTIVELY.			
CSI (LC)							
UNBRAC							
FR-TO							
A-B							
AB-C							
C-D							
D-E							
E-F							
F-G							
G-H							
H-I							
I-J							
J-K							
K-L							
L-M							
M-A							
A-D							
D-N							
N-O							
B-AA							
AA-Z							
Z-Y							
Y-X							
X-W							
W-V							
V-U							
U-T							
T-S							
S-R							
R-Q							
Q-P							
P-A							
A-N							






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

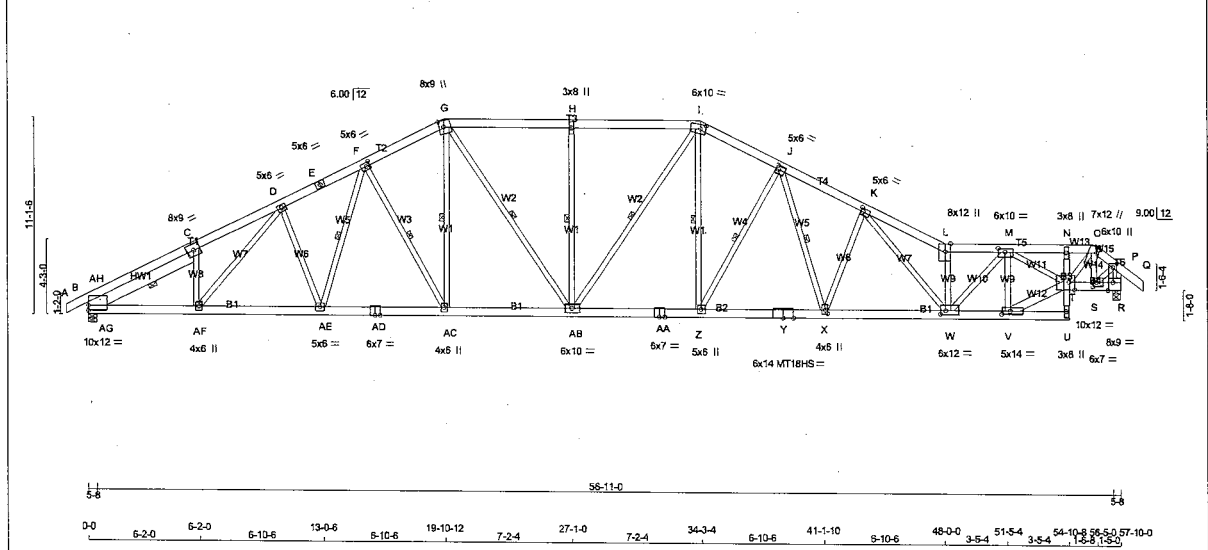
TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING
AS PER NBCC 4.1.6.2.(8)

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF (7.5) PSF AT (30-0) FT-TIN-INSURANCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, C_{pe} , BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM); INTERNAL COEFFICIENTS, C_{pi} , ARE BASED ON DESIGN CATEGORY 2; BUILDING MAY BE LOCATED ON (ROUGH TERRAIN) AT MINIMUM DISTANCE OF (100) FEET FROM TERRAIN; AND TRUSS IS DESIGNED TO BE LOCATED AT MINIMUM (0-0) FT-TIN-INSURANCE FROM EAVE; UPLIFT IS BASED ON TOP AND BOTTOM CHORD DEAD LOADS OF 6.0 PSF AND 7.4 PSF RESPECTIVELY.

JSI GRIP= 0.89 (G) (INPUT = 0.90)
JSI METAL= 0.93 (R) (INPUT = 1.00)



Professional Engineer
W. WIDYA
100225448
09/11/2002
Province of Ontario



Scale = 1:50.1

TOTAL WEIGHT = 408 lb

LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY				DESIGN CRITERIA			
N. L. G. A. RULES				BUILDING DESIGNER				SPECIFIED LOADS:			
CHORDS	SIZE	LUMBER	DESCR.	BEARINGS				TOP CH.	LL	LL	PSF
A - E	2x6	DRY	No.2	FACTORED	MAXIMUM FACTORED	INPUT	REQD	DL	LL	LL	PSF
E - G	2x6	DRY	No.2	VERT	GROSS REACTION	BRG	BRG	DL	LL	LL	PSF
G - I	2x6	DRY	No.2	JT	4881 0	4881 187	-233 5-8	DL	LL	LL	PSF
I - L	2x6	DRY	No.2	R	4878 0	4878 0	-263 5-8	DL	LL	LL	PSF
L - O	2x6	DRY	No.2	PROVIDE ANCHORAGE AT BEARING JOINT B FOR 233 LBS. FACTORED UPLIFT				DL	LL	LL	PSF
O - Q	2x6	DRY	No.2	PROVIDE ANCHORAGE AT BEARING JOINT R FOR 263 LBS. FACTORED UPLIFT				DL	LL	LL	PSF
Q - R	2x6	DRY	No.2	PROVIDE FOR 187 LBS. FACTORED HORIZONTAL REACTION AT JOINT B				DL	LL	LL	PSF
R - P	2x6	DRY	No.2	UNFACTORED REACTIONS				DL	LL	LL	PSF
B - AD	2x6	DRY	2100F 1.8E	1ST CASE	MAX. MIN. COMPONENT REACTIONS			DL	LL	LL	PSF
AD - AA	2x6	DRY	2100F 1.8E	JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
AA - Y	2x6	DRY	2100F 1.8E	B	3601	2126 / 0	607 / 0	0 / 0	87 / -724	868 / 0	0 / 0
Y - U	2x6	DRY	2100F 1.8E	R	3598	2131 / 0	607 / 0	0 / 0	126 / -745	860 / 0	0 / 0
U - N	2x4	DRY	No.2	HORIZONTAL REACTIONS				DL	LL	LL	PSF
N - T	2x6	DRY	2100F 1.8E	B	---	0 / 0	0 / 0	0 / 0	133 / -88	0 / 0	0 / 0
T - R	2x6	DRY	2100F 1.8E	BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, R				DL	LL	LL	PSF
REINFORCING MEMBERS				BRACING				LOADING IN HIGHEST FLAT SECTION BASED ON			
HW1	2x8	DRY	No.2	MAX. UNBRACED TOP CHORD LENGTH = 1.95 FT.				PIGGYBACK TRUSS WITH SLOPES OF 6.00/12			
ALL WEBS				MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.				AND 6.00/12 AND RESPECTIVE HEEL HEIGHTS			
EXCEPT				ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.				OF 0-0 AND 0-0 AND AN ADDITIONAL DEAD			
Z - J	2x4	DRY	2100F 1.8E	END VERTICAL(S) MUST BE SHEATHED OR HAVE BRACES AS INDICATED IN				LOAD OF 5.0 P.S.F.			
V - T	2x6	DRY	2100F 1.8E	THE MAX. UNBRACED LENGTH COLUMN OF THE TABLE BELOW				LOADING IN OTHER FLAT SECTIONS BASED ON			
DRY: SEASONED LUMBER.				LOADING				A SLOPE OF 6.00/12			
				TOTAL LOAD CASES: (18)				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.			
								- OVERHANG NOT TO BE ALTERED OR CUT OFF.			
								(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 (1.53")			
								CALCULATED VERT. DEFL.(LL) = U/999 (0.47")			
								ALLOWABLE DEFL.(TL) = L/180 (3.86")			
								CALCULATED VERT. DEFL.(TL) = U/959 (0.66")			
								CSI: TC=0.88/1.00 (G-H-1), BC=0.55/1.00 (W-X-1),			
								WB=0.38/1.00 (K-X-3), SSI=0.38/1.00 (G-H-2)			
								DOL LUMBER=1.00 NAIL=1.00 LS BENO=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) (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 (W) (INPUT = 0.90)			
								JSI METAL= 0.99 (L) (INPUT = 1.00)			

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMBMW-1	MT20	10.0	12.0	3.50	
C	TMBMW-1	MT20	8.0	9.0		
D	TMBMW-1	MT20	5.0	6.0		
E	TS-1	MT20	5.0	6.0		
F	TMBMW-1	MT20	5.0	6.0	2.50	2.50
G	TTWW-m	MT20	8.0	9.0	Edge	3.25
H	TMBW-hw	MT20	3.0	8.0		
I	TTWW-m	MT20	5.0	10.0	3.00	3.25
J	TMBMW-1	MT20	5.0	6.0	2.50	1.50
K	TMBMW-1	MT20	5.0	6.0	2.50	1.75
L	TTW-p	MT20	8.0	12.0	Edge	3.50
M	TMBMW-1	MT20	8.0	10.0	2.50	4.50
N	TMV-p	MT20	3.0	8.0		
O	TTWW-hm	MT20	7.0	12.0	4.00	1.75
P	TMBW-p	MT20	6.0	10.0	2.75	2.75
R	BMV-1	MT20	8.0	9.0	Edge	3.50
S	TMBMW-1	MT20	6.0	7.0	3.00	2.50
T	BVMBW-1	MT20	10.0	12.0	5.25	3.75
U	BVW-p	MT20	3.0	8.0		
V	TMBW-1	MT20	5.0	14.0	2.25	5.75
W	BVMBW-1	MT20	6.0	12.0	2.50	3.50
X	BVMBW-1	MT20	4.0	6.0	2.50	1.25
Y	BS-1	MT18HS	6.0	14.0		
Z	BVMBW-1	MT20	5.0	6.0		
AA	BS-1	MT20	6.0	7.0		
AB	BVMBW-1	MT20	6.0	10.0		
AC	BVMBW-1	MT20	4.0	6.0		
AD	BS-1	MT20	6.0	7.0		
AE	BVMBW-1	MT20	5.0	6.0		
AF	BVMBW-1	MT20	4.0	6.0		

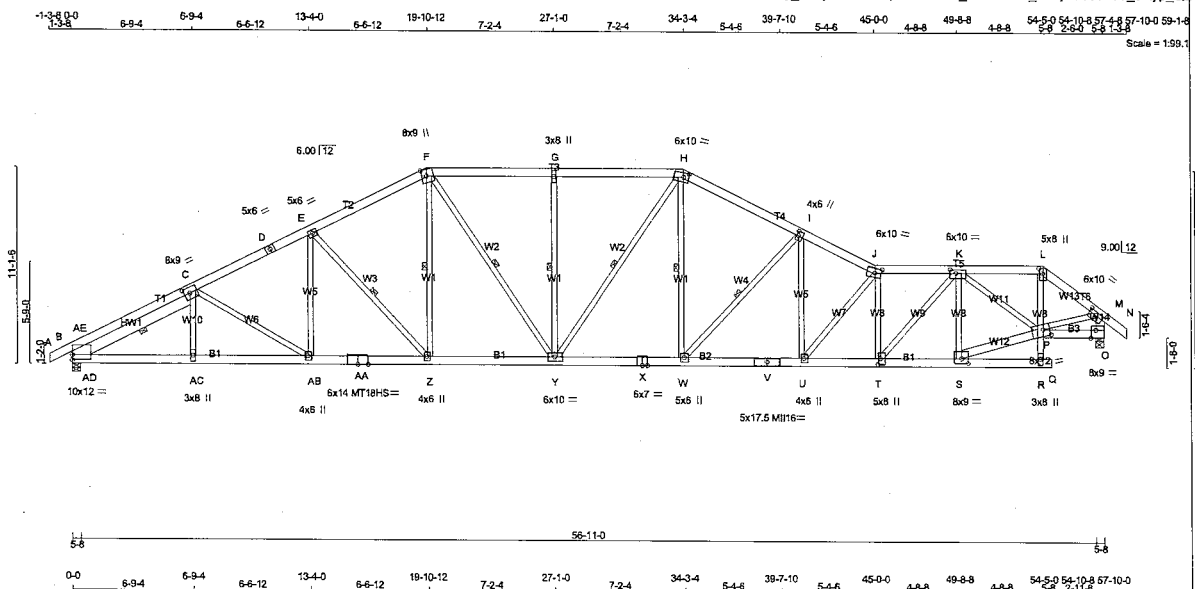
Edge - INDICATES REFERENCE CORNER OF PLATE TOUCHES EDGE OF CHORD.

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

LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2	AG-AF	-385 / 8939	-39.5	-39.5	0.38 (1)	6.25	V-T	-344 / 7994	0.38 (1)	NAIL VALUES						
	AF-AE	-310 / 5851	-39.5	-39.5	0.33 (1)	6.25	M-	-1060 / 52	0.19 (1)	PLATE GRIP(DRY) SHEAR SECTION						
	AE-AD	-211 / 6412	-39.5	-39.5	0.38 (1)	6.25	AG-AH	0.0 / 2464	0.47 (1)	(PS)						
	AD-AC	-211 / 6412	-39.5	-39.5	0.38 (1)	6.25	AG-C	4313 / 74		MAX MIN	MAX MIN	MAX MIN	MAX MIN			
	AC-AB	-95 / 5857	-39.5	-39.5	0.34 (1)	6.25				MT20	650	371	1747	798	1387	1873
	AB-AA	-2 / 6254	-39.5	-39.5	0.35 (1)	10.00				MT18HS	586	403	2455	1382	3163	3004
	AA-Z	-2 / 6254	-39.5	-39.5	0.35 (1)	10.00				PLATE PLACEMENT TOL. = 0.250 inches						
	Z-Y	-138 / 7243	-39.5	-39.5	0.42 (1)	6.25				PLATE ROTATION TOL. = 5.0 Deg.						
	Y-X	-138 / 7243	-39.5	-39.5	0.42 (1)	6.25				JS: GRIP = 0.90 (W) (INPUT = 0.90)						
	X-W	-275 / 8454	-39.5	-39.5	0.55 (1)	6.25				JS: METAL = 0.99 (L) (INPUT = 1.00)						
	W-V	-310 / 7181	-39.5	-39.5	0.48 (1)	6.25										
	V-U	-3 / 58	-39.5	-39.5	0.08 (1)	10.00										
	U-T	-31 / 45	0.0	0.0	0.13 (1)	7.81										
	T-N	-9 / 189	0.0	0.0	0.15 (1)	10.00										
	T-S	-99 / 3149	-39.5	-39.5	0.22 (1)	6.25										

Alpa Roof Truss, Maple

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LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
A - D	2x6	DRY	No.2
D - F	2x6	DRY	No.2
F - H	2x6	DRY	No.2
H - J	2x6	DRY	No.2
J - L	2x6	DRY	No.2
L - N	2x6	DRY	No.2
O - M	2x6	DRY	No.2
D - AA	2x6	DRY	2100F 1.8E
AA - X	2x6	DRY	2100F 1.8E
X - V	2x6	DRY	2100F 1.8E
V - O	2x6	DRY	2100F 1.8E
P - O	2x6	DRY	2100F 1.8E
REINFORCING MEMBERS			
HW1	2x8	DRY	No.2
EXCEPT			
ALL WEBS	2x4	DRY	No.2
W - I	2x4	DRY	2100F 1.8E
U - J	2x4	DRY	2100F 1.8E
S - P	2x6	DRY	2100F 1.8E

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B TMBWW-I	MT20	10.0	12.0	3.50	
C TMBWW-I	MT20	8.0	9.0	3.75	4.00
D TS-I	MT20	5.0	6.0		
E TMBWW-I	MT20	5.0	6.0		
F TMBWW-m	MT20	8.0	9.0	Edge	3.25
G TMBWW-m	MT20	3.0	8.0		
H TMBWW-m	MT20	6.0	10.0	3.00	3.25
I TMBWW-m	MT20	4.0	6.0	3.00	1.00
J TMBWW-m	MT20	6.0	10.0	3.25	4.25
K TMBWW-I	MT20	6.0	10.0	2.50	3.75
L TMBWW-p	MT20	5.0	8.0	3.50	2.50
M TMBWW-I	MT20	6.0	10.0	2.50	5.00
O BMY-I	MT20	8.0	9.0	Edge	3.50
P BMYWWW-m	MT20	8.0	12.0	4.50	4.50
R BMYWW	MT20	3.0	8.0		
S BMYWW-I	MT20	8.0	9.0	3.25	4.50
T BMYWW-I	MT20	5.0	8.0	4.00	1.75
U, Z, AB					
V BMYWW-I	MT20	4.0	6.0		
W BS-I	MT20	5.0	17.5		
X BMYWW-I	MT20	5.0	6.0		
Y BS-I	MT20	6.0	7.0		
AA BS-I	MT20	6.0	10.0		
AC BMYWW	MT20	3.0	8.0		

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

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	DOWN	UP	IN-SX
B 4885	0	4885	206
O 4902	0	4902	0

PROVIDE ANCHORAGE AT BEARING JOINT B FOR 232 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT O FOR 260 LBS FACTORED UPLIFT
PROVIDE FOR 206 LBS FACTORED HORIZONTAL REACTION AT JOINT B

UNFACTORED REACTIONS			
1ST CASE	MAX/MIN	COMPONENT REACTIONS	
JT COMBINED	SNOW	LIVE	PERM LIVE
B 3604	2127 / 0	808 / 0	0 / 0
O 3619	2130 / 0	621 / 0	0 / 0

HORIZONTAL REACTIONS
B 0 / 0
O 0 / 0

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

BRACING
FOR SECTION F-H, MAX. UNBRACED TOP CHORD LENGTH = 2.00 FT.
FOR OTHER SECTIONS, MAX. UNBRACED TOP CHORD LENGTH = 2.42 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 6.25 FT. OR RIGID CEILING DIRECTLY APPLIED.
MAX. UNBRACED INTERIOR CHORD LENGTH = 7.81 FT
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

1 LATERAL BRACE(S) AT 1/2 LENGTH OF E-Z, F-Z, F-Y, G-Y, H-Y, H-W, I-W, C-AD.
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			
MEMB.	FORCE (LBS)	FACTORED (LBS)	MAX. FACTORED (LBS)
FR-TO			
A-B	0 / 1	-120.3 -120.3	0.09 (1)
B-AE	-5761 / 197	-120.3 -120.3	0.38 (1)
AE-C	-3894 / 273	-120.3 -120.3	0.35 (2)
C-D	-7482 / 328	-120.3 -120.3	0.78 (1)
D-E	-7482 / 328	-120.3 -120.3	0.78 (1)
E-F	-6577 / 297	-120.3 -120.3	0.69 (1)
F-G	-6545 / 294	-132.8 -132.8	0.88 (1)
G-H	-6545 / 294	-132.8 -132.8	0.88 (1)
H-I	-7015 / 342	-120.3 -120.3	0.66 (1)
I-J	-8674 / 423	-120.3 -120.3	0.67 (1)
J-K	-8847 / 455	-120.3 -120.3	0.59 (1)
K-L	-4478 / 283	-120.3 -120.3	0.34 (3)
L-M	-5405 / 287	-120.3 -120.3	0.25 (1)
M-N	0 / 53	-120.3 -120.3	0.09 (3)
O-M	-4829 / 284	0.0	0.0
WEBS			
MEMB.	FORCE (LBS)	MAX. FACTORED (LBS)	CSI (LC)
FR-TO			
AC-C	0 / 329	0.06 (17)	
C-AB	-629 / 148	0.52 (2)	
AB-E	0 / 593	0.10 (2)	
E-Z	-1528 / 246	0.75 (2)	
Z-F	-51 / 1441	0.23 (2)	
F-Y	-125 / 1723	0.28 (3)	
Y-G	-1159 / 98	0.68 (1)	
G-H	-470 / 1188	0.44 (10)	
H-W	-125 / 2141	0.34 (3)	
W-I	-2502 / 295	0.77 (3)	
I-U	-58 / 1702	0.27 (3)	
U-J	-1868 / 170	0.66 (3)	
J-T	-2854 / 133	0.89 (1)	
S-K	-2057 / 153	0.84 (1)	
R-P	0 / 111	0.07 (1)	
P-L	-76 / 2824	0.52 (1)	
P-M	-141 / 4467	0.72 (1)	
S-P	-246 / 6736	0.32 (1)	
K-P	-2392 / 134	0.91 (1)	
T-K	-104 / 3846	0.62 (1)	
AD-AE	0 / 2440	0.00 (1)	
AD-C	-4285 / 64	0.59 (1)	
X-W	-2 / 6270	-39.5 -39.5	0.36 (1)
W-V	-199 / 7810	-39.5 -39.5	0.43 (1)
V-U	-199 / 7810	-39.5 -39.5	0.43 (1)
U-T	-305 / 8926	-39.5 -39.5	0.50 (1)
T-S	-233 / 6336	-39.5 -39.5	0.37 (1)
S-R	-3 / 24	-39.5 -39.5	0.07 (4)
R-Q	0 / 0	-39.5 -39.5	0.00 (17)
P-O	-5 / 11	-39.5 -39.5	0.03 (17)

TRUSS HAS BEEN CHECKED FOR UNBALANCED LOADING AS PER NBCC 4.1.6.2 (9)

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 (0-0) FT-IN-SX AWAY FROM LEAVE TRUSS UPLIFT IS BASED ON TOP AND BOTTOM CHORD DEAD LOADS OF 6.0 PSF AND 7.4 PSF RESPECTIVELY.

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 HIGHEST FLAT SECTION BASED ON PIGGYBACK TRUSS WITH SLOPES OF 6.00/12 AND -6.00/12 AND RESPECTIVE HEEL HEIGHTS OF 9.0 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 NBC 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.

(80 % OF 33.4 P.S.F. G.S.I. 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 (1.93")
CALCULATED VERT. DEFL.(LL) = L/999 (0.41")
ALLOWABLE DEFL.(TL) = L/80 (3.86")
CALCULATED VERT. DEFL.(TL) = L/999 (0.58")

CSI: TC=0.98/1.00 (G-H-I), BC=0.50/1.00 (T-U-I), WB=0.91/1.00 (K-P-I), SS=0.38/1.00 (F-G-Z)

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.

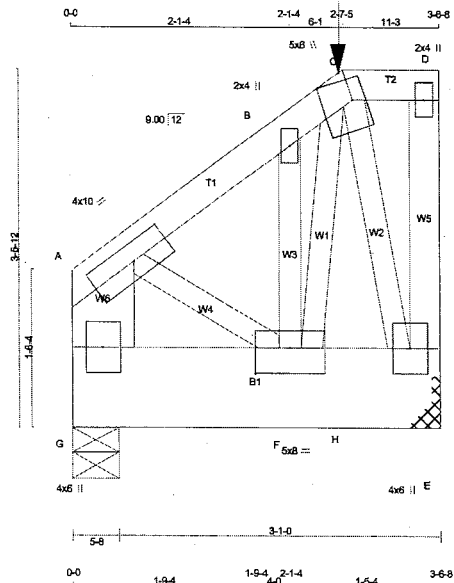
NAIL VALUES			
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PSI)	(PLI)
MT20	650	371	1767
MT18HS	586	403	2455
MT16	438	302	2547

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (K) (INPUT = 0.90)

JSI METAL= 0.96 (S) (INPUT = 1.00)



Scale = 1:17.0

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - D	2x4	DRY	No.2
E - D	2x4	DRY	No.2
G - A	2x8	DRY	No.2
G - E	2x10	DRY	No.2

ALL WEBS 2x3 DRY No.2 SPF
EXCEPT
DRY: SEASONED LUMBER.

DESIGN CONSISTS OF 3 TRUSSES BUILT SEPARATELY THEN FASTENED TOGETHER AS FOLLOWS:

CHORDS #ROWS	SURFACE SPACING (IN)	LOAD (PLF)
TOP CHORDS: (0.122'X3') SPIRAL NAILS		
A-C 1	12	SIDE(105.2)
C-D 1	12	SIDE(91.9)
D-E 1	12	TOP
G-A 2	12	TOP
BOTTOM CHORDS: (0.122'X3') SPIRAL NAILS		
G-E 5	4	SIDE(1555.9)
WEBS: (0.122'X3') SPIRAL NAILS		
2x3 1	6	

STAGGER NAILS BY HALF THE SURFACE SPACING IN ADJACENT PLIES.

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
A	TMWV-t	MT20	4.0	10.0	2.00	4.50
B	TMWV-w	MT20	2.0	4.0		
C	TTWV-w	MT20	5.0	6.0	Edge	3.50
D	TMV-t	MT20	2.0	4.0		
E	BMWV-t	MT20	4.0	6.0		
F	BMWV-w	MT20	5.0	8.0	3.00	4.00
G	BMV-t	MT20	4.0	6.0		

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 GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
JT	4687	4687	0	0
E	4687	4687	0	0
G	4521	4521	92	130

A SUITABLE HANGER/MECHANICAL CONNECTION IS REQUIRED AT JOINT E. MINIMUM BEARING LENGTH AT JOINT E = 1-11.

PROVIDE ANCHORAGE AT BEARING JOINT E FOR 205 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT G FOR 160 LBS. FACTORED UPLIFT

PROVIDE FOR 92 LBS. FACTORED HORIZONTAL REACTION AT JOINT G

UNFACTORED REACTIONS	1ST LCASE	MAX MIN. COMPONENT REACTIONS
JT	COMBINED	SNOW LIVE PERM. LIVE WIND DEAD SOIL
E	3422	2179 / 0 544 / 0 0 / 0 625 / -596 699 / 0 0 / 0
G	3310	2080 / 0 544 / 0 0 / 0 573 / -533 686 / 0 0 / 0
HORIZONTAL REACTIONS	G	0 / 0 0 / 0 0 / 0 66 / -48 0 / 0 0 / 0

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

BRACING
MAX. UNBRACED TOP CHORD LENGTH = 6.25 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.

LOADING

TOTAL LOAD CASES: (18)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CS1 (LC)	UNBRAC LENGTH	FR-TO	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CS1 (LC)
A-B	-1318 / 57	-120.3	-120.3	0.06 (3)	6.25	C-E	-2090 / 117	0.13 (1)		
B-C	-1207 / 98	-120.3	-120.3	0.06 (3)	6.25	A-F	-53 / 1133	0.09 (1)		
C-D	-13 / 33	-222.4	-222.4	0.01 (3)	6.25	F-B	-20 / 218	0.02 (3)		
D-E	-112 / 22	0.0	0.0	0.01 (13)	7.81	F-C	-91 / 2359	0.18 (2)		
G-A	-1408 / 48	0.0	0.0	0.02 (1)	7.81					
G-F	-81 / 83	-2399.2	-2399.2	0.20 (1)	6.25					
F-H	-46 / 589	-2399.2	-2399.2	0.16 (1)	6.25					
H-E	-46 / 589	-2399.2	-2399.2	0.16 (1)	6.25					

FACTORED CONCENTRATED LOADS (LBS)
JT LOC. LC1 MAX. MAX+ FACE DIR. TYPE HEEL CDNN.
C 2-7-15 -195 -215 49 BACK VERT TOTAL C1

CONNECTION REQUIREMENTS

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

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

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 (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 = 3 X 27 = 82 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

LOADING IN FLAT SECTION BASED ON A SLOPE OF 6.00/12

GIRDER TYPE: CSHGirder
START DISTANCE = 0-0
START SPAN CARRIED = 53-11-0
END DISTANCE = 3-6-8
END SPAN CARRIED = 53-11-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDTL LOADS BASED ON 100 % OF GSL.

GIRDER TYPE: CPrimeHip
LEFT SETBACK = 2-7-15
RIGHT SETBACK = 0-0
END SETBACK = 4-7-8
END WALL WIDTH = 0-0
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO BACK SIDE
- ADDTL LOADS BASED ON 100 % OF GSL.

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 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/180 (0.24")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CS1: TC=0.06/1.00 (A-B-3), BC=0.20/1.00 (F-G-1), WB=0.18/1.00 (C-F-2), SS=0.47/1.00 (F-G-1)

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

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.

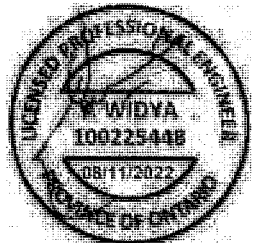
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

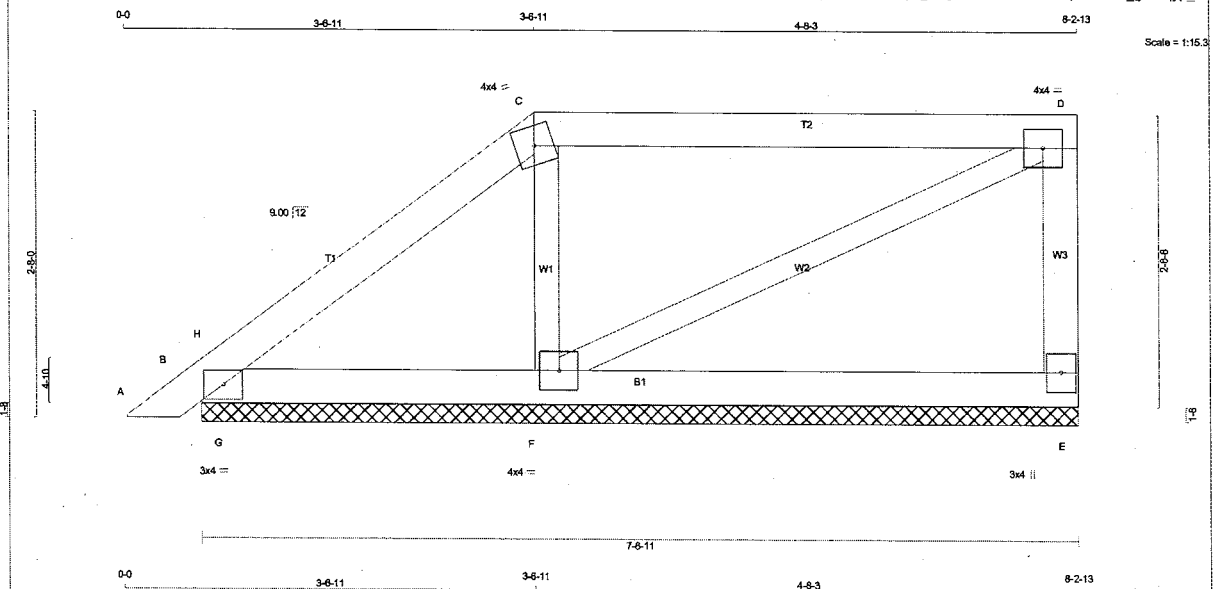
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.73 (C) (INPUT = 0.90)
JSI METAL= 0.19 (F) (INPUT = 1.00)

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





Scale = 1:15.3 TOTAL WEIGHT = 2 X 27 = 53 lb

LUMBER
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - D	2x4	DRY	No.2
E - D	2x4	DRY	No.2
B - E	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-m	MT20	4.0	4.0	
D	TMW-t	MT20	4.0	4.0	
E	BMV1-p	MT20	3.0	4.0	
F	BMWV1-t	MT20	4.0	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	IN-SX	IN-SX
E	270	0	270	0	0	7-6-11	1-8	7-6-11	1-8
B	239	0	239	0	0	7-6-11	1-8	7-6-11	1-8
F	406	0	406	0	0	7-6-11	1-8	7-6-11	1-8

UNFACTORED REACTIONS

1ST LCASE	MAX/MIN COMPONENT REACTIONS						
JT	COMBINED	SNOW	LIVE	PERMLIVE	WIND	DEAD	SOIL
E	189	132/0	0/0	0/0	0/0	57/0	0/0
B	186	125/0	0/0	0/0	0/0	40/0	0/0
F	289	177/0	0/0	0/0	0/0	112/0	0/0

BEARING MATERIAL IS TO BE SPREAD FOR BETTER MIX (CONTINUED)

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) E, B, 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. UNBRACED LENGTH (FT)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (FT)	CS1 (LC)
A-B	0/15	-95.2	0.02 (1)	10.00	F-C	-302/0	0.05 (1)
B-H	0/8	-95.2	0.04 (1)	10.00	F-D	0/35	0.01 (1)
H-C	-84/0	-95.2	0.09 (1)	6.25	G-H	-242/0	0.00 (1)
C-D	-32/0	-95.2	0.36 (1)	6.25			
E-D	-238/0	0.0	0.03 (1)	7.81			
B-G	0/46	-18.5	0.09 (1)	10.00			
G-F	0/46	-18.5	0.09 (4)	10.00			
F-E	0/0	-18.5	0.09 (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. OC

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 NBCC 2015, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPC 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

CS1: TC=0.36/1.00 (C-D-1), BC=0.09/1.00 (F-G-4), WB=0.05/1.00 (C-F-1), SS=0.18/1.00 (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) (PL) (PL)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

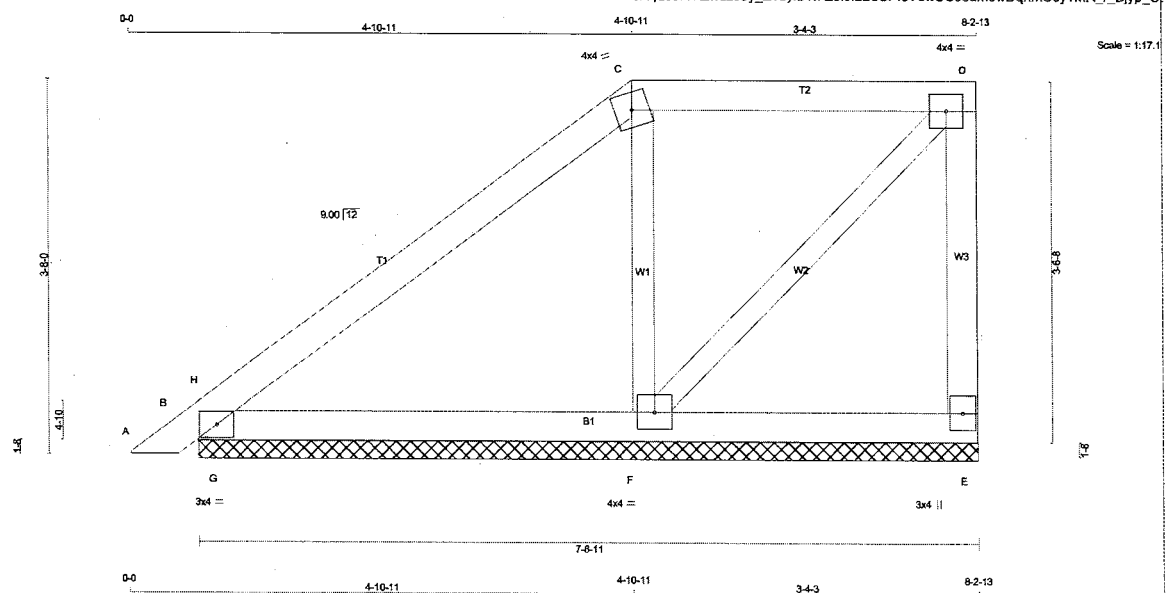
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.20 (B) (INPUT = 0.90)
JSI METAL= 0.04 (F) (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 - D	2x4	DRY	No.2
E - D	2x4	DRY	No.2
B - E	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	TM61-t	MT20	3.0	4.0		
C	TTW-m	MT20	4.0	4.0		
D	TMVW-t	MT20	4.0	4.0		
E	BMV1-p	MT20	3.0	4.0		
F	BMVW1-t	MT20	4.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG IN-SX	REQD BRG IN-SX
	VERT	HORZ	DOWN	UP/LIFT		
E	219	0	219	0	7-6-11	1-8
B	326	0	326	0	7-6-11	1-8
F	368	0	368	0	7-6-11	1-8

UNFACTORED REACTIONS

JT	COMBINED	MAX./MIN. COMPONENT REACTIONS				
		SNOW	LIVE	PERM.LIVE	WIND	DEAD
E	154	109/0	0/0	0/0	0/0	45/0
B	228	163/0	0/0	0/0	0/0	66/0
F	262	163/0	0/0	0/0	0/0	99/0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) E, B, 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)	LC1	MAX	CS1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1	MAX	CS1 (LC)
FR-TO		FROM	TO			FR-TO		FROM	TO		
A-B	0/15	-95.2	-95.2	0.02 (1)	10.00	F-C	-264/0	0.06 (1)			
B-H	-21/91	-95.2	-95.2	0.11 (1)	6.25	F-D	0/73	0.02 (1)			
H-C	-87/0	-95.2	-95.2	0.21 (1)	6.25	G-H	-459/0	0.00 (1)			
C-D	-52/0	-95.2	-95.2	0.18 (1)	6.25						
E-D	-211/0	0.0	0.0	0.04 (1)	7.81						
B-G	0/61	-18.5	-18.5	0.18 (1)	10.00						
G-F	0/61	-18.5	-18.5	0.18 (1)	10.00						
F-E	0/0	-18.5	-18.5	0.10 (1)	10.00						

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 26.7 PSF
DL = 8.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 40.1 PSF

SPACING = 24.0 IN. CC

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

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

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

(55 % OF 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=0.21/1.00 (C-H:1), BC=0.18/1.00 (B-G:1), WB=0.06/1.00 (C-F:1), SS=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

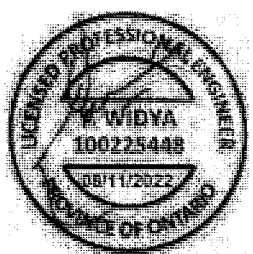
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PL)
MT20	650	371	1747

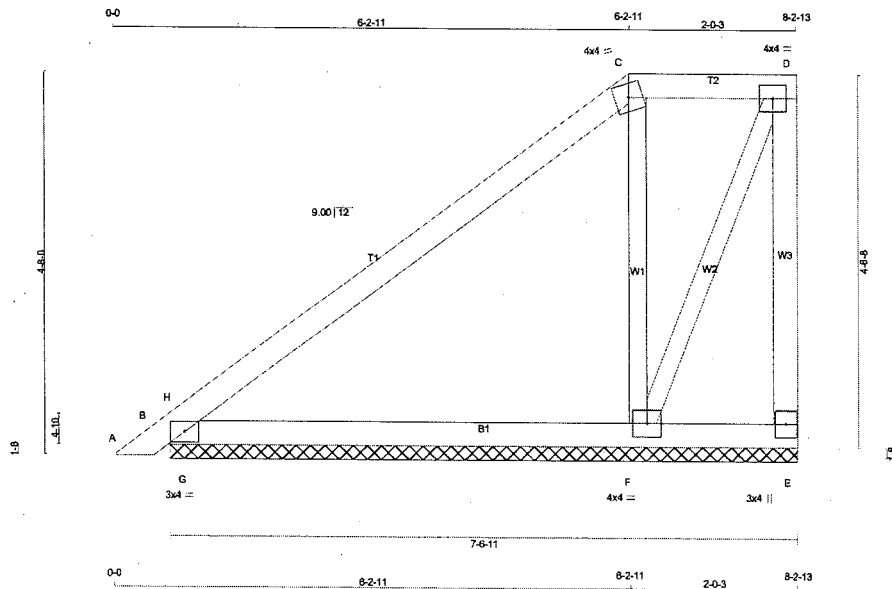
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.27 (B) (INPUT = 0.90)
JSI METAL = 0.07 (C) (INPUT = 1.00)

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





LUMBER
N.L.G.A. RULES
CHORDS SIZE LUMBER
A - C 2x4 DRY No.2
C - D 2x4 DRY No.2
E - D 2x4 DRY No.2
B - E 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-L	MT20	3.0	4.0		
C TTW-m	MT20	4.0	4.0		
D TMWV-L	MT20	4.0	4.0		
E BMV1+P	MT20	3.0	4.0		
F BMWV1-L	MT20	4.0	4.0		

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

BEARINGS

JT	VERT	HORZ	GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQ'D BRG	
			DOWN	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	IN-SX
E	134	0	134	0	0	0	7-6-11	1-8		
B	384	0	384	0	0	0	7-6-11	1-8		
F	396	0	396	0	0	0	7-6-11	1-8		

UNFACTORED REACTIONS

JT	COMBINED	MAX / MIN COMPONENT REACTIONS					
		SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
E	92	73 / 0	0 / 0	0 / 0	0 / 0	19 / 0	0 / 0
B	270	169 / 0	0 / 0	0 / 0	0 / 0	80 / 0	0 / 0
F	282	172 / 0	0 / 0	0 / 0	0 / 0	110 / 0	0 / 0

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

FR-TO	CHORDS				WEBS			
	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED		MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED	
			VERT. LOAD (PLF)	LC1 MAX. (LC)			UNBRAC LENGTH (FR-TO)	CS1 (LC)
A-B		0 / 15	-95.2	-95.2 0.02 (1)	10.00	F-C	-284 / 0	0.09 (1)
B-H		-10 / 290	-95.2	-95.2 0.24 (1)	6.25	F-D	0 / 102	0.02 (1)
H-C		-77 / 0	-95.2	-95.2 0.36 (1)	6.25	G-H	-797 / 0	0.00 (1)
C-D		-42 / 0	-95.2	-95.2 0.07 (1)	6.25			
E-D		-188 / 0	0.0	0.0 0.05 (1)	7.81			
B-G		0 / 49	-18.5	-18.5 0.30 (1)	10.00			
G-F		0 / 49	-18.5	-18.5 0.30 (1)	10.00			
F-E		0 / 0	-18.5	-18.5 0.19 (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. O.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

CS1: TC=0.36/1.00 (C-H:1), BC=0.30/1.00 (F-G:1), WB=0.09/1.00 (C-F:1), SS=0.61/1.00 (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.

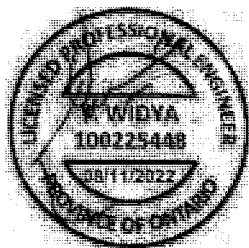
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

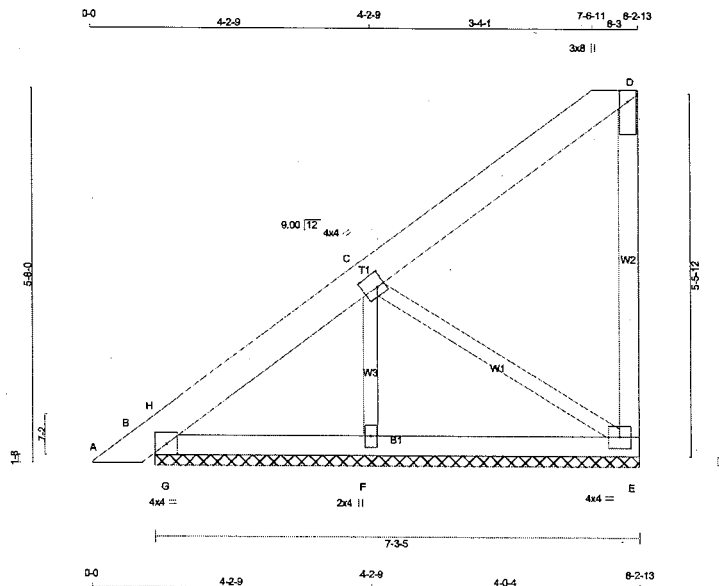
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.33 (B) (INPUT = 0.90)
JSI METAL= 0.12 (C) (INPUT = 1.00)

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





Scale = 1/2" = 1'-0"

LUMBER	N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x6	DRY	No.2	SPF	
E - D	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)	JT TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	4.0	4.0	Edge	
C	TMBW-I	MT20	4.0	4.0	2.50	1.50
D	TMBV-p	MT20	3.0	8.0	Edge	
E	TMBW1-I	MT20	4.0	4.0		
F	TMBW1-w	MT20	2.0	4.0		

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

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

FACTORED		MAXIMUM FACTORED		INPUT	REQD		
JT	GROSS REACTION	GROSS REACTION	BRG	BRG			
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX
E	240	0	240	0	0	7-3-5	1-8
B	276	0	276	0	0	7-3-5	1-8
F	387	0	387	0	0	7-3-5	1-8

UNFACTORED REACTIONS							
	1ST LCASE	MAX/MIN COMPONENT REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
E	169	118 / 0	0 / 0	0 / 0	0 / 0	51 / 0	0 / 0
B	192	143 / 0	0 / 0	0 / 0	0 / 0	50 / 0	0 / 0
F	275	172 / 0	0 / 0	0 / 0	0 / 0	104 / 0	0 / 0

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

CHORDS			WEBS			
MEMB.	MAX. FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX. CS1 (LC)	MEMB.	MAX. FORCE (LBS)	FACTORED CS1 (LC)
FR-TO		FROM TO	UNBRAC LENGTH	FR-TO		
A-B	0 / 18	-95.2 -95.2 0.02 (1)	10.00	F-C	-300 / 0	0.05 (1)
B-H	-173 / 0	-95.2 -95.2 0.01 (4)	8.25	C-E	-108 / 0	0.04 (1)
H-C	-81 / 0	-95.2 -95.2 0.10 (1)	6.25	G-H	-21 / 26	0.00 (1)
C-D	-23 / 0	-95.2 -95.2 0.10 (1)	6.25			
E-D	-153 / 0	0.0 0.0 0.09 (1)	7.81			
B-G	0 / 91	-18.5 -18.5 0.03 (1)	10.00			
G-F	0 / 91	-18.5 -18.5 0.08 (4)	10.00			
F-E	0 / 91	-18.5 -18.5 0.08 (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 BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPIC 2014

(55 % DF 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=0.10/1.00 (C-H:1), BC=0.08/1.00 (F-G:4), WB=0.05/1.00 (C-F:1), SSI=0.11/1.00 (C-D:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

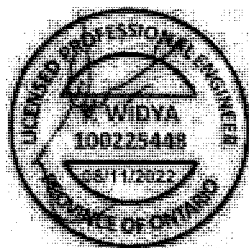
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 850 371 1747 788 1987 1873

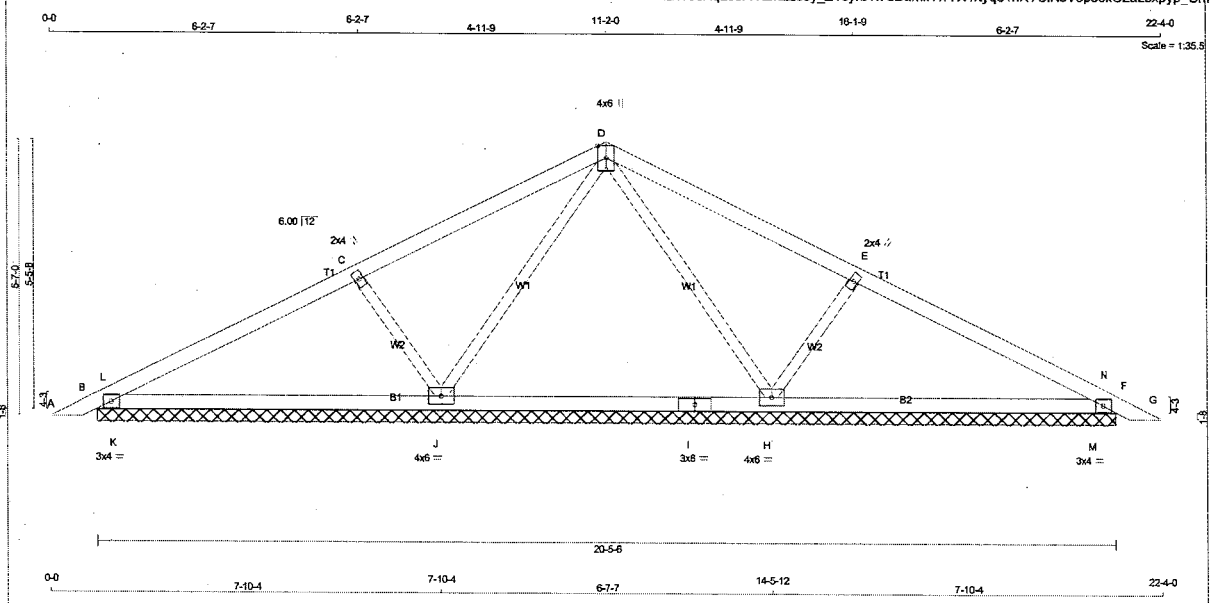
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.38 (C) (INPUT = 0.90)
JSI METAL= 0.07 (B) (INPUT = 1.00)

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





LUMBER N.L.G.A. RULES CHORDS SIZE LUMBER DESCR. ALL WEBS 2x3 DRY No.2 DRY: SEASONED LUMBER.

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

PLATES (table is in inches)	W	LEN	Y	X
JT TYPE				
B TMB14	MT20	3.0	4.0	
C TMB14	MT20	2.0	4.0	
D TMB14	MT20	4.0	6.0	Edge
E TMB14	MT20	2.0	4.0	
F TMB14	MT20	3.0	4.0	
H BMBW1-t	MT20	4.0	6.0	
I BS-t	MT20	3.0	8.0	
J BMBW1-t	MT20	4.0	6.0	

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 GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT	REQD
JT	VERT	HORZ	DOWN	UP
B	431	0	431	0
H	812	0	812	0
J	812	0	812	0
F	431	0	431	0

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS	1ST CASE	MAX	MIN	COMPONENT REACTIONS
JT	COMBINED	SNOW	LIVE	PERM.LIVE
B	303	210/0	0/0	0/0
H	573	382/0	0/0	0/0
J	573	382/0	0/0	0/0
F	303	210/0	0/0	0/0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, H, J, 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	LC1	MAX	WEBS	MAX. FACTORED	FACTORED	VERT. LOAD	LC1	MAX
MEMB.	FORCE	(LBS)	(PLF)	(LBS)	(LBS)	MEMB.	FORCE	(LBS)	(PLF)	(LBS)	(LBS)
FR-TO						FR-TO					
A-B	0/17	-95.2	-95.2	0.05	(1)	D-H	-261/0	0.18	(1)		
B-L	-270/0	-95.2	-95.2	0.09	(4)	H-E	-533/0	0.11	(1)		
L-C	-209/0	-95.2	-95.2	0.41	(1)	J-D	-261/0	0.18	(1)		
C-D	0/61	-95.2	-95.2	0.41	(1)	C-J	-533/0	0.11	(1)		
D-E	0/61	-95.2	-95.2	0.41	(1)	K-L	-117/92	0.00	(1)		
E-N	-209/0	-95.2	-95.2	0.41	(1)	M-N	-117/92	0.00	(1)		
N-F	-270/0	-95.2	-95.2	0.09	(4)						
F-G	0/17	-95.2	-95.2	0.05	(1)						
B-K	0/213	-18.5	-18.5	0.12	(1)						
K-J	0/213	-18.5	-18.5	0.20	(4)						
J-I	0/83	-18.5	-18.5	0.19	(4)						
I-H	0/69	-18.5	-18.5	0.19	(4)						
H-M	0/213	-18.5	-18.5	0.20	(4)						
M-F	0/213	-18.5	-18.5	0.12	(1)						

DESIGN CRITERIA

SPECIFIED LOADS: TOP CH. LL = 26.7 PSF DL = 8.0 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 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=0.41/1.00 (C-D-1), BC=0.20/1.00 (H-M-4), WB=0.18/1.00 (D-J-1), SSI=0.21/1.00 (C-D-1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

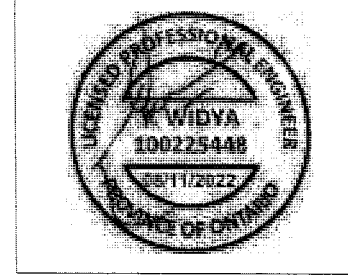
NAIL VALUES	PLATE GRIP(DRY)	SHEAR	SECTION
(PSI)	(PL)	(PL)	(PL)
MT20	650	371	1747
	788	1987	1873

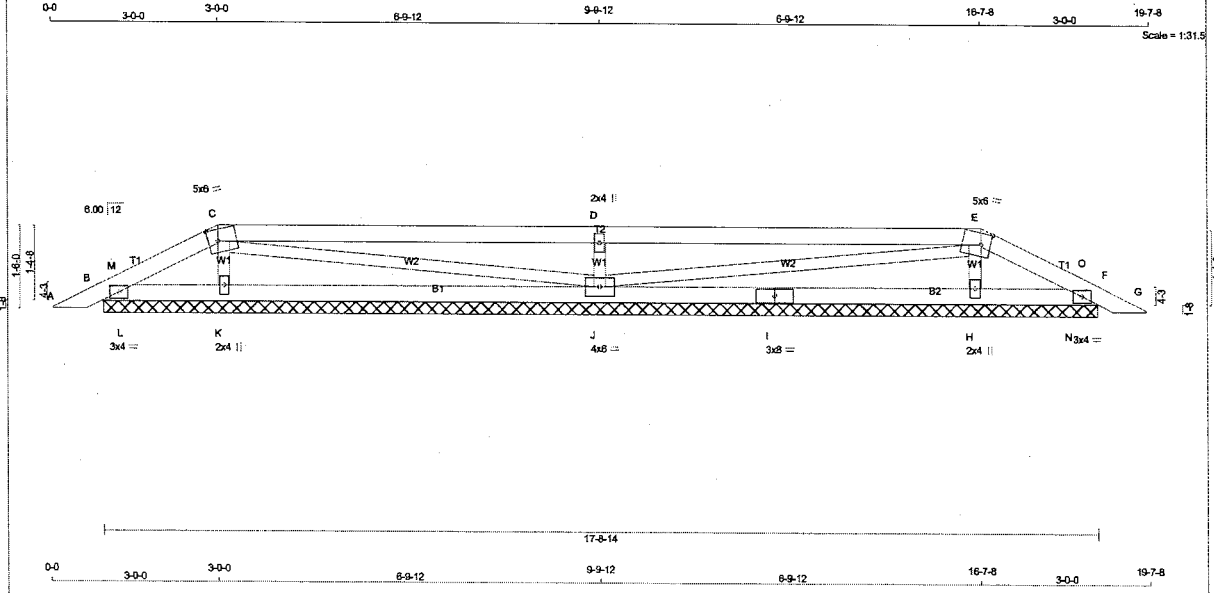
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP=0.40 (J) (INPUT = 0.50) JSI METAL=0.11 (E) (INPUT = 1.00)

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





LUMBER N.L.G.A. RULES CHORDS SIZE LUMBER DESCR. ALL WEBS 2x3 DRY No.2 DRY: SEASONED LUMBER. TOTAL WEIGHT = 2 X 56 = 112 lb

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - E	2x4	DRY	No.2
E - G	2x4	DRY	No.2
B - I	2x4	DRY	No.2
I - F	2x4	DRY	No.2

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 2.00
D	TMYW-w	MT20	2.0	4.0	
E	TTWW-m	MT20	5.0	6.0	2.50 2.00
F	TMB1-i	MT20	3.0	4.0	
H	BMW1-w	MT20	2.0	4.0	
I	BS-i	MT20	3.0	8.0	
J	BMW1-w	MT20	4.0	8.0	
K	BMW1-w	MT20	2.0	4.0	

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		RECORD BRG		RECORD
	VERT	HORZ	DOWN	HORZ	IN-SX	IN-SX	IN-SX	IN-SX	
B	193	0	193	0	0	17-8-14 (5-9-2)			
K	425	0	425	0	0	17-8-14 (5-9-2)			
J	942	0	942	0	0	17-8-14 (5-9-2)			
H	425	0	425	0	0	17-8-14 (5-9-2)			
F	193	0	193	0	0	17-8-14 (5-9-2)			

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS									
JT	COMBINED	1ST LCASE		MAX. MIN. COMPONENT REACTIONS		WIND	DEAD	SOIL	RECORD
		SNOW	LIVE	PERM.LIVE	IN-SX				
B	132	111/0	0/0	0/0	0/0	20/0	0/0	0/0	
K	304	180/0	0/0	0/0	0/0	124/0	0/0	0/0	
J	682	455/0	0/0	0/0	0/0	207/0	0/0	0/0	
H	304	180/0	0/0	0/0	0/0	124/0	0/0	0/0	
F	132	111/0	0/0	0/0	0/0	20/0	0/0	0/0	

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, K, J, 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)	FACTORED VERT. LOAD (PLF)	LC1	MAX CSI (LC)	MAX. UNBRAC LENGTH	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CSI (LC)	
FR-TO		FROM TO				FR-TO			
A-B	0/17	-95.2	-95.2	0.05 (1)	10.00	K-C	-296/0	0.04 (1)	
B-M	-33/7	-95.2	-95.2	0.02 (4)	6.25	C-J	-8/0	0.01 (1)	
M-C	-46/0	-95.2	-95.2	0.04 (1)	6.25	J-D	-811/0	0.11 (1)	
C-D	-2/0	-95.2	-95.2	0.75 (1)	10.00	J-E	-8/0	0.01 (1)	
D-E	-2/0	-95.2	-95.2	0.75 (1)	10.00	H-E	-296/0	0.04 (1)	
E-O	-46/0	-95.2	-95.2	0.04 (1)	6.25	L-M	-128/0	0.00 (1)	
O-F	-33/7	-95.2	-95.2	0.02 (4)	6.25	N-O	-128/0	0.00 (1)	
F-G	0/17	-95.2	-95.2	0.05 (1)	10.00				
B-L	0/39	-18.5	-18.5	0.06 (1)	10.00				
L-K	0/39	-18.5	-18.5	0.13 (4)	10.00				
K-J	0/10	-18.5	-18.5	0.18 (4)	10.00				
J-I	0/10	-18.5	-18.5	0.18 (4)	10.00				
I-H	0/10	-18.5	-18.5	0.18 (4)	10.00				
H-N	0/39	-18.5	-18.5	0.13 (4)	10.00				
N-F	0/39	-18.5	-18.5	0.06 (1)	10.00				

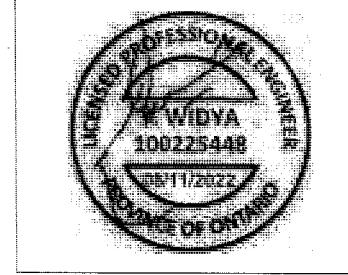
DESIGN CRITERIA
 SPECIFIED LOADS:
 TDP CH. LL = 26.7 PSF
 DL = 6.0 PSF
 BOT CH. LL = 0.0 PSF
 DL = 7.4 PSF
 TOTAL LOAD = 40.1 PSF
 SPACING = 24.0 IN. C/C

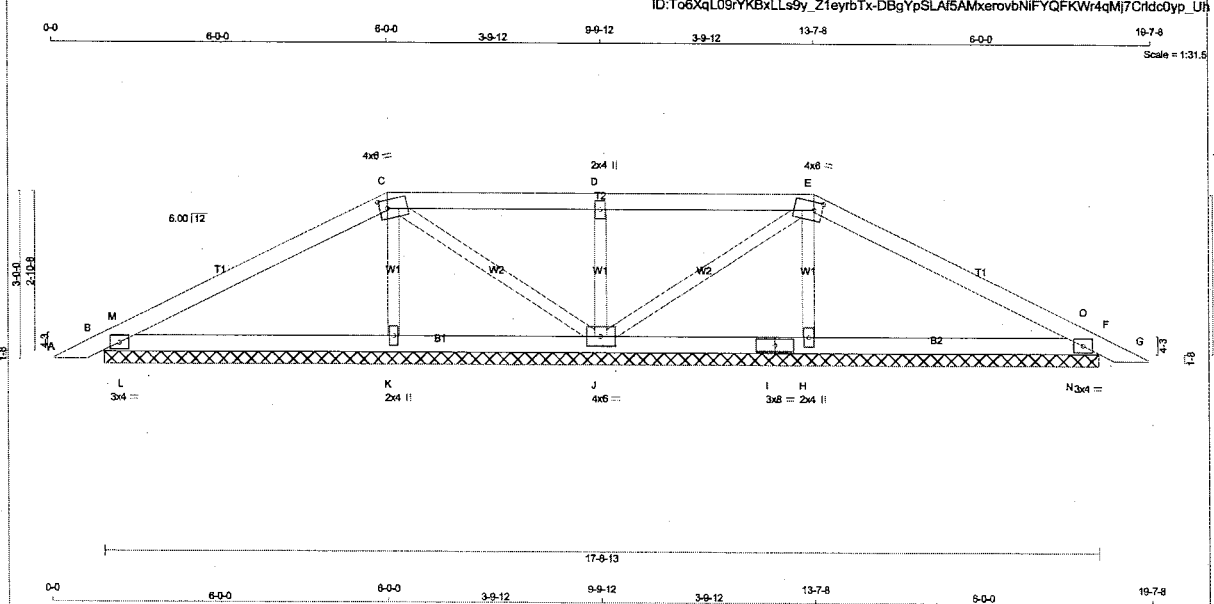
LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM
 THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015
 THIS DESIGN COMPLIES WITH:
 - PART 9 OF BCBC 2018, ABC 2019
 - PART 9 OF OBC 2012 (2019 AMENDMENT)
 - CSA 086-14
 - TPIC 2014

(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=0.75/1.00 (C-D:1), BC=0.18/1.00 (J-K:4), WB=0.11/1.00 (D-J:1), SS=0.32/1.00 (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= 0.90 (E) (INPUT = 0.90)
 JSI METAL = 0.17 (I) (INPUT = 1.00)

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





TOTAL WEIGHT = 2 X 57 = 113 lb

LUMBER
N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	SPF
C - E	2x4	DRY	SPF
E - G	2x4	DRY	SPF
B - I	2x4	DRY	SPF
I - F	2x4	DRY	SPF
ALL WEBS	2x3	DRY	SPF

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT	TYPE	PLATES	W	LEN	Y	X
B	TMB1-4	MT20	3.0	4.0		
C	TTWW-m	MT20	4.0	6.0	1.75	1.75
D	TMW-w	MT20	2.0	4.0		
E	TTWW-m	MT20	4.0	6.0	1.75	1.75
F	TMB1-4	MT20	3.0	4.0		
H	BMW1-w	MT20	2.0	4.0		
I	BS-1	MT20	3.0	8.0		
J	BMWW1-4	MT20	4.0	6.0		
K	BMW1-w	MT20	2.0	4.0		

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

BEARINGS

JT	VERT	HORZ	FACTORED		MAXIMUM FACTORED		INPUT	REQD
			GROSS REACTION	DOWN	GROSS REACTION	UP		
B	407	0	407	0	0	17-8-13 (5-9-13)	BRG	
K	407	0	407	0	0	17-8-13 (5-9-13)	BRG	
J	551	0	551	0	0	17-8-13 (5-9-13)	BRG	
H	407	0	407	0	0	17-8-13 (5-9-13)	BRG	
F	407	0	407	0	0	17-8-13 (5-9-13)	BRG	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS								
JT	1ST LCASE	MAX/MIN COMPONENT REACTIONS						
	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	
B	285	203/0	0/0	0/0	0/0	81/0	0/0	
K	290	177/0	0/0	0/0	0/0	113/0	0/0	
J	385	278/0	0/0	0/0	0/0	108/0	0/0	
H	290	177/0	0/0	0/0	0/0	113/0	0/0	
F	285	203/0	0/0	0/0	0/0	81/0	0/0	

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, K, J, 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)	FACTORED			MAX. UNBRACED CS1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX CS1 (LC)
		VERT. LOAD (PLF)	LOAD CS1 (LC)	MAX.				
FR-TO		FROM TO			LENGTH	FR-TO		
A-B	0/17	-95.2	-95.2	0.05 (1)	10.00	K-C	-236/0	0.04 (1)
B-M	-41/0	-95.2	-95.2	0.11 (1)	6.25	C-J	-87/0	0.03 (1)
M-C	-133/0	-95.2	-95.2	0.30 (1)	6.25	J-D	-453/0	0.08 (1)
C-D	-31/0	-95.2	-95.2	0.23 (1)	6.25	J-E	-87/0	0.03 (1)
D-E	-31/0	-95.2	-95.2	0.23 (1)	6.25	H-E	-236/0	0.04 (1)
E-O	-133/0	-95.2	-95.2	0.30 (1)	6.25	L-H	-438/0	0.00 (1)
O-F	-41/0	-95.2	-95.2	0.11 (1)	6.25	N-O	-438/0	0.00 (1)
F-G	0/17	-95.2	-95.2	0.05 (1)	10.00			
B-L	0/113	-18.5	-18.5	0.25 (1)	10.00			
L-K	0/113	-18.5	-18.5	0.25 (1)	10.00			
K-J	0/103	-18.5	-18.5	0.16 (1)	10.00			
J-I	0/103	-18.5	-18.5	0.16 (1)	10.00			
I-H	0/103	-18.5	-18.5	0.16 (1)	10.00			
H-N	0/113	-18.5	-18.5	0.25 (1)	10.00			
N-F	0/113	-18.5	-18.5	0.25 (1)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 28.7 PSF
DL = 8.0 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 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

CS1: TC=0.30/1.00 (C-M-1), BC=0.25/1.00 (B-L-1), WB=0.08/1.00 (D-J-1), SS=0.34/1.00 (B-L-1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

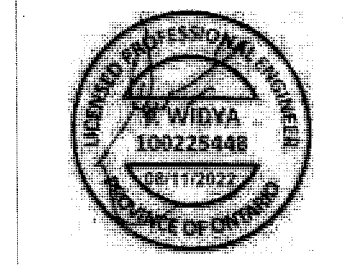
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.79 (E) (INPUT = 0.90)

JSI METAL= 0.21 (I) (INPUT = 1.00)

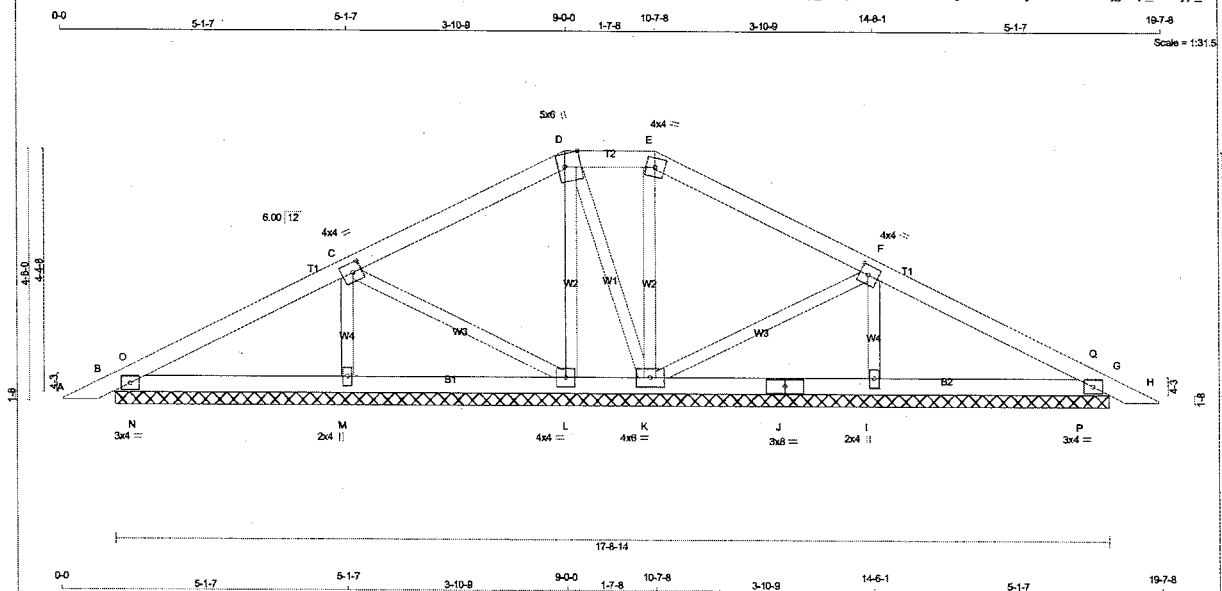
LATERAL BRACE(S) SHOWN SHALL BE 2X4 SPF#2



Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 Mitek Industries, Inc. Thu Aug 11 08:45:09 2022 Page 1

ID:To6XqL09rYKBxLLs9y_Z1eyrbTx-dmLhRUN2y0Yxo6ZNapPIA1nYk31jgZup_HDLyp_Ue



LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	SPF
D - E	2x4	DRY	No.2
E - H	2x4	DRY	No.2
B - J	2x4	DRY	No.2
J - G	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		
D TMMWW-I	MT20	4.0	4.0	2.00	1.75
E TTMWW-m	MT20	5.0	6.0	Edge	3.50
F TMMWW-I	MT20	4.0	4.0		
G TMB1-I	MT20	3.0	4.0		
I BMW1-w	MT20	2.0	4.0		
J BS-I	MT20	3.0	8.0		
K BMW1-w	MT20	4.0	6.0		
L BMW1-w	MT20	4.0	4.0		
M BMW1-w	MT20	2.0	4.0		

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

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT REQRD	
	VERT	HORZ	DOWN	HORZ	IN-SX	BRG
B	305	0	305	0	17'-8-14 (5'-9-2 3/8)	
M	493	0	493	0	17'-8-14 (5'-9-2 3/8)	
L	204	0	204	0	17'-8-14 (5'-9-2 3/8)	
K	401	0	401	0	17'-8-14 (5'-9-2 3/8)	
I	476	0	476	0	17'-8-14 (5'-9-2 3/8)	
G	298	0	298	0	17'-8-14 (5'-9-2 3/8)	

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	COMBINED	MAX/MIN COMPONENT REACTIONS				
		SNOW	LIVE	PERM.LIVE	WIND	DEAD
B	213	153/0	0/0	0/0	0/0	60/0
M	349	229/0	0/0	0/0	0/0	120/0
L	146	89/0	0/0	0/0	0/0	57/0
K	281	200/0	0/0	0/0	0/0	81/0
I	337	219/0	0/0	0/0	0/0	118/0
G	209	149/0	0/0	0/0	0/0	60/0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, M, L, K, I, 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 (LBS)	MAX. (PLF)	MAX. (L/C)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. (L/C)		
FR-TO		FROM TO		LENGTH FR-TO					
A-B	0/17	-95.2	-95.2	0.05 (1)	10.00	M-C	-377/0	0.06 (1)	
B-O	-87/0	-95.2	-95.2	0.02 (4)	6.25	C-L	-84/0	0.03 (1)	
O-C	-72/0	-95.2	-95.2	0.24 (1)	6.25	L-D	-126/0	0.04 (1)	
C-D	-29/0	-95.2	-95.2	0.24 (1)	6.25	D-K	-93/0	0.03 (1)	
D-E	0/27	-95.2	-95.2	0.05 (1)	10.00	K-E	-228/0	0.06 (1)	
E-F	-2/4	-95.2	-95.2	0.24 (1)	10.00	K-F	-103/0	0.03 (1)	
F-O	-58/0	-95.2	-95.2	0.24 (1)	6.25	I-F	-360/0	0.06 (1)	
Q-G	-72/0	-95.2	-95.2	0.02 (4)	6.25	N-O	-165/8	0.00 (1)	
G-H	0/17	-95.2	-95.2	0.05 (1)	10.00	P-Q	-165/6	0.00 (1)	
B-N	0/83	-18.5	-18.5	0.11 (1)	10.00				
N-M	0/83	-18.5	-18.5	0.11 (1)	10.00				
M-L	0/83	-18.5	-18.5	0.09 (1)	10.00				
L-K	0/5	-18.5	-18.5	0.03 (4)	10.00				
K-J	0/69	-18.5	-18.5	0.09 (4)	10.00				
J-I	0/69	-18.5	-18.5	0.09 (4)	10.00				
I-P	0/69	-18.5	-18.5	0.11 (1)	10.00				
P-G	0/69	-18.5	-18.5	0.11 (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. OC

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

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

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

(55% OF 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=0.24/1.00 (E-F:1), BC=0.11/1.00 (M-N:1), WB=0.06/1.00 (E-K:1), SSI=0.16/1.00 (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.

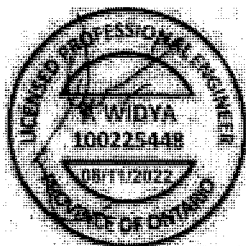
NAIL VALUES
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

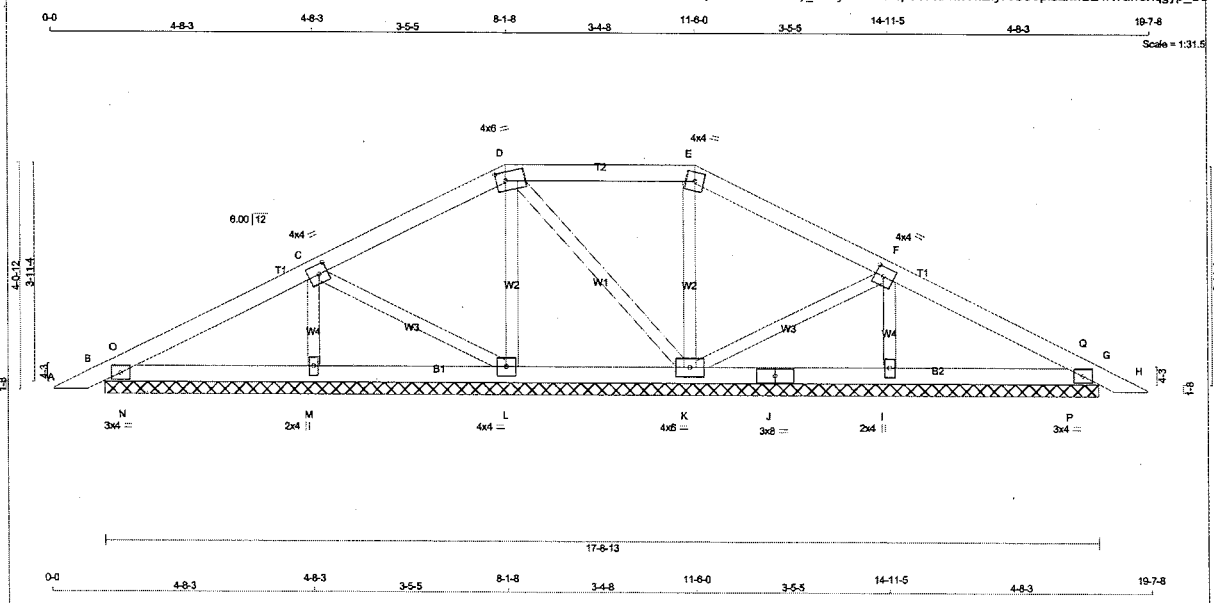
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.72 (K) (INPUT = 0.90)
JSI METAL= 0.09 (E) (INPUT = 1.00)

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





Scale = 1:31.5 TOTAL WEIGHT = 63 lb

LUMBER

CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	SPF
D - E	2x4	DRY	SPF
E - H	2x4	DRY	SPF
B - J	2x4	DRY	SPF
J - G	2x4	DRY	SPF

ALL WEBS 2x3 DRY
DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B	TMB1-I	MT20	3.0	4.0	
C	TMMW-1	MT20	4.0	4.0	2.00 1.75
D	TTWW-m	MT20	4.0	6.0	1.75 2.00
E	TTW-m	MT20	4.0	4.0	
F	TMMW-1	MT20	4.0	4.0	2.00 1.75
G	TMB1-I	MT20	3.0	4.0	
I	BMW1-w	MT20	2.0	4.0	
J	BS-1	MT20	3.0	6.0	
K	BMWW-1-I	MT20	4.0	6.0	
L	BMW1-w	MT20	4.0	4.0	
M	BMW1-w	MT20	2.0	4.0	

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

BUILDING DESIGNER

BEARINGS	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQRD BRG
	VERT	HORZ	DOWN	UPLIFT
JT	288	0	288	0
B	455	0	455	0
M	290	0	290	0
L	441	0	441	0
K	427	0	427	0
I	277	0	277	0
G	277	0	277	0

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

1ST LCASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	201	145/0	0/0	0/0	56/0	0/0
B	321	213/0	0/0	0/0	107/0	0/0
M	206	129/0	0/0	0/0	77/0	0/0
L	310	214/0	0/0	0/0	96/0	0/0
K	302	198/0	0/0	0/0	104/0	0/0
I	194	139/0	0/0	0/0	55/0	0/0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, M, L, K, I, 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)	MAX. UNBRACED LENGTH (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (LC)	
FR-TO				FR-TO			
A-B	0/17	-95.2	-95.2 0.05 (1)	M-C	-353/0	0.05 (1)	
B-O	-96/0	-95.2	-95.2 0.02 (4)	C-L	-55/0	0.02 (1)	
O-C	-77/0	-95.2	-95.2 0.19 (1)	L-D	-210/0	0.05 (1)	
C-D	-59/0	-95.2	-95.2 0.19 (1)	D-K	-75/0	0.03 (1)	
D-E	0/20	-95.2	-95.2 0.19 (1)	K-E	-290/0	0.07 (1)	
E-F	-5/0	-95.2	-95.2 0.19 (1)	K-F	-86/0	0.02 (1)	
F-Q	-63/0	-95.2	-95.2 0.19 (1)	I-F	-325/0	0.05 (1)	
Q-G	-72/0	-95.2	-95.2 0.02 (4)	N-O	-135/6	0.00 (1)	
G-H	0/17	-95.2	-95.2 0.05 (1)	P-Q	-135/6	0.00 (1)	
B-N	0/85	-18.5	-18.5 0.09 (1)				
N-M	0/85	-18.5	-18.5 0.09 (1)				
M-L	0/85	-18.5	-18.5 0.07 (1)				
L-K	0/30	-18.5	-18.5 0.04 (4)				
K-J	0/64	-18.5	-18.5 0.07 (1)				
J-I	0/64	-18.5	-18.5 0.07 (1)				
I-P	0/64	-18.5	-18.5 0.09 (1)				
P-G	0/64	-18.5	-18.5 0.09 (1)				

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 26.7 PSF
DL = 8.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 40.1 PSF

SPACING = 24.0 IN. GC

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

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

THIS DESIGN COMPLIES WITH:
- PART 9 OF CBC 2018, ABC 2019
- PART 9 OF 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=0.19/1.00 (F-Q:1), BC=0.09/1.00 (M-N:1), WB=0.07/1.00 (E-K:1), SSI=0.14/1.00 (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.

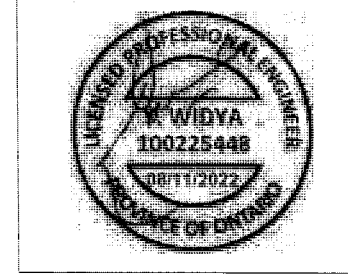
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 768 1987 1873

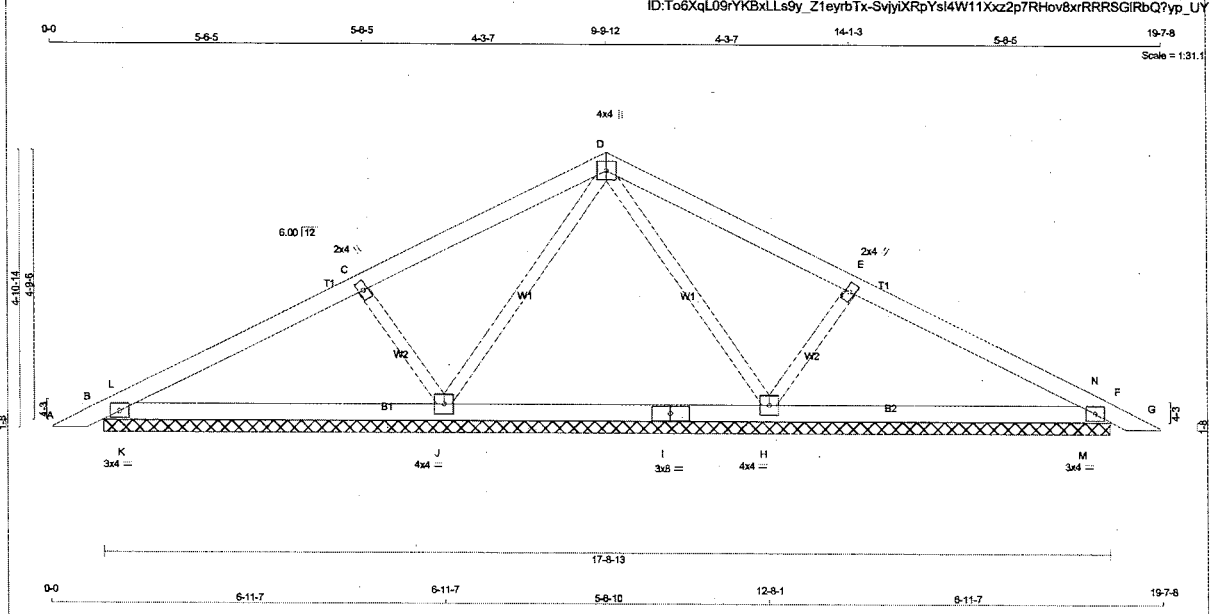
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (D) (INPUT = 0.90)
JSI METAL= 0.09 (D) (INPUT = 1.00)

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





LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY				TOTAL WEIGHT = 57 lb			
N. L. G. A. RULES				BUILDING DESIGNER							
CHORDS	SIZE	LUMBER	DESCR.	BEARINGS							
A - D	2x4	DRY	No.2	FACTORED	MAXIMUM FACTORED	INPUT	RECORD				
D - G	2x4	DRY	No.2	GROSS REACTION	GROSS REACTION	BRG	BRG				
B - I	2x4	DRY	No.2	VERT	HORZ	DOWN	UPLIFT				
I - F	2x4	DRY	No.2	SPF	SPF	SPF	SPF				
ALL WEBS	2x3	DRY	No.2	SPF	SPF	SPF	SPF				
DRY: SEASONED LUMBER.				SPF	SPF	SPF	SPF				

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS				DESIGN CRITERIA			
1ST CASE	MAX	MIN	COMPONENT REACTIONS				
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
B	269	188 / 0	0 / 0	0 / 0	0 / 0	81 / 0	0 / 0
H	499	332 / 0	0 / 0	0 / 0	0 / 0	167 / 0	0 / 0
J	499	332 / 0	0 / 0	0 / 0	0 / 0	167 / 0	0 / 0
F	269	188 / 0	0 / 0	0 / 0	0 / 0	81 / 0	0 / 0

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

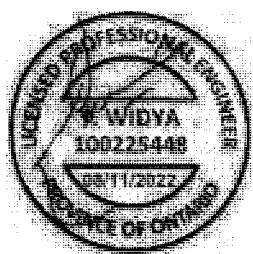
CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	LC1 MAX. CS (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. UNBRACED LENGTH (FT)	MAX. FACTORED CS (LC)
FR-TO				FR-TO			
A-B	0 / 17	-95.2	-95.2 0.05 (1)	10.00	D-H	-229 / 0	0.11 (1)
B-L	-232 / 0	-95.2	-95.2 0.07 (4)	6.25	H-E	-462 / 0	0.08 (1)
L-C	-173 / 0	-95.2	-95.2 0.30 (1)	6.25	J-D	-229 / 0	0.11 (1)
C-D	0 / 59	-95.2	-95.2 0.31 (1)	10.00	C-J	-462 / 0	0.08 (1)
D-E	0 / 59	-95.2	-95.2 0.31 (1)	10.00	K-L	-91 / 71	0.00 (1)
E-N	-173 / 0	-95.2	-95.2 0.30 (1)	6.25	M-N	-91 / 71	0.00 (1)
N-F	-232 / 0	-95.2	-95.2 0.07 (4)	6.25			
F-G	0 / 17	-95.2	-95.2 0.05 (1)	10.00			
B-K	0 / 178	-18.5	-18.5 0.10 (1)	10.00			
K-J	0 / 178	-18.5	-18.5 0.15 (4)	10.00			
J-I	0 / 50	-18.5	-18.5 0.14 (4)	10.00			
I-H	0 / 50	-18.5	-18.5 0.14 (4)	10.00			
H-M	0 / 178	-18.5	-18.5 0.15 (4)	10.00			
M-F	0 / 178	-18.5	-18.5 0.10 (1)	10.00			

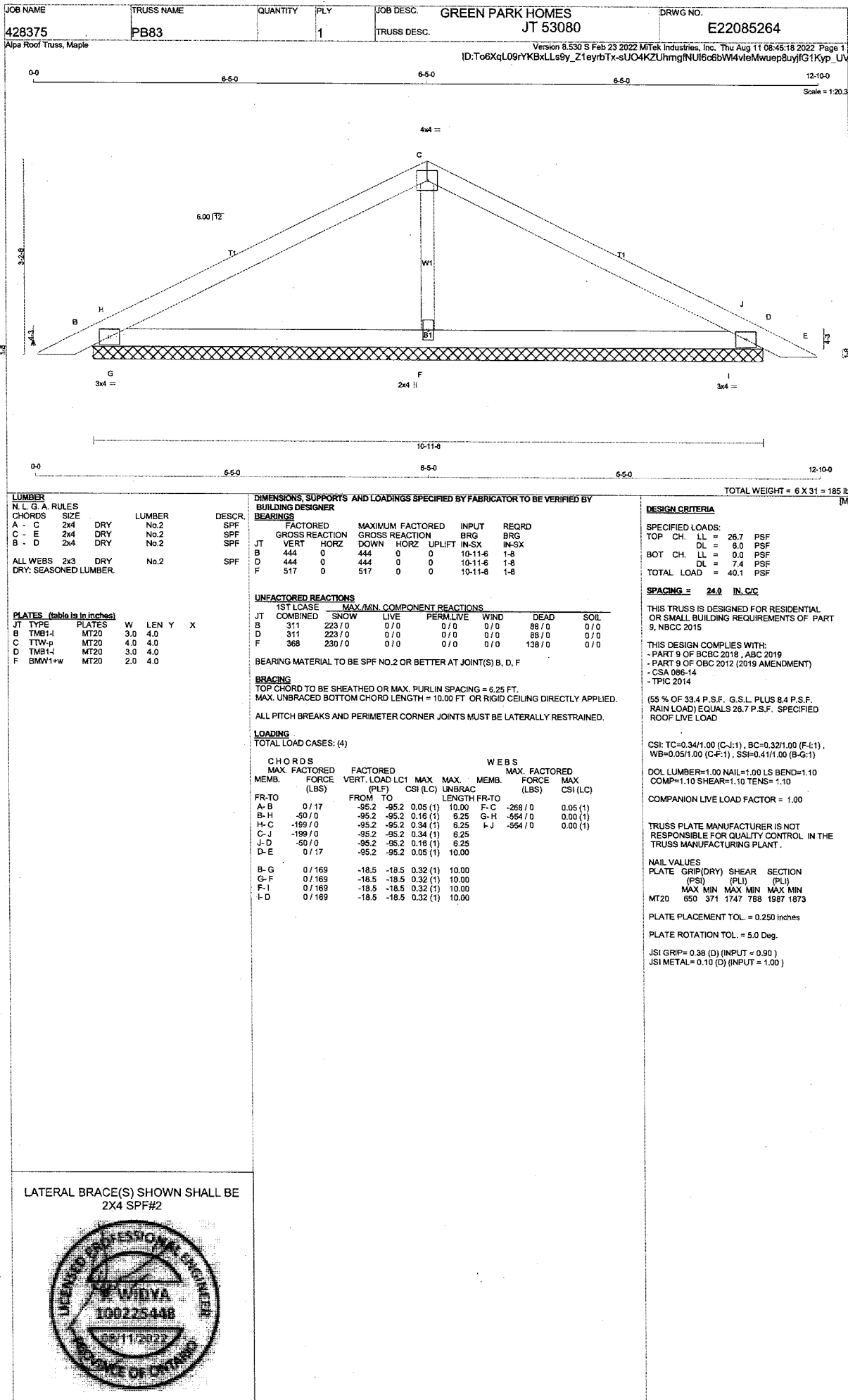
PLATE GRIP (DRY) SHEAR SECTION (PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 850 371 1747 788 1987 1673

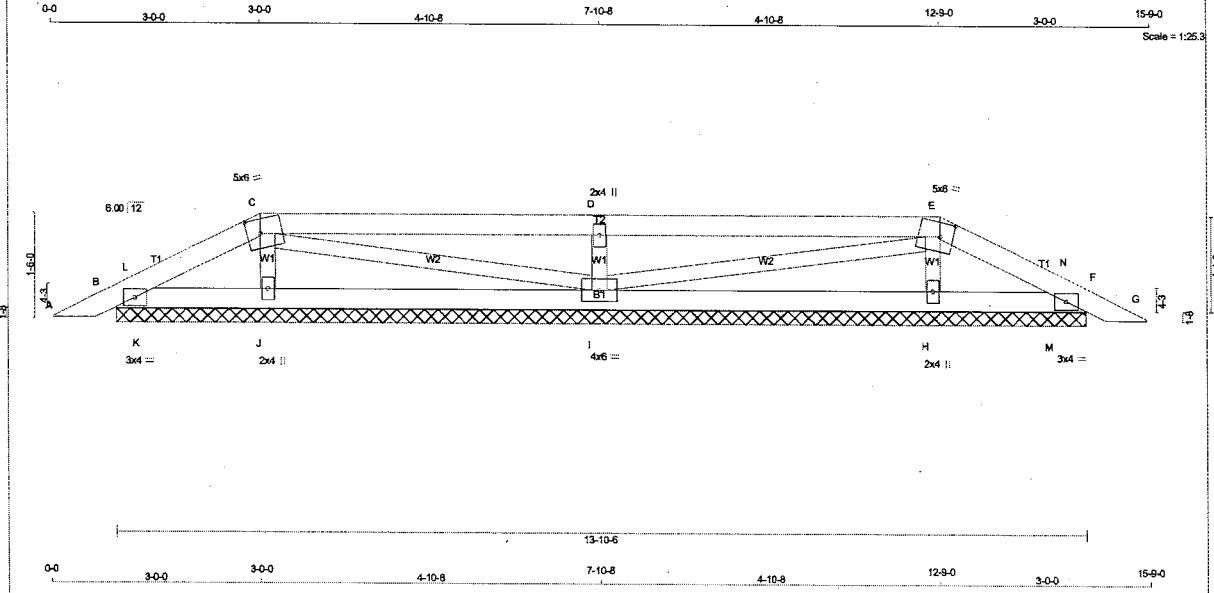
PLATE PLACEMENT TOL. = 0.250 inches
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.48 (J) (INPUT = 0.90)
JSI METAL = 0.10 (C) (INPUT = 1.00)

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







LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY				TOTAL WEIGHT = 44 lb	
N. L. G. A. RULES				BUILDING DESIGNER				[M]	
CHORDS	SIZE	LUMBER	DESCR.	BEARINGS					
A - C	2x4	DRY	No.2	FACTORED	MAXIMUM FACTORED	INPUT	REQ'D		
C - E	2x4	DRY	No.2	GROSS REACTION	GROSS REACTION	BRG	BRG		
E - G	2x4	DRY	No.2	JT VERT	DOWN	UP	IN-SX		
B - F	2x4	DRY	No.2	B 202	0	0	13-10-6		
ALL WEBS 2x3 DRY				F 202	0	0	13-10-6		
DRY: SEASONED LUMBER.				J 329	0	0	13-10-6		
				I 674	0	0	13-10-6		
				H 329	0	0	13-10-6		

PLATES (table is in inches)					UNFACTORED REACTIONS							LOADING IN FLAT SECTION BASED ON A SLOPE OF 2.00/12 MINIMUM			
JT	TYPE	PLATES	W	LEN	Y	X	1ST CASE	MAX/MIN	COMPONENT REACTIONS						
							B	COMBINED	SNOW	LIVE	PERM LIVE	WIND	DEAD	SOIL	
B	TMB1-I	MT20	3.0	4.0			JT	140	109/0	0/0	0/0	0/0	31/0	0/0	
C	TTWW-m	MT20	5.0	6.0	2.50	2.25	F	140	109/0	0/0	0/0	0/0	31/0	0/0	
D	TWW-w	MT20	2.0	4.0			J	234	143/0	0/0	0/0	0/0	91/0	0/0	
E	TTWW-m	MT20	5.0	6.0	2.50	2.25	I	474	326/0	0/0	0/0	0/0	148/0	0/0	
F	TMB1-I	MT20	3.0	4.0			H	234	143/0	0/0	0/0	0/0	91/0	0/0	
H	BMW1-w	MT20	2.0	4.0			BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, F, J, I, H							THIS DESIGN COMBIES WITH: - PART 9 OF CBC 2018, ABC 2019 - PART 9 OF CBC 2012 (2019 AMENDMENT) - CSA 085-14 - TJC 2014	
I	BMWW1-I	MT20	4.0	6.0											
J	BMW1-w	MT20	2.0	4.0											
BRACING															

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 8.25 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING				TOTAL LOAD CASES: (4)					
CHORDS				WEBS					
MEMB.	FORCE (LBS)	FACTORED	VERT. LOAD (PLF)	MEMB.	FORCE (LBS)	FACTORED	VERT. LOAD (PLF)		
FR-TO				FR-TO					
A-B	0/17	-95.2	-95.2 0.05 (1)	J-C	-232/0	0.03 (1)			
B-L	-38/0	-95.2	-95.2 0.00 (4)	C-I	-12/0	0.00 (1)			
L-C	-41/0	-95.2	-95.2 0.04 (1)	I-D	-580/0	0.08 (1)			
C-D	-2/0	-95.2	-95.2 0.38 (1)	I-E	-12/0	0.00 (1)			
D-E	-2/0	-95.2	-95.2 0.38 (1)	H-E	-232/0	0.03 (1)			
E-N	-41/0	-95.2	-95.2 0.04 (1)	K-L	-103/0	0.00 (1)			
N-F	-38/0	-95.2	-95.2 0.00 (4)	M-N	-103/0	0.00 (1)			
F-G	0/17	-95.2	-95.2 0.05 (1)						
B-K	0/36	-18.5	-18.5 0.05 (1)						
K-J	0/36	-18.5	-18.5 0.07 (4)						
J-I	0/13	-18.5	-18.5 0.09 (4)						
I-H	0/13	-18.5	-18.5 0.09 (4)						
H-M	0/36	-18.5	-18.5 0.07 (4)						
M-F	0/36	-18.5	-18.5 0.05 (1)						

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

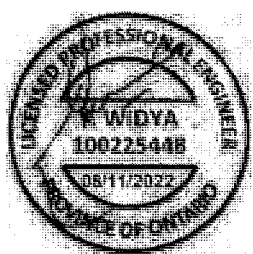
PLATE PLACEMENT TOL. = 0.250 inches

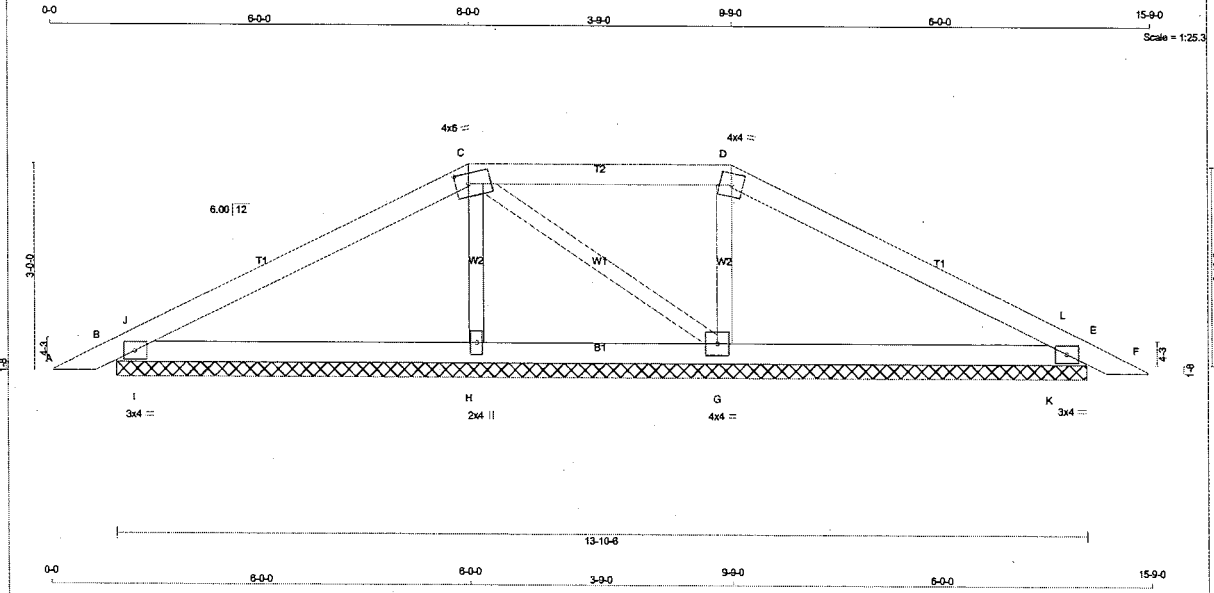
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP = 0.29 (D) (INPUT = 0.90)

JSI METAL = 0.12 (D) (INPUT = 1.00)

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





LUMBER N. L. G. A. RULES CHORDS SIZE LUMBER DESCR. ALL WEBS 2x3 DRY No.2 DRY: SEASONED LUMBER. TOTAL WEIGHT = 42 lb

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	No.2
C - D	2x4	DRY	No.2
D - E	2x4	DRY	No.2
E - F	2x4	DRY	No.2
F - G	2x4	DRY	No.2
G - H	2x4	DRY	No.2
H - I	2x4	DRY	No.2
I - J	2x4	DRY	No.2
J - K	2x4	DRY	No.2
K - L	2x4	DRY	No.2
L - M	2x4	DRY	No.2
M - N	2x4	DRY	No.2
N - O	2x4	DRY	No.2
O - P	2x4	DRY	No.2
P - Q	2x4	DRY	No.2
Q - R	2x4	DRY	No.2
R - S	2x4	DRY	No.2
S - T	2x4	DRY	No.2
T - U	2x4	DRY	No.2
U - V	2x4	DRY	No.2
V - W	2x4	DRY	No.2
W - X	2x4	DRY	No.2
X - Y	2x4	DRY	No.2
Y - Z	2x4	DRY	No.2

PLATES (table in inches)	W	LEN	Y	X
JT TYPE				
B TMB1-1	MT20	3.0	4.0	
C TTWW-m	MT20	4.0	6.0	1.75 2.25
D TTWW-m	MT20	4.0	4.0	
E TMB1-1	MT20	3.0	4.0	
G BMW1-1	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	REQD		
GROSS REACTION	GROSS REACTION	BRG	BRG		
JT	VERT	HORZ	DOWN	HORZ	UPLIFT
B	431	0	431	0	0
E	411	0	411	0	0
H	410	0	410	0	0
G	486	0	486	0	0

UNFACTORED REACTIONS						
1ST CASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT COMBINED						
B	301	215/0	0/0	0/0	86/0	0/0
E	288	204/0	0/0	0/0	84/0	0/0
H	291	185/0	0/0	0/0	108/0	0/0
G	343	228/0	0/0	0/0	116/0	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 = 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.

ALL PERIMETER AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)	MAX. FACTORED CS1 (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED CS1 (LC)	
FR-TO		FROM TO	LENGTH	FR-TO			
A-B	0/17	-95.2	-95.2 0.05 (1)	10.00	H-C	-280/0	0.05 (1)
B-J	-85/0	-95.2	-95.2 0.10 (1)	6.25	C-G	-49/0	0.02 (1)
J-C	-176/0	-95.2	-95.2 0.31 (1)	6.25	G-D	-328/0	0.06 (1)
C-D	-100/0	-95.2	-95.2 0.23 (1)	6.25	I-J	-421/0	0.00 (1)
D-L	-133/0	-95.2	-95.2 0.31 (1)	6.25	K-L	-423/0	0.00 (1)
L-E	-49/0	-95.2	-95.2 0.10 (1)	8.25			
E-F	0/17	-95.2	-95.2 0.05 (1)	10.00			
B-I	0/151	-18.5	-18.5 0.25 (1)	10.00			
I-H	0/151	-18.5	-18.5 0.25 (1)	10.00			
H-G	0/140	-18.5	-18.5 0.13 (1)	10.00			
G-K	0/113	-18.5	-18.5 0.25 (1)	10.00			
K-E	0/113	-18.5	-18.5 0.25 (1)	10.00			

DESIGN CRITERIA
 SPECIFIED LOADS:
 TOP CH. LL = 26.7 PSF
 DL = 8.0 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

CS1: TC=0.31/1.00 (C-J-1), BC=0.25/1.00 (B-I-1), WB=0.08/1.00 (D-G-1), SSH=0.33/1.00 (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

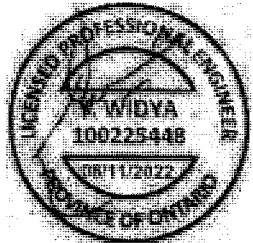
TRUSS PLATE MANUFACTURER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

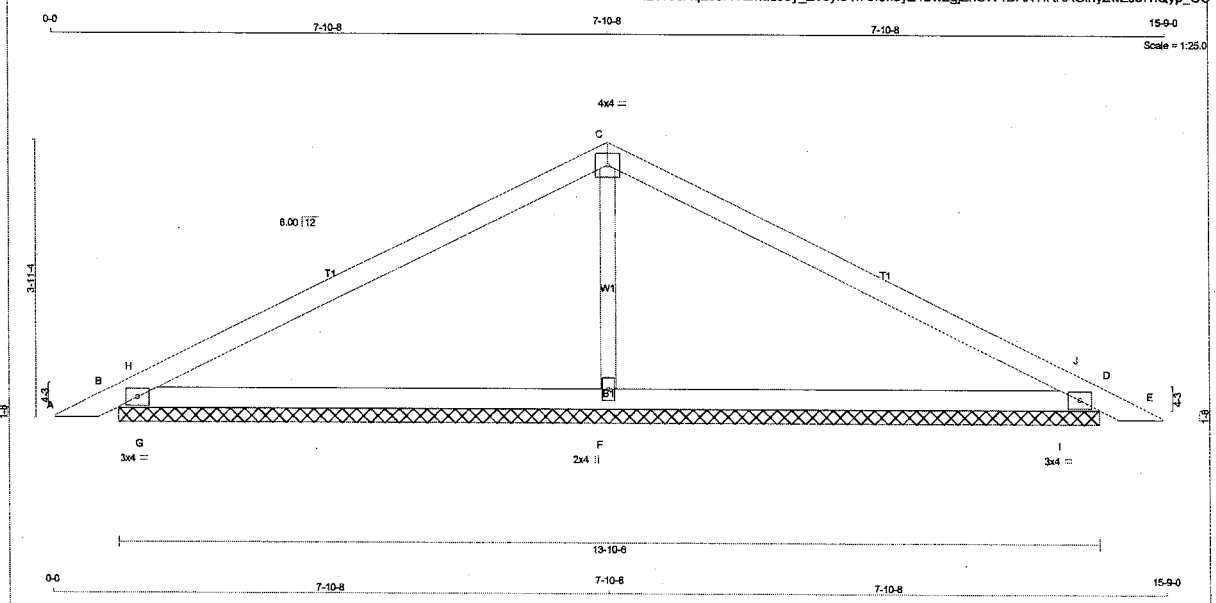
NAIL VALUES
 PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
 MAX MIN MAX MIN MAX MIN
 MT20 850 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches
 PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.35 (B) (INPUT = 0.90)
 JSI METAL= 0.09 (B) (INPUT = 1.00)

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





TOTAL WEIGHT = 2 X 38 = 77 lb

BUILDING DESIGNER										DESIGN CRITERIA	
N. L. G. A. RULES				BEARINGS							
CHORDS	SIZE	LUMBER	DESCR.	FACTORED		MAXIMUM FACTORED		INPUT	REQRD	SPECIFIED LOADS:	
A - C	2x4	DRY	No.2	SPF	GROSS REACTION	GROSS REACTION		BRG	BRG	TOP CH.	LL = 26.7 PSF
C - E	2x4	DRY	No.2	SPF	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	DL = 6.0 PSF
B - D	2x4	DRY	No.2	SPF						IN-SX	CH. LL = 8.0 PSF
ALL WEBS 2x3 DRY				No.2	SPF						DL = 7.4 PSF
DRY: SEASONED LUMBER.											TOTAL LOAD = 40.1 PSF

UNFACTORED REACTIONS									
1ST CASE	MAX	MIN	COMPONENT	REACTIONS					
JT	COMBINED	SNOW	LIVE	PERM	LIVE	WIND	DEAD	SOIL	
B	393	281/0	0/0	0/0	0/0	112/0	0/0	0/0	
D	393	281/0	0/0	0/0	0/0	112/0	0/0	0/0	
F	437	270/0	0/0	0/0	0/0	167/0	0/0	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	FACTORED	VERT. LOAD	LC1 MAX	MEMB.	MAX. FACTORED	FACTORED	VERT. LOAD	LC1 MAX
	(LBS)	(PLF)				(LBS)	(PLF)		
FR-TO		FROM TO			FR-TO		FROM TO		
A-B	0/17	-95.2	-95.2	0.05 (1)	10.00	F-C	-303/0	0.07 (1)	
B-H	-67/0	-95.2	-95.2	0.29 (1)	6.25	G-H	-859/0	0.00 (1)	
H-C	-298/0	-95.2	-95.2	0.57 (1)	6.25	I-J	-859/0	0.00 (1)	
C-J	-298/0	-95.2	-95.2	0.57 (1)	6.25				
J-D	-67/0	-95.2	-95.2	0.29 (1)	6.25				
D-E	0/17	-95.2	-95.2	0.05 (1)	10.00				
B-G	0/254	-18.5	-18.5	0.50 (1)	10.00				
G-F	0/254	-18.5	-18.5	0.50 (1)	10.00				
F-I	0/254	-18.5	-18.5	0.50 (1)	10.00				
I-D	0/254	-18.5	-18.5	0.50 (1)	10.00				

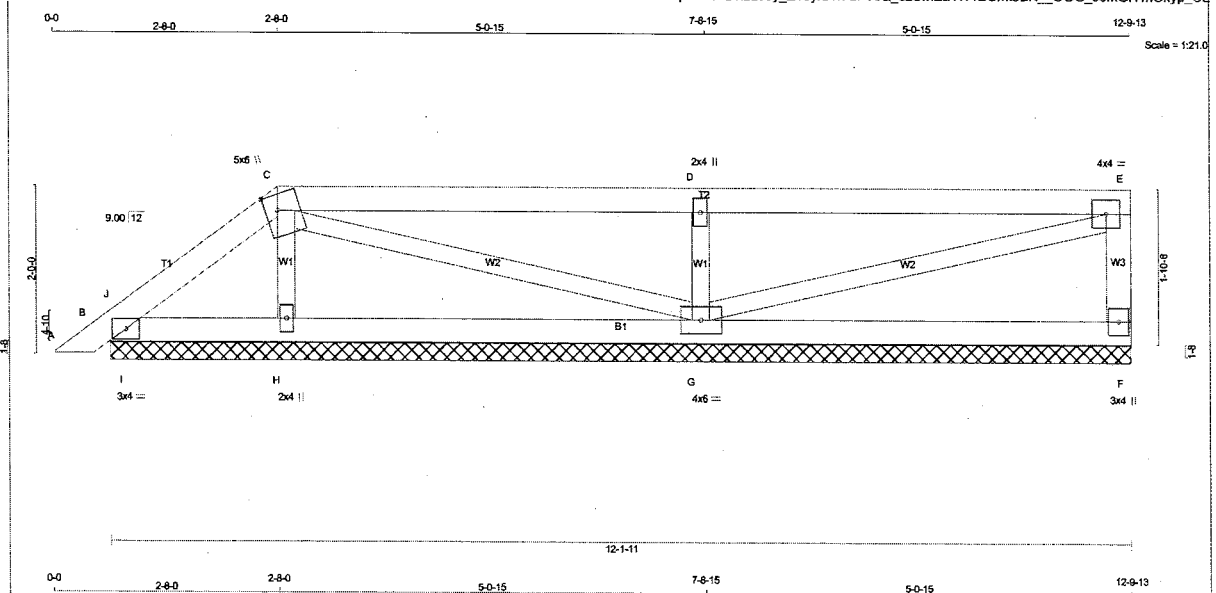
COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
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 = 0.49 (D) (INPUT = 0.90)
JSI METAL = 0.13 (D) (INPUT = 1.00)

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



TOTAL WEIGHT = 2 X 41 = 81 lb

LUMBER

N. L. G. A. RULES

CHORDS	SIZE	LUMBER	DESCR.
A - C	2x4	DRY	SPF
C - E	2x4	DRY	SPF
F - H	2x4	DRY	SPF
B - F	2x4	DRY	SPF
ALL WEBS	2x3	DRY	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	TTWW+m	MT20	5.0	6.0	2.25	1.75
D	TMW+w	MT20	2.0	4.0		
E	TMW-I	MT20	4.0	4.0		
F	BMV1+p	MT20	3.0	4.0		
G	BMWW1-I	MT20	4.0	6.0		
H	BMV1+w	MT20	2.0	4.0		

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

BEARINGS

	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG IN-SX	REQRD BRG IN-SX
JT	VERT	DOWN	12-1-11	1-8
F	HORZ	UPLIFT	12-1-11	1-8
B			12-1-11	1-8
H			12-1-11	1-8
G			12-1-11	1-8

UNFACTORED REACTIONS

1ST LCASE	MAX MIN. COMPONENT REACTIONS
JT	COMBINED
F	SNOW
B	LIVE
H	PERM. LIVE
G	WIND
	DEAD
	SOIL

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) F, B, 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	MAX. FACTORED MEMB. FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX (PLF)	MAX. UNBRACED LENGTH (FT)	WEBS	MAX. FACTORED MEMB. FORCE (LBS)	MAX. FACTORED CSI (LC)
FR-TO					FR-TO		
A-B	0/15	-95.2	-95.2 0.02 (1)	10.00	H-C	-215/0	0.03 (1)
B-J	-32/0	-95.2	-95.2 0.01 (1)	6.25	C-G	-29/0	0.01 (1)
J-C	-56/0	-95.2	-95.2 0.04 (1)	6.25	G-D	-604/0	0.09 (1)
C-D	0/0	-95.2	-95.2 0.42 (1)	10.00	G-E	0/0	0.00 (1)
D-E	0/0	-95.2	-95.2 0.42 (1)	10.00	F-J	-129/0	0.00 (1)
F-E	-184/0	0.0	0.0 0.02 (1)	7.81			
B-I	0/42	-18.5	-18.5 0.05 (1)	10.00			
I-H	0/42	-18.5	-18.5 0.06 (4)	10.00			
H-G	0/27	-18.5	-18.5 0.12 (4)	10.00			
G-F	0/0	-18.5	-18.5 0.12 (4)	10.00			

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 26.7 PSF

BOT CH. LL = 0.0 PSF

DL = 8.0 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=0.42/1.00 (D-E:1), BC=0.12/1.00 (G-H:4), WB=0.09/1.00 (D-G:1), SSI=0.24/1.00 (D-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

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

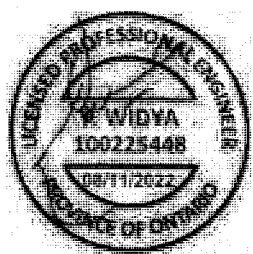
PLATE PLACEMENT TOL. = 0.250 inches

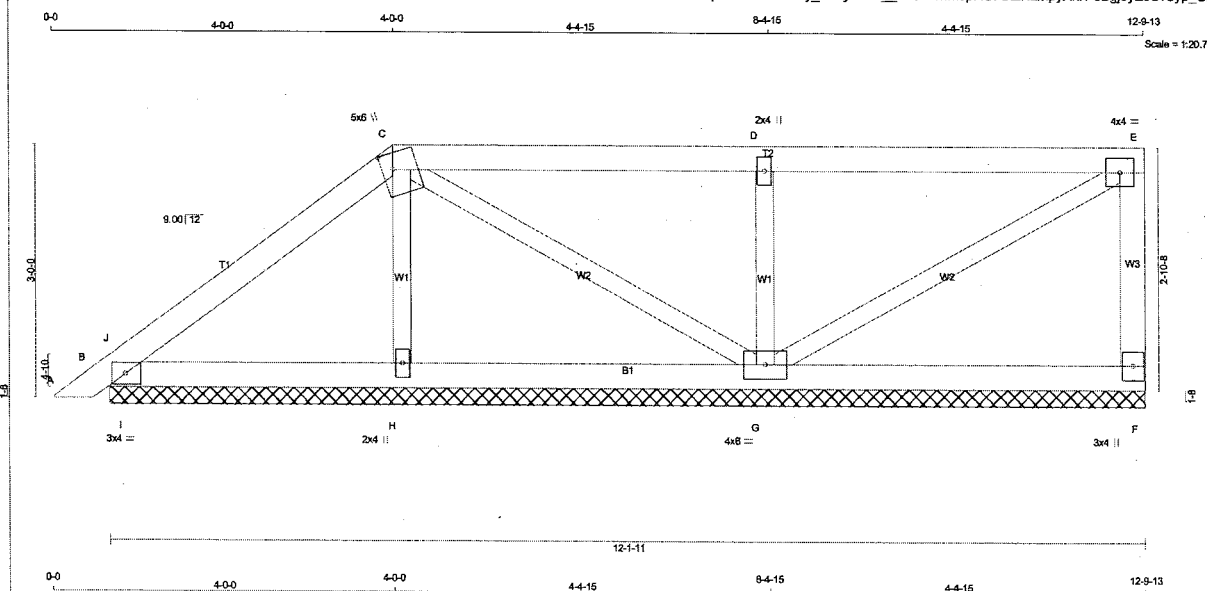
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.30 (D) (INPUT = 0.90)

JSI METAL= 0.13 (D) (INPUT = 1.00)

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





LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY				TOTAL WEIGHT = 2 X 44 = 88 lb			
N. L. G. A. RULES				BUILDING DESIGNER							
CHORDS	SIZE	LUMBER	DESCR.	BEARINGS							
A - C	2x4	DRY	No.2	SPF	FACTORED	MAXIMUM FACTORED	INPUT	REQD			
C - E	2x4	DRY	No.2	SPF	GROSS REACTION	GROSS REACTION	BRG	BRG			
F - E	2x4	DRY	No.2	SPF	JT VERT	DOWN	UP	IN-SX			
B - F	2x4	DRY	No.2	SPF	F	193	0	0	12-1-11	1-8	
ALL WEBS 2x3 DRY No.2				UNFACTORED REACTIONS							
DRY: SEASONED LUMBER.				1ST LCASE							
				COMBINED							
				SNOW							
				LIVE							
				PERM. LIVE							
				WIND							
				DEAD							
				SOIL							
				JT							
				F							
				B							
				H							
				G							

PLATES (table is in inches)				DESIGN CRITERIA			
JT TYPE	PLATES	W	LEN Y X	SPECIFIED LOADS:			
B TM81-I	MT20	3.0	4.0	TOP CH. LL	=	26.7	PSF
C TTWW+m	MT20	5.0	6.0	DL	=	6.0	PSF
D TMW+w	MT20	2.0	4.0	BOT CH. LL	=	0.0	PSF
E TMW-I	MT20	4.0	4.0	DL	=	7.4	PSF
F BMW1+p	MT20	3.0	4.0	TOTAL LOAD	=	40.1	PSF
G BMWW1-I	MT20	4.0	6.0	SPACING = 24.0 IN. C/C			
H BMW1+w	MT20	2.0	4.0	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 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

CHORDS				WEBS			
MEMB.	FORCE (LBS)	FACTORED	MAX. FACTORED	MEMB.	FORCE (LBS)	FACTORED	MAX. FACTORED
FR-TO		VERT. LOAD	LC1 MAX	FR-TO		VERT. LOAD	LC1 MAX
A-B	0/15	-95.2	-95.2 0.02 (1)	H-C	-197/0	0.03 (1)	0.03 (1)
B-J	-23/0	-95.2	-95.2 0.05 (1)	C-G	-74/0	0.03 (1)	0.03 (1)
J-C	-96/0	-95.2	-95.2 0.13 (1)	G-D	-524/0	0.09 (1)	0.09 (1)
C-D	0/2	-95.2	-95.2 0.31 (1)	G-E	-2/0	0.00 (1)	0.00 (1)
D-E	0/1	-95.2	-95.2 0.31 (1)	I-J	-290/0	0.00 (1)	0.00 (1)
F-E	-169/0	0.0	0.0 0.02 (1)				
B-I	0/71	-18.5	-18.5 0.12 (1)				
I-H	0/71	-18.5	-18.5 0.12 (1)				
H-G	0/63	-18.5	-18.5 0.09 (4)				
G-F	0/0	-18.5	-18.5 0.09 (4)				

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

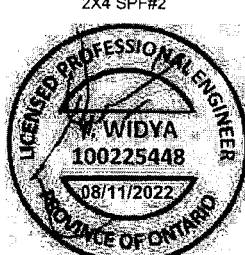
NAIL VALUES
 PLATE GRIP(DRY) SHEAR SECTION (PSI) (PL) (PL)
 MAX MIN MAX MIN MAX MIN
 MT20 650 371 1747 788 1987 1873

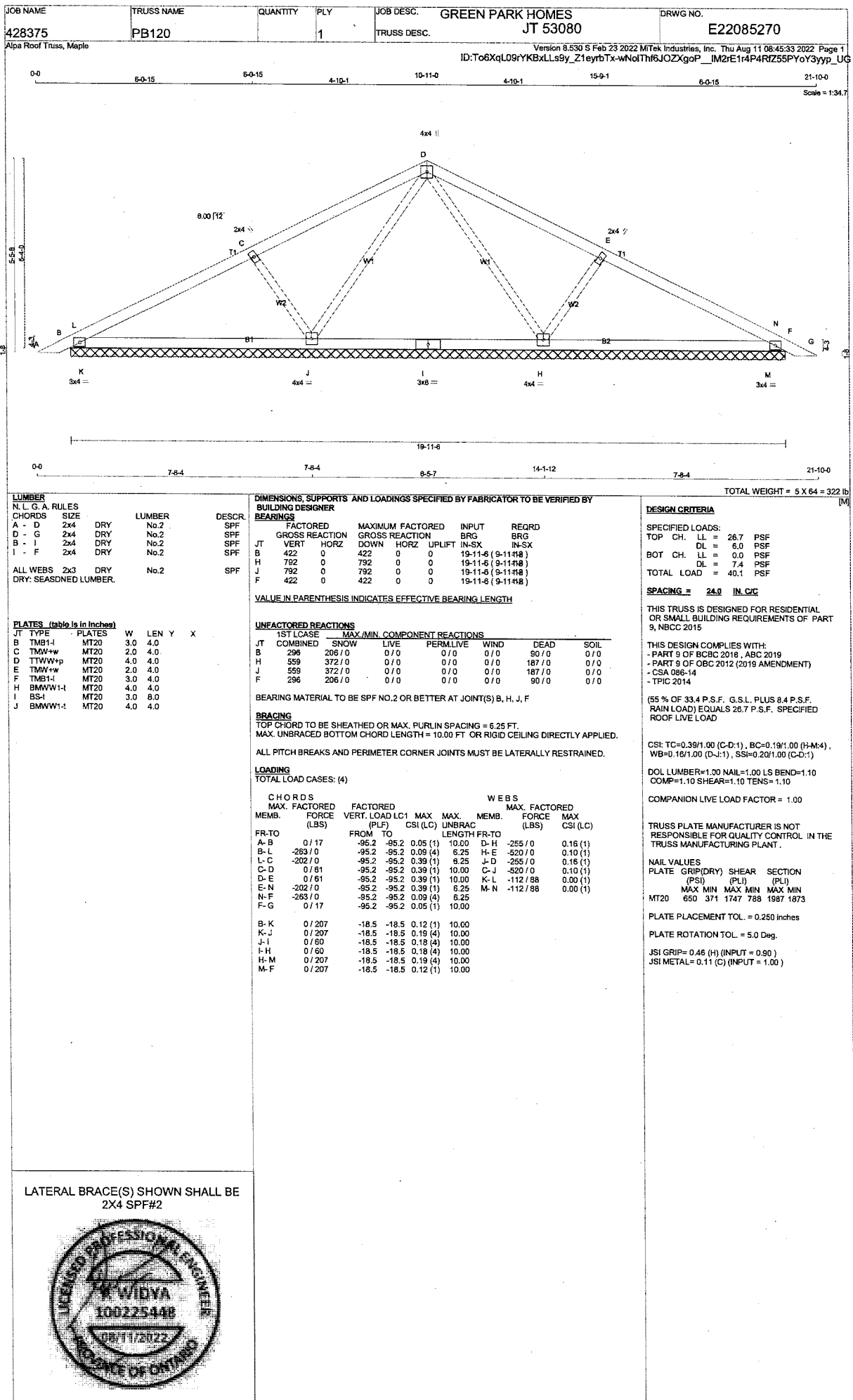
PLATE PLACEMENT TOL. = 0.250 inches

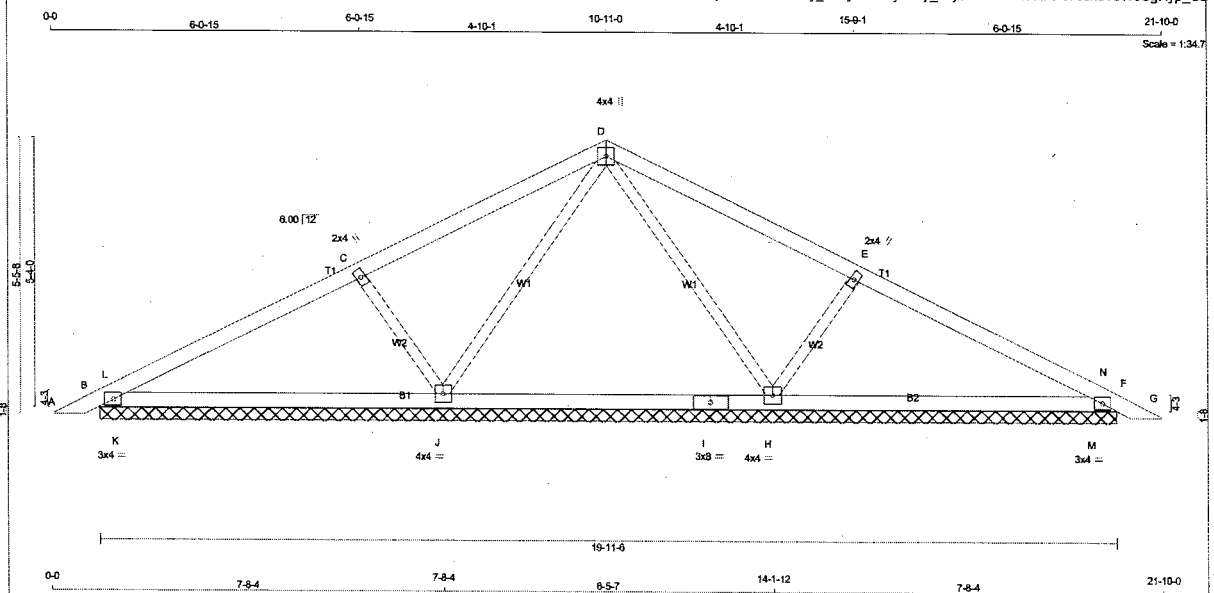
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.26 (D) (INPUT = 0.90)
 JSI METAL= 0.11 (D) (INPUT = 1.00)

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







Scale = 1:34.7 TOTAL WEIGHT = 2 X 64 = 128 lb

LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.
A - D	2x4	DRY	No.2	SPF
D - G	2x4	DRY	No.2	SPF
B - I	2x4	DRY	No.2	SPF
I - F	2x4	DRY	No.2	SPF
ALL WEBS	2x3	DRY	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		TOP
A-D 1 12		TOP
D-G 1 12		TOP
BOTTOM CHORDS: (0.122"x3") SPIRAL NAILS		TOP
B-I 1 12		TOP
I-F 1 12		TOP
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.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B-TMB1-4	MT20	3.0	4.0		
C-TMW+w	MT20	2.0	4.0		
D-TTWW+p	MT20	4.0	4.0		
E-TMW+w	MT20	2.0	4.0		
F-TMB1-4	MT20	3.0	4.0		
H-BMW1-4	MT20	4.0	4.0		
I-BS-4	MT20	3.0	8.0		
J-BMW1-4	MT20	4.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED		INPUT		REQD	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	BRG	IN-SX
B	422	0	422	0	0	19-11-6 (11-11-82)		
H	792	0	792	0	0	19-11-6 (11-11-82)		
J	792	0	792	0	0	19-11-6 (11-11-82)		
F	422	0	422	0	0	19-11-6 (11-11-82)		

VALUE IN PARENTHESIS INDICATES EFFECTIVE BEARING LENGTH

UNFACTORED REACTIONS

JT	1ST LCASE		MAX/MIN COMPONENT REACTIONS		WIND	DEAD	SOIL
	COMBINED	SNOW	LIVE	PERM.LIVE			
B	296	208 / 0	0 / 0	0 / 0	0 / 0	90 / 0	0 / 0
H	559	372 / 0	0 / 0	0 / 0	0 / 0	187 / 0	0 / 0
J	559	372 / 0	0 / 0	0 / 0	0 / 0	187 / 0	0 / 0
F	296	208 / 0	0 / 0	0 / 0	0 / 0	90 / 0	0 / 0

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

MEMB.		MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 (PLF)		MAX. CSI (LC)	MAX. UNBRAC	W E B S		MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)
FR-TO			FROM TO				LENGTH	FR-TO			
A-B	0 / 17		-95.2	-95.2	0.02 (1)	10.00	D-H	-255 / 0	0.08 (1)		
B-L	-264 / 0		-95.2	-95.2	0.04 (4)	6.25	H-E	-520 / 0	0.05 (1)		
L-C	-202 / 0		-95.2	-95.2	0.19 (1)	6.25	J-D	-255 / 0	0.08 (1)		
C-D	0 / 61		-95.2	-95.2	0.20 (1)	10.00	C-J	-520 / 0	0.05 (1)		
D-E	0 / 61		-95.2	-95.2	0.20 (1)	10.00	K-L	-112 / 87	0.00 (1)		
E-N	-202 / 0		-95.2	-95.2	0.19 (1)	6.25	M-N	-112 / 87	0.00 (1)		
N-F	-264 / 0		-95.2	-95.2	0.04 (4)	6.25					
F-G	0 / 17		-95.2	-95.2	0.02 (1)	10.00					
B-K	0 / 207		-18.5	-18.5	0.06 (1)	10.00					
K-J	0 / 207		-18.5	-18.5	0.09 (4)	10.00					
J-I	0 / 60		-18.5	-18.5	0.09 (4)	10.00					
I-H	0 / 60		-18.5	-18.5	0.09 (4)	10.00					
H-M	0 / 207		-18.5	-18.5	0.09 (4)	10.00					
M-F	0 / 207		-18.5	-18.5	0.06 (1)	10.00					

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 26.7 PSF
DL = 8.0 PSF
BOT CH. LL = 0.0 PSF
DL = 7.4 PSF
TOTAL LOAD = 40.1 PSF

SPACING = 24.0 IN. CC

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 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=0.20/1.00 (C-D-1), BC=0.09/1.00 (H-M-4), WB=0.08/1.00 (D-J-1), SS=0.10/1.00 (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

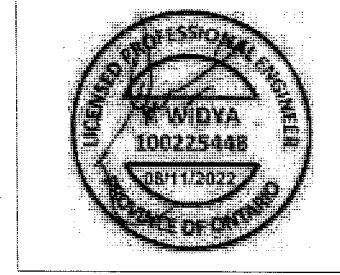
PLATE	GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MT20	650	371	1747
	788	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

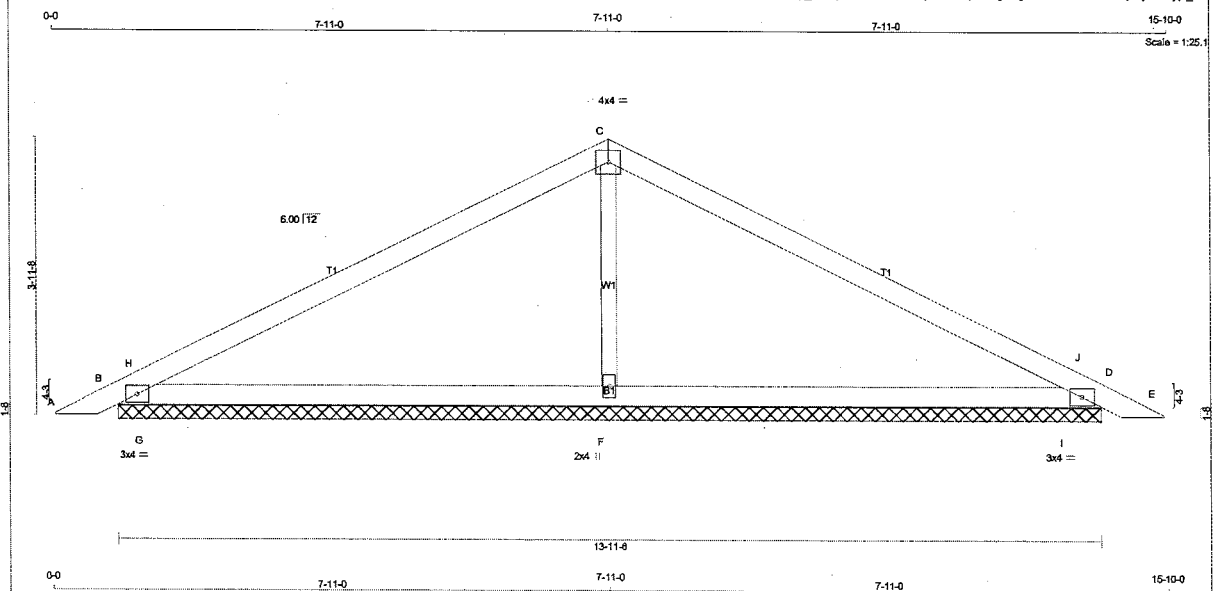
JSI GRIP= 0.46 (H) (INPUT = 0.90)
JSI METAL= 0.05 (C) (INPUT = 1.00)

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



Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 Mitek Industries, Inc. Thu Aug 11 08:45:38 2022 Page 1
ID:To6XqL09rYKBxLLs9y_Z1eyrbTx-HLceXOJE7wCqnZHynJyDYHkewQifKmqZqVJl9yp_UB



TOTAL WEIGHT = 6 X 39 = 232 lb

N. L. G. A. RULES				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY										DESIGN CRITERIA		
CHORDS		SIZE	LUMBER	DESCR.	BUILDING DESIGNER								SPECIFIED LOADS:			
					BEARINGS											
					FACTORED		MAXIMUM FACTORED		INPUT		REQRD					
					GROSS REACTION		GROSS REACTION		BRG		BRG		TOP CH. LL = 26.7 PSF			
					VERT		DOWN		HORIZ		UP		DL = 6.0 PSF			
					HORZ		DOWN		HORZ		UP		BOT CH. LL = 0.0 PSF			
					JT		DOWN		HORZ		UP		DL = 7.4 PSF			
					B		565		0		13-11-6		TOTAL LOAD = 40.1 PSF			
					D		565		0		13-11-6					
					E		616		0		13-11-6					
					F		616		0		13-11-6					
ALL WEBS					2x3	DRY	No.2	SPF								
DRY: SEASONED LUMBER.																

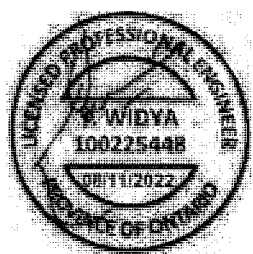
UNFACTORED REACTIONS										TOTAL LOAD = 45.7 k	
1ST LCASE										SPACING = 24.0 IN C/C	
MAX/MIN COMPONENT REACTIONS										THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL			THIS DESIGN COMPLIES WITH: - PART 9 OF CBC 2018, ABC 2019	
B	396	282 / 0	0 / 0	0 / 0	0 / 0	113 / 0	0 / 0				
C	396	282 / 0	0 / 0	0 / 0	0 / 0	113 / 0	0 / 0				
D	439	271 / 0	0 / 0	0 / 0	0 / 0	168 / 0	0 / 0				
BEARING MATERIAL TO BE SFD NO. 2 OR BETTER AT JOINT(S) B & C											
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	BMW1pw	MT20	2.0	4.0							

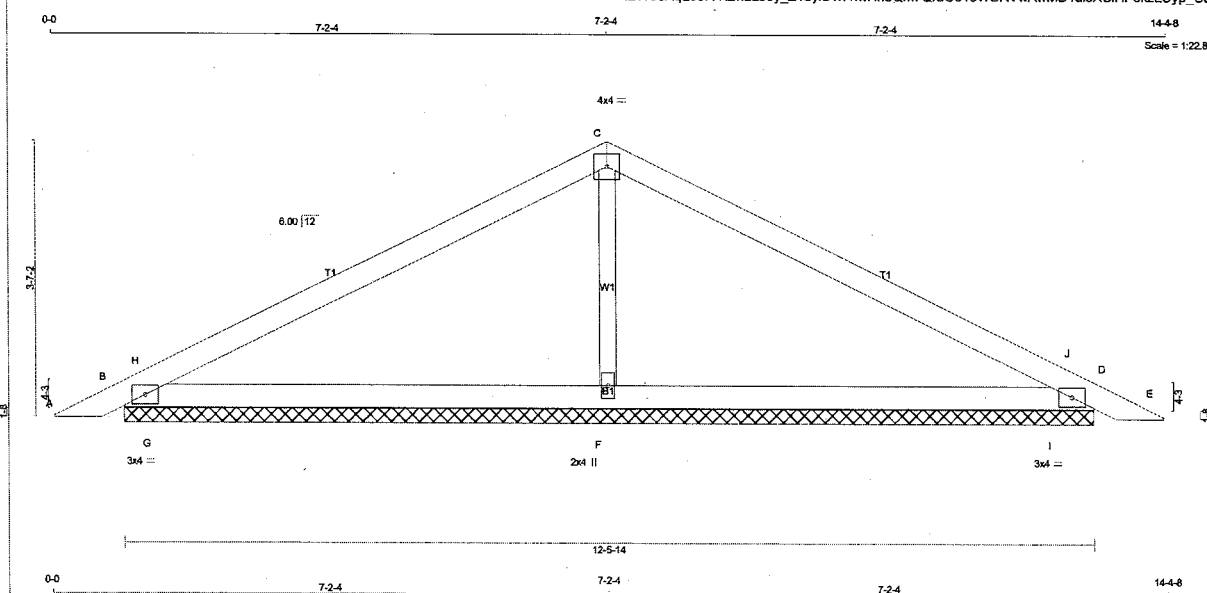
BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) B, O, F
BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.
ALL PITCH BREAKS AND PERIMETER CORNER JOINTS MUST BE Laterally RESTRAINED.

LOADING				TOTAL LOAD CASES: (4)				DESIGN CRITERIA			
CHORDS				WEBS				SPECIFIED LOADS:			
MEMB.	FORCE	VERT.	LOAD	LC1	MAX	MAX.	MEMB.	MAX.	FORCE	MAX	CS1 (LC)
FR-TO							FR-TO				
A-B	0/17	-95.2	-95.2	0.05 (1)	10.00	F-C	-303/0	0.07 (1)			
B-H	-67/0	-95.2	-95.2	0.29 (1)	6.25	G-H	-869/0	0.00 (1)			
H-C	-301/0	-95.2	-95.2	0.58 (1)	6.25	I-J	-869/0	0.00 (1)			
C-J	-301/0	-95.2	-95.2	0.58 (1)	6.25						
J-D	-67/0	-95.2	-95.2	0.29 (1)	6.25						
D-E	0/17	-95.2	-95.2	0.05 (1)	10.00						
B-G	0/256	-18.5	-18.5	0.50 (1)	10.00						
G-F	0/256	-18.5	-18.5	0.50 (1)	10.00						
F-I	0/256	-18.5	-18.5	0.50 (1)	10.00						
I-D	0/256	-18.5	-18.5	0.50 (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) (PL) (PL)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873
PLATE PLACEMENT TOL. = 0.250 inches
PLATE ROTATION TOL. = 5.0 Deg.
JSI GRIP = 0.49 (D) (INPUT = 0.90)
JSI METAL = 0.13 (D) (INPUT = 1.00)

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





										TOTAL WEIGHT = 2 X 35 = 70 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.																								
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.																								
					BEARINGS															SPECIFIED LOADS:				
																				TOP CH. LL = 26.7 PSF				
																				DL = 8.0 PSF				
																				BOT CH. LL = 0.0 PSF				
																				DL = 7.4 PSF				
																				TOTAL LOAD = 40.1 PSF				

							SPACING = 24.0 IN G/C							
PLATES (table is in inches)							THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2015							
JT	TYPE	PLATES	W	LEN	Y	X	JT	1ST LCASE	MAX. MIN. COMPONENT REACTIONS					
B	TMB1-I	MT20	3.0	4.0			B	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
C	TTW-p	MT20	4.0	4.0			D	354	253 / 0	0 / 0	0 / 0	0 / 0	101 / 0	0 / 0
D	TMB1-I	MT20	3.0	4.0			F	354	253 / 0	0 / 0	0 / 0	0 / 0	101 / 0	0 / 0
F	TMB1-W	MT20	2.0	4.0			F	406	252 / 0	0 / 0	0 / 0	0 / 0	154 / 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.							

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINTS (S, B, U, 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 FORCE (LBS)

FACTORED VERT. LOAD (PLF)

LC1

MAX. CS1 (LC)

UNBRAC LENGTH

FR-TO

MEMB.

0 / 17

-95.2

-95.2

0.05 (1)

10.00

F-C

B-H

-58 / 0

-95.2

-95.2

0.22 (1)

6.25

G-H

H-C

-249 / 0

-95.2

-95.2

0.46 (1)

6.25

I-J

C-J

-249 / 0

-95.2

-95.2

0.46 (1)

6.25

J-D

-68 / 0

-95.2

-95.2

0.22 (1)

6.25

D-E

0 / 17

-95.2

-95.2

0.05 (1)

10.00

B-G

0 / 212

-18.5

-18.5

0.41 (1)

10.00

G-F

0 / 212

-18.5

-18.5

0.41 (1)

10.00

F-I

0 / 212

-18.5

-18.5

0.41 (1)

10.00

I-D

0 / 212

-18.5

-18.5

0.41 (1)

10.00

WEBS

MAX. FACTORED FORCE (LBS)

MAX. CS1 (LC)

F-C

-288 / 0

0.06 (1)

G-H

-707 / 0

0.00 (1)

I-J

-707 / 0

0.00 (1)

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

PAR: 19 OF CBC 2012 (2019 AMENDMENT)

CSA 085-14

TPIC 2014

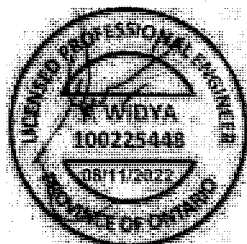
(55 % OF 33.4 P.S.F. G.S.I. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 27.7 P.S.F. SPECIFIED ROOF LIVE LOAD

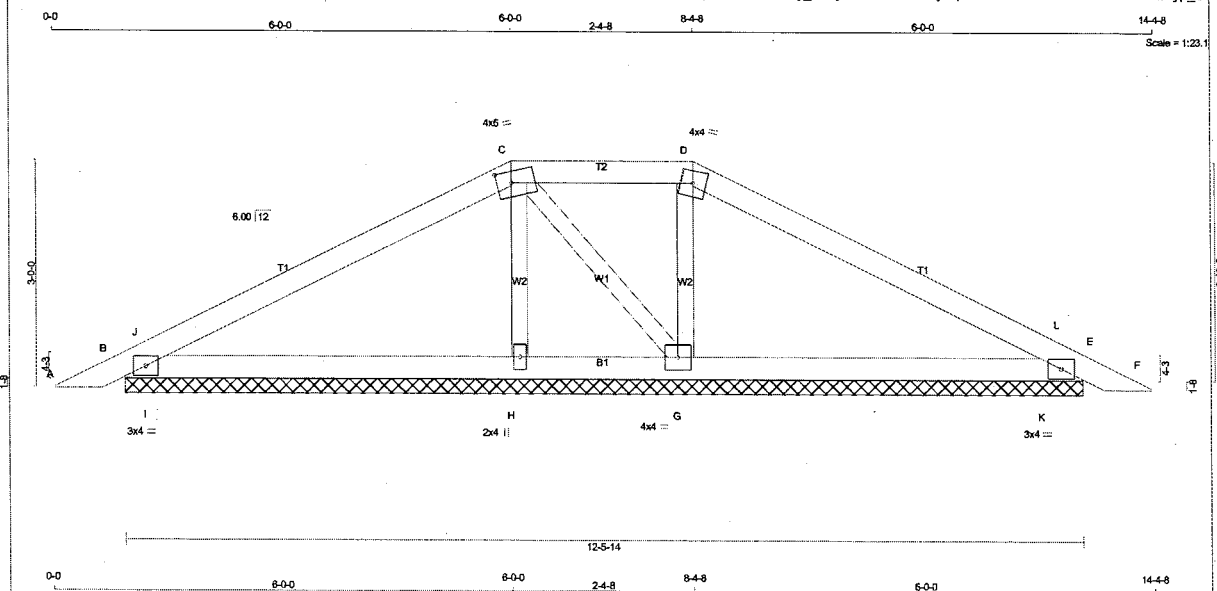
CSI: TC=0.46/1.00 (C-J-I), BC=0.41/1.00 (F-I-I), WB=0.06/1.00 (C-F-I), SS=0.53/1.00 (D-I-I).

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS=1.10

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





LUMBER				DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY				TOTAL WEIGHT = 38 lb			
N. L. G. A. RULES				BUILDING DESIGNER							
CHORDS	SIZE	LUMBER	DESCR.	BEARINGS							
A - C	2x4	DRY	No.2	FACTORED	MAXIMUM FACTORED	INPUT	REQ'D				
C - D	2x4	DRY	No.2	GROSS REACTION	GROSS REACTION	BRG	BRG				
D - F	2x4	DRY	No.2	VERT	DOWN	IN-SX	IN-SX				
B - E	2x4	DRY	No.2	HORZ	UPLIFT						
ALL WEBS	2x3	DRY	No.2	JT							
DRY: SEASONED LUMBER.				B	428	0	12-5-14				
				E	408	0	12-5-14				
				H	314	0	12-5-14				
				G	430	0	12-5-14				

PLATES (table is in inches)				UNFACTORED REACTIONS				DESIGN CRITERIA			
JT	TYPE	PLATES	W LEN Y X	1ST LCASE	MAX MIN	COMPONENT REACTIONS					
B	TMB1-t	MT20	3.0 4.0	COMBINED	SNOW	LIVE	PERM.LIVE				
C	TTW-m	MT20	4.0 6.0 1.75 2.25								
D	TTW-m	MT20	4.0 4.0								
E	TMB1-t	MT20	3.0 4.0								
G	BMW1-t	MT20	4.0 4.0								
H	BMW1-w	MT20	2.0 4.0								

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)	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	H-C	-195 / 0	0.03 (1)	
B-J	-81 / 0	-95.2 -95.2 0.10 (1)	6.25	C-G	-64 / 0	0.01 (1)	
J-C	-177 / 0	-95.2 -95.2 0.30 (1)	6.25	G-D	-262 / 0	0.05 (1)	
C-D	-101 / 0	-95.2 -95.2 0.08 (1)	6.25	I-J	-428 / 0	0.00 (1)	
D-L	-132 / 0	-95.2 -95.2 0.30 (1)	6.25	K-L	-431 / 0	0.00 (1)	
L-E	-49 / 0	-95.2 -95.2 0.10 (1)	6.25				
E-F	0 / 17	-95.2 -95.2 0.05 (1)	10.00				
B-I	0 / 151	-18.5 -18.5 0.26 (1)	10.00				
I-H	0 / 151	-18.5 -18.5 0.26 (1)	10.00				
H-G	0 / 143	-18.5 -18.5 0.15 (1)	10.00				
G-K	0 / 112	-18.5 -18.5 0.25 (1)	10.00				
K-E	0 / 112	-18.5 -18.5 0.25 (1)	10.00				

CSH: TC=0.30/1.00 (C-J-1), BC=0.28/1.00 (B-I-1), WB=0.05/1.00 (D-G-1), SSI=0.33/1.00 (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.

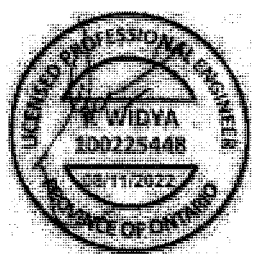
NAIL VALUES
 PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
 MAX MIN MAX MIN MAX MIN
 MT20 950 371 1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

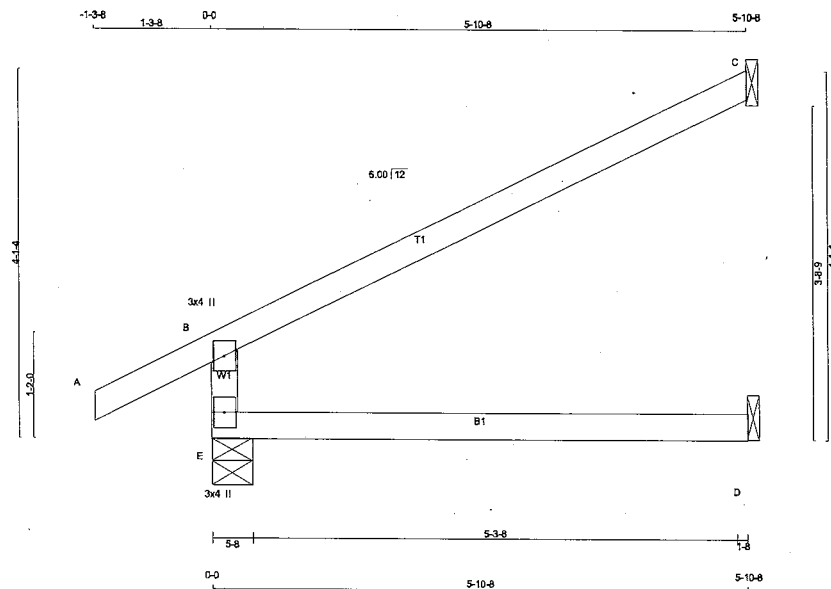
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.35 (B) (INPUT = 0.90)
 JSI METAL= 0.09 (B) (INPUT = 1.00)

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



[illegible]



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

DRY: SEASONED LUMBER.

PLATES (table is in inches)	JT TYPE	PLATES	W	LEN	Y	X
B	TMV+p	MT20	3.0	4.0		
E	BMV+p	MT20	3.0	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
	VERT	HORZ	DOWN	UP
E	542	0	542	0
C	210	0	210	0
D	45	0	50	0

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

UNFACTORED REACTIONS

JT	1ST CASE	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
E	380	289/0	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

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

BRACING

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

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS			WEBS		
MAX. FACTORED		FACTORED	MAX. FACTORED		
MEMB.	FORCE	VERT. LOAD	MEMB.	FORCE	
	(LBS)	(PLF)		(LBS)	MAX
		LC1			CS (LC1)
FR-TO		FROM	TO	LENGTH	FR-TO
E-B	-479/0	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 BCBC 2015, 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) = $L/360$ (0.20")
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=0.59/1.00 (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.

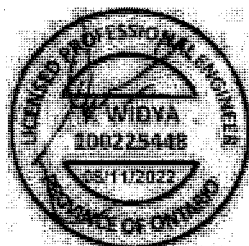
NAIL VALUES	PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PL)	(PL)	(PL)	(PL)
MT20	550	371	1747	788

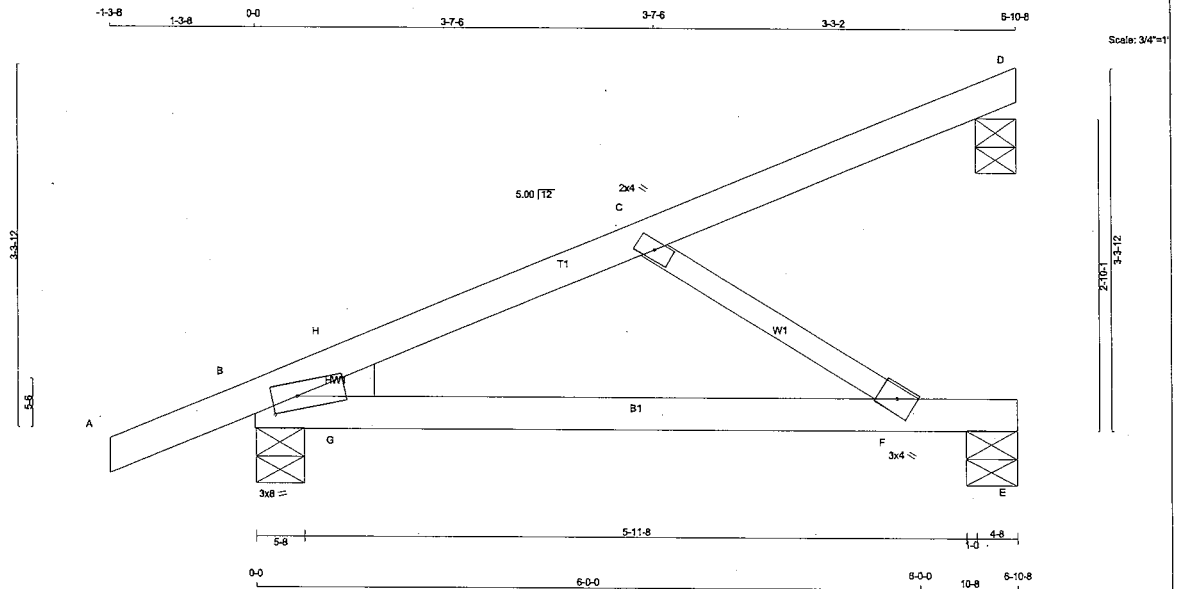
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.19 (E) (INPUT = 0.90)
JSI METAL= 0.13 (B) (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	No.2	SPF
B - E	2x4	No.2	SPF
ALL WEBS	2x3	DRY	SPF
DRY: SEASONED LUMBER.			

PLATES (table is in inches)						
JT	TYPE	PLATES	W	LEN	Y	X
B	TMBH1-m	MT20	3.0	8.0	1.50	2.75
C	TMW+w	MT20	2.0	4.0		
F	BMW+w	MT20	3.0	4.0		

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

BEARINGS

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG	REQD BRG	HEEL WEDGE
	VERT	HORZ	DOWN	HORZ			
D	134	0	135	0	-67	4-8	
B	519	0	519	163	-183	5-8	2x4 L
E	257	0	257	0	-157	5-8	

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S): D

PROVIDE ANCHORAGE AT BEARING JOINT D FOR 150 LBS. FACTORED UPLIFT
 PROVIDE ANCHORAGE AT BEARING JOINT B FOR 163 LBS. FACTORED UPLIFT
 PROVIDE ANCHORAGE AT BEARING JOINT E FOR 157 LBS. FACTORED UPLIFT

PROVIDE FOR 163 LBS. FACTORED HORIZONTAL REACTION AT JOINT B

UNFACTORED REACTIONS

JT	COMBINED	MAX/MIN. COMPONENT REACTIONS					
		SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
D	92	75 / 0	0 / 0	0 / 0	3 / -59	17 / 0	0 / 0
B	364	256 / 0	0 / 0	0 / 0	0 / -200	108 / 0	0 / 0
E	184	109 / 0	0 / 0	0 / 0	0 / -160	75 / 0	0 / 0

HORIZONTAL REACTIONS

JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
B	—	0 / 0	0 / 0	0 / 0	116 / -0	0 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 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.

LOADING

TOTAL LOAD CASES: (12)

MEMB.	CHORDS		WEBS	
	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD LC1 MAX (PLF)	MAX. MEMB. FORCE (LBS)	MAX. FACTORED FORCE (LBS)
FR-TO				
A-B	0 / 19	-95.2	-95.2	0.12 (1)
B-H	-502 / 131	-95.2	-95.2	0.17 (1)
H-C	-345 / 77	-95.2	-95.2	0.23 (1)
C-D	-33 / 0	-95.2	-95.2	0.12 (1)
B-G	-189 / 349	-18.5	-18.5	0.11 (1)
G-F	-189 / 349	-18.5	-18.5	0.42 (1)
F-E	0 / 0	-18.5	-18.5	0.36 (1)

WIND LOAD APPLIED IS DERIVED FROM REFERENCE VELOCITY PRESSURE OF (7.5) PSF AT (30-0) FT-IN-SX REFERENCE HEIGHT ABOVE GRADE AND USING EXTERNAL PEAK COEFFICIENTS, CpCq, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 3). 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.

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

(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 (0.23")
 CALCULATED VERT. DEFL.(LL) = U/711 (0.12")
 ALLOWABLE DEFL.(TL) = L/360 (0.23")
 CALCULATED VERT. DEFL.(TL) = U/438 (0.19")

CSI: TC=0.23/1.00 (C-H:1), BC=0.42/1.00 (F-G:1), WB=0.09/1.00 (C-F:1), SS=0.20/1.00 (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.

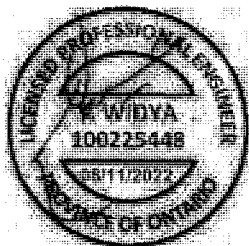
NAIL VALUES
 PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (PLI)
 MAX MIN MAX MIN MAX MIN
 MT20 650 371 1747 788 1987 1873

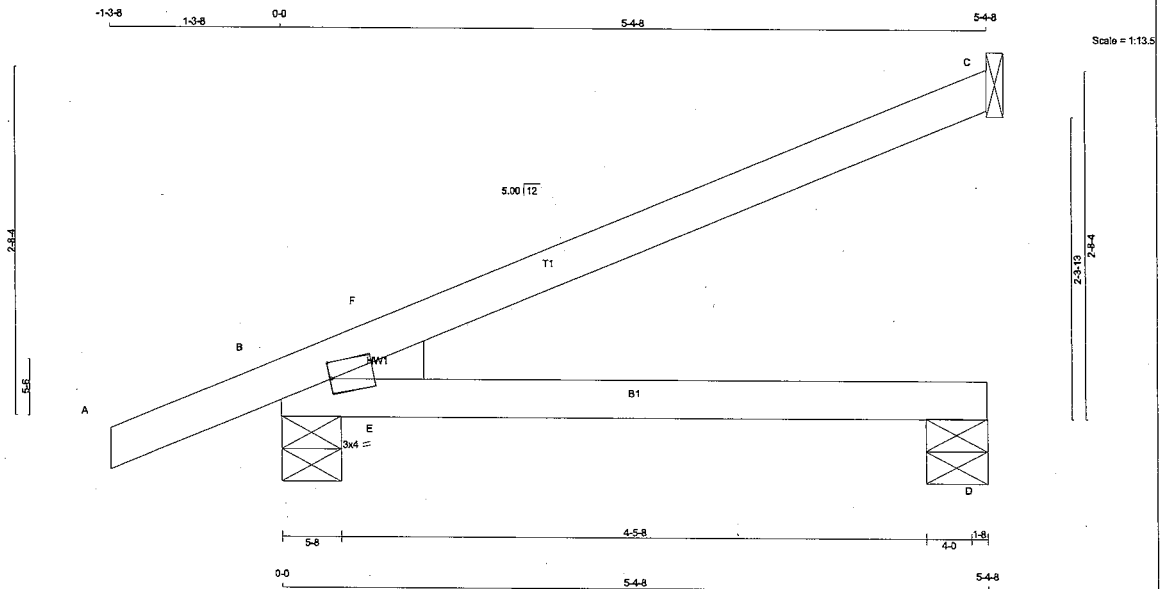
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.29 (C) (INPUT = 0.90)
 JSI METAL= 0.20 (C) (INPUT = 1.00)

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





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

PLATES (table is in inches)
JT TYPE PLATES W LEN Y X
B TMBH1-m MT20 3.0 4.0 1.50 0.25

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

FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG	HEEL WEDGE
JT VERT	DOWN	UP	IN-SX	IN-SX
C 220 0	220 0	-115 1-8	1-8	1-8
B 434 0	434 132	-148 5-8	1-8	2x4 L
D 86 0	86 0	-60 5-8	1-8	1-8

SEE MITEK STANDARD DETAIL MS02015-H FOR CONNECTION TO JOINT(S) C

PROVIDE ANCHORAGE AT BEARING JOINT C FOR 150 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT B FOR 150 LBS FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT D FOR 150 LBS FACTORED UPLIFT

PROVIDE FOR 132 LBS FACTORED HORIZONTAL REACTION AT JOINT B

UNFACTORED REACTIONS

1ST CASE	SNOW	LIVE	PERM LIVE	WIND	DEAD	SOIL
JT COMBINED						
C 152	119/0	0/0	0/0	0/-103	33/0	0/0
B 304	216/0	0/0	0/0	0/-162	88/0	0/0
D 64	25/0	0/0	0/0	0/-68	39/0	0/0

HORIZONTAL REACTIONS					
B	0/0	0/0	0/0	94/0	0/0

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 PLATE BREAKS AND PERIMETER CORNER JOINTS MUST BE LATERALLY RESTRAINED.

LOADING
TOTAL LOAD CASES: (12)

CHORDS	MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED HORIZ. LOAD (PLF)	MAX. MEMB. FORCE (LBS)	MAX. FACTORED FORCE (LBS)	WEBS	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED FORCE (LBS)
FR. TO					FROM	TO	LENGTH	FR. TO		
A-B	0/19	-95.2	-85.2	0.12 (1)	10.00	E-F	-264 / 112	0.00 (1)		
B-F	-109 / 4	-95.2	-85.2	0.08 (12)	6.25					
F-C	-54 / 3	-95.2	-85.2	0.34 (1)	6.25					
B-E	0/0	-18.5	-18.5	0.27 (1)	10.00					
E-D	0/0	-18.5	-18.5	0.27 (1)	10.00					

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_{pe} BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM); INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 3). 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.

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 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.06")
ALLOWABLE DEFL.(TL) = L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/587 (0.11")

CSI: TC=0.34/1.00 (C-F:1), BC=0.27/1.00 (B-E:1), WB=0.00/1.00 (E-F:1), SS=0.20/1.00 (B-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

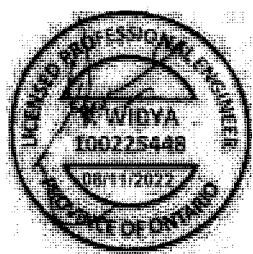
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION (PSI) (PLI) (P.L)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 788 1987 1873

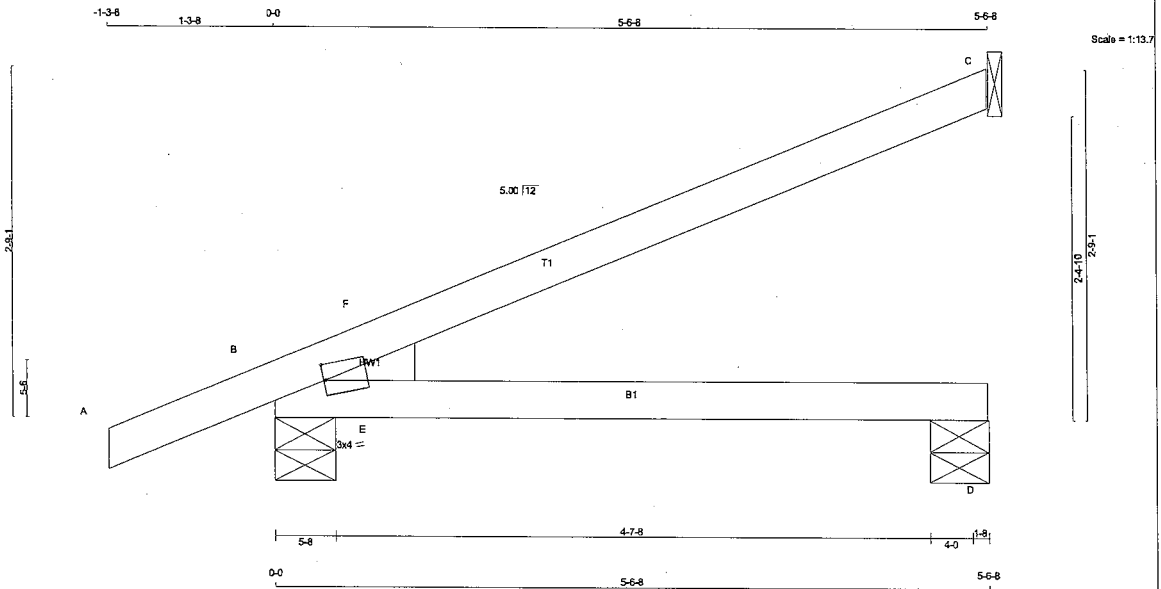
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.41 (B) (INPUT = 0.90)
JSI METAL= 0.07 (B) (INPUT = 1.00)

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





LUMBER

N. L. G. A. RULES

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B	TMBH1-m	MT20	3.0	4.0	1.50 0.25

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

BEARINGS

JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	REQD BRG	HEEL
C	227	0	227	0	0	1-8	1-8	2x4 L
B	443	0	443	0	0	5-8	1-8	
D	88	0	88	0	0	5-8	1-8	

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

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
C	157	123 / 0	0 / 0	0 / 0	0 / 0	34 / 0	0 / 0
B	311	220 / 0	0 / 0	0 / 0	0 / 0	90 / 0	0 / 0
D	66	25 / 0	0 / 0	0 / 0	0 / 0	40 / 0	0 / 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.	FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED LC1 MAX	MEMB.	FORCE (LBS)	FACTORED MAX	FACTORED LC1 MAX
FR-TO	0 / 19	-95.2	-95.2 0.12 (1)	10.00	FR-TO	-252 / 7	0.00 (1)
B-F	-23 / 0	-95.2	-95.2 0.08 (4)	6.25			
F-C	0 / 3	-95.2	-95.2 0.37 (1)	10.00			
B-E	0 / 0	-18.5	-18.5 0.29 (1)	10.00			
E-D	0 / 0	-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/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 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) = $L/360$ (0.19")
CALCULATED VERT. DEFL. (LL) = $L/999$ (0.06")
ALLOWABLE DEFL. (TL) = $L/360$ (0.19")
CALCULATED VERT. DEFL. (TL) = $L/538$ (0.12")

CSI: TC=0.37/1.00 (C-F:1), BC=0.29/1.00 (B-E:1), WB=0.00/1.00 (E-F:1), SS=0.21/1.00 (B-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

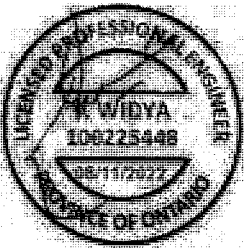
PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PL)
MT20	650	371 1747 788 1987 1873

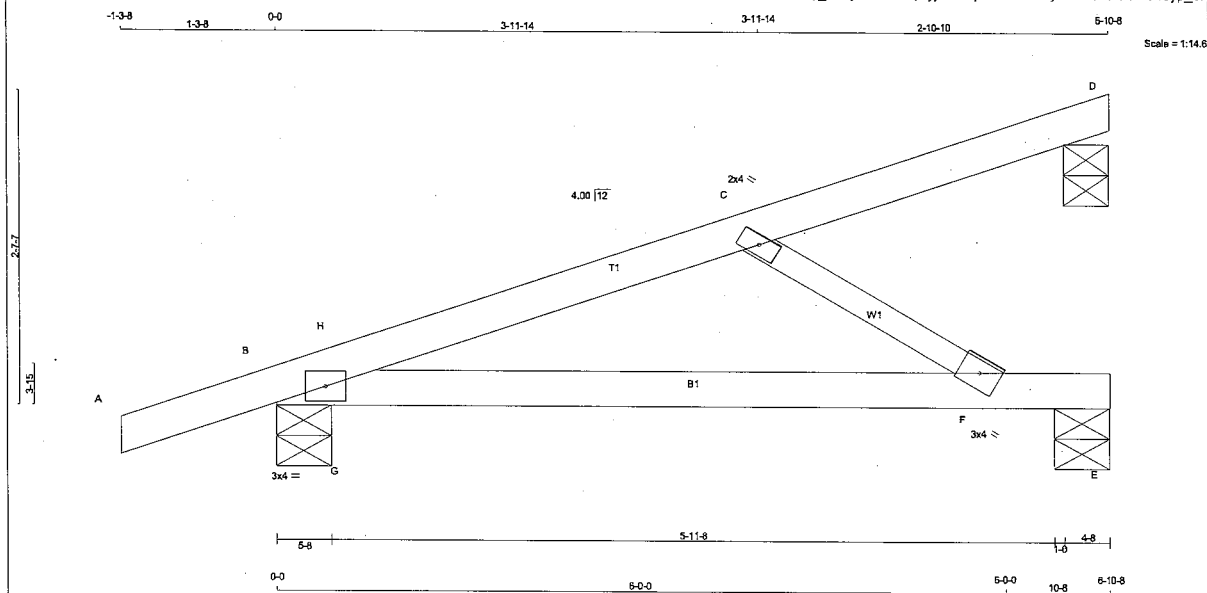
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.42 (B) (INPUT = 0.90)
JSI METAL= 0.07 (B) (INPUT = 1.00)

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





LUMBER

N. L. G. A. RULES	CHORDS	SIZE	LUMBER	DESCR.	SPF
A - D	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)

JT TYPE	PLATES	W	LEN	Y	X
B	TM814	MT20	3.0	4.0	
C	TMW+w	MT20	2.0	4.0	
F	BMW+w	MT20	3.0	4.0	

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

BEARINGS

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REQD BRG
D	121 0	121 0	-58 4-8	4-8
B	518 0	518 129	-198 5-8	1-8
E	270 0	270 0	-152 5-8	1-8

BEVELED PLATE OR SHIM REQUIRED TO PROVIDE FULL BEARING SURFACE WITH TRUSS CHORD AT JT(S) D

PROVIDE ANCHORAGE AT BEARING JOINT D FOR 150 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT B FOR 198 LBS. FACTORED UPLIFT
PROVIDE ANCHORAGE AT BEARING JOINT E FOR 152 LBS. FACTORED UPLIFT

PROVIDE FOR 129 LBS. FACTORED HORIZONTAL REACTION AT JOINT B

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
D	84	66 / 0	0 / 0	0 / 0	0 / -53	18 / 0	0 / 0
B	363	255 / 0	0 / 0	0 / 0	0 / -210	108 / 0	0 / 0
E	192	118 / 0	0 / 0	0 / 0	0 / -157	75 / 0	0 / 0

HORIZONTAL REACTIONS

JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
B	0 / 0	0 / 0	0 / 0	0 / 0	92 / 0	0 / 0	0 / 0

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

BRACING
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 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.

LOADING
TOTAL LOAD CASES: (12)

MEMB.	MAX. FACTORED FORCE (LBS)	CHORDS		WEBS		MAX. FACTORED FORCE (LBS)	MAX. FACTORED CSI (LC)
		VERT. LOAD (PL)	FACTORED (PL)	MAX. FACTORED (PL)	MAX. FACTORED (PL)		
FR-TO	0 / 19	FROM	TO	LENGTH	FR-TO		
A-B	-469 / 126	-95.2	-95.2	0.12 (1)	10.00	C-F	-441 / 216
B-H	-469 / 126	-95.2	-95.2	0.18 (1)	6.25	G-H	-113 / 141
H-C	-357 / 91	-95.2	-95.2	0.28 (1)	6.25		
C-D	-23 / 0	-95.2	-95.2	0.09 (1)	6.25		
B-G	-175 / 357	-18.5	-18.5	0.08 (12)	6.25		
G-F	-175 / 357	-18.5	-18.5	0.44 (1)	6.25		
F-E	0 / 0	-18.5	-18.5	0.38 (1)	10.00		

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_{pe}, BASED ON THE (MAIN WIND FORCE RESISTING SYSTEM). INTERNAL WIND PRESSURE IS BASED ON DESIGN (CATEGORY 3). 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.

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 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

ALLOWABLE DEFL.(LL) = L/360 (0.23")
CALCULATED VERT. DEFL.(LL) = L/652 (0.13")
ALLOWABLE DEFL.(TL) = L/360 (0.23")
CALCULATED VERT. DEFL.(TL) = L/370 (0.22")

CSI: TC=0.28/1.00 (C-H:1), BC=0.44/1.00 (F-G:1), WB=0.08/1.00 (C-F:1), SS=0.21/1.00 (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

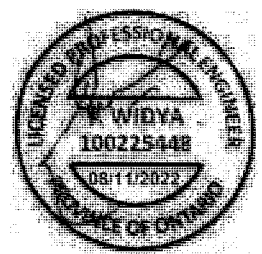
PLATE GRIP(DRY)	SHEAR (PS)	SECTION (PL)
MAX MIN	MAX MIN	MAX MIN
MT20	650 371	1747 788

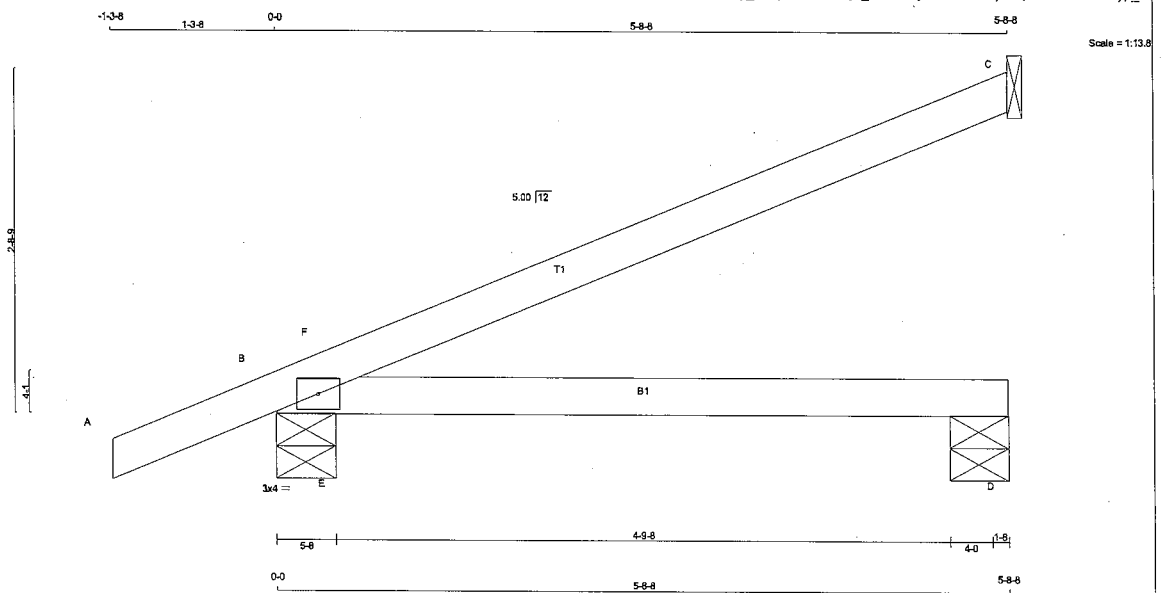
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.32 (C) (INPUT = 0.90)
JSI METAL= 0.21 (C) (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
B - D	2x4	DRY	No.2

DRY: SEASONED LUMBER.

PLATES (table is in inches)

JT TYPE	PLATES	W	LEN	Y	X
B	TM814	MT20	3.0	4.0	

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

BEARINGS

JT	FACTORED GROSS REACTION	MAXIMUM FACTORED GROSS REACTION	INPUT BRG	REORD BRG
JT	VERT	HORZ	DOWN	HORZ
C	238	0	238	0
B	453	0	453	0
D	87	0	87	0

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

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
C	164	129 / 0	0 / 0	0 / 0	0 / 0	35 / 0	0 / 0
B	317	225 / 0	0 / 0	0 / 0	0 / 0	93 / 0	0 / 0
D	65	23 / 0	0 / 0	0 / 0	0 / 0	42 / 0	0 / 0

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) C, 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)	MAX. FACTORED VERT. LOAD (PLF)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. FACTORED VERT. LOAD (PLF)	MAX. FACTORED VERT. LOAD (PLF)
FR-TO		FROM	TO	FR-TO		FROM	TO
A-B	0 / 23	-95.2	-95.2	0.12 (1)	10.00		
B-F	-24 / 51	-95.2	-95.2	0.09 (1)	6.25		
F-C	-4 / 2	-95.2	-95.2	0.40 (1)	10.00		
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		

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 26.7 PSF
TOP CH. DL = 8.0 PSF
BOT CH. LL = 0.0 PSF
BOT CH. DL = 7.4 PSF
TOTAL LOAD = 40.1 PSF

SPACING = 24.0 IN./C

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 D88-14
- TPIC 2014

(55 % OF 33.4 P.S.F. G.S.L. PLUS 9.4 P.S.F. RAIN LOAD) EQUALS 26.7 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.06")
ALLOWABLE DEFL.(TL) = L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/523 (0.13")

CSI: TC=0.40/1.00 (C-F:1), BC=0.28/1.00 (D-E:1), WB=0.00/1.00 (E-F:1), SI=0.33/1.00 (B-E:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

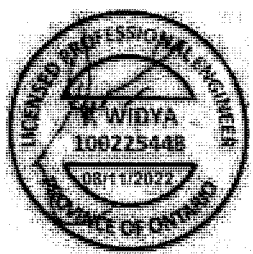
PLATE GRIP(DRY)	SHEAR (PSI)	SECTION (PLI)
MAX	MIN	MAX
MT20	650	371
	1747	788
	1987	1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

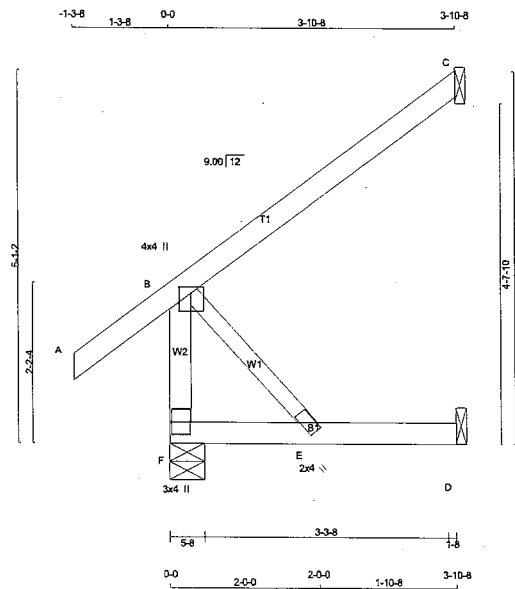
JSI GRIP= 0.33 (B) (INPUT = 0.90)
JSI METAL= 0.08 (B) (INPUT = 1.00)

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



Alpine Roof Truss, Maple

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ID:To6XqL09rYKBxLLs9y_Z1eyrbTx-V_XL8D0E0omBCVGCqQONfro3egT7AF9_9ihA4yp_V6



Scale: 1/2"=1'

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
F - B	2x4	DRY	No.2
A - C	2x4	DRY	No.2
F - 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 TMW+p	MT20	4.0	4.0	1.00	2.00
E BMW+w	MT20	2.0	4.0		
F 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		REQD	
JT	1ST CASE	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	BRG
F	352	0	352	0	0	5-8	1-8	1-8	
C	184	0	184	0	0	1-8	1-8	1-8	
D	36	0	40	0	0	1-8	1-8	1-8	

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

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	246	177/0	0/0	0/0	0/0	68/0	0/0
C	127	104/0	0/0	0/0	0/0	23/0	0/0
D	29	0/0	0/0	0/0	0/0	29/0	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 = 10.00 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (7)

CHORDS		WEBS	
MEMB.	FORCE (LBS)	MEMB.	FORCE (LBS)
FR-TO		FR-TO	
F-B	-316/0	F-B	0/0
A-B	0/39	A-B	0/0
B-C	0/0	B-C	0/0
F-E	0/0	F-E	0/0
E-D	0/0	E-D	0/0

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 28.7 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 D86-14
- 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 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.24/1.00 (B-C:1), BC=0.08/1.00 (D-E:4), WB=0.00/1.00 (B-E:1), SS=0.12/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

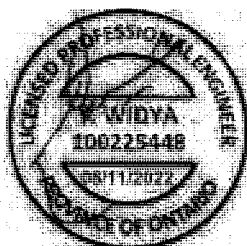
NAIL VALUES
PLATE GRIP(DRY) SHEAR SECTION
(PSI) (PLI) (PLI)
MAX MIN MAX MIN MAX MIN
MT20 650 371 1747 798 1987 1873

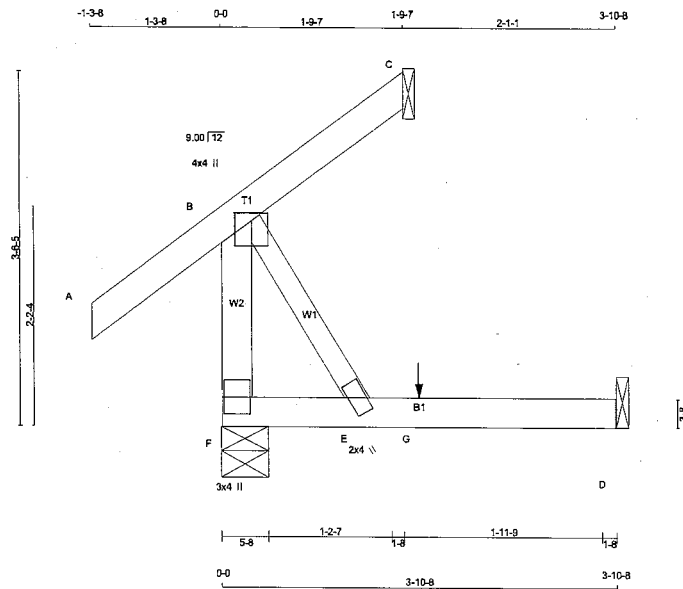
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.24 (B) (INPUT = 0.90)
JSI METAL= 0.06 (B) (INPUT = 1.00)

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





TOTAL WEIGHT = 13 lb

LUMBER			
N. L. G. A. RULES	SIZE	LUMBER	DESCR.
F - B	2x4	DRY	No.2
A - C	2x4	DRY	No.2
F - 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	TMW+p	MT20	4.0	4.0	1.00 2.00
E	BMW+w	MT20	2.0	4.0	
F	BMV+1+p	MT20	3.0	4.0	

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

FACTORED		MAXIMUM FACTORED		INPUT		REQ'D	
JT	VERT	GROSS REACTION	DOWN	BRG	BRG	N-SX	N-SX
F	303	0	303	0	5-8	1-8	1-8
C	34	0	77	0	-41	1-8	1-8
D	36	0	40	0	0	1-8	1-8

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

PROVIDE ANCHORAGE AT BEARING JOINT C FOR 150 LBS. FACTORED UPLIFT

UNFACTORED REACTIONS

1ST CASE		MAX/MIN. COMPONENT REACTIONS		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM. LIVE	WIND	DEAD	SOIL
F	212	150/0	0/0	0/0	0/0	62/0	0/0
C	24	48/-28	0/0	0/0	0/0	4/0	0/0
D	29	0/0	0/0	0/0	0/0	29/0	0/0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (11)

CHORDS		WEBS	
MEMB.	FORCE (LBS)	MEMB.	FORCE (LBS)
F-B	-267/0	B-E	0/0
A-B	0/39		
B-C	-30/0		
F-E	0/0		
E-G	0/0		
G-D	0/0		

FACTORED CONCENTRATED LOADS (LBS)		FACE		DIR.		TYPE		HEEL		CONN.	
JT	LDC	LC1	MAX	MAX+	BACK	VERT	TOTAL				C1
G	1-11-4	1	1								

CONNECTION REQUIREMENTS

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

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

DESIGN CRITERIA

SPECIFIED LOADS:

TOP CH. LL = 26.7 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 C86-14

- 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 (0.19")

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

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

CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.15/1.00 (A-B-5), BC=0.08/1.00 (D-E-4), WB=0.00/1.00 (B-E-1), SS=0.09/1.00 (A-B-5)

DOL LUMBER=1.00 NAIL=1.00 LS BEND=1.10

COMP=1.10 SHEAR=1.10 TENS=1.10

COMPANION LIVE LOAD FACTOR = 1.00

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

NAIL VALUES

PLATE GRIP(DRY) SHEAR SECTION

(PSI) (PLI) (PLI)

MAX MIN MAX MIN MAX MIN

MT20 650 371 1747 788 1987 1873

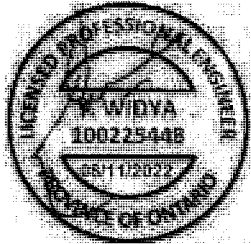
PLATE PLACEMENT TOL. = 0.250 inches

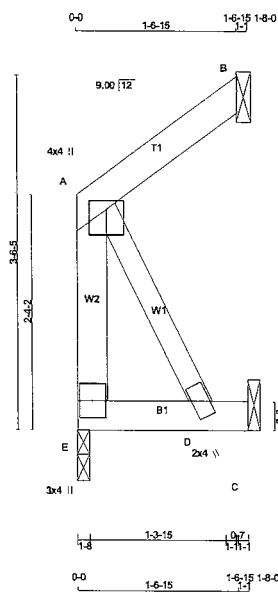
PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.20 (B) (INPUT = 0.30)

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

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





Scale = 1:17.4

TOTAL WEIGHT = 8 lb

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

PLATES (table is in inches)	W	LEN	Y	X
JT TYPE				
A TMW+p	MT20	4.0	4.0	1.00 2.00
D BMW+w	MT20	2.0	4.0	
E BMV+p	MT20	3.0	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
E	91	0	91	0
B	75	0	75	0
C	15	0	17	0

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

UNFACTORED REACTIONS	1ST CASE	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
JT	COMBINED						
E	64	42/0	0/0	0/0	0/0	22/0	0/0
B	52	42/0	0/0	0/0	0/0	9/0	0/0
C	12	0/0	0/0	0/0	0/0	12/0	0/0

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

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

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

LOADING	CHORDS	WEBS
	MAX. FACTORED	MAX. FACTORED
	MEMB. FORCE (LBS)	MEMB. FORCE (LBS)
FR-TO	VERT. LOAD LC1	MAX. UNBRACED LENGTH FR-TO
E-A	-75/0	0.0 0.0 0.01 (1) 7.81
A-B	0/0	-95.2 -95.2 0.04 (1) 10.00
E-D	0/0	-18.5 -18.5 0.02 (4) 10.00
D-C	0/0	-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 BCBC 2018, ABC 2019
- PART 9 OF OBC 2012 (2019 AMENDMENT)
- CSA 086-14
- TPC 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 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.00")

CSI: TC=0.04/1.00 (A-B:1), BC=0.02/1.00 (D-E:4), WB=0.00/1.00 (A-D:1), SS=0.05/1.00 (A-B:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

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

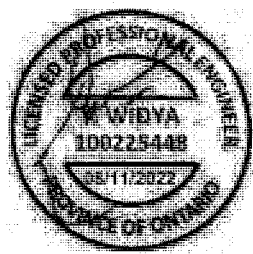
NAIL VALUES	PLATE GRIP(DRY)	SHEAR	SECTION
	(PSI)	(PL)	(PL)
MT20	650	371	1747 788 1987 1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

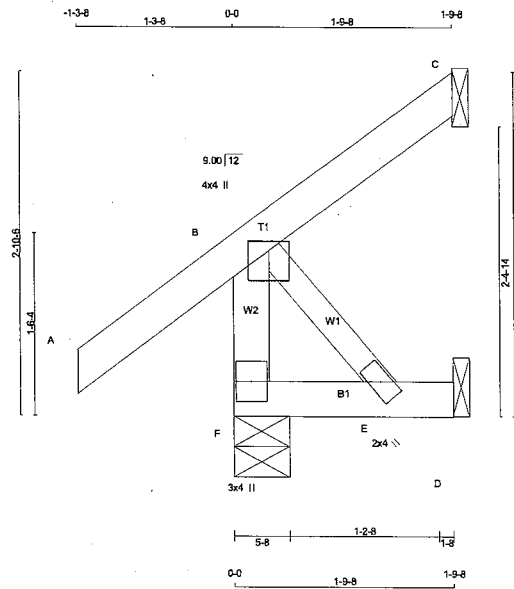
JSI GRIP= 0.06 (A) (INPUT = 0.90)
JSI METAL= 0.01 (A) (INPUT = 1.00)

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



Alpa Roof Truss, Maple

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ID:To6XqL09rYKbXtLs9y_Z1eyrbTx-cKS_c5dNxeCYaJyk000SKat3S358KzBckvZwAyp_V7



Scale = 1:14.6

TOTAL WEIGHT = 3 X 9 = 27 lb

LUMBER			
N. L. G. A. RULES			
CHORDS	SIZE	LUMBER	DESCR.
F - B	2x4	DRY	No.2
A - C	2x4	DRY	No.2
F - 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	TMVW+p	MT20	4.0	4.0	1.00 2.00
E	BMVW+p	MT20	2.0	4.0	
F	BMV1+p	MT20	3.0	4.0	

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

JT	FACTORED GROSS REACTION		MAXIMUM FACTORED GROSS REACTION		INPUT BRG		REQ'D BRG	
	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	IN-SX	
F	284	0	284	0	0	5-8	1-8	
C	35	0	35	0	-41	1-8	1-8	
D	17	0	19	0	0	1-8	1-8	

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

PROVIDE ANCHORAGE AT BEARING JOINT C FOR 150 LBS. FACTORED UPLIFT

UNFACTORED REACTIONS

JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL
F	197	150/0	0/0	0/0	0/0	47/0	0/0
C	24	20/-28	0/0	0/0	0/0	4/0	0/0
D	13	0/0	0/0	0/0	0/0	13/0	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: (5)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	VERT. LOAD (PLF)	LC1 MAX CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM	TO	FR-TO			
F-B	-267/0	0.0	0.0 0.03 (1)	7.81	B-E	0/0	0.00 (1)
A-B	0/39	-95.2	-95.2 0.13 (1)	10.00			
B-C	-30/0	-95.2	-95.2 0.12 (1)	6.25			
F-E	0/0	-18.5	-18.5 0.02 (4)	10.00			
E-D	0/0	-18.5	-18.5 0.02 (4)	10.00			

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

PATTERN-LOADING CHECK APPLIED TO THIS TRUSS.

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 28.7 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

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

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

CSI: TC=0.13/1.00 (A-B:1), BC=0.02/1.00 (E-F:4), WB=0.00/1.00 (B-E:1), SS=0.08/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

NAIL VALUES

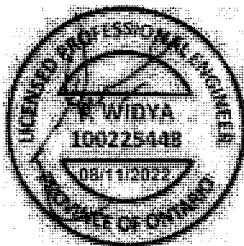
PLATE	GRIP(DRY)	SHEAR	SECTION
(PSI)	(PLI)	(PLI)	
MT20	650	371	1747 788 1987 1873

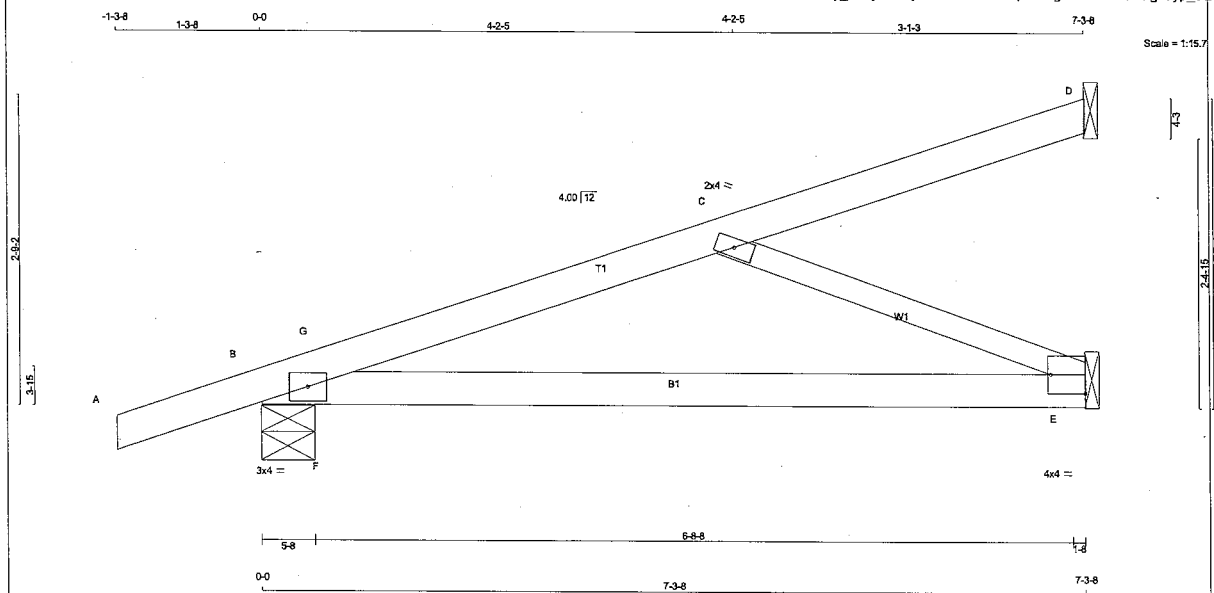
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.20 (B) (INPUT = 0.90)
JSI METAL= 0.05 (B) (INPUT = 1.00)

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





LUMBER

N. L. G. A. RULES

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

ALL WEBS 2x3 DRY No.2 SPF

DRY: SEASONED LUMBER.

DIMENSIONS, SUPPORTS AND LOADINGS SPECIFIED BY FABRICATOR TO BE VERIFIED BY BUILDING DESIGNER									
BEARINGS									
	FACTORED	MAXIMUM FACTORED		INPUT		REQD			
	GROSS REACTION	DOWN	HORZ	BRG	IN-SX	BRG	IN-SX		
JT	100	0	100	0	1-8	1-8	1-8		
D	535	0	535	0	5-8	1-8	1-8		
B	318	0	318	0	1-8	1-8	1-8		
E	318	0	318	0	1-8	1-8	1-8		

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

UNFACTORED REACTIONS									
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL		
D	68	61/0	0/0	0/0	0/0	7/0	0/0		
B	375	264/0	0/0	0/0	0/0	112/0	0/0		
E	227	137/0	0/0	0/0	0/0	90/0	0/0		

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 6.25 FT.

MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT OR RIGID CEILING DIRECTLY APPLIED.

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

LOADING

TOTAL LOAD CASES: (4)

CHORDS				WEBS			
MEMB.	MAX. FACTORED FORCE (LBS)	FACTORED VERT. LOAD (PLF)	FACTORED MAX. CSI (LC)	MEMB.	MAX. FACTORED FORCE (LBS)	MAX. CSI (LC)	
FR-TO		FROM TO		FR-TO			
A-B	0/19	-95.2	-95.2 0.12 (1)	10.00	C-E	-502/0	0.15 (1)
B-G	-638/0	-95.2	-95.2 0.15 (4)	6.25	F-G	0/169	0.00 (1)
G-C	-552/0	-95.2	-95.2 0.18 (1)	6.25			
C-D	-16/0	-95.2	-95.2 0.16 (1)	6.25			
B-F	0/545	-18.5	-18.5 0.13 (4)	10.00			
F-E	0/545	-18.5	-18.5 0.23 (1)	10.00			

CS1: TC=0.18/1.00 (C-G-1), BC=0.23/1.00 (E-F-1), WB=0.15/1.00 (C-E-1), SS=0.18/1.00 (C-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 (PSI)	SECTION (PL)
MAX MIN	MAX MIN	MAX MIN
MT20	650 371	1747 788
	1987 1873	

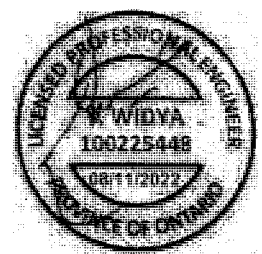
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.50 (C) (INPUT = 0.90)

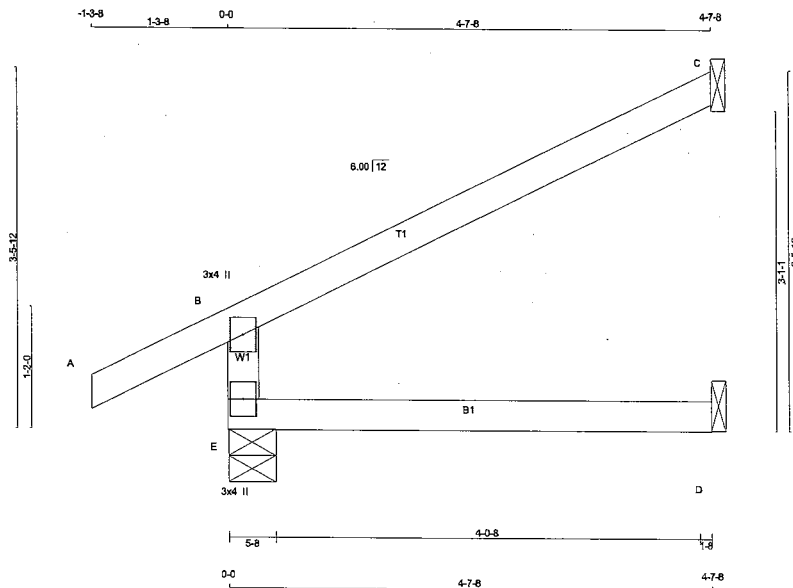
JSI METAL= 0.30 (C) (INPUT = 1.00)

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



Alpa Roof Truss, Maple

Version 8.530 S Feb 23 2022 Mitek Industries, Inc. Thu Aug 11 08:44:50 2022 Page 1
ID: To6XqL09rYKbXLLs9y_Z1eyrbTx-h6IVS_87RA9d0BcjzD5ycAIVg4Q148zmWMn2xyp_Ux



Scale = 1:18.9

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

DRY: SEASONED LUMBER.

PLATES (table is in inches)				
JT TYPE	PLATES	W	LEN	Y X
B	TMV+p	MT20	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		FACTORED		MAXIMUM FACTORED		INPUT		RECORD	
JT	VERT	HORZ	DOWN	HORZ	UPLIFT	IN-SX	BRG	IN-SX	BRG
E	454	0	454	0	0	5-8	1-8	1-8	1-8
C	185	0	185	0	0	1-8	1-8	1-8	1-8
D	36	0	40	0	0	1-8	1-8	1-8	1-8

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

UNFACTORED REACTIONS

1ST CASE		MAX/MIN COMPONENT REACTIONS		WIND		DEAD		SOIL	
JT	COMBINED	SNOW	LIVE	PERM.LIVE	WIND	DEAD	SOIL	DEAD	SOIL
E	318	227 / 0	0 / 0	0 / 0	0 / 0	91 / 0	0 / 0	0 / 0	0 / 0
C	114	93 / 0	0 / 0	0 / 0	0 / 0	21 / 0	0 / 0	0 / 0	0 / 0
D	29	0 / 0	0 / 0	0 / 0	0 / 0	29 / 0	0 / 0	0 / 0	0 / 0

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

BRACING

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 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		W E B S		FACTORED	
MEMB.	FORCE (LBS)	VERT. LOAD	LC1 MAX	MEMB.	FORCE (LBS)	MAX	CS1 (LC)
FR-TO		FROM	TO	FR-TO			
E-B	-404 / 0	0.0	0.0	0.07 (4)	7.81		
A-B	D / 29	-95.2	-95.2	0.12 (1)	10.00		
B-C	-25 / 0	-95.2	-95.2	0.35 (1)	6.25		
E-D	0 / 0	-18.5	-18.5	0.08 (4)	10.00		

DESIGN CRITERIA

SPECIFIED LOADS:
TOP CH. LL = 28.7 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

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 28.7 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL) = L/360 (0.19")
CALCULATED VERT. DEFL.(LL) = L/999 (0.00")
ALLOWABLE DEFL.(TL) = L/360 (0.19")
CALCULATED VERT. DEFL.(TL) = L/999 (0.01")

CSI: TC=0.35/1.00 (B-C:1), BC=0.28/1.00 (D-E:4), WB=0.00/1.00 (n/a:0), SSI=0.19/1.00 (B-C:1)

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

COMPANION LIVE LOAD FACTOR = 1.00

AUTOSOLVE RIGHT HEEL ONLY

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

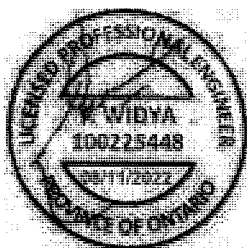
NAIL VALUES			
PLATE	GRIP(DRY)	SHEAR	SECTION (PL)
(PS)	(PS)	(PL)	(PL)
MAX	MIN	MAX	MIN
MT20	650	371	1747
		788	1987
			1873

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.16 (E) (INPUT = 0.90)
JSI METAL= 0.11 (B) (INPUT = 1.00)

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



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.

February 1, 2019

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 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

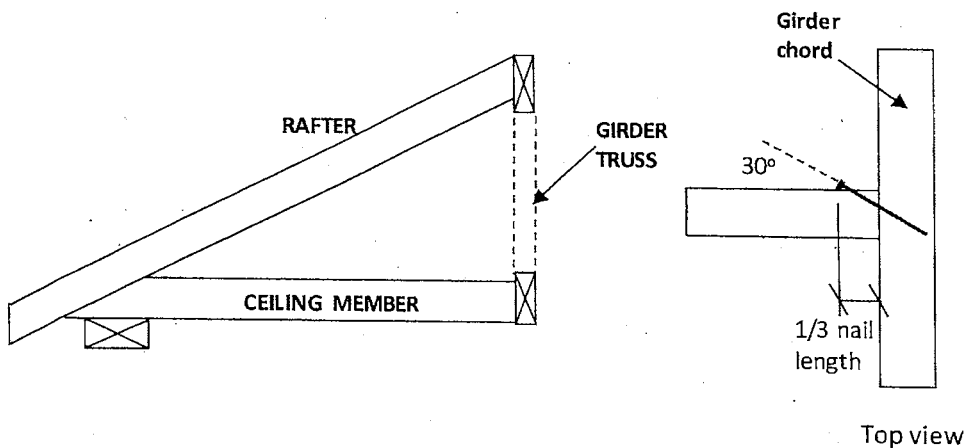


Figure 1: Toe-Nailing Rafter / Ceiling Member to Girder Truss

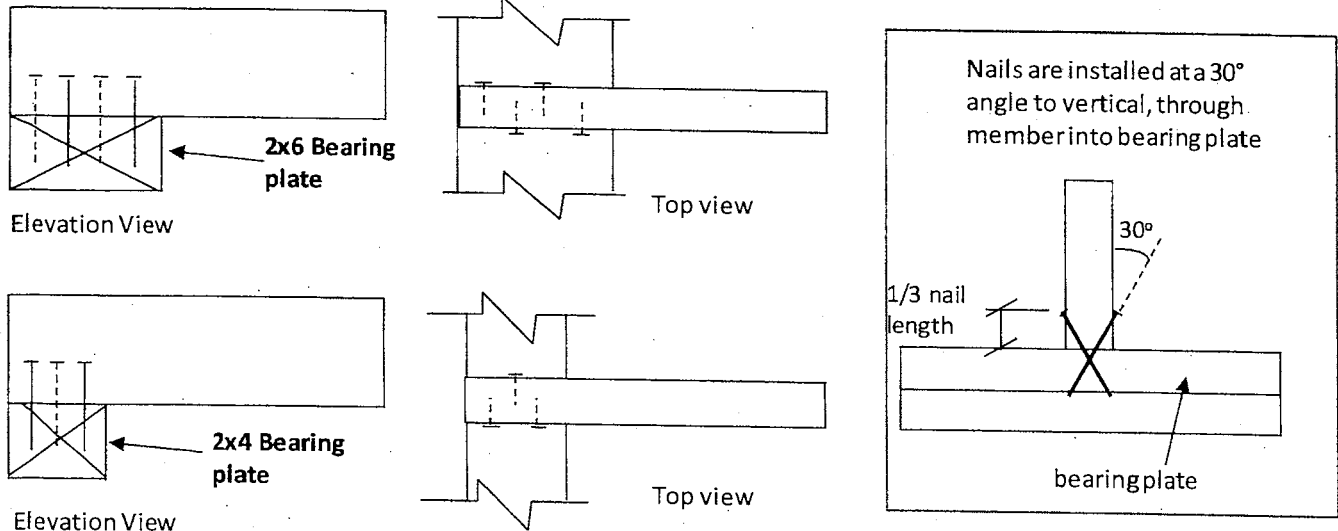
PEO
Certificate No. 10889485



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_D factor). No increases are permitted for tabulated withdrawal resistances.
7. Lumber must be dry ($< 19\%$ moisture content) at the time of nail installation.
8. Nail values in this table comply with CSA O86-19, Clause 12.9.

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.

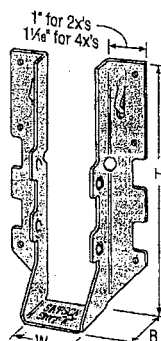
Finish: Galvanized. Some products available in stainless steel or ZMAX® coating; see Corrosion Information, pp. 18–20.

Installation:

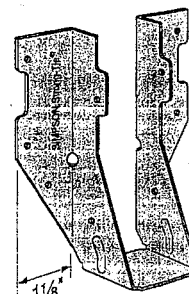
- Use all specified fasteners; see General Notes.
- Nails must be driven at an angle through the joist or truss into the header to achieve the tabulated resistances (except LUL).
- Where 16d commons are specified, 10d commons may be used at 0.83 of the tabulated factored resistance.
- Not designed for welded or nailer applications.
- With single ply 2x carrying members, use 10d x 1½" 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:

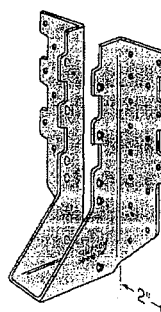
- LUS, LJS, LUL and HUS hangers cannot be modified.
- Other sizes available; consult your Simpson Strong-Tie representative.
- See Hanger Options information on pp. 105–107.



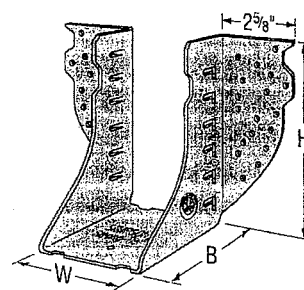
LUS28



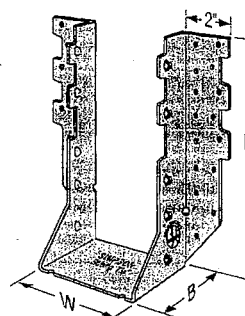
LU26L



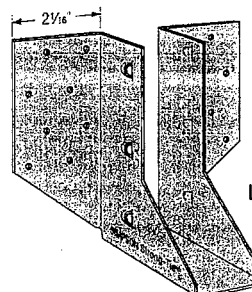
HUS210
(HUS26, HUS28,
and HHUS similar)



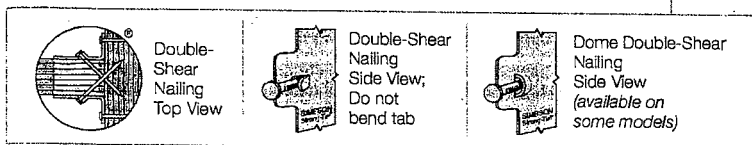
HGUS28-2



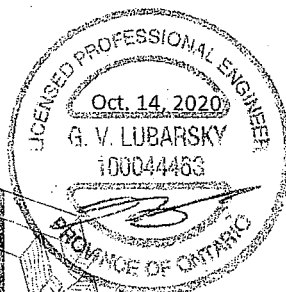
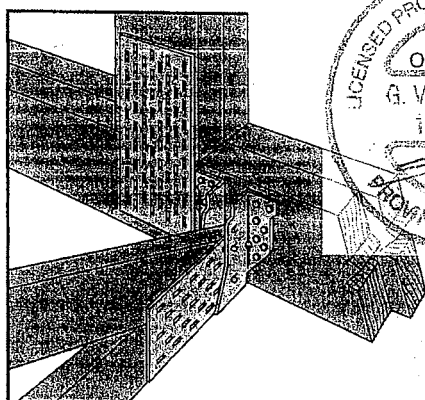
HHUS210-2



LJS26DS



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



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:

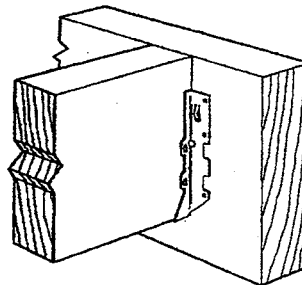
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

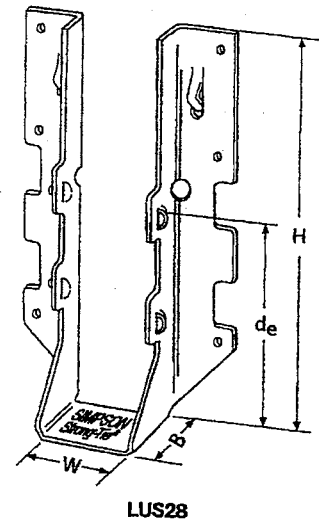
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified

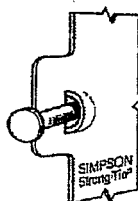


Typical LUS Installation



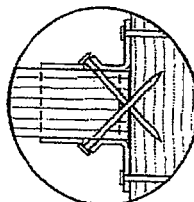
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LUS24	18	1 1/8	3 1/8	1 3/4	1 15/16	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3 1/8	3 1/8	2	1 15/16	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1 1/8	4 1/8	1 3/4	3 5/8	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3 1/8	4 1/8	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4 1/8	4 1/8	2	3 1/4	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1 1/8	6 1/8	1 3/4	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 1/8	6 1/4	2	3 1/4	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1 1/8	7 13/16	1 3/4	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 1/8	8 1/8	2	5 1/4	(8) 16d	(6) 16d	2580	3345	2320	2375

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

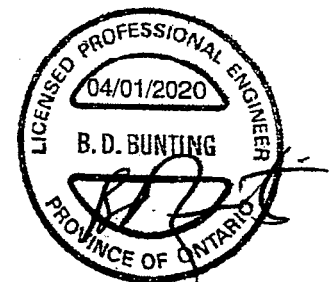


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

U.S. Patent 5,603,580



Double Shear Nailing 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-SPECLUS20 3/20 exp. 6/22

(800) 999-5099
strongtie.com

TECHNICAL BULLETIN

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:

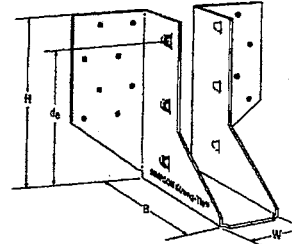
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

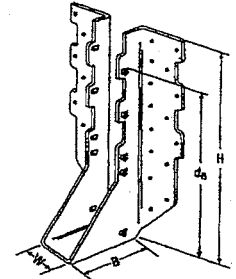
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

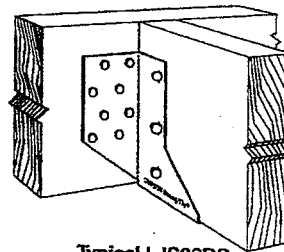
- See current catalogue for options



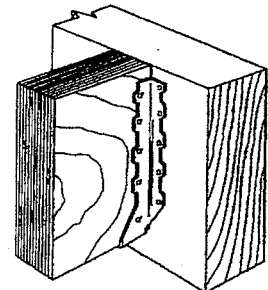
LJS26DS



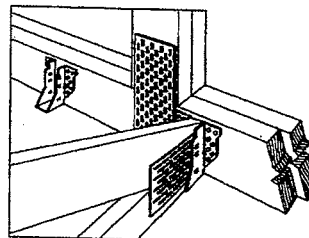
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



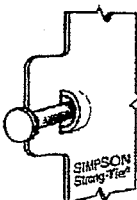
Typical HUS
Installation



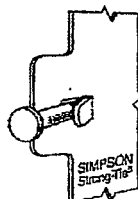
Typical HUS Installation
(Truss Designer to provide fastener quantity for connecting multiple members together)

Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₁ ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _p =1.15)	Normal (K _p =1.00)	Uplift (K _p =1.15)	Normal (K _p =1.00)
LJS26DS	18	1½	5	3½	4%	(16) 16d	(6) 16d	2055	4265	1460	4115
HUS26	16	1%	5%	3	3½	(14) 16d	(6) 16d	2705	4940	2065	3875
HUS28	16	1%	7½	3	6½	(22) 16d	(8) 16d	3605	5365	2675	4345
HUS210	16	1%	9½	3	7½	(30) 16d	(10) 16d	4505	5795	4010	4740
HUS1.81/10	16	1½	9	3	8	(30) 16d	(10) 16d	4505	6450	4010	5200

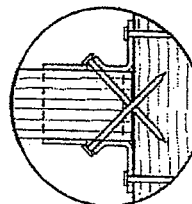
1. d₁ is the distance from the seat of the hanger to the highest joist nail.



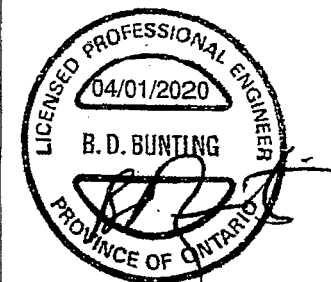
Dome Double Shear Nailing prevents tabs breaking off (available on some models).
U.S. Patent 5,803,580



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



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-SPECHUS20 3/20 exp. 6/22

(800) 999-5099
strongtie.com

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:

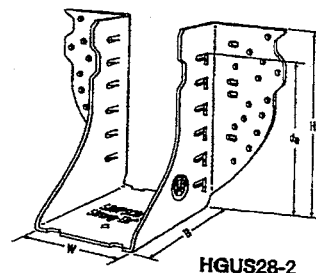
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%.
No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

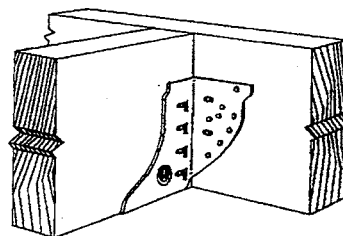
- Use all specified fasteners
- Nails: 16d = 0.162" dia x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

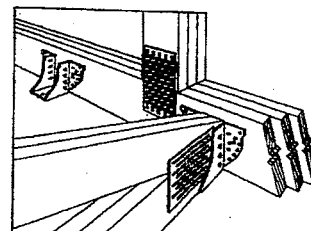
- See current catalogue for options



HGUS28-2



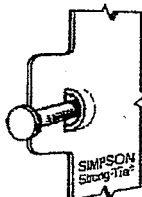
Typical HGUS
Installation



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

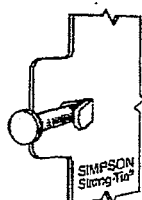
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _o ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift	Normal	Uplift	Normal
HGUS26	12	1 1/4	5 3/4	5	4 5/8	(20) 16d	(8) 16d	2685	6625	2685	5700
HGUS26-2	12	3 3/16	5 7/16	4	4 1/4	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS26-3	12	4 1/16	5 1/2	4	4 1/4	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS26-4	12	6 1/16	5 7/16	4	4 1/4	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS28	12	1 1/4	7 1/4	5	6 1/4	(36) 16d	(12) 16d	3310	7675	3100	6900
HGUS28-2	12	3 3/16	7 1/16	4	6 1/4	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS28-3	12	4 1/16	7 1/4	4	6 1/4	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS28-4	12	6 1/16	7 3/16	4	6 1/4	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS210	12	1 1/4	9 1/4	5	7 1/4	(46) 16d	(16) 16d	3535	11070	2510	8090
HGUS210-2	12	3 3/16	9 1/16	4	8 1/4	(46) 16d	(16) 16d	6840	14015	4855	10270
HGUS210-3	12	4 1/16	9 1/4	4	8 1/4	(46) 16d	(16) 16d	6840	14645	4855	10400
HGUS210-4	12	6 1/16	9 3/16	4	8 1/4	(46) 16d	(16) 16d	6840	14645	4855	10400
HGUS212-4	12	6 1/16	10 3/4	4	10 1/4	(56) 16d	(20) 16d	7640	14995	5425	10645
HGUS214-4	12	6 1/16	12 3/4	4	11 1/4	(66) 16d	(22) 16d	10130	16400	7195	11645

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

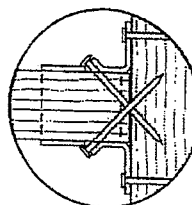


Dome Double
Shear Nailing
prevents tabs
breaking off
(available on
some models).

U.S. Patent
5,603,580



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



Double
Shear
Nailing
Top View.

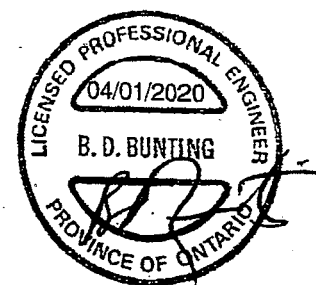


**LIMIT
STATES
DESIGN**

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Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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T-SPECHGUS20 3/20 exp. 6/22



(800) 999-5099
strongtie.com

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:

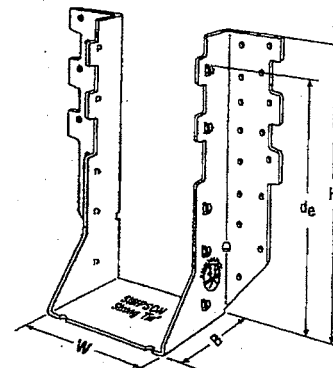
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

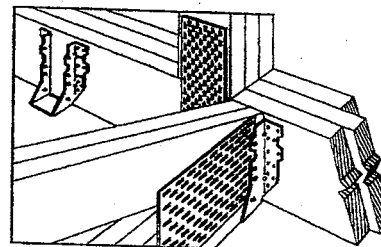
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

- See current catalogue for options



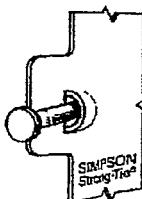
HHUS410



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

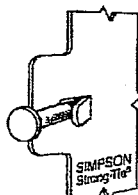
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _u =1.15)	Normal (K _n =1.00)	Uplift (K _u =1.15)	Normal (K _n =1.00)
HHUS26-2	14	3⅞	5⅞	3	3⅞	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3⅞	7⅞	3	6⅞	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3⅞	9⅞	3	8	(30) 16d	(10) 16d	4670	9660	4235	7000
HHUS210-3	14	4⅞	9	3	7⅞	(30) 16d	(10) 16d	4670	9670	4235	6865
HHUS210-4	14	6⅞	8⅞	3	7⅞	(30) 16d	(10) 16d	4670	10155	4235	7210
HHUS46	14	3⅞	5⅞	3	3⅞	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3⅞	7⅞	3	6⅞	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS410	14	3⅞	9	3	8	(30) 16d	(10) 16d	4670	9855	4235	7000
HHUS5.50/10	14	5⅞	9	3	8	(30) 16d	(10) 16d	4670	10155	4235	7210
HHUS7.25/10	14	7⅞	9	3⅞	7⅞	(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.

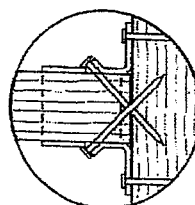


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

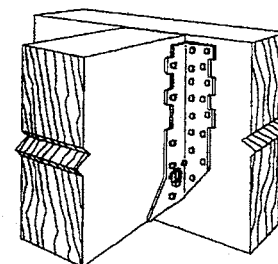
U.S. Patent 5,603,580



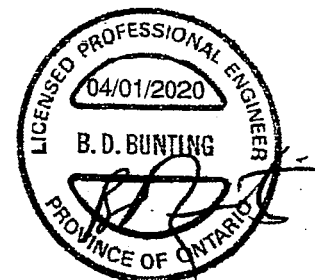
Double Shear Nailing Side View. Do not bend tab back.



Double Shear Nailing Top View.



Typical HHUS Installation



LIMIT STATES DESIGN

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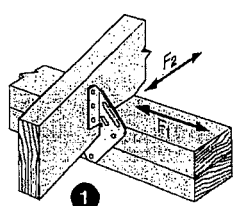
© 2020 Simpson Strong-Tie Company Inc.

T-SPECHHUS20 3/20 exp. 6/22

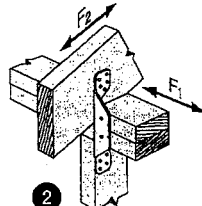
(800) 999-5099
strongtie.com

H/TSP

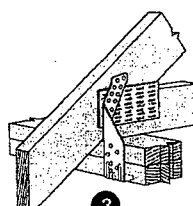
Seismic and Hurricane Ties (cont.)



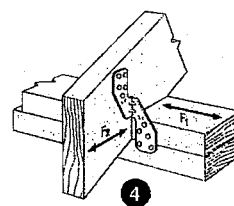
1 H1 Installation



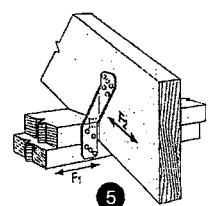
2 H2A Installation



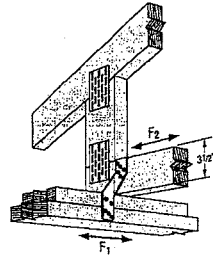
3 TSP Installation



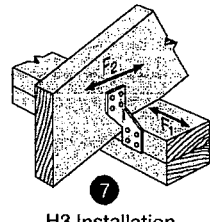
4 H2.5A Installation
(Nails into both top plates)



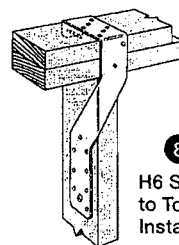
5 H2.5T Installation
(Nails into both top plates)



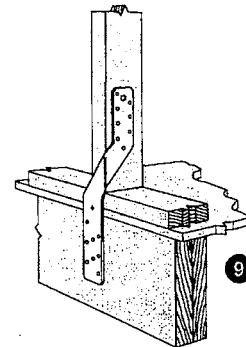
6 H2.5T Installation



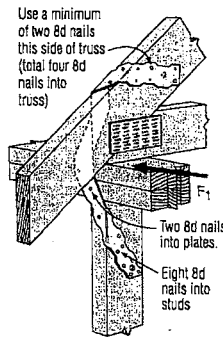
7 H3 Installation
(Nails into upper top plate)



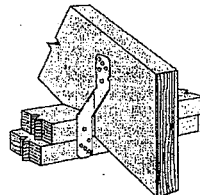
8 H6 Stud to Top Plate Installation



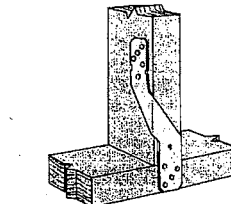
9 H6 Stud to Band Joist Installation



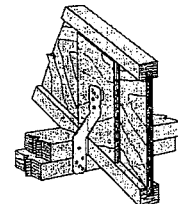
10 H7Z Installation



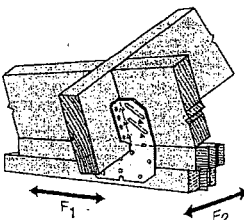
11 H8 Attaching Rafter to Double Top Plates



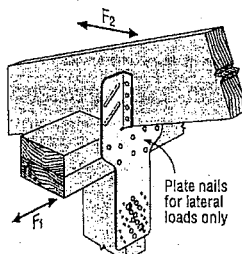
12 H8 attaching Stud to Sill
(4) 8d into plate, (5) 8d into stud)



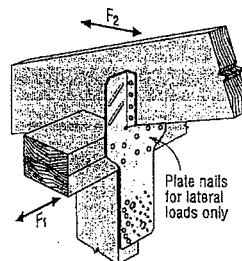
13 H8 attaching I-Joist to Double Top Plates



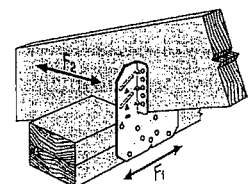
14 H10A Field-Bent Installation



15 H10S Installation

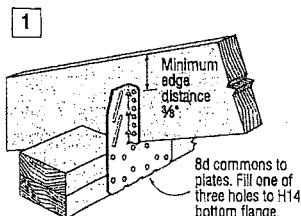


16 H10S Installation with Stud Offset

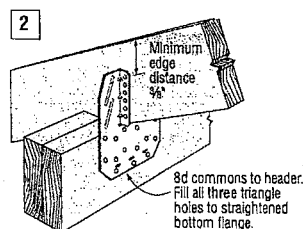


17 H10A Installation

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.

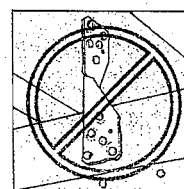


18 H14 Installation to Double Top Plates



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.

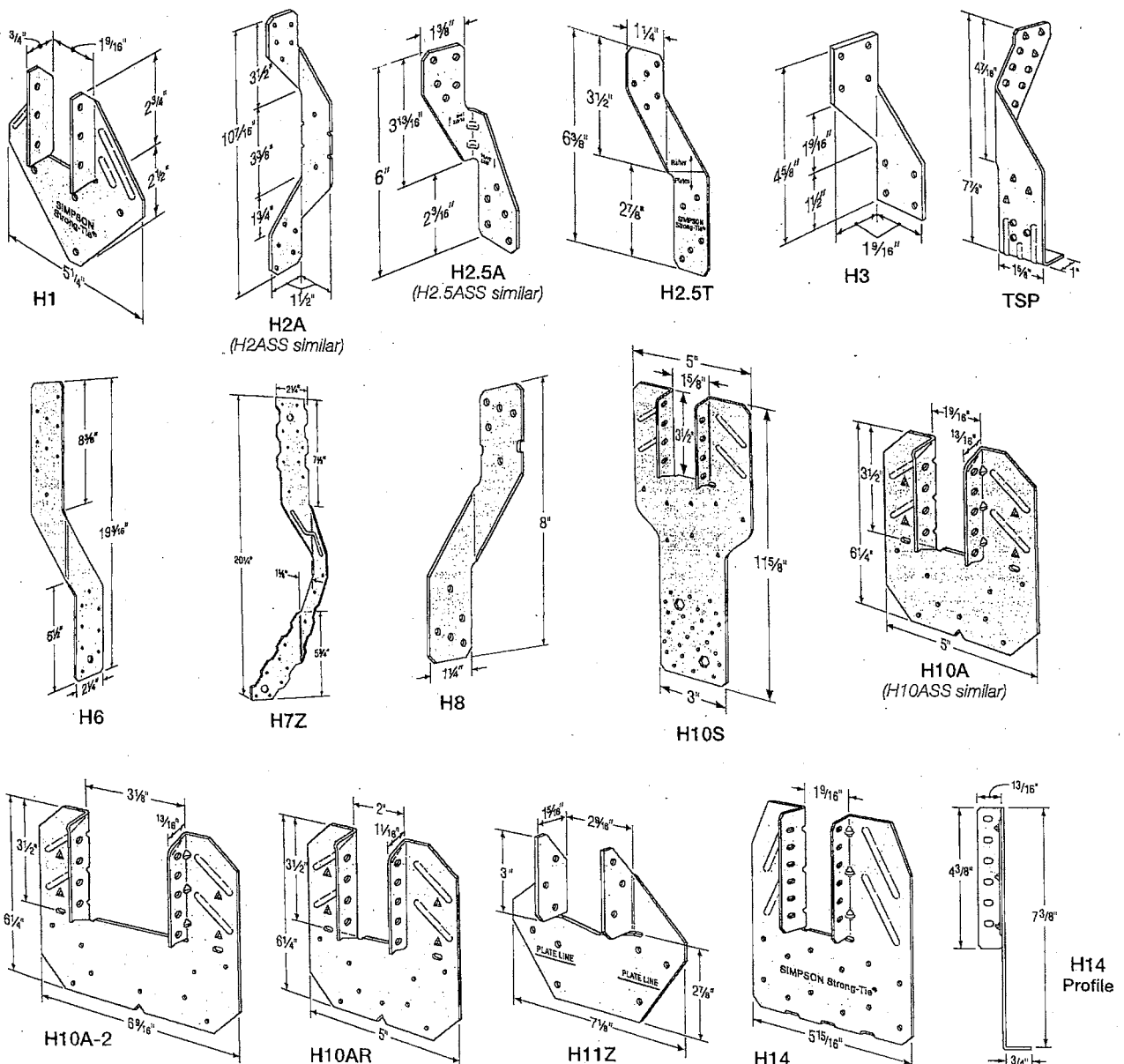
- H10AR — The heavy-duty design of the H10A available with a 2" wide throat to accommodate rough lumber
- H10A-2 — The H10A design with a 3" throat for double 2x members
- H2ASS, H2.5ASS and H10ASS — Popular ties now available in stainless steel

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

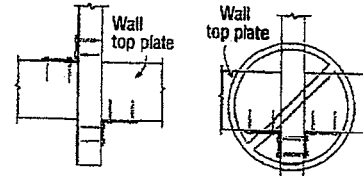
Design: • Factored resistances are in accordance with CSA O86-14
• Factored resistances have been increased 15%. No further increase is permitted.

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

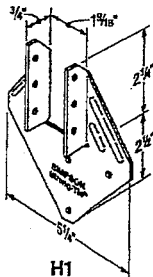
Factored resistances for more than one direction for a single connection cannot be added together. A factored load which can be divided into components in the directions given must be evaluated as follows: Factored Shear/Resisting Shear + Factored Tension/Resisting Tension ≤ 1.0.

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

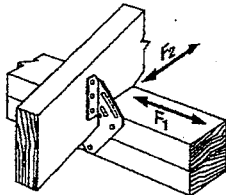


Install diagonally across from each other for minimum 2x truss.

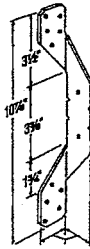
Nailing into both sides of a single ply 2x truss may cause the wood to split.



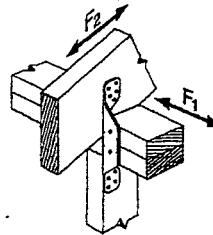
H1



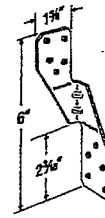
H1 Installation



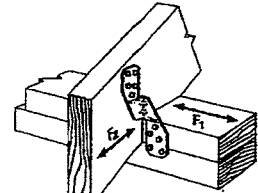
H2A



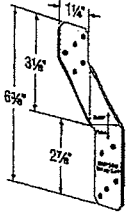
H2A Installation



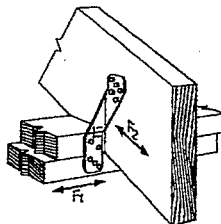
H2.5A



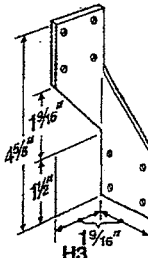
H2.5A Installation



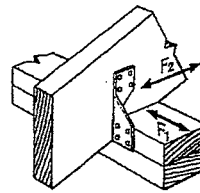
H2.5T



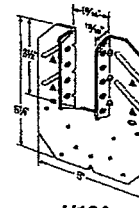
H2.5T Installation
(Nails into both top plates)



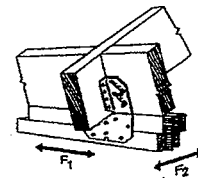
H3



H3 Installation



H10A



H10A Installation

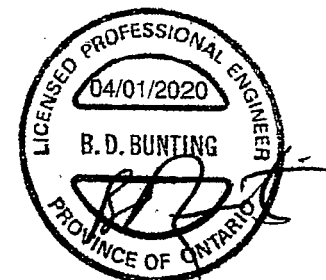
Model No.	Ga.	Fasteners			Factored Resistance (lb.)					
		To Rafter	To Plates	To Studs	D.Fir-L			S-P-F		
					Uplift	Normal		Uplift	Normal	
						F ₁	F ₂		F ₁	F ₂
H1	18	(6) 8d x 1½"	(4) 8d	—	740	685	300	680	485	215
H2A	18	(5) 8d x 1½"	(2) 8d x 1½"	(5) 8d x 1½"	830	220	75	590	155	55
H2.5A	18	(5) 8d	(5) 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	265	615	125	190
H10A	18	(9) 10d x 1½"	(9) 10d x 1½"	—	1735	795	410	1505	565	290

1. Factored resistances have been increased 15% for earthquake or wind loading with no further increase allowed.

2. 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.

3. When cross-grain bending or cross-grain tension cannot be avoided, mechanical reinforcement to resist such forces should be considered.

4. 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

TECHNICAL BULLETIN

TC - Truss Connectors

SIMPSON
Strong-Tie

The TC truss connector is an ideal connector for scissor trusses and can allow horizontal movement up to 1/4". 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

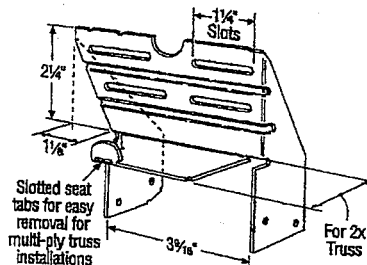
Design: Factored resistances are in accordance with CSA 086-14

Installation:

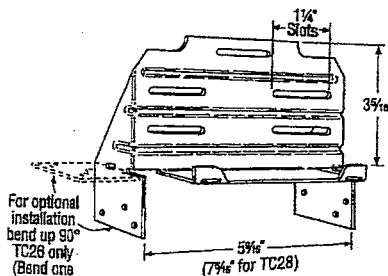
- Use all specified fasteners.
- Nails: 10d = 0.148" dia. x 3" long common wire, 10d x 1 1/2" = 0.148" dia. x 1 1/2" long.
- Drive 10d nails into the truss at the inside end of the slotted holes (inside end is towards the centre of the truss) and clinch on the back side. Do not seat these nails into the truss—allow room under the nail head for movement of the truss with respect to the wall.

Optional TC Installation:

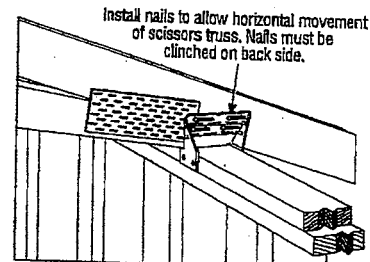
- Bend one flange up 90°. Drive specified nails into the top and face of the top plates or install Titen® screws into the top and face of masonry wall. See optional load tables and installation details.



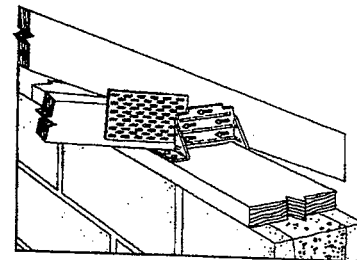
TC24
U.S. Patent 4,932,173



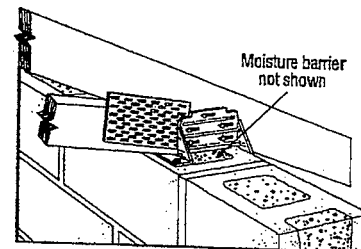
TC26
(TC28 Similar)



Typical TC24 Installation



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



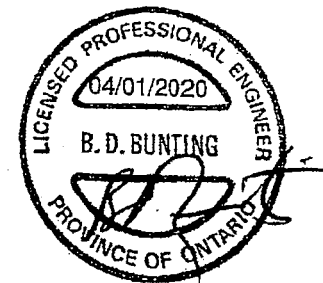
Optional TC26 Installation for Grouted Concrete Block using Titen Screws

Model No.	Fasteners		Factored Resistance	
	Truss	Wall Plates	D.Fir-L	S-P-F
			Uplift (K ₀ =1.15)	Uplift (K ₀ =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 ₀ =1.15)	Uplift (K ₀ =1.15)
TC26	(5) 10d	(6) 10d x 1 1/2"	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) - 3/8" x 2 1/4" Titen screws has a factored uplift resistance of 275 lb.



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-SPECTC20 3/20 exp. 6/22

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HTU

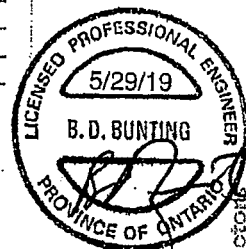
Face-Mount Truss Hanger (cont.)

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			
			Header	Joist	D.Fir-L		S-P-F	
					Uplift	Normal	Uplift	Normal
					(K _D = 1.15)	(K _D = 1.00)	(K _D = 1.15)	(K _D = 1.00)
					lb.	lb.	lb.	lb.
					kN	kN	kN	kN
HTU26 (Min.)	3 1/2	(2) 2x4	(10) 16d	(14) 10d x 1 1/2"	1740	3340	1235	2370
					7.74	14.86	5.49	10.54
HTU26 (Max.)	5 1/2	(2) 2x4	(10) 16d	(20) 10d x 1 1/2"	2470	4015	1755	2850
					10.99	17.86	7.81	12.68
HTU28 (Max.)	3 1/2	(2) 2x6	(20) 16d	(26) 10d x 1 1/2"	4150	6395	2945	4540
					18.46	28.45	13.10	20.19
HTU210 (Max.)	7 1/4	(2) 2x6	(20) 16d	(32) 10d x 1 1/2"	4150	6395	2945	4540
					18.46	28.45	13.10	20.19

See table footnotes on p. 260.

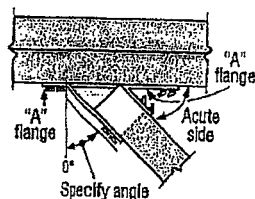


Hanger Options

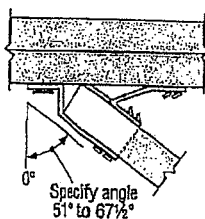
See Hanger Options Information on pp. 125-127.

Skewed Seat

- Skawable up to 67 1/2°
- 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			
		Header	Joist	D.Fir-L		S-P-F	
				Uplift	Normal	Uplift	Normal
				(K _D = 1.15)	(K _D = 1.00)	(K _D = 1.15)	(K _D = 1.00)
				lbs	lbs	lbs	lbs
				kN	kN	kN	kN
HTU26	< 51	(20) 16d	(14) 10d x 1 1/2"	1835	4110	1300	2905
	51-67 1/2	(20) 16d	(12) 10d x 1 1/2"	8.16	18.28	5.78	12.92
HTU28	< 51	(26) 16d	(20) 10d x 1 1/2"	1350	3820	955	2560
	51-67 1/2	(26) 16d	(17) 10d x 1 1/2"	6.01	18.10	4.25	11.39
HTU210	< 51	(32) 16d	(26) 10d x 1 1/2"	2810	4270	1985	3030
	51-67 1/2	(32) 16d	(22) 10d x 1 1/2"	12.60	18.99	8.83	13.48
HTU26-2	< 51	(20) 16d	(14) 10d	2075	3930	1465	2780
	51-67 1/2	(20) 16d	(12) 10d	9.23	17.48	6.52	12.37
HTU28-2	< 51	(26) 16d	(20) 10d	3785	4430	2675	3135
	51-67 1/2	(26) 16d	(17) 10d	16.84	19.71	11.90	13.95
HTU210-2	< 51	(32) 16d	(26) 10d	2795	4240	1980	3000
	51-67 1/2	(32) 16d	(22) 10d	12.43	18.86	8.81	13.35
HTU26-2	< 51	(20) 16d	(14) 10d	2140	3715	1515	2625
	51-67 1/2	(20) 16d	(12) 10d	9.52	16.53	6.74	11.68
HTU28-2	< 51	(26) 16d	(20) 10d	1610	3920	1140	2785
	51-67 1/2	(26) 16d	(17) 10d	7.16	17.44	5.07	12.39
HTU210-2	< 51	(32) 16d	(26) 10d	3960	5425	2815	3855
	51-67 1/2	(32) 16d	(22) 10d	17.62	24.13	12.52	17.15
HTU26-2	< 51	(20) 16d	(14) 10d	2385	5425	1695	3855
	51-67 1/2	(20) 16d	(12) 10d	10.61	24.13	7.54	17.15
HTU28-2	< 51	(26) 16d	(20) 10d	5025	8890	3570	4890
	51-67 1/2	(26) 16d	(17) 10d	22.35	30.65	15.88	21.75
HTU210-2	< 51	(32) 16d	(26) 10d	3145	6680	2225	4745
	51-67 1/2	(32) 16d	(22) 10d	13.99	29.72	9.90	21.10

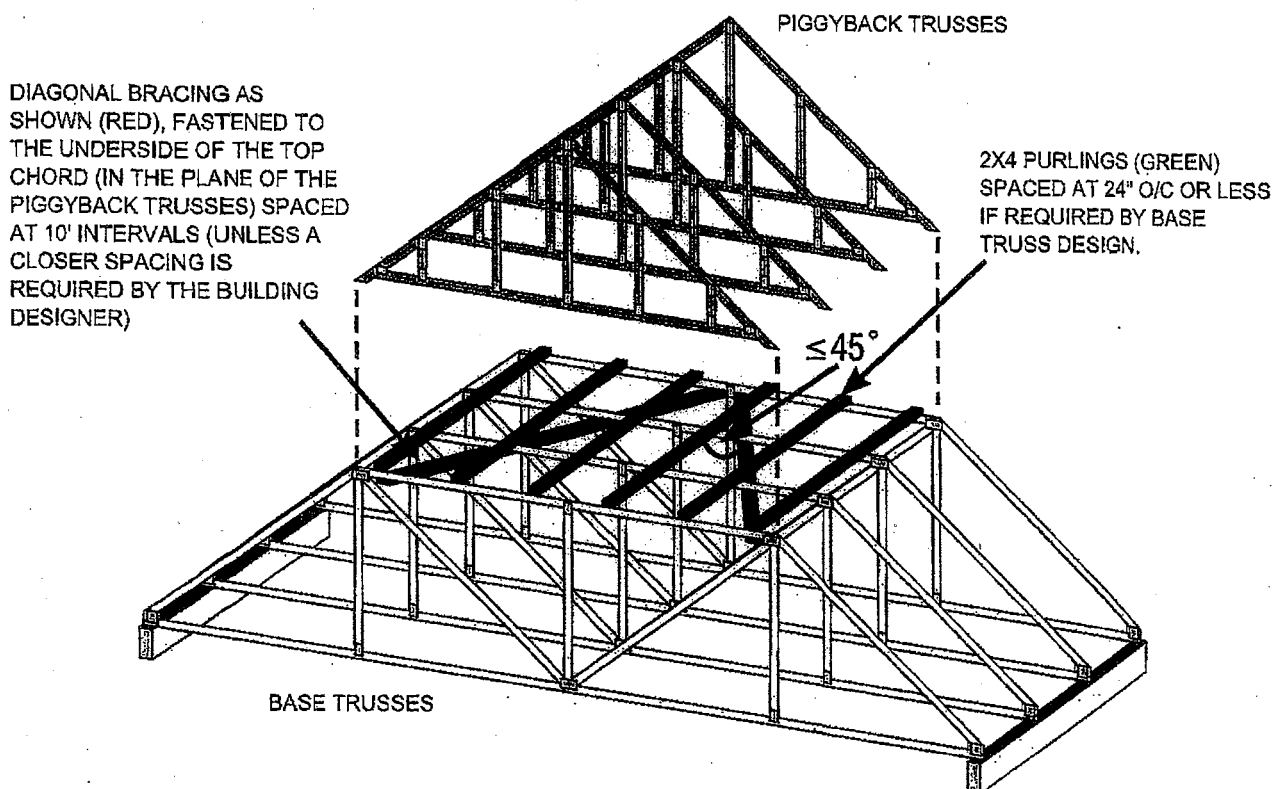
1. Factored uplift resistances have been increased 15% for wind or earthquake loading; no further increase is allowed.
2. Reduced heel heights are not permitted for skewed HTU's.
3. Nails: 16d = 0.162" dia. x 3 1/2" long, 10d x 1 1/2" = 0.148" dia. x 1 1/2" long, 10d = 0.148" dia. x 3" long. See pp.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

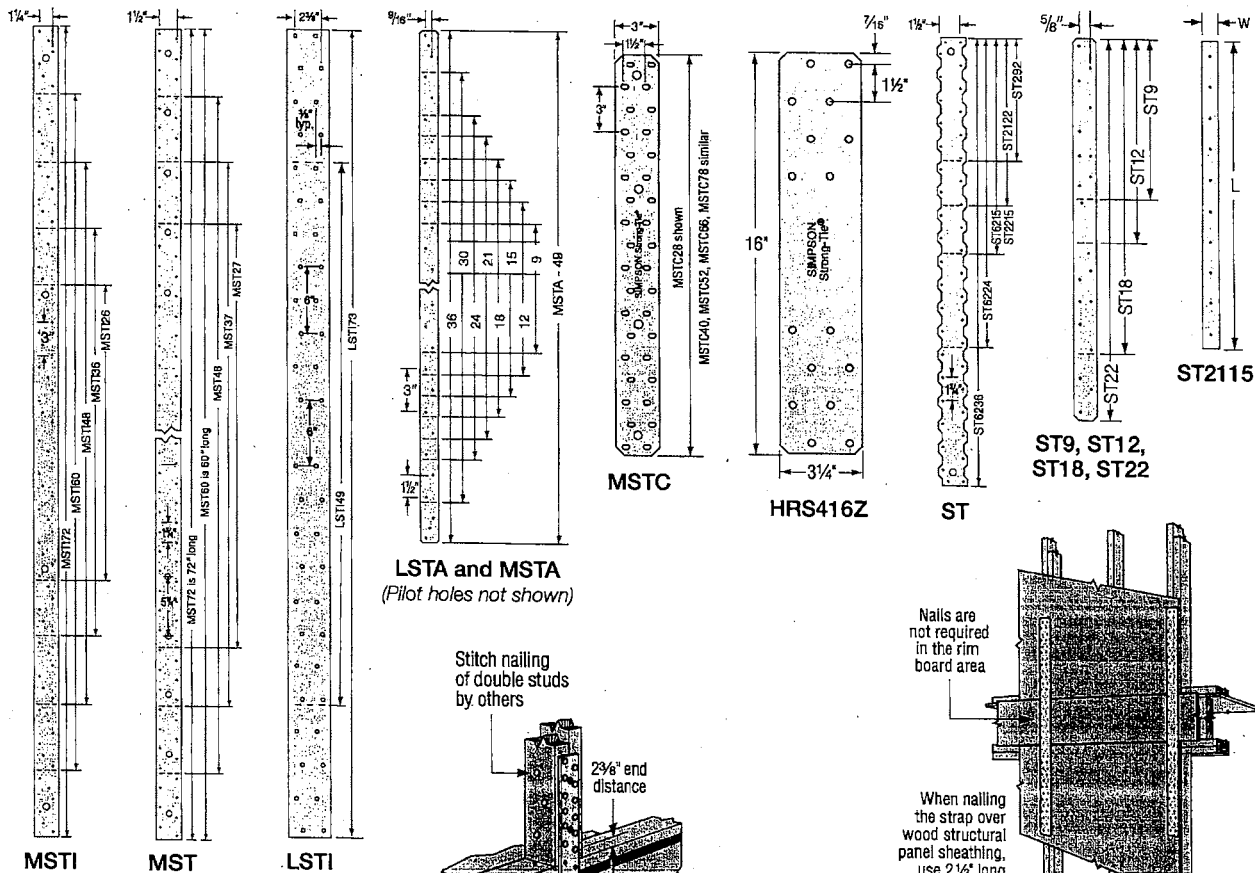
MST — High-capacity strap that can be installed with either nails or bolts. Suitable for double 2x member connections or greater.

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

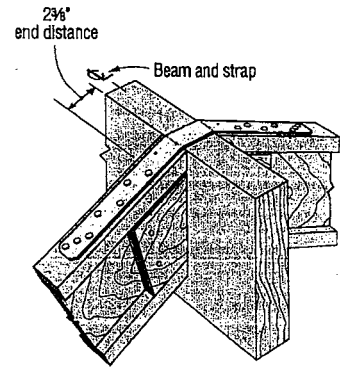


HRS/HST/ST/PS/LSTA/LSTI/MST/MSTA/MSTC/MSTI
Strap Ties (cont.)

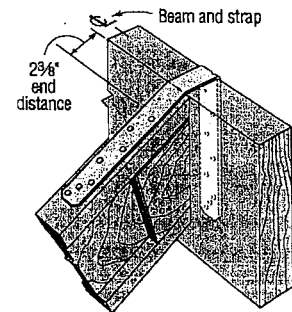
These products are available with additional corrosion protection. For more information, see p. 20.

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	2.67	3.07	2.47	2.82
LSTA15		1¼	15	(10) 10d	800	920	735	845
LSTA18		1¼	18	(12) 10d	3.56	4.09	3.27	3.76
LSTA21		1¼	21	(14) 10d	1000	1150	920	1060
LSTA24		1¼	24	(16) 10d	4.45	5.12	4.09	4.72
ST292		2⅝	9⅝	(8) 8d	1200	1380	1105	1270
ST2122		2⅝	12⅝	(12) 8d	5.34	6.14	4.92	5.65
ST2115		¾	16⅝	(8) 8d	1400	1610	1290	1485
ST2215		2⅝	16⅝	(16) 8d	6.23	7.16	5.74	6.61
LSTA30	18	1¼	30	(20) 10d	1600	1840	1475	1695
LSTA36		1¼	36	(24) 10d	7.12	8.19	6.56	7.54
LSTI49		3¾	49	(32) 10d x 1½"	585	675	535	615
LSTI73		3¾	73	(48) 10d x 1½"	2.60	3.00	2.38	2.74
MSTA9		1¼	9	(6) 10d	940	1085	865	995
MSTA12		1¼	12	(8) 10d	4.18	4.83	3.85	4.43
MSTA15		1¼	15	(10) 10d	670	770	615	710
MSTA18		1¼	18	(12) 10d	2.98	3.43	2.74	3.16
MSTA21		1¼	21	(14) 10d	1335	1540	1235	1420
MSTA24		1¼	24	(16) 10d	5.94	6.85	5.49	6.32
MSTA30	16	1¼	30	(20) 10d	2235	2465	2075	2385
MSTA36		1¼	36	(24) 10d	9.94	10.97	9.23	10.61
MSTA49		1¼	49	(28) 8d	2465	2465	2465	2465
ST6215		2⅝	16⅝	(16) 8d	10.97	10.97	10.97	10.97
ST6224		2⅝	23⅝	(24) 8d	3115	3580	2852	3280
ST9		1¼	9	(6) 8d	13.86	15.93	12.69	14.59
ST12		1¼	11⅝	(8) 8d	4670	5370	4280	4920
ST18		1¼	17¾	(12) 8d	20.77	23.89	19.04	21.89
ST22		1¼	21⅝	(18) 8d	670	770	625	715
					2.98	3.43	2.78	3.18
				895	1030	830	955	
				3.98	4.58	3.69	4.25	
				1120	1285	1040	1195	
				4.98	5.72	4.63	5.32	
				1340	1545	1245	1430	
				5.96	6.87	5.54	6.36	
				1565	1800	1455	1670	
				6.96	8.01	6.47	7.43	
				1790	2060	1660	1910	
				7.96	9.16	7.38	8.50	
				2470	2840	2260	2595	
				10.99	12.63	10.05	11.54	
				2965	3070	2710	3070	
				13.19	13.66	12.06	13.66	
				2725	2725	2545	2725	
				12.12	12.12	11.32	12.12	
				1405	1615	1300	1500	
				6.25	7.18	5.78	6.67	
				2305	2650	2155	2475	
				10.25	11.79	9.59	11.01	
				525	605	490	560	
				2.34	2.69	2.18	2.49	
				700	805	650	750	
				3.11	3.58	2.89	3.34	
				1050	1210	975	1125	
				4.67	5.38	4.34	5.00	
				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 1½" = 0.148" dia. x 1½" long, 8d = 0.131" dia. x 2½" long. See pp. 22-23 for other nail sizes and information.

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

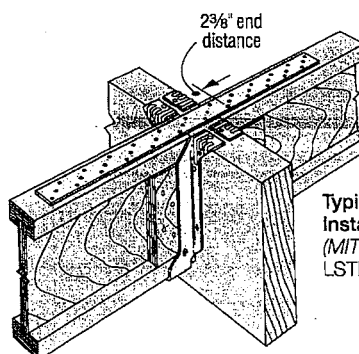
Strap Ties (cont.)

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

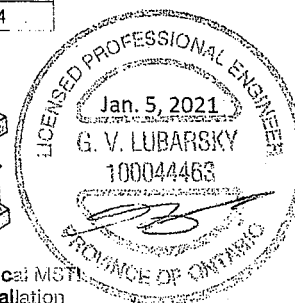
SD Many of these products are approved for installation with Strong-Drive® SD Connector screws. See pp. 366-370 for more information.

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	14	3	52¼	(54) 10d	6670	6940	6100	6940
					29.67	30.87	27.14	30.87
MSTC66		3	65¼	(66) 10d	8515	8565	7455	8565
					37.88	38.10	33.16	38.10
MSTC78	12	3	77¼	(66) 10d	8515	8565	7455	8565
					37.88	38.10	33.16	38.10
ST6236		2⅝	33⅜	(36) 8d	3735	4295	3270	3760
					16.61	19.11	14.55	16.73
MSTI26	12	2⅝	26	(22) 10d x 1 ½"	2825	3250	2475	2850
					12.57	14.46	11.01	12.68
MSTI36		2⅝	36	(32) 10d x 1 ½"	4110	4725	3600	4140
					18.28	21.02	16.01	18.42
MSTI48	12	2⅝	48	(44) 10d x 1 ½"	5650	6500	4955	5695
					25.13	28.91	22.04	25.33
MSTI60		2⅝	60	(56) 10d x 1 ½"	7195	7360	6305	7250
					32.01	32.74	28.05	32.25
MSTI72	12	2⅝	72	(68) 10d x 1 ½"	7360	7360	7240	7360
					32.74	32.74	32.21	32.74
MST27		2⅝	27	(26) 8d	2685	3090	2355	2710
					11.94	13.75	10.48	12.06
MST37	12	2⅝	37½	(38) 8d	3930	4515	3440	3960
					17.48	20.08	15.30	17.62
MST48		2⅝	48	(50) 8d	5170	5945	4530	5210
					23.00	26.45	20.15	23.18
HRS416Z	10	3¼	16	(16) ¼" x 1 ½" SDS	2400	2760	2120	2440
					10.68	12.28	9.43	10.85
MST60		2⅝	60	(64) 8d	6620	7610	5800	6670
					29.45	33.85	25.80	29.67
MST72	10	2⅝	72	(78) 8d	8065	9135	7065	8125
					35.88	40.64	31.43	36.14

1. Factored resistances have been increased 15% for earthquake or wind loading with no further increase allowed.
2. Use half of the nails in each member being connected to achieve the listed resistances.
3. 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.



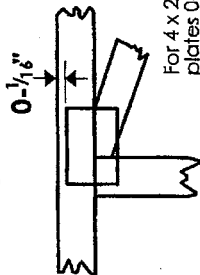
Typical MSTI
Installation
(MIT hanger shown)
LSTI similar



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 0-1/8" 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

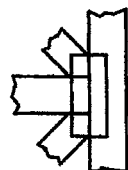
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



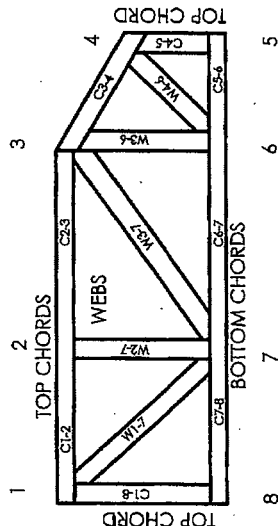
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur.

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

6-4-8 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
POWER TO PERFORM.™

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.

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.

February 1, 2019

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

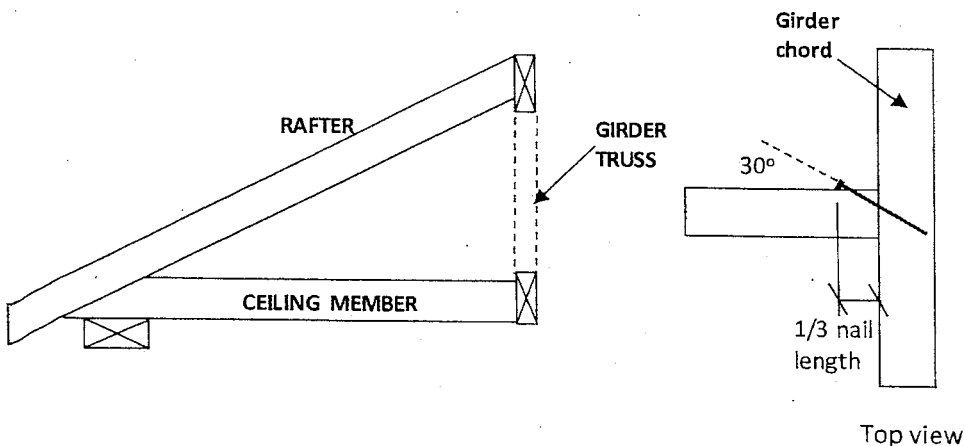


Figure 1: Toe-Nailing Rafter / Ceiling Member to Girder Truss

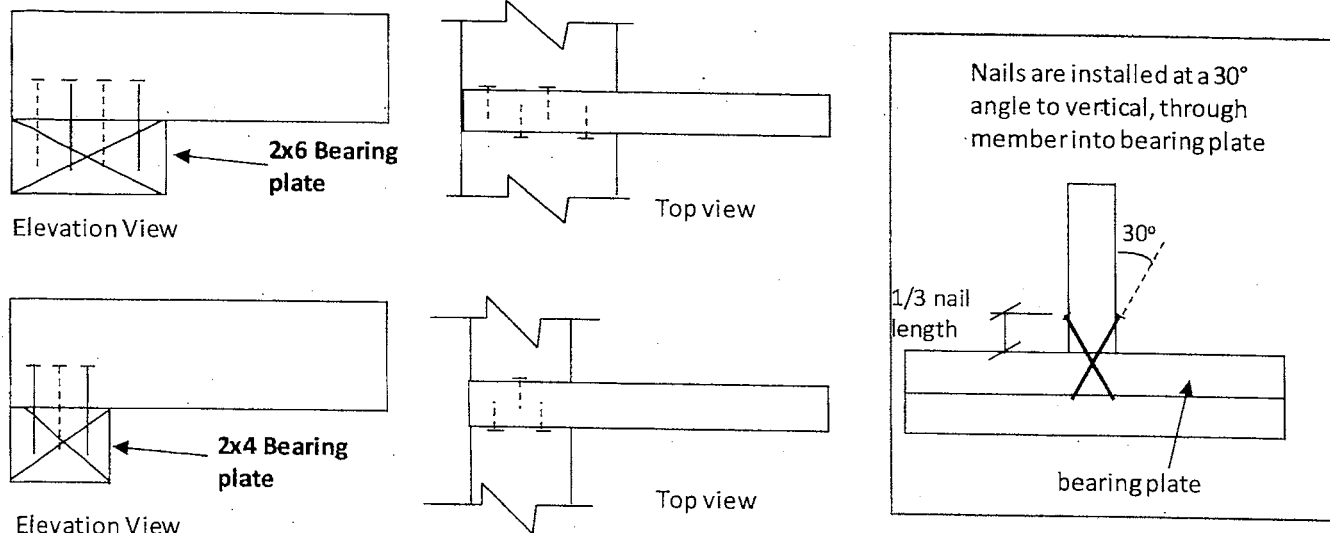
PEO
Certificate No. 10889485



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

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.

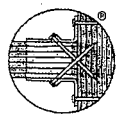
Finish: Galvanized. Some products available in stainless steel or ZMAX® coating; see Corrosion Information, pp. 18–20.

Installation:

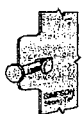
- Use all specified fasteners; see General Notes.
- Nails must be driven at an angle through the joist or truss into the header to achieve the tabulated resistances (except LUL).
- Where 16d commons are specified, 10d commons may be used at 0.83 of the tabulated factored resistance.
- Not designed for welded or nailer applications.
- With single ply 2x carrying members, use 10d x 1½" 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:

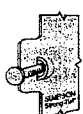
- LUS, LJS, LUL and HUS hangers cannot be modified.
- Other sizes available; consult your Simpson Strong-Tie representative.
- See Hanger Options information on pp. 105–107.



Double-Shear
Nailing
Top View

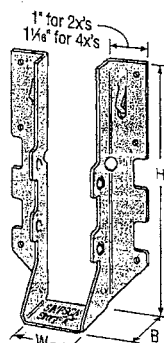
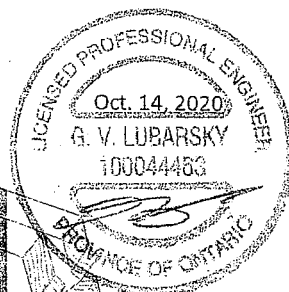
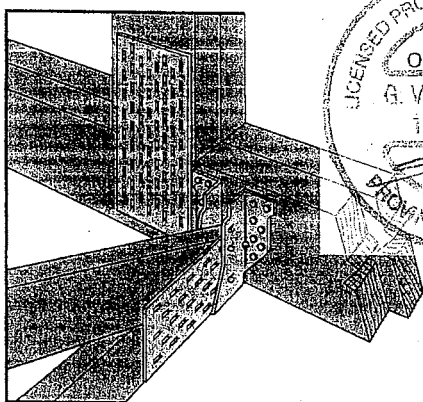


Double-Shear
Nailing
Side View;
Do not
bend tab

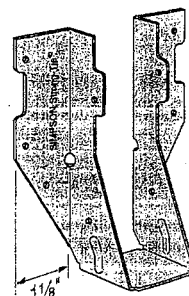


Dome Double-Shear
Nailing
Side View
(available on
some models)

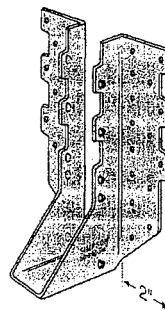
Typical HUS26
Installation
with Reduced
Heel Height
(Truss Designer
to provide
fastener quantity
for connecting
multiple members
together)



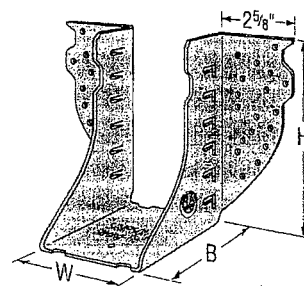
✓ LUS28



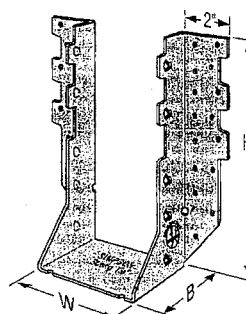
LU26L



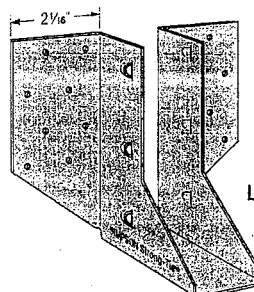
✓ HUS210
(HUS26, HUS28,
and HHUS similar)



✓ HGUS28-2



✓ HHUS210-2



LJS26DS

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:

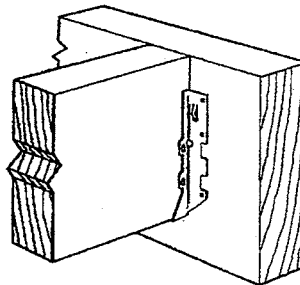
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

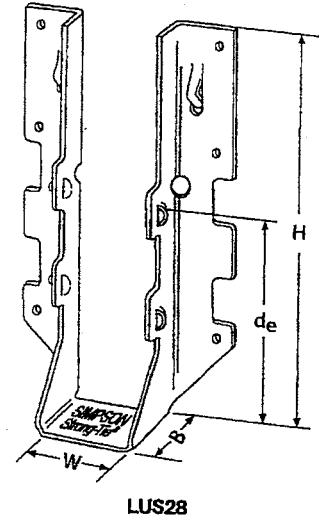
- Use all specified fasteners.
- Nails: 16d = 0.162" dia. x 3 1/2" long common wire, 10d = 0.148" x 3" long common wire.
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads.
- Not designed for welded or nailer applications.

Options:

- These hangers cannot be modified

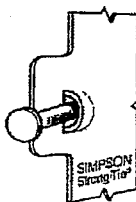


Typical LUS Installation



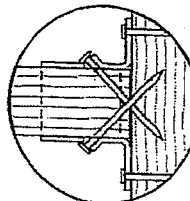
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _o ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift (K _o =1.15)	Normal (K _o =1.00)	Uplift (K _o =1.15)	Normal (K _o =1.00)
LUS24	18	1 1/16	3 3/8	1 3/4	1 15/16	(4) 10d	(2) 10d	710	1630	645	1155
LUS24-2	18	3 1/8	3 3/8	2	1 15/16	(4) 16d	(2) 16d	835	2020	590	1435
LUS26	18	1 1/16	4 3/8	1 3/4	3 3/8	(4) 10d	(4) 10d	1420	2170	1290	1630
LUS26-2	18	3 1/8	4 7/8	2	4	(4) 16d	(4) 16d	1720	2595	1545	1920
LUS26-3	18	4 3/8	4 3/8	2	3 3/4	(4) 16d	(4) 16d	1720	2595	1545	2340
LUS28	18	1 1/16	6 3/8	1 3/4	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 3/4	2	3 3/4	(6) 16d	(4) 16d	1720	3325	1545	2375
LUS210	18	1 1/16	7 13/16	1 3/4	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.

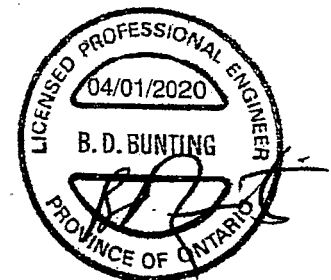


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

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-SPECLUS20 3/20 exp. 6/22

(800) 999-5099
strongtie.com

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:

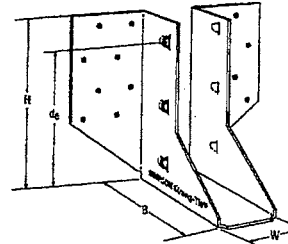
- Factored resistances are in accordance with CSA O86 -14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

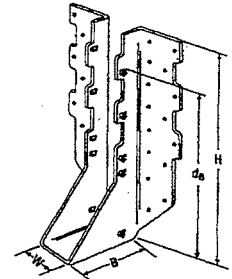
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

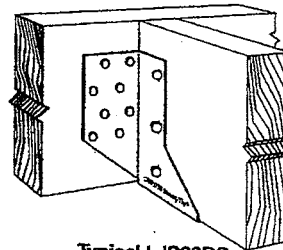
- See current catalogue for options



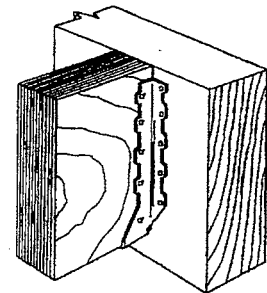
LJS26DS



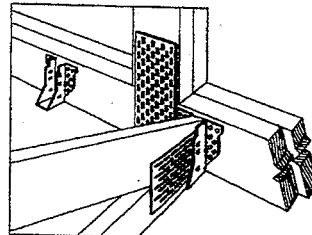
HUS210
(HUS26, HUS28, similar)



Typical LJS26DS
Installation



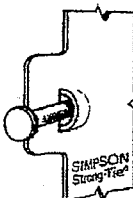
Typical HUS
Installation



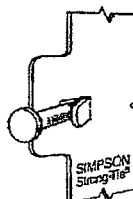
Typical HUS Installation
(Truss Designer to provide fastener
quantity for connecting multiple
members together)

Model No.	Ga.	Dimensions (in.)					Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₀ ¹	Face	Joist		D.Fir-L		S-P-F	
									Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)	Uplift (K ₀ =1.15)	Normal (K ₀ =1.00)
LJS26DS	18	1½	5	3½	4½	(16) 16d	(6) 16d		2055	4265	1460	4115
HUS26	16	1½	5½	3	3¾	(14) 16d	(6) 16d		2705	4940	2065	3875
HUS28	16	1½	7½	3	6¾	(22) 16d	(8) 16d		3605	5365	2675	4345
HUS210	16	1½	9¾	3	7¾	(30) 16d	(10) 16d		4505	5795	4010	4740
HUS1.81/10	16	1½	9	3	8	(30) 16d	(10) 16d		4505	6450	4010	5200

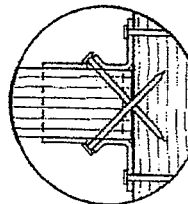
1. d₀ is the distance from the seat of the hanger to the highest joist nail.



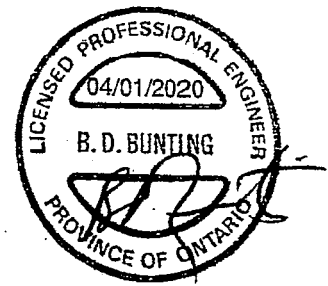
Dome Double
Shear Nailing
prevents tabs
breaking off
(available on
some models).
U.S. Patent
5,603,580



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



Double
Shear
Nailing
Top View.



**LIMIT
STATES
DESIGN**

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-SPECHUS20 3/20 exp. 6/22

(800) 999-5099
strongtie.com

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:

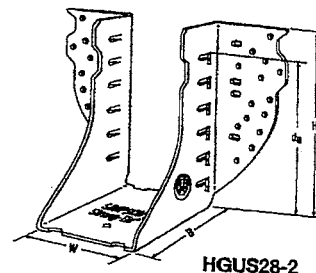
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

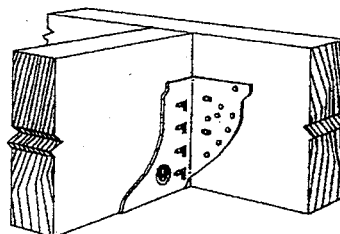
- Use all specified fasteners
- Nails: 16d = 0.162" dia x 3 1/2" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

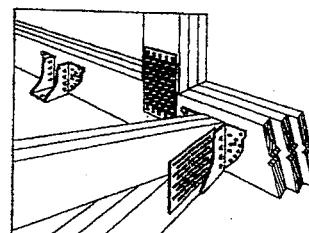
- See current catalogue for options



HGUS28-2



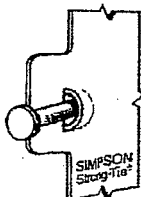
Typical HGUS Installation



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

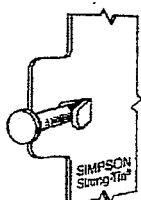
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d ₀ ¹	Face	Joist	D.Fir-L		S-P-F	
								Uplift	Normal	Uplift	Normal
								(K ₀ =1.15)	(K ₀ =1.00)	(K ₀ =1.15)	(K ₀ =1.00)
HGUS26	12	1 1/8	5 3/8	5	4 5/8	(20) 16d	(8) 16d	2685	6625	2685	5700
HGUS26-2	12	3 1/8	5 7/8	4	4 1/8	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS26-3	12	4 1/8	5 1/2	4	4 1/8	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS26-4	12	6 1/8	5 1/8	4	4 1/8	(20) 16d	(8) 16d	4385	8950	3100	6355
HGUS28	12	1 1/8	7 1/8	5	6 1/8	(36) 16d	(12) 16d	3310	7675	3100	6900
HGUS28-2	12	3 1/8	7 1/8	4	6 1/8	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS28-3	12	4 1/8	7 1/8	4	6 1/8	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS28-4	12	6 1/8	7 1/8	4	6 1/8	(36) 16d	(12) 16d	6070	12980	4310	9215
HGUS210	12	1 1/8	9 1/8	5	7 7/8	(46) 16d	(16) 16d	3535	11070	2510	8090
HGUS210-2	12	3 1/8	9 1/8	4	8 1/8	(46) 16d	(16) 16d	6840	14015	4855	10270
HGUS210-3	12	4 1/8	9 1/8	4	8 1/8	(46) 16d	(16) 16d	6840	14645	4855	10400
HGUS210-4	12	6 1/8	9 1/8	4	8 1/8	(46) 16d	(16) 16d	6840	14645	4855	10400
HGUS212-4	12	6 1/8	10 1/8	4	10 1/8	(56) 16d	(20) 16d	7640	14995	5425	10645
HGUS214-4	12	6 1/8	12 1/8	4	11 1/8	(66) 16d	(22) 16d	10130	16400	7195	11645

1. d₀ is the distance from the seat of the hanger to the highest joist nail.

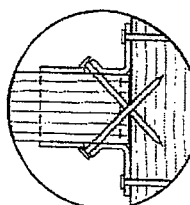


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

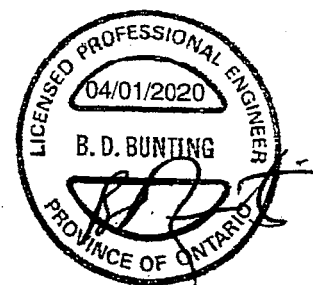
U.S. Patent 5,603,580



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

(800) 999-5099
strongtie.com

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:

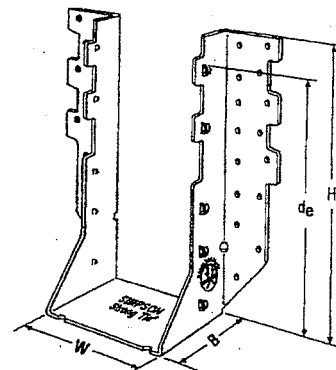
- Factored resistances are in accordance with CSA O86-14.
- Uplift resistances have been increased 15%. No further increase is permitted.
- Wood shear is not considered in the factored resistances given. The specifier must ensure that the joist and header capacities are capable of withstanding these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

Installation:

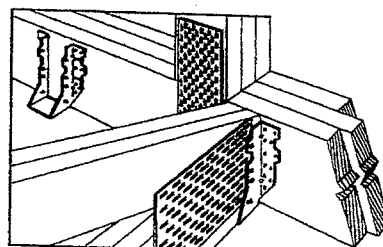
- Use all specified fasteners
- Nails: 16d = 0.162" dia. x 3½" long common wire
- Double shear nails must be driven at an angle through the joist or truss into the header to achieve the table loads
- Not designed for welded or nailer applications

Options:

- See current catalogue for options



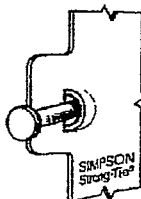
HHUS410



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

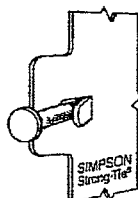
Model No.	Ga.	Dimensions (in.)				Fasteners		Factored Resistance (lb.)			
		W	H	B	d _e ¹	Face	Joist	D-Fir-L		S-P-F	
								Uplift	Normal	Uplift	Normal
								(K _u =1.15)	(K _n =1.00)	(K _u =1.15)	(K _n =1.00)
HHUS26-2	14	3 ³ / ₁₆	5 ¹³ / ₁₆	3	3 ¹ / ₁₆	(14) 16d	(6) 16d	2850	7335	2065	5205
HHUS28-2	14	3 ³ / ₁₆	7 ⁷ / ₃₂	3	6 ⁵ / ₃₂	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS210-2	14	3 ⁵ / ₁₆	9 ³ / ₃₂	3	8	(30) 16d	(10) 16d	4670	9660	4235	7000
HHUS210-3	14	4 ¹ / ₁₆	9	3	7 ¹⁵ / ₁₆	(30) 16d	(10) 16d	4670	9670	4235	6865
HHUS210-4	14	6 ¹ / ₁₆	8 ²⁷ / ₃₂	3	7 ²⁷ / ₃₂	(30) 16d	(10) 16d	4670	10155	4235	7210
HHUS46	14	3 ³ / ₁₆	5 ¹³ / ₃₂	3	3 ¹ / ₁₆	(14) 16d	(6) 16d	2540	7335	2065	5205
HHUS48	14	3 ³ / ₁₆	7 ¹ / ₁₆	3	6 ¹ / ₁₆	(22) 16d	(8) 16d	3765	8940	2675	6345
HHUS410	14	3 ⁵ / ₁₆	9	3	8	(30) 16d	(10) 16d	4670	9855	4235	7000
HHUS5.50/10	14	5 ¹ / ₁₆	9	3	8	(30) 16d	(10) 16d	4670	10155	4235	7210
HHUS7.25/10	14	7 ¹ / ₁₆	9	3 ³ / ₁₆	7 ²⁷ / 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.

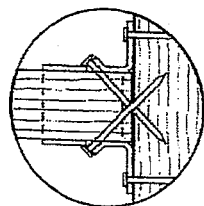


Dome Double Shear Nailing prevents tabs breaking off (available on some models).

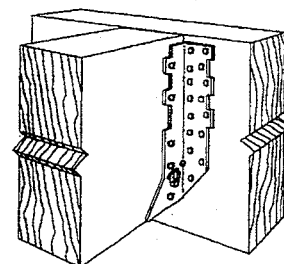
U.S. Patent 5,603,580



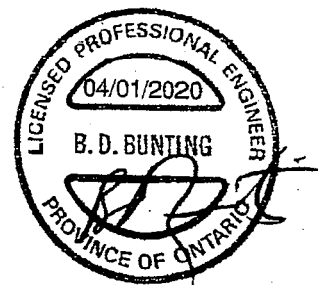
Double Shear Nailing Side View. Do not bend tab back.



Double Shear Nailing Top View.



Typical HHUS Installation



LIMIT STATES DESIGN

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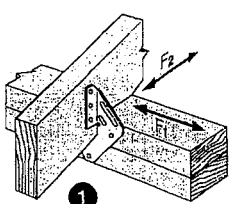
© 2020 Simpson Strong-Tie Company Inc.

T-SPECHHUS20 3/20 exp. 6/22

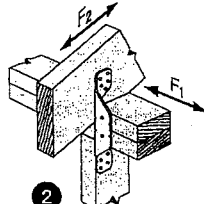
(800) 999-5099
strongtie.com

H/TSP

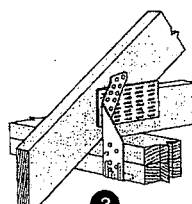
Seismic and Hurricane Ties (cont.)



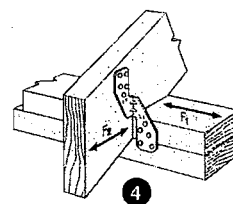
1 H1 Installation



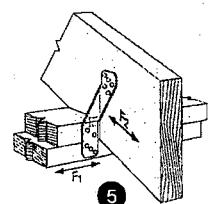
2 H2A Installation



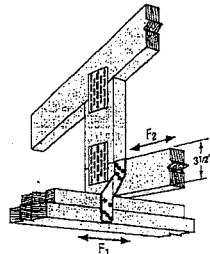
3 TSP Installation



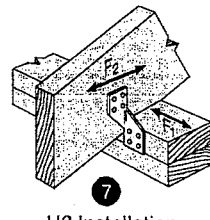
4 H2.5A Installation
(Nails into both top plates)



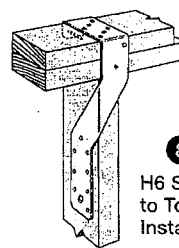
5 H2.5T Installation
(Nails into both top plates)



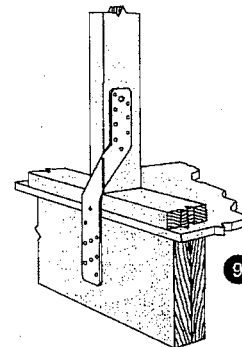
6 H2.5T Installation



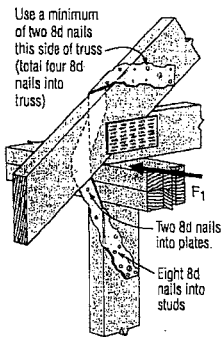
7 H3 Installation
(Nails into upper top plate)



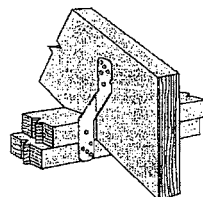
8 H6 Stud
to Top Plate
Installation



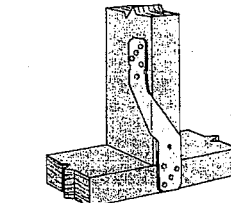
9 H6 Stud to
Band Joist
Installation



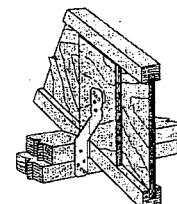
10 H7Z Installation



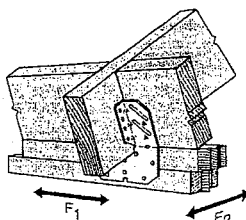
11 H8 Attaching
Rafter to Double
Top Plates



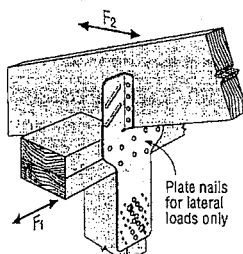
12 H8 attaching Stud to Sill
(4 8d into plate, 5 8d into stud)



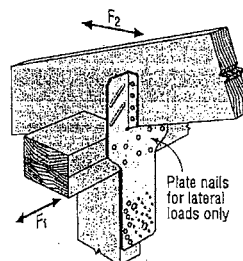
13 H8 attaching
I-Joist to Double
Top Plates



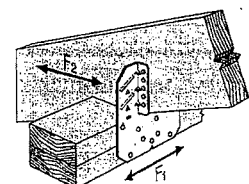
14 H10A Field-Bent
Installation



15 H10S Installation

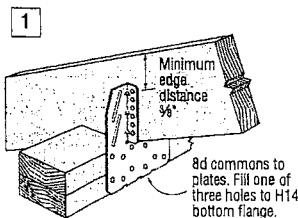


16 H10S Installation
with Stud Offset

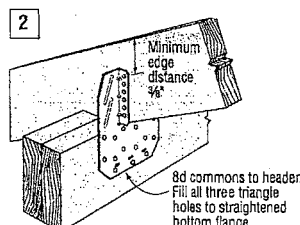


17 H10A
Installation

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.

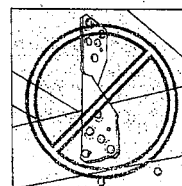


18 H14 Installation to
Double Top Plates



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.

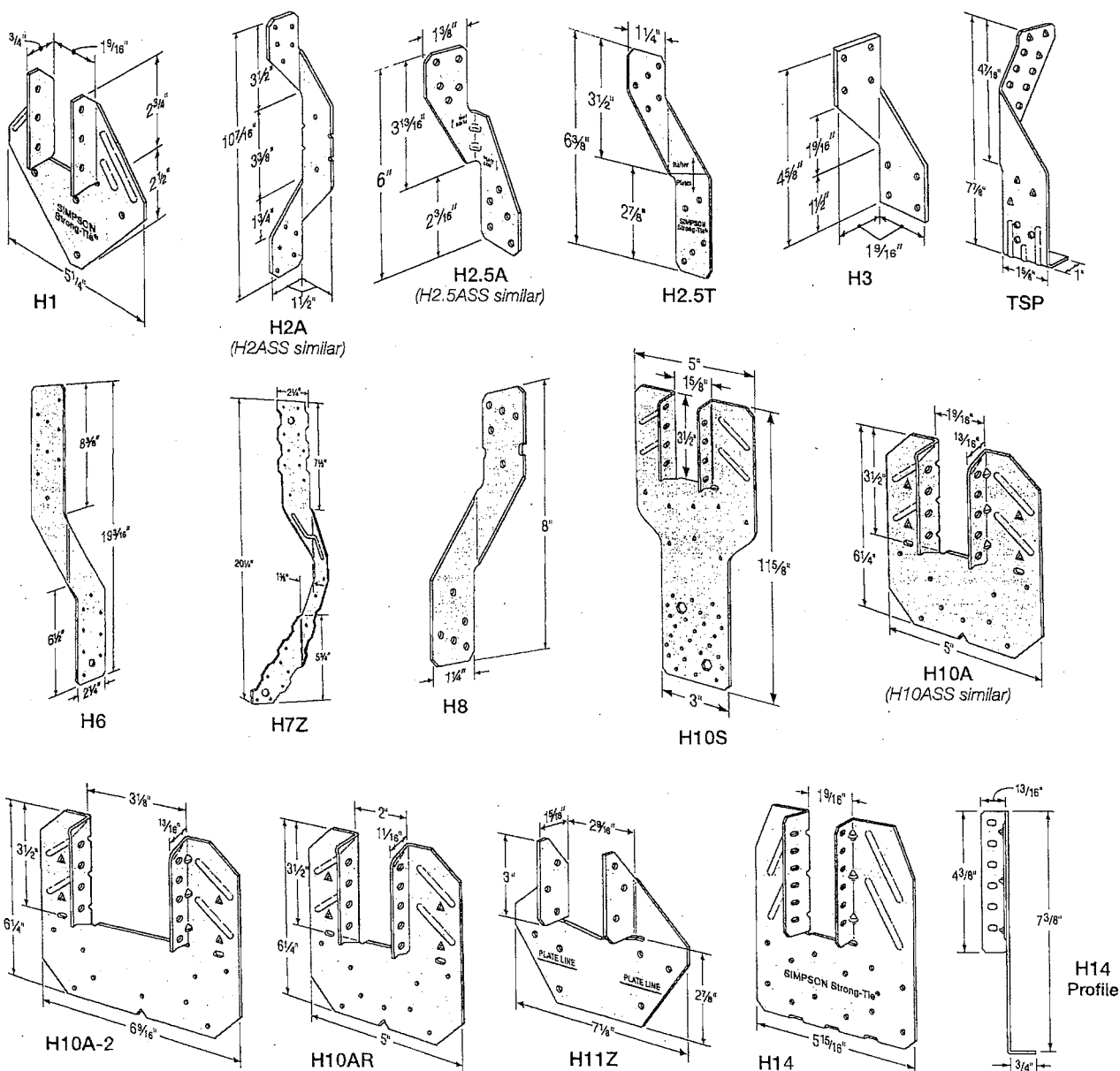
- H10AR — The heavy-duty design of the H10A available with a 2" wide throat to accommodate rough lumber
- H10A-2 — The H10A design with a 3" throat for double 2x members
- H2ASS, H2.5ASS and H10ASS — Popular ties now available in stainless steel

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

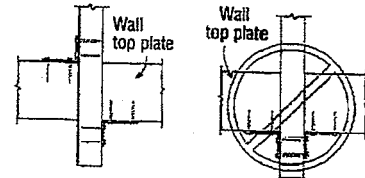
Design: • Factored resistances are in accordance with CSA O86-14
• Factored resistances have been increased 15%. No further increase is permitted.

Installation: • Use all specified fasteners

- Nails: $8d = 0.131"$ dia. x $2\frac{1}{2}"$ long common wire, $8d \times 1\frac{1}{2}" = 0.131" \times 1\frac{1}{2}"$ long, $10d \times 1\frac{1}{2}" = 0.146" \times 1\frac{1}{2}"$ long
- H1 can be installed with flanges facing outwards
- Hurricane ties do not replace solid blocking

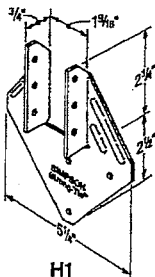
Factored resistances for more than one direction for a single connection cannot be added together. A factored load which can be divided into components in the directions given must be evaluated as follows: Factored Shear/Resisting Shear + Factored Tension/Resisting Tension ≤ 1.0 .

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

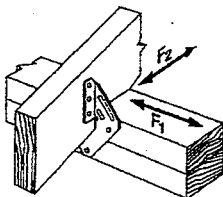


Install diagonally across from each other for minimum 2x truss.

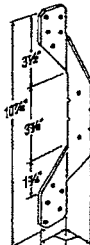
Nailing into both sides of a single ply 2x truss may cause the wood to split.



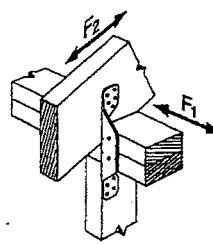
H1



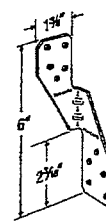
H1 Installation



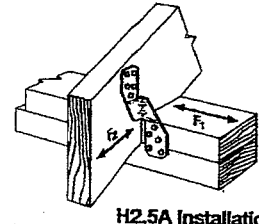
H2A



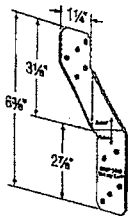
H2A Installation



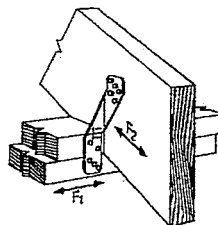
H2.5A



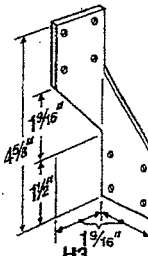
H2.5A Installation



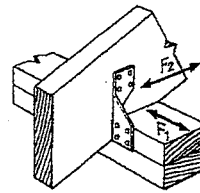
H2.5T



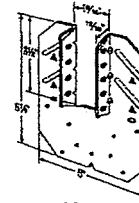
H2.5T Installation
(Nails into both top plates)



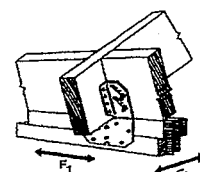
H3



H3 Installation



H10A

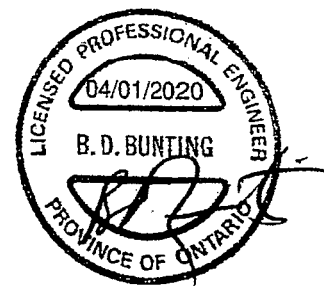


H10A Installation

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 _p =1.15)			(K _p =1.15)	
H1	18	(6) 8d x 1 1/2"	(4) 8d	—	740	685	300	680	485	215
H2A	18	(5) 8d x 1 1/2"	(2) 8d x 1 1/2"	(5) 8d x 1 1/2"	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	265	615	125	190
H10A	18	(9) 10d x 1 1/2"	(9) 10d x 1 1/2"	—	1735	795	410	1505	565	290

1. Factored resistances have been increased 15% for earthquake or wind loading with no further increase allowed.
2. Factored resistances are for one anchor. A minimum rafter thickness of 2 1/2" must be used when framing anchors are installed on each side of the joist and on the same side of the plate.

3. When cross-grain bending or cross-grain tension cannot be avoided, mechanical reinforcement to resist such forces should be considered.
4. 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 1 1/4". 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

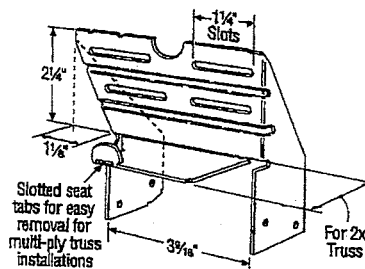
Design: Factored resistances are in accordance with CSA 086-14

Installation:

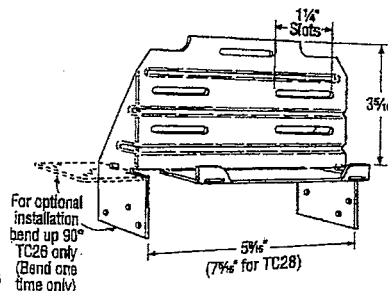
- Use all specified fasteners.
- Nails: 10d = 0.148" dia. x 3" long common wire, 10d x 1 1/2" = 0.148" dia. x 1 1/2" long.
- Drive 10d nails into the truss at the inside end of the slotted holes (inside end is towards the centre of the truss) and clinch on the back side. Do not seat these nails into the truss—allow room under the nail head for movement of the truss with respect to the wall.

Optional TC Installation:

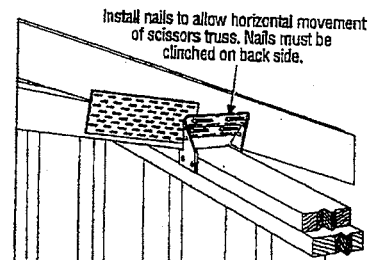
- Bend one flange up 90°. Drive specified nails into the top and face of the top plates or install Titen® screws into the top and face of masonry wall. See optional load tables and installation details.



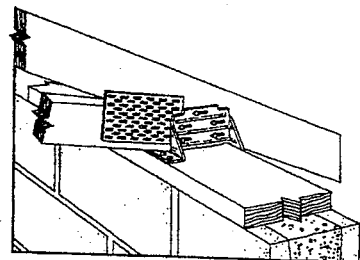
TC24
U.S. Patent 4,932,173



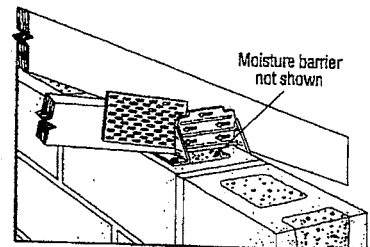
TC26
(TC28 Similar)



Typical TC24 Installation



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



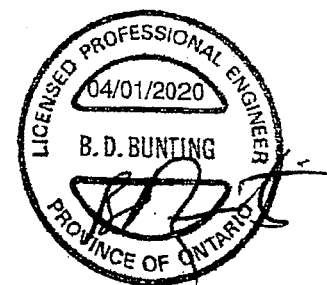
Optional TC26 Installation for Grouted Concrete Block using Titen Screws

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 1 1/2"	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) - 3/8" x 2 1/4" Titen screws has a factored uplift resistance of 275 lb.



**LIMIT
STATES
DESIGN**

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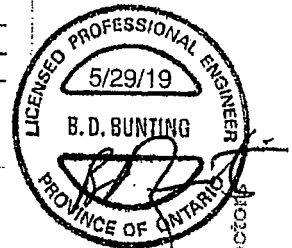
HTU**SIMPSON**
Strong-Tie**Face-Mount Truss Hanger (cont.)**

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			
			Header	Joist	D.Fir-L		S-P-F	
					Uplift	Normal	Uplift	Normal
					($K_D = 1.15$)	($K_D = 1.00$)	($K_D = 1.15$)	($K_D = 1.00$)
					lb.	lb.	lb.	lb.
					kN	kN	kN	kN
HTU26 (Min.)	3½	(2) 2x4	(10) 16d	(14) 10d x 1½"	1740	3340	1235	2370
					7.74	14.86	5.49	10.54
HTU26 (Max.)	5½	(2) 2x4	(10) 16d	(20) 10d x 1½"	2470	4016	1755	2850
					10.99	17.86	7.81	12.68
HTU28 (Max.)	3½	(2) 2x6	(20) 16d	(26) 10d x 1½"	4150	6395	2945	4540
					18.46	28.45	13.10	20.19
HTU210 (Max.)	7¼	(2) 2x6	(20) 16d	(32) 10d x 1½"	4150	6395	2945	4540
					18.46	28.45	13.10	20.19

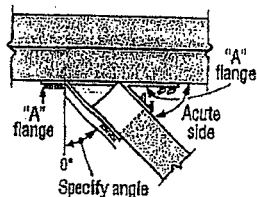
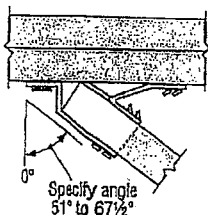
See table footnotes on p. 260.

**Hanger Options**

See Hanger Options information on pp. 125-127.

Skewed Seat

- Skewable 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.	Skaw Angle (Degrees)	Fasteners		Factored Resistance			
		Header	Joist	D.Fir-L		S-P-F	
				Uplift	Normal	Uplift	Normal
				($K_D = 1.15$)	($K_D = 1.00$)	($K_D = 1.15$)	($K_D = 1.00$)
				lbs	lbs	lbs	lbs
				kN	kN	kN	kN
HTU26	< 51	(20) 16d	(14) 10d x 1½"	1935	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	3620	955	2560
	51-67½	(26) 16d	(17) 10d x 1½"	8.01	18.10	4.25	11.39
HTU210	< 51	(32) 16d	(26) 10d x 1½"	2810	4270	1985	3030
	51-67½	(32) 16d	(22) 10d x 1½"	12.60	18.99	8.83	13.48
HTU26-2	< 51	(20) 16d	(14) 10d	2075	3930	1485	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
HTU26-2	< 51	(20) 16d	(14) 10d	2385	5425	1695	3855
	51-67½	(20) 16d	(12) 10d	10.61	24.13	7.54	17.15
HTU28-2	< 51	(26) 16d	(20) 10d	5025	6890	3570	4890
	51-67½	(26) 16d	(17) 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.

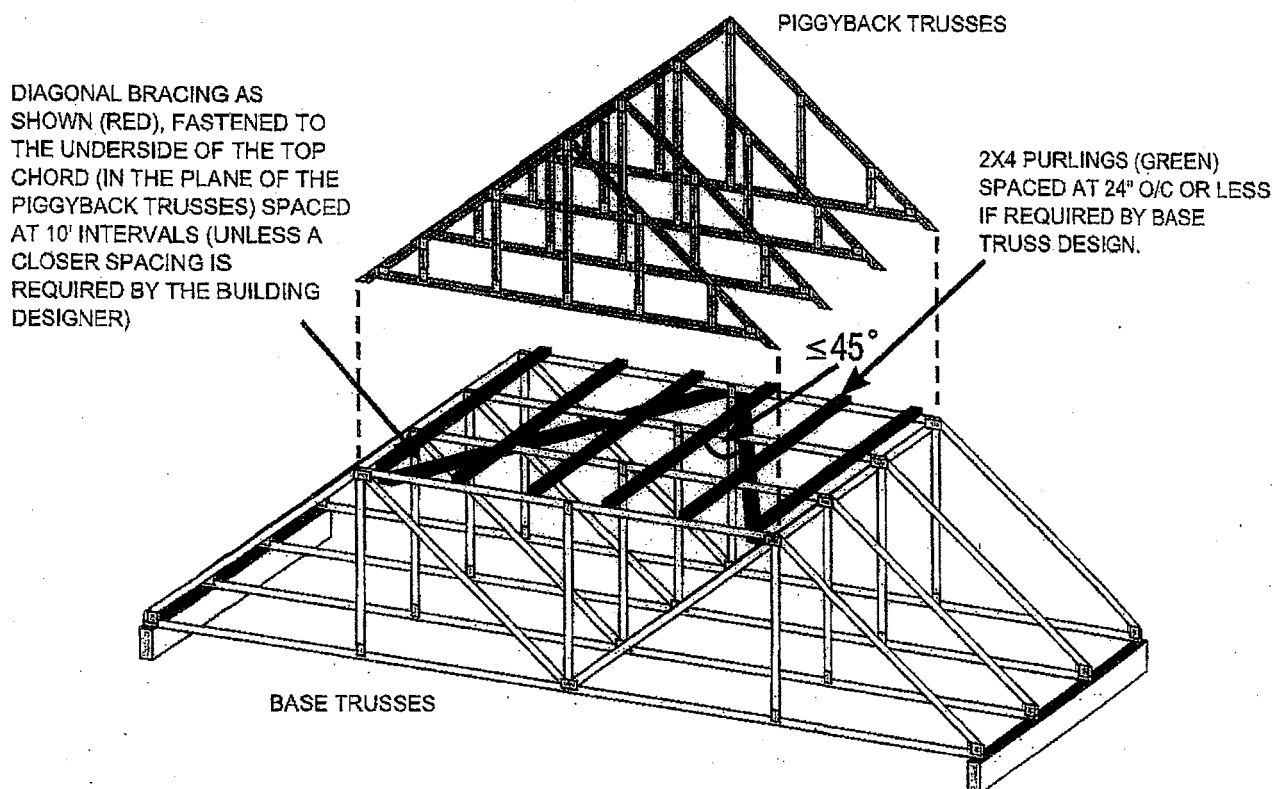
3. Nails: 16d = 0.162" dia. x 3½" long, 10d x 1½" = 0.148" dia. x 1½" long, 10d = 0.148" dia. x 3" long. See pp. 27-28 for other nail sizes and information.

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.

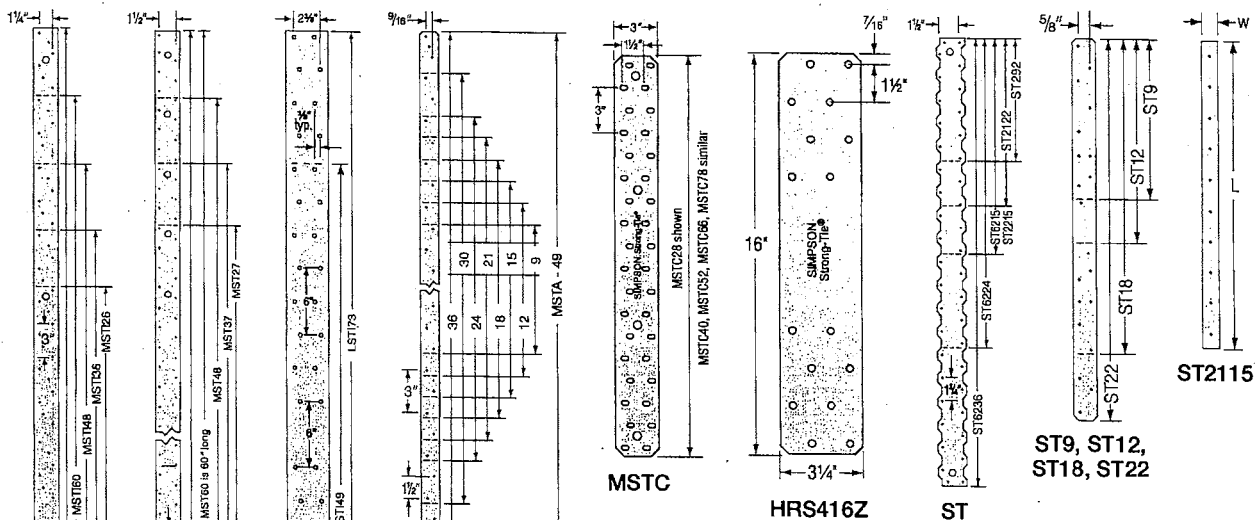
MST — High-capacity strap that can be installed with either nails or bolts. Suitable for double 2x member connections or greater.

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.

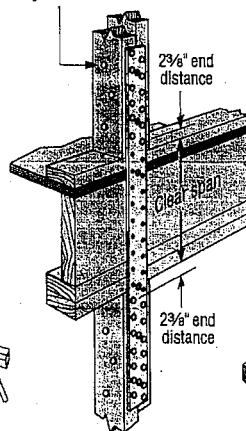
Installation: Use all specified fasteners; see General Notes

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

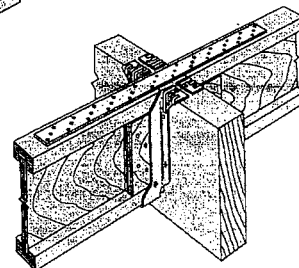


LSTA and MSTA
(Pilot holes not shown)

Stitch nailing
of double studs
by others

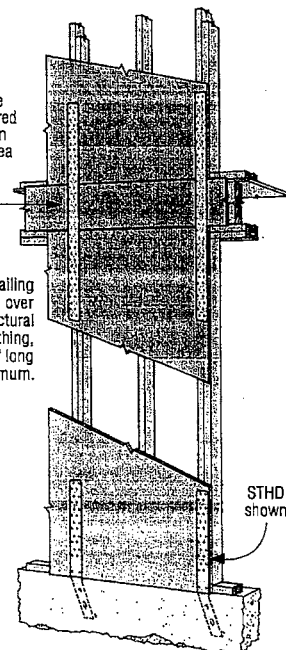


Floor-to-Floor Tie Installation
Showing a Clear Span



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

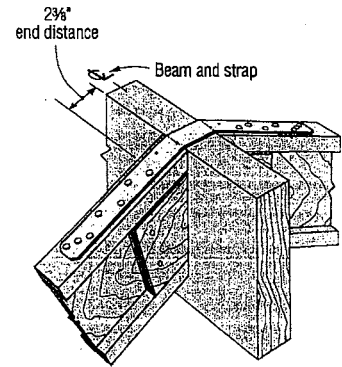
Typical LSTI Installation

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

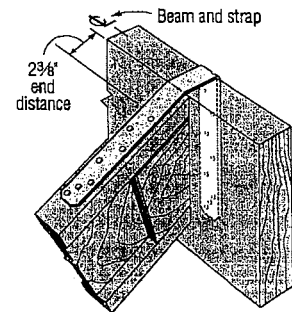
These products are available with additional corrosion protection. For more information, see p. 20.

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	
SS	LSTA9	20	1¼	9	(6) 10d	600	690	555	635
	LSTA12		1¼	12	(8) 10d	2.67	3.07	2.47	2.82
						800	920	735	845
	LSTA15		1¼	15	(10) 10d	3.56	4.09	3.27	3.76
						1000	1150	920	1060
	LSTA18		1¼	18	(12) 10d	4.45	5.12	4.09	4.72
						1200	1380	1105	1270
	LSTA21		1¼	21	(14) 10d	5.34	6.14	4.92	5.65
						1400	1610	1290	1485
	LSTA24		1¼	24	(16) 10d	6.23	7.16	5.74	6.61
1600		1840				1475	1695		
ST292	2⅞	9⅝	(8) 8d	7.12	8.19	6.56	7.54		
				585	675	535	615		
ST2122	2⅞	12⅜	(12) 8d	2.60	3.00	2.38	2.74		
				940	1085	865	995		
ST2115	¾	16⅝	(8) 8d	4.18	4.83	3.85	4.43		
				670	770	615	710		
ST2215	2⅞	16⅝	(16) 8d	2.98	3.43	2.74	3.16		
				1335	1540	1235	1420		
SS	LSTA30	18	1¼	30	(20) 10d	5.94	6.85	5.49	6.32
	LSTA36		1¼	36	(24) 10d	2235	2465	2075	2385
						9.94	10.97	9.23	10.61
	LSTI49		¾	49	(32) 10d x 1½"	2465	2465	2465	2465
						10.97	10.97	10.97	10.97
	LSTI73		¾	73	(48) 10d x 1½"	3115	3580	2852	3280
						13.86	15.93	12.69	14.59
	MSTA9		1¼	9	(6) 10d	4670	5370	4280	4920
						20.77	23.89	19.04	21.89
	MSTA12		1¼	12	(8) 10d	670	770	625	715
2.98		3.43				2.78	3.18		
MSTA15	1¼	15	(10) 10d	895	1030	830	955		
				3.98	4.58	3.69	4.25		
MSTA18	1¼	18	(12) 10d	1120	1285	1040	1195		
				4.98	5.72	4.63	5.32		
MSTA21	1¼	21	(14) 10d	1340	1545	1245	1430		
				5.96	6.87	5.54	6.36		
MSTA24	1¼	24	(16) 10d	1565	1800	1455	1670		
				6.96	8.01	6.47	7.43		
SS	MSTA30	16	1¼	30	(20) 10d	1790	2060	1660	1910
	MSTA36		1¼	36	(24) 10d	7.96	9.16	7.38	8.50
						2470	2840	2260	2595
	MSTA49		1¼	49	(28) 8d	10.99	12.63	10.05	11.54
						2965	3070	2710	3070
	ST6215		2⅞	16⅝	(16) 8d	13.19	13.66	12.06	13.66
						2725	2725	2545	2725
	ST6224		2⅞	23⅝	(24) 8d	12.12	12.12	11.32	12.12
						1405	1615	1300	1500
	ST9		1¼	9	(6) 8d	6.25	7.18	5.78	6.67
2305		2650				2155	2475		
ST12	1¼	11⅝	(8) 8d	10.25	11.79	9.59	11.01		
				525	605	490	560		
ST18	1¼	17¾	(12) 8d	2.34	2.69	2.18	2.49		
				700	805	650	750		
ST22	1¼	21⅝	(18) 8d	3.11	3.58	2.89	3.34		
				1050	1210	975	1125		
					4.67	5.38	4.34	5.00	
					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

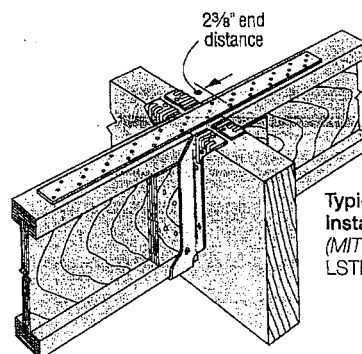
Strap Ties (cont.)

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

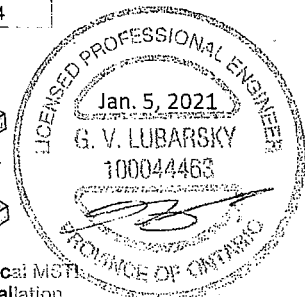
SD Many of these products are approved for installation with Strong-Drive® SD Connector screws. See pp. 366–370 for more information.

Model No.	Ga.	Dimensions (in.)		Fasteners (Total)	Factored Tensile Resistance				
					D.Fir-L		S-P-F		
		W	L		(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	
MSTC40		3	40¼	(48) 10d	17.59	20.22	16.08	18.48	
					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	65¼	(66) 10d	8515	8565	7455	8565	
MSTC78		3	77¼	(66) 10d	37.88	38.10	33.16	38.10	
					8515	8565	7455	8565	
					37.88	38.10	33.16	38.10	
ST6236		2⅝	33 ⅜	(36) 8d	3735	4295	3270	3760	
					16.61	19.11	14.55	16.73	
MSTI26	12	2⅝	26	(22) 10d x 1 ½"	2825	3250	2475	2850	
MSTI36		2⅝	36	(32) 10d x 1 ½"	12.57	14.46	11.01	12.68	
					4110	4725	3600	4140	
					18.28	21.02	16.01	18.42	
MSTI48		2⅝	48	(44) 10d x 1 ½"	5650	6500	4955	5695	
					25.13	28.91	22.04	25.33	
MSTI60		2⅝	60	(56) 10d x 1 ½"	7195	7360	6305	7250	
					32.01	32.74	28.05	32.25	
MSTI72		2⅝	72	(68) 10d x 1 ½"	7360	7360	7240	7360	
					32.74	32.74	32.21	32.74	
MST27		2⅝	27	(26) 8d	2685	3090	2355	2710	
					11.94	13.75	10.48	12.06	
MST37		2⅝	37½	(38) 8d	3930	4515	3440	3960	
					17.48	20.08	15.30	17.62	
MST48		2⅝	48	(50) 8d	5170	5945	4530	5210	
					23.00	26.45	20.15	23.18	
HRS416Z		10	3¼	16	(16) ¼" x 1 ½" SDS	2400	2760	2120	2440
MST60			2⅝	60	(64) 8d	10.68	12.28	9.43	10.85
	6620					7610	5800	6670	
	29.45					33.85	25.80	29.67	
MST72	2⅝		72	(78) 8d	8065	9135	7065	8125	
					35.88	40.64	31.43	36.14	

1. Factored resistances have been increased 15% for earthquake or wind loading with no further increase allowed.
2. Use half of the nails in each member being connected to achieve the listed resistances.
3. Nails: 10d = 0.148" dia. x 3" long, 10d x 1½" = 0.148" dia. x 1½" long, 8d = 0.131" dia. x 2½" long. See pp. 22–23 for other nail sizes and information.

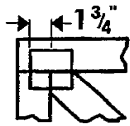


Typical MSTI
Installation
(MIT hanger shown)
LSTI similar

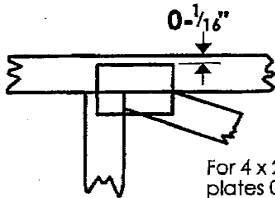


Symbols

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 0-1/8" 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

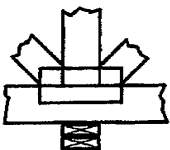
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

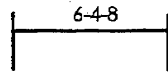


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur.

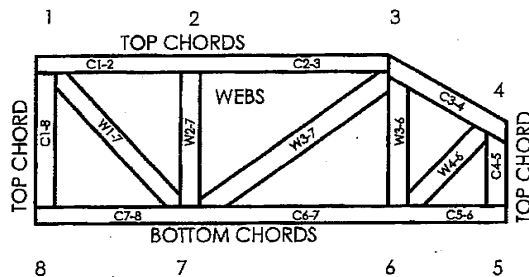
Industry Standards:

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
POWER TO PERFORM.™

MiTek Engineering Reference Sheet: MJL-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.