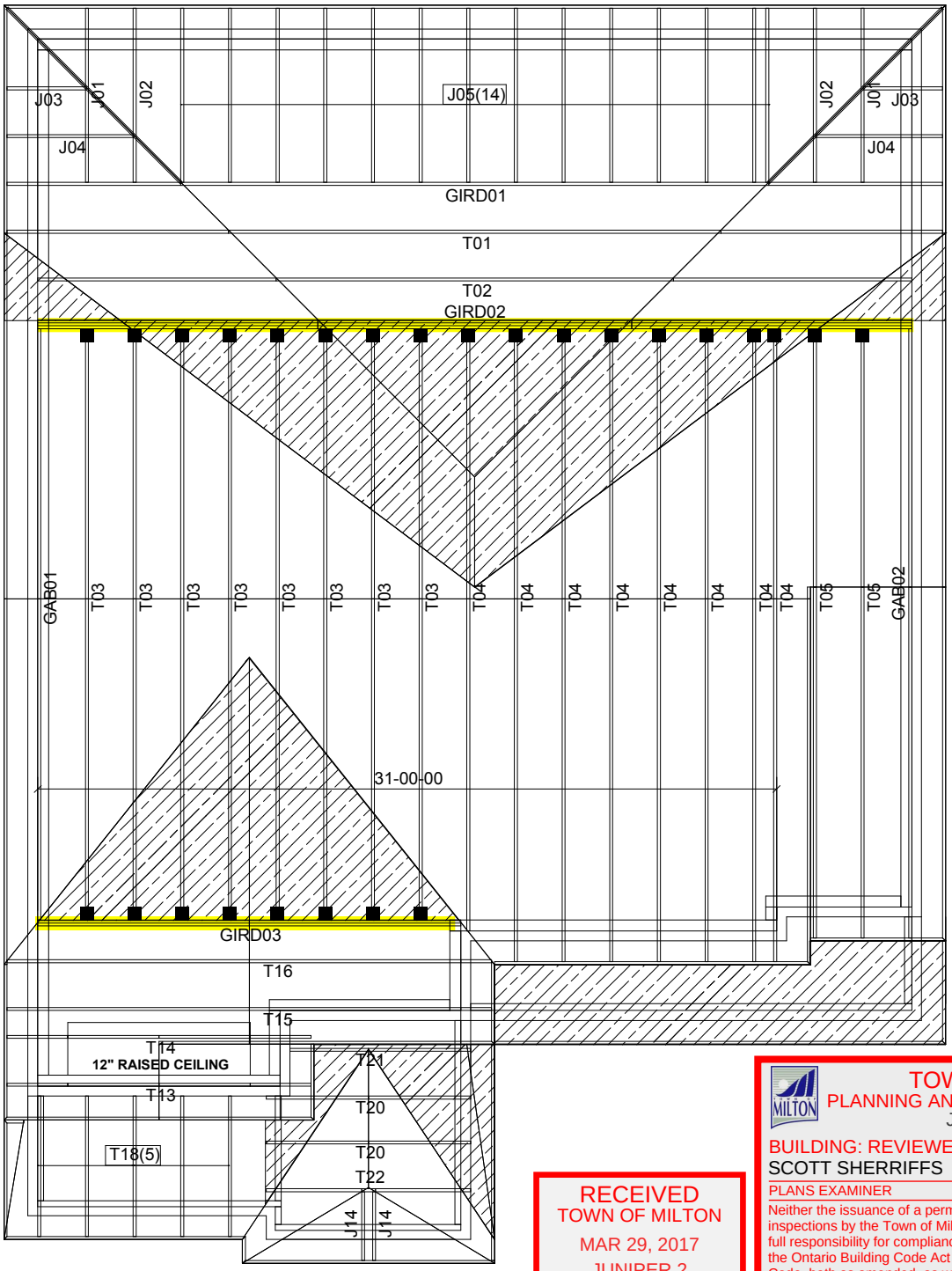
TRUSSES BY KOTT




RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 2
BUILDING DIVISION

TOWN OF MILTON
PLANNING AND DEVELOPMENT
JUNIPER 2 MODEL
BUILDING: REVIEWED
SCOTT SHERRIFFS MAR 30, 2017
PLANS EXAMINER DATE
Neither the issuance of a permit nor carrying out of inspections by the Town of Milton relives the owner from full responsibility for compliance with the provisions of the Ontario Building Code Act and the Ontario Building Code, both as amended, as well as other applicable statutes and regulations of the Province on Ontario, By-laws of the Region of Halton and Town of Milton

CONVENTIONAL FRAMING BY OTHERS

ALL CONVENTIONAL FRAMING TO CONFORM WITH PART 9 OF THE O.B.C
ROOF RAFTERS THAT CROSS MEET OVER TRUSSES TO BE 2x4 S.P.F. @ 24"O/C WITH A 2x4 VERTICAL POST TO THE TRUSS UNDERNEATH EACH CROSS POINT. VERTICAL POST LONGER THAN 6' TO HAVE LATERAL BRACING SO THAT THE DISTANCE BETWEEN END POINT AND BETWEEN ROWS OF BRACING DOES NOT EXCEED 6'.

HANGER LEGEND:

▼ LUS24 ■ LJS26DS
● HGUS26 ✕ HGUS26-2

SIZE AND LOCATION OF CONVENTIONAL FRAMING IS APPROXIMATE. ALL AREAS MAY NOT BE SHOWN. REFER TO ARCHITECTURAL PLANS FOR DETAILS.

Model: **JUNIPER 2 EL 2**
Customer: GREENPARK
Project: LECCO RIDGE
Location: MILTON
Date: 10/7/2016 Drawn by: BB

# *ENGINEERING NOTE PAGE (ENP-1)*
# PLEASE READ PRIOR TO INSTALLATION

## *RESPONSIBILITIES*

THIS DESIGN IS FOR AN INDIVIDUAL BUILDING COMPONENT AND HAS BEEN BASED ON INFORMATION PROVIDED BY THE DESIGN OFFICE OF KOTT LUMBER. THE UNDERSIGNED ENGINEER DISCLAIMS ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF FAULTY OR INCORRECT INFORMATION, SPECIFICATION AND/OR DESIGNS FURNISHED TO THE ENGINEER. THE UNDERSIGNED ENGINEER IS ONLY RESPONSIBLE FOR THE STRUCTURAL INTEGRITY OF THIS BUILDING COMPONENT FOR THE CONDITIONS AND LOADS SHOWN ON THIS DRAWING. THE STRUCTURAL INTEGRITY OF THE BUILDING AND THE VERIFICATION OF THE DIMENSIONS AND THE DESIGN LOADS USED ARE THE RESPONSIBILITY OF THE BUILDING DESIGNER.

TRUSSES ARE DESIGNED IN CONFORMANCE WITH THE RELEVANT SECTIONS OF THE NATIONAL BUILDING CODE OF CANADA OR THE CANADIAN CODE FOR FARM BUILDINGS, WHICHEVER APPLIES TO THE BUILDING TYPE INDICATED ON THE DRAWING

IT IS THE RESPONSIBILITY OF KOTT LUMBER TO ENSURE THAT TRUSSES ARE MANUFACTURED IN CONFORMANCE WITH THESE DESIGNS AND WITH THE SPECIFICATIONS OUTLINED BELOW. THE UNDERSIGNED ENGINEER IS NOT RESPONSIBLE FOR QUALITY CONTROL IN THE TRUSS MANUFACTURING PLANT.

### *USE AND OCCUPANCY*

- The building is of the type indicated on the drawing

### *LOADING*

- The truss loading intensity and distribution as well as load transfer mechanism is that indicated on the drawing
- No buildings, trees, parapets or other projections higher than the roof for which the trusses are used are located within a distance less than ten (10) times the difference in height, or five metres (16 ft) whichever is greater, unless the drawing indicates that the snow drifting has been taken into account

### *HANDLING, INSTALLATION AND BRACING*

- The trusses must be handled and installed by a qualified professional as per the supplied document titled *Information for Truss Installers* and the BCSI-B1 and BCSI-B3 Summary Sheets
- The compression chords are laterally braced by continuous rigid diaphragm sheathing or as specified on the drawing
- Temporary and permanent bracing must be installed as indicated on the truss drawing and according to the BCSI-B1 and BCSI-B3 Summary Sheets. Bracing for the lateral stability of the truss is to be provided by the building designer
- **It is recommended that a Professional Engineer's advice be obtained for the bracing of trusses spanning more than 12.37m (40'-7")**

### *SUPPORTS*

- The trusses are to be supported at the bearing points indicated and anchored to the supports where considered necessary by the designer of the overall structure
- Bearing sizes shown are the minimum required to prevent crushing of the truss members and do not necessarily take into account stability of the overall building structure
- Elevation of bearings must be carefully checked and shimmed to alignment for solid bearings
- Adequate wood truss bearing is the responsibility of the building designer.

### *DIMENSIONS*

- Geometry of the truss and dimensions indicated on the drawing are identical to those of the installed truss.



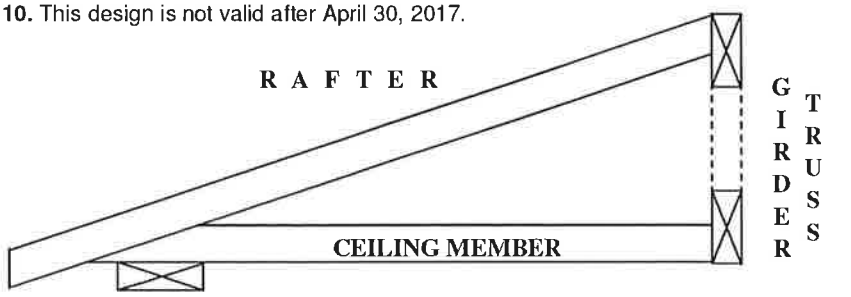
01/29/2013

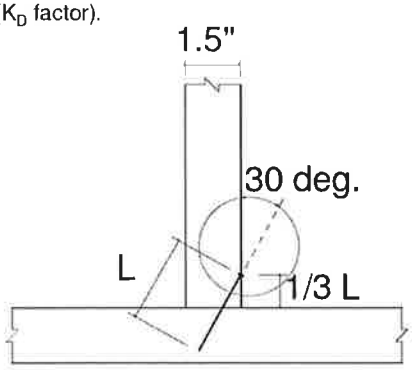
# BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY B37579H1

| NAIL TYPE | LENGTH (IN) | DIAMETER (IN) | NAIL LATERAL CAPACITY (LB) | |
|---|---|---|---|---|
| | | | S-P-F | D. FIR |
| COMMON WIRE | 3.00 | 0.144 | 132 | 147 |
| | 3.25 | 0.144 | 132 | 147 |
| | 3.50 | 0.160 | 159 | 177 |
| COMMON SPIRAL | 3.00 | 0.122 | 97 | 108 |
| | 3.25 | 0.122 | 97 | 108 |
| | 3.50 | 0.152 | 145 | 162 |

**NOTES:**

1. Rafter and ceiling members may be anchored to top and bottom chords of girder truss by toe-nailing rafter and ceiling members to girder chords provided the reaction does not exceed the lateral capacities in the table. Hangers (specified by others) are required for reactions higher than the maximum toe-nail capacity. Reactions are based on factored loads.
2. Toe nail capacities shown in the table are for **one** toe-nail. For additional toe-nails multiply values in table by the number of toe-nails used. Toe-nail capacities take into account toe-nailing factor $J_A$ in CSA O86-09, section 10.9.4.1.
3. For 9- 3/4 gauge 3.25" common wire gun nails (diameter = 0.120") use 3" common spiral nail values.
4. Maximum number of toe-nails allowed depends on the lumber size & species to be toe-nailed to supporting member and nail diameter, as shown in tables below.
5. Nail values in table are based on the following relative lumber densities: G = 0.42 (SPF), G = 0.49 (D. Fir).
6. 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 (See next page for nailing on bearing plate).
7. For loads due to **wind** the nail lateral capacity in this table may be multiplied by 1.15 ($K_D$ factor).
8. Lumber must be dry ( < 19% moisture content ) at the time of nail installation.
9. Nail values in this table comply with CSA O86-09, section 10.9.4
10. This design is not valid after April 30, 2017.




TOE-NAIL INSTALLATION

| Nail type | Common wire | Common spiral | Common wire | Common spiral |
|---|---|---|---|---|
| Nail dia. (in) | 0.160 | 0.152 | 0.144 | 0.122 |
| | ( 3.5" nail ) | | ( 3" and 3.25" nail ) | |
| LUMBER SIZE | MAXIMUM NUMBER OF TOE-NAILS | | | |
| 2X4 SPF | 2 | 2 | 3 | 3 |
| 2X4 D. Fir | 2 | 2 | 2 | 2 |
| 2X6 SPF | 4 | 4 | 4 | 5 |
| 2X6 D. Fir | 3 | 3 | 3 | 4 |

MiTek Canada Inc
100 Industrial Rd.
Bradford, Ontario L3Z 3G7



PEO
Certificate No. 10889485


April 24, 2015

# BEARING ANCHORAGE BY TOE-NAILS FOR WIND LOADING B37579H2

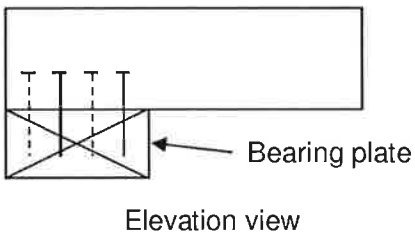
| NAIL TYPE | LENGTH (IN) | DIAMETER (IN) | NAIL WITHDRAWAL CAPACITY (LB) | |
|---|---|---|---|---|
| | | | S-P-F | D. FIR |
| COMMON WIRE | 3.00 | 0.144 | 30 | 42 |
| | 3.25 | 0.144 | 32 | 45 |
| | 3.50 | 0.160 | 38 | 52 |
| COMMON SPIRAL | 3.00 | 0.122 | 26 | 36 |
| | 3.25 | 0.122 | 28 | 40 |
| | 3.50 | 0.152 | 36 | 50 |

**Note:** If using truss with D. Fir lumber and S-P-F bearing plate, use values in table for S-P-F.

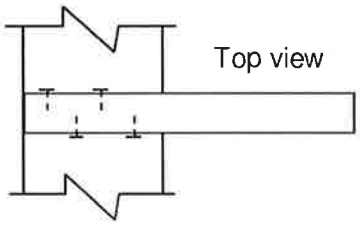
**NOTES:**

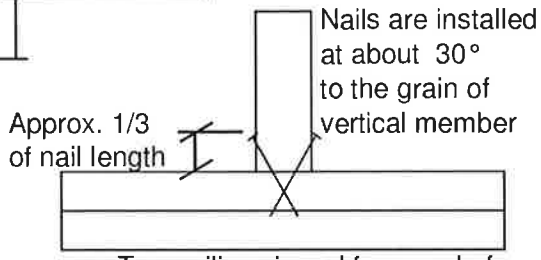
1. Truss chord, rafter, or ceiling members may be anchored to bearing plate by toe-nails, provided that the actual factored uplift force due to **wind** or **earthquake** load does not exceed the withdrawal capacities in the table. Hangers (specified by others) are required for uplift forces that are higher than the maximum toe-nail withdrawal capacity.
2. Toe nail capacities shown in the table are for **one** toe-nail. For additional toe-nails multiply values in table by the number of toe-nails used. Toe-nail capacities take into account toe-nailing factor $J_A$ in CSA O86-09, section 10.9.5.2.
3. For 9- 3/4 gauge 3.25" common wire gun nails (diameter = 0.120") use 3" common spiral nail values.
4. Maximum number of toe-nails allowed depends on the lumber size & species to be toe-nailed to supporting member and nail diameter, as shown in table above.
5. Nail values in table are based on the following relative lumber densities: G = 0.42(SPF), G = 0.49(D. Fir).
6. 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 (See drawing on detail B37579H1).
7. Lumber must be dry ( < 19% moisture content ) at the time of nail installation.
8. Nail values in this table comply with CSA O86-09, section 10.9.5
9. This design is not valid after April 30, 2017

Toe-nailing on 2x6 Bearing Plate



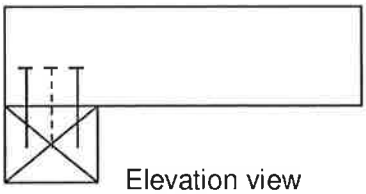

Elevation view



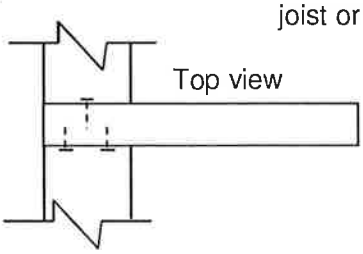




Toe-nailing viewed from end of joist or truss

Toe-nailing on 2x4 Bearing Plate



Elevation view



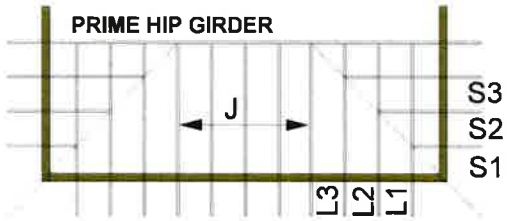

MiTek Canada Inc
100 Industrial Rd.
Bradford, Ontario L3Z 3G7

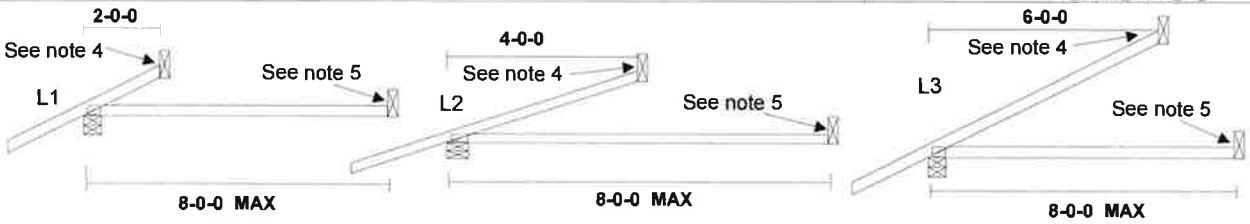
RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 2
BUILDING DIVISION

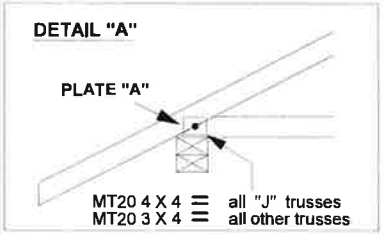
PEO
Certificate No. 10889485

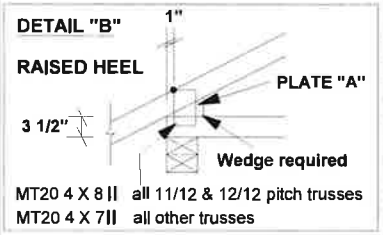

April 24, 2015

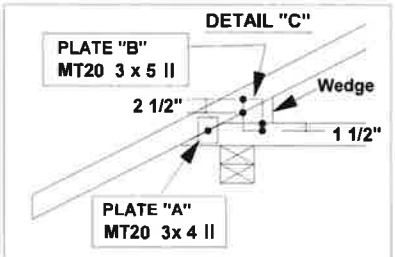
JOB NAME **DETAILS** | JOB DESC. **HIP END FRAMING** | DRAWING NO. **B37579J**



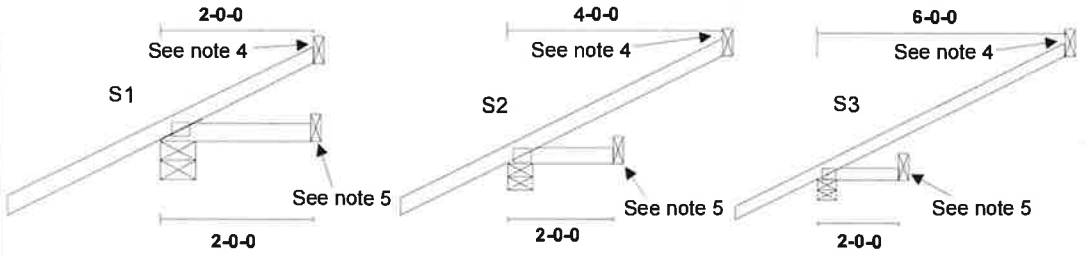



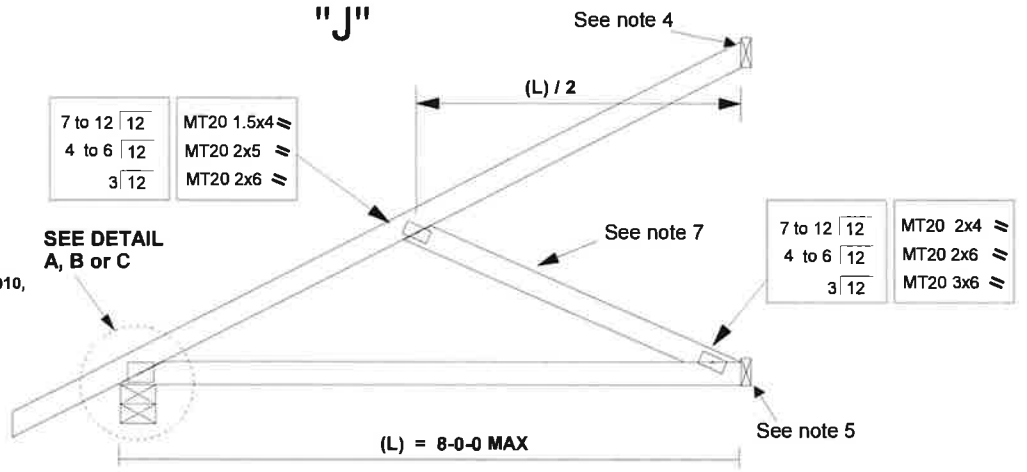




CANTILEVER DETAIL "C"

| SLOPE | MAX CANTILEVER | PLATE "B" | WEDGE SIZE |
|---|---|---|---|
| 3/12 | 17" | 3 X 5 | 2 X 3 |
| 4/12 | 14" | 3 X 5 | 2 X 3 |
| 5/12 | 12" | 3 X 5 | 2 X 4 |
| 6/12 | 10" | 3 X 5 | 2 X 4 |
| 7/12 | 9" | 3 X 5 | 2 X 6 |
| 8/12 | 8.5" | 3 X 5 | 2 X 6 |
| 9/12 | 8" | 3 X 5 | 2 X 6 |
| 10/12 | 7.5" | 3 X 5 | 2 X 6 |




**NOTES:**

1. ALL LUMBER SHALL BE 2x4 SPF OR D. Fir No. 2 DRY OR BETTER.
2. THIS TRUSS IS DESIGNED FOR HOUSING AND SMALL BUILDING REQUIREMENTS OF PART 9 NBCC 2010, WHERE GROUND SNOW LOAD IS 60.0 PSF OR LESS AND RAIN LOAD DOES NOT EXCEED 12.53 PSF; TOP CHORD DEAD LOAD IS 6 PSF OR LESS; BC LIVE LOAD IS 0 PSF AND BC DEAD LOAD IS 7 PSF.
3. HIP RAFTER DESIGN SHALL CONFORM TO SECTION 9.23.14.6 OF NBCC 2010.
4. FASTEN HIGH END OF RAFTERS USING MITEK CANADA INC. "BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY" STANDARD DETAIL B37579H1.
5. FASTEN RIGHT END OF CEILING USING MITEK CANADA INC. "BEARING ANCHORAGE BY TOE-NAILS FOR LATERAL CAPACITY" STANDARD DETAIL B37579H1.
6. OVERHANG LENGTH SHALL NOT EXCEED 2 FT.
7. WHEN SETBACK IS 6 FT OR LESS, DIAGONAL WEB MAY BE OMITTED AND HIGH END OF TOP CHORD SHALL BE CONNECTED AS PER NOTE 4.
8. ALL PLATES SPECIFIED ARE PRESSED INTO BOTH FACES OF THE TRUSS.
9. MITEK REFERENCE PAGE MII-7473C FORMS AN INTEGRAL PART OF THIS DETAIL.
10. THIS DETAIL IS NOT VALID AFTER APRIL 30, 2017

MiTek Canada, Inc.
100 Industrial Rd.
Bradford, Ontario, L3Z 3G7

PEO
Certificate No. 10889485




April 24, 2015

| JOB NAME | TRUSS NAME | QUANTITY | PLY | JOB DESC. | DRWG NO. |
|---|---|---|---|---|---|
| CC0317-141 | GAB01 | 1 | 1 | GREENPARK-LECCO RIDGE-JUNIPER 2 EL 2<br>TRUSS DESC. | Page 5 of 31<br>ENG JOB: CC0317-141 |

KOTT , Stouffville, ON, CGC

Version 8.100 S Jan 17 2017 MiTek Industries, Inc. Tue Mar 21 14:57:58 2017 Page 1

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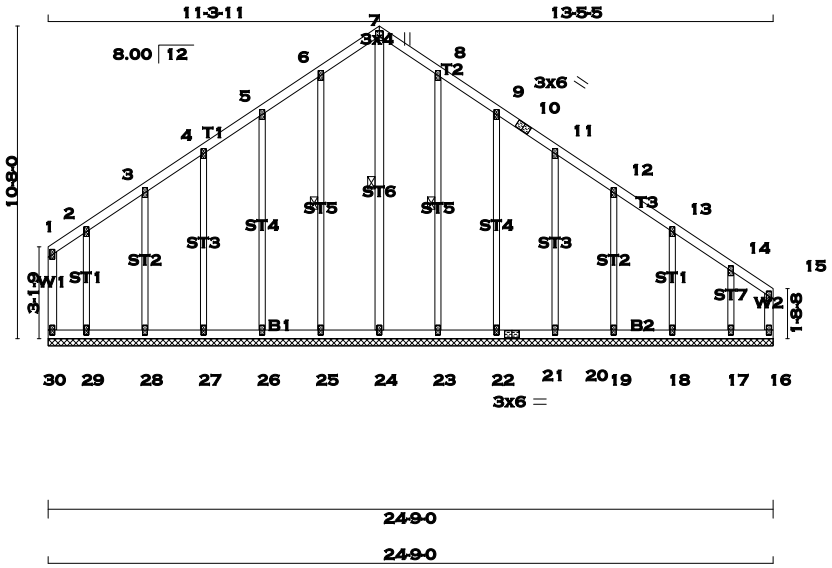



SCALE = 1:78.6

TOTAL WEIGHT = 130 lb [M]

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 30 - 1 | 2x4 | DRY | No.2 | SPF |
| 1 - 7 | 2x4 | DRY | No.2 | SPF |
| 7 - 10 | 2x4 | DRY | No.2 | SPF |
| 10 - 15 | 2x4 | DRY | No.2 | SPF |
| 16 - 15 | 2x4 | DRY | No.2 | SPF |
| 30 - 21 | 2x4 | DRY | No.2 | SPF |
| 21 - 16 | 2x4 | DRY | No.2 | SPF |
| ALL WEBS | 2x3 | DRY | No.2 | SPF |
| EXCEPT | | | | |
| 24 - 7 | 2x4 | DRY | No.2 | SPF |
| ALL GABLE WEBS | | | | |
| | 2x3 | DRY | No.2 | SPF |
| EXCEPT | | | | |
| ST2 | 2x4 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

GABLE STUDS SPACED AT 2-0-0 OC.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| 1 | TMV+p | MT20 | 2.0 | 4.0 | | |
| 2, 3, 4, 5, 6, 8, 9, 11, 12, 13, 14 | | | | | | |
| 2 | TMW+w | MT20 | 2.0 | 4.0 | | |
| 7 | TTW+p | MT20 | 3.0 | 4.0 | 2.25 | 1.50 |
| 10 | TS-t | MT20 | 3.0 | 6.0 | | |
| 15 | TMV+p | MT20 | 2.0 | 4.0 | | |
| 16 | BMV1+p | MT20 | 2.0 | 4.0 | | |
| 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29 | | | | | | |
| 17 | BMW1+w | MT20 | 2.0 | 4.0 | | |
| 21 | BS-t | MT20 | 3.0 | 6.0 | | |
| 30 | BMV1+p | MT20 | 2.0 | 4.0 | | |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

**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 = 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.

1 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/ 2 LENGTH OF 7-24, 6-25, 8-23. DBS = 20-0-0 . CBF = 21 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"X3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD LC1 FROM | TO | MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| | | (PLF) | | | | | | |
| 30- 1 | -45 / 0 | 0.0 | 0.0 | 0.01 (1) | 7.81 | 24- 7 | -171 / 0 | 0.10 (1) |
| 1- 2 | -3 / 0 | -77.3 | -77.3 | 0.02 (1) | 10.00 | 25- 6 | -154 / 0 | 0.09 (1) |
| 2- 3 | -1 / 0 | -77.3 | -77.3 | 0.04 (1) | 10.00 | 26- 5 | -154 / 0 | 0.19 (1) |
| 3- 4 | -1 / 0 | -77.3 | -77.3 | 0.04 (1) | 10.00 | 27- 4 | -152 / 0 | 0.11 (1) |
| 4- 5 | 0 / 2 | -77.3 | -77.3 | 0.04 (1) | 10.00 | 28- 3 | -159 / 0 | 0.07 (1) |
| 5- 6 | 0 / 3 | -77.3 | -77.3 | 0.04 (1) | 10.00 | 29- 2 | -125 / 0 | 0.03 (1) |
| 6- 7 | 0 / 6 | -77.3 | -77.3 | 0.04 (1) | 10.00 | 23- 8 | -155 / 0 | 0.09 (1) |
| 7- 8 | 0 / 6 | -77.3 | -77.3 | 0.04 (1) | 10.00 | 22- 9 | -154 / 0 | 0.19 (1) |
| 8- 9 | 0 / 3 | -77.3 | -77.3 | 0.04 (1) | 10.00 | 20-11 | -153 / 0 | 0.11 (1) |
| 9-10 | 0 / 2 | -77.3 | -77.3 | 0.04 (1) | 10.00 | 19-12 | -152 / 0 | 0.06 (1) |
| 10-11 | 0 / 2 | -77.3 | -77.3 | 0.04 (1) | 10.00 | 18-13 | -157 / 0 | 0.04 (1) |
| 11-12 | 0 / 0 | -77.3 | -77.3 | 0.04 (1) | 10.00 | 17-14 | -131 / 0 | 0.02 (1) |
| 12-13 | -4 / 0 | -77.3 | -77.3 | 0.04 (1) | 10.00 | | | |
| 13-14 | -6 / 0 | -77.3 | -77.3 | 0.04 (1) | 10.00 | | | |
| 14-15 | -9 / 0 | -77.3 | -77.3 | 0.03 (1) | 10.00 | | | |
| 16-15 | -53 / 0 | 0.0 | 0.0 | 0.01 (1) | 7.81 | | | |
| 30-29 | 0 / 6 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | |
| 29-28 | 0 / 3 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | |
| 28-27 | 0 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | |
| 27-26 | -1 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | |
| 26-25 | -3 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | |
| 25-24 | -4 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | |
| 24-23 | -4 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | |
| 23-22 | -3 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | |
| 22-21 | -1 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | |
| 21-20 | -1 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | |
| 20-19 | 0 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | |
| 19-18 | 0 / 3 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | |
| 18-17 | 0 / 7 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | |
| 17-16 | 0 / 11 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.04 (6-7:1) , BC=0.01 (17-18:4) , WB=0.19 (5-26:1) , SSI=0.05 (6-7:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

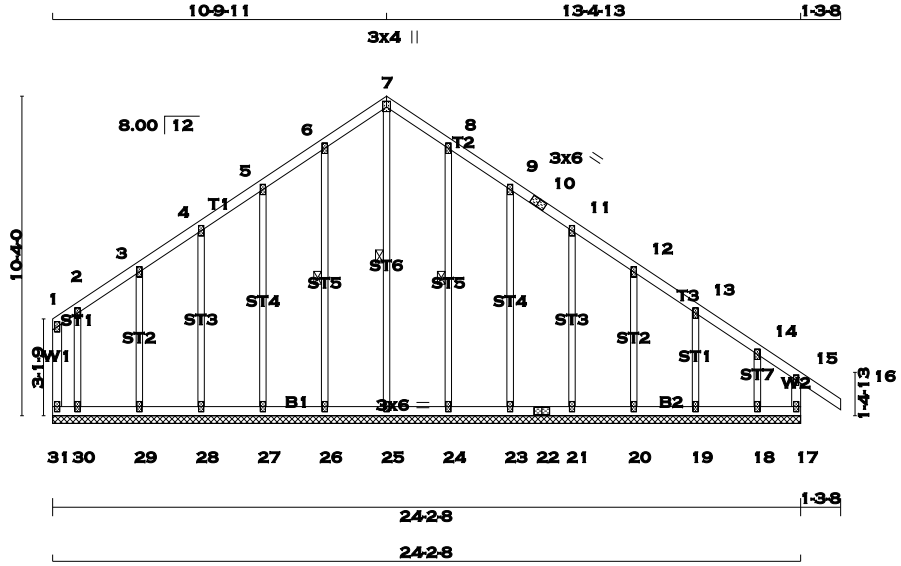
| PLATE | GRIP(DRY) (PSI) | | SHEAR (PLI) | | SECTION (PLI) | |
|---|---|---|---|---|---|---|
| | MAX | MIN | MAX | MIN | MAX | MIN |
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.54 (7) (INPUT = 0.90 )
JSI METAL= 0.07 (7) (INPUT = 1.00 )

KOTT




TOTAL WEIGHT = 123 lb [M]

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 31 - 1 | 2x4 | DRY | No.2 | SPF |
| 1 - 7 | 2x4 | DRY | No.2 | SPF |
| 7 - 10 | 2x4 | DRY | No.2 | SPF |
| 10 - 16 | 2x4 | DRY | No.2 | SPF |
| 17 - 15 | 2x4 | DRY | No.2 | SPF |
| 31 - 22 | 2x4 | DRY | No.2 | SPF |
| 22 - 17 | 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.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| 1 | TMV+p | MT20 | 2.0 | 4.0 | | |
| 2, 3, 4, 5, 6, 8, 9, 11, 12, 13, 14 | | | | | | |
| 2 | TMW+w | MT20 | 2.0 | 4.0 | | |
| 7 | TTW+p | MT20 | 3.0 | 4.0 | 2.25 | 1.50 |
| 10 | TS-t | MT20 | 3.0 | 6.0 | | |
| 15 | TMV+p | MT20 | 2.0 | 4.0 | | |
| 17 | BMV1+p | MT20 | 2.0 | 4.0 | | |
| 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 29, 30 | | | | | | |
| 18 | BMW1+w | MT20 | 2.0 | 4.0 | | |
| 22 | BS-t | MT20 | 3.0 | 6.0 | | |
| 31 | BMV1+p | MT20 | 2.0 | 4.0 | | |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

**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 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/ 2 LENGTH OF 7-25, 6-26, 8-24. DBS = 20-0-0 . CBF = 21 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"X3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC | MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|---|
| 31- 1 | -15 / 0 | 0.0 | 0.0 | 0.01 (1) | 7.81 | | 25- 7 | -170 / 0 | 0.12 (1) |
| 1- 2 | 0 / 5 | -77.3 | -77.3 | 0.02 (1) | 10.00 | | 26- 6 | -159 / 0 | 0.08 (1) |
| 2- 3 | 0 / 3 | -77.3 | -77.3 | 0.04 (1) | 10.00 | | 27- 5 | -153 / 0 | 0.17 (1) |
| 3- 4 | 0 / 2 | -77.3 | -77.3 | 0.04 (1) | 10.00 | | 28- 4 | -152 / 0 | 0.10 (1) |
| 4- 5 | 0 / 6 | -77.3 | -77.3 | 0.04 (1) | 10.00 | | 29- 3 | -160 / 0 | 0.06 (1) |
| 5- 6 | 0 / 8 | -77.3 | -77.3 | 0.04 (1) | 10.00 | | 30- 2 | -113 / 0 | 0.02 (1) |
| 6- 7 | 0 / 9 | -77.3 | -77.3 | 0.04 (1) | 10.00 | | 24- 8 | -159 / 0 | 0.08 (1) |
| 7- 8 | 0 / 9 | -77.3 | -77.3 | 0.04 (1) | 10.00 | | 23- 9 | -152 / 0 | 0.17 (1) |
| 8- 9 | 0 / 8 | -77.3 | -77.3 | 0.04 (1) | 10.00 | | 21-11 | -154 / 0 | 0.10 (1) |
| 9-10 | 0 / 5 | -77.3 | -77.3 | 0.04 (1) | 10.00 | | 20-12 | -150 / 0 | 0.06 (1) |
| 10-11 | 0 / 5 | -77.3 | -77.3 | 0.04 (1) | 10.00 | | 19-13 | -164 / 0 | 0.04 (1) |
| 11-12 | 0 / 3 | -77.3 | -77.3 | 0.04 (1) | 10.00 | | 18-14 | -79 / 0 | 0.01 (1) |
| 12-13 | -1 / 0 | -77.3 | -77.3 | 0.04 (1) | 10.00 | | | | |
| 13-14 | 0 / 0 | -77.3 | -77.3 | 0.04 (1) | 10.00 | | | | |
| 14-15 | -30 / 0 | -77.3 | -77.3 | 0.08 (1) | 6.25 | | | | |
| 15-16 | 0 / 29 | -77.3 | -77.3 | 0.10 (1) | 10.00 | | | | |
| 17-15 | -200 / 0 | 0.0 | 0.0 | 0.03 (1) | 7.81 | | | | |
| 31-30 | 0 / 3 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | | |
| 30-29 | 0 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | | |
| 29-28 | -2 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | | |
| 28-27 | -5 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | | |
| 27-26 | -6 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | | |
| 26-25 | -8 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | | |
| 25-24 | -8 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | | |
| 24-23 | -6 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | | |
| 23-22 | -5 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | | |
| 22-21 | -5 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | | |
| 21-20 | -2 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | | |
| 20-19 | 0 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | | |
| 19-18 | 0 / 4 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | | |
| 18-17 | 0 / 7 | -17.5 | -17.5 | 0.03 (1) | 10.00 | | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

CSI: TC=0.10 (15-16:1) , BC=0.03 (17-18:1) , WB=0.17 (5-27:1) , SSI=0.07 (15-16:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

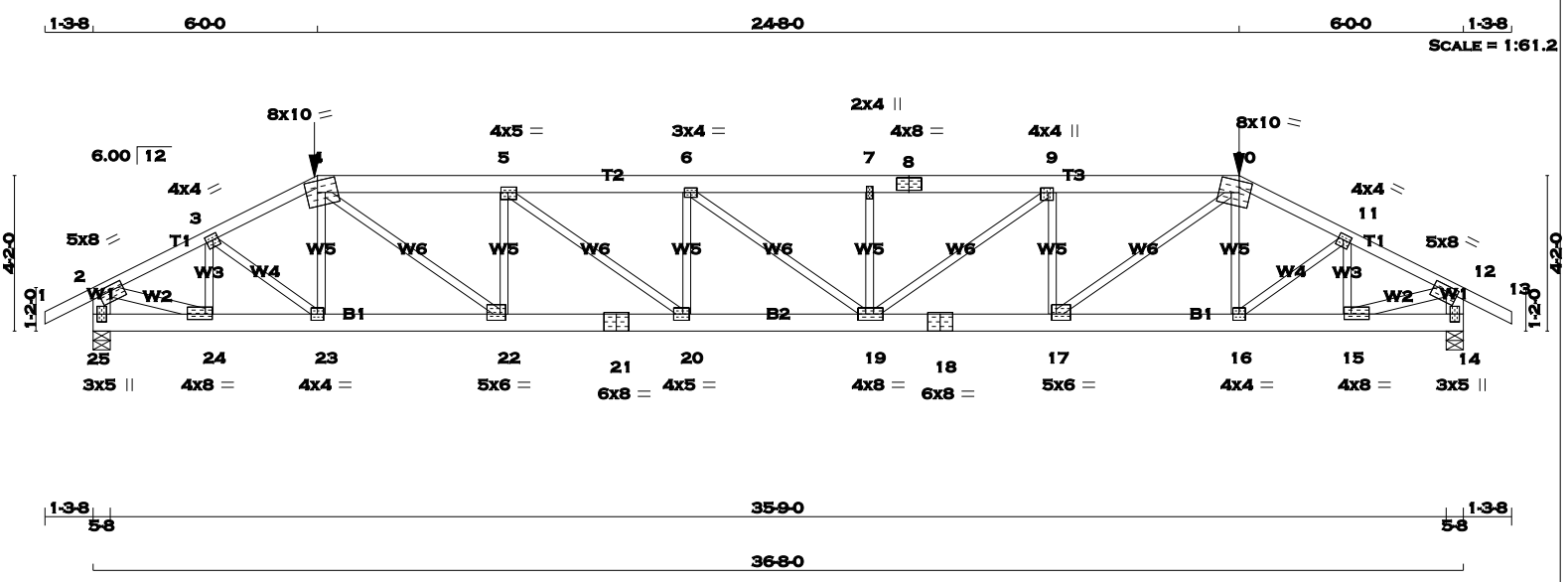
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.54 (7) (INPUT = 0.90 )
JSI METAL= 0.06 (7) (INPUT = 1.00 )

KOTT

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 2
BUILDING DIVISION




TOTAL WEIGHT = 185 lb [M]

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 1 - 4 | 2x4 | DRY | No.2 | SPF |
| 4 - 8 | 2x6 | DRY | No.2 | SPF |
| 8 - 10 | 2x6 | DRY | No.2 | SPF |
| 10 - 13 | 2x4 | DRY | No.2 | SPF |
| 25 - 2 | 2x6 | DRY | No.2 | SPF |
| 14 - 12 | 2x6 | DRY | No.2 | SPF |
| 25 - 21 | 2x6 | DRY | 2100F 1.8E | SPF |
| 21 - 18 | 2x6 | DRY | 2100F 1.8E | SPF |
| 18 - 14 | 2x6 | DRY | 2100F 1.8E | SPF |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 | SPF |
| 2 - 24 | 2x4 | DRY | No.2 | SPF |
| 15 - 12 | 2x4 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| 2 | TMVW-t | MT20 | 5.0 | 8.0 | 1.75 | 3.75 |
| 3 | TMWW-t | MT20 | 4.0 | 4.0 | 1.75 | 1.75 |
| 4 | TTWW-m | MT20 | 8.0 | 10.0 | 4.25 | 4.00 |
| 5 | TMWW-t | MT20 | 4.0 | 5.0 | 1.75 | 2.25 |
| 6 | TMWW-t | MT20 | 3.0 | 4.0 | | |
| 7 | TMW+w | MT20 | 2.0 | 4.0 | | |
| 8 | TS-t | MT20 | 4.0 | 8.0 | | |
| 9 | TMWW+t | MT20 | 4.0 | 4.0 | 1.50 | 1.50 |
| 10 | TTWW-m | MT20 | 8.0 | 10.0 | 4.25 | 4.00 |
| 11 | TMWW-t | MT20 | 4.0 | 4.0 | 1.75 | 1.75 |
| 12 | TMVW-t | MT20 | 5.0 | 8.0 | 1.75 | 3.75 |
| 14 | BMV1+p | MT20 | 3.0 | 5.0 | | |
| 15 | BMWW-t | MT20 | 4.0 | 8.0 | 1.75 | 2.25 |
| 16 | BMWW-t | MT20 | 4.0 | 4.0 | | |
| 17 | BMWW-t | MT20 | 5.0 | 6.0 | 2.00 | 1.50 |
| 18 | BS-t | MT20 | 6.0 | 8.0 | | |
| 19 | BMWWW-t | MT20 | 4.0 | 8.0 | 2.00 | 2.50 |
| 20 | BMWW-t | MT20 | 4.0 | 5.0 | 2.00 | 2.00 |
| 21 | BS-t | MT20 | 6.0 | 8.0 | | |
| 22 | BMWW-t | MT20 | 5.0 | 6.0 | 2.00 | 1.75 |
| 23 | BMWW-t | MT20 | 4.0 | 4.0 | | |
| 24 | BMWW-t | MT20 | 4.0 | 8.0 | 1.75 | 2.25 |
| 25 | BMV1+p | MT20 | 3.0 | 5.0 | | |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG | REQRD BRG |
|---|---|---|---|---|---|---|---|
| 25 | 3321 | 0 | 3321 | 0 | 0 | IN-SX 5-8 | IN-SX 5-8 |
| 14 | 3321 | 0 | 3321 | 0 | 0 | 5-8 | 5-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 25 | 2329 | 1635 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 695 / 0 | 0 / 0 |
| 14 | 2329 | 1635 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 695 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 25, 14

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.56 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| 1- 2 | 0 / 23 | -77.3 | -77.3 | 0.11 (1) | 10.00 | 24- 3 | -1068 / 0 | 0.19 (1) |
| 2- 3 | -4460 / 0 | -77.3 | -77.3 | 0.39 (1) | 3.02 | 3-23 | 0 / 852 | 0.21 (1) |
| 3- 4 | -5203 / 0 | -77.3 | -77.3 | 0.46 (1) | 2.70 | 23- 4 | -246 / 56 | 0.06 (1) |
| 4- 5 | -7088 / 0 | -145.8 | -145.8 | 0.61 (1) | 2.81 | 4-22 | 0 / 3031 | 0.75 (1) |
| 5- 6 | -8229 / 0 | -145.8 | -145.8 | 0.68 (1) | 2.56 | 22- 5 | -1699 / 0 | 0.42 (1) |
| 6- 7 | -8208 / 0 | -145.8 | -145.8 | 0.67 (1) | 2.56 | 5-20 | 0 / 1432 | 0.35 (1) |
| 7- 8 | -8208 / 0 | -145.8 | -145.8 | 0.68 (1) | 2.56 | 20- 6 | -690 / 0 | 0.17 (1) |
| 8- 9 | -8208 / 0 | -145.8 | -145.8 | 0.68 (1) | 2.56 | 6-19 | -26 / 0 | 0.02 (1) |
| 9-10 | -7093 / 0 | -145.8 | -145.8 | 0.61 (1) | 2.81 | 19- 7 | -684 / 0 | 0.17 (1) |
| 10-11 | -5202 / 0 | -77.3 | -77.3 | 0.46 (1) | 2.70 | 19- 9 | 0 / 1400 | 0.35 (1) |
| 11-12 | -4460 / 0 | -77.3 | -77.3 | 0.39 (1) | 3.02 | 17- 9 | -1689 / 0 | 0.41 (1) |
| 12-13 | 0 / 23 | -77.3 | -77.3 | 0.11 (1) | 10.00 | 17-10 | 0 / 3038 | 0.75 (1) |
| 25- 2 | -3204 / 0 | 0.0 | 0.0 | 0.23 (1) | 5.87 | 16-10 | -249 / 55 | 0.06 (1) |
| 14-12 | -3205 / 0 | 0.0 | 0.0 | 0.23 (1) | 5.87 | 16-11 | 0 / 851 | 0.21 (1) |
| | | | | | | 15-11 | -1067 / 0 | 0.19 (1) |
| 25-24 | 0 / 0 | -33.0 | -33.0 | 0.08 (1) | 10.00 | 2-24 | 0 / 4117 | 0.73 (1) |
| 24-23 | 0 / 3995 | -33.0 | -33.0 | 0.29 (1) | 10.00 | 15-12 | 0 / 4117 | 0.73 (1) |
| 23-22 | 0 / 4662 | -33.0 | -33.0 | 0.29 (1) | 10.00 | | | |
| 22-21 | 0 / 7087 | -33.0 | -33.0 | 0.44 (1) | 10.00 | | | |
| 21-20 | 0 / 7087 | -33.0 | -33.0 | 0.44 (1) | 10.00 | | | |
| 20-19 | 0 / 8229 | -33.0 | -33.0 | 0.50 (1) | 10.00 | | | |
| 19-18 | 0 / 7092 | -33.0 | -33.0 | 0.44 (1) | 10.00 | | | |
| 18-17 | 0 / 7092 | -33.0 | -33.0 | 0.44 (1) | 10.00 | | | |
| 17-16 | 0 / 4661 | -33.0 | -33.0 | 0.29 (1) | 10.00 | | | |
| 16-15 | 0 / 3995 | -33.0 | -33.0 | 0.29 (1) | 10.00 | | | |
| 15-14 | 0 / 0 | -33.0 | -33.0 | 0.08 (1) | 10.00 | | | |

FACTORED CONCENTRATED LOADS (LBS)

| JT | LOC. | LC1 | MAX- | MAX+ | FACE | DIR. | TYPE |
|---|---|---|---|---|---|---|---|
| 4 | 6-0-0 | -348 | -348 | --- | FRONT | VERT | TOTAL |
| 10 | 30-8-0 | -348 | -348 | --- | FRONT | VERT | TOTAL |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP | CH. | LL = | 23.3 | PSF |
| | | DL = | 3.0 | PSF |
| BOT | CH. | LL = | 0.0 | PSF |
| | | DL = | 7.0 | PSF |
| TOTAL | LOAD | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

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

GIRDER TYPE: CPrimeHip
SIDE SETBACK = 6-0-0
END SETBACK = 6-0-0
END WALL WIDTH = 5-8
CORNER FRAMING TYPE: CONVENTIONAL
END JACK TYPE: CONVENTIONAL
APPLIED TO FRONT SIDE
- ADDT'L LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.22")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.42")
ALLOWABLE DEFL.(TL)= L/360 (1.22")
CALCULATED VERT. DEFL.(TL) = L/ 598 (0.74")

CSI: TC=0.68 (7-9:1) , BC=0.50 (19-20:1) , WB=0.75 (10-17:1) , SSI=0.28 (9-10:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (22) (INPUT = 0.90 )
JSI METAL= 0.97 (18) (INPUT = 1.00 )



CONTINUED ON PAGE 2

**HANGERS NOTES**

1) SPECIAL HANGER(S) OR CONNECTION(S) REQUIRED TO SUPPORT CONCENTRATED LOAD(S) 348.1 lbs FACTORED DOWN AT 30-8-0, AND 348.1 lbs FACTORED DOWN AT 6-0-0 ON TOP CHORD. DESIGN FOR UNSPECIFIED CONNECTION(S) IS DELEGATED TO THE BUILDING DESIGNER.

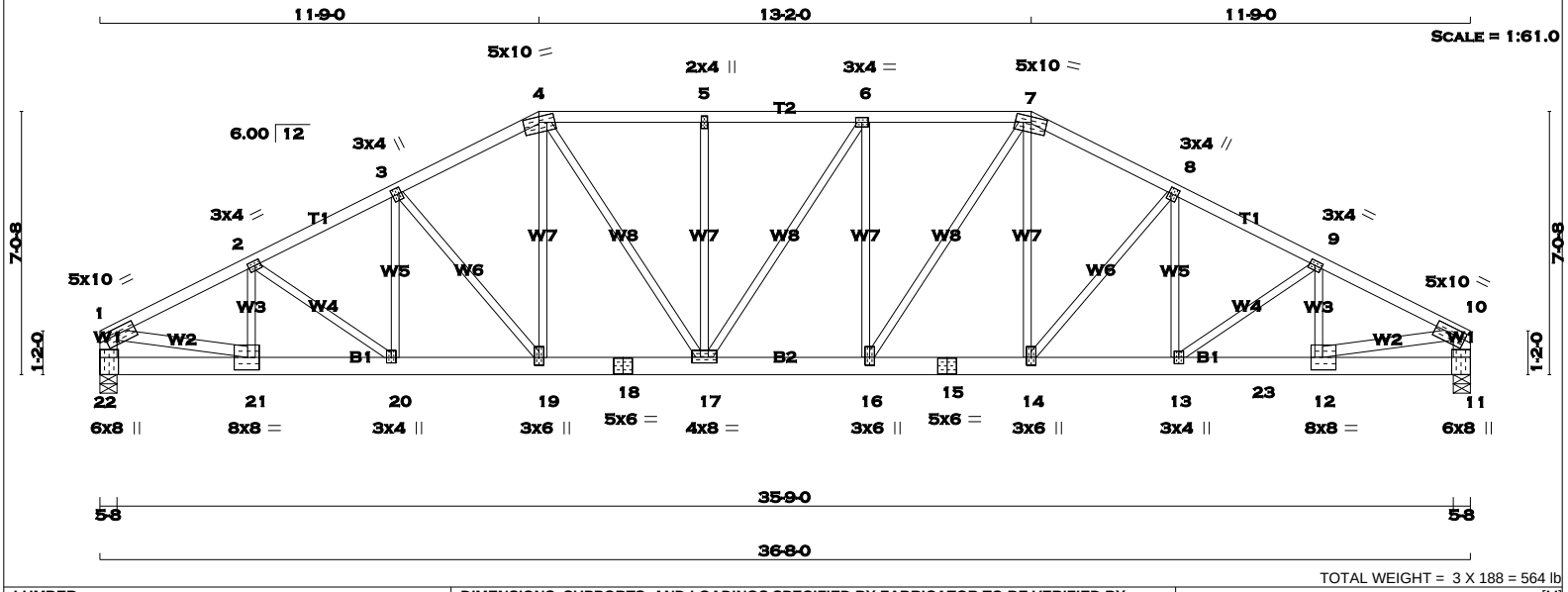
**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**

LICENSED PROFESSIONAL ENGINEER
C.G. CARSON
100076892
PROVINCE OF ONTARIO

21 MAR 2017

KOTT

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 2
BUILDING DIVISION




TOTAL WEIGHT = 3 X 188 = 564 lb [M]

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 1 - 4 | 2x4 | DRY | No.2 | SPF |
| 4 - 7 | 2x4 | DRY | No.2 | SPF |
| 7 - 10 | 2x4 | DRY | No.2 | SPF |
| 22 - 1 | 2x6 | DRY | No.2 | SPF |
| 11 - 10 | 2x6 | DRY | No.2 | SPF |
| 22 - 18 | 2x6 | DRY | No.2 | SPF |
| 18 - 15 | 2x6 | DRY | No.2 | SPF |
| 15 - 11 | 2x6 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 | SPF |
| 1 - 21 | 2x4 | DRY | No.2 | SPF |
| 12 - 10 | 2x4 | 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") SPIRAL NAILS | | | |
| 1- 4 | 1 | 12 | TOP |
| 4- 7 | 1 | 12 | TOP |
| 7- 10 | 1 | 12 | TOP |
| 22- 1 | 2 | 12 | TOP |
| 11- 10 | 2 | 12 | TOP |
| BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS | | | |
| 22- 18 | 2 | 6 | SIDE(359.6) |
| 18- 15 | 2 | 6 | SIDE(359.6) |
| 15- 11 | 2 | 6 | SIDE(359.6) |
| WEBS : (0.122"X3") SPIRAL NAILS | | | |
| 2x3 | 1 | 6 | |
| 2x4 | 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 TRANSFERING. REMAINING PLF MUST BE APPLIED ON THE OPPOSITE SIDE OR ON THE TOP.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| 22 | 11618 | 0 | 11618 | 0 | 0 | 5-8 | 5-8 |
| 11 | 11505 | 0 | 11505 | 0 | 0 | 5-8 | 5-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 22 | 8154 | 5704 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 2450 / 0 | 0 / 0 |
| 11 | 8074 | 5648 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 2426 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 22, 11

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 2.66 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC | MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|---|
| FR-TO | | | | | | |
| 1- 2 | -16833 / 0 | -77.3 | -77.3 | 0.51 (1) | 2.68 | |
| 2- 3 | -17130 / 0 | -77.3 | -77.3 | 0.48 (1) | 2.66 | |
| 3- 4 | -15680 / 0 | -77.3 | -77.3 | 0.41 (1) | 2.86 | |
| 4- 5 | -15858 / 0 | -77.3 | -77.3 | 0.44 (1) | 2.81 | |
| 5- 6 | -15858 / 0 | -77.3 | -77.3 | 0.40 (1) | 2.84 | |
| 6- 7 | -15864 / 0 | -77.3 | -77.3 | 0.44 (1) | 2.82 | |
| 7- 8 | -15654 / 0 | -77.3 | -77.3 | 0.40 (1) | 2.86 | |
| 8- 9 | -17080 / 0 | -77.3 | -77.3 | 0.48 (1) | 2.67 | |
| 9-10 | -16717 / 0 | -77.3 | -77.3 | 0.50 (1) | 2.69 | |
| 22- 1 | -10565 / 0 | 0.0 | 0.0 | 0.23 (1) | 5.68 | |
| 11-10 | -10493 / 0 | 0.0 | 0.0 | 0.22 (1) | 5.71 | |
| 22-21 | 0 / 0 | -556.9 | -556.9 | 0.22 (1) | 10.00 | |
| 21-20 | 0 / 15053 | -556.9 | -556.9 | 0.75 (1) | 10.00 | |
| 20-19 | 0 / 15330 | -556.9 | -556.9 | 0.78 (1) | 10.00 | |
| 19-18 | 0 / 14069 | -556.9 | -556.9 | 0.73 (1) | 10.00 | |
| 18-17 | 0 / 14069 | -556.9 | -556.9 | 0.73 (1) | 10.00 | |
| 17-16 | 0 / 15864 | -556.9 | -556.9 | 0.79 (1) | 10.00 | |
| 16-15 | 0 / 14046 | -556.9 | -556.9 | 0.73 (1) | 10.00 | |
| 15-14 | 0 / 14046 | -556.9 | -556.9 | 0.73 (1) | 10.00 | |
| 14-13 | 0 / 15285 | -556.9 | -556.9 | 0.78 (1) | 10.00 | |
| 13-23 | 0 / 14949 | -556.9 | -556.9 | 0.74 (1) | 10.00 | |
| 23-12 | 0 / 14949 | -533.2 | -533.2 | 0.74 (1) | 10.00 | |
| 12-11 | 0 / 0 | -533.2 | -533.2 | 0.21 (1) | 10.00 | |

| WEBS MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| FR-TO | | |
| 21- 2 | -617 / 0 | 0.04 (1) |
| 2-20 | 0 / 343 | 0.03 (1) |
| 20- 3 | 0 / 1881 | 0.14 (1) |
| 3-19 | -2064 / 0 | 0.45 (1) |
| 19- 4 | 0 / 4024 | 0.30 (1) |
| 4-17 | 0 / 3233 | 0.24 (1) |
| 17- 5 | -322 / 0 | 0.09 (1) |
| 17- 6 | -10 / 0 | 0.00 (1) |
| 16- 6 | -325 / 0 | 0.09 (1) |
| 16- 7 | 0 / 3285 | 0.25 (1) |
| 14- 7 | 0 / 3973 | 0.30 (1) |
| 14- 8 | -2029 / 0 | 0.44 (1) |
| 13- 8 | 0 / 1844 | 0.14 (1) |
| 13- 9 | 0 / 415 | 0.03 (1) |
| 12- 9 | -691 / 0 | 0.04 (1) |
| 1-21 | 0 / 15325 | 0.82 (1) |
| 12-10 | 0 / 15220 | 0.82 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

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

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 24-9-0
END DISTANCE = 31-0-0
END SPAN CARRIED = 24-9-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDT'L LOADS BASED ON 55 % OF GSL.

GIRDER TYPE: CStdGirder
START DISTANCE = 31-0-0
START SPAN CARRIED = 24-2-8
END DISTANCE = 36-8-0
END SPAN CARRIED = 24-2-8
END WALL WIDTH = 5-8
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDT'L LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.22")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.29")
ALLOWABLE DEFL.(TL)= L/360 (1.22")
CALCULATED VERT. DEFL.(TL) = L/ 875 (0.50")

CSI: TC=0.51 (1-2:1) , BC=0.79 (16-17:1) , WB=0.82 (1-21:1) , SSI=0.25 (17-19:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | | | | |

PLATE PLACEME

PLATE ROTATIO

JSI GRIP= 0.90 (1
JSI METAL= 0.94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BUILDING DIVISION

CONTINUED ON PAGE 2

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| 1 | TMVW-t | MT20 | 5.0 | 10.0 | 2.00 | 4.00 |
| 2 | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| 3 | TMWW+t | MT20 | 3.0 | 4.0 | 2.00 | 0.75 |
| 4 | TTWW-m | MT20 | 5.0 | 10.0 | 1.75 | 5.00 |
| 5 | TMW+w | MT20 | 2.0 | 4.0 | | |
| 6 | TMWW-t | MT20 | 3.0 | 4.0 | | |
| 7 | TTWW-m | MT20 | 5.0 | 10.0 | 1.75 | 5.00 |
| 8 | TMWW+t | MT20 | 3.0 | 4.0 | 2.00 | 0.75 |
| 9 | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| 10 | TMVW-t | MT20 | 5.0 | 10.0 | 2.00 | 4.00 |
| 11 | BMV1+t | MT20 | 6.0 | 8.0 | Edge | 0.50 |
| 12 | BMWW-t | MT20 | 8.0 | 8.0 | 4.00 | 3.75 |
| 13 | BMWW+t | MT20 | 3.0 | 4.0 | | |
| 14, 16, 19 | | | | | | |
| 14 | BMWW+t | MT20 | 3.0 | 6.0 | 2.50 | 1.50 |
| 15 | BS-t | MT20 | 5.0 | 6.0 | | |
| 17 | BMWWW-t | MT20 | 4.0 | 8.0 | 1.75 | 4.00 |
| 18 | BS-t | MT20 | 5.0 | 6.0 | | |
| 20 | BMWW+t | MT20 | 3.0 | 4.0 | 1.75 | 1.50 |
| 21 | BMWW-t | MT20 | 8.0 | 8.0 | 4.00 | 3.75 |
| 22 | BMV1+t | MT20 | 6.0 | 8.0 | 5.50 | |

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**

LICENSED PROFESSIONAL ENGINEER
C.G. CARSON
100076892
PROVINCE OF ONTARIO

21 MAR 2017

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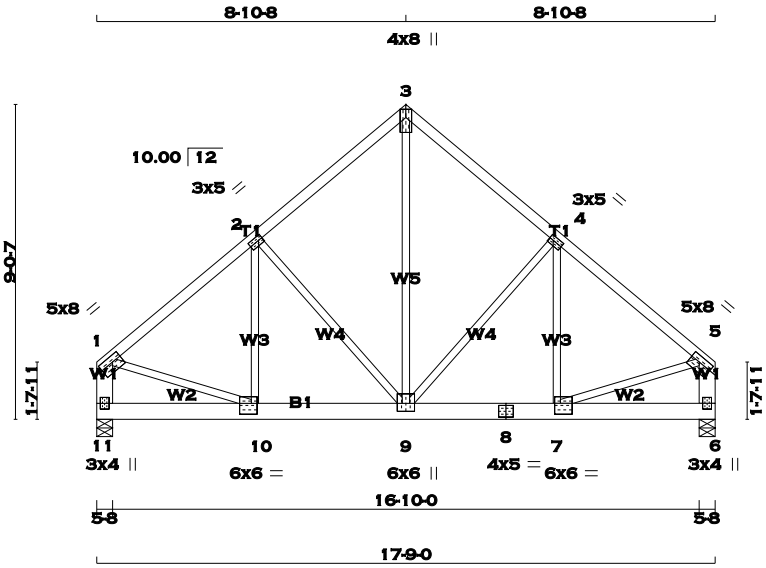


TOTAL WEIGHT = 2 X 94 = 188 lb [M]

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 1 - 3 | 2x4 | DRY | No.2 | SPF |
| 3 - 5 | 2x4 | DRY | No.2 | SPF |
| 11 - 1 | 2x6 | DRY | No.2 | SPF |
| 6 - 5 | 2x6 | DRY | No.2 | SPF |
| 11 - 8 | 2x6 | DRY | No.2 | SPF |
| 8 - 6 | 2x6 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT | 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 | | | |
| 1- 3 | 1 | 12 | TOP |
| 3- 5 | 1 | 12 | TOP |
| 11- 1 | 2 | 12 | TOP |
| 6- 5 | 2 | 12 | TOP |
| BOTTOM CHORDS : (0.122"X3") SPIRAL NAILS | | | |
| 11- 8 | 2 | 9 | SIDE(269.7) |
| 8- 6 | 2 | 9 | SIDE(269.7) |
| 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 |
|---|---|---|---|---|---|---|
| 1 | TMVW-t | MT20 | 5.0 | 8.0 | 2.00 | 3.25 |
| 2 | TMWW-t | MT20 | 3.0 | 5.0 | 1.50 | 1.50 |
| 3 | TTW+p | MT20 | 4.0 | 8.0 | Edge | |
| 4 | TMWW-t | MT20 | 3.0 | 5.0 | 1.50 | 1.50 |
| 5 | TMVW-t | MT20 | 5.0 | 8.0 | 2.00 | 3.25 |
| 6 | BMV1+p | MT20 | 3.0 | 4.0 | | |
| 7 | BMWW-t | MT20 | 6.0 | 6.0 | 3.75 | 2.00 |
| 8 | BS-t | MT20 | 4.0 | 5.0 | | |

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| 11 | 5629 | 0 | 5629 | 0 | 0 | 5-8 | 5-8 |
| 6 | 5629 | 0 | 5629 | 0 | 0 | 5-8 | 5-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 11 | 3951 | 2764 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 1187 / 0 | 0 / 0 |
| 6 | 3951 | 2764 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 1187 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 11, 6

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.08 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| FR-TO | | | | | | FR-TO | | |
| 1- 2 | -5209 / 0 | -77.3 | -77.3 | 0.26 (1) | 4.08 | 9- 3 | 0 / 4705 | 0.58 (1) |
| 2- 3 | -3909 / 0 | -77.3 | -77.3 | 0.18 (1) | 4.66 | 9- 4 | -1571 / 0 | 0.62 (1) |
| 3- 4 | -3909 / 0 | -77.3 | -77.3 | 0.18 (1) | 4.66 | 7- 4 | 0 / 1642 | 0.20 (1) |
| 4- 5 | -5209 / 0 | -77.3 | -77.3 | 0.26 (1) | 4.08 | 2- 9 | -1571 / 0 | 0.62 (1) |
| 11- 1 | -4573 / 0 | 0.0 | 0.0 | 0.17 (1) | 6.74 | 10- 2 | 0 / 1642 | 0.20 (1) |
| 6- 5 | -4573 / 0 | 0.0 | 0.0 | 0.17 (1) | 6.74 | 1-10 | 0 / 4159 | 0.51 (1) |
| | | | | | | 7- 5 | 0 / 4159 | 0.51 (1) |
| 11-10 | 0 / 0 | -556.9 | -556.9 | 0.37 (1) | 10.00 | | | |
| 10- 9 | 0 / 4016 | -556.9 | -556.9 | 0.61 (1) | 10.00 | | | |
| 9- 8 | 0 / 4016 | -556.9 | -556.9 | 0.61 (1) | 10.00 | | | |
| 8- 7 | 0 / 4016 | -556.9 | -556.9 | 0.61 (1) | 10.00 | | | |
| 7- 6 | 0 / 0 | -556.9 | -556.9 | 0.37 (1) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

GIRDER TYPE: CStdGirder
START DISTANCE = 0-0
START SPAN CARRIED = 24-9-0
END DISTANCE = 17-9-0
END SPAN CARRIED = 24-9-0
END WALL WIDTH = 0-0
APPLIED TO FRONT SIDE OF BOTTOM CHORD.
- ADDT'L LOADS BASED ON 55 % OF GSL.

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.59")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.07")
ALLOWABLE DEFL.(TL)= L/360 (0.59")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.12")

CSI: TC=0.26 (4-5:1) , BC=0.61 (7-9:1) , WB=0.62 (4-9:1) , SSI=0.49 (6-7:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (4) (INPUT = 0.90 )
JSI METAL= 0.56 (8) (INPUT = 1.00 )

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JUNIPER 2
BUILDING DIVISION

CONTINUED ON PAGE 2

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| 9 | BMWWW+t | MT20 | 6.0 | 6.0 | 2.75 | 3.00 |
| 10 | BMWW-t | MT20 | 6.0 | 6.0 | 3.75 | 2.00 |
| 11 | BMV1+p | MT20 | 3.0 | 4.0 | | |

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**

LICENSED PROFESSIONAL ENGINEER
C.G. CARSON
100076892
PROVINCE OF ONTARIO

21 MAR 2017

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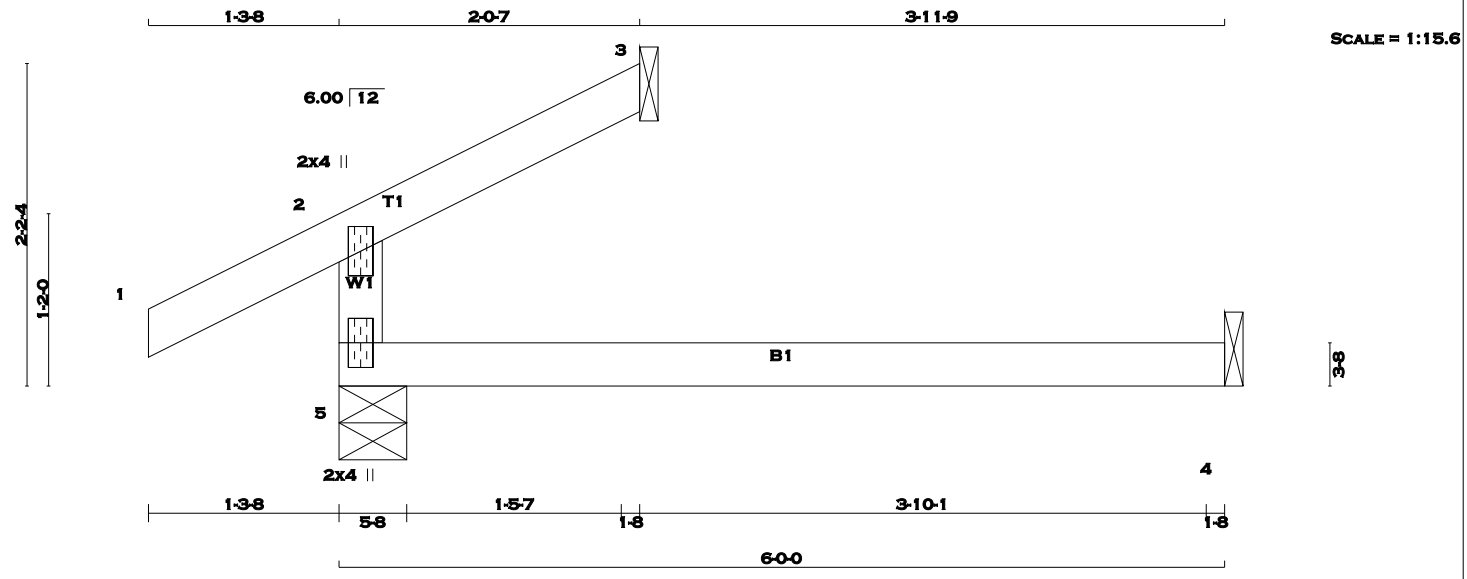
MAR 29, 2017
JUNIPER 2
BUILDING DIVISION




TOTAL WEIGHT = 2 X 12 = 24 lb [M]

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

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 5 - 2 | 2x4 | DRY | No.2 | SPF |
| 1 - 3 | 2x4 | DRY | No.2 | SPF |
| 5 - 4 | 2x4 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| 2 | TMV+p | MT20 | 2.0 | 4.0 | | |
| 5 | BMV1+p | MT20 | 2.0 | 4.0 | | |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**

LICENSED PROFESSIONAL ENGINEER
C.G. CARSON
100076892
PROVINCE OF ONTARIO
21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| 5 | 265 | 0 | 265 | 0 | 0 | 5-8 | 5-8 |
| 3 | 59 | 0 | 59 | 0 | 0 | 1-8 | 1-8 |
| 4 | 43 | 0 | 49 | 0 | 0 | 1-8 | 1-8 |

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 5 | 187 | 122 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 65 / 0 | 0 / 0 |
| 3 | 40 | 36 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 5 / 0 | 0 / 0 |
| 4 | 35 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 35 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5, 3

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

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

**LOADING**
TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | WEBS MAX. UNBRAC LENGTH | MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| 5- 2 | -203 / 0 | 0.0 | 0.0 | 0.13 (4) | 7.81 | | | |
| 1- 2 | 0 / 23 | -77.3 | -77.3 | 0.10 (1) | 10.00 | | | |
| 2- 3 | -9 / 0 | -77.3 | -77.3 | 0.05 (1) | 10.00 | | | |
| 5- 4 | 0 / 0 | -17.5 | -17.5 | 0.13 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 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=0.13 (2-5:4) , BC=0.13 (4-5:4) , WB=0.00 (n/a:0) , SSI=0.08 (4-5:4)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.12 (2) (INPUT = 0.90 )
JSI METAL= 0.05 (2) (INPUT = 1.00 )

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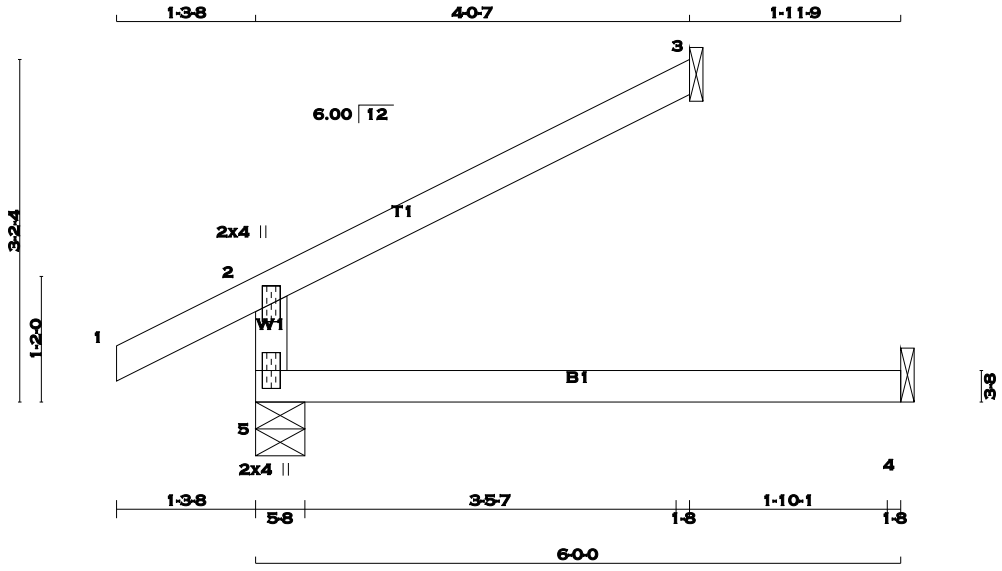


TOTAL WEIGHT = 2 X 15 = 29 lb [M]

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

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 5 - 2 | 2x4 | DRY | No.2 | SPF |
| 1 - 3 | 2x4 | DRY | No.2 | SPF |
| 5 - 4 | 2x4 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| 2 | TMV+p | MT20 | 2.0 | 4.0 | | |
| 5 | BMV1+p | MT20 | 2.0 | 4.0 | | |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| 5 | 362 | 0 | 362 | 0 | 0 | 5-8 | 5-8 |
| 3 | 117 | 0 | 117 | 0 | 0 | 1-8 | 1-8 |
| 4 | 43 | 0 | 49 | 0 | 0 | 1-8 | 1-8 |

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 5 | 253 | 181 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 73 / 0 | 0 / 0 |
| 3 | 80 | 71 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 9 / 0 | 0 / 0 |
| 4 | 35 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 35 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5, 3

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

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

**LOADING**
TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | WEBS MAX. UNBRAC LENGTH | MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| 5- 2 | -300 / 0 | 0.0 | 0.0 | 0.13 (4) | 7.81 | | | |
| 1- 2 | 0 / 23 | -77.3 | -77.3 | 0.10 (1) | 10.00 | | | |
| 2- 3 | -17 / 0 | -77.3 | -77.3 | 0.21 (1) | 6.25 | | | |
| 5- 4 | 0 / 0 | -17.5 | -17.5 | 0.13 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 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=0.21 (2-3:1) , BC=0.13 (4-5:4) , WB=0.00 (n/a:0) , SSI=0.14 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.17 (2) (INPUT = 0.90 )
JSI METAL= 0.07 (2) (INPUT = 1.00 )

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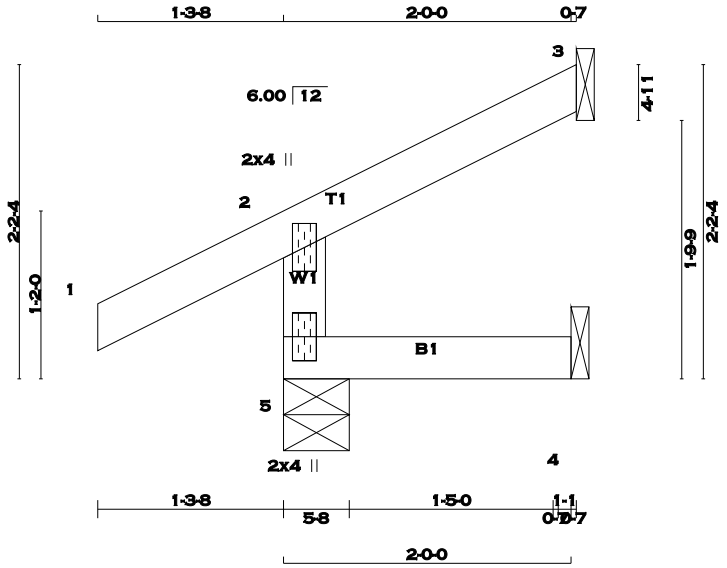


TOTAL WEIGHT = 2 X 7 = 15 lb [M]

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 5 - 2 | 2x4 | DRY | No.2 | SPF |
| 1 - 3 | 2x4 | DRY | No.2 | SPF |
| 5 - 4 | 2x4 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| 2 | TMV+p | MT20 | 2.0 | 4.0 | | |
| 5 | BMV1+p | MT20 | 2.0 | 4.0 | | |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| 5 | 222 | 0 | 222 | 0 | 0 | 5-8 | 5-8 |
| 3 | 59 | 0 | 59 | 0 | 0 | 1-8 | 1-8 |
| 4 | 16 | 0 | 17 | 0 | 0 | 1-8 | 1-8 |

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 5 | 153 | 122 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 31 / 0 | 0 / 0 |
| 3 | 40 | 36 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 5 / 0 | 0 / 0 |
| 4 | 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) 5

**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: (5)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | WEBS MAX. UNBRAC LENGTH | MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| 5- 2 | -203 / 0 | 0.0 | 0.0 | 0.01 (4) | 7.81 | | | |
| 1- 2 | 0 / 23 | -77.3 | -77.3 | 0.10 (1) | 10.00 | | | |
| 2- 3 | -9 / 0 | -77.3 | -77.3 | 0.05 (1) | 10.00 | | | |
| 5- 4 | 0 / 0 | -17.5 | -17.5 | 0.02 (4) | 10.00 | | | |

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 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=0.10 (1-2:1) , BC=0.02 (4-5:4) , WB=0.00 (n/a:0) , SSI=0.07 (1-2:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.12 (2) (INPUT = 0.90 )
JSI METAL= 0.05 (2) (INPUT = 1.00 )

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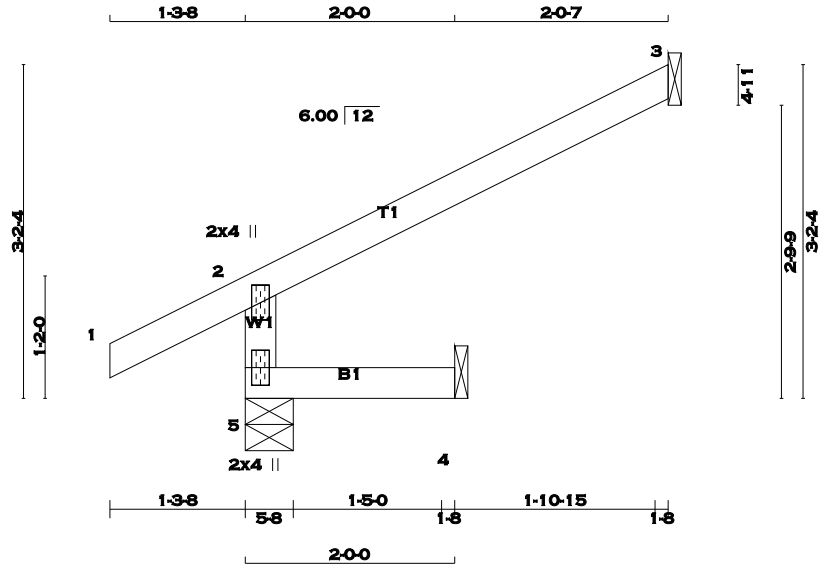


TOTAL WEIGHT = 2 X 10 = 20 lb [M]

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 5 - 2 | 2x4 | DRY | No.2 | SPF |
| 1 - 3 | 2x4 | DRY | No.2 | SPF |
| 5 - 4 | 2x4 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| 2 | TMV+p | MT20 | 2.0 | 4.0 | | |
| 5 | BMV1+p | MT20 | 2.0 | 4.0 | | |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| 5 | 319 | 0 | 319 | 0 | 0 | 5-8 | 5-8 |
| 3 | 117 | 0 | 117 | 0 | 0 | 1-8 | 1-8 |
| 4 | 16 | 0 | 17 | 0 | 0 | 1-8 | 1-8 |

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 5 | 219 | 181 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 39 / 0 | 0 / 0 |
| 3 | 80 | 71 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 9 / 0 | 0 / 0 |
| 4 | 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) 5

**BRACING**

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| 5- 2 | -300 / 0 | 0.0 | 0.0 | 0.01 (4) | 7.81 | | | |
| 1- 2 | 0 / 23 | -77.3 | -77.3 | 0.10 (1) | 10.00 | | | |
| 2- 3 | -17 / 0 | -77.3 | -77.3 | 0.21 (1) | 6.25 | | | |
| 5- 4 | 0 / 0 | -17.5 | -17.5 | 0.02 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 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=0.21 (2-3:1) , BC=0.02 (4-5:4) , WB=0.00 (n/a:0) , SSI=0.14 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.17 (2) (INPUT = 0.90 )
JSI METAL= 0.07 (2) (INPUT = 1.00 )

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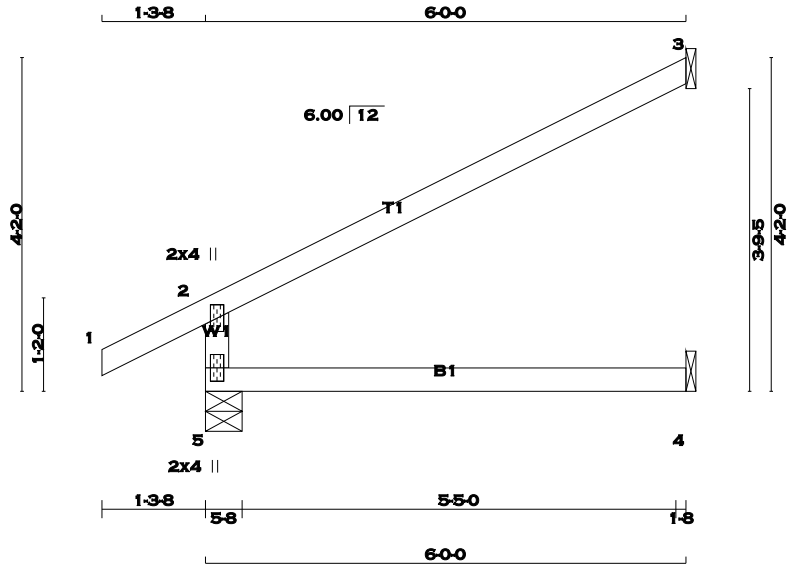


SCALE = 1:28.8

TOTAL WEIGHT = 14 X 17 = 239 lb [M]

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 5 - 2 | 2x4 | DRY | No.2 | SPF |
| 1 - 3 | 2x4 | DRY | No.2 | SPF |
| 5 - 4 | 2x4 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| 2 | TMV+p | MT20 | 2.0 | 4.0 | | |
| 5 | BMV1+p | MT20 | 2.0 | 4.0 | | |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| 5 | 457 | 0 | 457 | 0 | 0 | 5-8 | 5-8 |
| 3 | 174 | 0 | 174 | 0 | 0 | 1-8 | 1-8 |
| 4 | 43 | 0 | 49 | 0 | 0 | 1-8 | 1-8 |

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 5 | 318 | 238 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 80 / 0 | 0 / 0 |
| 3 | 118 | 105 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 14 / 0 | 0 / 0 |
| 4 | 35 | 0 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 35 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

**BRACING**

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | WEBS MAX. UNBRAC LENGTH | MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| 5- 2 | -395 / 0 | 0.0 | 0.0 | 0.13 (4) | 7.81 | | | |
| 1- 2 | 0 / 23 | -77.3 | -77.3 | 0.10 (1) | 10.00 | | | |
| 2- 3 | -26 / 0 | -77.3 | -77.3 | 0.47 (1) | 6.25 | | | |
| 5- 4 | 0 / 0 | -17.5 | -17.5 | 0.13 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 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=0.47 (2-3:1) , BC=0.13 (4-5:4) , WB=0.00 (n/a:0) , SSI=0.20 (2-3:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.23 (2) (INPUT = 0.90 )
JSI METAL= 0.09 (2) (INPUT = 1.00 )

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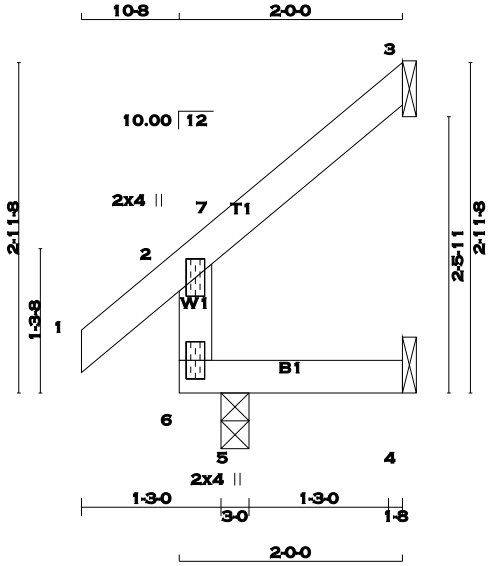


SCALE = 1:20.6

TOTAL WEIGHT = 2 X 8 = 16 lb [M]

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

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 6 - 2 | 2x4 | DRY | No.2 | SPF |
| 1 - 3 | 2x4 | DRY | No.2 | SPF |
| 6 - 4 | 2x4 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| 2 | TMV+p | MT20 | 2.0 | 4.0 | | |
| 6 | BMV+p | MT20 | 2.0 | 4.0 | | |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| 3 | 63 | 0 | 63 | 0 | 0 | 1-8 | 1-8 |
| 4 | -23 | 0 | 9 | 0 | -23 | 1-8 | 1-8 |
| 5 | 225 | 0 | 225 | 0 | 0 | 3-0 | 3-0 |

SEE MITEK STANDARD DETAIL B37579H FOR CONNECTION TO JOINT(S) 3 , 4

PROVIDE ANCHORAGE AT BEARING JOINT 4 FOR 150 LBS FACTORED UPLIFT

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 3 | 43 | 38 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 5 / 0 | 0 / 0 |
| 4 | -14 | 0 / -21 | 0 / 0 | 0 / 0 | 0 / 0 | 6 / 0 | 0 / 0 |
| 5 | 156 | 121 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 35 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 5

**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: (5)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| 6- 2 | -167 / 0 | 0.0 | 0.0 | 0.04 (1) | 7.81 | | | |
| 1- 2 | 0 / 24 | -77.3 | -77.3 | 0.05 (1) | 10.00 | | | |
| 2- 7 | -10 / 0 | -77.3 | -77.3 | 0.04 (1) | 10.00 | | | |
| 7- 3 | -10 / 0 | -77.3 | -77.3 | 0.04 (1) | 10.00 | | | |
| 6- 5 | 0 / 0 | -17.5 | -17.5 | 0.07 (1) | 10.00 | | | |
| 5- 4 | 0 / 0 | -17.5 | -17.5 | 0.07 (1) | 10.00 | | | |

CANTILEVER ANALYSIS HAS BEEN CONSIDERED IN THIS DESIGN

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP | CH. | LL = | 23.3 | PSF |
| | | DL = | 3.0 | PSF |
| BOT | CH. | LL = | 0.0 | PSF |
| | | DL = | 7.0 | PSF |
| TOTAL | LOAD | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 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")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 ( 0.00")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 ( 0.00")

CSI: TC=0.05 (1-2:1) , BC=0.07 (4-5:1) , WB=0.00 (n/a:0) , SSI=0.14 (5-6:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

AUTOSOLVE HEELS OFF

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.12 (2) (INPUT = 0.90 )
JSI METAL= 0.05 (2) (INPUT = 1.00 )

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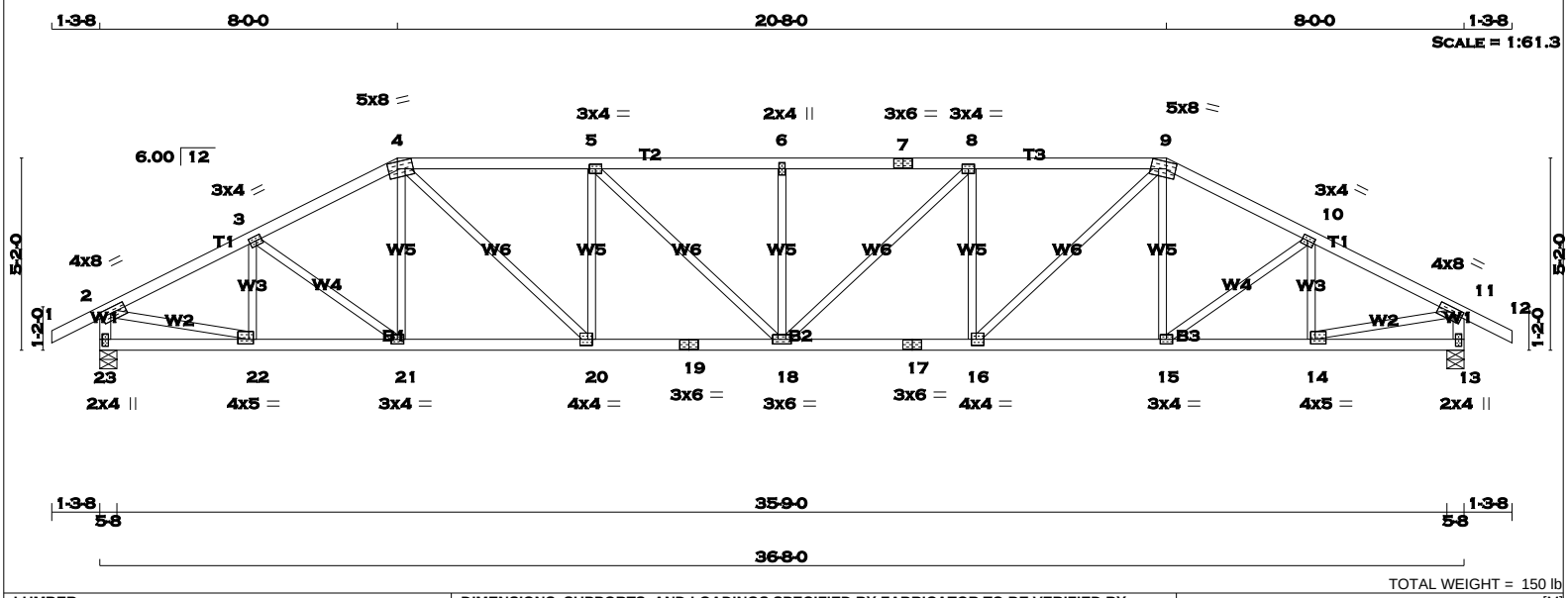
JUNIPER 2
BUILDING DIVISION




TOTAL WEIGHT = 150 lb [M]

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 1 - 4 | 2x4 | DRY | No.2 | SPF |
| 4 - 7 | 2x4 | DRY | No.2 | SPF |
| 7 - 9 | 2x4 | DRY | No.2 | SPF |
| 9 - 12 | 2x4 | DRY | No.2 | SPF |
| 23 - 2 | 2x4 | DRY | No.2 | SPF |
| 13 - 11 | 2x4 | DRY | No.2 | SPF |
| 23 - 19 | 2x4 | DRY | No.2 | SPF |
| 19 - 17 | 2x4 | DRY | No.2 | SPF |
| 17 - 13 | 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 |
|---|---|---|---|---|---|---|
| 2 | TMVW-t | MT20 | 4.0 | 8.0 | 1.75 | 3.00 |
| 3 | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| 4 | TTWW-m | MT20 | 5.0 | 8.0 | 2.25 | 3.00 |
| 5 | TMWW-t | MT20 | 3.0 | 4.0 | | |
| 6 | TMW+w | MT20 | 2.0 | 4.0 | | |
| 7 | TS-t | MT20 | 3.0 | 6.0 | | |
| 8 | TMWW-t | MT20 | 3.0 | 4.0 | | |
| 9 | TTWW-m | MT20 | 5.0 | 8.0 | 2.25 | 3.00 |
| 10 | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| 11 | TMVW-t | MT20 | 4.0 | 8.0 | 1.75 | 3.00 |
| 13 | BMV1+p | MT20 | 2.0 | 4.0 | 2.25 | 1.00 |
| 14 | BMWW-t | MT20 | 4.0 | 5.0 | 1.50 | 1.50 |
| 15 | BMWW-t | MT20 | 3.0 | 4.0 | | |
| 16 | BMWW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.50 |
| 17 | BS-t | MT20 | 3.0 | 6.0 | | |
| 18 | BMWWW-t | MT20 | 3.0 | 6.0 | | |
| 19 | BS-t | MT20 | 3.0 | 6.0 | | |
| 20 | BMWW-t | MT20 | 4.0 | 4.0 | 2.00 | 1.50 |
| 21 | BMWW-t | MT20 | 3.0 | 4.0 | | |
| 22 | BMWW-t | MT20 | 4.0 | 5.0 | 1.50 | 1.50 |
| 23 | BMV1+p | MT20 | 2.0 | 4.0 | 2.25 | 1.00 |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG | REQRD BRG |
|---|---|---|---|---|---|---|---|
| 23 | 1844 | 0 | 1844 | 0 | 0 | IN-SX 5-8 | IN-SX 5-8 |
| 13 | 1844 | 0 | 1844 | 0 | 0 | 5-8 | 5-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 23 | 1292 | 917 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 375 / 0 | 0 / 0 |
| 13 | 1292 | 917 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 375 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 23, 13

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.45 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|
| 1- 2 | 0 / 23 | -77.3 | -77.3 | 0.10 (1) | 10.00 |
| 2- 3 | -2468 / 0 | -77.3 | -77.3 | 0.27 (1) | 4.16 |
| 3- 4 | -2523 / 0 | -77.3 | -77.3 | 0.27 (1) | 4.11 |
| 4- 5 | -3063 / 0 | -77.3 | -77.3 | 0.48 (1) | 3.59 |
| 5- 6 | -3301 / 0 | -77.3 | -77.3 | 0.51 (1) | 3.45 |
| 6- 7 | -3301 / 0 | -77.3 | -77.3 | 0.51 (1) | 3.45 |
| 7- 8 | -3301 / 0 | -77.3 | -77.3 | 0.51 (1) | 3.45 |
| 8- 9 | -3063 / 0 | -77.3 | -77.3 | 0.48 (1) | 3.59 |
| 9-10 | -2523 / 0 | -77.3 | -77.3 | 0.27 (1) | 4.11 |
| 10-11 | -2468 / 0 | -77.3 | -77.3 | 0.27 (1) | 4.16 |
| 11-12 | 0 / 23 | -77.3 | -77.3 | 0.10 (1) | 10.00 |
| 23- 2 | -1807 / 0 | 0.0 | 0.0 | 0.18 (1) | 6.22 |
| 13-11 | -1807 / 0 | 0.0 | 0.0 | 0.18 (1) | 6.22 |
| 23-22 | 0 / 0 | -17.5 | -17.5 | 0.06 (4) | 10.00 |
| 22-21 | 0 / 2220 | -17.5 | -17.5 | 0.40 (1) | 10.00 |
| 21-20 | 0 / 2243 | -17.5 | -17.5 | 0.41 (1) | 10.00 |
| 20-19 | 0 / 3063 | -17.5 | -17.5 | 0.54 (1) | 10.00 |
| 19-18 | 0 / 3063 | -17.5 | -17.5 | 0.54 (1) | 10.00 |
| 18-17 | 0 / 3063 | -17.5 | -17.5 | 0.54 (1) | 10.00 |
| 17-16 | 0 / 3063 | -17.5 | -17.5 | 0.54 (1) | 10.00 |
| 16-15 | 0 / 2243 | -17.5 | -17.5 | 0.41 (1) | 10.00 |
| 15-14 | 0 / 2220 | -17.5 | -17.5 | 0.40 (1) | 10.00 |
| 14-13 | 0 / 0 | -17.5 | -17.5 | 0.06 (4) | 10.00 |

| WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| 22- 3 | -404 / 0 | 0.08 (1) |
| 3-21 | 0 / 26 | 0.01 (1) |
| 21- 4 | 0 / 82 | 0.03 (4) |
| 4-20 | 0 / 1121 | 0.25 (1) |
| 20- 5 | -676 / 0 | 0.27 (1) |
| 5-18 | 0 / 328 | 0.07 (1) |
| 18- 6 | -365 / 0 | 0.14 (1) |
| 18- 8 | 0 / 328 | 0.07 (1) |
| 16- 8 | -676 / 0 | 0.27 (1) |
| 16- 9 | 0 / 1121 | 0.25 (1) |
| 15- 9 | 0 / 82 | 0.03 (4) |
| 15-10 | 0 / 26 | 0.01 (1) |
| 14-10 | -404 / 0 | 0.08 (1) |
| 2-22 | 0 / 2268 | 0.51 (1) |
| 14-11 | 0 / 2268 | 0.51 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

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

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.22")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.22")
ALLOWABLE DEFL.(TL)= L/360 (1.22")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.38")

CSI: TC=0.51 (5-6:1) , BC=0.54 (18-20:1) , WB=0.51 (2-22:1) , SSI=0.19 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (17) (INPUT = 0.90 )
JSI METAL= 0.83 (19) (INPUT = 1.00 )

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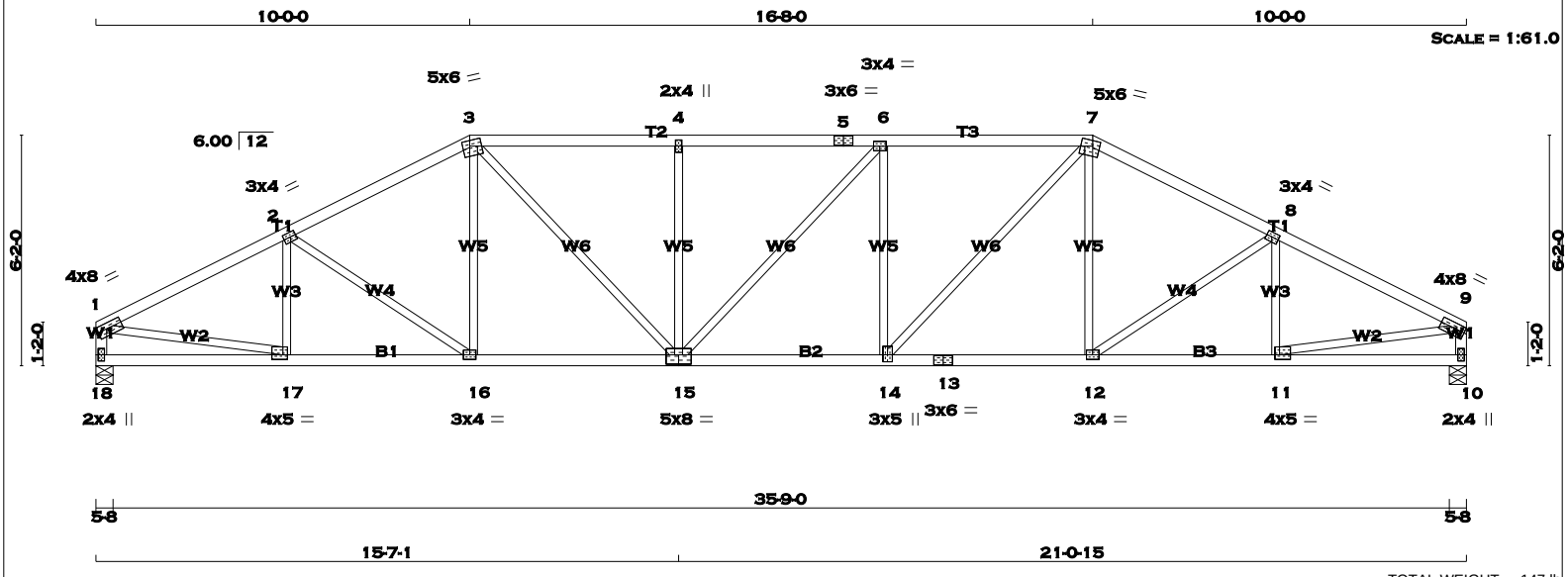
MAR 29, 2017
JUNIPER 2
BUILDING DIVISION




**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 1 - 3 | 2x4 | DRY | No.2 | SPF |
| 3 - 5 | 2x4 | DRY | No.2 | SPF |
| 5 - 7 | 2x4 | DRY | No.2 | SPF |
| 7 - 9 | 2x4 | DRY | No.2 | SPF |
| 18 - 1 | 2x4 | DRY | No.2 | SPF |
| 10 - 9 | 2x4 | DRY | No.2 | SPF |
| 18 - 15 | 2x4 | DRY | No.2 | SPF |
| 15 - 13 | 2x4 | DRY | No.2 | SPF |
| 13 - 10 | 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 |
|---|---|---|---|---|---|---|
| 1 | TMVW-t | MT20 | 4.0 | 8.0 | 1.75 | Edge |
| 2 | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| 3 | TTWW-m | MT20 | 5.0 | 6.0 | 1.75 | 2.25 |
| 4 | TMW+w | MT20 | 2.0 | 4.0 | | |
| 5 | TS-t | MT20 | 3.0 | 6.0 | | |
| 6 | TMWW-t | MT20 | 3.0 | 4.0 | | |
| 7 | TTWW-m | MT20 | 5.0 | 6.0 | 1.75 | 2.25 |
| 8 | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| 9 | TMVW-t | MT20 | 4.0 | 8.0 | 1.75 | Edge |
| 10 | BMV1+p | MT20 | 2.0 | 4.0 | | |
| 11 | BMWW-t | MT20 | 4.0 | 5.0 | 1.50 | 1.50 |
| 12 | BMWW-t | MT20 | 3.0 | 4.0 | | |
| 13 | BS-t | MT20 | 3.0 | 6.0 | | |
| 14 | BMWW+t | MT20 | 3.0 | 5.0 | 2.25 | 1.50 |
| 15 | BSWWW-l | MT20 | 5.0 | 8.0 | 3.00 | 4.00 |
| 16 | BMWW-t | MT20 | 3.0 | 4.0 | | |
| 17 | BMWW-t | MT20 | 4.0 | 5.0 | 1.50 | 1.50 |
| 18 | BMV1+p | MT20 | 2.0 | 4.0 | | |

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| 18 | 1739 | 0 | 1739 | 0 | 0 | 5-8 | 5-8 |
| 10 | 1739 | 0 | 1739 | 0 | 0 | 5-8 | 5-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 18 | 1220 | 854 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 367 / 0 | 0 / 0 |
| 10 | 1220 | 854 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 367 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 18, 10

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 3.90 FT.
MAX. UNBRACED BOTTOM CHORD LENGTH = 10.00 FT. OR RIGID CEILING DIRECTLY APPLIED.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|
| 1- 2 | -2562 / 0 | -77.3 | -77.3 | 0.34 (1) | 4.04 |
| 2- 3 | -2437 / 0 | -77.3 | -77.3 | 0.32 (1) | 4.14 |
| 3- 4 | -2696 / 0 | -77.3 | -77.3 | 0.39 (1) | 3.90 |
| 4- 5 | -2696 / 0 | -77.3 | -77.3 | 0.35 (1) | 3.94 |
| 5- 6 | -2696 / 0 | -77.3 | -77.3 | 0.35 (1) | 3.94 |
| 6- 7 | -2697 / 0 | -77.3 | -77.3 | 0.39 (1) | 3.90 |
| 7- 8 | -2437 / 0 | -77.3 | -77.3 | 0.32 (1) | 4.14 |
| 8- 9 | -2562 / 0 | -77.3 | -77.3 | 0.34 (1) | 4.04 |
| 18- 1 | -1697 / 0 | 0.0 | 0.0 | 0.17 (1) | 6.38 |
| 10- 9 | -1698 / 0 | 0.0 | 0.0 | 0.17 (1) | 6.38 |
| 18-17 | 0 / 0 | -17.5 | -17.5 | 0.09 (4) | 10.00 |
| 17-16 | 0 / 2309 | -17.5 | -17.5 | 0.43 (1) | 10.00 |
| 16-15 | 0 / 2164 | -17.5 | -17.5 | 0.41 (1) | 10.00 |
| 15-14 | 0 / 2697 | -17.5 | -17.5 | 0.48 (1) | 10.00 |
| 14-13 | 0 / 2164 | -17.5 | -17.5 | 0.40 (1) | 10.00 |
| 13-12 | 0 / 2164 | -17.5 | -17.5 | 0.40 (1) | 10.00 |
| 12-11 | 0 / 2309 | -17.5 | -17.5 | 0.43 (1) | 10.00 |
| 11-10 | 0 / 0 | -17.5 | -17.5 | 0.09 (4) | 10.00 |

| WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| 17- 2 | -301 / 0 | 0.07 (1) |
| 2-16 | -179 / 0 | 0.11 (1) |
| 16- 3 | 0 / 200 | 0.05 (1) |
| 3-15 | 0 / 771 | 0.17 (1) |
| 15- 4 | -464 / 0 | 0.28 (1) |
| 15- 6 | -2 / 0 | 0.00 (1) |
| 14- 7 | 0 / 773 | 0.17 (1) |
| 12- 7 | 0 / 199 | 0.04 (1) |
| 12- 8 | -180 / 0 | 0.11 (1) |
| 11- 8 | -301 / 0 | 0.07 (1) |
| 1-17 | 0 / 2341 | 0.53 (1) |
| 11- 9 | 0 / 2341 | 0.53 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | 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 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (1.22")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.17")
ALLOWABLE DEFL.(TL)= L/360 (1.22")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.31")

CSI: TC=0.39 (3-4:1) , BC=0.48 (14-15:1) , WB=0.53 (9-11:1) , SSI=0.20 (6-7:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (10) (INPUT = 0.90 )
JSI METAL= 0.69 (11) (INPUT = 1.00 )

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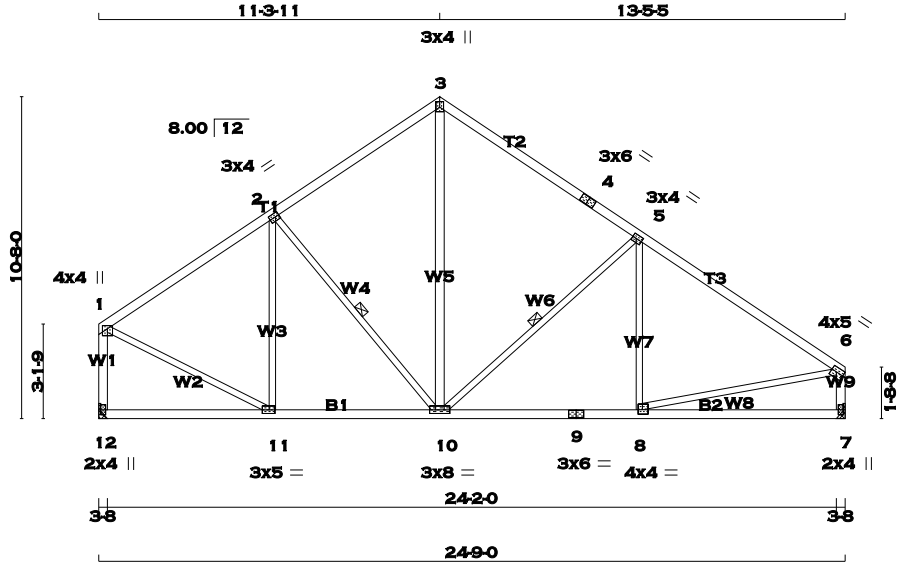


TOTAL WEIGHT = 8 X 112 = 898 lb [M][F]

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 1 - 3 | 2x4 | DRY | No.2 | SPF |
| 3 - 4 | 2x4 | DRY | No.2 | SPF |
| 4 - 6 | 2x4 | DRY | No.2 | SPF |
| 12 - 1 | 2x4 | DRY | No.2 | SPF |
| 7 - 6 | 2x4 | DRY | No.2 | SPF |
| 12 - 9 | 2x4 | DRY | No.2 | SPF |
| 9 - 7 | 2x4 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 | SPF |
| 10 - 3 | 2x4 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| 1 | TMVW+p | MT20 | 4.0 | 4.0 | 1.25 | 2.00 |
| 2 | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.50 |
| 3 | TTW+p | MT20 | 3.0 | 4.0 | 2.25 | 1.50 |
| 4 | TS-t | MT20 | 3.0 | 6.0 | | |
| 5 | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.50 |
| 6 | TMVW-t | MT20 | 4.0 | 5.0 | 1.75 | Edge |
| 7 | BMV1+p | MT20 | 2.0 | 4.0 | | |
| 8 | BMWW-t | MT20 | 4.0 | 4.0 | 1.75 | 1.75 |
| 9 | BS-t | MT20 | 3.0 | 6.0 | | |
| 10 | BMWWW-t | MT20 | 3.0 | 8.0 | | |
| 11 | BMWW-t | MT20 | 3.0 | 5.0 | 1.50 | 2.25 |
| 12 | BMV1+p | MT20 | 2.0 | 4.0 | | |

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| 12 | 1174 | 0 | 1174 | 0 | 0 | HANGER BY OTHERS<br>MIN. SEAT SIZE: 3-8 | |
| 7 | 1174 | 0 | 1174 | 0 | 0 | HANGER BY OTHERS<br>MIN. SEAT SIZE: 3-8 | |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 12 | 824 | 576 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 247 / 0 | 0 / 0 |
| 7 | 824 | 576 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 247 / 0 | 0 / 0 |

**BRACING**

TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.11 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 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/ 2 LENGTH OF 2-10, 5-10. DBS = 20-0-0 . CBF = 61 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"X3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|
| 1- 2 | -972 / 0 | -77.3 | -77.3 | 0.34 (1) | 5.88 |
| 2- 3 | -873 / 0 | -77.3 | -77.3 | 0.33 (1) | 6.13 |
| 3- 4 | -879 / 0 | -77.3 | -77.3 | 0.48 (1) | 5.87 |
| 4- 5 | -879 / 0 | -77.3 | -77.3 | 0.48 (1) | 5.87 |
| 5- 6 | -1242 / 0 | -77.3 | -77.3 | 0.52 (1) | 5.11 |
| 12- 1 | -1132 / 0 | 0.0 | 0.0 | 0.19 (1) | 7.46 |
| 7- 6 | -1125 / 0 | 0.0 | 0.0 | 0.12 (1) | 7.48 |
| 12-11 | 0 / 0 | -17.5 | -17.5 | 0.13 (4) | 10.00 |
| 11-10 | 0 / 833 | -17.5 | -17.5 | 0.20 (1) | 10.00 |
| 10- 9 | 0 / 1062 | -17.5 | -17.5 | 0.28 (1) | 10.00 |
| 9- 8 | 0 / 1062 | -17.5 | -17.5 | 0.28 (1) | 10.00 |
| 8- 7 | 0 / 0 | -17.5 | -17.5 | 0.20 (4) | 10.00 |

| WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| 11- 2 | -298 / 5 | 0.25 (1) |
| 2-10 | -206 / 0 | 0.11 (1) |
| 10- 3 | 0 / 583 | 0.09 (1) |
| 10- 5 | -485 / 0 | 0.26 (1) |
| 8- 5 | -82 / 89 | 0.05 (1) |
| 1-11 | 0 / 927 | 0.21 (1) |
| 8- 6 | 0 / 1084 | 0.24 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.82")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.82")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.08")

CSI: TC=0.52 (5-6:1) , BC=0.28 (8-10:1) , WB=0.26 (5-10:1) , SSI=0.21 (5-6:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.87 (8) (INPUT = 0.90 )
JSI METAL= 0.42 (6) (INPUT = 1.00 )

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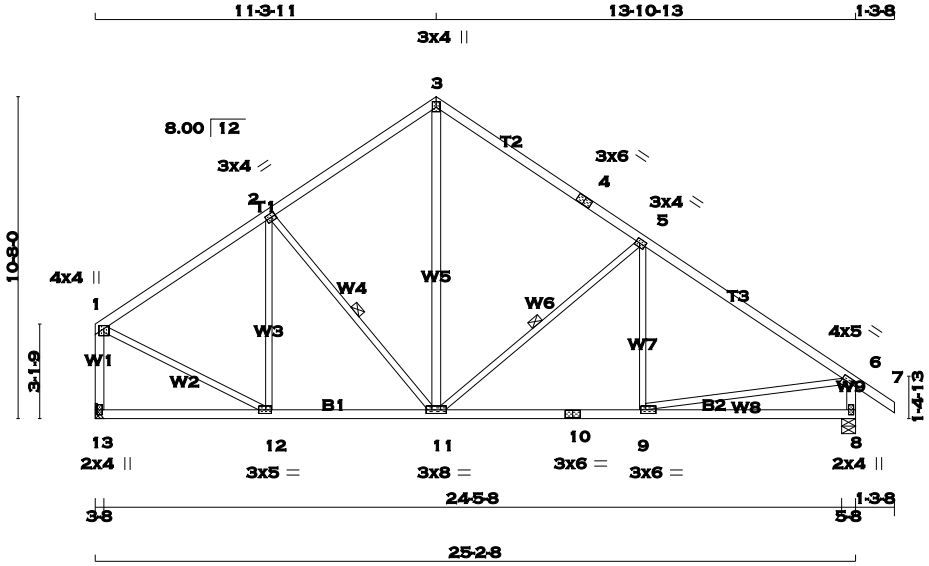


TOTAL WEIGHT = 8 X 115 = 920 lb [M][F]

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

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 1 - 3 | 2x4 | DRY | No.2 | SPF |
| 3 - 4 | 2x4 | DRY | No.2 | SPF |
| 4 - 7 | 2x4 | DRY | No.2 | SPF |
| 13 - 1 | 2x4 | DRY | No.2 | SPF |
| 8 - 6 | 2x4 | DRY | No.2 | SPF |
| 13 - 10 | 2x4 | DRY | No.2 | SPF |
| 10 - 8 | 2x4 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 | SPF |
| 11 - 3 | 2x4 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| 1 | TMVW+p | MT20 | 4.0 | 4.0 | 1.25 | 2.00 |
| 2 | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.50 |
| 3 | TTW+p | MT20 | 3.0 | 4.0 | 2.25 | 1.50 |
| 4 | TS-t | MT20 | 3.0 | 6.0 | | |
| 5 | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.50 |
| 6 | TMVW-t | MT20 | 4.0 | 5.0 | 1.75 | 2.00 |
| 8 | BMV1+p | MT20 | 2.0 | 4.0 | | |
| 9 | BMWW-t | MT20 | 3.0 | 6.0 | 1.50 | 2.00 |
| 10 | BS-t | MT20 | 3.0 | 6.0 | | |
| 11 | BMWWW-t | MT20 | 3.0 | 8.0 | | |
| 12 | BMWW-t | MT20 | 3.0 | 5.0 | 1.50 | 2.25 |
| 13 | BMV1+p | MT20 | 2.0 | 4.0 | | |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**

LICENSED PROFESSIONAL ENGINEER
C.G. CARSON
100076892
PROVINCE OF ONTARIO
21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| 13 | 1195 | 0 | 1195 | 0 | 0 | HANGER BY OTHERS MIN. SEAT SIZE: 3-8 | |
| 8 | 1302 | 0 | 1302 | 0 | 0 | 5-8 | 5-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | SNOW | MAX./MIN. COMPONENT REACTIONS LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 13 | 839 | 587 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 252 / 0 | 0 / 0 |
| 8 | 911 | 651 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 260 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 8

**BRACING**
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 4.90 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 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/ 2 LENGTH OF 2-11, 5-11. DBS = 20-0-0 . CBF = 68 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"X3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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

**LOADING**
TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| 1- 2 | -995 / 0 | -77.3 | -77.3 | 0.34 (1) | 5.83 | 12- 2 | -308 / 1 | 0.26 (1) |
| 2- 3 | -902 / 0 | -77.3 | -77.3 | 0.33 (1) | 6.06 | 2-11 | -198 / 0 | 0.10 (1) |
| 3- 4 | -909 / 0 | -77.3 | -77.3 | 0.52 (1) | 5.73 | 11- 3 | 0 / 609 | 0.10 (1) |
| 4- 5 | -909 / 0 | -77.3 | -77.3 | 0.52 (1) | 5.73 | 11- 5 | -548 / 0 | 0.30 (1) |
| 5- 6 | -1338 / 0 | -77.3 | -77.3 | 0.56 (1) | 4.90 | 9- 5 | -37 / 106 | 0.04 (4) |
| 6- 7 | 0 / 29 | -77.3 | -77.3 | 0.10 (1) | 10.00 | 1-12 | 0 / 948 | 0.21 (1) |
| 13- 1 | -1154 / 0 | 0.0 | 0.0 | 0.20 (1) | 7.41 | 9- 6 | 0 / 1157 | 0.26 (1) |
| 8- 6 | -1252 / 0 | 0.0 | 0.0 | 0.13 (1) | 7.19 | | | |
| 13-12 | 0 / 0 | -17.5 | -17.5 | 0.13 (4) | 10.00 | | | |
| 12-11 | 0 / 852 | -17.5 | -17.5 | 0.21 (1) | 10.00 | | | |
| 11-10 | 0 / 1144 | -17.5 | -17.5 | 0.30 (1) | 10.00 | | | |
| 10- 9 | 0 / 1144 | -17.5 | -17.5 | 0.30 (1) | 10.00 | | | |
| 9- 8 | 0 / 0 | -17.5 | -17.5 | 0.21 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.84")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.84")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.09")

CSI: TC=0.56 (5-6:1) , BC=0.30 (9-11:1) , WB=0.30 (5-11:1) , SSI=0.22 (5-6:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.89 (9) (INPUT = 0.90 )
JSI METAL= 0.46 (6) (INPUT = 1.00 )

KOTT

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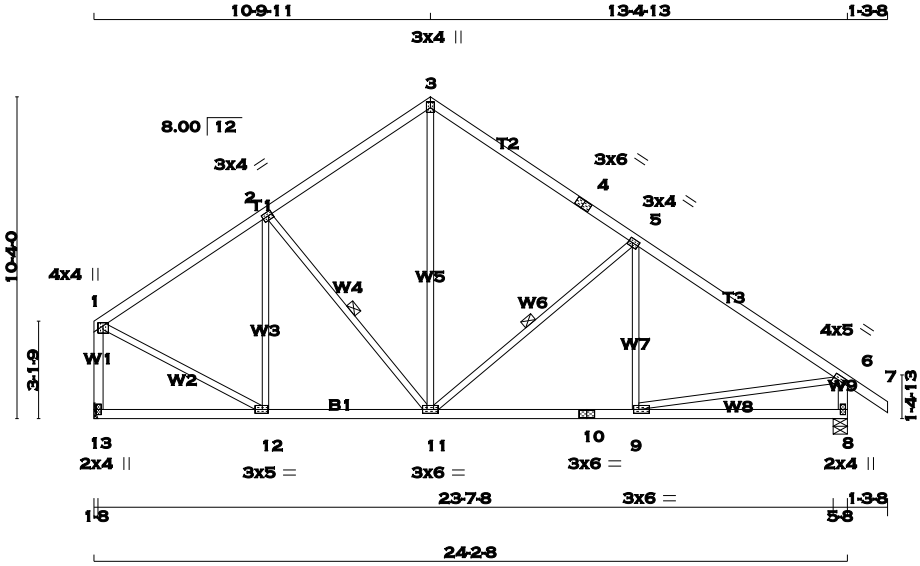
TOWN OF MILTON
MAR 29, 2017
JUNIPER 2
BUILDING DIVISION




TOTAL WEIGHT = 2 X 108 = 216 lb [M][F]

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

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 1 - 3 | 2x4 | DRY | No.2 | SPF |
| 3 - 4 | 2x4 | DRY | No.2 | SPF |
| 4 - 7 | 2x4 | DRY | No.2 | SPF |
| 13 - 1 | 2x4 | DRY | No.2 | SPF |
| 8 - 6 | 2x4 | DRY | No.2 | SPF |
| 13 - 10 | 2x4 | DRY | No.2 | SPF |
| 10 - 8 | 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 |
|---|---|---|---|---|---|---|
| 1 | TMVW+p | MT20 | 4.0 | 4.0 | 1.25 | 2.00 |
| 2 | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.50 |
| 3 | TTW+p | MT20 | 3.0 | 4.0 | 2.25 | 1.50 |
| 4 | TS-t | MT20 | 3.0 | 6.0 | | |
| 5 | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.50 |
| 6 | TMVW-t | MT20 | 4.0 | 5.0 | 1.75 | 2.00 |
| 8 | BMV1+p | MT20 | 2.0 | 4.0 | | |
| 9 | BMWW-t | MT20 | 3.0 | 6.0 | 1.50 | 2.00 |
| 10 | BS-t | MT20 | 3.0 | 6.0 | | |
| 11 | BMWWW-t | MT20 | 3.0 | 6.0 | | |
| 12 | BMWW-t | MT20 | 3.0 | 5.0 | 1.50 | 2.25 |
| 13 | BMV1+p | MT20 | 2.0 | 4.0 | | |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| 13 | 1148 | 0 | 1148 | 0 | 0 | HANGER BY OTHERS MIN. SEAT SIZE: 1-8 | |
| 8 | 1254 | 0 | 1254 | 0 | 0 | 5-8 | 5-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 13 | 806 | 564 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 242 / 0 | 0 / 0 |
| 8 | 878 | 628 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 250 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 8

**BRACING**
TOP CHORD TO BE SHEATHED OR MAX. PURLIN SPACING = 5.07 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 - 2x3 SPF No.2 LATERAL BRACE(S) AT 1/ 2 LENGTH OF 2-11, 5-11. DBS = 20-0-0 . CBF = 65 LBS.

DBS = DIAGONAL BRACE SPACING (MAX). CBF = CUMULATIVE BRACING FORCE. FASTEN LATERAL BRACE(S) USING (0.122"X3") SPIRAL NAILS : 1 NAIL FOR 2x3 BRACE(S), 2 FOR 1x4, 2x4, 2x5, 3 FOR 2x6, 4 FOR 2x8, 5 FOR 2x10, AND 6 FOR 2x12.

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

**LOADING**
TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD LC1 (PLF) FROM | TO | MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|
| 1- 2 | -938 / 0 | -77.3 | -77.3 | 0.31 (1) | 6.02 |
| 2- 3 | -858 / 0 | -77.3 | -77.3 | 0.30 (1) | 6.22 |
| 3- 4 | -865 / 0 | -77.3 | -77.3 | 0.47 (1) | 5.91 |
| 4- 5 | -865 / 0 | -77.3 | -77.3 | 0.47 (1) | 5.91 |
| 5- 6 | -1274 / 0 | -77.3 | -77.3 | 0.51 (1) | 5.07 |
| 6- 7 | 0 / 29 | -77.3 | -77.3 | 0.10 (1) | 10.00 |
| 13- 1 | -1108 / 0 | 0.0 | 0.0 | 0.19 (1) | 7.52 |
| 8- 6 | -1206 / 0 | 0.0 | 0.0 | 0.12 (1) | 7.29 |
| 13-12 | 0 / 0 | -17.5 | -17.5 | 0.12 (4) | 10.00 |
| 12-11 | 0 / 803 | -17.5 | -17.5 | 0.19 (1) | 10.00 |
| 11-10 | 0 / 1089 | -17.5 | -17.5 | 0.28 (1) | 10.00 |
| 10- 9 | 0 / 1089 | -17.5 | -17.5 | 0.28 (1) | 10.00 |
| 9- 8 | 0 / 0 | -17.5 | -17.5 | 0.20 (4) | 10.00 |

| WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| 12- 2 | -306 / 0 | 0.24 (1) |
| 2-11 | -178 / 0 | 0.08 (1) |
| 11- 3 | 0 / 576 | 0.13 (1) |
| 11- 5 | -524 / 0 | 0.27 (1) |
| 9- 5 | -40 / 101 | 0.03 (4) |
| 1-12 | 0 / 901 | 0.20 (1) |
| 9- 6 | 0 / 1103 | 0.25 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.81")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.04")
ALLOWABLE DEFL.(TL)= L/360 (0.81")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.08")

CSI: TC=0.51 (5-6:1) , BC=0.28 (9-11:1) , WB=0.27 (5-11:1) , SSI=0.21 (5-6:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

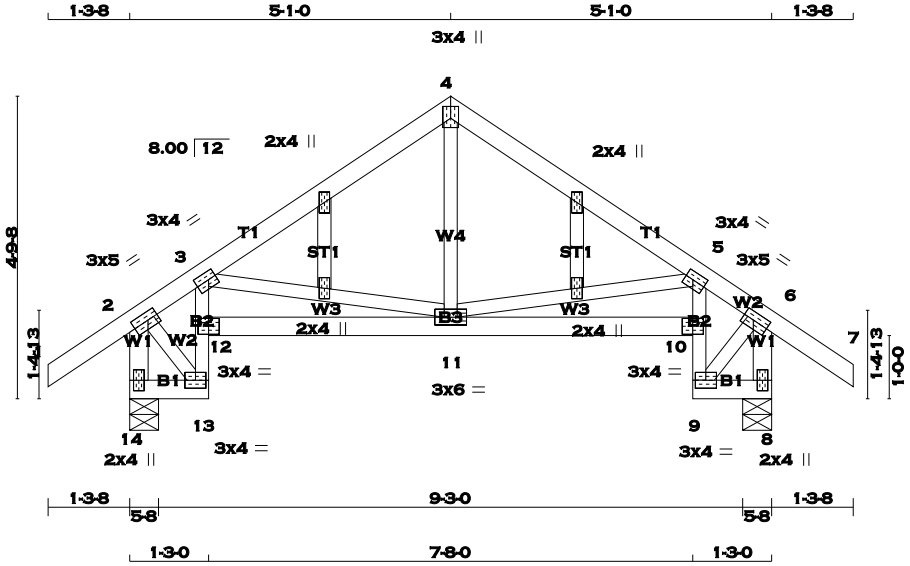
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.88 (11) (INPUT = 0.90 )
JSI METAL= 0.44 (6) (INPUT = 1.00 )

KOTT

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 2
BUILDING DIVISION




TOTAL WEIGHT = 47 lb [M]

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 1 - 4 | 2x4 | DRY | No.2 | SPF |
| 4 - 7 | 2x4 | DRY | No.2 | SPF |
| 14 - 2 | 2x4 | DRY | No.2 | SPF |
| 8 - 6 | 2x4 | DRY | No.2 | SPF |
| 14 - 13 | 2x4 | DRY | No.2 | SPF |
| 13 - 3 | 2x3 | DRY | No.2 | SPF |
| 12 - 10 | 2x4 | DRY | No.2 | SPF |
| 9 - 5 | 2x3 | DRY | No.2 | SPF |
| 9 - 8 | 2x4 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 | SPF |
| ALL GABLE WEBS | 2x3 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

GABLE STUDS SPACED AT 2-0-0 OC.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| 2 | TMVW-t | MT20 | 3.0 | 5.0 | 1.50 | 2.00 |
| 3 | TMVW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.50 |
| 4 | TTW+p | MT20 | 3.0 | 4.0 | 2.25 | 1.50 |
| 5 | TMVW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.50 |
| 6 | TMVW-t | MT20 | 3.0 | 5.0 | 1.50 | 2.00 |
| 8 | BMV1+p | MT20 | 2.0 | 4.0 | | |
| 9 | BMVW-t | MT20 | 3.0 | 4.0 | | |
| 10 | BVM-l | MT20 | 3.0 | 4.0 | | |
| 11 | BMWWW-t | MT20 | 3.0 | 6.0 | | |
| 12 | BVM-l | MT20 | 3.0 | 4.0 | | |
| 13 | BMVW-t | MT20 | 3.0 | 4.0 | | |
| 14 | BMV1+p | MT20 | 2.0 | 4.0 | | |
| 15, 16, 17, 18 | | | | | | |
| 15 | NP+w | MT20 | 2.0 | 4.0 | | |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| 14 | 588 | 0 | 588 | 0 | 0 | 5-8 | 5-8 |
| 8 | 588 | 0 | 588 | 0 | 0 | 5-8 | 5-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 14 | 411 | 301 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 110 / 0 | 0 / 0 |
| 8 | 411 | 301 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 110 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 14, 8

**BRACING**

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|
| 1- 2 | 0 / 29 | -77.3 | -77.3 | 0.10 (1) | 10.00 |
| 2- 3 | -306 / 0 | -77.3 | -77.3 | 0.10 (1) | 6.25 |
| 3- 4 | -409 / 0 | -77.3 | -77.3 | 0.21 (1) | 6.25 |
| 4- 5 | -409 / 0 | -77.3 | -77.3 | 0.21 (1) | 6.25 |
| 5- 6 | -306 / 0 | -77.3 | -77.3 | 0.10 (1) | 6.25 |
| 6- 7 | 0 / 29 | -77.3 | -77.3 | 0.10 (1) | 10.00 |
| 14- 2 | -578 / 0 | 0.0 | 0.0 | 0.06 (1) | 7.81 |
| 8- 6 | -578 / 0 | 0.0 | 0.0 | 0.06 (1) | 7.81 |
| 14-13 | 0 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 |
| 13-12 | -200 / 0 | 0.0 | 0.0 | 0.60 (1) | 7.81 |
| 12- 3 | -174 / 0 | 0.0 | 0.0 | 0.60 (1) | 7.81 |
| 12-11 | 0 / 488 | -17.5 | -17.5 | 0.12 (1) | 10.00 |
| 11-10 | 0 / 488 | -17.5 | -17.5 | 0.12 (1) | 10.00 |
| 9-10 | -200 / 0 | 0.0 | 0.0 | 0.60 (1) | 7.81 |
| 10- 5 | -174 / 0 | 0.0 | 0.0 | 0.60 (1) | 7.81 |
| 9- 8 | 0 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 |

| WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| 11- 4 | 0 / 147 | 0.04 (4) |
| 11- 5 | -150 / 0 | 0.04 (1) |
| 3-11 | -150 / 0 | 0.04 (1) |
| 2-13 | 0 / 307 | 0.07 (1) |
| 9- 6 | 0 / 307 | 0.07 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.34")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.34")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.06")

CSI: TC=0.21 (4-5:1) , BC=0.60 (9-10:1) , WB=0.07 (6-9:1) , SSI=0.29 (5-10:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

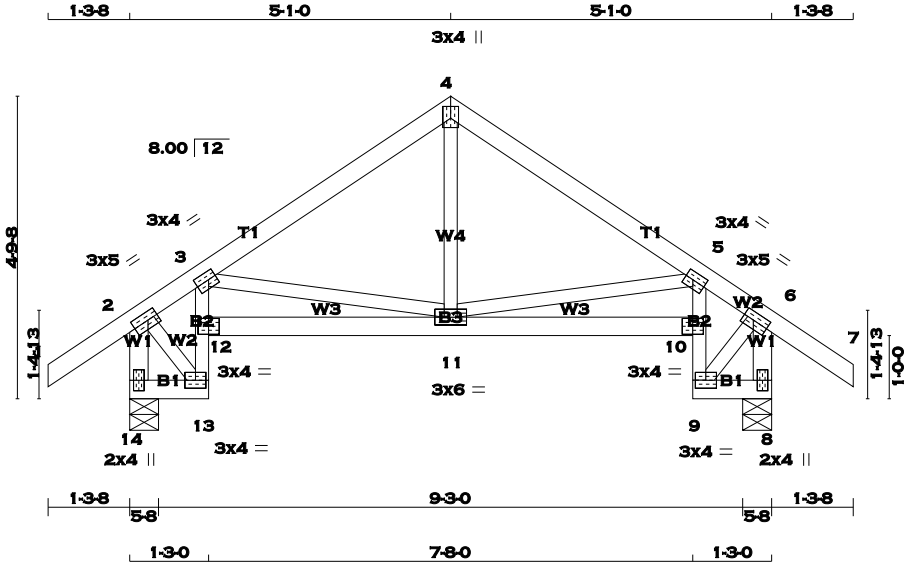
PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.70 (6) (INPUT = 0.90 )
JSI METAL= 0.12 (12) (INPUT = 1.00 )

KOTT

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 2
BUILDING DIVISION




TOTAL WEIGHT = 45 lb [M]

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

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 1 - 4 | 2x4 | DRY | No.2 | SPF |
| 4 - 7 | 2x4 | DRY | No.2 | SPF |
| 14 - 2 | 2x4 | DRY | No.2 | SPF |
| 8 - 6 | 2x4 | DRY | No.2 | SPF |
| 14 - 13 | 2x4 | DRY | No.2 | SPF |
| 13 - 3 | 2x3 | DRY | No.2 | SPF |
| 12 - 10 | 2x4 | DRY | No.2 | SPF |
| 9 - 5 | 2x3 | DRY | No.2 | SPF |
| 9 - 8 | 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 |
|---|---|---|---|---|---|---|
| 2 | TMVW-t | MT20 | 3.0 | 5.0 | 1.50 | 2.00 |
| 3 | TMVW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.50 |
| 4 | TTW+p | MT20 | 3.0 | 4.0 | 2.25 | 1.50 |
| 5 | TMVW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.50 |
| 6 | TMVW-t | MT20 | 3.0 | 5.0 | 1.50 | 2.00 |
| 8 | BMV1+p | MT20 | 2.0 | 4.0 | | |
| 9 | BMVW-t | MT20 | 3.0 | 4.0 | | |
| 10 | BVM-l | MT20 | 3.0 | 4.0 | | |
| 11 | BMWWW-t | MT20 | 3.0 | 6.0 | | |
| 12 | BVM-l | MT20 | 3.0 | 4.0 | | |
| 13 | BMVW-t | MT20 | 3.0 | 4.0 | | |
| 14 | BMV1+p | MT20 | 2.0 | 4.0 | | |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| 14 | 588 | 0 | 588 | 0 | 0 | 5-8 | 5-8 |
| 8 | 588 | 0 | 588 | 0 | 0 | 5-8 | 5-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 14 | 411 | 301 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 110 / 0 | 0 / 0 |
| 8 | 411 | 301 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 110 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 14, 8

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

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

**LOADING**
TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| 1- 2 | 0 / 29 | -77.3 | -77.3 | 0.10 (1) | 10.00 | 11- 4 | 0 / 147 | 0.04 (4) |
| 2- 3 | -306 / 0 | -77.3 | -77.3 | 0.10 (1) | 6.25 | 11- 5 | -150 / 0 | 0.04 (1) |
| 3- 4 | -409 / 0 | -77.3 | -77.3 | 0.21 (1) | 6.25 | 3-11 | -150 / 0 | 0.04 (1) |
| 4- 5 | -409 / 0 | -77.3 | -77.3 | 0.21 (1) | 6.25 | 2-13 | 0 / 307 | 0.07 (1) |
| 5- 6 | -306 / 0 | -77.3 | -77.3 | 0.10 (1) | 6.25 | 9- 6 | 0 / 307 | 0.07 (1) |
| 6- 7 | 0 / 29 | -77.3 | -77.3 | 0.10 (1) | 10.00 | | | |
| 14- 2 | -578 / 0 | 0.0 | 0.0 | 0.06 (1) | 7.81 | | | |
| 8- 6 | -578 / 0 | 0.0 | 0.0 | 0.06 (1) | 7.81 | | | |
| 14-13 | 0 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | |
| 13-12 | -200 / 0 | 0.0 | 0.0 | 0.60 (1) | 7.81 | | | |
| 12- 3 | -174 / 0 | 0.0 | 0.0 | 0.60 (1) | 7.81 | | | |
| 12-11 | 0 / 488 | -17.5 | -17.5 | 0.12 (1) | 10.00 | | | |
| 11-10 | 0 / 488 | -17.5 | -17.5 | 0.12 (1) | 10.00 | | | |
| 9-10 | -200 / 0 | 0.0 | 0.0 | 0.60 (1) | 7.81 | | | |
| 10- 5 | -174 / 0 | 0.0 | 0.0 | 0.60 (1) | 7.81 | | | |
| 9- 8 | 0 / 0 | -17.5 | -17.5 | 0.01 (4) | 10.00 | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

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

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.34")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.03")
ALLOWABLE DEFL.(TL)= L/360 (0.34")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.06")

CSI: TC=0.21 (4-5:1) , BC=0.60 (9-10:1) , WB=0.07 (6-9:1) , SSI=0.29 (5-10:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

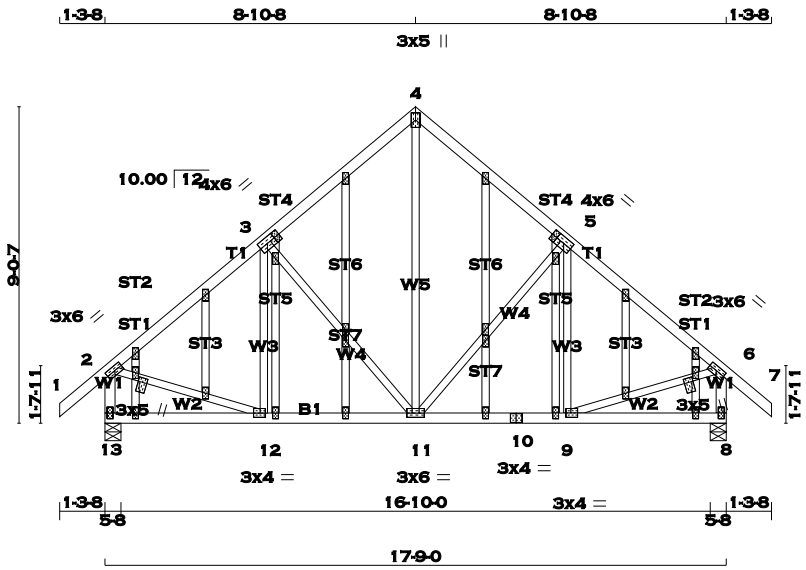
| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.70 (6) (INPUT = 0.90 )
JSI METAL= 0.12 (12) (INPUT = 1.00 )

KOTT




TOTAL WEIGHT = 112 lb
[M][F]

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

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 1 - 4 | 2x4 | DRY | No.2 | SPF |
| 4 - 7 | 2x4 | DRY | No.2 | SPF |
| 13 - 2 | 2x4 | DRY | No.2 | SPF |
| 8 - 6 | 2x4 | DRY | No.2 | SPF |
| 13 - 10 | 2x4 | DRY | No.2 | SPF |
| 10 - 8 | 2x4 | DRY | No.2 | SPF |
| ALL WEBS EXCEPT | 2x3 | DRY | No.2 | SPF |
| ALL GABLE WEBS | 2x3 | DRY | No.2 | SPF |

DRY: SEASONED LUMBER.

GABLE STUDS SPACED AT 2-0-0 OC.

**PLATES (table is in inches)**

| JT | TYPE | PLATES | W | LEN | Y | X |
|---|---|---|---|---|---|---|
| 2 | TMVW-t | MT20 | 3.0 | 6.0 | 1.50 | 2.75 |
| 3, 3, 5, 5 | | | | | | |
| 3 | | | | | | |
| 3, 5, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33 | | | | | | |
| 3 | NP+w | MT20 | 2.0 | 4.0 | | |
| 3 | TMWWW-t | MT20 | 4.0 | 6.0 | | |
| 4 | TTW+p | MT20 | 3.0 | 5.0 | | |
| 5 | TMWWW-t | MT20 | 4.0 | 6.0 | | |
| 6 | TMVW-t | MT20 | 3.0 | 6.0 | 1.50 | 2.75 |
| 8 | BMV1+p | MT20 | 2.0 | 4.0 | | |
| 9 | BMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| 10 | BS-t | MT20 | 3.0 | 4.0 | | |
| 11 | BMWWW-t | MT20 | 3.0 | 6.0 | | |
| 12 | BMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| 13 | BMV1+p | MT20 | 2.0 | 4.0 | | |
| 14 | NP+w | MT20 | 2.0 | 4.0 | 1.75 | 1.00 |
| 17 | NP+t | MT20 | 2.0 | 4.0 | 2.00 | 1.00 |
| 21 | NP+t | MT20 | 3.0 | 5.0 | 1.50 | 0.25 |
| 26 | NP+w | MT20 | 2.0 | 4.0 | 1.75 | 1.00 |
| 27 | NP+t | MT20 | 2.0 | 4.0 | 2.00 | 1.00 |
| 33 | NP+t | MT20 | 3.0 | 5.0 | 1.50 | 0.25 |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| 13 | 949 | 0 | 949 | 0 | 0 | 5-8 | 5-8 |
| 8 | 949 | 0 | 949 | 0 | 0 | 5-8 | 5-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 13 | 664 | 478 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 186 / 0 | 0 / 0 |
| 8 | 664 | 478 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 186 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 13, 8

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

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

**LOADING**
TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|
| 1- 2 | 0 / 34 | -77.3 | -77.3 | 0.11 (1) | 10.00 |
| 2- 3 | -756 / 0 | -77.3 | -77.3 | 0.20 (1) | 6.25 |
| 3- 4 | -589 / 0 | -77.3 | -77.3 | 0.20 (1) | 6.25 |
| 4- 5 | -589 / 0 | -77.3 | -77.3 | 0.20 (1) | 6.25 |
| 5- 6 | -756 / 0 | -77.3 | -77.3 | 0.20 (1) | 6.25 |
| 6- 7 | 0 / 34 | -77.3 | -77.3 | 0.11 (1) | 10.00 |
| 13- 2 | -916 / 0 | 0.0 | 0.0 | 0.10 (1) | 7.81 |
| 8- 6 | -916 / 0 | 0.0 | 0.0 | 0.10 (1) | 7.81 |
| 13-12 | 0 / 0 | -17.5 | -17.5 | 0.08 (4) | 10.00 |
| 12-11 | 0 / 601 | -17.5 | -17.5 | 0.14 (1) | 10.00 |
| 11-10 | 0 / 601 | -17.5 | -17.5 | 0.14 (1) | 10.00 |
| 10- 9 | 0 / 601 | -17.5 | -17.5 | 0.14 (1) | 10.00 |
| 9- 8 | 0 / 0 | -17.5 | -17.5 | 0.08 (4) | 10.00 |

| WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| 11- 4 | 0 / 469 | 0.11 (1) |
| 11- 5 | -260 / 0 | 0.21 (1) |
| 9- 5 | -87 / 48 | 0.04 (1) |
| 3-11 | -260 / 0 | 0.21 (1) |
| 12- 3 | -87 / 48 | 0.04 (1) |
| 2-12 | 0 / 625 | 0.14 (1) |
| 9- 6 | 0 / 625 | 0.14 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.59")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.59")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.20 (5-6:1) , BC=0.14 (9-11:1) , WB=0.21 (5-11:1) , SSI=0.13 (5-6:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (9) (INPUT = 0.90 )
JSI METAL= 0.23 (6) (INPUT = 1.00 )

KOTT

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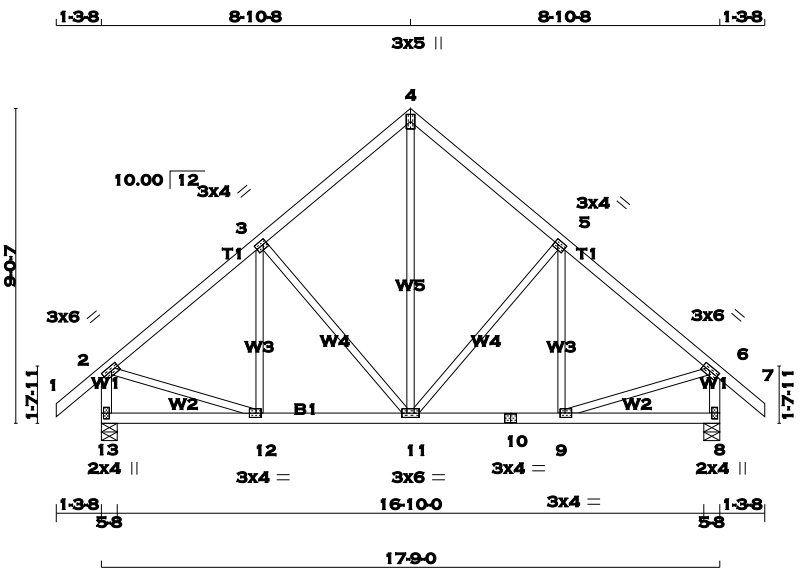
JUNIPER 2
BUILDING DIVISION




TOTAL WEIGHT = 86 lb
[M][F]

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

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 1 - 4 | 2x4 | DRY | No.2 | SPF |
| 4 - 7 | 2x4 | DRY | No.2 | SPF |
| 13 - 2 | 2x4 | DRY | No.2 | SPF |
| 8 - 6 | 2x4 | DRY | No.2 | SPF |
| 13 - 10 | 2x4 | DRY | No.2 | SPF |
| 10 - 8 | 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 |
|---|---|---|---|---|---|---|
| 2 | TMVW-t | MT20 | 3.0 | 6.0 | 1.50 | 2.75 |
| 3 | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.25 |
| 4 | TTW+p | MT20 | 3.0 | 5.0 | | |
| 5 | TMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.25 |
| 6 | TMVW-t | MT20 | 3.0 | 6.0 | 1.50 | 2.75 |
| 8 | BMV1+p | MT20 | 2.0 | 4.0 | | |
| 9 | BMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| 10 | BS-t | MT20 | 3.0 | 4.0 | | |
| 11 | BMWWW-t | MT20 | 3.0 | 6.0 | | |
| 12 | BMWW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.75 |
| 13 | BMV1+p | MT20 | 2.0 | 4.0 | | |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| 13 | 949 | 0 | 949 | 0 | 0 | 5-8 | 5-8 |
| 8 | 949 | 0 | 949 | 0 | 0 | 5-8 | 5-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 13 | 664 | 478 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 186 / 0 | 0 / 0 |
| 8 | 664 | 478 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 186 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 13, 8

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

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

**LOADING**
TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|
| 1- 2 | 0 / 34 | -77.3 | -77.3 | 0.11 (1) | 10.00 | 11- 4 | 0 / 469 | 0.11 (1) |
| 2- 3 | -756 / 0 | -77.3 | -77.3 | 0.20 (1) | 6.25 | 11- 5 | -260 / 0 | 0.21 (1) |
| 3- 4 | -589 / 0 | -77.3 | -77.3 | 0.20 (1) | 6.25 | 9- 5 | -87 / 48 | 0.04 (1) |
| 4- 5 | -589 / 0 | -77.3 | -77.3 | 0.20 (1) | 6.25 | 3-11 | -260 / 0 | 0.21 (1) |
| 5- 6 | -756 / 0 | -77.3 | -77.3 | 0.20 (1) | 6.25 | 12- 3 | -87 / 48 | 0.04 (1) |
| 6- 7 | 0 / 34 | -77.3 | -77.3 | 0.11 (1) | 10.00 | 2-12 | 0 / 625 | 0.14 (1) |
| 13- 2 | -916 / 0 | 0.0 | 0.0 | 0.10 (1) | 7.81 | 9- 6 | 0 / 625 | 0.14 (1) |
| 8- 6 | -916 / 0 | 0.0 | 0.0 | 0.10 (1) | 7.81 | | | |
| 13-12 | 0 / 0 | -17.5 | -17.5 | 0.08 (4) | 10.00 | | | |
| 12-11 | 0 / 601 | -17.5 | -17.5 | 0.14 (1) | 10.00 | | | |
| 11-10 | 0 / 601 | -17.5 | -17.5 | 0.14 (1) | 10.00 | | | |
| 10- 9 | 0 / 601 | -17.5 | -17.5 | 0.14 (1) | 10.00 | | | |
| 9- 8 | 0 / 0 | -17.5 | -17.5 | 0.08 (4) | 10.00 | | | |

KOTT

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.59")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.59")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.03")

CSI: TC=0.20 (5-6:1) , BC=0.14 (9-11:1) , WB=0.21 (5-11:1) , SSI=0.13 (5-6:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.90 (9) (INPUT = 0.90 )
JSI METAL= 0.23 (2) (INPUT = 1.00 )

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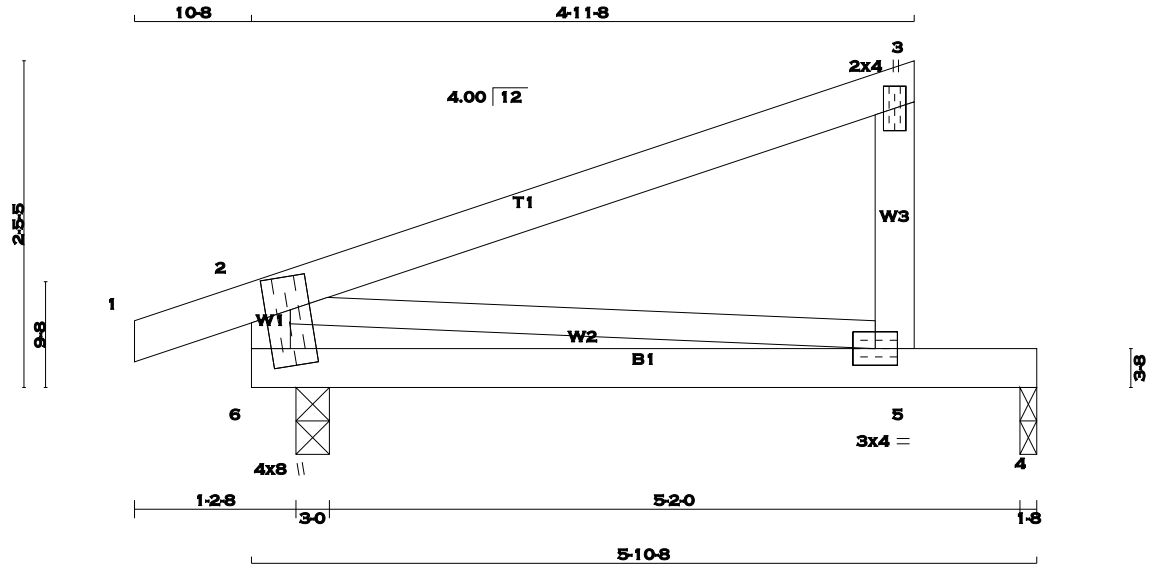
MAR 29, 2017
JUNIPER 2
BUILDING DIVISION




TOTAL WEIGHT = 5 X 20 = 99 lb

[M][F]

**LUMBER**

N. L. G. A. RULES

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 1 - 3 | 2x4 | DRY | No.2 | SPF |
| 5 - 3 | 2x4 | DRY | No.2 | SPF |
| 6 - 2 | 2x4 | DRY | No.2 | SPF |
| 6 - 4 | 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 |
|---|---|---|---|---|---|---|
| 2 | | | | | | |
| 3 | TMV+p | MT20 | 2.0 | 4.0 | | |
| 5 | BMVW-t | MT20 | 3.0 | 4.0 | | |
| 6 | | | | | | |
| 6 | TMBMVW1*+m | MT20 | 4.0 | 8.0 | 3.00 | 1.75 |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

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

**BEARINGS**

| | FACTORED GROSS REACTION | | MAXIMUM FACTORED GROSS REACTION | | | INPUT BRG | REQRD BRG |
|---|---|---|---|---|---|---|---|
| JT | VERT | HORZ | DOWN | HORZ | UPLIFT | IN-SX | IN-SX |
| 6 | 344 | 0 | 344 | 0 | 0 | 3-0 | 3-0 |
| 4 | 213 | 0 | 213 | 0 | 0 | 1-8 | 1-8 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 6 | 240 | 176 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 64 / 0 | 0 / 0 |
| 4 | 151 | 97 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 54 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 6, 4

**BRACING**

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

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

**LOADING**

TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|
| 1- 2 | 0 / 11 | -77.3 | -77.3 | 0.05 (1) | 10.00 |
| 2- 3 | 0 / 0 | -77.3 | -77.3 | 0.32 (1) | 10.00 |
| 5- 3 | -192 / 0 | 0.0 | 0.0 | 0.02 (1) | 7.81 |
| 6- 2 | -263 / 0 | 0.0 | 0.0 | 0.03 (1) | 7.81 |
| 6- 5 | 0 / 0 | -17.5 | -17.5 | 0.26 (1) | 10.00 |
| 5- 4 | 0 / 0 | -17.5 | -17.5 | 0.26 (1) | 10.00 |

| WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| 2- 5 | 0 / 0 | 0.00 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.20")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.05")
ALLOWABLE DEFL.(TL)= L/360 (0.20")
CALCULATED VERT. DEFL.(TL) = L/ 554 (0.13")

CSI: TC=0.32 (2-3:1) , BC=0.26 (5-6:1) , WB=0.00 (2-5:1) , SSI=0.17 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.19 (5) (INPUT = 0.90 )
JSI METAL= 0.03 (3) (INPUT = 1.00 )

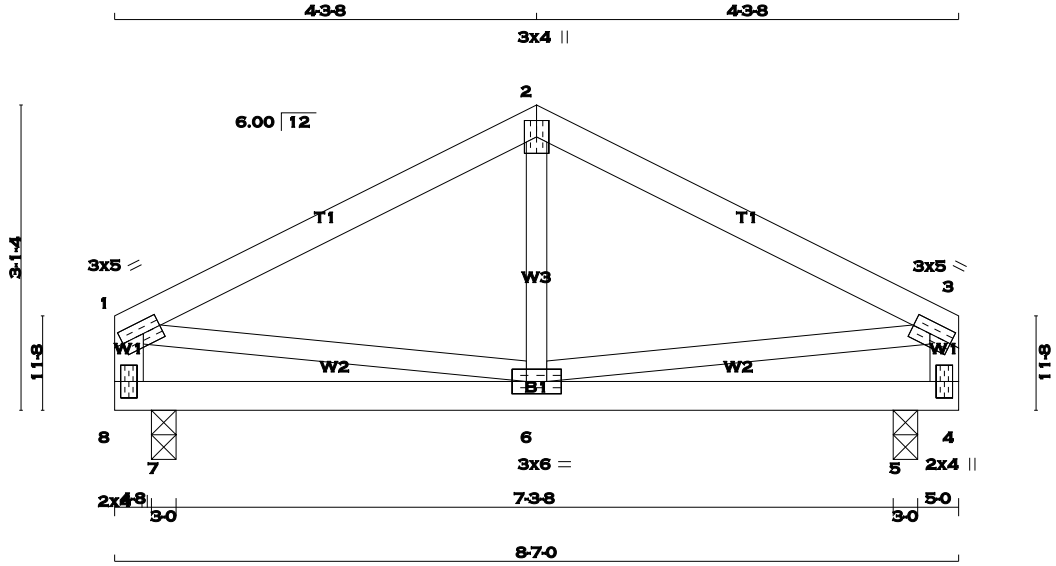
**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**

LICENSED PROFESSIONAL ENGINEER
C.G. CARSON
100076892
PROVINCE OF ONTARIO

21 MAR 2017

KOTT

RECEIVED
TOWN OF MILTON
MAR 29, 2017
JUNIPER 2
BUILDING DIVISION




TOTAL WEIGHT = 2 X 31 = 61 lb [M]

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

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 1 - 2 | 2x4 | DRY | No.2 | SPF |
| 2 - 3 | 2x4 | DRY | No.2 | SPF |
| 8 - 1 | 2x4 | DRY | No.2 | SPF |
| 4 - 3 | 2x4 | DRY | No.2 | SPF |
| 8 - 4 | 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 |
|---|---|---|---|---|---|---|
| 1 | TMVW-t | MT20 | 3.0 | 5.0 | 1.50 | 2.25 |
| 2 | TTW+p | MT20 | 3.0 | 4.0 | | |
| 3 | TMVW-t | MT20 | 3.0 | 5.0 | 1.50 | 2.25 |
| 4 | BMV+p | MT20 | 2.0 | 4.0 | | |
| 6 | BMWWW-t | MT20 | 3.0 | 6.0 | | |
| 8 | BMV+p | MT20 | 2.0 | 4.0 | | |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| 7 | 405 | 0 | 405 | 0 | 0 | 3-0 | 3-0 |
| 5 | 409 | 0 | 409 | 0 | 0 | 3-0 | 3-0 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 7 | 284 | 199 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 85 / 0 | 0 / 0 |
| 5 | 287 | 201 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 86 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 7, 5

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

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

**LOADING**
TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC | MAX CSI (LC) | MAX. UNBRAC LENGTH | WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|---|---|---|---|---|---|---|
| 1- 2 | -237 / 0 | -77.3 | -77.3 | 0.25 (1) | 6.25 | | 6- 2 | -120 / 38 | 0.02 (1) |
| 2- 3 | -237 / 0 | -77.3 | -77.3 | 0.25 (1) | 6.25 | | 1- 6 | 0 / 215 | 0.05 (1) |
| 8- 1 | -304 / 0 | 0.0 | 0.0 | 0.03 (1) | 7.81 | | 6- 3 | 0 / 215 | 0.05 (1) |
| 4- 3 | -304 / 0 | 0.0 | 0.0 | 0.03 (1) | 7.81 | | | | |
| 8- 7 | 0 / 0 | -17.5 | -17.5 | 0.21 (1) | 10.00 | | | | |
| 7- 6 | 0 / 0 | -17.5 | -17.5 | 0.21 (1) | 10.00 | | | | |
| 6- 5 | 0 / 0 | -17.5 | -17.5 | 0.23 (1) | 10.00 | | | | |
| 5- 4 | 0 / 0 | -17.5 | -17.5 | 0.23 (1) | 10.00 | | | | |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP | CH. | LL = | 23.3 | PSF |
| | | DL = | 3.0 | PSF |
| BOT | CH. | LL = | 0.0 | PSF |
| | | DL = | 7.0 | PSF |
| TOTAL | LOAD | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.25")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.25")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 643 ( 0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 437 ( 0.01")

CSI: TC=0.25 (1-2:1) , BC=0.23 (4-5:1) , WB=0.05 (3-6:1) , SSI=0.24 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

AUTOSOLVE HEELS OFF

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.43 (6) (INPUT = 0.90 )
JSI METAL= 0.09 (1) (INPUT = 1.00 )

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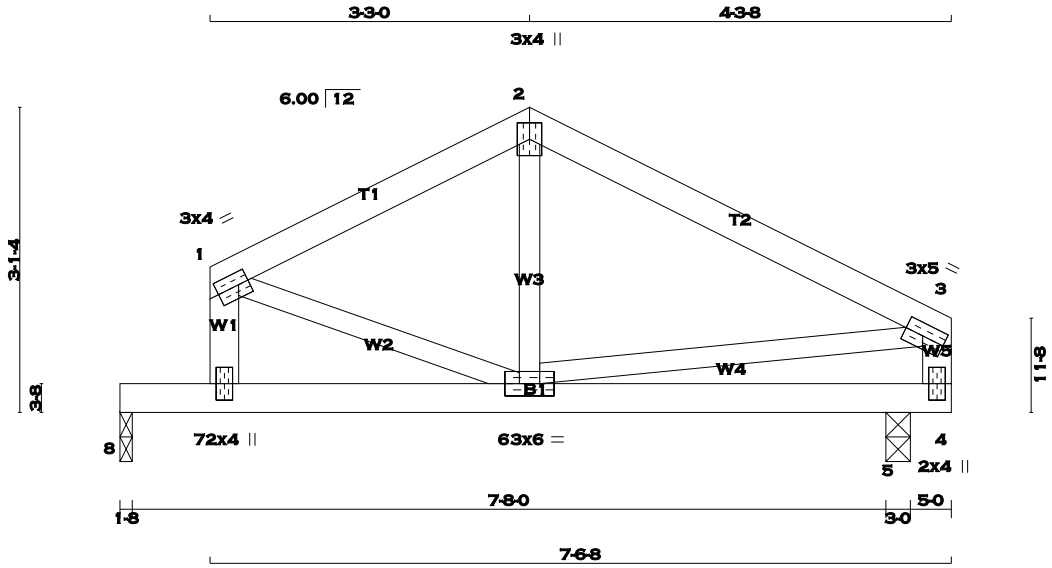


TOTAL WEIGHT = 29 lb [M]

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

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 1 - 2 | 2x4 | DRY | No.2 | SPF |
| 2 - 3 | 2x4 | DRY | No.2 | SPF |
| 7 - 1 | 2x4 | DRY | No.2 | SPF |
| 4 - 3 | 2x4 | DRY | No.2 | SPF |
| 8 - 4 | 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 |
|---|---|---|---|---|---|---|
| 1 | TMVW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.25 |
| 2 | TTW+p | MT20 | 3.0 | 4.0 | | |
| 3 | TMVW-t | MT20 | 3.0 | 5.0 | 1.50 | 2.25 |
| 4 | BMV+p | MT20 | 2.0 | 4.0 | | |
| 6 | BMWWW-t | MT20 | 3.0 | 6.0 | | |
| 7 | BMV+p | MT20 | 2.0 | 4.0 | | |

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| 8 | 374 | 0 | 374 | 0 | 0 | 1-8 | 1-8 |
| 5 | 429 | 0 | 429 | 0 | 0 | 3-0 | 3-0 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 8 | 262 | 183 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 79 / 0 | 0 / 0 |
| 5 | 301 | 210 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 90 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 8, 5

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

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

**LOADING**
TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|
| 1- 2 | -332 / 0 | -77.3 | -77.3 | 0.13 (1) | 6.25 |
| 2- 3 | -338 / 0 | -77.3 | -77.3 | 0.17 (1) | 6.25 |
| 7- 1 | -282 / 0 | 0.0 | 0.0 | 0.33 (1) | 7.81 |
| 4- 3 | -364 / 0 | 0.0 | 0.0 | 0.16 (1) | 7.81 |
| 8- 7 | 0 / 0 | -94.8 | -94.8 | 0.41 (1) | 10.00 |
| 7- 6 | 0 / 263 | -17.5 | -17.5 | 0.13 (1) | 10.00 |
| 6- 5 | 0 / 10 | -17.5 | -17.5 | 0.12 (1) | 10.00 |
| 5- 4 | 0 / 10 | -17.5 | -17.5 | 0.16 (1) | 10.00 |

| WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| 6- 2 | 0 / 61 | 0.02 (4) |
| 1- 6 | 0 / 40 | 0.01 (1) |
| 6- 3 | 0 / 293 | 0.07 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | PSF |

**SPACING = 24.0 IN. C/C**

THIS TRUSS IS DESIGNED FOR RESIDENTIAL OR SMALL BUILDING REQUIREMENTS OF PART 9, NBCC 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.26")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.02")
ALLOWABLE DEFL.(TL)= L/360 (0.26")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.04")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 999 ( 0.00")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 999 ( 0.01")

CSI: TC=0.33 (1-7:1) , BC=0.41 (7-8:1) , WB=0.07 (3-6:1) , SSI=0.29 (4-5:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

AUTOSOLVE LEFT HEEL ONLY

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.67 (1) (INPUT = 0.90 )
JSI METAL= 0.17 (7) (INPUT = 1.00 )

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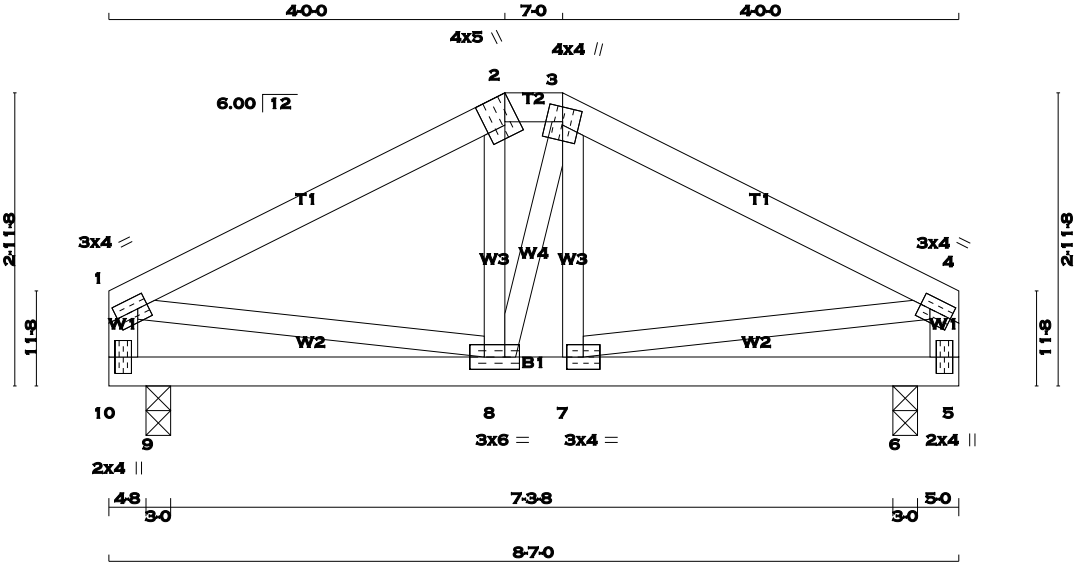
BUILDING DIVISION




TOTAL WEIGHT = 34 lb [M]

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

| CHORDS | SIZE | | LUMBER | DESCR. |
|---|---|---|---|---|
| 1 - 2 | 2x4 | DRY | No.2 | SPF |
| 2 - 3 | 2x4 | DRY | No.2 | SPF |
| 3 - 4 | 2x4 | DRY | No.2 | SPF |
| 10 - 1 | 2x4 | DRY | No.2 | SPF |
| 5 - 4 | 2x4 | DRY | No.2 | SPF |
| 10 - 5 | 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 |
|---|---|---|---|---|---|---|
| 1 | TMVW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.25 |
| 2 | TTW+h | MT20 | 4.0 | 5.0 | Edge | 1.50 |
| 3 | TTWW+m | MT20 | 4.0 | 4.0 | 1.75 | 2.00 |
| 4 | TMVW-t | MT20 | 3.0 | 4.0 | 1.50 | 1.25 |
| 5 | BMV+p | MT20 | 2.0 | 4.0 | | |
| 7 | BMWW-t | MT20 | 3.0 | 4.0 | | |
| 8 | BMWWW-t | MT20 | 3.0 | 6.0 | | |
| 10 | BMV+p | MT20 | 2.0 | 4.0 | | |

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

A SIZE FOR SIZE SUBSTITUTION OF MITEK MII20 WITH TEE-LOK TL20 PLATES IS ALLOWED.

**READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-1. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.**


21 MAR 2017

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

**BEARINGS**

| JT | FACTORED GROSS REACTION VERT | HORZ | MAXIMUM FACTORED GROSS REACTION DOWN | HORZ | UPLIFT | INPUT BRG IN-SX | REQRD BRG IN-SX |
|---|---|---|---|---|---|---|---|
| 9 | 405 | 0 | 405 | 0 | 0 | 3-0 | 3-0 |
| 6 | 409 | 0 | 409 | 0 | 0 | 3-0 | 3-0 |

**UNFACTORED REACTIONS**

| JT | 1ST LCASE COMBINED | MAX./MIN. COMPONENT REACTIONS SNOW | LIVE | PERM.LIVE | WIND | DEAD | SOIL |
|---|---|---|---|---|---|---|---|
| 9 | 284 | 199 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 85 / 0 | 0 / 0 |
| 6 | 287 | 201 / 0 | 0 / 0 | 0 / 0 | 0 / 0 | 86 / 0 | 0 / 0 |

BEARING MATERIAL TO BE SPF NO.2 OR BETTER AT JOINT(S) 9, 6

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

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

**LOADING**
TOTAL LOAD CASES: (4)

| CHORDS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | FACTORED VERT. LOAD (PLF) FROM | TO | LC1 | MAX CSI (LC) | MAX. UNBRAC LENGTH |
|---|---|---|---|---|---|---|
| 1- 2 | -252 / 0 | -77.3 | -77.3 | 0.21 (1) | | 6.25 |
| 2- 3 | -226 / 0 | -77.3 | -77.3 | 0.00 (1) | | 6.25 |
| 3- 4 | -247 / 0 | -77.3 | -77.3 | 0.21 (1) | | 6.25 |
| 10- 1 | -305 / 0 | 0.0 | 0.0 | 0.03 (1) | | 7.81 |
| 5- 4 | -303 / 0 | 0.0 | 0.0 | 0.03 (1) | | 7.81 |
| 10- 9 | 0 / 0 | -17.5 | -17.5 | 0.21 (1) | | 10.00 |
| 9- 8 | 0 / 0 | -17.5 | -17.5 | 0.21 (1) | | 10.00 |
| 8- 7 | 0 / 224 | -17.5 | -17.5 | 0.12 (1) | | 10.00 |
| 7- 6 | 0 / 0 | -17.5 | -17.5 | 0.23 (1) | | 10.00 |
| 6- 5 | 0 / 0 | -17.5 | -17.5 | 0.23 (1) | | 10.00 |

| WEBS MEMB. FR-TO | MAX. FACTORED FORCE (LBS) | MAX CSI (LC) |
|---|---|---|
| 8- 2 | -64 / 19 | 0.01 (1) |
| 8- 3 | 0 / 9 | 0.00 (4) |
| 7- 3 | -75 / 12 | 0.01 (1) |
| 1- 8 | 0 / 228 | 0.05 (1) |
| 7- 4 | 0 / 224 | 0.05 (1) |

**DESIGN CRITERIA**

SPECIFIED LOADS:

| | | | | |
|---|---|---|---|---|
| TOP CH. | LL | = | 23.3 | PSF |
| | DL | = | 3.0 | PSF |
| BOT CH. | LL | = | 0.0 | PSF |
| | DL | = | 7.0 | PSF |
| TOTAL LOAD | | = | 33.3 | 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 2010

THIS DESIGN COMPLIES WITH:
- PART 9 OF OBC 2012 , BCBC 2012 , ABC 2014
- CSA 086-09
- TPIC 2011

(55 % OF 27.2 P.S.F. G.S.L. PLUS 8.4 P.S.F. RAIN LOAD) EQUALS 23.3 P.S.F. SPECIFIED ROOF LIVE LOAD

ALLOWABLE DEFL.(LL)= L/360 (0.25")
CALCULATED VERT. DEFL.(LL) = L/ 999 (0.01")
ALLOWABLE DEFL.(TL)= L/360 (0.25")
CALCULATED VERT. DEFL.(TL) = L/ 999 (0.02")

CANTILEVER DEFLECTION:
ALLOWABLE DEFL.(LL)= L/120 (0.19")
CALCULATED VERT. DEFL.(LL) = L/ 679 ( 0.01")
ALLOWABLE DEFL.(TL)= L/120 (0.19")
CALCULATED VERT. DEFL.(TL) = L/ 459 ( 0.01")

CSI: TC=0.21 (1-2:1) , BC=0.23 (6-7:1) , WB=0.05 (1-8:1) , SSI=0.24 (9-10:1)

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

COMPANION LIVE LOAD FACTOR = 0.50

AUTOSOLVE HEELS OFF

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

NAIL VALUES

| PLATE | GRIP(DRY) (PSI) MAX | MIN | SHEAR (PLI) MAX | MIN | SECTION (PLI) MAX | MIN |
|---|---|---|---|---|---|---|
| MT20 | 618 | 354 | 1667 | 822 | 2284 | 1656 |

PLATE PLACEMENT TOL. = 0.250 inches

PLATE ROTATION TOL. = 5.0 Deg.

JSI GRIP= 0.55 (1) (INPUT = 0.90 )
JSI METAL= 0.12 (1) (INPUT = 1.00 )

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MAR 29, 2017
JUNIPER 2
BUILDING DIVISION